394 BLACK 1 = 47F

HAM-71-2.92	OHIO	1/615
IM-71-1(91); CMG-71-1(91)	FHWA REGION 5 FEDERAL PROJECT	

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
HAM-71-2.92
CITY OF CINCINNATI
CITY OF NORWOOD
HAMILTON COUNTY

DESIGN DESIGNATION

CURRENT YEAR A.D.T. (1995)	139,835
DESIGN YEAR A.D.T. (2015)	164,300
DHV (K=9%) (2015)	14,787
D	57%
T24	5%
TD	2%
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
FUNCTIONAL CLASSIFICATION:	URBAN INTERSTATE
DESIGN EXCEPTION:	SHOULDER WIDTH, VERTICAL ALIGNMENT, STOPPING SIGHT DISTANCE, and SUPERELEVATION (APPROVED 8-9-93)

CONVENTIONAL SIGNS

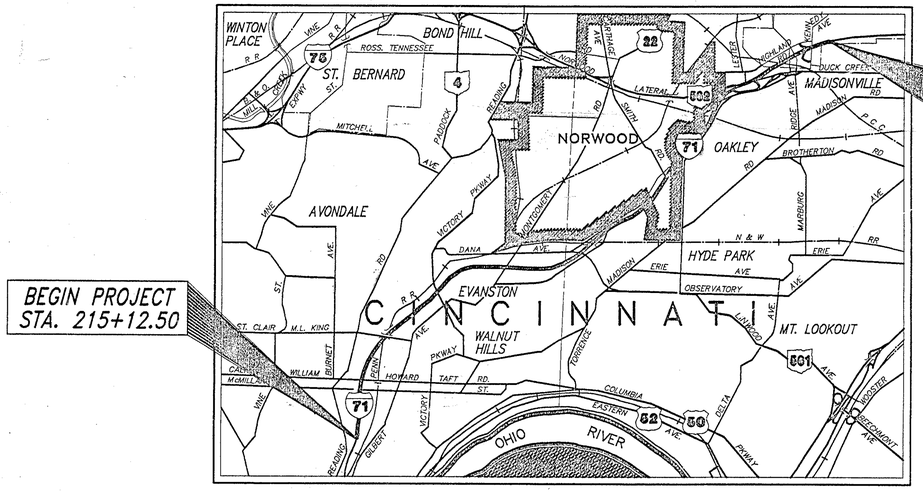
County Line
Township Line
Section Line
Corporation Line
Fence Line (Existing) (Proposed)
Center Line
Utility Poles: Telephone Power Light
Ex. Limited Access (Only) LA
Ex. Right of Way (Only) RW
Ex. Limited Access & Right of Way LA/RW
Property Line (In Existing Fence)
Railroad
Guardrail (Existing) (Proposed)
(Barrier) (Barrier)
Pullbox (Existing) (Proposed)
Catch Basin Adjusted to Grade Manhole Adjusted to Grade

INDEX OF SHEETS

LINE DATA

BEGIN PROJECT Sta 215+12.50
STATION EQUATION:
Sta 317+66.66 Back = Sta 318+14.80 Ahead
STATION EQUATION:
Sta 393+69.39 Back = Sta 291+50.00 Ahead
STATION EQUATION:
Sta 338+50.00 Back = Sta 338+46.95 Ahead
STATION EQUATION:
Sta 356+26.39℄ Back = Sta 356+29.39NB Ahead
= Sta 356+29.39SB Ahead
STATION EQUATION:
Sta 404+00.00NB Back
Sta 404+84.57SB Back = Sta 404+84.57℄ Ahead
END PROJECT Sta 433+87.50
LENGTH OF PROJECT = 32094.36 ft = 6.079 Mile

BEGIN WORK Sta 213+00.00
STATION EQUATION:
Sta 434+25.00 Back = Sta 435+07.72 Ahead
END WORK Sta 436+82.72
LENGTH OF WORK = 32506.86 ft = 6.157 Mile



LOCATION MAP

Scale in Miles 0 1 2 3 4
Portion to be Improved
State & Federal Routes 75 42 33
Other Roads

SCALES

Plan 0 20 40
Profile Horizontal 0 20 100 Vertical 0 10 20
Cross Section Horizontal 0 10 20 Vertical 0 10 20
Typical Sections Horizontal 0 4 8 Vertical 0 4 8

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 1-800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

IM-71-1(91); CMG-71-1(91)
LIMITED ACCESS

The improvement is especially designated for through traffic and has been declared a limited access highway or freeway by action of the director in accordance with provisions of section 5511.02 of the revised code of Ohio.

1995 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of local streets and that detours will be provided as indicated on plans.

Under authority of Section 4511.21, Division (I) of the revised Code of Ohio , the revised PRIMA FACIE speed limits as indicated herein are determined to be reasonable and safe, and are hereby established for the duration of this project. The PRIMA FACIE speed limit or limits hereby established shall become effective when appropriate signs giving notice thereof are erected.

Approved
Date 2-20-96 District Deputy Director of Transportation

Approved
Date 3/19/96 Director, Department of Transportation

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-2.1	10-28-94	GR-3B	1-21-85	CB-2-3 & 2-4	5-1-79	HL-30.31	5-1-87	TC-7.65	3-1-79	TC-41.40	6-18-79	MT-95.30	10-10-88
BP-2.2	10-28-94	GR-3.1	5-6-91	CB-5	11-10-83	HL-30.32	5-1-87	TC-12.30	1-20-84	TC-41.41	8-2-79	MT-95.31	10-10-88
BP-2.4	2-21-92	GR-3.2	5-6-91	I-3A & 3B	4-1-80	HL-30.33	5-1-87	TC-15.115	3-1-79	TC-41.50	6-21-94	MT-95.32	8-25-89
BP-2.5	2-21-92	GR-4.2	5-6-91	HL-20.22	5-1-87	HL-40.10	5-1-87	TC-16.20	1-20-84	TC-42.10	8-19-77	MT-97.11	10-4-89
BP-3.1	2-21-92	GR-5.3	10-30-92	HL-10.11	5-1-87	HL-50.11	5-1-87	TC-17.10	1-20-84	TC-42.20	3-26-79	MT-98.12	6-24-93
BP-5.1	10-28-94	GR-8.1	1-31-94	HL-10.12	5-1-87	HL-50.21	5-1-87	TC-18.26	5-31-79	TC-51.1	1-20-84	MT-98.13	6-24-93
BP-1.1	2-21-92	GR-5.1	10-30-92	HL-10.13	5-1-87	HL-60.11	5-1-87	TC-21.10	9-1-92	TC-52.10	4-3-79	MT-98.14	6-24-93
F-1	11-10-83	MC-4	7-26-76	HL-10.31	5-1-87	HL-60.12	5-1-87	TC-21.41	9-1-92	TC-52.20	4-3-79	MT-98.16	6-24-93
F-3	5-1-76	MC-5	6-12-75	HL-20.11	5-1-87	HL-60.21	5-1-87	TC-22.10	9-1-92	TC-61.10	4-5-82	MT-99.10	11-14-86
F-5	5-1-76	MC-9.2	5-6-91	HL-20.13	5-1-87	HL-60.31	5-1-87	TC-31.21	9-1-92	TC-22.20	9-1-92	MT-99.20	4-29-88
F-6	5-1-76	MC-9.3	10-30-92	HL-20.14	5-1-87	HL-20.23	5-1-87	TC-32.10	9-1-92	TC-65.10	2-1-90	MT-101.60	7-1-92
F-4	11-10-83	MC-9.4	10-30-92	HL-20.21	5-1-87	SD-1-69	6-12-69	TC-32.11	9-1-92	TC-65.11	2-1-90	MT-102.20	8-25-89
GR-1.1	5-6-91	MC-10	5-1-76	HL-20.31	5-1-87	AS-1-81	9-15-94	TC-35.10	8-29-84	TC-71.10	9-10-91	MT-105.10	7-1-92
GR-1.2	10-30-92	MC-11	8-1-78	HL-30.11	5-1-87	BR-2-82	11-1-82	TC-41.10	8-29-84	TC-72.20	2-26-82	MT-105.11	7-1-92
GR-1.3	2-21-92			HL-30.21	5-1-87	EXJ-4-87	1-20-94	TC-41.20	6-21-94	MT-99.20	4-29-88		
GR-2.1	5-6-91			HL-30.22	5-1-87	TC-21.40	9-1-92	TC-21.20	9-1-92	MT-95.40	10-1-92	RB-1-55	2-2-59

SUPPLEMENTAL SPECIFICATIONS

802	3-23-95	903	7-17-95
812	6-14-95	933	7-17-95
820	6-14-95		
815	7-17-95		
910	7-17-95		
924	6-14-95		
931	7-17-95		
944	3-23-95		

Plans Prepared By:

WOOLPERT
409 EAST MONUMENT AVENUE
DAYTON, OHIO 45402
(513)--461-5660

400 S. FIFTH STREET, SUITE 200
COLUMBUS, OHIO 43215
(614)--469-1311

7162 READING ROAD, SUITE 1100
CINCINNATI, OHIO 45237
(513)--631-8300

51-18007-09

STATE OF OHIO
PAUL W. GRUNER
40897
REGISTERED
PROFESSIONAL ENGINEER

Project
Date of Letting _____ 19__ Contract No. ____

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SCHEMATIC PLAN

CALC. BY PVP DATE 10-17-94
CHKD. BY PVP DATE 1-5-95

HAM-71-2.92

OHIO
FHWA REGION 5

2
615

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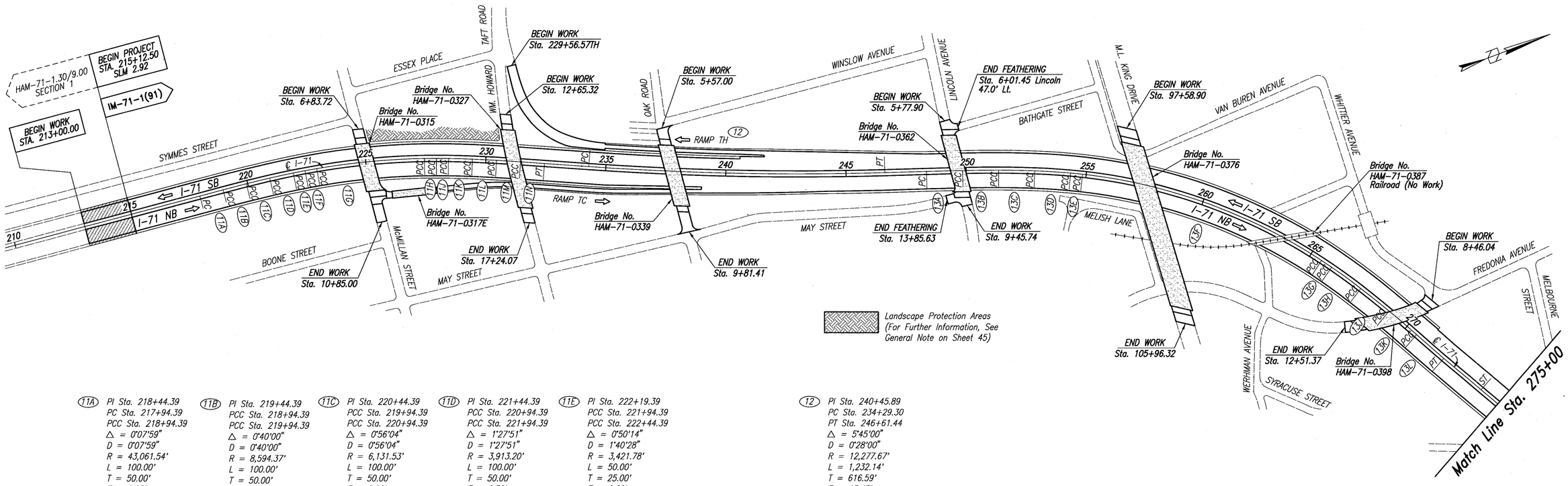
GRAPHIC SCALE IN FEET



(11A) PI Sta. 218+44.39
PC Sta. 217+94.39
PCC Sta. 218+94.39
△ = 0°07'59"
D = 0°07'59"
R = 43,061.54'
L = 100.00'
T = 50.00'
E = 0.03'
S_m = 0.0471 '/,

(11B) PI Sta. 219+44.39
PCC Sta. 218+94.39
PCC Sta. 219+94.39
△ = 0°40'00"
D = 0°40'00"
R = 8,594.37'
L = 100.00'
T = 50.00'
E = 0.15'
S_m = 0.0471 '/,

(11C) PI Sta. 220+44.39
PCC Sta. 219+94.39
PCC Sta. 220+94.39
△ = 0°56'04"
D = 0°56'04"
R = 6,131.53'
L = 100.00'
T = 50.00'
E = 0.20'
S_m = 0.0471 '/,

(11D) PI Sta. 221+44.39
PCC Sta. 220+94.39
PCC Sta. 221+94.39
△ = 1°27'51"
D = 1°27'51"
R = 3,913.20'
L = 100.00'
T = 50.00'
E = 0.32'
S_m = 0.0471 '/,

(11E) PI Sta. 222+19.39
PCC Sta. 221+94.39
PCC Sta. 222+44.39
△ = 0°50'14"
D = 1°40'28"
R = 3,421.78'
L = 50.00'
T = 25.00'
E = 0.09'
S_m = 0.0471 '/,

(11F) PI Sta. 222+69.39
PCC Sta. 222+44.39
PCC Sta. 222+94.39
△ = 0°57'52"
D = 1°55'44"
R = 2,970.40'
L = 50.00'
T = 25.00'
E = 0.11'
S_m = 0.0471 '/,

(11G) PI Sta. 225+19.85
PCC Sta. 222+94.39
PCC Sta. 227+44.39
△ = 9°00'00"
D = 2°00'00"
R = 2,864.79'
L = 450.00'
T = 225.46'
E = 8.86'
S_m = 0.0471 '/,

(11H) PI Sta. 227+69.39
PCC Sta. 227+44.39
PCC Sta. 227+94.39
△ = 0°57'52"
D = 1°55'44"
R = 2,970.40'
L = 50.00'
T = 25.00'
E = 0.11'
S_m = 0.0471 '/,

(11J) PI Sta. 228+19.39
PCC Sta. 227+94.39
PCC Sta. 228+44.39
△ = 0°50'14"
D = 1°40'28"
R = 3,421.78'
L = 50.00'
T = 25.00'
E = 0.09'
S_m = 0.0471 '/,

(11K) PI Sta. 228+94.39
PCC Sta. 228+44.39
PCC Sta. 229+44.39
△ = 1°27'51"
D = 1°27'51"
R = 3,913.20'
L = 100.00'
T = 50.00'
E = 0.32'
S_m = 0.0471 '/,

(11L) PI Sta. 229+94.39
PCC Sta. 229+44.39
PCC Sta. 230+44.39
△ = 0°56'04"
D = 0°56'04"
R = 6,131.53'
L = 100.00'
T = 50.00'
E = 0.20'
S_m = 0.0471 '/,

(11M) PI Sta. 230+94.39
PCC Sta. 230+44.39
PCC Sta. 231+44.39
△ = 0°40'00"
D = 0°40'00"
R = 8,584.37'
L = 100.00'
T = 50.00'
E = 0.15'
S_m = 0.0471 '/,

(11N) PI Sta. 231+94.39
PCC Sta. 231+44.39
PT Sta. 232+44.39
△ = 0°07'59"
D = 0°07'59"
R = 43,061.54'
L = 100.00'
T = 50.00'
E = 0.03'
S_m = 0.0471 '/,

(12) PI Sta. 240+45.89
PC Sta. 234+29.30
PT Sta. 246+61.44
△ = 5°45'00"
D = 0°28'00"
R = 12,277.67'
L = 1,232.14'
T = 616.59'
E = 15.47'
S_m = 0.0232 '/,

PROJECT DESCRIPTION

The Major Items of Work to be Performed Under this Project Consist of the Following Items:

- Provide 3" ITEM 446 Intermediate Course, and 1 1/4 ITEM 446 Surface Course Asphalt Concrete.
- Saw and Seal Joints in New Asphalt Overlay.
- Widen and Repair Ramp Shoulders.
- Installation of New Guardrail and Concrete Barrier as Required.
- Overlay Ramps and Cross Roads with 1 3/4 Item 446 Intermediate Course and 1 1/4 Item 446 Surface Course.
- New Concrete Barrier Railing, Superstrucure, and Substructure Repairs of Mainline Bridges.
- Deck Overlay on Overhead Bridges Including Substructure, Super-structure Repairs, and New Concrete Bridge Railing.
- New Signing, Sign Supports and Pavement Markings.
- New Underdrain Installation.
- Removal and Replacement of Chain Link Fence at Specified Locations.
- New Lighting along the Mainline and Ramps.
- Repair Slide Areas near Woodburn Avenue and Montgomery Road Bridges.
- Joint Repair of Existing Mainline and Ramp Concrete Pavement.

(13A) PI Sta. 249+09.86
PC Sta. 248+34.86
PCC Sta. 249+84.86
△ = 0°17'21"
D = 0°11'34"
R = 29,721.15'
L = 150.00'
T = 75.00'
E = 0.09'
S_m = 0.059 '/,

(13B) PI Sta. 250+59.86
PCC Sta. 249+84.86
PCC Sta. 251+34.86
△ = 1°26'24"
D = 0°57'36"
R = 5,968.31'
L = 150.00'
T = 75.00'
E = 0.47'
S_m = 0.059 '/,

(13C) PI Sta. 252+09.87
PCC Sta. 251+34.86
PCC Sta. 252+84.86
△ = 2°01'21"
D = 1°20'54"
R = 4,249.38'
L = 150.00'
T = 75.01'
E = 0.66'
S_m = 0.059 '/,

(13D) PI Sta. 253+59.88
PCC Sta. 252+84.86
PCC Sta. 254+34.86
△ = 3°10'00"
D = 2°06'40"
R = 2,714.01'
L = 150.00'
T = 75.02'
E = 1.04'
S_m = 0.059 '/,

(13E) PI Sta. 254+59.86
PCC Sta. 254+34.86
PCC Sta. 254+84.86
△ = 1°12'24"
D = 2°24'48"
R = 2,374.14'
L = 50.00'
T = 25.00'
E = 0.13'
S_m = 0.059 '/,

(13F) PI Sta. 260+28.03
PCC Sta. 254+84.86
PCC Sta. 265+51.53
△ = 26°40'00"
D = 2°30'00"
R = 2,291.83'
L = 1,066.67'
T = 543.17'
E = 63.41'
S_m = 0.059 '/,

(13G) PI Sta. 265+76.53
PCC Sta. 265+51.53
PCC Sta. 266+01.53
△ = 1°12'24"
D = 2°24'48"
R = 2,374.14'
L = 50.00'
T = 25.00'
E = 0.13'
S_m = 0.059 '/,

(13H) PI Sta. 266+76.55
PCC Sta. 266+01.53
PCC Sta. 267+51.53
△ = 3°10'00"
D = 2°06'40"
R = 2,714.01'
L = 150.00'
T = 75.02'
E = 1.04'
S_m = 0.059 '/,

(13J) PI Sta. 268+26.54
PCC Sta. 267+51.53
PCC Sta. 269+01.53
△ = 2°01'21"
D = 1°20'54"
R = 4,249.38'
L = 150.00'
T = 75.01'
E = 0.76'
S_m = 0.059 '/,

(13K) PI Sta. 269+76.53
PCC Sta. 269+01.53
PCC Sta. 270+51.53
△ = 1°26'24"
D = 0°57'36"
R = 5,968.31'
L = 150.00'
T = 75.00'
E = 0.47'
S_m = 0.059 '/,

(13L) PI Sta. 271+26.53
PCC Sta. 270+51.53
PCC Sta. 272+01.53
△ = 0°17'21"
D = 0°11'34"
R = 29,721.15'
L = 150.00'
T = 75.00'
E = 0.09'
S_m = 0.059 '/,

NOTE: For Information Pertaining to Bridge Work, See Structure Plans.

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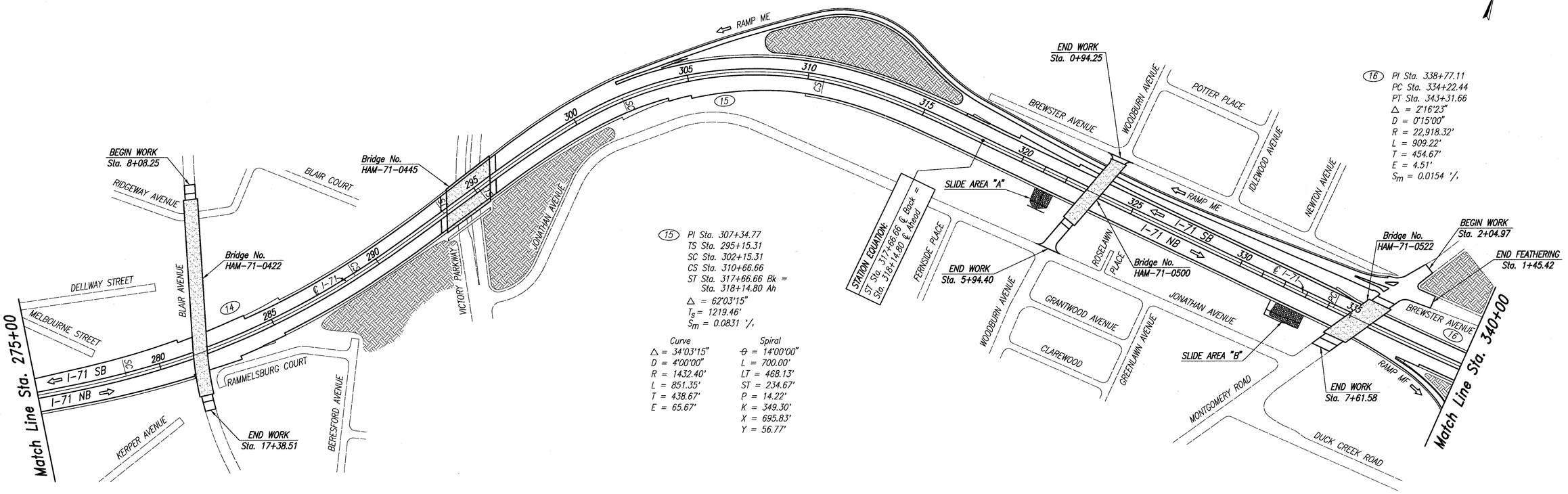
SCHEMATIC PLAN

CALC. BY CLD DATE 10-17-94	HAM-71-2.92	OHIO
CHKD. BY PWP DATE 1-5-95		FHWA REGION 5

3/615

200 0 200 400 600
GRAPHIC SCALE IN FEET



(15) PI Sta. 307+34.77
TS Sta. 295+15.31
SC Sta. 302+15.31
CS Sta. 310+66.66
ST Sta. 317+66.66 Bk = Sta. 318+14.80 Ah
Δ = 62°03'15"
T_s = 1219.46'
S_m = 0.0831 '/,

Curve	Spiral
Δ = 34°03'15"	θ = 14°00'00"
D = 4°00'00"	L = 700.00'
R = 1432.40'	LT = 468.13'
L = 851.35'	ST = 234.67'
T = 438.67'	P = 14.22'
E = 65.67'	K = 349.30'
	X = 695.83'
	Y = 56.77'

(16) PI Sta. 338+77.11
PC Sta. 334+22.44
PT Sta. 343+31.66
Δ = 2°16'23"
D = 0°15'00"
R = 22,918.32'
L = 909.22'
T = 454.67'
E = 4.51'
S_m = 0.0154 '/,

(14) PI Sta. 283+85.83
TS Sta. 274+04.41
SC Sta. 278+54.41
CS Sta. 288+90.12
ST Sta. 293+40.12
Δ = 26°00'00"
T_s = 981.42'
S_m = 0.0417 '/,

Curve	Spiral
Δ = 18°07'30"	θ = 3°56'15"
D = 1°45'00"	L = 450.00'
R = 3,274.04'	LT = 300.07'
L = 1035.71'	ST = 150.07'
T = 522.22'	P = 2.58'
E = 41.39'	K = 224.96'
	X = 449.79'
	Y = 10.30'

Landscape Protection Areas
(For Further Information, See General Note on Sheet 45)

PROJECT DESCRIPTION

The Major Items of Work to be Performed Under this Project Consist of the Following Items:

- Provide 3" ITEM 446 Intermediate Course, and 1 1/4 ITEM 446 Surface Course Asphalt Concrete.
- Saw and Seal Joints in New Asphalt Overlay.
- Widen and Repair Ramp Shoulders.
- Installation of New Guardrail and Concrete Barrier as Required.
- Overlay Ramps and Cross Roads with 1 3/4 Item 446 Intermediate Course and 1 1/4 Item 446 Surface Course.
- New Concrete Barrier Railing, Superstrucure, and Substructure Repairs of Mainline Bridges.
- Deck Overlay on Overhead Bridges Including Substructure, Superstructure Repairs, and New Concrete Bridge Railing.
- New Signing, Sign Supports and Pavement Markings.
- New Underdrain Installation.
- Removal and Replacement of Chain Link Fence at Specified Locations.
- New Lighting along the Mainline and Ramps.
- Repair Slide Areas near Woodburn Avenue and Montgomery Road Bridges.
- Joint Repair of Existing Mainline and Ramp Concrete Pavement.

NOTE: For Information Pertaining to Bridge Work, See Structure Plans.

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SCHEMATIC PLAN

CALC. BY DB DATE 10-17-94
CHKD. BY PVP DATE 1-5-95

HAM-71-2.92

OHIO
FHWA REGION 5

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615

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GRAPHIC SCALE IN FEET

(16) PI Sta. 338+77.11
PC Sta. 334+22.44
PT Sta. 343+31.66
Δ = 2°16'23"
D = 0°15'00"
R = 22,918.32'
L = 909.22'
T = 454.67'
E = 4.51'
S_m = 0.0154 '/.

(17) PI Sta. 363+59.73
TS Sta. 349+84.60
SC Sta. 354+84.60
CS Sta. 371+26.46
ST Sta. 376+26.46
Δ = 42°50'14"
T_s = 1375.13'
S_m = 0.0469 '/.

Curve	Spiral
Δ = 32°50'14"	θ = 5°00'00"
D = 2°00'00"	L = 500.00'
R = 2864.79'	LT = 333.47'
L = 1641.86'	ST = 166.79'
T = 709.95'	P = 3.64'
E = 121.79'	K = 249.94'
	X = 499.62'
	Y = 14.54'

(NE1) PI Sta. 313+24.01
TS Sta. 301+96.43
SC Sta. 308+46.43
CS Sta. 317+36.02
ST Sta. 323+86.02
Δ = 38°29'23"
T_s = 1127.57'
S_m = 0.0590 '/.

Curve	Spiral
Δ = 22°14'23"	θ = 8°07'30"
D = 2°30'00"	L = 650.00'
R = 2291.83'	LT = 433.79'
L = 889.59'	ST = 217.08'
T = 450.47'	P = 7.68'
E = 43.85'	K = 324.78'
	X = 648.69'
	Y = 30.68'

(18) PI Sta. 386+44.75
TS Sta. 380+38.76
SC Sta. 383+88.76
CS Sta. 388+96.83
ST Sta. 392+46.83
Δ = 12°52'16"
T_s = 605.99'
S_m = 0.0360 '/.

Curve	Spiral
Δ = 7°37'16"	θ = 2°37'30"
D = 1°30'00"	L = 350.00'
R = 3819.72'	LT = 233.36'
L = 508.07'	ST = 116.69'
T = 254.41'	P = 1.34'
E = 8.46'	K = 174.99'
	X = 349.93'
	Y = 5.34'

(NE2) PI Sta. 330+07.31
PC Sta. 326+57.68
PT Sta. 333+55.04
Δ = 10°20'39"
D = 1°29'00"
R = 3,862.64'
L = 697.36'
T = 349.63'
E = 15.79'
S_m = 0.0360 '/.

(NE3) PI Sta. 346+98.05
PC Sta. 342+81.17
PT Sta. 351+12.64
Δ = 10°23'36"
D = 1°15'00"
R = 4,583.66'
L = 831.47'
T = 416.88'
E = 18.92'
S_m = 0.0300 '/.

Match Line Sta. 340+00

Match Line Sta. 300+00

Match Line Sta. 359+50

BEGIN WORK Sta. 3+90.72

END WORK Sta. 7+04.56

END WORK Sta. 344+08.10MF

Bridge No. HAM-71-0546

Bridge No. HAM-71-0566 Pedestrian Bridge

BEGIN WORK Sta. 5+97.19

END FEATHERING Sta. 6+37 Dana 80.5' Lt.

Bridge No. HAM-71-0598

Bridge No. HAM-71-0611W Railroad (No Work)

Bridge No. HAM-71-0611 Railroad Bridge (No Work)

BEGIN FEATHERING Sta. 17+54.38

END FEATHERING Sta. 1+06.30

END WORK Sta. 17+90.10

CONSTRUCTION SECTION 1

CONSTRUCTION SECTION 2

STA. 382+00

END FEATHERING Sta. 17+05.90 Dana 109.3' Lt.

STATION EQUATION: Sta. 393+69.39 Back = Sta. 291+50.00 Ahead =

STATION EQUATION: Sta. 356+26.39 Back = Sta. 356+26.39NB, 13'Rt. Ahead = Sta. 356+26.39SB, 13'Lt.

END WORK Sta. 15+38.37

Bridge No. HAM-71-0726

STATION EQUATION: Sta. 338+50.00 Back = Sta. 338+46.95 Ahead =

BEGIN WORK Sta. 12+96.95

END FEATHERING Sta. 16+08.84 Smith-Edm 96.04' Rt.

END WORK Sta. 19+07.01

Structure No. HAM-71-0635 (No Work)

Bridge No. HAM-71-0670

END FEATHERING Sta. 12+12.4 Smith-Edm 99.87' Rt.

END FEATHERING @ CURB RETURN

BEGIN WORK Sta. 11+29

Bridge No. HAM-71-0691

END WORK Sta. 19+18.53

BEGIN WORK Sta. 327+36.11C

BEGIN WORK Sta. 11+32.55

Bridge No. HAM-71-0747 Railroad (No Work)

Landscape Protection Areas (For Further Information, See General Note on Sheet 45)

NOTE: For Information Pertaining to Bridge Work, See Structure Plans.

PROJECT DESCRIPTION

The Major Items of Work to be Performed Under this Project Consist of the Following Items:

- Provide 3" ITEM 446 Intermediate Course, and 1 1/4 ITEM 446 Surface Course Asphalt Concrete.
- Saw and Seal Joints in New Asphalt Overlay.
- Widen and Repair Ramp Shoulders.
- Installation of New Guardrail and Concrete Barrier as Required.
- Overlay Ramps and Cross Roads with 1 3/4 Item 446 Intermediate Course and 1 1/4 Item 446 Surface Course.
- New Concrete Barrier Railing, Superstrucure, and Substructure Repairs of Mainline Bridges.
- Deck Overlay on Overhead Bridges Including Substructure, Superstructure Repairs, and New Concrete Bridge Railing.
- New Signing, Sign Supports and Pavement Markings.
- New Underdrain Installation.
- Removal and Replacement of Chain Link Fence at Specified Locations.
- New Lighting along the Mainline and Ramps.
- Repair Slide Areas near Woodburn Avenue and Montgomery Road Bridges.
- Joint Repair of Existing Mainline and Ramp Concrete Pavement.

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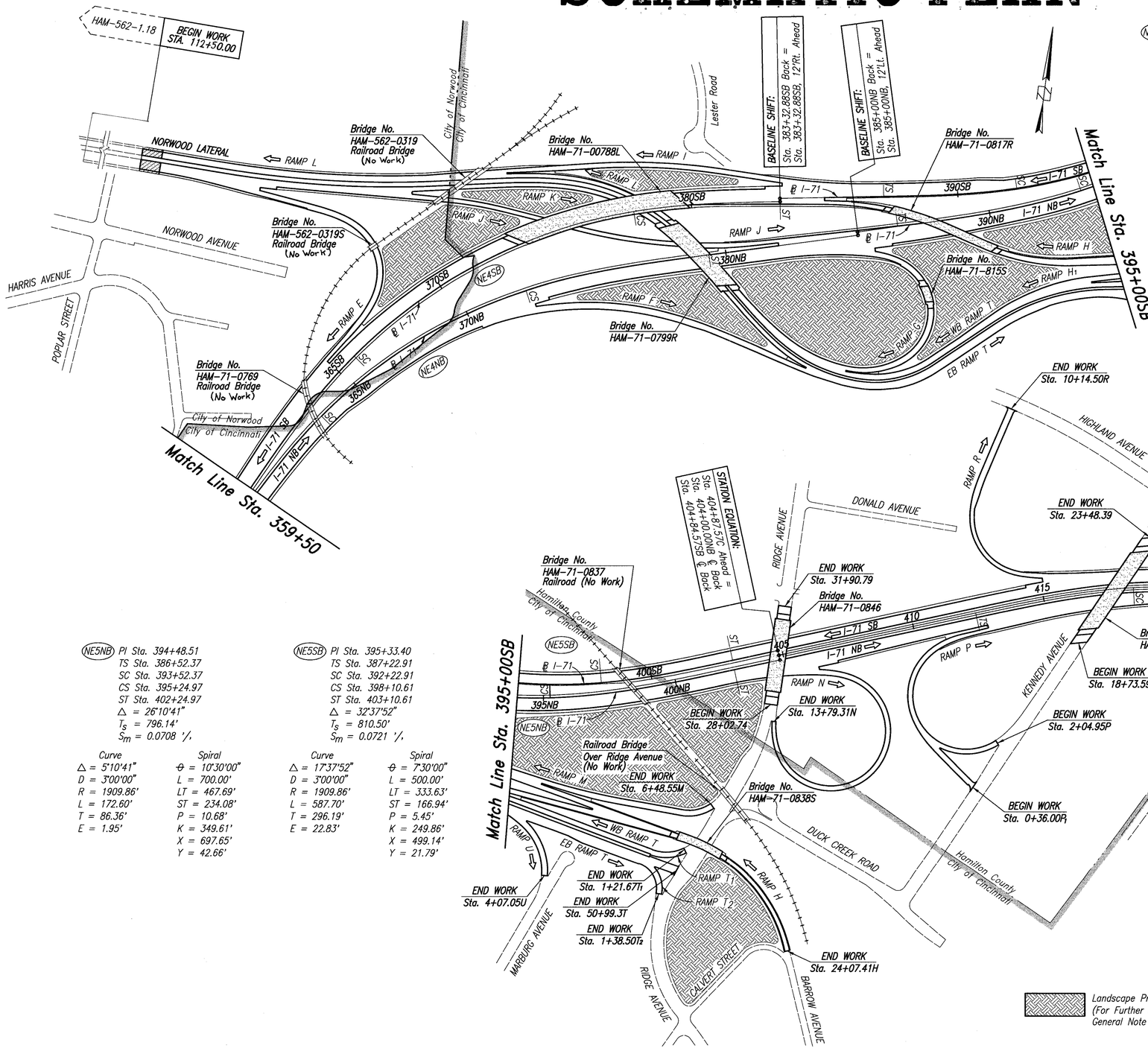
SCHEMATIC PLAN

CALC. BY DP DATE 10-7-98	HAM-71-2.92	OHIO
CHKD. BY PWP DATE 1-5-16		FHWA REGION 5

5 / 615

200 0 200 400 600
GRAPHIC SCALE IN FEET



(NE4NB) PI Sta. 368+37.26
TS Sta. 356+26.39
SC Sta. 363+26.39
CS Sta. 372+36.65
ST Sta. 379+36.65
Δ = 48°18'28"
T_S = 1210.87'
S_m = 0.0708 '/'

Curve
Δ = 27°18'28"
D = 3°00'00"
R = 1909.86'
L = 910.26'
T = 463.95'
E = 55.54'

Spiral
Θ = 10°30'00"
L = 700.00'
LT = 467.49'
ST = 234.08'
P = 10.68'
K = 349.61'
X = 697.65'
Y = 42.66'

(NE4SB) PI Sta. 372+21.81
TS Sta. 358+82.52
SC Sta. 365+82.52
CS Sta. 377+82.88
ST Sta. 383+32.88
Δ = 54°45'39"
S_m = 0.0708 '/'

Spiral (In)
T_S = 1339.29'
Θ = 10°30'00"
L = 700.00'
LT = 467.49'
ST = 234.08'
P = 10.68'
K = 349.61'
X = 697.65'
Y = 42.66'

Curve
Δ = 36°00'39"
D = 3°00'00"
R = 1909.86'
L = 1200.36'
T = 620.75'
E = 98.35'

Spiral (Out)
T_S = 1272.37'
Θ = 8°15'00"
L = 550.00'
LT = 367.07'
ST = 183.70'
P = 6.59'
K = 274.81'
X = 548.86'
Y = 26.36'

PROJECT DESCRIPTION

The Major Items of Work to be Performed Under this Project Consist of the Following Items:

- Provide 3" ITEM 446 Intermediate Course, and 1 1/4 ITEM 446 Surface Course Asphalt Concrete.
- Saw and Seal Joints in New Asphalt Overlay.
- Widen and Repair Ramp Shoulders.
- Installation of New Guardrail and Concrete Barrier as Required.
- Overlay Ramps and Cross Roads with 1 3/4 Item 446 Intermediate Course and 1 1/4 Item 446 Surface Course.
- New Concrete Barrier Railing, Superstrucure, and Substructure Repairs of Mainline Bridges.
- Deck Overlay on Overhead Bridges Including Substructure, Superstructure Repairs, and New Concrete Bridge Railing.
- New Signing, Sign Supports and Pavement Markings.
- New Underdrain Installation.
- Removal and Replacement of Chain Link Fence at Specified Locations.
- New Lighting along the Mainline and Ramps.
- Repair Slide Areas near Woodburn Avenue and Montgomery Road Bridges.
- Joint Repair of Existing Mainline and Ramp Concrete Pavement.

(NE5NB) PI Sta. 394+48.51
TS Sta. 386+52.37
SC Sta. 393+52.37
CS Sta. 395+24.97
ST Sta. 402+24.97
Δ = 26°10'41"
T_S = 796.14'
S_m = 0.0708 '/'

Curve
Δ = 5°10'41"
D = 3°00'00"
R = 1909.86'
L = 172.60'
T = 86.36'
E = 1.95'

Spiral
Θ = 10°30'00"
L = 700.00'
LT = 467.69'
ST = 234.08'
P = 10.68'
K = 349.61'
X = 697.65'
Y = 42.66'

(NE5SB) PI Sta. 395+33.40
TS Sta. 387+22.91
SC Sta. 392+22.91
CS Sta. 398+10.61
ST Sta. 403+10.61
Δ = 32°37'52"
T_S = 810.50'
S_m = 0.0721 '/'

Curve
Δ = 17°37'52"
D = 3°00'00"
R = 1909.86'
L = 587.70'
T = 296.19'
E = 22.83'

Spiral
Θ = 7°30'00"
L = 500.00'
LT = 333.63'
ST = 166.94'
P = 5.45'
K = 249.86'
X = 499.14'
Y = 21.79'

(NE6) PI Sta. 422+38.87
TS Sta. 412+39.63
SC Sta. 418+39.63
CS Sta. 425+75.59
ST Sta. 431+75.59
Δ = 40°04'44"
T_S = 999.24'
S_m = 0.0708 '/'

Curve
Δ = 22°04'44"
D = 3°00'00"
R = 1909.86'
L = 735.96'
T = 372.60'
E = 36.01'

Spiral
Θ = 9°00'00"
L = 600.00'
LT = 400.52'
ST = 200.47'
P = 7.85'
K = 299.75'
X = 598.52'
Y = 31.36'

Landscape Protection Areas (For Further Information, See General Note on Sheet 45)

NOTE: For Information Pertaining to Bridge Work, See Structure Plans.

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SCHEMATIC PLAN

TYPICAL SECTIONS

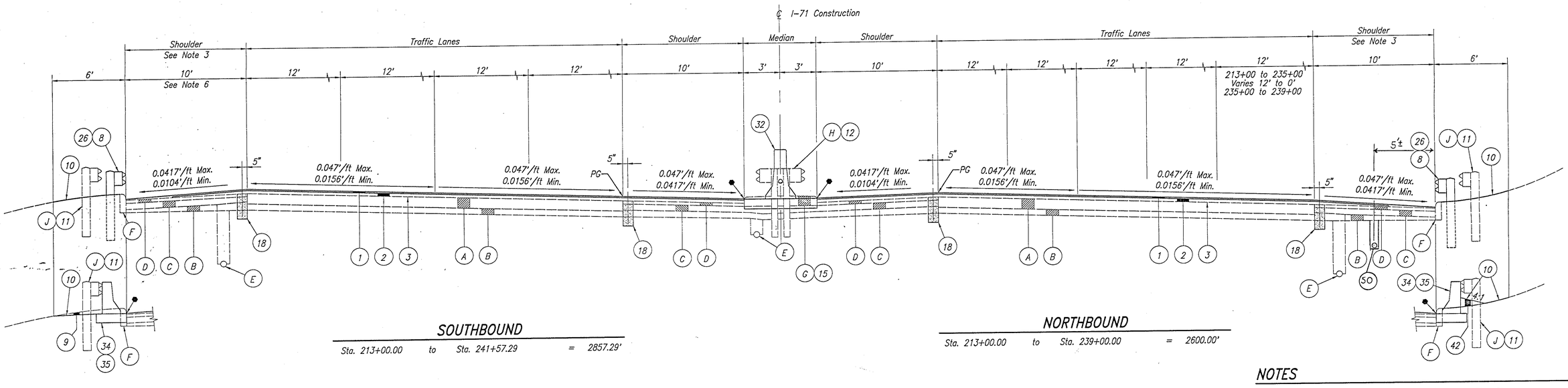
TYPE 446

CALC. BY QP DATE 10/12/94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO
FHWA REGION 5

6
615



SOUTHBOUND

Sta. 213+00.00 to Sta. 241+57.29 = 2857.29'

NORTHBOUND

Sta. 213+00.00 to Sta. 239+00.00 = 2600.00'

NOTES

1) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
2) For Depth and Locations of Underdrains, See Plan Sheets.
3) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
4) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
5) For Ramp Gore Areas, See Ramp Typical Sections.
6) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.
7) Shoulder Construction Is The Same As The Mainline Pavement Construction From Sta. 240+57.29 to Sta. 241+57.29 (SB Lanes).

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

ITEM LEGEND

1	ITEM 446	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
2	ITEM 446	3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
3	ITEM 407	TACK COAT SS 924
4	ITEM 446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
5	ITEM 301	BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
6	ITEM 202	CONCRETE SLOPE PROTECTION REMOVED
7	ITEM 609	COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
8	ITEM 606	GUARDRAIL, TYPE 5
9	ITEM 203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
10	ITEM 659	SEEDING AND MULCHING
11	ITEM 202	GUARDRAIL REMOVED
12	ITEM 202	GUARDRAIL REMOVED, BARRIER DESIGN
13	ITEM 202	CURB REMOVED, AS PER PLAN 1
14	ITEM 202	CURB REMOVED, AS PER PLAN 2
15	ITEM 202	CONCRETE MEDIAN REMOVED
16	ITEM 202	WEARING COURSE REMOVED
17	ITEM 254	PAVEMENT PLANING, BITUMINOUS
18	ITEM 605	SHALLOW UNDERDRAIN, AS PER PLAN
19	ITEM 605	6" SHALLOW PIPE UNDERDRAIN, AS PER PLAN
20	ITEM 446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
21	ITEM 304	6" AGGREGATE BASE
22	ITEM 605	4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN
23	ITEM 452	4" PLAIN CONCRETE PAVEMENT
24	ITEM 611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
25	ITEM 203	LINEAR GRADING, METHOD 1
26	ITEM 606	GUARDRAIL, TYPE 5A
27	ITEM 301	6" BITUMINOUS AGGREGATE BASE
28	ITEM 601	CONCRETE SLOPE PROTECTION
29	ITEM 203	LINEAR GRADING, METHOD 2
30	ITEM 622	CONCRETE BARRIER, TYPE C, AS PER PLAN
31	ITEM 622	CONCRETE BARRIER, TYPE A, AS PER PLAN
32	ITEM 622	CONCRETE BARRIER, TYPE B50, AS PER PLAN
33	ITEM 622	CONCRETE BARRIER, TYPE B, AS PER PLAN
34	ITEM 622	CONCRETE BARRIER, TYPE D
35	ITEM 622	CONCRETE BARRIER, TYPE D, AS PER PLAN
36	ITEM 622	CONCRETE BARRIER, TYPE D, AS PER PLAN A
37	ITEM 622	CONCRETE BARRIER, TYPE D50, AS PER PLAN
38	ITEM 622	CONCRETE BARRIER, TYPE B50, AS PER PLAN A
39	ITEM 408	BITUMINOUS PRIME COAT
40	ITEM 617	COMPACTED AGGREGATE, TYPE A
41	ITEM 304	AGGREGATE BASE, VARIABLE DEPTH
42	ITEM 203	EMBANKMENT
43	ITEM 202	CONCRETE BARRIER REMOVED
44	ITEM 601	PAVED GUTTER, TYPE 1-2, AS PER PLAN
45	ITEM 202	CURB REMOVED
46	ITEM 202	CONCRETE MEDIAN REMOVED, AS PER PLAN
47	ITEM 203	SUBGRADE COMPACTION
48	ITEM 622	CONCRETE BARRIER, TYPE D50
49	ITEM 609	CURB, TYPE 6
50	ITEM 625	CONDUIT, CONCRETE ENCASED, AS PER PLAN, SIZE: 4" (SEE DETAIL SHEET 47A)

A	Existing 9" or 10" Reinforced Portland Cement Concrete Pavement
B	Existing 6" Subbase
C	Existing 6" Aggregate Base
D	Existing 3" Bituminious Aggregate Base
E	Existing 6" Pipe Underdrain (Deep, Shallow, or Rock Cut)
F	Existing Curb
G	Existing Concrete Median
H	Existing Guardrail, Barrier Design
J	Existing Guardrail
K	Existing Aggregate Base, Variable Depth
L	Existing 6" Bituminious Aggregate Base
M	Existing 3" Aggregate Base
N	Existing 4" Concrete Walk
O	Existing Concrete Barrier
P	Existing 2" Asphalt Concrete
Q	Existing 1-1/4" Asphalt Concrete, Surface Course
R	Existing 3" Asphalt Concrete, Intermediate Course

LEGEND and MAINLINE TYPICAL SECTIONS

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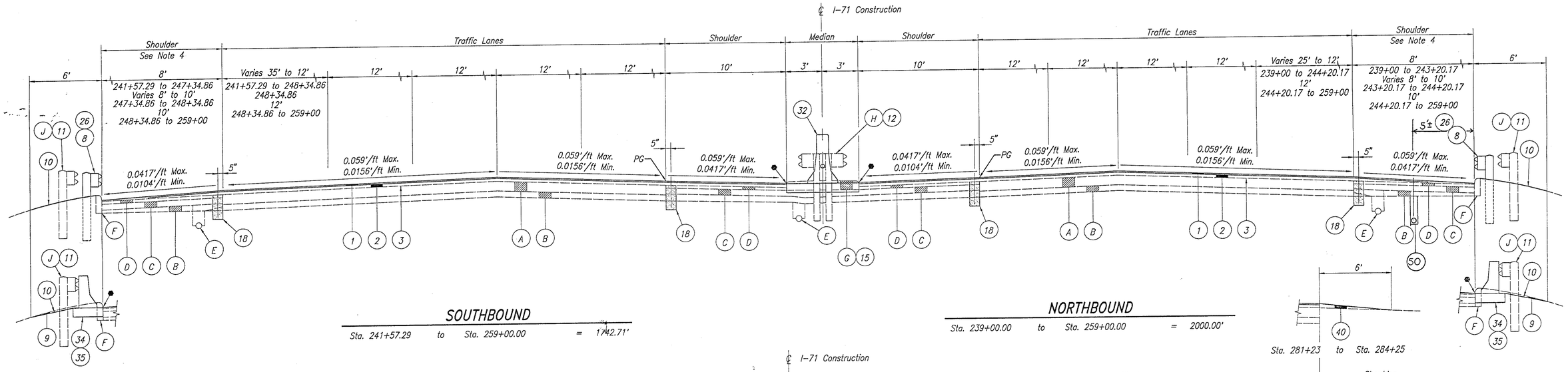
TYPICAL SECTIONS

TYPE 446

CALC. BY DLB DATE 10-11-94	HAM-71-2.92	OHIO	7
CHKD. BY PWP DATE 12-8-94		FHWA REGION 5	615

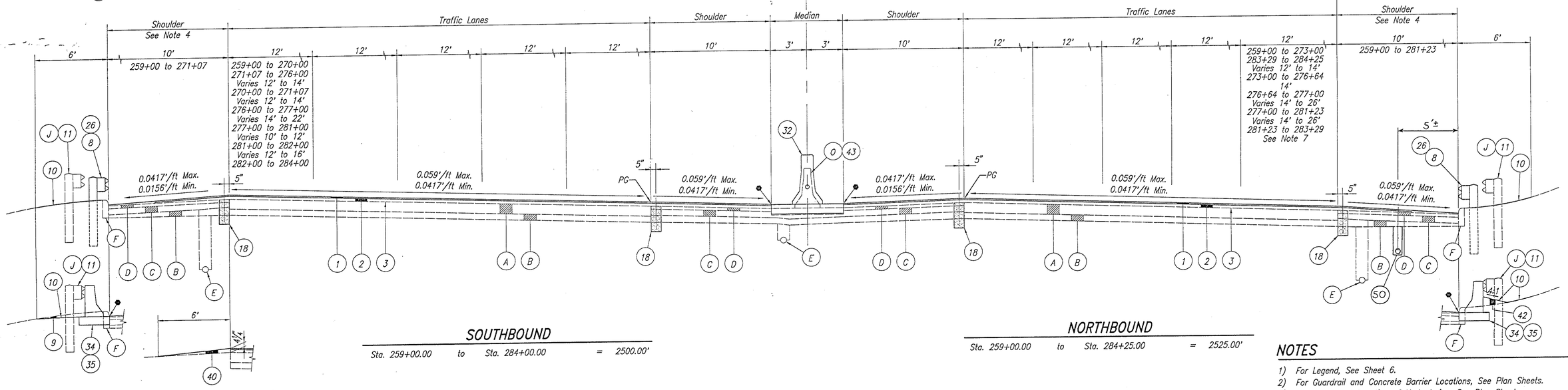


SOUTHBOUND

Sta. 241+57.29 to Sta. 259+00.00 = 1742.71'

NORTHBOUND

Sta. 239+00.00 to Sta. 259+00.00 = 2000.00'



SOUTHBOUND

Sta. 259+00.00 to Sta. 284+00.00 = 2500.00'

NORTHBOUND

Sta. 259+00.00 to Sta. 284+25.00 = 2525.00'

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Depth and Location of Underdrains, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.
7) For Ramp Gore Areas, See Ramp Typical Sections.
8) For Sta. 273+00.00 to Sta. 284+25.00 – Existing Concrete Pavement is Tar and Chipped and not Considered a Through Traffic Lane.

MAINLINE

TYPICAL SECTIONS

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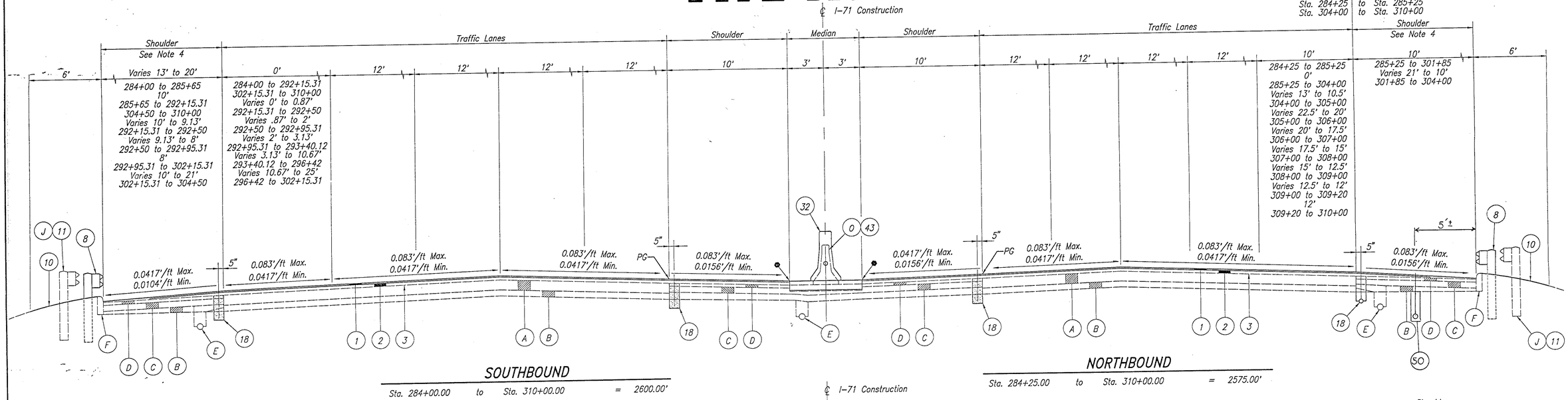
TYPICAL SECTIONS

TYPE 446

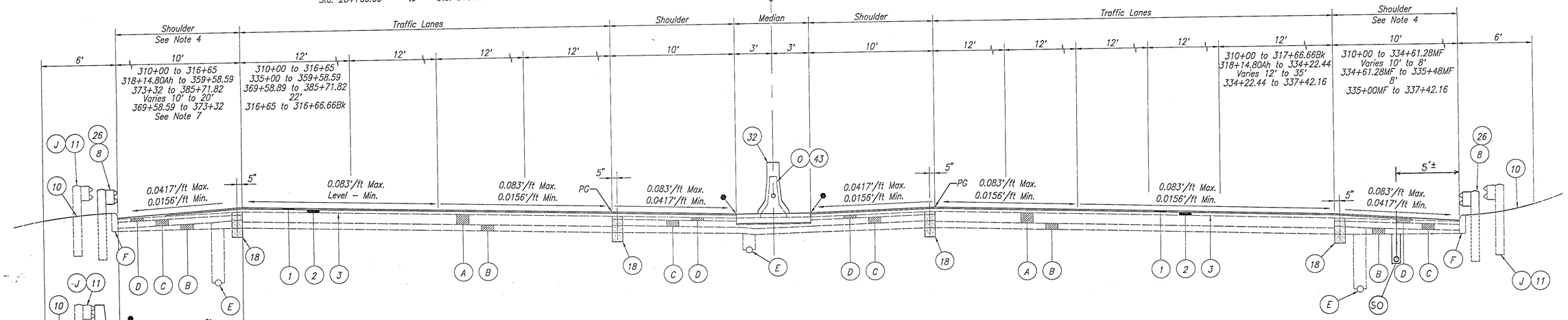


SOUTHBOUND

Sta. 284+00.00 to Sta. 310+00.00 = 2600.00'

NORTHBOUND

Sta. 284+25.00 to Sta. 310+00.00 = 2575.00'



Sta. 316+65 to Sta. 317+66.66Bk

SOUTHBOUND

Sta. 310+00.00	to	Sta. 317+66.66 Bk	= 766.66'
Sta. 335+00.00	to	Sta. 359+58.59	= 2458.59'
Sta. 369+58.89	to	Sta. 385+71.82	= 1612.93'

NORTHBOUND

Sta. 310+00.00	to	Sta. 317+66.66 Bk	= 766.66'
Sta. 318+14.80 Ah	to	Sta. 337+42.16	= 1927.36'

STATION EQUATION:
Sta. 317+66.66 Back = Sta. 318+14.80 Ahead
Sta. 318+14.80 Ahead

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

NOTES

1) For Legend See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Depth and Locations of Underdrains, See Plan Sheets.
4) 000 Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Ramp Gore Areas, See Ramp Typical Sections.
7) Shoulder Construction is same as the Mainline Pavement Construction From 384+71.82 to 385+71.82 (SB Lanes).

MAINLINE

TYPICAL SECTIONS

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TYPICAL SECTIONS

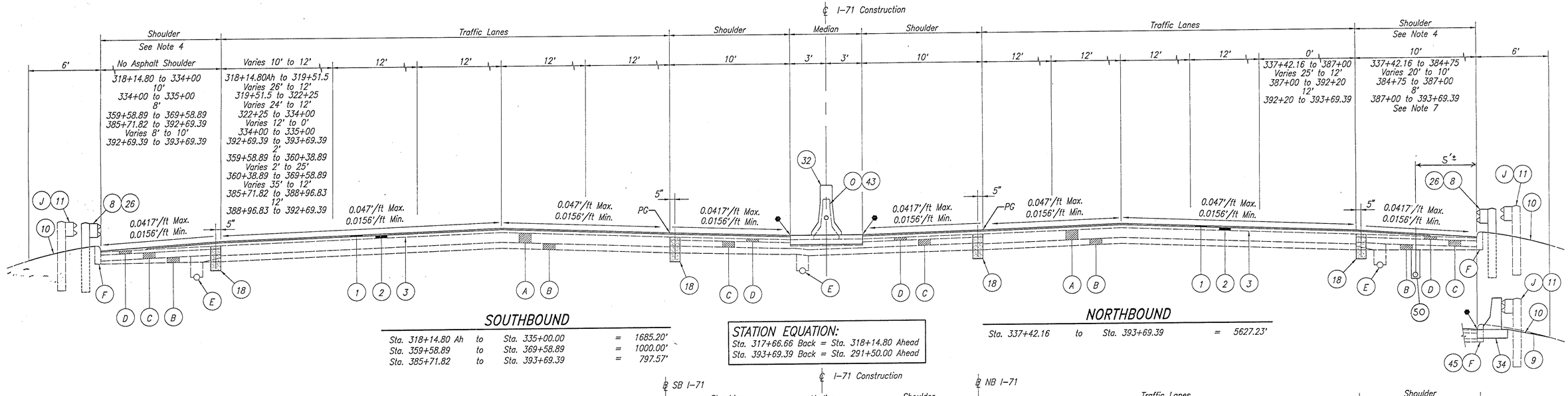
TYPE 446

CALC. BY DB DATE 10-17-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

9 / 615



SOUTHBOUND

Sta. 318+14.80 Ah	to	Sta. 335+00.00	=	1685.20'
Sta. 359+58.89	to	Sta. 369+58.89	=	1000.00'
Sta. 385+71.82	to	Sta. 393+69.39	=	797.57'

STATION EQUATION:
Sta. 317+66.66 Back = Sta. 318+14.80 Ahead
Sta. 393+69.39 Back = Sta. 291+50.00 Ahead

NORTHBOUND

Sta. 337+42.16	to	Sta. 393+69.39	=	5627.23'

SOUTHBOUND

Sta. 291+50.00	to	Sta. 291+77.44	=	27.44'
Sta. 300+46.43	to	Sta. 324+28.44 (Op Hd)	=	2382.01'
Sta. 324+28.44	to	Sta. 336+98.77	=	1270.33'
Sta. 339+89.64	to	Sta. 354+04.17 (Op Hd)	=	1414.53'
Sta. 357+32.52SB	to	Sta. 359+50.00SB	=	217.48'

STATION EQUATION:
Sta. 393+69.39 Back = Sta. 291+50.00 Ahead

BASELINE SHIFT:
Sta. 356+26.39 ℄ Back =
Sta. 356+26.39SB ℄ 13' Lt Ahead
Sta. 356+26.39NB ℄ 13' Rt Ahead

NORTHBOUND

Sta. 291+50.00	to	Sta. 291+77.44	=	27.44'
Sta. 300+46.43	to	Sta. 324+28.44 (Op Hd)	=	2382.01'
Sta. 324+28.44	to	Sta. 336+98.77	=	1270.33'
Sta. 339+89.64	to	Sta. 354+04.17 (Op Hd)	=	1414.53'
Sta. 357+76.39	to	Sta. 359+50.00NB	=	473.61'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Depth and Locations of Underdrains, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Ramp Gore Areas, See Ramp Typical Sections.
7) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.
8) Shoulder Construction is the same As Mainline Pavement Construction From Sta. 337+42.16 to Sta. 338+42.16 (NB Lanes).
9) Shoulder Construction is the same As Mainline Pavement Construction From Sta. 326+20 to Sta. 326+91 (SB Lanes).
10) Shoulder Construction is the same As Mainline Pavement Construction From Sta. 306+56 to Sta. 307+31.26 (NB Lanes).

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
Op Hd – Opposite Hand

MAINLINE

TYPICAL SECTIONS

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TYPICAL SECTIONS

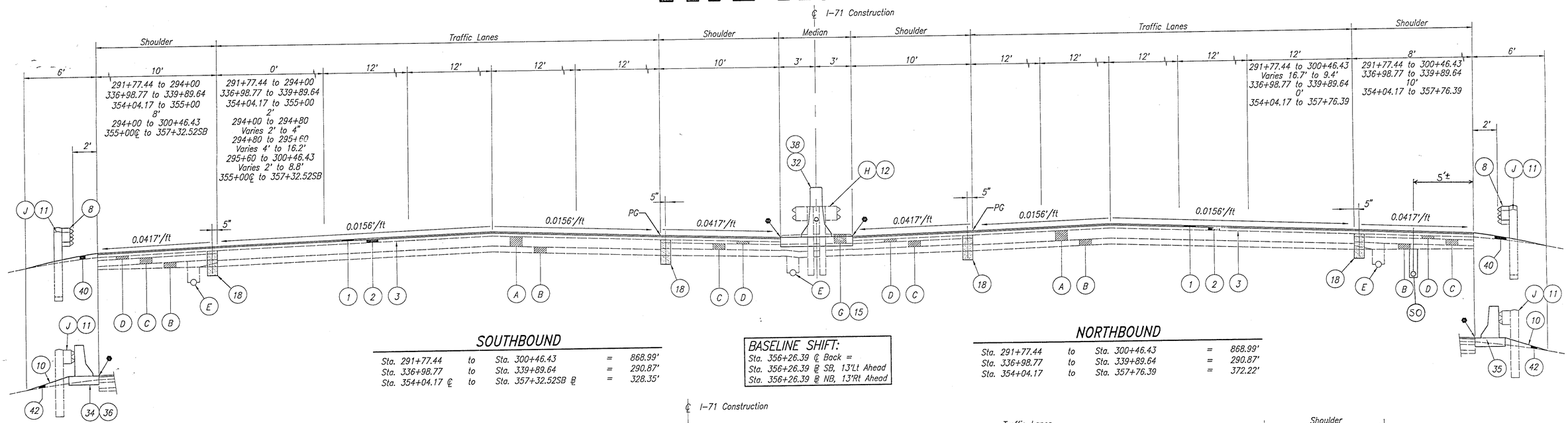
TYPE 446

CALC. BY DB DATE 10/7/94
CHKD. BY PWP DATE 10-8-94

HAM-71-2.92

OHIO FHWA REGION 5

10 / 615



SOUTHBOUND

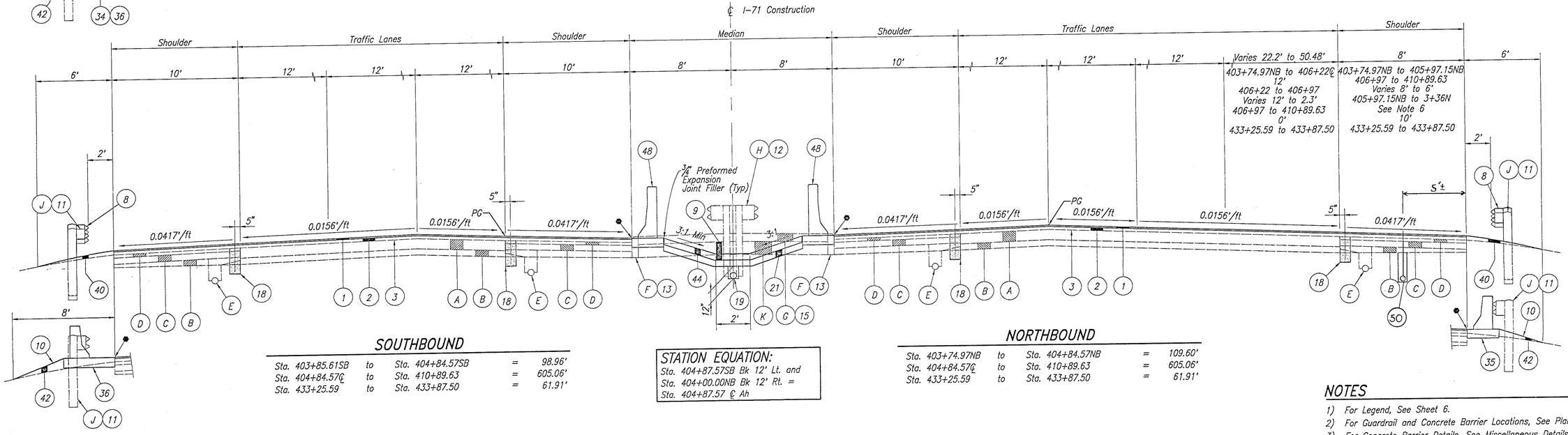
Sta. 291+77.44	to	Sta. 300+46.43	=	868.99'
Sta. 336+98.77	to	Sta. 339+89.64	=	290.87'
Sta. 354+04.17 ℄	to	Sta. 357+32.52SB @	=	328.35'

BASELINE SHIFT:

Sta. 356+26.39 ℄ Back =
Sta. 356+26.39 @ SB, 13'Lt Ahead
Sta. 356+26.39 @ NB, 13'Rt Ahead

NORTHBOUND

Sta. 291+77.44	to	Sta. 300+46.43	=	868.99'
Sta. 336+98.77	to	Sta. 339+89.64	=	290.87'
Sta. 354+04.17	to	Sta. 357+76.39	=	372.22'



SOUTHBOUND

Sta. 403+85.61SB	to	Sta. 404+84.57SB	=	98.96'
Sta. 404+84.57℄	to	Sta. 410+89.63	=	605.06'
Sta. 433+25.59	to	Sta. 433+87.50	=	61.91'

STATION EQUATION:

Sta. 404+87.57SB Bk 12' Lt. and
Sta. 404+00.00NB Bk 12' Rt. =
Sta. 404+87.57 ℄ Ah

NORTHBOUND

Sta. 403+74.97NB	to	Sta. 404+84.57NB	=	109.60'
Sta. 404+84.57℄	to	Sta. 410+89.63	=	605.06'
Sta. 433+25.59	to	Sta. 433+87.50	=	61.91'

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
4) For Depth and Locations of Underdrains, See Plan Sheets.
5) For Ramp Gore Area, See Ramp Typical Sections.
6) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.
7) Shoulder Construction is the same As Mainline Pavement Construction From Sta. 406+22NB to Sta. 406+97NB.

MAINLINE

TYPICAL SECTIONS

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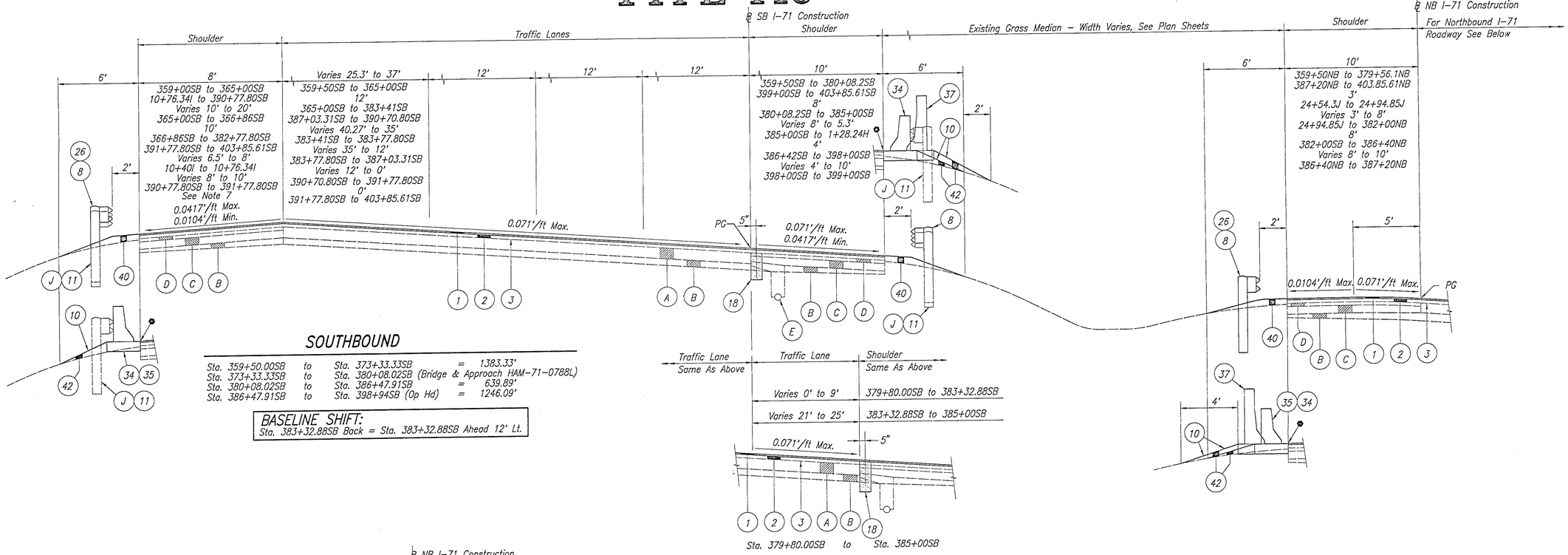
TYPICAL SECTIONS

TYPE 446



NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
5) For Ramp Core Areas, See Ramp Typical Sections.
6) Shoulder Construction is the Same as the Mainline Pavement Construction From Sta. 372+55NB to 373+11.75NB.
7) Shoulder Construction is the Same as the Mainline Pavement Construction From Sta. 382+77.80SB to 383+41.55SB.

SYMBOL LEGEND

- Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
Op Hd – Oppsite Hand

MAINLINE

TYPICAL SECTIONS

CALC. BY TLB DATE 10-17-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

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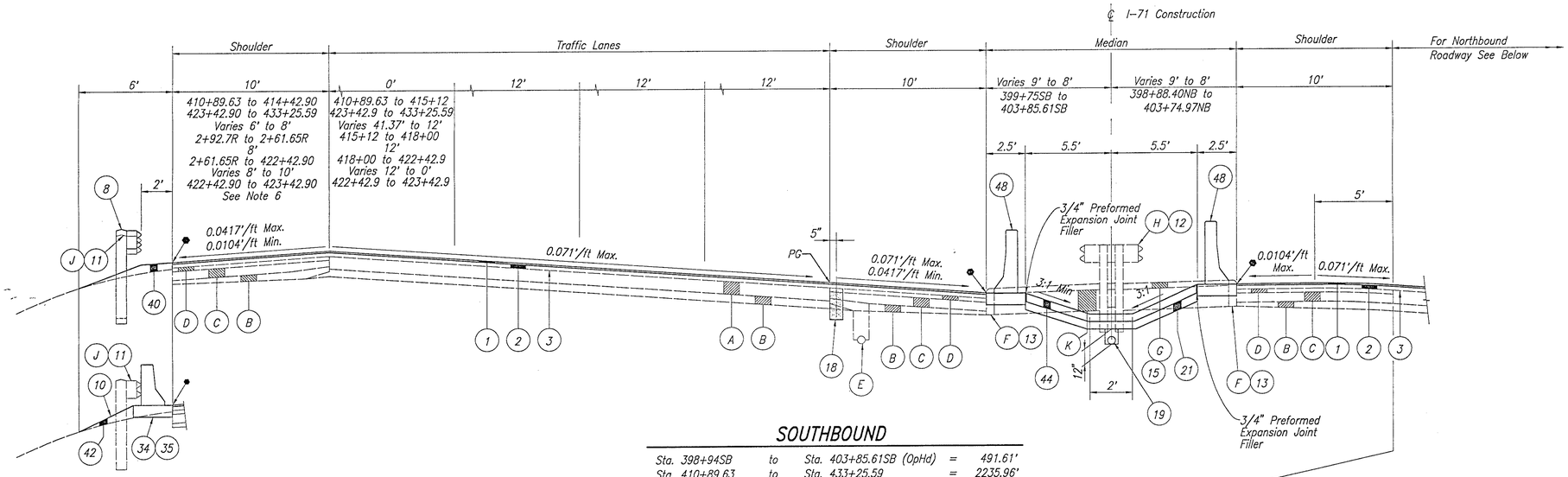
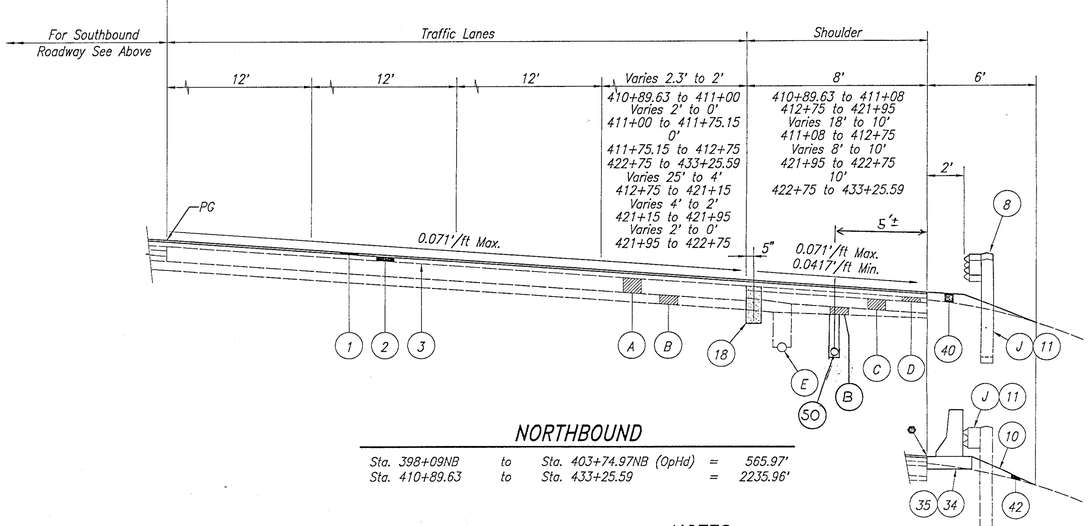
TYPICAL SECTIONS

TYPE 446



SOUTHBOUND

Sta. 398+94SB	to	Sta. 403+85.61SB (OpHd)	=	491.61'
Sta. 410+89.63	to	Sta. 433+25.59	=	2235.96'



NORTHBOUND

Sta. 398+09NB	to	Sta. 403+74.97NB (OpHd)	=	565.97'
Sta. 410+89.63	to	Sta. 433+25.59	=	2235.96'

SYMBOL LEGEND

- ● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
Op Hd – Oppsite Hand

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
5) For Ramp Gore Areas, See Ramp Typical Sections.
6) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.
7) Shoulder Construction is the Same as the Mainline Pavement Construction From Sta. 414+42.90 to Sta. 415+12. (SB Lanes).

MAINLINE
TYPICAL SECTIONS

CALC. BY DLB DATE 10-11-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO
FHWA REGION 5

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TYPICAL SECTIONS

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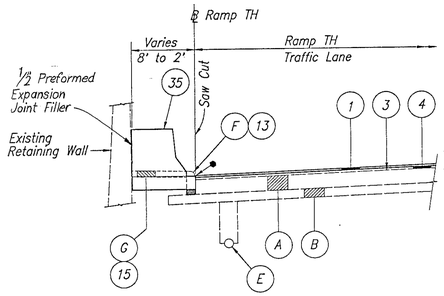
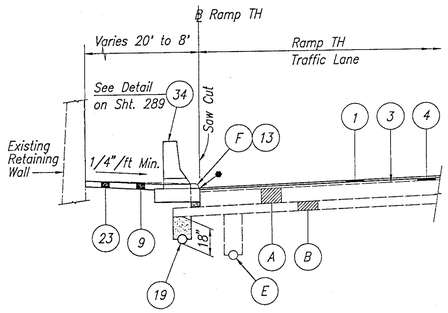
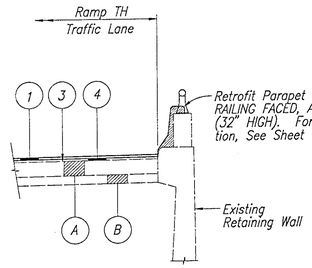


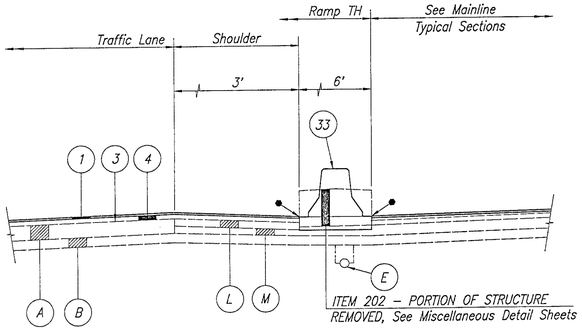
Sta. 233+83TH to Sta. 235+00TH



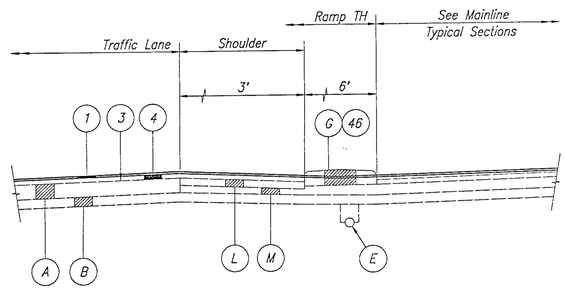
Sta. 232+78TH to Sta. 233+83TH



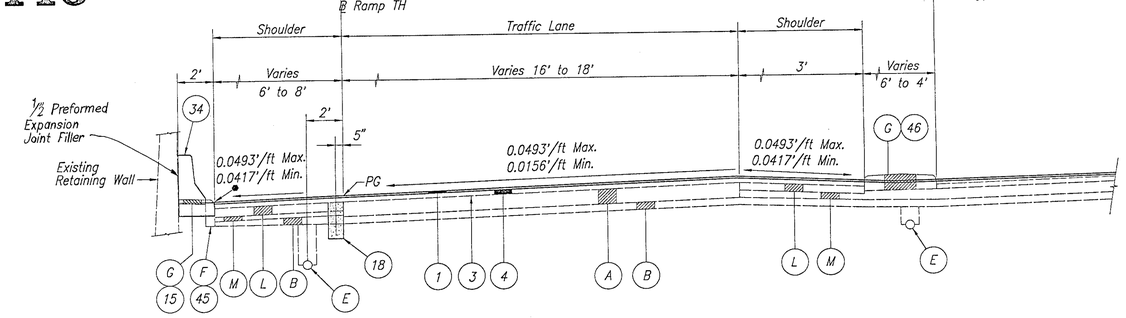
Sta. 233+75TH to Sta. 235+00TH–



Sta. 240+02.5TH to Sta. 240+30.5TH

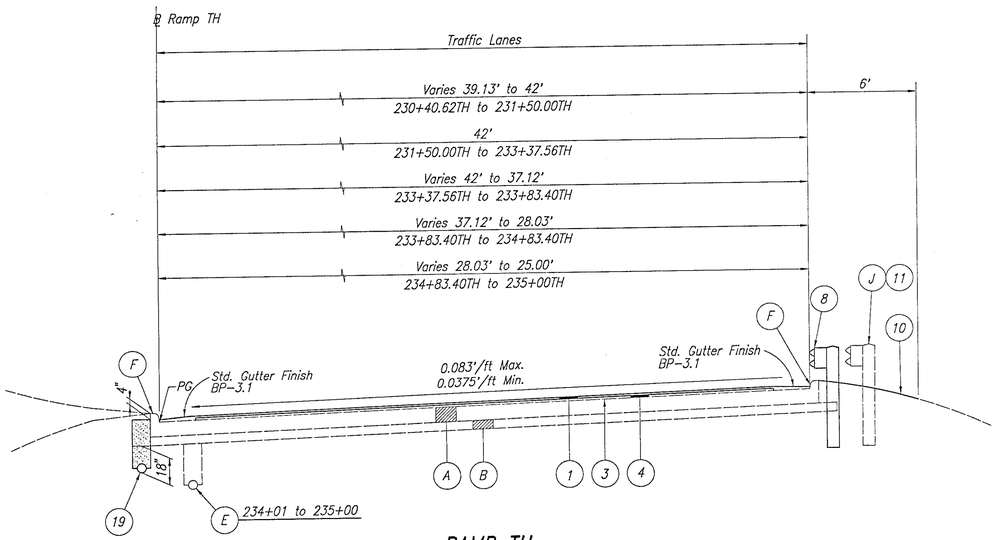


Sta. 240+30.5TH to Sta. 240+59.49TH



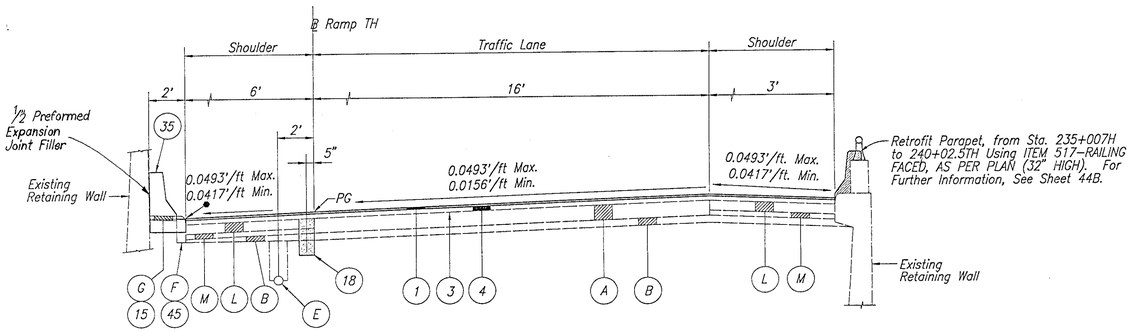
RAMP TH

Sta. 240+59.49TH to Sta. 241+60.74TH = 101.25'
For Continuation of Pavement, See Mainline Typical Section, Sheet 6.



RAMP TH

Sta. 229+56.57TH to Sta. 230+40.62TH See Plan Sheets = 84.05'
Sta. 230+40.62TH to Sta. 235+00TH = 459.38'



RAMP TH

Sta. 235+00TH to Sta. 240+59.49TH = 559.49'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
5) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

- Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG Profile Grade

RAMP TH (Wm. HOWARD TAFT ROAD)

TYPICAL SECTIONS

TYPE 446

CALC. BY DLD DATE 10-17-94
CHKD. BY PVP DATE 12-8-94

HAM-71-2.92

OHIO
FHWA REGION 5

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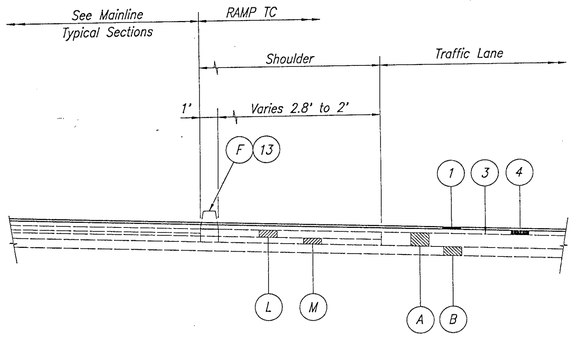
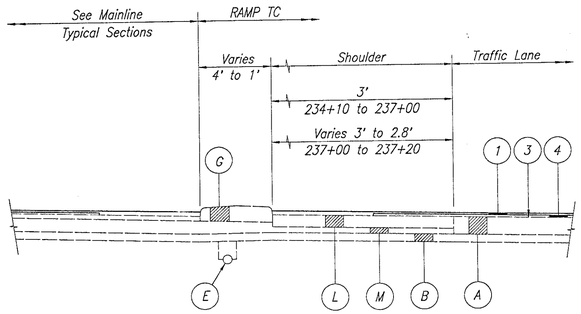
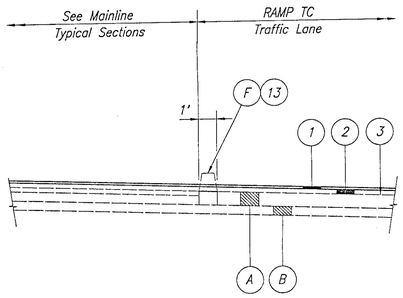


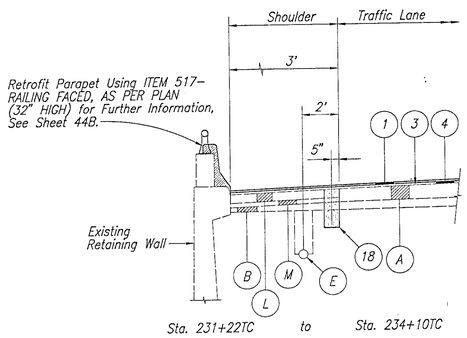
Sta. 237+20TC to Sta. 238+00TC



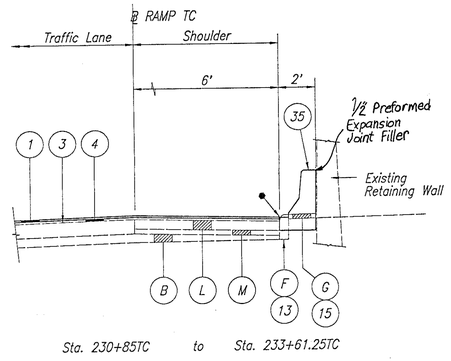
Sta. 234+10TC to Sta. 237+20TC



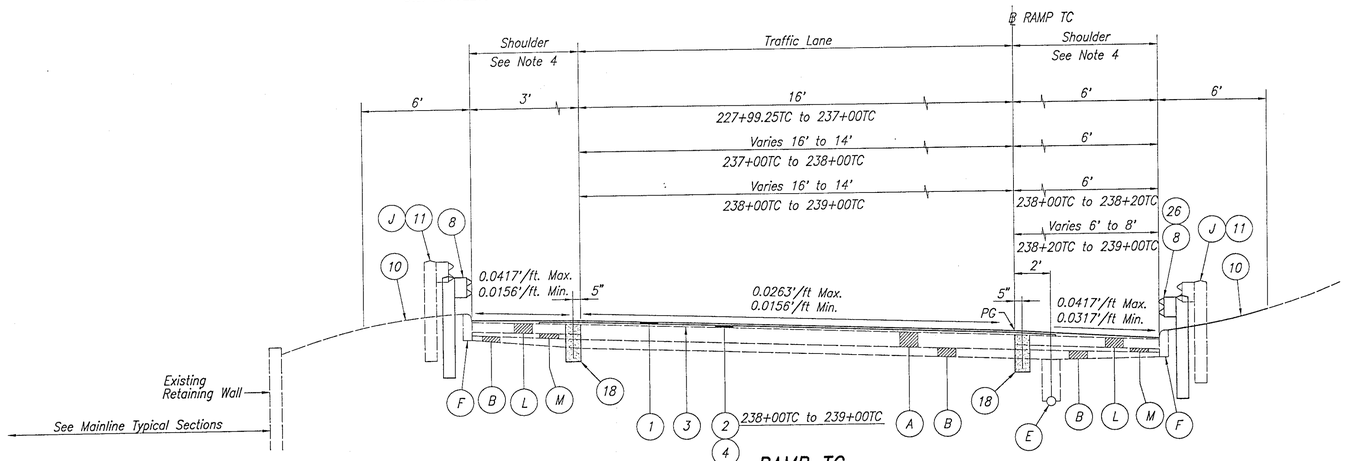
Sta. 238+00TC to Sta. 239+00TC



Sta. 231+22TC to Sta. 234+10TC



Sta. 230+85TC to Sta. 233+61.25TC



RAMP TC

Sta. 225+44.29TC to Sta. 225+88.75 — See Plan Sheets = 44.46'
Sta. 225+88.75TC to Sta. 227+99.25TC — Bridge & Approach Slabs (HAM-71-0317E) = 210.50
Sta. 227+99.25TC to Sta. 239+00TC = 1100.75'
For Continuation of Pavement, See Mainline Typical Section, Sheet 7.

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

- Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG Profile Grade

RAMP TC (McMILLIAN STREET)

TYPICAL SECTIONS

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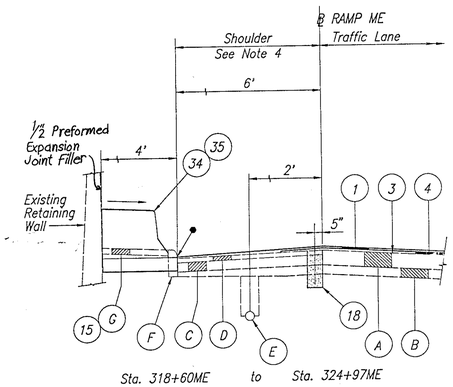
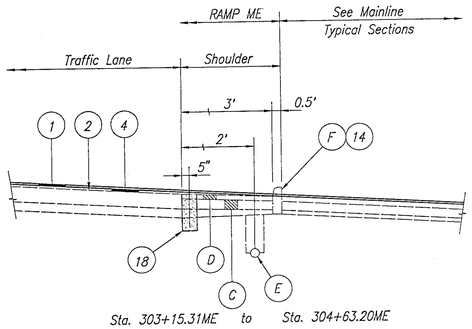
TYPICAL SECTIONS

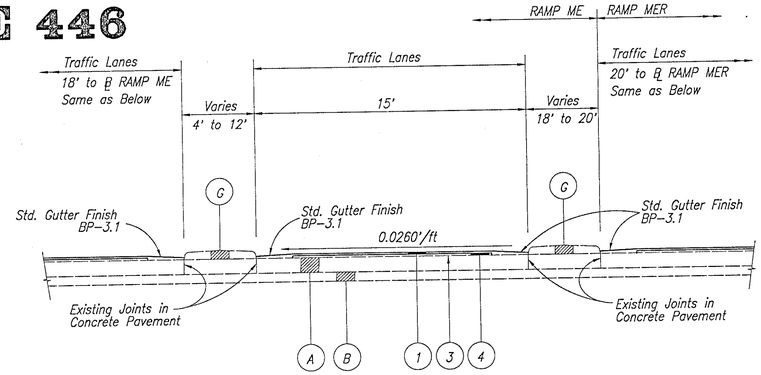
TYPE 446



Sta. 318+60ME to Sta. 324+97ME

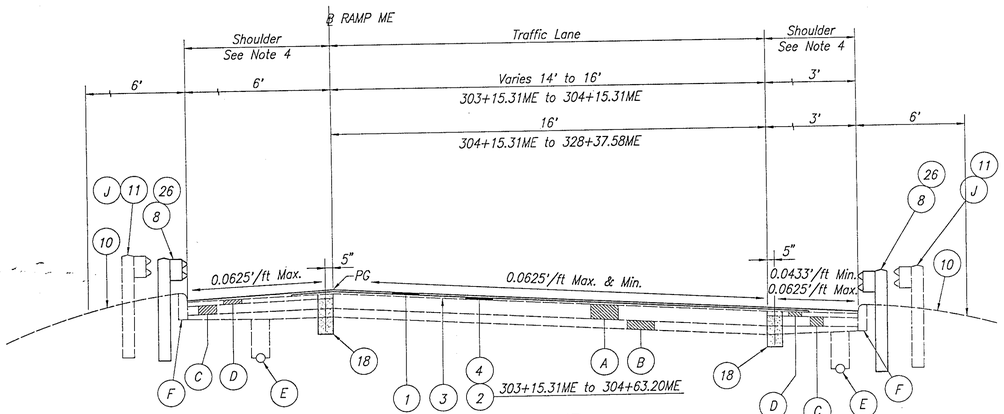


Sta. 303+15.31ME to Sta. 304+63.20ME



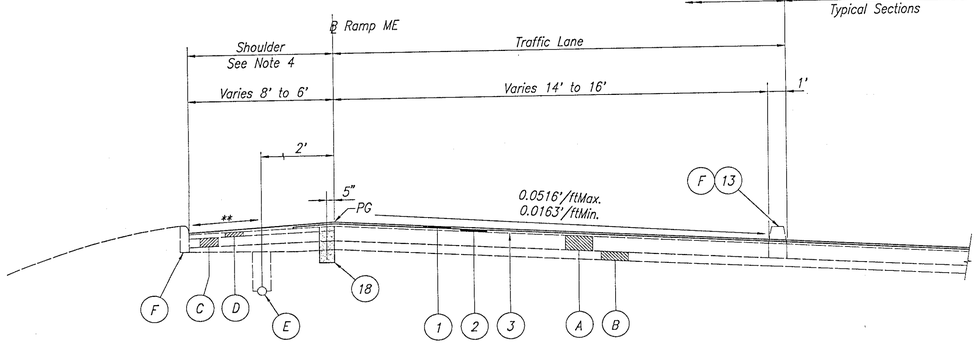
RAMP ME

Sta. 337+38.5ME to Sta. 337+84.24ME = 45.74'
Sta. 337+84.24ME to Sta. 338+32.33ME See Plan Sheets = 48.09'



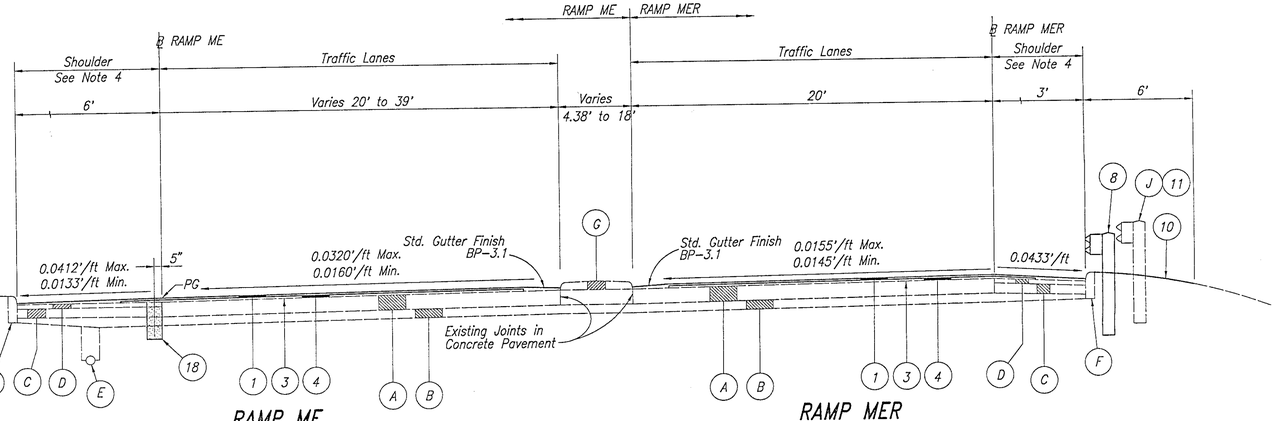
RAMP ME

Sta. 303+15.31ME to Sta. 328+37.58ME = 2522.27'



RAMP ME

For Preceding Pavement, See Mainline Typical Section, Sheet 8.
Sta. 302+15.31ME to Sta. 303+15.31ME = 100.00'

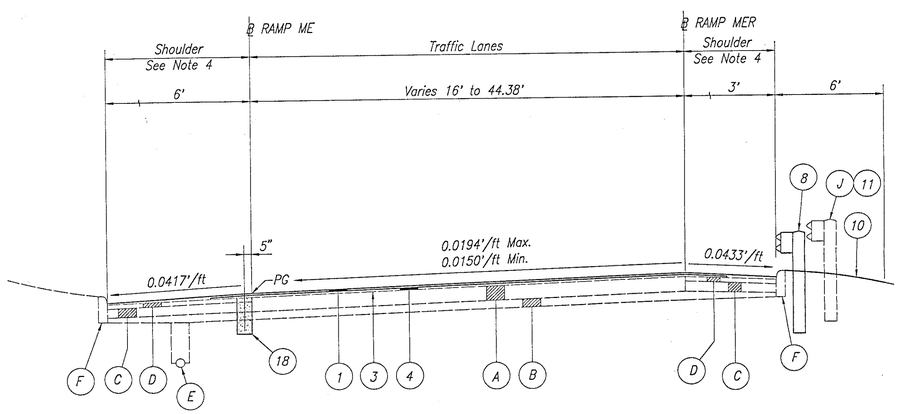


RAMP ME

Sta. 336+16.28ME to Sta. 337+38.5ME = 122.22'

RAMP MER

Sta. 336+16.66MER to Sta. 337+16.86MER = 100.20'
For Continuation of Pavement, See Plan Sheets



RAMP ME

Sta. 328+37.58ME to Sta. 336+16.28ME = 778.70'

RAMP MER

Sta. 328+37.58MER to Sta. 336+16.66MER = 779.08'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

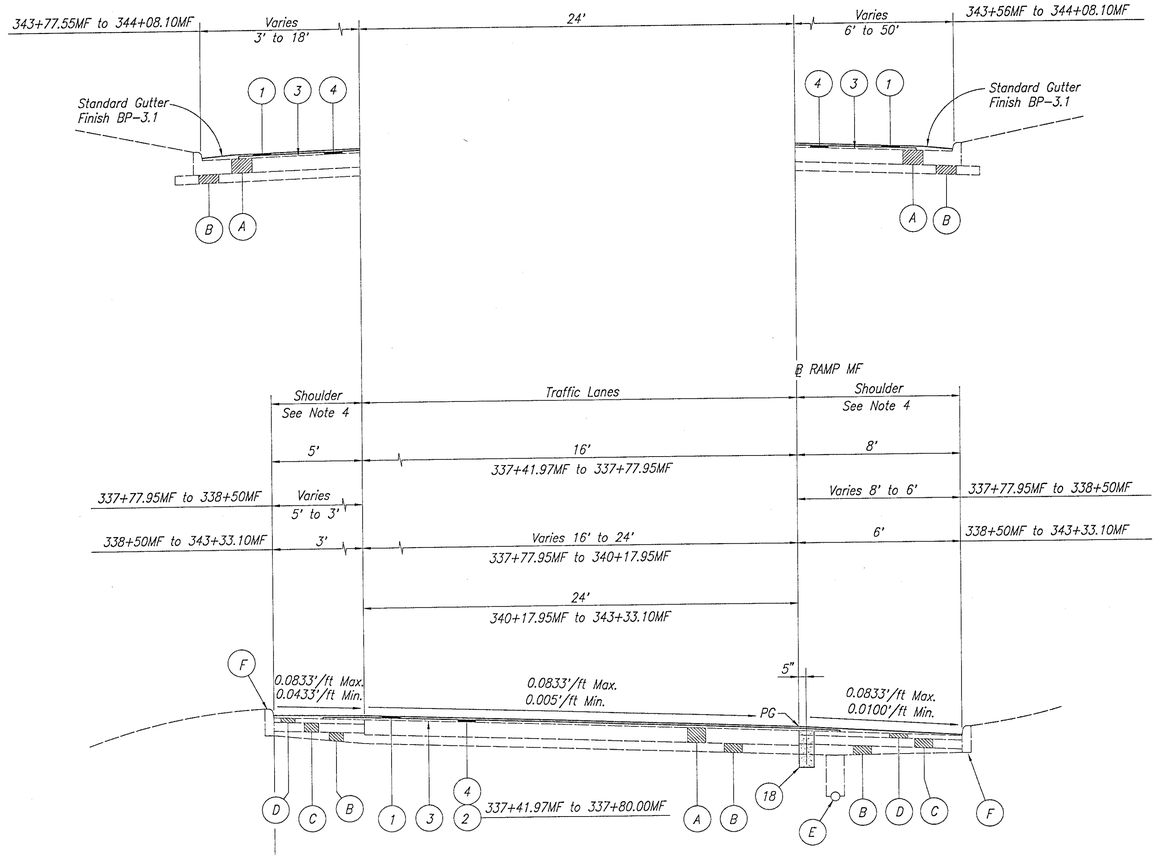
PG – Profile Grade
• ** – Match Existing Shoulder Cross Slope

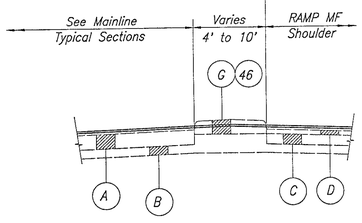
RAMP ME and RAMP MER (MONTGOMERY ROAD)

TYPICAL SECTIONS

TYPICAL SECTIONS

TYPE 446





Sta. 337+41.97MF to Sta. 337+80.00MF

RAMP MF

For Preceding Pavement, See Mainline Typical Section, Sheet 9.
Sta. 337+41.97MF to Sta. 343+33.10MF = 591.13'
Sta. 343+33.10MF to Sta. 344+08.10MF = 75.00'
See Plan Sheets For Pavement Feathering

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

PG – Profile Grade

RAMP MF (DUCK CREEK ROAD)
TYPICAL SECTIONS

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TYPICAL SECTIONS

TYPE 446

CALC. BY DLD DATE 6-7-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO
FHWA REGION 5

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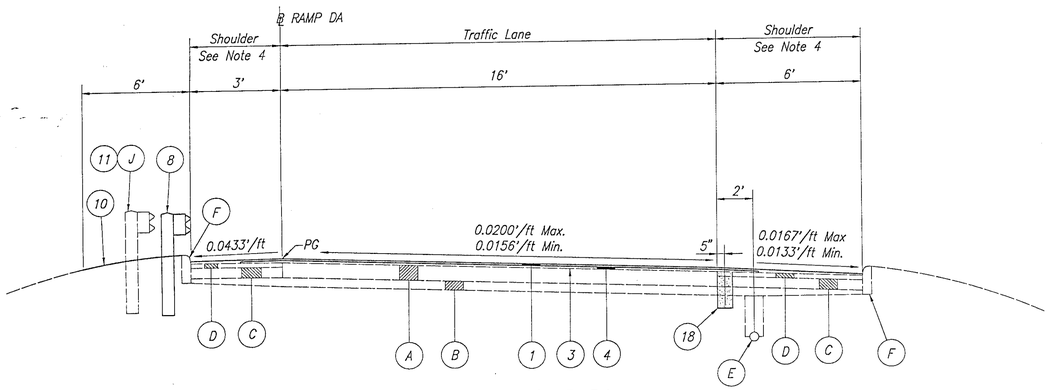
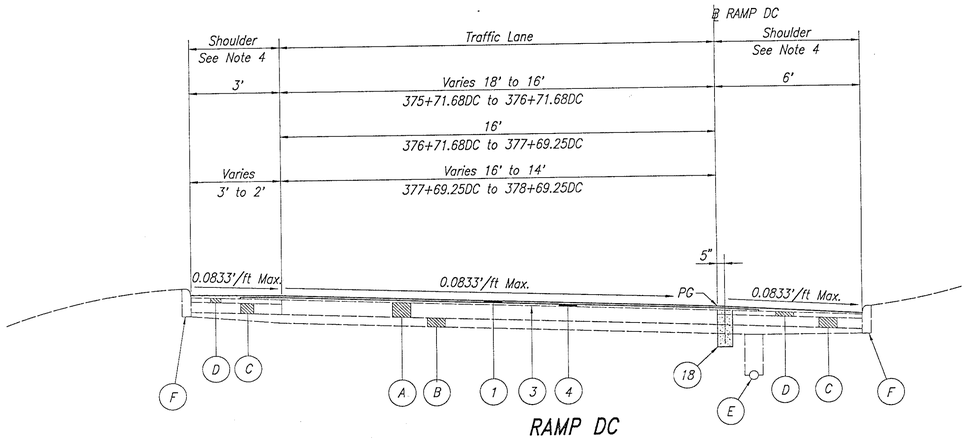


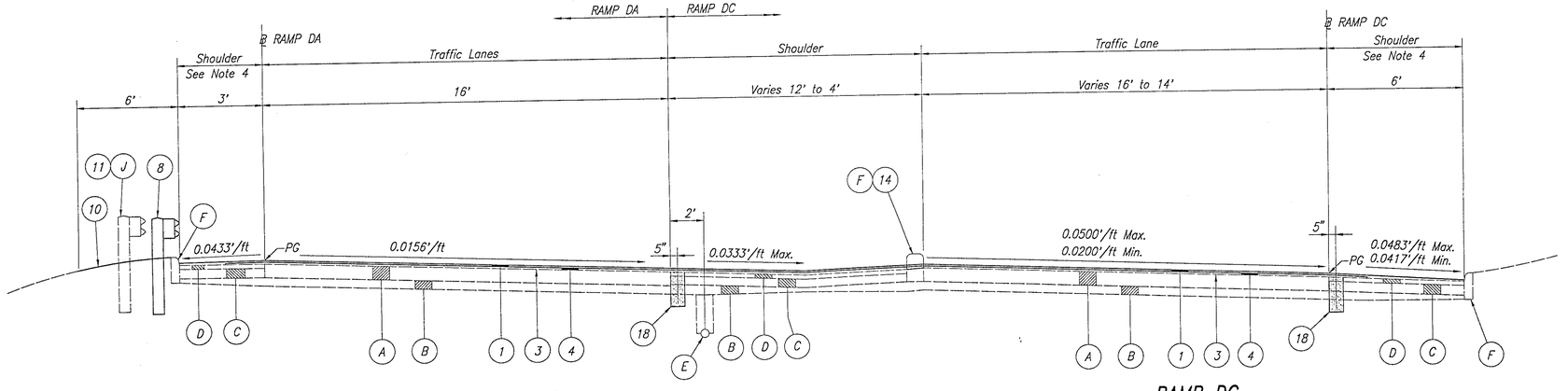
RAMP DA

For Preceding Pavement, See DANA AVENUE Typical Sections, Sheet 39.
Sta. 376+17DA to Sta. 378+54DA = 237.00'



RAMP DC

For Preceding Pavement, See DANA AVENUE Typical Sections, Sheet 39.
Sta. 375+71.68DC to Sta. 378+69.25DC = 297.57'



RAMP DA

Sta. 378+54DA to Sta. 379+69.88DA = 115.88'

RAMP DC

Sta. 378+69.25DC to Sta. 379+69.25DC = 100.00'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

RAMP DA and RAMP DC (DANA AVENUE)
TYPICAL SECTIONS

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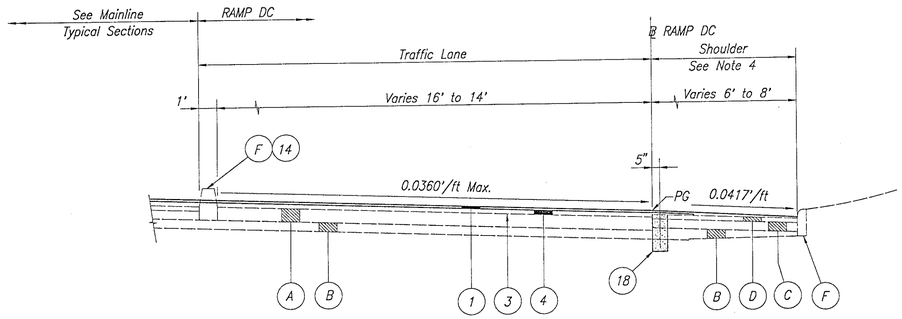
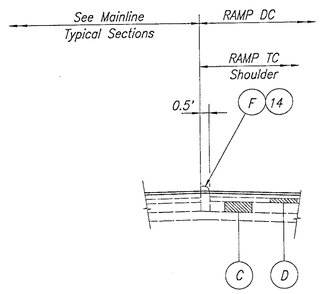
TYPICAL SECTIONS

TYPE 446

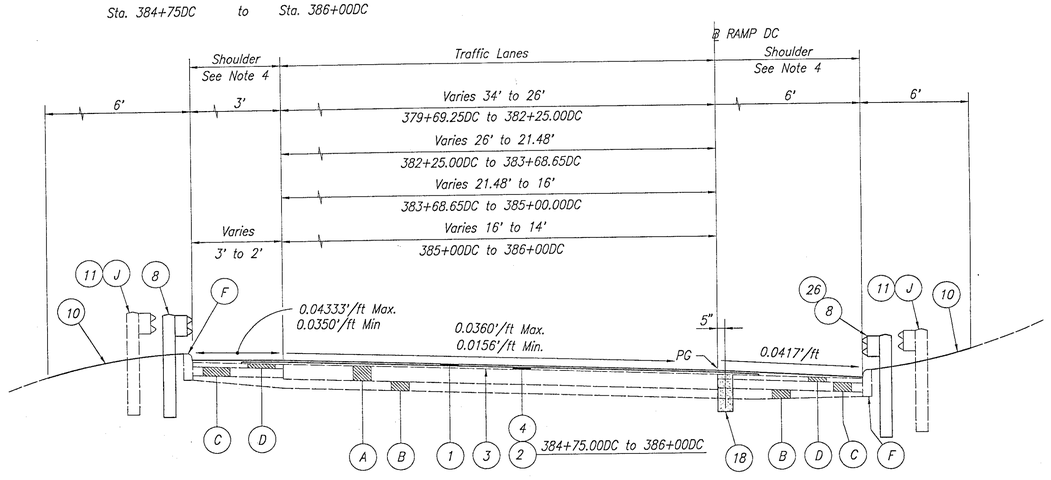


RAMP DC

Sta. 386+00DC to Sta. 387+00DC = 100.00'
For Continuation of Pavement, See Mainline Typical Sections, Sheet 9.



Sta. 384+75DC to Sta. 386+00DC



RAMP DC

Sta. 379+69.25DC to Sta. 386+00.00DC = 630.75'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

PG – Profile Grade

RAMP DC (DANA AVENUE)
TYPICAL SECTIONS

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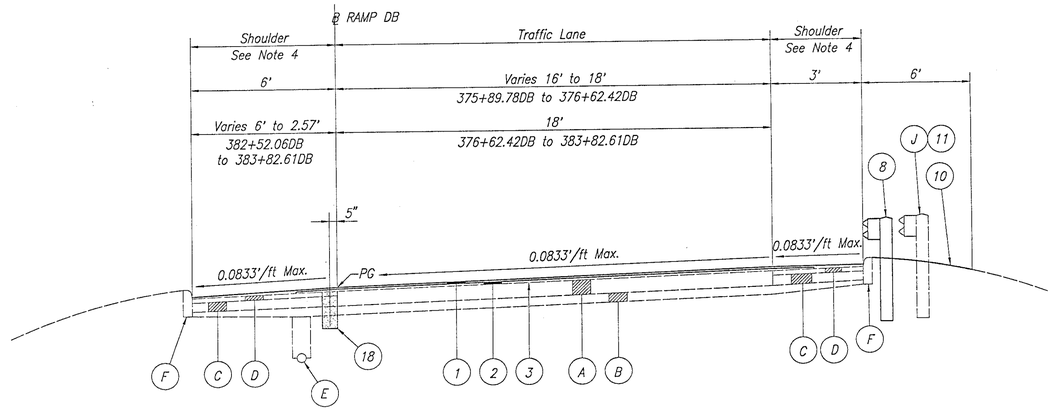
TYPICAL SECTIONS

TYPE 446

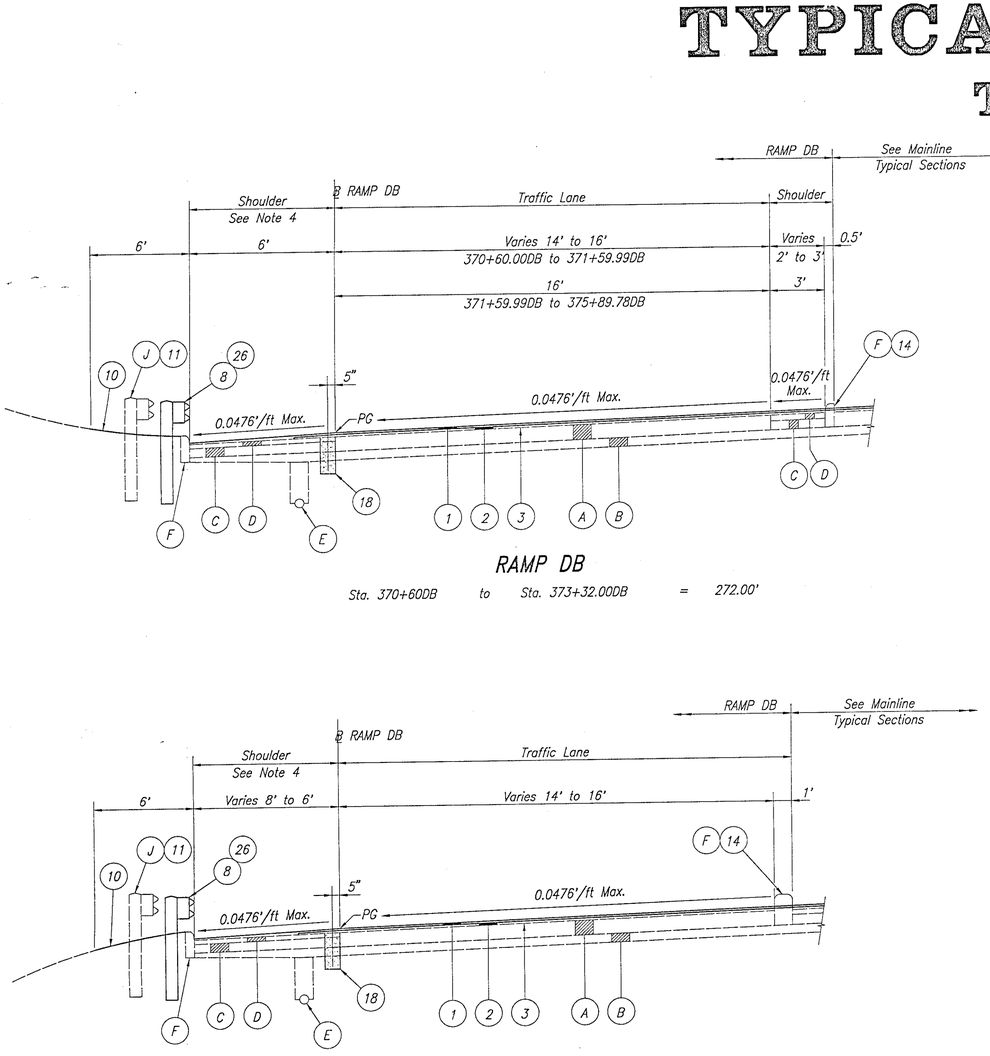
RAMP DB

Sta. 370+60DB to Sta. 373+32.00DB = 272.00'



RAMP DB

Sta. 375+89.78DB to Sta. 383+82.61DB = 792.83'
For Continuation of Pavement, See DANA AVENUE Typical Sections, Sht No. *



RAMP DB

For Preceding Pavement, See Mainline Typical Sections, Sheet 8.
Sta. 369+58.89DB to Sta. 370+60DB = 101.11'

RAMP DB

Sta. 373+32.00DB to Sta. 375+89.78DB = 257.78'

SYMBOL LEGEND

- ● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.
- PG – Profile Grade

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations And Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

RAMP DB (DANA AVENUE)
TYPICAL SECTIONS

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CALC. BY DLB DATE 12-17-94
CHKD. BY PWP DATE 12-15-94

HAM-71-2.92

OHIO
FHWA REGION 5

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TYPICAL SECTIONS
TYPE 446

CALC. BY DO DATE 10-1-94
CHKD. BY PWP DATE 12-13-94

HAM-71-2.92

OHIO
FHWA REGION 5

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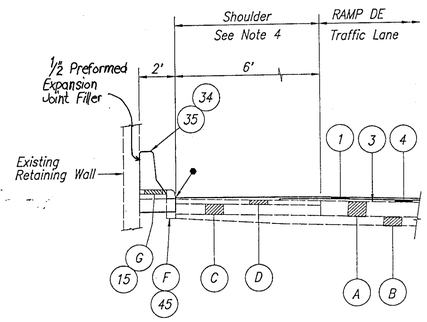
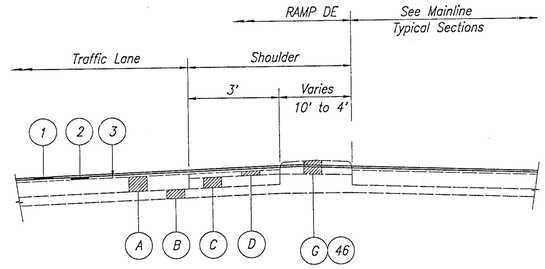
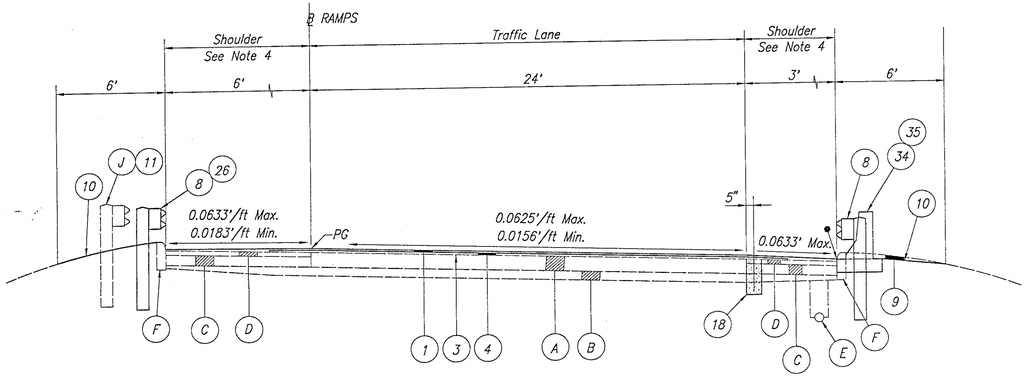


Sta. 374+03DE to Sta. 377+75DE

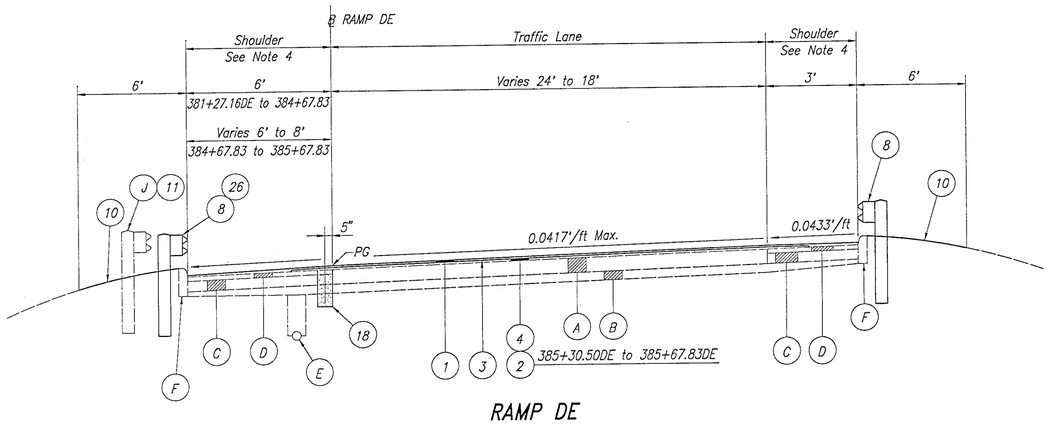


Sta. 385+30.33DE to Sta. 385+67.83DE



RAMP DE

Sta. 372+75.70DE to Sta. 373+71.36DE See Plan Sheets = 95.66'
Sta. 373+71.36DE to Sta. 381+27.16DE = 755.80'



RAMP DE

Sta. 381+27.16DE to Sta. 385+67.83DE = 455.84'
For Continuation of Pavement, See Mainline Typical Section, Sheet 9.

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Treatment Details, See Miscellaneous Details, Sheet 41.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

RAMP DE (DANA AVENUE)

TYPICAL SECTIONS

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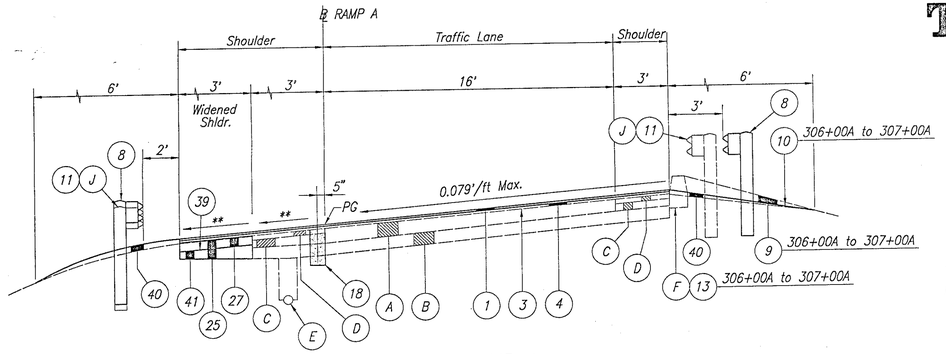
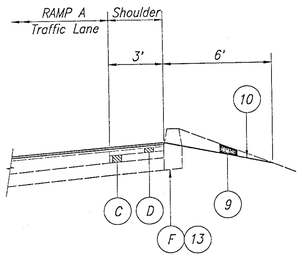
TYPICAL SECTIONS

TYPE 446



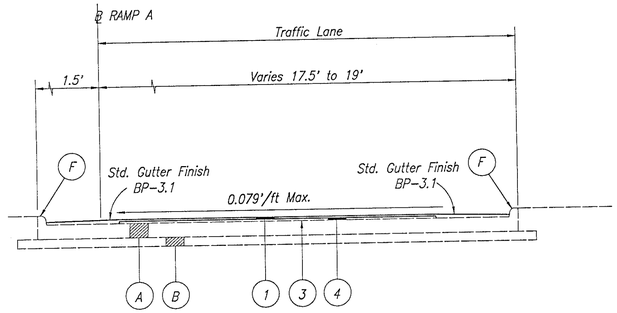
RAMP A

Sta. 306+00A to Sta. 308+01.02A = 201.02'



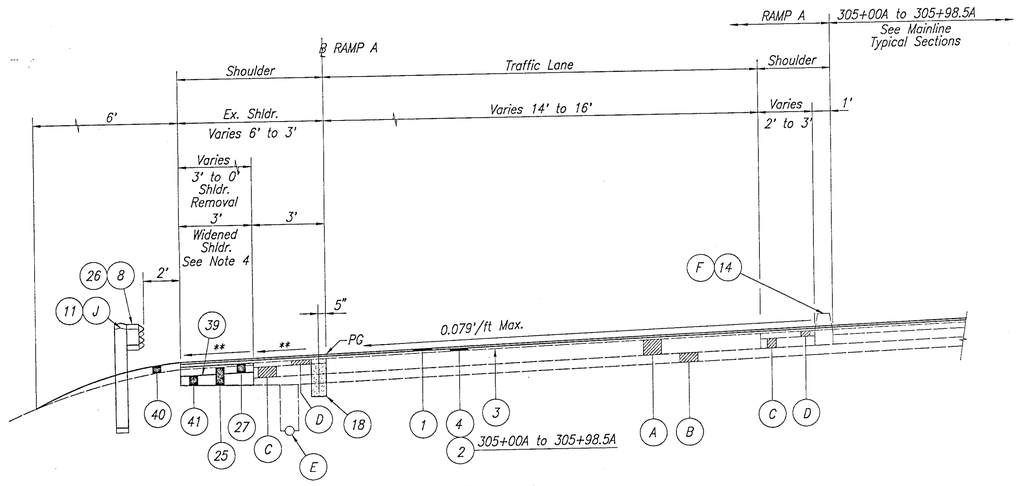
RAMP A SHOULDER DETAIL

305+98.5A to 306+00A



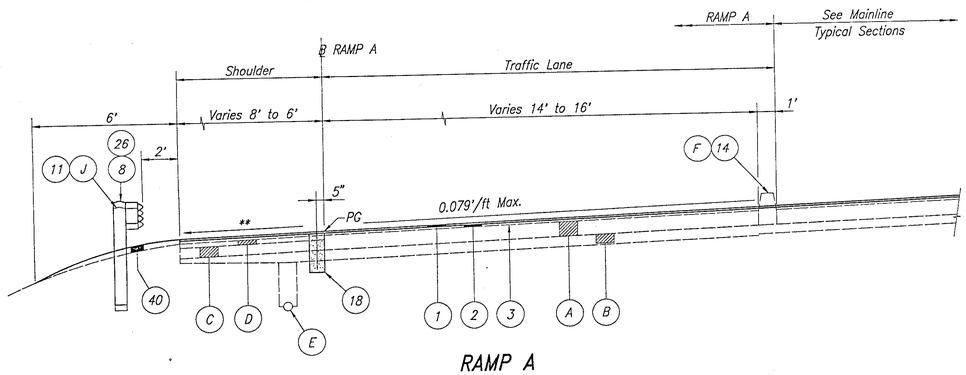
RAMP A

Sta. 310+85A to 311+72.21A = 87.21'
Sta. 311+72.21A to 312+97.39A See Plan Sheets = 125.18'



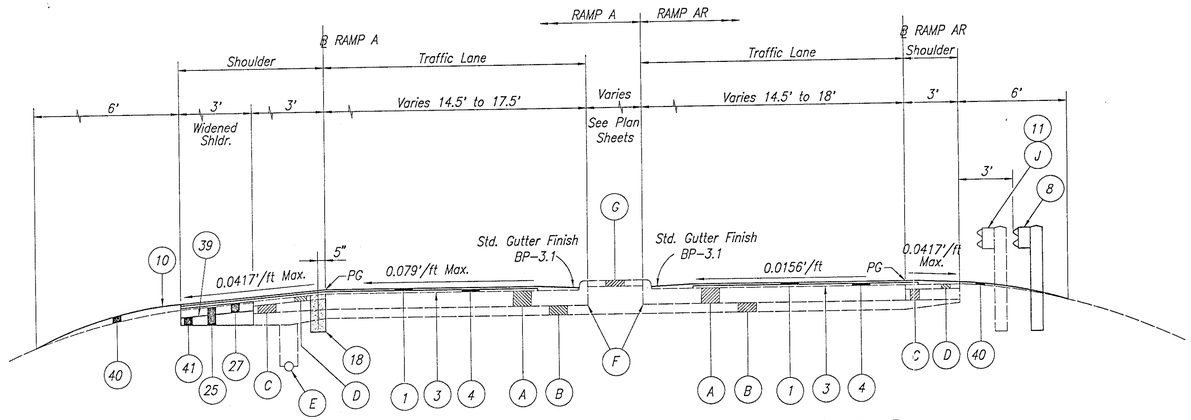
RAMP A

Sta. 305+00A to Sta. 306+00A = 100.00'



RAMP A

For Preceding Pavement, See Mainline Typical Section, Sheet 9.
Sta. 304+00A to Sta. 305+00A = 100.00'

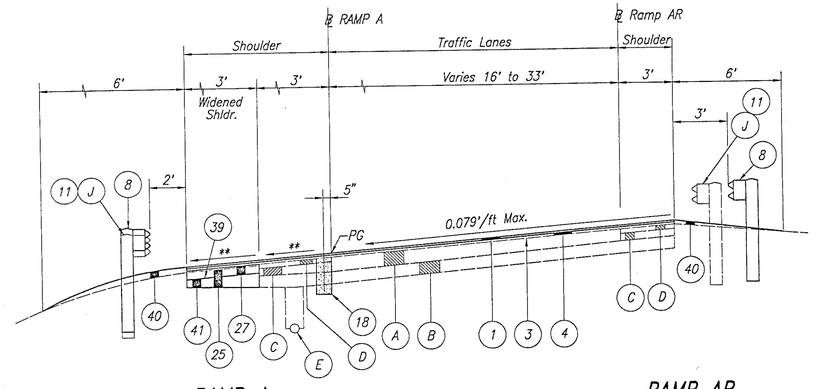


RAMP A

Sta. 309+56.03A to Sta. 310+85A = 128.97'

RAMP AR

Sta. 309+58.19AR to Sta. 310+51.59AR = 93.40'
Sta. 310+51.59AR to Sta. 311+40.50AR See Plan Sheets = 88.91'



RAMP A

Sta. 308+01.02A to Sta. 309+56.03A = 155.01'

RAMP AR

Sta. 308+01.02AR to Sta. 309+58.19AR = 157.17'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMP A and RAMP AR (SMITH ROAD)

TYPICAL SECTIONS

TYPICAL SECTIONS

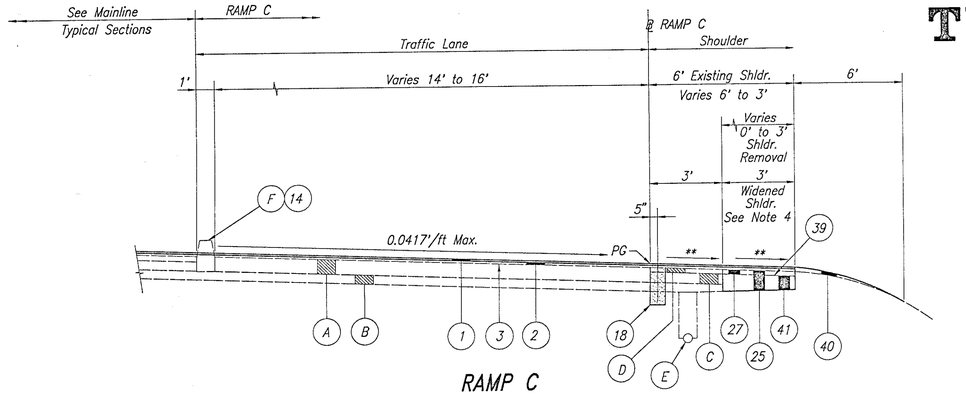
TYPE 446

CALC. BY DJB DATE 12-13-94
CHKD BY FWP DATE 12-13-94

HAM-71-2.92

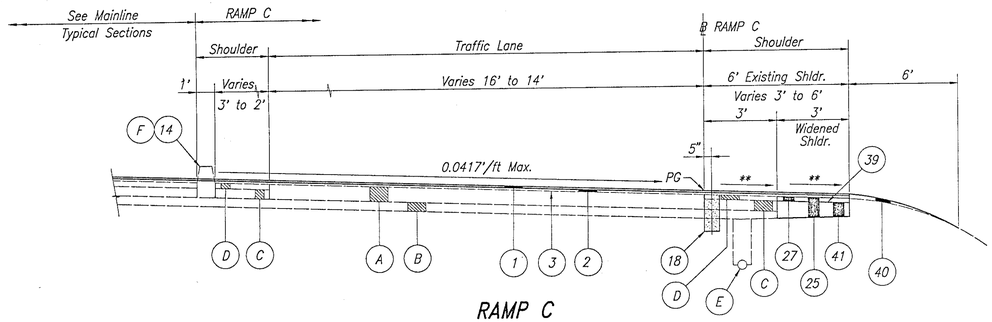
OHIO FHWA REGION 5

22/615



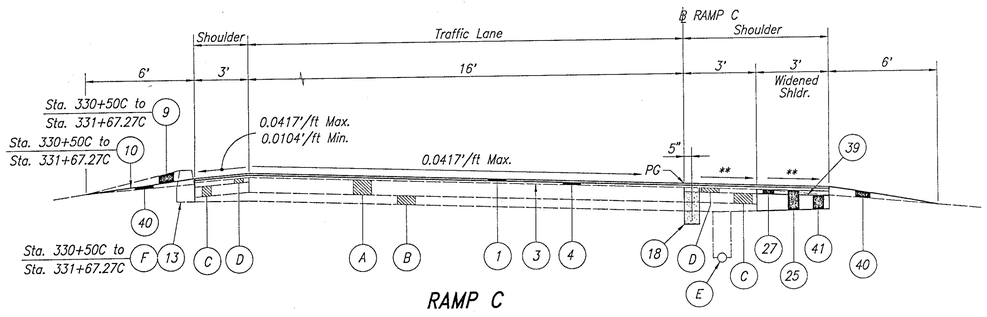
RAMP C

Sta. 332+67.27C to Sta. 333+67.25C = 100.00'
For Continuation of Pavement, See Mainline Typical Section, Sheet 9.



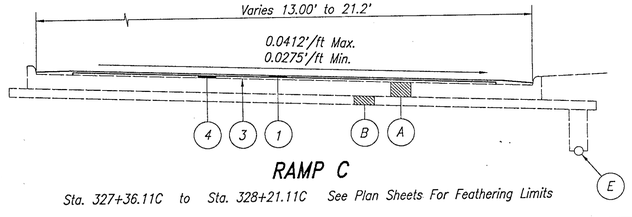
RAMP C

Sta. 331+67.27C to Sta. 332+67.27C = 100.00'



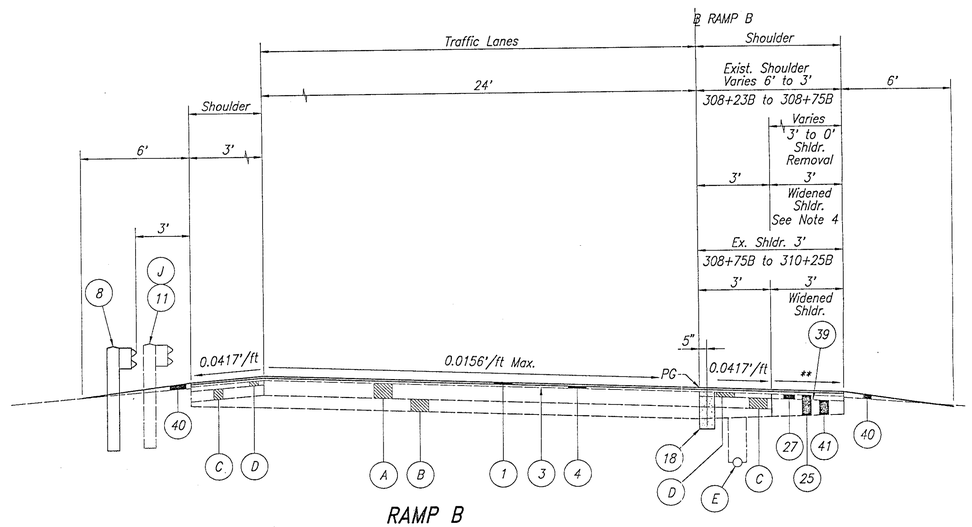
RAMP C

Sta. 328+21.11C to Sta. 331+67.27C = 346.16'



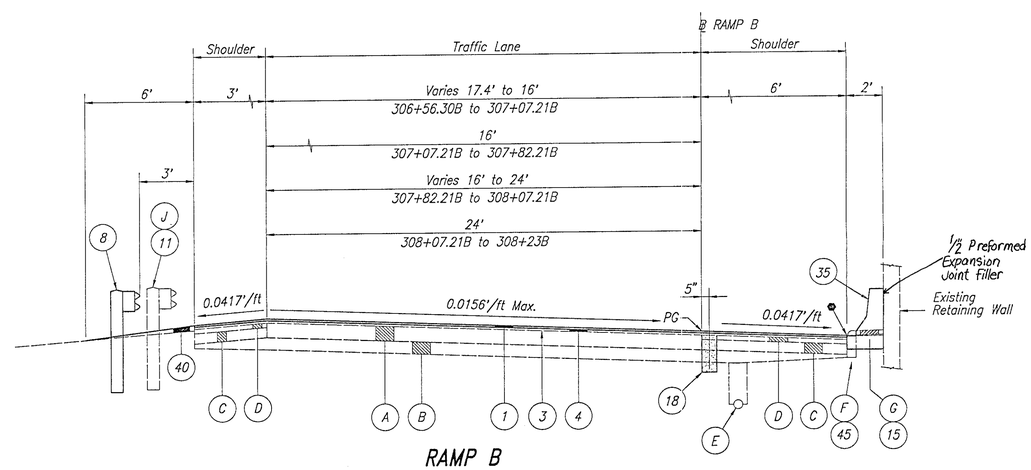
RAMP C

Sta. 327+36.11C to Sta. 328+21.11C See Plan Sheets For Feathering Limits



RAMP B

Sta. 308+23B to Sta. 310+25B = 202.00'
Sta. 310+25B to Sta. 311+43.86B See Plan Sheets = 118.86'



RAMP B

For Preceding Pavement, See Mainline Typical Section, Sheet 9.
Sta. 306+56.30B to Sta. 308+23B = 166.70'

SYMBOL LEGEND

- ● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

RAMP B (SMITH ROAD)
RAMP C (EDWARDS ROAD)

TYPICAL SECTIONS

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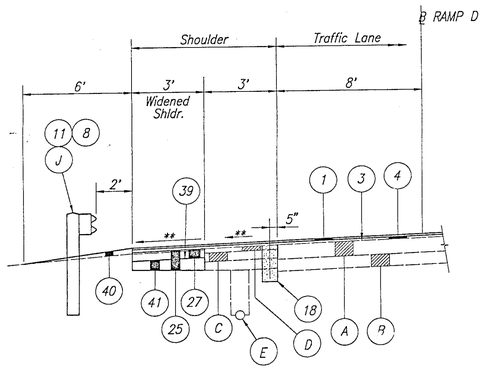
TYPICAL SECTIONS

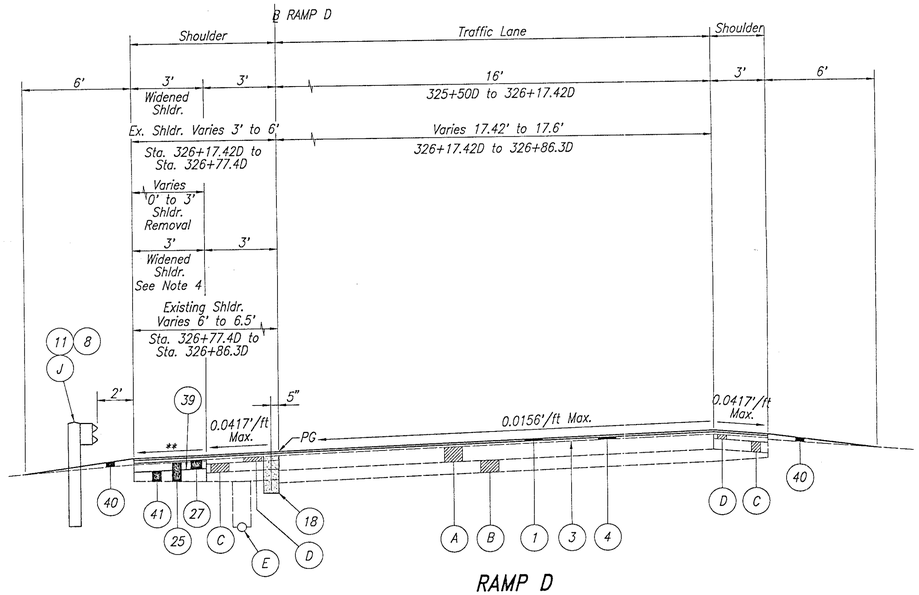
TYPE 446

CALC. BY DLD DATE 10-17-94
CHKD. BY PWP DATE 12-13-94
HAM-71-2.92
OHIO
FHWA REGION 5
23
615



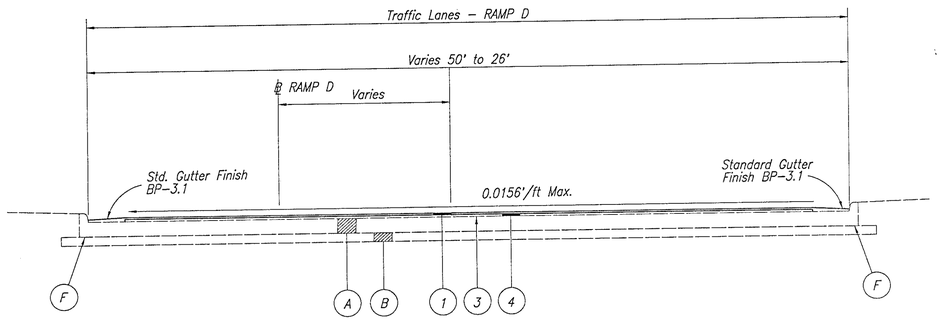
RAMP D SHOULDER DETAIL

Sta. 321+27.90D to Sta. 321+90.00D



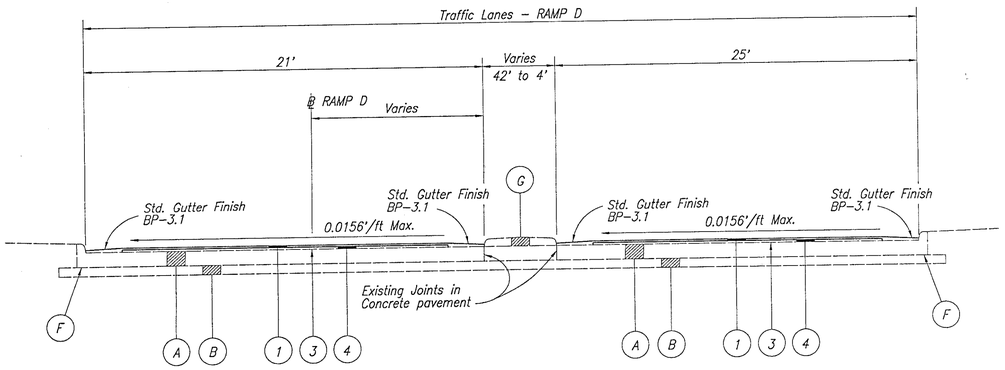
RAMP D

Sta. 325+50D to Sta. 326+86.3D = 136.30'
For Continuation of Pavement, See Mainline Typical Section, Sheet 9.



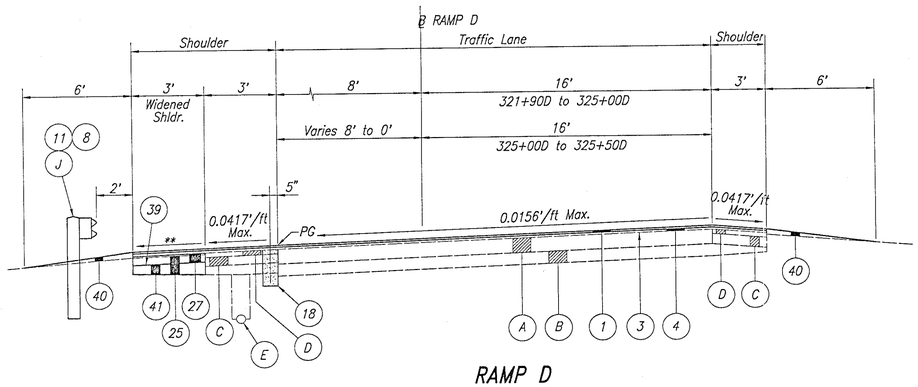
RAMP D

Sta. 321+08.7D to Sta. 321+90.00D = 81.30'



RAMP D

Sta. 320+31.64D to Sta. 320+61.64D See Plan Sheets = 30.00'
Sta. 320+61.64D to Sta. 321+08.7D = 47.06'



RAMP D

Sta. 321+90D to Sta. 325+50D = 360.00'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.

SYMBOL LEGEND

PG – Profile Grade

RAMP D (WILLIAMS AVENUE)

TYPICAL SECTIONS

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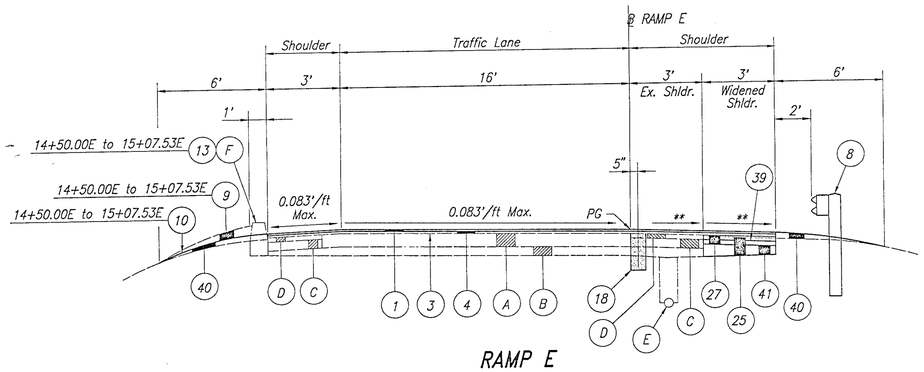
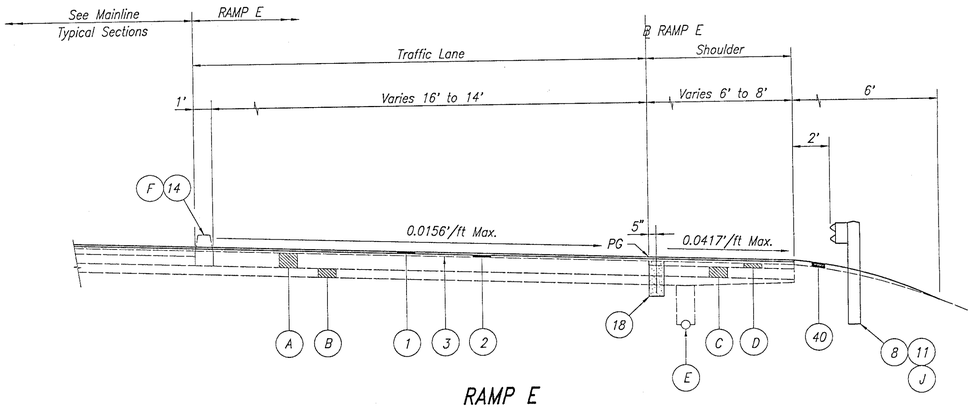
TYPICAL SECTIONS

TYPE 446



RAMP E

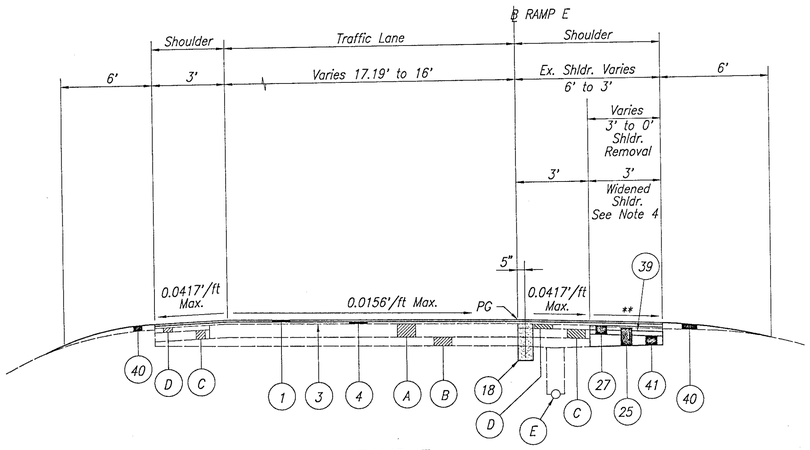
Sta. 7+99.73E to Sta. 15+07.53E = 707.80'



RAMP E

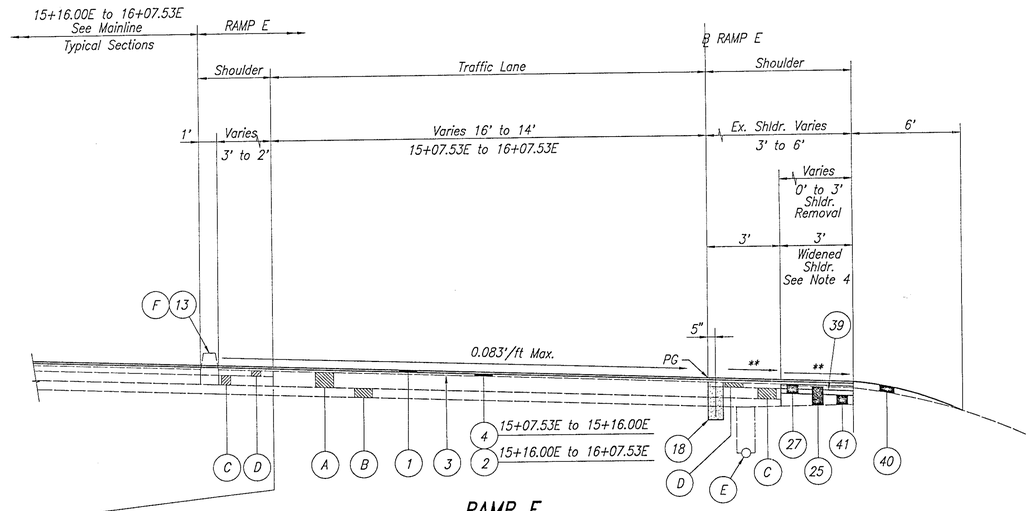
Sta. 16+07.53E to Sta. 17+07.53E = 100.00'

For Continuation of Pavement, See Mainline Typical Section, Sheet 11.



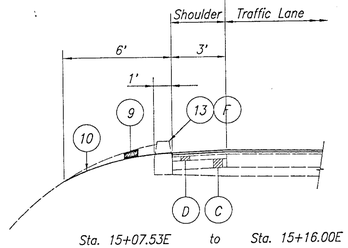
RAMP E

Sta. 3+79.31E to Sta. 7+40.00E See NORWOOD LATERAL and RAMP K Typical Sections, Sheet 40.
Sta. 7+40.00E to Sta. 7+99.73E = 59.73'



RAMP E

Sta. 15+07.53E to Sta. 16+07.53E = 100.00'



Sta. 15+07.53E to Sta. 15+16.00E

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMP E (NORWOOD LATERAL)

TYPICAL SECTIONS

CALC. BY DJB DATE 10-17-94
CHKD. BY PWP DATE 12-13-94

HAM-71-2.92

OHIO FHWA REGION 5

24/615

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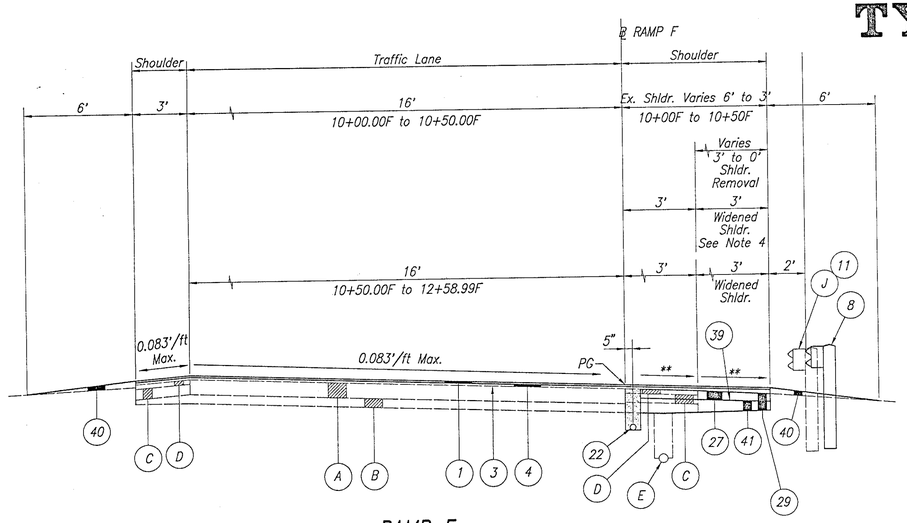
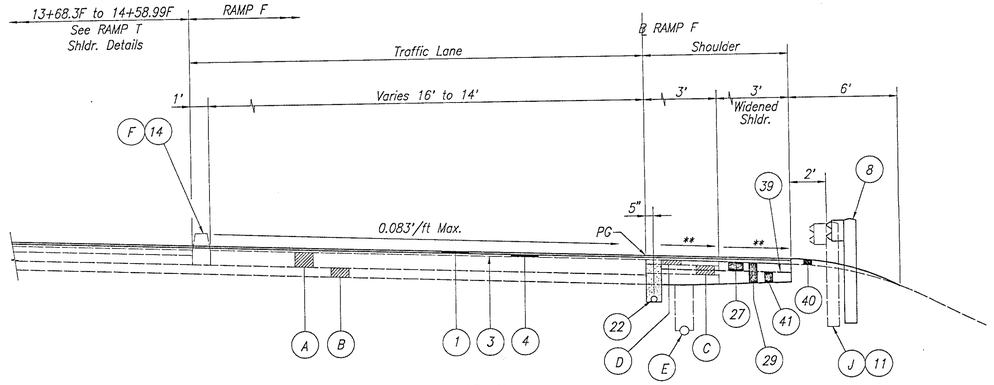
TYPICAL SECTIONS

TYPE 446



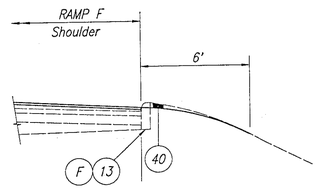
RAMP F

Sta. 10+00.00F to Sta. 12+58.99F = 258.99'

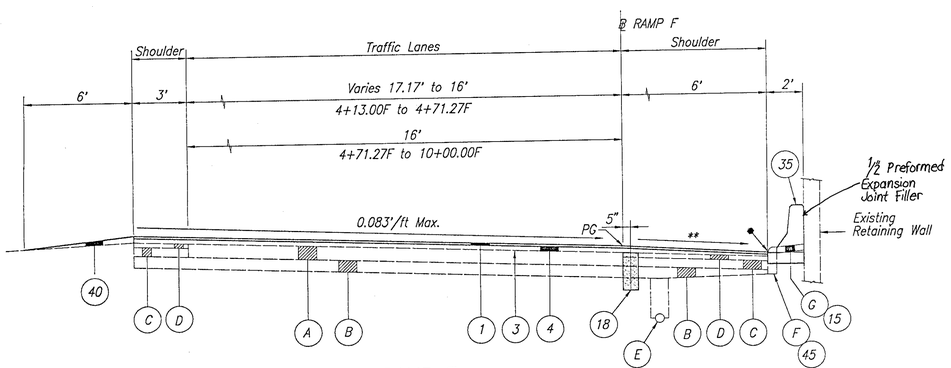


RAMP F

Sta. 13+58.99F to Sta. 13+64.30F = 5.31'
Sta. 13+64.30F to Sta. 14+58.99F (OpHd) = 94.69'
For Continuation of Pavement, See RAMP T Typical Sections, Sheet 33.

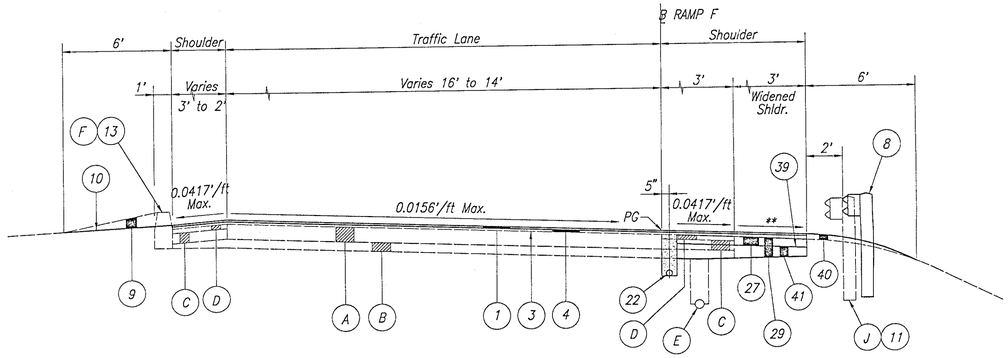


Sta. 7+50F to Sta. 10+00.00F



RAMP F

Sta. 0+00.00F to Sta. 4+13.00F, See Mainline Typical Section, Sheet 11 = 413.00'
Sta. 4+13.00F to Sta. 10+00.00F = 587.00'



RAMP F

Sta. 12+58.99F to Sta. 13+58.99F = 100.00'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

- • Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMP F (NORWOOD LATERAL)

TYPICAL SECTIONS

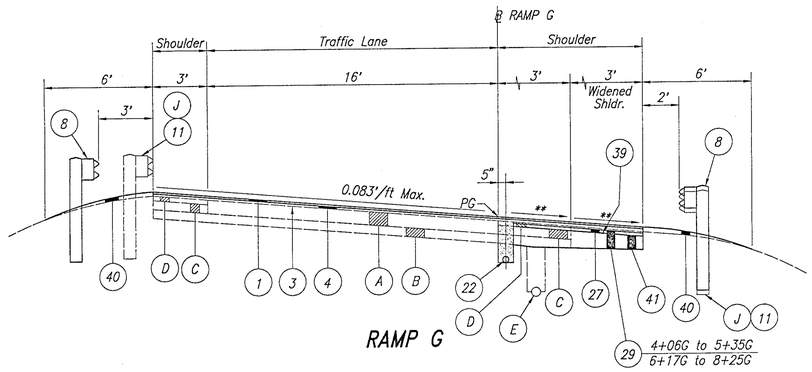
TYPICAL SECTIONS

TYPE 446

CALC. BY RAD DATE 12-17-94
CHKD. BY RWP DATE 12-13-94

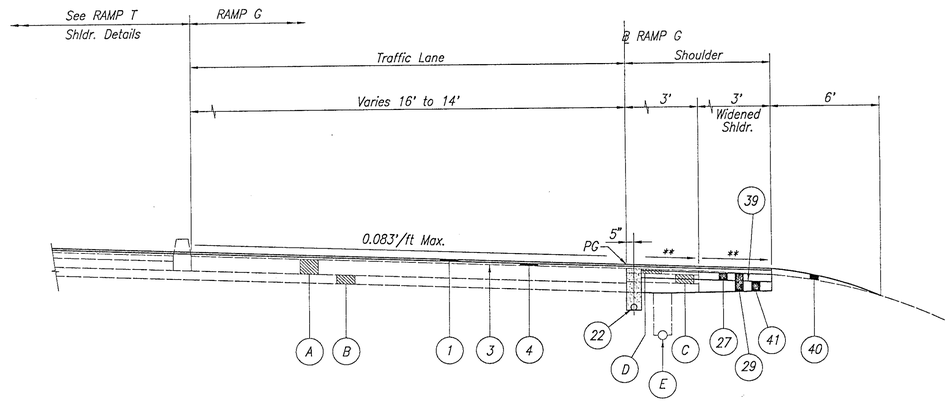
HAM-71-2.92

OHIO
FHWA REGION 5



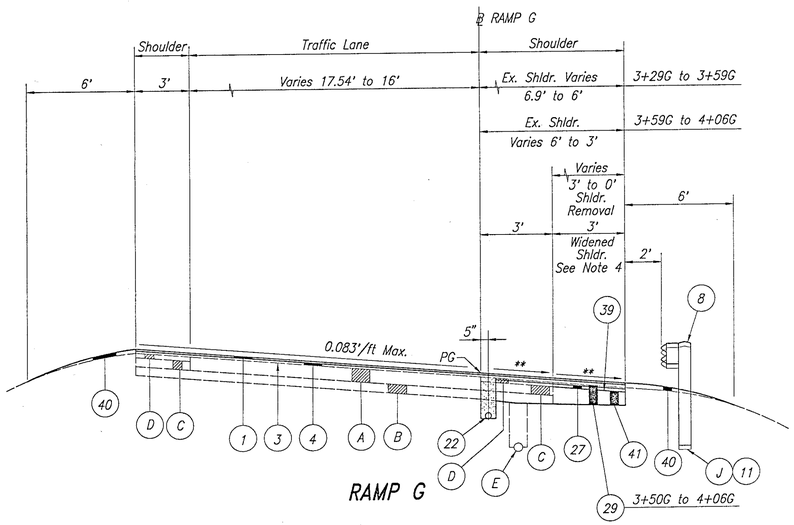
RAMP G

Sta. 4+06.00G to Sta. 5+24.04G = 118.04'
Sta. 5+24.04G to Sta. 6+34.27G (Bridge & Approach HAM-71-0815S) = 110.23'
Sta. 6+34.27G to Sta. 8+25G = 190.73'



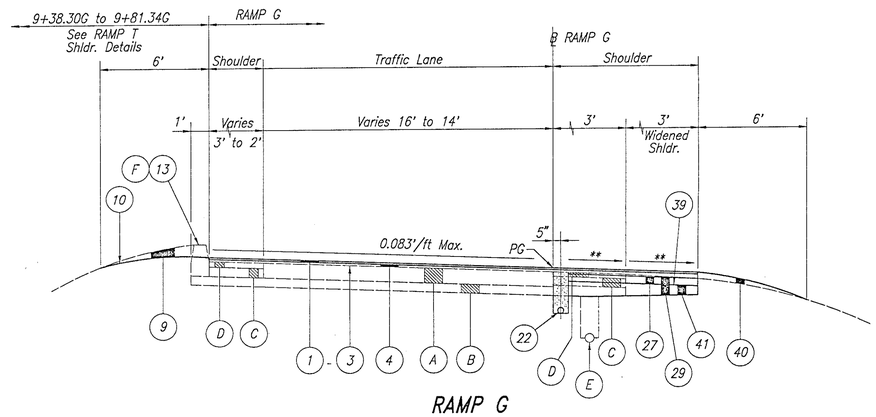
RAMP G

Sta. 9+81.34G to Sta. 10+81.34G = 100.00'
For Continuation of Pavement, See RAMP T Typical Section, Sheet 33.



RAMP G

Sta. 0+00.00G to Sta. 3+29.00G, See Mainline Typical Section, Sheet 11 = 329.00'
Sta. 3+29.00G to Sta. 4+06.00G = 77.00'



RAMP G

Sta. 8+25G to Sta. 9+81.34G = 156.34'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMP G (NORWOOD LATERAL)
TYPICAL SECTIONS

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CALC. BY DCB DATE 10-17-94
CHKD. BY PWP DATE 1-5-95

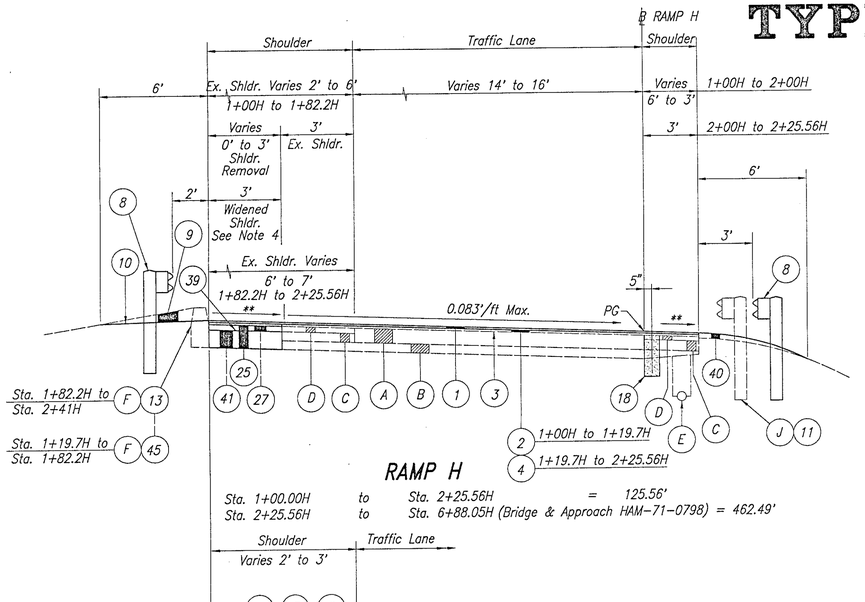
HAM-71-2.92

OHIO FHWA REGION 5

27/615

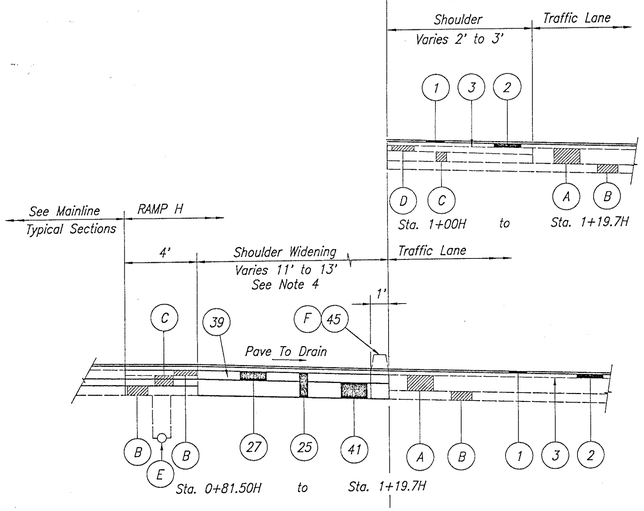
TYPICAL SECTIONS

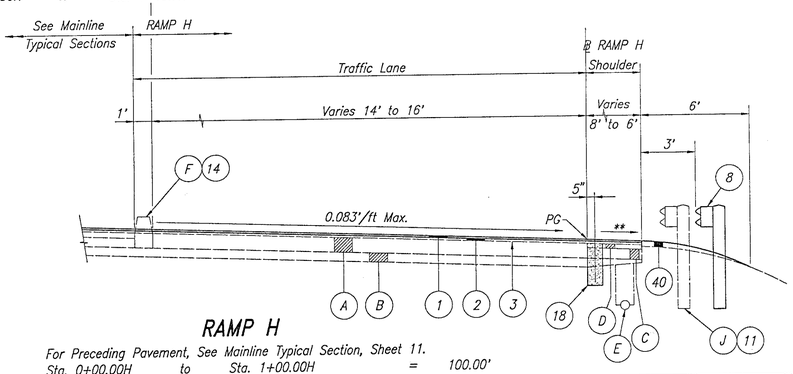
TYPE 446



RAMP H

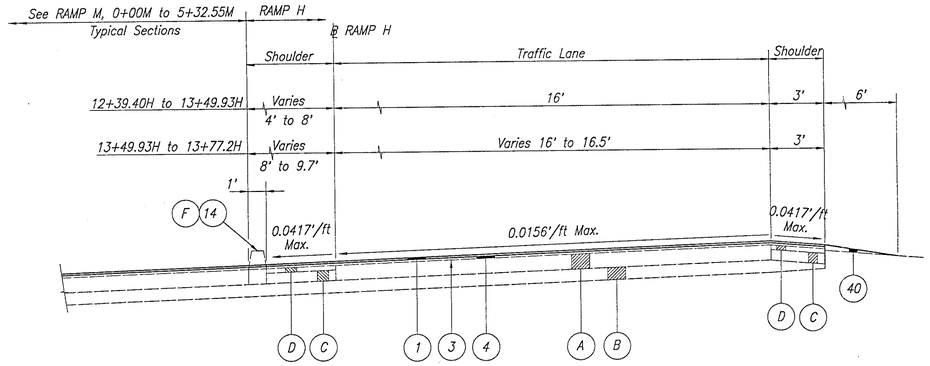
Sta. 1+00.00H to Sta. 2+25.56H = 125.56'
Sta. 2+25.56H to Sta. 6+88.05H (Bridge & Approach HAM-71-0798) = 462.49'





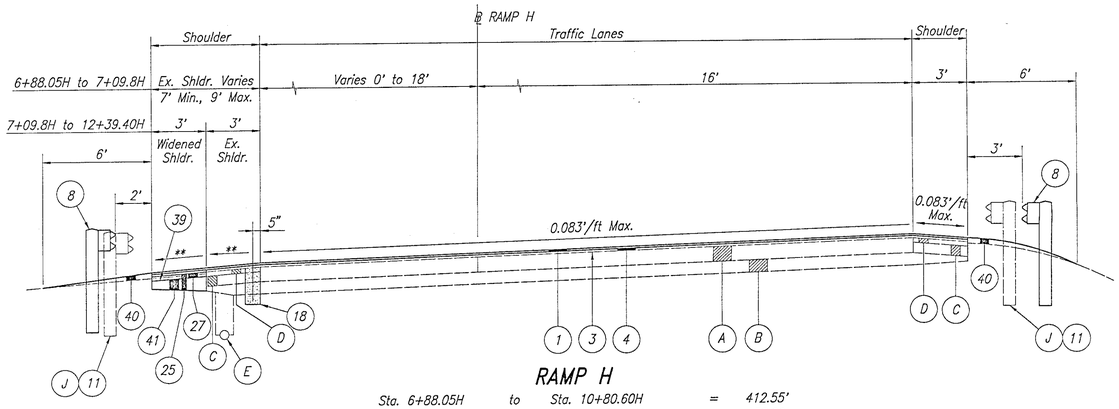
RAMP H

For Preceding Pavement, See Mainline Typical Section, Sheet 11.
Sta. 0+00.00H to Sta. 1+00.00H = 100.00'



RAMP H

Sta. 12+39.40H to Sta. 13+77.2H = 137.80



RAMP H

Sta. 6+88.05H to Sta. 10+80.60H = 412.55'
Sta. 10+80.60 to Sta. 12+39.40H = 158.80'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMP H (NORWOOD LATERAL & BARROW AVENUE)
TYPICAL SECTIONS

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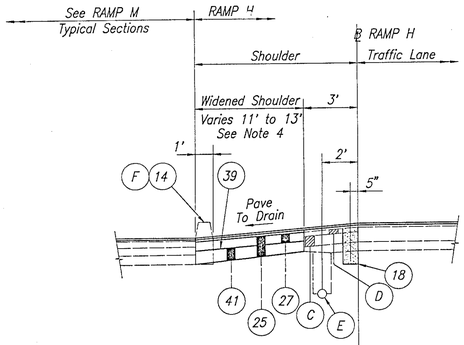
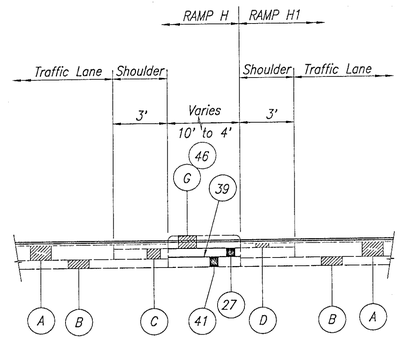
TYPICAL SECTIONS

TYPE 446

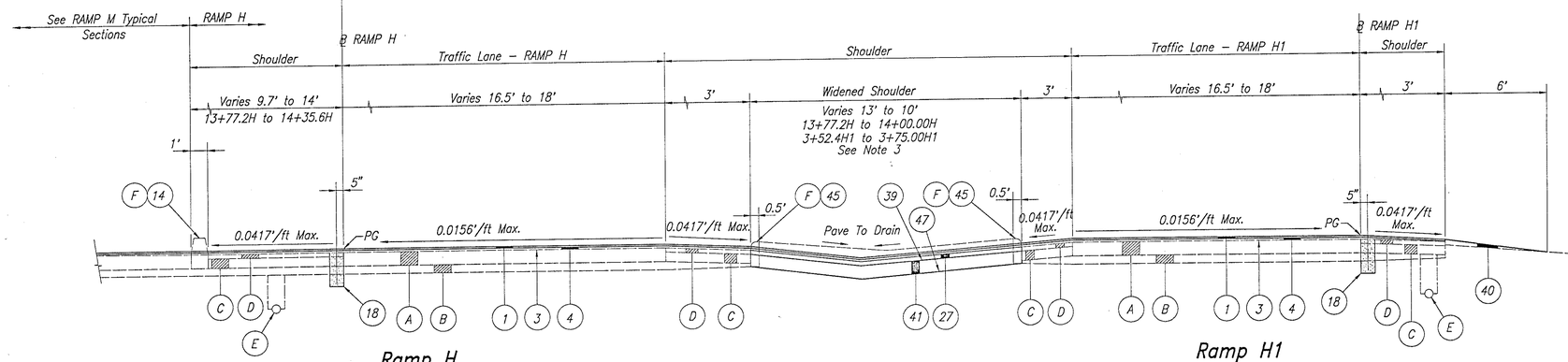


Sta. 14+35.6H to Sta. 14+52.7H



Sta. 14+00.00H to Sta. 14+49.93H

Sta. 3+75.00H1 to Sta. 4+24.86H1

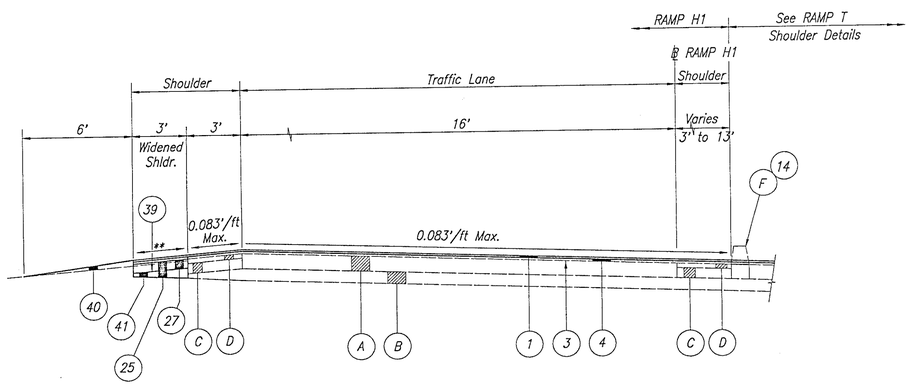


Ramp H

Sta. 13+77.2H to Sta. 14+49.93H = 72.73'

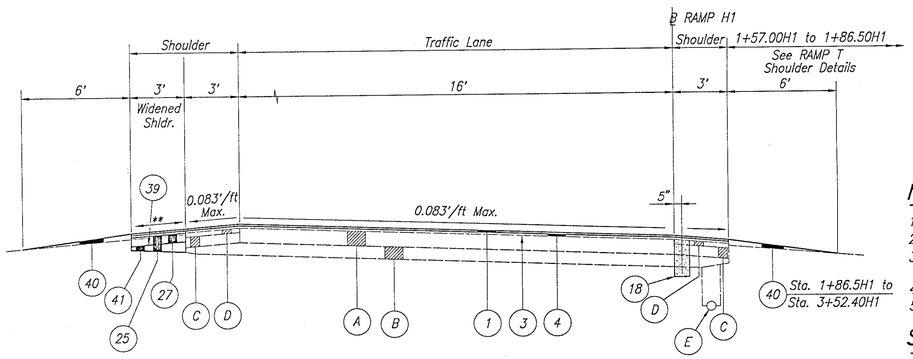
Ramp H1

Sta. 3+52.4H1 to Sta. 4+24.86H1 = 72.46'



Ramp H1

Sta. 0+00.00H1 to Sta. 1+57.00H1 = 157.00'



Ramp H1

Sta. 1+57.00H1 to Sta. 3+52.40H1 = 195.40'

NOTES

1) For Legend, See Sheet 6.
2) For Underdrain Locations, See Plan Sheets.
3) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.
4) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.
5) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMPS H and H1 (NORWOOD LATERAL & BARROW AVENUE)

TYPICAL SECTIONS

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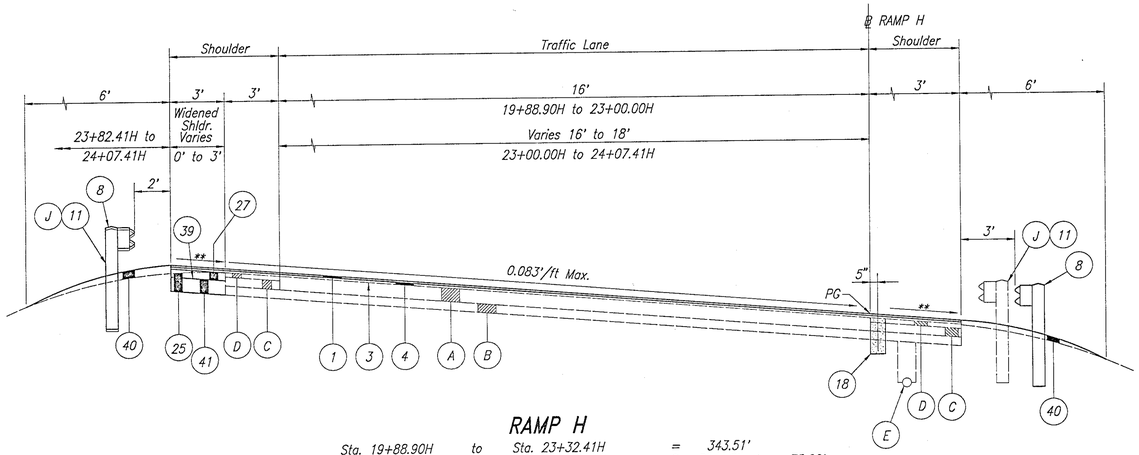
CALC. BY DO DATE 12-17-94	HAM-71-2.92	OHIO
CHKD. BY PWP DATE 1-5-95		FHWA REGION 5

29
615

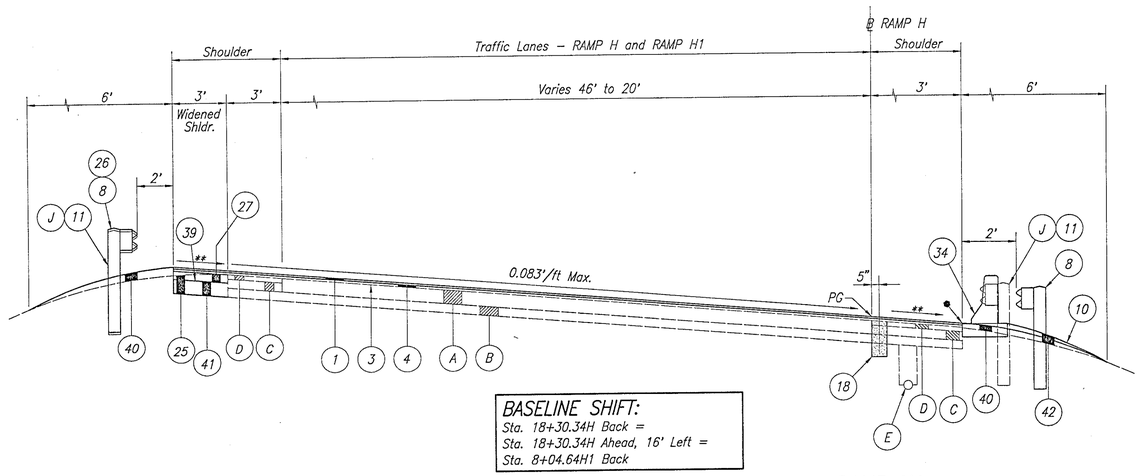
TYPICAL SECTIONS

TYPE 446



RAMP H

Sta. 19+88.90H to Sta. 23+32.41H = 343.51'
Sta. 23+32.41H to Sta. 24+07.41H See Plan Sheets = 75.00'



BASELINE SHIFT:
Sta. 18+30.34H Back =
Sta. 18+30.34H Ahead, 16' Left =
Sta. 8+04.64H1 Back

RAMP H

Sta. 14+49.93H to Sta. 17+64H ± = 314' ±
Sta. 7+35.57H1 to Sta. 19+98.90H (Bridge & Approach HAM-71-0838S) = 1263.33'

RAMP H1

Sta. 4+24.86H1 to Sta. 7+35.57H1 = 310.71'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail And Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.

SYMBOL LEGEND

- Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMPS H and H1 (NORWOOD LATERAL & BARROW AVENUE)

TYPICAL SECTIONS

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TYPICAL SECTIONS

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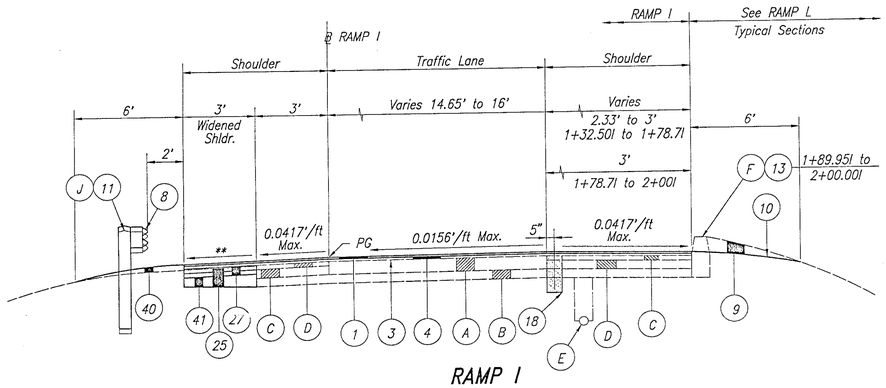
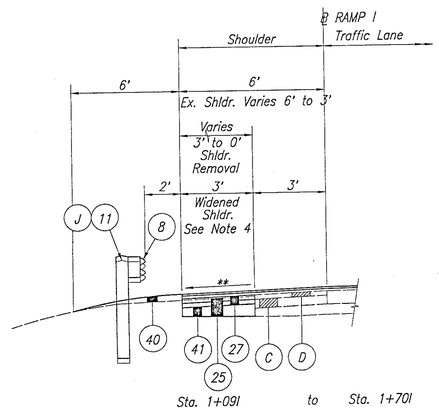
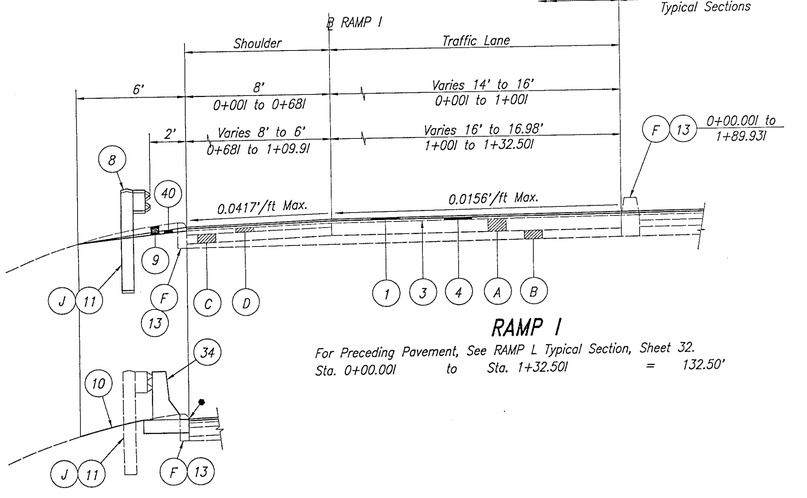


RAMP I

Sta. 1+32.50I to Sta. 2+00.00I = 67.50'

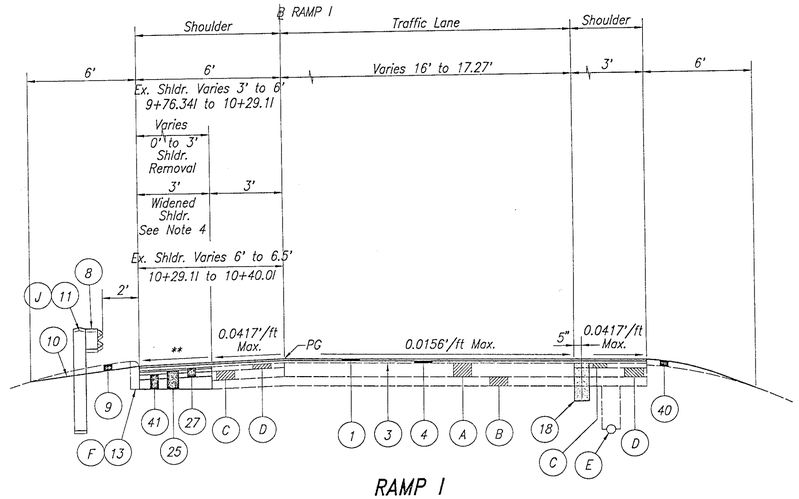


Sta. 1+09I to Sta. 1+70I



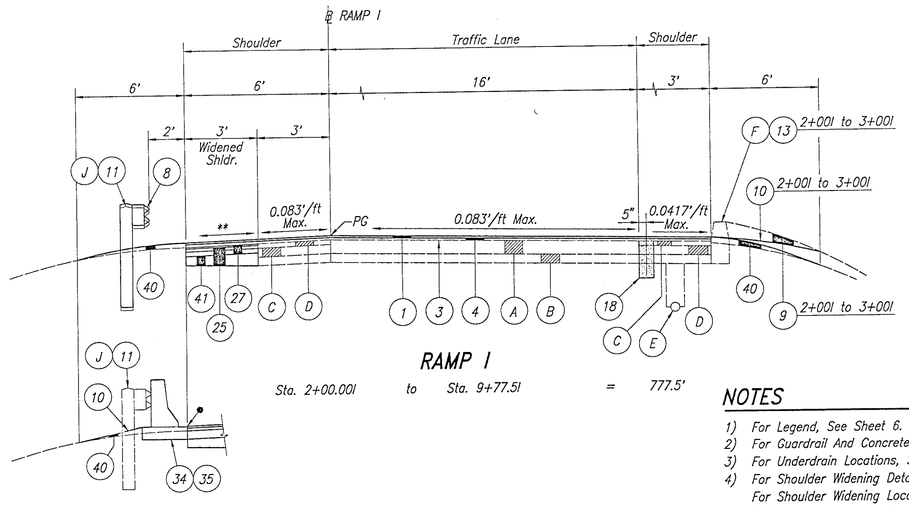
RAMP I

For Preceding Pavement, See RAMP L Typical Section, Sheet 32.
Sta. 0+00.00I to Sta. 1+32.50I = 132.50'



RAMP I

Sta. 9+77.5I to Sta. 10+40.00I = 62.5'
Sta. 10+40.00I to 13+99.69I, See Mainline Typical Section, Sheet 11 = 359.69'



RAMP I

Sta. 2+00.00I to Sta. 9+77.5I = 777.5'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail And Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

- Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMP I (NORWOOD LATERAL)

TYPICAL SECTIONS

CALC. BY DD DATE 10-17-94
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

OHIO
FHWA REGION 5

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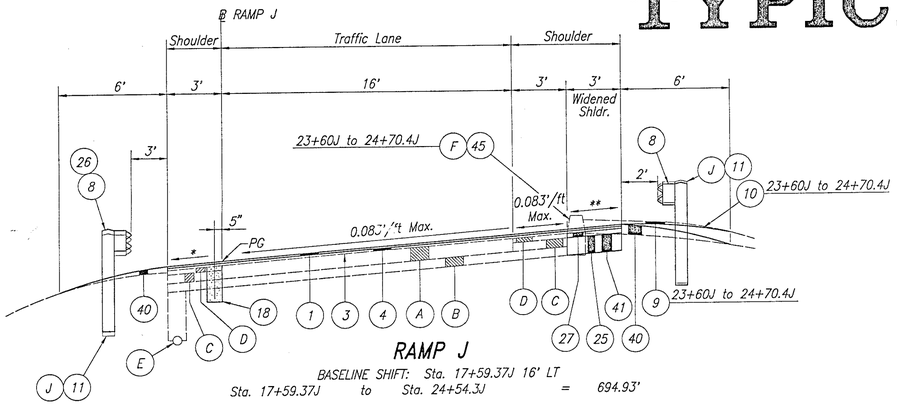
TYPICAL SECTIONS

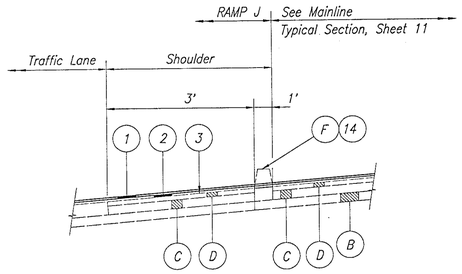
TYPE 446



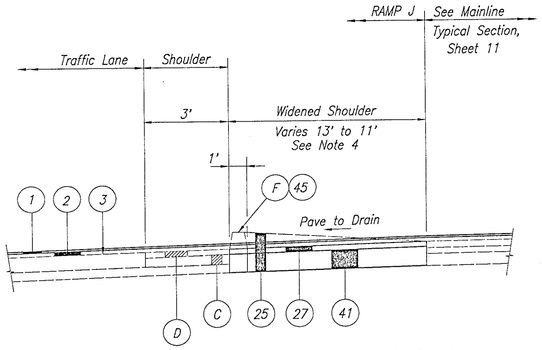
RAMP J

BASELINE SHIFT: Sta. 17+59.37J 16' LT

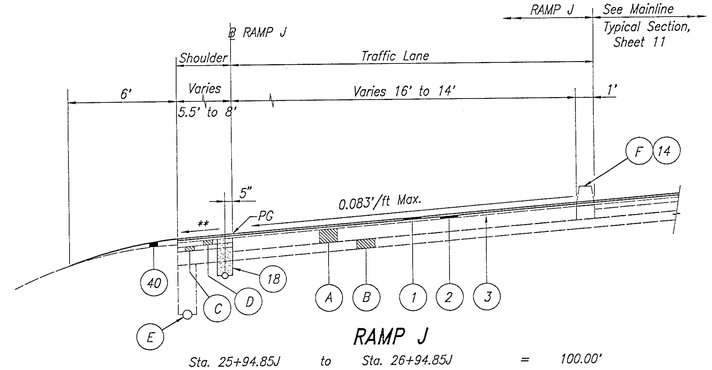
Sta. 17+59.37J to Sta. 24+54.3J = 694.93'



Sta. 24+70.4J to Sta. 24+94.85J

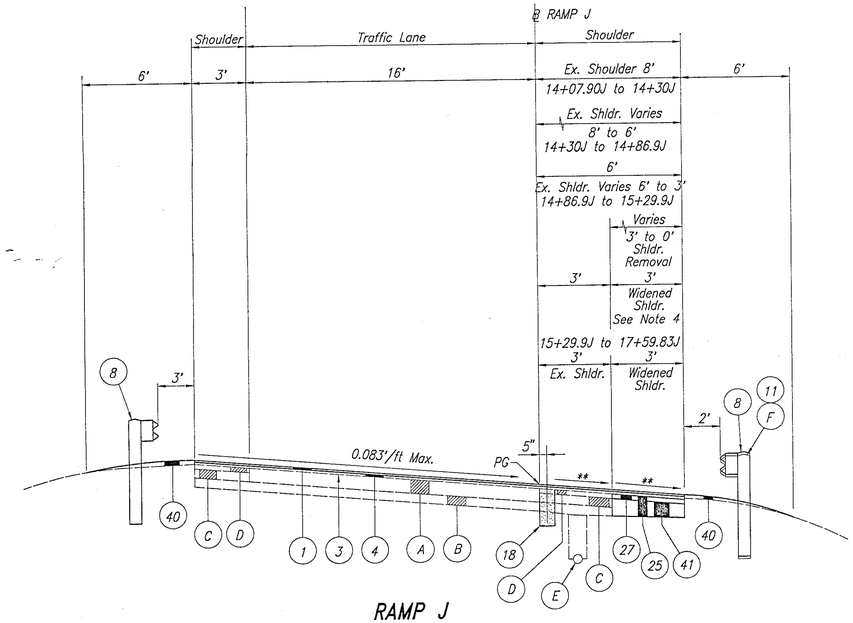


Sta. 24+54.30J to Sta. 24+70.40J



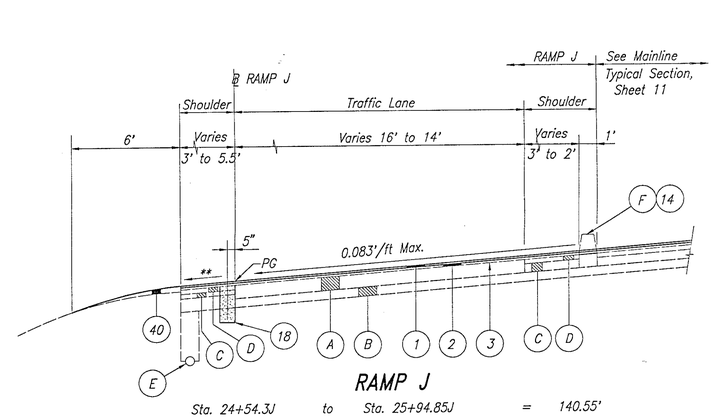
RAMP J

Sta. 25+94.85J to Sta. 26+94.85J = 100.00'



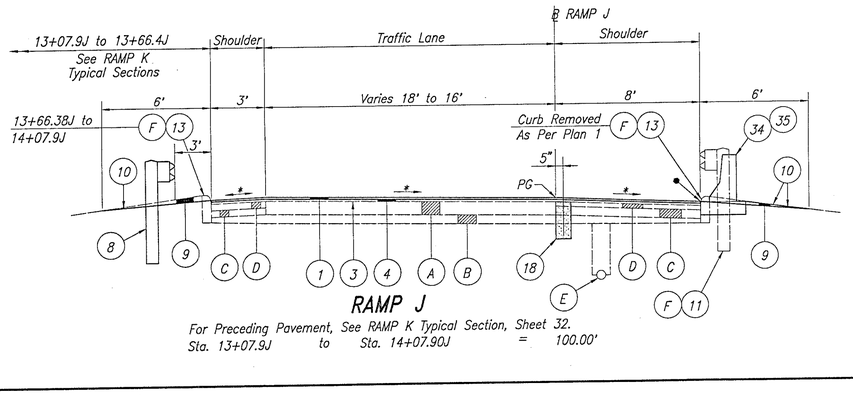
RAMP J

Sta. 14+07.90J to Sta. 17+59.37J = 351.47'



RAMP J

Sta. 24+54.3J to Sta. 25+94.85J = 140.55'



RAMP J

For Preceding Pavement, See RAMP K Typical Section, Sheet 32.

Sta. 13+07.9J to Sta. 14+07.90J = 100.00'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

- • Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

** – Match Existing Shoulder Cross Slope

RAMP J (NORWOOD LATERAL)

TYPICAL SECTIONS

CALC. BY TCB DATE 10-17-97
CHKD. BY PWP DATE 1-5-98

HAM-71-2.92

OHIO FHWA REGION 5

31/615

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TYPICAL SECTIONS

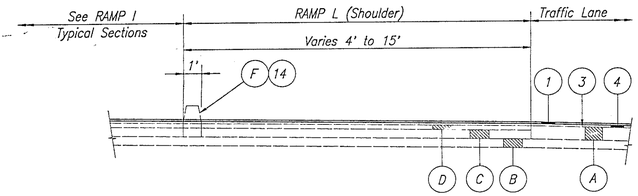
TYPE 446

CALC. BY RP DATE 1-4-95
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

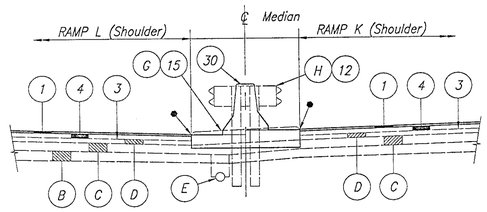
OHIO FHWA REGION 5

32/615



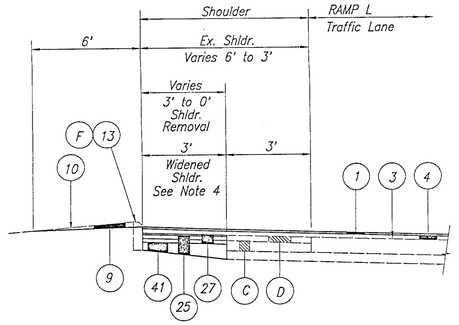
Sta. 16+48.88L to Sta. 18+36.0L

RAMP L



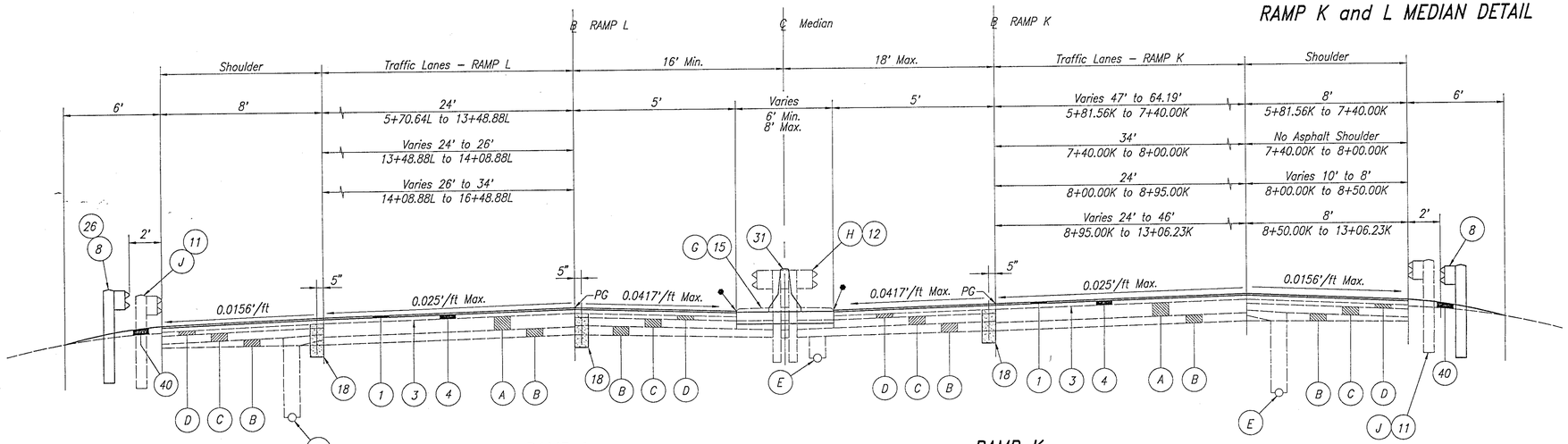
Sta. 19+00K to Sta. 22+56.36K

RAMP K and L MEDIAN DETAIL



Sta. 19+50L to Sta. 20+50L

RAMP L

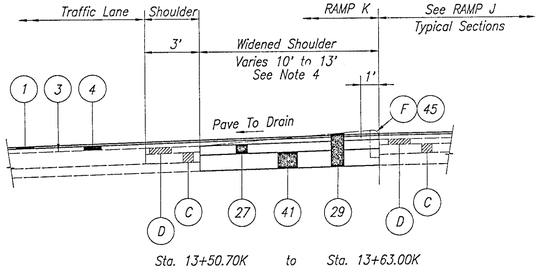


RAMP L

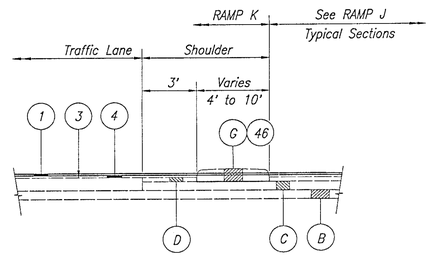
RAMP K

For Preceding Pavement, See NORWOOD LATERAL Typical Sections, Sheet 40.
Sta. 5+70.64L to Sta. 16+48.88L = 1078.24'

For Preceding Pavement, See NORWOOD LATERAL Typical Sections, Sheet 40.
Sta. 5+81.56K to Sta. 13+06.23K = 724.67'

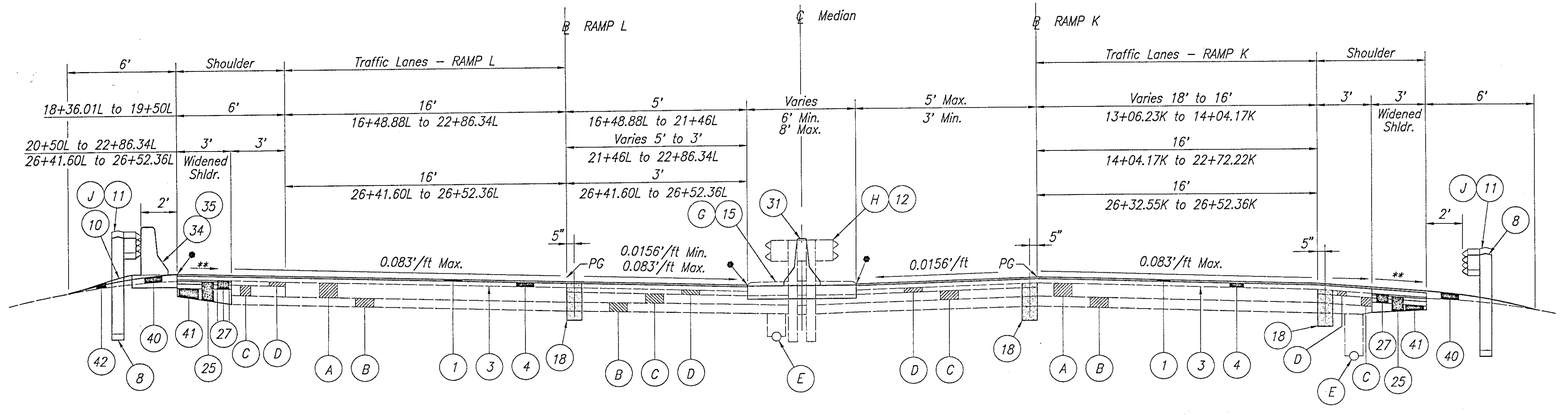


Sta. 13+50.70K to Sta. 13+63.00K



Sta. 13+06.23K to 13+50.70K

RAMP K



RAMP L

RAMP K

Sta. 16+48.88L to Sta. 22+86.34L = 637.46'
Sta. 22+86.34L to Sta. 26+41.60L Bridge & Approach (HAM-71-0799R) = 355.26'
Sta. 26+41.60L to Sta. 26+52.36 OpHd = 10.76'
For Continuation of Pavement, See RAMP T Typical Sections, Sheet 33.

Sta. 13+06.23K to Sta. 22+72.22K = 965.99'
Sta. 22+72.22K to Sta. 26+32.55K Bridge & Approach (HAM-71-0799R) = 360.33'
Sta. 26+32.55K to Sta. 26+52.36K OpHd = 19.81'
For Continuation of Pavement, See RAMP T Typical Sections, Sheet 33.

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.
7) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

- • Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMPS K and L (NORWOOD LATERAL)

TYPICAL SECTIONS

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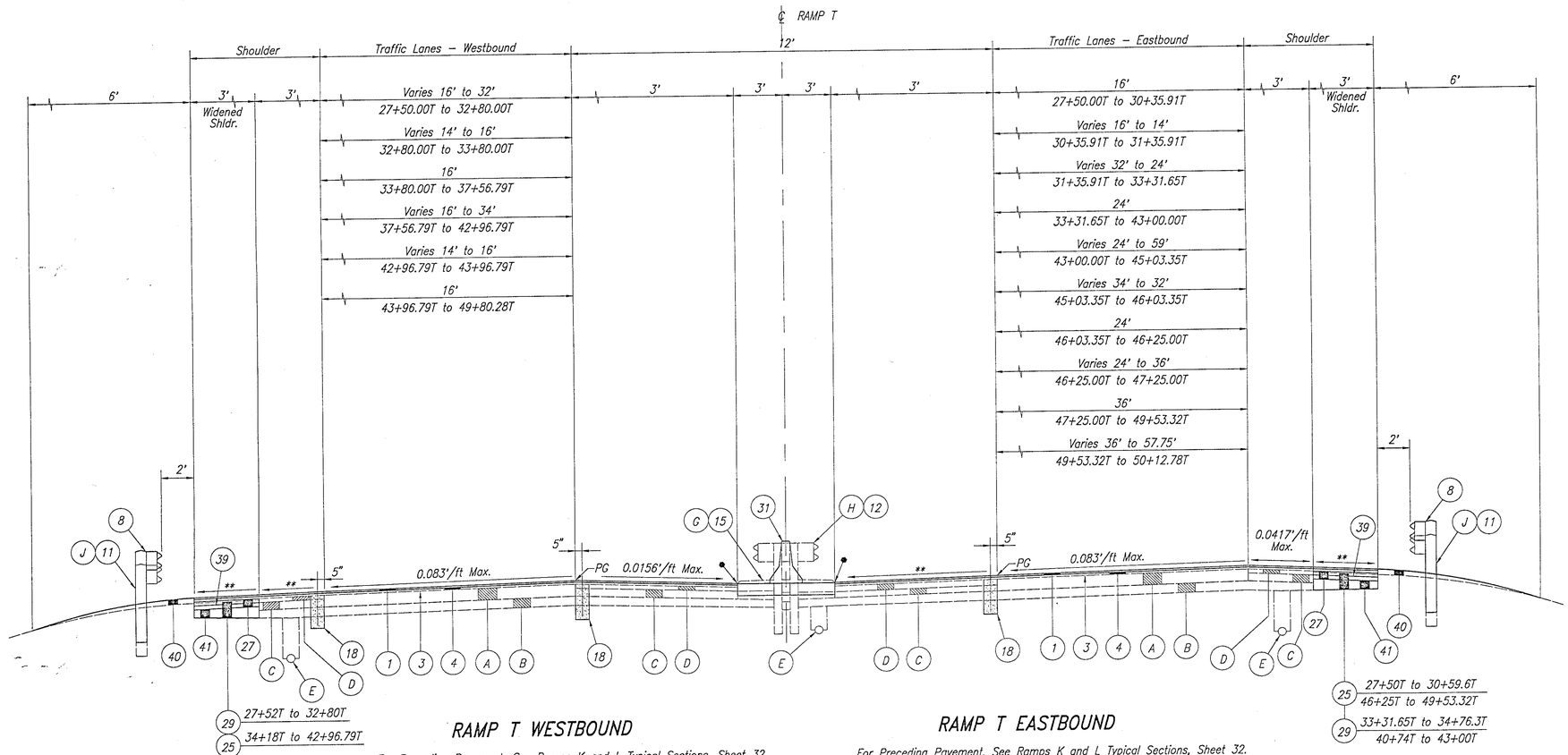
TYPICAL SECTIONS

TYPE 446



RAMP T WESTBOUND

For Preceding Pavement, See Ramps K and L Typical Sections, Sheet 32.

Sta. 27+50.00T	to	Sta. 37+68.84T	=	1018.84'
Sta. 37+68.84T	to	Sta. 46+13.79T OpHd	=	844.95'
Sta. 46+13.79T	to	Sta. 49+80.28T	=	366.49'

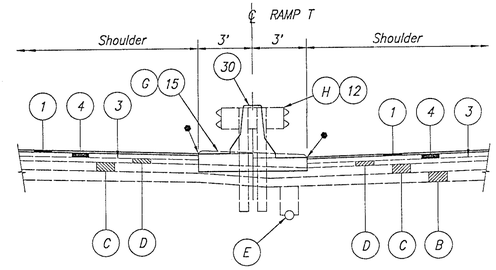
*For Continuation of Pavement, See Ramp T1 Plan Sheets, Sht. No. **

RAMP T EASTBOUND

For Preceding Pavement, See Ramps K and L Typical Sections, Sheet 32.

Sta. 27+50.00T	to	Sta. 37+68.81T	=	1018.81'
Sta. 37+68.81T	to	Sta. 45+22.99T OpHd	=	754.18'
Sta. 45+22.99T	to	Sta. 50+12.78T	=	489.79'
Sta. 50+12.78T	to	Sta. 50+98.50T		See Plan Sheets = 85.72'

*For Ramp T2, See Plan Sheets, Sht. No. **



Sta. 27+50T to Sta. 29+50T

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
5) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

** – Match Existing Shoulder Cross Slope

RAMP T

TYPICAL SECTIONS

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TYPICAL SECTIONS

TYPE 446

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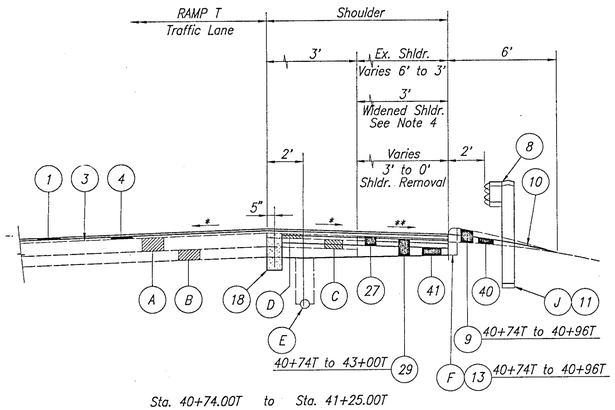
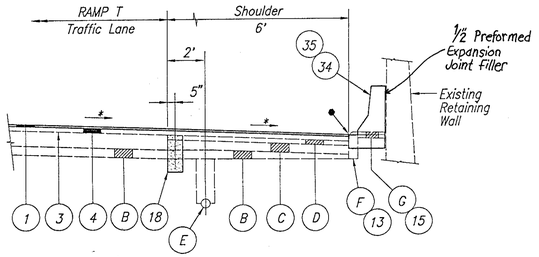
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

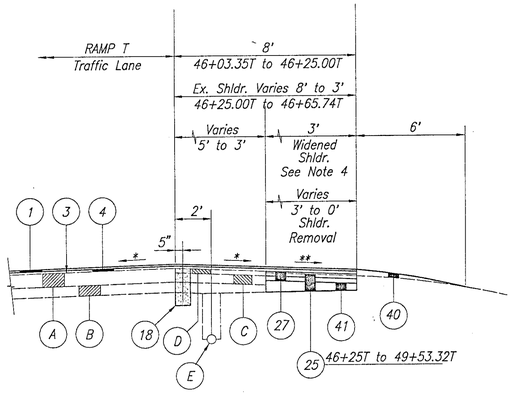
OHIO FHWA REGION 5



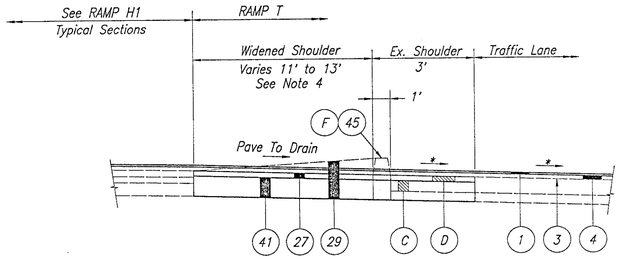
Sta. 40+74.00T to Sta. 41+25.00T



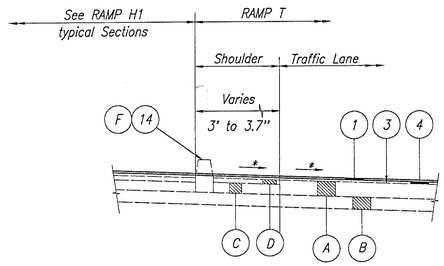
Sta. 34+76.31T to Sta. 40+74.00T



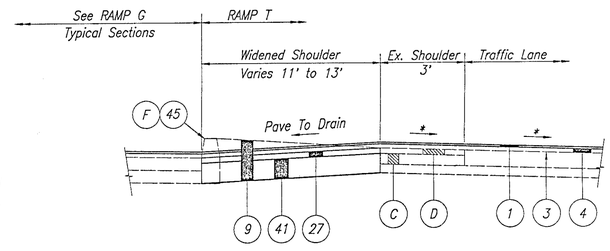
Sta. 46+03.35T to Sta. 46+65.74T



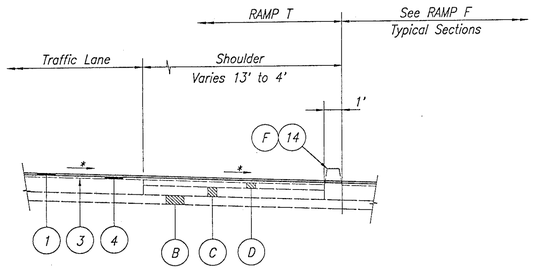
Sta. 44+52.70T to Sta. 44+82.20T



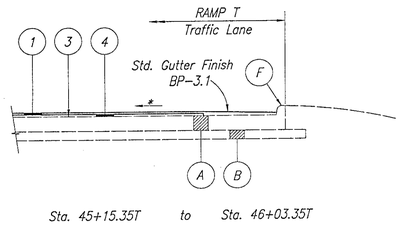
Sta. 43+96.79T to Sta. 44+52.70T



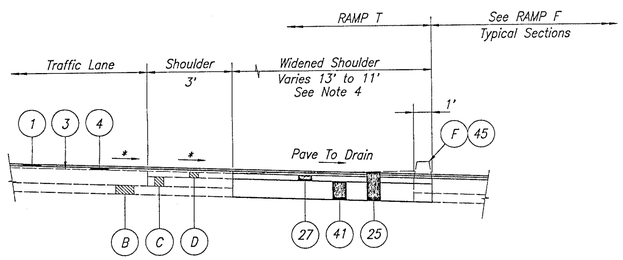
Sta. 34+18.00T to Sta. 34+33.0T



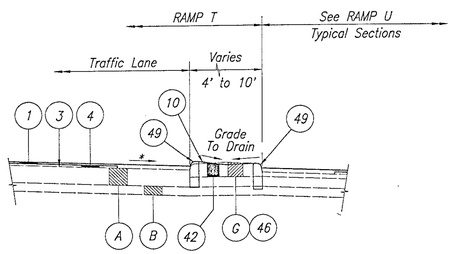
Sta. 30+59.6T to Sta. 31+35.91T



Sta. 45+15.35T to Sta. 46+03.35T

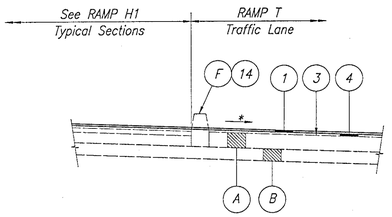


Sta. 30+51.50T to Sta. 30+59.6T

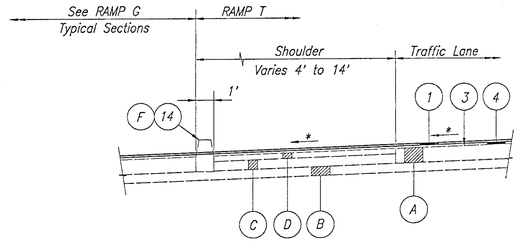


Sta. 45+03.35T to Sta. 45+15.35T

RAMP T EASTBOUND SHOULDER DETAILS



Sta. 42+96.79T to Sta. 43+96.79T



Sta. 32+80.00T to Sta. 34+18.00T

RAMP T WESTBOUND SHOULDER DETAILS

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41. For Shoulder Widening Locations, See Plan Sheets.
5) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
6) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.
7) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

- • Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.
- * – See Pavement Slopes, Sheet 33.
- ** – Match Existing Shoulder Cross Slope

RAMP T EASTBOUND & WESTBOUND SHOULDER DETAILS

TYPICAL SECTIONS

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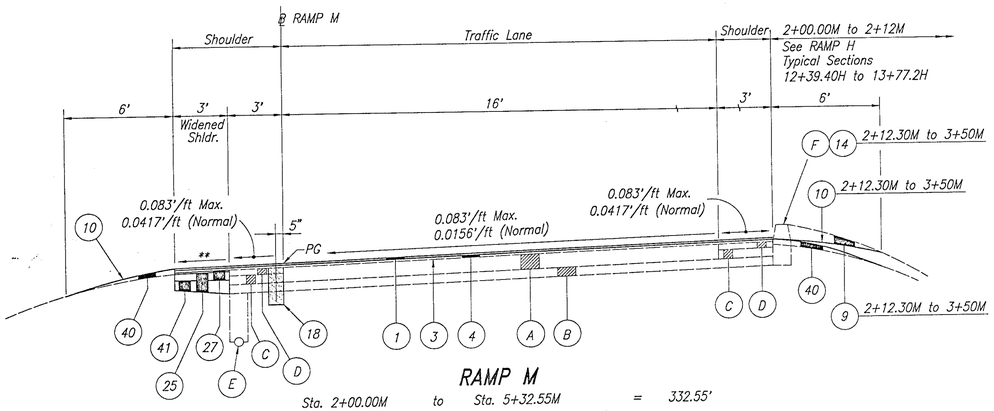
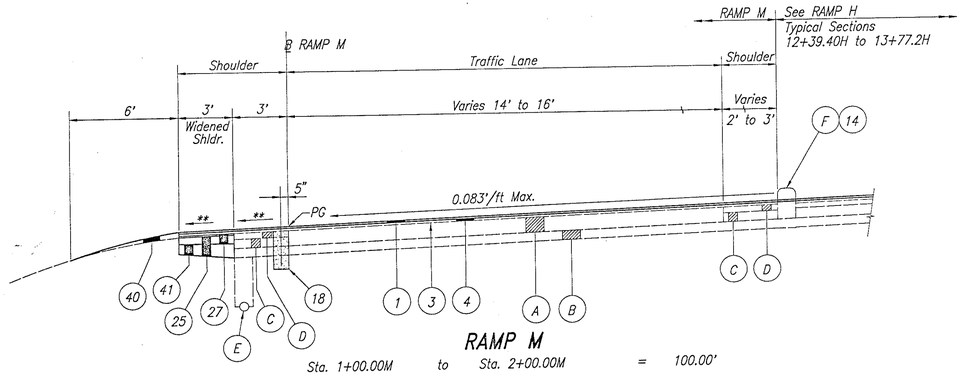
TYPICAL SECTIONS

TYPE 446



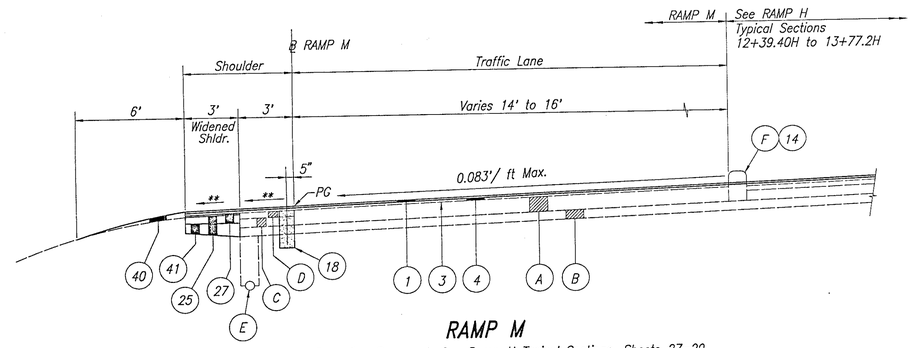
RAMP M

Sta. 2+00.00M to Sta. 5+32.55M = 332.55'



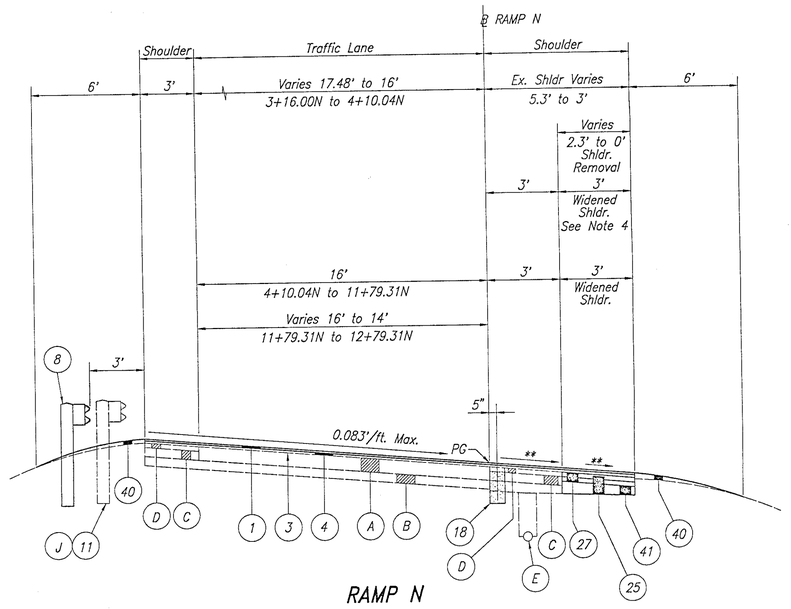
RAMP M

Sta. 1+00.00M to Sta. 2+00.00M = 100.00'



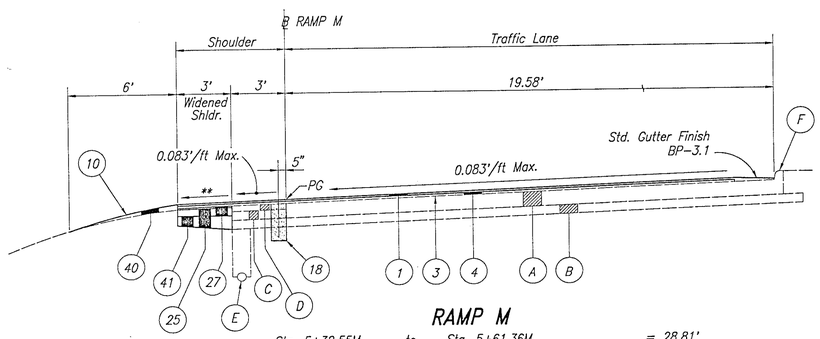
RAMP M

For Preceding Pavement, See Ramp H Typical Sections, Sheets 27-29.
Sta. 0+00M to Sta. 1+00M = 100.00'



RAMP N

Sta. 0+00.00N to Sta. 3+36.00N, See Mainline Typical Section, Sheet 10.
Sta. 3+36.00N to Sta. 12+79.31N = 943.31'
Sta. 12+79.31N to Sta. 14+72.95N See Plan Sheets = 193.64'(Feathering)



RAMP M

Sta. 5+32.55M to Sta. 5+61.36M = 28.81'
Sta. 5+61.36M to Sta. 6+50.00M See Plan Sheets = 88.64' (Feathering)

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

NOTES

1) For Legend, See Sheet 6.
2) For Underdrain Locations, See Plan Sheets.
3) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.
4) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
5) For Underdrain Locations, See Plan Sheets.
6) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.

RAMP M and RAMP N (RIDGE AVENUE)
TYPICAL SECTIONS

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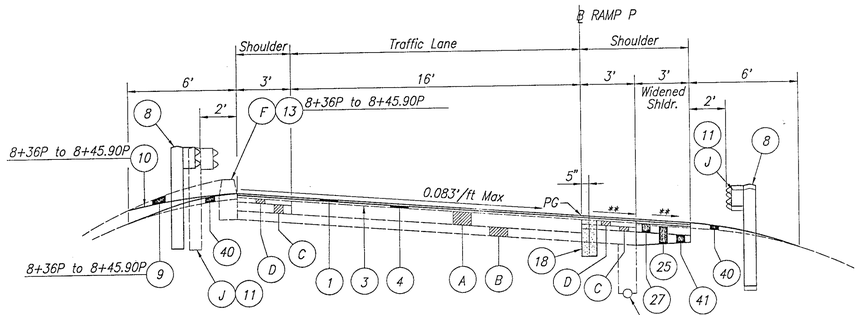
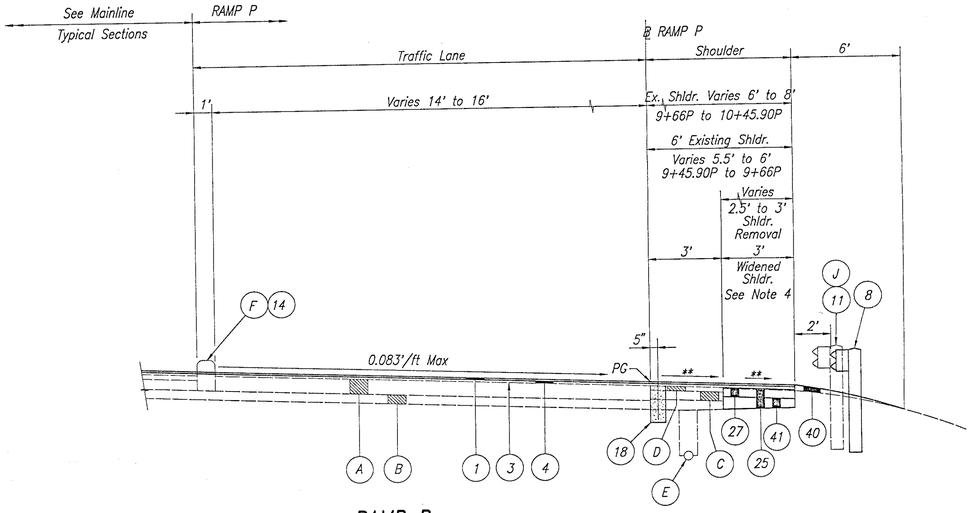
TYPICAL SECTIONS

TYPE 446



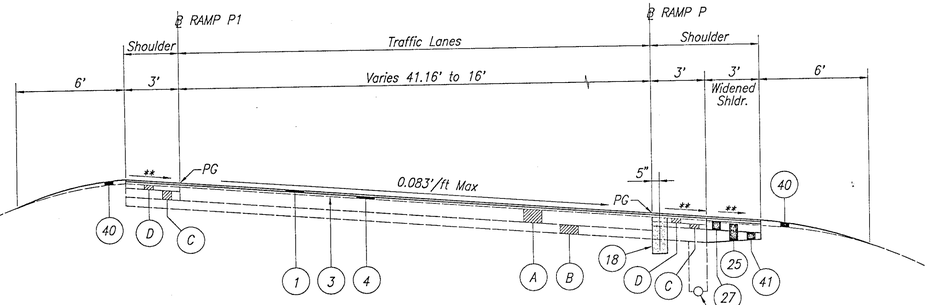
RAMP P

Sta. 6+03.37P to Sta. 8+45.90P = 242.53'



RAMP P

Sta. 9+45.90P to Sta. 10+45.90P = 100.00'
For Continuation of Pavement, See Mainline Typical Sections, Sheet 12.

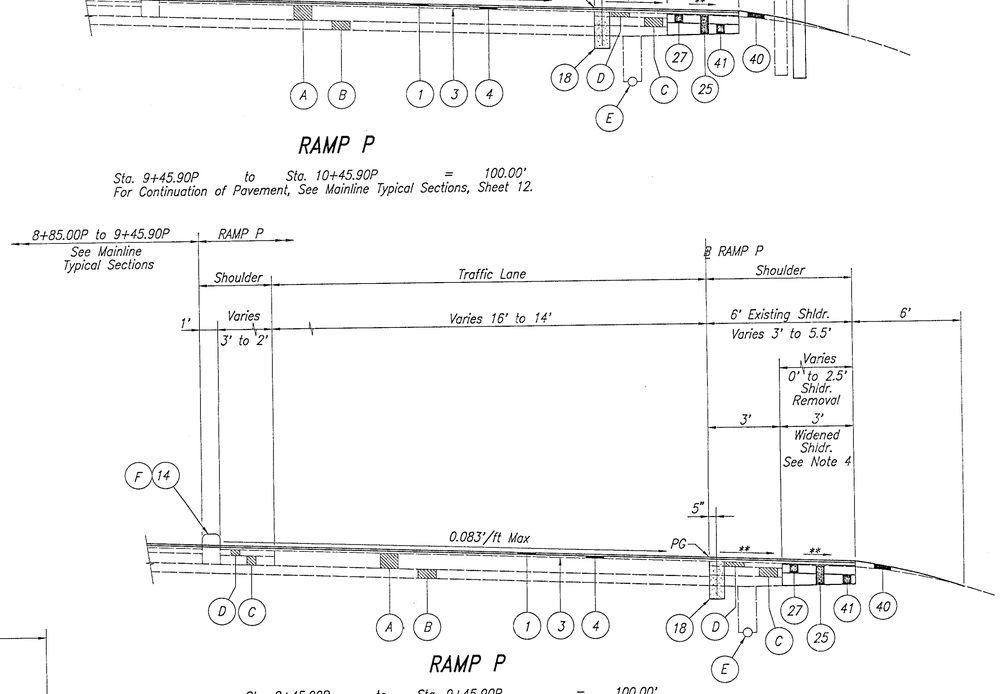


RAMP P1

Sta. 2+21.62P1 to Sta. 4+19.07P1 = 197.45'

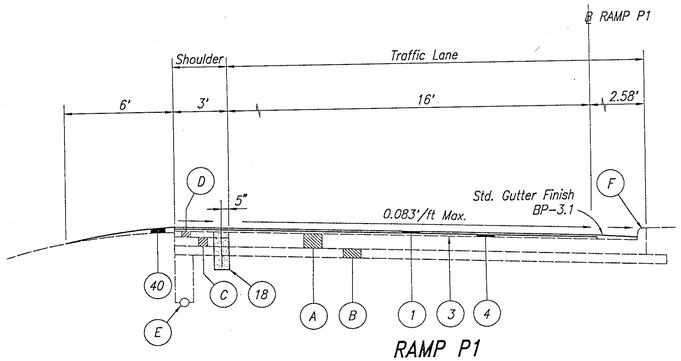
RAMP P

Sta. 4+12.66P to Sta. 6+03.37P = 190.71'



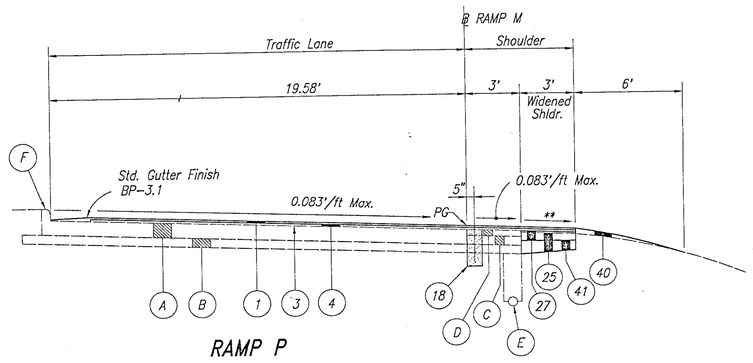
RAMP P

Sta. 8+45.90P to Sta. 9+45.90P = 100.00'



RAMP P1

Sta. 0+36.00P1 to Sta. 1+11.00P1 See Plan Sheets = 75.00' (Feathering)
Sta. 1+11.00P1 to Sta. 2+21.62P1 = 110.62'



RAMP P

Sta. 2+04.95P to Sta. 2+79.95P See Plan Sheets = 75.00'
Sta. 2+79.95P to Sta. 4+12.66P = 132.71'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMPS P and P1 (KENNEDY AVENUE)

TYPICAL SECTIONS

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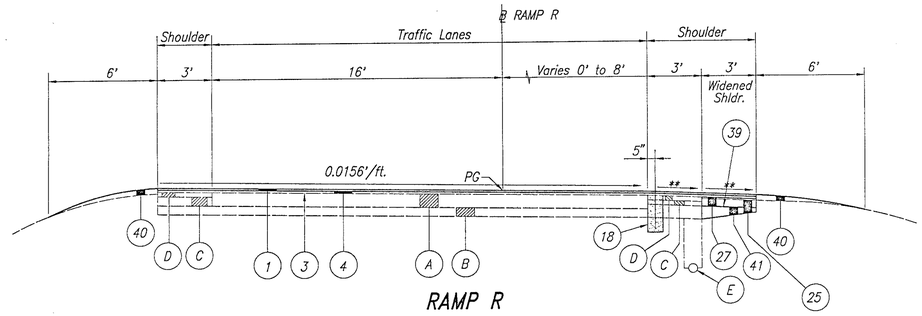
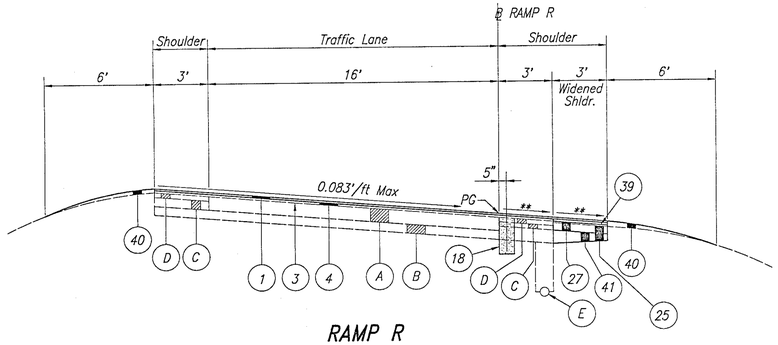
TYPICAL SECTIONS

TYPE 446



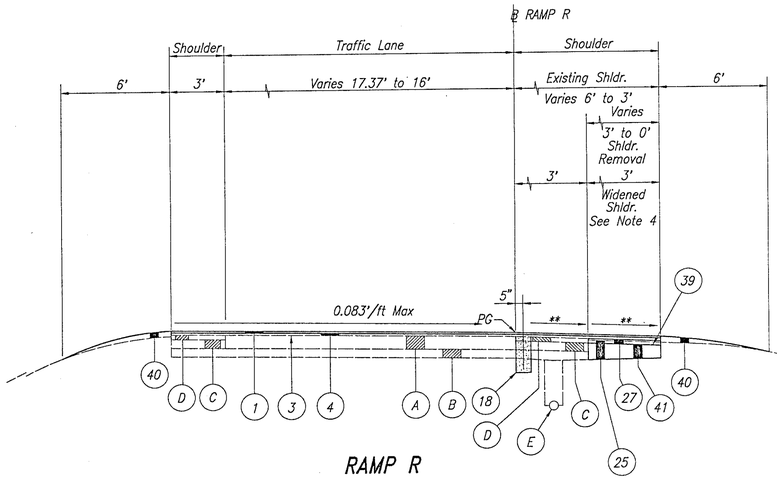
RAMP R

Sta. 7+00.00R to Sta. 7+50.00R = 50.00'



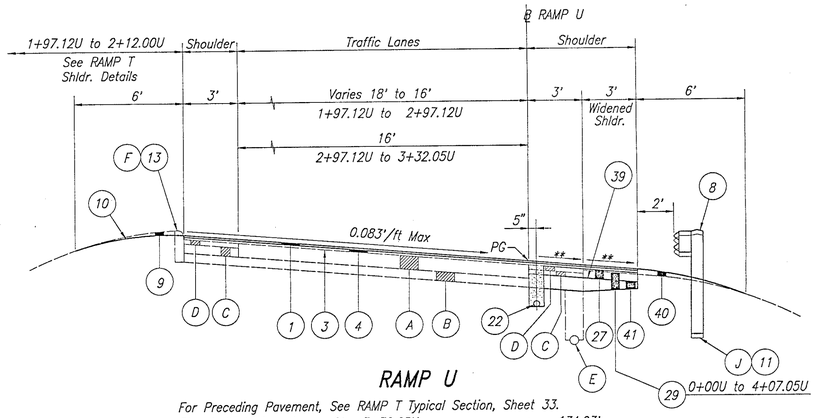
RAMP R

Sta. 3+61.65R to Sta. 7+00.00R = 338.35'



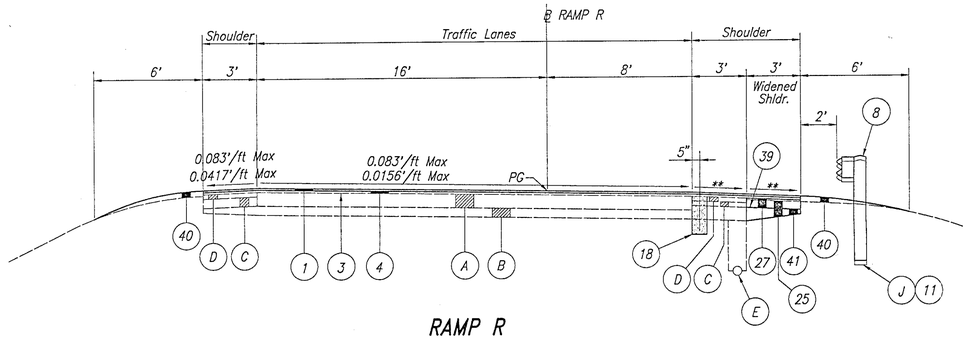
RAMP R

Sta. 0+00.00R to 2+93.00R, See Mainline Typical Section, Sheet 12 = 293.00'
Sta. 2+93.00R to Sta. 3+61.65R = 68.65'



RAMP U

For Preceding Pavement, See RAMP T Typical Section, Sheet 33.
Sta. 1+97.12U to Sta. 3+32.05U = 134.93'
Sta. 3+32.05U to Sta. 4+07.05U See Plan Sheets = 75.00'



RAMP R

Sta. 7+50.00R to Sta. 9+39.50R = 189.50'
Sta. 9+50.00R to Sta. 10+14.50R See Plan Sheets = 64.50'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Shoulder Widening Details, See Miscellaneous Details, Sheet 41.
   For Shoulder Widening Locations, See Plan Sheets.
5) For Curb Removal Details, See Miscellaneous Details, Sheets 41 & 44A.

SYMBOL LEGEND

PG – Profile Grade
** – Match Existing Shoulder Cross Slope

RAMP R (HIGHLAND AVENUE) and RAMP U (MARBURG AVENUE)

TYPICAL SECTIONS

CALC. BY DLB DATE 1-5-95
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

OHIO FHWA REGION 5

37/615

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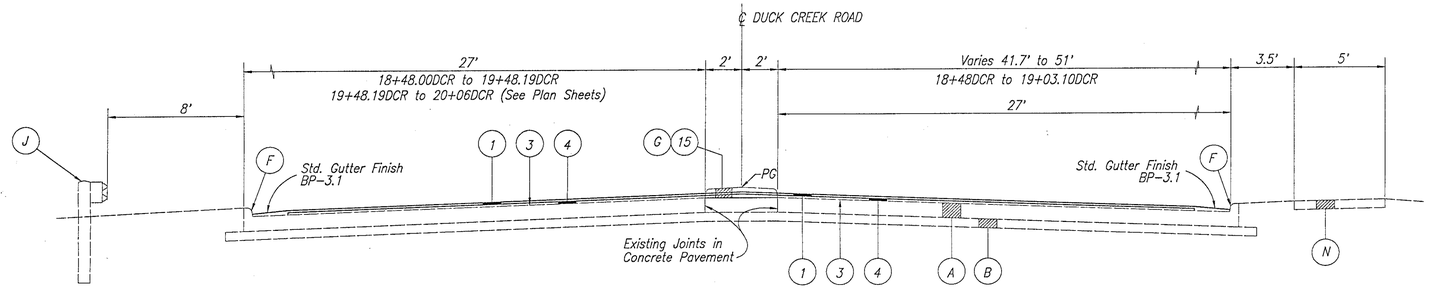
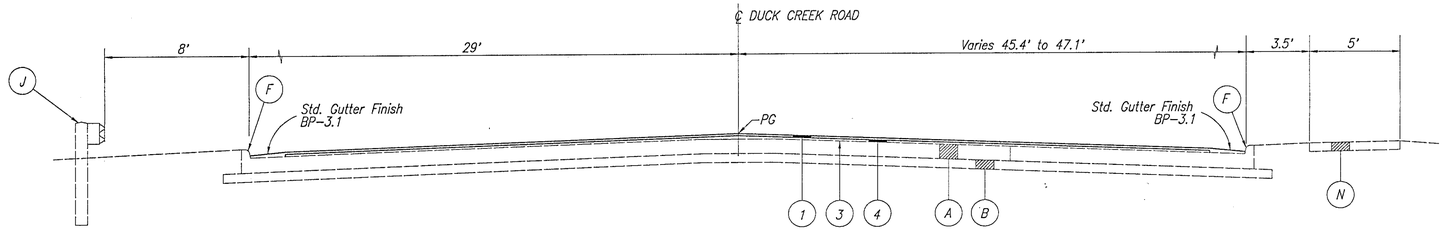
TYPICAL SECTIONS

TYPE 446



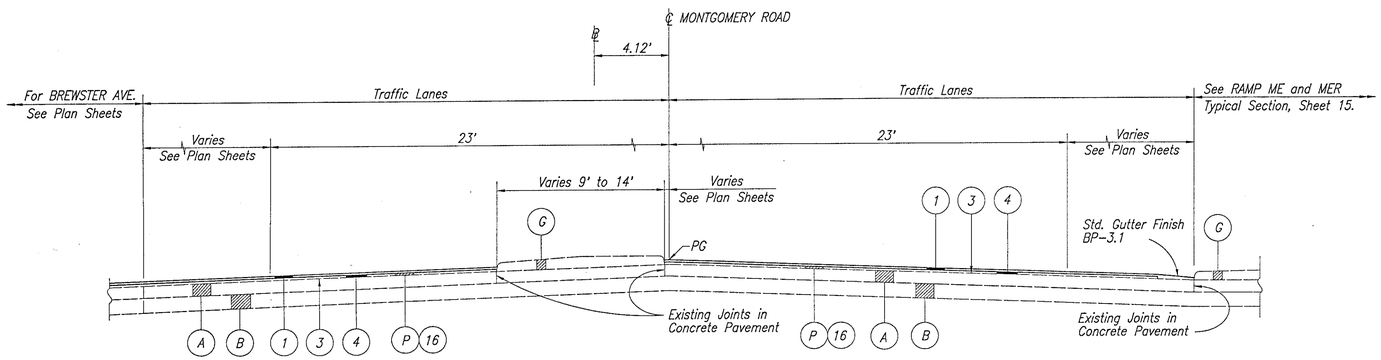
DUCK CREEK ROAD

Sta. 18+48DCR to Sta. 20+06DCR = 152.00'



DUCK CREEK ROAD

Sta. 18+27.9DCR to Sta. 18+48.00DCR = 20.1'



MONTGOMERY ROAD

Sta. 2+04.97	to	2+79.97	See Plan Sheets = 75.00'
Sta. 2+79.97	to	Sta. 4+32.42	= 152.45'
Sta. 4+32.42	to	Sta. 7+24.08 (Bridge & Approach HAM-71-0522)	= 291.66'
Sta 7+24.08	to	Sta. 7+61.58	See Plan Sheets = 37.50'

STATION EQUATION:
Sta. 4+00.00 ℄ Back =
Sta. 3+99.99 @ Ahead, 12' Lt

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

PG – Profile Grade

MONTGOMERY ROAD and DUCK CREEK ROAD

TYPICAL SECTIONS

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CALC. BY DB DATE 10-1-94
CHKD. BY PVR DATE 1-5-95

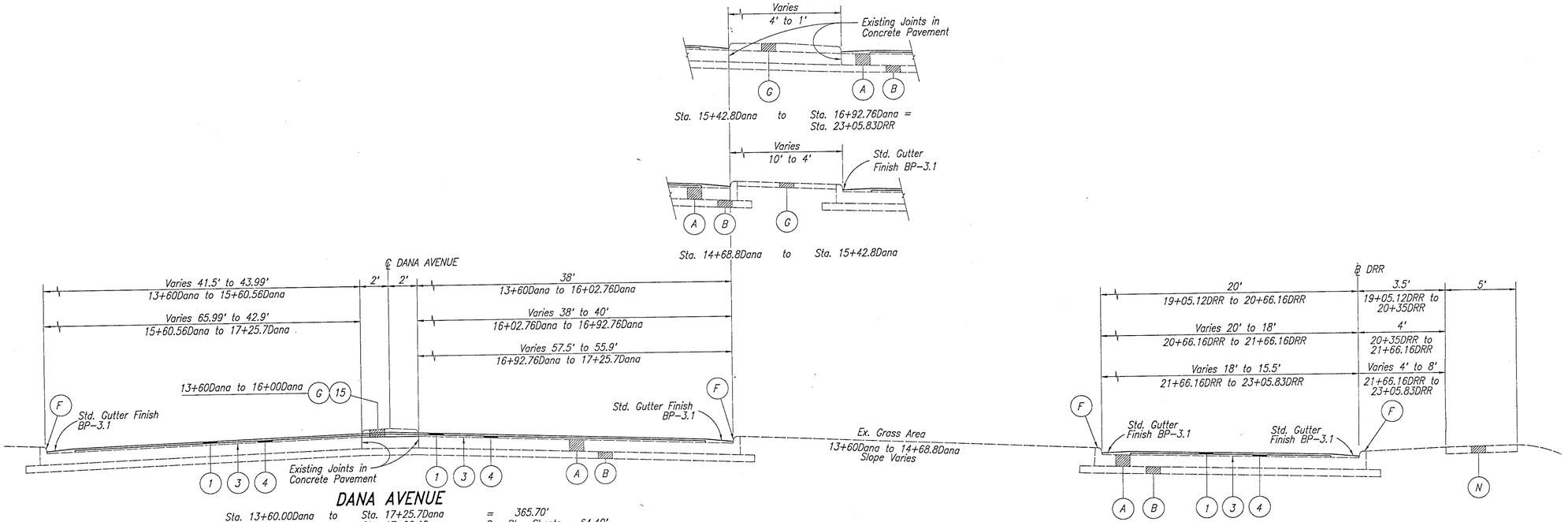
HAM-71-2.92

OHIO
FHWA REGION 5

38
615

TYPICAL SECTIONS

TYPE 446

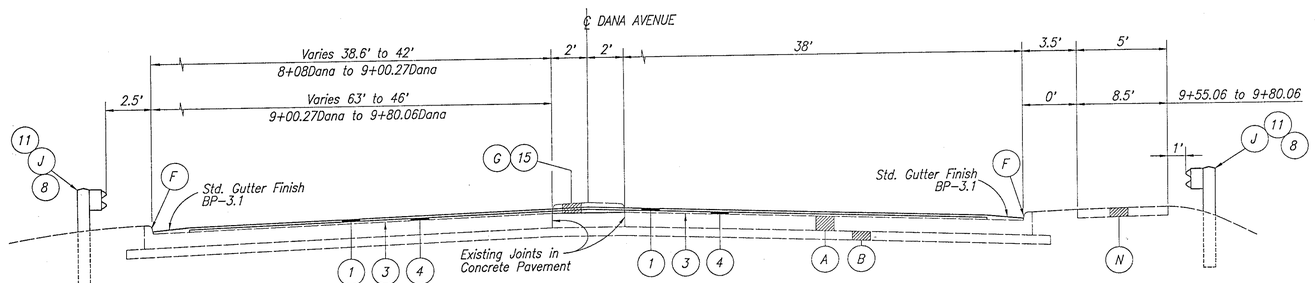


DANA AVENUE

Sta. 13+60.00Dana to Sta. 17+25.7Dana = 365.70'
Sta. 17+25.7Dana to Sta. 17+90.1Dana See Plan Sheets = 64.40'

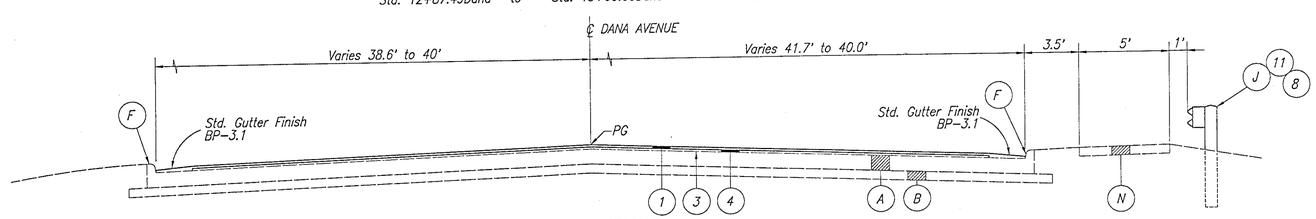
RAMP from DUCK CREEK ROAD to DANA AVENUE (DRR)

Sta. 19+05.12DRR to Sta. 23+05.83DRR = 400.71'



DANA AVENUE

Sta. 8+10.00Dana to Sta. 9+80.06Dana = 170.06'
Sta. 9+80.06Dana to Sta. 12+87.49Dana Bridge & Approach (HAM-71-0598)
Sta. 12+87.49Dana to Sta. 13+60.00Dana See Plan Sheets = 72.51'



DANA AVENUE

Sta. 5+97.19Dana to Sta. 6+72.19Dana See Plan Sheets = 75.00'
Sta. 6+72.19Dana to Sta. 8+10.00Dana = 138.00'

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail Locations, See Plan Sheets.
3) For Concrete Median Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

PG – Profile Grade

DANA AVENUE
TYPICAL SECTIONS

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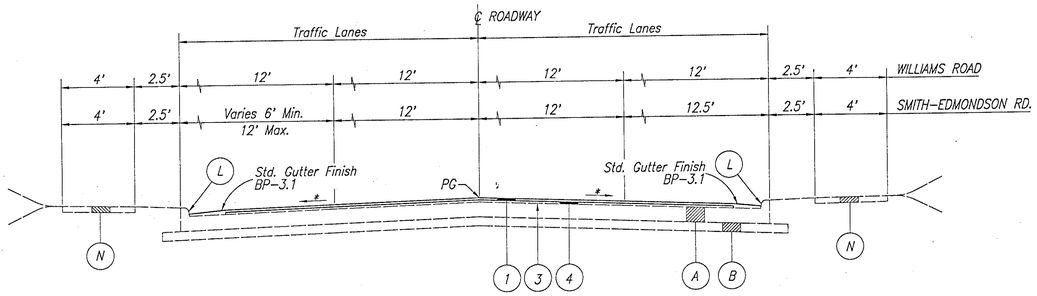
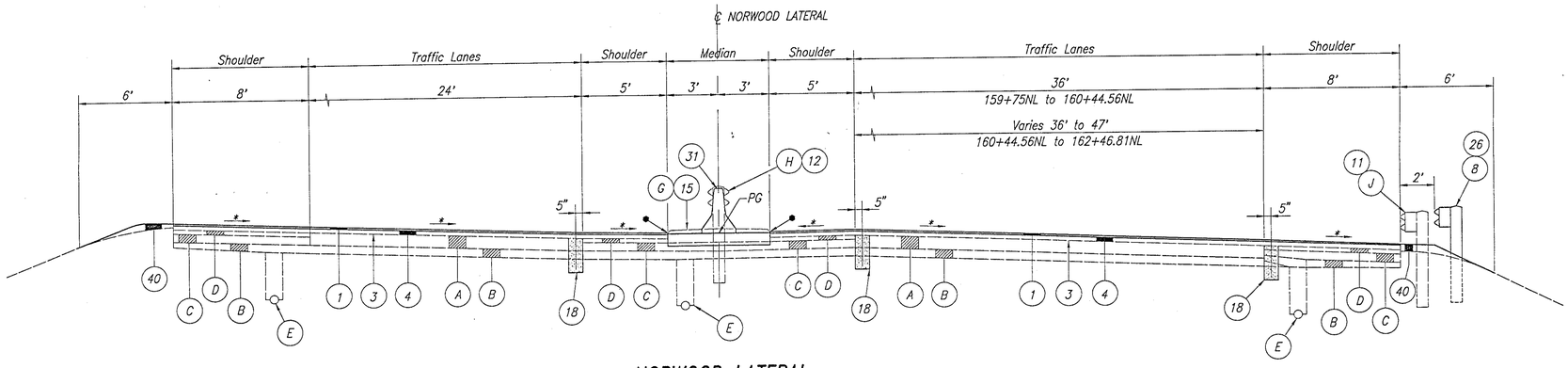
TYPICAL SECTIONS

TYPE 446



SMITH-EDMONDSON ROAD and WILLIAMS AVENUE

SMITH-EDMONDSON ROAD					WILLIAMS AVENUE				
Sta. 12+04	to	Sta. 13+33.55		= 129.55'	Sta. 12+96.95	to	Sta. 13+71.95	See Plan Sheets	= 75.00'
Sta. 13+33.55	to	Sta. 16+65.50	Bridge and Approach (HAM-71-0652)	= 331.95'	Sta. 13+71.95	to	Sta. 15+44.17		= 172.22'
Sta. 16+65.50	to	Sta. 18+32.01		= 166.51'	Sta. 15+44.17	to	Sta. 18+81.03	Bridge and Approach (HAM-71-0691)	= 336.86'
Sta. 18+32.01	to	Sta. 19+07.01	See Plan Sheets	= 75.00'	Sta. 18+81.03	to	Sta. 19+18.53	See Plan Sheets	= 37.50'



NORWOOD LATERAL

Sta. 159+00.00NL to Sta. 159+75.00NL See Plan Sheets = 75.00'
Sta. 159+75.00NL to Sta. 162+46.81NL = 346.81'
For Continuation of Pavement, See RAMP K and L Typical Sections, See Sheet 32.

NOTES

1) For Legend, See Sheet 6.
2) For Guardrail and Concrete Barrier Locations, See Plan Sheets.
3) For Underdrain Locations, See Plan Sheets.
4) For Concrete Barrier Details, See Miscellaneous Details, Sheet 43.
5) For Concrete Medain Removal Details, See Miscellaneous Details, Sheet 41.

SYMBOL LEGEND

- Denotes that the top of The Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

PG – Profile Grade

SMITH-EDMONDSON ROAD
WILLIAMS AVENUE
NORWOOD LATERAL

TYPICAL SECTIONS

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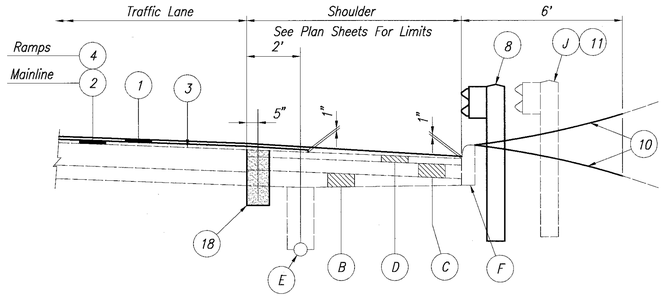
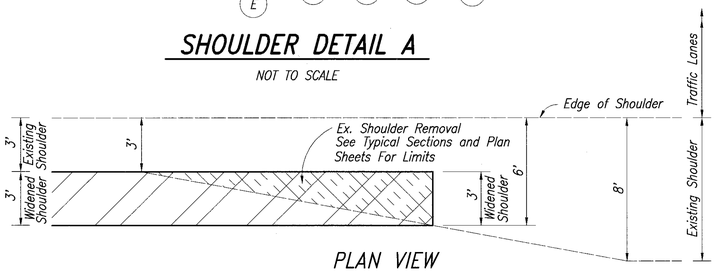


SHOULDER DETAIL A

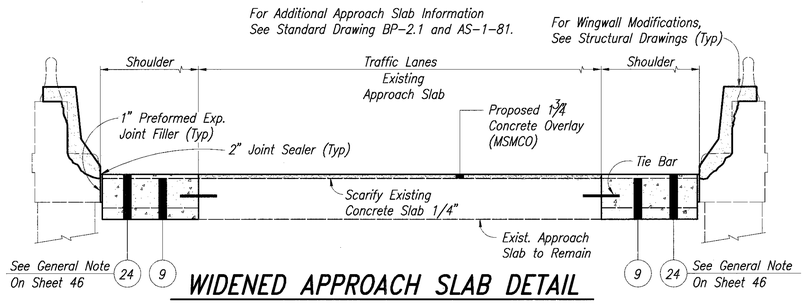
NOT TO SCALE



PLAN VIEW

TYPICAL SHOULDER WIDENING at MAINLINE and RAMPS

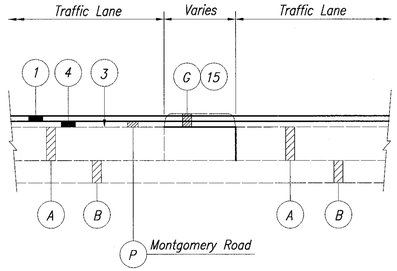
NOT TO SCALE



WIDENED APPROACH SLAB DETAIL

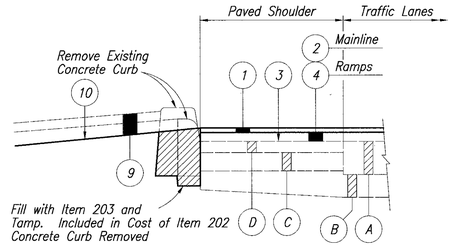
NOT TO SCALE

HAM-71-0788L (SB I-71 OVER RAMPS J, K, & L)
HAM-71-0838S (RAMP H OVER RIDGE AVENUE)



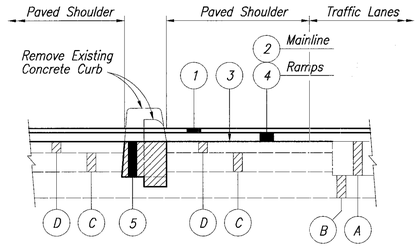
ITEM 202 - CONCRETE MEDIAN REMOVED

NOT TO SCALE
Montgomery Road
Duck Creek Road
Dana Avenue



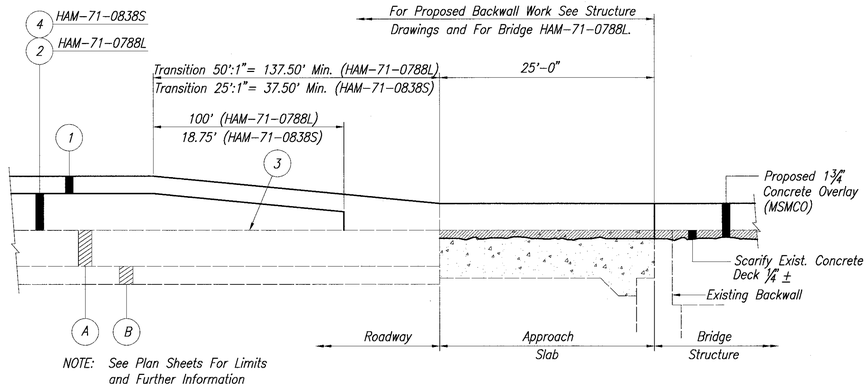
CURB REMOVED, AS PER PLAN 1

NOT TO SCALE



CURB REMOVED, AS PER PLAN 2

NOT TO SCALE

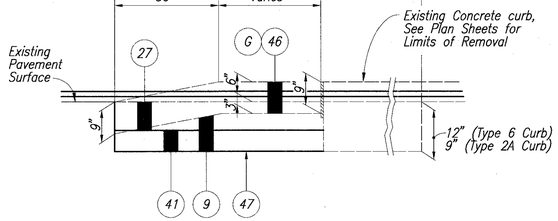


NOTE: See Plan Sheets For Limits and Further Information

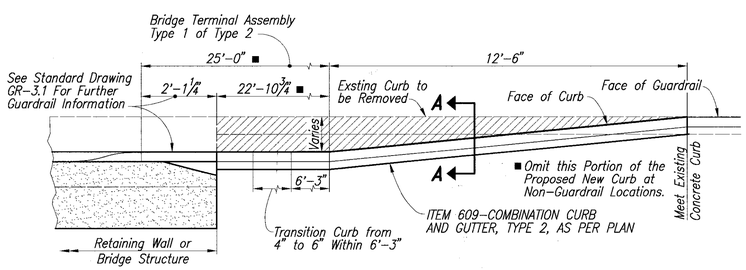
PAVEMENT TRANSITION AT APPROACH SLAB DETAIL

NOT TO SCALE

HAM-71-0788L (SB I-71 OVER RAMP J, K, & L - BOTH APPROACHES)
HAM-71-0838S (RAMP H OVER RIDGE AVENUE - BOTH APPROACHES)



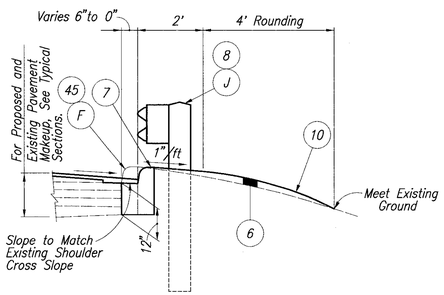
SECTION C-C



COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN

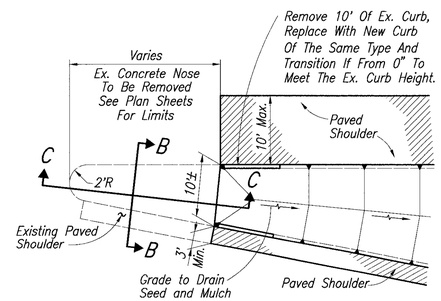
NOT TO SCALE
(PROPOSED CURB TRANSITION AT CONCRETE BARRIER AND/OR GUARDRAIL CONNECTIONS)

SCALE: 1/2" = 1'-0"

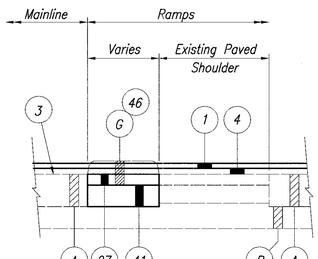


SECTION A-A

NOT TO SCALE



PLAN VIEW



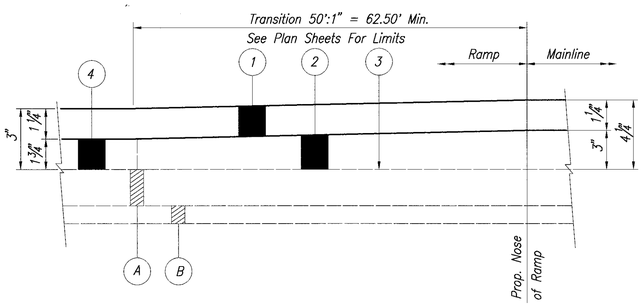
SECTION B-B

ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN

NOT TO SCALE

NOTES

1) For ITEM LEGEND, See Sheet 6.
2) "MSMCO" Stands For ITEM 519, MICRO-SILICA MODIFIED CONCRETE OVERLAY



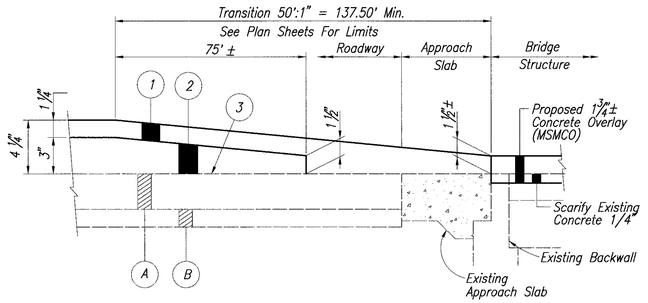
PAVEMENT TRANSITION at RAMP to MAINLINE

NOT TO SCALE

RAMP TC to Northbound I-71
RAMP TH from Southbound I-71
RAMP ME to Northbound I-71
RAMP MF from Northbound I-71
RAMP DB to Southbound I-71
RAMP DC to Northbound I-71

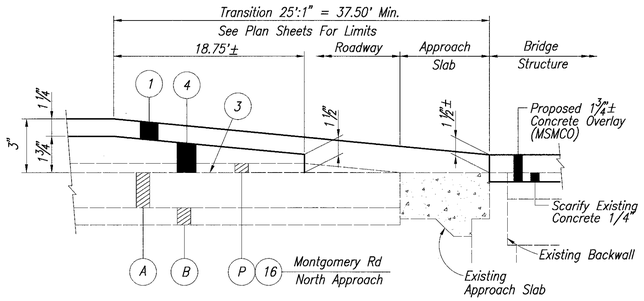
RAMP DE from Southbound I-71
RAMP A to Southbound I-71
RAMP B from Northbound I-71
RAMP C to Northbound I-71
RAMP D from Southbound I-71
RAMP E to Southbound I-71

RAMP F from Northbound I-71
RAMP G from Northbound I-71
RAMP N from Northbound I-71
RAMP P to Northbound I-71
RAMP R from Southbound I-71



MAINLINE PAVEMENT TRANSITION at BRIDGE APPROACH

NOT TO SCALE
HAM-71-0445 I-71 over VICTORY PARKWAY

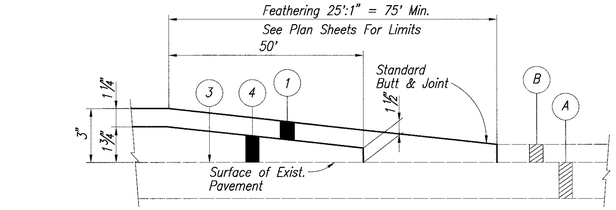


RAMP PAVEMENT TRANSITION at BRIDGE APPROACH

NOT TO SCALE

HAM-71-0522 MONTGOMERY ROAD over I-71 (North Approach)
HAM-71-0598 DANA AVENUE over I-71
HAM-71-0670 SMITH-EDMONDSON ROAD over I-71
HAM-71-0691 WILLIAMS ROAD over I-71 (West Approach)

HAM-71-0799R RAMP K and L over I-71
HAM-71-0817R RAMP H over I-71SB



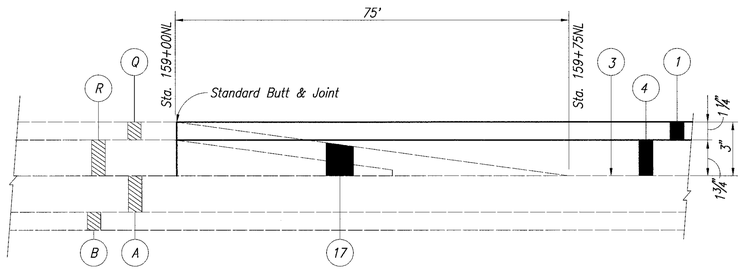
FEATHERING at RAMPS and SIDE ROADS

With Existing Asphalt Pavement Overlay

NOT TO SCALE

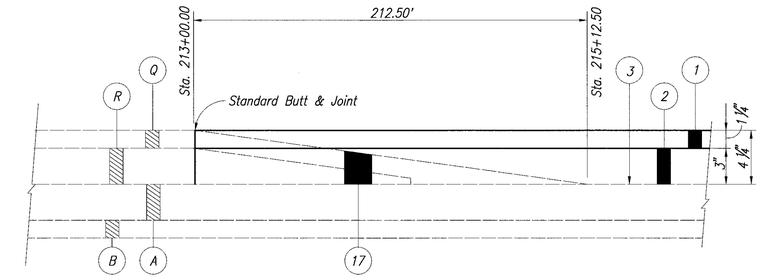
MONTGOMERY ROAD (North)
BREWSTER AVENUE
RAMP N to RIDGE AVENUE

RAMP P from KENNEDY AVENUE
RAMP P1 from KENNEDY AVENUE
RAMP R to HIGHLAND AVENUE



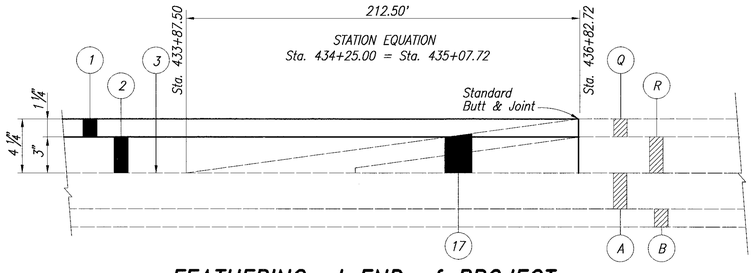
FEATHERING at BEGIN of WORK

NOT TO SCALE
NORWOOD LATERAL ~ Sta. 159+00NL to Sta. 159+75NL



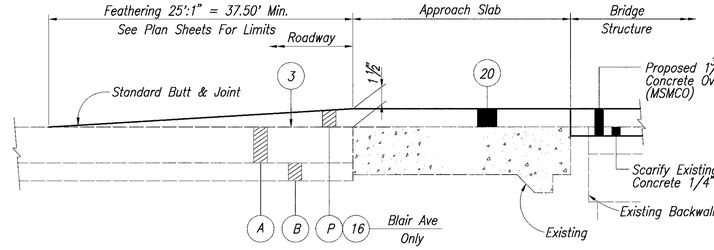
FEATHERING at BEGIN of PROJECT

NOT TO SCALE
Mainline I-71 ~ Sta. 213+00.00 to Sta. 215+12.50



FEATHERING at END of PROJECT

NOT TO SCALE
Mainline I-71 ~ Sta. 433+87.50 to Sta. 436+82.72



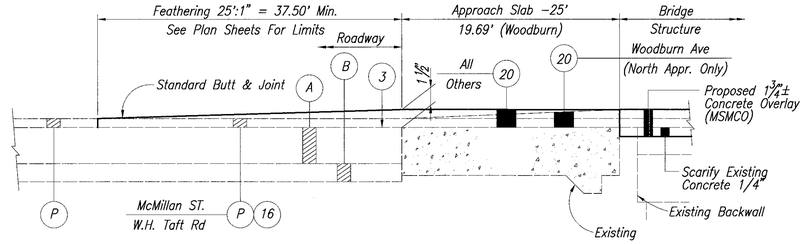
FEATHERING at OVERHEAD BRIDGES

WITH EXISTING CONCRETE PAVEMENT APPROACHES

NOT TO SCALE

HAM-71-0327 W.H. TAFT ROAD (West Approach)
HAM-71-0362 LINCOLN AVENUE (East Approach)
HAM-71-0376 M.L. KING DRIVE
HAM-71-0398 FREDONIA AVENUE

HAM-71-0422 BLAIR AVENUE
HAM-71-0546 TRIMBLE AVENUE (South Approach)
HAM-71-0691 WILLIAMS AVENUE (East Approach)
HAM-71-0726 ROBERTSON AVENUE (South Approach)



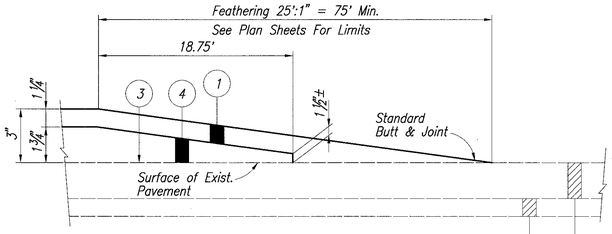
FEATHERING at OVERHEAD BRIDGES

WITH EXISTING ASPHALT PAVEMENT APPROACHES

NOT TO SCALE

HAM-71-0315 McMILLAN STREET
HAM-71-0327 W.H. TAFT ROAD (East Approach)
HAM-71-0339 OAK STREET
HAM-71-0362 LINCOLN AVENUE (West Approach)
HAM-71-0500 WOODBURN AVENUE

HAM-71-0522 MONTGOMERY ROAD (South Approach)
HAM-71-0546 TRIMBLE AVENUE (North Approach)
HAM-71-0726 ROBERTSON AVENUE (North Approach)
HAM-71-0846 RIDGE AVENUE
HAM-71-0870 KENNEDY AVENUE



FEATHERING at RAMPS and SIDE ROADS

WITH EXISTING CONCRETE PAVEMENT APPROACHES

NOT TO SCALE

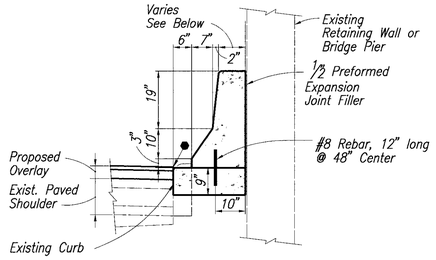
RAMP TH to W.H. TAFT ROAD
MONTGOMERY ROAD (North)
BREWSTER AVENUE
RAMP MF to DUCK CREEK ROAD
DUCK CREEK ROAD

DANA AVENUE
SMITH-EDMONDSON ROAD
WILLIAMS ROAD (West)
RAMP M from RIDGE AVENUE
RAMP T from RIDGE AVENUE

RAMP H from BARROW AVENUE
RAMP T1 from RIDGE AVENUE
RAMP T2 to RIDGE AVENUE

NOTES

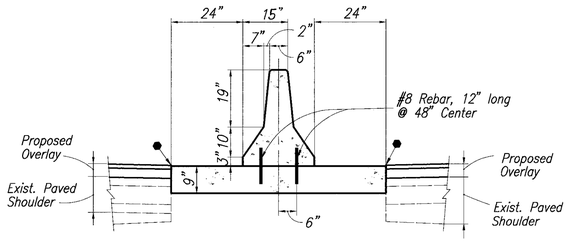
1) For Item Legend Information, See Sheet 6.
2) For Additional Information Pertaining to Butt Joints, Feathering Rates, and Other Pavement Items, See Standard Drawing BP-3.1.
3) "MSMCO" Stands for ITEM 519, MICRO-SILCA MODIFIED CONCRETE OVERLAY.



CONCRETE BARRIER TYPE D, AS PER PLAN

NOT TO SCALE

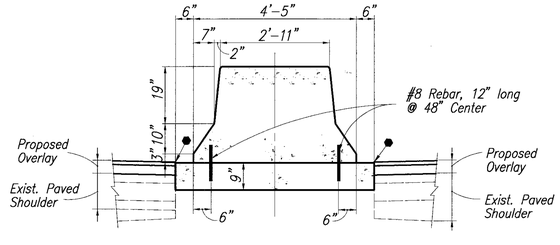
Station Limits	Width
Sta. 215+12.50 to Sta. 222+61 (SB)	9"
Sta. 224+61 to Sta. 227+41 (SB)	9"
Sta. 227+26 to Sta. 234+10 (NB)	9"
Sta. 230+85TC to Sta. 233+61TC	9" to 2'-2"
Sta. 231+75 to Sta. 240+02.5 (SB)	3'-0"
Sta. 233+83TH to Sta. 235+00TH	10" to 6'-5"
Sta. 233+61TH to Sta. 233+75TH	9" to 2'-0"
Sta. 235+00TH to Sta. 237+21TH	10"
Sta. 237+21TH to Sta. 237+86TH	10" to 1'-1"
Sta. 237+86TH to Sta. 240+59.49TH	9" to 1'-1"
Sta. 240+59.49TH to Sta. 240+74.6TH	9"
Sta. 240+74.6TH to Sta. 241+92TH	9" to 2'-0"
Sta. 248+35 to Sta. 254+00 (NB)	9" to 3'-6"
Sta. 262+14 to Sta. 262+90 (NB)	9" to 2'-9"
Sta. 264+46 to Sta. 265+14 (SB)	9" to 2'-9"
Sta. 276+65 to Sta. 279+20 (NB)	9" to 1'-6"
Sta. 318+74ME to Sta. 324+83ME	3'-0"
Sta. 380+48 to Sta. 381+06 (SB)	2'-0" to 3'-0"
Sta. 305+50B to Sta. 308+23.5B	9"
Sta 341+50 to Sta 342+50 (SB)	9"
Sta 351+00 to Sta 351+95 (SB)	1'-1" to 3'-3"
Sta 351+24 to Sta 358+27 (NB)	9" to 2'-9"
Sta 362+50 to Sta 363+03 (NB)	9" to 2'-9"
Sta 363+72 to Sta 364+53 (SB)	9" to 2'-9"
Sta 2+54F to Sta 7+50F	9"
Sta 9+22I to Sta 9+84I	1'-3"
Sta 385+05.5 to Sta 386+44 (NB)	11" to 1'-9"
Sta 398+42 to Sta 398+87 (SB)	1'-7" to 2'-9"
Sta 398+25 to Sta 399+33 (NB)	1'-0" to 3'-3"
Sta 424+50.5 to Sta 425+07 (SB)	9"
Sta 374+03DE to Sta 377+56DE	9"
Sta 378+55DE to Sta 379+11DE	9" to 2'-9"
Sta 13+96J to Sta 14+10J	9"
Sta 15+39L to Sta 16+48L	9" to 2'-9"
Sta 34+76.3T to Sta 40+74T	9" to 11"
Sta 12+02E to Sta 12+55E	9" to 2'-9"



CONCRETE BARRIER TYPE A, AS PER PLAN

NOT TO SCALE

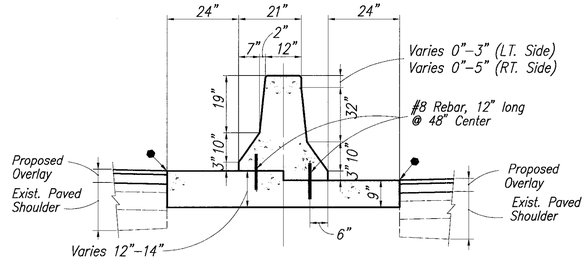
Sta 150+00NL to Sta 162+46.81NL
Sta 5+81.56K to Sta 19+00K
Sta 29+50T to Sta 50+23T



CONCRETE BARRIER TYPE B, AS PER PLAN

NOT TO SCALE

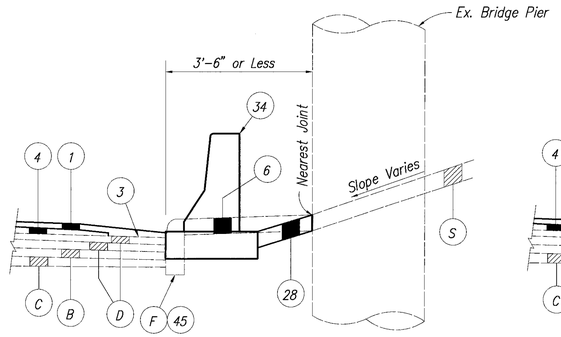
Sta 240+02.5TH to Sta 240+30.5TH



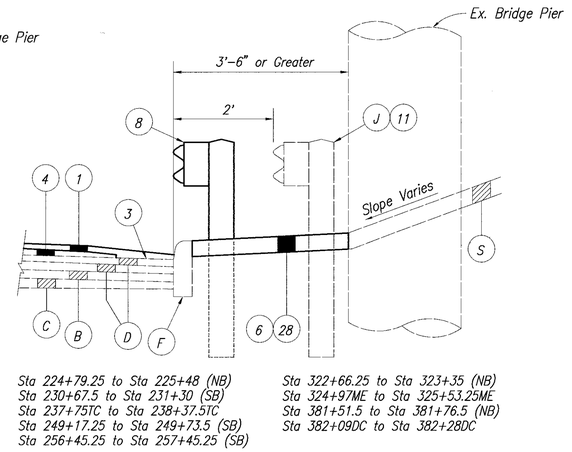
CONCRETE BARRIER TYPE C, AS PER PLAN

NOT TO SCALE

Sta 19+00K to Sta 23+05K
Sta 26+12K to Sta 29+50T

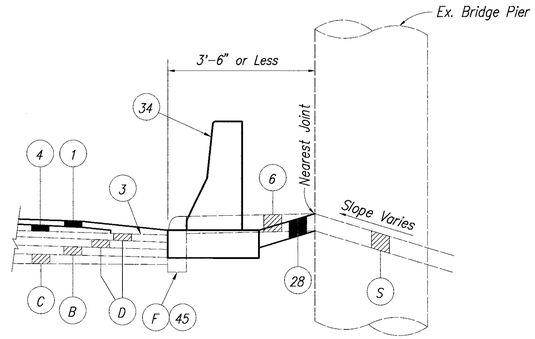


Sta 374+72 to Sta 375+66 (NB)



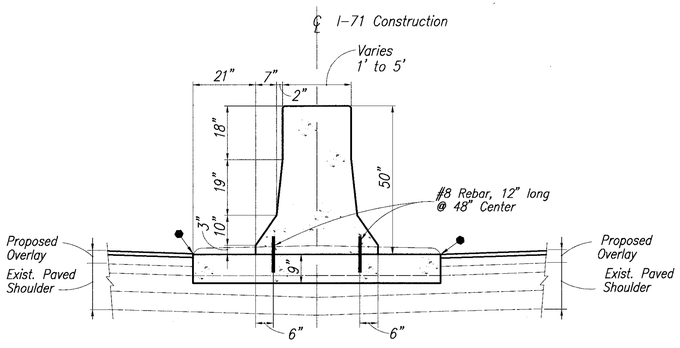
Sta 224+79.25 to Sta 225+48 (NB)
Sta 230+67.5 to Sta 231+30 (SB)
Sta 237+75TC to Sta 238+37.5TC
Sta 249+17.25 to Sta 249+73.5 (SB)
Sta 256+45.25 to Sta 257+45.25 (SB)

Sta 322+66.25 to Sta 323+35 (NB)
Sta 324+97ME to Sta 325+53.25ME
Sta 381+51.5 to Sta 381+76.5 (NB)
Sta 382+09DC to Sta 382+28DC



BARRIER FINISH TREATMENTS WITHIN EXISTING CONCRETE SLOPE PROTECTION LIMITS

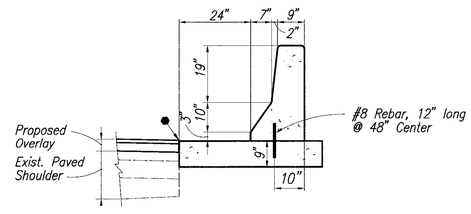
NOT TO SCALE



CONCRETE BARRIER TYPE B50, AS PER PLAN A

NOT TO SCALE

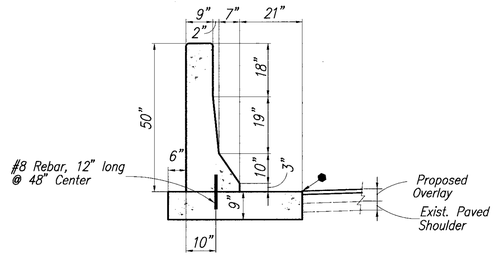
Sta 356+26 to Sta 359+48SB



CONCRETE BARRIER TYPE D, AS PER PLAN A

NOT TO SCALE

Sta 310+38 to Sta 311+12	Sta 378+40NB to Sta 379+30NB
Sta 310+85 to Sta 311+62	Sta 378+98NB to Sta 380+01.32NB
Sta 320+78 to Sta 322+20	Sta 380+22SB to Sta 380+74.5SB
Sta 320+96 to Sta 321+72	Sta 388+75NB to Sta 389+14NB
Sta 328+28D to Sta 326+66D	Sta 404+62.5SB to Sta 405+50.5SB
Sta 339+72 to Sta 341+20	Sta 21+54L to Sta 23+16L



CONCRETE BARRIER TYPE D50, AS PER PLAN

NOT TO SCALE

Sta 359+48NB to Sta 362+76NB
Sta 359+48SB to Sta 363+12SB

NOTES

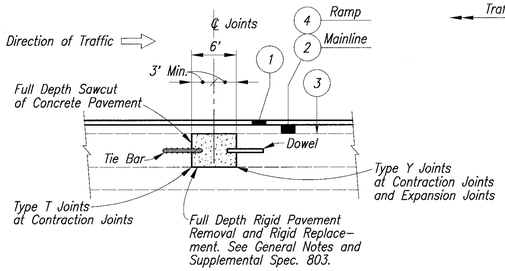
1) For Legend, See Sheet 6.

SYMBOL LEGEND

- Denotes That The Top Of The Proposed Barrier Foundation Is 1/4" Lower Than The Asphalt Overlay. See Concrete Barrier Details For Further Information.

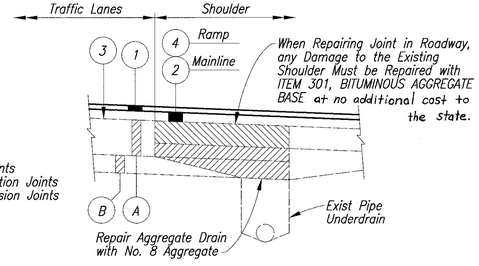
CONCRETE BARRIER DETAIL
MISCELLANEOUS DETAILS

G:\TRANS\1800\MISCDET\MISCDET3.DWG - FEB 21, 1995 - 10:13:15



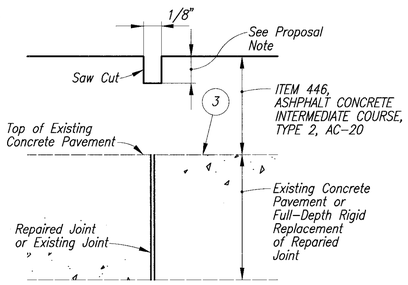
SECTION A-A

NOT TO SCALE



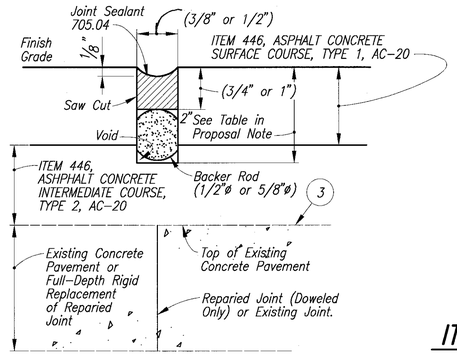
SECTION B-B

NOT TO SCALE



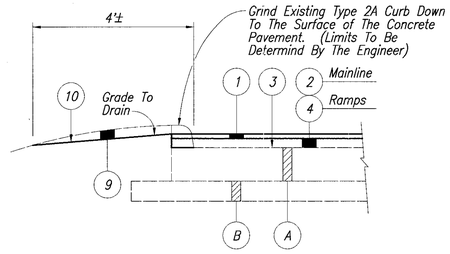
BASE COURSE

NOT TO SCALE



FINISH SURFACE

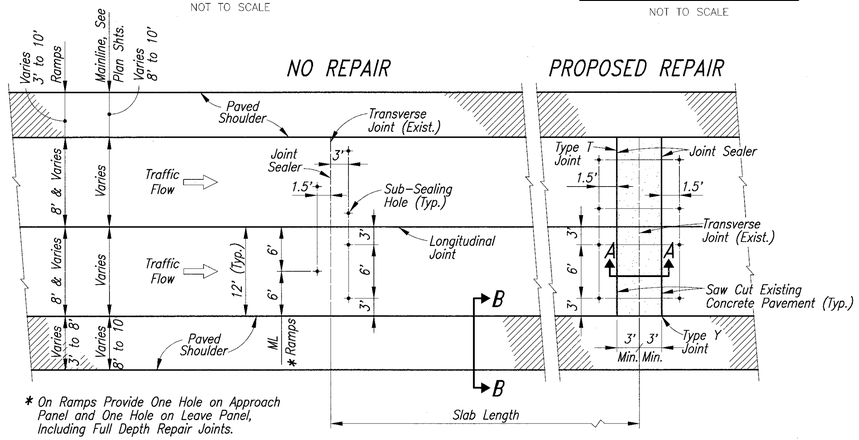
NOT TO SCALE



ITEM 202 - PORTION OF CURB REMOVED

NOT TO SCALE

SB I-71 Sta. 316+66.66 to Sta. 317+00
NB I-71 Sta. 284+75 to Sta. 285+25



* On Ramps Provide One Hole on Approach Panel and One Hole on Leave Panel, Including Full Depth Repair Joints.

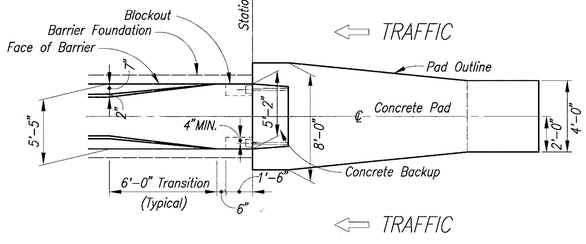
SUBSEALING HOLE PATTERN AND JOINT REPAIR DETAIL

NOT TO SCALE

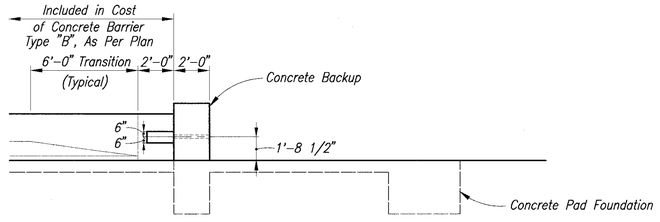
NOTES:
1) Above Detail Shows Suggested Sub-Sealing Hole Patterns at Existing Transverse Joint Locations. These Hole Patterns are Subject to Change as Directed by the Engineer.
2) For Additional Joint Repair Details, See Standard Drawing BP-2.1, BP-2.2, and BP-2.5.
3) For Sub-Sealing Information, See Supplemental Specification 812.
4) Subseal prior to new drainage installation
5) Subseal before joint repair

ITEM 413 -SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS-705.04

NOTE: For Concrete Pad, Concrete Backup Assembly, and other Information, See Manufactures Specifications and Drawings.



PLAN

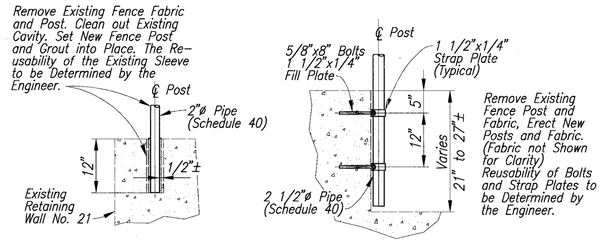


ELEVATION

CONCRETE BARRIER TRANSITION at IMPACT ATTENUATOR

NOT TO SCALE

Sta 240+28.5 TH



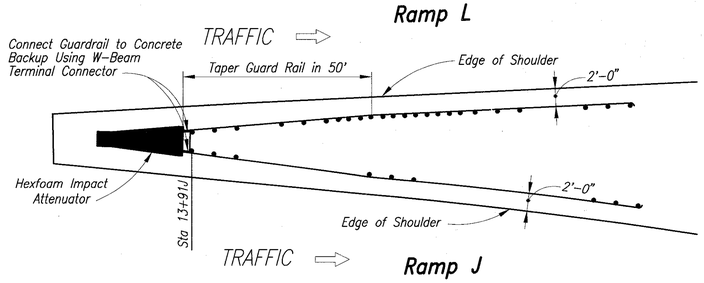
LINE POST

END OR CORNER POST

ITEM 607-FENCE, TYPE CLT, AS PER PLAN

FOR ADDITIONAL INFORMATION PERTAINING TO RETAINING WALLS, SEE THE ORIGIONAL CONSTRUCTION DRAWINGS.

NOT TO SCALE



GUARDRAIL TRANSITION and CONNECTION to IMPACT ATTENUATOR

NOT TO SCALE

Sta 13+91 J

NOTES

1) For Legend, See Sheet 6.

SYMBOL LEGEND

● Denotes That The Top Of The Proposed Barrier Foundation Is 1/4" Lower Than The Asphalt Overlay. See Concrete Barrier Details For Further Information.

CONCRETE BARRIER DETAIL and IMPACT ATTENUATOR INFORMATION

MISCELLANEOUS DETAILS

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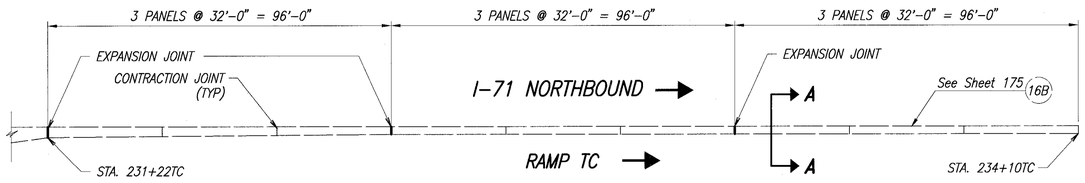


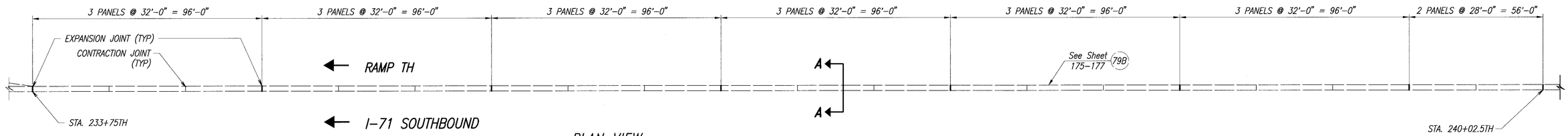
PLAN VIEW

PARAPET RAILING "A"

N

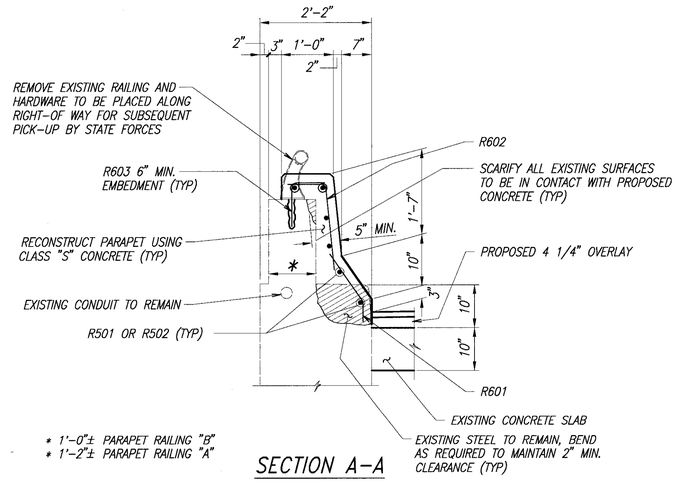
PARAPET RAILING A SUBSUMMARY (16B)				
ITEM	ITEM EXT.	TOTAL	UNITS	DESCRIPTION
202	11200	LUMP	L.S.	PORTIONS OF STRUCTURE REMOVED
509	15800	3484	LBS.	EPOXY COATED REINFORCING STEEL, GRADE 60
517	76201	288	L.F.	RAILING FACED, AS PER PLAN (32" HIGH)
				TOTALS CARRIED TO SHEET 271

PARAPET RAILING B SUBSUMMARY (79B)				
ITEM	ITEM EXT.	TOTAL	UNITS	DESCRIPTION
202	11200	LUMP	L.S.	PORTIONS OF STRUCTURE REMOVED
509	15800	7659	LBS.	EPOXY COATED REINFORCING STEEL, GRADE 60
517	76201	632	L.F.	RAILING FACED, AS PER PLAN (32" HIGH)
				TOTALS CARRIED TO SHEET 272



PLAN VIEW

PARAPET RAILING "B"



* 1'-0"± PARAPET RAILING "B"
* 1'-2"± PARAPET RAILING "A"

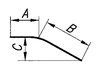
SECTION A-A

ITEM 517 - RAILING FACED, AS PER PLAN (32" HIGH)

SEE GENERAL NOTE SHEET 494 FOR CONSTRUCTION SPECIFICATIONS FOR ITEM 517, (RAILING FACED AS PER PLAN), WITH THE FOLLOWING ADDITIONAL REQUIREMENTS: THE EXISTING CONTRACTION AND EXPANSION JOINTS SHALL BE EXTENDED COMPLETLY THROUGH THE PROPOSED FACING. THE CONTRACTION JOINTS SHALL BE CONSTRUCTED AS SPECIFIED UNDER ITEM 517 FOR DEFLECTION JOINTS, HOWEVER, IF JOINTS ARE SAWED , SAWING SHALL BE DONE AS SOON AS CURING ALLOWS WITH MINIMUM SPALLING OF THE CONCRETE SURFACE. EXPANSION JOINTS SHALL MATCH THE EXISTING BY USING PREFORMED JOINT FILLER 705.03. ALL JOINT MATERIAL AND JOINT CONSTRUCTION SHALL BE INCLUDED IN ITEM 517 (RAILING FACED AS PER PLAN).

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
PARAPET RAILING A									
R502	54	31'-6"	STR.						1,774
R601	198	1'-11"	BENT	6"	1'-5"	10"			571
R602	198	2'-4"	BENT		8"	2"	1'-9"		693
R603	198	1'-6"	BENT	8"	1'-0"				446
								SUBTOTAL =	3,484
PARAPET RAILING B									
R501	12	27'-6"	STR.						344
R502	108	31'-6"	STR.						3,548
R601	436	1'-11"	BENT	6"	1'-5"	10"			1,257
R602	436	2'-4"	BENT		8"	2"	1'-9"		1,528
R603	436	1'-6"	BENT	8"	1'-0"				982
								SUBTOTAL =	7,659
								GRAND TOTAL = 3,484 + 7,659 =	11,143

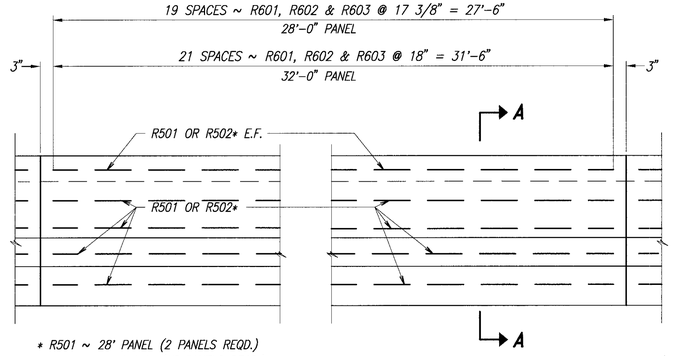
NOTES
ALL DIMENSIONS ARE OUT TO OUT.



R601

R602

R603



* R501 ~ 28' PANEL (2 PANELS REQD.)
* R502 ~ 32' PANEL (27 PANELS REQD.)

TYPICAL PANEL ELEVATION

RETROFIT PARAPET DETAILS
RAMP TC ~ STA. 231+22TC to 234+10TC
RAMP TH ~ STA. 233+75TH to 240+02.5TH

MISCELLANEOUS DETAILS

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GENERAL NOTES

CALC. BY QAB DATE 10-12-94
CHKD. BY PWP DATE 2-23-95

HAM-71-2.92

OHIO FHWA REGION 5

45/615

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THIER RESPECTIVE OWNERS:

ELECTRIC:	CINCINNATI GAS & ELECTRIC COMPANY 139 E. FOURTH STREET CINCINNATI, OHIO 45201 PHONE: (513) 287-3131
GAS:	CINCINNATI GAS & ELECTRIC COMPANY 139 E. FOURTH STREET CINCINNATI, OHIO 45201 PHONE: (513) 287-2151
WATER:	CINCINNATI WATER WORKS 4747 SPRING GROVE AVENUE CINCINNATI, OHIO 45232 PHONE: (513) 591-7890
TELEPHONE:	CINCINNATI BELL 201 E. FOURTH STREET CINCINNATI, OHIO 45201 PHONE: (513) 344-7043
SANITARY SEWER:	METROPOLITAN SEWER DISTRICT 1600 GEST STREET CINCINNATI, OHIO 45204 PHONE: (513) 244-1355

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY, AS REQUIRED BY SECTION 153.64 O.R.C.. THE ABOVE UTILITIES AND OWNERS MAY NOT BE INCLUSIVE. OTHER UTILITIES ENCOUNTERED SHALL BE CONTACTED BY THE CONTRACTOR.

FIELD OFFICE TYPE C, AS PER PLAN

THE BIDDER IS ADVISED THAT THIS FIELD OFFICE SHALL FULLY COMPLY WITH THE REQUIREMENTS OF ITEM 619. WATER AND SANITARY CONNECTIONS WILL BE REQUIRED PRIOR TO OCCUPANCY. THE 1,500 S.F. REQUIREMENT SHALL BE PROVIDED AS ONE UNIT. ENCLOSED FACILITIES SHALL BE IN THE FIELD OFFICE WHICH TIES INTO OUTSIDE HOLDING TANKS TO BE MAINTAINED REGULARLY.
THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND PROVIDE THE FIELD OFFICE PRIOR TO THE START OF WORK, BUT NO LATER THAN 30 DAYS AFTER THE CONTRACT AWARD SUBJECT TO WRITTEN APPROVAL BY THE ENGINEER.

IN ADDITION TO FIELD OFFICE REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE THREE COMPUTERS PROGRAMMED WITH CMS, PREMAVERA, WINDOWS, MICRO-SOFT WORD, QUATTRO-PRO AND HAVE THREE SEPARATE DATA TYPE PHONE LINES. ALSO, TWO PORTABLE CELLULAR FLIP PHONES, TWO COMPUTERS WITH PRINTERS, FIVE OUTSIDE PHONE LINES TO THE OFFICE, BASE RADIO WITH EIGHT HAND HELD UNITS, AND A PLAIN PAPER FAX MACHINE SHALL BE PROVIDED. THE FIELD OFFICE SHALL BE CLEANED BI-WEEKLY. IN ADDITION, THE FIELD OFFICE SHALL INCLUDE A SECURE PARKING AREA OF NOT LESS THAN 4,000 S.F. SURROUNDED BY A 6 FT. HIGH SECURITY FENCE WITH LOCKABLE GATE AND BE ILLUMINATED BY SECURITY LIGHTING. ALL OTHER REQUIREMENTS OF ITEM 619 SHALL APPLY. FAILURE TO COMPLY WITH THIS NOTE AND THE REQUIREMENTS OF ITEM 619 SHALL RESULT IN THE WITHHOLDING OF PAYMENT ESTIMATES.

THE TOTAL COST OF PROVIDING THE ABOVE REQUIREMENTS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 619, FIELD OFFICE, TYPE C, AS PER PLAN.

EXISTING DATUM

ELEVATIONS SHOWN ON THESE PLANS ARE BASED ON THE ORIGINAL CONSTRUCTION DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE ELEVATIONS AND MAKE ADJUSTMENTS WHERE NECESSARY. PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING COURSE SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PREVIOUS CONSTRUCTION PLANS SHOWING THE ORIGINAL ALIGNMENT AND PROFILE GRADE ARE ON FILE FOR INSPECTION AT THE ODOT DISTRICT 8 OFFICE AS PROJECT NUMBERS: HAM-71-2.74, HAM-71-3.61, HAM-71-4.58, HAM-71-6.14, AND HAM-71-7.45. THE STATION LIMITS OF THIS PROJECT ARE BASED ON THE ORIGINAL PLANS. THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL HAVE A UNIFORM THICKNESS OF APPROXIMATELY 4-1/4 INCHES ON THE MAINLINE AND 3 INCHES ON THE RAMPS, EXCEPT AS SHOWN ON THE TYPICAL SECTIONS, AND AT SPECIFIED PAVEMENT TRANSITIONS.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

DIMENSIONS AND CONDITIONS

DIMENSIONS AND CONDITIONS AT THE SITE SHALL BE VERIFIED BY THE CONTRACTOR AS PER 102.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. PLANS OF THE EXISTING BRIDGES, ROADWAY, AND CULVERTS SHOULD BE UTILIZED AND ARE AVAILABLE FOR REFERENCE AT THE DISTRICT 8 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, LEBANON, OHIO.

CONNECTION TO EXISTING PIPE

WHERE THE PLANS POVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER OR OTHER UTILITY, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE/SHE STARTS TO LAY THE PROPOSED CONDUIT. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING QUANTITIES ARE TO BE USED, AS DIRECTED BY THE ENGINEER, FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

ITEM 207 - FILTER FABRIC FENCE	500	LIN. FT.
ITEM 207 - STRAW OR HAY BALES	120	EACH
ITEM 207 - TEMPORARY SEEDING AND MULCHING	3138	SQ.YD.
ITEM 659 - REPAIR SEEDING AND MULCHING	785	SQ.YD.
ITEM 659 - COMMERCIAL FERTILIZER	0.67	TON
ITEM 659 - WATER	6.8	M. GAL.
ITEM 659 - MOWING	35.3	M. SQ.FT.

PAVEMENT REPAIR QUANTITIES

THE PAVEMENT REPAIR QUANTITIES SHOWN ON THE GENERAL SUMMARY SHEET HAVE BEEN DETERMINED BY FIELD INSPECTION AND WHERE PROVIDED BY ODOT. THE FOLLOWING ESTIMATED QUANTITIES TO BE USED AT LOCATIONS MARKED BY THE ENGINEER HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR	5,000	SQ.YD.
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS C	23,000	SQ.YD.
ITEM 255 - FULL DEPTH PAVEMENT SAWING	104,500	LIN.FT.
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS FS	4,000	SQ.YD.

WHERE PLAN DETAILS INDICATE EXISTING PAVEMENT THICKNESSES, THESE THICKNESSES ARE ORIGINAL DESIGN THICKNESSES AND MAY NOT REPRESENT THE AS-BUILT THICKNESS WHICH WILL BE ENCOUNTERED BY THE CONTRACTOR DURING REMOVAL. PAVEMENT CORING DATA FROM ORIGINAL CONSTRUCTION TESTING MAY BE ON RECORD WITH THE DEPARTMENT. IF THESE RECORDS EXIST THEY ARE AVAILABLE TO THE CONTRACTOR FOR HIS REVIEW PRIOR TO BIDDING AND DURING CONSTRUCTION AT ODOT TESTING LABORATORY, 1600 WEST BROAD STREET, COLUMBUS, OHIO 43216. PREVIOUS PAVEMENT REPAIR INFORMATION MAY BE FOUND IN COMPLETED PROJECT PLANS. COMPLETED PLANS ARE AVAILABLE TO THE CONTRACTOR FOR HIS REVIEW PRIOR TO BIDDING AND DURING CONSTRUCTION AT ODOT DISTRICT OFFICE. WHERE THIS INFORMATION IS AVAILABLE TO CONTRACTORS IT IS NOT TO BE USED AS VERFIABLE AS-BUILT THICKNESS AND MATERIAL INFORMATION. WHERE DEPTH OF SAWING REQUIREMENTS ARE DIFFERENT THAN INDICATED IN PLAN DETAILS, NO ADDITIONAL PAYMENT WILL BE MADE.

PROTECTION OF EXISTING LANDSCAPING

THE CONTRACTOR SHALL CONSTRICT ALL OF HIS ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30' FROM THE EDGE OF THE PAVEMENT. SHOULD THE CONTRACTOR WISH TO USE ANY AREA OUTSIDE THESE LIMITES, HE MUST SUBMIT HIS REQUEST IN WRITING TO THE PROJECT ENGINEER. THE DOCUMENT SUBMITTED MUST CLEARLY INDENTIFY THE AREA THAT THE CONTRACTOR PLANS TO USE AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE ENGINEER SHALL APPROVE THE REQUEST IN WRITING BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA. PRIOR TO BEGINNING WORK, THE CONTRACTOR SUPERINTENDENT OR HIS REPRESENTATIVE, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY SHALL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE. ANY ITEM DAMAGED BEYOND THE CONSTRUCTION LIMITES AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS DIRECTED BY THE PROJECT ENGINEER, AT THE CONTRACTOR'S OWN EXPENSE.

ITEM SPECIAL - PATCHING EXISTING PAVED SHOULDERS

THIS ITEM SHALL BE USED, AS DIRECTED BY THE ENGINEER, TO PATCH DETERIORATED PAVED SHOULDERS WHERE RUTTING AND DETERIORATED PAVED SHOULDER EXIST. THIS WORK SHALL CONSIST OF REMOVING ALL LOOSE DEBRIS, SQUARING UP THE AREA, APPLYING TACK COAT AND COMPACTING A MINIMUM OF 6" OF ITEM 301 MATERIAL IN THE VOID TO FINISH FLUSH WITH THE SURROUNDING SURFACE.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM SPECIAL - PATCHING EXISTING PAVED SHOULDER. AN ESTIMATED QUANTITY OF 300 CU.YD., FOR APPROXIMATELY 50 LOCATIONS, HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM SPECIAL - IMPACT ATTENUATOR, HEX-FOAM SANDWICH SYSTEM, MODEL NO. 209508H8S

THIS WORK SHALL CONSIST OF AN IMPACT ATTENUATOR UNIT AND A BACKUP ASSEMBLY SUPPLIED BY ENERGY ABSORPTION SYSTEM, INC., ONE E. WACKER DRIVE, CHICAGO, ILLINOIS 60601, AND PLACED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND PLAN DETAIL SHEETS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADE, THICKNESSES AND TYPICAL SECTIONS SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER. THE TYPE REQUIRED SHALL BE A STANDARD EIGHT BAY UNIT, MEDIUM SYSTEM, MODEL NUMBER 209508H8S. A COPY OF MANUFACTURES SPEC. SHALL BE PROVIDED TWO WEEKS PRIOR TO WORK BY THE CONTRACTOR TO THE STATE.
INCLUDED IN THE COST OF THE IMPACT ATTENUATOR SHALL BE ALL EXCAVATION, REMOVAL OF OTHER EXISTING CONFLICTING MATERIALS, CONCRETE AND REINFORCING STEEL NECESSARY TO CONSTRUCT THE INSTALLATION PAD, CONCRETE OR STEEL BACKUP AND CABLE ANCHORAGE FOOTER ACCORDING TO THE MANUFACTURER'S APPLICABLE DETAIL DESIGN SHEETS. REINFORCING STEEL (WHERE REQUIRED) SHALL MEET THE REQUIREMENTS OF 509.02. ALSO INCLUDED IN THE ATTENUATOR COST ARE ANY OTHER RELATED INCIDENTAL ITEMS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR, HEX-FOAM SANDWICH SYSTEM.

THE SAFETY-FLEX BELT ASSEMBLY ON THE NOSE OF THE ATTENUATOR SHALL BE MARKED WITH 4 EVENLY SPACED 4" WIDE VERTICAL STRIPES OF WHITE REFLECTIVE MATERIAL. THE FENDER PANELS SHALL BE MARKED WITH WHITE REFLECTIVE MATERIAL IN VERTICAL STRIPES 4" IN WIDTH. CENTER OF THE STRIPE SHALL BE LOCATED 6" FROM THE REAR OF EACH PANEL. FOR ADDITIONAL INFORMATION, SEE THE ROADWAY PLANS AND DETAIL ON SHEET 44A.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM SPECIAL-IMPACT ATTENUATOR, HEX-FOAM SANDWICH SYSTEM, MODEL NO. 209508H8S

ITEM 413 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINT, 705.04

FOR WORK TO BE PERFORMED UNDER THIS ITEM, SEE PROPOSAL NOTE. THE WORK SHALL BE PERFORMED AT ALL TRANSVERSE JOINT LOCATIONS OF THE MAINLINE AND THE RAMPS. FOR DETAIL SEE SHEET 44A.

QUANTITIES SHOWN ARE BASED ON SAW CUTTING AND SEALING THE FULL WIDTH PAVEMENT SURFACE COURSE INCLUDING SHOULDERS. THE INTERMEDIATE COURSE OF THE LANES AND SHOULDERS WHICH ARE TO BE USED DURING THE STAGES OF CONSTRUCTION SHALL BE SAWED ONLY AT NO ADDITIONAL COST TO THE STATE
THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

SURFACE COURSE	
MAINLINE	154,134 LIN.FT.
RAMPS	34,514 LIN.FT.
TOTALS	188,648 LIN.FT.

A TOTAL OF 188,648 LIN. FT. ITEM 413 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS HAS BEEN CARRIED TO THE GENERAL SUMMARY.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO WIDEN THE SHOULDER OR TO REMOVE, GRADE AND REINSTALL GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE SITE READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED ON THIS PROJECT UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED OF SAID COMPLIANCE.

LOCATION OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN ON THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.1. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 201 - CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES AND/OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THIS PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 - CLEARING AND GRUBBING. IN ADDITION ANY TREES OR VEGETATION BLOCKING NEW OR EXISTING SIGNS, OR LIGHTS SHALL BE TRIMMED BACK AS APPROVED BY THE ENGINEER.

ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 202 THE FOLLOWING SHALL ALSO APPLY:

AFTER REMOVAL OF THE EXISTING CONCRETE MEDIAN, THE VOID SHALL BE FILLED WITH ITEM 304, AND ITEM 301, AS DETAILED IN THE PLANS ON SHEET 41.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN.

ITEM 202 - CURB REMOVED, AS PER PLAN 1

IN ADDITION TO THE REQUIREMENTS OF ITEM 202 THE FOLLOWING SHALL ALSO APPLY:

AFTER REMOVAL OF THE EXISTING CURB, TAMPED EARTH BACKFILL SHALL BE PLACED IN THE VOID AND THE BERM SHALL BE REGRADED TO ASSURE PROPER DRAINAGE, AS DETAILED IN THE PLANS ON SHEET 41.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 - CURB REMOVED, AS PER PLAN 1.

ITEM 202 - CURB REMOVED, AS PER PLAN 2

IN ADDITION TO THE REQUIREMENTS OF ITEM 202 THE FOLLOWING SHALL ALSO APPLY:

AFTER REMOVAL OF THE EXISTING CURB, THE VOID SHALL BE FILLED WITH ITEM 301, AS DETAILED IN THE PLANS ON SHEET 46.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 - CURB REMOVED, AS PER PLAN 2.

ITEM 202 - REMOVAL MISC.: IMPACT ATTENUATOR REMOVED FOR DISPOSAL

THIS ITEM CONSISTS OF REMOVAL AND SATISFACTORY DISPOSAL OF SAND BARREL TYPE AND HI-DRO TYPE IMPACT ATTENUATORS, INCLUDING BARRELS, CUSHION CELLS, PANELS, CABLES AND ANY OTHER RELATED INCIDENTAL ITEMS NOT DESIGNATED OR PERMITTED TO REMAIN IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 202.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 202 - REMOVAL MISC.: IMPACT ATTENUATOR.

ITEM 203 - EMBANKMENT USING NO. 8 AGGREGATE

THE MATERIAL FURNISHED SHALL BE DURABLE, NATURAL AGGREGATE NO. 8 SIZE. THE AGGREGATE SHALL BE PLACED AT THE THICKNESS AND SLOPE AS SHOWN ON THE CROSS SECTIONS FOR SLIDE AREAS "A" AND "B", SEE SHEETS 297-302.

ITEM 203 - LINEAR GRADING, METHOD A

THIS WORK SHALL CONSIST OF THE PREPARATION OF THE SUBGRADE FOR THE WIDENING OF THE RIGHT SIDE SHOULDER OF THE RAMPS BY EXCAVATING THE EXISTING MATERIAL, TO REMOVE ANY UNSTABLE MATERIAL AND BY SHAPING AND COMPACTING THE SUBGRADE TO A WIDTH OF 3'-0" AND FROM 10'-0" TO 13'-0" AT THE RAMP GORE AREAS TO A DEPTH AS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER. UNSOUND OR BROKEN EDGES OF THE EXISTING BITUMINOUS PAVEMENT SHALL FIRST BE TRIMMED TO A LINE ESTABLISHED BY THE ENGINEER. SUBGRADE COMPACTION SHALL BE CARRIED OUT TO THE SATISFACTION OF THE ENGINEER BY MEANS OF A TRENCH ROLLER, AS PER ITEM 401.11. THE COST OF SUBGRADE COMPACTION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, LINEAR GRADING, METHOD A. AREAS GRADED IN EXCESS OF DEPTHS SPECIFIED OR DIRECTED BY THE ENGINEER, SHALL BE BACKFILLED TO GRADE USING ITEM 617, COMPACTED AGGREGATE AT THE CONTRACTOR'S EXPENSE. EXCAVATED MATERIAL SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 203 - LINEAR GRADING, METHOD A.

GENERAL NOTES

ITEM 203 – LINEAR GRADING, METHOD B

THIS WORK SHALL CONSIST OF THE PREPARATION OF THE SUBGRADE FOR THE WIDENING OF THE RECONSTRUCTION AND WIDENING OF RIGHT SIDE SHOULDER OF THE RAMPS BY EXCAVATING THE EXISTING MATERIAL, TO REMOVE ANY UNSTABLE MATERIAL AND BY SHAPING AND COMPACTING THE SUBGRADE TO A WIDTH OF 6'–0" TO A DEPTH AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. UNSOUND OR BROKEN EDGES OF THE THE EXISTING BITUMINOUS PAVEMENT SHALL FIRST BE TRIMMED TO A LINE ESTABLISHED BY THE ENGINEER. SUBGRADE COMPACTION SHALL BE CARRIED OUT TO THE SATISFACTION OF THE ENGINEER BY MEANS OF A TRENCH ROLLER, AS PER ITEM 401.11. THE COST OF SUBGRADE COMPACTION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, LINEAR GRADING, METHOD **B**. AREAS GRADED IN EXCESS OF DEPTHS SPECIFIED OR DIRECTED BY THE ENGINEER, SHALL BE BACKFILLED TO GRADE USING ITEM 617, COMPACTED AGGREGATE AT THE CONTRACTOR'S EXPENSE. EXCAVATED MATERIAL SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 203 – LINEAR GRADING, METHOD **B**,

ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR

IN ADDITION TO THE REQUIREMENTS OF ITEM 251, THE PAVEMENT SHALL BE REPAIRED TO AN AVERAGE DEPTH OF FOUR INCHES.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 251 – PARTIAL DEPTH PAVEMENT REPAIR.

ITEM 407 – TACK COAT USING SS 924

THE RATE OF APPLICATION OF TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 601 – PAVED GUTTER, TYPE 1–2, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A REINFORCED CONCRETE PAVED GUTTER BETWEEN THE CONCRETE BARRIER WALLS IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 601, AND AS DETAILED IN THE PLANS ON SHEETS 10 AND 12. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–5.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 601 – PAVED GUTTER, TYPE 1–2, AS PER PLAN.

ITEM 604 – INLET, NO. 3C, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A NO. 3B INLET IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 604, AND AS DETAILED IN THE PLANS ON SHEET 288. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING I–3A & B.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 604 – INLET, NO. 3C, AS PER PLAN.

ITEM 604 – INLET, NO. 3B, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A NO. 3A INLET IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 604, AND AS DETAILED IN THE PLANS ON SHEET 286. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING I–3A & B.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 604 – INLET, NO. 3B, AS PER PLAN.

ITEM 603 6" CONDUIT, TYPE F

ALL REFERENCES TO 'ITEM 603 6" CONDUIT, TYPE F, 707.17 NON-PERFORATED, ASTM D3034 SDR35 OR SS931 OR SS964' APPEARING THROUGHOUT THESE PLANS SHALL BE CONSIDERED TO READ: ITEM 603 6" CONDUIT, TYPE F, 707.17 NON-PERFORATED, ASTM D3034 SDR35 OR SS931 OR SS944.

ITEM 605 – SHALLOW UNDERDRAIN, AS PER PLAN

FOR DETAILS AND NOTES PERTAINING TO THE INSTALLATION OF THIS ITEM, SEE SHEET 290. IN CASE ROCK DOES NOT ALLOW THE INSTALLATION OF A PREFABRICATED EDGE DRAIN SYSTEM, A PIPE UNDERDRAIN SYSTEM SHALL BE INSTALLED.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 605 – SHALLOW UNDERDRAIN, AS PER PLAN.

THE CONTRACTOR SHALL EXERCISE CAUTION WHEN INSTALLING THE NEW EDGE DRAIN ADJACENT TO AN EXISTING UNDERDRAIN SO AS TO PREVENT THE UNDERMINING OF ANY EXISTING PAVEMENT. ANY DAMAGED PAVEMENT SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.

ITEM 606 – ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING AN ET–2000, OPTION "B", GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO STEEL COMPANY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 216–545–4373).

THE LENGTH OF THE ET–2000 SYSTEM IS CONSIDERD TO BE 50' INCLUSIVE OF TWO 25' LONG RAIL ELEMENTS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AT THE LOCATIONS SHOWN IN THE PLANS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 606, EACH, ANCHOR ASSEMBLY, TYPE E. AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED HARDWARE, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A CONCRETE CURB IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 609, AND AS DETAILED IN THE PLANS ON SHEET 41. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING BP–5.1.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN.

ITEM 611 – REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A 15" REINFORCED CONCRETE APPROACH SLAB IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 611, AND AS DETAILED IN THE PLANS ON SHEET 41. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWINGS AS–1–81 AND BP–2.1. THE ENGINEER SHALL DETERMINE IF ADDITIONAL REINFORCING STEEL IS REQUIRED AND AS TO ITS PLACEMENT.

THE REINFORCING STEEL FOR THE APPROACH SLAB OF THIS STRUCTURE SHALL BE EPOXY COATED IN CONFORMANCE WITH 509. TWO SEPARATE THICKNESSES OF CLEAR OR OPAQUE POLYETHYLENE FILM, 705.06, SHALL BE PLACED ON THE PREPARED SUBBASE AND WHERE THE APPROACH SLAB IS TO BE CONSTRUCTED. THE POLYETHYLENE FILMS SHALL COMPLETELY COVER THE FULL LEANTH AND WIDTH OF THE SUBBASE BETWEEN THE SIDEWALL FORMS FOR THE APPROACH SLAB

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 611 – REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN.

ITEM 617 – COMPACTED AGGREGATE, TYPE A

WHERE GUARDRAIL IS TO BE INSTALLED, THE COMPACTED AGGREGATE TYPE A SHALL BE IN PLACE AND APPROVED BY THE ENGINEER PRIOR TO ANY GUARDRAIL INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL RESULT IN THE TOTAL REMOVE OF THE GUARDRAIL AND SUBSEQUENT REINSTALLATION AT THE CONTRACTOR'S EXPENSE.

ITEM 622 – CONCRETE BARRIER, TYPE A, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE A CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND WITH THE CONCRETE FOOTER EXTENDING 2'–0" FROM THE BARRIER TO THE EDGE OF SHOULDER ON EACH SIDE OF THE BARRIER AS DETAILED IN THE PLANS ON SHEET 43. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE A, AS PER PLAN.

ITEM 622 – CONCRETE BARRIER, TYPE B, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE B CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND WITH THE TOP THICKNESS BEING 2'–11" AND THE #8 REBARS PLACED 6" IN FROM EDGE OF BARRIER AS DETAILED IN THE PLANS ON SHEET 43. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE B, AS PER PLAN.

ITEM 622 – CONCRETE BARRIER, TYPE B50, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE B50 CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND WITH A CONCRETE FOOTER EXTENDED 21" FROM BARRIER TO EDGE OF SHOULDER ON BOTH SIDES OF THE BARRIER WITH THE #8 REBARS PLACED 6" INSIDE BARRIER AS DETAILED IN THE PLANS ON SHEET 6. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE B50, AS PER PLAN.

ITEM 622 – CONCRETE BARRIER, TYPE B50, AS PER PLAN A

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE B50 CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND WITH A CONCRETE FOOTER EXTENDED 21" FROM BARRIER TO EDGE OF SHOULDER ON BOTH SIDES OF THE BARRIER WITH THE #8 REBARS PLACED 6" INSIDE BARRIER, ALSO THE TOP WIDTH VARIES FROM 1'–0" TO 5'–0" AS DETAILED IN THE PLANS ON SHEET 43. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE B50, AS PER PLAN A.

ITEM 622 – CONCRETE BARRIER, TYPE C, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE C CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND WITH A CONCRETE FOOTER THAT EXTENDS 24" FROM THE BARRIER TO THE EDGE OF SHOULDER ON BOTH SIDES OF THE BARRIER AND A VARIABLE HEIGHT AS DETAILED IN THE PLANS ON SHEET 43. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE C, AS PER PLAN.

ITEM 622 – CONCRETE BARRIER, TYPE D, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE D CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND HAS A CONCRETE FOOTER THAT DOES NOT EXTEND PAST THE BARRIER ON THE BACK SIDE AND HAS A TOP WIDTH THAT VARIES SO THE BARRIER CAN ABUT AGAINST OBJECT TO BE PROTECTED AS DETAILED IN THE PLANS ON SHEET 43. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE D, AS PER PLAN.

ITEM 622 – CONCRETE BARRIER, TYPE D, AS PER PLAN A

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE D CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND HAS A CONCRETE FOOTER THAT EXTENDS 24" FROM THE BARRIER TO THE EDGE OF SHOULDER ON ONE SIDE AS DETAILED IN THE PLANS ON SHEET 43. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE D, AS PER PLAN A.

ITEM 622 – CONCRETE BARRIER, TYPE D50, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A TYPE D50 CONCRETE BARRIER IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 622, AND HAS A CONCRETE FOOTER THAT EXTENDS 21" FROM THE BARRIER TO THE EDGE OF SHOULDER ON ONE SIDE AS DETAILED IN THE PLANS ON SHEET 43. FOR INFORMATION NOT SHOWN IN THE PLAN DETAILS, REFER TO STANDARD DRAWING MC–9.3.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 622 – CONCRETE BARRIER, TYPE D50, AS PER PLAN.

ITEM 659 – WATERING AND MOWING PERMANENT SEEDED AREAS

THE FOLLOWING QUANTITIES ARE TO BE USED, AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR PERMANENT SEEDED AREAS.

ITEM 659 – WATER	33.9	M. GAL.
ITEM 659 – MOWING	35.3	M. SQ.FT.

ITEM 659 – SEEDING AND MULCHING

AN ADDITIONAL QUANTITY OF 1,000 SQUARE YARDS OF SEEDING AND MULCHING AND .09 TONS OF FERTILIZER AND 3 M. GALLONS OF WATER HAS BEEN INCLUDED IN THE SUMMARY TO SEED EXISTING ERODED OR UNVEGETATED AREAS. ANY AREA OUTSIDE THOSE DESIGNATED TO BE SEEDED WHICH ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AND RESEEDED AT HIS EXPENSE, AS DIRECTED BY THE ENGINEER.

ITEM 670 – DITCH EROSION PROTECTION

IN ADDITION TO THE REQUIREMENTS OF ITEM 670 AND ITEM 108.04, THE FOLLOWING SHALL ALSO APPLY:

ROCK OF A STABLE NATURE OR TURF OF A STABLE NATURE SHALL NOT BE REMOVED TO PLACE THIS ITEM. THE ENGINEER SHALL CHECK AND NON–PERFORM QUANTITIES, OR ADJUST LOCATIONS AND QUANTITIES FOR THIS ITEM DURING CONSTRUCTION, AS FIELD CONDITIONS WARRANT.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 670 – DITCH EROSION PROTECTION.

CONCRETE CURB AND MEDIAN REPAIR QUANTITIES

THE FOLOWING QUANTITIES SHALL BE USED, AS DIRECTED BY THE ENGINEER, TO REPAIR DETERIORATED CONCRETE CURB AND CONCRETE MEDIAN WHERE THEY EXIST. THIS WORK SHALL CONSIST OF REMOVING ALL LOOSE DEBRIS, SQUARING OF CURB OR MEDIAN, PLACEMENT OF FORMS, POURING OF CONCRETE TO INSURE A FINISH FLUSH WITH THE SURROUNDING SURFACE. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY;

ITEM 609 – CURB, TYPE 6	1000 LIN. FT.
ITEM 612 – CONCRETE MEDIAN	1500 SQ. YD.

REMOVAL OF EXISTING MAINTENANCE ASPHALT OVERLAY

AN EMERGENCY MAINTENANCE RESURFACING PROJECT WAS IMPLEMENTED BY THE DISTRICT MAINTENANCE DEPARTMENT OF THE OHIO DEPARTMENT OF TRANSPORTATION. FOR STATION LIMITS AND ADDITIONAL INFORMATION SEE PROJECT DOCUMENTS ON FILE FOR INSPECTION AT THE DISTRICT 8 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, LEBANON, OHIO.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

MAINLINE	4,284	SQ.YD.
SHOULDERS	744	SQ.YD.
TOTAL	5,028	SQ.YD.

ITEM 254 – PAVEMENT PLANING, BITUMINOUS 5,028 SQ.YD.

ITEM 605 – 6" UNCLASSIFIED PIPE UNDERDRAIN, AS PER PLAN, 707.15

THIS ITEM SHALL CONSIST OF CONSTRUCTING A 6" UNCLASSIFIED PIPE UNDERDRAIN IN THE SLIDE AREAS IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF ITEM 605 AT THE LOCATIONS AS SHOWN ON SHEETS 29T THRU 302.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 605 – 6" UNCLASSIFIED PIPE UNDERDRAIN, AS PER PLAN, 707.15.

UTILITY CONFLICTS WITH PROPOSED SHALLOW UNDERDRAIN, AS PER PLAN

WHERE THE PLANS INDICATE UNDERDRAIN TO BE INSTALLED, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ANY CONFLICTING UTILITIES INCLUDING ELECTRICAL CROSSINGS. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO EXPOSE THE UTILITY IN ORDER TO PREVENT DAMAGE AND TO PROVIDE A POSITIVE UNDERDRAIN SYSTEM. IF THE DEPTH OF THE UTILITY IS NOT BELOW THE DRAINAGE SYSTEM IT WILL BE THE CONTACTORS RESPONSIBILITY TO INSURE POSITIVE DRAINAGE. IF ANY DAMAGE OCCURS TO ANY UTILITY IT WILL BE THE CONTRACTORS RESPONSIBILITY TO MAKE NECESSARY REPAIRS ACCORDING TO THE PROJECT ENGINEER AT NO ADDITIONAL COST TO THE STATE.

APPROXIMATE LOCATION OF EXISTING UNDERDRAIN CAN BE OBTAINED FROM ORIGINAL PLANS IN THE DISTRICT OFFICE. HOWEVER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE THE UNDERDRAINS PRIOR TO PERFORMING THE WORK TO MINIMIZE ANY POTENTIAL CONFLICTS.

ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAIN, AS PER PLAN, 707.15	500 LIN.FT.
ITEM SPECIAL - PRECAST REINFORCED CONCRETE OUTLET	25 EACH

CALC BY ____ DATE ____
CHKD BY ____ DATE ____
HAM-71-2.92
OHIO
FHWA REGION 5
46A
615

GENERAL NOTES

ITEM 603 - 4" OR 6" CONDUIT TYPE F, 707.17, NON-PERFORATED, ASTM D-3034 SDR 35, SS 931 OR SS 964

WHERE PROPOSED UNDERDRAINS ARE TO BE CONNECTED TO EXISTING CATCH BASINS, THE EXISTING CONCRETE APRON AROUND THE CATCH BASIN SHALL BE RESTORED TO ITS EXISTING CONDITION UPON COMPLETION OF THE INSTALLATION OF THE PROPOSED 6" CONDUIT. PAYMENT FOR THIS RESTORATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 603.

ITEM 203 - DITCH CLEANOUT

WHERE PLANS CALL FOR OUTLETTING A PROPOSED DRAINAGE SYSTEM INTO AN EXISTING DITCH, THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER TO RE-ESTABLISH POSITIVE DRAINAGE. THE WORK SHALL CONSIST OF RE-ESTABLISHING THE CROSS-SECTION OF THE EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF PER 203.05. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF 203.07 EXCEPT THAT THE COMPACTION REQUIREMENTS ARE WAIVED. MEASUREMENT OF THE DITCH CLEANOUT SHALL BE THE ACTUAL LINEAR FEET MEASURED ALONG THE CENTERLINE OF THE DITCH. PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, DITCH CLEANOUT. AN ESTIMATED QUANTITY OF 2500 LIN. FT. IS CARRIED TO THE GENERAL SUMMARY.

ITEM 202 - FENCE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL INCLUDE THE REMOVAL AND DISPOSAL OF EXISTING FENCE FABRIC, POSTS AND ASSEMBLIES INCLUDING ALL CONCRETE ENCASEMENT; AND THE REMOVAL AND DISPOSAL OF ALL TREES, STUMPS, AND BRUSH A MINIMUM OF TWO (2) FEET EACH SIDE OF THE EXISTING FENCE LINE, RIGHT-OF-WAY PERMITTING. ALL TREES, STUMPS, BRUSH, ETC., DESIGNATED FOR REMOVAL SHALL BE CUT OFF FLUSH WITH THE GROUND. IMMEDIATELY AFTER CUTTING, THE STUMPS SHALL BE TREATED WITH "BANVIL CST" OR "TORDON TRU" AS PER THE MANUFACTURER'S RECOMMENDATIONS. ALL LITTER MUST BE REMOVED FROM THE WORK AREA. ALL VEGETATION SHALL BE CUT OR MOWED TO A HEIGHT BETWEEN 3" TO 5". ITEMS FOR DISPOSAL SHALL NOT BE STORED OR STACKED WITHIN 30' OF THE PAVEMENT EDGE AND SHALL BE DISPOSED OF WITHIN FIVE (5) WORKING DAYS AFTER REMOVAL.

IT IS THE INTENT OF THIS PLAN TO REMOVE THE EXISTING FENCE AND INSTALL THE NEW FENCE IN A CONTINUOUS OPERATION. THE MAXIMUM LENGTH OF FENCE REMOVAL SHALL NOT PRECEDE THE REPLACEMENT OPERATION BY MORE THAN TWO (2) DAYS OR 2000 FEET. THE REMOVAL OF ALL FENCE SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. NO FENCE SHALL BE REMOVED UNTIL REPLACEMENT MATERIAL IS ON THE SITE, READY FOR INSTALLATION.

IT IS INTENDED FOR THE NEW FENCE TO BE INSTALLED IN THE SAME LOCATION AS THE EXISTING FENCE. THE CONTRACTOR WILL BE RESPONSIBLE FOR REFERENCING THE EXISTING ANGLE POINTS.

THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR MAINTAINING SECURITY FOR THOSE PROPERTIES WHICH USE THE RIGHT-OF-WAY FENCE AS A PORTION OF THE SECURITY FENCE WHICH ENCLOSES THEIR PROPERTIES. THIS REQUIREMENT WILL BE STRICTLY ENFORCED.

FAILURE TO COMPLY WITH ALL THE ABOVE REQUIREMENTS SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER SUSPENSION OF THE WORK UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED OF SAID COMPLIANCE. SUSPENSION OF WORK DUE TO THE CONTRACTOR'S FAILURE TO COMPLY WILL NOT ALTER THE COMPLETION SCHEDULES SET FORTH FOR THE PROJECT.

THE COST ASSOCIATED WITH THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 FENCE REMOVED, AS PER PLAN.

ITEM SPECIAL - HYDRATED LIME

TO ASSIST IN THE TIMELY PREPARATION OF THE SUBGRADE IN FULL DEPTH PAVEMENT REPLACEMENT AND FULL DEPTH SHOULDER REPLACEMENT AREAS, THIS ITEM IS PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER, TO CONTROL MOISTURE CONTENT IN THE PROPOSED SUBGRADE, ANY SLIDE CORRECTIONS, AND OTHER AREAS DEEMED NECESSARY BY THE ENGINEER. THIS ITEM OF WORK SHALL INCLUDE FURNISHING, SPREADING, AND DISKING THE LIME MATERIAL INTO THE PROPOSED SUBGRADE TO OBTAIN THE PROPER MOISTURE CONTENT AS PER 203.11. THE RATE OF APPLICATION SHALL BE NO GREATER THAN 2% OF THE MAXIMUM DRY WEIGHT OF THE SUBGRADE MATERIAL. THE SUBGRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH 203.13 IRRESPECTIVE OF WHETHER OR NOT THE LIME MATERIAL IS USED. USE OF LIME WILL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY OTHER PROVISIONS OF ITEM 203.

HYDRATED LIME CAN CAUSE SKIN BURNS AND EYE IRRITAION. BOTH CONSTRUCTION AND INSPECTION PERSONNEL SHALL WEAR APPROPRIATE CLOTHING, FULL COVERAGE EYE GOGGLES, AND DUST MASK WHEN HYDRATED LIME IS IN USE. WATER HAS BEEN PROVIDED FOR DUST CONTROL ARISING FROM CONSTRUCTION TRAFFIC AND LIME USAGE. THE HYDRATED LIME MAY BE SPRINKLED WITH WATER PRIOR TO DISKING TO SUPPRESS DUST. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL NUISANCE DUST PARTICULARLY DUE TO THE CLOSE PROXIMITY OF RESIDENTIAL HOUSING. USAGE OF HYDRATED LIME DURING WINDY DAYS IS TO BE AVOIDED.

IF HYDRATED LIME IS PURCHASED IN BULK AND STORED IN A PILE, THE PILE SHALL BE KEPT COVERED, SHIELDING SAME FROM WIND AND RAIN. CONVEYANCE FROM STOCK PILE TO EMBANKMENT PLACEMENT SITE SHALL BE VIA COVERED TRUCK BED OR BUCKET TO LIMIT DUST. IF LIME IS PROVIDED IN BAGGED FORM, CARE IS TO BE TAKEN WHEN OPENING BAGS ON THE FILL TO AVOID DUST FROM "SHAKING" THE BAGS.

AN ESTIMATED QUANTITY OF 100 TONS OF ITEM SPECIAL - HYDRATED LIME AND 3 M. GAL. OF ITEM 659 WATER HAS BEEN CARRIED TO THE GENERAL SUMMARY. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO PERFORM THE ABOVE WORK TO THE SATISFACTION OF THE ENGINEER.

STATIONS

STATIONS SHALL BE MARKED EVERY 100 FEET AND BE VISIBLE FOR BOTH MAINLINE AND RAMPS FOR ENTIRE LENGTH OF THE JOB FOR THE ENTIRE DURATION OF ROAD CONSTRUCTION.

ITEM SPECIAL- RESHAPING BERM

THIS ITEM WILL INCLUDE REMOVING THE EXISTING BUILD UP OF MATERIAL ADJACENT TO THE PAVED SHOULDERS TO PROVIDE POSITIVE DRAINAGE AND ALLOW PROPER PLACEMENT OF 617. THE LIMITS OF WORK, WHICH MIGHT INCLUDE UNDER GUARDRAIL, WILL BE MARKED BY THE PROJECT ENGINEER PRIOR TO THE WORK. AN ESTIMATED QUANTITY OF 5000 LIN. FT. IS CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

REPAIR CONCRETE APRON AROUND CATCH BASIN

THIS ITEM OF WORK SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT TO REMOVE AND REPLACE CONCRETE PAVEMENT AND CURB AROUND C.B. AS DESIGNATED BY THE PROJECT ENGINEER. THIS WILL INCLUDE REMOVING CONCRETE FROM AROUND C.B. INCLUDING CASTING, REGRADE AND STABILIZE BOTH SUBBASE AND SUBGRADE, PROVIDE A NEAT SAWED VERTICAL FACE OF ADJACENT PAVEMENT, INSTALL DOWELS AND EXPANSION PAPER AS PER STANDARD DRAWING CB-3, CB-3A OR CB-6 REPLACE ANY DAMAGED OR BROKEN CASTINGS WITH SAME KIND AND REPLACE PAVEMENT AND CURB AS NECESSARY.

THE COST SHALL ALSO INCLUDE ALL NECESSARY TRAFFIC CONTROL TO CONSTRUCT AND PROVIDE PROPER CURE TIME.

AN ESTIMATED QUANTITY OF 10 EACH OF REMOVE AND REPAIR CONCRETE APRON HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

GENERAL NOTES

ITEM 202 – RAISED PAVEMENT MARKER REMOVED, AS PER PLAN

PRISMATIC RETRO REFLECTORS SHALL BE REMOVED FROM THE RAISED PAVEMENT MARKER CASTINGS AT THE PROJECT LEAD-IN AREAS. SEE MAINTENANCE OF TRAFFIC GENERAL NOTE SHEET 38, "TEMPORARY REMOVAL OF PRIMATIC RETRO REFLECTORS" FOR DETAILS.

A TOTAL OF 40 EACH OF THIS ITEM HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

ITEM 202 – REMOVAL MISC.: PORTION OF CURB REMOVED

IN ADDITION TO THE REQUIREMENTS OF ITEM 202 THE FOLLOWING SHALL ALSO APPLY:

PARTIAL REMOVAL OF THE EXISTING CONCRETE CURB, AS DETAILED ON SHEET 44A, REMOVAL OF ALL LOOSE DEBRIS IN PREPARATION OF PLACEMENT OF PROPOSED ASHPALT OVERLAY.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 202 – REMOVAL MISC.: PORTION OF CURB REMOVED.

ITEM 202 – RAISED PAVEMENT MARKER REMOVED

THE RAISED PAVEMENT MARKERS SHALL BE REMOVED AS PER ITEM 202 AN DISPOSED OF ACCORDINGLY.

A TOTAL OF 3387 EACH OF THIS ITEM HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN, 707.15

FOR DETAILS AND NOTES PERTAINING TO THE INSTALLATION OF THIS ITEM, SEE SHEET 291.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN, 707.15.

ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A 6" SHALLOW PIPE UNDERDRAIN IN THE MEDIAN UNDER THE PAVED GUTTER AREAS AND BEHIND SOME RAMP CURBING, IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF ITEM 605 AT THE LOCATIONS AS SHOWN ON SHEETS 10, 12 AND 13.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN, AS PER PLAN.

ITEM 517 – RAILING FACED, AS PER PLAN (32" HIGH)

THIS ITEM SHALL CONSIST OF RECONSTRUCTING THE CONCRETE FACE OF THE EXISTING RETAINING WALL PARAPET IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 517, AS DETAILED IN THE PLANS ON SHEET 44B.

PAYMENT FOR THIS WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 517 – RAILING FACED, AS PER PLAN (32" HIGH).

PROPOSED CHAIN LINK FENCE

DUE TO SOME DEVELOPMENT EXPECTED TO TAKE PLACE IN THE NEAR FUTURE ON THE LEFT SIDE OF I-71 BETWEEN KENNEDY RD.& RED BANK RD.THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT THE PROPOSED CHAIN LINK FENCE BETWEEN STA.419+00(23-03 KENNEDY) AND 436+0472 DURING THE INTIAL STAGES OF THE PROJECT. FAILURE TO DO SO,SHALL SUBJECT THE CONTRACTOR TO LIQUIDATED DAMAGES IN ACCORDANCE WITH THE CONSTRUCTION AND MATERIAL SPECIFICTIONS.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COORDINATE THE WORK ACTIVITIES THAT WILL BE PERFORMED CONCURRENTLY UNDER A SEPARATE CONTRACT ON THE SAME SECTION OF I-71,BETWEEN THIS PROJECT AND THE REGIONAL TRAFFIC MANAGEMENT SYSTEM (RTMS). THE CONTRACTOR SHALL PAY CAREFUR ATTENTION TO 105.07 OF THE SPECIFICATIONS TO INSURE THAT CONFLICTING LANE CLOSURES,ECT.DO NOT OCCUR.

ITEM 413 - PAVEMENT REPAIR, MISC.: SAWING INTERMEDIATE ASPHALT PAVEMENT JOINTS, AS PER PLAN

THIS WORK SHALL CONSIST OF SAW CUTTING ALL TRANSVERSE JOINTS ACROSS THE INTERMEDIATE COURSE OF THE ASPHALT CONCRETE PAVEMENT AND PAVED SHOULDERS PRIOR TO OPENING TO TRAFFIC. JOINTS SHALL BE CONSTRUCTED DIRECLY OVER AND IN LINE WITH THE EXISTING UNDERLYING TRANSVERSE PORTLAND CEMENT CONCRETE PAVEMENT JOINTS IN ACCORDANCE WITH THE PLAN AND AS DIRECTED BY THE ENGINEER.

THE WORK SHALL COMPLY WITH ALL THE REQUIREMENTS CONTAINED IN ODOT SPECIFICATION ITEM 413 EXCEPT THE CONTRACTOR WILL BE COMPENSTED FOR THE SAW CUT ONLY MADE IN THE INTERMEDIATE COURSE; SEALING IS NOT REQUIRED. PAYMENT SHALL BE INCLUDED UNDER ITEM 413 - SAWING INTERMEDIATE ASPHALT CONCRETE PAVEMENT JOINTS, AS PER PLAN.

AN ESTIMATED QUANTITY OF 188,648 LIN.FT. HAS BEEN CARRIED TO THE GENERAL SUMMARY.

TRAFFIC SURVEILLANCE EQUIPMENT

THE CONTRACTOR IS ALERTED THAT ADDITIONAL TRAFFIC SURVEILLANCE EQUIPMENT HAVE BEEN INSTALLED ON THIS PROJECT. SOME OF THIS EQUIPMENT IS NOT SHOWN ON THE CONTRACT PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THIS EQUIPMENT AND ARRANGE HIS WORK ACCORDINGLY. PLANS ARE AVAILABLE AT THE DISTRICT OFFICE FOR REVIEW BY THE CONTRACTOR. ANY EQUIPMENT DAMAGED DUE TO THE CONTRACTORS NEGLIGENCE SHALL BE REPLACED AND/OR REPAIRED AT HIS OWN EXPENSE.

CALC. BY: DATE:	FHWA REGION	STATE	PROJECT	
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HAM-71-2.92

CONDUIT SYSTEM - GENERAL

GENERAL

ALL CONDUIT, PULL BOXES AND TRENCHING SHALL BE INSTALLED PER SECTION 625 IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ALL PULL BOXES SHALL BE CONSTRUCTED OF CONCRETE OR REINFORCED HEAVY WEAVE FIBERGLASS REINFORCED CONCRETE OR AND APPROVED EQUAL AND CONFORM TO PARAGRAPHS 713.08 AND 713.081 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS. ALL JUNCTION BOXES AND PULLBOXES SHALL BE GROUNDED PER SECTION 625.

ALL CONDUIT ATTACHED TO UNDERSIDE OF A BRIDGE STRUCTURE SHALL BE BULLET RESISTANT FIBERGLASS CONDUIT. ALL CONDUIT FOR ROAD BORES SHALL BE PVC SCHEDULE 40 CONDUIT. ALL OTHER CONDUIT SHALL BE CONCRETE ENCASED PVC TYPE C CONDUIT.

ALL CONDUIT WILL BE OF THE SIZE AND TYPE AS INDICATED ON THE PLANS. ALL 4 INCH CONDUIT, EXCEPT THAT INDICATED AS "BB" ON THE PLANS, SHALL BE A NOMINAL 4 INCH CONDUIT AND SHALL CONTAIN A FACTORY ASSEMBLED MULTI CELLED CONDUIT SYSTEM CONSISTING OF FOUR 1-1/4 INCH INNERDUCTS FOR THE COMPARTMENTALIZATION OF CABLES. THE 4" CONDUIT INDICATED AS "BB" ON THE PLANS SHALL CONTAIN NO INNERDUCT.

THE CONDUIT SHALL BE DESIGNED TO PROVIDE FOR CONNECTING (COUPLING) ONE COMPLETE SECTION OF CONDUIT ASSEMBLY TO THE NEXT SECTION BY USE OF A BELL JOINT ON ONE END OF THE OUTER CONDUIT AND MULTIPLE SEALS ON EACH OF THE FOUR INNERDUCTS. THE CONDUIT SECTIONS SHALL BE DESIGNED TO ASSEMBLE SPIGOT INTO THE BELL END.

THE COUPLING SHALL BE FACTORY ASSEMBLED IN THE BELL END OF THE OUTER CONDUIT, AND SHALL BE SUPPLIED WITH LEAD-INS TO FACILITATE ASSEMBLY. THE COUPLINGS SHALL BE DESIGNED AND FACTORY CERTIFIED TO HANDLE NORMAL EXPANSION AND CONTRACTIONS.

SPECIAL TERMINATION KITS SHALL BE PROVIDED BY THE CONDUIT MANUFACTURER FOR TERMINATING THE CONDUIT IN PULL BOXES, JUNCTION BOXES AND THE LIKE. THE KITS SHALL PROVIDE FOR AN AIR AND WATER TIGHT SEAL OF CONDUIT TO STRUCTURE WALL.

ON BORE INSTALLATIONS, THE OUTER CONDUIT AND INNERDUCT IS TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR IS TO MAINTAIN A MINIMUM OF 30 INCHES BELOW SURFACE OF ROADWAY AT ALL POINTS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DEPTH OF ALL DRAINS, SEWERS, ELECTRIC LINES AND THE LIKE BEFORE BORING.

ALL BURIED CONDUIT SHALL BE INSTALLED WITH A #14AWG THWN OR XHHW WIRE CONDUCTOR. THE WIRE CONDUCTOR SHALL BE INSTALLED INTO CABLE VAULTS AND PULL BOXES AT BOTH ENDS OF TRENCH.

THE INNERDUCT ASSEMBLY SHALL CONSIST OF FOUR HIGH DENSITY POLYETHYLENE (HDPE) WITH A RIBBED I.D., OR APPROVED EQUIVALENT, COLOR CODED DUCTS. EACH DUCT SHALL BE A NOMINAL 1-1/4" DIAMETER WITH AN INSIDE DIAMETER OF 1.194 INCHES AND MINIMUM WALL THICKNESS OF 0.063 INCHES. THE FOUR DUCTS SHALL BE PREASSEMBLED IN THE FACTORY AND INSERTED INTO THE OUTER CONDUIT.

THE FACTORY INSTALLED INNER DUCTS SHALL BE FABRICATED OF HDPE OR APPROVED EQUIVALENT WITH A FRICTION COEFFICIENT OF .090 OR BETTER. NO EXTERNAL LUBRICANT SHALL BE USED TO OBTAIN THE MINIMUM COEFFICIENT OF FRICTION.

INNERDUCTS SHALL BE DISTINGUISHABLE FROM EACH OTHER BY COLOR CODING, AS INDICATED IN THE CONTRACT DOCUMENTS. THE ENTIRE DUCT SHALL BE COLORED BY INDUSTRY STANDARDS COLORING ADDITIVE TO THE DUCT MATERIAL, NOT BY AN EXTERNAL APPLIED COLORING. THE INNERDUCT COLORING WILL BE THE SAME FOR THE ENTIRE PROJECT REGARDLESS OF OUTERDUCT MATERIAL AND WILL BE USED AS FOLLOWS:

RED OR ORANGE - ELECTRIC CABLE
BLUE OR GREEN - FIBER OPTIC OR TELEPHONE
WHITE - COMMUNICATION CABLE OR LEADIN CABLE FROM FIELD DEVICE TO CONTROLLER CABINET
GRAY - SPARE OR AS REQUIRED

WHERE A SECOND CONDUIT IS REQUIRED AS INDICATED ON THE PLANS, THE INNERDUCT SHALL BE ONE GRAY AND THREE WHITE.

THE THREE 1-1/4" INNERDUCT TO BE INSTALLED IN EXISTING CONDUIT SHALL BE OF THE SAME COLORS AS ABOVE, EXCLUDING THE GRAY, AND BE INSTALLED WITH AIR AND WATERTIGHT END TERMINATORS AT ALL PULL BOXES. WHERE INNERDUCT IS REQUIRED IN BOTH EXISTING CONDUIT AS INDICATED ON THE PLANS, THE THREE 1-1/4" INNERDUCT IN THE SECOND CONDUIT SHALL BE WHITE IN COLOR AND INSTALLED WITH AIR AND WATERTIGHT AND TERMINATORS AT ALL PULLBOXES, JUNCTION BOXES AND THE LIKE.

THE OUTERDUCT SHALL HAVE A LONGITUDINAL PRINT LINE THAT DENOTES, "INSTALL THIS SIDE UP", TO ALLOW FOR THE PROPER ALIGNMENT OF THE INNERDUCTS. THE OUTERDUCT SHALL BE MARKED WITH DATA TO TRACE THE PLANT LOCATION, DATE, SHIFT AND MACHINE USED IN THE MANUFACTURING PROCESS.

EACH COMPLETE CONDUIT SECTION SHALL BE IDENTICALLY KEYED TO PROVIDE FOR PROPER ALIGNMENT OF THE INNERDUCT. THE SPIGOT END OF THE CONDUIT SECTION SHALL HAVE A LOCATOR TO PROVIDE A REFERENCE POINT FOR PROPER ALIGNMENT DURING CONNECTION.

THE CONDUIT SHALL BE PACKAGED FOR SHIPMENT AT THE FACTORY. THE CONDUIT SHALL BE ASSEMBLED INTO MANAGEABLE BUNDLES.

THE COMPLETE CONDUIT SECTIONS INCLUDING OUTER CONDUITS, INNERDUCTS, AND ALL SPACERS AND CONNECTION PARTS SHALL BE CERTIFIED BY THE MANUFACTURE AS COMPLETE AND FREE OF DEFECTS INCLUDING NON-CIRCULARITY, FOREIGN INCLUSIONS, ETC. IT SHALL BE NOMINALLY UNIFORM (AS COMMERCIALLY PRACTICAL) IN COLOR, DENSITY, AND PHYSICAL PROPERTIES. IT SHALL BE STRAIGHT AND THE ENDS SHALL BE CUT SQUARE TO THE INSIDE DIAMETER.

THE CONSTRUCTION AND TESTING OF THE CONDUIT SHALL COMPLY WITH ALL APPLICABLE INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTIVE COMMITTEE (CCITT), ANSI, ASTM STANDARDS, NATIONAL AND STATE ELECTRIC CODES, AND FDDI, SPECIFICATIONS AND SHALL BE UNDERWRITTEN LABORATORY LISTED.

FITTINGS

A COMPLETE LINE OF FITTINGS, ADAPTORS, AND BENDS (SWEEPS) SHALL BE PROVIDED AND SHALL BE MANUFACTURED FROM THE SAME MATERIALS AND MANUFACTURING PROCESS AS THE CONDUIT.

COMPLETE CONDUIT FLEXIBLE BEND SECTIONS, INCLUDING BOTH FLEXIBLE STEEL AND PVC OUTER CONDUIT AND FLEXIBLE INNERDUCT, SHALL BE MANUFACTURED, AND SHALL BE COMPLETE WITH BELL AND SPIGOT. ALL BENDING RADIUS SHALL BE FOUR(4) FEET OR GREATER.

FLEXIBLE BENDS (SWEEPS) ARE TO BE USED WHERE CHANGES IN ALIGNMENT DO NOT PERMIT USE OF STRAIGHT RIGID SECTIONS. THE FLEXIBLE BENDS ARE NOT TO BE CUT. ADJUST PULL BOXES AND THE LIKE TO FIT. FIELD BENDS ARE NOT TO BE MADE ON THE MULTDUCT CONDUIT.

CONDUIT COUPLING SHALL BE PROVIDED TO COUPLE THE FOLLOWING CONDUIT COMBINATIONS:

1) HDPE TO HDPE OR APPROVED EQUIVALENT INNER CONDUIT
2) PVC TO PVC OUTER CONDUIT
3) PVC TO GALVANIZED STEEL OUTER CONDUIT
4) PVC TO FIBERGLASS OUTER CONDUIT
5) FIBERGLASS TO GALVANIZED STEEL OUTER CONDUIT

ULTRAVIOLET PROTECTION

CONDUIT AND FITTINGS SHALL BE SUPPLIED WITH AN ULTRAVIOLET INHIBITOR.

CABLE PULLING

GRADUATED PULL TAPE ARE TO BE PROVIDED IN ALL INNERDUCTS.

ITEM 625 - CONDUIT, CONCRETE ENCASED, AS PER PLAN 4"

PROTECTIVE OUTERDUCT FOR BORING SHALL BE 4", SCHEDULE 40, PVC-DUCT WITH EXTENDED MINIMUM 5" INTEGRAL BELL END AND CONFORM TO NEMA-TC2. PROTECTIVE OUTERDUCT FOR BURIAL SHALL BE 4", TYPE C PVC-DUCT WITH EXTENDED MINIMUM 5" INTEGRAL BELL END AND CONFORM TO NEMA-TC10.

ALL BEND RADII SHALL BE FOUR(4) FEET OR GREATER.

MARKING

THE OUTERDUCT SHALL HAVE A LONGITUDINAL RUNNING PRINT LINE THAT DENOTES "INSTALL THIS SIDE UP" SO AS TO ASSURE PROPER INNERDUCT ALIGNMENT.

THE OUTERDUCT SHALL BE MARKED WITH DATA TRACEABLE TO PLANT LOCATION, DATE, SHIFT, AND MACHINE OF MANUFACTURE.

THE OUTERDUCT SHALL HAVE A CIRCUMFERENTIAL RING ON THE SPIGOT END OR DUCT TO PROVIDE A REFERENCE POINT FOR ENSURING TO PROPER INSERTION DEPTH WHEN CONNECTION CONDUIT ENDS.

GASKETS

THERE SHALL BE PROVIDED A PRIMARY COUPLING BODY THAT IS MANUFACTURED AS A MOLDED ONE PIECE THERMOPLASTIC RUBBER OR APPROVED EQUIVALENT AND INCORPORATES INTEGRAL MOLDED SEALING DEVICES TO FACILITATE FIELD ASSEMBLY AND PREVENT WATER AND FOREIGN MATERIAL LEAKAGE FROM OUTSIDE THE MULT-DUCT SYSTEM AND TO PREVENT AIR LEAKAGE FROM INSIDE THE INNERDUCTS. NO LUBRICANT SHALL BE REQUIRED FOR FIELD ASSEMBLY OF THIS PRODUCT AND ASSEMBLY SHALL BE ACCOMPLISHED SOLELY BY HAND WITHOUT USE OF SPECIAL TOOLS.

THE COUPLING BODY SHALL HAVE A PLURALITY OF BORES CONTAINING PRINCIPAL SEALS WHICH ARE MOLDED AS AN INTEGRAL PART OF THE COUPLING BODY.

THE COUPLING BODY WITH ITS SEALING MEMBER(S) MUST SEAL THE OUTER WALLS OF THE INNERDUCTS AND THE INNER WALL OF THE OUTERDUCT PROVIDING AN AIRTIGHT SEAL FROM THE OUTSIDE OF THE OUTERDUCT BY MEANS OF THE FOLLOWING TESTS OR APPROVED EQUIVALENT.

THE EXTERNAL 4" CONDUIT JOINT SHALL BE TESTED FOR WATER TIGHTNESS USING THE FOLLOWING PROCEDURE:

NOTE: FOR ALL TEST PROCEDURES, THE TEST CONDITIONS SHALL BE 73 DEGREES FAHRENHEIT +/- 3 DEGREES WITH A RELATIVE HUMIDITY OF 50 PERCENT UNLESS OTHERWISE SPECIFIED.

TWO 18" TO 36" LENGTHS OF DUCT (ONE FACTORY BELL END AND ONE FACTORY SPIGOT END) ARE TO BE JOINED WITHOUT THE APPLICTION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. THE CENTER OF THE SECTION OF THE CONDUIT CONTAINING THE JOINT SHALL BE ENCLOSED WITHIN A HOUSING SUITABLE FOR CONTAINING WATER AT OR ABOVE A POSITIVE PRESSURE OF 20 P.S.I.G. OR A WATER COLUMN OF 12 FEET. THE ENCLOSURE IS TO BE SUFFICIENTLY FILLED WITH WATER TO COMPLETELY COVER THE CONDUIT JOINT WITHIN. A REGULATED AIR PRESSURE OF 20 P.S.I.G. OR A WATER COLUMN OF 12 FEET ABOVE THE JOINT IS TO BE APPLIED TO THE INTERIOR OF THE ENCLOSURE BY WAY OF A SEALED CONNECTION. THE ENDS OF THE CONDUIT SHALL PROTRUDE THROUGH THE SEALED EXTERIOR OF THE HOUSING IN ORDER TO FACILITATE INSPECTION FOR LEAKAGE OF WATER TO THE INSIDE. THE CONDUIT ASSEMBLY SHALL SHOW NO SIGNS OF LEAKAGE FOR A PERIOD OF 24 HOURS. IF LEAKAGE HAS NOT OCCURRED AT THE END OF THE INITIAL 24 HOUR TEST PERIOD, INCREASE THE PRESSURE 3 P.S.I.G. FOR ADDITIONAL 24 HOUR PERIODS UNTIL LEAKAGE OCCURS.

THE GASKET OR SEALING MEMBER(S) MUST BE POSITIONED SUCH TO ALLOW A MINIMUM INNERDUCT MOVEMENT OF 4.25" WITHOUT DISENGAGING INNERDUCT SEALING MEANS.

INNERDUCT SHALL BE TESTED FOR AIRTIGHTNESS SEQUENTIALLY USING THE FOLLOWING PROCEDURE OR AN APPROVED EQUIVALENT.

TWO 18" TO 36" LENGTHS OF DUCT (ONE FACTORY BELL END AND ONE FACTORY SPIGOT END) ARE TO BE FULLY JOINED WITHOUT THE APPLICATION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. ONE END OF AN INNER CONDUIT IS TO BE SEALED WITH A PLUG. THE OPPOSITE END OF THE SAME INNER CONDUIT IS TO BE FITTED WITH A PLUG AND HOSE ASSEMBLY FED BY AIR SUPPLY OF 100 P.S.I.G. BEFORE APPLYING AIR PRESSURE. THE INNERDUCT AND PLUGS SHALL BE PROPERLY SECURED IN PLACE TO PREVENT THEM FROM BEING EJECTED BY THE AIR PRESSURE, BUT NOT IN SUCH A FASHION AS TO COMPRESS THE JOINT. ONCE THE APPLICATION OF 100 P.S.I.G. OF AIR PRESSURE IS MADE TO THE CONDUIT, THE TIME REQUIRED TO REACH A STABILIZED CONSTANT PRESSURE OF 15 P.S.I.G. SHALL BE NO LESS THAN 10 MINUTES. THE COUPLING BODY SHALL ALSO SEAL THE INNERDUCT SO THAT AFTER THE APPLICATION OF THE 100 P.S.I.G. TO AN INNERDUCT, THE INNERDUCT SHALL BE CAPABLE OF MAINTAINING A MINIMUM OF 15 P.S.I.G. FOR 24 HOURS.

THE COUPLING BODY SHALL ALSO BE CAPABLE OF RELIEVING EXTERNAL PRESSURE TO ELIMINATE THE POSSIBILITY OF INNERDUCT COLLAPSE DUE TO PRESSURE BUILDUP BETWEEN THE INNER AND OUTERDUCTS. THIS PRESSURE BUILDUP MAY POTENTIALLY OCCUR DURING PNEUMATIC RODDING DUE TO A GASKET OR DUCT FAILURE. THE COUPLING BODY SHALL ALSO BE TESTED FOR OUTWARD PRESSURE RELIEF USING THE FOLLOWING PROCEDURE:

TWO 18" TO 36" LENGTHS OF DUCT (BOTH CONTAINING A FACTORY BELL END AND A FACTORY SPIGOT END) ARE TO BE JOINED WITHOUT THE APPLICATION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. A REGULATED AIR SUPPLY OF 40 P.S.I.G. SHALL BE APPLIED THROUGH A THREADED OPENING IN THE OUTERDUCT TO BE AIR SPACE CONFINED BE APPLIED THROUGH A THREADED OPENING IN THE OUTERDUCT TO BE AIR SPACE CONFINED BETWEEN THE INNER AND OUTERDUCTS AND BETWEEN THE COUPLING ASSEMBLIES AT EITHER END. BEFORE APPLYING AIR PRESSURE, THE ASSEMBLY TO BE TESTED SHALL BE PROPERLY SECURED IN PLACE TO PREVENT THEM FROM BEING EJECTED APART BY THE AIR PRESSURE. BUT NOT IN SUCH A FASHION AS TO COMPRESS THE JOINT. THE SEALS TESTED SHALL BE CAPABLE OF FREELY RELIEVING THE PRESSURE APPLIED AT A POINT NOT GREATER THAN 10 P.S.I.G.

THE GASKET OR SEALING MEMBER(S) SHALL BE AN ANTI-REVERSING DESIGN IN SUCH THAT THAT THE LENGTHS OF CONDUIT STAY JOINED TOGETHER WITHOUT NEED FOR SOLVENT CEMENT.

FIELD CONNECTION END OF THE INTERNAL COUPLING BODY SHALL INCORPORATE SHAPED TARGET AREAS TO ACCOMMODATE SELF ALIGNMENT OF INNERDUCTS WITH BORE OPENINGS DURING FIELD ASSEMBLY.

THE COUPLING BODY SHALL HAVE ONE OF THE BORE OPENINGS ON THE FIELD ASSEMBLY SIDE UNIQUELY IDENTIFIED TO FACILITATE PROPER CONTINUOUS INNERDUCT ALIGNMENT DURING FIELD ASSEMBLY.

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ASSEMBLY

THE CONDUIT SYSTEM SHALL BE ASSEMBLED IN THE FIELD PER THE MANUFACTURERS INSTRUCTIONS.

FITTINGS

THE CONDUIT SYSTEM SHALL BE A COMPLETE SYSTEM WITH ALL OF THE FOLLOWING FITTINGS OR AS REQUIRED BY THE MANUFACTURE:

COUPLING KITS
PULL BOX TERMINATOR KITS
LUBRICATION FITTINGS
REPAIR KITS
INSTALLATION ACCESSORIES

BENDS

THE CONDUIT SYSTEM SHALL OFFER A COMPLETE LINE OF FIXED AND FLEXIBLE SWEEPS WITH SYSTEM COMPATIBLE BELL AND SPIGOT ENDS.

FIXED AND FLEXIBLE 4-WAY BENDS SHALL BE SUPPLIED WITH HIGH TEMPERATURE BURN-THROUGH RESISTANT INNERDUCTS OF THE SAME MATERIALS AS THE STRAIGHT SECTIONS OF CONDUIT AND USING THE SAME COLOR CODING.

FIXED BENDS

THE CONDUIT SYSTEM SHALL OFFER THE FOLLOWING STANDARD FIXED BENDS:

DEGREE RADIUS	BEND(DEGREES)	SYSTEM
4'	11-1/4	
6'	22-1/2	4-WAY
9'	45	
	90	

FLEXIBLE BEND

THE FLEXIBLE BEND SHALL BE SUPPLIED IN TWO LENGTHS TO MEET FIELD REQUIREMENTS.

LENGTH		RADIUS(DEGREES)	DEGREE BEND SYSTEM
126"	MIN. 4 FT.	0-90	4-WAY
6 FT.	0-70		
9 FT.	0-55		
192"	MIN. 4 FT.	0-90	4-WAY
6 FT.	0-90		
9 FT.	0-90		

CAUTION: FLEXIBLE BENDS SHALL NOT BE BENT BEYOND THE MINIMUM 4 FOOT RADIUS.

INNERDUCT

THE INNERDUCTS CONTAINED WITHIN THE PVC OUTERDUCT SHALL BE MANUFACTURED FROM HDPE OR APPROVED EQUIVALENT. THE INNERDUCT SYSTEM SHALL BE FACTORY INSTALLED AND SHALL BE DESIGNED SO THAT EXPANSION AND CONTRACTION OF THE INNERDUCTS TAKES PLACE IN THE COUPLING BODY.

DYNAMIC CO-EFFICIENT OF FRICTION (COF) TESTED IN ACCORDANCE WITH BELLCORE TA-NWT-000356 PROCEDURE SHALL BE:

CABLE TYPE	C.O.F.
F/O HDPE JACKET	.027

DIMENSIONS-INNERDUCT

CODING	NOMINAL SIZE	MAXIMUM I.D.	MINIMUM WALL
4-WAY 4-COLOR	1-1/4"	1.194	0.063

COUPLING BODY

THE COUPLING BODY SHALL BE FACTORY ASSEMBLED IN THE BELL END OF THE OUTERDUCT AND SHALL BE MANUFACTURED FROM A HIGH IMPACT ENGINEERING THERMOPLASTIC. THE COUPLING BODY FACE SHALL BE SUPPLIED WITH LEAD-INS TO FACILITATE ASSEMBLY.

MARKING

THE COUPLING BODY SHALL HAVE EACH CONDUIT ENTRANCE IDENTIFIED WITH A REFERENCE POINT FOR PROPER ALIGNMENT AND CONTINUITY OF THE COLOR CODED INNERDUCT.

COUPLING BODY FACE SHALL BE SUPPLIED WITH LEADINS TO FACILITATE ASSEMBLY.

PAYMENT

THIS ITEM SHALL INCLUDE ALL MATERIAL, TOOLS AND LABOR TO COMPLETE THE JOB TO THE SATISFACTION OF THE PROJECT ENGINEER.
PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER LIN.FT., ITEM 625 - CONDUIT, CONCRETE ENCASED, AS PER PLAN, 4"
THE CONDUIT SHALL BE PURCHASED FROM ONE OF THE FOLLOWING COMPANIES OR AN APPROVED EQUAL:

VIKIMATIC SALES, INC.
600 PLUM CREEK DR.
P.O. BOX 629
WADSWORTH, OHIO 44281
1-800-345-8454

HASSELBACH & ASSOCIATES, INC.
431 W. SEYMOUR AVE.
CINCINNATI, OHIO 45216
1-800-582-4084

THE GEORGE-INGRAHAM CORP.
4605 STONEGATE INDUSTRIAL BLVD.
STONE MOUNTAIN, GA 30086-1869
1-800-631-6283

ITEM 625 - BRIDGE MOUNTED CONDUIT, AS PER PLAN, 4"

OUTERDUCT

THE CONDUIT SHALL BE FILAMENT WOUND FIBERGLASS REINFORCED EPOXY AS MANUFACTURED TO COMPLY WITH THE SPECIFICATIONS OUTLINED IN NEMA TC-14 AS NOTED. THE CONDUIT SHALL BE FREE FROM DEFECTS INCLUDING DELAMINATION, FOREIGN INCLUSIONS, ETC. IT SHALL BE NOMINALLY UNIFORM (AS COMMERCIALLY PRACTICAL) IN COLOR DENSITY, AND PHYSICAL PROPERTIES. IT SHALL BE STRAIGHT AND THE ENDS SHALL BE CUT SQUARE TO THE INSIDE DIAMETER.

DIMENSIONS

BULLET-RESISTANT FIBERGLASS CONDUIT SHALL BE SUPPLIED IN:

OUTSIDE DIAMETER	4.50"
INSIDE DIAMETER	4.00"
NOMINAL WALL THICKNESS	0.250"

MARKING

THE OUTERDUCT SHALL BE MARKED WITH DATA TRACEABLE TO PLANT LOCATION, DATE SHIFT, AND MACHINE OF MANUFACTURE.

THE OUTERDUCT SHALL HAVE CIRCUMFERENTIAL RING ON THE SPIGOT END OF THE DUCT TO PROVIDE A REFERENCE POINT FOR ENSURING THE PROPER INSERTION DEPTH WHEN CONNECTING CONDUIT ENDS AND FOR PROPER ALIGNMENT AND CONTINUITY OF THE COLOR CODED INTERDUCT.

THERE SHALL BE PROVIDED A PRIMARY COUPLING BODY THAT IS MANUFACTURED AS A MOLDED ONE PIECE THERMOPLASTIC RUBBER OR APPROVED EQUIVALENT AND INCORPORATES INTEGRAL MOLDED SEALING DEVICES TO FACILITATE FIELD ASSEMBLY AND PREVENT WATER AND FOREIGN MATERIAL LEAKAGE FROM OUTSIDE THE MULTI-DUCT SYSTEM AND TO PREVENT AIR LEAKAGE FROM INSIDE THE INNERDUCTS. NO LUBRICANT SHALL BE REQUIRED FOR FIELD ASSEMBLY OF THIS PRODUCT AND ASSEMBLY SHALL BE ACCOMPLISHED SOLELY BY HAND WITHOUT USE OF SPECIAL TOOLS.

THE COUPLING BODY SHALL HAVE A PLURALITY OF BORES CONTAINING PRINCIPAL SEALS WHICH ARE MOLDED AS AN INTEGRAL PART OF THE COUPLING BODY. THE COUPLING BODY.

THE COUPLING BODY WITH IT'S SEALING MEMBER(S) MUST SEAL THE OUTER WALLS OF THE INNERDUCT AND THE INNER WALL OF THE OUTERDUCT PROVIDING AN AIRTIGHT SEAL FROM THE OUTSIDE OF THE OUTERDUCT BY MEANS OF THE FOLLOWING TESTS OR APPROACH EQUIVALENT.

THE EXTERNAL 4" CONDUIT JOINT SHALL BE TESTED FOR WATER TIGHTNESS USING THE FOLLOWING PROCEDURE:

NOTE: FOR ALL TEST PROCEDURES, THE TEST CONDITIONS SHALL BE 73 DEGREES FAHRENHEIT +/-3 DEGREES WITH A RELATIVE HUMIDITY OF 50 PERCENT UNLESS OTHERWISE SPECIFIED.

TWO 18" TO 36" LENGTHS OF DUCT (ONE FACTORY BELL END AND ONE FACTORY SPIGOT END) ARE TO BE JOINED WITHOUT THE USE OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. THE CENTER OF THE SECTION OF THE CONDUIT CONTAINING THE JOINT SHALL BE ENCLOSED WITHIN A HOUSING SUITABLE FOR CONTAINING WATER AT OR ABOVE A POSITIVE PRESSURE OF 20 P.S.I.G. OR A WATER COLUMN OF 12 FEET. THE ENCLOSURE IS TO BE SUFFICIENTLY FILLED WITH WATER TO COMPLETELY COVER THE CONDUIT JOINT WITHIN. A REGULATED AIR PRESSURE OF 20 P.S.I.G. OR A WATER COLUMN OF 12 FEET ABOVE THE JOINT IS TO BE APPLIED TO THE INTERIOR OF THE ENCLOSURE BY WAY OF A SEALED CONNECTION. THE ENDS OF THE CONDUIT SHALL PROTRUDE THROUGH THE SEALED EXTERIOR OF THE HOUSING IN ORDER TO FACILITATE FOR LEAKAGE OF WATER TO THE INSIDE. THE CONDUIT ASSEMBLY SHALL SHOW NO SIGNS OF LEAKAGE FOR A PERIOD OF 24 HOURS. IF LEAKAGE HAS NOT OCCURRED AT THE END OF THE INITIAL 24 HOUR TEST PERIOD, INCREASE THE PRESSURE 3 P.S.I.G. FOR ADDITIONAL 24 HOUR PERIODS UNTIL LEAKAGE OCCURS.

THE GASKET OR SEALING MEMBER(S) MUST BE POSITIONED SUCH TO ALLOW A MINIMUM INNERDUCT MOVEMENT OF 4.25" WITHOUT DISENGAGING INNERDUCT SEALING MEANS.

INNERDUCTS SHALL BE TESTED FOR AIRTIGHTNESS SEQUENTIALLY USING THE FOLLOWING PROCEDURE OR AN APPROVED EQUIVALENT.

TWO 18" TO 36" LENGTHS OF DUCT (ONE FACTORY BELL END AND ONE FACTORY SPIGOT END) ARE TO FULLY JOINED WITHOUT THE APPLICATION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. ONE END OF AN INNER CONDUIT IS TO BE SEALED WITH A PLUG. THE OPPOSITE END OF THE SAME INNER CONDUIT IS TO BE FITTED WITH A PLUG AND HOSE ASSEMBLY FED BY AN AIR SUPPLY OF 100 P.S.I.G. BEFORE APPLYING AIR PRESSURE, THE INNERDUCT AND PLUGS SHALL BE PROPERLY SECURED IN PLACE TO PREVENT THEM FROM BEING EJECTED BY THE AIR PRESSURE. BUT NOT IN SUCH A FASHION AS TO COMPRESS THE JOINT. ONCE THE APPLICATION OF 100 P.S.I.G. OF AIR PRESSURE IS MADE TO THE CONDUIT, THE TIME REQUIRED TO REACH A STABILIZED CONSTANT PRESSURE OF 15 P.S.I.G. SHALL BE NO LESS THAN 10 MINUTES. THE COUPLING BODY SHALL ALSO SEAL THE INNERDUCT, THE INNERDUCT SHALL BE CAPABLE OF MAINTAINING A MINIMUM OF 15 P.S.I.G. FOR 24 HOURS.

THE COUPLING BODY SHALL ALSO BE CAPABLE OF RELIEVING EXTERNAL PRESSURE TO ELIMINATE THE POSSIBILITY OF INNERDUCT COLLAPSE DUE TO PRESSURE BUILDUP BETWEEN THE INNER AND OUTERDUCTS. THIS PRESSURE BUILDUP MAY POTENTIALLY OCCUR DURING PNEUMATIC RODDING DUE TO A GASKET OR DUCT FAILURE. THE COUPLING BODY SHALL ALSO BE TESTED FOR OUTWARD PRESSURE RELIEF USING THE FOLLOWING PROCEDURES:

TWO 18" TO 36" LENGTHS OF DUCT (BOTH CONTAINING A FACTORY BELL END AND A FACTORY SPIGOT END) ARE TO BE JOINED WITHOUT THE APPLICATION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. A REGULATED AIR SUPPLY OF 40 P.S.I.G. SHALL BE APPLIED THROUGH A THREADED OPENING IN THE OUTERDUCT TO BE AIR SPACE CONFINED BETWEEN THE INNER AND OUTERDUCTS AND BETWEEN THE COUPLING ASSEMBLIES AT EITHER END. BEFORE APPLYING AIR PRESSURE, THE ASSEMBLY TO BE TESTED SHALL BE PROPERLY SECURED IN PLACE TO PREVENT THEM FROM BEING EJECTED APART BY THE AIR PRESSURE. BUT NOT IN SUCH A FASHION AS TO COMPRESS THE JOINT. THE SEALS TESTED SHALL BE CAPABLE OF FREELY RELIEVING THE PRESSURE APPLIED AT A POINT NOT GREATER THAN 10 P.S.I.G.

THE GASKET OR SEALING MEMBER(S) SHALL BE AN ANTI-REVERSING DESIGN IN SUCH THAT THE LENGTHS OF CONDUIT STAY JOINED TOGETHER WITHOUT THE NEED FOR SOLVENT CEMENT.

FIELD CONNECTION END OF THE INTERNAL COUPLING BODY SHALL INCORPORATE SHAPED TARGET AREAS TO ACCOMMODATE SELF-ALIGNMENT OF THE INNERDUCTS WITH BORE OPENINGS DURING FIELD ASSEMBLY.

THE COUPLING BODY SHALL HAVE ONE OF THE BORE OPENINGS ON THE FIELD ASSEMBLY SIDE UNIQUELY IDENTIFIED TO FACILITATE PROPER CONTINUOUS INNERDUCT ALIGNMENT DURING FIELD ASSEMBLY.

ASSEMBLY

THE CONDUIT SYSTEM SHALL BE ASSEMBLED IN THE FIELD PER THE MANUFACTURES INSTRUCTIONS.

THE CONDUIT SHALL BE SUPPLIED WITH AN INTEGRALLY WOUND TAPERED BELL AND GROUND TAPERED SPIGOT TO BE USED WITH AN ADHESIVE. THE STRENGTH OF THE JOINT MUST MEET OR EXCEED THE CONDUIT TENSILE STRENGTH WHEN TESTED IN ACCORDANCE WITH ASTM D2-105.

OPTIONAL JOINING METHODS

THE CONDUIT SHALL BE SUPPLIED WITH A GASKET OR O-RING TO PROVIDE A MECHANICAL NON-ADHESIVE JOINT CAPABLE OF WITHSTANDING JOINT PULL-OUT FORCE OF 200 LBS.

THE CONDUIT SHALL BE SUPPLIED WITH A DOUBLE-LEAD TAPERED, "SPECIAL BUTTRESS TYPE" THREAD ON BOTH BELL AND SPIGOT ENDS TO PROVIDE A MECHANICAL NON-ADHESIVE JOINT CAPABLE OF WITHSTANDING PULL-OUT FORCE OF 1000 LBS.

CALC. BY: / DATE:	FHWA REGION	STATE	PROJECT	
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FITTINGS

THE CONDUIT SYSTEM SHALL BE COMPLETE SYSTEM WITH ALL THE FOLLOWING FITTINGS, INCLUDING BENDS AND SHALL BE MANUFACTURED FROM THE SAME MATERIALS AND MANUFACTURING PROCESS.

PULLBOXES TERMINATOR KITS
DEFLECTION FITTINGS
OFFSET FITTINGS
LUBRICATION FITTINGS
REPAIR KITS
INSTALLATION ACCESSORIES
EXPANSION/CONTRACTION FITTINGS

COLOR

CONDUIT AND FITTINGS SHALL BE PIGMENTED GREY. ALTERNATE COLORS, EXCEPT BLACK, MAY BE AVAILABLE AS AN OPTION.

ULTRAVIOLET PROTECTION

CONDUIT AND FITTINGS SHALL BE SUPPLIED WITH AN ULTRAVIOLET INHIBITOR.

INNERDUCT

THE INNERDUCTS CONTAINED SHALL BE MANUFACTURED FROM HPDE OR AN APPROVED EQUIVALENT. THE INNERDUCT SYSTEM SHALL BE FACTORY INSTALLED AND SHALL BE DESIGNED SO THAT EXPANSION AND CONTRACTION OF THE INNERDUCTS TAKES PLACE IN THE COUPLING BODY AND ELIMINATES COMPATIBILITY PROBLEMS.

THE INNERDUCT SHALL BE PRELUBRICATED DURING THE MANUFACTURING PROCESS TO PROVIDE A PERMANENT NONVOLATILE FINISH.

DYNAMIC CO-EFFICIENT OF FRICTION TESTED IN ACCORDANCE WITH BELLCORE TA-NWT-000356 PROCEDURE SHALL BE AT LEAST:

CABLE TYPE	C.O.F.
F/O HDPE JACKET	027

DIMENSIONS-INNERDUCT

CODING	NOMINAL SIZE	MAXIMUM I.D.	MINIMUM WALL
4-WAY 4-COLOR	1-1/4"	1.194	0.063

COUPLING BODY

THE COUPLING BODY SHALL BE FACTORY ASSEMBLED IN THE BELL END OF THE OUTERDUCT AND SHALL BE MANUFACTURED FROM A HIGH IMPACT ENGINEERED THERMOPLASTIC. THE COUPLING BODY FACE SHALL BE SUPPLIED WITH LEADINS TO FACILITATE ASSEMBLY.

PAYMENT

THIS ITEM SHALL INCLUDE ALL MATERIAL, TOOLS AND LABOR TO COMPLETE THE JOB TO THE SATISFACTION OF THE PROJECT ENGINEER.
PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER LIN.FT., ITEM 625 - BRIDGE MOUNTED CONDUIT, AS PER PLAN, 4"
THE CONDUIT SHALL BE PURCHASED FROM ONE OF THE FOLLOWING COMPANIES OR AN APPROVED EQUAL:

VIKIMATIC SALES, INC.
600 PLUM CREEK DR.
P.O. BOX 629
WADSWORTH, OHIO 44281
1-800-345-8454

HASSELBACH & ASSOCIATES, INC.
431 W. SEYMOUR AVE.
CINCINNATI, OHIO 45216
1-800-582-4084

THE GEORGE-INGRAHAM CORP.
4605 STONEGATE INDUSTRIAL BLVD.
STONE MOUNTAIN, GA 30086-1869
1-800-631-6283

ITEM 625 - CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, AS PER PLAN 4"

PROTECTIVE OUTERDUCT FOR BORING SHALL BE 4", SCHEDULE 40, PVC-DUCT WITH EXTENDED MINIMUM 5" INTEGRAL BELL END AND CONFORM TO NEMA-TC2. PROTECTIVE OUTERDUCT FOR BURIAL SHALL BE 4", TYPE C PVC-DUCT WITH EXTENDED MINIMUM 5" INTEGRAL BELL END AND CONFORM TO NEMA-TC10.

ALL BEND RADII SHALL BE FOUR(4) FEET OR GREATER.

MARKING

THE OUTERDUCT SHALL HAVE A LONGITUDINAL RUNNING PRINT LINE THAT DENOTES "INSTALL THIS SIDE UP" SO AS TO ASSURE PROPER INNERDUCT ALIGNMENT.

THE OUTERDUCT SHALL BE MARKED WITH DATA TRACEABLE TO PLANT LOCATION, DATE, SHIFT, AND MACHINE OF MANUFACTURE.

THE OUTERDUCT SHALL HAVE A CIRCUMFERENTIAL RING ON THE SPIGOT END OR DUCT TO PROVIDE A REFERENCE POINT FOR ENSURING TO PROPER INSERTION DEPTH WHEN CONNECTION CONDUIT ENDS.

GASKETS

THERE SHALL BE PROVIDED A PRIMARY COUPLING BODY THAT IS MANUFACTURED AS A MOLDED ONE PIECE THERMOPLASTIC RUBBER OR APPROVED EQUIVALENT AND INCORPORATES INTEGRAL MOLDED SEALING DEVICES TO FACILITATE FIELD ASSEMBLY AND PREVENT WATER AND FOREIGN MATERIAL LEAKAGE FROM OUTSIDE THE MULT-DUCT SYSTEM AND TO PREVENT AIR LEAKAGE FROM INSIDE THE INNERDUCTS. NO LUBRICANT SHALL BE REQUIRED FOR FIELD ASSEMBLY OF THIS PRODUCT AND ASSEMBLY SHALL BE ACCOMPLISHED SOLELY BY HAND WITHOUT USE OF SPECIAL TOOLS.

THE COUPLING BODY SHALL HAVE A PLURALITY OF BORES CONTAINING PRINCIPAL SEALS WHICH ARE MOLDED AS AN INTEGRAL PART OF THE COUPLING BODY.

THE COUPLING BODY WITH ITS SEALING MEMBER(S) MUST SEAL THE OUTER WALLS OF THE INNERDUCTS AND THE INNER WALL OF THE OUTERDUCT PROVIDING AN AIRTIGHT SEAL FROM THE OUTSIDE OF THE OUTERDUCT BY MEANS OF THE FOLLOWING TESTS OR APPROVED EQUIVALENT.

THE EXTERNAL 4" CONDUIT JOINT SHALL BE TESTED FOR WATER TIGHTNESS USING THE FOLLOWING PROCEDURE:

NOTE: FOR ALL TEST PROCEDURES, THE TEST CONDITIONS SHALL BE 73 DEGREES FAHRENHEIT +/- 3 DEGREES WITH A RELATIVE HUMIDITY OF 50 PERCENT UNLESS OTHERWISE SPECIFIED.

TWO 18" TO 36" LENGTHS OF DUCT (ONE FACTORY BELL END AND ONE FACTORY SPIGOT END) ARE TO BE JOINED WITHOUT THE APPLICTION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. THE CENTER OF THE SECTION OF THE CONDUIT CONTAINING THE JOINT SHALL BE ENCLOSED WITHIN A HOUSING SUITABLE FOR CONTAINING WATER AT OR ABOVE A POSITIVE PRESSURE OF 20 P.S.I.G. OR A WATER COLUMN OF 12 FEET. THE ENCLOSURE IS TO BE SUFFICIENTLY FILLED WITH WATER TO COMPLETELY COVER THE CONDUIT JOINT WITHIN. A REGULATED AIR PRESSURE OF 20 P.S.I.G. OR A WATER COLUMN OF 12 FEET ABOVE THE JOINT IS TO BE APPLIED TO THE INTERIOR OF THE ENCLOSURE BY WAY OF A SEALED CONNECTION. THE ENDS OF THE CONDUIT SHALL PROTRUDE THROUGH THE SEALED EXTERIOR OF THE HOUSING IN ORDER TO FACILITATE INSPECTION FOR LEAKAGE OF WATER TO THE INSIDE. THE CONDUIT ASSEMBLY SHALL SHOW NO SIGNS OF LEAKAGE FOR A PERIOD OF 24 HOURS. IF LEAKAGE HAS NOT OCCURRED AT THE END OF THE INITIAL 24 HOUR TEST PERIOD, INCREASE THE PRESSURE 3 P.S.I.G. FOR ADDITIONAL 24 HOUR PERIODS UNTIL LEAKAGE OCCURS.

THE GASKET OR SEALING MEMBER(S) MUST BE POSITIONED SUCH TO ALLOW A MINIMUM INNERDUCT MOVEMENT OF 4.25" WITHOUT DISENGAGING INNERDUCT SEALING MEANS.

INNERDUCT SHALL BE TESTED FOR AIRTIGHTNESS SEQUENTIALLY USING THE FOLLOWING PROCEDURE OR AN APPROVED EQUIVALENT.

TWO 18" TO 36" LENGTHS OF DUCT (ONE FACTORY BELL END AND ONE FACTORY SPIGOT END) ARE TO BE FULLY JOINED WITHOUT THE APPLICATION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. ONE END OF AN INNER CONDUIT IS TO BE SEALED WITH A PLUG. THE OPPOSITE END OF THE SAME INNER CONDUIT IS TO BE FITTED WITH A PLUG AND HOSE ASSEMBLY FED BY AIR SUPPLY OF 100 P.S.I.G. BEFORE APPLYING AIR PRESSURE, THE INNERDUCT AND PLUGS SHALL BE PROPERLY SECURED IN PLACE TO PREVENT THEM FROM BEING EJECTED BY THE AIR PRESSURE, BUT NOT IN SUCH A FASHION AS TO COMPRESS THE JOINT. ONCE THE APPLICATION OF 100 P.S.I.G. OF AIR PRESSURE IS MADE TO THE CONDUIT, THE TIME REQUIRED TO REACH A STABILIZED CONSTANT PRESSURE OF 15 P.S.I.G. SHALL BE NO LESS THAN 10 MINUTES. THE COUPLING BODY SHALL ALSO SEAL THE INNERDUCT SO THAT AFTER THE APPLICATION OF THE 100 P.S.I.G. TO AN INNERDUCT, THE INNERDUCT SHALL BE CAPABLE OF MAINTAINING A MINIMUM OF 15 P.S.I.G. FOR 24 HOURS.

THE COUPLING BODY SHALL ALSO BE CAPABLE OF RELIEVING EXTERNAL PRESSURE TO ELIMINATE THE POSSIBILITY OF INNERDUCT COLLAPSE DUE TO PRESSURE BUILDUP BETWEEN THE INNER AND OUTERDUCTS. THIS PRESSURE BUILDUP MAY POTENTIALLY OCCUR DURING PNEUMATIC RODDING DUE TO A GASKET OR DUCT FAILURE. THE COUPLING BODY SHALL ALSO BE TESTED FOR OUTWARD PRESSURE RELIEF USING THE FOLLOWING PROCEDURE:

TWO 18" TO 36" LENGTHS OF DUCT (BOTH CONTAINING A FACTORY BELL END AND A FACTORY SPIGOT END) ARE TO BE JOINED WITHOUT THE APPLICATION OF CEMENT OR LUBRICANT AND WITHOUT THE USE OF FORCE OTHER THAN REQUIRED BY HAND. A REGULATED AIR SUPPLY OF 40 P.S.I.G. SHALL BE APPLIED THROUGH A THREADED OPENING IN THE OUTERDUCT TO BE APPLIED THROUGH A THREADED OPENING IN THE OUTERDUCT TO BE AIR SPACE CONFINED BETWEEN THE INNER AND OUTERDUCTS AND BETWEEN THE COUPLING ASSEMBLIES AT EITHER END. BEFORE APPLYING AIR PRESSURE, THE ASSEMBLY TO BE TESTED SHALL BE PROPERLY SECURED IN PLACE TO PREVENT THEM FROM BEING EJECTED APART BY THE AIR PRESSURE, BUT NOT IN SUCH A FASHION AS TO COMPRESS THE JOINT. THE SEALS TESTED SHALL BE CAPABLE OF FREELY RELIEVING THE PRESSURE APPLIED AT A POINT NOT GREATER THAN 10 P.S.I.G.

THE GASKET OR SEALING MEMBER(S) SHALL BE AN ANTI-REVERSING DESIGN IN SUCH THAT THAT THE LENGTHS OF CONDUIT STAY JOINED TOGETHER WITHOUT NEED FOR SOLVENT CEMENT.

FIELD CONNECTION END OF THE INTERNAL COUPLING BODY SHALL INCORPORATE SHAPED TARGET AREAS TO ACCOMMODATE SELFALIGNMENT OF INNERDUCTS WITH BORE OPENINGS DURING FIELD ASSEMBLY.

THE COUPLING BODY SHALL HAVE ONE OF THE BORE OPENINGS ON THE FIELD ASSEMBLY SIDE UNIQUELY IDENTIFIED TO FACILITATE PROPER CONTINUOUS INNERDUCT ALIGNMENT DURING FIELD ASSEMBLY.

ASSEMBLY

THE CONDUIT SYSTEM SHALL BE ASSEMBLED IN THE FIELD PER THE MANUFACTURERS INSTRUCTIONS.

FITTINGS

THE CONDUIT SYSTEM SHALL BE A COMPLETE SYSTEM WITH ALL OF THE FOLLOWING FITTINGS OR AS REQUIRED BY THE MANUFACTURE:

COUPLING KITS
PULL BOX TERMINATOR KITS
LUBRICATION FITTINGS
REPAIR KITS
INSTALLATION ACCESSORIES

BENDS

THE CONDUIT SYSTEM SHALL OFFER A COMPLETE LINE OF FIXED AND FLEXIBLE SWEEPS WITH SYSTEM COMPATIBLE BELL AND SPIGOT ENDS.

FIXED AND FLEXIBLE 4-WAY BENDS SHALL BE SUPPLIED WITH HIGH TEMPERATURE BURN-THROUGH RESISTANT INNERDUCTS OF THE SAME MATERIALS AS THE STRAIGHT SECTIONS OF CONDUIT AND USING THE SAME COLOR CODING.

FIXED BENDS

THE CONDUIT SYSTEM SHALL OFFER THE FOLLOWING STANDARD FIXED BENDS:

DEGREE RADIUS	BEND(DEGREES)	SYSTEM
4'	11-1/4	
6'	22-1/2	4-WAY
9'	45	
	90	

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FLEXIBLE BEND

THE FLEXIBLE BEND SHALL BE SUPPLIED IN TWO LENGTHS TO MEET FIELD REQUIREMENTS.

LENGTH	RADIUS(DEGREES)	DEGREE BEND SYSTEM
126" MIN. 4 FT.	0-90	4-WAY
6 FT.	0-70	
9 FT.	0-55	
192" MIN. 4 FT.	0-90	4-WAY
6 FT.	0-90	
9 FT.	0-90	

CAUTION: FLEXIBLE BENDS SHALL NOT BE BENT BEYOND THE MINIMUM 4 FOOT RADIUS.

INNERDUCT

THE INNERDUCTS CONTAINED WITHIN THE PVC OUTERDUCT SHALL BE MANUFACTURED FROM HDPE OR APPROVED EQUIVALENT. THE INNERDUCT SYSTEM SHALL BE FACTORY INSTALLED AND SHALL BE DESIGNED SO THAT EXPANSION AND CONTRACTION OF THE INNERDUCTS TAKES PLACE IN THE COUPLING BODY.

DYNAMIC CO-EFFICIENT OF FRICTION (COF) TESTED IN ACCORDANCE WITH BELLCORE TA-NWT-000356 PROCEDURE SHALL BE:

CABLE TYPE	C.O.F.
F/O HDPE JACKET	.027

DIMENSIONS-INNERDUCT

CODING	NOMINAL SIZE	MAXIMUM I.D.	MINIMUM WALL
4-WAY 4-COLOR	1-1/4"	1.194	0.063

COUPLING BODY

THE COUPLING BODY SHALL BE FACTORY ASSEMBLED IN THE BELL END OF THE OUTERDUCT AND SHALL BE MANUFACTURED FROM A HIGH IMPACT ENGINEERING THERMOPLASTIC. THE COUPLING BODY FACE SHALL BE SUPPLIED WITH LEAD-INS TO FACILITATE ASSEMBLY.

MARKING

THE COUPLING BODY SHALL HAVE EACH CONDUIT ENTRANCE IDENTIFIED WITH A REFERENCE POINT FOR PROPER ALIGNMENT AND CONTINUITY OF THE COLOR CODED INNERDUCT.

COUPLING BODY FACE SHALL BE SUPPLIED WITH LEADINS TO FACILITATE ASSEMBLY.

PAYMENT

THIS ITEM SHALL INCLUDE ALL MATERIAL, TOOLS AND LABOR TO COMPLETE THE JOB TO THE SATISFACTION OF THE PROJECT ENGINEER.
PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER LIN.FT., ITEM 625 - CONDUIT JACKED OR DRILLED UNDER PAVEMENT, AS PER PLAN, 4"
THE CONDUIT SHALL BE PURCHASED FROM ONE OF THE FOLLOWING COMPANIES OR AN APPROVED EQUAL:

VIKIMATIC SALES, INC.
600 PLUM CREEK DR.
P.O. BOX 629
WADSWORTH, OHIO 44281
1-800-345-8454

HASSELBACH & ASSOCIATES, INC.
431 W. SEYMOUR AVE.
CINCINNATI, OHIO 45216
1-800-582-4084

THE GEORGE-INGRAHAM CORP.
4605 STONEGATE INDUSTRIAL BLVD.
STONE MOUNTAIN, GA 30086-1869
1-800-631-6283

HAZARDOUS AREA

THE AREA AROUND RAMP 'L' OF THE NORWOOD LATERAL CONNECTOR AS DESCRIBED BELOW HAS BEEN FOUND TO BE CONTAMINATED DUE TO HAZARDOUS MATERIAL THAT HAS LEACHED INTO THE SOIL. ODOT IN COOPERATION WITH THE EPA IS CURRENTLY RECTIFYING THIS PROBLEM. THE CONTRACTOR SHALL NOT EXCAVATE, STORE MATERIAL OR EQUIPMENT, OR DISTURB IN ANY WAY ANY SOIL FROM STATION 12+50 RAMP 'L' TO STATION 16+38 RAMP 'L' FROM RAMP 'L'S PAVED SHOULDER TO THE ADJACENT RIGHT-OF-WAY LINE AS DETAILED ON SHEET 256. ANY VIOLATION OF THIS NOTE SHALL RESULT IN AN IMMEDIATE HALT TO ALL WORK ON THE ENTIRE PROJECT. NO WORK SHALL BE PERFORMED UNTIL THE VIOLATION HAS BEEN STOPPED, REMEDIED, AND CLEANED UP IN ACCORDANCE WITH EPA SPECIFICATIONS. ONCE THIS HAS BEEN ACHIEVED, THE PROJECT ENGINEER HAS THE AUTHORITY TO RESUME WORK. THE DELAY DUE TO THE VIOLATION OF THIS NOTE SHALL NOT BE USED TO DELAY THE DATE OF COMPLETION AS DESCRIBED IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS "108.06 DATE OF COMPLETION", AND OTHER NOTES IN THE PLAN. ALL COSTS FOR CLEANUP DUE TO A VIOLATION OF THIS NOTE SHALL BE PAID FOR BY THE MAIN CONTRACTOR OF THE PROJECT AND ASSUMES FULL RESPONSIBILITY FOR HIS SUBCONTRACTORS ON THIS MATTER.

CALC. BY: JDM DATE: 3/20/95	FHWA REGION	STATE	PROJECT	
CHKD. BY: JBB DATE: 3/25/95	5	OHIO		

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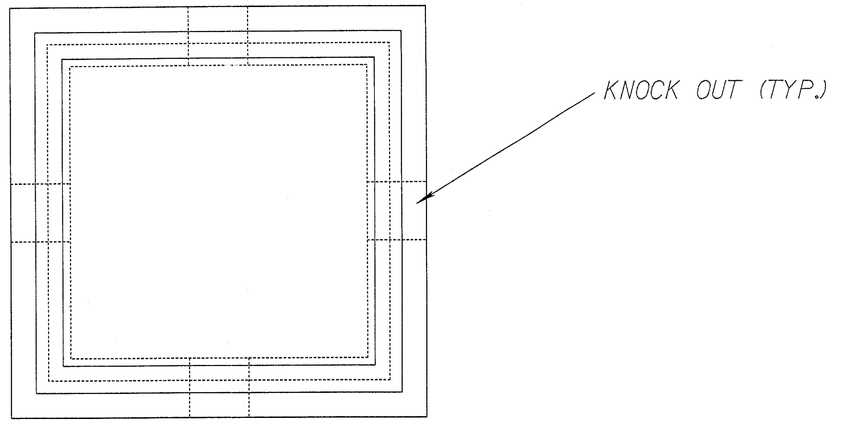
RTMS

NOTE: FRAME AND COVER FOR R-6665-2LP AND R-6665-2PP INCLUDES COUNTERSUNK HEXHEAD CAP SCREWS, FLAT NEOPRENE GASKET, AND A TYPE G WATERPROOF LIFT HANDLE.

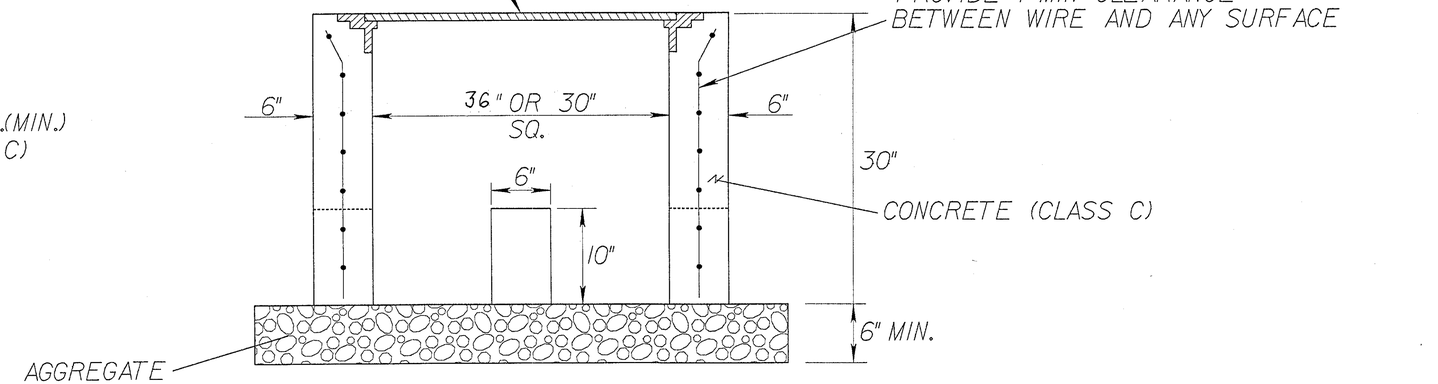
- PULL BOXES SHALL CONFORM WITH 625.11 & 713.08 FOR ADDITIONAL NOTES & DETAILS REFER TO STANDARD CONSTRUCTION DRAWING HL-30.11 DATED 5-1-87



PLAN

NEENAH R-6665-2LP, R-6665-2PP AND R-6662-RP FRAME AND COVER WITH "TRAFFIC" LETTERING OR AN APPROVED EQUAL

NOTE: CONCRETE 4000 P.S.I.(MIN.) AT 28 DAYS (CLASS C)



SECTION

PULL BOX DETAIL

CALC. BY: JDH DATE: 3/24/93	FHWA REGION	STATE	PROJECT	
CHKD. BY: JBB DATE: 3/27/93	5	OHIO		

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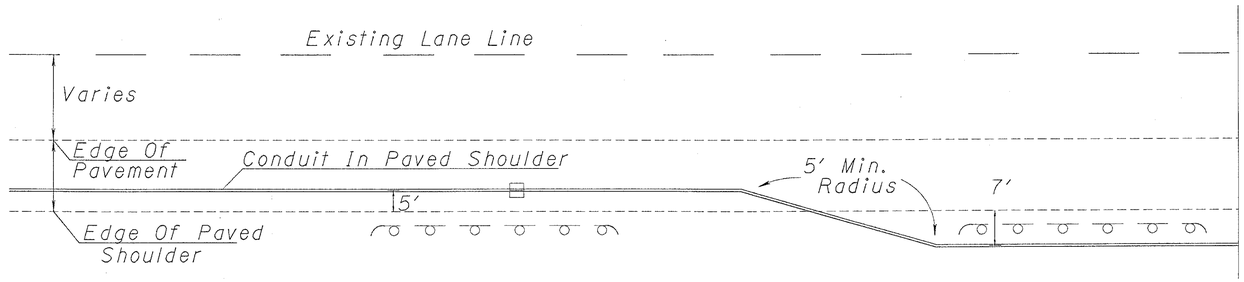
RTMS TYPICAL SHOULDER DETAIL STA 213+00NB TO STA 436+83NB



NOTE

1) Contractor shall insure that existing & proposed drainage, traffic control, and electrical systems are not disturbed by the proposed RTMS conduit. If a conflict does exist, the elevation of the RTMS conduit shall be adjusted to eliminate the conflict. The original plans on I-71 are available at the District Office, for review by the contractor.

2) Conduit shall be installed 2 feet deep. Where conflicts exist, the depth of the conduit shall be field adjusted to satisfy existing conditions, subject to the approval of the Project Engineer.

395 BLACK 48 - 95

CALC. BY KAB DATE 10/13/94
CHKD. BY EFM DATE 2-1-95

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MAINTENANCE OF TRAFFIC NOTES

GENERAL REQUIREMENTS

It is the intention to perform the required work with the least inconvenience to the traveling public and the maximum safety of the Contractor. The requirements for maintaining traffic as indicated in the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways (referred to as "Ohio Manual"), current edition, and pertinent items of the Ohio Department of Transportation (ODOT) specifications and proposal shall apply in addition to the following notes.

The work limits shown on the plans are for physical construction only. The installation and operation of all traffic control and traffic control devices required by the "Ohio Manual" shall be provided by the Contractor whether inside or outside the work limits.

Should any paved areas not designated for maintaining traffic become damaged or destroyed due to the Contractor's negligence or failure to provide adequate signs, barricades, cones, flaggers or other traffic control devices, the restoration of the paved areas shall be at the Contractor's expense to the satisfaction of the Engineer.

The Contractor may submit an alternate Maintenance of Traffic Plan for approval. No alternate plan shall be placed in effect until approval has been granted in writing by the Director.

ITEM 614 – MAINTAINING TRAFFIC

The Contractor shall maintain traffic at all times in accordance with the requirements of Specification 614 and as specified herein.

Traffic is to be maintained in a uniform pattern throughout the entire length of the project. Work can be performed simultaneously in the northbound and southbound lanes, provided the operations do not interfere with each other. All vehicles, equipment, men and their activities are restricted at all times to one side of the directional pavement unless otherwise approved by the Engineer.

Vehicles and equipment shall always move with, and not across or against the flow of traffic, except as noted below. Vehicles and other equipment shall not park or stop except within designated work areas, and shall not enter and leave work areas in a manner which will be hazardous to, or interfere with the normal traffic flow. Personal vehicles will not be permitted to park within the right-of-way except in specific areas designated by the Engineer.

Equipment, vehicles, and material shall not be stored or parked on the project within (30) thirty feet of the edge of the traveled pavement, unless six feet behind the guardrail.

The Contractor shall arrange traffic control devices so traffic to and from I-71 is maintained at all times and at all interchanges, unless otherwise indicated in the plans. A "ROAD CONSTRUCTION AHEAD" sign (OW-128) shall be placed on all ramps leading onto I-71 and at work limits.

The Contractor shall provide, erect, maintain (proper position, kept clean and legible, and in good working condition), and remove lights, signs, drums, and all other traffic control devices necessary for the maintenance of traffic. Placement of all traffic control devices shall start and proceed in the direction of the flow of traffic. Removal of traffic control devices shall start at the end of the construction area and proceed toward oncoming traffic. The Contractor shall provide for the installation of all necessary traffic control devices before beginning work and immediately remove these devices when work is suspended or completed.

Maintain a minimum of two (2) 10' lanes in each direction on mainline, except as noted in these plans and one (1) 11' lane on each ramp. All ramps shall remain open during construction, except as noted in the plans.

When traffic is restricted to less than the number of existing lanes, the contractor shall employ at least one full time qualified person with a vehicle equipped with a cellular phone on-site 24 hours a day to patrol the maintain all lights, signs, barricades, drums, etc. in order to to provide a safe facility for the traveling public.

Before the work begins, the Contractor will provide the Engineer with the names and telephone number(s) of two persons who can be contacted 24 hours a day by the Engineer, affected public agencies, and all interested police agencies, to repair and/or replace the traffic control devices as needed to maintain the safety of the traveled pavement.

In any instance where either the acceleration lane or the deceleration lane is shortened or obstructed due to work and/or standard lane closures, such work shall be completed "AS SOON AS POSSIBLE" so as to permit the lane closures to be moved to a location where said acceleration or deceleration lanes are no longer shortened.

The term "AS SOON AS POSSIBLE" as mentioned in this note shall be defined as having top priority of all work, and if deemed necessary, the Engineer reserves the right to instruct the contractor to work 24 hours a day until such work is completed to the satisfaction of the Engineer. Any additional cost incurred due to the Engineer's decision to require 24 hour a day work shall be the responsibility of the contractor and included under Lump Sum Item 614 MAINTAINING TRAFFIC. Failure of the contractor to comply with this note, as determined by the Engineer, shall make the contractor subject to liquidated damages as per specification 108.07 of the Construction and Material Specifications.

TRAFFIC CONTROL

The installation, maintenance and operation of traffic control devices shall conform to the requirements of the "Ohio Manual" and as specified per Item 614.03.

Temporary pavement markings shall be in place prior to a stage of construction being opened to traffic.

The standard device for closing any lane(s) to traffic shall be properly weighted and reflectorized plastic drums. No traffic pattern changes shall be conducted between 6:00 and 9:00 AM or between 3:00 and 6:00 PM.

Drums shall be constructed, reflectorized, and used in accordance with Item 614.03 and the "Ohio Manual." Drums shall be spaced at a maximum interval of 50 feet center to center unless shown otherwise in these plans or otherwise directed by the Engineer. The Contractor shall adjust the spacing on all drums as directed by the Engineer to allow access as required while maintaining safety during construction.

The Contractor shall furnish and install two (2) "WATCH FOR STOPPED TRAFFIC" signs (OW-166) 1300 feet downstream from the "ROAD CONSTRUCTION AHEAD" sign (OW-128) on I-71 and eastbound Norwood Lateral. If traffic backups reach the "WATCH FOR STOPPED TRAFFIC" signs, the Contractor shall install two (2) additional "WATCH FOR STOPPED TRAFFIC" signs every 2000 feet upstream from the backup. The necessity for these signs shall be monitored by the Contractor.

The Contractor shall be responsible for maintaining safe and adequate traffic control at all times.

The Contractor shall give the City of Cincinnati and City of Norwood 14 days advance notice before closing any ramp.

TRAFFIC CONTROL

Prismatic retroreflectors shall be removed from raised pavement marker castings at project lead-in areas according to standard construction drawing MT-95.30.
See sheet no. 46 for removal quantity.
See sheet no. 462 for reinstallation quantity.

MAINTENANCE OF TRAFFIC DETAILS

The following ramps may be closed (as specified) subject to the approval of the Engineer.

RAMP TC
The northbound McMillan Street Entrance Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning. This closure shall not occur between September 15 thru June 10. Subject to liquidated damages of $5000 per day per 108.07.

RAMP MF
The northbound Montgomery Rd./Dana Ave. Exit Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMPS DA/DC
The northbound Dana Ave. Entrance Ramps shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP B
The northbound Smith Rd./Edwards Rd. Exit Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP C
The northbound Edwards Rd. Entrance Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP F/T/T1/U
The northbound Ridge Rd. (south) Exit Ramp shall have one eleven foot (11') lane open and available for the movement of traffic at all times.

RAMP K
The westbound Ridge Rd. Exit Ramp shall have one eleven foot (11') lane open and available for the movement of traffic at all times.
Construction of the median between Ramp K and Ramp L shall be compieted in Stage 2.

RAMP G
The northbound Norwood Lateral (State Route 562) Exit Ramp shall have one eleven foot (11') lane open and available for the movement of traffic at all times.

RAMP N
The northbound Ridge Rd. (north) Exit Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP P
The northbound Kennedy Ave. Entrance Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP J
The northbound Norwood Lateral (State Route 562) Entrance Ramp shall remain closed during the construction of the project.

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MAINTENANCE OF TRAFFIC NOTES

CALC. BY BAB DATE 10/1994
CHKD. BY J.M. DATE 2-1-95

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RAMP R
The southbound Ridge Rd. Exit Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP I/L
The southbound Norwood Lateral (State Route 562) Exit Ramp shall have one eleven foot (11') lane open and available for the movement of traffic at all times.

RAMP E
The southbound Norwood Lateral (State Route 562) Entrance Ramp shall remain open at all times. Traffic shall be maintained by using existing and temporary pavement as shown in these plans.

RAMP H/H1/M
The southbound Ridge Ave. Entrance Ramp to I-71 SOUTH shall remain closed during the construction of the project.
The southbound Ridge Ave. Entrance Ramp to the Norwood Lateral (State Route 562) shall remain open until such a time as the minimum lane width of 11 feet cannot be maintained.
At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening and 6:00 AM the following Monday morning.

RAMP D
The southbound Edwards Rd./Smith Rd. Exit Ramp shall have one eleven foot (11') lane open and available for the movement of traffic at all times.

RAMP A
The southbound Smith Rd./Edwards Rd. Entrance Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP DE
The southbound Dana Ave. Exit Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP DB
The southbound Dana Ave. Entrance Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP ME
The southbound Montgomery Rd. Entrance Ramp shall remain open until such time as a minimum lane width of 11 feet cannot be maintained. At that time this ramp may be closed between the hours of 9:00 PM and 6:00 AM, Monday through Friday, and between 9:00 PM Friday evening until 6:00 AM the following Monday morning.

RAMP TH
The southbound W. H. Taft Rd. Exit Ramp shall have one eleven foot (11') lane open and available for the movement of traffic at all times. The work on this ramp shall occur between June 10 and September 15 subject to liquidated damages of $ 5000/day for each day (or portion thereof) the contractor works outside of the above time constraint.

RAMPS RB/RF
The southbound Reading Rd. Entrance Ramp and the southbound Florence Ave. Entrance Ramp shall remain closed during the construction of the project.

Ramps may be opened and closed subject to the approval of the Engineer, City of Cincinnati and City of Norwood.

All work in slide areas shall be completed during Stage 1 construction.

The Contractor shall notify the Engineer 14 days prior to setting up lane closures on any streets shown in the maintenance of traffic details.

McMILLAN STREET
On eastbound McMillan Street two eleven foot (22') lanes shall be open and available for the movement of traffic at all times.

WILLIAM H. TAFT ROAD
On westbound William H. Taft Road two eleven foot (22') lanes shall be open and available for the movement of traffic at all times.

On McMillan and Taft Road, this work shall be completed *between June 15 and September 15 when the University of Cincinnati is in summer recess. Liquidated damages for failure to complete this work within the prescribed time frame shall be assessed according to Section 108.07 of the State of Ohio Construction and Material Specifications in the amount of $ 10,000/day.*

LINCOLN AVENUE
On Lincoln Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

OAK STREET
On Oak Street one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

MARTIN LUTHER KING DRIVE
On Martin Luther King Drive two ten foot (20') lanes in each direction shall be open and available for the movement of traffic at all times.

FREDONIA AVENUE
On Fredonia Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

BLAIR AVENUE
On Blair Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

WOODBURN AVENUE
On Woodburn Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

TRIMBLE AVENUE
On Trimble Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

MONTGOMERY ROAD
On Montgomery Road one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

DANA AVENUE
On Dana Avenue two ten foot (20') lanes in each direction shall be open and available for the movement of traffic at all times.

SMITH ROAD
On Smith Road one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

WILLIAMS AVENUE
On Williams Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

ROBERTSON AVENUE
On Robertson Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

RIDGE ROAD
On Ridge Road one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

KENNEDY AVENUE
On Kennedy Avenue one eleven foot (11') lane in each direction shall be open and available for the movement of traffic at all times.

ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL
Field painting of existing structural steel on overpasses shall be completed in conjunction with the maintenance of traffic plan for Stages 1 and 2 of mainline construction.

ITEM 614 - WORK ZONE SPEED LIMIT SIGN

The Contractor shall furnish, install, maintain, cover during suspension of work, and remove work zone speed limit signs and supports (R-10-48) (45 MPH) within the work limits in accordance with the following requirements.

The Contractor shall cover or remove any existing speed limit or minimum speed signs within the reduced speed zone. These signs shall be restored during suspension or termination of the reduced speed limit. The expense of covering or removal and restoration of existing speed limit or minimum speed signs is incidental to the pay item for the work zone speed limit signs.

The work zone speed limit signs may be erected or uncovered no more than 4 hours before the actual start of work. The signs shall be removed or covered no later than 4 hours following restoration of all lanes to traffic with no restrictions, or sooner as directed by the Engineer.

The Contractor shall erect a work zone speed limit sign in advance of any lane restriction expected to last at least 30 days, or as directed by the Engineer. The sign shall be mounted on both sides of divided highways, 500 feet in advance of the lane reduction taper. The sign shall be mounted on the right side, 250 feet in advance of the lane reduction taper on undivided highways. The sign shall be repeated, on the side nearest traffic, every 1 mile for 55 MPH zones and every 1/2 mile for 45 MPH zones. These signs shall also be erected immediately after each entrance ramp within the zone. A sign to indicate the resumption of the statutory speed limit shall be erected at the end of any reduced speed zone. This sign shall be on R-8A.

The Contractor may use signs and supports in used but good condition provided the signs meet current ODOT specifications. Sign faces shall be reflectorized with Type G sheeting complying with the requirements of 730.19 and U.S. Department of Transportation Supplemental Specification for Type III-C sheeting, FP-85. Work zone speed limit signs shall be mounted on two (2) Item 630 Ground Mounted Supports, No. 4 posts.

Work zone speed limit signs and supports will be measured as the number of sign installations, including the sign and necessary supports. If a sign and support combination is removed and reerected at another location within the project due to changes in the speed zone directed by the Engineer, it shall be considered another unit.

Payment for accepted quantities, complete, in place will be made at the contract unit price. Payment shall be full compensation for all materials, labor, incidentals and equipment for furnishing, erection, maintainance, covering during suspension of work, and removing the signs and supports.

Pay Item	Unit	Description
Item 614	58	Each Work Zone Speed Limit Sign

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, CLASS III, AS PER PLAN

The contractor shall furnish, install, maintain and remove, when no longer needed, a changeable message sign, on site, for the duration of the project. The sign shall be of a type shown on a list of approved PCMS units maintained by the Director. The list currently contains Class III and II units with minimum legibility distances of 650 ft. and 850 ft. respectively.

Each sign shall be trailer mounted and equipped with a functional dimming mechanism to dim the sign during darkness and a tamper and vandal proof enclosure. Each sign shall be provided with appropriate training and operation instructions to enable on-site personnel to operate and trouble shoot the unit. The sign shall also be capable of being powered by an electrical service drop from a local utility company.

The probable locations and work limits for those locations are given on sheet 54 of these plans. Placement, operation, maintenance and all activation of the signs by the Contractor shall be as directed by the Engineer. The PCMS shall be located in a highly visible position yet protected from traffic. The contractor shall, at the direction of the engineer, relocate the PCMS to improve visibility or accommodate changed conditions. When not in use, the PCMS will be off, facing away from all traffic and shall display one or more high intensity yellow reflective sheeting surfaces of 9-inch by 15-inch minimum size facing traffic.

The Engineer shall be provided access to each sign unit and shall be provided with appropriate training and operation instructions to enable ODOT personnel to operate and troubleshoot the unit and to revise sign messages, if necessary.

MAINTENANCE OF TRAFFIC NOTES

CALC BY KAB DATE 10/13/94
CHKD BY [illegible] DATE 2.1.195

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50/615

All messages to be displayed on the sign will be provided by the Engineer. A list of all required preprogrammed messages will be given to the Contractor at the project preconstruction conference. The sign shall have the capability to store up to 99 messages. Message memory or pre-programmed displays shall not be lost as a result of power failures to the on board computer. The sign legend shall be capable of being changed in the field. Three-line presentation formats with up to six message phases shall be supported, but normally, not more than two message phases should be employed, although three phases may be used in unusual conditions. PCMS format shall permit the complete message for each phase to be read at least once.

The PCMS shall contain an accurate clock and programming logic which will allow the sign to be activated, deactivated or messages changed automatically at different times of the day for different days of the week.

The PCMS unit shall be maintained in good working order by the Contractor in accordance with the provisions of 614.03 (c). The Contractor shall, prior to activating the unit, make arrangements with an authorized service agent for the PCMS to assure prompt service in the event of failure. Any failure shall not result in the sign being out of service for more than 12 hours including weekends. Failure to comply may result in an order to stop work and open all traffic lanes and/or in the Department taking appropriate action to safely control traffic and the entire cost to control traffic accrued by the department will be deducted from moneys due, or to become due the Contractor on his contract.

The Contractor shall be responsible for 24 hours per day operation and maintenance of these signs on the project for the duration of the phases when the plan requires their use.

The requirement to furnish, install, maintain and remove a PCMS unit on this project shall not in any way relieve the Contractor of his responsibilities as outlined in 104.04.

Payment for the above described item shall be at the contract unit price bid per sign-month for each Item 614 Portable Changeable Message Sign, as per plan and shall include all labor, materials, equipment, fuels, lubricating oils, software, hardware and incidentals to perform the above described work.

The two (2) PCMS' to be used for the project will be placed at the following locations:

1. On northbound I-71, the PCMS will be placed just south of the Lytle Tunnel behind guard rail.
2. On southbound I-71, the PCMS will be placed 1820 feet north of MP#13 / HAM-71-12.98.

Each sign will be installed at its location for 17 months.

The following quantity has been carried to the GENERAL SUMMARY:

Pay Item	Unit	Description
Item 614	34 Sign Month	Portable Changeable Message Sign, as Per Plan

ITEM 614 - MAINTENANCE OF TRAFFIC SIGNAL INSTALLATIONS

The Contractor shall be responsible for maintaining traffic signal installations within the project under the following conditions:

(a) Existing signal installations which the plans require the Contractor to adjust, modify, add onto or remove, or which the Contractor actually adjusts, modifies or otherwise disturbs. The Contractor shall be responsible for the entire installation (at an intersection) from the time his operations first disturb the installation until the installation has been subsequently removed or modified and the work is accepted.

(b) New or reused signal installations or devices, installed by the Contractor. The Contractor shall be responsible for maintenance of these from the time of installation until the work is accepted.

The Contractor shall correct as quickly as possible all outages or malfunctions. He shall provide the City of Cincinnati, City of Norwood and the Engineer such addresses and phone numbers where his maintenance forces can be contacted. The Contractor shall provide one or more persons to receive all calls and dispatch the necessary maintenance forces to correct outages. Such a person or persons may be used to perform other duties as long as prompt attention is given to these calls and a person is readily available continuously 24 hours a day, 7 days a week. All lamp outages, cable outages, electrical failures, equipment malfunctions and misaligned signal heads shall be corrected to the satisfaction of the Engineer with the signal back to service within four hours after the Contractor has been notified of the outage.

In the event new signals are damaged prior to acceptance all damaged equipment except poles and control equipment shall be replaced by the Contractor to the satisfaction of the Engineer with the signal back in service within 8 hours after the Contractor's notification of the outage.

If poles and/or control equipment are damaged and must be replaced, the Contractor shall make temporary repairs as necessary to bring the signal back into full operation within the allowed 8-hour period, and shall make permanent repairs or replacement as soon thereafter as possible.

None of the above shall be construed as collective or consecutive outage time periods at any one location. That is, where more than one outage occurs at any one location, then the allotted time limit shall be for the worst single outage.

Where outages are the direct result of a vehicle accident the response of the Contractor shall be as outlined above. The Contractor shall be responsible for collection of any compensation for this work from those parties responsible for the damage.

Where the Contractor has failed to or cannot respond to an outage or signal equipment malfunction, at these locations within his responsibility, within periods as specified above, the Engineer may invoke the provisions of Section 105.15 and any subsequent billings to the State or the City of Cincinnati and City of Norwood for Police Services and maintenance services by City forces shall be deducted from monies due or to become due the contractor in accordance with provisions of Section 105.15.

The Contractor shall provide the maintenance service entirely with his forces or he may choose to enter into a cooperative understanding with the local maintaining agency to provide the maintenance. The Contractor shall inform the Engineer, in writing, of the maintenance method selected.

The Contractor shall be responsible for any damage to any traffic signal components required to be handled during the relocation of poles and revisions to the signal system.

When a traffic signal must be taken out of service by the Contractor, due to construction procedures, this outage shall not exceed 4 hours and shall not include the hours of 6:00 to 9:00 AM or 3:00 to 6:00 PM. Any signalized intersection, where the signal is out of service due to construction procedures, or due to an outage or malfunction of equipment as described above, shall be protected, by the Contractor, by the installation of temporary "STOP" signs and shall be protected by off-duty City of Cincinnati and City of Norwood Police, hired by the Contractor.

The operation of existing traffic signals shall be maintained throughout the project. The City of Cincinnati will perform all signal timing and phasing changes that are required. The Contractor shall coordinate with the City any timing or phasing due to lane use changes or loop destruction by contacting the Traffic Services Bureau two working days in advance at 352-6336 to arrange for this work.

The contractor will be required to provide any modifications to existing or temporary traffic signal equipment as required by changes in construction or operational conditions in the project area. This will include relocations, removals or covering of traffic/pedestrian signals and illuminated/reflectorized signs, temporary conduits, cables and other traffic signal equipment, and the intstallation of temporary poles and pole guys to satisfy safety and operational conditions throughout the project. The contractor will be required to restore all traffic signals to their pre-construction condition (including loop detection).

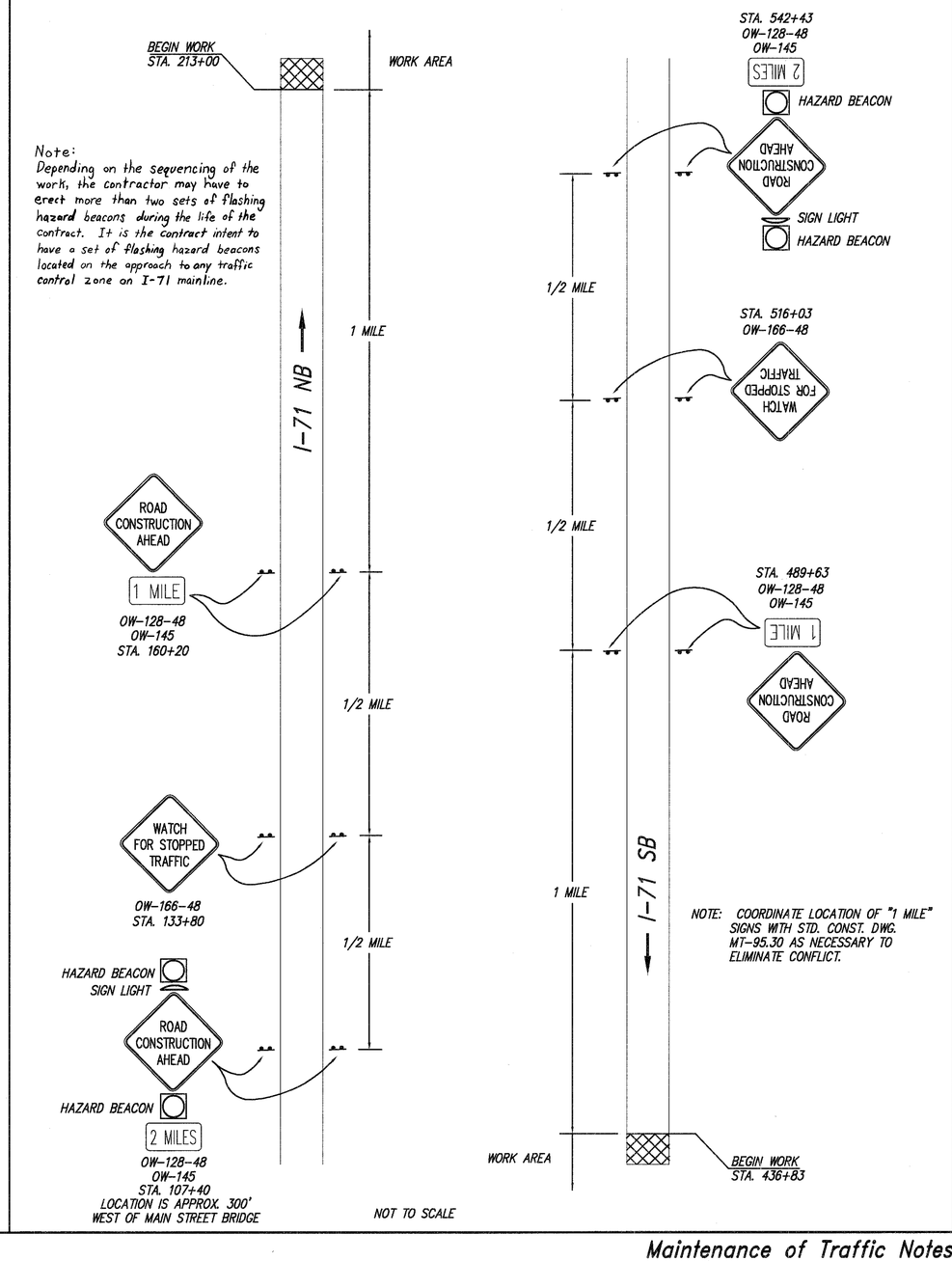
Any vehicular traffic signal head, either new or existing which will be out of operation shall be covered in the manner described in 632.24.

ITEM 614 - ADVANCE WARNING SIGNS

The following work area traffic control signing schematic shall be employed on mainline I-71 as advanced warning of the project. The signs shall be coordinated with other applicable closure details as noted. The advanced warning signs shown shall be installed at both ends of the project locations as shown or as approved by the Engineer. Hazard identification beacons shall be in accordance with Plate C-9 of the "Ohio Manual" and shall have two (2) hazard beacons per installation.* Cost of providing and maintaining these advanced warning signs shall be included in Item 614 - Maintaining Traffic (See Advance Warning Sign Schematic, this sheet.)

*The use of Type B flashing warning lights is not permitted.

ADVANCE WARNING SIGNS SCHEMATIC



MAINTENANCE OF TRAFFIC NOTES

ITEM 615 - TEMPORARY PAVEMENT, AS PER PLAN

TEMPORARY PAVEMENT, AS PER PLAN SHALL BE PLACED AT THE LOCATIONS AS LISTED ON SHEET 51. THE WORK SHALL CONSIST OF REMOVING THE EXISTING BITUMINOUS AGGREGATE SHOULDER, RECOMPACTING THE SUBGRADE TO THE SATISFACTION OF THE ENGINEER, AND PLACING 8" OF ITEM 301 BITUMINOUS AGGREGATE BASE. THE TEMPORARY PAVEMENT SHALL REMAIN IN PLACE, TO BE COVERED BY THE PROPOSED RESURFACING.

ITEM 617 - COMPACTED AGGREGATE FOR SPOT TREATMENT

THIS ITEM IS INCLUDED TO BE USED IN AREAS WHERE TRAFFIC IS BEING MAINTAINED ON AN EXISTING OR PAVED SHOULDER ADJACENT TO A GRADED BERM. THE CONTRACTOR SHALL USE THIS ITEM TO MAINTAIN THE BERM SO THAT THERE IS NO MORE THAN A ONE (1") INCH DROP OFF FROM THE SHOULDER TO THE BERM WHILE TRAFFIC IS BEING MAINTAINED ON THE SHOULDER. ANY QUANTITY OF ASPHALT USED WILL BE PAID UNDER MAINTENANCE OF TRAFFIC.

THIS ITEM SHALL BE PLACED AS PER ITEM 410 EXCEPT THAT THE MATERIAL USED SHALL BE AS PER ITEM 304. PAYMENT WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL AND MAINTENANCE OF TRAFFIC NEEDED TO PERFORM THE WORK AS DIRECTED BY THE ENGINEER. REMOVAL OF THIS MATERIAL PRIOR TO PLACEMENT OF PERMANENT ITEM 617 SHALL BE CONSIDERED INCIDENTAL TO APPROPRIATE SHOULDER PREPARATION OR LINEAR GRADING ITEMS.

AN ESTIMATED QUANTITY OF 200 C.Y. OF ITEM 617 HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

SCHEDULING

THE CONTRACTOR IS REQUIRED TO PROVIDE THE ENGINEER AN ACCEPTABLE PRELIMINARY PRIMAVERA CRITICAL PATH SCHEDULE AS NOTED IN THE PROPOSAL PRIOR TO THE COMMENCEMENT OF WORK. THIS SCHEDULE SHALL BREAK DOWN THE PROJECT INTO THE SEPARATE OPERATIONS AND/OR PROCESSES NECESSARY FOR ITS COMPLETION. THIS SHALL DETERMINE, THROUGH NETWORK ANALYSIS, A COMPLETION TIME FOR ITEMS OF WORK AND THE CRITICAL PATH REQUIRED TO MEET THESE DATES. THIS SCHEDULE SHALL BE REVIEWED AND ACCEPTED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK. THE ENGINEER SHALL SCHEDULE AND CONDUCT WEEKLY MEETINGS TO MONITOR PROGRESS, INCLUDING ALL SUBCONTRACTOR, SUPPLIER, FABRICATOR, AND/OR VENDOR ACTIVITIES REQUIRED TO MAINTAIN SCHEDULED TARGET DATES, AND ANY UPDATES REQUIRED.

THE BASELINE SCHEDULE WILL BE THE SOLE SOURCE OF DATA TO ANALYZE AND DETERMINE TIME ADJUSTMENTS OR CLAIM ELIGIBILITY AND/OR AMOUNT.

FAILURE TO PROVIDE OR ACCEPTABLY MAINTAIN THIS SCHEDULING REQUIREMENT SHALL BE CAUSE FOR SUSPENSION OF ALL PROGRESS PAYMENTS UNTIL THE DEFICIENCIES ARE RESOLVED TO THE SATISFACTION OF THE ENGINEER.

PRE-BID CONFERENCE

THE BIDDER IS ALSO ADVISED THAT THE DEPARTMENT WILL SCHEDULE AND CONDUCT A PRE-BID CONFERENCE PRIOR TO LETTING.

NOTIFICATION TO THE INDUSTRY WILL BE MADE WHEN A DATE IS SELECTED. THIS CONFERENCE WILL BE HELD IN THE DISTRICT 8 OFFICE AND ALL PROSPECTIVE BIDDERS ARE URGED TO ATTEND.

COORDINATION BETWEEN PROJECTS HAM-71-1.30/9.00 SECTION I AND HAM-71-2.92

IT IS ANTICIPATED CONSTRUCTION ON THE HAM-71-1.30/9.00 AND HAM-71-2.92 PROJECTS WILL OCCUR CONCURRENTLY DURING THE 1996 CONSTRUCTION SEASON. THEREFORE, THE CONTRACTOR IS DIRECTED TO ITEM 105.07 COOPERATION BETWEEN CONTRACTORS IN THE O.D.O.T. CONSTRUCTION AND MATERIALS SPECIFICATIONS AND THE FOLLOWING INFORMATION. THE CONTRACTOR SHALL INSTALL THE TRAFFIC CONTROL NECESSARY FOR THE MAINTENANCE OF TRAFFIC STAGES AS DETAILED IN THE PLANS SUCH AS TEMPORARY PAVEMENT MARKINGS, SIGNS, REMOVAL OF CONFLICTING PAVEMENT MARKINGS, ETC. MAINTENANCE OF THE TRAFFIC CONTROL WILL CONSIST OF THOSE ITEMS INSTALLED BY THIS CONTRACTOR WHETHER INSIDE OR OUTSIDE OF THE PROJECT LIMITS. IT IS EXPECTED THAT STD. DWG. MT 102.20 CAN BE USED TO SHIFT THE TRAFFIC BETWEEN THE TWO PROJECTS DURING THE 1996 CONSTRUCTION SEASON.

A MINIMUM OF TWO WEEKS PRIOR TO IMPLEMENTING A MAINTENANCE OF TRAFFIC SWITCH AFFECTING THE ADJACENT PROJECT, THE O.D.O.T. PROJECT ENGINEER SHALL BE NOTIFIED SO A MEETING CAN BE SCHEDULED WITH THE PROJECT ENGINEER, THE CONTRACTOR AND THE ADJACENT PROJECT'S CONTRACTOR. THE PURPOSE OF THIS MEETING IS TO ASSURE COORDINATION BETWEEN THE TWO PROJECTS IS ACHIEVED WHILE THE TRAFFIC CONTROL SWITCH IS BEING DONE AND MAINTENANCE RESPONSIBILITIES ARE DEFINED.

PAYMENT FOR ALL OF THE ABOVE IS TO BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLAN.

MAINTENANCE OF ROADWAY

IN ADDITION TO THE REQUIREMENTS OF ITEM 614, THE CONTRACTOR SHALL BE REQUIRED TO FURNISH ALL LABOR, EQUIPMENT, AND MATERIALS TO MAINTAIN ANY AND ALL LANES AND BERMS WITHIN THE PROJECT LIMITS IN A SAFE CONDITION FOR THE TRAVELLING PUBLIC FOR THE DURATION OF THE PROJECT.

SPECIFICALLY, THIS REQUIREMENT SHALL BEGIN ON EITHER THE FIRST DAY OF WORK OR 30 DAYS AFTER THE CONTRACT AWARD DATE, WHICHEVER IS EARLIEST AND CONTINUE UNTIL FINAL ACCEPTANCE. ITEM 404 IS TO BE USED FOR TEMPORARY REPAIR UNDER THIS REQUIREMENT. THE CONTRACTOR IS EXPECTED TO MAKE NECESSARY REPAIRS AS SOON AS POSSIBLE BUT NO LATER THAN 24 HOURS AFTER NOTIFICATION. THE CONTRACTOR IS ALSO EXPECTED TO STOCKPILE 10 C.Y. OF COLD MIX ON THE PROJECT SITE IN CASE HOT MIX IS NOT AVAILABLE.

THE CONTRACTOR SHALL DESIGNATE A CLAIMS AND COMPLAINT REPRESENTATIVE AND FURNISH A TELEPHONE NUMBER AT THE PRE-CONSTRUCTION MEETING. THIS PERSON SHALL MAINTAIN A LOG OF CALLS AND RESPONSES AND SHALL FURNISH THE ENGINEER A COPY OF THIS LOG MONTHLY OR UPON REQUEST.

AN ESTIMATED QUANTITY OF 150 C.Y. OF ITEM 253 - PAVEMENT REPAIR HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

MATERIALS - PAVEMENT MAINTENANCE

AN ESTIMATED QUANTITY OF ITEM 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC, 300 C.Y. HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

THE CONTRACTOR IS REQUIRED TO PROVIDE A STOCKPILE OF A MINIMUM OF 10 C.Y. OF ITEM 405, BITUMINOUS COLD MIX FOR USE IN CASE THE HOT MIX IS NOT AVAILABLE. THIS MATERIAL IS PAID FOR UNDER THE ABOVE 404 ITEM.

MATERIALS - BERM MAINTENANCE

FOR MAINTENANCE OF EXISTING BERM AREAS - SEE NOTE SHEET 45, ITEM SPECIAL - PATCHING EXISTING PAVED SHOULDER.

ALL VOIDS OR DISTURBED BERM AREAS RESULTING FROM PAVEMENT REPAIR OPERATIONS SHALL BE RESTORED AS DESCRIBED IN THE ABOVE ITEM SPECIAL. THE COST OF THIS RESTORATION, DUE TO PAVEMENT REPAIR OPERATIONS, SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS C OR CLASS FS, OR ASPHALTIC PAVEMENT REMOVAL AND RIGID REPLACEMENT IF ENCOUNTERED.

EXISTING PAVEMENT MARKINGS

IF DURING THE DURATION OF THE CONTRACT, THE CONTRACTOR HAS TO ALTER THE PAVEMENT MARKINGS OUTSIDE THE PROJECT LIMITS, THEY SHALL BE REQUIRED TO REPLACE ALL SUCH MARKINGS WITH THE SAME MATERIAL; OR, IF THE STATE OR ANY OTHER MAINTAINING AGENCY IS CALLED TO SUSPEND PAINTING OPERATION DUE TO THE EXISTING CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO REPAINT THE EXISTING PAVEMENT MARKINGS WHICH THE MAINTAINING AGENCY WAS UNABLE TO PAINT. PAYMENT FOR THIS WORK SHALL BE INCLUDED UNDER THE APPROPRIATE PAVEMENT MARKING PAY ITEM.

RESURFACING OPERATIONS

PRIOR TO COMMENCING RESURFACING OPERATIONS, THE CONTRACTOR SHALL REFERENCE BOTH EDGES OF THE MAINLINE AND RAMP TRAVELED PAVEMENT ON BOTH SIDES OF THE ROADWAY IN A MANNER SATISFACTORY TO THE ENGINEER. MAINLINE PAVEMENT SHALL BE REFERENCED A MAXIMUM OF 1,000 FEET IN TANGENT SECTIONS AND 200 FEET IN CURVE SECTIONS.

RAMP PAVEMENT SHALL BE REFERENCED A MAXIMUM OF 200 FEET IN TANGENT SECTIONS AND 50 FEET IN CURVE SECTIONS. THESE REFERENCED POINTS SHALL BE USED TO REESTABLISH THE TRAVELED LANES DURING AND AT THE CONCLUSION OF THE RESURFACING OPERATIONS TO PROVIDE THE NECESSARY CONTROL FOR PAVEMENT MARKING LAYOUT.

ALL MATERIAL USED IN REFERENCING THE ABOVE SHALL BE REMOVED AT THE COMPLETION OF THE WORK.

THE APPLICATION OF ITEM 407 - TACK COAT WILL NOT BE PERMITTED UNTIL JUST PRIOR TO PLACING THE BASE COURSE. TRAFFIC SHALL NOT BE PERMITTED ON ANY TACKED AREAS.

TRAFFIC SHALL NOT BE MAINTAINED ON A LANE ADJACENT TO A SHOULDER DURING RESURFACING OPERATIONS UNLESS THE LEVELING COURSE OR SURFACE COURSE HAS BEEN PLACED ON BOTH LANE AND SHOULDER. THE SURFACE COURSE CANNOT BE PLACED ON A LANE UNTIL THE INTERMEDIATE COURSE AND/OR BASE COURSES HAVE BEEN PLACED ON THE ADJACENT LANE AND SHOULDER.

TEMPORARY PAVEMENT WEDGES SHALL BE PROVIDED AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO A PAVEMENT SURFACE OF DIFFERENT ELEVATION. THESE WEDGES SHALL BE REMOVED PRIOR TO PLACING THE SPECIFIED PAVEMENT COURSES. THE MINIMUM SLOPE OF THE TEMPORARY PAVEMENT WEDGES SHALL BE 1" PER FOOT ALONG LONGITUDINAL JOINTS AND 25:1 AT TRANSVERSE JOINTS. COST FOR THESE WEDGES SHALL BE INCLUDED IN ITEM 614, MAINTAINING TRAFFIC.

GUARDRAIL CONTINGENCY QUANTITIES

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO REPAIR, RESTORE OR REPLACE ANY GUARDRAIL DAMAGED BY THE TRAVELLING PUBLIC. THESE ITEMS ARE TO BE USED AFTER COMPLETION OF A CONSTRUCTION PHASE AND PRIOR TO ACCEPTANCE OF THE PROJECT. THEY SHALL NOT BE UTILIZED TO REPLACE ANY GUARDRAIL THAT WAS DAMAGED DUE TO THE CONTRACTOR'S FAULT. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE:

ITEM 606	ANCHOR ASSEMBY, TYPE E	10 EACH
ITEM 606	GUARDRAIL, TYPE 5	1000 LIN. FT.
ITEM 202	GUARDRAIL REMOVED	1000 LIN. FT.

GENERAL INFORMATION

THE CONTRACTOR IS TO TAKE NOTE OF THE SEQUENCE OF CONSTRUCTION, COMPLETION DATES, LIQUIDATED DAMAGES, ALTERNATE BIDS — SEE PROPOSAL NOTE.

MAINTENANCE OF TRAFFIC NOTES

CALC. BY KAS DATE 10/21/94
CHKD. BY [illegible] DATE 2-1-95
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ITEM 615 – TEMPORARY PAVEMENT, AS PER PLAN

TEMPORARY PAVEMENT, AS PER PLAN

STATIONS	STAGE	QUANTITY (SQ. YDS)
7+35E TO 17+07.53E	1	427.8 SQ. YDS.
385+80 TO 398+00 NB	1	1355.6
406+30 TO 412+76 NB	1	717.8
418+50 TO 444+50 NB	1	2888.9
422+30 TO 447+00 SB	1	2744.4
390+90 TO 415+10 SB	1	2688.9
378+00 TO 383+42 SB	1	602.2

11425.6 SQ.YDS. TOTAL

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR

In addition to the requirements of 614 and the latest edition of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD), a uniformed law enforcement officer and official patrol car with working top mounted emergency flashing lights shall be provided for controlling traffic for the following tasks:

a. For lane closures: During initial set-up periods, tear down periods, substantial shifts of a closure point or when new lane closure arrangements are initiated on I-71 and the Norwood Lateral.

b. For periods the Project Engineer feels they would enhance the safety of the travelling public.

Law enforcement officers (L.E.O.'s) should not be used where the OMUTCD intends that flaggers be used. The LEO's are considered to be employed by the Contractor and the Contractor shall be responsible for their actions. Although they are employed by the Contractor, the project engineer shall have control over their placement. The official patrol car shall be a public safety vehicle as required by the Ohio Revised Code.

Speed enforcement hours as directed by the Engineer:

200 – Set-up and take down
1800 – Speed enforcement of 45 mph zone

The Contractor shall make arangements for these services with:

Hamilton County Sheriff's Office
1000 Sycamore Street
Cincinnati, Ohio 45202
(513) 632-8822

City of Cincinnati Police Division
310 Ezzard Charles Circle
Cincinnati, Ohio 45202
(513) 352-2583

City of Norwood City Hall
4645 Montgomery Road
Norwood, Ohio 45212
(513) 396-8150

Law enforcement officers with patrol car required by the traffic maintenance tasks above shall be paid for on a unit price (hourly) basis under ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR. The following estimated quantities have been carried to the GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR, 2000 HOURS

The hours paid shall include minimum show-up time required by the law enforcement agency involved.

If the Contractor wishes to utilize LEO's for flagging and traffic control other than for that required in these plans, he may do so at his own expense. Payment for the excess above the contract requirements will be included under ITEM 614 MAINTAINING TRAFFIC.

ITEM SPECIAL – REPLACEMENT DRUM

Drums furnished by the Contractor in accordance with the requirements of the plans, specifications and proposal which become damaged by traffic for reasons beyond the control of the Contractor shall be re-placed in kind when ordered by the Engineer. Replacement drums shall be new.

Payment for the new drums shall be made at the contract bid price per each for ITEM SPECIAL – REPLACEMENT DRUM, and shall include the cost of removing and disposing of the damaged drum, and providing and maintaining the replacement drum in accordance with the contract requirements for the original drum.

An estimated quantity of 2000 each has been provided in the GENERAL SUMMARY.

ITEM SPECIAL – REPLACEMENT SIGNS

Flat sheet signs furnished by the Contractor in accordance with the requirements of the plans, specifications, and proposal which become damaged by traffic for reasons beyond the control of the Contractor shall be replaced in kind when ordered by the Engineer. Replacement signs shall be new. Other materials may be in used but good condition subject to approval by the Engineer.

Payment for the new signs shall be made at the bid price per square foot for ITEM SPECIAL – REPLACEMENT SIGN and shall include the cost of removing and disposing of the damaged signs, hardware and supports; and providing the necessary replacement hardware, supports, etc..

An estimated quantity of 500 square feet has been provided in the GENERAL SUMMARY.

COVERING OF SIGNS

Where the plans call for a permanent sign to be covered, the Contractor shall do so in such a manner so as to avoid damaging the permanent sign when the cover is removed. The cover shall be totally opaque. The use of adhesive tape applied directly to a sign face is strictly prohibited.

TRENCH FOR WIDENING

Trench excavation for base widening shall be only on one side of the pavement at a time. The open trench shall be adequately maintained and protected with drums or barricades at all times. Placement of proposed subbase and base material shall follow as closely as possible behind the excavation operations. The length of trench widening open at any one time shall be held to minimum and shall at all times be subject to approval of the Engineer.

OVERNIGHT TRENCH CLOSING

The base widening shall be completed to a depth of no more than 8 inches below the existing pavement by the end of each work day. No trench shall be left open overnight except for a short length (25 feet or less) of a work section at the end of the trench. In case wor.. must be suspended because of inclement weather or other reasons, the trench for the uncompleted base widening shall be backfilled at the direction of the Engineer.

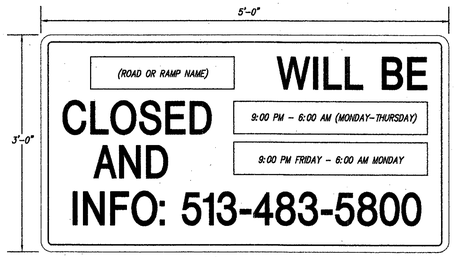
GUARDRAIL REPLACEMENT

No hazard shall be left unprotected except for the actual time necessary to remove the existing guardrail, prepare the site, and install new guardrail in a continuous operation. The removal of all guardrail shall at all times be as directed by the Engineer. No guardrail shall be removed until the replacement material is on the site, ready for installation. Failure to comply with this requirement shall be deemed sufficient cause to order work suspended until such time at the Engineer is assured of compliance.

NOTICE OF CLOSURE SIGNS

Notice of closure signs, as detailed in these plans, shall be erected by the Contractor at least one week in advance of the scheduled road or ramp closure. The signs shall be erected on the right hand side of the road/ramp facing traffic. They shall be placed so as not to interfere with the visibility of any other traffic control signs. On roadways, they should be erected at the point of closure. The signs may be erected anywhere on ramps as long as they are visible to the motorists using the ramp. On entrance ramps, the sign shall be erected well in advance of the merge area to avoid distracting motorists.

Payment for this work shall be included in the lump sum bid for ITEM 614 Maintaining Traffic and shall include furnishing, erecting, maintaining, and removing the signs including supports.



PAYMENT

Payment for all the Maintenance of Traffic except for items designated as "ITEM 614, Temporary Pavement Markings," ITEM 614, Work Zone Speed Limit Sign," ITEM 614, Portable Changeable Message Sign, As Per Plan, "ITEM SPECIAL, Law Enforcement Officer with Patrol Car," ITEM SPECIAL, Replacement Sign," and ITEM SPECIAL, Replacement Drum," shall be included in the Lump Sum "ITEM 614, Maintaining Traffic." Estimated quantities have been carried to the GENERAL SUMMARY.

The following estimated quantities have been included in the general summary for use as directed by the Engineer for the maintenance of traffic.

404, BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC 50 CU. YD.

Item 614 - Construction Zone, Fines Doubled Sign

The Contractor shall furnish, install, maintain, cover during suspension of work and remove CONSTRUCTION ZONE, FINES DOUBLED (48" x 48") signs and supports within the work limits in accordance with the following requirements:

1. The sign posted shall bear the legend "CONSTRUCTION ZONE/FINES DOUBLED" and shall be of the size, colors, shape and legend sizes as shown in the attached drawing. The signs should be mounted on both sides (dual) of a directional roadway of a divided highway but need only be mounted on the right side of an undivided roadway or ramp.

2. The first sign(s) shall be placed between the "ROAD CONSTRUCTION AHEAD" (OW-128) or "SHOULDER WORK AHEAD" (OW-132) sign and the next sign in the sequence. Additional signs are required for long construction zones or where ramps or through streets junction within the construction project work limits. Signs shall be erected on each entrance ramp, near intersections of through roads to advise entering or turning traffic and at least once every two miles through the construction work limits.

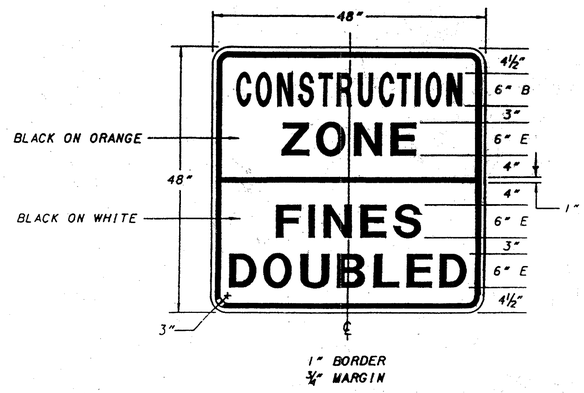
3. The signs shall be furnished, erected, maintained in good condition and/or replaced as necessary and subsequently removed by the entity which erects the traffic controls within the project. Signs shall be mounted at the appropriate offsets and elevations as prescribed by the Ohio Manual of Uniform Traffic Control Devices. They shall be mounted on supports meeting current safety criteria.

4. Sign(s) may be erected for construction zones only if the planned work length is at least one half mile long and the work will last for at least 30 days.

5. Where workers and construction equipment are beyond the traffic lanes and paved shoulder signs should not be provided.

6. Where construction activity affects only one directional roadway of a divided highway with a barrier or wide median, signs shall not be erected for traffic on the opposing directional roadway or ramp.

7. Signs shall be covered or removed when a construction zone is discontinued for a period of 30 days or more. Additional, the agency may require signs to be covered or removed for a specific shorter period.



The Contractor may use signs and supports in used but good condition provided the signs meet current ODOT specifications. Sign faces shall be reflectorized with Type G Sheeting complying with the requirements of 730.19 and U.S. Department of Transportation Supplemental Specification for Type III Sheeting, FP-85. "CONSTRUCTION ZONE/FINES DOUBLED" signs shall be mounted on two (2) item 630 ground mounted supports, No. 4 posts.

CONSTRUCTION ZONE/FINES DOUBLED signs and supports will be measured as the number of sign installations, including the sign and necessary supports. If a sign and support combination is removed and reerected at another location within the project due to changes in the zone directed by the Engineer, it shall be considered another unit.

Payment for accepted quantities, complete, in place will be made at the contract unit price. Payment shall be full compensation for all materials, labor, incidentals, and equipment for furnishing, erection, maintenance, covering during suspension of work, and removal of the sign and supports. The following estimated quantity has been carried to the maintenance of traffic sub-summary:

Item 614 CONSTRUCTION ZONE/FINES DOUBLED sign 40 Each

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MAINTENANCE OF TRAFFIC NOTES

CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

52/613

ITEM 630 - ADVANCE WORK ZONE INFORMATION SIGNS ON I-75 AND SR 562

Advance work zone information signs shall be placed on I-75 and SR 562 at the locations shown on plan sheets 143 thru 155. These signs shall be installed and removed as a part of the maintenance of traffic. They shall be paid for under Item 630, and not included in the lump sum bid for Item 614.

SIGN OVERLAYS OUTSIDE WORK LIMITS ALONG I-75

STATION	SIZE	LEGEND
226+00	5.5' X 1.5'	SOUTH
249+25	5.5' X 1.5'	SOUTH
261+45	5.5' X 1.5'	SOUTH

SIGN OVERLAYS OUTSIDE WORK LIMITS ALONG S.R.562

SIGN #	STATION	SIZE	LEGEND
	S.R. 562, approx. 59+50	4.5' X 2.5'	TO SOUTH
48 B	S.R. 562, 112+50	4.5' X 1.5'	SOUTH
		9' X 1'	Blank
57 A	Reading Rd. 107+41	3.5' X 2'	TO SOUTH
57 B	Reading Rd. 107+41	3.5' X 2'	TO SOUTH
61 A	Montgomery Rd. 114+69	3.5' X 2'	TO SOUTH
61 B	Montgomery Rd. 114+69	3.5' X 2'	TO SOUTH
63 A	Norwood Ave. 27+70	3.5' X 2'	TO SOUTH
63 B	Norwood Ave. 27+70	3.5' X 2'	TO SOUTH
64 A	Wesley Ave. 11+24	3.5' X 2'	TO SOUTH
64 B	Wesley Ave. 11+24	3.5' X 2'	TO SOUTH
36	Highland Ave. 31+00	2' X 3'	Blank
40	Highland Ave. Ext. 46+00	3' X 5'	Blank
42	Kennedy Ave. 25+00	6.5' X 3.5'	RAMP CLOSED
43	Kennedy Ave. 23+50	2' X 3'	Blank
50b	145+50	5.5' X 1.5'	SOUTH
		9' X 3.5'	(arrow)
	161+96	6.5' X 3.5'	RAMP CLOSED
44	Kennedy Ave. 18+00	6.5' X 3.5'	RAMP CLOSED
47b	Duck Creek Rd 80+65	7' X 1'	Blank
37a	Highland Ave. 33+90	6.5' X 3.5'	RAMP CLOSED
37b	Highland Ave. 33+90	6.5' X 3.5'	RAMP CLOSED
52	Ridge Ave. 37+75	8' X 1'	Blank
		6.5' X 2'	Blank
51b	Ridge Ave. 25+80	6.5' X 3.5'	RAMP CLOSED
54b	15+65H	6.5' X 3.5'	RAMP CLOSED
48b	Ridge Ave. 43+16	8' X 1'	Blank
		6.5' X 2'	Blank

TEMPORARY PAVEMENT MARKING QUANTITIES

ITEM	UNIT	QUANTITY				TOTAL QUANTITY	DESCRIPTION
		STAGE 1	★ STAGE 2	STAGE 2A	STAGE 2B		
614	MILES	12.35	40.50	0	0	52.85	TEMPORARY LANE LINES, CLASS I
614	MILES	0.19	0	1.17	1.16	2.52	TEMPORARY LANE LINES, CLASS I, 740.05, TYPE C
614	MILES	14.13	22.35	0	0	36.48	TEMPORARY WHITE EDGE LINES, CLASS I
614	MILES	1.63	0.53	0.27	0.17	2.60	TEMPORARY WHITE EDGE LINES, CLASS I, 740.05, TYPE C
614	MILES	0.21	18.63	0	0	18.84	TEMPORARY YELLOW EDGE LINES, CLASS I
614	LIN. FT.	13263	16843	0	0	30106	TEMPORARY CHANNELIZING LINES, CLASS I
614	LIN. FT.	455	2850	0	0	3305	TEMPORARY CHANNELIZING LINES, CLASS I, 740.05, TYPE C
614	MILES	0.89	0	0	0	0.89	TEMPORARY CENTER LINES, CLASS I
614	MILES	1.39	2.35	0.63	0.76	5.13	TEMPORARY CENTER LINES, CLASS I, 740.05, TYPE C
614	LIN. FT.	0	340	0	0	340	TEMPORARY STOP LINE, CLASS I
614	LIN. FT.	0	899	0	0	899	TEMPORARY DOTTED LINE, CLASS I
G14	LIN. FT.	0	1365	0	0	1365	Temporary Pavt Marking, Misc.: Curb Marking, Class I
G14	LIN. FT.	0	3555	0	0	3555	Temporary Transverse Line, 24", Class I
G14	EACH	0	33	0	0	33	Temporary Lane Arrow, Class I
G14	EACH	0	13	0	0	13	Temporary Word on Pavement, 72", Class I
G14	MILES	0	1.12	0	0	1.12	Temporary Yellow Edge Line, Class I, 740.05, Type C

TEMPORARY GROUND MOUNTED GUIDE SIGN QUANTITIES

ITEM	UNIT	QUANTITY				TOTAL QUANTITY	DESCRIPTION
		STA. 254+00	STA. 258+00	STA. 297+00	STA. 319+00		
630	SQ. FT.	172.5	168	172.5	172.5	685.5	SIGN, EXTRU SHEET, TYPE G
630	LIN. FT.	50	48	50	50	154	GROUND MOUNTED SUPPORT, W10X22 BEAM
630	CU. YDS.	2.46	2.46	2.46	2.46	9.6	CONCRETE FOR EMBEDED FOUNDATION
630	EACH	2	2	2	2	8	BREAKAWAY BEAM CONNECTIONS

★ Quantities calculated included the temporary pavement marking for this 1997/1998 winter shutdown.

G:\TVZ\97\MOT\MOTNT-4 - JAN. 30, 1995 @ 4:30 pm

CALC. BY KAB DATE 10/14/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

53/615

MAINTENANCE OF TRAFFIC

STAGE 1

Maintenance of Traffic Details

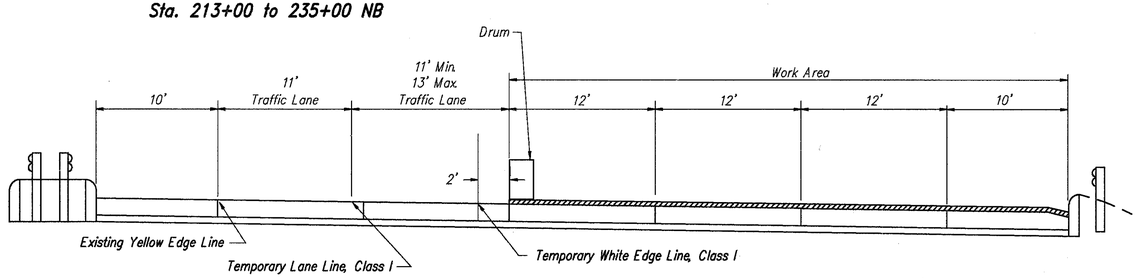
Construction on I-71 shall be staged as follows:

Stage 1

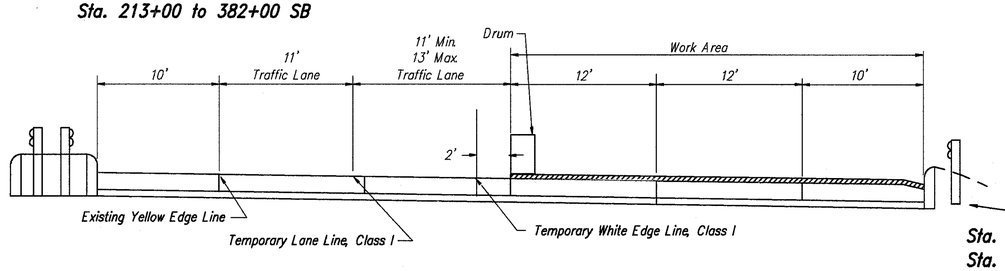
During stage 1, the Contractor shall direct traffic to the left-hand and center lanes utilizing temporary pavement markings and drums to maintain the 11 ft. width of the two (2) traveled lanes. Allow drums to be placed on the travelled lane during paving operations. The drums should be removed immediately after paving is complete. During this stage, the Contractor will complete the paving operations in the right-hand lane(s) and the outside shoulder as well as replacement of the guardrail adjacent to the outside shoulder as specified in the plans. All work in slide areas shall also be completed during this stage.

Also during stage 1, the Contractor shall maintain traffic on all side roads as shown in the plans.

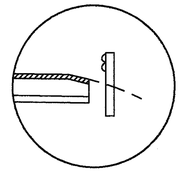
Sta. 213+00 to 235+00 NB



Sta. 235+00 to 406+18 NB
Sta. 213+00 to 382+00 SB



Sta. 359+50 to 406+18 NB
Sta. 359+50 to 382+00 SB



Sta. 406+18 to 436+83 NB
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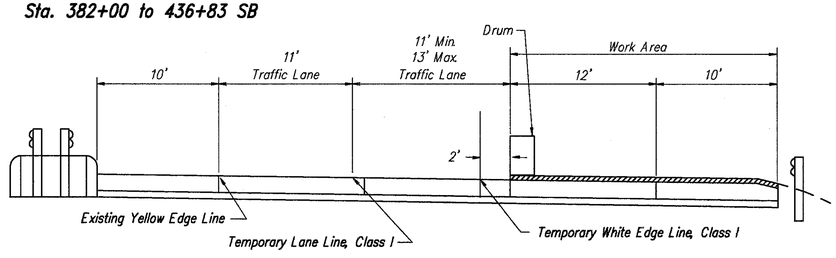
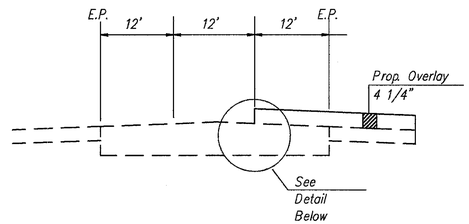
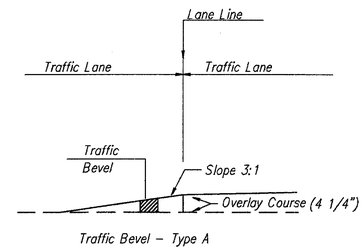


Longitudinal Joints

In any case where traffic is exposed to a longitudinal joint the contractor shall provide a bevel as detailed in these notes (Traffic Bevel Detail) to provide a smooth transition. The material used for the bevel shall be the same as used in the newly-placed surface course. The bevel may be constructed by planing, raking, separate placement, or any other method as approved by the Engineer. The traffic bevel shall be installed similar to Traffic Bevel - Detail A. The traffic bevel shall be removed prior to placement of the adjacent surface course. Payment for this work shall be included in Item 614 - Maintenance of Traffic.

Traffic Bevel Detail





Traffic Bevel - Type A

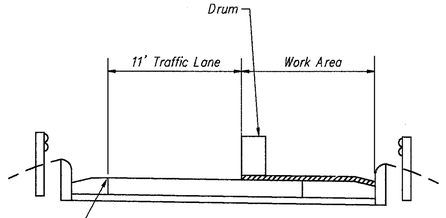
Ramp Details

During stage 1, phase A, the Contractor will direct traffic to the inside pavement, maintaining the 11 ft. width of the traveled lane by use of drums. The Contractor will then complete the paving operations in the outside pavement and shoulder as well as replacement of the guardrail adjacent to the outside shoulder as specified in the plans.

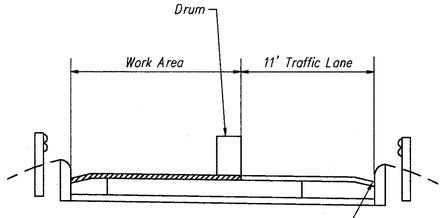
During stage 1, phase B, the Contractor will direct traffic to the outside pavement, maintaining the 11 ft. width of the traveled lane by use of drums and temporary pavement markings. The Contractor will then complete the paving operations in the inside pavement and shoulder as well as replacement of the guardrail adjacent to the inside shoulder as specified in the plans.

ALL WORK ON RAMPS SHALL BE COMPLETED IN STAGE 1, EXCEPT RAMPS J, K, L AND H. RAMPS K AND L SHALL BE COMPLETED IN STAGE 2.

Ramp Detail

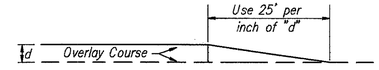


Phase A



Phase B

Feathering At Ramp Entrances



CALC. BY KAB DATE 10/15/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 54/615

MAINTENANCE OF TRAFFIC

STAGE 2

Maintenance of Traffic Details

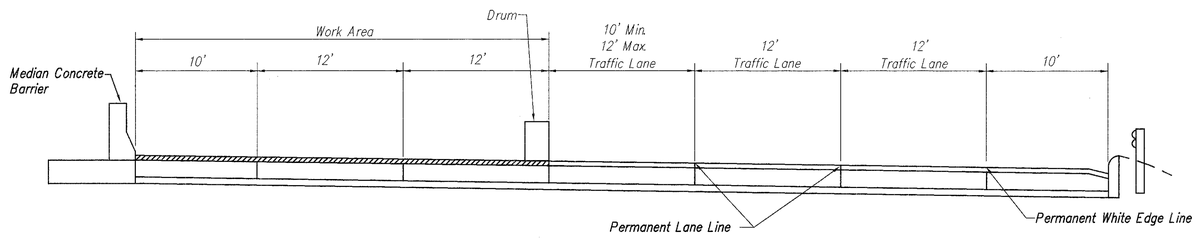
Construction on I-71 shall be staged as follows:

Stage 2

When stage 1 has been completed for the length of the project, the Contractor will then direct traffic to the right-hand lane and shoulder, maintaining the 11 ft. width of the two (2) traveled lanes by the use of temporary pavement markings and drums. The Contractor will then complete the paving operations in the left-hand lane, center lane, and the inside shoulder, as well as installation of the concrete barrier in the median area as specified in the plans.

Also during stage 2, the Contractor shall maintain traffic on all side roads as shown in the plans.

Sta. 213+00 to 235+00 NB



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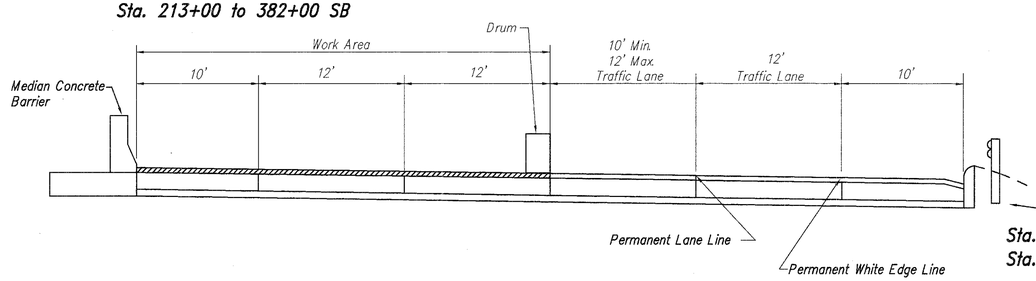
Sta. 213+00 to 382+00 SB



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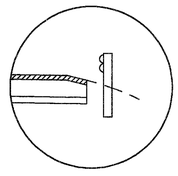
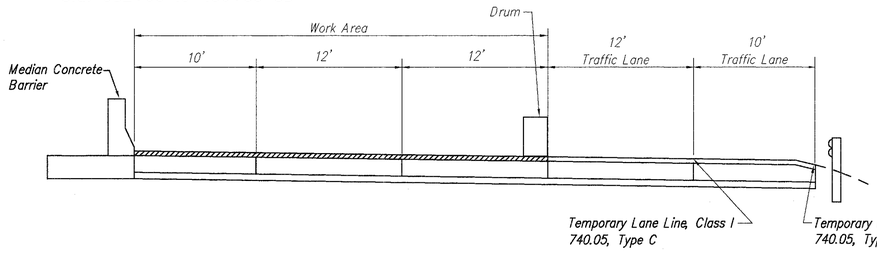
Sta. 359+50 to 382+00 SB



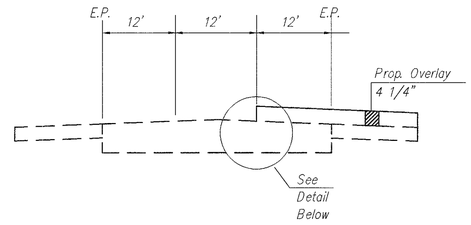
Sta. 406+18 to 436+83 NB
Sta. 382+00 to 436+83 SB

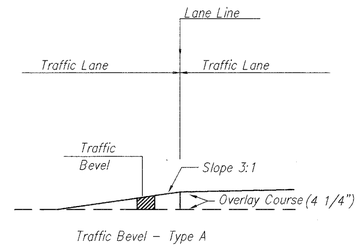


Longitudinal Joints

In any case where traffic is exposed to a longitudinal joint the contractor the contractor shall provide a bevel as detailed in these notes (Traffic Bevel Detail) to provide a smooth transition. The material used for the bevel shall be the same as used in the newly-placed surface course. The bevel may be constructed by planing, raking, separate placement, or any other method as approved by the Engineer. The traffic bevel shall be installed similar to Traffic Bevel - Detail A. The traffic bevel shall be removed prior to placement of the adjacent surface course. Payment for this work shall be included in Item 614 - Maintenance of Traffic.

Traffic Bevel Detail





Traffic Bevel - Type A

Maintenance of Traffic Details Stage 2A

Stage 2A

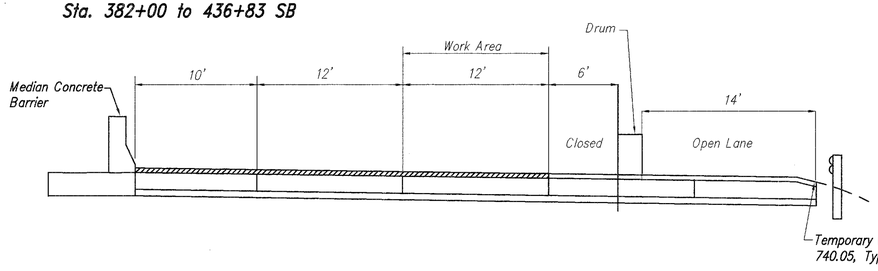
The Contractor shall move the drums from the work area to the adjacent traveled lane, thereby reducing the interstate to one lane in direction of travel during the hours of 9:00 P.M. to 6:00 A.M. the following morning when the items of work below are being performed in the middle lane:

1. Saw cutting pavement repairs, removing the concrete, etc., and any other work associated with the pavement repairs which might encroach into the adjacent traveled lane.
2. Placing the asphalt pavement.

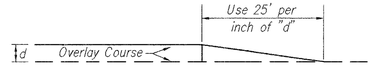
Work is to be performed exclusively in the middle lane when the interstate is reduced to one lane.

Failure of the Contractor to re-open the interstate to two lanes by the times mentioned above shall be subject the Contractor to liquidated damages of $1,000.00 per direction per hour or portion thereof for each and every hour the Contractor is in violation of these time constrants.

STAGE 2A
Sta. 406+18 to 436+83 NB
Sta. 382+00 to 436+83 SB



Feathering At Ramp Entrances



Staging Notes and Details

CALC. BY KAB DATE 10/31/94
CHKD BY JJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

55/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

Legend

- (TW) Temporary White Edge Line, Class 1
- (TY) Temporary Yellow Edge Line, Class 1
- (TL) Temporary Lane Line, Class 1
- (TC) Temporary Channelizing Line, Class 1
- (TD) Temporary Double Yellow Center Line, Class 1
- (TWT) Temporary White Edge Line, Class 1, 740.05, Type C
- (TYT) Temporary Yellow Edge Line, Class 1, 740.05, Type C
- (TLT) Temporary Lane Line, Class 1, 740.05, Type C
- (TCT) Temporary Channelizing Line, Class 1, 740.05, Type C
- (TDT) Temporary Double Yellow Center Line, Class 1, 740.05, Type C
- Type A Warning Light
- (TP) Temporary Pavement, As Per Plan

GG(1) Exit 71 SOUTH Newport Ky NEXT RIGHT
GG(1) 71 SOUTH
GB(1) Exit 71 Vine St Stadium Crestwood Covington Ky LEFT 3/4 MILE
Sta 180+61

REDUCED SPEED 35 LAE AD R-11A-36 Sta RA 181+17
W-49L-48 Sta 182+20 Lt.
Ramp GA
Begin Work Sta 179+61
Begin Taper Sta 179+61
Ramp RD
For Multi-Lane Closure Details See Right Lane Closure Std. Const. Dwg. MT-95.30 With the Following Modifications
Replace OW-122 with RIGHT TWO LANES CLOSED AHEAD Special
Replace OW-60 with Special
Flashing Arrow Panel Type C Sta 180+01
ROAD CONSTRUCTION AHEAD OW-128-48 Sta 182+00RC
GE(1) Reading Rd. NORTH Florence Ave. Sta RC 181+68 Lt
W-97-48 Sta RC 182+07 Lt
Drums Spaced at 25'
660' Taper
(TWT)
(Open)
RIGHT 2 LANES CLOSED AHEAD OW-122A-48 Sta 185+01
For Entrance Ramp Area Details See Std. Const. Dwg. MT 98.16
End Taper Sta 186+21
Begin Taper Sta 186+50
OW-49R-48 Sta 186+40
Sta RC 187+25
GE(1) Reading Rd. NORTH
GE(1) Florence Ave Dorchester Ave
Drums Spaced at 50'
1090' Taper
(TCT)
R-2-60 Sta RB 186+64 Rt
W-47-48 Sta RC 188+50 Rt
Drums Spaced At 20'
(TWT)
R-41A-36 Sta RE 190+24 Lt & Rt
R-41A-36 Sta NBR 28+75 Rt
Match Line Sta. 192+00N See Sheet No. 56

W-49L-48 W-145A-30 Sta 185+09S Rt
AHEAD
SPEED LIMIT 35 R-10-36
GCP1(III) Sawyer Point Downtown NEXT RIGHT STA. GA 186+87
SOUTH 71
Sta RF 191+80 Lt
IM-37-24
M-5C-24-2
TM-26-30
COVER EXISTING SIGNS
GE(1) Reading Rd.
GB(1) Gilbert Ave. Stadium Crestwood
Sta RA 192+09
REDUCE SPEED 35 AHEAD R-11A-36 Sta RA 192+09

Southbound Reading Rd.
Ramp RA (Open)
Ramp GA (Open)
Southbound I-71
Ramp RF (Closed)
Northbound Reading Rd.
(Open) Ramp RC
Ramp RB (Closed)
Ramp RE (Open)
Northbound I-71

Stage 1 Construction
Maintenance of Traffic Details - Sta. 179+00N to 192+00N

G:\TYLER\MOVTLEADRZ - JAN. 30, 1995 @ 8:54 am

CALC. BY KAB DATE 10/13/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

56
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

16" X 36" WHITE ON GREEN OVERLAY
I-71 SOUTH RIGHT
GH(III) Sta 9+39 EDEN PARK

R-75-48 MOUNT ON TYPE III BARRICADE Sta. 11+80 NB READING 61' LT.
ROAD CLOSED

M-45 STA. 13+90, RT. COVER EXISTING SIGN
SOUTH 71

IM-38-24 M-5-24-2 IM-24-24 STA. 13+90, RT.
SOUTH 71

GG(III) SOUTH Reading Rd.

GE(III) SOUTH

18" X 18" WHITE ON GREEN OVERLAY

Sta. 35+53 NB Reading

R-75-48 MOUNT ON TYPE III BARRICADE Sta. 32+04 NB READING 23' LT.
ROAD CLOSED

GCR(III) Eden Park Entrance NEXT LEFT

Dorchester St.

IM-8-24 IM-38-24 M-5-24-2 IM-24-24 STA. 15+00, 20' RT. COVER EXISTING SIGNS
TO SOUTH 71

Southbound Reading Rd.

Northbound Reading Rd.

35

Ramp RF

(Open)

(Open)

Match Line Sheet No. 55

IM-38-24 M-5-24-2 IM-24-24 STA. 16+20, RT. COVER EXISTING SIGNS
SOUTH 71

IM-8-24 IM-38-24 M-5-24-2 IM-24-24 STA. 15+90, RT. COVER EXISTING SIGNS
TO SOUTH 71

15

195

Ramps RA & GA

GE(I) EXIT 2 Reading Rd. EXIT ONLY

GE(I) EXIT 2 Gilbert Ave. EXIT ONLY

Sta. 198+00 S

QB(I) EXIT 1.1 SOUTH 71 Newport Ky 1/2 MILE

GCR(III) ART MUSEUM EDEN PARK

Sta. RA/GA 198+53 Lt.

EXIT 45 M.P.H. W-97-48

Sta. 200+335 Lt.

GH(III) SOUTH Reading Rd. KEEP RIGHT

GH(III) SOUTH KEEP LEFT

Sta. 42+70 SB Reading

RIGHT

16" X 24" WHITE ON GREEN OVERLAY

(Closed) Ramp RB

(Open) Ramp RE

Florence

195S

SOUTH 71

196S IM-38-24 M-5-24-2 IM-26-24 STA. 193+76 RB LT.

REMOVE EXISTING IM-26-24 REPLACE WITH NEW IM-24-24

195 195N

End Taper Sta. 197+40N

200

Southbound I-71

200S

200N

Northbound I-71

Flashing Arrow Panel Type C Sta. 203+41N

R-8A-48 Sta. 205+07S
RESUME LEGAL SPEED

OC-8-60 Sta. 207+32S
END CONSTRUCTION

205S 205N

TWT TCT

R-2-60 Sta. 192+97

Eden Park Entr.

TWT

Drums Spaced At 20'

SOUTH 71

IM-38-24 M-5-24-2 IM-24-24 COVER EXISTING SIGNS

Drums Spaced At 50'

12' 12' 12'

Ave.

OW-60C-48 Sta. 198+00

R-75-48 MOUNT ON TYPE III BARRICADE Sta. 193+78 RB 11' LT.
ROAD CLOSED

GH(III) Sta. 194+31 SOUTH KEEP LEFT

Match Line Sta. 192+00N See Sheet No. 55

Match Line Sta. 207+00N See Sheet No. 57

For Multi-Lane Closure Details See Right Lane Closure Std. Const. Dwg. MT-95.30

Drums Spaced At 25'

Begin Taper Sta. 203+01N

TWT

660' Taper

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Sta. 192+00N to 207+00N

G:\71\2.92\MOT\EA0001.dwg - OCT. 14, 1993

CALC. BY LAB
DATE 10/19/94
CHKD. BY KJM
DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

57
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

WATCH FOR ICE ON BRIDGE

WATCH FOR ICE ON BRIDGE

GB(1)
EXIT 21
82
Stadium Coliseum
Reading Rd.
Gilbert Ave.
EXIT ONLY
NEXT RIGHT
13' X 3.5' Black On Orange Overlay

GG(1)
71 SOUTH
LANE CLOSED
5' X 2' Black on Orange Overlay
Sta. 212+52S

Drums Spaced At 50'
Begin 45' Taper Sta. 211+55
Symmes St.
Begin Work Sta. 211+10
Begin 90' Taper Sta. 211+10

TWT TLT TL TW
Drums Spaced At 25'

WORK AREA
Southbound I-71
Northbound I-71
WORK AREA

WATCH FOR ICE ON BRIDGE
W-68-48
Sta. 217+50, Lt., Band to Light Pole
Sta. 217+80, ℄ Band to Light Pole
FOR FOLDING SIGN DETAIL SEE SHEET NO. 492

TL TW

See Sheet No. 56
Match Line Sta. 207+00N

12' 12' 12' 12'
210S 210N
212S
214 216 218 220
11'11'

See Sheet No. 85
Match Line Sta. 222+00

Drums Spaced At 50'
End 660' Taper Sta. 209+61
Drums Spaced At 25'
Begin 45' Taper Sta. 209+17

TWT TLT TL TW

Bridge No. HAM-71-0289

Begin Project Sta. 213+00

SPEED LIMIT 45
R-10-48 Sta. 213+00

SPEED LIMIT 55
R-10-48 Sta. N 210+46 Rt.

Cover W-54D-192 Sta. 211+22N Rt.
1/2 MILE
RIGHT LANE ENDS

McGregor Ave.

15' X 4' Blank Orange Overlay

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Sta. 213+00N to 222+00

G:\71\2.92\TCI - JAN. 30, 1995 @ 9:51 pm

CALC. BY KAB DATE 10/13/95	HAM-71-2.92	OHIO
CHKD. BY [illegible] DATE 2/1/95		FHWA REGION 5

58
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 57
Match Line Sta. 222+00

R-10-48
Sta 222+22

SPEED LIMIT 45

Drums Spaced At 50'

Sta 8+23.69 McMillan St
Sta 225+2.73 ℄ I-71

TW TL

11'

11'

224

8

226

Southbound I-71

228

Northbound I-71

230

WORK AREA

WORK AREA

Drums Spaced At 50'

TW TL

S. WILLIAM McMILLAN ST

D-14
Sta 224+20, RT
Mounted on Light Pole

RIGHT LANE ENDS 1/4 MILE

Mounted on McMillan St Bridge
Sta 224+70, 67' Rt
W-540-240

15' x 4' Blank
Orange Overlay

See Sheet No. 81
Match Line
Sta. 227+00TC

Drums Spaced At 20'

229TC

230TC

Ramp TC (Open)

TW TL

ART MUSEUM
EDEN PARK
NEXT RIGHT

CCR(III)
Sta 227+80, 40' Rt
White on Brown

D-14
Sta 231+30, RT
Mounted on Light Pole

GW LAFT H WM
WM H TAFT RD

Sta 14+61.39 W. H. Taft Rd
Sta 231+17.09 ℄ I-71

D-14
Sta 231+50, LT

WM H TAFT RD
WM H TAFT RD

14

16

℄ RAMP TC

234TC

WRONG WAY

R-41A-36
Sta 232+20TH, 4' Lt
Sta 232+20TH, 46' Rt

See Sheet No. 81
Match Line
Sta. 232+00TH

W-32-48
Sta 233+20TH, 49' Lt

Drums Spaced At 20'

Drums Spaced At 50'

TW TL

12

W-47-36
Sta 234+00TH, Lt
The existing internally illuminated

BASELINE SHIFT
PT Sta 235+00TH 6' LT
= PC Sta 235+00TH

234TH Ramp TH (Open)

236TH

232

℄ I-71

234

11'

11'

Sta 234+12, Rt
W-540-240

RIGHT LANE ENDS MERGE LEFT

15' x 4' Blank
Orange Overlay

Drums Spaced At 50'

Match Line Sta. 236+00
See Sheet No. 59

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Sta. 222+00 to 236+00

G:\71\2.92\TCZ - JAN. 30, 1995 @ 9:52 am

CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

59/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Exit Ramp Advisory Speed shall be 40 MPH (230' Opening/Taper)

For Exit Ramp Area Details See Std. Const. Dwgs. MT-98.12, 98.13, & 98.14

Existing support and signs to remain in place Sta 245+40

GEP-72 EXIT 3 GE(1) Taft Rd EXIT ONLY 192" X 72" 15' X 3.5' Black on Orange Overlay

GEP-72 EXIT 2 GB(1) Reading Rd Gilbert Ave 3.5+4 MILES 216" X 144" NEXT RIGHT 16' X 3.5' Black on Orange Overlay

GC(1) SOUTH 216" X 84" LANE CLOSED 5' X 2' Black on Orange Overlay

W-1-36 W-143-24 Sta 242+10TH, 14' Lt

35 MPH

Sta 7+43.80 Oak St = Sta 237+43.80 ℄ I-71

Drums Spaced at 20' +54

(LS WD) OAK ST D-14 Sta 238+00, LT Mounted on Oak Sreet Bridge Pier

Ramp TH

238TH 240TH 242TH 244TH ℄ Ramp TH 246TH 248TH

+57 +63 +90

Drums Spaced at 20'

PC Sta 248+34.86, 73' LT = Sta 248+34.86TH

R-10-48 Sta 248+62 SPEED LIMIT 45

℄ Lincoln Ave

(AV LINCOLN) LINCOLN AV D-14 Sta 250+10, LT

+20

Sta 251+00 See Sheet No. 60

Match Line Sta. 236+00 See Sheet No. 58

WORK AREA

Southbound I-71

Northbound I-71

Cones Spaced At 20'

WORK AREA

236 238 240 242 244 246 248 250

11'11"

236TC 238TC

Ramp TC (Open)

+03 +83 +92

Drums Spaced at 20' Sta 237+00, RT Mounted on Light Pole (OAK ST) OAK ST D-14

Sta 239+00 ℄ 86' RT =Sta 239+00TC

SPEED LIMIT 45 R-10-48 Sta 239+40

Drums Spaced at 50'

OW-49R-48 Sta 242+00

Drums Spaced at 20' +29

For Entrance Ramp Area Details See Std. Const. Dwg. MT 98.16

M-5C-36-2 M-37-36 Sta 247+00, 89' Rt

INTERSTATE 71 NORTH

+81

Sta 248+60, RT Mounted on Light Pole (AV LINCOLN) LINCOLN AV D-14

Sta 7+92.47 Lincoln Ave = Sta 249+65.84 ℄ I-71

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Sta. 236+00 to 251+00

CALC. BY KAB DATE 01/1994
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

60
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 59
Match Line Sta. 251+00

Drums Spaced At 20'
TL
TW
11'11"
252
254
256
Drums Spaced At 50' +20
258
Southbound I-71
Northbound I-71
260
262
264
WORK AREA
WORK AREA
11'11"
Drums Spaced At 20'
Drums Spaced At 20'
TL
TW
TL
TW
R-2-60
Sta. 255+84
+34
Sta. 100+00 M. L. King Ave.
= Sta. 257+43.44 Q I-71
D-14
Sta. 256+30, RT
GRID SIGN (ML KING DR)
15' X 3.5' Black on Orange Overlay
NEXT RIGHT
Taft Rd
EXIT ONLY
QB(I)
Sta. 258+25
D-14
Sta. 258+25, LT
Mounted on Overhead Sign Support
GRID SIGN (ML KING DR)
(ML KING DR)
98
102
Drums Spaced At 50' +39
Sta. 260+00, 89' Rt.
W-60C-48
Cover
TL
TW
SPEED LIMIT 45
R-10-48
Sta. 265+80
Match Line Sta. 266+00
See Sheet No. 61

For Legend
See Sheet No. 55

For M. L. King Ave. Plan
See Sheet No. 83

Stage 1 Construction

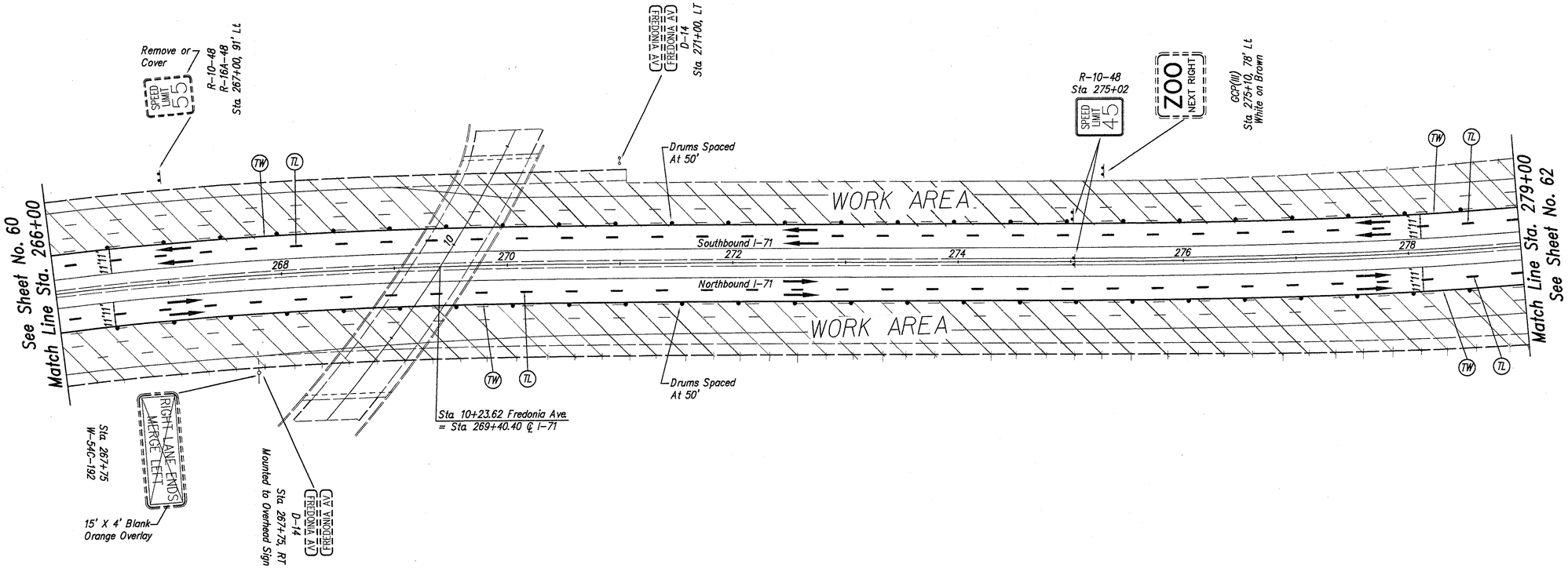
Maintenance of Traffic Details – Sta. 251+00 to 266+00

E:\PLANS\60615A - JAN 30, 1995 @ 8:55 pm

CALC. BY YAG DATE 10/13/94	HAM-71-2.92	OHIO
CHKD BY J.M. DATE 2-1-95		FHWA REGION 5

61/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

For Fredonia Ave. Plan
See Sheet No. 84

Stage 1 Construction

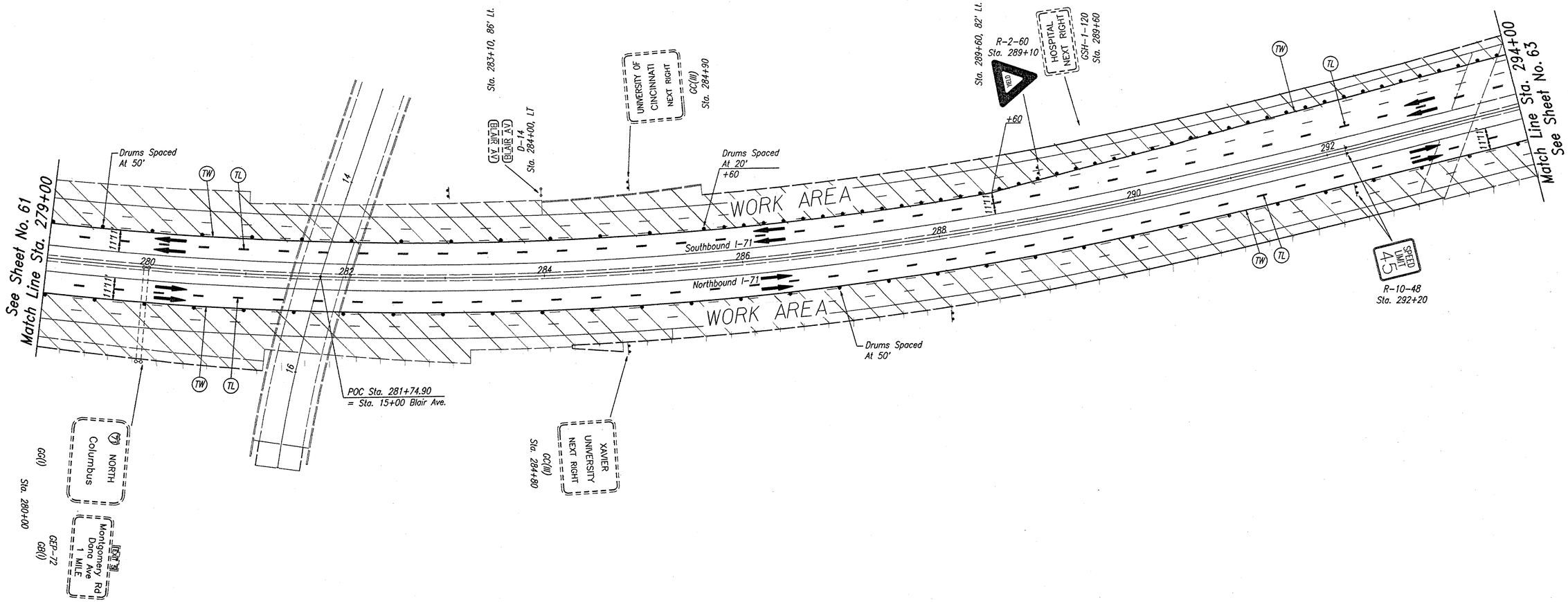
Maintenance of Traffic Details – Sta. 266+00 to 279+00

G:\71\2.92\TOS - JAN. 30, 1995 @ 8:37 pm

CALC BY YAB DATE 10/27/94	HAM-71-2.92	OHIO
CHKD BY T.M DATE 2-1-95		FHWA REGION 5

62
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

For Blair Ave. Plan
See Sheet No. 84

Stage 1 Construction

Maintenance of Traffic Details – Sta. 279+00 to 294+00

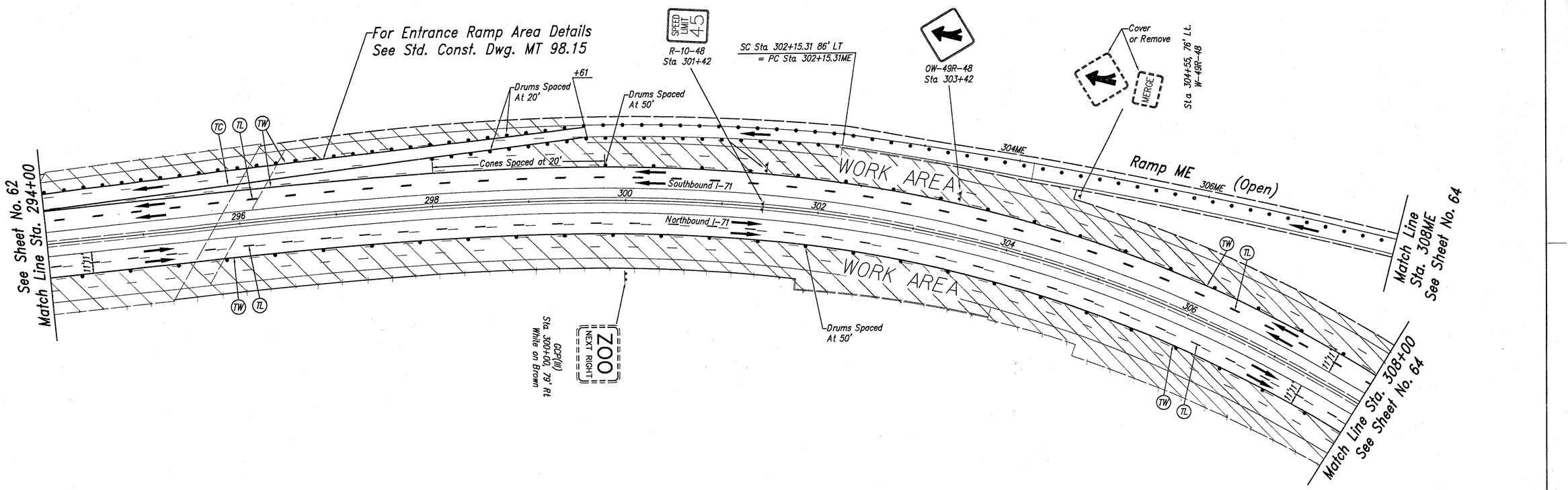
CALC. BY KAB DATE 10/18/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

63
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Sta. 294+00 to 308+00

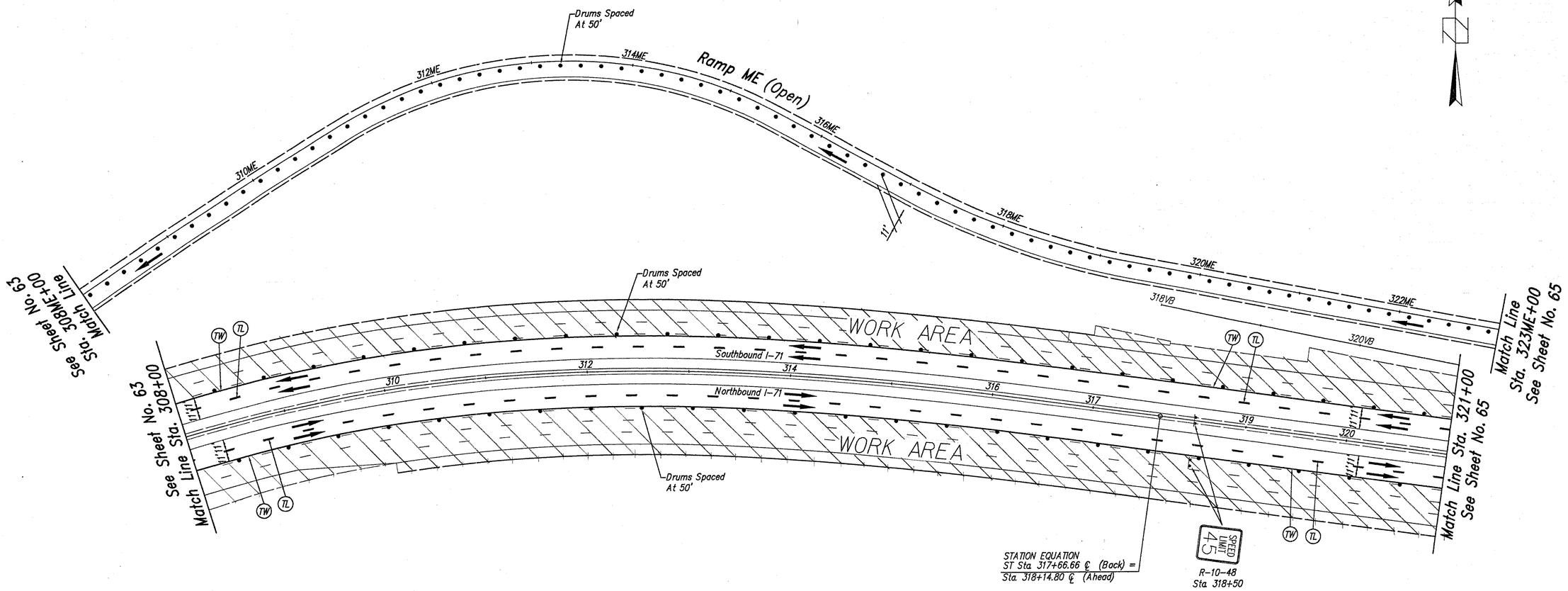
CALC. BY KAB DATE 10/15/96
CHKD BY [illegible] DATE 2-1-96

HAM-71-2.92

OHIO
FHWA REGION 5

64
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Sta. 308+00 to 321+00

CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO

FHWA REGION 5

65/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 64
Match Line
Sta. 323ME+00

Match Line
Sta. 335+00MER
See Sheet No. 86

See Sheet No. 64
Match Line Sta. 321+00

Match Line Sta. 334+00
See Sheet No. 66

AV WINDSOR WOODBURN AV
D-14
Sta. 324+00, LT
Mounted to Overhead Sign Support

EXIT 5
Taft Rd
1½ MILES
GEP-72
GB(1)

SOUTH
GA(1)

Sta. 324+00

POC Sta. 328+37.58ME 16' RT
= PT Sta. 328+37.58MER

POT Sta. 327+23.79 ℄ 73° LT
= PT Sta. 327+23.79VB

(Open)Ramp ME

Drums Spaced At 20'

Drums Spaced At 50'

Cover or Remove

W-60C-48
Sta. 333+00ME, 14' Lt

Cover or Remove

SINGLE LANE AHEAD

W-124-48
Sta. 335+00ME, 14' Lt

11'

324ME 326ME 328ME 330ME 332ME 334ME

330MER 332MER 334MER

324VB 326VB

+06

TW TL

WORK AREA

Southbound I-71

Northbound I-71

℄ I-71

322 324 326 328 330 332

11'|11'

Drums Spaced At 50'

Drums Spaced At 20'
+05

Sta. 323+23.01 ℄
= Sta. 2+80.00 Woodburn Ave.

SPEED LIMIT 45

R-10-48
Sta. 327+82

+17

+47

TC

For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13, & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

AV WOODBURN AV
WOODBURN AV
D-14
Sta. 321+80, RT

GB(1)
Sta. 321+70, 67' Rt.

EXIT 5
Montgomery Rd
Dana Ave
EXIT ONLY

NEXT RIGHT

19' X 3.5' Black on Orange Overlay

OH AEROJOHN
MONTGOMERY RD
D-14
Sta. 332+90, RT
Mounted to Overhead Sign Support

GB(1)
Sta. 332+90

NORTH
Columbus

EXIT 6
Smith Rd
Edwards Rd
1 1/2 MILES

EXIT 5
Montgomery Rd
Dana Ave
EXIT ONLY

GB(1)

22' X 3.5' Blank Orange Overlay

For Legend
See Sheet No. 55

For Woodburn Ave. Plan
See Sheet No. 85

Stage 1 Construction

Maintenance of Traffic Details – Sta. 321+00 to 334+00

D:\TXS\SAVED - JAN. 25, 1995 @ 10:01 am

CALC. BY KAB DATE 10/14/94
CHKD. BY R.T.M DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

66
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 65
Match Line Sta. 334+00

Sta. 335+38.31 ℄
= Sta. 5+70.28 Montgomery Rd.

MONTGOMERY RD
D-14
Sta 336+70, LT

PC Sta 334+22.44 73' RT
= POT Sta 334+22.44MF

336MF
338MF
339MF
340MF
342MF
344MF

+75
+81
+86

Drums Spaced At 20'

Drums Spaced At 50'

Drums Spaced At 50' +07

WORK AREA

WORK AREA

Southbound I-71

Northbound I-71

336
338
340
342
344
346
348

11'
11'11"
6'

W-97-48
Sta 337+00MF, 12' Rt

EXIT 30 MPH

R-10-48
Sta 340+20, 79' Rt

SPEED LIMIT 55

Cover or Remove

R-10-48
Sta 345+00

SPEED LIMIT 45

TRIMBLE AV

D-14
Sta 348+60, LT

Match Line Sta. 349+00
See Sheet No. 67

Sta 347+40.34 ℄
= Sta 5+47.64 Trimble Ave.

TRIMBLE AV
D-14
Sta 348+60, LT

For Exit Ramp Area Details
See Std. Const. Dwgs.
Mt-98.12, 98.13, & 98.14
Exit Ramp Advisory Speed
shall be 40 MPH
(230' Opening/Taper)

Ramp MF (Open)

W-47-48
Sta 340+90MF, 10' Rt
Sta 340+90MF, 32' Lt

WRONG WAY

R-41A-36
Sta 341+50MF, 10' Rt
Sta 341+50MF, 30' Lt

Montgomery Rd
Dona Ave

D-4B-144
Sta 339+50MF, 14' Rt

R-28B-30
R-26B-36

R-27A-36

NO

R-26A-30

30" X 36" Blank
Orange Overlay

R-27A-30
Sta 340+90MF

R-43R-48 R-41B-36 R-43L-48

DO NOT ENTER

R-43R-36 R-41B-30 R-43L-36
Sta 343+90MF, 30' Lt

End Work
Sta. 344+05.94MF

Sta 9+31.82 Duck Creek Rd
Sta 344+27.95MF

For Legend
See Sheet No. 55

For Montgomery Rd. Plan
See Sheet No. 86

For Trimble Ave.
See Sheet No. 85

Stage 1 Construction

Maintenance of Traffic Details - Sta. 334+00 to 349+00

G:\71\2.92\TCD - JAN. 30, 1995 @ 10:02 pm

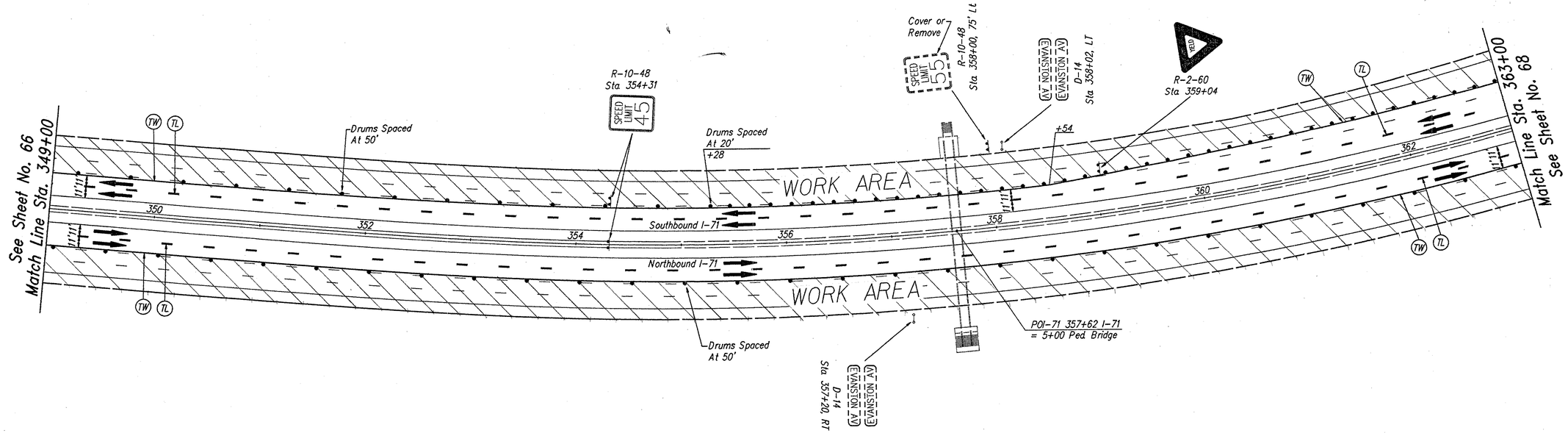
CALC. BY LAB DATE 10/2/96
CHKD. BY D.F.M DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

67
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

Stage 1 Construction

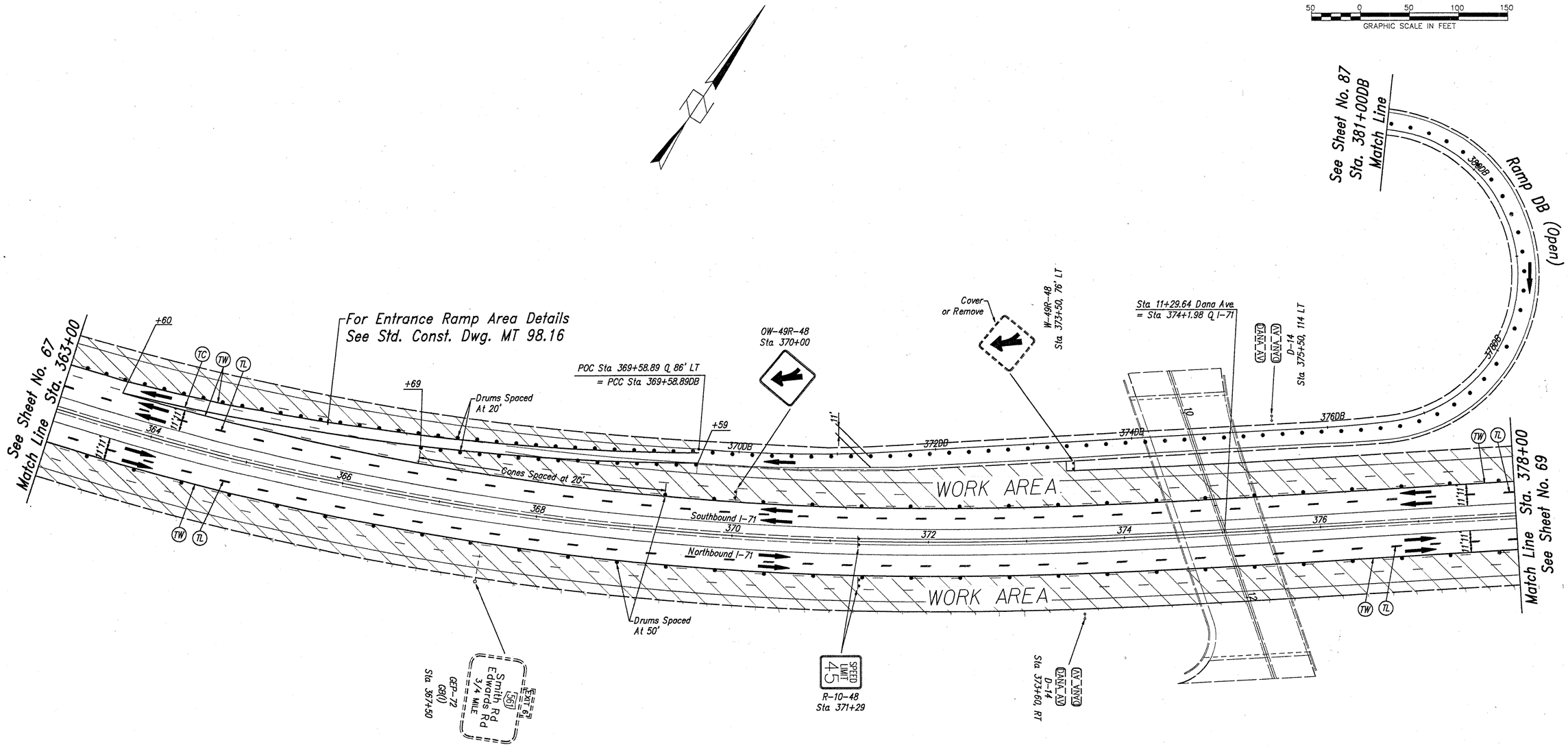
Maintenance of Traffic Details – Sta. 349+00 to 363+00

c:\717\2-67\7011 - JAN. 30, 1998 @ 5:34 pm

CALC. BY YAB DATE 2/13/95
CHKD. BY [illegible] DATE 2/14/95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 68/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

For Dana Ave. Plan
See Sheet No. 87

Stage 1 Construction

Maintenance of Traffic Details – Sta. 363+00 to 378+00

D:\717\2-95\TC12 – JAN. 30, 1995 @ 10:05 am

CALC. BY KAB DATE 10/3/94
CHKD BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

69
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 87
Sta. 378+00DE
Match Line

SIGNAL AHEAD

Ramp DE (Open)

380DE

382DE

384DE

386DE

388DE

W-2-36
W-143-24

30 MPH

EXIT 5
Dana Ave

GE(1)
GEP-72

SOUTH

GG(1)

Sta 388+00

For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13, & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

R-10-48
Sta 380+87

SPEED LIMIT 45

Cincinnati
CORP LIMIT

Sta 383+00,
82' LL
GN(III)

Drums Spaced
At 20'
+21

Drums Spaced
At 50'

TW TL

+38

Drums Spaced
At 20'

TC

CS Sta 388+96.83 73' LT
=CS Sta 388+96.83DE

+27

+57

Southbound I-71

Northbound I-71

380 382 384 386 388 390

11'

Cones Spaced At 20'

See Sheet No. 68
Match Line Sta. 378+00

Match Line Sta. 392+00
See Sheet No. 70

Drums Spaced
At 50'

Ramp DC (Open)

382DC

384DC

386DC

See Sheet No. 87
Sta. 380+00DC
Match Line

W-49R-48
Sta 383+20, 84 Rt

Drums Spaced
At 20'

OW-49R-48
Sta 386+44

Sta 387+00 86' RT
PCC Sta 387+00DC

11'

For Entrance Ramp Area Details
See Std. Const. Dwg. MT 98.16

TC TW

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Sta. 378+00 to 392+00

G:\71\2.92\1013 – JAN. 30, 1995 @ 10:05 pm

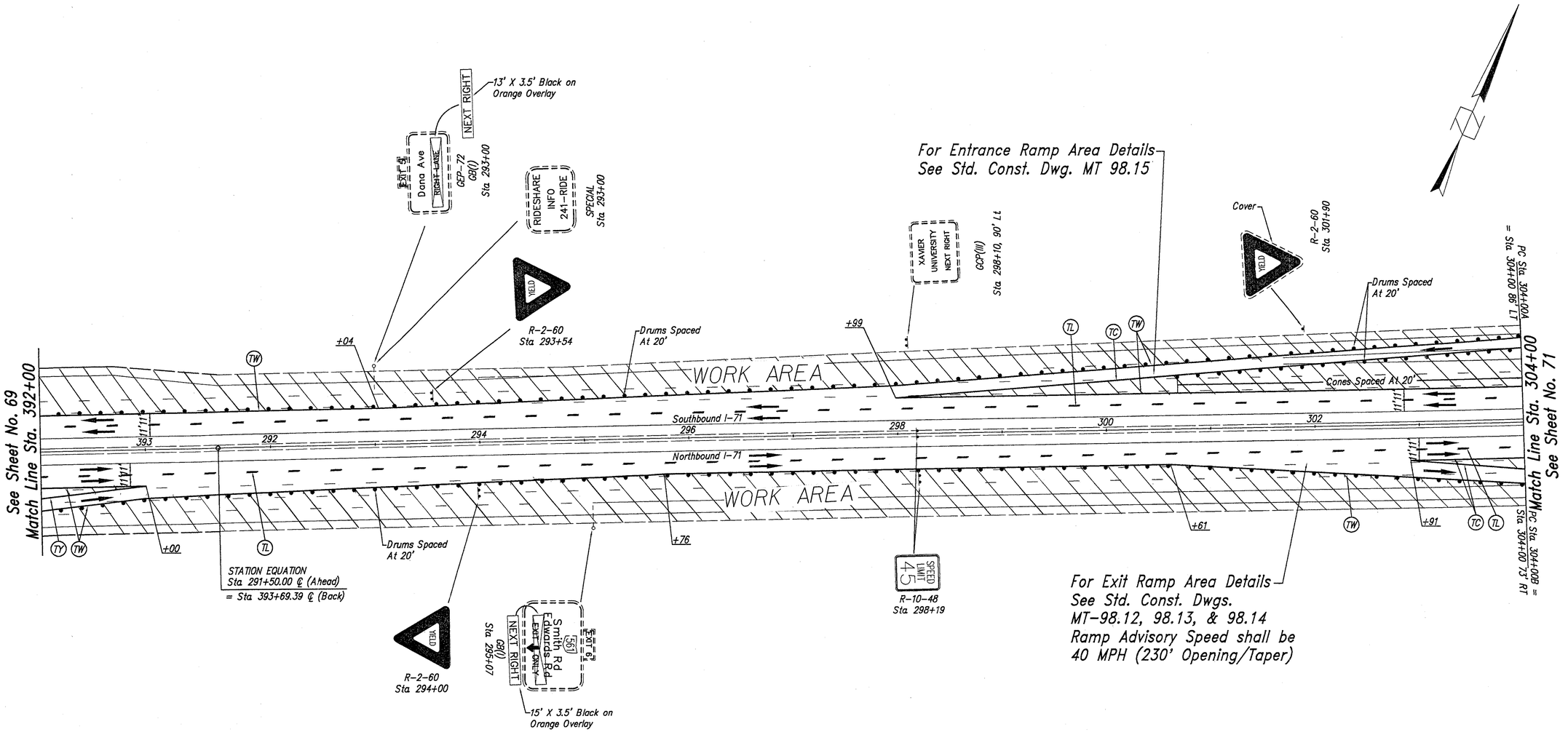
CALC. BY KAG DATE 10/3/97
CHKD. BY JJ.A DATE 2/11/98

HAM-71-2.92

OHIO
FHWA REGION 5

70
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 5.

Stage 1 Construction

Maintenance of Traffic Details – Sta. 392+00 to 304+00

G:\71\2.92\7014 - JAN. 30, 1998 @ 10:08 pm

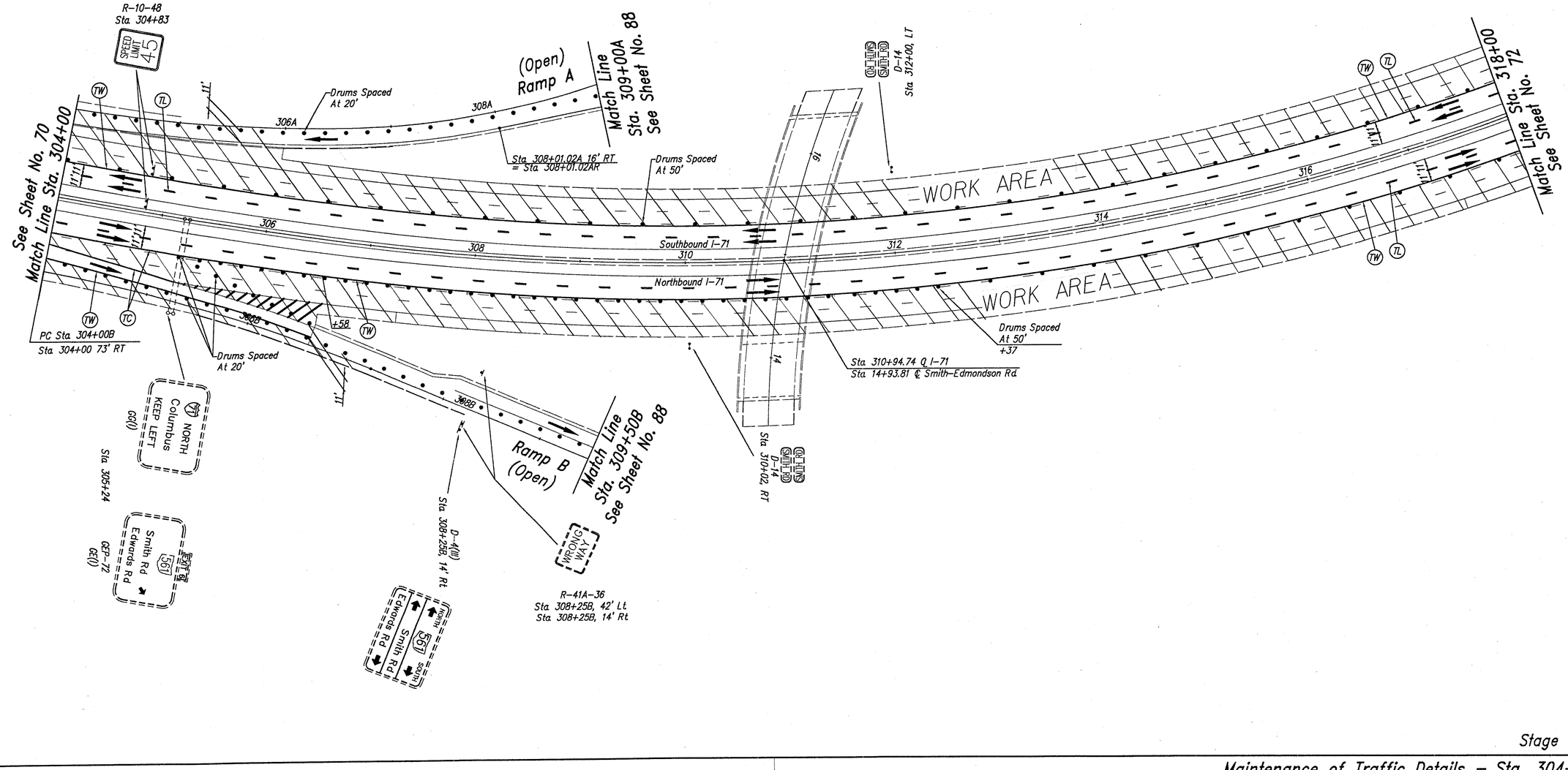
CALC BY KAB DATE 10-13-94
CHKD BY DJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

71
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

For Smith-Edmondson Rd.
See Sheet No. 88

Stage 1 Construction

Maintenance of Traffic Details – Sta. 304+00 to 318+00

G:\71\615\615 - JAN. 30, 1995 @ 10:09 am

CALC BY LAG DATE 10/3/94
CHKD BY B.J.M. DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

72
615

GRAPHIC SCALE IN FEET
50 0 50 100 150

See Sheet No. 71
Match Line Sta. 318+00

Sta. 332+00
Match Line
See Sheet No. 73

Sta 321+59.18 ℄ I-71
=Sta 17+12.74 ℄ Williams Rd.

Drums Spaced At 50'

Drums Spaced At 20'
+31

AV SWITTIM
WILLIAMS AV
D-14
Sta 322+60, LT

See Sheet No. 89
Sta. 324+00D
Match Line

(Open)
Ramp D

NORTH
561
SOUTH
Edwards Rd
Smith Rd
D-4(III)
Sta 325+50D, 35' Lt

SPEED LIMIT 45
R-10-48
Sta 326+76

11'

Drums Spaced At 20'
+10

EXIT 561
Edwards Rd
Smith Rd

EXIT 561
Dana Ave
EXIT MILE

GEP-72
GE(I)

GEP-72
GB(I)
Sta 328+40

Sta 329+74.01 ℄ 73' LT
= PT Sta 329+74.01D

For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13, & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

WORK AREA
Southbound I-71
Northbound I-71
WORK AREA

11'11'

320 322 324 326 328 330

16
18

+20
+70
+99

TW TL TC TW1

Drums Spaced At 50'

SPEED LIMIT 45
R-10-48
Sta 322+01

NORTH
IM-37-24
INTERSTATE 71
M-5-24-2
IM-24-21
Sta 326+00C, 37' Lt

Begin Work
Sta. 327+36.11C

11'

332C 330C 328C

Ramp C
(Open)

Drums Spaced At 20'

W-49B-48
Sta. 330+00, 76' Rt
Band to Light Pole

±36

Sta 327+21.11C
End Edwards Rd

Columbus
NORTH
D-4(III)
Sta 327+50C, 28' Lt

For Entrance Ramp Area Details
See Std. Const. Dwg. MT 98.16

NORTH
71
M-45-42
Sta 326+50, 5' Rt

Flashing Arrow Panel
Type B
Sta 326+72

Mounted to Overhead Sign Support
Sta 320+90, RT

Columbus
NORTH
GB(I)

Sta 320+90

EXIT 88
Ridge Ave
NORTH
EXIT
2 MI
GEP-84
GB(I)

3' X 2' Blank
Orange Overlay

EXITS 7-8A
561 Norwood
Ridge Ave
EXITS SOUTH
1 MI
GEP-108
GB(I)

For Legend
See Sheet No. 55

For Williams Rd. Plan
See Sheet No. 89

Stage 1 Construction

Maintenance of Traffic Details - Sta. 318+00 to 332+00

G:\71\2.92\TS16 - JAN. 30, 1995 @ 10:10:10 pm

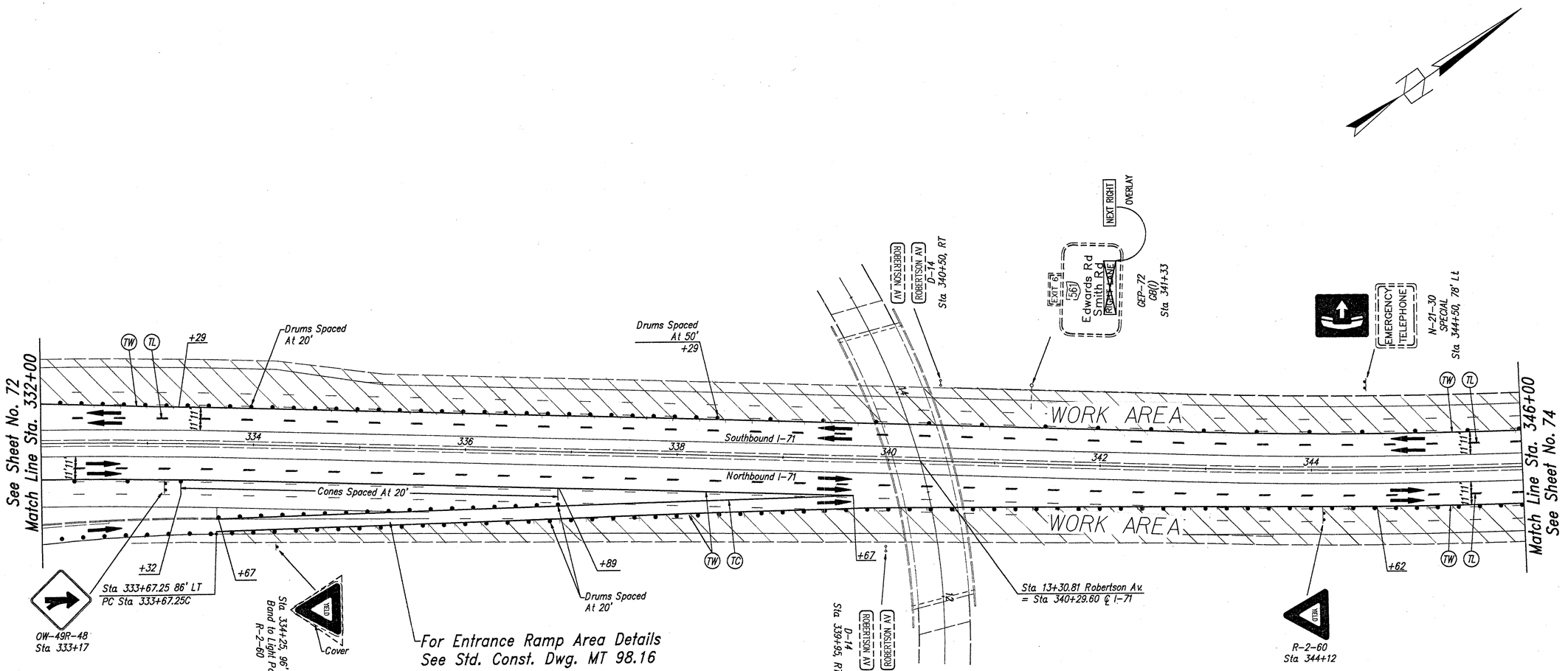
CALC BY KAB DATE 10/3/94
CHKD BY JJ m DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

73
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

For Robertson Ave. Plan
See Sheet No. 90

Stage 1 Construction

Maintenance of Traffic Details – Sta. 332+00 to 346+00

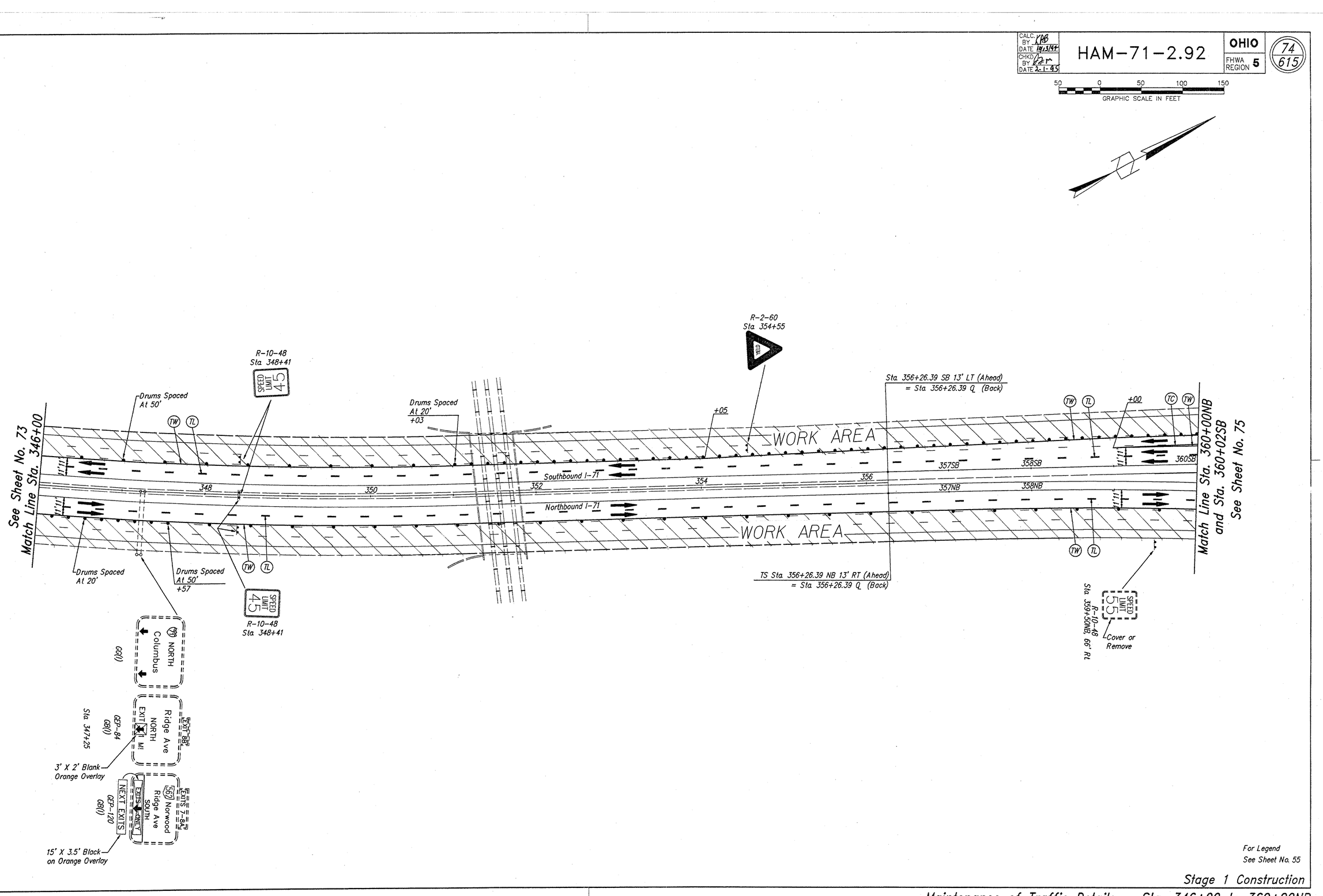
CALC. BY KAB DATE 12/31/97
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

74
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Sta. 346+00 to 360+00NB

Q:\71\2.92\TC18 – JAN. 30, 1995 @ 5:43 pm

CALC. BY KAB DATE 10/13/94
CHKD. BY DJR DATE 2/17/95

HAM-71-2.92

OHIO
FHWA REGION 5

75
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 91
Match Line
Sta. 12+00E

(Open) Ramp E

Cover
1'
YIELD
R-2-60
Sta 16+78E, 12' Rt.
Band to Light Pole

Norwood
CORP LIMIT

OW(III)
Sta 362+90SB, 88' Lt

Sta 17+07.53E
= Sta 365+00SB 73' LT

+95

Drums Spaced
At 20'

+48

10E

TP

11'

Cover
or Remove

MERGE

W-49R-48
Sta 368+00SB, 67' Lt

For Entrance Ramp Area Details
See Std. Const. Dwg. MT 98.16

WORK AREA

Cones Spaced At 20'

Southbound I-71

362SB
364SB
366SB
368SB
370SB
372SB

+00

Drums Spaced
At 50'

OW-49R-48
Sta 365+08SB

TW TC TL

Cover

SPEED LIMIT 55

R-10-48
Sta 372+25SB, 66' Lt

11'

11'

See Sheet No. 74
Match Line Sta. 360+00NB
and Sta. 360+02SB

362NB
364NB
366NB
Northbound I-71
368NB
370NB
372NB

+48
+78
+55
+10
+77

WORK AREA

Drums Spaced
At 20'
+55

Ridge Ave
SOUTH
EXIT 84A

Sta 362+15NB
GEP-84
GE(I)

For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13, & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

PCC Sta 0+00 - 60' LT
= Sta 368+24.92NB

GE(I)

Columbus
NORTH

1.5' X 3.5' Black
on Orange Overlay

SECOND RIGHT

GEP-84
GE(I)

EXIT ONLY
LEFT LANE

Ridge Ave
NORTH

EXIT 88A

Sta 370+20NB

GEP-84
GE(I)

NEXT RIGHT

15' X 3.5' Black
on Orange Overlay

EXIT ONLY
RIGHT LANE

Nomad

GEP-72
GE(I)

SOUTH
Ridge Ave

EXIT 88A

GEP-84
GE(I)

Drums Spaced
At 20'

Ramp F
(Open)

Match Line
Sta. 374+00SB
See Sheet No. 76

Match Line
Sta. 374+00NB
See Sheet No. 76

Match Line
Sta. 6+00F
See Sheet No. 92

Temporary pavement

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details Sta. 360+00NB to Sta. 374+00NB

C:\TYX\2A7019 - JAN. 30, 1995 @ 7:25 pm

CALC. BY LAB DATE 10/29/97
CHKD. BY J.J.M. DATE 2/1/98

HAM-71-2.92

OHIO FHWA REGION 5

76/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13, & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

See Sheet No. 91
Sta. 2+62J
Match Line

Ramp I (Open)

EXIT 6A 561 Edwards Rd Smith Rd EXIT 1 MILE

GEP-72 Sta 380+50SB

GEP-72 GE(I) Sta 385+29SB

EXIT 7 562 Norwood

Drums Spaced At 20'

P.T. Sta 13+99.69J = Sta 387+03.31 SB 48' RT

Match Line Sta. 388+00SB See Sheet No. 77

Drums Spaced At 20' +34

Begin Taper +05

495' Taper

WORK AREA

Southbound I-71

380SB 382SB 384SB 386SB

Sta 17+59.37J ℄ Shift 16' LT

See Sheet No. 91
Sta. 17+00J
Match Line

376SB 378SB

+33

ST Sta 383+32.88
I-71 SB Shift ℄ 12' LT

End Taper +95

+50

Ramp H

Match Line Sta. 2+00H See Sheet No. 95

+98

P.C. Sta 0+00H = Sta 383+00SB 25' RT

Sta 385+00 NB
I-71 NB Shift ℄ 12' LT

386NB

Match Line Sta. 387+00NB See Sheet No. 77

For Entrance Ramp Area Details See Std. Const. Dwg. MT 98.16

Sta 26+94.85J = Sta 382+00NB 25' LT

Ramp J (Closed)

R-10-48 Sta 376+00SB

SPEED LIMIT 45

R-10-48 Sta 374+81

SPEED LIMIT 45

See Sheet No. 75
Sta. 374+00SB
Match Line

382NB 384NB

380NB

Northbound I-71

378NB

376NB

WORK AREA

+13

PC Sta 0+00G = Sta 382+16.36NB 48' RT

+25

+24

Drums Spaced At 20'

RAMP 25 MPH

+83

Drums Spaced At 20'

Sta 378+80 RT

D-14

ST. RT. 562 W.

ST. RT. 562 W.

Sta 24+60 ST. RT. 562
Sta 378+96 ℄ I-71NB

11' X 2' Black on Orange Overlay

LANE CLOSED

GG(I)

NORTH Columbus

GG(I)

NORTH Columbus

Sta 384+42

EXIT ONLY

EXIT 28A Ridge Ave NORTH

GEP-84 GE(I)

NEXT RIGHT

15' X 3.5' Black on Orange Overlay

14' X 3.5' Blank Orange Overlay

EXIT ONLY

EXIT 7 562 Norwood

GEP-72 GE(I)

MERGE

Ramp G (Open)

Match Line Sta. 8+00G See Sheet No. 92

For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13, & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Sta. 374+00NB to Sta. 387+00NB

G:\71\2.92\1020 - JAN. 30, 1998 @ 10:15 pm

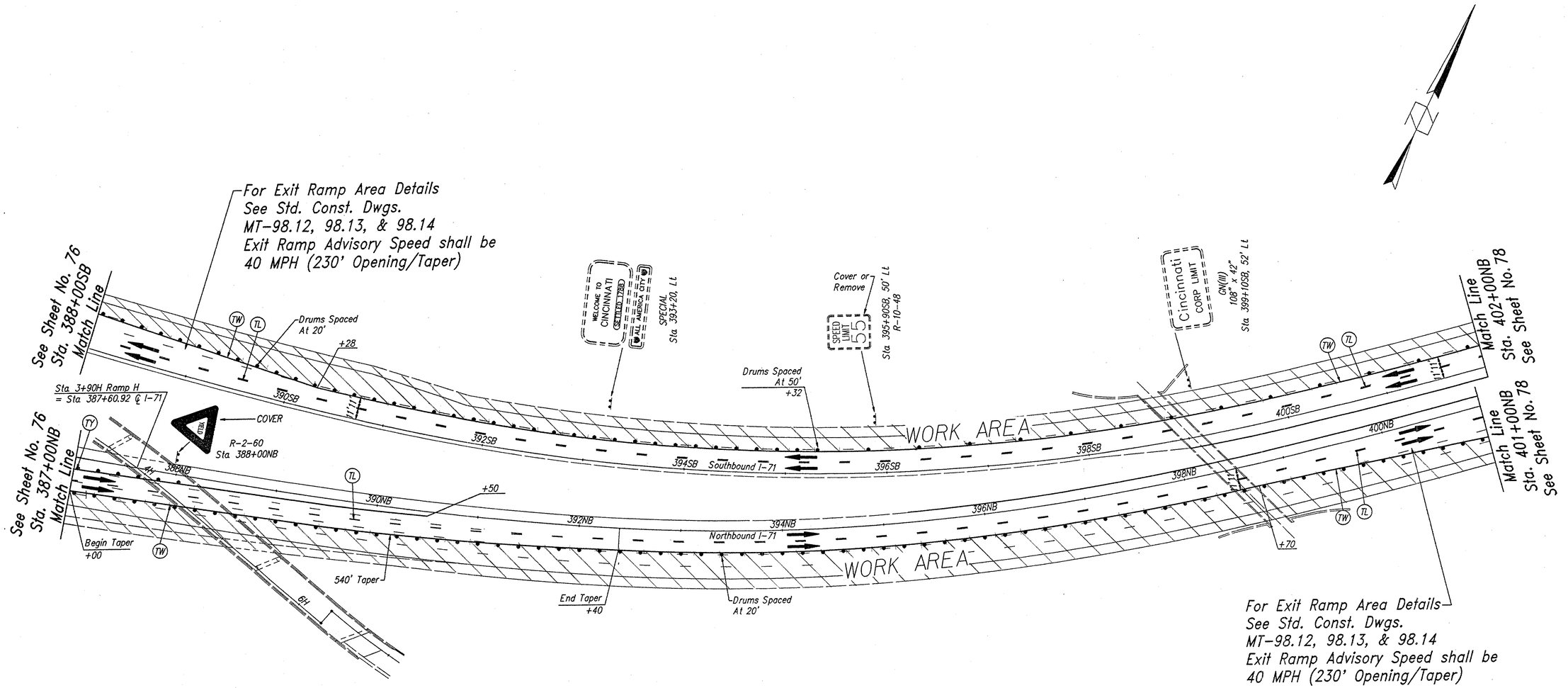
CALC. BY KAB DATE 10/23/94
CHKD BY J.J.M. DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

77
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details Sta. 387+00NB to 401+00NB

G:\TYLER\TC21 - JAN. 30, 1995 @ 4:48 pm

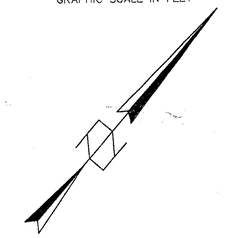
CALC. BY KAB DATE 10/25/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

78 / 615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13 & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

See Sheet No. 95
Match Line
Sta. 6+00R

W-32-48
Sta. 4+64R, 29' Lt.

GF-72
Sta. 3+20R, 29' Lt.

EXIT 8

Ramp R (Open)

Drums Spaced At 20'

W-45A-48
Sta. 2+55R, 14' Rt.

EXIT 7
562
Norwood
RIGHT LANE

GEP-72
GB(1)
Sta. 405+30, 50' Lt.
Mount on Ridge Ave. Bridge

AV 3000
RIDGE AV
D-14
Sta. 405+70, Lt.

R-10-48
Sta. 408+65
SPEED LIMIT 45

R-10-48
Sta. 410+43
SPEED LIMIT 45

level 2
13' X 6'

I-71 SOUTH TUNNEL
7 MILES AHEAD

SPECIAL
Sta. 410+80, ℄
EXISTING TO REMAIN

Drums Spaced At 20'
+08

Sta. 404+81.00 ℄ (Projected Back)
Sta. 29+96.64 Ridge Ave.

Drums Spaced At 50'

See Sheet No. 77
Match Line
Sta. 402+00SB

WORK AREA

404SB
405
406
408
410
412
414
416

Southbound I-71
I-71
Northbound I-71

402NB

See Sheet No. 77
Match Line
Sta. 401+00N

+00
+14
+22
+27
+09
+20
+75

TW TL TC

Drums Spaced At 20'

Cones Spaced At 20'

Sta. 0+00N
Sta. 402+00 ℄ 48' LT

5' X 2' Black on Orange Overlay

LANE CLOSED

Columbus
GG(1)
Sta. 402+11NB

Ridge Ave
NORTH
EXIT ONLY
EXIT 8B
GEP-84
GE(1)

13' X 3.5' Blank Orange Overlay

Sta. 402+11, Rt.
Mounted to Overhead Sign Support

W-97-48
Sta. 3+00N, 18' Rt.

25 MPH
EXIT 8B

STATION EQUATION
Sta. 404+87.57 ℄ (Ahead)
Sta. 404+00 NB ℄ (Back)
Sta. 404+84.57 SB ℄ (Back)

GF-72
Sta. 406+32, 80' Rt.

For Exit Ramp Area Details
See Std. Const. Dwgs.
MT-98.12, 98.13 & 98.14
Exit Ramp Advisory Speed shall be
40 MPH (230' Opening/Taper)

Ramp N (Open)

Sta. 8+00N
Match Line
See Sheet No. 94

W-49R-48
Sta. 409+70, 75' Rt.

Cover or Remove

Ramp P (Open)

Drums Spaced At 20'

OW-49R-48
Sta. 412+68

Sta. 412+76 79' RT
= Sta. 10+45.90P

Sta. 6+03.37P
= Sta. 4+19.07P1

Sta. 4+00P1
Match Line
See Sheet No. 95

For Entrance Ramp Area Details
See Std. Const. Dwg. MT 98.16

R-2-60
Sta. 415+41, 87' Rt.

YIELD

Cover

KENNEDY AV
D-14
Sta. 416+10, Rt.

KENNEDY AV

Match Line
See Sheet No. 79

For Legend
See Sheet No. 55

For Ridge Ave. Plan
See Sheet No. 94

Stage 1 Construction

Maintenance of Traffic Details – Sta. 401+00NB to Sta. 417+0

CALC BY KAB DATE 10/13/94
CHKD BY J.T.M DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

79
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

For Exit Ramp Area Details See Std. Const. Dwg. MT-98.12, 98.13, & 98.14 Exit Ramp Advisory Speed shall be 40 MPH (230' Opening/Taper)

GE(I) GEP-72
Kennedy Ave
LEFT LANE
GB(I) GEP-72
EXIT ¾ MILE
Norwood
(562)
LEFT LANE
GG(I)
Cincinnati
SOUTH
Sta 419+10

(KENNEDY AV)
D-14
Sta 419+60, Lt.
Mounted to Light Pole

Drums Spaced At 50'
+41
WORK AREA
Southbound I-71
Northbound I-71
424
426
428
430
432
11'-11"
TW
TL
Match Line Sta. 433+00
See Sheet No. 80

+37
422
+09
420
+95
WORK AREA
Drums Spaced At 50'
+04
SPEED LIMIT 45
R-10-48
Sta 427+52
NORTH
I-71
SOUTH
IM-37-36
M-5-36-2
Sta 426+75, 68' Rt

Drums Spaced At 20'
Sta 418+00 66' LT
= PC Sta 0+00R
418
416
11'-11"
TC
TW
TL
Drums Spaced At 20'
R-2-60
Sta 422+45
YIELD
+00
Sta 21+19.67 Kennedy Ave.
Sta 417+85.5 I-71
Match Line Sta. 417+00
See Sheet No. 78

Red Bank Rd
Fairfax
EXIT 3/4 MILE
(EXIT 9)
GEP-72
GB(I)
Sta 429+35

For Entrance Ramp Area Details See Std. Const. Dwg. MT 98.16

For Legend See Sheet No. 55

For Kennedy Ave. Plan See Sheet No. 95

Stage 1 Construction

Maintenance of Traffic Details – Sta. 417+00 to 433+00

C:\V4\287\1287.dgn 10-Oct-1995 10:10:10 user

CALC BY KAB DATE 12/13/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

80
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

SPEED LIMIT 45
Sta 436+83
R-10-48

End Project
Sta. 436+82.72

Begin Taper
Sta 440+13

330'

Drums Spaced At 50'

Drums Spaced At 25'

660' Taper

TL TW TWT TLT

TWT

See Sheet No. 79
Match Line Sta. 433+00

WORK AREA

WORK AREA

11'

11'

434 436 437 438 439 440 441 442 443 444 445

Match Line Sta. 446+00
See Below

TL TW TWT TLT

100'

90' Taper

END CONSTRUCTION
OC-8-60
Sta 442+83

RESUME LEGAL SPEED
R-8A-48
Sta 445+08

Cover or Remove

SPEED LIMIT 55
Sta 436+06, Rt
R-10-48

Flashing Arrow Panel
Type C
Sta 446+33

End Taper
Sta 446+73

For Right Lane Closure Details
See Std. Const. Dwg.
MT-95.30

SPEED LIMIT 45
Sta 451+73
R-10-48

QB(l)
Ridge Ave
Kennedy Ave
EXT 3/4 MILE

Sta 456+25, Lt

See Above
Match Line Sta. 446+00

447 448 449 450 451 452 453 454 455 456 457 458 459 460

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Sta. 433+00 to 460+00

D:\71\2.92\MOT\03-460 - JAN. 30, 1995 @ 5:58 pm

CALC. BY LAB DATE 10/13/94
CHKD. BY Jim DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

81/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Below Match Line Sta. 3+00

Sta 4+24 GH(III)

Drums Spaced At 25'

NORTH Columbus KEEP LEFT

30" X 36" Blank Orange Overlay

End Taper +42

R-26A-30 Mounted on Span Wire

ONLY

Sta 5+16, 23' Rt

TO NORTH INTERSTATE 71

IM-8-24 IM-37-24 M-5-24-2 IM-24-21

Drums Spaced At 25'

Essex Place

12

40' R

60' R

Drums Spaced At 10'

Drums Spaced At 10'

Sta 9+87, 42' Rt

IM-8-24 IM-37-24 M-5-24-2 IM-24-21

Sta 227+18.64TH 33' RT = PC Sta 8+20.68 WH Taft Rd

END CONSTRUCTION

OC-8-60 Sta 7+72

228TH

10

Begin Work Sta. 229+56.57TH

For Multiple Lane Closure Details See O.M.U.T.C.D. Plate C-20 The advisory speed limit shall be 25 M.P.H.

Type I Barricade with mounted "SIDEWALK CLOSED" sign

25' R

Temporary R-1-30 STOP

Symmes St.

Drums Spaced At 10'

25' R

Drums Spaced At 25'

Begin Work Sta. 6+83.72

TW

Two 11' Lanes

Sta 12+85, 25' Rt
Sta 12+95, 25' Lt

IM-8-24 IM-37-24 M-5-24-2 IM-21-21

R-43L-48 ONE WAY

DO NOT ENTER

R-43R-48 ONE WAY

R-41B-36 Sta 229+65TH, 41' Rt

230TH

Drums Spaced At 20'

ONE WAY R-44L-18

TW

One 12' Lane

DO NOT ENTER

R-41B-36 Sta 229+75TH, 3' Lt

Ramp TH

Flashing Arrow Panel Type A

50'

204' Taper

McMillan St.

Drums Spaced At 25'

25' R

Drums Spaced At 10'

Three 10' Lanes

Temporary R-1-30 STOP

Iowa St.

25' R

Drums Spaced At 25'

850'

Temporary R-1-30 STOP

Begin Taper +37

Dover St.

25' R

Drums Spaced At 10'

Three 10' Lanes

Match Line Sta. 3+00 See Above

Flashing Arrow Panel Type A

McMillan St.

8

Sta 9+80.00 McMillan St = Sta 225+44.29TC

Drums Spaced At 20'

Ramp TC

11'

206'TC

10

25'

Drums Spaced At 10'

TW

Match Line Sta 227+00TC See Sheet No. 58

Sta 10+07 GH-1(III)

NORTH Columbus

End Work Sta. 10+85

500'

END CONSTRUCTION

OC-8-60

Begin Work Sta. 12+65.32

TW

Drums Spaced At 25'

Two 11' Lanes

Taft Rd.

14'

Sta 16+75, 25' Rt
Sta 17+00, 25' Lt

IM-8-24 IM-37-24 M-5-24-2 IM-21-21

16'

TW

End Work Sta. 17+24.07

Begin Taper +87

Match Line Sta. 17+50 See Above

Match Line Sta 232+00TH See Sheet No. 58

ALL WORK ON McMILLAN ST. AND TAFT RD. SHALL BE COMPLETED BETWEEN JUNE 15 AND SEPT. 15.

NOTE: ALL EXISTING STOP SIGNS ARE TO BE COVERED

See Below Match Line Sta. 17+50

Flashing Arrow Panel Type A Sta 18+53

Drums Spaced At 25'

Temporary R-1-30 STOP

End Taper +33

Two 11' Lanes

Drums Spaced At 10'

May St.

25' R

Drums Spaced At 25'

Taft Rd.

Temporary R-1-30 STOP

Drums Spaced At 10'

850'

Hemlock St.

25' R

Drums Spaced At 25'

Temporary R-1-30 STOP

Three 11' Lanes

Drums Spaced At 10'

Stanton St.

25' R

Drums Spaced At 25'

For Multiple Lane Closure Details See O.M.U.T.C.D. Plate C-20 The advisory speed limit shall be 25 M.P.H.

225' Taper

Flashing Arrow Panel Type A Sta 18+53

50'

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - McMillan St. and Taft Rd.

G:\TYLS\82\WORK\TAFT - JAN. 30, 1995 @ 5:51 pm

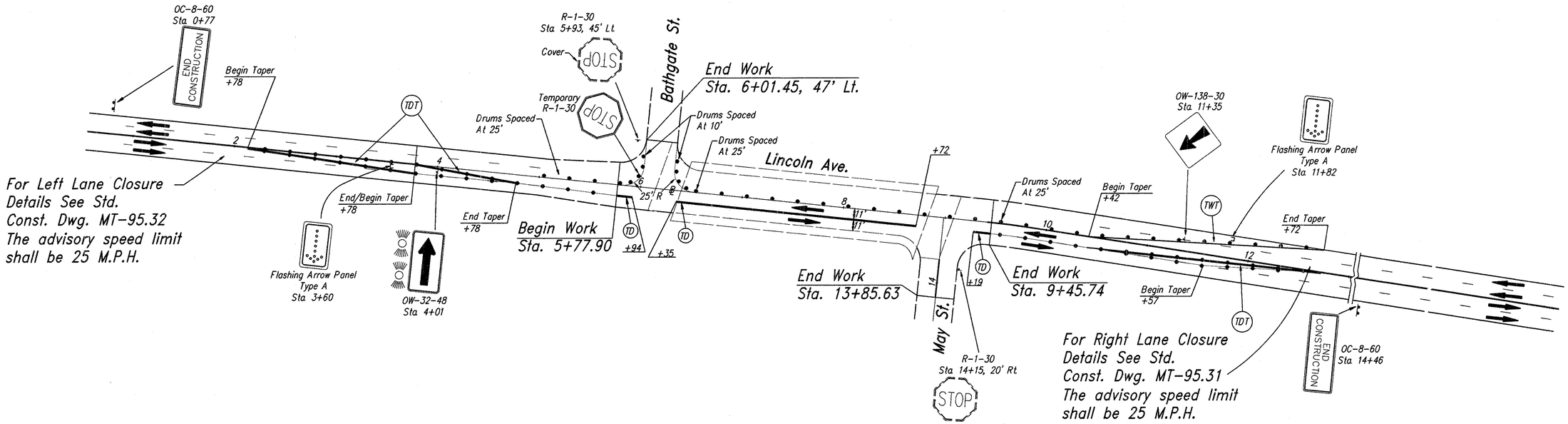
CALC. BY KAG DATE 10/31/94
CHKD. BY [illegible] DATE 2-1-95

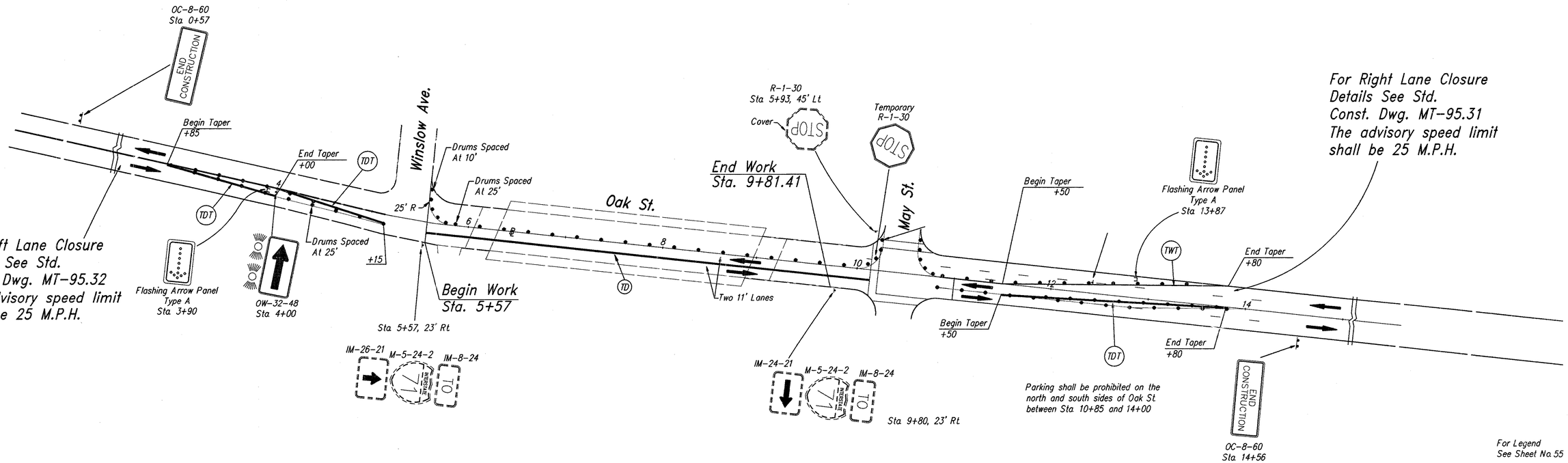
HAM-71-2.92

OHIO
FHWA REGION 5

82/615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Oak St. and Lincoln Ave.

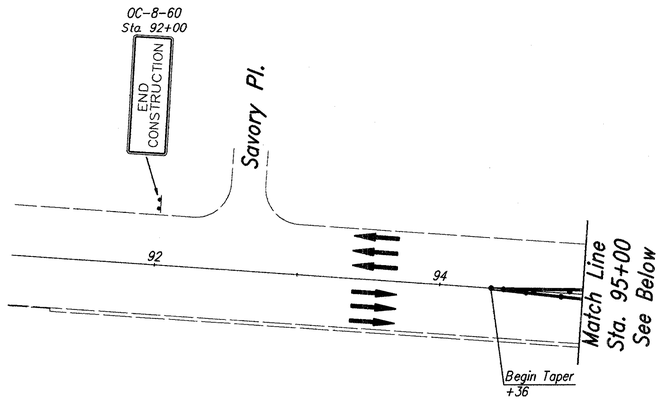
CALC. BY KAB DATE 10/13/94
CHKD. BY RM DATE 2-1-95

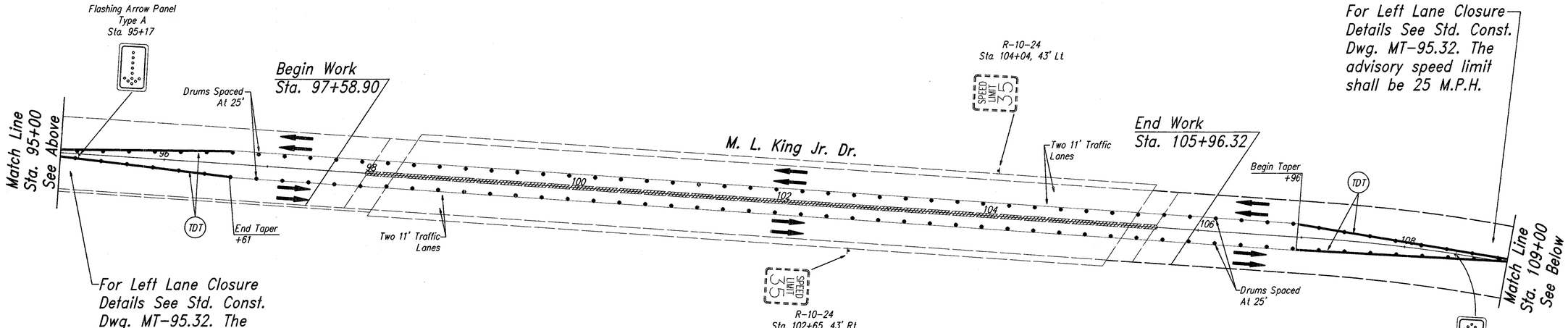
HAM-71-2.92

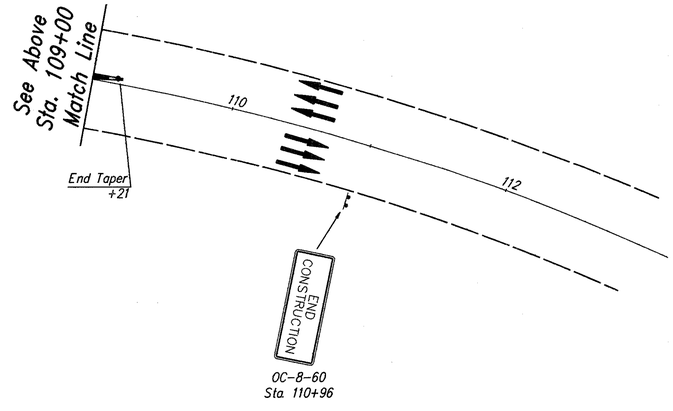
OHIO
FHWA REGION 5

83
615

50 0 50 100 150
GRAPHIC SCALE IN FEET







Existing Median
To Be Removed

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Martin L. King Jr. Dr.

CALC. BY LAB DATE 10/13/95
CHKD BY J.T.M DATE 2/1/95

HAM-71-2.92

OHIO | FHWA REGION 5 | 84/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

OC-8-60 Sta 3+52 END CONSTRUCTION

Flashing Arrow Panel Type A Sta 6+82

Begin Taper +07

Drums Spaced At 25'

TDT

End Taper +82

End Taper +82

Begin Taper +57

For Left Lane Closure Details See Std. Const. Dwg. MT-95.32 The advisory speed limit shall be 25 M.P.H.

Begin Work Sta. 8+46.04

Drums Spaced At 25'

Fredonia Ave.

Two 11' Lanes

TD

End Work Sta. 12+51.37

ROAD CONSTRUCTION AHEAD

OW-128-36 Sta 8+00

Whittier Ave.

W-36-30 Sta 12+26, 37' Rt. Mount on Light Pole

Begin Taper +25

OW-32-48 Sta 13+55

OW-138-30 Sta 14+40 Mount on Drum

TWT

End Taper +40

Begin Taper +40

Drums Spaced At 10'

Werthman Ave.

25' R

Drums Spaced At 10'

Drums Spaced At 25'

Flashing Arrow Panel Type A Sta 17+84

End Taper +55

Begin Taper +11

OC-8-60 Sta 17+25 END CONSTRUCTION

End Taper +36

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

ROAD CONSTRUCTION AHEAD

OW-128-36

400'

Begin Taper +04

OC-8-60 Sta 3+10 END CONSTRUCTION

OW-138-30 Sta 4+18 Mount on Drum

OW-32-48 Sta 5+10

OW-32-48 Sta 5+68

Drums Spaced At 25'

+61

+23

End Taper +29

Blair Ct.

Drums Spaced At 10'

50' R

Match Line Sta. 7+75 See Below

Begin Work Sta. 8+08.25

See Above Sta. 7+75 Match Line

Drums Spaced At 25'

Blair Ave.

Two 11' Lanes

End Work Sta. 17+38.51

OW-32-48 Sta 18+62

OW-138-30 Sta 19+47 Mount on Drum

End Taper +47

Begin Taper +32

Drums Spaced At 10'

Drums Spaced At 25'

Drums Spaced At 10'

25' R

See Below See Sta. 22+25 Match Line

Drums Spaced At 25'

75' R

Mathers St.

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

See Above See Sta. 22+25 Match Line

Drums Spaced At 25'

Begin Taper +32

End Taper +57

OC-8-60 Sta 22+38 END CONSTRUCTION

Flashing Arrow Panel Type A Sta 23+90

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Fredonia Ave. and Blair Ave.

G:\71\2.92\VRED - JAN. 30, 1995 @ 10:23 pm

CALC. BY LAB DATE 10/13/94
CHKD. BY RM DATE 2-1-95

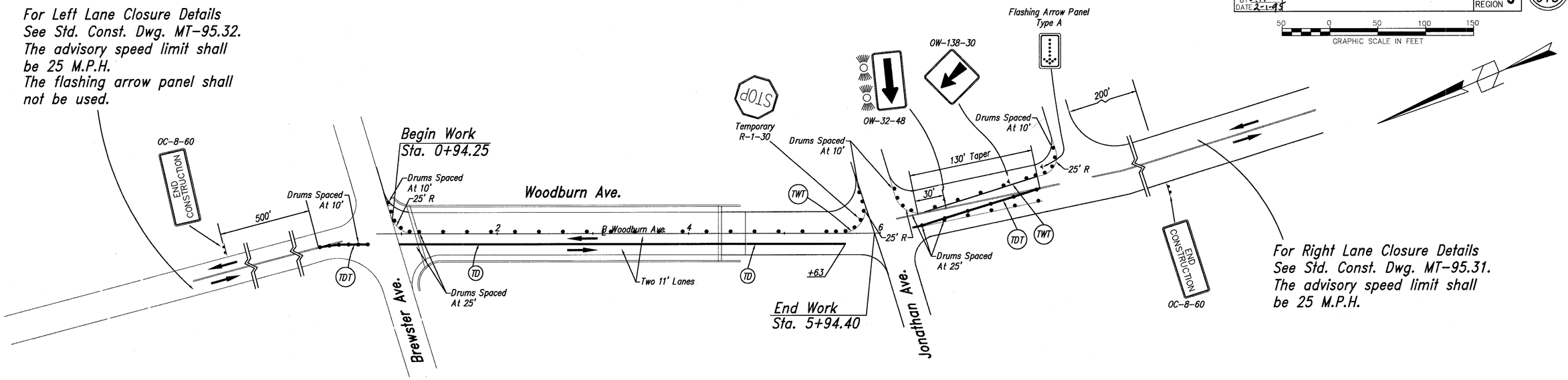
HAM-71-2.92

OHIO FHWA REGION 5

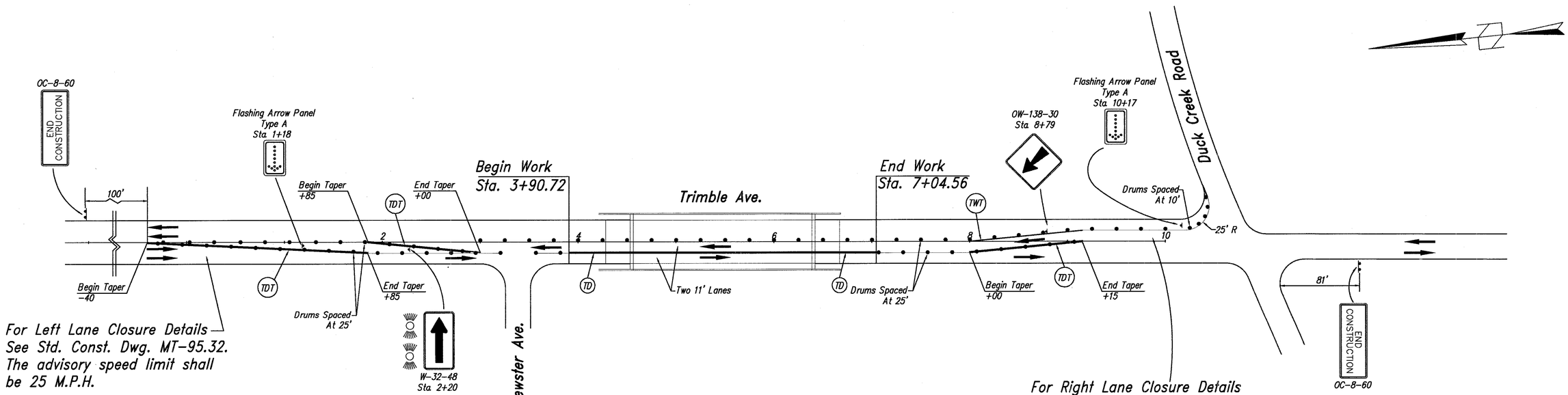
85/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

For Left Lane Closure Details See Std. Const. Dwg. MT-95.32. The advisory speed limit shall be 25 M.P.H. The flashing arrow panel shall not be used.



For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.



For Left Lane Closure Details See Std. Const. Dwg. MT-95.32. The advisory speed limit shall be 25 M.P.H.

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Woodburn Ave. and Trimble Ave.

G:\71\2.92\MOD\BURN - JAN. 30, 1995 @ 10:53 pm

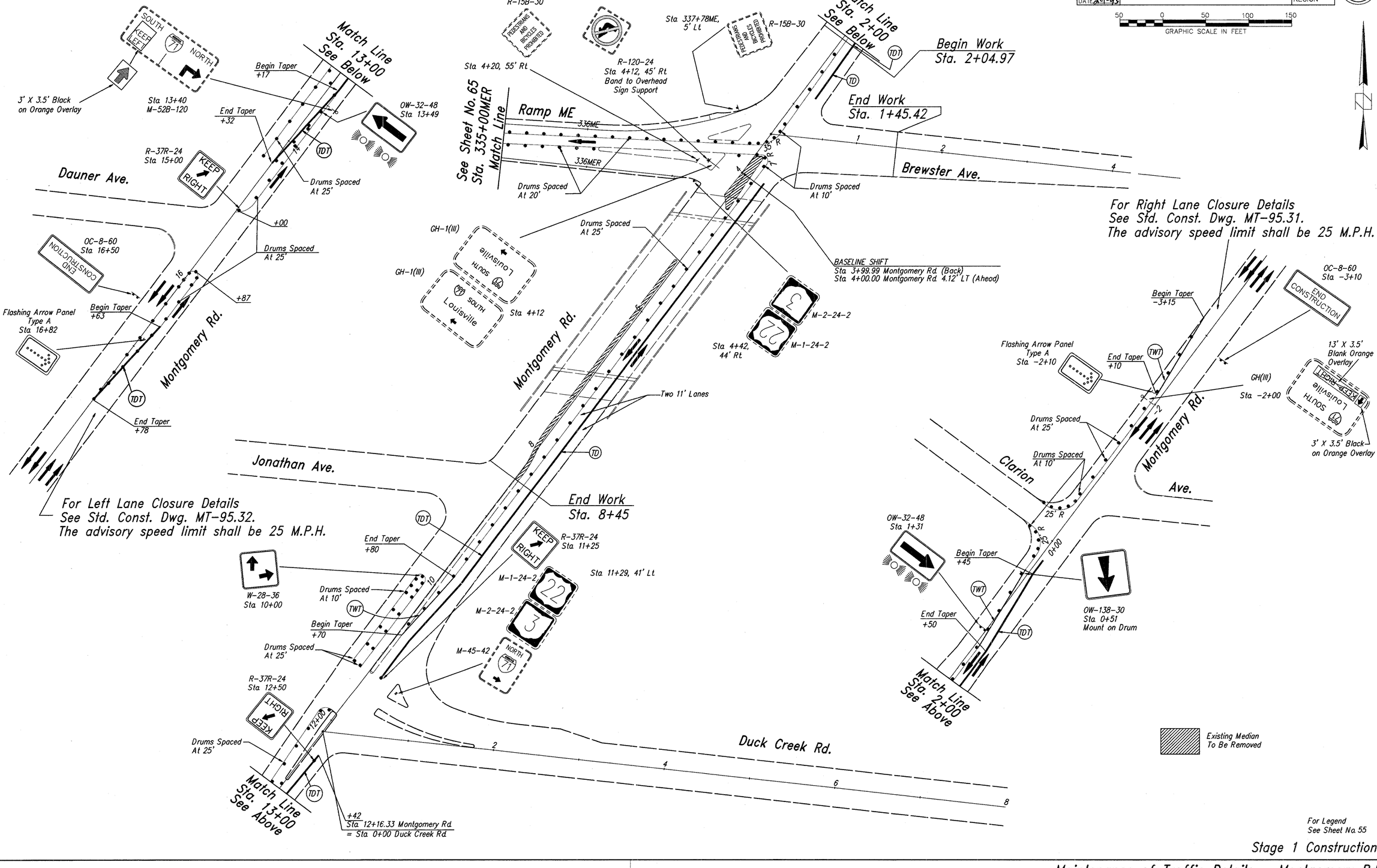
CALC. BY KAB DATE 10/15/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

86/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Montgomery Rd.

CALC BY KAB DATE 10/14/97
CHKD BY [illegible] DATE 2-1-98

HAM-71-2.92

OHIO
FHWA REGION 5

87/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 378+00DE See Sheet No. 69
Match Line Sta. 381+00DB See Sheet No. 68
Match Line Sta. 380+00DC See Sheet No. 71
Match Line Sta. 19+00 See Below
Match Line Sta. 5+00 See Below
Match Line Sta. 5+00 Sta. Above See Above
Match Line Sta. 19+00 See Above
Match Line Sta. 16+00 See Left
Match Line Sta. 16+00 See Right

TRUCK ENTRANCE AHEAD
R-76T-30
Sta 6+75, 45' Lt

NO OUTLET
W-48-30
Sta 6+59, 63' Lt

WRONG WAY
R-41A-36
Sta 375+00DE, 31' Rt 13', LT.

R-41B-36
DO NOT ENTER
Sta 7+71, 57' Lt

R-1-30
Sta 6+23, 68' Lt
STOP
Floral Ave.

Ramp DE
Ramp DB
Ramp DA
Ramp DC
Dana Ave.
Duck Creek Rd.
Grigg Ave.
Realistic Ave.

Drums Spaced At 20'
Drums Spaced At 10'
Drums Spaced At 25'

SOUTH Louisville
GE(III) Sta 9+75

POT Sta 10+64.87 38' LT
= PT Sta 385+44.59DB

PC Sta 372+75.70DE
= POC Sta 7+42.77 Dana Ave.

ROAD CONSTRUCTION AHEAD
OW-128-36
Sta 5+95

Sta 13+19.97 Dana Ave.
= PC Sta 20+68.28 Duck Creek Road

PC Sta 375+64.51DA
= POT Sta 13+26.16 Dana Ave.

POT Sta 379+69.88DC 33.99' LT
= POT Sta 379+69.88DA

MERGE
W-49R-48
WP-49-24
Sta 378+35DA, 25' Rt

R-15B-30
PEDESTRIANS AND BICYCLES PROHIBITED
Sta 376+50DA, 25' Rt

NORTH 71
M-45-42
Sta 376+15DA, 11' Lt

Sta 376+20DC, 24' Lt
R-15B-30
PEDESTRIANS AND BICYCLES PROHIBITED

OC-8-60
Sta 22+90
END CONSTRUCTION

STOP
R-1-30
Sta 16+55, 73' Lt

Columbus Louisville
KEEP RIGHT
GH(III)
Sta 22+80

NORTH Columbus
GE(III)
Sta 18+00

OC-8-60
Sta 0+97
END CONSTRUCTION

NORTH Columbus
KEEP LEFT
GH(III)
Sta 3+50

Flashing Arrow Panel Type A
Sta 16+48

Begin Taper +53

For Left Lane Closure Details See Std. Const. MT-95.32. The advisory speed limit shall be 25 M.P.H.

GH-1(III)
Sta 13+46
OC-8-60
Sta 14+50
END CONSTRUCTION

Begin Taper +28

YIELD
R-2-36
Sta 15+73, 64' Rt

NORTH Columbus
GH(III)
Sta 14+90

ROAD CONSTRUCTION AHEAD
OW-128-36
Sta 18+15

Existing Median To Be Removed

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Dana Ave.

C:\VT\2.92\DANA - JAN 30, 1998 @ 8:53 pm

CALC. BY KAB DATE 10/13/94
CHKD. BY KJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

88
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Sta 10+00.16 ℄ Williams Ave
= Sta 24+05.89 ℄ Smith-Edmondson Rd

OC-8-60
Sta 25+50
END CONSTRUCTION

M-52A-108
Sta 10+65, 44' Rt

NORTH 71 SOUTH

26
24
22
20
18
16
14
12
10
8

GH(III)
Sta 23+34

NORTH Columbus

KEEP LEFT
NORTH 71 SOUTH
KEEP RIGHT

M-52B-120
Sta 28+74

Williams Ave.

Flashing Arrow Panel
Type A
Sta 22+21

End Taper
+71

SOUTH Cincinnati

TDT

Begin Taper
+56

Drums Spaced
At 25'

End Taper
+56

OW-32-48
Sta 19+95

GH(III)
Sta 9+40

SOUTH Cincinnati

3' X 3.5' Black
on Orange Overlay

GE(III)
Sta 19+80

End Work
Sta. 19+07.01

R-1-30
Sta 17+36, 35' Rt

Sta 17+00.00 ℄ Smith-Edmondson Rd
= Sta 311+40.64AR

Drums Spaced
At 10'

Garland Ave.

Begin Taper
+31

TDT

P.T. Sta 191+65.03 ℄ Smith-Edmondson Rd
= Sta 313+57.01A

512A

RAMP CLOSED

Mount on Type
III Barricade
R-75-48
Sta 18+41

R-15B-30
PEDESTRIANS AND BICYCLES PROHIBITED

TD

+35

Sta 311+70A, 6' Rt

Sta 310+94.74 ℄ I-71
Sta 14+93.81 ℄ Smith-Edmondson Rd

+62

Smith-Edmondson Rd.

2 - 11' lanes

Drums Spaced
At 25'

TD

+82

Drums Spaced
At 20'

+47

Drums Spaced
At 25'

Sta 310+80B, 44' Rt
Sta 311+00B, 15' Lt

R-10-24
Sta 11+78, 52' Rt

SPEED LIMIT 25

510B

Match Line
Sta. 309+50B
See Sheet No. 71

HUDS

M-45-42
Sta 17+05

R-2-36
Sta 309+80A, 12' Rt

310A

310AR

R-15B-30
PEDESTRIANS AND BICYCLES PROHIBITED
Sta 310+85AR, 11' Lt

Drums Spaced
At 20'

Match Line
Sta. 309+00A
See Sheet No. 71

SOUTH Cincinnati

GH(III)
Sta 16+50

GH(III)
Sta 20+67

SOUTH Cincinnati

Flashing Arrow Panel
Type A
Sta 7+40

End Taper
+04

TWT

Begin Taper
+89

Drums Spaced
At 25'

Match Line
Sta. 9+00
See Below

OC-8-60
Sta 6+29
END CONSTRUCTION

For Left Lane Closure Details See Std. Const. Dwg. MT-95.32. The advisory speed limit shall be 25 M.P.H.

For Right Lane CLosure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

NORTH 71 SOUTH

M-45-42
Sta 21+09

Edwards Rd.

SOUTH 71 NORTH
KEEP LEFT
KEEP RIGHT

M-52B-120
200' South of Willard Ave.

Sta 12+25.00 ℄ Smith-Edmondson Rd
= Sta 311+43.86B

R-1-30
STOP

R-41B-36
DO NOT ENTER
Sta 12+87, 42' Rt

R-41B-36
DO NOT ENTER
Sta 12+65, 42' Rt

Atlantic Ave.

R-121-24
Sta 13+50, 7' Lt

R-120-24
Sta 10+00, 28' Rt

GH(III)
Sta 10+00

SOUTH Cincinnati
KEEP LEFT

OW-138-30
Sta 9+04
Mount on Drum

STOP
R-1-48
Sta 11+36, 36' Rt

+65

+35

OW-32-48
Sta 10+07

Begin Taper
+04

TWT

Match Line
Sta. 9+00
See Above

End Taper
+29

TDT

Begin Work
Sta. 11+29

R-41B-36
DO NOT ENTER

R-43L-48
ONE WAY

R-43R-48
ONE WAY

STOP
R-1-48

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Smith-Edmondson Rd.

C:\371\2-92\SMITH - JAN. 30, 1996 @ 10:57 am

CALC. BY KAB DATE 10/13/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

89
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

OC-8-60 Sta 9+00 END CONSTRUCTION

Begin Taper +38 (TDT) Drums Spaced At 25'

End Taper +88

Drums Spaced At 10'

Flashing Arrow Panel Type A Sta 8+38

KEEP RIGHT R-37R-36 Sta 10+47

Smith-Edmondson Rd.

Sta 10+00.16 ℄ Williams Ave. = Sta 24+05.89 ℄ Smith-Edmondson Rd.

KEEP RIGHT R-37R-36 Sta 9+46

OW-32-48 Sta 12+39

Begin Taper +87 (TDT) End Taper +37

Drums Spaced At 25'

Drums Spaced At 10'

Begin Work 12+96.95

561 M-2-24-3 M-19-21 Sta 13+61, 33' Lt

STOP R-1-48 Sta 320+88D, 24' Lt

Sta 320+31.64D Sta 14+40.00 ℄ Williams Rd.

STOP AHEAD W-45-48

WRONG WAY R-41A-36

Sta 323+75D, 25' Lt
Sta 323+75D, 33' Rt

See Sheet No. 74 Sta. 324+00D Match Line

(Open) Ramp D

Drums Spaced At 20'

Special Welcome to Norwood PROTECT SPEED LIMIT 25 LAW ENFORCED

R-10-24 Sta 18+95, 37' Lt

SOUTH 71 KEEP LEFT M-45-42 Sta 15+49, 28' Lt

NORTH 561 M-37-24 M-2-24-3 Sta 18+95, 37' Lt

Columbus NORTH Columbus NORTH GH-1(10) Sta 20+31

Williams Rd.

Drums Spaced At 10'

Drums Spaced At 25'

Begin Taper +87 (TWT)

OW-32-48 Sta 22+15

Match Line Sta. 23+00 See Below

Sta 321+59.18 I-71
Sta 17+12.74 Williams Rd.

Two 11' Traffic Lanes

End Work 19+18.53 +38

Edwards Rd.

13' X 3.5' Blank Orange Overlay

GH-1(10) Sta 15+35

KEEP LEFT Columbus NORTH

3' X 3.5' Black on Orange Overlay

OW-138-30 Sta 23+37 Mount on Drum

561 M-2-24-3 M-19-21 Sta 18+67, 31' Rt

Flashing Arrow Panel Type A Sta 24+62

STOP R-1-48

DO NOT ENTER R-41B-36

Sta 320+95D, 20' Rt
Sta 321+15D, 52' Rt

Drums Spaced At 25'

End Taper +37

Begin Taper +37 (TWT) End Taper +87

See Above Sta. 23+00 Match Line

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31 The advisory speed limit shall be 25 M.P.H.

END CONSTRUCTION OC-8-60 Sta 26+00

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Williams Rd.

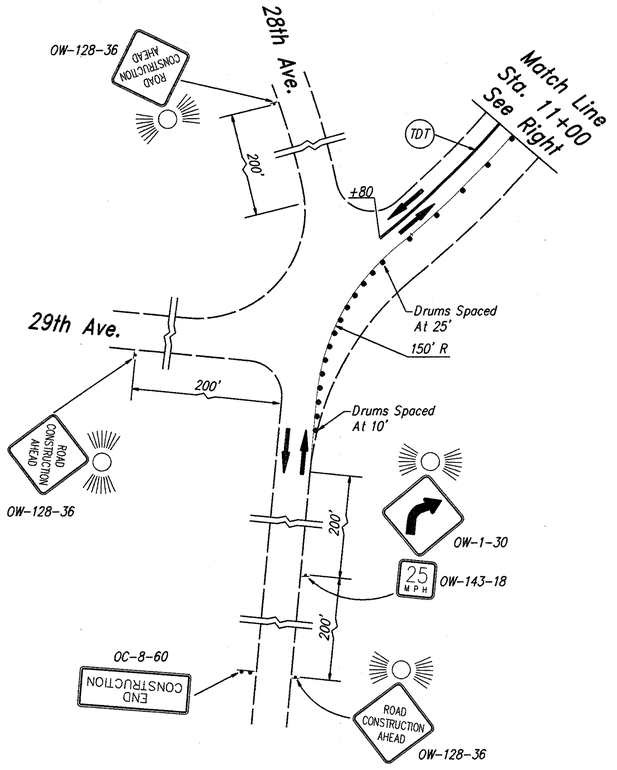
CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

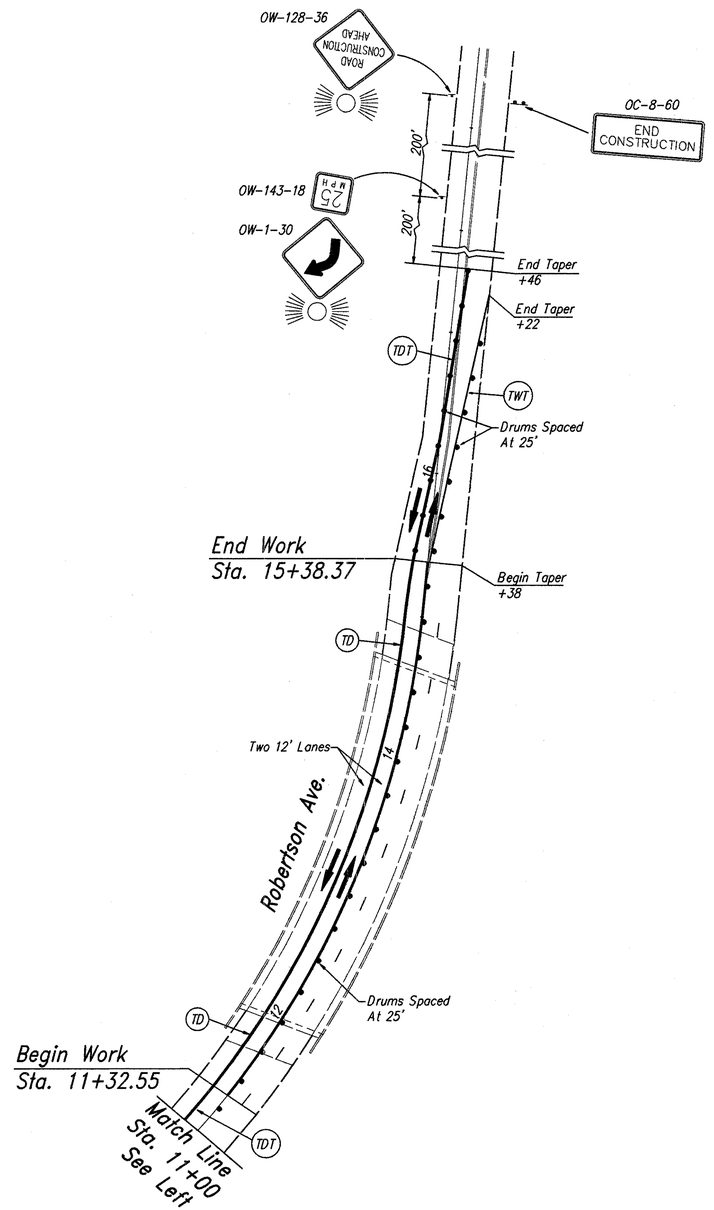
HAM-71-2.92

OHIO
FHWA REGION 5

90
615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details -- Robertson Ave.

CALC. BY KAB DATE 10/29/14
CHKD. BY [illegible] DATE 2/1/15

HAM-71-2.92

OHIO FHWA REGION 5

91/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

RESUME LEGAL SPEED R-8A-48 Sta 150+75NL

END CONSTRUCTION OC-8-60 Sta 153+00NL

150NL 152NL 154NL 156NL 158NL 160NL

12' 12'

+70

Begin Project Sta. 159+00NL

100'

TWT TW TC

Drums Spaced At 50'

Drums Spaced At 50'

+39

PC Sta. 3+79.31E = Sta. 160+44.56NL 44' RT

Match Line Sta. 161+00NL See Below

11' 11' 4'

SPEED LIMIT 45 R-10-48 Sta 159+00NL

For Right Lane Closure Details See Std. Const. Dwg. MT-95.30

For Exit Ramp Details See Std. Const. Dwgs. MT-98.12, 98.13, & 98.14 Exit Ramp Advisory Speed shall be 40 MPH (230' Opening/Taper)

EXIT ONLY Ridge Ave GB(I) Sta 145+50NL

Columbus Cincinnati SOUTH

9' X 3.5' Black on Orange Overlay

4.5' X 1' Black On Orange Overlay

22 3 50 Norwood Montgomery Rd EXIT ½ MILE

GB(I) Sta 6+75L Existing support to be reused in place

562

M-2-36-3 Sta 8+50L, 38' Lt

R-2-60 Sta 11+72L Temporary

Norwood CORP LIMIT

GW(III) 96" X 42" Sta 14+50L, 44' Lt

Cincinnati CORP LIMIT

GW(III) 108" X 42" Sta 14+23K, 32' Rt

OW-49R-48

W-50L-48 Sta 1+95J, 27' Rt

(Open) Ramp I

Sta 0+00I = Sta 16+48.88L

Match Line Sta. 2+62I See Sheet No.76

Match Line Sta. 19+00L See Sheet No.92

STATION EQUATION Sta 162+46.81 Norwood Lateral = PC Sta 5+70.64L 8' LT (AH)

+81 +05K +02 +82L +21L

Drums Spaced At 50' Drums Spaced At 20'

TY

18L 18K 16L 16K 14L 14K 12L 12K 10L 10K 8L 8K 6L 6K 12J 10J 16J 14J

One 11' Traffic Lane

Ramp K (Open)

Ramp J (Closed)

Match Line Sta. 17+00J See Sheet No.76

See Above Sta. 161+00NL Match Line

162NL

11' 11'

+67 +39K +72K +00K

Sta 8+95K 24' RT = Sta 8+95J

Drums Spaced At 20' Drums Spaced At 10' Drums Spaced At 20'

STATION EQUATION Sta 162+46.81 Norwood Lateral = Sta 5+81.56K 8' RT (BK)

+35E

RAMP 25 MPH

W-98-48 Sta 6+99L, 14' Rt

9E 10E 11E 12E

TP

Ramp E (Open)

Match Line Sta. 12+00E See Sheet No.75

Remove

Sta 13+98J, 8' Lt Mounted on railroad overpass

IM-26-30 M-5-36-2 IM-37-36

EXIT ONLY Ridge Ave GB(I) Sta 161+95NL

Columbus Cincinnati NORTH SOUTH

RAMP CLOSED

6.5' X 3.5' Black on Orange Overlay

EXIT ONLY Ridge Ave GB(I) Sta 12+00K

Columbus NORTH

RAMP CLOSED

6.5' X 3.5' Black on Orange Overlay

R-75-48 Mounted On Type III Barricade

RAMP CLOSED

Temporary Pavement

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Norwood Lateral

G:\DATA\282\LATERAL1 - JAN. 30, 1998 @ 11:03:01 am

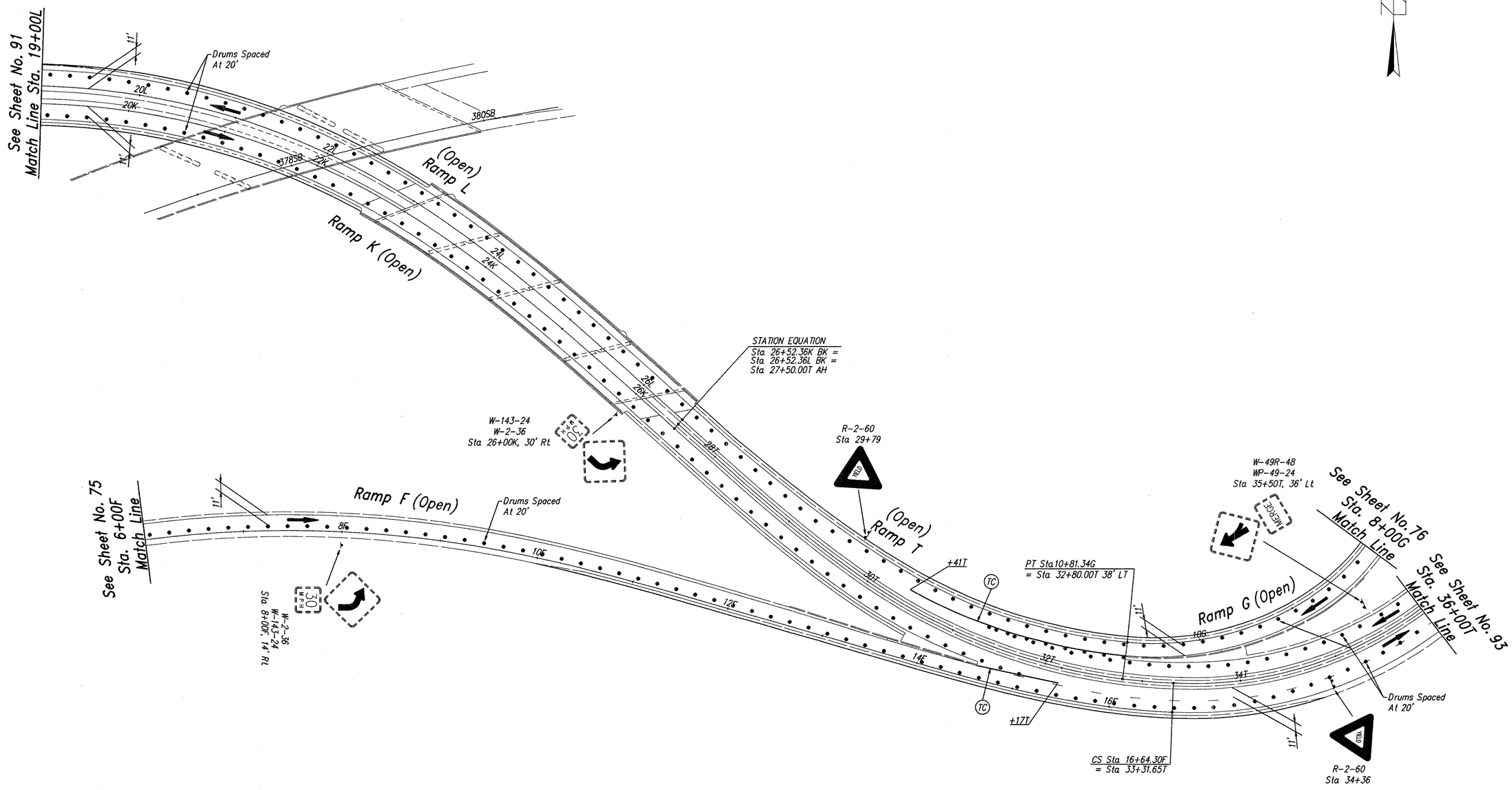
CALC. BY KAB DATE 10/13/94
CHKD. BY J.M. DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

92
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Ramps F, G, K, L, T

CALC. BY KAB DATE 10/3/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

93/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 76
Sta. 2+00H
Match Line

Ramp H (Closed)

4H
6H
8H
10H
12H
14H

PC Sta 6+28.71H
= PC Sta 6+28.71H 6' LT

W-49R-48
WP-49-24
Sta 44+57T, 29' Lt

R-2-60
Sta 12+50H, 33' Rt

PC Sta 0+00M
= Sta 12+39.40H 18' LT

W-49R-48
WP-49-24
Sta 14+00H, 25' Rt

Ramp M (Closed)

2M
4M
6M
+65H
16H
(TW7)

From Stage 1
6.5' X 3.5' Blank
Orange Overlay

RAMP CLOSED
R-2-60
Mounted on
Type III Barricade

RAMP CLOSED

South Grandview
GE(III)

West Norwood
562
GE(III)

Sta 15+65H

Match Line
Sta. 4+00M
See Sheet No. 94

Match Line
Sta. 6+00H1
See Sheet No. 94

Match Line
Sta. 48+75T
See Sheet No. 94

Drums Spaced
At 20'

Drums Spaced
At 10'

Drums Spaced
At 20'

R-2-60
Sta 40+48

Sta 0+00H1
= Sta 42+96.79T

Ramp H1 (Open)

2H1
4H1
+08
(TY)
+48
(TW)
42T
44T
46T
48T
11'

+88T

PC Sta 0+00U
= Sta 43+00T 30' LT

+06T

Ramp T (Open)

30T
40T
11'
11'

Drums Spaced
At 20'

Match Line
Sta. 36+00T
See Sheet No. 92

Marburg Ave
Ridge Ave
D-4B-120
Sta 44+00T, 52' Rt

Sta 2+00U, 14' Rt
W-97-48
25 MPH
EXIT
WRONG WAY
R-41A-36

WRONG WAY
R-41A-36
Sta 2+70U, 30' Lt

Ramp U (Open)

2U
4U
11'

SIGNAL AHEAD
W-47-48
WP-47-24
Sta 46+15T, ℄

DO NOT ENTER
R-41B-36
Sta 4+00U, 30' Lt

DO NOT ENTER
R-41B-36
Sta 4+00U, 14' Rt

End Work
Sta. 4+07.05U

WRONG WAY
R-41A-36
Sta 47+80T, 57' Rt

4' x 6.5' Blank
Orange Overlay

ONLY
R-26A-36

ONLY
R-26A-36

ONLY
R-27A-36
Sta 48+50T
Existing support to be
reused in place

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Ramps H, H1, M, T, U

CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

94/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

See Sheet No. 93 Match Line Sta. 48+75T

See Sheet No. 93 Match Line Sta. 6+00H1

See Sheet No. 93 Match Line Sta. 4+00M

Ramp T

Ramp M (Closed)

Ramp H (Open)

Ramp N (Open)

R-2-36 Sta. 50+47T, 121' Rt.

PEDESTRIANS AND BICYCLES PROHIBITED

R-15B-30 Sta. 1+16T1, 6' Lt

+80T Drums Spaced At 20'

+87T

OC-8-60 Sta. 18+50

END CONSTRUCTION

End Work Sta. 1+38.50T2

End Work Sta. 50+99.30T

End Work Sta. 1+21.67T1

+20H

Drums Spaced At 20'

End Work Sta. 6+48.55M

RAMP CLOSED

R-75-48 Mounted on Type III Barricade

R-121-36 Sta. 23+55, 30' Lt

6.5' X 3.5' Black on Orange Overlay From Stage 1

RAMP CLOSED

Cincinnati SOUTH 71

GH(III) Sta. 33+90

Ridge Ave.

Match Line Sta. 38+00 See Below

Sta. 41+05.14 Ridge Ave. = Sta. 34+82.23 Highland Ave. Ext.

Highland Ave.

M-45-42

NORTH 71 Sidney

Sta. 36+50

End Work Sta. 31+90.79

Drums Spaced At 10'

Begin Work Sta. 28+2.74

Begin Taper +90

+30

End Taper +40

Sta. 40+00

Two 11' Traffic Lanes

Drums Spaced At 10'

25' R

Drums Spaced At 25'

Begin Taper +78

GB(III) Sta. 37+75

Match Line Sta. 33+00 See Below

Drums Spaced At 25'

Sta. 404+81.00 Q (Projected Back) = Sta. 29+96.64 Ridge Ave.

From Stage 1 6.5' X 1' Orange Overlay

8' X 1' Orange Overlay From Stage 1

6.5' X 2' Orange Overlay From Stage 1

3' X 3.5' Black on Orange Overlay From Stage 1

Flashing Arrow Panel Type A Sta. 37+17

End Taper +53

Match Line Sta. 38+00 See Above

Drums Spaced At 25'

Begin Taper +28

End Taper +28

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

END CONSTRUCTION

OC-8-60 Sta. 36+53

ONE WAY

DO NOT ENTER

ONE WAY

R-44L-24

R-41B-36

R-44R-24

Sta. 51+23.83T = Sta. 21+12.36 Ridge Ave.

562 WEST Norwood GE(III) Sta. 21+45, 35' Lt

R-121-36 Sta. 21+59, 31' Lt

Sta. 21+10, 26'+Lt

RAMP CLOSED

R-75-48 Mounted on Type III Barricade

Drums Spaced At 20'

Sta. 25+00H = Sta. 25+00 Barrow Ave. 4' RT

+67H

End Work Sta. 24+07.41H

ROAD CONSTRUCTION AHEAD

OW-128-36 Sta. 26+57H

Columbus NORTH

Cincinnati SOUTH 562 WEST Norwood

6.5' X 2' Orange Overlay From Stage 1

8' X 1' Orange Overlay From Stage 1

GE(III) Sta. 43+16 Ridge Ave.

HIGH CONSTRUCTION AHEAD

OW-128-36 Sta. 22+90

Columbus NORTH

GE(III) Sta. 22+08

PT Sta. 7+11.85M 34' LT = Sta. 24+30.16 Ridge Ave.

OW-49R-30 Sta. 26+00

R-2-60 Sta. 13+66

End Work Sta. 13+79.31N

OW-138-30 Sta. 27+10 Mount on Drum

OW-138-30 Sta. 34+23 Mount on Drum

WRONG WAY

R-41A-36 Sta. 12+00N, 29' Lt Sta. 12+00N, 14' Rt

OW-143-18

DETOUR AHEAD

OW-127-36 Sta. 24+90

Drums Spaced At 20'

OW-32-48 Sta. 33+15

Sta. 8+00N Match Line See Sheet No. 78

For Legend See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details - Ridge Ave.

C:\PLT\JOB\PROJECT - JAN. 30, 1995 @ 7:01 pm

CALC. BY KAB DATE 10/15/94
CHKD. BY J.T.M DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

95/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

End Work
Sta. 10+14.50R

POC Sta 43+03.07 Highland Ave Ext
= Sta 10+39.41R

R-43L-48
R-1-48
R-41B-36
R-43R-48
Sta 10+08R, 23' Lt

R-41A-36
Sta 7+64R, 30' Lt
Sta 7+64R, 22' Rt

Drums Spaced
At 20'

R-41B-36
R-1-48
Sta 10+08R, 47' Rt

D-4B-156
Sta 43+00, 36' Lt

(Open)
Ramp R

Sta. 6+00R
See Sheet No. 78
Match Line

D-4B-156
Sta 6+50R, 19' Rt

GH(III)
Sta 45+00

M-45-42
Sta 46+00, 38' Lt

Highland Ave.

See Sheet No. 78
Match Line
Sta. 4+00P1

GH(III)
Columbus
Cincinnati
Sta 80+65

(Open)
Ramp P

OW-32-48
Sta 23+40

OW-18-30
OW-143-18
OW-128-36

Begin Taper
+26

End Taper
+86

Match Line
Sta. 23+15
See Below

Drums Spaced
At 25'

Begin Work
Sta. 2+04.95P

R-2-60
Sta 1+75P1, 7' Rt

R-15D-30
Sta 2+50P, 14' Rt

GH-1(III)
Sta 14+00

OC-8-60
Sta 11+50

END CONSTRUCTION

Drums Spaced
At 20'

Duck Creek Rd.

TS Sta 0+00P
= Sta 15+87.85 Kennedy Ave.

+44P

℄ Ramp P1

Drums Spaced
At 25'

Begin Taper
+11

End Taper
+11

OW-32-48
Sta 17+18

Begin Work
Sta. 18+73.59

Kennedy Ave.

Two 11' Traffic
Lanes

Begin Work
Sta. 0+36.00P1

Sta 0+00P1
= Sta 12+00 Kennedy Ave.

Begin Taper
+36

End Taper
+61

Flashing Arrow Panel
Type A
Sta 15+87

4' X 3.5' Black
on Orange Overlay

GH-1(III)
Sta 12+30

GH-1(III)
Sta 19+00

W-45A-36
Sta 19+21, 18' Rt

Sta 21+18.62 ℄ Kennedy Ave.
= Sta 417+85.42 ℄ I-71

End Work
Sta. 23+48.39

Sta 24+26.61 ℄ Kennedy Ave.
= Sta 50+00.00 ℄ Highland Ave.

Sta 23+50, 89' Lt

Drums
Spaced
At 10'

Temporary
R-1-30
Sta 24+64

Temporary
R-1-30
Sta 49+76

GH(III)
Sta 25+00

Match Line
Sta. 23+15
See Above

GH(III)
Sta 0+35

For Left Lane Closure Details See Std. Const. Dwg. MT-95.32. The advisory speed limit shall be 25 M.P.H.

For Legend
See Sheet No. 55

Stage 1 Construction

Maintenance of Traffic Details – Kennedy Ave.

396 BLACK 96 - 153

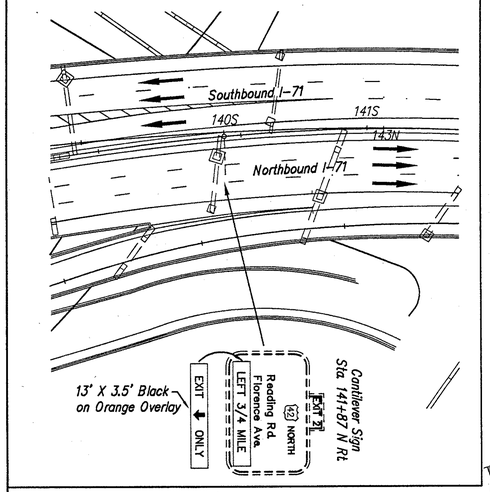
CALC. BY KAG DATE 12/2/96	HAM-71-2.92	OHIO
CHKD BY DM DATE 2/17/97		FHWA REGION 5

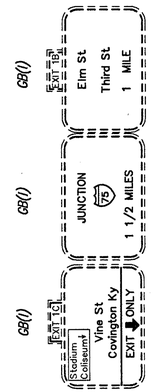
96/615

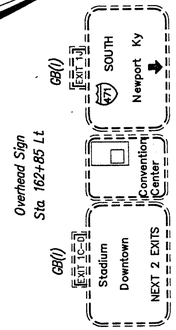
50 0 50 100 150
GRAPHIC SCALE IN FEET

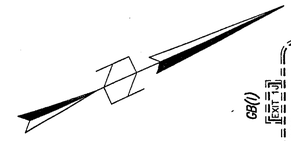
Legend

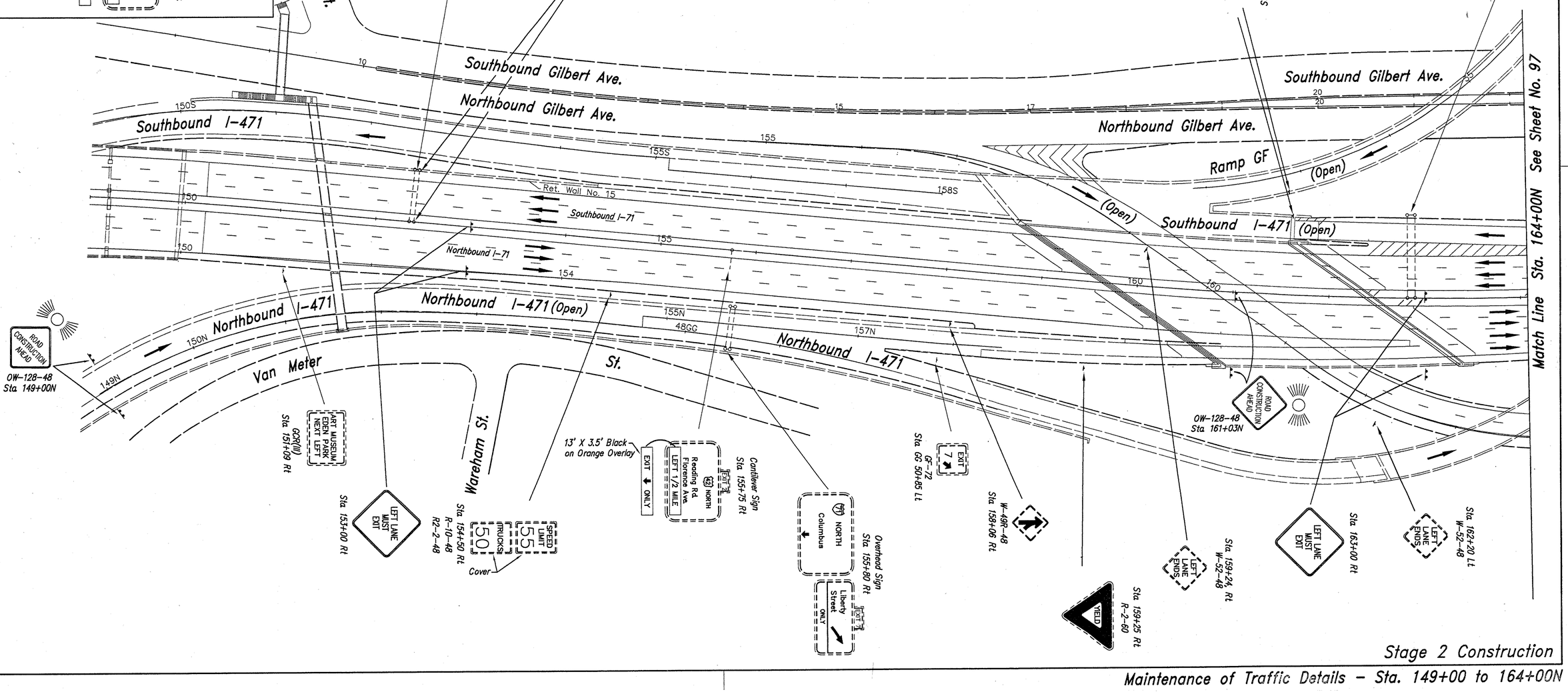
- (TW) Temporary White Edge Line, Class 1
- (TY) Temporary Yellow Edge Line, Class 1
- (TL) Temporary Lane Line, Class 1
- (TC) Temporary Channelizing Line, Class 1
- (TD) Temporary Double Yellow Center Line, Class 1
- (TDL) Temporary White Dotted Line, Class 1
- (TWT) Temporary White Edge Line, Class 1, 740.05, Type C
- (TYT) Temporary Yellow Edge Line, Class 1, 740.05, Type C
- (TLT) Temporary Lane Line, Class 1, 740.05, Type C
- (TCT) Temporary Channelizing Line, Class 1, 740.05, Type C
- (TDT) Temporary Double Yellow Center Line, Class 1, 740.05, Type C
- Type A Warning Light











Stage 2 Construction

Maintenance of Traffic Details – Sta. 149+00 to 164+00N

CALC. BY KAB DATE 10/25/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

97/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Ramp GF (Open)

Southbound Gilbert Ave.

Northbound Gilbert Ave.

YIELD
Sta 167+90 Rt
R-2-60

GE(I)
SOUTH
Newport Ky.
Sta 172+20 S Lt

Sta 172+14 Lt
W-46A-48

Elsinore Pl.

Nb. Reading Rd.

Ramp GA

(Open)
Ramp GA

170

175

Abandoned Penn. R.R. Bridge

Ramp RD (Open)

Match Line Sta. 164+00N See Sheet No. 96

Match Line Sta. 179+00N See Sheet No. 98

165

167

Southbound I-71

170S

170N

172

173

175S

175N

Northbound I-71

(Open) 170

+70

TCT

Drums Spaced At 20'

Station Equation
Begin Ramp GA
P.O.T. Sta 171+02.34 RB =
Sta 171+02.34 (B) (L)

Begin Work
Sta 171+02.34

SPEED LIMIT 45
R-10-4B
Sta 165+00N Rt

ROAD CONSTRUCTION AHEAD
OW-128-36
Sta 166+00

W-5OR-4B
Sta 168+07N Rt

GE(I)
EXIT ONLY
Reading Rd.
Florence Ave
NORTH
Reading Rd.
Cantilever Sign
Sta 171+03N Rt
13' X 3.5' Black on Orange Overlay

For Exit Ramp Area Details
See Std. Const.
Dwg. MT-98.14
Ramp Advisory Speed shall be
40 MPH (230' Taper)

For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance Of Traffic Details - Sta. 164+00N to 179+00N

G:\71\2.92\MOT\LEADIN3 - JAN. 30, 1995 @ 5:53 pm

CALC. BY KAB DATE 10-15-94
CHKD. BY R.K.M DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

98
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 179+00N See Sheet No. 97

Match Line Sta. 192+00N See Sheet No. 99

Sta. 180+61

GC(I) Exit 13 SOUTH Newport Ky NEXT RIGHT

GG(I) SOUTH

GB(I) Exit 13 Stadium Coliseum Vine St Covington Ky LEFT 3/4 MILE

REDUCED SPEED 35 AHEAD R-11A-36 Sta. RA 181+17

W-491-48 Sta. 182+20 Lt.

Ramp GA

Ramp RD

Ramp RA

Ramp GA

Southbound Reading Rd.

Southbound I-71

Ramp RF (Closed)

Northbound Reading Rd.

(Open) Ramp RC

Ramp RB (Closed)

Ramp RE (Open)

Northbound I-71

(Open)

(Open)

12'12'12

TCT

+05

TYT

Drums Spaced At 20'

OW-128-36 Sta. 182+00RC

ROAD CONSTRUCTION AHEAD

GE(I) Exit 13 Reading Rd. NORTH Florence Ave. Sta. RC 181+68 Lt.

W-97-48 Sta. RC 182+07 Lt. EXIT 35 MPH

RIGHT 2 LANES CLOSED AHEAD

W-491-48 W-1454-30 Sta. 185+09S Rt.

SPEED LIMIT 35 R-10-36

GCP(III) Sawyer Point Downtown NEXT RIGHT STA. GA 186+87

SOUTH 71

Sta. RF 191+80 Lt. IM-37-24 M-5C-24-2 1M-26-30 COVER EXISTING SIGNS

GE(I) Reading Rd. Sta. RA 192+09

GB(I) Exit 13 Stadium Coliseum Gilbert Ave.

REDUCE SPEED 35 AHEAD R-11A-36 Sta. RA 192+09

Drums Spaced At 50' +05

GE(I) Reading Rd. NORTH Sta. RC 187+25

GE(I) Florence Ave Dorchester Ave

YIELD R-2-60 Sta. RB 186+64 Rt.

W-47-48 Sta. RC 188+50 Rt.

ONE WAY R-41A-36 Sta. RE 190+24 Lt.& Rt.

WRONG WAY R-41A-36 Sta. NBR 28+75 Rt.

For Legend See Sheet No.96

Stage 2 Construction

Maintenance of Traffic Details - Sta. 179+00N to 192+00N

CALC. BY KAB DATE 10/25/94
CHKD BY JJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

99
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

16" X 36" WHITE ON GREEN OVERLAY
SOUTH RIGHT
GH(III)
Sta 9+39 EDEN PARK

R-75-48 MOUNT ON TYPE III BARRICADE Sta. 11+80 NB READING 61' LT.
ROAD CLOSED

M-45 STA. 13+90, RT. COVER EXISTING SIGN
SOUTH 71

IM-38-24
M-5-24-2
IM-24-24
STA. 13+90, RT.
SOUTH 71

GG(III) SOUTH 42 Reading Rd.
GE(III) SOUTH
18" X 18" WHITE ON GREEN OVERLAY
GCR(III) Eden Park Entrance NEXT LEFT

R-75-48 MOUNT ON TYPE III BARRICADE Sta. 32+04 NB READING 23' LT.
ROAD CLOSED

Dorchester St.

IM-8-24
IM-38-24
M-5-24-2
IM-24-24
STA. 15+00, 20' RT.
TO SOUTH 71

Southbound Reading Rd.
Northbound Reading Rd.
Ramp RF

GE(I) EXIT 2 Reading Rd. EXIT ONLY
GE(I) EXIT 2 Gilbert Ave. EXIT ONLY
GB(I) EXIT 1 SOUTH 42 Newport Ky 1/2 MILE
Sta. 198+00 S

IM-8-24
IM-38-24
M-5-24-2
IM-24-24
STA. 15+90, RT. COVER EXISTING SIGNS
SOUTH 71

IM-38-24
M-5-24-2
IM-24-24
STA. 16+20, RT. COVER EXISTING SIGNS
SOUTH 71

Match Line Sta. 192+00N See Sheet No. 98

Ramps RA & GA (Open)

GCR(III) ART MUSEUM EDEN PARK
Sta. RA/GA 198+53 Lt.

EXIT 45 M.P.H. W-97-48
Sta. 200+33S Lt.

GH(III) SOUTH 42 Reading Rd. KEEP RIGHT
GH(III) SOUTH KEEP LEFT
Sta. 42+70 SB Reading
RIGHT
16" X 24" WHITE ON GREEN OVERLAY

(Closed) Ramp RB
(Open) Ramp RE
12'|12'|12'|12'

SOUTH 71
IM-38-24
M-5-24-2
IM-26-24
STA. 193+76 RB LT.

REMOVE EXISTING IM-26-24
REPLACE WITH NEW IM-24-24

Florence

Flashing Arrow Panel Type C Sta. 202+80N
R-8A-48 Sta. 205+07S
RESUME LEGAL SPEED
OC-8-60 Sta. 207+32S
END CONSTRUCTION

Southbound I-71

Eden Park Entr.
TYT
Drums Spaced At 50'

SOUTH 71
IM-38-24
M-5-24-2
IM-24-24
COVER EXISTING SIGNS

SPEED LIMIT 45
R-10-36 Sta. 197+00N

Northbound I-71

Ave.

ROAD CLOSED
R-75-48 MOUNT ON TYPE III BARRICADE Sta. 193+78 RB 11' LT.

Sta. 194+31
SOUTH KEEP LEFT

Begin 660' Taper 202+40N
Drums Spaced At 25'

For Left Lane Closure Details See Std. Const. Dwg. MT-95.30

TYT

Match Line Sta. 207+00N See Sheet No.100

For Legend See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details - Sta. 192+00N to 207+00N

G:\VTV\2.92\MOT\TLA0061.dwg - ODOT, 14, 1993

CALC. BY KAG DATE 10/13/94
CHKD. BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

100
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

WATCH FOR ICE ON BRIDGE

WATCH FOR ICE ON BRIDGE

GB(1)

Exit 1
Stadium Coliseum
Reading Rd.
Gilbert Ave.
EXIT ONLY

GB(1)

SOUTH

Sta 212+52S

WATCH FOR ICE ON BRIDGE

W-68-48
Sta 217+50, Lt., Band to Light Pole
Sta 217+80, ℄ Band to Light Pole
FOR FOLDING SIGN DETAIL SEE SHEET NO. 96

Begin Work
Sta 212+32S

Symmes St.

Sta 211+47.65 ℄I-71

+32S

Drums Spaced At 50'

Southbound I-71

12'12'

WORK AREA

WORK AREA

214 216 218 220

12'12'12'

12'12'12'

Northbound I-71

See Sheet No. 99
Match Line Sta. 207+00N

210S 210N 212S

Drums Spaced At 50'

12'12'12'

Drums Spaced At 25'

TYT

End 660' Taper
209+00N

Sta N 210+46 Rt.
R-10-48

SPEED LIMIT 55

Cover

W-540-192
Sta 211+22N Rt.

1/2 MILE

RIGHT LANE ENDS

Bridge No.
HAM-71-0289

McGregor Ave.

Begin Project
Sta. 213+00

Match Line Sta. 222+00
See Sheet No. 101

Note:
Permanent pavement markings will be used on the travelled lanes after paving operations are completed in Stage 1 before the traffic is shifted to the new pavement in Stage 2 throughout the length of the project.

For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details –Sta. 213+00N to 222+00

G:\TYLO\245\TO1 - JAN. 30, 1995 @ 9:51 pm

CALC. BY KAB DATE 10/23/14
CHKD. BY J.T. DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

101
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

R-10-48
Sta 222+22

SPEED LIMIT 45

Drums Spaced At 50'

Sta 8+23.69 McMillan St
Sta 225+2.73 ℄ I-71

See Sheet No. 100
Match Line Sta. 222+00

12'12'12

224

226

228

Southbound I-71

WORK AREA

WORK AREA

Northbound I-71

230

Drums Spaced At 50'

LS NOTHING ON McMILLAN ST

D-14
Sta 224+20, RT
Mounted on Light Pole

RIGHT LANE ENDS 1/4 MILE

Mounted on McMillan St Bridge
Sta 224+70, 67' Rt
W-54D-240

See Sheet No. 124
Match Line
Sta. 227+00TC

228TC

Ramp TC (Open)

230TC

ART MUSEUM
EDEN PARK
NEXT RIGHT

GCR(III)
Sta 227+80, 40' Rt
White on Brown

D-14
Sta 231+30, RT
Mounted on Light Pole

OR LEVI H WM

WM H TAFT RD

Sta 14+61.39 W. H. Taft Rd.
Sta 231+17.09 ℄ I-71

D-14
Sta 231+50, LT

WM H TAFT RD

OR LEVI H WM

WRONG WAY

R-41A-36
Sta 232+20TH, 4' Lt.
Sta 232+20TH, 46' Rt

See Sheet No. 124
Match Line
Sta. 232+00TH

W-32-48
Sta 233+20TH, 49' Lt

W-47-36
Sta 234+00TH, Lt
The existing internally illuminated

Drums Spaced At 50'

BASELINE SHIFT
PT Sta 235+00TH 6' LT
= PC Sta 235+00TH

234TH Ramp TH (Open)

236TH

232

℄ I-71

234

12'12'12

232TC

℄ RAMP TC

234TC

Sta 234+12, Rt
W-54C-240

RIGHT LANE ENDS MERGE LEFT

Drums Spaced At 50'

Match Line Sta. 236+00
See Sheet No. 102

For Legend
See Sheet No. 96

G:\717\297\CT2 - JAN. 30, 1995 @ 8:52 pm

Stage 2 Construction

Maintenance of Traffic Details – Sta. 222+00 to 236+00

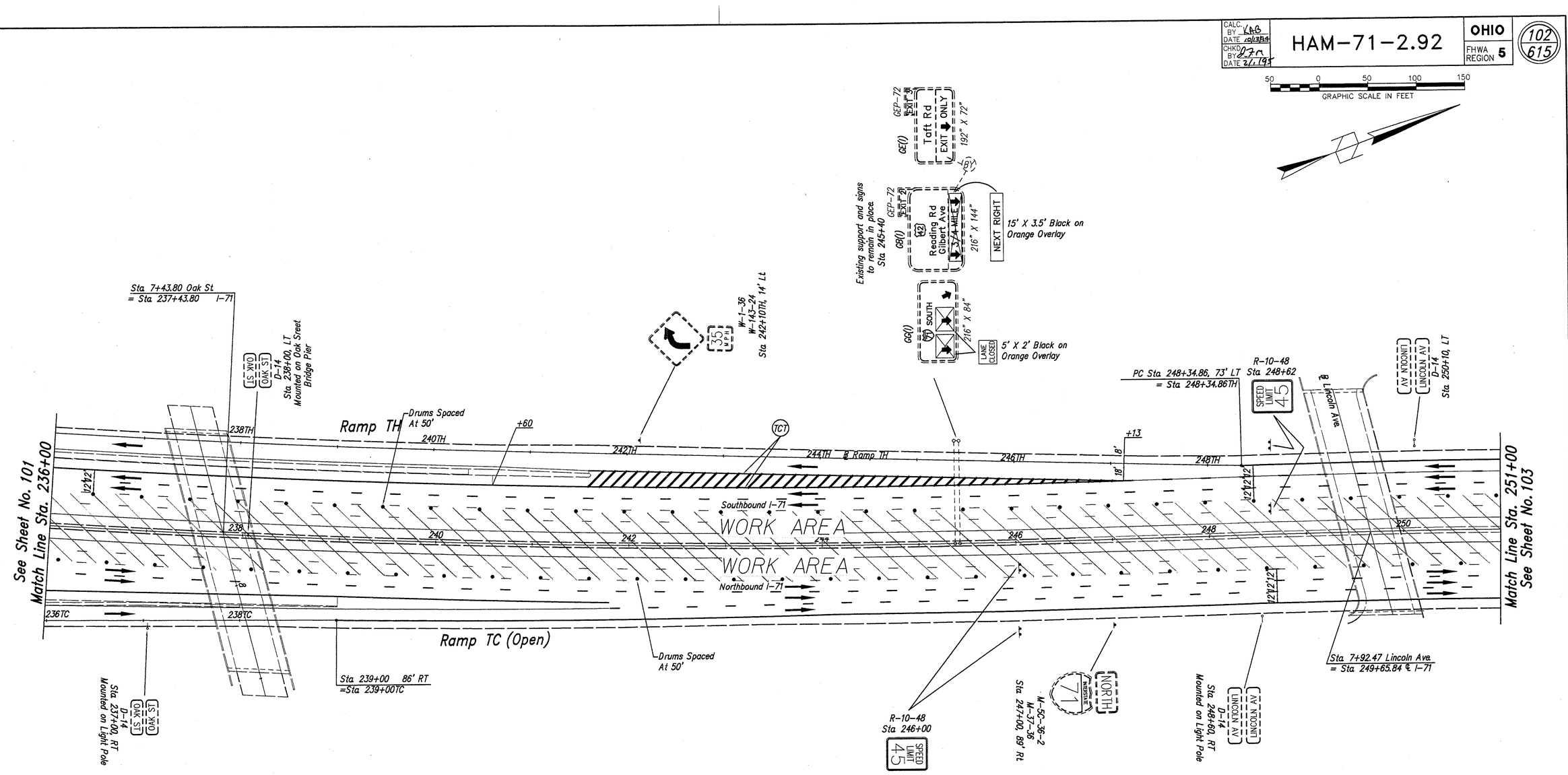
CALC. BY KAB DATE 10/3/94
CHKD. BY DJA DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

102
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

For Oak St. Plan
See Sheet No. 125

For Lincoln Ave. Plan
See Sheet No. 125

Stage 2 Construction

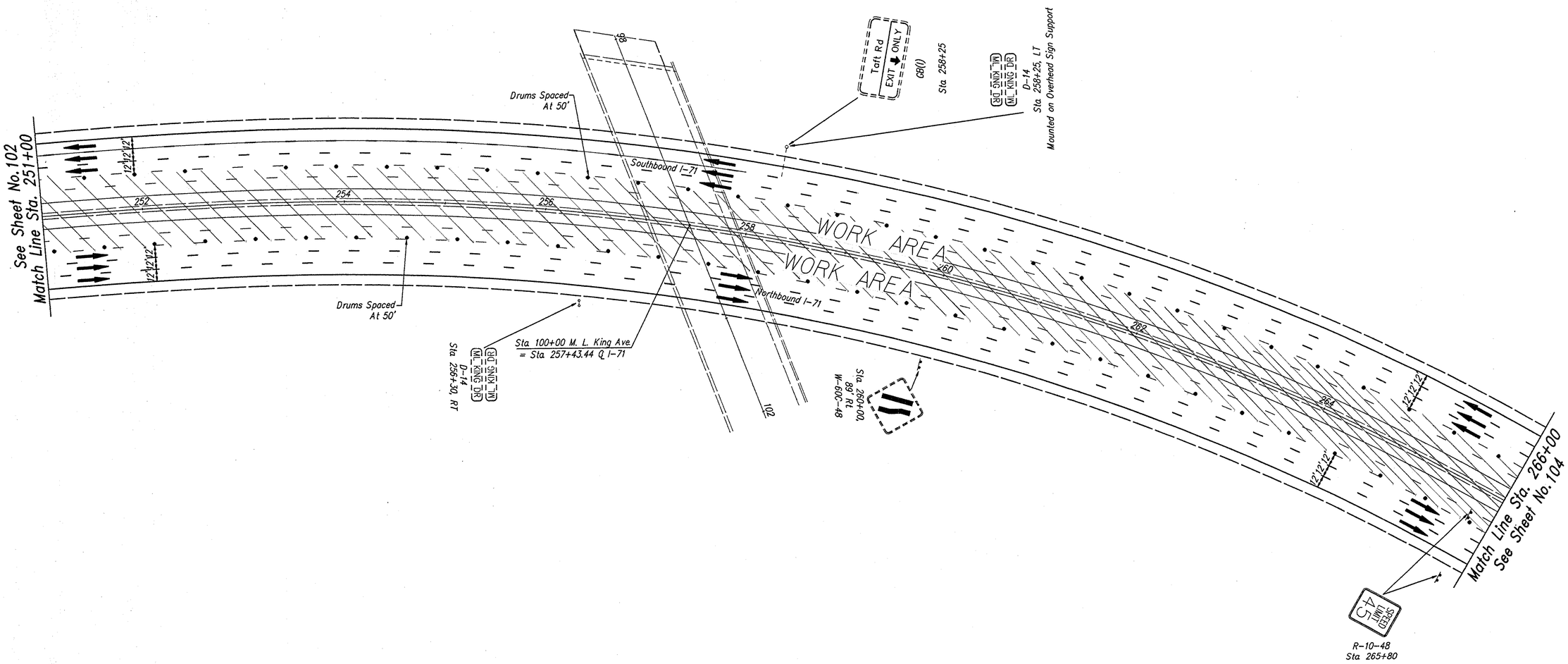
Maintenance of Traffic Details – Sta. 236+00 to 251+00

G:\71\2.92\353 – JAN. 30, 1995 @ 8:54 pm

CALC. BY KAB	HAM-71-2.92	OHIO
DATE 12/19/95		FHWA REGION 5
CHKD. BY J.J.M		
DATE 2-1-96		

103
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

For M. L. King Ave. Plan
See Sheet No. 126 & 127

Stage 2 Construction

Maintenance of Traffic Details – Sta. 251+00 to 266+00

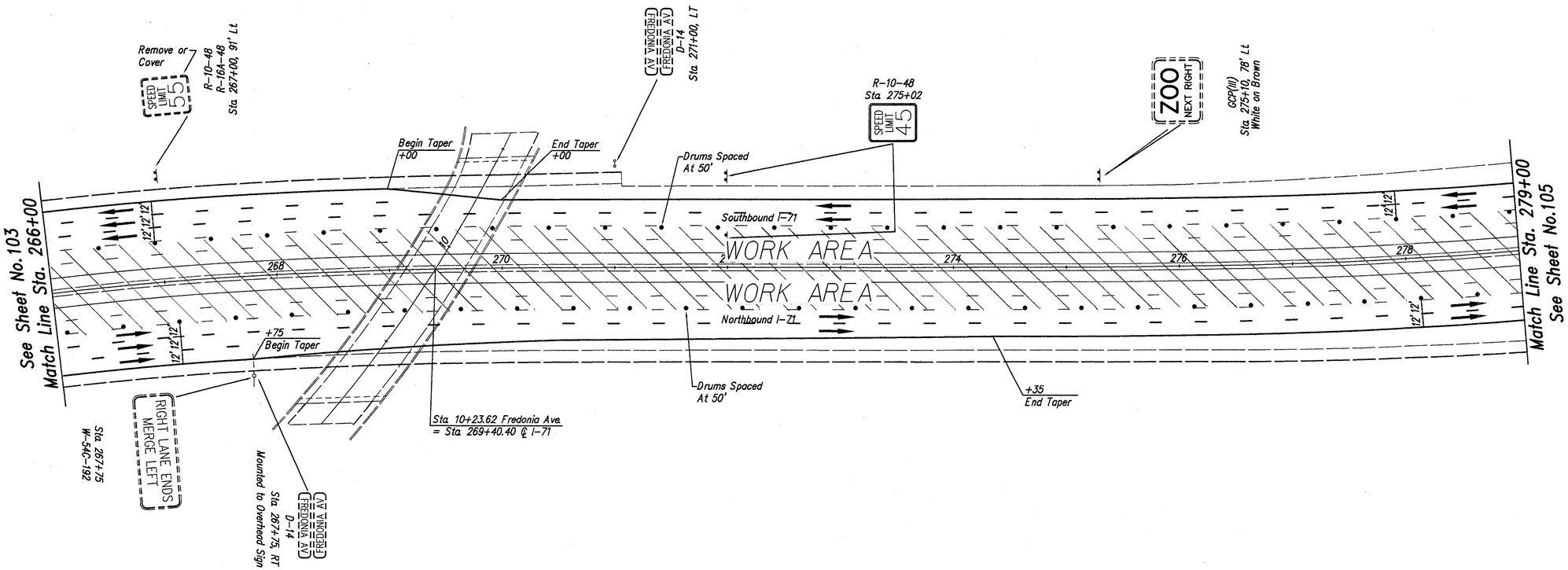
CALC. BY KAB DATE 10/13/94
CHKD. BY GJM DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

104
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

For Fredonia Ave. Plan
See Sheet No. 128

Stage 2 Construction

Maintenance of Traffic Details – Sta. 266+00 to 279+00

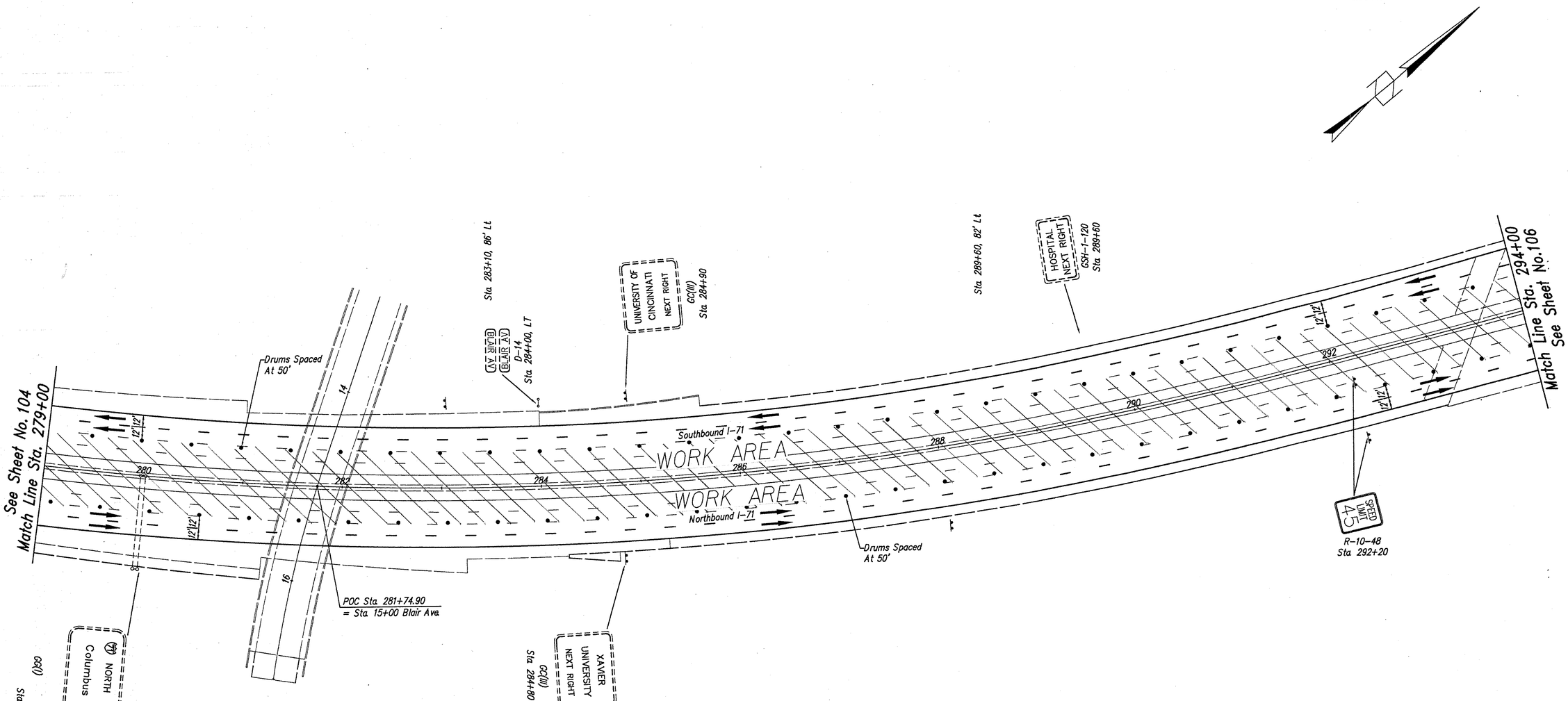
CALC. BY KAB DATE 10/31/94
CHKD. BY K.F.M DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

105
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

For Blair Ave. Plan
See Sheet No.128

Stage 2 Construction

Maintenance of Traffic Details – Sta. 279+00 to 294+00

G:\PLANS\105 - JAN. 30, 1995 @ 8:58 pm

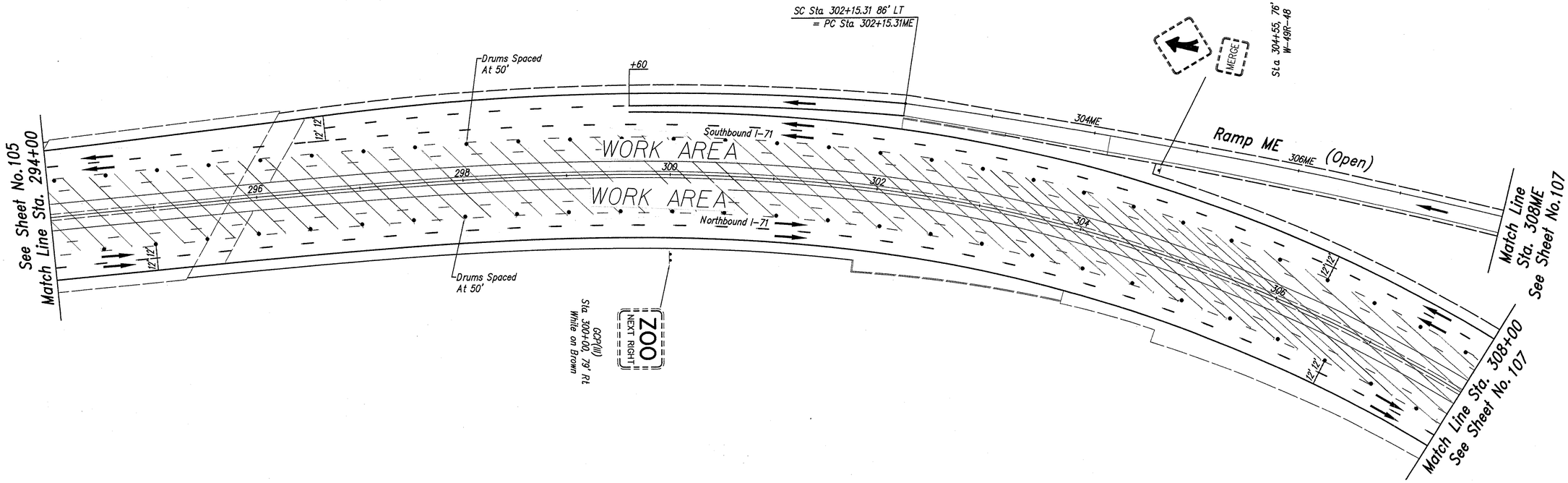
CALC. BY KKB DATE 10/13/94
CHKD. BY J.F.M DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

106/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Sta. 294+00 to 308+00

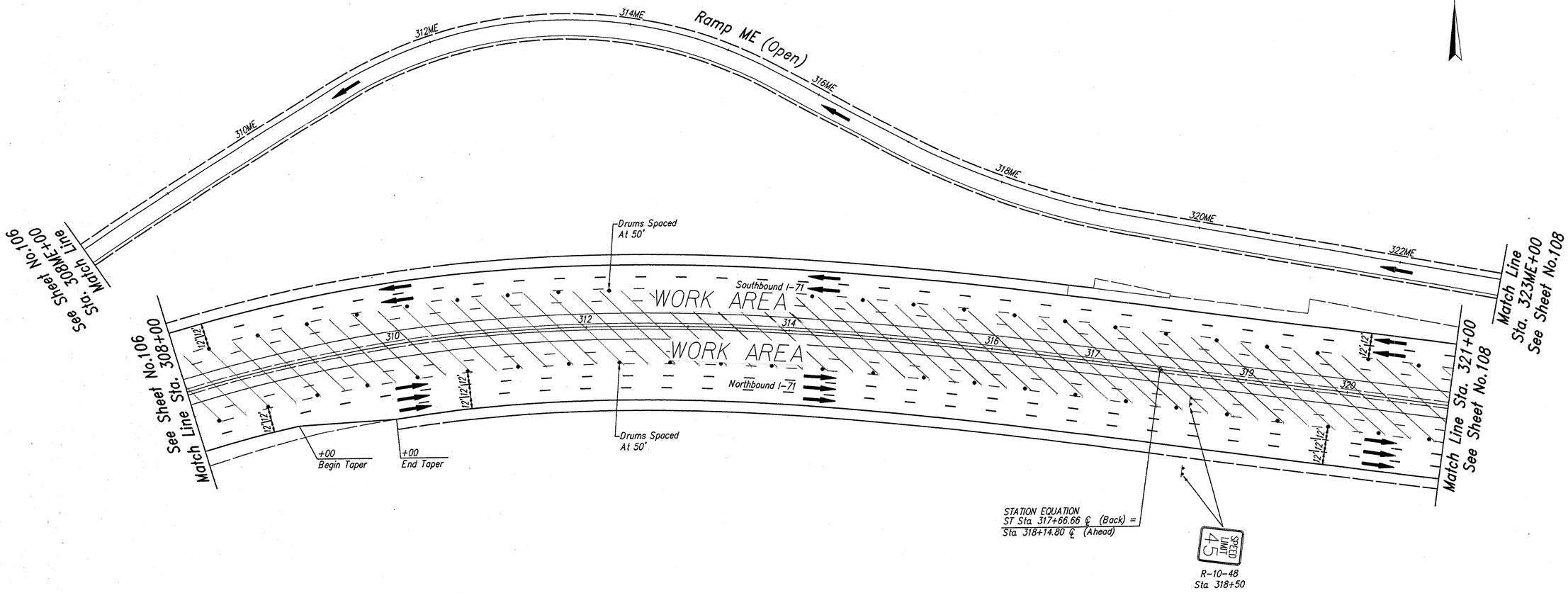
CALC. BY KAB DATE 10/13/94
CHKD. BY AJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

107
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Sta. 308+00 to 321+00

CALC. BY LAB DATE 10/13/94
CHKD. BY RJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

108
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 109
Match Line
Sta. 321+00

See Sheet No. 109
Match Line
Sta. 323ME+00

Match Line
Sta. 335+00MER
See Sheet No. 132

Match Line Sta. 334+00
See Sheet No. 111

322VB
324VB
326VB
324ME
326ME
328ME
330ME
330MER
332ME
332MER
334ME
334MER

Ramp ME(Open)

Drums Spaced At 50'

Southbound I-71
WORK AREA
℄ I-71
WORK AREA
Northbound I-71

322
324
326
328
330
332

12'|12'|12'

Sta 323+23.01 ℄
= Sta 2+80.00 Woodburn Ave.

POC Sta 328+37.58ME 16' RT
= PT Sta 328+37.58MER

POT Sta 327+23.79 ℄ 73' LT
= PT Sta 327+23.79VB

Sta 324+00

D-14
Sta 324+00, LT
Mounted to Overhead Sign Support

WOODBURN AV
WOODBURN AV

EXIT 51
Taft Rd
1½ MILES
GEP-72
GB(1)

SOUTH
GB(1)

W-60C-4B
Sta 333+00ME, 14' LT

SINGLE LANE AHEAD
W-124-4B
Sta 335+00ME, 14' LT

SPEED LIMIT 45
R-10-48
Sta 327+82

D-14
Sta 321+80, RT

WOODBURN AV
WOODBURN AV
WOODBURN

EXIT 51
Montgomery Rd
Dana Ave
EXIT ONLY
GB(1)
Sta 322+70, 67' Rt

D-14
Sta 332+90, RT
Mounted to Overhead Sign Support

MONTGOMERY RD
MONTGOMERY RD
MONTGOMERY RD

NORTH
Columbus
GB(1)

EXIT 54
Smith Rd
Edwards Rd
1 1/2 MILES
GB(1)
Sta 332+90

EXIT 54
Montgomery Rd
Dana Ave
EXIT ONLY
GB(1)

For Legend
See Sheet No. 98

For Woodburn Ave. Plan
See Sheet No. 131

Stage 2 Construction

Maintenance of Traffic Details – Sta. 321+00 to 334+00

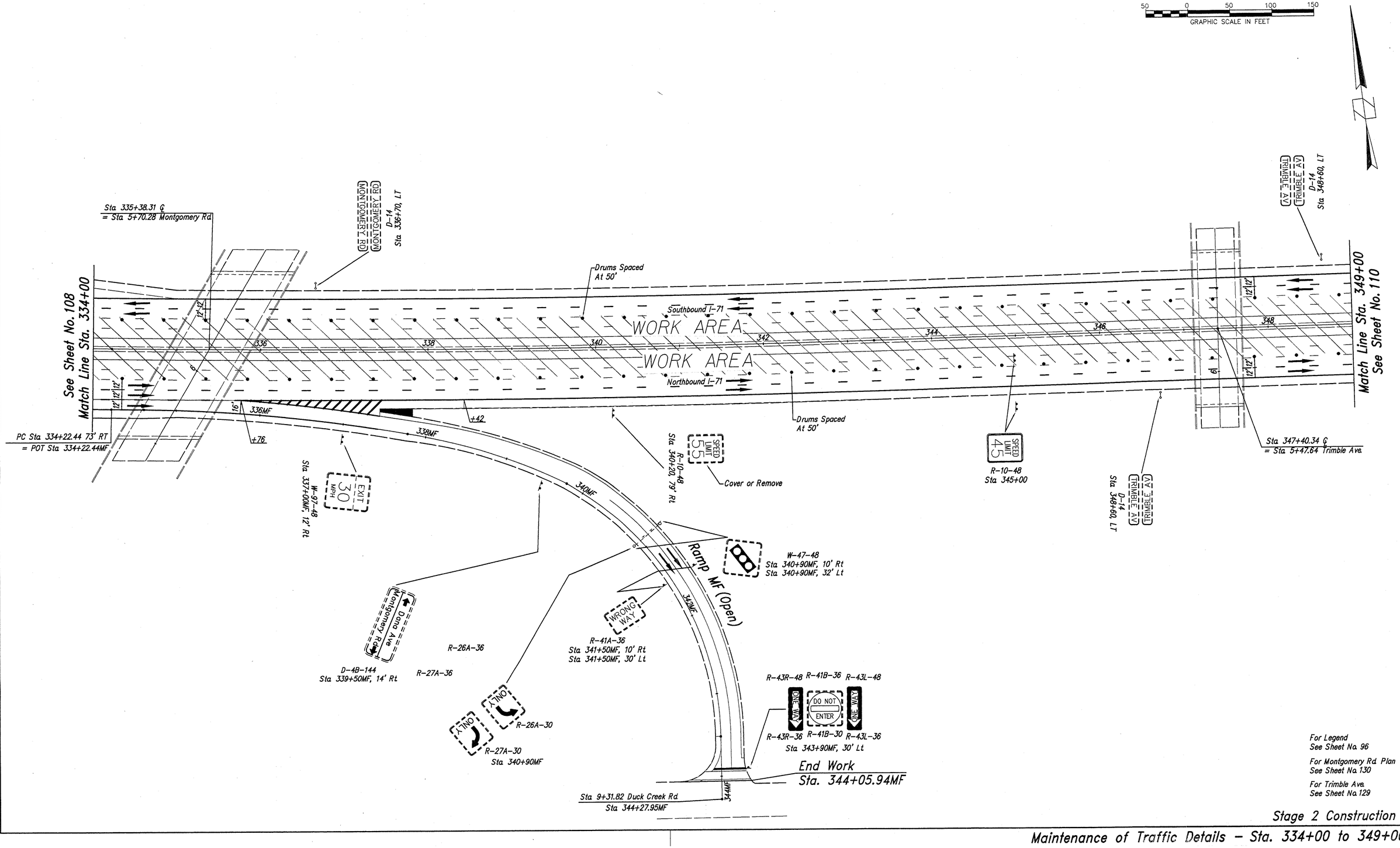
CALC. BY KAB DATE 10/8/96
CHKD. BY [illegible] DATE 2/1/96

HAM-71-2.92

OHIO
FHWA REGION 5

109
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

For Montgomery Rd. Plan
See Sheet No. 130

For Trimble Ave.
See Sheet No. 129

Stage 2 Construction

Maintenance of Traffic Details - Sta. 334+00 to 349+00

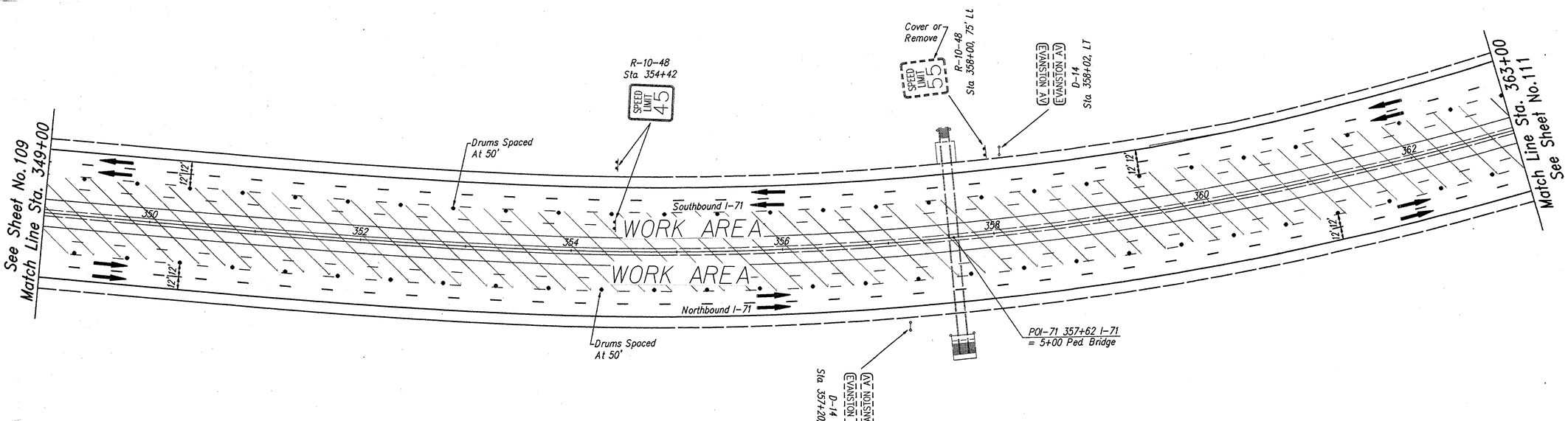
CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

110
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Sta. 349+00 to 363+00

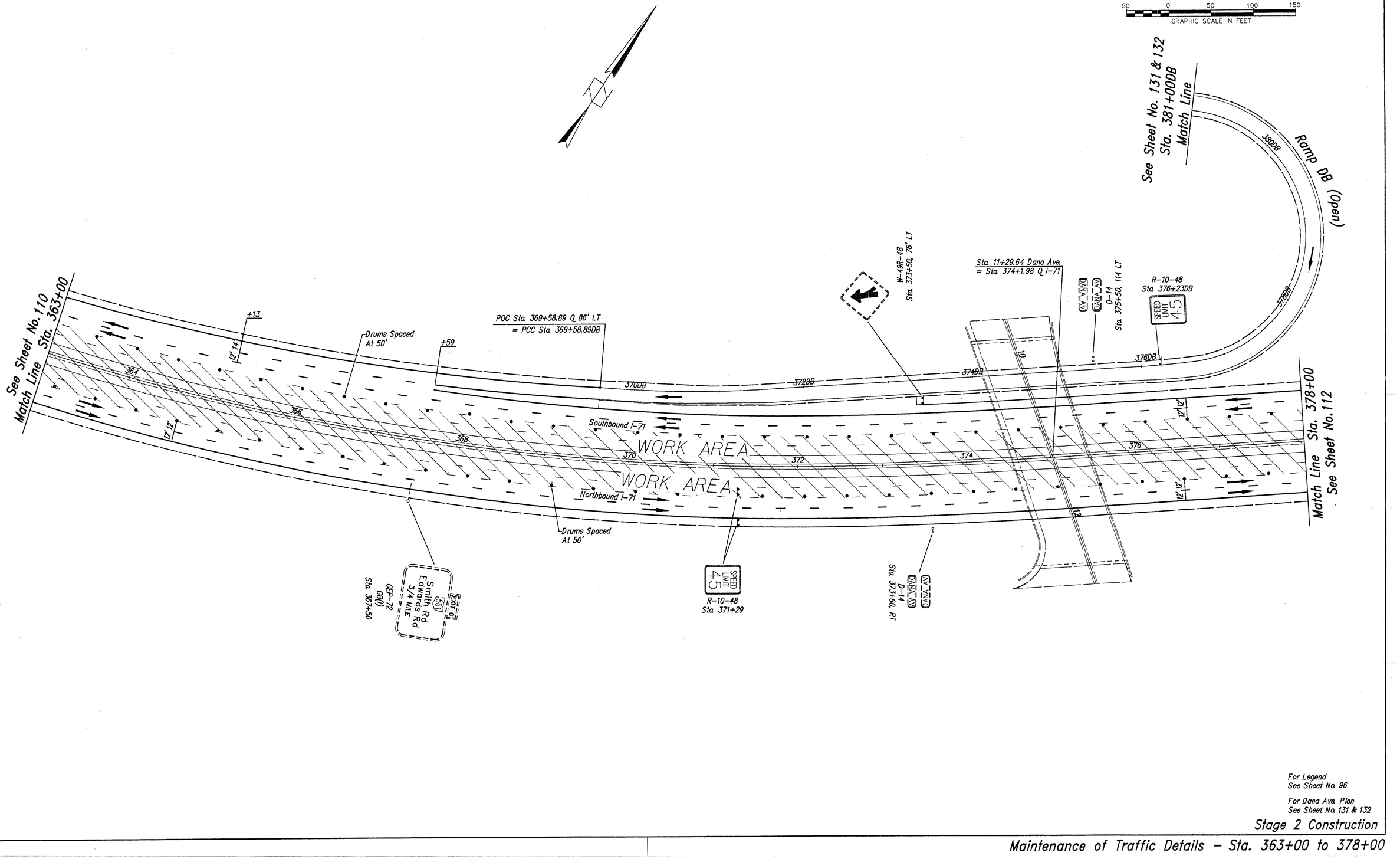
CALC. BY KAB DATE 10/3/14
CHKD BY AJM DATE 2/17/15

HAM-71-2.92

OHIO
FHWA REGION 5

111
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

For Dana Ave. Plan
See Sheet No. 131 & 132

Stage 2 Construction

Maintenance of Traffic Details – Sta. 363+00 to 378+00

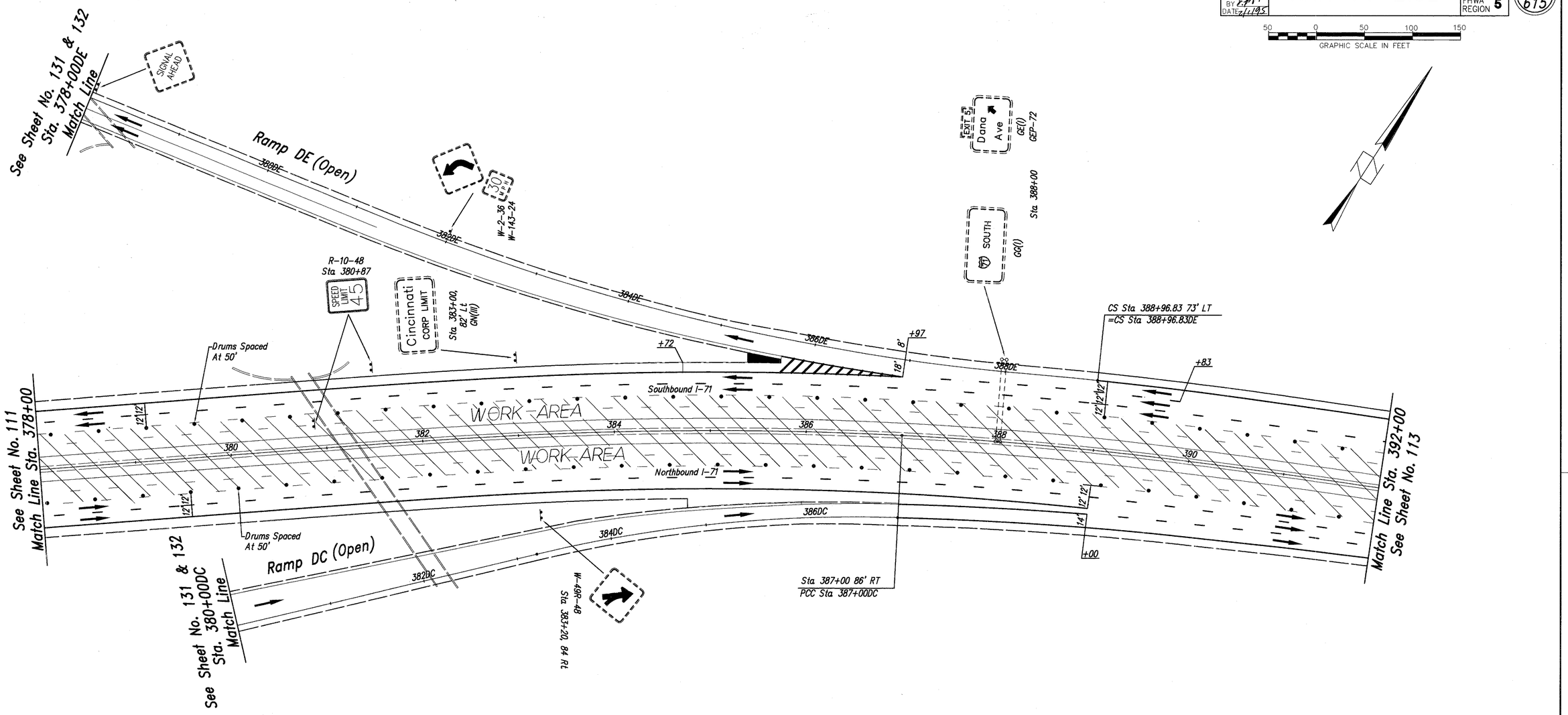
CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 7/11/95

HAM-71-2.92

OHIO
FHWA REGION 5

112
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Sta. 378+00 to 392+00

G:\71\2.92\TC13 – JAN. 30, 1995 @ 10:06 pm

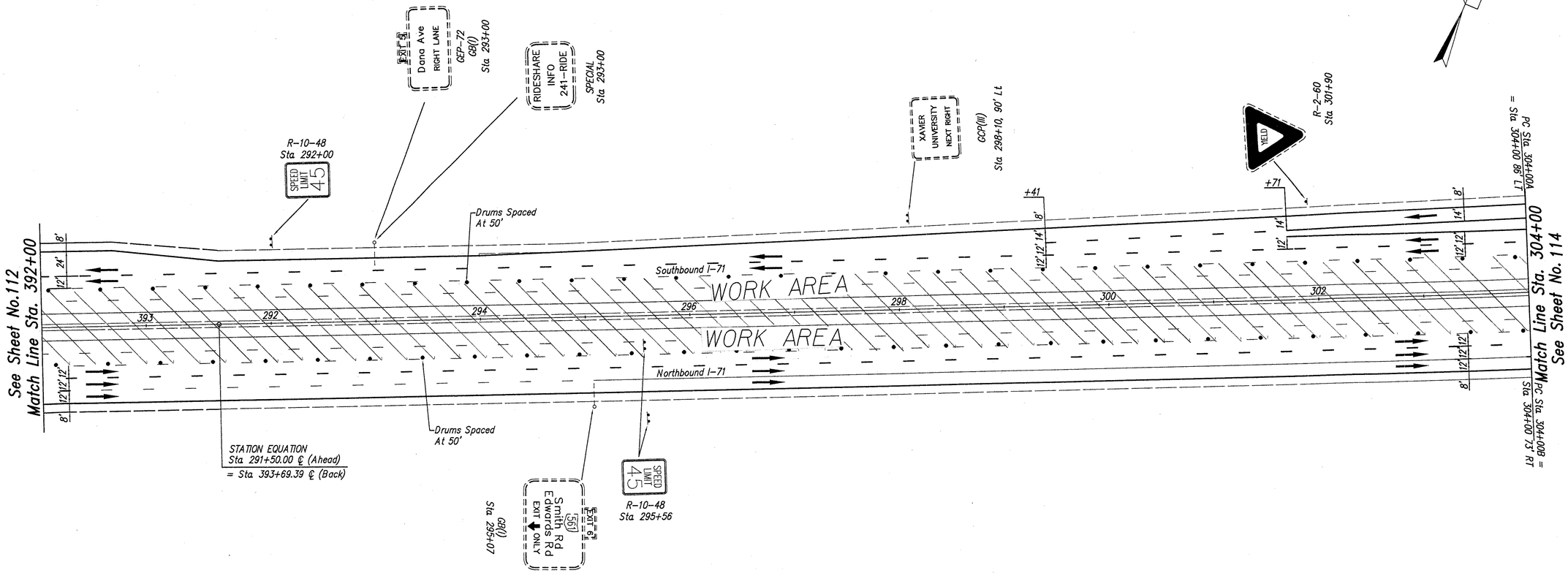
CALC. BY LAB DATE 12/13/94
CHKD BY KLM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

113
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No.96

Stage 2 Construction

Maintenance of Traffic Details – Sta. 392+00 to 304+00

G:\TYLER\TCH14 - JAN. 30, 1995 @ 10:08 pm

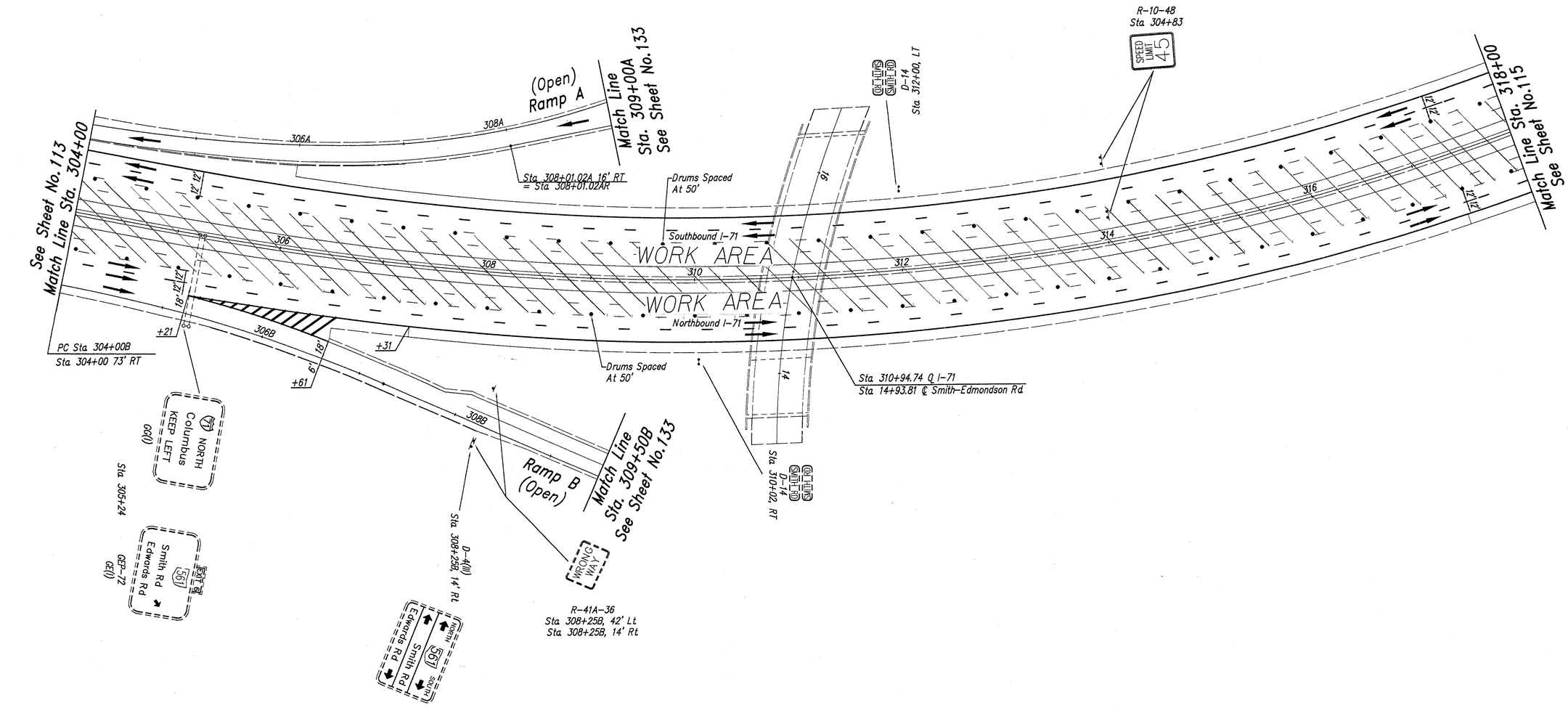
CALC. BY LAB DATE 10/13/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

114
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

For Smith-Edmondson Rd
See Sheet No. 133

Stage 2 Construction

Maintenance of Traffic Details – Sta. 304+00 to 318+00

G:\71\2.92\TCTS - JAN. 30, 1995 @ 10:09 pm

CALC BY CAB DATE 10/13/94
CHKD BY DJM DATE 2/17/95

HAM-71-2.92

OHIO
FHWA REGION 5

115
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 114
Match Line Sta. 318+00

Sta 321+59.18 ℄ I-71
=Sta 17+12.74 ℄ Williams Rd

See Sheet No. 134
Sta. 324+00D
Match Line

(Open)
Ramp D

Sta 325+50D, 35' Lt

Drums Spaced At 50'

Southbound I-71

WORK AREA

Northbound I-71

WORK AREA

Match Line Sta. 332+00
See Sheet No. 116

Begin Work
Sta. 327+36.11C

Ramp C
(Open)

Sta 327+21.11C
End Edwards Rd

Sta 329+74.01 Q 73' LT
= PT Sta 329+74.01D

Sta 328+40

Drums Spaced At 50'

Mounted to Overhead Sign Support
Sta. 320+90, RT

Sta 326+00C, 37' Lt

Sta 327+50C, 28' Lt

Sta. 330+00, 76' Rt

For Legend
See Sheet No. 96

For Williams Rd. Plan
See Sheet No. 134

Stage 2 Construction

Maintenance of Traffic Details – Sta. 318+00 to 332+00

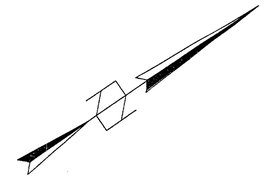
CALC. BY KAB DATE 10/5/94
CHKD. BY [illegible] DATE 2/17/95

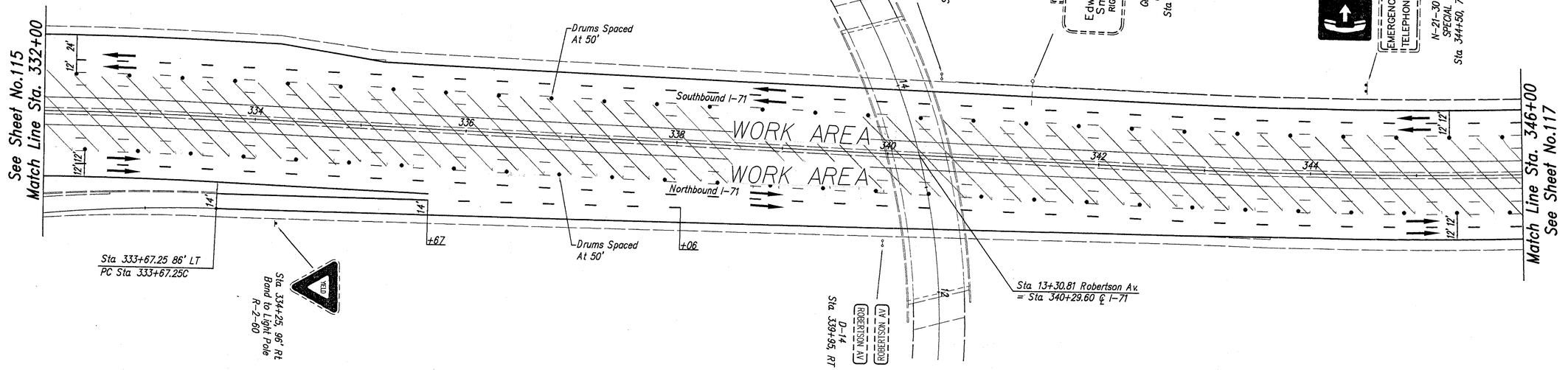
HAM-71-2.92

OHIO
FHWA REGION 5

116
615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend
See Sheet No. 96

For Robertson Ave. Plan
See Sheet No. 135

Stage 2 Construction

G:\TYLS\KAB\1017 - JAN. 30, 1995 @ 10:11 pm

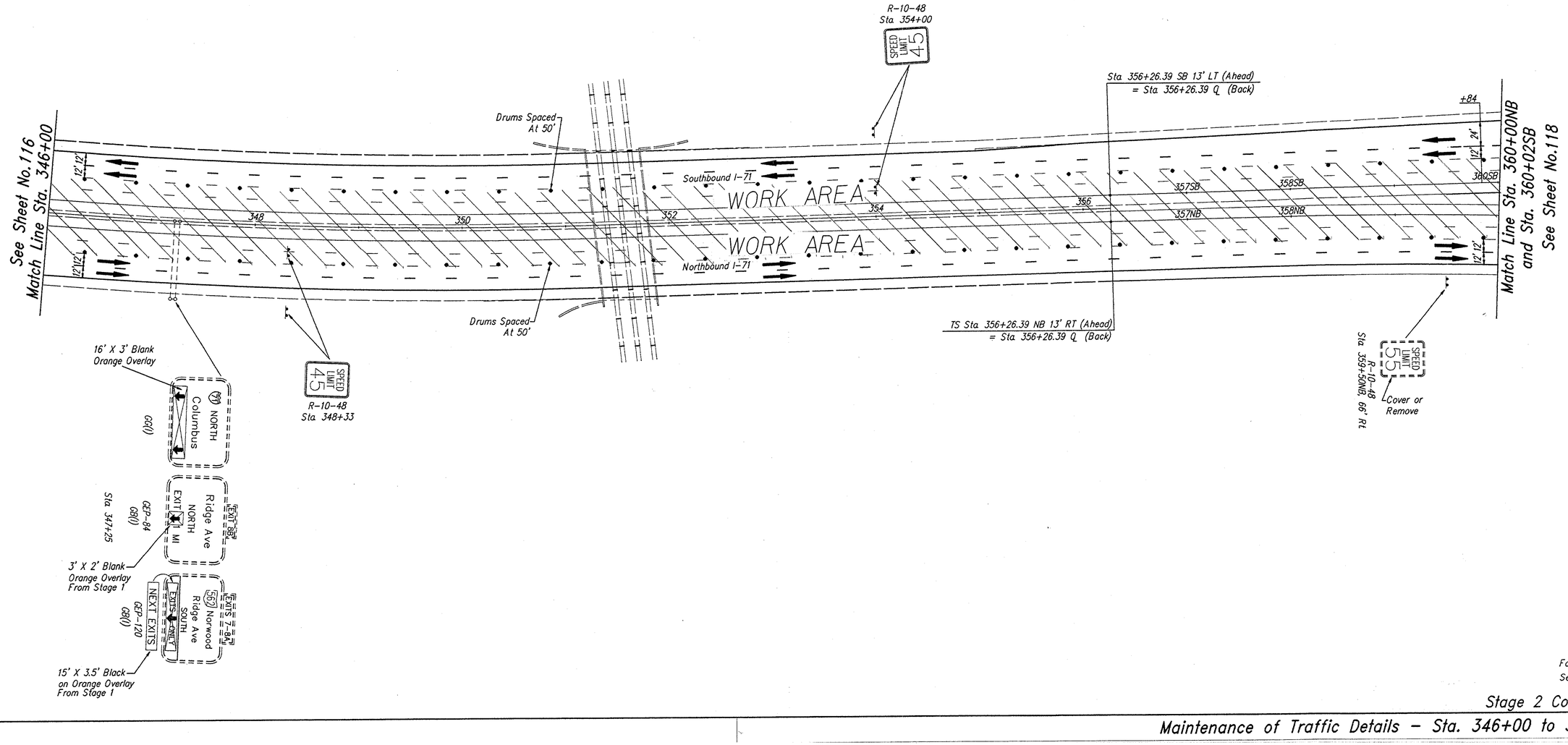
CALC BY KAB DATE 10/13/14
CHKD BY GJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

117
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details - Sta. 346+00 to 360+00NB

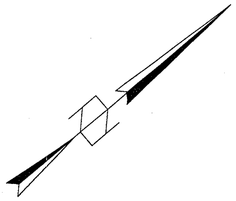
CALC. BY KRG DATE 10/15/99
CHKD. BY [illegible] DATE 2/11/99

HAM-71-2.92

OHIO
FHWA REGION 5

118
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



See Sheet No.136
Match Line
Sta. 12+00E

(Open) Ramp E

R-2-60
Sta 16+78E, 12' Rt.
Band to Light Pole

Norwood
CORP LIMIT

GN(III)
Sta 362+90SB, 88' Lt

Sta 17+07.53E
= Sta 365+00SB 73' LT

W-49R-48
Sta 368+00SB, 67' Lt

MERGE

Cover

SPEED LIMIT 55

R-10-48
Sta 372+25SB, 66' Lt

SPEED LIMIT 45

Southbound I-71

WORK AREA

Drums Spaced At 50'

Drums Spaced At 50' +78

Northbound I-71

Drums Spaced At 50'

TYT

TLT

R-2-60
Sta 373+20SB

Match Line
Sta. 374+00SB
See Sheet No.119

See Sheet No.117
Match Line Sta. 360+00NB
and Sta. 360+02SB

Ridge Ave
SOUTH
EXIT 84
GEP-84
GE(I)
Sta 362+15NB

PCC Sta 0+00F 60' LT
= Sta 368+24.92NB

16' X 3' Blank
Orange Overlay

Columbus
NORTH
GE(I)

15' X 3.5' Black
on Orange Overlay
From Stage 1

SCIOTO
RIGHT
GE(I)
GEP-84

EXIT 88
Ridge Ave
NORTH

Sta 370+20NB

NEXT RIGHT
GE(I)
GEP-72

EXIT 88
NORTH
Ridge Ave
SOUTH
GE(I)
GEP-84

15' X 3.5' Black
on Orange Overlay
From Stage 1

Match Line
Sta. 374+00NB
See Sheet No.119

Ramp F
(Open)

Match Line
Sta. 6+00F
See Sheet No.137

For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details Sta. 360+00NB to Sta. 374+00NB

G:\71\2.92\TCTD - JAN. 30, 1995 @ 7:25 pm

CALC. BY KAB DATE 10/23/94
CHKD. BY JSM DATE 3/11/95

HAM-71-2.92

OHIO
FHWA REGION 5

119
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No.136
Sta. 2+62J
Match Line

Ramp I

R-10-48
Sta 378+00, 18' Lt, 66' Lt

SPEED LIMIT 45

Begin 540' Taper
+02

Drums Spaced At 25'

TWT TLT TYT

Southbound I-71

WORK AREA

378SB 380SB 382SB 384SB 386SB

End 540' Taper
+42

EXIT 561
Edwards Rd
Smith Rd
EXIT 1 MILE

GEP-72
Sta 380+50SB

GEP-72
GE(1)
Sta 385+29SB

EXIT 562
Norwood

+49
8'
16'
12'

TDL

+22 TCT

Drums Spaced At 50'

P.T. Sta13+99.69J
= Sta. 387+03.31
SB 48' RT

12'10"

Match Line
Sta. 388+00SB
See Sheet No.120

Match Line
Sta. 2+00H
See Sheet No.138

Ramp H (Closed)

ST Sta 383+32.88
I-71 SB Shift ℄ 12' LT

P.C. Sta 0+00H
= Sta 383+00SB 25' RT

See Sheet No.136
Sta. 17+00J
Match Line

Sta 17+59.37J ℄ Shift 16' LT

See Sheet No.120
Sta. 374+00SB
Match Line

Drums Spaced At 50'

Ramp J (Closed)

Sta 26+94.85J
= Sta 382+00NB 25' LT

WORK AREA

378NB 380NB 382NB 384NB 386NB

Sta 385+00 NB
I-71 NB Shift ℄ 12' LT

Match Line
Sta. 387+00NB
See Sheet No.120

Northbound I-71

R-10-48
Sta 374+81, 12' Rt, 70' Rt

SPEED LIMIT 45

Drums Spaced At 50'

PC Sta 0+00G
= Sta 382+16.36NB 48' RT

ST. RT. 562 W.
D-14
Sta 378+80 RT

ST. RT. 562
Sta 24+60 ST. RT. 562
Sta 378+96 ℄ I-71NB

16' X 8.5' Blank Orange Overlay

GG(1)

NORTH Columbus

W-98-48
Sta 2+90G, 12' Rt

RAMP 25 MPH

W-32-96
Sta 4+40G, 33' Lt

Ramp G

WP-49-24

MERGE

W-49L-48
Sta 7+50G, 14' Rt

16' X 3' Blank Orange Overlay

GG(1)
Sta 394+42

15' X 3.5' Black on Orange Overlay

GEP-84
GE(1)
NEXT RIGHT

EXIT ONLY

EXIT 88
Ridge Ave
NORTH

15' X 3.5' Blank Orange Overlay

GEP-72
GE(1)

EXIT ONLY

Norwood

EXIT 1
562

Match Line
Sta. 8+00G
See Sheet No.137

For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Sta. 374+00NB to Sta. 387+00NB

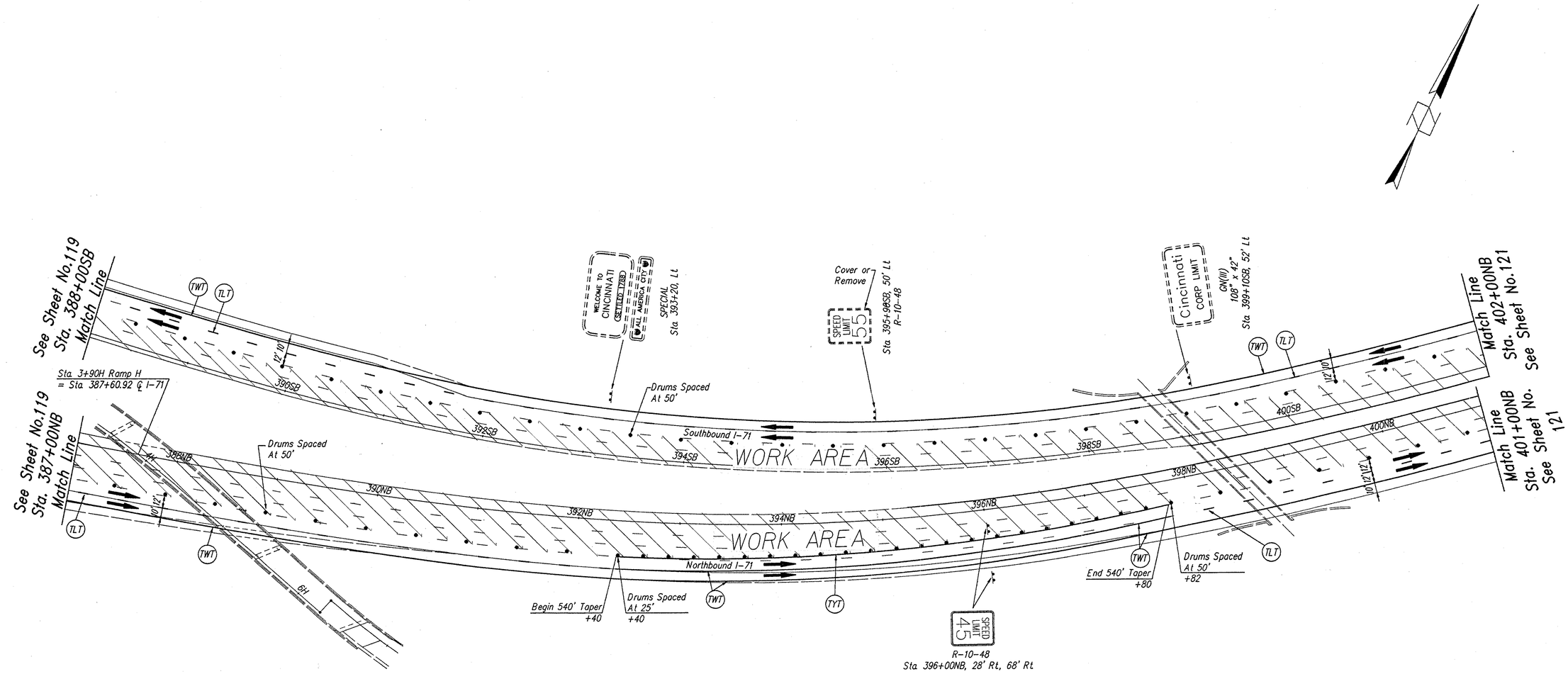
CALC. BY LAB DATE 10/1994
CHK'D BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

120/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details Sta. 387+00NB to 401+00NB

D:\PLANS\121 - JAN. 30, 1995 @ 7:29 pm

CALC. BY YAB DATE 10/29/97
CHKD BY [illegible] DATE 2-12-98

HAM-71-2.92

OHIO
FHWA REGION 5

121/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No.120
Match Line
Sta. 402+00SB

See Sheet No.120
Match Line
Sta. 401+00N

See Sheet No.140
Match Line
Sta. 6+00R

Sta. 404+81.00 ℄ (Projected Back)
Sta. 29+96.64 Ridge Ave.

EXIT 7
562 Norwood
RIGHT LANE
GFP-72
G8(I)
Sta. 405+30, 50' Lt.
Mount on Ridge Ave. Bridge

AV 3000 RIDGE AV
D-14
Sta. 405+70, Lt.

RIGHT LANE MUST USE SHOULDER
SPECIAL
Sta. 412+50

level 2
13' X 6'
I-71 SOUTH TUNNEL
7 MILES AHEAD

SPECIAL
Sta. 410+80, ℄
EXISTING TO REMAIN

W-32-48
Sta. 4+64R, 29' Lt.

GF-72
Sta. 3+20R, 29' Lt.

EXIT 8

Ramp R (Open)

W-45A-48
Sta. 2+55R, 14' Rt.

Drums Spaced At 50'

Southbound I-71

WORK AREA

℄ I-71

WORK AREA

Northbound I-71

404SB
402NB
405
406
408
410
412
414
416

12'10"
10'12"

+12R
+07
+25N
+97
+10
+32
+36

TWT TLT TCT TDL

Sta. 0+00N
Sta. 402+00 ℄ 48' LT

14' X 3.5' Blank
Orange Overlay

GG(I)
Columbus
Sta. 402+11NB

Ridge Ave
EXIT 8S
EXIT ONLY
NORTH
GEP-84
GE(I)

13' X 3.5' Blank
Orange Overlay
From Stage 1

Sign Support
Mounted to Overhead

AV 3000 RIDGE AV
D-14
Sta. 402+11, Rt.

W-97-48
Sta. 3+00N, 18' Rt.

STATION EQUATION
Sta. 404+87.57 ℄ (Ahead)
Sta. 404+00 NB ℄ (Back)
Sta. 404+84.57 SB ℄ (Back)

EXIT 25 MPH

EXIT 8B
GF-72
Sta. 406+32, 80' Rt.

SPECIAL
Sta. 408+31.57

RIGHT LANE MUST USE SHOULDER

Ramp N (Open)

Sta. 8+00N
Match Line
See Sheet No.139

W-49R-48
Sta. 408+70, 75' Rt.

Ramp P (Open)

For Entrance Ramp Area Details
See Std. Const. Dwg. MT 98.16

Sta. 6+03.37P
= Sta. 4+19.07P1

Sta. 4+00P1
Match Line
See Sheet No.140

Sta. 412+76 79' RT
= Sta. 10+45.90P

R-2-60
Sta. 415+41, 87" Rt.

KENNEDY AV
D-14
Sta. 416+10, Rt.

Match Line Sta. 417+00
See Sheet No.122

For Legend
See Sheet No. 96

For Ridge Ave. Plan
See Sheet No.139

Stage 2 Construction

Maintenance of Traffic Details – Sta. 401+00NB to Sta. 417+00

G:\PLANS\022 - JAN. 30, 1998 • 10:18 am

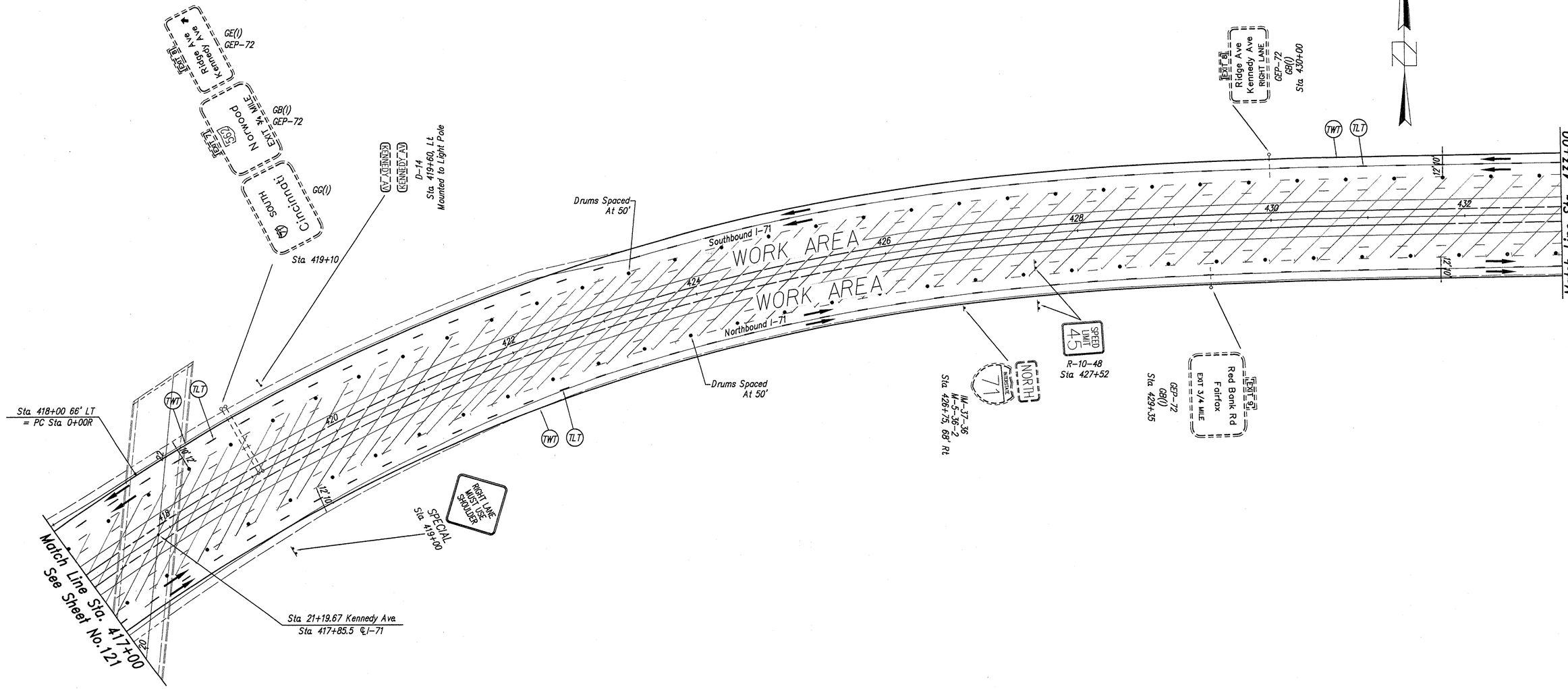
CALC. BY KAG DATE 10/13/94
CHK'D BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

122
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details - Sta. 417+00 to 433+00

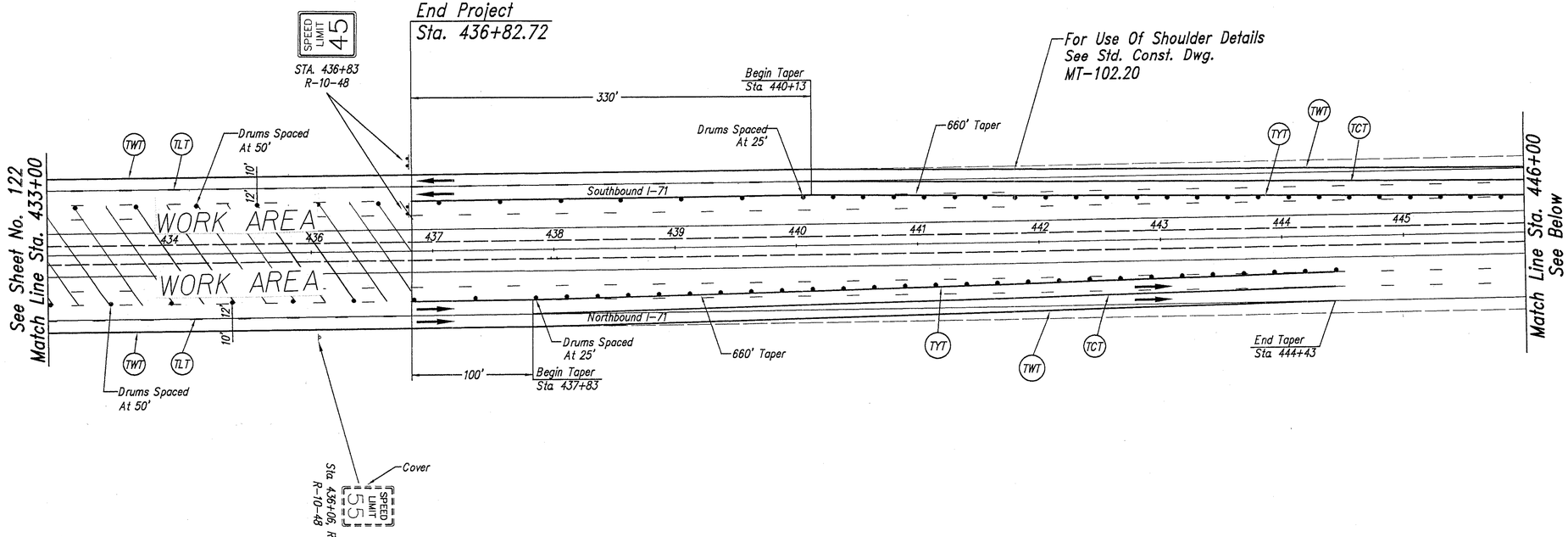
CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

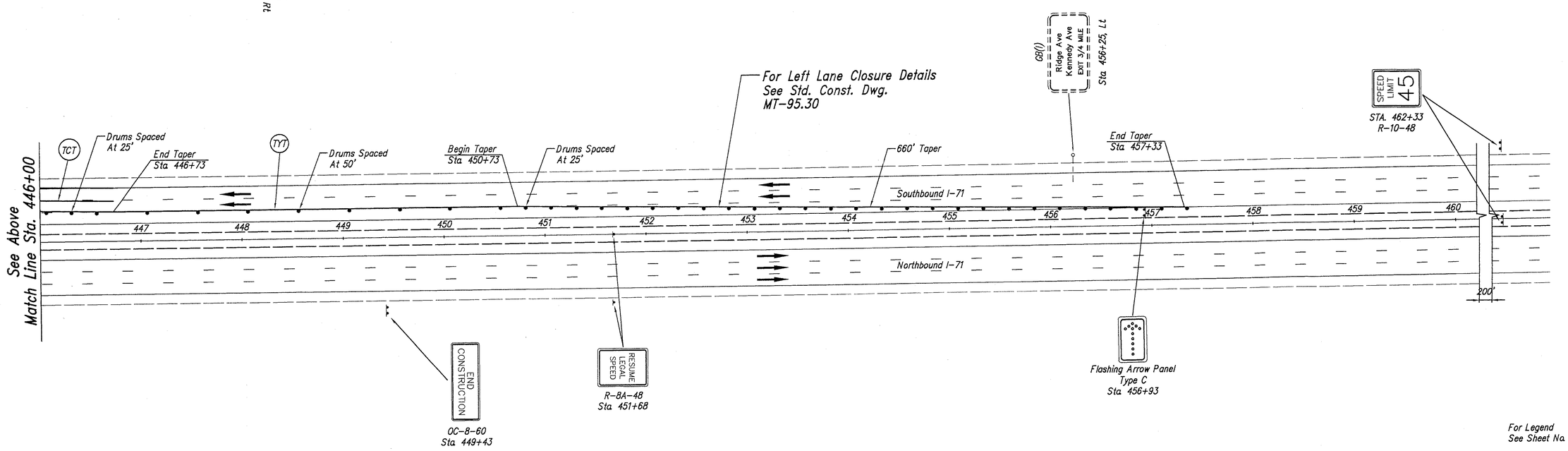
HAM-71-2.92

OHIO
FHWA REGION 5

123
615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details - Sta. 433+00 to 460+00

CALC. BY KAG DATE 10/13/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

124/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Below Match Line Sta. 3+00

Drums Spaced At 25'

Sta 4+24 GH(III)

NORTH Columbus KEEP LEFT

TYT

End Taper +42

Drums Spaced At 10'

Type I Barricade with mounted "SIDEWALK CLOSED" sign

Sta 5+16, 23' Rt

TO NORTH INTERSTATE 71

IM-8-24 IM-37-24 M-5-24-2 IM-24-21

10' R

40' R

Drums Spaced At 25'

Essex Place

12

60' R

Drums Spaced At 10'

R-26A-30 Mounted on Span Wire

ONLY

30" X 36" Blank Orange Overlay

Drums Spaced At 10'

Drums Spaced At 25'

Symmes St.

For Multiple Lane Closure Details See O.M.U.T.C.D. Plate C-20. The advisory speed limit shall be 25 M.P.H.

Two 11' Lanes

Drums Spaced At 25'

Begin Work Sta. 6+83.72

TYT

McMillan St.

8

Drums Spaced At 10'

Sta 9+80.00 McMillan St. = Sta 225+44.29TC

(Open) Ramp TC

25' R

10' R

226TC

10

Drums Spaced At 10'

Match Line Sta 227+00TC See Sheet No.101

Sta 10+07 GH-1(III)

NORTH Columbus

End Work Sta. 10+85

500'

END CONSTRUCTION

OC-8-60

Sta 9+87, 42' Rt

IM-8-24 TO

IM-37-24 NORTH

M-5-24-2 INTERSTATE 71

IM-24-21

Sta 227+18.64TH 33' RT = PC Sta 8+20.68 WH Taft Rd

END CONSTRUCTION

OC-8-60 Sta 8+03

228TH

10

Begin Work Sta. 229+56.57TH

230TH

ONE WAY

R-44L-18

ENTER DO NOT

R-41B-36 Sta 229+75TH, 3' Lt

(Open) Ramp TH

Match Line Sta 232+00TH See Sheet No. 101

R-43L-48 ONE WAY ENTER DO NOT ONE WAY R-43R-48

R-41B-36 Sta 229+65TH, 41' Rt

Sta 12+85, 25' Rt Sta 12+95, 25' Lt

IM-8-24 TO

IM-37-24 NORTH

M-5-24-2 INTERSTATE 71

IM-21-21

+65

E. MAIN TOM RD

12

Begin Work Sta. 12+65.32

Drums Spaced At 25'

Taft Rd.

14

Sta 16+75, 25' Rt Sta 17+00, 25' Lt

IM-8-24 TO

IM-37-24 NORTH

M-5-24-2 INTERSTATE 71

IM-21-21

Two 11' Lanes

16

End Work Sta. 17+24.07

Begin Taper +87

TYT

Match Line Sta. 17+50 See Above

See Below Match Line Sta. 17+50

Flashing Arrow Panel Type A Sta 18+55

TYT

Drums Spaced At 25'

End Taper +86

Two 11' Lanes

Drums Spaced At 10'

Temporary R-1-30

May St.

25' R

STOP

Drums Spaced At 25'

Three 11' Lanes

Taft Rd.

850'

Drums Spaced At 10'

Temporary R-1-30

Hemlock St.

25' R

STOP

Drums Spaced At 25'

Three 11' Lanes

Temporary R-1-30

Stanton St.

25' R

STOP

Flashing Arrow Panel Type A

Drums Spaced At 10'

Drums Spaced At 25'

For Multiple Lane Closure Details See O.M.U.T.C.D. Plate C-20 The advisory speed limit shall be 25 M.P.H.

TYT

200'

225' Taper

For Legend See Sheet No. 96

McMillan St.

Drums Spaced At 25'

TYT

204' Taper

8'

Flashing Arrow Panel Type A

Three 10' Lanes

Drums Spaced At 25'

Iowa St.

Three 10' Lanes

850'

Begin Taper +38

Drums Spaced At 25'

Flashing Arrow Panel Type A Sta 2+63

Dover St.

TYT

Match Line Sta. 3+00 See Above

ALL WORK ON McMILLAN ST. AND TAFT RD. SHALL BE COMPLETED BETWEEN JUNE 15 AND SEPT. 15.

NOTE: ALL EXISTING STOP SIGNS ARE TO BE COVERED

Stage 2 Construction

Maintenance of Traffic Details - McMillan St. and Taft Rd.

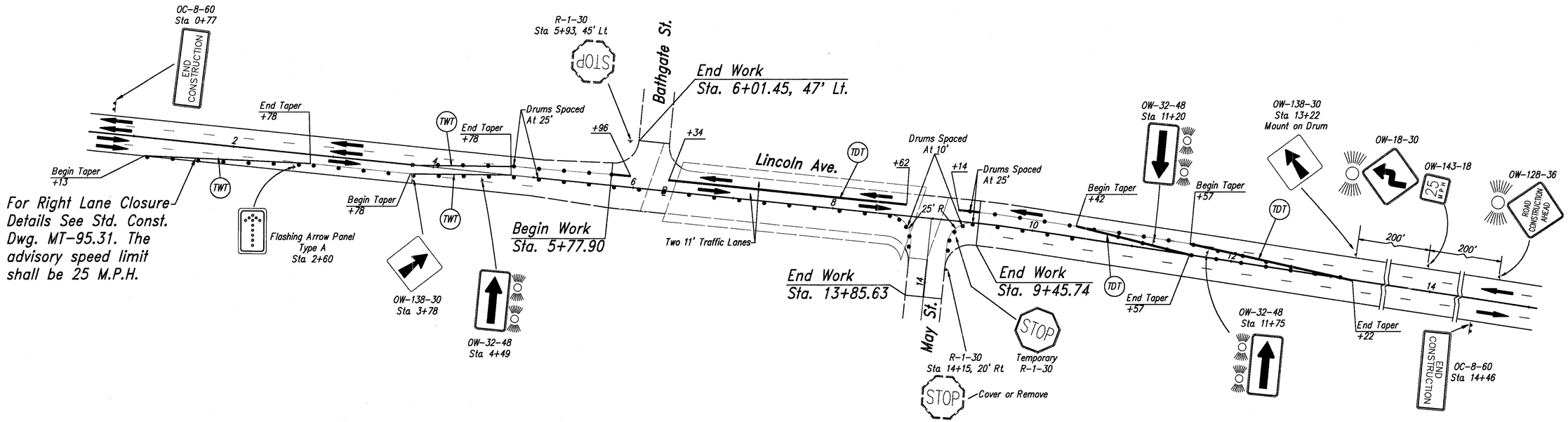
CALC BY KAB DATE 10/29/94
CHKD BY [illegible] DATE 2/11/95

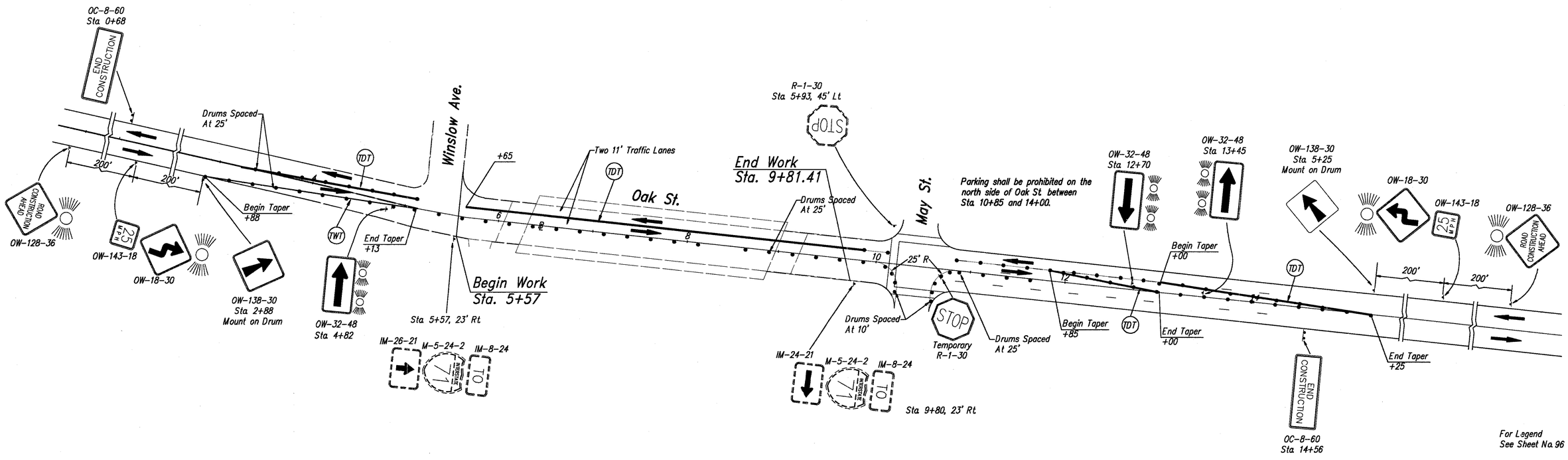
HAM-71-2.92

OHIO FHWA REGION 5

125/615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Oak St. and Lincoln Ave.

CALC. BY KAB DATE 10/3/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

126
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

OC-8-60
Sta 92+00
END CONSTRUCTION

Savory Pl.

Begin Taper +84

Drums Spaced At 25'

Begin Taper +88

92

94

Match Line Sta. 95+00 See Below

TDT

End Taper +88

For Left Lane Closure Details
See Std. Const. Dwg. MT-95.32.
The advisory speed limit shall
be 25 M.P.H.

Flashing Arrow Panel
Type A
Sta 94+15

OW-32-48
Sta 95+65

Begin Work
Sta. 97+58.90

Match Line
Sta. 95+00
See Above

96

98

Two 11' Traffic Lanes

M. L. King Jr. Dr.

100

102

104

106

108

TDT

End Taper +64

Drums Spaced At 25'

TLT

TDT

Two 11' Traffic Lanes

SPEED LIMIT 35

R-10-24
Sta 102+65, 43' Rt

R-10-24
Sta 104+04, 43' Lt

End Work
Sta. 105+96.32

Two 11' Traffic Lanes

TDT

TLT

Two 11' Traffic Lanes

Begin Taper +96

TWT

End Taper +71

Drums Spaced At 25'

TDT

TLT

Match Line
Sta. 109+00
See Below

OW-32-48
Sta 107+26

OW-138-30
Sta 108+68
Mount on Drum

Match Line
See Above
Sta. 109+00

Drums Spaced At 25'

Begin Taper +71

TWT

Flashing Arrow Panel
Type A
Sta 110+98

End Taper +96

For Right Lane Closure Details
See Std. Const. Dwg. MT-95.31.
The advisory speed limit shall
be 25 M.P.H.

END CONSTRUCTION

OC-8-60
Sta 110+96

For Legend
See Sheet No. 96

Stage 2A Construction

Maintenance of Traffic Details - Martin L. King Jr. Dr.

G:\71\2-92\MEUSH - JAN. 30, 1995 @ 7:41 pm

CALC. BY KAB DATE 10/31/94
CHKD BY AJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

127
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

For Right Lane Closure Details
See Std. Const. Dwg. MT-95.31.
The advisory speed limit shall
be 25 M.P.H.

OC-8-60
Sta. 92+00

END CONSTRUCTION

Savory Pl.

Begin Taper
+88

92

94

Match Line
Sta. 95+00
See Below

Begin Taper
+96

TWT

End Taper
+00

Drums Spaced
At 25'

Flashing Arrow Panel
Type A
Sta. 91+52

OW-1.38-30
Sta. 94+91
Mount on Drum

R-10-24
Sta. 104+04, 43' Lt

SPEED LIMIT 35

OW-32-48
Sta. 108+41

Begin Work
Sta. 97+58.90

TDT

Drums Spaced
At 25'

End Taper
+64

TLT

Two 11' Traffic
Lanes

Match Line
Sta. 95+00
See Above

M. L. King Jr. Dr.

End Work
Sta. 105+96.32

Two 11' Traffic
Lanes

96

98

100

102

104

106

108

TWT

Two 11' Traffic
Lanes

SPEED LIMIT 35

R-10-24
Sta. 102+65, 43' Rt

Two 11' Traffic
Lanes

TLT

Begin Taper
+71

Begin Taper
+96

TDT

End Taper
+71

Match Line
Sta. 109+00
See Below

TDT

Drums Spaced
At 25'

End Taper
+96

Match Line
Sta. 109+00
See Above

For Left Lane Closure Details
See Std. Const. Dwg. MT-95.32.
The advisory speed limit shall
be 25 M.P.H.

Flashing Arrow Panel
Type A
Sta. 109+34

END CONSTRUCTION

OC-8-60
Sta. 110+96

For Legend
See Sheet No. 96

Stage 2B Construction

Maintenance of Traffic Details - Martin L. King Jr. Dr.

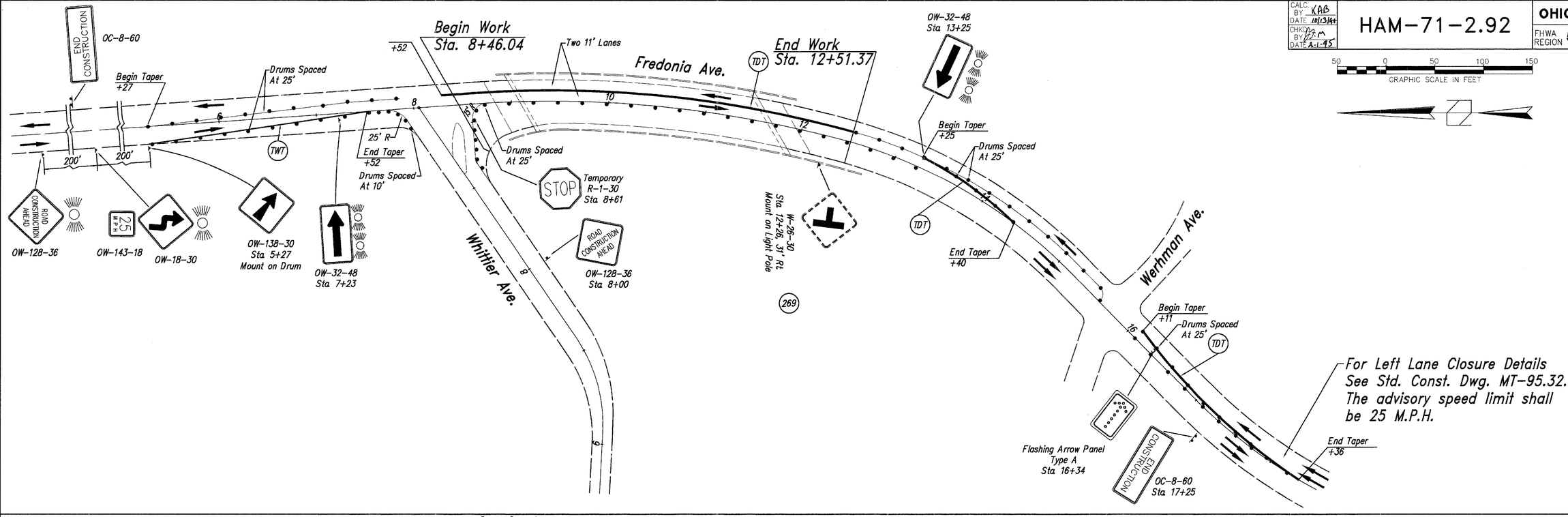
CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

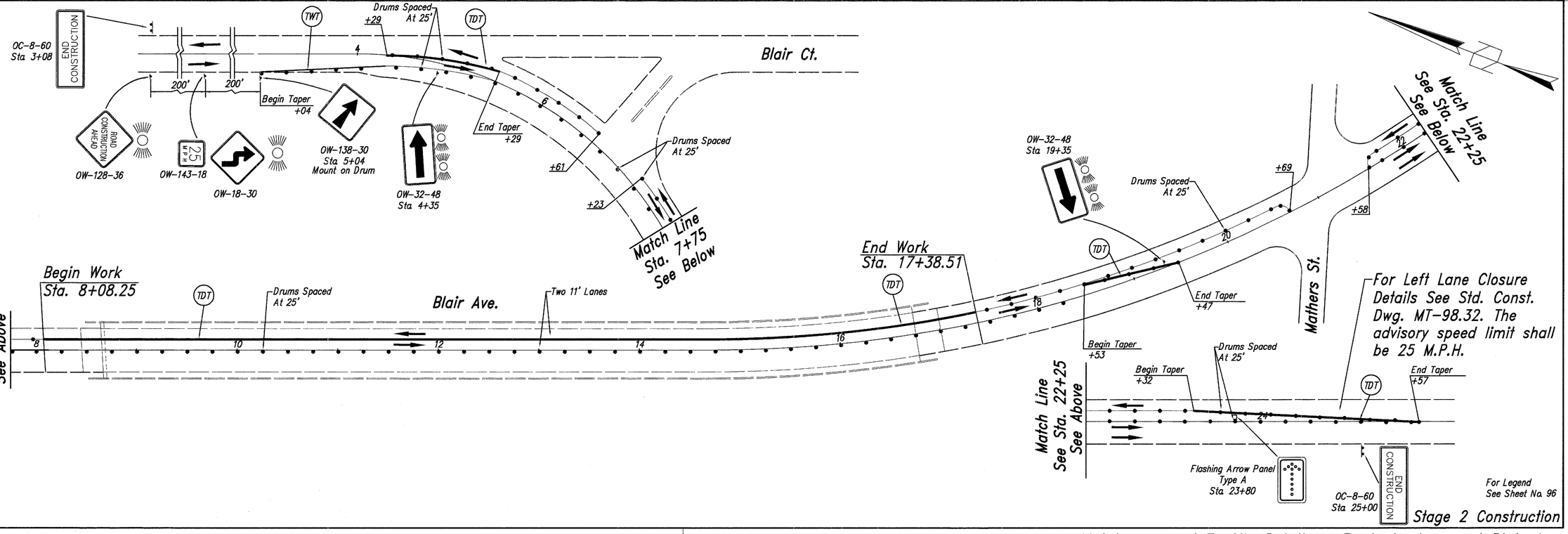
HAM-71-2.92

OHIO
FHWA REGION 5

128/615

50 0 50 100 150
GRAPHIC SCALE IN FEET





Stage 2 Construction

Maintenance of Traffic Details – Fredonia Ave. and Blair Ave.

G:\71\2-92\PRED JAN. 30, 1995 @ 10:23 pm

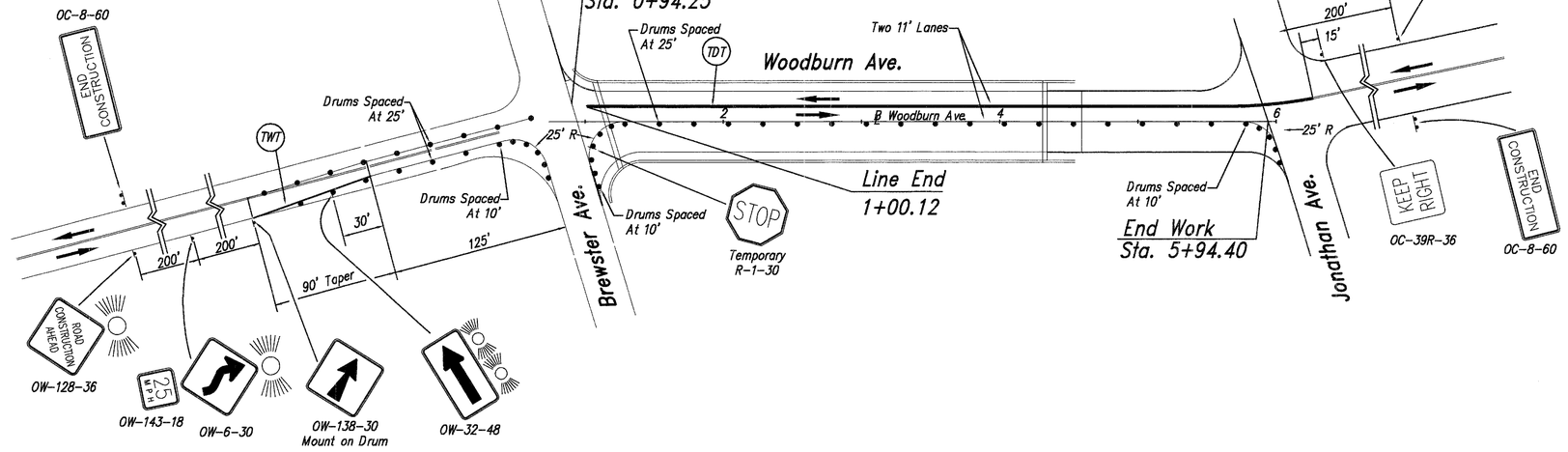
CALC. BY KAB DATE 10/31/94
CHKD BY AJM DATE 2-1-95

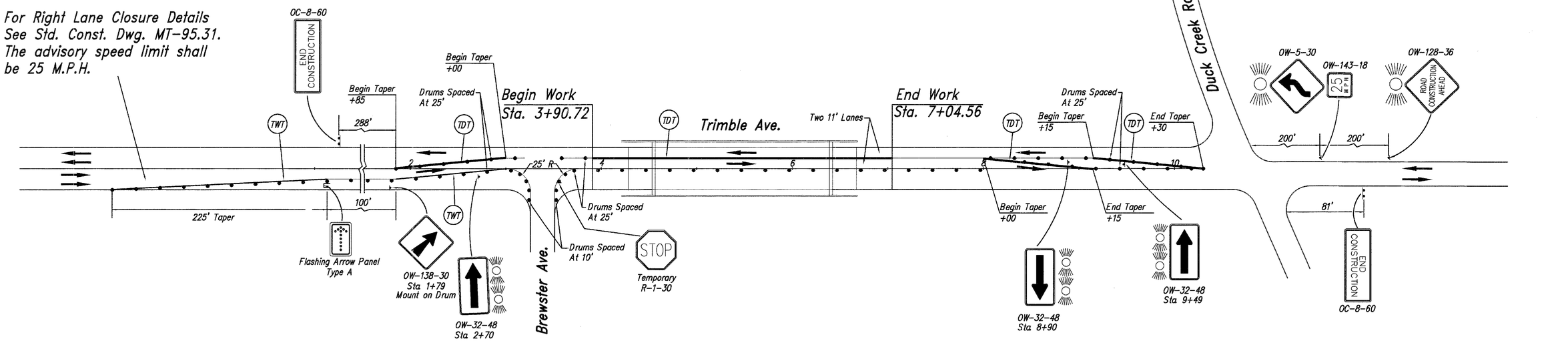
HAM-71-2.92

OHIO
FHWA REGION 5

129
615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Woodburn Ave. and Trimble Ave.

CALC. BY KAB DATE 10/13/94
CHKD. BY DJM DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

130/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

32"X33" Black on Orange Overlay From Stage 1

SOUTH 71 NORTH KEEP LEFT

R-37R-24 Sta 14+32

Sta 13+40 M-52B-120

KEEP RIGHT

Dauner Ave.

End Taper +32

Begin Taper +17

OW-32-48 Sta 14+53

OC-8-60 Sta 16+50

Begin Taper +63

END CONSTRUCTION

Drums Spaced At 25'

Flashing Arrow Panel Type A Sta 16+77

OW-138-30 Sta 14+54 Mount on Drum

Montgomery Rd.

Match Line Sta. 13+00 See Below

TWT

End Taper +28

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

R-15B-30

PEDESTRIANS AND BICYCLES PROHIBITED

R-120-24 Sta 4+12, 45' Rt Band to Overhead Sign Support

Sta 337+78ME, 5' Lt

R-15B-30

Sta 4+20, 55' Rt

See Sheet No.108 Sta. 335+00MER Match Line

Ramp ME

336ME

336MER

GH-1(III) SOUTH Louisville 71 SOUTH Louisville

Sta 4+12

GH-1(III)

Two 11' Lanes

Montgomery Rd.

Drums Spaced At 25'

+35

TDT

Jonathan Ave.

End Work Sta. 8+45

R-37R-24 Sta 9+36 RIGHT

Sta 11+29, 41' Lt

M-1-24-2 22

M-2-24-2 3

M-45-42 NORTH 71

R-41B-30 Sta 0+75 Duck Creek

DO NOT ENTER

+30

Drums Spaced At 10'

+82

25' R

R-37R-24 Sta 11+92

12+00

Match Line Sta. 11+00 See Above

R-37R-24 Sta 0+50 Duck Creek

Sta 12+16.33 Montgomery Rd = Sta 0+00 Duck Creek Rd

Match Line Sta. 12+00 See Above

Begin Work Sta. 2+04.97

End Work Sta. 1+45.42

Flashing Arrow Panel Type A Sta 2+98

OW-138-36 ROAD CONSTRUCTION AHEAD

Begin Taper +11

Drums Spaced At 25'

End Taper +91

Brewster Ave.

200'

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

For Left Lane Closure Details See Std. Const. Dwg. MT-95.32. The advisory speed limit shall be 25 M.P.H.

+97

+40

BASELINE SHIFT
Sta 3+99.99 Montgomery Rd. (Back)
Sta 4+00.00 Montgomery Rd. 4.12' LT (Ahead)

Sta 4+42, 44' Rt

M-2-24-2

M-1-24-2

Drums Spaced At 25'

Flashing Arrow Panel Type A Sta 4+65

Duck Creek Rd.

Begin Taper +25

End Taper +50

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

Begin Taper +75

Flashing Arrow Panel Type A Sta -2+34

OC-8-60 Sta -3+10

END CONSTRUCTION

End Taper +10

GH(III) SOUTH Louisville KEEP RIGHT

Sta -2+00

Clarion Ave.

Match Line Sta. 2+00 See Above

R-37R-24 Sta 0+25 RIGHT

Begin Taper +45

Drums Spaced At 25'

End Taper +50

+65

OW-32-48 Sta 0+56

For Legend See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details - Montgomery Rd.

CALC. BY KAB DATE 10/3/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

131
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 378+00DE See Sheet No.112
Match Line Sta. 381+00DB See Sheet No.111
Match Line Sta. 380+00DC See Sheet No.112
Match Line Sta. 19+00 See Below
Match Line Sta. 5+00 See Above
Match Line Sta. 16+00 See Left
Match Line Sta. 16+00 See Right

TRUCK ENTRANCE AHEAD
R-76T-30 Sta 6+75, 45' Lt
NO OUTLET
W-48-30 Sta 6+59, 63' Lt
WRONG WAY
R-41A-36 Sta 375+00DE, 31' Rt 13', LT.
R-41B-36
DO NOT ENTER
Sta 7+71, 57' Lt
End Work @ Radius Return
Floral Ave.
R-1-30 Sta 6+23, 68' Lt
STOP
Temporary R-1-30
OW-32-48 Sta 5+17
Drums Spaced At 10'
Drums Spaced At 25'
End Taper +97
Begin Work Sta. 5+97.19
PC Sta 372+75.70DE = POC Sta 7+42.77 Dana Ave.
(Open) Ramp DE
(Open) Ramp DB
Four 10' Traffic Lanes
SOUTH Louisville
GE(III) Sta 9+75
POT Sta 10+64.87 38' LT = PT Sta 385+44.59DB
Dana Ave.
OW-138-30 Sta 4+67 Mount on Drum
Sta 13+19.97 Dana Ave. = PC Sta 20+68.28 Duck Creek Road
PC Sta 375+64.51DA = POT Sta 13+26.16 Dana Ave.
Two 11' Traffic Lanes
Duck Creek Rd.
OC-8-60 Sta 0+97
END CONSTRUCTION
Begin Taper +03
Realistic Ave.
ROAD CONSTRUCTION AHEAD
OW-128-36 Sta 1+03
NORTH Columbus KEEP LEFT
GH(III) Sta 3+50
POT Sta 379+69.88DC 33.99' LT = POT Sta 379+69.88DA
MERGE
W-49R-48 WP-49-24 Sta 378+35DA, 25' Rt
R-15B-30 PEDESTRIANS AND BICYCLES PROHIBITED
Sta 376+50DA, 25' Rt
NORTH 71
M-45-42 Sta 376+15DA, 11' Lt
(Open) Ramp DA
NORTH Columbus
GE(III) TEMPORARY
Ramp DC (Closed)
Mount on Type III Barricade R-75-48 Sta 15+67
RAMP CLOSED
Sta 376+20DC, 24' Lt
R-15B-30
PEDESTRIANS AND BICYCLES PROHIBITED
Begin Work Sta. 17+54.38
Begin Work Sta. 1+06.3
Temporary R-1-30
END CONSTRUCTION
OC-8-60 Sta 14+50
GH(III) Sta 14+46
For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.
End Work Sta. 17+90.10
End Work Sta. 17+05.9, 109.3' Lt.
Grigg Ave.
OC-8-60 Sta 22+90
END CONSTRUCTION
NORTH Columbus
GE(III) Sta 18+00
2' X 3' Black On Orange Overlay
Drums Spaced At 25'
Drums Spaced At 10'
R-1-30 Sta 16+55, 73' Lt
End Taper +90
OW-138-30 Sta 21+97 Mount on Drum
13" X 3.5" Blank Orange Overlay
Columbus Louisville KEEP RIGHT
GH(III) Sta 22+80
Begin Taper +90
Flashing Arrow Panel Type A Sta 24+36
End Taper +15
R-2-36 Sta 15+73, 64' Rt
Flashing Arrow Panel Type A Sta 15+09
2' X 3' Black on Orange Overlay
NORTH Columbus
End Taper +80
GH(III) Sta 14+90
For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.
For Legend See Sheet No. 96
Stage 2A Construction

Maintenance of Traffic Details - Dana Ave.

CALC. BY KAB DATE 10/13/94
CHKD BY AJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

132/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 378+00DE See Sheet No.112
Match Line Sta. 381+00DB See Sheet No.111
Match Line Sta. 380+00DC See Sheet No.112
Match Line Sta. 19+00 See Below
Match Line Sta. 5+00 See Below
Match Line Sta. 5+00 See Above
Match Line Sta. 16+00 See Left
Match Line Sta. 16+00 See Right
Match Line Sta. 19+00 See Above

TRUCK ENTRANCE AHEAD
R-76T-30 Sta 6+75, 45' Lt
NO OUTLET
W-48-30 Sta 6+59, 63' Lt
WRONG WAY
R-41A-36 Sta 375+00DE, 31' Rt 13', LT.
R-41B-36
DO NOT ENTER
Sta 7+71, 57' Lt
End Work @ Radius Return
R-1-30 Sta 6+23, 68' Lt
STOP
Floral Ave.
(Open) Ramp DE
(Open) Ramp DB
Dana Ave.
SOUTH Columbus Louisville
GE(III) Sta 9+75
POT Sta 10+64.87 38' LT = PT Sta 385+44.59DB
End Taper +97
Drums Spaced At 25'
Begin Work Sta. 5+97.19
PC Sta 372+75.70DE = POC Sta 7+42.77 Dana Ave.
Four 10' Traffic Lanes
OW-32-48 Sta 5+12
POT Sta 379+69.88DC 33.99' LT = POT Sta 379+69.88DA
MERGE
W-49R-48 WP-49-24 Sta 378+35DA, 25' Rt
R-15B-30 PEDESTRIANS AND BICYCLES PROHIBITED
Sta 376+50DA, 25' Rt
NORTH Columbus
M-45-42 Sta 376+15DA, 11' Lt.
(Open) Ramp DA
Ramp DC (Open)
Sta 376+20DC, 24' Lt
R-15B-30 PEDESTRIANS AND BICYCLES PROHIBITED
Drums Spaced At 25'
Drums Spaced At 10'
Sta 13+19.97 Dana Ave. = PC Sta 20+68.28 Duck Creek Road
PC Sta 375+64.51DA = POT Sta 13+26.16 Dana Ave.
R-31A-36 Sta 19+65 Temporary
ONLY
OW-32-48 Sta 19+10
Drums Spaced At 25'
End Taper +40
R-1-30 Sta 16+55, 73' Lt
Columbus Louisville KEEP RIGHT
GH(III) Sta 22+80
Begin Taper +40
Flashing Arrow Panel Type A Sta 24+14
End Work Sta. 17+05.9, 109.3' Lt.
Grigg Ave.
OC-8-60 Sta 22+90
END CONSTRUCTION
Four 10' Traffic Lanes
NORTH Columbus
GE(III) Sta 18+00
End Taper +44
OC-8-60 Sta 0+97
END CONSTRUCTION
Begin Taper +38
Dana Ave.
R-75-48 Sta 18+50
ROAD CLOSED
Duck Creek Rd.
Drums Spaced At 10'
Columbus
Drums Spaced At 25'
End Work Sta. 17+90.10
Begin Taper +90
Begin Work Sta. 17+54.38
Begin Work Sta. 1+06.3
GH-1(III) Sta 13+46
OC-8-60 Sta 14+50
END CONSTRUCTION
R-2-36 Sta 15+73, 64' Rt
For Left Lane Closure Details See Std. Const. Dwg MT-95.32. The advisory speed limit shall be 25 M.P.H.
Realistic Ave.
200'
ROAD CONSTRUCTION AHEAD
OW-128-36
25 M.P.H.
OW-142-18 Sta 1+00
OW-6-36
NORTH Columbus KEEP LEFT
GH(III) Sta 3+50
OW-138-30 Sta 4+81 Mount on Drum
R-31E-48 Sta 17+00
ROAD CONSTRUCTION AHEAD
OW-128-36 Sta 16+09
NORTH Columbus
GH(III) Sta 14+90

For Legend See Sheet No. 96

Stage 2B Construction

Maintenance of Traffic Details - Dana Ave.

D:\TYLS\GRAPHICS - JAN. 30, 1995 @ 9:27 pm

CALC. BY KAB DATE 10/13/94
CHKD. BY J.M DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

133/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Sta 10+00.16 ℄ Williams Ave.
= Sta 24+05.89 ℄ Smith-Edmondson Rd.

OC-8-60
Sta 25+50
END CONSTRUCTION

M-52A-108
Sta 10+65, 44' Rt
NORTH 71 SOUTH

GH(III)
Sta 23+34

NORTH 71 SOUTH
KEEP LEFT
KEEP RIGHT

M-52B-120
Sta 28+74

Williams Ave.

Columbus NORTH

Flashing Arrow Panel
Type A
Sta 22+22

End Taper
+36

Begin Taper
+56

OW-138-30
Sta 20+60
Mount on Drum

End Taper
+56

OW-32-48
Sta 19+70

Cincinnati SOUTH

GH(III)
Sta 9+40

Cincinnati SOUTH

3' X 3.5' Black on Orange Overlay

GE(III)
Sta 19+80

Begin Taper
+31

P.I. Sta 191+65.03 ℄ Smith-Edmondson Rd.
= Sta 315+57.01A

Sta 17+00.00 ℄ Smith-Edmondson Rd.
= Sta 311+40.64AR

Garland Ave.

Sta 310+94.74 ℄ I-71
Sta 14+93.81 ℄ Smith-Edmondson Rd.

Drums Spaced
At 10'

Smith-Edmondson Rd.

Two 11' Traffic Lanes

R-121-24
Sta 13+50, 7' Lt

R-15B-30
PEDESTRIANS AND BICYCLISTS PROHIBITED
Sta 311+70A, 6' Rt

R-2-36
Sta 309+80A, 12' Rt

Drums Spaced
At 25'

Drums Spaced
At 10'

R-15B-30
PEDESTRIANS AND BICYCLES PROHIBITED
Sta 310+85AR, 11' Lt

Match Line
Sta. 309+00A
See Sheet No.114

SOUTH Cincinnati
GH(III)
Sta 16+50

Match Line
Sta. 309+50B
See Sheet No.114

R-1-30
STOP
DO NOT ENTER
R-41B-36
Sta 12+87, 42' Rt

R-1-30
STOP
Sta 17+36, 35' Rt

Atlantic Ave.

DO NOT ENTER
R-41B-36
Sta 12+65, 42' Rt

Sta 310+80B, 44' Rt
Sta 311+00B, 15' Lt

R-41B-36
DO NOT ENTER
R-43L-48
ONE WAY
R-43R-48
ONE WAY
STOP
R-1-48

Sta 12+25.00 ℄ Smith-Edmondson Rd.
= Sta 311+43.86B

GH(III)
Sta 10+00

Black on Orange Overlay

R-120-24
Sta 10+00, 28' Rt

Cincinnati SOUTH

STOP
R-1-48
Sta 11+36, 36' Rt

End Taper
+04

Match Line
Sta. 9+00
See Above

Begin Taper
+04

Drums Spaced
At 25'

Begin Work
Sta. 11+29

End Taper
+29

OW-32-48
Sta 9+77

Drums Spaced
At 10'

SPEED LIMIT 25
R-10-24
Sta 11+78, 52' Rt

For Legend
See Sheet No. 96

Stage 2 Construction

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

Match Line
Sta. 9+00
See Below

Flashing Arrow Panel
Type A
Sta 8+41

Begin Taper
+89

Drums Spaced
At 25'

GH(III)
Sta 20+67

SOUTH Cincinnati

M-45-42
Sta 21+09

Edwards Rd.

OC-8-60
Sta 6+29
END CONSTRUCTION

SOUTH 71 NORTH
KEEP LEFT
KEEP RIGHT

M-52B-120
200' South of Willard Ave.

For Left Lane Closure Details See Std. Const. Dwg. MT-95.32. The advisory speed limit shall be 25 M.P.H.

End Work
Sta. 19+07.01

Maintenance of Traffic Details - Smith-Edmondson Rd.

CALC. BY KAB DATE 10/13/94
CHKD. BY AJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

134/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

For Right Lane Closure Details See Std. Const. Dwg. MT-95.31. The advisory speed limit shall be 25 M.P.H.

OC-8-60 Sta 9+00
END CONSTRUCTION

Begin Taper +38
Drums Spaced At 25'

Sta 10+00.16 ℄ Williams Ave. = Sta 24+05.89 ℄ Smith-Edmondson Rd

561
M-2-24-3
M-19-21
Sta 13+61, 33' Lt

Drums Spaced At 25'
Begin Taper +87
TDT
End Taper +37

TWT
End Taper +88
Drums Spaced At 10'
Flashing Arrow Panel Type A Sta 24+59

Drums Spaced At 10'
OW-138-30 Sta 10+87
TWT Begin Work 12+96.95

Sta 320+31.64D Sta 14+40.00 ℄ Williams Rd.

STOP
R-1-48
DO NOT ENTER
R-41B-36
Sta 320+95D, 20' Rt.
Sta 321+15D, 52' Rt.

STOP
R-1-48
Sta 320+88D, 24' Lt

(Open) Ramp D

STOP AHEAD
W-45-48
WRONG WAY
R-41A-36
Sta 323+75D, 25' Lt
Sta 323+75D, 33' Rt.

See Sheet No.115 Sta. 324+00D Match Line

Special
Welcome to Norwood
SPEED LIMIT 25
PROTECT YOUR WORKERS
R-10-24
Sta 18+95, 37' Lt

Black on Orange Overlay
SOUTH
71
KEEP LEFT
M-45-42
Sta 15+49, 28' Lt

NORTH
561
M-37-24
M-2-24-3
Sta 18+95, 37' Lt

Columbus
NORTH
Columbus
GH-1(III)
Sta 20+31

OW-32-48
Sta 22+11

Williams Rd.
TDT
Two 11' Traffic Lanes
+35
+37
Begin Taper +87
25' R
Drums Spaced At 25'
Drums Spaced At 10'
Match Line Sta. 23+00 See Below

Drums Spaced At 25'
Sta 321+59.18 ℄ I-71
Sta 17+12.74 ℄ Williams Rd.

End Work 19+18.53

561
M-2-24-3
M-19-21
Sta 18+67, 31' Rt.

Edwards Rd.

Columbus
NORTH
KEEP LEFT
GH-1(III)
Sta 15+35
NEXT LEFT
13' X 3.5' Black on Orange Overlay

Match Line See Above Sta. 23+00
Begin Taper +37
TDT
End Taper +87
Drums Spaced At 25'
End Taper +37
Flashing Arrow Panel Type A Sta 23+73

CONSTRUCTION END
OC-8-60 Sta 26+00

For Left Lane Closure Details See Std. Const. Dwg. MT-95.32 The advisory speed limit shall be 25 M.P.H.

Smith-Edmondson Rd.

For Legend See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Williams Rd.

G:\TYLER\WILLIAM - JAN. 30, 1995 @ 9:23 pm

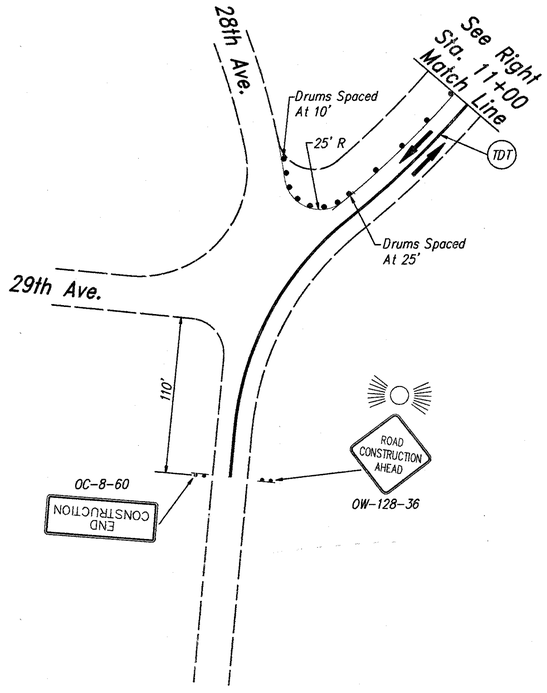
CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

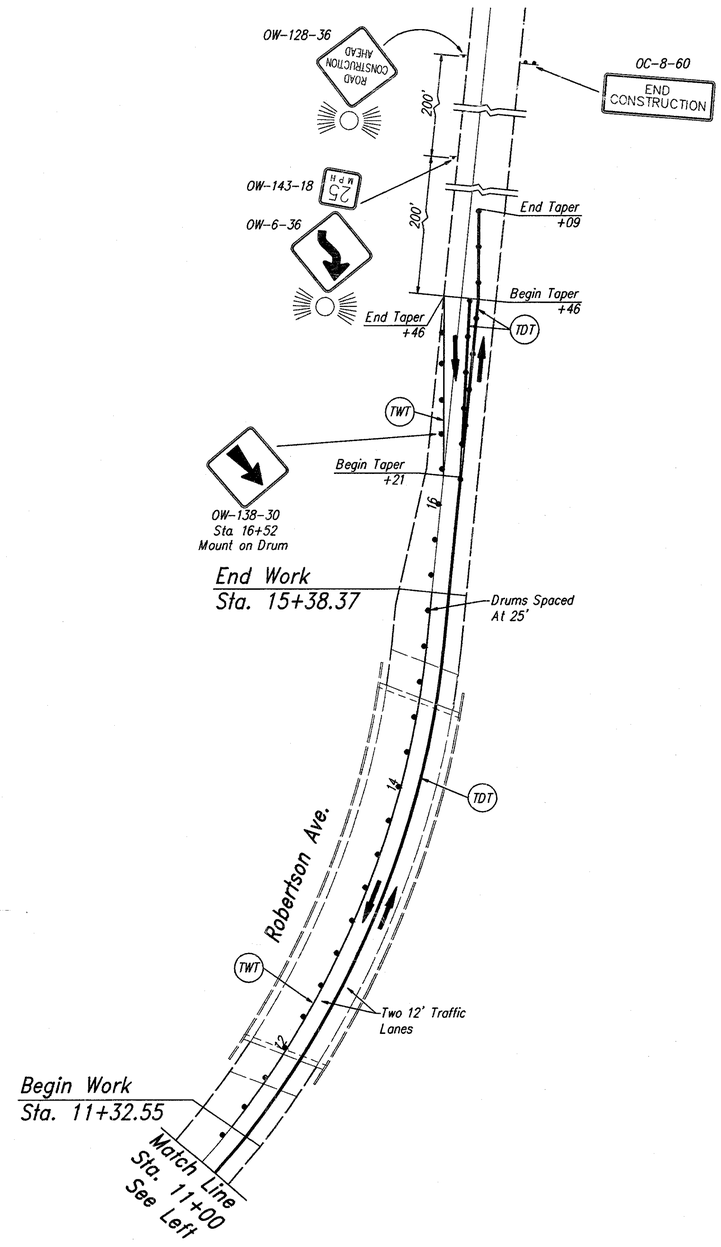
HAM-71-2.92

OHIO
FHWA REGION 5

135
615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend
See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Robertson Ave.

CALC BY LAB DATE 10/13/94
CHKD BY JJM DATE 2/17/95

HAM-71-2.92

OHIO
FHWA REGION 5

136/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

RESUME LEGAL SPEED R-8A-48 Sta 150+75NL

END CONSTRUCTION OC-8-60 Sta 153+00NL

Begin Project Sta. 159+00NL

Match Line Sta. 161+00NL See Below

Begin Taper Sta 149+10

Flashing Arrow Panel Type C Sta 149+50

660' Taper

Drums Spaced At 25'

End Taper Sta. 155+70

330'

100'

Drums Spaced At 50'

PC Sta 3+79.31E = Sta 160+44.56NL 44' RT

R-10-48 Sta 159+00NL

SPEED LIMIT 45

For Left Lane Closure Details See Std. Const. Dwg. MT-95.30

Cincinnati SOUTH GE(I) Sta. 154+60NL

Cincinnati SOUTH GE(I)

EXIT ONLY Ridge Ave GB(I) Sta 145+50NL

12.5' x 1.5' Black Orange Overlay

9' X 3.5' Black on Orange Overlay

Columbus Cincinnati SOUTH GB(I)

4.5' X 1' Black On Orange Overlay

22 3 561 Norwood Montgomery Rd EXIT ½ MILE GB(I) Sta. 6+75L Existing support to be reused in place

562 M-2-36-3 Sta 8+50L, 38' Lt

STATION EQUATION Sta 162+46.81 Norwood Lateral = PC Sta 5+70.64L 8' LT (AH)

Drums Spaced At 50'

STATION EQUATION Sta 162+46.81 Norwood Lateral = Sta 5+81.56K 8' RT (BK)

Sta 8+95K 24' RT = Sta 8+95J

Drums Spaced At 10'

Drums Spaced At 25'

Drums Spaced At 25'

Ramp E (Open)

Ramp J (Closed)

Ramp K (Open)

(Open) Ramp I

For Entrance Ramp Area Details See Std. Const. Dwg. MT-98.15

R-2-60 Sta 11+95L Temporary

Cincinnati CORP LIMIT GN(III) 108" X 42" Sta 14+23K, 32' Rt

Norwood CORP LIMIT GN(III) 96" X 42" Sta 14+50L, 44' Lt

Cover or Remove

W-50L-48 Sta 1+95L, 27' Rt

Sta 0+00I = Sta 16+48.88L

Match Line Sta. 2+62I See Sheet No.137

Match Line Sta. 19+00L See Sheet No.119

Match Line Sta. 17+00J See Sheet No.119

Match Line Sta. 12+00E See Sheet No.118

Sta 12+00K

EXIT ONLY Ridge Ave GB(I) Sta 161+95NL

Columbus NORTH GB(I)

Cincinnati SOUTH GE(I)

From Stage 1 6.5' X 3.5' Black on Orange Overlay

RAMP CLOSED

11' X 3.5' Black on Orange Overlay

From Stage 1 6.5' X 3.5' Black on Orange Overlay

RAMP CLOSED

R-75-48 Mounted On Type III Barricade

RAMP CLOSED

W-98-48 Sta 6+99E, 14' Rt

RAMP 25 MPH

Sta 13+98J, 8' Lt Mounted on railroad overpass

NORTH M-37-36 M-5-36-2 M-26-30

OW-128-36 Sta 16+23L

For Legend See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Norwood Lateral

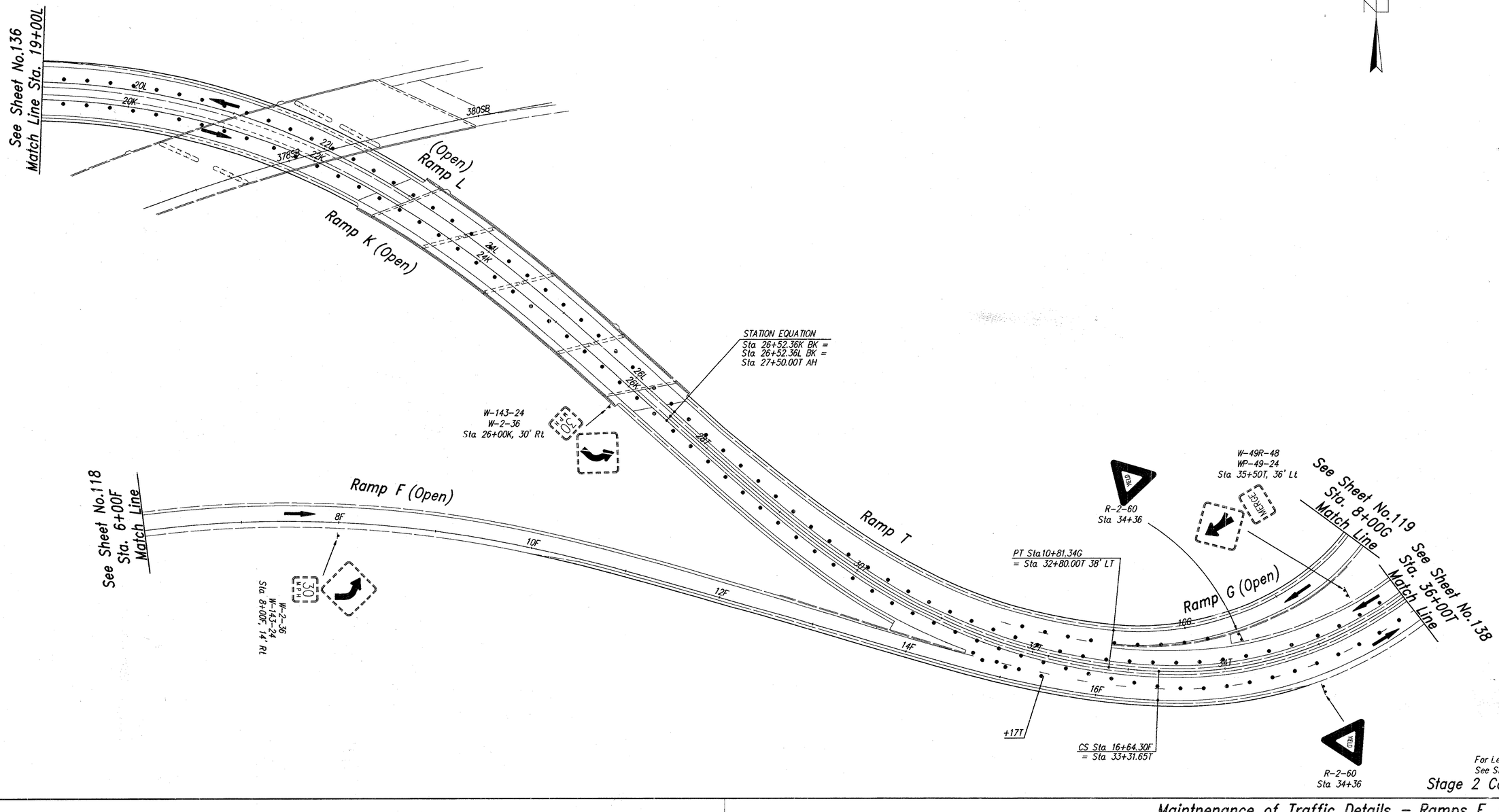
CALC. BY KAB DATE 10/13/94
CHKD. BY GM DATE 2-1-95

HAM--71--2.92

OHIO
FHWA REGION 5

137/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 96

Stage 2 Construction

Maintnenance of Traffic Details – Ramps F, G, K, L, T

CALC. BY KAB
DATE 10/13/94
CHKD. BY [illegible]
DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

138
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No.119
Sta. 2+00H
Match Line

Ramp H (Closed)

4H
6H
8H
10H
12H
14H
16H

PC Sta 6+28.71H
= PC Sta 6+28.71H 6' LT

W-49R-48
WP-49-24
Sta 44+57T, 29' Lt

R-2-60
Sta 12+50H, 33' Rt

PC Sta 0+00M
= Sta 12+39.40H 18' LT

W-49R-48
WP-49-24
Sta 14+00H, 25' Rt

Ramp M (Closed)

2M
4H1

RAMP CLOSED
R-2-60
Mounted on
Type III Barricade

From Stage 1
6.5' X 3.5' Blank
Orange Overlay

RAMP CLOSED

SOUTH Cumberland
GE(III)

WEST Norwood
GE(III)

Sta 15+65H +46

Drums Spaced
At 10'

Match Line
Sta. 4+00M
See Sheet No.139

Match Line
Sta. 6+00H1
See Sheet No.139

Match Line
Sta. 48+75T
See Sheet No.139

Ramp H1 (Open)

Sta 0+00H1
= Sta 42+96.79T

2H1
44T
46T
48T

PC Sta 0+00U
= Sta 43+00T 30' LT

Ramp T (Open)

38T
40T
42T

Match Line
Sta. 36+00T
See Sheet No.137

Ramp U (Open)

2U
4U

Marburg Ave
Ridge Ave

D-4B-120
Sta 44+00T, 52' Rt

Sta 2+00U, 14' Rt

W-97-48
25 MPH
EXIT
ONLY
WRONG WAY
R-41A-36

WRONG WAY
R-41A-36
Sta 2+70U, 30' Lt

DO NOT ENTER
R-41B-36
Sta 4+00U, 14' Rt

DO NOT ENTER
R-41B-36
Sta 4+00U, 30' Lt

SIGNAL AHEAD
W-47-48
WP-47-24
Sta 46+15T, ℄

WRONG WAY
R-41A-36
Sta 47+80T, 57' Rt

ONLY
R-26A-36

ONLY
R-26A-36

ONLY
R-27A-36
Sta 48+50T
Existing support to be
reused in place

End Work
Sta. 4+07.05U

For Legend
See Sheet No.96

Stage 2 Construction

Maintenance of Traffic Details - Ramps H, H1, M, T, U

CALC. BY KAB DATE 10/15/96
CHKD. BY D.M DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

139/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

See Sheet No.138 Match Line Sta. 48+75T
See Sheet No.138 Match Line Sta. 6+00H1
See Sheet No.138 Match Line Sta. 4+00M

(Open) Ramp T
Ramp M (Closed)
Ramp H (Closed)
Ramp N (Open)

R-2-36 Sta 50+47T, 121' Rt
OC-8-60 Sta 18+50
END CONSTRUCTION
PEDESTRIANS AND BICYCLES PROHIBITED
R-15B-30 Sta 1+16T1, 6' Lt
End Work Sta 1+38.50T2
End Work Sta 50+99.30T
End Work Sta 1+21.67T1
End Work Sta 6+48.55M
RAMP CLOSED
R-75-48 Mounted on Type III Barricade
R-121-36 Sta 23+55, 30' Lt
ROAD CONSTRUCTION AHEAD
OW-128-36 Sta 21+00
562 WEST Norwood SECOND RIGHT GE(III) Sta 21+45, 35' Lt
ONE WAY R-44L-24
DO NOT ENTER R-41B-36
ONE WAY R-44R-24
Sta 51+23.83T = Sta 21+12.36 Ridge Ave.
R-121-36 Sta 21+59, 31' Lt
Sta 21+10, 26' Lt
RAMP CLOSED
R-75-48 Mounted on Type III Barricade
Sta 25+00H = Sta 25+00 Barrow Ave. 4' RT
End Work Sta 24+07.41H
NORTH Columbus
SOUTH Cincinnati
WEST Norwood
6.5' X 2' Orange Overlay From Stage 1
8' X 1' Orange Overlay From Stage 1
GE(III) Sta 43+16 Ridge Ave.
NORTH Columbus GE(III) Sta 22+08
OW-143-18
DETOUR AHEAD
OW-127-36 Sta 23+00
PT Sta 7+11.85M 34' LT = Sta 24+30.16 Ridge Ave.
Begin Taper +50
End Taper +00
OW-138-30 Sta 25+63 Mount on Drum
W-45A-48 Sta 10+44N
W-45A-48 Sta 10+44N
Sta. 8+00N Match Line See Sheet No.121

6.5' X 3.5' Black on Orange Overlay From Stage 1
RAMP CLOSED
SOUTH Cincinnati GH(III) Sta 33+90
SOUTH Cincinnati GE(III) Sta 25+80
NORTH Columbus GH(III) Sta 40+00
Match Line Sta. 38+00 See Below
Ridge Ave.
Highland Ave.
Sta 41+05.14 Ridge Ave. = Sta 34+82.23 Highland Ave. Ext.
M-45-42
NORTH Sta 36+50
End Work Sta. 31+90.79
Begin Work Sta. 28+2.74
Drums Spaced At 10'
Two 11' Traffic Lanes
Drums Spaced At 25'
Sta 404+81.00 Q (Projected Back) Sta 29+96.64 Ridge Ave.
Begin Taper +78
GB(III) Sta 37+75
From Stage 1 6.5' X 1' Orange Overlay
8' X 1' Orange Overlay From Stage 1
6.5' X 2' Orange Overlay From Stage 1
3' X 3.5' Black on Orange Overlay From Stage 1
SOUTH Cincinnati WEST Norwood KEEP RIGHT
Match Line Sta. 33+00 See Below
End Work Sta 13+79.31N
STOP R-1-36 Temporary Sta. 27+88
OW-32-48 Sta 26+50
WRONG WAY R-41A-36 Sta 12+00N, 29' Lt Sta 12+00N, 14' Rt
OW-32-48 Sta 33+85
Flashing Arrow Panel Type A Sta 35+02
Begin Taper +28
End Taper +28
Drums Spaced At 25'
End Taper +53
END CONSTRUCTION OC-8-60 Sta 36+53
Match Line Sta. 38+00 See Above
For Left Lane Closure Details See Std. Const. Dwg. MT-95.32. The advisory speed limit shall be 25 M.P.H.

For Legend See Sheet No. 96

Stage 2 Construction

Maintenance of Traffic Details – Ridge Ave.

D:\71\2-80\3D001 - JAN. 30, 1995 @ 9:24 pm

CALC. BY KAB DATE 10/13/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

140/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

End Work
Sta. 10+14.50R

POC Sta 43+03.07 Highland Ave Ext.
= Sta 10+39.41R

R-43L-48
R-1-48
R-41B-36
R-43R-48
Sta 10+08R, 23' Lt

WRONG WAY
R-41A-36
Sta 7+64R, 30' Lt
Sta 7+64R, 22' Rt

+78
+75
+40
10R
8R
ST
R-41B-36
R-1-48
Sta 10+08R, 47' Rt

Kennedy Ave
Ridge Ave
D-4B-156
Sta 43+00, 36' Lt

(Open) Ramp R
Sta. 6+00R
See Sheet No.121
Match Line

Kennedy Ave
Ridge Ave
D-4B-156
Sta 6+50R, 19' Rt

GH(III)
Sta 45+00
KEEP RIGHT
Columbus
NORTH

SOUTH
71
M-45-42
Sta 46+00, 38' Lt

Highland Ave.

OW-5-36
OW-143-18
25 M.P.H.
OW-128-36
ROAD CONSTRUCTION AHEAD

Drums Spaced At 25'
End Taper +41
326'
200'
Match Line
Sta. 23+15
See Below
TDT
OW-138-36
Sta 23+41
Mount on Drum
END CONSTRUCTION
OC-8-60

OW-128-36
Sta 47+64
ROAD CONSTRUCTION AHEAD

END CONSTRUCTION
OC-8-60
Sta 47+64

GH(III)
Sta 25+00
SOUTH
Cincinnati

GH(III)
Columbus
NORTH

GH(III)
Columbus
Cincinnati

Sta 80+65

YIELD
R-2-60
Sta 1+75P1, 7' Rt

PROHIBITED PEDESTRIANS BICYCLES MOTOR SCOOTERS AND MOTOR DRIVEN CYCLES
R-15D-30
Sta 2+50P, 14' Rt

Begin Work
Sta. 2+04.95P

NORTH
Columbus
GH-1(III)
Sta 14+00

IM-8-24
TO
NORTH
IM-37-24
MARION
M-5-24-2
71
IM-26-21
Sta 23+50, 89' Lt

Duck Creek Rd.

OC-8-60
Sta 11+50
END CONSTRUCTION

TS Sta 0+00P
= Sta 15+87.85 Kennedy Ave.

Begin Work
Sta. 18+73.59

Begin Taper +11
End Taper +61
Begin Taper +61
End Taper +11
@ Ramp P1
Kennedy Ave.
Two 11' Traffic Lanes
+95
Drums Spaced At 10'
25' R
Begin Taper +71
Match Line
Sta. 23+15
See Above

Begin Work
Sta. 0+36.00P1

Sta 0+00P1
= Sta 12+00 Kennedy Ave.

GH-1(III)
Sta 12+30
Columbus
NORTH

Flashing Arrow Panel
Type A
Sta 14+67

TWT
OW-138-30
Sta 16+59
Mount on Drum

Drums Spaced At 25'
NEXT
GH(III)
Sta 18+00
KEEP LEFT
Cincinnati
SOUTH

Sta 21+18.62 ℄ Kennedy Ave.
= Sta 417+85.42 ℄ I-71

STOP AHEAD
W-45A-36
Sta 19+21, 18' Rt

End Work
Sta. 23+48.39

STOP
Temporary
R-1-30
Sta 23+95

Sta 24+26.61 ℄ Kennedy Ave.
= Sta 50+00.00 ℄ Highland Ave.

STOP
Temporary
R-1-30
Sta 50+03

GH(III)
Sta 0+35
16' Rt

For Legend
See Sheet No. 96

For Right Lane Closure Details
See Std. Const. Dwg. MT-95.31.
The advisory speed limit shall be 25 M.P.H.

Stage 2 Construction

Maintenance of Traffic Details - Kennedy Ave.

D:\7113.02\MDENSEY - JAN. 30, 1995 @ 11:05 pm

CALC. BY KAB DATE 10/3/94	HAM-75	OHIO
CHKD. BY DM DATE 2/1/95		FHWA REGION 5

141
615

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

EXIT 6
Mitchell Ave
St. Bernard
1/4 MILE
17'x8'

EXIT 6
Mitchell Ave.
St. Bernard
NBT RIGHT
17'x8'

Ex. Clearance 17.10'
Prop. Clearance 16.68'

6'x2' GED-72

Level 1
68

RIDE SHARE
NBD AHD
241-RIDE

Remove And Reorient
220+00

217+00

217+05

R/W

MILE 7 N-41

222+78

Abandoned

220 221 222 223 224 225 226 227

12"

36'

10'

Paved Gutter

15"

Concrete Barrier

218 219

217

10'

8'

MATCHLINE STATION 228+00
SEE SHEET NO. 142

25'

Post Spacing
3-1 1/2"

CURVE DATA
P.I. Sta. 226+12.63
Δ = 41° 15' 21"
D = 2° 30'
Ts = 1013.31'
Rc = 2291.83'
Lc = 1350.23'
θs = 3° 45'
Ls = 300'
S.E. = 0.042 '/'

NORTH
I-75 NB
MM 33.98
75
M 5.68

EXIT 7
NORWOOD
1 MILE
13'x9.5'
68 - Level 1

EXIT 7
NORWOOD
1 MILE

SOUTH

5.5"X 1.5" BLACK ON ORANGE OVERLAY

6'x2' GED-72

Ex. Clearance 19.27'
Prop. Clearance 20.10'

I-75 Maintenance of Traffic Plan

STA. 215+00 TO STA. 228+00

OHIO
FHWA REGION 5
HAM-75

CALC. JCB DATE 9-13-94
CHKD. [illegible] BY DATE 2/1/95

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

I-75 Maintenance of Traffic Plan

STA. 228+00 TO STA. 240+00

MATCHLINE STATION 240+00
SEE SHEET NO. 143

MATCHLINE STATION 228+00
SEE SHEET NO. 141

Pedestrian Tunnel

R/W

Abandoned 12"

239 238 237 236 235 234 233 232 231 230 229

12"

36' 10 36' 10

235+00

MINIMUM 40

232+00

230+00

R-78-48

SPEED LIMIT 55 MINIMUM 40

SPEED LIMIT 55 TRUCK 50

Exist. Sign

Level 1
GB
6'x2'
EXIT 6
GEP-72
Cincinnati Zoo
Xavier Univ.
NEXT RIGHT
16'x6.5'

Level 1
EXIT 6
Cincinnati Zoo
Xavier Univ.
NEXT RIGHT
16'x6.5'

* Ex. Clearance 1796'
Prop Clearance 1754'

Level 4
GB
8'x3'
EXIT 6
V.A Facility

EXIT 6
V.A Facility

CALC. BY KAB DATE 10/3/94	HAM-75	OHIO
CHKD BY J.M. DATE 10/11/94		FHWA REGION 5

143
615

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

SEE SHEET NO. 142
MATCHLINE STATION 240+00

MATCHLINE STATION 252+00
SEE SHEET NO. 144

R/W

R-78-48
SPEED LIMIT 55 MINIMUM 40

243+00

Abandoned

12" 241 242 243 12" Abandoned 244 245 246 247 248 249 250 251 12"

36' 10 36' 10

Begin Approach Slab
Sta. 246+51.96

Exist. Sign

Bridge Terminal Assembly, Type 2

Exist. Barrier

Exist. Wall

End Approach Slab
Sta. 248+60.23

Abandoned

12" 12" 15

Bridge Terminal Assembly, Type 1

Bridge Terminal Assembly, Type 2

R/W

VINE ST.

Bridge No. HAM-75-0739

246+50

248+10

249+25

Level 1
GB

EXIT 6
Mitchell Ave
St Bernard
3/4 MILE
17'x8'

6'x2'
SEP-72

* Ex. Clearance 17.87'
Post Clearance 17.45'

EXIT 7
(71) (562)
Norwood
NEXT RIGHT
15'x10.5'

(562) TO (71)
Norwood
1/4 MILE
13'x9.5'
GB
Level 1

SOUTH
3.5' X 1.5' BLACK ON ORANGE OVERLAY

6'x2'
SEP-72

* Ex. Clearance 17.72'
Post Clearance 18.22'

EXIT 7
Cinti Gardens
NEXT RIGHT
15'x9.5'

EXIT 7
Cinti Gardens
NEXT RIGHT
15'x9.5'
GB
Level 1

6'x2'
SEP-72

* Ex. Clearance 17.55'
Post Clearance 17.13'

CURVE DATA
P.I. Sta. 243+09.31
Δ = 19° 56' 42"
D = 2° 30'
Ts = 553.24'
Es = 36.81'
Rc = 2291.83'
Lc = 497.80'
Θs = 3° 45'
Ls = 300'
S.E. = 0.042 '/'

700+00

I-75 Maintenance of Traffic Plan

STA. 240+00 TO STA. 252+00

CALC. BY KAB DATE 10/13/94	HAM-75	OHIO FHWA REGION 5	144 615
CHK'D BY DM DATE 2/1/95			

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

SEE SHEET NO. 143
MATCHLINE STATION 252+00

SOUTH 75 IM-33-36 M-5-36-2

253+00

CURVE DATA
P.I. Sta. 257+62.14
Δ = 40° 32' 29"
D = 4° 00'
Ts = 781.45'
Es = 102.31'
Rc = 1432.39'
Lc = 513.53'
θs = 10° 00'
Ls = 500'
S.E. = 0.066 '/'

Type T Anchor Assembly

R/W

Abandoned

LEVEL I
Black on Orange
11.5' x 15'

Approx Sta. 254+00, 63' Rt.
Locate To Avoid Conflict
With Existing Features

TO 71 NORTH
RAMP CLOSED
562 TO 71 NORTH

LEVEL I
Black on Orange
10.5' x 16'

Approx Sta. 258+00, 63' Rt.
Locate To Avoid Conflict
With Existing Features

TO 71 NORTH
FOLLOW
NORTH TO 75 EAST

Sta. 229+94.22 Back =
Sta. 257+31.78 Ahead

40' Barrier Transition

40' Barrier Transition

261+45

25' Type E Anchor Assembly

Tower St
Elmwood Place
3/4 MILE
19'x8'

EXIT 8

EXIT 7

562 TO 71

SOUTH

55'X 1.5' BLACK ON ORANGE OVERLAY

* Ex. Prop. 12.32' 12.92'

LEVEL 1

6'x2' SEP. 72

I-75 Maintenance of Traffic Plan

STA. 252+00 TO STA. 262+00

CALC BY KAB
DATE 10/13/95
CHKD BY [illegible]
DATE 2/1/95

HAM-75

OHIO
FHWA REGION 5

145
615

THE CALC. BY AND CHECKED BY APPLY ONLY TO THE SIGN OVERLAYS.

LAIDLAW AVE.

R/W

Bridge Terminal Assembly, Type 1

25' Type E Anchor Assembly

Begin Approach Slab Sta. 288+35.70

End Approach Slab Sta. 290+14.78

Abandoned

Paved Gutter

8'

10'

36'

48'

10'-2"

9'-5"

Wall

Post Spacing 3'-1 1/2"

Bridge Terminal Assembly, Type 2

Bridge No. HAM-75-0823

N. & W. RR. CO.

Bridge Terminal Assembly, Type 1

25' Type E Anchor Assembly

LEVEL I Black on Orange 11.5' x 15'

NORTH TO RAMP CLOSED

Approx Sta. 297+00, 75' Lt.

Locate To Avoid Conflict With Existing Features

Increase Beam Spacing To Avoid Conflict With Ditch

EXIT 7 Norwood Next Right 13'x10'6"

EXIT 7 Norwood 1/4 MILE 13'x10'6"

6'x2' GEP-72

Level 1 GB

* Ex. Clearance 21.92' Pedl. Clearance 21.50'

295.00

EXIT 8 Towne St. Elmwood Place Next Right 19'x8'

EXIT 8 Towne St Elmwood Place 1/4 MILE

19'8"

6'x2' GEP-72

* Ex. Clearance 15.20' Ped Clearance 14.78'

287 288 289 290 291 292 293 294 295 296 297

I-75 Maintenance of Traffic Plan

STA. 286+00 TO STA. 298+00

CALC. BY KAB
DATE 10/13/95
CHKD. BY [illegible]
DATE 10/19/95

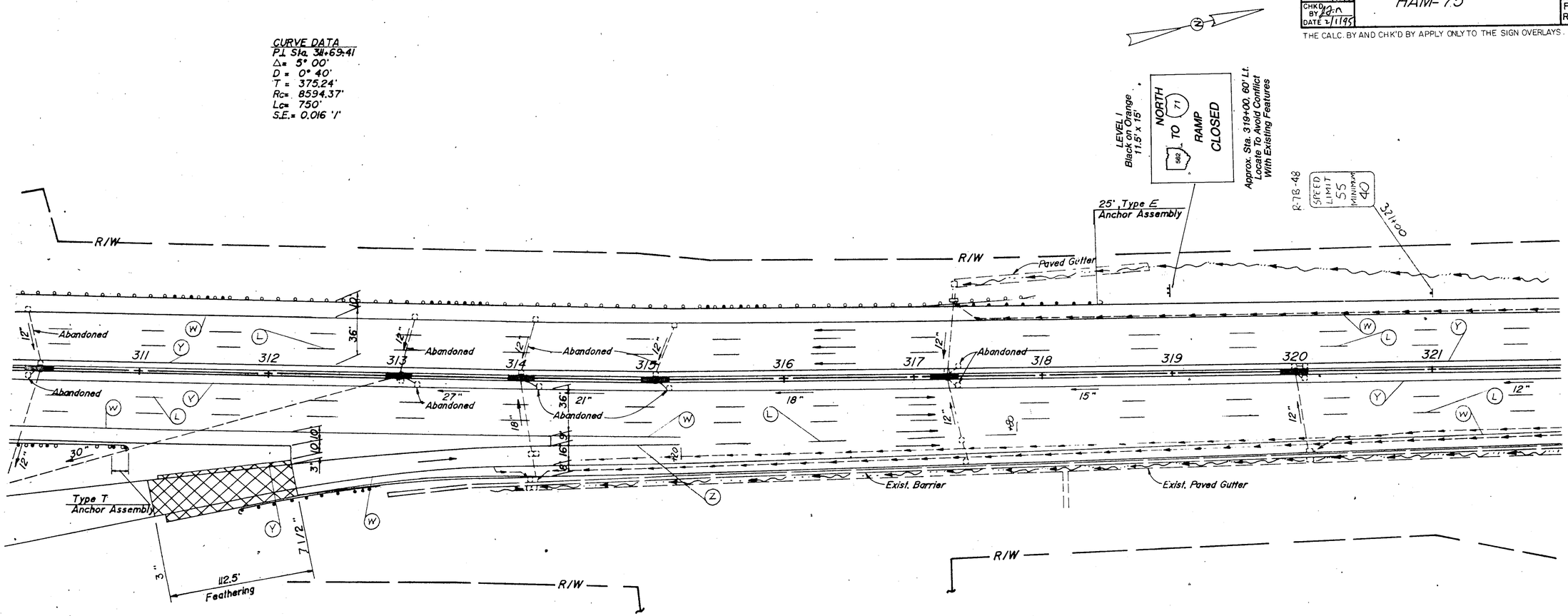
HAM-75

OHIO
FHWA REGION 5

146
615

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

CURVE DATA
P.I. Sta. 314+69.41
△= 5° 00'
D = 0° 40'
T = 375.24'
Rc= 8594.37'
Lc= 750'
S.E.= 0.016 'I'



I–75 Maintenance of Traffic Plan

STA. 310+00 TO STA. 322+00

CALC. BY KAB	HAMILTON COUNTY HAM-562	OHIO	147
DATE 10/13/94		FHWA REGION 5	615
CHKD. BY RJM			
DATE 4/11/95			

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

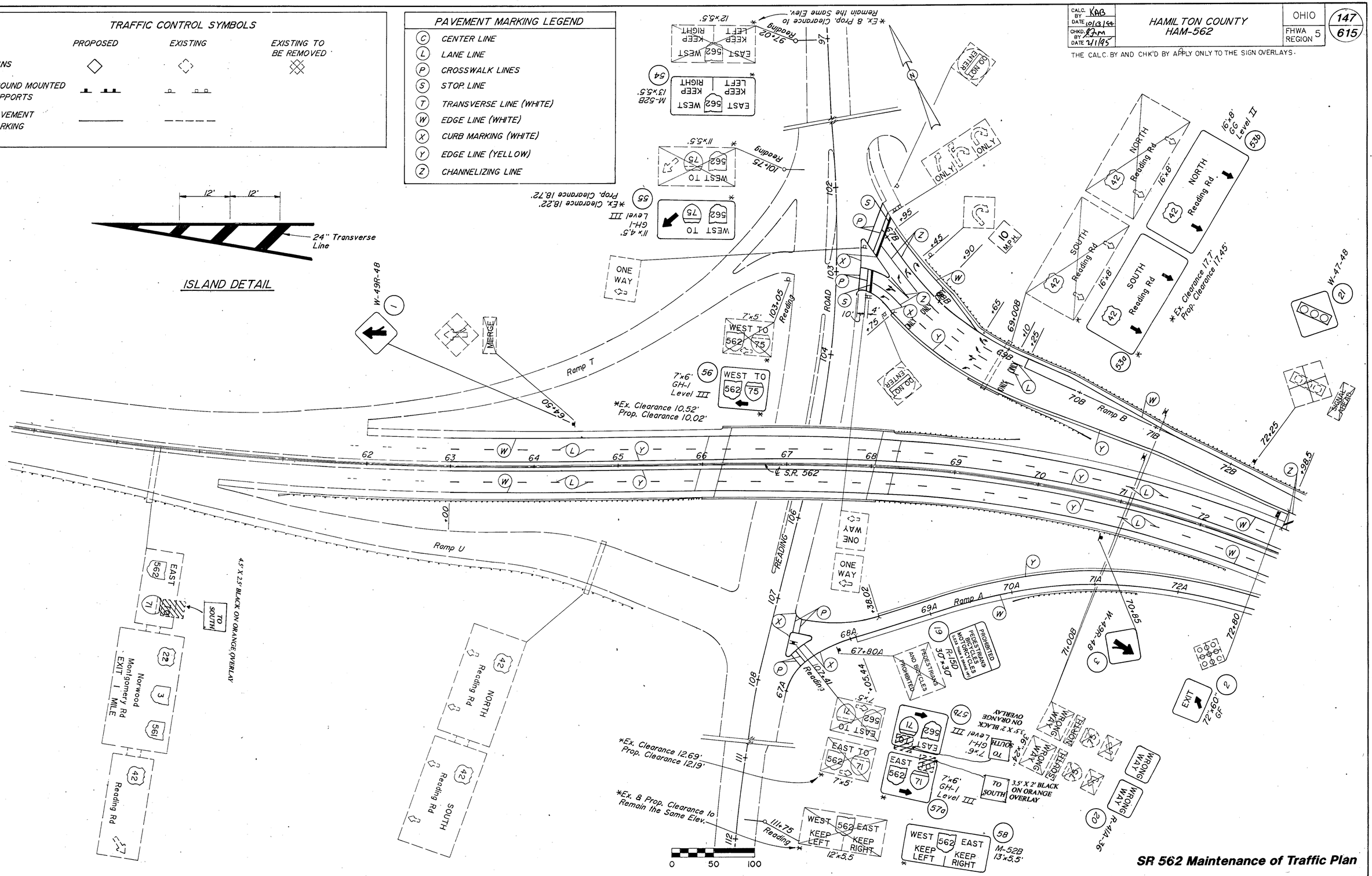
TRAFFIC CONTROL SYMBOLS

	PROPOSED	EXISTING	EXISTING TO BE REMOVED
SIGNS	◇	◇	◇
GROUND MOUNTED SUPPORTS	▮ ▮	▯ ▯	
PAVEMENT MARKING	———	- - - -	

PAVEMENT MARKING LEGEND

- (C) CENTER LINE
- (L) LANE LINE
- (P) CROSSWALK LINES
- (S) STOP LINE
- (T) TRANSVERSE LINE (WHITE)
- (W) EDGE LINE (WHITE)
- (X) CURB MARKING (WHITE)
- (Y) EDGE LINE (YELLOW)
- (Z) CHANNELIZING LINE

ISLAND DETAIL



SR 562 Maintenance of Traffic Plan

STA. 62+00 TO 73+00

CALC. BY KAB DATE 10/13/94
CHKD. BY JJM DATE 2/1/95

HAMILTON COUNTY
HAM-562

OHIO
FHWA REGION 5

148
615

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

CARTHAGE AVE.

ROAD

NORWOOD AVE.

MONTGOMERY

SMITH RD.

Montgomery

W-49R-48

W-45A-48

* Ex. & Prop. Clearance to Remain the Same Elev.

* Ex. Clearance 17.62'
Prop. Clearance 17.37'

* Ex. Clearance 17.84'
Prop. Clearance 18.34'

9'X1' BLANK OVERLAY
* Ex. Clearance 17.74'
Prop. Clearance 17.24'

3.5' X 2' BLACK ON ORANGE OVERLAY

4.5' X 1.5' BLACK ON ORANGE OVERLAY

3.5' X 2' BLACK ON ORANGE OVERLAY

MERGING TRAFFIC

PROHIBITED
PEDESTRIANS
BICYCLES
MOTORCYCLES
EXCEPT TRACTOR MOWERS

PEDESTRIANS AND BICYCLES PROHIBITED

EMERGENCY CROSSOVER

MATCHLINE STA. 118+00
SEE SHEET NO. 149

MONTGOMERY ROAD STRIPING

0 50 100

SR 562 Maintenance of Traffic Plan

STA. 103+00 TO 118+00

CALC. BY	KAB
DATE	10/13/94
CHKD. BY	[illegible]
DATE	2/1/95

HAMILTON COUNTY
HAM-562

OHIO
FHWA REGION 5

149
615

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.

SEE SHEET NO. 148
MATCHLINE STA. 118+00

MATCHLINE STA. 133+00
SEE SHEET NO. 150

NORWOOD AVENUE
WESLEY AVE.
ASH STREET
HARRIS AVE.
MONTGOMERY RD.
NORWOOD
S.R. 562
Ramp C
Ramp D
Ramp E
Ramp F
0+03 Norwood
27+70 Norwood
11+24 Wesley
10+78 Wesley
8+55
129+38F
129+82F
130+00F
129+25D
129+50
129+00
124+05E
119+50C
120+50C
122C
124+50
129+490
132+00
+40
+80
+03
+93
+22
+05
+82
+98
+41
+20
+60
+57.50

63b 9'x6' GH Level III
71 562 EAST TO
71 562 9'x7'
63a 9'x6' GH Level III
562 71 EAST TO
562 71 9'x7'
62b 9'x6' GH Level III
562 75 WEST TO
562 75 WEST TO
562 75 9'x5.5'
562 75 WEST TO
562 75 9'x5.5'

* Ex. Clearance 17.11'
Prop. Clearance 17.61'
* Ex. Clearance 17.15'
Prop. Clearance 16.90'

3.5' X 2' BLACK ON ORANGE OVERLAY
TO SOUTH
TO SOUTH

R-37R-48 KEEP RIGHT (33)
KEEP RIGHT
R-41B-36 DO NOT ENTER STOP R-1-48 (35)
R-43L-48 ONE WAY
R-43R-48 ONE WAY
R-41A-36 WRONG WAY (38)
R-41A-36 WRONG WAY (40)
R-1-48 STOP (36)
W-32-96 (37)
W-49R-48 (15)
W-49R-48 (16)
MERGING TRAFFIC
PEDESTRIANS BICYCLES MOTORCYCLES (LESS THAN 4 WHEELS) PROHIBITED
PEDESTRIANS AND BICYCLES PROHIBITED
30"x30" R-15D
FOOTBRIDGE PEDESTRIANS AND BICYCLES PROHIBITED
ONLY

64b 9'x6' GH Level III
562 71 EAST
562 71 EAST TO
64a 9'x6' GH Level III
562 71 EAST
562 71 EAST TO
* Ex. Clearance 17.3'
Prop. Clearance 17.8'

M-2-36-3
M-2-36-2
M-1-36-2
M-24-30 13 Required
D-4D 12"x2"

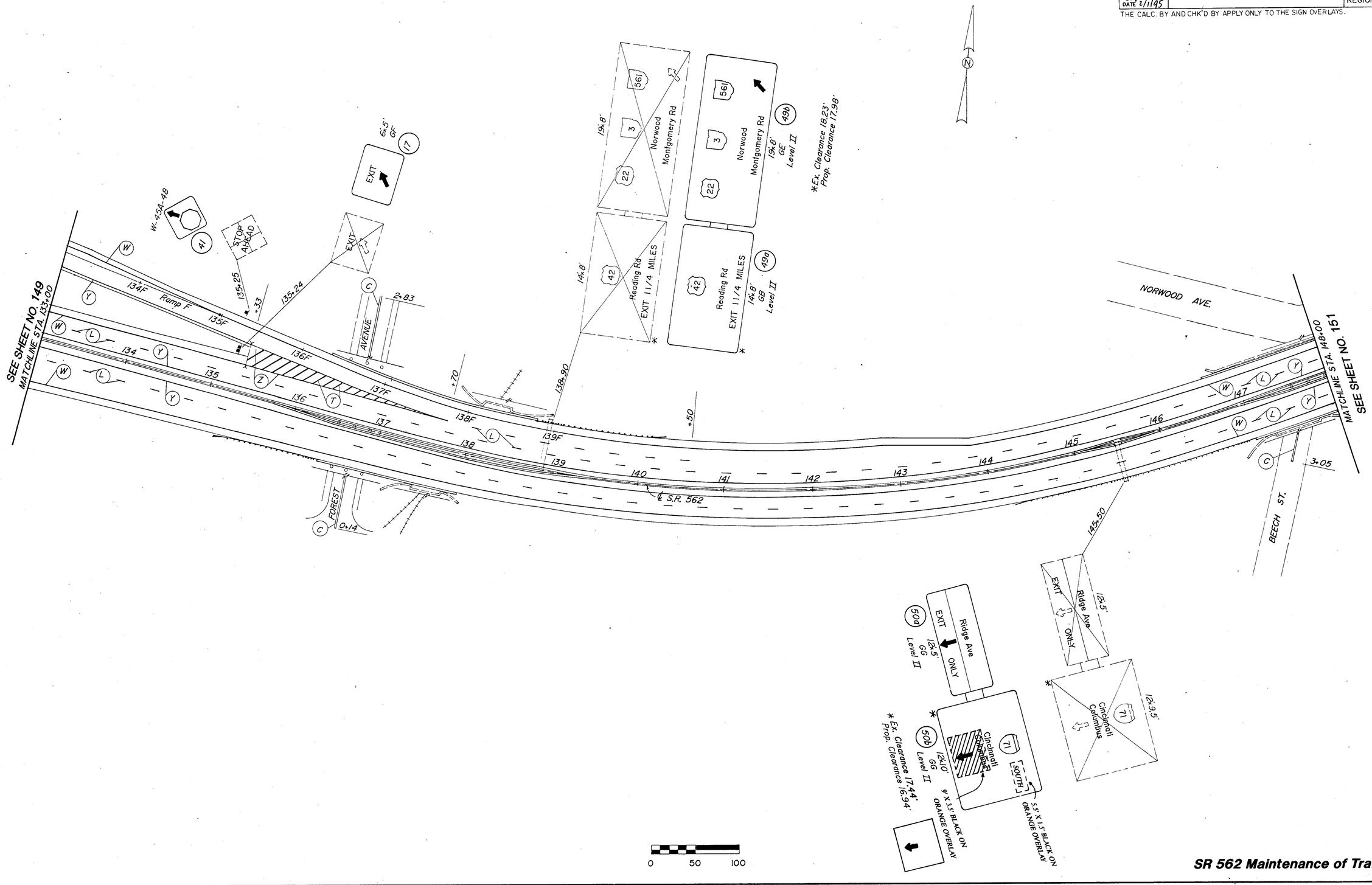
0 50 100

SR 562 Maintenance of Traffic Plan

STA. 118+00 TO 133+00

CALC. BY KAB	HAMILTON COUNTY	OHIO	150
DATE 10/13/94	HAM-562	FHWA 5	615
CHK'D. BY [illegible]		REGION	
DATE 2/1195			

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.



SR 562 Maintenance of Traffic Plan

STA. 133+00 TO 148+00

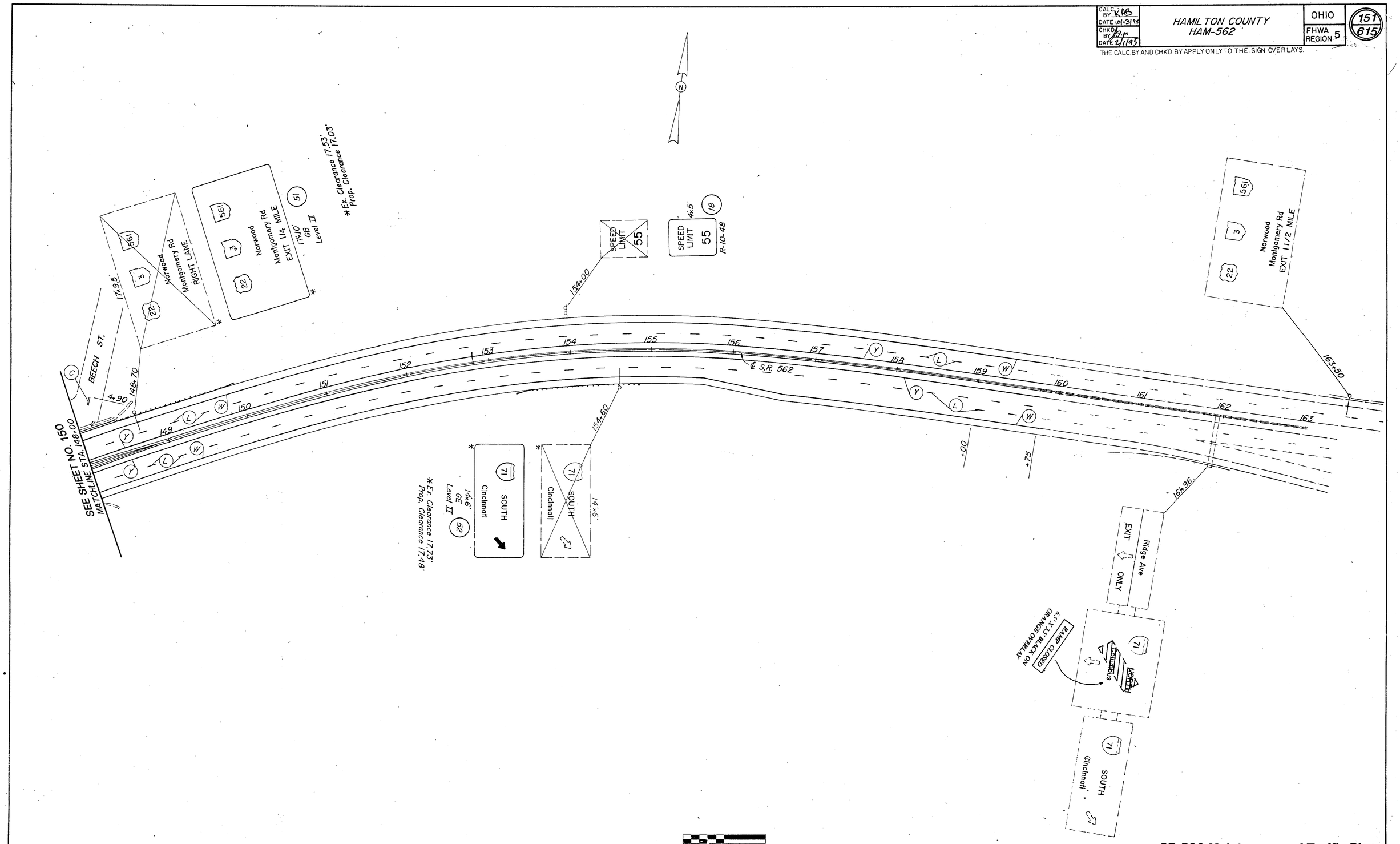
CALC. BY KAB
DATE 10/31/95
CHKD. BY [illegible]
DATE 2/1/1995

HAMILTON COUNTY
HAM-562

OHIO
FHWA REGION 5

157
615

THE CALC. BY AND CHKD BY APPLY ONLY TO THE SIGN OVERLAYS.



SR 562 Maintenance of Traffic Plan

STA. 148+00 TO 163+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

152
615

THE CALC. BY AND CHECKED BY APPLY ONLY TO SIGN OVERLAYS.

CALC BY KAB 10/18/94
CK BY - D.J.M
2-1-95

Match Line See Sheet 153

Match Line See Sheet 153

Match Line See Sheet 153

Match Line See Sheet 153

38 NORTH 71 35'x5'

36+50 Highland Ave.

Highland Ave.

RAMP CLOSED 6.5' X 3.5' BLACK ON ORANGE OVERLAY

37 (b) SOUTH 71 Columbus 8'x5'

37 (a) SOUTH 71 Columbus 8'x5'

RAMP CLOSED 6.5' X 3.5' BLACK ON ORANGE OVERLAY

37+75 Ridge 12'x6'

53 NORTH 71 Columbus 10.00 Ridge 8'x5'

Mounted on Structure

17'x7'

32 562 Norwood RIGHT LANE KEEP RIGHT

SOUTH 562 Norwood 8'x5'

8' X 1' BLANK OVERLAY

6.5' X 2' BLANK OVERLAY

33+90 Highland Ave.

℄ Ridge Ave.

36 31+00 HIGHLAND AVE. NORTH 71 SOUTH 8'x25'

2'X3' BLANK OVERLAY

31 (a) 71 Columbus 25'x9.5'

(b) Ridge Ave. NORTH EXIT ONLY 17'x8' 402+11N

N-12-72 EXIT 406+32

W-97-48 EXIT 25 MPH

NOOH

13+75N

DO NOT ENTER R-41-36

RAMP CLOSED 6.5' X 3.5' BLACK ON ORANGE OVERLAY

℄ DUCK CREEK RD.

9'x4'

562 WEST Norwood SECOND RIGHT 8'x5'

KEEP RIGHT R-37A-24

14+04 Duck Crk.

21+49 Ridge

FEDESTRIANS AND BICYCLES PROHIBITED R-15-30

R-41-24 DO NOT ENTER 3+55

3+63

49 NORTH 71 Columbus 9'x4' Mounted on Structure

R-41-36 DO NOT ENTER 1+24+12

RAMP CLOSED 6.5' X 3.5' BLACK ON ORANGE OVERLAY

Signalized Fd

24+45 Ridge

RIGHT LANE ENDS

24+25

PEDESTRIANS AND BICYCLES PROHIBITED R-15-30

562 WEST Norwood 8'x4'

50

21+45 Ridge

5M

MERGING TRAFFIC W-40-48

14+00M

W-40-48

71 SOUTH Columbus 8'x4'

562 WEST Norwood 8'x4'

15+63M

65 (a) ONLY (b) ONLY (c) ONLY 4'x6.5'

18+50T

33 CINCINNATI CORP LIMIT 7'x3' 399+10S

HAMILTON COUNTY CITY OF CINCINNATI

R-16-48

SPEED LIMIT 60 TRUCKS 50

R-10-48

395+90S

YIELD R-2-60

12+50M

MERGING TRAFFIC W-40-48

NOOH

SIGNAL AHEAD W-41-48

59 Ridge Ave. Marburg Ave. 11'x4'

44+00T

EXIT 25 MPH W-97-48

20+00U

R-41-36 DO NOT ENTER

48 (b) 562 WEST Norwood 13'x5' 6.5' X 2' BLANK OVERLAY 8' X 1' BLANK OVERLAY

(a) 71 NORTH Columbus 9'x4'

Main Line ℄

43+16 Ridge Ave.

RIDGE AVE.

SR 562 Maintenance of Traffic Plan

RIDGE AVENUE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

153
615

THE CALC. BY AND CHK'D BY APPLY ONLY TO THE SIGN OVERLAYS.
CK BY DJM - 2-1-95
CALC BY KAB 10/13/94

Match Line A-A

111-37-36
NORTH
71
111-5-36-2
+426+75

STATION EQUATION
END PROJECT HAM-71-7.45 Sta. 434+23.00 END WORK
BEGIN PROJECT HAM-71-8.86 Sta. 435+07.72

35 Ridge Ave Kennedy Ave RIGHT LANE 17'x28' 430+00

58 To 50 FAIRFAX EXIT 3/4 MILE 13'x9.5' 429+35

Match Line A-A

4th

71 NORTH Columbus
8'x5'
55+00 Lucille Dr

R-1-30 STOP
R-1-30
22+70

34
(a) 71 SOUTH Cincinnati 14'x7'
(b) 562 Norwood EXIT 3/4 MILE 13'x9.5'
(c) Ridge Ave. Kennedy Ave. 20'x6'
419+00

R-1-30 STOP
E-1-30
55+00

Lucille Dr
8'x3'
55+00

R-2-30 STOP
23+84

42
71 SOUTH Cincinnati KEEP LEFT 8'x5'
18+00 Kennedy
RAMP CLOSED 6.5' X 3.5' BLACK ON ORANGE OVERLAY

40
3'X5' BLACK OVERLAY
6.5' X 3.5' BLACK ON ORANGE OVERLAY
RAMP CLOSED
Highland
45+00 Highland

43
71 NORTH Columbus
8'x2.5'
49+45

R-1-30 STOP
E-1-30
49+45

Kennedy
8'x5'
23+50

39
71 NORTH Columbus KEEP RIGHT 8'x5'
45+00 Highland

2'X5' BLACK OVERLAY
W-4-54B
415+02

STOP AHEAD
W-3-54B
415+52

EXIT
M-12-72
415+02

RIDGE AVE. KENNEDY AVE. 4'x11'
43+50
R-2-34 NO LEFT TURN

HIGHLAND-AVE EXT

ONE WAY R-2-30
ONE WAY R-43R-36
DO NOT ENTER R-2-30
STOP R-1-48
100+82

RAMP R

36
RIDGE AVE. KENNEDY AVE. 11'x4'
6+50 Pump R

Match Line See Sheet 152

NORTHBOUND I-71
SOUTHBOUND I-71
10P
400+75

MERGING TRAFFIC W-49-48

RAMP N

RAMP P

R-15-30 PEDESTRIANS AND BICYCLES PROHIBITED
2-30P

R-15-30 PEDESTRIANS AND BICYCLES PROHIBITED
1-75 R

R-2-30 VIELD
2-30P

RAMP P1
1-75 R
1400

Match Line See Sheet 152

KENNEDY AVE
19
10

46
71 NORTH Columbus
8'x5'
12+30 Kennedy

47
71 NORTH Columbus
8'x5'

7'X1' BLANK OVERLAY
71 NORTH Columbus
8'x5'
HAMILTON COUNTY CITY OF CINCINNATI
80+95
DUCK CREEK RD.
Signalized
Match Line See Sheet 152

47a
71 NORTH Columbus
8'x5'

Sign Support Symbols

Ground Mount Supports
- Signs on one support
- Signs back-to-back on one support
- Signs on two supports

Overhead Supports
- Signs on one support
- Signs on two supports.
- Luminaire on sign pole

SR 562 Maintenance of Traffic Plan

KENNEDY AVENUE

397 BLACK 154 - 224

CALC. BY DB DATE 10-17-95
CHKD. BY PWP DATE 1-25-95

HAM-71-2.92

OHIO
FHWA REGION 5

154/615

PAVEMENT AREAS

MAINLINE FEATHERING

BEGIN PROJECT STA. 213+00.00 TO STA. 215+12.50

ML [(48' x 212.5') + (60' x 212.5')] x 0.11 = 2,550 SY

SHLDR 10' x 212.5' x 4 x 0.11 = 944 SY

END PROJECT STA. 433+87.50 TO STA. 436+82.72

ML 36' x 212.5' x 2 x 0.11 = 1,700 SY

SHLDR [(10' x 212.5' x 2) + (98.78' x 10' x 2) + (((10' + 12').5) 25' x 2) + (12' x 88.72' x 2)] x 0.11 = 989 SY

TOTALS ML = 4,250 SY
SHLDR = 1,933 SY

NORTH AND SOUTH BOUND MAINLINE

[(48' x 1987.5') + (60' x 1987.5')] x 0.11 = 23,850 SY

STA. 235+00 TO STA. 248+34.86
[((60' + 48')0.5) 400' + ((73' + 60')0.5) 520.17' + (60' x 414.69')+
(48' x 557.29') + (58' x 100') + ((83' + 60')0.5) 677.57'] x 0.11 = 18,008 SY

STA. 248+34.86 TO STA. 273+01
60' x 2466.14' x 2 x 0.11 = 32,882 SY

STA. 273+01 TO STA. 285+25
[((60' + 62').5) 363' + ((62' + 74').5) 459' + ((62' + 74').5) 202' + (60' x 100') + (58' x 100') + (60' x 299') + ((60' + 62').5)100' + ((62' + 70').5) 400' + ((58' + 60').5) 100' + (60' + 64').5) 200' + (48' x 125')] x 0.11 = 17,070 SY

STA. 285+25 TO STA. 292+16.29
48' x 691.29' x 2 x 0.11 - 7,374 SY

STA. 292+16.29 TO STA. 297+12.21
PAVEMENT TRANSITIONS AND BRIDGE HAM-71-0445

STA. 297+12.21 TO STA. 309+20
[(48' x 687.79') + ((61' + 58.5').5) 100' + ((70.5' + 68').5) 100' + ((65.5' + 68').5) 100' + ((63' + 65.5').5) 100' + ((63' + 60.5').5) 100' + ((60.5' +60').5) 20' + ((60.42' + 73').5) 503.1' + (48' x 704.69')] x 0.11 = 14,865 SY

STA. 309+20 TO STA. 317+66.66
[(60' x 846.66') + (48' x 746.66') + (58' x 100')] x 0.11 = 10,271 SY

STATION EQUATION: STA. 317+66.66 BACK = STA. 318+14.80 AHEAD

STA. 318+14.80 TO STA 334+00
[(60' x 1585.2') + (60' x 100') + ((74' + 60')0.5) 266.5' + ((72' + 60').5) 1175'] x 0.11 = 21,835 SY

STA. 334+00 TO STA. 359+58.89
[(60' x 22.44') + ((60' + 83').5) 319.72' + (58' x 100') + (48' x 2116.73') + ((60' + 48').5) 100' + (48' x 2458.89')] x 0.11 = 28,337 SY

STA. 359+58.89 TO STA. 385+71.82
[(48' x 2612.93') + (50' x 80') + ((50' + 73').5) 920' + (48' x 1512.93') + (58' x 100')] x 0.11 = 29,380 SY

STA. 385+71.82 TO STA. 393+69.39
[(48' x 128.18') + ((73' + 60').5) 520' + (60' x 149.39') + ((83' + 60').5) 325.01' + (60' x 372.56') + ((60' + 48').5) 100'] x 0.11 = 11,188 SY

STATION EQUATION: STA. 393+69.39 BACK = STA. 291+50 AHEAD

STA. 291+50 TO STA. 307+31.26
[(60' x 1250') + ((60' + 88.4').5) 256' + (58' x 75.26) + (48' x 250') + (50' x 80') + ((50' + 52').5) 80' + ((52' + 73').5) 840' + (48' x 331.26')] x 0.11 = 20,760 SY

STA. 307+31.26 TO STA. 329+74.01
[(48' x 2242.75') + (48' x 1888.74') + (58' x 71') + ((88.6' + 60').5) 283.01'] x 0.11 = 24,829 SY

STA. 329+74.01 TO STA. 338+50
[(48' x 393.24') + (73' + 60.89').5) 482.75' + (60' x 445.99') + ((60' + 50').5) 83' + (50' x 17') + (48' x 330')] x 0.11 = 11,023 SY

STATION EQUATION: STA. 338+50 BACK = STA. 338+46.95 AHEAD

STA. 338+46.95 TO STA. 356+26.39
[((60.89' + 52').5) 357.27' + ((52' + 50').5) 80' + (50' x 80') + (48' x 1262.17') + (48' x 1653.05') + ((50' + 52.64').5) 126.39'] x 0.11 = 19,407 SY

BASELINE SHIFT: STA. 356+26.39 BACK =
STA. 356+26.3953 AHEAD AND STA. 356+26.39NB AHEAD

NORTHBOUND STA. 356+26.39NB TO STA. 372+55NB
[(48' x 785.36') + ((48' + 60').5) 100' + (60' x 313.17') + ((60' + 83').5) 386.83' + ((83' + 88.17').5) 43.25'] x 0.11 = 10,361 SY

SOUTHBOUND: STA. 356+26.39SB TO STA. 372+20.83SB
[((52.64' + 73').5) 873.61' + (48' x 720.83')] x 0.11 = 9,942 SY

NORTHBOUND: STA. 372+55NB TO STA. 390+24.30NB
[(58' x 56.75') + (48' x 888.25') + ((73' + 93.5').5) 300' + ((93.5' + 97.89').5) 24.3' + ((97.89' + 102.84').5) 23.7' + (72.3' + 70.39').5) 76.3' + (62.39' + 57.61').5) 95.7 (57.61' + 50').5) 304.3'] x 0.11 = 11,463 SY

SOUTHBOUND: STA. 372+20.83SB TO STA. 381+20.52SB
PAVEMENT TRANSITIONS AND BRIDGE HAM-71-07886

SOUTHBOUND: STA. 381+20.52SB TO STA. 391+77.80SB
[((51.12' + 55.47').5) 157.28' + ((65.47' + 67.34').5) 8.12' + ((97.61' + 93.88').5) 36.8' + ((93.88' + 81.81').5) 122.2' + ((56.81' + 48').5) 203.31' + (48' x 374.49') + ((48' + 36').5) 100'] x 0.11 = 6,223 SY

NORTHBOUND: STA. 390+24.30NB TO STA. 404+00NB
[((50' + 48').5) 80' + (48' x 1095.7') + ((48' + 61.42').5) 200'] x 0.11 = 7,495 SY

SOUTHBOUND: 391+77.80SB TO STA. 404+84.57SB
36' x 1306.77' x 0.11 = 5,227 SY

STATION EQUATION: STA. 404+87.57 AHEAD =
STA. 404+00.00NB BACK AND STA. 404+84.57SB BACK

STA. 404+87.57 TO STA. 433+87.50
((61.42' + 81').5) 109.58' + ((81' + 86.48').5) 24.85' + (56' x 75') + ((48' + 38.3').0.5) 392.63' + ((38.3' + 38').5) 10.37' + ((38' + 36').5) 77.15' + (36' x 97.85') + ((61' + 40').5) 840' + ((40' + 38').5) 80' + ((38' + 36').5) 80' + (36' x 1112.5') + (36' x 958.33') + 46' x 69.1') + ((77.37' + 48').5) 288' + (48' x 442.9') + ((48' + 36').5) 100' + (36' x 1044.6')] x 0.11 = 27,238 SY

TOTAL 369,028 SY

NORTH AND SOUTHBOUND MAINLINE SHOULDERS

STA. 215+12.50 TO STA. 235+00

SHLDR (RT/LT) 10' x 1987.5' x 2 x 0.11 = 4,417 SY

MEDIAN SHLDR 10' x 1987.5' x 2 x 0.11 = 4,417 SY

STA. 235+00 TO STA. 248+34.86

SHLDR (RT/LT) [(10' x 400') + (8' x 420.17') + ((8' + 10').5) 100' + (10' x 414.69') + (10' x 557.29') + (8' x 577.57') + ((8' + 10').5) 100'] x 0.11 = 2,611 SY

MEDIAN SHLDR 10' x 1324.86' x 2 x 0.11 = 2,944 SY

STA. 248+34.86 TO STA. 273+01

SHLDR (RT/LT) (2466.14' + 2272.14') x 10' x 0.11 = 5,265 SY

MEDIAN SHLDR 10' x 24566.14' x 2 x 0.11 = 5,480 SY

STA. 273+01 TO STA. 285+25

SHLDR (RT/LT) [(10' x 822') + ((13' + 17.41').5) 125'] x 0.11 = 1,125 SY

MEDIAN SHLDR 10' x 1224' x 2 x 0.11 = 2,720 SY

STA. 285+25 TO 292+16.29

SHLDR (RT/LT) [(10' x 647.76') + ((17.41' + 20').5) 40' + (10' x 696.91')] x 0.11 = 1,577 SY

MEDIAN SHLDR 10' x 691.29' x 2 x 0.11 = 1,536 SY

STA. 292+16.29 TO STA. 297+12.21
PAVEMENT TRANSITIONS AND BRIDGE HAM - 71 - 0445

STA. 297+12.21 TO STA. 309+20

SHLDR (RT/LT) [(10' x 518.06') + ((21' + 10').5) 215' + (8' x 450.2' + ((10' + 21').5) 234.69' + (10' x 470')] x 0.11 = 2,273 SY

MEDIAN SHLDRS 10' x 1207.79' x 2 x 0.11 = 2,684 SY

STA. 309+20 TO STA. 317+66.66

SHLDR (RT/LT) [(10' x 766.66') + (10' x 746.66')] x 0.11 = 1,682 SY

MEDIAN SHLDR 10' x 846.66' x 2 x 0.11 = 1,882 SY

STATION EQUATION: STA. 317+66.66 BACK = STA. 318+14.80 AHEAD

STA. 318+14.80 TO STA. 334+00

SHLDR (RT/LT) 10' x 1585.2' x 0.11 = 1,761 SY

MEDIAN SHLDR 10' x 1585.2' x 2 x 0.11 = 3,523 SY

STA. 334+00 TO STA. 359+58.89

SHLDR (RT/LT) [10' x 22.44') + (10' x 38.84') + ((10' + 8').5) 86.72' + (8' x 193.97') + (10' x 2116.73') + (10' x 2558.89')] x 0.11 = 5,522 SY

MEDIAN SHLDR 10' x 2558.89' x 2 x 0.11 = 5,686 SY

STA. 359+58.89 TO STA. 385+71.82

SHLDR (RT/LT) [(10' x 2516.11') + (8' x 1000') + ((10' + 20').5) 373.11' + (10' x 1239.82')] x 0.11 = 5,684 SY

MEDIAN SHLDR 10' x 2612.93' x 2 x 0.11 = 5,807 SY

STA. 385+71.82 TO STA. 393+69.39

SHLDR (RT/LT) [((20' + 10').5) 225' + (8' x 669.39') + (8' x 701.56') + ((8' + 10').5) 100'] x 0.11 = 1,694 SY

MEDIAN SHLDR 10' x 797.57' x 2 x 0.11 = 1,772 SY

STATION EQUATION: STA. 393+69.39 BACK = STA. 291+50 AHEAD

STA. 291+50 TO STA. 307+31.26

SHLDR (RT/LT) [(8' x 1350') + ((8' + 6').5) 50' + (6' x 106.3') + (10' x 250') + (8' x 1000') + ((10' + 20').5) 204' + (10' x 127.26')] x 0.11 = 2,958 SY

MEDIAN SHLDR 10' x 1581.26' x 2 x 0.11 = 3,514 SY

STA. 307+31.26 TO STA. 329+74.01

SHLDR (RT/LT) [(10' x 2242.75') + (10' x 1888.74') + ((6.5' + 8').5) 31.12' + (8' x 256.59')] x 0.11 = 4,844 SY

MEDIAN SHLDR 10' x 2242. 75' x 2 x 0.11 = 4,984

STA. 329+74.01 TO STA. 338+50

SHLDR (RT/LT) [(10' x 182.99') + ((20' + 10').5) 210.25' + (8' x 482.75') + (8' x 445.99') + [((8 + 10').5) 100' + ((0 + 2).5) 17'] + (10' x 330')] x 0.11 = 1,844 SY

MEDIAN SHLDR 10' x 875.99' x 2 x 0.11 = 1,947 SY

STATION EQUATION: STA. 338+50 BACK = STA. 338+46.95 AHEAD

SAT. 338+46.95 TO STA. 356+26.39

SHLDR (RT/LT) [(8' x 517.27') + (10' x 1262.17') + (10' x 1653.05') + (8' x 226.39')] x 0.11 = 3,699 SY

MEDIAN SHLDR 10' x 1779.44' x 2 x 0.11 = 3,954 SY

BASELINE SHIFT: STA. 356+26.39 BACK = STA. 356+26.39SB AHEAD AND STA. 356+26.39NB AHEAD

NORTH BOUND STA. 356+26.39NB TO STA. 372+55NB

SHLDR (RT) [(10' x 785.36') + ((10' + 8').5) 100' + (8' x 513.17') + ((8' + 6').5) 48' + (6' x 165')] x 0.11 = 1,576 SY

MEDIAN SHLDR 10' x 1600' x 0.11 = 1,778 SY

SOUTHBOUND STA. 356+26.39SB TO STA. 372+20.83SB

SHLDR (LT) [(8' x 873.61') + ((10' + 20').5) 186'+ (10' x 498.84')] x 0.11 = 1,641 SY

MEDIAN SHLDR 10' x 1598.04' x 0.11 = 1,776 SY

NORTHBOUND: STA. 372+55NB TO STA. 390+24.30NB

SHLDR (RT) [(10' x 861.36') + ((10' + 8').5) 99.96' + (8' x 329') + (8' x 400')] x 0.11 = 1,705 SY

MEDIAN SHLDR [(10' x 717.47') + ((21' + 10').5) 227.53' + (8' x 440') + ((8' + 10').5) 80' + (10' x 304.3')] x 0.11 = 1,998 SY

WIDEN SHLDR (12' + 11') 0.5 x 16.35' x 0.11 = 21 SY

SOUTHBOUND: STA. 372+20.83SB TO STA. 381+20.52SB
PAVEMENT TRANSITIONS AND BRIDGE HAM-71-07886

SOUTHBOUND: STA. 381+70.52SB TO STA. 391+77.80SB

SHLDR (LT) [(10' x 233.2') + ((6.5'+8').5) 36.34' + (8' x 323.35') + (8' x 374.49') + ((8' + 10').5) 100'] x 0.11 = 1009 SY

MEDIAN SHLDR [(8' x 366.3') + (11' + 15').5) 81.5 + (4' x 594.98')] x 0.11 = 708 SY

WIDEN SHLDR ((11' + 13').5) 38.2' x 0.11 = 51 SY

NORTHBOUND: STA. 390+24.30NB TO STA. 404+00NB

SHLDR (RT) [((8' + 10')0.5) 80' + (10' x 995.7') + ((10' + 8').5) 100' + (8'x 200.63')] x 0.11 = 1,465 SY

MEDIAN SHLDR 10' x 1375.7' x 0.11 = 1,529 SY

SOUTHBOUND: 391+77.80SB TO STA. 404+84.57SB

SHLDR (LT) 10' x 1306.77' x 0.11 = 1,452 SY

MEDIAN SHLDR [(4' x 622.45') + ((4' + 10').5) 100' + (10' x 584.57')] 0.11 = 1,004 SY

STATION EQUATION: STA. 409+87.57 AHEAD = STA. 404+00.00NB BACK AND STA. 404+84.57SB BACK

STA. 404+87.57 TO STA. 433+87.50

SHLDR (RT) [(8' x 109.41') + ((8' + 6').5) 18.14' + (6' x 7.82') + (8' x 412.32') + ((18' + 10').5) 165.68' + (8' x 920') + ((8' + 10').5) 80' + (10' x 1112.5')] x 0.11 = 2,875 SY

SHLDR (LT) [(10' x 955.33') + ((6' + 8').5) 31.05' + (8' x 704.55') + (8' + 10').5) 100' + (10' x 82.6') + ((10' + 8.9').5) 25' + (8.9 x 56.5) + ((8.9' + 10').5) 16' + (10' x 864.5')] x 0.11 = 2,963 SY

MEDIAN SHLDR 10' x 2899.93' x 2 x 0.11 = 6,444 SY

TOTALS

SHLDR (RT/LT) 61,642 SY
MEDIAN 68,087 SY
SHLDR

SHLDR
WIDENED 72 SY

RAMPS

RAMP TC FROM MCMILLAN STREET TO NORTHBOUND I-71
STA. 225+88.75TC TO STA. 239+00TC

STA. 226+13.75TC TO STA. 227+74.25TC
BRIDGE STRUCUTE HAM-71-0371E

APPR. SLAB [(25' x 25') + ((6' x 25').5) + (25' x 25')] x 0.11 = 147 SY

PVMT TRANS 25' x 12.5' x 0.11 = 35 SY
@ STRUCTURE

RAMP PVMT 16' x 845.75' x 0.11 = 1,504 SY

PVMT TRANS [(25' x 42.5') + ((25' + 24.4').5) 20'] x 0.11 = 173 SY
@ MAINLINE

RAMP PVMT [((15.6' + 14').5) 80' + ((16' + 14').5) 100'] x 0.11 = 298 SY
(ML THICKNESS)

SHLDR (RT/LT) [(6' x 845.75') + (3' x 845.75')] x 0.11 = 846 SY

SHLDR (RT/LT) [(6' x 100') + ((6' + 8').5) 80' + ((2.8' + 2').5) 80'] x 0.11 = 150 SY
(ML THICKNESS)

RAMP TC FROM McMILLAN STREET TO NORTHBOUND I-71
STA. 225+88.75TC TO STA. 239+00TC

STA. 226+13.75 TC TO STA. 227+74.25TC
BRIDGE STRUCUTE HAM-71-0371E

APPR. SLAB [(25' x 25') + ((6' x 25').5) + 25' x 25')] x 0.11 = 147 SY

PVMT TRANS 25' x 12.5' x 0.11 = 35 SY
@ STRUCTURE

RAMP PVMT 16' x 845.75' x 0.11 = 1,504 SY

PVMT TRANS [(16' x 42.5') + ((16' + 15.6').5) 20'] x 0.11 = 111 SY
@ MAINLINE

RAMP PVMT [((15.6' + 14').5) 80' + ((16' + 14').5) 100'] x 0.11 = 298 SY
(ML THICKNESS)

SHLDR (RT/LT) [(2.25' x 845.75') + (1.125' x 845.75')] x 0.11 = 317 SY
[(3.75' x 845.75') + (1.875' x 845.75')] x 0.11 = 529 SY

SHLDR (RT/LT) [(2.25' x 100') + ((2.25' + 4.9').5) 80'] x 0.11 = 57 SY
(ML THICKNESS)
[(3.75' x 100') + ((3.75' + 3.1').5) 80'] x 0.11 = 72 SY
((2.8' + 2').5) 80' x 0.11 = 21 SY

SHLDR TRANS [(1.125' x 42.5') + ((1.125' + 1.114').5) 20' + (2.25' x 62.5')] 0.11 = 23 SY
@ MAINLINE
[(1.875' x 42.5') + ((1.875' + 1.864').5) 20' + (3.75' x 62.5')] 0.11 = 39 SY

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PAVEMENT AREAS

PAVEMENT CALCULATIONS

CALC. BY DJB DATE 10-7-94
CHKD. BY PWP DATE 1-25-95

HAM-71-2.92

OHIO FHWA REGION 5

155/615

RAMP TH FROM SOUTHBOUND I-71 TO W.H. TAFT ROAD
STA. 229+56.5TH TO STA. 241+60.74TH

FEATHERING [(36' + 39.13').5) 84.12' x 0.11 = 351 SY

RAMP PVMT [((39.13' + 42').5) 109.38' + (42' x 187.56') + ((42' + 37.12').5) 45.84' + ((37.12' + 28.03').5) 57.57' + ((28.03' + 25').5) 59.03' + (16' x 468.06')] x 0.11 = 2,784 SY

PVMT TRANS 25' x 62.5' x 0.11 = 174 SY
@ MAINLINE

RAMP PVMT [(16' x 28.93') + ((16' + 18').5) 130.18'] x 0.11 = 297 SY
(ML THICKNESS)

SHLDR (RT/LT) (3' + 6') 468.06' x 0.11 = 468 SY

SHLDR (RT/LT) [(3' x 130.24') + (6' x 28.99') + ((6' + 8').5) 101.25'] 0.11 = 142 SY
(ML THICKNESS)

RAMP ME FROM MONTGOMERY ROAD TO SOUTHBOUND I-71
STA. 302+15.31ME TO STA. 338+32.33ME

RAMP PVMT [((14' + 16').5) 100' + ((14' + 16').5) 100' + (16' x 47.89')] x 0.11 = 419 SY
(ML THICKNESS)

PVMT TRANS 16' x 62.5' x 0.11 = 111 SY
@ MAINLINE

RAMP PVMT [(16' x 2311.88') + ((16' + 44.38').5) 778.7' + 5837.22 SF CADD] x 0.11 = 7,371 SY

SHLDR [((4.9' + 2.25').5) 100' + (2.25' x 147.89')] x 0.11 = 77 SY
(ML THICKNESS)
[((3.1' + 3.75').5) 100' + (3.75' x 147.89')] x 0.11 = 100 SY
[((2' + 3').5) 100' + (3' x 47.9')] x 0.11 = 44 SY

SHLDR TRANS (2.25' + 1.125') 62.5' x 0.11 = 23 SY
@ MAINLINE
(1.1875' + 3.75') 62.5' x 0.11 = 34 SY

SHLDR (RT/LT) [(1674.88' + 907.42') 2.25' + (2311.88' + 779.08') 1.125] 0.11 = 1,032 SY*
[(1674.88' + 907.42') 3.75' + (2311.88' + 779.08') 1.875] 0.11 = 1,720 SY*
637' x 6' x 0.11 = 425 SY

RAMP MER FROM MONTGOMERY ROAD TO SOUTHBOUND I-71
STA. 336+16.66MER TO STA. 337+34.19MER

RAMP PVMT 2550.83 SF (CADD) x 0.11 = 284 SY

SHLDR (RT) 1.125' x 88.74' x 0.11 = 11 SY
1.875' x 88.74' x 0.11 = 19 SY

RAMP MF FROM NORTHBOUND I-71 TO DUCK CREEK ROAD
STA. 337+41.97MF TO STA. 344+08.10MF

RAMP PVMT ((16' +17.10').5) 38.03' x 0.11 = 70 SY
(ML THICKNESS)

PVMT TRANS ((17.1' + 19.13').5) 70' x 0.11 = 141 SY
@ MAINLINE

RAMP PVMT [((19.13' + 24').5) 167.95' + (24' x 315.15')] x 0.11 = 1,243 SY

FEATHERING [(33' x 75') + ((24' x 10').5) + ((32' x 31').5)] x 0.11 = 343 SY

SHLDR (RT/LT) 4.9' x 38.03' x 0.11 = 21 SY
(ML THICKNESS)
3.1' x 38.03' x 0.11 = 13 SY
5' x 38.03' x 0.11 = 21 SY

SHLDR TRANS (4.9' + 3.1') 62.5' x 0.11 = 56 SY
@ MAINLINE
(3.1' + 1.9') 62.5' x 0.11 = 35 SY

SHLDR (RT/LT) (2.25' + 1.125') x 483.1' x 0.11 = 181 SY
(3.75' + 1.875') x 483.1' x 0.11 = 302 SY

RAMP DB FROM DANA AVENUE TO SOUTHBOUND I-71
STA. 369+58.89DB TO STA. 383+82.61DB

RAMP PVMT [((14' + 16').5) 101.11' + ((14' + 16').5) 96.99' + (16' x 175.01')] x 0.11 = 641 SY
(ML THICKNESS)

PVMT TRANS 16' x 62.5' x 0.11 = 111 SY
@ MAINLINE

RAMP PVMT [(16' x 195.28') + ((16' + 18').5) 72.64' + (18' x 720.19')] 0.11 = 1,925 SY

SHLDR (RT/LT) [((2' + 3').5) 96.99 + (3' x 175.01')] x 0.11 = 85 SY
(ML THICKNESS)

SHLDR (RT/LT) [((4.9' + 2.25').5) 101.11' + (2.25' x 272')] x 0.11 = 108 SY
(ML THICKNESS)
[((3.1' + 3.75').5) 101.11' + (3.75' x 272')] x 0.11 = 152 SY

SHLDR TRANS (2.25' + 1.125') 62.5' x 0.11 = 23 SY
@ MAINLINE
(3.75' + 1.875') 62.5' x 0.11 = 39 SY

SHLDR (RT/LT) [(1.125' x 988.11') + (2.25' x 857.56') + (2.25' x 130.55')] 0.11 = 371 SY
[(1.875' x 988.11') + (3.75' x 857.56') + ((3.75' + 0.3').5) 130.55] 0.11 = 593 SY

RAMP DA FROM DANA AVENUE TO RAMP DC
STA. 376+05.95DA TO STA. 379+69.88 DA

RAMP PVMT [(16' x 352.88') + ((6' + 11.5').5) 25' + ((5' x 4').5) + ((3' x 3').5)] x 0.11 = 653 SY

SHLDR (RT/LT) [(1.125' x 352.88') + (2.25' x 237') + ((4.5' + 11.25').5) 115.88] 0.11 = 140 SY
[(1.875' x 352.88') + (3.75' x 237') + ((75' + 1.875').5) 115.88'] 0.11 = 233 SY

RAMP DC FROM DANA AVENUE TO NORTHBOUND I-71
STA. 375.71.68DC TO STA. 387+00DC

RAMP PVMT [((18' + 16').5) 100' + (16' x 97.57') + ((16' + 14').5) 100' + ((16' + 14').5) 100.63' + ((34' + 21.48').5) 398.77' + ((21.48' + 19.65').5) 43.85] x 0.11 = 2,026 SY

PVMT TRANS ((19.65' + 17').5) 62.5' x 0.11 = 127 SY
@ MAINLINE

RAMP PVMT [((17' + 16').5) 25' + ((16' + 14').5) 100' + ((16' + 14').5) 100'] x 0.11 = 379 SY
(ML THICKNESS)

SHLDR (RT/LT) [(2.25' x 125') + ((2.25' + 4.9').5) 100'] x 0.11 = 71 SY
(ML THICKNESS)
[(3.75' x 125') + ((3.75' + 3.1').5) 100'] x 0.11 = 910 SY
[(3' x 25') + ((3' + 2').5) 100'] x 0.11 = 36 SY

SHLDR (RT/LT) [(2.25' x 840.82') + (1.125' x 197.57') + ((1.125' + 0.75').5) 100' + (1.125' x 442.62')] x 0.11 = 301 SY

[(3.75' x 840.82') + (1.875' x 197.57') + ((1.875' + 1.25').5) 100' + (1.875' x 442.62')] x 0.11 = 501 SY

SHLDR TRANS (2.25' + 1.125') 62.5' x 0.11 = 23 SY
@ MAINLINE
(3.75' + 1.875') 62.5' x 0.11 = 39 SY

RAMP DE FROM SOUTHBOUND I-71 TO DANA AVENUE
STA 373+15.79DE TO STA. 385+67.83DE

RAMP PVMT [2372.53 SF (CADD) + (24' x 755.8') + ((24' + 19.4').5) 345.65'] x 0.11 = 3,113 SY

PVMT TRANS ((19.4' + 18.5').5) x 62.5' x 0.11 = 132 SY
@ MAINLINE

RAMP PVMT ((18.5' + 18').5) 32.52' x 0.11 = 66 SY
(ML THICKNESS)

SHLDR (RT/LT) [(372' x 6') + (133' x 3')] x 0.11 = 292 SY
[(1.125' x 1021.81') + (2.25' x 782.81')] x 0.11 = 323 SY
[(1.875' x 1021.81' + (3.75' x 782.81')] x 0.11 = 539 SY

SHLDR TRANS [((2.25' + 3.15').5) 62.5' + (1.125' x 62.5')] x 0.11 = 27 SY
@ MAINLINE
[((13.75' + 4.65').5) 62.5' + (1.875' x 62.5')] x 0.11 = 42 SY

SHLDR (RT/LT) [(1.125' x 32.52') + ((4.65' + 4.9').5) 32.52'] x 0.11 = 21 SY
(ML THICKNESS)
[(1.875' x 32.52') + ((2.25' + 3.1').5) 32.52] x 0.11 = 16 SY

RAMP A FROM SMITH-EDMONDSON ROAD TO SOUTHBOUND I-71
STA. 304+00A TO STA. 311+72.21A

RAMP PVMT [((14' + 16').5) 100' + ((14' + 15.97').5) 98.5'] x 0.11 = 331 SY
(ML THICKNESS)

PVMT TRANS ((24.97' + 25').5) x 62.5' x 0.11 = 174 SY
@ MAINLINE

RAMP PVMT [(16' x 140.02') + ((16' + 33').5) 155.01' + ((14.5' + 17.5').5) 128.97' + ((17.5' + 19').5) 87.21'] x 0.11 = 1,097 SY

SHLDR (RT/LT) [(2' + 3').5) 98.5' = ((8' + 6').5) 100' + (6' x 98.5)] x 0.11 = 171 SY
(ML THICKNESS)

SHLDR WIDENED 3' x 585' x 0.11 = 195 SY

SHLDR (RT/LT) [(3' x 297.19') + (6' x 424')] x 0.11 = 382 SY

RAMP AR FROM SMITH-EDMONDSON ROAD TO RAMP A
STA. 309+586.19AR TO STA. 311+10.16AR

RAMP PVMT [((14.5' + 18').5) 93.4' + 1316.49 SF (CADD)] x 0.11 = 315 SY

SHLDR (RT/LT) 3' x 93.4' x 0.11 = 31 SY

RAMP B FROM NORTHBOUND I-71 TO SMITH-EDMONDSON ROAD
STA. 306+56.30B TO STA. 311+16.23B

PVMT TRANS ((26.4' + 25.2').5) 62.5' x 0.11 = 179 SY
@ MAINLINE

RAMP PVMT [((16.2' + 16').5) 13.41' + (16' x 50') + ((16' + 24').5) 25' + (24' x 217.79') + 3370.51 SF (CADD)] x 0.11 = 1,124 SY

SHLDR (RT/LT) [(6' x 306.2') + (3' x 306.2)] x 0.11 = 306 SY

SHLDR WIDENED 3' x 202' x 0.11 = 67 SY

RAMP D FROM SOUTHBOUND I-71 TO WILLIAMS AVENUE
STA. 320+61.96 TO STA. 326+86.30D

RAMP PVMT [(4840.84 SF (CADD)) + (24' x 310') + ((24' + 16').5) 50' + (16' x 67.42') + ((16' + 16.15').5) 6.38] x 0.11 = 1,607 SY

PVMT TRANS ((25.15' + 26.6').5) x 62.5' x 0.11 = 180 SY
@ MAINLINE

SHLDR (RT/LT) [(3' x 433.8') + (6' x 495.9')] x 0.11 = 451 SY

SHLDR WIDENED 3' x 495.9' x 0.11 = 165 SY

RAMP C FROM EDWARDS ROAD TO NORTHBOUND I-71
STA. 327+36.11C TO STA. 333+67.25C

FEATHERING ((20.70' + 18').5) 85' x 0.11 = 183 SY

RAMP PVMT (16' x 283.66') x 0.11 = 504 SY

PVMT TRANS 25' x 62.5' x 0.11 = 174 SY
@ MAINLINE

RAMP PVMT [((16' + 14').5) 100' + ((16' + 14').5) 99.98'] x 0.11 = 333 SY
(ML THICKNESS)

SHLDR (RT/LT) [(6' x 283.66') + (3' x 283.66')] x 0.11 = 284 SY

SHLDR (RT/LT) [(6' x 119.93') + ((6' + 8').5) 99.98 + ((3' + 2').5) 100'] x 0.11 = 186 SY
(ML THICKNESS)

SHLDR WIDENED 3' x 466.09' x 0.11 = 155 SY

RAMP E FROM EB NORWOOD LATERAL TO SOUTHBOUND I-71
STA. 7+40.00E TO STA. 17+07.53E

RAMP PVMT [((17.19' + 16').5) 59.73' + (16' x 646.77')] x 0.11 = 1,260 SY

PVMT TRANS [(25' x 61.03') + ((25' + 24.83').5) 8.47] x 0.11 = 193 SY
@ MAINLINE

RAMP PVMT [((15.83' + 14').5) 91.53' + ((16' + 14').5) 100'] x 0.11 = 318 SY
(ML THICKNESS)

SHLDR (RT/LT) [(6' x 706.5') + (3' x 706.5')] x 0.11 = 707 SY

SHLDR (RT/LT) [(6' x 91.53') + ((6' + 8').5) 100' + ((3' + 2').5) 91.53] x 0.11 = 164 SY
(ML THICKNESS)

SHLDR WIDENED 3' x 867.53' x 0.11 = 289 SY

RAMP F FROM NORTHBOUND I-71 TO RAMP T EASTBOUND
STA. 4+13.00F TO STA. 14+58.99F

PVMT TRANS ((26.17' + 25').5) 62.5' x 0.11 = 178 SY
@ MAINLINE

RAMP PVMT [(16' x 783.49') + ((16' + 14').5) 100' + (16' + 14').5) 100'] x 0.11 = 1,726 SY

SHLDR (RT/LT) [(6' x 733.49') + (3' x 783.49') + ((3' + 2').5) 100'] x 0.11 = 778 SY

250' x 2.25' x 0.11 = 63 SY
250' x 3.75' x 0.11 = 105 SY

SHLDR WIDENED 3' x 458.99' x 0.11 = 153 SY

RAMP J FROM RAMP K TO NORTHBOUND I-71
STA. 13+07.9J TO STA. 26+94.85J

RAMP PVMT [((18' + 16').5) 100' + (16' x 983.9')] x 0.11 = 1,938 SY

SHLDR (RT/LT) [(8' x 88.1') + ((8' + 6').5) 14' + (6' x 981.8') + (3' x 1083.9')] 0.11 = 1,105 SY

SHLDR WIDENED 3' x 967.4' x 0.11 = 323 SY

PVMT TRANS 25' x 62.5' x 0.11 = 174 SY
@ MAINLINE

RAMP PVMT [(16' x 40.55') + ((16' + 14').5) 100' + ((16' + 14').5) 100'] x 0.11 = 405 SY
(ML THICKNESS)

SHLDR (RT/LT) [(3' x 40.55') + ((3' + 2').5) 100' + (3' x 40.55) + ((3' + 8').5) 200']0.11 = 177 SY
(ML THICKNESS)

RAMP I FROM SOUTHBOUND I-71 TO RAMP L
STA. 0+00.00I TO STA. 10+40.00I

RAMP PVMT [((14' + 16').5) 100' + ((16' + 16.98').5) 32.5' + ((14.65' + 16').5) 67.5' + (16' x 777.5')] x 0.11 = 1,723 SY

PVMT TRANS ((25' + 26.77').5) 62.5' x 0.11 = 180 SY
@ MAINLINE

SHLDR (RT/LT) [((2.33' + 3').5) 67.5 +)3' x 777.5') + (8' x 70.5') + ((8' + 6').5) 39.4' + (6' x 867.6')] x 0.11 = 951 SY

SHLDR WIDENED 3' x 867.6' x 0.11 = 289 SY

RAMP G FROM NORTHBOUND I-71 TO RAMP T WESTBOUND
STA. 3+29.00G TO STA. 10+8.34G

PVMT TRANS ((27.44' + 25.29').5) 62.5' x 0.11 = 183 SY
@ MAINLINE

RAMP PVMT [((16.29' + 16').5) 14.5' + (16' x 105.54') + ((16' x 11').5) + (16' x 178.23') + ((16' + 14').5) 156.34' + ((16' + 14').5) 100'] x 0.11 =968 SY

PVMT TRANS 25' x 12.5' x 2 x 0.11 = 69 SY
@ STRUCTURE

STA. 5+49.04G TO STA. 6+09.27G BRIDGE HAM-71-0815S

SHLDR (RT/LT) [(6' x 120.04') + (6' x 434.57') + (3' x 130.5') + ((3' + 2').5) 156.34'] 0.11 = 457 SY

SHLDR WIDENED [(3' x 176') + (3' x 464.34')] x 0.11 = 214 SY

APPR. SLABS 25' x 25' x 2 x 0.11 = 139 SY

RAMP H FROM BARROW AVENUE TO SOUTHBOUND I-71
STA. 0+00.00H TO STA. 24+07.41H

RAMP PVMT [((14' + 16').5) 100' + ((14' + 14.5').5) 19.7'] x 0.11 = 198 SY
(ML THICKNESS)

PVMT TRANS ((25.04' + 25.3').5) x 62.5' x 0.11 = 175 SY
@ MAINLINE

RAMP PVMT [484.67 SF (CADD) + ((16' + 18'.5) 58.85' + ((18' + 34').5) 480' + (16' x 110.53') + ((16' + 18').5) 100' + ((46' + 20.9').5) 300.26' + (16' x 298.6') + ((16' + 16.75').5) 32.41'] x 0.11 = 3,643 SY

SHLDR (RT/LT) [((3.6' + 3').5) 24.8' + (6' x 20') + (3' x 756.93') + (3' x 298.21') + (3' x 331.01') + (2' x 4') + (6' x 532.9') + ((4' + 13').5) 196.4 + (6' x 314.59') + ((7' + 9').5) 17.1 + (6' x 335.41')] x 0.11 = 1,475 SY

SHLDR WIDENED [(3' x 62.5') + (3' x 526.4') + (3' x 340.59') + ((7' + 9').5) 17.1 + (3' x 408.4') + ((3' + 0').5) 25'] x 0.11 = 465 SY

PVMT TRANS (321.88 + 329.83) SF CADD HAM-71-0817R x 0.11 = 72 SY
@ STRUCTURE
(302.46' + 364.89') SF CADD HAM 71-08385 x 0.11 = 74 SY

FEATHERING (459.50 + 1495.25) SF CADD x 0.11 = 217 SY

APPR. SLAB (650.65 + 649.21) SF CADD HAM-71-0817R x 0.11 = 144 SY
(648.60 + 708.35) SF CADD HAM-71-838S x 0.11 = 151 SY

RAMP H1 FROM RAMP H TO RAMP T WESTBOUND
STA. 0+00.00H1 TO STA. 4+24.88H1

RAMP PVMT [(16' x 324.86') + ((16' +18').5) 100'] x 0.11 = 766 SY

SHLDR (RT/LT) [((4' + 10').5) 155.91' + (3' x 267.92') + (6' x 352.4') + (3' x 72.46')] x 0.11 = 470 SY

SHLDR WIDENED 3' x 352.4 ' x 0.11 = 118 SY

RAMP N FROM NORTHBOUND I-71 TO RIDGE AVENUE
STA. 3+36.00N TO STA. 13+79.31N

PVMT TRANS ((26.48' + 25.23').5) 62.5' x 0.11 = 180 SY
@ MAINLINE

RAMP PVMT [((16.23' + 16').5) 11.54' + (16' x 769.27') + ((16' + 14').5) 100'] 0.11 = 1,555 SY

PVMT TRANS [((21.58' + 20.84').5) 45.69' + ((20.84' + 16.14').5) 25' + ((16.14' + 15.95').5) 29.13'] x 0.11 = 211 SY
@ CROSS ROAD

SHLDR (RT/LT) [(6' x 880.81') + (3' x 880.81')] x 0.11 = 881 SY

SHLDR WIDENED [(3' x 996.32') + ((6' + 1.58').5) 25'] x 0.11 = 343 SY

RAMP P FROM KENNEDY AVENUE TO NORTHBOUND I-71
STA. 2+04.95P TO STA. 10+45.90P

FEATHERING ((25.58' + 24.58').5) 75' x 0.11 = 209 SY

RAMP PVMT [(18.58' x 132.71') + ((41.16' + 16').5) 190.71 + (16' x 219.13')] x 0.11 = 1,269 SY

SHLDR (RT/LT) [(6' x 617.66') + (3' x 416.58')] x 0.11 = 551 SY

SHLDR WIDENED 3' x 755.05' x 0.11 = 252 SY

PVMT TRANS [(25' x 23.4') + ((25' + 23.9').5) 39.1] x 0.11 = 171 SY
@ MAINLINE

RAMP PVMT [((15.21' + 14').5) 60.9' + ((16' + 14').5) 100'] x 0.11 = 266 SY
(ML THICKNESS)

SHLDR (RT/LT) [(6' x 75') + ((6' + 8').5) 85.9' + ((2.7' + 2').5) 60.9'] x 0.11 = 133 SY

RAMP P1 FROM KENNEDY AVENUE TO RAMP P
STA 0+36.00P1 TO STA. 2+21.62P1

FEATHERING (495.57 SF (CADD) + (21.58' x 58.24')) x 0.11 = 195 SY

RAMP PVMT 18.58' x 110.62' x 0.11 = 228 SY

SHLDR (LT) 3' x 110.62' x 0.11 = 37 SY

PAVEMENT AREAS

PAVEMENT CALCULATIONS

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CALC. BY DATE 10-7-94
CHKD. BY DATE 1-25-95

HAM-71-2.92

OHIO FHWA REGION 5

156 615

RAMP R FROM SOUTHBOUND I-71 TO HIGHLAND AVENUE
STA. 2+92.7R TO STA. 10+14.50R

PVMT TRANS ((26.37' + 25.12').5) 62.8' x 0.11 = 180 SY
@ MAINLINE

RAMP PVMT [((16.12' + 16').5) 6.15' + (16' x 338.35') + ((16' + 24').5) 50' + (24' x 189.5')] x 0.11 = 1,229 SY

SHLDR (RT/LT) [(6' x 58.4') + (3' x 584')] x 0.11 = 584 SY

SHLDR WIDENED [(3' x 646.8') + ((3' + 1.5').5) 24.7'] x 0.11 = 222 SY

FEATHERING [((33' + 30.08').5) 24.52' + 1912.5 SF (CADD)] x 0.11 = 298 SY

NORWOOD LATERAL TO RAMPS L,K AND E
STA 159+00NL TO STA. 162+46.81NL

FEATHERING [(49' x 75') + (37' x 75')] x 0.11 = 717 SY

ML PVMT [(36' x 69.56') + ((36' + 47').5) 202.25' + (24' x 271.81')] 0.11 = 1,936 SY

SHLDR (RT/LT) (8' x 271.81') x 2 x 0.11 = 483 SY

SHLDR (MEDIAN) 5' x 271.81' x 2 x 0.11 = 302 SY

RAMP L FROM RAMP T TO NORWOOD LATERAL (WESTBOUND)
STA. 5+70.64L TO STA. 26+52.36L

RAMP PVMT [(24' x 779.36') + ((24' + 26').5) 60' + ((26' + 34').5) 240' + (16' x 625.05') + 155.39 SF (CADD)] x 0.11 = 4,173 SY

SHLDR (RT/LT) [(5' x 1575.36') + ((5' + 3.28').5) 125.93' + (8' x 1078.24') + ((4' + 14').5) 187.12' + (6' x 459.5')] x 0.11 = 2,385 SY

SHLDR WIDENED [(3' x 366') + (3' x 19')] x 0.11 = 257 SY

PVMT TRANS (308.59 x 312.50) SF (CADD) x 0.11 = 69 SY
@ STRUCTURE

STA. 23H1.34L TO STA. 26+16.6L BRIDGE HAM-71-07998

APPR. SLAB (619.20 + 643.04) SF (CADD) x 0.11 = 140 SY

RAMP K FROM EASTBOUND NORWOOD LATERAL TO RAMP T
STA. 5+81.56K TO STA. 26+52.36K

RAMP PVMT [((47' + 64.19').5) 158.44' + (34' x 60') + (24' x 95') + ((24' + 46').5) 411.23' + ((18' + 16').5) 97.94' + (16' x 833.71') + 176.40 SF (CADD) + ((7.31' + 20').5) 16'] x 0.11 = 4,769 SY

SHLDR (RT/LT) [(8' x 158') + ((10' + 8').5) 50' + (8' x 457.6') + (3' x 44.47') + (6' x 882.68') + (6' x 22') + ((7' + 10').5) 12.3' + (5' x 1568.44') + ((5' + 3.10').5) 112.72' + (3' x 37.5')] x 0.11 = 2,210 SY

SHLDR WIDENED [((7' + 10').5) 12.3' + (3' x 897.3') + (3' x 49.36')] x 0.11 = 327 SY

PVMT TRANS (317.56 + 312.53) SF (CADD) x 0.11 = 70 SY
@ STRUCTURE

STA. 22+97.22 K TO STA. 26+07.55K BRIDGE HAM-71-0799R

APPR. SLABS (677.8 + 639.74) SF (CADD) x 0.11 = 146 SY

RAMP T EASTBOUND FROM RAMP K TO RIDGE AVENUE
STA. 27+50.00T TO STA. 50+99.3T

RAMP PVMT [(16' x 285.91') + ((16' + 14').5) 100' + ((32' + 24').5) 194.75' + (24' x 968.35') + ((24' + 59').5) 203.35' + ((34' + 32').5) 100' + (24' x 21.65') + ((24' + 36').5) 100' + 36' x 228.32') + 2428.39 SF CADD] x 0.11 = 6,745 SY

FEATHERING 2448.56 SF (CADD) x 0.11 = 272 SY

SHLDR (RT/LT) [(6' x 309.6') + ((9' + 7').5) 8.1' + ((13' + 3').5) 76.31' + (6' x 1164.09') + (6' x 197.12') + (8' x 21.65') + ((8' + 6').5) 40.74' + (6' x 262.56') + ((6' + 2').5) 25.02' + (3' x 2230.28')] 0.11 = 2,169 SY

SHLDR WIDENED [(3' x 309.6') + ((9' + 7').5) 8.1' + (3' x 349.96') + (3' x 423.12') + (3' x 303.3') + ((6' + 2').5) 25.02'] x 0.11 = 480 SY

RAMP T WESTBOUND FROM RIDGE AVENUE TO RAMP L
STA. 27+50.00T TO STA. 49+80.28T

RAMP PVMT [(96.94 SF CADD) + 16' x 36.11') + ((16' + 32').5) 480' + ((14' + 16').5) 100' + (16' x 376.79') + ((16' + 34').5) 540' + ((14' + 16').5) 100' + (16' x 583.49')] 0.11 = 4,896 SY

SHLDR (RT/LT) [(3' x 2230.28') + (6' x 513.61') + ((3' + 13').5) 138' + ((7' + 9').5) 15' + (6' x 878.79') + ((2' + 3').5) 55.91' + ((8' + 10').5) 29.5' + (6' x 527.58')] x 0.11 = 2,204 SY

SHLDR WIDENED [(3' x 512.61') + ((7' + 9').5) 15' + (3' x 878.79') + ((8' + 10').5) 29.5 + (3' x 527.58')] x 0.11 = 683 SY

RAMP T FROM RIDGE AVENUE TO RAMP T WESTBOUND
STA. 0+00.00T1 TO STA. 1+21.67T1

RAMP PVMT 1054.39 SF (CADD) x 0.11 = 117 SY

FEATHERING 1678.69 SF (CADD) x 0.11 = 187 SY

RAMP T2 FROM RAMP T TO RIDGE AVENUE
STA. 0+63.50T2 TO STA. 1+38.50T2

RAMP PVMT 390.44 SF (CADD) x 0.11 = 43 SY

FEATHERING 1811.53 SF (CADD) x 0.11 = 201 SY

RAMP U FROM RAMP T EASTBOUND TO MARBURG AVENUE
STA. 1+97.12U TO STA. 4+07+05U

RAMP PVMT [((18' + 16').5) 100' + (16' x 34.93')] x 0.11 = 251 SY

FEATHERING [(50' x 25') + ((25' + 21').5) 25'] x 0.11 = 203 SY

SHLDR (RT/LT) 1.125' x 134.93' x 0.11 = 17 SY
1.875' x 134.93' x 0.11 = 28 SY

SHLDR WIDENED [(3' x 184.93') + ((6' + 2').5) 25'] x 0.11 = 73 SY

RAMP M FROM RIDGE AVENUE TO RAMP H
STA. 0+00.00M TO STA. 6+48.55M

RAMP PVMT [((14' + 16').5) 100' + ((14' + 16').5) 100' + (16' x 332.55') + (22.16' x 28.81')] x 0.11 = 996 SY

FEATHERING 22.16' x 87.19' x 0.11 = 215 SY

SHLDR (RT/LT) [((2' + 3').5) 100' + (3' x 332.55') + (6' x 561.36')] 0.11 = 513 SY

SHLDR WIDENED 3' x 561.36' x 0.11 = 187 SY

PAVEMENT TRANSITIONS AT MAINLINE BRIDGES

BRIDGE (HAM-71-0445) NB & SB I-71 OVER VICTORY PARKWAY
STA. 292+16.29 TO STA. 293+53.79
STA. 293+53.79 TO STA. 295+74.71 (STRUCTURE)
STA. 295+74.71 TO STA. 297+12.21

NB (3944.56 + 2782.85 + 4299.07 + 2485.79) SF x 0.11 = 1,501 SY
(2548.71 + 2553.25) SF CADD x 0.11 = 567 SY

SB (723.35 + 6126.72 + 930.42 + 7053.41) SF CADD x 0.11 = 1,648 SY
(2633.85 + 2662.39) SF CADD x 0.11 = 589 SY

BRIDGE (HAM-71-0788L) SB I-71 OVER RAMPS J, K AND L
STA. 372+20.83SB TO STA. 373+58.33SB
STA. 373+58.33SB TO STA. 379+83.02SB (STRUCTURE)
STA. 379+83.02SB TO STA. 381+20.52SB

SB (6297.43 + 548.38 + 1245.26 + 5600.30) SF CADD x 0.11 = 1,522 SY
(291.73 + 2429.73 + 2087.31 + 408.02) SF CADD x 0.11 = 580 SY

TOTALS

3" TO 2"	1,736 SY
	4,671 SY

APPR SLAB	PVMT TRANS @ STRUCTURE	RAMP PVMT	PVMT TRANS @ MAINLINE	RAMP PVMT ML THICK	SHLDR (RT/LT)	SHLDR (RT/LT) ML THICK	SHLDR WIDEN	FEATHERING	GUTTER FINISH AREAS SHLDR INSIDE	GUTTER FINISH AREAS (RT/LT) CURBSIDE	SHLDR TRANS @ MAINLINE INSIDE	SHLDR TRANS @ MAINLINE CURBSIDE	SHLDR (RT/LT) ML THICK INSIDE	SHLDR (RT/LT) ML THICK CURBSIDE
147	35	1504	111	298		21			317	529	23	39	57	72
		2784	174	297	468	142		351						
		7371	111	419	425	44			1032	1720	23	34	77	100
		284							11	19				
		1243	141	70		21		343	181	302	56	35	21	13
		1925	111	641		85			371	593	23	39	108	152
		653							140	233				
		2026	127	379		36			301	501	23	39	71	90
		3113	132	66	292				323	539	27	42	21	16
		1097	174	331	382	171	195							
		315			31									
		1124	179		306		67							
		1607	180		451		165							
		504	174	333	284	186	155	183						
		1260	193	318	707	164	289							
		1726	178		778		153		63	105				
		1938	174	405	1105	177	323							
		1723	180		951		289							
139	69	968	183		457		214							
295	146	3643	175	198	1475		465	217						
		766			470		118							
	211 @ X RD	1555	180		881		343							
		1269	171	266	551	133	252	209						
		228			37			195						
		1229	180		584		222	298						
		1936			785			717						
140	69	4173			2385		257							
146	70	4769			2210		327							
		6745			2169		480	272						
		4896			2204		683							
		117						187						
		43						201						
		251			90		73	203	17	28				
		996			513		187	215						
867	389	65781	3228	4021	20991	1180	5257	3591	2756	4569	175	228	355	443

PAVEMENT AREAS

PAVEMENT CALCULATIONS

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CROSS ROADS

MCMILLAN STREET (BRIDGE HAM-71-0315)
STA. 6+83.72MCM TO STA. 10+85.00MCM

APPR SLAB (1100.00 + 1716.87) SF(CADD) x 0.11 = 313 SY

PVMT 3376.08SF (CADD) x 0.11 = 375 SY
PVMT TRANS
@STRUCTURE 1575.41SF (CADD) x 0.11 = 175 SY

W.H. TAFT ROAD (BRIDGE HAM-71-0327)
STA. 12+65.32 TAFT TO STA. 17+24.07 TAFT

PVMT TRANS
@ STRUCTURE 44' x 37.5' x 2 x 0.11 = 367 SY

APPR SLAB 44' x 25' x 2 x 0.11 = 244 SY

OAK STREET (BRIDGE HAM-71-0339)
STA. 5+57.00 OAK TO STA. 9+81.41 OAK

PVMT TRANS
@ STRUCTURE (2253.94 + 3031.37) SF (CADD) x 0.11 = 587 SY

APPR SLAB (1100.00 + 1100.00) SF (CADD) x 0.11 = 244 SY

LINCOLN AVENUE (BRIDGE HAM-71-0362)
STA. 5+77.9 LINCOLN TO STA. 9+45.74 LINCOLN

PVMT TRANS
@ STRUCTURE (2309.14 + 2766.57 + 681.05) SF (CADD) x 0.11 = 640 SY

APPR SLAB (1427.34 + 1234.54 + 312.84) SF (CADD) x 0.11 = 331 SY

M.L. KING DRIVE (BRIDGE HAM-71-0376)
STA. 97+58.90 ML KING TO STA. 105+96.32 ML KING

FEATHERING
@ STRUCTURE 2625 SF (CADD) x 2 x 0.11 = 583 SY

APPR SLABS (1848 + 1750) SF (CADD) x 0.11 = 400 SY

FREDONIA AVENUE (BRIDGE HAM-71-0398)
STA. 8+46.04 FREDONIA TO STA. 12+51.37 FREDONIA

FEATHERING
@ STRUCTURE (2516.45 + 2289.61) SF (CADD) x 0.11 = 534 SY

APPR SLABS (1100.18 + 1240.50) SF (CADD) x 0.11 = 260 SY

BLAIR AVENUE (BRIDGE HAM-71-0422)
STA. 8+08.25 BLAIR TO STA. 17+38.51 BLAIR

FEATHERING
@ STRUCTURE (1649.84 + 1650.0) SF (CADD) x 0.11 = 367 SY

APPR SLABS (881.48 + 1102.66) SF (CADD) x 0.11 = 221 SY

WOODBURN AVENUE (BRIDGE HAM-71-0500)
STA. 0+94.25 WOODBURN TO STA. 5+94.40 WOODBURN

FEATHERING 2130.44 SF (CADD) x 0.11 = 237 SY

PVMT 4293.85 SF (CADD) x 0.11 = 477 SY

FEATHERING
(xAPPR SLAB) 1286.78 SF (CADD) x 0.11 = 143 SY

APPR SLAB 1100.0 SF (CADD) = 122 SY

MONTGOMERY ROAD (BRIDGE HAM-71-0522)
STA. 2+04.97 MONTGOMERY TO STA. 7+61.58 MONTGOMERY
BREWSTER AVENUE STA.0+00 TO STA. 1+45.42

FEATHERING
@ STRUCTURE 2587.5 SF CADD x 0.11 = 288 SY

PVMT TRANS
@ STRUCTURE (802.82 + 1956.36) SF CADD x 0.11 = 307 SY

PVMT 10523.48SF CADD x 0.11 = 1,169 SY

FEATHERING (4065.47 + 4063.48)SF CADD x 0.11 = 903 SY

APPR SLAB 2070.0 SF CADD x 0.11 = 230 SY

TRIMBLE AVENUE (BRIDGE HAM-71-0546)
STA. 3+90.72 TRIMBLE TO STA. 7+04.56 TRIMBLE

FEATHERING
@ STRUCTURE 37.5' x 44' x 2 x 0.11 = 367 SY

APPR SLABS 25' x 44' x 2 x 0.11 = 244 SY

DANA AVENUE (BRIDGE HAM-71-0598)
STA. 5+97.19 DANA TO STA. 17+90.1 DANA

FEATHERING [(7492.62 + 7125.47 + 2464.29 (GRIGG AVE))SF] x 0.11 = 1898 SY

APPR SLAB
PVMT TRANS (2198.06 + 2525.5)SF CADD x 0.11 = 525 SY
@ STRUCTURE (1192.251 + 1576.97)SF CADD x 0.11 = 308 SY

PVMT (20703.04 + 2021.50 + 36719.65)SF CADD x 0.11 = 6605 SY

DUCK CREEK RAMP @ DANA AVENUE
STA. 19+03.43DRR TO STA. 23+05.83DRR

RAMP PVMT 7727.50SF (CADD) x 0.11 = 859 SY

DUCK CREEK ROAD TO DANA AVENUE
STA. 17+54.38 DUCK CREEK TO STA. 20+26.87 DUCK CREEK

FEATHERING 7612.01 SF (CADD) x 0.11 = 846 SY

PVMT (5534.48 + 7038.05)SF (CADD) x 0.11 = 1,397 SY

SMITH-EDMONDSON ROAD (GARLAND AVE & ATLANTIC AVE)
STA. 11+29.00 SMITH-EDM. TO STA. 19+67.01 SMITH-EDM

(BRIDGE HAM-71-0670)
FEATHERING (3929.37 + 4044.01 + 1893.59 + 2310.98)SF CADD x 0.11 = 1,353 SY

PVMT (788.35 + 4895.82 + 8697.33)SF CADD x 0.11 = 1,598 SY

PVMT TRANS
@ STRUCTURE (587.96 + 589.76)SF CADD x 0.11 = 131 SY

APPR SLAB (1200.04 + 1200.14)SF CADD x 0.11 = 267 SY

WILLIAMS AVENUE OVER I-71 (NB & SB) (BRIDGE HAM-71-0891)
STA. 12+96.95 WILLIAMS TO STA. 19+18.53 WILLIAMS

FEATHERING [(48' x 75') + (48' x 37.5')] x 0.11 = 600 SY

PVMT TRANS
@ STRUCTURE 12.5' x 48' x 0.11 = 67 SY

APPR SLAB 48' x 25' x 2 x 0.11 = 267 SY

PVMT 48' x 159.72' x 0.11 = 852 SY

ROBERTSON AVENUE OVER I-71 (NB & SB) (BRIDGE HAM-71-0726)
STA. 11+32.55 ROBERTSON TO STA. 15+38.37 ROBERTSON

FEATHERING (1799.89 + 2351.91)SF CADD x 0.11 = 461 SY

APPR SLAB 1200.12SF CADD x 2 x 0.11 = 267 SY

RIDGE AVENUE OVER I-71 (NB & SB) (BRIDGE HAM-71-0846)
STA. 28+02.74 RIDGE TO STA. 31+90.79 RIDGE

PVMT TRANS
@ STRUCTRE (1804.98 + 1806.0)SF CADD x 0.11 = 401 SY

APPR
SLABS (960.0 + 963.20)SF CADD x 0.11 = 214 SY

KENNEDY AVENUE OVER I-71 (NB & SB) (BRIDGE HAM-71-0870)
STA. 18+73.59 KENNEDY TO STA. 23+48.39 KENNEDY

FEATHERING (1943.28 + 1961.42)SF CADD x 0.11 = 434 SY

APPR SLAB (1205.04 + 1204.94)SF CADD x 0.11 = 268 SY

APPR SLAB	PVMT	PVMT TRANS @ STURCT	FEATHER @ STRUCT	FEATHER	FEATHER xAPPR SLAB
313	375	175	-	-	-
244	-	367	-	-	-
244	-	587	-	-	-
331	-	640	-	-	-
400	-	-	583	-	-
260	-	-	534	-	-
221	-	-	367	-	-
122	477	-	-	237	143
230	1169	307	288	903	-
244	-	-	367	-	-
525	6605	308	-	1898	-
-	859	-	-	-	-
-	1397	-	-	846	-
267	1398	131	-	1353	-
267	852	67	-	600	-
267	-	-	-	461	-
214	-	401	-	-	-
268	-	-	-	434	-
4,417	13,332	2,983	2,139	6,732	143

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PAVEMENT AREAS

PAVEMENT CALCULATIONS

ITEM 407-TACK COAT (APPLICATION RATE:0.075 GAL/SY) USING SS 924

MAINLINE

ML FEATHER	4250 SY x 0.075 GAL/SY = 319 GAL
SHLDR FEATHER	1697 SY x 0.075 GAL/SY = 127 GAL
FEATHER (6F) INSIDE	144 SY x 0.075 GAL/SY = 11 GAL
OUTSIDE	92 SY x 0.075 GAL/SY = 7 GAL
MAINLINE	369028 SY x 0.075 GAL/SY = 27,677 GAL
ML SHLDR	30667 SY x 0.075 GAL/SY = 2,300 GAL
MEDIAN SHLDR	72 SY x 0.075 GAL/SY = 5 GAL
GUTTER FINISH	
INSIDE	20213 SY x 0.075 GAL/SY = 1,516 GAL
OUTSIDE	12991 SY x 0.075 GAL/SY = 974 GAL

PAVEMENT TRANSITION @ MAINLINE BRIDGES
(4671 + 1736) SY x 0.075 GAL/SY = 481 GAL

RAMPS

APPR. SLAB	867 SY x 0.075 GAL/SY = 65 GAL
PVMT TRANS @ STRUCT	600 SY x 0.075 GAL/SY = 45 GAL
RAMP PVMT	65781 SY x 0.075 GAL/SY = 4,934 GAL
PVMT TRANS @ ML	3228 SY x 0.075 GAL/SY = 242 GAL
RAMP PVMT (ML THICK)	4021 SY x 0.075 GAL/SY = 302 GAL
SHLDR (RT/LT)	20991 SY x 0.075 GAL/SY = 1,574 GAL
SHLDR (RT/LT)	
ML THICK	1180 SY x 0.075 GAL/SY = 89 GAL
SHLDR WIDEN	5257 SY x 0.075 GAL/SY = 394 GAL
FEATHERING	3591 SY x 0.075 GAL/SY = 269 GAL
GUTTER FINISH	
SHLDR (RT/LT) INSIDE	2756 SY x 0.075 GAL/SY = 207 GAL
OUTSIDE	4569 SY x 0.075 GAL/SY = 343 GAL
SHLDR TRANS INSIDE	175 SY x 0.075 GAL/SY = 13 GAL
@ MAINLINE OUTSIDE	233 SY X 0.075 GAL/SY = 18 GAL
SHLDR (RT/LT) INSIDE	355 SY x 0.075 GAL/SY = 27 GAL
ML THICK OUTSIDE	443 SY x 0.075 GAL/SY = 33 GAL

CROSS ROADS

APPR. SLAB	4417 SY x 0.075 GAL/SY = 331 GAL
PVMT	13386 SY x 0.075 GAL/SY = 1004 GAL
PVMT TRANS	
@ STRUCT.	3015 SY x 0.075 GAL/SY = 226 GAL
FEATHER @ STRUCT	2139 SY x 0.075 GAL/SY = 160 GAL
FEATHERING	6732 SY x 0.075 GAL/SY = 505 GAL
FEATHER x APPR SLAB	143 SY x 0.075 GAL/SY = 11 GAL

TOTAL 44,209 GAL

ITEM 446-1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20

MAINLINE

ML FEATHER	4250 SY x 9 SF/SY x 0.1042' x 0.037 = 148 CY
SHLDR FEATHER	1697 SY x 9 SF/SY x 0.1042' x 0.037 = 59 CY
FEATHER (6F) INSIDE	144 SY x 9 SF/SY x 0.1042' x 0.037 = 5 CY
OUTSIDE	92 SY x 9 SF/SY x 0.1354' x 0.037 = 4 CY
MAINLINE	369028 SY x 9 SF/SY x 0.1042' x 0.037 = 12,818 CY
ML SHLDR	30667 SY x 9 SF/SY x 0.1042' x 0.037 = 1,065 CY
MEDIAN SHLDR	66900 SY x 9 SF/SY x 0.1042' x 0.037 = 2,324 CY
SHLDR WIDEN	72 SY x 9 SF/SY x 0.1042' x 0.037 = 3 CY
GUTTER FINISH	
INSIDE	20213 SY x 9 SF/SY x 0.1042' x 0.037 = 702 CY
OUTSIDE	12991 SY x 9 SF/SY x 0.1354' x 0.037 = 586 CY

PAVEMENT TRANSITION @ MAINLINE BRIDGES

	4671 SY x 9 SF/SY x 0.1042' x 0.037 = 162 CY
	1736 SY x 9 SF/SY x 0.1563' x 0.037 = 90 CY

RAMPS

RAMP PVMT	65781 SY x 9 SF/SY x 0.1042' x 0.037 = 2285 CY
PVMT TRANS @ ML	3228 SY x 9 SF/SY x 0.1042' x 0.037 = 112 CY
RAMP PVMT (ML THICK)	4021 SY x 9 SF/SY x 0.1042' x 0.037 = 140 CY
SHLDR (RT/LT)	20991 SY x 9 SF/SY x 0.1042' X 0.037 = 729 CY
SHLDR (RT/LT)ML THICK	1180 SY x 9 SF/SY x 0.1042' x 0.037 = 41 CY
SHLDR WIDEN	5257 SY x 9 SF/SY x 0.1042' x 0.037 = 183 CY
FEATHERING	3591 SY x 9 SF/SY x 0.1042' x 0.037 = 125 CY
APPR. SLAB	867 SY x 9 SF/SY x 0.1042' x 0.037 = 30 CY
PVMT TRANS @ STRUCT	600 SY x 9 SF/SY x 0.1042' x 0.037 = 21 CY
GUTTER FINISH	
SHLDR (RT/LT) INSIDE	2756 SY x 9 SF/SY x 0.1042' x 0.037 = 96 CY
OUTSIDE	4569 SY x 9 SF/SY x 0.1354' x 0.037 = 206 CY
SHLDR TRANS INSIDE	175 SY x 9 SF/SY x 0.1042' x 0.037 = 6 CY
@ MAINLINE OUTSIDE	233 SY x 9 SF/SY x 0.1354' x 0.037 = 11 CY
SHLDR (RT/LT) INSIDE	355 SY x 9 SF/SY x 0.1042' x 0.037 = 12 CY
ML THICK OUTSIDE	443 SY x 9 SF/SY x 0.1354' x 0.037 = 20 CY

CROSS ROADS

PVMT TRANS	
@ STRUCT.	845 SY x 9 SF/SY x 0.1042' x 0.037 = 29 CY
APPR. SLAB	1289 SY x 9 SF/SY x 0.1042' x 0.037 = 45 CY
PVMT	10278 SY x 9 SF/SY x 0.1042' x 0.037 = 357 CY
FEATHER	4754 SY x 9 SF/SY x 0.1042' x 0.037 = 165 CY

TOTAL 22,579 CY

ITEM 446-1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, AC-20

RAMPS

RAMP PVMT	65781 SY x 9 SF/SY x 0.1458' x 0.037 = 3,197 CY
PVMT TRANS @ STRUCT	285 SY x 9 SF/SY x 0.1146' x 0.037 x 0.5 = 6 CY
FEATHERING	3802 SY x 9 SF/SY x 0.146' x 0.037 x 0.5 = 73 CY

CROSS ROADS

PVMT	10278 SY x 9 SF/SY x 0.1458' x 0.037 = 500 CY
PVMT TRANS @ STRUCT	1067 SY x 9 SF/SY x 0.1146' x 0.037 = 41 CY
FEATHERING	5600 SY x 9 SF/SY x 0.1146' x 0.037 x .25 = 54 CY
	1132 SY x 9 SF/SY x 0.1146' x 0.037 x .67 = 29 CY

TOTAL 3,900 CY

ITEM 446-3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20

MAINLINE

ML FEATHER	4250 SY x 9 SF/SY x 0.25' x 0.037 = 354 CY
SHLDR FEATHER	1697 SY x 9 SF/SY x 0.25' x 0.037 = 141 CY
FEATHER (6F) INSIDE	144 SY x 9 SF/SY x 0.1.667' x 0.037 = 8 CY
MAINLINE	369028 SY x 9 SF/SY x 0.25' x 0.037 = 30,752 CY
ML SHLDR	30667 SY x 9 SF/SY x 0.25' x 0.037 = 2,556 CY
MEDIAN SHLDR	66900 SY x 9 SF/SY x 0.25' x 0.037 = 5,575 CY
SHLDR WIDEN	72 SY x 9 SF/SY x 0.25' x 0.037 = 6 CY
GUTTER FINISH	
INSIDE	20213 SY x 9 SF/SY x 0.1667' x 0.037 = 1,123 CY

PAVEMENT TRANSITION @ MAINLINE BRIDGES
4671 SY x 9 SF/SY x 0.1667' x 0.037 = 260 CY

RAMPS

PVMT TRANS @ ML	3228 SY x 9 SF/SY x 0.1979' x 0.037 = 213 CY
RAMP PVMT (ML THICK)	4021 SY x 9 SF/SY x 0.25' x 0.037 = 335 CY
SHLDR (RT/LT)	
ML THICK	1180 SY x 9 SF/SY x 0.25' x 0.037 = 98 CY
GUTTER FINISH	
SHLDR TRANS	
@ ML (INSIDE)	233 SY x 9 SF/SY x 0.1406' x 0.037 = 11 CY
SHLDR (RT/LT)	
@ ML	355 SY x 9 SF/SY x 0.1979' x 0.037 = 23 CY

TOTAL 13,778 CY

ITEM 446-1¼" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, AC-20

CROSS ROADS
APPR. SLABS 3968.5 SY x 9 SF/SY x 0.125' x 0.037 = 165 CY

PVMT TRANS
@ STRUCTURE 2563 ST x 9 SF/SY x ((0.167' + 0.125').5) x 0.037 = 125 CY

FEATHERING 3221 SY x 9 SF/SY x ((0 + 0.125').5) x 0.037 = 67 CY

TOTAL 357 CY

ITEM 254-PAEMENT PLANING, BITUMINOUS

MAINLINE FEATHERING

ML	4,250 SY = 4,250 SY
SHLDR	1,933 SY = 1,933 SY

ITEM 202-WEARING COURSE REMOVED

CROSS ROADS = 4,960 SY

ITEM 617 - COMPACTED AGGREGATE, TYPE A

MAINLINE-NORTHBOUND

STA. 281+02 TO STA. 284+25	359' x 6' x 0.177' x 0.037 = 14 CY
STA. 304+00 TO STA. 310+00	622' x 6' x 0.177' x 0.037 = 22 CY
STA. 292+34 TO STA. 304+00	1166' x 6' x 0.177' x 0.037 = 46 CY
STA. 304+00B TO STA. 305+00B	100' x 6' x 0.177' x 0.037 = 4 CY
STA. 306+56 TO STA. 310+38	382' x 6' x 0.177' x 0.037 = 15 CY
STA. 311+12 TO STA. 317+80	668' x 6' x 0.177' x 0.037 = 26 CY
STA. 320+40 TO STA. 320+78	38' x 6' x 0.177' x 0.037 = 2 CY
STA. 322+20 TO STA. 324+30	210' x 6' x 0.177' x 0.037 = 8 CY
STA. 333+67.25 TO STA. 338+50	482.75' x 6' x 0.177' x 0.037 = 19 CY
STA. 338+46.94 TO STA. 350+22.5	1175.55' x 6' x 0.177' x 0.037 = 46 CY
RT STA. 358+41NB TO STA. 362+28.5NB	387.5' x 6' x 0.177' x 0.037 = 15 CY
LT STA. 362+76NB TO STA. 378+40NB	1564' x 6' x 0.177' x 0.037 = 62 CY
RT STA. 363+48NB TO STA. 368+24.92	476.92' x 6' x 0.177' x 0.037 = 19 CY
LT STA. 0+00F TO STA. 2+40F	240' x 6' x 0.177' x 0.037 = 9 CY
RT STA. 372+55NB TO STA. 378+98NB	643' x 6' x 0.177' x 0.037 = 25 CY
RT STA. 380+01.32NB TO STA. 382+16.32NB	215' x 6' x 0.177' x 0.037 = 9 CY
RT STA. 0+00G TO STA. 3+29G	329' x 6' x 0.177' x 0.037 = 13 CY
LT STA. 382+00NB TO STA. 384+91.5NB	291.5' x 6' x 0.177' x 0.037 = 12 CY
RT STA. 385+48NB TO STA. 388+75NB	327' x 6' x 0.177' x 0.037 = 13 CY
RT STA. 389+14NB TO STA. 398+06NB	892' x 6' x 0.177' x 0.037 = 35 CY
RT STA. 399+65NB TO STA. 401+77.5NB	212.5' x 6' x 0.177' x 0.037 = 8 CY
RT STA. 1+97N TO STA. 3+36N	139' x 6' x 0.177' x 0.037 = 6 CY
RT STA. 406+22 TO STA. 411+09.32	487.32' x 6' x 0.177' x 0.037 = 19 CY
RT STA. 412+75 TO STA. 416+46	371' x 6' x 0.177 x 0.037 = 15 CY
RT STA. 417+37 TO STA. 436+82.72	1945.72' x 6' x 0.177 x 0.037 = 77 CY

MAINLINE-SOUTHBOUND

STA. 271+07 TO STA. 284+00	1317' x 6' x 0.177' x 0.037 = 52 CY
STA. 318+14.80 TO STA. 334+00	1621.2' x 6' x 0.177' x 0.037 = 64 CY
STA. 292+00 TO STA. 292.80.31	80.31' x 6' x 0.177' x 0.037 = 3 CY
STA. 293+28 TO STA. 304+00	1072' x 6' x 0.177' x 0.037 = 42 CY
STA. 306+04 TO STA. 310+85	481' x 6' x 0.177' x 0.037 = 19 CY
STA. 311+62 TO STA. 320+96	934' x 6' x 0.177' x 0.037 = 37 CY
STA. 321+72 TO STA. 326+91	519' x 6' X 0.177' x 0.037 = 20 CY
STA. 326+86.3D TO STA. 328+32	145.7' x 6' x 0.177' x 0.037 = 6 CY
STA. 328+66 TO STA. 338+50	984' x 6' x 0.177' x 0.037 = 39 CY
STA. 338+46.95 TO STA. 339+72	125.05' x 6' x 0.177' x 0.037 = 5 CY
STA. 352+50.5 TO STA. 356+26.39	375.89' x 6' x 0.177' x 0.037 = 15 CY
LT STA. 356+26.39SB TO STA. 363+22	695.61' x 6' x 0.177' x 0.037 = 27 CY
RT STA. 364+50SB TO STA. 373+56SB	906' x 6' x 0.177' x 0.037 = 36 CY
LT STA. 379+22SB TO STA. 383+41SB	419' x 6' x 0.177' x 0.037 = 17 CY
RT STA. 380+26.02SB TO STA. 385+00SB	473.98' x 6' x 0.177' x 0.037 = 19 CY
RT STA. 385+21.85SB TO STA. 398+94SB	1372.2' x 6' x 0.177' x 0.037 = 54 CY
LT STA. 13+49I TO STA. 13+99.69I	50.69' x 6' x 0.177' x 0.037 = 2 CY
LT STA. 387+03.31SB TO STA. 397+90SB	1086.69' x 6' x 0.177' x 0.037 = 43 CY
LT STA. 399+00SB TO STA. 404+62.5SB	562.5' x 6' x 0.177' x 0.037 = 22 CY
LT STA. 405+50.5 TO STA. 415+12	961.5' x 6' x 0.177' x 0.037 = 38 CY
LT STA. 2+92.7R TO STA. 0+16R	276.7' x 6' x 0.177' x 0.037 = 11 CY
LT STA. 419+38 TO STA. 424+25.5	487.5' x 6' x 0.177' x 0.037 = 19 CY
LT STA. 425+07 TO STA. 436+82.72	1175.72 x 6' x 0.177' x 0.037 = 46 CY

RAMPS

RAMP A

(LT) STA. 304+00A TO STA. 310+85A	685' x 6' x 0.177' x 0.037 = 27 CY
(RT) STA. 305+98.5A TO STA. 308+01.02A	202.52' x 6' x 0.177' x 0.037 = 8 CY

RAMP AR

(RT) STA. 308+01.02AR TO STA. 310+51.59AR	250.57' x 6' x 0.177' x 0.037 = 10 CY

RAMP B

(LT) STA. 30.6+56.3B TO STA. 310+25B	368.7' x 6' x 0.177' x 0.037 = 15 CY
(RT) STA. 308+23.5B TO STA. 310+25B	201.5' x 6' x 0.177' x 0.037 = 8 CY

RAMP C

(RT) STA. 328+21.11C TO STA. 353+67.25C	546.14' x 6' x 0.177' x 0.037 = 22 CY
(LT) STA. 328+21.11C TO STA. 331+67.27C	346.16' x 6' x 0.177' x 0.037 = 14 CY

RAMP D

(LT) STA. 321+27.9D TO STA. 326+86.3D	558.4' x 6' x 0.177' x 0.037 = 22 CY
(RT) STA. 321+90D TO STA. 326+86.3D	496.3' x 6' x 0.177' x 0.037 = 20 CY

RAMP E

(RT) STA. 17+07.53E TO STA. 3+79.31E	1328.22' x 6' x 0.177' x 0.037 = 52 CY
(LT) STA. 15+16E TO STA. 6+40E	876' x 6' x 0.177' x 0.037 = 35 CY

RAMP F

(LT) STA. 4+13F TO STA. 13+69F	956' x 6' x 0.177' x 0.037 = 38 CY
(RT) STA. 7+50F TO STA. 14+58.99F	708.99' x 6' x 0.177' x 0.037 = 28 CY

RAMP G

(RT) STA. 3+29G TO STA. 5+48G	219' x 6' x 0.177' x 0.037 = 9 CY
(LT) STA. 3+29G TO STA. 5+35G	206' x 6' x 0.177' x 0.037 = 8 CY
(RT) STA. 6+17G TO STA. 10+81.34G	464.34' x 6' x 0.177' x 0.037 = 18 CY
(LT) STA. 6+22G TO STA. 9+48G	326' x 6' x 0.177' x 0.037 = 13 CY

RAMP H

(LT) STA. 1+19.7H TO STA. 2+41H	121.3' x 6' x 0.177 x 0.037 = 5 CY
(RT) STA. 0+00H TO STA. 2+16H	216' x 6' x 0.177' x 0.037 = 9 CY
(LT) STA. 7+13H TO STA. 12+39.4H	526.4' x 6' x 0.177' x 0.037 = 21 CY
(RT) STA. 6+79H TO STA. 13+77.2H	698.2' x 6' x 0.177' x 0.037 = 28 CY
(LT) STA. 14+52.7H TO STA. 17+76.5H	323.8' x 6' x 0.177' x 0.037 = 13 CY
(LT) STA. 19+74H TO STA. 24+07.34H	433.34' x 6' x 0.177' x 0.037 = 17 CY
(RT) STA. 19+78H TO STA. 23+07.34H	329.34' x 6' x 0.177'x 0.037 = 13 CY

RAMP H1

(LT) STA. 0+00H1 TO STA. 3+52.4H1	352.4' x 6' x 0.177' x 0.037 = 14 CY
(RT) STA. 1+86.5H1 TO STA 7+49H1	562.5' x 6' x 0.177' x 0.037 = 22 CY

RAMP I

(LT) STA. 0+70.5I TO STA. 9+08I	837.5' x 6' x 0.177' x 0.037 = 33 CY
(RT) STA. 1+89.93I TO STA. 10+40I	850.07' x 6' x 0.177' x 0.037 = 33 CY

RAMP J

(RT) STA. 8+95J TO STA. 12+89.5J	394.5' x 6' x 0.177' x 0.037 = 16 CY
(LT) STA. 13+66.38J TO STA. 26+94.85J	1328.47' x 6' x 0.177' x 0.037 = 52 CY
(RT) STA. 14+25J TO STA 24+54.3J	1029.3' x 6' x 0.177' x 0.037 = 41 CY

RAMP K

(RT) STA. 7+40K TO STA. 8+95K	155' x 6' x 0.177' x 0.037 = 6 CY
(RT) STA. 13+63K TO STA. 22+48K	885' x 6' x 0.177' x 0.037 = 35 CY
(RT) STA. 26+03K TO STA. 26+52.36K	49.36' x 6' x 0.177' x 0.037 = 2 CY

RAMP L

(LT) STA. 5+70.64L TO STA. 15+38I	967.36' x 6' x 0.177' x 0.037 = 38 CY
(LT) STA. 18+36L TO STA. 21+54L	318' x 6' x 0.177' x 0.037 = 13 CY

RAMP M

(LT) STA. 0+00M TO STA. 5+61.36M	561.36' x 6' x 0.177' x 0.037 = 22 CY
(RT) STA. 2+11.49M TO STA. 5+32.55M	321.06' x 6' x 0.177' x 0.037 = 13 CY

RAMP N

(LT) STA. 3+36N TO STA. 12+79.31N	943.31' x 6' x 0.177' x 0.037 = 37 CY
(RT) STA. 3+36N TO STA. 12+79.31N	943.31' x 6' x 0.177' x 0.037 = 37 CY

RAMP P

(RT) STA. 2+04.95P TO STA. 10+45.9P	840.95' x 6' x 0.177' x 0.037 = 33 CY
(LT) STA. 6+03.37P TO STA. 8+85P	281.63' x 6' x 0.177' x 0.037 = 11 CY

RAMP P1

(LT) STA. 0+52.76P1 TO STA. 4+19.07P1	366.31' x 6' x 0.177' x 0.037 = 14 CY

RAMP R

(RT) STA. 2+92.7R TO STA. 9+64.02R	671.32' x 6' x 0.177' x 0.037 = 26 CY
(LT) STA. 2+92.7R TO STA. 9+64.02R	671.32' x 6' x 0.177' x 0.037 = 26 CY

RAMP T

(RT) STA. 27+52.00T TO STA. 30+51.5T	299.5' x 6' x 0.177' x 0.037 = 12 CY
(RT) STA. 27+52.00T TO STA. 32+80.0T	528' x 6' x 0.177' x 0.037 = 21 CY
(RT) STA. 31+35.9T TO STA. 34+62.3T	326.39' x 6' x 0.177' x 0.037 = 13 CY
(LT) STA. 34+33T TO STA. 42+96.79T	863.79' x 6' x 0.177' x 0.037 = 34 CY
(RT) STA. 40+88T TO STA. 43+00T	212' x 6' x 0.177' x 0.037 = 8 CY
(LT) STA. 44+82.2T TO STA. 49+80.28T	498.08' x 6' x 0.177' x 0.037 = 20 CY
(RT) STA. 46+03.35T TO STA. 49+53.32T	349.97' x 6' x 0.177' x 0.037 = 14 CY

RAMP U

(RT) STA. 0+00U TO STA. 4+07.05U	407.05' x 6' x 0.177' x 0.037 = 16 CY

NORWOOD LATERAL (RT)

STA. 159+00NL TO STA 162+46.81NL	346.81' x 6' x 0.177' x 0.037 = 14 CY

NORWOOD LATERAL (LT)

STA. 159+00NL TO STA. 160+44.56NL	144.56' x 6' x 0.177' x 0.037 = 6 CY

TOTAL 2,310 CY

ITEM 659 - SEEDING AND MULCHING

MAINLINE - NORTHBOUND

STA. 222+35.5 TO STA. 224+80	244.5' x 5.5' x 0.11 = 149 SY
STA. 225+76 TO STA. 226+73	97' x 5.5' x 0.11 = 59 SY
STA. 247+21 TO STA. 247+83.5	63.5' x 5.5' x 0.11 = 39 SY
STA. 254+51.5 TO STA. 261+ 51.5	700' x 5.5' x 0.11 = 428 SY
STA. 266+41 TO STA. 267+03.5	62.5' x 5.5' x 0.11 = 38 S6
STA. 273+01 TO STA. 276+13.5	312.5' x 5.5' x 0.11 = 191 SY
STA. 289+54 TO STA. 293+04	350' x 5.5' x 0.11 = 214 SY
STA. 295+25 TO STA. 296+25	100' x 5.5' x 0.11 = 61 SY
STA. 320+85 TO STA. 322+53	168' x 5.5' x 0.11 = 103 SY
STA. 331+50 TO STA. 333+12.5	162.5' x 5.5' x 0.11 = 99 SY
STA. 366+51 TO STA. 367+76	125' x 5.5' x 0.11 = 76 SY
STA. 373+33 TO STA. 374+20.5	87.5' x 5.5' x 0.11 = 54 SY
STA. 399+89 TO STA. 381+89	200' x 5.5' x 0.11 = 122 SY
RT STA. 319+90.5 TO STA. 320+40	49.5' x 5.5' x 0.11 = 30 SY
RT STA. 350+22.5 TO STA. 350+72.5	50' x 5.5' x 0.11 = 31 SY

MAINLINE-SOUTHBOUND

STA. 227+92.5 TO STA. 231+17.5	325' x 5.5' x 0.11 = 199 SY
STA. 242+23.5TH TO STA. 248+34.86TH	611.36' x 5.5' x 0.11 = 374 SY
STA. 248+34.86 TO STA. 251+98.5	363.64' x 5.5' x 0.11 = 222 SY
STA. 256+14 TO STA. 259+26.5	312.5' x 5.5' x 0.11 = 191 SY
STA. 265+76.5 TO STA. 267+51.5	175' x 5.5' x 0.11 = 107 SY
STA. 286+49.5 TO STA. 293+62	712.5' x 5.5' x 0.11 = 435 SY
STA. 296+28 TO STA. 300+28	400' x 5.5' x 0.11 = 244 SY
STA. 361+35.5 TO STA. 369+58.89	823.39' x 5.5' x 0.11 = 503 SY
STA. 376+69.5 TO STA. 379+88.5	319' x 5.5' x 0.11 = 195 SY
STA. 381+62.5 TO STA. 383+25	162.5' x 5.5' x 0.11 = 99 SY
STA. 385+67.83DE TO STA. 388+96.83DE	329' x 5.5' x 0.11 = 201 SY
STA. 388+96.83 TO STA. 393+69.39	472.56' x 5.5' x 0.11 = 289 SY
STA. 291+50 TO STA. 292+00	50' x 5.5' x 0.11 = .31 SY
STA. 342+64 TO STA. 345+76.5	312.5' x 5.5' x 0.11 = 191 SY
RT STA. 363+81SB TO STA. 364+50SB	69' x 5.5' x 0.11 = 42 SY
LT STA. 343+01.5 TO STA. 345+76.5	275' x 5.5' x 0.11 = 168 SY

RAMPS

RAMP TH

(RT) STA. 230+36TH TO STA. 233+23.5TH	287.5' x 5.5' x 0.11 = 176 SY

RAMP TC

(RT) STA. 227+88TC TO STA. 230+25.5TC	237.5' x 5.5' x 0.11 = 145 SY

RAMP TC

(LT) STA. 227+88TC TO STA. 230+63TC	275' x 5.5' x 0.11 = 168 SY
(RT) STA. 236+25TC TO STA. 238+50TC	225' x 5.5' x 0.11 = 138 SY

RAMP ME

(LT) STA. 303+35ME TO STA. 318+22.5ME	1487.5' x 5.5' x 0.11 = 909 SY
(RT) STA. 324+09ME TO STA. 328+37.58ME	428.58' x 5.5' x 0.11 = 262 SY
(LT) STA. 325+34.5ME TO STA. 320+22ME	87.5' x 5.5' x 0.11 = 54 SY

RAMP MER

(RT) STA. 328+37.58MER TO STA. 337+35MER	897.42' x 5.5' x 0.11 = 548 SY

RAMP DB

(LT) STA. 369+58.89DB TO STA. 374+23DB	464.11' x 5.5' x 0.11 = 284 SY
(RT) STA. 375+62.5DB TO STA. 382+37.5DB	675' x 5.5' x 0.11 = 413 SY
(LT) STA. 383+54DB TO STA. 383+82.61DB	28.16' x 5.5' x 0.11 = 17 SY

RAMP DA STA.

(LT) STA. 376+17DA TO STA. 379+69.88DA	352.88' x 5.5' x 0.11 = 216 SY

RAMP DC

(RT) STA. 380+00DC TO STA. 382+75DC	275' x 5.5' x 0.11 = 168 S6
(LT) STA. 379+69.83DC TO STA. 382+20DC	250.12' x 5.5' x 0.11 = 153 SY

RAMP DE

(LT) STA. 378+37.5DE TO STA. 385+67.83DE	730.33' x 5.5' x 0.11 = 446 SY
(RT) STA. 379+81.5DE TO STA. 381+94DE	212.5' x 5.5' x 0.11 = 130 SY

TOTAL 9,412 SY

ITEM 659 - COMMERCIAL FERTILIZER APPLICATION RATE 20#/1000 SF
9412 SY x 9 SF/SF x 20#/1000SF x 1 TON/2000# = 0.874 TON

ITEM 659 - WATER APPLICATION RATE 120 GAL/1000 SF
9412 SY x 9 SF/SY x 120 GAL/1000 SF x 1 MGAL/1000 GAL = 10.17 MGAL

NOTE: Totals Carried to General Summary Sheets 167-169.

ITEM 203-LINEAR GRADING METHOD A

RAMP A	
LT STA. 305+00A TO STA. 310+85A	585' ÷ 100 = 5.85 STA
RAMP B	
RT STA. 308+23B TO STA. 310+25B	202' ÷ 100 = 2.02 STA
RAMP D	
LT STA. 321+27.9D TO STA. 326+77D	549.1' ÷ 100 = 5.49 STA
RAMP C	
RT STA. 328+21.11C TO STA. 332+87.2C	466.09' ÷ 100 = 4.66 STA
RAMP E	
RT STA. 7+40E TO STA. 16+07.53E	867.53' ÷ 100 = 8.68 STA
RAMP J	
RT STA. 14+86.9J TO STA. 24+54.3J	967.4' ÷ 100 = 9.67 STA
RAMP I	
LT STA. 1+09.9I TO STA. 10+29.1I	919.2' ÷ 100 = 9.19 STA
RAMP H	
LT STA. 1+19.7H TO STA. 1+82.2H	62.5' ÷ 100 = 0.63 STA
LT STA. 7+13H TO STA. 12+39.4H	526.4' ÷ 100 = 5.26 STA
LT STA. 14+35.6H TO STA. 17+62.5H	326.9' ÷ 100 = 3.27 STA
LT STA. 19+86.9H TO STA. 24+07.41H	420.51' ÷ 100 = 4.21 STA
RAMP H1	
LT STA. 0+00H1 TO STA. 3+52.41H1	352.4' ÷ 100 = 3.52 STA
RAMP K	
RT STA. 13+50.7K TO STA. 22+48K	897.3' ÷ 100 = 8.97 STA
RT STA. 26+03K TO STA. 26+52.36k	49.36' ÷ 100 = 0.49 STA
RAMP L	
LT STA. 19+50L TO STA. 23+16L	366.0' ÷ 100 = 3.66 STA
RAMP T	
RT STA. 27+50T TO STA. 30+59.6T	309.6' ÷ 100 = 3.10 STA
LT STA. 34+18T TO STA. 42+96.79T	878.79' ÷ 100 = 8.79 STA
LT STA. 44+52.7T TO STA. 49+80.28T	527.58' ÷ 100 = 5.28 STA
RT STA. 46+25T TO STA. 49+53.32T	328.32' ÷ 100 = 3.28 STA
RAMP M	
LT STA. 0+00M TO STA. 5+61.36M	561.36' ÷ 100 = 5.61 STA
RAMP N	
RT STA. 3+36N TO STA. 12+79.31N	943.31' ÷ 100 = 9.43 STA
RAMP P	
RT STA. 2+92.7R TO STA. 9+64.02R	671.32' ÷ 100 = 6.71 STA
	TOTAL 125.32 STA

ITEM 203-LINEAR GRADING, METHOD B

RAMP F	
(RT) STA. 10+00F TO STA. 16+64.30F	664.3' ÷ 100 = 6.64 STA
RAMP G	
(RT) STA. 3+59G TO STA. 5+35G	176' ÷ 100 = 1.76 STA
(LT) STA. 6+17G TO STA. 10+81.34g	464.34' ÷ 100 = 4.64 STA
RAMP T	
(RT) STA. 33+31.65T TO STA. 34+76.3T	144.65' ÷ 100 = 1.45 STA
(RT) STA. 40+74T TO STA. 43+00T	226' ÷ 100 = 2.26 STA
(LT) STA. 27+52T TO STA. 32+80T	528' ÷ 100 = 5.28 STA
RAMP U	
(RT) STA. 0+00U TO STA. 4+07.5U	407.5' ÷ 100 = 4.08 STA
	TOTAL 26.11 STA

NOTE: Totals Carried to General Summary Sheets 167–169.

1P STA. 237+20+C TO STA. 239+00TC (RAMP TC-LEFT)

202-CURB REMOVED, AS PER PLAN 2 180' = 180 LF

301-BITUMINOUS AGGREGATE BASE, AC - 20, VARIABLE DEPTH
180' x 1' x 0.83' x 0.037 = 5.6 CY

407-TACK COAT 180' x 1' x 0.11 x 0.075 GAL/SY = 1.5 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE TYPE 2, AC-20
180' x 0.25' x 1' x 0.037 = 1.7 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
180' x 0.1042' x 1' x 0.037 = 0.7 CY

2P STA. 240+30.5TH TO STA. 241+60.74TH (RAMP TH-RIGHT)

202-CONCRETE MEDIAN REMOVED, AS PER PLAN 2
[((4' + 6').5)100' + (6' x 26.79')] x 0.11 = 73.4 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
660.74 SF x 0.5833' x 0.037 = 14.3 CY

304-AGGREGATE BASE, VARIABLE DEPTH
660.74 SF x 0.33' x 0.037 = 8.1 CY

408-BITUMINOUS PRIME COAT
660.74 SF x 0.11 x 0.25 GAL/SY = 18.4 GAL

301-6" BITUMINOUS AGGREGATE BASE, AC-20
660.74 SF x 0.5' x 0.037 = 12.2 CY

407-TACK COAT 660.74 SF x 0.11 x 0.075 GAL/SY = 5.5 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
660.74 SF x 0.25' x 0.11 = 18.4 CY

446-1¼ ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
660.74 SF x 0.1042' x 0.11 = 7.7 CY

3P STA. 302+15.31 ME TO STA. 304+63.20ME (RAMP ME-RIGHT)

202-CURB REMOVED, AS PER PLAN 2 100' + 147.89' = 247.89 LF

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
[(100' x 1' x 0.83') + (147.89' x 0.5' x 1')] x 0.037 = 5.8 CY

407-TACK COAT (100' + 73.95)SF x 0.11 x 0.075 GAL/SY = 1.5 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
173.95 SF x 0.25' x 0.037 = 1.6 CY

446-1¼ ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
173.95 SF x 0.1042' x 0.037 = 0.7 CY

4P STA. 337+41.97ME TO STA. 337+90MF (RAMP MF-LEFT)

202-CONCRETE MEDIAN REMOVED, AS PER PLAN 2
((4' + 10').5)40' = 280 SF x 0.11 = 31.1 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(((4' + 8.5').5) 30' x 0.25') + (((8.5' + 10').5)10' x 0.5')] x 0.037 = 3.4 CY

304-AGGREGATE BASE, VARIABLE DEPTH
280 SF x 0.25' x 0.037 = 2.6 CY

301-6" BITUMINOUS AGGREGATE BASE, AC-20
280 SF x 0.5' x 0.037 = 5.2 CY

407-TACK COAT 280 SF x 0.11 x 0.075 GAL/SY = 2.3 GAL

446-3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
280 SF x 0.25' x 0.037 = 2.6 CY

446-1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
280 SF x 0.1042' x 0.037 = 1.1 CY

202-CURB REMOVED 20' = 20 LF

609-CURB, TYPE 6 20' = 20 LF

659-SEEDING AND MULCHING 20' x 6' x 0.11 = 13.3 SY

5P STA. 369+58.89DB TO STA. 373+32DB (RAMP DB-RIGHT)

202-CURB REMOVED, AS PER PLAN 2 101.11' + 272' = 373.11 LF

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
[(101.11' x 1' x 0.83') + (272' x 0.5' x 1')]0.037 = 8.1 CY

407-TACK COAT [(101.11' x 1') + (272' x 0.5')] x 0.11 x 0.075 GAL/SY = 2.0 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
[(101.11' x 1') + (272' x 0.5')] x 0.25' x 0.037 = 2.2 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
[(101.11' x 1') + (272' x 0.5')] x 0.1042' x 0.037 = 0.9 CY

6P STA. 384+75DC TO STA. 387+00DC (RAMP DC-LEFT)

202-CURB REMOVED, AS PER PLAN 2 125' + 100' = 225 LF

301-BITUMIONOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
[(125' x 1' x 0.83') + (100' x 0.5' x 1')] x 0.037 = 5.7 CY

407-TACK COAT (125 + 50) SF x 0.11 x 0.075 GAL/SY = 1.5 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
175 SF x 0.25' x 0.037 = 1.6 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
175 SF x 0.1042' x 0.037 = 0.7 CY

7P STA. 385+35.31DE TO STA. 385+67.83DE (RAMP DE-RIGHT)

202-CONCRETE MEDIAN REMOVED, AS PER PLAN 2 ((10' + 4').5) 32.52' x 0.11 = 25.3 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
227.64 SF x 0.5833' x 0.037 = 4.9 CY

304-AGGREGATE BASE, VARIABLE DEPTH
227.64 SF x 0.33' x 0.037 = 2.8 CY

408-BITUMINOUS PRIME COAT
227.64 SF x 0.1 x 0.25 GAL/SY = 6.3 GAL

301-6" BITUMINOUS AGGREGATE BASE, AC-20
227.64 SF x 0.5' x 0.037 = 4.2 CY

407-TACK COAT 227.64 SF x 0.11 x 0.075 GAL/SY = 1.9 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
227.64 SF x 0.25' x 0.037 = 2.1 CY

446- 1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
227.64 SF x 0.1042' x 0.037 = 0.9 CY

202-CURB REMOVED 20' = 20 LF

609-CURB, TYPE 6 20' = 20 LF

659-SEEDING AND MULCHING 20' x 6' x 0.11 = 13.3 SY

8P STA. 304+00A TO 307+00A (RAMP A-RIGHT)

202-CURB REMOVED, AS PER PLAN 2 198.5' = 198.5 LF

202-CURB REMOVED, AS PER PLAN 1 101.5' = 101.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
101.5' x ((0.25' + 0').5) 4' x 0.037 = 1.9 CY

659-SEEDING AND MULCHING
101.5' x 4' x 0.11 = 45.1 SY

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
198.5' x 1' x 0.83' x 0.037 = 6.1 CY

407-TACK COAT 198.5 SF x 0.11 x 0.075 GAL/SY = 1.7 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
198.5 SF x 0.25' x 0.037 = 1.8 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
198.5' SF x 0.1042' x 0.037 = 0.8 CY

9P STA. 330+50C TO STA. 333+67.25C (RAMP C-LEFT)

202-CURB REMOVED, AS PER PLAN 1 117.27' = 117.27 LF

202-CURB REMOVED, AS PER PLAN 2 199.98' = 199.98 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
117.27' x ((0.25' + 10').5) x 4' x 0.037 = 2.2 CY

659-SEEDING AND MULCHING 117.27' x 4' x 0.11 = 52.1 SY

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
199.98' x 1' x 0.83' x 0.037 = 6.2 CY

407-TACK COAT 199.98 SF x 0.11 x 0.075 GAL/SY = 1.7 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
199.98 SF x 0.25' x 0.037 = 1.9 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
199.98 SF x 0.1042' x 0.037 - 0.8 CY

10P STA. 14+48.5E TO STA. 17+07.53E (RAMP E-LEFT)

202-CURB REMOVED, AS PER PLAN 1 67.5' = 67.5 LF

202-CURB REMOVED, AS PER PLAN 2 191.53' = 191.53 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
67.5' x ((0.25' +0').5) x 4' x 0.037 = 1.3 CY

659-SEEDING AND MULCHING 67.5' x 4' x 0.11 = 30 SY

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
191.53' x 1' x 0.83' x 0.037 = 5.9 CY

407-TACK COAT 191.53 SF x 0.11 x 0.075 GAL/SY = 1.6 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
191.53 SF x 0.25' x 0.037 = 1.8 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
191.53 SF x 0.1042' x 0.037 = 0.7 CY

11P STA. 18+32.41 TO STA. 20+07I (RAMP I-LEFT)

202-CURB REMOVED, AS PER PLAN 1 174.6' = 174.6 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
174.6' x ((0.25' + 0).5) x 4' x 0.037 = 3.2 CY

659-SEEDING AND MULCHING 174.6' x 4' x 0.11 = 77.6 SY

12P STA. 23+60I TO STA. 25+94.85I (RAMP I-RIGHT)

202-CURB REMOVED 94.3' = 94.3 LF

202-CURB REMOVED, AS PER PLAN 2 240.55' = 240.55 LF

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
240.55' x 1' x 0.83' x 0.037 = 7.4 CY

407-TACK COAT 240.55 SF x 0.11 x 0.075 GAL/SY = 2.0 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
240.55 SF x 0.25' x 0.037 = 2.2 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
240.55 SF x 0.1042' x 0.037 = 0.9 CY

13P STA. 9+77.5I TO STA. 10+29.11I (RAMP I-LEFT)

202-CURB REMOVED 51.61' = 51.61 LF

609-CURB, TYPE 6 21.11' = 21.11 LF

203-EMBANKMENT 21.11' x ((0.25').5) x 4' x 0.037 = 0.4 CY

659-SEEDING AND MULCHING 21.11 x 4' x 0.11 = 9.4 SY

14P STA. 0+00H TO STA. 2+41H (RAMP H-LEFT)

202-CURB REMOVED, AS PER PLAN 2 81.5' = 81.5 LF

202-CURB REMOVED 100.7' = 100.7 LF

202-CURB REMOVED, AS PER PLAN 1 58.8' = 58.8 LF

NOTE; FOR EXCAVATION, SEEDING AND MULCHING QUANTITIES
SEE SHOULDER WIDENING CALCULATIONS

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
81.5' x 1' x 0.83' x 0.037 = 2.5 CY

407-TACK COAT 81.5 SF x 0.11 x 0.075 GAL/SY = 0.7 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
81.5 SF x 0.25' x 0.037 = 0.8 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
81.5 SF x 0.1042' x 0.037 = 0.3 CY

15P STA. 8+36P TO STA. 10+45.90P (RAMP P-LEFT)

202-CURB REMOVED, AS PER PLAN 1 49' = 49 LF

202-CURB REMOVED, AS PER PLAN 2 160.9' = 160.9 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
160.9' x ((0.5').5) x 4' x 0.037 = 6.0 CY

659-SEEDING AND MULCHING 160.9' x 4' x 0.11 = 71.5 SY

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
160.9' x 1' x 0.83' x 0.037 = 5.0 CY

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
160.9 SF x 0.25' x 0.037 = 1.5 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
160.9 SF x 0.1042' x 0.037 = 0.6 CY

407-TACK COAT 160.9 SF x 0.11 x 0.075 GAL/SY = 1.3 GAL

16P STA. 97+96.40 ML KING TO STA. 98+26.40 ML KING
MARTIN LUTHER KING DRIVE

202-CONCRETE MEDIAN REMOVED 30' x 4' x 0.11 = 13.3 SY

17P STA. 105+33.82 ML KING TO STA. 105+58.82 ML KING

202-CONCRETE MEDIAN REMOVED 25' x 4' x 0.11 - 11.1 SY

18P STA. 6+94.08 MONT TO STA. 7+61.58 MONT
MONTGOMERY ROAD

202-CONCRETE MEDIAN REMOVED (30' + 37.5') x 4' x 0.11 = 30 SY

19P STA. 8+10 DANA TO STA. 9+80.06 DANA
DANA AVENUE

202-CONCRETE MEDIAN REMOVED 170.06' x 4' x 0.11 = 75.6 SY

20P STA. 12+62.49 DANA TO STA. 12+76.7 DANA

202-CONCRETE MEDIAN REMOVED 14.25' x 4' x 0.11 = 6.3 SY

21P STA. 13+58 DANA TO STA. 16+02 DANA

202-CONCRETE MEDIAN REMOVED 244' x 4' x 0.11 = 108.4 SY

22P STA. 378+54DA TO STA. 379+69.88DA
RAMP DA & DC

202-CURB REMOVED AS PER PLAN 2 115.88' = 115.88 LF

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
115.88' x 1' x 0.83' x 0.037 = 3.6 CY

407-TACK COAT 115.88 SF x 0.11 x 0.075 GAL/SY = 1.0 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20

115.88 SF x 0.25' x 0.037 = 1.1 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
115.88 SF x 0.1042' x 0.037 = 0.5 CY

23P STA. 13+06.23K TO STA. 14+04.17K (RAMP K-RIGHT)

202-CONCRETE MEDIAN, REMOVED AS PER PLAN 2
((4' + 10').5) 44.47' x 0.11 = 34.6 SY

202-CURB REMOVED 53.47' + 12.3 = 65.77 LF

202-CURB REMOVED, AS PER PLAN 1 41.17' = 41.17 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
41.17' x 0.25' x 4' x 0.037 = 1.5 CY

659-SEEDING AND MULCHING 41.17' x 4' x 0.11 = 18.3 SY

24P STA. 0+00.00I TO STA. 3+00I (RAMP I-RIGHT)

202-CURB REMOVED, AS PER PLAN 2 190' = 190 LF

202-CURB REMOVED, AS PER PLAN 1 110' + 9' + 114' = 233 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
233' x ((0.33').5) x 4' x 0.037 = 5.7 CY

659-SEEDING AND MULCHING 233' x 4' x 0.11 = 103.6 SY

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
233' x 1' x 0.833' x 0.037 = 7.2 CY

407-TACK COAT 233 SF x 0.11 x 0.075 GAL/SY = 1.9 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
233 SF x 0.25' x 0.037 = 2.2 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
233 SF x 0.1042' x 0.037 = 0.9 CY

25P STA. 12+58.99F TO STA. 14+58.99F (RAMP F-LEFT)

202-CURB REMOVED, AS PER PLAN 1 118.5' = 118.5 LF

202-CURB REMOVED, AS PER PLAN 2 81.5' = 81.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
118.5' x ((0.33').5) x 4' x 0.037 = 2.9 CY

659-SEEDING AND MULCHING 108.5' x 4' x 0.11 = 48.2 SY

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
118.5' x 1' x 0.83' x 0.037 = 3.6 CY

407-TACK COAT 118.5 SF x 0.11 x 0.075 GAL/SY = 1.0 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
118.5 SF x 0.25' x 0.037 = 1.1 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
118.5 SF x 0.1042' x 0.037 = 0.5 CY

NOTE: Quantities on this Sheet Carried to PAVEMENT ESTIMATED QUANTITY Sheets 269-270.

26P STA. 8+25G TO STA. 10+81.34 G (RAMP G-LEFT)

202-CURB REMOVED, AS PER PLAN 1 126.15' = 126.15 LF

202-CURB REMOVED, AS PER PLAN 2 138' = 138 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
126.15' x ((0.33').5) x 4' x 0.037 = 3.1 CY

659-SEEDING AND MULCHING 112.65' x 4' x 0.11 = 50.1 SY

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
138' x 1' x 0.83' x 0.037 = 4.2 CY

407-TACK COAT 138 SF x 0.11 x 0.075 GAL/SY = 1.2 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURE, TYPE 2, AC-20
138 SF x 0.25' x 0.037 = 1.3 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
138 SF x 0.1042' x 0.037 = 0.5 CY

27P STA. 42+96.79T TO STA. 47+00.00T (WB RAMP T-LEFT)

202-CURB REMOVED, AS PER PLAN 2 155.91' = 155.91 LF

202-CURB REMOVED 247.3' = 247.3 LF

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
155.91' x 1' x 0.83' x 0.037 = 4.8 CY

407-TACK COAT 155.91 SF x 0.11 x 0.075 GAL/SY = 1.3 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
155.91 SF x 0.25' x 0.037 = 1.44 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
155.91 SF x 0.1042' x 0.037 = 0.6 CY

28P STA. 1+97.12U TO STA. 4+07.05U (RAMP U-LEFT)

202-CONCRETE MEDIAN REMOVED 89.44 SF CADD x 0.11 = 9.9 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (0' + 0.25') 0.5 x 89.44 SF CADD x 0.037 = 0.4 CY

203-SUBGRADE COMPACTION 89.44 SF CADD x 0.11 = 9.9 SY

301-6" BITUMINOUS AGGREGATE BASE 89.44 SF CADD x 0.5' x 0.037 = 1.7 CY

304-AGGREGATE BASE, VARIABLE DEPTH 89.44 SF x 0.25' x 0.037 = 0.8 CY

29P STA. 0+00.00M TO STA. 3+50.00M (RAMP M-RIGHT)

202-CURB REMOVED, AS PER PLAN 2 211.49' = 211.49 LF

202-CURB REMOVED, AS PER PLAN 1 138.51' = 138.51 LF

301-BITUMINOUS AGGREGATE BASE, AC-20, VARIABLE DEPTH
211.49' x 1' x 0.83' x 0.037 = 6.5 CY

407-TACK COAT 211.49 SF x 0.11 x 0.075 GAL/SY = 1.8 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
211.49 SF x 0.25' x 0.037 = 2.0 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
211.49 SF x 0.1042' x 0.037 = 0.8 CY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
138.51' x (0.33').5) x 4' x 0.037 = 3.4 CY

659-SEEDING AND MULCHING 138.51' x 4' x 0.11 = 61.6 SY

30P STA. 13+49.93H TO STA. 14+49.93H (RAMP H-RIGHT)

202-CURB REMOVED, AS PER PLAN 1 50.14' = 50.14 LF

202-CURB REMOVED 50.14' = 50.14 LF

202-CONCRETE MEDIAN REMOVED, AS PER PLAN 2

((4' + 10').5) 49.86' x 0.11 = 38.8 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(349.02 SF x 0.5833') + (((10'+ 13').5) 22.6' x 1.25') + (50.14' x ((0.33').5) x 4')] x 0.037 = 20.8 CY

304-AGGREGATE BASE, VARIABLE DEPTH (349.02 + 259.9) SF x 0.33' x 0.037 = 7.4 CY

408-BITUMINOUS PRIME COAT (349.02 + 259.9) SF x 0.11 x 0.25 GAL/SY = 16.9 GAL

301-6" BITUMINOUS AGGREGATE BASE, AC-20
(349.02 + 259.9) SF x 0.5' x 0.037 = 11.3 CY

407-TACK COAT (349.02 + 259.9) SF x 0.11 x 0.075 GAL/SY = 5.1 GAL

446-3" ASPHALT CONC. INTERMEDIATE COURSE, TYPE 2, AC-20
(349.02 + 259.9) SF x 0.25' x 0.037 = 5.6 CY

446-1¼" ASPHALT CONC. SURFACE COURSE, TYPE 1, AC-20
(349.02 + 259.9) SF x 0.1042' x 0.037 = 2.3 CY

31P TO STA. 227+55 TO STA. 227+90.33 (I-71SB-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609 COMBINATION CURB & GUTTER TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

32P STA. 230+27.67TC TO STA. 230+63TC (RAMP TC-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.03') + ((0.5' x 1.5' x 12.5').5) x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.9 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

33P STA. 231+19.67 TO STA. 231+55 (I-71SB-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 515' x 35.33' x 0.11 = 21.4 SY

34P STA. 233+61.25TC TO STA. 233+73.75TC (RAMP TC-RIGHT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

35P STA. 232+65.5TH TO STA. 232+73TH (RAMP TH-LEFT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5 x 1.5 x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

36P STA. 233+25.67TH TO STA. 233+61TH (RAMP TH-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

FULL DEPTH PAVEMENT SAW CUTTING 35.33' = 35.33 LF

37P STA. 241+86TH TO STA. 242+21.33TH (RAMP TH-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

38P STA. 247+85.67 TO STA. 248+21 (I-71NB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

39P STA. 254+14 TO STA. 254+49.33 (I-71NB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

40P STA. 261+53.67 TO STA. 261+89 (I-71NB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

41P STA. 263+13 TO STA. 263+25.5 (I-71NB-RIGHT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

42P STA. 264+12.5 TO STA. 264+25 (I-71SB-LEFT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((05.').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

43P STA. 265+39 TO STA. 265+74.33 (I-71SB-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

44P STA. 267+05.67 TO STA. 267+41 (I-71NB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

45P STA. 267+76 TO STA. 267+88 (I-71NB-RIGHT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

46P STA. 276+15.67 TO STA. 276+51 (I-71NB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2 AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5 x 22.83') + ((0.5' x 1.5 x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

47P STA. 279+20 TO STA. 279+32.5 (I-71NB-RIGHT)

202-CURB REMOVED 12.5' = 12.5 LF

202-PAVEMENT REMOVED 1.5' x 12.5' x 0.11 = 2.1 SY

203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.17' x 12.5' x 0.037 = 0.1 CY

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

304-AGGREGATE BASE ((0.5').5) x 1.17' x 12.5' x 0.037 = 0.1 CY

452-4" PLAIN CONCRETE PAVEMENT ((1.5' + 1.0').5) x 12.5' x 0.11 = 1.7 SY

48P STA. 318+24.67ME TO STA. 318+60ME (RAMP ME-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCITON
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

49P STA. 324+97 ME TO STA. 325+32.33ME (RAMP ME-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

202-CONCRETE SLOPE PROTECTION REMOVED
2' x 35.33' x 0.11 = 7.8 SY

601-CONCRETE SLOPE PROTECTION
[(1' x 22.83') + ((1' + 1.5').5) 12.5'] x 0.11 = 4.2 SY

50P STA. 374+22.67 TO STA 374+58 (I-71NB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

51P STA. 374+06.5DB TO STA. 374+19DB (RAMP DB-RIGHT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

202-CONCRETE MEDIAN REMOVED 2' x 12.5' x 0.11 = 2.8 SY

452-4" PLAIN CONRETE PAVEMENT ((1' + 1.5').5) x 12.5' x 0.11 = 1.7 SY

52P STA. 375+25DB TO STA. 375+60.33DB (RAMP DB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

202-CONCRETE MEDIAN REMOVED 2' x 35.33' x 0.11 = 7.8 SY

452-4" PLAIN CONCRETE PAVEMENT [(((1' + 1.5').5) 12.5' + (1' x 22.83')] x 0.11 = 4.2 SY

NOTE: Quantities on this Sheet Carried to PAVEMENT ESTIMATED QUANTITY Sheets 269–270.

53P STA. 375+66 TO STA. 375+78.5 (I-71NB-RIGHT)

202-CURB REMOVED 12.5' = 12.5' LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5' LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

54P STA. 379+90.67.5 TO STA. 380+26 (I-71SB-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

55P STA. 381+25 TO STA. 381+60.33 (I-71SB-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.335' x 0.11 = 21.4 SY

56P STA. 342+64 TO STA. 342+99.33 (I-71SB-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

57P STA. 350+56.5 TO STA. 350+69 (I-71SB-LEFT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

58P STA. 352+13 TO STA. 352+48.33 (I-71SB-LEFT)

202-CURB REMOVED 35.33' = 35.33' LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.3 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

59P STA. 350+74.67 TO STA. 351+10 (I-71NB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

60P STA. 363+43.5SB TO STA. 363+78.83SB (I-71SB-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

61P STA. 7+50F TO STA. 10+00F (RAMP F-RIGHT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCITON
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

62P STA. 10+08I TO STA. 10+43.33 (RAMP I-LEFT)

202-CURB REMOVED 35.33' = 35.33' LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

63P STA. 11+60.17I TO STA. 11+95.5I (RAMP I-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5) x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

64P STA. 12+43.5I TO STA. 12+78.83I (RAMP I-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659- SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

65P STA. 387+52NB TO STA. 387+64.5NB (I-71NB-LEFT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

66P STA. 373+90.5DE TO STA. 374+03DE (RAMP DE-LEFT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
((0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

67P STA. 377+75DE TO STA. 378+10.33DE (RAMP DE-LEFT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

68P STA. 377+98.5DE TO STA. 378+11DE (RAMP DE-RIGHT)

202-CURB REMOVED 12.5' = 12.5 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 12.5' = 12.5 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(0.5').5) x 1.5' x 12.5' x 0.037 = 0.2 CY

203-EMBANKMENT 0.25' x 5.5' x 12.5' x 0.037 = 0.6 CY

659-SEEDING AND MULCHING 5.5' x 12.5' x 0.11 = 7.6 SY

69P STA. 379+44DE TO STA. 379+79.33DE (RAMP DE-RIGHT)

202-CURB REMOVED 35.33' = 35.33 LF

609-COMBINATION CURB & GUTTER, TYPE 2, AS PER PLAN 35.33' = 35.33 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
[(0.5' x 1.5' x 22.83') + ((0.5' x 1.5' x 12.5').5)] x 0.037 = 0.9 CY

203-EMBANKMENT 0.25' x 5.5' x 35.33' x 0.037 = 1.8 CY

659-SEEDING AND MULCHING 5.5' x 35.33' x 0.11 = 21.4 SY

70P STA. 373+33.33SB TO STA. 373+58.33SB (REAR APPROACH)
BRIDGE HAM-71-0788L SB I-71 OVER RAMPS J,K, & L

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(29.02 + 202.42 +243.38) SF CADD x 1.167' x 0.037 = 20.5 CY

611-REINFORCED CONCRETE APPROACH SLAB (T=14"), AS PER PLAN
(29.02 + 202.42 + 243.38) SF CADD x 0.11 = 52.8 SY

SPECIAL MICRO-SILICA MODIFIED CONCRETE OVERLAY
1192.60 SF CADD x 0.11 = 132.5 SY

71P STA. 379+83.02SB TO STA. 380+08.02SB (FORWARD APPROACH)
BRIDGE HAM-71-0788L SB I-71 OVER RAMPS J,K & L

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(223.88 + 97.61 + 122.06) SF CADD x 1.167' x 0.037 = 19.2 CY

611-REINFORCED CONCRETE APPROACH SLAB (T=14'), AS PER PLAN
(223.88 + 97.61 + 122.06) SF CADD x 0.11 = 49.3 SY

SPECIAL MICRO-SILICA MODIFIED CONCRETE OVERLAY
(1142.46 + 18.93) SF CADD x 0.11 = 129.0 SY

72P STA. 7+35.57H1 TO STA. 7+60.47 H1 (REAR APPROACH)
BRIDGE HAM-71-08385 RAMP H OVER RIDGE AVENUE

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(175.54 + 76.01) SF CADD x 1.167' x 0.037 = 10.9 CY

611-REINFORCED CONCRETE APPROACH SLAB (T=14"), AS PER PLAN
(175.54 + 76.01) SF x 0.11 = 28.0 SY

SPECIAL MICRO-SILICA MODIFIED CONCRETE OVERLAY
470.11 SF CADD x 0.11 = 52.2 SY

73P STA. 19+63.90H TO STA. 19+88.90H (FORWARD APPROACH)
BRIDGE HAM-71-08385 RAMP H OVER RIDGE AVENUE

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
(178.0 + 75.8) SF CADD x 1.167' x 0.037 = 11.0 CY

611-REINFORCED CONCRETE APPROACH SLAB (T=14'), AS PER PLAN
(178.0 + 75.8) SF CADD x 0.11 = 28.2 SY

SPECIAL MICRO-SILICA MODIFIED CONCRETE OVERLAY
406.22 SF CADD x 0.11 = 45.1 SY

74P STA. 232+78TH TO STA. 233+83TH RAMP TH

452-4" PLAIN CONCRETE PAVEMENT ((18' ÷ 5.5').5) 105' x 0.11 = 137 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION ((18' ÷ 5.5')0.5) 105' x ((0.33' + 0.41')0.5) x 0.037 = 16.9 CY

75P STA. 18+46DCR TO STA. 20+08DCR DUCK CREEK ROAD

202-CONCRETE MEDIAN REMOVED 162' x 4' x 0.11 = 72 SY

76P STA. 284+25 TO STA. 285+35 (I-71NB-RIGHT)

202-CONCRETE MEDIAN REMOVED (4' + 10').5 x 50' x 0.11 = 38.9 SY

202-PORTION OF CURB REMOVED 33.3' = 33.3 LF

202-CURB REMOVED 10' = 10 LF

203-EMBANKMENT [((4' + 10').5 x 50' x 0.83') + ((0.17' + 0').5 x 4' x 33.3)] x 0.037 = 11.2 CY

609-CURB, TYPE 6 10' = 10 LF

659-SEEDING & MULCHING [((4' + 10').5 x 50') + (4 x (33.3 + 10))] 0.11 = 58.2 SY

77P STA. 316+56.66 TO STA. 317+66.66 (I-71SB-LEFT)

202-CONCRETE MEDIAN REMOVED (4' + 10') .5 x 66.7 x 0.11 = 51.9 SY

202-PORTION OF CURB REMOVED 33.4' = 33.4 LF

202-CURB REMOVED 10' = 10 LF

203-EMBANKMENT [((4' + 10').5 x 66.7' x 0.83') + ((0.17' + 0) .5 x 4' x 33.4')] x 0.037 = 14.8 CY

608-CURB, TYPE 6 10' = 10 LF

659-SEEDING & MULCHING [((4' + 10').5 x 66.7') + (4'x (33.4' ÷ 10'))] 0.11 = 71.2 SY

78P STA. 45+15.4t TO STA. 46+03.35T (RAMP TEB-RIGHT)

202-PORTION OF CURB REMOVED 87.95' = 88 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (0.17' + 0') .5 x 4' x 88' x 0.037 = 1.1 CY

659-SEEDING & MULCHING 4' x 88' x 0.11 = 39.1 sy

79P STA. 2+10U TO STA. 4+07.05u (RAMP U-LEFT)

202-CURB REMOVED, AS PER PLAN I 197.05' = 197.1 LF

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (0.17' + 0') .5 x 4' x 197.1' x 0.11 = 2.5 CY

659-SEEDING & MULCHING 4' x 197.1' x 0.11 = 87.6 SY

80P STA. 308+23.5b (RAMP B-RIGHT)

452-6" PLAIN CONCRETE PAVEMENT 10' x 5.5' x 0.11 = 6.1 SY

670-DITCH EROSION PROTECTION 6' X 5.5' X 0.11 = 3.7 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION 10' x 5.5' x 0.5' x 0.037 = 1.0CY

659-SEEDING & MULCHING (ASSUMED 1 FOOT WIDTH EA. SIDE OF CONCRETE SLAB & DITCH EROSION) (5.5' + 5.5') x 1.0' x 0.11 x 2 = 2.4 SY

81P STA. 358+41NB (I-71NB-RIGHT)

452-6" PLAIN CONCRETE PAVEMENT 10' x 5.5' x 0.11 = 6.1 SY

670-DITCH EROSION PROTECTION 6' x 9.5' x 0.11 = 6.3 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION 10' x 5.5' x 0.5' x 0.037 = 1.0 CY

659-SEEDING & MULCHING (5.5' + 9.5') x 1.0' x 0.11 x 2 = 3.3 SY

82P STA. 1+97N (RAMP N-RIGHT)

452-6" PLAIN CONCRETE PAVEMENT 10' x 5.5' x 0.11 = 6.1 SY

670-DITCH EROSION PROTECTION 6' x 7' x 0.11 = 4.7 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION 10' x 5.5' x 0.5' x 0.037 = 1.0 CY

659-SEEDING & MULCHING (5.5' + 7') x 1.0 x 0.11 x 2 = 2.8 SY

83P STA. 40+88T (RAMP T EB-RIGHT)

452-6" PLAIN CONCRETE PAVEMENT 10' x 5.5' x 0.11 = 6.1 SY

670-DITCH EROSION PROTECTION 6' x 4' x 0.11 x .5 = 1.3 SY

203-EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION 10' x 5.5' x 0.5' x 0.037 = 1.0 CY

659-SEEDING & MULCHING ((5.5' x 2) + 4') x 0.11 x 1.0' = 1.7 SY

ITEMS 659-WATER AND COMMERCIAL FERTILIZER CALCULATIONS

659-SEEDING AND MULCHING TOTAL FOR 1P THRU 83P =1561.1 SY

659-WATER (APPLICATION RATE: 120 GAL/1000 SF)

1561.1 SY x 9 SF/SY x 120 GAL/1000 SF x 1 MGAL/1000 GAL = 1.69 MGAL

659-COMMERCIAL FERTILIZER (APPLICATION RATE 20#/1000 SF)

1561.1 SY x 9 SF/SY x 20#/1000 SF x 1 TON/2000# = 0.14 TON

NOTE: Quantities on this Sheet Carried to PAVEMENT ESTIMATED QUANTITY Sheets 269-270.

QUANTITY CALCULATIONS

CALC. BY JAP DATE 12-1-98
CHKD. BY PWP DATE 2-22-99

HAM-71-2.92

OHIO FHWA REGION 5

164/615

2B STA. 215+12.5 to 222+61 (Left)

622 – Conc. Barrier, Type D, As Per Plan =749 Lin. Ft.
202 – Conc. Median Removed 749 x 2 = 1498 / 9 =166 Sq.Yd.
202 – Curb Removed =749 Lin. Ft.

3B STA. 222+61 to 224+43 (Left)

622 – Conc. Barrier, Type D =162 Lin. Ft.
202 – Curb Removed =162 Lin. Ft.
203 – Excavation (NIEC) 162 x 2.5 x 0.5 = 202.5 / 27 =8 Cu. Yd.
659 – Seeding and Mulching 162 x 3.5 = 567 / 9 =63 Sq. Yd.
659 – Water 162 x 3.5 x 120 / 1000 / 1000 =0.07 M. Gal.
659 – Comm. Fertilizer 162 x 3.5 x 20 / 1000 / 2000 =0.006 Ton

5B STA. 224+63 to 227+41 (Left)

622 – Conc. Barrier, Type D, As Per Plan =278 Lin. Ft.
202 – Conc. Median Removed 278 x 2 = 556 / 9 =62 Sq.Yd.
202 – Curb Removed =278 Lin. Ft.

8B STA. 227+10.5 to 227+26 (Right)

622 – Conc. Barrier, Type D =16 Lin. Ft.
202 – Curb Removed =16 Lin. Ft.
203 – Excavation (NIEC) 16 x 3.5 x 0.5 = 28 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 16 x 3.5 = 56 / 9 =6 Sq. Yd.
659 – Water 16 x 3.5 x 120 / 1000 / 1000 =0.007 M. Gal.
659 – Comm. Fertilizer 16 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

9B STA. 227+26 to 234+10 (Right)

622 – Conc. Barrier, Type D, As Per Plan =684 Lin. Ft.
202 – Conc. Median Removed 684 x 2 = 1026 / 9 =114 Sq.Yd.
202 – Curb Removed =684 Lin. Ft.

10B STA. 227+41 to 227+55 (Left)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 2.5 x 0.5 = 17.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

13B STA. 231+00.5 TC to 231+22 TC (Left)

622 – Conc. Barrier, Type D =22 Lin. Ft.
202 – Curb Removed =22 Lin. Ft.

15B STA. 241+92 TH to 242+11 TH (Left)

622 – Conc. Barrier, Type D =19 Lin. Ft.
202 – Curb Removed =19 Lin. Ft.

19B STA. 230+63 TC to 230+85 TC (Right)

622 – Conc. Barrier, Type D =22 Lin. Ft.
202 – Curb Removed =22 Lin. Ft.
203 – Excavation (NIEC) 22 x 3.5 x 0.5 = 38.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 22 x 3.5 = 77 / 9 =9 Sq. Yd.
659 – Water 22 x 3.5 x 120 / 1000 / 1000 =0.009 M. Gal.
659 – Comm. Fertilizer 22 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

20B STA. 230+85 TC to 233+61 TC (Right)

622 – Conc. Barrier, Type D, As Per Plan =276 Lin. Ft.
202 – Curb Removed =276 Lin. Ft.
203 – Excavation (NIEC) 276 x 3.0 x 0.5 / 27 =15 Cu. Yd.
659 – Seeding and Mulching 276 x 3.0 = 828 / 9 =92 Sq. Yd.
659 – Water 276 x 3.0 x 120 / 1000 / 1000 =0.099 M. Gal.
659 – Comm. Fertilizer 276 x 3.0 x 20 / 1000 / 2000 =0.008 Ton

23B STA. 231+55 to 231+75 (Left)

622 – Conc. Barrier, Type D =20 Lin. Ft.
202 – Curb Removed =20 Lin. Ft.
203 – Excavation (NIEC) 20 x 2.5 x 0.5 = 25 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 20 x 5 = 100 / 9 = 11 Sq. Yd.
659 – Water 20 x 5 x 120 / 1000 / 1000 =0.012 M. Gal.
659 – Comm. Fertilizer 20 x 5 x 20 / 1000 / 2000 =0.001 Ton

24B STA. 231+75 to 240+02.5 (Left)

622 – Conc. Barrier, Type D, As Per Plan =828 Lin. Ft.
202 – Conc. Median Removed 828 x 4 = 3312 / 9 =368 Sq. Yd.
202 – Curb Removed =828 Lin. Ft.

25B STA. 240+02.5 to 240+30.5 (Left)

622 – Conc. Barrier, Type B, As Per Plan =28 Lin. Ft.
622 – Impact Attenuator – Hex Foam Sandwich System = 1 Each
202 – Portion of Structure Removed: Retaining Wall = Lump

27B STA. 233+61 TH to 233+75 TH (Right)

622 – Conc. Barrier, Type D, As Per Plan =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.

28B STA. 232+78 TH to 233+83 TH (Left)

622 – Conc. Barrier, Type D =105 Lin. Ft.
202 – Curb Removed =105 Lin. Ft.
203 – Excavation (NIEC) 105 x 5 x 0.5 = 262.5 / 27 =10 Cu. Yd.
659 – Seeding and Mulching 105 x 5 = 525 / 9 =58 Sq. Yd.
659 – Water 105 x 5 x 120 / 1000 / 1000 =0.063 M. Gal.
659 – Comm. Fertilizer 105 x 5 x 20 / 1000 / 2000 =0.005 Ton

29B STA. 233+83 TH to 241+92 TH (Left)

622 – Conc. Barrier, Type D, As Per Plan =809 Lin. Ft.
202 – Conc. Median Removed 686 x 1.5 = 1029 / 9 =114 Sq. Yd.
202 – Curb Removed =809 Lin. Ft.

39B STA. 248+21 to 248+35 (Right)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

40B STA. 248+35 to 254+00 (Right)

622 – Conc. Barrier, Type D, As Per Plan =565 Lin. Ft.
202 – Conc. Median Removed 565 x 1.5 = 847.5 / 9 =94 Sq. Yd.
202 – Curb Removed =565 Lin. Ft.

41B STA. 254+00 to 254+14 (Right)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) (5+0/2)x 14 x 0.5 = 17.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching (5+0/2)x 14 = 35 / 9 =4 Sq. Yd.
659 – Water (5+0/2)x 14 x 120 / 1000 / 1000 =0.004 M. Gal.
659 – Comm. Fertilizer (5+0/2)x 14 x 20 / 1000 / 2000 =0.001 Ton

45B STA. 261+89 to 262+14 (Right)

622 – Conc. Barrier, Type D =25 Lin. Ft.
202 – Curb Removed =25 Lin. Ft.
203 – Excavation (NIEC) (3.5+0/2)x 25 x 0.5 = 22 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 3.5 x 25 = 87.5 / 9 =10 Sq. Yd.
659 – Water 3.5 x 25 x 120 / 1000 / 1000 =0.010 M. Gal.
659 – Comm. Fertilizer 3.5 x 25 x 20 / 1000 / 2000 =0.001 Ton

46B STA. 262+14 to 262+90 (Right)

622 – Conc. Barrier, Type D, As Per Plan =76 Lin. Ft.
202 – Curb Removed =76 Lin. Ft.
203 – Excavation (NIEC) 76 x 3.5 x 0.5 / 27 =5 Cu. Yd.
659 – Seeding and Mulching 76 x 3.5 = 266 / 9 =30 Sq. Yd.
659 – Water 76 x 3.5 x 120 / 1000 / 1000 =0.032 M. Gal.
659 – Comm. Fertilizer 76 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

47B STA. 262+90 to 263+13 (Right)

622 – Conc. Barrier, Type D =23 Lin. Ft.
202 – Curb Removed =23 Lin. Ft.
203 – Excavation (NIEC) (3.5+0/2)x 23 x 0.5 = 20 / 27 =1 Cu. Yd.
659 – Seeding and Mulching (3.5+0/2)x 23 = 40.25 / 9 =4 Sq. Yd.
659 – Water (3.5+0/2)x 23 x 120 / 1000 / 1000 =0.005 M. Gal.
659 – Comm. Fertilizer(3.5+0/2)x 23 x 20 / 1000 / 2000 =0.001 Ton

51B STA. 264+25 to 264+46 (Left)

622 – Conc. Barrier, Type D =21 Lin. Ft.
202 – Curb Removed =21 Lin. Ft.
203 – Excavation (NIEC) (3.5+0/2)x 21 x 0.5 = 18 / 27 =1 Cu. Yd.
659 – Seeding and Mulching (3.5+0/2)x 21 = 36.75 / 9 =4 Sq. Yd.
659 – Water (3.5+0/2)x 21 x 120 / 1000 / 1000 =0.004 M. Gal.
659 – Comm. Fertilizer(3.5+0/2)x 21 x 20 / 1000 / 2000 =0.001 Ton

52B STA. 264+46 to 265+14 (Left)

622 – Conc. Barrier, Type D, As Per Plan =68 Lin. Ft.
202 – Curb Removed =68 Lin. Ft.
203 – Excavation (NIEC) 68 x 3.5 x 0.5 / 27 =4 Cu. Yd.
659 – Seeding and Mulching 68 x 3.5 = 238 / 9 =26.4 Sq. Yd.
659 – Water 68 x 3.5 x 120 / 1000 / 1000 =0.029 M. Gal.
659 – Comm. Fertilizer 68 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

53B STA. 265+14 to 265+39 (Left)

622 – Conc. Barrier, Type D =25 Lin. Ft.
202 – Curb Removed =25 Lin. Ft.
203 – Excavation (NIEC) (3.5+0/2x 25 x 0.5 = 22 / 27 =1 Cu. Yd.
659 – Seeding and Mulching (3.5+0/2)x 25 = 44 / 9 =5 Sq. Yd.
659 – Water (3.5+0/2)x 25 x 120 / 1000 / 1000 =0.005 M. Gal.
659 – Comm. Fertilizer(3.5+0/2)x 25 x 20 / 1000 / 2000 =0.001 Ton

56B STA. 267+41 to 267+76 (Right)

622 – Conc. Barrier, Type D =35 Lin. Ft.
202 – Curb Removed =35 Lin. Ft.
203 – Excavation (NIEC) 35 x 3.5 x 0.5 = 61 / 27 =2 Cu. Yd.
659 – Seeding and Mulching 35 x 3.5 = 122.5 / 9 =14 Sq. Yd.
659 – Water 35 x 3.5 x 120 / 1000 / 1000 =0.015 M. Gal.
659 – Comm. Fertilizer 35 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

58B STA. 276+51 to 276+65 (Right)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

59B STA. 276+65 to 279+20 (Right)

622 – Conc. Barrier, Type D, As Per Plan =255 Lin. Ft.
202 – Conc. Median Removed 255 x 2 = 510 /9 =57 Sq. Yd.
203 – Curb Removed =255 Lin. Ft.

75B STA. 318+60 ME to 318+74 ME (Left)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

76B STA. 318+74 ME to 324+83 ME (Left)

622 – Conc. Barrier, Type D, As Per Plan =609 Lin. Ft.
202 – Curb Removed =609 Lin. Ft.

77B STA. 324+83 ME to 324+97 ME (Left)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

96B STA. 15+25L to 15+39L (Left)

622 – Conc. Barrier, Type D =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

101B STA. 374+58 to 375+66 (Right)

622 – Conc. Barrier, Type D =108 Lin. Ft.
202 – Curb Removed =108 Lin. Ft.
203 – Excavation (NIEC) 108 x 3.5 x 0.5 = 189 / 27 =7 Cu. Yd.
659 – Seeding and Mulching 108 x 3.5 = 378 / 9 =42 Sq. Yd.
659 – Water 108 x 3.5 x 120 / 1000 / 1000 =0.045 M. Gal.
659 – Comm. Fertilizer 108 x 3.5 x 20 / 1000 / 2000 =0.004 Ton

103B STA. 380+26 to 380+48 (Left)

622 – Conc. Barrier, Type D =22 Lin. Ft.
202 – Curb Removed =22 Lin. Ft.
203 – Excavation (NIEC) (8+0/2)x 22 x 0.5 = 44 / 27 =2 Cu. Yd.
659 – Seeding and Mulching (8+0/2)x 22 = 88 / 9 =10 Sq. Yd.
659 – Water (8+0/2)x 22 x 120 / 1000 / 1000 =0.011 M. Gal.
659 – Comm. Fertilizer(8+0/2)x 22 x 20 / 1000 / 2000 =0.001 Ton

104B STA. 380+48 to 381+06 (Left)

622 – Conc. Barrier, Type D, As Per Plan =58 Lin. Ft.
202 – Curb Removed =58 Lin. Ft.
203 – Excavation (NIEC) 58 x 3.5 x 0.5 = 101.5 / 27 =4 Cu. Yd.
659 – Seeding and Mulching 58 x 3.5 = 203 / 9 =23 Sq. Yd.
659 – Water 58 x 3.5 x 120 / 1000 / 1000 =0.024 M. Gal.
659 – Comm. Fertilizer 58 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

105B STA. 381+06 to 381+25 (Left)

622 – Conc. Barrier, Type D =19 Lin. Ft.
202 – Curb Removed =19 Lin. Ft.
203 – Excavation (NIEC) (10+0/2)x 19 x 0.5 = 47 / 27 =2 Cu. Yd.
659 – Seeding and Mulching (10+0/2)x 19 = 95 / 9 =11 Sq. Yd.
659 – Water (10+0/2)x 19 x 120 / 1000 / 1000 =0.011 M. Gal.
659 – Comm. Fertilizer(10+0/2)x 19 x 20 / 1000 / 2000 =0.001 Ton

107B STA. 374+19 DB to 375+25 DB (Right)

622 – Conc. Barrier, Type D =106 Lin. Ft.
202 – Concrete Median Removed 106 x 2 = 212 / 9 =24 Sq. Yd.
202 – Curb Removed =106 Lin. Ft.

111B STA. 374+03 DE to 377+56 DE (Left)

622 – Conc. Barrier, Type D, As Per Plan =353 Lin. Ft.
202 – Concrete Median Removed 353 x 1.25 = 441 /9 =49 Sq. Yd.
202 – Curb Removed =353 Lin. Ft.

112B STA. 377+56 DE to 377+75 DE (Left)

622 – Conc. Barrier, Type D =19 Lin. Ft.
202 – Curb Removed =19 Lin. Ft.

114B STA. 428+12.5 to 428+60.5 (Right)

622 – Conc. Barrier, Type D =48 Lin. Ft.
659 – Seeding and Mulching 48 x 3.5 = 168 / 9 =19 Sq. Yd.
659 – Water 48 x 3.5 x 120 / 1000 / 1000 =0.020 M. Gal.
659 – Comm. Fertilizer 48 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

116B STA. 429+75.78 to 430+39.78 (Left)

622 – Conc. Barrier, Type D =64 Lin. Ft.
659 – Seeding and Mulching 64 x 3.5 = 224 / 9 =25 Sq. Yd.
659 – Water 64 x 3.5 x 120 / 1000 / 1000 =0.027 M. Gal.
659 – Comm. Fertilizer 64 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

117B STA. 11+77E to 12+02E (Right)

622 – Conc. Barrier, Type D =25 Lin. Ft.
659 – Seeding and Mulching 25 x 3.5 = 87.5 / 9 =10 Sq. Yd.
659 – Water 25 x 3.5 x 120 / 1000 / 1000 =0.011 M. Gal.
659 – Comm. Fertilizer 25 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

118B STA. 12+55E to 12+80E (Right)

622 – Conc. Barrier, Type D =25 Lin. Ft.
659 – Seeding and Mulching 25 x 3.5 = 87.5 / 9 =10 Sq. Yd.
659 – Water 25 x 3.5 x 120 / 1000 / 1000 =0.011 M. Gal.
659 – Comm. Fertilizer 25 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

119B STA. 12+00E to 12+60E (Left)

622 – Conc. Barrier, Type D =60 Lin. Ft.
659 – Seeding and Mulching 60 x 3.5 = 210 / 9 =23 Sq. Yd.
659 – Water 60 x 3.5 x 120 / 1000 / 1000 =0.025 M. Gal.
659 – Comm. Fertilizer 60 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

121B STA. 12+02E to 12+55E (Right)

622 – Conc. Barrier, Type D, As Per Plan =53 Lin. Ft.
659 – Seeding and Mulching 53 x 3.5 = 185.5 / 9 =21 Sq. Yd.
659 – Water 53 x 3.5 x 120 / 1000 / 1000 =0.022 M. Gal.
659 – Comm. Fertilizer 53 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

124B STA. 292+80.31 to 293+28 (Left)

622 – Conc. Barrier, Type D =48 Lin. Ft.
203 – Embankment (0.30+0/2)x 48 x 3.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 48 x 3.5 = 168 / 9 =19 Sq. Yd.
659 – Water 48 x 3.5 x 120 / 1000 / 1000 =0.020 M. Gal.
659 – Comm. Fertilizer 48 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

126B STA. 294+78 to 295+28 (Left)

622 – Conc. Barrier, Type D =50 Lin. Ft.
203 – Embankment (0.30+0/2)x 50 x 3.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 50 x 3.5 = 175 / 9 =19 Sq. Yd.
659 – Water 50 x 3.5 x 120 / 1000 / 1000 =0.021 M. Gal.
659 – Comm. Fertilizer 50 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

132B STA. 378+11 DE to 378+55 DE (Right)

622 – Conc. Barrier, Type D =44 Lin. Ft.
202 – Curb Removed =44 Lin. Ft.
203 – Excavation (NIEC) 4 x 21(Avg.) x 0.5 = 42 / 27 =2 Cu. Yd.
659 – Seeding and Mulching 4 x 21(Avg.) = 84 / 9 =9 Sq. Yd.
659 – Water 4 x 21(Avg.) x 120 / 1000 / 1000 =0.010 M. Gal.
659 – Comm. Fertilizer 4 x 21(Avg.) x 20 / 1000 / 2000 =0.001 Ton

133B STA. 378+55 DE to 379+11 DE (Right)

622 – Conc. Barrier, Type D, As Per Plan =56 Lin. Ft.
202 – Conc. Median Removed 56 x 1.5 = 84 / 9 =9 Sq. Yd.
202 – Curb Removed =56 Lin. Ft.

NOTE: EXCAVATION (NIEC) = EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

NOTE: Quantities on this Sheet Carried to Estimated Quantity Sheets 271–276.

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QUANTITY CALCULATIONS

CALC. BY JBP DATE 10-17-95
CHKD. BY PWP DATE 2-26-96

HAM-71-2.92 | OHIO | FHWA REGION 5 | 165/615

134B STA. 379+11 DE to 379+44 DE (Right)

622 – Conc. Barrier, Type D =33 Lin. Ft.
202 – Conc. Median Removed (1.5+7/2)x 33 = 140 / 9 = 16 Sq. Yd.
202 – Curb Removed =33 Lin. Ft.
203 – Excavation (NIEC) 2 x 6 = 12 / 27 =1 Cu. Yd.
659 – Seeding and Mulching (6+0/2)x 33 = 99 / 9 =11 Sq. Yd.
659 – Water (6+0/2)x 33 x 120 / 1000 / 1000 =0.012 M. Gal.
659 – Comm. Fertilizer (6+0/2)x 33 x 20 / 1000 / 2000 =0.001 Ton

147B STA. 305+00 B to 305+50 B (Right)

622 – Conc. Barrier, Type D =50 Lin. Ft.
203 – Embankment (0.3+0/2)x 50 x 3.5 = 26 /27 =1 Cu. Yd.
659 – Seeding and Mulching 50 x 3.5 = 175 / 9 =19 Sq. Yd.
659 – Water 50 x 3.5 x 120 / 1000 / 1000 =0.021 M. Gal.
659 – Comm. Fertilizer 50 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

148B STA. 305+50 B to 308+23.5 B (Right)

622 – Conc. Barrier, Type D, As Per Plan =254 Lin. Ft.
202 – Conc. Median Removed 2 x 254 = 508 / 9 = 56 Sq.Yd.

152B STA. 310+38 to 311+12 (Right)

622 – Conc. Barrier, Type D, As Per Plan A =74 Lin. Ft.
203 – Embankment (0.21+0/2)x 74 x 2.5 = 20 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 74 x 2.5 = 185 / 9 =21 Sq. Yd.
659 – Water 74 x 2.5 x 120 / 1000 / 1000 =0.020 M. Gal.
659 – Comm. Fertilizer 74 x 2.5 x 20 / 1000 / 2000 =0.002 Ton

153B STA. 310+85 to 311+62 (Left)

622 – Conc. Barrier, Type D, As Per Plan A =77 Lin. Ft.
203 – Embankment (0.21+0/2)x 77 x 2.5 = 20 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 77 x 2.5 = 192.5 / 9 =21 Sq. Yd.
659 – Water 77 x 2.5 x 120 / 1000 / 1000 =0.023 M. Gal.
659 – Comm. Fertilizer 77 x 2.5 x 20 / 1000 / 2000 =0.002 Ton

156B STA. 320+78 to 322+20 (Right)

622 – Conc. Barrier, Type D, As Per Plan A =142 Lin. Ft.
203 – Embankment (0.21+0/2)x 142 x 2.5 = 37 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 142 x 2.5 = 355 / 9 =39 Sq. Yd.
659 – Water 142 x 2.5 x 120 / 1000 / 1000 =0.043 M. Gal.
659 – Comm. Fertilizer 142 x 2.5 x 20 / 1000 / 2000 =0.004 Ton

157B STA. 320+96 to 321+72 (Left)

622 – Conc. Barrier, Type D, As Per Plan A =76 Lin. Ft.
203 – Embankment (0.21+0/2)x 76 x 2.5 = 20 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 76 x 2.5 = 190 / 9 =21 Sq. Yd.
659 – Water 76 x 2.5 x 120 / 1000 / 1000 =0.023 M. Gal.
659 – Comm. Fertilizer 76 x 2.5 x 20 / 1000 / 2000 =0.002 Ton

160B STA. 328+28 D to 328+66 D (Left)

622 – Conc. Barrier, Type D, As Per Plan A =38 Lin. Ft.
203 – Embankment (0.21+0/2)x 38 x 2.5 = 10 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 38 x 2.5 = 95 / 9 =11 Sq. Yd.
659 – Water 38 x 2.5 x 120 / 1000 / 1000 =0.011 M. Gal.
659 – Comm. Fertilizer 38 x 2.5 x 20 / 1000 / 2000 =0.001 Ton

165B STA. 339+72 to 341+20 (Left)

622 – Conc. Barrier, Type D, As Per Plan A =148 Lin. Ft.
202 – Curb Removed =60 Lin. Ft.
659 – Seeding and Mulching 73 x 3.5 = 255.5 / 9 =28 Sq. Yd.
659 – Water 73 x 3.5 x 120 / 1000 / 1000 =0.031 M. Gal.
659 – Comm. Fertilizer 73 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

166B STA. 341+20 to 341+50 (Left)

622 – Conc. Barrier, Type D =30 Lin. Ft.
202 – Curb Removed =30 Lin. Ft.
203 – Excavation (NIEC) 30 x 3.5 x 0.5 = 52.5 / 27 =2 Cu. Yd.
659 – Seeding and Mulching 30 x 3.5 = 105 / 9 =12 Sq. Yd.
659 – Water 30 x 3.5 x 120 / 1000 / 1000 =0.013 M. Gal.
659 – Comm. Fertilizer 30 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

167B STA. 341+50 to 342+50 (Left)

622 – Conc. Barrier, Type D, As Per Plan =100 Lin. Ft.
202 – Curb Removed =100 Lin. Ft.

168B STA. 342+50 to 3342+64 (Left)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 = 5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

173B STA. 351+10 to 351+24 (Right)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

174B STA. 351+24 to 358+27 NB (Right)

622 – Conc. Barrier, Type D, As Per Plan =703 Lin. Ft.
202 – Curb Removed =703 Lin. Ft.

175B STA. 358+27 NB to 358+41 NB (Right)

622 – Conc. Barrier, Type D =14 Lin. Ft.
202 – Curb Removed =14 Lin. Ft.
203 – Excavation (NIEC) 14 x 3.5 x 0.5 = 24.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 – Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

177B STA. 362+28.5 NB to 362+50 NB (Right)

622 – Conc. Barrier, Type D =21.5 Lin. Ft.
203 – Embankment (0.3+0/2)x 21.5 x(3.5+0/2) = 6 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 21.5 x(3.5+0/2) = 38 / 9 =4 Sq. Yd.
659 – Water 21.5 x(3.5+0/2)x 120 / 1000 / 1000 =0.005 M. Gal.
659 – Comm. Fertilizer 21.5 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

178B STA. 362+50 NB to 363+03 NB (Right)

622 – Conc. Barrier, Type D, As Per Plan =53 Lin. Ft.
203 – Embankment (0.3+0/2) x 53 x 3.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 53 x 3.5 = 185.5 / 9 =21 Sq. Yd.
659 – Water 53 x 3.5 x 120 / 1000 / 1000 =0.022 M. Gal.
659 – Comm. Fertilizer 53 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

179B STA. 363+03 NB to 363+48 NB (Right)

622 – Conc. Barrier, Type D =45 Lin. Ft.
203 – Embankment (0.3+0/2)x 45 x(3.5+0/2) = 12 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 45 x(3.5+0/2) = 79 / 9 =9 Sq. Yd.
659 – Water 45 x(3.5+0/2)x 120 / 1000 / 1000 =0.009 M. Gal.
659 – Comm. Fertilizer 45 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

180B STA. 350+69 to 351+00 (Left)

622 – Conc. Barrier, Type D =31 Lin. Ft.
202 – Curb Removed =31 Lin. Ft.
203 – Excavation (NIEC) (3.5+0/2)x 31 x 0.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 31 x (3.5+0/2) = 54 / 9 =6 Sq. Yd.
659 – Water 31 x(3.5+0/2)x 120 / 1000 / 1000 =0.007 M. Gal.
659 – Comm. Fertilizer 31 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

181B STA. 351+00 to 351+95 (Left)

622 – Conc. Barrier, Type D, As Per Plan =95 Lin. Ft.
202 – Curb Removed =25 Lin. Ft.
659 – Seeding and Mulching 95 x 3.5 = 332.5 / 9 =37 Sq. Yd.
659 – Water 95 x 3.5 x 120 / 1000 / 1000 =0.040 M. Gal.
659 – Comm. Fertilizer 95 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

182B STA. 351+95 to 352+13 (Left)

622 – Conc. Barrier, Type D =18 Lin. Ft.
202 – Curb Removed =18 Lin. Ft.
203 – Excavation (NIEC) 18 x(3.5+0/2)x 0.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 18 x(3.5+0/2) = 31.5 / 9 =4 Sq. Yd.
659 – Water 18 x(3.5+0/2)x 120 / 1000 / 1000 =0.004 M. Gal.
659 – Comm. Fertilizer 18 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

185B STA. 359+48 NB to 362+76 NB (Left)

622 – Conc. Barrier, Type D50, As Per Plan =328 Lin. Ft.
659 – Seeding and Mulching 328 x 2.5 = 820 / 9 =91 Sq. Yd.
659 – Water 328 x 2.5 x 120 / 1000 / 1000 =0.098 M. Gal.
659 – Comm. Fertilizer 328 x 2.5 x 20 / 1000 / 2000 =0.008 Ton

189B STA. 359+48 SB to 363+12 SB (Right)

622 – Conc. Barrier, Type D50, As Per Plan =364 Lin. Ft.
202 – Curb Removed =362 Lin. Ft.
203 – Excavation (NIEC) [45x0.5x(2.5+1/2)]+(319x0.5x2.5)/27 =16 Cu. Yd.
659 – Seeding and Mulching [45x(2.5+1/2)]+ 319 x 2.5 = 876 / 9 =97 Sq. Yd.
659 – Water [[45x(2.5+1/2)]+319x2.5]x 120 / 1000 / 1000 =0.105 M. Gal.
659 – Comm. Fertilizer [[45x(2.5+1/2)]+319x2.5]x 20 / 1000 / 2000 =0.009 Ton

190B STA. 363+12 SB to 363+43.5 SB (Right)

622 – Conc. Barrier, Type D =32 Lin. Ft.
202 – Curb Removed =32 Lin. Ft.
203 – Excavation (NIEC) 7 x 3.5 x 0.5 = 12 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 7 x 3.5 = 24.5 / 9 =3 Sq. Yd.
659 – Water 7 x 3.5 x 120 / 1000 / 1000 =0.003 M. Gal.
659 – Comm. Fertilizer 7 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

193B STA. 363+22 SB to 363+72 SB (Left)

622 – Conc. Barrier, Type D =50 Lin. Ft.
203 – Embankment 50 x(3.5+0/2)x 0.3 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 50 x(3.5+0/2) = 87.5 / 9 =10 Sq. Yd.
659 – Water 50 x(3.5+0/2)x 120 / 1000 / 1000 =0.011 M. Gal.
659 – Comm. Fertilizer 50 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

194B STA. 363+72 SB to 364+53 SB (Left)

622 – Conc. Barrier, Type D, As Per Plan =81 Lin. Ft.
203 – Embankment 81 x(0.3+0/2)x 3.5 / 27 =2 Cu. Yd.
659 – Seeding and Mulching 81 x 3.5 = 283.5 / 9 =32 Sq. Yd.
659 – Water 81 x 3.5 x 120 / 1000 / 1000 =0.034 M. Gal.
659 – Comm. Fertilizer 81 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

195B STA. 364+53 SB to 364+90 SB (Left)

622 – Conc. Barrier, Type D =37 Lin. Ft.
203 – Embankment 37 x(3.5+0/2)x 0.3 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 37 x(3.5+0/2) / 9 =7 Sq. Yd.
659 – Water 37 x(3.5+0/2)x 120 / 1000 / 1000 =0.008 M. Gal.
659 – Comm. Fertilizer 37 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

200B STA. 1+97.5 G to 2+47.5 G (Right)

622 – Conc. Barrier, Type D =50 Lin. Ft.
203 – Embankment 50 x 1.75(Avg.) x 0.2 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 50 x 1.75(Avg.) = 87.5 / 9 =10 Sq. Yd.
659 – Water 50 x 1.75(Avg.) x 120 / 1000 / 1000 =0.011 M. Gal.
659 – Comm. Fertilizer 50 x 1.75(Avg.) x 20 / 1000 / 2000 =0.001 Ton

201B STA. 1+48 F to 2+54 F (Right)

622 – Conc. Barrier, Type D =106 Lin. Ft.
203 – Embankment 106 x 1.75(Avg.) x 0.2 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 106 x 1.75(Avg.) = 185.5 / 9 =21 Sq. Yd.
659 – Water 106 x 1.75(Avg.) x 120 / 1000 / 1000 =0.022 M. Gal.
659 – Comm. Fertilizer 106 x 1.75(Avg.) x 20 / 1000 / 2000 =0.002 Ton

NOTE: EXCAVATION (NIEC) = EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

202B STA. 2+54 F to 7+50 F (Right)

622 – Conc. Barrier, Type D, As Per Plan =496 Lin. Ft.
202 – Curb Removal =496 Lin. Ft.

205B STA. 378+98 NB to 380+01.32 NB Right)

622 – Conc. Barrier, Type D, As Per Plan A =103 Lin. Ft.
659 – Seeding and Mulching 31 x 3.25 = 100.75 / 9 =11 Sq. Yd.
659 – Water 31 x 3.25 x 120 / 1000 / 1000 =0.012 M. Gal.
659 – Comm. Fertilizer 31 x 3.25 x 20 / 1000 / 2000 =0.001 Ton

211B STA. 378+40 NB to 379+30 NB (Left)

622 – Conc. Barrier, Type D, As Per Plan A =90 Lin. Ft.
659 – Seeding and Mulching 15 x 3.5 = 52.5 / 9 =6 Sq. Yd.
659 – Water 15 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 – Comm. Fertilizer 15 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

213B STA. 380+22 SB to 380+74.5 SB (Left)

622 – Conc. Barrier, Type D, As Per Plan A =52.5 Lin. Ft.
659 – Seeding and Mulching 52.5 x 3.5 = 184 / 9 =20 Sq. Yd.
659 – Water 52.5 x 3.5 x 120 / 1000 / 1000 =0.022 M. Gal.
659 – Comm. Fertilizer 52.5 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

219B STA. 384+16.5 NB to 385+05.5 NB (Left)

622 – Conc. Barrier, Type D =89 Lin. Ft.
659 – Seeding and Mulching 89 x 3.5 = 311.5 / 9 =35 Sq. Yd.
659 – Water 89 x 3.5 x 120 / 1000 / 1000 =0.037 M. Gal.
659 – Comm. Fertilizer 89 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

220B STA. 385+05.5 NB to 386+44 NB (Left)

622 – Conc. Barrier, Type D, As Per Plan =139 Lin. Ft.
202 – Curb Removed =44 Lin. Ft.

221B STA. 386+44 NB to 387+52 NB (Left)

622 – Conc. Barrier, Type D =108 Lin. Ft.
202 – Curb Removed =108 Lin. Ft.
203 – Excavation (NIEC) 108 x 3.5 x 0.5 / 27 =7 Cu. Yd.
659 – Seeding and Mulching 108 x 3.5 = 378 / 9 =42 Sq. Yd.
659 – Water 108 x 3.5 x 120 / 1000 / 1000 =0.045 M. Gal.
659 – Comm. Fertilizer 108 x 3.5 x 20 / 1000 / 2000 =0.004 Ton

223B STA. 388+75 NB to 389+14 NB (Right)

622 – Conc. Barrier, Type D, As Per Plan A =39 Lin. Ft.
659 – Seeding and Mulching 39 x 2.5 = 97.5 / 9 =11 Sq. Yd.
659 – Water 39 x 2.5 x 120 / 1000 / 1000 =0.012 M. Gal.
659 – Comm. Fertilizer 39 x 2.5 x 20 / 1000 / 2000 =0.001 Ton

225B STA. 398+06 NB to 398+25 NB (Right)

622 – Conc. Barrier, Type D =19 Lin. Ft.
202 – Curb Removed =19 Lin. Ft.
203 – Excavation (NIEC) 19 x 3.5 x 0.5 / 27 =1 Cu. Yd.
659 – Seeding and Mulching 19 x 3.5 = 66.5 / 9 =7 Sq. Yd.
659 – Water 19 x 3.5 x 120 / 1000 / 1000 =0.008 M. Gal.
659 – Comm. Fertilizer 19 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

226B STA. 398+25 NB to 399+33 NB (Right)

622 – Conc. Barrier, Type D, As Per Plan =108 Lin. Ft.
202 – Curb Removed =108 Lin. Ft.
203 – Excavation (NIEC) 108 x 3.5 x 0.5 / 27 =7 Cu. Yd.
659 – Seeding and Mulching 108 x 3.5 = 378 / 9 =42 Sq. Yd.
659 – Water 108 x 3.5 x 120 / 1000 / 1000 =0.045 M. Gal.
659 – Comm. Fertilizer 108 x 3.5 x 20 / 1000 / 2000 =0.004 Ton

NOTE: Quantities on this Sheet Carried to Estimated Quantity Sheets 271–276.

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QUANTITY CALCULATIONS

CALC. BY JDP DATE 10-17-94
CHKD. BY PWP DATE 2-20-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 166/615

227B STA. 399+33 NB to 399+65 NB (Right)

622 - Conc. Barrier, Type D =32 Lin. Ft.
202 - Curb Removed =32 Lin. Ft.
203 - Excavation (NIEC) 32 x(3.5+1/2)x 0.5 /27 =1Cu. Yd.
659 - Seeding and Mulching 32 X(3.5+1/2)= 72 / 9 =8 Sq. Yd.
659 - Water 32 X(3.5+1/2)x 120 / 1000 / 1000 =0.009 M. Gal.
659 - Comm. Fertilizer 32 x(3.5+1/2)x 20 / 1000 / 2000 =0.001 Ton

229B STA. 401+77.5 to 1+97 N (Right)

622 - Conc. Barrier, Type D =220 Lin. Ft.
659 - Seeding and Mulching 220 x 3.5 = 770 / 9 =86 Sq. Yd.
659 - Water 220 x 3.5 x 120 / 1000 / 1000 =0.092 M. Gal.
659 - Comm. Fertilizer 220 x 3.5 x 20 / 1000 / 2000 =0.008 Ton

231B STA. 397+90 SB to 398+42 (Left)

622 - Conc. Barrier, Type D =52 Lin. Ft.
659 - Seeding and Mulching 52 x(3.5+1.5/2)= 130 / 9 =14 Sq. Yd.
659 - Water 52 x(3.5+1.5/2)x 120 / 1000 / 1000 =0.016 M. Gal.
659 - Comm. Fertilizer 52 x(3.5+1.5/2)x 20 / 1000 / 2000 =0.001 Ton

232B STA. 398+42 SB to 398+87 SB (Left)

622 - Conc. Barrier, Type D, As Per Plan =45 Lin. Ft.
659 - Seeding and Mulching 45 x 3.5 = 157.5 / 9 =18 Sq. Yd.
659 - Water 45 x 3.5 x 120 / 1000 / 1000 =0.019 M. Gal.
659 - Comm. Fertilizer 45 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

233B STA. 398+87 SB to 399+12.5 SB (Left)

622 - Conc. Barrier, Type D =25.5 Lin. Ft.
659 - Seeding and Mulching 25.5 x(3.5+1/2)= 57 / 9 =6 Sq. Yd.
659 - Water 25.5 x(3.5+1/2)x 120 / 1000 / 1000 =0.007 M. Gal.
659 - Comm. Fertilizer 25.5 x(3.5+1/2)x 20 / 1000 / 2000 =0.001 Ton

235B STA. 404+62.5 SB to 405+50.5 SB (Left)

622 - Conc. Barrier, Type D, As Per Plan A =88 Lin. Ft.
659 - Seeding and Mulching 88 x 3.5 = 308 / 9 =34 Sq. Yd.
659 - Water 88 x 3.5 x 120 /1000 / 1000 =0.037 M. Gal.
659 - Commercial Fertilizer 88 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

237B STA. 398+94 SB to 434+94 (Left)

622 - Conc. Barrier, Type D50 =3457 Lin. Ft.
601 - Paved Gutter, Type 1-2, As Per Plan =3457 Lin. Ft.
202 - Conc. Median Removed 3376 x 11 = 37136 / 9 =4126 Sq. Yd.
202 - Curb Removed =3457 Lin. Ft.
202 - Monument Assembly Removed =3 Each
203 - Excavation (NIEC) (3376x11x1.75)+(83x3.5x0.5)/ 27 =2412 Cu. Yd.
659 - Seeding and Mulching 83 x 3.5 = 290.5 / 9 =32 Sq. Yd.
659 - Water 83 x 3.5 x 120 / 1000 / 1000 =0.035 M. Gal.
659 - Comm. Fertilizer 83 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

238B STA. 398+09 NB to 434+94 (Right)

622 - Conc. Barrier, Type D50 =3457 Lin. Ft.
202 - Curb Removed =3457 Lin. Ft.
203 - Excavation (NIEC) 80 x 3.5 x 0.5 = 140 / 27 =5 Cu. Yd.
659 - Seeding and Mulching 80 x 3.5 = 280 / 9 =31 Sq. Yd.
659 - Water 80 x 3.5 x 120 / 1000 / 1000 =0.034 M. Gal.
659 - Comm. Fertilizer 80 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

240B STA. 416+46 to 417+37 (Right)

622 - Conc. Barrier, Type D =91 Lin. Ft.
659 - Seeding and Mulching 91 x 3.5 = 318.5 / 9 =35 Sq. Yd.
659 - Water 91 x 3.5 x 120 / 1000 / 1000 =0.038 M. Gal.
659 - Comm. Fertilizer 91 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

242B STA. 0+16 R to 419+38 (Left)

622 - Conc. Barrier, Type D =154 Lin. Ft.
659 - Seeding and Mulching 154 x 3.5 = 539 / 9 =60 Sq. Yd.
659 - Water 154 x 3.5 x 120 / 1000 / 1000 =0.065 M. Gal.
659 - Comm. Fertilizer 154 x 3.5 x 20 / 1000 / 2000 =0.005 Ton

244B STA. 424+25.5 to 424+50.5 (Left)

622 - Conc. Barrier, Type D =25 Lin. Ft.
203 - Embankment 25 x 3.5 x(0.2+0/2)= 8.75 / 27 =1 Cu. Yd.
659 - Seeding and Mulching 25 x 3.5= 87.5 / 9 =10 Sq. Yd.
659 - Water 25 x 3.5 x 120 / 1000 / 1000 =0.011 M. Gal.
659 - Comm. Fertilizer 25 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

246B STA. 425+07 to 425+23 (Left)

622 - Conc. Barrier, Type D =16 Lin. Ft.
203 - Embankment 16 x 3.5 x(0.2+0/2)= 5.6 / 27 =1 Cu. Yd.
659 - Seeding and Mulching 16 x 3.5 = 56 / 9 =6 Sq. Yd.
659 - Water 16 x 3.5 x 120 / 1000 / 1000 =0.007 M. Gal.
659 - Comm. Fertilizer 16 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

258B STA. 6+63 L to 7+00 L (Left)

622 - Conc. Barrier, Type D =37 Lin. Ft.
203 - Excavation (NIEC) 37 x 3.5 x 0.5 / 27 =2 Cu. Yd.
659 - Seeding and Mulching 37 x 3.5 = 129.5 / 9 =14 Sq. Yd.
659 - Water 37 x 3.5 x 120 / 1000 / 1000 =0.016 M. Gal.
659 - Comm. Fertilizer 37 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

261B STA. 12+89.5 J to 13+70 J (Right)

622 - Conc. Barrier, Type D =80.5 Lin. Ft.
202 - Curb Removed =80.5 Lin. Ft.
203 - Excavation (NIEC) 80.5 x 3.5 x 0.5 / 27 =5 Cu. Yd.
659 - Seeding and Mulching 80.5 x 3.5 = 282 / 9 =31 Sq. Yd.
659 - Water 80.5 x 3.5 x 120 / 1000 / 1000 =0.034 M. Gal.
659 - Comm. Fertilizer 80.5 x 3.5 x 20 / 1000 / 2000 =0.003 Ton

262B STA. 13+70 J to 14+10 J (Right)

622 - Conc. Barrier, Type D, As Per Plan =40 Lin. Ft.
202 - Curb Removed =40 Lin. Ft.
203 - Excavation (NIEC) 40 x 3.5 x 0.5 / 27 =3 Cu. Yd.
659 - Seeding and Mulching 40 x 3.5 = 140 / 9 =16 Sq. Yd.
659 - Water 40 x 3.5 x 120 / 1000 / 1000 =0.017 M. Gal.
659 - Comm. Fertilizer 40 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

263B STA. 14+10 J to 14+25 J (Right)

622 - Conc. Barrier, Type D =15 Lin. Ft.
203 - Embankment 15 x 3.5 x(0.2+0/2)/ 27 =1 Cu. Yd.
659 - Seeding and Mulching 15 x 3.5 = 52.5 / 9 =6 Sq. Yd.
659 - Water 15 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 - Comm. Fertilizer 15 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

274B STA. 15+39 L to 16+48 L (Left)

622 - Conc. Barrier, Type D, As Per Plan =109 Lin. Ft.
202 - Curb Removed =109 Lin. Ft.
203 - Excavation (NIEC) 109 x 3.5 x 0.5 / 27 =7 Cu. Yd.
659 - Seeding and Mulching 109 x 3.5 = 381.5 / 9 =42 Sq. Yd.
659 - Water 109 x 3.5 x 120 / 1000 / 1000 =0.046 M. Gal.
659 - Comm. Fertilizer 109 x 3.5 x 20 / 1000 / 2000 =0.004 Ton

275B STA. 16+48 L to 0+70.5 I (Left)

622 - Conc. Barrier, Type D =71 Lin. Ft.
202 - Curb Removed =71 Lin. Ft.
203 - Excavation (NIEC) 71 x 3.5 x 0.5 / 27 =5 Cu. Yd.
659 - Seeding and Mulching 71 x 3.5 = 248.5 / 9 =28 Sq. Yd.
659 - Water 71 x 3.5 x 120 / 1000 / 1000 =0.030 M. Gal.
659 - Comm. Fertilizer 71 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

277B STA. 9+08 I to 9+22 I (Left)

622 - Conc. Barrier, Type D =14 Lin. Ft.
203 - Embankment 14 x 3.5 x(0.2+0/2)= 8.75 / 27 =1 Cu. Yd.
659 - Seeding and Mulching 14 x(3.5+0/2)= 24.5 / 9 =3 Sq. Yd.
659 - Water 14 x(3.5+0/2)x 120 / 1000 / 1000 =0.003 M. Gal.
659 - Comm. Fertilizer 14 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

NOTE: EXCAVATION (NIEC) = EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

278B STA. 9+22 I to 9+84 I (Left)

622 - Conc. Barrier, Type D, As Per Plan =62 Lin. Ft.
202 - Curb Removed =62 Lin. Ft.

279B STA. 9+84 I to 10+08 I (Left)

622 - Conc. Barrier, Type D =24 Lin. Ft.
202 - Curb Removed =24 Lin. Ft.
203 - Excavation (NIEC) 24 x(3.5+0/2)x 0.5 = 21 / 27 =1 Cu. Yd.
659 - Seeding and Mulching 24 x(3.5+0/2)= 24.5 / 9 =5 Sq. Yd.
659 - Water 24 x(3.5+0/2)x 120 / 1000 / 1000 =0.005 M. Gal.
659 - Comm. Fertilizer 24 x(3.5+0/2)x 20 / 1000 / 2000 =0.001 Ton

281B STA. 11+95.5 I to 12+43.5 I (Left)

622 - Conc. Barrier, Type D =48 Lin. Ft.
202 - Curb Removed =48 Lin. Ft.
203 - Excavation (NIEC) 48 x 3.5 x 0.5 / 27 =3 Cu. Yd.
659 - Seeding and Mulching 48 x 3.5 = 168 / 9 =19 Sq. Yd.
659 - Water 48 x 3.5 x 120 / 1000 / 1000 =0.020 M. Gal.
659 - Comm. Fertilizer 48 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

284B STA. 21+54 L to 23+16 L (Left)

622 - Conc. Barrier, Type D, As Per Plan A =162 Lin. Ft.
203 - Embankment 162 x 3.5 x(0.2+0/2) / 27 =2 Cu. Yd.
659 - Seeding and Mulching 162 x 3.5 = 567 / 9 =63 Sq. Yd.
659 - Water 162 x 3.5 x 120 / 1000 / 1000 =0.068 M. Gal.
659 - Comm. Fertilizer 162 x 3.5 x 20 / 1000 / 2000 =0.006 Ton

288B STA. 34+62.3 T to 34+76.3 T (Right)

622 - Conc. Barrier, Type D =14 Lin. Ft.
203 - Embankment 14 x 3.5 x(0.2+0/2)/ 27 =1 Cu. Yd.
659 - Seeding and Mulching 14 x 3.5 = 49 / 9 =5 Sq. Yd.
659 - Water 14 x 3.5 x 120 / 1000 / 1000 =0.006 M. Gal.
659 - Comm. Fertilizer 14 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

289B STA. 34+76.3 T to 40+74 T (Right)

622 - Conc. Barrier, Type D, As Per Plan =598 Lin. Ft.
202 - Curb Removed =598 Lin. Ft.

290B STA. 40+74 T to 40+88 T (Right)

622 - Conc. Barrier, Type D =14 Lin. Ft.
202 - Curb Removed =14 Lin. Ft.
203 - Excavation (NIEC) 14 x(2.5+1/2)x 0.5 / 27 =1 Cu. Yd.
659 - Seeding and Mulching 14 x(2.5+1/2)= 24.5 / 9 =3 Sq. Yd.
659 - Water 14 x(2.5+1/2)x 120 / 1000 / 1000 =0.003 M. Gal.
659 - Comm. Fertilizer 14 x(2.5+1/2)x 20 / 1000 / 2000 =0.001 Ton

294B STA. 15+41 H to 15+89 H (Left)

622 - Conc. Barrier, Type D =48 Lin. Ft.
203 - Embankment 48 x 3.5 x(0.2+0/2)= 16.8 / 27 =1 Cu. Yd.
659 - Seeding and Mulching 48 x 3.5 = 168 / 9 =19 Sq. Yd.
659 - Water 48 x 3.5 x 120 / 1000 / 1000 =0.020 M. Gal.
659 - Comm. Fertilizer 48 x 3.5 x 20 / 1000 / 2000 =0.002 Ton

296B STA. 5+34 H1 to 5+74 H1 (Right)

622 - Conc. Barrier, Type D =40 Lin. Ft.
203 - Embankment 40 x 3.5 x(0.2+0/2)= 14 / 27 =1 Cu. Yd.
659 - Seeding and Mulching 40 x 3.5 = 140 / 9 =16 Sq. Yd.
659 - Water 40 x 3.5 x 120 / 1000 / 1000 =0.017 M. Gal.
659 - Comm. Fertilizer 40 x 3.5 x 20 / 1000 / 2000 =0.001 Ton

NOTE: Quantities on this Sheet Carried to Estimated Quantity Sheets 271-276 Unless Noted Otherwise.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL CALCULATIONS

Slide Areas (Sht. 297)	= 2778	Sq. Yd.	
Item Calculations (Sht. 158)	= 9412	Sq. Yd.	
Pavement Balloon Calculations (Sht. 162)	= 1561	Sq. Yd.	
Barrier Balloon Calculations (Sht. 276)	= 1941	Sq. Yd.	
TOTAL	15,692	Sq. Yd.	

207 - TEMPORARY SEEDING AND MULCHING 15,692 Sy x 0.20 = 3138 Sq. Yd.
207 - STRAW OR HAY BALES 8 Bales/Catch Basin x 15 CBL = 120 Each
659 - MOWING
15,692 Sy x 9 Sf/Sy x 0.25 x 1 M Sf/1000 Sf = 35.3 M. Sf.
659 - COMMERCIAL FERTILIZER
[(3138 Sy x 9 Sf/Sy x 10 Lb/1000 Sf) + (15,104 Sy x 9 Sf/Sy x 7.5 Lb/1000 Sf)] x 1 Ton/2000 Lb = 0.67 Ton
659 - REPAIR SEEDING AND MULCHING 15,692 Sy x 0.05 = 785 Sq. Yd.
659 - WATER
3138 Sy x 9 Sf/Sy x 240 Gal/1000 Sf x 1 M Gal/1000 Gal = 6.78 M. Gal.

ITEM 659 - WATERING AND MOWING PERMANENT SEEDED AREAS

659 - WATER
15,692 Sy x 9 Sf/Sy x 240 Gal/1000 Sf x 1 M Gal/1000 Gal = 33.89 M. Gal.
659 - MOWING
15,692 Sy x 9 Sf/Sy x 0.25 x 1 M Sf/1000 Sf = 35.3 M. Sf.

NOTE: The Above Totals Carried to General Note Sheets 45-46.

ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, AC-20

(RECONSTRUCTED SHOULDER)

RAMP F	Sta. 10+00F to Sta. 16+64.30F 664.3' x 0.5' x 3' x 1/27	=	37	Cu. Yd.
RAMP G	Sta. 3+59G to Sta. 5+35G 176' x 0.5' x 3' x 1/27	=	10	Cu. Yd.
	Sta. 6+17G to Sta. 10+81.34G 464.34' x 0.5' x 3' x 1/27	=	26	Cu. Yd.
RAMP T	Sta. 33+31.65T to Sta. 34+76.3T 144.65' x 0.5' x 3' x 1/27	=	8	Cu. Yd.
	Sta. 40+74T to Sta. 43+00T 266' x 0.5' x 3' x 1/27	=	15	Cu. Yd.
	Sta. 27+52T to Sta. 32+80T 528' x 0.5' x 3' x 1/27	=	29	Cu. Yd.
RAMP U	Sta. 0+00U to Sta. 4+07.5U 407.5' x 0.5' x 3' x 1/27	=	23	Cu. Yd.
	TOTAL		148	Cu. Yd.

ITEM 304 - AGGREGATE BASE, VARIABLE DEPTH

(RECONSTRUCTED SHOULDER)

RAMP F	Sta. 10+00F to Sta. 16+64.30F 664.3' x 0.7917' x 3' x 1/27	=	58	Cu. Yd.
RAMP G	Sta. 3+59G to Sta. 5+35G 176' x 0.7917' x 3' x 1/27	=	16	Cu. Yd.
	Sta. 6+17G to Sta. 10+81.34G 464.34' x 0.7917' x 3' x 1/27	=	41	Cu. Yd.
RAMP T	Sta. 33+31.65T to Sta. 34+76.3T 144.65' x 0.7917' x 3' x 1/27	=	13	Cu. Yd.
	Sta. 40+74T to Sta. 43+00T 266' x 0.7917' x 3' x 1/27	=	23	Cu. Yd.
	Sta. 27+52T to Sta. 32+80T 528' x 0.7917' x 3' x 1/27	=	47	Cu. Yd.
RAMP U	Sta. 0+00U to Sta. 4+07.5U 407.5' x 0.7917' x 3' x 1/27	=	36	Cu. Yd.
	TOTAL		234	Cu. Yd.

ITEM 408 - BITUMINOUS PRIME COAT

(RECONSTRUCTED SHOULDER)

2610.79' x 3' x 1/9 x 0.25 Gal/Sy = 217.6 Gal.

NOTE: The Above Totals Carried to General Summary Sheets 167-169.

G:\71\2.92\ROADWAY\QUANT\QCALC3.dwg - FEB. 15, 1995

GENERAL SUMMARY

CALC. BY DLB DATE 2-23-94
CHKD. BY RWP DATE 2-23-94

HAM-71-2.92

OHIO
FHWA REGION 5

SHEET NUMBERS																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	Detail Sht. Number
45	46	47	46A	158	159		270	276	277	278	279	50A	282	283	297						
																				ROADWAY	
LUMP																201	11000	Lump	-	Clearing And Grubbing (See GN)	
								LUMP								202	11200	Lump	-	Portions of Structures Removed: Retaining Wall	
							2									202	23000	2	Sq. Yd.	Pavement Removed	
				4960												202	23500	4960	Sq. Yd.	Wearing Course Removed	
							356	5255	27397							202	30600	33,008	Sq. Yd.	Concrete Median Removed	41
							147									202	30601	147	Sq. Yd.	Concrete Median Removed, As Per Plan (See GN)	41
									13196							202	30700	13,196	Lin. Ft.	Concrete Barrier Removed	
							1989	16,758								202	32000	18,747	Lin. Ft.	Curb Removed	
							1473									202	32001	1473	Lin. Ft.	Curb Removed, As Per Plan 1 (See GN)	41
							3048									202	32001	3048	Lin. Ft.	Curb Removed, As Per Plan 2 (See GN)	41
							8									202	32800	8	Sq. Yd.	Concrete Slope Protection Removed	
											27			21		202	34900	48	Lin. Ft.	Pipe Removed	
									50,025			1,000				202	38000	51,025	Lin. Ft	Guardrail Removed	
									13,125							202	38300	13,125	Lin. Ft.	Guardrail Removed, Barrier Design	
									78							202	42000	78	Each	Anchor Assembly Removed, Type A	
									49							202	47000	49	Each	Bridge Terminal Assembly Removed	
		3387														202	54000	3387	Each	Raised Pavement Marker Removed	
		40														202	54001	40	Each	Raised Pavement Marker Removed, As Per Plan (See GN)	
											6			5		202	58100	11	Each	Catch Basin Removed	
								3								202	60010	3	Each	Monument Assembly Removed	
										61,727						202	75001	61,727	Lin. Ft.	Fence Removed, As Per Plan (See GN)	
										26						202	75250	26	Each	Gate Removed	
									1							202	98100	1	Each	Removal Misc.: Impact Attennuator Removed For Disposal (See GN)	
							155									202	98200	155	Lin. Ft.	Removal Misc.: Portion of Curb Removed (See GN)	44A
							191	2560							5876	203	12000	8627	Cu. Yd.	Excavation Not Including Embankment Construction	
							76	26							5776	203	20000	5878	Cu. Yd.	Embankment	
															624	203	21002	624	Cu. Yd.	Embankment Using No. 8 Aggregate (See GN)	
					125.32											203	60200	125	Station	Linear Grading, Method A (See GN)	
					26.11											203	60204	26	Station	Linear Grading, Method B (See GN)	
							10									203	50000	10	Sq. Yd.	Subgrade Compaction	
								39,277.25				1,000				606	13000	40,277.25	Lin. Ft.	Guardrail, Type 5	
								993.75								606	13050	993.75	Lin. Ft.	Guardrail, Type 5A	
								67				10				606	26100	71	Each	Anchor Assembly, Type E	
								42								606	26500	42	Each	Anchor Assembly, Type T	
								2								606	34000	2	Each	Bridge Terminal Assembly, Type J	
								72								606	35000	72	Each	Bridge Terminal Assembly, Type 1	
								38								606	35100	38	Each	Bridge Terminal Assembly, Type 2	
										59,718						607	23000	59,718	Lin. Ft.	Fence, Type CLT	
										2079						607	23001	2079	Lin. Ft.	Fence, Type CLT, As Per Plan (See GN)	44A
										26						607	61200	26	Each	Gate, Type CLT	
										23						625	32000	23	Each	Ground Rod	
								2								Special	69010400	2	Each	Impact Attenuator, HEX-FOAM Sandwich System, Model No. 209508H8S (See GN)	44A
																				EROSION CONTROL	
			2500													203	55000	2500	LIN.FT.	Ditch Cleanout	
3138																207	10000	3138	Sq. Yd.	Temporary Seeding and Mulching (See GN)	
500																207	30000	500	Lin. Ft	Filter Fabric Fence (See GN)	
120																207	70000	120	Each	Straw or Hay Bales (See GN)	
										31						601	32200	31	Cu. Yd.	Rock Channel Protection, Type C With Filter	
													3619			601	37501	3619	Lin. Ft	Paved Gutter, Type 1-2, As Per Plan (See GN)	41
	1000			9412			1561	1941							2778	659	10000	16,692	Sq. Yd.	Seeding and Mulching	
785																659	14000	785	Sq. Yd.	Repair Seeding and Mulching (See GN)	
0.67	0.09			0.874			0.14	0.194							0.25	659	20000	2.22	Ton	Commercial Fertilizer (See GN)	
6.8	36.9		3	10.17			1.69	2.1							3	659	35000	64	M. Gal	Water (See GN)	
			100													Special	20303200	100	TON	Hydrated Lime	
35.3	35.3															659	40000	71	M Sq. Ft.	Mowing (See GN)	
							16									670	40000	16	Sq. Yd.	Ditch Erosion Protection (See GN)	289

NOTE: "(See GN)" Denotes to See General Notes, Sheets 45-47.

GENERAL SUMMARY

CALC. BY GJB DATE 10-1-94
CHKD. BY PWP DATE 2-23-95

HAM-71-2.92

OHIO | FHWA REGION 5

168 / 615

SHEET NUMBERS																		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	Detail Sht. Number
50	46	158	47	166		270	50A	276		279	280	281	282	283		285	284	297							
																						DRAINAGE	
										102	192	144	144	18		1287	3793	30	603	01500	5710	Lin. Ft.	6" Conduit, Type F, 707.17 Non-Peforated, ASTM D-3034 SDR35 or SS931 or 944	
													71	16					603	04400	87	Lin. Ft.	12" Conduit, Type B	
													63						603*	04400	63	Lin. Ft.	12" Conduit, Type B, 706.02	
										12		32	512						603	05900	556	Lin. Ft.	15" Conduit, Type B	
										224		20	166	48					603	05900	458	Lin. Ft.	15" Conduit, Type B, 706.02	
													10						603	07400	10	Lin. Ft.	18" Conduit, Type B, 706.02	
													6						603	08900	6	Lin. Ft.	21" Conduit, Type B, 706.02	
													72						603	10400	72	Lin. Ft.	24" Conduit Type B, 706.02	
													37						603	11900	37	Lin. Ft.	27" Conduit Type B, 706.02	
													1						604	01604	1	Each	Catch Basin, No. 5 Without Apron	
													8						604	04900	8	Each	Catch Basin, No. 2-3	
										54	68	70	52	13					604	09000	257	Each	Catch Basin Adjusted To Grade	288
													11	4					604	14500	15	Each	Inlet, No. 3A	
										2			2						604	14601	4	Each	Inlet, No. 3B, As Per Plan (See GN)	286
										16		5	26	3					604	14602	50	Each	Inlet, No. 3B50	
													3						604	15001	3	Each	Inlet, No. 3C, As Per Plan (See GN)	288
										1			2						604	20600	3	Each	Inlet Adjusted to Grade	
										3	32	18							604	20800	53	Each	Inlet Reconstructed to Grade	287
								6		46	22	29	14	1					604	34500	118	Each	Manhole Adjusted to Grade	
													2						604	35500	2	Each	Manhole Reconstructed to Grade	
	25															19	12	3	Special	60436600	59	Each	Precast Reinforced Concrete Outlet	
																4618.7	721		605	05101	5340	Lin. Ft.	4" Shallow Pipe Underdrain, As Per Plan, 707.15 (See GN)	291
																199	791		605*	05200	990	Lin. Ft.	4" Unclassified Pipe Underdrain	
																3199	478		605	11101	3677	Lin. Ft.	6" Shallow Pipe Underdrain, As Per Plan (See GN)	290
																		649	605	13301	1149	Lin. Ft.	6" Unclassified Pipe Underdrain, As Per Plan, 707.15 (See GN)	10,12,13
	500																		605	30001	139438	Lin. Ft.	Shallow Underdrain, As Per Plan (See GN)	290
																29059	110379.1						
																						PAVEMENT	
5000																			251	01000	5000	SQ.YD.	Partial Depth Pavement Repair (See GN)	
																			253	02000	150	CU.YD.	Pavement Repair	
												150							254	01000	11,211	Sq. Yd.	Pavement Planing, Bituminous	
	5028	6183																	255	10000	23000	Sq. Yd.	Full Depth Pavement Removal and Rigid Relacement, Class C (See GN)	44A
23000																			255	20000	104500	Lin. Ft.	Full Depth Pavement Sawing (See GN)	
104500																			255	10100	4000	SQ. Yd.	Full Depth Pavement Removal and Rigid Replacement, Class FS	44A
4000					148		123												301	10002	271	Cu. Yd.	Bituminous Aggregate Base, AC-20	
					234		22												304	20000	1027	Cu. Yd.	Aggregate Base	
		44209					39						771						407	13900	44,248	Gallon	Tack Coat Using SS 924 (See GN)	
					218		42												408	10000	260	Gallon	Bituminous Prime Coat	
188648																			413	14000	188648	Lin. Ft.	Sawing and Sealing Asphalt Concrete Pavement Joint, 705.04 (See GN)	44A
		17678					55												446	01200	17,733	Cu. Yd.	Asphalt Concrete Intermediate Course, Type 2, AC-20	
		22936					23												446	01400	22,959	Cu. Yd.	Asphalt Concrete Surface Course, Type 1, AC-20	
							544												Special	45132000	544	Lin. Ft.	Pressure Relief Joint, Type C	
							147												452	09000	147	Sq. Yd.	4" Plain Concrete Pavement	
							24												452	10000	24	Sq. Yd.	6" Plain Concrete Pavement	
									11143										509	15840	11,143	Pound	Epoxy Coated Reinforcing Steel, Grade 60	44B
			188648																413	98000	188648	Lin. Ft.	Sawing, Misc.: Sawing Intermediate Asphalt Concrete Pavement Joints, As Per Plan	47
									920										517*	76201	920	Lin. Ft.	Railing Faced, As Per Plan (32" High) (See GN)	44B
							4												601	21000	4	Sq. Yd.	Concrete Slope Protection	
							1069												609	12001	1069	Lin. Ft.	Combination Curb and Gutter, Type 2, As Per Plan (See GN)	41
	1000						81												609	26000	1081	Lin. Ft.	Curb, Type 6	
							158												611	25001	158	Sq. Yd.	Reinforced Concrete Approach Slab (T=15"), As Per Plan (See GN)	41
	1500																		612	42000	1500	Sq. Yd.	Concrete Median	
		2310																	617	10100	2310	Cu. Yd.	Compacted Aggregate, Type A	
												200							617	11000	200	CU YD	Compacted Aggregate For Spot Treatment	
									3498										622	23301	3498	Lin. Ft.	Concrete Barrier, Type A As Per Plan (See GN)	43
									28										622	23401	28	Lin. Ft.	Concrete Barrier, Type B, As Per Plan (See GN)	43
									22421										622	23405	22421	Lin. Ft.	Concrete Barrier, Type B-50, As Per Plan (See GN)	6
									322										622	23405	322	Lin. Ft.	Concrete Barrier, Type B-50, As Per Plan A (See GN)	43
									585										622	23501	585	Lin. Ft.	Concrete Barrier, Type C, As Per Plan (See GN)	43

NOTE: "(See GN)" Denotes to See General Notes, Sheets 45-47.

GENERAL SUMMARY

CALC BY DD DATE 10-1-94
CHKD. BY PWP DATE 2-23-95

HAM-71-2.92

OHIO | FHWA REGION 5

169/615

SHEET NUMBERS										ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	Detail Sht. Number
46A	50A	49	45	50	51	52	270	276							
														PAVEMENT (Continued)	
								3014		622	24000	3014	Lin. Ft.	Concrete Barrier, Type D	
								8671		622	24001	8671	Lin. Ft.	Concrete Barrier, Type D, As Per Plan (See GN)	43
								1110		622	24001	1110	Lin. Ft.	Concrete Barrier, Type D, As Per Plan A (See GN)	43
								6914		622	24004	6914	Lin. Ft.	Concrete Barrier, Type D-50	
								692		622	24005	692	Lin. Ft.	Concrete Barrier, Type D-50, As Per Plan (See GN)	43
	5000									SPECIAL	606500000	5000	Lin. Ft.	RESHAPING BERM	
								531		802	00100	531	Each	Barrier Reflector, Type A	
								889		802	00200	889	Each	Barrier Reflector, Type B	
			300							Special	45036100	300	Cu. Yd.	Patching Existing Paved Shoulders (See GN)	
							359			SPECIAL	519 22500	359	SQ YD	MICRO-SILICA MODIFIED CONCRETE, MISC.: OVERLAY (1-3/4" THICK)	
	10									SPECIAL	20298100	10	EACH	REMOVAL MISC.: REMOVE AND REPAIR CONCRETE APRON	
														MAINTENANCE OF TRAFFIC	
					50					404	35000	360	Cy. Yd.	Bituminous Concrete For Maintaining Traffic	
	310				LUMP					614	11000	Lump	–	Maintaining Traffic	
					2000					614	11100	2000	Hour	Law Enforcement Officer with Patrol Car	
		58								614	12470	58	Each	Work Zone Speed Limit Sign	
					500					Special	61412500	500	Sq. Ft.	Replacement Sign	
					2000					Special	61412600	2000	Each	Replacement Drum	
				34						614	18601	34	Sign Month	Portable Changeable Message Sign, As Per Plan	
						52.85				614	20000	52.85	Mile	Temporary Lane Line, Class 1	
						2.52				614	20300	2.52	Mile	Temporary Lane Line, Class 1. 740.05, Type C	
						0.89				614	21000	0.89	Mile	Temporary Center Line, Class 1	
						5.13				614	21300	5.13	Mile	Temporary Center Line, Class 1, 740.05, Type C	
						55.32				614	22000	55.32	Mile	Temporary Edge Line, Class 1	
						3.72				614	22300	3.72	Mile	Temporary Edge Line, Class 1, 740.05, Type C	
						30106				614	23000	30106	Lin. Ft.	Temporary Channelizing Line, Class 1	
						3305				614	23600	3305	Lin. Ft.	Temporary Channelizing Line, Class 1, 740.05, Type C	
						899				614	24000	899	Lin. Ft.	Temporary Dotted Line, Class 1	
						340				614	26000	340	Lin. Ft.	Temporary Stop Line, Class 1	
					11426					615	35001	11426	Sq. Yd.	Temporary Pavement, As Per Plan	
						9.6				630	00100	9.6	Cu. Yd.	Concrete For Embedded Foundation	
						154				630	07500	154	Lin. Ft.	Ground Mounted Support, W10x22 Beam	
						8				630	09000	8	Each	Breakaway Beam Connection	
						686				630	80204	686	Sq. Ft.	Sign, Extrusheet, Type G	
						1365				G14	98100	1365	Lin. Ft.	Temporary Pavement Marking, Misc.: Curb Marking, Class 1	
						3555				G14	25000	3555	Lin. Ft.	Temporary Transverse Line, Class 1	
						33				G14	30000	33	Each	Temporary Lane Arrow, Class 1	
						13				G14	31000	13	Each	Temporary Word on Pavement, 72", Class 1	
					40					G14	12480	40	Each	Doubled Fines In Work Zone Sign	
														FOR TRAFFIC SURVEILLANCE GEN. SUMMARY – SEE SHEET 410A	
														For TRAFFIC CONTROL General Summary – See Sheet 410	
														For STRUCTURES 20' AND OVER General Summary – See Sheet 496, 497, 497A	
														For LIGHTING General Summary – See Sheet 306-307	
										619	15021	Lump	–	Field Office, Type C, As Per Plan (See GN)	
										623	10000	Lump	–	Construction Layout Stakes	
										624	10000	Lump	–	Mobilization	
										SPECIAL	6192501O	LUMP	–	COMPUTER EQUIPMENT FOR TYPE B OR C OFFICE	

NOTE: "(See GN)" Denotes to See General Notes, Sheets 45-47.

CALC. BY DB DATE 10-17-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

170 615

LEGEND

- Pavement Overlay
- Shoulder Overlay
- Pavement Feathering
- Pavement Transition
- Shoulder Widening
- Shoulder Reconstruction
- Surface Course Removal
- Impact Attenuators & Barrier Inlets
- Full Depth Shoulder Replacement
- Existing Retaining Wall
- Barrier Drainage Slot

IAPA – Intermediate Anchor Post Assembly
EPA – End Post Assembly
CPA – Corner Post Assembly
AC – Abutment Connection
DS – Denotes the Location of a Proposed Drainage Slot Constructed in the Concrete Barrier, for Further Information see Sheet 289.

- E — Type E Anchor Assembly
- T — Type T Anchor Assembly
- 1 — Type 1 Bridge Terminal Assembly
- 2 — Type 2 Bridge Terminal Assembly
- EP — Extra Guardrail Post (See Miscellaneous Details)
- F — Type F Bridge Terminal Assembly
- J — Type J Bridge Terminal Assembly
- 8'~6"F — ITEM 603 – 6" CONDUIT, TYPE F 707.17 NON-PERFORATED, ASTM D-3034 SDR35, SS 931 OR SS 944. The Callout Implies "8 Feet of 6" Conduit, Type F".
- 6"UD — ITEM 603 – 6" SHALLOW PIPE UNDERDRAIN, AS PER PLAN
- 4"UUD — ITEM 605 – 4" UNCLASSIFIED PIPE UNDERDRAIN
- 4"UD — ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN

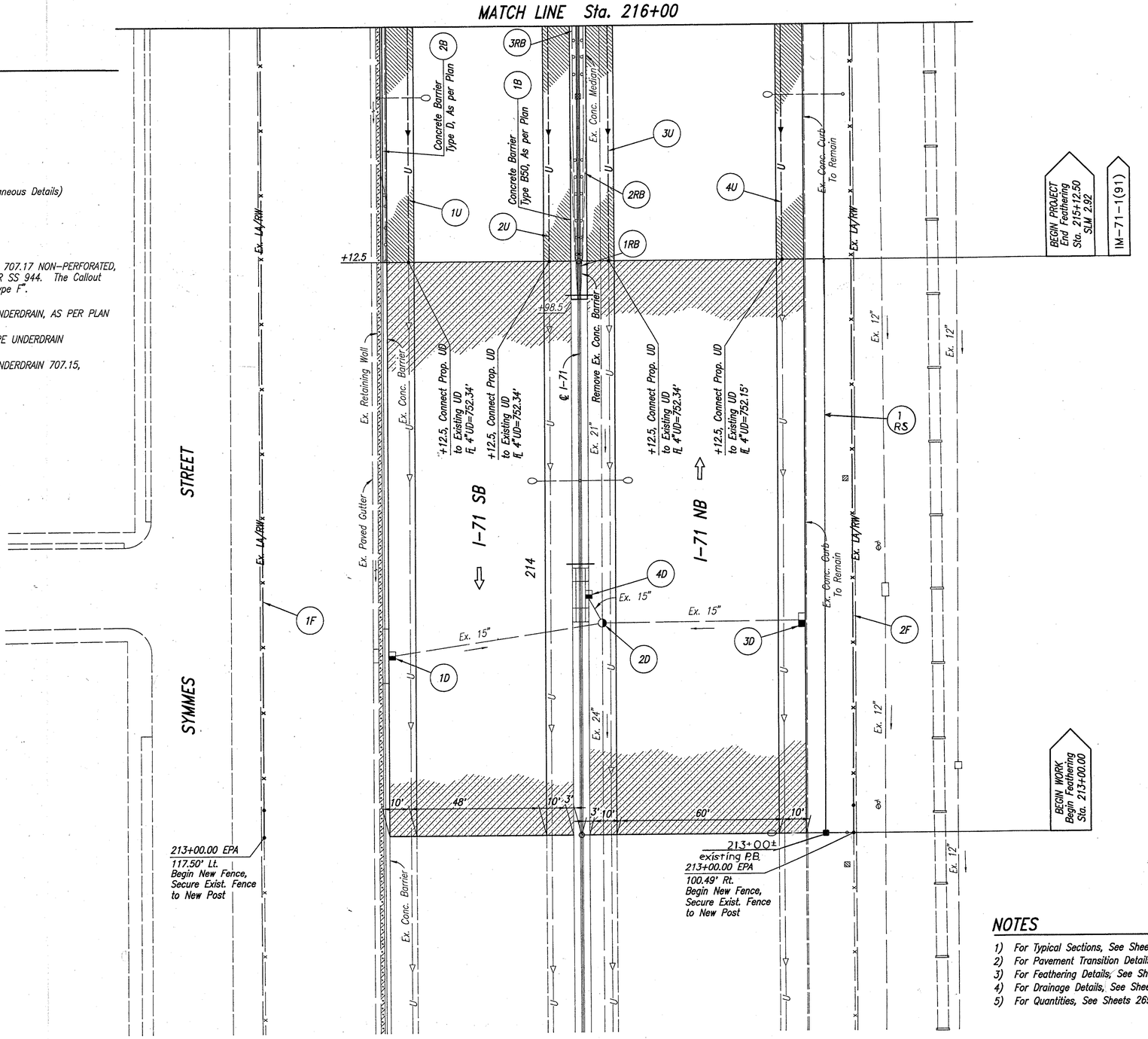
NOTES

- All Proposed Guardrail is Type 5 Unless Noted Otherwise. Plan Sheets show Location of Existing Lighting, for Proposed Lighting, see Lighting Drawings.
- All Underdrains are ITEM 605 – SHALLOW UNDERDRAIN, AS PER PLAN Unless Noted Otherwise.
- All Grades and Elevations are Based on Original Construction Drawings for Interstate 71, Except as Noted:

  Sta. 259+59 to Sta. 393+08 – Centerline Barrier and Storm Sewer work is Based on a Field Survey Performed by Woolpert in February 1993.

BENCHMARK LOCATIONS

- All Underdrain Inverts and Flowlines are Based on ITEM 605-SHALLOW UNDER-DRAIN, AS PER PLAN, Using a 4"ø Pipe Underdrain System.
- All Proposed Storm Sewer Conduit is ITEM 603 TYPE B, 706.02, Unless Noted Otherwise.



NOTES

1) For Typical Sections, See Sheets 6–40.
2) For Pavement Transition Details, See Sheets 41–44A.
3) For Feathering Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285, 489A, 489B

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Sta. 213+00 to Sta. 216+00

CALC. BY DLS DATE 10-17-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

17i / 615

MATCH LINE Sta. 220+00

STREET

SYMMES

Ex. LA/RW

Ex. Conc. Median

Ex. Poved Gutter

Ex. Retaining Wall

Ex. Conc. Curb

Ex. Conc. Curb to Remain

I-71 SB

I-71 NB

℄ I-71

PCC

Ex. 12"

Ex. 15"

Ex. 21"

Ex. 8"

9'~6'F

11'~6'F

14'~6'F

6'~6'F*

8'-15"B @ 23.3%

14'~15"B @ 21.5%

219+07.00 EPA
117.83' Lt.

℄ Gate
219+00.00

218+93.00 EPA
117.79' Lt.

219+00.00 IAPA
100.36' Rt.

217+75± PC

INSTALL SIGN SUPPORT FOUNDATION
AS PER TC-21.40, STA. 217+77 NB
SEE DETAIL A

OVERHEAD SIGN TO BE INSTALLED
IN FUTURE R.T.M.S. PROJECT

90 +83, Catch Basin
Adjusted To Grade
Inv. 15" = 772.56'

100 +90 4"x6" Tee
℄ 4" UD = 773.11'

+89, 4"-60° Wye *
℄ 4" UD=773.96'

+90 4"x6" Tee
℄ 4" UD = 773.03'

6"~6"F*

11"~6"F

120 Sta. 219+90 ℄
INLET, NO. 3850
℄ Inlet Elev. = 774.92'
Inv. 15" = 770.36'
℄ 6" UD E&W = 772.89'

110 +76, Catch Basin
Adjusted to Grade
Inv. 12" = 770.40'

+77, 4"-60° Wye *
℄ 4" UD = 770.90'

1U 2U 3U 4U

3RB

2B Concrete Barrier Type D, As per Plan

1B Concrete Barrier Type B50, As per Plan

218

56 RS

1 PB

2RB

2 RS

1 RS

2F

1F

80 Sta. 216+71 ℄
INLET, NO. 3850
℄ Inlet Elev. = 761.01'
Inv. 15" = 757.04'
℄ 6" UD E&W = 759.10'

+71, 4"x6" Tee
℄ 4" UD = 759.23'

+64, 4"-60° Wye *
℄ 4" UD = 758.49'

+81, 4"-60° Wye *
℄ 4" UD = 759.53'

+71 4"x6" Tee
℄ 4" UD = 759.23'

50 +75 Catch Basin
Adjusted to Grade
Inv. 15"=758.06'

70 +58 Catch Basin
Adjusted To Grade
Inv. 15" = 752.71'

ELEV=104.17'

ASSUMED ELEV. 100.00

ELEV=92.75'

DETAIL A

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

MATCH LINE Sta. 216+00

Sta. 216+00 to Sta. 220+00

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MATCH LINE Sta. 223+50

LINDSAY STREET

WAYNE STREET

SYMMES STREET

Ex. LA/RW

Ex. 12"

Ex. 15"

Ex. 18"

Ex. Conc. Median

Ex. Conc. Curb

Ex. Retaining Wall

Ex. Paved Gutter

Concrete Barrier Type D

Concrete Barrier Type B50, As per Plan

Concrete Barrier Type D, As per Plan

+81, 4"-60° Wye * ℄ 4" UD = 786.21'

+94 4"x6" Tee ℄ 4" UD = 784.59'

+94 4" Cap ℄ 4" UD = 784.24'

+81, 4"-60° Wye * ℄ 4" UD=780.98'

6'~6"F*

9'~6"F

11'~6"F

5'~15"B @ 6.03%

15'~15"B @ 23.4%

PCC

+61

℄ I-71

I-71 SB

I-71 NB

222

Sta. 222+75, 71' Lt.
INLET, NO. 3B,
As Per Plan
℄ Inlet Elev. = 788.37'
Inv. 15" = 783.46'
Inv. 12" = 783.49'

Sta. 222+94 ℄
INLET, NO. 3B50
℄ Inlet Elev. = 786.35'
Inv. 15" = 782.20'
℄ 6" UD W = 784.10'

+75 Catch Basin
Adjusted To Grade
Inv. 12" = 779.60'

Guardrail Type 5

222+85.78 IAPA
87.00' Rt.

+35.5

FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

222+00±

Ex. Conc. Curb To Remain

MATCH LINE Sta. 220+00

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285,489A,489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 220+00 to Sta. 223+50

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MATCH LINE Sta. 227+00

226+77.79 EPA
138.30' Lt.
℄ Gate
226+79.0 ±
226+80.0± EPA
125.0±' Lt.
Ex. LA/RW
226+91.24 EPA
75.69' Lt.
Ex. LA/RW
Concrete Barrier Type D, As per Plan
Existing Retaining Wall with Bridge Rail Mounted on Top
Ex. Conc. Median
Ex. LA/RW
I-71 SB
℄ I-71
Concrete Barrier Type B50, As Per Plan
Ex. Conc. Median
+90 4"x6" Tee
℄ 4" UD = 790.86'
226
6'~6"F*
11'~6"F
Sta. 225+90 ℄
INLET NO. 3B50
℄ Inlet Elev. = 792.61'
Inv. 15" = 788.45'
℄ 6" UD W = 790.36'
+76
37'~15"B @ 17.6%
Bridge Pier Transition
+36
Ex. 15"
Ex. Asphalt Parking Lot
Ex. 12"
Ex. Building
+83.72 McM. Pvmt. Work Begin Feathering
Begin Feathering
Ex. Stone Wall
Ex. Conc. Walk
Ex. 15"
6"W
Ex. 15"
6"W
McMILLAN STREET
℄ McMILLAN ST.
Ex. Asphalt over Conc. Pavt.
T 20'G
6+79.0± McM. EPA
31.0±' Rt.
6+65.80 McM. CPA
39.31' Rt.
SYMMES STREET
Ex. LA/RW
Ex. Conc. Walk
224+63
End Conc. Barr. Type D,
Begin Conc. Barr. Type D,
As Per Plan
Sta. 224+53 71' Lt
INLET NO. 3B,
As Per Plan
℄ Inlet Elev. = 793.00'
Inv. 15" = 788.19'
Ex. Conc. Curb
Concrete Barrier Type D
Bridge Pier Transition
224
Ex. 18"
Ex. 12"
+46.22 McM.
End Approach Slab 8
Bridge No.
HAM-71-0315
+21.22 McM.
Begin Approach Slab
End Feathering
+69
+59, 4"-60° Wye *
℄ 4" UD = 790.85'
9'~6"F
5'~15"B @ 6.10%
Ex. 15"
+29
Ex. Telephone Conduit (Suspended under Bridge)
9'~6"F
+98, 4"x6" Tee
℄ 4" UD = 786.26'
Ex. 18"
Guardrail Type 5
Guardrail Type 5A See Detail Sheet No. 46
Ex. Curb To Remain
Ex. LA/RW
Ex. Concrete Slope Protection
Ex. Railroad
+98 Catch Basin
Adjusted To Grade
℄ 6" UD = 786.17'
Inv. 15" = 783.30'
+13.75TC
End Approach Slab
RAMP TC
Bridge No. HAM-71-0317E
℄ RAMP TC
Ex. LA/RW
226+17.0± Ramp TC EPA
6.0±' Rt.
+88.75TC
Begin Approach Slab
End Feathering
Ex. Retaining Wall
+48
End GR 5A
Begin GR 5
22'TC
25'
Ex. Retaining Wall
Tunnel
+85.00 McM.
Begin Feathering
Ex. Conc. Walk
Ex. 12"
Ex. Asphalt over Conc. Pavt.
6"W
42'
Ex. LA/RW
10
T 20'G
Ex. 12"
+74.78 McM.
End Approach Slab
Begin Feathering
+49.78 McM.
Begin Approach Slab
Ex. 12"
Ex. Conc. Walk
Ex. Retaining Wall
+74± Begin Ex. Asph. Overlay
+85.00 McM.
End Feathering
End Pvmt Work
10+45.0± McM. EPA
32.0±' Rt.
Sta. 9+80.00 McMillan St.
= Sta. 225+44.29TC
224+86.00 CPA
87.00' Rt.
+79.25
End GR 5
Begin GR 5A
MATCH LINE Sta. 223+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285,489A,489B
6) For Work on Bridge HAM-71-0315 (McMILLAN STREET), See Sheet 498.
7) For Work on Bridge HAM-71-0317E (RAMP TC), See Sheet 503.
8) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
9) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 223+50 to Sta. 227+00

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CALC. BY DJB DATE 10-11-94
CHKD. BY PWP DATE 11-10-94

HAM-71-2.92.

OHIO
FHWA REGION 5

174
615

MATCH LINE Sta. 230+50

13+05.6 Wm. Hwd. Taft EPA
28.9' Rt.

12+66.9 Wm. Hwd. Taft EPA
43.3' Rt.

12+42.44 Wm. Hwd. Taft EPA
50.36' Rt.

97F
Ex. LA/RW
Ex. Tunnel Liner
48"W
3F
Ex. LA/RW

228+80.19 CPA
159.00' Lt.

228+82.29 CPA
151.43' Lt.

Ex. LA/RW
228+46±
Ground Rod

228+09.04 CPA
148.60' Lt.

227+92.58 CPA
167.53' Lt.

Ex. LA/RW

OVERHEAD SIGN TO BE INSTALLED IN FUTURE R.T.M.S. PROJECT

Ex. 12"
Ex. Conc. Curb To Remain
11B Guardrail Type 5
5U
3RB
6U
7U
PCC
℄ I-71
Bridge Pier Transition
230
+25
3 PB 230+50±
Ex. Tunnel Liner
48"W
8U
Ex. Retaining
Ex. Conc. Curb
+25 High Point ℄ 4" UD = 789.88'
230TC
℄ RAMP TC
PC
13U
7RB
12B
6RB
Guardrail Type 5 14B
Ex. LA/RW
4F
229+92.5± Ramp TC EPA
66.8±' Rt.
℄ Gate
229+85.0±
229+77.8± Ramp TC EPA
66.7±' Rt.
229+73.65 Ramp TC CPA
66.59' Rt.
229+71.91 Ramp TC CPA
57.78' Rt.
229+39±
Ground Rod
229+08.26 Ramp TC CPA
53.64' Rt.
228+76.44 Ramp TC CPA
21.59' Rt.
Sta. 228+79.25TC
PRESSURE RELIEF JOINT, TYPE C
84P

OVERHEAD SIGN SUPPORT TO BE INSTALLED WITH FUTURE R.T.M.S. PROJECT

ELEV=104.17'
ASSUMED ELEV. 100.00
ELEV=92.75'

DETAIL A

I-71 SB ⇦
I-71 NB ⇨
RAMP TC

Concrete Barrier Type B50, As Per Plan 1B
+25 High Point ℄ 4" UD = 792.34'
228
Ex. Conc. Median
PCC
+25 High Point ℄ 4" Cap ℄ 4" UD = 792.09'
2U
2RB
28D +12 Manhole Adjusted To Grade ℄ 6" UD = 788.81' Inv. 12" = 783.57'
5RB
+05
31P Combination Curb and Gutter, Type 2, As Per Plan
+80
+50 High Point ℄ 4" UD = 791.47'
+55
+41
Ex. Retaining Wall
Ex. Conc. Median
5B
Concrete Barrier Type D, As per Plan
10B Concrete Barrier Type D
1U
57 RS
+12 4"x6" Tee ℄ 4" UD = 788.86'
7B Guardrail Type 5
5"x6"F
Ex. 12"
+10.5
+26
4RB
Concrete Barrier Type D 8B
Bridge No. HAM-71-0317E
Ex. LA/RW
9B Concrete Barrier Type D, As Per Plan
Ex. Conc. Median
Ex. Paved Gutter
Guardrail Type 5 12B
RS
4U
+11.75TC
End Transition
+12TC 4" Cap ℄ 4" UD = 814.24'
228TC
Ø 6"
16"
3"
+88
+99.25TC
End Approach Slab
End Retrofit Parapet, For Further Information, See Sheet 44B
+74.25TC
Begin Approach Slab
Begin Transition
Ex. LA/RW

MATCH LINE Sta. 227+00

INSTALL SIGN SUPPORT FOUNDATION AS PER TC-21.40, STA. 227+50 SB
SEE DETAIL A

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291
5) For Quantities, See Sheets 269-285,489A,489B
6) For Combination Curb and Gutter, Type 2, As Per Plan Detail, See Sheets 41-44A.
7) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
8) "6"~6"F" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
9) For Work on Bridge HAM-71-0317E (RAMP TC), See Sheet 503.

Sta. 227+00 to Sta. 230+50

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CALC. BY	DLB
DATE	12-17-93
CHKD. BY	PWP
DATE	11-10-94

HAM-71-2.92

OHIO
FHWA REGION 5

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Drainage Profile, See Sheet 292-296.
6) For Quantities, See Sheets 269-285,489A,489B
7) For Work on Bridge HAM-71-0327 (W.H. TAFT ROAD), See Sheet 508.
8) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
9) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 230+50 to Sta. 234+50

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MATCH LINE Sta. 238+50

Existing Retaining Wall with Bridge Rail Mounted on Top (Existing Fence Mounted Behind Retaining Wall, by Others)
Do Not Disturb Ex. Fence
58D +31TH Catch Basin Adjusted To Grade Inv. 12" = 784.14'
+52,4"-60° Wye * ℄ 4" UD = 781.29'
10'~6"F
Bridge Pier Transition
11U
6'~6"F+ Ex.
8'~15"B @10.1%
Ex. 30"
Ex. 15"
4 RS
60D
20"W
Ex. 12"
+14
5'~6"F
Ex. 12"
+25 Manhole Adjusted To Grade Inv. 12"W = 780.67' Inv. 12"E = 780.37' Inv. 12"N = 776.62'
59D
+30,4"-60° Wye * ℄ 4" UD = 785.42'
+30.90 Oak End Approach Slab
+86TH
Ex. LA/RW
+31 4" Cap ℄ 4" UD = 781.56'
238TH
+25 4"x6"-90° Elbow ℄ 4" UD = 781.62'
Ex. Telephone Conduit (Suspended under Bridge)
Bridge Pier Transition
+15,4"-45° Elbow * ℄ 4" UD = 781.74'
Bridge No. HAM-71-0339
8
+05.90 Oak Begin Approach Slab End Feathering
20"W
Ex. Conc. Walk
WINSLOW AVENUE
55D
STREET
Ex. 12"
+45
57D
Ex. Stm.
56D
6
14'
OAK
℄ OAK ST.
Ex. Asphalt over Conc. Pavt.
20"W
6"W
16"G
Ex. Conc. Walk
Ex. Drive
+21TH
℄ RAMP TH
79B
Retrofit Parapet See Sheet 44B
10U
Bridge Pier Transition
3RB
℄ I-71
+05
+57.0 Oak Begin Pvmt. Work Begin Feathering
+33TH,4"-60° Wye * ℄ 4" UD = 794.81'
15U
Ex. Retaining Wall
Ex. Conc. Median
+31 4" Cap ℄ 4" UD = 783.96'
53D
+25 Manhole Adjusted To Grade Inv. 12" = 779.02'
1B
Concrete Barrier Type B50, As per Plan
Ex. 30"
2RB
+25 Catch Basin
54D
Adjusted To Grade ℄ 6" UD = 783.80' Inv. 12" = 782.42'
9'~6"F
+25 4"x6" Tee ℄ 4" UD = 783.89'
52D +32TH Catch Basin Adjusted To Grade Inv. 12" = 793.40'
Ex. 12"
5'~6"F
10'~6"F
Ex. 12"
Ex. 15"
50D
Ex. LA/RW
51D +00 Catch Basin Adjusted To Grade ℄ 6" UD = 784.22' Inv. 12" = 782.73'
+15,4"-45° Elbow * ℄ 4" UD = 784.14'
236
17'~15"B @10.3%
5U
14'~6"F
236TH
Existing Retaining Wall with Bridge Rail Mounted on Top (No Fence)
Ex. Conc. Median
Ex. Conc. Curb
Concrete Barrier Type D, As Per Plan
29B
I-71 SB
+87 4"x6" Tee ℄ 4" UD = 784.47'
Sta. 235+87 ℄ Inlet, No. 3850 ℄ Inlet Elev. = 782.13' Inv. 15" = 782.13' ℄ 6" UD E&M = 784.33'
47D
6'~6"F+
11'~6"F
+87 4"x6" Tee ℄ 4" UD = 784.47'
9U
I-71 NB
8U
RAMP TC
Ex. Conc. Curb To Remain
Ex. 24" Ex. Conc. Median
6U
60'
10'
+00
4 RS
Ex. Conc. Median To Remain
+00TH 4" Cap ℄ 4" UD = 802.29'
BASELINE SHIFT
PT Sta. 235+00TH = Sta. 235+00TH 6' Lt.
6' 16' 3'
24B Concrete Barrier Type D, As Per Plan
RAMP TH

+50TC Guardrail Type 5
37B
+37.5TC End GR 5A Begin GR 5
+93.60 Oak Begin Approach Slab
+20TC
6'
5'~6"F
14'
+25 Manhole Adjusted To Grade ℄ 6" UD = 781.57' Inv. 12" = 775.07' Inv. 15" = 774.82'
61D
238TC
Ex. Asphalt over Conc. Pavt.
Ex. Conc. Walk
+81.41 Oak End Feathering
MAY STREET
+18.60 Oak End Approach Slab Begin Feathering
Ex. Conc. Slope Protection
Guardrail Type 5A
36B
Ex. LA/RW
8+95.00 Oak EPA 33.00' Rt.
8+91.82 Oak IAPA 72.91' Rt.
+75TC End GR 5 Begin GR 5A
℄ RAMP TC
Ex. Conc. Curb
1P Curb Removed, As Per Plan 2
+20TC, Begin Curb Removal
25'
15.6'
10RB
+20TC End Transition
16'
+00TC
Ex. Conc. Median To Remain
+57.5TC Begin Transition
8F
Ex. LA/RW
E
+25TC
Guardrail Type 5
35B
14U
235+88.57 Ramp TC CPA 79.24' Rt.
236TC PT
49D
48D
+50TC 4" Cap ℄ 4" UD = 784.39'
Ex. Conc. Curb To Remain
234+79.18 Ramp TC CPA 63.88' Rt.
Ex. LA/RW
Ex. Conc. Median To Remain

MATCH LINE Sta. 234+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285,489A,489B
6) For Work on Bridge HAM-71-0339 (OAK STREET), See Sheet 512.
7) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
8) "6'~6"F+" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 234+50 to Sta. 238+50

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MATCH LINE Sta. 242+50

Ex. LA/RW
11RB
Ex. Paved Gutter
Ex. Conc. Curb To Remain
@ RAMP TH Guardrail Type 5 30B
Combination Curb and Gutter, Type 2, As Per Plan 37P
+11TH
+92TH
+72TH
242TH
242
3RB
Ex. 30"
6 RS
10F
Concrete Barrier Type D 15B
Concrete Median Removed, As Per Plan 2P
71D +50 Catch Basin Adjusted To Grade Inv. 12" = 775.80'
72D
Ex. 12"
7'~6"F
+51,4"-60° Wye * ℄ 4" UD = 777.43'
241+45.86,Ramp TH EPA 69.38' Lt.
18' 3' 58'
+57.29 ℄ Nose Center = +60.74TH
70D
15U
Ex. 15"
Ex. 12"
C Gate 241.44.0±,Ramp TH
241+42.2±,Ramp TH EPA 55.6±' Lt.
241+30.25,Ramp TH 12.13' Lt., EPA
69D
14'~6"F
Ex. 12"
Ex. 15"
+15 4"x6" Tee ℄ 4" UD = 778.14'
14'~15"B @ 10.7%
+15 4"x6" Tee ℄ 4" UD = 778.14'
+00TH Catch Basin Adjusted To Grade ℄ 6" UD = 778.00' Inv. 12" = 775.38' Inv. 15" = 775.38'
68D
11'~6"F
6'~6"F*
10'~6"F
Ex. 12"
+90TH 4"x6" Reducer ℄ 4" UD = 778.27'
6'~6"F
67D Sta. 241+15 ℄ INLET, NO. 3B50 ℄ Inlet Elev. = 779.88' Inv. 15" = 775.86' ℄ 6" UD E&W = 777.97'
66D +85TH Catch Basin Adjusted To Grade ℄ 6" UD = 778.01' Inv. 12" = 776.76'
Conc. Median
I-71
+68TH 4"-30° Elbow ℄ 4" UD = 778.63'
48'
10'
+57.29
Hexfoam Impact Attenuator
+85TH 4"x6" Tee ℄ 4" UD = 778.07'
6' 16'
25B
2RB
+36 4"-30° Elbow ℄ 4" UD = 779.08'
PT +59.49TH
+30.5TH
+30.56TH End Transition
Concrete Barrier Type B, As Per Plan
Ex. LA/RW
Existing Retaining Wall with Bridge Rail Mounted on Top (Existing Fence Mounted Behind Retaining Wall, by Others)
240TH
240
+2.5TH
I-71 SB
I-71 NB
6U
1B
9U
14U
Ex. Conc. Curb To Remain
Do Not Disturb Ex. Fence
11U
Portion of Structure Removed
+68.06TH Begin Transition
Ex. LA/RW
Ex. Conc. Median
Ex. Conc. Curb
24B
25B
Concrete Barrier Type B50, As per Plan
79B Retrofit Parapet, See Sheet 44B.
RAMP TH
Ex. Retaining Wall
Concrete Barrier Type D As Per Plan
6 RS
1P Curb Removed As Per Plan 2
63D
29B
48'
10' 1' 14'
8'
+00
238+95↑
Sta. 239+00 86° Rt = Sta. 239+00TC Ramp TC
238+95± 5 PB
4 PB
64D
5 RS
+54 4"x6" Tee ℄ 4" UD = 781.27' Sta. 238+54 ℄ Inlet, No. 3B50, ℄ Inlet Elev. = 783.08' Inv. 15" = 778.92' ℄ 6" UD E&W = 781.13'
+54 4"x6" Tee ℄ 4" UD = 781.27'
+55TC,4"-60° Wye * ℄ 4" UD = 780.85'
4 RS
+55TC Catch Basin Adjusted To Grade Inv. 12" = 776.20'
65D
Ramp TC
Ex. Conc. Curb
Ex. Conc. Slope Protection
10RB
6'~6"F
11'~6"F
14'~6"F
+54
Ex.
62D +52 Catch Basin Adjusted To Grade Inv. 15" = 779.86'
Concrete Barrier Type D, As per Plan
9+10.05,Oak CPA 61.82' Lt.
9+15.00,Oak EPA 33.00' Lt.
Ex. LA/RW
6'W
20'W
Ex. Conc. Walk
MAY STREET
OAK STREET
241+17.1± CPA 133.0±' Rt.
11F
240+30.9± EPA 157.9±' Rt.
℄ Gate 240+24.2±
240+17.6± EPA 161.8±' Rt.
240+03.7± CPA 135.5±' Rt.

MATCH LINE Sta. 238+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Transition Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Impact Attenuator Details, See Sheets 44A.

Sta. 238+50 to Sta 242+50

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Match Line Sta. 246+50

Ex. LA/RW
Guardrail Type 5 (32B)
246TH
3RB
246
Ex. 30"
+85
2RB
Sign Support Transition
+48.5TH End GR 5A Begin GR 5
+45
+35
+36TH End GR 5 Begin GR 5A
Guardrail Type 5A (31B)
℄ I-71
+95
10F
15U
6U
78D +25 Catch Basin Adjusted To Grade Inv. 12" = 772.50'
14U
6 RS
Ex. LA/RW
Ex. Conc. Walk
TUXEDO PLACE
244+40.00 Ramp TH 84.96' Lt. CPA
244+23.65 Ramp TH 104.81' Lt. CPA
Ex. LA/RW
76D +25TH Catch Basin Adjusted To Grade Inv. 12" = 772.30'
+21TH,4"-60° Wye * ℄ 4" UD = 774.42'
℄ RAMP TH
I-71 SB
77D
+20,4"-60° Wyw * ℄ 4" UD = 774.22
Ex. 12"
Ex. 15"
+20.17
9'~6"F
11F
7'~6"F
14'~6"F
10'~15"B @ 19.4%
60'
10'
244TH
244
30B
Guardrail Type 5
+08 4"x6" Tee ℄ 4" UD = 774.62'
Sta. 244+08 ℄ Inlet, No. 3B50 ℄ Inlet Elev. = 776.61' Inv.15" = 772.63' ℄ 6" UD E&W = 774.48'
6'~6"F*
11'~6"F
+08 4"x6" Tee ℄ 4" UD = 774.62'
I-71 NB
MAY STREET
Ex. LA/RW
Ex. Conc. Walk
243+43.72 Ramp TH 101.12' Lt. IAPA
Ex. LA/RW
Ex. Conc. Curb To Remain
RAMP TH
+20.17
8'
750
1B
9U
Concrete Barrier Type B50, As per Plan
Ex. Conc. Median
242+82.58 Ramp TH 108.74' Lt. CPA
242+82.85 Ramp TH 104.10' Lt. CPA
11RB
73D
74D
Ex. 12"
Ex. 12"
Ex. Conc. Curb To Remain
6 RS

Match Line Sta. 242+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 242+50 to Sta. 246+50

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MATCH LINE Sta. 250+00

BATHGATE STREET
Ex. Asphalt over Conc. Pvt.
8"G
Ex. 36"
Ex. 12"
30'
12F
9"~6"F
+93.4"-60° Wye *
IL 4" UD = 767.09'
6+42.47 Lincoln
37.00' Lt. EPA
34B Guardrail Type 5
+73.5
End GR 5A
Begin GR -5
+00 Catch Basin
Adjusted To Grade
Inv. 12" = 765.40'
84D
+83.24 Lincoln
Begin Approach Slab
PCC
Ex. 36"
Sta. 8+98.57 Lincoln =
Sta. 14+64.46 May
83D
329B
Sta. 6+01.45 47.0' Lt. Lincoln
End Feathering
Ex. Electric Conduit
(Suspended under Bridge)
HAM-71-0362
Bridge No..
Ex. Telephone Conduit
(Suspended under Bridge)
Ex. 30"
Ex. 12"
Ex. 18"
86D
87D
88D
Ex. Conc. Walk
12"G
Ex. 36"
Ex.
LINCOLN AVENUE
℄ LINCOLN AVENUE
Ex. Asphalt over Conc. Pvt.
36'
+01.7 Lincoln
328B
85D
+56.5 Lincoln
Ex. Conc. Slope Protection
+17.25
End GR 5
Begin GR 5A
+39.87 Lincoln
End Approach Slab
+08.24 Lincoln
End Approach Slab
Begin Feathering
+33
14+15.00 May
28.00' Lt. EPA
+85.63 May
End Feathering
13+62.47 May IAPA
28.00' Lt.
PT
36'
Guardrail Type 5A
33B
Bridge Pier Transition
℄ I-71
+93
I-71 SB
I-71 NB
Concrete Barrier Type D, As per Plan
40B
Ex. Retaining Wall
7 RS
6+19.76 Lincoln
31.00' Rt. EPA
12RB
+14.87 Lincoln
Begin Approach Slab
End Feathering
6+23.62 Lincoln
53.40' Rt. CPA
+77.9 Lincoln
Begin Pvmt. Work
Begin Feathering
3RB
2RB
15U
6U
14U
+35
Ex. Paved Gutter
10'
60'
PC Sta. 248+34.86 73' Lt
= Sta. 248+34.86TH Ramp TH
PC
248+25±
+21
1B
Concrete Barrier Type B50, As per Plan
248
9U
6 PB
38P
Combination Curb and Gutter, Type 2, As Per Plan
1
39B
+96
Ex. LA/RW
℄ RAMP TH
248TH Guardrail Type 5
32B
Ex. Conc. Curb To Remain
Ex. Conc. Median
Guardrail Taper
+71
38B
Guardrail Type 5
11F
MAY STREET
Ex. Conc. Walk
80D +25TH Catch Basin
Adjusted To Grade
Inv. 12" = 769.10'
8'
+34.86
81D
Ex. 12"
Ex. 15"
+20.4"-60° Wye *
IL 4" UD = 770.37'
9~6"F
FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS
7'~6"F
+20.4"-60° Wye *
IL 4" UD = 769.54'
14'~6"F
10'~15"B @ 19.6%
+08 4"x6" Tee
IL 4" UD = 770.98'
Sta. 247+08 ℄
Inlet, No. 3B50
IL Inlet Elev. = 772.77'
Inv. 15" = 768.99'
IL 6" UD E&W = 770.84'
6~6"F*
Ex. 30"
11~6"F
+08 4"x6" Tee
IL 4" UD = 770.98'
82D +25 Catch Basin
Adjusted To Grade
Inv. 12" = 767.38'
Inv. 15" = 767.38'
Ex. Conc. Curb To Remain
E
10F
11RB
RAMP TH
79D
PT
6 RS
11+40.85 May
28.00' Lt. IAPA
Ex. LA/RW
12
13

MATCH LINE Sta. 246+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44A, 44B.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285, 480A, 480B
6) For Work on Bridge HAM-71-0362 (LINCOLN AVENUE), See Sheet 517.
7) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
8) "6~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 246+50 to Sta. 250+00

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Match Line Sta. 253+50

253+22.16
135.02' Lt. CPA

252+98.16
153.50' Lt. CPA

Ex. 36"

Ex. LA/RW

12F

Ex. 36"

94D +00 Catch Basin
Adjusted To Grade
Inv. 15" = 756.50'

+93.4"-60° Wye *
℄ 4" UD = 760.98'

Ex. 12"

9%-6"F

Ex. 15"

Ex. 36"

95D

+01 4"x6" Tee
℄ 4" UD = 755.28'

Ex. 12"

7 RS

9%-6"F

MELISH LANE

+00 Catch Basin 96D
Adjusted To Grade
℄ 6" UD = 755.19'
Inv. 12" = 753.78'

Ex. 12"

20'~15"B @ 35.9%

PCC

696D

11'~6"F

14'~6"F

+73 4"x6" Tee
℄ 4" UD = 759.09'

6%-6"F*

Ex. 36"

Ex. 15"

Ex. 6"/RW

Ex. Conc. Pavement

Existing Fence on Wall
By Others, Do Not Disturb

Ex. Loading Dock

2RB

3RB

℄ I-71

Sta. 252+73 ℄
INLET, NO. 3B50
℄ Inlet Elev. = 760.86'
Inv. 15" = 757.29'
℄ 6" UD NE&NW = 758.65'

93D

+73 4"x6" Tee
℄ 4" UD = 758.79'

14U

Ex. 12"

92D

252

Concrete Barrier
Type B50, As per Plan
1B

15U

9U

I-71 SB

I-71 NB

Concrete Barrier
Type D, As per Plan
40B

Ex. Conc. Curb

Ex. Conc. Curb To Remain

PCC

Ex. Conc. Median

Ex. 36"

90D

Sta. 250+39 ℄
INLET, NO. 3B50
℄ Inlet Elev. = 766.82'
Inv. 15" = 762.83'
℄ 6" UD NE&NW = 764.79'

+54.4"-60° Wye *
℄ 4" UD = 762.81'

Ex. LA/RW

Ex. 4 Sty. Brick

Existing Retaining Wall
with No Bridge Rail or
Fence Mounted on Top

+60 Catch Basin 91D
Adjusted To Grade
Inv. 15" = 761.35'

9%-6"F

Ex. Conc. Median

6U

+98.5

Guardrail Type 5
34B

℄ Gate
251+17.7±

251+24.3±
195.1±' Lt. EPA

251+11.2±
191.5±' Lt. EPA

Ex. LA/RW

℄ Gate
9+33.4± Lincoln

9+40.27 Lincoln
41.01' Lt.

9+26.9± Lincoln
31.1±' Lt. EPA

9+40.31 Lincoln
31.01' Lt. EPA

8+92.95 Lincoln
31.00' Lt. EPA

Ex. Conc. Walk

Ex. 12" Cast Iron Casing

Ex. 12" Ex. 36"

LINCOLN AVENUE

15F

Ex. LA/RW

Ex. Conc. Walk

+45.74 Lincoln
End Feathering
End Pvmt. Work

4"G

Ex. 36"

Ex. 12"

Ex. 12"

10

+40

11'~6"F

6'~6"F*

14'~6"F

18'~15"B @ 16.5%

Ex. 15"

12RB

695D

89D

+39 4"x6" Tee
℄ 4" UD = 765.03'

Bridge Pier Transition

Ex. 12"

Ex. 12"

Ex. 30"

+00

692D

Match Line Sta. 250+00

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6%-6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta 250+00 to Sta. 253+50

MATCH LINE Sta. 257+30

Ex. 12" Ex. 12" Ex. Retaining Wall Ex. 12" Ex. 12" Ex. 15" Ex. 15" LA/RW Ex. 4' Conc. Median

Guardrail Type 5A (49B) HAM-71-0376 Bridge No.

+95.25 End GR 5 Begin GR 5A

+98

257+07± Ground Rod

257+05.07 CPA 103.62' Rt.

(16P) Concrete Median Removed As Per Plan

+96.40 M.L. King Begin Approach Slab End Feathering

(102D) 98

Ex. Conc. Walk

M.L. KING DRIVE

+26.40 M.L. King End Approach Slab

Guardrail Type 5 (48B) Ex. 36"

+58

(13RB) (8RS)

Ex. Conc. Curb To Remain

36"W Ex. 36" Bridge Pier Transition

Existing Retaining Wall with Bridge Rail Mounted on Top (No Fence)

(101D) Ex. 12"

70'

+58.90 M.L. King Begin Pvmt. Work Begin Feathering

(7PB) 256+15±

(99D) (100D) +00 Catch Basin Adjust To Grade Inv. 12" = 743.12'

+14 +94.4"-60" Wye * ℄ 4" UD = 753.60'

Ex. 15" 256 Ex. 12" Ex. 15" +94.4"-60" Wye * ℄ 4" UD = 745.86'

9"w 6"F (17F)

℄ M.L. KING DR.

Ex. Retaining Wall

+00 Catch Basin Adjust To Grade Inv. 15" = 748.10' Inv. 12" = 748.10' (98D)

(687D) 19"w 15"B @ 20.9%

11"w 6"F 14"w 6"F

4"G 20"G 36"W Ex. 24" MELISH LANE

Ex. 30" Steel Casing

+73 4"x6" Tee ℄ 4" UD = 750.84'

255+81.2± 136.1±' Lt. CPA

255+90.5± 121.6±' Lt. EPA

255+76± Ground Rod

Ex. LA/RW

6"w 6"F*

℄ I-71

Ex. 36"

Sta. 255+73 C INLET, NO. 3850 752.27' ℄ Inlet Elev. = 748.15' Inv. 15" = 750.04' ℄ 6" UD NE&NW = 750.18'

+73 4" x 6" 90° Elbow ℄ 4" UD = 750.18'

(42B) Guardrail Type 5

(97D) (6U) (3RB) (2RB) PCC (14U) Ex. LA/RW

254+76.02 95.3' Rt. EPA

+75 +64

Guardrail Taper

Ex. Conc. Curb To Remain

Ex. Retaining Wall (41B) Concrete Barrier Type D

OMAHA STREET

255+03.28 141.83' Lt. CPA

(12F) Ex. 36"

(15U) I-71 SB ⇦ I-71 NB ⇨ Ex. Conc. Median PCC (9U)

(39P) Combination Curb and Gutter, Type 2, As Per Plan

+39 +14 +00 +73

(40B) Concrete Barrier Type D, As per Plan

254+03.20 142.85' Lt. CPA

Ex. Conc. Curb To Remain

Concrete Barrier Type B50, As per Plan 254 (1B)

(7RS)

Ex. Conc. Walk

MATCH LINE Sta. 253+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285, 489A, 489B
6) For Work on Bridge HAM-71-0376 (M.L. KING DRIVE), See Sheet 522.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'w 6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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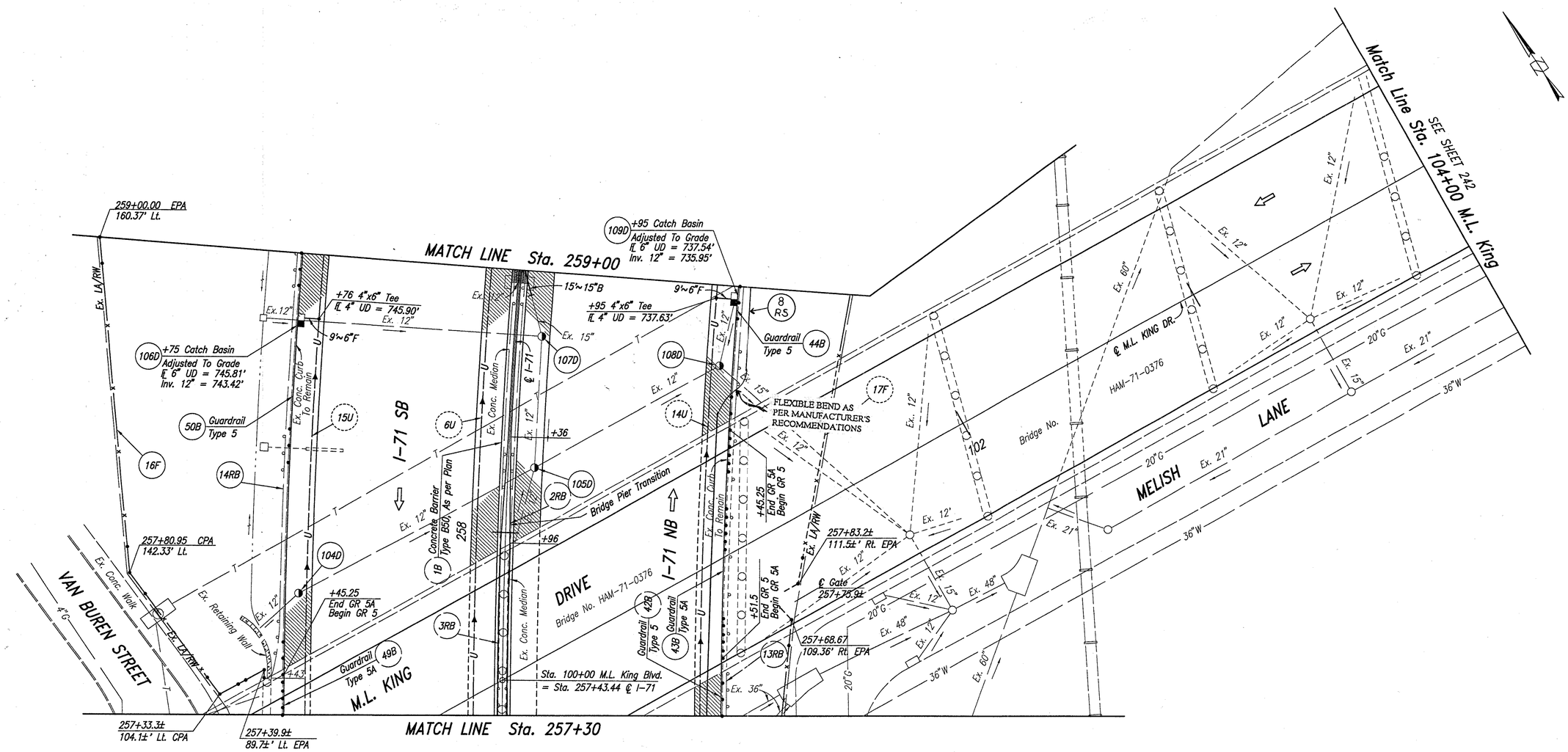
Sta. 253+50 to Sta. 257+30

CALC. BY DLB DATE 10/1/94
CHKD. BY PWP DATE 11/18/94

HAM-71-2.92

OHIO FHWA REGION 5

182/615

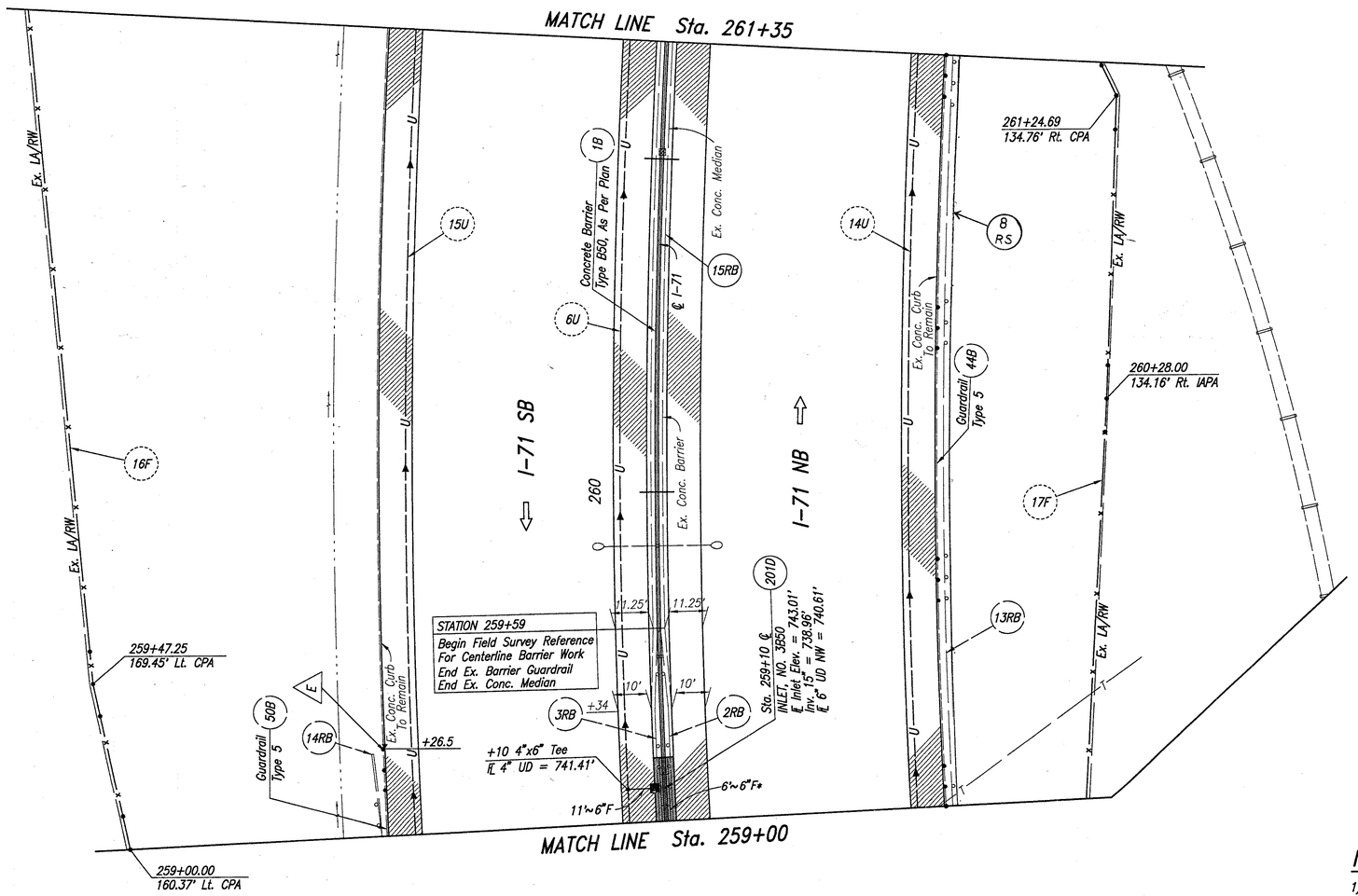


NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) For Work on Bridge HAM-71-0376 (M.L. KING DRIVE), See Sheet 522.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 257+30 to 259+00

C:\18007\PLANSH\274\257-259.DWG - FEB 20, 1995 - 11:21:34



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 48.94, 48.98
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"w6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

CALC. BY DLB DATE 10-17-94
CHKD. BY DWP DATE 11-18-94

HAM-71-2.92

OHIO FHWA REGION 5

184 / 615

MATCH LINE Sta. 265+25

265+17.60
147.89' Lt. CPA

264+80.26
175.07' Lt. CPA

264+51.01
87.36' Lt. EPA

264+25.9±
169.4±' Lt. EPA

℄ Gate
264+19.4±

264+12.9±
168.3±' Lt. EPA

262+99.72
161.75' Lt. CPA

261+49.71
193.53' Lt. CPA

265+08.26
90.37' Lt. EPA

18F
16RB
17U
53B Concrete Barrier Type D
52B Concrete Barrier Type D, As Per Plan
42P Combination Curb and Gutter, Type 2, As Per Plan
51B Concrete Barrier Type D
16F
15U
15RB
14U
13RB
17F
47B Concrete Barrier Type D
46B Concrete Barrier Type D, As Per Plan
45B Concrete Barrier Type D
40P Combination Curb and Gutter, Type 2, As Per Plan
41P Combination Curb and Gutter, Type 2, As Per Plan
19F
8 RS
B1 Concrete Barrier Type B50, As Per Plan
6U
4B Guardrail Type 5

+14 Ex. 15"
10~6"F
+84 4"-45° Elbow * ℄ 4" UD = 727.77'
+94 Manhole Adjusted To Grade Inv. 15" = 722.42" Inv. 15" NW = 725.67"
+18 4"x6" Tee ℄ 4" UD = 723.45"
+84 4" Cap ℄ 4" UD = 727.43"
11~6"F
6~6"F*
Ex. 15"
Ex. LA/RW
Ex. Conc. Barrier
Ex. Conc. Curb To Remain
Ex. 12"
Ex. 21"
Bridge Pier Transition
Bridge No.
℄ I-71
Sta. 265+18 ℄ Inlet Reconstructed To Grade, As Per Plan Ex. ℄ Inlet Elev. = 724.66' Prop. ℄ Inlet Elev. = 725.01' Ex. Inv. 15" = Filled ℄ 6" UD NW = 722.68'
+12 Catch Basin Adjusted To Grade Inv. 12" = 718.25' Inv. 18" = 717.75' Inv. 21" = 717.50'
+37
+46
+25
+97
+47
+07
+90
+14
+03
+89
+64
+13
+39
264
262
Ex. 15" 9~6"F
+09.4"-60° Wye * ℄ 4" UD = 721.90'
264+15.24
119.83' Rt. CPA
+12 Manhole Adjusted To Grade Inv. 15" = 720.20" Inv. 18" = 720.20"
2050
HAM-71-0367
FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS
(NO BRIDGE WORK)
End Concrete Barrier Type D As Per Begin Concrete Barrier Type D
End Concrete Barrier Type D Begin Concrete Barrier Type D As Per Plan
263+14.1±
139.2±' Rt. CPA
262+82.48 EPA
90.17' Rt.
262+72.6± CPA
123.6±' Rt.
262+63.45 CPA
103.21' Rt.
262+16.94
+87.49' Rt. EPA
℄ I-71 SB
⇩
℄ I-71 NB
⇧
2020 +50 Catch Basin Adjusted To Grade Inv. 15" = 734.05'
+45.4"-60° Wye * ℄ 4" UD = 737.61'
+51 4"x6" Tee ℄ 4" UD = 733.94'
11~6"F
9~6"F
6~6"F*
2030 Sta. 261+50 ℄ INLET RECONSTRUCTED TO GRADE, AS PER PLAN Ex. ℄ Inlet Elev. = 735.43' Prop. ℄ Inlet Elev. = 735.78' Ex. Inv. 15" = 727.33' ℄ 6" UD NW = 733.20'
2040 +50 Catch Basin Adjusted To Grade ℄ 6" UD = 729.19' Inv. 15" = 727.92'
+48.4"-60° Wye * ℄ 4" UD = 729.29'
FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

MATCH LINE Sta. 261+35

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NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 261+35 to Sta. 265+25

CALC. BY DJB DATE 2-7-95
CHKD. BY PWP DATE 1-18-94

HAM-71-2.92

OHIO FHWA REGION 5

185 615

Match Line Sta. 269+00

WHITTIER AVENUE

22F

212D +87 Catch Basin Adjusted To Grade Inv. 15" = 714.06'

+84.4"-60° Wye * ℄ 4" UD = 719.45'

213D

Ex. 15" 9'~6"F

268+37.7± EPA 146.2±' Lt.

Existing Retaining Wall with Bridge Rail Mounted on Top (No Fence)

Bridge Pier Transition

+16 4"x6" Tee ℄ 4" UD = 718.30'

+63

11'~6"F

14'~6"F

6'~6"F

268

Ex. Conc. Barrier

Sta. 268+16 ℄ Inlet Reconstructed To Grade, As Per Plan Ex. ℄ Inlet Elev. = 719.80' Prop. ℄ Inlet Elev. = 720.15' Ex. Inv. 15" = FILLED ℄ 6" UD SE&NW = 717.83'

2110

+16 4"x6" Tee ℄ 4" UD = 717.97'

+81.4"-60° Wye * ℄ 4" UD = 715.25'

+87 Catch Basin Adjusted To Grade Inv. 15" = 710.01' Inv. 24" = 710.01' Inv. 30" = 709.51'

2140

Bridge No. HAM-71-0398

Ex. 24"

Ex. Conc. Slope Protection

Combination Curb and Gutter, Type 2, As Per Plan

45P

+76

PCC

12"W

23F

11+80.75 Fredonia 56.57' Lt. EPA

+69.13 Fredonia Begin Approach Slab

+94.13 Fredonia End Approach Slab Begin Feathering

12

215D

Ex. PB

+51.37 Fredonia End Feathering End Pvmt Work

12+51.14 Fredonia 29.66' Rt. EPA

12+56± Fredonia Ground Rod

12+61.75 Fredonia 29.66' Rt. CPA

12+61.70 Fredonia 50.43' Rt. EPA

℄ Gate 267+40.6±

267+33.2± 141.2±' Rt. EPA

9 RS

+41

1

+51.5

17U

6U

16U

℄ I-71

Concrete Barrier Type D

56B

+16

14U

17RB

+91

Guardrail Type 5

55B

Ex. Conc. Curb To Remain

I-71 NB

I-71 SB

1B

15RB

Concrete Barrier Type B50, As Per Plan

+50 Catch Basin Adjusted To Grade Inv. 15" = 717.87' Ex. 15"

209D

9'~6"F

+44.4"-60° Wye * ℄ 4" UD = 723.87'

+44.4"-60° Wye * ℄ 4" UD = 717.13' Ex. 15"

+41

+50 Catch Basin Adjusted To Grade Inv. 15" = 713.53' Inv. 21" = 713.03' Inv. 24" = 712.78'

2100

+50 4" Cap ℄ 4" UD = 723.32'

PCC

Ex. 21"

Ex. LA/RW

266+16.65 CPA 127.56' Rt.

266+00± 8 PB

19F

8 RS

267+10.0± EPA 154.2±' Lt.

Ex. LA/RW

Ex. Conc. Walk

266+81.8± 162.2±' Lt. CPA

266+65± Ground Rod

266+56.2± 182.3±' Lt. CPA

18F

265+95.49 123.15' Lt. CPA

265+55.13 134.69' Lt. CPA

16RB

Combination Curb and Gutter, Type 2, As Per Plan

43P

Guardrail Type 5

54B

Guardrail Taper

+89

+64

+39

+25

Concrete Barrier Type D

53B

Ex. 12"

266

Ex. Conc. Barrier

FREDONIA AVENUE

209D

14

℄ FREDONIA AVE.

4'G

Match Line Sta. 265+25

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) For Work on Bridge HAM-71-0398 (FREDONIA AVENUE), See Sheet 529.
7) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
8) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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Sta. 265+25 to Sta. 269+00

MATCH LINE Sta. 273+00

272+68.38
183.87' Lt. CPA

271+92.17
192.57' Lt. CPA

7+88.62 Fredonia
69.90' Lt. CPA

+46.04 Fredonia
Begin Pvmt Work
Begin Feathering

8+58.21 Fredonia
29.67' Lt. EPA

+83.54 Fredonia
Begin Approach Slab
End Feathering

8+05.22 Fredonia
= Sta. 10+00.00 Whittier

8+08.54 Fredonia
End Approach Slab

8+97.16 Fredonia
39.66' Rt. EPA

8+81.85 Fredonia
52.22' Rt. CPA

9+02.66 Whittier
27.00' Rt. CPA

272+61.08
103.00' Rt. CPA

271+48.38
122.60' Rt. CPA

270+92.15
177.81' Rt. CPA

Sta. 273+00 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 714.18'
Prop. ℄ Inlet Elev. = 714.53'
Ex. Inv. 15" = 706.48'
℄ 6" UD SE&NW = 712.43'

Sta. 271+00 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 716.51'
Prop. ℄ Inlet Elev. = 716.86'
Ex. Inv. 15" = 710.21'
℄ 6" UD SE&NW = 714.78'

+00 Catch Basin
Adjusted To Grade
Inv. 15" = 705.22'
Inv. 30" = 703.97'

+00 Catch Basin
Adjusted To Grade
Inv. 15" = 711.78'

+00 Catch Basin
Adjusted To Grade
Inv. 15" = 708.66'
Inv. 30" = 707.41'

+07 4"-45° Elbow
℄ 4" UD = 715.76'

+10.4"-45° Elbow
℄ 4" UD = 715.65'

+94.4"-60° Wye *
℄ 4" UD = 712.40'

+97.4"-60° Wye *
℄ 4" UD = 715.89'

+01 4"X6" Tee
℄ 4" UD = 714.95'

+01 4"X6" Tee
℄ 4" UD = 714.92'

+94.4"-60° Wye *
℄ 4" UD = 713.86'

Concrete Barrier
Type 650, As Per Plan

I-71 SB

I-71 NB

℄ I-71

PT

PCC

PC

Ex. Conc. Curb To Remain

Ex. Conc. Barrier

Ex. Concrete Slope Protection

Ex. Conc. Island

Ex. Conc. Walk

Bridge Pier Transition

Bridge No. 10

HAM-71-0398

℄ FREDONIA AVE.
FREDONIA AVENUE

WHITTIER AVENUE

Ex. LA/RW

RW

Ex. 12"

Ex. 15"

Ex. 30"

8"G

12"W

6"~6"F*

9"~6"F

11"~6"F

14"~6"F

10'

60'

2'

+03

+07

+17

+00

+77

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A,489B
6) For Work on Bridge HAM-71-0398 (FREDONIA AVENUE), See Sheet 529.
7) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 283 and 289.
8) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

MATCH LINE Sta. 269+00

Sta. 269+00 to Sta. 273+00

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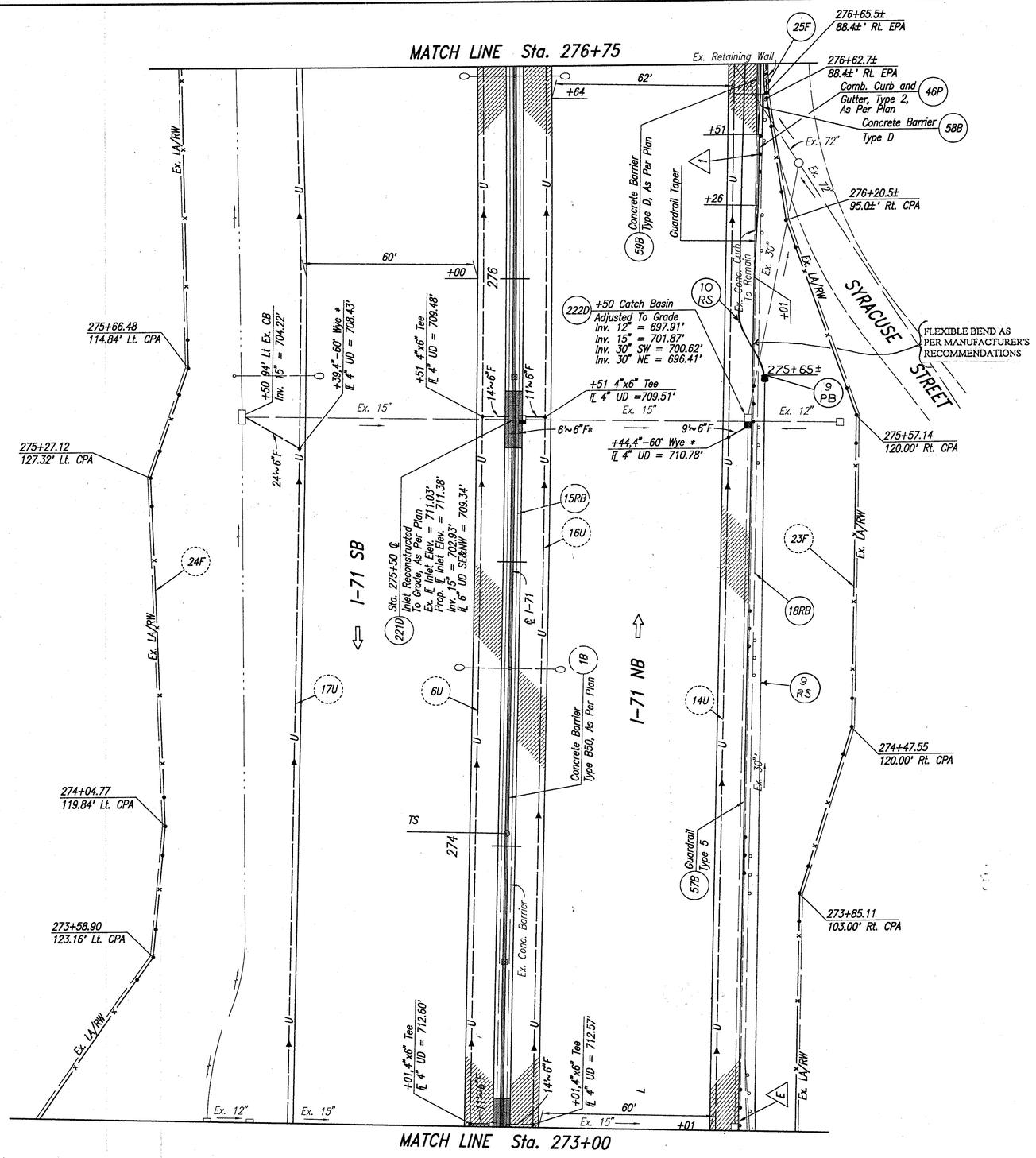
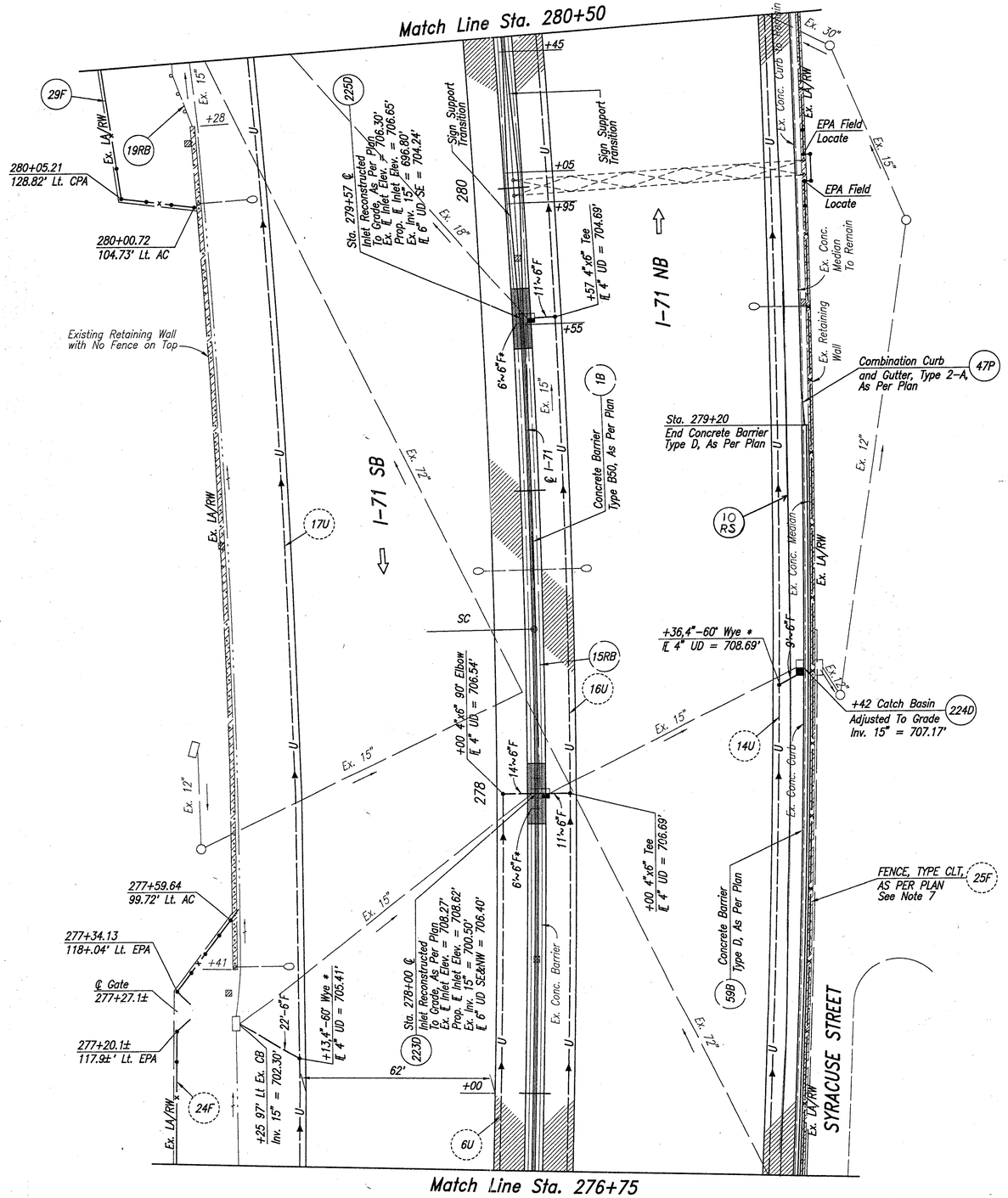


NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 273+00 to Sta. 276+75



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 283 and 289.
6) "6'-6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 – FENCE, TYPE CLT, AS PER PLAN; Applys only tno the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

Sta. 276+75 to Sta. 280+50

MATCH LINE Sta. 284+50

4"UNC
+25 4"-30° Wye * ℄ 4" UD = 696.32'
4"UNC
+00 4" Cap ℄ 4" UD = 697.37'
+00
Ex. Conc. Curb To Remain
13'
16'
48'
284
+00 4"-30° Elbow ℄ 4" UD = 696.70'
Ex. 72"
Ex. LA/RW
29F
1B
Concrete Barrier Type B50, As Per Plan
16U
15RB
Ex. Conc. Barrier
℄ I-71
I-71 SB
11~6"F
18U
6"~6"F*
+00 4"x6" Tee ℄ 4" UD = 700.53'
+48
Sta. 283+00 ℄ Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 702.13'
Prop. ℄ Inlet Elev. = 702.48'
Ex. Inv. 15" = 698.13'
℄ 6" UD SE = 700.07'
22TD
Ex. 15"
Ex. 15"
22GD
Bridge Pier Transition
+08
Ex. 15"
+98 103' Rt Ex. CB Inv. 15" = 700.36
Ex. 15"
24'-6"F
+87.4"-60° Wye * ℄ 4" UD = 703.97'
+42
POC Sta. 281+74.90= Sta. 15+00 BLAIR AVE.
+23
62'
12'
10'
+02
Ex. Retaining Wall with Fence
+24 4"-60° Elbow ℄ 4" UD = 705.36'
10 RS
Ex. Concr. Median
Ex. 15"
Ex. 12"
Ex. 18"
Ex. 15"
Ex. 18"
Ex. LA/RW
Ex. LA/RW
FENCE, TYPE CLT, AS PER PLAN See Note 8
25F
14
60'
+00
282
PC
Bridge No. HAM-71-0422
19RB
+00 105' Lt Ex. CB Inv. 15" = 693.99' Inv. 18" NE&NW = 693.74'
34'~6"F
+00 4" Cap ℄ 4" UD = 700.49'
+00
12'
58'
+82.4"-45° Elbow * ℄ 4" UD = 700.05'
17U
14U
I-71 NB
+25
60'
14'
+39.4"-45° Elbow ℄ 4" UD = 702.09'
+25 4" Cap ℄ 4" UD = 702.58'
4"UNC
4"UNC
+25 4"-45° Elbow ℄ 4" UD = 702.41'
4"UNC
4"UNC
76P Concrete Median Removed, As Per Plan
4"UNC
4"-45° Elbows
+25
58'
Ex. Conc. Nose
2'
10 RS
Ex. LA/RW
FENCE, TYPE CLT, AS PER PLAN See Note 8
26F
Ex. Retaining Wall with Fence
RAMMELSBURG COURT
282+27.5± EPA 105.3±' Rt. Secure Ex. Fence To New Post
282+20.0± 104.8±' Rt. EPA
RAMMELSBERG STREET
Ex. 15"
Ex. 15"
Do Not Disturb Ex. Fence
Ex. Retaining Wall with Fence
281+80± Ground Rod
Ex. 12"
For Continuation of BLAIR AVENUE See Sheet 243
BLAIR AVENUE
16
18
Ex. 15"
282+34.14 140.88' Lt. IAPA
Ex. 15"
Ex. 12"
℄ BLAIR AVE.
14
MATCH LINE Sta. 280+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) For Work on Bridge HAM–71–0422 (BLAIR AVENUE), See Sheet 533.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 283 and 289.
7) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) ITEM 607 – FENCE, TYPE CLT, AS PER PLAN; Applys only to the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

Sta 280+50 to Sta. 284+50

MATCH LINE Sta. 288+50

Ex. 72"
Ex. 12"
Ex. LA/RW
Ex. 15"
Ex. 18"
Ex. 72"
Ex. LA/RW
Ex. 72"

9~6"F
+71.4"-60° Wye *
℄ 4" UD = 692.94'
11~6"F
+72.4"-60° Elbow *
℄ 4" UD = 697.20'
9~6"F
6~6"F*
+76 4"x6" Tee
℄ 4" UD = 695.04'

288

2310 +75 Catch Basin Adjusted To Grade Inv. 15" = 686.45'
60B Guardrail Type 5
2300 Sta. 287+75 ℄ Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 696.53'
Prop. ℄ Inlet Elev. = 696.88'
Ex. Inv. 15" = 694.03'
℄ 6" UD SE = 694.61'
2320 +75 Catch Basin Adjusted To Grade Inv. 15" = 688.55'

19RB
20RB
21RB
18U
16U
15RB
1B Concrete Barrier Type B50, As Per Plan
14U
11 RS
10 PB
10 RS
29F
30F
26F

I-71 SB ⇩
I-71 NB ⇧
℄ I-71

286+48.5±
158.3±' Lt. CPA
+49.5
285+88±
Ground Rod
284+71.4±
153.3±' Lt. LAPA

286

10'
+65
+61 4"x6" Tee
℄ 4" UD = 695.47'
+60 4"x6" Tee
℄ 4" UD = 697.62'
19~6"F
11~6"F
6~6"F*
2290 +60 Catch Basin Adjusted To Grade ℄ 6" UD = 695.28' Inv. 15" = 690.81'
2280 Sta. 285+60 ℄ Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 699.06'
Prop. ℄ Inlet Elev. = 699.41'
Ex. Inv. 15" = 694.21'
℄ 6" UD SE = 697.04'
Ex. Conc. Barrier
Ex. Conc. Curb To Remain
4"UNC
285+50±
+36.4"-45° Wye
℄ 4" UD = 699.87'
+25 4" Cap
℄ 4" UD = 700.16'
+25,4"-45° Elbow
℄ 4" UD = 700.17'
+25
48'
10'
Curb Removed Curb, Type 6 See Note 8
76P
76P Portion of Curb Removed
76P Concrete Median Removed, As Per Plan
+75
10'
Ex. Conc. Curb To Remain
Ex. Conc. Nose

287+93.6±
236.4±' Rt. CPA
287+95.4±
218.0±' Rt. CPA
287+55.15
206.34' Rt. CPA
286+46.4±
193.4±' Rt. CPA
286+27.4±
154.5±' Rt. EPA
286+27.4±
152.6±' Rt. EPA
286+23.7±
176.6±' Rt. CPA

RAMMELSBURG COURT

Ex. LA/RW
Ex. 15"
Ex. Retaining Wall With Fence

FENCE, TYPE CLT, AS PER PLAN See Note 7

MATCH LINE Sta. 284+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 – FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.
8) Remove 10 Feet of the existing Curb. Replace it with New Type 6 Curb, Transition the New Curb from 0" to meet the top of the Existing Curb.

Sta. 284+50 to Sta. 288+50

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CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 11-18-94

HAM-71-2.92

OHIO FHWA REGION 5

191/615

MATCH LINE Sta. 292+50

Ex. LA/RW

Ex. 84"

291+34.2± 90.2±' Lt. CPA

291+09.8± 210.4±' Lt. CPA

Ex. Pedestrian Walk

291+26.1± 96.5±' Lt. CPA

Ex. 15"

Ex. LA/RW

290+63.5± 205.8±' Lt. EPA

℄ Gate 290+56.1±

290+49.1± 204.3±' Lt. EPA

29F

Ex. 12"

289+70.9± 195.5±' Lt. CPA

289+00.0± 174.8±' Lt. CPA

Ex. LA/RW

48.87'

9.13'

10'

+15.31

48'

292

20U

2390 Sta. 291+50 ℄ Inlet Reconstructed To Grade, As Per Plan Ex. ℄ Inlet Elev. = 693.50' Prop. ℄ Inlet Elev. = 693.85' Ex. Inv. 15" = 691.80' ℄ 6" UD SE = 693.83'

+16.29 Begin Pvmt Transition

19U

21U

+01 4"x6" Tee ℄ 4" UD = 690.88'

+50 4"x6" Tee ℄ 4" UD = 693.97'

+01 4"x6" Tee Low Point ℄ 4" UD = 693.70'

+50 4"x6" Tee ℄ 4" UD = 694.21'

+01 4"x6" Tee Low Point ℄ 4" UD = 694.09'

240D

238D

22RB

237D +00 Catch Basin Adjusted To Grade ℄ 6" UD = 690.78' Inv. 15" = 684.85'

+55.4°-60° Elbow * Low Point ℄ 4" UD = 690.77'

Sta. 291+00 ℄ Inlet Reconstructed To Grade, As Per Plan Ex. ℄ Inlet Elev. = 693.40' Prop. ℄ Inlet Elev. = 693.75' Ex. Inv. 15" = 687.88' ℄ 6" UD SE = 693.56'

+50 4"x6" Tee ℄ 4" UD = 694.36'

235D +50 Catch Basin Adjusted To Grade Inv. 15" = 685.85'

+45.4°-60° Elbow * Low Point ℄ 4" UD = 690.77'

236D

+50 4"x6" Tee ℄ 4" UD = 694.00'

290

234D +00 Catch Basin Adjusted To Grade ℄ 6" UD = 690.75' Inv. 15" = 686.85'

+00 4"x6" Tee ℄ 4" UD = 690.85'

18U

21RB

60B Guardrail Type 5

Ex. Conc. Curb To Remain

+00 4" Cap ℄ 4" UD = 695.26'

I-71 SB

175U

Ex. Conc. Barrier

℄ I-71

16U

CS

1B Concrete Barrier Type B50, As Per Plan

I-71 NB

Sta. 290+50 ℄ Inlet Reconstructed To Grade, As Per Plan Ex. ℄ Inlet Elev. = 693.73' Prop. ℄ Inlet Elev. = 694.08' Ex. Inv. 15" = 690.33' ℄ 6" UD SE = 693.86'

2330

61B Guardrail Type 5

+54

E

11 RS

15RB

6~6"F*

9~6"F

11~6"F

14~6"F

Ex. 15"

Ex. Pedestrian Walk

292+30.00 91.00' Rt. CPA

FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

Sta. 292+02 ℄ PRESSURE RELIEF JOINT, TYPE C

85P

291+79.7± 215.3±' Rt. CPA

291+39.6± 325.4±' Rt. CPA

290+74.9± 369.9±' Rt. CPA

290+30.9± 299.4±' Rt. CPA

290+12.3± 292.4±' Rt. CPA

30F

289+24.7± 296.6±' Rt. CPA

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

MATCH LINE Sta. 288+50

Sta. 288+50 to Sta. 292+50

G:\TRANS\18007\PLANSH\361\288-292.DWG - JUL 11, 1994 - 19:14:47

CALC. BY DJB DATE 10-17-96
CHKD. BY PW P DATE 12-8-99

HAM-71-2.92

OHIO | FHWA REGION 5

192 / 615

MATCH LINE Sta. 296+50

VICTORY PARKWAY

Ex. 120"

Ex. Retaining Wall

26RB

+28

58.67'

+16 4"x6"-90° Elbow
℄ 4" UD = 697.07'

+04.71
End Approach Slab

22U +42

Guardrail Type 5 63B

80B Concrete Barrier Type B50, As per Plan

24RB

+74.71
Begin Approach Slab
Begin Pvmt Transition

Ex. 12"

Ex. 84"

Ex. Retaining Walls

Ex. 15"

Ex. 120"

Ex. 12"

I-71 SB

℄ I-71

HAM-71-0445

I-71 NB

Bridge No. 294

23U 12 PB 296+35±
Transition
Median Barrier

+16 4"x6"-90° Elbow
℄ 4" UD = 697.09'

14'-6"F

24U

Ex. Conc. Curb To Remain

13 RS
FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

+25

+69 Catch Basin
Adjusted To Grade 696.89'
℄ 6" UD = 692.29'
Inv. 15" = 692.29'

2420

Ex. Pedestrian Walk

Ex. 27"

295+99.6±
117.2±' Rt. IAPA

32F

Ex. 15"

Guardrail Type 5 62B

23RB

295+28.3±
91.7±' Rt. IAPA

Sta. 296+16 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 698.79'
Prop. ℄ Inlet Elev. = 699.14'
Ex. Inv. 15" = 694.29'
℄ 6" UD SE = 696.95'

2410

+66.4"-60° Elbow *
℄ 4" UD = 696.99'

+25

TS

295+22.1±
73.0±' Rt. EPA

295+09.6±
91.7±' CPA

Ex. LA/RW

Ex. 27"

Ex. 12"

Ex. Pedestrian Walk

293+77.1±
75.0±' Lt. AC

293+60.5±
107.2±' Lt. CPA

+62

+50 4" Cap
℄ 4" UD = 694.09'

ST +40.12

51.13'

29F

21RB

+25 4" Cap
℄ 4" UD = 693.18'

+23.79
Begin Approach Slab

Guardrail Type 5 60B

8'

50'

+95.31
Transition
Median Barrier

19U

20U

Ex. Conc. Curb To Remain

86P Sta. 292+52.56 ℄
PRESSURE RELIEF JOINT, TYPE C

9'-1"

48.87'

+53.79
End Approach Slab
End Pvmt Transition

12 RS

Ex. 120"

293+04.00
73.00' Rt. EPA

+04

15RB

18'

Ex. Conc. Curb To Remain

+00 4" Cap
℄ 4" UD = 692.89'

Concrete Barrier Type B50, As per Plan

11 RS

21U

22RB

292+75±

292+95.00
91.00' Rt. CPA

Guardrail Type 5 61B

11 PB

30F

Ex. Pedestrian Walk

MATCH LINE Sta. 292+50

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 48.9A, 48.9B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0445 (INTERSTATE-71), See Sheet 535.

Sta. 292+50 to Sta 296+50

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MATCH LINE Sta. 300+50

299+84.44
109.34' Lt. CPA

Ex. LA/RW

298+47.8±
179.2±' Lt. CPA

Ex. LA/RW

298+03.1±
196.4±' Lt. EPA

℄ Gate
297+96.6±

Ex. Retaining Wall

297+91.1±
191.2±' Lt. EPA

31F

297+29.7±
166.3±' Lt. EPA

Ex. Retaining Wall

VICTORY PARKWAY

VICTORY PARKWAY

Ex. LA/RW

88P Sta. 297+52.7 ℄ PRESSURE RELIEF JOINT, TYPE C

+67 Catch Basin (243D) Adjusted To Grade

8" Ex. 15" 58.88'

26RB

Guardrail Type 5 (63B)

I-71 SB ⇩

298

300

Ex. 12"

25U

+03.4"-60° Elbow * ℓ 4" UD = 704.41'

7"~6"F

+00 Catch Basin (245D) Adjusted To Grade NE = 700.88' Inv. 12" SE = 700.63' Inv. 15"

Ex. 15"

+01 4"x6" Tee ℓ 4" UD = 701.00'

6"~6"Fx

Sta. 299+00 ℄ Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 702.33'
Prop. ℄ Inlet Elev. = 702.68'
Ex. Inv. 15" = 696.93'
ℓ 6" SE&NW = 700.45'

℄ I-71

22U

Ex. Conc. Curb To Remain

Concrete Barrier Type 850, As Per Plan (80B)

U

+01 4"x6" Tee ℓ 4" UD = 700.59'

14"~6"F

Ex. 15"

11"~6"F

+06.4"-60° Wye * ℓ 4" UD = 698.34'

9"~6"F

Ex. 15"

+00 Catch Basin (246D) Adjusted To Grade Inv. 15" = 694.24'

Ex. Conc. Curb To Remain

24U

23U

24RB

Ex. Conc. Barrier

+12.21
End Pvmt Transition

Sta. 297+52.7 ℄ PRESSURE RELIEF JOINT, TYPE C 87P

I-71 NB ⇧

13 RS

Ex. 21"

Ex. LA/RW

298+47.0±
194.7±' Rt. IAPA

JONATHAN AVENUE

Ex. 24"

Ex. LA/RW

297+74.6±
236.6±' Rt. EPA

℄ Gate
297+68.6±

297+62.6±
243.8±' Rt. EPA

32F

Ex. 12"

Ex. Conc. Walk

Ex. 27"

Ex. LA/RW

Ex. Pedestrian Walk

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 48.9A, 48.9B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"Fx" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

MATCH LINE Sta. 296+50

Sta. 296+50 to Sta. 300+50

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CALC. BY DLB DATE 10-11-22
CHKD. BY PWP DATE 12-8-94

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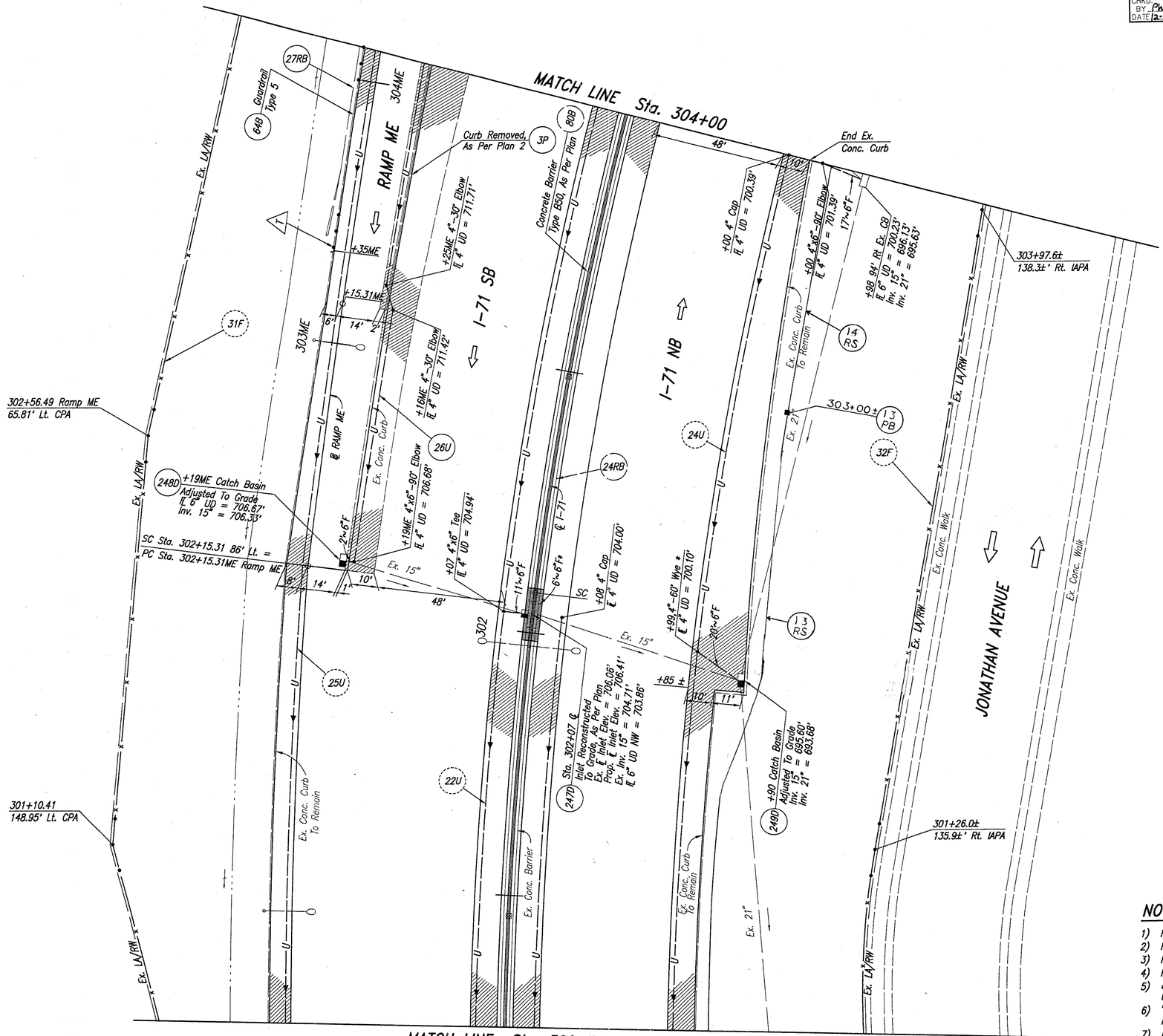
OHIO FHWA REGION 5

194 / 615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

C:\18007\PLANSHT\361\300-304.DWG - FEB 20, 1995 - 11:46:09

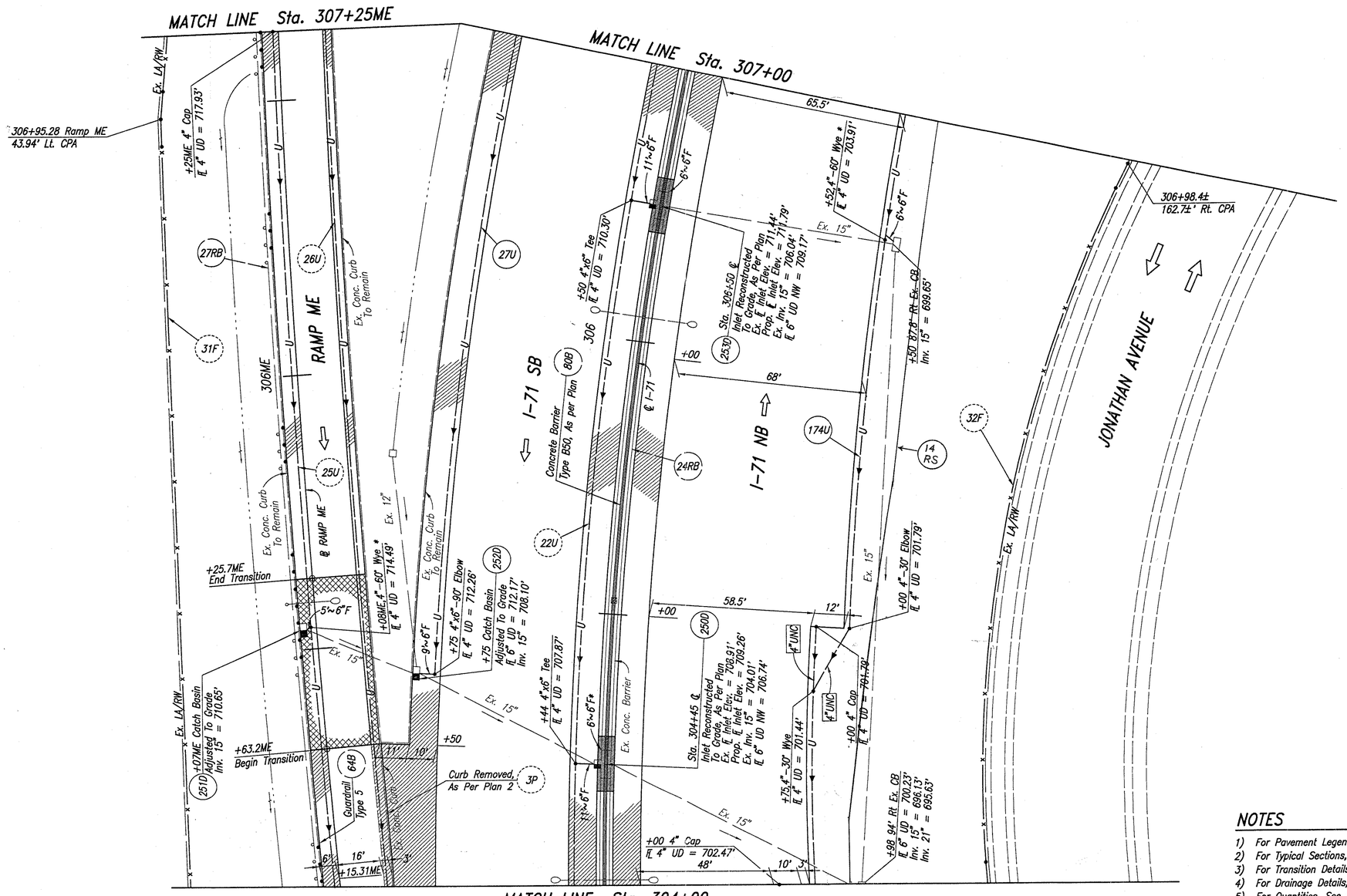
Sta 300+50 to Sta 304+00

CALC. BY GB DATE 10-17-94
CHKD. BY EWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

195 / 615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Transition Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285, 48.9A, 48.9B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 304+00 to Sta. 307+00

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CALC. BY DLB DATE 10-7-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO
FHWA REGION 5

196
615

MATCH LINE Sta. 311+25ME

MATCH LINE Sta. 310+00

310+69.53 Ramp ME
79.39' Lt. CPA

309+90.86 Ramp ME
37.52' Lt. CPA

308+76.24 Ramp ME
69.09' Lt. CPA

308+18.98 Ramp ME
29.73' Lt. CPA

310+00.00
136.02' Rt. CPA

Ex. LA/RW

Ex. Conc. Curb To Remain

310ME

64B Guardrail Type 5

RAMP ME

℄ RAMP ME

308ME

+75ME 4" Cap
℄ 4" UD = 721.13'

+00 High Point
℄ 4" UD = 716.25'

+00 High Point
℄ 4" UD = 712.13'

+00 High Point
℄ 4" UD = 709.36'

℄ I-71

I-71 SB

I-71 NB

Concrete Barrier Type B50, As Per Plan

Ex. Conc. Barrier

28U
29U
31U
24RB
+20
60'
+00
60.5'
31F
27RB
26U
27U
22U
80B
308
+00
63'
14 RS
174U
32F
65.5'

MATCH LINE Sta. 307+25ME

MATCH LINE Sta. 307+00

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 48.9A, 48.9B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

C:\18007\PLANSH\3611\307-310.DWG - FEB 20, 1995 - 11:47:49

Sta. 307+00 to Sta. 310+00

CALC. BY DJB DATE 10-17-02
CHKD. BY PWP DATE 12-13-94

HAM-71-2.92

OHIO FHWA REGION 5

197/615

MATCH LINE Sta. 315+00ME

MATCH LINE Sta. 313+25

MATCH LINE Sta. 311+25ME

MATCH LINE Sta. 310+00

314+25.00 Ramp ME
30.00' Lt. ℄APA

Ex. LA/RW

℄ RAMP ME

314ME

RAMP ME

27RB

64B Guardrail Type 5

31F

32U

Ex. Conc. Curb To Remain

+25ME 4" Cap
℄ 4" UD = 706.48'

312ME

6'

16'

3'

311+34.64 Ramp ME
40.65' Lt. CPA

Ex. 15"

℄ I-71

I-71 SB

312

+63 4"x6" Tee
℄ 4" UD = 710.08'

24RB

14~6"F

+63 4"x6" Tee
℄ 4" UD = 709.31'

I-71 NB

Ex. 15"

11~6"Fs

6~6"Fs

29U

Sta. 311+62 ℄
Inlet Reconstructed
To Grade, ℄ Inlet Elev. = 711.23'
Ex. ℄ Inlet Elev. = 711.58'
Prop. ℄ Inlet 15" Ex. Inv. = 701.23'
℄ 6" UD N&S = 709.17'

3010

Ex. Conc. Barrier

Concrete Barrier Type 850, As per Plan

808

30U

CS

+65 4" Cap
℄ 4" UD = 711.80'

28U

Ex. Conc. Curb To Remain

+63 4"x6" Tee
℄ 4" UD = 705.01'

9~6"F

15 RS

32F

Ex. Conc. Curb To Remain

3020

+62 Catch Basin
Adjusted To Grade
℄ 6" UD = 704.92'
Inv. 15" = 703.20'

31U

310+66.60
121.98' Rt. CPA

Ex. LA/RW

Begin Ex. Shoulder
Begin Ex. Conc. Curb

10'

310+00±

14 PB

310+00.00
136.02' Rt. CPA

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6~6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 – FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

C:\18007\PLANSH\458\310-313.DWG – FEB 20, 1995 – 11:51:30

Sta. 310+00 to Sta 313+25

CALC. BY DB DATE 6-17-22
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

198 615

MATCH LINE Sta. 319+10ME

MATCH LINE Sta. 317+00

318+85.9± Ramp ME
10.8±' Lt. EPA

318+85.85 Ramp ME
12.67' Lt. EPA

318+85.85 Ramp ME
21.00' Lt. CPA

Concrete Barrier Type D (75B)

Ex. Retaining Wall With Fence

33F

34U

+7ME

+60ME

Ex. 12"

+50ME 4" Cap
℄ 4" UD = 702.96'

Curb Removed Curb, Type 6 See Note 7 (77P)

Concrete Barrier Type D, As Per Plan (78B)

Portion of Curb Removed (77P)

6"UD

10'

+66.66

48'

Ex. 15"

Ex. 36"

+68 4"-30° Elbow
4"x6" Transition
℄ 4" UD = 703.84'

Ex. 15"

+50 4"-30° Elbow
℄ 4" UD = 704.54'

+87 4"x6" Tee
℄ 4" UD = 702.85'

11'-6"F

6'-6"F

14'-6"F

Sta. 316+87 ℄ Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 704.37'
Prop. ℄ Inlet Elev. = 704.72'
Ex. Inv. 15" = 699.47'
℄ 6" UD N&S = 702.71'

+87 4"x6" Tee
℄ 4" UD = 702.85'

+97.4"-60° Wye *
℄ 4" UD = 701.80'

Ex. 15"

9'-6"F

+00 Catch Basin
Adjusted To Grade
℄ 6" UD = 701.71'
Inv. 15" = 697.31'

316+41.49
131.96' Rt. CPA

Ex. LA/RW

Combination Curb and Gutter, Type 2, As Per Plan (48P)

690D

+35ME

317+82.2± Ramp ME
21.00' Lt. EPA

℄ Gate
317+75.0± ME

317+67.8± Ramp ME
21.00' Lt. EPA

318ME

+10ME

Guardrail Taper

Ex. 15"

Ex. LA/RW

Ex. 36"

Ex. 12"

Concrete Barrier Type 660, As per Plan 316 (60B)

24RB

I-71 SB

℄ I-71

I-71 NB

Ex. 42"

℄ RAMP ME

316+92.27 Ramp ME
21.00' Lt. IAPA

64B

Guardrail Type 5

PC

Ex. Conc. Curb To Remain

Ex. 18"

+87ME Catch Basin
Adjusted To Grade
℄ 6" UD = 709.91'
Inv. 12" = 708.75'

307D

10'-6"F

Ex. 12"

33U

Ex. 12"

+77ME 4"x6" Transition
℄ 4" UD = 710.31'

27RB

31F

316ME

RAMP ME

Ex. 12"

Ex. 18"

Ex. 12"

Ex. 12"

Ex. 12"

Ex. 15"

9'-6"F

+22.4"+60° Wye *
℄ 4" UD = 708.61'

+13 4"x6" Tee
℄ 4" UD = 706.47'

11'-6"F

14'-6"F

+13 4"x6" Tee
℄ 4" UD = 706.18'

+13 4"x6" Tee
℄ 4" UD = 703.05'

9'-6"F

Ex. Conc. Curb To Remain

+56ME 4" Cap
℄ 4" UD = 715.15'

315+50.27 Ramp ME
25.00' Lt. IAPA

Ex. LA/RW

PT

Ex. 12"

+50ME Catch Basin
Adjusted To Grade
Inv. 12" = 712.69'

303D

32U

10'-6"F

+40ME 4"-45° Elbow *
℄ 4" UD = 715.79'

Ex. 15"

Ex. Conc. Curb To Remain

305D

±25 Catch Basin
Adjusted To Grade
Inv. 12" = 706.03'

314

Ex. Conc. Barrier

304D

Sta. 314+12 ℄ Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 707.97'
Prop. ℄ Inlet Elev. = 708.32'
Ex. Inv. 15" = 700.27'
℄ 6" UD N&S = 706.04'

Ex. 15"

6'-6"F

±12 Catch Basin
Adjusted To Grade
℄ 6" UD = 702.95'
Inv. 12" = 701.97'

306D

Ex. Conc. Curb To Remain

314+53.81
134.26' Rt. CPA

Ex. LA/RW

28U

29U

30U

31U

32F

15 RS

MATCH LINE Sta. 315+00ME

MATCH LINE Sta. 313+25

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'-6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) Remove 10 Feet of the Existing Curb, Replace it with New Type 6 Curb. Transition the New Curb from 0" to meet the top of the Existing Curb.

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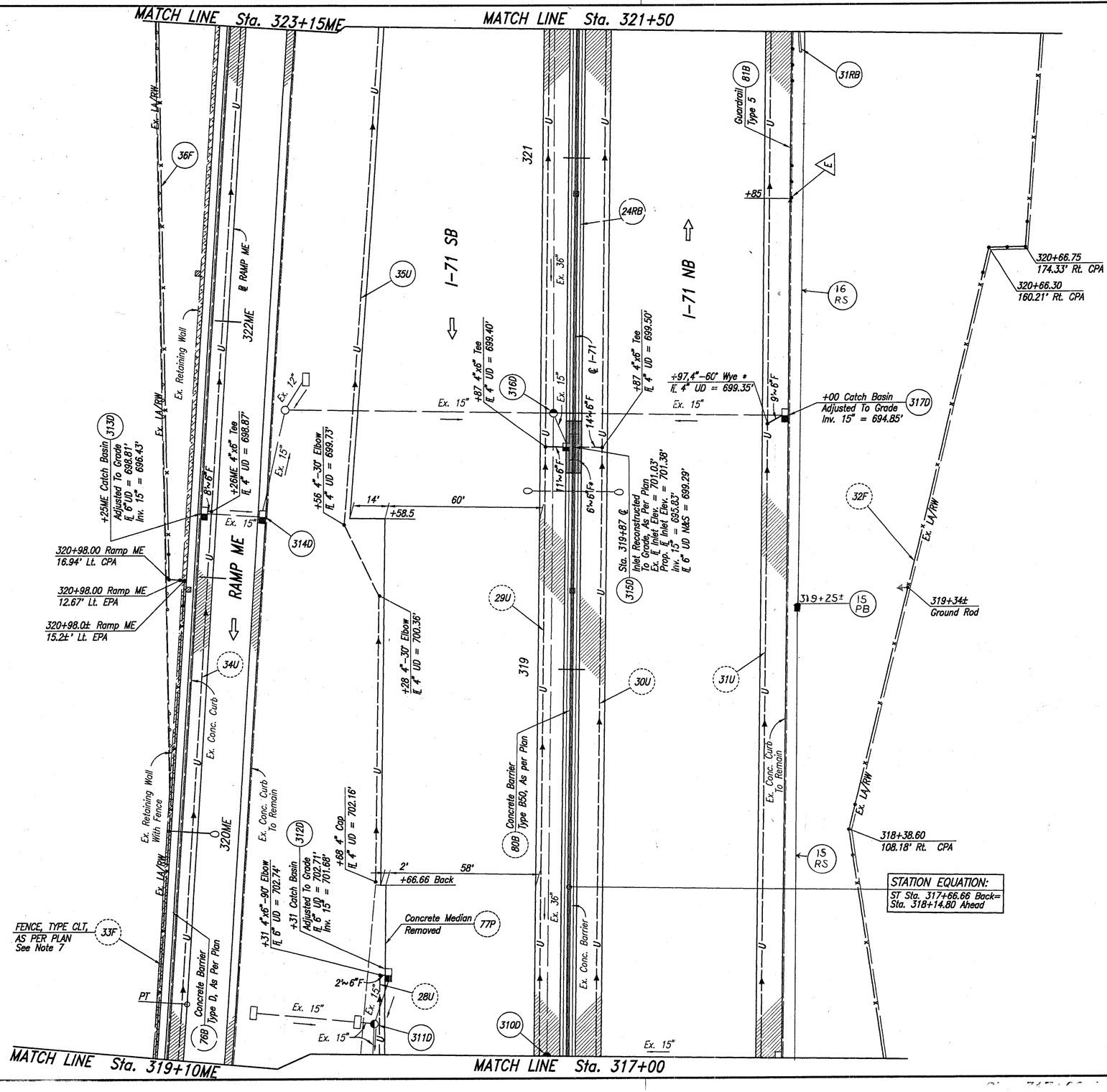
Sta. 313+25 to Sta. 317+00



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

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Sta 317+00 to 321+50

CALC. BY DLB DATE 10-11-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

200 / 615

BREWSTER AVENUE

MATCH LINE Sta. 323+15ME

MATCH LINE Sta. 321+50

MATCH LINE Sta. 329+65ME

MATCH LINE Sta. 328+00

WOODBURN AVENUE

⇐ RAMP ME

⇐ I-71 SB

I-71 NB ⇒

℄ I-71

℄ RAMP ME

+87ME Catch Basin 321D
Adjusted To Grade
℄ 6" UD = 696.12'
Ex. Inv. 15" = 694.81'

76B Concrete Barrier Type D, As Per Plan
323+17± Ramp ME
Ground Rod

+87ME Catch Basin 332D
Adjusted To Grade
℄ 6" UD = 696.21'
Inv. 15" = 693.42'

+25ME Catch Basin 325D
Adjusted To Grade
Ex. Inv. 15" = 691.63'

Concrete Barrier Type D 77B

Curb, Type 2-A, As Per Plan 49P

+87ME 4"x6" Tee
℄ 4" UD = 696.17'

1+19.75 Woodburn
50.31' Rt. EPA

+30ME,4"-60° Elbow *
+25ME,4"-60° Elbow *
Low Point
℄ 4" UD = 696.12'

0+97.44 Woodburn
34.50' Lt. EPA

Ex. Conc. Slope Protection

Guardrail Taper

Guardrail Type 5 78B

28RB

+83ME +97ME +22ME +47ME

326ME

+22ME

Ex. Conc. Curb

37F

+75ME Catch Basin 335D
Adjusted To Grade
℄ 6" UD = 698.71'
Inv. 15" = 697.42'

POC Sta. 328+37.58ME Ramp ME 16' Rt. =
PT Sta. 328+37.58MER Ramp MER

328ME

Guardrail Type 5 85B

+87ME 4"x6" Tee
℄ 4" UD = 696.26'

Guardrail Type 5A
See Detail Sheet No. 46. 84B

29RB

+84ME End GR 5 Begin GR 5A

+09ME

Guardrail Type 5 83B

+76ME 4"x6" Tee
℄ 4" UD = 698.76'

+25 80' Lt Ex. CB
℄ 6" UD = 696.64'
Inv. 15" = 692.70'

+25 4"-30° Elbow
4"x6" Tee
℄ 4" UD = 696.74'

+00 4"-30° Elbow
℄ 4" UD = 697.23'

+87 31' Lt Ex. CB
℄ 6" UD = 699.00'
Inv. 12" = 697.62'

+87 4"x6" Tee
℄ 4" UD = 699.10'

336D

+46.5ME End GR 5A Begin GR 5

30RB

36U

86B Guardrail Type 5

+75 90' Lt Ex. CB
℄ 6" UD = 696.53'
Inv. 15" = 693.47'

+29 90' Lt Ex. CB
℄ 6" UD = 696.64'
Inv. 15" = 693.21'

+52 4" Cap
℄ 4" UD = 696.79'

+62 Manhole 331D
Adjusted To Grade
℄ 6" UD = 696.92'
Inv. 15" SE = 691.98'
Inv. 15" SW = 695.58'
Inv. 30" = 687.48'

+72 4"x6" Reducer
℄ 4" UD = 697.03'

323D +50 Manhole
Adjusted To Grade
℄ 6" UD = 696.68'
Inv. 15" N&S = 686.92'
Inv. 15" SE&SW = 691.42'
Inv. 30" = 685.92'
Inv. 36" = 685.92'

+40 4"x6" Reducer
℄ 4" UD = 696.78'

+75 4"x6" Tee
Low Point
℄ 4" UD = 696.63'

+29 4"x6" Tee
℄ 4" UD = 696.74'

+56 4" Cap
℄ 4" UD = 696.63'

+80 4"x6" Tee
Low Point
℄ 4" UD = 696.25'

Bridge Pier Transition

Bridge Pier Transition

24RB

39U

334D

+12 4"x6" Tee
℄ 4" UD = 699.45'

+12 4"x6" Tee
℄ 4" UD = 699.51'

Sta. 326+12 ℄ 333D
Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 700.99'
Prop. ℄ Inlet Elev. = 701.34'
Ex. Inv. 15" = 695.79'
℄ 6" UD N&S = 699.34'

Ex. Conc. Barrier

40U

80B Concrete Barrier Type B50, As Per Plan

Sta. 323+75 ℄ 330D
Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 698.91'
Prop. ℄ Inlet Elev. = 699.26'
Ex. Inv. 15" = 694.81'
℄ 6" UD = 697.17'

+75 4"x6" Tee
℄ 4" UD = 697.31'

Sta. 322+37 ℄ 322D
Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 698.60'
Prop. ℄ Inlet Elev. = 698.95'
Ex. Inv. 15" = 694.60'
℄ 6" UD = 697.03'

+37 4"x6" Tee
℄ 4" UD = 697.17'

+80 4"x6" Tee
Low Point
℄ 4" UD = 696.68'

Sta. 322+80 ℄ 329D
Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 698.60'
Prop. ℄ Inlet Elev. = 698.95'
Ex. Inv. 15" = 693.20'
℄ 6" UD N&S = 696.14'

Ex. Electric Conduit (Suspended under Bridge)

Sta. 323+23.01 I-71 ℄ = Sta. 2+80.00 Woodburn Ave.

+80 4"x6" Tee
Low Point
℄ 4" UD = 696.78'

+19 4"x6" Tee
℄ 4" UD = 696.82'

41U

16 RS

+03 4"-60° Wye *
℄ 4" UD = 699.26'

+00 Catch Basin 337D
Adjusted To Grade
Inv. 15" = 694.76'

+46 4"-60° Wye *
+56 4"-60° Wye *
℄ 4" UD = 696.82'

81B Guardrail Type 5

+66.25
End GR 5
Begin GR 5A

+35

+19 Catch Basin 328D
Adjusted To Grade
℄ 6" UD = 696.73'
Inv. 15" = 695.28'

Guardrail Type 5A
See Detail Sheet No. 46. 82B

326D +50 Catch Basin
Adjusted To Grade
℄ 6" UD = 696.73'
Inv. 15" = 691.04'

+80 Catch Basin 327D
Adjusted To Grade
℄ 6" UD = 696.69'
Inv. 15" = 693.62'

Ex. Conc. Slope Protection

Bridge No. HAM-71-0500

4+63.00 Woodburn
30.17' Rt. EPA

4+72.7± Woodburn
40.5±' Rt. EPA

4+85.47 Woodburn
56.35' Rt. CPA

4+45.00 Woodburn
30.17' Lt. EPA

4+51.75 Woodburn
31.52' Lt. CPA

324+00.71
174.12' Rt. CPA

324+93.81
171.27' Rt. CPA

325+18.11
180.53' Rt. CPA

324+00.00
179.91' Rt. CPA

38F

32F

321+69± Ground Rod

℄ Gate
4+68.3± Woodburn

Ex. LA/RW

Ex. Steel Casing

Ex. Casing 24"W

Ex. 36" Ex. 30" Ex. 15"

4"UNC

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 48.9A, 48.9B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.
8) For Work on Bridge HAM-71-0500 (WOODBURN AVENUE), See Sheet 540.

For Continuation of WOODBURN AVENUE See Sheet 244

C:\18007\PLANSHT\458\321-328.DWG - FEB 20, 1995 - 11:54:33

Sta 321+50 to Sta 328+00

CALC. BY DB DATE 12-17-14
CHKD. BY PWC DATE 12-8-14

HAM-71-2.92

OHIO FHWA REGION 5

201/615

BREWSTER AVENUE

MATCH LINE Sta. 329+65ME

MATCH LINE Sta. 335+95ME SEE SHEET 245

MATCH LINE Sta. 328+00

MATCH LINE Sta. 334+25

Ex. LA/RW

37F

+12ME Catch Basin 340D
Adjusted To Grade
Inv. 15" = 700.05'

330ME

5'-6"F

PT

332ME

U

+11ME,4"-60° Wye *
℄ 4" UD = 704.35'

330MER

42U

+64ME Catch Basin 344D
Adjusted To Grade
℄ 6" UD = 714.42'
Inv. 15" = 711.13'

5'-6"F

+65ME 4"x6" Tee
℄ 4" UD = 714.47'

Ex. 15"

345D

Ex. Conc. Curb To Remain

334ME

RAMP ME

5'-6"F

+11ME 4"x6" Tee
℄ 4" UD = 724.00'

℄ Gate
335+34.5± Ramp ME
25.2± Lt. EPA

335+41.5± Ramp ME
335+48.45 Ramp ME
24.55' Lt. EPA

335+47.95 Ramp ME
14.00' Lt. CPA

+12ME Catch Basin 349D
Adjusted To Grade
℄ 6" UD = 723.95'
Inv. 15" = 719.30'

85B Guardrail Type 5

334MER

RAMP MER

32RB

+50 83' Lt Ex. CB
Inv. 15" = 698.62'

9'-6"F

+54,4"-60° Wye *
℄ 4" UD = 701.77'

36U

+12 83' Lt Ex. CB
℄ 6" UD = 704.29'
Inv. 12" = 702.87'

Ex. 12"

+12 4"x6" Tee
℄ 4" UD = 704.38'

+37 83' Lt Ex. CB
℄ 6" UD = 706.54'
Inv. 12" = 705.12'

+37 4"x6" Tee
℄ 4" UD = 706.63'

Ex. Conc. Curb To Remain

10'

60'

I-71 SB

339D

+62 4"x6" Tee
℄ 4" UD = 701.88'

11'-6"F

14'-6"F

6'-6"F*

Ex. 30"

Ex. 27"

39U

80B Concrete Barrier Type B50, As per Plan
330

Ex. Conc. Barrier

40U

+62 4"x6" Tee
℄ 4" UD = 701.95'

Sta. 328+62 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 703.39'
Prop. ℄ Inlet Elev. = 703.74'
Ex. Inv. 15" = 697.59'
℄ 6" UD N&S = 701.77'

338D

343D

+12 4"x6" Tee
℄ 4" UD = 704.29'

+12 4"x6" Tee
℄ 4" UD = 704.29'

Sta. 331+12 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 705.86'
Prop. ℄ Inlet Elev. = 706.21
Ex. Inv. 15" = 700.66'
℄ 6" UD N&S = 704.15'

342D

24RB

332

Sign Support Transition

Ex. 24"

℄ I-71

348D

+62 4"x6" Tee
℄ 4" UD = 706.77'

Ex. 21"

PC

+00

334

+62 4"x6" Tee
℄ 4" UD = 706.86'

347D

Sta. 333+62 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 708.30'
Prop. ℄ Inlet Elev. = 708.65'
Ex. Inv. 15" = 707.80'
℄ 6" UD N&S = 706.66'

341D +50 Catch Basin
Adjusted To Grade
Inv. 15" = 697.26'

+54,4"-60° Wye *
℄ 4" UD = 701.77'

328+75±

16 PB

41U

346D +00 Catch Basin
Adjusted To Grade
Inv. 15" = 699.76'

+05,4"-60° Wye *
℄ 4" UD = 704.27'

I-71 NB

+50

87B Guardrail Type 5

350D +50 Catch Basin
Adjusted To Grade
Inv. 15" = 702.26'

+54,4"-60° Wye *
℄ 4" UD = 706.77'

18 RS

16 RS

17 RS

E

8RB

+81.25
End GR 5
Begin GR 5A

88B Guardrail Type 5A

+93.75
End GR 5A
Begin GR 5

+12.5

T

Guardrail Type 5 89B

17 PB

333+70±

PC Sta. 334+22.44 ℄ 73' Rt. =
POT Sta. 334+22.44MF Ramp MF

38F

330+25.67
164.97' Rt. CPA

330+25.86
171.14' Rt. CPA

7+77.68 Montgomery
44.17' Rt. EPA

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 259-285, 489B, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'-6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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Sta 328+00 to Sta 334+25

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

202/615

For Continuation of MONTGOMERY ROAD, BREWSTER AVENUE, and RAMPS ME & MER See Sheet 245

337+50.00 Ramp ME EPA 8.00' Lt.

337+00.00 Ramp ME CPA 9.23' Lt.

37F

Ex. LA/RW

RAMP ME

RAMP MER

MONTGOMERY ROAD

BREWSTER AVENUE

Ex. 12"

Ex. 15"

Ex. 18"

3"G

PS

SP

Ex. 42"

4+11.28 Montgomery EPA 43.48' Lt.

338+16.17 IAPA 108.72' Lt.

340+23.93 IAPA 114.36' Lt.

360D +12 Catch Basin Adjusted To Grade fl 6" UD = 708.48' Inv. 15" = 706.81'

Ex. Conc. Slope Protection

+12 4"x6" Tee fl 4" UD = 708.57'

Ex. Conc. Curb To Remain

+94 4" Cap fl 4" UD = 709.13'

+00 Manhole 361D Adjusted To Grade fl 6" UD = 709.21' Inv. 15" = 701.84' Inv. 15" = 704.19'

+10 4"x6" Reducer fl 4" UD = 709.55'

Bridge Pier Transition

359D

39U

HAM-71-0522

Ex. Telephone Conduit (Suspended under Bridge)

36U

+18 4" Cap fl 4" UD = 711.63'

+26 4" Cap fl 4" UD = 711.71'

44U

39F

+12 Catch Basin 367D Adjusted To Grade fl 6" UD = 712.48' Inv. 12" = 711.06'

9'w 6"F

+12 4"x6" Tee Low Point fl 4" UD = 712.57'

48U

I-71 SB

+82 4"x6" Tee fl 4" UD = 709.94'

43U

Concrete Barrier Type B50, As per Plan 80B

+17 4" Cap fl 4" UD = 711.43'

+25 4" Cap fl 4" UD = 711.52'

24RB

45U

+13 4"x6" Tee Low Point fl 4" UD = 712.42'

49U

11'w 6"F

14'w 6"F

6'w 6"F*

℄ I-71

Sta. 336+82 ℄ 363D Inlet Reconstructed To Grade, As Per Plan Ex. fl Inlet Elev. = 711.40' Prop. fl Inlet Elev. = 711.75' Ex. Inv. 15" = 707.40' fl 6" UD N&S = 709.83'

40U

+82 4"x6" Tee fl 4" UD = 710.10'

+16 4" Cap fl 4" UD = 711.42'

+24 4" Cap fl 4" UD = 711.51'

46U

+11 4"x6" Tee Low Point fl 4" UD = 712.33'

Sta. 339+12 ℄ 366D Inlet Reconstructed To Grade, As Per Plan Ex. fl Inlet Elev. = 713.93' Prop. fl Inlet Elev. = 714.28' Ex. Inv. 15" = 707.93' fl 6" UD N&S = 712.19'

50U

+43 4" Cap fl 4" UD = 711.87'

47U

+07.4"+60° Elbow * Low Point fl 4" UD = 712.56'

+16.4"-60° Elbow * Low Point fl 4" UD = 712.56'

51U

I-71 NB

365D

Concrete Median Removed, As Per Plan 4P

338+00± 19 PB Ex. Conc. Curb To Remain

Transition New Curb Height From 4" to 6" To Meet Ex. Within 10'.

+12 Catch Basin 368D Adjusted To Grade fl 6" UD = 712.47' Inv. 15" = 709.70'

20 RS

336MF

+05MF 4"-60° Wye * fl 4" UD = 708.85'

41U

℄ RAMP MF

+36MF 4"x6" Tee fl 4" UD = 709.36'

338MF

19 RS

18 RS

+00MF Catch Basin 362D Adjusted To Grade Inv. 15" = 702.98'

364D +37MF Catch Basin Adjusted To Grade Inv. 15" = 704.55'

RAMP MF

Ex. Conc. To Remain

Ex. Conc. Median

Ex. Conc. Barrier

Ex. Conc. Slope Protection

Ex. Electric Conduit (Suspended under Bridge)

Bridge No. 6

PC +61.28MF

+41.97MF

CS +77.95MF

+80MF Begin Transition

338+00± 18 PB

+50MF End Transition

40F

Ex. PB

7+23.13 Montgomery EPA 43.17' Lt.

338+18.40 148.27' Rt. CPA

338+81.41 166.37' Rt. CPA

MATCH LINE Sta. 334+25

MATCH LINE Sta. 339+00 SEE SHEET 246

MATCH LINE Sta. 340+75

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 48.9A, 48.9B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'w 6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) For Work on Bridge HAM-71-0522 (MONTGOMERY ROAD), See Sheet 544.

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Sta 334+25 to Sta 340+75

CALC BY DLB DATE 10-17-94
CHKD BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

203 615

MATCH LINE Sta. 340+75

MATCH LINE Sta. 347+00

342+71.24 IAPA
114.99' Lt.

345+64.97 IAPA
125.28' Lt.

Ex. LA/RW

39F

+37 Catch Basin
Adjusted To Grade
℄ 6" UD = 713.50'
Inv. 15" = 712.09'
3730

+87 Catch Basin
Adjusted To Grade
℄ 6" UD = 709.01'
Inv. 15" = 707.59'
378D

Ex. Conc. Curb To Remain

9'w6"F

Ex. 15"

Ex 15"

+37 4"x6" Tee
℄ 4" UD = 713.59'

+87 4"x6" Tee
℄ 4" UD = 709.10'

48U

52U

372D

377D

⇦ I-71 SB

+32, High Poin
℄ 4" UD = 714.86'

80B Concrete Barrier Type B50, As Per Plan

49U

53U

PT

342

344

+51 4"x6" Tee
℄ 4" UD = 713.15'

+43 4"x6" Tee
℄ 4" UD = 709.86'

Bridge Pier Transition

376D

24RB

346

+70

6'w6"Fs

11'w6"F

14'w6"F

Ex. Conc. Barrier

℄ I-71

50U

54U

+32, High Point
℄ 4" UD = 714.86'

371D Sta. 344+50 ℄
Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 714.77'
Prop. ℄ Inlet Elev. = 715.12'
Ex. Inv. 15" = 708.27'
℄ 6" UD N&S = 713.04'

+51 4"x6" Tee
℄ 4" UD = 713.24'

375D Sta. 346+43 ℄
Inlet Reconstructed To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 711.37'
Prop. ℄ Inlet Elev. = 711.72'
Ex. Inv. 15" = 705.77'
℄ 6" UD N&S = 709.67'

+43 4"x6" Tee
℄ 4" UD = 709.81'

I-71 NB ⇨

51U

55U

+32, High Point
℄ 4" UD = 714.97'

+47,4"-60° Wye *
℄ 4" UD = 713.40'

20 PB 346+75±

+95,4"-60° Wye *
℄ 4" UD = 708.83'

Ex. Conc. Curb To Remain

9'w6"F

+50 Catch Basin
Adjusted To Grade
Inv. 15" = 711.91'
374D

379D +00 Catch Basin
Adjusted To Grade
℄ 6" UD = 708.74'
Inv. 15" = 707.34'

20 RS

21 RS

44F

342+73.6± CPA
120.2±' Rt.

343+56.8± EPA
122.4±' Rt.

343+57.49 EPA
120.19' Rt.

344+29.32 CPA
120.58' Rt.

344+29.31 CPA
123.94' Rt.

45F

345+65.60 CPA
124.73' Rt.

345+65.57 CPA
131.03' Rt.

Ex. Retaining Wall With Fence

Ex. LA/RW

43F

340+93.96 CPA
130.45' Rt.

342+73.5± EPA
128.9±' Rt.

342+73.5± EPA
130.33' Rt.

Ex. Guardrail To Remain

340+62.62 Ramp MF CPA
92.69' Lt.

HUDSON AVENUE

3°C

Ex. LA/RW

For Continuation of Fencing, See Sheet 246.

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'w6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

Sta 340+75 to Sta 347+00

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CALC. BY DCB DATE 12-7-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

204 / 615

MATCH LINE Sta. 347+00

MATCH LINE Sta. 353+50

+90.72 Trimble
Begin Pvmt. Work
Begin Feathering

22' 22'

4+23.37 Trimble EPA
30.00' Rt.

39F

4+25.99 Trimble EPA
30.00' Lt.

Ex. LA/RW

+28.22 Trimble
Begin Approach Slab
End Feathering

Ex. Conc. Slope Protection

+53.22 Trimble
End Approach Slab

Ex. Electric Conduit (Suspended under Bridge)

AVENUE HAM-71-0546

TRIMBLE Bridge No. 6

Bridge Pier Transition

Sta.347+40.34 I-71 =
Sta. 5+47.64 Trimble Ave.

Ex. Retaining Wall

Ex. 6" Water

BEVIS AVENUE

4°6

Ex. Guardrail To Remain

46F

350+38.51 CPA
120.26' Lt.

350+54.48 CPA
114.19' Lt.

351+24±
Ground Rod

351+27.34 CPA
119.85' Lt.

351+27.31 CPA
113.81' Lt.

352+54.03 CPA
117.93' Lt.

+37 Catch Basin 382D
Adjusted To Grade
If 6" UD = 704.00'
Inv. 15" = 702.58'

Ex. Conc. Curb To Remain

Ex. 18"

9'~6"F

Ex. 15"

+37 4"x6" Tee
If 4" UD = 704.09'

381D

+51 4"x6" Tee
If 4" UD = 703.95'

Ex. 21"

52U

+87 Catch Basin 386D
Adjusted To Grade
If 6" UD = 698.20'
Inv. 15" = 696.78'

+87 4"x6" Tee
If 4" UD = 698.29'

385D

384D Sta. 352+00 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. If Inlet Elev. = 700.64'
Prop. If Inlet Elev. = 700.99'
Ex. Inv. 15" = 694.24'
If 6" UD N&S = 698.82'

+01 4"x6" Tee
If 4" UD = 698.96'

14'~6"F

11'~6"F

6'~6"F*

+01 4"x6" Tee
If 4" UD = 699.04'

⇦ I-71 SB

348 350 352

24RB 53U

℄ I-71

Concrete Barrier
Type B50, As per Plan 80B

54U

380D Sta. 349+50 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. If Inlet Elev. = 705.46'
Prop. If Inlet Elev. = 705.81'
Ex. Inv. 15" = 698.86'
If 6" UD N&S = 703.81'

+51 4"x6" Tee
If 4" UD = 703.95'

I-71 NB ⇨

Ex. 24" Water

+46,4"+60° Wye *
If 4" UD = 704.37'

55U

+97,4"+60° Wye *
If 4" UD = 700.54'

9'~6"F

Ex. Conc. Curb To Remain

+50 Catch Basin 383D
Adjusted To Grade
Inv. 15" = 699.88'

+00 Catch Basin 387D
Adjusted To Grade
Inv. 15" = 696.14'

21 RS

+42.06 Trimble
Begin Approach Slab

+67.06 Trimble
End Approach Slab
Begin Feathering

6+65.81 Trimble EPA
30.00' Lt.

6+70.59 Trimble CPA
30.00' Lt.

+04.56 Trimble
End Feathering
End Pvmt. Work

45F

Ex. Conc. Slope Protection

Ex. Telephone Conduit (Suspended under Bridge)

6+65.81 Trimble EPA
30.00' Rt.

6+79.67 Trimble CPA
30.00' Rt.

22' 22'

4°6

349+15.73 CPA
123.77' Rt.

349+15.68 CPA
133.27' Rt.

47F

350+53.12 CPA
112.89' Rt.

350+53.01 CPA
133.91' Rt.

351+26.12 CPA
113.27' Rt.

351+29±
Ground Rod

351+26.04 CPA
128.20' Rt.

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0546 (TRIMBLE AVENUE), See Sheet 548.

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Sta 347+00 to Sta. 353+50

CALC. BY DLD DATE 10-17-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

205/615

WABASH AVENUE

EVANSTON AVENUE

℄ Gate
354+58.6±

354+59.52 EPA
139.71' Lt.

Ex. Guardrail To Remain

Ex. LA/RW

353+82.69 CPA
126.74' Lt.

354+58.0± EPA
125.7±' Lt.

354+57.86 CPA
121.18' Lt.

46F

357+34.63 IAPA
104.87' Lt.

357+56.03 AC
104.99' Lt.

Ex. 12"

℄

358+17.50 CPA
128.00' Lt.

358+14.15 CPA
112.74' Lt.

357+79.58 CPA
103.43' Lt.

357+67.97 AC
104.98' Lt.

50F

359+23.26 IAPA
103.17' Lt.

399D +37 Catch Basin
Adjusted To Grade
fl 6" UD = 682.58'
Inv. 15" = 681.11'

398D

Ex. 15"

9'~6"F

+37 4"x6" Tee
fl 4" UD = 682.67'

Ex. 27"

U

Ex. Conc. Curb To Remain

Ex. 24"

Ex. 21"

390D +37 Catch Basin
Adjusted To Grade
fl 6" UD = 692.29'
Inv. 15" = 690.86'

389D

+37 4"x6" Tee
fl 4" UD = 692.38'

53U

+54 4" x 6" 90° Elbow
fl 4" UD = 693.97'

SC

⇦ I-71 SB

52U

395D +87 Catch Basin
Adjusted To Grade
fl 6" UD = 687.57'
Inv. 15" = 685.86'

+87 4"x6" Tee
fl 4" UD = 687.66'

394D

℄ I-71

℄ E. EVANSTON AVENUE

Bridge No. HAM-71-0566

24RB

393D

Ex. 15"

MATCH LINE Sta. 353+50

MATCH LINE Sta. 359+50

354

356

358

80B Concrete Barrier Type B50, As per Plan

Ex. Conc. Barrier

1'~6"F*

14'~6"F

11'~6"F

6'~6"F*

388D Sta. 354+50 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. fl Inlet Elev. = 695.88'
Prop. fl Inlet Elev. = 696.23'
Ex. Inv. 15" = 690.08'
fl 6" UD N&S = 693.83'

+51 4"x6" Tee
fl 4" UD = 694.32'

54U

392D Sta. 356+87 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. fl Inlet Elev. = 691.38'
Prop. fl Inlet Elev. = 691.73'
Ex. Inv. 15" = 686.88'
fl 6" UD S = 689.22'

+87 4"x6" Tee
fl 4" UD = 689.82'

I-71 NB ⇨

Sta. 357+62 I-71 ℄
= Sta. 5+00 Ped. Bridge

PEDESTRAIN BRIDGE

397D Sta. 359+50 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. fl Inlet Elev. = 686.44'
Prop. fl Inlet Elev. = 686.79'
Ex. Inv. 15" = 680.14'
fl 6" UD S = 684.24'

+46.4"-60° Wye *
fl 4" UD = 687.39'

391D +50 Catch Basin
Adjusted To Grade
Inv. 15" = 692.40'

+47.4"-60° Wye *
fl 4" UD = 696.76'

55U

+98.4"-60° Wye *
fl 4" UD = 692.14'

400D +50 Catch Basin
Adjusted To Grade
Inv. 15" = 682.99'

+00 Catch Basin
Adjusted To Grade
Inv. 15" = 687.86'

396D

357+93.21 IAPA
91.18' Rt.

358+75.98 IAPA
91.00' Rt.

Ex. LA/RW

Ex. 12"

356+81.28 EPA
93.51' Rt.

Fence Passes Under the Bridge

Ex. Guardrail To Remain

357+72.42 IAPA
91.02' Rt.

357+51.57 IAPA
91.02' Rt.

21 RS

21 PB

355+50±

22 RS

353+65.31 CPA
135.56' Rt.

353+66.51 CPA
115.52' Rt.

354+60.27 CPA
122.74' Rt.

47F

356+07.15 CPA
109.25' Rt.

356+79.1± EPA
107.3±' Rt.

356+77.16 CPA
120.03' Rt.

℄ Gate
356+80.2±

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) For Work on Bridge HAM-71-0566 (PEDESTRAIN BRIDGE), See Sheet 552.

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Sta. 353+50 to Sta 359+50

CALC. BY DLB DATE 10-11-94
CHKD. BY RW P DATE 12-13-94

HAM-71-2.92

OHIO
FHWA REGION 5

206
615

MATCH LINE Sta. 359+50

+54 4"-30° Elbow
lt. 4" UD = 682.35'

+58 4"-30° Elbow
lt. 4" UD = 682.27'

Ex. 12"
Ex. LA/RW
Ex. 27"
Ex. 15"
48'
±58.89
2"
18"
±36.89
50'
±35.5

360+99.34 CPA
118.59' Lt.

360+45.67 CPA
80.64' Lt.

362+00.64 CPA
122.01' Lt.

363+97.79 IAPA
138.00' Lt.

365+13.24 IAPA
135.46' Lt.

Ex. 30"

52U
50F
33RB
90B Guardrail Type 5

360
I-71 SB
362
364
I-71 NB

402D +87 Catch Basin
Adjusted To Grade
lt. 6" UD = 677.85'
Inv. 15" = 676.19'

+87 4"x6" Tee
lt. 4" UD = 677.92'

401D Sta. 362+00 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. lt. Inlet Elev. = 681.65'
Prop. lt. Inlet Elev. = 682.00'
Ex. Inv. 15" = 675.15'
lt. 6" UD S = 679.38'

7"x6"F
11"x6"F
6"x6"F*

+51 4"x6 Tee
lt. 4" UD = 684.84'

54U Ex. Conc. Barrier

80B Concrete Barrier
Type B50, As per Plan

℄ I-71

405D +87 Catch Basin
Adjusted To Grade
lt. 6" UD = 672.15'
Inv. 15" = 670.13'

+87 4"x6" Tee
lt. 4" UD = 672.22'

404D Sta. 365+00 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. lt. Inlet Elev. = 675.85'
Prop. lt. Inlet Elev. = 676.20'
Ex. Inv. 15" = 671.65'
lt. 6" UD S = 673.68'

24RB

Ex. Conc. Curb To Remain

55U

+01 4"x6" Tee
lt. 4" UD = 679.92'

+01 4"x6" Tee
lt. 4" UD = 674.33'

+96.4"-60° Wye *
lt. 4" UD = 682.64'

9"x6"F

+00 Catch Basin
Adjusted To Grade
Inv. 15" = 678.24'
4030

2.2 RS
47F

362+95.89 CPA
91.00' Rt.

2.2 PB
364+25±

2.3 RS

363+27.3± CPA
140.6±' Rt.

MATCH LINE Sta. 365+50

DUCK CREEK ROAD

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"x6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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Sta. 359+50 to Sta. 365+50

CALC. BY DB DATE 10-17-94
CHKD. BY PWP DATE 12-13-94

HAM-71-2.92

OHIO FHWA REGION 5

207/615

Ex. 30" Ex. LA/RW
365+66.21 CPA 137.59' Lt.
366+57.58 CPA 152.66' Lt.
Ex. 36" Ex. LA/RW
368+49.96 IAPA 156.00' Lt.
369+47.76 CPA 148.76' Lt.
Ex. 102"
371+38.37 Ramp DB CPA 36.04' Lt.
371+26.7± Ramp DB EPA 45.6±' Lt.
371+15.49 Ramp DB EPA 54.52' Lt.
Ex. LA/RW
℄ Gate 371+21.1± Ramp DB
POC Sta. 369+58.89 86' Lt. = PCC Sta. 369+58.89DB Ramp DB
50F
Ex. 12"
Ex. 15"
33RB
410D +50 Catch Basin Adjusted To Grade If 6" UD = 663.34' Inv. 15" = 655.19'
412D +42DB Catch Basin Adjusted To Grade Inv. 15" = 655.52'
5w6"F
+60
6'
14'
U
℄ RAMP DB
+41DB 4"-60° Wye * If 4" UD = 658.39'
370DB ⇦ RAMP DB
Ex. Conc. Curb
411D
Ex. 15"
8'
1'
10'
48"
+48 4"-60° Wye * If 4" UD = 663.41'
Ex. 12"
Ex. Conc. Curb To Remain
7w6"F
90B Guardrail Type 5
407D +80 Catch Basin Adjusted To Grade If 6" UD = 668.48' Inv. 15" = 666.24'
+80 4"x6" Tee If 4" UD = 668.55'
52U
⇦ I-71 SB
Ex. 96"
Sta. 367+00 ℄ 406D Inlet Reconstructed To Grade, As Per Plan Ex. If Inlet Elev. = 672.00' Prop. If Inlet Elev. = 672.35' Ex. Inv. 15" = 665.30' If 6" UD S = 669.82'
409D Sta. 369+50 ℄ Inlet Reconstructed To Grade, As Per Plan Ex. If Inlet Elev. = 667.19' Prop. If Inlet Elev. = 667.54' Ex. Inv. 15" = 664.59' If 6" UD S = 665.08'
Curb Removed, As Per Plan 5P
366
368
370
24RB
80B Concrete Barrier Type B50, As Per Plan
℄ I-71
6'w6"F*
11'w6"F
54U
+00 4"x6" Tee If 4" UD = 670.50'
+51 4"x6" Tee If 4" UD = 665.75'
MATCH LINE Sta. 365+50
MATCH LINE Sta. 371+50
CS
+95 4"-60° Wye If 4" UD = 673.14'
97B Guardrail Type 5
55U
I-71 NB ⇨
+00 Catch Basin Adjusted To Grade Inv. 15" = 668.74'
408D
Guardrail Type 5A 98B
+51
+76
9'-6"F
Ex. Conc. Curb To Remain
E
T
23 RS
110RB
+44.75 End GR 5 Begin GR 5A
+57.25 End GR 5A Begin GR 5
Guardrail Type 5 99B
47F
Ex. LA/RW
367+63.9± CPA 91.9±' Rt.
367+64.0± CPA 98.1±' Rt.
367+69.7± CPA 91.8±' Rt.
367+69.8± CPA 97.7±' Rt.
369+98.9± IAPA 104.0±' Rt.
DUCK CREEK ROAD

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'w6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta 365+50 to Sta. 371+50

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CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 12-12-94

HAM-71-2.92

OHIO FHWA REGION 5

208/615

SEE SHEET 247
MATCH LINE
SC Sta. 384+00DB

SEE SHEET 247
MATCH LINE Sta. 9+25 DANA AVENUE

SEE SHEET 249
MATCH LINE
Sta. 377+75DB

MATCH LINE Sta. 371+50

MATCH LINE Sta. 378+00

MATCH LINE Sta. 12+25 DANA AVENUE
SEE SHEET 248

19P Concrete Median Removed

110B Guardrail Type 5

109B Guardrail Type 5

36RB

373+12.89 Ramp DB CPA
57.67' Lt.

373+23.88 Ramp DB CPA
70.26' Lt.

+42.56 Dana
Begin Transition

℄ Ramp DB

15:1

+29DB End Taper

Ex. 108"

+54DB

+50 Dana

Conc. Median Removed 19P

Ex. 12"

Ex. 102"

372+73± Ramp DB
Ground Rod

372+48.25 Ramp DB IAPA
44.79' Lt.

Ex. LA/RW

Ex. 15"

Ex. 12"

435D +27DB Catch Basin
Adjusted To Grade
Inv. 15" = 652.98'

50F

372+04.77 Ramp DB CPA
33.16' Lt.

33RB

Guardrail Type 5 90B

+32DB
Begin Transition

+94.50B
End Transition

+55.06 Dana
Begin Approach Slab

+80.06 Dana
End Approach Slab
End Transition

Ex. Conc. Slope Protection

Combination Curb and Gutter, Type 2, As Per Plan 52P

Ex. 24"

+25DB Catch Basin
Adjusted To Grade
Inv. 15" = 648.06' 441D

PC +89.78DB

PCC +62.42DB

376DB

Ex. Conc. Curb To Remain

PT +56.99DB

5'w6"F

+23DB

107B Concrete Barrier Type D

374DB

35RB

+50DB

+23DB,4"-60° Wye *
℄ 4" UD = 652.54'

Guardrail Type 5 108B

RAMP DB ⇦

+26DB,4"-60° Wye *
℄ 4" UD = 655.82'

434D

372DB

52U

Ex. Conc. Median To Remain

+25DB

Ex. Conc. Curb To Remain

Guardrail Type 5 102B

56U

Ex. Conc. Curb

Curb Removed, As Per Plan 5P

+19DB

+13.5

+37 4" Cap
℄ 4" UD = 652.69'

440D

POT Sta. 10+64.87 38' Lt
= PT Sta. 385+44.59DB

51P Combination Curb and Gutter, Type 2, As Per Plan

34RB

DANA AVENUE

Bridge No. HAM-71-0598

38'

+63 4" Cap
℄ 4" UD = 661.26'

Sta. 371+62 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 663.09'
Prop. ℄ Inlet Elev. = 663.44'
Ex. Inv. 15" = 656.29'
℄ 6" UD SE = 661.12'

431D

⇦ I-71 SB

+77 4"x6" Tee
℄ 4" UD = 657.52'

436D

Bridge Pier Transition

437D

439D

+37 4"x6" Tee
℄ 4" UD = 652.69'

Ex. 15"

11'w6"F

14'w6"F

176U

24RB

372

374

376

Ex. Conc. Barrier

℄ I-71

6'w6"F*

+11

+51

+89

+69

80B Concrete Barrier Type B50, As per Plan

Sta. 376+37 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 654.30'
Prop. ℄ Inlet Elev. = 654.65'
Ex. Inv. 15" = 649.10'
℄ 6" UD SE&NW = 652.58'

438D

+63 4"x6" Tee
℄ 4" UD = 661.60'

54U

433D Sta.373+77 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 659.20'
Prop. ℄ Inlet Elev. = 659.55'
Ex. Inv. 15" = 654.10'
℄ 6" UD SE&NW = 657.38'

+77 4"x6" Tee
℄ 4" UD = 657.74'

Bridge Pier Transition

I-71 NB ⇨

Ex. Electric Conduit (Suspended under Bridge)

Ex. Conc. Median

HAM-71-0598

AVENUE

Combination Curb and Gutter, Type 2, As Per Plan 53P

+37 4"x6" Tee
℄ 4" UD = 653.38'

+37 4"x6" Tee
℄ 4" UD = 652.75'

+58,4"60° Wye *
℄ 4" UD = 664.22'

55U

9'w6"F

101B Concrete Barrier Type D

Guardrail Type 5 100B

+33

+66

12

+37 Catch Basin
Adjusted To Grade
℄ 6" UD = 653.29'
Inv. 12" = 651.89'

442D

24 RS

+62 Catch Basin
Adjusted To Grade
Inv. 15" = 659.74'

432D

23 RS

373+00± 23 PB

37RB

Guardrail Taper

80±

+58

Combination Curb and Gutter, Type 2, As Per Plan 50P

Ex. 18" San.

372+52.6± IAPA
126.1±' Rt.

47F

372+48± Ground Rod

Ex. LA/RW

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 48.9A, 48.9B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'w6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0598 (DANA AVENUE), See Sheet 554.

Sta 371+50 to Sta 378+00

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MATCH LINE Sta. 378+00

MATCH LINE Sta. 384+50

SEE SHEET 249 MATCH LINE Sta. 382+00DE

MATCH LINE Sta. 384+25DE

MATCH LINE Sta. 380+50DC SEE SHEET 250

51F Continuation of Fence Not Shown
383+76.22 Ramp DE, CPA, 82.60' Lt.
383+40.63 Ramp DE, CPA, 63.60' Lt.
380+67.32 Ramp DE, CPA, 31.49' Lt.

383+83.16 Ramp DE CPA 23.47' Lt.

384+13.92 Ramp DE IAPA 30.33' Lt.

113B Guardrail Type 5

38RB

65U

@ RAMP DE

RAMP DE

Ex. Conc. Curb To Remain

384DE

Ex. 108"

Ex. 21"

Ex. 12"

Ex. 18"

Ex. LA/RW

City Of Norwood
City Of Cincinnati

103B Concrete Barrier Type D

466D +25 Catch Basin
Adjusted To Grade
ft 6" UD = 648.27'
Inv. 15" = 646.86'

54P Comb. Curb and Gutter, Type 2, As Per Plan

+48
End Concrete Barrier Type D
Begin Concrete Barrier Type D, As Per Plan

+06
End Concrete Barrier Type D, As Per Plan
Begin Concrete Barrier Type D

Concrete Barrier Type D 105B

Comb. Curb and Gutter, Type 2, As Per Plan 55P

39RB

463D +75 Catch Basin
Adjusted To Grade
ft 6" UD = 648.17'
Inv. 15" = 645.25'

462D +12 Catch Basin
Adjusted To Grade
ft 6" UD = 648.37'
Inv. 15" = 646.96'

102B Guardrail Type 5

+12 4"x6" Tee
ft 4" UD = 648.46'

+75 4"x6" Tee
Low Point
ft 4" UD = 648.26'

+25 4"x6" Tee
ft 4" UD = 648.36'

Concrete Barrier Type D, As per Plan 104B

Guardrail Taper

106B Guardrail Type 5

475D

56U

57U +87 Manhole
Adjusted To Grade
ft 6" UD NE&SW = 647.55'
Inv. 15" E&NE = 642.14'
Inv. 15" SW = 642.24'
Inv. 18" = 639.64'
Inv. 21" = 639.64'

467D +90 4" Cap
ft 4" UD = 648.91'

+75 4"x6" Tee
ft 4" UD = 647.69'

⇦ I-71 SB

Bridge No. 3

Bridge Pier Transition

382

58U

24RB

476D +25 4"x6" Tee
ft 4" UD = 650.08'

384

+37 4"x6" Tee
ft 4" UD = 648.04'

+77 4"x6" Reducer
ft 4" UD = 647.85'

10"w6"F

380

+97 4"x6" Reducer
ft 4" UD = 647.67'

11"w6"F

6"w6"F*

14"w6"F

Ex. Conc. Barrier

176U

54U

461D Sta. 379+37 ℄
Inlet Reconstructed To Grade, As Per Plan
Ex. ft Inlet Elev. = 649.53'
Prop. ft Inlet Elev. = 649.88'
Ex. Inv. 15" = **FILLED**
ft 6" UD SE&NW = 647.93'

465D Sta. 380+00 ℄
Inlet Reconstructed To Grade, As Per Plan
Ex. ft Inlet Elev. = 649.29'
Prop. ft Inlet Elev. = 649.64'
Ex. Inv. 15" = 644.49'
ft 6" UD = 647.63'

468D Sta. 380+73 ℄
Inlet Reconstructed To Grade, As Per Plan
Ex. ft Inlet Elev. = 648.68'
Prop. ft Inlet Elev. = 649.03'
Ex. Inv. 15" = 644.78'
ft 6" UD SE&NW = 647.58'

+75 4"x6" Tee
ft 4" UD = 648.07'

+25 4"x6" Tee
ft 4" UD = 647.88'

136B Guardrail Type 5

+00 4"x6" Tee
Low Point
ft 4" UD = 647.77'

+33 4"x6" Reducer
ft 4" UD = 647.69'

+53 4"-45° Elbow *
ft 4" UD = 647.69'

60U

137B Guardrail, Type 5A

59U

80B Concrete Barrier Type B50, As per Plan

I-71 NB ⇨

HMM-71-0611 (NO WORK)

474D Sta. 383+25 ℄
Inlet Reconstructed To Grade, As Per Plan
Ex. ft Inlet Elev. = 651.63'
Prop. ft Inlet Elev. = 651.98'
Ex. Inv. 15" = 647.93'
ft 6" UD NW = 649.97'

+25 4" Cap
ft 4" UD = 649.90'

+00 Catch Basin
Adjusted To Grade
ft 6" UD = 648.56'
Inv. 12" = 645.40'

477D

+00 4"x6" Tee
ft 4" UD = 648.65'

55U

24 RS

+62 4"x6" Tee
ft 4" UD = 647.91'

464D +62 Catch Basin
Adjusted To Grade
ft 6" UD = 647.82'
Inv. 15" = 646.40'

24 PB 380+00±

469D +43 Manhole
Adjusted To Grade
Low Point
ft 6" UD NW&SE = 647.66'
Inv. 15" = 642.44'

470D

471D +25 Catch Basin
Adjusted To Grade
ft 6" UD = 647.79'
Inv. 15" = 644.88'
Inv. 12" = 644.88'

+51.5
End GR 5
Begin GR 5A

25 RS

478D +37DC Manhole
Adjusted To Grade
Inv. 15" = 640.99'

+75DC 4"x6" Tee
ft 4" UD = 648.50'

+25DC 4"x6" Tee
ft 4" UD = 648.79'

384DC

4"UNC

PC E/P

5"w6"F

+12.5
Begin Transition

480D +25DC Catch Basin
Adjusted To Grade
ft 6" UD = 648.74'
Inv. 15" = 647.45'

53F

69U

383+40.92 Ramp DC CPA
19.25' Rt.

+75DC Catch Basin
Adjusted To Grade
ft 6" UD = 648.45'
Inv. 15" = 645.66'

479D

384+48.40 Ramp DC CPA
38.52' Rt.

41RB

138B Guardrail Type 5

142B Guardrail, Type 5A

382DC

+40DC 4"-45° Elbow *
ft 4" UD = 650.42'

473D

+47 4"-45° Elbow *
ft 4" UD = 648.21'

66U

RAMP DC

@ RAMP DC

139B Guardrail Type 5

+87.5DC
End GR 5
Begin GR 5A

+37.5DC
End GR 5A
Begin GR 5

+50DC Manhole
Adjusted To Grade
Inv. 15" = 644.87'

472D

143B Guardrail Type 5

382+78.74 Ramp DC
29.39' Rt. EPA

382+90.10 Ramp DC CPA
58.24' Rt.

42RB

381+78.20 Ramp DC EPA
24.09' Rt.

52F

52F Continuation of Fence Not Shown
381+83.18 Ramp DC, CPA, 55.99' Rt.
380+15.50 Ramp DC, IAPA, 49.79' Rt.

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Transition Details, See Sheets 41–44A.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"w6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 378+00 to Sta. 384+50

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 12-13-94

HAM-71-2.92

OHIO FHWA REGION 5

210 615

MATCH LINE Sta. 384+25DE

RAMP DE

Ex. LA/RW

Ex. 108"

385+60.21 Ramp DE CPA
75.71' Lt.

51F

+00DE Catch Basin
Adjusted To Grade
Inv. 12" = 649.40'
484D

Ex. 12"

+72.81DE
Begin Transition

6'

6"x6"F

+35.31DE
End Transition
6.9'

+67.83DE

8"

18'

3"

4'

10'

18.4'

18.5'

+01.4"-60° Wye *
℄ 4" UD = 652.31'

℄ RAMP DE

386DE

38RB

+75 DE 4" Cap
End Underdrain
℄ 4" UD = 655.19'

Guardrail Type 5 113B

65U

+93.75DE
End GR 5
Begin GR 5

388DE

+06.25DE
End GR 5A
Begin GR 5

PT

Guardrail Type 5A 122B

CS Sta. 388+96.83℄ 73' Lt. =
CS Sta. 388+96.83DE Ramp DE

389+05.68 CPA
158.40' Lt.

390+10.93 CPA
146.59' Lt.

Guardrail Type 5 123B

60'

⇦ I-71 SB

City Of Norwood
City Of Cincinnati

+50 4"x6" Tee
℄ 4" UD = 651.29'

390

11"x8"F

14"x8"F

MATCH LINE Sta. 390+50

MATCH LINE Sta. 384+50

+71.82

10'

7P Conc. Median Removed,
As Per Plan 2

58'

58U

+00, High Point
℄ 4" UD = 653.39'

Concrete Barrier
Type B50, As per Plan
80B

386

70U

388

Sign Support Transition

24RB

+55

+95

+05

+45

℄ I-71

Sign Support Transition

71U

CS

+00 4" Cap
℄ 4" UD = 654.08'

485D Sta. 390+50 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 652.79'
Prop. ℄ Inlet Elev. = 653.14'
Ex. Inv. 15" = 647.39'
℄ 6" UD N&S = 651.15'

+50 4"x6" Tee
℄ 4" UD = 651.29'

City Of Norwood
City Of Cincinnati

+87 4"x6" Tee
℄ 4" UD = 651.58'

11"x6"F

6"x6"Fs

Ex. 15"

Ex. Conc. Barrier

Sta. 384+87 ℄
Inlet Reconstructed
To Grade, As Per Plan
Ex. ℄ Inlet Elev. = 653.03'
Ex. ℄ Inlet Elev. = 653.38'
Prop. ℄ Inlet Elev. = 650.03'
Ex. Inv. 15" = 650.03'
℄ 6" UD N = 651.25'

483D

481D

Ex. 15"

+75

Ex. 18"

48'

I-71 NB ⇨

Curb Removed,
As Per Plan 2
6P

25 RS

386+50± 25 PB

+88, High Point
℄ 4" UD = 651.95'

69U

72U

+67 4" Cap
℄ 4" UD = 649.73'

60U

482D

386DC

14'

2'

1' 10"

14'

8"

℄ RAMP DC

26 RS

RAMP DC ⇨

10'

5'

16'

17'

26 PB 386+50± Ramp DC

53F

Ex. Conc. Curb
To Remain

Ex. LA/RW

389+50.15 CPA
99.81' Rt.

389+63.52 CPA
114.94' Rt.

390+49.71 CPA
109.92' Rt.

27 RS

386+82.39 Ramp DC IAPA
20.00' Rt.

386+05.20 Ramp DC CPA
20.00' Rt.

+75DC
End Transition

385+69.39 Ramp DC CPA
42.38' Rt.

385+23.37 Ramp DC CPA
39.99' Rt.

Sta. 387+00℄ 86' Rt. =
PCC Sta. 387+00DC Ramp DC

MATCH LINE Sta. 384+50DC

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"x6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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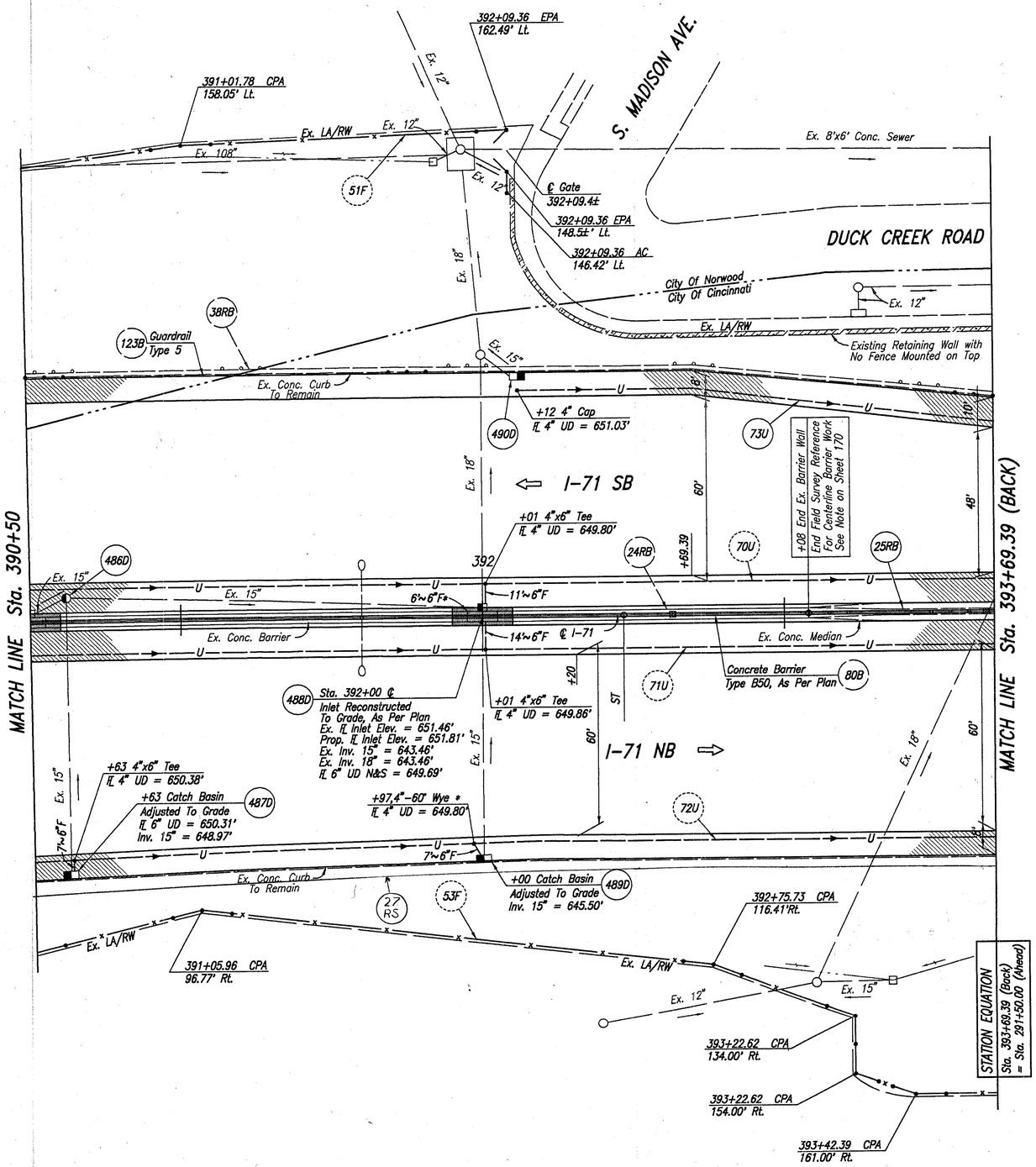
Sta 384+50 to Sta 390+50



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

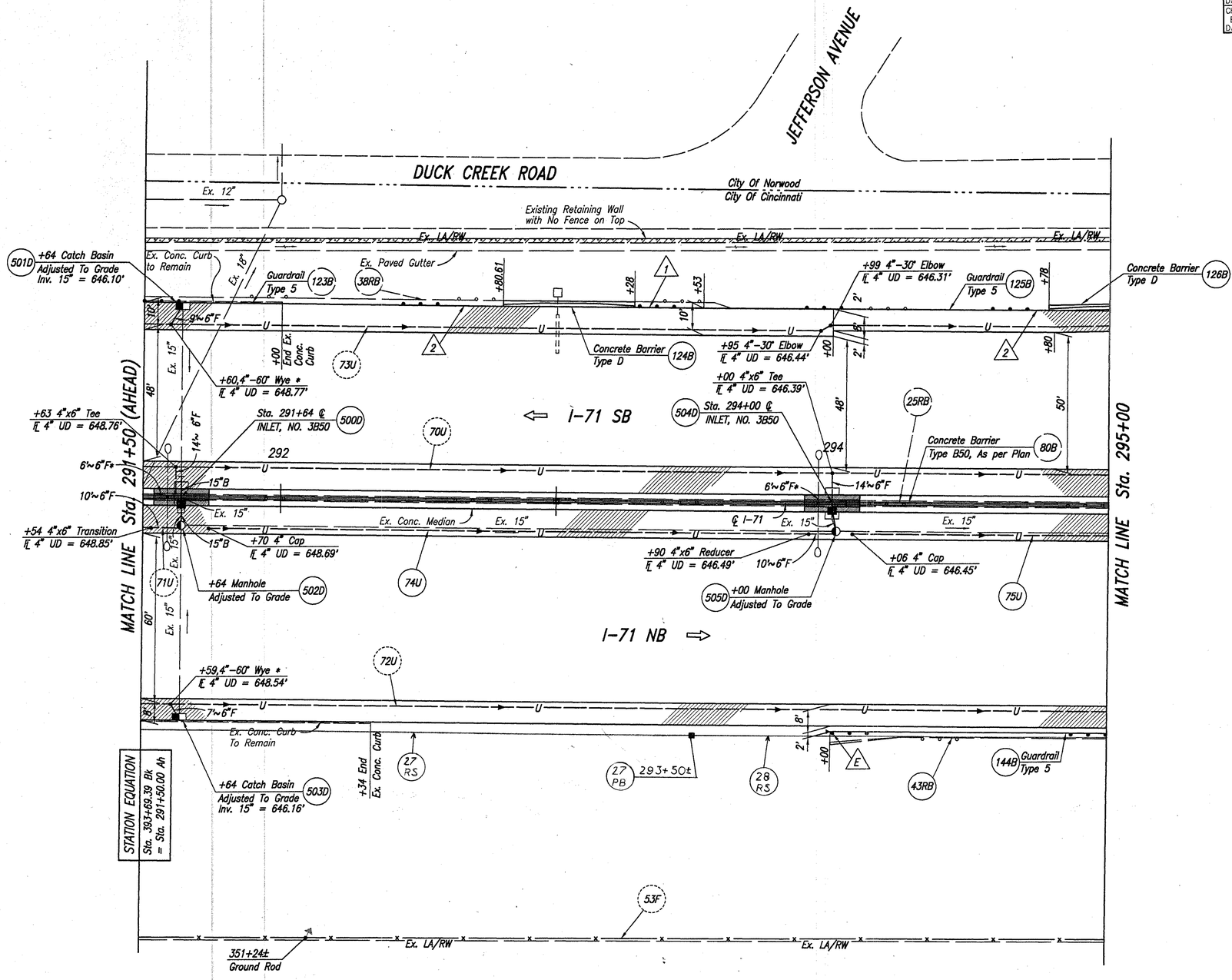
Sta. 390+50 to Sta. 393+69.39

CALC. BY DJB DATE 10/19/94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

212 / 615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Drainage Profiles, See Sheet 292-296.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 291+50 (AHEAD) to Sta. 295+00

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CALC. BY DLB DATE 10-1-99
CHKD. BY PWP DATE 11-1-99

HAM-71-2.92

OHIO FHWA REGION 5

213/615

GROVE AVE.

City Of Norwood
City Of Cincinnati

DUCK CREEK ROAD

Concrete Barrier Type D (126B)

Ex. LA/RW

Ex. 12"

Ex. Retaining Wall with No Fence on Top

Ex. Paved Gutter

Guardrail Taper

38RB

127B Guardrail Type 5

+28 +53 +60 +03 52' 8' 2'

73U

⇦ I-71 SB

MATCH LINE Sta. 295+00

296

70U

+14 4"x6" Tee
℄ 4" UD = 643.05'

Sta. 297+14 ℄ INLET, NO. 3B50 (506D)

14"w6"F

Ex. 15"

6"w6"F*

15"B

Ex. Conc. Median

+04 4"x6" Reducer
℄ 4" UD = 643.13'

10"w6"F

+20 4" Cap
℄ 4" UD = 642.99'

+14 Manhole Adjusted To Grade (507D)

75U

298

Concrete Barrier Type B50, As Per Plan (80B)

25RB

℄ I-71

76U

508D Sta. 300+00 ℄ INLET, NO. 3B50

300

+00 4"x6" Tee
℄ 4" UD = 637.81'

6"w6"F*

14"w6"F

10"w6"F

15"B

+90 4"x6" Transition
℄ 4" UD = 638.03'

509D +00 Manhole Adjusted To Grade

+06 4" Cap
℄ 4" UD = 637.67'

77U

MATCH LINE Sta. 300+50

I-71 NB ⇨

72U

144B Guardrail Type 5

43RB

28 RS

44RB

Ex. Conc. Riprap

53F

Ex. LA/RW

298+23.00 CPA
157.00' Rt.

298+50.00 CPA
186.00' Rt.

299+50.00 CPA
104.00' Rt.

300+01.00 CPA
119.00' Rt.

300+46.00 IAPA
169.00' Rt.

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Drainage Profiles, See Sheets 292-296.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"w6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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Sta. 295+00 to Sta. 300+50

CALC. BY DLB DATE 10-7-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

214/615

CATHERINE AVENUE

HUDSON AVENUE

AVILLA PLACE

DUCK CREEK ROAD

6"W City Of Norwood

City Of Cincinnati

Ex. 12"

Ex. LA/RW

Ex. Retaining Wall (No Fence on Top)

Ex. Paved Gutter

Guardrail Type 5 (127B)

Taper Guardrail

+28

+78 End GR 5 Begin GR 5A

Guardrail Type 5A (128B)

+15.5 End GR 5A Begin GR 5

Taper Guardrail

+65.5

73U

Guardrail Type 5 (129B)

38RB

PC Sta. 304+00A Ramp A = Sta. 304+00℄, 86' Lt.

+59.25A End GR 5 Begin GR 5A

Guardrail Type 5A (130B)

131B Guardrail Type 5

+98.5A Begin Transition

Ex. Retaining Wall with No Fence on Top

℄ RAMP A

RAMP A

Ex. Conc. Curb

+00A

+04

+00 4" Cap

℄ 4" UD = 626.73'

81U

Curb Removed, As Per Plan 8P

Sign Support Transition

Sign Support Transition

25RB

⇦ I-71 SB

80B Concrete Barrier Type B50, As Per Plan

70U

℄ I-71

Ex. Conc. Median

77U

TS

HAM-71-0635 (NO WORK)

302

304

306

MATCH LINE Sta. 300+50

MATCH LINE Sta. 306+31.26

I-71 NB ⇨

HAIRES LANE TUNNEL

Ex. 12" Steel Casing

Ex. 72"

72U

Guardrail Type 5 (144B)

145B Guardrail Type 5A

+75 End GR 5 Begin GR 5A

+12.5 End GR 5A Begin GR 5

146B Guardrail Type 5

28 RS

29 RS

28 PB

302+50±

302+31.0± AC 108.0± Rt.

44RB

PC Sta. 304+00B Ramp B = Sta. 304+00℄ 73' Rt.

147B Concrete Barrier Type D

FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

℄ RAMP B

Ramp B ⇨306B

Ex. Conc. Curb

148B Concrete Barrier Type D, As Per Plan

+50B

+00B

305+50.00 Ramp B 9.50' Rt. EPA

305+51.00 Ramp B 9.00' Rt. EPA

305+49.00 Ramp B 39.00' Rt. CPA

End Concrete Barrier Type D Begin Concrete Barrier Type D, As Per Plan

Ex. Retaining Wall with Fence

Ex. Paved Gutter

FENCE, TYPE CLT, AS PER PLAN See Note 8 (54F)

304+50.00 IAPA 139.00' Rt.

1

Ex. LA/RW

Ex. Paved Gutter

54F

Ex. 12" San.

Ex. 21"

Ex. 12"

Ex. 15"

Ex. 66"

Ex. Conc. Riprap

City Of Cincinnati

City Of Norwood

HIRES LANE

Taper Guardrail

+25

301+59.0± AC 111.0± Rt.

301+49.00 CPA 154.00' Rt. Type 3 Crossing

301+10.00 CPA 179.00' Rt.

300+61.00 CPA 194.00' Rt.

302+65.00 EPA 152.00' Rt.

53F

8"W

8' G

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"Fe" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

Sta. 300+50 to Sta. 306+31.26

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CALC. BY DAB DATE 10-1-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

215/615

307+57.00 Ramp A CPA
74.00' Lt.

57F Continuation of Fence Not Shown
309+00.00 Ramp A, CPA, 79.00' Lt.
311+05.00 Ramp A, CPA, 49.00' Lt.

306+96.0± AC
160.0±' Lt.

Ex. LA/RW

Existing Retaining Wall with No Fence on Top

Ex. Paved Gutter

+00A 44' Lt
Concrete Outlet
℄ 4" UD (Match Exist.)

+00A 4"x4" Tee

Low Point
℄ 4" UD = 621.87'

Guardrail Type 5 131B

38RB

2'

℄ RAMP A

78U

℄ RAMP AR

Guardrail Type 5 150B

SEE SHEET 251
Match Line
STA. 309+50A

14'~6"F

+61A End Transition

POC

73U

RAMP A

308A

16'

3'

Sta. 308+01.02A 16' Rt.
= Sta. 308+01.02AR

45RB

Ex. 12" San.

Ex. 15"

Ex. Conc. Curb

Curb Removed, As Per Plan 1 8P

+70A

T

For Continuation of SMITH-EDMONDSON ROAD See Sheet 251.

Ex. Conc. Slope Protection

ROAD 16

48RB

Concrete Barrier Type D, As Per Plan A 153B

+85

EDMONDSON

HAM-71-0670

+215

MATCH LINE Sta. 311+50

81U

+99 4" x 6" 90° Elbow
F 4" LUD = 617.92'

Sta. 308+00 ℄
INLET, NO. 3B50
℄ Inlet Elev. = 620.01'
Inv. 15" = 614.10'
℄ 6" UD N&S = 617.79'

510D

Ex. 15"

SC

⇦ I-71 SB

Bridge Pier Transition

310

+20

+60

25RB

70U

℄ I-71

6'~15"B @ 2.87%

6'~6"F*

11'~6"F

5'~15"B @ 2.87%

Ex. Conc. Median

80B Concrete Barrier Type B50, As Per Plan

Sta. 310+94.74 I-71
Sta. 14+93.81 Smith-Edmondson Rd.

SMITH -

Bridge No.

MATCH LINE Sta. 306+31.26

+56

+31.26

58'

48'

77U

+99 4"x6" Tee
℄ 4" UD = 618.32'

308

Ex. 15"

I-71 NB ⇨

80U

151B Guardrail Type 5

152B Concrete Barrier Type D, As Per Plan A

Ex. 21"

+32 4" Cap
℄ 4" UD = 624.22'

30 PB 307+37±

10'

+88

14

30 RS

31 RS

29 RS

3'

17.4'

℄ RAMP B

+35B

E

+63B 4"x6" Tee
℄ 4" UD = 622.50'

46RB

149B Guardrail Type 5

+00B

+75B

T

+59B

Ex. 15"

Taper Guardrail

31 PB 310+30±

1

+38B

47RB

Ex. Conc. Slope Protection

59F

32 RS

6'

+56.70B Begin Transition

54F FENCE, TYPE CLT, AS PER PLAN See Note *

148B Concrete Barrier Type D, As Per Plan

Ex. Retaining Wall

+32.21B

16'

72U

+82.21B

5'~6"F

5'~15"B @ 4.82%

30BB

+07.21B

24'

23.3B

3'

Ex. 15"

+29B 4"~60° Elbow *
℄ 4" UD = 622.82'

+40B 4"x6"~90° Elbow *
℄ 4" UD = 623.08'

+18.88 End Transition PT

307+25.20 Ramp B
9.50' Rt. EPA

307+26.00 Ramp B
11.50' Rt. EPA

Ex. Paved Gutter

307+50± Ramp IB 29 PB

Ex. LA/RW

Ex. 12" San.

26'~6"F
19'~6"F

+42B 19' Rt Ex. CB
Inv. 15" = 618.59'

79U

RAMP B ⇨

Ex. LA/RW

13+62.0± Smith Edmonson
30.0±' Rt. AC

54F Continuation of Fence Not Shown
308+50.00 Ramp B, EPA, 74.00' Rt.
309+80.00 Ramp B, EPA, 69.00' Rt.

514D Sta. 307+63B 6' Rt
Inlet, No. 3B,
As Per Plan
℄ Inlet Elev. = 623.98'
Inv. 15" = 621.08'
℄ 6" UD = 622.44'

54F

Sta. 308+23.5B, Rt 80P
DITCH EROSION PROTECTION, See Detail on Sheet 289

MATCH LINE Sta. 310+00B
SEE SHEET 251

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.
9) For Work on Bridge HAM-71-0670 (SMITH-EDMONDSON ROAD), See Sheet 562.

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Sta. 306+31.26 to Sta. 311+50

CALC. BY TJB DATE 10-17-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

216 / 615

SMITH-EDWARDS ROAD

GARLAND AVENUE

DARCEY-WILLIAMS CONNECTOR

MATCH LINE STA. 311+50

MATCH LINE STA. 317+00

Ex. Conc. Slope Protection

312+12± Ground Rod

312+33.00 EPA 125.00' Lt.

16+51.0± Smith-Edmondson 30.0±' Rt. AC

312+99.00 CPA 130.00' Lt.

313+22.00 CPA 149.00' Lt.

315+82.00 IAPA 149.00' Lt.

Ex. LA/RW

58F

48RB

523D +05 Manhole
Adjusted To Grade
℄ 6" UD = 602.62'
Inv. 15" = 599.10'

154B Guardrail Type 5

524D +10 Manhole
Adjusted To Grade
Inv. 15" = 596.75'
Inv. 21" = 595.37'
Inv. 30" = 594.62'

525D +07 Manhole
Adjusted To Grade
Inv. 15" = 595.19'
Inv. 30" = 593.25'

Ex. Inlet, I-2A-10

Ex. 15"

Ex. 30"

Concrete Barrier Type D, As Per Plan A 153B

+05 4"x6" Tee
℄ 4" UD = 602.67'

81U

+99.4"-30" Wye *
℄ 4" UD = 600.69'

+96.4"-30" Wye *
℄ 4" UD = 598.03'

5~6"F

10~6"F

⇦ I-71 SB

Bridge Pier Transition

Concrete Barrier Type B50, As Per Plan 80B

25RB

℄ I-71

Ex. Conc. Median

77U

I-71 NB ⇨

Ex. 21"

80U

+75 4"x4" Tee *
F ℄ UD = 607.39'

+24.4"x6" Tee *
℄ 4" UD = 603.98'

9~6"F

316+40± 32 PB

33 RS

32 RS

+22 Ex. Inlet, I-2A-8
Inv. 15" = 599.24'

Ex. Conc. Curb to Remain

26~6"F

+75 Offset 86' Rt Ex. CB
℄ 12" = 602.75'

59F Continuation of Fence Not Shown
316+50.00, CPA, 147.00' Rt.
317+36.00, IAPA, 151.00' Rt.

For Continuation of Fence See Sheet 251

312+16.00 IAPA 149.00' Rt.

314+00.00 IAPA 149.00' Rt.

314+29± Ground Rod

314+54.00 IAPA 144.00' Rt.

315+05.00 CPA 131.00' Rt.

316+00.00 CPA 131.00' Rt.

GARLAND AVE.

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) For Work on Bridge HAM-71-0670 (SMITH-EDMONDSON ROAD), See Sheet 562.

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Sta. 311+50 to Sta. 317+00

SMITH RD.
(OVERHEAD)
BRIDGE NO.
HAM-71-6.70

68'-EXISTING 15" CONCRETE CONDUIT
DO NOT DISTURB

12'-TYPE B, 15" CONDUIT
TO BE REPLACED

40'-EXISTING 15" CONCRETE CONDUIT
DO NOT DISTURB

120' 15" Type B Conduit

Concrete Pad

Manhole

6" Curb

END TYPE E
STA. 312+45
MAKE SURE G.R. POSTS
DON'T DAMAGE 15" CONDUIT
DURING INSTALLATION

Shoulder

Sta. 313+00

Sta. 313+05

Sta. 312+73

Sta. 312+48

Sta. 312+00

Sta. 311+85

I-71 Southbound

A QUANTITY OF 12 LIN.FT. OF ITEM 603 - 15" CONDUIT, TYPE B HAS BEEN CARRIED TO SHEET 283 FOR THIS WORK.

N

HORIZONTAL SCALE IN FEET
0

CALCULATED

CHECKED

CONDUIT REPLACEMENT DETAIL

HAM-71-2.92

610.00
605.00
600.00
595.00

EXISTING GROUND

120'-15" Type B Conduit

CATCH BASIN Sta. 311+85
F/L Gr. = 605.15
F/L 15" = 601.65

MC-4 COLLAR

MANHOLE Sta. 313+05
Rim El. = 604.00
F/L 15" = 599.10

CALC. BY DJB DATE 10-17-95
CHKD. BY PWP DATE 11-1-95

HAM-71-2.92

OHIO FHWA REGION 5

217/615

DACEY-WILLIAMS CONNECTOR

Ex. LA\RW

317+11.00 IAPA
132.00' Lt.

318+91.00 IAPA
133.00' Lt.

320+20.00 IAPA
143.00' Lt.

58F

15+58.0± Williams
31.0±' Rt. AC

For Continuation of WILLIAMS AVENUE See Sheet 252

Ex. Conc. Slope Protection

158B Guardrail Type 5

49RB

Ex. 36"

Concrete Barrier Type D, As Per Plan A 157B

Bridge No.

WILLIAMS AVENUE

Sta. 321+59.18 I-71
Sta. 17+12.74 Williams Rd.

MATCH LINE Sta. 322+50

MATCH LINE Sta. 317+00

+05 Manhole
Adjusted To Grade
℄ 6" UD = 596.29'
Inv. 15" = 593.21'
Inv. 30" = 591.27'
Inv. 33" = 591.02'
526D

+00 Manhole
Adjusted To Grade
Inv. 33" = 589.65'
Inv. 36" = 589.40'
Inv. 15" SE = 591.61'
Inv. 15" W = 593.00'
528D

Ex. Inlet, I-2A-10

Ex. Conc. Curb to Remain

Ex. 30"

Ex. 15"

Ex. 33"

10'~6"F

+89.4"-30° Wye *
℄ 4" UD = 595.24'

81U

+05 4"x6" Tee
℄ 4" UD = 596.34'

5'~6"F

+35 4" Cap
℄ 4" UD = 600.34'

I-71 SB ⇦

Sta. 320+00 ℄
Inlet, No. 3B50
℄ Inlet Elev. = 599.01'
Inv. 15" = 592.65'
℄ 6" UD NW&SE = 596.79'
527D

+00 4"x6" Tee
℄ 4" UD = 596.92'

Bridge Pier Transition

177U

80B Concrete Barrier Type B50, As Per Plan

318

320

322

6'~15"B @ 1.50%
6'~6"Fe

14'~6"F

℄ I-71

5'~15"B @ 1.50%

+00 4"x6" Tee
℄ 4" UD = 597.15'

25RB

Ex. Conc. Median

77U

I-71 NB ⇨

80U

+22 4"x6" Tee
℄ 4" UD = 600.14'

155B Guardrail Type 5

156B Concrete Barrier Type D, As Per Plan A

322+00±

33 PB

Ex. Conc. Curb To Remain

9'~6"F

Ex. Conc. Slope Protection

Ex. 12"

+80 Begin Ex. Conc. Curb

+22 Ex. Inlet, I-2A-6
℄ 6" UD = 600.04'
Inv. 12" SE = 598.31'
Inv. 12" S = 598.31'
Inv. 15" = 598.06'

33 RS

+40 End Ex. Conc. Curb

50RB

18+74.0± Williams
29.0±' Lt. AC

61F

18+44.0± Williams
30.0±' Rt. AC

318+06.00 IAPA
135.00' Rt.

318+57.00 EPA
129.00' Rt.

319+01.00 CPA
139.00' Rt.

319+30.00 CPA
154.00' Rt.

320+22.00 IAPA
157.00' Rt.

321+72.00 CPA
160.00' Rt.

317+36.00 IAPA
151.00' Rt.

DACEY LANE

59F Continuation of Fence Not Shown
316+50.00, EPA, 147.00' Rt.
316+00.00, IAPA, 131.00' Rt.

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
5) For Work on Bridge HAM-71-0691 (WILLIAMS AVENUE), See Sheet 566.

HAM-71-0691

Sta. 317+00 to Sta. 322+50

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CALC. BY DJB DATE 10-17-97
CHKD. BY RWP DATE 11-1-99

HAM-71-2.92

OHIO FHWA REGION 5

218 / 615

SEE SHEET 252

MATCH LINE Sta. 322+50D

MATCH LINE Sta. 322+50

MATCH LINE Sta. 328+00

MATCH LINE Sta. 328+00C

60F Ex. LA/RW

159B Guardrail Type 5

℄ RAMP D

82U

324+00.00 Ramp D
26.00' Lt. IAPA

51RB

PT

325+04.00 Ramp D
34.00' Lt. IAPA

Ex. LA/RW

+23.8D Begin Transition

+45D, Connect New 6" F to
Ex. 6" Type F, Flush Out
℄ 4" UD = 592.17'
℄ Ex. 6" UD = 590.8'
4"-60° Elbow and
4"-45° Wye

326+58.00 Ramp D IAPA
34.00' Lt.

327+18.00 Ramp D IAPA
49.00' Lt.

Ex. LA/RW

324D RAMP D

+17.42D

Ex. 6" Type F

+77.40D

+86.30 End Transition

+4.77D

Ex. 6" Type F

PC +17.42D

83U

326D

Ex. 36"

+07D, Connect New 6" F to
Ex. 6" Type F, Flush Out
℄ 4" UD = 591.75'
℄ Ex. 6" UD = 587.3'
4"-90° Elbow (Rotate Down)
4"x6" Tee

Ex. Duck Creek Box Culvert

538D +50 Manhole
Adjusted To Grade
Inv. 21" = 587.55'
Inv. 36" = 585.70'

1.1~6"F

+15, 4" Tee *
℄ 4" UD = 590.81'
4"-45° Elbow

12"~6"F

+15 84' Lt Ex. CB
Inv. 36" = 584.04'

+15 4"-90° Elbow
℄ 4" UD = 592.51'

+91 4" Cap
℄ 4" UD = 591.67'

Ex. 33" San.

49RB

+84.5

Guardrail Type 5 158B

81U

5'~6"F

+39.4"-30° Wye *
℄ 4" UD = 593.05'

Ex. 36"

537D Sta. 324+50 ℄
Inlet, No. 3B50
℄ Inlet Elev. = 594.95'
Inv. 18" = 588.20'
Inv. 21" = 587.95'
℄ 6" UD N&S = 593.73'

Ex. 21"

+50 4"x6" Tee
℄ 4" UD = 593.86'

I-71 SB

326

324

177U

ST

6'~21"B @ 0.60%

5'~18"B @ 0.80%

14'~6"F

6'~6"F*

11'~6"F

+50 4"x6" Tee
℄ 4" UD = 593.86'

℄ I-71

25RB

PC

80B Concrete Barrier
Type B50, As Per Plan

Sign Support Transition

Ex. Conc. Median

77U

I-71 NB

Ex. 18"

+20 4"x4" Tee *
℄ 4" UD = 593.30'

80U

23'~6"F

+30 Begin Ex. Curb

+20, 84' Rt Ex. CB
℄ 6" UD = 590.30'
Inv. 18" = 588.92'

Ex. Concrete Curb To Remain

326+91.00 IAPA
115.50' Rt.

325+50.00 CPA
109.00' Rt.

Ex. Retaining Wall

326+50.00 IAPA
119.00' Rt.

Ex. LA/RW

Ex. 33" San.

61F

325+07.00 CPA
143.00' Rt.

Ex. LA/RW

64F Continuation of Fence Not Shown
326+37.00 Ramp C, EPA, 14.00' Rt.

327+30.00 Ramp C
20.00' Lt. EPA

Ex. Concrete Curb To Remain

RAMP C

℄ RAMP C

Ex. Concrete Curb To Remain

19.20'

1.5'

+36.11C
Begin Pvmt Work
Begin Feathering

EDWARDS ROAD

20'G

City of Norwood
City of Cincinnati

Ex. LA/RW

20'G

64F

Sta. 327+21.11C
End Edwards Rd.

20'G

323+50.00 IAPA
159.00' Rt.

322+55.00 CPA
159.00' Rt.

Ex. LA/RW

326+81.00 Ramp C
13.00' Rt. CPA

Ex. LA/RW

327+64.00 Ramp C
49.00' Rt. CPA

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285,489A,489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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Sta. 322+50 to Sta. 328+00

CALC. BY DB DATE 10-7-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

328+78.00 IAPA
139.00' Lt.

Ex. LA/RW

331+90± Type 1 Crossing

R.C.P.

Ex.

331+04.00 IAPA
119.00' Lt.

332+25.00 IAPA
132.00' Lt.

M.9

6"W

Ex. LA/RW

60F

Sta. 329+74.01℄, 73' Lt. = PT Sta. 329+74.01D Ramp D

+50, High Point
℄ 4" UD = 592.10'

328D

+66D

1

52RB

+28D

℄ RAMP D

RAMP D

Concrete Barrier Type D, As Per Plan A 160B

Guardrail Type 5 161B

E

+66

83U

85U

⇐ I-71 SB

539D Sta. 329+50 ℄
Inlet, No. 3B50,
℄ Inlet Elev. = 591.83'
Inv. 15" = 582.24'
℄ 6" UD NW&SE = 589.61'

Ex. 15"

60'

+50 4"x6" Tee
℄ 4" UD = 589.95'

330

177U

Concrete Barrier Type B50, As per Plan 80B

332

25RB

+35 +45 +65

6'~15"B @ 0.50%

14'~6"F

℄ I-71

6'~6"Fs

11'~6"F

5'~15"B @ 0.50%

Ex. Conc. Median

Sign Support Transition

Sign Support Transition

+50 4"x6" Tee
℄ 4" UD = 589.74'

77U

I-71 NB ⇒

MATCH LINE Sta. 328+00

MATCH LINE Sta. 333+50

City Of Norwood
City Of Cincinnati

+57 4"x6" Tee
℄ 4" UD = 586.79'

+57

331+25± 34 PB

9P Curb Removed, As Per Plan 2

+00 4"x6" Tee
℄ 4" UD = 586.26'

+00 Catch Basin 540D
Adjusted To Grade
Inv. 15" = 584.50'
℄ 6" UD = 586.13'

+48.4"-30° Elbow *
℄ 4" UD = 586.13'

80U

+50 4"x6" Tee
℄ 4" UD = 588.01'

Ex. Conc. Curb

9'~6"F

10'~6"F

Ex. 15"

Ex. Conc. Curb

+50 Ex. Inlet, I-2A-10
℄ 6" UD = 587.91'
Inv. 15" = 581.87'

9P Curb Removed, As Per Plan 1

+52 Ex. Inlet, I-2A-10
℄ 6" UD = 586.69'
Inv. 15" = 585.70'

+67.27C

14'

+87.20

3'

3'

3'

3'

16'

332C

34 RS

35 RS

36 RS

+50C

RAMP C ⇒

330C

331+25± 35 PB
Ramp C

+04.77C Begin Transition

+67.27C End Transition

℄ RAMP C

84U

64F

Ex. LA/RW

331+00.00 IAPA
49.00' Rt.

Ex. Duck Creek Box Culvert

Ex. 33" San.

Ex. 33" San.

20"G

20"G

20"G

+22C 4" Cap
℄ 4" UD = 601.97'

+21.11C
End Feathering

MATCH LINE Sta. 328+00C

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 328+00 to Sta. 333+50

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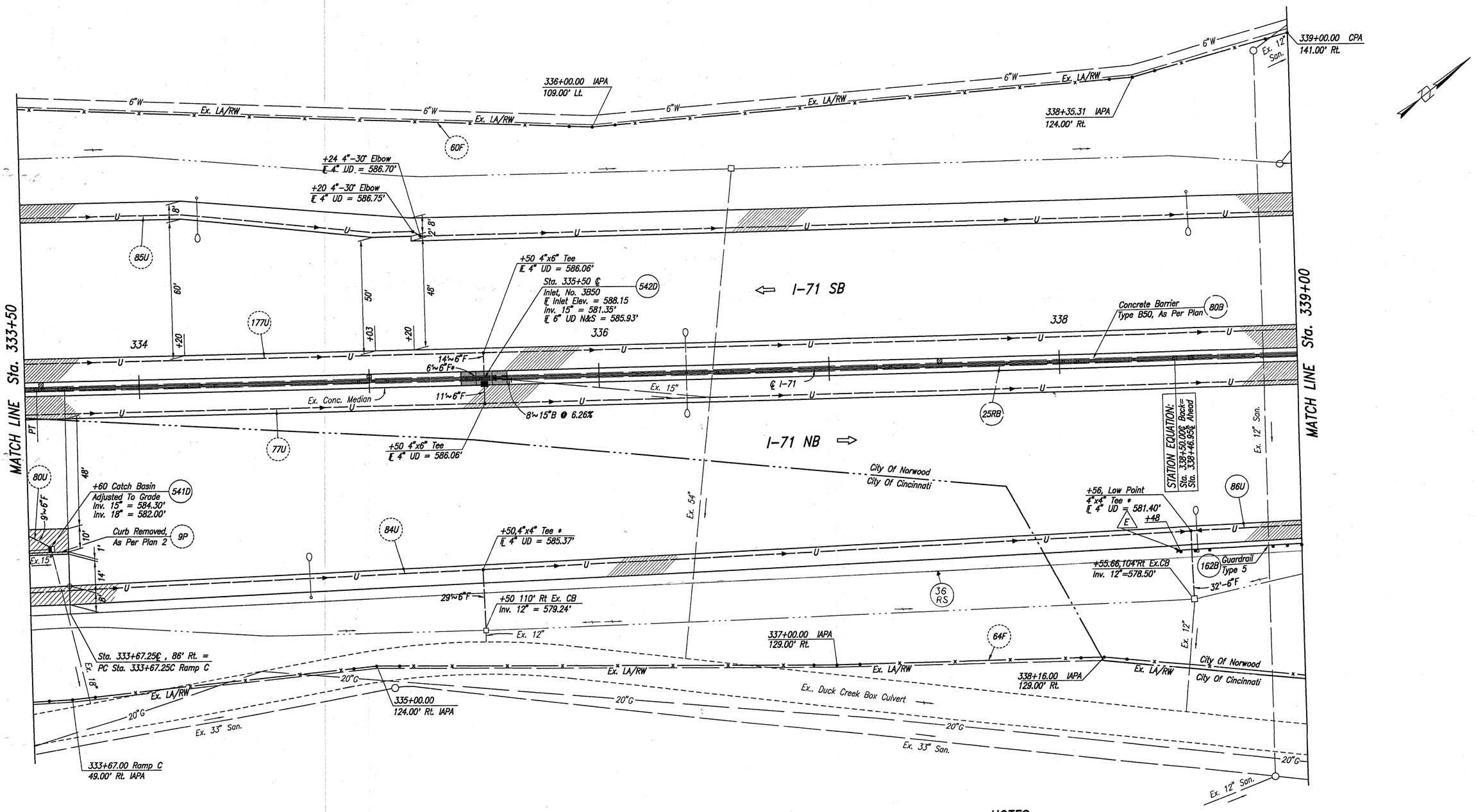
CALC. BY QB DATE 12/7/94
CHKD. BY PWP DATE 12-7-94

HAM-71-2.92

OHIO FHWA REGION 5

220 / 615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 469A, 469B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 333+50 to Sta. 338+50 and Sta. 338+46.95 to Sta. 339+00

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CALC. BY DJD DATE 10-17-94
CHKD. BY PWB DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

221 / 615

OVERHEAD SIGN SUPPORT TO BE INSTALLED WITH FUTURE R.T.M.S. PROJECT

ELEV=104.17' — ASSUMED ELEV. 100.00

ELEV=92.75' — DETAIL A

+38.37 Robertson
End Feathering
End Pvmt Work

Ex. Asphalt over Concr. Pvmt.

36"W

Ex. 12"

6"W

12" San.

546D

6"W

Ex. 12"

+89.37 Robertson
End Approach Slab

Ex. Conc. Wall

16"G

340+05.0± CPA
149.0±' Lt.

340+40±
Ground Rod

Ex. Retaining Wall With Fence

340+50.00 IAPA
149.00' Lt.

Ex. LA/RW

5470

5450

340+14.0± CPA
135.0±' Lt.

340+14.0± AC
119.0±' Lt.

339+00.00 CPA
141.00' Lt.

PT +01.87
End Feathering

60F

Ex. 18"

65F

341+16.00 EPA
125.00' Lt.

341+17.00 EPA
125.00' Lt.

Concrete Barrier Type D, As Per Plan A 165B

66F

Concrete Barrier Type D 166B

343+57.00 EPA
140.00' Lt.

343+58.00 EPA
140.00' Lt.

343+96.46 CPA
129.00' Lt.

67F

Ex. LA/RW

+64.37 Robertson
Begin Feathering
Begin Approach Slab

Ex. Conc. Slope Protection

16"G

339+49.0± AC
119.0±' Lt.

53RB

Ex. 21"

+12

+60 Begin Ex. Concrete Curb

+23, 75' Lt. Ex. WH
℄ 6" UD = 582.24'
Inv. 12" = 579.80'
Inv. 21" = 577.36'
Inv. 24" = 577.11'

341+50.0± CPA
73.6±' Lt.

+50
End Concrete Barrier Type D
Begin Concrete Barrier Type D, As Per Plan

342+50.0± CPA
73.9±' Lt.

+50
End Concrete Barrier Type D
Begin Concrete Barrier Type D, As Per Plan

Concrete Barrier Type D 168B

Comb. Curb and Gutter, Type 2, As Per Plan 56P

Ex. 24"

+80 75' Lt. Ex. WH
℄ 6" UD = 581.16'
Inv. 12" = 577.80'
Inv. 15" = 577.69'
Inv. 24" = 575.00'
Inv. 30" = 574.50'

INSTALL SIGN SUPPORT FOUNDATION AS PER TC-21.40, STA. 339+19

Ex. 21"

Ex. 12"

+20

+63

Ex. Retaining Wall With Fence

+64

+69

+14

169B Guardrail Type 5

Ex. 12"

Ex. 15"

Ex. 12"

+80

+10

+12

+80

Taper Concrete Barrier

+16, 4"-60° Wye *
℄ 6" UD = 582.37'

Ex. 24"

Concrete Barrier Type D, As per Plan 167B

550D

+75 4"x6" 90° Elbow
Low Point
℄ 4" UD = 582.47'

⇦ I-71 SB

+73, Low Point
4"-60° Elbow *
℄ 4" UD = 581.29'

552D Sta. 344+00 ℄
Inlet, No. 3B50
See Sheet No.

+88, Low Point
4"-60° Elbow *
℄ 4" UD = 581.29'

553D

87U

9'~6"F

19'~6"F

19'~6"F

85U

ROBERTSON Bridge No. HAM-71-0726 AVENUE

MATCH LINE Sta. 339+00

MATCH LINE Sta. 344+50

+56

+98

340

+58

177U

80B Concrete Barrier Type B50, As Per Plan

+37 4"x6" Tee
℄ 4" UD = 582.66'

342

549D Sta. 342+75 ℄
INLET, NO. 3B50
℄ Inlet Elev. = 584.56'
Inv. 27" = 574.52'
℄ 6" UD NW&SE = 582.34'

PC

344

5'~24"B @ 0.80%

11'~6"F

Ex. 27"

℄ I-71

Ex. Conc. Median

6'~6"F*

14'~6"F

4'~6"F

6'~6"F*

Ex. 12"

Ex. 27"

Ex. 12"

6'~6"F*

Ex. 30"

12'~27"B @ 1.24%

12'~27"B @ 1.24%

15"B

11'~6"F

11'~6"F

SEE DETAIL A

58RS

Ex. Telephone Conduit (Suspended under Bridge)

Ex. Bridge Pier Transition

Ex. 24" Steel Casing

77U

+37 4"x6" Tee
℄ 4" UD = 582.66'

Sta. 341+37 ℄
Inlet, No. 3B50
℄ Inlet Elev. = 584.46'
Inv. 24" = 576.50'
Inv. 27" = 576.25'
℄ 6" UD NE&SE = 582.36'

548D

52'

+75, Low Point
4"x6" Tee
℄ 4" UD = 582.51'

I-71 NB ⇨

89U

Barrier Wall Assembly
See Std. Dwg TC-21.41
Design No. 4

25RB

551D +80 Manhole
Adjusted To Grade

50'

48'

Ex. 36"

+00 4"x6" Tee
℄ 4" UD = 582.80'

54RB

86U

+10.5

+04.22

+84.22

+64.22

2'

6'

+63 4"-30° Elbow
℄ 4" UD = 583.94'

+68 4"-30° Elbow
℄ 4" UD = 583.98'

+50 4" Cap
℄ 4" UD = 584.40'

36 RS

339+12± 36 PB

37 RS

OVERHEAD SIGN TO BE INSTALLED IN FUTURE R.T.M.S. PROJECT

Guardrail Type 5 162B

+16.75
End GR 5
Begin GR 5A

Guardrail Type 5A 163B

+85.5
End GR 5A
Begin GR 5

Guardrail Type 5 164B

Ex. Conc. Slope Protection

340+86.0± AC
127.0±' Rt.

+95.05 Robertson
End Approach Slab
End Feathering

64F

City Of Norwood
City Of Cincinnati

Ex. LA/RW

340+00.0± CPA
152.0±' Rt.

340+26.0± AC
127.0±' Rt.

544D

+32.55 Robertson
Begin Pvmt. Work
Begin Feathering

20"G

Ex. 33" San.

20"G

Ex. 12"

+70.05 Robertson
Begin Approach Slab

543D

341+07± Ground Rod

341+15.0± CPA
160.0±' Rt.

Ex. LA/RW

City Of Norwood
City Of Cincinnati

68F

342+81.17 IAPA
139.00' Rt.

Ex. LA/RW

344+50.00 IAPA
128.00' Rt.

Ex. Duck Creek Box Culvert

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Drainage Profiles, See Sheets 292-296.
6) For Quantities, See Sheets 269-285, 469A, 469B
7) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
8) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
9) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.
10) For Work on Bridge HAM-71-0726 (ROBERTSON AVENUE), See Sheet 570.

Sta. 339+00 to Sta. 344+50

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CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

222/615

345+00.00 IAPA
129.00' Lt.

Ex. LA/RW

346+39.04 IAPA
129.83' Lt.

67F

Ex. 12"

+75 Ex. Inlet, I-2A-6
℄ 6" UD = 581.35'
Inv. 12" = 579.24'

Guardrail Type 5 169B

E +76.5

9"x6"F

+75 4"x6" Tee
℄ 4" UD = 581.45'

Ex. Conc. Curb To Remain

87U

+00, High Point
℄ 4" UD = 581.98'

347+50.90 IAPA
115.90' Lt.

348+58.84 IAPA
109.20' Lt.

90U

Ex. 15"

I-71 SB

MATCH LINE Sta. 344+50

80B Concrete Barrier Type B50, As Per Plan

346

Sign Support Transition

+80 +20 +30 +70

348

25RB

Ex. 33" San.

Ex. Conc. Median

℄ I-71

89U

+05, High Point
℄ 4" UD = 583.57'

Sign Support Transition

92U

I-71 NB

MATCH LINE Sta. 350+00

+16.25
End GR 5
Begin GR 5A

+35
End GR 5A
Begin GR 5

55RB

Taper Guardrail

Ex. 24" Steel Casing

37 RS

344+70± 37 PB

38 RS

+22.5 E

Guardrail Type 5 170B

Guardrail Type 5A 171B

Guardrail Type 5 172B

72.5

Ex. Pipe Encasement

20°G

Ex. Paved Gutter

68F

Ex. LA/RW

344+50.00 IAPA
129.00' Rt.

346+25.00 IAPA
136.00' Rt.

346+50.00 IAPA
137.00' Rt.

Ex. 24"

Ex. Duck Creek Box Culvert

Ex. LA/RW

Ex. LA/RW

Ex. LA/RW

349+50.00 IAPA
109.00' Rt.

349+93.00 IAPA
110.00' Rt.

Ex. LA/RW

20°G

City Of Cincinnati
City Of Norwood

Ex. 33" San.

347+00.00 IAPA
139.00' Rt.

City Of Norwood
City Of Cincinnati

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285,489A,489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

Sta. 344+50 to Sta. 350+00

C:\18007\PLANSHT\614\344-350.DWG - FEB 20, 1995 - 13:11:40

CALC. BY DLB DATE 10-17-94
CHKD. BY PVF DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

223/615

MATCH LINE Sta. 350+00

MATCH LINE Sta. 355+50

67F 350+61.35 CPA 114.00' Lt.

57P Comb. Curb and Gutter, Type 2, As Per Plan

+50 Ex. Inlet, I-2A-10 Inv. 12" = 578.37'

350+61.00 CPA 77.00' Lt.

180B Concrete Barrier Type D

Ex. LA/RW

350+84.0± AC 77.0±' Lt.

181B Concrete Barrier Type D, As Per Plan

+00 End Concrete Barrier Type D Begin Concrete Barrier Type D, As Per Plan

+95 End Concrete Barrier Type D, As Per Plan Begin Concrete Barrier Type D

Concrete Barrier Type D 182B

352+09.0± AC 77.0±' Lt.

+47 Catch Basin 555D Adjusted To Grade Inv. 12" = 574.00' ℄ 6" UD = 577.72'

Comb. Curb and Gutter, Type 2, As Per Plan 58P

353+13.00 CPA 88.00' Lt. Taper Guardrail

FENCE, TYPE CLT. 71F AS PER PLAN See Note 7

353+27.00 CPA 80.00' Lt.

71F

354+25± Type 3 Crossing

Ex. LA/RW

354+00.00 CPA 97.00' Lt.

Ex. 15"

56RB

Ex. 12"

Ex. 20"C

Ex. 30"

Ex. 12"

24"w6"F

Ex. Conc. Curb

9"w6"F

4" UNC

+59.4"x4" Tee * ℄ 4" UD = 580.37' 90U

City of Norwood
City of Cincinnati

+25 ℄ 4" UD = 579.75'

+93 4" Cap ℄ 4" UD = 578.31'

+25 4" Cap ℄ 4" UD = 577.94'

Guardrail Type 5 183B

95U

+00 4"-30° Elbow ℄ 4" UD = 575.28'

+97 4"-30° Elbow ℄ 4" UD = 575.31'

⇦ I-71 SB

Ex. 24" Steel Casing

Sta. 350+25 ℄ 554D INLET, NO. 3B50, ℄ Inlet Elev. = 583.91' Inv. 15" = 579.42' ℄ 6" UD SE = 581.69'

+10 4" Cap ℄ 4" UD = 581.63' PT

Chessie Railroad System

+44.4"-60° Wye * Low Point ℄ 4" UD = 577.82' 94U

Bridge Pier Transition

91U

+00 4"X6" Tee ℄ 4" UD = 578.11'

Concrete Barrier Type B50, As per Plan 80B

354

Ex. 24"

11"w6"F

8"w24"B @ 4.15%

Ex. 24"

6"w6"Fs

14"w6"F

Ex. Conc. Median

℄ I-71

5"w15"B @ 19.6%

+25 4"x6" Tee ℄ 4" UD = 581.93'

Ex. 15"

Bridge Pier Transition

Bridge No. HAM-71-0747

92U

+99 4"X6" Tee ℄ 4" UD = 578.11'

Sta. 353+00 ℄ 556D Inlet, No. 3B50 ℄ Inlet Elev. = 580.20' Inv. 24" = 573.47' ℄ 6" UD NW&SE = 577.98'

25RB

I-71 NB ⇨

FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

+75 4" Cap ℄ 4" UD = 582.45'

Ex. Duck Creek Box Culvert

Concrete Barrier Type D 173B

93U

39 RS

+01 4"X6" Tee ℄ 4" UD = 578.37'

Concrete Barrier Type D, As Per Plan 174B

9'-6"F

Ex. Conc. Curb

55RB

Ex. LA/RW

Do Not Disturb Ex. Fence

Ex. Paved Gutter

Ex. 24"

Ex. 15"

Ex. Retaining Wall with Fence

Guardrail Type 5 172B

350+25±

38 PB

Taper Guardrail

59P Comb. Curb and Gutter, Type 2, As Per Plan 350+85.0± CPA 82.0±' Rt.

68F

38 RS

Ex. LA/RW

351+01.0± AC 82.0±' Rt.

+24 End Concrete Barrier Type D Begin Concrete Barrier Type D, As Per Plan

350+85.13 CPA 109.00' Rt.

557D +00 Catch Basin Adjusted To Grade ℄ 6" UD = 578.24' Inv. 24" = 576.36'

C.G.& E Tower

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"w6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.

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Sta. 350+00 to Sta. 355+50

CALC. BY DJD DATE 10-11-94
CHKD. BY PWP DATE 11-1-94

HAM-71-2.92

OHIO FHWA REGION 5

224 615

BASELINE SHIFT:
Sta. 356+26.39℄ Back = Sta. 356+26.39SB Ahead, 13' Lt and TS Sta. 356+26.39NB Ahead, 13' Rt

MATCH LINE Sta. 355+50

MATCH LINE Sta. 361+00

+79, 74' Lt Ex. MH
℄ 6" UD = 570.30'
Inv. 15" = 568.48'

Ex. LA/RW

71F

359+00.00 IAPA
84.00' Lt.

359+27±
Type 3 Crossing

Ex. HW w/ R.C.P.
+50SB 90° Lt
Conc. Outlet
℄ 6"UD=Match Existing

Ex. Duck Creek Channel

+84.55B

57RB

55'~6"F

E

+13'

Ex. 15"

15'~6"F

U

Guardrail Type 5
183B

95U

⇦ I-71 SB

+50SB 4"-90° Elbow *
℄ 4" UD = 570.42'

192B Guardrail Type 5

+72.4"-60° Wye *
℄ 4" UD = 573.92'

Ex. 15"

Concrete Barrier Type B50, As Per Plan
80B

356

+00 4"x6" Tee
℄ 4" UD = 573.97'

91U

+26
End Concrete Barrier Type B50, As Per Plan
Begin Concrete Barrier Type B50, As Per Plan A

℄ I-71SB

357SB

+00 NB 4"x6" Tee
℄ 4" UD = 571.48'

560D Sta. 358+00NB 9.5' Lt
INLET, NO. 3B50
℄ Inlet Elev. = 573.28'
Inv. 15" = 569.81'
℄ 6" UD NW&SE = 571.34'

358SB

561D Sta. 358+75NB 9.5' Lt
Inlet, No. 3B50
℄ Inlet Elev. = 572.44'
Inv. 15" = 569.00'
Inv. 24" = 566.33'
℄ 6" UD NW&SE = 570.40'

+75 NB 4"x6" Tee
Low Point
℄ 4" UD = 570.55'

TS

Ex. 24"

96U

+48SB End Concrete Barrier Type B50, As Per Plan A Begin Concrete Barrier Type D50, As Per Plan Lt. & Rt.

Concrete Barrier Type D50, As Per Plan
189B

+75SB 4"x6" Tee
℄ 4" UD = 568.35'

562D +75SB Catch Basin
Adjusted To Grade
℄ 6" UD = 568.25'
Inv. 15" = 566.30'

360SB

5'~15"B @ 3.31%

6'~6"F*

11'~6"F

Ex. 15"

16'~6"F

6'~6"F*

16'~6"F

Ex. Conc. Curb

9'~6"F

Ex. 15"

I-71 SB 6'~15"B @ 1.0%

14'~6"F

Ex. Conc. Median

℄ I-71NB

357NB

184B Concrete Barrier Type B50, As Per Plan A

25RB

11'~6"F

Ex. 15"

8'~15"B @ 1.10%

12'~15"B @ 1.10%

358NB

13'

10'~24"B @ 0.8%

3'-6"

360NB

11'~6"F

5'~24"B @ 0.8%

558D Sta. 356+00 ℄
INLET, NO. 3B50
℄ Inlet Elev. = 575.77'
Inv. 15" = 569.22'
℄ 6" UD NW&SE = 573.84'

+00 4"x6" Tee
℄ 4" UD = 573.97'

92U

+00 NB 4"x6" Tee
℄ 4" UD = 571.82'

+75 NB 4"x6" Tee
Low Point
℄ 4" UD = 571.60'

Taper Guardrail

97U

185B Concrete Barrier Type D50, As Per Plan

+00NB 4" Cap
℄ 4" UD = 573.24'

Ex. 15"

+01 4"x6" Tee
℄ 4" UD = 573.97'

93U

39 RS

40 RS

I-71 NB ⇨

2

+85NB, 4"-60° Elbow *
Low Point
℄ 4" UD = 569.48'

Ex. 24"

10'

+16NB

10'

+23NB,4"-60° Elbow *
Low Point
℄ 4" UD = 569.48'

Guardrail Type 5
176B

98U

9'~6"F

Ex. Conc. Curb

Ex. Paved Gutter

Ex. LA/RW

Ex. Retaining Wall with Fence

Do Not Disturb Ex. Fence

Ex. LA/RW

+41NB

+66NB

26'~6"F

32'~6"F

Ex. Paved Gutter

+00NB 71.5' Rt Ex. CB

559D +00 Catch Basin
Adjusted To Grade
℄ 6" UD = 573.84'
Inv. 15" = 571.90'

174B Concrete Barrier Type D, As Per Plan

39 PB 357+75±

+27NB
End Concrete Barrier Type D, As Per Plan
Begin Concrete Barrier Type D

175B Concrete Barrier Type D

Sta. 358+41NB, Rt.
DITCH EROSION PROTECTION,
For Detail See Sheet 289
81P

Ex. LA/RW

R.C.P.

Ex.

Do Not Disturb Ex. Fence

Ex. LA/RW

Ex. LA/RW

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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Sta. 355+50 to Sta. 361+00

CALC. BY D.R DATE 10-17-94
CHKD. BY PWP DATE 11-16-94

HAM-71-2.92

OHIO FHWA REGION 5

225/615

City of Norwood
City of Cincinnati

361+94.00 EPA
129.00' Lt.
℄ Gate
362+01.0±
362+08.0± EPA
128.0±' Lt.
362+32.00 CPA
126.00' Lt.
361+33.0± CPA
106.0±' Lt.
361+42.0± CPA
115.0±' Lt.
Ex. LA/RW
361+73± Type 3 Crossing
Ex. Power Source
57RB
+30SB,45° Lt Precast Reinforced Concrete Outlet As Per Plan ℄ 6" UD = 564.8'
45°-6"F
+30SB 4"-90° Elbow * ℄ 4" UD = 570.84'
99U
Guardrail Type 5 192B
Taper Guardrail
Ex. 33" San.
+72SB
+97SB
+125B
71F
+90SB End Concrete Barrier Type D Begin Concrete Barrier Type D, As Per Plan
+43SB End Concrete Barrier Type D, As Per Plan Begin Concrete Barrier Type D
195B Concrete Barrier Type D
363+38.0± AC 94.0±' Lt.
364+81.0± AC 98.0±' Lt.
Sta. 17+07.53E Ramp E = Sta. 385+00SB, 73° Rt.
+98 16' Rt Ex. CB Inv. 15" = 574.12'
72F
+95E,4"-60° Wye * ℄ 4" UD = 579.01'
58RB
196B Guardrail Type 5
18"-6"F
+07.53E
16E
℄ Ramp E
RAMP E
10"-6"F Ex. Conc. Curb
Concrete Barrier TyPe D, As Per Plan B 194B
193B Concrete Barrier Type D
I-71 SB
(NO WORK)
HAM-71-0769
+08E,4"-45° Elbow * ℄ 4" UD = 578.14'
100U
Curb Removed, As Per Plan 2 10P
+00E Catch Basin Adjusted To Grade Inv. 15" = 573.48'
603D
+00SB Catch Basin Adjusted To Grade ℄ 6" UD = 568.43' Inv 15" = 564.15' Inv 18" = 563.40'
602D
+25SB 4"x4" Tee * ℄ 4" UD = 568.23'
+25SB Catch Basin Adjusted To Grade Inv 15" = 565.00'
601D
+99SB 4"x6" Tee ℄ 4" UD = 568.52'
96U
362SB
59RB
364SB
+87SB Begin Taper
+125B End Taper
+56SB
+06SB
℄ I-71 SB
366SB
Curb, Type 2-A, As Per Plan 60P
Taper Guardrail
Guardrail Type 5 191B
Ex. Duck Creek Box Culvert
+43SB
+50SB
Concrete Barrier Type D50, As Per Plan 189B
+76NB
Concrete Barrier Type D 190B
25RB
Ex. 33" San.
MATCH LINE Sta. 361+00
MATCH LINE Sta. 366+50SB
℄ I-71 NB
364NB
362NB
Concrete Barrier Type D50, As Per Plan 185B
Concrete Barrier Type D 177B
Bridge No.
SC
I-71 NB
366NB
Guardrail Type 5 186B
Concrete Barrier Type D, As Per Plan 178B
+48NB
FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS
+11.75NB
98U
+28.5NB
176B Guardrail Type 5
60RB
+78.5NB
+03.5NB
+65NB End Concrete Barrier Type D Begin Concrete Barrier Type D, As Per Plan
+98NB End Concrete Barrier Type D, As Per Plan Begin Concrete Barrier Type D
Concrete Barrier Type D 179B
40 RS
365 +25± 40 PB
41 RS
363+43.0± EPA 77.0±' Rt.
73F
363+69.00 CPA 115.00' Rt.
Taper Guardrail
Ex. LA/RW
Ex. 18"
Do Not Disturb Ex. Fence
MATCH LINE Sta. 366+50NB

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285,489A,489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"-6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP E Sta. 15+50 to Sta. 17+07.53
Sta. 361+00 to Sta. 366+50

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CALC. BY KAB DATE 10-17-94
CHKD. BY PWP DATE 11-18-94

HAM-71-2.92

OHIO FHWA REGION 5

226/615

MATCH LINE Sta. 11+50E SEE SHEET 255

Ex. LA/RW

Ex. 60" Culvert

Ex. 18"

+60E 4"-30" Elbow * ft 4" UD = 583.16'

197B Guardrail Type 5

12E

27'-6"

SS

74F

11+71.0± Ramp E
12.0±' Rt. AC

Bridge No. HAM-562-0319S (No Work)

101U

12+75.0± Ramp E
14.00' Rt. EPA

12+85.00 Ramp E
14.00' Rt. CPA

Ex. LA/RW

CS

196B Guardrail Type 5

RAMP E

+75E, High Point
ft 4" UD = 584.46'

99U

14E

℄ Ramp E

2'

+48.5E

Curb Removed, As Per Plan 1 10P

100U

96U

℄ I-71SB

Ex. Conc. Curb

+54.3E
Begin Transition

367+41.00 IAPA
180.00' Lt.

72F

16'

3'

10'

+07.53E

+86.08E

+16E
End Transition

Curb Removed, As Per Plan 2 10P

MATCH LINE Sta. 15+50E

MATCH LINE Sta. 366+50SB

MATCH LINE Sta. 370+00SB

63RB

+50SB 4" Cap
ft 4" UD = 587.80'

Guardrail Type 5 191B

I-71 SB

368SB

61RB

62RB

Ex. 33" San

186B Guardrail Type 5

Ex. Duck Creek Box Culvert

℄ Ramp F

Ex. LA/RW

Do Not Disturb Ex. Fence

60'

PCC Sta. 0+00F Ramp F, 60' Lt. = Sta. 368+24.92NB ℄ I-71

368NB

I-71 NB

102U

368+00.00 EPA
139.00' Rt.
End Prop. Fence and Secure to the Exist. Fence Post

41 RS

+50NB
High Point
ft 4" UD = 575.36'

Ex. 21"

E

73F

℄ I-71NB

98U

Ex. 33" San

City of Norwood
City of Cincinnati

Guardrail Type 5 198B

+64.92NB

Ex. LA/RW

MATCH LINE Sta. 366+50NB

MATCH LINE Sta. 369+50NB

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285,489A,489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"w6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP E Sta. 11+50 to Sta. 15+50
RAMP F Sta. 0+00 to Sta. 1+21

SB-Sta. 366+50 to Sta. 370+00 NB-Sta. 366+50 to Sta. 369+50

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CALC. BY LLB DATE 10-17-94
CHKD. BY PWP DATE 11-10-94

HAM-71-2.92

OHIO FHWA REGION 5

227/615

MATCH LINE Sta. 373+00SB

MATCH LINE Sta. 373+00NB

MATCH LINE Sta. 4+50F

70P

+77SB

+81SB

Taper Guardrail

Taper Guardrail

89P Sta. 372+21.9SB PRESSURE RELIEF JOINT, TYPE C

+27SB

203B Guardrail Type 5

+20.83SB Begin Transition

372SB

64RB

63RB

T

+39.5SB

I-71 SB

℄ I-71SB

Guardrail Type 5 191B

Ex. LA/RW

City of Norwood
City of Cincinnati

96U

Ex. 60"

Ex. 33" San

Ex. Duck Creek Box Culvert

℄ I-71NB

I-71 NB

43 RS

42 PB

372+75±

38'

+55NB

10'

10'-6"

42 RS

3'

17.17'

CS

+13F Begin Transition

+50F Catch Basin Adjusted To Grade 604D
℄ 6" UD = 568.97'
Inv. 15" = 567.10'

+39.4"-30° Wye *
℄ 4" UD = 569.02'

4+25± RAMP 'F' 41 PB

RAMP F

4'

+11.75NB

60'

23'

+71.27F

372NB

Existing Retwall with Fence on Top (Do Not Disturb)

Concrete Barrier Type D, As Per Plan 202B

℄ RAMP F

Ex. Paved Gutter

102U

Ex. Conc. Curb

6'

+48F

+54F Begin Concrete Barrier Type D As Per Plan
End Concrete Barrier Type D

+63.5NB

T

Guardrail Type 5 188B

41 RS

61RB

Guardrail Type 5A 187B

2F

8'

Concrete Barrier Type D 201B

Ex. LA/RW

+01NB End GR 5A Begin GR 5

+88.5NB End GR 5 Begin GR 5A

370NB

Do Not Disturb Existing Fence

186B Guardrail Type 5

FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

62RB

+48F

1

Guardrail Type 5 198B

+23F

MATCH LINE Sta. 370+00SB

MATCH LINE Sta. 369+50NB

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP F Sta. 1+00 to Sta. 4+50

SB-Sta. 370+00 to Sta. 373+00 NB-Sta. 369+50 to Sta. 373+00

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CALC. BY DLB DATE 10-1-94
CHKD. BY PWP DATE 12-10-94

HAM-71-2.92

OHIO FHWA REGION 5

228 / 615

MATCH LINE Sta. 376+50SB

MATCH LINE Sta. 20+50J

MATCH LINE Sta. 376+00NB

SEE SHEET 258

MATCH LINE Sta. 8+00F

Bridge No. HAM-71-0788L

376SB

20J

+07J

Ex. 36" San

Ex. Grass Access Rd.

Guardrail Type 5 (265B)

Curb Removed, As Per Plan 1 (11P)

(91RB)

PC

Ex. 84"

℄ Ramp J

Ex. Conc. Curb

142U

+32.4J

+50J

7

BASELINE SHIFT
Sta. 17+58.37J ℄ Shift 16' Lt

+62J 4" Cap
℄ 4" UD = 569.58'

18J

2'

3'

16'

℄ I-71SB

374SB

I-71 SB

℄ I-71NB

I-71 NB

374NB

Ex. 33" San

4.3 RS

103U

℄ Ramp F

Ex. 15"

+50F

Do Not Disturb Ex. Fence LT/RT

Curb Removed, As Per Plan 1 (61P)

104U

Ex. Retaining Wall With Fence

Ex. Conc. Curb

Ex. Paved Gutter

6F

RAMP F

Concrete Barrier Type D, As per Plan (202B)

+47F, 4"-30° Wye *
℄ 4" UD = 569.07'

+35F Catch Basin Adjusted To Grade (606D)
Inv. 15" = 567.00'

5'~6"F

605D

Sta. 5+00F 6' Rt
Inlet, No. 35
As Per Plan
℄ Inlet Elev. = 570.82'
Inv. 15" = 566.90'
℄ 6" UD = 568.81'

+13NB 4" Cap
℄ 4" UD = 571.47'

Ex. 15"

+11.75NB

48'

10'

+00F 4"x6" Tee
Low Point
℄ 4" UD = 568.87'

3'

16'

+75.5F
End Transition

102U

Do Not Disturb Ex. Fence

4'~15"B @ 2.60%

E

+70J

RAMP J

℄ Ramp J

90RB

PT

137U

Guardrail Type 5 (264B)

MATCH LINE Sta. 16+25J
SEE SHEET 256

Begin Retrofit Parapet

Widen Approach Slab

+56SB

70P

+58.33SB
End Approach Slab
End Transition
Begin Retrofit Parapet

+33.33SB
Begin Approach Slab

+31SB

+33SB 4" Cap
℄ 4" UD = 597.93'

Taper Guardrail

Guardrail Type 5 (191B)

96U

+02SB

63RB

MATCH LINE Sta. 373+00SB

MATCH LINE Sta. 373+00NB

MATCH LINE Sta. 4+50F

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheet
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0788L (I-71), See Sheet 579.

RAMP F Sta. 4+50F to Sta. 8+00F
RAMP J Sta. 16+25J to Sta. 20+50J

SB-Sta. 373+00 to Sta. 376+50 NB-Sta. 373+00 to Sta. 376+00

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CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 11-18-94

HAM-71-2.92

OHIO FHWA REGION 5

229/615

MATCH LINE Sta. 24+50J

MATCH LINE Sta. 379+50NB

MATCH LINE Sta. 380+00SB

+40NB 4" Cap
℄ 4" UD = 565.16'

Curb Removed 12P

105U

+50J
High Point
℄ 4" UD = 563.29'

ST +36.65NB

+27J

+30NB

Ex. 36" Scm

68RB

+97SB

71P

Taper Guardrail

212B Guardrail Type 5

+47SB

+22SB

End Retrofit Parapet

+91.8J
Begin Transition

267B Guardrail Type 5

+95J

24J

HAM-71-0799R

+98NB

+83.02SB
Begin Approach Slab
Begin Transition

+80.0SB
Begin Pvmt. Taper

+86.34L
Begin Approach Slab

Limit of Ex. Slope Protection

Ex. Conc. Curb

24J

+60J

Begin Retrofit Parapet

+16L

+11.34L
End Approach Slab
End Transition

℄ I-71SB

+75L 4" Cap
℄ 4" UD = 581.83'

Guardrail Type 5A 268B

24J

607D

+40NB

Concrete Barrier Type D, As Per Plan A

211B

205B Concrete Barrier Type D, As Per Plan A

66RB

92RB

65RB

I-71 SB

90P Sta. 22+06.3L
PRESSURE RELIEF JOINT, TYPE C

264B Concrete Barrier Type D, As Per Plan A

Bridge No.

+97.22K
End Approach Slab
End Transition

+07.5J
End GR 5A
Begin GR 5

+88.75J
End GR 5
Begin GR 5A

Guardrail Type 5 268B

+00J 4" Cap
℄ 4" UD = 562.59'

Guardrail Type 5 210B

378NB

103U

91P Sta. 21+92.2K
PRESSURE RELIEF JOINT, TYPE C

+72.22K
Begin Approach Slab
Begin Retrofit Parapet

87RB

+48K

+48K 4" Cap
℄ 4" UD = 579.46'
Barrier Transition

+59.72K
Begin Transition

+50K 4" Cap
℄ 4" UD = 580.79'

251B Concrete Barrier Type C, As Per Plan

141U

22K

22J

Guardrail Type 5 268B

Guardrail Type 5 204B

43 RS

+40NB

+35.5NB

+54L

+46L

139U

378SB

96RB

143U

144U

+72J, 4"-30° Elbow *
Low Point
℄ 4" UD = 561.58'

+82J, 4"-60° Elbow *
Low Point
℄ 4" UD = 561.68'

693D Sta. 21+00K 3.0' Lt.
INLET, NO. 3A, AS PER PLAN
℄ Inlet Elev. = 576.44
Inv. 15" = 571.47'

+63J 17' Lt Ex. CB
Inv. 18" = 557.53'

18'~6"F

8'~6"F

Ex. 18"

30'~6F

Ex. 21"

Ex. Duck Creek Box Culvert

+55J, 4"-30° Elbow *
Low Point
℄ 4" UD = 561.12'

32'~6F

+70J 42' Rt Ex. CB
Inv. 18" = 556.93'
Inv. 21" = 556.68'

+55J, 4"-30° Elbow *
Low Point
℄ 4" UD = 561.58'

℄ I-71NB

RAMP L

℄ RAMP L

RAMP K

℄ RAMP K

RAMP J

℄ RAMP J

Ex. 15"

Guardrail Type 5 263B

91RB

140U

142U

137U

Ex. 36" Scm

MATCH LINE Sta. 20+50L

MATCH LINE Sta. 20+50K

SEE SHEET 257

MATCH LINE Sta. 20+50J

MATCH LINE Sta. 376+50SB

MATCH LINE Sta. 376+00NB

Bridge No. HAM-71-0788L

I-71 NB

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Transition Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0788L (INTERSTATE-71), See Sheet 579.
9) For Work on Bridge HAM-71-0799R (RAMPS K & L), See Sheet 585.

RAMP J Sta. 20+50J to Sta. 24+50J
RAMP K Sta. 20+50K to Sta. 25+52.65K
RAMP L Sta. 20+50L to Sta. 25+29.44L

SB-Sta. 376+50 to Sta. 380+00 NB-Sta. 376+00 to Sta. 379+50

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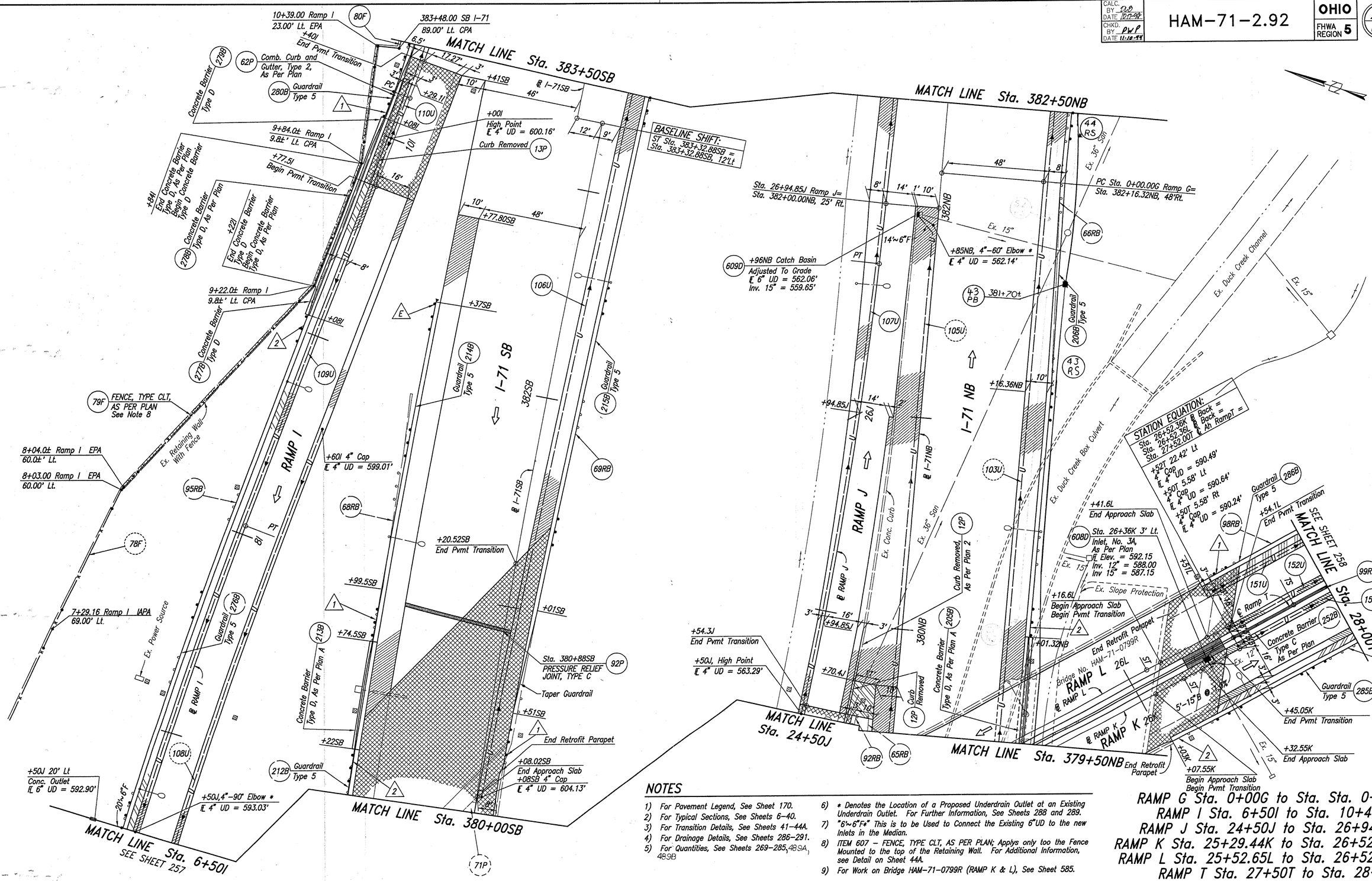
CALC. BY DJD DATE 10-17-94
CHKD. BY PWP DATE 11-10-94

HAM-71-2.92

OHIO
FHWA REGION 5

230
615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Transition Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) ITEM 607 – FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44A.
9) For Work on Bridge HAM-71-0799R (RAMP K & L), See Sheet 585.

RAMP G Sta. 0+00G to Sta. Sta. 0+34G
RAMP I Sta. 6+50I to Sta. 10+46.85I
RAMP J Sta. 24+50J to Sta. 26+94.85J
RAMP K Sta. 25+29.44K to Sta. 26+52.36K
RAMP L Sta. 25+52.65L to Sta. 26+52.36L
RAMP T Sta. 27+50T to Sta. 28+00T

SB–Sta. 380+00 to Sta. 383+50 NB–Sta. 379+50 to Sta. 382+50

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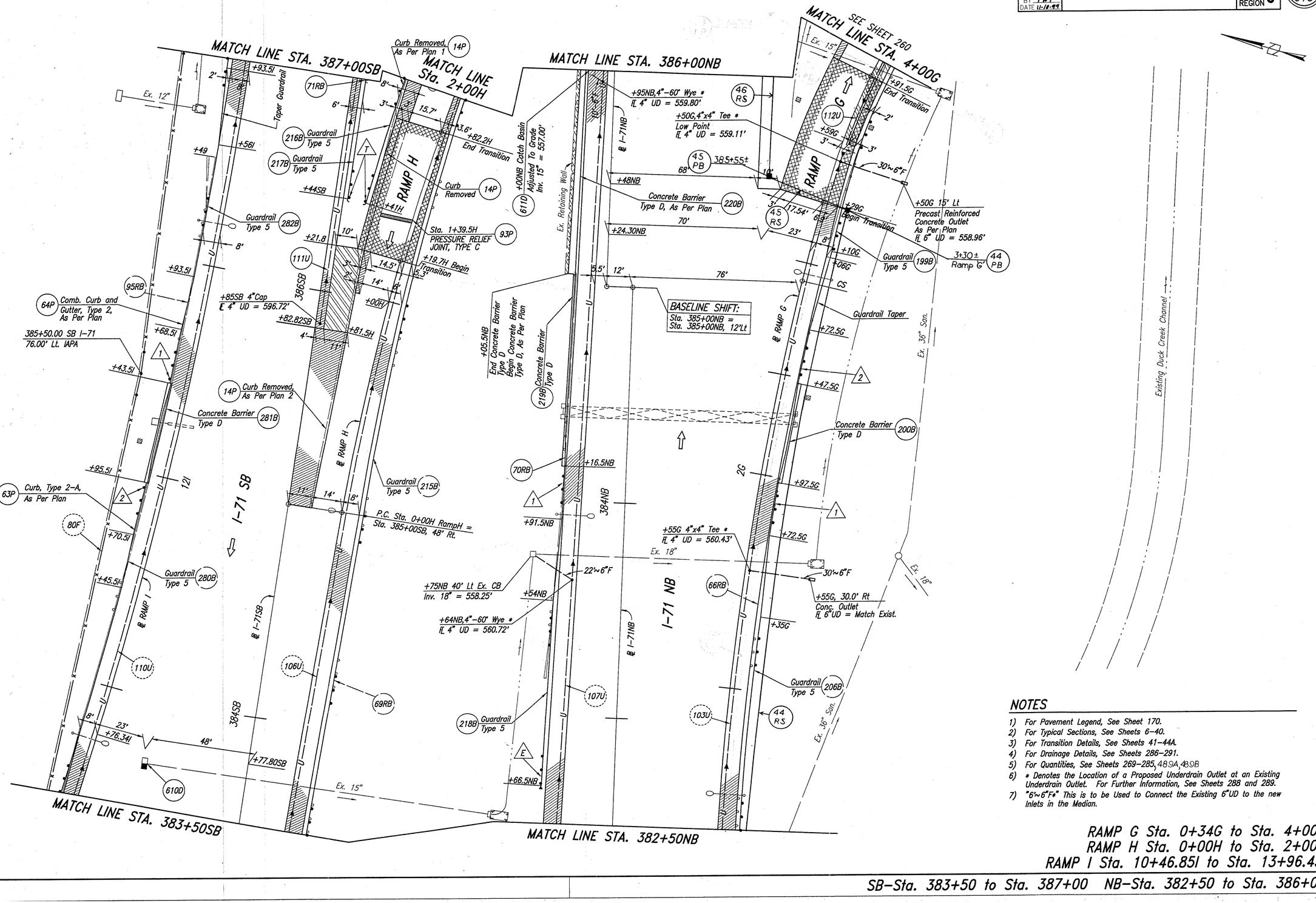
CALC. BY DLB DATE 10-17-94
CHKD. BY DWP DATE 11-10-94

HAM-71-2.92 | OHIO | FHWA REGION 5 | 231/615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 48.9A, 48.9B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP G Sta. 0+34G to Sta. 4+00G
RAMP H Sta. 0+00H to Sta. 2+00H
RAMP I Sta. 10+46.85I to Sta. 13+96.43I

SB-Sta. 383+50 to Sta. 387+00 NB-Sta. 382+50 to Sta. 386+00

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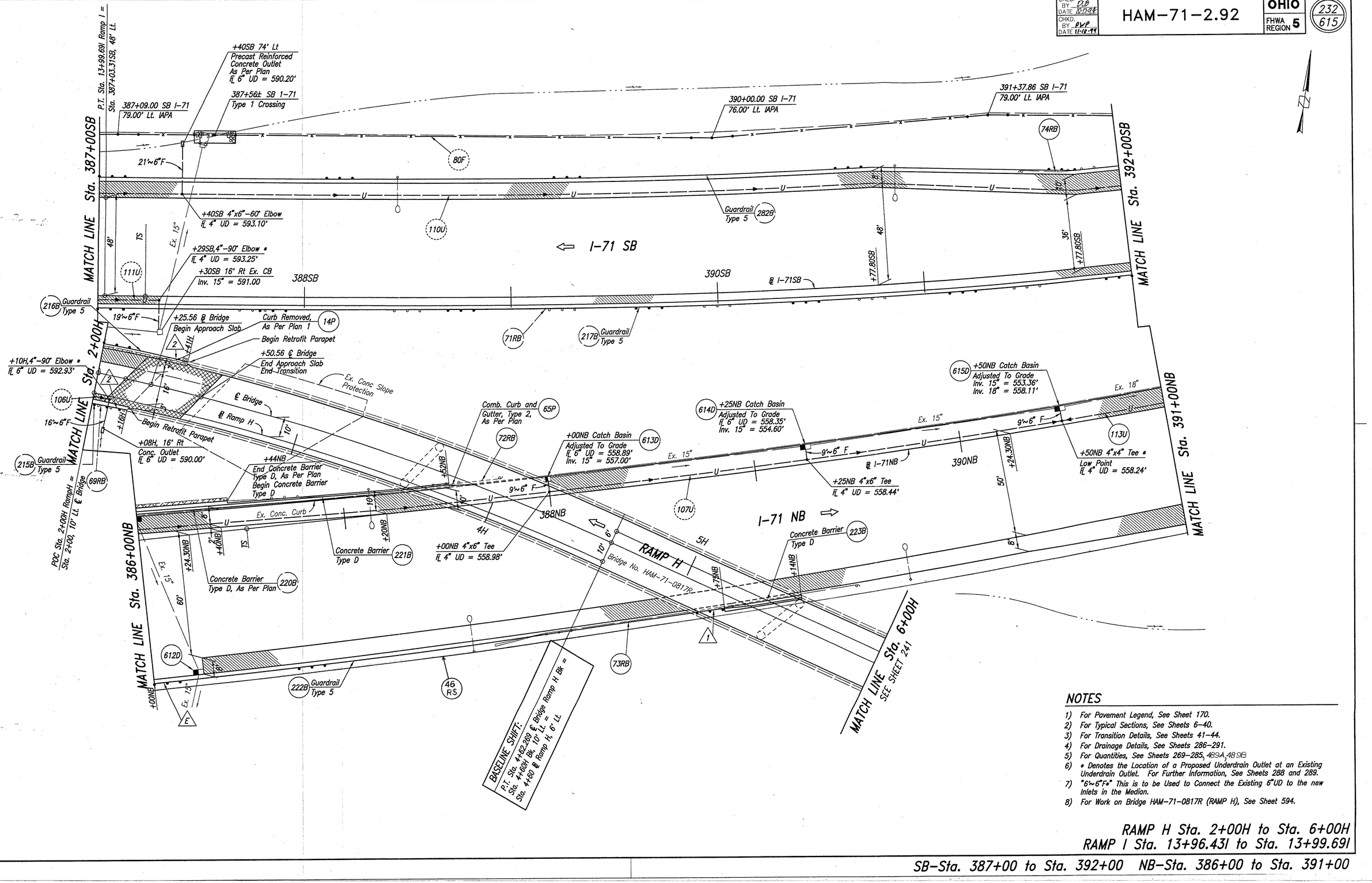
CALC. BY DLB DATE 10-7-94
CHKD. BY RWP DATE 11-10-94

HAM-71-2.92

OHIO FHWA REGION 5

232 / 615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0817R (RAMP H), See Sheet 594.

RAMP H Sta. 2+00H to Sta. 6+00H
RAMP I Sta. 13+96.43l to Sta. 13+99.69l

SB-Sta. 387+00 to Sta. 392+00 NB-Sta. 386+00 to Sta. 391+00

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CALC. BY DLP DATE 10-7-99
CHKD. BY PWP DATE 11-18-99

HAM-71-2.92

OHIO
FHWA REGION 5

233/615

392+23.00BK = 392+22.91AH SB I-71
69.00' Lt. IAPA

282B Guardrail Type 5

74RB

E

393+50.00 SB I-71
63.00' Lt. IAPA

+09.62SB

SC

℄ I-71SB

MATCH LINE Sta. 392+00SB

110U

℄ Gate
395+54.5± SB I-71

394+21± SB I-71
Type 3 Crossing

80F

395+50.0± SB I-71
62.0±' Lt. EPA

395+59.0± SB I-71
76.0±' Lt. EPA

396+01.00 SB I-71
118.00' Lt. CPA

397+05.81 SB I-71
144.00' Lt. CPA

MATCH LINE Sta. 397+50SB

U

⇦ I-71 SB

394SB

217B Guardrail Type 5

71RB

+00NB 4" Cap
℄ 4" UD = 571.11'

396SB

115U

616D +75NB Catch Basin
Adjusted To Grade
℄ 6" UD = 558.43'
Inv. 18" = 551.87'

617D +75NB Catch Basin
Adjusted To Grade
℄ 6" UD = 598.99'
Inv. 18" = 550.67'

Ex. 72"

Ex. 18"

Ex. 18"

Ex. 18"

SC

Ex. 15"

+00NB Catch Basin
Adjusted To Grade
℄ 6" UD = 559.99'
Inv. 15" = 557.80'

618D

Ex. Conc. Curb to Remain

CS

E

+34NB

230B Guardrail Type 5

396NB

9'~6"

9'~6"

9'~6"

U

MATCH LINE Sta. 391+00NB

+04.30NB

48'

+75NB 4"x6" Tee
℄ 4" UD = 558.52'

392NB

℄ I-71NB

+75NB 4"x6" Tee
℄ 4" UD = 599.09'

113U

+00NB 4"x6" Tee
℄ 4" UD = 560.08'

394NB

MATCH LINE Sta. 396+NB

I-71 NB ⇨

114U

+50NB,4"-90° Elbow *
℄ 4" UD = 563.89'

+93.5NB

224B Guardrail Type 5

75RB

30'~6"F

+50NB 79' Rt
Precast Reinforced Concrete Outlet As Per Plan
℄ 6" UD = 563.67'

46 RS

392+50± 46 PB

E

47 RS

Ex. Access Road

Ex. Duck Creek Channel

Ex. Duck Creek Box Culvert

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

SB-Sta. 392+00 to Sta. 397+50 NB-Sta. 391+00 to Sta. 396+50

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CALC. BY DB DATE 10-7-94
CHKD. BY PWP DATE 11-18-94

HAM-71-2.92

OHIO FHWA REGION 5

234 / 615

+57SB
End Concrete Barrier Type D
Begin Concrete Barrier Type D, As Per Plan

+86SB
End Concrete Barrier Type D, As Per Plan
Begin Concrete Barrier Type D

400+00.00 SB I-71
129.00' Lt. CPA

400+30± SB I-71
Type 3 Crossing

Ex. LA/RW

82F

Concrete Barrier Type D 233B

399+08.0± SB I-71 AC
68.0±' Lt.

399+21± SB I-71
Type 1 Crossing

399+21± SB I-71
Ground Rod

+37.5SB 59' Lt Ex. CB
Inv. 15" = 557.13'
Inv. 24" = 556.38'

77RB

+37.5SB 4"x4" Tee *
Low Point
℄ 4" UD = 562.29'

Taper Guardrail

397+69±
Type 1 Crossing

80F

Ex. R.C.P.

+66SB 59' Lt Ex. CB
Inv. 15" = 559.47'

397+78.00 SB I-71
57.00' Lt. CPA

397+95.0± SB I-71
56.0±' Lt. AC

+90SB

22'~6"F

MATCH LINE Sta. 397+50SB

+66SB,4"x4" Tee *
℄ 4" UD = 564.42'

Concrete Barrier Type D 231B

Guardrail Type 5 217B

℄ I-71SB

398SB

110U

115U

Ex. 15"

Ex. 24"

Bridge No.

Concrete Barrier Type D, As per Plan 232B

620D Sta. 399+77SB 19' Rt
Catch Basin, No. 5, w/o Apron

+62.5SB

+75SB Begin Paved Gutter Begin Ex. Conc. Median

+95SB

400SB

+49SB 4"x4" Tee *
Low Point
℄ 4" UD = 563.73'

116U

Sta. 400+66SB 18.8' Rt
Catch Basin, No. 2-3 622D

I-71 SB

Guardrail Type 5 234B

625D Paved Gutter, Type I-2, As Per Plan

+50SB 4"x6" Tee
℄ 4" UD = 564.02'

402SB

78RB

Concrete Barrier Type D50 237B

117U

Abandon Ex. 12" Storm

15"B

9'~6"F

Ex. Conc. Curb

Ex. Conc. Median

MATCH LINE Sta. 403+00SB

MATCH LINE Sta. 396+50NB

71RB

76RB

+00.25SB

Taper Guardrail

Ex. 24"

+69SB

+94SB

10'

9'

1

9'~6" F

℄ I-71NB

398NB

+05NB

+84NB

Guardrail Type 5 230B

113U

619D +62NB Catch Basin
Adjusted To Grade
℄ 6" UD = 562.41'
Inv. 24" = 558.04'

+63NB 4"x6" Tee
℄ 4" UD = 562.50'

621D Sta. 400+49SB 9.5' Rt
INLET, NO. 3B50, AS PER PLAN

400NB

Concrete Barrier Type D50 238B

623D Sta. 401+50SB 18.6' Rt
CATCH BASIN, NO. 2-3

+65NB 4"x6" Tee
℄ 4" UD = 564.02'

Sta. 401+50SB 9.5' Rt
INLET, NO. 3B50, AS PER PLAN 624D

+50NB, High Point
℄ 4" UD = 565.14'

48"

118U

I-71 NB

114U

47 PB 397+52±

HAM-71-10.37(NO WORK)

Concrete Barrier Type D 225B

Concrete Barrier Type D, As per Plan 226B

Concrete Barrier Type D 227B

+55NB

+65NB

687D Sta. 400+65NB 9.5' Lt
INLET, NO. 3B50, AS PER PLAN

Guardrail Type 5 228B

+00NB

+17.5NB

MATCH LINE Sta. 402+00NB

75RB

47 RS

224B Guardrail Type 5

+43.5NB

Taper Guardrail

+81NB

48 RS

+06NB

FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

+41NB
End Concrete Barrier Type D
Begin Concrete Barrier Type D, As Per Plan

Ex. LA/RW

+15NB
End Concrete Barrier Type D, As Per Plan
Begin Concrete Barrier Type D

Ex. R.C.P.

2

FLEXIBLE BEND AS PER MANUFACTURER'S RECOMMENDATIONS

Hamilton County
City of Cincinnati

79RB

229B Concrete Barrier Type D

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheet
3) For Drainage Details, See Sheets 286-291.
5) For Drainage Profiles, See Sheet
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

SB-Sta. 397+50 to Sta. 403+00 NB-Sta. 396+50 to Sta. 402+00

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CALC. BY DJP DATE 10-17-94
CHKD. BY PWP DATE 11-18-99

HAM-71-2.92

OHIO FHWA REGION 5

235/615

MATCH LINE Sta. 403+00SB

MATCH LINE Sta. 402+00NB

MATCH LINE Sta. 408+50

MATCH LINE Sta. 4+50N SEE SHEET 265

Sta. 402+00NB, 48'Lt= Sta. 0+00.00N Ramp N

For Ridge Avenue See Sheet

Ex. LA/RW

82F

405+06.00 CPA 183.00' Lt.

405+92.00 188.00' Lt. CPA

406+60.00 163.00' Lt. CPA

407+46.00 169.00' Lt. CPA

87F

42"W

20"G

Ex. 12"

Ex. 18"

31+23.0± Ridge 29.0±' Lt. AC

31+43.0± Ridge 29.00' Rt. AC

RIDGE AVENUE

Ex. Conc. Slope Protection

+85 77' Lt Ex. CB Inv. 24" = 557.35'

Sta. 404+81.00 ℄ (Projected Back)= Sta. 29+96.64 Ridge Ave.

+62.5SB

+50.5

27"w6"F

80RB

+75.5

Concrete Barrier Type D 235B

+72.4"-60° Wye * ℄ 4" UD = 564.00'

236B Guardrail Type 5

I-71 SB

625D Paved Gutter, Type I-2, As Per Plan

234B Guardrail Type 5

+75SB, High Point ℄ 4" UD = 564.53'

116U

119U

120U

+75SB, High Point ℄ 4" UD = 564.75'

117U

℄ I-71SB

+85.61SB

404SB

+20 6" Cap ℄ 6" UD = 563.22'

+75 4"x6"-60° Wye ℄ 4" UD = 564.00'

166U

Ex. 24" Ex. Steel Casing

406

+00 6" Cap ℄ 6" UD = 562.65'

167U

237B Concrete Barrier Type D50

78RB

408

Ex. Conc. Curb

Ex. Conc. Median

21"w6"F

℄ I-71

6" UD

10"w6"F

5"w24"B

405℄

+75, E 6"UD = 562.85'

+97.15

+22

+97

Concrete Barrier Type D50 238B

I-71 NB

+13 6"-30° Elbow 4"x6" Reducer ℄ 4" UD = 562.67'

48'

56'

58'

+75 4"x6"-60° Wye ℄ 6" UD = 566.00'

626D Sta. 405+85 ℄ Catch Basin, No. 2-3 Grate Elev. = 564.34' Inv. 24" = 556.58' ℄ 6" UD = 563.80' ℄ 6" UD(W) = 560.97'

+22 6" Cap ℄ 6" UD = 563.52'

406+40± 50 PB

122U

8'

6" UD

+97 6"-30° Elbow ℄ 6" UD = 562.74'

51 RS

10'

3'

+97N 4"x4" Tee * ℄ 4" UD = 563.19'

50 RS

RAMP N

+28.18N

17.48'

23'

8"

PS

3'

4N

+10.04N

16'

+36N Begin Transition

3+50± Ramp N 49 PB

+98.5N End Transition

STATION EQUATION: Sta. 404+84.57SB Back= Sta. 404+00.00NB Ahead= Sta. 404+84.57℄ Ahead

Bridge No. HAM-71-0846

+74.9NB

℄ I-71NB

121U

113U

+75NB, High Point ℄ 4" UD = 564.75'

229B Concrete Barrier Type D @ Ramp N

118U

2N

PC

ST

48 RS

0+53± Ramp N 48 PB

79RB

Ex. Conc. Slope Protection

+97N

49 RS

4.3'w6"F

+97N, 43' Rt Precast Reinforced Concrete Outlet As Per Plan ℄ 6" UD = 556.00'

PT

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheets 41-44.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"w6"Fs" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP N Sta. 0+00N to Sta. 4+50N

SB-Sta. 403+00 to 408+50 NB-Sta. 402+00 to 404+00 and 404+87.57 to 408+50

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CALC. BY DLP DATE 10-17-01
CHKD. BY PWP DATE 11-18-99

HAM-71-2.92

OHIO FHWA REGION 5

236 / 615

MATCH LINE STA. 408+50

MATCH LINE STA. 414+00

Ex. LA/RW

87F Continuation of Fence Not Shown
5+52.0± Ramp R, CPA 145.0± Lt.,
6+26.00 Ramp R, CPA 75.00' Lt.,
Type 3 Crossing, 411+54±
See Sheet 268

410+50.00
109.00' Lt. CPA

I-71 SB ⇦

I-71 NB ⇨

RAMP P ⇨

℄ I-71

℄ Ramp P

410

412

Ex. Monument

Ex. Conc. Median

Ex. Conc. Curb

Paved Gutter, Type I-2, As Per Plan 625D

Concrete Barrier Type D50 237B

Concrete Barrier Type D50 238B

627D Sta. 411+75 8' Lt
INLET, NO. 3B50, AS PER PLAN

+75 4"x6" Tee
℄ 4" UD = 555.95'

628D Sta. 411+75 ℄
Catch Basin, No. 2-3

629D Sta. 411+75 8' Rt
INLET, NO. 3B50, AS PER PLAN

+75 4"x6" Tee
℄ 4" UD = 555.95'

630D Sta. 412+50 8' Lt
INLET, NO. 3B50, AS PER PLAN

631D Sta. 412+50 ℄
Catch Basin, No. 2-3

+50 4"x4" Tee *
Low Point
℄ 4" UD = 555.70'

+40, ℄ 6"UD=554.55'

+65, ℄ 6"UD=554.87'

+80 6" Cap
℄ 6" UD = 554.60'

+45 4"x6"-30° Elbow
℄ 4" UD = 555.70'

+55 4"x6"-60° Elbow
℄ 4" UD = 555.70'

+41,4"x-45° Elbow *
℄ 4" UD = 555.70'

+00 87' Lt
Precast Reinforced Concrete Outlet As Per Plan
℄ 6" UD = 551.60'

+00, 4"x4" Tee *
Low Point
℄ 4" UD = 556.25'

31'-6"F

Ex. 36"

Ex. 12" x 9' Box Culvert

Ex. 12"

+00 4"x6" Tee
℄ 4" UD = 555.82'

Sta. 412+50 8' Rt
INLET, NO. 3B50 AS PER PLAN B 632D

Sta. 413+00 8' Lt
INLET, NO. 3B50 AS PER PLAN 633D

Sta. 413+00 ℄
Catch Basin, No. 2-3 634D

+10, ℄ 6"UD=554.52'

+95 6" Cap
℄ 6" UD = 554.75'

Sta. 413+00 8' Rt
INLET, NO. 3B50 AS PER PLAN 635D

+60, ℄ 6"UD = 554.55'

+00 4"x6" Tee
℄ 4" UD = 555.82'

6360 +50 Catch Basin
Adjusted to Grade
℄ 6" UD = 555.40'
Inv. 18" = 550.93

Sta. 412+75℄ 79' Rt. =
Sta.10+45.90P Ramp P

Ex. R.C.P.

Curb Removed, As Per Plan 1 15P

Curb, Removed As Per Plan 2 15P

Guardrail Type 5 239B

81RB

Ex. Paved Channel

51 PB 410+90±

52 PB 8+76± Ramp P

51 RS

52 RS

53 RS

+36P

+45.90P

+54.42P

+60P

+85P End Transition

+22.5P Begin Transition

8P

10P

E

ST

Ex. 18"

Ex. 15"

Ex. 12"

15"B

18"B

119U 120U 121U 122U 123U 124U 125U 126U 167U 168U 169U 170U

78RB

10'~6"F

11'~6"F

14'~6"F

15'

+89.63

38.3'

38'

+00

+09.32

8'

10'

14'

36'

3'

16'

15.2'

CS

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Transition Details, See Sheet
3) For Drainage Details, See Sheets 286-291.
5) For Drainage Profiles, See Sheet
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

MATCH LINE Sta. 6+50P
SEE SHEET 267

RAMP P Sta. 6+50P to Sta. 10+45.90P

Sta. 408+50 to Sta. 414+00

C:\18007\PLANSH\745\408-414.DWG - FEB 20, 1995 - 13:33:08

CALC. BY DLB DATE 10-17-94
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HAM-71-2.92

OHIO FHWA REGION 5

237/615

SEE SHEET 268

MATCH LINE Sta. 4+00R

MATCH LINE Sta. 414+00

MATCH LINE Sta. 419+50

+00R
Connect to Ex. 6" Type F
ℓL 4" UD = 557.71'
ℓL Ex. 6" UD = 553.37'
4"–90° Elbow
4"x6" Tee

+55.5R End Transition

+92.7R Begin Transition Begin Widen Shoulder

CS

+61.65R

+78.5R

+41R

+16R

RAMP R

℄ Ramp R

I-71 SB

I-71 NB

2+75.00 Ramp R
79.00' Rt. CPA

416+73.00
134.00' Lt. CPA

418+25.00
163.00' Lt. CPA

EX. LA/RW

Ex. Paved Channel

Ex. 30"

Ex. 8" San.

Ex. 21" San.

Ex. 21" San.

Ex. RW

+10.89 Kennedy
End Approach Slab
Begin Feathering

+48.39 Kennedy
End Feathering

+29.19

22+57.0± Kennedy
41.0±' Lt. AC

23+03.0± Kennedy
18.0±' Rt. AC

+85.89 Kennedy
Begin Approach Slab

Ex. Conc. Slope Protection

Sta. 418+00 ℄ 66' Lt. = PC Sta. 0+00R Ramp R

+25R 19' Rt
Precast Reinforced Concrete Outlet
As Per Plan
ℓL 6" UD = 569.50'

Taper Guardrail

+25R 4"x6" Tee
ℓL 4" UD = 569.69'

Guardrail Type 5 241B

Guardrail Type 5 243B

Concrete Barrier Type D 242B

Concrete Barrier Type D50 237B

Concrete Barrier Type D50 238B

Concrete Barrier Type D 240B

Guardrail Type 5 239B

Sta. 415+50 8' Lt.
INLET, NO. 3B50
AS PER PLAN 688D

Sta. 415+50 ℄
Catch Basin, No.2–3 637D

Sta. 415+50 8' Rt
INLET, NO. 3B50
AS PER PLAN 638D

Sta. 419+31 8' Rt
INLET, NO. 3B50,
AS PER PLAN 639D

+50 4"x6" Tee
ℓL 4" UD = 559.87'

+45 6" Cap
℄ 6" UD = 558.58'

+60, ℓL 6"UD=559.01'

+25 6"–45° Elbow
℄ 6" UD = 563.94'

+29, 4' Lt. 6"–45° Elbow
℄ 6" UD = 564.06'

+11, 4' Lt. 6"–45° Elbow
℄ 6" UD = 566.52'

+15 6"–45° Elbow
℄ 6" UD 566.64'

+40 4" Cap
ℓL 4" UD = 558.37

+50 4" Cap
ℓL 4" UD = 570.69'

+31 4" Cap
ℓL 4" UD = 571.27'

+56,4"–60° Wye *
ℓL 4" UD = 559.87'

+56,4"x4" Tee *
ℓL 4" UD = 558.46'

+52, 99' Rt
Conc. Outlet
ℓL 6" UD = 557.64'

Paved Gutter, Type 1–2, As Per Plan 625D

HAM-71-0870

Bridge No. KENNEDY AVENUE ℄ Kennedy Ave.

+11.09 Kennedy
Begin Approach Slab
End Feathering

+31.09 Kennedy
End Approach Slab

19+05.0± Kennedy
41.0±' Lt. AC

19+00.00 Kennedy
46.00' Lt. CPA

19+50.0± Kennedy
18.0±' Rt. AC

+73.59 Kennedy
Begin Feathering

417+28.00
180.00' Rt. CPA

418+39.63
169.00' Rt. CPA

419+55.00
190.00' Lt. CPA

419+86.00
195.00' Lt. CPA

418+30±

Ex. R.C.P.

Ex. Conc. Curb

Ex. Conc. Median

Ex. 12"

Ex. 15"

Ex. 36"

Ex. 48"

Ex. 72"

Ex. 84"

Ex. 96"

Ex. 108"

Ex. 120"

Ex. 132"

Ex. 144"

Ex. 156"

Ex. 168"

Ex. 180"

Ex. 192"

Ex. 204"

Ex. 216"

Ex. 228"

Ex. 240"

Ex. 252"

Ex. 264"

Ex. 276"

Ex. 288"

Ex. 300"

Ex.

CALC. BY DJP DATE 10-17-94
CHKD. BY PWP DATE 11-18-94

HAM-71-2.92

OHIO
FHWA REGION 5

238/615

419+55.00
190.00' Lt. CPA
419+86.00
195.00' Lt. CPA
420+32.00
161.00' Lt. IAPA
Ex. LA/RW
421+00.00
127.00' Lt. IAPA
93F
421+75.00
106.00' Lt. IAPA
422+43.00
105.00' Lt. IAPA
423+04.00
110.00' Lt. IAPA
423+65.00
111.00' Lt. IAPA
Ex. LA/RW
424+20.00
96.00' Lt. IAPA
Ex. LA/RW
424+28.00
95.00' Lt. CPA
244B Concrete Barrier Type D
Taper Barrier
424+48±
Ground Rod
424+51.0±
68.0±' Lt. EPA
+50.5
End Concrete Barrier Type D
Begin Concrete Barrier Type D, As Per Plan
424+50.0±
65.0±' Lt. EPA
Ex. Retaining Wall With Fence
Concrete Barrier Type D, As per Plan 245B

83RB Taper Guardrail
+0.5
+63
127U
Guardrail Type 5 243B
+55 4"x6" Tee
℄ 4" UD = 571.99'
Sta. 419+55 8' Lt
INLET, NO. 3B50, AS PER PLAN 642D
237B Concrete Barrier Type D50
124U
78RB
422
+42.9
48'
⇦ I-71 SB
Ex. Monument
420
12"B
10'~6"F
℄ I-71
Ex. Conc. Median
+65, ℄ 6"UD=571.14'
238B Concrete Barrier Type D50
Sta. 419+55 ℄ Catch Basin, No. 2-3 643D
MATCH LINE Sta. 419+50
+15
171U
I-71 NB ⇨
40'
126U
+95
38'
625D Paved Gutter, Type I-2, As Per Plan
+75
36'
54 RS
8'
10'
Taper Guardrail
+67.5
+0.05
2
+25.5
10'
8.9'
+42.9
36'
+00 4"x6" Tee
℄ 4" UD = 583.73'
+95 6" Cap
℄ 6" UD = 582.48'
94F FENCE, TYPE CLT, AS PER PLAN See Note 7
Sta. 424+00 8' Lt
INLET, NO. 3B50, AS PER PLAN 644D
424
Ex. Conc. Curb To Remain
9'~6"F
15"B
Ex. 12"
Ex. 12"
10'~6"F
Ex. Conc. Curb To Remain
15"B
9'~6"F
645D +00 ℄ Manhole Reconstructed to Grade With Grade, As Per Plan
646D Sta. 424+00, 8' Rt INLET, NO. 3B50, AS PER PLAN
+10, ℄ 6"UD=582.77'
Ex. 30"
172U
+00 4"x6" 90° Elbow
℄ 4" UD = 583.73'
178U
+50 4"x6" Tee
℄ 4" UD = 582.09'
21'~6"F
MATCH LINE Sta. 425+00
+50 75' Rt
Precast Reinforced Concrete Outlet As Per Plan
℄ 6" UD = 581.88'
423+63.00
114.00' Rt. CPA
423+85±
Ground Rod
424+69.00
114.00' Rt. CPA
422+70.00
129.00' Rt. IAPA
96F
Ex. LA/RW
Ex. LA/RW
Ex. LA/RW

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Drainage Profiles, See Sheets 292-296.
4) For Quantities, See Sheets 269-285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 - FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44.

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Sta. 419+50 to Sta. 425+00

CALC. BY DLB DATE 10-17-94
CHKD. BY PVP DATE 11-18-94

HAM-71-2.92

OHIO FHWA REGION 5

239 / 615

426+52± Type 3 Crossing
426+41.00 184.00' Lt. CPA
426+64.00 184.00' Lt. CPA
Ex. LA/RW
427+20.00 114.00' Lt. CPA
428+25.00 114.00' Lt. IAPA
429+15± Type 1 Crossing
429+76.00 114.00' Lt. IAPA
95F
426+00.00 117.00' Lt. CPA
425+08.5± 66.7± Lt. EPA
Taper Barrier
425+23.00 107.00' Lt. CPA
+07 End Concrete Barrier Type D, As Per Plan Begin Concrete Barrier Type D
Concrete Barrier Type D 246B
+50 78' Lt Conc. Outlet ℄ 6" UD = 588.53'
Guardrail Type 5 247B
425+07.5± 65.4± Lt. EPA
425+28.00 74.00' Lt. CPA
245B Concrete Barrier Type D, As per Plan
24'~6"F
Ex. 30"
127U
84RB
689D Sta. 427+00, 8' Lt. Inlet, No. 3B50, As Per Plan ℄ Inlet Elev. = 590.19' Inv. 12" = 586.46'
Sta. 427+00, 8' Rt. Inlet, No. 3B50, As Per Plan ℄ Inlet Elev. = 590.19' Inv. 12" = 586.30' ℄ 6" UD = 587.79' 648D
+25 4" Cap ℄ 4" UD = 590.24'
+14 6" Cap ℄ 6" UD = 588.89'
+14 6" Cap ℄ 6" UD = 587.74'
+24 6" Cap ℄ 6" UD = 588.90'
+24 6" Cap ℄ 6" UD = 587.75'
86RB
Guardrail Type 5 249B
131U
128U
+00 4" Cap ℄ 4" UD = 589.70'
173U
+89.78
625D Paved Gutter, Type I-2, As Per Plan
Taper Guardrail
+50 4"x6" Tee ℄ 4" UD = 588.77'
I-71 SB
237B Concrete Barrier Type D50
FENCE, TYPE CLT, AS PER PLAN See Note 7
94F
Ex. Retaining Wall With Fence
Ex. Conc. Curb
124U
Ex. Monument
Ex. Conc. Median
16'~12"B @ 1%
℄ I-71
9'~6"F
Ex. 12" 12'~12"B @ 4.07%
+00 4"x6" Tee ℄ 4" UD = 587.89'
647D
178U
78RB
+14 6" Cap ℄ 6" UD = 588.89'
+24 6" Cap ℄ 6" UD = 588.90'
129U
+00, High Point ℄ 4" UD = 587.81'
130U
Ex. 21"
I-71 NB
248B Guardrail Type 5
Concrete Barrier Type D50 238B
172U
Ex. 36"
+50 4"x6" Tee ℄ 4" UD = 585.12'
126U
55 RS
54 RS
427+50± 54 PB
85RB
19'~6"F
+75
+50 73' Lt Precast Reinforced Concrete Outlet As Per Plan ℄ 6" UD = 584.93'
429+32.00 126.00' Rt. CPA
427+57.00 126.00' Rt. IAPA
96F
Ex. LA/RW
429+21± Type 3 Crossing
425+75.00 129.00' Rt. IAPA
426+40± Type 3 Crossing
426+16± Type 3 Crossing
MATCH LINE Sta. 425+00
MATCH LINE Sta. 430+50
428
426
430

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285, 489A, 489B
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
7) ITEM 607 – FENCE, TYPE CLT, AS PER PLAN; Applys only too the Fence Mounted to the top of the Retaining Wall. For Additional Information, see Detail on Sheet 44.

Sta. 425+00 to Sta. 430+50

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CALC. BY DB DATE 10-17-94
CHKD. BY PWP DATE 11-18-94

HAM-71-2.92

OHIO FHWA REGION 5

240/615

MATCH LINE Sta. 430+50

433+02.00
154.00' Lt. CPA

Ex. LA/RW

95F

436+04.72
154.00' Lt. EPA

End Fence
Secure Ex. Fence
to New Post

END PROJECT
Begin Feathering
Sta. 433+87.50

IM-71-1(91)

STATION EQUATION
Sta. 434+25.00 Back =
Sta. 435+07.72 Ahead

END WORK
Sta. 436+82.72
S.L.M. 9.00

End Feathering

Connect Prop. Guardrail
to Exist. Guardrail

+35

Ex. LA/RW

432+62.00
114.00' Lt. CPA

Guardrail
Type 5
249B

131U

625D Paved Gutter, Type I-2,
As Per Plan

128U

Ex. Conc. Curb

℄ I-71

Ex. Conc. Median

Ex. Conc. Curb

129U

130U

I-71 SB

I-71 NB

Concrete Barrier
Type D50
237B

173U

78RB

Concrete Barrier
Type D50
238B

432

434

436

+87.50, ℄ 4" UD = 585.21'
Meet Existing Underdrain

+87.50, ℄ 4" UD = 585.40'
Meet Existing Underdrain

+87.50, ℄ 4" = 585.40'
Meet Existing Underdrain

+87.50, ℄ 4" = 585.21'
F 4" UD = 585.21'

Connect Prop. Barrier
to Exist. Barrier
End Paved Gutter
649D

650D

+94, ℄ 6"UD = 583.27'
Meet Existing Underdrain

+69

+94

36'

12'

10'

6'

Ex. 15"

55
RS

Ex. 15"

4.36+83±
Meet Ex. PB

Ex. 60"

435+74.02
129.00' Rt. EPA

End Fence
Secure Ex. Fence
To New Post

96F

Ex. LA/RW

Ex. LA/RW

Ex. LA/RW

432+00.00
144.00' Rt. IAPA
Type 3 Crossing

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets 41-44.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285, 489A, 489B
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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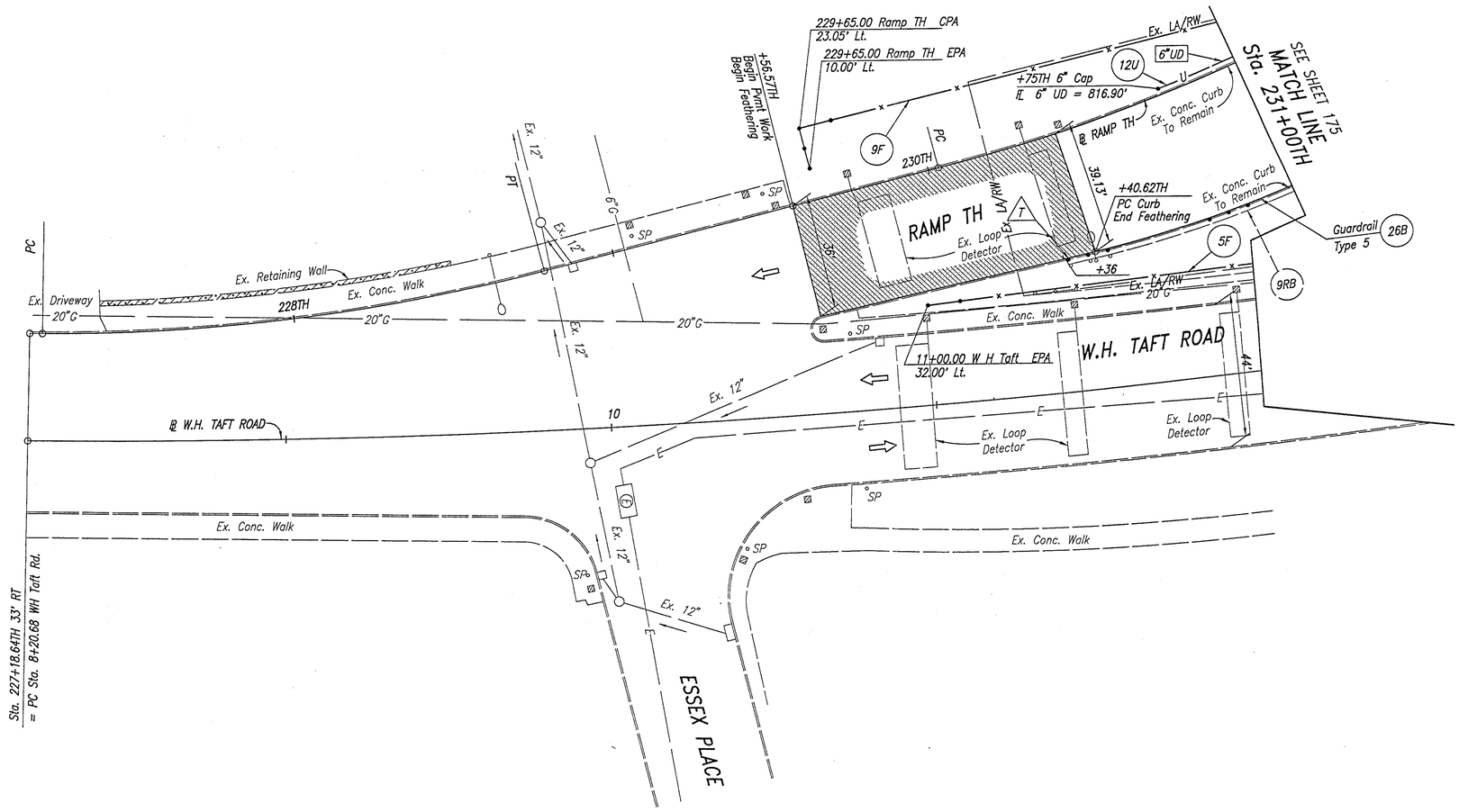
Sta. 430+50 to Sta. 434+25 and Sta. 435+07.72 to Sta. 436+82.72



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"-6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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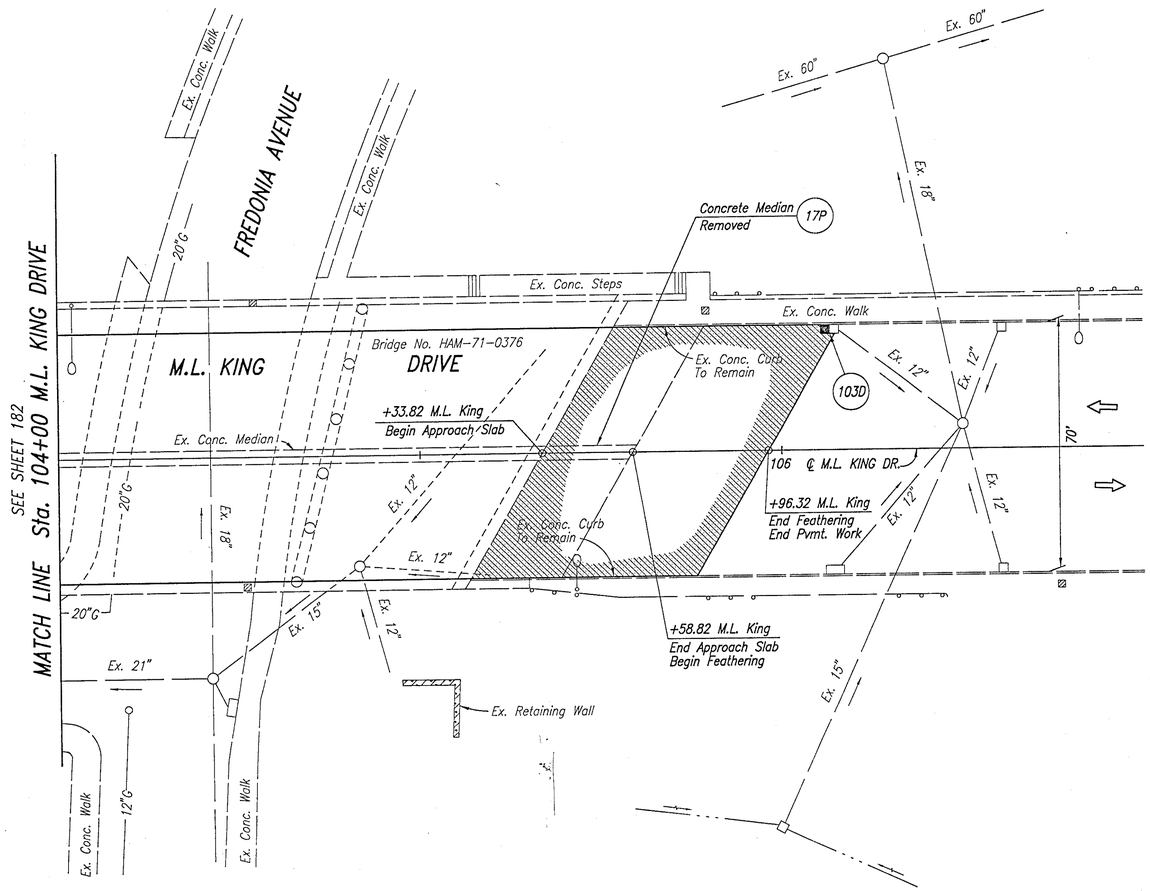
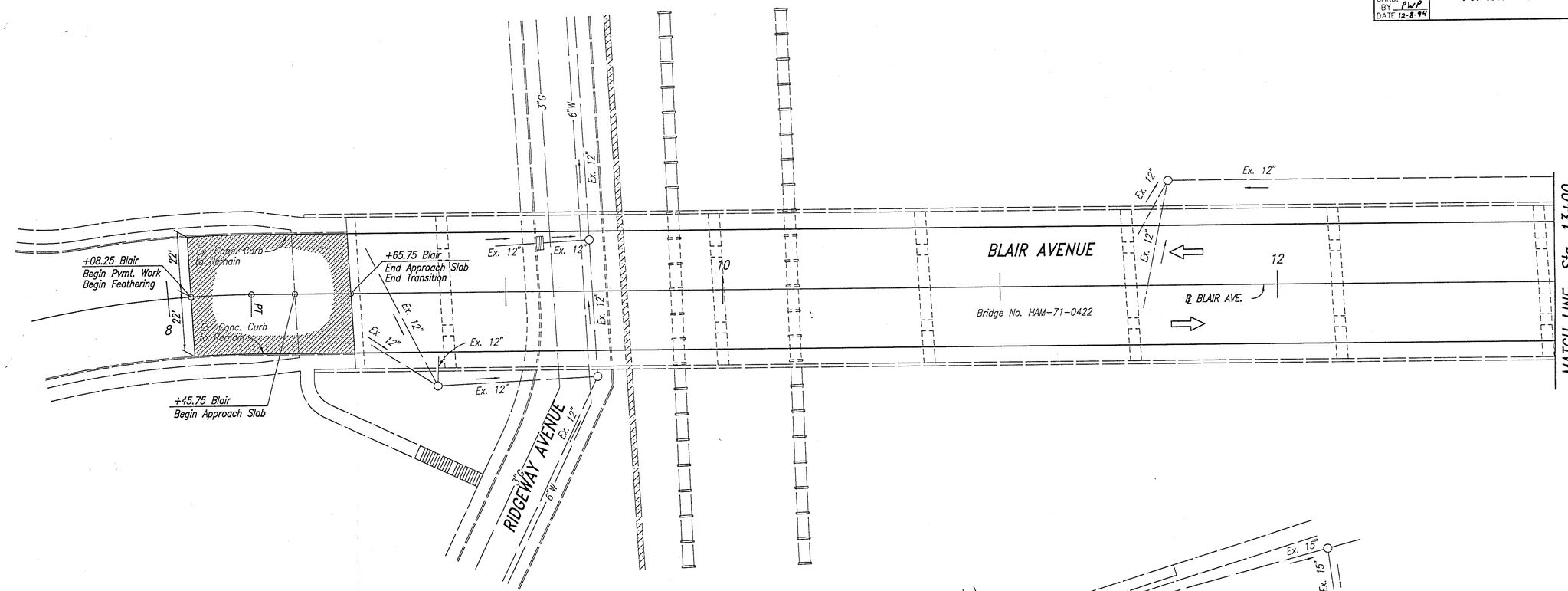
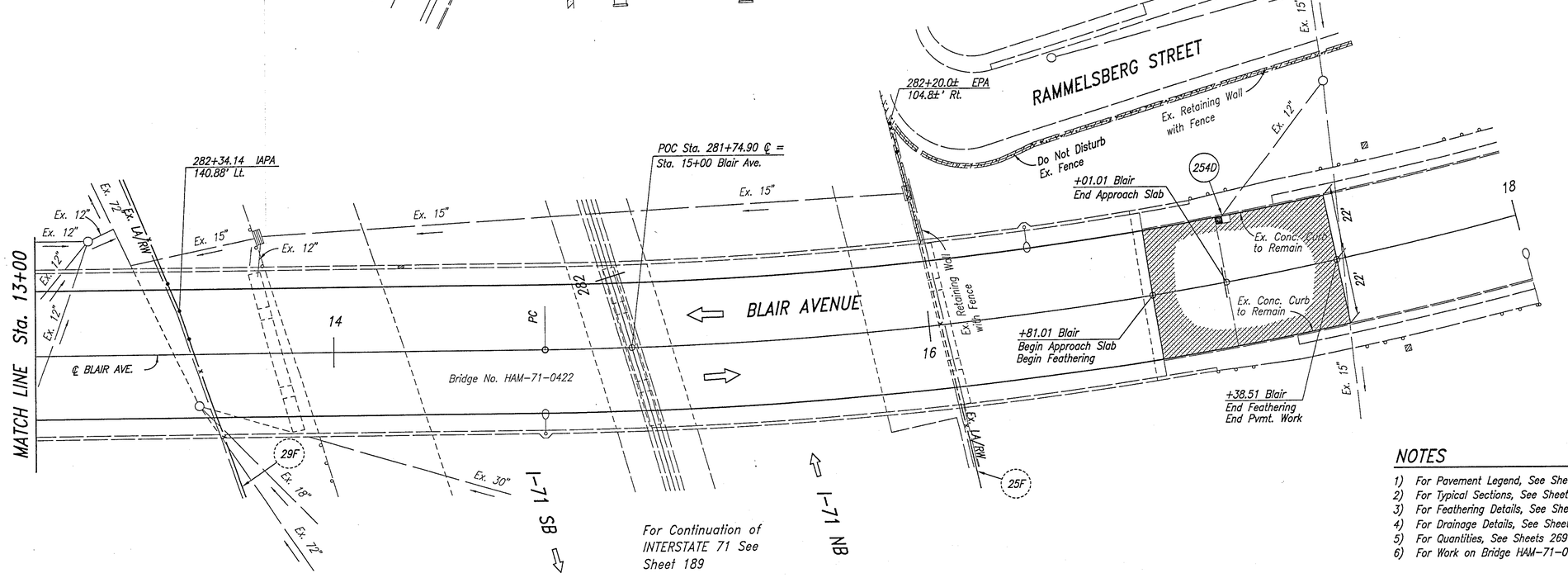
RAMP TH and TAFT ROAD



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"ω6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0376 (M.L. KING DRIVE), See Sheet 522.





NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285.
6) For Work on Bridge HAM-71-0422 (BLAIR AVENUE), See Sheet 533.

CALC. BY DB DATE 10-7-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

244/615

JONATHAN AVENUE
Ex. Asphalt over Conc. Pvt.
+94.4 Woodburn
End Feathering
End Pvmt Work
6
44
4+85.47 Woodburn
56.35' Lt. CPA
32F
+56.9 Woodburn
Begin Feathering
4+72.7± Woodburn
40.5±' Rt. EPA
℄ Gate
4+68.3± Woodburn
4+63.00 Woodburn
30.17' Rt. EPA
Ex. Conc. Curb
To Remain
Ex. 12"
Ex. Conc. Curb
to Remain
320D
Ex. 12"
319D
318D
Sta. 5+39.33 Woodburn
PRESSURE RELIEF
JOINT, TYPE C
94P
+59.33 Woodburn
End Approach Slab
4+51.75 Woodburn
31.52' Lt. CPA
4+45.00 Woodburn
30.17' Lt. EPA
+34.33 Woodburn
Begin Approach Slab
Ex. LA/RW
38F
I-71 NB
I-71 SB
4
Bridge No.
WOODBURN
HAM-71-0500
AVENUE
2
Ex. Electric Conduit
(Suspended under Bridge)
Sta. 323+23.01 ℄ I-71 =
Sta. 2+80.00 Woodburn Ave.
324 ℄ I-71
RAMP ME
36F
1+19.75 Woodburn
50.31' Rt. EPA
+09.69 Woodburn
End Approach Slab
End Feathering
Ex. Conc. Curb
To Remain
Ex. LA/RW
326ME
0+97.44 Woodburn
34.50' Lt. EPA
+94.25 Woodburn
Begin Approach Slab
Begin Feathering
37F
BREWSTER AVENUE
10
24"W
Ex. 18"
24"G
Ex. Conc. Walk
Ex. Asphalt over Conc. Pvt.
Sta. 0+75.44 Woodburn Avenue
= Sta. 11+07.85 Brewster Avenue
6"W
24"W
WOODBURN AVENUE
24"G
Ex. Conc. Curb
Ex. 12"
Ex. 22"

For Continuation of
INTERSTATE 71 and RAMP ME
See Sheet 200

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285.
6) For Work on Bridge HAM-71-0500 (WOODBURN AVENUE), See Sheet 540.

CALC. BY RJD DATE 10-7-94
CHKD. BY PWP DATE 12-8-94

HAM-71-2.92

OHIO FHWA REGION 5

245/615

SEE SHEET 201

MATCH LINE STA. 335+95ME

336+00.85 Ramp ME CPA
22.09' Lt.

336+00.47 Ramp ME CPA
14.00' Lt.

336ME

336MER

336MF

334

336

RAMP MER

RAMP ME

Ex. Conc. Curb To Remain @ RAMP MER

Ex. Conc. Curb To Remain @ RAMP ME

Ex. Conc. Median

Ex. Conc. Walk

Ex. LA/RW

37F

38F

32RB

85B Guardrail Type 5

42U

353D

337+00.00 Ramp ME
9.23' Lt. CPA

337+50.00 Ramp ME
8.00' Lt. EPA

+45ME 4" Cap
℄ 4" UD = 705.94'

BASELINE SHIFT
Sta. 3+99.99 Montgomery Rd. Back =
Sta. 4+00.00 Montgomery Rd. 4.12' Lt Ahead

Sta. 2+95.46 Montgomery Rd. 27.63' Lt=
Sta. 338+32.33ME Ramp ME

338ME

7+77.68 Montgomery
44.17' Rt. EPA

18P Concrete Median Removed

+94.08 Montgomery
Begin Approach Slab

+32.42 Montgomery
Begin Approach Slab

+05.4MER

+16.86MER

+16.66MER

+16.28ME

+38.5ME

+53.9ME

+84.24ME

+18.01 Mont.
36.07' Rt.
Nose Ctr. 2'R

+71.99 Mont.
27.77' Rt.
Nose Ctr. 2'R

+96.45 Mont.
30.05' Rt
Nose Ctr. 2'R

+43 Mont.
Lt
Nose Ctr. 2'R

+51.56 Mont.
25.86' Rt
Nose Ctr. 2'R

Ex. Conc. Curb
Ex. Asphalt over Conc. Pavt.
Saw Cut Existing Conc. Median
Existing Conc. Median (Do Not Disturb)
Ex. 12"
Ex. 18"
Ex. 15"
Ex. 24"

352D
351D
356D
357D
354D
355D
358D

MONTGOMERY ROAD
Bridge No. HAM-71-0522

℄ MONTGOMERY RD

Ex. Electric Conduit (Suspended under Bridge)

Ex. Telephone Conduit (Suspended under Bridge)

Ex. Conc. Curb To Remain

Ex. Conc. Median To Remain

Ex. Asphalt over Conc. Pavt.

Sta. 3+43.77 Montgomery Road
Sta. 0+00 Brewster Avenue

+79.97 Montgomery
End Feathering

+61.58 Montgomery
End Feathering
End Pvmt Work

7+23.13 Montgomery
43.17' Lt. EPA

+24.08 Montgomery
End Approach Slab
Begin Feathering

+62.42 Montgomery
End Approach Slab
End Transition

+19.92 Montgomery
Begin Transition

4+11.28 Montgomery
43.48' Lt. EPA

+70.42 Brewster
Begin Feathering

+04.97 Montgomery
Begin Pvmt Work
Begin Feathering

+45.42 Brewster
End Feathering

BREWSTER AVENUE

Ex. Conc. Curb To Remain
Conc. Curb Ex. Conc. Curb To Remain Ex. 18"
Ex. Loop Detector
Ex. Conc. Walk

56.1'
52.3'
56.5'
52.1'

6"C
3"C
2"C

I-71 NB
I-71 SB
℄ I-71

39F
40F

For Continuation of INTERSTATE 71 See Sheet 202

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheet 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0522 (MONTGOMERY ROAD), See Sheet 544.

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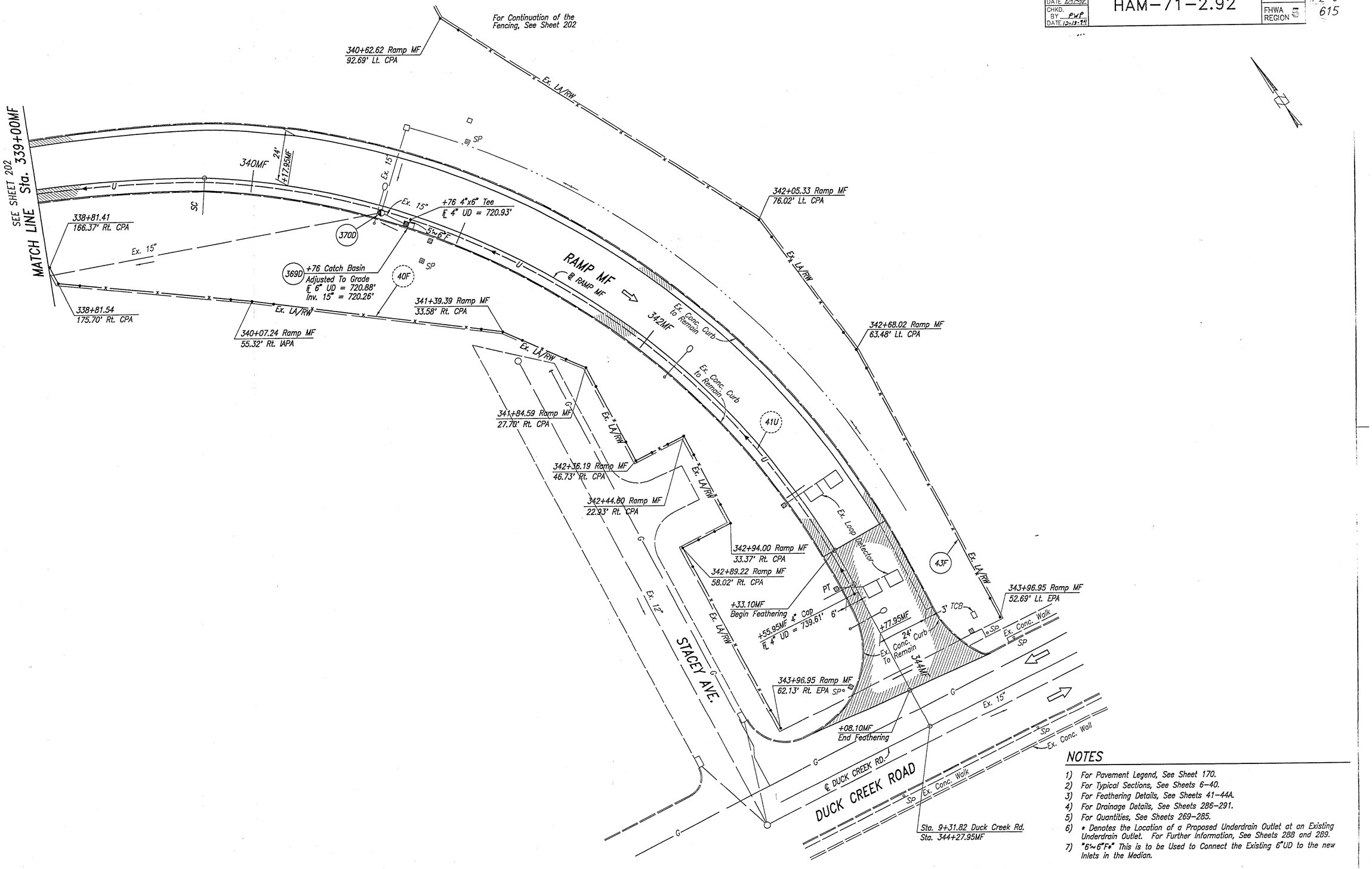

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"x6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

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RAMP MF

SEE SHEET 249
MATCH LINE
Sta. 374+75DE

SEE SHEET 249
MATCH LINE
Sta. 382+00DB

111B Concrete Barrier Type D, As per Plan

Existing Retaining Wall with No Fence on Top

℄ RAMP DE

Ex. Conc. Curb

Ex. Conc. Median

Ex. Conc. Curb To Remain

35RB

108B Guardrail Type 5

E

Ex. Conc. Curb To Remain +37.5 DB

Ex. Loop Detector

374DE

R.R. Tie Wall

+03DE

66P Comb. Curb and Gutter, Type 2, As Per Plan

62U

PC +71.36DE

24'

Ex. Loop Detector

+18DE 4" Cap
℄ 4" UD = 671.08'

Ex. 12"

Ex. SP 12" +15.83DE

446D

24'

3'

4470

Ex. Loop Detector

Ex. 12"

AVENUE

DANA

41.7'

+72.19' Dana
End Feathering

℄ DANA AVENUE

PC Sta. 372+75.70DE Ramp DE =
POC Sta. 7+42.77 Dana Avenue

℄ RAMP DB

CS +52.06DB

6'

Ex. Conc. Curb To Remain

110B Guardrail Type 5

+82DB 4" Cap
℄ 4" UD = 672.46'

+82.61DB

+54DB

T

+97.75'@ Begin Taper SC

2.57'

18'

61U

PS

3'

Ex. Conc. Curb To Remain

MATCH LINE
Sta. 384+00DB

FLORAL AVENUE

+37 Dana 80.50' Lt.
End Feathering

Ex. 12"

12"G

E 6"W

30'

Ex. LA/RW

TCB SP

Ex. 15"

Conc. Curb To Remain

Ex. Conc. Curb

38.0'

Ex. 12"

Ex. 36"

6

+97.19 Dana
Begin Pvmt. Work
Begin Feathering

38.0'

Ex. Conc. Curb To Remain

6+29

6+57.33 Dana
46.40' Rt. CPA

6+63.83 Dana
63.54' Rt. CPA

Ex. 36"

Ex. 12"

Ex. LA/RW

Ex. Conc. Curb

4

Ex. 30"

PC

4+07.3± Dana
41.0±' Rt. EPA

℄ Gate
4+00.00 Dana

3+88.18 Dana
39.72' Rt. EPA

3+92.7± Dana
40.0±' Rt. EPA

40'

2'R

8

Concrete Median Removed

19P

Ex. Conc. Median

PS

PT

+10 Dana

40'

℄ DANA AVENUE

PC Sta. 372+75.70DE Ramp DE =
POC Sta. 7+42.77 Dana Avenue

444D

445D

443D

Ex. 12"

Ex. 12"

Ex. Conc. Curb To Remain

SP

SP

Guardrail Type 5 109B

MATCH LINE Sta. 9+25 DANA AVE.
SEE SHEET 208

50F

Ex. 36"

8+25.90 Dana
86.17' Rt. CPA

36RB

Ex. LA/RW

373+23.88 Ramp DB
70.26' Rt. CPA

373+12.89 Ramp DB
57.67' Rt. CPA

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44A.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285.

RAMP DB Sta. 382+00 to Sta. 384+00
RAMP DE Sta. 372+75.70 to Sta. 374+75

DANA AVENUE Sta. 5+00 to Sta. 9+25

SEE SHEET 241
MATCH LINE Sta. 377+00DC
SEE SHEET 250
MATCH LINE Sta. 377+00DA
SEE SHEET 208
MATCH LINE Sta. 12+25 DANA AVENUE
MATCH LINE Sta. 19+00 DUCK CREEK ROAD SEE SHEET 250
MATCH LINE Sta. 19+00DRR SEE SHEET 250

52F 376+62.41 Ramp DC 29.00' Rt. IAPA
+71.68DC Ex. Conc. Curb To Remain
16' @ RAMP DC
Ex. Conc. Curb To Remain
66U
RAMP DC 376DC
+710C 4" Cap It 4" UD = 683.40'
PC +71.68DC
Ex. LA/RW
375+69.51 Ramp DC 15.00' Rt. CPA
16+46.08 Dana 75.74' Lt. EPA
16+28.66 Dana 69.26' Lt. IAPA
GRIGG AVENUE
6"W
+05.9 Dana 109.3' Lt. End Feathering
Ex. Conc. Curb To Remain
8"W
Sta. 17+81.54 Dana Ave. 40' Lt. = Sta. 373+41.83DC Ramp DC
374DC

67U
41RB
138B Guardrail Type 5
+45DA 4" Cap It 4" UD = 679.56'
@ RAMP DA
Ex. 15"
Ex. Conc. Curb To Remain
RAMP DA
Ex. Conc. Curb To Remain
Ex. 24"
T
PT Sta. 20+68.28 Duck Creek Road = POT Sta. 13+19.97 Dana Ave.
PC Sta. 375+64.51DA Ramp DA = POT Sta. 13+26.16 Dana Ave.
Ex. 24"
U
20'
R
Ex. 12"
3'
+170A
16'
6"
376DA
Ex. Conc. Walk
Ex. Conc. Curb To Remain
+60.56 Dana Nose Ctr. 2'R
Ex. 24"
42.2'
38'
420D
Ex. Loop Detector
DANA AVENUE
Concrete Median Removed
21P
424D
+87.49 Dana End Approach Slab
+62.49 Dana Begin Approach Slab Begin Transition
418D
14
@ DANA AVENUE
Ex. Conc. Median
PC
+00 Dana Nose Ctr. 2'R
16
6"G
+15.7 Dana Begin Feathering
425D
Ex. 15"
Ex. LA/RW
8"W
43'
427D
Ex. Conc. Curb To Remain
59.9'
+90.1 Dana End Feathering End Pvmt Work
20P Concrete Median Removed
75P Concrete Median Removed
+99.99 Dana End Transition
419D
+60 Dana Nose Ctr. 2'R
421D
423D
38'
Ex. 15" San.
05.83DRR = +92.76 Dana Nose Ctr. 1'R
40'
Ex. 12"
55.9'
15.5'
53.8'
426D
18
Ex. LA/RW
Ex. 15"
Ex. Conc. Curb To Remain
8"W
@ DCR
+05 DCR Nose Ctr. 2'R
Ex. Loop Detector
27'
Ex. Sign +46
+68.8 Dana
+42.8 Dana
9.5'
Ex. Conc. Island
DUCK CREEK RAMP
18'
22DRR
6"G
Ex. Conc. Curb To Remain
Ex. Conc. Walk
Ex. Grass Area
Ex. 18" San.
Ex. 12"
422D
+66.16DRR
20'
8"W
Ex. LA/RW
PC +66.16DRR
Ex. Retaining Wall
19+67.83 DCR 44.90' Lt. EPA
PCC Curb +48.19 DCR Begin Ex. Conc. Walk
19+48.15 DCR 40.00' Lt. IAPA
47F
Ex. LA/RW
Ex. Conc. Curb
DUCK CREEK ROAD 20
Ex. Conc. Median
Ex. Conc. Curb To Remain
Ex. Conc. Walk
20DRR
@ DRR
Ex. LA/RW
+05.12 DRR = +03.10 DCR Nose Ctr. 2'R
Ex. 16" San.
Ex. Loop Detector
4'
27'
20'
+03.43DRR
Ex. 12"
6"W
Ex. 21"
VISTA AVENUE

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44A.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285.

RAMP DC Sta. 373+41.83 to Sta. 377+00
RAMP DA Sta. 375+64.51 to Sta. 377+00
DUCK CREEK ROAD Sta. 19+00 to Sta. 20+68.28
DANA AVENUE Sta. 12+25 to Sta. 14+00

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CALC. BY DB DATE 10-12-94
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

OHIO
FHWA REGION 5

MATCH LINE Sta. 374+75DE
SEE SHEET 247

+25DE Catch Basin 448D
Adjusted To Grade
Inv. 15" = 659.25'
Inv. 12" = 659.25'

Ex. LA/RW

Existing Retaining Wall with No Fence on Top

Concrete Barrier Type D, As Per Plan 111B

376DE

Ex. LA/RW

+15, 4"-45° Elbow *
℄ 4" UD = 664.33'

10'~6"F

℄ RAMP DE

+35DE 4" Cap
℄ 4" UD = 653.31'

63U

62U

Ex. 12"

RAMP DE

Ex. Conc. Curb

Ex. Conc. Median

Ex. 15"

5'~6"F

+50DB 4"x6" Tee
℄ 4" UD = 660.96'

℄ RAMP DB

Ex. Conc. Curb To Remain

Ex. 12"

+50DB Catch Basin 449D
Adjusted To Grade
℄ 6" UD = 660.91'
Inv. 12" = 659.37'

RAMP DB

380DB

Ex. 15"

City Of Norwood
City Of Cincinnati

+56DE
End Concrete Barrier Type D, As Per Plan
Begin Concrete Barrier Type D

Concrete Barrier Type D 112B

377+85.51 Ramp DE EPA
42.64' Lt.

377+89.63 Ramp DE CPA
58.13' Lt.

Ex. LA/RW

Curb, Type 2-A, As Per Plan 67P

+78DE 4" Cap
℄ 4" UD = 651.84'

Ex. 12"

1

+44DE

453D

Bridge HAM-71-0611W
Norfolk & Southern
(NO WORK)

378DE

51F

+25DE

455D

+10DE

Ex. 15"

68P Comb. Curb and Gutter, Type 2, As Per Plan

+25DE, 4"-45° Elbow *
℄ 4" UD = 650.00'

10'~6"F

64U

Ex. 12"

Guardrail Type 5 113B

379+24.77 Ramp DE CPA
22.21' Lt.

Concrete Barrier Type D 132B

+00DE Catch Basin 456D
Adjusted To Grade
℄ 6" UD = 645.23'
Inv. 15" = 643.94'

379+92.10 Ramp DE
32.64' Lt. CPA

+25DE Manhole 457D
Adjusted to Grade
Low Point
Inv. 15" S&W = 637.54'
Inv. 15" NW&NE = 639.91'

454D +35DE Catch Basin
Adjusted To Grade
Inv. 15" = 645.13'

+55DE
End Concrete Barrier Type D, As Per Plan
Begin Concrete Barrier Type D, As Per Plan

+11DE
End Concrete Barrier Type D, As Per Plan
Begin Concrete Barrier Type D

Concrete Barrier Type D, As Per Plan 133B

Concrete Barrier Type D 134B

Ex. 15"

38RB

+00DE 4"x6" Tee
℄ 4" UD = 645.28'

+15DE 4"-45° Elbow *
℄ 4" UD = 645.21'

5'~6"F

360DE

Ex. Retaining Wall

+44DE

1

+69DE

69P Comb. Curb and Gutter, Type 2, As Per Plan

+94DE

Guardrail Taper

Ex. 12"

Ex. 15"

459D

380+67.32 Ramp DE
31.49' Lt. CPA

+75DE Catch Basin 460D
Adjusted To Grade
℄ 6" UD = 645.25'
Inv. 15" = 643.96'

+35DE 4"-45° Elbow *
℄ 4" UD = 645.16'

5'~6"F

458D

+75DE 4"x6" Tee
℄ 4" UD = 645.30'

Guardrail Type 5 135B

PC +27.16

24"

Ex. Conc. Curb To Remain

65U

Ex. LA/RW

Ex. 15"

Ex. 108"

City Of Norwood
City Of Cincinnati

+94DE

E

MATCH LINE Sta. 382+00DE
SEE SHEET 209

61U

Ex. Conc. Curb To Remain

35RB

450D +87DB Catch Basin
Adjusted To Grade
℄ 6" UD = 650.51'
Inv. 15" = 649.12'

5'~6"F

+87DB 4"x6" Tee
℄ 4" UD = 650.56'

451D +46DB Catch Basin
Adjusted To Grade
Inv. 15" = 645.78'
Inv. 12" = 645.78'

Ex. 15"

Ex. 12"

+48DB, 4"-60° Elbow *
Low Point
℄ 4" UD = 650.36'

+46DB, 4"-60° Elbow *
Low Point
℄ 4" UD = 650.36'

Ex. 15"

Ex. 12"

5'~6"F

52U

Guardrail Type 5 108B

+06DB 4"x6" Tee
℄ 4" UD = 650.57'

376DB

Ex. 108"

MATCH LINE Sta. 377+75DB
SEE SHEET 208

+06DB Catch Basin 452D
Adjusted To Grade
℄ 6" UD = 650.52'
Inv. 12" = 648.98'

Ex. 21"

Ex. 12"

Ex. 21"

Ex. LA/RW

Ex. 15"

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

51F Continuation of Fence Not Shown
383+40.63 Ramp DE, CPA 63.60' Lt.
383+76.22 Ramp DE, CPA 82.60' Lt.
383+83.16 Ramp DE, CPA 23.47' Lt.

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RAMP DB and RAMP DE

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

OHIO FHWA REGION 5

250/615

MATCH LINE Sta. 377+00DA SEE SHEET 248

MATCH LINE Sta. 380+50DC SEE SHEET 209

MATCH LINE Sta. 377+00DC SEE SHEET 248

MATCH LINE Sta. 19+00 DUCK CREEK ROAD SEE SHEET 248

MATCH LINE Sta. 19+00DRR

429D +50DA Catch Basin Adjusted To Grade Inv. 12" = 662.70'

41RB

POT Sta. 379+69.88DC Ramp DC, 33.99' Lt= POT Sta. 379+69.88DA Ramp DA

+40DA,4"-45° Elbow * ℄ 4" UD 667.20'

10"x6"F

Ex. 12"

Ex. 15"

138B Guardrail Type 5

PT

Ex. Conc. Curb To Remain

378DA

@ RAMP DA

RAMP DA

+54DA

16'

67U

68U

428D +64DA Catch Basin Adjusted To Grade Inv. 15" = 661.70'

Nose Sta. 379+69.25DC 14' Lt. = Sta. 379+69.88DA 20' Rt.

380DC

@ RAMP DC

+54DA,4"-45° Elbow * ℄ 4" UD 666.29'

+00DC

139B Guardrail Type 5

+75DA 4" Cap ℄ 4" UD = 675.40'

378DC RAMP DC

Curb Removed, As Per Plan 2

22P

+69.25DC

52F

430D +64DC Catch Basin Adjusted To Grade ℄ 6" UD = 665.26' Inv. 15" = 664.00'

+65 4"x6" Tee ℄ 4" UD = 665.31'

66U

52F Continuation of Fence Not Shown
381+83.18 Ramp DC, CPA 55.99' Rt.
381+78.20 Ramp DC, EPA 24.09' Rt.

Ex. LA/RW

378+60.73 Ramp DA 73.67' Rt. CPA

380+15.50 Ramp DC 49.79' Rt. IAPA

378+02.81 Ramp DC 29.01' Rt. IAPA

17+54.38 Duck Creek 40.00' Lt. IAPA

47F

Sta. 17+93.79 Duck Creek Rd. = Sta. 0+00 P-C Connector

Ex. 18" San.

Ex. 24"

Ex. 12"

+29.38 Duck Creek End Feathering

Ex. Conc. Median

+48DCR Nose Ctr. 2'R

75P Concrete Median Removed

Sta. 16+59.25 40' Rt. Duck Creek Rd. = Sta. 16+59.25DRR

℄ DUCK CREEK ROAD

+54.38 Duck Creek Begin Feathering

DUCK CREEK ROAD

18

18DRR

@ RAMP DRR

17DRR

Ex. Conc. Curb

Ex. Conc. Curb To Remain

8"W

16"W

Ex. 21"

415D

414D

413D

416D

417D

POTOMAC - CLAYLAND CONNECTOR

+06.30 P-C Connector End Feathering

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP DC Sta. 377+00 to Sta. 380+00
RAMP DA Sta. 377+00 to Sta. 379+69.88
DUCK CREEK RAMP (DRR) Sta. 17+51.9 to Sta. 19+00
DUCK CREEK ROAD Sta. 17+54.38 to Sta. 19+00

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CALC. BY DAD DATE 10-7-94
CHKD. BY PWP DATE 1-3-95

HAM-71-2.92

OHIO FHWA REGION 5

251 615

PT +97.39A

48'

+07.01 Smith-Edm. End Feathering End Pvmt Work

6"W

Ex. 12"

Ex. Conc. Walk

Ex. Conc. Walk

Sta. 17+00.00 Smith-Edm. = Sta. 311+40.64AR Ramp AR

Sta. 17+28.26 Smith-Edm. = Sta. 0+00.00 Garland

Ex. Conc. Curb To Remain

Sta. 1+00.00 Garland End Feathering

Ex. Conc. Walk

30'

312+33.00 125.00' Lt. EPA

58F

Ex. LA\RW

15'R

16+51.0± Smith-Edm. 30.0±' Rt. AC

+40.5 Smith-Edm. Begin Approach Slab Begin Transition

Ex. Conc. Walk

60.5'

+18.8A

+32.01 Smith-Edm. Begin Feathering

6"W

18 SMITH - EDMONDSON

GARLAND AVENUE

6"W

312A

513D

Ex. 12"

Ex. LA\RW

19'

2"R

+72.21A

Ex. LA\RW

Ex. Conc. Walk

Ex. Conc. Curb To Remain

Ex. Conc. Curb To Remain

Ex. 12"

311+83+.0± Ramp A 31.0±' Lt. EPA

57F

10'R

+78.0 Smith-Edm. End Transition

512D

3'

+85A

17.5'

1.5'

RAMP A

℄ RAMP A

Ex. Conc. Curb To Remain

℄ RAMP AR

47.5'R

10'R

+65.5 Smith-Edm. End Approach Slab

2.5'

+57.5AR

+57.59AR

3'

E

18'

Ex. Conc. Median

RAMP AR

310AR

Guardrail Type 5

150B

6'

45RB

310A

78U

511D

2'R

14.5'

3'

+58.19AR

Ex. 15"

3'

14.5'

+56.03A

311+05.00 Ramp A IAPA 49.00' Lt.

+83A 4" Cap ℄ 4" UD = 629.87'

MATCH LINE Sta. 309+50A SEE SHEET 215

57F Continuation of Fence Not Shown
309+00.00 Ramp A IAPA, 79.00' Lt.
307+57.00 Ramp A CPA, 74.00' Lt.

519D

Ex. Conc. Walk

Ex. 15"

518D

Ex. 15"

Ex. Conc. Curb To Remain

48'

11+29 Smith-Edm. Begin Pvmt Work Begin Feathering

MATCH LINE Sta. 12+20

517D

Ex. Conc. Curb To Remain

Ex. 15"

Ex. Conc. Walk

Ex. Conc. Walk

Ex. 12"

23.5'

End Feathering at Curb Return

+04 Smith-Edm. End Feathering

For Continuation of Fencing, See Sheet 216.

Ex. 15"

312

59F

Ex. LA\RW

Sta. 310+94.74 ℄ I-71 = Sta. 14+93.81 Smith-Edmondson Rd.

Ex. 21"

13+62.0± Smith-Edm. 30.0±' Rt. AC

Ex. 15"

Bridge No. HAM-71-0670

+33.55 Smith-Edm. Begin Approach Slab 14

+58.55 Smith-Edm. End Approach Slab End Transition

+21.05 Smith-Edm. Begin Transition

Ex. Conc. Curb To Remain

Ex. Conc. Walk

Ex. LA\RW

10'R

47.5'R

I-71 SB

I-71 NB

℄ I-71

310

54F Continuation of Fence Not Shown
309+80.00 Ramp B CPA, 69.00' Rt.
308+50.00 Ramp B CPA, 74.00' Rt.

516D

RAMP B

℄ RAMP B

Ex. 15"

2'

24'

+25

2'

515D

310+56.00 Ramp B 10.00' Rt. EPA

79U

3'

54F

+20B 4" Cap ℄ 4" UD = 629.33'

MATCH LINE Sta. 310+00B SEE SHEET 215

For Continuation of INTERSTATE 71 See Sheet 215

Sta. 1+00 Atlantic End Feathering

30'

ATLANTIC AVENUE

100'R

PC

Ex. Conc. Walk

Ex. Conc. Walk

521D

522D

520D

Ex. 12"

Ex. 12"

25'R

3'R

Ex. 15"

3'R

Ex. Conc. Curb To Remain

Sta. 0+25 Atlantic Begin Feathering

Sta. 12+70.00 Smith-Edm. = Sta. 0+00 Atlantic

Sta. 12+25.00 Smith-Edm. = Sta. 311+43.86B Ramp B

Ex. 15"

Ex. Conc. Curb To Remain

Ex. Conc. Walk

Ex. LA\RW

10'R

47.5'R

Ex. Conc. Curb To Remain

97.5'R

MATCH LINE Sta. 12+20

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets 41-44A.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285.
6) For Work on Bridge HAM-71-0670 (SMITH-EDMONDSON ROAD), See Sheet 562.

RAMP A Sta. 309+50 to Sta. 312+97.39
RAMP B Sta. 310+00 to Sta. 311+43.86

SMITH-EDMONDSON ROAD

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CALC. BY DJB DATE 12-17-94
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

OHIO

FHWA REGION 5

252
615

MATCH LINE Sta. 322+50
SEE SHEET 218

For Continuation of
INTERSTATE 71 See Sheet 217

322+20.00 Ramp D
37.00' Lt. CPA

51RB

159B Guardrail Type 5

Ex. LA/RW

Ex. Duck Creek Box Culvert

60F

Ex. LA/RW

T
+52D

+30D 4" Cap
℄ 4" UD = 607.76'

82U

RAMP D

℄ RAMP D

322D

3'
15'
+90D
24'
3'
12'

Ex. 15"

3'
3'
+27.90D

Ex. 12"

Ex. 15"

21'

25'

532D

Ex. 15"

Ex. 15"

+08.7D
Nose Ctr. 2'R

Ex. Conc. Curb To Remain

Ex. Sign

Sta. 320+31.64D Ramp D =
Sta. 14+40.00 Williams Rd.

13+21.00 Williams
59.00' Lt. CPA

12+95.0± Williams
54.0±' Lt. EPA

Ex. 12"

Ex. Conc. Walk

Ex. Conc. Curb To Remain

529D

WILLIAMS AVENUE

14

531D

℄ WILLIAMS AVE.

533D

Ex. Conc. Walk

+44.17 Williams
Begin Approach Slab

16

Sta. 321+59.18 I-71 ℄
Sta. 17+12.74 Williams Rd.

322

61F

322+55.00
159.00' Rt. CPA

18+74.0± Williams
29.0±' Lt. AC

Ex. Conc. Walk

Ex. Conc. Curb To Remain

536D

+56.03 Williams
Begin Approach Slab
Begin Feathering

Ex. 12"

Ex. Conc. Curb To Remain

Ex. 12"

539D

48'

+96.95 Williams
Begin Pvmt Work
Begin Feathering

+71.95 Williams
End Feathering

530D

Ex. Conc. Curb To Remain

Ex. Conc. Walk

Ex. Telephone

Ex. 12"

Ex. LA\RW

Ex. LA\RW

+31.67 Williams
Begin Transition

+69.17 Williams
End Approach Slab
End Transition

Bridge No.

HAM-71-0691

18

+81.03 Williams
End Approach Slab

Ex. Conc. Walk

534D

18+44.0± Williams
30.0±' Rt. AC

+18.53 Williams
End Feathering
End Pvmt Work

321+72.00
160.00' Rt. CPA

15+58.0± Williams
31.0±' Rt. AC

DARCY - WILLIAMS CONNECTOR

Ex. 12"

Ex. 12"

320+20.00
143.00' Lt. IAPA

58F

Ex. LA\RW

I-71 SB

I-71 NB

520

℄ I-71

59F

Ex. LA\RW

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering Details, See Sheets 41-44A.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285.
6) For Work on Bridge HAM-71-0691 (WILLIAMS AVENUE), See Sheet 566.

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WILLIAMS AVENUE

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 1-3-95

HAM-71-2.92

OHIO FHWA REGION 5

253 615

19+60.00 Ramp H
108.00' Lt. EPA

Ex. LA/RW

Ex. 12"

21+80.00 Ramp H
79.00' Lt. CPA

86F

RIDGE

Begin Retrofit Parapet

+74H

95P Sta. 20+68.9H
PRESSURE RELIEF JOINT, TYPE C

298B Guardrail Type 5

106RB

RAMP H

132U

23+40.00 Ramp H
69.00' Lt. CPA

STATION EQUATION:
POC Sta. 18+30.34 Ramp H, Back =
POC Sta. 18+30.34 Ramp H1, 16' Rt. Ahead
POC Sta. 8+04.64 Ramp H1, 16' Rt. Back

73P

+78H

+92H,4"-90° Elbow *
℄ 4" UD = 579.55'

20H

+27H

+01.40H
End Transition

+02H

24'~6"F

+92H,15' Rt
Precast Reinforced Concrete Outlet
As Per Plan
℄ 6" UD = 579.31'

Bridge No. HAM-71-0838S

19H

+63.90H
Begin Approach Slab
Begin Transition

Widen Approach Slabs

+88.90H
End Approach Slab

299B Guardrail Type 5

22H

℄ RAMP H

107RB

+00H

+07.34H
Begin Ex. Conc. Curb

Ex. Conc. Curb To Remain

+32.41H
Begin Feathering

MATCH LINE Sta. 23+50H

MATCH LINE Sta. 18+00H
SEE SHEET 264

℄ RAMP H
℄ RAMP H1

8H1

AVENUE

Ex. LA/RW

86F

23+95.00 Ramp H
51.00' Lt. CPA

298B Guardrail Type 5

E

+74H

+82.41H

106RB

23+95.00 Ramp H
21.00' Lt. EPA

132U

107RB

+78H

24H

PT

85F

23+95.00 Ramp H
14.00' Rt. EPA

+06H 4" Cap
℄ 4" UD = 595.02'

+07.41H
End Feathering
End Pvmt. Work

℄ Ramp H

RAMP H

BARROW AVENUE

CALVERT STREET

Sta. 25+00H Ramp H =
Sta. 25+00 Barrow Ave., 4' Rt.

Ex. LA/RW

85F

21+80.00 Ramp H
106.00' Rt. CPA

85F Continuation of Fence Not Shown
21+40.00 Ramp H, CPA, 154.00' Rt.
20+04.00 Ridge, CPA, 91.00' Rt.
20+11.00 Ridge, EPA, 35.00' Rt.

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering & Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0838S (RAMP H), See Sheet 603.

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RAMP H Sta. 18+00H to Sta. 24+07.41H

CALC. BY DB DATE 10-17-94
CHKD. BY EWP DATE 1-5-95

HAM-71-2.92

OHIO
FHWA REGION 5

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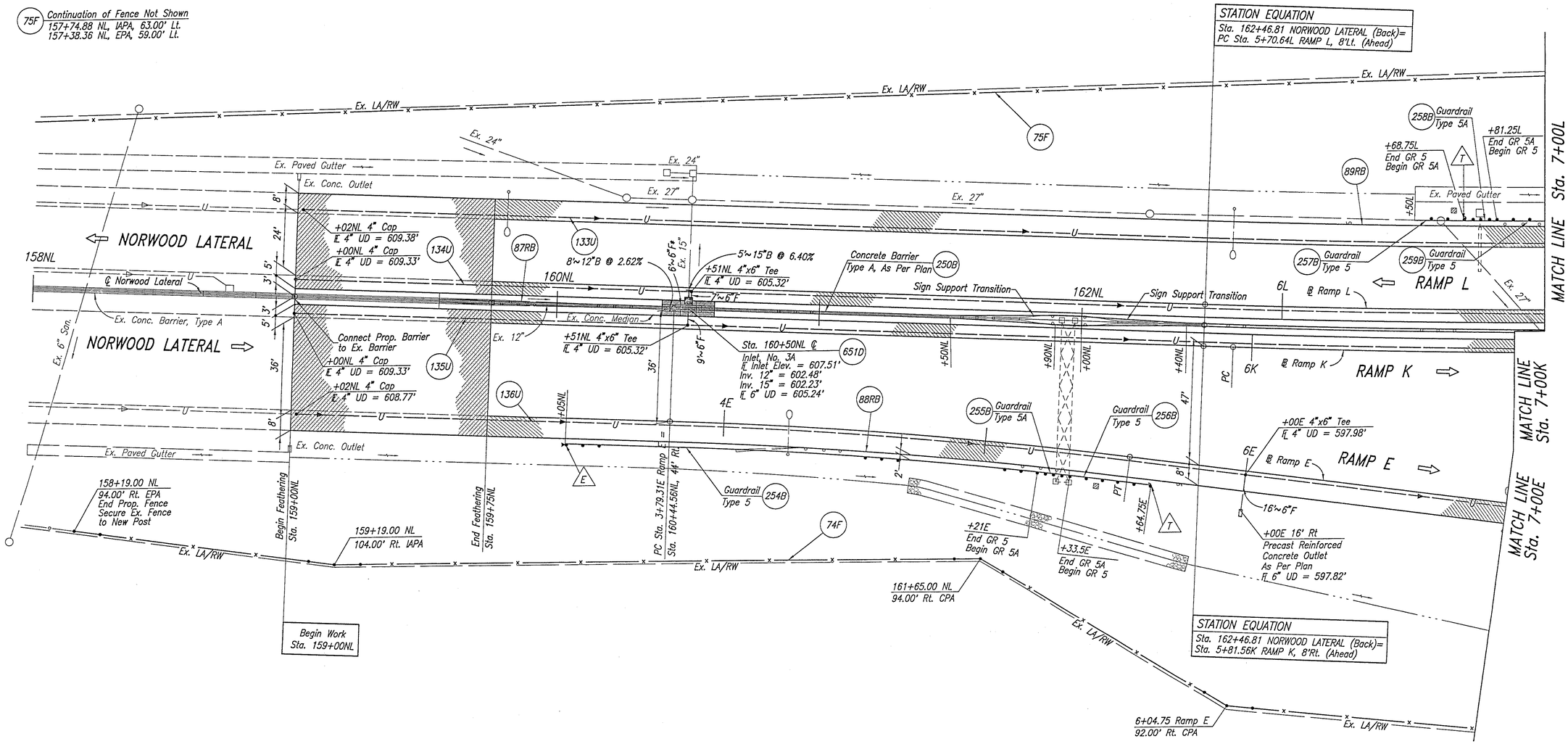

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

NORWOOD LATERAL Sta. 159+00 to Sta. 162+46.81
RAMP E Sta. 3+79.31E to Sta. 7+00E
RAMP K Sta. 5+81.56K to Sta. 7+00K
RAMP L Sta. 5+70.64L to Sta. 7+00L

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CALC. BY DJB DATE 10-17-94
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

OHIO FHWA REGION 5

255 615

EX. FENCE DO NOT DISTURB

Ex. LA/RW

11+50 Ramp L TAPA 108.00' LT

Ex. LA/RW

Ex. LA/RW

+50L 43' Lt Ex. CB
Inv. 24" = 587.88'

+32L 4"-45° Wye *
℄ 4" UD = 593.25'

Ex. Paved Gutter

28'~6"F

89RB

Guardrail Type 5 259B

Sta. 7+46L 5' Rt
Inlet, No. 3A
℄ Inlet Elev. = 594.98'
Inv. 24" = 586.67'
Inv. 6" UD = 592.95'

652D

75F

9+00.25 Ramp K
108.00' Lt. CPA

+73L, 51' Lt.
℄ 6" UD = 582.50'
Precast Reinforced Concrete Outlet, As Per Plan

Ex. 8"

Ex. Paved Inlet

+73L 4"-90° Elbow *
℄ 4" UD = 584.82'

27'~6"F

MATCH LINE Sta. 7+00L

MATCH LINE Sta. 12+50L

Sign Support Transition

Sign Support Transition

+45L 4"x6" Tee
℄ 4" UD = 593.13'
7'~6"F
6'~6"F*

5'~24"B @ 2.52%

8L ⇦ RAMP L

℄ Ramp L

250B Concrete Barrier Type A, As Per Plan

134U

10L

87RB

133U

5'~24"B @ 4.17%

+03L 4"x6" Tee
℄ 4" UD = 584.73'
7'~6"F

+41L

+81L

+91L

12L

+31L

6'~6"F*

Ex. 24"

Ex. Conc. Median

℄ Ramp K

+47K 4"x6" Tee
℄ 4" UD = 593.34'

8K

8'-24"B @ 8.5%

652D

Ex. 24"

Ex. 21"

+40K

34'

135U

24'

10K RAMP K ⇨

10J RAMP J ⇨

+15K 4"x6" Tee
℄ 4" UD = 584.62'

10'~6"F

Sta. 11+01L 5' Rt
Inlet, No. 3A
℄ Inlet Elev. = 586.70'
Inv. 24" = 579.50'
Inv. 6"UD = 584.61'

653D

8'~24"B @ 6.25%

12K

12J

℄ Ramp J

+50K

8'

10'

24'

+52J

260B Guardrail Type 5

90RB

+27J

Taper Guardrail

Sta. 8+95K Ramp K, 24' Rt. =
Sta. 8+95J Ramp J

MATCH LINE Sta. 7+00K

MATCH LINE Sta. 7+00E

MATCH LINE Sta. 12+50K

+40E

17.19'

3'

3'

10'

16'

+99.73E

℄ Ramp E

136U

8E

RAMP E ⇨ 10E

Ex. 33"

Ex. 33"

Ex. 24"

Ex. LA/RW

8+72.60 Ramp E
31.00' Rt. CPA

74F

Ex. LA/RW

Ex. LA/RW

7+24.69 Ramp E
88.00' Rt. CPA

+68E

+83.5E

197B Guardrail Type 5

Ex. 18"

196B Guardrail Type 5

+23 4"-30° Elbow *
℄ 4" UD = 583.38'

26'~6"F

MATCH LINE STA. 11+50E
SEE SHEET 226

Ex. LA/RW

11+32E Type 3 Crossing

10+11.82 Ramp E
78.00' Rt. CPA

11+40.00 Ramp E
14.00' Rt. CPA

11+40E 19' Rt Ex. CB
Inv 18" = 578.15

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP E Sta. 7+00E to Sta. 11+50E
RAMP J Sta. 8+95J to Sta. 12+53.22J

RAMPS K and L Sta. 7+00K/L to Sta. 12+50K/L

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CALC BY DLB DATE 10-7-94
CHKD. BY PWP DATE 1-5-95

HAM-71-2.92

OHIO FHWA REGION 5

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EX. FENCE DO NOT DISTURB

DO NOT EXCAVATE, DISTURB, OR STORE ANY MATERIAL OR EQUIPMENT IN THIS AREA

MATCH LINE Sta. 12+50L

MATCH LINE Sta. 12+50K

MATCH LINE Sta. 1+50I

MATCH LINE Sta. 18+00L

MATCH LINE Sta. 18+00K

MATCH LINE Sta. 16+25J SEE SHEET 228

Ex. LA/RW

Ex. Lift Station

Ex. Paved Gutter

Ex. 12"

Ex. 27"

Curb Removed 23P

23P Concrete Median Remove, As Per Plan 1

Sta. 13+94L 7.9' Rt (654D)
Inlet, No. 3A
℄ Inlet Elev. = 579.80'
Inv. 15" = 574.15'
Inv. 6" UD = 577.82'

+86L 4"x6" Tee
℄ 4" UD = 578.01'

℄ Ramp L (134U) 87RB

RAMP L

℄ Ramp K

RAMP K

+50K 4" Cap
℄ 4" UD = 579.48'

Guardrail Type 5 260B

Taper Guardrail

Ex. Conc. Median

Ex. Conc. Curb

R Hexfoam Impact Attenuator

+00J 4" Cap
℄ 4" UD = 580.79'

261B Concrete Barrier Type D

23P Curb Removed, As Per Plan 1

+96J End Concrete Barrier Type D Begin Concrete Barrier Type D, As Per Plan

262B Concrete Barrier Type D, As per Plan

Taper Barrier

Bridge Pier Transition

+22L 4"x6" Tee
℄ 4" UD = 575.49'

8'~6"F

12'~15"B @ 30.5%

8'~27"B @ 4.05%

HAM-71-0319

6'~6"F*

Guardrail Type 5 271B

Guardrail Type 5 273B

Guardrail Type 5A 272B

Guardrail Type 5 270B

Bridge No. Ex. 15"

+37K 4"x6" Tee
℄ 4" UD = 575.23'

+14K 5'~27"B @ 4.02%

94RB

656D

Sta. 15+37K 5' Lt
Inlet, No. 3A
℄ Inlet Elev. = 577.15'
Inv. 27" = 569.87'
Inv. 6" UD = 575.17'

655D

90RB

Guardrail Type 5 264B

Concrete Barrier Type D 263B

Concrete Barrier Type D, As Per Plan 274B

Concrete Barrier Type A, As Per Plan 250B

Sta. 0+00I Ramp I = Sta. 16+48.88L Ramp L

+30L End Concrete Barrier Type D, As Per Plan Begin Concrete Barrier Type D

17+02.0± Ramp L
55.0±' Lt. AC

Concrete Barrier Type D 275B

Ex. Conc. Curb To Remain

℄ Ramp I

RAMP I

24P Curb Removed, As Per Plan 2

657D +25I Catch Basin Adjusted To Grade
Inv. 15" = 570.31'

17+69.00 Ramp L
63.00' Lt. EPA

℄ Gate
17+75.6±

17+79.6± Ramp L
67.0±' Lt. EPA

Guardrail Type 5 276B

78F 95RB 108U

+40I 4"-45° Elbow *
℄ 4" UD = 573.39'

CITY OF NORWOOD
CITY OF CINCINNATI

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP I Sta. 0+00I to Sta. 1+50I
RAMP J Sta. 12+50J to Sta. 16+25J

RAMPS K and L Sta. 12+50K/L to Sta. 18+00K/L

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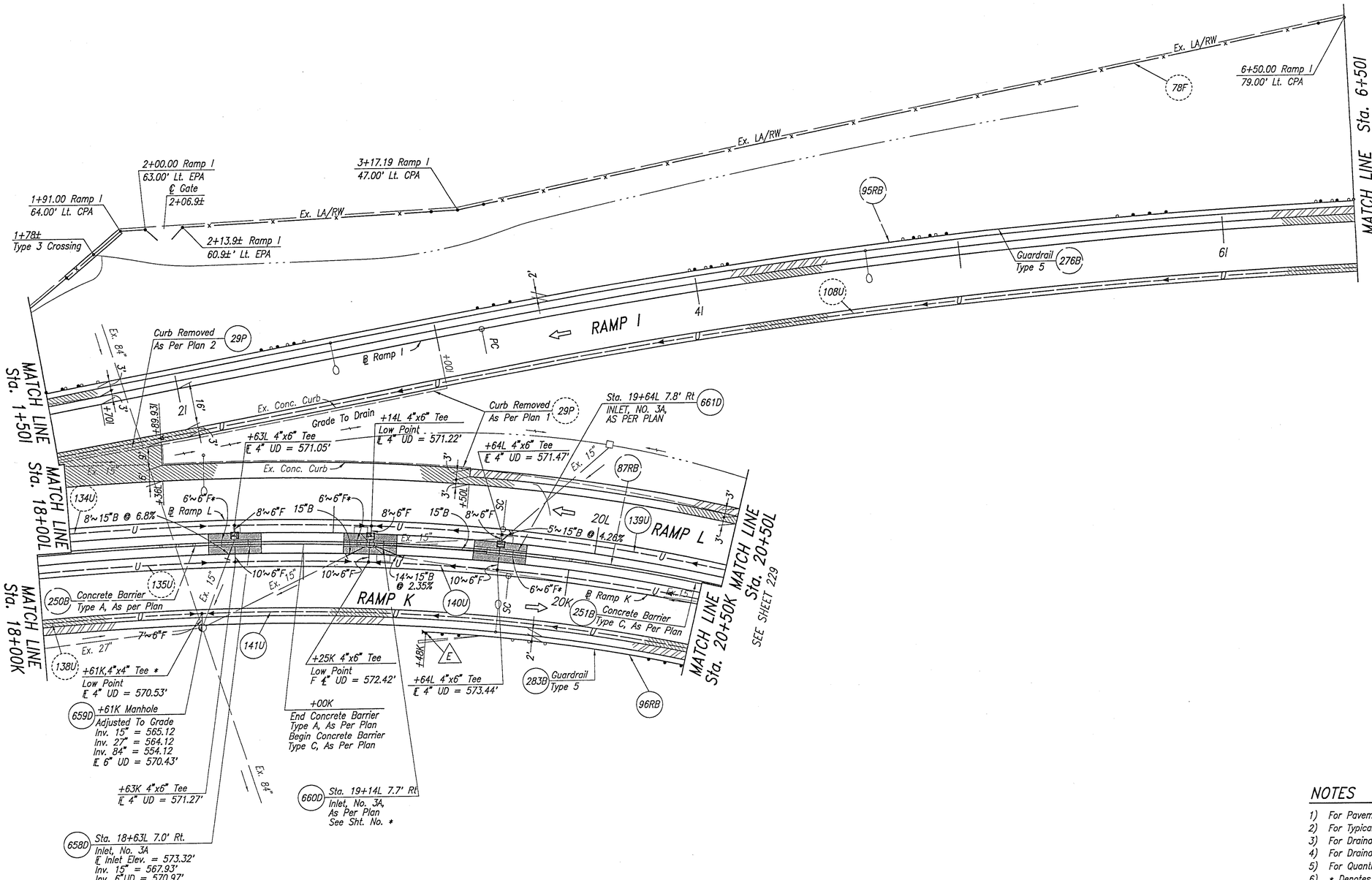
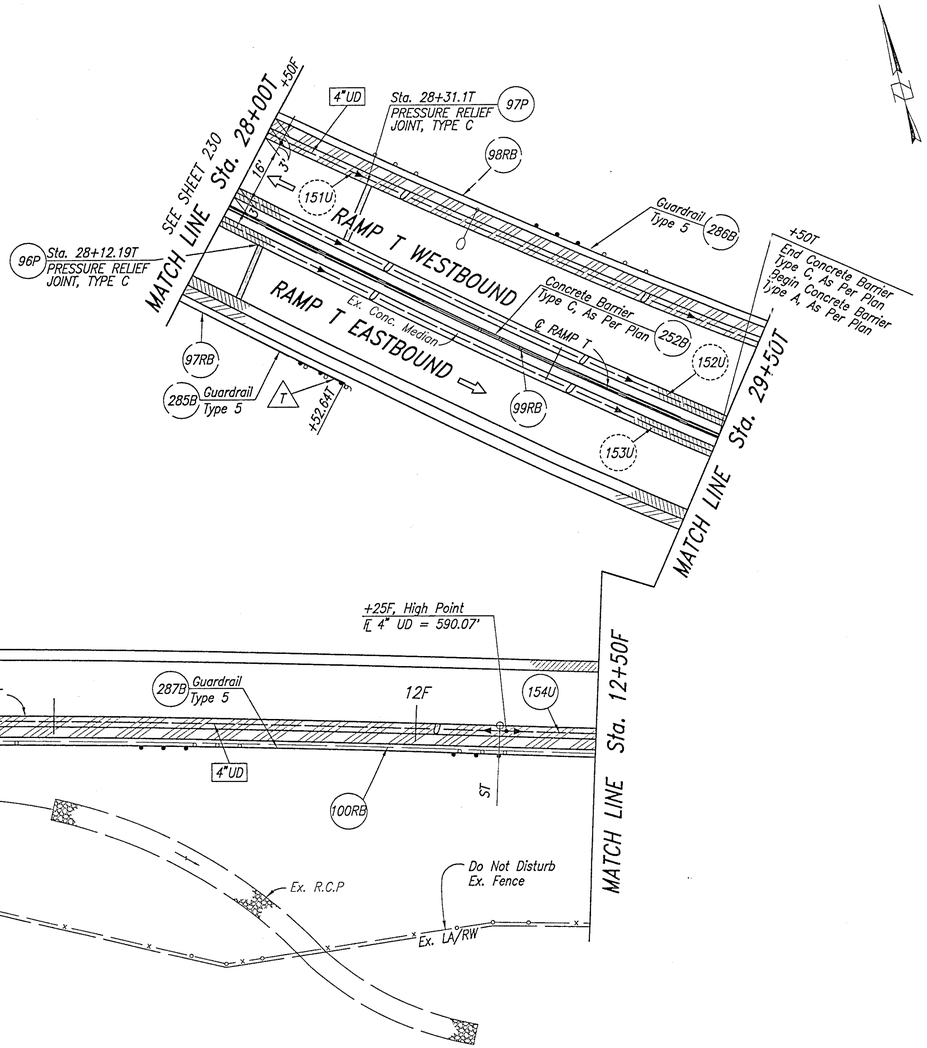


NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Drainage Profiles, See Sheets 232–296.
5) For Quantities, See Sheets 269–285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP I Sta. 1+50I to Sta. 6+50I

RAMPS K and L Sta. 18+00K/L to Sta. 20+50K/L



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP F Sta. 8+00F to Sta. 12+50F

RAMP T Sta. 28+00T to Sta. 29+50T

CALC. BY CAD DATE 10-17-94
CHKD. BY DWP DATE 1-10-95

HAM-71-2.92

OHIO FHWA REGION 5

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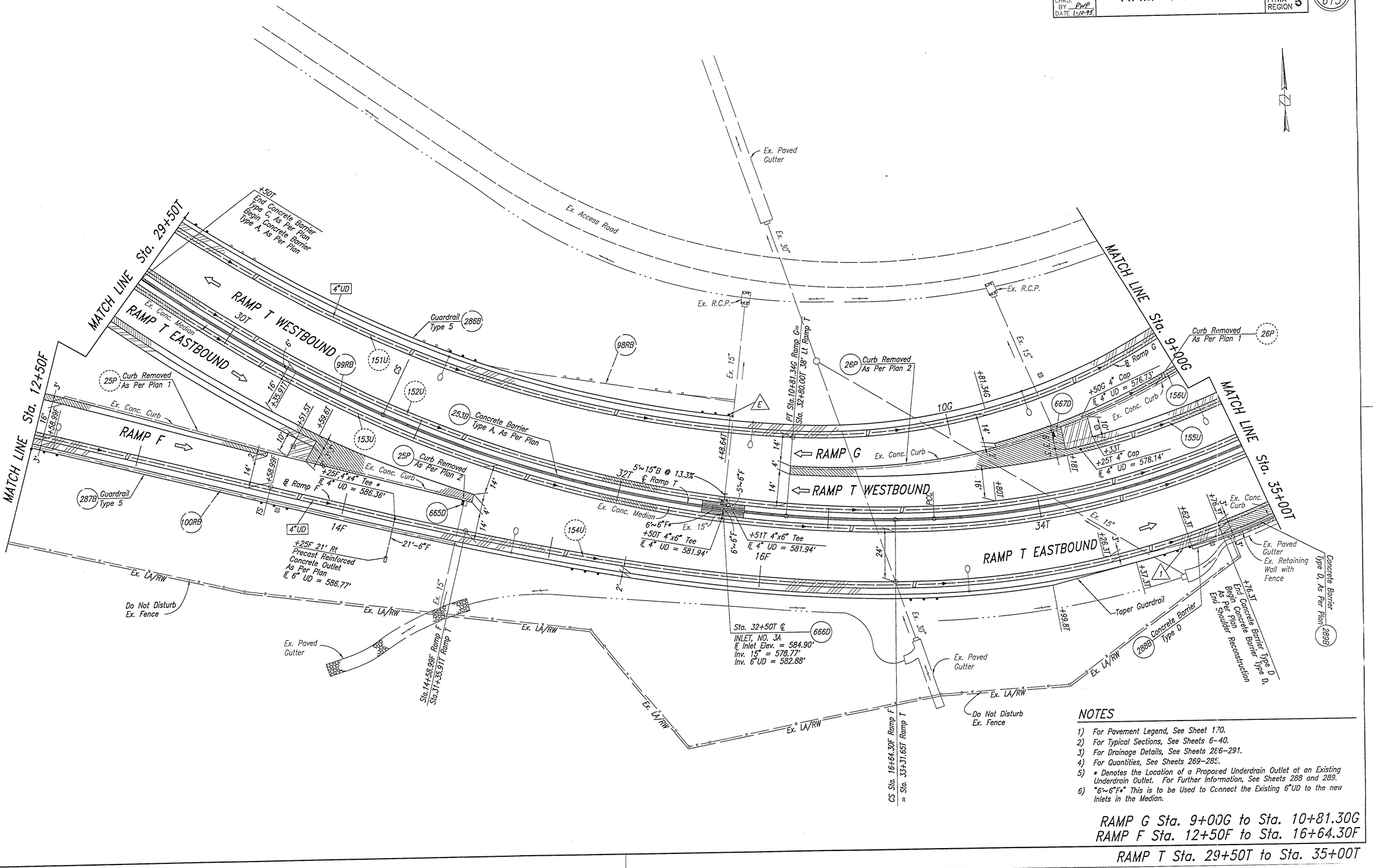

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 256-291.
4) For Quantities, See Sheets 269-285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP G Sta. 9+00G to Sta. 10+81.30G
RAMP F Sta. 12+50F to Sta. 16+64.30F
RAMP T Sta. 29+50T to Sta. 35+00T

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CALC. BY DJD DATE 10-27-99
CHKD. BY PWP DATE 1-10-99

HAM-71-2.92

OHIO
FHWA REGION 5

260
615

MATCH LINE Sta. 38+00T

Ex. Paved Gutter

Sta. 37+50T ℄ INLET, NO. 3A 670D

+68T,4"-90° Elbow * ℄ 4" UD = 576.97'

+50T 4"x6" Tee ℄ 4" UD = 577.11'

+68T 55' Lt Precast Reinforced Concrete Outlet As Per Plan ℄ 6" UD = (Match Exist.)

16' +56.79T 3' Ex. 12" 32"-6"F 5"-6"F 6"-6"F

Do Not Disturb Ex. Fence

Sta. 37+10T ℄ INLET, NO. 3A 669D

+50T 4"x6" Tee ℄ 4" UD = 577.11'

+09T 4"x6" Tee ℄ 4" UD = 577.43'

15"B

Ex. 18"

5"-18"B @ 8.6%

+09T 4"x6" Tee ℄ 4" UD = 577.43'

LA/RW

5"-6"F 6"-6"F

Concrete Barrier Type D, As Per Plan 289B

Ex. Conc. Curb

RAMP T EASTBOUND

RAMP T WESTBOUND

Existing Retaining Wall with Fence on Top

Sta. 35+99T ℄ INLET NO. 3A 668D

℄ Inlet Elev. = 580.06'
Inv. 12" = 575.13
Inv. 15" = 571.80'
Inv. 6" UD = 578.08'

Ex. 15"

Ex. 12"

PT

36T

Do Not Disturb Ex. Fence

6"-6"F 6"-6"F*

+99T 4"x6" Tee ℄ 4" UD = 578.16'

5"-6"F

℄ RAMP T

152U

153U

Ex. Conc. Curb

Concrete Barrier Type A, As Per Plan 253B

99RB

154U

155U

Do Not Disturb Ex. Fence

MATCH LINE Sta. 35+00T

5"-15"B @ 2.1%

+98T 4"x6" Tee ℄ 4" UD = 578.16'

4"UD

8G

Ex. Post & Chain

Ex. Access Drive

26P Curb Removed As Per Plan 1

PCC

16' 3' 3' +25G

151U

156U

Ex. Conc. Curb

MATCH LINE Sta. 9+00G

Ex. 36" San.

+49.04G End Approach Slab End Transition

+48G

+24.04G Begin Approach Slab

+11.54G Begin Transition

Taper Guardrail

+25G

+78G

207B Guardrail Type 5

67RB

98P Sta. 4+31.54G PRESURE RELIEF JOINT, TYPE C

℄ RAMP G

+10.5G

3' 16' +06G 3'

MATCH LINE Sta. 4+00G SEE SHEET 231

4"UD

112U

66RB

Guardrail Type 5 199B

+24G 4" Cap ℄ 4" UD = 561.22'

+35G

Begin Retrofit Parapet

Ex. 36" San.

SC

Ex. Duck Creek Channel

End Retrofit Parapet

+09.27G Begin Approach Slab Begin Transition

6G

Bridge No. HAM-71-0815S

+34.27G End Approach Slab

Taper Guardrail

+34G

+22G

+42G

+50G 48' Lt Precast Reinforced Concrete Outlet As Per Plan ℄ 6" UD = 562.50'

48"-6"F

+50G 4"-90° Elbow * ℄ 4" UD = 566.58'

+46.77G End Transition

Ex. Paved Gutter

Guardrail Type 5 209B

+84G

RAMP G

+17G

Taper Guardrail

+35G 4"-90° Elbow * ℄ 4" UD = 564.72'

33"-6"F

+70G

10' R

+94G

5'

+22G

99P Sta. 7+14.27G PRESURE RELIEF JOINT, TYPE C

+50G 13' Rt Precast Reinforced Concrete Outlet As Per Plan ℄ 6" UD = 563.20'

208B Guardrail Type 5

Ex. 12"

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6--40.
3) For Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 236-291.
5) For Quantities, See Sheets 269-285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"-6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0815S (RAMP G), See Sheet 590.

RAMP G Sta. 4+00G to Sta. 9+00G

RAMP T Sta. 35+00T to Sta. 38+00T

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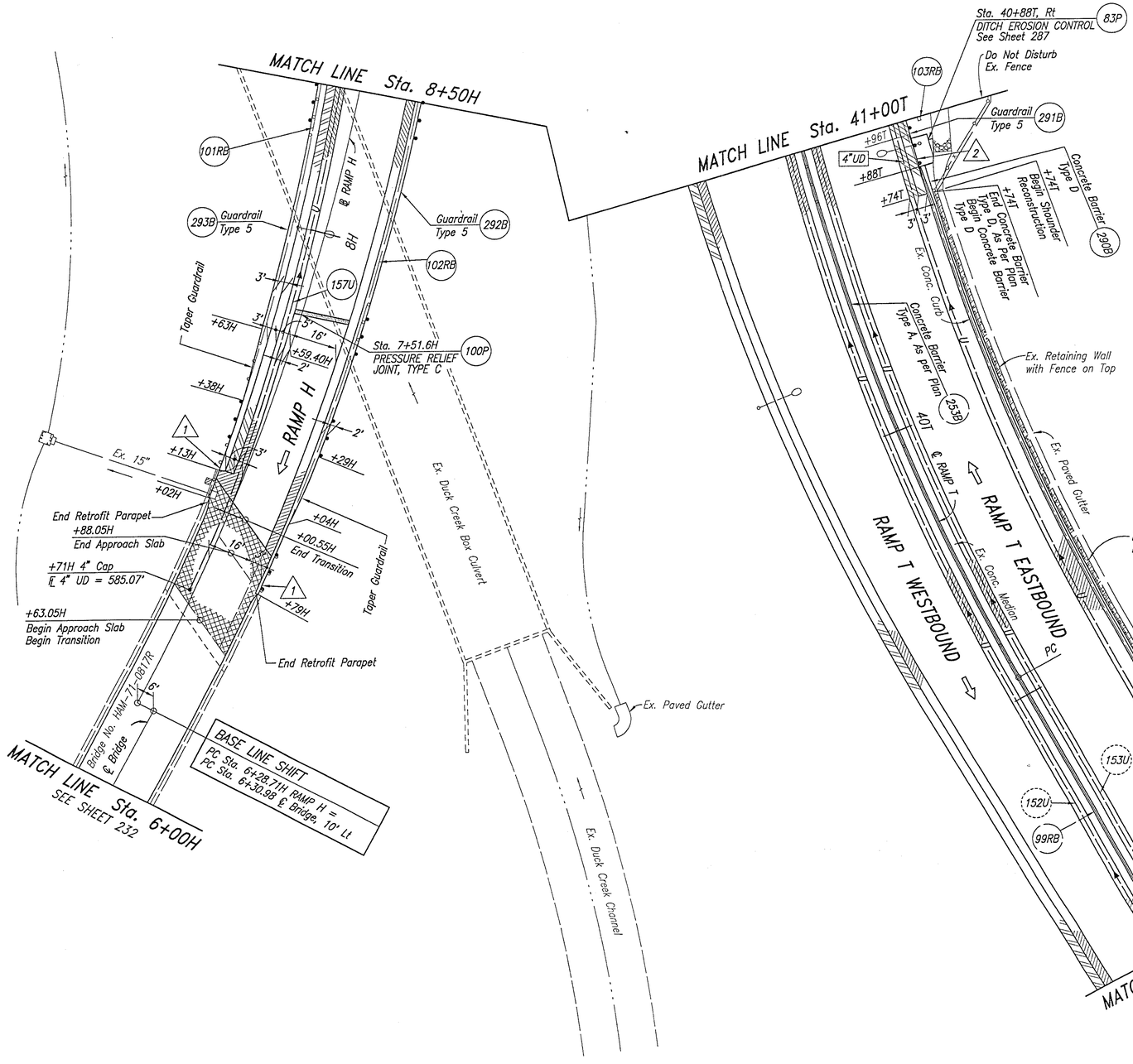

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285.
5) For Work on Bridge HAM-71-0817R (RAMP H), See Sheet 594.

RAMP H Sta. 6+00H to Sta. 8+50H

RAMP T Sta. 38+00T to Sta. 41+00T

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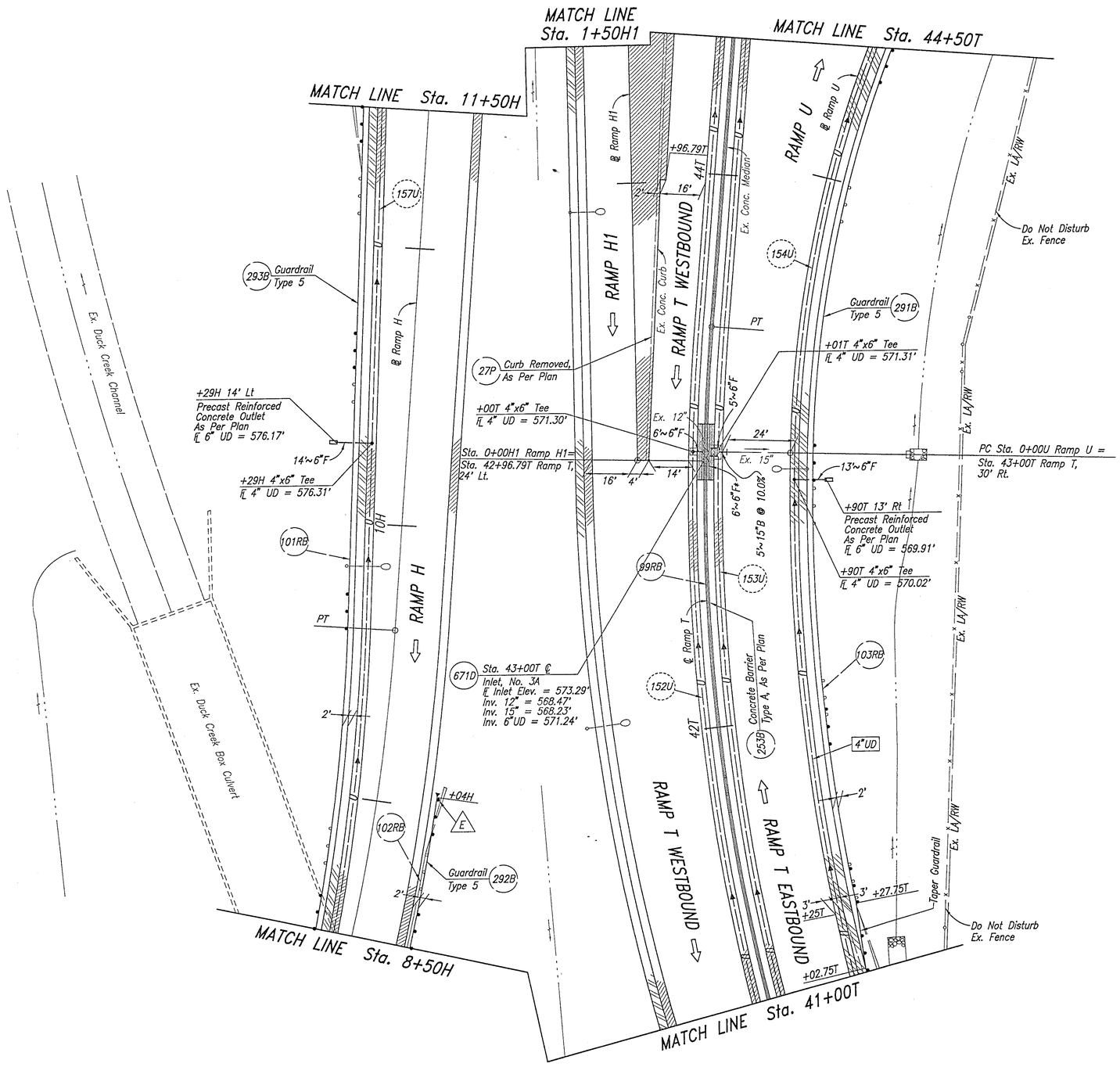

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285.
5) * Denotes the Location of a Propcsed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP U Sta. 0+00U to Sta.1+52.90U
RAMP H1 Sta. 0+00H1 to Sta.1+50H1
RAMP H Sta. 8+50H to Sta.11+50H
RAMP T Sta. 41+00T to Sta. 44+50T

CALC. BY DLD DATE 10/23/95
CHKD. BY PWP DATE 1-11-95

HAM-71-2.92

OHIO FHWA REGION 5

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MATCH LINE Sta. 3+00M

MATCH LINE Sta. 5+00H1

MATCH LINE Sta. 15+00H

MATCH LINE Sta. 47+50T

MATCH LINE Sta. 44+50T

MATCH LINE Sta. 11+50H

MATCH LINE Sta. 1+50H1

RAMP M

RAMP H

RAMP H1

RAMP T WESTBOUND

RAMP T EASTBOUND

RAMP U

MARBURG AVENUE

Curb Removed As Per Plan 1

Curb Removed As Per Plan 2

Concrete Median Removed, As Per Plan

Concrete Barrier Type A, As Per Plan

Abandon Ex. 15"-15" Storm

Ex. Conc. Curb

Ex. Conc. Median

Ex. 54"

Ex. 48"

Ex. 45"

Ex. 33"

Ex. 27"

Ex. 12"

Ex. LA/RW

Ex. 15"

Ex. 12" San.

+43M 4"x6" Tee
℄ 4" UD = 567.20'

+43M 13' Lt
Precast Reinforced Concrete Outlet As Per Plan
℄ 6" UD = 567.07'

PC Sta. 0+00M Ramp M =
Sta. 12+39.40H Ramp H 18' Lt.

+36H 4" Cap
℄ 4" UD = 563.87'

+75H1 4"x4" Tee *
Low Point
℄ 4" UD = 563.46'

+75H1 28' Rt
Precast Reinforced Concrete Outlet As Per Plan
℄ 6" UD = 563.33'

+00T 4" Cap
℄ 4" UD = 566.74'

+50H1 4" Cap
℄ 4" UD = 568.93'

+02T 4"x6" Tee
℄ 4" UD = 565.20'

+16T 6" Cap
℄ 6" UD = 565.67'

+05T 6"-45° Elbow 4"x6" Transition
℄ 6" UD = 563.69'

+13T 4"-45° Elbow
℄ 4" UD = 563.48'

+00U 4"x4" Tee *
℄ 4" UD = 558.31'

+07U 4" Cap
℄ 4" UD = 556.37'

Sta. 47+50 ℄
INLET, NO. 3A
℄ Inlet Elev. = 562.48'
Inv. 15" = 557.13'
Inv. 6" UD = 560.14'

Sta. 45+00 ℄
INLET, NO. 3A
℄ Inlet Elev. = 568.59'
Inv. 15" = 563.73'
Inv. 6" UD = 566.53'

47+18.00 Ramp T
91.00' Rt. CPA

47+22.00 Ramp T
109.00' Rt. CPA

46+58.00 Ramp T
84.00' Rt. CPA

3+88.00 Ramp U
19.00' Lt. EPA

5+25.00 Ramp U
15.00' Rt. EPA

4+55.24 Ramp U
34.00' Rt. CPA

+32.05U
Begin Feathering

+00U 30.5' Rt Ex. CB
Inv. 27" = 547.54'
℄ 6" UD = 548.50'

45+15.58 Ramp T EPA
147.00' Rt., Begin Prop. Fence, Secure Ex. Fence too New Fence Post

Do Not Disturb Ex. Fence

Guardrail Type 5

Grade To Drain

PCC

Curb Removed, As Per Plan 1

Concrete Median Removed

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Feathering Details, See Sheets 41–44.
4) For Drainage Details, See Sheets 286–291.
5) For Quantiiies, See Sheets 269–285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP H Sta. 11+50H to Sta. 15+00H
RAMP H1 Sta. 1+50H1 to Sta. 5+00H1
RAMP M Sta. 0+00M to Sta. 3+00M
RAMP U Sta. 1+52.90U to Sta. 4+07.05U
RAMP T Sta. 44+50T to Sta. 47+50T

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CALC. BY DLP DATE 10-12-92
CHKD. BY PWP DATE 1-23-95

HAM-71-2.92

OHIO FHWA REGION 5

264 / 615

RIDGE AVENUE

Ex. LA/RW

Bridge No. HAM-71-0747

Ex. RW

Ex. Duck Creek Box Culvert

Ex. Conc. Curb to Remain

PT Sta. 7+11.85M 34° Lt Ramp M = Sta. 24+30.16 Ridge Ave.

+48.55M End Feathering

683D

682D +75M Catch Basin
Adjusted To Grade
fl 6" UD = 554.29'
Inv. 15" = 552.70'

+61.36M 4"-22 1/2° Elbow 4"x6" Reducer fl 6" UD = 554.49'

+50M, 4"-22 1/2° Elbow fl 4"UD=554.69'

PC +32.55M

Ex. Access Road

Ex. Duck Creek Channel

RAMP M

RAMP H

RAMP H1

RAMP T1

RAMP T2

RAMP T WESTBOUND

RAMP T EASTBOUND

SEE SHEET 253
MATCH LINE Sta. 18+00H

MATCH LINE Sta. 3+00M

MATCH LINE Sta. 5+00H1

MATCH LINE Sta. 15+00H

MATCH LINE Sta. 47+50T

End Retrofit Parapet

72P +60.57H1 End Approach Slab End Transition

+76.5H Widened Approach Slab

+49H1

+46.67T1 Begin Feathering

+35.57H1 Begin Approach

+00T, 6"x6" Tee * F 6"UD=553.67'

+23.07H1 Begin Transition

Sta. 49+80.28T Ramp J = Sta. 0+00T1, Ramp T1 24.58' Lt

6"-22 1/2° Elbow 4"x6" Reducer fl 6"UD=553.85'

+25H1 4" Cap fl 4" UD = 569.62

+70T 4"-22-1/2" Elbow fl 4" UD = 554.19

101P Sta. 6+55.6H1 PRESSURE RELIEF JOINT, TYPE C

295B Guardrail Type 5

297B Guardrail Type 5

+64H

165U

+36.5H1

+75H 4" Cap fl 4" UD = 566.98

Taper Guardrail

157U

+99H1

+14H

163U 16H +6H1

+00H 4"x6" Tee Low Point fl 4" UD = 564.58'

296B Concrete Barrier Type D

+74H1

27'~6"F

+89H

+00H, 27' Lt Concrete Outlet fl 6" UD = 561.00'

29P Curb Removed As Per Plan 1

+50M

+34H1

Ex. Sign

105RB

+41H

294B Concrete Barrier Type D

160U

104RB

680D +10T1 Catch Basin
Adjusted To Grade
fl 6" UD = 552.53
Inv. 15" = 548.89

+21.67T1 End Feathering

+06T1 6"-22 1/2" Elbow fl 6" UD=552.59'

+99.3T End Feathering

681D

6"UD

Barrier End Terminal

50T

+87.0T

679D

Ex. Loop Detector

678D

+23T

+12.78T

Ex. Loop Detector

+49.94T2

+63.50T2 Begin Feathering

+75T 4"x6"-90° Elbow fl 4" UD = 554.33'

+12.00T Begin Feathering

6"UD

6'~6"F

6'~6"F*

38'

PC Sta. 49+53.32T Ramp J = Sta. 0+00T2, 44' Lt Ramp T2

+00T2 4"-22-1/2" Elbow 4"x6" Transition fl 6" UD = 555.04'

+40T 4"-22-1/2" Elbow fl 4" UD = 555.41'

+28.3T

99RB

+51T 4x6 Tee fl 4" UD = 560.20'

6740 Sta. 49+75 Q INLET, NO. 3A fl Inlet Elev = 556.44' Inv. 15" = 552.16' fl 6" UD = 554.27'

159U

Sign Support Transition +95T

Ex. Conc. Median

153U

+55T

Ex. Sign

+45T

253B Concrete Barrier Type A, As Per Plan

161U

+05T

Sign Support Transition 48T

152U

+50T 4x6 Tee fl 4" UD = 560.21'

5'~6"F @ RAMP T

6'~6"F

6'~15"B @ 7.4%

Ex. 15"

83F

675D

Ex. Conc. Curb to Remain

Ex. 24"

Ex. 12"

Ex. 15"

21.17'

SP

+38.50T2 End Feathering

+43T2 6" Cap fl 6" UD = 555.83'

164U

50+37.00 Ramp T 113.00' Rt. EPA

+76.6T2 6" Tee Low Point fl 6" UD = 553.84'

+90.6T2 Catch Basin 676D
Adjusted To Grade
fl 6" UD = 554.02'
Inv. 15" = 551.50'

+76.6T2 Catch Basin 677D
Adjusted To Grade
fl 6" UD = 553.78'
Inv. 15" = 551.00'
Inv. 21" = 544.21'

20+11.00 Ridge EPA 35.00' Rt. 85F

Sta. 51+23.83T Ramp T = Sta. 21+12.36 Ridge Ave.

Ex. 24"

Ex. 30"

Ex. 21"

Ex. 27"

Ex. 15"

Ex. 18"

6"G

4"G

2T1

2T2

PT

PS

E

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6-40.
3) For Feathering & Transition Details, See Sheets 41-44A.
4) For Drainage Details, See Sheets 286-291.
5) For Quantities, See Sheets 269-285.
6) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
7) "6'~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.
8) For Work on Bridge HAM-71-0838S (RAMP H), See Sheet 603.

RAMP H Sta. 15+00H to Sta. 18+00H
RAMP H1 Sta. 5+00H1 to Sta. 7+74.31H1
RAMP M Sta. 3+00M to Sta. 6+48.55M
RAMP T Sta. 47+50T to Sta. 50+98.50T

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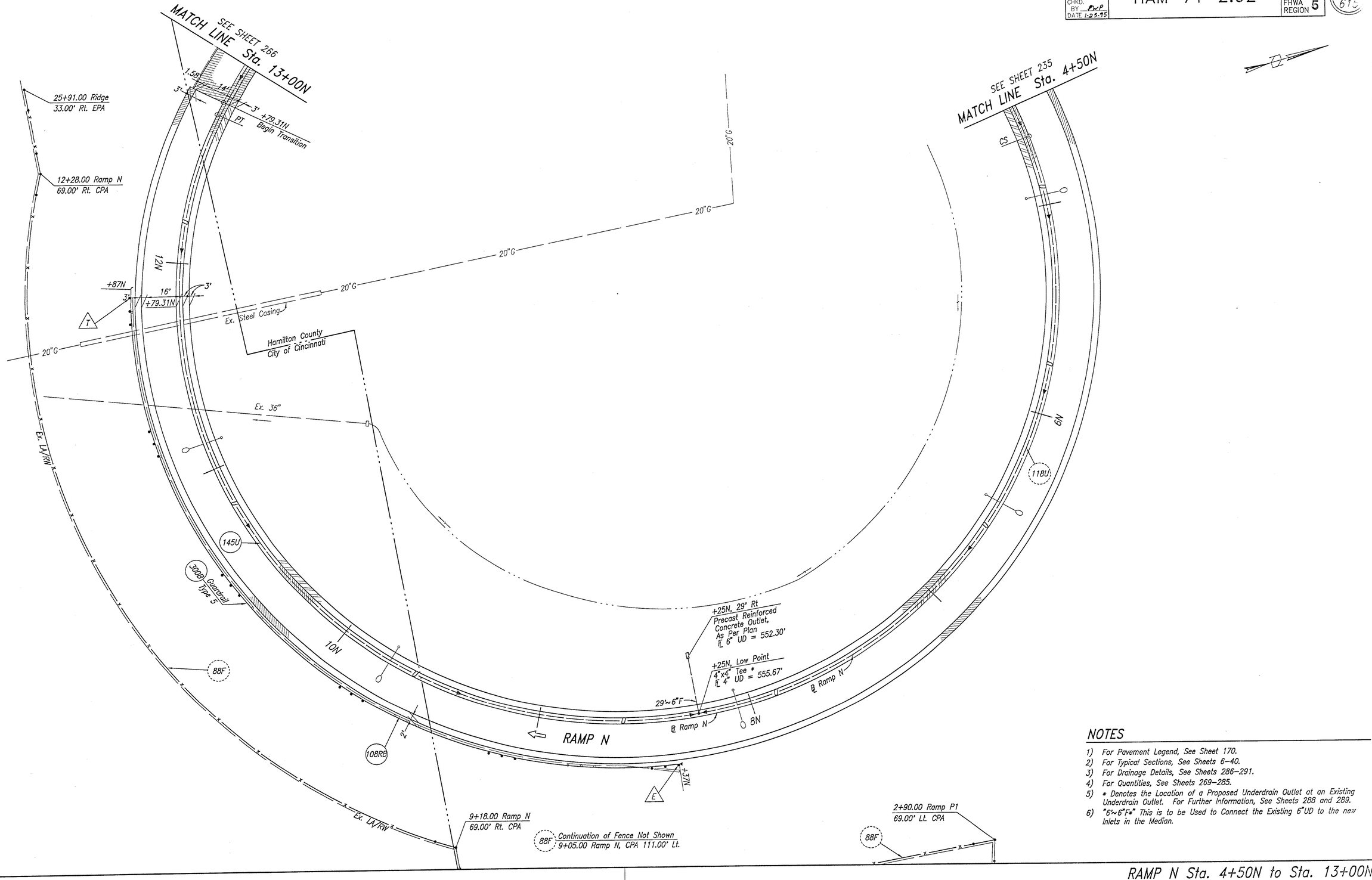
CALC. BY DB DATE 10-17-94	HAM-71-2.92	OHIO
CHKD. BY RWP DATE 1-25-95		FHWA REGION 5

265
615



NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.
6) "6"~6"F*" This is to be Used to Connect the Existing 6"UD to the new Inlets in the Median.

RAMP N Sta. 4+50N to Sta. 13+00N

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CALC. BY DLB DATE 10-17-94
CHKD. BY EWP DATE 1-25-95

HAM-71-2.92

OHIO FHWA REGION 5

266 615

CITY OF CINCINNATI
HAMILTON COUNTY

Sta. 404+81.00 ℄ (Projected Back)=
Sta. 29+96.64 Ridge Avenue

HAM-71-0846

Bridge No. 405

AVENUE

RIDGE

+53.29 Ridge
End Approach Slab
Begin Transition

82F

405+06.00
183.00' Lt. CPA

+90.79 Ridge
End Transition
End Work

685D

42"W

31+23.0± Ridge
29.0±' Lt. AC

32

24"

Ex. 12"

Ex. 18"

20"G

Ex. UA/RW

405+92.00
188.00' Lt. CPA

+33.29 Ridge
Begin Approach Slab

684D

31+43.0± Ridge
29.0±' Rt. AC

87F

406+60.00
163.00' Lt. CPA

+60.24 Ridge
End Approach Slab

+40.24 Ridge
Begin Approach Slab
End Transition

+02.74 Ridge
Begin Approach Slab
Begin Transition

℄ Ridge Ave.

28

30

42

PT

STATION EQUATION
Sta. 404+87.57 ℄ Ahead=
Sta. 404+00NB ℄ Rt Back
Sta. 404+87.57 18' Lt Back

I-71 SB

I-71 NB

Sta. 28+43.45 Ridge Ave.=
Sta. 14+72.95N Ramp N

686D

RAMP N

14N

15.95'

+79.31N
End Transition
End Work

+50N

Ex. 15"

3-

+25N

℄ Ramp N

3'

+45N 4" Cap
℄ 4" UD = 574.92'

145U

CS

MATCH LINE Sta. 13+00N
SEE SHEET 265

For Continuation of
INTERSTATE 71 See Sheet 235

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Transition Details, See Sheets 41–44.
4) For Drainage Details, See Sheets 286–291.
5) For Quantities, See Sheets 269–285.
6) For Work on Bridge HAM-71-0846 (RIDGE AVENUE), See Sheet 607.

RAMP N Sta. 13+00N to Sta. 14+72.95N

RIDGE AVENUE

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CALC. BY DLB DATE 10-17-95
CHKD. BY PWP DATE 1-30-96

HAM-71-2.92

OHIO
FHWA REGION 5

Sta. 12+00.00 Kennedy Ave.=
Sta. 0+00P1 Ramp P1

11+37.00 Kennedy
46.00' Lt. EPA

+67.59
35.42'
+35.00P1
Begin Pvmt Work
Begin Transition
+52.76 P1
16'
2.58'
+20.69
35.42'
Ex. 12"
+50P1 6" Cap
℄ 6" UD = 550.24'
Ex. 21" San.
Ex. LA/RW
2.58'
Ex. 30"
Ex. 12"
6"UD
146U
℄ RAMP P1
+00P1 Catch Basin
Adjusted To Grade
Inv. 12" = 547.10'
662D
10'~6"F
+90P1, Low Point
6"-45° Elbow *
℄ 6" UD = 550.20'
+11.00P1
End Transition
10'~6"F
RAMP P1
Ex. LA/RW
+10P1, Low Point
6"-45° Elbow *
℄ 6" UD = 550.20'
6"UD
147U
6" UD
Ex. Conc. Curb
2P1
663D
Ex. 15"
+17P1 6" Cap
℄ 6" UD = 549.52'
88F
2+90.00 Ramp P1
69.00' Lt. CPA

88F Continuation of Fence Not Shown
9+05.00 Ramp N, CPA 111.00' Lt.

KENNEDY AVENUE

Ex. 30"
Ex. 12"
Ex. 21" San.
Ex. LA/RW
Ex. 30"
Ex. 12"
Ex. 30"
+37.93
41.42'
14
Ex. Conc. Curb
RAMP P
℄ RAMP P
148U
18.58'
+50P
18.58'
+79.95P
End Transition
2P
SC
4P
+12.66P
18.58'
2R
+21.66P
16'
2.58'
Ex. 12"
Ex. 21" San.
+05P 4" Cap
℄ 4" UD = 555.42'
3'
1.58'
+04.95P
Begin Pvmt Work
Begin Transition
Ex. 12" x 9' Box Culvert
21'~6"F
+85P, 21' Rt
Precast Reinforced
Concrete Outlet,
As Per Plan
℄ 6" UD = 546.00'
+85P, Low Point
4"x4" Tee *
℄ 4" UD = 547.55'
126U
4P1
6P
16'
RAMP P
14+80.00 Kennedy
46.00' Lt. EPA
Ex. LA/RW
℄ Ramp P
Ex. LA/RW
92F
Ex. 21" San.
16
33.83'
+87.85
TS Sta. 0+00P Ramp P=
Sta. 15+87.85 Kennedy Ave.
Sta. 6+03.37P = Ramp P
Sta. 4+19.07P1 Ramp P1

MATCH LINE Sta. 6+50P
SEE SHEET 236

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 6–40.
3) For Drainage Details, See Sheets 286–291.
4) For Quantities, See Sheets 269–285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.

RAMP P1 Sta. 0+00P1 to Sta. 4+19.07P1

RAMP P Sta. 0+00P to Sta. 6+50P

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89F Continuation of Fence Not Shown
45+68.00 Highland, 34.00' Rt., CPA

Ex. 12" Ex. 12" Ex. 12" Ex. 12"

AVENUE

HIGHLAND

Ex. 12" Highland Ave Ext. =

89F

Connect to Existing Guardrail

43+60.00 Highland EPA
34.00' Rt.

POC Sta. 43+03.07 Highland Ave Ext. =
Sta. 10+39.41R Ramp R

45° R

Ex. 15' x 9' Culvert

Ex. Conc. Curb To Remain

+14.50R
End Feathering

17.58'
+04.65R

10R

1.5'

T

Ex. 15"

Ex. 15"

9.58'

17.58'

Ex. Conc. Curb To Remain

Ex. LA/RW

PC 1.42'
+64.02R

664D

+64R 4" Cap
FL 4" UD = 573.35'

Guardrail Type 5

301B

109RB

5'

24" ø Ramp R

3'

+39.50R
Begin Feathering

+64R 4" Cap
FL 4" UD = 573.35'

41+80.00 Highland
34.00' Rt. EPA

41+84.00 Highland
55.00' Rt. CPA

E

+43.75R

RAMP R 8R

Ex. LA/RW

87F

7+94.00 Ramp R
119.00' Lt. CPA

Ex. LA/RW

6+26.00 Ramp R
75.00' Lt. CPA

87F Continuation of Fence Not Shown
5+52.0± Ramp R, 145.0±' Lt., CPA
See Sheet 236

3' 8' 16' +50R 3'

3' 16' +00R 3'

Ex. Paved Channel

Ex. LA/RW

89F

7+94.00 Ramp R
159.00' Rt. CPA

Ex. Paved Channel

Ex. LA/RW

4+39.00 Ramp R
114.00' Rt. CPA

Ex. Paved Channel

241B Guardrail Type 5

Ex. 12' x 9'

82RB

Ex. 6" Type F

5'

T

+66R

+75R, Connect New 4" UD to the Ex. 6" Type F & Flush Out to the Box Culvert *
FL 4" UD = 557.74'
FL Ex. 6" UD = 555.40'
4"-90° Elbow (Turned Down) and 4"x6" Tee

Box Culvert

+00R, Connect New 4" UD to the Ex. 6" Type F & Flush Out to the Box Culvert *
FL 4" UD = 557.71'
FL Ex. 6" UD = 553.37'
4"-90° Elbow (Turned Down) and 4"x6" Tee

MATCH LINE Sta. 4+00R
SEE SHEET 237

6R

149U

150U

Ex. 6" Type F

+37R 4"-90° Elbow *
FL 4" UD = 558.93'

48"~6"F

+37R, 66' Lt
Precast Reinforced Concrete Outlet, As Per Plan
FL 6"UD=(Match Exist.)

NOTES

1) For Pavement Legend, See Sheet 170.
2) For Typical Sections, See Sheets 3-40.
3) For Drainage Details, See Sheets 286-291.
4) For Quantities, See Sheets 269-285.
5) * Denotes the Location of a Proposed Underdrain Outlet at an Existing Underdrain Outlet. For Further Information, See Sheets 288 and 289.

RAMP R Sta. 4+00R to Sta. 10+39.41R

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PAVEMENT ESTIMATED QUANTITIES

CALC. BY DB DATE 10-17-94
CHKD. BY PWP DATE 1-30-95

HAM-71-2.92

OHIO FHWA REGION 5

269 / 615

SHT. No.	REF. No.	SIDE	STATION	STATION	202							203				301		304		407	408	446		452		SPECIAL	601	611	609		659			670
					Curb Removed	Curb Removed, As Per Plan 1	Curb Removed, As Per Plan 2	Concrete Median Removed	Concrete Median Removed, As Per Plan	Concrete Slope Protection Removed	Pavement Removed	Removal Misc: Portion Of Curb Removed	Excavation Not Including Embankment Construction	Subgrade Compaction	Embankment	6" Bituminous Aggregate Base, AC-20	Bituminous Aggregate Base, AC-20, Variable Depth	Aggregate Base, Variable Depth	Aggregate Base	Tack Coat	Bituminous Prime Coat	3" Asphalt Concrete Intermediate Course, Type 2, AC-20	1¼" Asphalt Concrete Surface Course, Type 1, AC-20	Plain Concrete Pavement 4"	Plain Concrete Pavement 6"	Micro-Silica Modified Concrete Overlay	Concrete Slope Protection	Reinforced Concrete Approach Slab (T=15") As Per Plan	Combination Curb And Gutter, Type 2 As Per Plan	Curb, Type 6	Seeding And Mulching	Commercial Fertilizer	Water	Ditch Erosion Protection
					Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Cu. Yd.	SY	CY	Cu. Yd.	Cu. Yd	Cu. Yd.	Cu. Yd.	Gal.	Gal.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Ton	MGal	SY
			RAMPS																															
176–177	1P	Lt.	237+20TC	239+00TC			180										5.6			1.5		1.7	0.7								–	–	
177	2P	Rt.	240+30.5TH	241+60.74TH					73.4				14.3			12.2		8.1		5.5	18.4	18.4	7.7								–	–	
194–195	3P	Rt.	302+15.31ME	304+63.20ME			247.9										5.8			1.5		1.6	0.7								–	–	
202	4P	Lt.	337+41.97MF	337+80MF	20		31.1						3.4			5.2		2.6		2.3		2.6	1.1						20	13.3	–	–	
207–208	5P	Rt.	369+58.89DB	373+32DB			373.1										8.1			2		2.2	0.9								–	–	
210	6P	Lt.	384+75DC	387+00DC			225										5.7			1.5		1.6	0.7								–	–	
210	7P	Rt.	385+35.31DE	385+67.83DE	20		25.3						4.9			4.2		2.8		1.9	6.3	2.1	0.9						20	13.3	–	–	
214–215	8P	Rt.	304+00A	307+00A		101.5	198.5						1.9				6.1			1.7		1.8	0.8							45.1	–	–	
219–220	9P	Lt.	330+50C	333+67.25C		117.3	200						2.2				6.2			1.7		1.9	0.8							52.1	–	–	
225–226	10P	Lt.	14+48.5E	17+07.53E		67.5	191.5						1.3				5.9			1.6		1.8	0.7							30	–	–	
228	11P	Lt.	18+32.4J	20+07J		174.6							3.2																	77.6	–	–	
229–230	12P	Rt.	23+60J	25+94.85J	94.3		240.6										7.4			2		2.2	0.9								–	–	
230	13P	Lt.	9+77.5I	10+29.11I	51.6										0.4														21.1	9.4	–	–	
231–232	14P	Lt.	0+00H	2+41H	100.7	58.8	81.5										2.5			0.7		0.8	0.3								–	–	
236	15P	Lt.	8+36P	10+45.90P		49	160.9						6				5			1.3		1.5	0.6							71.5	–	–	
			CROSS ROADS																															
181	16P	Med.	97+96.40 MLKg	98+26.40 MLKg				13.3																							–	–	
242	17P	Med.	105+33.82 MLKg	105+58.82 MLKg				11.1																							–	–	
245	18P	Med.	6+94.08 Mont	7+61.58 Mont				30																							–	–	
208,247	19P	Med.	8+10 Dana	9+80.06 Dana				75.6																							–	–	
248	20P	Med.	12+62.49 Dana	12+76.7± Dana				6.3																							–	–	
248	21P	Med.	13+58 Dana	16+02 Dana				108.4																							–	–	
			RAMPS																															
250	22P	Rt.	378+54DA	379+69.88DA			115.9										3.6			1		1.1	0.5								–	–	
256	23P	Rt.	13+06.23K	14+04.17K	65.8	41.2			34.6				1.5																	18.3	–	–	
256–257	24P	Rt.	0+00I	3+00I		233	190						5.7				7.2			1.9		2.2	0.9							103.6	–	–	
259	25P	Lt.	12+58.99F	14+58.99F		118.5	81.5						2.9				3.6			1		1.1	0.5							48.2	–	–	
259–260	26P	Lt.	8+25G	10+81.34G		126.2	138						3.1				4.2			1.2		1.3	0.5							50.1	–	–	
262–263	27P	Lt.	42+96.79T	47+00T	247.3		155.9										4.8			1.3		1.4	0.6								–	–	
263	28P	Gore	1+97.12U	4+10U				9.9					0.4	9.9		1.7		0.8													–	–	
263–264	29P	Rt.	0+00M	3+50M		138.5	211.5						3.4				6.5			1.8		2	0.8							61.6	–	–	
263	30P	Rt.	13+49.93H	14+49.93H	50.1	50.1			38.8				20.8			11.3		7.4		5.1	16.9	5.6	2.3								–	–	
			MAINLINE AND RAMPS																															
174	31P	SB Lt.	227+55 ℄	227+90.33 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
175	32P	Rt.	230+27.67TC	230+63TC	35.33								0.9		1.8														35.33	21.4	–	–	
175	33P	SB Lt.	231+19.67 ℄	231+55 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
175	34P	Rt.	233+61.25TC	233+73.75TC	12.5								0.2		0.6														12.5	7.6	–	–	
175	35P	Lt.	232+65.5TH	232+78TH	12.5								0.2		0.6														12.5	7.6	–	–	
175	36P	Rt.	233+25.67TH	233+61TH	35.33								0.9		1.8														35.33	21.4	–	–	
177	37P	Lt.	241+86TH	242+21.33TH	35.33								0.9		1.8														35.33	21.4	–	–	
179	38P	NB Rt.	247+85.67 ℄	248+21 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
181	39P	NB Rt.	254+14 ℄	254+49.33 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
184	40P	NB Rt.	261+53.67 ℄	261+89 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
184	41P	NB Rt.	263+13 ℄	263+25.5 ℄	12.5								0.2		0.6														12.5	7.6	–	–	
184	42P	SB Lt.	264+12.5 ℄	264+25 ℄	12.5								0.2		0.6														12.5	7.6	–	–	
185	43P	SB Lt.	265+39 ℄	265+74.33 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
185	44P	NB Rt.	267+05.67 ℄	267+41 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
185	45P	NB Rt.	267+76 ℄	267+88.5 ℄	12.5								0.2		0.6														12.5	7.6	–	–	
187	46P	NB Rt.	276+15.67 ℄	276+51 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
188	47P	NB Rt.	279+20 ℄	279+32.5 ℄	12.5						2.1		0.1						0.1					1.7					12.5		–	–	
198	48P	Lt.	318+24.67ME	318+60ME	35.33								0.9		1.8														35.33	21.4	–	–	
200	49P	Lt.	324+97ME	325+32.33ME	35.33					7.8			0.9													4.2			35.33		–	–	
208	50P	NB Rt.	374+22.67 ℄	374+58 ℄	35.33								0.9		1.8														35.33	21.4	–	–	
TOTALS CARRIED TO NEXT SHEET					1219.43	1276.2	3048.2	254.6	146.8	7.8	2.1	–	88.7	9.9	26.8	34.6	88.2	21.7	0.1	38.5	41.6	54.9	22.9	1.7	–	–	4.2	–	569.62	61.1	910.3	–	–	–

NOTE: "MLKg" Denotes Martin Luther King Drive
"Mont" Denotes Montgomery Road
"Dana" Denotes Dana Avenue

PAVEMENT ESTIMATED QUANTITIES

CALC. BY: DLB DATE: 10-17-94
CHKD. BY: PWP DATE: 1-30-95

HAM-71-2.92

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270/615

SHT. No.	REF. No.	SIDE	STATION	STATION	202								203			301		304		407	408	446		452		SPECIAL	SPEC.	601	611	609		659			670
					Curb Removed	Curb Removed, As Per Plan 1	Curb Removed, As Per Plan 2	Concrete Median Removed	Concrete Median Removed, As Per Plan	Concrete Slope Protection Removed	Pavement Removed	Removal Misc: Portion Of Curb Removed	Excavation Not Including Embankment Construction	Subgrade Compaction	Embankment	6" Bituminous Aggregate Base, AC-20	Bituminous Aggregate Base, AC-20, Variable Depth	Aggregate Base, Variable Depth	Aggregate Base	Tack Coat, USING SS 924	Bituminous Prime Coat	3" Asphalt Concrete Intermediate Course, Type 2, AC-20	1¼" Asphalt Concrete Surface Course, Type 1, AC-20	Plain Concrete Pavement 4"	Plain Concrete Pavement 6"	Micro-Silica Modified Concrete, MISC.: OVERLAY (1.75" THICK)	Pressure Relief Joint, Type C	Concrete Slope Protection	Reinforced Concrete Approach Slab (T=15") As Per Plan	Combination Curb And Gutter Type 2, As Per Plan	Curb, Type 6	Seeding And Mulching	Commercial Fertilizer	Water	Ditch Erosion Protection
					Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Cu. Yd.	SY	CY	Cu. Yd	Cu. Yd	Cu. Yd.	Cu. Yd.	Gal.	Gal.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	LF	SY	Sq. Yd.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Ton	MGal	SY
			MAINLINE AND RAMPS																															
208	51P	Rt.	374+06.5DB	374+19DB	12.5			2.8					0.2											1.7					12.5			–	–	
208	52P	Rt.	375+25DB	375+60.33DB	35.33			7.8					0.9											4.2					35.33			–	–	
208	53P	NB Rt.	375+66 ℄	375+78.5 ℄	12.5								0.2		0.6														12.5		7.6	–	–	
209	54P	SB Lt.	379+90.67℄	380+26 ℄	35.33								0.9		1.8														35.33		21.4	–	–	
209	55P	SB Lt.	381+25 ℄	381+60.33 ℄	35.33								0.9		1.8														35.33		21.4	–	–	
221	56P	SB Lt.	342+64 ℄	342+99.33 ℄	35.33								0.9		1.8														35.33		21.4	–	–	
223	57P	SB Lt.	350+56.5 ℄	350+69 ℄	12.5								0.2		0.6														12.5		7.6	–	–	
223	58P	SB Lt.	352+13 ℄	352+48.33℄	35.33								0.9		1.8														35.33		21.4	–	–	
223	59P	NB Rt.	350+74.67 ℄	351+10 ℄	35.33								0.9		1.8														35.33		21.4	–	–	
225	60P	SB Rt.	363+43.5 SB	363+78.83 SB	35.33								0.9		1.8														35.33		21.4	–	–	
228,258	61P	Rt.	7+50F	10+00F	250								4.6																		111.1	–	–	
230	62P	Lt.	10+08I	10+43.33I	35.33								0.9		1.8														35.33		21.4	–	–	
231	63P	Lt.	11+60.17I	11+95.5I	35.33								0.9		1.8														35.33		21.4	–	–	
231	64P	Lt.	12+43.5I	12+78.83I	35.33								0.9		1.8														35.33		21.4	–	–	
232	65P	NB Lt.	387+52 NB	387+64.5 NB	12.5								0.2		0.6														12.5		7.6	–	–	
247	66P	Lt.	373+90.5DE	374+03DE	12.5								0.2		0.6														12.5		7.6	–	–	
249	67P	Lt.	377+75DE	378+10.33DE	35.33								0.9		1.8														35.33		21.4	–	–	
249	68P	Rt.	377+98.5DE	378+11DE	12.5								0.2		0.6														12.5		7.6	–	–	
249	69P	Rt.	379+44DE	379+79.33DE	35.33								0.9		1.8														35.33		21.4	–	–	
227–228	70P	R–Appr	373+33.33 SB	373+58.33 SB									20.5												132.5			52.8				–	–	
229–230	71P	F–Appr	379+83.02 SB	380+08.02 SB									19.2												129			49.3				–	–	
264	72P	R–Appr	7+35.57H1	7+60.57H1									10.9												52.2			28.0				–	–	
253	73P	F–Appr	19+63.90H	19+88.90H									11												45.1			28.2				–	–	
175	74P	Lt.	232+78TH	233+83TH									16.9											137								–	–	
248,250	75P	℄	18+46DCR	20+08DCR																												–	–	
189–190	76P	NB Rt.	284+25	285+35	10			38.9				33.3			11.2														10	58.2		–	–	
198–199	77P	SB Lt.	316+56.66	317+66.66	10			51.9				33.4			14.8														10	71.2		–	–	
263	78P	EB Rt.	45+15.4T	46+03.35T								88	1.1																	39.1		–	–	
263	79P	Lt.	2+10U	4+07.05U		197.1							2.5																	87.6		–	–	
215	80P	Rt.	308+23.5B	Ramp B									1													6.1				2.4		–	–	3.7
224	81P	Rt.	358+41 NB	NB I–71									1													6.1				3.3		–	–	6.3
235	82P	Rt.	1+97N	Ramp N									1													6.1				2.8		–	–	4.7
261	83P	Rt.	40+88T	EB Ramp T									1													6.1				1.7		–	–	1.3
174	84P		228+79.25TC	Ramp TC																								17				0.14	1.69	
191	85P		292+02℄	MAINLINE																								49				From Pavement		
191–192	86P		292+52.56℄	MAINLINE																								49				Calculation on		
193	87P		296+75.8℄	MAINLINE																								48				Sheet 162		
193	88P		297+32.7℄	MAINLINE																								63						
227	89P		372+21.9SB	MAINLINE																								48						
229	90P		22+06.3L	RAMP L																								16						
229	91P		21+92.2K	RAMP K																								16						
230	92P		380+88SB	SB MAINLINE																								52						
231	93P		1+39.5H	RAMP H																								15						
244	94P		5+39.33	WOODBURN AVE.																								44						
253	95P		20+68.9H	RAMP H																								16						
258	96P		28+12.19T	EB RAMP T																								16						
258	97P		28+31.1T	WB RAMP T																								17						
260	98P		4+31.54G	RAMP G																								16						
260	99P		7+14.27G	RAMP G																								16						
261	100P		7+71.6H	RAMP H																								19						
264	101P		6+55.6H1	RAMP H1																								27						
TOTALS THIS SHEET					768.96	197.1	–	101.4	–	–	–	154.7	102.7	–	48.8	–	–	–	–	–	–	–	–	142.9	24.4	358.8	544	–	158.3	498.96	20	650.8	0.14	1.69	16
TOTALS CARRIED FROM PREVIOUS SHEET					1219.43	1276.2	3048.2	254.6	146.8	7.8	2.1	–	88.7	9.9	26.8	34.6	88.2	21.7	0.1	38.5	41.6	54.9	22.9	1.7	–	–	–	4.2	–	569.62	61.1	910.3	–	–	–
SUBTOTAL					1988.39	1473.3	3048.2	356	146.8	7.8	2.1	154.7	191.4	9.9	75.6	34.6	88.2	21.7	0.1	38.5	41.6	54.9	22.9	144.6	24.4	358.8	544	4.2	158.3	1068.58	81.1	1561.1	0.14	1.69	16
TOTALS CARRIED TO GENERAL SUMMARY SHEET					1989	1473	3048	356	147	8	2	155	191	10	76	35	88	22	0.1	39	42	55	23	147	24	359	544	4	158	1069	81	1561	0.14	1.69	16

NOTE: For General Summarys, See Sheets 167–169.
"R–Appr" Denotes Rear Approach Slab
"F–Appr" Denotes Forward Approach Slab

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ROADWAY ESTIMATED QUANTITIES

CALC. BY JDP DATE 10-19-98
CHKD. BY PWP DATE 1-30-95

HAM-71-2.92

OHIO FHWA REGION 5

271 / 615

SHT. No.	REF. No.	SIDE	STATION	STATION	604	606						622										509	517	Special	202				203		659			802			
					Manhole Adjusted To Grade	Guardrail Type 5	Guardrail Type 5A	Anchor Assembly Type		Bridge Terminal Assembly Type			Concrete Barrier Type A As Per Plan	Concrete Barrier Type B As Per Plan	Concrete Barrier Type B50 As Per Plan	Concrete Barrier Type B50 As Per Plan A	Concrete Barrier Type C As Per Plan	Concrete Barrier Type D	Concrete Barrier Type D As Per Plan	Concrete Barrier Type D As Per Plan A	Concrete Barrier Type D50	Concrete Barrier Type D50 As Per Plan	Epoxy Coated Reinforced Steel, Grade 60	Railing Faced As Per Plan (32" High)	Impact Attenuator Hex Foam Sandwich System	Curb Removed	Concrete Median Removed	Portions of Structures Removed: Retaining Wall	Monument Assembly Removed	Excavation not Included Embank. Construction	Embankment	Seeding and Mulching	Commercial Fertilizer	Water	Barrier Reflector Type A (Yellow)	Barrier Reflector Type A (White)	Barrier Reflector Type B (Yellow)	Barrier Reflector Type B (White)
								E	T	1	2	J																								
					Each	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lbs.	Lin. Ft.	Each	Lin. Ft.	Sq. Yd.	Lump	Each	Cu. Yd.	Cu. Yd.	Sq. Yd.	Ton	M Gal.	Each	Each	Each	Each
170-192	1B	℄	214+98.5	293+53.79											7275				749						749	166										8
170-172	2B	Lt.	215+12.5	222+61														162							162				8		63	0.006	0.070				2
172,173	3B	Lt.	222+61	224+43																															3		
172,173	4B	Rt.	222+35.5	224+79.25		218.75		1											278						278	62										3
173,174	5B	Lt.	224+63	227+41																																	
173	6B	Rt.	224+79.25	225+48			68.75																												2		
173,174	7B	Rt.	225+48	227+10.5		162.5				1								16							16				1		6	0.001	0.007				
174	8B	Rt.	227+10.5	227+26															684						684	114										8
174,175	9B	Rt.	227+26	234+10														14							14				1		5	0.001	0.006				
174	10B	Lt.	227+41	227+55																															3		
174,175	11B	Lt.	227+55	230+67.5		312.5				1																										2	
174,175	12B	Lt.	227+88TC	231+00.5TC		312.5				1	1																									1	
175	13B	Lt.	231+00.5TC	231+22TC														22							22										3		2
174,175	14B	Rt.	227+88TC	230+63TC		275				1	1																										
177	15B	Lt.	241+92TH	242+11TH														19							19												
175	16B	Lt.	231+22TC	234+10TC																		3484	288				Lump								3		
	17B		NOT USED																																		
	18B		NOT USED																																		
175	19B	Rt.	230+63TC	230+85TC														22							22				1		9	0.001	0.009				
175	20B	Rt.	230+85TC	233+61TC															276						276				15		92	0.008	0.099				4
175	21B	Lt.	230+67.5	231+30			62.5																												1		
175	22B	Lt.	231+30	231+55		25					1																										
175	23B	Lt.	231+55	231+75														20							20				1		11	0.001	0.012				
175-177	24B	Lt.	231+75	240+02.5															828						828	368										9
177	25B	Lt.	240+02.5	240+30.5										28										1			Lump									1	
175,241	26B	Rt.	230+36TH	233+61TH		312.5			1		1																							8		
175	27B	Rt.	233+61TH	233+75TH															14						14												
175	28B	Lt.	232+78TH	233+83TH														105							105				10		58	0.005	0.063				3
175-177	29B	Lt.	233+83TH	241+92TH															809						809	114										9
177,178	30B	Lt.	242+11TH	245+36TH		325				1																									3		
178	31B	Lt.	245+36TH	245+48.5TH			12.5																												4		
178,179	32B	Lt.	245+48.5TH	249+17.25		368.75																													1		
179	33B	Lt.	249+17.25	249+73.5			56.25																												1		
179,180	34B	Lt.	249+73.5	250+98.5		100		1																											2		
176	35B	Rt.	236+25TC	237+75TC		125		1																											1		
176	36B	Rt.	237+75TC	238+37.5TC			62.5																												1		
176	37B	Rt.	238+37.5TC	238+50TC					1																										1		
179	38B	Rt.	247+21	248+21		75		1		1								14							14				1		5	0.001	0.006				1
179	39B	Rt.	248+21	248+35															565						565	94										5
179-181	40B	Rt.	248+35	254+00														14							14				1		4	0.001	0.004				
181	41B	Rt.	254+00	254+14																															4		
181,182	42B	Rt.	254+14	257+51.5		337.5					1																										
182	43B	Rt.	257+51.5	258+45.25			93.75																												4		
182-184	44B	Rt.	258+45.25	261+89		343.75				1																											
184	45B	Rt.	261+89	262+14														25							25				1		10	0.001	0.010				
184	46B	Rt.	262+14	262+90															76						76				5		30	0.003	0.032				1
184	47B	Rt.	262+90	263+13														23							23				1		4	0.001	0.005				1
181	48B	Lt.	255+64	256+95.25		118.75			1																										2		
181,182	49B	Lt.	256+95.25	257+45.25			50																												1		
182,183	50B	Lt.	257+45.25	259+26.5		156.25		1																											2		
184	51B	Lt.	264+25	264+46														21							21				1		4	0.001	0.004				1
184	52B	Lt.	264+46	265+14															68						68				4		26	0.002	0.029				1
184,185	53B	Lt.	265+14	265+39														25							25				1		5	0.001	0.005				
185	54B	Lt.	265+39	267+51.5		187.5		1		1																									3		
185	55B	Rt.	266+41	267+41		75		1		1																									2		
185	56B	Rt.	267+41	267+76														35							35				2		14	0.001	0.015				1
187	57B	Rt.	273+01	276+51		325		1		1																									4		
187	58B	Rt.	276+51	276+65														14							14				1		5	0.001	0.006				
187,188	59B	Rt.	276+65	279+20															255						255	57										4
190-192	60B	Lt.	286+49.5	293+62		700			1		1																								6		3
TOTALS CARRIED TO SHEET 276.					–	4856.25	406.25	8	4	10	6			28	7275			551	4602			3484	288	1	5153	975	Lump		55		351	0.036	0.382	11	54	165	66

NOTE: Bridge Barrier Reflectors are included in the Quantities.

GUARDRAIL and CONCRETE BARRIER
ROADWAY ESTIMATED QUANTITIES

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ROADWAY ESTIMATED QUANTITIES

CALC. BY JDP DATE 10-19-98
CHKD. BY PWP DATE 1-30-99

HAM-71-2.92

OHIO FHWA REGION 5

272/615

SHT. No.	REF. No.	SIDE	STATION	STATION	604	606					622										509	517	Special	202			203		659			802			
					Manhole Adjusted To Grade	Guardrail Type 5	Guardrail Type 5A	Anchor Type		Bridge Terminal Assembly Type											Epoxy Coated Reinforced Steel, Grade 60	Railing Faced As Per Plan (32" High)	Impact Attenuator Hex Foam Sandwich System	Curb Removed	Concrete Median Removed	Portions of Structures Removed: Retaining Wall	Monument Assembly Removed	Excavation not Included Embank. Construction	Embankment	Seeding and Mulching	Commercial Fertilizer	Water	Barrier Reflector Type A (Yellow)	Barrier Reflector Type A (White)	Barrier Reflector Type B (Yellow)	Barrier Reflector Type B (White)
								E	T	1	2	J																						
					Each	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lbs.	Lin. Ft.	Each	Lin. Ft.	Sq. Yd.	Lump	Each	Cu. Yd.	Cu. Yd.	Sq. Yd.	Ton	M Gal.	Each	Each	Each	Each
191,192	61B	Rt.	289+54	293+04		325		1		1																							4		2
192	62B	Rt.	295+25	296+25		87.5			1		1																							2		
192,193	63B	Lt.	296+28	300+28		375		1		1																							5		
194-198	64B	Lt.	303+35ME	318+60ME		1512.5			1		1																							20		
	65B		NOT USED																																	
	66B		NOT USED																																	
	67B		NOT USED																																	
	68B		NOT USED																																	
	69B		NOT USED																																	
	70B		NOT USED																																	
	71B		NOT USED																																	
	72B		NOT USED																																	
	73B		NOT USED																																	
	74B		NOT USED																																	
198	75B	Lt.	318+60ME	318+74ME															14					14			1		5	0.001	0.006				6
198-200	76B	Lt.	318+74ME	324+83ME																609				589											
200	77B	Lt.	324+83ME	324+97ME															14					14			1		5	0.001	0.006				
200	78B	Lt.	324+97ME	326+22ME		100		1		1											7659	632				Lump						2			
175-177	79B	Rt.	233+75TH	240+02.5TH											15146																		8		
192-224	80B	℄	295+74.7	356+26																													324		
199,200	81B	Rt.	320+85	322+66.25		156.25		1																									3		
200	82B	Rt.	322+66.25	323+35			56.25		1																								1		
200	83B	Rt.	324+09ME	324+84ME		62.5			1																								1		
200	84B	Rt.	324+84ME	325+46.5ME			62.5																										12		
200,201,245	85B	Rt.	325+46.5ME	4+32.42 Mont. Rd.		1175			1			1																					4		
200	86B	Lt.	323+95	326+32.5		200		1	1																								2		
201	87B	Rt.	331+50	332+81.25		106.25		1																											
201	88B	Rt.	332+81.25	332+93.75			12.5																										1		
201	89B	Rt.	332+93.75	333+87.5		81.25			1																								14		
206-208	90B	Lt.	361+35.5	374+23DB		1250		1	1																										
	91B		NOT USED																																	
	92B		NOT USED																																	
	93B		NOT USED																																	
	94B		NOT USED																																	
	95B		NOT USED																																	
256	96B	Lt.	15+25L	15+39L															14								1		5	0.001	0.006				1
207	97B	Rt.	366+51	367+44.75		68.75		1																									2		
207	98B	Rt.	367+44.75	367+57.25			12.5																										1		
207	99B	Rt.	367+57.25	367+76		6.25			1																								2		
208	100B	Rt.	373+33	374+58		100		1		1									108					108			1		42	0.004	0.045				2
208	101B	Rt.	374+58	375+66																													7		
208,209	102B	Lt.	374+13.5	380+26		600			1		1								22					22			1		10	0.001	0.011				
209	103B	Lt.	380+26	380+48																58				58			1		23	0.002	0.024				
209	104B	Lt.	380+48	381+06															19					19			1		11	0.001	0.011				1
209	105B	Lt.	381+06	381+25																													2		
209	106B	Lt.	381+25	383+25		175		1		1									106					106	24								2	
208	107B	Rt.	374+19DB	375+25DB																													15		
208,247,249	108B	Rt.	375+25DB	382+37.5DB		687.5		1		1																							4		
208,247	109B	Rt.	6+62.5DANA	9+50DANA		262.5		1		1																							3		
208,247	110B	Lt.	383+54DB	384+54DB		87.5			1	1										353				353	49									7
247,249	111B	Lt.	374+03DE	377+56DE															19					19											
249	112B	Lt.	377+56DE	377+75DE																													10		
209,210,249	113B	Lt.	377+75DE	387+93.75DE		1018.75				1									48										19	0.002	0.020				1
239	114B	Rt.	428+12.5	428+60.5																															
	115B		NOT USED																64										25	0.002	0.027				1
239	116B	Lt.	429+75.78	430+39.78															25										10	0.001	0.011				
226	117B	Rt.	11+77E	12+02E															25										10	0.001	0.011				1
226	118B	Rt.	12+55E	12+80E															60										23	0.002	0.025			2	
226	119B	Lt.	12+00E	12+60E																															
226,255	120B	Rt.	10+64.5E	11+77E		87.5		1		1																							3		
TOTALS CARRIED TO SHEET 276.						8525	143.75	13	11	10	3	1			15146				538	1020	7659	632		1302	73	Lump	18		188	0.019	0.203	29	92	336	22

NOTE: Bridge Barrier Reflectors are included in the Quantities.

GUARDRAIL and CONCRETE BARRIER

ROADWAY ESTIMATED QUANTITIES

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ROADWAY ESTIMATED QUANTITIES

CALC. BY JDP DATE 10-19-94
CHKD. BY PWP DATE 1-30-95

HAM-71-2.92

OHIO FHWA REGION 5

SHT. No.	REF. No.	SIDE	STATION	STATION	604	606					622										509	517	Special	202				203		659			802			
					Manhole Adjusted To Grade	Guardrail Type 5	Guardrail Type 5A	Anchor Assembly Type		Bridge Terminal Assembly Type																										
								E	T	1	2	J	Concrete Barrier Type A As Per Plan	Concrete Barrier Type B As Per Plan	Concrete Barrier Type B50 As Per Plan	Concrete Barrier Type B50 As Per Plan A	Concrete Barrier Type C As Per Plan	Concrete Barrier Type D	Concrete Barrier Type D As Per Plan	Concrete Barrier Type D As Per Plan A	Concrete Barrier Type D50	Concrete Barrier Type D50 As Per Plan	Epoxy Coated Reinforced Steel, Grade 60	Rolling Faced As Per Plan (32" High)	Impact Attenuator Hex Foam Sandwich System	Curb Removed	Concrete Median Removed	Portions of Structures Removed: Retaining Wall	Monument Assembly Removed	Excavation not Included Embank. Construction	Embankment	Seeding and Mulching	Commercial Fertilizer	Water	Barrier Reflector Type A (Yellow)	Barrier Reflector Type A (White)	Barrier Reflector Type B (Yellow)	Barrier Reflector Type B (White)
					Each	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lbs.	Lin. Ft.	Each	Lin. Ft.	Sq. Yd.	Lump	Each	Cu. Yd.	Cu. Yd.	Sq. Yd.	Ton	M Gal.	Each	Each	Each	Each
226	121B	Rt.	12+02E	12+55E														53																	
210	122B	Lt.	387+93.75DE	388+06.25DE			12.5																											1	
210-212	123B	Lt.	388+06.25DE	292+80.61		693.75					1																							6	
212	124B	Lt.	292+80.31	293+28													48													1	19	0.002	0.020			1
212	125B	Lt.	293+28	294+78		150				1	1																							1	
212,213	126B	Lt.	294+78	295+28													50													1	19	0.002	0.021			1
213,214	127B	Lt.	295+28	301+78		650				1																								6	
214	128B	Lt.	301+78	302+15.5			37.5																											1	
214	129B	Lt.	302+15.5	304+59.25A		243.75																												2	
214	130B	Lt.	304+59.25A	305+59.25A			100																											1	
214,215	131B	Lt.	305+59.25A	309+28A		343.75		1																										4	
249	132B	Rt.	378+11DE	378+55DE													44							44				2		9	0.001	0.010			1
249	133B	Rt.	378+55DE	379+11DE														56						56	9										1
249	134B	Rt.	379+11DE	379+44DE													33							33	16			1		11	0.001	0.012			
249	135B	Rt.	379+44DE	381+94DE		225		1		1																							3		
209	136B	Rt.	379+89	381+51.5		137.5		1																										2	
209	137B	Rt.	381+51.5	381+89			25		1																									1	
209,248,250	138B	Lt.	12+02DANA	382+20DC		612.5			3			1																						8	
209,250	139B	Rt.	380+00DC	381+87.50DC		162.5		1																										2	
255	140B	Rt.	11+95.75J	12+08.25J			12.5																												
255	141B	Rt.	12+08.25J	12+89.50J		81.25				1																								1	
209	142B	Rt.	381+87.5DC	382+37.5DC			50																											1	
209	143B	Rt.	382+37.5DC	382+75DC		25			1																									1	
212-214	144B	Rt.	294+00	301+75		750		1																										8	
214	145B	Rt.	301+75	302+12.5			37.5																											1	
214	146B	Rt.	302+12.5	305+00B		287.5				1																								2	
214	147B	Rt.	305+00B	305+50B													50													1	19	0.002	0.021			1
214,215	148B	Rt.	305+50B	308+23.5B														254							56										3
215	149B	Lt.	307+25B	308+50B		87.5		1	1																								3		
215,251	150B	Rt.	306+70A	310+57.5AR		350		1	1																								5		
215	151B	Rt.	309+38	310+38		75		1		1																								2	
216	152B	Rt.	310+38	311+12															74											1	21	0.002	0.020			1
215,216	153B	Lt.	310+65	311+62															97											1	21	0.002	0.023			1
216	154B	Lt.	311+62	312+45.5		58.5		1		1																								3	
217	155B	Rt.	319+90.5	320+78		62.5		1		1																								2	
217	156B	Rt.	320+78	322+20															142											1	39	0.004	0.043			2
217	157B	Lt.	320+96	321+72															76											1	21	0.002	0.023			1
217,218	158B	Lt.	321+72	322+84.5		87.5		1		1																								2	
218,252	159B	Lt.	321+52D	326+77D		487.5		1	1																									7	
219	160B	Lt.	328+28D	328+66D															38											1	11	0.001	0.011			1
219	161B	Lt.	328+66D	329+66D		75		1		1																								2	
220,221	162B	Rt.	33 + 8	340+16.75		193.75		1																										3	
221	163B	Rt.	340+16.75	340+85.5			68.75																												
221	164B	Rt.	340+85.5	341+10.5		12.5			1																									1	
221	165B	Lt.	339+72	341+20															148					60						28	0.003	0.031			2
221	166B	Lt.	341+20	341+50													30							30				2		12	0.001	0.013			
221	167B	Lt.	341+50	342+50														100						100											1
221	168B	Lt.	342+50	342+64													14							14				1		5	0.001	0.006			
221,222	169B	Lt.	342+64	345+76.5		287.5		1		1																								4	
222	170B	Rt.	346+22.5	347+16.25		68.75		1																										1	
222	171B	Rt.	347+16.25	347+35			18.75																											1	
222,223	172B	Rt.	347+35	351+10		375				1																								3	
223	173B	Rt.	351+10	351+24													14							14				1		5	0.001	0.006			1
223,224	174B	Rt.	351+24	358+27NB														703						703											7
224	175B	Rt.	358+27NB	358+41NB													14							14				1		5	0.001	0.006			
224,225	176B	Rt.	358+41NB	362+28.5NB		387.5				1	1																							4	
225	177B	Rt.	362+28.5NB	362+50NB													21.5													1	4	0.001	0.005			
225	178B	Rt.	362+50NB	363+03NB														53												1	21	0.002	0.022			1
225	179B	Rt.	363+03NB	363+48NB													45													1	9	0.001	0.009			1
223	180B	Lt.	350+69	351+00													31							31				1		6	0.001	0.007			1
TOTALS CARRIED TO SHEET 276.						6971	362.50	16	9	13	3	1						394.50	1219	575					1099	81			9	11	306	0.033	0.331	11	84	2	27

NOTE: Bridge Barrier Reflectors are included in the Quantities.

GUARDRAIL and CONCRETE BARRIER
ROADWAY ESTIMATED QUANTITIES

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ROADWAY ESTIMATED QUANTITIES

CALC. BY JDP DATE 10-19-98
CHKD. BY PWP DATE 1-30-95

HAM-71-2.92

OHIO FHWA REGION 5

274/615

SHT. No.	REF. No.	SIDE	STATION	STATION	604	606							622										509	517	Special	202				203		659			802			
					Manhole Adjusted To Grade	Guardrail Type 5	Guardrail Type 5A	Anchor Assembly Type		Bridge Terminal Assembly Type			Concrete Barrier Type A As Per Plan	Concrete Barrier Type B As Per Plan	Concrete Barrier Type B50 As Per Plan	Concrete Barrier Type B50 As Per Plan A	Concrete Barrier Type C As Per Plan	Concrete Barrier Type D	Concrete Barrier Type D As Per Plan	Concrete Barrier Type D As Per Plan A	Concrete Barrier Type D50	Concrete Barrier Type D50 As Per Plan	Epoxy Coated Reinforced Steel, Grade 60	Railing Faced As Per Plan (32" High)	Impact Attenuator Hex Foam Sandwich System	Curb Removed	Concrete Median Removed	Portions of Structures Removed: Retaining Wall	Monument, Assembly Removed	Excavation not Included Embank. Construction	Embankment	Seeding and Mulching	Commercial Fertilizer	Water	Barrier Reflector Type A (Yellow)	Barrier Reflector Type A (White)	Barrier Reflector Type B (Yellow)	Barrier Reflector Type B (White)
								E	T	1	2	J																									
					Each	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lbs.	Lin. Ft.	Each	Lin. Ft.	Sq. Yd.	Lump	Each	Cu. Yd.	Cu. Yd.	Sq. Yd.	Ton	M Gal.	Each	Each	Each	Each
223	181B	Lt.	351+00	351+95														95								25						37	0.003	0.040				1
223	182B	Lt.	351+95	352+13														18								18				1		4	0.001	0.004				
223,224	183B	Lt.	352+13	356+13		375		1		1																										5		
224	184B	℄	356+26	359+48SB												322																					6	
224,225	185B	Lt.	359+48NB	362+76NB																	328											91	0.008	0.098			3	
225-227	186B	Lt.	362+76NB	369+88.5NB		712.5				1																									7			
227	187B	Lt.	369+88.5NB	370+01NB			12.5																															
227	188B	Lt.	370+01NB	370+63.5NB		50			1																										1			
224,225	189B	Rt.	359+48SB	363+12SB																	364					362				16		97	0.009	0.105			3	
225	190B	Rt.	363+12SB	363+43.5SB														32								32				1		3	0.001	0.003				
225-228	191B	Rt.	363+43.5SB	373+56SB		1012.5				1	1																								11		7	
224,225	192B	Lt.	360+84.5SB	363+22SB		225			1		1																									3		
225	193B	Lt.	363+22SB	363+72SB														50														10	0.001	0.011				
225	194B	Lt.	363+72SB	364+53SB															81													32	0.003	0.034				1
225	195B	Lt.	364+53SB	364+90SB														37														7	0.001	0.008				1
225,226	196B	Lt.	364+90SB	12+80E		437.5				1	1																										6	
226,255	197B	Lt.	10+75E	12+00E		100		1		1																									3			
226,227	198B	Rt.	366+60.42NB	1+48F		287.5		1		1																										3		
231,260	199B	Rt.	2+47.5G	5+35G		287.5				1	1																										1		5
231	200B	Rt.	1+97.5G	2+47.5G														50														10	0.001	0.011				1
227	201B	Rt.	1+48F	2+54F														106														21	0.002	0.022				2
227,228	202B	Rt.	2+54F	7+50F															496							496												5
227,228	203B	Lt.	371+39.5SB	373+02		150			1		1																										2		6
229	204B	Rt.	377+35.5NB	378+98NB		137.5		1		1																											2		
229,230	205B	Rt.	378+98NB	380+01.32NB																103												11	0.001	0.012				1
230,231	206B	Rt.	380+01.32NB	1+97.5G		412.5				1	1																										4		
260	207B	Lt.	4+10.5G	5+48G		112.5		1		1																									4		1	
260	208B	Rt.	6+17G	6+94G		62.5			1		1																										2		
260	209B	Lt.	6+22G	7+22G		87.5			1		1																									2			
229	210B	Lt.	377+40NB	378+40NB		75		1		1																									2			
229	211B	Lt.	378+40NB	379+30NB																90												6	0.001	0.006			1	
229,230	212B	Lt.	379+22SB	380+22SB		100				1	1																										2		
230	213B	Lt.	380+22SB	380+74.5SB																52.5												20	0.002	0.022				
230	214B	Lt.	380+74.5SB	382+37SB		137.5		1		1																											2		
230-232	215B	Rt.	380+08SB	2+16H		700				1	1																										7		4	
231,232	216B	Lt.	1+41H	2+41H		87.5			1		1																										1		5
231-234	217B	Rt.	386+44SB	398+94SB		1237.5			1	1																											13			
231	218B	Lt.	382+66.5NB	384+16.5NB		125		1		1																											2			
231	219B	Lt.	384+16.5NB	385+05.5NB														89														35	0.003	0.037				1
231,232	220B	Lt.	385+05.5NB	386+44NB															139							44												1
232	221B	Lt.	386+44NB	387+52NB														108								108				7		42	0.004	0.045				2
232	222B	Rt.	386+00NB	388+75NB		250		1		1																											4		
232	223B	Rt.	388+75NB	389+14NB																39												11	0.001	0.012				1
233,234	224B	Rt.	392+93.5NB	398+06NB		487.5		1		1																											6		
234	225B	Rt.	398+06NB	398+25NB														19								19				1		7	0.001	0.008				
TOTALS CARRIED TO SHEET 276.						7650	12.5	10	7	17	12					322		509	811	284.5		692			1104				26	6	444	0.043	0.478	52	43	29	29

NOTE: Bridge Barrier Reflectors are included in the Quantities.

GUARDRAIL and CONCRETE BARRIER

ROADWAY ESTIMATED QUANTITIES

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ROADWAY ESTIMATED QUANTITIES

CALC. BY JDP DATE 10-19-94
CHKD. BY fwp DATE 2-8-95

HAM-71-2.92

OHIO FHWA REGION 5

275/615

SHT. No.	REF. No.	SIDE	STATION	STATION	604	606								622										509	517	Special	202				203		659			802			
					Manhole Adjusted To Grade	Guardrail Type 5	Guardrail Type 5A	Anchor Assembly Type		Bridge Terminal Assembly Type				Concrete Barrier Type A As Per Plan	Concrete Barrier Type B As Per Plan	Concrete Barrier Type B50 As Per Plan	Concrete Barrier Type B50 As Per Plan A	Concrete Barrier Type C As Per Plan	Concrete Barrier Type D	Concrete Barrier Type D As Per Plan	Concrete Barrier Type D As Per Plan A	Concrete Barrier Type D50	Concrete Barrier Type D50 As Per Plan	Epoxy Coated Reinforced Steel, Grade 60	Railing Faced As Per Plan (32" High)	Impact Attenuator Hex Foam Sandwich System	Curb Removed	Concrete Median Removed	Portions of Structures Removed: Retaining Wall	Monument Assembly Removed	Excavation not Included Embank. Construction	Embankment	Seeding and Mulching	Commercial Fertilizer	Water	Barrier Reflector Type A (Yellow)	Barrier Reflector Type A (White)	Barrier Reflector Type B (Yellow)	Barrier Reflector Type B (White)
								E	T	1	2	J																									
					Each	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each		Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lbs.	Lin. Ft.	Each	Lin. Ft.	Sq. Yd.	Lump	Each	Cu. Yd.	Cu. Yd.	Sq. Yd.	Ton	M Gal.	Each	Each	Each	Each
234	226B	Rt.	398+25NB	399+33NB															108								108				7		42	0.004	0.045				1
234	227B	Rt.	399+33NB	399+65NB															32								32				1		8	0.001	0.009				1
234	228B	Rt.	399+65NB	401+77.5NB		212.5				1	1																										2		
234,235	229B	Rt.	401+77.5NB	1+97N															220														86	0.008	0.092				3
233,234	230B	Lt.	395+34NB	398+09NB		250		1		1																									3			
234	231B	Lt.	397+90SB	398+42SB															52														14	0.001	0.016				1
234	232B	Lt.	398+42SB	398+87SB																45													18	0.002	0.019				
234	233B	Lt.	398+87SB	399+12.5SB															25.5														6	0.001	0.007				1
234,235	234B	Lt.	399+12.5SB	404+62.5SB		550				1	1																										5		
235	235B	Lt.	404+62.5SB	405+50.5SB																	88												34	0.003	0.037				1
235	236B	Lt.	405+50.5SB	406+75.5SB		100		1		1																											2		
234-240	237B	Lt.	398+94SB	434+94																		3457					3457	4126		3	2412		32	0.003	0.035			37	
234-240	238B	Rt.	398+09NB	434+94																		3457					3457				5		31	0.003	0.034			37	
236,237	239B	Rt.	9+54.4P	416+46		437.5		1		1																											5		
237	240B	Rt.	416+46	417+37															91														35	0.003	0.038				2
237,268	241B	Rt.	0+16R	4+66R		437.5			1		1																										7		
237	242B	Lt.	0+16R	419+38															154														60	0.005	0.065				1
237,238	243B	Lt.	419+38	424+25.5		487.5				1	1																										6		
238,239	244B	Lt.	424+25.5	424+50.5															25														10	0.001	0.011				
239	245B	Lt.	424+50.5	425+07																57																			
239	246B	Lt.	425+07	425+23															16														6	0.001	0.006				1
239	247B	Lt.	425+23	426+35.5		87.5		1		1																											2		
239	248B	Rt.	426+75	428+12.5		100		1		1																											3		
239,240	249B	Lt.	430+39.78	435+35		412.5				1																											5		
254-257	250B	℄/Lt.	159+00NL	19+00K										1565																								34	
229,257	251B	Lt.	19+00K	23+05K														365																				14	
230,258	252B	Lt./℄	26+12K	29+50T														220																				6	
259-264	253B	℄	29+50T	50+23T										1933																								48	
254	254B	Rt.	160+05NL	5+21E		156.25		1																													3		
254	255B	Rt.	5+21E	5+33.5E			12.5																																
254	256B	Rt.	5+33.5E	5+64.75E		18.75			1																												1		
254	257B	Lt.	6+25.5L	6+63L		25			1		1																										1		
254	258B	Lt.	6+63L	7+00L															37												2		14	0.001	0.016				
255	259B	Lt.	7+00L	9+00L		175		1		1																											3		
255	260B	Rt.	10+52J	11+95.75J		118.75		1																													2		
256	261B	Rt.	12+89.5J	13+70J															80.5								80.5				5		31	0.003	0.034				1
256	262B	Rt.	13+70J	14+10J																40							40				3		16	0.001	0.017				
256	263B	Rt.	14+10J	14+25J															15													1	6	0.001	0.007				
228,256	264B	Rt.	14+25J	18+50J		412.5			1		1																										5		
228,229	265B	Lt.	16+70J	22+88.75J		593.75		1																												7			
229	266B	Lt.	22+88.75J	23+07.5J			18.75																													2			
229	267B	Lt.	23+07.5J	23+95J		75			1																											4			
229	268B	Rt.	21+27J	24+27J		262.5		1	1																														
256	269B	Lt.	13+64J	13+79J																						1													
256	270B	Lt.	13+81J	15+18.5J		125			1		1																										3			
TOTALS CARRIED TO SHEET 276.					–	5037.50	31.25	10	7	10	7			3498				585	748	250	88	6914				1	7174.50	4126		3	2435	3	449	0.042	0.488	15	56	176	13

NOTE: Bridge Barrier Reflectors are included in the Quantities.

GUARDRAIL and CONCRETE BARRIER
ROADWAY ESTIMATED QUANTITIES

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ROADWAY ESTIMATED QUANTITIES

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 2-8-95

HAM-71-2.92

OHIO FHWA REGION 5

276/615

SHT. No.	REF. No.	SIDE	STATION	STATION	604	606					622										509	517	Special	202				203		659			802			
					Manhole Adjusted To Grade	Guardrail Type 5	Guardrail Type 5A	Anchor Assembly Type		Bridge Terminal Assembly Type			Concrete Barrier Type A As Per Plan	Concrete Barrier Type B As Per Plan	Concrete Barrier Type B50 As Per Plan	Concrete Barrier Type B50 As Per Plan A	Concrete Barrier Type C As Per Plan	Concrete Barrier Type D	Concrete Barrier Type D As Per Plan	Concrete Barrier Type D As Per Plan A	Concrete Barrier Type D50	Concrete Barrier Type D50 As Per Plan	Epoxy Coated Reinforcing Steel, Grade 60	Railing Faced As Per Plan (32" High)	Impact Attenuator Hex Foam Sandwich System	Curb Removed	Concrete Median Removed	Portions of Structures Removed: Retaining Wall	Monument Assembly Removed	Excavation not Included Embank. Construction	Embankment	Seeding and Mulching	Commercial Fertilizer	Water	Barrier Reflector Type A (Yellow)	Barrier Reflector Type A (White)	Barrier Reflector Type B (Yellow)	Barrier Reflector Type B (White)
								E	T	1	2	J																								
					Each	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lbs.	Lin. Ft.	Each	Lin. Ft.	Sq. Yd.	Lump	Each	Cu. Yd.	Cu. Yd.	Sq. Yd.	Ton	M Gal.	Each	Each	Each	Each
256	271B	Rt.	13+79K	14+26.5K		50				1																								1		
256	272B	Rt.	14+26.5K	14+64K			37.5																											1		
256	273B	Rt.	14+64K	15+14K		37.5			1										109					109				7		42	0.004	0.046				1
256	274B	Lt.	15+39L	16+48L														71						71				5		28	0.002	0.030				
256	275B	Lt.	16+48L	0+70.5I																														9		
230,256,257	276B	Lt.	0+70.5I	9+08I		837.5				1	1							14											1	3	0.001	0.003				
230	277B	Lt.	9+08I	9+22I															62					62										1		
230	278B	Lt.	9+22I	9+84I														24						24				1		5	0.001	0.005				
230	279B	Lt.	9+84I	10+08I																														2		
230,231	280B	Lt.	10+08I	11+95.5I		187.5				1	1							48						48				3		19	0.002	0.020				
231	281B	Lt.	11+95.5I	12+43.5I																														9		
231-233	282B	Lt.	12+43.5I	393+09.62SB		737.5		1		1																								3		4
229,257	283B	Rt.	19+48K	22+48K		275		1		1										162									2	63	0.006	0.068				6
229	284B	Lt.	21+54L	23+16L																														2		
230,258	285B	Rt.	26+03K	28+52.64T		137.5			1		1																							5		
230,258,259	286B	Lt.	26+51L	32+48.64T		475		1		1																								8		
258,259	287B	Rt.	10+32.45F	34+62.3T		737.5		1		1								14											1	5	0.001	0.006				
259	288B	Rt.	34+62.3T	34+76.3T															598					598												6
259-261	289B	Rt.	34+76.3T	40+74T														14						14				1		3	0.001	0.003				1
261	290B	Rt.	40+74T	40+88T																														6		
261-263	291B	Rt.	40+88T	3+63U		562.5			1		1																								3		
261,262	292B	Rt.	6+79H	9+04H		200		1		1																								5		
261-263	293B	Lt.	7+02H	11+52H		425		1		1																										1
264	294B	Lt.	15+41H	15+89H														48											1	19	0.002	0.020				
264	295B	Lt.	15+89H	17+76.5H		187.5				1	1																							2		2
264	296B	Rt.	5+34H1	5+74H1														40											1	16	0.001	0.017				
264	297B	Rt.	5+74H1	7+49H1		175				1	1																								2		2
253	298B	Lt.	19+74H	23+74H		375		1		1																								5		
253	299B	Rt.	19+78H	23+78H		375		1		1																									5		
265	300B	Lt.	8+37N	11+87N		312.5		1	1																									9		
268	301B	Rt.	8+50R	Highland Ave		150		1																										5		
302 to 324 Not Used																																				
173	325B	Rt.	7+02 McMillian		1																																
173	326B	Rt.	10+18.5 McMillian		1																																
173	327B	Rt.	10+44.5 McMillian		1																																
179	328B	Rt.	5+85 Lincoln		1																																
179	329B	Rt.	9+30 Lincoln		1																																
175	330B	Rt.	12+64 WH Taft		1																																
TOTALS THIS SHEET					6	6237.50	37.50	10	4	12	7	-	-	-	-	-	-	273	769	162	-	-	-	-	-	926	-	-	-	17	6	203	0.021	0.218	10	74	3	21
TOTALS FROM SHEET 271.					-	4856.25	406.25	8	4	10	6	-	-	28	7275	-	-	551	4602	-	-	-	3484	288	1	5153	975	Lump	-	55	-	351	0.036	0.382	11	54	165	66
TOTALS FROM SHEET 272.					-	8525.00	143.75	13	11	10	3	1	-	-	15146	-	-	538	1020	-	-	-	7659	632	-	1302	73	Lump	-	18	-	188	0.019	0.203	29	92	336	22
TOTALS FROM SHEET 273.					-	6971.00	362.50	16	9	13	3	1	-	-	-	-	-	394.50	1219	575	-	-	-	-	-	1099	81	-	-	9	11	306	0.033	0.331	11	84	2	27
TOTALS FROM SHEET 274.					-	7650.00	12.50	10	7	17	12	-	-	-	-	322	-	509	811	284.50	-	692	-	-	-	1104	-	-	-	26	6	444	0.043	0.478	52	43	29	29
TOTALS FROM SHEET 275.					-	5037.50	31.25	10	7	10	7	-	3498	-	-	-	585	748	250	88	6914	-	-	-	1	7174.5	4126	-	3	2435	3	449	0.042	0.488	15	56	176	13
TOTALS CARRIED TO GENERAL SUMMARY SHEET 167-169					6	39277.25	993.75	67	42	72	38	2	3498	28	22421	322	585	3013.5	8671	1109.50	6914	692	11143	920	2	16758.50	5255	Lump	3	2560	26	1941	0.194	2.100	128	403	711	178

NOTE Bridge Barrier Reflectors are included in the Quantities.

GUARDRAIL and CONCRETE BARRIER

ROADWAY ESTIMATED QUANTITIES

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ROADWAY ESTIMATED QUANTITIES

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 2-8-95

HAM-71-2.92

OHIO FHWA REGION 5

277 615

SHT. No.	REF. No.	SIDE	STATION	STATION	202 Guardrail Removed	202 Guardrail Removed, Barrier Design	202 Concrete Barrier Removed	202 Anchor Assembly Removed, Type A	202 Bridge Terminal Assembly Removed	202 Concrete Median Removed
					Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Each	Sq. Yd.
170	1RB	℄	214+98.50	215+11.50			13			
170-183	2RB	Rt.	215+11.50	259+59	4450					1483
170-183	3RB	Lt.	215+11.50	259+59	4450					1483
173-174	4RB	Rt.	223+64	227+26	337.5			1	1	
174-175	5RB	Lt.	227+41	231+75	437.5				2	
174-175	6RB	Rt.	227+88TC	230+85TC	300				2	
174-175	7RB	Lt.	227+88TC	231+00TC	312.5				2	
201	8RB	Rt.	331+26	333+14	162.5			1		
175,241	9RB	Rt.	230+36TH	233+61TH	325				1	
176-177	10RB	Rt.	236+57.50TC	238+71TC	187.5			1		
177-179	11RB	Lt.	241+86TH	246+71TH	462.5			1	1	
179-180	12RB	Lt.	248+86	251+34	225			1		
181-184	13RB	Rt.	256+62	262+28	537.5			1		
182-183	14RB	Lt.	257+43	259+25	162.5			1		
183-192	15RB	℄	259+59	293+53.79			3395			
184-185	16RB	Lt.	265+03	266+28	100			1	1	
185	17RB	Rt.	266+75	268+00	75			2		
187	18RB	Rt.	273+00	276+65	362.5				1	
188-190	19RB	Lt.	280+28	288+37	787.5			1	1	
190	20RB	Lt.	286+49.50	286+99.50	50					
190-192	21RB	Lt.	286+49.50	293+62	712.5				1	
191-192	22RB	Rt.	289+54	293+04	325			1	1	
192	23RB	Rt.	295+25	296+00	50			1	1	
192-211	24RB	℄	295+74.71	393+08			9733			
211-225	25RB	℄	393+08	365+32NB	2987.5	5875			2	4619
192-193	26RB	Lt.	296+28	300+28	375			1	1	
194-198	27RB	Lt.	303+41ME	316+53ME	1262.5			2		
200	28RB	Lt.	324+83ME	325+86ME	75			1	1	
200	29RB	Rt.	324+10ME	326+68ME	237.5			1		
200	30RB	Lt.	322+42	325+02	237.5			1		
199-200	31RB	Rt.	321+42	323+52	187.5			1		
201,245	32RB	Rt.	330+23MER	337+17MER	687.5					
206,208	33RB	Lt.	361+36	374+20DB	1262.5			1		
208	34RB	Lt.	374+02	377+36	337.5					
208,247,249	35RB	Rt.	373+90DB	382+38DB	825			1		
208,247	36RB	Rt.	6+58DANA	9+52DANA	300					
208	37RB	Rt.	373+44	375+92	225			1		
209-215,249	38RB	Lt.	377+75DE	309+25A	3300			1	1	
209	39RB	Lt.	380+91	382+21	100			1	1	
209	40RB	Rt.	380+01	382+01	175			1		
209,248,250	41RB	Lt.	375+98DA	382+18DC	637.5				1	
209	42RB	Rt.	380+86DC	382+06DC	87.5			1		
212-213	43RB	Rt.	294+00	295+33	87.5			2		
213-214	44RB	Rt.	300+00	305+50B	525			1	1	
215,251	45RB	Rt.	306+70A	310+54AR	362.5			1		
215	46RB	Lt.	307+26B	308+50B	100			1		
215	47RB	Rt.	309+35	311+28	175			1		
215-216	48RB	Lt.	310+65	312+74	187.5			1		
217-218	49RB	Lt.	320+75	322+76	175			1		
217	50RB	Rt.	320+40	322+40	175			1		
218,252	51RB	Lt.	321+50D	326+15D	437.5			1		
219	52RB	Lt.	328+07D	329+60D	125			1		
221	53RB	Lt.	339+48	343+74	400			1		
221	54RB	Rt.	339+00	341+00	175			1		
222-223	55RB	Rt.	346+60	351+36	450			1	1	
223	56RB	Lt.	351+78.50	355+26.50	325			1	1	
224-225	57RB	Lt.	360+95SB	363+77SB	287.5					
225	58RB	Lt.	364+43SB	16+07E	137.5			1	1	
225	59RB	Rt.	362+80SB	364+55SB	150			1		
225	60RB	Rt.	361+32NB	362+65NB	112.5			1		
226-227	61RB	Lt.	368+77NB	370+68NB	162.5			1		
226-227	62RB	Rt.	0+26F	2+54F	200			1	1	
226-228	63RB	Rt.	369+46SB	373+56SB	412.5				1	
TOTALS CARRIED TO NEXT COLUMN					33275	5875	13141	47	28	7585

SHT. No.	REF. No.	SIDE	STATION	STATION	202 Guardrail Removed	202 Guardrail Removed, Barrier Design	202 Concrete Barrier Removed	202 Anchor Assembly Removed, Type A	202 Bridge Terminal Assembly Removed	202 Concrete Median Removed	202 Removal Misc.: Impact Intenuator, Removed for Disposal
					Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Each	Sq. Yd.	Each
227-228	64RB	Lt.	371+43SB	373+56SB	212.5				1		
229-230	65RB	Lt.	377+32NB	379+57NB	200			1			
229-231,260	66RB	Rt.	377+80NB	5+35G	975			1	1		
261	67RB	Lt.	4+34G	5+48G	112.5				1		
229-230	68RB	Lt.	379+22SB	381+90SB	237.5			1	1		
230-232	69RB	Rt.	380+25SB	2+16H	687.5				2		
231	70RB	Lt.	383+68NB	385+05.50NB	112.5				1		
231-234	71RB	Rt.	386+99SB	399+80SB	1275						
232	72RB	Lt.	386+44NB	387+77NB	137.5				1		
232	73RB	Rt.	387+66NB	389+41NB	150			1			
232-233	74RB	Lt.	391+52SB	393+06SB	125			1			
233-234	75RB	Rt.	392+97NB	398+41NB	525			1	1		
234	76RB	Lt.	397+00NB	399+80NB	250			1			
234	77RB	Lt.	398+54SB	400+46SB	162.5			1			
234-240	78RB	Rt./℄	399+75SB	435+94	887.5	3175			2	4572.54	
234-235	79RB	Rt.	401+00NB	2+34N	312.5			1			
235	80RB	Lt.	404+50SB	406+63SB	187.5			1			
236-237	81RB	Rt.	9+63P	417+67	550			1			
237-268	82RB	Rt.	2+75R	4+47R	175						
237-238	83RB	Lt.	417+71	420+28	237.5			1			
239	84RB	Lt.	425+07	426+35	100			1			
239	85RB	Rt.	425+50	429+12	337.5			1			
239	86RB	Lt.	429+50	430+50	100						
228,254-257	87RB	℄/Lt.	159+00NL	23+03L	1050	1837.5	55			1574.23	
254	88RB	Rt.	4+05E	5+75E	150			1			
254-255	89RB	Lt.	6+25L	8+00L	175						
228,255-256	90RB	Rt.	10+78J	18+26J	725			1			
228-229	91RB	Lt.	18+50J	23+75J	500			1			
229-230	92RB	Rt.	22+32J	24+54J	200			1			
256	93RB	Lt.	14+04J	14+62J	12.5			1			1
256	94RB	Rt.	14+21K	14+96K	50			1			
230-231 256-257	95RB	Lt.	15+95L	13+50I	1475			1	1		
229,257	96RB	Rt.	19+45K	22+48K	275			1			
230,258	97RB	Rt.	26+03K	28+52T	150				1		
230,258-259	98RB	Lt.	26+51L	32+50T	475			1	1		
230,258-264	99RB	Rt./℄	26+11.50L	50+25T	75	2237.5			1	13665	
258-259	100RB	Rt.	10+50F	14+55F	375			1			
261-262	101RB	Lt.	7+02H	11+50H	425			1	1		
261-262	102RB	Rt.	6+79H	9+08H	200			1	1		
261-263	103RB	Rt.	40+98T	3+63U	512.5			1			
263-264	104RB	Lt.	14+93H	17+76.50H	287.5				1		
264	105RB	Rt.	5+10H1	7+49H1	250				1		
253	106RB	Lt.	19+74H	23+86H	387.5				1		
253	107RB	Rt.	19+78H	23+81H	375			1	1		
265	108RB	Lt.	8+37N	11+87N	325			1			
268	109RB	Rt.	8+54R	10+06R	150			1			
207	110RB	Rt.	366+51	367+76	100			1			
TOTALS THIS COLUMN					16750	7250	55	31	21	19812	1
TOTALS CARRIED FROM PREVIOUS COLUMN					33275	5875	13141	47	28	7585	
TOTALS CARRIED TO GENERAL SUMMARY SHEET 167.					50025	13125	13196	78	49	27397	1

GUARDRAIL and CONCRETE BARRIER REMOVAL

ROADWAY ESTIMATED QUANTITIES

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ROADWAY ESTIMATED QUANTITIES

CALC. BY DJB DATE 10-17-94
CHKD. BY PWP DATE 2-8-95

HAM-71-2.92

OHIO FHWA REGION 5

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SHT. No.	REF. No.	SIDE	STATION	STATION	202 Fence Removed	202 Gate Removed	601 Rock Channel Protection, Type C, w/filter	607 Fence, Type CLT, As Per Plan	607 Fence, Type CLT	607 Gate, Type CLT	625 Ground Rod	FOR CONTRACTOR INFORMATION ONLY: Stream Crossing 1	Stream Crossing 3	Stream Crossing 4	Abutment Connection (AC)	Intermediate Achor Post Assembly (IAPA)	Corner Post Assembly (CPA)	End Post Assembly (EPA)
					Lin. Ft.	Each	Cu. Yd.	Lin. Ft.	Lin. Ft.	Each	Each	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
170-173	1F	Lt.	213+00.00 l	6+79.00 McMillian	1164	1			1164	1							1	4
170-173	2F	Rt.	213+00.00 l	10+45.0± McMillian	1208				1208							2	1	2
173-174	3F	Lt.	226+91.24 l	12+42.44 WHTaft	439	1			439	1	1						4	4
173-175	4F	Rt.	226+17.0± RmpTC	16+70.74 WHTaft	558	1			558	1	1						6	4
175,241	5F	Lt.	11+00.00 WMTaft	13+19.00 WHTaft	218				218									2
–	6F	–	Not Used	Not Used														
–	7F	–	Not Used	Not Used														
175-176	8F	Rt.	16+87.35 WHTaft	8+95.00 Oak	626	1			626	1						1	7	4
175,241	9F	Lt.	229+65.00 RmpTH	232+80.00 RmpTH	314				314							1	1	2
177-179	10F	Lt.	241+30.25 RmpTH	6+19.76 Lincoln	816	1			816	1							5	4
177-179	11F	Rt.	9+15.00 Oak	14+10.00 May	1096	1			1096	1						1	3	4
179-181	12F	Lt.	6+42.47 Lincoln	255+90.5± l	650	1			650	1	1						5	4
–	13F	–	Not Used	Not Used														
–	14F	–	Not Used	Not Used														
180	15F	Rt.	8+92.95 Lincoln	9+40.27 Lincoln	44	1			44	1								3
182-184	16F	Lt.	257+39.9± l	264+51.01 l	964	1			964	1							8	4
181-184	17F	Rt.	255+25.90 l	262+16.94 l	646	1			646	1	1					1	2	4
184-185	18F	Lt.	265+08.26 l	267+10.0± l	520				520		1						4	2
184-185	19F	Rt.	262+82.48 l	12+51.14 Fredonia	210	1			210	1	1						6	4
–	20F	–	Not Used	Not Used														
–	21F	–	Not Used	Not Used														
185-186	22F	Lt.	268+37.7± l	8+97.16 Fredonia	165				165								2	2
185-187	23F	Rt.	11+80.75 Fredonia	276+62.7± l	806				806								7	2
186-188	24F	Lt.	8+58.21 Fredonia	277+59.64 l	739	1			767	1						1	8	3
187-189	25F	Rt.	276+65.5± l	282+20.0± l	572			572			1							2
189-190	26F	Rt.	282+27.5± l	286+27.4± l	415			415										2
–	27F	–	Not Used	Not Used														
–	28F	–	Not Used	Not Used														
188-192	29F	Lt.	280+00.72 l	293.77.1± l	1457	1			1457	1	1					2	2	8	2
190-192	30F	Rt.	286+27.4± l	292+95.00 l	983				1003									13	2
193-198	31F	Lt.	297+29.7± l	318+85.85 RmpME	2276	2			2276	2						3		11	6
192-200	32F	Rt.	295+22.1± l	4+63.00 Woodburn	2607	2			2629	2	2						4	10	5
198-199	33F	Lt.	318+85.9± RmpME	320+98.0± RmpME	212			212											2
–	34F	–	Not Used	Not Used														
–	35F	–	Not Used	Not Used														
199-200	36F	Lt.	320+98.00 RmpME	1+19.75 Woodburn	387				387		1							1	2
200-201,245	37F	Lt.	0+97.44 Woodburn	337+50.00 RmpME	1179	1			1179	1								4	4
200-201	38F	Rt.	4+45.00 Woodburn	7+77.68 Mont	1265				1265									7	2
202-204	39F	Lt.	4+11.28 Mont	4+23.37 Trimble	1052				1052							4			2
202,246	40F	Rt.	7+23.13 Mont	343+96.95 RmpMF	883				883							1	9		2
–	41F	–	Not Used	Not Used														
–	42F	–	Not Used	Not Used														
203,246	43F	Rt.	343+96.95 RmpMF	342+70.29 l	590				590									5	2
203	44F	Rt.	342+73.5± l	343+56.8± l	93			93										1	2
203-204	45F	Rt.	343+57.49 l	6+65.81 Trimble	376				376									5	2
204-205	46F	Lt.	4+25.99 Trimble	357+34.63 l	1244	1			1244	1	1					1	1	7	3
201-208,248	47F	Rt.	6+65.81 Trimble	19+67.83 DuckCrk	2889	1			2889	1	2						7	17	4
–	48F	–	Not Used	Not Used														
–	49F	–	Not Used	Not Used														
TOTALS CARRIED TO NEXT COLUMN					29,663	20	–	1292	28,441	20	14	–	–	–	7	25	168	104

NOTE: "Rmp" Denotes RAMP. "Mont" Denotes MONTGOMERY ROAD "Nwd Lat" Denotes NORWOOD LATERAL "DuckCrk" Denotes DUCK CREEK ROAD "I" Denotes INTERSTATE 71 "Smth-Ed"" Denotes SMITH-EDMONDSON ROAD

SHT. No.	REF. No.	SIDE	STATION	STATION	202 Fence Removed, As Per Plan	202 Gate Removed	601 Rock Channel Protection, Type C, w/filter	607 Fence, Type CLT, As Per Plan	607 Fence, Type CLT	607 Gate, Type CLT	625 Ground Rod	FOR CONTRACTOR INFORMATION ONLY: Stream Crossing 1	Stream Crossing 3	Stream Crossing 4	Abutment Connection (AC)	Intermediate Achor Post Assembly (IAPA)	Corner Post Assembly (CPA)	End Post Assembly (EPA)
					Lin. Ft.	Each	Cu. Yd.	Lin. Ft.	Lin. Ft.	Each	Each	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
205-208,247	50F	Lt.	357+67.97 l	3+88.18 Dana	2052	1			2052	1	1						1	6
209-211,249	51F	Lt.	377+85.51 RmpDE	392+09.36 l	1504	1			1504	1						1	4	12	3
209,248,250	52F	Rt.	16+46.08 Dana	381+78.20 RmpDC	644				644								5	3	2
209-214	53F	Rt.	382+78.74 RmpDC	301+59.0± l	2281				2281		1					1	2	21	1
214-215,251	54F	Rt.	302+31.0± l	310+56.00 RmpB	912			175	737							1	1	4	5
–	55F	–	Not Used	Not Used															
–	56F	–	Not Used	Not Used															
215,251	57F	Lt.	306+96.0± l	311+83.0± RmpA	454				454							1	1	1	1
216-217	58F	Lt.	16+51.0± Smth-Ed	15+58.0± Williams	854				854		1					2	4	3	
216-217,251	59F	Rt.	13+62.0± Smth-Ed	18+44.0± Williams	1165				1165		1					2	7	4	
218-221,252	60F	Lt.	12+95.0± Williams	339+49.0± l	2006		6		2006			1					9	3	1
217-218	61F	Rt.	18+74.0± Williams	327+30.00 RmpC	534				534							1	3	3	1
–	62F	–	Not Used	Not Used															
–	63F	–	Not Used	Not Used															
218-221	64F	Rt.	326+37.00 RmpC	340+26.0± l	1390				1390							1	5	3	
221	65F	Lt.	340+14.0± l	341+16.00 l	151				151		1					1		3	1
221	66F	LT.	341+17.00 l	343+57.00 l	285			285										2	2
221-223	67F	Lt.	343+58.00 l	350+84.0± l	748				748								4	3	1
221-223	68F	Rt.	340+86.0± l	351+01.0± l	1084				1084		1					2	6	3	
–	69F	–	Not Used	Not Used															
–	70F	–	Not Used	Not Used															
223-225	71F	Lt.	352+09.0± l	363+38.0± l	1138	1		18	1120	1				3		2	1	6	2
225-226	72F	Lt.	364+81.0± l	12+75.0± RmpE	439				439							1	1	1	1
225-226	73F	Rt.	363+43.0± l	368+00.00 l	454				454									1	2
226,254-255	74F	Rt.	158+19.00 Nwd Lat	11+71.0± RmpE	1036				1036					1		1	1	6	1
254-256	75F	Lt.	157+38.36 Nwd Lat	11+50.0± RmpL	778				778								2	1	
–	76F	–	Not Used	Not Used															
–	77F	–	Not Used	Not Used															
230,256-257	78F	Lt.	17+02.0± RmpL	8+03.0± Rmpl	754	2			754	2				1		1	1	1	5
230	79F	Lt.	8+04.0± Rmpl	10+39.0± Rmpl	250			250										2	2
230-234	80F	Lt.	10+39.0± Rmpl	397+95.0± SB l	1479	1	13		1479	1		2	1		1	6	4	2	
263	81F	Rt.	45+15.58 RmpT	5+25.00 RmpU	212				212									1	2
234-235	82F	Lt.	399+08.0± SB l	31+23.0± Ridge	663		5		663		1	1	1		2		2		
263-264	83F	Rt.	3+88.00 RmpU	50+37.00 RmpT	502				502									3	2
–	84F	–	Not Used	Not Used															
253,264	85F	Rt.	20+11.00 Ridge	23+95.00 RmpH	442				442									3	2
253	86F	Lt.	19+60.00 RmpH	23+95.00 RmpH	550				550									3	2
235-236,268	87F	Lt.	31+43.0± Ridge	41+80.00 Highland	1258				1258					1		1		8	1
265,267	88F	Rt.	11+37.00 Kennedy	25+91.00 Ridge	1013				1013									4	2
237,268	89F	Lt.	43+60.00 Highland	22+57.0± Kennedy	959				959							1		6	1
–	90F	–	Not Used	Not Used															
–	91F	–	Not Used	Not Used															
237,267	92F	Rt.	14+80.00 Kennedy	19+05.0± Kennedy	425				425							1			2
237-238	93F	Lt.	23+03.0± Kennedy	424+51.0± l	644				644		1					1	7	3	1
238-239	94F	Lt.	424+50.0± l	425+07.5± l	59			59											2
239-240	95F	Lt.	425+08.5± l	436+04.72 l	1162		7		1162			1	1			2	8		2
240	96F	Rt.	19+50.0± Kennedy	435+74.02 l	1741				1741		1			4		1	4	5	1
174	97F	Rt.	12+66.9 WmH Taft	13+05.6 WmH Taft	42				42										
TOTALS THIS COLUMN					32,064	6	31	787	31,277	6	9			5	14		27	76	136	59
TOTALS CARRIED FROM PREVIOUS COLUMN					29,663	20	–	1292	28,441	20	14			–	–	–	7	25	168	104
														5	14		34	101	304	163
TOTALS CARRIED TO GENERAL SUMMARY SHEETS					61,727	26	31	2,079	59,718	26	23									

NOTE: For General Summarys, See Sheets 167-169.

FENCING

ROADWAY ESTIMATED QUANTITIES

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CALC. BY DB DATE 10-17-94
CHKD. BY PVP DATE 2-8-95

HAM-71-2.92

OHIO FHWA REGION 5

279/615

DRAINAGE ESTIMATED QUANTITIES

SHT. No.	REF. No.	STATION	STATION	SIDE	202 Catch Basin Removed	202 Pipe Removed	304 Aggregate Base	601 Paved Gutter, Type 1-2, As Per Plan	603 12" Conduit Type B, 706.02	603 15" Conduit Type B	603 15" Conduit, Type B, 706.02	603 18" Conduit, Type B, 706.02	603 21" Conduit, Type B, 706.02	604 Catch Basin Adjusted To Grade	604 Manhole Adjusted To Grade	604 Inlet Adjusted To Grade	604 Manhole Recon-structed to Grade	604 Inlet Recon-structed to Grade	604 Catch Basin No. 5, Without Apron	604 Inlet, No. 3A	604 Inlet, No. 3A, As Per Plan	604 Inlet, No. 3B, As Per Plan	604 Inlet, No. 3B50	604 Inlet, No. 3B50, As Per Plan	603 6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	For Contractor Information Only: Masonry Collar
					Ea.	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
170	1D	213+67		Lt										1												
170	2D	213+78		Rt											1											
170	3D	213+78		Rt										1												
170	4D	213+89		℄												1										
171	5D	216+75		Lt										1												
171	6D	216+58		Rt											1											
171	7D	216+58		Rt										1												
171	8D	216+71		℄							8												1		6	1
171	9D	219+83		Lt										1												
171	10D	219+71		Rt											1											
171	11D	219+71		Rt										1												
171	12D	219+90		℄							14												1		6	1
172	13D	222+75		Lt							5											1				1
172	14D	222+75		Rt											1											
172	15D	222+75		Rt										1												
172	16D	222+94		℄							15												1		6	1
173	17D	224+53		Lt							5											1				1
173	18D	224+50		Rt											1											
173	19D	224+98		Rt										1												
173	20D	6+90 McMILLAN AVE.		Rt										1												
173	21D	7+20 McMILLAN AVE.		Lt											1											
173	22D	9+78 McMILLAN AVE.		Rt										1												
173	23D	10+13 McMILLAN AVE.		Lt										1												
173	24D	10+30 McMILLAN AVE.		Lt											1											
173	25D	225+21		Rt											1											
173	26D	225+25		Rt											1											
173	27D	225+90		℄							37												1		6	1
174	28D	227+12		Rt											1											
175	29D	13+03 Wm. HOWARD TAFT RD.		Lt										1												
175	30D	230+75		Rt											1											
175	31D	230+75		℄	2	9				12													1		6	
175	32D	230+75		Rt											1											
175	33D	230+70TC RAMP TC		Rt										1												
175	34D	230+85		Rt										1												
175	35D	231+32		Rt											1											
175	36D	231+37		Lt										1												
175	37D	231+50		Lt											1											
175	38D	233+71		℄							9												1		6	1
175	39D	233+96TH RAMP TH		℄										1												
175	40D	233+87		Lt											1											
175	41D	233+87		Rt											1											
175	42D	233+75		Rt											1											
175	43D	233+50		Rt										1												
175	44D	233+63TC RAMP TC		Rt										1												
175	45D	233+75TC RAMP TC		Rt											1											
175	46D	233+75		Lt										1												
176	47D	235+87		℄	2	9					17												1		6	1
176	48D	235+75TC RAMP TC		Lt										1												
176	49D	236+00		Rt											1											
176	50D	236+25		Rt											1											
176	51D	236+00		Lt										1												
176	52D	236+32TH RAMP TH		Lt										1												
176	53D	236+25		Lt											1											
176	54D	236+25		Rt										1												
176	55D	237+60		Rt											1											
176	56D	5+66 OAK STREET		Rt										1												
176	57D	5+85 OAK STREET		Lt										1												
176	58D	238+31TH RAMP TH		Lt										1												
176	59D	238+25		Lt											1											
176	60D	238+30		Rt											1											
176	61D	238+25		Rt											1											
177	62D	238+52		Lt										1												
177	63D	238+54		℄							8												1		6	1
TOTALS CARRIED TO NEXT COLUMN					4	18	–	–	–	12	118	–	–	27	25	1	–	–	–	–	–	2	8	–	48	9

SHT. No.	REF. No.	STATION	STATION	SIDE	202 Catch Basin Removed	202 Pipe Removed	304 Aggregate Base	601 Paved Gutter, Type 1-2, As Per Plan	603 12" Conduit Type B, 706.02	603 15" Conduit Type B	603 15" Conduit, Type B, 706.02	603 18" Conduit, Type B, 706.02	603 21" Conduit, Type B, 706.02	604 Catch Basin Adjusted To Grade	604 Manhole Adjusted To Grade	604 Inlet Adjusted To Grade	604 Manhole Recon-structed to Grade	604 Inlet Recon-structed to Grade	604 Catch Basin No. 5, Without Apron	604 Inlet, No. 3A	604 Inlet, No. 3A, As Per Plan	604 Inlet, No. 3B, As Per Plan	604 Inlet, No. 3B50	604 Inlet, No. 3B50, As Per Plan	603 6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	For Contractor Information Only: Masonry Collar
					Ea.	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
177	64D	238+87		Rt										1												
177	65D	238+55TC RAMP TC		Rt										1												
177	66D	240+85TH RAMP TH		Lt										1												
177	67D	241+15		℄							14												1		6	1
177	68D	241+00TH RAMP TH		Rt										1												
177	69D	241+25		Lt											1											
177	70D	241+40		Lt										1												
177	71D	241+50		Rt										1										1		
177	72D	241+50		Rt											1											
178	73D	242+65TH RAMP TH		Lt											1											
178	74D	242+62		Rt											1											
178	75D	244+08		℄							10												1		6	1
178	76D	244+25TH RAMP TH		Lt										1												
178	77D	244+25		Rt											1											
178	78D	244+25		Rt										1												
179	79D	247+08		℄							10												1		6	1
179	80D	247+25TH RAMP TH		Lt										1												
179	81D	247+25		Rt											1											
179	82D	247+25		Rt										1												
179	83D	249+47		Rt											1											
179	84D	250+00		Lt										1												
179	85D	6+01 LINCOLN STREET		Rt										1												
179	86D	5+90 LINCOLN STREET		Lt											1											
179	87D	14+12 MAY STREET		Rt											1											
179	88D	14+12 MAY STREET		Rt										1												
180	89D	250+12		Rt											1											
180	90D	250+39		℄							18												1		6	1
180	91D	250+60		Rt										1												
180	92D	251+92		Rt											1											
180	93D	252+73		℄	2	9					20												1		6	1
180	94D	253+00		Lt										1												
180	95D	253+00		Rt											1											
180	96D	253+00		Rt										1												
181	97D	255+73		℄							19												1		6	1
181	98D	256+00		Lt										1												
181	99D	256+00		Rt											1											
181	100D	256+00		Rt										1												
181	101D	97+72 MLKING JR. DR.		Rt										1												
181	102D	98+05 MLKING JR. DR.		Lt										1												
242	103D	106+14 MLKING JR. DR.		Lt										1												
182	104D	257+75		Lt											1											
182	105D	258+25		Rt											1											
182	106D	258+75		Lt										1												
182	107D	258+75		Rt											1											
182	108D	258+68		Rt											1											
182	109D	258+95		Rt										1												
–	–	110D to 200D Not Used																								
183	201D	259+10		℄							15												1			1
184	202D	261+50		Lt										1												
184	203D	261+50		℄														1							6	
184	204D	261+50		Rt										1												
184	205D	264+12		Rt											1											
184	206D	264+12		Rt										1												
184	207D	264+94		Lt											1											
184	208D	265+18		℄														1							6	
185	209D	266+50		Lt											1											
185	210D	266+50		Rt											1											
185	211D	268+16		℄														1							6	
185	212D	268+87		Lt										1												
TOTALS THIS COLUMN					2	9	–	–	–	–	106	–	–	27	21	–	–	3	–	–	–	–	8	–	54	7
TOTALS CARRIED FROM PREVIOUS COLUMN					4	18	–	–	–	12	118	–	–	27	25	1	–	–	–	–	–	2	8	–	48	9
																										16
TOTALS CARRIED TO GENERAL SUMMARY SHEETS					6	27	–	–	–	12	224	–	–	54	46	1	–	3	–	–	–	2	16	–	102	

NOTE: For General Summarys, See Sheets 167-169.

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DRAINAGE ESTIMATED QUANTIT

SHT. No.	REF. No.	STATION	STATION	SIDE	202 Catch Basin Removed	202 Pipe Removed	304 Aggregate Base	601 Paved Gutter, Type 1-2, As Per Plan	603 12" Conduit Type B, 706.02	603 15" Conduit Type B, 706.02	603 18" Conduit Type B, 706.02	603 27" Conduit Type B	604 Catch Basin Adjusted to Grade	604 Manhole Adjusted to Grade	604 Inlet Adjusted to Grade	604 Manhole Reconstructed to Grade	604 Inlet Reconstructed to Grade	604 Catch Basin, No. 2-3	604 Catch Basin No. 5, Without Apron	604 Inlet, No. 3A	604 Inlet, No. 3A, As Per Plan	604 Inlet, No. 3B, As Per Plan	604 Inlet, No. 3B50	604 Inlet, No. 3B50, As Per Plan	603 6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	For Contractor Information Only: Masonry Collar
					Ea.	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
185	213D	268+87		Lt										1												
185	214D	268+87		Rt									1													
185	215D	11+93 FREDONIA AVE.		Lt										1												
186	216D	271+00		℄													1								6	
186	217D	271+00		Lt									1													
186	218D	271+00		Rt									1													
186	219D	273+00		℄													1								6	
186	220D	273+00		Rt									1													
187	221D	275+50		℄													1								6	
187	222D	275+50		Rt									1													
188	223D	278+00		℄													1								6	
188	224D	278+42		Rt									1													
189	225D	279+57		℄													1								6	
189	226D	282+10		Rt										1												
189	227D	283+00		℄													1								6	
190	228D	285+60		℄													1								6	
190	229D	285+60		Lt									1													
190	230D	287+75		℄													1								6	
190	231D	287+75		Lt									1													
190	232D	287+75		Rt									1													
191	233D	290+50		℄													1								6	
191	234D	290+00		Lt									1													
191	235D	290+50		Lt									1													
191	236D	291+00		℄													1								12	
191	237D	291+00		Lt									1													
191	238D	291+00		Rt									1													
191	239D	291+50		℄													1								6	
191	240D	291+50		Rt									1													
192	241D	296+16		℄													1								6	
192	242D	295+69		Rt									1													
193	243D	296+67		Lt									1													
193	244D	299+00		℄													1								6	
193	245D	299+00		Lt									1													
193	246D	299+00		Rt									1													
194	247D	302+07		℄													1								6	
194	248D	302+19ME RAMP ME		Rt									1													
194	249D	301+90		Rt									1													
195	250D	304+45		℄													1								6	
195	251D	305+07ME RAMP ME		Lt									1													
195	252D	304+75		Lt									1													
195	253D	306+50		℄													1								6	
243	254D	17+04 BLAIR		Lt									1													
–	–	255D to 300D Not Used																								
197	301D	311+62		℄													1								6	
197	302D	311+62		Rt									1													
198	303D	315+50ME RAMP ME		Rt									1													
198	304D	314+12		℄													1								6	
198	305D	314+25		Lt									1													
198	306D	314+12		Rt									1													
198	307D	316+87ME RAMP ME		Rt									1													
198	308D	316+87		℄													1								6	
198	309D	317+00		Rt									1													
199	310D	317+00		Lt										1												
199	311D	317+12		Lt										1												
199	312D	317+31		Lt									1													
199	313D	321+25ME		Lt									1													
199	314D	321+25ME		Rt									1													
199	315D	319+87		℄													1								6	
199	316D	320+00		Lt										1												
199	317D	320+00		Rt									1													
244	318D	4+59.33 WOODBURN AVE.		Lt									1													
244	319D	4+59.33 WOODBURN AVE.		Rt									1													
244	320D	4+80 WOODBURN AVE.		Rt										1												
TOTALS CARRIED TO NEXT COLUMN					–	–	–	–	–	–	–	–	35	7	–	–	20	–	–	–	–	–	–	–	126	–

SHT. No.	REF. No.	STATION	STATION	SIDE	202 Catch Basin Removed	202 Pipe Removed	304 Aggregate Base
					Ea.	L.F.	C.Y.
200	321D	323+87ME RAMP ME		Lt			
200	322D	322+37		℄			
200	323D	322+50		Lt			
200	324D	324+35ME RAMP ME		Rt			
200	325D	324+25ME RAMP ME		Lt			
200	326D	322+50		Rt			
200	327D	322+80		Rt			
200	328D	323+19		Rt			
200	329D	322+80		℄			
200	330D	323+75		℄			
200	331D	323+62		Lt			
200	332D	324+87ME RAMP ME		Lt			
200	333D	326+12		℄			
200	334D	326+00		Lt			
200	335D	327+75ME RAMP ME		Lt			
200	336D	327+75ME RAMP ME		Rt			
200	337D	326+00		Rt			
201	338D	328+62		℄			
201	339D	328+50		Lt			
201	340D	330+12ME RAMP ME		Lt			
201	341D	328+50		Rt			
201	342D	331+12		℄			
201	343D	331+00		Lt			
201	344D	332+64ME RAMP ME		Lt			
201	345D	332+62ME RAMP ME		Rt			
201	346D	331+00		Rt			
201	347D	333+62		℄			
201	348D	333+50		Lt			
201	349D	335+12ME RAMP ME		Lt			
201	350D	333+50		Rt			
245	351D	7+14 MONTGOMERY RD.		Lt			
245	352D	7+49 MONTGOMERY RD.		Rt			
245	353D	337+50ME		Lt			
245	354D	3+45 MONTGOMERY RD.		℄			
245	355D	0+50 BREWSTER AVE.		Rt			
245	356D	3+04 MONTGOMERY RD.		℄			
245	357D	0+50 BREWSTER AVE.		Lt			
245	358D	0+75 BREWSTER AVE.		Lt			
202	359D	334+75		Lt			
202	360D	335+12		Lt			
202	361D	336+00		Lt			
202	362D	336+00MF RAMP MF		Rt			
202	363D	336+82		℄			
202	364D	337+37MF RAMP MF		Rt			
202	365D	337+50		Rt			
202	366D	339+12		℄			
202	367D	339+12		Lt			
202	368D	339+12		Rt			
246	369D	340+76MF RAMP MF		Rt			
246	370D	340+50MF RAMP MF		Rt			
203	371D	344+50		℄			
203	372D	344+50		Lt			
203	373D	344+37		Lt			
203	374D	344+50		Rt			
203	375D	346+43		℄			
203	376D	347+00		Lt			
203	377D	347+00		Lt			
203	378D	346+87		Lt			
203	379D	347+00		Rt			
204	380D	349+50		℄			
TOTALS THIS COLUMN					–	–	–
TOTALS CARRIED FROM PREVIOUS COLUMN					–	–	–
TOTALS CARRIED TO GENERAL SUMMARY SHEETS					–	–	–

DRAINAGE ESTIMATED QUANTITIES

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 2-8-95

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SHT. No.	REF. No.	STATION	STATION	SIDE	202 Catch Basin Removed	202 Pipe Removed	304 Aggregate Base	601 Paved Gutter, Type 1-2, As Per Plan	603 12" Conduit, Type B, 706.02	603 15" Conduit, Type B, 706.02	603 18" Conduit, Type B, 706.02	603 21" Conduit, Type B, 706.02	604 Catch Basin Adjusted to Grade	604 Manhole Adjusted to Grade	604 Inlet Adjusted to Grade	604 Manhole Reconstructed to Grade	604 Inlet Reconstructed to Grade	604 Catch Basin, No. 2-3	604 Catch Basin No. 5, Without Apron	604 Inlet, No. 3A	604 Inlet, No. 3A As Per Plan	604 Inlet, No. 3B, As Per Plan	604 Inlet, No. 3B50	604 Inlet, No. 3B50, As Per Plan	603 6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	For Contractor Information Only: Masonry Collar
					Ea.	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
204	381D	349+50		Lt										1												
204	382D	349+37		Lt									1													
204	383D	349+50		Rt									1													
204	384D	352+00		℄													1								6	
204	385D	352+00		Lt										1												
204	386D	351+87		Lt									1													
204	387D	352+00		Rt									1													
205	388D	354+50		℄													1								6	
205	389D	354+50		Lt										1												
205	390D	354+37		Lt									1													
205	391D	354+50		Rt									1													
205	392D	356+87		℄													1								6	
205	393D	357+00		Lt										1												
205	394D	357+00		Lt										1												
205	395D	356+87		Lt									1													
205	396D	357+00		Rt									1													
205	397D	359+50		℄													1								6	
205	398D	359+50		Lt										1												
205	399D	359+37		Lt									1													
205	400D	359+50		Rt									1													
206	401D	362+00		℄													1								6	
206	402D	361+87		Lt									1													
206	403D	362+00		Rt									1													
206	404D	365+00		℄													1								6	
206	405D	364+87		Lt									1													
207	406D	367+00		℄													1								6	
207	407D	366+80		Lt									1													
207	408D	367+00		Rt									1													
207	409D	369+50		℄													1								6	
207	410D	369+50		Lt									1													
207	411D	371+50		Lt									1													
207	412D	371+42DB RAMP DB		Lt									1													
250	413D	0+75P-PCC		Rt									1													
250	414D	0+75P-PCC		Lt									1													
250	415D	18+10DRR		Lt										1												
250	416D	17+55 DUCK CREEK RD.		Lt									1													
250	417D	18+38 DUCK CREEK RD.		Rt									1													
248	418D	13+07 DANA AVE.		Lt									1													
248	419D	13+59 DANA AVE.		Rt									1													
248	420D	13+75 DANA AVE.		Lt									1													
248	421D	14+00 DANA AVE.		Rt										1												
248	422D	20+41DRR		℄									1													
248	423D	15+92 DANA AVE.		Rt										1												
248	424D	16+08 DANA AVE.		Lt										1												
248	425D	16+98 DANA AVE.		Lt										1												
248	426D	17+23 DANA AVE.		Rt									1													
248	427D	17+17 DANA AVE.		Lt									1													
250	428D	379+64DA RAMP DA		Rt									1													
250	429D	379+50DA RAMP DA		Lt									1													
250	430D	379+64DC RAMP DC		Rt									1													
208	431D	371+62		℄													1								6	
208	432D	371+62		Rt									1													
208	433D	373+77		℄													1								6	
208	434D	373+27DB RAMP DB		Rt									1													
208	435D	373+27DB RAMP DB		Lt									1													
208	436D	374+37		Lt										1												
208	437D	375+50		Lt										1												
208	438D	376+37		℄													1								6	
208	439D	376+25		Lt										1												
208	440D	376+37		Lt									1													
208	441D	376+25DB RAMP DB		Lt									1													
208	442D	376+37		Rt									1													
247	443D	6+93 DANA AVE.		Rt									1													
TOTALS CARRIED TO NEXT COLUMN					–	–	–	–	–	–	–	–	38	14	–	–	11	–	–	–	–	–	–	–	66	–

SHT. No.	REF. No.	STATION	STATION	SIDE	202 Catch Basin Removed	202 Pipe Removed	304 Aggregate Base	601 Paved Gutter, Type 1-2, As Per Plan	603 15" Conduit, Type B	603 15" Conduit Type B, 706.02	603 18" Conduit, 706.02	603 21" Conduit, Type B, 706.02	604 Catch Basin Adjusted to Grade	604 Manhole Adjusted to Grade	604 Inlet Adjusted to Grade	604 Manhole Reconstructed to Grade	604 Inlet Reconstructed to Grade	604 Catch Basin, No. 2-3	604 Catch Basin No. 5, Without Apron	604 Inlet, No. 3A	604 Inlet, No. 3A, As Per Plan	604 Inlet, No. 3B, As Per Plan	604 Inlet, No. 3B50	604 Inlet, No. 3B50, As Per Plan	603 6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	For Contractor Information Only: Masonry Collar
					Ea.	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
247	444D	7+14 Dana		Rt										1												
247	445D	7+35 Dana		Rt									1													
247	446D	373+38DE		Lt									1													
247	447D	7+72 Dana		Lt									1													
249	448D	375+25DE		Rt									1													
249	449D	381+50DB		Lt									1													
249	450D	378+87DB		Lt									1													
249	451D	378+46DB		Lt									1													
249	452D	378+06DB		Lt									1													
249	453D	377+75DE		Lt										1												
249	454D	378+35DE		Rt									1													
249	455D	378+35DE		Lt										1												
249	456D	380+00DE		Lt									1													
249	457D	380+25DE		Lt										1												
249	458D	380+37DE		Rt									1													
249	459D	380+37DE		Lt									1													
249	460D	380+75DE		Lt									1													
209	461D	379+37		℄													1								6	
209	462D	379+12		Lt									1													
209	463D	379+75		Lt									1													
209	464D	379+62		Rt									1													
209	465D	380+00		℄													1								12	
209	466D	380+25		Lt									1													
209	467D	379+87		Lt										1												
209	468D	380+73		℄													1								6	
209	469D	380+43		Rt										1												
209	470D	380+50		Rt									1													
209	471D	381+25		Rt									1													
209	472D	382+50DC		Rt										1												
209	473D	383+25DC		Rt									1													
209	474D	383+25		℄													1								6	
209	475D	383+25		Lt									1													
209	476D	383+12		Lt										1												
209	477D	383+00		Rt									1													
209	478D	383+37DC		Rt										1												
209	479D	383+75DC		Rt									1													
209	480D	384+25DC		Rt									1													
210	481D	384+67		Lt										1												
210	482D	384+67		Rt									1													
210	483D	384+87		℄													1								6	
210	484D	385+00DE		Lt									1													
210	485D	390+50		℄													1								6	
211	486D	390+63		Lt										1												
211	487D	390+63		Rt									1													
211	488D	392+00		℄													1								6	
211	489D	392+00		Rt									1													
211	490D	392+12		Lt									1													
–	–	491D to 499D Not Used																								
212	500D	291+64		℄					8	9														1	6	1
212	501D	291+64		Lt									1													
212	502D	291+64		Rt										1												
212	503D	291+64		Rt									1													
212	504D	294+00		℄					8															1	6	
212	505D	294+00		Rt										1												
213	506D	297+14		℄					8															1	6	
213	507D	297+14		Rt										1												
213	508D	300+00		℄					8															1	6	
213	509D	300+00		Rt										1												
215	510D	308+00		℄						11														1	6	2
251	511D	309+62AR		Lt									1													
TOTALS THIS COLUMN					–	–	–	–	32	20	–	–	32	15	–	–	7	–	–	–	–	–	5	–	78	3
TOTALS CARRIED FROM PREVIOUS COLUMN					–	–	–	–	–	–	–	–	38	14	–	–	11	–	–	–	–	–	–	–	66	–
																										3
TOTALS CARRIED TO GENERAL SUMMARY SHEETS					–	–	–	–	32	20	–	–	70	29	–	–	18	–	–	–	–	–	5	–	144	

NOTE: For General Summarys, See Sheets 167-169.
"PCC" Denotes "POTOMAC-CLAYLAND CONNECTOR".

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DRAINAGE ESTIMATED QUANTITIES

CALC. BY DJB DATE 10-17-94
CHKD. BY PWP DATE 2-8-95

HAM-71-2.92

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SHT. No.	REF. No.	STATION	STATION	SIDE	202 Catch Basin Removed	202 Pipe Removed	304 Aggregate Base	603 15" Conduit, Type B, 706.02	603 18" Conduit, Type B, 706.02	603 21" Conduit, Type B, 706.02	603 24" Conduit, Type B, 706.02	603 27" Conduit, Type B, 706.02	604 Catch Basin Adjusted to Grade	604 Manhole Adjusted to Grade	604 Inlet Adjusted to Grade	604 Manhole Recon-structed to Grade	604 Inlet Recon-structed to Grade	604 Catch Basin, No. 5, Without Apron	604 Inlet, No. 3A	604 Inlet, No. 3C, As Per Plan	604 Inlet, No. 3B, As Per Plan	604 Inlet, No. 3B50	603 6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	For Contractor Information Only: Masonry Collar
					Ea.	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
251	512D	310+87A		℄									1											
251	513D	17+79 SMITH-EDMONDSON		Lt									1											
215	514D	307+63B RAMP B		Rt				5													1			1
251	515D	310+30B RAMP B		Rt									1											
251	516D	310+51B RAMP B		Lt									1											
251	517D	12+00 SMITH-EDMONDSON		Lt									1											
251	518D	12+00 SMITH-EDMONDSON		Rt										1										
251	519D	12+00 SMITH-EDMONDSON		Rt									1											
251	520D	0+45 ATLANTIC AVE.		Lt										1										
251	521D	0+53 ATLANTIC AVE.		Lt									1											
251	522D	0+53 ATLANTIC AVE.		Rt									1											
216	523D	313+05		Lt										1										
216	524D	314+10		Lt										1										
216	525D	316+07		Lt										1										
217	526D	318+05		Lt										1										
217	527D	320+00		℄				11														1	6	2
217	528D	320+00		Lt										1										
252	529D	13+50 WILLIAMS AVE.		Lt									1											
252	530D	14+00 WILLIAMS AVE.		Rt									1											
252	531D	14+65 WILLIAMS AVE.		Lt									1											
252	532D	321+07D RAMP D		Rt									1											
252	533D	15+35 WILLIAMS AVE.		Lt									1											
252	534D	18+91 WILLIAMS AVE.		Rt									1											
252	535D	19+00 WILLIAMS AVE.		Rt										1										
252	536D	19+00 WILLIAMS AVE.		Lt									1											
218	537D	324+50		℄					5	6												1	6	2
218	538D	324+50		Lt										1										
219	539D	329+50		℄				11														1	6	2
219	540D	333+00		Rt									1											
220	541D	333+60		Rt									1											
220	542D	335+50		℄				8														1	6	1
221	543D	11+60 ROBERTSON AVE.		Rt									1											
221	544D	11+60 ROBERTSON AVE.		Lt									1											
221	545D	14+80 ROBERTSON AVE.		Rt									1											
221	546D	15+05 ROBERTSON AVE.		Rt										1										
221	547D	15+05 ROBERTSON AVE.		Lt									1											
221	548D	341+37		℄							5											1	6	1
221	549D	342+75		℄								24										1	6	2
221	550D	343+00		Lt									1											
221	551D	343+80		℄										1										
221	552D	344+00		℄				20														1	6	
221	553D	344+00		Lt									1											
223	554D	350+25		℄				5														1	6	1
223	555D	352+47		Lt									1											
223	556D	353+00		℄							16											1	6	2
223	557D	353+00		Rt									1											
224	558D	356+00		℄				11														1	6	2
224	559D	356+00		Rt									1											
224	560D	358+00NB		Lt				12														1		1
224	561D	358+75NB		Lt				8			15											1	6	3
224	562D	360+75SB		Rt									1											
–	–	563D to 600D Not Used																						
225	601D	361+25SB		Rt									1											
225	602D	362+00SB		Rt									1											
225	603D	17+00E RAMP E		Lt									1											
227	604D	4+50F RAMP F		Rt									1											
228	605D	5+00F RAMP F		Rt				4													1			1
228	606D	5+35F RAMP F		Rt									1											
229	607D	23+55J RAMP J		Rt										1										
230	608D	26+36K RAMP K		Lt				5												1				1
230	609D	381+96NB		Lt									1											
231	610D	383+70SB		Lt									1											
231	611D	386+00NB		Lt									1											
TOTALS CARRIED TO NEXT COLUMN					–	–	–	100	5	6	36	24	35	12	–	–	–	–	–	–	1	2	12		66	22

SHT. No.	REF. No.	STATION	STATION	SIDE	304 Aggregate Base	601 Paved Gutter, Type 1-2, As Per Plan	603 12" Conduit, Type B	603 12" Conduit, Type B, 706.02	603 15" Conduit, Type B	603 15" Conduit, Type B, 706.02	603 18" Conduit, Type B, 706.02	603 21" Conduit, Type B, 706.02	603 24" Conduit, Type B, 706.02	603 27" Conduit, Type B, 706.02	604 Catch Basin Adjusted to Grade	604 Manhole Adjusted to Grade	604 Inlet Adjusted to Grade	604 Manhole Recon-structed to Grade	604 Catch Basin, No. 2-3	604 Catch Basin, No. 5, Without Apron	604 Inlet, No. 3A	604 Inlet, No. 3C, As Per Plan	604 Inlet, No. 3B50	604 Inlet, No. 3B, As Per Plan	603 6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	For Contractor Information Only: Masonry Collar
					C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
232	612D	386+20NB		Rt											1											
232	613D	388+00NB		Lt											1											
232	614D	389+25NB		Lt											1											
232	615D	390+50NB		Lt											1											
233	616D	391+75NB		Lt											1											
233	617D	392+75NB		Lt											1											
233	618D	394+00NB		Lt											1											
234	619D	397+62NB		Lt											1											
234	620D	399+77SB		Rt																1						
234	621D	400+49SB	400+66SB	Rt					15	7													1			1
234	622D	399+77SB	401+50SB	Rt					173										1							
234	623D	401+50SB		Rt					19										1							
234	624D	401+50SB		Rt																			1			
234	625D	399+75SB	435+94SB	Rt	771	3619																				
235	626D	405+85		℄									10						1							
236	627D	411+75		Lt																			1			
236	628D	411+75		℄					16										1							
236	629D	411+75		Rt																			1			
236	630D	412+50		Lt																			1			
236	631D	412+50		℄					16										1							
236	632D	411+75	413+00	Rt					130														1			1
236	633D	413+00		Lt																			1			
236	634D	413+00		℄					16										1							
236	635D	413+00		Rt																			1			
236	636D	412+50		Rt											1											
237	637D	415+50		℄					16										1							
237	638D	415+50		Rt			26	30															1			2
237	639D	419+31		Rt				25															1			1
237	640D	22+90 KENNEDY AVE.		Lt											1											
237	641D	23+25 KENNEDY AVE.		Rt											1											
238	642D	419+55		Lt																			1			
238	643D	419+55		℄			33												1							
238	644D	424+00		Lt																			1			
238	645D	424+00		℄					16								1									
238	646D	424+00		Rt																			1			
239	647D	426+45		Rt													1									
239	648D	427+00		Rt			12																1			1
240	649D	436+50		Lt													1									
240	650D	436+50		Rt													1									
254	651D	160+50 NORWOOD LATERAL		℄				8		5												1			6	2
255	652D	7+46L RAMP L		Rt									13									1			6	2
255	653D	11+01L RAMP L		Rt									13									1			6	2
256	654D	13+94L RAMP L		Rt						12												1			12	1
256	655D	15+37K RAMP K		Lt										13								1			6	2
256	656D	15+50K RAMP K		Rt														1								
256	657D	1+25I RAMP I		Rt											1											
257	658D	18+63L RAMP L		Rt						8												1			6	1
257	659D	18+61K RAMP K		Rt														1								
257	660D	19+14L RAMP L		Rt						19													1		6	1
257	661D	19+64L RAMP L		Rt					55														1		6	1
267	662D	1+00P1 RAMP P1		℄											1											
267	663D	2+21P1 RAMP P1		℄											1											
268	664D	9+65R RAMP R		Rt											1											
259	665D	31+35T RAMP T		Rt											1											
259	666D	32+50T RAMP T		℄						5												1			6	1
259	667D	9+65G RAMP G		Lt											1											
260	668D	35+99T RAMP T		℄						5												1			6	1
260	669D	37+10T	37+50T	℄					40		5											1			6	1
260	670D	37+50T RAMP T		℄																		1				
262	671D	43+00T RAMP T		℄						5												1			6	1
TOTALS THIS COLUMN					771	3619	71	63	512	66	5	–	36	13	17	2	2	2	8	1	11	2	14	–	78	22
TOTALS CARRIED FROM PREVIOUS COLUMN					–	–	–	–	–	100	5	6	36	24	35	12	–	–	–	–	–	1	12	2	66	22
																										44
TOTALS CARRIED TO GENERAL SUMMARY SHEETS					771	3619	71	63	512	166	10	6	72	37	52	14	2	2	8	1	11	3	26	2	144	

NOTE: For General Summarys, See Sheets 167-169.

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DRAINAGE ESTIMATED QUANTITIES

CALC. BY DJD DATE 10-11-94
CHKD. BY RWP DATE 2-8-95

HAM-71-2.92

OHIO FHWA REGION 5

283 / 615

SHT. No.	REF. No.	STATION	STATION	SIDE	202		601	603					604											603	For Contractor Information Only
					Catch Basin Removed	Pipe Removed	Paved Gutter, Type 1-2, As Per Plan	12" Conduit, Type B	15" Conduit, Type B, 706.02	18" Conduit, Type B, 706.02	21" Conduit, Type B	24" Conduit, Type B	27" Conduit, Type B	Catch Basin Adjusted to Grade	Manhole Adjusted to Grade	Inlet Adjusted to Grade	Manhole Recon-structed to Grade	Inlet Recon-structed to Grade	Catch Basin, No. 2-J	Catch Basin, No. 5, Without Apron	Inlet, No. 3A	Inlet, No. 3C, As Per Plan	Inlet, No. 3B, As Per Plan	Inlet, No. 3B50	Inlet, No. 3B50, As Per Plan	6" Conduit, Type F, 707.17 Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	Masonry Collar
					Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Lin. Ft.	Each
263	672D	45+00T	RAMP T	℄					5											1					6	1
263	673D	47+50T	RAMP T	℄					5											1					6	1
264	674D	49+75T	RAMP T	℄					12											1					6	1
264	675D	1+35T2	RAMP T2	℄										1												
264	676D	0+91T2	RAMP T2	℄										1												
264	677D	0+77T2	RAMP T2	℄										1												
264	678D	50+23T	RAMP T	Rt										1												
264	679D	50+50T	RAMP T	Rt										1												
264	680D	1+10T1	RAMP T1	Lt										1												
264	681D	0+75T1	RAMP T1	Lt										1												
264	682D	5+75M	RAMP M	Lt										1												
264	683D	6+00M	RAMP M	Lt										1												
266	684D	31+65	RIDGE AVE.	Rt										1												
266	685D	31+55	RIDGE AVE.	Lt										1												
266	686D	13+55N	RAMP N	℄										1												
234	687D	400+65NB		Lt																				1		
237	688D	415+50		Lt																				1		
239	689D	427+00		Lt				16																1		
198	690D	318+50ME	RAMP ME	Lt										1												
263	691D	46+93T	RAMP T	Lt	1																					
180	692D	9+20.1	LINCOLN	Lt											1											
229	693D	21+00K	RAMP K	Lt					14											1						1
173	694D	225+59		MLt	1																					
180	695D	250+75		℄	1	7																				
180	696D	252+87		℄	1	7																				
180	697D	255+87		℄	1	7																				
216A	GS8D	312+48		LT.					12																	
TOTALS CARRIED TO GENERAL SUMMARY SHEETS					5	21	–	16	48	–	–	–	–	13	1	–	–	–	–	–	4	–	–	3	–	18	4

NOTE: For General Summarys, See Sheets 167-169.

UNDERDRAIN ESTIMATED QUANTITIES

CALC. BY DLB DATE 10-17-94
CHKD. BY PWP DATE 2-8-95

HAM-71-2.92

OHIO FHWA REGION 5

284 / 615

SHT. No.	REF. No.	SIDE	STATION	STATION	603	605			FOR CONTRACTOR INFORMATION ONLY												
					6" Conduit Type F 707.17 Non-Perforated ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	Shallow Underdrain, As Per Plan	4" Unclassified Pipe Underdrain	6" Shallow Pipe Underdrain, As Per Plan	4" Cap	6" Cap	4"-30° Elbow	4"-45° Elbow	4"-60° Elbow	4"x6"-90° Elbow	6"-90° Elbow	4"x4"-30° Wye	4"x4"-45° Wye	4"x6"-45° Wye	4"x4"-60° Wye	4"x6"-Tee	4"x6"-Reducer
					Lin Ft	Lin Ft	Lin Ft	Lin Ft	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
170-174	1U	Lt	215+12.5	227+50	36	1237.5						4						4	4	4	
170-174	2U	MLt	215+12.5	228+25	47	1312.5														4	
170-172	3U	MRt	215+12.5	222+94	25	781.5			1											2	
170-174	4U	Rt	215+12.5	229+25	41	1412.5						3						3	3	2	
174-176	5U	Lt	227+50	236+25	28	865						1						1		2	
174-188	6U	MLt	228+25	278+00	222	4975								1						17	
174-175	7U	MRt	228+25	230+75	10	240															1
174-176	8U	Rt	229+25	238+25	32	900								1						3	
175-181	9U	MRt	230+81	255+73	108	2492			1					1						8	
176	10U	Lt	236+31	238+25	10	184			1												1
176-177	11U	Lt	238+31	241+00	19	259			1		2	1						1	1		1
175-241	12U	Lt	230+75TH	233+96TH	2			321		1					1						
174-175	13U	Rt	228+12TC	233+63TC	10	551			1			3						2	1		
176-190	14U	Rt	235+50TC	287+76	172	5021	278		3			21					1	16	15	2	
176-184	15U	Lt	235+00TH	264+94	85	2984			1			9						9	8	2	
185-191	16U	MRt	265+50	291+01	130	2551			1											11	
184-189	17U	Lt	264+98	281+00	91	1602			1			8						6	5		
189-191	18U	Lt	281+00	290+50	46	789	190		2		1	2	1			1		2	1	2	
191-192	19U	Lt	290+50	293+50	18	300			1			1	1					1		1	
191-192	20U	MLt	291+01	293+25	14	224			1											1	
191-192	21U	MRt	291+01	293+00	11	199			1											1	
192-196	22U	MLt	296+16	309+00	55	1284									1					4	
192-194	23U	MRt	296+16	302+08	28	592			1					1						1	
192-194	24U	Rt	295+69	304+00	38	831	52		1			3	1					3	2		
193-195	25U	Lt	299+01	307+25ME	12	824			1			2	1					2	1		
194-196	26U	Lt	302+19ME	308+75ME	2	656			1		2			1							
195-196	27U	Lt	304+75	309+00	9	425								1							
196-199	28U	Lt	309+00	317+31	11	170		66			2			1				1	1		
196-200	29U	MLt	309+00	322+50	54	1292														4	1
197-200	30U	MRt	310+65	322+80	84	1167			1											6	
196-200	31U	Rt	309+00	322+80	54	1332						3						3	3	3	
197-198	32U	Rt	312+25ME	315+50ME	10	315			1			1						1			
198	33U	Rt	315+56ME	316+87ME	10	121			1												1
198-200	34U	Lt	318+50ME	324+25ME	18	575			1				1				1			2	
199-200	35U	Lt	317+68	322+75	14	507			1		4									2	
200-202	36U	Lt	322+75	338+18	51	1543			1			1	1			1				5	
200	37U	MLt	322+56	322+80	11		36		1											1	
200	38U	MLt	322+80	323+52			72		1												
200-202	39U	MLt	323+62	335+94	54	1222			1											4	1
200-202	40U	MRt	322+80	338+16	84	1441	95		1											6	
200-202,246	41U	Rt	322+80	343+55.95MF	64	2076			1			6						6	6	2	
200-201,245	42U	Lt	324+25ME	337+45ME	25	1320			1			2	1					2	2	3	
202	43U	MLt	336+00	338+17	21	207			1											1	1
202	44U	Lt	338+26	339+12	9	86			1											1	
202	45U	MLt	338+25	339+13	11	88			1											1	
202	46U	MRt	338+24	339+11	14	87			1											1	
202	47U	Rt	338+43	339+11	9	68			1				1					1			
202-203	48U	Lt	339+12	342+32		320															
202-203	49U	Lt	339+13	342+32		319															
202-203	50U	Rt	339+11	342+32		321															
202-203	51U	Rt	339+11	342+32		321															
203-208,249	52U	Lt	342+32	378+46DB	116	3614					2		1					3	2	11	
203-205	53U	MLt	342+32	354+51	61	1219								1						4	
203-209	54U	MRt	342+32	380+00	197	3768														16	
203-209	55U	Rt	342+32	380+43	118	3801						10						10	10	2	1
208-209	56U	Lt	376+37	379+75	18	338			1											2	
209	57U	Lt	379+75	380+90	9	115			1											1	
209-210	58U	MLt	379+87	387+00	43	703														3	1
209	59U	MRt	380+00	383+25	14	325			1											1	
209-210	60U	Rt	380+43	384+67	28	414			1			1						2	1	1	
243,249	61U	Lt	378+46DB	383+82DB	15	536			1				1					1		2	
247,249	62U	Rt	373+18DE	375+25DE	10	197			1			1						1			
247	63U	Rt	375+35DE	378+35DE	10	290			1			1						1			
TOTALS CARRIED TO NEXT COLUMN					2548	63,710	723	387	44	1	13	84	10	9	1	1	3	82	66	148	9

SHT. No.	REF. No.	SIDE	STATION	STATION	603	605				Special	FOR CONTRACTOR INFORMATION ONLY																
					6" Conduit Type F 707.17 Non-Perforated ASTM 3034 SDR 35 or Supl. Spec. 931 or 944	Shallow Underdrain, As Per Plan	4" Unclassified Pipe Underdrain	4" Shallow Pipe, Underdrain, 707.15, As Per Plan	6" Shallow Pipe Underdrain, As Per Plan	Precast Reinforced Concrete Outlet	4" Cap	6" Cap	4"-30° Elbow	4"-45° Elbow	4"-60° Elbow	4"-90° Elbow	4"x6"-30° Elbow	4"x6"-90° Elbow	6"-30° Elbow	6"-90° Elbow	4"x4"-30° Wye	4"x4"-45° Wye		4"x4"-60° Wye	4"x6"-60° Wye	4"x6"-45° Wye	4"x4"-Tee	4"x6"-Tee		4"x6"-Reducer
					Lin Ft	Lin Ft	Lin Ft	Lin Ft	Lin Ft	Each	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		Ea.	Ea.	Ea.	Ea.	Ea.		Ea.
249	64U	Lt	377+78DE	380+25DE	15	237					1			1													1		
209,210,249	65U	Lt	380+25DE	386+75DE	21	640					1			2									1		2		1		
209,248,250	66U	Rt	375+71DC	382+50DC	15	669					1			1											1		1		
248,250	67U	Lt	376+45DA	379+50DA	10	295					1			1											1				
250	68U	Rt	377+75DA	379+64DA	10	179					1			1											1				
209-210	69U	Rt	383+37DC	387+88	20	441								1											1		2		
210-215	70U	MLt	387+00	308+00	92	2319.4													1								6		
210-212	71U	MRt	389+00	291+64	38	473.4					1																2		1
210-215	72U	Rt	387+88	308+42B	44	2282.4								2	1								2		3		2		
211-215	73U	Lt	392+12	307+00A	53	1707.4				1	1		2	1									1		2		1		
212	74U	MRt	291+70	294+00	10	220					1																		1
212-213	75U	MRt	294+06	297+14	10	298					1																		1
213	76U	MRt	297+20	300+00	10	270					1																		1
213-221	77U	MRt	300+06	342+75	83	4269					1																7		
215,251	78U	Lt	307+00A	310+83A		383					1																		
215,251	79U	Rt	308+42B	310+20B	19	178					1								1						1				
215-220	80U	Rt	307+32	333+60	104	2628					1		1	4							1				4		6		
214-218	81U	Lt	304+00	326+91		2303		56			2			1					1			4			5	1	2		
218,252	82U	Lt	321+30D	326+45D		515					1				1										1				
218-219	83U	Lt	327+07D	328+50D		143										1											1		
219-220	84U	Rt	328+22C	338+56	61	1034					1			2											2		2		
219-221	85U	Lt	328+50D	343+80	28	1529							2	2	1								1		2		1		
220-221	86U	Rt	338+56	344+50		594					1		2																
221-222	87U	Lt	343+80	347+00	28	321								1	1										1		1		
–	88U	–	Not	Used																									
221-222	89U	MRt	342+75	347+05	11	430																					1		
222-223	90U	Lt	347+00	352+47	32	525	22							2	1										2		1		
223-224	91U	MLt	351+00℄	358+75NB	54	765					1																4		
222-224	92U	MRt	347+05℄	358+75NB	61	1170																					5		
223-224	93U	Rt	350+75℄	359+00NB	45	800					1			1	1										1		2		
223	94U	Lt	352+47	352+93			46				1																		
223-224	95U	Lt	353+25℄	359+50SB	70	625				1	1		3																
224-228	96U	MRt	358+75SB	373+33SB	27	1458					1			1											1		3		
224	97U	MLt	358+75NB	361+00NB		225					1																		
224-226	98U	Rt	359+00NB	367+50NB	32	800								2											1				
225-226	99U	Lt	362+00SB	13+75E		602.5		63		1				2	1								1		2		1		
226,255	100U	Lt	17+00E	368+50SB		342		14			1			2					1					1				
228,255	101U	Lt	11+40E	13+75E	27	215							1	1											1				
226-228	102U	Rt	367+50NB	5+00F		575		15						1							1				1		1		
228-231	103U	Rt	373+13NB	3+50G	31	1253				2	1			2											2		2		
228,258	104U	Rt	5+00F	12+25F	5	500		225						1							1				1		3		
229-230	105U	Lt	379+40NB	381+96NB		252		14			1		1	1											1				
230-232	106U	Rt	380+08SB	2+10H	14	700				1	1			1	1										1				
230-232	107U	Lt	24+50J	390+50NB		1095		59						3									2		3		3		
230,256,257	108U	Rt	1+25I	8+60I		735		14			1			1											1				
230	109U	Lt	6+50I	10+00I		350		20		1				1	1										1				
230-234	110U	Lt	10+00I	399+37.5SB		1634		67		1				3											3		3		
231-232	111U	Rt	385+85SB	387+30SB	19	139					1			1	1										1				
231,260	112U	Rt	3+50G	5+24G		174					1																		
232-235	113U	MLt	390+50NB	402+75NB	45	1225																					5		
233-234	114U	Rt	394+50NB	401+50NB		700		30		1				1	1										1				
233-234	115U	MRt	396+00SB	400+49SB	9	449					1															1				
234-235	116U	Lt	399+37.5SB	403+75SB		438																							
234-235	117U	MRt	400+49SB	403+75SB	9	326																					1		
234,235,265,266	118U	Rt	401+50NB	8+25N		875		72		2				2											2	2			
235-236	119U	Lt	403+75SB	413+00		925		58		1				2									1		2	1			
235-236	120U	MRt	403+75SB	412+50	41	875								2										1	2	1	1		
235-236	121U	MLt	402+75NB	412+50	42	891									1									1			1		
235-236	122U	Rt	406+22	412+50		532		14	91			1		2		1		2							1				1
236-237	123U	Lt	413+00	414+40		140					1																		
TOTALS THIS COLUMN					1245	46,669.1	68	721	91	12	34	1	12	55	7	6	1	4	2	–	3	4	–	9	2	59	6	73	–	5
TOTALS CARRIED FROM PREVIOUS COLUMN					2548	63,710	723	–	387	–	44	1	13	84	10	–	–	9	–	1	1	3	–	66	–	82	–	148	–	9
											78	2	25	139	17	6	1	13	2	1	4	7	–	75	2	141	6	221	–	14
TOTALS CARRIED TO GENERAL SUMMARYS					3793	11 0,379.1	791	721	478	12																			

NOTE: For General Summarys, See Sheets 167-169.
"MRt" Denoted UD Located in the Median on the Right Side.
"MLt" Denoted UD Located in the Median on the Left Side.

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UNDERDRAIN ESTIMATED QUANTITIES

CALC BY RLD DATE 10-17-74
CHKD. BY FVP DATE 2-5-75

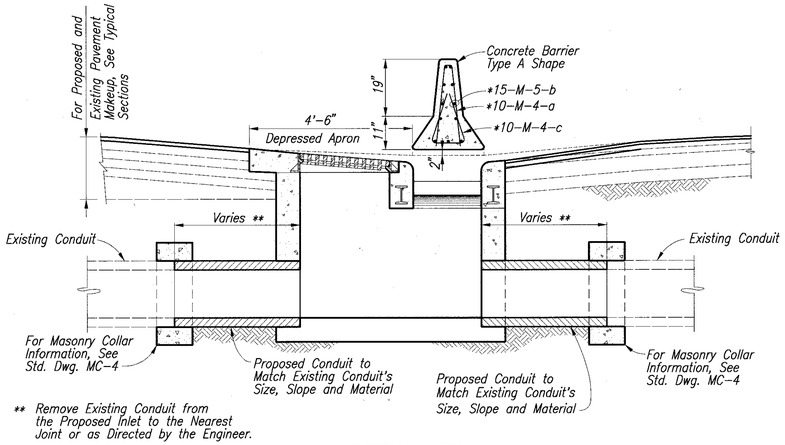
HAM-71-2.92

OHIO
FHWA REGION 5

285/615

SHT. No.	REF. No.	SIDE	STATION	STATION	603	605			Special	FOR CONTRACTOR INFORMATION ONLY																				
					6" Conduit Type F, 707.17 Non-Perforated ASTM 3034 SDR 35 or Supl. Spec. 831 or 841	4" Shallow Pipe Underdrain, 707.15, As Per Plan	Shallow Underdrain, As Per Plan	4" Unclassified Pipe Underdrain	6" Shallow Pipe Underdrain, As Per Plan	Precast Reinforced Concrete Outlet	4" Cap	6" Cap	4"-22 1/2" Elbow	4"-30" Elbow	4"-45" Elbow	4"-60" Elbow	4"-90" Elbow	4"x6"-30" Elbow	4"x6"-90" Elbow	6"-22 1/2" Elbow	6"-45" Elbow	4"x4"-30" Wye	4"x4"-45" Wye	4"x4"-60" Wye	4"x6"-45" Wye	4"x6"-60" Wye	6"x6"-45" Wye	4"x4"-Tee	4"x6"-Tee	6"x6"-Tee	4"x6"-Reducer
					Lin Ft	Lin Ft	Lin Ft	Lin Ft	Lin Ft	Each	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
236-239	124U	MLt	412+50	429+14	37		1664				1				1										1			1	3		
236-237	125U	MRt	412+50	419+31	33		676				1				1			1				1			1				1		
236-239,267	126U	Rt	4+85P	430+00	90		2286			4					2										2			2	2		
237-239,268	127U	Lt	4+00R	428+25	43		1425			2	1						1												3		
239-240	128U	MLt	429+24	433+87.5			464				1																				
239-240	129U	MRt	429+24	433+87.5			464				1																				
239-240	130U	Rt	430+00	433+87.5			388																								
239-240	131U	Lt	430+00	433+87.5			388				1																				
253	132U	Rt	19+92H	24+06H	15		413			1	1				1		1								1						
254-255	133U	Lt	159+02NL	10+73L	61		852			1							1					1			1						
254-257	134U	MRt	159+00NL	19+14L	57		1690																						7		
254-257	135U	MLt	159+00NL	19+25K	55		1690																						6		
254-255	136U	Rt	159+00NL	11+40E	42		886			1				1	1										1				1		
228-229,256	137U	Rt	13+00J	21+70J	32		855				1				1	1									1						
256-257	138U	Rt	13+50K	18+61K	7		511				1				1										1			1			
229,257	139U	Rt	19+14L	22+75L	8		361				1																		1		
229,257	140U	Lt	19+25K	22+50K	10		325				1																		1		
229,257	141U	Rt	18+61K	22+48K			387				1																				
228-229	142U	Lt	17+62J	21+63J	18		393				1				1	1									1						
229	143U	Lt	21+55J	24+50J	18		295								1	1									1						
229	144U	Rt	21+55J	23+00J	30		145				1				1	1									1						
265-266	145U	Lt	8+25N	13+45N			520				1																				
267	146U	Rt	0+50P1	1+00P1	10			40				1										1						1			
267	147U	Rt	1+00P1	2+17P1	10			107				1										1						1			
267	148U	Rt	2+05P	4+85P			280				1																				
268	149U	Lt	4+75R	9+64R			489				1						1												1		
268	150U	Rt	4+37R	9+64R	48		543			1	1				1		1								1						
230,258,260	151U	Lt	27+52T	6+35G	33	974				1	1				1		1		1						1						
230,258-264	152U	MLt	27+50T	49+75T	45		2225				1								1										7		
230,258-264	153U	MRt	27+50T	49+75T	38		2225				1								1										7		
258-263	154U	Rt	12+25F	3+00U	65	597.7	1100.3			2					3										3			3			
259-260	155U	Lt	34+25T	37+68T	32	343				1	1				1		1								1						
259-260	156U	Lt	6+50G	9+50G	46	300				1	1				1		1								1						
261-264	157U	Lt	6+71H	5+75M	39	1230				2	1		2		1										1				2		
263	158U	Rt	3+00U	4+07U		107					1																				
263-264	159U	Lt	45+00T	1+1417T1	22	480			114		1		1							2	1						1			1	1
263-264	160U	Lt	14+36H	16+00H	27	164				1	1				1										1			1			
263-264	161U	Rt	45+16T	0+76.6T2	2	348			167			1	2		1						1								1	2
263	162U	Rt	1+50H1	4+75H1	28		325			1	1				1										1			1			
263-264	163U	Rt	4+75H1	7+25H1			250				1																				
264	164U	Rt	0+76.6T2	1+43T2					66			1																			
264	165U	Lt	16+00H	16+75H		75					1																				
235	166U	℄	405+20	405+85	10				55			1																			
235-236	167U	℄	406+00	411+75	10				565			1																			
236	168U	℄	411+80	412+50	10				60			1																			
236	169U	℄	412+50	412+95	10				35			1																			
236-237	170U	℄	413+00	415+45	10				235			1																			
238	171U	℄	419+55	423+95	10				430			1																			
238-239	172U	℄	424+00	429+14	10				504			1																			
239-240	173U	℄	429+24	435+94	10				578			1																			
195-196	174U	Rt	304+00	309+00	23		475	52			1			1	1						1				1			1			
191	175U	MLt	289+00	291+01	28		201																						2		
208-209	176U	MLt	371+63	379+77	46		814				1																		3		1
217-221	177U	MLt	317+35	342+75	81		2540				1								1										5		
238-239	178U	Rt	424+00	429+14	18		514				1								1										1		
237	179U	℄	415+50	419+50	10				390			1									4										
–	–	180U to 199U Not Used																													
											34	13	5	2	23	4	8	1	5	2	8	1	2	–	23	–	3	10	53	2	4
TOTALS CARRIED TO GENERAL SUMMARYS					128.7	4618.7	29059.3	199	3199	19																					

NOTE: For General Summarys, See Sheets 167-169.
"MRt" Denotes UD Location in the Median on the Right Side
"MLt" Denotes UD Location in the Median on the Left Side.



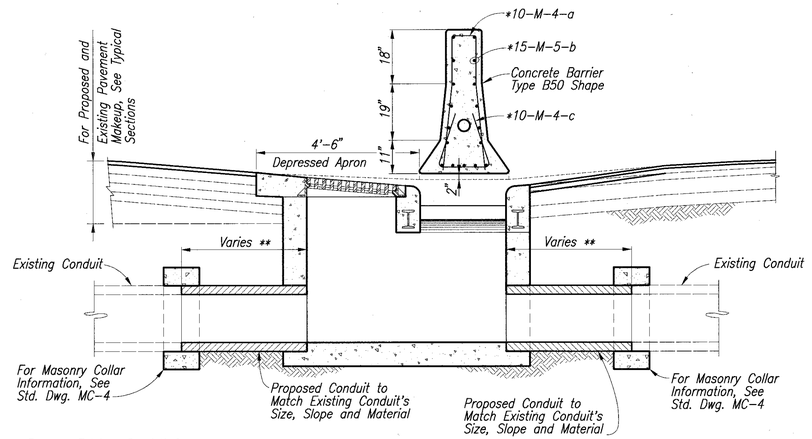
** Remove Existing Conduit from the Proposed Inlet to the Nearest Joint or as Directed by the Engineer.

SECTION VIEW

ITEM 604 - INLET NO. 3A

TYPICAL CONDUIT CONNECTION

0 2 4



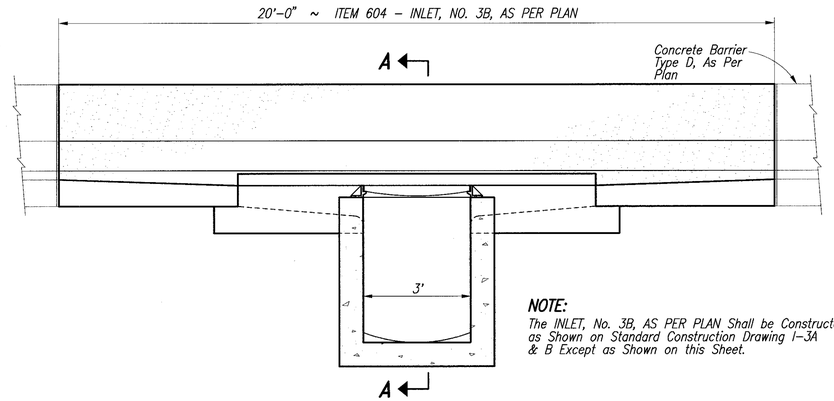
** Remove Existing Conduit from the Proposed Inlet to the Nearest Joint or as Directed by the Engineer.

SECTION VIEW

ITEM 604 - INLET, NO. 3B50

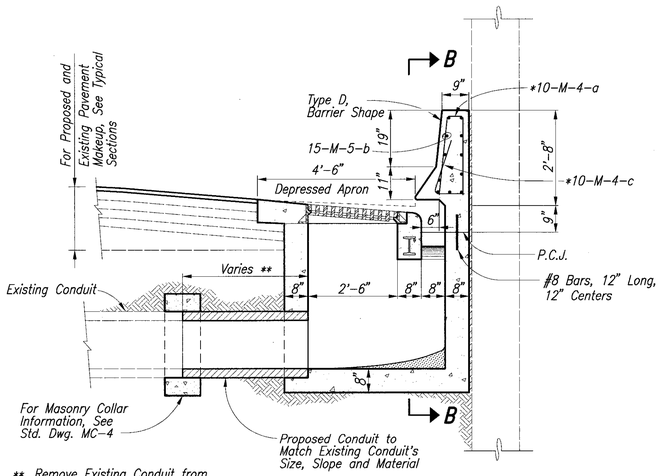
TYPICAL CONDUIT CONNECTION

0 2 4



NOTE:
The INLET, No. 3B, AS PER PLAN Shall be Constructed as Shown on Standard Construction Drawing I-3A & B Except as Shown on this Sheet.

SECTION B-B



** Remove Existing Conduit from the Proposed Inlet to the Nearest Joint or as Directed by the Engineer.

SEATION A-A

ITEM 604 - INLET, NO. 3B, AS PER PLAN

0 2 4

NOTES

1) For Concrete Barrier Types and Inlet Locations, See Plan Sheets.
2) For Underdrain Locations and Inverts, See Plan Sheets.
3) For Further Inlet Information, See Standard Drawing I-3A & B. See Plan Sheets and Pipe Profiles for Locations, Pipe Lenghts, and Inverts.

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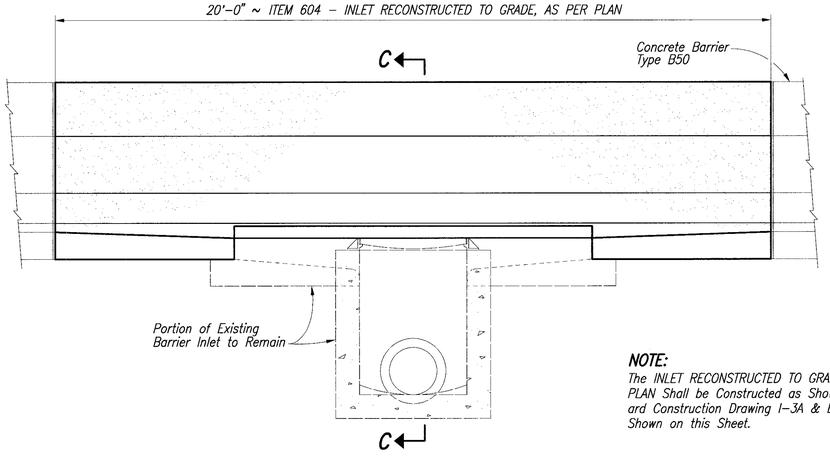
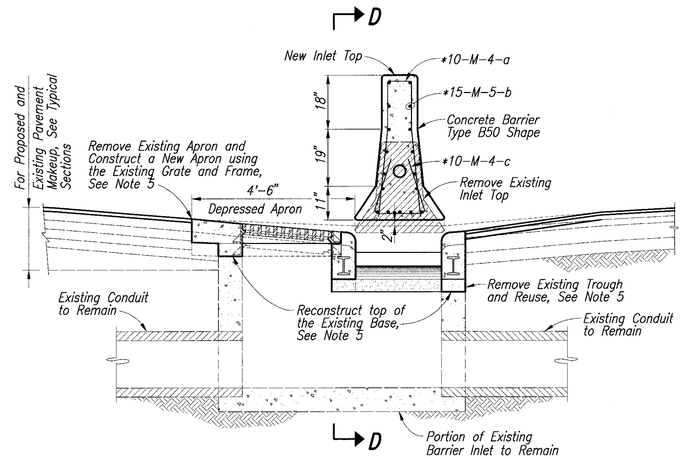


SECTION D-D

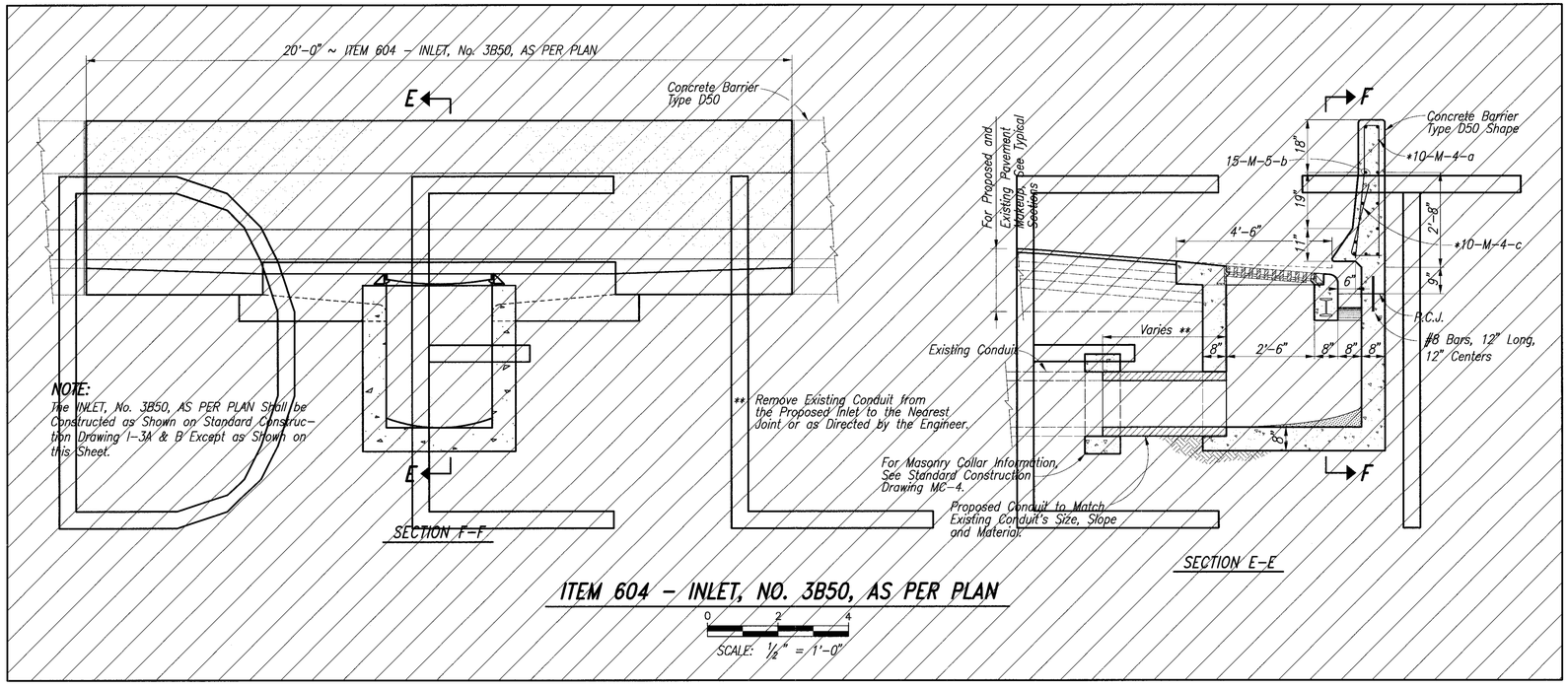
NOTE:
The INLET RECONSTRUCTED TO GRADE, AS PER PLAN Shall be Constructed as Shown on Standard Construction Drawing I-3A & B Except as Shown on this Sheet.



SECTION C-C

ITEM 604 - INLET RECONSTRUCTED TO GRADE, AS PER PLAN

0 2 4
SCALE: ½" = 1'-0"

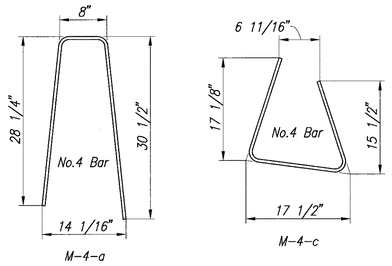


ITEM 604 - INLET, NO. 3B50, AS PER PLAN

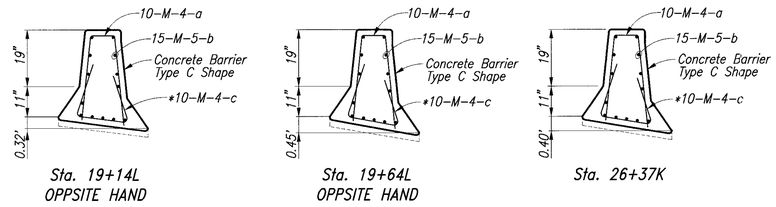
0 2 4
SCALE: ½" = 1'-0"

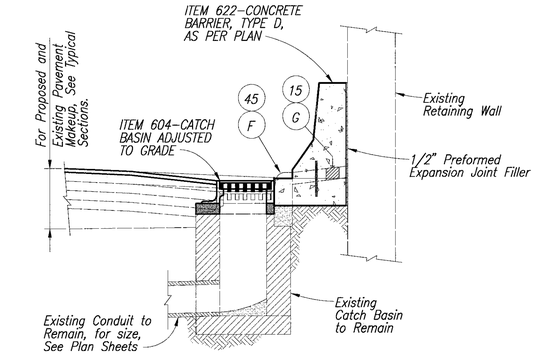
NOTES

1) For Concrete Barrier Type and Inlet Locations, See Plan Sheets.
2) For Underdrain Locations and Inverts, See Plan Sheets.
3) For Further Inlet Information, See Standard Drawing I-3A & B. See Plan Sheets and Pipe Profiles for Locations, Pipe Lenghts, and Inverts.
4) The Reuse of Existing Inlet Components Shall be Determined by the Engineer.



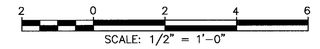
BAR BENDS
NOT TO SCALE

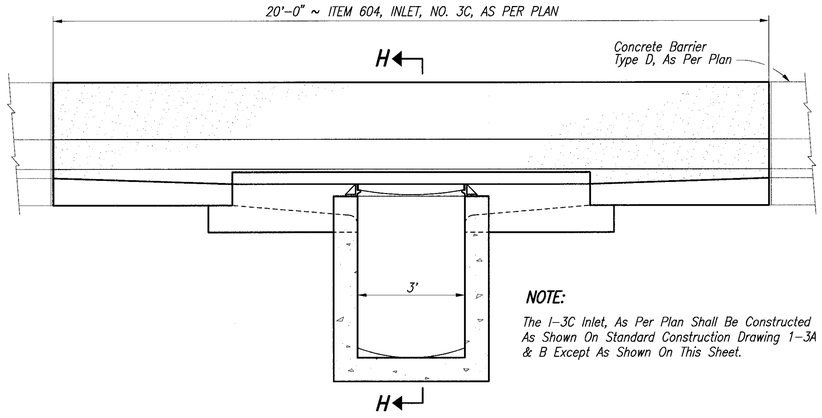




ITEM 604 - CATCH BASIN ADJUSTED TO GRADE

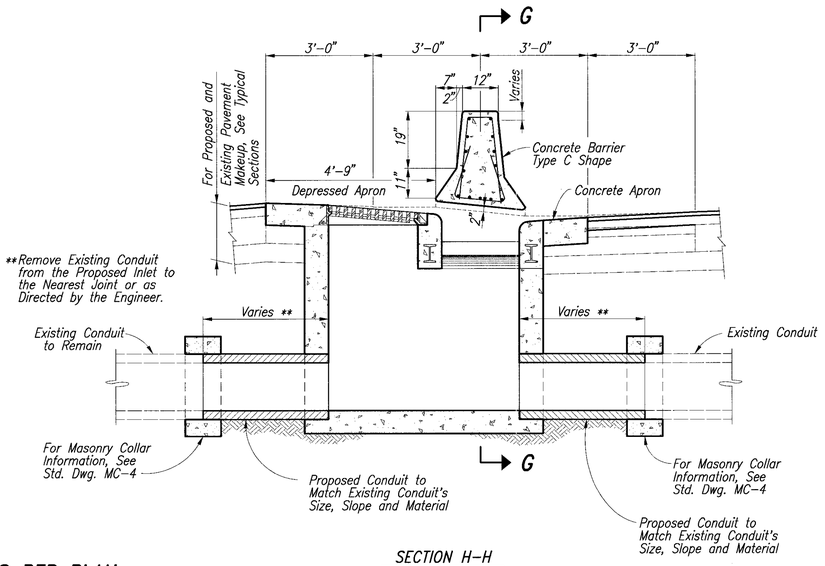
AT THE FACE OF RETAINING WALLS WITH CONCRETE BARRIER





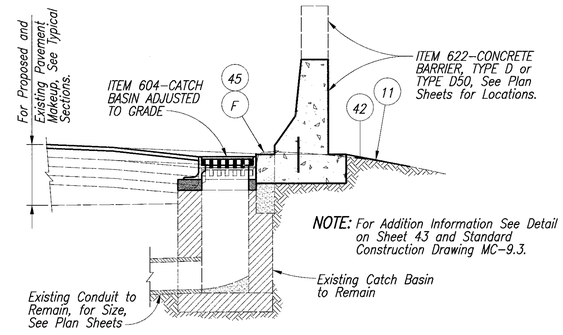
NOTE:
The I-3C Inlet, As Per Plan Shall Be Constructed As Shown On Standard Construction Drawing 1-3A & B Except As Shown On This Sheet.

SECTION G-G



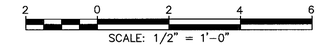
SECTION H-H

ITEM 604 - INLET, NO. 3C, AS PER PLAN



ITEM 604 - CATCH BASIN ADJUSTED TO GRADE

WITH CONCRETE BARRIER (SEE PLAN SHEETS FOR TYPE OF BARRIER)



NOTES

1) For Legend, See Sheet 6.
2) For Concrete Barrier Type and Inlet Locations, See Plan Sheets.
3) For Underdrain Locations and Inverts, See Plan Sheets.
4) For Further Inlet Information, See Standard Drawing I-3A & B. See Plan Sheets and Pipe Profiles for Locations, Pipe Lenghts, and Inverts.

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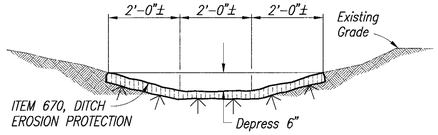
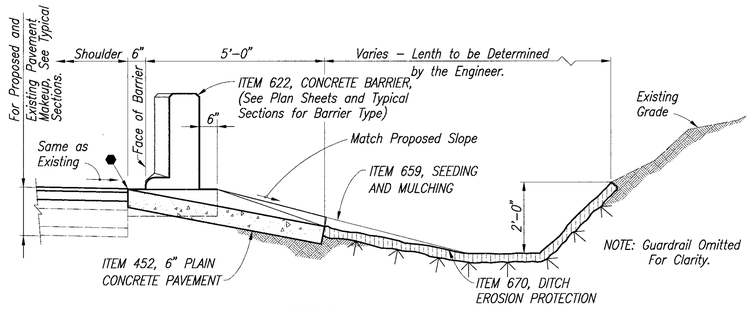


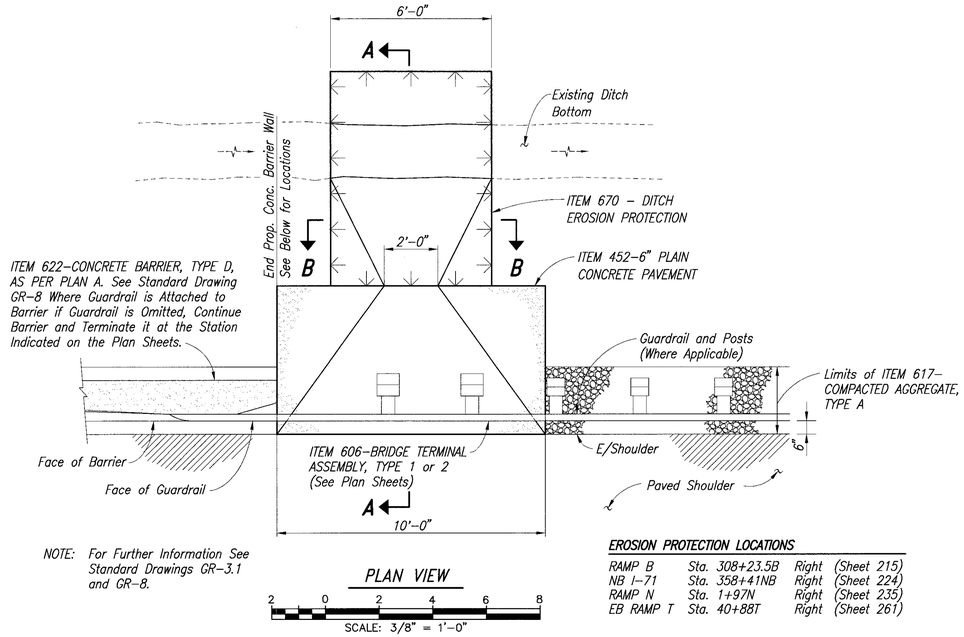
SECTION B-B

SCALE: 1/2" = 1'-0"



SECTION A-A

SCALE: 1/2" = 1'-0"



NOTE: For Further Information See Standard Drawings GR-3.1 and GR-8.

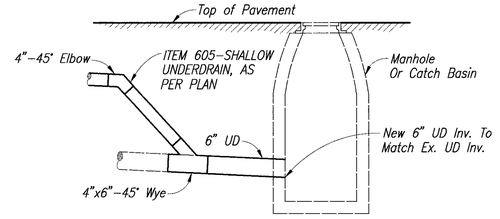
PLAN VIEW

SCALE: 3/8" = 1'-0"

EROSION PROTECTION LOCATIONS

RAMP B	Sta. 308+23.5B	Right	(Sheet 215)
NB I-71	Sta. 358+41NB	Right	(Sheet 224)
RAMP N	Sta. 1+97N	Right	(Sheet 235)
EB RAMP T	Sta. 40+88T	Right	(Sheet 261)

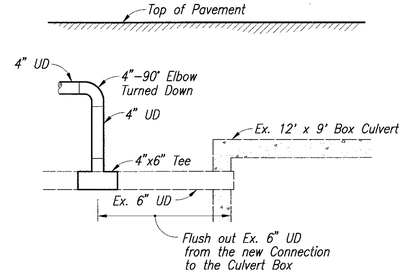
EROSION PROTECTION DETAIL



UNDERDRAIN CONNECTION AT AN EXISTING MANHOLE or CATCH BASIN

(4" Pipe Underdrain System Shown For Clarity)

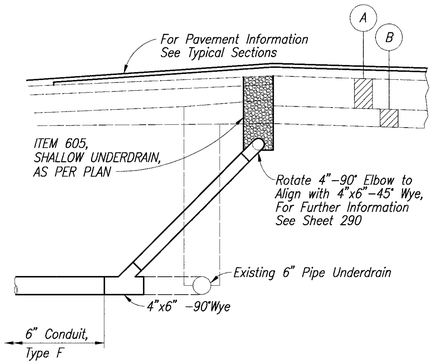
NOT TO SCALE



UNDERDRAIN CONNECTION AT THE EXISTING 12' x 9' BOX CULVERT (RAMP R)

(4" Pipe Underdrain System Shown For Clarity)

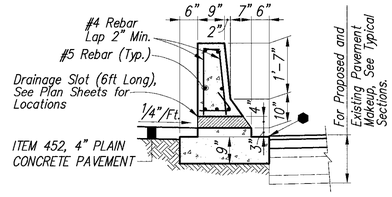
NOT TO SCALE



UNDERDRAIN DETAIL @ A 90° ELBOW

(4" Pipe Underdrain System Shown For Clarity)

NOT TO SCALE



CONCRETE BARRIER WITH DRAINAGE SLOT DETAIL

LOCATION AT RAMP TH IN TYPE D, CONCRETE BARRIER.
SEE PLAN SHEET 175

NOTES

1) For Additional Information Pertaining to Concrete Barriers, see Standard Drawings GR-8 and MC-9 .

2) Drainage Slots Shall be Provided at the Locations Shown on the Plan Sheets for the Concrete Barrier Located Within the Following Limits:

   Sta. 232+91TH to 233+69TH Ramp TH, See Sheet 175.

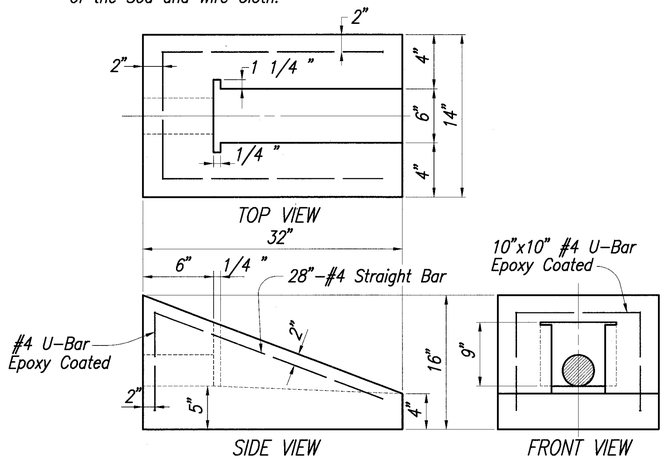
3) All Reinforced Steel Shall be Epoxy Coated, Grade 60, and Paid for Under the Type of Barrier it is Being used in. All Rebars Shall have a Minimum Of 2" Clearance. For Further Information See Standard Drawings MC-9 and I-3A .

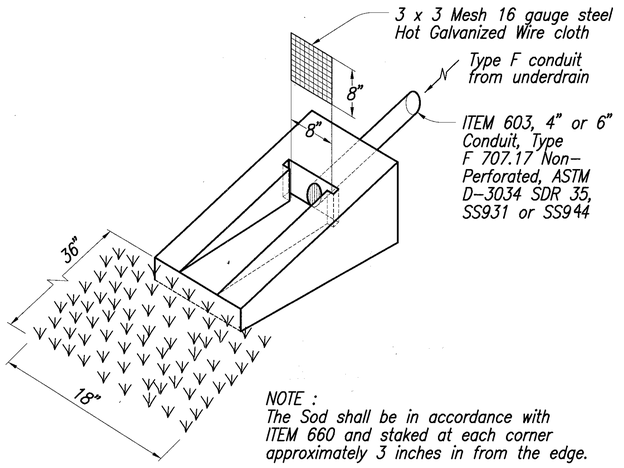
SYMBOL LEGEND

● Denotes that the top of the Proposed Barrier Foundation is 1/4" Lower than the Asphalt Overlay. See Concrete Barrier Details for Further Information.

ITEM SPECIAL - PRECAST REINFORCED CONCRETE OUTLET

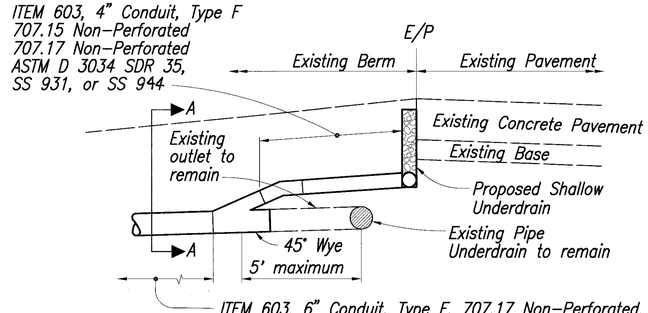
The concrete outlet shall meet the requirements of ITEM 604 in the Construction & Materials Specifications. Payment shall be made on an Each basis. Payment shall include the cost of the Sod and Wire Cloth.

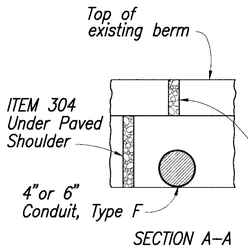




NOTE :
The Sod shall be in accordance with ITEM 660 and staked at each corner approximately 3 inches in from the edge.

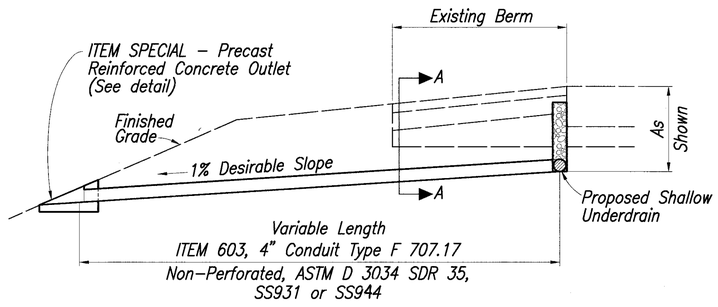
OUTLET DETAILS





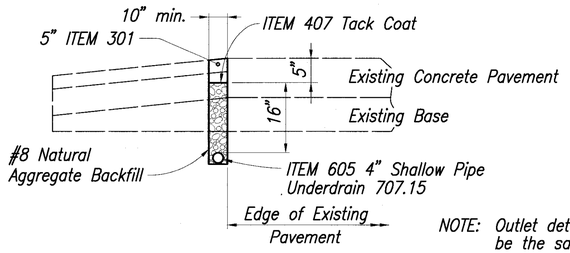
SECTION A-A

NOTE: The cost of the 4" Conduit, Type F and necessary pipe bends and branches needed to connect the existing and proposed underdrains shall be included with the cost of the 6" conduit Type F beyond the existing underdrain.



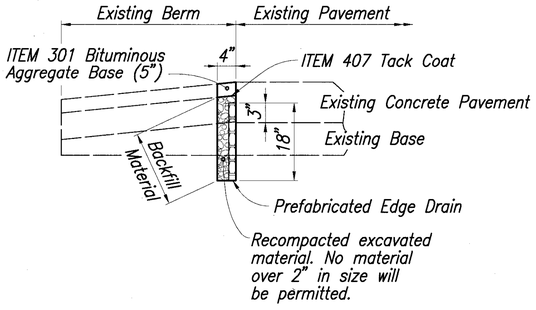
NOTE: For underdrain outlets into catch basins, the above Type F Conduit shall be used entirely between the underdrain and catch basin.

PIPE UNDERDRAIN SYSTEM



NOTE: Outlet details to be the same as shown above.

PREFABRICATED EDGE DRAIN SYSTEM



DESCRIPTION: This item shall consist of furnishing and installing a pipe underdrain system or prefabricated edge drain system in accordance with the specifications, details as shown on the plans, and as directed by the Engineer.

MATERIALS: The underdrain shall be a pipe underdrain system per ITEM 605 or a prefabricated edge drain system meeting the following requirements. The prefabricated edge drain shall consist of a polymeric core with a minimum thickness of one inch wrapped in fabric meeting 712.09 Type A. The drain shall be flexible, rectangular in shape and of hollow construction. The core material shall be resistant to petroleum based chemicals, natural occuring soil chemicals, and road de-icing agents.

The core shall provide a minimum of 100 square inches unobstructed (one side only) drainage area per foot of width. Side walls of the core shall provide at least 5% open area to permit unobstructed flow through the filter and wall to the core.

The prefabricated edge drain shall have a minimum compressive strength of 6000 pounds per square foot with a maximum 20% compression in a parallel plate compression test (ASTM-D 695). The minimum (single side) core flow capacity shall be 10 gallons per minute per foot of width for a 0.1 gradient at 10 pounds per square inch bladder load per ASTM D 4716.

CONSTRUCTION: The prefabricated edge drain shall be installed in a trench as shown on the plans and in accordance with the manufacturer's recommendations. The contractor has the optiion to backfill the trench with the excavated material or No. 8 natural aggregate. If the excavated material is used for the backfill it shall be placed in three (3) lifts minimum with each lift of uncompacted material not exceeding 8" in thickness. Each lift shall be compacted to 95% of the maximum dry weight density as determined by AASHTO T99. If No. 8 natural aggregate is used it shall be placed in one (1) or more lifts with a vibratory compactor run over the final lift to consolidate the aggregate prior to placing the asphalt plug. The first layer of the backfill material shall be placed simultaneously with the trenching operation to hold the edge drain flush aganist the trench wall.

The prefabricated edge drain shall be spliced as required prior to placement in the trench, using material furnished by the manufacturer and in accordance with the manufacturer's directions. All material required for the splices will be supplied by the manufacturer, but any equipment required shall be furnished by the Contractor. Splices shall prevent seperation of adjoining sections of the prefabricated edge drain panels.

The underdrain outlets shall be placed in accordance with ITEM 603 using outlet fittings. The manufacturer shall supply outlet fittings which will make the transition between the prefabricated edge drain and the outlet pipe.

The outlets for the underdrain system shall be constructed as soon as possible after placement of the underdrain. The underdrain and outlets on crack & seat projects shall be in place and functional prior to cracking and seating the existing pavement.

METHOD OF MEASUREMENT: Completed and accepted underdrains will be measured by the linear foot in place.

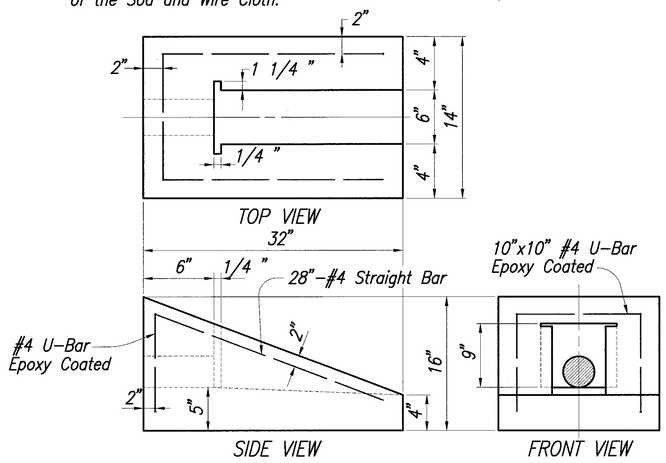
BASIS OF PAYMENT: Work completed and accepted under this item and measured will be paid for at the contract unit price bid per liear foot for ITEM 605-SHALLOW UNDERDRAIN, AS PER PLAN. Which price shall be full compensation for excavation and backfill; removing and disposing all surplus excavation in accordance with ITEM 203; for furnishing materials, including material for splices; outlet fittings and ITEM 301; for all labor, tools, equipment, and incidentals necessary to complete the work.

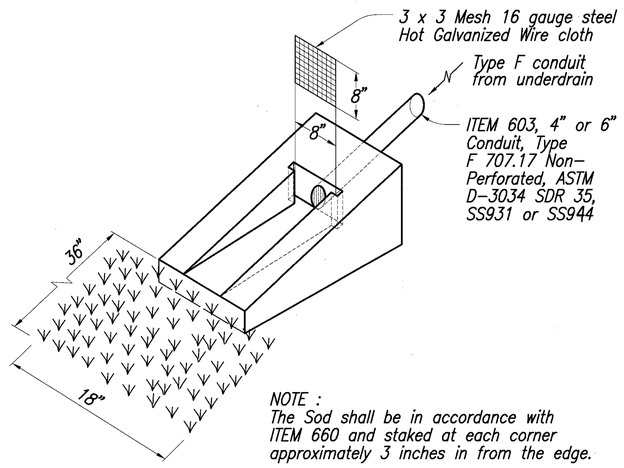
ITEM 605 - SHALLOW UNDERDRAIN, AS PER PLAN

DATE 2-5-93

ITEM SPECIAL – PRECAST REINFORCED CONCRETE OUTLET

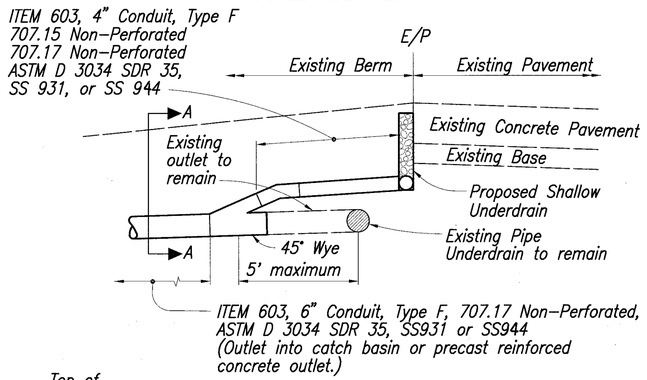
The concrete outlet shall meet the requirements of ITEM 604 in the Construction & Materials Specifications. Payment shall be made on an Each basis. Payment shall include the cost of the Sod and Wire Cloth.

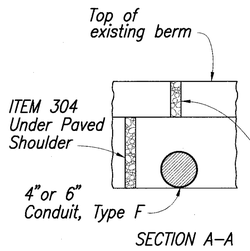




NOTE :
The Sod shall be in accordance with ITEM 660 and staked at each corner approximately 3 inches in from the edge.

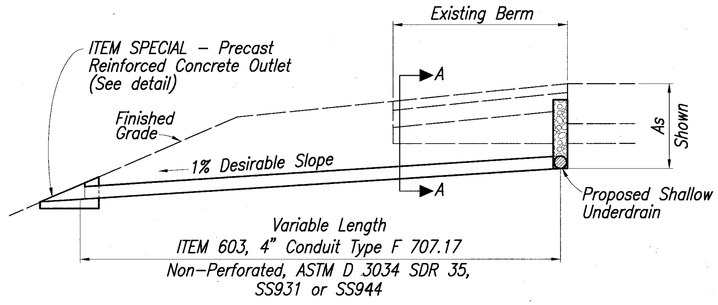
OUTLET DETAILS





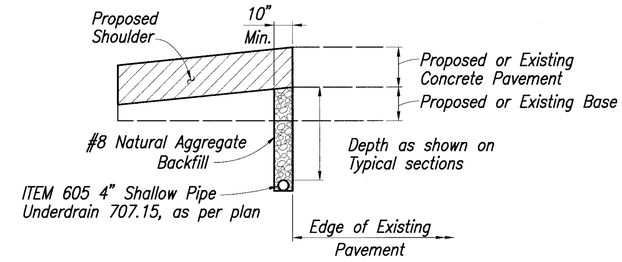
NOTE: The cost of the 4" Conduit, Type F and necessary pipe bends and branches needed to connect the existing and proposed underdrains shall be included with the cost of the 6" conduit Type F beyond the existing underdrain.

Match existing shoulder buildup



NOTE: For underdrain outlets into catch basins, the above Type F Conduit shall be used entirely between the underdrain and catch basin.

PIPE UNDERDRAIN DETAIL



DESCRIPTION: This item shall consist of furnishing and installing a pipe underdrain system in accordance with the specifications, details as shown on the plans, and as directed by the Engineer.

MATERIALS: The underdrain shall be a pipe underdrain system per Item 605 The outlets for the underdrain system shall be constructed as soon as possible after placement of the underdrain to drain the subbase and subgrade. All pipe bends and branches needed to connect the proposed underdrain to the proposed outlet or to an existing underdrain shall be manufactured fittings.

METHOD OF MEASUREMENT: Completed and accepted underdrains will be measured by the linear foot in place.

BASIS OF PAYMENT: Work completed and accepted under this item and measured will be paid for at the contract unit price bid per linear foot for ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN. The price shall be full compensation for excavation and backfill; for furnishing materials, including material for outlet fittings, for all labor, tools, equipment, and incidentals necessary to complete the work.

ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN

DATE 2–5–93

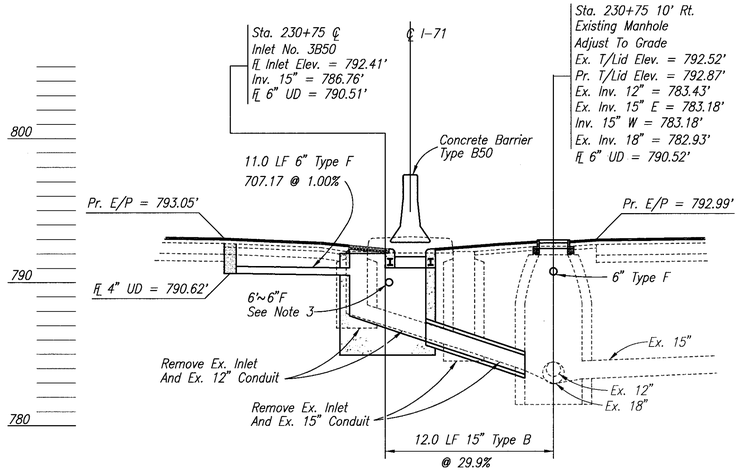
CALC. BY LLP DATE 10-7-98
CHKD. BY PWP DATE 1-18-98

HAM-71-2.92

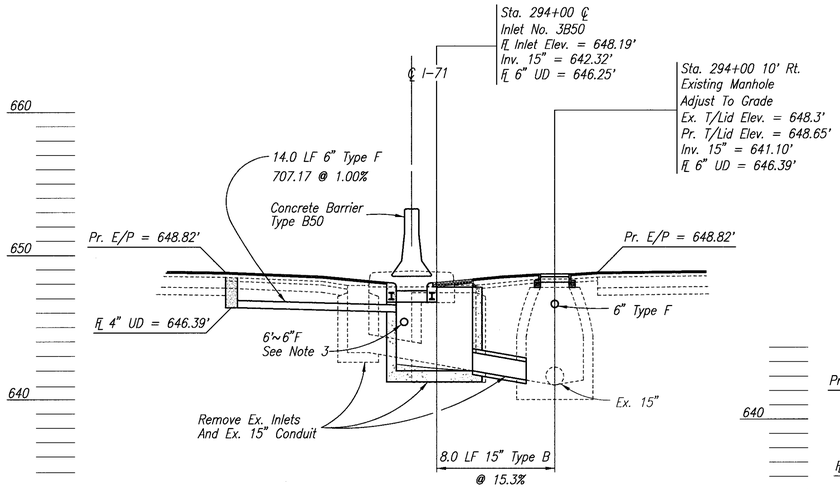
OHIO
FHWA REGION 5

292
615

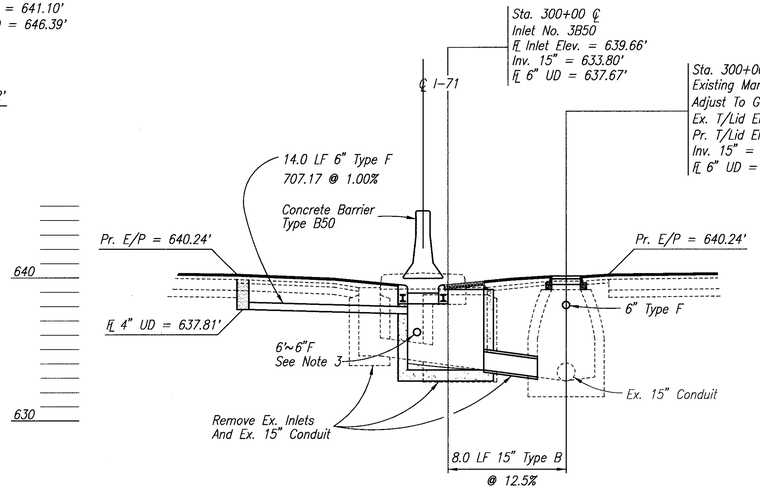
HORIZONTAL and VERTICAL
10 5 0 5 15
SCALE: 1" = 5'-0"



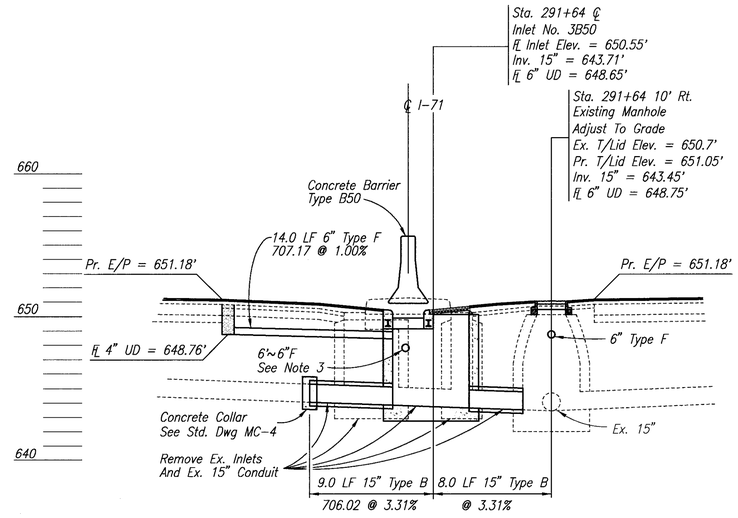
31D STA. 230+75 INTERSTATE 71



504D STA. 294+00 INTERSTATE 71



508D STA. 300+00 INTERSTATE 71



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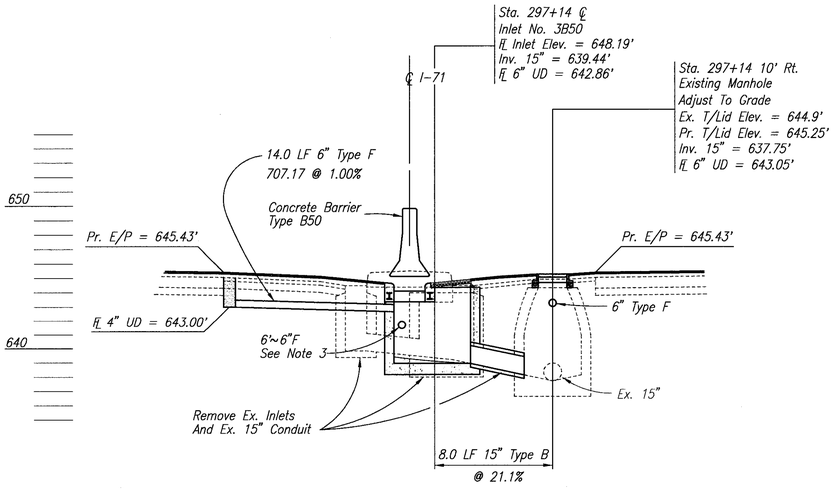
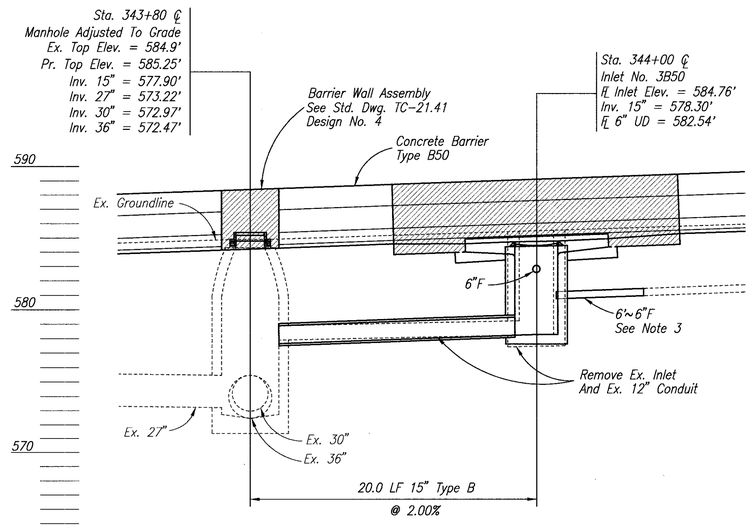


506D STA. 297+14 INTERSTATE 71



552D STA. 343+80 to STA. 344+00 INTERSTATE 71

NOTE

1) Elevations Shown are based on the Profile Grade Elevations of the Original Construction Drawings.
2) For Pipe Profile Locations, See Plan Sheets.
3) The "6'~6"F" Shown on the Profiles is to be Used to Connect the Existing 6" Pipe Underdrain, in the Median, to the New Inlets. The Proposed "6'~6"F" Pipe Shall Match the Slope of the Existing 6" Pipe Underdrain.

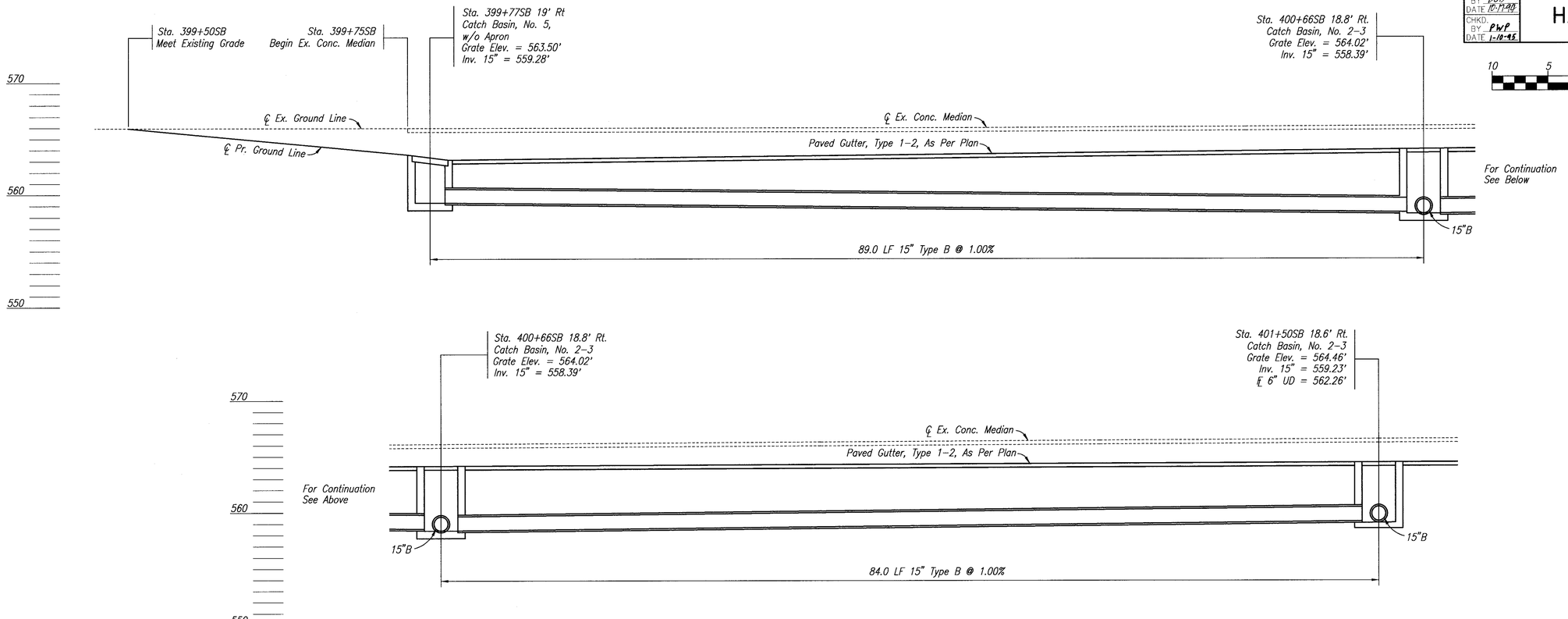
CALC. BY RLD DATE 10-19-95
CHKD. BY PWP DATE 1-10-96

HAM-71-2.92

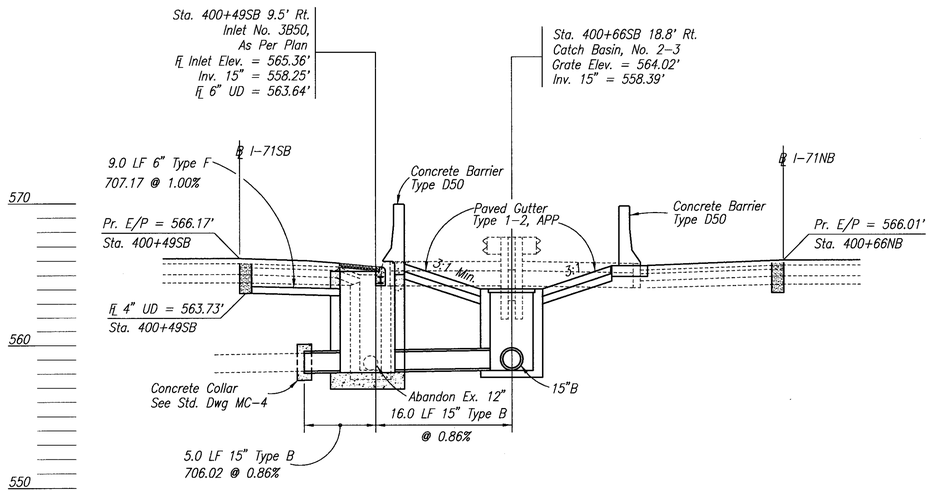
OHIO
FHWA REGION 5

293
615

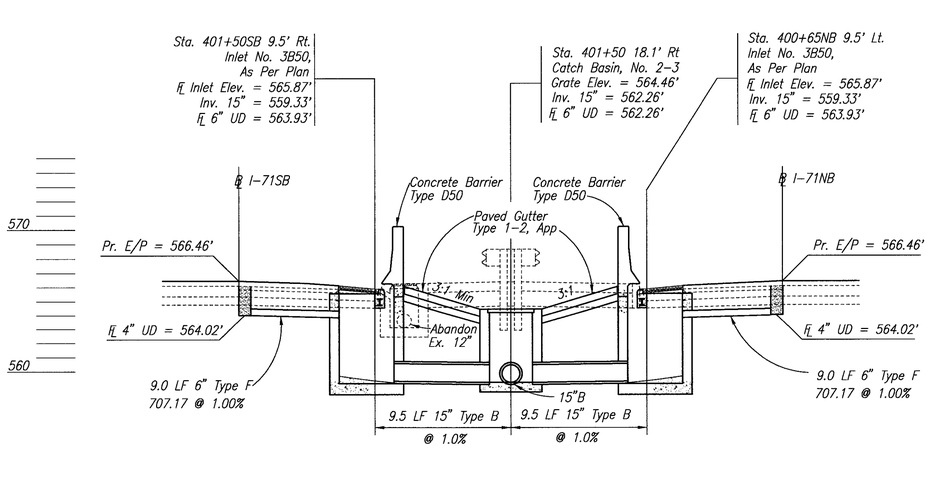
HORIZONTAL and VERTICAL
10 5 0 5 15
SCALE: 1" = 5'-0"



620D 622D 623D Sta. 399+77SB to Sta. 401+50SB INTERSTATE 71



621D 622D Sta. 400+66SB INTERSTATE 71



624D 623D 687D Sta. 401+50SB INTERSTATE 71

NOTE

1) Elevations Shown are based on the Profile Grade Elevations of the Original Construction Drawings.
2) For Pipe Profile Locations, See Plan Sheets.
3) The "6'~6"F" Shown on the Profiles is to be Used to Connect the Existing 6" Pipe Underdrain, in the Median, to the New Inlets. The Proposed "6'~6"F" Pipe Shall Match the Slope of the Existing 6" Pipe Underdrain.

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CALC BY DJD DATE 10-11-95
CHKD BY PWP DATE 1-12-96

HAM-71-2.92

OHIO FHWA REGION 5

294 / 615

HORIZONTAL and VERTICAL
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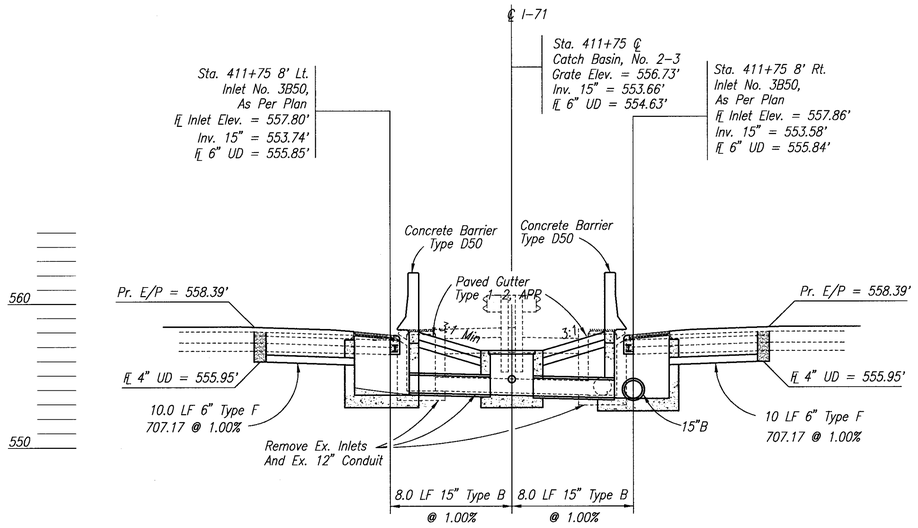
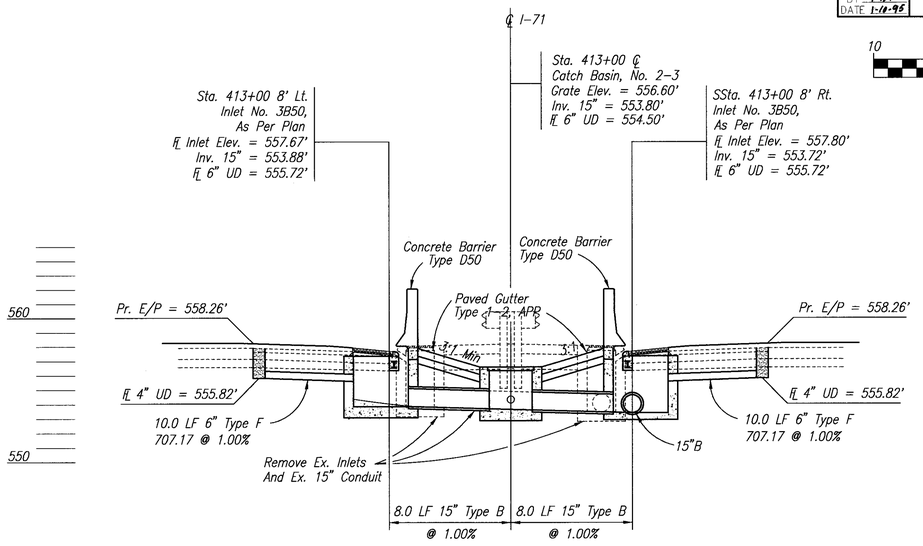
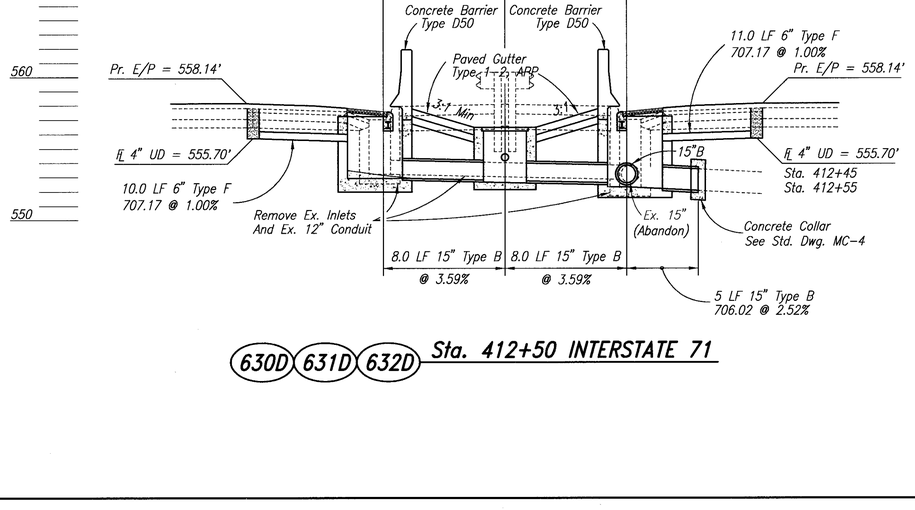
SCALE: 1" = 5'-0"



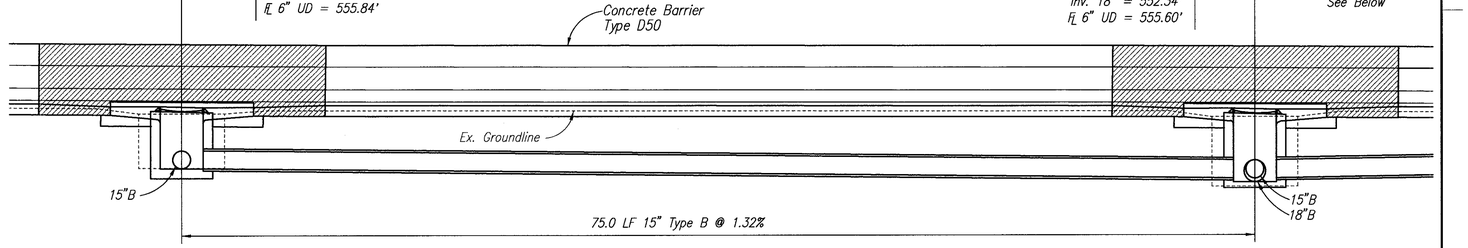
627D 628D 629D **Sta. 411+75 INTERSTATE 71**

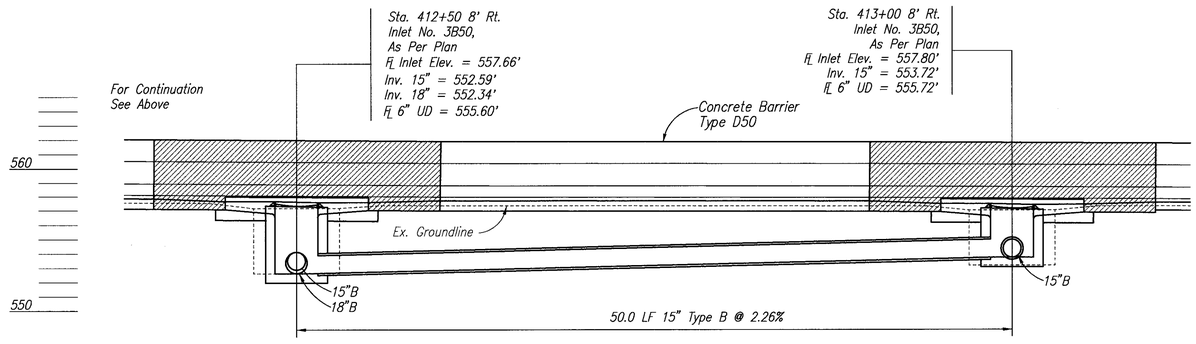


633D 634D 635D **Sta. 413+00 INTERSTATE 71**



630D 631D 632D **Sta. 412+50 INTERSTATE 71**





638D 631D 634D **Sta. 411+75 to Sta. 413+00 INTERSTATE 71**

NOTE

1) Elevations Shown are based on the Profile Grade Elevations of the Original Construction Drawings.
2) For Pipe Profile Locations, See Plan Sheets.

DRAINAGE PROFILES

G:\TRANS\18007\DRAINAGE\DRPROF3.DWG - JAN 25, 1995 - 15:19:35

HORIZONTAL and VERTICAL
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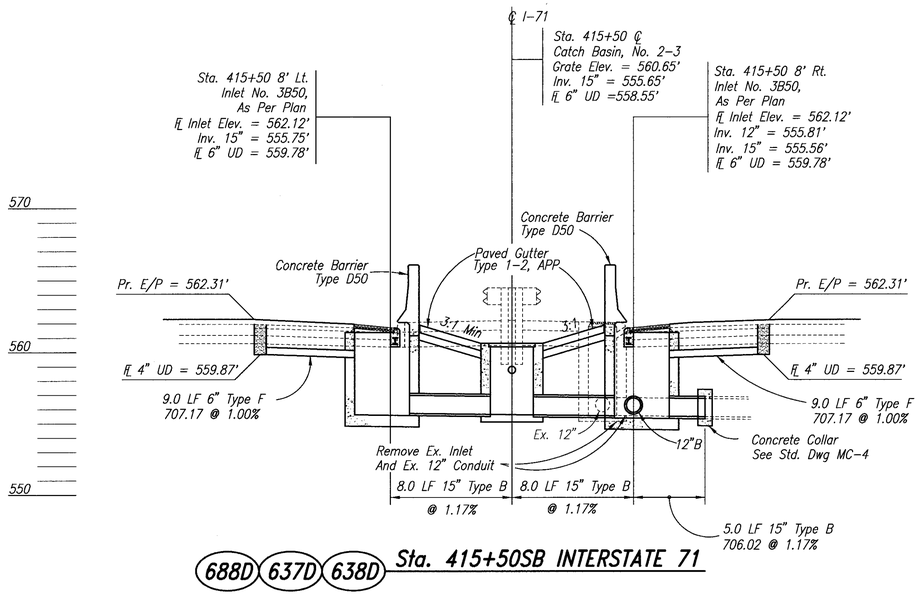
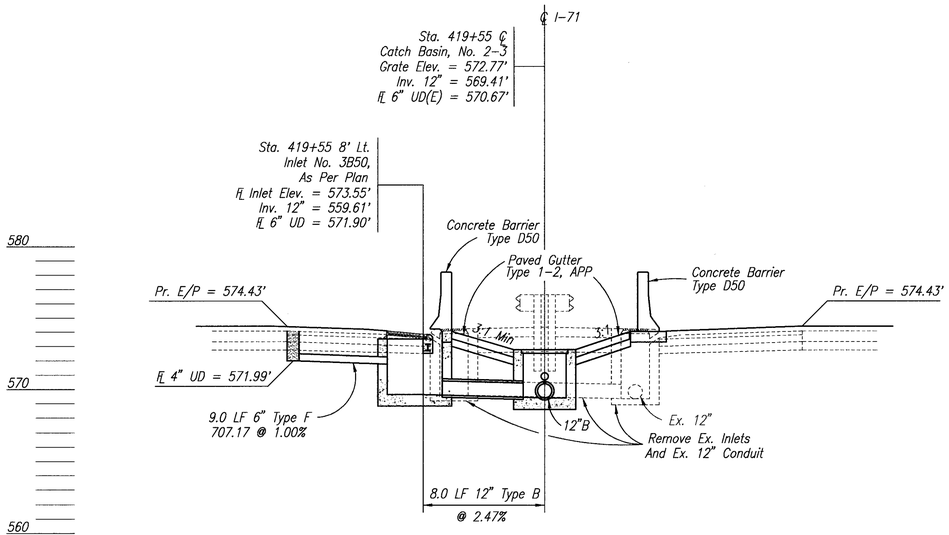
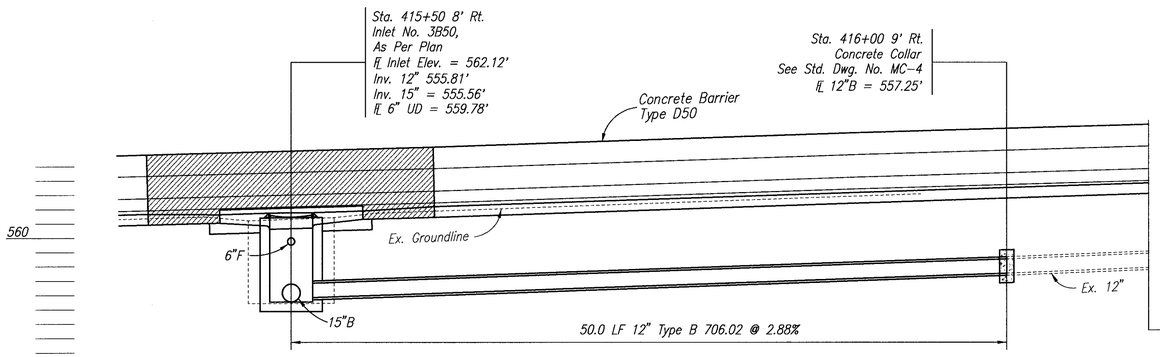
SCALE: 1" = 5'-0"



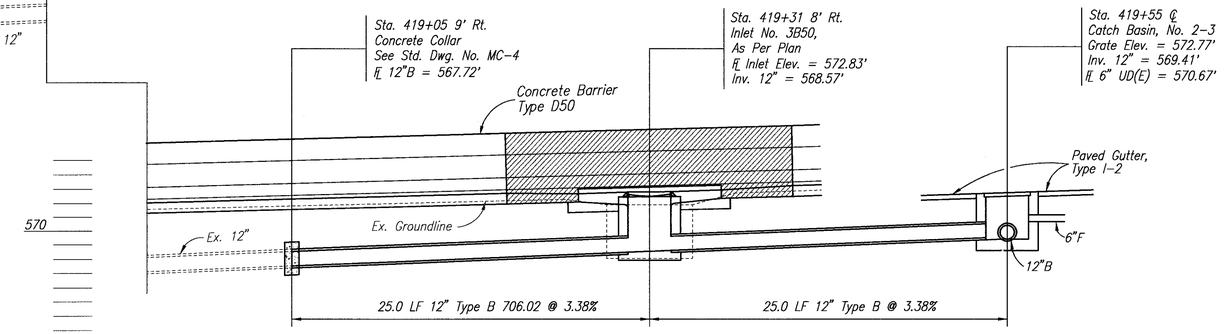
688D 637D 638D **Sta. 415+50SB INTERSTATE 71**



642D 643D **Sta. 419+55 INTERSTATE 71**



638D **Sta. 415+50 to Sta. 416+00 INTERSTATE 71**



639D 643D **Sta. 419+31 to Sta. 419+55 INTERSTATE 71**

NOTE

1) Elevations Shown are based on the Profile Grade Elevations of the Original Construction Drawings.
2) For Pipe Profile Locations, See Plan Sheets.

G:\TRANS\18007\DRAINAGE\DRPROF4.DWG - JAN 25, 1995 - 15:25:30

CALC. BY RP DATE 10-7-94
CHKD. BY PVP DATE 1-19-95

HAM-71-2.92

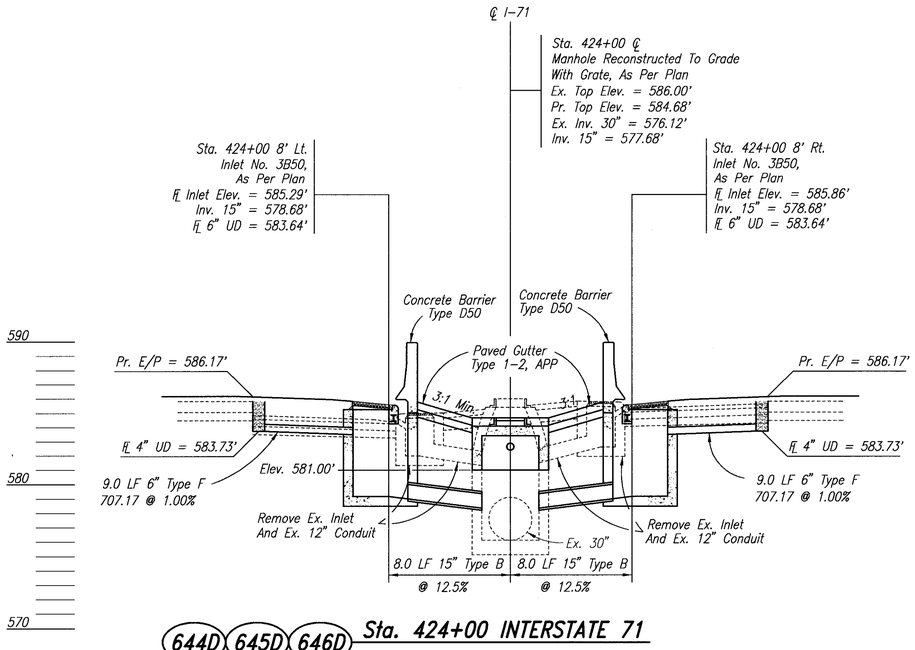
OHIO FHWA REGION 5

296 / 615

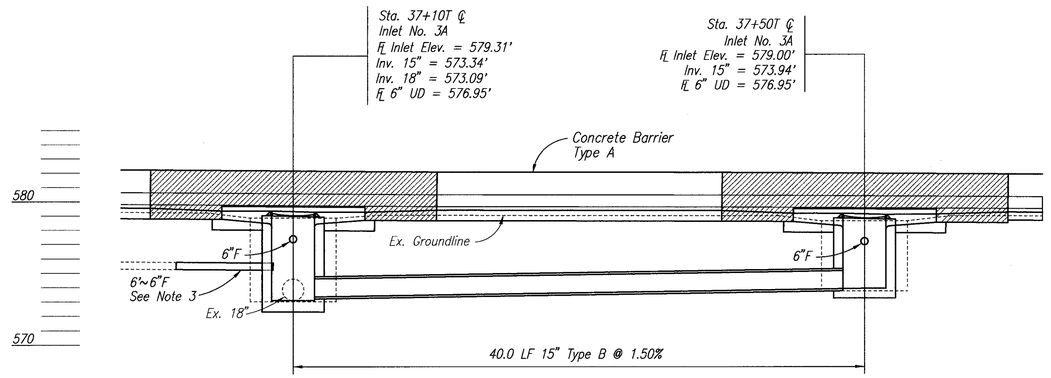
HORIZONTAL and VERTICAL

10 5 0 5 15

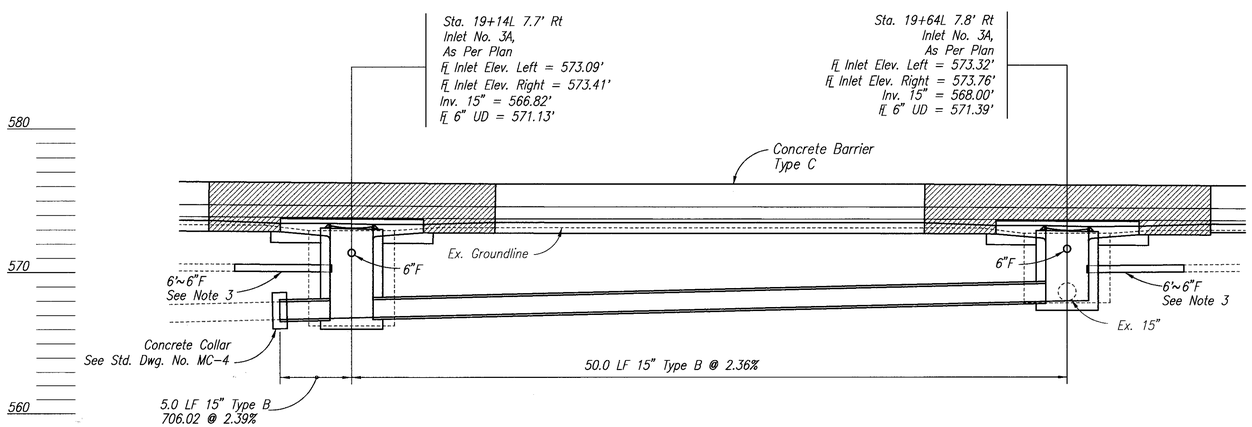
SCALE: 1" = 5'-0"



644D 645D 646D **Sta. 424+00 INTERSTATE 71**



669D 670D **Sta. 37+10T to Sta. 37+50T RAMP T**



660D 661D **Sta. 19+14L to Sta. 19+64L RAMP L**

NOTE

1) Elevations Shown are based on the Profile Grade Elevations of the Original Construction Drawings.
2) For Pipe Profile Locations, See Plan Sheets.
3) The "6~6"F" Shown on the Profiles is to be Used to Connect the Existing 6" Pipe Underdrain, in the Median, to the New Inlets. The Proposed "6~6"F" Pipe Shall Match the Slope of the Existing 6" Pipe Underdrain.

CALC. BY DLP DATE 10/1/94
CHKD. BY PWP DATE 1-25-95

HAM-71-2.92

OHIO FHWA REGION 5

297 / 615

PIPE DATA TABLE			
POINT No.	STATION/OFFSET	INVERT	PIPE RUNS
1	321+37.5 12.67' Rt.	699.97'	
2	321+37.5 18.56' Rt.	700.16'	
3	321+37.5 42.6' Rt.	709.62'	
4	321+00 65.5' Rt.	710.43'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
5	321+25 65.5' Rt.	710.04'	Item 603, 12.5 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
6	321+37.5 65.5' Rt.	709.73'	
7	321+75 65.5' Rt.	710.50'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
8	321+50 65.5' Rt.	710.07'	Item 603, 12.5 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
9	321+37.5 63.5' Rt.	709.72'	
10	321+00 89.9' Rt.	726.70'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
11	321+25 89.9' Rt.	726.57'	Item 603, 12.5 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
12	321+37.5 89.9' Rt.	726.50'	Item 603, 12.5 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
13	321+50 89.9' Rt.	726.57'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
14	321+75 89.9' Rt.	727.00'	
15	321+37.5 82.0' Rt.	726.46'	

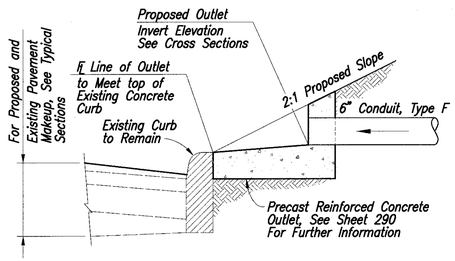
For Pipe Profile of Runs 1-2-3-9-6-15-12, See Shaeet 298.
BENCHMARK Set on Right Edge of Pavement at Stamp: Station 329+00 Elevation: 704.84

SLIDE AREA "A" STA. 320+75 to STA. 322+00 (Right)

203 - Excavation Not Including Embankment Construction = 2338 Cu. Yd.
203 - Embankment = 2354 Cu. Yd.
203 - Embankment With No. 8 Aggregate = 228 Cu. Yd.
659 - Seeding And Mulching = 1123 Sq. Yd.
659 - Water
1123 Sy x 9 Sf/Sy x 120 Gal/1000 Sf x 1 M Gal/1000 Gal
= 1.21 M. Gal.
659 - Commercial Fertilizer
1123 Sy x 9 Sf/Sy x 20 Lb/1000 Sf x 1 Ton/2000 Lb
= 0.10 Ton

SLIDE AREA "B" STA. 331+50 to STA. 333+50 (Right)

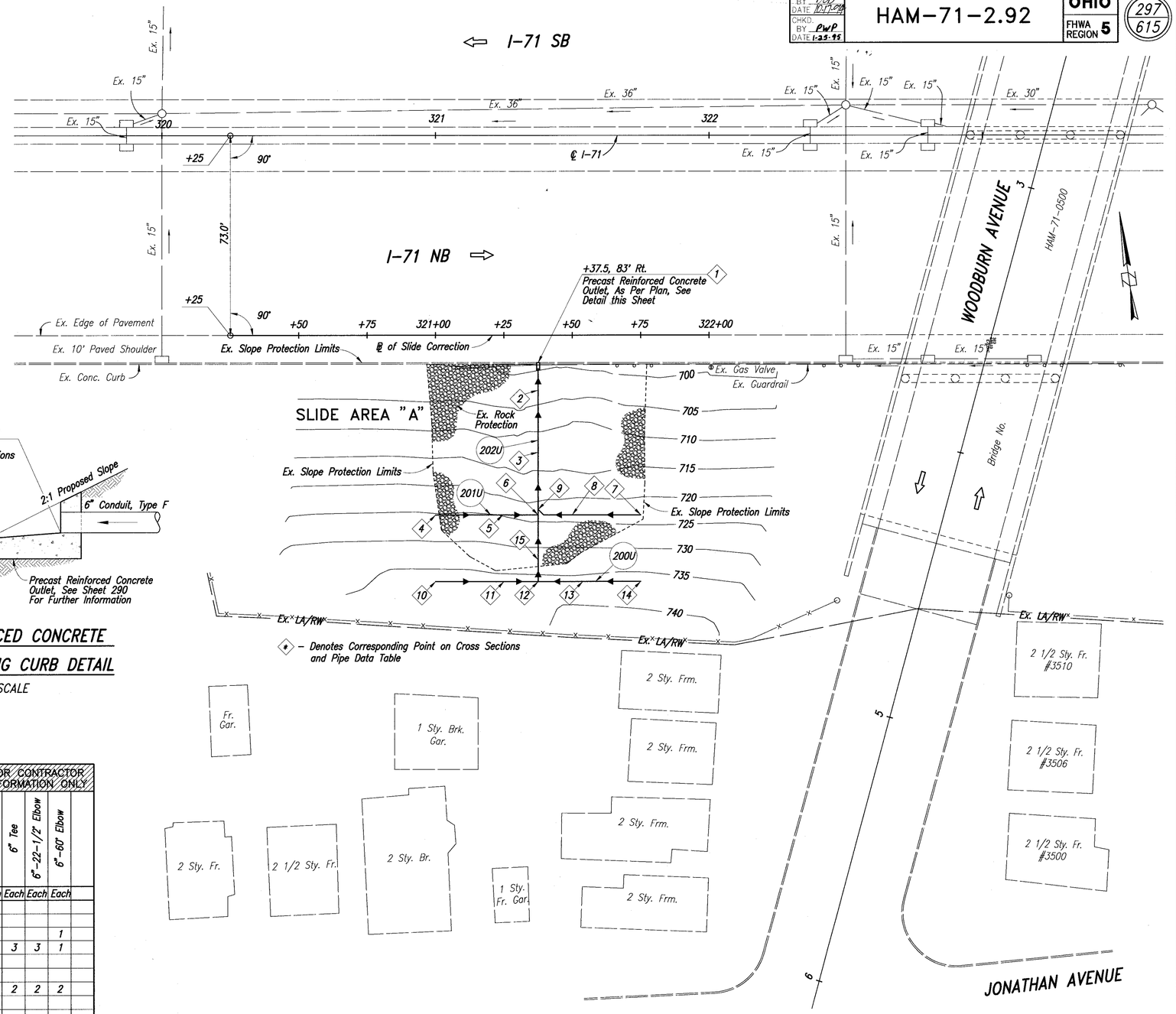
203 - Excavation Not Including Embankment Construction = 3538 Cu. Yd.
203 - Embankment = 3422 Cu. Yd.
203 - Embankment With No. 8 Aggregate = 396 Cu. Yd.
659 - Seeding And Mulching = 1655 Sq. Yd.
659 - Water
1655 Sy x 9 Sf/Sy x 120 Gal/1000 Sf x 1 M Gal/1000 Gal
= 1.79 M. Gal.
659 - Commercial Fertilizer
1655 Sy x 9 Sf/Sy x 20 Lb/1000 Sf x 1 Ton/2000 Lb
= 0.15 Ton



PRECAST REINFORCED CONCRETE OUTLET @ EXISTING CURB DETAIL

NOT TO SCALE

SHT. No.	REF. No.	SIDE	STATION	STATION	203 Excavation Not Including Embankment Construction	203 Embankment	203 Embankment with No. 8 Aggregate	603 6" Conduit Type F 707.17 Non-Perforated ASTM 3034 SDR 35 or Supl. Spec. 931 cr 944	605 6" Unclassified Pipe Underdrain, As Per Plan, 707.15	659 Seeding and Mulching	659 Commercial Fertilizer	659 Water	Special Precast Reinforced Concrete Outlet,	FOR CONTRACTOR INFORMATION ONLY 6" Cap	6" Tee	6"-22-1/2" Elbow	6"-60" Elbow	
					Cu Yd	Cu Yd	Cu Yd	Lin Ft	Lin Ft	Sq Yd	Ton	M.Gal	Each	Each	Each	Each	Each	
			SLIDE AREA A															
	200U	Rt	321+00	321+75					75					2				
	201U	Rt	321+00	321+75					75					2			1	
	202U	Rt	321+37.5	-				10	78				1		3	3	1	
					2338	2354	228			1123	0.10	1.21						
			SLIDE AREA B															
	203U	Rt	331+75					10	63				1		2	2	2	
	204U	Rt	331+75	332+50					75									
	205U	Rt	332+50	333+25					75									
	206U	Rt	331+75	332+50					75									
	207U	Rt	332+50	333+25					75									
	208U	Rt	333+25	-				10	58				1		2	2	2	
					3538	3422	396			1655	0.15	1.79						
														4	7	7	6	-
TOTALS CARRIED TO GENERAL SUMMARY					5876	5776	624	30	649	2778	0.25	3	3					



◈ - Denotes Corresponding Point on Cross Sections and Pipe Data Table

SLIDE AREA "A" ~ Sta. 320+75 to Sta. 322+00

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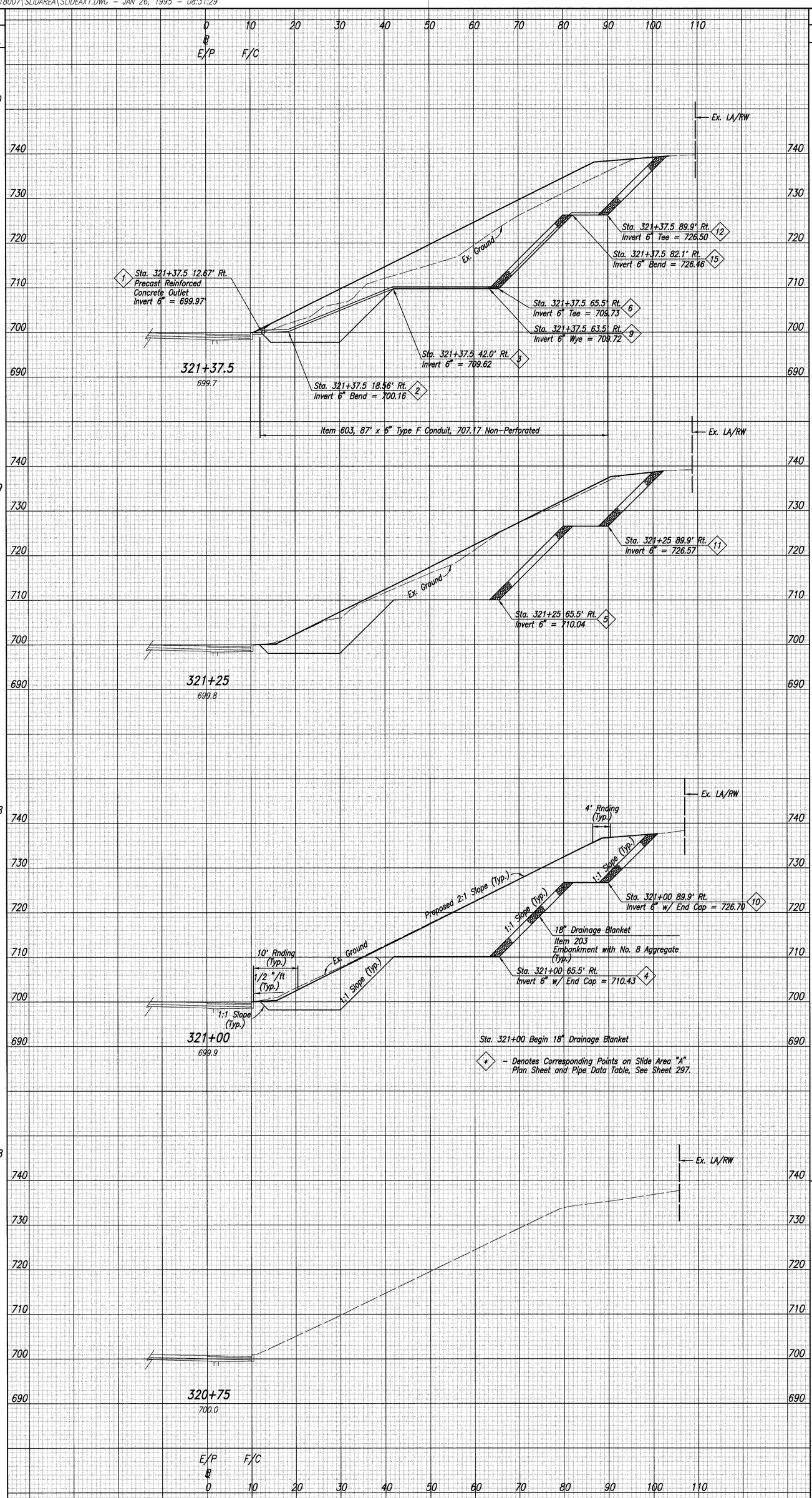
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
				300	339 29
99	140	635	824 63		
101	139	649	638 61	297	338 29
99	278	697	625 58	623	585 55
0	138	0	0 0	323	289 27



SLIDE AREA "A" ~ CROSS SECTIONS Sta. 320+75 to Sta. 321+37.5

CALC. BY: DATE: 10/17/94
CHKD. BY: DATE: 10/17/94

HAM-71-2.92

OHIO

FHWA REGION 5

VOLUME		2338	2354			244	253			551	550		
	CUT		228				29				59		
END AREA	FILL			0	0			528	546			662	641
	CUT			0	0				63				64

CALC. BY DJB DATE 10-7-94
CHKD. BY PWP DATE 1-31-95

HAM-71-2.92

OHIO
FHWA REGION 5

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615

TOTALS

Totals Carried to Sheet 297

Ex. LA/RW

Sta. 321+75 89.9' Rt.
Invert 6" w/ End Cap = 727.00
14

Sta. 321+75 65.5' Rt.
Invert 6" w/ End Cap = 710.50
7

Proposed 2:1 slope

Ex. Ground

Sta. 321+75 End 18" Drainage Blanket

Ex. LA/RW

4' Rnding (Typ.)

(1Typ.) slope 1:1

Sta. 321+50 89.9' Rt.
Invert 6" = 726.57
13

18" Drainage Blanket
Item 203 Embankment with No. 8 Aggregate (Typ.)

(1Typ.) slope 1:1

Sta. 321+50 65.5' Rt.
Invert 6" = 710.07
8

Proposed 2:1 slope (Typ.)

Ex. Ground

10' Rnding (Typ.)

1/2 " /ft (Typ.)

1:1 Slope (Typ.)

SEEDING		1123		0		143		103		285		102	
END WIDTH	SQ. YDS.												

TOTAL

322+00
698.9

321+75
698.0

321+50
698.7

E/P F/C

SLIDE AREA "A" ~ CROSS SECTIONS Sta. 321+37.5 to Sta. 322+00

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CALC. BY CCP DATE 10-17-95
CHKD. BY PVP DATE 1-30-96

HAM-71-2.92

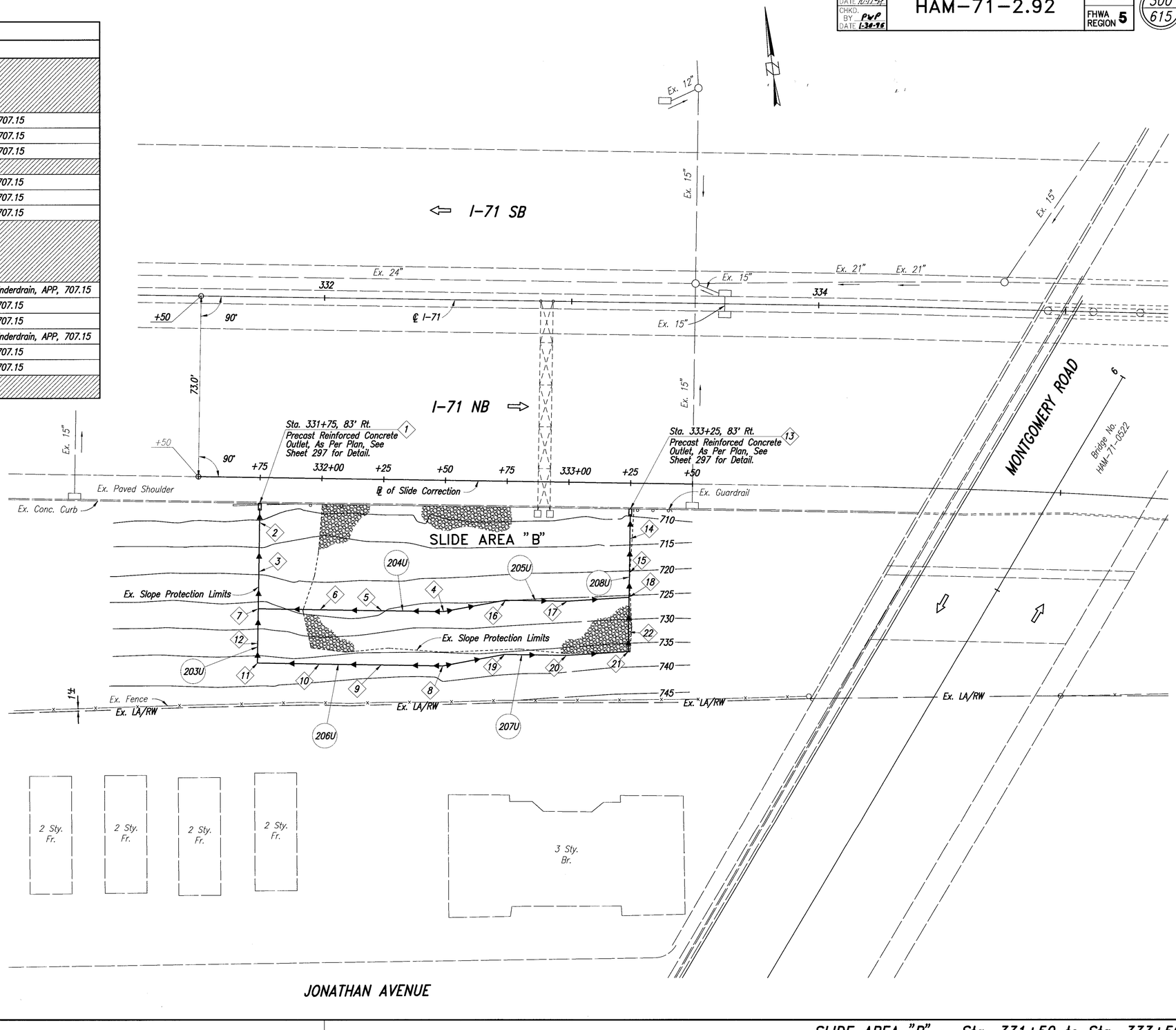
OHIO FHWA REGION 5

300/615

PIPE DATA TABLE			
POINT No.	STATION/OFFSET	INVERT	PIPE RUNS
1	331+75 12.67' Rt.	707.08'	
2	331+75 18.49' Rt.	707.30'	
3	331+75 38.0' Rt.	712.93'	
4	332+50 52.9' Rt.	714.00'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
5	332+25 52.9' Rt.	714.67'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
6	332+00 52.9' Rt.	714.33'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
7	321+75 52.9' Rt.	713.00'	
8	332+50 74.9' Rt.	728.00'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
9	332+25 74.9' Rt.	727.67'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
10	332+00 74.9' Rt.	727.33'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
11	331+75 74.9' Rt.	727.00'	
12	331+75 66.8' Rt.	726.96'	
13	333+25 12.7' Rt.	706.92'	
14	333+25 18.71' Rt.	707.58'	
15	333+25 36.1' Rt.	710.95'	Run 4 to 16 ~ Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
16	332+75 47.9' Rt.	712.50'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
17	333+00 47.9' Rt.	712.00'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
18	333+25 45.9' Rt.	711.00'	Run 8 to 19 ~ Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
19	332+75 69.9' Rt.	726.50'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
20	333+00 69.9' Rt.	726.00'	Item 603, 25 LF ~ 6" Unclassified Pipe Underdrain, APP, 707.15
21	333+25 67.9' Rt.	725.00'	
22	333+25 59.9' Rt.	724.96'	

For Pipe Profile of Run 1-2-3-7-12-11, See Sheet 301.
For Pipe Profile of Run 13-14-15-18-22-21, See Sheet 302.

BENCHMARK Set on Right Edge of Pavement at Stamp: Station: 329+00
Elevation: 704.84



SLIDE AREA "B" ~ Sta. 331+50 to Sta. 333+50

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VOLUME		Sta. 332+25	Sta. 332+00	Sta. 331+75	Sta. 331+50
	FILL	488 51	491 54	531 54	293 27
	CUT	494	512	549	280
END AREA	FILL	548 58	512 58	634 59	0 0
	CUT	525	580	605	0

CALC. BY DUB DATE 10-17-95
CHKD. BY PVP DATE 1-26-95

HAM-71-2.92

OHIO
FHWA REGION 5

301
615

Ex. LA/RW

Sta. 332+25 74.9' Rt.
Invert 6" = 727.87

Sta. 332+25 52.9' Rt.
Invert 6" = 714.67

Sta. 332+00 74.9' Rt.
Invert 6" = 727.33

Sta. 332+00 52.9' Rt.
Invert 6" = 714.33

18" Drainage Blanket
Item 203
Embankment with No. 8 Aggregate
(Typ.)

Sta. 331+75 74.9' Rt.
Invert 6" = 727.00

Sta. 331+75 66.8' Rt.
Invert 6" = 726.96

Sta. 331+75 52.9' Rt.
Invert 6" = 713.00

Sta. 331+75 Begin 18" Drainage Blanket

* - Denotes Corresponding Points on Slide Area "B"
Plan Sheet and Pipe Data Table, See Sheet 300.

4' Grading (Typ.)

1:1 Slope (Typ.)

1:1 Slope (Typ.)

Proposed 2:1 Slope (Typ.)

Ex. Ground (Typ.)

Sta. 331+75 38.0' Rt.
Invert 6" Bend = 712.93

Sta. 331+75 18.49' Rt.
Invert 6" Bend = 707.30

Item 603, 69' x 6" Type F Conduit, 707.17 Non-Perforated

10' Grading (Typ.)

1/2 " /ft (Typ.)

Sta. 331+75 12.67' Rt.
Precast Reinforced Concrete Outlet
Invert 6" = 707.08'

1:1 Slope (Typ.)

332+25	332+00	331+75	331+50		
708.9	707.6	706.9	706.9		
B/C	B/C	B/C	B/C		
E/P	E/P	E/P	E/P		
℄	℄	℄	℄		
0	0	0	0		

SEEDING				
END WIDTH	SQ. YDS.	235	238	234	115
85			86	83	0

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SLIDE AREA "B" ~ CROSS SECTIONS Sta. 331+50 to Sta. 332+25

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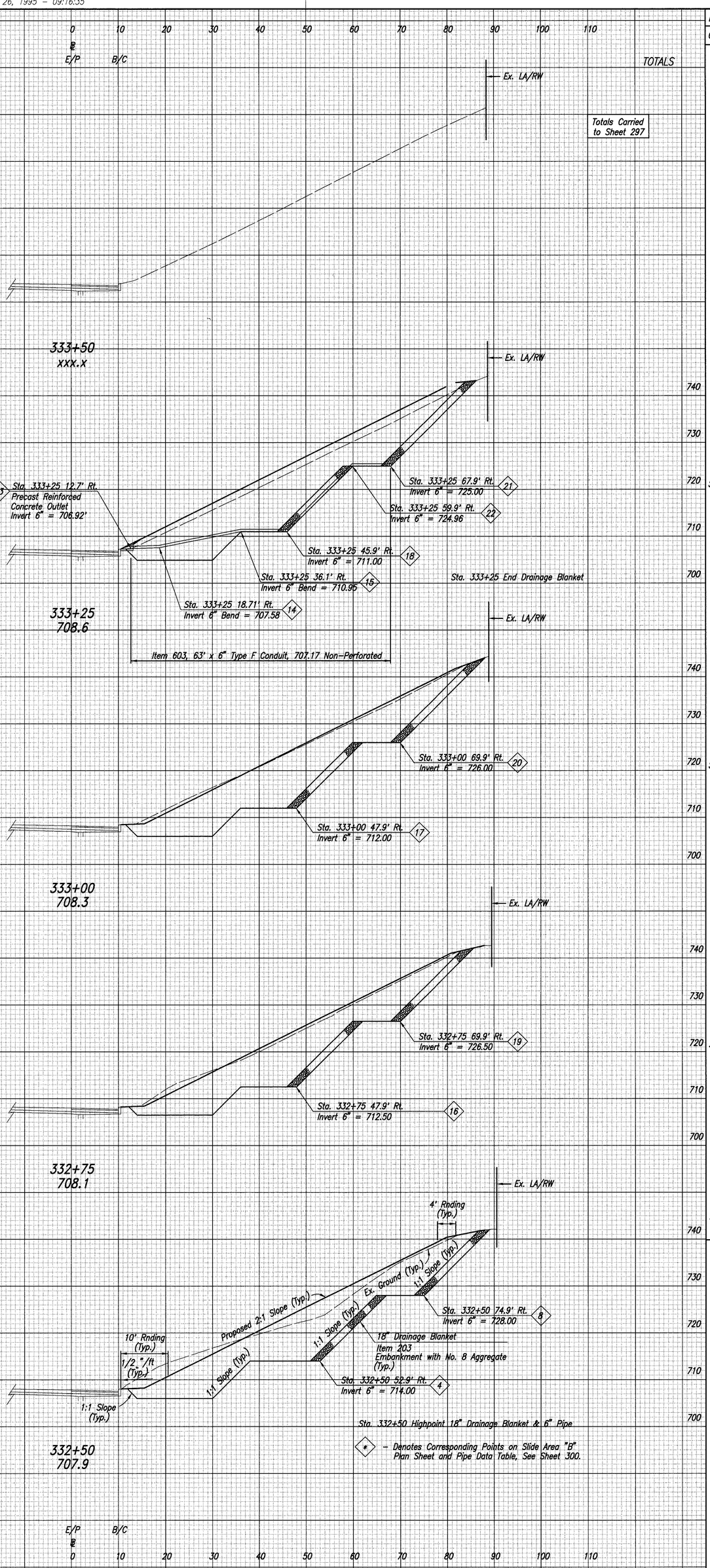
SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	1655	TOTAL			3538	3422
						396
		TOTALS	0	0		
	120				501	490
						63
87			530	567		
						68
	240				501	490
						63
86			553	492		
						67
	238				481	430
						60
85			487	437		
						63
	235				476	436
						56
			541	505		
						59



SLIDE AREA "B" ~ CROSS SECTIONS Sta. 332+50 to Sta. 333+50

CALC. BY: CJD DATE: 8/12/94
CHKD. BY: DAP DATE: 12/7/95

HAM-71-2.92

OHIO
FHWA REGION 5

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615

GENERAL NOTES
LIGHTING

SPECIFICATIONS

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION. REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS ON THE TITLE SHEET OF THESE PLANS.

625.03 – GENERAL

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS CINCINNATI GAS & ELECTRIC.
THE MAINTAINING AGENCY FOR NEW POWER SERVICE ACCOUNTS ESTABLISHED BY THIS PROJECT IS THE CITY OF CINCINNATI.

UTILITY COMPANIES

C.G. & E. – GAS OPERATIONS
ENGINEERING AND PLANNING
P.O. BOX 960, RM. 460–A
CINCINNATI, OH 45201–0960

C.G. & E. – ELECTRIC OPERATIONS
CUSTOMER ACTIVITIES DEPT./
GOVERNMENTAL SERVICES
P.O. BOX 960, RM. 347–C
CINCINNATI, OHIO 45201–0960

CITY OF CINCINNATI
HIGHWAY ENGINEERING DEPT.
801 PLUM STREET
CINCINNATI, OHIO 45202

CITY OF CINCINNATI
TRAFFIC ENGINEERING DEPT.
705 CENTRAL AVE., RM. 200
CINCINNATI, OHIO 45202

CITY OF CINCINNATI
STORM WATER ENGINEERING
705 CENTRAL AVE., RM. 400
CINCINNATI, OHIO 45202

CINCINNATI WATER WORKS
ENGINEERING DIVISIONS
474 SPRING GROVE AVE.
CINCINNATI, OHIO 45232

CINCINNATI BELL TELEPHONE
1717 DIXIE HIGHWAY, SUITE 800
FT. WRIGHT, KY 41011

METROPOLITAN SEWER DISTRICT
WASTEWATER ENGINEERING DEPT.
1600 GEST ST.
CINCINNATI, OH 45204

U.S. SPRINT COMMUNICATIONS
FIBER OPERATIONS
10265 SPARTAN DR. – UNIT M
CINCINNATI, OH 45215

WARNER CABLE COMMUNICATIONS
6709 VAN KIRK AVE.
CINCINNATI, OH 45216

UNDERGROUND UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO AND THE CONSULTING ENGINEER MAKE NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS. REFER TO THE RIGHT OF WAY PLANS FOR ALL OTHER UTILITIES IN THE VICINITY OF THIS PROJECT.
ALL UNDERGROUND UTILITIES, WATER, SEWER, TELEPHONE, GAS, TRAFFIC CONTROL, ETC. NEAR PROPOSED LIGHT POLES, PULL BOXES, ETC. SHALL BE STAKED BY THAT UTILITY COMPANY BEFORE CONSTRUCTION BEGINS.

VERIFICATION OF EXISTING CONDITIONS

THE ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ALL UNDERGROUND LIGHTING AND TRAFFIC CONTROL DEVICES WITH THE CITY OF CINCINNATI DIVISION OF TRAFFIC.
DUE TO DEVIATION FROM AVAILABLE EXISTING DRAWINGS AND THE QUANTITIES OF CONDUCTORS WITHIN EACH PULLBOX, IT WAS IMPOSSIBLE TO DETERMINE THE ACTUAL DISTRIBUTION OF EXISTING LIGHTING AND TRAFFIC CONTROL CIRCUITS WITHOUT TESTING OF THE CIRCUIT CONDUCTORS.
ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE CITY OF CINCINNATI DIVISION OF TRAFFIC AND THE ENGINEER TO DETERMINE WHICH PULL BOXES AND CONDUCTORS SHALL BE MAINTAINED, AND WHICH SHALL BE REMOVED.
QUANTITIES INCLUDED IN THE SUB–SUMMARIES ARE ESTIMATED DUE TO THE LACK OF ACCURATE INFORMATION AVAILABLE.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET. AN ESTIMATED QUANTITY OF ITEM 603 "4 INCH CONDUIT TYPE "E" IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 713.14 – LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", WESTINGHOUSE "CERAMALUX", SYVANIA "LUMALUX" OR EQUAL APPROVED BY THE ENGINEER.

ITEM 625 – 713.11 LUMINARIES

STYLE B LUMINARIES SHALL HAVE SINGLE RATED INTEGRAL BALLASTS THE VOLTAGE SPECIFIED FOR USE WITH HIGH PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M–400, CROUSE–HINDS OVM, AMERICAN 25/26 OR EQUAL APPROVED BY THE ENGINEER. STYLE B LUMINARIES SHALL BE RATED UP TO 37,000 LUMENS.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH SPECIFICATION 631.08. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

ITEM 202 – PULL BOX REMOVED

THIS ITEM SHALL INCLUDE REMOVING THE PULL BOX TO ONE FOOT (1') BELOW THE GROUND LEVEL THREE FEET (3') BELOW THE GROUND LEVEL WHERE PULL BOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX AND RESTORING THE DISTURBED AREA. WHERE A PULLBOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX, IT IS THE INTENT OF THIS NOTE TO CUT ALL CONDUITS IN A NEAT FASHION IN ORDER TO REUSE THE EXISTING CONDUITS IN PLACE. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CIRCUIT CONDUCTORS IF THEY ARE TO BE REUSED.
PAYMENT SHALL BE PER EACH ITEM 202 – "PULL BOX REMOVED".

ITEM 202 – LIGHT POLE REMOVED

THIS ITEM SHALL INCLUDE REMOVING AND DISPOSING OF THE POLE, BRACKET ARM, BASE AND POLE AND BRACKET WIRING.
PAYMENT SHALL BE PER EACH ITEM 202 – REMOVAL OF EXISTING LIGHT POLE.

ITEM SPECIAL – REMOVE BRACKET ARM

THIS ITEM SHALL INCLUDE REMOVING AND DISPOSING OF THE BRACKET ARM FROM THE LOCATION SHOWN ON THE PLANS.
PAYMENT SHALL BE PER EACH ITEM – SPECIAL "REMOVAL BRACKET ARM", AS PER PLAN.

ITEM SPECIAL – DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR JUNCTION BOX.
DISCONNECTION AT A PULL BOX OR POLE BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX OR POLE BASE. ANY CABLE THAT IS TO BE REUSED SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION.
CONNECTOR KITS SHALL BE PAID FOR SEPARATELY UNDER EACH ITEM 625 "CABLE SPLICE KIT".
PAYMENT WILL BE MADE AT THE UNIT BID PROVIDED FOR EACH ITEM SPECIAL "DISCONNECT EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

ITEM 625 – CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF LOCATING AND CLEANING AN EXISTING CONDUIT OF ALL EXISTING CABLES, MUD AND DEBRIS TO THE SATISFACTION OF THE ENGINEER BEFORE NEW DUCT CABLE OR DISTRIBUTION CABLE IS PULLED THROUGH THE CONDUIT. DRAIN OUTLETS SHALL BE FREE OF ALL OBSTRUCTIONS.
THIS ITEM SHALL INCLUDE CUTTING AND REAMING ANY BURRS AND INSTALLING BUSHINGS OR COUPLINGS TO PROVIDE A FREE RACEWAY FOR PULLING DUCT CABLE OR DISTRIBUTION CABLE THROUGH THE CONDUIT.
AT LOCATIONS WHERE LIGHT POLE FOUNDATIONS ARE TO BE REMOVED, CONDUIT SHOULD BE CUT PRIOR TO FOUNDATION REMOVAL TO PREVENT DAMAGE TO THE CONDUIT.
MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF OF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.
PAYMENT WILL BE MADE FOR EACH LINEAR FOOT OF ITEM 625 – "CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN," AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY MANNER.

ITEM 625 – JUNCTION BOX EXTENSION, AS PER PLAN (RAIL RETROFIT)

THIS ITEM SHALL INCLUDE INSTALLING AN EXTENSION AT EXISTING JUNCTION BOX WHERE BRIDGE SIDE RAIL IS BEING MODIFIED.
THE UNIT PRICE BID FOR EACH ITEM 625 "JUNCTION BOX EXTENSION, AS PER PLAN (RAIL RETROFIT)" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED, BUT REQUIRED FOR SATISFACTORY INSTALLATION OF THIS ITEM, SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM. AN ESTIMATED QUANTITY OF 15 JUNCTION BOX EXTENSIONS HAS BE INCLUDED IN THE GENERAL SUMMARY FOR COMPLETION OF THIS WORK.

RETAINING WALL POLE MODIFICATIONS, AS PER PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATIONS OF EXISTING POLE MOUNTING BASES, BOLT SIZES, BOLT CIRCLE DIAMETERS AND ALL MOUNTING CONDITIONS PRIOR TO INSTALLATION OF NEW LIGHT POLES ON EXISTING RETAINING WALLS. REFER TO TABLE ON SHEET 406.

CALC. BY KRB DATE 6/2/15
CHKD. BY BAP DATE 7/13/15

HAM-71-2.92

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GENERAL NOTES
LIGHTING

ELECTRIC SERVICE

ELECTRIC SERVICE SHALL BE INSTALLED AS DESCRIBED BELOW. AN ESTIMATED QUANTITY OF THE FOLLOWING ITEMS SHALL BE INCLUDED IN THE GENERAL SUMMARY FOR COMPLETION OF THIS WORK;

TRENCH	50	LINEAR FEET
NO. 4 AWG, 5000 VOLT DISTRIBUTION CABLE	1000	LINEAR FEET
CONDUIT, 3" 713.04	50	LINEAR FEET
NO. 2 AWG, 5000 VOLT DISTRIBUTION CABLE	300	LINEAR FEET
EXISTING CONDUIT CLEANED	100	LINEAR FEET

THE ELECTRICAL CONTRACTOR SHALL EXTEND TRENCHING AND DISTRIBUTION CABLE IN EXISTING 3" CONDUIT, PROPOSED 3" CONDUIT OR IN 3" CONDUIT JACKED OR DRILLED UNDER PAVEMENT TO A UTILITY POLE COORDINATED WITH THE UTILITY TO PROVIDE A 240 OR 480 VOLT ELECTRICAL SERVICE. A 35 FOOT COIL SHALL BE PROVIDED AT THE BASE OF POLE FOR FINAL CONNECTION BY THE UTILITY COMPANY. PAYMENT MADE FOR THE ABOVE ITEMS SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

CONDUIT ON STRUCTURES

EXPANSION FITTINGS FOR CONDUIT ON STRUCTURES SHALL BE OZ AX-4, CROUSE-HINDS TYPE XJ-4, APPLETON TYPE XJ-4, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL HAVE A COPPER BONDING JUMPER.

SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REFURBISHING THE EXISTING SERVICE TO THE UNDERPASS LIGHTING. WORK SHALL INCLUDE REMOVAL OF ALL EXISTING CONDUCTORS FEEDING THE UNDERPASS LIGHTING SYSTEM, PROVIDING NEW NO. 10 AWG POLE AND BRACKET CABLE BETWEEN ALL UNDERPASS LUMINAIRES AND PROVIDING NEW NO. 4 AWG DISTRIBUTION CABLE FROM THE PULL BOX, JUNCTION BOX OR BARRIER JUNCTION BOX TO THE FIRST JUNCTION BOX OR UNDERPASS LUMINAIRE.

THE UNIT PRICE BID FOR EACH ITEM 625 - "SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM SPECIAL - CONNECTION TO EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF LOCATING AN EXISTING CONDUIT AND EXTENDING THE PROPOSED CONDUIT AS SHOWN ON THESE PLANS FROM THE MEDIAN PULL BOX TO THE EXISTING CONDUIT LOCATION. MAKE CONNECTIONS TO PROVIDE A CONTINUOUS RACEWAY. THE UNIT PRICE BID FOR EACH ITEM SPECIAL - "CONNECTION TO EXISTING CONDUIT" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

A QUANTITY OF 20 EACH HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 625 - LIGHT TOWER MAINTENANCE PLATFORM, MISC.: BY TYPE, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING THE TOWER MAINTENANCE PLATFORMS, BY TYPE, AS PER STANDARD DRAWING HL-20.22 AND HL - 20.23, AND AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 - LIGHT TOWER MAINTENANCE PLATFORM, MISC.: BY, TYPE, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, FORMING, CLASS C CONCRETE, RE-STEEL, AND OTHER MATERIALS NECESSARY TO COMPLETE TIS ITEM OF WORK TO THE SATISFACTION OF THE ENGINEER. A QUANTITY OF 27 EACH HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES OR SHOULD THE CONTRACTOR DESIRE THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR ADEQUATE TEMPORARY LIGHTING OF THAT PORTION OF THE EXISTING ROADWAY AFFECTED BY THE REMOVAL OF THE EXISTING LIGHTING.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR (4) SETS OF THE TEMPORARY LIGHTING PLAN TO THE DIRECTOR FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATION OF POLES, LENGTH OF BRACKET ARMS, STYLE OF LUMINAIRES, MOUNTING HEIGHT, WIRING METHODS, AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 4:1. MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 27 FEET AND MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENT AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL, AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS, AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT. AN ESTIMATED QUANTITY OF ONE IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

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GENERAL NOTES
LIGHTING

LIGHT TOWER LUMINAIRE MOUNTING ARRANGEMENT

UNLESS OTHERWISE SPECIFIED IN THE PLANS, ALL LUMINAIRES WITH ASYMMETRIC DISTRIBUTION SHALL BE INSTALLED SO THE "ARROW" OR "STREET SIDE" DESIGNATION ON THE OPTICAL ASSEMBLY IS POSITIONED PERPENDICULAR TO THE CENTERLINE OR BASELINE OF THE PAVEMENT FROM WHICH THE TOWER IS STATIONED. ANY OPTICAL ROTATION CALLED FOR WILL BE EXPRESSED AS A CLOCKWISE (CW) OR COUNTERCLOCKWISE (CCW) ANGULAR MEASUREMENT FROM THE NORMAL "ARROW" ORIENTATION.

HIGH MAST LIGHT TOWERS

THE MANUFACTURER SHALL SUBMIT A REPORT FROM AN INDEPENDENT TESTING LABORATORY TO SHOW THAT THE LUMINAIRES DO NOT RECEIVE MORE THAN THE SPECIFIED ACCELERATION LOAD. THE TESTING LABORATORY'S REPORT SHALL SPECIFY IN DETAIL THE MOUNTING LOCATIONS OF THE ACCELEROMETERS AND THE TEST PROCEDURES USED. IN ADDITION TO THIS REPORT, OHIO DEPARTMENT OF TRANSPORTATION RESERVES THE RIGHT TO CONDUCT FIELD MEASUREMENTS OF THOSE ACCELERATION LOADS AND TO ACCEPT ONLY THOSE DESIGNS IN WHICH THE TESTED INSTALLATIONS MEET SPECIFICATIONS.

THE TERMINAL BLOCK SHOWN ON STANDARD CONSTRUCTION DRAWINGS SHALL BE INCLUDED IN THE PRICE OF THE TOWER.

LIGHT TOWER DETAILS

STANDARD DRAWING HL-10.31 (DATED 5-1-87) HAS BEEN REVISED AS FOLLOWS: THE TWO DIMENSIONS SHOWN AS 4 3/4 INCHES BETWEEN THE CENTER LINES OF THE DRIVE SUPPORT TUBE AND THE WINCH INPUT SHAFT SHOULD READ 3 3/4 INCHES.

ITEM 625 - LIGHT TOWER FOUNDATION "A", 36" x 25' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT TOWER FOUNDATION AS PER STANDARD DRAWING HL-20.21 EXCEPT THAT THE TOP OF THE FOUNDATION SHALL BE AS DETAILED ON SHEET 106.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 - LIGHT TOWER FOUNDATION "A" 36" x 25' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, FORMING, CLASS C CONCRETE AND OTHER MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 - LIGHT POLE FOUNDATION "A", 24" x 10' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT POLE FOUNDATION AS PER STANDARD DRAWING HL-20.11 EXCEPT THAT THE TOP OF THE FOUNDATION SHALL BE AS DETAILED AND DIMENSIONED ON SHEET 106.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 - LIGHT POLE FOUNDATION "A" 24" x 10' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, FORMING, CLASS C CONCRETE AND OTHER MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 - PULL BOX, CONCRETE, 18", AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A PULL BOX AS PER STANDARD DRAWING HL-30.11 EXCEPT THAT THE PULL BOX SHALL BE LOCATED AS DETAILED ON SHEET 106.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 - PULL BOX, CONCRETE, 18", AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, FORMING, CLASS C CONCRETE AND OTHER MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 - 713.13 UNDERPASS LUMINAIRES

UNDERPASS LUMINAIRES SHALL BE HOLOPHANE "UNDERPASS WALLPACK", CROUSE-HINDS "WA" OR GENERAL ELECTRIC "W40L" UNDERPASS UNIT OR EQUAL APPROVED BY THE ENGINEER.

ALL UNDERPASS LUMINAIRES SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. THE INTEGRAL HIGH PRESSURE SODIUM BALLAST SHALL BE OF A REGULATOR TYPE RATED FOR THE VOLTAGE SPECIFIED, 100 WATTS.

HIGH MAST LUMINAIRES

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN SECTION 713.21 OF THE CONSTRUCTION AND MATERIAL SPECIFICATION ARE HEREBY WAIVED FOR THIS PROJECT. INSTEAD, THE LUMINAIRES FOR TOWER LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS.

ASYMMETRIC, TYPE I, LUMINAIRES FOR TOWER LIGHTING MAY BE HOLOPHANE "HMST" TEST #36801 OR #36802, OR GENERAL ELECTRIC "HM" TEST #7349, OR COOPER "HMC" TEST #764130.

ASYMMETRIC, TYPE II OR TYPE III, LUMINAIRES FOR TOWER LIGHTING MAY BE HOLOPHANE "HMST" TEST #36648, OR GENERAL ELECTRIC "HM" TEST #7349, OR COOPER "HMC" TEST #764130.

SYMMETRIC, TYPE V, LUMINAIRES FOR TOWER LIGHTING MAY BE HOLOPHANE "HMST" TEST #36383, OR GENERAL ELECTRIC "HM" TEST #6312, OR COOPER "HAL" TEST #48381.

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE DESIGNED POLE LOCATIONS AND THE DESIGNED NUMBER AND TYPE OF FIXTURES PER POLE.

LOW MAST LUMINAIRES

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN SECTION 713.21 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS ARE HEREBY WAIVED FOR THIS PROJECT. INSTEAD, THE LUMINAIRES FOR LOW MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS.

ASYMMETRIC, TYPE II OR III, LUMINAIRES FOR LOW MAST LIGHTING MAY BE HOLOPHANE "HMST" TEST #36648, OR GENERAL ELECTRIC "HM" TEST #7349, OR COOPER "HMC" TEST #764130.

SYMMETRIC, TYPE V, LUMINAIRES FOR LOW MAST LIGHTING MAY BE HOLOPHANE "HMST" TEST #36383, OR GENERAL ELECTRIC "HM" TEST #6312, OR COOPER "HAL" TEST #48381.

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE DESIGNED POLE LOCATIONS AND THE TYPE OF FIXTURE PER POLE.

HIGH VOLTAGE TEST

A LUMP SUM FOR PERFORMING THE HIGH VOLTAGE TEST REQUIRED BY THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATION HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

PORTABLE POWER UNIT

THE CONTRACTOR SHALL SUPPLY A PORTABLE POWER UNIT AS SPECIFIED IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. A QUANTITY OF "1 EACH" OF ITEM 625, "PORTABLE POWER UNIT" IS INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

RECONNECTION OF OVERHEAD SIGNS TO NEW LIGHTING CIRCUITS

THE EXISTING LIGHTED SIGNS SHALL BE RECONNECTED TO THE NEW LIGHTING CIRCUITS. PAYMENT FOR THIS WORK WILL BE UNDER THE THE FOLLOWING ITEMS:

DISCONNECTION OF THE SIGN FROM THE EXISTING CIRCUIT SHALL BE PAID BY ITEM 625 SPECIAL - "DISCONNECT EXISTING CIRCUIT".

REMOVAL OF THE EXISTING PULL BOX SHALL BE PAID BY ITEM 202 - "PULL BOX REMOVED".

REPLACEMENT OF A NEW PULL BOX AT THE SAME LOCATION SHALL BE PAID UNDER ITEM 625 - "PULL BOX, 18", 713.08".

RECONNECTION OF THE SIGNS TO THE NEW LIGHTING CIRCUIT SHALL BE PROVIDED BY ITEM 625 - "CABLE SPLICE KITS" (3 IN A 3-WIRE CIRCUIT PER PULL BOX).

CONDUIT IN STRUCTURES

PRIOR TO STARTING WORK ON PARAPET RETROFIT, CONTRACTOR IS TO ESTABLISH LOCATION OF EXISTING CONDUIT, SO AS NOT TO DAMAGE SAME DURING HIS OPERATIONS. IF ANY DAMAGE OCCURS, CONTRACTOR MUST REPAIR, SATISFACTORY TO THE ENGINEER, AT CONTRACTORS EXPENSE.

AN ESTIMATED QUANTITY OF 500 L.F., 2: RIGID CONDUIT 713.04 IN STRUCTURE IS CARRIED TO GENERAL SUMMARY TO BE USED, AS DIRECTED BY ENGINEER, WHERE CONDUIT INTERFERES WITH PROPOSED CONSTRUCTION.

AN ESTIMATED QUANTITY OF 25 EACH, 2" RIGID CONDUIT EXPANSION FITTINGS HAS BEEN CARRIED TO GENERAL SUMMARY TO BE USED, AS DIRECTED, WHERE THE ENGINEER FEELS THE EXISTING EXPANSION FITTING NEEDS REPLACING.

ITEM SPECIAL - ELECTRIC SERVICE

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

CINCINNATI GAS & ELECTRIC
ELECTRIC OPERATIONS
CUSTOMER ACTIVITIES DEPT./GOVERNMENT SERVICES
P.O. BOX 960 RM. 347-C
CINCINNATI, OHIO 45201-0960

SERVICES SHALL BE 480 VOLTS, SINGLE PHASE, 3-WIRE, GROUNDED NEUTRAL; AND 120/240 VOLTS, SINGLE PHASE, 3-WIRE, GROUNDED NEUTRAL.

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO THE MAINTAINING AGENCIES NOTED IN THE PLANS.

THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

LIGHT TOWER FOUNDATIONS

IN LIEU OF THE TOP OF FOUNDATION RELATIONSHIP SHOWN IN STANDARD DRAWINGS, LIGHT TOWER FOUNDATIONS SHALL EXTEND SIX TO TWELVE INCHES ABOVE GRADE, OR PLATFORM, ON THE HIGHER ELEVATION SIDE OF THE FOUNDATION. THE SIX TO TWELVE INCH EXTENSION IS INCLUDED IN THE FOUNDATION DEPTH.

ITEM SPECIAL - UNDERGROUND UTILITIES, ODOT/GOVERNMENT OWNED AND MAINTAINED

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY EXTENSIVE FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO, SPECIFICALLY THE OHIO DEPARTMENT OF TRANSPORTATION, DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. EXTREME CAUTION SHALL BE EXERCISED IN AREAS WITH UNDERGROUND ELECTRICAL CONDUIT OR CABLE, SEWERS, WATER LINES, OR ANY OTHER UNDERGROUND UTILITY.

THE CONTRACTOR, ACTING AS AN AGENT FOR ODOT AND COMPLYING WITH H.B.538, SHALL BE RESPONSIBLE FOR LOCATING AND MARKING ALL ODOT OWNED UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELECTRICAL CONDUIT, DUCT AND/OR CABLE, SEWERS, AND DRAINS TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE UTILITIES, OTHER THAN ODOT, BY O.U.P.S. OR DIRECTLY BY TELEPHONE, FORTY-EIGHT (48) HOURS IN ADVANCE OF WORK. UTILITIES OWNED AND MAINTAINED BY ODOT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED TO ANY AND ALL UNDERGROUND UTILITY BY THE EXCAVATION OR PLACEMENT OF SIGN SUPPORTS, LIGHT FOUNDATIONS, DRAINAGE, PROTECTIVE GUARDRAIL, DELINEATION, INCLUDING ANY AND ALL ROADWAY EXCAVATION ETC., AND WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE TO REPAIR THE DAMAGE TO AN "AS WAS" CONDITION AND BE IN COMPLIANCE AND IN ACCORDANCE WITH ALL SPECIFICATIONS INCLUDING 107.17, 625, 631', AND 632 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

PAYMENT FOR THE ABOVE, INCLUDING LOCATING AND MARKING OF ODOT UNDERGROUND UTILITIES, SHALL BE MADE IN THE LUMP SUM BID "ITEM SPECIAL - UNDERGROUND UTILITIES, ODOT/GOVERNMENT OWNED AND MAINTAINED". THE LUMP SUM QUANTITY HAS BEEN CARRIED TO THE LIGHTING GENERAL SUMMARY PAGE 307 FOR "ITEM SPECIAL - UNDERGROUND UTILITIES, ODOT/GOVERNMENT OWNED AND MAINTAINED".

GENERAL SUMMARY

LIGHTING QUANTITIES

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

306
615

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SHEET NUMBER																				SUBTOTALS		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332			GEN. NOTES	SUB SUMMARY					
64	40	31	36	7																	223	202	98100	178	EACH	REMOVAL MISC.: REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES, AND PULL BOXES
96	91	101	62	19																	369	202	75400	369	EACH	LIGHT POLE REMOVED
142	135	125	63	19																	483	202	75504	484	EACH	LUMINAIRE REMOVED FOR STORAGE
20	4	8	7	2																	41	202	98100	41	EACH	REMOVAL MISC.: UNDERPASS LUMINAIRE REMOVED, AS PER PLAN
15	20	16	16	3																	70	SPECIAL	62540020	70	EACH	DISCONNECT EXISTING CIRCUIT
46	44	24																			114	202	98100	114	EACH	REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED
53	44	78	62	19																	256	202	75500	256	EACH	LIGHT POLE FOUNDATION REMOVED
110	120																				230	202	98200	230	LIN.FT.	REMOVAL MISC.: REMOVAL OF EXISTING CABLES AND CONDUIT
																				1860		603	00400	1860	LIN.FT.	4" CONDUIT TYPE E
					54	42	60	56	40	56	58	64	18			24					472	625	00500	472	EACH	CONNECTOR KIT, TYPE II
						5	10	7	3			6									31	625	00600	31	EACH	CONNECTOR KIT, TYPE III
					30	10	20		21	4	8	10	12	4		8	8				135	625	01000	135	EACH	CONNECTOR KIT, TYPE VII A
					15	17	21	9	12	6	17	12	6		10	14	12				151	625	01004	151	EACH	CONNECTOR KIT, TYPE VII B
					6	3	3		3	6	4	2			2		2				31	625	01100	31	EACH	CONNECTOR KIT, TYPE VII C
					45	39	12	15	21	27	36	45	9	24	30	44	27				374	625	01500	374	EACH	CABLE SPLICING KIT
						1				1											2	625	10500	2	EACH	LIGHT POLE, MISC.: LIGHT POLE, DESIGN A10B20, AS PER PLAN
					1					1											2	625	02915	2	EACH	LIGHT POLE, DESIGN A10B30, AS PER PLAN
					1					1											2	625	10500	2	EACH	LIGHT POLE, MISC.: LIGHT POLE, DESIGN A10B35, AS PER PLAN
					1			1													2	625	05200	2	EACH	LIGHT POLE, DESIGN A10B40, AS PER PLAN
								2													2	625	05400	2	EACH	LIGHT POLE, DESIGN A15B40, AS PER PLAN
											1										1	625	10500	1	EACH	LIGHT POLE, MISC.: LIGHT POLE, DESIGN AT10B36.7, AS PER PLAN
											1										1	625	04600	1	EACH	LIGHT POLE, DESIGN AT20B34.2, AS PER PLAN
												1									1	625	10500	1	EACH	LIGHT POLE, MISC.: LIGHT POLE, DESIGN AT20B46.7, AS PER PLAN
					4	1		11	6	16	12	11									61	625	06200	61	EACH	LIGHT POLE, DESIGN AT10B41.7
											1	1									2	625	06400	2	EACH	LIGHT POLE, DESIGN AT15B41.7
					4			1				1									6	625	06700	6	EACH	LIGHT POLE, DESIGN AT25B41.7
												1									1	625	07400	1	EACH	LIGHT POLE, DESIGN AT15BB41.7
					10	12	19	10	13	9	14	12	9								108	625	10500	108	EACH	LIGHT POLE, MISC.: LIGHT POLE, DESIGN A15BB50
																4	7				11	625	10500	11	EACH	LIGHT POLE, MISC.: LIGHT POLE, DESIGN ATON51.7
																8					8	625	10500	8	EACH	LIGHT POLE, MISC.: LIGHT POLE, DESIGN ST15BB51.7
																	2				2	625	13200	2	EACH	LIGHT TOWER, BBBB100
														8	7	8	2				25	625	13400	25	EACH	LIGHT TOWER, BBBBBB100
																				27		625	21400	27	EACH	LIGHT TOWER MAINTENANCE PLATFORM, MISC.: BY TYPE, AS PER PLAN
					9			12	6	16	13	13				4	7				80	625	14200	80	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP
					10	12	19	10	13	9	14	12	9								108	625	14300	108	EACH	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP
																8					8	625	14201	8	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP, AS PER PLAN
														7	7	2	4				20	625	15200	20	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP
														1		6					7	625	15201	7	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN
					14277	11795	7992	922	12191	6362	240	200			2810					1000	56789	625	23200	57789	LIN.FT.	NO.4 AWG 5000 VOLT DISTRIBUTION CABLE
							6645	7338			12052	10948	7425	720	1010	1710	1170			300	49018	625	23300	49318	LIN.FT.	NO.2 AWG 5000 VOLT DISTRIBUTION CABLE
					2630	2220	3040	3200	2680	3340	3740	3330	1440			1600	700				27920	625	23400	27920	LIN.FT.	NO.10 AWG POLE AND BRACKET CABLE
					2193	1451	110	1245	2432	3583							1280				12294	625	24320	12294	LIN.FT.	1-1/2" DUCT CABLE WITH THREE NO.4 AWG 5000 VOLT CABLES
							5175	3732			2478	4412		4795	3225	7241	2149				33207	625	24330	33207	LIN.FT.	1-1/2" DUCT CABLE WITH THREE NO.2 AWG 5000 VOLT CABLES
																				50		625	25500	50	LIN.FT.	CONDUIT, 3", 713.04
					210	60	410	200	60		20									1400	960	625	25400	2360	LIN.FT.	CONDUIT, 2", 713.04
					90		110	90	190		50	90			90	80	105				895	625	25900	895	LIN.FT.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT
4844	2835	1425	1695	340																100	11139	625	25911	11239	LIN.FT.	CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN
63	35	34	30	8																	170	625	31600	170	EACH	PULL BOX, MISC.: PULL BOX CLEANED

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GENERAL SUMMARY

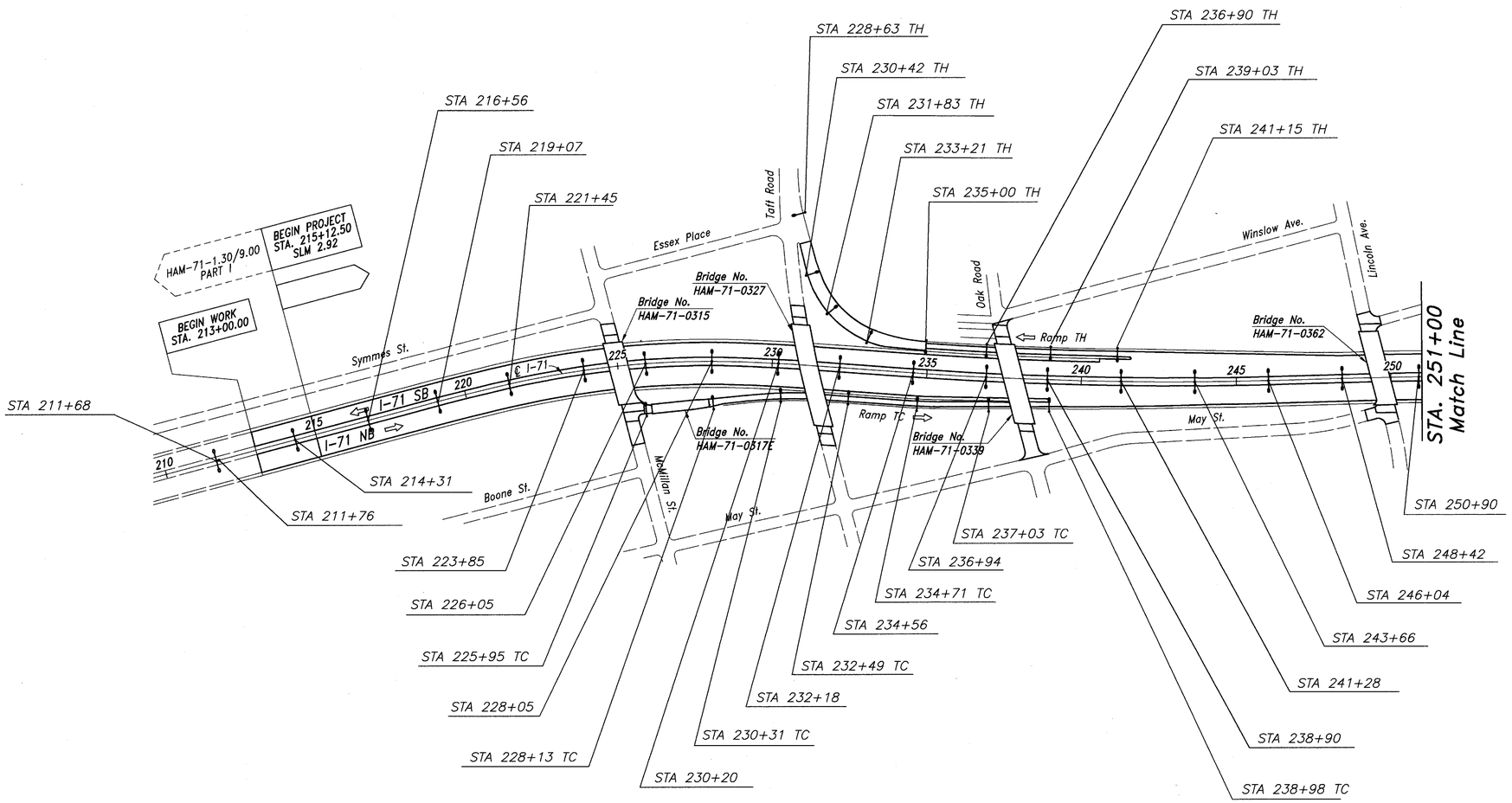
LIGHTING QUANTITIES

SHEET NUMBER																		SUBTOTALS		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
305	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	GEN. NOTES	SUB SUMMARY				
						10	3		16	6	19	15	15							84	625	26250	84	EACH	LUMINAIRE, CONVENTIONAL STYLE B, TYPE II, 200 WATT, 713.11, 480 VOLT
						18	24	38	20	26	18	28	24	18			16			230	625	26250	230	EACH	LUMINAIRE, CONVENTIONAL STYLE C, TYPE III, 310 WATT, 713.11, 480 VOLT
																		8		8	625	26250	8	EACH	LUMINAIRE, CONVENTIONAL ASYMMETRIC, 400 WATT, HPS, 711.021, 480 VOLT
															48	42	52	19		161	625	26250	161	EACH	LUMINAIRE, CONVENTIONAL SYMMETRIC, 400 WATT, HPS, 711.021, 480 VOLT
										1										1	625	27400	1	EACH	LUMINAIRE, POST TOP, HPS, 713.11, 240 VOLT
							1	13		5				2		6				27	625	27500	27	EACH	LUMINAIRE, UNDERPASS, HPS, 713.13, 240 VOLT
								4												4	625	27500	4	EACH	LUMINAIRE, UNDERPASS, HPS, 713.13, 480 VOLT
						240	312		1365	100	150	20	498		1265	1265	3684	435	50	9334	625	29600	9384	LIN.FT.	TRENCH IN PAVED AREA, TYPE B
						1642	1111	30	3508	2242	3187	2318	3234		1905	1740	3297	1939		26143	625	29002	26143	LIN.FT.	TRENCH, 24" DEEP
						1	1	6		4										12	625	29900	12	EACH	JUNCTION BOX
						16	15	11	7	10	6	10	18	1	8	13	10	15		140	625	30700	140	EACH	PULL BOX, 713.08, 18"
																	16			16	625	30701	16	EACH	PULL BOX, 713.08, 18", AS PER PLAN
						3	2	9	3	5	1	6	2	4						35	625	31500	35	EACH	MEDIAN PULL BOX
						18	12	19	22	19	25	27	25	9	16	14	20	15		241	625	32000	241	EACH	GROUND ROD
							1	2		1		2	2	1		1				10	625	37101	10	EACH	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN
																			LUMP		625	38000	LUMP		HIGH VOLTAGE TEST
																			LUMP		SPECIAL	62540000	LUMP		MAINTAIN EXISTING LIGHTING
						3	2	4	2	1	3	5		2	5	2	4	2		35	625	98000	35	EACH	LIGHTING MISC.: REFURBISH SIGN SERVICE, AS PER PLAN
						6	6	3	2	2		1	5				3	6		34	SPECIAL	62598000	34	EACH	LIGHTING MISC.: RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT
							2	4	1	4	2	3	3	1	1	1	4	2		28	SPECIAL	62598000	28	EACH	LIGHTING MISC.: ELECTRIC SERVICE
																			LUMP		SPECIAL	69098400	LUMP		ROADWAY MISC.: UNDERGROUND UTILITIES ODOT/GOVERNMENT OWNED AND MAINTAINED
						3													15		625	29901	18	EACH	JUNCTION BOX, AS PER PLAN
																			500		625	25920	500	LIN.FT.	CONDUIT MISC.: 2" RIGID CONDUIT, 713.04, IN STRUCTURE
																			25		625	98000	25	EACH	LIGHTING MISC.: 2" RIGID CONDUIT EXPANSION FITTINGS
																			20		SPECIAL	62598000	20	EACH	LIGHTING MISC.: CONNECTION TO EXISTING CONDUIT
																			1		625	20000	1	EACH	PORTABLE POWER UNIT

CALC. BY KRB DATE 6/27/95	HAM-71-2.92	OHIO	308
CHKD. BY RAP DATE 9/15/95		FHWA REGION 5	615

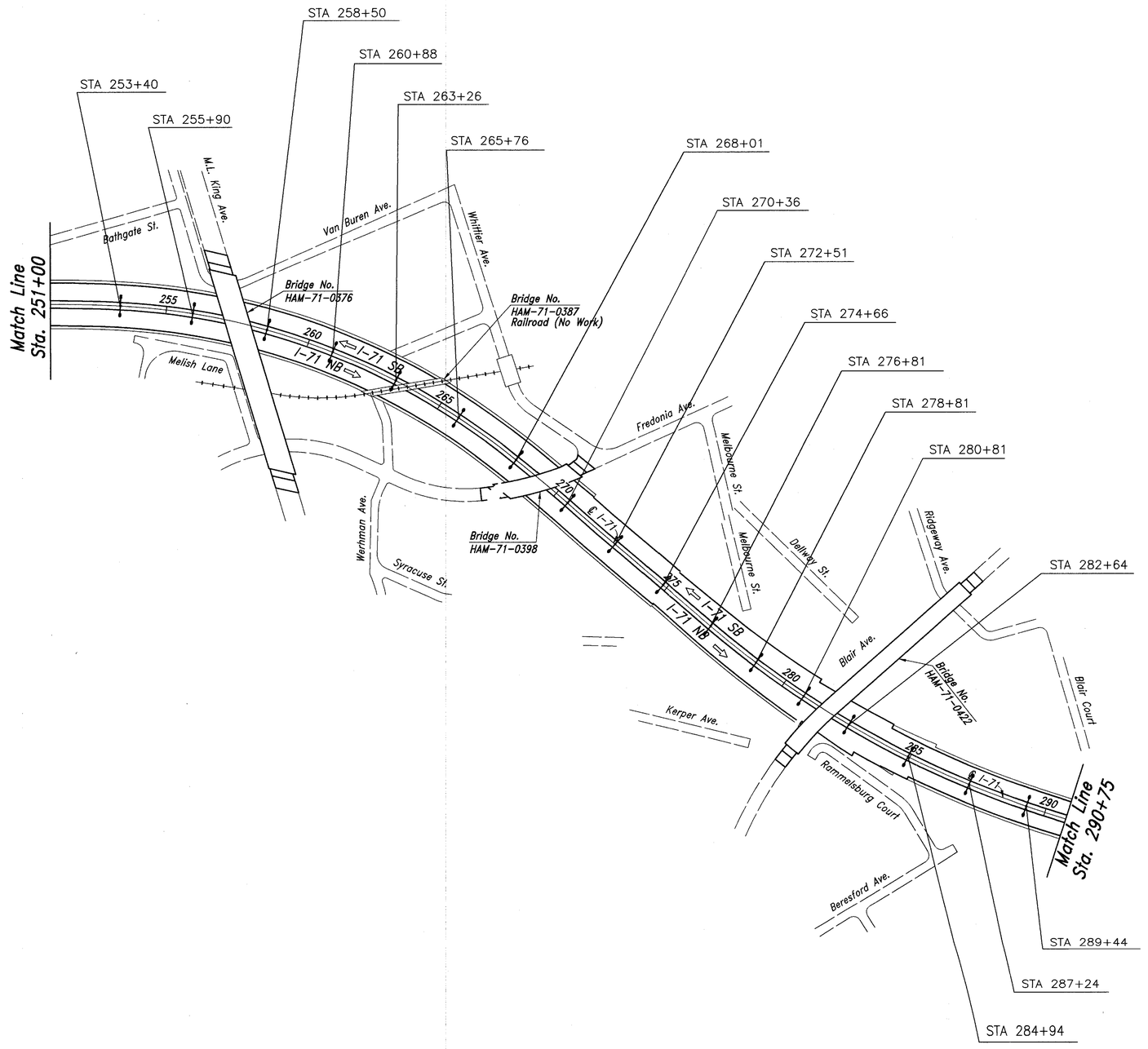
SCHEMATIC PLAN
STA 213+00 TO 251+00

200' 0 200' 400'
GRAPHIC SCALE



LIGHTING SCHEMATIC

CALC. BY KRB DATE 6/27/95	HAM-71-2.92	OHIO	309
CHKD. BY GAP DATE 9/25/95		FHWA REGION 5	615



SCHEMATIC PLAN
STA 251+00 TO STA 290+75

200' 0 200' 400'
GRAPHIC SCALE

H:\71\2.92\71.dwg - DEC. 19, 1991

LIGHTING SCHEMATIC

CALC. BY KRB DATE 6/27/95
CHKD. BY RHP DATE 9/13/95

HAM-71-2.92

OHIO
FHWA REGION 5

310
615

SCHEMATIC PLAN
STA 290+75 TO STA 349+00

200' 0 200' 400'
GRAPHIC SCALE

STA 303+60 ME
STA 305+60 ME
STA 307+60 ME
STA 309+60 ME
STA 311+66 ME
STA 314+25 ME
STA 315+74 ME
STA 318+05 ME
STA 320+00 ME
STA 320+18
STA 322+19 ME
STA 324+15 ME
STA 326+33 ME
STA 328+51 ME
STA 330+69 ME
STA 332+72 ME
STA 334+62 ME
STA 336+32 ME
STA 337+85 ME
STA 336+95
STA 339+27
STA 341+44
STA 343+76

Ramp ME
Brewster Ave
Woodburn Ave.
Potter Place
Idlewood Ave.
Newdan Ave.
Ramp ME
I-71 SB
I-71 NB
Brewster Ave.
Ramp MF

END WORK
Sta. 0+94.25

STATION EQUATION
ST Sta. 317+66.66 ℄ Bk =
Sta. 318+14.80 ℄ Ah

Bridge No.
HAM-71-0445

Bridge No.
HAM-71-0500

Bridge No.
HAM-71-0522

Bridge No.
HAM-71-0546

BEGIN WORK
Sta. 2+04.97

END FEATHERING
Sta. 1+45.42

BEGIN WORK
Sta. 3+90.72

END WORK
Sta. 7+61.58

END WORK
Sta. 7+04.56

END WORK
Sta. 344+08.10MF

Match Line
Sta. 290+75

Match Line
Sta. 349+00

295 300 305 310 315 320 325 330 335 340 345

Victory Parkway
Jonathan Ave
Fernside Place
Roselawn Place
Jonathan Ave
Grantwood
Clarewood
Woodburn Ave.
Greenlawn Ave.
Montgomery Road
Duck Road Creek Road
Hudson Ave.
Trimble Ave.

STA 291+35
STA 293+45
STA 295+85
STA 297+85
STA 299+85
STA 301+75
STA 303+65
STA 305+59
STA 307+59
STA 309+59
STA 311+75
STA 313+70
STA 315+70
STA 317+70
STA 322+18
STA 324+55
STA 327+00
STA 329+45
STA 331+85
STA 334+25
STA 338+87 MF
STA 340+60 MF
STA 342+18 MF
STA 343+69 MF
STA 346+08
STA 348+68

H:\71\2.92\TO1.dwg - DEC. 18, 1997

LIGHTING SCHEMATIC

CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

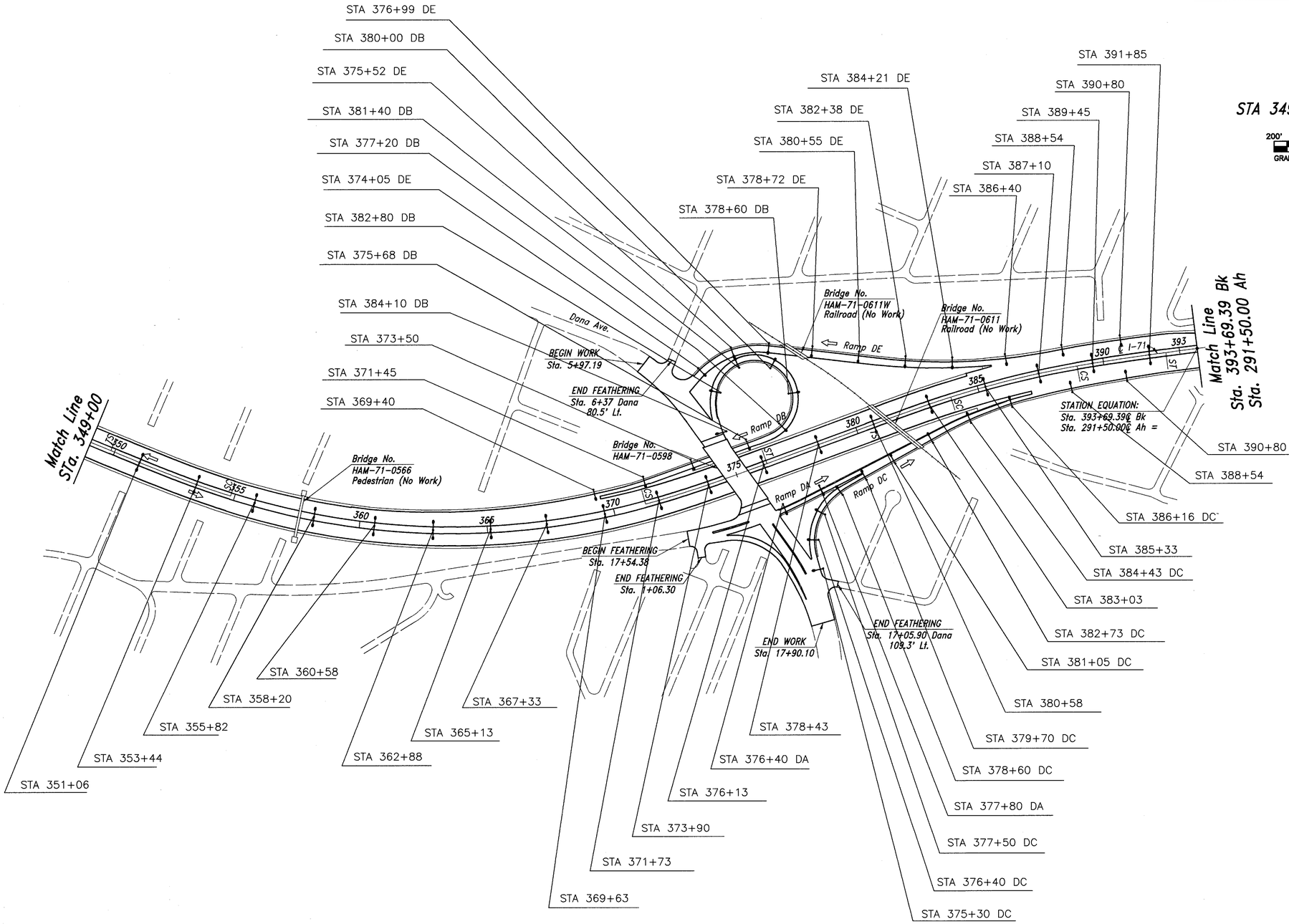
HAM-71-2.92

OHIO
FHWA REGION 5

311
615

SCHEMATIC PLAN
STA 349+00 TO STA 393+69.39

200' 0 200' 400'
GRAPHIC SCALE



H:\TV\2.0\TC1.dwg - DEC. 16, 1999

LIGHTING SCHEMATIC

CALC. BY KRB DATE 6/29/95
CHKD. BY BAP DATE 9/15/95

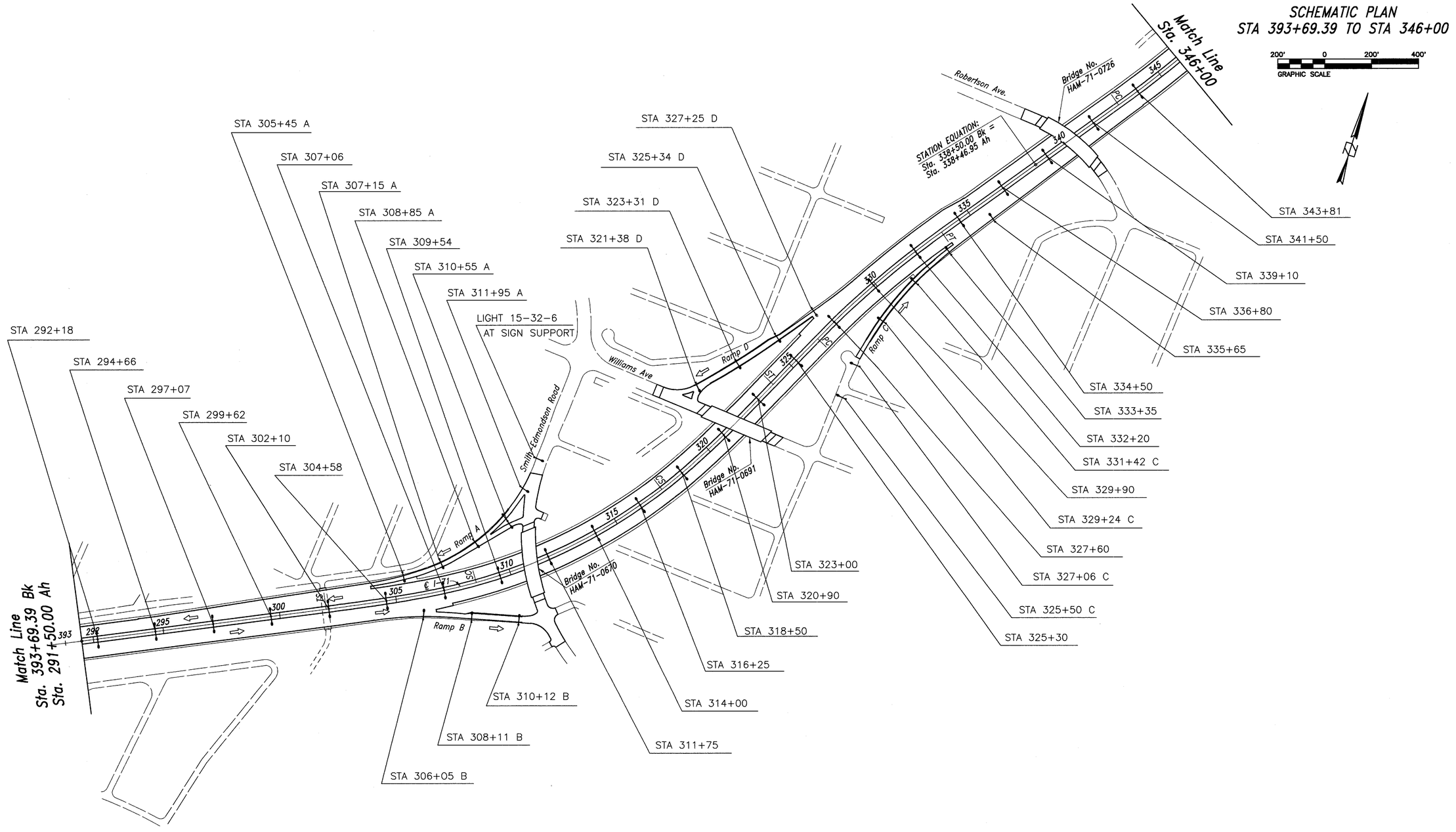
HAM-71-2.92

OHIO
FHWA REGION 5

312
615

SCHEMATIC PLAN
STA 393+69.39 TO STA 346+00

200' 0 200' 400'
GRAPHIC SCALE



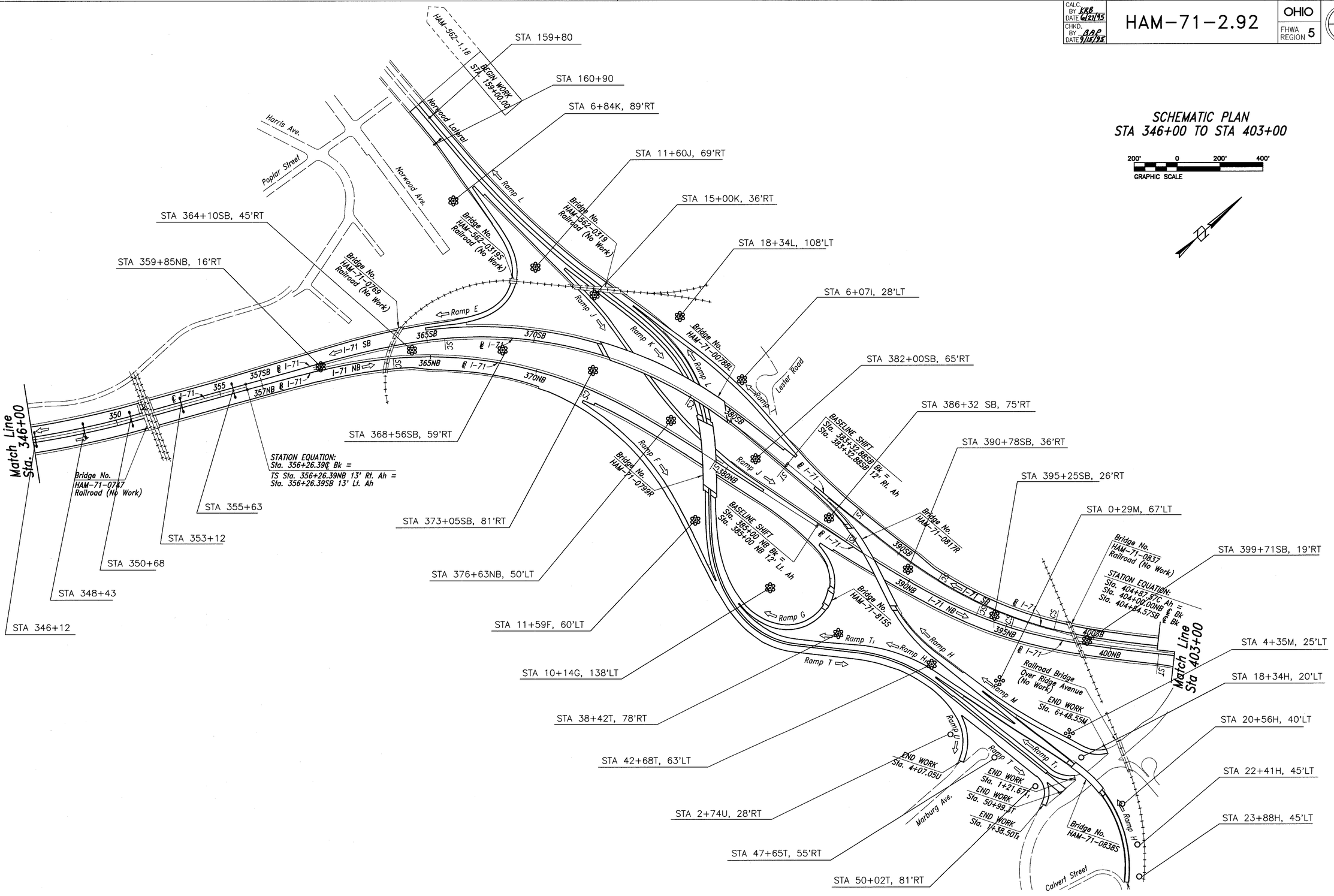
LIGHTING SCHEMATIC

H:\71\2.92\SCH.dwg - DEC. 18, 1995

CALC. BY KRB DATE 6/27/95	HAM–71–2.92	OHIO	313
CHKD. BY AAP DATE 9/18/95		FHWA REGION 5	615

SCHEMATIC PLAN
STA 346+00 TO STA 403+00

200' 0 200' 400'
GRAPHIC SCALE



LIGHTING SCHEMATIC

CALC. BY KAB DATE 6/21/95
CHKD. BY DAP DATE 9/15/95

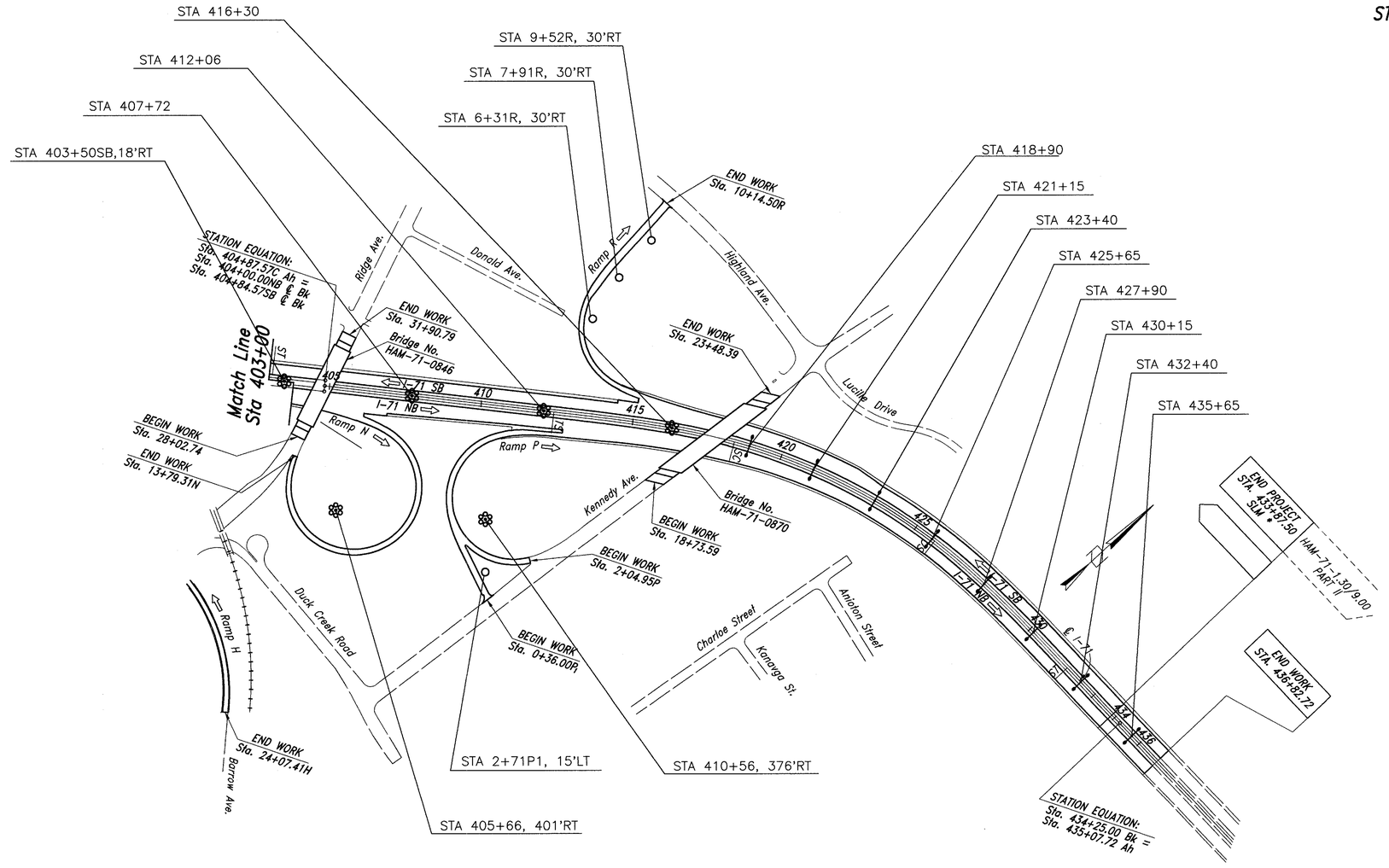
HAM-71-2.92

OHIO
FHWA REGION 5

314
615

SCHEMATIC PLAN
STA 403+00 TO STA 436+00

300' 0 300' 600'
GRAPHIC SCALE



H:\71\2.92\SCH.dwg - DEC. 16, 1991

LIGHTING SCHEMATIC

CALC. BY KRB DATE 11/5/96
CHKD. BY RAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

315
615

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202 REMOVAL OF EXISTING CABLE AND CONDUIT 98200 LIN. FT.	ITEM 202 REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300 EACH	ITEM 202 REMOVAL OF EXISTING LIGHT POLE 75400 EACH	ITEM 202 REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504 EACH	ITEM 202 UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506 EACH	ITEM 202 DISCONNECT EXISTING CIRCUIT 98100 EACH	ITEM 202 REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100 EACH	ITEM 202 LIGHT POLE FOUNDATION REMOVED 75500 EACH	ITEM 625 CONDUIT CLEANED AND CABLES REMOVED 625 25910 LIN. FT.	ITEM 625 PULLBOX CLEANED 625 31600 EACH
333		213+00	222+00	I-71			6	9	12			3			
333		213+00	222+00	I-71	LEFT/RIGHT								6	270	5
333		213+00	222+00	I-71	LEFT									40	
334		222+00	236+00	I-71			20	19	25	1	3	5	8		14
334		222+00	236+00		LEFT/RIGHT									345	
334		222+00	236+00		LEFT/RIGHT									280	
334		222+00	236+00	McMILLIAN	LEFT									85	
334		222+00	236+00	McMILLIAN	LEFT/RIGHT									135	
334		222+00	236+00	RAMP TC	LEFT/RIGHT								5	305	
334		222+00	236+00	TAFT RD	LEFT/RIGHT									557	
334		222+00	236+00	RAMP TH	LEFT/RIGHT								4	45	
334		222+00	236+00	RAMP TH	LEFT/RIGHT									65	
335		236+00	251+00	I-71	LEFT/RIGHT		16	7	25	1	3	7			14
335		236+00	251+00	I-71	LEFT/RIGHT			12					12	320	
335		236+00	251+00	OAK ST.	LEFT/RIGHT									415	
335		236+00	251+00	LINCOLN AVE	LEFT/RIGHT									532	
336		251+00	266+00	I-71				5	10	1	2	5			
336		251+00	266+00	I-71			12	6	6				6	320	4
TOTALS							54	58	78	3	8	20	41	3714	37

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202 REMOVAL OF EXISTING CABLE AND CONDUIT 98200 LIN. FT.	ITEM 202 REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300 EACH	ITEM 202 REMOVAL OF EXISTING LIGHT POLE 75400 EACH	ITEM 202 REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504 EACH	ITEM 202 UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506 EACH	ITEM 202 DISCONNECT EXISTING CIRCUIT 98100 EACH	ITEM 202 REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100 EACH	ITEM 202 LIGHT POLE FOUNDATION REMOVED 75500 EACH	ITEM 625 CONDUIT CLEANED AND CABLES REMOVED 625 25910 LIN. FT.	ITEM 625 PULLBOX CLEANED 625 31600 EACH
337		266+00	279+00	MAIN LINE	MEDIAN		3	7	14			7			
337		POWER SERVICE	270+60	CROSSOVER	LEFT	50	2				1				2
337		8+52	11+23	FREDONIA AVE	LEFT					4				280	2
337		8+52	8+52	FREDONIA AVE											
337		8+52	12+26	FREDONIA AVE	RIGHT	60					1				
338		279+00	294+00	MAIN LINE	MEDIAN			7	14		3	7			
338		288+20	POWER SERVICE	CROSSOVER	RIGHT		2							240	2
338		293+00	293+00	CROSSOVER	LEFT						1			80	2
339		294+00	308+00	MAIN LINE	MEDIAN			6	12			6			
339		295+00	295+00	VICTORY ROADWAY	–					13				320	15
339		295+05	295+07	CROSSOVER	RIGHT						1			50	
339		299+12	308+00	RAMP ME	LEFT			5	5				5		1
340		308+00	321+00	MAIN LINE	MEDIAN			6	12			6			
340		319+30	POWER SERVICE	CROSSOVER	LEFT		2							160	2
340		308+00	323+00	RAMP ME	LEFT		1	7	7				7		
TOTALS						110	10	38	64	17	7	26	12	1130	26

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202: REMOVAL OF EXISTING CABLE AND CONDUIT 98200 (LIN. FT.)	ITEM 202: REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300 (EACH)	ITEM 202: REMOVAL OF EXISTING LIGHT POLE 75400 (EACH)	ITEM 202: REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504 (EACH)	ITEM 202: UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506 (EACH)	ITEM 202: DISCONNECT EXISTING CIRCUIT 98100 (EACH)	ITEM 202: REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100 (EACH)	ITEM 202: LIGHT POLE FOUNDATION REMOVED 75500 (EACH)	ITEM 625: CONDUIT CLEANED AND CABLES REMOVED 625 25910 (LIN. FT.)	ITEM 625: PULLBOX CLEANED 625 31600 (EACH)
341		321+00	334+00	MAIN LINE	MED/LT/RT		4	6	12		2	6		275	3
341		323+00	334+00	RAMP ME	LEFT		5	7	7		1		7		2
341		–	–	WOODBURN AVE	–						1				
342		334+00	349+00	MAIN LINE	MEDIAN			6	12	4		6		325	1
342		–	–	RMAP ME	LEFT						1		5		3
342		–	–	RAMP MF	RIGHT		3	5	5						
342		–	–	TRIMBLE AVE	–						1				1
343		349+00	363+00	MAIN LINE	MEDIAN			5	10			5			
343		–	–	MAIN LINE	RIGHT			1			1			110	3
344		363+00	378+00	MAIN LINE	MED/RT		1	6	12		1	6		240	
344		–	–	DUCK CREEK RD	–		1				1			70	3
344		369+58.89	381+00	RAMP DB	LEFT		2	8	8				8		
TOTALS							16	44	66	4	9	23	20	1020	16

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202: REMOVAL OF EXISTING CABLE AND CONDUIT 98200 (LIN. FT.)	ITEM 202: REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300 (EACH)	ITEM 202: REMOVAL OF EXISTING LIGHT POLE 75400 (EACH)	ITEM 202: REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504 (EACH)	ITEM 202: UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506 (EACH)	ITEM 202: DISCONNECT EXISTING CIRCUIT 98100 (EACH)	ITEM 202: REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100 (EACH)	ITEM 202: LIGHT POLE FOUNDATION REMOVED 75500 (EACH)	ITEM 625: CONDUIT CLEANED AND CABLES REMOVED 625 25910 (LIN. FT.)	ITEM 625: PULLBOX CLEANED 625 31600 (EACH)
345		378+00	392+00	MAIN LINE	MED/LT		1	7	14				7		
345		380+00	392+00	RAMP DC	RIGHT		2	5	5				5	120	1
345		378+00	392+00	RAMP DE	LEFT		1	5	5		1		5		1
345		POWER SERVICE	380+34.5	CROSSOVER	–		4				1			260	3
345		380+50	383+91	CROSSOVER	–									350	2
345		383+91	383+88	CROSSOVER	–		3							235	
346		392+00	304+00	MAIN LINE	MEDIAN		1	5	10		1	5			
346		293+00	–	SIGN 66	LEFT						1			80	1
346		295+07	–	SIGN 1	RIGHT						1			90	1
346		298+05	298+05	CROSSOVER	–			2	2					170	
346		301+60	301+85	CROSSOVER	LEFT		2	1	1		1		1	100	2
346		301+85	301+85	CROSSOVER	RIGHT			1	1				1	90	1
347		304+00	318+00	MAIN LINE	MEDIAN			5	10			5			
347		304+00	309–50	RAMP B	–		2	2	2				2		
347		304+00	309+00	RAMP A	–		1	3	3				3		
347		305+24	305+14	OVERHEAD SIGN	–						1			85	1
347		314+10	POWER SERVICE	CROSSOVER	–		1				1			180	1
348		318+00	332+00	MAIN LINE	MED/RT/LT		2	4	8		1	4			
348		325+00	332+00	RAMP C	–		4	3	3				3	55	2
348		322+50	332+00	RAMP D	–			4	4		1		4		1
348		321+00	18+61	WILLAMS	RIGHT	120			1		1				2
TOTALS						120	24	47	69	–	11	21	24	1815	19

CALC. BY KRB DATE 11/5/96
CHKD. BY BAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

317
615

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202								ITEM 625	
						REMOVAL OF EXISTING CABLE AND CONDUIT 98200	REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300	REMOVAL OF EXISTING LIGHT POLE 75400	REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504	UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506	DISCONNECT EXISTING CIRCUIT 98100	REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100	LIGHT POLE FOUNDATION REMOVED 75500	CONDUIT CLEANED AND CABLES REMOVED 625 25910	PULLBOX CLEANED 625 31600
						LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH
349		332+00	346+00	MAIN LINE	MEDIAN			5	10			5			
349		332+00	334+27	RAMP	RIGHT			1	1				1		
349		332+00	334+27	RAMP	LEFT			1	1		1		1		
349		338+57	338+57	CROSSOVER	LEFT/RIGHT			2	2				2		2
349		340+30	340+30	ROBERTSON AVE	–					2					
349		341+32	341+32	CROSSOVER	LEFT						1			80	1
350		346+00	360+00	MAIN LINE	MEDIAN			5	10			5			
350		347+85	–		RIGHT						1			80	1
351		360+00NB	374+00NB	I-71 NB			2	6	7		1	1	5		2
351		362+15NB	362+30NB	I-71 NB							1			80	2
351		366+17NB	6+00F	RAMP F			2	4	4				4		
351		360+00SB	374+00SB	I-71 SB			4	6	6				6	95	3
351		360+00SB	12+00E	RAMP E				4	4				4		2
352		374+00NB	387+00NB	I-71 NB			1	4	4	2	1		4		1
352		385+09NB	8+00G	RAMP G			4	4	4		1		4		
352		16+69.77J	387+00NB	RAMP J				6	6	2			6		2
352		374+00SB	388+00SB	I-71 SB			1	4	4		1		4		
352		382+60SB	2+00H	RAMP H				2	2				2		
352		4+00I	388+00SB	RAMP I			1	5	5		1		5		1
352		18+00L	27+00L	RAMP L			1	3	3	1			3		
352		18+00K	27+00K	RAMP K			2	3	3	1			3		
352		379+90NB	POWER SERVICE	CROSSOVER			8				1			445	8
TOTALS							26	65	76	8	10	11	54	780	25

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202								ITEM 625	
						REMOVAL OF EXISTING CABLE AND CONDUIT 98200	REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300	REMOVAL OF EXISTING LIGHT POLE 75400	REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504	UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506	DISCONNECT EXISTING CIRCUIT 98100	REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100	LIGHT POLE FOUNDATION REMOVED 75500	CONDUIT CLEANED AND CABLES REMOVED 625 25910	PULLBOX CLEANED 625 31600
						LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH
353		387+00NB	401+00NB	I-71 NB				6	6				6		
353		388+00SB	402+00SB	I-71 SB				6	7				7		
		387+00NB	401+00NB	MEDIAN				1	2			1			
354		401+00	417+00	MEDIAN				6	12		2	6		140	2
354		405+82	8+00N	RAMP N				3	3				3		
354		3+63N	406+52	CROSSOVER			2							125	2
354		4+00P	417+00	RAMP P				4	4				4		
354		6+00R	417+00	RAMP R				1	1				1		
355		417+00	436+00	I-71 MEDIAN				6	11		4	6		180	2
355		417+00	420+00	I-71 RIGHT/LEFT			1	3	3				3		
355		419+40	POWER SERVICE	CROSSOVER			2							200	3
TOTALS							5	36	49		6	13	24	645	9

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202								ITEM 625	
						REMOVAL OF EXISTING CABLE AND CONDUIT 98200	REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300	REMOVAL OF EXISTING LIGHT POLE 75400	REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504	UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506	DISCONNECT EXISTING CIRCUIT 98100	REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100	LIGHT POLE FOUNDATION REMOVED 75500	CONDUIT CLEANED AND CABLES REMOVED 625 25910	PULLBOX CLEANED 625 31600
						LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH
356		335+00	338+00	MONTGOMERY			1				1			80	1
356		2+00	8+00	MONTGOMERY						4					
356		POWER SERVICE	337+87	CROSSOVER							1			120	
357		378+00DE	DANA AVE	RAMP DE											
357		381+00DB	DANA AVE	RAMP DB			4				1			40	2
357		380+00DC	DANA AVE	RAMP DC							1			40	2
358		309+00A	313+57	RAMP A			3	1	2		1		1	75	
358		909+50B	310+25	RAMP B				1	1		1		1		1
		14+00	RIGHT	SMITH-EDMONSON							1				1
359		332+50D	WILLIAMS	RAMP D				1	1		1		1	60	1
359		13+61	20+32	WILLIAMS RD			6							740	4
360		6+00	HIGHLAND	RAMP R			3	3	3		1		3		
360		4+00P	KENNEDY	RAMP P				3	3		1		3		
				TOTALS			17	9	10	4	10		9	1155	12

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202								ITEM 625	
						REMOVAL OF EXISTING CABLE AND CONDUIT 98200	REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300	REMOVAL OF EXISTING LIGHT POLE 75400	REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504	UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506	DISCONNECT EXISTING CIRCUIT 98100	REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100	LIGHT POLE FOUNDATION REMOVED 75500	CONDUIT CLEANED AND CABLES REMOVED 625 25910	PULLBOX CLEANED 625 31600
						LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH
				NORWOOD LATERAL											
361		158+00	12+00E	RAMP E			2	3	3		2		3		2
361		158+00	17+50L	RAMP L			2	5	5		1		5		1
361		8+00	16+69.77J	RAMPS J, K			3	5	5		1		5		
361		9+80J	–	CROSSOVER										100	2
362		17+50L	4+00I	RAMP I				1	1				1		
362		17+50L	8+00G	RAMPS L, T, G			1	7	7	3			7	40	2
362		17+50L	36+00T	RAMPS K, T			2	6	6				6		1
362		6+00F	36+00T	RAMP F			3	5	5				5	40	2
363		2+00H	4+00M	RAMP H			2	8	8		1		8		
363		36+00T	6+00H					5	5				5		
363		36+00T	48+75T				2	8	8				8	40	2
363		2+08M	POWER SERVICE	CROSSOVER			2				1			320	6
				TOTALS			19	53	53	3	6		53	540	18

CALC. BY LRP DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

319
615

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202								ITEM 625	
						REMOVAL OF EXISTING CABLE AND CONDUIT 98200	REMOVAL OF EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES 75300	REMOVAL OF EXISTING LIGHT POLE 75400	REMOVAL OF EXISTING LUMINAIRE FOR STORAGE 75504	UNDERPASS LUMINAIRE REMOVED, AS PER PLAN 75506	DISCONNECT EXISTING CIRCUIT 98100	REMOVAL MISC.: MEDIAN LIGHT POLE FOUNDATION REMOVED 98100	LIGHT POLE FOUNDATION REMOVED 75500	CONDUIT CLEANED AND CABLES REMOVED 625 25910	PULLBOX CLEANED 625 31600
						LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH
364		48+75T	RIDGE	RIDGE AVE			5	6	6	1	3		6	260	4
364		6+00H	24+28H	RAMP H			1	5	5				5		
364		4+00M	26+60	RMAP M			1	3	3	1			3	80	2
364		8+00N	RIDGE	RAMP N				5	5				5		2
				TOTALS			7	19	19	2	3		19	340	8

CALC BY KRR DATE 1/5/96 | CHKD. BY BAP DATE 1/8/96 | HAM-71-2.92 | OHIO | FHWA REGION 5 | 320 / 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION		SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE III 625 00500 EACH III	CONNECTOR KIT TYPE WIB 625 01004 EACH A	CONNECTOR KIT TYPE WIB 625 01004 EACH B	CONNECTOR KIT TYPE WIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A15BB50 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-35 625 04200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 EACH	LIGHT POLE DESIGN A11DB41.7 625 06200 EACH	LIGHT POLE DESIGN A12SB41.7 625 06700 EACH	LIGHT POLE DESIGN A11SB41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN A11SBB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3"713.04 625 25900 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10" 625 14200 EACH	JUNCTION BOX, 4"x 6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#1/0 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
365	1-1	214+31	216+69	I-71	1-1-1	MED	2						1								1						1				744		160			2				
365	1-1	216+69	219+07	I-71	1-1-2	MED	2						1								1						1				744		160			2				
365	1-1	219+07	219+96	I-71	1-1-3	MED	2						1								1	1					1				297		160			2				
365	1-1	219+96	221+45	I-71	PB	MED				3																					477									
365	1-1/2	219+96	219+96	CROSSOVER	PB	RT			6			9																			480							1	4	
365	1-1/2	219+96	219+56	CC#1		RT																									150									
366	1-2	221+45	223+85	I-71	1-1-4	MED	2						1								1						1				750		160			2				
366	1-2	223+85	225+95	I-71	1-1-5	MED	2						1								1						1				645		160			2		1		
366	1-2	225+90	228+05	I-71	1-1-6	MED	2						1								1						1				519		160			2				
366	1-2	224+65	224+65	I-71	SIGN 3	MED						3													50	90					600						1		1	1
366	3-5	228+05	230+20	I-71	3-5-1	MED/LT	2						1								1						1				675		160			2				
366	3-5	230+20	232+18	I-71	3-5-2	MED/LT	2						1								1						1				624		160			2				
366	3-5	232+18	234+56	I-71	3-5-3	MED	2						1								1						1				744		160			2				
366	3-5	234+56	236+94	I-71	3-5-4	MED	2						1								1						1													
																												1			330									
366	3-6	225+95	228+13	RAMP TC	3-6-8	RT	2			3		3		1							1										714		100	238			1		1	
366	3-6	228+13	230+31	RAMP TC	3-6-9	RT	2		3									1			1						1				100	238			1				218
366	3-6	230+31	232+49	RAMP TC	3-6-10	RT	2		3									1			1						1				100	238			1		65		153
366	3-6	232+49	234+71	RAMP TC	3-6-11	RT/LT	2		3			3			1													1			100	183			1		110	2	110
366	3-6	234+71	237+03	RAMP TC	3-6-12	RT	2												1		1	1					1				130	242			1				232
366	3-6	237+03	238+98	RAMP TC	3-6-13	RT	2												1		1						1				130	205			1		65		130
367	3-6	238+98		RAMP TC	3-6-14	RT	2												1		1						1				130									
366	3-6	230+42	231+83	RAMP TH	3-6-1	RT	2					3						1			1						1				100	161			1				141
366	3-6	231+83	232+54	RAMP TH	3-6-2	RT	2											1			1	1					1				100	71			1				71
366	3-6	232+54	233+21	RAMP TH	3-6-3/PB	RT	2				3								1		1						1				100	77			1			1	67
366	3-6	232+54	235+00	RAMP TH	3-6-4	RT/LT	2									1					1						1				100	260			1			1	250
366	2-3/4	228+05	228+67	–	PB						3																				480									
366	2-3/4	228+67	POWER SERVICE	–	CC#2				3			3																				69								3	
366	2-3	9+62	9+35	McMILLIAN	2-3-1	LT	2																				1				240									
366	2-3	9+35	225+25.17		2-3-2	RT	2					3													160		1				870								3	
366	2-3	225+25.17	228+05									6																			870									
366	2-3	16+63	13+43	TAFT	2-3-3		2																				1				960									
366	2-3	13+43	13+77		2-3-5		2																				1				210									
366	2-3	15+04	13+77		2-3-4		2																				1				390									
366	2-3	13+77	228+05		PB				9			3																					280							270
366	3-6	234+71	232+57	CROSSOVER/STA 232	SIGN 7		2					3																			765						1			
366	3-6	232+57	231+70		–				3	6		6																			570									
366	3-6	231+70	232+10		CC#3					3																					240									
366	3-6	232+57	232+53																												120									
							54		30	15	6	45	10	1	1	1		4	4		18	3			210	90	10	6	9	1		14,277		2630	2193		18	10			3	240	3	16	1642

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

321 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	EACH III	CONNECTOR KIT TYPE VIIB 625 01004 EACH A	EACH B	EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A15BB50 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-35 625 04200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 EACH	LIGHT POLE DESIGN A710B41.7 625 06200 EACH	LIGHT POLE DESIGN A725B41.7 625 06700 EACH	LIGHT POLE DESIGN A715B41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN A715BB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 3",713.04 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10" 625 14200 EACH	JUNCTION BOX, 4"x 6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 13" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
367	3-5	236+94	238+90	1-71 3-5-5	MED	2						1								1							1			618		160			2						
367	3-5	238+90	241+28	1-71 3-5-6	MED	2						1								1							1			744		160			2						
367	4-8	241+28	243+52	1-71 3-5-7	MED	2						1								1							1			702		160			2						
367	4-8	243+52	243+66	1-71 PB	MED			3																						42								1			
367	4-8	243+66	246+04	1-71 3-5-8	MED	2						1								1							1			744		160			2						
367	4-8	246+04	248+42	1-71 3-5-9	MED	2						1								1							1			744		160			2						
367	4-8	248+42	250+90	1-71 3-5-10	MED/RT	2						1								1							1			774		160			2					1	
				I-71 SB																																					
367	3-6	235+00	236+90	RAMP TH 3-6-6	RT																																				
367	3-6	236+90	6+15	RAMP TH 3-6-5	RT	2										1	1														100	50			1	1	1		40			
367	3A-7	6+15	5+68	OAK ST. 3A-7-1	RT	2			2																		1			24											
367	3A-7	5+68	5+85	OAK ST. PB	RT			2			3																			195										1	
367	3A-7	5+85	7+60	OAK ST. PB	RT			2			3																			540										1	
367	3A-7	7+60	8+96	OAK ST. 3A-7-2	RT	2																					1			390											
367	3A-7	8+96	–	OAK ST. 3A-7-3	RT	2																					1														
367	3A-7	6+36	239+03	RAMP TH PB	RT						3																													1	
367	3-6	239+03	241+15	RAMP TH 3-6-6	RT	2																				1						100	232			1			222			
367	3-6	241+15	–	RAMP TH 3-6-7	RT	2																										100				1						
	3A-7	5+85	PWR SERV	RAMP TC CC#3A	RT				3		3												1										40									20
367	3A	POWER SERVICE	243+52	CROSSOVER	RT/LT				3		3																			60										1	
367		243+52	243+52	CROSSOVER PB	RT				3		3																			660											
367		243+52	245+45	CROSSOVER PB	RT			3			3																						190							175			180
367		245+45	–	CROSSOVER SIGN	RT																																1					
367	5A	7+51	6+39	LINCOLN AVE 5A	RT	2																					1			330										2	
367	5A	6+39	6+43	LINCOLN AVE 5A	RT	2																					1			180										2	
367	5A	8+84	6+43	LINCOLN AVE 5A	RT	2																					1			735										1	
368	5-10	250+90	253+40	I-71 5-10-1	MED	2						1								1							1			780		160			2						
368	5-10	253+40	255+35	I-71 5-10-2	MED	2						1								1							1			615		160			2						
368	5-10	255+35	255+90	I-71 PB	MED/LT																																	1	1		
368	5-10	255+90	258+50	I-71 5-10-3	MED/LT	2						1								1							1			810		160			2						2
368	5-10	258+50	260+88	I-71 5-10-4	MED	2						1								1							1			744		160			2						
368	5-10	260+88	263+26	I-71 5-10-5	MED	2						1								1							1			744		160			2						
368	5-10	263+26	–	I-71 5-10-6	MED	2						1								1							1					160			2						
368	5-10	250+09	255+35	I-71 SB (3)PB	RT				3		6																						616							606		
368	5-10	255+35	258+28	I-71 SB (3)PB	RT				3		6																						323							305		
368	5-10	258+28	–	I-71 SB SIGN 17	RT		2																													1					
368	5-10	255+35	9+08	I-71 SB PB	RT					3	3																			440										1	
368	5-10	9+08	POWER SERVICE	I-71 SB CC#5	RT																		1																		
368	5A	9+35	POWER SERVICE	CC#5A	LT						3											60							180									50		1	
				RECONNECT @ M.L.K				3																																		
						42	5	10	17	3	39	12				1	1			12		2		60		12	6		1		11,795		2220	1451		24	3	1	1	2	312	2	15	1111

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

322 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION		SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIIB 625 01004 EACH A	CONNECTOR KIT TYPE VIIB 625 01004 EACH B	CONNECTOR KIT TYPE VIIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A15BB50 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-35 625 04200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 EACH	LIGHT POLE DESIGN A11DB41.7 625 06200 EACH	LIGHT POLE DESIGN A12BB41.7 625 06700 EACH	LIGHT POLE DESIGN A11SB41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN A11SBB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3", 713.04 625 25900 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10' 625 14200 EACH	JUNCTION BOX 4"x6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	LUMINAIRE UNDERPASS 150W HPS, 480V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
369	6-11	265+76	268+06	I-71	6-11-1	MED-RT	2			3			1									1				1			720		160			2			1	1	
369	6-11	268+06	270+36	I-71	6-11-2	MED	2			3			1									1				1			720		160			2			1		
369	6-11	270+36	272+51	I-71	6-11-3	MED	2			3			1									1				1			675		160			2			1		
369	6-11	272+51	274+66	I-71	6-11-4	MED	2						1									1				1			675		160			2					
369	6-11	274+66	276+81	I-71	6-11-5	MED	2						1									1				1			675		160			2					
369	6-11	276+81	278+81	I-71	6-11-6	MED	2						1									1				1			675		160			2					
	6-11	267+85	SIGN 21			RT	2																		110				360								1		
369	6-11/12	270+60	270+60	CROSSOVER	PB	SB				3		3																	270									2	
369	6-11/12	270+60	POWER SERVICE	CROSSOVER	CC#6	SB			3			3											1		40				150									2	30
369	6-12	269+21	10+26	FREDONIA	6-12-2	LT			2		3														30			1		120							1		
369	6-12	10+26	9+31	FREDONIA	6-12-1	LT			2																110			1		360						1			
369	6-12	269+21	10+34	FREDONIA	6-12-3	LT			2																30			1		120						1			
369	6-12	10+34	11+31	FREDONIA	6-12-4	LT			2																110			1		360						1			
369	6A-13	8+52	8+88	FREDONIA																									375										
369	6A-13	8+88	12+26	FREDONIA		RT	2																				2		1044									
369	6A-13	8+52	10+63	FREDONIA		RT	2																					2	663					1				
369	6A-13	8+52	CC#6A	FREDONIA	CC#6A	RT	2																1				1		30								1		
370	7-14	280+00	280+81	I-71	SIGN 25,PB	MED																															1		
370	7-14	280+81	282+64	I-71	7-14-1	MED	2						1								1					1			243	160			2						
370	7-14	282+64	284+94	I-71	7-14-2	MED	2						1								1					1			579	160			2						
370	7-14	284+94	287+24	I-71	7-14-3	MED	2						1								1					1			315	160			2						
370	7-14	287+24	288+20	I-71	7-14-4	MED	2						1								1					1			318	160			2						
370	7-14	288+20	289+44	I-17/VD	PB	MED/RT				3																			372			372					1	2	
370	7-14	289+44	291+44	I-71	7-14-5	MED	2						1								1					1			630	160		630	2						
370	7-14	291+44	292+45	I-71	7-15-6	MED	2						1								1					1			333	160		333	2						
370	7-14	292+45	293+45	I-71	SIGN 57,PB	MED				3			1								1					1			150	160			2				1	1	
370	7-14	293+45	295+05	I-71	7-14-7	MED	2						1								1					1			480	160		480	2						
371	7-14	295+05	295+85	I-71	PB	MED				3																			240			240					1		
371	7-14	295+85	297+85	I-71	7-14-8	MED		2					1								1					1			630	160		630	2						
371	7-14	297+85	299+85	I-71	7-14-9	MED		2					1								1					1				160		630	2						
371	7-14	299+85	301+75	I-71	7-14-10	MED		2					1								1					1				160		600	2						
371	7-14	301+75	303+65	I-71	7-14-11	MED		2					1								1					1				160		600	2						
371	7-14	303+65	–	I-71	7-14-12	MED		2					1								1					1				160			2						
371	7-14	295+07	295+05	–	SIGN 59																								285								1		
371	7A-15	–	–	VICTORY	UP LTG			26																					1110					13					
371	7-14	288+20	POWER SERVICE	–	CC#7																		1						660			660						1	
	7A-15	7A-15-5,10	296+10						6			6													90				300		110							2	
		296+10	POWER SERVICE		CC#7				3														1															1	
							60	10	20	21	3	12	19								19		4		410	110	19	3		6		7992	6645	3040	110	5175	38	13	4	2	4		9	11	30

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

323 / 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 (EACH: II, III)	CONNECTOR KIT TYPE VIB 625 01004 (EACH: A, B, C)	CABLE SPLICE KIT 625 01500 (EACH)	LIGHT POLE DESIGN 50' A1568B50 625 10500 (EACH)	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 (EACH)	LIGHT POLE DESIGN, AS PER PLAN, A-15B-40 625 04200 (EACH)	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 (EACH)	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 (EACH)	LIGHT POLE DESIGN AT10B41.7 625 06200 (EACH)	LIGHT POLE DESIGN AT25B41.7 625 06700 (EACH)	LIGHT POLE DESIGN AT15B41.7 625 06400 (EACH)	GROUND ROD 625 32000 (EACH)	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 (EACH)	ELECTRIC SERVICE 625 98000 (EACH)	LIGHT POLE DESIGN AT15BB41.7 625 06200 (EACH)	2" GRS METALLIC CONDUIT 713.04 625 25400 (LIN. FT.)	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 3", 713.04 (LIN. FT.)	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 (EACH)	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 (EACH)	LIGHT POLE FOUNDATION 24"x10" 625 14200 (EACH)	JUNCTION BOX, 4"x 6" 625 29900 (EACH)	POST TOP LUMINAIRE 100W HPS 625 27400 (EACH)	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 (LIN. FT.)	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 (LIN. FT.)	#10 AWG POLE AND BRACKET CABLE 625 23400 (LIN. FT.)	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 (LIN. FT.)	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 (LIN. FT.)	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 (EACH)	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 (EACH)	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 (EACH)	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 (EACH)	REFURBISH SIGN SERVICE, PER PLAN 625 98000 (EACH)	TRENCH IN PAVED AREA, TYPE B 625 29600 (LIN. FT.)	MEDIAN PULL BOX 625 31500 (EACH)	PULL BOX, 713.08, 18" 625 30700 (EACH)	TRENCH, 24" DEEP 625 29002 (LIN. FT.)
372		319+28	320+95	M6/VB PB																																		2	
371	8-16	305+59	307+59	I-71 8-16-1	MED	2			1								1							1						630	160			2				
371	8-16	307+59	309+59	I-71 8-16-2	MED	2			1								1							1						630	160			2				
372	8-16	309+59	311+70	I-71 8-16-3	MED	2			1								1							1						663	160			2				
372	8-16	311+70	313+70	I-71 8-16-4	MED	2			1								1							1						630	160			2				
372	8-16	313+70	315+70	I-71 8-16-5	MED	2			1								1							1						630	160			2				
372	8-16	315+70	317+70	I-71 8-16-6	MED	2			1								1							1						630	160			2				
372	8-16	317+70	320+18	I-71 8-16-7	MED	2			1								1							1						774	160			2		1		
372	8-16	320+18	322+18	I-71 8-16-8	MED	2			1								1							1						630	160			2				
373	8-16	322+18	324+55	I-71 8-16-9	MED	2			1								1							1						741	160			2		1		
373	8-16	324+55	–	I-71 8-16-10	MED	2			1								1							1						–	160			2				
373	8-16	322+65	SIGN 34	I-71 SIGN 34	MED		2		3														130	90						420					1		1	
				I-71 SB																																			
371	8-17	303+60	305+60	RAMP ME 8-17-1	LT	2								1			1								1					100		210		1				200
371	8-17	305+60	307+60	RAMP ME 8-17-2	LT	2								1			1								1					100		210		1				200
371	8-17	307+60	309+60	RAMP ME 8-17-3	LT	2								1			1								1					100		210		1				206
372	8-17	309+60	311+66	RAMP ME 8-17-4	LT	2								1			1								1					100		204		1				194
372	8-17	311+66	314+25	RAMP ME 8-17-5	LT	2								1			1								1					100		264		1				259
372	8-17	314+25	315+74	RAMP ME 8-17-6	LT	2																								100		159		1				149
372	8-17	315+74	318+05	RAMP ME 8-17-7	LT	2								1			1								1					100		241		1				231
372	8-17	318+05	320+00	RAMP ME 8-17-8	LT	2									1		1								1					100		205		1				195
372	8-17	320+00	320+95	RAMP ME 8-17-9	LT	2					1																			100		105		1				95
372	8-17	320+95	322+19	RAMP ME EPB	LT			3	3																					–		134						124
372	8-17	322+19	324+15	RAMP ME 8-17-10	LT	2					1																			100		206		1				196
373	8-17	324+15	326+33	RAMP ME 8-17-11	LT	2				1																				100		228		1			60		1	158
373	8-17	326+33	328+51	RAMP ME 8-17-12	LT	2								1			1								1					100		228		1				218
373	8-17	328+51	330+69	RAMP ME 8-17-13	LT	2								1			1								1					100		228		1				218
373	8-17	330+69	332+72	RAMP ME 8-17-14	LT	2								1			1								1					100		213		1				203
373	8-17	332+72	334+62	RAMP ME 8-17-15	LT	2								1			1								1					100		200		1				190
373	8-17	334+62	–	RAMP ME 8-17-16	LT	2								1			1								1					100		–		1				
373	8-17	319+28	SIGN 36	RAMP ME 8-17-36	RT		2		3																							482					1			472
373		319+30	319+28	CROSSOVER																										450								1	
373		319+28	POWER SERVICE	2 EPB,CC#8																1										270									
373	8A-18	3+83	2+10	WOODBURN 8A-18-2		2		3																1				794										
373	8A-18	2+10	323+33	WOODBURN 8A-18-1		2																		1				128										
373	8A-18	323+33	319+28	WOODBURN EPB			3																								1245					1235			
373	8A-18	319+28	–	WOODBURN EPB				3																															
373	8A-18	323+33	POWER SERVICE	CC#8A				6															70						240							70		2	
373		324+00	324+00	I-71 PB																																		1	
						56	7	9	15	10	1	2			11	1		22		1		200	90	10	2	12			922	7338	3200	1245	3732	20	16			2	1365	3	7	3508

INSTALLATION SUB-SUMMARY

M:\DTL\SUB\TDI.dwg – DEC. 16, 1991

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

324 / 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIB 625 01004 EACH A	CONNECTOR KIT TYPE VIB 625 01004 EACH B	CONNECTOR KIT TYPE VIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A15B850 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-35 625 04200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 EACH	LIGHT POLE DESIGN AT10B41.7 625 06200 EACH	LIGHT POLE DESIGN AT25B41.7 625 06700 EACH	LIGHT POLE DESIGN AT15B41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN AT15BB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3", 713.04 625 25900 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10' 625 14200 EACH	JUNCTION BOX, 4"x6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS, 240V 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
373	9-19	327+00	329+45	I-71 9-19-1	MED	2						1								1						1			765		160			2						
373	9-19	329+45	331+85	I-71 9-19-2	MED/LT	2						1								1						1			750		160			2					1	
373	9-19	331+85	333+87	I-71 9-19-3	MED	2						1								1						1			636		160			2						
373	9-19	333+87	334+25	I-71 PB	MED					3																			114								1	2	
374	9-19	334+25	336+80	I-71 9-19-4	MED	2						1								1						1			795		160			2			1		
374	9-19	336+80	339+12	I-71 9-19-5	MED	2						1								1						1			795		160			2					
374	9-19	339+12	–	I-71 9-19-6	MED	2						1								1						1			726		160			2					
374	9-20	343+69	342+18	RAMP MF 9-20-6	RT	2											1			1					1					100	161			1					151
374	9-20	342+18	340+60	RAMP MF 9-20-5	RT	2											1			1					1					100	168			1					158
374	9-20	340+60	338+87	RAMP MF 9-20-4	RT	2											1			1					1					100	183			1					173
374	9-20	338+87	333+87	RAMP MF 9-20-3	RT	2											1			1					1					100	510			1					400
373	9-20	333+87	332+90	RAMP MF PB	RT				3		3																				107								97
373	9-20	332+90	–	RAMP MF SIGN 38	RT	2					3																									1			
373	9-20	333+87	333+87	CROSSOVER PB	RT						3																		870								1		
373	9-20	333+87	POWER SERVICE	CROSSOVER CC#9	RT																	1																	
388	9-20	337+85	336+32	RAMP ME 9-20-2	LT	2											1			1					1					100	133			1					123
388	9-20	CC#9		RAMP ME	LT	2											1			1					1					100	105			1					95
388	9A-21	5+53	–	MONTGOMERY 4UP LTGS				6	6																	4			240							4	1		1		
388	9A-21	8+06	POWER SERVICE	– CC#9A	LT		3															1				1						85								75
374	10-22	341+44	343+76	I-71 10-22-1	MED	2						1								1						1			726		160			2					
374	10-22	343+76	346+08	I-71 10-22-2	MED	2						1								1						1			726		160			2					
374	10-22	346+08	347+83	I-71 10-22-3	MED	2						1								1						1			522		160			2					
374	10-22	347+85	348+68	I-71 PB	MED			3																					318								1		
374	10-22	348+68	351+06	I-71 10-22-4	MED	2						1								1						1			714		160			2					
375	10-22	351+06	353+44	I-71 10-22-5	MED	2						1								1						1			744		160			2					
375	10-22	353+44	355+82	I-71 10-22-6	MED	2						1								1						1			744		160			2					
375	10-22	355+82	357+70.5	I-71 10-22-7	MED	2						1								1						1			596		160			2					
374		347+85	POWER SERVICE	CROSSOVER					3		3																		630								1	1	
374		POWER SERVICE		CC#10																		1																	
374	10A-23	POWER SERVICE	3+46	TRIMBLE AVE CC#10A																		1																2	
374	10A-23	3+46	7+01	10-23-1				3																		1													
375	10A-23	CC#10A	PED LIGHT	PEDESTRIAN BRIDGE				9			9																	60	190				1	780			980			1		3	970
						40	3	21	2	3	21	13					6			19		4		60	190	13	2	6	4	1	12191		2680	2432		26	6	5	1	1	100	5	10	2242

INSTALLATION SUB-SUMMARY

H:\71\2.92\TDI.dwg - DEC. 18, 1997

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

325 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIIB 625 01004 EACH A	CONNECTOR KIT TYPE VIIB 625 01004 EACH B	CONNECTOR KIT TYPE VIIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A15B850 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-35 625 04200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 EACH	LIGHT POLE DESIGN AT10B41.7 625 06200 EACH	LIGHT POLE DESIGN AT25B41.7 625 06700 EACH	LIGHT POLE DESIGN AT15B41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN AT15BB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3"/713.04 625 25900 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10" 625 14200 EACH	JUNCTION BOX, 4"x6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
375	11-24	358+20	360+58	1-71 11-24-1	MED	2						1								1								744		160			2					
375	11-24	360+58	362+88	1-71 11-24-2	MED	2						1								1								720		160			2					
375	11-24	362+88	365+13	1-71 11-24-3	MED	2						1								1								705		160			2					
376	11-24	365+13	367+33	1-71 11-24-4	MED	2						1								1								690		160			2					
376	11-24	367+33	367+68	1-71 11-24-5	MED	2						1								1								105		160			2					
376	11-24	367+68	369+53	1-71 PB	MED/LT				2																			585							1		1	
376	11-24	369+53	371+73	1-71 11-24-6	MED	2						1								1								690		160			2					
376	11-24	371+73	373+83	1-71 11-24-7	MED	2						1								1								660		160			2					
376	11-24	373+83	376+13	1-71 11-24-8	MED	2						1								1								720		160			2					
376	11-24	376+13	–	1-71 11-24-9	MED	2						1								1								–		160			2					
376	11-24	367+68	367+68	CROSSOVER	RT																							300										
376	11-24	367+68	POWER SERVICE	CC#11	RT						3												1					60										
376	11-24	367+50	367+68	EPB/SIGN 48	RT					2	3																				56					1			20
376	11-24	14+90	18+62	SIGN 160	RT						3																				382						50		1	322
376	12-26	369+40	371+45	RAMP DB 12-26-9	LT	2											1			1					1					100			1						
376	12-26	371+45	373+50	RAMP DB 12-26-8	LT	2											1			1					1					100	215		1						205
376	12-26	373+50	375+68	RAMP DB 12-26-7	LT	2											1			1					1					100	228		1				100		118
376	12-26	375+68	377+20	RAMP DB 12-26-6	LT	2											1			1					1					100	162		1						152
376	12-26	377+20	378+60	RAMP DB 12-26-5	LT	2											1			1					1					100	150		1						140
376	12-26	378+60	380+00	RAMP DB 12-26-4	LT	2											1			1					1					100	150		1						140
376	12-26	380+00	381+40	RAMP DB 12-26-3	LT	2											1			1					1					100	150		1						140
389	12-26	381+40	382+80	RAMP DB 12-26-2	LT	2											1			1					1					100	150		1						140
389	12-26	383+36	384+76	RAMP DB 12-26-1	LT	2											1			1					1					100	140		1						130
																															100	–								
389	12-26	382+00	374+70	CROSSOVER PB	LT					2	3																	165										
389	12-26	374+70	374+70	PB	LT				2		3																	218									2	
389	12-26	374+70	POWER SERVICE	PB	RT					2	3																					15						2	5
389	12-26	CC#12	–	CC#12	RT																		1															
389	12-25	374+05	375+52	RAMP DE 12-25-1	LT	2								1																100	157		1			1			147
389	12-25	375+52	376+99	RAMP DE 12-25-2	LT	2									1															100	157		1						147
389	12-25	376+99	378+72	RAMP DE 12-25-3	LT	2										1														100	183		1						173
377	12-25	378+72	380+55	RAMP DE 12-25-4	LT	2											1			1					1					100	193		1						183
377	12-25	380+55	382+38	RAMP DE 12-25-5	LT	2											1			1					1					100	193		1						183
377	12-25	382+38	384+21	RAMP DE 12-25-6	LT	2		2			3						1			1					1					100	193		1						183
377	12-25	384+21	386+40	RAMP DE 12-25-7	LT	2		2			3						1			1					1					100	229		1						219
377	12-25	386+40	387+90	RAMP DE 12-25-8	LT	2											1			1					1					100	160		1						150
377	12-25	387+90	388+54	RAMP DE SIGN 56	LT				2		3																					74					1			64
377	12-25	388+54	390+80	RAMP DE 12-25-9	LT	2											1			1					1					100	236		1						226
377	12-25	3990+80	–	RAMP DE 12-25-10	LT	2											1			1					1					100			1						
						56		4	6	6	27	9		1	1	1	16			25		2				9		16			6362		3340	3583		18	19			3	150	1	6	3187

INSTALLATION SUB-SUMMARY

H:\71\2.92\713.dwg - DEC. 16, 1991

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

326
615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE III 625 00500 EACH III	CONNECTOR KIT TYPE VIIB 625 01004 EACH A	CONNECTOR KIT TYPE VIIB 625 01004 EACH B	CONNECTOR KIT TYPE VIIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A158850 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, AT-20B-34.2 625 04600 EACH	LIGHT POLE DESIGN, AS PER PLAN, AT-10B-36.7 625 06200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 EACH	LIGHT POLE DESIGN AT10B41.7 625 06200 EACH	LIGHT POLE DESIGN AT25B41.7 625 06700 EACH	LIGHT POLE DESIGN AT15B41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN AT15BB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 3", 713.04 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10" 625 14200 EACH	JUNCTION BOX, 4"x6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
377	14-30	378+43	380+34.5	I-71 14-30-1	MED	2						1								1					1					605	160			2						
377	14-30	380+34.5	380+73	I-71 PB	MED				3																					116							1			
377	14-30	380+73	383+03	I-71 14-30-2	MED	2						1								1					1					720	160			2						
377	14-30	383+03	385+33	I-71 14-30-3	MED	2						1								1					1					720	160			2						
377	14-30	385+33	387+47	I-71 14-30-4	MED	2						1								1					1					672	160			2						
377	14-30	387+47	389+61	I-71 14-30-5	MED/LT	2						1								1					1					672	160			2					1	
377	14-30	389+61	391+85	I-71 14-30-6	MED	2						1								1					1					744	160			2						
377	14-30	391+85	–	I-71 14-30-7	MED	2						1								1					1					–	160			2						
377	14-29/30	380+34.5	380+50	CROSSOVER EPB	–			2			3																			390									1	
377	14-29/30	380+50	380+50	EPB	–			2		2	3																			150										
377	14-29/30	380+50	POWER SERVICE	EPB	–			2		2	3																			120										
377	14-29/30	CC#14	–	CC#14																		1																	1	
389	14-29	376+40	377+50	RAMP DC 14-29-1	RT	2											1			1					1						100		120		1					110
389	14-29	377+50	378+60	RAMP DC 14-29-2	RT	2											1			1					1						100		120		1					110
389	14-29	378+60	379+70	RAMP DC 14-29-3	RT	2											1			1					1						100		120		1					110
389	14-29	379+70	381+05	RAMP DC 14-29-4	RT/LT	2											1			1					1						100		145		1				2	135
377	14-29	381+05	382+74	RAMP DC 14-29-5	RT	2											1			1					1						100		178		1			20		149
377	14-29	382+74	384+43	RAMP DC 14-29-6	RT	2											1			1					1						100		180		1					169
377	14-29	384+43	386+16	RAMP DC 14-29-7	RT	2											1			1					1						100		183		1					173
377	14-29	386+16	388+54	RAMP DC 14-29-8	RT	2											1			1					1						100		248		1					238
377	14-29	388+54	390+80	RAMP DC 14-29-9	RT	2											1			1					1						100		236		1					226
377	14-29	390+80	–	RAMP DC14-210-10	RT	2											1			1					1						100		–		1					
389	14-29	376+40	377+80	RAMP DA 14-29-11		2											1			1					1						100		150		1					140
389	14-29	377+80	380+50	RAMP DA 14-29-10		2					3						1			1					1						100		280		1					270
378	15-31	292+18	293+00	I-71 15-31-1	MED	2						1								1						1				246	160			2						
378	15-31	293+00	294+66	I-71 PB	MED				2		3																			528							1		1	
378	15-31	294+66	295+07	I-71 15-31-2	MED	2						1								1						1				123	160			2						
378	15-31	295+07	297+14	I-71 PB	MED				2		3																			651							1		1	
378	15-31	297+14	299+62	I-71 15-31-3	MED	2						1								1						1				774	160			2						
378	15-31	299+62	301+60	I-71 15-31-4	MED	2						1								1						1				624	160			2						
378	15-31	301+60	302+10	I-71 PB	MED				2		3																			285									1	
378	15-31	302+10	304+58	I-71 15-31-5	MED	2						1								1						1				1176	160			2						
378	15-31	304+58	305+14	I-71 15-31-6	MED	2						1								1						1				312	160			2						
378	15-31	305+14	307+06	I-71 PB	MED				2		3																			924									1	
378	15-31	307+06	–	I-71 15-31-7	MED	2						1								1						1					160			2						1	
378	15-31	393+00	393+00	SIGN 57	LT				2		3																			240							1			
378	15-31	295+07	295+07	SIGN 59	RT				2		3																			270							1			
378	15-31/32	301+60	POWER SERVICE	CROSSOVER																										630									1	
378	15-31/32	CC#15	–	CC#15																		1																	1	
379	15-32	310+12	308+11	RAMP B 15-32-9	RT	2												1	1							1					100		211		1					201
379	15-32	308+11	306+05	RAMP B 15-32-8	RT	2							1																		100		216		1				1	206
379	15-32	306+05	305+24	RAMP B 15-32-7	RT	2						1																			100		91		1					81
379	15-32	305+24	305+14	MEDIAN SIGN 62	RT			2			3																			360							1	1		
379	15-32	305+14	–	– MED, PB	RT				2																														1	
378	15A-33	301+85	CC#15A	HIRE'S TUNNEL CC#15A	LT						3											1		20	50		1			240							1		1	
						58		8	17	4	36	14	1	1			12		1	27		3		20	50	14	1	13			240	12,052	3740		2478	28	15		2	5	20	6	10	2318

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

327 / 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE III 625 01004 EACH III	CONNECTOR KIT TYPE VIB EACH A	CONNECTOR KIT TYPE VIB EACH B	CONNECTOR KIT TYPE VIB EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A15BB50 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-35 625 04200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, AT-20B-46.7 625 09600 EACH	LIGHT POLE DESIGN AT10B41.7 625 06200 EACH	LIGHT POLE DESIGN AT25B41.7 625 06700 EACH	LIGHT POLE DESIGN AT15B41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN AT15BB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3" 713.04 625 25900 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10" 625 14200 EACH	JUNCTION BOX, 4"x6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
390	16A	311+95	16+43	CROSSOVER							9																																1	
390	16A	EPB	POWER SERVICE	CC#16A							3											1																				1	
390	15-32	310+55	308+85	RAMP A PB	LT				2		3																																
379	15-32	308+85	307+15	RAMP A 15-32-3	LT	2												1																									170
379	15-32	307+15	305+45	RAMP A 15-32-2	LT	2											1																										170
379	15-32	305+45	–	RAMP A 15-32-1	LT	2										1																										385
379	15-32	310+55	310+55	RAMP A 15-32-4	LT	2														1																						
379	16-34	309+54	311+75	I-71 16-34-1	MED	2						1								1								1					693	160				2				
379	16-34	311+75	314+00	I-71 16-34-2	MED	2						1								1								1					705	160				2				
379	16-34	314+00	314+10	I-71 16-34-3	MED	2						1								1								1					40	160				2				
379	16-34	314+10	316+25	I-71 PB	MED/RT				2																														1	1	
379	16-34	316+25	318+50	I-71 16-34-4	MED	2						1								1								1					705	160				2				
79	16-34	318+50	320+75	I-71 16-34-5	MED	2						1								1								1					705	160				2				
380	16-34	320+75	323+00	I-71 16-34-6	MED	2						1								1								1					705	160				2				
380	16-34	323+00	325+30	I-71 16-34-7	MED	2						1								1								1					720	160				2				
380	16-34	325+30	327+60	I-71 16-34-8	MED	2						1								1								1					720	160				2				
381	16-34	327+60	329+90	I-71 16-34-9	MED/LT	2						1								1								1					720	160				2			1	
381	16-34	329+90	332+20	I-71 16-34-10	MED	2						1								1								1					720	160				2				
381	16-34	332+20	334+50	I-71 16-34-11	MED	2						1								1								1					720	160				2				
381	16-34	334+50	–	I-71 16-34-12	MED	2						1								1								1					–	160				2				
379	16	314+10	314+10	CROSSOVER PB	RT					2	3																						120									
379	16	314+10	POWER SERVICE	PB	–				4		3																						90	105								
379	16	CC#16	–	CC#16	–																	1																				
379	16-35/36	314+10	321+00	I-71 NB PB	RT		3				6																													1	690
379	16-35/36	321+00	18+61	– SIGN 67			3		2		3																												1	120		1	
391	16B-35	13+61	POWER SERVICE	WILLIAMS CC#16B																		1																				
390	16B-35	18+61	17+05	WILLIAMS PB	RT						6																						717									
390	16B-35	17+05	15+35	WILLIAMS 16B-35-3	RT	2					3																						780									
390	16B-35	15+35	13+61	WILLIAMS 16B-35-2	RT	2					3																						798									
390	16B-35	13+61	13+61	CROSSOVER PB	RT			2																									285									
391	16B-35	13+61	321+38	RAMP D 16B-35-1	RT	2																1																				
380	16-36	321+38	323+31	RAMP D 16-36-4	RT	2											1			1								1						100		193		1					183
380	16-36	323+31	325+34	RAMP D 16-36-3	RT	2											1			1								1						100		213		1					203
380	16-36	325+34	327+25	RAMP D 16-36-2	RT	2											1			1								1						100		201		1					191
380	16-36	327+25	328+30	RAMP D 16-36-1	RT	2											1			1								1						100		115		1					105
380	16-36	328+30	328+25	RAMP D SIGN 71	RT	2		2																															1			
380	16-36	328+25	–	RAMP D PB	MED						3																				90					160					1	1	
391	16B-35	18+61	18+67	WILLIAMS				2																													16				3	6
391	16B-35	18+67	20+31	WILLIAMS 16B-35-4		2																1															174				3	164
391	16B-35	20+31	20+31	CROSSOVER PB				2																									180							1	
380	16-36	20+31	325+59	RAMP C 16B-35-5	LT	2																1															250					240
380	16-36	325+59	325+06	RAMP C PB				2																									165							1	
380	16-36	325+06	327+06	RAMP C 16B-36-6		2			2								1			1								1						100		156		1				2	146
380	16-36	327+06	329+24	RAMP C 16B-36-7		2											1			1								1						100		228		1			218		
380	16-36	329+24	331+42	RAMP C 16-36-5		2											1			1								1						100		228		1					218
380	16-36	331+42	333+35	RAMP C 16-36-6		2											1			1								1						100		203		1					193
380	16-36	333+35	335+65	RAMP C 16-36-7		2											1		1	1								1						100		–		1			218		
380	16-36	335+65	–	RAMP C 16-36-8		2											1			1								1						100				1					
						64	6	10	12	2	45	12				1	11	1	1	25		3	1		90	12	5	13			200	10,948	3330		4412	24	15		2		498	2	18	3234

INSTALLATION SUB-SUMMARY

H:\71\2.92\YCI.dwg - DEC. 16, 1991

CALC. BY KRB DATE 1/5/96
CHKD. BY RAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

328
615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION		SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIIB 625 01004 EACH A	CONNECTOR KIT TYPE VIIB 625 01004 EACH B	CONNECTOR KIT TYPE VIIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT POLE DESIGN 50' A15B850 625 10500 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-40 625 05200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-35 625 04200 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-30 625 02914 EACH	LIGHT POLE DESIGN, AS PER PLAN, A-10B-20 625 02914 EACH	LIGHT POLE DESIGN AT10B41.7 625 06200 EACH	LIGHT POLE DESIGN AT25B41.7 625 06700 EACH	LIGHT POLE DESIGN AT15B41.7 625 06400 EACH	GROUND ROD 625 32000 EACH	JUNCTION BOX EXTENSION, AS PER PLAN 625 29900 EACH	ELECTRIC SERVICE 625 98000 EACH	LIGHT POLE DESIGN AT15BB41.7 625 06200 EACH	2" GRS METALLIC CONDUIT 713.04 625 25400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 3", 713.09 LIN. FT.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP 625 14300 EACH	RECONNECT EXISTING LIGHT STANDARD TO CIRCUIT 625 98000 EACH	LIGHT POLE FOUNDATION 24"x10" 625 14200 EACH	JUNCTION BOX, 4"x6" 625 29900 EACH	POST TOP LUMINAIRE 100W HPS 625 27400 EACH	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 713.11 625 26700 EACH	LUMINAIRE STYLE B, TYPE II 200W HPS, 480V 713.11 625 26301 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, PER PLAN 625 37101 EACH	REFURBISH SIGN SERVICE, PER PLAN 625 98000 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	MEDIAN PULL BOX 625 31500 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
381	17-37	336+80	339+10	I-71	17-37-1	MED	2						1								1						1					720	160			2								
381	17-37	339+10	340+28	I-71	17-37-2	MED	2						1								1						1					384	160			2					1			
381	17-37	340+28	341+33	I-71	PB	MED			4	2																				345						2	1		1			
381	17-37	341+33	341+50	I-71	PB	MED				2																				54								1				
381	17-37	341+50	343+81	I-71	17-37-3	MED	2						1								1						1					723	160			2								
381	17-37	343+81	346+12	I-71	17-37-4	MED	2						1								1						1					723	160			2								
382	17-37	346+12	347+35	I-71	17-37-5	MED	2						1								1						1					399	160			2								
382	17-37	347+35	348+43	I-71	PB	MED				2																				354									1			
382	17-38	348+43	350+68	I-71	17-38-1	MED	2						1								1						1					705	160			2								
382	17-38	350+68	353+12	I-71	17-38-2	MED	2						1								1						1					762	160			2								
382	17-38	353+12	355+63	I-71	17-38-3	MED	2						1								1						1					783	160			2								
382	17-38	355+63	357+74	I-71	17-38-4	MED	2						1								1						1					663	160			2								
382	17-38	357+74	–	I-71	PB	MED																								–									1			
382	17-38	341+33	341+33		SIGN 76							3																		240								1				
382	17-37/38	347+35	347+35	CROSSOVER	–				4																					510												
382	17-37/38	347+35	POWER SERVICE	SIGN 79	PB,CC#17				4			6											1								60										1		
							18		12	6		9	9							9		1				9				7425	1440			18		2	1	2		4	1	

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

329
615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIIB 625 01004 EACH A	CONNECTOR KIT TYPE VIIB 625 01004 EACH B	CONNECTOR KIT TYPE VIIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT TOWER DESIGN BBBB100' 625 13200 EACH	LIGHT TOWER DESIGN BBBBBB100' 625 13400 EACH	LIGHT POLE DESIGN ATON 51.7 625 10471 EACH	LIGHT POLE DESIGN ST15BB51.7 625 10500 EACH			ELECTRIC SERVICE 625 98000 EACH	RECONNECT EXISTING CIRCUITS 625 98000 EACH		GROUND ROD 625 32000 EACH	PULL BOX 18", AS PER PLAN 625 30701 EACH	LIGHT POLE FOUNDATION TYPE "A", AS PER PLAN 24"x10' DEEP, 625 14501 EACH	LIGHT TOWER FOUNDATION TYPE A, PER PLAN, 3'6"x 2.5' 625 15201 EACH	LIGHT TOWER FOUNDATION 36"x25' DEEP 625 15200 EACH	LIGHT POLE FOUNDATION 24"x10' DEEP 625 14200 EACH	SERVICE TO UNDERPASS LIGHTING 625 37101 EACH	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.			1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 LIN. FT.	2" GRS METALLIC CONDUIT 713.04 625 25400 EACH	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 625-26700 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	LUMINAIRE ASSYMMETRIC 400W HPS, 480V 625 27000 EACH	LUMINAIRE SYMMETRIC 400W HPS, 480V 625 27200 EACH	TRENCH IN PAVED AREA, TYPE B 625 23600 LIN. FT.	REFURBISH SIGN SERVICE, AS PER PLAN 625 98000 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
383	18-39	359+85	361+45	I-71 18-39-1	MED								1								2			1							340								6	60			100
383	18-39	361+45	361+45	I-71 PB	RT						2																	400															1	
383	18-39	361+45	POWER SERVICE	I-71 PB	LT						2																													15			1	
383	18-39	CC#18	–	I-71 SB CC#18	LT						2																																1	
383	18-39	370+30	367+00	I-71 SIGN 86	MED/RT																																							
383	18-39	367+00	364+10	I-71 SB PB	MED						2																													320	1	1	
383	18-39	364+10	362+30	I-71 NB 18-39-2	MED								1								2				1						660									290		1	
383	18-39	362+30	361+45	I-71 SB PB	MED						2																				600								6				180
383	18-39	362+15	362+30	I-71 NB SIGN 83	MED												1											320			280												
393	18-40	6+84K	9+60E	RAMP E 18-40-5	LT								1								2				1						190										1		85
393	18-40	9+60E	9+80K	RAMP E PB	LT						2																				360								6	270			
393	18-40	SIGN 217	15+00K	RAMP K 18-40-6	RT						2		1								2				1						190									85			
393	18-40	9+80K	11+60J	RAMP E PB	LT																										300								6				290
393	18-40	11+60J	12+18E	RAMP E 18-40-4	LT								1								2				1						200												190
393	18-40	12+18E	POWER SERVICE	RAMP E PB	LT						2																				120								6		1		110
393	18-40	CC#18	–	RAMP E	LT																										235									225		1	
383	18-40	376+63NB	373+05SB	I-71 NB 18-40-3	LT								1								2				1						440								6				430
383	18-40	373+05SB	370+60NB	I-71 NB 18-40-2	LT								1								2				1						200								6				190
383	18-40	370+60NB	368+56SB	I-71 SB PB	LT						2																				250											1	240
383	18-40	368+56SB	367+75SB	I-71 SB 18-40-1	LT								1								2				1						100								6				90
393	18-40	EXIST LIGHT	SIGN 220	I-71 SB				2			3																				160										1		
393	18-40	18-40-4	SIGN 217	I-71 SB				2			3																				120										1		
								4			24		8				1				16			1	7			720			4795								48	1265	5	8	1905

CALC BY KRB DATE 1/15/96
CHKD BY BAP DATE 1/18/96

HAM-71-2.92

OHIO | FHWA REGION 5

330 / 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIIB 625 01004 EACH A	CONNECTOR KIT TYPE VIIB 625 01004 EACH B	CONNECTOR KIT TYPE VIIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT TOWER DESIGN BBBB100' 625 13200 EACH	LIGHT TOWER DESIGN BBBBBB100' 625 13400 EACH	LIGHT POLE DESIGN ATON 51.7 625 10471 EACH	LIGHT POLE DESIGN ST156B51.7 625 10500 EACH			ELECTRIC SERVICE 625 98000 EACH	RECONNECT EXISTING CIRCUITS 625 98000 EACH		GROUND ROD 625 32000 EACH	PULL BOX 18", AS PER PLAN 625 30701 EACH	LIGHT POLE FOUNDATION TYPE "A", AS PER PLAN 24"x10' DEEP, 625 14501 EACH	LIGHT TOWER FOUNDATION TYPE A, PER PLAN, 3'6"x2.5' 625 15201 EACH	LIGHT TOWER FOUNDATION 36"x25' DEEP 625 15200 EACH	LIGHT POLE FOUNDATION 24"x10' DEEP 625 14200 EACH	SERVICE TO UNDERPASS LIGHTING, 625 37101 AS PER PLAN EACH	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.			1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 LIN. FT.	2" GRS METALLIC CONDUIT 713.04 625 25400 EACH	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 625-26700 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	LUMINAIRE ASSYMMETRIC 400W HPS, 480V 625 27000 EACH	LUMINAIRE SYMMETRIC 400W HPS, 480V 625 27200 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	REFURBISH SIGN SERVICE, AS PER PLAN 625 98000 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
384	20-42	20-42-3UP	20-42-2UP	UNDERPASS LIGHTING	–																							580						1						
384	20-42	20-42-1UP	20-42-2UP	UNDERPASS LIGHTING	–																							200						1						
384	20-42	20-42-2UP	20-42-4UP	UNDERPASS LIGHTING	–																							620						1						
384	20-42	20-42-4UP	20-42-5UP	UNDERPASS LIGHTING	–																							220						1						
384	20-42	20-42-5UP	20-42-6UP	UNDERPASS LIGHTING	–																							100						1						
384	20-42	20-42-6UP	379+90	UNDERPASS LIGHTING	–																							80						1						
384	20-41/42	379+90	24+60J	CROSSOVER PB	–					2	2															1	190	190											1	
384	20-41/42	24+60J	24+60J	CROSSOVER PB	–						2																90	90											2	
384	20-41/42	24+60J	380+40	CROSSOVER PB	–						2																280	280												
384	20-41/42	380+40	380+50	CROSSOVER PB	–			2			2																180	180											2	
384	20-41/42	380+50	7+17L	CROSSOVER PB	–			2			2																140	140												
384	20-41/42	7+17L	7+17L	CROSSOVER PB	–						4																90	90												
384	20-41/42	7+17L	POWER SERVICE	CROSSOVER PB	–			2			2																40	40											1	
384	20-41/42	POWER SERVICE	CC#20	CROSSOVER CC#20	–			2			2							1																						2	
394	20-41	18+34L	18+50L	RAMP L 20-41-1								1									2			1						75						6	65			
394	20-41	18+50L	6+07L	–							2																			380							370			
394	20-41	6+07L	7+20L	– 20-41-2								1									2			1						125						6	115			
385	20-41	390+78SB	388+55SB	I-71 20-41-5	MED							1									2			1						235						6				255
385	20-41	388+55SB	386+32SB	I-71 PB	MED				2																					235									1	255
384	20-41	386+32SB	383+64NB	I-71 20-41-4	MED/LT							1									2			1						165						6			1	155
384	20-41	383+64NB	382+00SB	I-71 SIGN 92	MED						6																			180		90						1	2	20
384	20-41	382+00SB	380+40SB	I-71 20-41-3	MED							1									2			1						175						6				165
384	20-41	385+65	385+19	RAMP L SIGN 93	RT																									30							20	1		
384	20-41	385+19	7+17L	– PB	RT						2																			510							500			
384	20-41	378+80NB	379+90	– PB	–						2																			125							115		1	
384	20-41	10+14G	379+90	– 20-41-7	–							1									2			1						620						6				610
384	20-41	379+90	11+59F	20-41-6								1									2			1						370						6	80			280
								10	2	30		7					1			14				7		1	1010	2810				3225		90			6		42	1265	2	13	1740

CALC. BY KRR DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

331 615

INSTALLATION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIB 625 01004 EACH A	CONNECTOR KIT TYPE VIB 625 01004 EACH B	CONNECTOR KIT TYPE VIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT TOWER DESIGN BBBBB100' 625 13200 EACH	LIGHT TOWER DESIGN BBBBBB100' 625 13400 EACH	LIGHT POLE DESIGN ATON 51.7 625 10471 EACH	LIGHT POLE DESIGN ST15BB51.7 625 10500 EACH			ELECTRIC SERVICE 625 98000 EACH	RECONNECT EXISTING CIRCUITS 625 98000 EACH		GROUND ROD 625 32000 EACH	PULL BOX 18", AS PER PLAN 625 30701 EACH	LIGHT POLE FOUNDATION TYPE "A", AS PER PLAN 24"x10' DEEP, 625 14501 EACH	LIGHT TOWER FOUNDATION TYPE A, PER PLAN, 36"x2.5' 625 15201 EACH	LIGHT TOWER FOUNDATION 36"x25' DEEP 625 15200 EACH	LIGHT POLE FOUNDATION 24"x10' DEEP 625 14200 EACH	SERVICE TO UNDERPASS LIGHTING 625 37101 EACH	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.			1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT, 625 25900 3",713.04 LIN. FT.	2" GRS METALLIC CONDUIT 713.04 625 25400 EACH	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 625-26700 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	LUMINAIRE ASSYMMETRIC 400W HPS, 480V 625 27000 EACH	LUMINAIRE SYMMETRIC 400W HPS, 480V 625 27200 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	REFURBISH SIGN SERVICE, AS PER PLAN 625 98000 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
385	21-43	395+25	399+71	MEDIAN 21-43-1							2		1							2				1							456						6				446
385	21-43	399+71	401+25	– 21-43-2							1		1							2			1								164						6	154			
385	21-43	401+25	403+50	– PB					2		6										1									235							225		2	
386	21-43	403+50	405+30	– 21-43-3									1							2			1							190						6	180		1	
386	21-43	405+30	406+52	– PB					2												1									132							122			
386	21-43	406+52	3+63N	CROSSOVER PB							4										1						260												1	
386	21-43	3+63N	405+66	– PB							2																			300									1	290
386	21-43	405+66	–	– 21-43-4									1							2			1													6				
386	21-43	405+30	405+30	– SIGN 101				2																			100											1		
386	21-43	402+01NB	402+11	– SIGN 99				2																			190											1		
385	21-43	401+25	POWER SERVICE	– PB							2										1						240														
386	21-43	CC#21	–	– CC#21													1										–														
386	22-44	407+72	410+50	MEDIAN 22-44-1									1							2			1							288						6	278			
386	22-44	410+50	412+06	MEDIAN PB					2												1									166							156			
386	22-44	412+06	416+30	MEDIAN 22-44-3									1							2			1							434						6	424			
386	22-44	416+30	–	MEDIAN 22-44-4									1							2			1							–						6	–			
386	22-44	410+50	410+50	CROSSOVER PB							2																180												1	
386	22-44	410+50	11+65P	PB							2																120												1	
392				CC#22													1																								
386	22-44	410+56	11+65P	22-44-2									1							2				1							270						6				260
392	22-44	2+71P	410+56	RAMP P 22-44-5		2								1						1					1						160	80					1				150
392	22-44	3+40P	3+40P	CROSSOVER PB							2																				50							40		1	
392	22-44	3+40P	11+65P	– PB							2																				470							460			
392	25	12+85K	18+10					4										2													535										525
392	25	45+10	CC#25														1	1													540		80								530
387	26-48	418+90	421+15	MEDIAN 26-48-1		2					2				1							1	1								235	160			2			225		2	
387	26-48	421+15	423+40	MEDIAN 26-48-2		2					2				1							1	1								235	160			2			225			
387	26-48	423+40	425+65	MEDIAN 26-48-3		2					2				1							1	1								235	160			2			225			
387	26-48	425+65	427+90	MEDIAN 26-48-4		2					2				1							1	1								235	160			2			225			
387	26-48	427+90	430+15	MEDIAN 26-48-5		2					2				1							1	1								235	160			2			225			
387	26-48	430+15	432+40	MEDIAN 26-48-6		2					2				1							1	1								235	160			2			225			
387	26-48	432+40	435+65	MEDIAN 26-48-7		2					2				1							1	1								235	160			2			225			
387	26-48	435+65	–	MEDIAN 26-48-8		2					2				1							1	1									160			2			–			
387	26-48	430+00	SIGN 112					2														1					180												1		
387	26-48	429+35	SIGN 111					2														1					180												1		
387	26-48	419+40	POWER SERVICE	PB				2														1					260														
387	26-48	CC#26	–	CC#26													1																								
392	26-47	9+52R	7+91R	– 26-47-3		2								1						1					1						211	80					1				201
392	26-47	7+91R	6+31R	– 26-47-2		2								1						1					1						170	80					1				160
392	26-47	6+31R	418+90	– 26-47-1		2								1						1					1						760	80					1	70			680
386	26-47	418+90	419+40	– PB					2		2																				65										55
386	26-47	419+40	–	– PB							2																														
						24		8	14		44		8	4	8			4	3		20	16	8	6	2	4		1710				7241	1600	80		16		52	3684	4	10	3297

CALC. BY KRB DATE 1/5/96
CHKD. BY AAP DATE 1/8/96

HAM-71-2.92

OHIO FHWA REGION 5

332 / 615

INSTALLATION SUB-SUMMARY

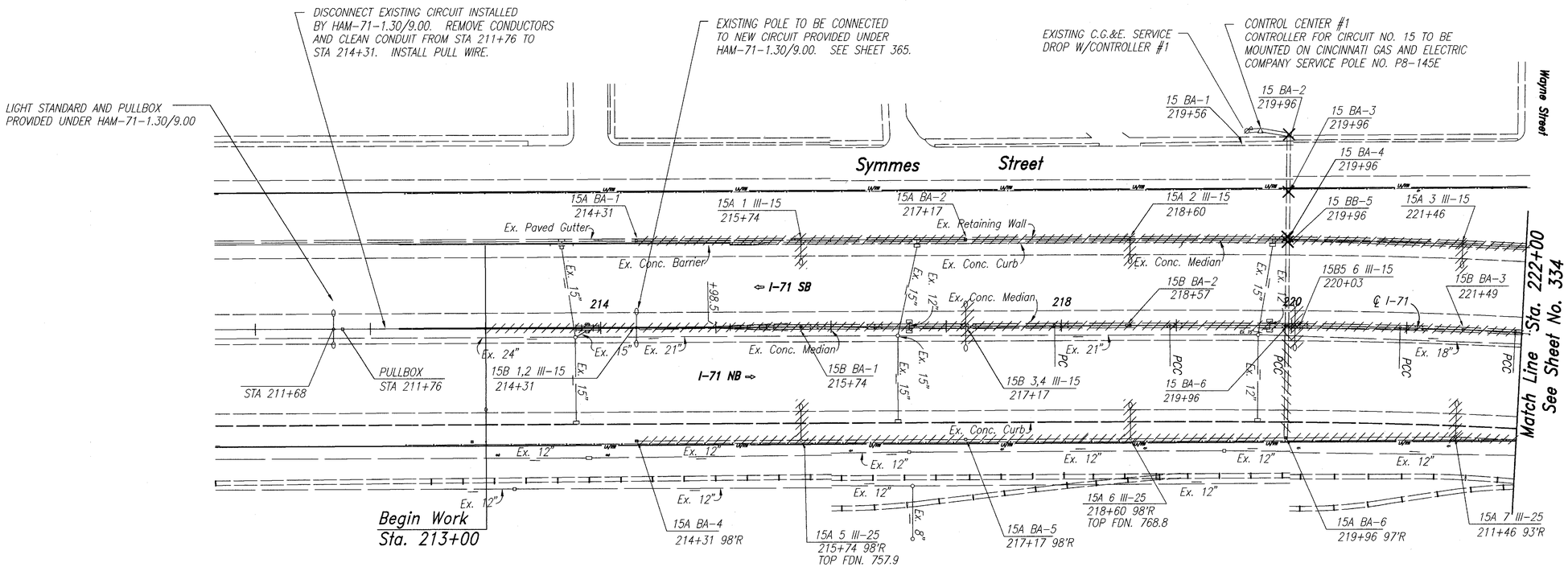
SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH II	CONNECTOR KIT, TYPE II 625 00500 EACH III	CONNECTOR KIT TYPE VIB 625 01004 EACH A	CONNECTOR KIT TYPE VIB 625 01004 EACH B	CONNECTOR KIT TYPE VIB 625 01004 EACH C	CABLE SPLICE KIT 625 01500 EACH	LIGHT TOWER DESIGN BBBB100' 625 13200 EACH	LIGHT TOWER DESIGN BBBBBB100' 625 13400 EACH	LIGHT POLE DESIGN ATON 51.7 625 10471 EACH	LIGHT POLE DESIGN ST16BB51.7 625 10500 EACH			ELECTRIC SERVICE 625 98000 EACH	RECONNECT EXISTING CIRCUITS 625 98000 EACH		GROUND ROD 625 32000 EACH	PULL BOX 18", AS PER PLAN 625 30701 EACH	LIGHT POLE FOUNDATION TYPE "A", AS PER PLAN 24"x10' DEEP, 625 14501 EACH	LIGHT TOWER FOUNDATION TYPE A, PER PLAN 625 15201 EACH	LIGHT TOWER FOUNDATION 36"x25' DEEP 625 15200 EACH	LIGHT POLE FOUNDATION 24"x10' DEEP 625 14200 EACH	SERVICE TO UNDERPASS LIGHTING 625 37101 EACH	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.			1 1/2" CABLE DUCT WITH 3 NO. 4 AWG 5000 VOLT CABLES 625-24320 LIN. FT.	1 1/2" CABLE DUCT WITH 3 NO. 2 AWG 5000 VOLT CABLES 625 24330 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 3",713.04 LIN. FT.	2" GRS METALLIC CONDUIT 713.04 625 25400 EACH	LUMINAIRE STYLE C, TYPE III 310 WATT, 480V 625-26700 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	LUMINAIRE ASSYMMETRIC 400W HPS, 480V 625 27000 EACH	LUMINAIRE SYMMETRIC 400W HPS, 480V 625 27200 EACH	TRENCH IN PAVED AREA, TYPE B 625 29600 LIN. FT.	REFURBISH SIGN SERVICE, AS PER PLAN 625 98000 EACH	PULL BOX, 713.08, 18" 625 30700 EACH	TRENCH, 24" DEEP 625 29002 LIN. FT.
395	23-45	38+42T	38+90T	RAMP T 23-45-3	LT								1								2				1																	60
395	23-45	38+90T	42+68T	RAMP T	LT						2																															400
395	23-45	42+68T	3+70H	RAMP T 23-45-2	LT								1								2				1																	260
395	23-45	3+70H	12+55H	RAMP T	LT						2																140														
395	23-45	0+29M	12+55H	RAMP M 23-45-1	LT							1									2				1																	60
395	23-45	12+55H	2+08M	RAMP M PB	LT						2																															190
395	23-45	2+08M	2+08M	CROSSOVER PB	LT																						100														1	
395	23-45	2+08M	3+70H	PB	RT																						160														1	
395	23-45	3+70H	–	PB	LT																						60														1	
395	23-45	46+64T	–	PB	LT						2																180														1	
395	23-45	46+68T	POWER SERVICE	PB	RT						2																140														1	
395	23-45	CC#23	–	CC#23	RT													1																								
395	23-45	2+74U	2+20U	RAMP U 23-45-4	RT									1							1				1														1	55			55
395	23-45	2+20U	2+20U	CROSSOVER	RT																						90																
395	23-45	2+20U	46+68T		LT					2																	300																
395	23-45	50+01T	47+65T	23-45-6	RT									1							1				1														1				260
396	23-45	47+65T	46+68T	23-45-5	RT									1							1				1														1				100
396	24-46	23+88H	22+41H	RAMP H 23-46-5	LT			2						1							1				1														1				147
396	24-46	22+41H	20+56H	RAMP H 23-46-4	LT				2					1							1				1														1				185
396	24-46	20+56H	18+34H	RAMP H 23-46-3	LT				2		4			1							1				1														1		1	2	222
396	24-46	18+34H	POWER SERVICE	RAMP H 23-46-2	LT				2					1							1				1														1	30			
396	24-46	4+35M	4+40M	RAMP M 23-46-1	LT							1									2				1														4	50			
396	24-46	4+40M	CC#24	RAMP M PB	LT						2																														1	
396	24-46	25+20	28+47	RIDGE					4		2								1																				300	1	4	
396	27	24+84	18+58	CC#27				2			3								1																		580					2	
396	27	23+25	CC#27					2			3							1	1																		80						
396	27	23+25	25+75					2			3								1																		260			25			
396	27	21+70	18+95						2										2																		360			80			
						8	12	2	27	2	2	7				2	6		15				4	7		1170				1280	2149	700	105				8	19	435	2	15	1939

H:\71\242\701.dwg - DEC. 18, 1991

400 BLACK 333-408

CALC. BY KAB DATE 6/21/95	HAM-71-2.92	OHIO	333
CHKD. BY BAP DATE 9/18/95		FHWA REGION 5	615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION LEGEND

- EXIST PHOTOCELL TO BE REMOVED
- EXISTING P.B. TO REMAIN
- EXISTING P.B. TO BE REMOVED
- EXIST. WALL OR BARRIER J.B. TO REMAIN
- EXIST. BRIDGE MOUNTED O.H. SIGN TO REMAIN
- EXIST. TRUSS O.H. SIGN TO REMAIN
- EXIST. O.H. SIGN TO REMAIN
- EXIST. ROADWAY FIXTURE TO REMAIN
- EXIST. ROADWAY POLE AND LUMINARIE TO BE REMOVED
- EXIST 200W H.P.S., STRUCTURE, BARRIER OR WALL MTD TO BE REMOVED. ADJACENT RECESSED J.B. TO REMAIN
- EXIST POST TOP MOUNTED LUMINAIRE, TO BE REMOVED
- EXIST SURFACE MOUNTED PENDANT TYPE UNDERPASS LUMINAIRE TO REMAIN. TYPE V DISTRIBUTION
- EXIST. CIRCUIT CONDUCTORS TO BE MAINTAINED
- EXIST. DIRECT BURIED CABLE DUCT TO BE ABANDONED
- EXIST CONDUIT TO BE ABANDONED OR REMOVED AS NOTED.
- EXIST. BURIED CONDUIT TO REMAIN
- EXIST. CONTROL CENTER TO REMAIN
- EXIST. CONTROL CENTER TO BE REMOVED
- JUNCTION BOX, SURFACE MOUNTED
- EXIST. UNDERPASS LUMINAIRE TO BE REMOVED
- EXIST. SIGN TO REMAIN, NO POWER REQUIREMENTS
- EXIST. (POWER SERVICE FOR SIGN) TO BE REMOVED
- EXIST. UTILITY POLE OWNED BY C. G. & E.

DEMOLITION PLAN

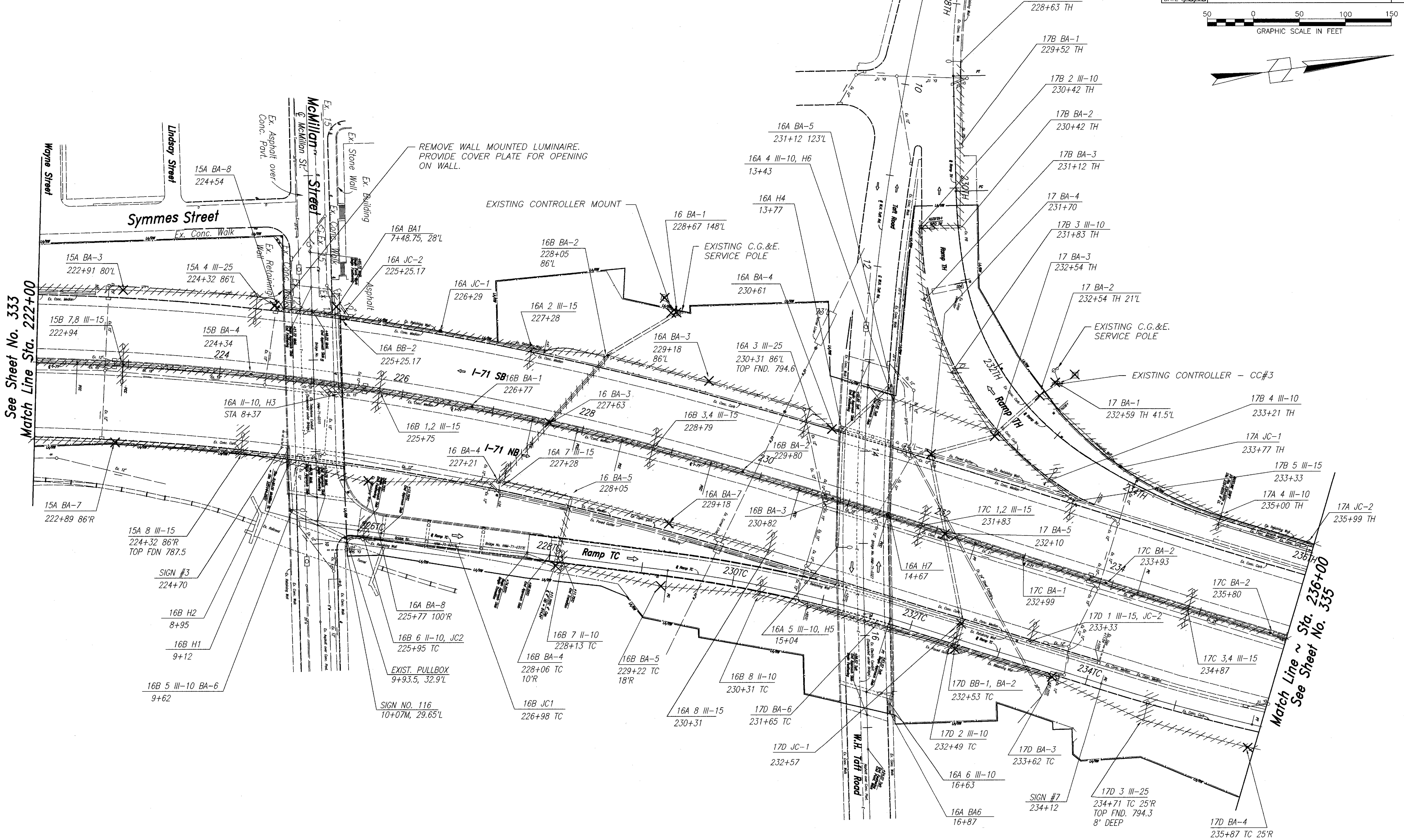
Sta. 213+00 to 222+00

H:\71\2-92\T01.dwg - DEC. 15, 1995

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5



DEMOLITION PLAN

Sta. 222+00 to 236+00

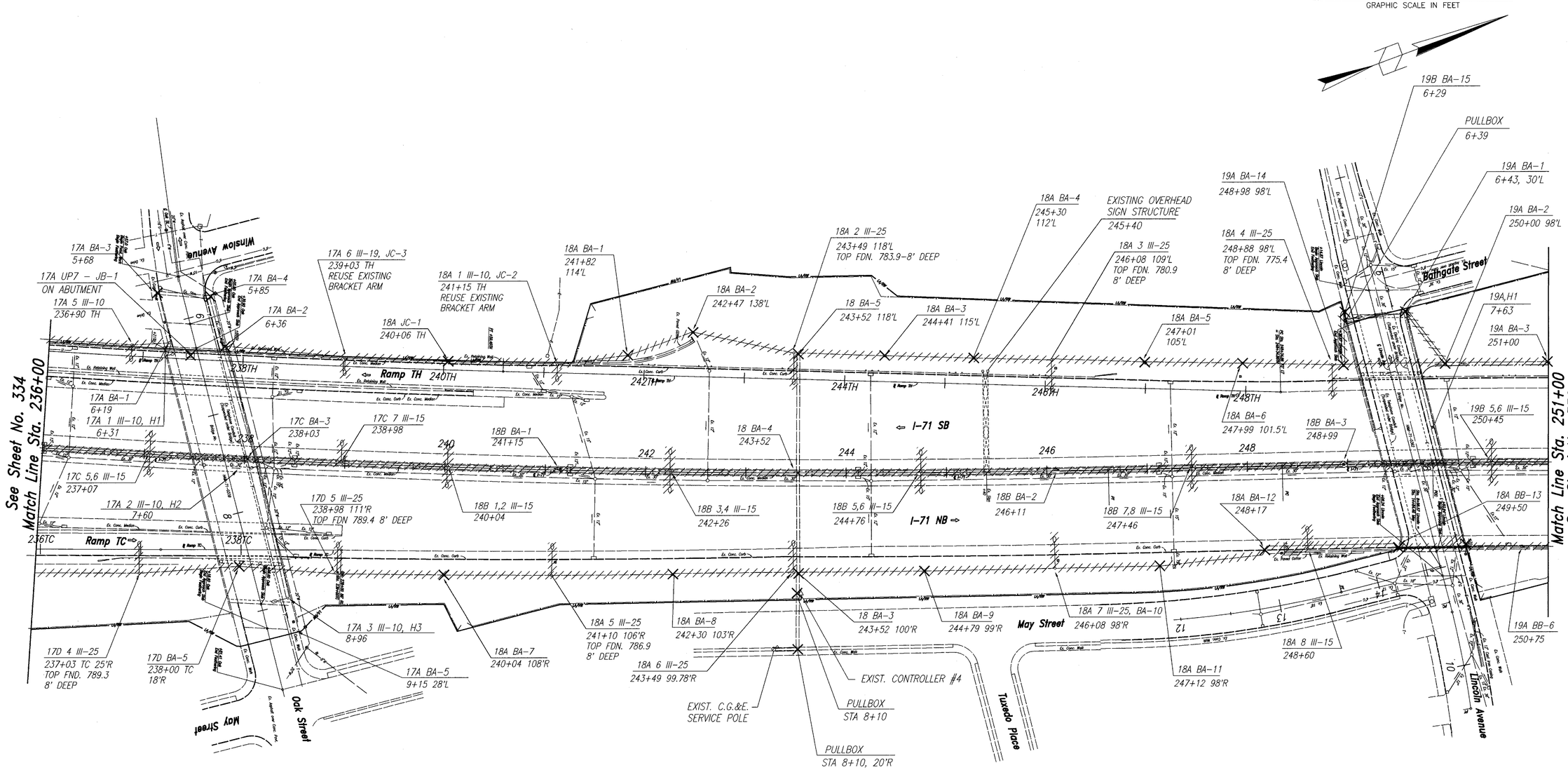
CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

335
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



Sta. 236+00 to 251+00

D:\717\2-95\TCS.dwg - JAN. 20, 1992

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

336
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

19B BA-7
256+20

EXIST. CONTROLLER

EXIST. C.G.&E. SERVICE POLE

19L BA-2
STA 9+35, 18'L

19 BA-1
9+08, 16.5'R

19B 1,2 III-15
256+56

19 BA-3
255+35 103'L

19B BA-8
257+45

19A BA-5
254+13
103'L

19A 1 III-25
255+09 98'L
8' DEEP FND.

19B 7 III-25
257+88 98'L
8' DEEP FND

EXISTING OVERHEAD SIGN STRUCTURE

19A 2 III-25
252+00 98'L
8' DEEP

19A BA-4
253+10
103'L

See Sheet No. 335
Match Line Sta. 251+00

19B BA-1
248+48

19B BA-2
252+54

19B 3,4 III-15
253+53

19B BA-3
254+42

19B BA-4
255+35

252

254

256

258

M.L. King Boulevard

21A 1,2 III-15
259+84

I-71 SB

21A BA-1
261+02

260

19A BA-9
254+01

19A BA-12
256+69

19B BA-5
257+77

I-71 NB

21B 1,2 III-15
262+21

262

19A BB-8
252+98

Melish Lane

Melish Lane

21AB BA-2
263+31

19B BA-6
258+99

21A 1 III-15
264+42

264

19A BA-11
255+35

19A 6 III-15, BB-7
251+85

19A 7 III-25, BA-10
255+09

19A BA-13
258+03 87'R

21AB BA-3
265+42

MOUNTED ON POLE

Match Line Sta. 266+00
See Sheet No. 337

Match Line Sta. 104+00 M.L. King

STRUCTURE
HAM-71-0376

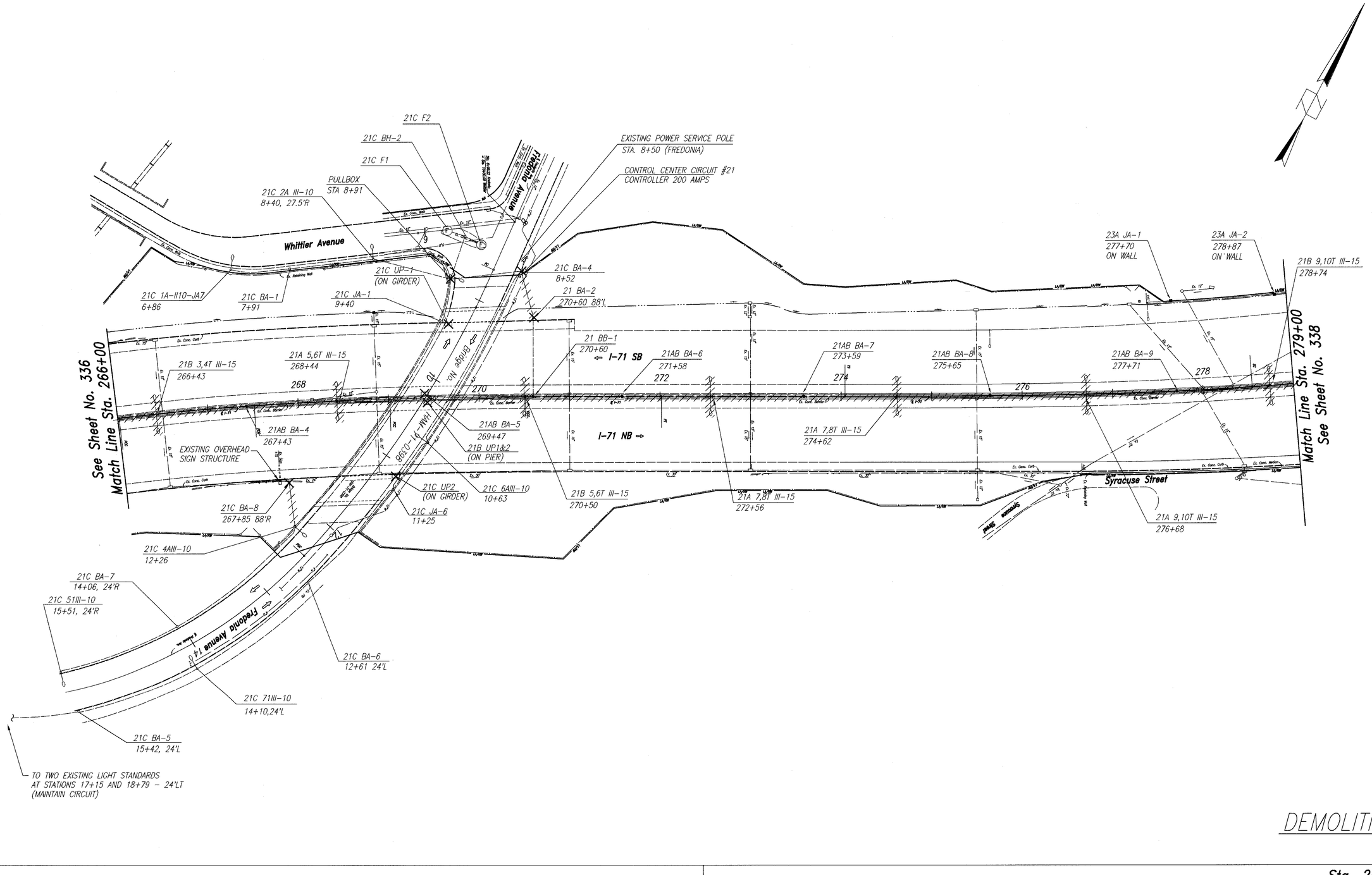
DEMOLITION PLAN

Sta. 251+00 to 266+00

S:\VTV\0292\TX\dwg - JAN. 21, 1992

CALC. BY KRB DATE 1/5/96	HAM-71-2.92	OHIO	337
CHKD. BY BAP DATE 1/8/96		FHWA REGION 5	615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 266+00 to 279+00

G:\71\2.92\T05.dwg - JAN. 21, 1992

CALC. BY HRB DATE 6/27/95	HAM-71-2.92	OHIO
CHKD. BY BRP DATE 9/15/95		FHWA REGION 5

338
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

EXISTING INFORMATION MISSING FROM STATIONS 293+00 TO 300+00

See Sheet No. 337
Match Line Sta. 279+00

Match Line Sta. 294+00
See Sheet No. 339

23C 7,8T III-15
280+80

23C 9,10T III-15
284+95

23B 9,10T III-15
287+04

23C 3,4T III-15

23C 3,4T III-15

EXISTING TOWER

MARKER
288+20 80'L

RMC TO MARKER

23C 5,6T III-15
289+14

23C BA-8
279+90

23B 7,8T III-15
282+86

23BC BA-6
283+90

23C BA-7
281+83

23D JA-4
283+77

23BC BA-5
286+00

23 BB-1
288+20

23BC BA-4
290+19

23BC BA-4

I-71 SB

I-71 NB

280 282 284 286 288 290 292

I-71

Bldg. No. HAM-71-0422

Bldg. Annex

Rammelsburg Street

Rammelsburg Court

EXISTING OVERHEAD SIGN STRUCTURE

23D JA-6
280+86

EXISTING TOWER

23 BA-2
288+48 VD 70'L

23 BA-3
288+48 VD

EXIST. CONTROLLER #7

EXIST. PULLBOX
293+00

EXIST. C.G.&E. SERVICE POLE

STRUCTRUE
HAM-71-0422

DEMOLITION PLAN

Sta. 279+00 to 294+00

G:\71\2\92\TDS.dwg - JAN. 21, 1992

CALC. BY KRB DATE 4/27/95	HAM-71-2.92	OHIO
CHKD. BY BAP DATE 9/15/95		FHWA REGION 5

339
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

23B-UP2-JB2
23B-UP1-JB1
23C JA1
Victory Parkway
26A 9 AT-A-III-10
26A 9 AT-A III-10
300+92
23BC-BA2
23C 1,2 III
26A 10 AT-A III-10
303+00 ME
26A 11 AT-A II-10
305+17 ME
26A 12 AT-A II-10
307+34 ME
23BC BA1
23B 1 & 2 III
I-71 SB
26E BA-11
300+92
303ME
304ME
Ramp ME
306ME
308ME
26E BA-10
302+98
298
300
302
304
296
Bridge No. HAM-71-0445
I-71 NB
26E 11,12T III-15
301+95
26DE BA-9
305+05
I-71 SB
306
I-71 NB
26DE BA-8
307+12
See Sheet No. 338
Match Line Sta. 294+00
23B 3,4T III
Jonathan Avenue
Match Line Sta. 308+00
See Sheet No. 340
EXISTING INFORMATION MISSING FROM STATIONS 293+00 TO 300+00
26E 9,10T III-15
306+09
23C-UP1,6-JB1,6
23C-UP2,7-JB2,7
23B-JB3-JA1
23C-UP3,8-JB3,8
23B-UP3-JB4
23C-UP4,9-JB4,9
23C-UP5,10-JB5,10
26D 11,12T III-15
304+02

DEMOLITION PLAN

Sta. 294+00 to 308+00

G:\71\2-92\TCT.dwg - JAN. 22, 1992

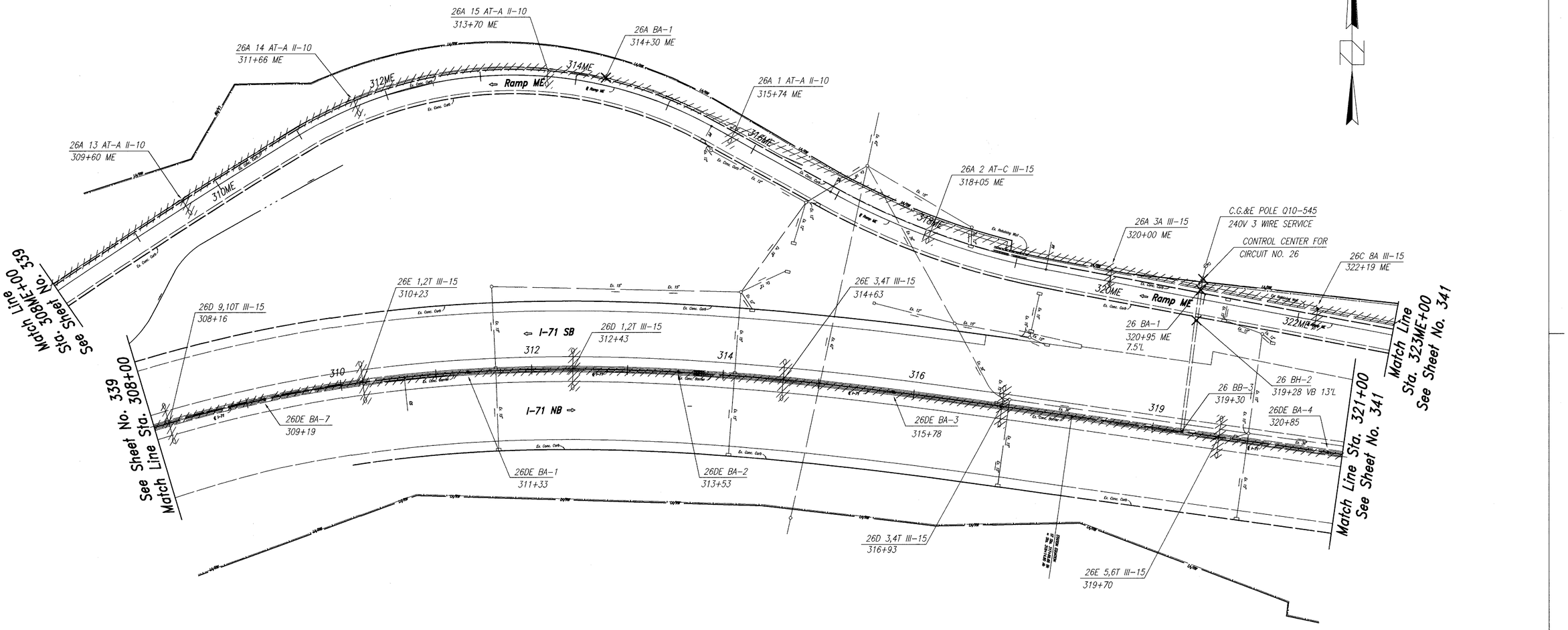
CALC. BY KAB DATE 4/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

340
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 308+00 to 321+00

H:\71\2-92\TDR.dwg - DEC. 13, 1991

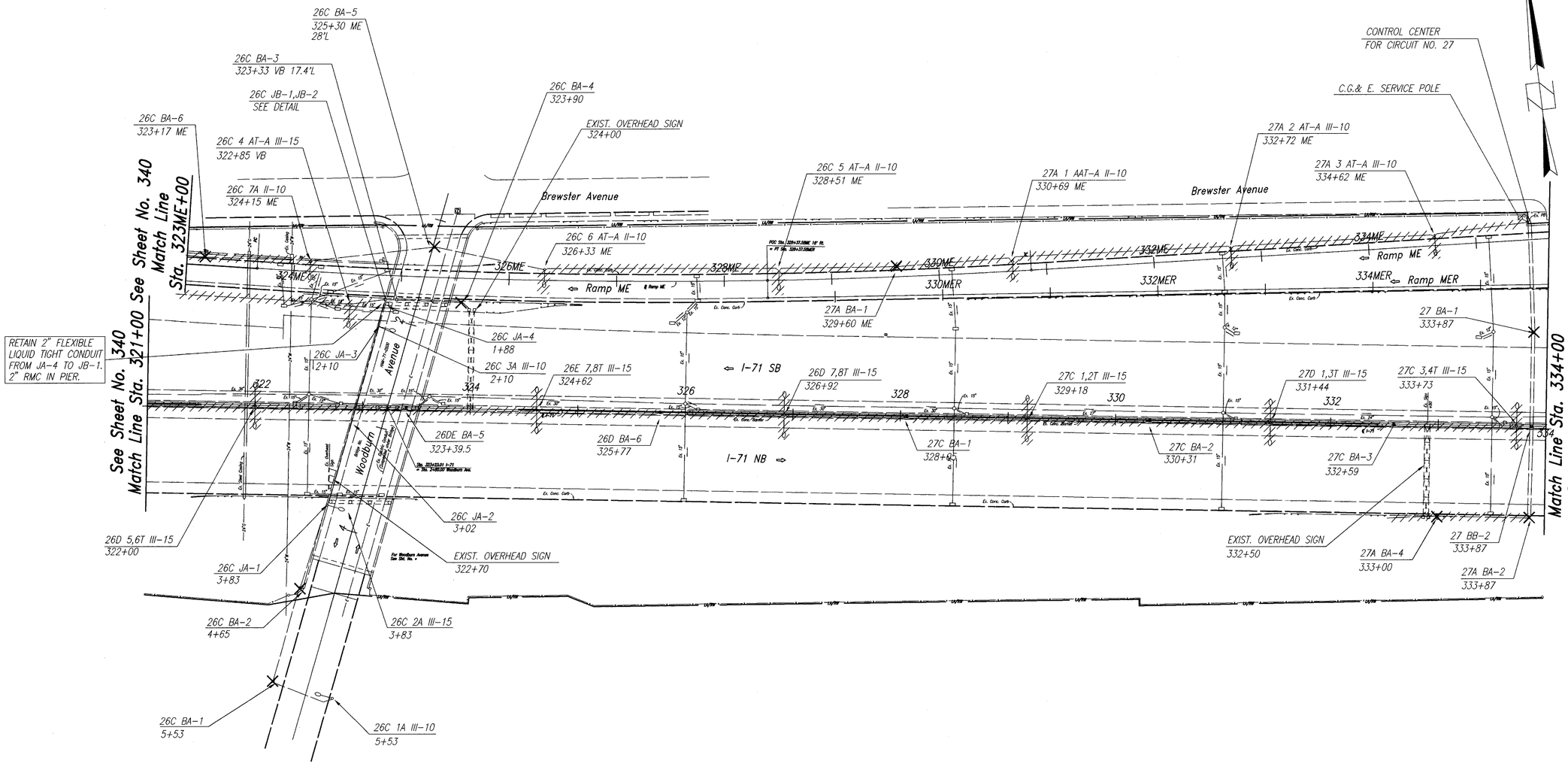
CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

341
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 321+00 to 334+00

H:\71\2.92\1109.dwg — DEC. 16, 1991

CALC. BY KRB DATE 1/5/96	HAM-71-2.92	OHIO
CHKD. BY BAP DATE 1/8/96		FHWA REGION 5

342
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

FOR MONTGOMERY ROAD
SEE SHEET NO. 356

Match Line
Sta. 335+00MER
See Sheet No. 356

See Sheet No. 341
Match Line Sta. 334+00

Match Line Sta. 349+00
See Sheet No. 343

CONTROL CENTER
FOR CIRCUIT NO. 27
335+51 ME

27B BA-1
337+10 ME 7'L

27B 6 III-10
337+85 ME

27B 8F
3+83.15 20'R

27B 7 AT-A III-10
336+32 ME

336ME

Ramp ME

Ramp MER

Montgomery Road

Brewster Avenue

27B 7F
3+73 26.77'R

27B BH-2
377+10 ME 32'R

27B BA-3
4+45 44'L

27B UP1
ON PIER

27CD BA-4
335+20

27D 3,4T III-15
336+60

27B UP2
ON PIER

27CD BA-5
337+80

27B UP3
ON PIER

336MF

27B UP4
ON PIER

27A BA-3
335+45

27A 4 AT-A III-10
337+02

338MF

Ramp MF

27A 5 AT-A II-10
338+87 MF

340MF

27A 6 AT-A II-10
340+60 MF

Ramp MF

342MF

27A 7 AT-A II-10
342+18 MF

Stacey Ave.

27A 8 AT-A II-10
343+69 MF

344MF

Duck Creek Road

27C 5,6T III-15
338+98

⇐ I-71 SB

27D 5,6T III-15
341+37

I-71 NB ⇒

27D BA-6
340+17

28A 1,2T III-15
343+76

28A BA-5
342+56

28A BA-6
344+95

28B 1,2T III-15
346+15

C.G.&E. SERVICE POLE

28-BA1
STA 3+46, 23.5'L

EXISTING CONTROL
CENTER NO. 28

PULLBOX
4+24, 29'L

28 BA-3
347+72

JUNCTION BOX
5+21

28A 3,4T III-15
348+68

28AB BB-4
347+72

EXISTING TO
REMAIN

JUNCTION BOX
6+11

Avenue
HAM-71-0546

Trimble Ridge Rd.

Hudson Avenue

DEMOLITION PLAN

Sta. 334+00 to 349+00

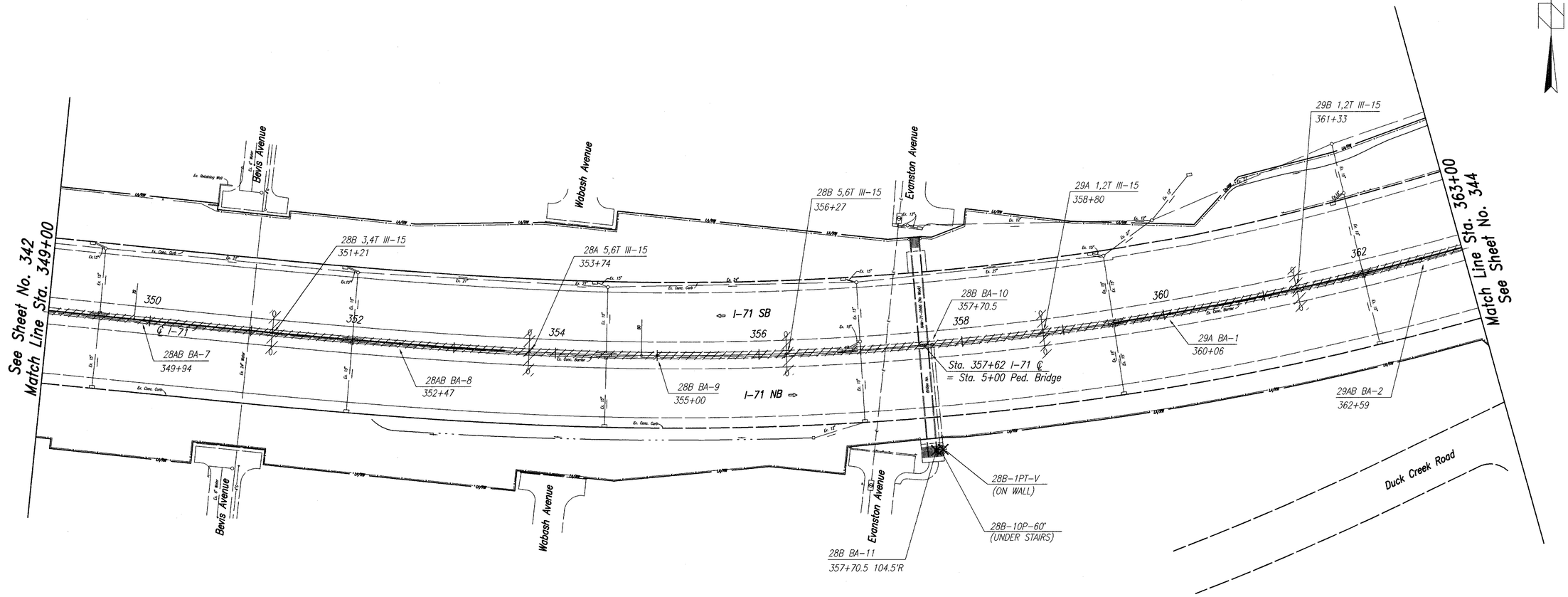
CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

343
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 349+00 to 363+00

M:\71\2-92\TS11.dwg - DEC. 13, 1991

CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

344
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 343
Match Line Sta. 363+00

Match Line
Sta. 381+00
See Sheet No. 357

Sta. 378+00
See Sheet No. 345
Match Line

29C 1 AT-A III-10
367+63

29C 2 AT-A III-10
369+60 DB

29C 3 AT-A III-10
371+45 DB

29C 4 AT-A II-10
373+50 DB

29C 5 AT-A II-10
375+68 DB

29C 6 AT-A II-10
377+20 DB

30-6-AT-A-II-10
STA 380+00 DB

30-7-AT-A-II-10
STA 378+60 DB

29C BA-1
367+68

29C BA-5
372+52 DB

+80.06 Dana
End Approach Slab
End Transition

29B BA-6
375+09

29AB BA-3
365+11

29B 3,4T III-15
366+37

29A 3,4T III-15
363+85

29 BB-2
367+68

29A 5,6T III-15
368+89

POC Sta. 369+58.89 86' Lt.
= PCC Sta. 369+58.89DB

370DB

372DB

374DB

376DB

378DB

End Approach Slab

Ramp DB

B Ramp DB

E Ramp DB

I-71 SB

I-71 NB

29B 5,6T III-15
371+41

29C BA-6
373+85 DB

POT Sta. 10+64.87 38' Lt.
= PT Sta. 385+44.59DB

29B 7,8T III-15
376+09

29B BA-7
377+18

29AB BA-4
370+15

29AB BA-5
372+67

29A 7,8T III-15
373+93

29 BA-1
367+68

29C BA-3
15+10

29C BA-2
13+78

29C BA-4
15+10

Duck Creek Road

Dana Avenue

Duck Creek Road

E Duck Creek Road

EXISTING SIGN STRUCTURE
367+50

CONTROL CENTER

PROPOSED CINCINNATI GAS & ELECTRIC CO. POLE 240 VOLT 3 WIRE SERVICE

EXISTING SIGN STRUCTURE
15+00 DC

SEE SHEET NO. 56
FOR DANA AVE.

DEMOLITION PLAN

Sta. 363+00 to 378+00

H:\71\2.92\TCS2.dwg - DEC. 13, 1991

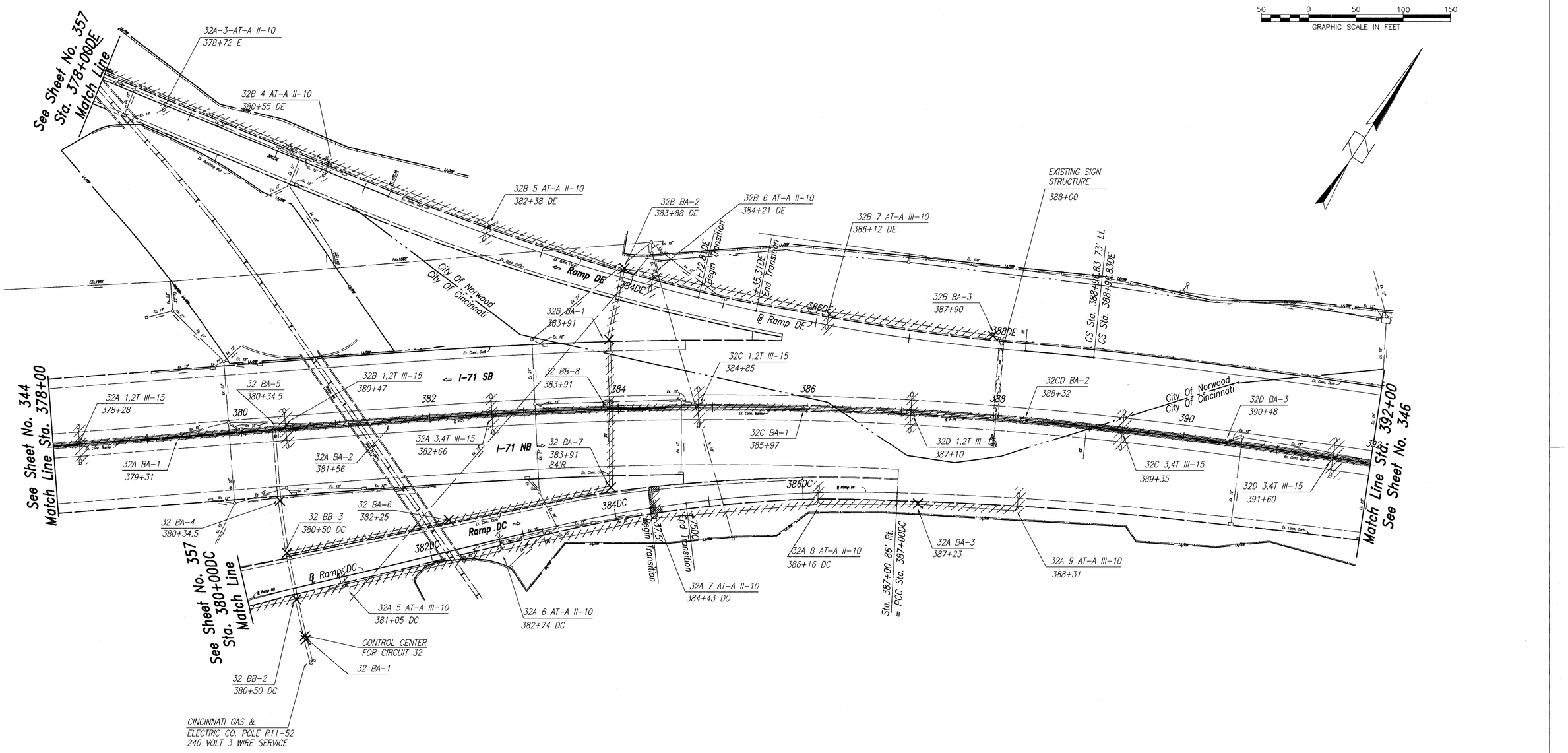
CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/12/95

HAM-71-2.92

OHIO
FHWA REGION 5

345
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 378+00 to 392+00

H:\TYLS\BRIDGE\DC13.dwg - DEC. 13, 1991

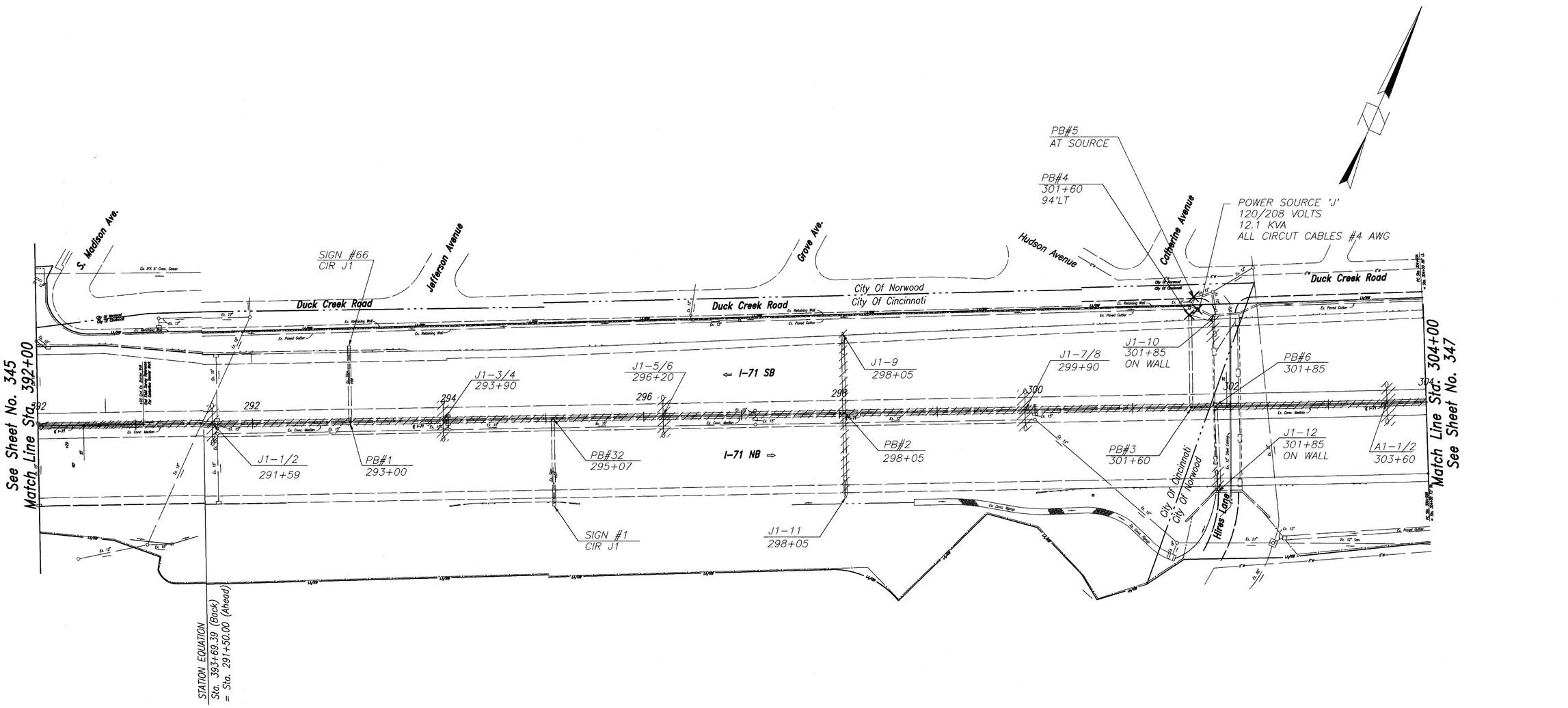
CALC. BY KKB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

346
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 392+00 to 304+00

h:\71\2.92\TCH4.dwg - DEC. 13, 1991

CALC. BY KRB DATE 6/27/95
CHKD. BY BRP DATE 8/29/95

HAM-71-2.92

OHIO
FHWA REGION 5

347
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 346
Match Line Sta. 304+00

Avilla Place

A2-14
305+45

PB#11
305+50
107'LT

A2-13
307+15A

A2-12
308+85A

Match Line
Sta. 309+00A
See Sheet No. 358

Ramp A

308A

A2-6
14+84

Garland Avenue

Dacey-Williams Connector

PB#8
314+10

PB#141
316+37

A1-9/10
315+12

316

A1-11/12
317+63

Match Line Sta. 318+00
See Sheet No. 348

PB#7
305+14

306

A1-3/4
307+60

308

I-71 SB

A1-5/6
310+04

310

Edmondson Road

Bridge No. HAM-71-0670

Smith

PB#140
311+31

312

314

I-71 SB

I-71 NB

I-71 NB

PB#138
306+37

PB#139
308+82

A1-7/8
312+58

Ramp B

308B

A2-1
306+05

PB#24
311+10, 87'RT

Garland Ave.

EXIST. OVERHEAD SIGN
305+24

PB#16
308+30B

Match Line
Sta. 309+50B
See Sheet No. 358

A2-2
308+11B

P.B. #23
13+42, 30'R

PB#9
314+10
87'RT

A2-5
13+26

POWER SOURCE 'A'
480 VOLTS
52.5 KVA
CIRCUIT A1 - #2/0
CIRCUIT A2 - #4 EXCEPT
AS NOTED.

SEE SHEET NO. 358
FOR SMITH-EDMONDSON ROAD

DEMOLITION PLAN

Sta. 304+00 to 318+00

H:\TYLS\ROUTES\15.dwg - DEC. 13, 1991

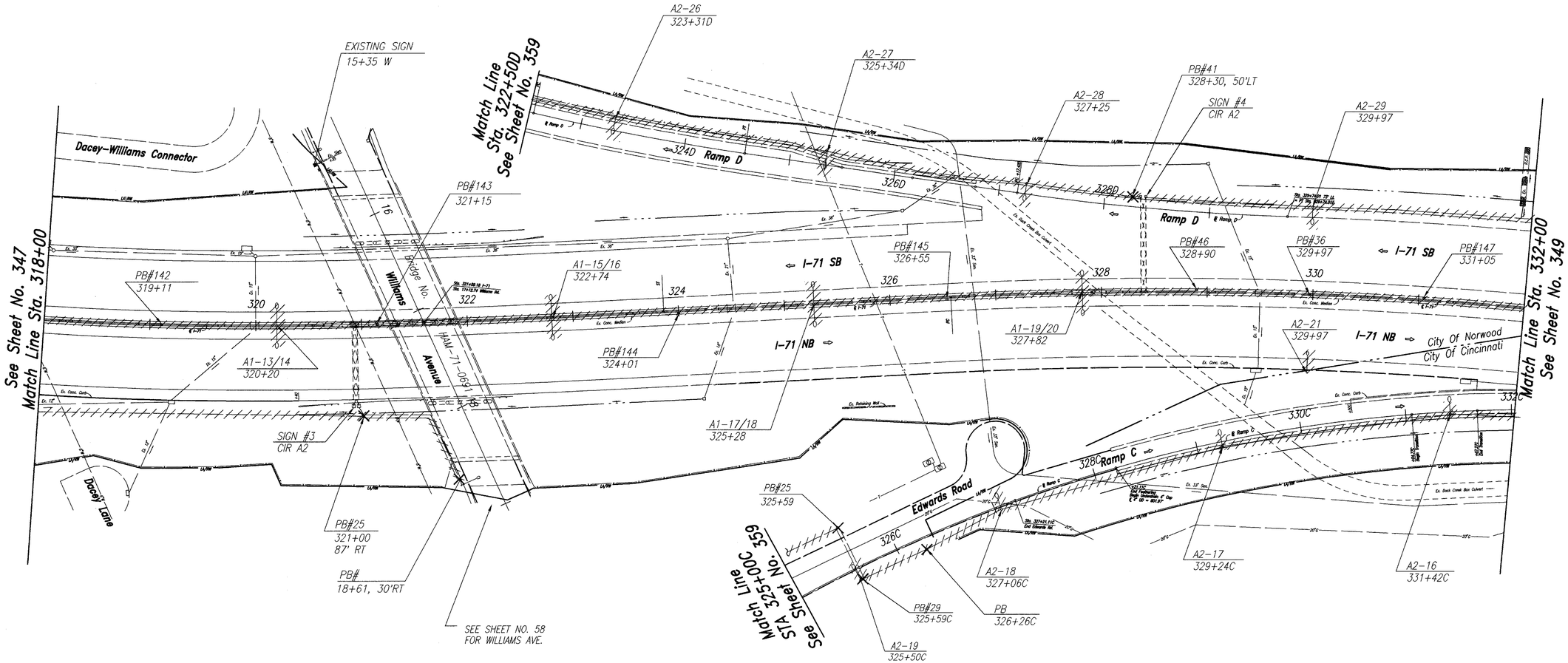
CALC. BY KRB DATE 11/5/96
CHKD. BY BAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

348
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 318+00 to 332+00

H:\71\2.92\TC18.dwg - DEC. 13, 1999

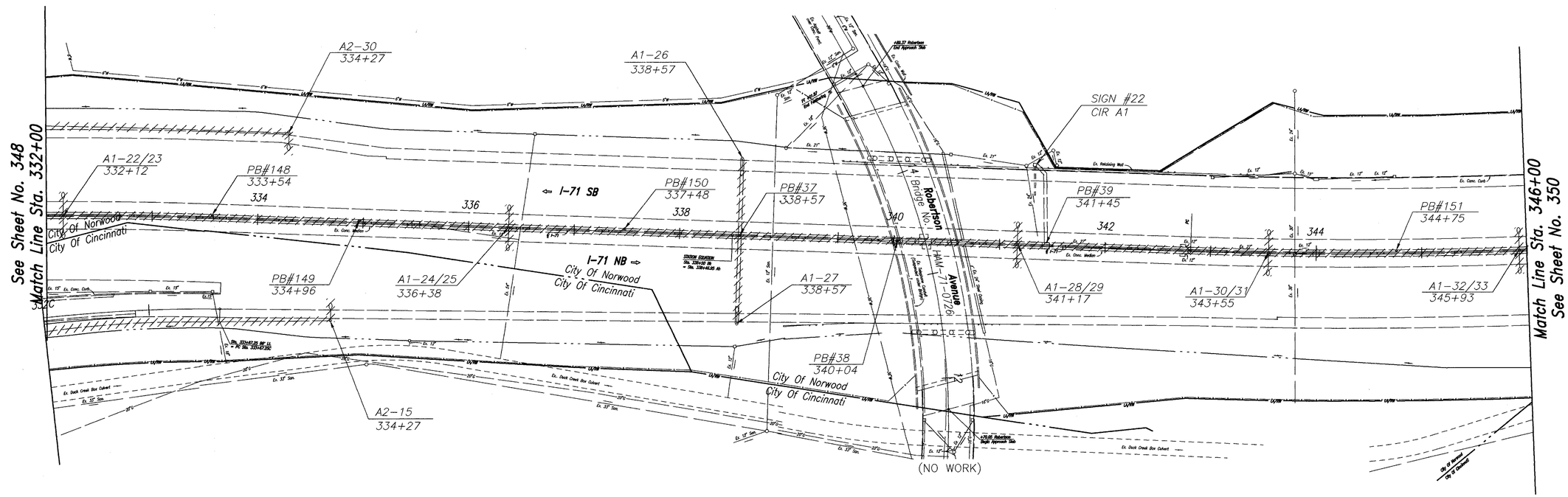
CALC. BY KRB DATE 4/27/95
CHKD. BY GAP DATE 5/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

349
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

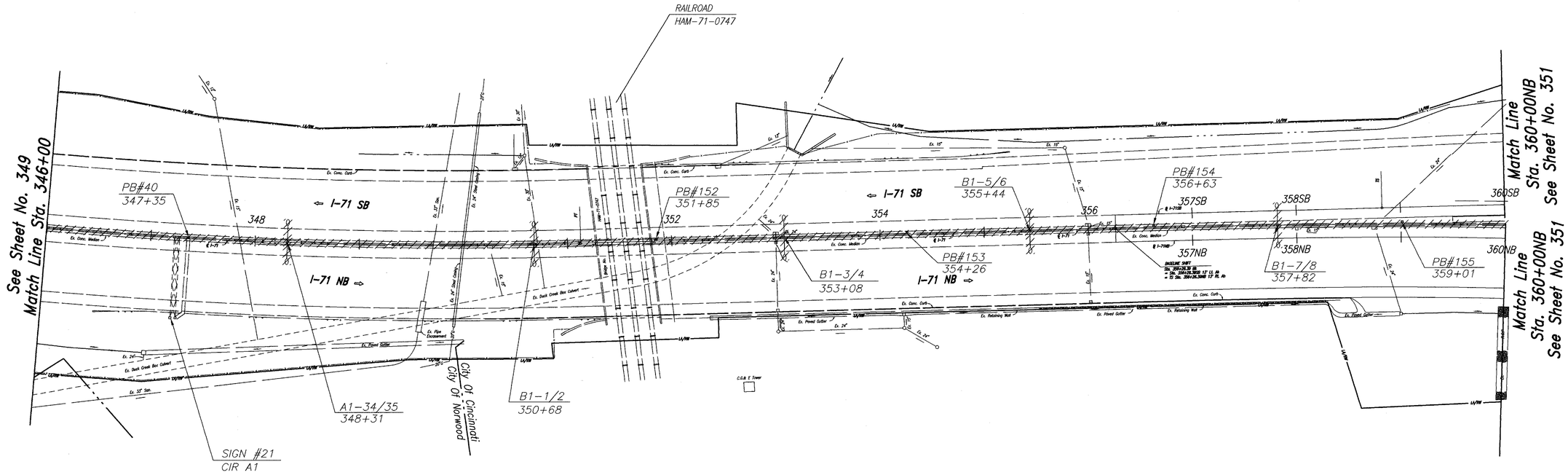
Sta. 332+00 to 346+00

H:\71\2.92\TC17.dwg - DEC. 16, 1991

CALC. BY KRB DATE 6/27/95	HAM-71-2.92	OHIO
CHKD. BY RAP DATE 9/13/95		FHWA REGION 5

350
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 346+00 TO 360+00NB

H:\TYLO.SKX\TC18.dwg - DEC. 15, 1999

CALC. BY KRB DATE 4/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

351
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

STRUCTURE HAM-71-0319

See Sheet No. 361 Match Line Sta. 12+00E

E3-10 12+99E

E3-11 14+65E

E3-12 365+24SB

STRUCTURE HAM-71-0764

POWER SOURCE 'B'
120/240 VOLTS
21.7 KVA
ALL CIRCUIT #2 AWG CABLE

B2-1 361+25

PB#66 AT SOURCE

PB#42 361+45, 78.5'LT

Ex. Duck Creek Channel

B2-3 364+15SB

PB#45 367+75 62'LT

B2-3 368+18SB

B2-6 370+80SB

B2-7 372+96SB

B2-2 362+50SB

B2-4 366+70SB

PB#46 367+75, 14'RT

B1-13 367+80NB

B1-14 370+80NB

B1-15 373+60NB

B1-9/10 360+20

PB#43 361+45 14'RT

PB#44 362+30NB, 14'LT

EXISTING SIGN STRUCTURE 362+15NB

B1-11 362+20NB

B2-12 364+60NB

C1-1 366+17NB

C1-2 367+30NB

PB#47 370+30 78'RT

PB#48 370+82 78'RT

SIGN #24 CIR C1

C1-3 372+20NB

C1-4 6+00F

Ramp E

Ramp F

I-71 SB

I-71 NB

362SB 364SB 366SB 368SB

362NB 364NB 366NB 368NB 370NB 372NB 372SB

See Sheet No. 350 Match Line Sta. 360+00NB and Sta. 360+00SB

Match Line Sta. 374+00NB See Sheet No. 352

Match Line Sta. 6+00F See Sheet No. 362

DEMOLITION PLAN

Sta. 360+00NB to Sta. 374+00

H:\71\2-92\TD19.dwg - DEC. 18, 1997

CALC. BY KRB DATE 6/27/95
CHKD. BY GAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

352
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PB#56 AT SOURCE
POWER SOURCE 'H'
120/240 VOLTS
22.5 KVA
ALL CIRCUITS #2 AWC
Ex. Power Source
H2-3 4+65I
PB#55 7+17I 61'LT
C1-10 19+75K
C2-1 18+62L
H2-4 6+70I
H2-5 8+75I
H2-6 383+80SB
PB#78 385+19SB 72'LT
SIGN #26 CIR H2
H2-9 386+20SB
Match Line Sta. 4+00I See Sheet No. 362
U2-B2-C
U2-B2-P
B2-10 379+30SB
PB#54 7+17I 26'RT
C2-2 22+87L
PB#53 380+40SB 63'LT
B2-11 38+20SB
SIGN #28 CIR B2
B2-8 375+10SB
Match Line Sta. 16+69.77J See Sheet No. 361
Ramp L
Ramp K
Ramp I
Ramp H
I-71 SB
382SB
384SB
386SB
Match Line Sta. 388+00SB See Sheet No. 353
Match Line Sta. 2+00H See Sheet No. 363
Bridge No. HAM-71-0788L
376SB
378SB
PB#52 38+40SB, 16'RT
H2-8 382+60SB
H2-7 385+00
H1-10 383+93NB
PB#61 22+53K
PB#68 23+12L, 27'LT
PB#51 24+60J
PB#50 24+60J 28'RT
H1-8 24+50J
H1-9 381+61NB
384NB
Match Line Sta. 374+00SB See Sheet No. 351
Ramp J
Ramp G
H1-6 20+20J
380NB
I-71 NB
H1-3 380+51NB
PB#59 3+60G 26'LT
Match Line Sta. 387+00NB See Sheet No. 353
Ex. Duck Creek Box Culvert
C1-11 24+08K
376NB
378NB
H1-11 382+77NB
PB#57 384+52NB 82'RT
PB#58 3+60G 10'RT
H1-12 385+09NB
SIGN #25 CIR H1
Match Line Sta. 374+00NB See Sheet No. 351
H1-2 378+16NB
H1-7 22+20J
H1-1 375+88NB
C2-3 25+25L
PB#49 379+90NB 62'RT
PB#69 26+12K 27'RT
PB#70 26+51L 27'LT
C1-12 26+46K
C2-10 4+97G
PB#77 5+32G 10'RT
C2-9 6+35G
PB#76 6+77G 10'RT
C2-8 7+90G
Match Line Sta. 8+00G See Sheet No. 362

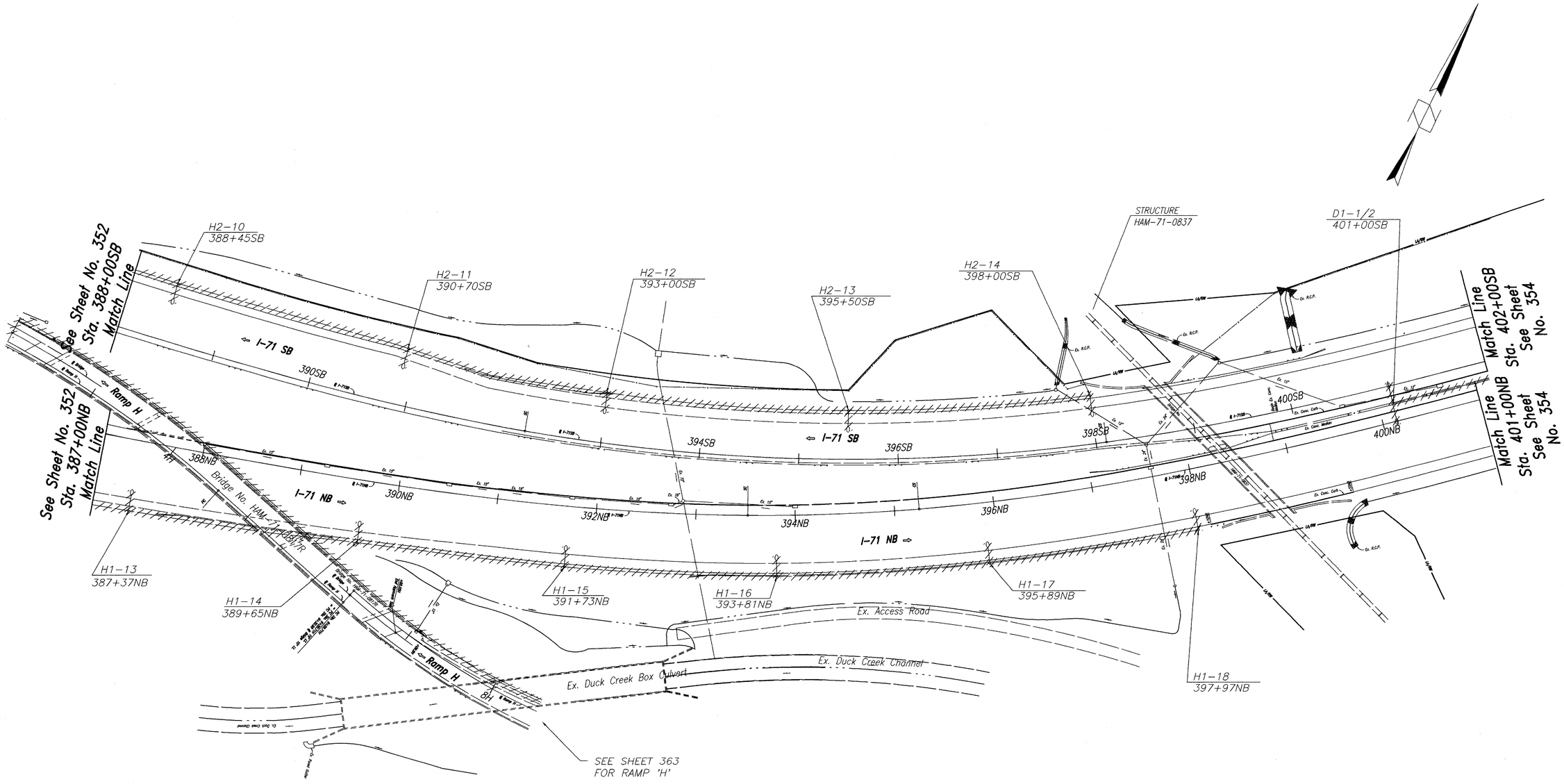
DEMOLITION PLAN

Sta. 374+00NB to Sta. 387+00NB

H:\71\2.92\TC30.dwg - DEC. 15, 1995

CALC. BY KRB DATE 6/27/05	HAM-71-2.92	OHIO	353
CHKD. BY BAP DATE 9/15/05		FHWA REGION 5	615

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION PLAN

Sta. 387+00 to 401+00

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/5/96

HAM-71-2.92

OHIO
FHWA REGION 5

354
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PULLBOX 31+64

PULLBOX 31+64

SIGN #32
CIR D1 – MOUNTED ON STRUCTURE

D1-3/4
403+70SB

D1-5/6
405+80

D1-15/16
408+20

D1-17/18
410+60

D1-19/20
413+00

PB#80
406+52

PB#156
409+90

D2-15
4+60R

See Sheet No. 360
Match Line
Sta. 6+00R

Sta. 402+00SB
Match Line
See Sheet No. 353

Sta. 401+00NB
Match Line
See Sheet No. 353

404SB

HAM-71-0846

Ridge Avenue

Bridge No.

I-71 SB

I-71 NB

Ramp R

PB#79
402+01NB

PB#81
406+52, 86'RT

D1-21/22
415+45

Sta. 417+00
Match Line
See Sheet No. 355

SIGN #31
CIR D1

Ramp N

Ramp P

D2-10
9+65P

D2-11
414+27

PB#58
414+22

D1-14
405+82

PB#82
3+63N, 10'RT

D1-7
4+95N

D2-9
8+10P

D2-8
6+55P

D1-8
6+50N

STRUCTURE
HAM-71-0846
(FOR LIGHTING CIRCUITS ON RIDGE AVE. SEE SHEET NO. 364)

Sta. 4+00P
Match Line
See Sheet No. 360

Sta. 8+00N
Match Line
See Sheet No. 364

Sta. 401+00NB to Sta. 417+00

H:\TYLS.WS\TC22.dwg - DEC. 26, 1991

CALC. BY KRB DATE 4/27/95
CHKD. BY BAP DATE 5/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

355
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PB#109
AT SOURCE

PB#110
23+23, 23'RT

PB#108
418+90, 80'LT

PB#107
419+40, 77'LT

POWER SOURCE 'D'
480 VOLTS
34.1 KVA
CIRCUIT D1 – #2 AWG
CIRCUIT D2 – #4 AWG

D2–23/24
420+45

PB#160
421+82

D2–14
417+20

D2–13
419+60

I-71 SB

I-71 NB

Ex. Monument

PB#123
429+35

PB#162
427+32

SIGN #35
CIR D1

PB#163
432+82

Match Line Sta. 433+00
This Sheet

PB#124
430+00

D2–31/32
431+45

D2–27/28
425+95

D2–29/30
428+70

SIGN #58
CIR D1

PB#161
424+47

D2–25/26
423+20

Match Line Sta. 417+00
See Sheet No. 354

Bridge No. HAM-71-08.70

Kennedy Avenue

PB#106
419+40

PB#105
419+40
75'RT

PB
417+30

SIGN #34 (NEW #108)
STA 419+10SB
(SIGN 108A IS TO BE REMOVED & NOT REPLACED. SIGN 108 WILL REQUIRE ONLY FIVE 175W LUMINAIRES)

D2–12
418+20

SEE SHEET NO. 360
FOR KENNEDY AVE.

END PROJECT
Sta. 433+87.50

END WORK
Sta. 436+82.72
S.L.M. 9.00

STATION EQUATION
Sta. 433+87.50 Ahd =
Sta. 433+72.72 Bk

This Sheet
Match Line Sta. 433+00

I-71 SB

I-71 NB

D2–33/34
434+20

End Work
Sta. 436+82.72

Sta. 417+00 to 436+82.72

H:\71\2-92\TC23.dwg – DEC. 29, 1994

CALC. BY KRB DATE 6/27/95
CHKD. BY BJP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

356
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

EXISTING C.G.&E. SERVICE POLE
CONTROL CENTER NO. 9
CIRCUITS 19,20,21
27B 7AT-A-III-10
336+32ME
27B BA-1
337+10ME
27B 6 III-10
337+85ME
See Sheet No. 342
Sta. 335+00MER
Match Line
Ramp ME
336ME
336MER
27B BA-3
4+45 44'L
27B BA-5
4+07 42'L
27B 3 III-10
4+12
27B 5A III-10
5+42
27 BA-1
333+87
27B BA-4
4+23 6'L
BASELINE SHIFT
Sta. 3+99.99 Montgomery Rd. (Back)
Sta. 4+00.00 Montgomery Rd. 4.12' LT (Ahead)
27B JA-4
5+42
27B 5F
4+44 7'L
27B JA-2
5+53
27B JA-3
6+74
27B JA-1
6+74
27B 2A III-10
6+74
27B 4A III-10
8+06
27B BA-6
7+22
Montgomery Rd.
27B BA-7
8+35
27B 1A III-10
9+39
27B BA-8
10+28
27B 2F
11+94.71
3'R
27B BH-9
12+08 4'R
27B 4F
11+33.96 61'L
Sta. 12+16.33 Montgomery Rd.
= Sta. 0+00 Duck Creek Rd.
27B 3F
1+69.35 2'L
Montgomery Rd.

h:\71\2-92\MONT.dwg — OCT. 28, 1999

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

357
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 345 Sta. 378+00DE Match Line

See Sheet No. 344 Sta. 381+00DB Match Line

See Sheet No. 345 Sta. 380+00DC Match Line

See Below Sta. 5+00 Match Line

See Below Sta. 19+00 Match Line

Match Line Sta. 5+00 See Above

Match Line Sta. 19+00 See Above

Dana Ave.

Ramp DE

Ramp DB

Ramp DA

Ramp DC

Duck Creek Rd.

30 3-A II-10
376+99 DE

30 2-A II-10
375+52 DE

30 5-AT-A II-10
381+40 DB

30 1-A II-10
374+05 DE

30 4-AT-A II-10
382+80 DB

CINCINNATI GAS AND ELECTRIC CO. POLE R11-17, 240 VOLT 3 WIRE SERVICE

30 BB-2
7+00
70'L

30 BA-1

30 BB-5
383+36 DB

30 BB-4
383+36 DB

30 8-AT-A III-10
384+10 DB

30 BA-6
9+76 51'L

30 1 III-10
5+00 52'L

30 BB-3
373+38 DE

30 BH-8
8+50

POT Sta. 10+64.87 38' LT
= PT Sta. 385+44.59DB

30 9-A III-10, JA-1
10+94

30 1- III-15
MOUNTED ON TRAFFIC CONTROL POLE

PULLBOX
BILLED WITH TR. CONTROL

POT Sta. 379+69.88DC 33.99' LT
= POT Sta. 379+69.88DA

31 10-AT-A III-10
379+70 DC

31 9-AT-A II-10
378+60 DC

31 8-AT-A II-10
377+50 DC

31 7-AT-A II-10
376+40 DC

31 BA-8
375+90 DC 17'R

31 BA-7
15+43 53'L

31 6-AT-A III-10
375+30 DC 15.5'R

31 1-F
15+60.56 46'L

31 4-A III-15
14+22

31 5-A III-15
16+26 65'R

31 BA-5
20+29 DRR 23'L

31 3 II-15

31 BA-2
20+29 DDR

31 BA-6
15+43 64'R

CIRCUIT NO. 31 CONTROL CENTER MOUNTED ON PROPOSED WOOD POLE

31 BA-3
19+16 DRR 9'R

31 BA-1
20+29 DRR 26'R

Sta. 373+41.83DC
POC Sta. 17+81.54 40' LT Dana Ave.

29C BA-9
5+00

29C BA-8
6+40

29C 7 III-15
7+83

PC Sta. 372+75.70DE
= POC Sta. 7+42.77 Dana Ave.

29C BA-7
9+37

29C 8 A-III-10, JA-1
9+88.5

29C JA-2
10+33

29C JA-3
11+93.5

29C 9-A III-10, JA-4
12+11

Sta. 13+97.97 Dana Ave.
= PC Sta. 20+68.28 Duck Creek Road

PC Sta. 375+64.51DA
= POT Sta. 13+26.16 Dana Ave.

31 BA-4

31 1-A III-10
18+62 DR 57'R

31 BH-10
18+62 DR

31 3-F
18+48 DR

29C BA-10
3+60

374DC

376DA

378DC

376DE

382DB

H:\71\2.92\DANA.dwg - DEC. 16, 1999

Dana Ave.

CALC. BY KRB DATE 11/5/96
CHKD. BY BAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

358
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 360
Sta. 12+00
Match Line

26

PB-34
23+52, 45'R

24

Sta. 10+00.16 ℄ Williams Ave.
= Sta. 24+05.89 ℄ Smith-Edwards Rd.

Williams Ave.

PB-35
23+52, 41'L

22

Smith-Edmonson Rd.

20

A2-11
SIGN SUPPORT 16

P.I. Sta. 191+65.03 ℄ Smith-Edwards Rd.
= Sta. 31+57.01A

PB-12
19+70, 26L

18

A2-10
311+95A

Sta. 17+00.00 ℄ Smith-Edwards Rd.
= Sta. 311+40.64AR

A2-7
SIGN SUPPORT 17

Sta. 310+94.74 ℄ I-71
Sta. 14+93.81 ℄ Smith-Edwards Rd.

EXISTING CONTROLLER

PB-23
13+42, 30'R

A2-5
13+26

EXISTING PB

PB-18
11+65,26'R

PB-19
10+10, 26'R

Sta. 12+25.00 ℄ Smith-Edwards Rd.
= Sta. 311+43.86B

16

14

12

10

PB-13
310+55A, 10'L

PB-15
16+43, 30'R

A2-6
14+84

PB-22
13+42, 30'R

A2-4
11+65

A2-8/9
310+55A

310AL

310AR

PB-14
310+60AR, 10'R

PB-21
310+25B, 32'L

PB-17
310+25, 10'R

310BL

A2-3
310+12B

Match Line
Sta. 309+00A
See Sheet No. 347

Match Line
Sta. 309+50B
See Sheet No. 347

H:\TV\2-92\SMITH.dwg - DEC. 17, 1997

Smith-Edmondson Rd.

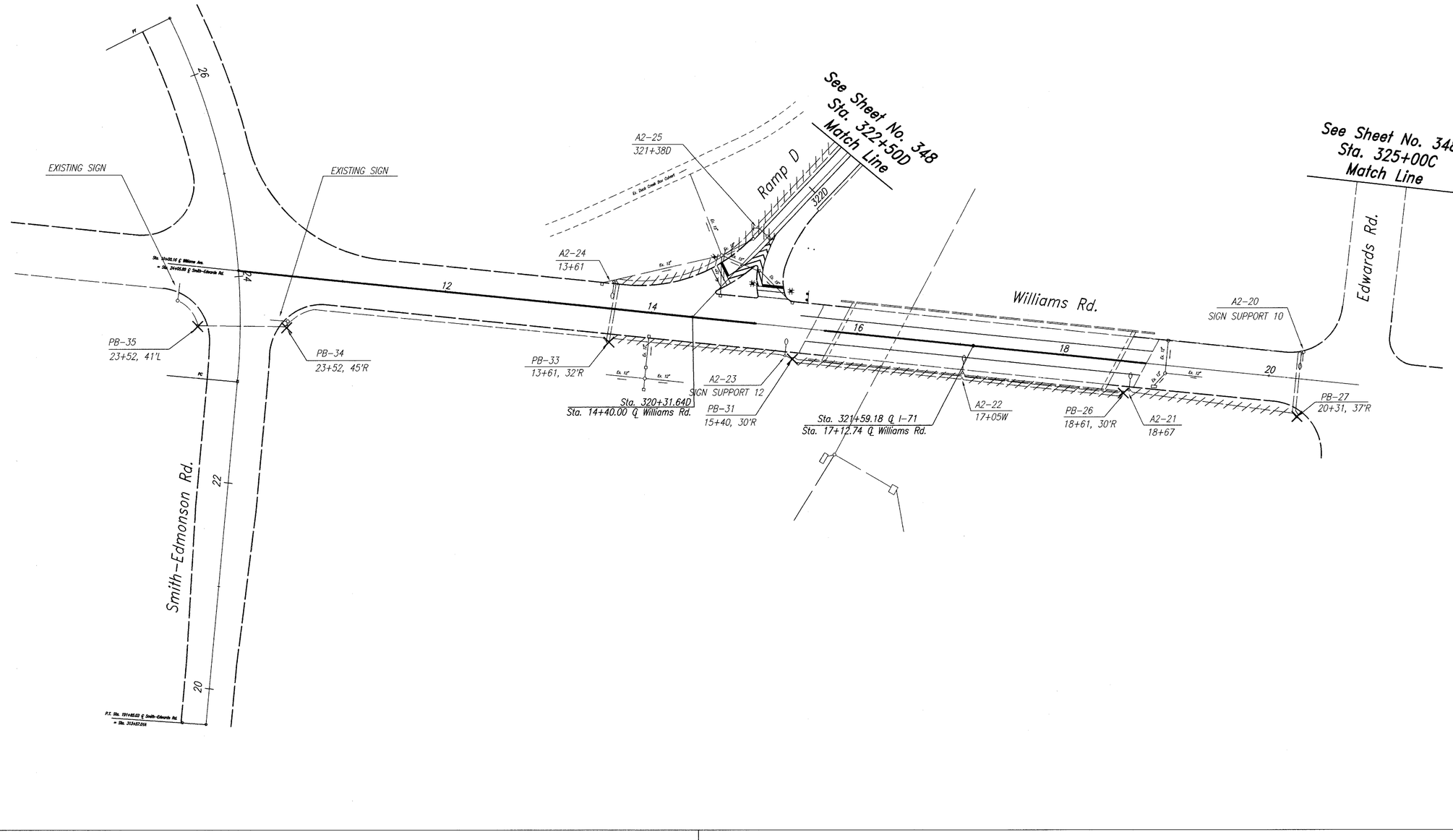
CALC. BY KRB DATE 11/5/96
CHKD. BY BAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

359
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



H:\371\2.92\WILLIAM.dwg - DEC. 13, 1991

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO | FHWA REGION 5

360
615

GRAPHIC SCALE IN FEET
50 0 50 100 150

Ramp R

See Sheet No. 354
Match Line
Sta. 6+00R

D2-20
42+19

POC Sta. 43+03.07 Highland Ave Ext.
= Sta. 10+39.41R

10R
8R

D2-18
9+67R

D2-17
7+65R

D2-16
6+15R

PB-126
43+80,34'R

PB-114
43+80,34.5'L

D2-19
43+87

PB-115
45+10,34.5'R

Highland Ave.

See Sheet No. 354
Match Line
Sta. 4+00P1

Ramp P

D2-7
5+00P

D2-6
3+45P

D2-4
1+30P

PB-116
2+00P,10'R

D2-5
SIGN SUPPORT 45

TS Sta. 0+00P
= Sta. 15+87.85 Kennedy Ave.

Ramp P1

Kennedy Ave.

PB-110
23+23,23'R

PB-113
25+10,49.5'L

Duck Creek Rd.

C3-17
80+00

D2-2
11+10

PB-103
0+46P, 23'R

PB-118
12+85K

PB-117
13+50, 49'L

C3-15
7+88

PB-120
7+57, 23'R

Sta. 0+00P1
= Sta. 12+00 Kennedy Ave.

PB-121
80+61, 18'L

PB-122
80+61, 34'R

PB-119
0+46P, 5'R

D2-3
12+85K

℄ Kennedy Ave.

PB-128
18+10, 23'R

PB-127
19+26, 23'R

21+83

Sta. 21+18.62 ℄ Kennedy Ave.
= Sta. 417+85.42 ℄ I-71

PB-109
AT SOURCE

EXISTING CONTROL
CENTER NO. 25

PB-112
0+45,25'L

Sta. 24+26.61 ℄ Kennedy Ave.
= Sta. 50+00.00 ℄ Highland Ave.

PB-111
0+45, 16'R

Kennedy Ave.

Q:\71\12.62\KENNEDY.dwg — JAN. 15, 1992

CALC. BY KPB DATE 1/5/96	HAM-71-2.92	OHIO
CHKD. BY BAP DATE 1/8/96		FHWA REGION 5

361
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Norwood Lateral

Norwood Lateral

Norwood Lateral

Ramp K

Ramp L

Ramp E

Ramp J

Ramp I

Begin Work
Sta. 159+00NL

E3-6
160+90NL

SIGN #30
CIR E3

PB#63
162+05NL
65'RT

E3-7
7+00K

E3-8
9+20E

EPB, E4-12
9+80K

E3-9
11+34E

PB#62
11+49E
9'RT

Match Line
Sta. 12+00E
See Sheet No. 351

E4-5
159+80NL

E4-6
5+80L

PB#64
6+65L
38'LT

SIGN #67
CIR E4

E4-7
8+60L

PB#65
9+67L
38'LT

E4-8
11+40L

E4-9
14+20L

E4-11
12+70K

PB#66
12+10K
51'RT

SIGN #29
CIR E4

H1-4
14+70J

C1-8
15+75K

H2-1
17+00L

Match Line
Sta. 16+69.77J
See Sheet No. 352

Match Line
Sta. 17+50L
See Sheet No. 362

CALC. BY LRB DATE 6/23/95
CHKD. BY BAC DATE 9/18/95

HAM-71-2.92

OHIO
FHWA REGION 5

362
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

N

Match Line Sta. 17+50L See Sheet No. 361

Match Line Sta. 4+00I See Sheet No. 352

Match Line Sta. 6+00F See Sheet No. 351

Match Line Sta. 8+00G See Sheet No. 352 See Sheet Match Line Sta. 36+00T See Sheet 363

H2-2 2+60I
C2-1 18+62L
B2-9 377+20SB
U3-B2-P
PB#67 22+53K
C2-2 22+87L
PB#68 23+12L 27'LT
PB#51 24+60J 10'LT
H1-8 24+30J
PB#50 24+60J 28'RT
C2-3 25+25L
U4-C1-C
C1-9 17+75K
C1-10 19+75K
U2-B2-C
C1-11 24+08K
PULLBOX STA 379+90, 62'R
PB#69 26+12K 27'RT
C1-12 26+46K
C2-4 28+63T
C1-13 29+82T
PB#71 13+70F 21.5'LT
C2-5 31+00T
C2-6 32+60T
PB#135 9+35G 10'RT
C2-7 9+45G
PB#135 9+35G 10;RT
C2-11 34+89T
PB#73 34+71T 38.5'RT
C4-2 33+64T
C4-1 31+56T
PB#72 13+70F 21.5'LT
C1-7 12+60F
C1-6 10+40F
C1-5 8+20F
PB#61 7+47F 10'RT

Ramp I
Ramp L
Ramp K
Ramp J
Ramp F
Ramp T Westbound
Ramp T Eastbound
Ramp G
I-71 NB
374SB
376SB
378SB
378NB
380NB

Norwood Lateral

C:\ITS\NORLAT\PHAZ.dwg - JAN. 23, 1995

CALC. BY KAB DATE 6/26/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

363
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

H2-10
388+45SB

I-71 SB

388SB

PB#60
2+41H, 10'LT

C3-2
4+00H

H1-14
389+65NB

390NB

I-71 NB

388NB

Ramp H

PB#83
7+02H, 10'LT

C3-4
8+00H

C3-5
9+85H

C3-6
11+60H

PB#90
2+20U
28'LT

C2-16
2+90H

C2-17
14+70H

PB#84
2+08M
13'LT

PB#86
3+70H
25'LT

C3-7
13+30H

C3-8
3+00M

PB#92
15+55H
10'LT

Ramp M

PB#85
2+08M
26'RT

Match Line
Sta. 6+00H
See Sheet
No. 364

Match Line
Sta. 4+00M
See Sheet
No. 364

SIGN #54
CIR C3

See Sheet No. 352
Sta. 2+00H
Match Line

C3-1
2+00H

C3-3
6+00H

H1-13
387+37NB

C2-14
41+94T

Ramp H1

Ramp T Westbound

Ramp T Eastbound

C3-23
45+92T

PB#93
48+40T
32.5'LT

SIGN #65
CIR C3

Match Line
Sta. 48+75T
See Sheet
No. 364

C2-13
39+79T

C4-10
47+24T

PB#87
46+64T
32'LT

PB#88
46+68T
35'RT

PB#89
AT SOURCE

Warburg Avenue

POWER SOURCE 'C'
120/240 VOLTS
38.5 KVA
ALL CIRCUITS #2 AWG

C4-7
44+80T

C4-6
42+94T

C4-5
40+92T

C2-15
0+90H

PB#91
2+20U
20'RT

C4-8
3-50U

C-49
4+90U

C2-12
37+39T

C4-4
38+59T

C4-3
36+14T

Match Line
Sta. 36+00T
See Sheet No. 362

Ramps H, H1, M, T, U

G:\71\2.92\LAYOUTS\LAYOUT3.dwg — JAN. 17, 1997

CALC. BY KRB DATE 1/5/96
CHKD. BY BAD DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

364
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 363 Match Line Sta. 48+75T

See Sheet No. 363 Match Line Sta. 6+00H1

See Sheet No. 363 Match Line Sta. 4+00M

C4-11 49+88 T

PB-94 0+53 T 10'R

C4-13 18+95

PB-95 17+74 H 10'L

C3-21 50+50 T

C2-18 16+58 H

C3-9 5+10 M

PB-99 5+54 10'L

PB-98 23+25 36'L

Sta. 18+30.33H = POC Sta. 8+04.64H1

C3-10 23+80

PB-100 24+96 46'L

PB-101 25+70 46'L

C3-11 26+60

EXIST. PULLBOX

C4-12 20+50

EXIST. PULLBOX

EXIST. PULLBOX

C3-20 21+70

C2-19 18+58 H

C3-19 23+25

PB-136 22+06 44'R

PB-96 19+81 H 26'L

C3-12 25+20

PT Sta. 7+11.85M 34' LT = Sta. 24+30.16 Ridge Ave.

Sta. 51+23.83T = Sta. 21+12.36 Ridge Ave.

C2-20 20+48 H

C3-13 73+95

C2-21 22+38 H

C2-22 24+28 H

Sta. 25+00H1 = Sta. 25+00 Borrow Ave. 4' RT

EXISTING POLE 29+90

EXIST. PULLBOX 31+64

Ridge Ave.

Sta. 28+43.15 Ridge Ave. = Sta. 27+95N

PB-137 31+64 29'R

EXISTING POLE 31+20

D1-13 28+00

D1-12 12+70 N

PB-104 28+47 29'R

Sta. 404+81.00 ℄ (Projected Back)
Sta. 29+96.64 Ridge Ave.

D1-11 11+15 N

D1-10 9+60 N

D1-9 8+05 N

Sta. 8+00N Match Line See Sheet No. 354

Ridge Ave.

G:\71\2.92\XROAD1.dwg — JAN. 15, 1998

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

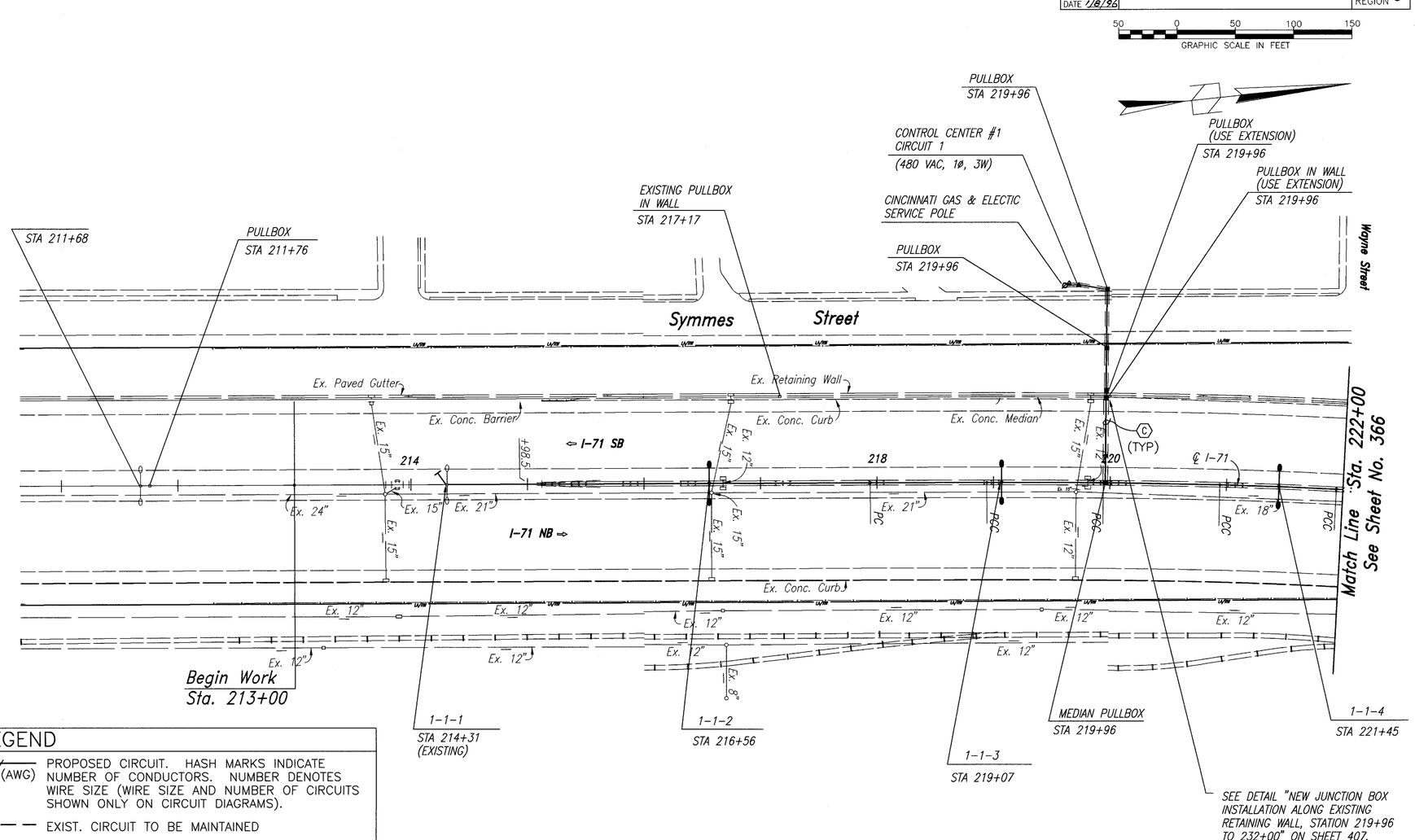
365
615

KEYED NOTES:

(A) CLEAN EXISTING PULLBOX, HANDHOLE OR JUNCTION BOX.

(B) REFURBISH EXISTING CONTROL CENTER. SEE NOTES AND SPECIFICATIONS.

(C) CLEAN AND MANDREL EXISTING CONDUITS.



PROPOSED LEGEND

- EXIST PULLBOX
- PROPOSED PULL BOX
- PROPOSED BARRIER JUNCTION BOX
- EXIST. WALL OR BARRIER J.B.
- EXIST. BRIDGE MOUNTED O.H. SIGN
- EXIST. TRUSS O.H. SIGN (CIRCUIT DIAGRAMS)
- EXIST. CANTILEVER O.H. SIGN (CIRCUIT DIAGRAMS)
- PROPOSED 310 W H.P.S. LUMINAIRE
- PROPOSED 2-310 W H.P.S. LUMINAIRES
- EXIST. POLE
- POST TOP MOUNTED LUMINAIRE, TYPE V DISTRIBUTION
- PROPOSED 200W H.P.S. TYPE II LUMINAIRE
- PROPOSED LIGHT TOWER, 6-400 W H.P.S., TYPE V DISTRIBUTION.
- PROPOSED LIGHT TOWER, 4-400 W H.P.S., TYPE III DISTRIBUTION.
- PROPOSED LOW MAST POLE, 1-400W H.P.S., TYPE II, III DISTRIBUTION.
- PROPOSED LOW MAST POLE, 1-400W H.P.S., TYPE II, III DISTRIBUTION

- 2(AWG) — PROPOSED CIRCUIT. HASH MARKS INDICATE NUMBER OF CONDUCTORS. NUMBER DENOTES WIRE SIZE (WIRE SIZE AND NUMBER OF CIRCUITS SHOWN ONLY ON CIRCUIT DIAGRAMS).
- EXIST. CIRCUIT TO BE MAINTAINED
- PROPOSED CIRCUIT CONDUCTORS IN NEW CONDUIT (WIRE SIZE AND NUMBER OF CIRCUTIS SHOWN ONLY ON CIRCUIT DIAGRAMS).
- PROPOSED CIRCUIT CONDUCTORS IN EXISTING BURIED CONDUIT (WIRE SIZE AND NUMBER OF CIRCUITS SHOWN ONLY ON CIRCUIT DIAGRAMS).
- EXIST. BURIED CONDUIT TO REMAIN, MAINTAIN EXISTING CIRCUIT CONDUCTORS (WIRE SIZE AND NUMBER OF CIRCUITS SHOWN ONLY ON CIRCUIT DIAGRAMS).
- EXISTING EMPTY CONDUIT TO REMAIN FOR FUTURE USE
- PROPOSED CONTROL CENTER
- EXIST. CONTROL CENTER TO REMAIN
- CONNECTION TO EXISTING AT THIS LOCATION
- EXISTING C. G. & E. UTILITY POLE
- UNDERPASS LIGHT
- CONDUIT STUB AND CAP AT END OF CIRCUIT

M:\TYL\22\TCI.dwg - DEC. 16, 1991

Sta. 213+00 to 222+00

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

366
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

STRUCTURE HAM-71-0315

PULLBOX STA 7+48.75, 20'L

PULLBOX STA 228+67, 148'L

STRUCTURE HAM-71-0327

3-6-1A STA 228+63

3-6-1 STA 230+42

3-6-2 STA 231+83 TH

Ⓑ CONTROL CENTER #2
CIRCUIT 3 (LOCAL STREET LIGHTING)
(240 VAC, 1ø, 3W)

EXIST. JUNCTION BOX Ⓐ STA 225+25.17

CINCINNATI GAS & ELECTRIC SERVICE POLE

2-3-1 STA 8+37

1-1-6 STA 226+05

2-3-5 STA 13+43

3-5-1 STA 228+05

Ⓐ EXISTING HANDHOLE STA 13+77

PULLBOX STA 228+05

EXISTING PULLBOX STA 230+61, 73'L

3-5-2 STA 230+20

SEE DETAIL "NEW JUNCTION BOX INSTALLATION ALONG EXISTING RETAINING WALL, STATION 219+96 TO 232+00" ON SHEET 407.

PULLBOX STA 231+70, 74'L (NO SPLICES)

PULLBOX STA 232+54 TH

CINCINNATI GAS & ELECTRIC SERVICE POLE

CONTROL CENTER NO. 3
CIRCUITS 5,6
(480 VAC, 1ø, 3W)

PULLBOX STA 232+58 TH

3-5-3 STA 232+18

MEDIAN PULLBOX STA 232+10

3-6-3 STA 233+21 TH

PULLBOX (AT WALL)
(USE EXTENSION)
STA 233+77

3-6-4 STA 235+00 TH
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

Ⓒ (TYP)

3-5-4 STA 234+56

3-6-12 STA 234+71 TC

SIGN #7 STA 234+12

PULLBOX STA 233+62 TC

JUNCTION BOX STA 232+57

3-6-11 STA 232+49 TC
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

PULLBOX STA 232+53 TC

2-3-3 STA 16+63

Ⓐ EXISTING HANDHOLE STA 15+92

STRUCTURE HAM-71-0299

3-6-10 STA 230+31 TC

2-3-4 STA 15+04

Ⓐ EXISTING HANDHOLE STA 14+67

3-6-9 STA 228+13 TC

PULLBOX STA 228+06 TC, 10'R

PULLBOX, 2-3-2 STA 9+62

PULLBOX STA 9+93.5, 32.9'L

SIGN #116 STA 10+07

3-6-8 STA 225+95 TC
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

1-1-5 STA 223+85

EXIST. HANDHOLE STA 8+95

SIGN #3 STA 224+70

PULLBOX STA 224+65

MEDIAN PULLBOX STA 224+65

Symmes Street

Lindsay Street

Wayne Street

McMillan Street

Ex. Asphalt over Conc. Pvt.

Ex. Stone Wall

Ex. Building

Ex. Retaining Wall

Ex. Conc. Walk

Asphalt

Ex. Conc. Median

Ex. Conc. Curb

Ex. Guard rail

Ex. Retaining Wall

Ex. Fence

Ex. Railing

Ex. Power Pole

Ex. Utility Pole

Ex. Conc. Slope

Ex. Conc. Wall

Ex. Conc. Pad

Ex. Conc. Base

Ex. Conc. Footer

Ex. Conc. Pier

Ex. Conc. Cap

Ex. Conc. Beam

Ex. Conc. Deck

Ex. Conc. Abut.

Ex. Conc. Wing

Ex. Conc. Pile

Ex. Conc. Foot

Ex. Conc. Stem

Ex. Conc. Key

Ex. Conc. Shear Key

Ex. Conc. Shear Wall

Ex. Conc. Shear Block

Ex. Conc. Shear Pad

Ex. Conc. Shear Footer

Ex. Conc. Shear Pier

Ex. Conc. Shear Cap

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Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pier

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Cap

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Beam

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Deck

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Abut.

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Wing

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pile

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Foot

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Stem

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Key

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Key

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Wall

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Block

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pad

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Footer

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pier

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Cap

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Beam

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Deck

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Abut.

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Wing

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pile

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Foot

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Stem

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Key

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Key

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Wall

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Block

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pad

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Footer

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pier

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Cap

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Beam

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Deck

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Abut.

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Wing

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pile

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Foot

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Stem

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Key

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Key

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Wall

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Block

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pad

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Footer

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pier

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Cap

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Beam

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Deck

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Abut.

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Wing

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Pile

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Foot

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Stem

Ex. Conc. Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Shear Key

Ex. Conc. Shear Key

Ex. Conc. Shear Wall

Ex. Conc. Shear Block

Ex. Conc. Shear Pad

Ex. Conc. Shear Footer

Ex. Conc. Shear Pier

Ex. Conc. Shear Cap

Ex. Conc. Shear Beam

Ex. Conc. Shear Deck

Ex. Conc. Shear Abut.

Ex. Conc. Shear Wing

Ex. Conc. Shear Pile

Ex. Conc. Shear Foot

Ex. Conc. Shear Stem

Ex. Conc. Shear Key

Ex. Conc. Shear Key

Ex. Conc. Shear Wall

Ex. Conc. Shear Block

Ex. Conc. Shear Pad

Ex. Conc. Shear Footer

Ex. Conc. Shear Pier

Ex. Conc. Shear Cap

Ex. Conc. Shear Beam

Ex. Conc. Shear Deck

Ex. Conc. Shear Abut.

Ex. Conc. Shear Wing

Ex. Conc. Shear Pile

Ex. Conc. Shear Foot

Ex. Conc. Shear Stem

Ex. Conc. Shear Key

Ex. Conc. Shear Key

Ex. Conc. Shear Wall

Ex. Conc. Shear Block

Ex. Conc. Shear Shear Shear

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

367
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

3-6-5
STA 236+90 TH

3A-7-1
STA 6+31

PULLBOX
STA 5+68

EXIST. HANDHOLE (A)
STA 6+19

PULLBOX
STA 5+85

3-6-8 UP (UNDERPASS LIGHT)
(ON ABUTMENT)

PULLBOX
STA 6+36

3-6-6
STA 239+03 TH
(ON WALL)
(REUSE EXISTING
BRACKET ARM)

JUNCTION BOX
STA 240+06 TH
(ON WALL)

3-6-7
STA 241+15 TH
(ON WALL)
(REUSE EXISTING
BRACKET ARM)

PULLBOX (NO SPLICES)
STA 243+52

MEDIAN PULLBOX
STA 243+52

3-5-8
STA 243+66

PULLBOX
STA 245+35

SIGN #11
STA 245+45

PULLBOX
STA 6+43, 30'L

PULLBOX
STA 6+29

EXISTING LIGHT
STA 6+39

EXISTING LIGHT
STA 7+51

STRUCTURE
HAM-71-0343

CONNECT EXISTING
CIRCUIT FROM
CONTROLLER 5A

5-10-1
STA 250+90

(A) EXIST. HANDHOLE
STA 7+63

PULLBOX
STA 250+98, 98'L

See Sheet No. 366
Match Line Sta. 236+00

Match Line Sta. 251+00
See Sheet No. 368

Winslow Avenue

Bathgate Street

238TH

Ramp TH 240TH

242TH

244TH

246TH

248TH

(C) (TYP)

(C) (TYP)

⇦ I-71 SB

I-71 NB ⇨

EMPTY

EMPTY

EMPTY

EMPTY

240

242

244

246

248

238TC

Ramp TC ⇨

238TC

May Street

Tuxedo Place

Lincoln Avenue

3-5-6
STA 238+90

3-5-7
STA 241+28

3-5-9
STA 246+04

3-5-10
STA 248+42

PULLBOX
STA 249+50

EXISTING LIGHT
STA 8+84

PULLBOX
STA 8+95, 27'L

3-6-14
STA 238+98 TC

3A-7-2
STA 7+60

CONTROL CENTER #3A
CIRCUIT 7 (LOCAL STREET LIGHTING)
(PROPOSED) (240 VAC, 1ø, 3W)

3-6-13
STA 237+03 TC

3-5-5
STA 236+94

3A-7-3
STA 8+96

STRUCTURE
HAM-71-0339

May Street

Oak Street

Sta. 236+00 to 251+00

G:\71\2.92\1\03.dwg — JAN. 30, 1997

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

368
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

RELOCATED CONTROLLER #5A
(RECONNECT LIGHTING CIRCUIT(S) FOR M. L. KING DRIVE TO CONTROLLER)
(240 VAC, 1ø, 3W)

EXIST. C.G.&E. SERVICE POLE
(240 VAC)

EXIST. C.G.&E. SERVICE POLE
(480 VAC)

PROPOSED CONTROLLER #5
CIRCUIT 10 (480 VAC, 1 ø, 3W)

PULLBOX
STA 9+35, 18'L

PULLBOX
STA 9+08, 16.5'R

PULLBOX
STA 256+20

PULLBOX
STA 255+35

PULLBOX
STA 257+45

5-10-4
STA 258+50

SIGN 17
STA 258+28

MEDIAN PULLBOX
STA 259+69

5-10-5
STA 260+88

5-10-6
STA 263+26

6-11-1
STA 265+76

See Sheet No. 367
Match Line Sta. 251+00

M.L. King Boulevard

Van Buren Street

Melish Lane

Omaha

I-71 SB

I-71 NB

5-10-2
STA 253+40

5-10-3
STA 255+90

MEDIAN PULLBOX
STA 255+35

STRUCTURE
HAM-71-0376

Match Line Sta. 104+00 M.L. King

Match Line Sta. 266+00
See Sheet No. 369

G:\71\2.92\TC4.dwg - JAN. 21, 1992

Sta. 251+00 to 266+00

CALC. BY KRB DATE 11/5/96
CHKD. BY BAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

369
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PULLBOX
STA 8+52

EXIST. C.G.&E. SERVICE POLE
(240 VAC)

PULLBOX
STA 8+91

6A-13-3
STA 8+88

JUNCTION BOX
STA 9+31

EXIST. C.G.&E. SERVICE POLE
(480 VAC)

EXIST. CONTROLLER #6A (B)
CIRCUITS 13 (LOCAL CIRCUIT)
(240 VAC, 1ø, 3W)

6-12-1 UP (ON GIRDER)
UNDERPASS LIGHT

PROPOSED CONTROLLER #6
CIRCUITS 11,12
(480 VAC, 1ø, 3W)

6A-13-1
STA 6+86

6A-13-2
STA 8+40, 27.5'R

SEE DETAIL ON SHEET 408
FOR UNDERPASS LIGHTING

6-11-7
STA 278+81

PULLBOX
STA 270+60, 88'L
(NO SPLICES)

6-12-2 UP (ON PIER)
UNDERPASS LIGHT

JUNCTION BOX
STA 10+26

MEDIAN PULLBOX
STA 267+85

Whittier Avenue

Fredonia Avenue

Bridge No. HAM-0398

I-71 SB

I-71 NB

Syracuse Street

EMPTY

See Sheet No. 368
Match Line Sta. 266+00

Match Line Sta. 279+00
See Sheet No. 370

6-11-2
STA 268+01

SIGN 21
STA 267+75
(CIRCUIT 6-12)

PULLBOX
STA 267+85

JUNCTION BOX,
6A-13-4
STA 12+26

JUNCTION BOX
STA 11+31

STRUCTURE
HAM-71-0398

EXIST. PULLBOX
STA 12+61, 24'L

EXIST. JUNCTION BOX,
STA 11+25

EXIST. PULLBOX
STA 15+42, 24'R

EXIST. PULLBOX
STA 14+06, 24'R

6A-13-5
STA 15+51, 24'R

6A-13-7
STA 14+10, 24'L

6-12-4 UP
UNDERPASS LIGHT
(ON GIRDER)

MEDIAN PULLBOX
STA 269+21

EXIST. JUNCTION BOX,
6A-13-6
STA 10+63

JUNCTION BOX
STA 10+31

6-12-3 UP (ON PIER)
UNDERPASS LIGHT

MEDIAN PULLBOX
STA 270+60

6-11-3
STA 270+36

6-11-4
STA 272+51

6-11-5
STA 274+66

6-11-6
STA 276+81

TO TWO EXISTING LIGHT STANDARDS
AT STATIONS 17+15 AND 18+79 - 24' LT

D:\71\2.92\105.dwg - JAN. 21, 1997

Sta. 266+00 to 279+00

CALC. BY HRB DATE 11/5/96
CHKD. BY BAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

370
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

7-14-1
STA 280+81

7-14-2
STA 282+64

7-14-4
STA 287+24

7-14-5
STA 289+44

7-14-6
STA 291+35

7-14-7
STA 293+45

EXISTING
C.G.&E. TRANSMISSION
LINE 132 KV

EXISTING
TOWER

SIGN 57
STA 293+00

See Sheet No. 369
Match Line Sta. 279+00

Match Line Sta. 294+00
See Sheet No. 371

I-71 SB

I-71 NB

(EMPTY)

280 282 284 286 288 290 292

Bridge No. HAM-71-0422

Blatt Avenue

Rammelsburg Court

Rammelsburg Street

EXISTING
TOWER

SIGN 25
STA 280+00

MEDIAN PULLBOX
STA 279+81

7-14-3
STA 284+94

STRUCTURE
HAM-71-0422

MEDIAN PULLBOX
STA 288+20

PULLBOX
STA 288+48VD, 70'L
(NO SPLICES)

PULLBOX
STA 288+48VD
(NO SPLICES)

EXIST. CONTROLLER #7
CIRCUIT 14
(CIRCUIT 14 - #2 AWG)
(480 VAC, 1ø, 3W)

EXIST. C.G.&E.
SERVICE POLE

MEDIAN PULLBOX
STA 293+00

C:\371-92\TCR.dwg - JAN. 21, 1992

Sta. 279+00 to 294+00

CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

371
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

STRUCTURE
HAM-71-0445

PULLBOX
STA 295+34, 68'R

7-14-8
STA 295+85

PULLBOX
STA 296+10, 68'R

7-14-9
STA 297+85

7-15-1,6 UP
UNDERPASS LIGHT

7-15-2,7 UP
UNDERPASS LIGHT

7-15-11 UP
UNDERPASS LIGHT

7-15-12 UP
UNDERPASS LIGHT

8-17-1
STA 303+60 ME

8-17-2
STA 305+60 ME

8-17-3
STA 307+60 ME

Victory Parkway

I-71 SB

I-71 NB

Ramp ME

(EMPTY)

Jonathan Avenue

296 298 300 302 303ME 304 304ME 306ME 308ME 306

See Sheet No. 370
Match Line Sta. 294+00

Bridge No. HAM-71-0445

Match Line Sta. 308+00
See Sheet No. 372

7-15-13 UP
UNDERPASS LIGHT

MEDIAN PULLBOX
STA 295+05

7-15-3,8 UP
UNDERPASS LIGHT

7-15-4,9 UP
UNDERPASS LIGHT

SIGN 59
STA 295+07

7-15-5,10 UP
UNDERPASS LIGHT

PROPOSED C.G.&E. POWER POLE

PROPOSED CONTROLLER 7A
CIRCUIT 15
(240 VAC, 1ø, 3W)

7-14-10
STA 299+85

7-14-11
STA 301+75

7-14-12
STA 303+65

8-16-1
STA 305+59

8-16-2
STA 307+59

Q:\71\SAS\TCT.dwg - JAN 22, 1992

Sta. 294+00 to 308+00

CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/18/95

HAM-71-2.92

OHIO
FHWA REGION 5

372
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

8-17-4
STA 309+60 ME

8-17-5
STA 311+66 ME

8-17-6
STA 314+25 ME

8-17-7
STA 315+74 ME

8-17-8
STA 318+05 ME

8-17-9
STA 320+00 ME (ON WALL)
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

PULLBOX
STA 319+28VB, 13'L

PULLBOX
STA 320+95ME, 7.5'L

C.G.&E. SERVICE POLE

CONTROL CENTER NO. 8
CIRCUITS 16, 17
CIRCUITS 16, 17 - #2
(480 VAC, 1ø, 3W)

8-17-10
STA 322+19 ME (ON WALL)
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

MEDIAN PULLBOX
STA 319+30
℄ (TYP)

Match Line
See Sheet No. 308ME+00
Sta. 371

See Sheet No. 371
Match Line Sta. 308+00

Match Line Sta. 321+00
See Sheet No. 373

Match Line
Sta. 323ME+00
See Sheet No. 373

Ramp ME ⇦
312ME
314ME
316ME
318ME
320ME
322ME

⇦ I-71 SB
I-71 NB ⇨
310
312
314
316
319

8-16-3
STA 309+59

8-16-4
STA 311+75

8-16-5
STA 313+70

8-16-6
STA 315+70

8-16-7
STA 317+70

8-16-8
STA 320+18

Sta. 308+00 to 321+00

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CALC. BY KRB DATE 11/5/96
CHKD. BY EAP DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

373
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PROPOSED CONTROL CENTER #8A
CIRCUIT 18 (240 VAC, 1ø, 3W)

PROPOSED C.G.&E. SERVICE POLE

EXIST. JUNCTION BOX (A)
8-18-1
STA 2+10

8-17-11
STA 324+15 ME
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

PULLBOX
STA 1+25, 47'R

PULLBOX
STA 1+30, 35'R

PULLBOX
STA 325+30ME, 28'L

PULLBOX
STA 325+90

SIGN #36
STA 324+00

8-17-12
STA 326+33 ME

8-17-13
STA 328+51 ME

8-17-14
STA 330+69 ME

8-17-15
STA 332+72 ME

8-17-16
STA 334+62 ME

C.G.&E. SERVICE POLE

CONTROL CENTER NO. 9
CIRCUITS 19, 20, 21
(480 VAC, 1ø. 3W)

PULLBOX
STA 333+87
(NO SPLICES)

See Sheet No. 372 Match Line Sta. 323ME+00

See Sheet No. 372 Match Line Sta. 321+00

Match Line Sta. 334+00 See Sheet No. 374

Brewster Avenue

Woodburn Avenue

I-71 SB

I-71 NB

(EMPTY)

(C) (TYP)

8-16-9
STA 322+18

MEDIAN PULLBOX
STA 322+64

(A) EXIST. JUNCTION BOX
STA 3+02

SIGN #34
STA 322+70
(CIRCUIT 8-16)

PULLBOX
STA 322+64

PULLBOX
SAT 5+53

8A-18-3
STA 5+53

PULLBOX
STA 4+65

EXIST. JUNCTION BOX (A)
8A-18-2
STA 3+83

STRUCTURE
HAM-71-0500

8-16-10
STA 324+55

9-19-1
STA 327+00

9-19-2
STA 329+45

9-19-3
STA 331+85

SIGN #38
STA 332+90

PULLBOX
STA 333+00

PULLBOX
STA 333+87

MEDIAN PULLBOX
STA 333+87

Sta. 321+00 to 334+00

H:\371\2-92\TCH.dwg - DEC. 16, 1991

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

374
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 335+00MER See Sheet No. 388

C.G.&E. SERVICE POLE

CONTROL CENTER NO. 9
CIRCUITS 19, 20, 21
(480 VAC, 1ø, 3W)

9-19-8 UP
ON PIER

JUNCTION BOX
STA 335+53

9-19-7 UP
ON PIER

Montgomery Road

Brewster Avenue

Ramp ME

Ramp MER

336ME

Ramp MF

336MF

338MF

340MF

342MF

344MF

⇦ I-71 SB

I-71 NB ⇨

EMPTY

Stacey Ave.

Duck Creek Road

Hudson Avenue

Trimble Avenue

HAM-71-0546

Bridge No.

Ex. Conc. Curb

Ex. Retaining Wall

Ex. Drainage Channel Flume and Gabion

Ex. Overhead Utility Lines

Ex. Underground Utility Lines

Ex. Fence

Ex. Guardrail

Ex. Sign

Ex. Light Standard

Ex. Traffic Signal

Ex. Manhole

Ex. Inlet

Ex. Catch Basin

Ex. Gas Valve

Ex. Water Valve

Ex. Fire Hydrant

Ex. Gas Meter

Ex. Telephone Pedestal

Ex. Electric Pedestal

Ex. Electric Transformer

Ex. Electric Meter

Ex. Telephone Manhole

Ex. Electric Manhole

Ex. Telephone Booth

Ex. Mailbox

Ex. Tree

Ex. Shrub

Ex. Bush

Ex. Hedge

Ex. Flower Bed

Ex. Rock Outcrop

Ex. Boulder

Ex. Concrete Pad

Ex. Asphalt Pad

Ex. Gravel Pad

Ex. Dirt Pad

Ex. Grass Pad

Ex. Building

Ex. Wall

Ex. Steps

Ex. Ramp

Ex. Handrail

Ex. Bench

Ex. Flag Pole

Ex. Monument

Ex. Survey Marker

Ex. Property Line

Ex. Right-of-Way Line

Ex. Easement Line

Ex. Centerline

Ex. Ditch

Ex. Culvert

Ex. Storm Sewer

Ex. Sanitary Sewer

Ex. Water Line

Ex. Gas Line

Ex. Telephone Line

Ex. Electric Line

Ex. Fiber Optic Line

Ex. Cable TV Line

Ex. Underground Electric Line

Ex. Underground Telephone Line

Ex. Underground Cable TV Line

Ex. Underground Fiber Optic Line

Ex. Underground Gas Line

Ex. Underground Water Line

Ex. Underground Sewer Line

Ex. Underground Storm Sewer Line

Ex. Underground Sanitary Sewer Line

Ex. Underground Utility Line

Ex. Underground Line

Ex. Overhead Line

Ex. Pole Line

Ex. Guy Wire

Ex. Anchor

Ex. Pole

Ex. Light Pole

Ex. Traffic Signal Pole

Ex. Sign Post

Ex. Mailbox Post

Ex. Tree Trunk

Ex. Shrub Trunk

Ex. Bush Trunk

Ex. Hedge Trunk

Ex. Flower Bed Trunk

Ex. Rock Outcrop Trunk

Ex. Boulder Trunk

Ex. Concrete Pad Trunk

Ex. Asphalt Pad Trunk

Ex. Gravel Pad Trunk

Ex. Dirt Pad Trunk

Ex. Grass Pad Trunk

Ex. Building Trunk

Ex. Wall Trunk

Ex. Steps Trunk

Ex. Ramp Trunk

Ex. Handrail Trunk

Ex. Bench Trunk

Ex. Flag Pole Trunk

Ex. Monument Trunk

Ex. Survey Marker Trunk

Ex. Property Line Trunk

Ex. Right-of-Way Line Trunk

Ex. Easement Line Trunk

Ex. Centerline Trunk

Ex. Ditch Trunk

Ex. Culvert Trunk

Ex. Storm Sewer Trunk

Ex. Sanitary Sewer Trunk

Ex. Water Line Trunk

Ex. Gas Line Trunk

Ex. Telephone Line Trunk

Ex. Electric Line Trunk

Ex. Fiber Optic Line Trunk

Ex. Cable TV Line Trunk

Ex. Underground Electric Line Trunk

Ex. Underground Telephone Line Trunk

Ex. Underground Cable TV Line Trunk

Ex. Underground Fiber Optic Line Trunk

Ex. Underground Gas Line Trunk

Ex. Underground Water Line Trunk

Ex. Underground Sewer Line Trunk

Ex. Underground Storm Sewer Line Trunk

Ex. Underground Sanitary Sewer Line Trunk

Ex. Underground Utility Line Trunk

Ex. Underground Line Trunk

Ex. Overhead Line Trunk

Ex. Pole Line Trunk

Ex. Guy Wire Trunk

Ex. Anchor Trunk

Ex. Pole Trunk

Ex. Light Pole Trunk

Ex. Traffic Signal Pole Trunk

Ex. Sign Post Trunk

Ex. Mailbox Post Trunk

9-19-4
STA 334+25

9-19-10 UP
ON PIER

STRUCTURE
HAM-71-0522
(SEE SHEET NO. 388
FOR CIRCUITING OF
MONTGOMERY ROAD AND
UNDERPASS LIGHTING)

9-19-5
STA 336+95

JUNCTION BOX
STA 335+53

9-19-9 UP
ON PIER

MEDIAN PULLBOX
STA 335+53

9-19-6
STA 339+27

9-20-3
STA 338+87 MF

9-20-4
STA 340+60 MF

9-20-5
STA 342+18 MF

9-20-6
STA 343+69 MF

10-22-1
STA 341+44

10-22-2
STA 343+76

10-22-3
STA 346+08

EXISTING C.G.&E. SERVICE POLE

(B) CONTROL CENTER NO. 10A
CIRCUIT 23
(240 VAC, 1ø, 3W)

PULL BOX
STA 3+46, 23.5'L

PULLBOX
STA 4+24, 29'L
(NO SPLICES)

(A) EXIST. JUNCTION BOX, 10A-23-1
STA 5+21
(NO SPLICES)

NEW C.G.&E. SERVICE POLE

CONTROL CENTER NO. 10
CIRCUIT 22
(480 VAC, 1ø, 3W)

PULLBOX
STA 347+95

MEDIAN
PULLBOX
STA 347+85

10-22-4
STA 348+68

EXIST. JUNCTION BOX (A)
STA 6+11

10A-23-2
STA 7+01

STRUCTURE
HAM-71-0546

Match Line Sta. 349+00 See Sheet No. 375

Sta. 334+00 to 349+00

M:\71\2-92\10\10.dwg - DEC. 13, 1991

CALC. BY KRB DATE 4/27/95	HAM–71–2.92	OHIO
CHKD. BY GAP DATE 9/15/95		FHWA REGION 5

375
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 374
Match Line Sta. 349+00

Match Line Sta. 363+00
See Sheet No. 376

10–22–6
STA 353+44

10–22–7
STA 355+82

11–24–1
STA 358+20

Bevis Avenue

Wabash Avenue

Evanston Avenue

℄ I–71

I–71 SB ⇦

I–71 NB ⇨

350 352 354 356 358 360 362

EMPTY

Sta. 357+62 I–71 ℄
= Sta. 5+00 Ped. Bridge

10–22–5
STA 351+06

11–24–2
STA 360+58

11–24–3
STA 362+88

Duck Creek Road

PULLBOX
STA 357+75, 74'R

REUSE EXISTING
CONDUIT

POST TOP LUMINAIRE
REPLACE WITH 100W, 240 VOLT
HPS LUMINAIRE 10' MOUNTING
HEIGHT (CIRCUIT 10A–23).

PULLBOX
STA 357+52, 74'R

STRUCTURE
HAM–71–0566

EXIST. PULLBOX, EXIST.
JUNCTION BOX, 10–23–3 (A)
STA 357+70.5, 104.5'R

NEW UNDERPASS LIGHT
AT EXISTING LOCATION
(CIRCUIT 10A–23)

H:\71\2-92\T071.dwg – DEC. 13, 1999

Sta. 349+00 to 363+00

CALC. BY KRB DATE 6/27/95
CHKD. BY DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

376
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

12-26-3
STA 380+00 DB

Match Line
Sta. 381+00
See Sheet No. 389

12-26-4
STA 378+60 DB

12-26-5
STA 377+20 DB

12-26-6
STA 375+68 DB

12-26-7
STA 373+50

12-26-8
STA 371+45

12-26-9
STA 369+40 DB

Ramp DB
380DB
378DB
376DB
374DB
372DB
370DB

+80.06 Dana
End Approach Slab
End Transition

+94.50DB
End Transition

℄ Ramp DB

POC Sta. 369+58.89 86' Lt.
= PCC Sta. 369+58.89DB

POT Sta. 10+64.87 38' Lt.
= PT Sta. 385+44.59DB

Match Line
Sta. 363+00
See Sheet No. 375

℄ I-71

364
366
368
370
372
374
376

I-71 SB
I-71 NB

EMPTY

Match Line
Sta. 378+00
See Sheet No. 377

Dana Avenue

Duck Creek Road

℄ Duck Creek Road

See Sheet No. 389
for Duck Creek Road

11-24-4
STA 365+13

11-24-5
STA 367+33

MEDIAN
PULLBOX
STA 367+68

PULLBOX
STA 367+68

C.G.&E. SERVICE POLE

CONTROL CENTER NO. 11
CIRCUIT 24 (480 VAC, 1ø, 3W)

SIGN NO. 48
STA 367+50

SIGN NO. 160
STA 14+90DC

11-24-6
STA 369+63

11-24-7
STA 371+73

11-24-8
STA 373+90

11-24-9
STA 376+13

STRUCTURE
HAM-71-0581

SEE SHEET NO. 389
FOR DANA AVE.

H:\71\2\92\TC12.dwg - DEC. 13, 1995

Sta. 363+00 to 378+00

CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/13/95

HAM-71-2.92

OHIO
FHWA REGION 5

377
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

12-25-4
STA 378+72 DE

12-25-5
STA 380+55 DE

12-25-6
STA 382+38 DE

12-25-7
STA 384+21 DE

12-25-8
STA 386+40 DE

PULLBOX
STA 387+90

SIGN #56
STA 398+00

12-25-9
STA 388+54

12-25-10
STA 390+80

See Sheet No. 389
Sta. 378+00DE
Match Line

14-30-2
STA 380+58

MEDIAN
PULLBOX
STA 380+34.5

City Of Norwood
City Of Cincinnati

Ramp DE

384DE

386DE

388DE

±72.83DE
Begin Transition

±35.31DE
End Transition

CS Sta. 388+98.83 73' Lt.
CS Sta. 388+98.83DE

⇦ I-71 SB

I-71 NB

380
382
384
386
388
390
392

EMPTY

See Sheet No. 376
Match Line Sta. 378+00

See Sheet No. 389
Sta. 380+00DC
Match Line

Ramp DC

382DC

384DC

386DC

±75.00
Begin Transition

±75.00
End Transition

Sta. 387+00 86' Rt.
= PCC Sta. 387+00DC

Match Line Sta. 392+00
See Sheet No. 378

14-30-1
STA 378+43

PULLBOX
STA 380+34.5
(NO SPLICES)

PULLBOX
STA 380+50DC

PULLBOX
STA 380+50DC

CONTROL CENTER NO. 14
CIRCUITS 29, 30
(480 VAC, 1ø, 3W)

PULLBOX

(C) (TYP)

STRUCTURE NO.
HAM-71-0611

14-30-3
STA 383+03

14-29-6
STA 382+74 DC

14-29-5
STA 381+05 DC

C.G.&E. SERVICE POLE

14-29-7
STA 384+43 DC

14-30-4
STA 385+33

14-29-8
STA 386+16 DC

14-30-5
STA 387+10

14-29-9
STA 388+54

14-30-6
STA 389+45

14-29-10
STA 390+80

14-30-7
STA 391+85

H:\TV\2-92\TD13.dwg - DEC. 13, 1995

Sta. 378+00 to 392+00

CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

50 0 50 100 150
GRAPHIC SCALE IN FEET

CONTROL CENTER NO. 15
CIRCUITS 31, 32
(480 VAC, 1ø, 3W)

NEW C.G.&E. POWER SERVICE
(480 VAC)

CONTROL CENTER NO. 15A
CIRCUIT 33
(240 VAC, 1ø, 3W)

PULLBOX
AT SOURCE

PULLBOX
STA 301+60, 94'L

EXISTING C.G.&E. POWER SERVICE
(240 VAC)

PULLBOX
STA 301+70, 92'L

SIGN #57, PULLBOX
STA 293+00

S. Madison Ave.
Jefferson Avenue
Grove Ave.
Hudson Avenue
Catherine Avenue
Duck Creek Road
City Of Norwood
City Of Cincinnati
I-71 SB
I-71 NB
EMPTY
(TYP)
292
294
296
298
300
302
304
Fires Lane
City Of Cincinnati
City Of Norwood

See Sheet No. 377
Match Line Sta. 392+00

Match Line Sta. 304+00
See Sheet No. 379

STATION EQUATION
Sta. 393+69.39 (Back)
= Sta. 291+50.00 (Ahead)

15-31-1
STA 292+18

MEDIAN
PULLBOX
STA 293+00

15-31-2
STA 294+66

SIGN #59, PULLBOX
STA 295+07

MEDIAN
PULLBOX
STA 295+07

15-31-3
STA 297+07

MEDIAN
PULLBOX
STA 298+05

15-31-4
STA 299+62

MEDIAN
PULLBOX
STA 301+60

STRUCTURE
HAM-71-0635

MEDIAN
PULLBOX
STA 301+85

15-31-5
STA 302+10

H:\71\2-92\TC14.dwg - DEC. 13, 1991

Sta. 392+00 to 304+00

CALC. BY KRB DATE 6/27/95	HAM–71–2.92	OHIO
CHKD. BY BAP DATE 9/15/95		FHWA REGION 5

379
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

15–32–1
STA 305+45 A
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

15–32–2
STA 307+15 A

15–32–3
STA 308+85 A

MEDIAN PULLBOX
STA 305+14

STRUCTURE
HAM–71–0670
(SEE SHEET NO. 390 FOR SMITH EDMONDSON LIGHTING CIRCUITS)

16–34–2
STA 311+75

16–34–3
STA 314+00

Dacey–Williams Connector

Arilla Place

Garland Avenue

Ramp A

Ramp B

Smith Edmondson Road

Bridge No. HAM–71–0670

I–71 NB

I–71 SB

EMPTY

SIGN NO. 62
STA 305+24

EXIST. PULLBOX
STA 311+10, 87'R

16–34–4
STA 316+25

SEE SMITH–EDMONDSON ROAD OVERPASS FOR CONTINUATION SHEET 390

15–31–6
STA 304+58

15–31–7
STA 307+06

15–32–7
STA 306+05 B
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

15–32–8
STA 308+11 B
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

16–34–1
STA 309+54

PULLBOX
STA 308+30B, 10'R

PULLBOX
STA 314+10, 87'R

PULLBOX
STA 314+10

CONTROL CENTER NO 16
CIRCUITS 34, 36
(480 VAC, 1ø, 3W)

PULLBOX
STA 314+45, 157'R

See Sheet No. 378 Match Line Sta. 304+00

Match Line Sta. 309+00A See Sheet 390

Match Line Sta. 309+50B See Sheet 390

Match Line Sta. 318+00 See Sheet No. 380

Sta. 304+00 to 318+00

H:\TYLS\92\TYLS.dwg - DEC. 13, 1995

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

380
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

STRUCTURE
HAM-71-0691
(SEE SHEET 391 FOR WILLIAMS AVE. LIGHTING CIRCUITS)

16B-35-2
SIGN NO. 192
STA 15+35 W

16B-35-3
STA 17+05 W

16-36-3
STA 323+31 D

16-36-2
STA 325+34 D

PULLBOX
STA 328+30, 50'LT.

16-36-1
STA 327+25 D

SIGN #71, N.L.
STA 328+25

MEDIAN
PULLBOX
STA 328+75

Match Line
Sta. 322+50D
See Sheet No. 391

Dacey-Williams Connector

324D Ramp D

326D

328D

Ramp D

I-71 SB

I-71 NB ⇨ City Of Norwood
City Of Cincinnati

See Sheet No. 379
Match Line Sta. 318+00

Williams Avenue
Bridge No. HAM-71-0691

320

322

324

326

328

330

Dacey Lane

16-34-5
STA 318+50

16-34-6
STA 320+75

SIGN #67
STA 320+90

PULLBOX
STA 321+00, 87'R

PULLBOX
STA 18+61, 30'R

16B-35-4
STA 18+67 W

16-34-7
STA 323+00

16-34-8
STA 325+30

Match Line
Sta. 325+00C
See Sheet No. 391

Edwards Road

326C

328C Ramp C

330C

332C

PULLBOX
STA 325+59, 42'LT

16B-35-6
STA 325+50 C

PULLBOX
STA 325+59, 12'R

PULLBOX
STA 326+26, 12'R

16B-35-7
STA 327+06 C

16-34-9
STA 327+60

16-34-10
STA 329+90

16-36-5
STA 329+24 C

16-36-6
STA 331+42 C

Match Line Sta. 332+00
See Sheet No. 381

Sta. 318+00 to 332+00

H:\TYLS\82\TC16.dwg — DEC. 13, 1991

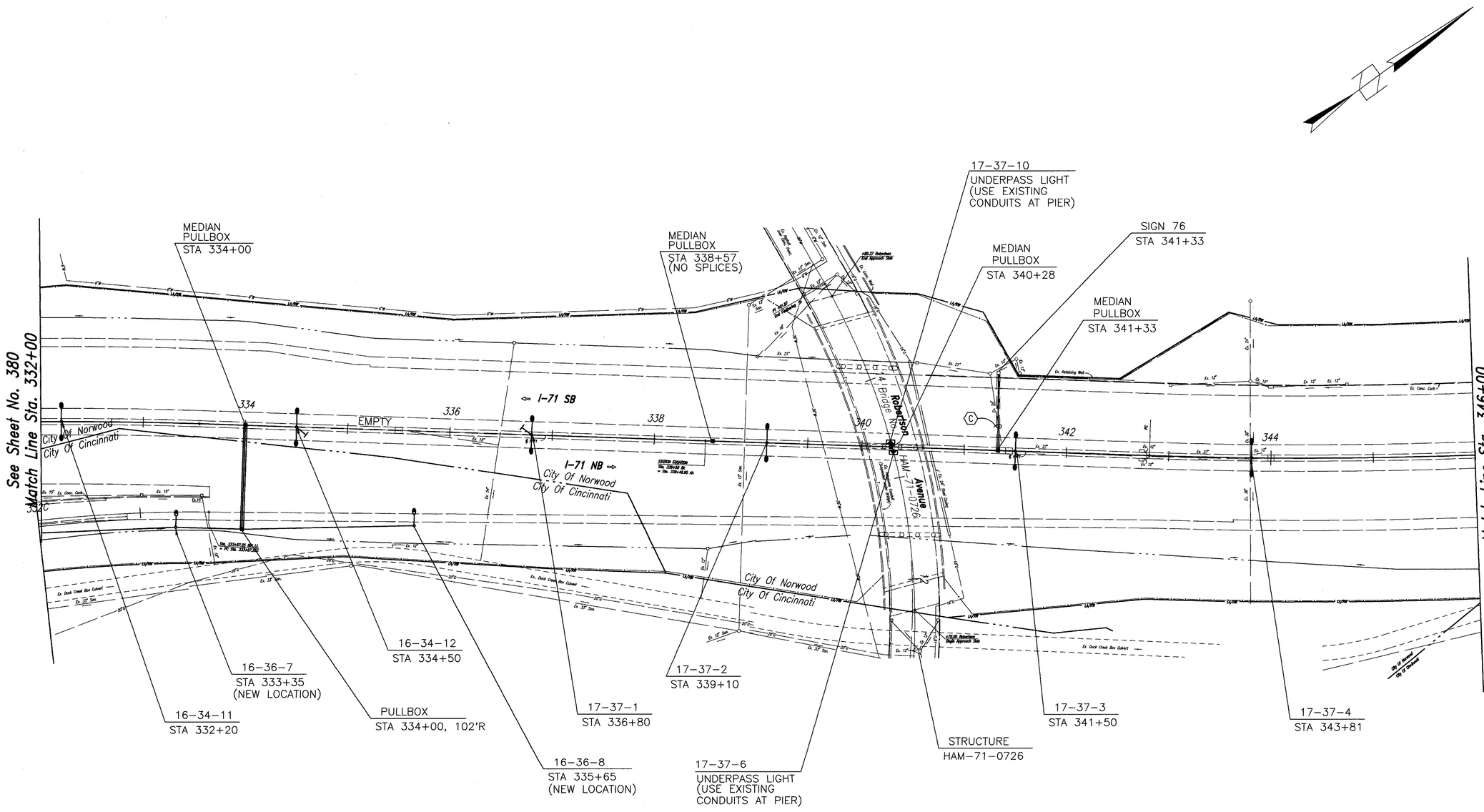
CALC. BY KRB DATE 6/27/95
CHKD. BY BAC DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

381
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



H:\71\2-92\707.dwg - DEC. 16, 1991

Sta. 332+00 to 346+00

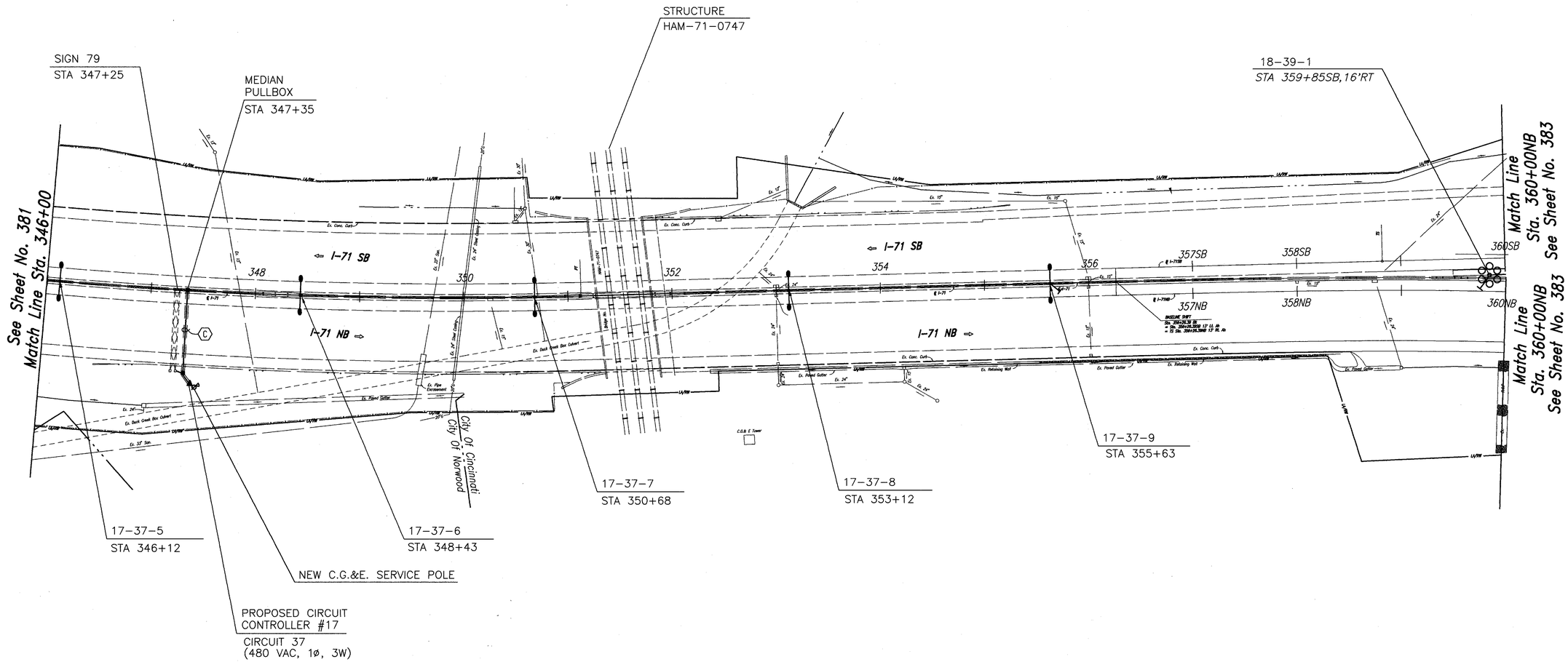
CALC. BY KRB DATE 6/27/95
CHKD. BY RAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

382
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



H:\717\2-95\TC18.dwg - DEC. 18, 1991

Sta. 346+00 TO 360+00NB

CALC. BY KAB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

383
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

STRUCTURE
HAM-71-0319S

See Sheet No. 393
Match Line
Sta. 12+00E

PULLBOX
STA 361+45 SB
(NO SPLICES)

EXISTING C.G.&E.
SERVICE POLE

CONTROL CENTER NO. 18 (PROPOSED)
CIRCUITS 39, 40 – (ALL #2 AWG)
(480 VAC, 1ø, 3W)

STRUCTURE
HAM-71-0764

(CONDUIT SLEEVE UNDER TRACK)

Ex. Duck Creek Channel

Ramp E

I-71 SB

362SB
364SB
366SB
368SB
372SB

(C) (TYP)

I-71 NB

362NB
364NB
366NB
368NB
370NB
372NB

Ex. Duck Creek Box Culvert

See Sheet No. 382
Match Line Sta. 360+00NB
and Sta. 360+00SB

Match Line
Sta. 374+00SB
See Sheet No. 384

Match Line
Sta. 374+00NB
See Sheet No. 384

Ramp F

Match Line
Sta. 6+00F
See Sheet No. 394

18-39-2, PULLBOX
STA 364+10SB, 45'R

18-40-1
STA 368+56SB, 59'R

SIGN NO. 86
STA 370+20NB

SIGN NO. 83
STA 362+15NB

PULLBOX
STA 362+30NB, 14'L

PULLBOX
STA 368+20

PULLBOX
STA 370+30, 78'R

PULLBOX
STA 370+60NB, 65'L

PULLBOX
STA 361+45SB, 14'R

18-40-2
STA 373+05SB, 81'R

H:\TYLS\EXS\TC19.dwg - DEC. 16, 1999

Sta. 360+00NB to Sta. 374+00

CALC. BY KRB DATE 6/27/95
CHKD. BY BAC DATE 9/13/95

HAM-71-2.92

OHIO | FHWA REGION 5 | 384 / 615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PULLBOX
STA 7+17l, 10'L
(NO SPLICES)

PULLBOX
AT SOURCE
(NO SPLICES)

CONTROL CENTER NO. 20
(480 VAC, 1ø, 3W)
CIRCUITS 41, 42
CIRCUIT #41 – #2 AWG

PULLBOX
STA 7+17l, 26'R
(NO SPLICES)

NEW C.G.&E. SERVICE POLE

20-41-2
STA 6+07l, 28'LT

PULLBOX
STA 380+40, 63'L

PULLBOX
STA 385+19

SIGN #90
STA 380+50

SIGN #93
STA 385+65

20-41-4
STA 386+32SB, 75'RT

20-41-3
STA 382+00SB, 65'RT

STRUCTURE
HAM-71-0788L

20-42-2 UP
UNDERPASS LIGHT

Match Line
Sta. 4+00l
See Sheet No. 394

385+80

PULLBOX
STA 380+40, 16'R
(SPLICE CIRCUIT 20-41 ONLY)

20-42-3
UNDERPASS LIGHT

20-42-1 UP
UNDERPASS LIGHT

Ramp I
Ramp L
Ramp K
Ramp H
Ramp J
Ramp G
Ramp F
Ramp E
Ramp D

I-71 SB
I-71 NB

Bridge No. HAM-71-0788L

(C) (TYP)

PULLBOX
STA 383+50, 55'L

20-42-4 UP
UNDERPASS LIGHT

Match Line
Sta. 16+69.77J
See Sheet No. 393

Match Line
Sta. 374+00SB
See Sheet No. 383

Match Line
Sta. 388+00SB
See Sheet No. 385

Match Line
Sta. 2+00H
See Sheet No. 386

Match Line
Sta. 387+00NB
See Sheet No. 385

Match Line
Sta. 374+00NB
See Sheet No. 383

Match Line
Sta. 8+00G
See Sheet No. 394

PULLBOX
STA 24+60J, 10'L
(NO SPLICES)

20-42-5 UP
UNDERPASS LIGHT

20-42-6 UP
UNDERPASS LIGHT

TO 20-41-7
SEE SHEET 394

PULLBOX
STA 24+60J, 10'R
(NO SPLICES)

18-40-3
STA 376+63NB, 50'LT

STRUCTURE
HAM-71-0799

PULLBOX
STA 379+90, 62'R

SIGN #92
STA 383+64

PULLBOX
STA 383+74, 75'R

STRUCTURE
HAM-71-0815

376SB 378SB 380SB 382SB 384SB 386SB
376NB 378NB 380NB 384NB

Ex. 36" San
Ex. Conc. Curb
Ex. Rubbing Rail
Ex. Duck Creek Box Culvert
Ex. Duck Creek Channel

H:\71\2.92\TC20.dwg - DEC. 16, 1991

Sta. 374+00NB to Sta. 387+00NB

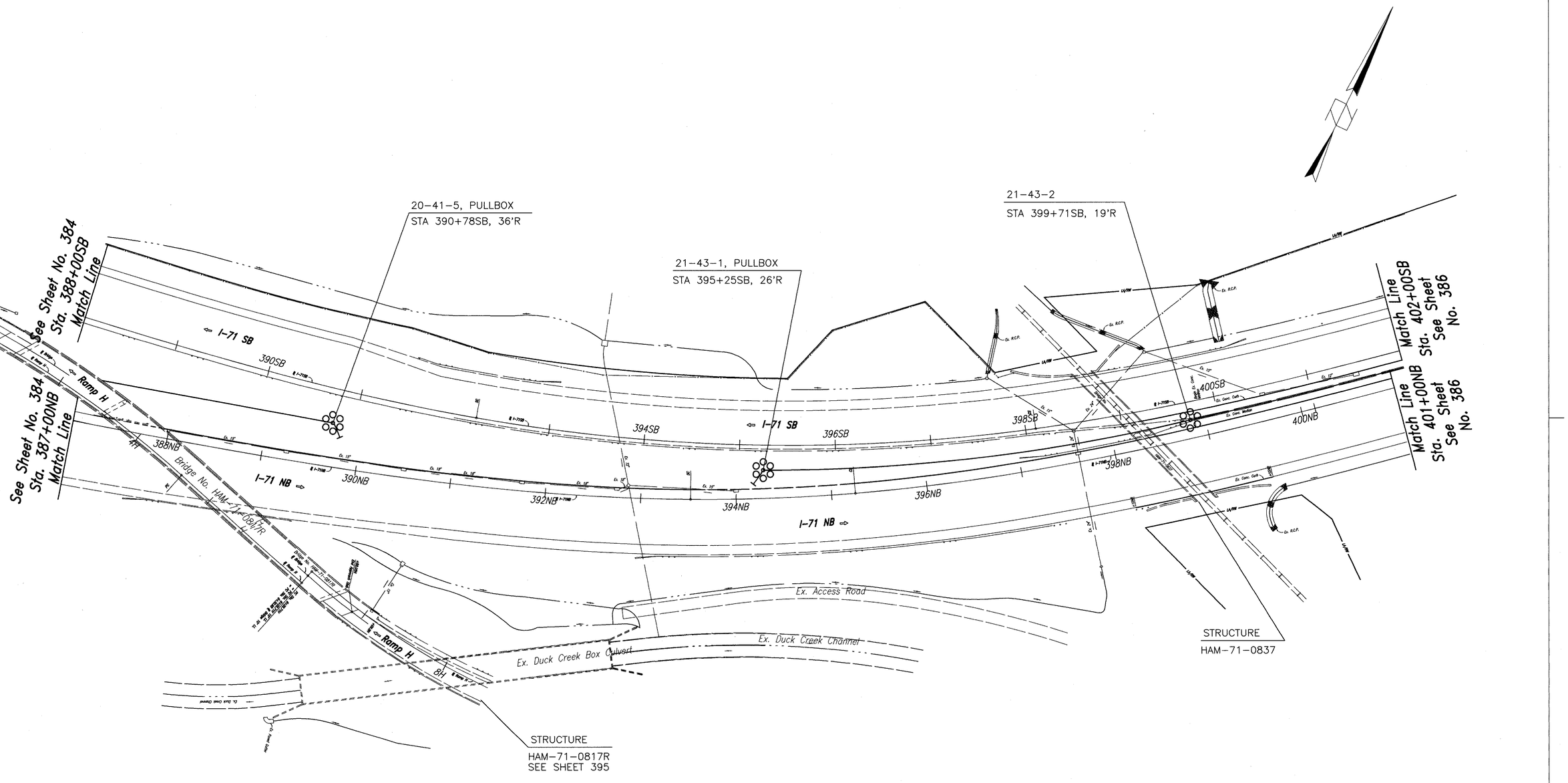
CALC. BY KRB DATE 6/27/95
CHKD. BY BAP DATE 9/15/95

HAM-71-2.92

OHIO
FHWA REGION 5

385
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



Sta. 387+00 to 401+00

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

386
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PULLBOX
STA 31+64

STRUCTURE
HAM-71-0846
SEE SHEET NO. 396

C,G&E SERVICE POLE

PULLBOX
STA 31+64

CONTROL CENTER NO. 21 (PROPOSED)
(480 VAC, 1ø, 3W)
STA 31+57
CIRCUIT 43

SIGN NO. 101
STA 405+30SB

PULLBOX
STA 31+56

22-44-1
STA 407+72

MEDIAN PULLBOX
STA 403+90 SB

MEDIAN PULLBOX
STA 406+52

22-44-3
STA 412+06

21-43-3
STA 403+50SB, 18'R

MEDIAN PULLBOX
STA 410+50

PULLBOX
STA 402+01NB

See Sheet No. 392
Match Line
Sta. 6+00R

TO
26-47-1

See Sheet No. 385
Match Line
Sta. 402+00SB

See Sheet No. 385
Match Line
Sta. 401+00NB

Ramp R

I-71 SB

I-71 NB

Ramp N

Ramp P

Bridge No. 0846

Ridge Avenue

PULLBOX
STA 406+52, 86'R
(NO SPLICES)

PULLBOX
STA 410+50
(NO SPLICES)

PULLBOX
STA 3+63N, 10'R
(NO SPLICES)

PULLBOX
STA 11+65P, 13'L

22-44-4
STA 416+30

PULLBOX
STA 414+18

Sta. 4+00P
Match Line
See Sheet No. 392

SIGN NO. 99
STA 402+11NB

SEE SHEET 392

22-44-2, PULLBOX
STA 410+56, 376'R

21-43-4
STA 405+66, 401'R

Sta. 8+00N
Match Line
See Sheet No. 396

See Sheet No. 387
Match Line Sta. 417+00

H:\TYLER\TC22.dwg — DEC. 26, 1991

Sta. 401+00NB to Sta. 417+00

CALC. BY KRB DATE 6/23/95
CHKD. BY AAC DATE 9/13/95

HAM-71-2.92

OHIO
FHWA REGION 5

387
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

PROPOSED C.G.&E. SERVICE POLE

PROPOSED CONTROL CENTER NO. 26
CIRCUITS 47 AND 48 (480 VAC, 1ø, 3W)

CONTROL CENTER NO.25
MAINTAIN EXIST. KENNEDY AVE LTG (SEE SHEET 392)
STA 419+40, 120'L
(240 VAC, 1ø, 3W)

SIGN #108
STA 419+10SB

PULLBOX
STA 418+90, 80'LT

PULLBOX
STA 419+40, 77'L

STRUCTURE
HAM-71-0870
SEE SHEET NO. 392

MEDIAN PULLBOX
STA 419+40

MEDIAN PULLBOX
STA 429+35

SIGN NO. 112
STA 430+00

Match Line Sta. 433+00
This Sheet

Match Line Sta. 417+00
See Sheet No. 386

HAM-71-0870
Kennedy Avenue
Bridge No.

I-71 SB ⇦
I-71 NB ⇨

422.0' Abutment
Ex. Monument

26-48-1
STA 418+90

26-48-2
STA 421+15

26-48-3
STA 423+40

26-48-4
STA 425+65

26-48-5
STA 427+90

SIGN NO. 111
STA 429+35

26-48-6
STA 430+15

MEDIAN PULLBOX
STA 430+00

26-48-7
STA 432+40

END PROJECT
Sta. 433+87.50

END WORK
Sta. 436+82.72
S.L.M. 9.00

STATION EQUATION
Sta. 434+29.99 Ahead
Sta. 435+07.71 Back

EXIST. LIGHT STANDARD
MEDIAN PULLBOX
STA 438+11

This Sheet
Match Line Sta. 433+00

End Work
Sta. 436+82.72

26-48-8
STA 435+65

Sta. 417+00 to 436+82.72

H:\71\2-92\TC25.dwg - DEC. 26, 1991

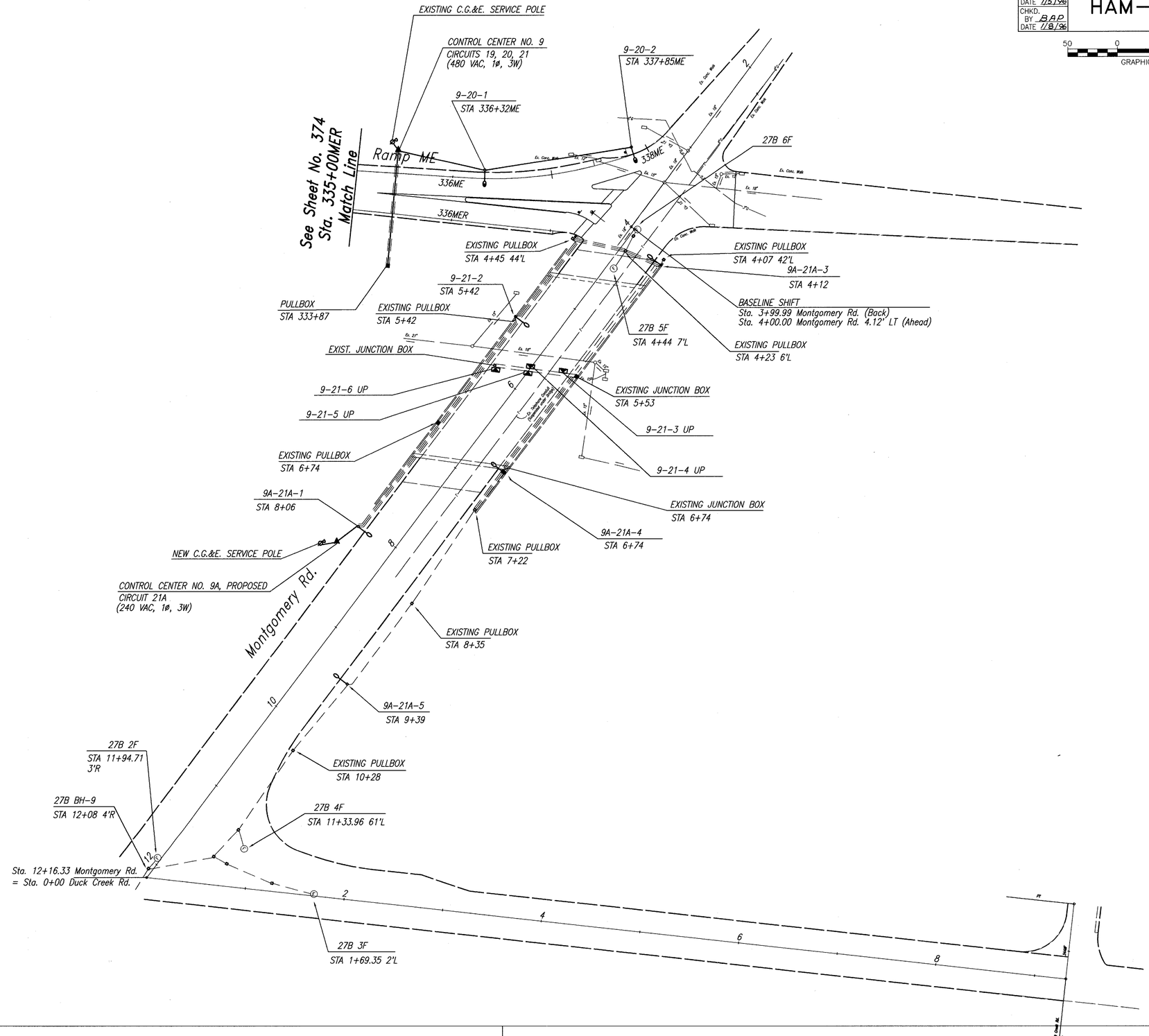
CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

388
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



M:\71\2.92\MONT.dwg - OCT. 28, 1991

CALC. BY KRB DATE 1/12/96
CHKD. BY BAP DATE 1/18/96

HAM-71-2.92

OHIO
FHWA REGION 5

389
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

12-25-3
STA 376+99 DE
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

12-25-2
STA 375+52 DE
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

PULLBOX
STA 373+88DE

12-25-1
STA 374+05 DE
(RETAINING WALL POLE MODIFICATIONS, AS PER PLAN)

PULLBOX
STA 373+88DE

PROPOSED CONTROL CENTER NO. 12
CIRCUITS 25, 26
(480 VAC, 1ø, 3W)

PROPOSED C.G.&E. POWER SERVICE POLE

EXISTING CONTROLLER TO REMAIN

30 BB-2
STA 7+00
70'L

30 BA-1

30 11 III-10
STA 7+00 52'L

30 BB-3
STA 373+38 DE

30 BB-4
STA 383+36 DB

See Sheet No. 377
Sta. 378+00DE
Match Line

See Sheet No. 376
Sta. 381+00DB
Match Line

376DE

382DB

Ramp DE

Ramp DB

12-26-2
STA 381+40 DB

12-26-1
STA 382+80 DB

PULLBOX
STA 383+36 DB

RECONNECT EXISTING CIRCUITRY

30 BH-8
STA 8+50

EXISTING LIGHT
STA 384+10 DB

PULLBOX
STA 9+76 51'L

384DB

POT Sta. 10+64.87 38' LT
= PT Sta. 385+44.59DB

30 9-A III-10, JA-1
STA 10+94

Dana Ave.

See Below
Sta. 5+00
Match Line

29C BA-9
STA 5+00

29C BA-8
STA 6+40

29C 7 III-15
STA 7+83

PC Sta. 372+75.70DE
= POC Sta. 7+42.77 Dana Ave.

29C BA-7
STA 9+37

29C 8 A-III-10, JA-1
STA 9+88.5

SIGN #154

29C JA-2
STA 10+33

29C JA-3
STA 11+93.5

29C 9-A III-10, JA-4
STA 12+11

Sta. 13+97.97 Dana Ave.
= PC Sta. 20+68.28 Duck Creek Road

PC Sta. 375+64.51DA
= POT Sta. 13+26.16 Dana Ave.

31 2-A III-10

31 BA-4

Dana Ave.

Match Line
Sta. 5+00
See Above

29C BA-10
STA 3+60

Duck Creek Rd.

See Sheet No. 377
Sta. 380+00DC
Match Line

POT Sta. 379+69.88DC 33.99' LT
= POT Sta. 379+69.88DA

14-29-11
STA 377+80DA

14-29-12
STA 376+40DA

PULLBOX

30 1- III-15
MOUNTED ON TRAFFIC CONTROL POLE

Ramp DA

Ramp DC

376DA

378DC

14-29-4
STA 379+70 DC

14-29-3
STA 378+60 DC

14-29-2
STA 377+50 DC

14-29-1
STA 376+40 DC

PULLBOX
STA 375+90 DC, 17'R

31 1-F
STA 15+60.56 46'L

31-6-(EXIST. CIRCUIT)
STA 375+30 DC 15.5'R

PULLBOX
STA 15+43, 53'L

374DC

See Below
Sta. 19+00
Match Line

Dana Ave.

31 4-A III-15
STA 14+22

31 3 II-15

31 BA-5
STA 20+29 DRR
23'L

31 BA-2
STA 20+29 DDR

31 BA-6
STA 15+43 64'R

31 5-A III-15
STA 16+26 65'R

EXISTING CONTROL CENTER
CIRCUITS 28, 29, 31

Sta. 373+41.83DC
POC Sta. 17+81.54 40' LT Dana Ave.

31 BA-3
STA 19+16 DRR 9'R

31 1-A III-10
STA 18+62 DR 57'R

31 BA-1
STA 20+29 DRR 26'R

31 BH-10
STA 18+62 DR

31 3-F
STA 18+48 DR

PULLBOX
STA 15+10

SIGN #160

Match Line
Sta. 19+00
See Above

Dana Ave.

H:\CTV\2262\DANA.dwg - SEC. 16, 1991

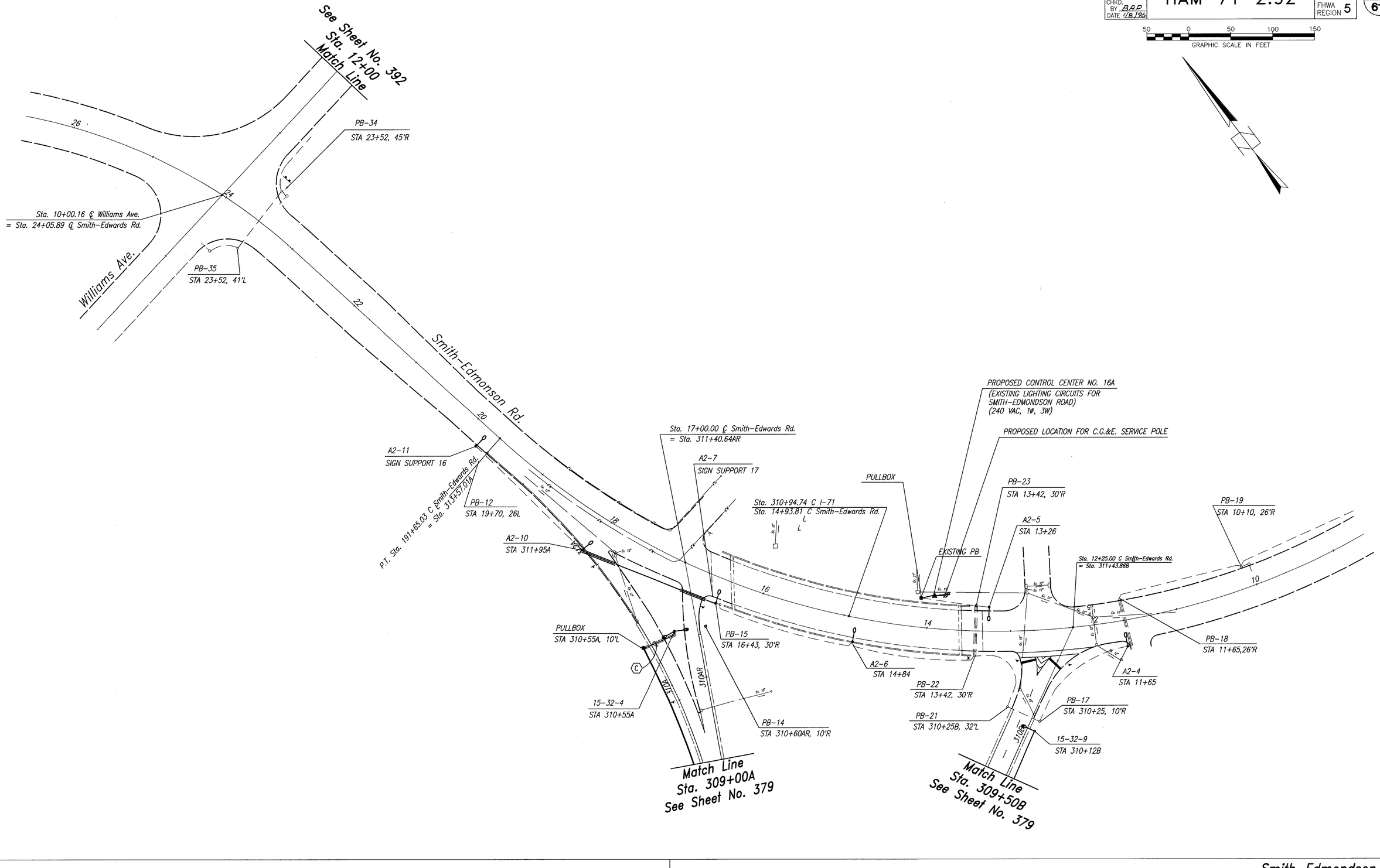
CALC. BY KRB DATE 1/5/96
CHKD. BY BAD DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

390
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



Smith-Edmondson Rd.

H:\71\2-92\Smith.dwg - DEC. 17, 1997

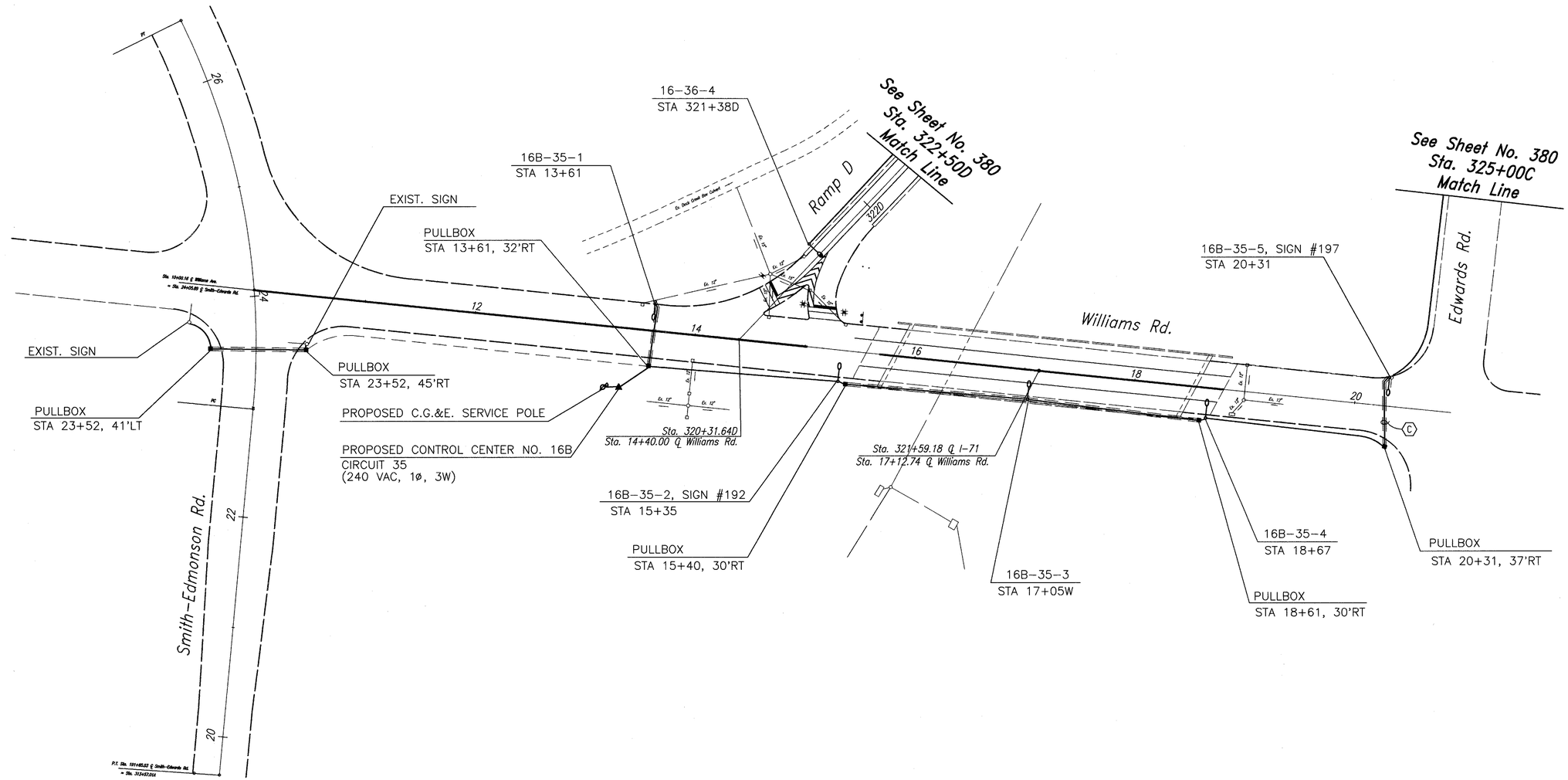
CALC. BY KRB DATE 11/5/96
CHKD. BY BAD DATE 11/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

391
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



CALC. BY KRB DATE 1/5/96
CHKD. BY BPP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

392
615

GRAPHIC SCALE IN FEET
50 0 50 100 150

26-47-3
STA 9+52R, 30'RT

26-47-2
STA 7+91R, 30'RT

26-47-1
STA 6+31R, 30'RT

Ramp R

See Sheet No. 386
Match Line
Sta. 6+00R

See Sheet No. 386
Match Line
Sta. 4+00P1

Ramp P

D2-20
42+19

POC Sta. 43+03.07 Highland Ave. Ext.
= Sta. 10+39.41R

8R

10R

D2-19
43+87

PB-114
43+80,34.5'L

PULLBOX
45+10,34.5'R

Highland Ave.

22-44-5
STA 2+71P, 15'LT

PULLBOX
STA 3+26P

CONTROL CENTER #22
(PROPOSED)
CIRCUIT #44
(480 VAC, 1ø, 3W)

C,G&E SERVICE
POLE

FROM 22-44-2
SEE SHEET 386

Duck Creek Rd.

C3-17
80+00

D2-2
11+10

PB-116
2+00P,10'R

D2-5
SIGN SUPPORT 45

TS Sta. 0+00P
= Sta. 15+87.85 Kennedy Ave.

PULLBOX
STA 23+71, 50'L

Ramp P1

Kennedy Ave.

PB-103
0+46P, 23'R

PB-118
12+85K

PB-117
13+50, 49'L

C3-15
7+88

PB-120
7+57, 23'R

Sta. 0+00P1
= Sta. 12+00 Kennedy Ave.

PB-121
80+61, 18'L

PB-119
0+46P, 5'R

℄ Kennedy Ave.

PB-128
STA 18+10, 23'R

Sta. 21+18.62 ℄ Kennedy Ave.
= Sta. 417+85.42 ℄ I-71

STA 21+83

PROPOSED CONTROL CENTER NO. 26
SEE SHEET 387
(480 VAC, 1ø, 3W)

Sta. 24+26.61 ℄ Kennedy Ave.
= Sta. 50+00.00 ℄ Highland Ave.

EXIST. CONTROL CENTER NO. 25
MAINTAIN EXISTING
KENNEDY AVE LIGHTING
(240 VAC, 1ø, 3W)

Kennedy Ave.

D:\71\2.92\KENNEDY.dwg - JAN. 15, 1992

CALC. BY KRB DATE 1/5/96
CHKD. BY RAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

393
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

STA 159+80
(RECONNECT
EXISTING CIRCUIT E4)

PULLBOX
STA 6+65L, 38'LT

18-40-6
STA 15+00K, 36'RT

Norwood Lateral

158NL

160NL

162NL

6L Ramp L

8L Ramp L

10L

12L

14L

16L

6K Ramp K

8K

10K Ramp K

10J Ramp J

12K

12J

14K

16K

Ramp L

Ramp K

Ramp J

Ramp E

4E

6E

8E

10E

16J

Begin Work
Sta. 159+00NL

PULLBOX
STA 162+05 NL, 65'R

SIGN #220

STA 160+90
(RECONNECT
EXISTING CIRCUIT E3)

18-40-5
STA 6+84K, 89'RT

PULLBOX
STA 9+80K

Match Line
Sta. 12+00E
See Sheet No. 383

SIGN #217

18-40-4
STA 11+60J, 69'RT

Match Line
Sta. 16+69.77J
See Sheet No. 384

Match Line
Sta. 17+50L
See Sheet No. 394

S:\71\2-92\LATERAL1.dwg - JAN. 23, 1992

Norwood Lateral

CALC. BY KRP DATE 6/17/95
CHKD. BY AAP DATE 9/18/95

HAM-71-2.92

OHIO
FHWA REGION 5

394
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

20-41-1
STA 18+34L, 108'LT

Match Line
Sta. 17+50L
See Sheet No. 393

Match Line
Sta. 4+00I
See Sheet No. 384

20-42-2
UNDERPASS LIGHT

20-42-1
UNDERPASS LIGHT

SEE SHEET 384
FOR UNDERPASS LIGHTING

20-42-4
UNDERPASS LIGHT

PULLBOX
STA 379+90, 62'R
(SEE SHEET 384
FOR CIRCUIT CONTINUATION)

20-41-7
STA 10+14G, 138'LT

SEE SHEET 384
FOR CONTINUATION
OF CIRCUIT 19-40

19-40-3
STA 376+63 NB, 50'L

20-41-6
STA 11+59F, 60'LT

Match Line
Sta. 6+00F
See Sheet No. 383

Match Line
Sta. 8+00G
See Sheet No. 384

Match Line
Sta. 36+00T
See Sheet 395

Ramp I
Ramp L
Ramp K
Ramp J
Ramp F
Ramp T Westbound
Ramp T Eastbound
Ramp G
I-71 NB

Norwood Lateral

G:\TV\2.92\LATERAL3.dwg - JAN. 23, 1995

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

G:\71\2.92\LATERAL3.dwg – JAN. 17, 1992

Ramps H, H1, M, T, U

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

396
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 395 Match Line Sta. 48+75T

See Sheet No. 395 Match Line Sta. 6+00H1

See Sheet No. 395 Match Line Sta. 4+00M

23-45-6
STA 50+02T, 81'RT

C4-13
STA 18+95

C4-12
STA 20+50

SIGN #238

C3-20
21+70

SIGN #240

23-46-2
STA 18+34H, 20'LT

EXIST. PULLBOX
22+06

Sta. 51+23.83T
= Sta. 21+12.36 Ridge Ave.

C3-21
50+50

Sta. 18+30.33H
= Sta. 8+04.64H1

PULLBOX
STA 4+40M

23-46-1
STA 4+35M, 25'LT

PULLBOX
23+25 36'L

C3-19
23+25

PT. Sta. 7+11.85M, 34' LT
= Sta. 24+30.16 Ridge Ave.

C3-10
STA 23+80

PULLBOX
(NO SPLICES)

PULLBOX
STA 25+20
(NO SPLICES)

PULLBOX

SIGN #242

EXIST. PULLBOX (A)
RECONNECT TO RIDGE AVE EXISTING LIGHTING CIRCUIT

EXIST. POLE
STA 29+90

Ridge Ave.

EXIST. PULLBOX (A)
STA 31+64

Sta. 28+43.35 Ridge Ave.
= Sta. 1+23.35N

EXISTING CIRCUIT

EXIST. PULLBOX (A)
STA 31+64

Sta. 404+81.00 ℄ (Projected Back)
Sta. 29+96.64 Ridge Ave.

EXIST. POLE
STA 31+20

CONTROL CENTER
NO. 27 (PROPOSED)
RIDGE AVE CITY LIGHTING
(240 VAC, 1ø. 3W)

C,G&E SERVICE POLE
(PROPOSED LOCATION)

EXIST. PULLBOX
STA 28+47, 25'RT
RECONNECT
EXISTING CIRCUIT

TO EXISTING

EXIST. POLE
STA 73+95

SEE SHEET 386
FOR CONTINUATION

23-46-3
STA 20+56H, 40'LT

21-43-4, PULLBOX
STA 405+66, 401'RT

Sta. 25+00H1
= Sta. 25+00H Barlow Ave. 4' RT

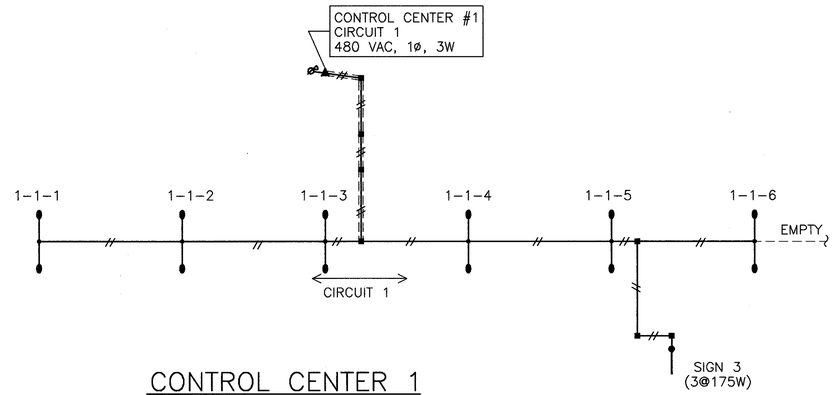
C2-22
24+28 H

23-46-4
STA 22+41H, 45'LT

23-46-5
STA 23+88H, 45'LT

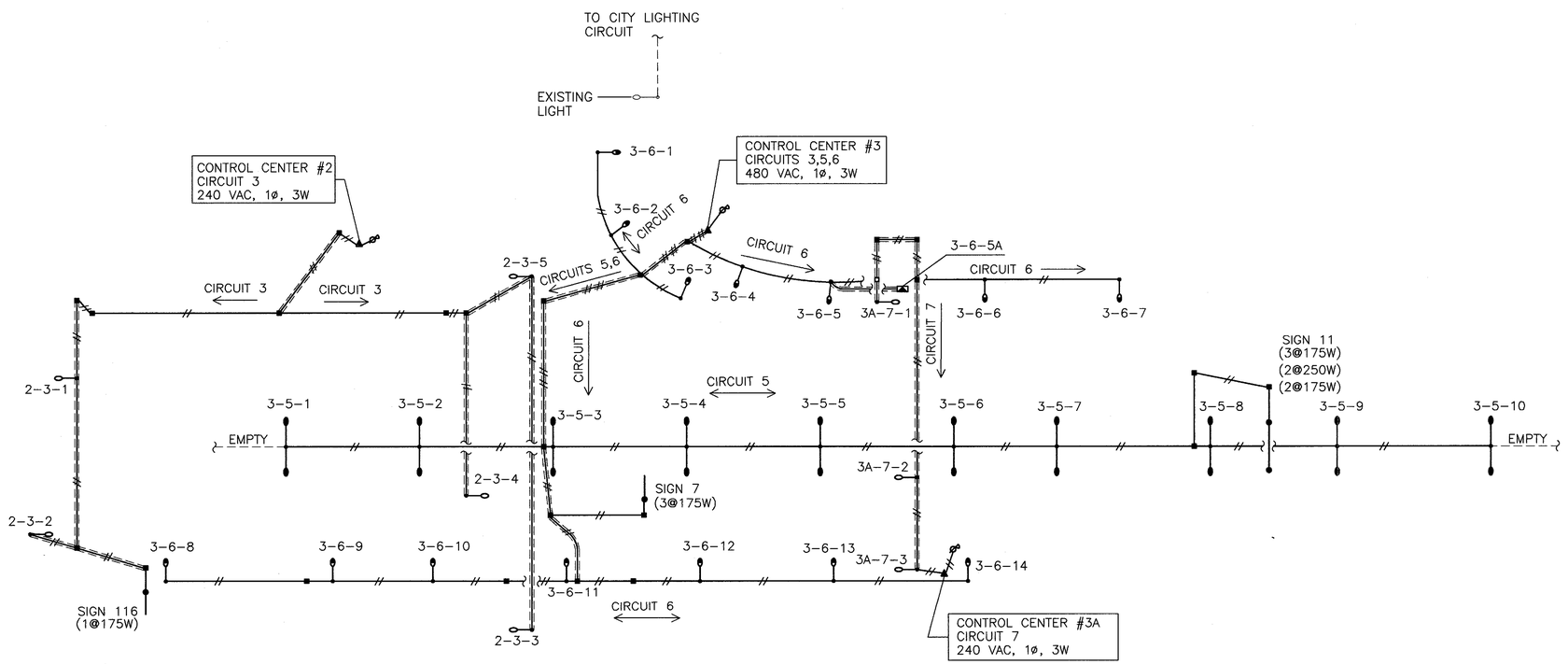
Sta. 8+00N Match Line See Sheet No. 386

Ridge Ave.



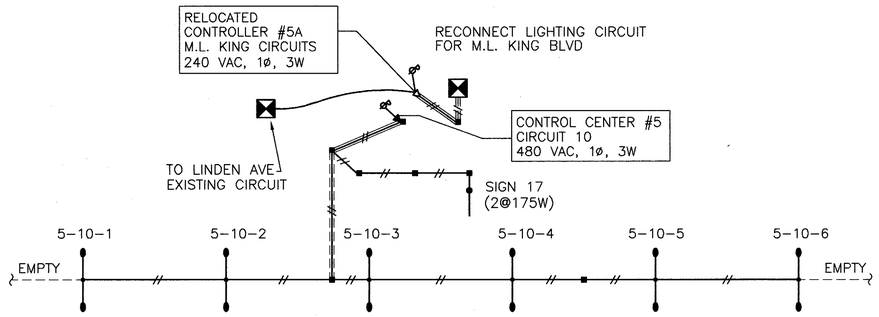
CONTROL CENTER 1

(CIRCUIT 1)
(ALL WIRE #4 AWG)



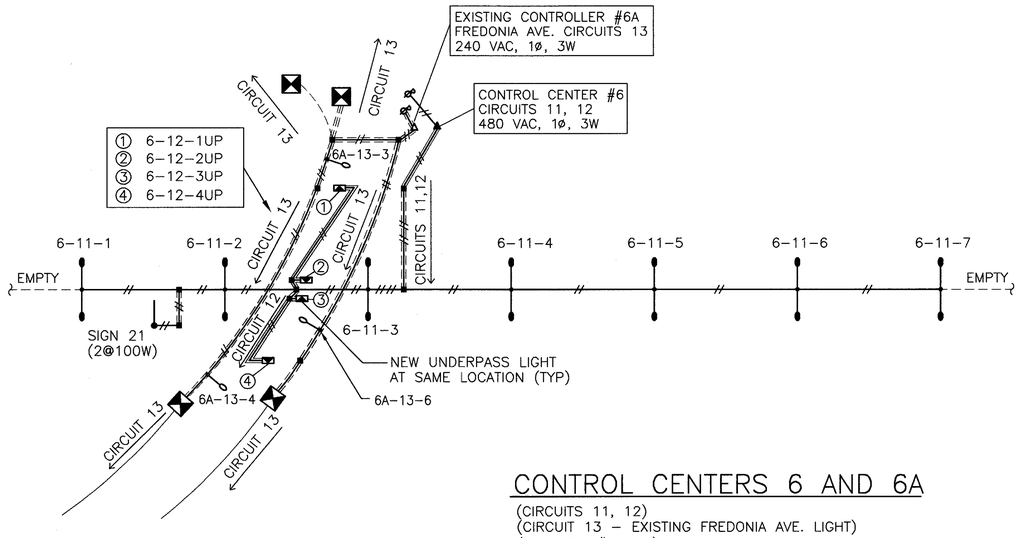
CONTROL CENTERS 2, 3 AND 3A

(CIRCUITS 3,5,6,7)
(ALL WIRE #4 AWG)



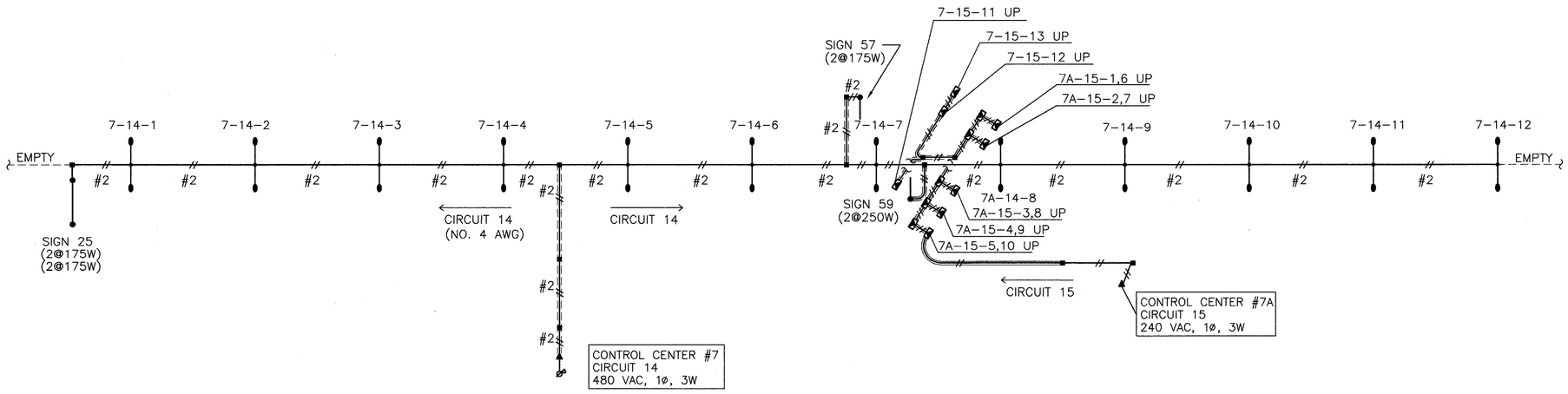
CONTROL CENTERS 5 AND 5A

(CIRCUIT 10)
(EXISTING M.L. KING CIRCUIT)
(ALL WIRE #4 AWG)



CONTROL CENTERS 6 AND 6A

(CIRCUITS 11, 12)
(CIRCUIT 13 – EXISTING FREDONIA AVE. LIGHT)
(ALL WIRE #4 AWG)



CONTROL CENTERS 7 AND 7A

(CIRCUITS 14,15)
(CIRCUIT 14 – ALL #2 AWG WIRE, AS SHOWN)
(CIRCUIT 15 – ALL #4 AWG WIRE)

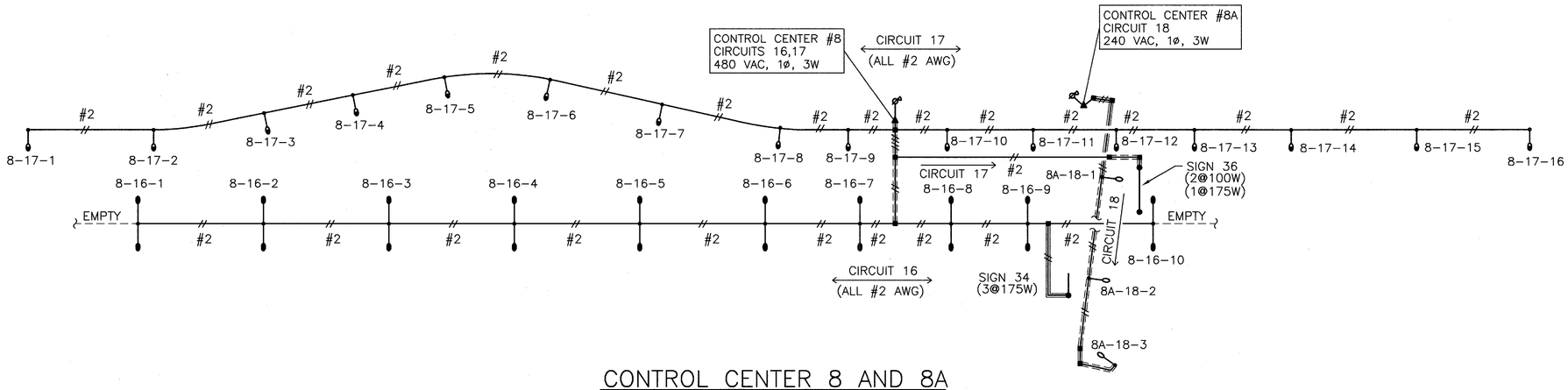
H:\71\2.92\TC1.dwg - DEC. 16, 1997

CALC. BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

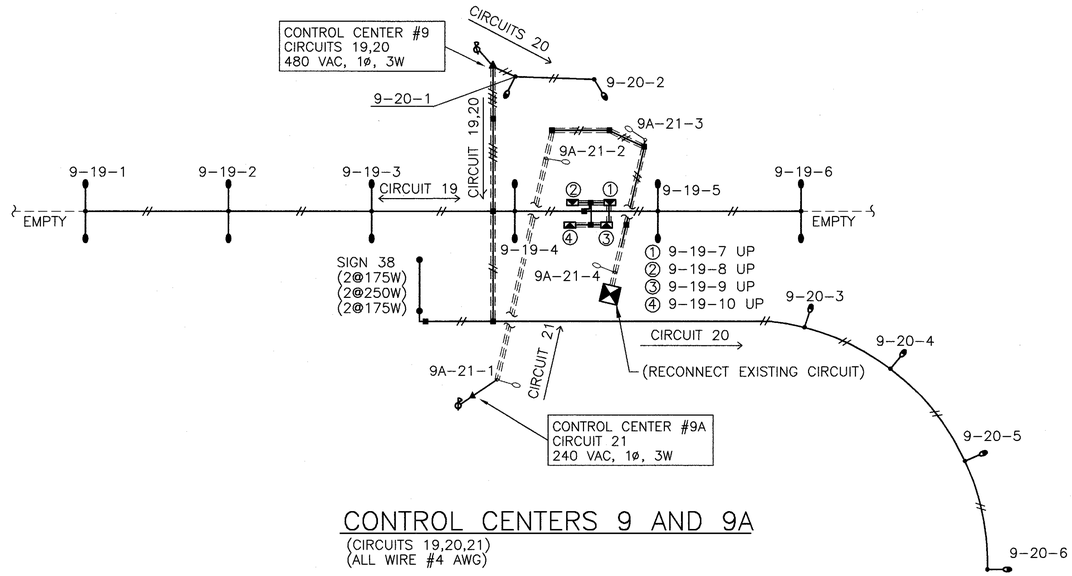
OHIO
FHWA REGION 5

399
615



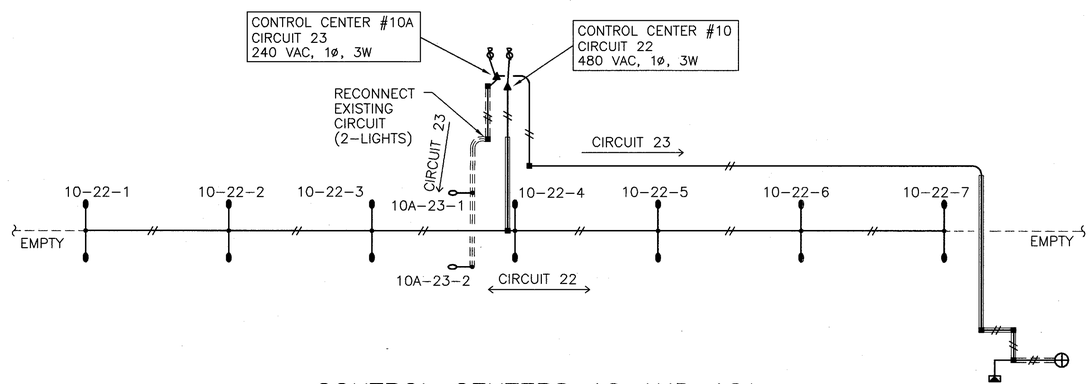
CONTROL CENTER 8 AND 8A

(CIRCUITS 16,17,18)
(CIRCUITS 16,17 – ALL #2 AWG WIRE)
(CIRCUIT 18 – ALL #4 AWG WIRE)



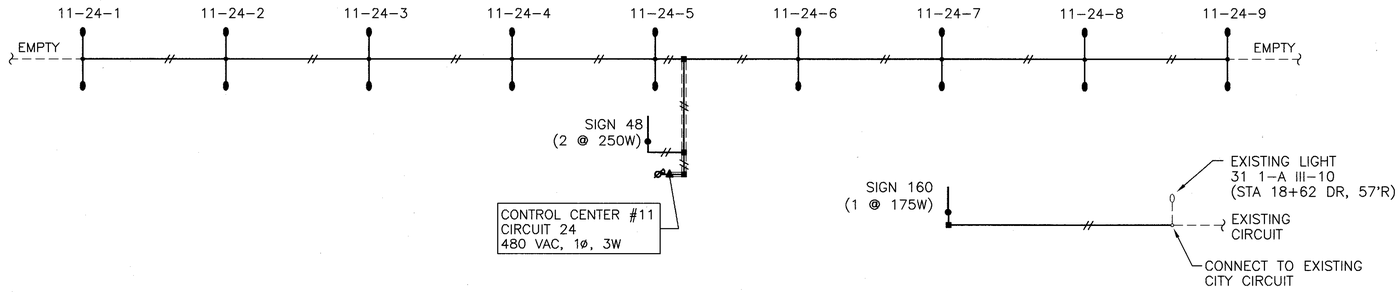
CONTROL CENTERS 9 AND 9A

(CIRCUITS 19,20,21)
(ALL WIRE #4 AWG)



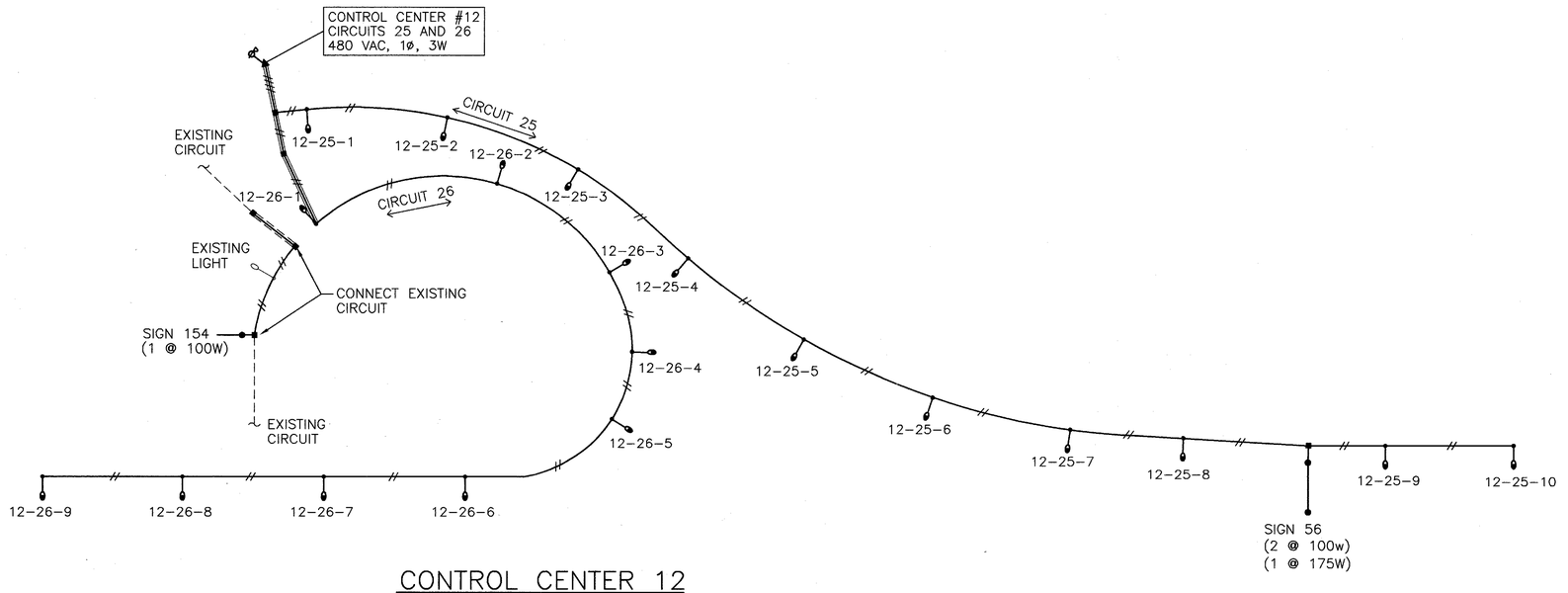
CONTROL CENTERS 10 AND 10A

(CIRCUITS 22,23)
(ALL WIRE #4 AWG)



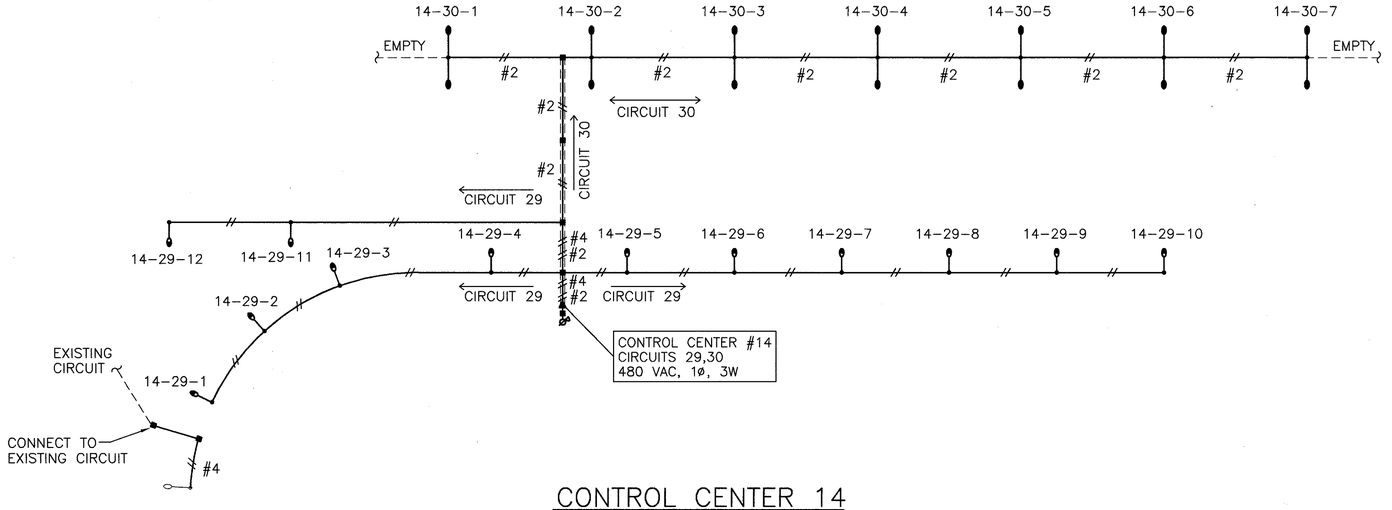
CONTROL CENTER 11

(CIRCUIT 24)
(ALL WIRE #4 AWG)



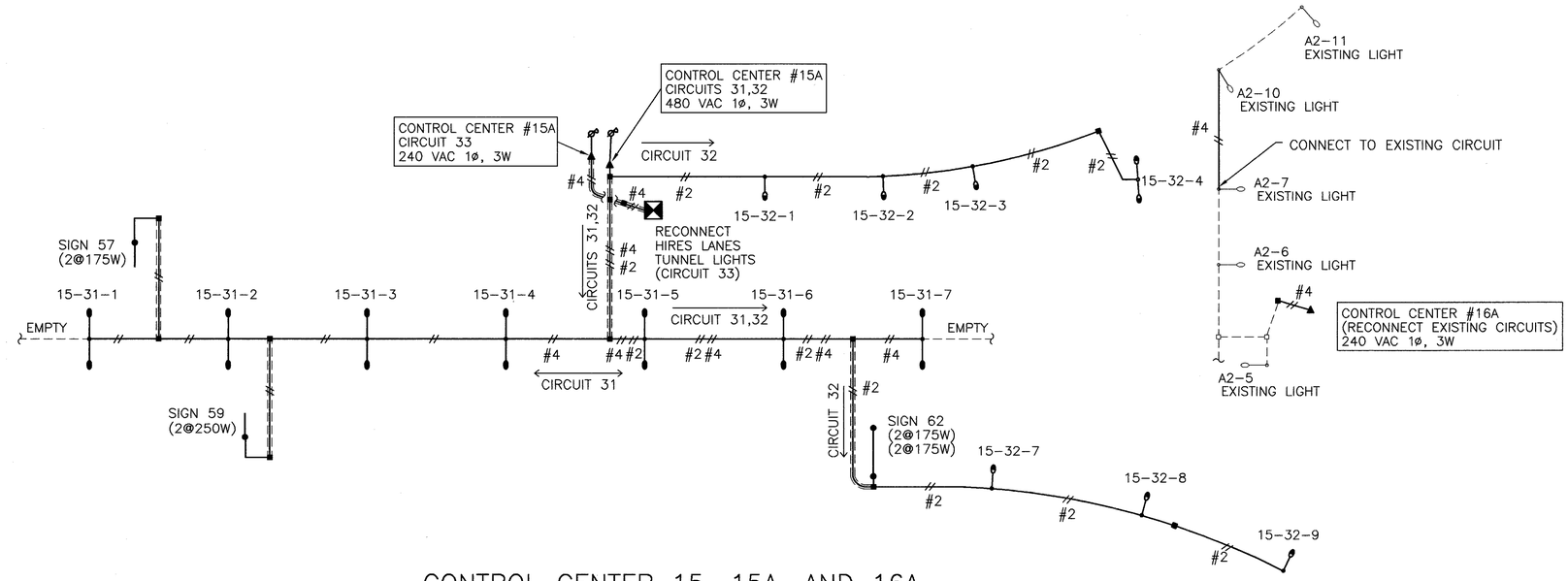
CONTROL CENTER 12

(CIRCUIT 25, 26)
(ALL WIRE #4 AWG)



CONTROL CENTER 14

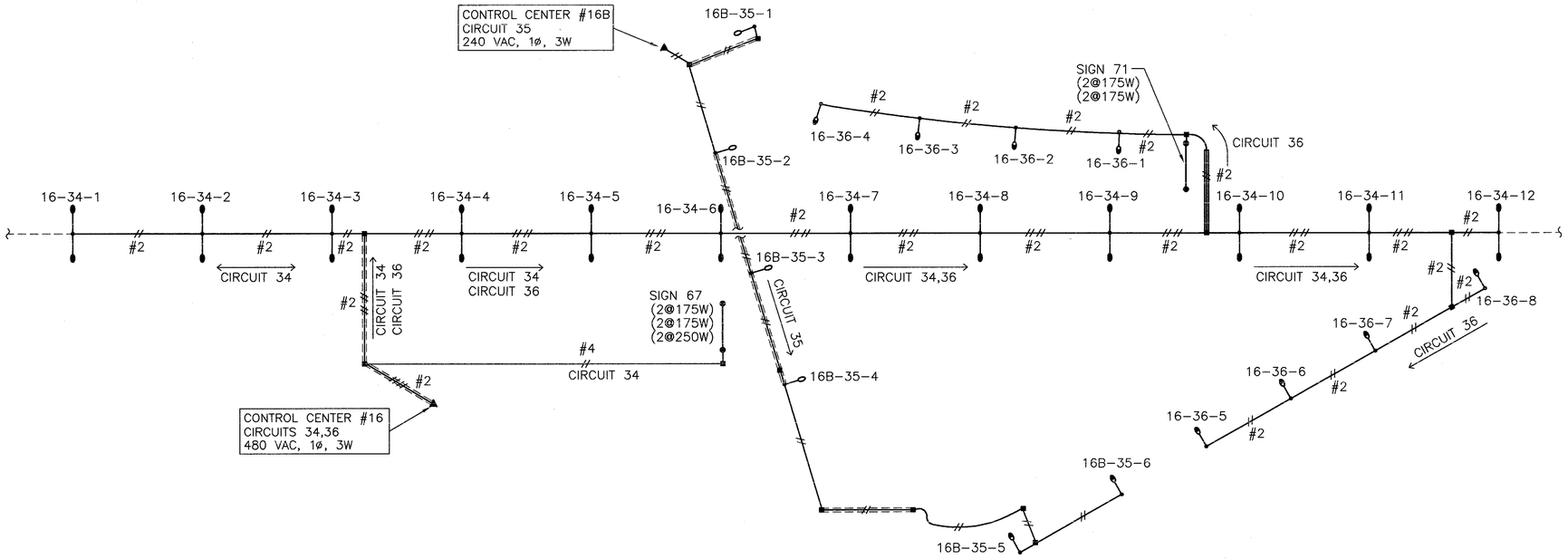
(CIRCUITS 29, 30)
(CIRCUIT 29 – ALL #4 AWG WIRE)
(CIRCUIT 30 – ALL #2 AWG WIRE)



CONTROL CENTER 15, 15A, AND 16A

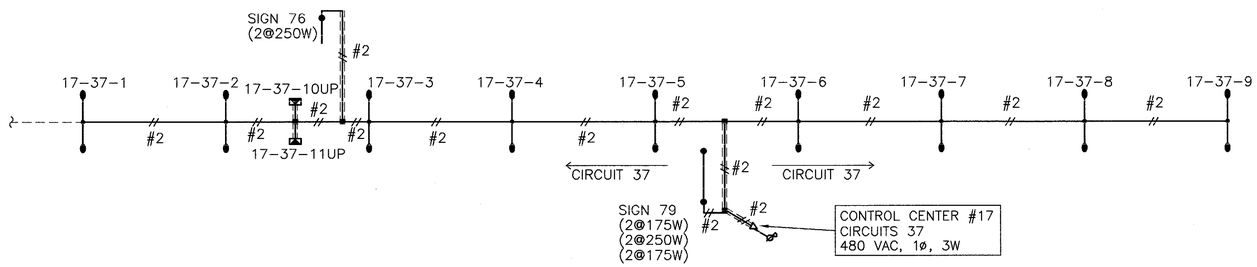
(CIRCUITS 31, 32, 33, AND EXISTING CIRCUIT RECONNECT AT 16A)
(CIRCUIT 31 – ALL #4 AWG WIRE)
(CIRCUIT 32 – ALL #2 AWG WIRE)
(CIRCUIT 33 – ALL #4 AWG WIRE)

H:\71\2.92\701.dwg - DEC. 16, 1991



CONTROL CENTER 16 AND 16B

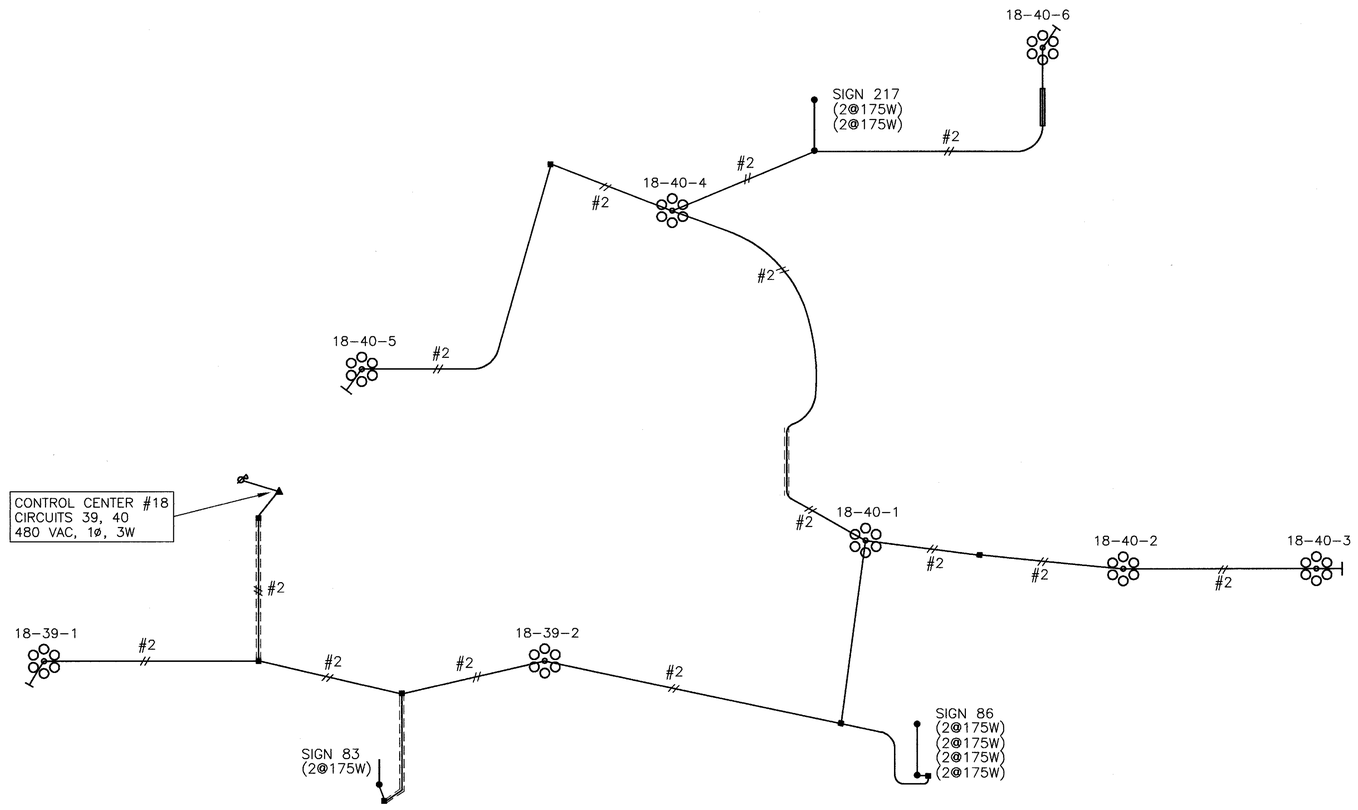
(CIRCUITS 34,35,36)
(CIRCUITS 34, 36 – ALL #2 AWG WIRE)
(CIRCUIT 35 – ALL #4 AWG WIRE)



CONTROL CENTER 17

(CIRCUIT 37 – ALL #2 AWG WIRE)

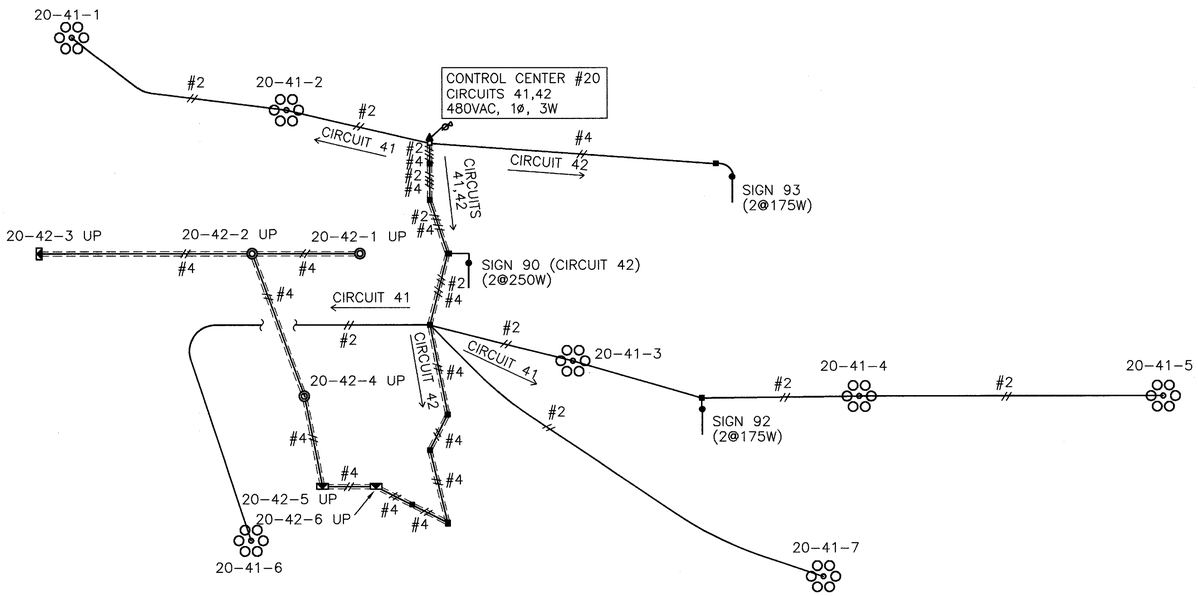
CALC. BY KRB DATE 1/5/96	HAM-71-2.92	OHIO	403
CHKD. BY BAP DATE 1/8/96		FHWA REGION 5	615



CONTROL CENTER 18

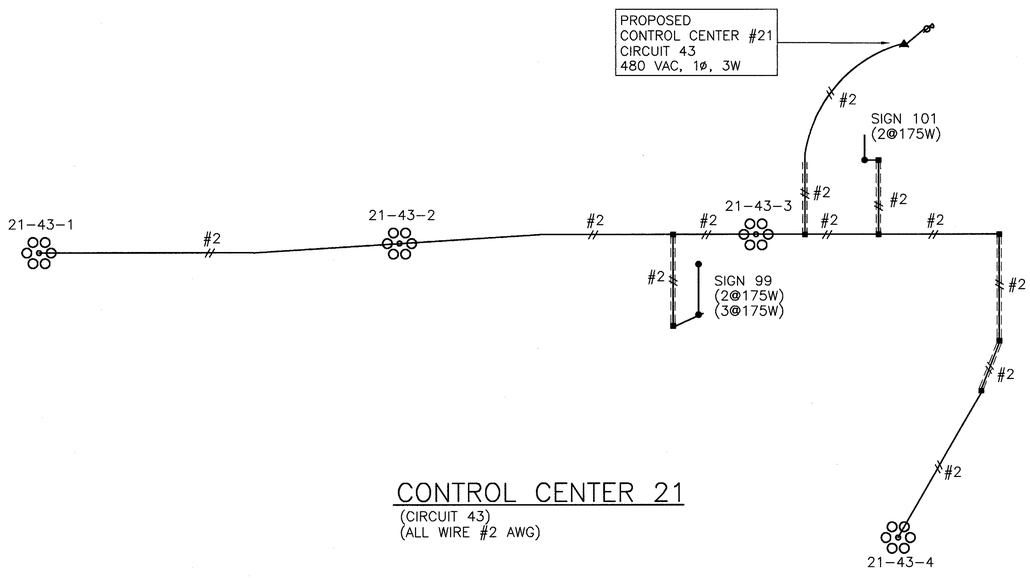
(CIRCUITS 39, 40)
(ALL WIRE #2 AWG)

H:\71\2.92\CC18.dwg - DEC. 16, 1997



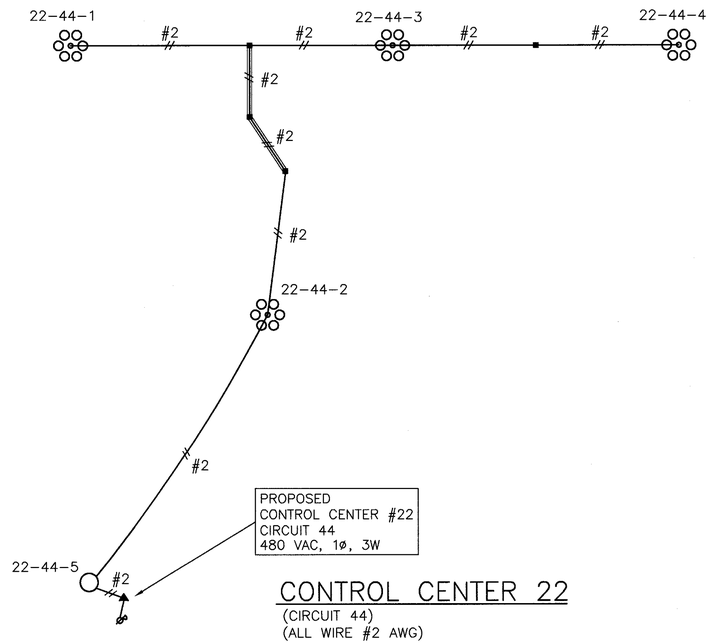
CONTROL CENTER 20

(CIRCUITS 41,42)
(CIRCUIT 41 – ALL #2 AWG WIRE)
(CIRCUIT 42 – ALL #4 AWG WIRE)



CONTROL CENTER 21

(CIRCUIT 43)
(ALL WIRE #2 AWG)



CONTROL CENTER 22

(CIRCUIT 44)
(ALL WIRE #2 AWG)

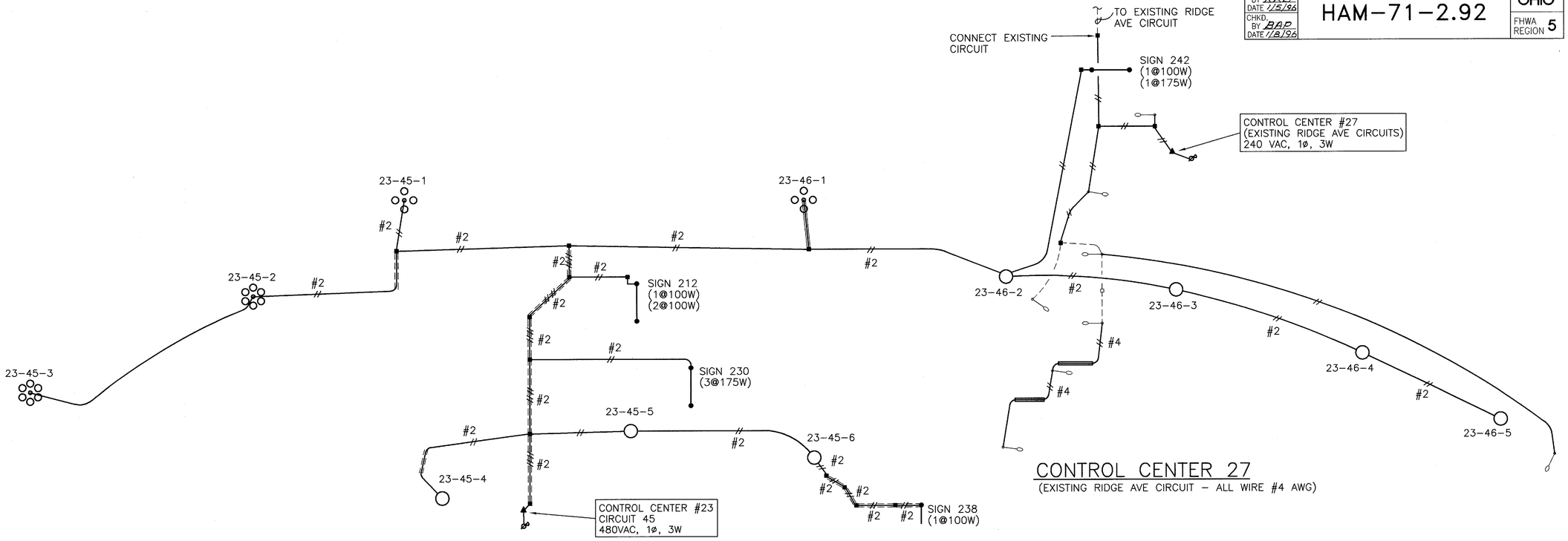
H:\71\2.92\TCI.dwg - DEC. 16, 1991

CALC BY KRB DATE 1/5/96
CHKD. BY BAP DATE 1/8/96

HAM-71-2.92

OHIO
FHWA REGION 5

405
615

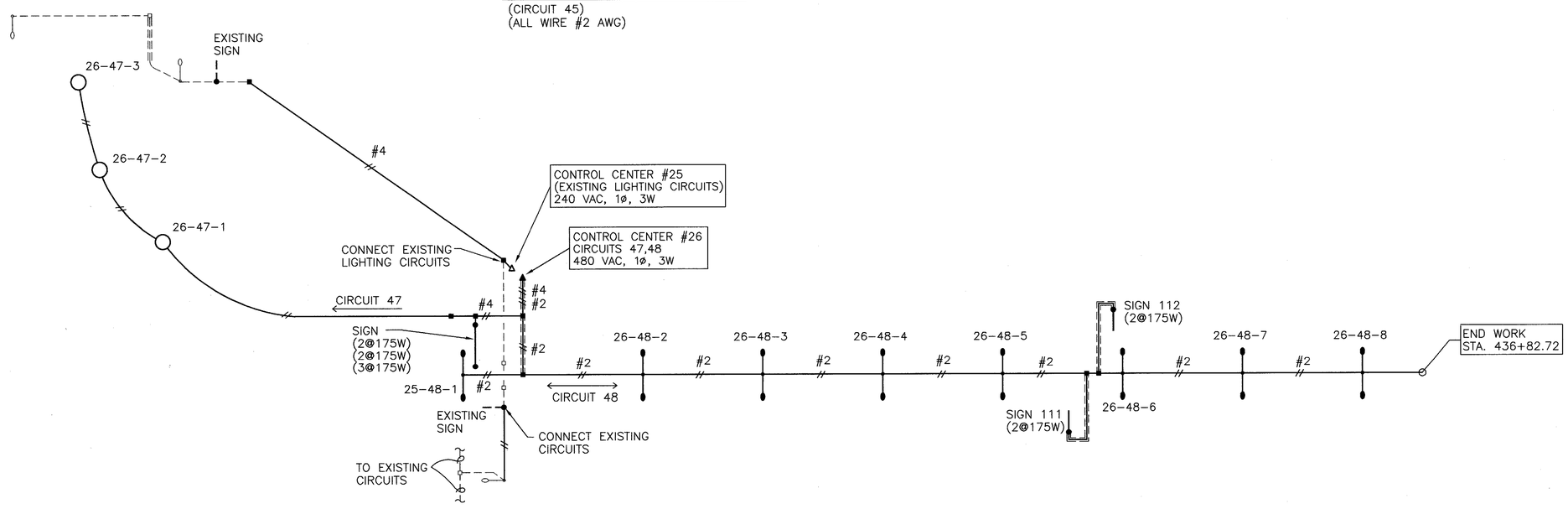


CONTROL CENTER 27

(EXISTING RIDGE AVE CIRCUIT – ALL WIRE #4 AWG)

CONTROL CENTER 23

(CIRCUIT 45)
(ALL WIRE #2 AWG)



CONTROL CENTERS 25 AND 26

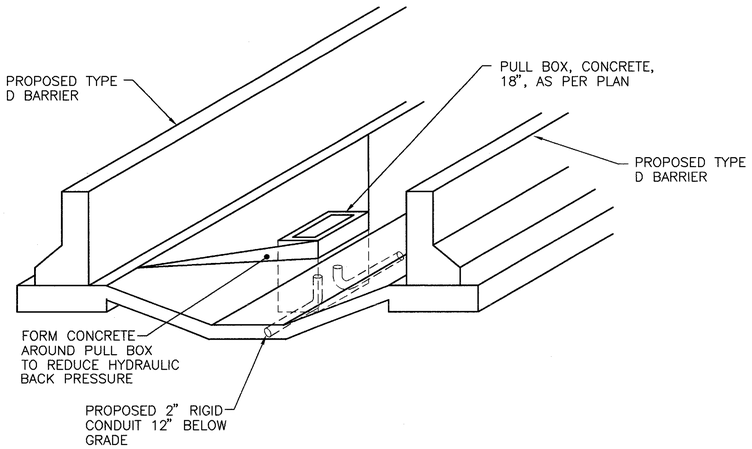
(CIRCUITS 47,48 AND EXISTING KENNEDY AVE CIRCUIT)
(CIRCUIT 47 – ALL #4 AWG WIRE)
(CIRCUIT 48 – ALL #2 AWG WIRE)

CONTROL CENTER DATA

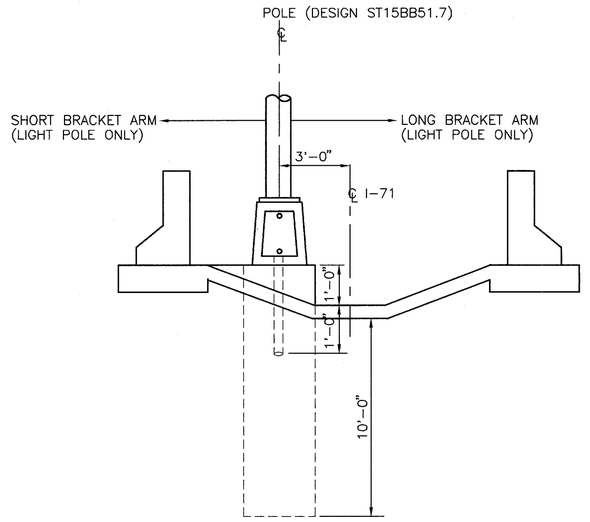
CONTROL CENTER	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE-AWG.	ENCLOSURE RATING AMPS.	CIRCUIT NO.	CIRCUIT LOAD AMPS.	CIRCUIT FUSE SIZE AMPS.	MAINTENANCE AGENCY
1	4.0	4	60	1	8.5	20	STATE
2	0.6	4	60	3	2.7	20	CITY
3	11.4	4	60	5	14.2	20	STATE
				6	9.4	20	STATE
3A	0.6	4	60	7	2.7	20	CITY
5	4.0	4	60	10	8.5	20	STATE
5A	3.4	4	60	EXIST.	14.3	20	CITY
6	5.6	4	60	11	9.8	20	STATE
				12	2.0	20	STATE
6A	4.3	4	60	13	9.0	20	CITY
7	9.0	2	60	14	18.8	30	STATE
7A	1.2	4	60	15	5.0	20	CITY
8	12.1	2	60	16	14.0	20	STATE
				17	11.2	20	STATE
8A	0.4	4	60	18	2.1	20	CITY
9	7.8	4	60	19	9.5	20	STATE
				20	6.7	20	STATE
9A	5.8	4	60	21	12.0	20	CITY
10	4.7	4	60	22	9.8	20	STATE
10A	0.4	4	60	23	2.0	20	CITY
11	6.5	4	60	24	13.6	20	STATE
12	6.9	4	60	25	8.0	20	STATE
				26	6.5	20	STATE
14	8.9	2	60	29	8.4	20	STATE
				30	10.2	20	STATE
15	8.3	2	60	31	10.8	20	STATE
				32	6.5	20	STATE
15A	0.7	4	60	33	3.0	20	CITY
16	12.3	2	60	34	17.2	30	STATE
				36	8.4	20	STATE
16A	3.4	4	60	EXIST.	14.0	20	CITY
16B	2.0	4	60	35	8.4	20	CITY
17	8.3	2	60	37	17.2	30	STATE
18	22.6	2	60	39	13.0	20	STATE
				40	34.1	50	STATE
20	19.9	2	60	41	38.5	50	STATE
				42	3.0	20	STATE
21	11.5	2	60	43	24.0	30	STATE
22	10.5	2	60	44	22.0	30	STATE
23	14.4	2	60	45	20.0	30	STATE
				46	10.0	20	STATE
25	1.2	4	60	EXIST.	5.0	20	CITY
26	7.9	2	60	47	4.0	20	STATE
				48	12.6	20	STATE
27	1.9	4	60	EXIST.	8.0	20	CITY

RETAINING WALL POLE MODIFICATIONS DATA

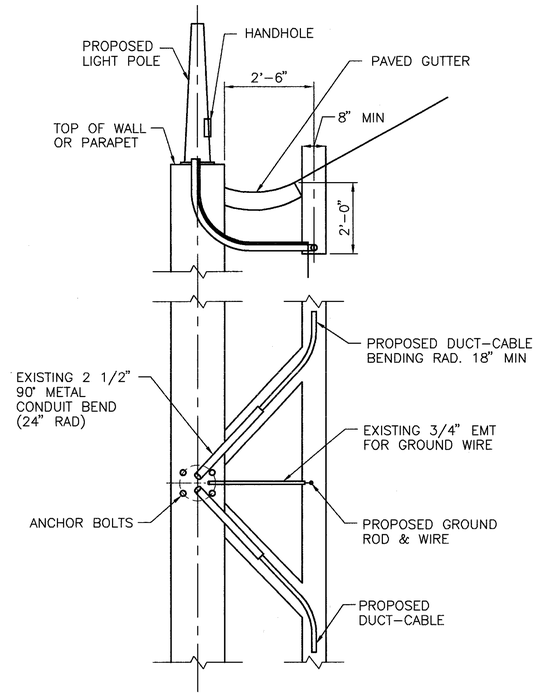
HAM 71	NEW LIGHT POLE # DESIGNATION	STA #	EXISTING			NEW	
			SHAFT DIM	BOLT CIRCLE "	DESIGN #	SUPPORT HEIGHT	DESIGN # AS PER PLAN
2.74	3-6-8	225+95 TC	8"x4.22"x27"	11"	7A-10B-30	40'-0"	A-10B-40
	3-6-11	232+49 TC	7"x4.16"x20'3"	10"	7A-10B-25D	32'-0"	A-10B-35
	3-6-4	235+00 TH	7"x4.52"x17'9"	10"	7A-10B-25D	27'-0"	A-10B-30
	3-6-5	236+00 TH	7"x6.09"x6'6"	10"	7A-10B-25D	17'-0"	A-10B-20
4.58	8-17-9	320+00 ME	8.5"x6.05"x24'6"	11.5"	11A-15B-32.5D	37'-0"	A-15B-40
	8-17-10	322+19 ME	8.5"x5.60"x28'0"	11.5"	11A-15B-30	37'-0"	A-15B-40
	8-17-11	324+15 ME	8"x4.57"x24'6"	11"	11A-10B-30D	37'-0"	A-15B-40
	12-25-1	374+05 DE	7.0"x4.20"x20'0"	10"	11A-10B-25D	32'-0"	A-10B-35
	12-25-2	375+52 DE	7.0"x5.04"x14'0"	10"	11A-10B-25D	27'-0"	A-10B-30
	12-25-3	376+99 DE	7.0"x6.30"x5'0"	10"	11A-10B-25D	17'-0"	A-10B-20
6.16	15-32-1	305+45 A	9.0"x5.65"x33'6"	17.25"	11AT-20D-41.7	43'-6"	AT-10B-46.7
	15-32-7	306+05 B	8.0"x5.45"x18'1"	15"	11AT-20B-22.8	29'-0"	AT-10B-34.2
	15-32-8	308+11 B	8.0"x4.92"x22'0"	15"	11AT-10B-26.7	32'-0"	AT-10B-36.7



PULL BOX, CONCRETE, 18", AS PER PLAN



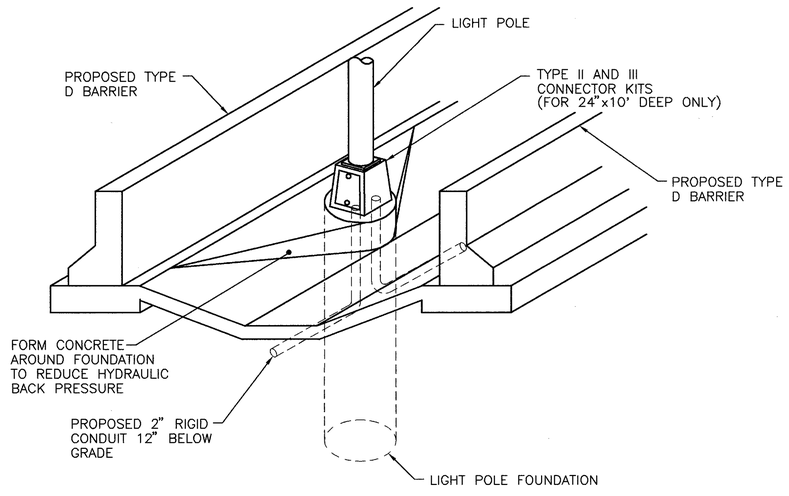
FRONT VIEW
(OPPOSITE HAND SIMILAR)



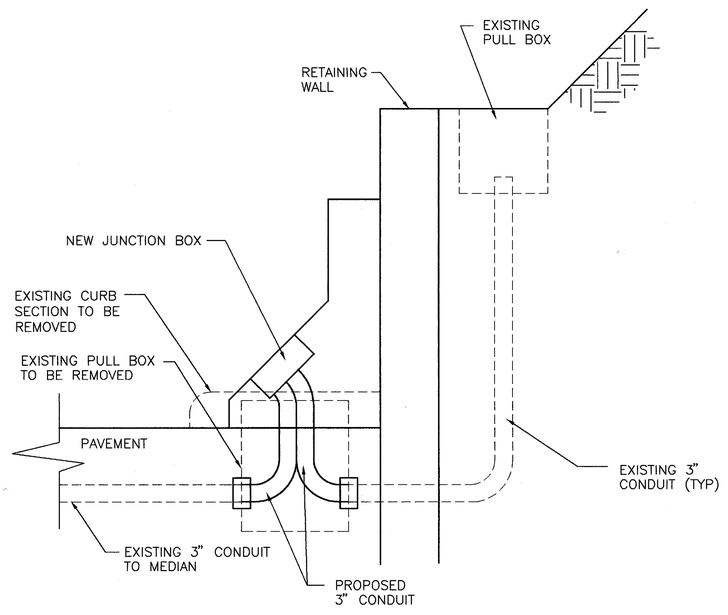
TYPICAL INSTALLATION AT EXISTING RETAINING WALLS

DRAWN FOR DITCH SECTION BEHIND WALL
DETAIL IS SAME WHEN DITCH IS OMITTED

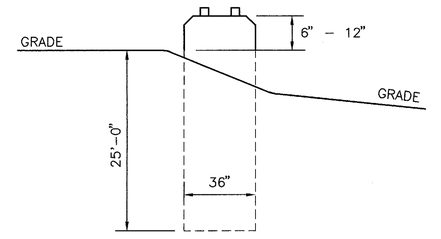
STA 399+71SB TO 436+82.72 (MEDIAN)



STA 399+71SB TO 436+82.72 (MEDIAN)



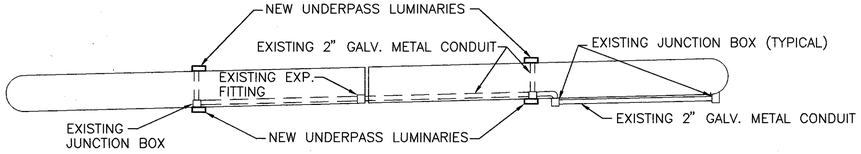
NEW JUNCTION BOX INSTALLATION ALONG EXISTING RETAINING WALL
STA 219+96 TO 232+00
NTS



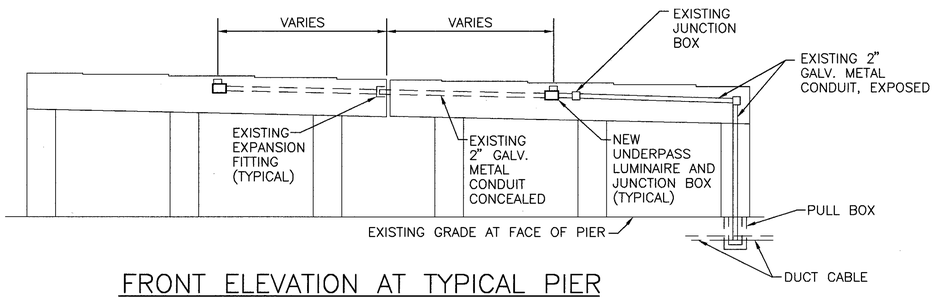
LIGHT TOWER FOUNDATION "A"
(36"x25' DEEP, AS PER PLAN)(SIMILAR)

H:\71\2.92\701.dwg - DEC. 16, 1991

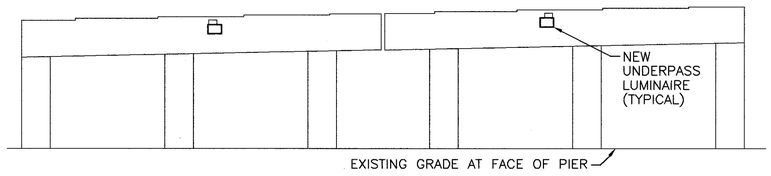
DETAIL SHEET



PLAN OF TYPICAL PIER
NTS

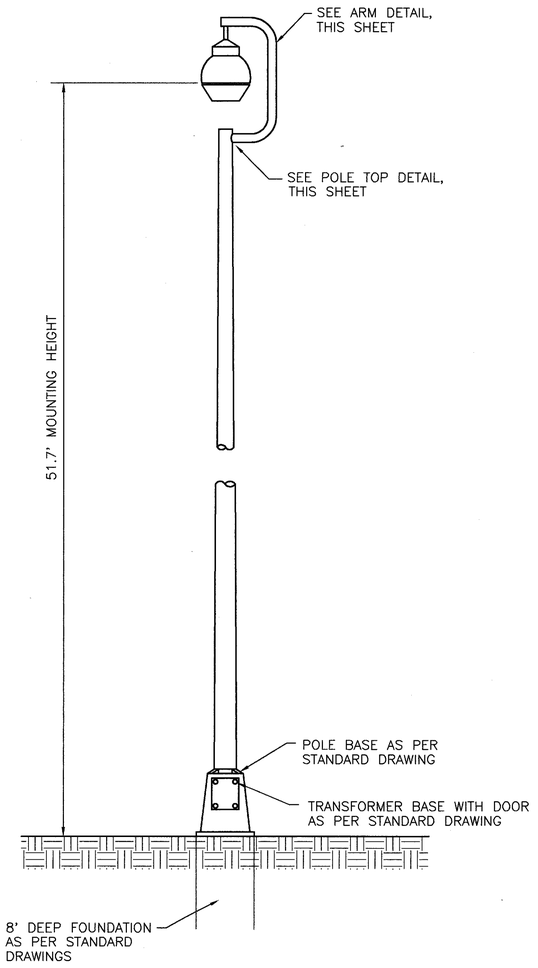


FRONT ELEVATION AT TYPICAL PIER
NTS

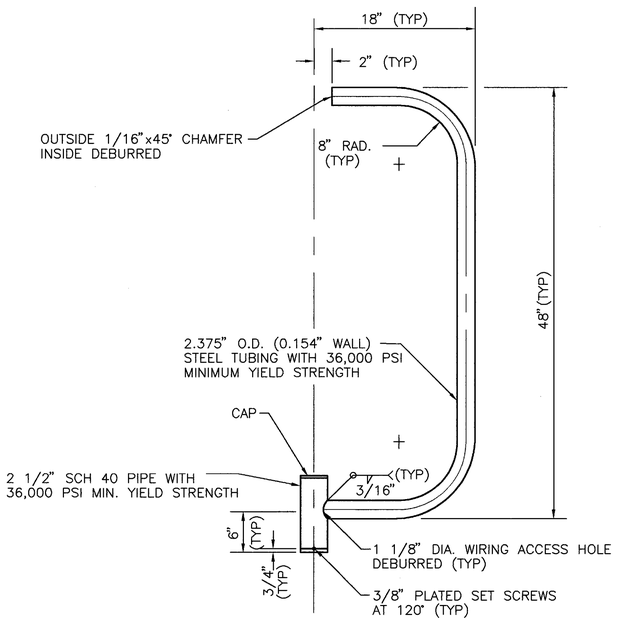


REAR ELEVATION AT TYPICAL PIER
NTS

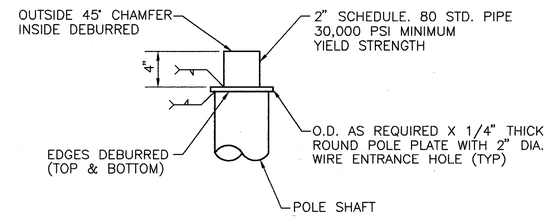
NOTE: EXISTING LIGHTING ARRANGEMENT AT PIERS MAY VARY. CONTRACTOR SHALL RE-USE EXISTING CONDUIT SYSTEM TO RE-FEED NEW LIGHT FIXTURES. THIS SHALL BE PAID FOR UNDER "SERVICE TO UNDERPASS LIGHTING".



LIGHT POLE, LOW MAST, DESIGN ATON 51.7, AS PER PLAN
NTS



ARM DETAIL
NTS



POLE TOP DETAIL
NTS

401 BLACK 409 – 462

CALC. BY KAS DATE 12/95	HAM–71–2.92	OHIO
CHKD. BY DATE 12/95		FHWA REGION 5

409/615

TRAFFIC CONTROL NOTES

614 MAINTENANCE OF TRAFFIC SIGNAL INSTALLATIONS

The Contractor shall be responsible for maintaining traffic signal installations under the following conditions:

A. Existing signal installations which the plans require the Contractor to adjust, modify, add onto or remove, or which the Contractor actually adjusts, modifies or otherwise disturbs. The Contractor shall be responsible for the entire installation (at an intersection) from the time his operations first disturb the installation until the installation has been subsequently removed or modified and the work has been accepted.

B. New or reused signal installation or devices, installed by the Contractor. The Contractor shall be responsible for maintenance of these from the time of installation until the work is accepted.

The Contractor shall correct as quickly as possible all outages or malfunctions. He shall provide Hamilton County, the cities of Cincinnati and Norwood, and the Engineer such addresses and phone numbers where his maintenance forces can be contacted. The Contractor shall provide one or more persons to receive all calls and dispatch the necessary maintenance forces to correct outages Such a person or persons may be used to perform other duties as long as prompt attention is given to these calls and a person is readily available continuously 24 hours a day, 7 days a week. All lamp outages, cable outages, electrical failures, equipment malfunctions and misaligned signal heads, shall be corrected to the satisfaction of the Engineer with the signal back in service within 4 hours after the Contractor has been notified of the outage.

In the event new signals are damaged prior to acceptance, all damaged equipment except poles and control equipment shall be replaced by the Contractor to the satisfaction of the Engineer with the signal back in service within 8 hours after the Contractor's notification of the outage.

If poles and/or control equipment are damaged and must be replaced, the Contractor shall make temporary repairs as necessary to bring the signal back into full operation within the allowed 8–hour period. He shall make permanent repairs or replacement as soon thereafter as possible.

None of the above shall be construed as collective or consecutive outage time periods at any one location. That is, where more than one outage occurs at any one location, then the allotted time limit shall be for the worst single outage.

Where outages are the result of a vehicle accident, the response of the Contractor shall be as outlined above. The Contractor shall be responsible for collection of any compensation for this work from those parties responsible for the damage.

Where the Contractor has failed to or cannot respond to an outage or signal equipment malfunction, at these locations within his responsibility, within periods as specified above, the Engineer may invoke the provisions of Section 105.15 and any subsequent billings to the State, Hamilton County, the city of Cincinnati or the city of Norwood for police services and maintenance services by city forces shall be deducted from monies due or to become due the Contractor in accordance with provisions of Section 105.15.

The Contractor shall be responsible for any damage to any traffic signal components required to be handled during the relocation of poles and revisions to the signal system.

630 PREPARATION AND SHIPMENT OF STORED SIGNS, BY TYPE

Flatsheet and extrusheet signs removed under other items of work shall be processed and shipped to the ODOT Central Office Traffic Maintenance Shop, 1606 West Broad Street, Columbus Ohio.

Flatsheet signs shall be secured on pallets. Loaded pallets shall have a maximum weight of 1000 pounds.

Extrusheet signs shall be loaded, secured, transported, and unloaded by suitable means to avoid damage to the sign panels. Large signs may be carefully disassembled as necessary into smaller assemblies to facilitate transportation.

Deliveries shall be made between 8:00 A.M. and 2:00 P.M. Late arrivals must be unloaded the following day. No deliveries will be accepted on Saturday, Sunday, or Holidays. The Traffic Maintenance Shop Superintendent shall be notified at (614) 275–2850 at least three (3) days prior to the delivery of the signs. Delivery arrangements other than those described above must be approved in advance by the Traffic Maintenance Shop Superintendent.

The signs shall be transported by the Contractor to the Traffic Maintenance Shop where they will be unloaded and stored. Personnel and a fork lift of 1000 pound minimum capacity will be provided by the State for unloading.

Payment will be at the Contract price per each sign including all labor, equipment, banding material, pallets, transportation and miscellaneous material necessary to perform the work.

630 91000 196 EACH PREPARATION AND SHIPMENT OF STORED SIGNS, FLATSHEET

630 91010 150 EACH PREPARATION AND SHIPMENT OF STORED SIGNS, EXTRUSHEET

630 GROUND MOUNTED SIGNS, AS PER PLAN

The elevation views shown on sheets 458 and 461 of 615 and noted with a * for ground mounted signs are for computational purposes only. The actual depth of the foundation and support length shall be in accordance with TC–41.10 and the actual field location.

630 OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC–18.26, DESIGN 3, AS PER PLAN

This item shall conform to Item 630 and Standard Construction Drawing TC–18.26 except as detailed on sheet no. 453.

632 LOOP DETECTORS

Within the work limits, Traffic Signal Loop Detectors and Pullboxes exist at the following intersections:

1. Essex Pl. & McMillan St.
2. Essex Pl., Taft Rd. & Ramp "TH"
3. Brewster Ave., Montgomery Rd. & Ramp "ME"
4. Duck Creek Rd. & Ramp "MF"
5. Dana Ave. & Ramp "DE"
6. Dana Ave. & Duck Creek Rd.
7. Ridge Ave. & Ramp "T"

Any necessary signal timing adjustments at the above locations shall only be made by the City of Cincinnati. Prior to any work which may damage the above detector loops, cable, pullboxes or conduit, the Contractor shall contact the City of Cincinnati, Traffic Services Bureau at (513) 352–3705 at least seven (7) working days in advance to disconnect the loop detectors and adjust the traffic signal controller.

The Contractor is responsible for replacing any loop detectors and related equipment damaged during construction. The layout of all loops to be replaced will be performed by City forces. Loops to be replaced shall be installed prior to the placement of the final course of asphalt. The Contractor shall follow the details within these plans for loop detector installation. The Contractor shall call the Division of Traffic Engineering at (513) 352–6229 seven (7) working days in advance of any sawcutting for loop detector installation to arrange for the layout by City forces.

632 27500 1070 LIN. FT. LOOP DETECTOR PAVEMENT CUTTING

632 64900 3000 LIN. FT. LOOP DETECTOR WIRE, TYPE E

Loop detectors for the westbound left turn lane from Dana Avenue to Duck Creek Road shall be installed as part of this contract. The Contractor shall call the Division of Traffic Engineering as noted above to arrange for City forces to perform the necessary layout.

SIGN HARDWARE AND LUMINAIRES

All new signs shall be furnished with sign attachment assemblies. All luminaires and lighting hardware shall be replaced on existing sign supports including luminaires, ballasts, luminaire support arms, sign services, disconnect switches, ground rods and sign wiring.

All internally illuminated signs shall be replaced with standard reflectorized signs. Removal of internally illuminated signs shall include removal of the power service for each sign. Power service shall be removed in coordination with the local power company as necessary.

G:\71\2.92\TRAFCONT\TCNOTE – JAN. 12, 1996 @ 12:14 pm

TRAFFIC CONTROL SUMMARY

CALC BY KAB DATE 12/95	HAM-71-2.92	OHIO
CHKD. BY PJR DATE 12/96		FHWA REGION 5

410/615

SHEET NUMBER												PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
409	462	464	474	479	480	484	489							100% STATE					
		397													620	10300	397	EACH	DELINEATOR, TYPE C, POST MOUNTED
		289													620	15300	289	EACH	DELINEATOR, TYPE D, POST MOUNTED
		618													620	31200	618	EACH	DELINEATOR REMOVED FOR DISPOSAL
				63	5										625	32000	68	EACH	GROUND ROD
				2.4											630	00000	2.4	CU. YD.	CONCRETE FOR ANCHOR BASE FOUNDATION
						40.3	0.5								630	00100	40.8	CU. YD.	CONCRETE FOR EMBEDDED FOUNDATION
						264	2175								630	04100	2439	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 4 POST
						556	28								630	06400	584	LIN. FT.	GROUND MOUNTED SUPPORT, S4X7.7 BEAM
						109									630	06500	109	LIN. FT.	GROUND MOUNTED SUPPORT, W6X9 BEAM
						501									630	07600	501	LIN. FT.	GROUND MOUNTED SUPPORT, W10X12 BEAM
						48									630	08500	48	EACH	STREET NAME SIGN SUPPORT
							215								630	08100	215	LIN. FT.	ONE WAY SUPPORT, NO. 4 POST
						52									630	09000	52	EACH	BREAKAWAY BEAM CONNECTION
				1											630	20800	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8
					2										630	79000	2	EACH	SIGN HANGER ASSEMBLY, SPAN WIRE
						31	13								630	79500	44	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED
					1										630	77301	1	EACH	OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.26, DESIGN 3, AS PER PLAN
				123	5										SPECIAL	63009100	128	EACH	SURFACE PREPARATION, EXISTING SUPPORT SECTION
				2	0										SPECIAL	63009102	2	EACH	SURFACE PREPARATION, NEW SUPPORT SECTION
				125	5										SPECIAL	63009104	130	EACH	COATING, EPOXY PRIME COAT, SUPPORT SECTION
				125	5										SPECIAL	63009106	130	EACH	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION
				125	5										SPECIAL	63009108	130	EACH	COATING, URETHANE TOP COAT, SUPPORT SECTION
					54	244	1537								630	80102	1835	SQ. FT.	SIGN, FLAT SHEET, TYPE G
				9876.5	405	1633	32								630	80204	11947	SQ. FT.	SIGN, EXTRUSHEET, TYPE G
						23	10								630	82000	33	EACH	SIGN BACKING ASSEMBLY
						12									630	85400	12	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL
						68	144								630	84900	212	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
						66									630	85100	66	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
							2								630	84901	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN
						9	155								630	86002	164	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
						48									630	86102	48	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL
				129	6										630	87400	135	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL
					4										630	87401	4	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN
				1											630	89702	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL
196														196	630	91000	196	EACH	PREPARATION AND SHIPMENT OF STORED SIGNS, FLAT SHEET
150														150	630	91010	150	EACH	PREPARATION AND SHIPMENT OF STORED SIGNS, EXTRU SHEET
				64	5										631	84000	69	EACH	SIGN SERVICE
				91	5										631	84300	96	EACH	SIGN WIRED
				3	2										631	84400	5	EACH	SIGN WIRED, OVERPASS STRUCTURE MOUNTED
				63	5										631	85100	68	EACH	DISCONNECT SWITCH WITH ENCLOSURE, TYPE X
				10											631	87010	10	EACH	BALLAST, TYPE CMRI-100-240, INTEGRAL
				8	5										631	87102	13	EACH	BALLAST, TYPE CMRI-100-480, INTEGRAL
				36											631	87206	36	EACH	BALLAST, TYPE CMRI-175-240, INTEGRAL
				79	8										631	87202	87	EACH	BALLAST, TYPE CMRI-175-480, INTEGRAL
				3											631	87400	3	EACH	BALLAST, MISC.: BALLAST, TYPE CMRI-250-240, INTEGRAL
				16											631	87302	16	EACH	BALLAST, TYPE CMRI-250-480, INTEGRAL
				18	5										631	89100	23	EACH	MERCURY VAPOR LUMINARE, TYPE TC-31.21 WITH 100 WATT LAMP
				115	8										631	89200	123	EACH	MERCURY VAPOR LUMINARE, TYPE TC-31.21 WITH 175 WATT LAMP
				19											631	89300	19	EACH	MERCURY VAPOR LUMINARE, TYPE TC-31.21 WITH 250 WATT LAMP
				152	13										630	75106	165	EACH	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21
				63	4										631	94304	67	EACH	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL
				154	11										631	94200	165	EACH	REMOVAL OF LUMINARE AND DISPOSAL
				154	11										631	94404	165	EACH	REMOVAL OF BALLAST AND DISPOSAL
1070															632	27500	1070	LIN. FT.	LOOP DETECTOR PAVEMENT CUTTING
3000															632	64900	3000	LIN. FT.	LOOP DETECTOR WIRE, TYPE E
			611												642	00902	611	SQ. FT.	ISLAND MARKING, TYPE 2
			419												642	30000	419	LIN. FT.	REMOVAL OF PAVEMENT MARKING
			2675												642	00802	2675	LIN. FT.	CURB MARKING, TYPE 2
			37.78												644	00100	37.78	MILE	EDGE LINE
			41.72												644	00200	41.72	MILE	LANE LINE
			1.96												644	00300	1.96	MILE	CENTER LINE
			19830												644	00400	19830	LIN. FT.	CHANNELIZING LINE
			608												644	00500	608	LIN. FT.	STOP LINE
			1533												644	00600	1533	LIN. FT.	CROSSWALK LINE
			6426												644	00700	6426	LIN. FT.	TRANSVERSE LINE
			55												644	01300	55	EACH	LANE ARROW
			28												644	01400	28	EACH	WORD ON PAVEMENT, 72"
			220												644	01500	220	LIN. FT.	DOTTED LINE, 4"
	3387														621	00100	3387	EACH	RAISED PAVEMENT MARKER
	45														621	00300	45	EACH	PRISMATIC RETROREFLECTOR

G:\71\2.92\TRAFCONT\Q_SUM - JAN. 12, 1996 @ 11:48 am

TRAFFIC SURVEILANCE SUMMARY

CALC. JDM DATE 9/94	HAM-71-2.92	OHIO	410A 401
CHKD. JBB DATE 9/94		FHWA 5	

* 100% FEDERAL FUNDS (CMAQ)

SHEET NUMBER 489A	SHEET NUMBER 489B	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	AS PER SHEET
400	150	603	00400	550 *	LIN.FT.	4" CONDUIT, TYPE E	
25242	7283	625	25803	32525 *	LIN.FT.	CONDUIT, CONCRETE ENCASED, AS PER PLAN 4"	47A
146	108	625	25901	254 *	LIN.FT.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, AS PER PLAN 4"	47A
19509	6783	625	29010	26292 *	LIN.FT.	TRENCH, 30" DEEP	
5733	500	625	29600	6233 *	LIN.FT.	TRENCH IN PAVED AREA, TYPE B	
21	4	625	31600	25 *	EACH	PULL BOX, MISC.: PULL BOX, 713.08, 30"	
	3	625	32000	3 *	EACH	GROUND ROD	
4		625	31600	4 *	EACH	PULL BOX, MISC.: PULL BOX, 713.08, 30", AS PER PLAN (W/ HEAVY DUTY LID AND FRAME)	47E
4	1	625	30721	5 *	EACH	PULL BOX, 713.08, 36", AS PER PLAN, (W/ HEAVY DUTY LID AND FRAME)	47E
11	8	625	30720	19 *	EACH	PULLBOX 713.08, 36"	
	37.5	630	00000	37.5 *	CU. YD.	CONCRETE FOR ANCHOR BASE FOUNDATION	
252		625	25920	252 *	LIN.FT.	CONDUIT, MISC.: CONDUIT, BRIDGE MOUNTED, AS PER PLAN 4"	47B

CALC. BY KAB DATE 12/2/94
CHKD. BY DJM DATE 3/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

411
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

LEGEND

- (CW) Curb Marking White
- (CY) Curb Marking Yellow
- (D) Solid Double Yellow Centerline (4"–10"–4")
- (DD) Broken Double Yellow Centerline (4"–10"–4")
- (L) Lane Line
- (DT) Dotted Line, White (4")
- (CA) Channelizing Line (8")
- (S) Stop Line (24")
- (X) Crosswalk Line (12")
- (Y) Yellow Edge Line
- (W) White Edge Line
- (T) Transverse Line, White (24" 10'c/c)
- (J) Transverse Line, Yellow (24" 10'c/c)
- (I) Island Marking, Yellow
- (BY) Black on Yellow Background

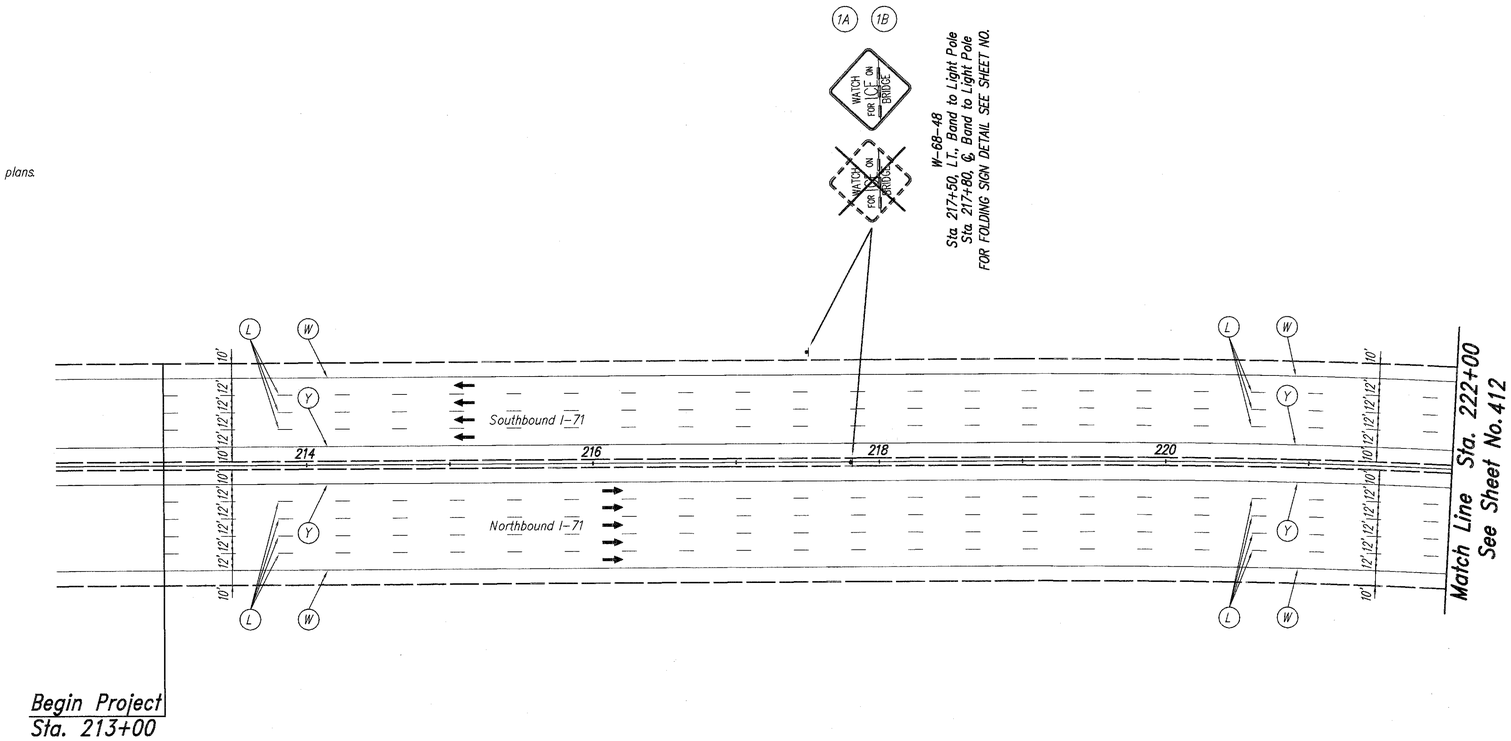
SIGN LEGEND

Proposed Sign

Existing Sign To Be Removed

Existing Sign to Remain

The legend above applies to all signs shown in these plans.



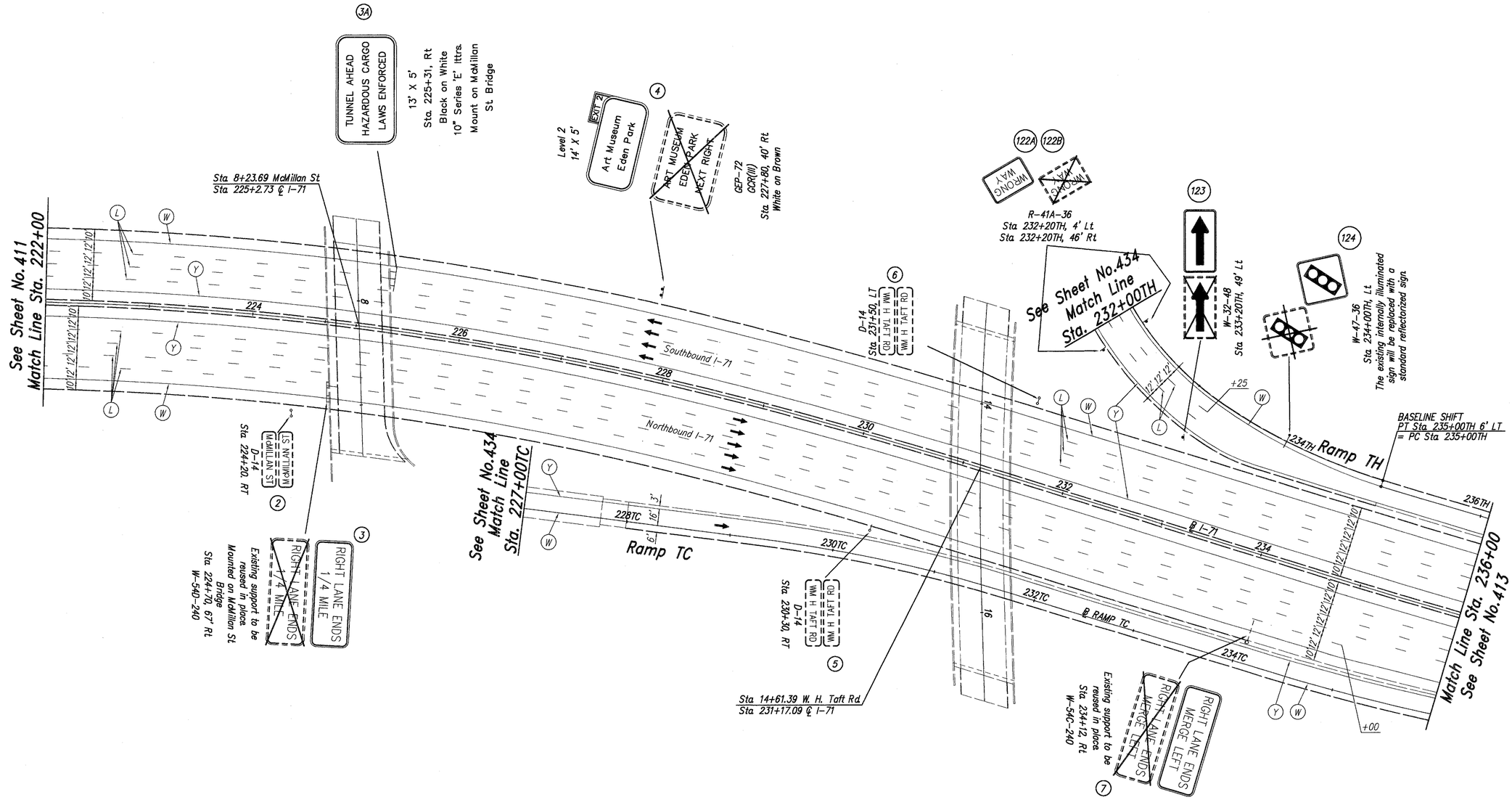
CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 3/11/95

HAM-71-2.92

OHIO
FHWA REGION 5

412/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For McMillan St. and
W. H. Taft Rd. Plans
See Sheet No. 434

Signing and Pavement Markings – Sta. 222+00 to 236+00

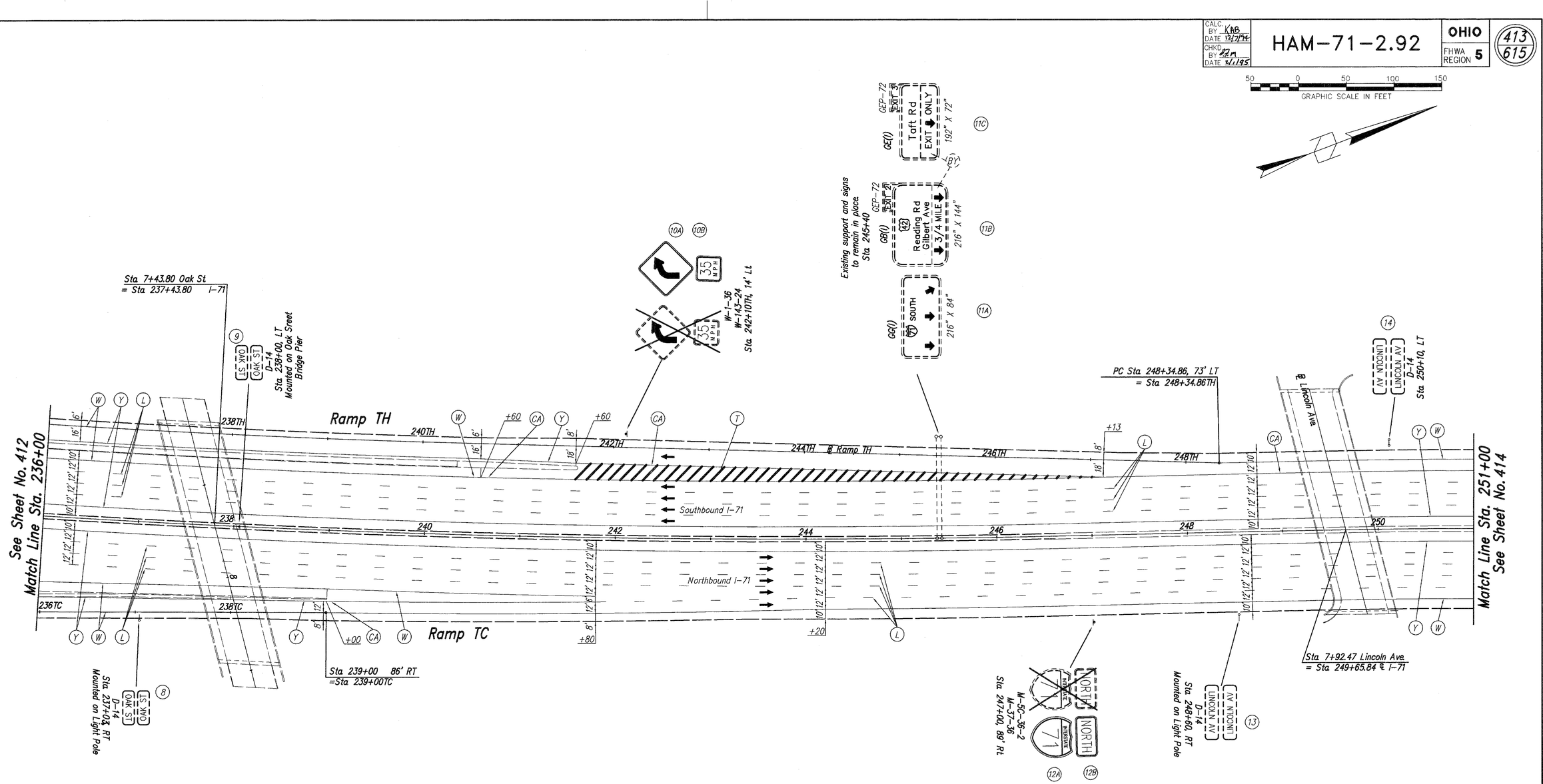
CALC. BY KAB DATE 12/7/94
CHKD BY RZM DATE 1/1995

HAM-71-2.92

OHIO
FHWA REGION 5

413
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For Oak St. Plan
See Sheet No. 435

For Lincoln Ave. Plan
See Sheet No. 435

G:\71\2.92\TC3 - JAN. 30, 1995 @ 8:54 am

Signing and Pavement Markings – Sta. 236+00 to 251+00

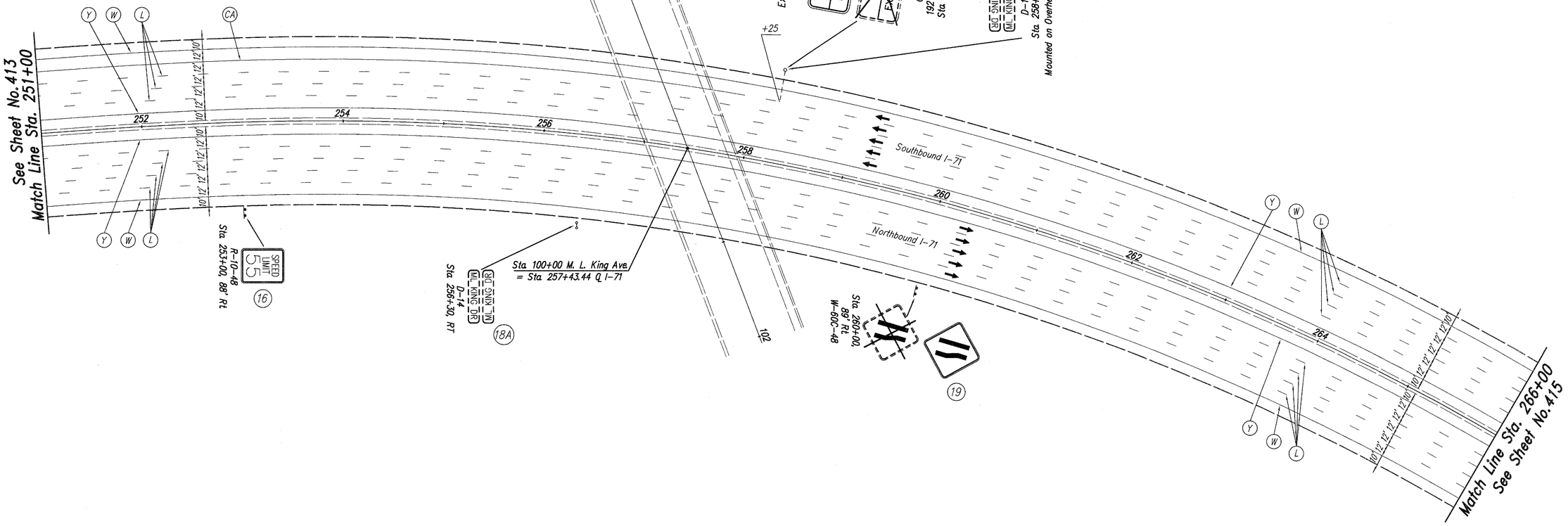
CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

414
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For M. L. King Ave. Plan
See Sheet No. 436

Signing and Pavement Markings – Sta. 251+00 to 266+00

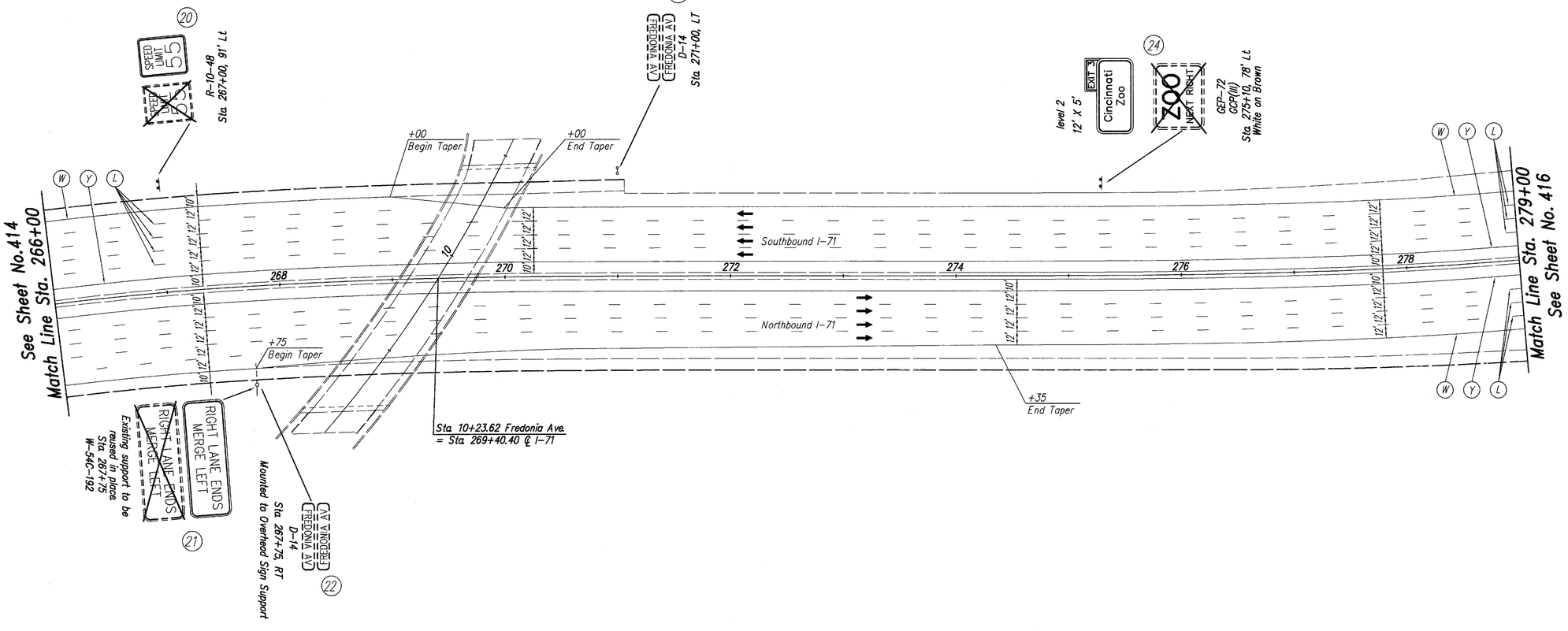
CALC. BY KAB DATE 12/7/94
CHKD. BY JJM DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

415
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For Fredonia Ave. Plan
See Sheet No. 437

Signing and Pavement Markings – Sta. 266+00 to 279+00

CALC. BY KAS DATE 12/13/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

416/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 415
Match Line Sta. 279+00

Match Line Sta. 294+00
See Sheet No. 417

Southbound I-71
Northbound I-71

280 282 284 286 288 290 292

14 16

W Y L

(28) GEP-72 EXIT 3 University Of Cincinnati
Level 2 GC(II) 15' X 5'
Sta 283+10, 86' Lt

(26) CLIFTON AVE BLAIR AVE
D-14
Sta 284+00, LT

UNIVERSITY OF CINCINNATI NEXT RIGHT
GC(III) Sta 284+90

(30A) SOUTH (30B) INTERSTATE 71
M-38-36
M-5-36-2
Sta 289+60, 82' Lt

(29A) HOSPITAL NEXT RIGHT
GSH-1-120
Sta 289+60

(29) EXIT 3 HOSPITAL
10' X 2'
GEP-72
GSH-1-120
Sta 292+60, 76' Lt
White on Blue

+15
BEGIN TAPER

10' 12' 12' 12' 10'

(25) NORTH Columbus
GC(I)
Sta 280+00
GEP-72
GB(I)

(25B) NORTH Columbus
156" X 84"
240" X 102"
Existing support to be reused in place

Montgomery Rd Dana Ave 1 MILE EXIT 5

(25A)

POC Sta 281+74.90
= Sta 15+00 Blair Ave.

XAVIER UNIVERSITY NEXT RIGHT
GC(II) Sta 284+80

(27) Xavier University EXIT 5
GC(I) Level 2 12' X 5'
GEP-72
Sta 288+00, 78' Rt

For Legend
See Sheet No. 411

For Blair Ave. Plan
See Sheet No. 437

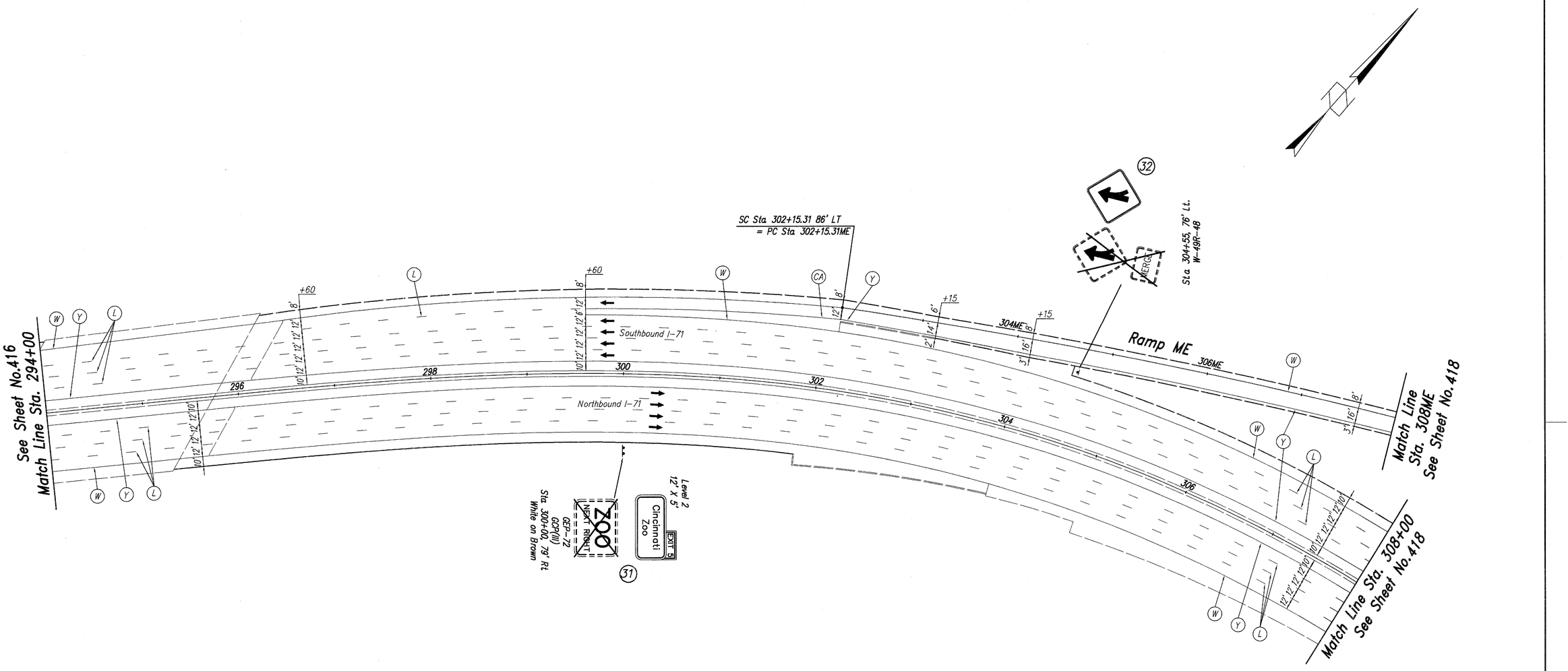
CALC. BY KAB DATE 12/1/94
CHKD. BY DJM DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

417
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No.411

Signing and Pavement Markings – Sta. 294+00 to 308+00

D:\71\SIGN\07 - JAN. 30, 1995 @ 9:59 am

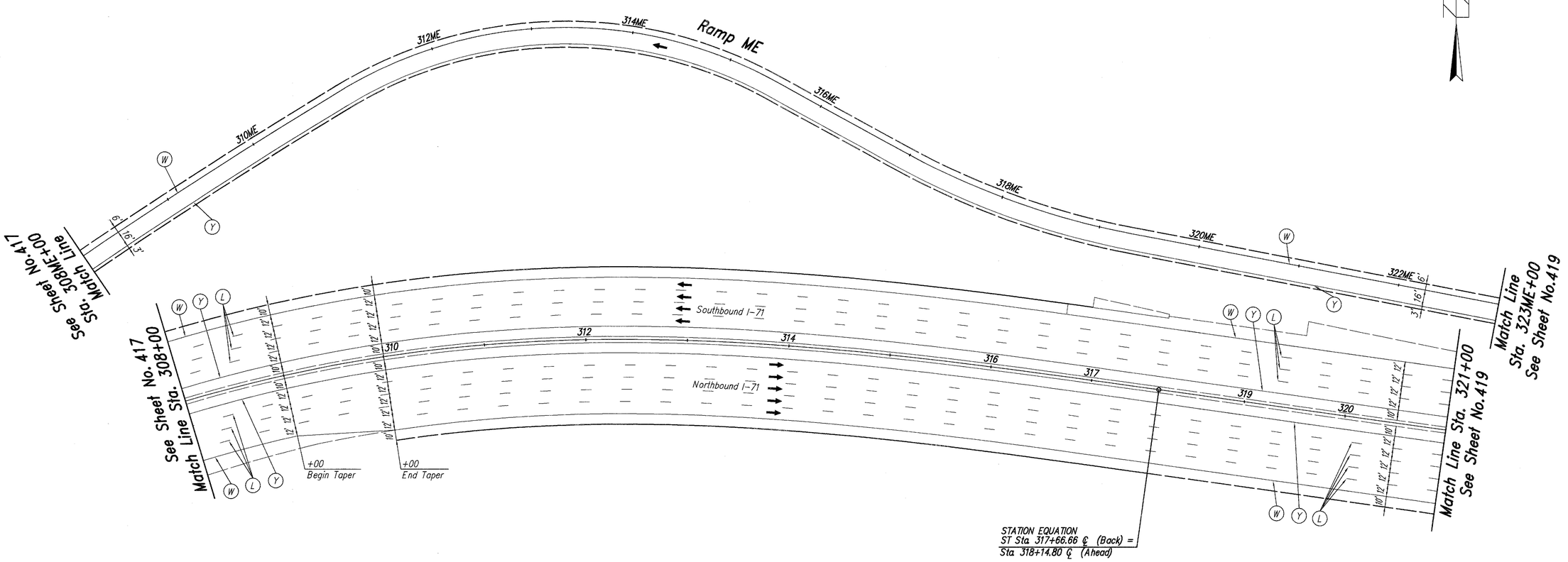
CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

418
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

G:\71\2.92\128 — JAN. 30, 1995 @ 10:00 am

Signing and Pavement Markings – Sta. 308+00 to 321+00

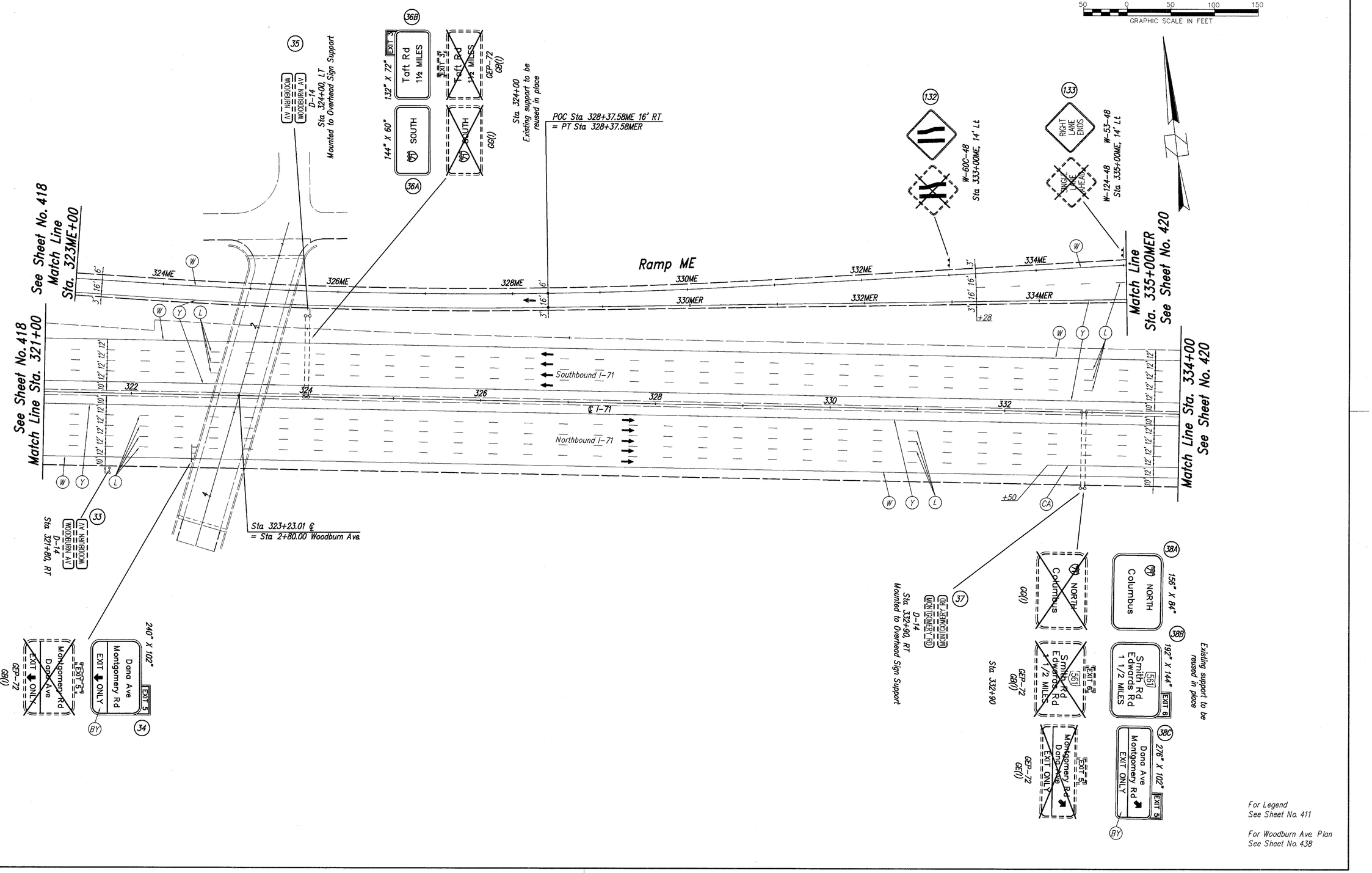
CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2/7/95

HAM-71-2.92

OHIO
FHWA REGION 5

419
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For Woodburn Ave. Plan
See Sheet No. 438

Signing and Pavement Markings – Sta. 321+00 to 334+00

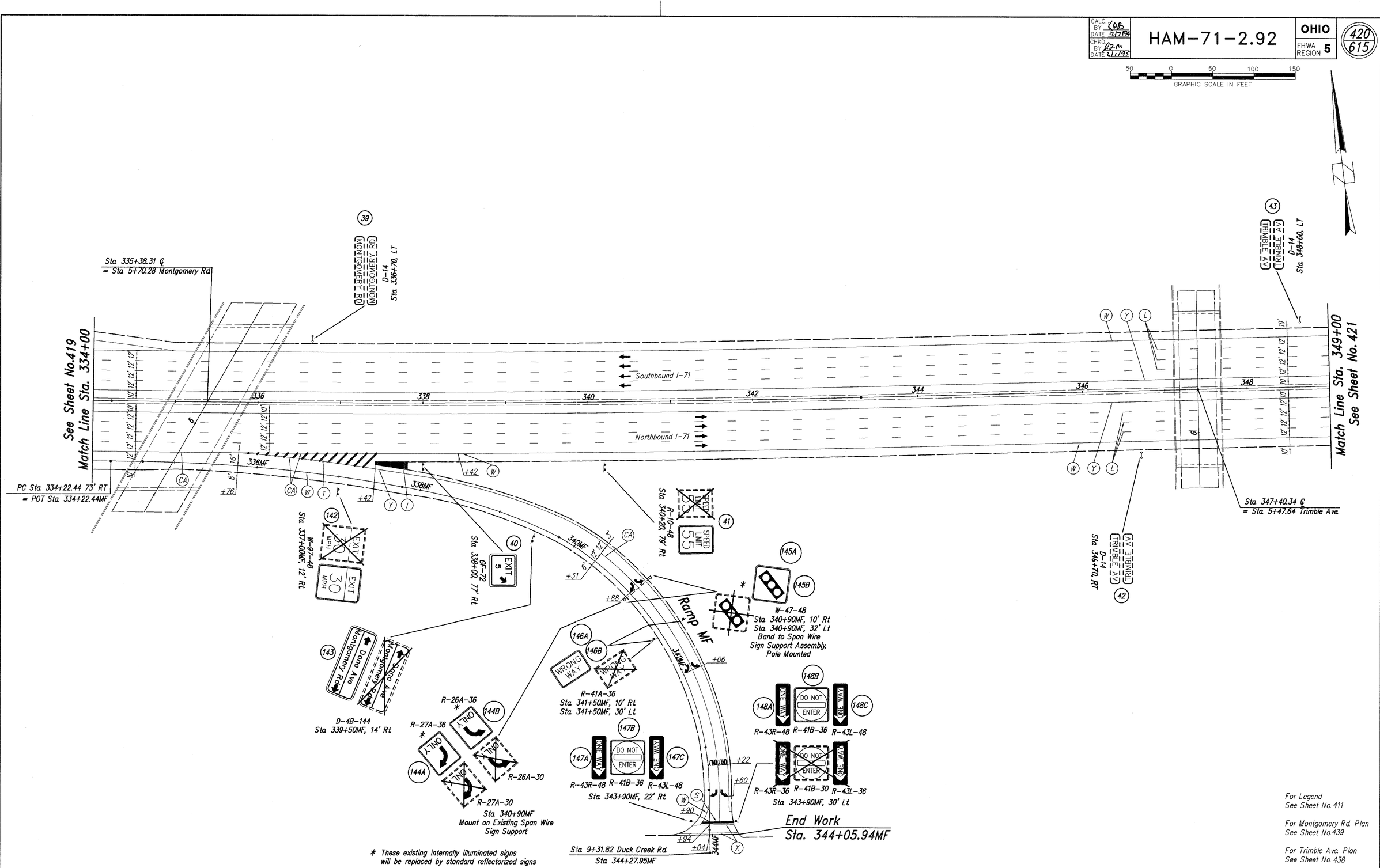
CALC. BY KAB DATE 12/17/94
CHKD. BY DM DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

420/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



Signing and Pavement Markings – Sta. 334+00 to 349+00

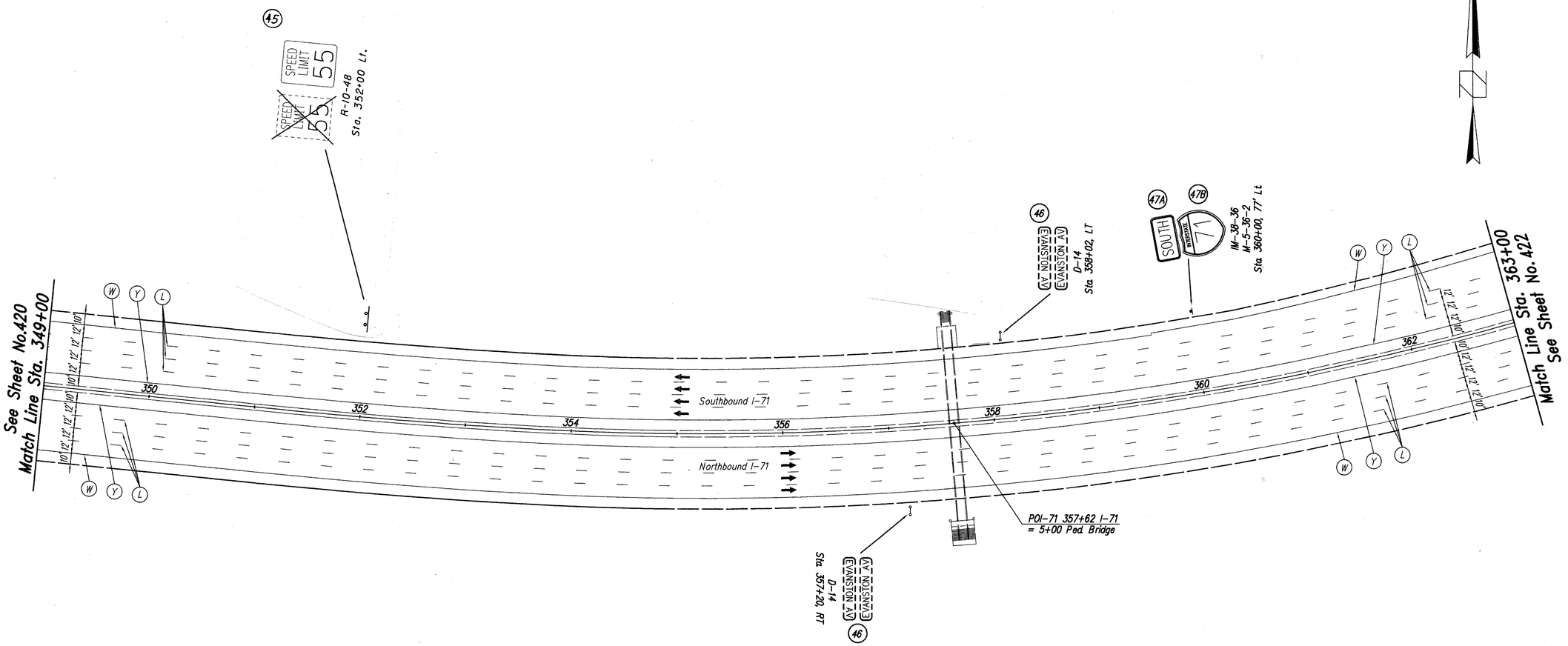
CALC BY KAB DATE 12/21/94
CHKD BY KJM DATE 3/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

421/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

Signing and Pavement Markings – Sta. 349+00 to 363+00

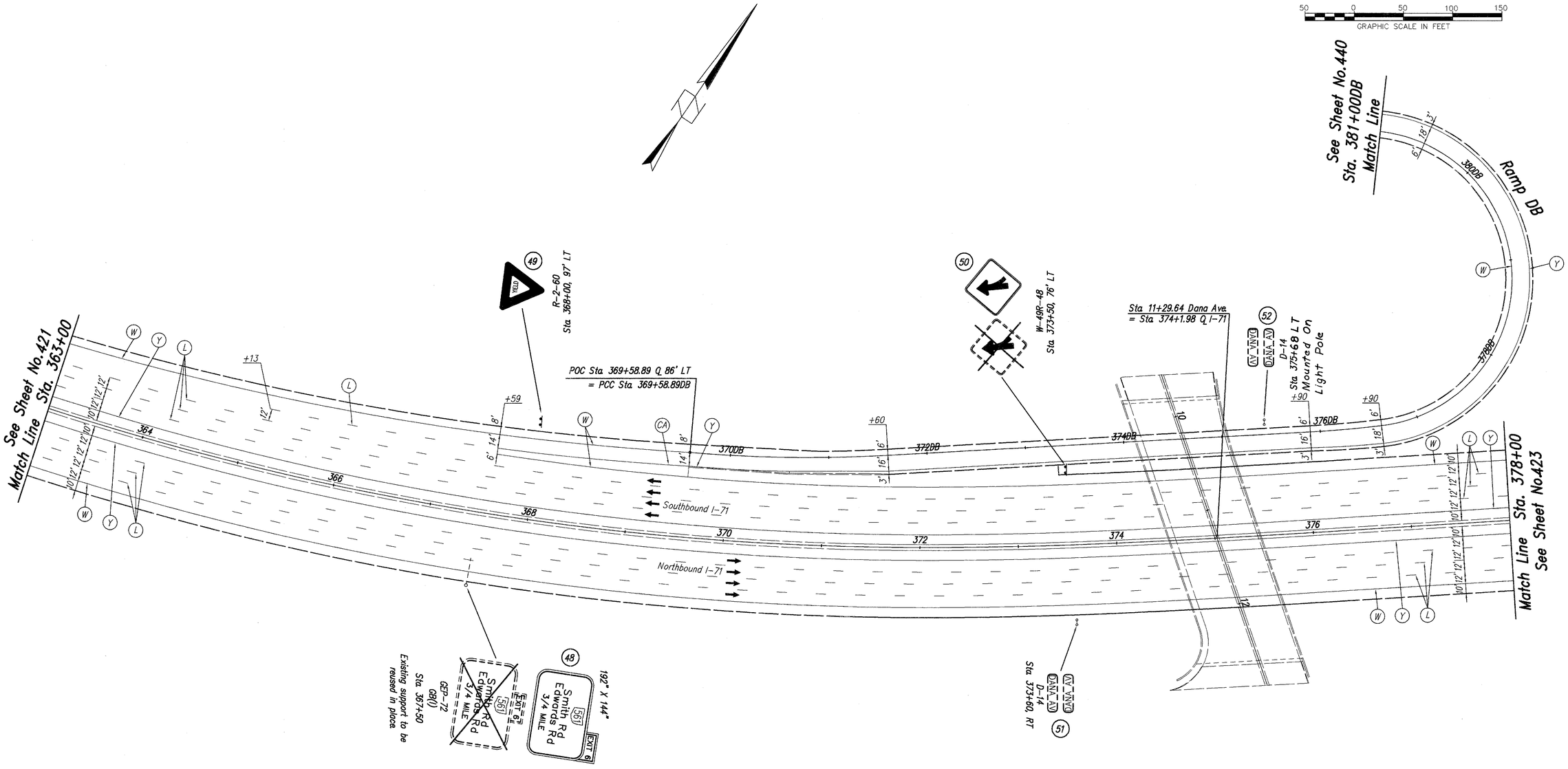
CALC. BY KAB DATE 12/3/94
CHKD. BY AJM DATE 3/11/95

HAM-71-2.92

OHIO
FHWA REGION 5

422/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For Dana Ave. Plan
See Sheet No. 440

G:\71\2.92\1212 - JAN. 30, 1995 @ 10:05 pm

Signing and Pavement Markings - Sta. 363+00 to 378+00

CALC. BY KAB DATE 12/7/94
CHKD BY Ham DATE 2/11/95

HAM-71-2.92

OHIO
FHWA REGION 5

423
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No.440
Sta. 378+00DE
Match Line

166 SPEED LIMIT 30 M.P.H.

W-47-48
Sta. 378+00DE, 12' Lt.
The existing internally illuminated sign and the post will be replaced with a standard reflectorized sign and standard post.

Ramp DE

167A 167B 30 M.P.H.

W-14-36
W-14-24
Sta 382+00DE, 12' Lt

W-2-36
W-14-24

55 EXIT 5
GF-72
Sta 385+19, 78' Lt

56B EXIT 5 Dana Ave
120" X 72"
GE(1)
GEP-72

56A EXIT 5 SOUTH
144" X 60"
GG(1)

Sta 388+00

53 Cincinnati CORP LIMIT
Cincinnati CORP LIMIT
Sta 383+00, 82' Lt
GN(III)
108" X 42"

CS Sta 388+96.83 73' LT
=CS Sta 388+96.83DE

Southbound I-71

Northbound I-71

380 382 384 386 388 390

384DE 386DE 388DE

386DC

384DC

382DC

Sta 387+00 86' RT
PCC Sta 387+00DC

See Sheet No.440
Sta. 380+00DC
Match Line

Ramp DC

W-49R-48
Sta 383+20, 84 Rt
W-50R-48

54

See Sheet No.422
Match Line Sta. 378+00

Match Line Sta. 392+00
See Sheet No.424

For Legend
See Sheet No. 411

G:\71\2.92\7013 - JAN. 30, 1995 @ 10:05 am

Signing and Pavement Markings – Sta. 378+00 to 392+00

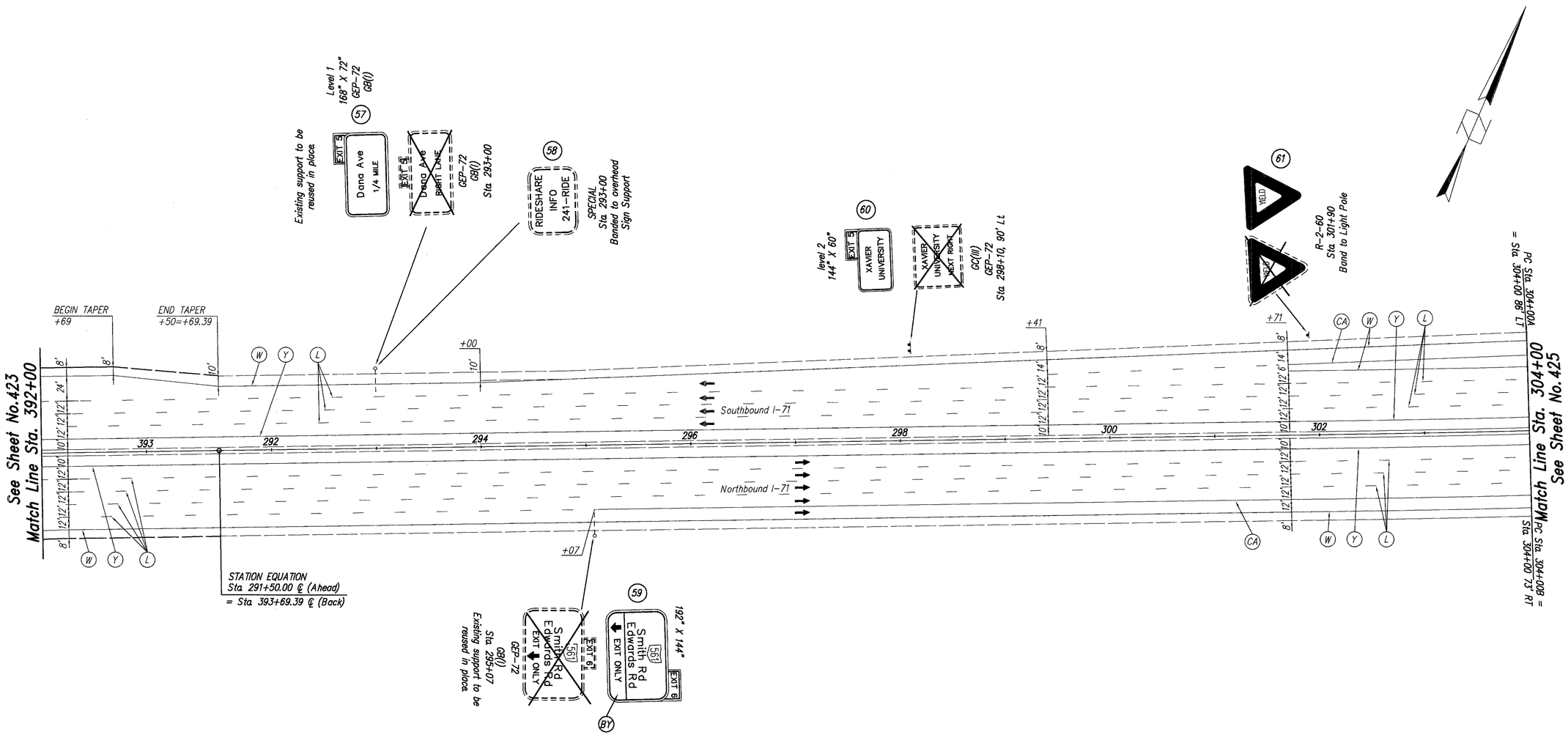
CALC. BY KAB DATE 12/24
CHKD BY [illegible] DATE 1/11/95

HAM-71-2.92

OHIO | FHWA REGION 5

424/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

G:\71\2.92\1014 - JAN. 30, 1995 @ 10:08 am

Signing and Pavement Markings – Sta. 392+00 to 304+00

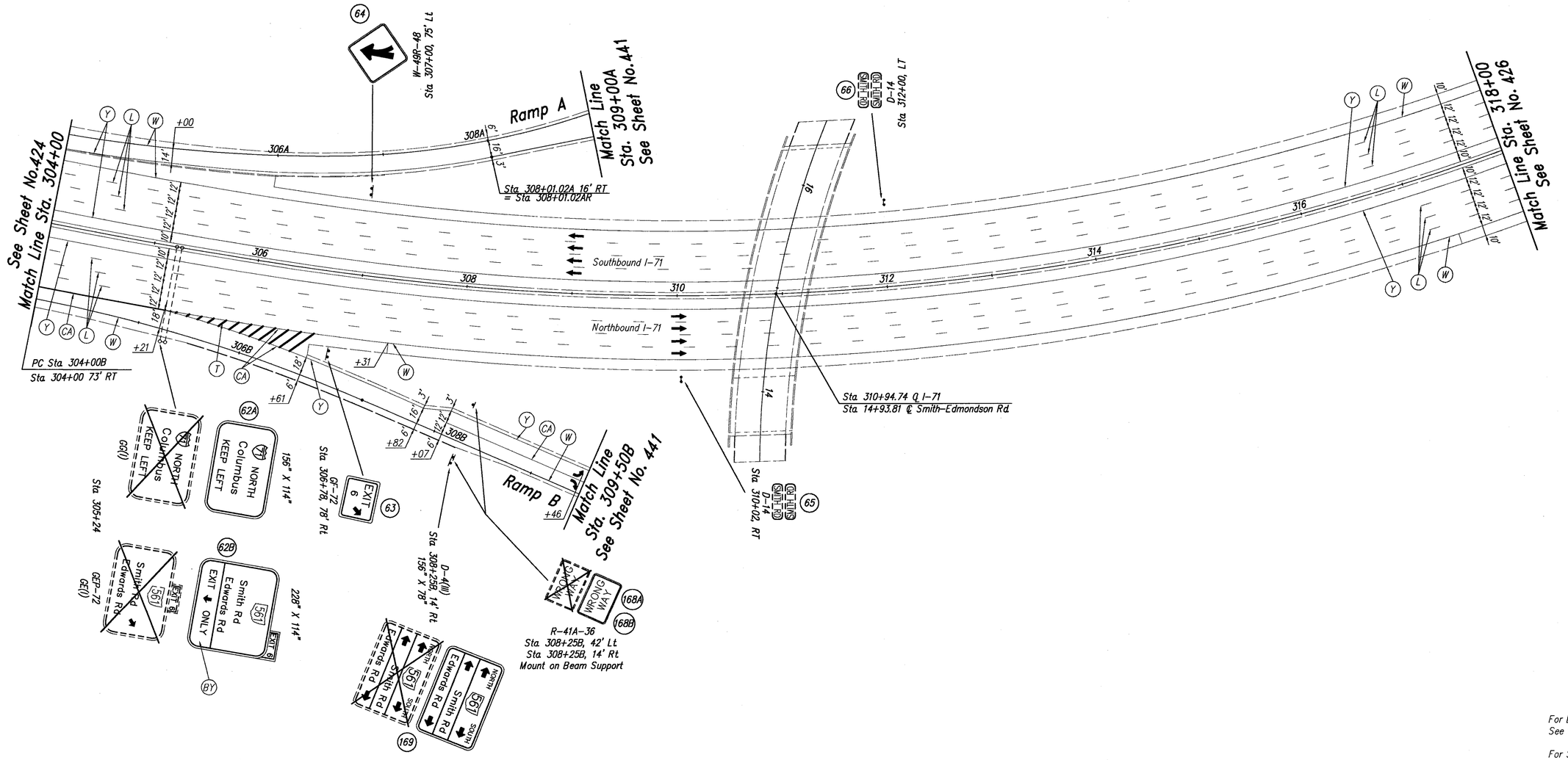
CALC. BY KAB DATE 12/12/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

425
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For Smith-Edmondson Rd. Plan
See Sheet No. 441

Signing and Pavement Markings – Sta. 304+00 to 318+00

CALC. BY KAB DATE 12/7/94
CHKD BY DJM DATE 3/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

426
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 425
Match Line Sta. 318+00

332+00
Match Line Sta. 332+00
See Sheet No. 427

Sta 321+59.18 ℄ I-71
=Sta 17+12.74 ℄ Williams Rd

See Sheet No.442
Sta. 324+00D
Match Line

Ramp D

Begin Work
Sta. 327+36.11C

Ramp C

Southbound I-71

Northbound I-71

Sta 329+74.01 ℄ 73° LT
= PT Sta 329+74.01D

Sta 327+21.11C
End Edwards Rd

Sta 320+90
Existing support to be reused in place

Mounted to Overhead Sign Support
Sta 320+90, RT

For Legend
See Sheet No. 411

For Williams Rd. Plans
See Sheet No.442

G:\PLANS\DGN\ham_30_1995 @ 10:10 pm

Signing and Pavement Markings – Sta. 318+00 to 332+00

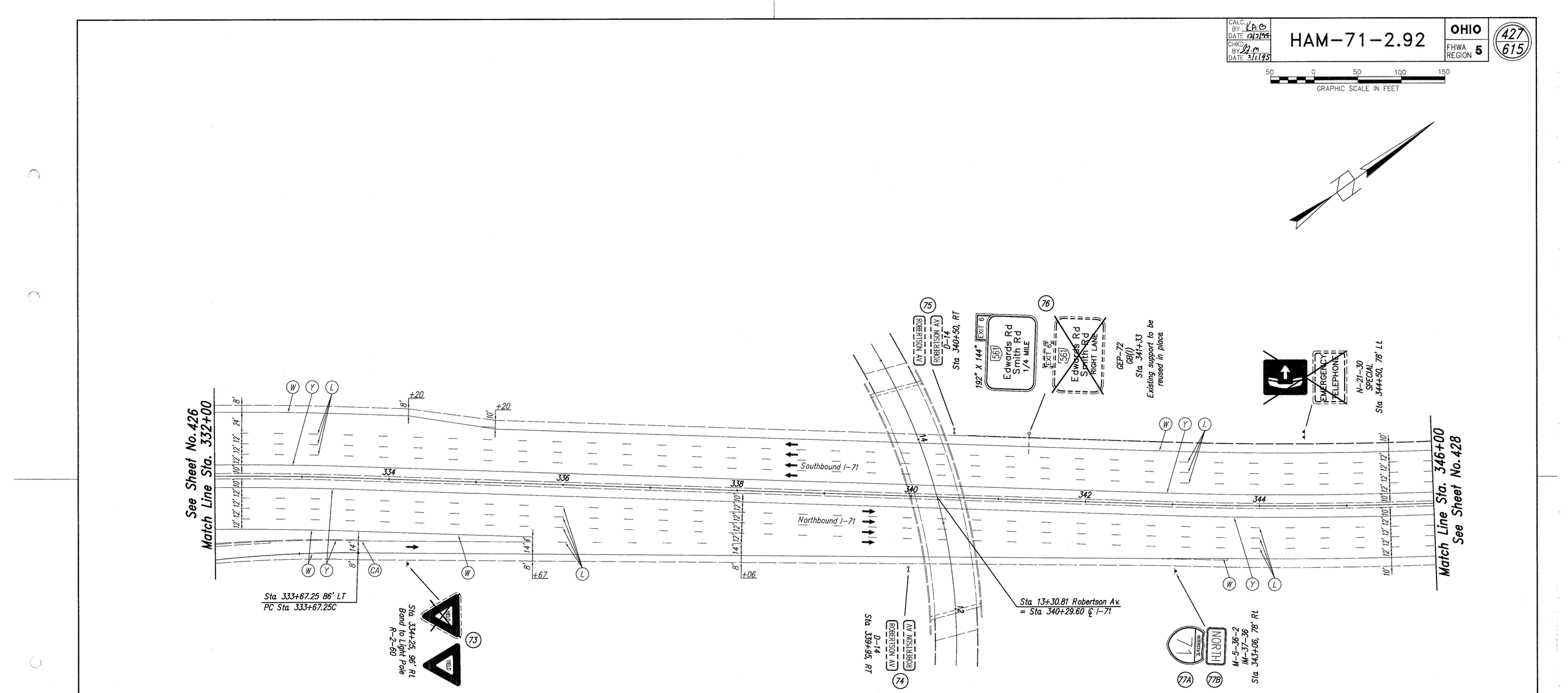
CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

427
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For Robertson Ave. Plan
See Sheet No. 443

G:\71\2.92\TO17 - JAN. 30, 1995 @ 10:11 pm

Signing and Pavement Markings – Sta. 332+00 to 346+00

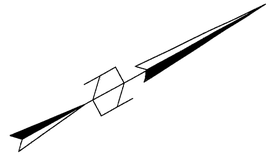
CALC. BY KAB DATE 12/27/94
CHKD. BY [illegible] DATE 2-1-95

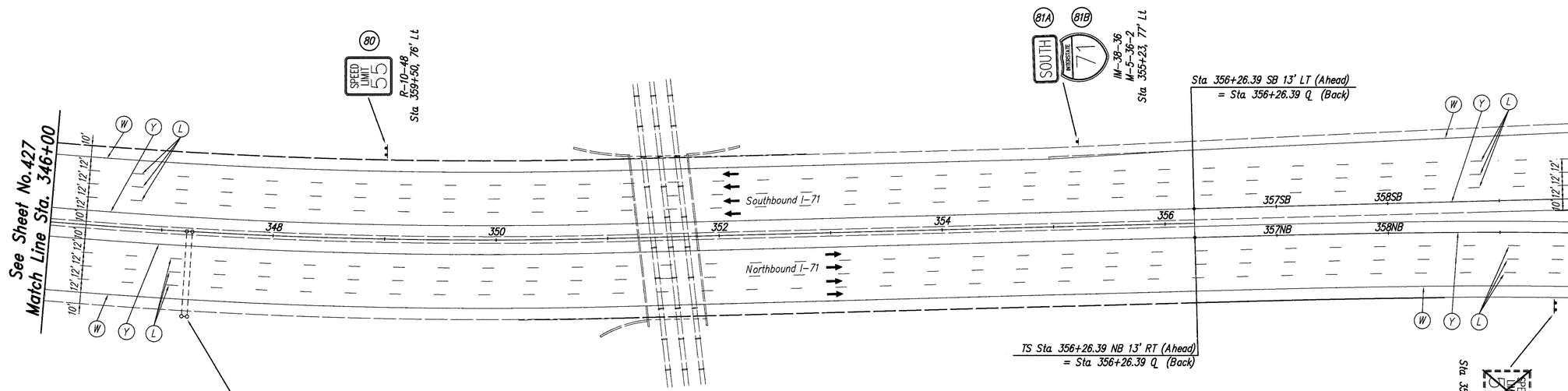
HAM-71-2.92

OHIO FHWA REGION 5

428/615

50 0 50 100 150
GRAPHIC SCALE IN FEET





For Legend
See Sheet No. 411

Signing and Pavement Markings – Sta. 346+00 to 360+00NB

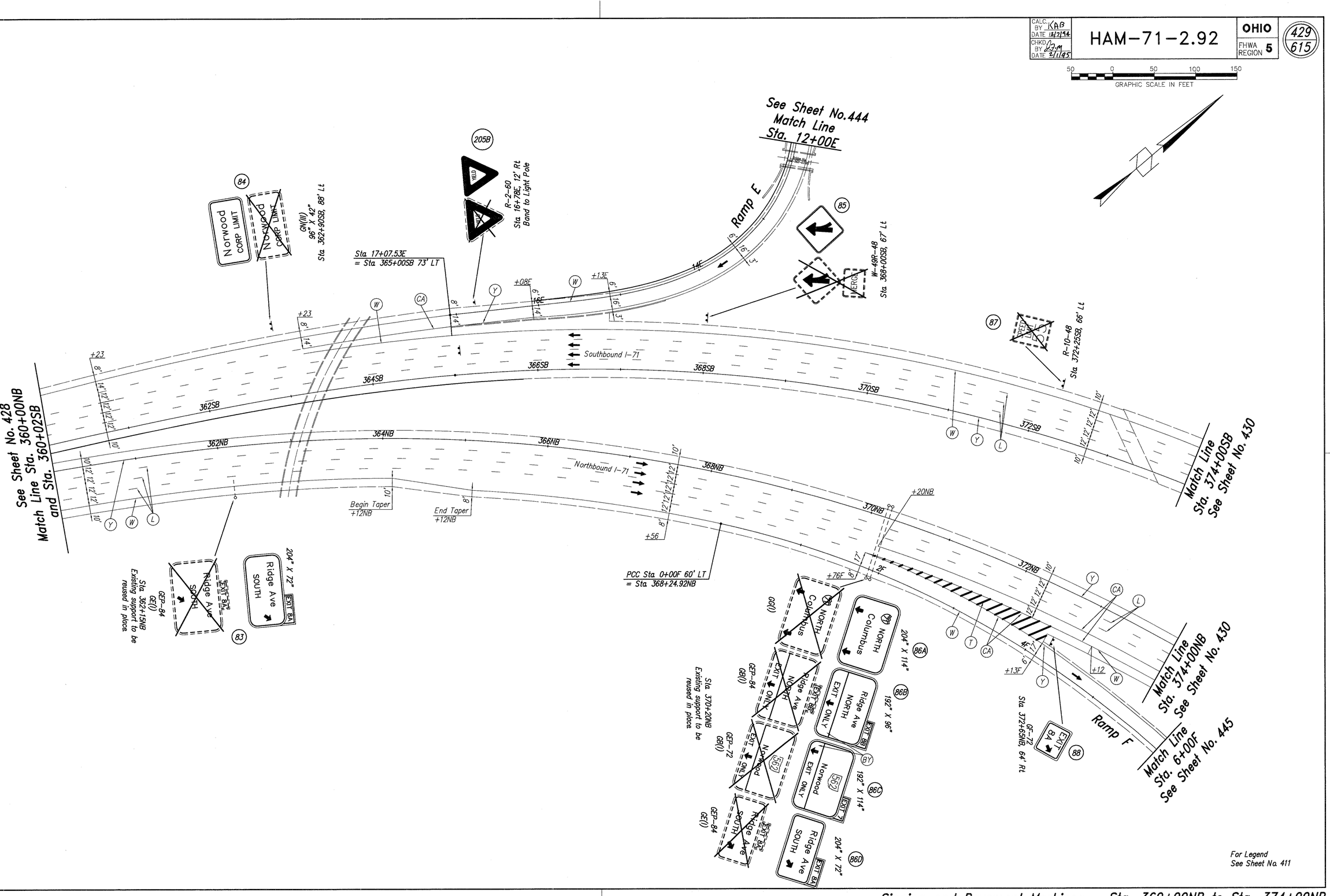
CALC. BY KAB DATE 12/2/94
CHKD BY DJM DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

429
615

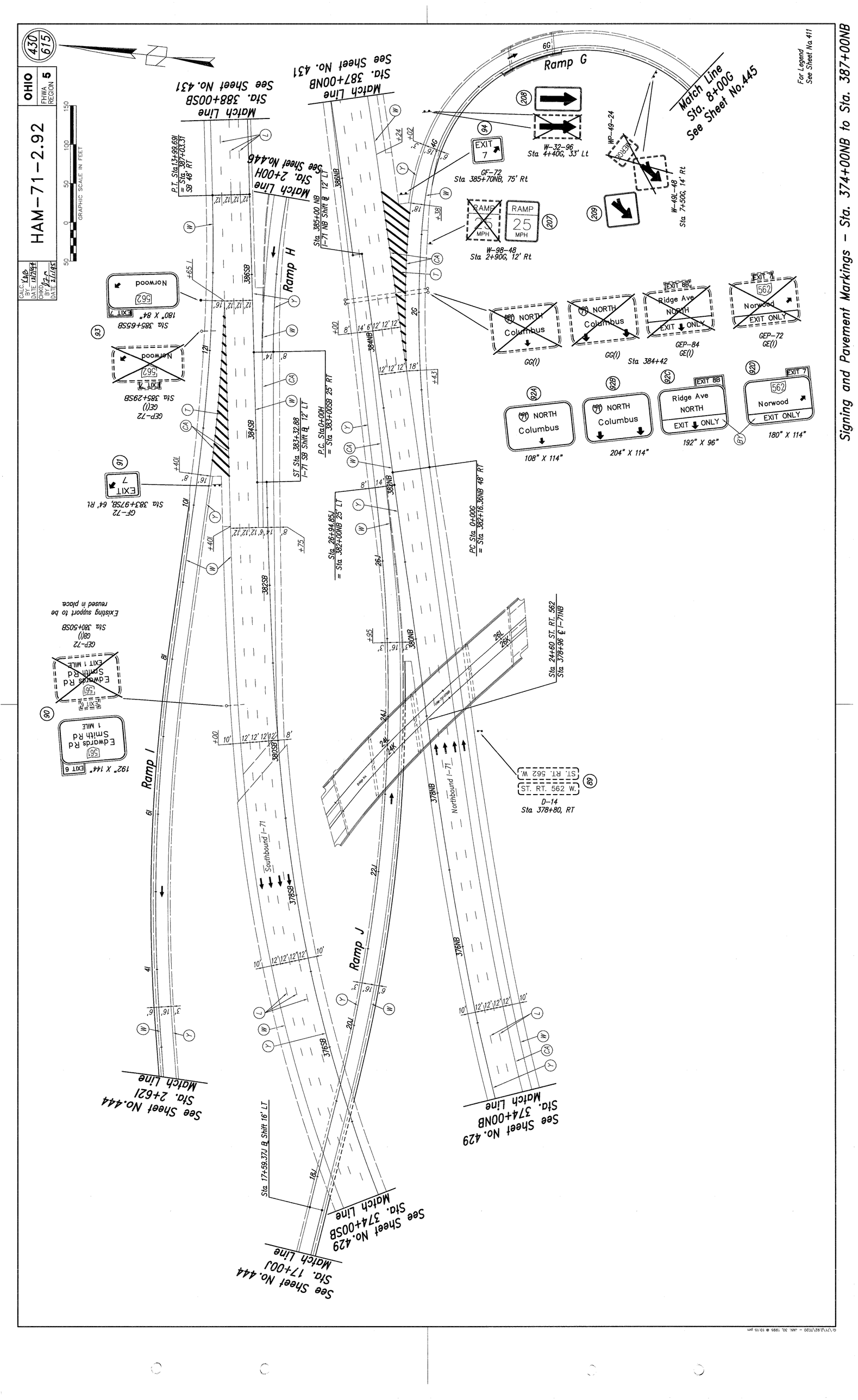
50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

G:\71\2.92\TS19 - JAN. 30, 1995 @ 2:25 pm

Signing and Pavement Markings – Sta. 360+00NB to Sta. 374+00NB



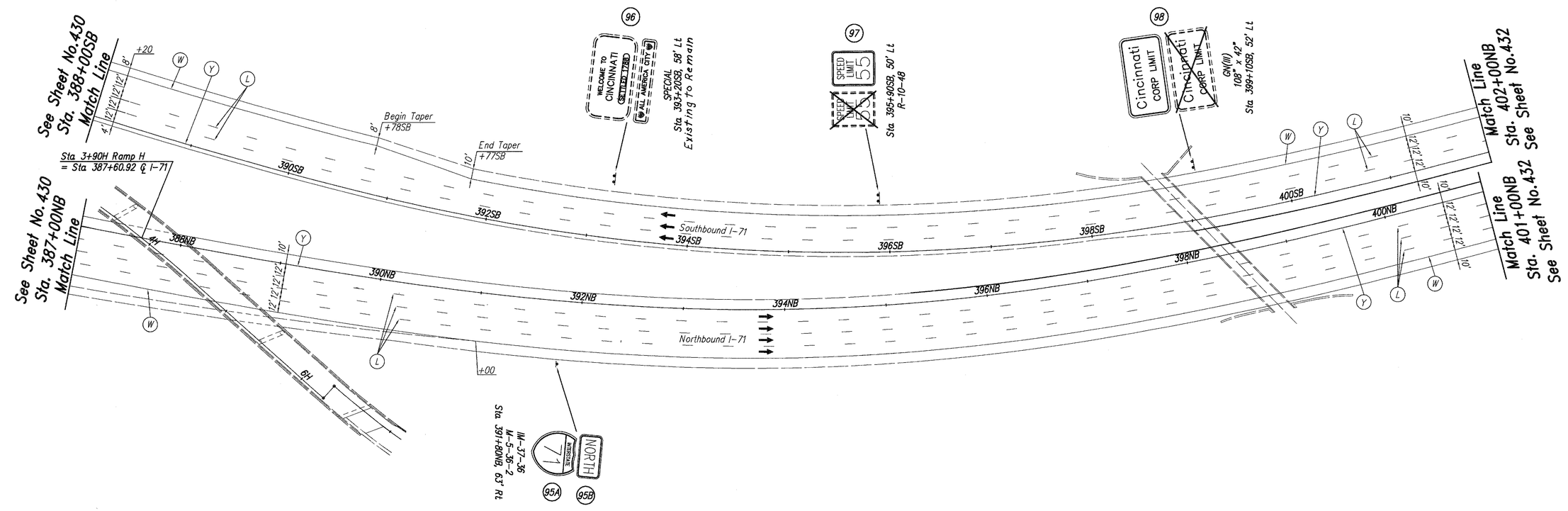
CALC. BY KAB DATE 11/1/94
CHKD. BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

431/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

S:\711\2.92\TC21 - JAN. 30, 1995 @ 10:17 pm

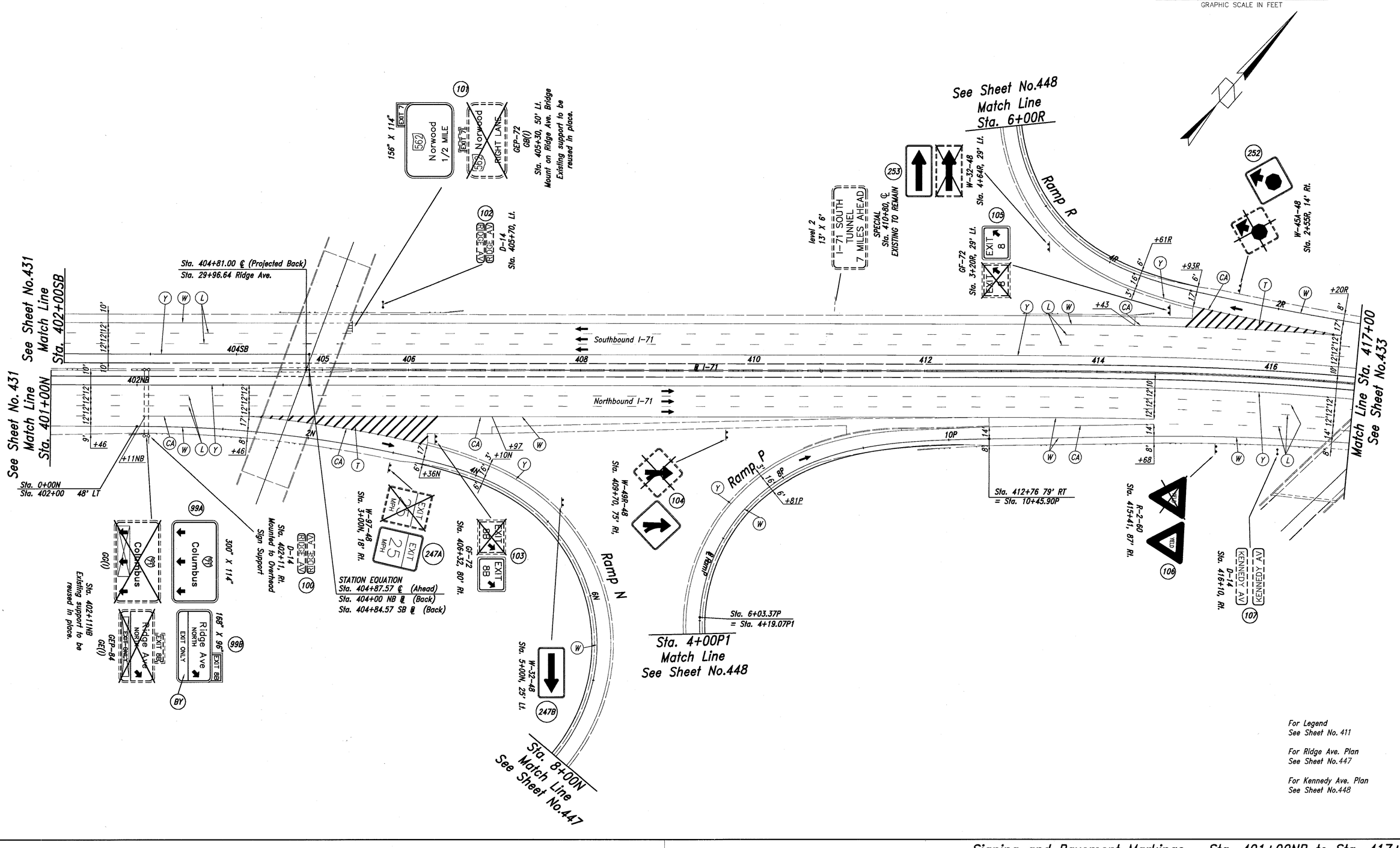
Signing and Pavement Markings – Sta. 387+00NB to 401+00NB

CALC. BY KAB DATE 12/19/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

For Ridge Ave. Plan
See Sheet No.447

For Kennedy Ave. Plan
See Sheet No.448

Signing and Pavement Markings – Sta. 401+00NB to Sta. 417+00

CALC BY KAS DATE 11/7/94
CHKD BY [illegible] DATE 2/11/95

HAM-71-2.92

OHIO
FHWA REGION 5

433
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

108A
Ridge Ave
Kennedy Ave
EXIT 8
240" X 72"

108B
Norwood
3/4 MILE
EXIT 3
168" X 114"

Existing support to be reused in place.

GE(I)
GEP-72
Ridge Ave
EXIT 8

GB(I)
GEP-72
Norwood
3/4 MILE
EXIT 3

GG(I)
Cincinnati
South

109
KENNEDY AV
D-14
Sta. 419+60, Lt.

Sta. 419+10

112
204" X 102"
EXIT 8
Ridge Ave
Kennedy Ave
1/4 MILE

EXIT 8
Ridge Ave
Kennedy Ave
RIGHT LANE
GEP-72
GB(I)
Sta. 430+00
Existing support to be reused in place.

Begin Taper +43
End Taper +43
8'
10'
424
426
428
430
432
Y L W
10' 12' 12' 12' 10' 12' 12' 10' 12' 12' 10' 8'

Match Line Sta. 433+00
See Below

Sta. 418+00 66' LT
= PC Sta. 0+00R

+63
8'
12' 12' 12' 12' 10'
422
420
418
22'
10' 12' 12' 12' 14' 8'
22'
+41

Match Line Sta. 417+00
See Sheet No. 432

Sta. 21+19.67 Kennedy Ave.
Sta. 417+85.5 ℄ I-71

NORTH
INTERSTATE
71
M-37-36
M-5-36-2
Sta. 426+75, 68' Rt.
110A
110B

204" X 102"
EXIT 9
Red Bank Rd
Fairfax
3/4 MILE

EXIT 9
Red Bank Rd
Fairfax
EXIT 3/4 MILE
GEP-72
GB(I)
Sta. 429+35
Existing support to be reused in place.
111

See Above
Match Line Sta. 433+00

Y L W
10' 12' 12' 12' 10' 12' 12' 12' 10' 8'
434

SPEED LIMIT 55
R-10-48
Sta. 436+00, 72' Rt.
113

End Work
Sta. 436+82.72

For Legend
See Sheet No. 411

For Kennedy Ave.
See Sheet No. 448

G:\71\2.92\T23 - JAN. 30, 1995 @ 10:20 pm

Signing and Pavement Markings – Sta. 417+00 to 433+00

CALC. BY CAB DATE 1/17/94
CHKD. BY JFC DATE 3/11/95

HAM-71-2.92

OHIO
FHWA REGION 5

434/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

Existing Support to be reused in place
Sta 4+24
GH(III)
108" X 78"
114

Sta 5+16, 23' Rt
115A 115B 115C 115D
IM-8-24
IM-37-24
M-5-24-2
IM-24-21

Sta 9+87, 42' Rt
IM-8-24 117A
IM-37-24 117B
M-5-24-2 117C
IM-24-21 117D

Sta 227+18.64TH 33' RT
= PC Sta 8+20.68 Wm Tom Rd

Essex Place

228TH

Symmes St.

Begin Work
Sta. 6+83.72

118A 118B 118C
R-43L-48
R-43R-48
R-41B-36
Sta 229+65TH, 41' Rt

Sta 12+85, 25' Rt
Sta 12+95, 25' Lt
IM-8-24 119E
IM-37-24 119F
M-5-24-2 119G
IM-21-21 119H

W.H. Taft Rd.

+49
Begin Work
Sta. 229+56.57TH

230TH

121A
R-44L-18
121B
R-41B-36
Sta 229+75TH, 3' Lt

Ramp TH
3' 12' 12' 12' 3'

Match Line
Sta 232+00TH
See Sheet No.412

Begin Work
Sta. 12+65.32

McMillan St.
12' 10' 11' 11'

Sta 9+80.00 McMillan St.
= Sta 225+44.29TC

+89
Ramp TC
5' 16' 8'
226TC

End Work
Sta. 10+85

Match Line
Sta 227+00TC
See Sheet No. 412

Sta 10+07
GH-1(III)
108" X 78"
116
Existing Support to be reused in place

Sta 16+75, 25' Rt
Sta 17+00, 25' Lt
IM-8-24 120E
IM-37-24 120F
M-5-24-2 120G
IM-21-21 120H

Taft Rd.
11' 11' 11' 11'

End Work
Sta. 17+24.07

For Legend
See Sheet No. 411

Signing and Pavement Markings - McMillan St. and Taft Rd.

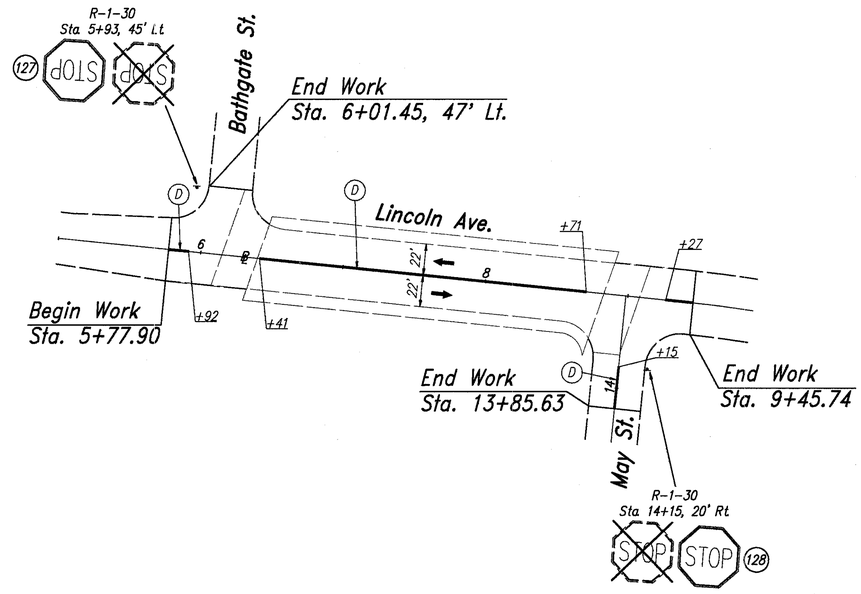
CALC. BY KAB DATE 12/7/94
CHKD. BY EF-M DATE 5/1/95

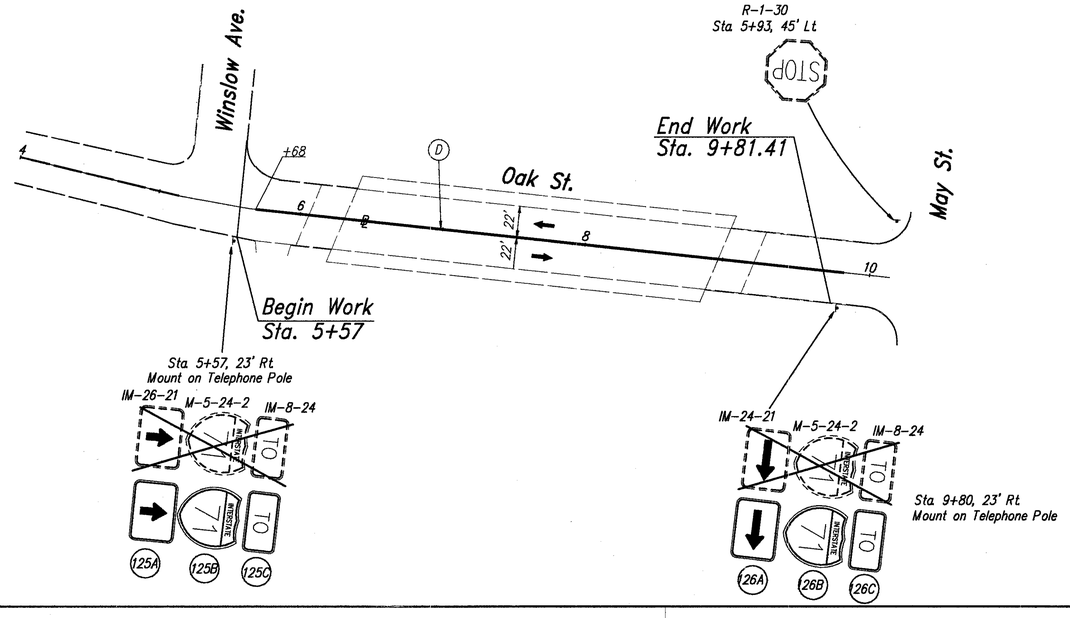
HAM-71-2.92

OHIO
FHWA REGION 5

435/615

50 0 50 100 150
GRAPHIC SCALE IN FEET





NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend
See Sheet No. 411

Signing and Pavement Markings – Oak St. and Lincoln Ave.

CALC. BY KAB DATE 12/2/98
CHKD BY D.C. DATE 2/11/05

HAM-71-2.92

OHIO
FHWA REGION 5

436
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Note: Pavement Marking Layout May Be Modified at Time of Installation To Accomodate Shared-use Bicyle Lanes or Exclusive Bike Lanes. Contact City of Cincinnati Div. of Traffic Eng. (352-3738) For Layout Assistance

Begin Work
Sta. 97+58.90

R-10-24
Sta 104+04, 43' Lt
Mount on Light Pole

SPEED LIMIT 25 SPEED LIMIT 35 (130)

End Work
Sta. 105+96.32

M. L. King Jr. Dr.

96 98 100 102 104 106 108

SPEED LIMIT 25 SPEED LIMIT 35 (129)

R-10-24
Sta 102+65, 43' Rt
Mount on Light Pole

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend
See Sheet No.411

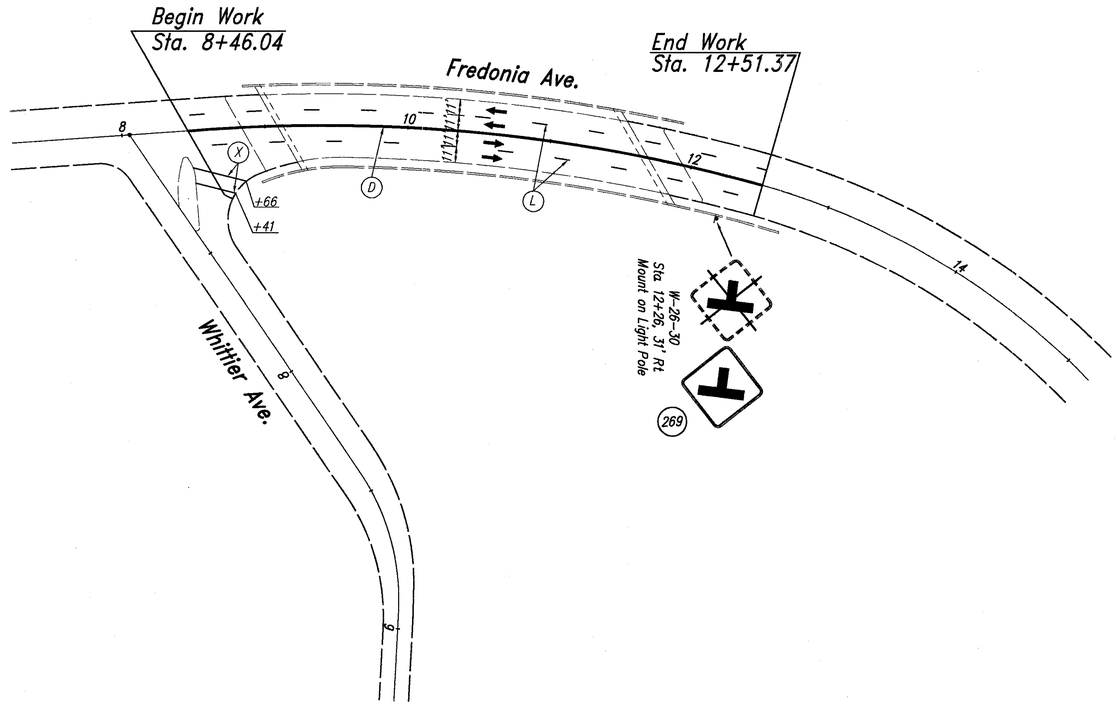
Signing and Pavement Markings – Martin L. King Jr. Dr.

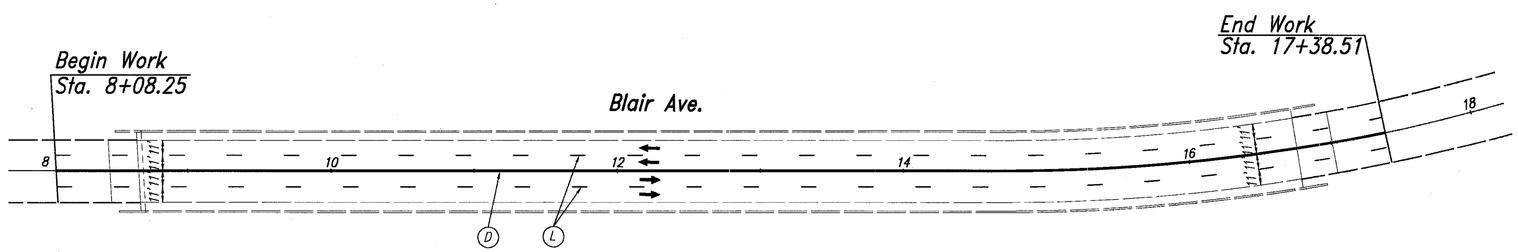
D:\717\2.92\MKING - JAN. 30, 1998 @ 10:22 am

CALC. BY KAB DATE 12/1/94	HAM-71-2.92	OHIO
CHKD BY RJN DATE 2/11/95		FHWA REGION 5

437/615

50 0 50 100 150
GRAPHIC SCALE IN FEET





NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

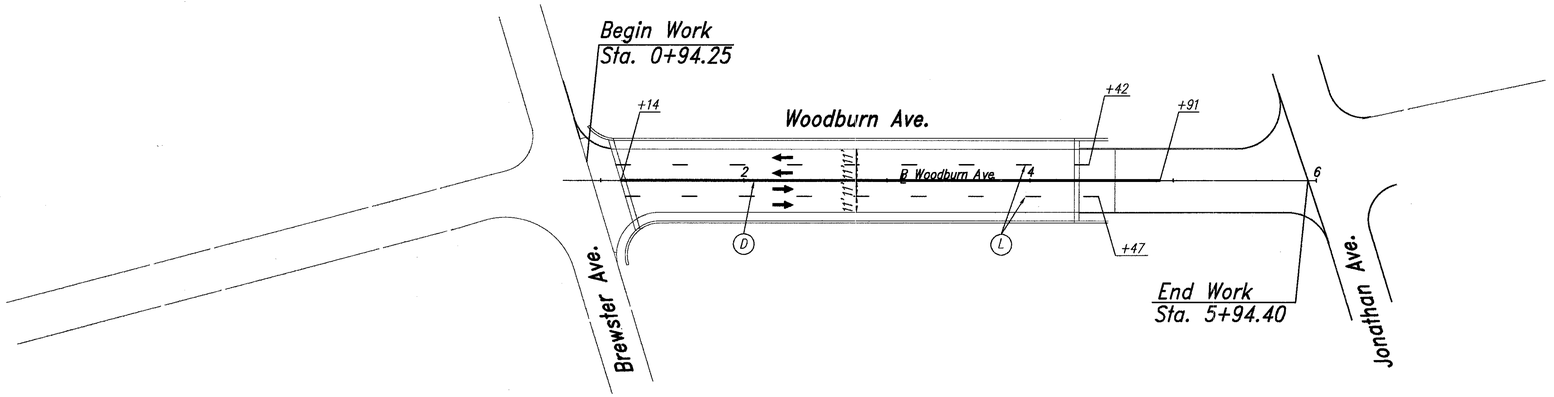
For Legend
See Sheet No. 411

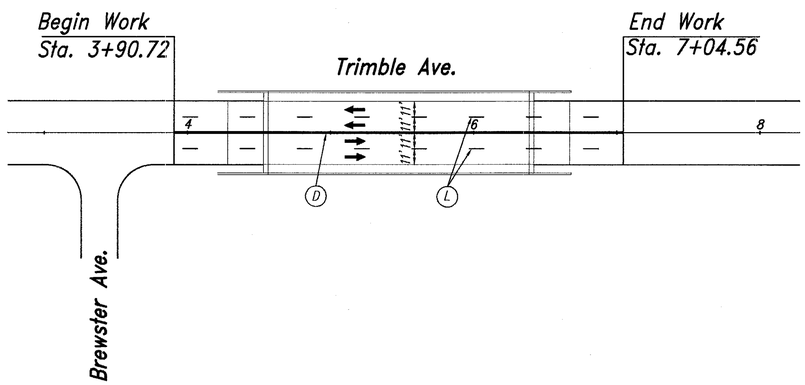
Signing and Pavement Markings – Fredonia Ave. and Blair Ave.

CALC. BY LAB DATE 12/7/94	HAM-71-2.92	OHIO
CHKD BY [illegible] DATE 3/1/95		FHWA REGION 5

438
615

50 0 50 100 150
GRAPHIC SCALE IN FEET





NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend
See Sheet No. 411

Signing and Pavement Markings – Woodburn Ave. and Trimble Ave.

D:\71\2.92\WOODBURN - JAN. 30, 1995 @ 10:53 pm

CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2/11/95

HAM-71-2.92

OHIO FHWA REGION 5

439/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 13+00 See Below

Sta. 13+40 M-52B-120 Existing support to be reused in place 120" X 48"

SOUTH KEEP LEFT NORTH KEEP LEFT

Dauner Ave.

Montgomery Rd.

R-15D-30 R-15B-30

PROHIBITED PEDESTRIANS BICYCLES MOTORCYCLES MOPEDS

PEDESTRIANS BICYCLES MOPEDS

Sta. 4+20, 55' Rt

See Sheet No.419 Sta. 335+00MER Match Line

Ramp ME

336ME

336MER

R-120-24 Sta. 4+12, 45' Rt Band to Overhead Sign Support

R-15D-30 Sta. 337+78ME, 5' Lt

R-15B-30

Match Line Sta. 2+00 See Below

Begin Work Sta. 2+04.97

Begin Taper

End Work Sta. 1+45.42

Brewster Ave.

End Taper

25' R

BASELINE SHIFT
Sta 3+99.99 Montgomery Rd. (Back)
Sta 4+00.00 Montgomery Rd. 4.12' LT (Ahead)

GH-1(III) 108" X 78"

Louisville South

Sta. 4+12 44 Rt

M-2-24-2

M-1-24-2

Sta. 4+42, 44' Rt. Mount on Telephone Pole

Jonathan Ave.

End Work Sta. 8+45

M-1-24-2

M-2-24-2

M-45-42

NORTH

Sta. 11+29, 41' Lt Band to traffic signal pole

12+00

Match Line Sta. 13+00 See Above

Sta. 12+16.33 Montgomery Rd. = Sta. 0+00 Duck Creek Rd.

Duck Creek Rd.

Clarion Ave.

Montgomery Rd.

0+00

GH(III) 108" X 78" Sta -2+00

Existing support to be reused in place

Match Line Sta. 2+00 See Above

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend See Sheet No.411

Signing and Pavement Markings – Montgomery Rd.

CALC BY KAB DATE 12/7/94
CHKD BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO FHWA REGION 5

440/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 378+00DE See Sheet No.423

Match Line Sta. 381+00DB See Sheet No.422

Match Line Sta. 380+00DC See Sheet No.423

Match Line Sta. 19+00 See Below

Match Line Sta. 5+00 See Below

Match Line Sta. 5+00 Sta. See Above

Match Line Sta. 16+00 See Left

Match Line Sta. 16+00 See Right

Match Line Sta. 19+00 See Above

MATCH EXISTING PAVEMENT MARKINGS

End Work @ Radius Return

Begin Work Sta. 5+97.19

PC Sta. 372+75.70DE = POC Sta. 7+42.77 Dana Ave.

Sta. 13+19.97 Dana Ave. = PC Sta. 20+68.28 Duck Creek Road

PC Sta. 375+64.51DA = POT Sta. 13+26.16 Dana Ave.

POT Sta. 10+64.87 38' LT = PT Sta. 385+44.59DB

POT Sta. 379+69.88DC 33.99' LT = POT Sta. 379+69.88DA

Begin Work Sta. 17+54.38

Begin Work Sta. 1+06.3

End Work Sta. 17+90.10

End Work Sta. 17+05.9, 109.3' Lt.

Ramp DE

Ramp DB

Ramp DA

Ramp DC

Floral Ave.

Dana Ave.

Duck Creek Rd.

Grigg Ave.

Redlistic Ave.

(150) R-1-30 Sta 6+23, 68' Lt

(151) W-48-30 Sta 6+59, 63' Lt

(152) R-76T-30 Sta 6+75, 45' Lt

(65A) (65B) R-41A-36 Sta 375+00DE, 31' Rt 13', LT.

(153A) (153B) (153C) R-41B-36 R-43R-48 Sta 7+71, 57' Lt R-43L-48

(154) 132" X 54"

GE(III) Sta 9+75 Existing support to be reused in place

(161) M-45-42 Sta 376+15DA, 11' Lt

(162) R-15D-30 R-15B-30 Sta 376+50DA, 25' Rt

(163) W-49R-48 WP-49-24 Sta 378+35DA, 25' Rt

(164) R-15D-30 Sta 376+20DC, 24' Lt R-15B-30

(157) R-1-30 Sta 16+55, 73' Lt Band to Telephone Pole

(158) 132" X 54"

GE(III) Sta 18+00 Existing support to be reused in place

(159) Existing support to be reused in place 108" X 96"

GH(III) Sta 22+80

(155) GH-1(III) Sta 13+46 Existing support to be reused in place 108" X 78"

(156) R-2-36 Sta 15+73, 64' Rt Mount on Light Pole

(160) Existing support to be reused in place 108" X 78"

GH(III) Sta 14+90

(149) Existing support to be reused in place 108" X 78"

GH(III) Sta 3+50

NOTE: AT ALL BEGIN AND END LOCATIONS AND AS SHOWN THE PROPOSED MARKINGS SHALL MATCH EXISTING MARKINGS.

For Legend See Sheet No. 411

Signing and Pavement Markings – Dana Ave.

CALC. BY KAB DATE 12/1/94	HAM-71-2.92	OHIO
CHKD. BY DAT DATE 2-1-95		FHWA REGION 5

441/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Sta. 10+00.16 ℄ Williams Ave.
= Sta. 24+05.89 ℄ Smith-Edmondson Rd.

(190) NORTH 71 SOUTH
NORTH SOUTH
M-52A-108
Sta. 10+65, 44' Rt

26
24
22
20
18
16
14
12
10
8

(172) NORTH KEEP LEFT KEEP RIGHT SOUTH
M-52B-120
Sta. 28+74
Existing support to be reused in place

Williams Ave.

(173) COLUMBUS NORTH
GH(III)
108" X 78"
Sta. 23+34
Existing support to be reused in place

(189) SOUTH CINCINNATI
GH(III)
108" X 78"
Sta. 9+40
Existing support to be reused in place

(174) SOUTH CINCINNATI
GE(III)
132" X 60"
Sta. 19+80
Existing support to be reused in place

P.T. Sta. 191+65.03 ℄ Smith-Edmondson Rd.
= Sta. 313+57.01A

Match Line
Sta. 9+00
See Below

(183) SOUTH CINCINNATI
GH(III)
108" X 78"
Sta. 20+67
Existing support to be reused in place

(184) NORTH 71
M-45-42
Sta. 21+09

Edwards Rd.

(185) SOUTH 71 NORTH KEEP LEFT KEEP RIGHT
M-52B-120
200' South of Willard Ave.
Existing support to be reused in place

End Work
Sta. 19+07.01

(75) STOP
R-1-30
Sta. 17+36, 35' Rt

Sta. 17+00.00 ℄ Smith-Edmondson Rd.
= Sta. 311+40.64AR

Garland Ave.

Sta. 310+94.74 ℄ I-71
Sta. 14+93.81 ℄ Smith-Edmondson Rd.

Smith-Edmondson Rd.

(178B) STOP
(178A) DO NOT ENTER
R-1-30
R-41B-36
Sta. 12+87, 42' Rt

(78C) DO NOT ENTER
R-41B-36
Sta. 12+65, 42' Rt

Atlantic Ave.

(177)
R-121-24
Sta. 13+50, 7' Lt

Sta. 12+25.00 ℄ Smith-Edmondson Rd.
= Sta. 311+43.86B

(179)
R-120-24
Sta. 10+00, 28' Rt

Existing support to be reused in place
GH(III)
108" X 78"
Sta. 10+00

(182) SOUTH CINCINNATI KEEP LEFT

(181) STOP
R-1-48
Sta. 11+36, 36' Rt

Match Line
Sta. 9+00
See Above

(186) PROHIBITED PEDESTRIANS BICYCLES MOTORCYCLES
R-15D-30
R-15B-30
Sta. 311+70A, 6' Rt

(187) KEEP RIGHT
R-2-36
Sta. 309+80A, 12' Rt

(188) PROHIBITED PEDESTRIANS BICYCLES MOTORCYCLES
R-15D-30
R-15B-30
Sta. 310+85AR, 11' Lt

Begin Work
Sta. 11+29

(180) SPEED LIMIT 25
R-10-24
Sta. 11+78, 52' Rt

Sta. 310+80B, 44' Rt
Sta. 311+00B, 15' Lt

(176) SOUTH CINCINNATI
GH(III)
108" X 78"
Existing support to be reused in place
Sta. 16+50

Match Line
Sta. 309+00A
See Sheet No. 425

Match Line
Sta. 309+50B
See Sheet No. 425

R-43L-48
R-41B-36
ENTER DO NOT ONE WAY
STOP
R-43R-48
R-1-48

(70D) (71D) (71A) (70A) (71B) (70C) (71C) (70B)

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend See Sheet No. 411

G:\71\2.92\SMITH - JAN. 30, 1995 @ 10:57 pm

Signing and Pavement Markings - Smith-Edmondson Rd.

CALC. BY KAG DATE 12/7/94
CHKD. BY [illegible] DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

442/615

50 0 50 100 150
GRAPHIC SCALE IN FEET

Sta 10+00.16 ℄ Williams Ave.
= Sta 24+05.89 ℄ Smith-Edmondson Rd

191A 191B
561
M-2-24-3
M-19-21
Sta 13+61, 33' Lt
Mount on Light Pole

198
STOP
R-1-48
Sta 320+88D, 24' Lt

201A STOP AHEAD
201B WRONG WAY
201C STOP AHEAD
WRONG WAY
W-45-48
R-41A-36
Sta 323+75D, 25' Lt
Sta 323+75D, 33' Rt
201D

See Sheet No. 426
Sta. 324+00D
Match Line

Ramp D

193
SOUTH 71 KEEP LEFT
M-45-42
Sta 15+49, 28' Lt

95A Welcome Norwood
95B Special SPEED LIMIT 25 WHEN FLASHING
SPEED LIMIT 25
95C
R-10-24
Sta 18+95, 37' Lt

196A NORTH 561 196B
M-37-24
M-2-24-3
Sta 18+95, 37' Lt

197A 197B
108" X 78"
NORTH Columbus
GH-1(W)
Sta 20+31

Williams Rd.

Begin Work
12+96.95

End Work
19+18.53

Smith-Edmondson Rd.

Edwards Rd.

Sta 320+31.64D
Sta 14+40.00 ℄ Williams Rd

199D 200D
R-1-48
200A ONE WAY
199A ONE WAY
DO NOT ENTER
200B
199B
R-43R-48
R-43L-48
R-41B-36
199C 200C
Sta 320+95D, 20' Rt
Sta 321+15D, 52' Rt

R-1-48
R-41B-36

Sta 321+59.18 ℄ I-71
Sta 17+12.74 ℄ Williams Rd

GH-1(W)
Sta 15+35

NORTH Columbus KEEP LEFT
192
108" X 78"

Sta 18+67, 31' Rt
Mount on Light Pole

194A 194B

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend
See Sheet No. 411

D:\717\2\SIGWILKM - JAN. 30, 1995 @ 10:58 pm

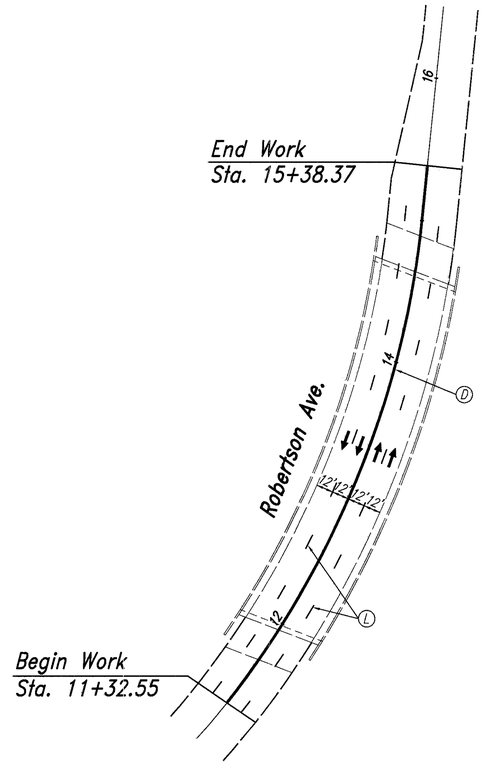
Signing and Pavement Markings – Williams Rd.

CALC. BY KAB DATE 12/2/94	HAM-71-2.92	OHIO
CHKD BY D.M. DATE 2-1-95		FHWA REGION 5

443/615

50 0 50 100 150

GRAPHIC SCALE IN FEET

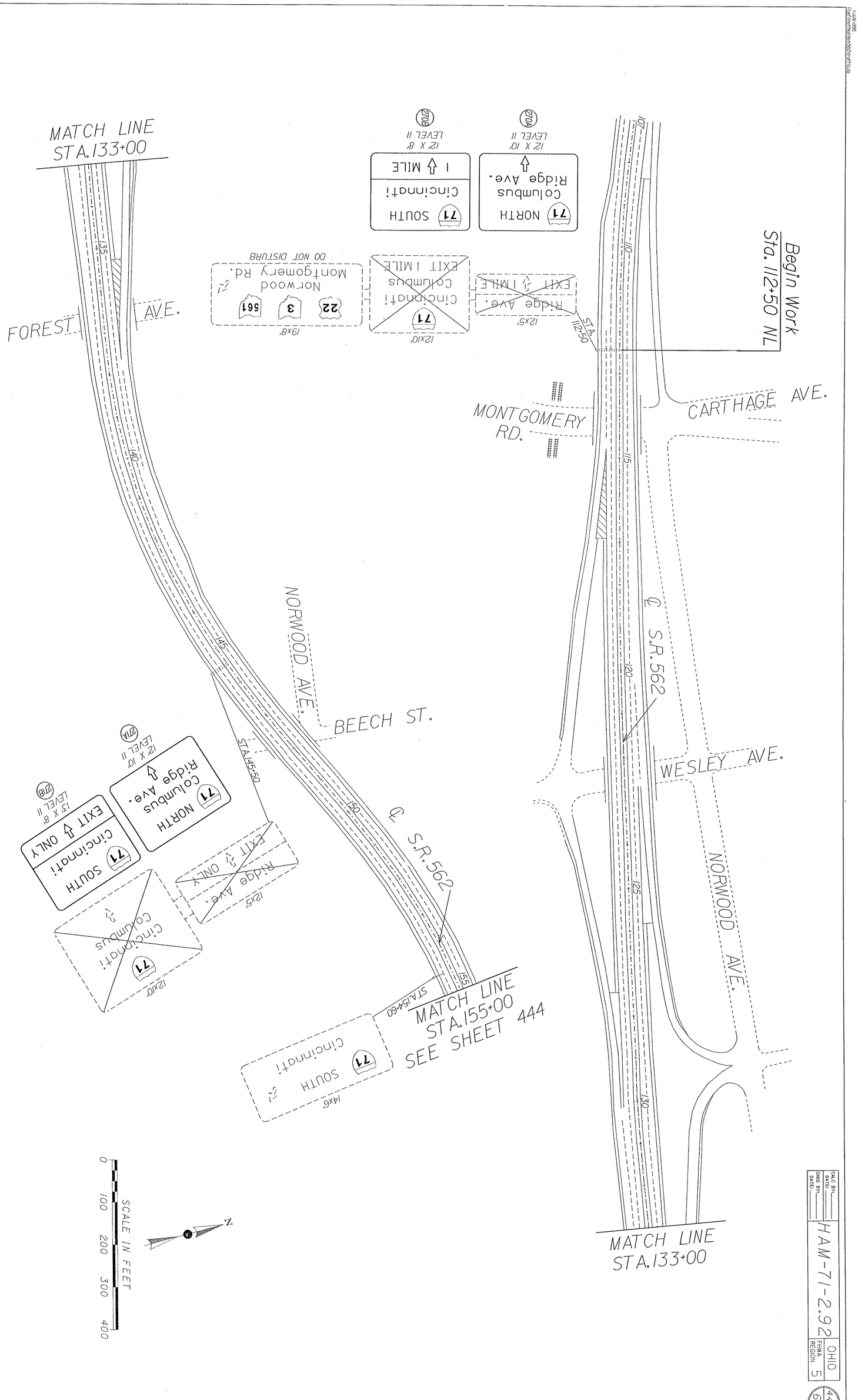


NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend
See Sheet No. 411

Signing and Pavement Markings – Robertson Ave.

G:\71\2.92\ROBERT – JAN. 30, 1995 @ 10:59 pm



DES'D BY:
DATE:
DWG BY:
DATE:

HAM-71-2.92

OHIO
FHWA REGION 5

444A
615

Signing and Pavement Markings - Norwood Lateral

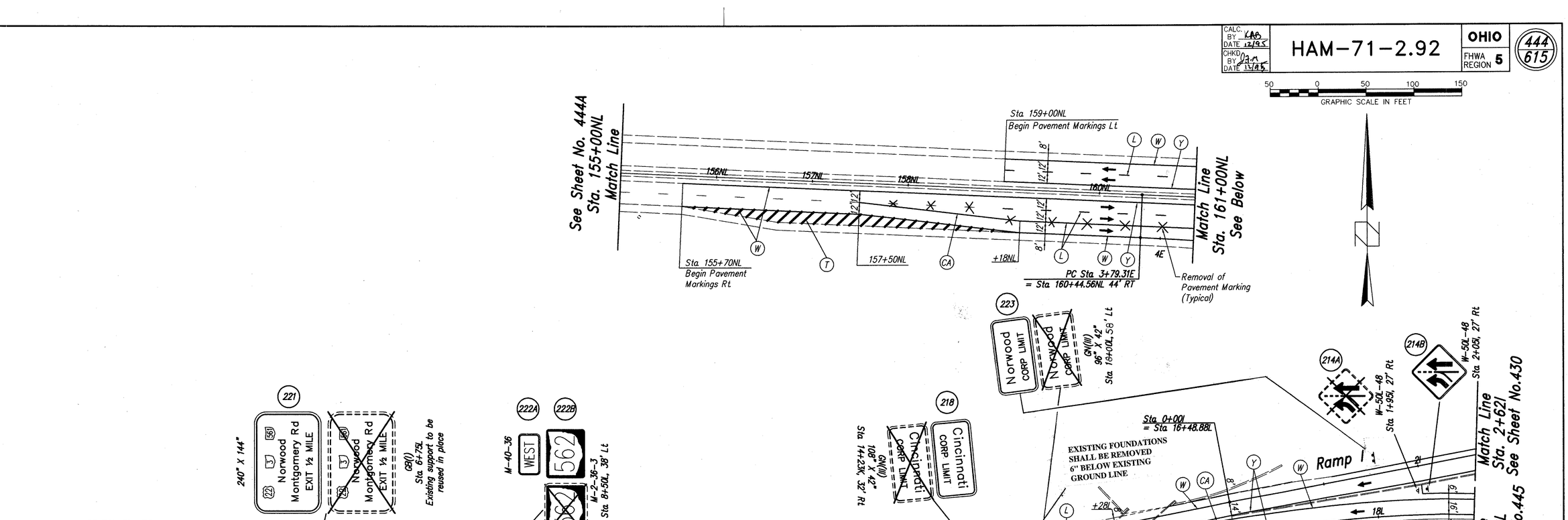
CALC. BY KAB DATE 12/95
CHKD BY JJM DATE 12/95

HAM-71-2.92

OHIO
FHWA REGION 5

444
615

50 0 50 100 150
GRAPHIC SCALE IN FEET



For Legend
See Sheet No. 411

Signing and Pavement Markings – Norwood Lateral

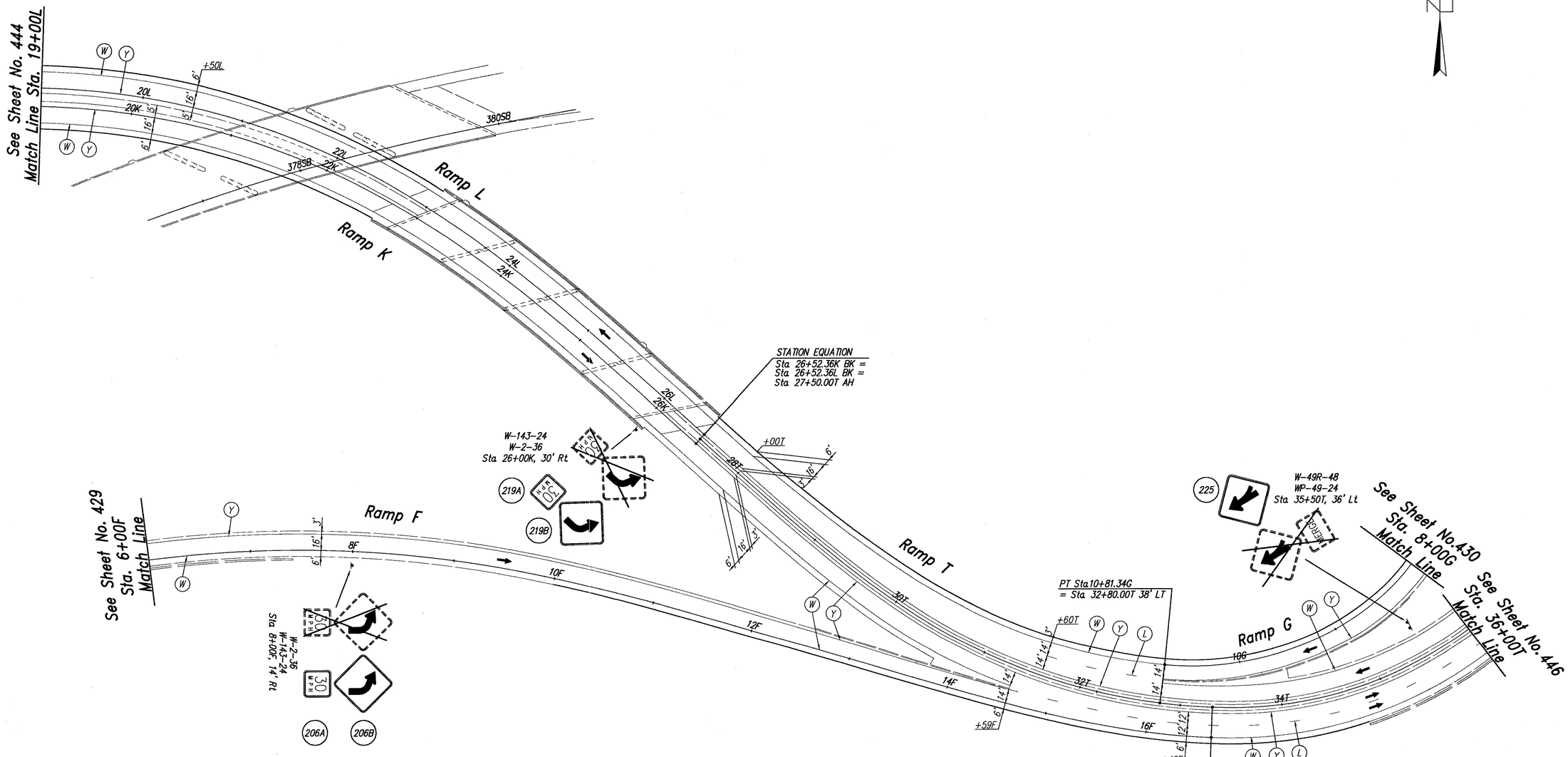
CALC. BY KAP DATE 12/7/94
CHKD. BY [illegible] DATE 3-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

445/615

50 0 50 100 150
GRAPHIC SCALE IN FEET



NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

Signing and Pavement Markings – Ramps F, G, K, L, T

D:\TXS\83\VATERIAZ - JAN. 30, 1995 @ 11:01 pm

CALC. BY KAD DATE 12/2/94
CHKD BY LM DATE 2/1/95

HAM-71-2.92

OHIO
FHWA REGION 5

446
615

50 0 50 100 150
GRAPHIC SCALE IN FEET

See Sheet No. 430
Sta. 2+00H
Match Line

Ramp H

Ramp M

Ramp H1

Ramp T

Ramp U

PC Sta 6+28.71H
= PC Sta 6+28.71H 6' LT

PC Sta 0+00M
= Sta 12+39.40H 18' LT

Sta 0+00H1
= Sta 42+96.79T

PC Sta 0+00U
= Sta 43+00T 30' LT

Match Line
Sta. 36+00T
See Sheet No. 445

Match Line
Sta. 48+75T
See Sheet No.447

Match Line
Sta. 6+00H1
See Sheet No.447

Match Line
Sta. 4+00M
See Sheet No.447

End Work
Sta. 4+07.05U

227B W-49R-48 Sta 44+94T, 32' Lt

227A W-49R-48 WP-49-24 Sta 44+57T, 29' Lt

210 R-2-60 Sta 12+50H, 33' Rt

211A W-49R-48 Sta 13+46H, 25' Rt

211B W-49R-48 WP-49-24 Sta 14+00H, 25' Rt

211C

212A 144" X 54" SOUTH Cincinnati GE(III) Sta 15+65H

212B 120" X 54" WEST 562 Norwood GE(III) Sta 15+65H

226 D-4B-120 Sta 44+00T, 52' Rt

236 R-41A-36 Sta 2+70U, 30' Lt

237B R-41B-36 Sta 4+00U, 14' Rt

237A R-41B-36 Sta 4+00U, 30' Lt

235A W-97-48 R-41A-36 Sta 2+00U, 14' Rt

235B

228 W-47-48 WP-47-24 Sta 46+15T, ℄

229 R-41A-36 Sta 47+80T, 57' Rt

230A R-26A-36

230B R-26A-36

230C R-27A-36 Sta 48+50T Existing support to be reused in place

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend See Sheet No. 411

Signing and Pavement Markings – Ramps H, H1, M, T, U

CALC. BY KAB DATE 12/1/94
CHKD. BY [illegible] DATE 12-1-95

HAM-71-2.92

OHIO FHWA REGION 5

447/615

GRAPHIC SCALE IN FEET 50 0 50 100 150

See Sheet No.446 Match Line Sta. 48+75T

See Sheet No.446 Match Line Sta. 6+00H1

See Sheet No.446 Match Line Sta. 4+00M

Ramp T

Ramp M

Ramp H

Ramp N

Ridge Ave.

Highland Ave.

234 R-2-36 Sta 50+47T, 121' Rt

233 R-15D-30 R-15B-30 Sta 1+16T1, 6' Lt

231A R-43L-48 231B R-41B-36 231C R-43R-48 Sta 50+87T, 39' Rt

End Work Sta 1+38.50T2

End Work Sta 50+99.30T

End Work Sta 1+21.67T1

End Work Sta 6+48.55M

Sta 18+30.33H = POC Sta 8+04.64H1 16' Rt.

241 R-121-36 Sta 23+55, 30' Lt

Existing support to be reused in place 120" X 60" 238 WEST 562 Norwood GE(III) Sta 21+45, 35' Lt

Sta 50+92T, 1' Lt

232A R-43L-48 232B R-41B-36 232C R-43R-48 Sta 21+10, 26' Lt

R-44L-24 R-41B-36 R-44R-24

Sta 51+23.83T = Sta 21+12.36 Ridge Ave.

239 R-121-36 Sta 21+59, 31' Lt

240 Columbus NORTH 132" X 60" GE(III) Sta 22+08 Mount on Ramp H Bridge Existing support to be reused in place

Sta 25+00H = Sta 25+00 Barrow Ave. 4' RT

End Work Sta 24+07.41H

213A NORTH Columbus 132" X 60"

213B SOUTH 562 Cincinnati Norwood WEST 180" X 78" GE(III) Sta 43+16 Ridge Ave. Existing support to be reused in place

Existing support to be reused in place 132" X 60" 242B SOUTH Cincinnati GE(III) Sta 25+80

120" X 78" 242A WEST 562 Norwood SECOND RIGHT GB(III)

108" X 78" Existing support to be reused in place 245A SOUTH 71 Cincinnati 245B SOUTH 71 Cincinnati GH(III) Sta 33+90

Sta 41+05.14 Ridge Ave = Sta 34+82.23 Highland Ave. Ext.

M-45-42 246 NORTH Sta 36+50

End Work Sta. 31+90.79

Match Line Sta. 38+00 See Below

108" X 78" Existing support to be reused in place NORTH 23 Columbus GH(III) Sta 40+00

Begin Work Sta. 28+2.74

244 Ridge Ave.

PT Sta 7+11.85M 34' LT = Sta 24+30.16 Ridge Ave.

248D R-50R-48 Sta 26+20, 30' Rt

End Work Sta 13+79.31N Sta 28+43.45 Ridge Ave. ST Sta 14+72.95N

Sta 404+81.00 Q (Projected Back) Sta 29+96.64 Ridge Ave.

243 180" X 96" SOUTH 562 WEST Cincinnati Norwood KEEP RIGHT GB(III) Sta 37+75

248C R-50R-48 Sta 12+77N, 14' Lt

248A WRONG WAY 248B R-41A-36 Sta 12+00N, 29' Lt Sta 12+00N, 14' Rt

Match Line Sta. 33+00 See Above

Match Line Sta. 38+00 See Above

Match Line Sta. 8+00N See Sheet No.432

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

For Legend See Sheet No. 411

Signing and Pavement Markings – Ridge Ave.

CALC. BY KAB DATE 12/19/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

448/615

NOTE: AT ALL BEGIN WORK AND END WORK LOCATIONS THE PROPOSED MARKINGS SHALL MATCH THE EXISTING MARKINGS.

GRAPHIC SCALE IN FEET 50 0 50 100 150

End Work Sta. 10+14.50R

POC Sta 43+03.07 Highland Ave Ext = Sta 10+39.41R

256G R-43L-48 ONE WAY; R-1-48 STOP; DO NOT ENTER; R-41B-36; 256E STOP; DO NOT ENTER; 256F ONE WAY R-43R-48; 256H Sta 10+08R, 23' Lt

255 WRONG WAY R-41A-36 Sta 7+64R, 30' Lt Sta 7+64R, 22' Rt

Ramp R

Sta. 6+00R Match Line See Sheet No. 432

256A STOP; DO NOT ENTER; 256B; 256D ONE WAY R-43R-48; R-43L-48 ONE WAY 256C; R-1-48 STOP; DO NOT ENTER; R-41B-36; Sta 10+08R, 47' Rt

254 Kennedy Ave Ridge Ave D-4B-156 Sta 6+50R, 19' Rt

258 Kennedy Ave Ridge Ave D-4B-156 Sta 43+00, 36' Lt

GH(III) Sta 45+00 KEEP RIGHT Columbus NORTH 259 108" X 78"

260 SOUTH 71 M-45-42 Sta 46+00, 38' Lt

Highland Ave.

268A GH(III) Columbus NORTH; Columbus NORTH 108" X 78"

GH(III) Columbus Cincinnati; Columbus Cincinnati 108" X 96" 268B Sta 80+65

251 YIELD R-2-60 Sta 1+75P1, 7' Rt

249 PROHIBITED PEDESTRIANS BICYCLES MOTORCYCLES R-15D-30 Sta 2+50P, 14' Rt

Begin Work Sta. 2+04.95P

132" X 54" NORTH Columbus; NORTH Columbus GH-1(III) Sta 14+00 263

250 PROHIBITED PEDESTRIANS BICYCLES MOTORCYCLES R-15D-30 Sta 1+00P1, 6' Rt

TS Sta 0+00P = Sta 15+87.85 Kennedy Ave.

℄ Ramp P1

Begin Work Sta. 18+73.59

266A TO NORTH; 266B TO NORTH INTERSTATE 71; 266C INTERSTATE 71; 266D Sta 23+50, 89' Lt

IM-8-24 IM-37-24 IM-5-24-2 IM-26-21

267 108" X 78" SOUTH Cincinnati; SOUTH Cincinnati GH(III) Sta 25+00

Duck Creek Rd.

Begin Work Sta. 0+36.00P1

Sta 0+00P1 = Sta 12+00 Kennedy Ave.

GH-1(III) Sta 12+30 Columbus NORTH; Columbus NORTH 108" X 78" 262

GH(III) Sta 18+00 KEEP LEFT Cincinnati SOUTH; SOUTH Cincinnati KEEP LEFT 108" X 78" 264

Kennedy Ave.

Sta 21+18.62 ℄ Kennedy Ave. = Sta 417+85.42 ℄ I-71

STOP AHEAD 265 W-45A-36 Sta 19+21, 18' Rt

End Work Sta. 23+48.39

Sta 24+26.61 ℄ Kennedy Ave. = Sta 50+00.00 ℄ Highland Ave.

Columbus NORTH GH(III) Sta 0+35; Columbus NORTH 261 108" X 78"

For Legend See Sheet No. 411

Signing and Pavement Markings – Kennedy Ave.

CALC. BY LAB DATE 12/15/94
CHKD BY [illegible] DATE 12-15-95

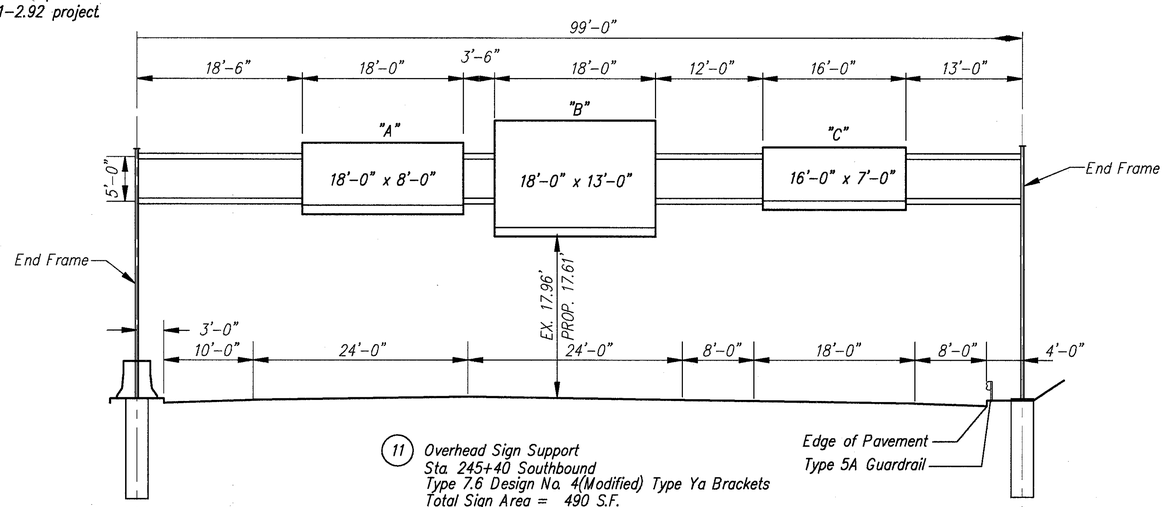
HAM-71-2.92

OHIO
FHWA REGION 5

449
615

5 0 5 10 15 20
SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.
Signs replaced as part of HAM-71-1.30/9.00 project.
Lighting to be replaced in HAM-71-2.92 project.



(11) Overhead Sign Support
Sta. 245+40 Southbound
Type 7.6 Design No. 4(Modified) Type Ya Brackets
Total Sign Area = 490 S.F.

"A"

18'-0" x 7'-0" = 126 S.F.
No. of Brackets = 3 Ht. = 8'-0"
Spacing = 8 5/8", 99 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaire @

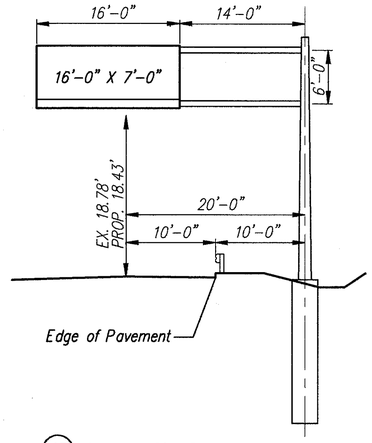
"B"

18'-0" x 12'-0" = 216 S.F.
No. of Brackets = 3 Ht. = 13'-0"
Spacing = 8 5/8", 99 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @

"C"

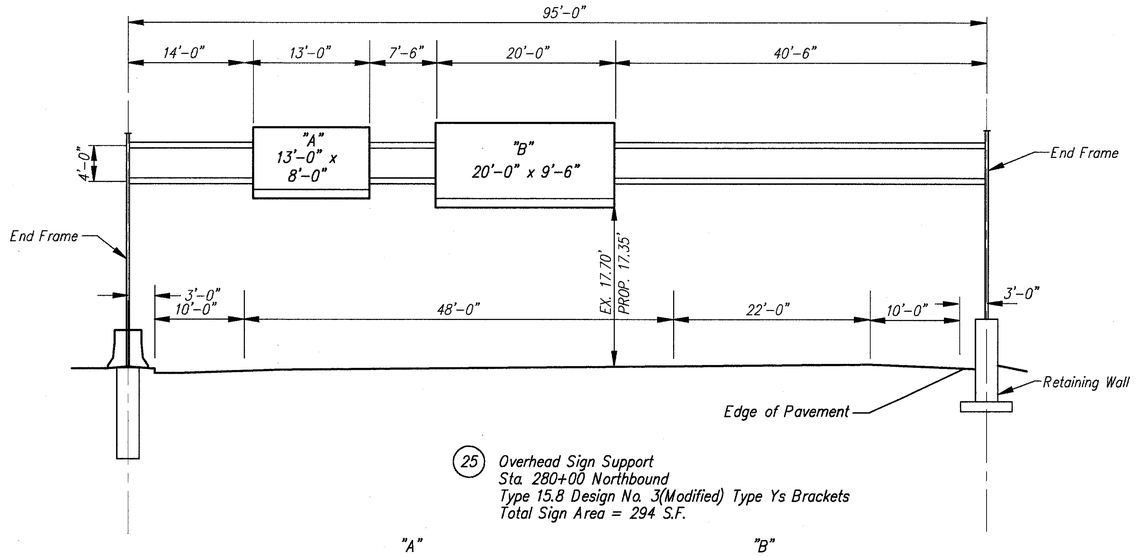
16'-0" x 6'-0" = 96 S.F.
No. of Brackets = 3 Ht. = 7'-0"
Spacing = 8 5/8", 75 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(17) Overhead Sign Support
Sta. 258+25 Southbound
Type 12.24, Design No. 8(Modified), 30' Arm
Total Sign Area = 16'-0" X 7'-0" = 112 S.F.
Effective Sign Area = 16'-0" X 6'-0" = 96 S.F.
No. of Brackets = 3 Ht. = 7'-0"
Spacing = 8⅝", 75⅜", 99⅜", 8⅝"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(25) Overhead Sign Support
Sta. 280+00 Northbound
Type 15.8 Design No. 3(Modified) Type Ys Brackets
Total Sign Area = 294 S.F.

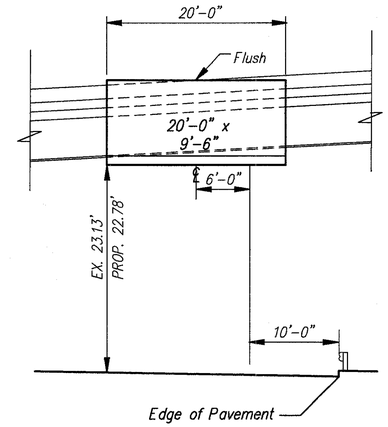
"A"

13'-0" x 7'-0" = 91 S.F.
No. of Brackets = 3 Ht. = 8'-0"
Spacing = 6", 72", 72", 6"
Fixtures = 2 Luminaires @ 175W

"B"

20'-0" x 8'-6" = 170 S.F.
No. of Brackets = 4 Ht. = 9'-6"
Spacing = 7", 75⅜", 75⅜", 75⅜", 6⅞"
Fixtures = 3 Luminaires @ 175W

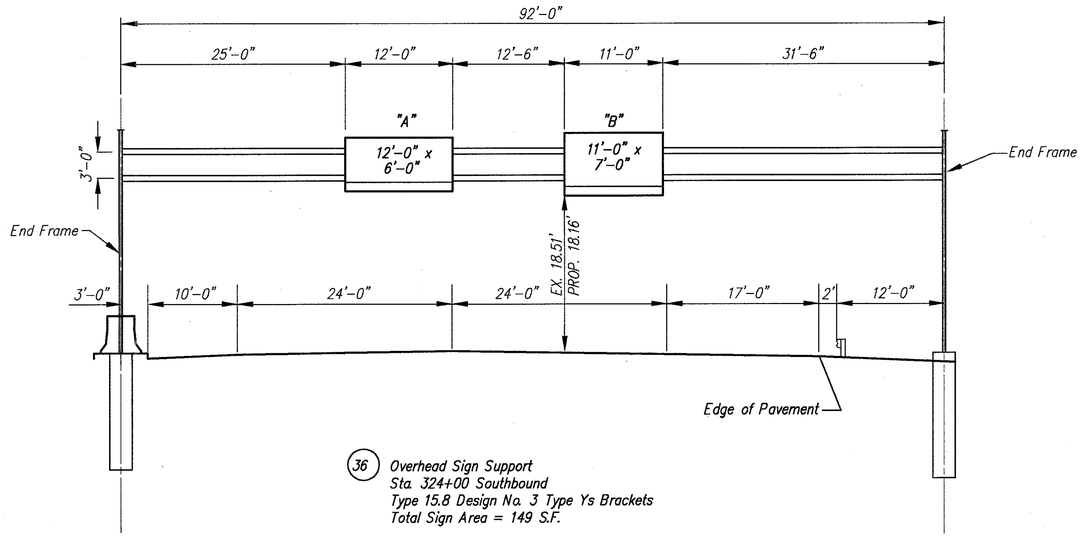
Note: Existing support to be reused in place.



(34) Bridge Mounted Sign Support
Sta. 322+70 Northbound
Type TC-18.26
Total Sign Area = 20'-0" x 9'-6" = 190 S.F.
Effective Sign Area = 20'-0" x 8'-6" = 170 S.F.
"S"=3 @ 6', "T"= 5'9½"
W1=2', W2=3'6⅝", W3=5'1¼", W4=6'7⅞"
Frame 1=3"x3"x¼", Frame 2=4"x4"x¼"
Frame 3=6"x4"x⅜", Frame 4=6"x4"x⅜"
Fixtures = 3 Luminaires @ 175W

GUIDE SIGN ELEVATION VIEWS

Note: Existing support to be reused in place.



(36) Overhead Sign Support
Sta. 324+00 Southbound
Type 15.8 Design No. 3 Type Ys Brackets
Total Sign Area = 149 S.F.

"A"

12'-0" x 5'-0" = 60 S.F.
No. of Brackets = 3 Ht = 6'-0"
Spacing = 6", 66", 66", 6"
Fixtures = 2 Luminaires @ 100W

"B"

11'-0" x 6'-0" = 66 S.F.
No. of Brackets = 2 Ht = 7'-0"
Spacing = 16⅜", 99⅜", 16¼"
Fixtures = 1 Luminaire @ 175W

Note: Existing support to be reused in place.

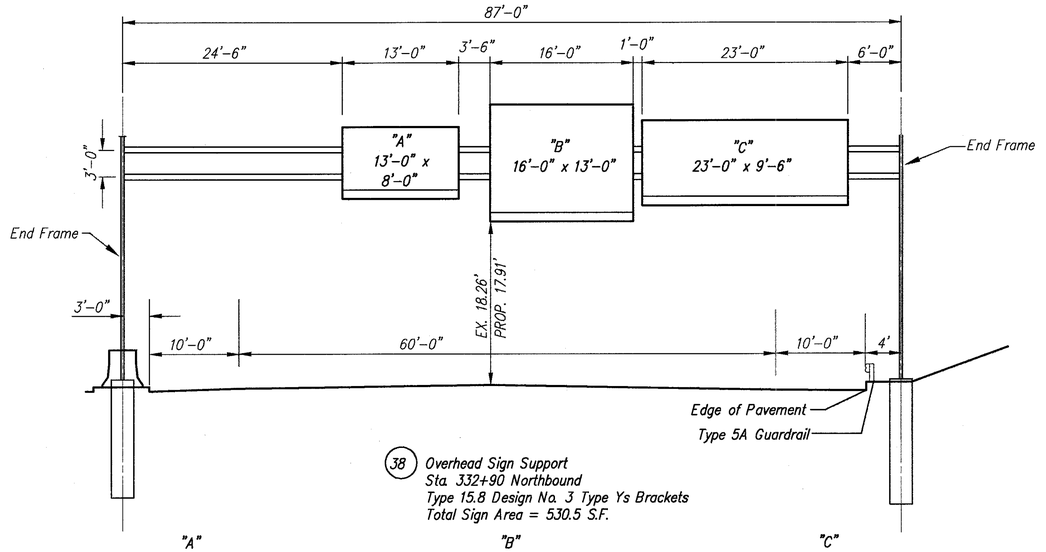
CALC. BY KAG DATE 12/7/94
CHKD. BY J.A.M DATE 2-7-1995

HAM-71-2.92

OHIO
FHWA REGION 5

450/615

5 0 5 10 15 20
SCALE: 1/8" = 1'-0"



(38) Overhead Sign Support
Sta. 332+90 Northbound
Type 15.8 Design No. 3 Type Ys Brackets
Total Sign Area = 530.5 S.F.

"A"

13'-0" x 7'-0" = 91 S.F.
No. of Brackets = 3 Ht = 8'-0"
Spacing = 6", 72", 72", 6"
Fixtures = 2 Luminaires @ 175W

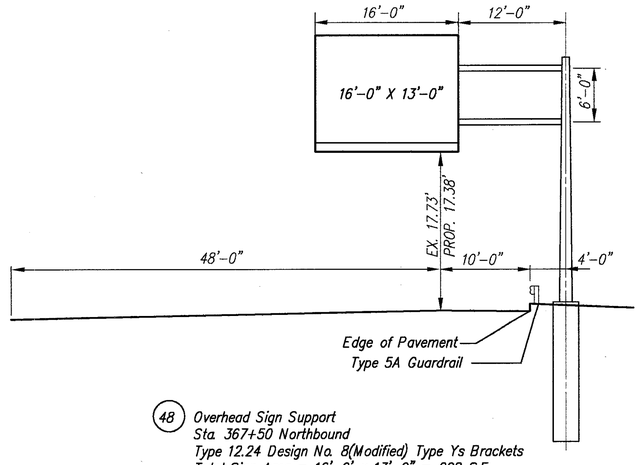
"B"

16'-0" x 12'-0" = 192 S.F.
No. of Brackets = 3 Ht = 13'-0"
Spacing = 8⅜", 75⅛", 99⅜", 8⅜"
Fixtures = 2 Luminaires @ 250W

"C"

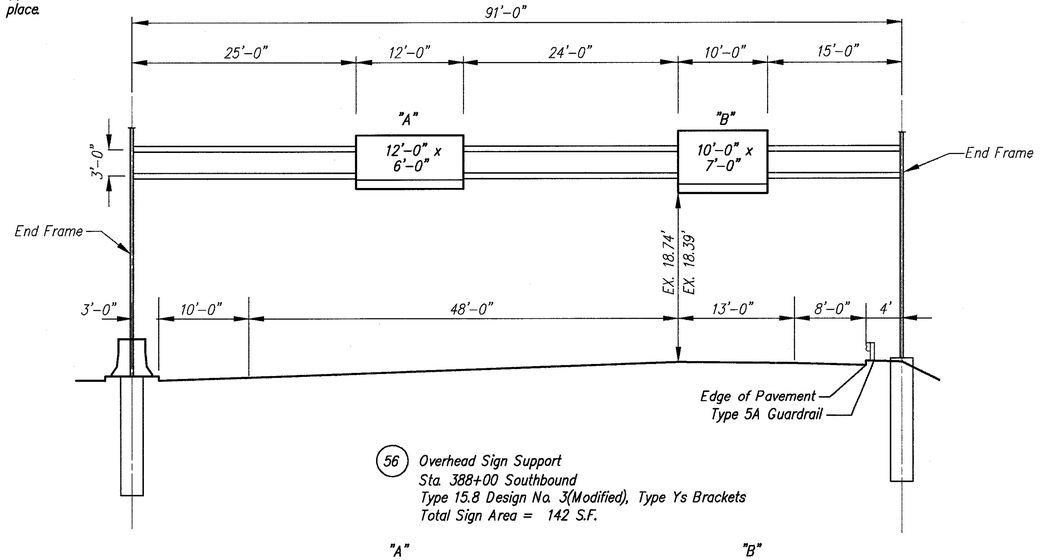
23'-0" x 8'-6" = 195.5 S.F.
No. of Brackets = 4 Ht = 9'-6"
Spacing = 13", 75⅛", 75⅛", 99⅜", 12⅞"
Fixtures = 3 Luminaires @ 175W

Note: Existing support to be reused in place.



(48) Overhead Sign Support
Sta. 367+50 Northbound
Type 12.24 Design No. 8(Modified) Type Ys Brackets
Total Sign Area = 16'-0" x 13'-0" = 208 S.F.
Effective Sign Area = 16'-0" x 12'-0" = 192 S.F.
No. of Brackets = 3 Ht = 13'-0"
Spacing = 8⅜", 75⅛", 99⅜", 8⅜"
Fixtures = 2 Luminaires @ 250W

Note: Existing support to be reused in place.



(56) Overhead Sign Support
Sta. 388+00 Southbound
Type 15.8 Design No. 3(Modified), Type Ys Brackets
Total Sign Area = 142 S.F.

"A"

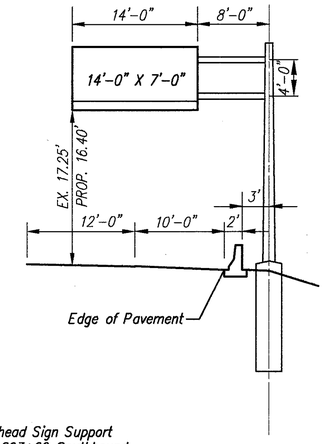
12'-0" x 5'-0" = 60 S.F.
No. of Brackets = 3 Ht = 6'-0"
Spacing = 6", 66", 66", 6"
Fixtures = 2 Luminaires @ 100W

"B"

10'-0" x 6'-0" = 60 S.F.
No. of Brackets = 2 Ht = 7'-0"
Spacing = 10⅜", 99⅜", 10¼"
Fixtures = 1 Luminaire @ 175W

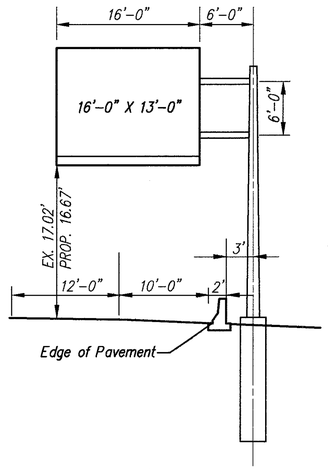
GUIDE SIGN ELEVATION VIEWS

Note: Existing support to be reused in place.



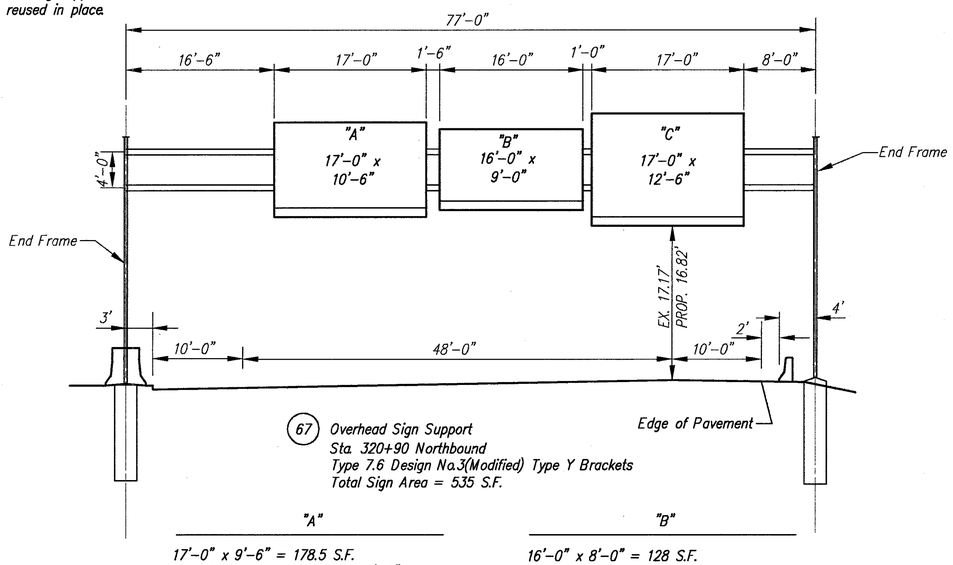
(57) Overhead Sign Support
Sta. 293+00 Southbound
Type 12.24 Design No. 4(Modified), 22' Arms
Total Sign Area = 14'-0" x 7'-0" = 112 S.F.
Effective Sign Area = 14'-0" x 6'-0" = 98 S.F.
No. of Brackets = 3 Ht. = 8'-6"
Spacing = 8 5/8", 75 3/8", 75 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(59) Overhead Sign Support
Sta. 295+07 Southbound
Type 12.24 Design No. 6(Modified), 22' Arms
Total Sign Area = 16'-0" x 13'-0" = 208 S.F.
Effective Sign Area = 16'-0" x 12'-0" = 192 S.F.
No. of Brackets = 3 Ht = 13'-0"
Spacing = 8⅝", 75⅜", 99⅜", 8⅝"
Fixtures = 2 Luminaires @ 250W

Note: Existing support to be reused in place.



(67) Overhead Sign Support
Sta. 320+90 Northbound
Type 7.6 Design No. 3(Modified) Type Y Brackets
Total Sign Area = 535 S.F.

"A"

17'-0" x 9'-6" = 178.5 S.F.
No. of Brackets = 3 Ht = 10'-6"
Spacing = 14⅝", 75⅜", 99⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

"B"

16'-0" x 8'-0" = 128 S.F.
No. of Brackets = 3 Ht = 9'-0"
Spacing = 8⅝", 75⅜", 99⅜", 8⅝"
Fixtures = 2 Luminaires @ 175W

"C"

17'-0" x 11'-6" = 195.5 S.F.
No. of Brackets = 3 Ht = 12'-6"
Spacing = 14⅝", 75⅜", 99⅜", 14⅝"
Fixtures = 2 Luminaires @ 250W

Note: Existing support to be reused in place.

CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

451
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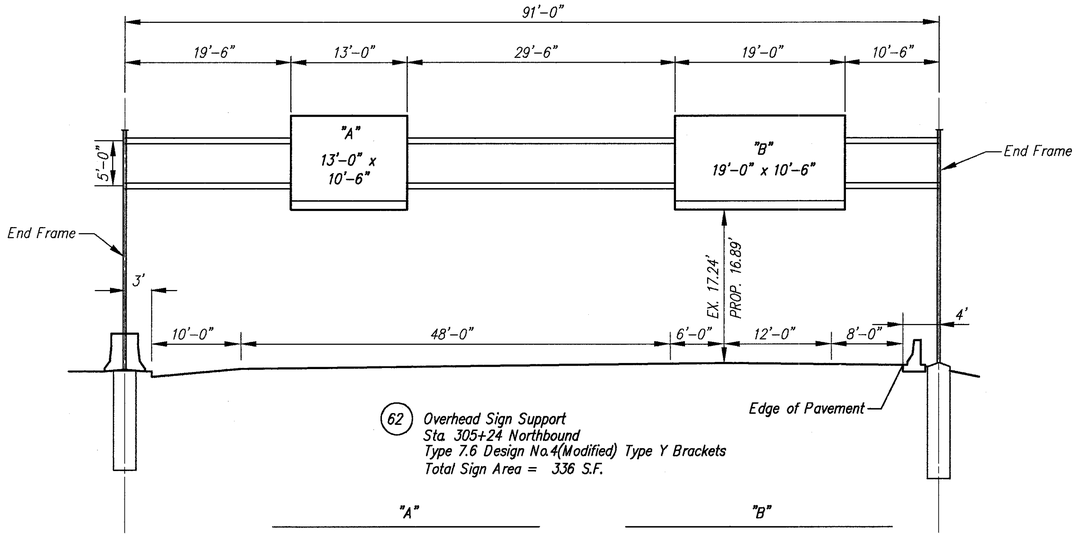
5 0 5 10 15 20
SCALE: 1/8" = 1'-0"



(62) Overhead Sign Support
Sta. 305+24 Northbound
Type 7.6 Design No. 4(Modified) Type Y Brackets
Total Sign Area = 336 S.F.

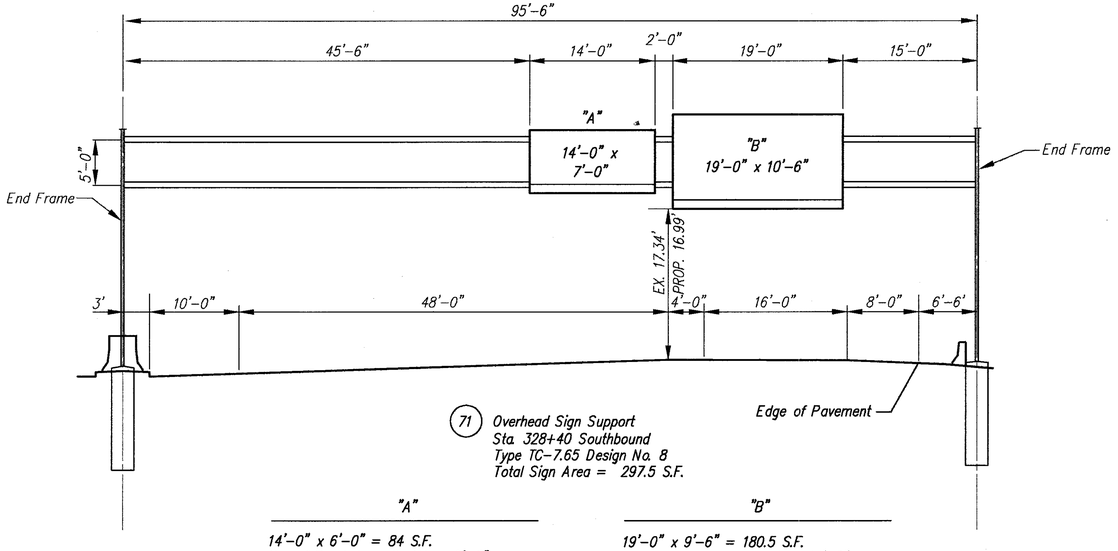
"A"

13'-0" x 9'-6" = 123.5 S.F.
No. of Brackets = 3 Ht = 10'-6"
Spacing = 6", 72", 72", 6"
Fixtures = 2 Luminaires @ 175W

"B"

19'-0" x 9'-6" = 180.5 S.F.
No. of Brackets = 3 Ht = 10'-6"
Spacing = 14⅝", 99⅜", 99⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(71) Overhead Sign Support
Sta. 328+40 Southbound
Type TC-7.65 Design No. 8
Total Sign Area = 297.5 S.F.

"A"

14'-0" x 6'-0" = 84 S.F.
No. of Brackets = 3 Ht = 7'-0"
Spacing = 8⅝", 75⅜", 75⅜", 8⅝"
Fixtures = 2 Luminaires @ 175W

"B"

19'-0" x 9'-6" = 180.5 S.F.
No. of Brackets = 3 Ht = 10'-6"
Spacing = 14⅝", 99⅜", 99⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

GUIDE SIGN ELEVATON VIEWS

G:\71\2.92\ELEV\ELEV2\ELEVENS - JAN. 30, 1995 @ 8:27 pm

CALC. BY KAB DATE 12/1/94
CHKD. BY J.M. DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

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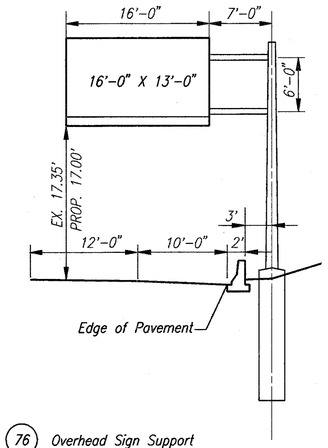
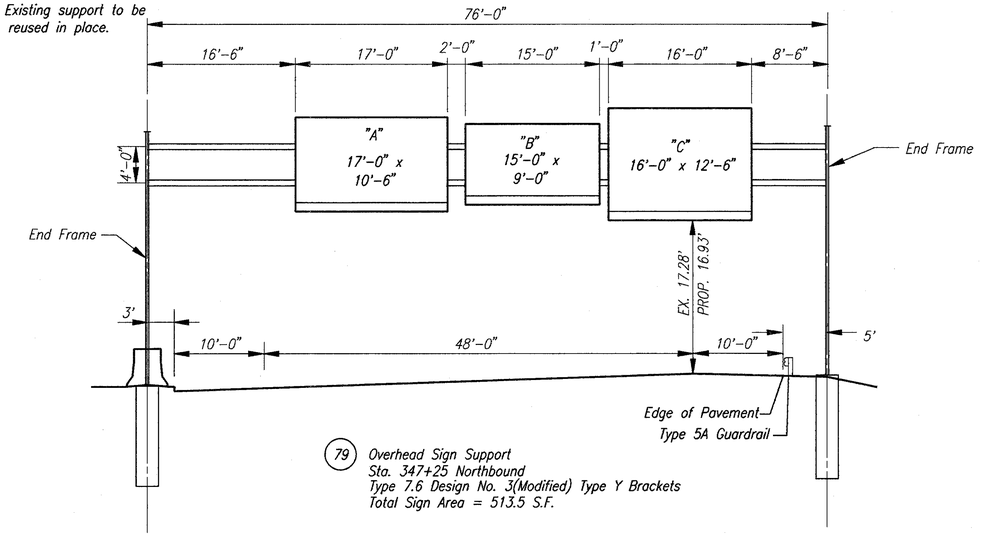
SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.



(76) Overhead Sign Support
Sta. 341+33 Southbound
Type 12.24 Design No. 6, 23' Arms
Total Sign Area = 16'-0" x 13'-0" = 208 S.F.
Effective Sign Area = 16'-0" x 12'-0" = 192 S.F.
No. of Brackets = 3 Ht. = 13'-0"
Spacing = 8 5/8", 75 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 250W

Note: Existing support to be reused in place.



(79) Overhead Sign Support
Sta. 347+25 Northbound
Type 7.6 Design No. 3(Modified) Type Y Brackets
Total Sign Area = 513.5 S.F.

"A"

17'-0" x 9'-6" = 161.5 S.F.
No. of Brackets = 3 Ht. = 10'-6"
Spacing = 14 5/8", 75 3/8", 99 3/8", 14 5/8"
Fixtures = 2 Luminaires @ 175W

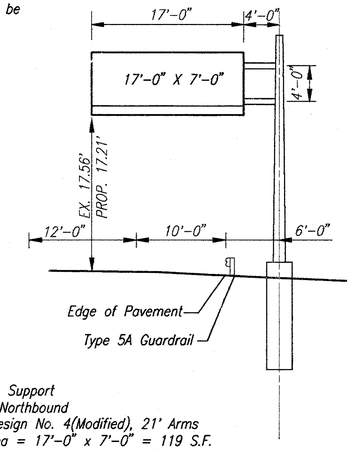
"B"

15'-0" x 8'-0" = 120 S.F.
No. of Brackets = 3 Ht. = 9'-0"
Spacing = 14 5/8", 75 3/8", 75 3/8", 14 5/8"
Fixtures = 2 Luminaires @ 175W

"C"

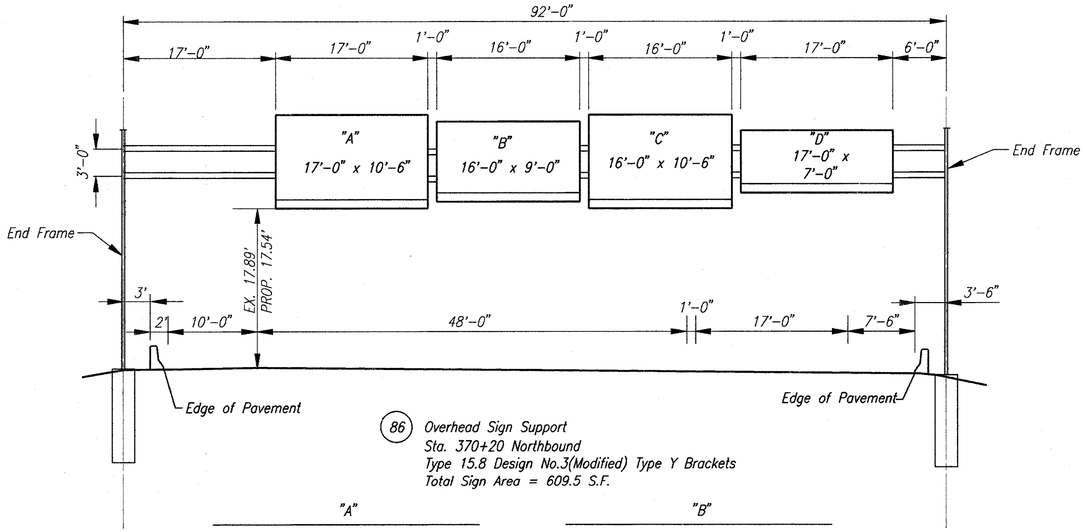
16'-0" x 11'-6" = 184 S.F.
No. of Brackets = 3 Ht. = 12'-6"
Spacing = 8 5/8", 75 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 250W

Note: Existing support to be reused in place.



(83) Overhead Sign Support
Sta. 362+15 Northbound
Type 12.24 Design No. 4(Modified), 21' Arms
Total Sign Area = 17'-0" x 7'-0" = 119 S.F.
Effective Sign Area = 17'-0" x 6'-0" = 102 S.F.
No. of Brackets = 3 Ht. = 7'-0"
Spacing = 14 5/8", 75 3/8", 99 3/8", 14 5/8"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(86) Overhead Sign Support
Sta. 370+20 Northbound
Type 15.8 Design No.3(Modified) Type Y Brackets
Total Sign Area = 609.5 S.F.

"A"

17'-0" x 9'-6" = 161.5 S.F.
No. of Brackets = 3 Ht. = 10'-6"
Spacing = 14 5/8", 75 3/8", 99 3/8", 14 5/8"
Fixtures = 2 Luminaires @ 175W

"B"

16'-0" x 8'-0" = 128 S.F.
No. of Brackets = 3 Ht. = 9'-0"
Spacing = 8 5/8", 75 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 175W

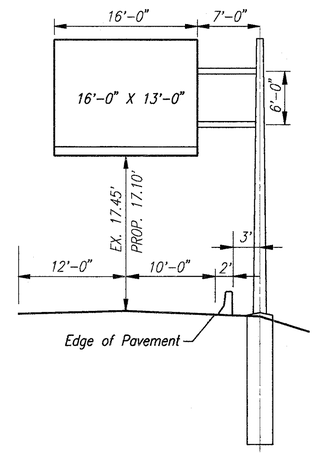
"C"

16'-0" x 9'-6" = 152 S.F.
No. of Brackets = 2 Ht. = 10'-6"
Spacing = 8 5/8", 75 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 175W

"D"

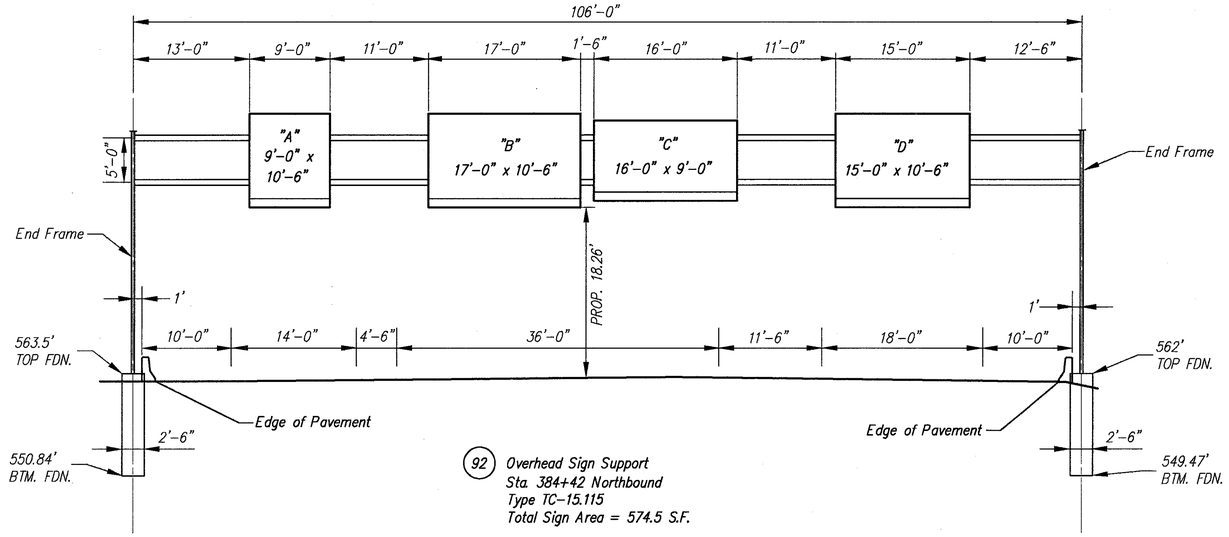
17'-0" x 6'-0" = 102 S.F.
No. of Brackets = 3 Ht. = 7'-0"
Spacing = 14 5/8", 75 3/8", 99 3/8", 14 5/8"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(90) Overhead Sign Support
Sta. 380+50 Southbound
Type 12.24 Design No. 7(Modified), 23' Arms
Total Sign Area = 16'-0" x 13'-0" = 208 S.F.
Effective Sign Area = 16'-0" x 12'-0" = 192 S.F.
No. of Brackets = 3 Ht. = 13'-0"
Spacing = 8 5/8", 75 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 250W

Note: Existing support to be reused in place.



(92) Overhead Sign Support
Sta. 384+42 Northbound
Type TC-15.115
Total Sign Area = 574.5 S.F.

"A"

9'-0" x 9'-6" = 85.5 S.F.
No. of Brackets = 2 Ht. = 10'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixtures = 1 Luminaire @ 175W

"B"

17'-0" x 9'-6" = 161.5 S.F.
No. of Brackets = 3 Ht. = 10'-6"
Spacing = 14⅝", 75⅜", 99⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

"C"

16'-0" x 8'-0" = 128 S.F.
No. of Brackets = 3 Ht. = 9'-0"
Spacing = 8⅝", 75⅜", 99⅜", 8⅝"
Fixtures = 2 Luminaires @ 175W

"D"

15'-0" x 9'-6" = 142.5 S.F.
No. of Brackets = 3 Ht. = 10'-6"
Spacing = 14⅜", 75⅜", 75⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

Note: New proposed support

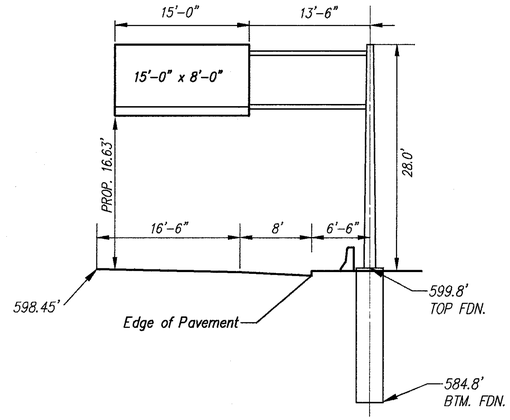
CALC. BY KAG DATE 12/2/98
CHKD. BY [illegible] DATE 12-5-95

HAM-71-2.92

OHIO
FHWA REGION 5

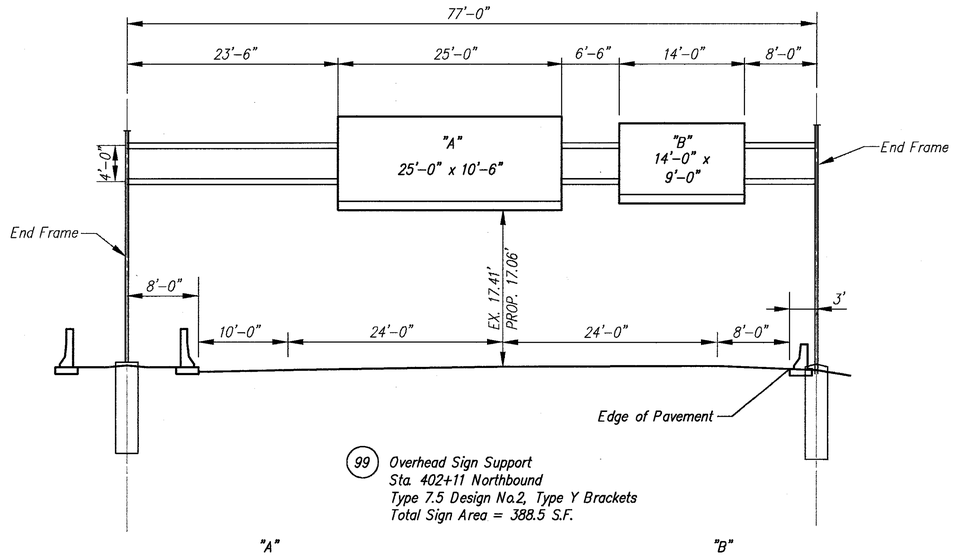
453
615

5 0 5 10 15 20
SCALE: 1/8" = 1'-0"



(93) Overhead Sign Support
Sta. 385+65 Southbound
Type TC-12.30 Design No. 8
Total Sign Area = 15'-0" x 8'-0" = 120 S.F.
Effective Sign Area = 15'-0" x 7'-0" = 105 S.F.
No. of Brackets = 3 Ht. = 8'-0"
Spacing = 14⅜", 75⅜", 75⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(99) Overhead Sign Support
Sta. 402+11 Northbound
Type 7.5 Design No.2, Type Y Brackets
Total Sign Area = 388.5 S.F.

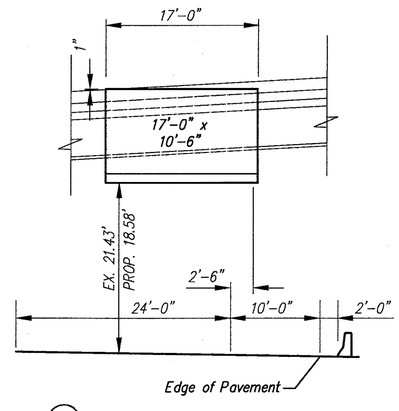
"A"

25'-0" x 9'-6" = 237.5 S.F.
No. of Brackets = 4 Ht. = 10'-6"
Spacing = 13", 75⅜", 99⅜", 99⅜", 12⅞"
Fixtures = 3 Luminaires @ 175W

"B"

14'-0" x 8'-0" = 112 S.F.
No. of Brackets = 3 Ht. = 9'-0"
Spacing = 8⅝", 75⅜", 75⅜", 8⅝"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(101) Bridge Mounted Sign Support
Sta. 405+30 Southbound
Type TC-18.26
Total Sign Area = 17'-0" x 10'-6" = 178.5 S.F.
Effective Sign Area = 17'-0" x 9'-6" = 161.5 S.F.
"S"=2 @ 6', "T"=5'9½"
W1=2', W2=3'6⅝", W3=5'1¼"
Frame 1=3"x3"x¼", Frame 2=3"x3"x¼"
Frame 3=4"x4"x¼"
Fixtures = 2 Luminaires @ 175W

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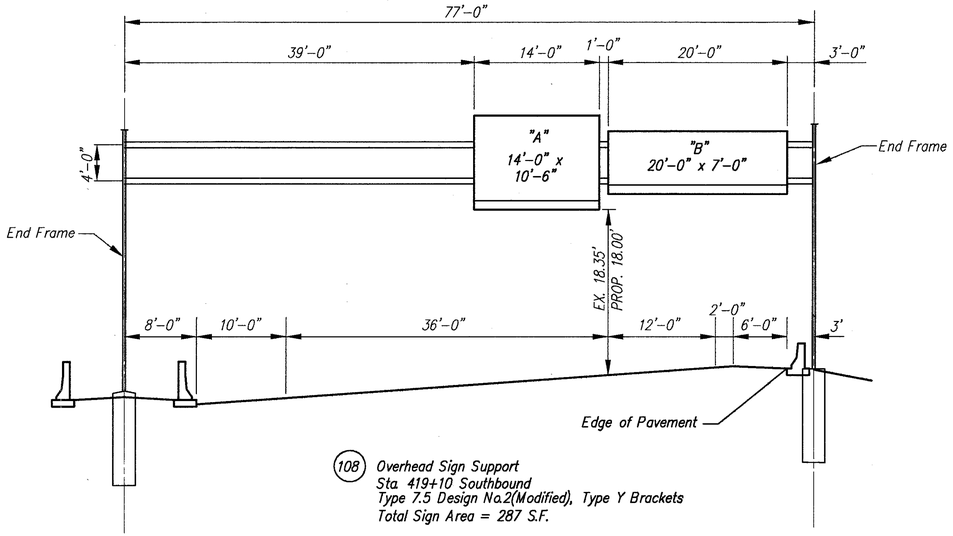
GUIDE SIGN ELEVATION VIEWS

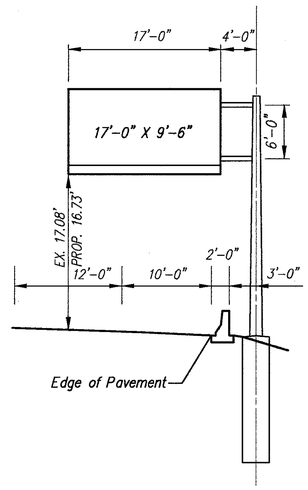
Note: Existing support to be reused in place.



(108) Overhead Sign Support
Sta. 419+10 Southbound
Type 7.5 Design No.2(Modified), Type Y Brackets
Total Sign Area = 287 S.F.

"A"	"B"
14'-0" x 9'-6" = 133 S.F.	20'-0" x 6'-0" = 120 S.F.
No. of Brackets = 3 Ht. = 10'-6"	No. of Brackets = 4 Ht. = 7'-0"
Spacing = 8⅜", 75⅛", 75⅛", 8⅜"	Spacing = 7", 75⅛", 75⅛", 75⅛", 6⅞"
Fixtures = 2 Luminaires @ 175W	Fixtures = 3 Luminaires @ 175W

Note: Existing support to be reused in place.



(111) Overhead Sign Support
Sta. 429+35 Northbound
Type 12.24 Design No. 5(Modified) Type Y Brackets, 21' Arms
Total Sign Area = 17'-0" x 9'-6" = 161.5 S.F.
Effective Sign Area = 17'-0" x 8'-6" = 144.5 S.F.
No. of Brackets = 3 Ht. = 9'-6"
Spacing = 14⅜", 75⅛", 99⅛", 14⅜"
Fixtures = 2 Luminaires @ 175W

CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2-1-95

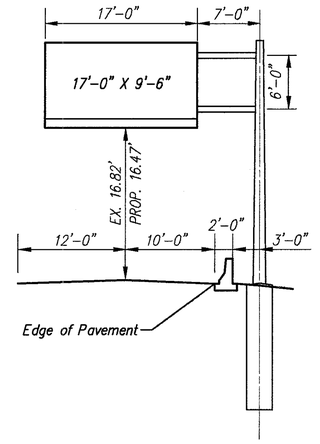
HAM-71-2.92

OHIO
FHWA REGION 5

454
615

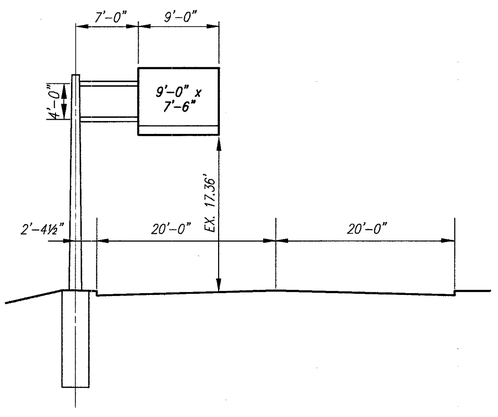
5 0 5 10 15 20
SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.



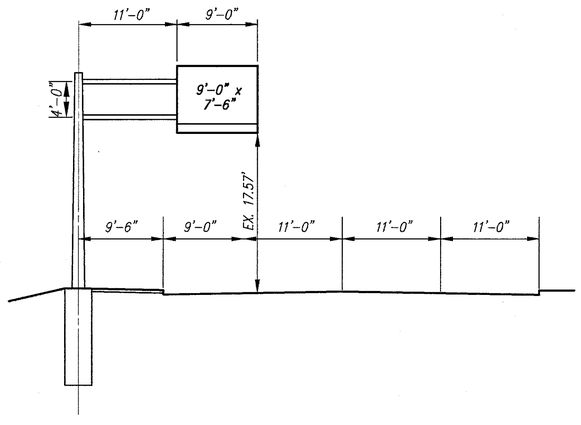
(112) Overhead Sign Support
Sta. 430+00 Southbound
Type 12.24 Design No. 6 Type Y Brackets, 24' Arms
Total Sign Area = 17'-0" x 9'-6" = 161.5 S.F.
Effective Sign Area = 17'-0" x 8'-6" = 144.5 S.F.
No. of Brackets = 3 Ht. = 9'-6"
Spacing = 14⅜", 75⅛", 99⅛", 14⅜"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



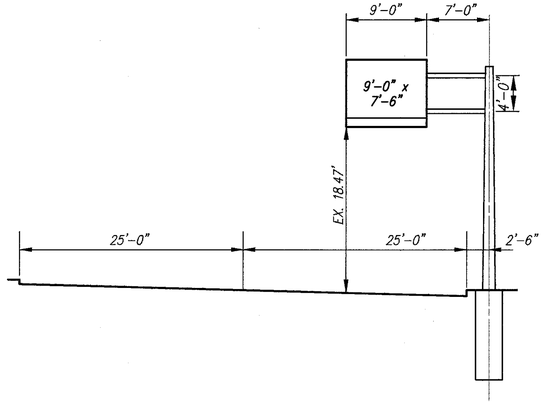
(114) Overhead Sign Support
Sta. 4+24 McMillan St.
Type 12.24 Design No. 3(Modified) Type Xs Brackets
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixtures = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



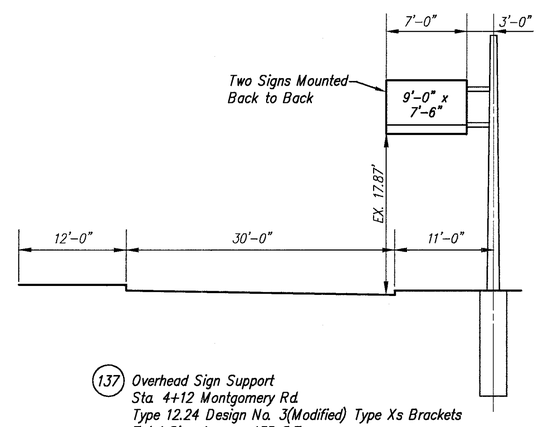
(116) Overhead Sign Support
Sta. 10+07 McMillan St.
Type 12.24 Design No. 4 Type Xs Brackets
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixtures = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(134) Overhead Sign Support
Sta. 2+00 Montgomery Rd.
Type 12.24 Design No. 1 Type Xs Brackets
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixtures = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(137) Overhead Sign Support
Sta. 4+12 Montgomery Rd.
Type 12.24 Design No. 3(Modified) Type Xs Brackets
Total Sign Area = 135 S.F.

"A"	"B"
9'-0" x 6'-6" = 58.5 S.F.	9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"	No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"	Spacing = 16⅜", 75⅜", 16¼"
Fixtures = 1 Luminaire @ 175W	Fixtures = 1 Luminaire @ 175W

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GUIDE SIGN ELEVATION VIEWS

CALC. BY KAB DATE 12/1/94
CHKD. BY [illegible] DATE 2-1-95

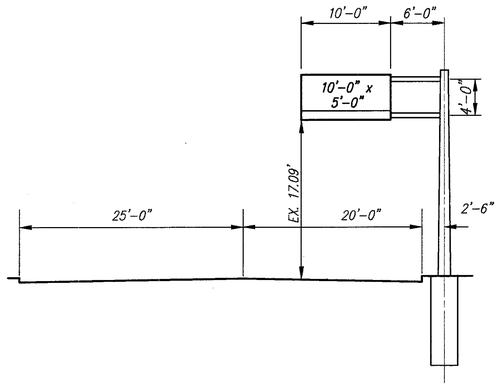
HAM-71-2.92

OHIO FHWA REGION 5

455/615

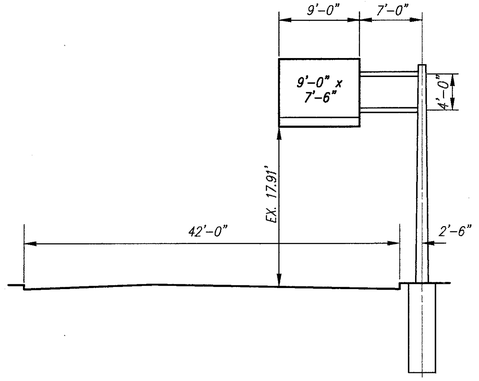
5 0 5 10 15 20
SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.



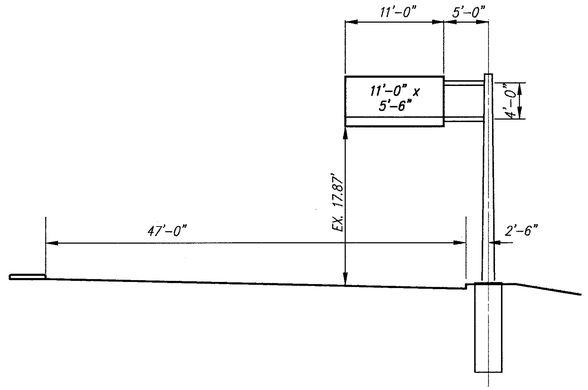
(141) Overhead Sign Support
Sta. 13+40 Montgomery Rd.
Type 12.24 Design No. 1(Modified) Type Xs Brackets
Total Sign Area = 10'-0" x 5'-0" = 50 S.F.
Effective Sign Area = 10'-0" x 4'-0" = 40 S.F.
No. of Brackets = 2 Ht. = 5'-0"
Spacing = 10⅜", 99⅜", 10¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.



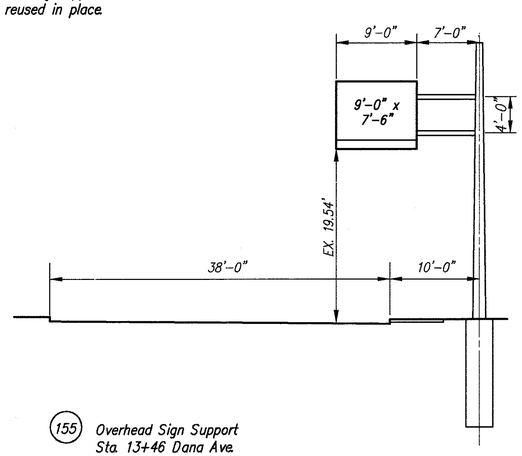
(149) Overhead Sign Support
Sta. 3+50 Dana Ave.
Type 12.24 Design No. 1 Type Xs Brackets
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



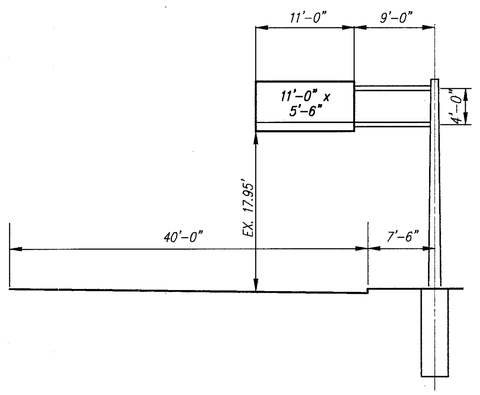
(154) Overhead Sign Support
Sta. 9+75 Dana Ave.
Type 12.24 Design No. 1 Type Xs Brackets
Total Sign Area = 11'-0" x 5'-6" = 60.5 S.F.
Effective Sign Area = 11'-0" x 4'-6" = 49.5 S.F.
No. of Brackets = 2 Ht. = 5'-6"
Spacing = 16⅜", 99⅜", 16¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.



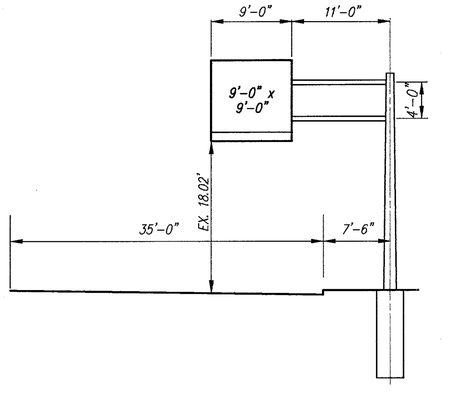
(155) Overhead Sign Support
Sta. 13+46 Dana Ave.
Type 12.24 Design No. 3(Modified) Type Xs Brackets
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



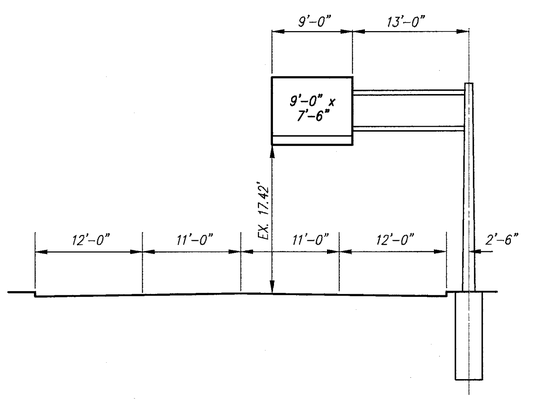
(158) Overhead Sign Support
Sta. 18+00 Dana Ave.
Type 12.24 Design No. 2 Type Xs Brackets
Total Sign Area = 11'-0" x 5'-6" = 60.5 S.F.
Effective Sign Area = 11'-0" x 4'-6" = 49.5 S.F.
No. of Brackets = 2 Ht. = 5'-6"
Spacing = 16⅜", 99⅜", 16¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.



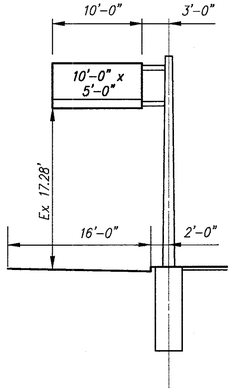
(159) Overhead Sign Support
Sta. 22+80 Dana Ave.
Type 12.24 Design No. 2(Modified) Type Xs Brackets
Total Sign Area = 9'-0" x 9'-0" = 81 S.F.
Effective Sign Area = 9'-0" x 8'-0" = 72 S.F.
No. of Brackets = 2 Ht. = 9'-0"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(160) Overhead Sign Support
Sta. 14+90 Duck Creek Road
Type 12.24 Design No. 2(Modified) Type Xs Brackets
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(172) Overhead Sign Support
Sta. 28+74 Smith Rd.
Type 12.24 Design No. 1(Modified) Type X Brackets
Total Sign Area = 10'-0" x 5'-0" = 50 S.F.
Effective Sign Area = 10'-0" x 4'-0" = 40 S.F.
No. of Brackets = 2 Ht. = 5'-0"
Spacing = 10⅜", 99⅜", 10¼"
Fixture = 1 Luminaire @ 100W

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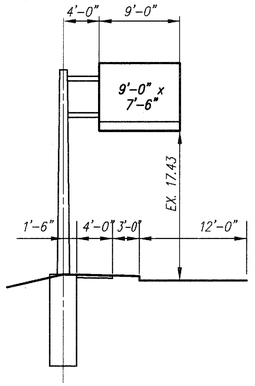
GUIDE SIGN ELEVATION VIEWS

CALC. BY LCAB DATE 12/7/94	HAM-71-2.92	OHIO
CHKD BY 2-1-95 DATE 2-2-95		FHWA REGION 5

456/615

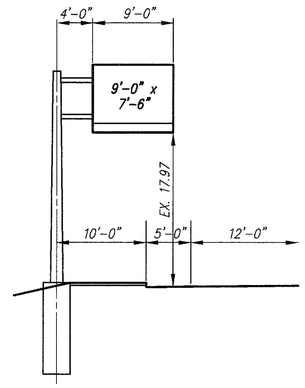
5 0 5 10 15 20
SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.



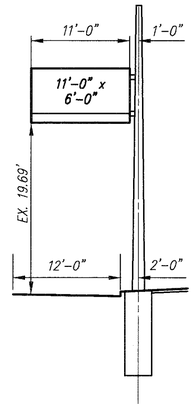
(189) Overhead Sign Support
Sta. 9+40 Williams Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



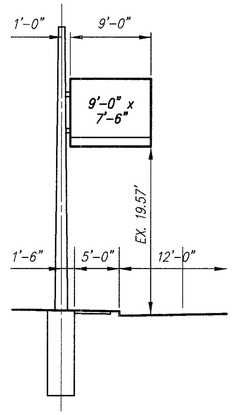
(173) Overhead Sign Support
Sta. 23+47 Smith-Edmondson Rd.
Type 12.24 Design No. 1 Type X Brackets, 13' Arms
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



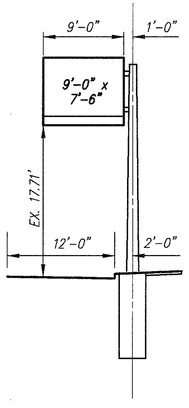
(174) Overhead Sign Support
Sta. 19+80 Smith-Edmondson Rd.
Type 12.24 Design No. 1(Modified) Type X Brackets, 10' Arms
Total Sign Area = 11'-0" x 6'-0" = 66 S.F.
Effective Sign Area = 11'-0" x 5'-0" = 55 S.F.
No. of Brackets = 2 Ht. = 6'-0"
Spacing = 16⅜", 99⅜", 16¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.



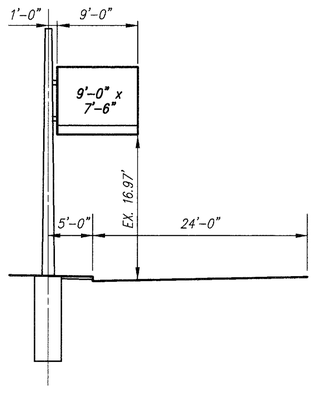
(176) Overhead Sign Support
Sta. 16+50 Smith-Edmondson Rd.
Type 12.24 Design No. 1(Modified) Type X Brackets, 9' Arms
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



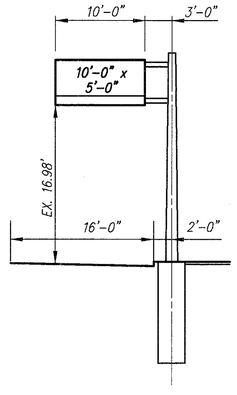
(182) Overhead Sign Support
Sta. 10+00 Smith-Edmondson Rd.
Type 12.24 Design No. 1(Modified) Type X Brackets, 9' Arms
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



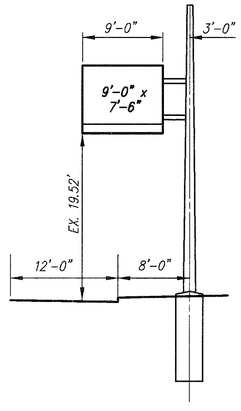
(183) Overhead Sign Support
Sta. 20+67 Edwards Rd.
Type 12.24 Design No. 1(Modified) Type X Brackets, 9' Arms
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(185) Overhead Sign Support
Edwards Rd. 200' South of Willard Ave.
Type 12.24 Design No. 1 Type X Brackets, 13' Arms
Total Sign Area = 10'-0" x 5'-0" = 50 S.F.
Effective Sign Area = 10'-0" x 4'-0" = 40 S.F.
No. of Brackets = 2 Ht. = 5'-0"
Spacing = 10⅜", 99⅜", 10¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.



(192) Overhead Sign Support
Sta. 15+35 Williams Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 12' Arms
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

GUIDE SIGN ELEVATION VIEWS

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CALC. BY KAB DATE 12/12/94
CHKD. BY [illegible] DATE 2-1-95

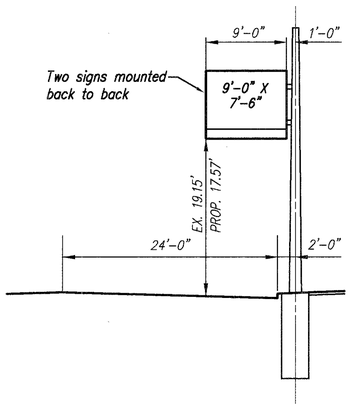
HAM-71-2.92

OHIO
FHWA REGION 5

457/615

SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.



(197) Overhead Sign Support
Sta. 20+31 Williams Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 9' Arms
Total Sign Area = 135 S.F.

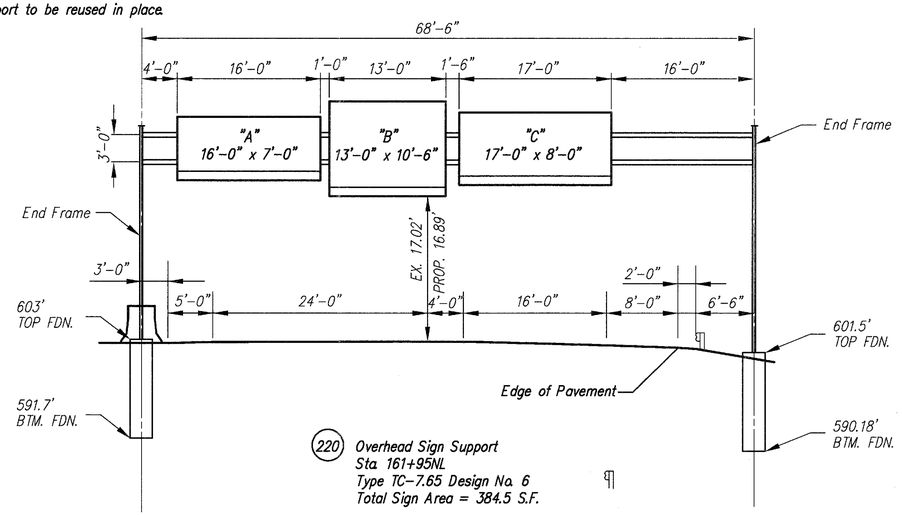
"A"

9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

"B"

9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht. = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(220) Overhead Sign Support
Sta. 161+95NL
Type TC-7.65 Design No. 6
Total Sign Area = 384.5 S.F.

"A"

16'-0" x 6'-0" = 96 S.F.
Spacing = 8⅝", 75⅜", 99⅜", 8⅝"
No. of Brackets = 3 Ht. = 7'-0"
Fixtures = 2 Luminaires @ 175W

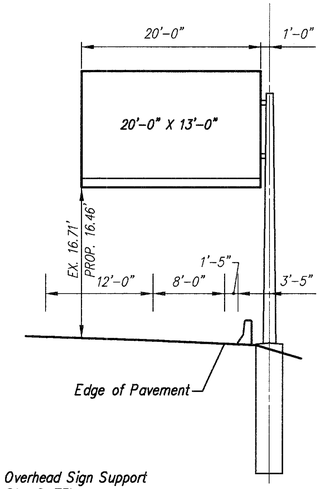
"B"

13'-0" x 9'-6" = 123.5 S.F.
Spacing = 6", 72", 72", 6"
No. of Brackets = 3 Ht. = 10'-6"
Fixtures = 2 Luminaires @ 175W

"C"

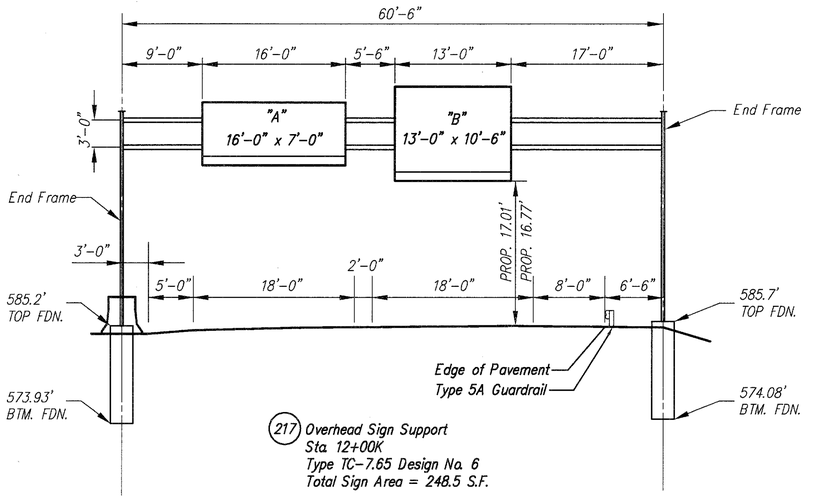
17'-0" x 7'-0" = 119 S.F.
Spacing = 14⅝", 75⅜", 99⅜", 14⅝"
No. of Brackets = 3 Ht. = 8'-0"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(221) Overhead Sign Support
Sta. 6+75L
Type 12.24 Design No. 5(Modified) Type Y Brackets, 21' Arms
Total Sign Area = 20'-0" x 13'-0" = 260 S.F.
Effective Sign Area = 20'-0" x 12'-0" = 240 S.F.
No. of Brackets = 4 Ht. = 13'-0"
Spacing = 7", 75⅜", 75⅜", 75⅜", 6⅛"
Fixtures = 3 Luminaires @ 250W

Note: Existing support to be reused in place.



(217) Overhead Sign Support
Sta. 12+00K
Type TC-7.65 Design No. 6
Total Sign Area = 248.5 S.F.

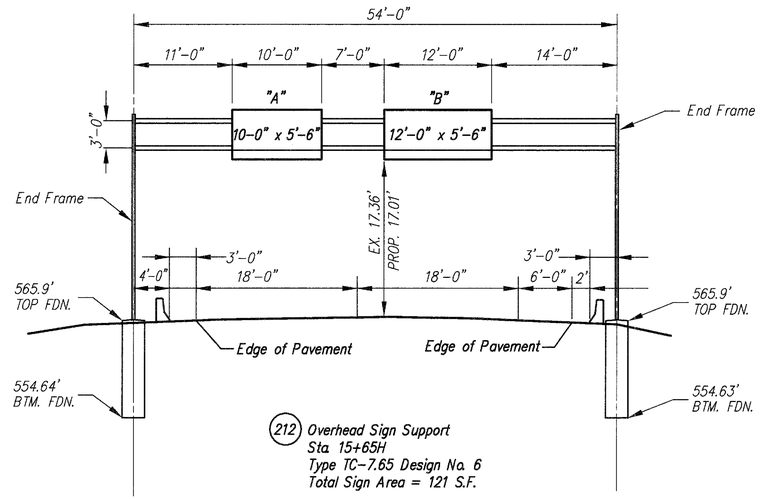
"A"

16'-0" x 6'-0" = 96 S.F.
Spacing = 8⅝", 75⅜", 99⅜", 8⅝"
No. of Brackets = 3 Ht. = 7'-0"
Fixtures = 2 Luminaires @ 175W

"B"

13'-0" x 9'-6" = 123.5 S.F.
Spacing = 6", 72", 72", 6"
No. of Brackets = 3 Ht. = 10'-6"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(212) Overhead Sign Support
Sta. 15+65H
Type TC-7.65 Design No. 6
Total Sign Area = 121 S.F.

"A"

10'-0" x 4'-6" = 45 S.F.
Spacing = 10⅜", 99⅜", 10¼"
No. of Brackets = 2 Ht. = 5'-6"
Fixture = 1 Luminaire @ 100W

"B"

12'-0" x 4'-6" = 54 S.F.
Spacing = 6", 66", 66", 6"
No. of Brackets = 3 Ht. = 5'-6"
Fixtures = 2 Luminaires @ 100W

G:\71\2-92\ELEV\ELEV2\ELMEW9 — JAN. 30, 1995 @ 8:30 pm

GUIDE SIGN ELEVATION VIEWS

CALC. BY KAB DATE 12/95
CHKD. BY [illegible] DATE 12-95

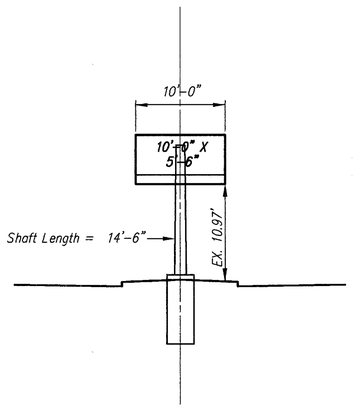
HAM-71-2.92

OHIO
FHWA REGION 5

458
615

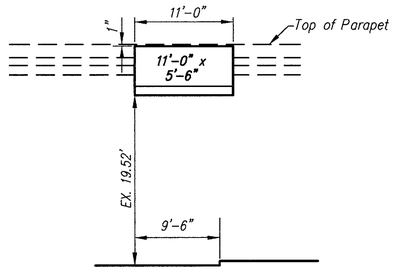
5 0 5 10 15 20
SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.

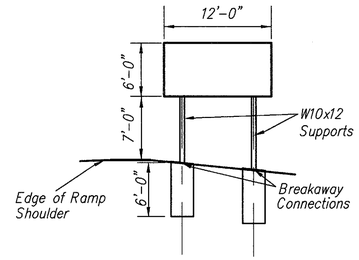


(238) Overhead Sign Support
Sta. 21+45 Ridge Ave.
Type 9.12 Design No. 1(Modified) Type X Brackets
Total Sign Area = 10'-0" x 5'-6" = 55 S.F.
Effective Sign Area = 10'-0" x 4'-6" = 45 S.F.
No. of Brackets = 2 Ht = 5'-6"
Spacing = 10⅜", 99⅜", 10¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.

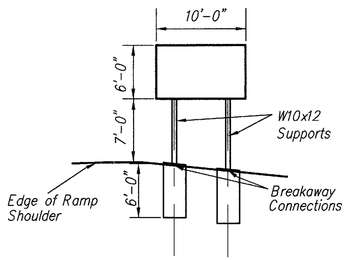


(240) Bridge Mounted Sign Support
Sta. 22+08 Ridge Ave.
Special Sign Support SPL-816
Total Sign Area = 11'-0" x 5'-6" = 60.5 S.F.
Effective Sign Area = 11'-0" x 4'-6" = 49.5 S.F.
No. of Brackets = 2 Ht = 5'-6"
Spacing = 16⅜", 99⅜", 16¼"
Fixture = 1 Luminaire @ 100W



(143) Ground Mounted Sign
Sta. 339+50MF

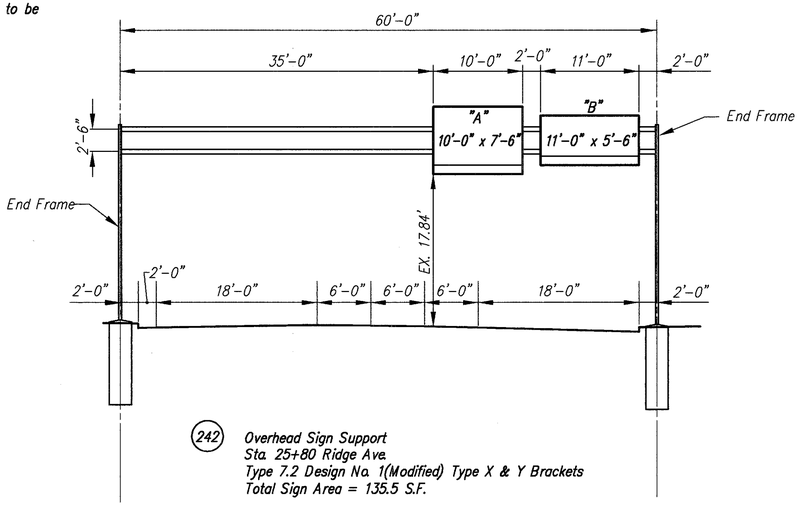
* NOTE: The elevation shown is for computational purposes only. The actual depth of the foundation and support length shall be in accordance with TC-41.10 and the actual field location.



(226) Ground Mounted Sign
Sta. 44+00T

* NOTE: The elevation shown is for computational purposes only. The actual depth of the foundation and support length shall be in accordance with TC-41.10 and the actual field location.

Note: Existing support to be reused in place.



(242) Overhead Sign Support
Sta. 25+80 Ridge Ave.
Type 7.2 Design No. 1(Modified) Type X & Y Brackets
Total Sign Area = 135.5 S.F.

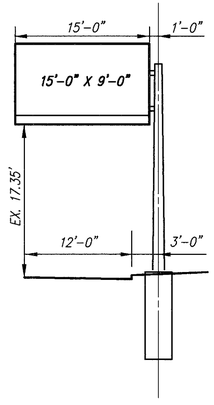
"A"

10'-0" x 6'-6" = 65 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 10⅜", 99⅜", 10¼"
Fixtures = 1 Luminaire @ 175W

"B"

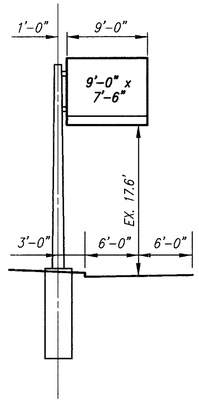
11'-0" x 4'-6" = 49.5 S.F.
No. of Brackets = 2 Ht = 5'-6"
Spacing = 16⅜", 99⅜", 16¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.



(243) Overhead Sign Support
Sta. 37+75 Ridge Ave.
Type 12.24 Design No. 1 X Brackets, 13' Arms
Total Sign Area = 15'-0" x 9'-0" = 135 S.F.
Effective Sign Area = 15'-0" x 8'-0" = 120 S.F.
No. of Brackets = 3 Ht = 7'-6"
Spacing = 14⅝", 75⅜", 75⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



(244) Overhead Sign Support
Sta. 40+00 Ridge Ave.
Type 12.24 Design No. 1(Modified) X Brackets, 9' Arms
Total Sign Area = 9'-0" x 7'-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜", 16¼"
Fixture = 1 Luminaire @ 175W

G:\71\2.92\ELEV\ELEV2\ELEMENT0 - SEPT. 13, 1995 @ 6:32 pm

GUIDE SIGN ELEVATION VIEWS

CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2-1-95

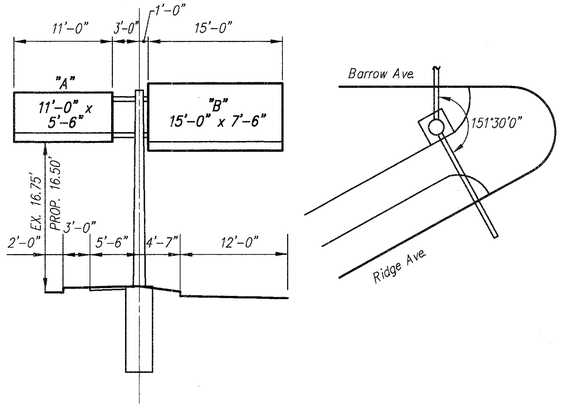
HAM-71-2.92

OHIO FHWA REGION 5

459/615

SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.

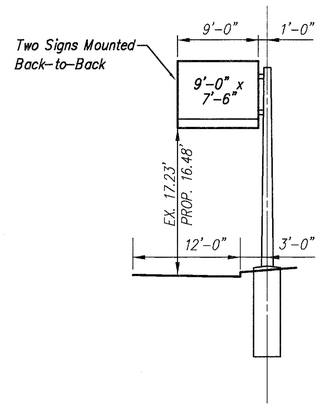


(213) Overhead Sign Support
Sta. 43+16 Ridge Ave.
Type 10.48 Design No. 1(Modified) Type X Brackets, 14' Arms
Total Sign Area = 173 S.F.

"A"
11'-0" x 4'-6" = 49.5 S.F.
No. of Brackets = 2 Ht. = 5'-6"
Spacing = 16⅜", 99⅜, 16¼"
Fixture = 1 Luminaire @ 100W

"B"
15'-0" x 6'-6" = 97.5 S.F.
No. of Brackets = 3 Ht. = 7'-6"
Spacing = 14⅝", 75⅜", 75⅜", 14⅝"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.

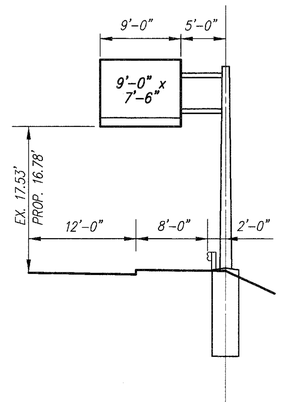


(245) Overhead Sign Support
Sta. 33+90 Highland Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 9' Arms
Total Sign Area = 135 S.F.

"A"
9'-0" x 6-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

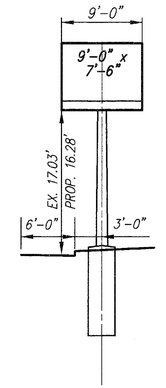
"B"
9'-0" x 6-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



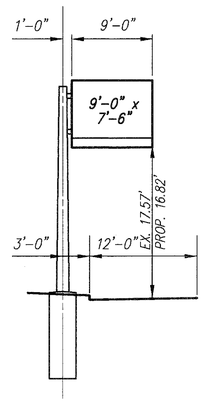
(259) Overhead Sign Support
Sta. 45+00 Highland Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 14' Arms
Total Sign Area = 9'-0" x 7-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



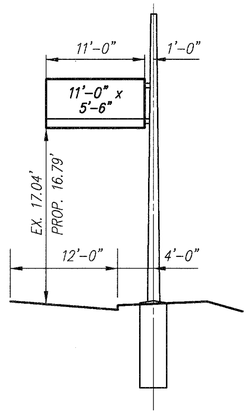
(261) Overhead Sign Support
Sta. 0+35 Lucille
Type 9.12 Design No. 1(Modified) Type Y Brackets
Total Sign Area = 9'-0" x 7-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



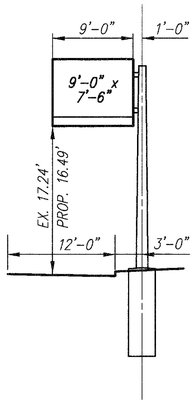
(262) Overhead Sign Support
Sta. 12+30 Kennedy Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 9' Arms
Total Sign Area = 9'-0" x 7-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



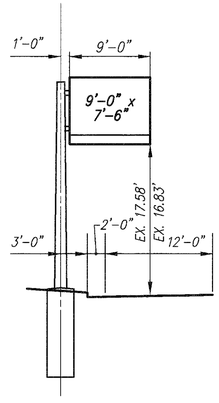
(263) Overhead Sign Support
Sta. 14+00 Kennedy Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 10' Arms
Total Sign Area = 11'-0" x 5-6" = 60.5 S.F.
Effective Sign Area = 11'-0" x 4-6" = 49.5 S.F.
No. of Brackets = 2 Ht = 5'-6"
Spacing = 16⅜", 99⅜, 16¼"
Fixture = 1 Luminaire @ 100W

Note: Existing support to be reused in place.



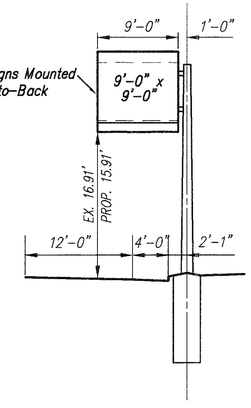
(264) Overhead Sign Support
Sta. 18+00 Kennedy Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 10' Arms
Total Sign Area = 9'-0" x 7-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(267) Overhead Sign Support
Sta. 25+00 Kennedy Ave.
Type 12.24 Design No. 1(Modified) Type X Brackets, 9' Arms
Total Sign Area = 9'-0" x 7-6" = 67.5 S.F.
Effective Sign Area = 9'-0" x 6-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 7'-6"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

Note: Existing support to be reused in place.



(268) Overhead Sign Support
Sta. 80+65 Duck Creek Rd.
Type 12.24 Design No. 1 Type X Brackets, 9' Arms
Total Sign Area = 148.5 S.F.

"A"
9'-0" x 6'-6" = 58.5 S.F.
No. of Brackets = 2 Ht = 9'-0"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

"B"
9'-0" x 8'-0" = 72 S.F.
No. of Brackets = 2 Ht = 9'-0"
Spacing = 16⅜", 75⅜, 16¼"
Fixture = 1 Luminaire @ 175W

G:\71\2.92\ELEV\ELEVIEW1 - JAN. 30, 1995 @ 8:31 pm

GUIDE SIGN ELEVATION VIEWS

CALC. BY LAB DATE 12/7/94
CHKD. BY [illegible] DATE 2-1-95

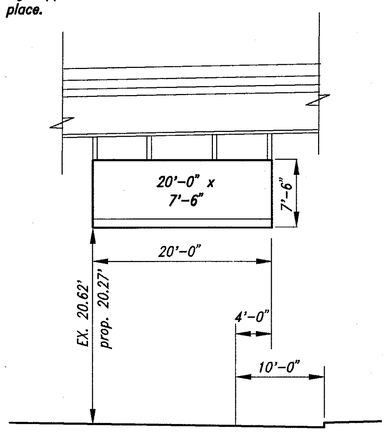
HAM-71-2.92

OHIO
FHWA REGION 5

460
615

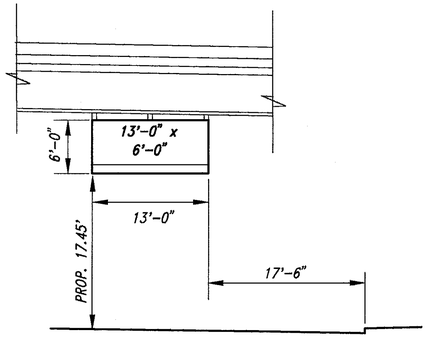
5 0 5 10 15 20
SCALE: 1/8" = 1'-0"

Note: Existing support to be reused in place.



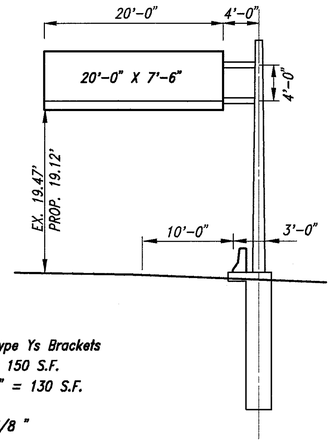
(3) *Bridge Mounted Sign Support*
Sta. 224+70 Northbound
Total Sign Area = 20'-0" X 7'-6" = 150 S.F.
Effective Sign Area = 20'-0" x 6'-6" = 130 S.F.
No. of Brackets = 4 Ht. = 7'-6"
Spacing = 7", 75 3/8", 75 3/8", 75 3/8", 6 7/8"
Fixtures = 3 Luminaires @ 175W

Note: New proposed support.



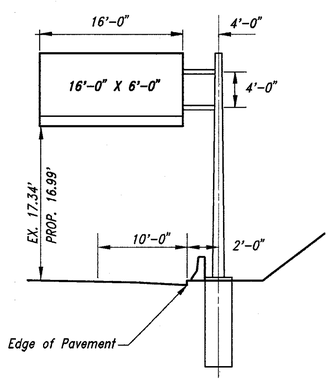
(3A) *Bridge Mounted Sign Support*
Sta. 225+31 Southbound
Total Sign Area = 13'-0" X 6'-0" = 78 S.F.
Effective Sign Area = 13'-0" x 5'-0" = 65 S.F.
No. of Brackets = 3 Ht. = 6'-0"
Spacing = 3", 75", 75", 3"
Fixtures = 2 Luminaires @ 175W

Note: Existing support to be reused in place.



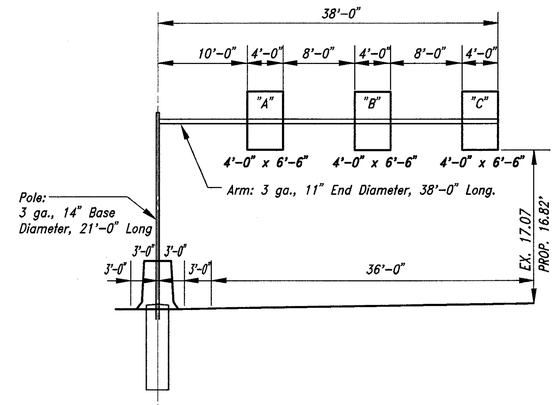
(7) *Overhead Sign Support*
Sta. 234+12 Northbound
Type 12.24, Design No. 4 Modified, Type Ys Brackets
Total Sign Area = 20'-0" X 7'-6" = 150 S.F.
Effective Sign Area = 20'-0" X 6'-6" = 130 S.F.
No. of Brackets = 4 Ht. = 7'-6"
Spacing 7", 75 3/8", 75 3/8 ", 6 7/8 "
Fixtures = 3 Luminaires @ 175W

Note: Existing support to be reused in place.



(21) *Overhead Sign Support*
Sta. 267+75 Northbound
Type 12.24 Design No. 4 Type Ys Brackets
Total Sign Area = 16'-0" X 6'-0" = 96 S.F.
Effective Sign Area = 16'-0" X 5'-0" = 80 S.F.
No. of Brackets = 3 Ht. = 6'-0"
Spacing = 8 5/8", 75 3/8", 99 3/8", 8 5/8"
Fixtures = 2 Luminaires @ 100W

Note: Existing support to be reused in place.



(230) *Overhead Sign Support*
Sta. 48+50T
Monolever Type, Type X Brackets
Total Sign Area = 78 S.F.

"A"	"B"	"C"
4'-0" x 6'-6" = 26 S.F.	*4'-0" x 6'-6" = 26 S.F.*	*4'-0" x 6'-6" = 26 S.F.*
Spacing = 6", 36", 6"	*Spacing = 6", 36", 6"*	*Spacing = 6", 36", 6"*
No. of Brackets = 2 Ht. = 6'-6"	*No. of Brackets = 2 Ht. = 6'-6"*	*No. of Brackets = 2 Ht. = 6'-6"*
Fixture = 1 Luminaire @ 175W	*Fixture = 1 Luminaire @ 175W*	*Fixture = 1 Luminaire @ 175W*

G:\71\2.92\ELEV\ELEV_RW - JAN. 30, 1995 @ 8:32 pm

REGULATORY AND WARNING SIGN ELEVATION VIEWS

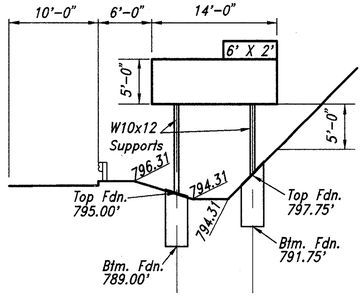
CALC. BY KAB DATE 12/2/94
CHKD. BY DATE 2-1-95

HAM-71-2.92

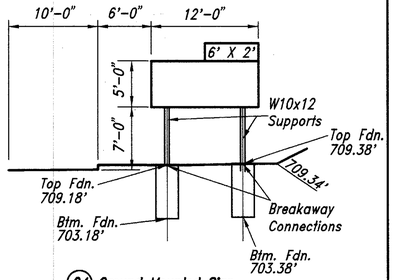
OHIO FHWA REGION 5

461/615

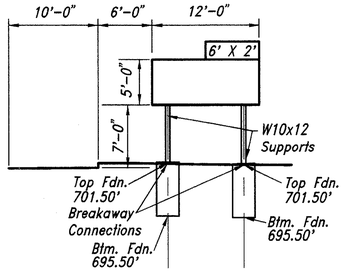
SCALE: 1/8" = 1'-0"



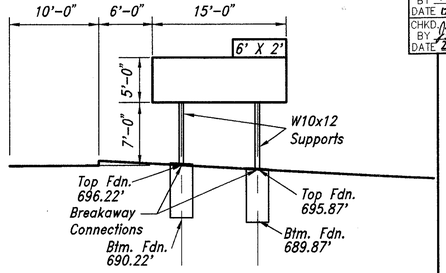
(4) Ground Mounted Sign
Sta. 227+80



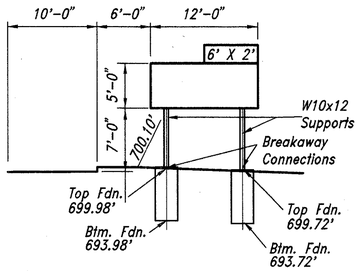
(24) Ground Mounted Sign
Sta. 275+10



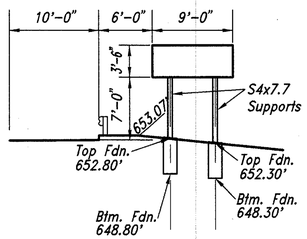
(27) Ground Mounted Sign
Sta. 288+00



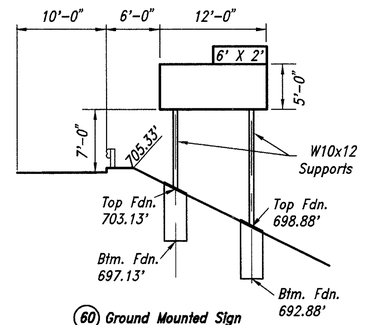
(28) Ground Mounted Sign
Sta. 283+10



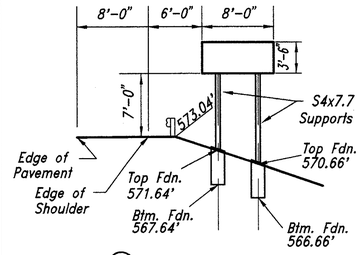
(31) Ground Mounted Sign
Sta. 300+00



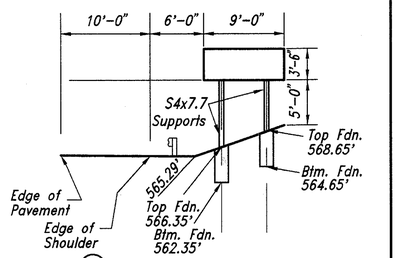
(53) Ground Mounted Sign
Sta. 383+00



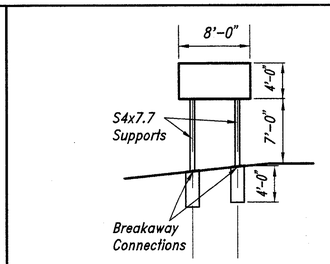
(60) Ground Mounted Sign
Sta. 298+10



(84) Ground Mounted Sign
Sta. 362+90SB

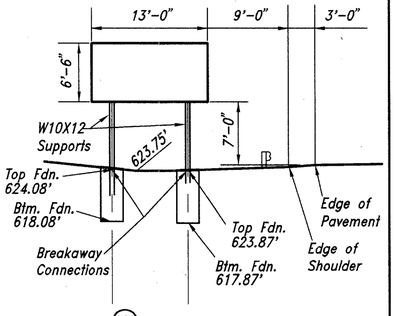


(98) Ground Mounted Sign
Sta. 399+10SB

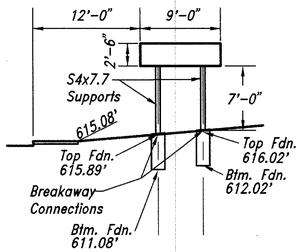


(208) Ground Mounted Sign
Sta. 4+40G *

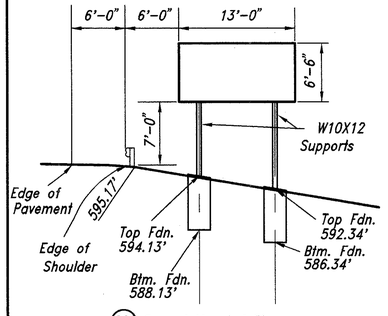
***NOTE:** The elevation shown is for computational purposes only. The actual depth of the foundation and support length shall be in accordance with TC-41.10 and the actual field location.*



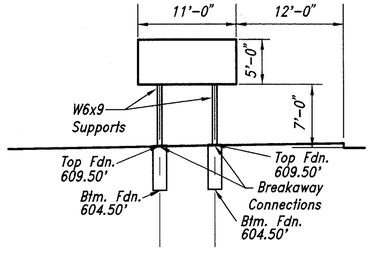
(169) Ground Mounted Sign
Sta. 308+25B



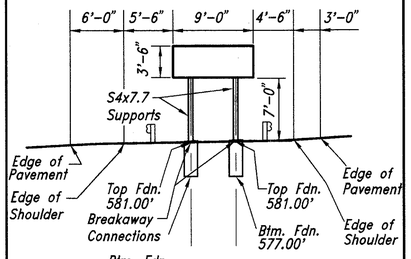
(190) Ground Mounted Sign
Sta. 10+65 Williams Ave.



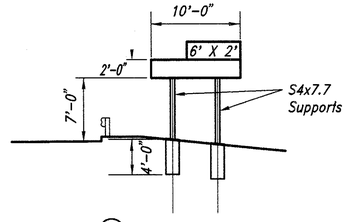
(202) Ground Mounted Sign
Sta. 325+50D



(205) Ground Mounted Sign
Sta. 327+50C

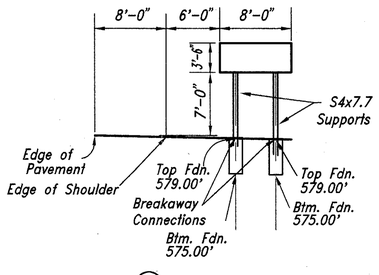


(218) Ground Mounted Sign
Sta. 14+23 Ramp K

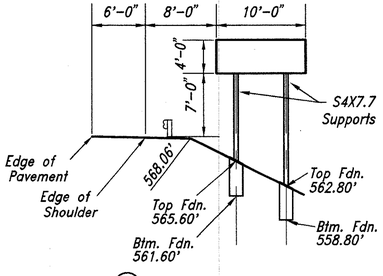


(29) Ground Mounted Sign
Sta. 292+60 *

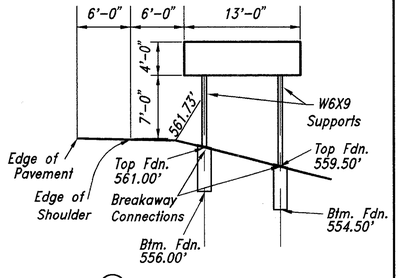
***NOTE:** The elevation shown is for computational purposes only. The actual depth of the foundation and support length shall be in accordance with TC-41.10 and the actual field location.*



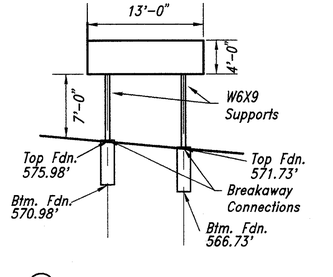
(223) Ground Mounted Sign
Sta. 18+00 Ramp L



(226) Ground Mounted Sign
Sta. 44+00 Ramp T

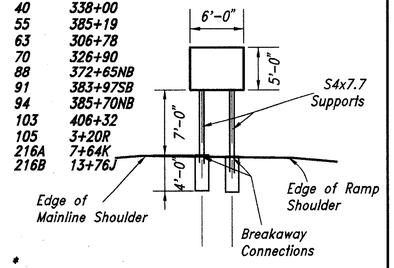


(254) Ground Mounted Sign
Sta. 6+50 Ramp R



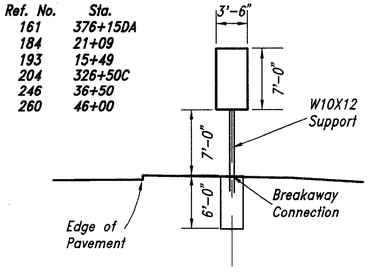
(258) Ground Mounted Sign
Sta. 43+00 Highland Ave.

Ref. No.	Sta.
40	338+00
55	385+19
63	306+78
70	326+90
88	372+65NB
91	383+97SB
94	385+70NB
103	406+32
105	3+20R
216A	7+64K
216B	13+76J



* ***Typical:** The elevation view shown for the GF-72 signs are for computational purposes only. The actual depth of the foundation and support length shall be in accordance with TC-41.10 and the actual field location.*

Ref. No.	Sta.
161	376+15DA
184	21+09
193	15+49
204	326+50C
246	36+50
260	46+00



* ***Typical:** The elevation view shown for the M-45 signs are for computational purposes only. The actual depth of the foundation and support length shall be in accordance with TC-41.10 and the actual field location.*

G:\71\2.92\GLEV\GLEV2\GMVIEW - FEB. 16, 1995 @ 2:33 pm

Ground Mounted Sign Elevation Views

621 RAISED PAVEMENT MARKERS

CALC. BY LAB DATE 12/7/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 462/615

STATIONING (FROM–TO)	(SIDE)	SPACING	W	Y	W/R		REMARKS (LINE TYPE)
NORTHBOUND							
213+00 – 267+75	RT.	80'			69		LANE LINE
213+00 – 436+82.72	RT.	80'			498		"
213+00 – 402+11NB	RT.	80'			365		"
213+00 – 370+20NB	RT.	80'			325		"
309+00 – 332+50	RT.	80'			158		"
389+00 – 393+69.39	RT.	80'			12		"
384+00 – 436+82.72	RT.	80'			195		"
RAMP TC							
236+10 – 241+70	RT.	40'	15				EDGE LINE
236+10TC – 239+00TC	LT.	40'		5			CHANNELIZING LINE
239+00TC – 242+10	RT.	40'	5				EDGE LINE
RAMP TH							
241+60TH – 247+13TH	LT.	20'	29				CHANNELIZING LINE
240+80TH – 241+60TH	RT.	40'		2			EDGE LINE
241+60 – 246+93	LT.	20'	28				CHANNELIZING LINE
240+80 – 241+60TH	LT.	40'	2				"
RAMP ME							
299+60 – 302+00ME	LT.	40'	7				CHANNELIZING LINE
302+00ME – 305+20ME	RT.	40'		8			EDGE LINE
299+60 – 305+20	LT.	40'	15				"
RAMP MF							
335+76MF – 337+42MF	RT.	20'	10				CHANNELIZING LINE
337+42MF – 338+22MF	LT.	40'		2			EDGE LINE
335+96 – 337+42	RT.	20'	9				CHANNELIZING LINE
337+42 – 338+22	RT.	40'	2				"
RAMP DB							
367+59DB – 369+59DB	LT.	40'	6				CHANNELIZING LINE
369+59DB – 374+39DB	RT.	40'		12			EDGE LINE
367+59 – 374+39	LT.	40'	18				"
RAMP DC							
389+00DC – 387+00DC	RT.	40'	6				CHANNELIZING LINE
387+00DC – 384+20DC	LT.	40'		7			EDGE LINE
389+00 – 384+20	RT.	40'	13				"
RAMP DE							
388+97 – 386+68DE	LT.	20'	13				CHANNELIZING LINE
388+77 – 386+68	LT.	20'	12				"
386+68DE – 385+88DE	RT.	40'		2			EDGE LINE
386+68 – 385+88	LT.	40'	2				CHANNELIZING LINE
COLUMN TOTALS			192	38	1622		

STATIONING (FROM–TO)	(SIDE)	SPACING	W	Y	W/R		REMARKS (LINE TYPE)
SOUTHBOUND							
213+00 – 436+82.72	LT.	80'			498		LANE LINE
213+00 – 436+82.72	LT.	80'			498		"
213+00 – 382+40SB	LT.	80'			190		"
257+90 – 269+00	LT.	80'			15		"
RAMP B							
305+21B – 306+61B	RT.	20'	8				CHANNELIZING LINE
305+21 – 306+61	RT.	20'	8				"
306+61B – 307+41B	LT.	40'		2			EDGE LINE
306+61 – 307+41	RT.	40'	2				CHANNELIZING LINE
RAMP A							
301+71A – 303+70A	LT.	40'	6				CHANNELIZING LINE
303+70A – 306+90A	RT.	40'		8			EDGE LINE
301+71 – 306+90	LT.	40'	14				"
RAMP D							
328+43D – 327+06D	LT.	20'	8				CHANNELIZING LINE
327+06D – 326+26D	RT.	40'		2			EDGE LINE
328+23 – 327+06	LT.	20'	7				CHANNELIZING LINE
327+06 – 326+26	LT.	40'	2				"
RAMP C							
335+67C – 333+67C	RT.	40'	6				CHANNELIZING LINE
333+67C – 330+47C	LT.	40'		8			EDGE LINE
335+67 – 330+47	RT.	40'	14				"
RAMP E							
363+22E – 364+82E	LT.	40'	5				CHANNELIZING LINE
364+82E – 367+62E	RT.	40'		8			EDGE LINE
363+22 – 367+62	LT.	40'	13				"
RAMP F							
369+76F – 372+13F	RT.	20'	13				CHANNELIZING LINE
372+13F – 372+93F	LT.	40'		2			"
370+07 – 372+52	RT.	20'	13				"
372+52 – 373+32	RT.	40'	2				"
RAMP J							
384+00J – 382+00J	LT.	40'	6				CHANNELIZING LINE
382+00J – 23+70J	RT.	40'		8			EDGE LINE
384+00 – 378+80	LT.	40'	14				"
RAMP H							
382+75 – 384+75	RT.	40'	6				CHANNELIZING LINE
384+75 – 386+75	LT.	40'		5			EDGE LINE
382+75 – 386+75	RT.	40'	11				"
COLUMN TOTALS			158	43	1201		

STATIONING (FROM–TO)	(SIDE)	SPACING	W	Y	W/R		REMARKS (LINE TYPE)
RAMP G							
1+25G – 3+38G	RT.	20'	11				CHANNELIZING LINE
3+38G – 4+18G	LT.	40'		2			"
383+43 – 385+57	RT.	20'	11				"
385+57 – 386+37	RT.	40'	2				"
RAMP I							
12+40I – 10+40I	LT.	20'	11				CHANNELIZING LINE
10+40I – 9+60I	RT.	40'		2			"
385+68 – 383+57	LT.	20'	12				"
383+57 – 382+77	LT.	40'	2				"
RAMP N							
403+30 – 406+21	RT.	20'	12				CHANNELIZING LINE
406+21 – 407+01	RT.	40'	2				"
1+30N – 3+36N	RT.	20'	12				"
3+36N – 4+16N	LT.	40'		2			"
RAMP P							
414+68 – 412+28	RT.	40'	7				CHANNELIZING LINE
412+28 – 7+93P	LT.	40'	7				EDGE LINE
414+68 – 409+48	RT.	40'	14				"
RAMP R							
1+80R – 2+93R	RT.	20'	10				CHANNELIZING LINE
2+93R – 3+73R	LT.	40'		2			"
416+80 – 415+10	LT.	20'	10				"
415+10 – 414+30	LT.	40'	2				"
COLUMN TOTALS			125	8	0		

SUBTOTALS		W	Y	W/R		REMARKS (LINE TYPE)
COLUMN 1		192	38	1622		
COLUMN 2		158	43	1201		
COLUMN 3		125	8	0		
TOTAL TO TRAFFIC CONTROL SUMMARY		475	89	2823		
		3387				

NOTE: THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE TRAFFIC CONTROL SUMMARY. SEE MAINTENANCE OF TRAFFIC SHEET 48 "TEMPORARY REMOVAL OF PRISMATIC RETRO REFLECTORS" FOR DETAILS.
ITEM 621 00300 45 EACH PRISMATIC RETRO REFLECTOR

RAISED PAVEMENT MARKER QUANTITIES

402 BLACK 463-516

CALC. BY KAG DATE 12/2/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 463/615

620 DELINEATORS

LOCATION	STATION TO STATION	SIDE	SPACING	BRACKET MTD. C	BRACKET MTD. D	POST MTD. C	POST MTD. D
RAMP TC	244+20 – 226+20	RT.	200'			10	
RAMP TH	248+10TH – 236+10TH	RT.	200'			7	
	234+60TH	RT./LT.	150'/100'			1	1
	233+60TH – 229+60TH	LT.	50'				9
RAMP ME	291+65 – 307+65ME	RT.	200'			9	
	309+65ME	RT.	200'/110'			1	
	310+75ME – 315+70ME	RT.	55'			10	
	316+30ME	RT./LT.	60'/60'			1	1
	316+90ME – 319+90ME	LT.	75'				5
	321+40E	RT./LT.	150'/160'			1	1
	323+00ME – 333+00ME	RT.	200'			6	
	335+00ME/MER – 337+00ME/MER	RT./LT.	200'			2	2
RAMP MF	332+90 – 338+90MF	RT.	200'			4	
	340+90MF	RT.	200'/150'			1	
	342+40MF	RT.	150'/100'			1	1
	343+40MF – 339+40MF	LT.	50'				9
	343+90MF	LT./RT.	50'			1	1
RAMP DB	359+30 – 371+30DB	LT.	200'			7	
	373+30DB	LT.	200'/180'			1	
	375+10DB	LT.	180'/90'			1	
	376+00DB	LT.	90'/60'			1	
	376+60DB – 382+60DB	RT./LT.	30'			1	21
	382+95DB	RT.	35'/40'				1
	383+35DB	RT.	45'/55'				1
	383+80DB	RT./LT.	55'			1	1
	384+35DB – 385+45DB	LT.	55'			3	
RAMP DC	375+75DC	RT./LT.				1	1
	376+10DC – 378+90DC	LT.	35'				9
	379+25DC – 379+60	LT./RT.	35'			2	2
	380+30DC	RT.	70'/105'			1	
	381+35DC	RT.	105'/200'			1	
	383+35DC – 389+35	RT.	200'			4	
RAMP DA	376+00DA – 378+00DA	LT.	200'			2	
RAMP DE	373+30DE – 377+30DE	LT.	50'			9	
	378+30DE	LT.	100'/150'			1	
	379+80DE	LT.	150'/200'			1	
	381+80DE – 389+80	LT.	200'			5	
COLUMN TOTALS						97	66

LOCATION	STATION TO STATION	SIDE	SPACING	BRACKET MTD. C	BRACKET MTD. D	POST MTD. C	POST MTD. D
RAMP A	295+05 – 305+05A	LT.	200'			6	
	306+55A	LT.	150'/75'			1	
	306+55A – 308+80A	RT.	75'				4
	309+55A – 311+80A	RT.	75'				4
	311+80A	LT.	75'			1	
	312+55A – 313+30A	LT.	75'			2	
RAMP AR	309+50AR – 311+00AR	RT.	75'			2	
RAMP B	303+05 – 311+05B	RT.	200'			5	
RAMP C	327+40C – 344+40	RT.	200'			13	
RAMP D	331+45 – 321+45D	LT.	200'			6	
RAMP E	160+15NL – 7+50E	RT.	200'			3	
	8+55E	RT.	105'/70'			1	
	9+25E	RT.	70'/35'			1	
	9+25E – 15+90E	LT.	35'				20
	15+90E	RT.	35'/70'			1	
	16+60E	RT.	70'/105'			1	
	17+65E	RT.	105'/200'			1	
	356+45 – 362+45	RT.	200'			4	
RAMP F	364+20 – 9+95F	RT.	200'			8	
	11+95F	RT.	200'/140'			1	
	13+35F – 33+52T	RT.	70'			6	
RAMP G	380+96 – 0+80G	RT.	200'			2	
	1+85G	RT.	105'/70'			1	
	2+55G – 3+60G	RT.	35'			4	
	3+60G – 9+55G	LT.	35'				18
	9+55G	RT.				1	
RAMP H	380+36	RT.	200'				1
	0+20H – 2+20H	RT.	200'				2
	2+20H – 12+20H	LT.	200'			6	
	7+05H – 13+05H	RT.	200'				4
	15+05H	LT.	200'/195'			1	
	17+00H	LT.	195'/130'			1	
	18+30H – 23+95H	LT.	65'			10	
RAMP H1	7+50H1 – 8+20H1	RT.	35'				2
	6+20H1	RT.					1
	4+25H1 – 2+25H1	RT.					2
	2+25H1	LT.				1	
	0+75H1	LT.				1	
COLUMN TOTALS						91	58

DELINEATOR QUANTITIES

620 DELINEATORS

CALC. BY KAB DATE 12/95
CHKD. BY JAD DATE 12/95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 464/615

LOCATION	STATION TO STATION	SIDE	SPACING	BRACKET MTD. C	BRACKET MTD. D	POST MTD. C	POST MTD. D
RAMP M	1+80M					1	
	3+60M					1	
	4+50M					1	
	5+10M – 6+30M	RT.	30'			5	
	6+30M – 6+90M	LT.	30'				3
	24+38 (RIDGE ST)	LT.					1
	24+90 (RIDGE ST)	LT.					1
	25+80 (RIDGE ST)	LT.					1
RAMP I	392+75SB – 10+27I	LT.	200'				6
	10+25I – 0+25I	LT.	200'			6	
RAMP J	8+00K	RT.	200'			1	
	10+00J – 24+00J	RT.	200'			8	
	24+00J – 26+00J	LT.	200'				2
	381+05 – 387+05	LT.	200'				7
RAMP N	401+15	RT.				1	
	1+15N	RT.				1	
	2+20N	RT.				1	
	2+90N – 3+60N	RT.				3	
	3+60N – 13+75N	LT.					30
	13+75N – 14+45N	RT.				3	
RAMP P	0+00P – 2+10P	RT.	35'			7	
	2+10P – 3+85P	LT.	35'				6
	3+85P – 4+20P	RT.	35'			2	
	4+20P – 8+75P	LT.	35'				14
	8+75P – 10+50P	RT.	35'			6	
RAMP P1	0+56P1	RT.	60'			1	
	1+16P1	RT.	50'			1	
	1+66P1 – 2+01P1	RT.	35'			2	
	2+01P1 – 4+11P1	LT.	35'				7
RAMP R	10+00R – 8+60R	RT.	70'			3	
	8+60R – 3+00R	LT.	35'				17
	3+00R – 2+65R	RT.	35'			2	
	1+95R	RT.	70'/110'			1	
	0+90R	RT.	110'/200'			1	
	419+10 – 423+10	LT.	200'			3	
RAMP K	14+02K	RT.				1	
	15+52K – 26+02K	RT.	75'			15	
COLUMN TOTALS						77	95

LOCATION	STATION TO STATION	SIDE	SPACING	BRACKET MTD. C	BRACKET MTD. D	POST MTD. C	POST MTD. D
RAMP T	33+22T – 36+22T	RT.	50'			7	
	37+22T	RT.				1	
	38+72T	RT.				1	
	39+47T – 43+22T	RT.	75'			6	
	34+22T – 36+22T	LT.	50'			5	
	37+22T	LT.				1	
	38+72T	LT.				1	
	39+47T – 42+47T	LT.	75'			5	
	45+00T – 49+20T	LT./RT.	200'			3	3
RAMP U	0+22U – 1+87U	RT.	55'			4	
	2+22U	RT.				1	
	2+22U – 3+97U	LT.	35'				6
RAMP L	16+74L – 6+74L	LT.				2	
	161+51NL – 159+51NL	LT.				11	
	26+02L – 18+52L	LT.				6	
MAINLINE 71	213+00 – 241+00	RT.	400'			7	
	247+00 – 326+51.86	RT.	400'			21	
	338+00 – 382+00	RT.	400'			12	
	391+19.39 – 301+00	RT.	400'			4	
	307+00 – 331+00	RT.	400'			7	
	348+00 – 360+00	RT.	400'			13	
	372+00 – 376+00	RT.	400'			2	
	386+00 – 398+00	RT.	400'			4	
	407+00 – 411+00	RT.	400'			2	
	416+00 – 436+00	RT.	400'			6	
	213+00 – 241+00	LT.	400'				8
	251+00 – 287+00	LT.	400'				10
	305+00 – 356+51.86	LT.	400'				14
	374+00 – 382+00	LT.	400'				3
	392+00 – 294+00	LT.	400'				2
	308+00 – 324+00	LT.	400'				5
	334+00 – 354+00	LT.	400'				6
	368+00 – 380+00	LT.	400'				4
	395+00 – 415+00	LT.	400'				6
	426+00 – 434+00	LT.	400'				3
COLUMN TOTALS						132	70

	BRACKET MTD. C	BRACKET MTD. D	POST MTD. C	POST MTD. D
COLUMN 1, Sheet 463			97	66
COLUMN 2, Sheet 463			91	58
COLUMN 3			77	95
COLUMN 4			132	70
TOTAL TO TRAFFIC CONTROL SUMMARY			397	289

DELINEATORS REMOVED FOR	DISPOSAL	618

DELINEATOR QUANTITIES

CALC. BY YAB DATE 12/2/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

465/615

NOTE: STATIONS ARE APPROXIMATE

TRAFFIC CONTROL QUANTITIES

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN. FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 WORD ON PAVEMENT EACH		
I-71 NB	Rt.	213+00	235+00						2200													
	Rt.	213+00	317+66.66						10466.66													
	Rt.	213+00	317+66.66						10466.66													
	Rt.	213+00	317+66.66						10466.66													
	Rt.	241+00	267+75						2675													
	Rt.	310+00	317+66.66						766.66													
	Rt.	317+66.66	332+50						1483.34													
	Rt.	317+66.66	393+69.39						7602.73													
	Rt.	317+66.66	393+69.39						7602.73													
	Rt.	317+66.66	393+69.39						7602.73													
	Rt.	389+00	393+69.39						469.39													
	Rt.	291+50	295+07						357													
	Rt.	291+50	356+26.39						6476.39													
	Rt.	291+50	356+26.39						6476.39													
	Rt.	291+50	356+26.39						6476.39													
	Rt.	335+67	338+06						239													
	Rt.	356+26.39NB	370+20NB						1393.61													
	Rt.	356+26.39NB	402+11NB						4584.61													
	Rt.	356+26.39NB	404+00NB						4773.61													
	Rt.	367+56NB	370+07NB						251													
	Lt.-Rt.	384+00NB	404+00NB						2000													
	Rt.	404+87.57	436+82.72						3195.15													
	Rt.	404+87.57	436+82.72						3195.15													
	Rt.	414+68	417+41						273													
	Rt.	213+00	241+80				2880															
	Rt.	213+00	317+66.66					10466.66														
	Rt.	239+00	317+66.66				7866.66															
	Rt.	317+66.66	334+22.44				1655.78															
	Rt.	317+66.66	393+69.39					7602.73														
	Rt.	338+42	389+00				5058															
	Rt.	387+00	393+69.39				669.39															
	Rt.	291+50	304+00				1250															
	Rt.	291+50	356+26.39					6476.39														
	Rt.	307+31	335+67				2836															
	Rt.	333+67.25	356+26.39				2259.14															
	Rt.	356+26.39NB	368+24.92NB				1198.53															
	℄	356+26.39NB	382+00NB					2573.61														
	Rt.	373+12NB	382+16.36NB				904.36															
	Rt.	382+00NB	384+00NB				200															
	℄	382+00NB	404+00NB					2200														
	Rt.	386+24NB	402+00NB				1576															
	Rt.	404+87.57	436+82.72					3195.15														
	Rt.	406+97	414+68				771															
	Rt.	412+00	436+82.72				2482.72															
	Rt.	239+00	241+80											280								
	Rt.	332+50	338+42											592								
	Rt.	387+00	389+00											200								
	Rt.	295+07	307+31											1224								
	Rt.	333+67.25	335+67											199.75								
	Rt.	370+07NB	373+12NB											305								
	Rt.	370+20NB	386+24NB											1604								
	Lt.	382+00NB	384+00NB											200								
	Rt.	402+11NB	404+00NB											189								
	Rt.	404+87.57	406+97											209.43								
	Rt.	412+00	414+68											268								
	Rt.	335+76	337+43														168					
	Rt.	305+21	306+62														171					
	Rt.	370+07NB	372+55NB														274					
	Rt.	383+43NB	385+76NB														408					
	Rt.	403+46NB	404+00NB														25					
	Rt.	404+87.57	406+33														270					
	Rt.	337+42	337+81			292.5																
TOTALS FROM THIS SHEET				0	0	292.5	31607.58	32514.54	101493.86	0			0	5271.18	0	0	1316	0	0	0		

PAVEMENT MARKING QUANTITIES

CALC. BY KAB DATE 12/2/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

466/615

NOTE: STATIONS ARE APPROXIMATE

TRAFFIC CONTROL QUANTITIES

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN. FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 WORD ON PAVEMENT EACH		
I-71 SB	Lt.	213+00	317+66.66						10466.66													
	Lt.	213+00	317+66.66						10466.66													
	Lt.	213+00	317+66.66						10466.66													
	Lt.	259+90	269+00						910													
	Lt.	296+60	299+60						300													
	Lt.	318+14.80	393+69.39						7554.59													
	Lt.	318+14.80	393+69.39						7554.59													
	Lt.	318+14.80	393+69.39						7554.59													
	Lt.	365+13	367+59						246													
	Lt.	386+97	389+83						296													
	Lt.	291+50	356+26.39						6476.39													
	Lt.	291+50	356+26.39						6476.39													
	Lt.	291+50	356+26.39						6476.39													
	Lt.	299+41	301+71						230													
	Lt.	328+70	331+32						262													
	Lt.	356+26.39SB	382+75SB						2648.61													
	Lt.	356+26.39SB	404+84.57SB						4858.18													
	Lt.	356+26.39SB	404+84.57SB						4858.18													
	Lt.	360+23SB	363+23SB						300													
	Lt.	385+67SB	387+20B						153													
	Lt.	404+87.57	436+82.72						3195.15													
	Lt.	404+87.57	436+82.72						3195.15													
	Lt.	213+00	240+60				2760															
	Lt.	213+00	317+66.66					10466.66														
	Lt.	248+34.86	302+15.31				5380.45															
	Lt.	299+60	317+66.66				1806.66															
	Lt.	318+14.80	369+58.89				5144.09															
	Lt.	318+14.80	393+69.39					7554.59														
	Lt.	367+59	384+72				1713															
	Lt.	388+96.83	393+69.39				472.56															
	Lt.	291+50	304+00				1250															
	Lt.	291+50	356+26.39					6476.39														
	Lt.	301+71	326+20				2449															
	Lt.	329+74.01	356+26.39				2652.38															
	Lt.	356+26.39SB	365+00SB				873.61															
	℄	356+26.39SB	383+00SB					2673.61														
	Lt.	363+23SB	382+77SB				1954															
	℄	382+75SB	404+84.57SB					2209.57														
	Lt.	387+03.31SB	404+84.57SB				1781.26															
	Lt.	404+87.57	414+43				955.43															
	Lt.	404+87.57	436+82.72					3195.15														
	Lt.	418+00	436+82.72				1882.72															
	Lt.	240+60	257+90											1730								
	Lt.	299+60	302+15.31											255.31								
	Lt.	367+59	369+58.89											199.89								
	Lt.	384+72	386+97											225								
	Lt.	301+71	304+00											229								
	Lt.	326+20	328+70											250								
	Lt.	363+23SB	365+00SB											177								
	Lt.-Rt.	382+75SB	383+00SB											25								
	Lt.	382+77SB	385+67SB											290								
	Lt.	414+43	416+79											236								
	Lt.	241+56	247+13															666				
	Lt.	385+69	386+97															115				
	Lt.	327+00	328+70															178				
	Lt.	383+42SB	385+67SB															262				
	Lt.	415+00	416+79															223				
	Lt.	385+39	385+71			270																
	TOTALS FROM THIS SHEET			0	0	270	31075.16	32575.97	94945.19	0			0	3617.2	0	0	1444	0	0	0		

PAVEMENT MARKING QUANTITIES

CALC BY KAB DATE 12/7/94
CHKD BY JJM DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

467 / 615

NOTE: STATIONS ARE APPROXIMATE

TRAFFIC CONTROL QUANTITIES

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN. FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW SOLID, DOUBLE EACH	ITEM 644 WORD ON PAVEMENT EACH		
Ramp DE	Rt.	373+19DE	385+68DE					1249														
	℄	373+28DE	388+96.83DE				1558.83															
	Rt.	373+28DE	381+27DE											799								
	Rt.	385+68DE	386+97DE											129								
	℄	373+26DE													48							
	Rt.	373+68DE																	2			
	Rt.	377+26DE																	2			
	Rt.	380+56DE																		1		
	Rt.	373+96DE																		1		
Ramp A	Rt.	304+00A	308+01.02A					401.02														
	℄	304+00A	310+85A				685															
	Rt.	309+35A	309+64A											29								
	Rt.	311+67A	312+04A											37								
	Rt.	311+61A														20						
	Rt.	311+67A														20						
Ramp AR	℄	308+01.02AR	310+525AR					250.98														
	Lt.	309+35AR	309+64AR											29								
	Lt.	310+01AR														25						
	Lt.	310+07AR														33						
Ramp B	℄	304+00B	310+25B				625															
	Lt.	306+61B	310+25B					364														
	Lt.	305+21B	306+61B											140								
	Lt.	308+07B	310+74B											267								
	Lt.	310+74B	311+07B											33								
	Lt.	310+74B	311+07B											33								
	Lt.	310+74B	311+07B															44				
	Lt.	311+07B														70						
	Lt.	311+14B														87						
	Lt.	310+82B													18							
	℄	310+92B													18							
	Lt.	309+46B																	2			
	Lt.	310+64B																	2			
	Lt.	310+26B																		1		
	Lt.	310+26B																		1		
Ramp C	℄	328+21C	333+67.25C				546.25															
	Lt.	328+21C	333+67.25C					546.25														
Ramp D	Lt.	321+28D	329+74.01D				846.01															
	Rt.	321+90D	327+06D					516														
	Rt.	320+80D	321+45D											55								
	Rt.	320+84D	321+45D											60								
	Rt.	321+45D	325+00D											355								
	Rt.	327+06D	328+68D											162								
	Rt.	320+78D	321+45D															119				
	Rt.	320+65D														28						
	Lt.	320+68D														21						
	Rt.	320+72D														25						
	Lt.	320+78D														21						
	Rt.	320+80D													20							
	Lt.	320+84D													15							
	Lt.	321+17D																	1			
	Rt.	321+32D																	1			
	℄	322+99D																	1			
	Lt.	323+14D																	1			
	℄	321+55D																		1		
	Rt.	321+70D																		1		
TOTALS FROM THIS SHEET				0	0	0	4261.09	3327.25	0	0			0	2128	119	350	0	163	12	6		

PAVEMENT MARKING QUANTITIES

CALC BY KAD DATE 12/95
CHKD BY [illegible] DATE 12/95

HAM-71-2.92

OHIO FHWA REGION 5

468/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN.FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 72" WORD ON PAVEMENT EACH		
Ramp E	℄	3+79.31E	17+07.53E				1328.22															
	Lt.	7+40E	17+07.53E					967.53														
	Lt.	3+79.31E	7+40E											360.69								
Ramp F	℄	14+59F	16+64.30F						205.3													
	Rt.	0+00F	16+64.30F				1664.30															
	Rt.	4+13F	14+59F					1046														
	Rt.	11+76F	14+13F											237								
Ramp G	℄	0+00G	10+81.34G				1081.34															
	Lt.	2+38G	10+81.34G					843.34														
	Lt.	1+25G	2+38G											113								
Ramp H	Lt.	11+20H	12+39.40H						119.40													
	Lt.	0+00H	12+39.40H																			
	℄ – Rt.	0+00H	13+75H				1239.40															
	℄	12+39.40H	24+07.41H					1375														
	Rt.	18+30.33H	24+07.41H				1168.01															
	Rt.	13+75H	15+65H					577.08														
														190								
Ramp H1	Lt.	5+43H1	6+87H1						144													
	Lt.	0+00H1	3+52H1				352															
	℄	0+00H1	8+04.64H1					804.64														
	Lt.	3+52H1	5+43H1											191								
	Lt.	3+52H1	5+43H1															217				
Ramp I	Rt.	0+00I	10+40I					1040														
	℄	0+00I	13+99.69I				1399.69															
	Rt.	10+40I	12+65I											225								
Ramp J	℄ – Rt.	8+95J	26+94.85J				1799.85															
	Lt. – ℄	13+51J	26+94.85J					1343.85														
	Lt.	12+00J	13+51J											151								
Ramp K	℄	5+81.56K	26+52.36K					2070.80														
	Rt.	8+00K	8+59K				59															
	Lt.	13+53K	26+52.36K				1299.36															
	Lt.	5+81.56K	8+00K											218.44								
	Lt.	5+81.56K	13+53K											771.44								
	Lt.	5+81.56K	7+39K														286					
	Lt.	12+00K	13+53K														129					
Ramp K	Lt.	5+70.64L	15+28L						957.36													
	Lt.	5+70.64L	16+48.88L				1078.24															
	℄	5+70.64L	26+52.36L					2081.72														
	Lt.	16+48.88L	26+52.39L				1003.51															
	Lt.	15+28L	16+48.88L											120.88								
	Lt.	15+28L	16+48.88L											120.88								
Ramp M	Lt.	0+00M	5+33M					533														
	℄	0+00M	6+48.55M				648.55															
	Lt.	5+33M	6+48.55M		115.55																	
Ramp N	℄	0+00N	14+72.95N				1472.95															
	Lt.	3+36N	13+79.31N					1043.31														
	Lt.	1+30N	3+36N											206								
	Lt.	13+79.31N	14+50N											70.69								
Ramp P	℄	2+04.95P	10+45.90P				840.95															
	Lt.	6+03.37P	10+45.90P					442.53														
	Lt.	2+04.95P	4+19P	214.05																		
	Lt.	2+04.95P		160																		
TOTALS FROM THIS SHEET				374.05	115.55	0	16435.37	14168.80	1426.06	0			0	2976.02	0	0	415	217	0	0		

PAVEMENT MARKING QUANTITIES

CALC. BY KAB DATE 12/7/94
CHKD. BY JAM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

469/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN.FT.	ITEM 644 CROSSWALK LINE LIN.FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 WORD ON PAVEMENT EACH		
Ramp TC	Lt.	225+89TC	239+00TC				1311															
	℄	225+89TC	239+00TC					1311														
Ramp TH	Rt.	229+66TH	233+25TH						359													
	Rt.	229+66TH	233+25TH						359													
	Rt.	229+66TH	241+60TH					1194														
	℄	229+66TH	248+34.86TH				1868.86															
	Rt.	241+60TH	247+13TH											553								
	Rt.	229+59TH														36						
	Rt.	229+64TH													36							
Ramp ME	Rt.	333+28ME	335+40ME						212													
	Rt.	302+15.31ME	328+37.58					2622.27														
	℄	302+15.31ME	337+44ME				3528.69															
	Rt.	335+42ME	336+17ME											75								
	Rt.	337+27ME												10								
	Rt.	337+27ME												10								
	Rt.	337+82ME												15								
	Rt.	337+82ME												15								
	Rt.	337+53ME														18						
	Rt.	337+63ME														21						
	Rt.	337+67ME														20						
	Rt.	337+77ME														18						
	Rt.	336+17ME		145																		
	Rt.	337+39ME		53																		
	Rt.	337+39ME		35																		
	Rt.	337+82MF		25																		
Ramp MER	℄	328+37.58MER	337+03MER					865.42														
	Lt.	335+40MER	336+14MER											74								
	Lt.	337+25MER														20						
	Lt.	337+25MER														20						
	Lt.	336+14MER	337+35MER	137																		
	Lt.	337+25MER		26																		
Ramp MF	℄	334+22.44MF	343+94MF				971.56															
	Lt.	337+42MF	343+78MF					636														
	Lt.	344+04MF	344+05.94MF				1.94															
	Lt.	335+76MF	337+42MF											166								
	Lt.	340+31MF	343+90MF											359								
	Lt.	340+88MF																		2		
	Lt.	342+06MF																		2		
	Lt.	343+60MF																		2		
	Lt.	343+22MF																			1	
	Lt.	343+22MF																			1	
	Lt.	343+90MF													39							
	Lt.	343+94MF														50						
	Lt.	344+04MF														72						
Ramp DA	Rt.	376+17DA	379+69.88DA				352.88															
	℄	376+17DA	379+69.88DA					352.88														
Ramp DB	℄	369+58.89DB	385+44.59DB				1585.7															
	Rt.	369+58.89DB	383+83DB					1424.11														
	Rt.	383+83DB	385+44.59DB											161.59								
Ramp DC	℄	375+72DC	387+00DC				1128															
	Lt.	375+72DC	379+69.88DC					397.88														
	Rt.	379+69.88DC	387+00DC					730.12														
	Lt.	375+28DC	375+72DC											44								
	Lt.	374+66DC													13							
		TOTALS FROM THIS SHEET		421	0	0	10748.63	9533.68	930	0			0	1482.59	88	275	0	0	6	2		

PAVEMENT MARKING QUANTITIES

CALC. BY KAB DATE 12/7/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO FHWA REGION 5

470/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN.FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 WORD ON PAVEMENT EACH		
Ramp P1	Lt.	0+53P1	4+19.07P1					366.07														
	Rt.	0+36P1	2+23P1	187																		
Ramp R	℄–Rt.	0+00R	9+64R				964															
	Lt.	2+93R	9+64R					671														
	Lt.	1+20R	2+93R											173								
	Lt.	7+50R	10+10R											260								
	℄	10+10R													58							
	Lt.	8+08R																	1			
	Rt.	8+08R																	1			
	Lt.	8+75R																	1			
	Rt.	8+75R																	1			
	Lt.	9+78R																	1			
	Rt.	9+78R																	1			
	Lt.	9+40R																		1		
	Rt.	9+40R																		1		
Ramp T	Lt.	31+60T	32+80T						120													
	Rt.	33+31.65T	47+25T						1393.35													
	Lt.	41+61T	42+96.79T						135.79													
	Rt.	27+50T	31+36T				386															
	Lt.	27+50T	32+80T				530															
	Lt.	27+50T	49+80T					2230														
	Rt.	27+50T	49+80T					2230														
	Lt.	32+80T	42+96.79T				1016.79															
	Rt.	33+31.65T	43+00T				968.35															
	Lt.	42+96.79T	49+80T				683.21															
	Rt.	46+25T	49+53T				328															
	Rt.	44+43T	46+25T											182								
	Rt.	47+25T	49+79T											254								
	Rt.	47+25T	50+91T											366								
	Rt.	49+76T	50+39T											63								
	Rt.	49+76T	50+12T											36								
	Rt.	50+12T	50+96T	84																		
	Rt.	50+96T		90																		
	Lt.	50+96T		62																		
	Rt.	50+12T	50+96T		84																	
	Rt.	47+84T													32							
	Rt.	49+04T																	3			
	Rt.	50+60T																	3			
	Rt.	50+22T																	2			
	Rt.	50+22T																		1		
																				1		
Ramp T1	℄	–0+18T1	1+21.67T1	139																		
	Rt.	–0+18T1	1+21.67T1		139																	
Ramp T2	Lt.	0+50T2	1+38.50T2	88.5																		
	Lt.	1+22T2														20						
	Lt.	1+32T2														20						
	Lt.	0+58T2																	1			
	Lt.	0+96T2																		1		
Ramp U	℄	0+00U	4+07.05U				407.05															
	Lt.	1+97U	4+07.05U					210.05														
	Lt.	1+48U	1+97U			48								49								
	Lt.	1+95U	2+10U																			
TOTALS FROM THIS SHEET				650.5	223	48	5283.4	5707.12	1649.14	0			0	1383	90	40	0	0	15	5		

PAVEMENT MARKING QUANTITIES

CALC. BY LAB DATE 12/21/94
CHKD. BY JJM DATE 2-1-95

HAM-71-2.92

OHIO
FHWA REGION 5

471
615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN.FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 WORD ON PAVEMENT EACH		
McMillan St	Lt.	6+83.72	10+85						401.28													
	℄	6+83.72	10+85						401.28													
	Rt.	6+83.72	10+85						401.28													
Taft Rd	Lt.	12+65.32	17+24.07						458.75													
	℄	12+65.32	17+24.07						458.75													
	Rt.	12+65.32	17+24.07						458.75													
Lincoln Ave	℄	5+77.37	5+92										14.63									
	℄	6+41	8+71										230									
	℄	9+27	9+45.74										18.74									
May St	℄	13+85.63	14+15										29.37									
Oak St	℄	5+68	9+81.41										413.41									
ML King Jr Dr	Lt.	97+58.90	105+96.32						837.42													
	Lt.	97+58.90	105+96.32						837.42													
	Rt.	97+58.90	105+96.32						837.42													
	Rt.	97+58.90	105+96.32						837.42													
	Lt.	97+58.90	105+96.32										837.42									
	Rt.	97+58.90	105+96.32										837.42									
Fredonia Ave	Lt.	8+46.04	12+51.37						405.33													
	Rt.	8+46.04	12+51.37						405.33													
	Rt.	8+46.04	12+51.37										405.33									
	Rt.	8+46.04														38						
	℄	8+46.04														29						
Blair Ave	Lt.	8+08.25	17+38.51						930.26													
	Rt.	8+08.25	17+38.51						930.26													
	℄	8+08.25	17+38.51										930.26									
Woodurn Ave	Lt.	1+14	4+40						326													
	Rt.	1+14	4+47						333													
	℄	1+14	4+91										377									
Trimble Ave	Lt.	3+90.72	7+04.56						313.84													
	Rt.	3+90.72	7+04.56						313.84													
	℄	3+90.72	7+04.56										313.84									
TOTALS FROM THIS SHEET				0	0	0	0	0	9887.63	0			4407.42	0	0	67	0	0	0	0		

CALC. BY KAB DATE 12/27/94
CHK'D BY JJM DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 472/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN.FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 WORD ON PAVEMENT EACH		
Montgomerty Rd	Lt.	2+04.97	8+45						640.03													
	Rt.	2+93	8+45						552													
	Rt.	2+04.97	2+77											72.03								
	Rt.	2+19	2+77											58								
	Rt.	2+93	3+33											40								
	Lt.	4+58	7+50											292								
	℄	2+83														57						
	℄	2+93														62						
	Rt.	2+77													27							
	Rt.	4+13													23							
	℄	4+62													22							
	Rt.	2+62																	2			
	Lt.	5+04																	2			
	Lt.	6+31																	1			
	Lt.	7+22																	1			
	Rt.	2+24																		2		
	Lt.	5+42																		2		
	Lt.	2+04.97	2+83														61					
	Lt.	2+93	3+56														83					
	℄	3+76	4+58														142					
	Rt-℄-Lt	4+56	8+45														408					
	Rt.	2+04.97	2+83										78.03									
	Lt.	2+04.97	2+83										78.03									
	Lt.	2+93	3+50										57									
	Rt.	2+93	3+56										63									
	Lt.	3+50	3+56										20									
	Lt.	3+66	3+76										20									
	Rt.	3+76	4+28										52									
	Lt.	3+76	4+58										52									
	℄	4+28	4+58										35									
	Rt.	4+56	8+45										389									
	Rt-Lt	4+56	8+45										389									
Brewster Ave	℄	0+37												20								
	Lt.	0+37	0+43											6								
	Rt.	0+37	0+43											6								
	℄	0+53	1+45.42											92.42								
	Rt.	0+53	1+45.42											92.42								
	℄	0+43														90						
	℄	0+53														71						
	Lt.	0+61													16							
	Rt.	0+61													19							
	℄	0+37	0+43															11				
	Rt.	0+53	1+45.42															44				
	Rt.	0+61	1+45.42										84.45									
	Lt.	0+79																	1			
	Rt.	0+79																	1			
	Lt.	1+17																		1		
	Rt.	1+17																		1		
Duck Creek Rd	Rt.	18+25	19+29						104													
	Lt.	18+25	20+00						175													
	Rt.	18+25	19+03											78								
	Rt.	18+25	19+03											78								
	Rt.	19+29	20+00											171								
	℄	20+04														80						
	℄	20+14														90						
	Rt.	19+84																	2			
	Rt.	19+56																		1		
	Rt.	19+56																		1		
	Rt.	19+03	20+35	132																		
	Rt.	19+03	20+35	410																		
	Lt.	18+25	20+00										175									
	Rt.	18+25	20+00										175									
TOTALS FROM THIS SHEET				542	0	0	0	0	1471.03	0			1667.51	1005.87	107	450	694	55	10	8		

PAVEMENT MARKING QUANTITIES

CALC BY KAB DATE 12/2/94
CHKD BY [illegible] DATE 2-6-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 473/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING (WHITE) LIN. FT.	ITEM 642 CURB MARKING (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN.FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 WORD ON PAVEMENT EACH		
Dana Ave	Rt.	5+97.19	7+10						112.81													
	Lt.	5+97.79	7+10						112.81													
	Rt.	8+08	12+44						436													
	Lt.	8+08	12+90						482													
	Lt.	10+64.87	12+90						225.13													
	Rt.	13+58	19+80						622													
	Lt.	13+70	16+00						230													
	Lt.	13+72	16+00						228													
	Lt.	17+10	19+80						270													
	Lt.	17+10	19+80						270													
	Rt.	19+00	19+80						80													
	Lt.	5+97.19	6+35				60															
	Rt.	5+97.19	6+39											41.81								
	Lt-℄-Rt	7+38	8+11											110								
	Lt.	7+51	10+64.87											336.87								
	Rt.	10+17	12+44											227								
	Lt.	13+65	14+62											97								
	℄	13+65	14+62											97								
	Rt.	15+53	16+03											50								
	Lt.	15+10	16+00											90								
	Rt.	16+94	19+00											206								
	℄	13+51														85						
	℄	13+61														83						
	Rt.	6+39													15							
	Rt.	7+10													33							
	Lt.	8+08													25							
	Rt.	12+44													50							
	℄	13+65													57							
	Rt.	13+45	16+94	349																		
	Rt.	6+10																	1			
	Rt.	10+48																	2			
	Rt.	12+12																	2			
	Rt.	13+93																	1			
	Rt.	13+93																	1			
	Lt.	15+99																	2			
	Rt.	11+74																		2		
	Rt.	14+31																		1		
	Lt.	14+31																		1		
	Rt.	15+61																		2		
	Lt.	5+97.19	6+27										29.81									
	℄	5+97.19	6+27										29.81									
	Lt.	5+97.19	7+10										50									
	Rt.	6+65	7+10										65									
	Rt.	8+08	9+92										200									
	Lt.	8+08	9+92										184									
	Lt.	9+92	12+44										252									
	Rt.	9+92	12+44										252									
	Rt.	13+65	15+27										163									
	℄	15+27	15+99										72									
	Lt.	15+27	15+99										78									
	Lt.	17+10	19+80										270									
	Rt.	17+10	19+80										265									
	Lt.	5+97.19	6+27															18				
	Lt.	5+97.79	6+27														42					
	Rt-℄-Lt	6+65	7+10															89				
	Lt.	7+51	10+64.87														508					
	Rt.	8+08	9+92															284				
	℄	9+92	12+44															105				
	Lt.	13+65	14+62														40					
	Lt.	15+27	15+99															41				
	Lt.	15+10	16+00														49					
	℄	17+10	19+80															479				
	Lt.	16+00	17+10							110												
	Lt.	16+00	17+10							110												
	TOTALS FROM THIS SHEET			349	0	0	60	0	3068.75	220			1910.62	1255.68	180	168	639	1016	9	6		

PAVEMENT MARKING QUANTITIES

CALC. BY KAB DATE 12/95
CHKD. BY [illegible] DATE 12/95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 474/615

NOTE: STATIONS ARE APPROXIMATE

TRAFFIC CONTROL QUANTITIES

PAVEMENT MARKINGS

ROADWAY	SIDE	STATION FROM	STATION TO	ITEM 642 CURB MARKING, TYPE 2 (WHITE) LIN. FT.	ITEM 642 CURB MARKING, TYPE 2 (YELLOW) LIN. FT.	ITEM 642 ISLAND MARKING, TYPE 2 (YELLOW) SQ. FT.	ITEM 644 EDGE LINES (WHITE) LIN.FT.	ITEM 644 EDGE LINES (YELLOW) LIN.FT.	ITEM 644 4" LANE LINES LIN.FT.	ITEM 644 4" DOTTED LINE LIN.FT.			ITEM 644 CENTER LINES: SOLID, DOUBLE LIN. FT.	ITEM 644 8" CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 24" STOP LINE LIN. FT.	ITEM 644 CROSSWALK LINE LIN.FT.	ITEM 644 24" TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 24" TRANSVERSE LINE(YELLOW) LIN.FT.	ITEM 644 LANE ARROW EACH	ITEM 644 72" WORD ON PAVEMENT EACH	ITEM 642 REMOVAL OF PAVEMENT MARKING LIN.FT.	
Smith-Edmondson Rd	Rt.	11+29	11+98						69													
	Lt.	11+29	11+98						69													
	Rt.	13+07	16+45						338													
	Lt.	13+07	16+45						338													
	Rt.	17+56	19+07.01						151.01													
	Lt.	17+56	19+07.01						151.01													
	Lt.	16+95	18+15											120								
	℄	11+98														50						
	℄	12+08														50						
	Rt.	16+86	17+34													48						
	Rt.	16+91	17+26													35						
	℄	11+29	11+98										69									
	℄	13+07	16+45										338									
	℄	17+56	19+07.01										151.01									
	℄	11+98	12+08															125				
	Lt.	17+82	18+15															33				
Williams Rd	Rt.	12+96.95	15+02						205.05													
	Lt.	12+96.95	15+02						205.05													
	Rt.	15+56	19+18.53						362.53													
	Lt.	15+56	19+18.53						362.53													
	℄	12+96.95	15+02										205.05									
	℄	15+56	119+18.53										362.53									
Robertson Ave	Rt.	11+32.55	15+26.87						394.32													
	Lt.	11+32.55	15+26.87						394.32													
	℄	11+32.55	15+26.87										394.32									
SR 562	Rt.	155+70NL	162+46.81NL						508.81													
	Lt.	159+00NL	162+46.81NL						346.81													
	Rt.	157+50NL	116+69NL																			419
	Rt.	155+70NL	160+44.56NL				822.56							294.56			285					
	Rt.	159+00NL	162+46.81NL					676.81														
	Lt.	159+00NL	162+46.81NL				346.81															
	Lt.	159+00NL	162+46.81NL					346.81														
	Rt.	161+69NL	162+46.56NL											77.56								
	Rt.	162+20NL	162+46.52NL											26.56								
	Rt.	161+69NL	162+46.56NL															24				
Ridge Ave	Lt.	28+02.74	31+81						378.26													
	Rt.	28+20	31+81						361													
	Rt.	28+02.74	28+20											17.26								
	Rt.	31+81													24							
	℄	28+02.74	31+81										378.26									
Kennedy Ave	Rt.	18+73.59	21+74						300.41													
	Lt.	18+73.59	23+48.39						474.8													
	Rt.	21+74	23+48.39											174.39								
	Lt.	18+73.59	23+48.39										474.8									
	Lt.	20+74																	2			
	Lt-Rt	22+44																	1			
	Lt.	23+06																		1		
	TOTALS FROM THIS SHEET			0	0	0	1169.37	1023.62	5409.91	0			2372.97	710.33	24	183	285	182	3	1	419	
	TOTALS FROM SHEET NO. 465			0	0	292.5	31607.58	32514.54	101493.86	0			0	5271.18	0	0	1316	0	0	0	0	
	TOTALS FROM SHEET NO. 466			0	0	270	31075.16	32575.97	94945.19	0			0	3617.2	0	0	1444	0	0	0	0	
	TOTALS FROM SHEET NO. 467			0	0	0	4261.09	3327.25	0	0			0	2128	119	350	0	163	12	6	0	
	TOTALS FROM SHEET NO. 468			374.05	115.55	0	16435.37	14168.80	1426.06	0			0	2976.02	0	0	415	217	0	0	0	
	TOTALS FROM SHEET NO. 469			421	0	0	10748.63	9533.68	930	0			0	1482.59	88	275	0	0	6	2	0	
	TOTALS FROM SHEET NO. 470			650.5	223	48	5283.4	5707.12	1649.14	0			0	1383	90	40	0	0	15	5	0	
	TOTALS FROM SHEET NO. 471			0	0	0	0	0	9887.63	0			4407.42	0	0	67	0	0	0	0	0	
	TOTALS FROM SHEET NO. 472			542	0	0	0	0	1471.03	0			1667.51	1005.87	107	450	694	55	10	8	0	
	TOTALS FROM SHEET NO. 473			349	0	0	60	0	3068.75	220			1910.62	1255.68	180	168	639	1016	9	6	0	
	TOTALS CARRIED TO SHEET NO. 410			2336.55	338.55	610.5	100640.6	98850.98	220281.57	220			10358.52	19829.87	608	1533	4793	1633	55	28	419	
							= 19.06 mi	= 18.72 mi.	= 41.72 mi				= 1.96 mi									
				2675.1 LIN. FT.			37.78 MILES										6426 LIN. FT.					

PAVEMENT MARKINGS QUANTITIES

CALC. BY KAB DATE 12/95
CHKD BY J.M DATE 12/95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 475/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	ITEM 630		ITEM SPECIAL					ITEM 630			ITEM 631			ITEM 630	ITEM 631																
					EXTRU SHEET TYPE G	CONCRETE FOR ANCHOR BASE FOUNDATIONS	SURFACE PREPARATION EXISTING SUPPORT SECTION	SURFACE PREPARATION NEW SUPPORT SECTION	COATING, EPOXY PRIME COAT, SUPPORT SECTION	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION	COATING, URETHANE TOP COAT, SUPPORT SECTION	OVERHEAD SIGN SUPPORT T.C. 12.30 DESIGN NO. 8 28.0' ARMS	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 100 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP		BALLAST, INTEGRAL TYPE CMRI 100/240	BALLAST, INTEGRAL TYPE CMRI 100/480	BALLAST, INTEGRAL TYPE CMRI 175/240	BALLAST, INTEGRAL TYPE CMRI 175/480	BALLAST, INTEGRAL TYPE CMRI 250/240	BALLAST, INTEGRAL TYPE CMRI 250/480	SIGN SERVICE	SIGN MIRED		DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	GROUND ROD
																			240 VOLT	480 VOLT	240 VOLT	480 VOLT	240 VOLT	480 VOLT								OVERHEAD MOUNTED	STRUCTURE MOUNTED		
					SQ.FT.	CU.YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH												EACH			EACH	EACH
11A	245+40	LT.	GG(I)	216X84			2		2	2	2				2	1	2	2				2				2			1	1		1	1
11B	245+40	LT.	GB(I)	216X144											2		2	2						2				2		1			
	245+40	LT.	GEP-72	72X24																													
11C	245+40	LT.	GE(I)	192X72											2		2	2				2				2			1				
	245+40	LT.	GEP-72	72X24																													
17	258+25	LT.	GB(I)	192X72	96		2		2	2	2							2								2			1	1		1	1
	258+25	LT.	GB(I)	REMOVAL										1	2	1	2																
25A	280+00	RT.	GG(I)	156X84	91		3		3	3	3							2				2				2			1	1		1	1
25B	280+00	RT.	GB(I)	240X102	144.5													3				3				3			1				
	280+00	RT.	GEP(I)	72X24	12																												
	280+00	RT.	GG(I)	REMOVAL										1	2	1	2																
	280+00	RT.	GB(I)	REMOVAL										1	3		3																
	280+00	RT.	GEP(I)	REMOVAL										1																			
34	322+70	RT.	GB(I)	240X102	170													3				3				3			1		1	1	1
	322+70	RT.	GEP-72	72X12	12																												
	322+70	RT.	GB(I)	REMOVAL										1	3	1	3																
	322+70	RT.	GEP-72	REMOVAL										1																			
36A	324+00	LT.	GG(I)	144X60	60		3		3	3	3							2		2					2				1	1		1	1
36B	324+00	LT.	GB(I)	132X72	66													1				1				1			1				
	324+00	LT.	GEP-72	72X24	12																												
	324+00	LT.	GG(I)	REMOVAL										1	2	1	2																
	324+00	LT.	GB(I)	REMOVAL										1	1		1																
	324+00	LT.	GEP-72	REMOVAL			3		3	3	3			1																			
38A	332+90	RT.	GG(I)	156X84	91													2				2				2			1	1		1	1
38B	332+90	RT.	GB(I)	192X144	192													2					2						2	1			
	332+90	RT.	GEP-72	72X24	12																												
38C	332+90	RT.	GE(I)	276X102	195.5													3				3							1				
	332+90	RT.	GEP-72	72X24	12																												
	332+90	RT.	GG(I)	REMOVAL										1	2	1	2																
	332+90	RT.	GB(I)	REMOVAL										1	2		2																
	332+90	RT.	GEP-72	REMOVAL										1																			
	332+90	RT.	GE(I)	REMOVAL										1	3		3																
	332+90	RT.	GEP-72	REMOVAL										1																			
48	367+50	RT.	GB(I)	192X144	192		2		2	2	2							2					2						2	1	1	1	1
	367+50	RT.	GEP-72	72X18	9																												
	367+50	RT.	GB(I)	REMOVAL										1	2	1	2																
56A	388+00	LT.	GG(I)	144X60	60		3		3	3	3							2		2					2				1	1		1	1
56B	388+00	LT.	GE(I)	120X72	60													1				1				1			1				
	388+00	LT.	GEP-72	72X24	12																												
	388+00	LT.	GG(I)	REMOVAL										1	2	1	2																
	388+00	LT.	GE(I)	REMOVAL										1	1		1																
	388+00	LT.	GEP-72	REMOVAL										1																			
57	293+00	LT.	GB(I)	168X72	84		2		2	2	2							2				2				2			1	1		1	1
	293+00	LT.	GEP-72	72X24	12																												
	293+00	LT.	GB(I)	REMOVAL										1	2	1	2																
	293+00	LT.	GEP-72	REMOVAL										1																			
59	295+07	RT.	GB(I)	192X144	192		2		2	2	2							2					2						2	1	1	1	1
	295+07	RT.	GEP-72	72X24	12																												
	295+07	RT.	GB(I)	REMOVAL										1	2	1	2																
	295+07	RT.	GEP-72	REMOVAL										1																			
	TOTALS THIS SHEET				1799	0	22	0	22	22	22	0	0	22	35	10	35	35	0	4	0	23	0	8	0	4	0	23	0	8	10	16	1	10	10

CALC BY [illegible] DATE 12/95
CHKD BY [illegible] DATE 12/95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 476/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	ITEM 630		ITEM SPECIAL					ITEM 630			ITEM 631			ITEM 630	ITEM 631																				
					EXTRU SHEET TYPE G	CONCRETE FOR ANCHOR BASE FOUNDATIONS	SURFACE PREPARATION EXISTING SUPPORT SECTION	SURFACE PREPARATION NEW SUPPORT SECTION	COATING, EPOXY PRIME COAT, SUPPORT SECTION	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION	COATING, URETHANE TOP COAT, SUPPORT SECTION	OVERHEAD SIGN SUPPORT T.C. 12.30 DESIGN NO. 8 28.0' ARMS	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 100 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP		BALLAST, INTEGRAL TYPE CMRI 100/240	BALLAST, INTEGRAL TYPE CMRI 100/480	BALLAST, INTEGRAL TYPE CMRI 175/240	BALLAST, INTEGRAL TYPE CMRI 175/480	BALLAST, INTEGRAL TYPE CMRI 250/240	BALLAST, INTEGRAL TYPE CMRI 250/480	SIGN SERVICE	SIGN WIRED		DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	GROUND ROD
																			240 VOLT	480 VOLT	240 VOLT	480 VOLT	240 VOLT	480 VOLT								OVERHEAD MOUNTED	STRUCTURE MOUNTED		
					SQ.FT.	CU.YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		EACH		EACH		EACH		EACH	EACH	EACH	EACH	EACH	EACH		EACH	EACH
62A	305+24	RT.	GG(I)	156X114	123.5		2		2	2	2							2			2						2			1	1		1	1
62B	305+24	RT.	GE(I)	228X114	180.5													2			2						2				1			
	305+24	RT.	GEP-72	72X24	12																														
	305+24	RT.	GG(I)	REMOVAL										1	2	1	2																		
	305+24	RT.	GE(I)	REMOVAL										1	2		2																		
	305+24	RT.	GEP-72	REMOVAL										1																					
67A	320+90	RT.	GB(I)	204X114	161.5		2		2	2	2							2			2						2			1	1		1	1
67B	320+90	RT.	GB(I)	192X96	128													2			2						2				1			
	320+90	RT.	GEP-84	84X24	14																														
67C	320+90	RT.	GB(I)	204X138	195.5													2					2					2		1				
	320+90	RT.	GEP-108	108X24	18																														
	320+90	RT.	GB(I)	REMOVAL										1	2	1	2																		
	320+90	RT.	GB(I)	REMOVAL										1	2		2																		
	320+90	RT.	GEP-84	REMOVAL										1																					
	320+90	RT.	GB(I)	REMOVAL										1	2		2																		
	320+90	RT.	GEP-108	REMOVAL										1																					
71A	328+40	LT.	GE(I)	228X114	180.5		2		2	2	2							2			2						2			1	1		1	1
	328+40	LT.	GEP-72	72X24	12																														
71B	328+40	LT.	GB(I)	168X72	84													2			2						2			1				
	328+40	LT.	GEP-72	72X24	12																														
	328+40	LT.	GE(I)	REMOVAL										1	2	1	2																		
	328+40	LT.	GEP-72	REMOVAL										1																					
	328+40	LT.	GB(I)	REMOVAL										1	2		2																		
	328+40	LT.	GEP-72	REMOVAL										1																					
76	341+33	LT.	GB(I)	192X144	192		2		2	2	2							2					2					2	1	1		1	1
	341+33	LT.	GEP-72	72X24	12																														
	341+33	LT.	GB(1)	REMOVAL										1	2	1	2																		
	341+33	LT.	GEP-72	REMOVAL										1																					
79A	347+25	RT.	GG(I)	204X114	161.5		2		2	2	2							2			2						2			1	1		1	1
79B	347+25	RT.	GB(I)	180X96	120													2			2						2				1			
	347+25	RT.	GEP-84	84X24	14																														
79C	347+25	RT.	GB(I)	192X138	184													2					2					2		1				
	347+25	RT.	GEP-120	120X24	20																														
	347+25	RT.	GG(I)	REMOVAL										1	2	1	2																		
	347+25	RT.	GB(I)	REMOVAL										1	2		2																		
	347+25	RT.	GEP-84	REMOVAL										1																					
	347+25	RT.	GB(I)	REMOVAL										1	2		2																		
	347+25	RT.	GEP-120	REMOVAL										1																					
83	362+15NB	RT.	GE(I)	204X72	102		2		2	2	2							2			2						2			1	1		1	1
	362+15NB	RT.	GEP-84	84X24	14																														
	362+15NB	RT.	GE(I)	REMOVAL										1	2	1	2																		
	362+15NB	RT.	GEP-84	REMOVAL										1																					
86A	370+20NB	RT.	GG(I)	204X114	161.5		3		3	3	3							2			2						2			1	1		1	1
86B	370+20NB	RT.	GB(I)	192X96	128													2			2						2				1			
	370+20NB	RT.	GEP-84	84X72	42																														
86C	370+20NB	RT.	GB(I)	192X114	152													2			2						2				1			
	370+20NB	RT.	GEP-72	72X24	12																														
86D	370+20NB	RT.	GE(I)	204X72	102													2			2						2				1			
	370+20NB	RT.	GEP-84	84X24	14																														
	370+20NB	RT.	GG(I)	REMOVAL										1	2	1	2																		
	370+20NB	RT.	GB(I)	REMOVAL										1	2		2																		
	370+20NB	RT.	GEP-84	REMOVAL										1																					
	370+20NB	RT.	GB(I)	REMOVAL										1	2		2																		
	370+20NB	RT.	GEP-72	REMOVAL										1																					
	370+20NB	RT.	GE(I)	REMOVAL										1	2		2																		
	370+20NB	RT.	GEP-84	REMOVAL										1																					
	TOTALS THIS SHEET				2552.5	0	15	0	15	15	15	0	0	28	32	7	32	32	0	0	0	26	0	6	0	0	0	26	0	6	7	16	0	7	7

G:\71\2.92\TRAFCONT\Q_OHSG2 - JAN. 12, 1996 @ 8:06 am

OVERHEAD MOUNTED GUIDE SIGN QUANTITIES

CALC. BY LAB DATE 12/95
CHKD. BY [illegible] DATE 12/95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 477/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	ITEM 630		ITEM SPECIAL					ITEM 630			ITEM 631			ITEM 630	ITEM 631																625
					EXTRU SHEET TYPE G	CONCRETE FOR ANCHOR BASE FOUNDATIONS	SURFACE PREPARATION EXISTING SUPPORT SECTION	SURFACE PREPARATION NEW SUPPORT SECTION	COATING, EPOXY PRIME COAT, SUPPORT SECTION	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION	COATING, URETHANE TOP COAT, SUPPORT SECTION	OVERHEAD SIGN SUPPORT T.C. 12.30 DESIGN NO. 8 28.0' ARMS	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	LUMINAIRE SUPPORT ASSEMBLY, TYPE TG-31.21	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 100 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP		BALLAST, INTEGRAL TYPE CMRI 100/240	BALLAST, INTEGRAL TYPE CMRI 100/480	BALLAST, INTEGRAL TYPE CMRI 175/240	BALLAST, INTEGRAL TYPE CMRI 175/480	BALLAST, INTEGRAL TYPE CMRI 250/240	BALLAST, INTEGRAL TYPE CMRI 250/480	SIGN SERVICE	SIGN WIRED		DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	GROUND ROD
																			240 VOLT	480 VOLT	240 VOLT	480 VOLT	240 VOLT	480 VOLT								OVERHEAD MOUNTED	STRUCTURE MOUNTED		
					SQ.FT.	CU.YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		EACH		EACH		EACH		EACH	EACH	EACH	EACH	EACH	EACH		EACH	EACH
90	380+50SB	LT.	GB(I)	192X144	192		2		2	2	2							2					2					2	1	1		1	1
	380+50SB	LT.	GEP-72	72X24	12																													
	380+50SB	LT.	GB(I)	REMOVAL										1	2	1	2																	
	380+50SB	LT.	GEP-72	REMOVAL										1																				
92A	384+42	RT.	GG(I)	108X114	85.5		3		3	3	3							1			1					1			1	1		1	1
92B	384+42	RT.	GG(I)	204X114	161.5													2			2					2				1			
92C	384+42	RT.	GE(I)	192X96	128													2			2					2				1			
	384+42	RT.	GEP-84	84X24	14																													
92D	384+42	RT.	GE(I)	180X114	142.5													2			2					2				1			
	384+42	RT.	GEP-72	72X24	12																													
	384+42	RT.	GG(I)	REMOVAL										1	1	1	1																	
	384+42	RT.	GG(I)	REMOVAL										1	2		2																	
	384+42	RT.	GE(I)	REMOVAL										1	2		2																	
	384+42	RT.	GEP-84	REMOVAL										1																				
	384+42	RT.	GE(I)	REMOVAL										1	2		2																	
	384+42	RT.	GEP-72	REMOVAL										1																				
93	385+65SB	LT.	GE(I)	180X84	105			2	2	2	2							2			2					2	1	1		1	1		
	385+65SB	LT.	GEP-72	72X24	12	2.36						1																						
	385+29SB	LT.	GE(I)	REMOVAL										1	2	1	2																	
	385+29SB	LT.	GEP-72	REMOVAL										1																				
99A	402+11NB	RT.	GG(I)	300X114	237.5		2		2	2	2							3			3					3			1	1		1	1
99B	402+11NB	RT.	GE(I)	186X96	124													2			2					2				1			
	402+11NB	RT.	GEP-84	84X24	14																													
	402+11NB	RT.	GG(I)	REMOVAL										1	3	1	3																	
	402+11NB	RT.	GE(I)	REMOVAL										1	2		2																	
	402+11NB	RT.	GEP-84	REMOVAL										1																				
101	405+30	LT.	GB(I)	156X114	123.5													2			2					2			1		1	1	1
	405+30	LT.	GEP-72	72X24	12																													
	405+30	LT.	GB(I)	REMOVAL										1	2	1	2																	
	405+30	LT.	GEP-72	REMOVAL	98									1																				
108A	419+10	LT.	GEP-72	72X24	12		2		2	2	2										2								1	1		1	1
	419+10	LT.	GE(I)	240X72	120													2			2												
108B	419+10	LT.	GEP-72	72X24	12																													
	419+10	LT.	GB(I)	168X114	133													3			3					3				1			
	419+10	LT.	GG(I)	REMOVAL										1	2	1	2																	
	419+10	LT.	GB(I)	REMOVAL										1	2		2																	
	419+10	LT.	GEP-72	REMOVAL										1																				
	419+10	LT.	GE(I)	REMOVAL										1	3		3																	
	419+10	LT.	GEP-72	REMOVAL										1																				
111	429+35	RT.	GB(I)	204X102	144.5		2		2	2	2							2			2					2			1	1		1	1
	429+35	RT.	GEP-72	72X24	12																													
	429+35	RT.	GB(1)	REMOVAL										1	2	1	2																	
	429+35	RT.	GEP-72	REMOVAL										1																				
112	430+00	LT.	GB(I)	204X102	144.5		2		2	2	2							2			2					2			1	1		1	1
	430+00	LT.	GEP-72	72X24	12																													
	430+00	LT.	GB(I)	REMOVAL										1	2	1	2																	
	430+00	LT.	GEP-72	REMOVAL										1																				
114	4+24	RT.	GH(III)	108X78	58.5		2		2	2	2							1				1					1		1	1		1	1
	4+24	RT.	GH(III)	REMOVAL								1		1	1	1	1																	
116	10+07	LT.	GH-1(III)	108X78	58.5		2		2	2	2							1				1					1		1	1		1	1
	10+07	LT.	GH-1(III)	REMOVAL										1	1	1	1																	
	TOTALS THIS SHEET				2180.5	2.36	17	2	19	19	19	1	1	26	31	10	31	29	0	0	2	25	0	2	0	0	2	25	0	2	10	14	1	10	10

G:\71\2.92\TRAFCONT\Q_OHSG3 - JAN. 12, 1996 @ 8:13 am

OVERHEAD MOUNTED GUIDE SIGN QUANTITIES

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

					ITEM 630		ITEM SPECIAL					ITEM 630			ITEM 631			ITEM 630	ITEM 631																625
REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	EXTRU SHEET TYPE G	CONCRETE FOR ANCHOR BASE FOUNDATIONS	SURFACE PREPARATION EXISTING SUPPORT SECTION	SURFACE PREPARATION NEW SUPPORT SECTION	COATING, EPOXY PRIME COAT, SUPPORT SECTION	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION	COATING, URETHANE TOP COAT, SUPPORT SECTION	OVERHEAD SIGN SUPPORT T.C. 12.30 DESIGN NO. 8 28.0' ARMS	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 100 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP		BALLAST, INTEGRAL TYPE CMRI 100/240	BALLAST, INTEGRAL TYPE CMRI 100/480	BALLAST, INTEGRAL TYPE CMRI 175/240	BALLAST, INTEGRAL TYPE CMRI 175/480	BALLAST, INTEGRAL TYPE CMRI 250/240	BALLAST, INTEGRAL TYPE CMRI 250/480	SIGN SERVICE	SIGN WIRED		DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	GROUND ROD
																			240 VOLT	480 VOLT	240 VOLT	480 VOLT	240 VOLT	480 VOLT								OVERHEAD MOUNTED	STRUCTURE MOUNTED		
					SQ.FT.	CU.YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		EACH		EACH		EACH		EACH		EACH		EACH	EACH		EACH	EACH
134	-2+00	LT.	GH-(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	-2+00	LT.	GH-(III)	REMOVAL										1	1	1	1																		
137A	4+12	RT.	GH-1(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
137B	4+12	RT.	GH-1(III)	108X78														1			1						1					1			
	4+12	RT.	GH-1(III)	REMOVAL										1	1	1	1																		
	4+12	RT.	GH-1(III)	REMOVAL										1	1		1																		
141	13+40	LT.	M-52B-120	120X48	40		2		2	2	2							1	1						1						1	1		1	1
	13+40	LT.	M-52B-120	REMOVAL										1	1	1	1																		
149	3+50	RT.	GH-(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	3+50	RT.	GH-(III)	REMOVAL										1	1	1	1																		
154	9+75	LT.	GE(III)	132X54	49.5		2		2	2	2							1	1						1						1	1		1	1
	9+75	LT.	GE(III)	REMOVAL										1	1	1	1																		
155	13+46	RT.	GH-1(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	13+46	RT.	GH-1(III)	REMOVAL										1	1	1	1																		
158	18+00	LT.	GE(III)	132X54	49.5		2		2	2	2							1	1						1						1	1		1	1
	18+00	LT.	GE(III)	REMOVAL										1	1	1	1																		
159	22+80	LT.	GH(III)	108X96	72		2		2	2	2							1			1						1				1	1		1	1
	22+80	LT.	GH(III)	REMOVAL										1	1	1	1																		
160	14+90	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	14+90	RT.	GH(III)	REMOVAL										1	1	1	1																		
172	28+74	LT.	M-52B-120	120X48	40		2		2	2	2							1	1						1						1	1		1	1
	28+74	LT.	M-52B-120	REMOVAL										1	1	1	1																		
173	23+34	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	23+34	RT.	GH(III)	REMOVAL										1	1	1	1																		
174	19+80	LT.	GE(III)	132X60	55		2		2	2	2							1	1						1						1	1		1	1
	19+80	LT.	GE(III)	REMOVAL										1	1	1	1																		
176	16+50	LT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	16+50	LT.	GH(III)	REMOVAL										1	1	1	1																		
182	10+00	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	10+00	RT.	GH(III)	REMOVAL										1	1	1	1																		
183	20+67	LT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	20+67	LT.	GH(III)	REMOVAL										1	1	1	1																		
185	200' SOUTH OF	RT.	M-52B-120	120X48	40		2		2	2	2							1	1						1						1	1		1	1
	WILLARD AVE.	RT.	M-52B-120	REMOVAL										1	1	1	1																		
189	9+40	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	9+40	RT.	GH(III)	REMOVAL										1	1	1	1																		
192	15+35	RT.	GH-1(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
	15+35	RT.	GH-1(III)	REMOVAL										1	1	1	1																		
197A	20+31	LT.	GH-1(III)	108X78	58.5		2		2	2	2							1			1						1				1	1		1	1
197B	20+31	LT.	GH-1(III)	108X78	58.5													1			1						1					1			
	20+31	LT.	GH-1(III)	REMOVAL										1	1	1	1																		
	20+31	LT.	GH-1(III)	REMOVAL										1	1		1																		
212A	15+65H	LT.	GE(III)	144X54	54		2		2	2	2							1		1						1					1	1		1	1
212B	15+65H	LT.	GE(III)	120X54	45													2		2						2						1			
	15+65H	LT.	GE(III)	REMOVAL										1	2	1	2																		
	15+65H	LT.	GE(III)	REMOVAL										1	1		1																		
213A	43+16	RT.	GE(III)	132X60	55		3		3	3	3							1	1						1						1	1		1	1
213B	43+16	RT.	GE(III)	180X78	97.5													2			2						2					1			
	43+16	RT.	GE(III)	REMOVAL										1	1	1	1																		
	43+16	RT.	GE(III)	REMOVAL										1	2		2																		
215A	13+98J	LT.	IM-26-30	REMOVAL										1																					
215B	13+98J	LT.	M-5-36-2	REMOVAL										1																					
215C	13+98J	LT.	IM-37-36	REMOVAL										1																					
	TOTALS THIS SHEET				1358.0	0	43	0	43	43	43	0	0	28	27	21	27	27	7	3	17	0	0	0	7	3	17	0	0	0	21	25	0	21	21

G:\71\2.92\TRAFCONT\Q_OHSG4 - JAN. 11, 1996 @ 10:22 pm

OVERHEAD MOUNTED GUIDE SIGN QUANTITIES

CALC. BY KAB DATE 12/95
CHKD. BY [illegible] DATE 12/95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 479/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	ITEM 630		ITEM SPECIAL					ITEM 630			ITEM 631			ITEM 630	ITEM 631																625
					EXTRU SHEET TYPE G	CONCRETE FOR ANCHOR BASE FOUNDATIONS	SURFACE PREPARATION EXISTING SUPPORT SECTION	SURFACE PREPARATION NEW SUPPORT SECTION	COATING, EPOXY PRIME COAT, SUPPORT SECTION	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION	COATING, URETHANE TOP COAT, SUPPORT SECTION	OVERHEAD SIGN SUPPORT T.C. 12.30 DESIGN NO. 8 28.0' ARMS	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	LUMINAIRE SUPPORT ASSEMBLY, TYPE TC-31.21	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 100 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP		BALLAST, INTEGRAL TYPE CMRI 100/240	BALLAST, INTEGRAL TYPE CMRI 100/480	BALLAST, INTEGRAL TYPE CMRI 175/240	BALLAST, INTEGRAL TYPE CMRI 175/480	BALLAST, INTEGRAL TYPE CMRI 250/240	BALLAST, INTEGRAL TYPE CMRI 250/480	SIGN SERVICE	SIGN WIRED		DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	GROUND ROD
																			240 VOLT	480 VOLT	240 VOLT	480 VOLT	240 VOLT	480 VOLT								OVERHEAD MOUNTED	STRUCTURE MOUNTED		
					SQ.FT.	CU.YD.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		EACH		EACH		EACH		EACH	EACH	EACH	EACH	EACH	EACH		EACH	EACH
217A	12+00K	RT.	GB(I)	192X72	96		2		2	2	2							2				2							1	1		1	1
217B	12+00K	RT.	GB(I)	156X114	123.5													2				2								1			
	12+00K	RT.	GB(I)	REMOVAL										1	2	1	2																
	12+00K	RT.	GB(I)	REMOVAL										1	2		2																
220A	162+20NL	RT.	GB(I)	192X114	152		2		2	2	2							2			2						2			1	1		1	1
220B	162+20NL	RT.	GB(I)	204X114	161.5													2			2						2				1			
220C	162+20NL	RT.	GE(I)	204X84	119													2			2						2				1			
	162+20NL	RT.	GB(I)	REMOVAL										1	2	1	2																
	162+20NL	RT.	GB(I)	REMOVAL										1	2		2																
	162+20NL	RT.	GE(I)	REMOVAL										1	2		2																
221	6+75L	LT.	GB(I)	240X144			2		2	2	2							3						3				3		1	1		1	1
	6+75L	LT.	GB(I)	REMOVAL										1	3	1	3																
238	21+45	LT.	GE(III)	120x60														1		1					1					1	1		1	1
	21+45	LT.	GE(III)	REMOVAL										1	1	1	1													1			1	1
240	22+08	RT.	GE(III)	132X60	65													1	1						1					1		1		
	22+08	RT.	GE(III)	REMOVAL										1	1	1	1																	
242A	25+80	LT.	GB(III)	120X78	65		2		2	2	2							1				1						1		1	1		1	1
242B	25+80	LT.	GE(III)	132X60	55													1	1						1					1				
	25+80	LT.	GB(III)	REMOVAL										1	1	1	1																	
	25+80	LT.	GE(III)	REMOVAL										1	1		1																	
243	37+75	LT.	GB(III)	180X96	120		2		2	2	2							2			2						2			1	1		1	1
	37+75	LT.	GB(III)	REMOVAL										1	2	1	2																
244	40+00	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1			1	1		1	1
	40+00	RT.	GH(III)	REMOVAL										1	1	1	1																
245A	33+90	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1			1	1		1	1
245B	33+90	RT.	GH(III)	108X78	58.5													1			1						1				1			
	33+90	RT.	GH(III)	REMOVAL										1	1	1	1																	
	33+90	RT.	GH(III)	REMOVAL										1	1		1																	
259	45+00	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1			1	1		1	1
	45+00	RT.	GH(III)	REMOVAL										1	1	1	1																	
262	12+30	LT.	GH-1(III)	108X78	58.5		2		2	2	2							1			1						1			1	1		1	1
	12+30	LT.	GH-1(III)	REMOVAL										1	1	1	1																	
263	14+00	LT.	GH-1(III)	132X54	49.5		2		2	2	2							1	1						1					1	1		1	1
	14+00	LT.	GH-1(III)	REMOVAL										1	1	1	1																	
264	18+00	RT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1			1	1		1	1
	18+00	RT.	GH(III)	REMOVAL										1	1	1	1																	
267	25+00	LT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1			1	1		1	1
	25+00	LT.	GH(III)	REMOVAL										1	1	1	1																	
268A	80+65	LT.	GH(III)	108X78	58.5		2		2	2	2							1			1						1			1	1		1	1
268B	80+65	LT.	GH(III)	108X96	72													1			1						1				1			
	80+65	LT.	GH(III)	REMOVAL										1	1	1	1																	
	80+65	LT.	GH(III)	REMOVAL										1	1		1																	
270A	112+50NL	RT.		144X20	120									1																				
270B	112+50NL	RT.		144X96	96									1																				
271A	145+50NL	RT.		144X20	120									1																				
271B	145+50NL	RT.		156X96	104									1																				
	TOTALS FROM SHEET NO. 475				1799	0	22	0	22	22	22	0	0	22	35	10	35	35	0	4	0	23	0	8	0	4	0	23	0	8	10	16	1	10	10
	TOTALS FROM SHEET NO. 476				2552.5	0	15	0	15	15	15	0	0	28	32	7	32	32	0	0	0	26	0	6	0	0	0	26	0	6	7	16	0	7	7
	TOTALS FROM SHEET NO. 477				2180.5	2.36	17	2	19	19	19	1	1	26	31	10	31	29	0	0	2	25	0	2	0	0	2	25	0	2	10	14	1	10	10
	TOTALS FROM SHEET NO. 478				1358	0	43	0	43	43	43	0	0	28	27	21	27	27	7	3	17	0	0	0	7	3	17	0	0	0	21	25	0	21	21
	TOTALS THIS SHEET				1986.5	0	26	0	26	26	26	0	0	25	29	15	29	29	3	1	17	5	3	0	3	1	17	5	3	0	16	20	1	15	15
	TOTALS CARRIED TO SHEET NO. 410				9876.5	2.36	123	2	125	125	125	1	1	129	154	63	154	152	10	8	36	79	3	16	10	8	36	79	3	16	64	91	3	63	63
																			18		115		19											

G:\71\2.92\TRAFCONT\Q_OHSG5 - JAN. 12, 1996 @ 12:22 pm

OVERHEAD MOUNTED GUIDE SIGN QUANTITIES

CALC. BY KAP DATE 12/95
CHKD BY [illegible] DATE 12/95

HAM-71-2.92

OHIO FHWA REGION 5

480/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	ITEM 630				ITEM SPECIAL					ITEM 630		ITEM 631																				625
					SIGNS, FLAT SHEET, TYPE G	SIGNS, EXTRU SHEET, TYPE G	OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.26 DESIGN 3, AS PER PLAN	SIGN HANGER ASSEMBLY, SPAN WIRE	SURFACE PREPARATION EXISTING SUPPORT SECTION	SURFACE PREPARATION NEW SUPPORT SECTION	COATING, EPOXY PRIME COAT, SUPPORT SECTION	COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTION	COATING, URETHANE TOP COAT, SUPPORT SECTION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF LUMINAIRE AND DISPOSAL	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	REMOVAL OF BALLAST AND DISPOSAL	LUMINAIRE SUPPORT ASSEMBLY	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 100 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 175 WATT LAMP		MERCURY VAPOR LUMINAIRE, TYPE TC-31.21 WITH 250 WATT LAMP		BALLAST, INTEGRAL TYPE CMRT 100/240	BALLAST, INTEGRAL TYPE CMRT 100/480	BALLAST, INTEGRAL TYPE CMRT 175/240	BALLAST, INTEGRAL TYPE CMRT 175/480	BALLAST, INTEGRAL TYPE CMRT 250/240	BALLAST, INTEGRAL TYPE CMRT 250/480	SIGN SERVICE	SIGN WIRED		DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	GROUND ROD
																				240 VOLT	480 VOLT	240 VOLT	480 VOLT	240 VOLT	480 VOLT									OVERHEAD MOUNTED	STRUCTURE MOUNTED		
					SQ.FT.	SQ.FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH	EACH		EACH	EACH
3	224+70	RT.	W-54D-240	240X78		130													3				3					3			1		1	1	1
	224+70	RT.	W-54D-240	REMOVAL											1	3	1	3																	
3A	225+31	RT.	W-145A-156	156X60		65	1												2				2					2			1		1	1	1
7	234+12	RT.	W-54C-240	240X78		130			2		2	2	2						3				3					3			1	1		1	1
	234+12	RT.	W-54C-240	REMOVAL											1	3	1	3																	
21	267+75	RT.	W-54C-192	192X60		80			2		2	2	2						2		2				2						1	1		1	1
	267+75	RT.	W-54C-192	REMOVAL											1	2	1	2																	
124	234+00TH	LT.	W-47-36	36X36	9																														
	234+00TH	LT.	W-47-36	REMOVAL										1																					
144A	340+90MF	RT.	R-27A-36	36X42	10.5			1																											
144B	340+90MF	RT.	R-26A-36	36X42	10.5			1																											
	340+90MF	RT.	R-27A-30	REMOVAL										1																					
	340+90MF	RT.	R-26A-30	REMOVAL										1																					
	340+90MF	RT.	R-47-48	REMOVAL										1																					
230A	48+50T	RT.	R-26A-48	36X42	8				1		1	1	1						1		1				1						1	1		1	1
230B	48+50T	RT.	R-26A-48	36X42	8														1		1				1							1			
230C	48+50T	RT.	R-27A-48	36X42	8														1		1				1							1			
	48+50T	RT.	R-26A-48	REMOVAL											1	1	1	1																	
	48+50T	RT.	R-26A-48	REMOVAL											1	1		1																	
	48+50T	RT.	R-27A-48	REMOVAL											1	1		1																	
	TOTALS CARRIED TO SHEET NO. 410				54	405	1	2	5	0	5	5	5	4	6	11	4	11	13	0	5	0	8	0	0	0	5	0	8	0	0	5	5	2	5	5
																				5		8		0											

OVERHEAD MOUNTED REGULATORY AND WARNING SIGN QUANTITIES

G:\71\2.92\TRAFCONT\Q_OHSRW1 - JAN. 12, 1996 @ 11:14 am

TRAFFIC CONTROL QUANTITIES

CALC. BY KAB DATE 11/1/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 481/615

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS															
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G		SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	S4X7.7 BEAM	W6X9 BEAM	W10X12 BEAM	NO. 4 POST	STREET NAME SIGN SUPPORT	CONCRETE FOR EMBEDDED FOUNDATIONS	BREAK AWAY BEAM CONNECTION	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT, AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT, AND DISPOSAL	
					SQ.FT.	SQ.FT.		EACH	EACH	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	EACH	CU. YD.	EACH	EACH	EACH	EACH	EACH	EACH	
4	227+80	RT.	GCR(III)	168X60		70																
	227+80	RT.	GEP-72	72X24		12						20.81 / 18.63			2.2							
	227+80	RT.	GCR(III)	REMOVAL															1	2		
12A	247+00	RT.	M-5C-36-2	36X36	9			1					15									
12B	247+00	RT.	IM-37-36	36X18	4.5																	
	247+00	RT.	M-37-36	REMOVAL														1				
	247+00	RT.	M-5C-36-2	REMOVAL														1			1	
24	275+10	LT.	GEP-72	72X24		12																
	275+10	LT.	GCP(III)	144X60		60						19.95 / 19.79			2.2	2						
	275+10	LT.	GCP(III)	REMOVAL															1	2		
27	288+00	RT.	GC(I)	144X60		60						17.41 / 17.6			2.2	2						
	288+00	RT.	GEP-72	72X24		12																
	284+80	RT.	GC(III)	REMOVAL															1	2		
28	283+10	LT.	GEP-72	72X24		12																
	283+10	LT.	GC(II)	180X60		75						17.83 / 18.4			2.2	2						
	284+90	LT.	GC(III)	REMOVAL															1	2		
29	292+60	LT.	GEP-72	72X24		12																
	292+60	LT.	GSH-1-120	120X24		20				13 / 13					0.54							
	289+60	LT.	GSH-1-120	REMOVAL														1		2		
30A	289+60	LT.	M-5-36-2	36X36	9			1					15									
30B	289+60	LT.	IM-38-36	36X18	4.5																	
31	300+00	RT.	GEP-72	72X24		12																
	300+00	RT.	GCP(III)	144X60		60						20.99 / 21.3			2.2	2						
	300+00	RT.	GCP(III)	REMOVAL															1	2		
40	338+00	RT.	GF-72	72X60		30				16 / 16					0.54	2						
47A	360+00	LT.	M-5-36-2	36X36	9			1					15									
47B	360+00	LT.	IM-38-36	36X18	4.5																	
53	383+00	LT.	GN(III)	108X42		36				14.27/ 14.78					0.54							
	383+00	LT.	GN(III)	REMOVAL														1		2		
55	385+19	LT.	GF-72	72X60		30				16 / 16					0.54	2						
60	298+10	LT.	GEP-72	72X24		12																
	298+10	LT.	GC(III)	144X60		60						19.67 / 23.9			2.2							
	298+10	LT.	GCP(III)	REMOVAL															1	2		
63	306+78	RT.	GF-72	72X60		30				16 / 16					0.54	2						
70	326+90	LT.	GF-72	72X60		30				16 / 16					0.54	2						
77A	343+06	RT.	M-5-36-2	36X36	9			1					15									
77B	343+06	RT.	IM-37-36	36X38	4.5																	
81A	355+23	LT.	IM-36-36	36X38	4.5																	
81B	355+23	LT.	M-5-36-2	36X36	9			1					15									
84	362+90SB	LT.	GN(III)	96X42		28				15.91/ 17.4					0.54							
	362+90SB	LT.	GN(III)	REMOVAL															1	2		
88	372+65NB	RT.	GF-72	72X60		30				16 / 16					0.54	2						
91	383+97SB	RT.	GF-72	72X60		30				16 / 16					0.54	2						
94	385+70NB	RT.	GF-72	72X60		30				16 / 16					0.54	2						
95A	391+80NB	RT.	M-5-36-2	36X36	9			1					15									
95B	391+80NB	RT.	IM-37-36	36X18	4.5																	
96	NOT USED																					
	VARIOUS ST. NAME SIGNS		D-14						16					48			66					
TOTALS FROM THIS SHEET					81	763		6	16	312.36	0	236.30	90	48	18.6	22	66	4	7	18	1	

GROUND MOUNTED GUIDE SIGN QUANTITIES

G:\71\2.92\TRAFCONTQ_GMSGN - FEB. 17, 1995 @ 3:06 pm

TRAFFIC CONTROL QUANTITIES

CALC. BY KRB DATE 12/27/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 482/615

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS															
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G		SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	S4X7.7 BEAM	W6X9 BEAM	W10X12 BEAM	NO. 4 POST		CONCRETE FOR EMBEDDED FOUNDATIONS	BREAK AWAY BEAM CONNECTION		REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT, AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT, AND DISPOSAL	
					SQ.FT.	SQ.FT.		EACH	EACH	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.		CU. YD.	EACH		EACH	EACH	EACH	EACH	
98	399+10SB	LT.	GN (III)	108X42		36				14.88/ 13.14					0.54							
	399+10SB	LT.	GN (III)	REMOVAL														1		2		
103	406+32	RT.	GF-72	72X60		30				16 / 16					0.54	2						
	406+32	RT.	GF-72	REMOVAL														1		2		
105	3+20R	LT.	GF-72	72X60		30				16 / 16					0.54	2						
	3+20R	LT.	GF-72	REMOVAL														1		2		
110A	426+75	RT.	IM-37-36	38X18	4.5																	
110B	426+75	RT.	M-5-36-2	36X36	9			1					15									
	426+75	RT.	IM-37-36	REMOVAL														1				
	426+75	RT.	M-5-36-2	REMOVAL														1			1	
115A	5+16	RT.	IM-8-24	24X12	2																	
115B	5+16	RT.	IM-37-24	24X12	2																	
115C	5+16	RT.	M-5-24-2	24X24	4																	
115D	5+16	RT.	IM-24-21	21X15	2.19			1					14.75									
	5+16	RT.	IM-8-24	REMOVAL														1				
	5+16	RT.	IM-37-24	REMOVAL														1				
	5+16	RT.	M-5-24-2	REMOVAL														1				
	5+16	RT.	IM-24-21	REMOVAL														1				
117A	9+87	RT.	IM-8-24	24X12	2																	
117B	9+87	RT.	IM-37-24	24X12	2																	
117C	9+87	RT.	M-5-24-2	24X24	4																	
117D	9+87	RT.	IM-24-21	21X15	2.19			1					14.75									
	9+87	RT.	IM-8-24	REMOVAL														1				
	9+87	RT.	IM-37-24	REMOVAL														1				
	9+87	RT.	M-5-24-2	REMOVAL														1				
	9+87	RT.	IM-24-21	REMOVAL														1			1	
119A	12+85	RT.	IM-8-24	24X12	2																	
119B	12+85	RT.	IM-37-24	24X12	2																	
119C	12+85	RT.	M-5-24-2	24X24	4																	
119D	12+85	RT.	IM-21-21	21X15	2.19			1					14.75									
	12+85	RT.	IM-8-24	REMOVAL														1				
	12+85	RT.	IM-37-24	REMOVAL														1				
	12+85	RT.	M-5-24-2	REMOVAL														1				
	12+85	RT.	IM-21-21	REMOVAL														1			1	
119E	12+95	LT.	IM-8-24	24X12	2																	
119F	12+95	LT.	IM-37-24	24X12	2																	
119G	12+95	LT.	M-5-24-2	24X24	4																	
119H	12+95	LT.	IM-21-21	21X15	2.19			1					14.75									
	12+95	LT.	IM-8-24	REMOVAL														1				
	12+95	LT.	IM-37-24	REMOVAL														1				
	12+95	LT.	M-5-24-2	REMOVAL														1				
	12+95	LT.	IM-21-21	REMOVAL														1			1	
120A	16+75	RT.	IM-8-24	24X12	2																	
120B	16+75	RT.	IM-37-24	24X12	2																	
120C	16+75	RT.	M-5-24-2	24X24	4																	
120D	16+75	RT.	IM-21-21	21X15	2.19			1					14.75									
	16+75	RT.	IM-8-24	REMOVAL														1				
	16+75	RT.	IM-37-24	REMOVAL														1				
	16+75	RT.	M-5-24-2	REMOVAL														1				
	16+75	RT.	IM-21-21	REMOVAL														1			1	
120E	17+00	LT.	IM-8-24	24X12	2																	
120F	17+00	LT.	IM-37-24	24X12	2																	
120G	17+00	LT.	M-5-24-2	24X24	4																	
120H	17+00	LT.	IM-21-21	21X15	2.19			1					14.75									
	17+00	LT.	IM-8-24	REMOVAL														1				
	17+00	LT.	IM-37-24	REMOVAL														1				
	17+00	LT.	M-5-24-2	REMOVAL														1				
	17+00	LT.	IM-21-21	REMOVAL														1			1	
TOTALS FROM THIS SHEET					74.64	96		7	0	92.02	0	0	103.5		1.62	4		29	0	6	6	

GROUND MOUNTED GUIDE SIGN QUANTITIES

TRAFFIC CONTROL QUANTITIES

CALC BY KAP DATE 12/7/94
CHKD BY D.T.M DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 483/615

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS														
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G		SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	S4X7.7 BEAM	W6X9 BEAM	W10X12 BEAM	NO. 4 POST		CONCRETE FOR EMBEDDED FOUNDATIONS	BREAK AWAY BEAM CONNECTION		REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT, AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT, AND DISPOSAL	
					SQ.FT.	SQ.FT.		EACH	EACH	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.		CU. YD.	EACH		EACH	EACH	EACH	EACH	
125A	5+57	RT.	M-26-21	21X15	2.19				1												
125B	5+57	RT.	M-5-24-2	24X24	4				1												
125C	5+57	RT.	IM-8-24	24X12	2			1	1												
	5+57	RT.	IM-26-21	REMOVAL														1			
	5+57	RT.	M-5-24-2	REMOVAL														1			
	5+57	RT.	IM-8-24	REMOVAL														1			
126A	9+80	RT.	IM-24-21	21X15	2.19				1												
126B	9+80	RT.	M-5-24-2	24X24	4				1												
126C	9+80	RT.	IM-8-24	24X12	2			1	1												
	9+80	RT.	IM-24-21	REMOVAL														1			
	9+80	RT.	M-5-24-2	REMOVAL														1			
	9+80	RT.	IM-8-24	REMOVAL														1			
139A	4+42	RT.	M-2-24-2	24X24	4				1												
139B	4+42	RT.	M-1-24-2	24X24	4			1	1												
	4+42	RT.	M-1-24-2	REMOVAL														1			
	4+42	RT.	M-2-24-2	REMOVAL														1			
140A	11+29	LT.	M-1-24-2	24X24	4				1												
140B	11+29	LT.	M-2-24-2	24X24	4				1												
140C	11+29	LT.	M-45-42	42X84		24.5		1	1												
	11+29	LT.	M-1-24-2	REMOVAL														1			
	11+29	LT.	M-2-24-2	REMOVAL														1			
	11+29	LT.	M-45-42	REMOVAL														1			
143	339+50MF	RT.	D-4B-144	144X72		72.0						17 / 17			2.2	2					
161	376+15DA	LT.	M-45-42	42X84		24.5						19			1.1	1					
	376+15DA	LT.	M-45-42	REMOVAL														1		1	
169	308+25B	RT.	D-4(III)	156X78		84.5						19.81/ 20.02			2.2	2					
	308+25B	RT.	D-4(III)	REMOVAL															1	2	
184	21+09	RT.	M-45-42	42X84		24.5						19			1.1	1					
	21+09	RT.	M-45-42	REMOVAL														1		1	
190	10+65	RT.	M-52A-108	108X30		22.5				13.99/13.57					0.54	2					
	10+65	RT.	M-52A-108	REMOVAL														1		2	
191A	13+61	LT.	M-2-24-3	30X24	5				1												
191B	13+61	LT.	M-19-21	21X15	2.19			1	1												
	13+61	LT.	M-2-24-3	REMOVAL														1			
	13+61	LT.	M-19-21	REMOVAL														1			
193	15+49	LT.	M-45-42	42X84		24.5						19			1.1	1					
	15+49	LT.	M-45-42	REMOVAL														1		1	
194A	18+67	RT.	M-2-24-3	30X24	5				1												
194B	18+67	RT.	M-19-21	21X15	2.19			1	1												
	18+67	RT.	M-2-24-3	REMOVAL														1			
	18+67	RT.	M-19-21	REMOVAL														1			
196A	18+95	LT.	M-37-24	24X12	2																
196B	18+95	LT.	M-2-24-3	30X24	5			1					12.5								
	18+95	LT.	M-37-24	REMOVAL														1			
	18+95	LT.	M-2-24-3	REMOVAL														1			
202	325+50D	LT.	D-4(III)	156X78		84.5						20.74/ 22.16			2.2						
	325+50D	LT.	D-4(III)	REMOVAL															1	2	
203A	326+00C	LT.	IM-37-24	24X12	2																
203B	326+00C	LT.	M-5-24-2	24X24	4																
203C	326+00C	LT.	IM-24-21	21X15	2.19			1					15								
	326+00C	LT.	IM-37-24	REMOVAL														1			
	326+00C	LT.	M-5-24-2	REMOVAL														1			
	326+00C	LT.	IM-24-21	REMOVAL														1			
TOTALS FROM THIS SHEET					61.95	361.5		8	15	27.56	0	173.73	27.5		10.44	9		24	2	9	0

G:\71\2.92\TRAFCONT\TQ_DM503 - JAN. 3, 1995 @ 4:24 pm

GROUND MOUNTED GUIDE SIGN QUANTITIES

TRAFFIC CONTROL QUANTITIES

CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2-7-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 484/615

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS														
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G		SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	S4X7.7 BEAM	W6X9 BEAM	W10X12 BEAM	NO. 4 POST	STREET NAME SIGN SUPPORT	CONCRETE FOR EMBEDDED FOUNDATIONS	BREAK AWAY BEAM CONNECTION	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT, AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT, AND DISPOSAL
					SQ.FT.	SQ.FT.		EACH	EACH	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	EACH	CU. YD.	EACH	EACH	EACH	EACH	EACH	EACH
204	326+50C	RT.	M-45-42	42X84		24.5						19			1.1	1					
	326+50C	RT.	M-45-42	REMOVAL														1		1	
205	327+50C	LT.	D-4(III)	132X60		55					16.76/16.66				0.66	2					
	327+50C	LT.	D-4(III)	REMOVAL															1	2	
216A	7+64K	RT.	GF-72	72X60		30				16.21/16.39					0.54	2					
216B	13+76S	RT.	GF-72	72X60		30				16.23/16.42					0.54	2					
218	14+23K	RT.	GN (III)	108X42		31.5				14.53/14.61					0.54	2					
	14+23K	RT.	GN (III)	REMOVAL														1		2	
222A	8+50L	LT.	M-40-36	36X18	4.5																
222B	8+50L	LT.	M-2-36-3	45X36	11.25			1					28								
	8+50L	LT.	M-2-36-3	REMOVAL														1			1
223	18+00L	LT.	GN (III)	96X42		28				14.76/14.88					0.54	2					
	14+50L	LT.	GN (III)	REMOVAL														1		2	
226	44+00T	RT.	D-4B-120	120X72		60						17 / 17			2.2						
	44+00T	RT.	D-4B-120	REMOVAL														1		2	
246	36+50	RT.	M-45-42	42X84		24.5						19			1.1	1					
	36+50	RT.	M-45-42	REMOVAL														1		1	
254	6+50R	RT.	D-4B-156	156X48		52					18 / 20				0.66	2					
	6+50R	RT.	D-4B-156	REMOVAL															1	2	
258	43+00	LT.	D-4B-156	156X48		52					18 / 20				0.66	2					
	43+00	LT.	D-4B-156	REMOVAL															1	2	
260	46+00	LT.	M-45-42	42X84		24.5						19			1.1	1					
	46+00	LT.	M-45-42	REMOVAL														1		1	
266A	23+50	LT.	IM-8-24	24X12	2																
266B	23+50	LT.	IM-37-24	24X12	2																
266C	23+50	LT.	M-5-24-2	24X24	4																
266D	23+50	LT.	IM-26-21	21X15	2.19			1					14.8								
	23+50	LT.	IM-8-24	REMOVAL														1			
	23+50	LT.	IM-37-24	REMOVAL														1			
	23+50	LT.	M-5-24-2	REMOVAL														1			
	23+50	LT.	IM-26-21	REMOVAL														1			1
TOTALS FROM SHEET NO. 481					81.00	763.0		6	16	312.36	0.0	236.6	90.0	48	18.60	22	66	4	7	18	1
TOTALS FROM SHEET NO. 482					74.64	96.0		7	0	92.02	0.0	0.0	103.5		1.62	4		29	0	6	6
TOTALS FROM SHEET NO. 483					61.95	361.5		8	15	27.56	0.0	173.78	27.5		10.44	9		24	2	9	0
TOTALS THIS SHEET					25.94	412.0		2	0	124.03	109.4	91	42.8		9.64	17		11	3	15	2
TOTALS CARRIED TO SHEET NO. 410					243.53	1632.5		23	31	555.97	109.4	501.38	263.8	48	40.30	52	66	68	12	48	9

TRAFFIC CONTROL QUANTITIES

CALC. BY KAB DATE 12/7/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 485/615

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS										REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL AS PER PLAN		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G	SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	ONE WAY SUPPORT NO 4. POST	NO. 4 POST	NO. 6 POST	S4X7.7 BEAM			CONCRETE FOR EMBEDDED FOUNDATIONS						
					SQ.FT.	SQ.FT.	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			CU. YD.		EACH	EACH		EACH	
1A	217+50	LT.	W-68-48	48X48	16			1									1				
1B	217+80	℄	W-68-48	48X48	16			1									1				
10A	242+10TH	LT.	W-1-36	36X36	9					16											
10B	242+10TH	LT.	W-143-24	24X24	4					16											
	242+10TH	LT.	W-1-36	REMOVAL													1				
	242+10TH	LT.	W-143-24	REMOVAL													1			2	
16	253+00	LT.	R-10-48	48X60	20					28											
19	260+00	RT.	W-60C-48	48X48	16					28											
	260+00	RT.	W-60C-48	REMOVAL													1			2	
20	267+00	LT.	R-10-48	48X60	20					28											
	267+00	LT.	R-10-48	REMOVAL													1			2	
32	304+55	LT.	W-49R-48	48X48	16					28											
	304+55	LT.	W-49R-48	REMOVAL													1			2	
41	340+20	RT.	R-10-48	48X60	20					28											
	340+20	RT.	R-10-48	REMOVAL													1			2	
45	352+00	LT.	R-10-48	48X60	20					28											
	358+00	LT.	R-10-48	REMOVAL													1			1	
49	368+00	LT.	R-2-60	60X60X60	10.825					28											
50	373+50	LT.	W-49R-48	48X48	16					28											
	373+50	LT.	W-49R-48	REMOVAL													1			2	
54	383+20	RT.	W-50R-48	48X48	16					28											
	383+20	RT.	W-49R-48	REMOVAL													1			1	
61	301+90	LT.	R-2-60	60X60X60	10.825			1													
	301+90	LT.	R-2-60	REMOVAL													1				
64	307+00	LT.	W-49R-48	48X48	16					28											
72	330+00	RT.	W-49R-48	48X48	16			1													
	330+00	RT.	W-49R-48	REMOVAL													1				
73	334+25	RT.	R-2-60	60X60X60	10.825			1													
	334+25	RT.	R-2-60	REMOVAL													1				
82	359+50	RT.	R-10-48	48X60	20					28											
	359+50	RT.	R-10-48	REMOVAL													1			2	
85	368+00SB	LT.	W-49R-48	48X48	16					28											
	368+00SB	LT.	W-49R-48	REMOVAL													1				
	368+00SB	LT.	W-49R-24	REMOVAL													1			2	
87	372+25SB	LT.	R-10-48	REMOVAL													1			1	
97	395+90SB	LT.	R-10-48	48X60	20					28											
	395+90SB	LT.	R-10-48	REMOVAL													1			2	
104	409+70	RT.	W-49R-48	48X48	16					28											
	409+70	RT.	W-49R-48	REMOVAL													1			2	
106	415+41	RT.	R-2-60	60X60X60	10.825					28											
	415+41	RT.	R-2-60	REMOVAL													1			2	
113	436+00	RT.	R-10-48	48X60	20					28											
118A	229+65TH	RT.	R-43L-48	48X18	6				15												
118B	229+65TH	RT.	R-41B-36	36X36	9					15											
118C	229+65TH	RT.	R-43R-48	48X18	6																
	229+65TH	RT.	R-43L-36	REMOVAL													1				
	229+65TH	RT.	R-41B-36	REMOVAL													1				
	229+65TH	RT.	R-43R-36	REMOVAL													1			1	
121A	229+75TH	LT.	R-44L-18	18X24	3					12											
121B	229+75TH	LT.	R-41B-36	36X36	9					26											
	229+75TH	LT.	R-44L-18	REMOVAL													1				
	229+75TH	LT.	R-41B-36	REMOVAL													1			2	
122A	232+20TH	RT.	R-41A-36	36X24	6					24											
122B	232+20TH	LT.	R-41A-36	36X24	6					24											
	232+20TH	RT.	R-41A-36	REMOVAL													1			2	
	232+20TH	LT.	R-41A-36	REMOVAL													1			2	
123	233+20TH	LT.	W-32-48	48X24	8					24											
	233+20TH	LT.	W-32-48	REMOVAL													1			2	
127	5+93	LT.	R-1-30	30X30	6.25					13											
	5+93	LT.	R-1-30	REMOVAL													1			1	
128	14+15	RT.	R-1-30	30X30	6.25					13											
	14+15	RT.	R-1-30	REMOVAL													1			1	
	TOTALS FROM THIS SHEET				421.8			5	15	631	0	0			0		31	0		36	

GROUND MOUNTED REGULATORY AND WARNING SIGN QUANTITIES

G:\TV\2.92\TRAFCONTQ_QMSHW - JAN. 3, 1995 @ 6:35 pm

TRAFFIC CONTROL QUANTITIES

CALC. BY KAG DATE 12/27/94
CHKD. BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 486/615

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS								CONCRETE FOR EMBEDDED FOUNDATIONS			REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G	SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	ONE WAY SUPPORT NO 4. POST	NO. 4 POST	NO. 6 POST	S4X7.7 BEAM										
					SQ.FT.	SQ.FT.	EACH	EACH	LIN. FT.	LIN.FT.	LIN.FT.	LIN. FT.			CU. YD.			EACH	EACH		EACH	
129	102+65	RT.	R-10-24	24X30	5			1		13												
	102+65	RT.	R-10-24	REMOVAL														1				
130	104+04	LT.	R-10-24	24X30	5			1														
	104+04	LT.	R-10-24	REMOVAL														1				
132	333+00ME	LT.	W-60C-48	48X48	16					28												
	333+00ME	LT.	W-60C-48	REMOVAL														1			2	
133	335+00ME	LT.	W-53-48	48X48	16					28												
	335+00ME	LT.	W-124-48	REMOVAL														1			2	
135	337+78ME	LT.	R-15D-30	30X30	6.25					13												
	337+78ME	LT.	R-15D-30	REMOVAL														1			1	
136	4+12	RT.	R-120-24	24X24	4			1														
	4+12	RT.	R-120-24	REMOVAL														1				
138	4+20	RT.	R-15D-30	30X30	6.25					13												
	4+20	RT.	R-15D-30	REMOVAL														1			1	
142	337+00MF	RT.	W-97-48	48X60	20					30												
	337+00MF	RT.	W-97-48	REMOVAL														1			2	
145A	340+90MF	RT.	W-47-48	48X48	16			1														
145B	340+90MF	RT.	W-47-48	48X48	16			1														
	340+90MF	RT.	W-47-48	REMOVAL															1			
146A	341+50MF	RT.	R-41A-36	36X24	6					22												
146B	341+50MF	LT.	R-41A-36	36X24	6					22												
	341+50MF	RT.	R-41A-36	REMOVAL														1			2	
	341+50MF	LT.	R-41A-36	REMOVAL														1			2	
147A	343+90MF	RT.	R-43R-48	48X18	6				15													
147B	343+90MF	RT.	R-41B-36	36X36	9					15												
147C	343+90MF	RT.	R-43L-48	48X18	6																	
148A	343+90MF	LT.	R-43R-48	48X18	6				15													
148B	343+90MF	LT.	R-41B-36	36X36	9					15												
148C	343+90MF	LT.	R-43L-48	48X18	6																	
	343+90MF	LT.	R-43R-36	REMOVAL														1				
	343+90MF	LT.	R-41B-30	REMOVAL														1				
	343+90MF	LT.	R-43L-36	REMOVAL														1			2	
150	6+23	LT.	R-1-30	30X30	6.25					13												
	6+23	LT.	R-1-30	REMOVAL														1			1	
151	6+59	LT.	W-48-30	30X30	6.25					14												
	6+59	LT.	W-48-30	REMOVAL														1			1	
152	6+75	LT.	R-76T-30	30X30	6.25					14												
	6+75	LT.	R-76T-30	REMOVAL														1			1	
153A	7+71	LT.	R-43R-48	48X18	6				15													
153B	7+71	LT.	R-41B-36	36X36	9					15												
153C	7+71	LT.	R-43L-48	48X18	6																	
	7+71	LT.	R-41B-36	REMOVAL														1			2	
156	15+73	RT.	R-2-36	36X36X36	3.90			1														
	15+73	RT.	R-2-36	REMOVAL														1				
157	16+55	LT.	R-1-30	30X30	6.25			1														
	16+55	LT.	R-1-30	REMOVAL														1				
162	376+50DA	RT.	R-15D-30	30X30	6.25					13												
	376+50DA	RT.	R-15B-30	REMOVAL														1			1	
163	378+35DA	RT.	W-49R-48	48X48	16					28												
	378+35DA	RT.	W-49R-48	REMOVAL														1				
	378+35DA	RT.	WP-49-24	REMOVAL														1			2	
164	376+20DC	LT.	R-15D-30	30X30	6.25					13												
	376+20DC	LT.	R-15D-30	REMOVAL														1			1	
165A	375+00DE	RT.	R-41A-36	36X24	6					24												
165B	375+00DE	LT.	R-41A-36	36X24	6					24												
	375+00DE	RT.	R-41A-36	REMOVAL														1			2	
	375+00DE	LT.	R-41A-36	REMOVAL														1			2	
166	378+00DE	LT.	W-47-48	48X48	16					30												
	378+00DE	LT.	W-47-48	REMOVAL															1		1	
	TOTALS FROM THIS SHEET				270.9	0	0	7	45	387	0	0			0			25	2		28	

G:\71\2.92\TRAFCONT\Q_GMSRWG - JAN. 3, 1995 @ 4:42 pm

GROUND MOUNTED REGULATORY AND WARNING SIGN QUANTITIES

CALC BY LAB DATE 12/94
CHKD BY [illegible] DATE 2-1-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 487/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS								CONCRETE FOR EMBEDDED FOUNDATIONS			REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G	SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	ONE WAY SUPPORT NO 4. POST	NO. 4 POST	NO. 6 POST	S4X7.7 BEAM										
					SQ.FT.	SQ.FT.	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			CU. YD.			EACH	EACH		EACH	
167A	382+00DE	LT.	W-14-36	36X36	9		1			17												
167B	382+00DE	LT.	W-143-24	24X24	4																	
	382+00DE	LT.	W-14-36	REMOVAL														1				
	382+00DE	LT.	W-143-24	REMOVAL														1			1	
168A	308+25B	LT.	R-41A-36	36X24	6					24												
168B	308+25B	RT.	R-41A-36	36X24	6																	
	308+25B	RT.	R-41A-36	REMOVAL														1			2	
	308+25B	LT.	R-41A-36	REMOVAL														1			2	
170A	310+80B	RT.	R-43L-48	48X18	6				16													
170B	310+80B	RT.	R-43R-48	48X18	6		1			16												
170C	310+80B	RT.	R-1-48	48X48	16																	
170D	310+80B	RT.	R-41B-36	36X36	9																	
	310+80B	RT.	R-43L-48	REMOVAL														1				
	310+80B	RT.	R-43R-48	REMOVAL														1				
	310+80B	RT.	R-1-48	REMOVAL														1				
	310+80B	RT.	R-41B-36	REMOVAL														1			2	
171A	311+00B	LT.	R-43L-48	48X18	6				16													
171B	311+00B	LT.	R-43R-48	48X18	6		1			16												
171C	311+00B	LT.	R-1-48	48X48	16																	
171D	311+00B	LT.	R-41B-36	36X36	9																	
	311+00B	RT.	R-43L-48	REMOVAL														1				
	311+00B	RT.	R-43R-48	REMOVAL														1				
	311+00B	RT.	R-1-48	REMOVAL														1				
	311+00B	RT.	R-41B-36	REMOVAL														1			2	
175	17+36	RT.	R-1-30	30X30	6.25					13												
	17+36	RT.	R-1-30	REMOVAL														1			1	
177	13+50	LT.	R-121-24	24X24	4					13												
	13+50	LT.	R-121-24	REMOVAL														1			1	
178A	12+87	RT.	R-41B-36	36X36	9		1			28												
178B	12+87	RT.	R-1-30	30X30	6.25																	
	12+87	RT.	R-41B-36	REMOVAL														1				
	12+87	RT.	R-1-30	REMOVAL														1			2	
178C	12+65	RT.	R-41B-36	36X36	9					14												
	12+65	RT.	R-41B-36	REMOVAL														1			1	
179	10+00	RT.	R-120-24	24X24	4					13												
	10+00	RT.	R-120-24	REMOVAL														1			1	
180	11+78	RT.	R-10-24	24X30	5					13												
	11+78	RT.	R-10-24	REMOVAL														1			1	
181	11+36	RT.	R-1-48	48X48	16					13												
	11+36	RT.	R-1-48	REMOVAL														1			1	
186	311+70A	RT.	R-15D-30	30X30	6.25					13												
	311+70A	RT.	R-15B-30	REMOVAL														1			1	
187	309+80A	RT.	R-2-36	36X36X36	3.90					13												
	309+80A	RT.	R-2-36	REMOVAL														1			1	
188	310+85AR	LT.	R-15D-30	30X30	6.25					13												
	310+85AR	LT.	R-15B-30	REMOVAL														1			1	
195A	18+95	LT.	SPECIAL	REMOVAL														1				
195B	18+95	LT.	SPECIAL	REMOVAL														1			2	
195C	18+95	LT.	R-10-24	24X30	5					13												
	18+95	LT.	R-10-24	REMOVAL														1			1	
198	320+88D	LT.	R-1-48	48X48	16					30												
	320+88D	LT.	R-1-48	REMOVAL														1			2	
199A	320+95D	RT.	R-43R-48	48X18	6				16													
199B	320+95D	RT.	R-43L-48	48X18	6					16												
199C	320+95D	RT.	R-41B-36	36X36	9																	
199D	320+95D	RT.	R-1-48	48X48	16																	
	320+95D	RT.	R-43R-48	REMOVAL														1				
	320+95D	RT.	R-43L-48	REMOVAL														1				
	320+95D	RT.	R-41B-36	REMOVAL														1				
	320+95D	RT.	R-1-48	REMOVAL														1			2	
	TOTALS FROM THIS SHEET				232.9	0	4	0	48	278	0	0			0			31	0		27	

GROUND MOUNTED REGULATORY AND WARNING SIGN QUANTITIES

G:\71\2.92\TRAFCONT\Q_GMSIGNS - JAN. 3, 1995 @ 4:47 pm

CALC. BY KAB DATE 12/9/94
CHKD. BY [illegible] DATE 2-2-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 488/615

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS															
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G	SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	ONE WAY SUPPORT NO 4. POST	NO. 4 POST	NO. 6 POST	S4X7.7 BEAM			CONCRETE FOR EMBEDDED FOUNDATIONS			REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					SQ.FT.	SQ.FT.	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			CU. YD.			EACH	EACH		EACH	
200A	321+15D	LT.	R-43R-48	48X18	6				15													
200B	321+15D	LT.	R-43L-48	48X18	6																	
200C	321+15D	LT.	R-41B-36	36X36	9		1			15												
200D	321+15D	LT.	R-1-48	48X48	16																	
	321+15D	LT.	R-1-48	REMOVAL														1				
	321+15D	LT.	R-41B-36	REMOVAL														1			1	
	320+95D	RT.	R-1-48	REMOVAL														1				
	320+95D	RT.	R-41B-36	REMOVAL														1			2	
201A	323+75D	LT.	W-45-48	48X48	16		1		15													
201B	323+75D	LT.	R-41A-36	36X24	6					15												
201C	323+75D	RT.	W-45-48	48X48	16		1		15													
201D	323+75D	RT.	R-41A-36	36X24	6					15												
	323+75D	LT.	W-45-48	REMOVAL														1				
	323+75D	LT.	R-41A-36	REMOVAL														1			2	
	323+75D	RT.	W-45-48	REMOVAL														1				
	323+75D	RT.	R-41A-36	REMOVAL														1			2	
205A	6+99E	RT.	W-98-48	48X60	20					30												
	6+99E	RT.	W-98-48	REMOVAL														1			2	
205B	16+78E	RT.	R-2-60	60X60X60	10.825			1														
	16+78E	RT.	R-2-60	REMOVAL														1				
206A	8+00F	RT.	W-143-24	24X24	4																	
206B	8+00F	RT.	W-2-36	36X36	9					16												
	8+00F	RT.	W-143-24	REMOVAL														1				
	8+00F	RT.	W-2-36	REMOVAL														1			1	
207	2+90G	RT.	W-98-48	48X60	20					28												
	2+90G	RT.	W-98-48	REMOVAL														1			2	
208	4+40G	LT.	W-32-96	96X48		32						28			0.54							
	4+40G	LT.	W-32-96	REMOVAL														1			2	
209	323+75D	RT.	W-49L-48	48X48	16					28												
	323+75D	RT.	W-49L-48	REMOVAL														1				
	323+75D	RT.	WP-49-24	REMOVAL														1			1	
210	12+50H	RT.	R-2-60	60X60X60	10.825					28												
	12+50H	RT.	R-2-60	REMOVAL														1			2	
211A	13+46H	RT.	W-49R-48	48X48	16					28												
211B	13+46H	RT.	W-49R-48	REMOVAL														1				
	13+46H	RT.	WP-49-24	REMOVAL														1			2	
214A	1+95I	RT.	W-50L-48	REMOVAL														1			2	
214B	1+95I	RT.	W-50L-48	48X48	16					28												
219A	26+00K	RT.	W-143-24	24X24	4																	
219B	26+00K	RT.	W-2-36	36X36	9					16												
	26+00K	RT.	W-143-24	REMOVAL														1				
	26+00K	RT.	W-2-36	REMOVAL														1			1	
225	35+50T	LT.	W-49R-48	48X48	16					14												
	35+50T	LT.	W-49R-48	REMOVAL														1				
	35+50T	LT.	WP-49-24	REMOVAL														1			1	
227A	44+57T	LT.	W-49R-48	REMOVAL														1				
	44+57T	LT.	WP-49-24	REMOVAL														1			2	
227B	44+94T	LT.	W-49R-48	48X48	16					28												
228	46+15T	℄	W-47-48	48X48	16					28												
	46+15T	℄	W-47-48	REMOVAL														1				
	46+15T	℄	WP-47-24	REMOVAL														1			2	
229	47+80T	RT.	R-41A-36	36X24	6					24												
	47+80T	RT.	R-41A-36	REMOVAL														1			2	
231A	50+87T	RT.	R-43L-48	48X18	6				15													
231B	50+87T	RT.	R-41B-36	36X36	9					15												
231C	50+87T	RT.	R-43R-48	48X18	6																	
232A	21+10	LT.	R-43L-48	48X18	6				15													
232B	21+10	LT.	R-41B-36	36X36	9					15												
232C	21+10	LT.	R-43R-48	48X18	6																	
	50+92T	LT.	R-44L-24	REMOVAL														1				
	50+92T	LT.	R-41B-36	REMOVAL														1				
	50+92T	LT.	R-44L-24	REMOVAL														1			2	
	TOTALS FROM THIS SHEET				312.7	32	3	1	75	371	0	28			0.54			32	0		31	

GROUND MOUNTED REGULATORY AND WARNING SIGN QUANTITIES

TRAFFIC CONTROL QUANTITIES

CALC. BY KAB DATE 12/2/94
CHKD BY [illegible] DATE 2-7-95

HAM-71-2.92 | OHIO | FHWA REGION 5 | 489/615

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS - ITEM 630

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS															
					FLAT SHEET TYPE G	EXTRU SHEET TYPE G	SIGN BACKING ASSEMBLY	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	ONE WAY SUPPORT NO 4. POST	NO. 4 POST	NO. 6 POST	S4X7.7 BEAM			CONCRETE FOR EMBEDDED FOUNDATIONS		REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					SQ.FT.	SQ.FT.	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			CU. YD.		EACH	EACH		EACH	
233	1+16T1	LT.	R-15D-30	30X30	6.25					13											
	1+16T1	LT.	R-15B-30	REMOVAL													1			1	
234	50+47T	RT.	R-2-36	36X36X36	3.90					12											
	50+47T	RT.	R-2-36	REMOVAL													1			1	
235A	2+00U	RT.	W-97-48	48X60	20		1														
235B	2+00U	RT.	R-41A-36	36X24	6					34											
	2+00U	RT.	W-97-48	REMOVAL													1				
	2+00U	RT.	R-41A-36	REMOVAL													1			2	
236	2+70U	LT.	R-41A-36	36X24	6					22											
	2+70U	LT.	R-41A-36	REMOVAL													1			2	
237A	4+00U	LT.	R-41B-36	36X36	9					26											
	4+00U	LT.	R-41B-36	REMOVAL													1			2	
237B	4+00U	RT.	R-41B-36	36X36	9					26											
	4+00U	RT.	R-41B-36	REMOVAL													1			2	
239	21+59	LT.	R-121-36	36X36	9					13											
	21+59	LT.	R-121-36	REMOVAL													1			1	
241	23+55	LT.	R-121-36	36X36	9					13											
	23+55	LT.	R-121-36	REMOVAL													1			1	
247A	3+00N	RT.	W-97-48	48X60	20					28											
	3+00N	RT.	W-97-48	REMOVAL													1			2	
247B	5+00N	LT.	W-32-48	48X24	8					24											
248A	12+00N	LT.	R-41A-36	36X24	6					22											
248B	12+00N	RT.	R-41A-36	36X24	6					22											
	12+00N	LT.	R-41A-36	REMOVAL													1			2	
	12+00N	RT.	R-41A-36	REMOVAL													1			2	
248C	12+77N	LT.	R-50R-48	48X48	16					28											
248D	26+20	RT.	R-50R-48	48X48	16					28											
249	2+50P	RT.	R-15D-30	30X30	6.25					13											
	2+50P	RT.	R-15D-30	REMOVAL													1			1	
250	1+00P1	RT.	R-15D-30	30X30	6.25					13											
251	1+75P1	RT.	R-2-60	60X60X60	10.825					28											
	1+75P1	RT.	R-2-60	REMOVAL													1			1	
252	2+55R	RT.	W-45A-48	48X48	16					28											
	2+55R	RT.	W-45A-48	REMOVAL													1			2	
253	4+64R	LT.	W-32-48	48X24	8					24											
	4+64R	LT.	W-32-48	REMOVAL													1			2	
255	7+64R	LT.	W-41A-36	36X24	6					22											
	7+64R	RT.	W-41A-36	36X24	6					22											
	7+64R	LT.	W-41A-36	REMOVAL													1			2	
	7+64R	RT.	W-41A-36	REMOVAL													1			2	
256A	10+08R	RT.	R-1-48	48X48	16		1			16											
256B	10+08R	RT.	R-41B-36	36X36	9																
256C	10+08R	RT.	R-43L-48	48X18	6				16												
256D	10+08R	RT.	R-43R-48	48X18	6																
	10+08R	RT.	R-1-48	REMOVAL													1				
	10+08R	RT.	R-41B-36	REMOVAL													1			2	
256E	10+08R	LT.	R-1-48	48X48	16		1			16											
256F	10+08R	LT.	R-41B-36	36X36	9																
256G	10+08R	LT.	R-43L-48	48X18	6				16												
256H	10+08R	LT.	R-43R-48	48X18	6																
	10+08R	LT.	R-1-48	REMOVAL													1				
	10+08R	LT.	R-41B-36	REMOVAL													1				
	10+08R	LT.	R-43L-48	REMOVAL													1				
	10+08R	LT.	R-43R-48	REMOVAL													1			2	
265	19+21	RT.	W-45A-36	36X36	9					15											
	19+21	RT.	W-45-36	REMOVAL													1			1	
269	12+26	RT.	W-26-30	30X30	6.25			1													
	12+26	RT.	W-26-30	REMOVAL																	
	TOTALS FROM SHEET NO. 485				421.8	0	0	5	15	631	0	0			0		31	0		36	
	TOTALS FROM SHEET NO. 486				270.9	0	0	7	45	387	0	0			0		25	2		28	
	TOTALS FROM SHEET NO. 487				232.9	0	4	0	48	278	0	0			0		31	0		27	
	TOTALS FROM SHEET NO. 488				312.7	32	3	1	75	371	0	28			0.54		32	0		31	
	TOTALS FROM THIS SHEET				298.7	0	3	0	32	508	0	0			0		25	0		33	
	TOTALS CARRIED TO SHEET NO.410				1537	32	10	13	215	2175	0	28			0.54		144	2		155	

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GROUND MOUNTED REGULATORY AND WARNING SIGN QUANTITIES

TRAFFIC SURVEILANCE SUB-SUMMARY

DESIGNED	DRAWN	CHECKED	QUANTITIES
JDM		JBB	

HAM-71-2.92 | OHIO | F.H.W.A. REGION 5 | 489A 401

REF NO.	SHEET NO.	STATION TO STATION		603 4" CONDUIT TYPE E LIN.FT.				625 TRENCH, 30" DEEP LIN.FT.	625 TRENCH IN PAVED AREA, TYPE B LIN.FT.	625 GROUND ROD EACH	625 CONDUIT, CONCRETE ENCASED, AS PER PLAN 4" LIN.FT.	625 CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, AS PER PLAN 4" LIN.FT.	625 PULL BOX 7.13.08 30" EACH	625 PULL BOX W/ HEAVY DUTY LID & FRAME 7.13.08, 30", AS PER PLAN EACH	625 PULL BOX W/ HEAVY DUTY LID & FRAME 7.13.08, 36", AS PER PLAN EACH	625 PULL BOX 7.13.08 36" EACH	SPECIAL CONDUIT BRIDGE MOUNTED, AS PER PLAN 4" LIN.FT.	630 CONCRETE FOR ANCHOR BASE FOUNDATION CU.YD.			INFO. ONLY FLEXIBLE BENDS
1RS	170-171	213·00 - 217·75	(EXISTING PB TO PB 1)	10				475			475					1					
2RS	171-172	217·75 - 222·00	(PB 1 TO PB 2)	10				430			430		1								
3RS	172-174	222·00 - 230·50	(PB 2 TO PB 3)	10				5	845		850			1							1
4RS	174-177	230·50 - 238·95	(PB 3 TO PB 4)	10					845		845				1						
5RS	177	238·95 RT-238·95 RT RAMP TC	(PB 4 TO PB 5)	10								32				1					
6RS	177-179	238·95RT RAMP TC - 248·25	(PB 5 TO PB 6)	10				850	80		930			1							1
7RS	179-181	248·25 - 256·15	(PB 6 TO PB 7)	10					790		790				1						
8RS	181·185	256·15 - 266·00	(PB 7 TO PB 8)	10				595	390		985		1								3
9RS	185-187	266·00 - 275·65	(PB 8 TO PB 9)	10				915	50		965		1								
10RS	187·190	275·65 - 285·50	(PB 9 TO PB 10)	10				435	558		993		1								1
11RS	190-192	285·50 - 292·75	(PB 10 TO PB 11)	10				637	88		725			1							1
12RS	192	292·75 - 296·35	(PB 11 TO PB 12)	10				7	131		138		1					222			2
13RS	192-194	296·35 - 303·00	(PB 12 TO PB 13)	10				655	10		665		1								1
14RS	194-197	303·00 - 310·00	(PB 13 TO PB 14)	10				700			700		1								
15RS	197-199	310·00 - 319·25	(PB 14 TO PB 15)	10				877			877		1								
16RS	199-201	319·25 -328·75	(PB 15 TO PB 16)	10				910	40		950		1								
17RS	201	328·75 -333·70	(PB 16 TO PB 17)	10				495			495					1					
18RS	201-202	333·70 - 338·00 RAMP MF	(PB 17 TO PB 18)	10				370	60		430					1					
19RS	202	338·00	(PB 18 TO PB 19)	10				17			17	30				1					
20RS	202-203	338·00 - 346·75	(PB 19 TO PB 20)	10				875			875		1								
21RS	203-205	346·75 - 355·50	(PB 20 TO PB 21)	10				842	33		875		1								
22RS	205-206	355·50 - 364·25	(PB 21 TO PB 22)	10				875			875		1								
23RS	206-208	364·25 - 373·00	(PB 22 TO PB 23)	10				875			875		1								
24RS	208-209	373·00 - 380·00	(PB 23 TO PB 24)	10				650	50		700		1								
25RS	209-210	380·00 - 386·50	(PB 24 TO PB 25)	10				475	175		650				1						
26RS	210	386·50 - 386·50 RAMP DC	(PB 25 TO PB 26)	10				7			7	29				1					
27RS	210-212	386·50 RAMP DC - 293·50	(PB 26 TO PB 27)	10				919			919		1								
28RS	212-214	293·50 - 302·50	(PB 27 TO PB 28)	10				870			870		1					30			2
29RS	214-215	302·50 - 307·50 RAMP B	(PB 28 TO PB 29)	10				240	260		500				1						1
30RS	215	307·50 RAMP B - 307·37	(PB 29 TO PB 30)	10				28			28	30				1					
31RS	215	307·37 - 310·30	(PB 30 TO PB 31)	10				293			293					1					
32RS	215-216	310·30 - 316·40	(PB 31 TO PB 32)	10				610			610		1								
33RS	216-218	316·40 - 322·50	(PB 32 TO PB 33)	10				610			610		1								
34RS	218-219	322·50 - 331·25	(PB 33 TO PB 34)	10				875			875					1					
35RS	219	331·25 - 331·25 RAMP C	(PB 34 TO PB 35)	10				15	5		20	25				1					
36RS	219-221	331·25 RAMP C - 339·12	(PB 35 TO PB 36)	10				787			787					1					
37RS	221-222	339·12 - 344·70	(PB 36 TO PB 37)	10				558			558		1								
38RS	222-223	344·70 - 350·25	(PB 37 TO PB 38)	10				555			555		1								
39RS	223-224	350·25 - 357·75	(PB 38 TO PB 39)	10				7	743		750			1							1
40RS	224-225	357·75 - 365·25	(PB 39 TO PB 40)	10				170	580		750		1								1
TOTALS CARRIED TO SURVEILANCE GENERAL SUMMARY SHEET 410A				400				19509	5733		25242	146	21	4	4	11	252				

TRAFFIC SURVEILANCE SUB-SUMMARY

DRAWN	CHECKED	HAM-71-2.92	OHIO	F.H.W.A. REGION 5	489B 401
JDM	JBB				

REF NO.	SHEET NO.	STATION TO STATION		603 4" CONDUIT TYPE E LIN.FT.				625 TRENCH, 30" DEEP LIN.FT.	625 TRENCH IN PAVED AREA, TYPE B LIN.FT.	625 GROUND ROD EACH	625 CONDUIT, CONCRETE ENCASED, AS PER PLAN 4" LIN.FT.	625 CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, AS PER PLAN 4" LIN.FT.	625 PULL BOX 713.08 30" EACH	625 PULL BOX W/ HEAVY DUTY LID & FRAME 713.08, 30", AS PER PLAN EACH	625 PULL BOX W/ HEAVY DUTY LID & FRAME 713.08, 36", AS PER PLAN EACH	625 PULL BOX 713.08 36" EACH	SPECIAL CONDUIT BRIDGE MOUNTED, AS PER PLAN 4" LIN.FT.	630 CONCRETE FOR ANCHOR BASE FOUNDATION CU.YD.			INFO ONLY FLEXIBLE BENDS
41RS	225-228	365·25 - 4·25 RAMP F	(PB 40 TO PB 41)	10				465	275		740				1							1
42RS	228	4·25 RAMP F - 372·75 C	(PB 41 TO PB 42)	10				10			10	25				1						
43RS	228-230	372·75 - 381·70	(PB 42 TO PB 43)	10				895			895					1						
44RS	230-231	381·70 - 3·30 RAMP G	(PB 43 TO PB 44)	10				415			415					1						
45RS	231-232	3·30 RAMP G - 385·55	(PB 44 TO PB 45)	10				13			13	28										
46RS	232-233	385·55 - 392·50	(PB 45 TO PB 46)	10				695			695		1									
47RS	233-234	392·50 - 397·52	(PB 46 TO PB 47)	10				502			502		1									
48RS	234-235	397·52 - 0·53 RAMP N	(PB 47 TO PB 48)	10				316	185		501					1						2
49RS	235	0·53 RAMP N - 3·50 RAMP N	(PB 48 TO PB 49)	10				410	40		450					1						
50RS	235	3·50 RAMP N - 406·40	(PB 49 TO PB 50)	10				15			15	30				1						
51RS	235-236	406·40 - 410·90	(PB 50 TO PB 51)	10				450			450					1						
52RS	236	410·90 - 8·76 RAMP P	(PB 51 TO PB 52)	10				20			20	25				1						
53RS	236-237	8·76 RAMP P - 418·30	(PB 52 TO PB 53)	10				724			724		1									
54RS	237-239	418·30 - 427·50	(PB 53 TO PB 54)	10				920			920		1									
55RS	239-240	427·50 - 436·83	(PB 54 TO PB 55)	10				933			933											
56RS	171	217·77 N.B.								1										12.5		
57RS	174	227·50 S.B.								1										12.5		
58RS	221	339·19								1										12.5		
TOTALS CARRIED TO SURVEILANCE GENERAL SUMMARY SHEET410A				150				6783	500	3	7283	108	4		1	8				37.5		

CALC BY DATE	HAM-71-2.92	OHIO
CHKD BY DATE		FHWA REGION 5

490
615

PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS

GENERAL

OVERHEAD SIGN SUPPORTS CAN BE SEPARATED INTO MAJOR SECTIONS SUCH AS END FRAMES, TRUSSES, VERTICAL POLES AND CANTILEVER ARMS. FOR THE IMPLEMENTATION OF THIS WORK ITEM IT WILL BE BENEFICIAL TO REFER TO THE MAJOR SECTIONS OF THE OVERHEAD SIGN SUPPORTS RATHER THAN THE WHOLE SUPPORT. MORE SPECIFIC INSTRUCTIONS AND FLEXIBILITY CAN BE GIVEN BASED UPON THE UNIT OF MEASURE AND PAYMENT PER MAJOR SUPPORT SECTION.

THE PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS SHALL BE A FOUR PART PROCESS TO INCLUDE SURFACE PREPARATION FOLLOWED BY A THREE COAT PAINT SYSTEM. THIS THREE COAT SYSTEM SHALL CONSIST OF AN EPOXY PRIME COAT, AN EPOXY INTERMEDIATE COAT AND A URETHANE TOP COAT, WITH EACH COAT BEING A DIFFERENT COLOR. FOR AN EXPLANATION OF THE MATERIALS TO BE USED SEE NOTE ENTITLED "COATING SYSTEM." THE PURPOSE OF THIS COATING IS TO PROVIDE PROTECTION FOR NEW (UNWEATHERED) AND OLDER (WEATHERED) GALVANIZED STEEL SUPPORT SECTIONS FROM CORROSIVE ELEMENTS IN THE ATMOSPHERE. COATING AND SURFACE PREPARATION OF NEW GALVANIZED SUPPORT SECTIONS SHOULD BE DONE BY THE MANUFACTURER.

IN THE FIELD, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO COMPLY WITH POLLUTION LAWS, RULES OR REGULATIONS OF FEDERAL, STATE OR LOCAL AGENCIES. THE COATING MATERIALS SPECIFIED FOR THE WORK CAN BE HAZARDOUS TO THE HEALTH OF THE APPLICATOR IF NOT APPLIED AS PER MANUFACTURER'S INSTRUCTION. THE CONTRACTOR SHALL FOLLOW THE DATA SHEET AND THE LABEL ON THE PAINT CONTAINERS. THESE PRECAUTIONS SHALL INCLUDE THE USE OF RESPIRATORS AND EYE AND SKIN PROTECTION AS SPECIFIED. THE CONTRACTOR SHALL ALSO INSURE THAT HIS PAINTING OPERATIONS AND LOCATIONS WILL NOT ENDANGER OR ADVERSELY AFFECT THE PUBLIC IN GENERAL.

THE PROPOSED CLEANING AND COATING OPERATIONS SHALL BE PERFORMED ONLY WHEN THE AMBIENT TEMPERATURE IS 50 DEGREES F OR ABOVE. PAINT SHALL NOT BE APPLIED DURING RAIN, FOG OR MIST, OR WHEN THE STEEL SURFACE TEMPERATURE IS LESS THAN 5 DEGREES F ABOVE THE DEW POINT. PAINT SHALL NOT BE APPLIED TO WET OR DAMP SURFACES OR ON FROSTED OR ICE-COATED SURFACES. PAINT SHALL NOT BE APPLIED WHEN THE RELATIVE HUMIDITY IS GREATER THAN 85%. ALL STEEL SURFACES OF TRUSSES AND END FRAMES INCLUDING THE WELDED AREAS, BALLAST ENCLOSURE MOUNTING BRACKET AND BASE PLATES ARE TO BE CLEANED AND COATED. BEFORE EACH COATING IS APPLIED, IT SHALL BE MIXED WITH AN APPROVED POWER MECHANICAL MIXER TO A UNIFORM CONSISTENCY WHICH SHALL BE MAINTAINED DURING ITS APPLICATION. EACH COAT SHALL BE APPLIED IN A WORKMANLIKE MANNER AS A CONTINUOUS FILM OF UNIFORM THICKNESS WHICH IS FREE OF HOLIDAYS, PORES, RUNS OR SAGS. ALL COATS SHALL BE APPLIED BY BRUSH. THINNING OF PAINT IS STRICTLY PROHIBITED. PAINT NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COATING SHALL PENETRATE ALL JOINTS AND CONNECTIONS. THE ENGINEER SHALL BE NOTIFIED 24 HOURS PRIOR TO ANY CLEANING OR COATING OPERATIONS SO THAT INSPECTION SERVICES CAN BE PROVIDED.

COATING SYSTEM

THE COATING SYSTEM SHALL CONSIST OF A POLYAMIDE-CURED EPOXY PRIME COAT, A POLYAMIDE-CURED INTERMEDIATE COAT AND AN ALIPHATIC POLYURETHANE TOP COAT. THE COATING MATERIALS USED SHALL BE THOSE AS LISTED FROM ONE OF THE FOLLOWING MANUFACTURERS:

1. AMERON
   210 NORTH BERRY STREET
   BREA, CALIFORNIA 92621
   LOCAL TELEPHONE CONTACT: (216) 896-3602
   PRIME COAT: AMERCOAT 71
   INTERMEDIATE COAT: AMERLOCK 400 (LIGHT GREY)
   TOP COAT: AMERCOAT 450 HS (MEDIUM GREY)

2. THE GLIDDEN COMPANY
   16651 SPRAGUE ROAD
   STRONGSVILLE, OHIO 44136
   LOCAL TELEPHONE CONTACT: (216) 826 - 5528

   PRIME COAT: GLID - GUARD CORROSION RESISTANT HS EPOXY NO. 5465

   INTERMEDIATE COAT: GLID - GUARD CORROSION RESISTANT HS EPOXY NO. 5466

   TOP COAT: GLID - THANE II POLYURETHANE NO. 6200 SERIES

3. PORTER PAINT CO.
   400 SOUTH 13TH STREET
   LOUISVILLE, KY. 40201
   LOCAL TELEPHONE CONTACT: (216) 562-6709
   PRIME COAT: PORTER PAINTS MCR 4300
   INTERMEDIATE COAT: PORTER PAINTS MCR 4300 (OFF-WHITE)
   TOP COAT: PORTER PAINTS HYTHANE

4. POLY-CARB, INC.
   33095 BAINBRIDGE ROAD
   CLEVELAND, OHIO 44139
   LOCAL TELEPHONE CONTACT: (216) 248-1223
   PRIME COAT: MARK-60 ULTRAPOX
   INTERMEDIATE COAT: MARK-60 ULTRAPOX (LIGHT GREY)
   TOP COAT: MARK-73 ULTRAKOTE (MEDIUM GREY)

5. SHERWIN WILLIAMS COMPANY
   761 BETA DRIVE
   MAYFIELD VILLAGE, OHIO 44143
   LOCAL TELEPHONE CONTACT: (216) 461-8287
   PRIME COAT: TILE-CLAD II HI-BILD PRIMER
   INTERMEDIATE COAT: HI-SOLIDS CATALYZED EPOXY (PURE WHITE) (SLATE GREY)
   TOP COAT: HI-BILD ALIPHATIC POLYURETHANE ENAMEL

ALL THREE COATS OF THE SYSTEM SHALL BE MANUFACTURED BY THE SAME COMPANY TO INSURE COMPATIBILITY AMONG COATS.

SURFACE PREPARATION, EXISTING SUPPORT SECTIONS

EXISTING, WEATHERED GALVANIZED SUPPORT SECTIONS SHOULD HAVE THEIR SURFACE PREPARATION AS WELL AS THEIR PROTECTIVE COATING DONE UNDER CONDITIONS OF TEMPERATURE AND HUMIDITY WITHIN THE SAME RANGE AS SPECIFIED BY THE MANUFACTURER OF THE EPOXY-PRIME COAT MATERIAL TO BE USED IMMEDIATELY AFTER THIS CLEANING OPERATION. THE SUPPORT SECTIONS SHALL BE PREPARED FOR COATING BY SSPC-SP1 (SOLVENT CLEANING) FOLLOWED BY SSPC-SP6 (COMMERCIAL BLAST CLEANING). BEFORE THE PREPARED SURFACE DEGRADES FROM THE PRESCRIBED STANDARDS, THE PRIME COAT SHALL BE APPLIED. IN EVERY CASE, THE SURFACE SHALL BE COATED WITH EPOXY PRIME COAT ON THE SAME DAY AS THE SURFACE PREPARATION. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING, OR OTHER DAMAGE TO THE PREPARED SURFACE. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING, TRANSPORTATION COSTS AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK PER MAJOR SUPPORT SECTION.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- SURFACE PREPARATION, EXISTING SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

SURFACE PREPARATION, NEW SUPPORT SECTIONS

NEW, UNWEATHERED GALVANIZED SUPPORT SECTIONS SHOULD HAVE THEIR SURFACE PREPARATION AS WELL AS THEIR PROTECTIVE COATING DONE AT THE MANUFACTURER OF THE SUPPORT SECTIONS.

THE SUPPORT SECTIONS SHALL BE PREPARED FOR COATING BY SSPC-SP1 (SOLVENT CLEANING) FOLLOWED BY SSPC-SP7 (BRUSH-OFF BLAST). BEFORE THE PREPARED SURFACE DEGRADES FROM THE PRESCRIBED STANDARDS, THE PRIME COAT SHALL BE APPLIED. IN EVERY CASE, THE SURFACE SHALL BE COATED WITH THE EPOXY PRIME COAT ON THE SAME DAY OF SURFACE PREPARATION. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING, OR OTHER DAMAGE TO THE PREPARED SURFACE.
PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING, TRANSPORTATION COSTS AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK PER MAJOR SUPPORT SECTION.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- SURFACE PREPARATION, NEW SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

COATING, EPOXY-PRIME COAT, SUPPORT SECTIONS

THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF AN EPOXY PRIMER TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL BE BETWEEN 1.5 TO 2.0 MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COST SHALL BE BORNE BY THE CONTRACTOR. THE COLOR OF THIS COAT SHALL BE NOTICEABLY DIFFERENT FROM THE BASE MATERIAL AND OTHER PROPOSED COATS.
THIS COAT SHALL IN ALL CASES BE APPLIED OVER SURFACES THAT WERE PREPARED EARLIER THAT SAME DAY. THE THINNING OF THE EPOXY MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED.
WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED 1.5 TO 2.0 MILS BUT IS AT LEAST 1.25 MILS, THE CONTRACT BID PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 16-2/3%. IF THE DEFICIENCY OF COATING IS MORE THAN THAT 16-2/3% (I.E., THE AVERAGE DRY FILM THICKNESS IS LESS THAN 1.25 MILS) THE WORK FOR THIS ITEM SHALL BE CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL.
THE EPOXY PRIME COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING TWO-COMPONENT COMPOSITIONS CONFORMING TO ITS LISTED PROPERTIES:

AMERCOAT 71:

% SOLIDS BY VOLUME:	47% ± 3%
POT LIFE:	8 HRS. @ 77 DEGREES F. (25 DEGREES C)
DRYING TIME:	4 HRS. @ 77 DEGREES F.

GLID-GUARD CORROSION RESISTANT HS EPOXY NO. 5465:

% SOLIDS BY VOLUME:	54% ± 2%
POT LIFE:	4 HRS. @ 70 DEGREES F.
DRYING TIME:	1-2 HRS. TO TOUCH, 7 HRS. TO RECOAT AT 70 DEGREES F., 50% RELATIVE HUMIDITY
VISCOSITY:	95 - 100 KU
% SOLIDS BY WEIGHT:	71% ± 2%

MCR-4301 EPOXY PRIMER:

% SOLIDS BY VOLUME	48.0% ± 2%
POT LIFE:	30 HRS. @ 50-60 DEGREES F. 16 HRS. @ 80-100 DEGREES F.
DRYING TIME:	4-6 HRS. @ 50-60 DEGREES F.

MARK-60 ULTRAPOX:

% SOLIDS BY VOLUME:	50% ± 5%
% SOLIDS BY WEIGHT:	52% ± 5%
POT LIFE:	6 HRS. @ 75 DEGREES F.
DRYING TIME:	2-3 HRS. INITIAL SET @ 75 DEGREES F.
VISCOSITY:	300-500 CPS @ 75 DEGREES F.

TILE-CLAD II HI-BILD PRIMER:

% SOLIDS BY VOLUME:	48% ± 2%
% SOLIDS BY WEIGHT:	63% ± 2%
POT LIFE:	8 HRS. @ 77 DEGREES F.
DRYING TIME:	1 HR. TO TOUCH, 6 HRS. TO RECOAT @ 77 DEGREES F.

FOR NEW SUPPORT SECTIONS THE PRIME COAT SHOULD BE DONE AT THE MANUFACTURER OF THE SUPPORT SECTIONS. VERIFICATION BY THE MANUFACTURER OF THE COATING MATERIAL FOR THE PRIME COAT WILL BE REQUIRED. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING OR OTHER SURFACE DAMAGE TO THE PRIME COAT.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COSTS AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS PRIME COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE INTERMEDIATE AND TOP COATS. A PROPERLY CALIBRATED DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:
ITEM SPECIAL- COATING, EPOXY PRIME COAT, SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTIONS

THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF EPOXY TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL NOT BE LESS THAN SIX (6.0) MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COST SHALL BE BORNE BY THE CONTRACTOR. THINNING OF THE EPOXY MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COLOR OF THIS COAT SHALL BE LIGHT GREY.
WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED SIX (6.0) MILS, BUT IS AT LEAST (5.0) MILS, THE CONTRACT PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 16-2/3%. IF THE DEFICIENCY OF COATING IS MORE THAN 16-2/3%, (I.E. THE AVERAGE DRY FILM THICKNESS IS LESS THAN 5.0 MILS), THE WORK FOR THIS ITEM SHALL BE CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL. THE EPOXY INTERMEDIATE COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING TWO-COMPONENT COMPOSITIONS CONFORMING TO ITS LISTED PROPERTIES:

AMERLOCK 400:
% SOLIDS BY VOLUME: 83% ± 2%
POT LIFE: 2-1/2 HRS. @ 70 DEGREES F.
DRYING TIME: 20 HRS. @ 70 DEGREES F.

GLID-GUARD CORROSION RESISTANT HS EXPOXY NO. 5466:
% SOLIDS BY VOLUME: 54% ± 2%
POT LIFE: 4 HRS. @ 70 DEGREES F.
DRYING TIME: 1 - 2 HRS. TO TOUCH 7 HRS. TO RECOAT AT 70 DEGREES F., 50% RELATIVE HUMIDITY
VISCOSITY: 95 - 100 KU
% SOLIDS BY WEIGHT: 71% ± 2%

MCR 4361 HIGH BUILD EPOXY:
% SOLIDS BY VOLUME: 49.4% ± 2%
POT LIFE: 30 HRS. @ 50-60 DEGREES F.
16 HRS. @ 80-100 DEGREES F.
DRYING TIME: 1-2 HRS. @ 60-80 DEGREES F.

MARK-60 ULTRAPOX:
% SOLIDS BY VOLUME: 50% ± 5%
% SOLIDS BY WEIGHT: 52% ± 5%
POT LIFE: 6 HRS. @ 75 DEGREES F.
DRYING TIME: 2-3 HRS. INITIAL SET @ 75 DEGREES F.
VISCOSITY: 300-500 CPS @ 75 DEGREES F.

HI-SOLIDS CATALYZED EPOXY:
% SOLIDS BY VOLUME: 61% ± 2%
% SOLIDS BY WEIGHT: 77% ± 2%
POT LIFE: 5 HRS. @ 77 DEGREES F.
DRYING TIME: 1 HR. TO TOUCH, 4 HRS. TACK FREE, 6 HRS. TO RECOAT @ 77 DEGREES F.& 50% R.H.

AT LEAST 24 HOURS BUT NO MORE THAN THREE (3) DAYS SHALL ELAPSE AFTER THE APPLICATION OF THE EPOXY PRIME COAT AND BEFORE THE APPLICATION OF THE EPOXY INTERMEDIATE COAT. SURFACES SHALL IN ALL CASES BE CLEAN BEFORE THE INTERMEDIATE COAT IS APPLIED.
FOR NEW SUPPORT SECTIONS, THIS INTERMEDIATE COAT SHOULD BE DONE AT THE MANUFACTURER OF THE SUPPORT SECTIONS. VERIFICATION BY THE MANUFACTURER FOR THE INTERMEDIATE COAT WILL BE REQUIRED. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING OR OTHER SURFACE DAMAGE TO THE INTERMEDIATE COAT.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COST AND MATERIAL NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS INTERMEDIATE COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE PRIME AND TOP COATS. A PROPERLY CALIBRATED DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

COATING, URETHANE TOP COAT, SUPPORT SECTIONS

THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF URETHANE TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL NOT BE LESS THAN ONE AND ONE-HALF (1.5) MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COST SHALL BE BORNE BY THE CONTRACTOR. THINNING OF THE URETHANE MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COLOR OF THIS COAT SHALL BE MEDIUM GREY.
WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED ONE AND ONE-HALF (1.5) MILS BUT IS AT LEAST ONE (1.0) MIL, THE CONTRACT PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 33-1/3%. IF THE DEFICIENCY OF COATING IS MORE THAN 33-1/3%, (I.E. THE AVERAGE DRY FILM THICKNESS IS LESS THAN 1.0 MIL), THE WORK FOR THIS ITEM SHALL CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL.
THE URETHANE TOP COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING MATERIALS CONFORMING TO ITS LISTED PROPERTIES:

AMERCOAT 450 HS:
% SOLIDS BY VOLUME: 66% ± 3%
POT LIFE: 4 HRS. @ 70 DEGREES F.
DRYING TIME: 8 HRS. @ 70 DEGREES F DRY-THROUGH

GLID-THANE II POLYURETHANE NO. 6200:
% SOLIDS BY VOLUME: 40.3% ± 2%
POT LIFE: 8 HRS.
DRYING TIME: 1 HR. TO TOUCH, 3 HRS. TO RECOAT AT 77 DEGREES F., 50% RELATIVE HUMIDITY
% SOLIDS BY WEIGHT: 57.8% ± 2%

HYTHANE 4610 ALIPHATIC POLYURETHANE:
% SOLIDS BY VOLUME: 43.4% ± 2%
POT LIFE: 12 HRS. @ 75 DEGREES F.
DRYING TIME: 3/4 HRS. TO TOUCH @ 75 DEGREES F.

MARK-73 ULTRAKOTE:
% SOLIDS BY VOLUME: 51%
POT LIFE: 5 1/2 HRS. @ 75 DEGREES F.
DRYING TIME: 4-5 HRS. @ 75 DEGREES F. TACK FREE
VISCOSITY: 1000 - 1500 CPS @ 75 DEGREES F.
% SOLIDS BY WEIGHT: 64%

HI-BILD ALIPHATIC POLYURETHANE ENAMEL:
% SOLIDS BY VOLUME: 40% ± 2% (CATALYZED)
% SOLIDS BY WEIGHT: 48% ± 2%
POT LIFE: 6 HRS. @ 77 DEGREES F.
DRYING TIME: 30 MIN. TO TOUCH, 4 HRS. TACK FREE, 18 HRS. MINIMUM, 72 HRS. MAXIMUM TO RECOAT.

AT LEAST 24 HOURS BUT NO MORE THAN THREE (3) DAYS SHALL ELAPSE AFTER THE APPLICATION OF THE EPOXY INTERMEDIATE COAT AND BEFORE THE APPLICATION OF THE URETHANE TOP COAT. SURFACES SHALL IN ALL CASES BE CLEAN BEFORE THE TOP COAT IS APPLIED.
FOR NEW SUPPORT SECTIONS, THIS TOP COAT SHOULD BE DONE BY THE MANUFACTURER OF THE SUPPORT SECTIONS. VERIFICATION BY THE MANUFACTURER FOR THE TOP COAT WILL BE REQUIRED. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING OR OTHER SURFACE DAMAGE TO THE TOP COAT.
PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COST AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS TOP COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE PRIME AND INTERMEDIATE COATS. A PROPERLY CALIBRATED, DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- COATING, URETHANE TOP COAT, SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

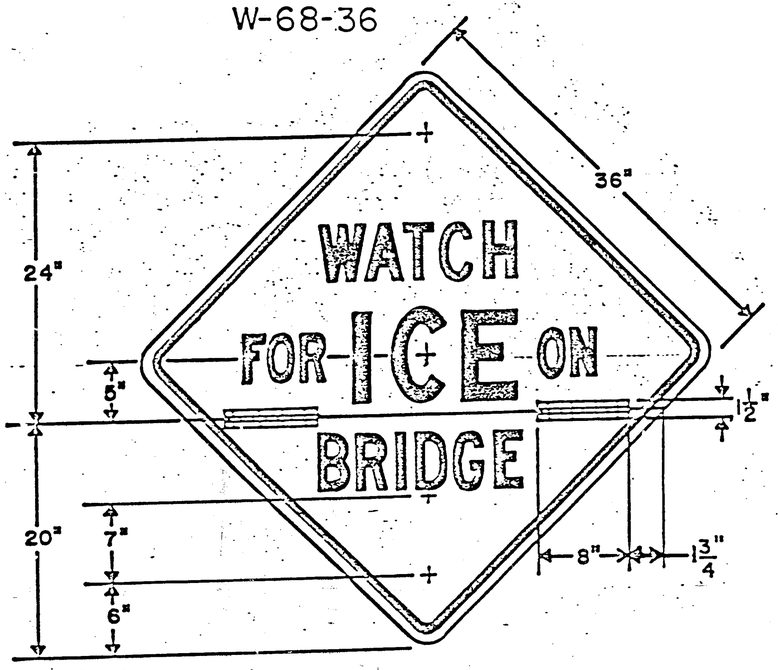
PREQUALIFICATION

PRIOR TO USE, THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR COPIES OF THE MANUFACTURER'S CERTIFIED TEST DATA SHOWING THAT THE MATERIAL COMPLIES WITH THE REQUIREMENTS OF THIS SPECIFICATION. THE TEST DATA SHALL INCLUDE THE BRAND NAME OF THE PAINT, NAME OF MANUFACTURER, NUMBER OF THE LOT TESTED AND DATE OF MANUFACTURE. WHEN THE PAINT HAS BEEN APPROVED BY THE DIRECTOR, FURTHER PERFORMANCE TESTING BY THE MANUFACTURER WILL NOT BE REQUIRED UNLESS THE FORMULATION OR MANUFACTURING PROCESS HAS BEEN CHANGED, IN WHICH CASE NEW CERTIFIED TEST RESULTS WILL BE REQUIRED.

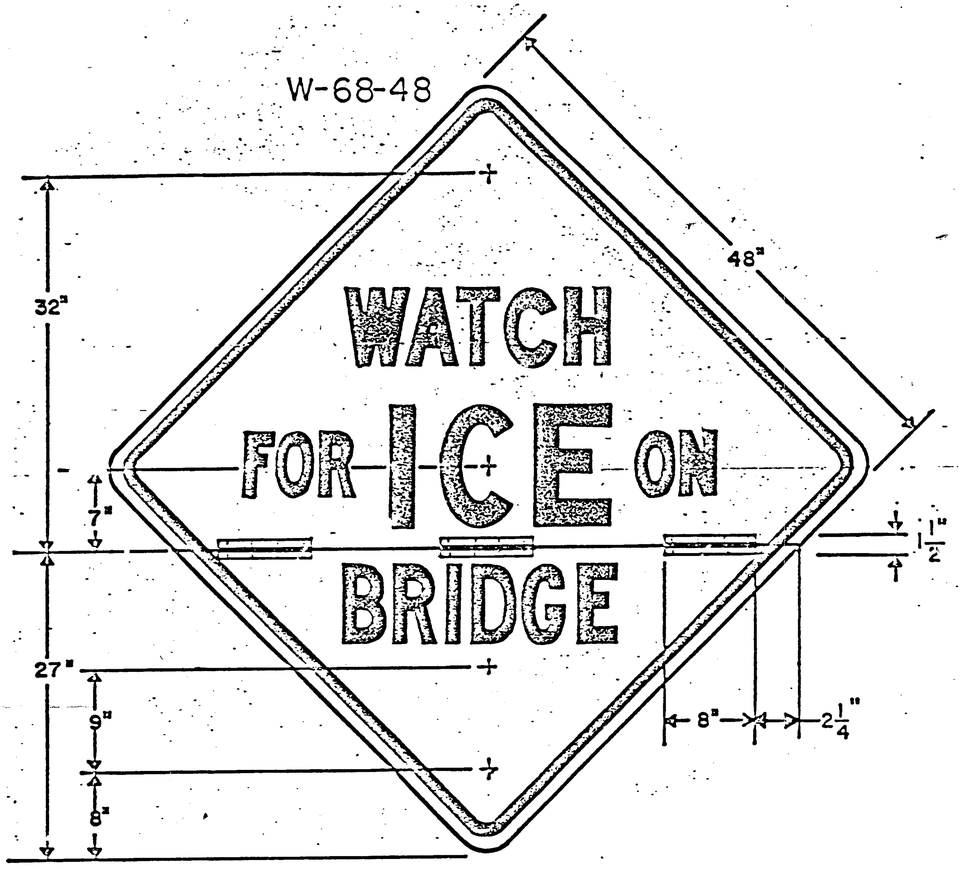
ACCEPTANCE

THE MANUFACTURER SHALL SUBMIT CERTIFIED TEST DATA IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION. THE STATE RESERVES THE RIGHT TO SAMPLE AND TEST DELIVERED LOTS FOR COMPLIANCE.

W-68-36



W-68-48



NOTES:

1) The Department's policy shall be to hinge all "Watch For Ice on Bridge" (W-68) signs fabricated at the Traffic Maintenance Shops. The legend on these signs shall only be displayed from November 1st to May 1st; during the remainder of the year, the sign shall be folded down to conceal the legend.

2) The location of the sign shall be in accordance with Section 2M-33 and Table S-1 of the OMUTCD.

3) The sign shall be hinged with 8" lengths of 1½" brass-plated hinge which is riveted to each section of the sign and then covered with yellow reflective sheeting (Type F-730.18) to match the background of the sign.

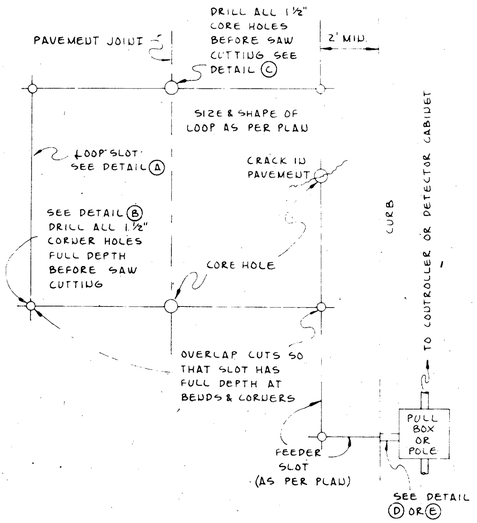
4) To fold the sign down, remove the top two bolts, fold the upper part of the sign down and insert a bolt through the lowest hole in the sign and into the post. Tighten the bolt to prevent the sign from flapping in the wind and sustaining damage.

5) Generally a 48 inch warning sign is mounted on two number 3 drive posts; however, in order to accommodate the sign hole alignment, only one number 4 sign support shall be used in mounting the W-68-48 sign.

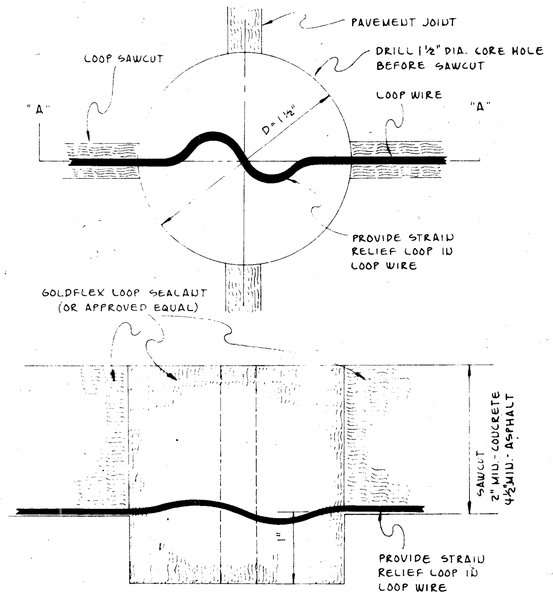
OHIO DEPARTMENT OF TRANSPORTATION	
"HINGED" WATCH FOR ICE ON BRIDGE SIGN W-68	DATE 10/82

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
5	OHIO	HAM-71-2.92	

498
615

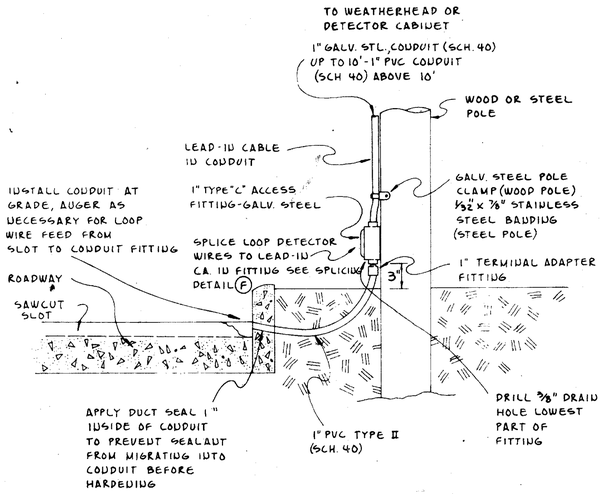


TYPICAL LOOP SLOT CONSTRUCTION



PAVEMENT JOINT CORE HOLE DETAIL C

SECTION "A"-"A"



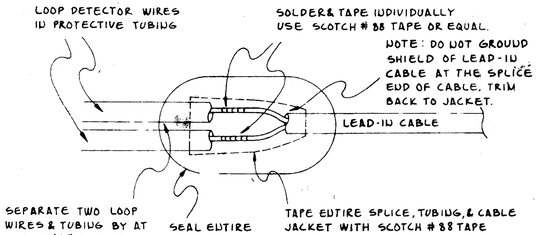
CONNECTION FROM SLOT TO CONDUIT FITTING ON POLE DETAIL E

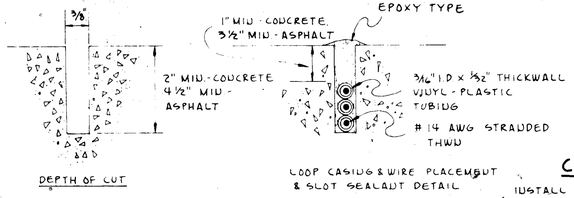
INSTALLATION NOTES

1) LAYOUT LOOP IN STREET AS PER PLAN SHEET. CHECK LAYOUT TO SEE THAT THE SAWCUT LINE IS FREE FROM OBSTRUCTIONS SUCH AS MAN HOLES, PARALLEL CONSTRUCTION JOINT RUNS CLOSER THAN 2' FROM CUT, PATCHES IN PAVEMENT, CRACKED OR BROKEN OUT AREAS & OTHER SUCH OBSTRUCTIONS OR MATERIAL CONFLICTS. IF SUCH CONFLICTS ARISE, THE LOOP SHALL BE RELOCATED OR ALTERED AS DIRECTED BY THE ENGINEER.
2) DRILL ALL BEND & CORNER HOLES AND ANY CORE HOLE THAT ARE NECESSARY BEFORE SAW CUTTING. BEND & CORNER HOLES SHALL BE FULL DEPTH OF THE SAWCUT AND CORE HOLES SHALL BE A MINIMUM OF 1" DEEPER THAN SAWCUT. NOTE: ADDITION CORE HOLE SHALL BE DRILLED AT POINTS WHERE SAWCUT CROSSES A SUBSTANTIAL CRACK IN THE PAVEMENT OR AS DIRECTED BY THE ENGINEER.
3) DEPTH OF SAWCUT SHALL BE DETERMINED BY THE ROADWAY CONSTRUCTION.
   (A) CONCRETE - SAWCUT SLOT DEPTH OF 2" SHALL BE REQUIRED.
   (B) ASPHALT - SAWCUT SLOT DEPTH OF 4½" SHALL BE REQUIRED.
4) AFTER SAWCUTTING, THE SLOT AND DRILLED HOLE SHALL BE COMPLETELY CLEAN OF DUST AND DEBRIS AND THOROUGHLY DRY BEFORE INSTALLATION OF WIRE AND SEALANT.
5) THE LOOP DETECTOR WIRE SHALL BE INSTALLED IN A PROTECTIVE FLEXIBLE VINYL PLASTIC TUBING. THE LOOP DETECTOR WIRE AND PLASTIC TUBING SHALL BOTH BE OF A CONTINUOUS LENGTH FROM THE POINT OF SPLICING OF LOOP WIRE TO THE LEAD-IN CABLE WITH THE NUMBER OF TURNS FORMING THE LOOP AS INDICATED ON THE PLAN SHEET OR AS DIRECTED BY THE ENGINEER.
   THE WIRE AND PROTECTIVE SHEATHING SHALL BE INSTALLED IN THE SLOT SO AS TO PROVIDE A MINIMUM DEPTH OF SEALANT COVERING THE UPPER MOST WIRE IN THE SLOT TO THE ROADWAY SURFACE AS FOLLOWS.
   (A) CONCRETE - NO LESS THAN 1"
   (B) ASPHALT - NO LESS THAN 3½"
   IF FLOATING OF WIRE & SHEATH OCCURS, 1" OF 1/4" O.D. VINYL TUBING SHOULD BE BENT AND WEDGED INTO THE SLOT TO HOLD WIRE DOWN.
6) RESISTANCE OF THE LOOP IN THE SPOT WITH RESPECT TO GROUND SHALL BE MEASURED BEFORE & AFTER SEALING. RESISTANCE OF LESS THAN 10 MEGOHMS TO GROUND INDICATES A FAULTY LOOP. ANY SUCH FAULTY CONDITIONS SHALL BE CORRECTED.
7) LOOP DETECTOR SLOTS, BEND HOLES, CORNER HOLES & CORE HOLES SHALL BE SEALED WITH A FLEXIBLE EPOXY TYPE SEALANT. THE SEALANT SHALL BE MIXED AND PLACED ACCORDING TO MANUFACTURE'S INSTRUCTIONS. THE SLOTS SHALL BE FILLED COMPLETELY AND NO TRAFFIC ALLOWED TO CROSS THE CUTS UNTIL SEALANT IS CURED.
   NOTE: IF LOOP WIRE AND SEALANT CANNOT BE INSTALLED AND CURED BEFORE IT MUST BE OPENED TO TRAFFIC, THE SLOT SHALL BE SAWED, CLEANED AND DRIED BEFORE WIRING AND SEALING.
8) SPICING OF THE LOOP WIRE TO THE LEAD-IN CABLE SHALL BE MADE IN PULLBOX OR CONDUIT ACCESS FITTING ONLY. NO SPLICING SHALL BE PERMITTED IN THE SAWSLOT OR CONDUIT.
   (A) SPLICE MADE IN PULLBOX - SOLDER THE CONDUCTORS BETWEEN LOOP WIRE & THE LEAD-IN CABLE, INDIVIDUALLY TAPE EACH CONDUCTOR TO INSURE ADEQUATE INSULATION WITH AN APPROVED WEATHERPROOF TAPE. WRAP THE ENTIRE SPLICE WITH THE WEATHERPROOF ELECTRICAL TAPE. THE ENTIRE SPLICE, INCLUDING THE ENDS OF THE PROTECTIVE TUBING AND JACKET OF THE LEAD-IN CABLE, SHALL BE SEALED IN A WATERPROOF SPLICE KIT. SEE DETAIL F
   (B) SPLICE MADE IN TYPE "C" CONDUIT FITTING - SOLDER THE CONDUCTORS TOGETHER IN A BUTT SPLICE. INDIVIDUALLY WRAP EACH WIRE TO INSURE ADEQUATE INSULATION WITH A WEATHERPROOF TAPE. WRAP THE ENTIRE SPLICE, INCLUDING PROTECTIVE TUBING & LEAD-IN CABLE JACKET ENDS, WITH WEATHERPROOF TAPE. FINISH THE SPLICE BY ENCLOSING IT IN AN APPROVED HEAT SHRINK TUBING.
9) ONE 2C LEAD-IN CABLE SHALL BE RUN FROM EACH LOOP TO THE APPROPRIATE DETECTOR AMPLIFIER, UNLESS SPECIFIED SPLICING OF SEVERAL LOOPS IN A PULLBOX OR A "C" CONDUIT FITTING USING ONE LEAD-IN CABLE TO THE LOOP AMPLIFIER. LOOP DETECTOR AMPLIFIER CABLE CONNECTIONS SHOWN IN DETAIL G.
   NOTE: THE LEAD-IN CABLE SHIELD SHALL BE GROUNDED ONLY AT THE DETECTOR AMPLIFIER END OF THE CABLE.

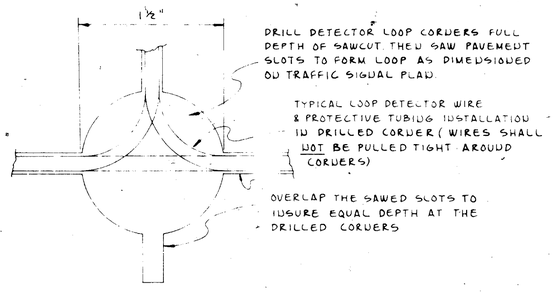
LOOPWIRE TO LEAD-IN CA. SPLICE DETAIL F

(A) PULLBOX - USE WATER PROOF SPLICE KIT
(B) TYPE C CONDUIT FITTING - SPLICE KIT NOT REQUIRED, USE SHRINK TUBING



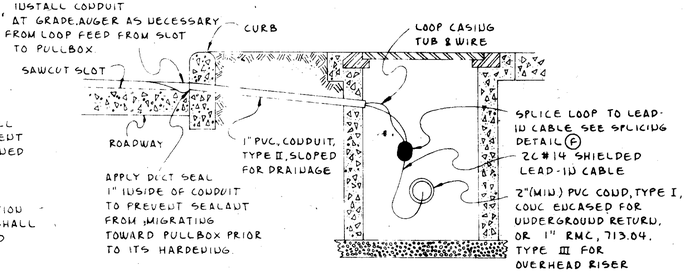


LOOP DETECTOR SLOT DETAIL A



BEND & CORNER HOLE DETAIL B

CONNECTION FROM SLOT TO PULLBOX DETAIL D



MATERIALS DESCRIPTION

LOOP DETECTOR WIRE - #14 AWG, THWD, STRANDED
LOOP DETECTOR WIRE PROTECTIVE TUBING - FLEXIBLE VINYL PLASTIC TUBING, 3/16" I.D., 1/32" WALL THICKNESS, 1/4" O.D. RESISTANT TO WATER, SALT, OILS, SOLVENTS & HIGHLY ABRASIVE RESISTANT.
LEAD-IN CABLE - 2C #14 AWG STRANDED, SHIELDED, TWISTED-PAIR, POLYETHYLENE INSULATED, CROME VINYL JACKETED, RATED 750 VOLTS
LOOP SLOT SEALANT - FLEXIBLE EMBEDDING EPOXY TYPE, "GOLDFLEX" AS MANUFACTURED BY PRECO OR DETECTA LOOP SEALANT BY 3M OR APPROVED EQUAL.
SPLICE KITS - PERMANENT WATER RESISTANT - COMPLIANCE WITH ANSI C119.1, SCOTCH CAST KIT OR APPROVED EQUAL.

LOOP DETECTOR AMPLIFIER CABLE CONNECTIONS DETAIL G

CONNECTOR (MS/AN 3102A-18-1P)

PIN	FUNCTION
A	117 VOLT A.C. COMMON
B	CALL RELAY COMMON
C	117 VOLT A.C.
D	LOOP CONNECTION
E	LOOP CONNECTION
F	CALL RELAY - D.C. CONTACTS
G	CALL RELAY - D.C. CONTACTS
H	EQUIPMENT GROUND
I	SPARE
J	SPARE

DESIGN	REVISION / APPROVED	DATE	WO #
J.F.W.		9-14-81	

TRAFFIC SIGNAL DETECTOR

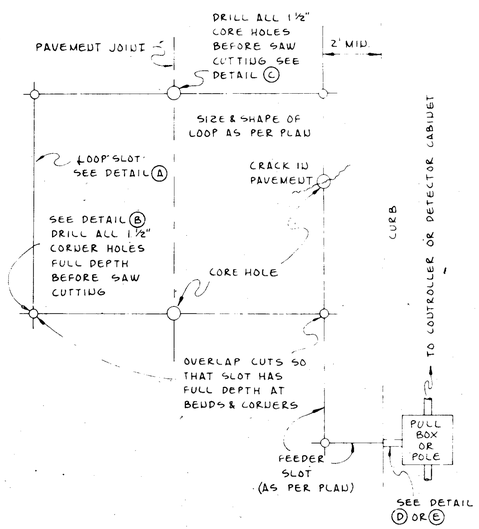
LOOP DETECTOR INSTALLATION SAWCUT

CITY OF CINCINNATI
DEPT. OF PUBLIC WORKS
DIV. OF TRAFFIC ENGR.

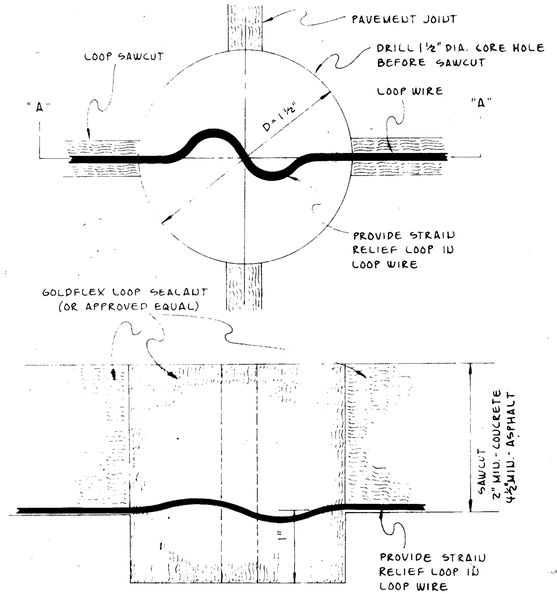
APPROVED T.E. Young DATE 10-13-81
APPROVED DATE

SCALE	SOURCE	DRAWN	FILE NO.
—		S.D.W.	ES-44

FED. RD DIV.	STATE	PROJECT	FISCAL YEAR
5	OHIO	HAM-71-2.92	

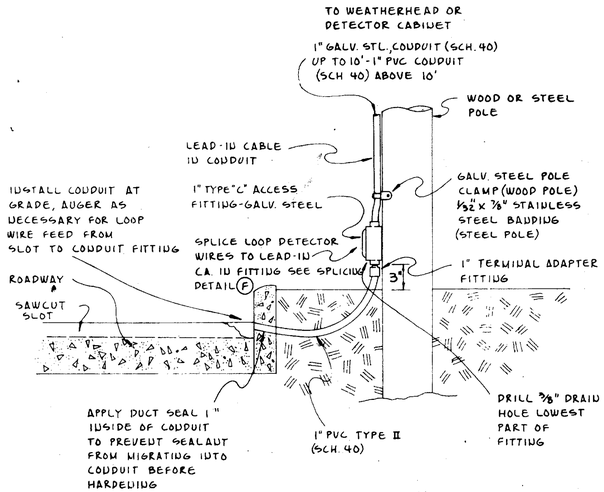


TYPICAL LOOP SLOT CONSTRUCTION



PAVEMENT JOINT CORE HOLE DETAIL C

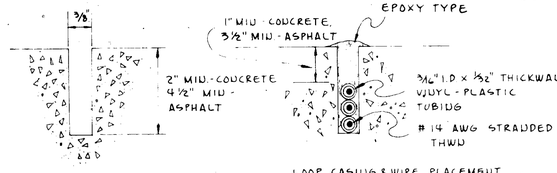
SECTION "A"-"A"



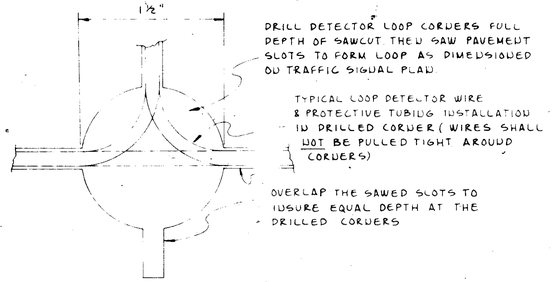
CONNECTION FROM SLOT TO CONDUIT FITTING ON POLE DETAIL E

INSTALLATION NOTES

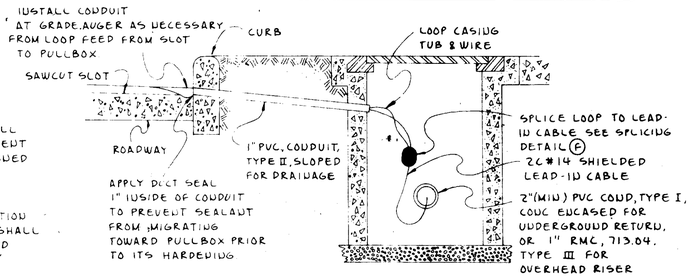
1) LAYOUT LOOP ON STREET AS PER PLAN SHEET. CHECK LAYOUT TO SEE THAT THE SAWCUT LINE IS FREE FROM OBSTRUCTIONS SUCH AS MAN HOLES, PARALLEL CONSTRUCTION JOINT RUNS CLOSER THAN 2' FROM CUT, PATCHES IN PAVEMENT, CRACKED OR BROKEN OUT AREAS & OTHER SUCH OBSTRUCTIONS OR MATERIAL CONFLICTS. IF SUCH CONFLICTS ARISE, THE LOOP SHALL BE RELOCATED OR ALTERED AS DIRECTED BY THE ENGINEER.
2) DRILL ALL BEND & CORNER HOLES AND ANY CORE HOLE THAT ARE NECESSARY BEFORE SAW CUTTING. BEND & CORNER HOLES SHALL BE FULL DEPTH OF THE SAWCUT AND CORE HOLES SHALL BE A MINIMUM OF 1" DEEPER THAN SAWCUT. NOTE: ADDITION CORE HOLE SHALL BE DRILLED AT POINTS WHERE SAWCUT CROSSES A SUBSTANTIAL CRACK IN THE PAVEMENT OR AS DIRECTED BY THE ENGINEER.
3) DEPTH OF SAWCUT SHALL BE DETERMINED BY THE ROADWAY CONSTRUCTION.
   (A) CONCRETE - SAWCUT SLOT DEPTH OF 2" SHALL BE REQUIRED.
   (B) ASPHALT - SAWCUT SLOT DEPTH OF 4½" SHALL BE REQUIRED.
4) AFTER SAWCUTTING, THE SLOT AND DRILLED HOLE SHALL BE COMPLETELY CLEAN OF DUST AND DEBRIS AND THOROUGHLY DRY BEFORE INSTALLATION OF WIRE AND SEALANT.
5) THE LOOP DETECTOR WIRE SHALL BE INSTALLED IN A PROTECTIVE FLEXIBLE VINYL PLASTIC TUBING. THE LOOP DETECTOR WIRE AND PLASTIC TUBING SHALL BOTH BE OF A CONTINUOUS LENGTH FROM THE POINT OF SPLICING OF LOOP WIRE TO THE LEAD-IN CABLE WITH THE NUMBER OF TURNS FOR THE LOOP AS INDICATED ON THE PLAN SHEET OR AS DIRECTED BY THE ENGINEER.
   THE WIRE AND PROTECTIVE SHEATHING SHALL BE INSTALLED IN THE SLOT SO AS TO PROVIDE A MINIMUM DEPTH OF SEALANT COVERING THE TOP MOST WIRE IN THE SLOT TO THE ROADWAY SURFACE AS FOLLOWS.
   (A) CONCRETE - NO LESS THAN 1"
   (B) ASPHALT - NO LESS THAN 3½"
   IF FLOATING OF WIRE & SHEATH OCCURS, 1" OF ¼" O.D. VINYL TUBING SHOULD BE BENT AND WEDGED INTO THE SLOT TO HOLD WIRE DOWN.
6) RESISTANCE OF THE LOOP IN THE SPOT WITH RESPECT TO GROUND SHALL BE MEASURED BEFORE & AFTER SEALING. RESISTANCE OF LESS THAN 10 MEGOHMS TO GROUND INDICATES A FAULTY LOOP. ANY SUCH FAULTY CONDITIONS SHALL BE CORRECTED.
7) LOOP DETECTOR SLOTS, BEND HOLES, CORNER HOLES & CORE HOLES SHALL BE SEALED WITH A FLEXIBLE EPOXY TYPE SEALANT. THE SEALANT SHALL BE MIXED AND PLACED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. THE SLOTS SHALL BE FILLED COMPLETELY AND NO TRAFFIC ALLOWED TO CROSS THE CUTS UNTIL SEALANT IS CURED.
   NOTE: IF LOOP WIRE AND SEALANT CANNOT BE INSTALLED AND CURED BEFORE IT MUST BE OPENED TO TRAFFIC, THE SLOT SHALL REMAINED CLEANED AND DRIED BEFORE WIRING AND SEALING.
8) SPLICING OF THE LOOPWIRE TO THE LEAD-IN CABLE SHALL BE MADE IN PULLBOX OR CONDUIT ACCESS FITTING ONLY. NO SPLICING SHALL BE PERMITTED IN THE SAWSLOT OR CONDUIT.
   (A) SPLICE MADE IN PULLBOX - SOLDER THE CONDUCTORS BETWEEN LOOP WIRE & THE LEAD-IN CABLE, INDIVIDUALLY TAPE EACH CONDUCTOR TO INSURE ADEQUATE INSULATION WITH AN APPROVED WEATHERPROOF TAPE. WRAP THE ENTIRE SPLICE WITH THE WEATHERPROOF ELECTRICAL TAPE, THE ENTIRE SPLICE, INCLUDING THE ENDS OF THE PROTECTIVE TUBING AND JACKET OF THE LEAD-IN CABLE, SHALL BE SEALED IN A WATERPROOF SPLICE KIT. SEE DETAIL F.
   (B) SPLICE MADE IN TYPE "C" CONDUIT FITTING - SOLDER THE CONDUCTORS TOGETHER IN A BUTT SPLICE. INDIVIDUALLY WRAP EACH WIRE TO INSURE ADEQUATE INSULATION WITH A WEATHERPROOF TAPE. THE ENTIRE SPLICE, INCLUDING PROTECTIVE TUBING & LEAD-IN CABLE JACKET ENDS, WITH WEATHERPROOF TAPE. FINISH THE SPLICE BY ENCLOSING IT IN AN APPROVED HEAT SHRINK TUBING.
9) ONE 2C LEAD-IN CABLE SHALL BE RUN FROM EACH LOOP TO THE APPROPRIATE DETECTOR AMPLIFIER, UNLESS SPECIFIED SPLICING OF TWO OR MORE LOOPS IN A PULLBOX OR A "C" CONDUIT FITTING USING ONE LEAD-IN CABLE TO THE LOOP AMPLIFIER. LOOP DETECTOR AMPLIFIER CABLE CONNECTIONS SHOWN IN DETAIL G.
   NOTE: THE LEAD-IN CABLE SHIELD SHALL BE GROUNDED ONLY AT THE DETECTOR AMPLIFIER END OF THE CABLE.



LOOP DETECTOR SLOT DETAIL A



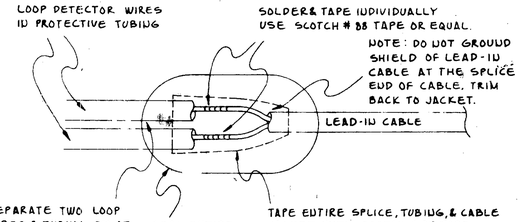
BEND & CORNER HOLE DETAIL B



CONNECTION FROM SLOT TO PULLBOX DETAIL D

LOOPWIRE TO LEAD-IN CA. SPLICE DETAIL F

(A) PULLBOX - USE WATER PROOF SPLICE KIT
(B) TYPE C CONDUIT FITTING - SPLICE KIT NOT REQUIRED, USE SHRINK TUBING



LOOP DETECTOR AMPLIFIER CABLE CONNECTIONS DETAIL G

CONNECTOR (MS/AN 3102A-18-1P)

PIN	FUNCTION
A	117 VOLT A.C. COMMON
B	CALL RELAY COMMON
C	117 VOLT A.C.
D	LOOP CONNECTION
E	LOOP CONNECTION
F	CALL RELAY - D.C. CONTACTS
G	CALL RELAY - D.C. CONTACTS
H	EQUIPMENT GROUND
I	SPARE
J	SPARE

MATERIALS DESCRIPTION

LOOP DETECTOR WIRE - #14 AWG, THWD, STRANDED
LOOP DETECTOR WIRE PROTECTIVE TUBING - FLEXIBLE VINYL PLASTIC TUBING, 3/16" I.D., 1/32" WALL THICKNESS, ¼" O.D. RESISTANT TO WATER, SALT, OILS, SOLVENTS & HIGHLY ABRASIVE RESISTANT.
LEAD-IN CABLE - 2C #14 AWG STRANDED, SHIELDED, TWISTED-PAIR, POLYETHYLENE INSULATED, CROME VINYL JACKETED, RATED 750 VOLTS
LOOP SLOT SEALANT - FLEXIBLE EMBEDDING EPOXY TYPE, "GOLDFLEX" AS MANUFACTURED BY PREGO OR DETECTA LOOP SEALANT BY 3M OR APPROVED EQUAL.
SPLICE KITS - PERMANENT WATER RESISTANT - COMPLIANCE WITH ANSI C119.1, SCOTCH CAST KIT OR APPROVED EQUAL.

DESIGN	REVISION	DATE	WO #	SCALE	SOURCE	DRAWN	FILE NO.
J.F.W.	APPROVED	9-14-81		—		S.D.W.	ES-1C

TRAFFIC SIGNAL DETECTOR

LOOP DETECTOR INSTALLATION SAWCUT

CITY OF CINCINNATI
DEPT. OF PUBLIC WORKS
DIV. OF TRAFFIC ENGR.

APPROVED T.E. Young DATE 10-15-81
APPROVED _____ DATE _____

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	494 615
CHKD BY DATE			

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-81	DATED	11-27-81	GR-3.2	DATED	5-6-91
EXJ-4-87	DATED	1-5-89	HL-30.31	DATED	5-1-87
BR-2-82	DATED	11-1-82	SD-1-69	DATED	6-12-69
GR-3.1	DATED	5-6-91			

AND TO SUPPLEMENTAL SPECIFICATIONS:

852	DATED	7-30-93
910	DATED	5-20-91

DESIGN SPECIFICATIONS: THE REPAIRS TO THE STRUCTURES SHALL CONFORM TO "STANDARD SPECIFICATIONS FOR HIGHWAYS BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1992, INCLUDING THE 1993 AND 1994 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA

CONCRETE CLASS S – COMPRESSIVE STRENGTH 4500 P.S.I.
CONCRETE CLASS C – COMPRESSIVE STRENGTH 4000 P.S.I.
REINFORCING STEEL – ASTM A615, A616 OR A617 – GRADE 60 MIN. YIELD STRENGTH 60,000 P.S.I., EPOXY COATED.
STRUCTURAL STEEL – ASTM A36 – UNIT STRESS 20,000 P.S.I.

EXISTING STRUCTURE-VERIFICATION: THE DETAILS SHOWN IN THESE PLANS ARE BASED ON DIMENSIONS OBTAINED FROM EXISTING DRAWINGS OF THE STRUCTURE AND/OR FIELD OBSERVATIONS. CONSEQUENTLY, THE DIMENSIONS AND DETAILS WITHIN THESE PROPOSED DRAWINGS SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR SHALL REFER TO CMS SECTIONS 102.05, 105.02, AND 513.02.

CONTRACT BID PRICES SHALL BE BASED UPON WORK PROPOSED IN THE ATTACHED DRAWINGS AND A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. THE PRICE BID SHALL ALSO REFLECT THE UNCERTAINTIES DESCRIBED ABOVE AS ALL PROJECT WORK WILL BE BASED UPON DETAILS AND DIMENSIONS VERIFIED IN THE FIELD BY THE CONTRACTOR.

EXISTING BRIDGE PLANS: EXISTING BRIDGE PLANS MAY BE INSPECTED AT THE BUREAU OF BRIDGES AND STRUCTURAL DESIGN IN COLUMBUS, OHIO, OR IN THE DISTRICT 8 OFFICE IN LEBANON, OHIO.

EXISTING REINFORCING STEEL: AT LOCATIONS WHERE CONCRETE REMOVAL AND REPLACEMENT IS REQUIRED, THE EXISTING REINFORCING STEEL SHALL REMAIN. THE STEEL SHALL BE BENT AND TRIMMED TO MAINTAIN REQUIRED CLEARANCES. THE CONTRACTOR SHALL EXERCISE CAUTION TO INSURE THAT THOSE EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK ARE NOT DAMAGED DURING THE CONCRETE REMOVAL OPERATION. ANY REINFORCING BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. EXISTING REINFORCING BARS LABELED UNUSABLE BY THE ENGINEER DUE TO CORROSION SHALL BE REPLACED WITH NEW STEEL. AN ALLOWANCE OF NEW REINFORCING STEEL HAS BEEN INCLUDED WITH THE STEEL QUANTITIES FOR THE REPLACEMENT OF CORRODED STEEL. HOWEVER, AT LOCATIONS WHERE ABUTMENT BACKWALLS ARE BEING REPLACED IT IS THE CONTRACTORS OPTION TO REMOVE EXISTING STEEL WITH THE REST OF THE BACKWALL AND DOWEL THE NEW BARS INTO THE WALL AS DETAILED.

UTILITY LINES: EXPENSES REQUIRED TO RELOCATE THOSE UTILITY LINES THAT INTERFERE WITH THE PROJECT SHALL BE BORNE BY THE OWNER(S). THE CONTRACTOR AND OWNER(S) ARE REQUESTED TO COORDINATE WORK SUCH THAT INCONVENIENCES TO EITHER WILL BE MINIMIZED.

PORTIONS OF STRUCTURE REMOVED, AS PER PLAN: SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. ALL WORK SHALL BE DONE IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

ITEM 511, CLASS "S" CONCRETE, MISC.: PARAPET, AS PER PLAN THIS ITEM SHALL INCLUDE THE COST OF ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO REBUILD THE ABUTMENT PARAPETS AS DETAILED. THE REMOVAL OF ALUMINUM RAILING AND CURB OR PARAPET AS SHOWN ON THE PLANS SHALL BE INCLUDED UNDER "ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN". USE ANCHORING SYSTEM SPECIFIED IN "ITEM 517, RAILING FACED, AS PER PLAN". (DRILL DOWEL HOLES AND GROUT REINFORCING STEEL AS PER ITEM 517, ETC.) PLACE CLASS S CONCRETE AS PER ITEM 511. INSTALL ANCHOR ASSEMBLIES FOR GUARDRAILS (COST OF ANCHOR ASSEMBLIES TO BE INCLUDED WITH COST OF GUARDRAIL). MAINTAIN EXISTING CONDUIT SYSTEM AND INSTALL CONDUIT EXPANSION JOINT ASSEMBLIES, WHERE APPLICABLE, AS PER HL 30.31. ALSO, OTHER WORK SPECIFIED IN PLANS SHALL BE INCLUDED IN THIS ITEM FOR PAYMENT.

PAYMENT FOR THIS ITEM SHALL BE PER CUBIC YARD, "ITEM 511, CLASS "S" CONCRETE, MISC.: PARAPET, AS PER PLAN. REMOVAL ITEMS SHALL BE INCLUDED IN THE LUMP SUM BID FOR "ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN", FOR PAYMENT. REINFORCING STEEL COSTS SHALL BE PAID UNDER "ITEM 509, EPOXY COATED REINFORCING STEEL, GRADE 60". SEALING OF ABUTMENT PARAPETS INCLUDED IN PRICE BID FOR "ITEM SPECIAL, SEALING OF CONCRETE SURFACE". (WORK TO REPLACE ABUTMENT BACKWALLS IS INCLUDED IN OTHER ITEMS FOR PAYMENT, SEE PLANS).

ITEM SPECIAL, SEALING OF CONCRETE SURFACE (SEE PROPOSAL NOTE): THIS ITEM INCLUDES ALL WORK REQUIRED TO SEAL THOSE SURFACES SPECIFIED ON THE PLANS. SEE THE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, MATERIAL REQUIREMENTS, APPLICATION RATES, AND APPLICATION PROCEDURES. THE PRICE BID FOR "ITEM SPECIAL, SEALING OF CONCRETE SURFACE", OR "ITEM SPECIAL, SEALING OF CONCRETE SURFACE (EPOXY)", SHALL BE PER SQUARE YARD, AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK. THE SEALANT COLOR SHALL BE WHITE.

ITEM 516, STRUCTURAL EXPANSION JOINT, INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN (SEE PROPOSAL NOTE): THIS ITEM SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, EQUIPMENT, AND OTHER INCIDENTAL ITEMS REQUIRED TO MODIFY AND/OR REPLACE THE EXISTING END DAM ARMOR WITH THE STRIP SEAL EXPANSION JOINT INDICATED IN THE PLANS. A PROPOSAL NOTE IS REFERENCED WHICH RELAXES THE SHOP DRAWING REQUIREMENTS RELATED TO THE MATERIALS USED. ALL CONCRETE REMOVED IN THE DECK, CURBS AND SIDEWALKS FOR PLACEMENT OF THE STRIP SEAL HARDWARE SHALL BE INCLUDED FOR PAYMENT IN THE PRICE BID FOR "ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN".

EPOXY COATED REINFORCING DAMAGED BY CUTTING, BENDING, ETC., SHALL BE REPAIRED AS PER ITEM 509. CONCRETE COVER OVER ALL RESTEEL SHALL BE 2". MINIMUM LAP REQUIRED FOR A #5 BAR IS 2'-0" AND FOR A #6 BAR IS 2'-6" UNLESS NOTED OTHERWISE. CONCRETE SHALL BE CLASS "S" AS PER ITEM 511.

SINCE AT LEAST ONE LANE OF TRAFFIC IS TO BE MAINTAINED ON THE BRIDGE, DURING PLACEMENT OF THE STRUCTURAL EXPANSION JOINT, THE STEEL RETAINER AND OTHER JOINT ARMOR WILL NEED TO BE BUTT WELDED WITH PARTIAL PENETRATION WELDS. THE LOCATION OF THE BUTT JOINTS SHOWN IN THE PLANS WAS DETERMINED FROM THE MAINTENANCE OF TRAFFIC PLANS. THE STRIP SEAL GLAND SHALL BE PLACED AS A CONTINUOUS PIECE, AFTER ALL RETAINERS HAVE BEEN PLACED ON THE BRIDGE. TEMPORARY TRAFFIC CONTROL (FLAGGERS, CONES, ETC.) SHALL BE USED, DURING PLACEMENT OF THE SEAL GLAND.

ALL OF THE ABOVE WORK AND RELEVANT NOTES IN THE DETAIL PLANS SHALL BE INCLUDED IN THE PRICE BID PER LINEAL FOOT FOR "ITEM 516, STRUCTURAL EXPANSION JOINT, INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN (SEE PROPOSAL NOTE)", EXCEPT THE FOLLOWING: CONCRETE REMOVED FROM THE DECK, CURB AND SIDEWALKS SHALL BE INCLUDED IN THE LUMP SUM BID FOR " ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN" FOR PAYMENT AND REPLACEMENT REINFORCING STEEL COSTS SHALL BE PAID UNDER "ITEM 509, EPOXY COATED REINFORCING STEEL, GRADE 60".

ITEM 516, REFURBISH BEARING DEVICE, AS PER PLAN: THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO: JACK AND TEMPORARILY SUPPORT THE EXISTING BRIDGES (SEE PROPOSAL NOTE); DISASSEMBLY OF THE EXISTING BEARINGS; HAND CLEANING, GRINDING (IF NECESSARY), AND PAINTING AS REQUIRED BY PROPOSAL NOTE "FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)", (†); LUBRICATING SLIDING SURFACES USING FLAKED GRAPHITE; REPLACEMENT OF ANY DAMAGED SHEET LEAD (711.19); INSTALLATION OF ANY 1/8" THICK STEEL SHIMS, THE SAME SIZE AS THE BEARINGS, TO PROVIDE A SNUG FIT; REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS BY THE AIR-ARC PROCESS AND REWELDING THE PLATE SO THAT THE BEARINGS ARE ALIGNED AT 60 DEGREES FAHRENHEIT; REASSEMBLY OF THE BEARINGS; AND REMOVAL OF THE JACKS. BEARINGS SUBJECT TO THIS TREATMENT ARE LABELED IN THE PLANS. AT THE OPTION OF THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE STATE, NEW BEARINGS OF THE SAME TYPE AS THE EXISTING MAY BE INSTALLED IN PLACE OF THE REFURBISHED BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE PROJECT ENGINEER. THE NEW BEARINGS SHALL BE SHOP PAINTED WITH COMPLETE SYSTEM OZEU PAINTING. PAYMENT FOR THE LABOR AND MATERIALS DESCRIBED ABOVE SHALL BE MADE AT THE CONTRACT PRICE BID PER EACH, "ITEM 516, REFURBISH BEARING DEVICE, AS PER PLAN", EXCEPT PAYMENT FOR JACKING OF THE BRIDGE SHALL BE INCLUDED IN THE LUMP SUM BID FOR "ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE".

ITEM 516, RESET BEARING, AS PER PLAN: THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO: JACK AND TEMPORARILY SUPPORT THE EXISTING BRIDGES (SEE PROPOSAL NOTE); REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS BY THE AIR-ARC PROCESS AND REWELDING THE PLATE SO THAT THE BEARINGS ARE ALIGNED AT 60 DEGREES FAHRENHEIT; LUBRICATING SLIDING SURFACES; REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21); INSTALLATION OF ANY 1/8" THICK STEEL SHIMS, THE SAME SIZE AS THE BEARINGS, TO PROVIDE A SNUG FIT; AND REMOVAL OF THE JACKS. BEARINGS SUBJECT TO THIS TREATMENT ARE LABELED IN THE PLANS. AT THE OPTION OF THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE STATE, NEW BEARINGS OF THE SAME TYPE AS THE EXISTING MAY BE INSTALLED IN PLACE OF THE RESET BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE PROJECT ENGINEER. PAYMENT FOR THE LABOR AND MATERIALS DESCRIBED ABOVE SHALL BE MADE AT THE CONTRACT PRICE BID PER EACH, "ITEM 516, RESET BEARING, AS PER PLAN, EXCEPT PAYMENT FOR JACKING OF THE BRIDGE SHALL BE INCLUDED IN THE LUMP SUM BID FOR "ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE".

ITEM 517, RAILING FACED, AS PER PLAN: THIS ITEM INCLUDES ALL WORK NECESSARY TO RETROFIT THE EXISTING CURB AND PARAPET ON THE SUPERSTRUCTURES WITH THE PRESCRIBED BARRIER SHAPE. THE CONTRACTOR SHALL CAREFULLY REMOVE THE EXISTING ALUMINUM RAILING OR GUARDRAIL FROM THE BRIDGE AND DISCARD THEM. THE CONCRETE SAFETY CURB WHICH PROTRUDES ABOVE THE SCARIFIED DECK SHALL BE REMOVED. (COSTS TO REMOVE ITEMS SHALL BE INCLUDED IN "ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN", FOR PAYMENT). THE CONTRACTOR SHALL MAINTAIN THE EXISTING CONDUIT SYSTEM WHERE APPLICABLE.

REINFORCING BARS SHALL BE GROUT ANCHORED WITH EPOXY AS STIPULATED IN SUPPLEMENTAL SPECIFICATIONS 852 (CMS 705.20) AT SPACINGS SHOWN ON THE DRAWINGS. THE HOLES SHALL BE THOROUGHLY CLEANED OF ALL DUST AND OTHER DELETERIOUS MATERIAL. SEE THE SUPPLEMENTAL SPECIFICATIONS FOR MATERIAL REQUIREMENTS AND FURTHER APPLICATION REQUIREMENTS.

LOOSE AND UNSOUND CONCRETE IN THE AREA OF THE PARAPET TO BE FACED AND CONCRETE NEAR THE DECK EXTENSIONS SHALL BE REMOVED. ALL REMAINING SOUND CONCRETE TO BE COVERED AND NEW CONCRETE SHALL BE MECHANICALLY SCARIFIED 1/4" DEEP. THE MINIMUM THICKNESS FOR THE PROPOSED FACING SHALL BE 5". THE CONCRETE SURFACES TO BE FACED SHALL BE THOROUGHLY DRENCHED WITH CLEAN WATER AND ALLOWED TO DRY TO A DAMP CONDITION JUST BEFORE PLACING THE CONCRETE.

ALL NEW REINFORCING STEEL SHALL BE EPOXY COATED AS PER ITEM 509. EPOXY COATED REINFORCING STEEL DAMAGED BY CUTTING, BENDING, ETC., SHALL BE REPAIRED AS PER ITEM 509. CONCRETE COVER OVER ALL RESTEEL SHALL BE 2". MINIMUM LAP REQUIRED FOR A #5 BAR IS 2'-0" AND FOR A #6 BAR IS 2'-6" UNLESS NOTED OTHERWISE. CONCRETE SHALL BE CLASS S AS PER ITEM 511.

THE EXISTING DEFLECTION JOINTS SHALL BE EXTENDED COMPLETELY THROUGH THE PROPOSED FACING. THE JOINT SHALL BE MADE BY FORMING OR SAWCUTTING THE HARDENED CONCRETE THREE (3) DAYS AFTER PLACEMENT. THE 1/4" JOINTS SHALL BE SEALED 3/4" DEEP (MINIMUM) WITH AN IMPREGNATED PRECOMPRESSED EXPANDING FOAM SEALANT TAPE KNOWN AS WILL-SEAL, MANUFACTURED BY ILLBRUCK/USA INC., MINNEAPOLIS, MINNESOTA, OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC., TROY, MICHIGAN.

ALL OF THE ABOVE WORK AND RELEVANT PLAN NOTES SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT FOR "ITEM 517, RAILING FACED, AS PER PLAN", EXCEPT THE FOLLOWING: CURB REMOVAL, PORTIONS OF DECK AND CONCRETE RAILING REMOVAL, AND REMOVAL OF ALUMINUM RAILING, SHALL BE INCLUDED IN THE LUMP SUM BID FOR "ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN", FOR PAYMENT; REINFORCING STEEL COSTS SHALL BE PAID UNDER "ITEM 509, EPOXY COATED REINFORCING STEEL, GRADE 60"; SEALING OF SUPERSTRUCTURE PARAPETS SHALL BE INCLUDED IN PRICE BID FOR "ITEM SPECIAL, SEALING OF CONCRETE SURFACE". (ALL ABUTMENT PARAPET WORK SHALL BE INCLUDED UNDER "ITEM 511 CLASS "S" CONCRETE, MISC.: PARAPET, AS PER PLAN)

ITEM 518, SCUPPER MODIFICATION, AS PER PLAN: THIS ITEM INCLUDES ALL WORK NECESSARY TO RAISE THE TOP OF EXISTING SCUPPERS OR DRAIN INLETS TO MEET THE MICRO-SILICA MODIFIED CONCRETE OVERLAY. THIS WORK SHALL BE PERFORMED ACCORDING TO DETAIL "B" FOR SCUPPERS OR DETAIL "E" FOR DRAIN INLETS AS SHOWN ON GENERAL DETAIL SHEET (405/615). MEASUREMENTS TO DETERMINE DIMENSIONS, QUANTITY, AND SPACING OF THE STEEL BARS USED TO RAISE EACH SCUPPER OR DRAIN INLET SHALL BE MADE IN THE FIELD. THE PRICE BID FOR THIS ITEM SHALL BE PER EACH, AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THIS WORK.

ITEM 518, STRUCTURE DRAINAGE, MISC.: MODIFY DRAIN PIPING,: THE EXISTING DRAINAGE PIPING SHOWN WAS OBTAINED FROM CONSTRUCTION PLANS AND FIELD INVESTIGATIONS. THE INTENT OF THE PROPOSED DRAINAGE MODIFICATIONS IS TO IMPROVE THE FLOW CHARACTERISTICS OF THE EXISTING DRAINAGE SYSTEM. THIS IS PRIMARILY ACHIEVED BY REPLACING 90 DEGREE ELBOWS AND CLEANOUTS WITH OBTUSE ELBOWS THUS INCREASING THE SLOPE OF THE DRAINAGE PIPING. PROPOSED DRAINAGE MODIFICATIONS MAY BE VARIED, AS REQUIRED, TO MEET EXISTING CONDITIONS WITH THE WRITTEN APPROVAL OF THE ENGINEER. CONTRACTOR SHALL NOT CLIP ANY PART OF THE STEEL BEAMS OR GIRDERS IN THE MODIFICATION OF PIPING. REALIGNMENT OF PIPING TO CLEAR BEAMS OR GIRDERS SHALL BE ACHIEVED USING ELBOWS AS INDICATED ON THE DRAINAGE MODIFICATION PLANS. NEW HANGERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR TO ACHIEVE THE MAXIMUM SLOPE INCREASE THAT EXISTING CROSS BRACING WILL PERMIT.
DRAINAGE PIPING SHALL BE GALVANIZED STEEL, 707.08, AND OF THE SAME SIZE AS THE PIPE BEING REPLACED. THE PIPE SHALL BE SECURELY FASTENED WITH HANGER AND/OR CLAMP ASSEMBLIES TO THE STRUCTURE. CONTRACTOR SHALL UTILIZE EXISTING SUPPORTS WHERE POSSIBLE. THE NUMBER OF PIPE SUPPORTS SHALL NOT BE LESS THAN USED IN THE EXISTING SYSTEM UNLESS APPROVED BY THE ENGINEER. FIELD WELDING TO THE EXISTING GIRDERS OR STEEL BEAMS WILL NOT BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER. CONNECTIONS TO STRUCTURAL CONCRETE SHALL BE MADE USING 5/8" DIAMETER THREADED RODS WITH NON-SHRINK EPOXY MORTAR PER SUPPLEMENTAL SPECIFICATION 852 OR SELF DRILLING ANCHORS ITEM 712.01. PROVIDE A MINIMUM OF 8" EMBEDMENT FOR ANCHORS. PRIOR TO DRILLING FOR ANCHOR DOWEL HOLES, CONTRACTOR SHALL VERIFY THE REINFORCING BAR LOCATIONS TO AVOID THEIR DAMAGE. ANCHORS SHALL BE LOCATED A MINIMUM OF 6" FROM THE EDGES OF CONCRETE MEMBERS.

PROPOSED DRAINAGE PIPING AND SUPPORTS SHALL BE CLEANED AND PAINTED AS PER PROPOSAL NOTE "FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)." GALVANIZED SURFACES SHALL BE TREATED PRIOR TO PAINTING AS RECOMMENDED BY THE PAINT MANUFACTURER. COLOR OF PAINT TO MATCH EXISTING.

PAYMENT SHALL BE MADE AT THE LUMP SUM PRICE FOR "ITEM 518, STRUCTURE DRAINAGE, MISC.: MODIFY DRAIN PIPING, AS PER PLAN". PRICE BID SHALL INCLUDE ALL LABOR, MATERIALS, AND OTHER COSTS REQUIRED, TO REMOVE AND DISPOSE OF EXISTING PIPE, MODIFY EXISTING PIPING AS SPECIFIED ABOVE AND DETAILED ON PLANS, AND DOING OTHER WORK INCIDENTAL THERETO.

ITEM SPECIAL, CONCRETE REPAIR BY EPOXY INJECTION (SEE PROPOSAL NOTE): THIS ITEM INCLUDES ALL WORK REQUIRED TO REPAIR CRACKS IN THE CONCRETE STRUCTURE. SEE THE PROPOSAL NOTE ENTITLED "CONCRETE REPAIR BY EPOXY INJECTION", FOR PROCEDURES AND MATERIAL INFORMATION. THE PRICE BID FOR THIS ITEM SHALL BE PER LINEAL FOOT, AND SHALL INCLUDE COSTS FOR ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK.

ITEM 815 FIELD PAINTING OF EXISTING STEEL, SYSTEM OZEU:
THE CITY OF CINCINNATI SHALL CHOSE THE COLOR OF THE PAINT TO BE USED ON EACH BRIDGE WHICH WILL BE PAINTED USING SYSTEM OZEU.

† EXCEPT BRIDGES NUMBERED HAM-71-0317E, HAM-71-0691, HAM-71-0799R AND HAM-71-0817R, WHICH SHALL BE PAINTED USING SYSTEM OZEU WITH THE REST OF THE BRIDGE.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/2

GENERAL NOTES

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAM-71-2.92	OHIO	494A
CHKD BY DATE		FHWA REGION 5	615

BRIDGE GENERAL NOTES

ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705.11), AS PER PLAN

THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO SEAL THE VERTICAL JOINTS IN PLACE USING 1/4" DEEP PREFORMED ELASTOMERIC JOINT SEAL, AS DIRECTED BY THE ENGINEER. THE DETAILS AND DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. MATERIAL SHALL BE PLACED AS PER MANUFACTURERS RECOMMENDATIONS. LOCATION OF WORK TO BE PERFORMED SHALL BE AS DIRECTED BY THE ENGINEER. MEASUREMENTS FOR PAY PURPOSES SHALL BE BASED ON THE SEALED LENGTH OF JOINT MEASURED VERTICALLY ALONG THE JOINT CENTERLINE SHALL BE PER LIN. FT.

ITEM 516 - JOINT SEALER, (705.04), AS PER PLAN

THIS ITEM SHALL ALSO INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO SEAL THE HORIZONTAL JOINTS IN PLACE WITH HOT APPLIED JOINT SEAL, AREA SHALL BE AS DIRECTED BY THE ENGINEER. THE DETAIL AND DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. MATERIAL SHALL BE PLACED AS PER MANUFACTURERS RECOMMENDATIONS. LIMITS AND LOCATION OF WORK TO BE PERFORMED SHALL BE AS DIRECTED BY THE ENGINEER. MEASUREMENT FOR PAY PURPOSES SHALL BE BASED ON THE SEALED LENGTH OF JOINT MEASURED HORIZONTALLY ALONG THE JOINT CENTERLINE SHALL BE PER LIN. FT.

ADDITIONAL GENERAL JACKING REQUIREMENTS

BEFORE JACKING BEGINS, THE ENGINEER SHALL INSPECT ALL BEAM SEAT AREAS TO CHECK THE SOUNDNESS OF THE EXISTING CONCRETE. ALL AREAS FOUND TO BE UNSOUND SHALL BE REPAIRED BY THE CONTRACTOR; THESE AREAS WILL BE MEASURED AND PAID FOR UNDER ITEM 519 PATCHING CONCRETE STRUCTURES. SUBSEQUENT TO THE JACKING OPERATION, ANY EXISTING OR REPAIRED BEAM SEAT AREAS FOUND TO BE DAMAGED BY THE CONTRACTOR'S JACKING OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

ITEM 518 - STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING SCUPPERS AND STRUCTURE DRAINAGE PIPES, AT LOCATIONS DESIGNATED BY THE ENGINEER, TO PROVIDE POSITIVE DRAINAGE FLOW THROUGH THE STRUCTURE DRAINAGE SYSTEM. ALL MATERIAL REMOVED FROM THE SCUPPERS AND PIPES SHALL BE DISPOSED OF AS PER 203.05. THE STRUCTURE DRAINAGE SYSTEM FOR EACH STRUCTURE SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO COMPLETE THE WORK, AND WILL BE MADE AT THE LUMP SUM PRIZE BID FOR EACH BRIDGE.

ITEM 202 - WEARING COURSE REMOVED (ASPHALT), AS PER PLAN

THE ASPHALT WEARING COURSE REMOVAL SHALL BE A SEPARATE AND INDEPENDENT OPERATION FROM THE 1/4" DECK SCARIFICATION FOR THE MICRO-SILICA MODIFIED CONCRETE OVERLAY. ALL ASPHALT SHALL BE REMOVED FROM THE SURFACE OF THE BRIDGE DECK PRIOR TO SCARIFICATION. EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED FOR STORAGE AND WILL BE INCLUDED FOR PAYMENT UNDER THE ROADWAY ITEM 202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE.

ITEM 514 - FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU)

THIS ITEM SHALL INCLUDE ALL WORK TO PREPARE AND FIELD PAINT IN PLACE ALL STRUCTURAL STEEL WITHIN 6' ON EITHER SIDE OF AN EXPANSION JOINT, IN ACCORDANCE WITH THE PROPOSAL NOTE "FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)". THIS WORK SHALL INCLUDE PAINTING OF THE STEEL BEAMS, CROSS-FRAMES, EXISTING AND/OR REFURBISHED EXPANSION JOINTS, AND OTHER MISCELLANEOUS STEEL AS DIRECTED BY THE ENGINEER. THE COLOR OF THE NEW PAINT SHALL MATCH THE COLOR OF THE EXISTING BRIDGE. PAYMENT WILL BE MADE AT THE LUMP SUM BID PRICE FOR EACH BRIDGE AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: SEAL JOINT BETWEEN ABUTMENT AND CONCRETE SLOPE PROTECTION

THIS ITEM OF WORK PROVIDES FOR THE CLEANING OUT AND RESEALING OF THE EXISTING JOINTS BETWEEN THE BRIDGE ABUTMENT AND CONCRETE SLOPE PROTECTION. THE JOINTS SHALL BE CLEANED OF ALL DEBRIS AND VEGETATION. THE JOINT SHALL THEN BE FILLED WITH HOT-APPLIED CRACK AND JOINT SEALER AS PER 705.04. A FOAM BACKER ROD MAY BE PLACED PRIOR TO PLACEMENT OF THE JOINT SEALER. PAYMENT PER LIN. FT. SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN

THIS ITEM PROVIDES FOR THE REPAIR OF THE EXISTING CONCRETE SLOPE PROTECTION IN AREAS WHERE THE EXISTING CONCRETE HAS BEEN WASHED OUT OR UNDERMINED. THE EXISTING CONCRETE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, THE VOID UNDERNEATH FILLED WITH GRANULAR BASE MATERIAL, AND THE CONCRETE REPLACED WITH CLASS C CONCRETE. ALL WORK SHALL CONFORM TO ITEM 601. LOCATIONS WHERE THIS WORK IS TO BE PERFORMED SHALL BE DETERMINED BY THE ENGINEER. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO COMPLETE THE WORK, AND SHALL BE MADE AT THE BID UNIT PRICE PER SQUARE YARD FOR ITEM 601 - CONCRETE SLOPE PROTECTION, AS PER PLAN.

MECHANICAL CONNECTORS FOR REINFORCING STEEL

AT ALL BRIDGE BACKWALL AND APPROACH SLAB LOCATIONS THAT ARE BEING CONSTRUCTED PART-WIDTH IN ORDER TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL FURNISH AND INSTALL MECHANICAL CONNECTORS OF THE PROPER SIZE FOR THE HORIZONTAL REINFORCING STEEL AT VERTICAL CONSTRUCTION JOINTS. THE CONNECTORS SHALL CONFORM TO 509.08 AND SHALL BE APPROVED BY THE ENGINEER. THE COST OF FURNISHING AND INSTALLING THE MECHANICAL CONNECTORS SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 509 EPOXY COATED REINFORCING STEEL OR ITEM 611 REINFORCED CONCRETE APPROACH SLAB.

ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL

THE CONTRACTOR SHALL VERIFY EXISTING JOINT LAYOUT, SIZES OF EXISTING STRUCTURAL MEMBERS AND PREPARE SHOP DRAWINGS SHOWING JOINT MODIFICATIONS, CURB PLATES, EXTENSIONS, LIMITS OF REMOVALS AND DETAILS OF NEW DECK, PARAPET, AND ABUTMENT CONSTRUCTION. SHOP DRAWINGS UNDER THIS ITEM MAY BE PREPARED AFTER FABRICATION IN ORDER TO SPEED CONSTRUCTION.

THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE ENGINEER SHALL HAVE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED ON REQUEST BY THE BUREAU OF BRIDGES. MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INCORPORATING STEEL ITEMS INTO THE WORK, AS REQUIRED BY 501.07. AFTER FABRICATION THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THAT THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL THEN SEND ONE APPROVED SET TO THE BUREAU OF BIDGES FOR INFORMATION. THE FABRICATOR SHALL FURNISH A 35 MILLIMETER MICROFILM COPY OF EACH SHOP DRAWING, WHICH SHALL BE MOUNTED ON AN APERTURE CARD AS SPECIFIED IN 501.05.

ITEM 517 - BRIDGE RAILING REBUILT

WORK UNDER THIS ITEM SHALL CONSIST OF THE REPLACEMENT OF ALL MISSING SECTIONS OF THE ALUMINUM RAILING OR ANY DAMAGED SECTIONS, AS DETERMINED BY THE ENGINEER.

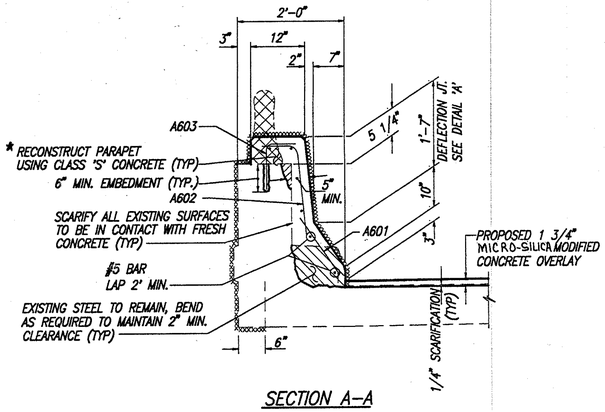
THE EXISTING RAILING WAS CONSTRUCTED PER THE OLD STANDARD DRAWING BR-1-65. THE RAILING CONSIST OF EITHER A SINGLE OR DOUBLE ALUMINUM TUBE WITH CAST ALUMINUM POST. THE REPLACEMENT ELEMENTS FOR THE REPAIR SHALL BE SALVAGED FROM OTHER STRUCTURES ON THIS PROJECT WHICH WILL BE RETROFITTED UNDER ITEM 517 RAILING FACED, AS PER PLAN.

ALL COST ASSOCIATED WITH REPAIR OF THE RAIL; INCLUDING BUT NOT LIMITED TO, (1) SALVAGING EXISTING RAILING FOR REUSE, (2) FURNISHING NEW TUBING, POST AND HARDWARE, EQUIVALENT TO EXISTING, WHICH MAY NOT BE SALVAGABLE FROM EXISTING STRUCTURES (HARDWARE SUCH AS END CAPS, STAINLESS STEEL SCREWS, TUBE SPLICES, ANCHOR NUTS, WASHERS, SHIMS, CAULKING, ETC.), (3) REMOVAL OF ANY DAMAGED RAILING, AND (4) ALL LABOR AND EQUIPMENT REQUIRED TO INSTALL THE SALVAGED RAIL; SHALL BE INCLUDED FOR PAYMENT PER LINEAR FOOT BID FOR ITEM 517 BRIDGE RAILING REBUILT, COMPLETE IN PLACE.

ITEM SPECIAL - SCARIFICATION OF EXISTING DECK

THE TOP 1/4 INCH OF THE EXISTING CONCRETE IS TO BE REMOVED BY MECHANICAL MEANS PRIOR TO HYDRODEMOLITION. ANY DAMAGED OR DISLODGED REINFORCING STEEL SHALL BE REPLACED AND TIED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE. THE SCARIFYING EQUIPMENT SHALL REMOVE CONCRETE TO WITHIN ONE INCH OF THE CURB LINE AND ALL DEBRIS CLEANED UP PRIOR TO HYDRODEMOLITION. PAYMENT FOR SCARIFICATION AND CLEAN UP IS INCLUDED UNDER THE UNIT PRICE BID PER SQ.YD. OF ITEM SPECIAL - SCARIFICATION OF EXISTING DECK.

2/2
GENERAL NOTES
DRAWN BY JDM



SECTION A–A

RAILING FACED AS PER PLAN (517)

XXXX SURFACES TO BE SEALED UNDER "ITEM SPECIAL, SEALING OF CONCRETE SURFACE".

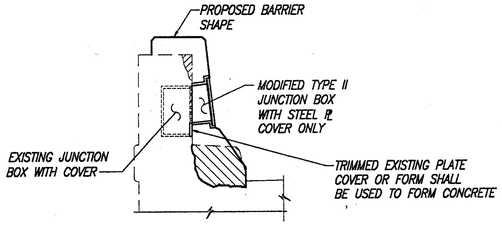
EXISTING CURB TO BE REMOVED UNDER "ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN".

EXISTING RAILING & POSTS TO BE REMOVED & DISCARDED. ALL WORK SHALL BE INCLUDED IN THE PRICE BID FOR "ITEM 202, PORTIONS OF STRUCTURE REMOVED".

★ PAYMENT INCLUDED IN ITEM 517 - RAILING FACED, AS PER PLAN

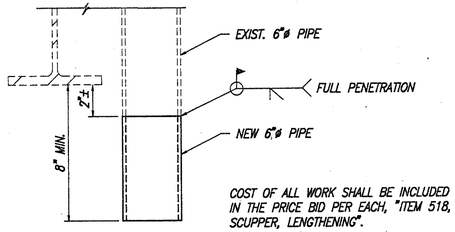
NOTES

1. INSTALL DEFLECTION JOINTS AS PER DETAIL 'A' THIS SHEET AND GENERAL NOTE FOR ITEM 517. SPACING SHALL COINCIDE WITH EXISTING DEFLECTION JOINT LOCATIONS
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND PAID FOR UNDER "ITEM 509, EPOXY COATED REINFORCING STEEL, GRADE 60". ALL REBARS SHALL HAVE A MINIMUM OF 2" CLEARANCE.
3. REMOVE END DAMS ON CURBS TO RECEIVE NEW BARRIER SHAPE AND STRIP SEALS. INCLUDE WITH LUMP SUM BID FOR "ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN".



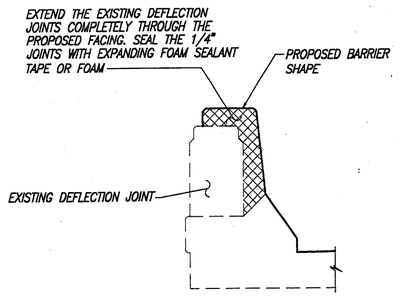
JUNCTION BOX EXTENSION DETAIL

THE PROPOSED JUNCTION BOX SHALL BE MADE FROM A TYPE II JUNCTION BOX. BY REMOVING THE FACE OPPOSITE OF THE OPENING & PORTIONS OF THE WALLS, THE EXISTING JUNCTION BOX CAN BE ACCESSED THROUGH A NEW OPENING ON THE PROPOSED BARRIER SHAPE'S FACE. THE EXTENSION SHALL BE ATTACHED TO THE FORMWORK FOR PLACEMENT. REFER TO LIGHTING PLANS FOR FURTHER DETAILS, TYPE AND LOCATION.

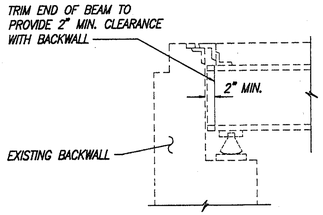


COST OF ALL WORK SHALL BE INCLUDED IN THE PRICE BID PER EACH, "ITEM 518, SCUPPER, LENGTHENING".

DETAIL F



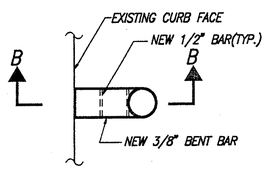
DETAIL A



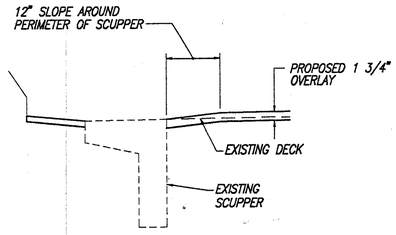
BEAM TRIMMING DETAIL

NOTE:

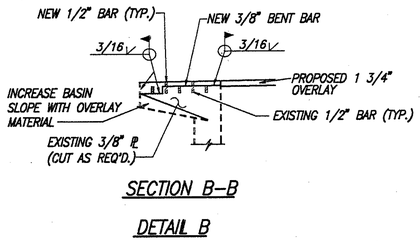
TRIMMED EDGE SHALL HAVE A SMOOTH SURFACE FREE FROM CRACKS, NOTCHES, & BURRS. AREA DISTURBED BY THE TRIMMING OPERATION SHALL BE CLEANED & PAINTED AS PER PROPOSAL NOTE "FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)." UNLESS THE SUPERSTRUCTURE IS BEING PAINTED USING SYSTEM OZEU". COST OF ALL WORK SHALL BE INCLUDED IN THE PRICE BID PER EACH, "ITEM 513, TRIMMING OF BEAM END". THIS WORK SHALL ALSO INCLUDE ANY ADJUSTING OR RELOCATING OF EXISTING CROSS-FRAMING AS NEEDED TO CLEAR THE END OF THE TRIMMED BEAM.



PLAN

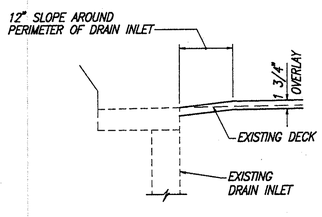


DETAIL C



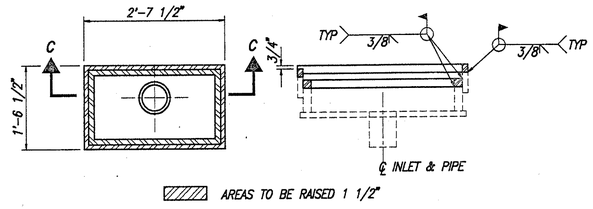
SECTION B–B

DETAIL B



DETAIL D

TYPICAL SCUPPER TREATMENT FOR BRIDGE DECK OVERLAYS



AREAS TO BE RAISED 1 1/2"

SECTION C–C

DETAIL E

NOTES:

1. WHEN THE SCUPPER/DRAIN INLET IS LOCATED MORE THAN TWO(2) FEET FROM THE PROJECTED EDGE OF PAVEMENT, DETAIL 'C' OR 'D' IS TO BE USED.
2. WHEN ANY PHYSICAL PART OF THE SCUPPER/DRAIN INLET IS LOCATED WITHIN TWO(2) FEET OF THE PAVEMENT EDGE, DETAIL 'B' OR 'E' IS TO BE USED.
3. ALL SCUPPERS/DRAIN INLETS SHALL BE CLEARED OF DEBRIS AS PART OF THE MODIFICATION OF THE SCUPPER/DRAIN INLET.
4. ALL NEW STEEL AND EXISTING DISTURBED STEEL SURFACES THAT ARE EXPOSED SHALL BE FIELD PAINTED ACCORDING TO PROPOSAL NOTE ENTITLED, "FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)."
5. ALL LABOR, MATERIALS, EQUIPMENT AND ANY INCIDENTAL ITEMS NEEDED FOR DETAIL 'B' & 'E' TYPE SCUPPER/DRAIN INLET TREATMENT SHALL BE PAID FOR UNDER "ITEM 518, SCUPPER MODIFICATION, AS PER PLAN". COSTS FOR DETAIL TYPE 'C' OR 'D' TREATMENT SHALL BE INCLUDED IN THE PRICE FOR "ITEM SPECIAL, MICRO-SILICA MODIFIED CONCRETE OVERLAY (1 3/4" THICK)".

* CONCRETE SURFACES ADJACENT TO DECK JOINTS SHALL BE FINISHED FLUSH OR SLIGHTLY ABOVE THE STEEL JOINT SURFACE.

DETAIL G

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	495 / 615
CHKD BY DATE			

RAISED CONCRETE MEDIAN BARRIER SEAL

DESCRIPTION: THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING ELASTOMERIC SHEETING AT THE BRIDGE MEDIAN JOINT IN THE FORM OF A SEAL FOR DRAINAGE PROTECTION.

SHEETING SHALL BE FURNISHED IN ONE CONTINUOUS PIECE UNLESS A VULCANIZED (WITH HEAT AND PRESSURE) SHOP OR FIELD SPLICE, OR AN UNBONDED FIELD BUTT JOINT IS INDICATED ON THE PLANS OR APPROVED BY THE DIRECTOR.

MATERIALS: ELASTOMERIC SHEETING SHALL BE 3/32 INCH THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003" AS MANUFACTURED BY E.I. DUPONT DE NEMOURS AND COMPANY, INCORPORATED, "WINGPRENE" AS MANUFACTURED BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED EQUAL. SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D751	.094 ± .010
BREAKING STRENGTH, GRAB WXF LBS. MINIMUM	D751	700 x 700
ADHESIVE, 1-INCH STRIP 2 INCH MINIMUM, LBS. MINIMUM	D751	9
BURST STRENGTH (MULLEN) PSI, MINIMUM	D751	1,400 PSI, MINIMUM
HEAT AGING 70 HOURS AT 212° F. 180° BEND	D2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLENESS 1 HOUR AT -40° F. BEND AROUND 1/4 INCH MANDREL	D2136	NO CRACKING OF COATING

CONNECTIONS FOR SHEETING INCLUDING ALL CLAMP BARS AND NAILS SHALL BE GALVANIZED ACCORDING TO 711.02 . FIELD HOLES IN SHEETING SHALL BE DRILLED AND ALL CUTS MADE IN THE FIELD SHALL BE SAWN. ANY GALVANIZED COATING WHICH HAS BEEN CUT OR DAMAGED IN ANY WAY SUCH THAT BASE METAL IS EXPOSED SHALL BE REPLACED WITH A COLD GALVANIZING COMPOUND SUCH AS THAT MANUFACTURED BY Z.R.C. PRODUCT COMPANY OF QUINCY, MASSACHUSETTS, "GALVICON" BY KENCO DIVISION OF SOUTHERN COATING INCORPORATED OF SUMTER, SOUTH CAROLINA, OR AN APPROVED EQUAL, APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

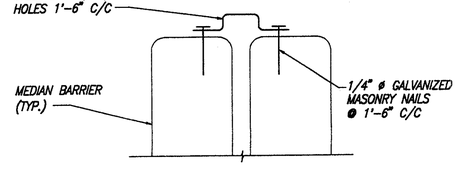
SAMPLING AND TESTING: EACH LOT OF SHEETING SHALL BE TESTED BY AN INDEPENDENT LABORATORY TO ENSURE COMPLIANCE WITH THESE PROVISIONS. TWO CERTIFIED COPIES OF THE QUALIFICATION TEST DATA INDICATING THAT THE TESTED MATERIALS COMPLY WITH THESE PROVISIONS SHALL BE SUBMITTED TO THE ODOT TESTING LABORATORY. SAMPLING, WHEN REQUESTED, SHALL BE IN ACCORDANCE WITH 106.3 EXCEPT THAT WHERE SHEETING IS TO BE FABRICATED ACCORDING TO PLAN REQUIREMENTS, SAMPLES SHALL BE MADE AVAILABLE PRIOR TO FABRICATION. THE SAMPLE FROM EACH LOT AND FOR EACH PROJECT SHALL BE ONE PIECE, 3 FEET LONG.

MATERIAL ACCEPTANCE WILL BE BASED UPON ODOT TESTING LABORATORY EVALUATION OF CERTIFIED TEST DATA, LABORATORY TESTS OF SAMPLED MATERIAL, OR THE EVALUATION OF BOTH CERTIFIED TEST DATA AND TESTED SAMPLES.

BASIS OF PAYMENT: UNLESS OTHERWISE SPECIFIED ON THE PROJECT PLANS, PAYMENT FOR ALL MATERIAL AND LABOR FOR THE JOINT SEAL INCLUDING GALVANIZED CLAMP BARS AND NAILS SHALL BE MADE AT THE CONTRACT PRICE FOR:

ITEM	EXTENSION	UNIT	DESCRIPTION
516	14600	LIN. FT.	STRUCTURAL JOINT OR JOINT SEALER, MISC. CONCRETE MEDIAN BARRIER SEAL

ELASTOMERIC SHEET W/ 1/4"x 3" GALVANIZED STEEL BAR W/ 3/8" ø HOLES 1'-6" C/C



WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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GENERAL DETAILS

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.			2-22-95

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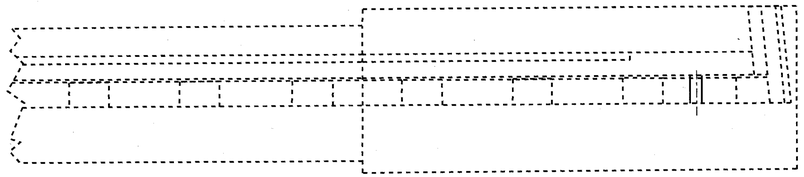
CALC. BY: JDM DATE: 3/23/98	FHWA REGION	STATE	PROJECT	
CKD. BY: JBB DATE: 3/29/98	5	OHIO		

HAM-71-2.92

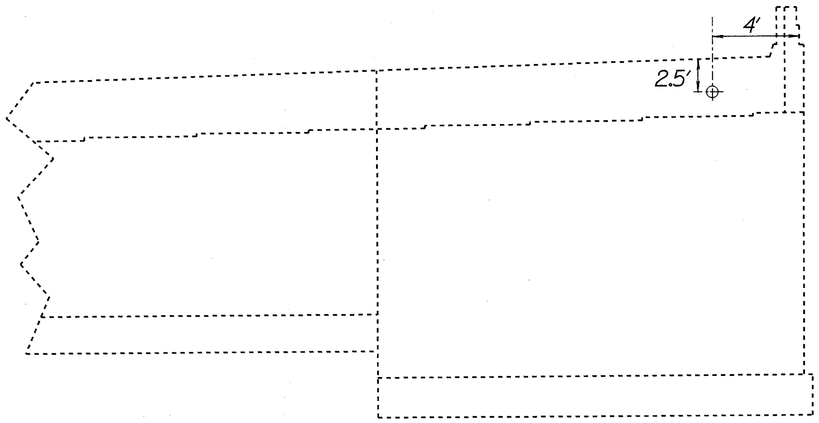


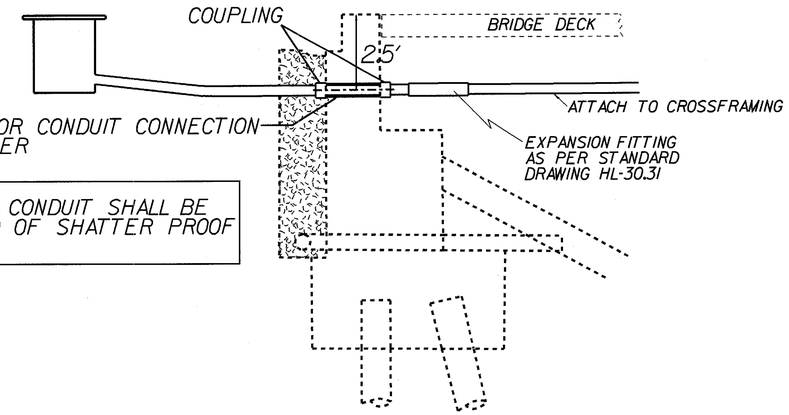
NOTES:

1) FILL SPACE AROUND THE CONDUIT AND/OR FITTINGS WITHIN THE CAVITY WITH A POLYURETHANE FOAM OR OTHER APPROVED COLD APPLIED JOINT SEALER.

2) FIBERGLASS CONDUIT SHALL BE CONNECTED TOGETHER WITH AN APPROVED EPOXY BONDING AGENT

FIELD VERIFY CROSSFRAME LOCATION BEFORE DRILLING





ALL EXPOSED CONDUIT SHALL BE CONSTRUCTED OF SHATTER PROOF FIBERGLASS.

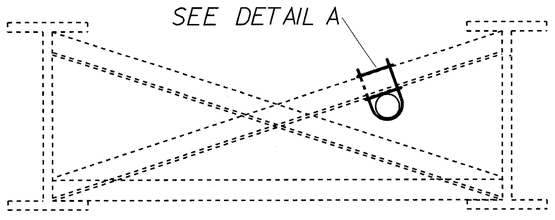
SECTION
BRIDGE HAM-71-0445

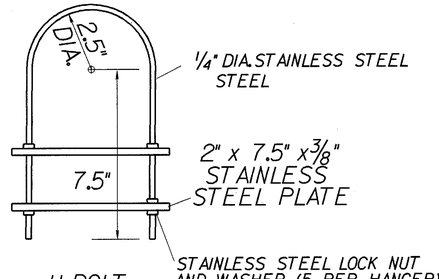
NOTE:

ALL GALVINIZED MATERIALS SHALL MEET REQUIREMENTS AT 711.02.
ALL STAINLESS STEEL SHALL MEET REQUIREMENTS AT 730.10.

TIGHTEN ALL NUTS TO FIRMLY SECURE U-BOLT TO ANGLE MEMBER WHILE PROVIDING SUFFICIENT CLEARANCE FOR CONDUIT TO MOVE FREELY IN SECURED U-BOLT. ALLOWING FOR UNRESTRICTED EXPANSION OF CONDUIT UNDER VARYING ENVIRONMENTAL CONDITIONS.

ALL HARDWARE SUBJECT TO APPROVAL OF ENGINEER PRIOR TO INSTALLATION.





U-BOLT
DETAIL A

495A
615

CALCULATED JDM CHECKED JBB

RTMS CONDUIT INSTALLATION DETAIL

HAM-71-2.92

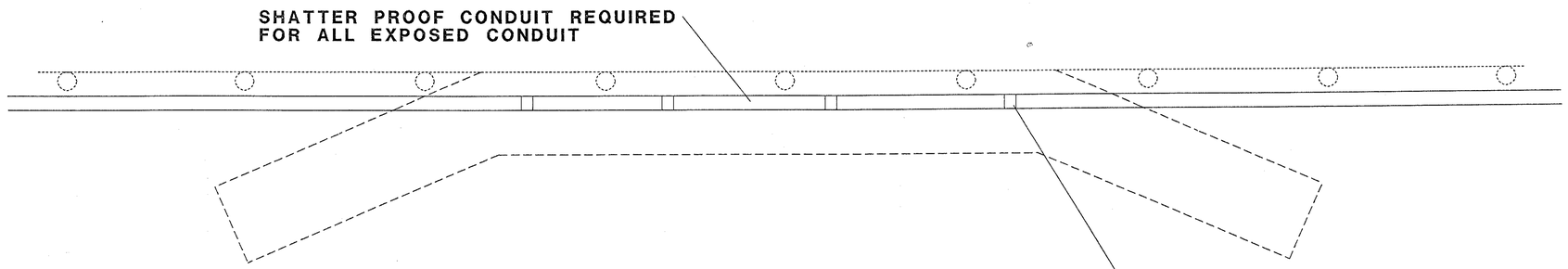
495A
615

CALC. BY: JDM DATE: 8/30/24	FHWA REGION	STATE	PROJECT	
CHKD. BY: JBB DATE: 8/30/24	5	OHIO		

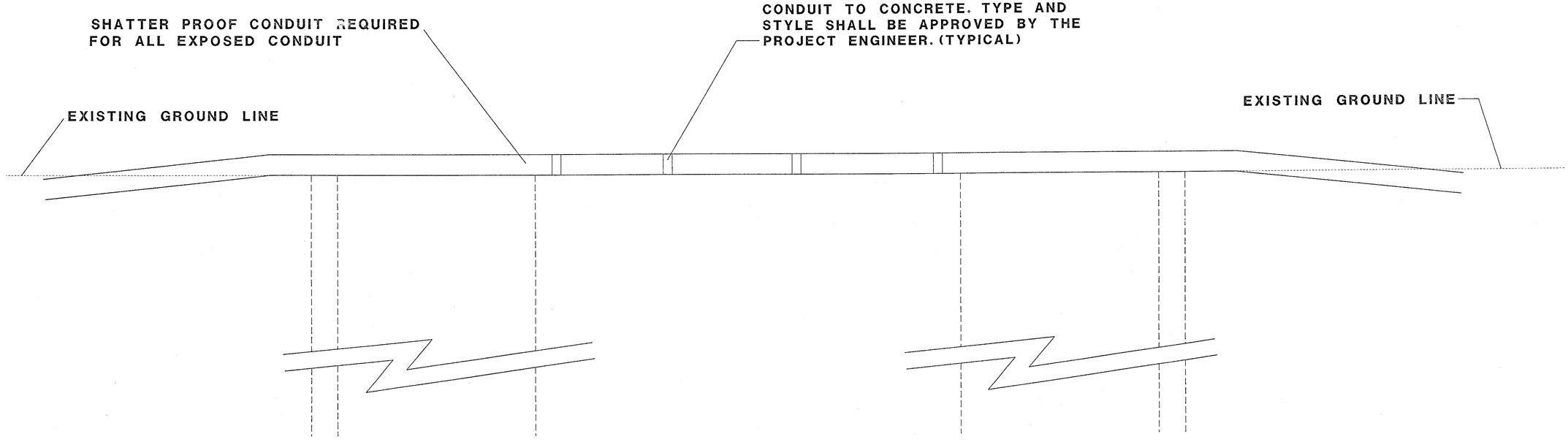
495B 615

HAM-71-2.92

STRUCTURE
HAM-71-0635



PLAN



ELEVATION

CALCULATED JDM | CHECKED JBB

RTMS CONDUIT INSTALLATION DETAIL

HAM-71-2.92

495B 615

BRIDGE NUMBER											ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION (HAM-71-2.92)
71-0315	71-0317E	71-0327	71-0339	71-0362	71-0376	71-0398	71-0422	71-0445	71-0500	22-0446 71-0522					
											201	11000	--------		CLEARING AND GRUBBING
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP		LUMP	LUMP	LUMP	202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
							3975	3471			202	23500	7446	SQ YD	WEARING COURSE REMOVED (ASPHALT)
											202	54101	0	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN
											203	20000	0	CU YD	EMBANKMENT
											310	10000	0	CU YD	SUBBASE
	3850				28085			10100			509	15840	42,035	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60
	48										510	10001	48	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALIC GROUT, AS PER PLAN
	2							85			511	34450	87	CU YD	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN
					88						511	34400	88	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE (RECONSTRUCTION)
		1090	942	846	2387	1015	2550	697			SPECIAL	51267500	9,527	SQ YD	SEALING OF CONCRETE SURFACES *
764	335				334		125		1071	1064	SPECIAL	51267502	3,693	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY) *
											513	15501	0	POUND	STRUCTURAL STEEL (MISC. AND CASTING) AS PER PLAN
								453			513	15901	453	POUND	STRUCTURAL STEEL, REPLACEMENT OF DETERIORATED END CROSS FRAMES, AS PER PLAN
			1	4						1	513	21000	6	EACH	TRIMMING OF BEAM END
					14300						513	16000	14,300	POUND	STRUCTURAL STEEL FOR REHABILITATION
											513	16001	0	POUND	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN
24833	6382										815	00050	31215	SQ FT	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
24833	6382										815	00056	31215	SQ FT	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
24833	6382										815	00060	31215	SQ FT	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
		LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	514	27704	LUMP		FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU)*
24833	6382										815	00066	31215	SQ FT	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
100	100				100						815	00504	300	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
											815	00508	0	LIN FT	GRINDING FLANGE EDGES
					14300						514	00610	14,300	POUND	FIELD PAINTING OF NEW STEEL, SYSTEM IZEU *
											514	03000	--------		SURFACE PREPARATION OF EXISTING STEEL
											514	03600	--------		FIELD PAINTING EXISTING STRUCTURAL STEEL, COMPLETE COAT PRIME (OZ)
											SPECIAL	51425650			SURFACE PREPARATION (EEU)
											SPECIAL	51425656			SPOT PRIME (EPOXY)
											SPECIAL	51425660			FULL PRIME (EPOXY)
											SPECIAL	51425666			COMPLETE COAT FINISH (URETHANE)
							28				516	10000	28	LIN FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705.11)
								222			516	10900	222	LIN FT	ELASTOMERIC COMPRESSION SEAL
259	54	118	190	134	175	141		357	124	192	516	11211	1744	LIN FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN
75	27		54	22	18	100		111		83	516	14600	490	LIN FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2" x 4" SEALER, AS PER PLAN
				80	225				300		516	31001	605	LIN FT	JOINT SEALER, 705.04, AS PER PLAN
					155		210				516	14600	365	LIN FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: SEAL JOINT BETWEEN ABUTMENT AND CONCRETE SLOPE PROTECTION
			9		13		12	34			516	45305	68	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
2	4	7		8		6				18	516	46701	45	EACH	RESET BEARING, AS PER PLAN
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP			LUMP		LUMP	516	47000	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
	315										517	76201	315	LIN FT	RAILING FACED, AS PER PLAN
											517	76300	0	LIN FT	RAILING, MISC.: GALVANIZED STEEL PIPE RAILING, 1-1/2" NOM. PIPE SIZE, AS PER PLAN
					70						517	76500	70	LIN FT	BRIDGE RAILING REBUILT
2	1	4	4	4	14	4		8	4	4	518	12801	49	EACH	SCUPPER MODIFICATION, AS PER PLAN
			2							4	518	12900	6	EACH	SCUPPER, LENGTHENING
	LUMP	LUMP	LUMP	LUMP	LUMP			LUMP			518	63300	LUMP		STRUCTURE DRAINAGE, MISC.: MODIFY DRAIN PIPING, AS PER PLAN
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	518	63300	LUMP		STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
9	9	52		6	89	10	200		30	38	519	11100	443	SQ FT	PATCHING CONCRETE STRUCTURE
19	6	30	34	27	70	10	30		25	7	SPECIAL	51912600	258	LIN FT	CONCRETE REPAIR BY EPOXY INJECTION *
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	SPECIAL	51922300	LUMP		TEST SLAB *
											SPECIAL	53000400	0	EACH	STRUCTURE, MISC.: LATERAL BRACING GUSSET PLATE RETROFIT UPGRADE (INTER)
											601	20000	0	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION
						32			89		601	21001	121	SQ YD	CONCRETE SLOPE PROTECTION, AS PER PLAN
											601	34200	0	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER
					389						SPECIAL	60739910	389	LIN FT	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC
1000	470	1614	1267	1184	5464	1253	3975	3471	1557	1700	SPECIAL	53000800	22955	SQ YD	STRUCTURES, MISC.: TYPE I REMOVALS AND HYDRODEMOLITION SURFACE PREPARATION *
396	48	168	132	120	1680	132	396	348	156	480	SPECIAL	53000800	4056	SQ YD	STRUCTURES, MISC.: TYPE II REMOVALS OF MISC. DEBONDED EXISTING PATCHED AND OVERLAY MATERIALS (IF REQUIRED)*
4	4	4	8	4	16	4	8	4	4	4	SPECIAL	53000800	64	SQ YD	STRUCTURES, MISC.: TYPE III REMOVALS *
1000	470	1614	1267	1184	5464	1253	3975	3471	1557	1700	SPECIAL	51922500	22955	SQ YD	MICRO-SILICA MODIFIED CONCRETE, MISC.: OVERLAY PLACEMENT (EXCLUSIVE OF MATERIAL)*
82	27	92	73	68	406	72	226	198	89	123	SPECIAL	51922510	1456	CU YD	MICRO-SILICA MODIFIED CONCRETE, MISC.: OVERLAY @ 1 3/4" AND VARIABLE THICKNESS (MATERIAL ONLY)*
1000	470	1614	1267	1184	5464	1253	3975	3471	1557	1700	SPECIAL	53000800	22955	SQ YD	STRUCTURES, MISC.: SCARIFICATION OF EXISTING DECK

* SEE PROPOSAL NOTE

GENERAL SUMMARY

496/615

CALCULATED / CHECKED

GENERAL SUMMARY

HAM-71-2.92

496/615

BRIDGE NUMBER											ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION (HAM-71-2.92)
71-0546	71-0566	71-0598		71-0670	561-0314 71-0691	71-0726				71-0788L					
				LUMP							201	11000	LUMP		CLEARING AND GRUBBING
LUMP		LUMP		LUMP	LUMP	LUMP				LUMP	202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
											202	23500	0	SQ YD	WEARING COURSE REMOVED (ASPHALT)
						12				40	202	54101	52	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN
											301	20000	0	CU YD	EMBANKMENT
						1					310	10000	1	CU YD	SUBBASE
	106	11449								16328	509	15840	27,883	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60
										86	510	10001	86	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN
										9	511	34450	9	CU YD	CLASS S CONCRETE, MISC.: PARAPET AS PER PLAN
		34									511	34400	34	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE (RECONSTRUCTION)
720	270	1010		844	852	813				665	SPECIAL	51267500	5,174	SQ YD	SEALING OF CONCRETE SURFACES *
	40										SPECIAL	51267502	40	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY) *
					97						513	15501	97	POUND	STRUCTRURAL STEEL (MISC. AND CASTING) AS PER PLAN
											513	15901	0	POUND	STRUCTURAL STEEL, REPLACEMENT OF DETERIORATED END CROSS FRAMES, AS PER PLAN
		4			4						513	21000	8	EACH	TRIMMING OF BEAM END
		5900									513	16000	5,900	POUND	STRUCTURAL STEEL FOR REHABILITATION
						56					513	16001	56	POUND	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN
					22670	22410					815	00050	45,080	SQ FT	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
					22670	22410					815	00056	45,080	SQ FT	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
					22670	22410					815	00060	45,080	SQ FT	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
LUMP				LUMP							514	27704	LUMP		FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
					22670	22410					815	00066	45,080	SQ FT	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
	100	100			100	100					815	00504	400	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
					3640						815	00508	3,640	LIN FT	GRINDING FLANGE EDGES
		5900									514	00610	5,900	POUND	FIELD PAINTING OF NEW STEEL, SYSTEM IZEU *
	LUMP										514	03000	LUMP		SURFACE PREPARATION OF EXISTING STEEL
	LUMP										514	03600	LUMP		FIELD PAINTING EXISTING STRUCTURAL STEEL, COMPLETE COAT PRIME (OZ)
										LUMP	SPECIAL	51425650	LUMP		SURFACE PREPARATION (EEU)
										LUMP	SPECIAL	51425656	LUMP		SPOT PRIME (EPOXY)
										LUMP	SPECIAL	51425660	LUMP		FULL PRIME (EPOXY)
										LUMP	SPECIAL	51425666	LUMP		COMPLETE COAT FINISH (URETHANE)
					25					189	516	10000	214	LIN FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705JI)
											516	10900	0	LIN FT	ELASTOMERIC COMPRESSION SEAL
113		210		122	126.5	125				200	516	11211	896.5	LIN FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN
58		24									516	14600	82	LIN FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2" x 4" SEALER, AS PER PLAN
	15	125								160	516	31001	300	LIN FT	JOINT SEALER, 705.04, AS PER PLAN
											516	14600	0	LIN FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: SEAL JOINT BETWEEN ABUTMENT AND CONCRETE SLOPE PROTECTION
	2	20		14	14	17				9	516	45305	76	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
		1									516	46701	1	EACH	RESET BEARING, AS PER PLAN
	LUMP	LUMP		LUMP	LUMP					LUMP	516	47000	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
										1230	517	76201	1,230	LIN FT	RAILING FACED, AS PER PLAN
	13										517	76300	13	LIN FT	RAILING, MISC.: GALVANIZED STEEL PIPE RAILING, 1-1/2" NOM. PIPE SIZE, AS PER PLAN
				16	10	10					517	75500	36	LIN FT	BRIDGE RAILING REBUILT
4		4		12	12	12					518	12801	44	EACH	SCUPPER MODIFICATION, AS PER PLAN
4		4		12	12	12				17	518	12900	61	EACH	SCUPPER, LENGTHENING
											518	63300			STRUCTURE DRAINAGE, MISC.: MODIFY DRAIN PIPING, AS PER PLAN
LUMP	LUMP	LUMP		LUMP	LUMP	LUMP				LUMP	518	63300	LUMP		STRUCTURE DRAINAGE MISC.: SCUPPER AND DRAINAGE CLEANOUT
20	50	18		19	18	12				11	519	11100	148	SQ FT	PATCHING CONCRETE STRUCTURE
		60				43					SPECIAL	51912600	103	LIN FT	CONCRETE REPAIR BY EPOXY INJECTION *
LUMP		LUMP		LUMP	LUMP	LUMP				LUMP	SPECIAL	51922300	LUMP		TEST SLAB *
						8				256	SPECIAL	53000400	256	EACH	STRUCTURE, MISC.: LATERAL BRACING GUSSET PLATE RETROFIT UPGRADE (INTER)
											601	20000	8	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION
										3	601	21001	3	SQ YD	CONCRETE SLOPE PROTECTION, AS PER PLAN
				3	3						601	34200	6	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER
		237									SPECIAL	607.39910	237	LIN FT	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC
918		2437		1485	1510	1417				4475	SPECIAL	53000800	12242	SQ YD	STRUCTURES, MISC.: TYPE I REMOVALS AND HYDRODEMOLITION SURFACE PREPARATION *
96		480		240	156	144				468	SPECIAL	53000800	1584	SQ YD	STRUCTURES, MISC.: TYPE II REMOVALS OF MISC. DEBONDED EXISTING PATCHED AND OVERLAY MATERIALS (IF REQUIRED) *
4		8		8	4	4				4	SPECIAL	53000800	32	SQ YD	STRUCTURES, MISC.: TYPE III REMOVALS *
918		2437		1485	1510	1417				4475	SPECIAL	51922500	12242	SQ YD	MICRO-SILICA MODIFIED CONCRETE, MISC.: OVERLAY PLACEMENT (EXCLUSIVE OF MATERIAL) *
53		158		92	86	81				257	SPECIAL	51922510	727	CU YD	MICRO-SILICA MODIFIED CONCRETE, MISC.: OVERLAY @ 1 3/4" AND VARIABLE THICKNESS (MATERIAL ONLY) *
918		2437		1485	1510	1417				4475	SPECIAL	53000800	12242	SQ YD	STRUCTURES, MISC.: SCARIFICATION OF EXISTING DECK

497/615

CALCULATED

CHECKED

GENERAL SUMMARY

HAM-71-2.92

497/615

* SEE PROPOSAL NOTE

BRIDGE NUMBER						TOTAL THIS SHEET	TOTAL FROM SHEET 496	TOTAL FROM SHEET 497	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION HAM-71-2.92
71-0799R	71-0815S	71-0817R	71-0838S	71-0846	71-0870								
					LUMP	LUMP	———	LUMP	201	11000	LUMP		CLEARING AND GRUBBING
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
						0	7,446	0	202	23500	7,446	SQ YD	WEARING COURSE REMOVED (ASPHALT)
				13	12	25	0	52	202	54101	77	EACH	RPM REMOVED FOR STORAGE, AS PER PLAN
30						30	0	0	203	20000	30	CU YD	EMBANKMENT
						0	0	1	310	10000	1	CU YD	SUBBASE
24600	2559	11200	4600			42,959	42,035	27,883	509	15840	112,877	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60
102	64	176	104			446	48	86	510	10001	580	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALIC GROUT, AS PER PLAN
294	8	9	6			317	87	9	511	34450	413	CU YD	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN
						0	88	34	511	34400	122	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE (RECONSTRUCTION)
1144	88	867	384	757	521	3,761	9,527	5,174	SPECIAL	51267500	18,462	SQ YD	SEALING OF CONCRETE SURFACES *
	66					66	3693	40	SPECIAL	51267502	3,799	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY) *
						0	0	97	513	15501	97	POUND	STRUCTURAL STEEL (MISC. AND CASTING) AS PER PLAN
						0	453	0	513	15901	453	POUND	STRUCTURAL STEEL, REPLACEMENT OF DETERIORATED END CROSS FRAMES, AS PER PLAN
			1	7		8	6	8	513	21000	22	EACH	TRIMMING OF BEAM END
						0	14,300	5,900	513	16000	20,200	POUND	STRUCTURAL STEEL FOR REHABILITATION
						———	———	56	513	16001	56	POUND	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN
40395		48000	11535	30145	36894	166,969	31215	45,080	815	00050	243,264	SQ FT	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU
40395		48000	11535	30145	36894	166,969	31215	45,080	815	00056	243,264	SQ FT	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
40395		48000	11535	30145	36894	166,969	31215	45,080	815	00060	243,264	SQ FT	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU
	LUMP					LUMP	LUMP	LUMP	514	27704	LUMP		FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
40395		48000	11535	30145	36894	166,969	31215	45,080	815	00066	243,264	SQ FT	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
100		100	100	100	100	500	300	400	815	00504	1,200	MAN HOUR	GRINDING FINS, TEARS, SLIVERS
						0	0	3,640	815	00508	3,640	LIN FT	GRINDING FLANGE EDGES
						0	14,300	5,900	514	00610	20,200	POUND	FIELD PAINTING OF NEW STEEL, SYSTEM IZEU *
						———	———	LUMP	514	03000	LUMP		SURFACE PREPARATION OF EXISTING STEEL
						———	———	LUMP	514	03600	LUMP		FIELD PAINTING EXISTING STRUCTURAL STEEL, COMPLETE COAT PRIME
						———	———	LUMP	SPECIAL	51425650	LUMP		SURFACE PREPARATION (EEU)
						———	———	LUMP	SPECIAL	51425656	LUMP		SPOT PRIME (EPOXY)
						———	———	LUMP	SPECIAL	51425660	LUMP		FULL PRIME (EPOXY)
						———	———	LUMP	SPECIAL	51425666	LUMP		COMPLETE COAT FINISH (URETHANE)
	35			25	25	85	28	214	516	10000	327	LIN FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705.11)
350						350	222	0	516	10900	572	LIN FT	ELASTOMERIC COMPRESSION SEAL
146	60	69	59	239	146	719	1744	896.5	516	11211	3360	LIN FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN
						0	490	82	516	14600	572	LIN FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2" x 4" SEALER, AS PER PLAN
320	40	50	130			540	605	300	516	31001	1,445	LIN FT	JOINT SEALER, 705.04, AS PER PLAN
						0	365	0	516	14600	365	LIN FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: SEAL JOINT BETWEEN ABUTMENT AND CONCRETE SLOPE PROTECTION
9	4	2				15	68	76	516	45305	159	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
				18	10	28	45	1	516	46701	74	EACH	RESET BEARING, AS PER PLAN
LUMP	LUMP	LUMP		LUMP	LUMP	LUMP	LUMP	LUMP	516	47000	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
611	114	818	348			1,891	315	1,230	517	76201	3,436	LIN FT	RAILING FACED, AS PER PLAN
						0	0	13	517	76300	13	LIN FT	RAILING, MISC.: GALVANIZED STEEL PIPE RAILING, 1-1/2" NOM. PIPE SIZE, AS PER PLAN
						0	70	36	517	75500	106	LIN FT	BRIDGE RAILING REBUILT
11	1	7	3	14	18	54	49	44	518	12801	147	EACH	SCUPPER MODIFICATION, AS PER PLAN
11	1	4	3	14	18	51	6	61	518	12900	118	EACH	SCUPPER, LENGTHENING
		LUMP				LUMP	LUMP	———	518	63300	LUMP		STRUCTURE DRAINAGE, MISC.: MODIFY DRAIN PIPING, AS PER PLAN
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	518	63300	LUMP		STRUCTURE DRAINAGE MISC.: SCUPPER AND DRAINAGE CLEAN OUT
8	1		4	27	26	66	443	148	519	11100	657	SQ FT	PATCHING CONCRETE STRUCTURE
		50		25		75	258	103	SPECIAL	51912600	436	LIN FT	CONCRETE REPAIR BY EPOXY INJECTION *
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	SPECIAL	51922300	LUMP		TEST SLAB *
		27				27	0	256	SPECIAL	53000400	283	EACH	STRUCTURE, MISC.: LATERAL BRACING GUSSET PLATE RETROFIT UPGRADE (INTER)
						0	0	8	601	20000	8	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION
	7					7	121	3	601	21001	131	SQ YD	CONCRETE SLOPE PROTECTION, AS PER PLAN
						0	0	6	601	34200	6	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER
						0	389	237	SPECIAL	60739910	626	LIN FT	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC
1751	170	1181	507	1437	1843	6889	2295	12224	SPECIAL	53000800	42086	SQ YD	STRUCTURES, MISC.: TYPE I REMOVALS AND HYDRODEMOLITION SURFACE PREPARATION *
180	24	480	60	144	192	1080	4056	1584	SPECIAL	53000800	6720	SQ YD	STRUCTURES, MISC.: TYPE II REMOVALS OF MISC. DEBONDED EXISTING PATCHED AND OVERLAY MATERIALS (IF REQUIRED) *
4	4	4	4	8	4	28	64	32	SPECIAL	53000800	124	SQ YD	STRUCTURES, MISC.: TYPE III REMOVALS *
1751	170	1181	507	1437	1843	6889	22955	12242	SPECIAL	51922500	42086	SQ YD	MICRO-SILICA MODIFIED CONCRETE, MISC.: OVERLAY PLACEMENT (EXCLUSIVE OF MATERIAL) *
100	10	97	30	82	106	425	1456	727	SPECIAL	51922510	2608	CU YD	MICRO-SILICA MODIFIED CONCRETE, MISC.: OVERLAY @ 1 3/4" AND VARIABLE THICKNESS (MATERIAL ONLY) *
1751	170	1181	507	1437	1843	6889	22955	12242	SPECIAL	53000800	42086	SQ YD	STRUCTURES, MISC.: SCARIFICATION OF EXISTING DECK

497A 615

CALCULATED

CHECKED

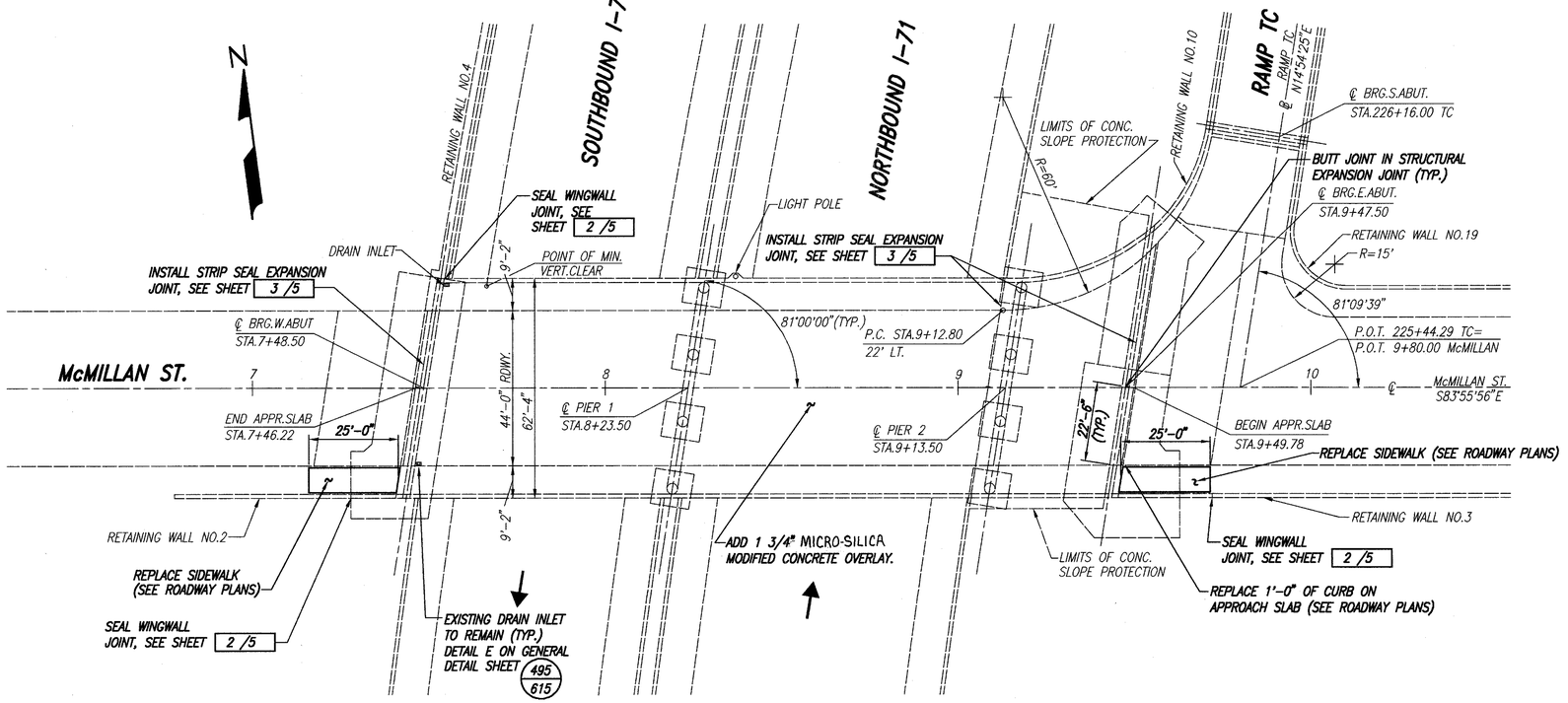
GENERAL SUMMARY

HAM-71-2.92

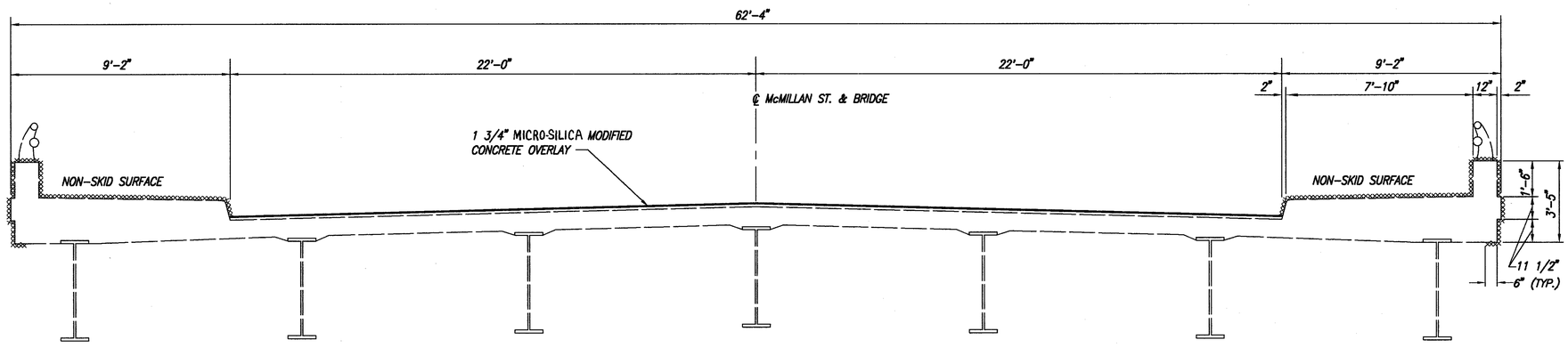
497A 615

* SEE PROPOSAL NOTE

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	498 615
CHKD BY DATE			



PLAN



TYPICAL SECTION

xxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON THE DECK AND ALONG THE WINGWALLS.

EXISTING STRUCTURE

TYPE: STEEL PLATE GIRDERS; SPANS 1&2 CONTINUOUS; SPAN 3 SIMPLE; WITH 5'-0" CANTILEVER ARM IN SPAN 2 AND WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 75'-0", 90'-0" AND 34'-0" C/C BEARINGS

ROADWAY: 44'-0"F/F CURBS WITH 8'-0" SIDEWALKS

SKEW: 9°00'00" LF

LOAD FREQUENCY: CF=2000(57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 SPECIAL (25'-0"LONG)

ALIGNMENT: TANGENT

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

1 /5

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0315
McMILLAN ST. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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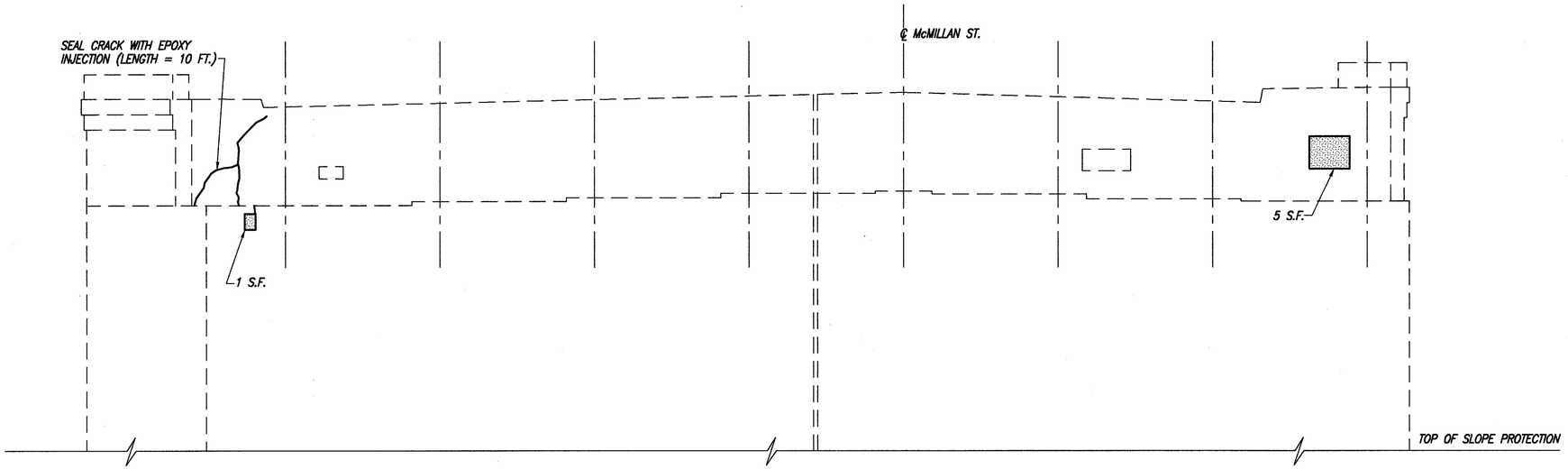
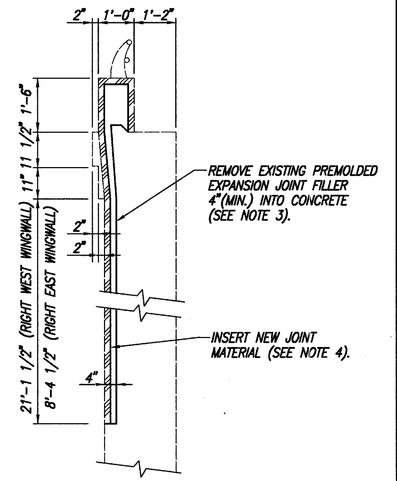
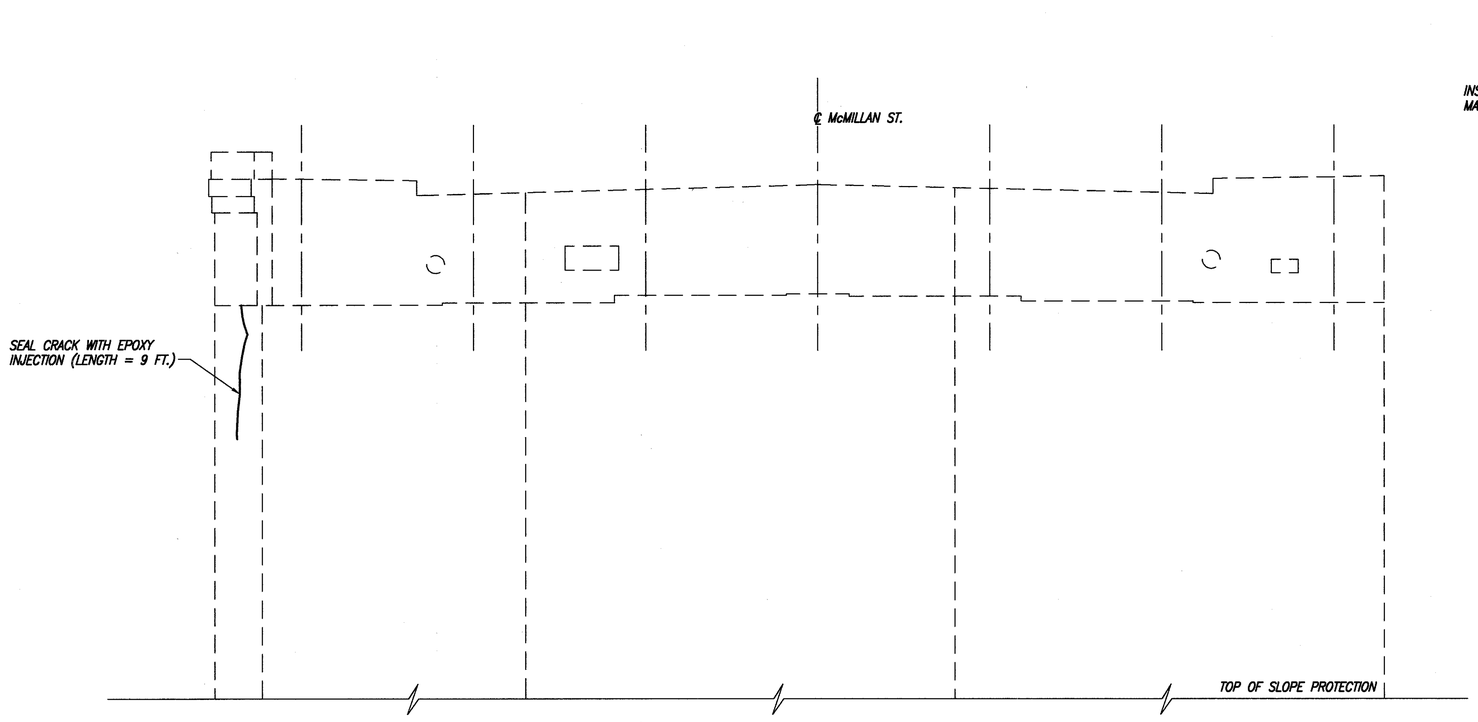
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	499 615
CHKD BY DATE			



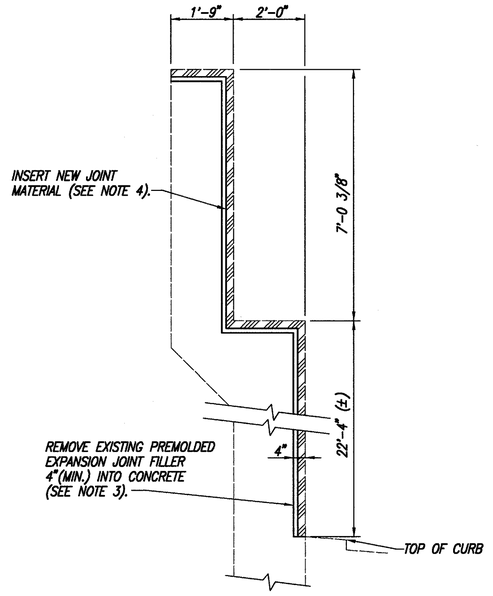
PARTIAL ELEVATION EAST ABUTMENT



RIGHT WINGWALL TO RETAINING WALL JOINT



PARTIAL ELEVATION WEST ABUTMENT



WEST ABUTMENT TO RETAINING WALL NO. 4 JOINT

LEGEND

- PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.
- SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).
- EXISTING OPENING TO REMAIN.

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
EAST	9 SQ. FT.
WEST	0 SQ. FT.
TOTAL	9 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURE".
2. SEAL CRACKS IN ABUTMENTS PER "ITEM SPECIAL – EPOXY INJECTION".
3. REMOVE SMALL TREE FROM THE EXPANSION JOINT BETWEEN THE RIGHT WEST WINGWALL AND THE RETAINING WALL.
4. INSERT "ITEM 516 – STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN", AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC., OR EQUIVALENT.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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ABUTMENT DETAILS

BRIDGE NO. HAM-71-0315
McMILLAN ST. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

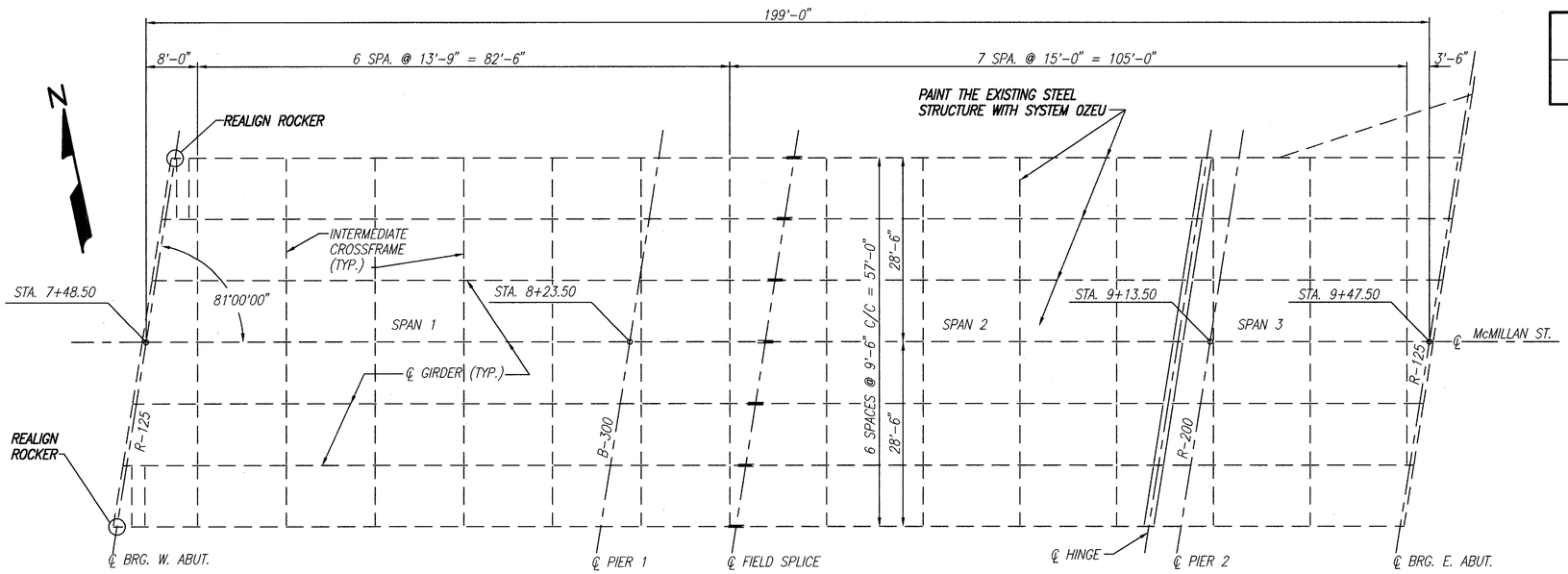
ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-125	100 TONS

CALC BY ____ DATE ____
CHKD BY ____ DATE ____

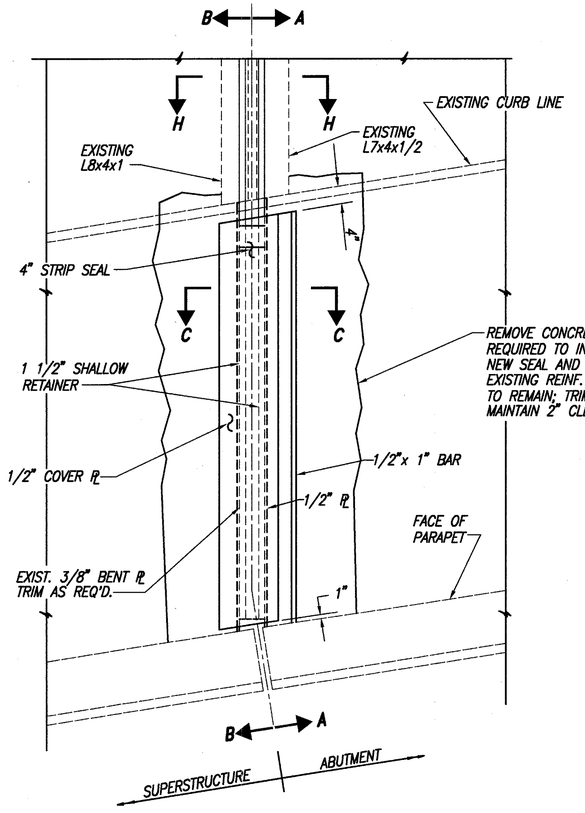
HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. 5 REGION

500
615

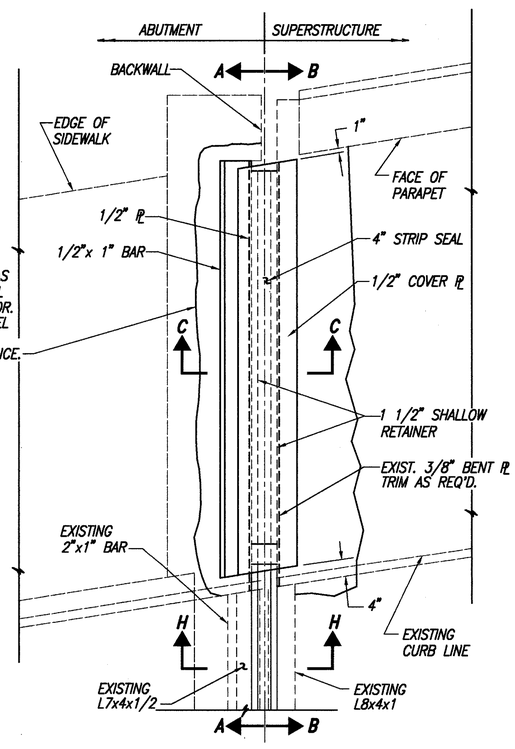


FRAMING PLAN



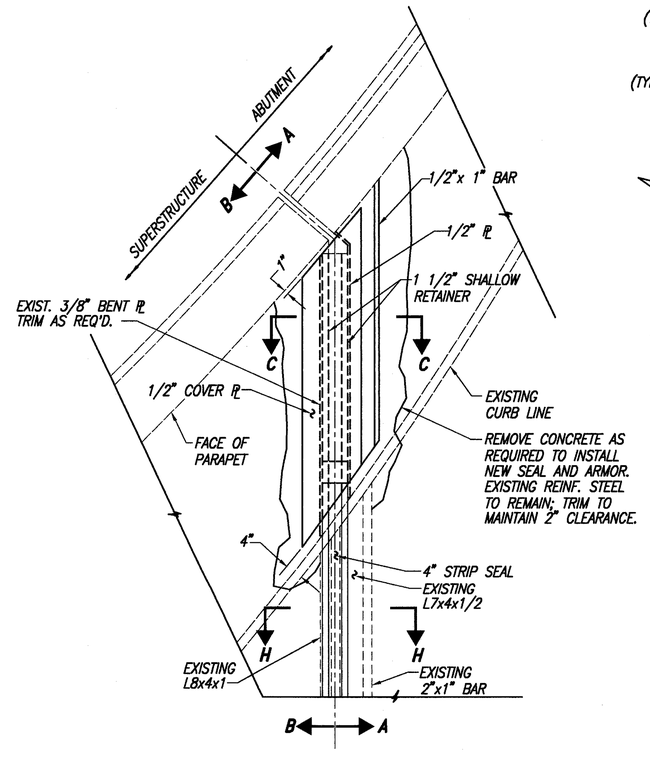
PARTIAL PLAN RIGHT SIDEWALK @ ABUTMENT

(EAST ABUTMENT SHOWN, WEST ABUTMENT OPPOSITE HAND)
(SKEW = 9°00'00" LEFT FORWARD)



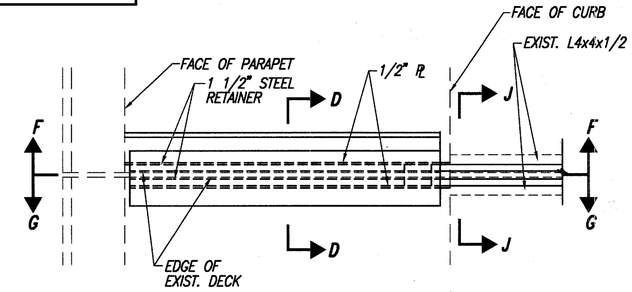
PARTIAL PLAN LEFT SIDEWALK @ WEST ABUTMENT

(SKEW = 9°00'00" LEFT FORWARD)



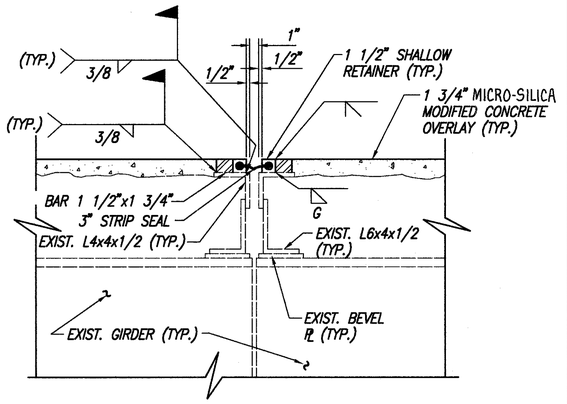
PARTIAL PLAN LEFT SIDEWALK @ EAST ABUTMENT

(SKEW = 9°00'00" LEFT FORWARD)



PARTIAL PLAN SIDEWALK @ HINGE

(LEFT SIDEWALK SHOWN, RIGHT SIDEWALK OPPOSITE HAND)
(SKEW = 9°00'00" LEFT FORWARD)



SECTION J-J

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0315
McMILLAN ST. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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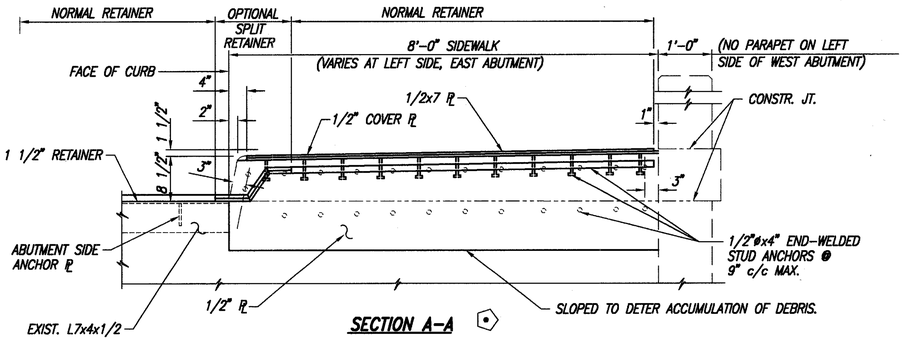
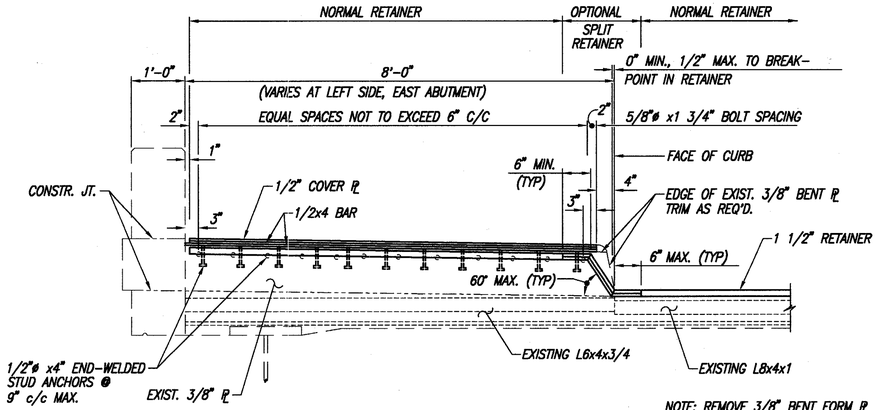
CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	501 615
CHKD BY				
DATE				



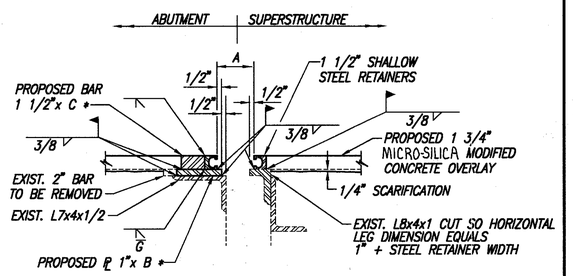
SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



SECTION B-B

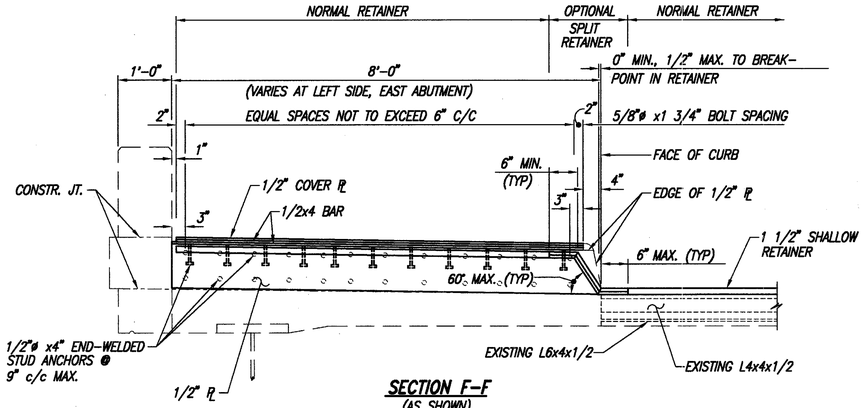
NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT



SECTION H-H

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

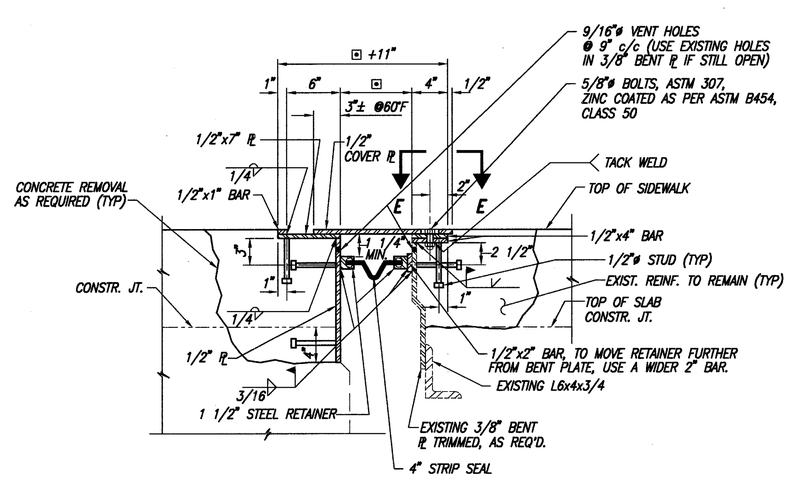
SECTION E-E



SECTION F-F
(AS SHOWN)
SECTION G-G (OPPOSITE HAND)

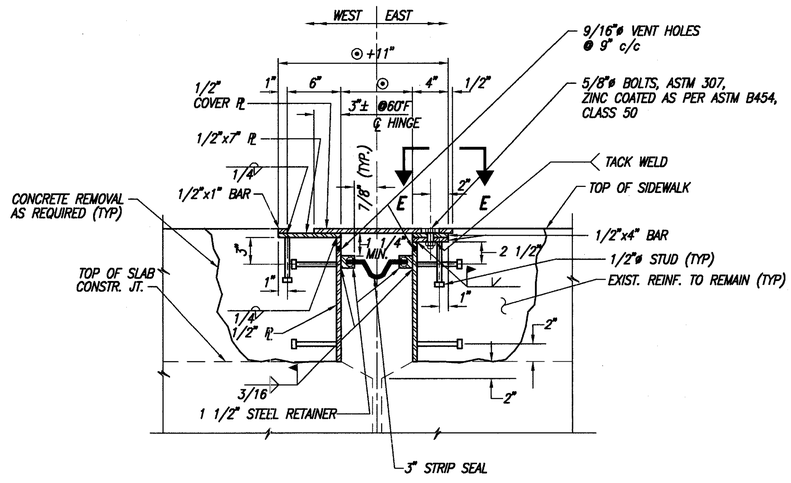
NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.



⊡ THIS DIMENSION IS THE SUM OF 2 x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



⊙ THIS DIMENSION IS THE SUM OF 2 x STEEL RETAINER WIDTH + 2"

SECTION D-D

TEMPERATURE	DIMENSION 'A' WEST ABUT.	DIMENSION 'A' EAST ABUT.
30° F	3 3/4"	3 7/16"
40° F	3 11/16"	3 3/8"
50° F	3 5/8"	3 1/4"
60° F	3 9/16"	3 3/16"
70° F	3 1/2"	3 1/16"
80° F	3 7/16"	3"
90° F	3 3/8"	2 7/8"

SEE SECTION C-C AND SECTION H-H

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4/5

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0315
McMILLAN ST. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY M.A.P. DATE 11-20-91	HAMILTON COUNTY HAM-71-2.92	OHIO
CHKD BY A.M. DATE 12-4-91		F.H.W.A. 5 REGION

502
615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267502	764	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) *
815	00050	24833	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	24833	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, PRIME SYSTEM OZEU
815	00060	24833	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	24833	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	11211	259	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	14600	75	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER MISC. 2" x 4" SEALER, AS PER PLAN
516	46701	2	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP		JACKING AND TEMP. SUPPORT OF SUPER STRUCTURE *
518	12801	2	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP		STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT *
519	11100	9	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	19	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	51922300	LUMP		TEST SLAB *
SPEC.	53000800	1000	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	396	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1000	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	82	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	1000	SQ.YD.	SCARIFICATION OF EXISTING DECK

* SEE PROPOSAL NOTE

PROPOSED WORK

1. REALIGN REAR ABUTMENT BEARINGS AS INDICATED.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. FILL ABUTMENT CRACKS WITH EPOXY AS INDICATED.
5. SEAL CURBS, SIDEWALKS AND PARAPETS.
6. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
7. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET 49/615
8. OTHER WORK AS DESCRIBED IN THESE PLANS.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

5/5

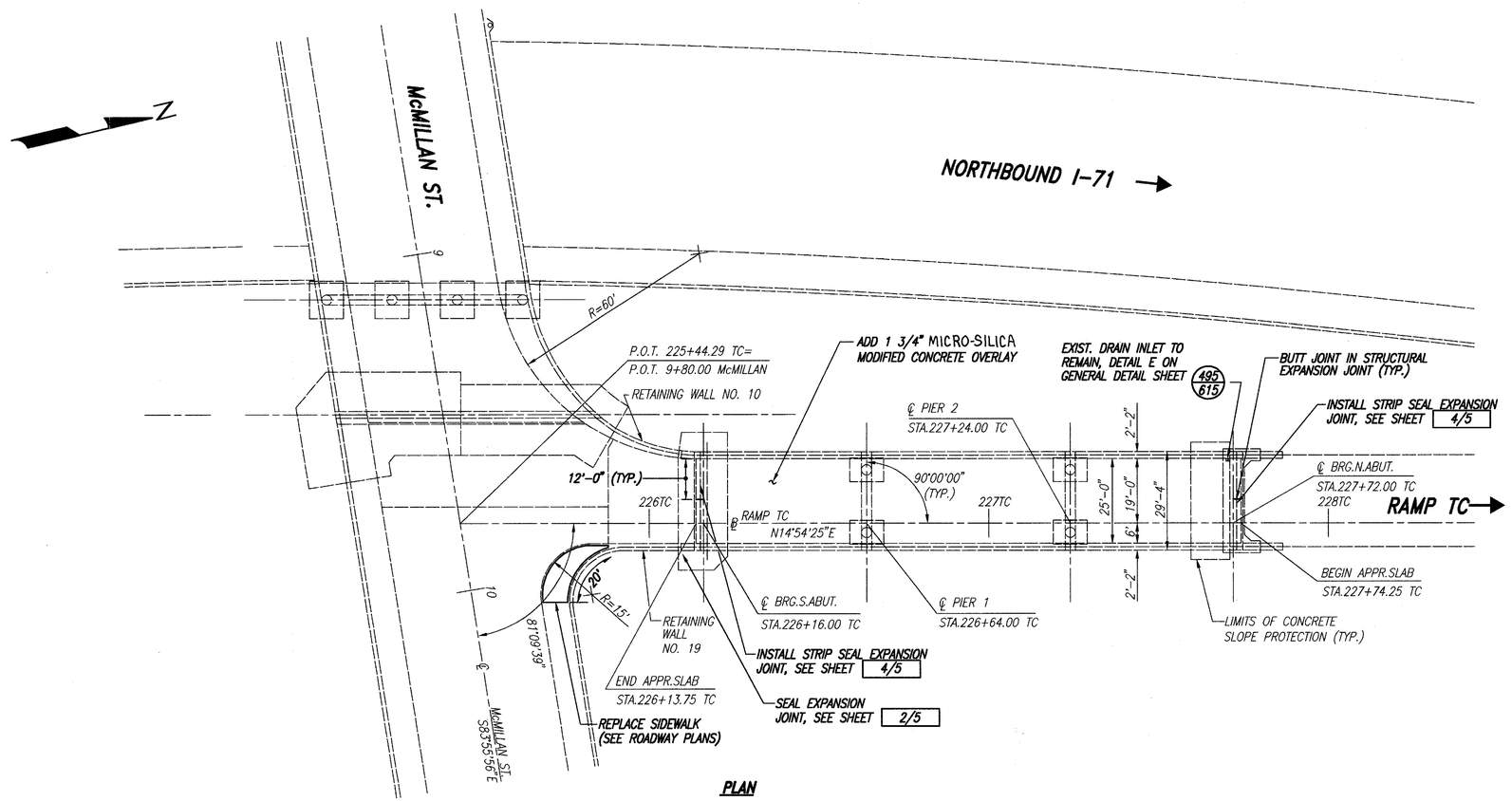
QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0315
McMILLAN ST. OVER I-71
HAMILTON COUNTY

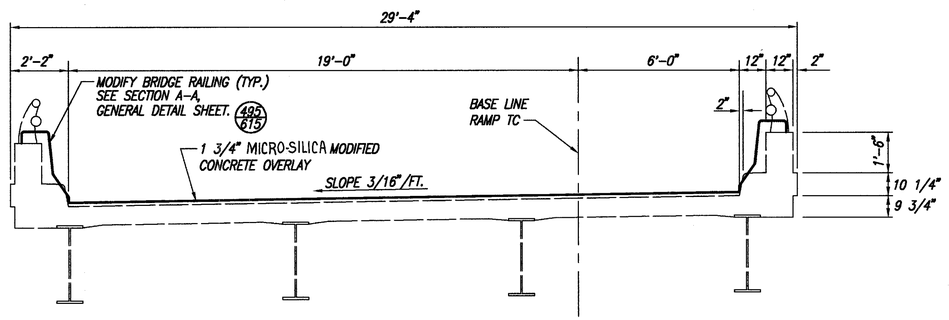
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-96

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO
CHKD BY DATE		F.H.W.A. REGION 5

503
615



PLAN



TYPICAL SECTION

NOTES:

1. SEAL PARAPETS AS SHOWN IN SECTION A-A, ON THE GENERAL DETAIL SHEET. 495/615
2. TRIM 6" C.M.P. TO 1/2" (±) PARALLEL TO THE SURFACE OF THE CONCRETE SLOPE PROTECTION.
3. REFURBISH DRAINAGE PIPING AS SHOWN ON SHEET 2/5 .
4. REMOVE SMALL TREE FROM THE EXPANSION JOINT BETWEEN THE SOUTH ABUTMENT AND RETAINING WALL NO. 19

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL ROLLED BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 48'-0", 60'-0" AND 48'-0" C/C BEARINGS

ROADWAY: 27'-0" F/F PARAPET WITH 1'-0" CURBS

SKEW: NONE

LOAD FREQUENCY: CF=2000(57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 SPECIAL (25'-0"LONG)

ALIGNMENT: TANGENT

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/5

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0317E

RAMP TC TO NORTHBOUND I-71

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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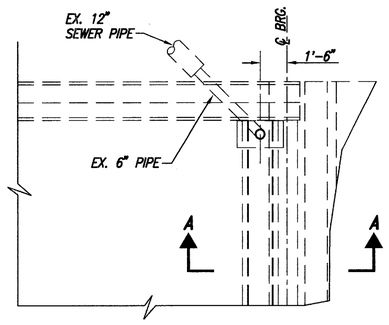
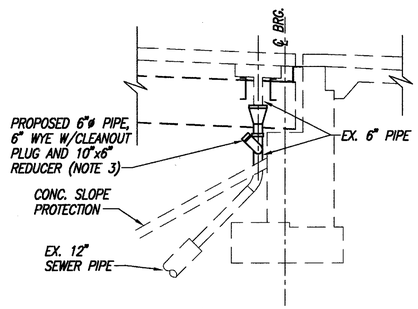
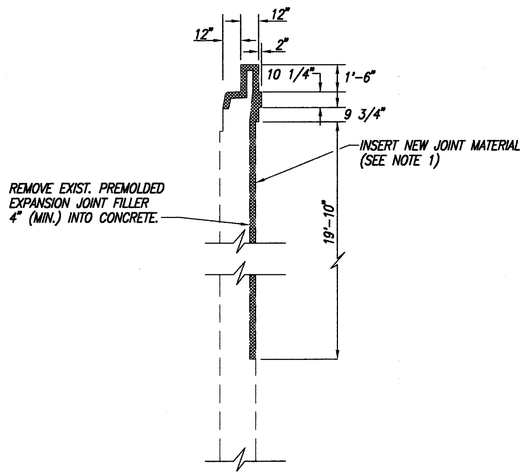
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	504 615
CHKD BY DATE			



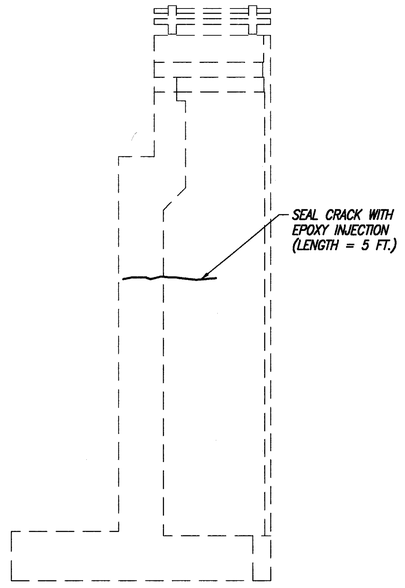
PLAN FOR DRAIN INLET



SECTION A-A



SOUTHEAST WINGWALL TO RETAINING WALL No. 19 EXPANSION JOINT



WEST WINGWALL ELEVATION

NOTES

1. INSERT 'ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN', AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC., OR EQUIVALENT.
2. SEAL CRACKS IN ABUTMENT PER "ITEM SPECIAL - EPOXY INJECTION."
3. REPLACE ALL 6" ø DRAINAGE PIPING FROM THE REDUCER DOWN TO THE CONCRETE SLOPE PROTECTION. THE CONTRACTOR SHALL ALSO CLEAN OUT THE DRAINAGE PIPING BELOW THE SLOPE PROTECTION TO ENSURE A CLEAR DRAINAGE PATH. APPROXIMATE NUMBER OF LINEAR FEET OF PROPOSED 6" ø PIPE (INCLUDING SPECIALS) = 4 L.F.
4. FOR DRAINAGE PIPING REQUIREMENTS, SEE GENERAL NOTES ON SHEET 495/615.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

2/5

ABUTMENT AND DRAINAGE DETAILS

BRIDGE NO. HAM-71-0317E
RAMP TC TO NORTHBOUND I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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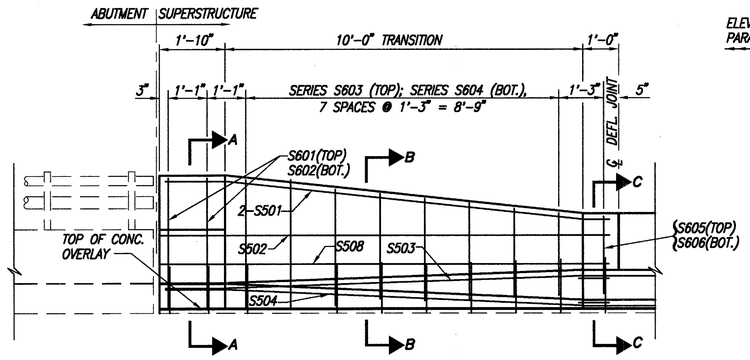
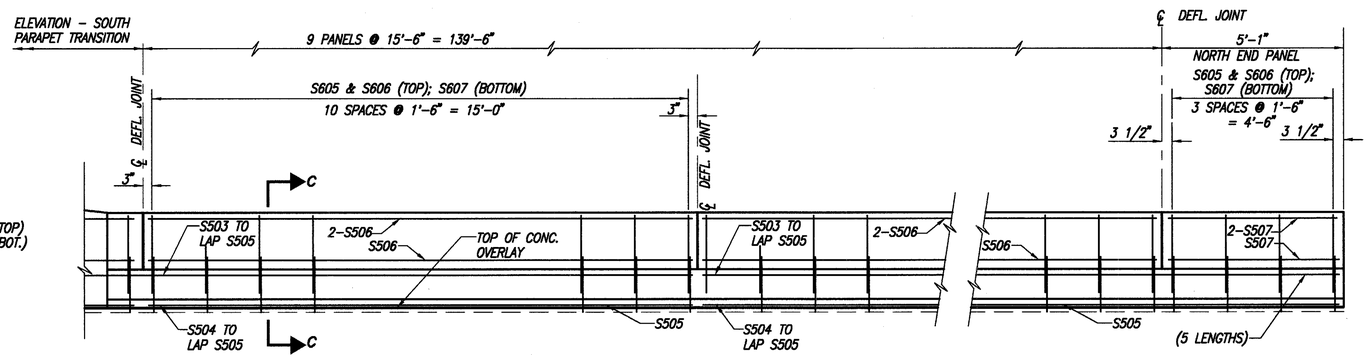
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	505 615
CHKD BY / DATE			



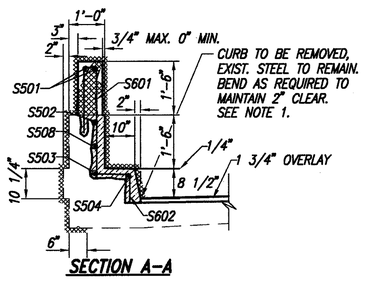
ELEVATION – SOUTH PARAPET TRANSITION

(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)

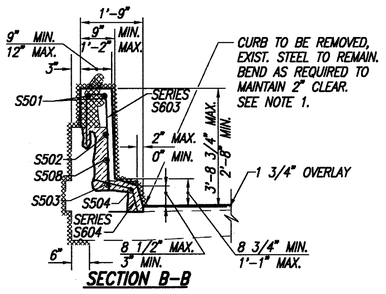


TYPICAL PARAPET ELEVATION

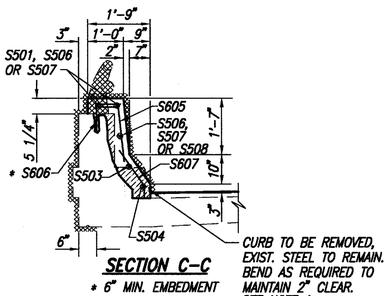
(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)



SECTION A–A



SECTION B–B



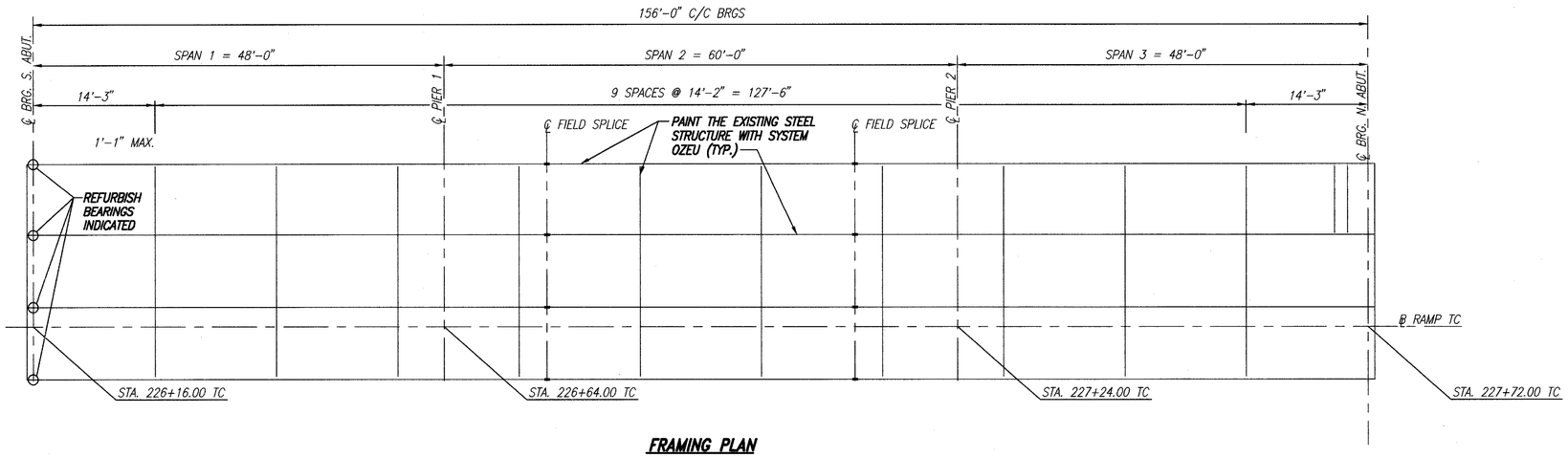
SECTION C–C

* 6" MIN. EMBEDMENT

SEE SECTION A–A, ON THE GENERAL SHEET 495/615 FOR ADDITIONAL INFORMATION

LEGEND

- SURFACES TO BE SEALED UNDER "ITEM SPECIAL, SEALING OF CONCRETE SURFACE".
- EXISTING CURB TO BE REMOVED UNDER "ITEM 202, PORTIONS OF STRUCTURE REMOVED".
- EXISTING RAILING & POSTS TO BE REMOVED & DISCARDED. ALL WORK SHALL BE INCLUDED IN THE PRICE BID FOR "ITEM 202, PORTIONS OF STRUCTURE REMOVED".



FRAMING PLAN

NOTE

1. BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

3/5

MISCELLANEOUS DETAILS

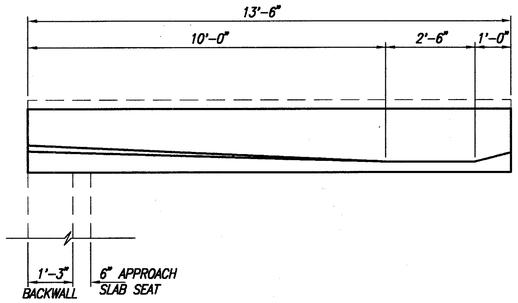
BRIDGE NO. HAM-71-0317E

RAMP TC TO NORTHBOUND I-71

HAMILTON COUNTY

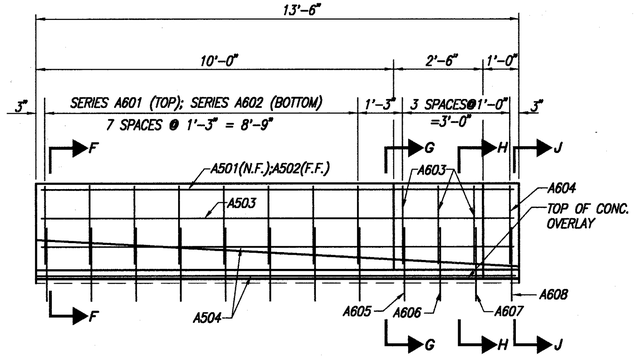
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	506 615
CHKD BY / DATE			



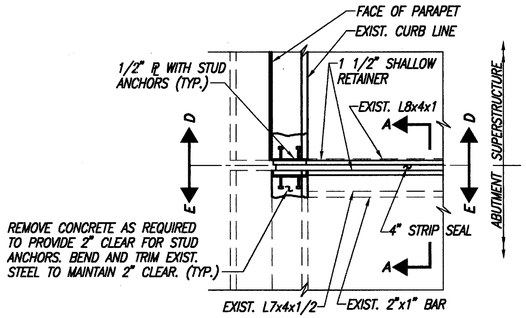
PARTIAL PLAN – NORTH ABUTMENT WINGWALL

(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)



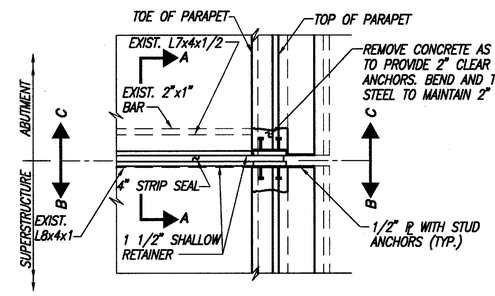
ELEVATION – NORTH ABUTMENT WINGWALL

(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)



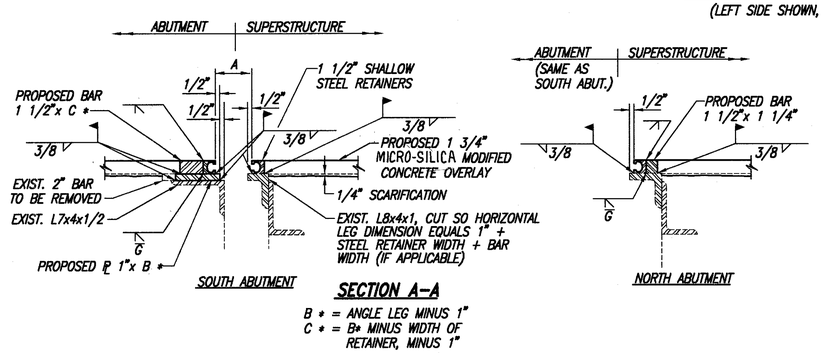
PARTIAL PLAN AT SOUTH ABUTMENT

LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND.



PARTIAL PLAN AT NORTH ABUTMENT

RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE HAND.



SECTION A-A

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

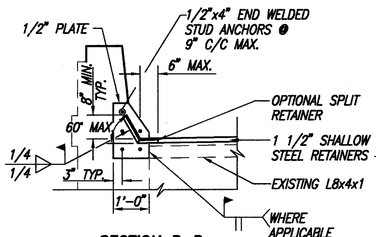
TEMP.	DIMENSION "A"	
	SOUTH ABUTMENT	NORTH ABUTMENT
30°	3"	3 1/2"
40°	2 15/16"	3 3/8"
50°	2 15/16"	3 5/16"
60°	2 7/8"	3 3/16"
70°	2 13/16"	3 1/8"
80°	2 13/16"	3 1/16"
90°	2 3/4"	2 15/16"

LEGEND

XXXXX SURFACES TO BE SEALED UNDER "ITEM SPECIAL, SEALING OF CONCRETE SURFACE".

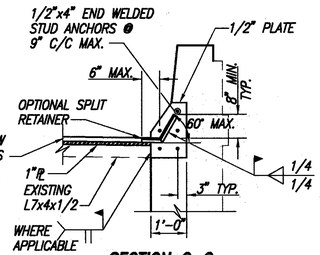
EXISTING CURB TO BE REMOVED UNDER "ITEM 202, PORTIONS OF STRUCTURE REMOVED".

EXISTING RAILING & POSTS TO BE REMOVED & DISCARDED. ALL WORK SHALL BE INCLUDED IN THE PRICE BID FOR "ITEM 202, PORTIONS OF STRUCTURE REMOVED".



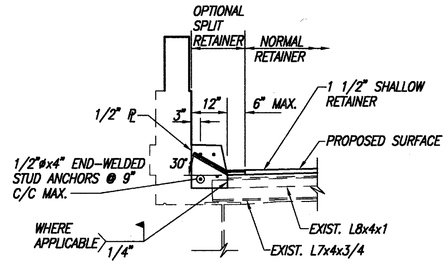
SECTION B-B

(OPPOSITE HAND FOR LEFT SIDE)



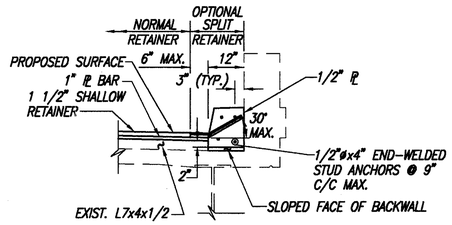
SECTION C-C

(OPPOSITE HAND FOR LEFT SIDE)



SECTION D-D

LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND.

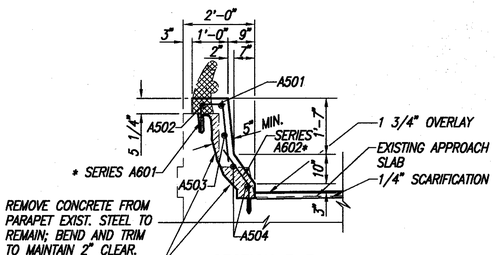


SECTION E-E

LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND.

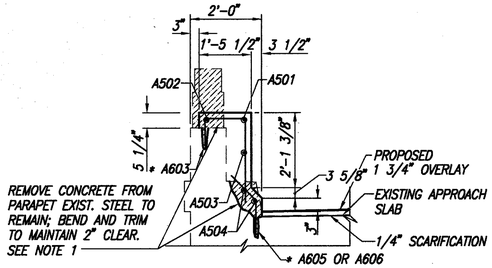
NOTE

1. BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
3. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
4. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.
5. THE PARAPET CONCRETE ON THE ABUTMENT WINGWALLS SHALL BE PLACED PER "ITEM 511-CLASS 'S' CONCRETE, MISC.: PARAPETS, AS PER PLAN
6. WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE END OF THE ABUTMENT TO DETER THE ACCUMULATION OF DEBRIS.
7. WHERE 6" MINIMUM EMBEDMENT INTO EXISTING CONCRETE IS SPECIFIED FOR REINFORCING STEEL, PROVIDE DOWEL HOLE AS PER ITEM 510 USING EPOXY GROUT AS PER SUPPLEMENTAL SPECIFICATIONS 852 AND CMS 705.20 .



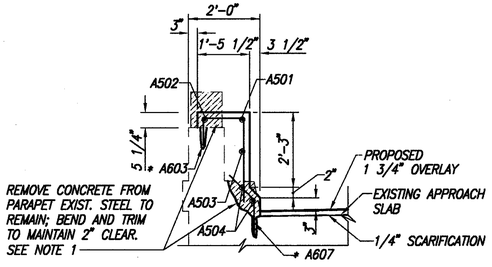
SECTION F-F

* 6" MIN. EMBEDMENT SEE NOTE 7



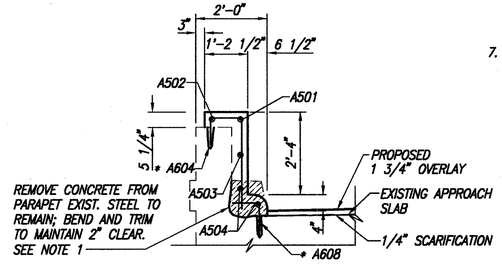
SECTION G-G

* 6" MIN. EMBEDMENT SEE NOTE 7



SECTION H-H

* 6" MIN. EMBEDMENT SEE NOTE 7



SECTION J-J

* 6" MIN. EMBEDMENT SEE NOTE 7

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4 / 5

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0317E

RAMP TC TO NORTHBOUND I-71

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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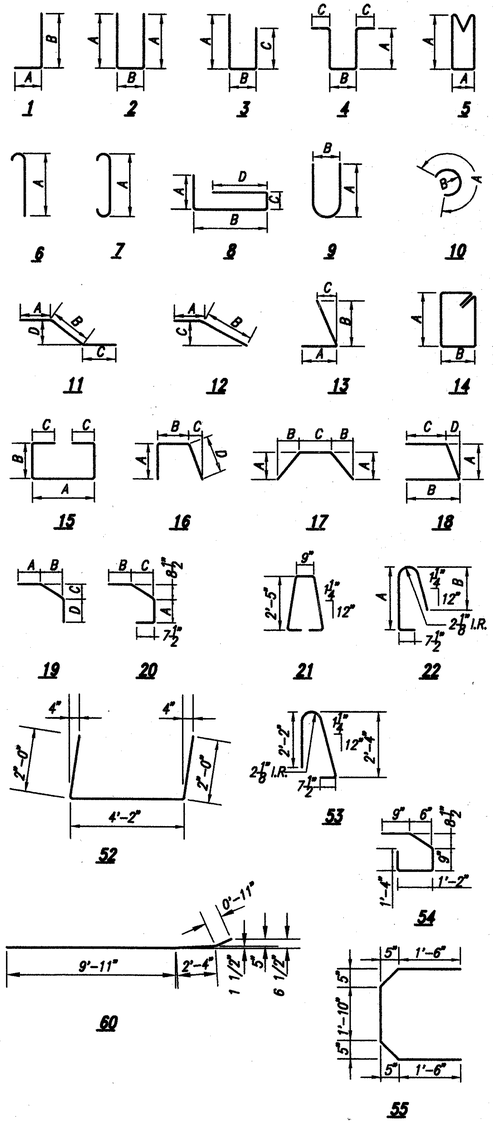
MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
ABUTMENT WINGWALLS									
A501	2	13'-2"	60						28
A502	2	13'-2"	ST						28
A503	2	13'-2"	60						28
A504	4	13'-2"	ST						55
SERIES	2 SETS	2'-11"			0'-8"	0'-2"	1'-10"		
OF	OF 8	TO	16	0'-9"	TO	TO	TO	△L=1 7/16"	80
A601	= 16	3'-9"			1'-1"	0'-0"	2'-3"		
SERIES	2 SETS	1'-9"			1'-2 1/8"				
OF	OF 8	TO	12	0'-9"	TO	0'-10"		△L= 5/16"	40
A602	= 16	1'-7"			1'-0"				
A603	6	4'-0"	3	0'-9"	1'-1"	2'-6"			36
A604	2	3'-9"	3	0'-9"	0'-10"	2'-6"			11
A605	2	1'-5"	12	0'-9"	0'-10"	0'-6 1/2"			4
A606	2	1'-4"	12	0'-9"	0'-9"	0'-6 1/2"			4
A607	2	1'-3"	12	0'-9"	0'-8"	0'-6 1/2"			4
A608	2	1'-4"	1	0'-9"	0'-9"				4
								SUBTOTAL =	322
SUPERSTRUCTURE									
S501	4	11'-8"	11	0'-10"	10'-1"	0'-10"	1'-1"		49
S502	2	10'-10"	ST						23
S503	2	16'-1"	11	0'-10"	10'-0"	5'-4"	0'-3"		34
S504	2	16'-1"	11	0'-10"	10'-0"	5'-4"	0'-6"		34
S505	20	30'-0"	ST						626
S506	54	15'-0"	ST						845
S507	6	4'-9"	ST						30
S508	2	12'-6"	ST						26
S601	4	5'-2"	3	1'-10"	0'-5"	3'-3"			31
S602	4	1'-7"	1	0'-8"	1'-1"				10
SERIES	2 SETS	5'-0"		1'-9"	0'-5 3/16"	0'-1/8"	3'-1 7/8"		
OF	OF 8	TO	16	TO	TO	TO	TO	△L= 3 5/16"	97
S603	= 16	3'-1"		0'-10"	0'-7 13/16"	0'-1 7/8"	1'-11"		
SERIES	2 SETS	1'-7"		0'-7 3/8"	1'-1"	1'-1"			
OF	OF 8	TO	12	TO	TO	TO		△L= 7/16"	35
S604	= 16	1'-4"		0'-4"	1'-2 3/8"	0'-10 7/8"			
S605	208	2'-3"	16		0'-8"	0'-2"	1'-9"		703
S606	208	1'-3"	1	0'-9"	0'-8"				391
S607	208	1'-8"	12	0'-4"	1'-5"	0'-10"			521
								SUBTOTAL =	3455
								REPLACEMENT STEEL =	73
								TOTAL =	3850

NOTES

ALL DIMENSIONS ARE OUT TO OUT.



CALC BY M.A.P. DATE 2-1-93
CHKD BY A.M. DATE 3-24-93

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

507
615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
509	15840	3850	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
510	10001	48	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN
511	34450	2	CU.YD.	CLASS S CONCRETE, MISC: PARAPET, AS PER PLAN
SPEC.	51267502	335	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) *
815	00050	6382	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	6382	SQ.FT.	FIELD PAINTING OF EXISTING STEEL. PRIME COAT, SYSTEM OZEU
815	00060	6382	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	6382	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	11211	54	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	14600	27	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER MISC. 2" x 4" SEALER, AS PER PLAN
516	46701	4	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE *
517	76201	315	LIN.FT.	RAILING FACED, AS PER PLAN
518	63300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC., MODIFIED DRAIN PIPING, AS PER PLAN
518	12801	1	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT *
519	11100	6	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	19	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000800	470	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	48	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED)*
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	470	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	27	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	470	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* See Proposal Note

PROPOSED WORK

1. MODIFY PARAPETS ON BRIDGE AND ABUTMENTS AS PER PLAN.
2. REFURBISH ABUTMENT BEARINGS AS INDICATED.
3. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
4. PLACE 1-3/4" THICK MICRO-SILICA MODIFIED CONCRETE ON DECK AND APPROACH SLABS, USING HYDRODEMOLITION
5. REFURBISH DRAINAGE PIPING.
6. SEAL ABUTMENT CRACKS WITH EPOXY.
7. SEAL PARAPETS ON DECK AND ON ABUTMENT.
8. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
9. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES SEE SHEET 48/615
10. OTHER WORK AS DESCRIBED IN THESE PLANS.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

5/5

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0317E
RAMP TC TO NORTHBOUND I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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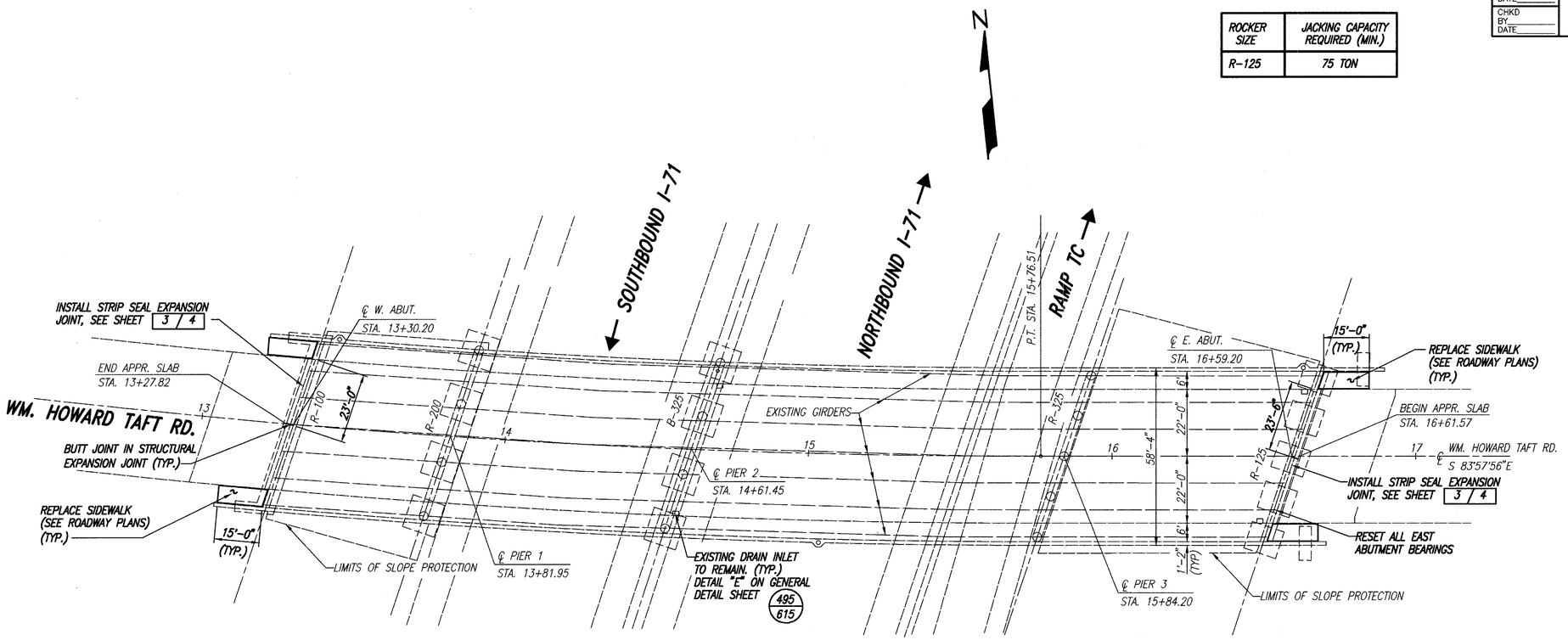
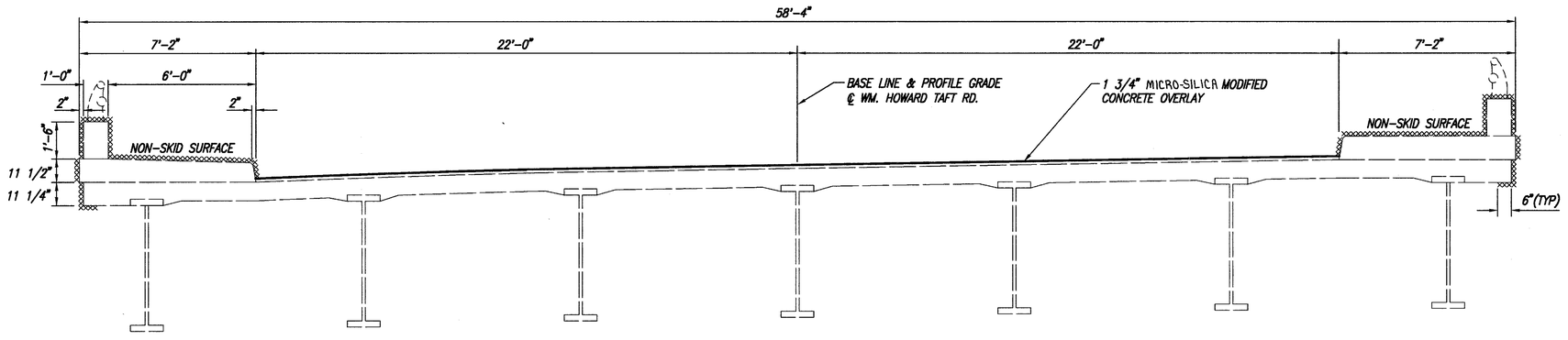
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO	508
CHKD BY / DATE		F.H.W.A. REGION 5	615

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-125	75 TON



PLAN



TYPICAL SECTION

xxxxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL - SEALING OF CONCRETE SURFACES

NOTES

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON DECK AND WINGWALLS.
2. REFURBISH DRAINAGE PIPING, SEE SHEET 2 / 4

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
SPANS: 51'-9", 79'-6", 122'-9" & 75'-0" c/c BEARINGS, ℄ WM. HOWARD TAFT ROAD.
ROADWAY: 44'-0" f/f CURBS WITH 6'-0" SIDEWALKS.
SKEW: 16°15'00" L.F.
LOAD FREQUENCY: CF=2000(57)
WEARING SURFACE: 1" MONOLITHIC CONCRETE.
APPROACH SLABS: AS-1-67 (25'-0" LONG)
ALIGNMENT: VARIES.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

1 / 4

GENERAL PLAN & TYPICAL SECTION

BRIDGE NO. HAM-71-0327
WM. HOWARD TAFT ROAD OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	M.I.M.	A.M.		2-22-95

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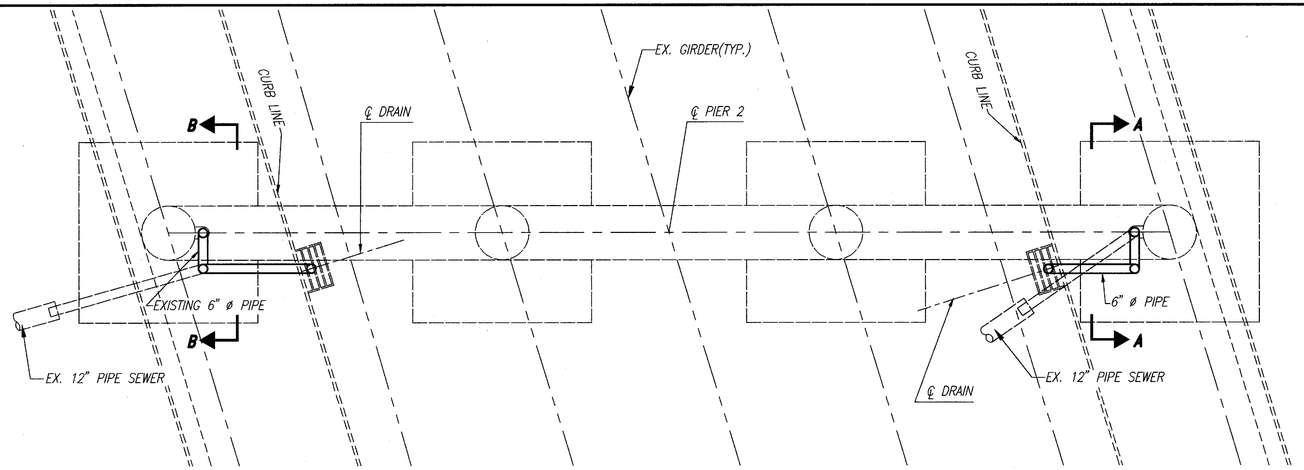
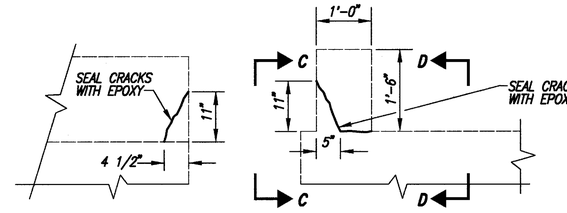
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	509 615
CHKD BY DATE			

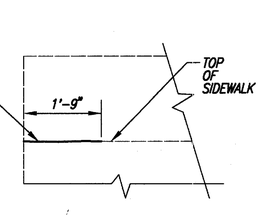


PLAN PIER NO. 2



SECTION C-C

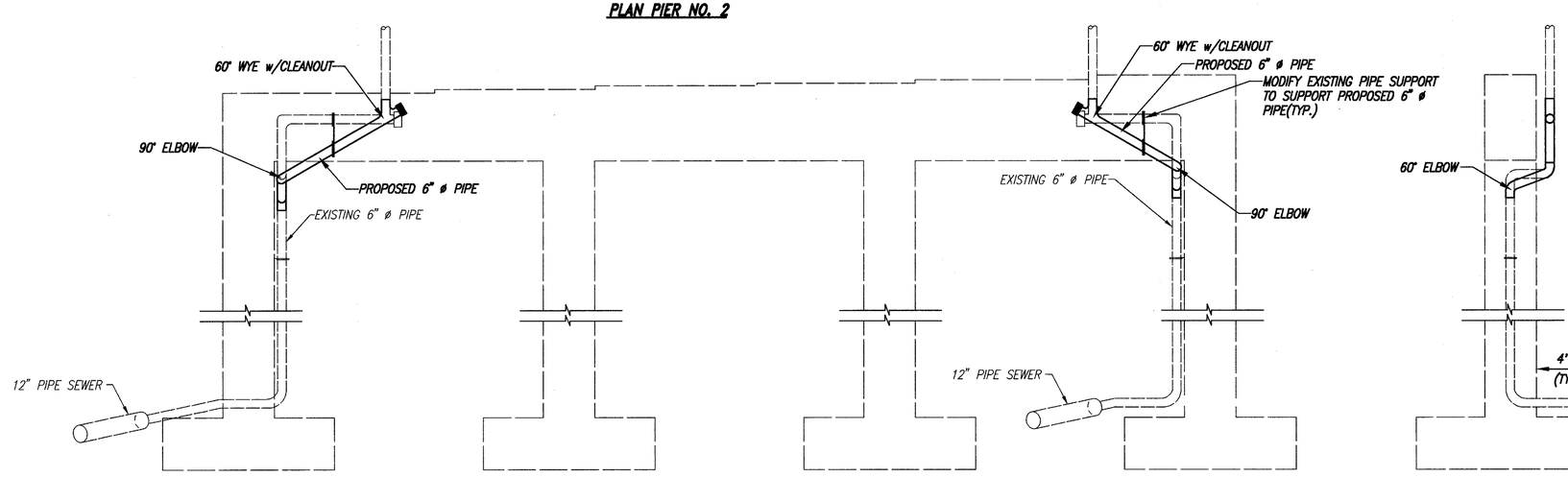
END ELEVATION



SECTION D-D

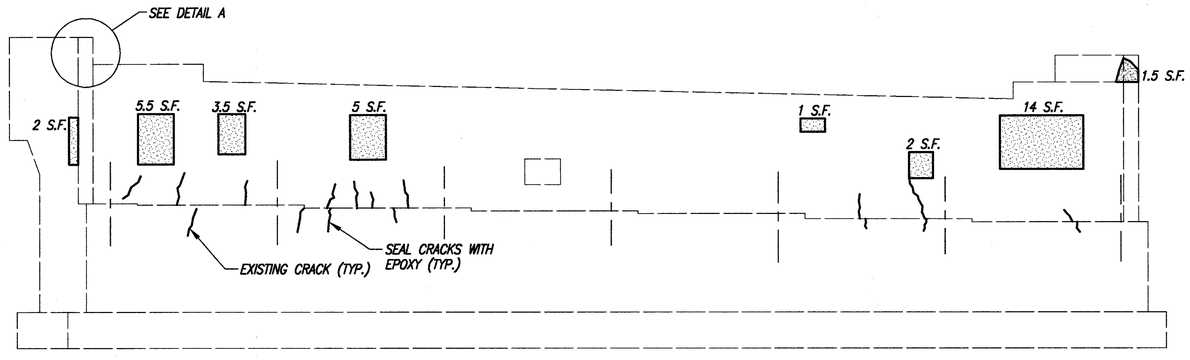
DETAIL A

RAILING NOT SHOWN



PARTIAL ELEVATION PIER NO. 2

SECTION A-A *(AS SHOWN)*
SECTION B-B *(OPPOSITE HAND)*



ELEVATION WEST ABUTMENT

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
EAST	0 SQ. FT.
WEST	52 SQ. FT.
TOTAL	52 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURES."
2. SEAL CRACKS WITH EPOXY PER "ITEM SPECIAL – EPOXY INJECTION" (LENGTH ~ 30 L.F.)
3. FOR DRAINAGE PIPING REQUIREMENTS, SEE GENERAL NOTES ON SHEET 494/615
4. APPROXIMATE NUMBER OF LINEAR FEET OF PROPOSED 6" ø PIPE (INCLUDING SPECIALS) = 20 L.F.

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

EXISTING OPENING TO REMAIN.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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ABUTMENT ELEVATIONS AND DRAINAGE DETAILS

BRIDGE NO. HAM-71-0327
WM. HOWARD TAFT ROAD OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	M.I.M.	A.M.		2-22-95

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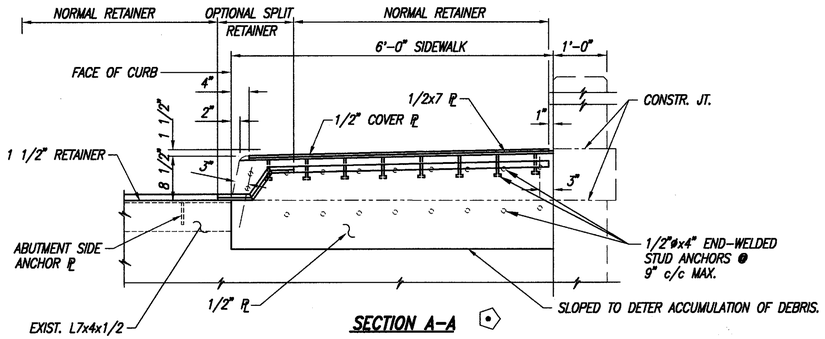
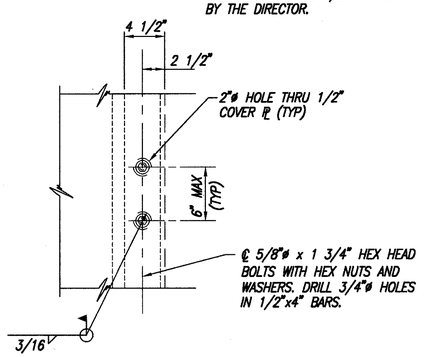
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	510 615
CHKD BY DATE			

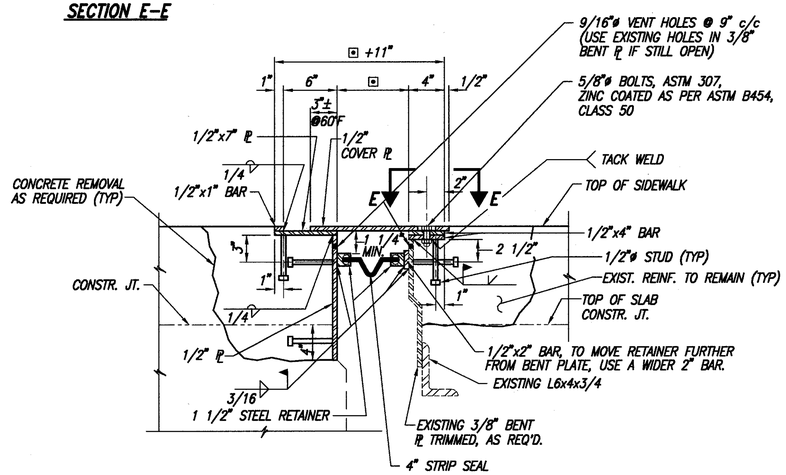


SECTION A-A

⊙ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.

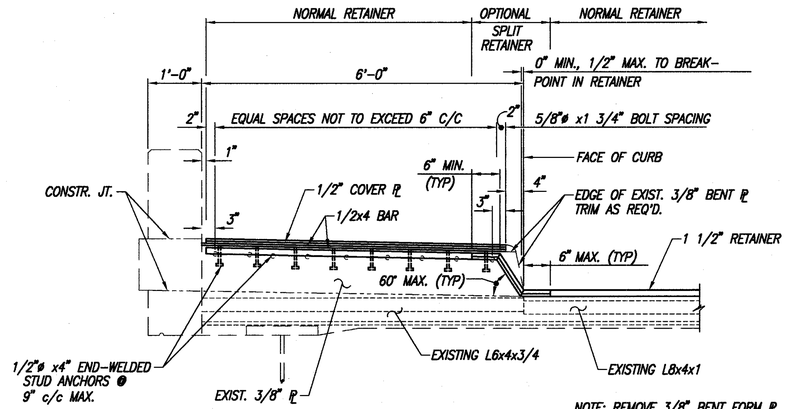


SECTION E-E



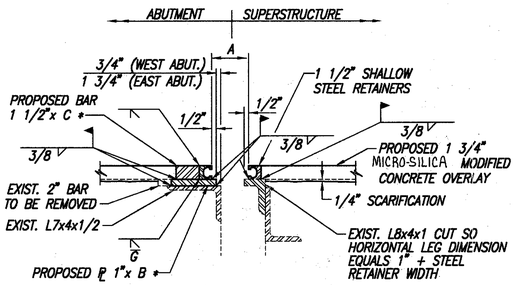
⊡ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



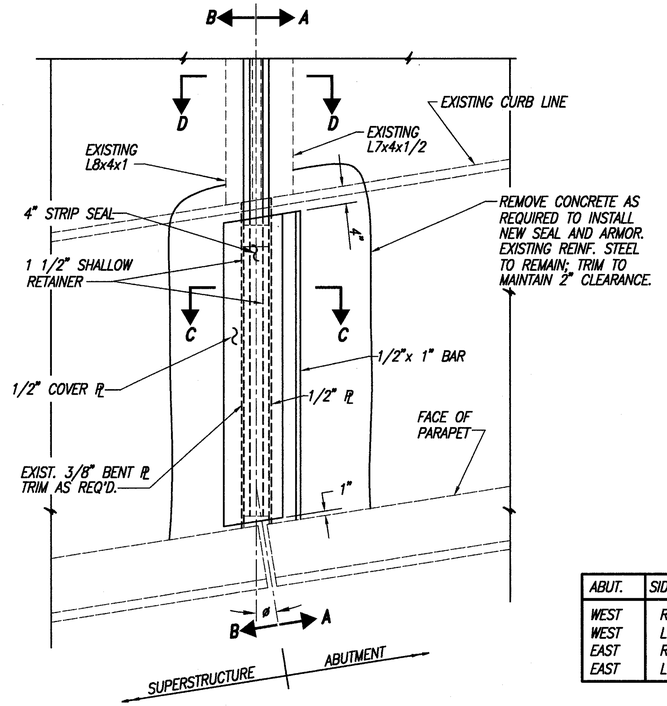
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT



SECTION D-D

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"



PARTIAL PLAN SIDEWALK @ ABUTMENT
(WEST ABUT. LEFT SIDEWALK AND EAST ABUT. RIGHT SIDEWALK SHOWN. REMAINING SIDEWALKS OPPOSITE HAND.)

ABUT.	SIDEWALK	ø
WEST	RIGHT	13°19'
WEST	LEFT	13°19'
EAST	RIGHT	18°33'
EAST	LEFT	18°33'

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STD. DWG. EXJ-4-87 SHTS. 3 AND 4.

TEMPERATURE	DIMENSION 'A' WEST ABUT.	DIMENSION 'A' EAST ABUT.
30° F	3"	3 1/2"
40° F	2 7/8"	3 5/16"
50° F	2 3/4"	3 3/16"
60° F	2 11/16"	3"
70° F	2 9/16"	2 7/8"
80° F	2 1/2"	2 3/4"
90° F	2 3/8"	2 9/16"

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

3 / 4

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0327
WM. HOWARD TAFT RD. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	M.I.M.	A.M.	PWL	2-22-95

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CALC BY M.A.P. DATE 11-27-91	HAMILTON COUNTY HAM-71-2.92	OHIO
CHKD BY A.M. DATE 12-17-91		F.H.W.A. REGION 5

511
615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	1090	SQ.YD.	SEALING OF CONCRETE SURFACES *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU)
516	11211	118	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	46701	7	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE *
518	63300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC., MODIFIED DRAIN PIPING, AS PER PLAN
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT ⊕
519	11100	52	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	30	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000800	1614	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	168	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1614	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	92	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	1614	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

⊕ CLEANING OF PAVED GUTTER INCLUDED UNDER THIS ITEM.

PROPOSED WORK

1. RESET ALL EAST ABUTMENT BEARINGS.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. REFURBISH DRAINAGE PIPING.
5. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL 'F' ON GENERAL DETAIL SHEET (495/615)
6. FILL BACKWALL CRACKS WITH EPOXY.
7. SEAL CURBS, SIDEWALKS AND PARAPETS.
8. PATCH ABUTMENTS AS INDICATED.
9. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615)
10. OTHER WORK AS DESCRIBED IN THESE PLANS.
11. CLEAN PAVED GUTTER AT PIER NO.3.
12. CONTRACTOR SHALL REMOVE ALL DIRT AND DEBRIS FROM THE PAVED GUTTER. THE LIMITS OF REMOVAL SHALL BE THE LENGTH OF THE SLOPE PROTECTION.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0327
WM. HOWARD TAFT ROAD OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	M.I.M.	A.M.		2-22-95

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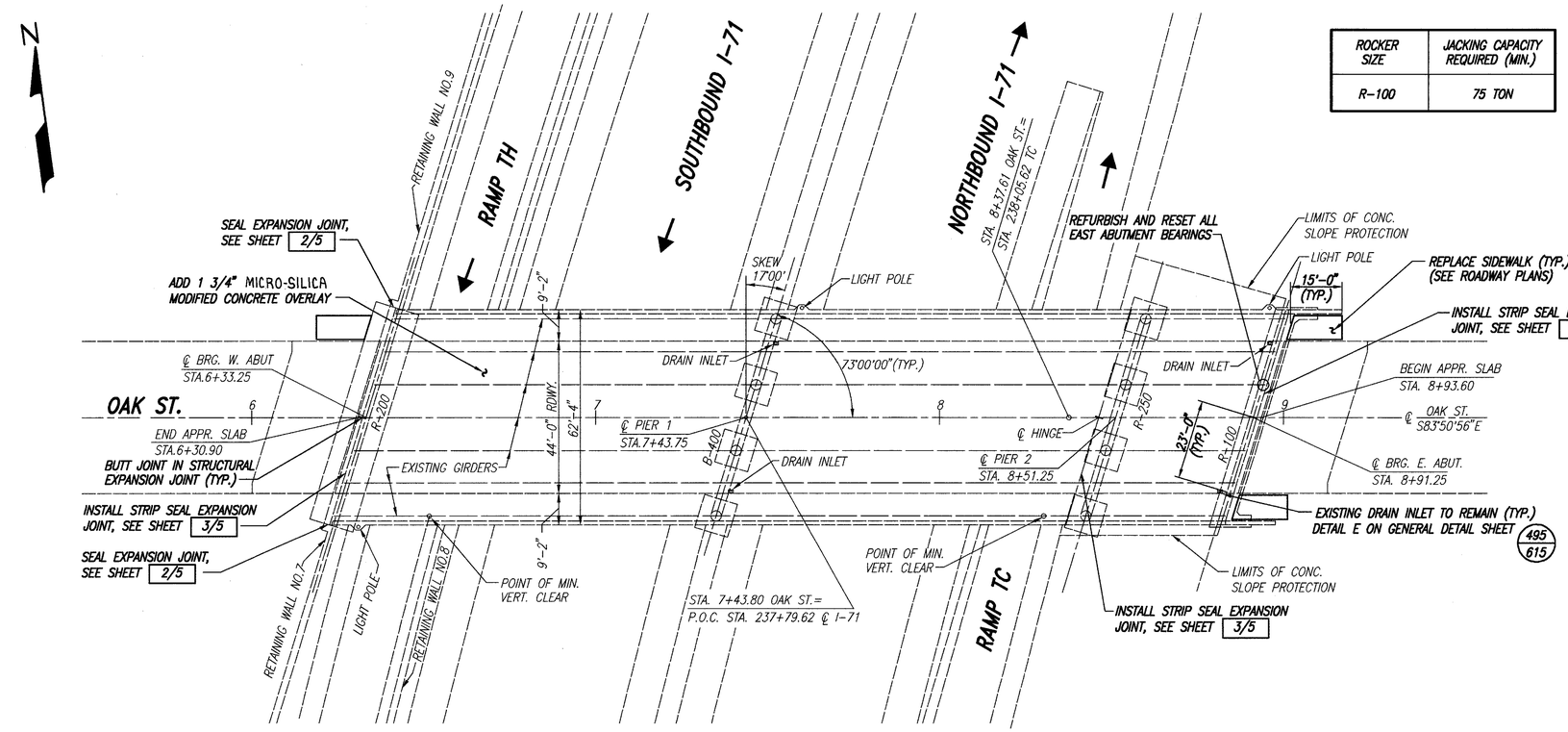
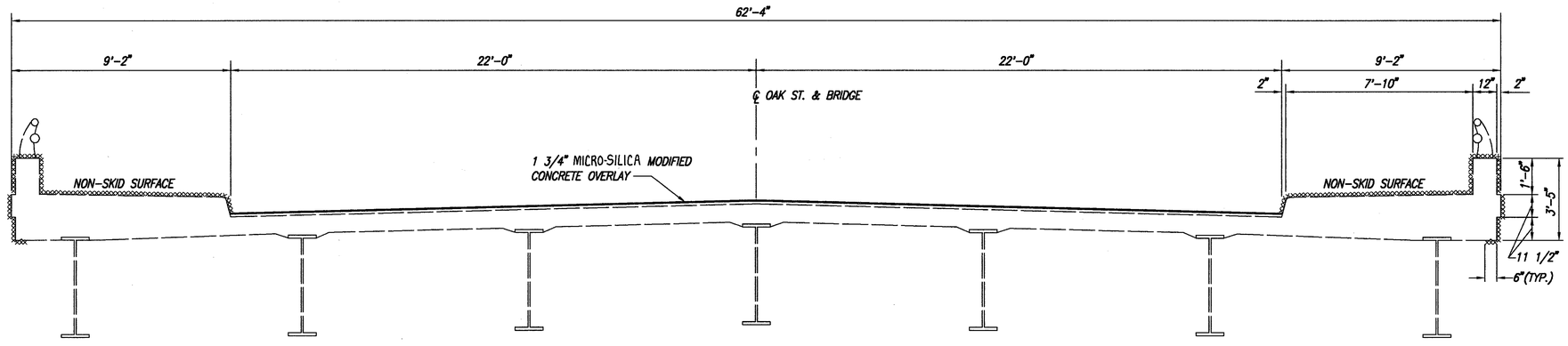
CALC BY: DATE:	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	512 615
CHKD BY: DATE:			



ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-100	75 TON

PLAN



TYPICAL SECTION

xxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON DECK AND WINGWALLS.
2. REFURBISH DRAINAGE PIPING, SEE SHEET 2/5
3. TRIM 6" C.M.P. TO 1/2"(±) PARALLEL TO SURFACE OF CONCRETE SLOPE PROTECTION AND REMOVE ANY DEBRIS FROM INSIDE 6" C.M.P.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 110'-6", 107'-6" AND 40'-0" C/C BEARINGS
ROADWAY: 44'-0"F/F CURBS WITH 8'-0" SIDEWALKS
SKEW: 17°00'00" LF
LOAD FREQUENCY: CF=400(57)
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-67 (25'-0"LONG)
ALIGNMENT: TANGENT

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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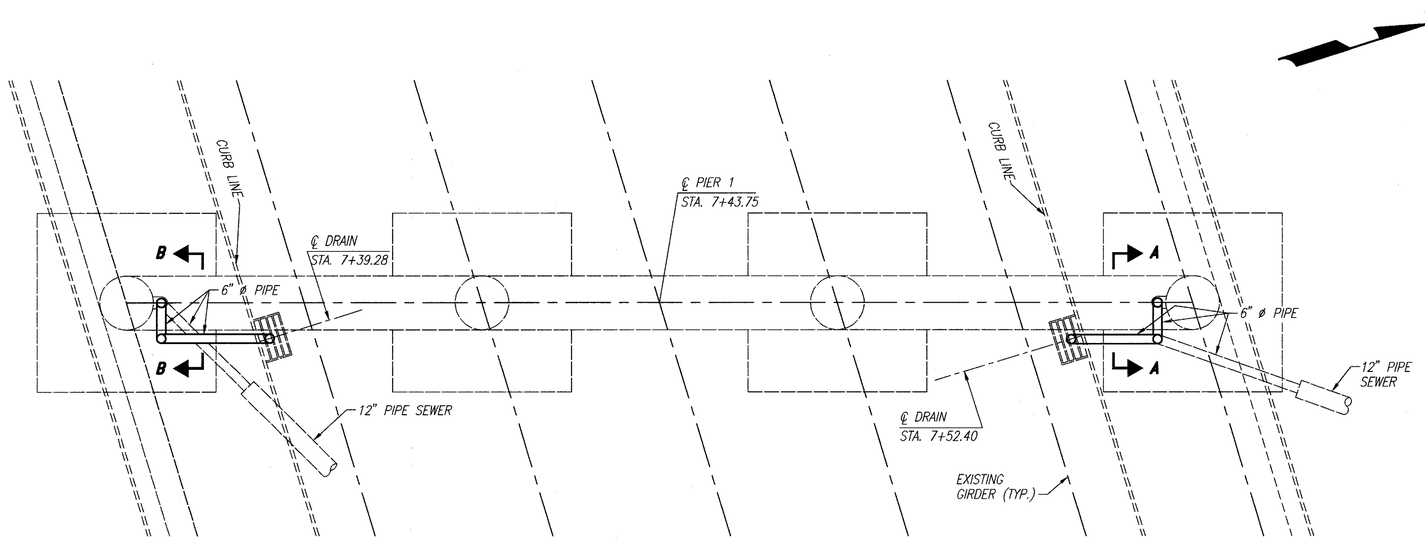
GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0339
OAK ST. OVER I-71
HAMILTON COUNTY

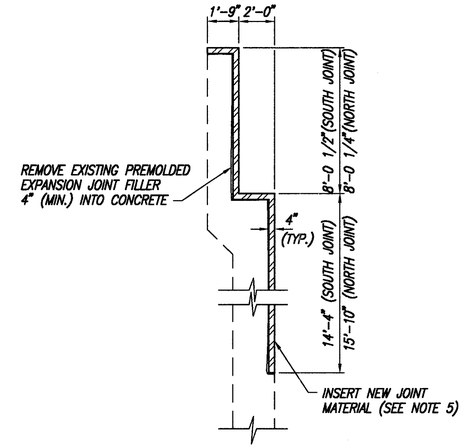
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	513 615
CHKD BY DATE			

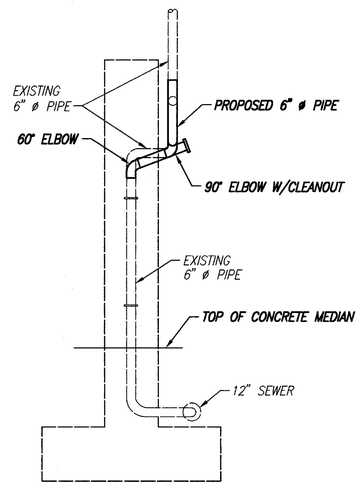


PARTIAL PLAN PIER NO. 1

PARTIAL ELEVATION PIER NO. 1



WEST ABUTMENT TO RETAINING WALL EXPANSION JOINT



SECTION A-A (AS SHOWN)
SECTION B-B (OPPOSITE HAND)

NOTES:

1. FOR DRAINAGE PIPING REQUIREMENTS, SEE GENERAL NOTES ON SHEET (494 615)
2. APPROXIMATE NUMBER OF LINEAR FEET OF PROPOSED 6" ø PIPE (INCLUDING SPECIALS) = 21 L.F.
3. SEAL CRACK IN PIER WITH EPOXY PER 'ITEM SPECIAL-EPOXY INJECTION'.
4. SEAL CRACKS IN BACKWALLS AT LOCATIONS INDICATED BY ENGINEER PER 'ITEM SPECIAL-EPOXY INJECTION' (LENGTH OF CRACKS IS APPROXIMATELY 30 L.F.)
5. INSERT "ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN", AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC., OR EQUIVALENT.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

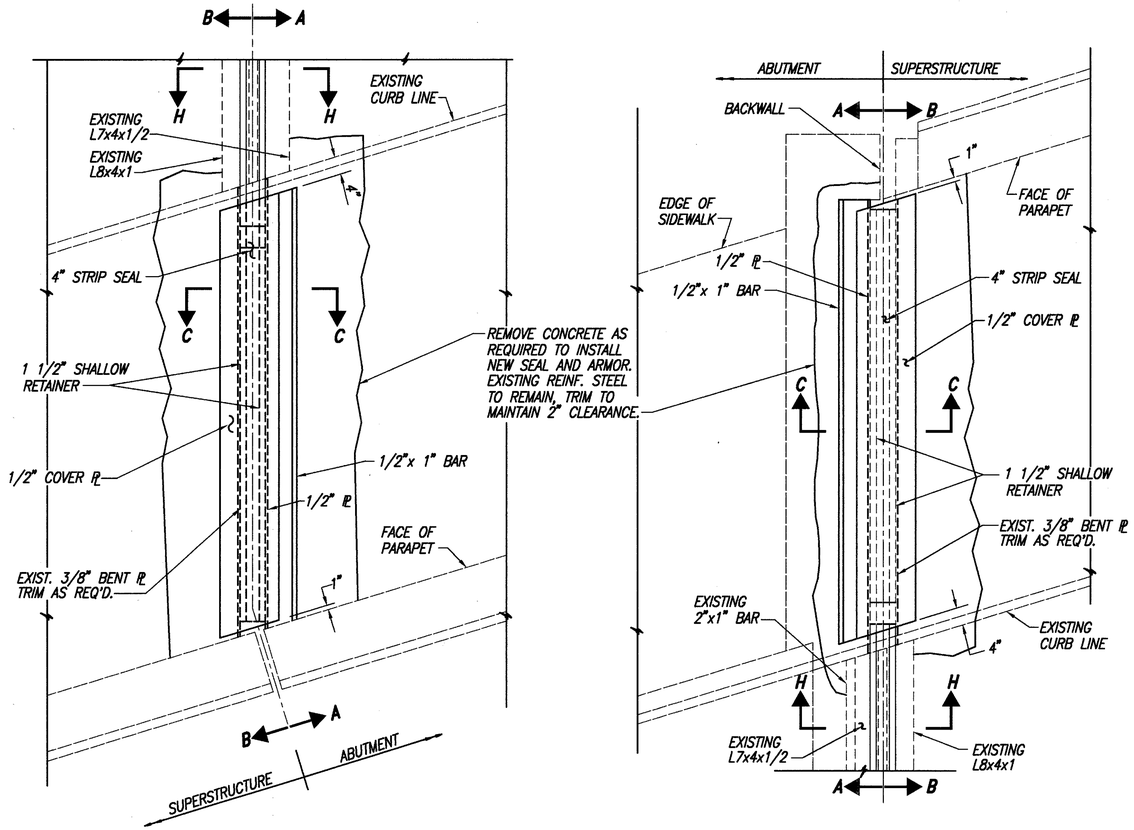
2/5

DRAINAGE PIPING DETAILS

BRIDGE NO. HAM-71-0339
OAK ST. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	514 615
CHKD BY DATE			

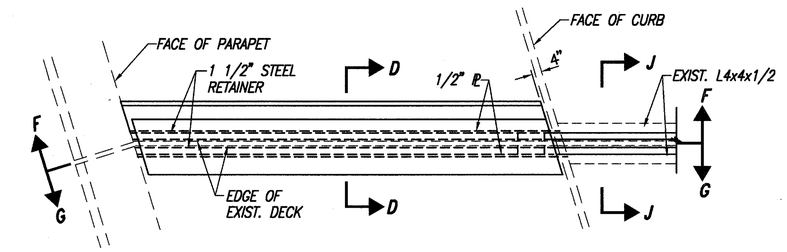


PARTIAL PLAN SIDEWALK @ EAST ABUTMENT

(RIGHT SIDEWALK SHOWN, LEFT SIDEWALK OPPOSITE HAND)
(SKEW = 17°00'00" LEFT FORWARD)

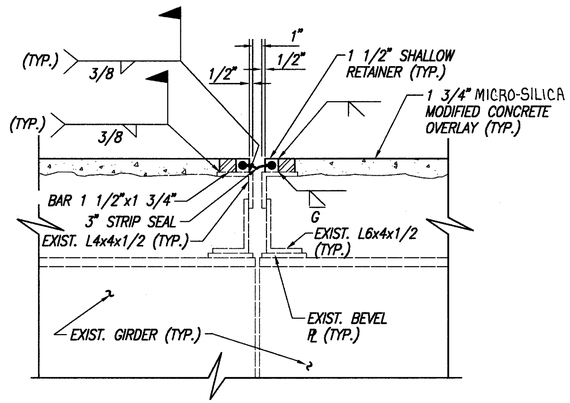
PARTIAL PLAN SIDEWALK @ WEST ABUTMENT

(LEFT SIDEWALK SHOWN, RIGHT SIDEWALK OPPOSITE HAND)
(SKEW = 17°00'00" LEFT FORWARD)



PARTIAL PLAN SIDEWALK @ HINGE

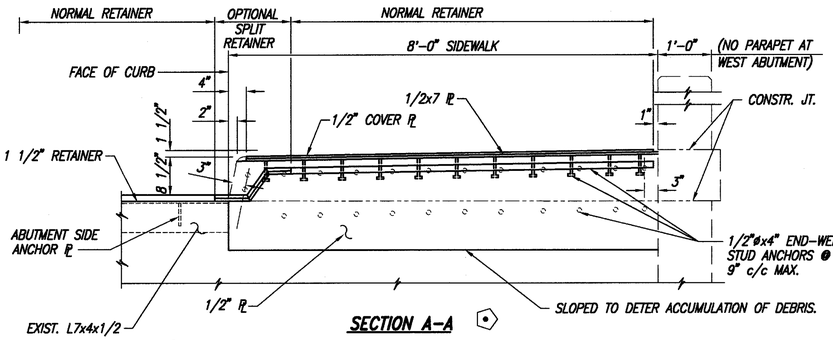
(LEFT SIDEWALK SHOWN, RIGHT SIDEWALK OPPOSITE HAND)
(SKEW = 17°00'00" LEFT FORWARD)



SECTION J-J

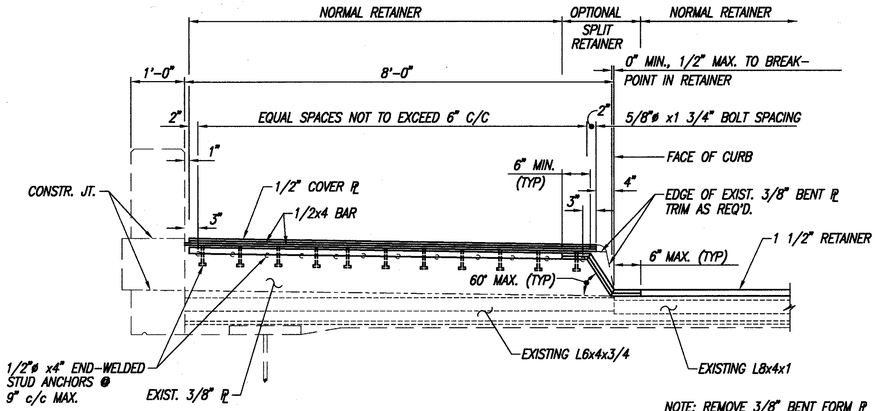
WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437				3/5
SUPERSTRUCTURE DETAILS				
BRIDGE NO. HAM-71-0339 OAK ST. OVER I-71				
HAMILTON COUNTY				
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	RWD	2-22-95

CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	515 615
CHKD BY				
DATE				



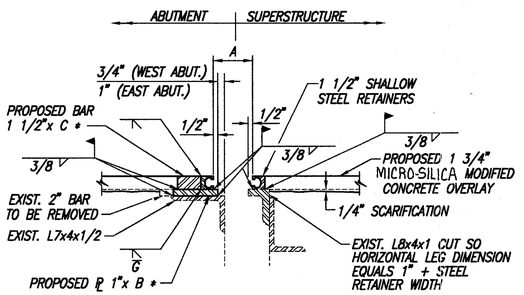
SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



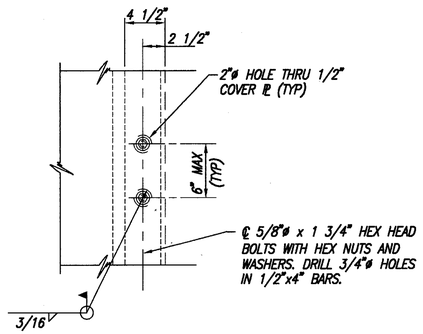
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT

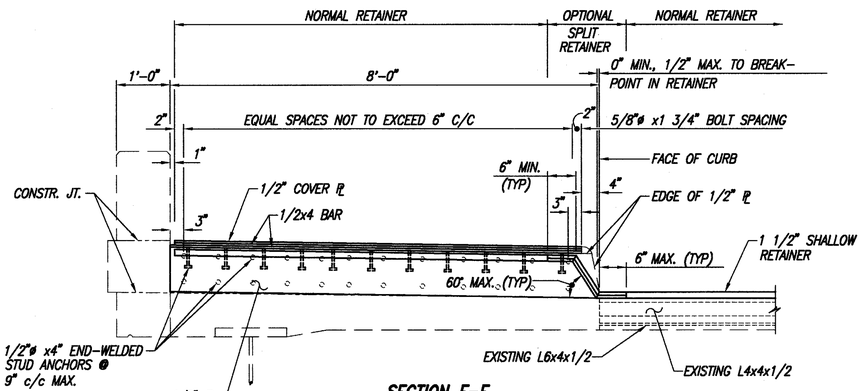


SECTION H-H

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"



SECTION E-E



SECTION F-F

(AS SHOWN)

SECTION G-G

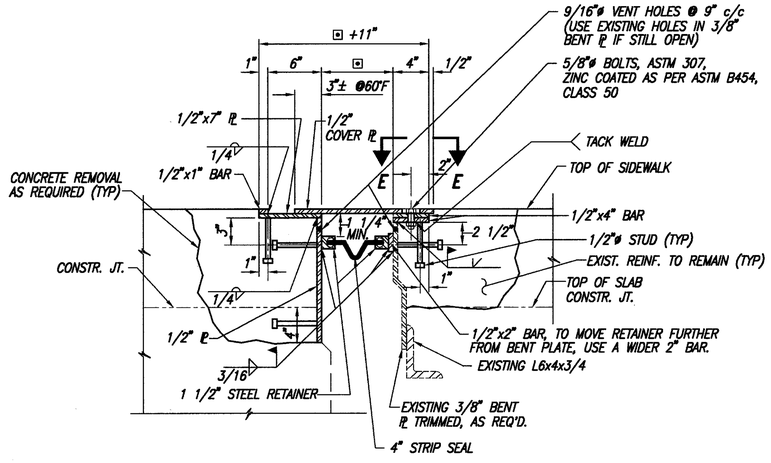
(OPPOSITE HAND)

	DIMENSION 'A'	
TEMPERATURE	WEST ABUT.	EAST ABUT.
30° F	2 3/4"	3"
40° F	2 11/16"	2 7/8"
50° F	2 9/16"	2 3/4"
60° F	2 1/2"	2 11/16"
70° F	2 7/16"	2 9/16"
80° F	2 5/16"	2 7/16"
90° F	2 1/4"	2 5/16"

SEE SECTION C-C AND SECTION H-H

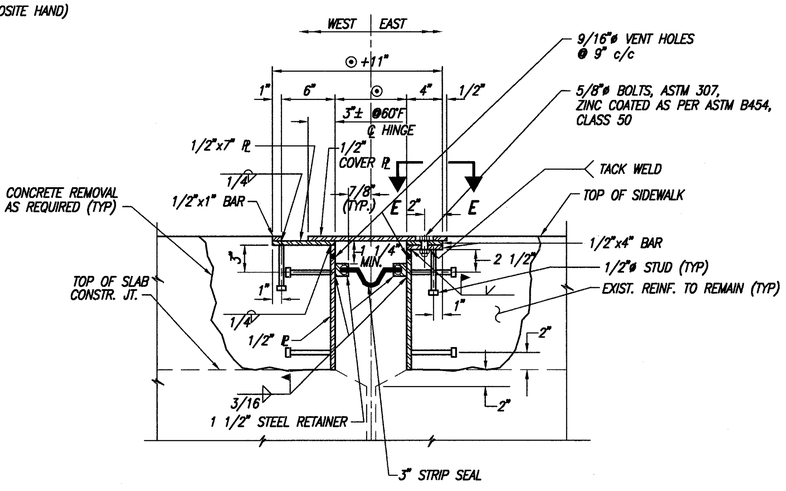
NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.



⊡ THIS DIMENSION IS THE SUM OF 2 x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



⊙ THIS DIMENSION IS THE SUM OF 2 x STEEL RETAINER WIDTH + 2"

SECTION D-D

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4/5

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0339
OAK ST. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	AM	2-22-95

CALC BY M.A.P. DATE 11-27-91
CHKD BY A.M. DATE 12-8-91

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

516
615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	942	SQ.YD.	SEALING OF CONCRETE SURFACES *
513	21000	1	EACH	TRIMMING OF BEAM ENDS
514	27704	LUMP	LUMP	FIELD PAINTING, 6' FROM EXPANSION JOINT *
516	11211	190	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPER STRUCTURE *
516	14600	54	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER MISC. 2" x 4" SEALER, AS PER PLAN
516	45305	9	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
518	12900	2	EACH	SCUPPER LENGTHENING
518	63300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC., MODIFIED DRAIN PIPING, AS PER PLAN
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
SPEC.	51912600	34	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000800	1267	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	132	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	8	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1267	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	73	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	1267	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. REFURBISH AND RESET ALL EAST ABUTMENT BEARINGS.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK.
4. REFURBISH DRAINAGE PIPING AND EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL 'F' ON GENERAL DETAIL SHEET (495/615). USING HYDRODEMOLITION
5. FILL BACKWALL AND PIER CRACKS WITH EPOXY.
6. SEAL CURBS, SIDEWALKS AND PARAPETS.
7. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
8. OTHER WORK AS DESCRIBED IN THESE PLANS.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

5/5

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0339
OAK ST. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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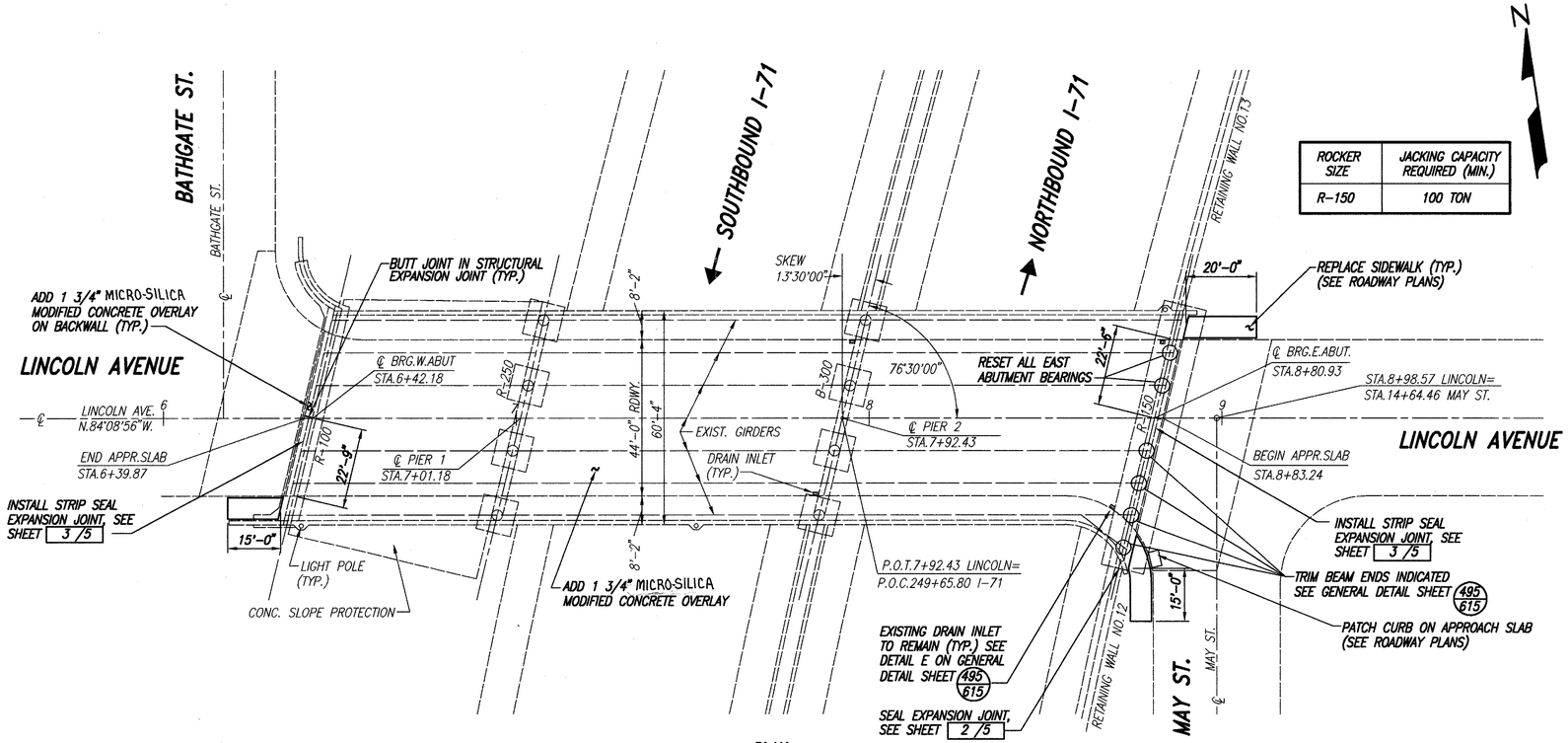
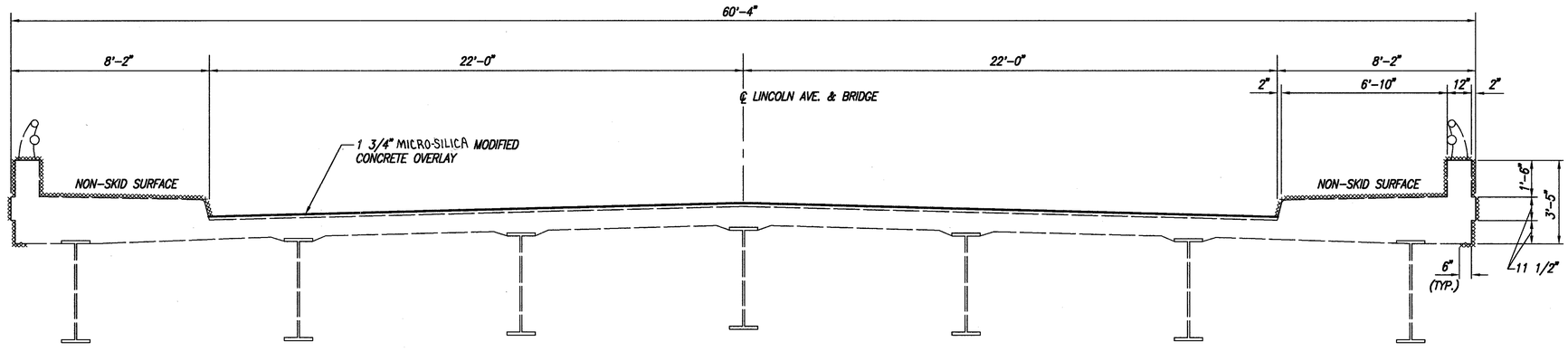
403 BLACK 517-560

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	517 / 614
CHKD BY DATE			



PLAN

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-150	100 TON



TYPICAL SECTION

xxxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES

NOTES

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON THE DECK AND WINGWALLS.
2. REFURBISH DRAINAGE PIPING. SEE SHEET 4/5
3. TRIM 6" C.M.P. TO 1/2" (±) PARALLEL TO SURFACE OF CONCRETE SLOPE PROTECTION.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 59'-0", 91'-3" AND 88'-6" C/C BEARINGS
ROADWAY: 44'-0"F/F CURBS WITH 7'-0" SIDEWALKS
SKEW: 13°30'00" LF
LOAD FREQUENCY: CF=2000(57)
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-67 (25'-0"LONG)
ALIGNMENT: TANGENT

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/5

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0362
LINCOLN AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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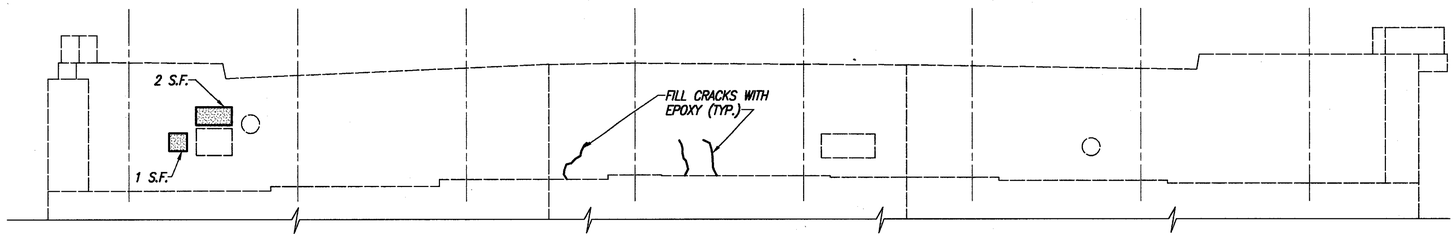
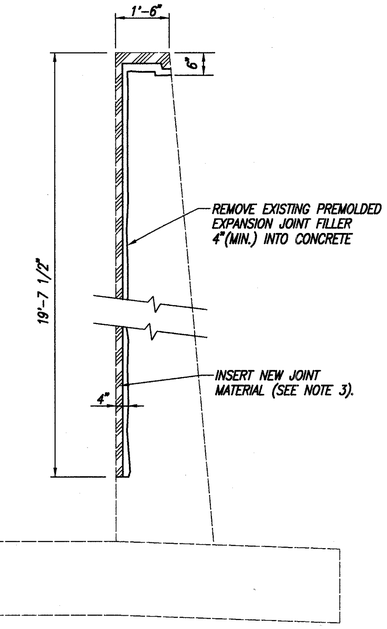
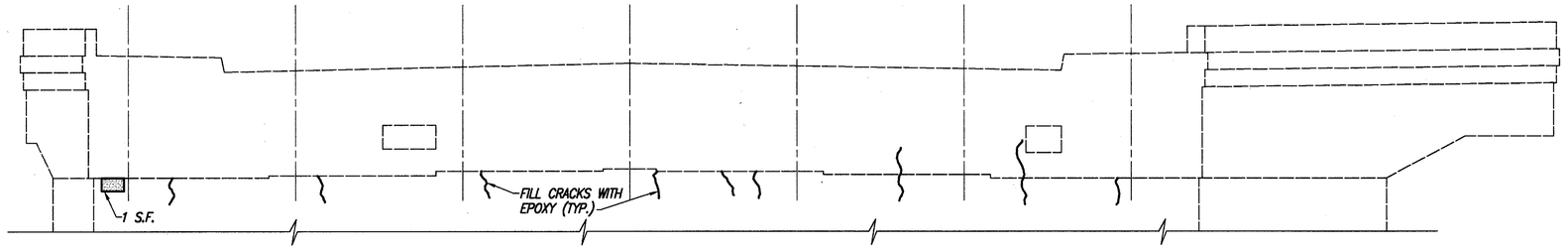
CHKD BY DATE			



PARTIAL ELEVATION EAST ABUTMENT



EAST ABUTMENT TO RETAINING WALL NO. 12 EXPANSION JOINT



PARTIAL ELEVATION WEST ABUTMENT

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
EAST	4.5 SQ. FT.
WEST	1.5 SQ. FT.
TOTAL	6 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENTS AS INDICATED PER "ITEM 519-PATCHING CONCRETE STRUCTURE.
2. SEAL CRACKS WITH EPOXY PER "ITEM SPECIAL-EPOXY INJECTION "(APPROXIMATE LENGTH = 27 L.F.).
3. INSERT "ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN", AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC., OR EQUIVALENT.

LEGEND

- PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.
- SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).
- EXISTING OPENING TO REMAIN.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/5

ABUTMENT ELEVATIONS

BRIDGE NO. HAM-71-0362

LINCOLN AVE. OVER I-71

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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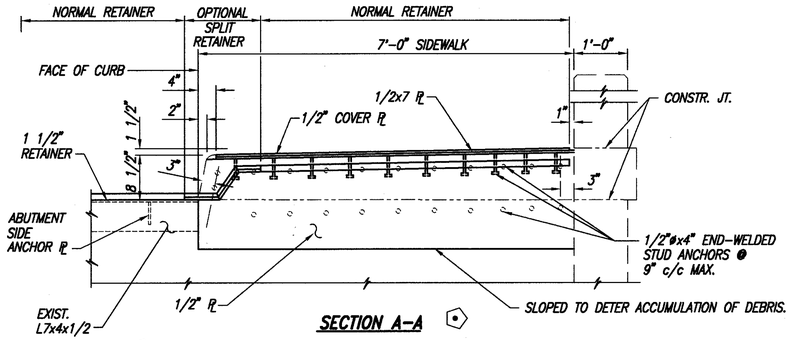
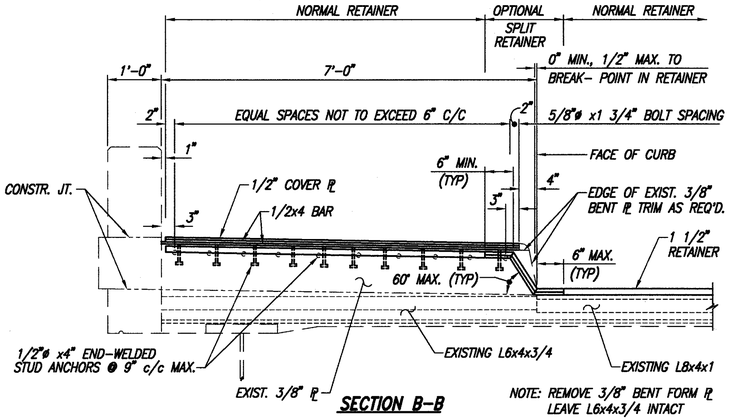


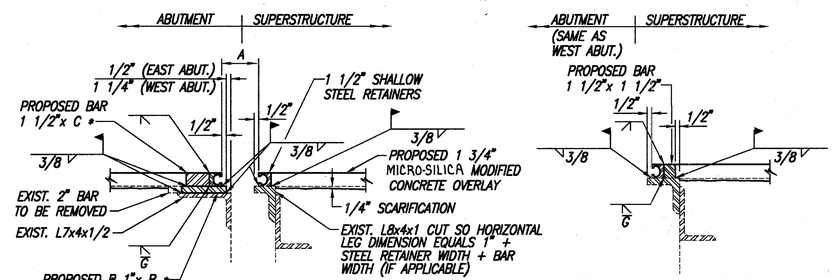
SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS:
IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



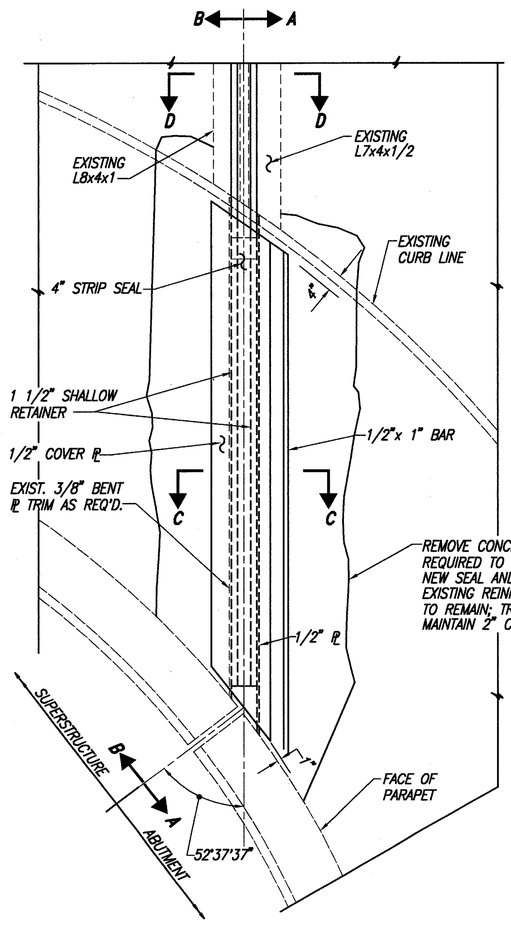
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT



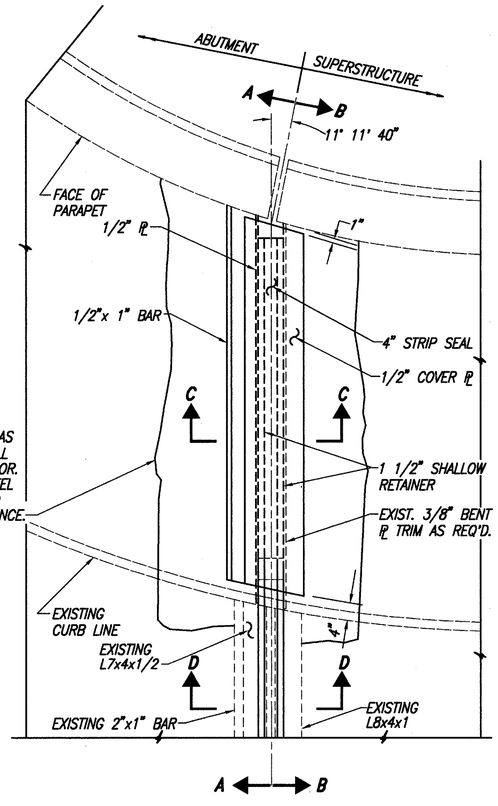
SECTION D-D

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"



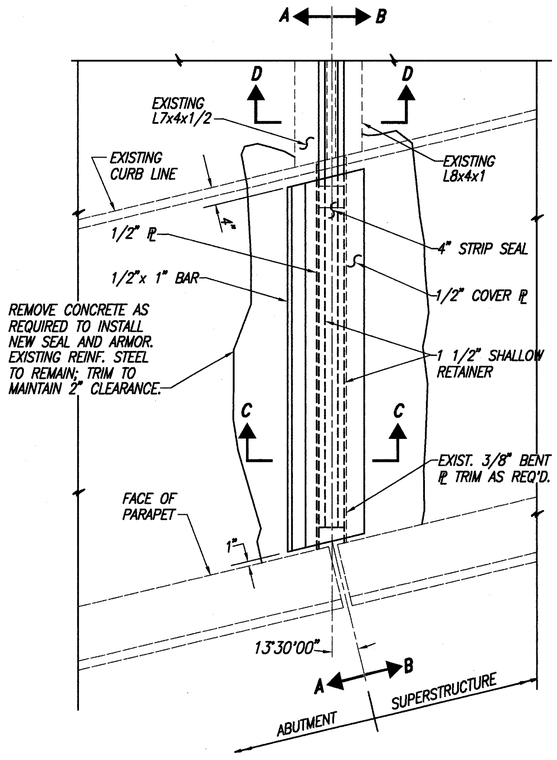
PARTIAL PLAN RIGHT SIDEWALK @ EAST ABUTMENT

(SKEW = 13° 30' 00" LEFT FORWARD)



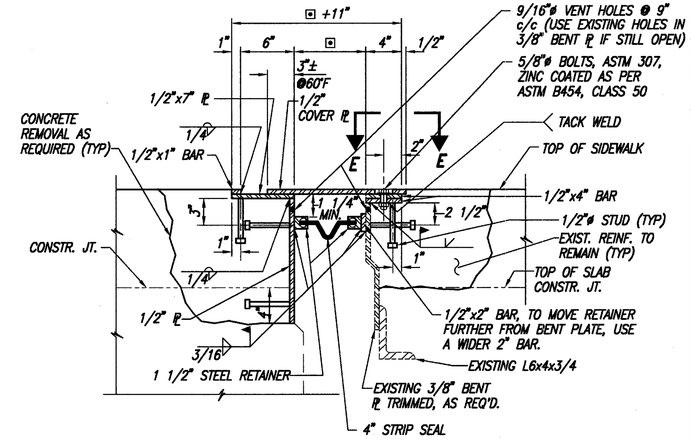
PARTIAL PLAN LEFT SIDEWALK @ WEST ABUTMENT

(SKEW = 13° 30' 00" LEFT FORWARD)



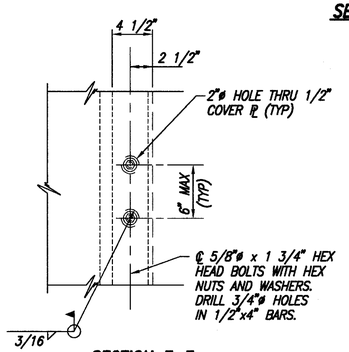
PARTIAL PLAN SIDEWALK @ ABUTMENT

RIGHT SIDEWALK WEST ABUTMENT,
LEFT SIDEWALK EAST ABUTMENT.
(SKEW = 13° 30' 00" LEFT FORWARD)



⊡ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'.
(TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



SECTION E-E

	DIMENSION 'A'	
TEMPERATURE	WEST ABUT.	EAST ABUT.
30° F	3 1/4"	2 3/4"
40° F	3 3/16"	2 11/16"
50° F	3 1/16"	2 5/8"
60° F	2 15/16"	2 9/16"
70° F	2 13/16"	2 1/2"
80° F	2 11/16"	2 7/16"
90° F	2 9/16"	2 3/8"

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	519 615
CHKD BY DATE			

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

3/5

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0362
LINCOLN AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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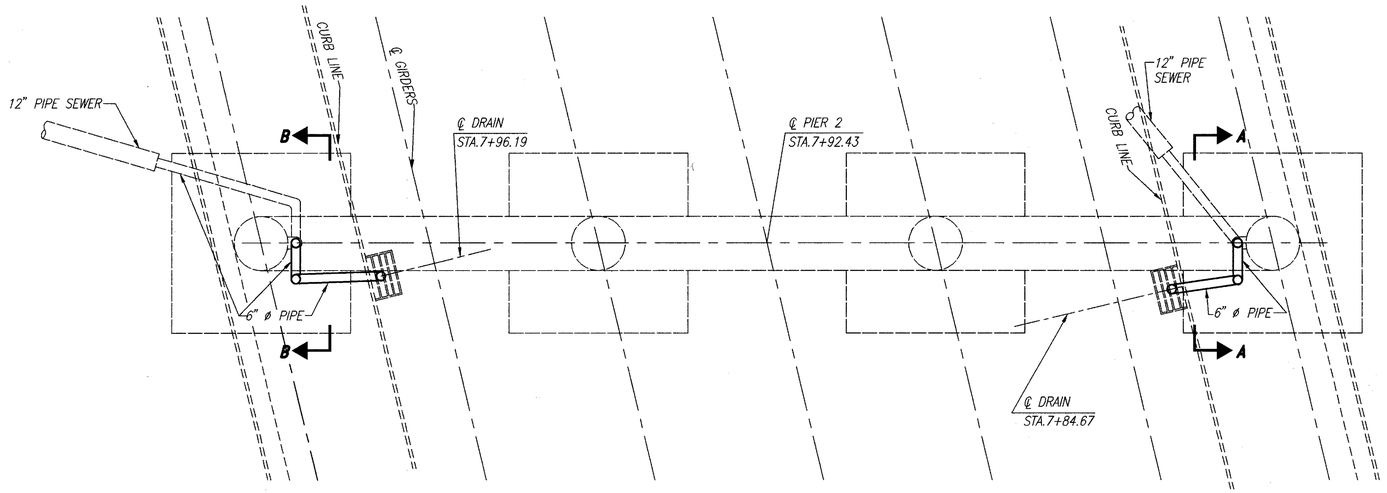
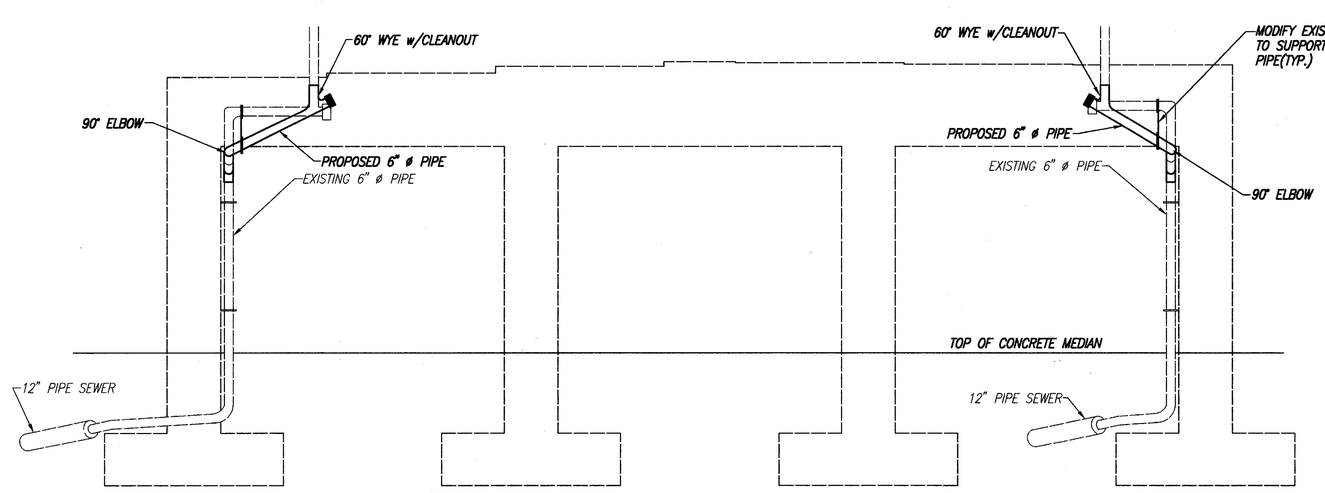
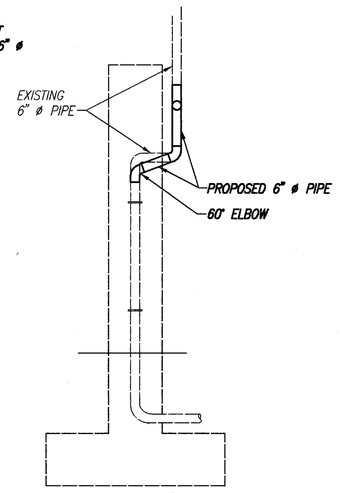
CHKD BY DATE			



PARTIAL PLAN PIER NO. 2



PARTIAL ELEVATION PIER NO. 1



SECTION A-A (AS SHOWN)
SECTION B-B (OPPOSITE HAND)

NOTES:

1. FOR DRAINAGE PIPING REQUIREMENTS, SEE GENERAL NOTES ON SHEET 494/615
2. APPROXIMATE NUMBER OF LINEAR FEET OF PROPOSED 6" ø PIPE (INCLUDING SPECIALS) = 20 L.F.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4/5

DRAINAGE PIPING

BRIDGE NO. HAM-71-0362
LINCOLN AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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CALC BY M.A.P. DATE 12-1-91	HAMILTON COUNTY HAM-71-2.92	OHIO	521
CHKD BY A.M. DATE 12-13-91		F.H.W.A. REGION 5	615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	846	SQ.YD.	SEALING OF CONCRETE SURFACES *
513	21000	4	EACH	TRIMMING OF BEAM ENDS
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU)
516	31001	80	LIN.FT.	JOINT SEALER (705.04) AS PER PLAN
516	11211	134	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	46701	8	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE *
516	14600	22	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER MISC. 2" x 4" SEALER, AS PER PLAN
518	63300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC., MODIFIED DRAIN PIPE, AS PER PLAN
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	6	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	27	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000800	1184	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	120	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1184	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	68	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	1184	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. RESET ALL EAST ABUTMENT BEARINGS.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. REFURBISH DRAINAGE PIPING.
5. FILL CRACKS IN ABUTMENTS WITH EPOXY AND PATCH OTHER AREAS AS REQUIRED.
6. TRIM BEAM ENDS AS INDICATED.
7. SEAL CURBS, SIDEWALKS AND PARAPETS.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
9. OTHER WORK AS DESCRIBED IN THESE PLANS.
10. TRIM 6" CORRUGATED METAL PIPE TO 1/2" ±. SEE SHEET (512/615)
11. CONTRACTOR NEEDS TO CLEAN DRAINS IN BACK WALL TO FUNCTION. ALSO REMOVE ALL DEBRIS.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

5/5

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0362
LINCOLN AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	RWB	2-22-95

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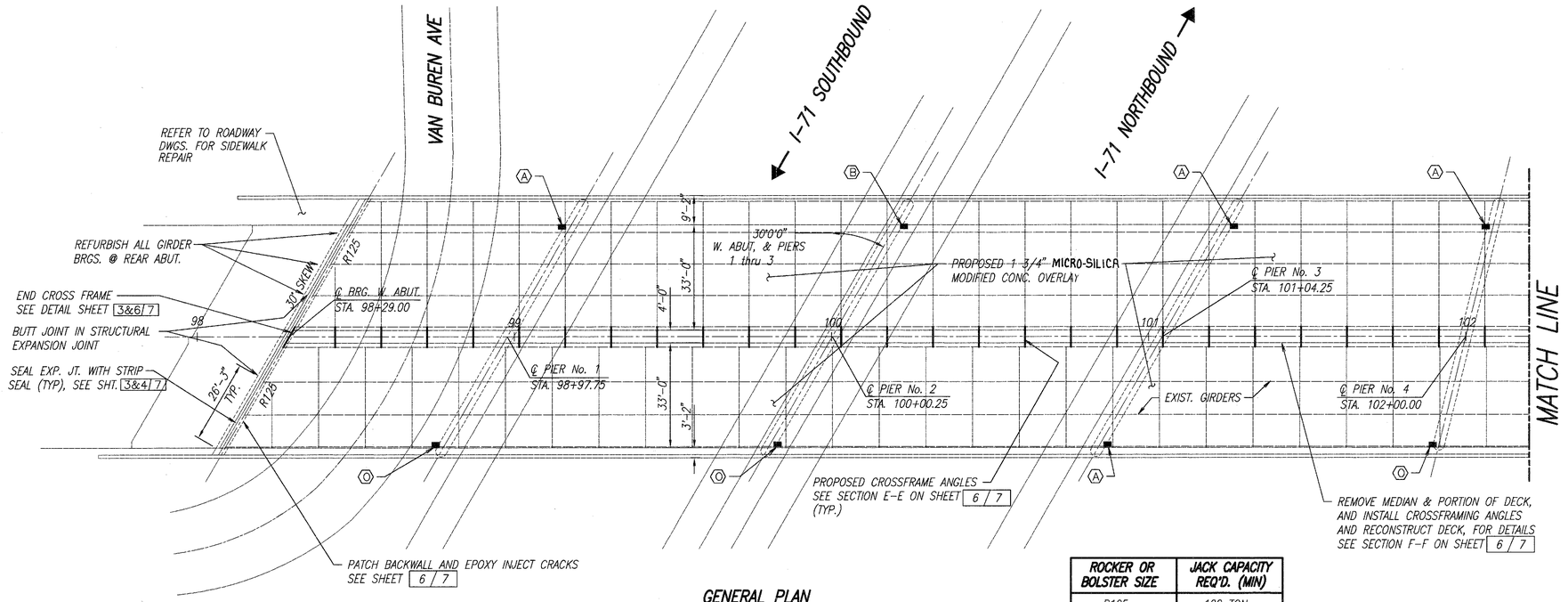
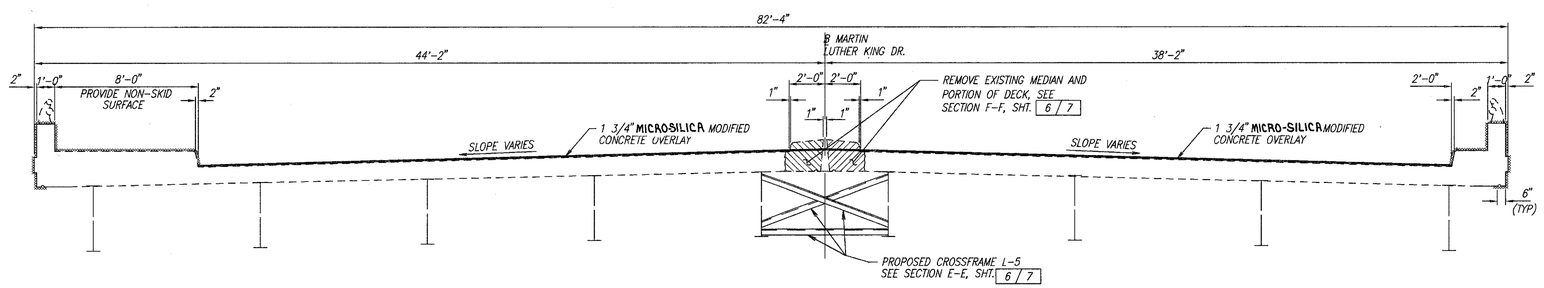
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	522 615
CHKD BY / DATE			



GENERAL PLAN

ROCKER OR BOLSTER SIZE	JACK CAPACITY REQ'D. (MIN)
R125	100 TON



XXXX SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES. PROVIDE A NON-SKID SURFACE WHERE SHOWN.

TYPICAL SECTION

LEGEND

DRAINAGE PIPE MODIFICATION

(A) INDICATES TYPE OF MODIFICATION AS SHOWN ON SHT. 5 / 7

(O) INDICATES NO WORK REQUIRED.

FOR DRAINAGE PIPING REQUIREMENTS SEE GENERAL NOTES ON SHT. 494/615 AND FOR DRAINAGE PIPING DETAILS & APPROX. NUMBER OF LINEAR FT., SEE SHT. 5 / 7

PROPOSED WORK

1. REMOVE MEDIAN AND PORTION OF DECK, ADD CROSS FRAME ANGLES AND REPLACE DECK.
2. REFURBISH BEARINGS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK.
4. REPAIR BACKWALL CRACKS BY EPOXY INJECTION.
5. PATCH SUBSTRUCTURE AS REQUIRED.
6. PATCH CURBS AT EXPANSION JOINTS WITH EPOXY GROUT.
7. SEAL EXPANSION JOINTS WITH STRIP SEAL.
8. REFURBISH DRAINS.
9. SEAL CURBS, SIDEWALKS, AND PARAPETS.
10. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES, SEE SHT. 49/615
11. OTHER WORK AS DESCRIBED IN THESE PLANS.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE
SPANS: 68'-9", 102'-6", 104'-0", 95'-9", 97'-9", 88'-3", 88'-3", AND 57'-3"
ROADWAY: 70'-0" f/f CURBS
SKEW: VARIES LT. FORWARD
LOADING FREQUENCY: C.F.=2000 (57) ADEQUATE FOR A.A.S.H.T.O. ALTERNATE LOADING
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-67 (25'-0" LG. @ EAST ABUT., 30'-0" LG. @ WEST ABUT)
ALIGNMENT: TANGENT
SUPERELEVATION: NONE
CURB: 2'-0" ALONG E.B. ROADWAY AND 8'-0" SIDEWALK ALONG W.B. ROADWAY

WOOLPERT CONSULTANTS
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1 / 7

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0376
MARTIN LUTHER KING JR. DR. OVER I-71

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-85

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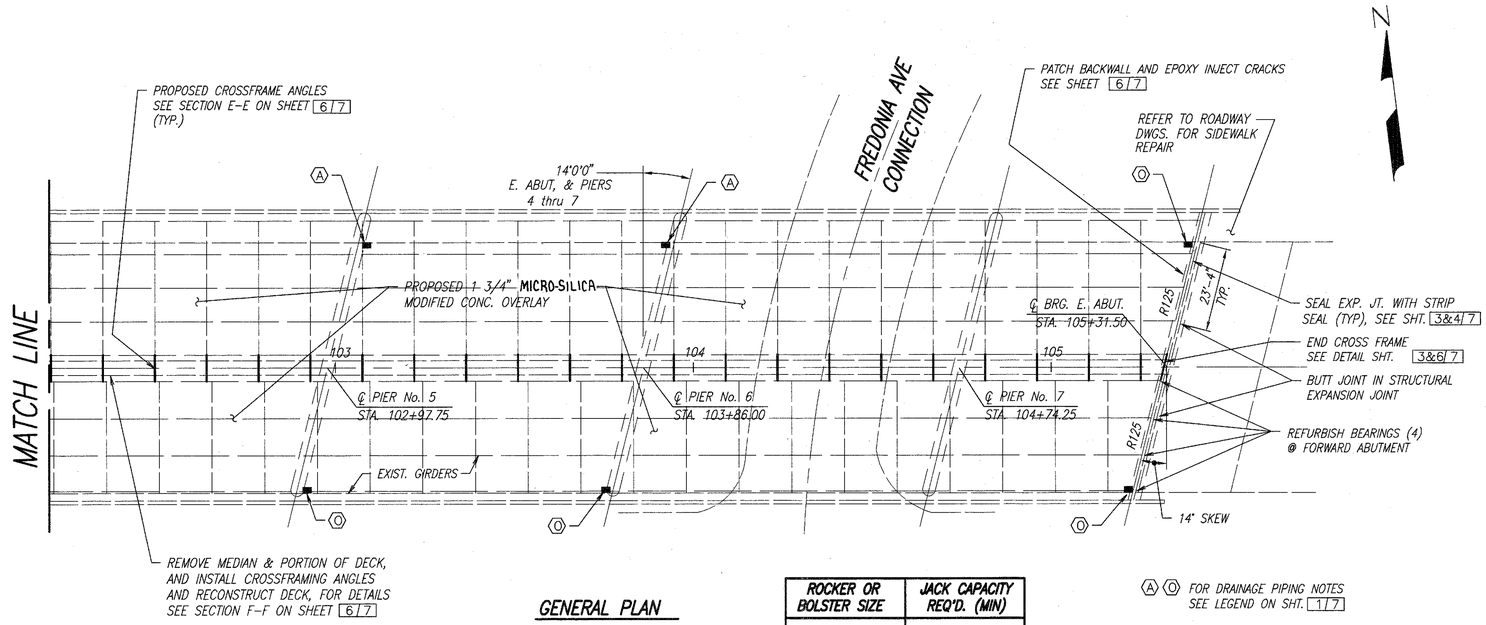
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	523 615
CHKD BY DATE			



GENERAL PLAN

ROCKER OR BOLSTER SIZE	JACK CAPACITY REQ'D. (MIN)
R125	100 TON

Ⓐ Ⓞ FOR DRAINAGE PIPING NOTES SEE LEGEND ON SHT. 1 7

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE
SPANS: 68'-9", 102'-6", 104'-0", 95'-9", 97'-9", 88'-3", 88'-3", AND 57'-3"
ROADWAY: 70'-0" f/f CURBS
SKEW: VARIES LT. FORWARD
LOADING FREQUENCY: C.F.=2000 (57) ADEQUATE FOR A.A.S.H.T.O. ALTERNATE LOADING
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-67 (25'-0" LG. @ EAST ABUT., 30'-0" LG. @ WEST ABUT)
ALIGNMENT: TANGENT
SUPERELEVATION: NONE
CURB: 2'-0" ALONG E.B. ROADWAY AND 8'-0" SIDEWALK ALONG W.B. ROADWAY

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400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

2 7

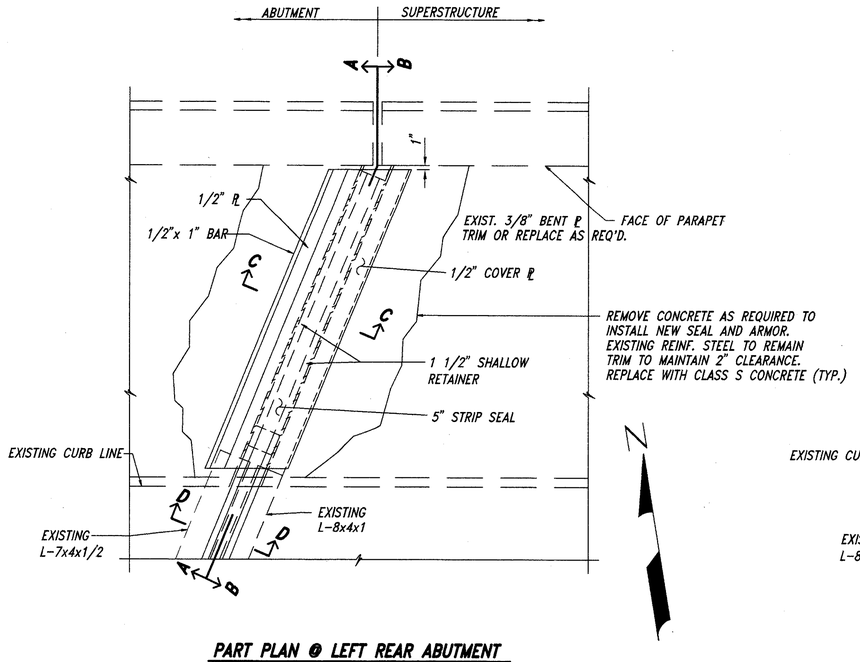
GENERAL PLAN

BRIDGE NO. HAM-71-0376
MARTIN LUTHER KING JR. DR. OVER I-71

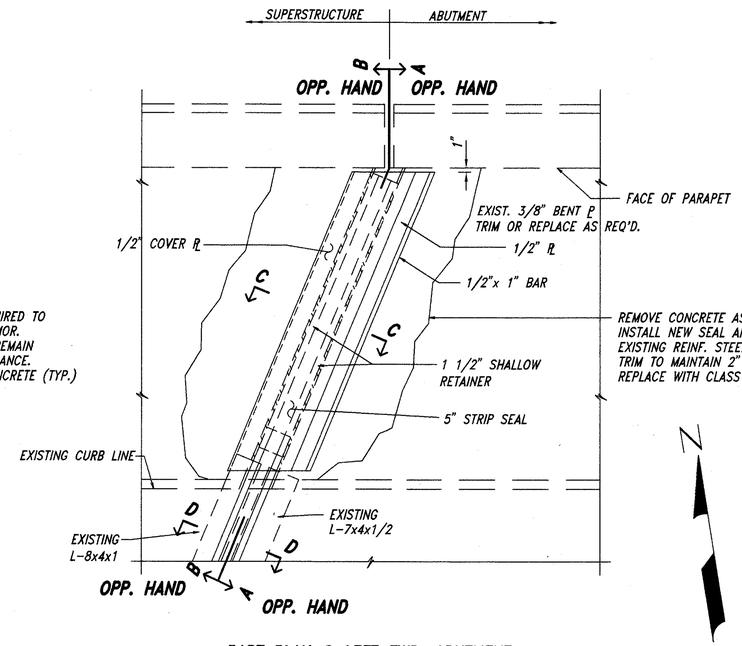
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

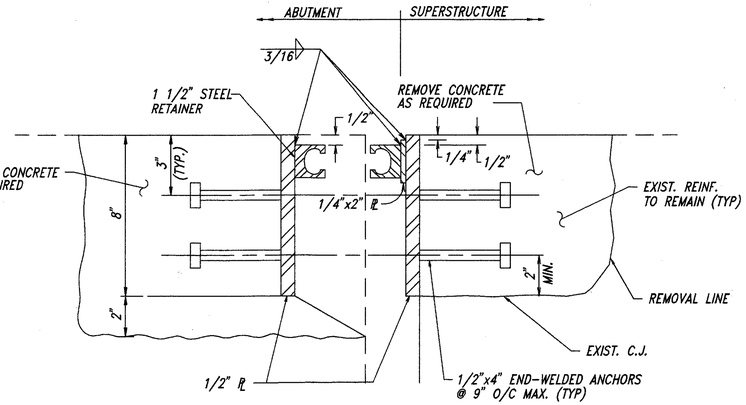
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	524 615
CHKD BY / DATE			



PART PLAN @ LEFT REAR ABUTMENT

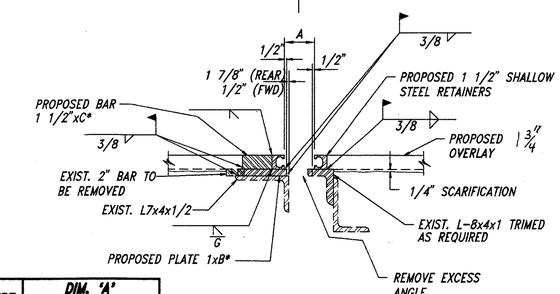


PART PLAN @ LEFT FWD. ABUTMENT



SECTION F-F ABUTMENT SUPERSTRUCTURE

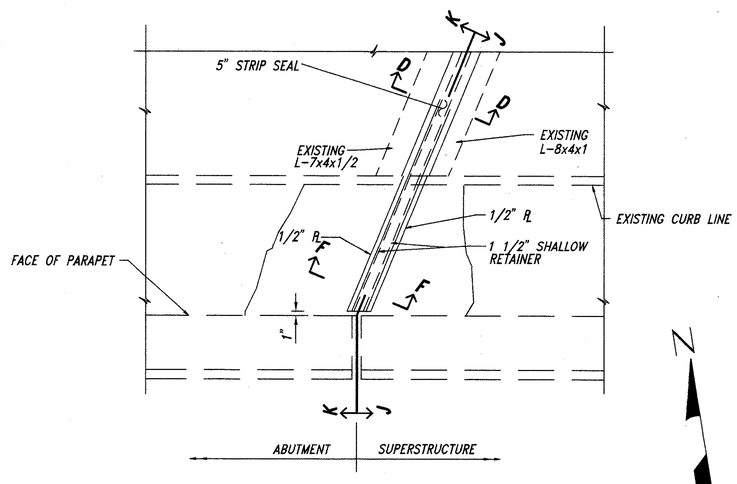
* FIELD VERIFY PLATE THICKNESS IF REQUIRED



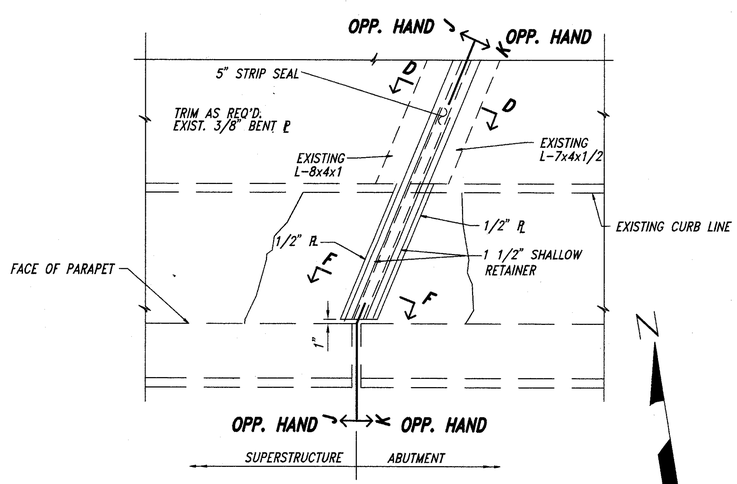
TEMPERATURE	DIM. 'A'	
	FORWARD	REAR
40° F	3 1/8"	4"
50° F	3"	3 3/4"
60° F	2 7/8"	3 1/2"
70° F	2 3/4"	3 1/4"
80° F	2 5/8"	3"
90° F	2 1/2"	2 3/4"

B* = ANGLE LEG MINUS 2 3/8" (REAR), 1" (FORWARD)
C* = B* MINUS WIDTH OF RETAINER MINUS 1"

SECTION D-D



PART PLAN @ RIGHT REAR ABUTMENT



PART PLAN @ RIGHT FWD. ABUTMENT

NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING THE EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516-'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS', SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTIAL ITEMS, AS DETAILED. REMOVAL OF CURB MEDIAN, DECK OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202-'PORTIONS OF STRUCTURE REMOVED'.
3. STRIP SEAL SHALL BE INSTALLED IN ONE PIECE (NO OPEN JOINTS)

FOR DETAILS NOT SHOWN REFER TO DRAWING EXJ-4-87

WOOLPERT CONSULTANTS
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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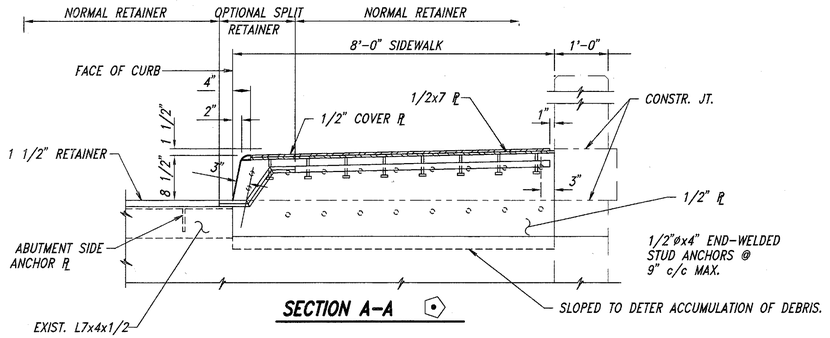
PART. PLANS @ ABUTMENTS & DETAILS

BRIDGE NO. HAM-71-0376
MARTIN LUTHER KING JR. DR. OVER I-71

HAMILTON COUNTY

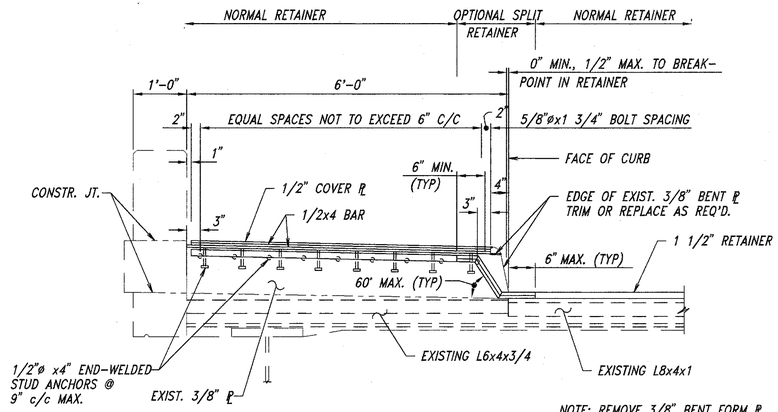
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

CALC BY ___ DATE ___	HAMILTON COUNTY	OHIO	525
CHKD BY ___ DATE ___	HAM-71-2.92	F.H.W.A. 5 REGION	615



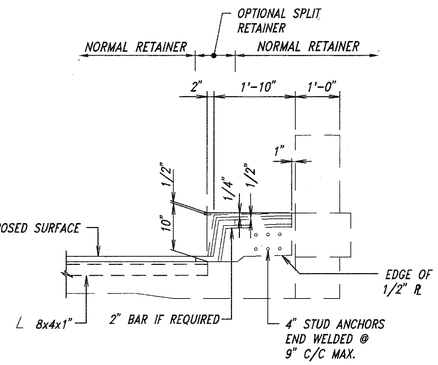
SECTION A-A

⊙ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.

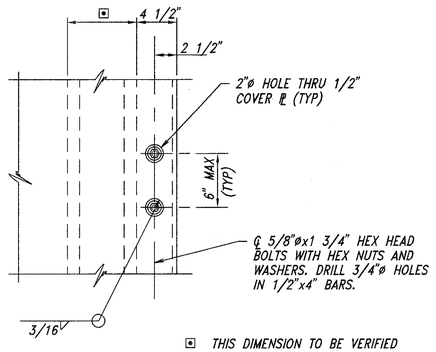


SECTION B-B

NOTE: REMOVE 3/8" BENT FORM ℄ LEAVE L6x4x3/4 INTACT

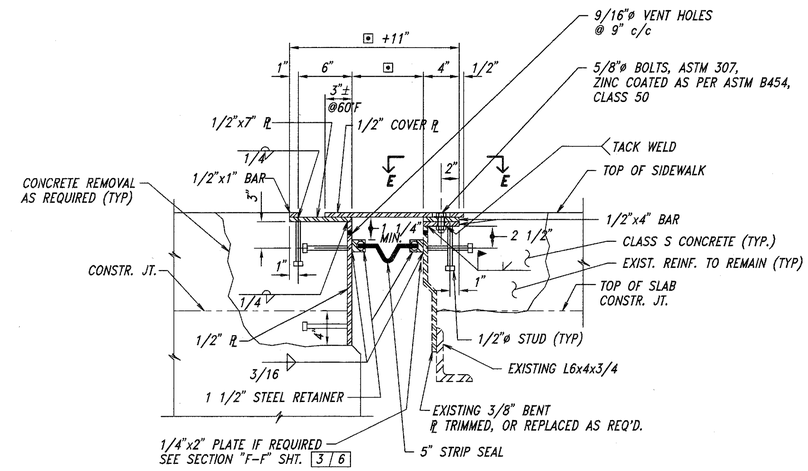


SECTION J-J



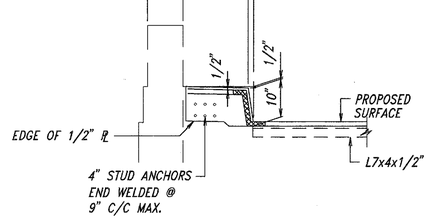
▣ THIS DIMENSION TO BE VERIFIED PRIOR TO INSTALLATION.

SECTION E-E



▣ THIS DIMENSION TO BE VERIFIED PRIOR TO INSTALLATION.

SECTION C-C



SECTION K-K

WOOLPERT CONSULTANTS
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4 / 7

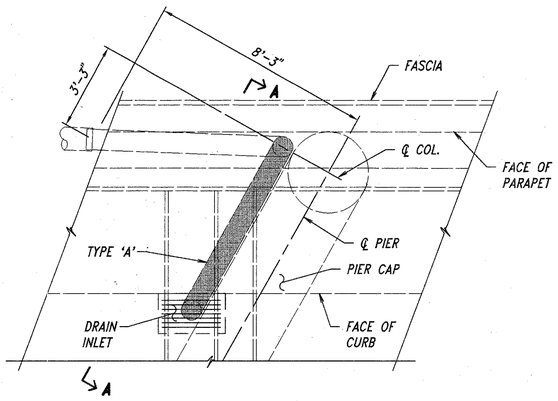
STRIP SEAL SECTIONS & DETAILS

BRIDGE NO. HAM-71-0376
MARTIN LUTHER KING JR. DR. OVER I-71

HAMILTON COUNTY

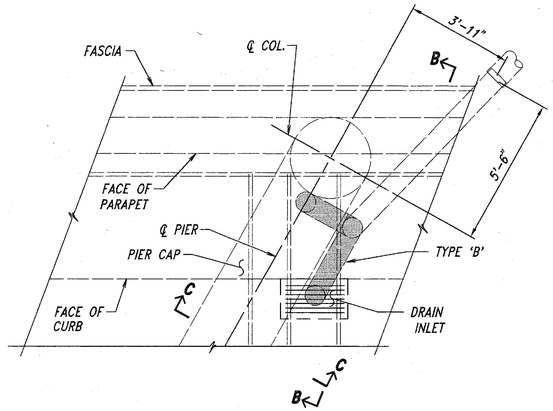
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.	[signature]	2-21-95

CALC BY			
DATE	HAMILTON COUNTY	OHIO	526
CHKD BY	HAM-71-2.92	F.H.W.A. REGION 5	615
DATE			

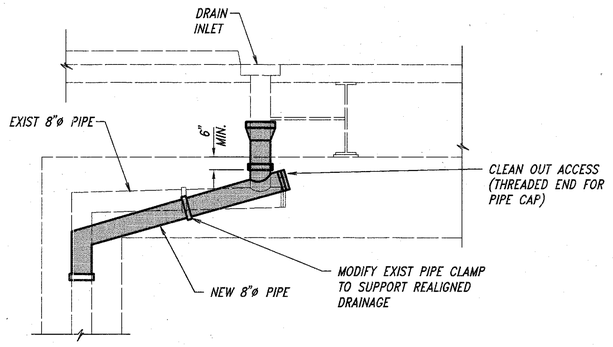


PLAN FOR TYPE 'A' DRAIN INLET

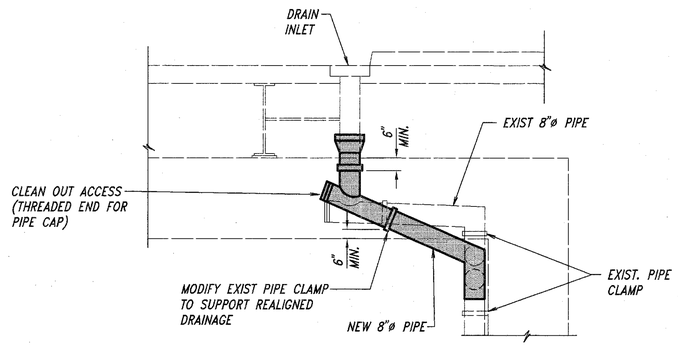
APPROXIMATE LINEAL FEET OF 8" PIPE (INCLUDING SPECIALS) IS 82'.



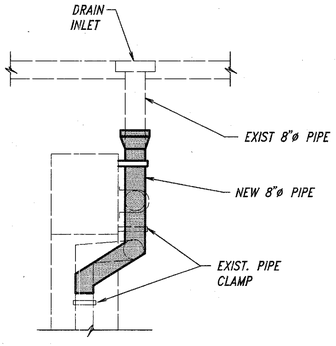
PLAN FOR TYPE 'B' DRAIN INLET



SECTION A-A



SECTION B-B



SECTION C-C

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WOOLPERT CONSULTANTS 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437	5/7

DRAINAGE DETAILS

BRIDGE NO. HAM-71-0376
MARTIN LUTHER KING JR. DR. OVER I-71

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	2387	SQ.YD.	SEALING OF CONCRETE SURFACES *
509	15840	28085	LBS.	EPOXY COATED REINFORCING STEEL, GRADE 60
511	34450	88	CU.YD.	CLASS S CONCRETE, SUPERSTRUCTURE (RECONSTRUCTION)
SPEC.	51267500	334	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) *
513	16000	14300	LBS.	STR. STEEL FOR REHABILITATION
SPEC.	51400610	14300	LBS.	FIELD PAINTING OF NEW STEEL, SYSTEM IZEU *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU)
815	00504	100	MAN HR.	GRINDING FINS, TEARS, SLIVERS
516	14600	155	LIN.FT.	STRUCT. JOINT OR JOINT SEALER, MISC.: SEAL JOINT BETWEEN ABUTMENT AND CONCRETE SLOPE PROTECTION
516	46701	13	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	31001	225	LIN.FT.	JOINT SEALER, (705.04), AS PER PLAN
516	11211	175	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
SPEC.	51922300	LUMP		TEST SLAB *
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE *
516	14600	18	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER, MISC.: 2" x 4" SEALER, AS PER PLAN
517	73500	70	LIN.FT.	BRIDGE RAILING REBUILT
518	63300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC., MODIFIED DRAIN PIPING, AS PER PLAN
518	12801	14	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	89	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	70	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	60739910	389	LIN.FT.	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC
SPEC.	53000800	5464	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	1680	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	16	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	5464	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	406	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	5464	SQ.YD.	SCARIFICATION OF EXISTING DECK

SUPERSTRUCTURE REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE
S601	192	30'-0"	8652	STR.
S602	54	34'-0"	2758	STR.
S603	1052	4'-2"	6584	STR.
S604	21	20'-0"	631	STR.
S701	1052	4'-2"	8960	STR.
SUBTOTAL			27314	
REPLACEMENT STEEL			500	
TOTAL			28085	

SUMMARY OF PATCHING QUANTITIES

ABUTMENT	ESTIMATED QUANTITIES *
EAST	62 SQ. FT.
WEST	27 SQ. FT.
TOTAL	89 SQ. FT.

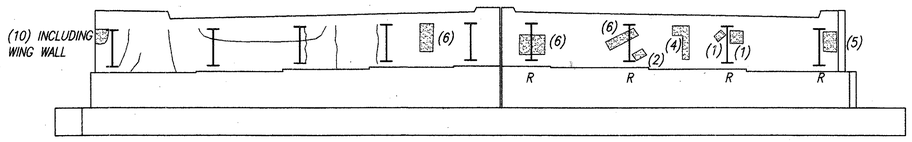
* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

* SEE PROPOSAL NOTE

** SEE NOTES ON SHEET (534/615)

1. CONTRACTOR NEEDS TO REPAIR CRACKS IN WINGWALLS.
2. REPLACE 6.11 LINEAR FEET SECTIONS OF DOUBLE PIPE RAIL BENENTH THE BRIDGE. CONTRACTOR SHALL USE RAIL REMOVED FROM BRIDGE 7881 PORTIONS OF STRUCTURE REMOVED.



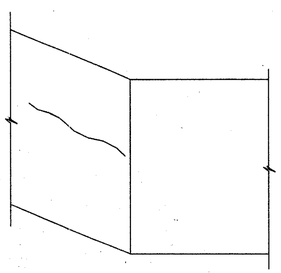
EAST ABUTMENT BACKWALL

LEGEND

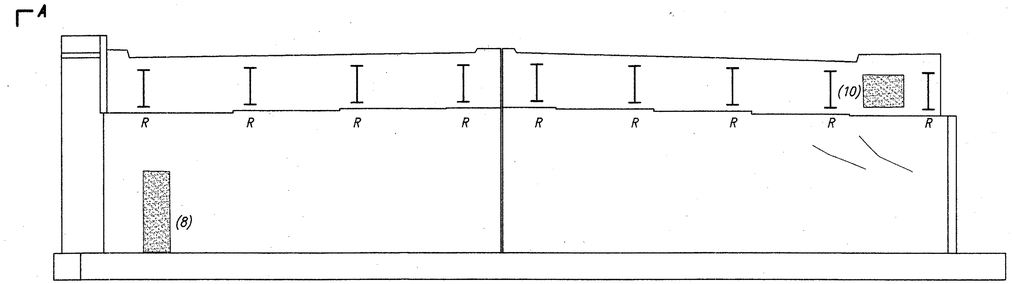
R RESET SHOE

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

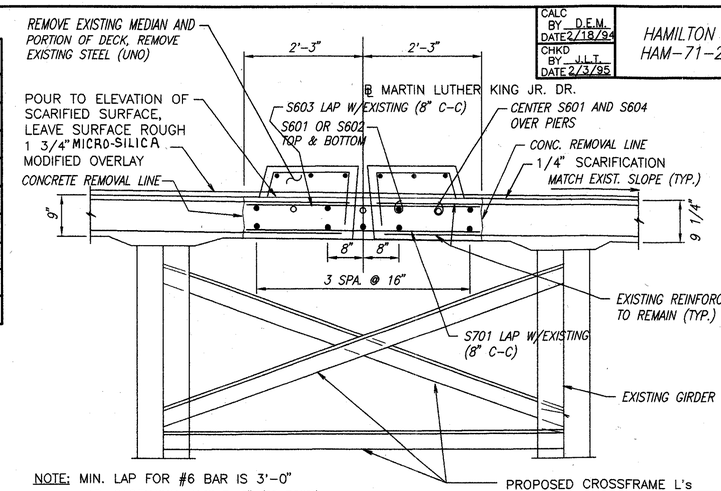


ELEVATION A-A



WEST ABUTMENT BACKWALL

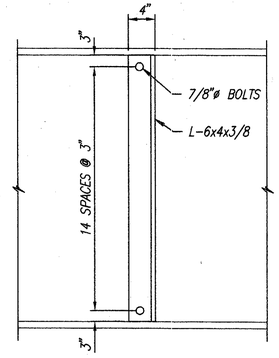
ABUTMENT BACKWALL REPAIRS



NOTE: MIN. LAP FOR #6 BAR IS 3'-0" LAP LONGITUDINAL BARS 3'-0" (25 ROWS)

SECTION F-F

PROPOSED CROSSFRAME L's SEE SECTION E-E, SHT. 6/7



SECTION D-D

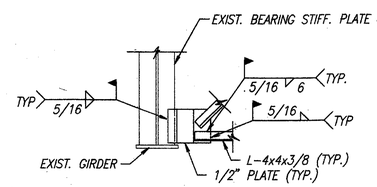
NOTES:

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1" DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. WHERE PRACTICABLE, AT LEAST 2'-0" LENGTH OF PROTRUDING REINFORCING STEEL SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS AS SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACE AND EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THEN, THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE. OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACES SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

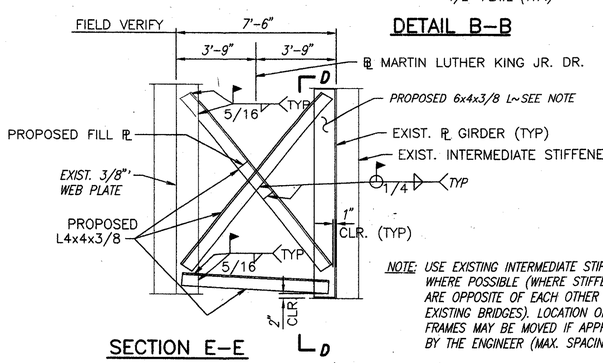
SUPERSTRUCTURE CONCRETE REMOVAL:
REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 85 POUNDS, MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

STRUCTURAL STEEL FOR PROPOSED CROSSFRAMES, SHALL BE PAID FOR AS ITEM 513, STRUCTURAL STEEL FOR REHABILITATION. STRUCTURAL STEEL UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE ENGINEER SHALL HAVE THE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED ON REQUEST BY THE BUREAU OF BRIDGES. MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THAT THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL THEN SEND ONE APPROVED SET TO THE BUREAU OF BRIDGES FOR INFORMATION. PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH 513 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUBMITTED TO THE ENGINEER FOR HIS REVIEW AND APPROVAL. THE FABRICATOR SHALL FURNISH A 35 MILLIMETER MICROFILM COPY OF EACH SHOP DRAWING, WHICH SHALL BE MOUNTED ON AN APERTURE CARD AS SPECIFIED IN 501.05.

NEW STEEL SHALL BE PAINTED ACCORDING TO THE PROPOSAL "PAINTING OF NEW STEEL, SYSTEM IZEU". COST FOR PAINTING SHALL BE INCLUDED WITH ITEM SPECIAL - PAINTING OF NEW STEEL, SYSTEM IZEU, FOR PAYMENT.

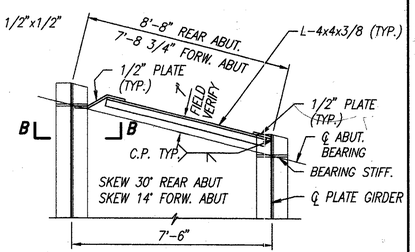


DETAIL B-B



SECTION E-E

NOTE: USE EXISTING INTERMEDIATE STIFFENERS WHERE POSSIBLE (WHERE STIFFENERS ARE OPPOSITE OF EACH OTHER BETWEEN EXISTING BRIDGES). LOCATION OF CROSS-FRAMES MAY BE MOVED IF APPROVED BY THE ENGINEER (MAX. SPACING ~ 15').



PLAN END CROSS FRAMING

C.P. = COMPLETE PENETRATION
FOR FRAME DETAILS NOT SHOWN SEE STD. DRAWING SD-1-69

CALC BY D.E.M. DATE 2/18/94
CHKD BY J.L.T. DATE 2/3/95

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

527/615

WOOLPERT CONSULTANTS
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

6/7

NOTES & QUANTITIES

BRIDGE NO. HAM-71-0376
MARTIN LUTHER KING JR. DR. OVER I-71

HAMILTON COUNTY

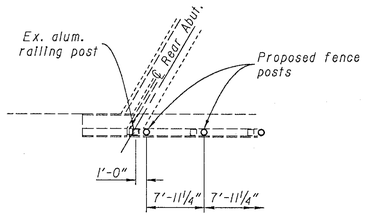
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-27-95

D:\STR\18007-19\D3765178 Last Revision By: J.R.F. FEB. 4, 1994 @ 7:45 AM

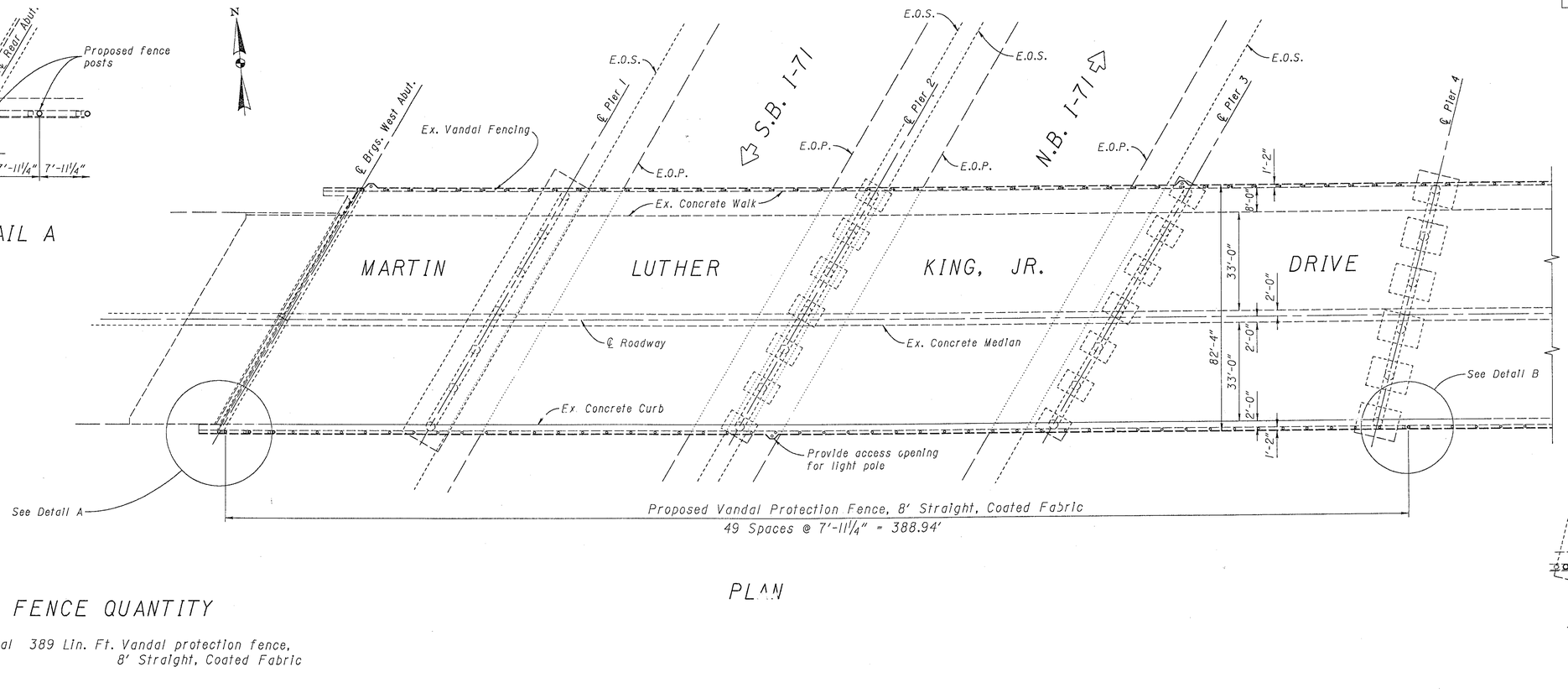
FHWA REGION	STATE	PROJECT	
5	OHIO		

528
615

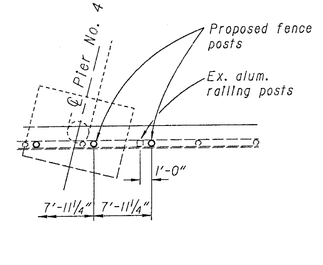
HAM-71-2.92



DETAIL A



PLAN



DETAIL B

FENCE QUANTITY

Item Special 389 Lin. Ft. Vandal protection fence, 8' Straight, Coated Fabric

FENCE NOTES

PROPOSED WORK:
Proposed work includes the following:
1) Install temporary traffic control devices as directed by the Project Engineer.
2) Remove existing aluminum railing and store for re-use.
3) Layout and Install proposed base plates for fence posts on existing concrete railing.
4) Install vandal protection fence fabric.
5) Re-install aluminum railing.
6) Remove temporary traffic control devices and restore normal traffic pattern.

DESIGN DATA:
Threaded anchors for base plates are designed for a minimum concrete strength of f' = 4,000 p.s.i. Special designs are required for concrete strength less than this amount.

EXISTING ALUMINUM RAILING, REMOVED AND REINSTALLED:
The existing aluminum railing tubing shall be carefully removed and stored to permit installation of the proposed base plates. Existing hardware shall be saved for re-use. Damaged stainless steel cap screws shall be replaced in kind. Any portions of the existing railing that is damaged by the Contractor's operations shall be replaced at his expense. The reinstallation of the railing shall be performed in accordance with Item 517.05 of the Specifications. Payment for all labor, material, and equipment necessary to remove, store and reinstall the aluminum railing shall be included with the appropriate Vandal Protection Fence Item.

ITEM SPECIAL - VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC:
This item shall include furnishing all materials, labor, equipment and incidentals necessary to install vandal protection fence on the existing concrete bridge railing.
The work shall be performed in accordance with Items 517 and 607 of the Specifications and Standard Drawing No. VPF-1-90 except where modified herein:

1) Expansion sleeves shall be installed in the line rails and the top rail at every expansion joint in the bridge, and at 100 ft. intervals in the top rail.
2) The proposed line spacings of fence posts shown on the plan sheets were obtained from the original plan drawings. They are included to enable the Contractor to make a reasonable estimate of the material required; however, they should be considered approximate. Prior to drilling the holes for the base plates, the location of the fence posts shall be carefully laid out and adjusted as necessary to achieve the clearances shown on the Standard Drawings between the fence posts and the existing aluminum railing posts and/or concrete deflection joints.
3) Care shall be taken not to damage the existing barrier reflectors. Any reflectors damaged by the Contractor's operations shall be replaced in kind at his expense.
4) Any concrete that is spalled or otherwise damaged by the installation of vandal fence shall be repaired by patching with a trowelable epoxy mortar. The patching shall be performed at the direction of the Project Engineer and in accordance with the Manufacturer's recommendations.
5) Fencing stainless steel closure plates shown on Sheet 6 of 6 of Std. Dwg. No. VPF-1-90 shall be installed for all Post Sections PS-1, PS-2 and PS-3 as shown on Sheet 4 of 6. Stainless steel closure plates are not required for Post Section PS-4, Sheet 4 of 6, due to the bottom rail shown in the PS-4 detail. Any railing details without a bottom rail shall require the installation of a stainless steel closure plate. Materials and Installation shall be as per Sheet 6 of 6.
6) Fence posts, base plates, fence anchors, rails, sleeves, fence fabric, stretcher bars, tension bands, truss rods, ties and miscellaneous hardware shall be galvanized in accordance with 711.02 and shall receive a bonded polyvinyl chloride coating. The color of the polyvinyl chloride coating shall be a dark green as approved by the City of Cincinnati. The stainless steel closure plate shall be coated with green polyvinyl chloride.
7) Existing aluminum railing is BR-1-65 with Type 2 posts.
8) Base plate shall be BP-1 type. Post section shall be PS-3 type.

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT 7/7

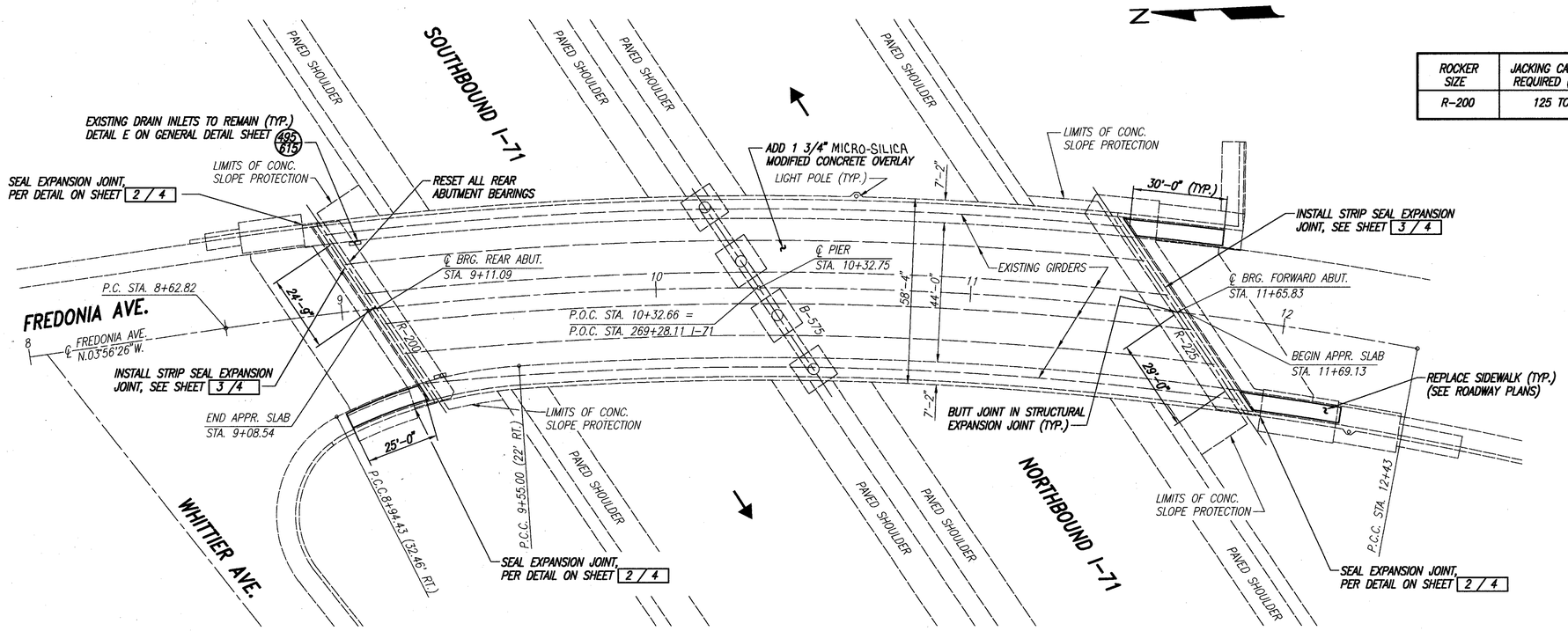
VANDAL FENCING PLAN

BRIDGE NO. HAM-71-0376

M.L. King Dr. over I.R. 71

DESIGNED	DRAWN	REVIEWED	DATE	REVISED
MLM	CJB MLM	RLE	6-21-94	

CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO	529 615
CHKD BY			F.H.W.A. REGION 5	
DATE				

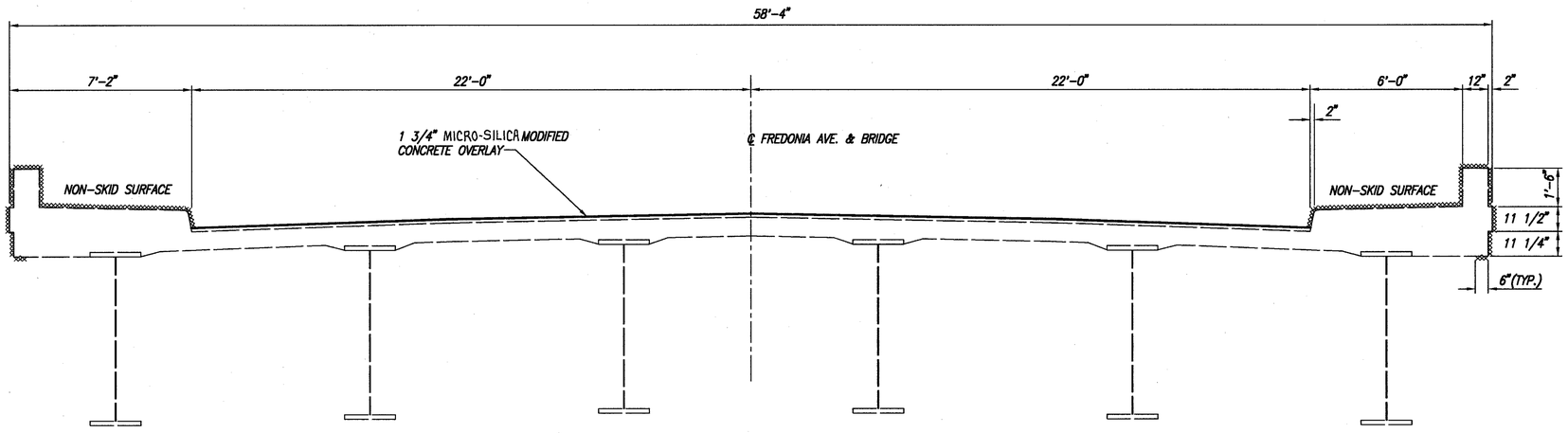


PLAN

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-200	125 TON

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON DECK AND WINGWALLS.
2. TRIM 6" C.M.P. TO 1/2" (±) PARALLEL TO SURFACE OF CONCRETE SLOPE PROTECTION.



TYPICAL SECTION

SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE CURVED GIRDERS WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPAN: SPAN 1 = 121'-8" AND SPAN 2 = 133'-1" C/C BEARINGS, ALONG ℄ FREDONIA AVE.

ROADWAY: 44'-0" F/F CURBS MIN. WITH 6'-0" SIDEWALKS

SKEW: 34° RF TANGENT TO CURVE @ STA. 10+32.75

LIVE LOAD: HS 20-44

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0" LONG)

ALIGNMENT: 5° 00' 00" CURVE RIGHT

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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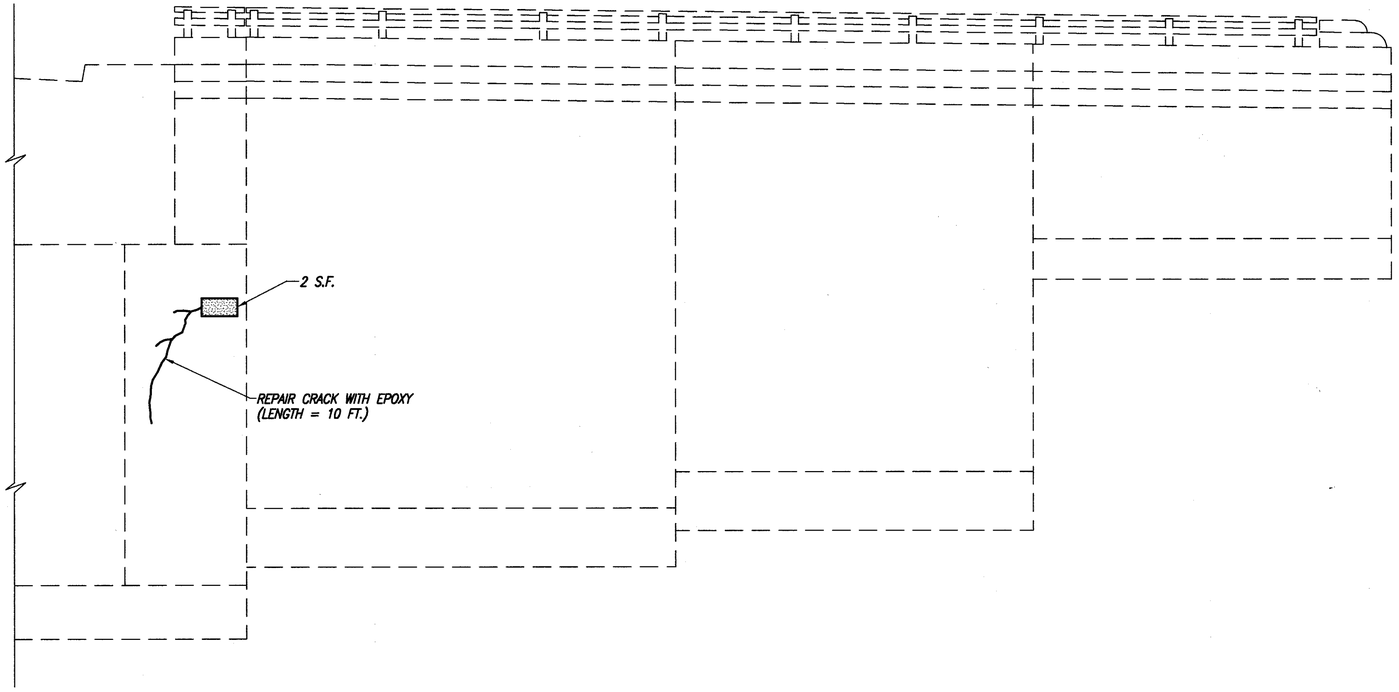
GENERAL PLAN AND TYPICAL SECTION

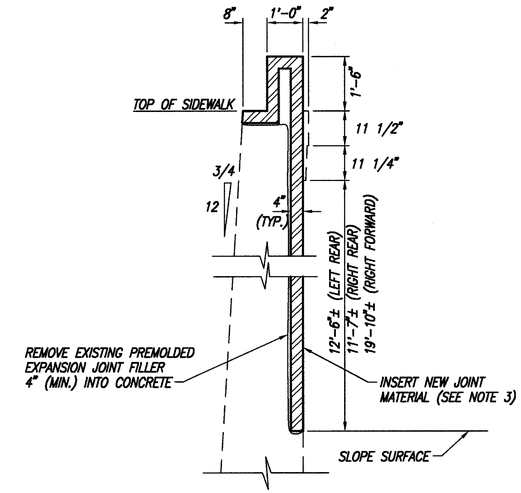
BRIDGE NO. HAM-71-0398
FREDONIA AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	530 615
CHKD BY DATE			



PARTIAL ELEVATION FORWARD ABUTMENT WEST WINGWALL



ABUTMENT TO WINGWALL EXPANSION JOINT

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
EAST	0 SQ. FT.
WEST	3 SQ. FT.
TOTAL	3 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURE".
2. SEAL CRACKS AS INDICATED PER "ITEM SPECIAL –EPOXY INJECTION".
3. INSERT "ITEM 516 – STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN", AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC. OR EQUIVALENT.

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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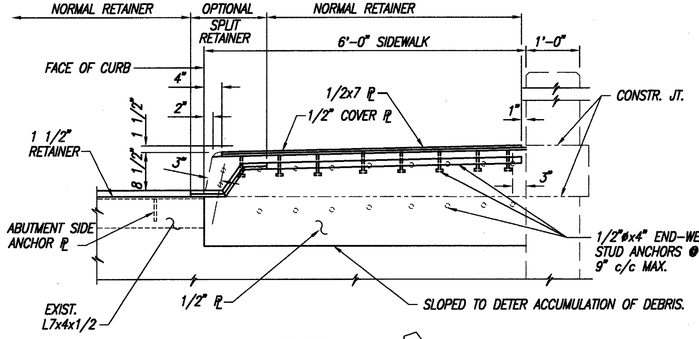
ABUTMENT DETAILS

BRIDGE NO. HAM-71-0398
FREDONIA AVE. OVER I-71
HAMILTON COUNTY

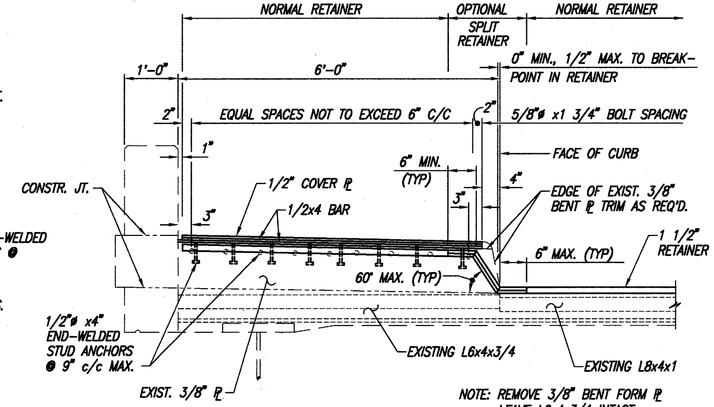
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	531 615
CHKD BY DATE			



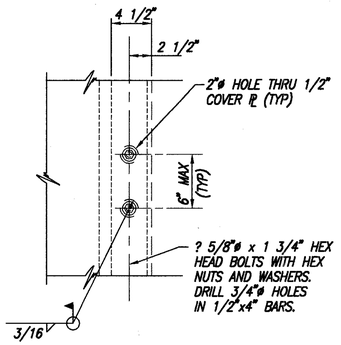
SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.

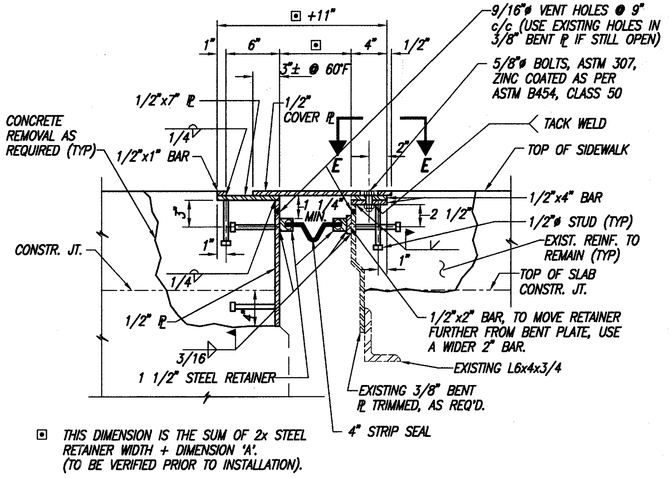


SECTION B-B

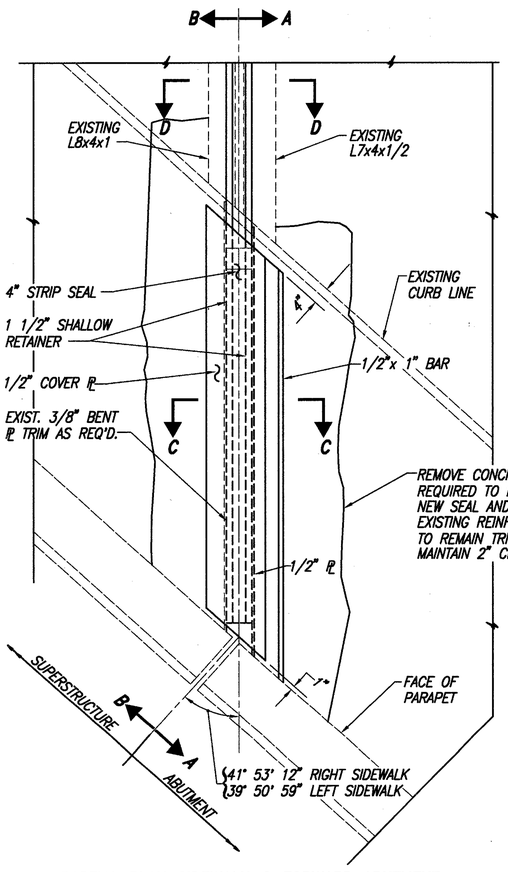
NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT



SECTION E-E

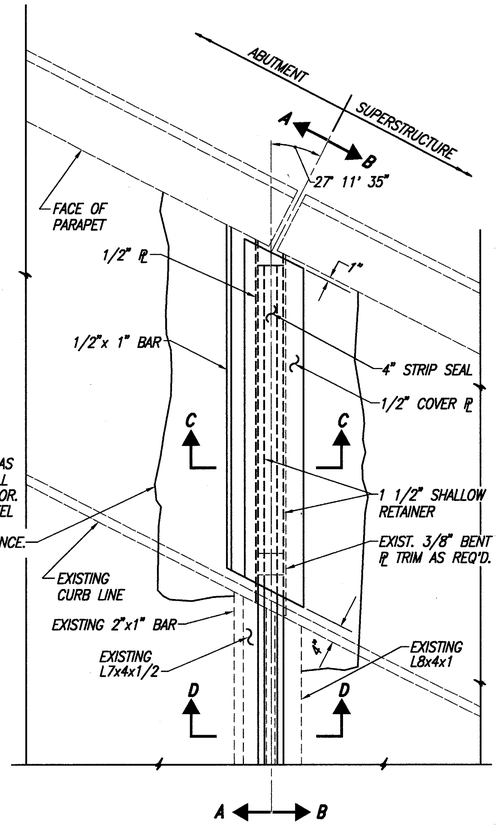


▣ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).



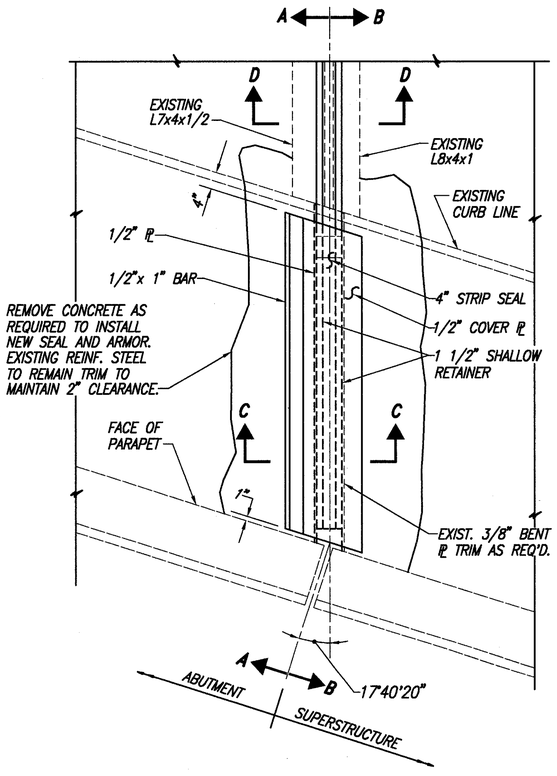
PARTIAL PLAN SIDEWALK @ FORWARD ABUTMENT

RIGHT SIDEWALK SHOWN , LEFT SIDEWALK OPPOSITE HAND
(SKEW = 40° 39' 15" RIGHT FORWARD)



PARTIAL PLAN LEFT SIDEWALK @ REAR ABUTMENT

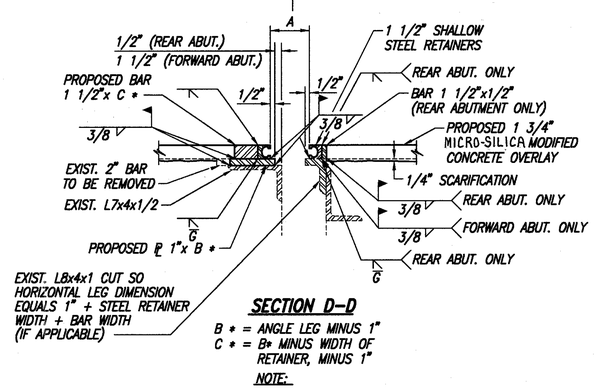
(SKEW = 27° 55' 02" RIGHT FORWARD)



PARTIAL PLAN RIGHT SIDEWALK @ REAR ABUTMENT

(SKEW = 27° 55' 02" RIGHT FORWARD)

SECTION C-C



SECTION D-D

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

TEMPERATURE	DIMENSION 'A' REAR ABUT.	DIMENSION 'A' FORWARD ABUT.
30° F	3 1/2"	2 3/4"
40° F	3 7/16"	2 11/16"
50° F	3 3/8"	2 5/8"
60° F	3 1/4"	2 9/16"
70° F	3 3/16"	2 7/16"
80° F	3 1/8"	2 3/8"
90° F	3"	2 5/16"

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR 'ITEM 516 STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER 'ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0398
FREDONIA AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	Raig	2-22-95

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CALC BY M.A.P. DATE 11-21-91	HAMILTON COUNTY HAM-71-2.92	OHIO	532
CHKD BY A.M. DATE 12-3-91		F.H.W.A. REGION 5	615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	1015	SQ.YD.	SEALING OF CONCRETE SURFACES *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
516	11211	141	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	46701	6	EACH	RESET BEARING, AS PER PLAN
516	14600	100	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER, MISC.: 2" x 4" SEALER, AS PER PLAN
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	10	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	10	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
601	21001	32	SQ.YD.	CONCRETE SLOPE PROTECTION, AS PER PLAN
SPEC.	53000800	1253	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	132	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1253	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	72	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1253	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. RESET ALL REAR ABUTMENT BEARINGS.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL "F" ON GENERAL DETAIL SHEET (495/615).
5. PATCH ABUTMENTS AS INDICATED AND FILL CRACKS WITH EPOXY.
6. SEAL CURBS, PARAPETS AND SIDEWALKS.
7. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
8. OTHER WORK AS DESCRIBED IN THESE PLANS.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

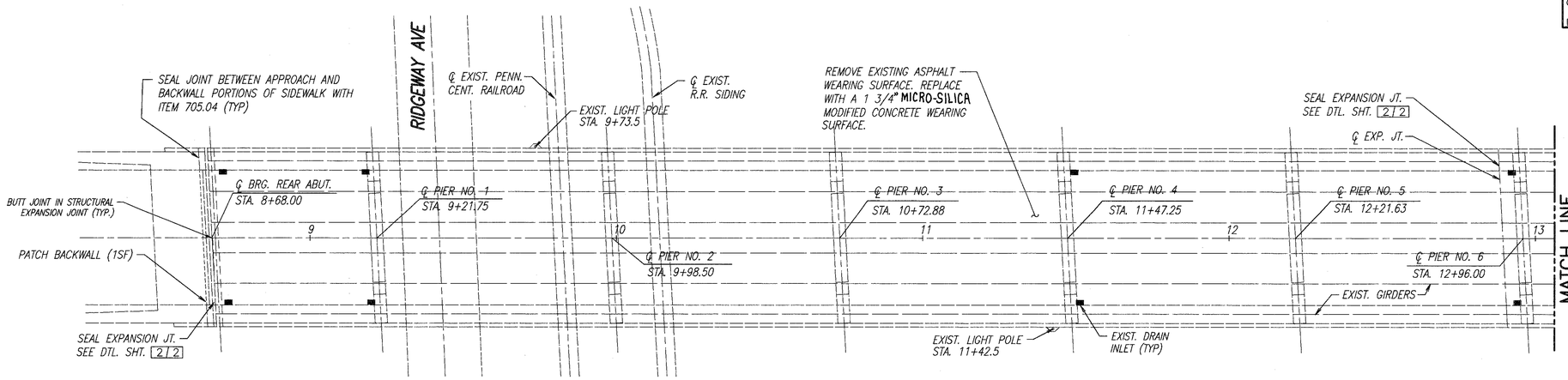
QUANTITIES AND GENERAL NOTES

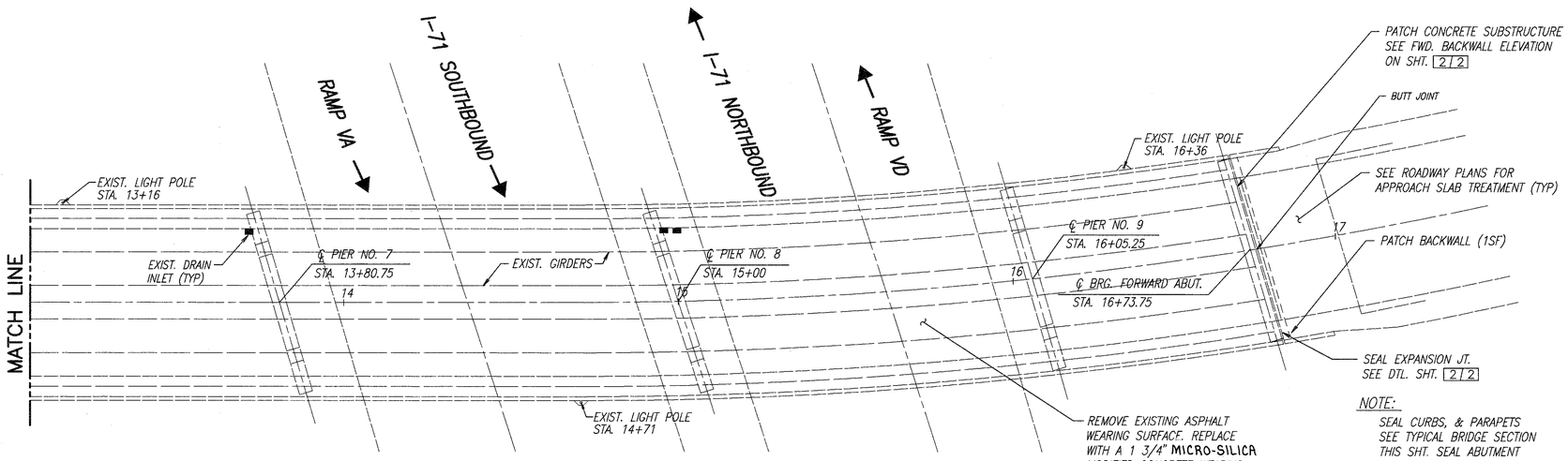
BRIDGE NO. HAM-71-0398
FREDONIA AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY	OHIO
CHKD BY DATE	HAM-71-2.92	F.H.W.A. REGION 5

533
615

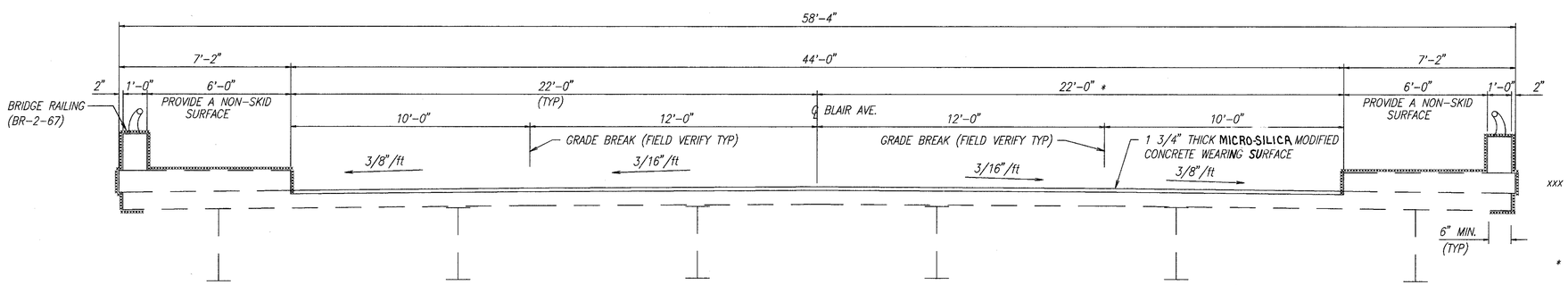




NOTE:

SEAL CURBS, & PARAPETS SEE TYPICAL BRIDGE SECTION THIS SHT. SEAL ABUTMENT BACKWALLS. SEE BACKWALL DETAIL SHT. 2 2

GENERAL PLAN



xxx SURFACES TO BE SEALED UNDER ITEM SPECIAL, SEALING OF CONCRETE SURFACES. PROVIDE A NON-SKID SURFACE WHERE SHOWN.

* CROSS SLOPES SHOWN APPLIES TO STATION 13+70.92. CROSS SLOPE VARIES FROM 13+70.92 TO 14+70.92. CROSS SLOPE FROM 14+70.92 TO NORTH END OF BRIDGE IS A REVERSE CROWN 3/16" / FT (FIELD VERIFY)

TYPICAL SECTION

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAMS (SPANS 1 THRU 6) AND CONTINUOUS PLATE GIRDERS (SPANS 7 THRU 10) WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.

SPANS: 53'-9", 76'-9", 4@74'-4 1/2", 84'-9", 119'-3", 105'-3" & 68'-6" c/c BEARINGS ALONG ℄ ROADWAY.

ROADWAY: 44'-0" f/f CURBS W/6'-0" SIDEWALKS
SKEW: VARIES; SEE PLAN.
LIVE LOADING : HS 20-44

WEARING SURFACE: 1" ASPHALT CONCRETE
APPROACH SLABS: AS-1-67 (20'-0" LONG REAR, 25'-0" LONG FORWARD)

ALIGNMENT: SEE PLAN

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0422
BLAIR AVE. OVER I-71
HAMILTON COUNTY
STA. 8+65.75 TO STA. 16+76.01

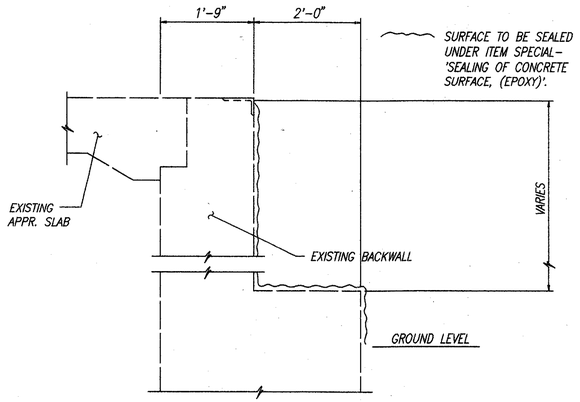
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

CALC BY D.E.M. DATE 2/18/94
CHKD BY J.L.T. DATE 2/3/95

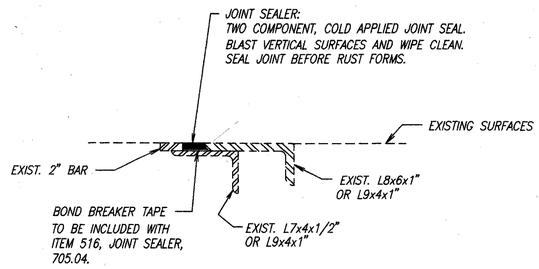
HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

534
615



ABUTMENT BACKWALL SEALING DETAIL



EXPANSION JOINT SEALING DETAIL

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	23500	3975	SQ.YD.	WEARING COURSE REMOVED (ASPHALT)
SPEC.	51267500	2550	SQ.YD.	SEALING OF CONCRETE SURFACES *
SPEC.	51267502	125	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU)
516	11211	28	LIN.FT.	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705.11)
516	46701	12	EACH	REFURBISH BEARING, AS PER PLAN
516	14600	210	LIN.FT.	STRUCTURAL JOINT OR JOINT SEALER, MISC.: SEAL JOINT BETWEEN ABUTMENT AND CONCRETE SLOPE PROTECTION
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	200	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	30	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000800	3975	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	396	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	8	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	3975	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	226	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	3975	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE
** JOINT SEALANT SHOULD BE APPLIED AS PER MANUFACTURER'S RECOMENDATION.
THE FOLLOWING IS A LIST OF TWO COMPONENT COLD APPLIED SEALERS.

A.) BRIDGE JOINT SEAL #2000 SL/NS MANUFACTURED BY KOCH MATERIAL COMPANY, NORTHUMBERLAND, PA, 1-800-521-9593

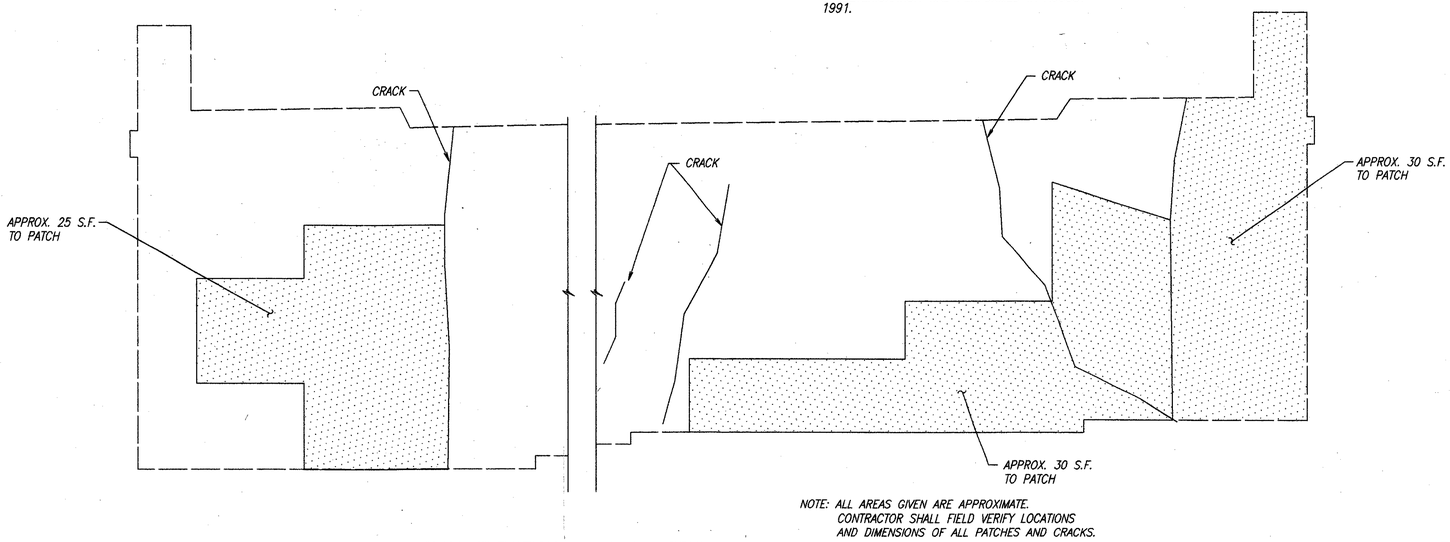
B.) FEXCON 2000 JOINT SEALING SYSTEM, R.J. WATSON, EAST AMHERST, NY, 1-800-440-3636.

C.) 902 RCS JOINT SEALANT, DOW CORNING. 1-513-771-4870.

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
REAR	0 SQ. FT.
FORWARD	150 SQ. FT.
REAR BACKWALL	1.5 SQ. FT.
FORWARD BACKWALL	1.5 SQ. FT.
TOTAL	153 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

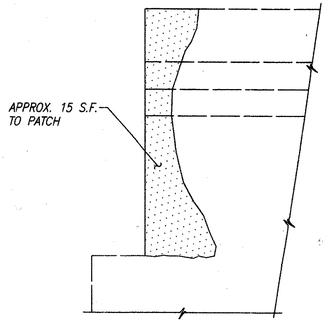
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.



NOTE: ALL AREAS GIVEN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND DIMENSIONS OF ALL PATCHES AND CRACKS.

FWD. BACKWALL ELEVATION--PATCHING DETAIL

NTS



FWD. ABUTMENT-WEST WINGWALL ELEVATION--PATCHING DETAIL

NTS

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

PROPOSED WORK

1. PATCH SUBSTRUCTURE AS SHOWN ON PLANS.
2. REMOVE EXISTING ASPHALT WEARING SURFACE, SCARIFY DECK AS REQUIRED. REPLACE WITH A MICRO-SILICA MODIFIED CONCRETE OVERLAY, USING HYDRODEMOLITION
3. SEAL DECK EXPANSION JOINTS.
4. SEAL CURBS, BACKWALLS, AND PARAPETS
5. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED IN ALL DIRECTIONS AT ALL TIMES. FOR NOTES SEE SHT. (49/615)
6. OTHER WORK AS SHOWN IN THESE PLANS.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

2/2

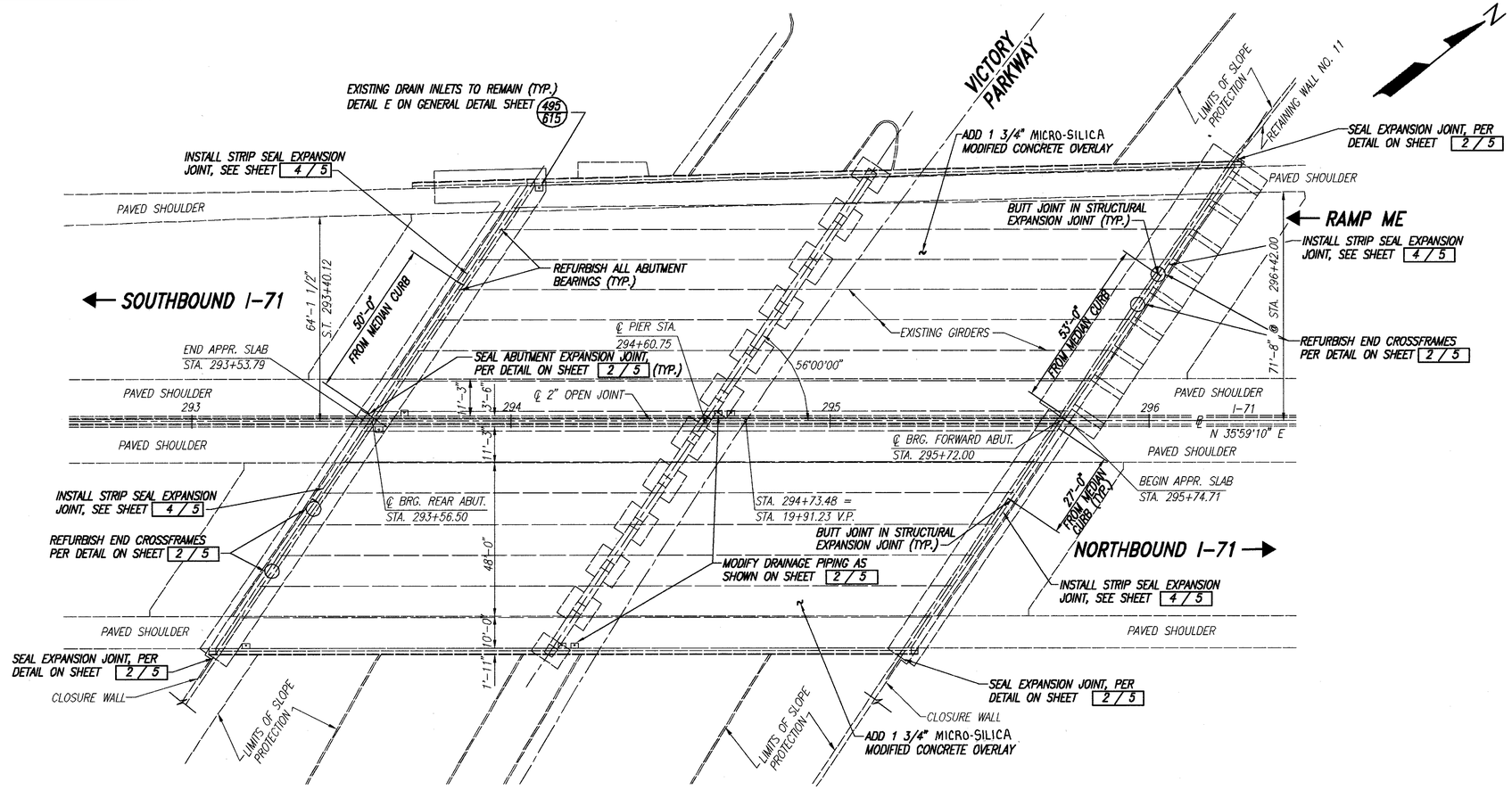
SECTIONS, DETAILS, AND QUANTITIES

BRIDGE NO. HAM-71-0422
BLAIR AVE. OVER I-71

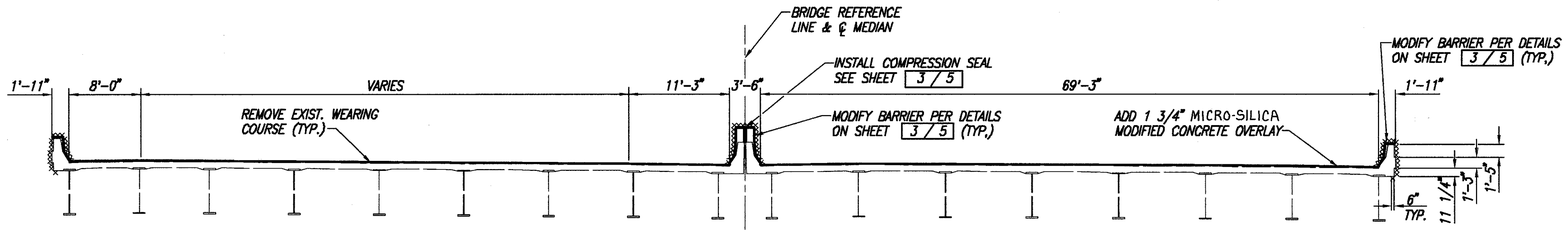
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.	[signature]	2-27-96

CALC BY	DATE	CHKD BY	DATE	HAMILTON COUNTY HAM-71-2.92	OHIO	F.H.W.A. REGION 5	535 / 615



PLAN



TYPICAL SECTION

xxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL PARAPETS AS INDICATED ON THE DECK AND WINGWALLS.
2. REMOVE EXISTING ASPHALT WEARING COURSE AND SCARIFY EXISTING CONCRETE DECK 1/4".

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 104'-3" AND 111'-3" C/C BEARINGS

ROADWAY: VARIES; 148'-3" AVERAGE WIDTH FACE TO FACE OF PARAPET

SKEW: 34° 00' 00" LF.

LIVE LOAD: HS 20-44 AND THE INTERSTATE ALTERNATE LOADING

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (30'-0" LONG)

ALIGNMENT: SEE PLAN

SUPERELEVATION: VARIES, SEE PLAN

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0445
I-71 OVER VICTORY PARKWAY
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-96

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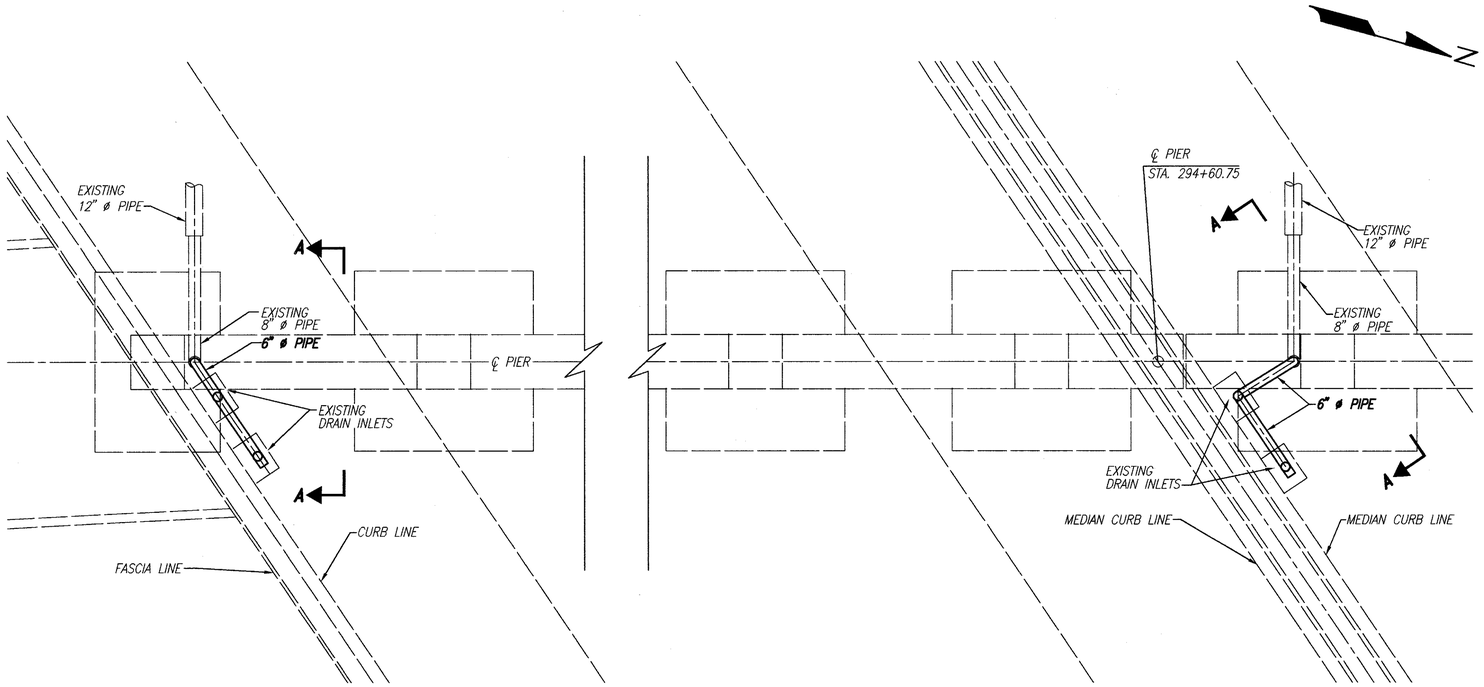
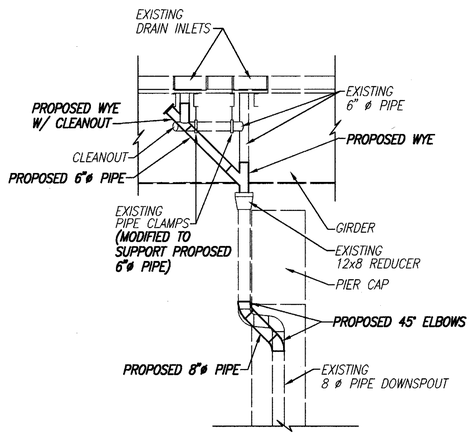
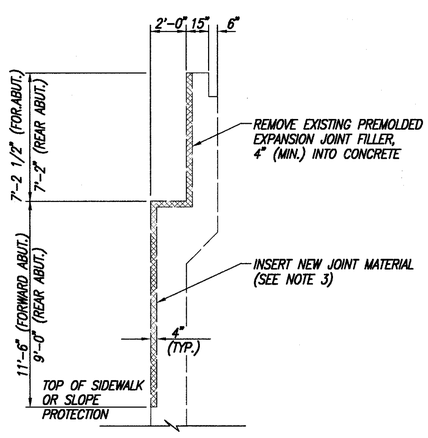
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	536 615
CHKD BY DATE			



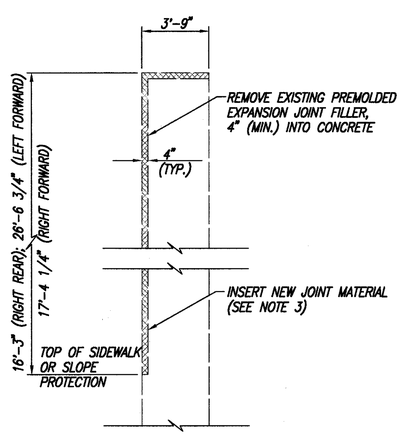
PLAN



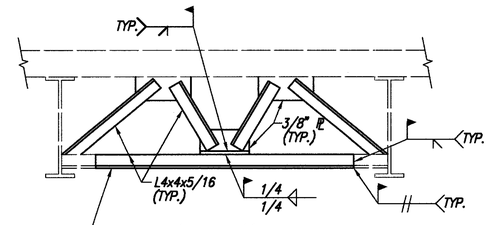
SECTION A-A



ABUTMENT EXPANSION JOINT DETAIL



ABUTMENT TO RETAINING WALL EXPANSION JOINT
ABUTMENT TO CLOSURE WALL EXPANSION JOINT



NEW L4x4x5/16 AND 3/8" ℄ CUT IN FIELD TO MATCH LENGTH TO BE REPLACED. COST INCLUDED IN 'ITEM 513 – STRUCTURAL STEEL (REPLACEMENT OF DETERIORATED END CROSSFRAMES), AS PER PLAN'

END CROSSFRAME REPLACEMENT DETAIL

CONTRACTOR IS TO CLEAN BOTTOM ANGLE AND PLATE AND REPLACE LENGTH OF ANGLE AND PLATE AS DIRECTED BY THE ENGINEER. PREPARE, PRIME AND PAINT BOTTOM ANGLES AND PLATE AS PER ITEM 514, SYSTEM EEU (SEE PROPOSAL NOTE), AT LEAST 2" BEYOND NEW STEEL. ALL WORK TO BE INCLUDED IN PRICE BID FOR 'ITEM 513 – STRUCTURAL STEEL (REPLACEMENT OF DETERIORATED END CROSSFRAMES), AS PER PLAN'.

NOTES

1. FOR DRAINAGE PIPING REQUIREMENTS, SEE GENERAL NOTES ON SHEET 494/615
2. APPROXIMATE NUMBER OF LINEAR FEET OF PROPOSED 6"ø PIPE (INCLUDING SPECIALS) = 22 L.F.
3. INSERT 'ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x 4" SEALER, AS PER PLAN', AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC. OR EQUIVALENT.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/5

ABUTMENT AND DRAINAGE DETAILS

BRIDGE NO. HAM-71-0445
I-71 OVER VICTORY PARKWAY
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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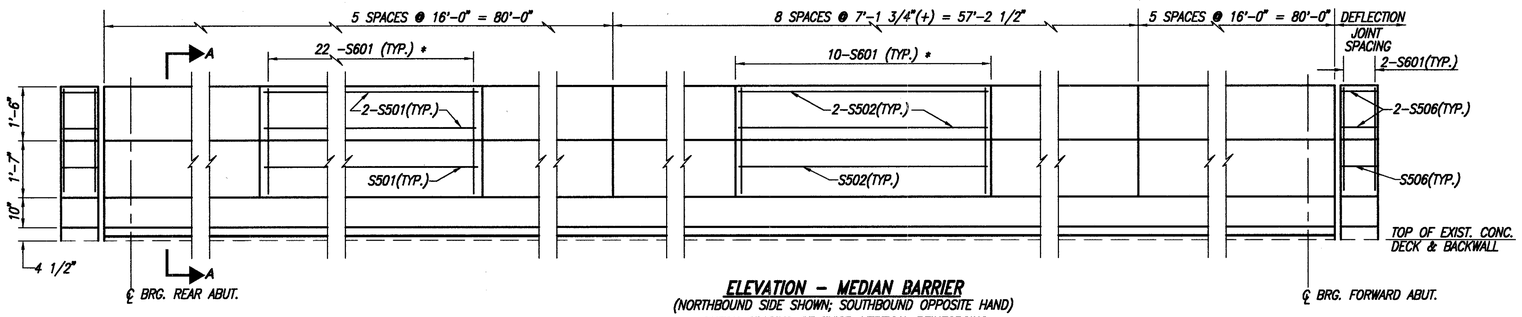
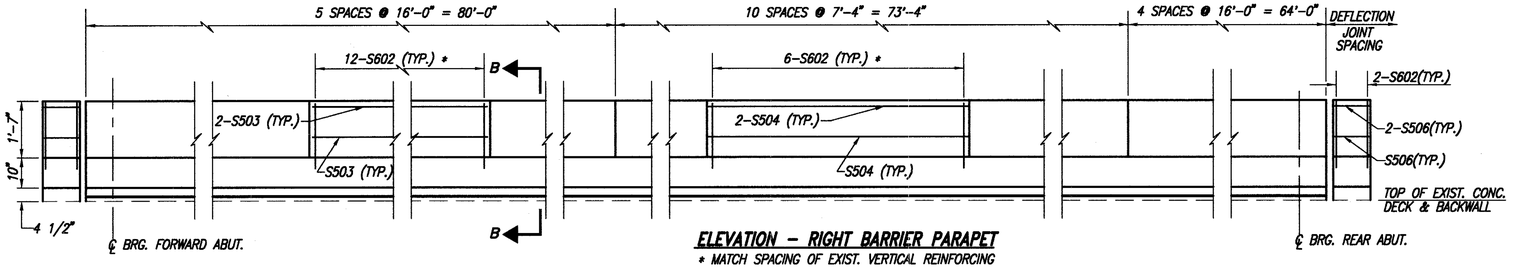


ELEVATION – MEDIAN BARRIER

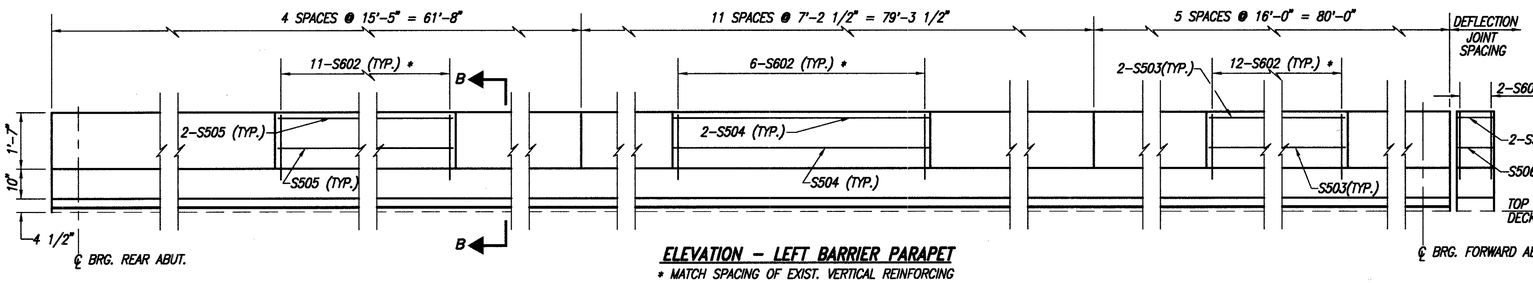
(NORTHBOUND SIDE SHOWN; SOUTHBOUND OPPOSITE HAND)

* MATCH SPACING OF EXIST. VERTICAL REINFORCING



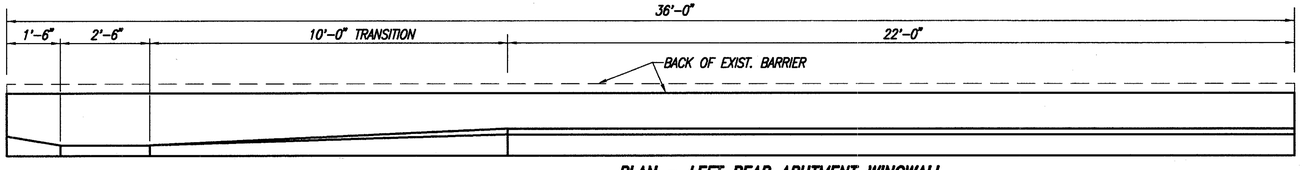
ELEVATION – RIGHT BARRIER PARAPET

* MATCH SPACING OF EXIST. VERTICAL REINFORCING

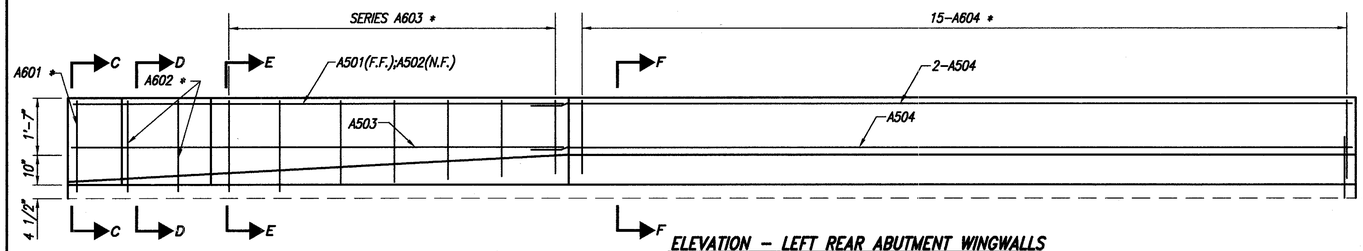


ELEVATION – LEFT BARRIER PARAPET

* MATCH SPACING OF EXIST. VERTICAL REINFORCING

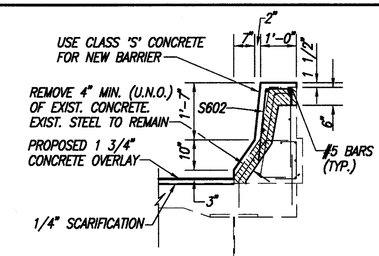


PLAN – LEFT REAR ABUTMENT WINGWALL

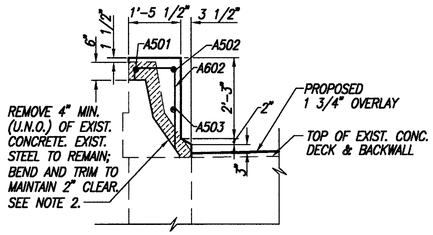


ELEVATION – LEFT REAR ABUTMENT WINGWALLS

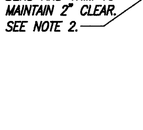
* MATCH SPACING OF EXIST. VERTICAL REINFORCING



SECTION B–B

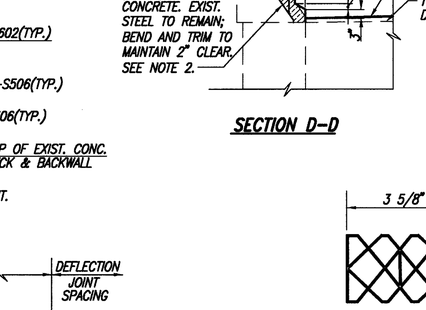


SECTION D–D

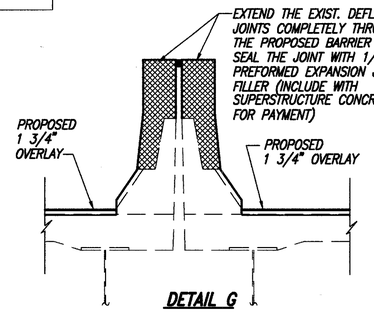


DETAIL D

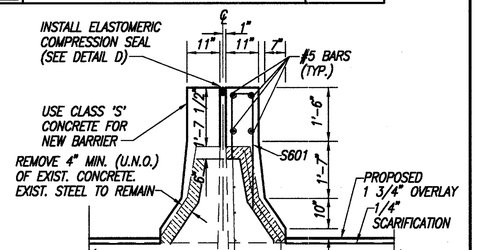
ELASTOMERIC COMPRESSION SEAL MODEL #WF–362 (3 5/8"x2 1/4") AS MADE BY WATSON BOWMAN ACME CORP.; D.S BROWN COMPANY AW–362, ELASTOMER SEALS INC. LP–3500, OR AN APPROVED EQUAL. PAYMENT SHALL BE MADE PER 'ITEM 516 – ELASTOMERIC COMPRESSION SEAL'. AN ALTERNATE SEAL DETAIL MAY BE USED. SEE "RAISED CONCRETE MEDIAN BARRIER SEAL" DETAIL ON GENERAL DETAILS SHEET 495/615.



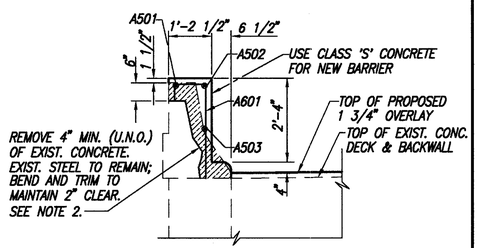
SECTION F–F



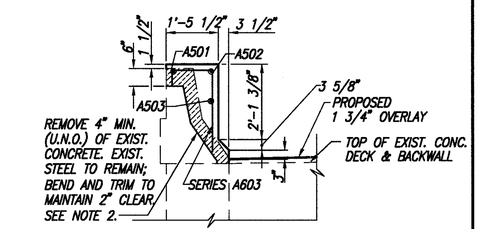
DETAIL G



SECTION A–A



SECTION C–C



SECTION E–E

NOTES

1. ALL CONCRETE REMOVED FROM THE EXISTING BARRIER PARAPETS SHALL BE INCLUDED IN 'ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN' FOR PAYMENT.
2. BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL OPERATION. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.
3. THE PARAPET CONCRETE ON THE DECK AND THE ABUTMENT WINGWALLS SHALL BE PLACED PER "ITEM 511–CLASS 'S' CONCRETE, MISC.: PARAPET, AS PER PLAN".

CALC BY	DATE
CHKD BY	DATE

HAMILTON COUNTY
HAM–71–2.92

OHIO
F.H.W.A. REGION 5

537/615

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215–5437

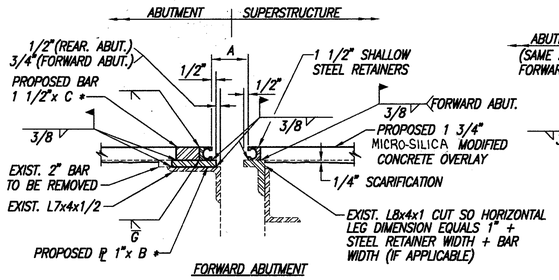
3/5

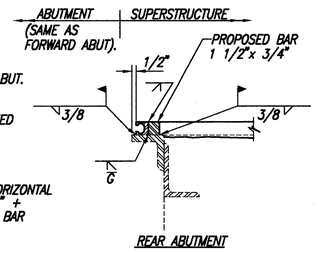
BARRIER DETAILS

BRIDGE NO. HAM–71–0445
I–71 OVER VICTORY PARKWAY
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	538 615
CHKD BY DATE			

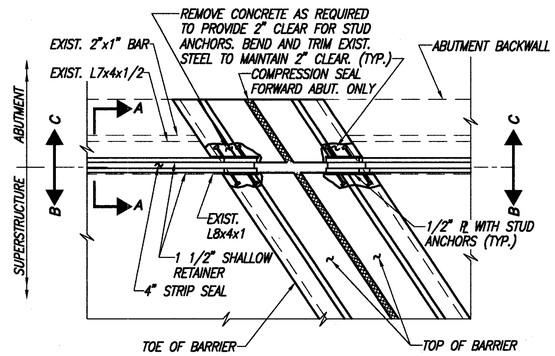




TEMP. (°F)	DIMENSION "A"	
	REAR ABUTMENT	FORWARD ABUTMENT
30°	3 9/16"	2 13/16"
40°	3 1/2"	2 3/4"
50°	3 7/16"	2 11/16"
60°	3 5/16"	2 9/16"
70°	3 1/4"	2" 1/2"
80°	3 3/16"	2 7/16"
90°	3 1/8"	2 3/8"

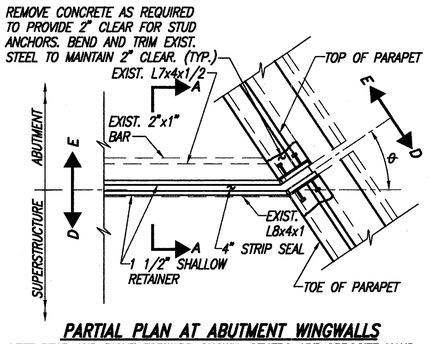
SECTION A-A

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"



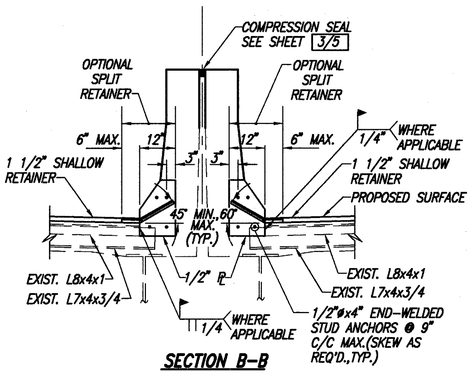
PARTIAL PLAN MEDIAN BARRIER AT ABUTMENT

FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR

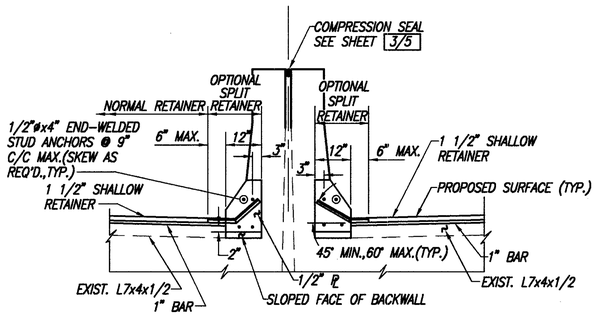


PARTIAL PLAN AT ABUTMENT WINGWALLS

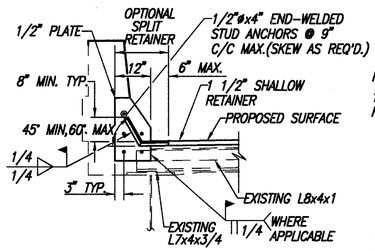
LEFT REAR AND RIGHT FORWARD SHOWN, OTHERS ARE OPPOSITE HAND.



SECTION B-B

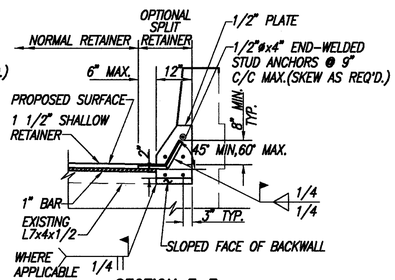


SECTION C-C



SECTION D-D

(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)



SECTION E-E

(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)

WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE END OF THE ABUTMENT TO DETER THE ACCUMULATION OF DEBRIS.

NOTE

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4/5

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0445
I-71 OVER VICTORY PARKWAY
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

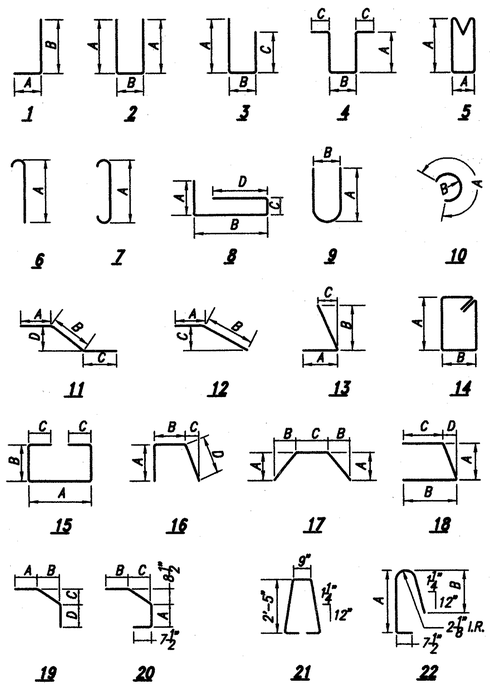
MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
ABUTMENT									
A501	1	13'-8"	ST						14
A502	1	13'-8"	60						14
A503	1	13'-8"	60						14
A504	3	23'-6"	ST						74
A601	1	3'-5"	3	2'-6"	0'-10"	0'-5"			5
A602	2	3'-6"	3	2'-4"	1'-1"	0'-5"			11
SERIES	1 SET	3'-6"			1'-1"	0'-0"	2'-4"		
OF	OF 7	TO	16	0'-5"	TO	TO	TO		33
A603	= 7	2'-9"			0'-8"	0'-2 1/2"	2'-0"		
A604	15	2'-9"	16	0'-5"	0'-8"	0'-2 1/2"	2'-0"		62
								SUBTOTAL =	227
SUPERSTRUCTURE									
S501	100	15'-8"	ST						1634
S502	80	6'-9"	ST						563
S503	42	15'-8"	ST						686
S504	63	6'-10"	ST						449
S505	12	15'-1"	ST						189
S506	29	1'-9"	ST						53
S601	608	5'-2"	3	1'-11"	0'-7"	3'-0"			4718
S602	344	2'-9"	16	0'-5"	0'-8"	0'-2 1/2"	2'-0"		1421
								SUBTOTAL =	9,713

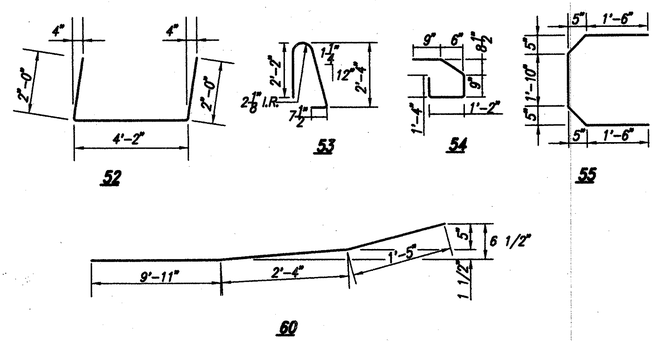
NOTE

ALL DIMENSIONS ARE OUT TO OUT.

REPLACEMENT STEEL = 160

TOTAL = 10,100





CALC BY M.A.P. DATE 2-5-93	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	539 615
CHKD BY A.M. DATE 4-21-93			

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	1120	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
202	23500	3471	SQ.YD.	WEARING COURSE REMOVED (ASPHALT)
509	15840	10100	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
511	34450	85	CU.YD.	CLASS S CONCRETE, MISC.: PARAPETS, AS PER PLAN
SPEC.	51267500	697	SQ.YD.	SEALING OF CONCRETE SURFACES *
513	15901	453	LBS.	STRUCTURAL STEEL, REPLACEMENT OF DETERIORATED END CROSS FRAMES, AS PER PLAN
514	14600	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
516	10900	222	LIN.FT.	ELASTOMERIC COMPRESSION SEAL
516	11211	357	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	46701	34	EACH	REFURBISH BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE *
516	14600	111	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER, MISC.: 2" x 4" SEALER, AS PER PLAN
518	63300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: MODIFIED DRAIN PIPE, AS PER PLAN
518	12801	8	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT *
SPEC.	53000800	3471	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	348	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED)
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	3471	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	198	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	3471	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. REMOVE EXISTING ASPHALT WEARING COURSE.
2. REFURBISH ALL ABUTMENT BEARINGS.
3. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS. SEAL LONGITUDINAL EXPANSION JOINTS WHERE SPECIFIED WITH COMPRESSION SEALS.
4. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
5. MODIFY DRAINAGE PIPING AS INDICATED.
6. SEAL PARAPETS AS INDICATED.
7. AT LEAST TWO LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES SEE SHEET 48 615
8. OTHER WORK AS DESCRIBED IN THESE PLANS.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

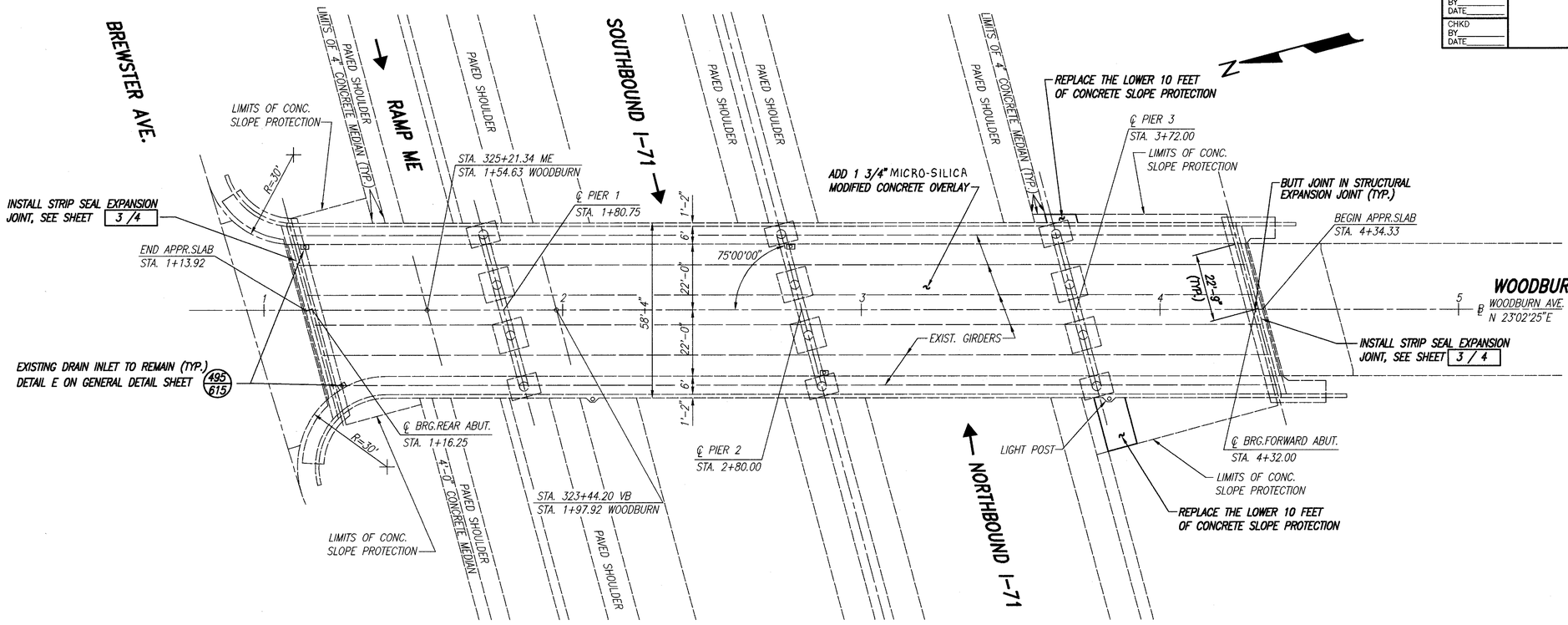
5 / 5

QUANTITIES AND GENERAL NOTES

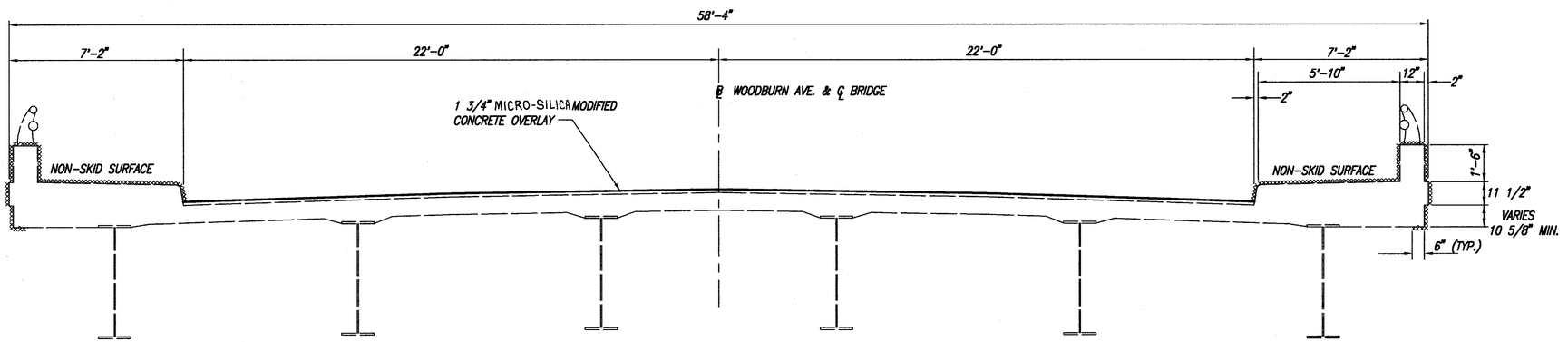
BRIDGE NO. HAM-71-0445
I-71 OVER VICTORY PARKWAY
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	540 615
CHKD BY DATE			



PLAN



TYPICAL SECTION

xxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON DECK AND WINGWALLS.
2. TRIM 6" C.M.P. TO 1/2" (±) PARALLEL TO SURFACE OF CONCRETE SLOPE PROTECTION.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 64'-6", 99'-3", 92'-0" AND 60'-0" C/C BEARINGS

ROADWAY: 44'-0" F/F CURBS WITH 6'-0" SIDEWALKS

SKEW: 15°00'00" RF

LIVE LOADING: HS 20-44

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (SEE DESIGN PLANS FOR REAR ABUT. 25'-0" LONG FORWARD ABUT.)

ALIGNMENT: TANGENT

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

1 / 4

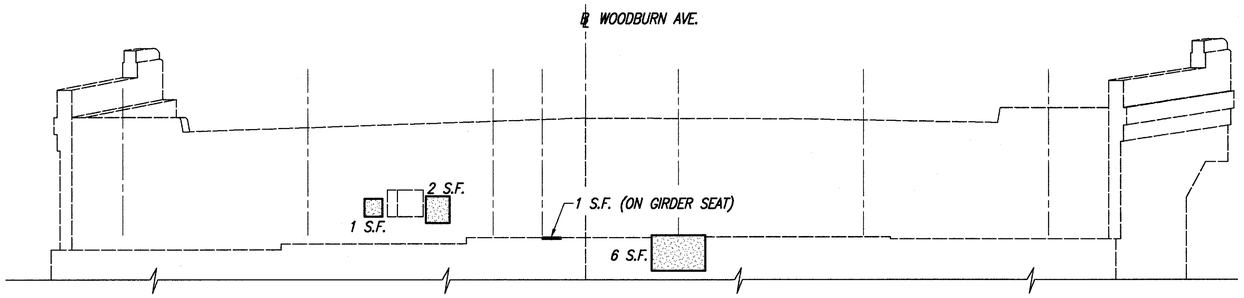
GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0500
WOODBURN AVE. OVER I-71
HAMILTON COUNTY

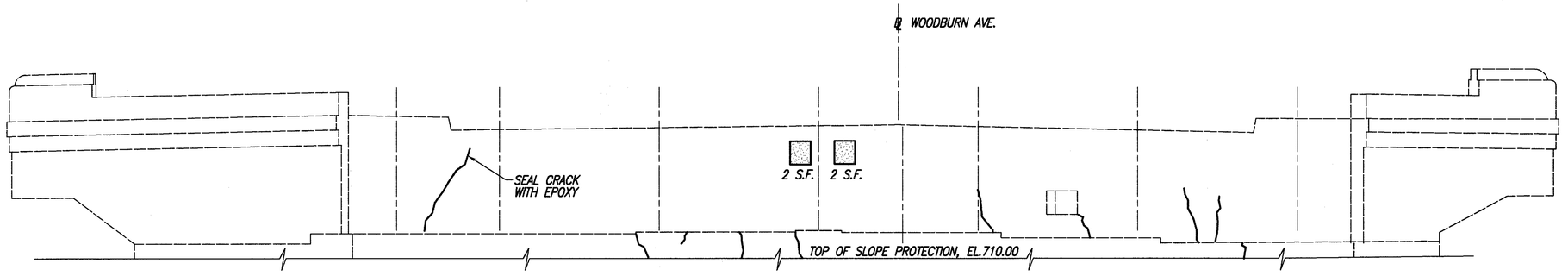
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO
CHKD BY DATE		F.H.W.A. 5 REGION

541
615



PARTIAL ELEVATION FORWARD ABUTMENT



PARTIAL ELEVATION REAR ABUTMENT

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
EAST	6 SQ. FT.
WEST	15 SQ. FT.
TOTAL	21 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURES."
2. SEAL CRACKS WITH EPOXY PER "ITEM SPECIAL – EPOXY INJECTION" (LENGTH ~ 25 L.F.)

LEGEND

- PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.
- SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).
- EXISTING OPENING TO REMAIN.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/4

ABUTMENT ELEVATIONS

BRIDGE NO. HAM-71-0500
WOODBURN AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-96

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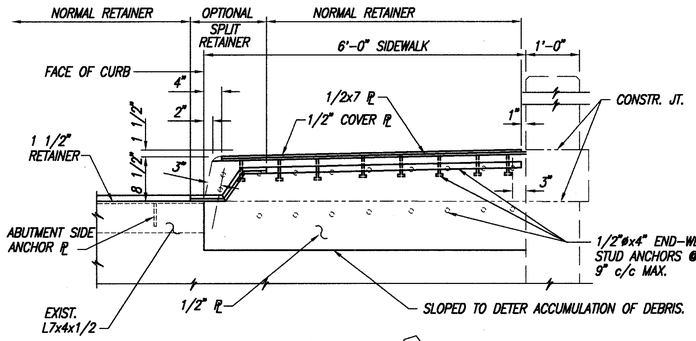
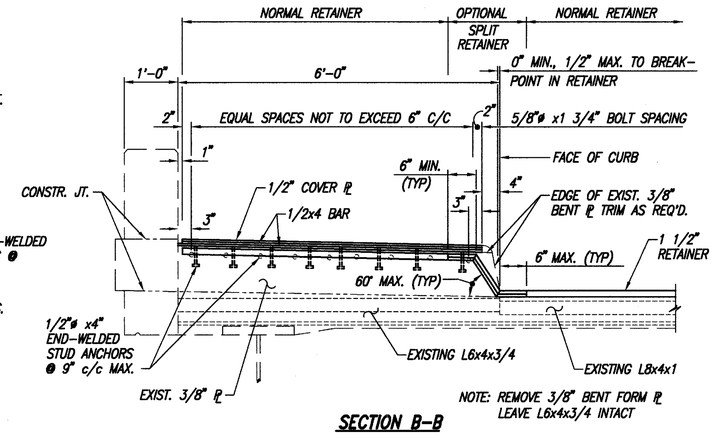
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	542 / 615
CHKD BY / DATE			



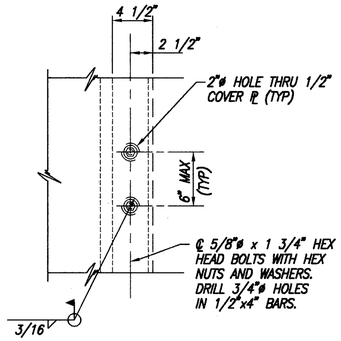
SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS:
IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.

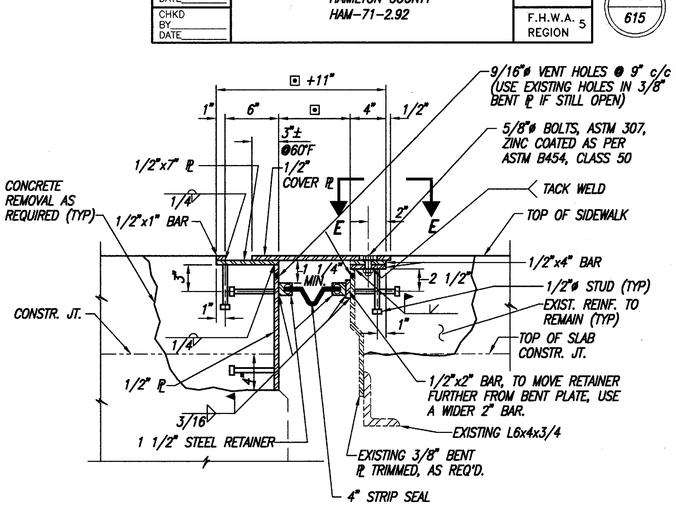


SECTION B-B

NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT

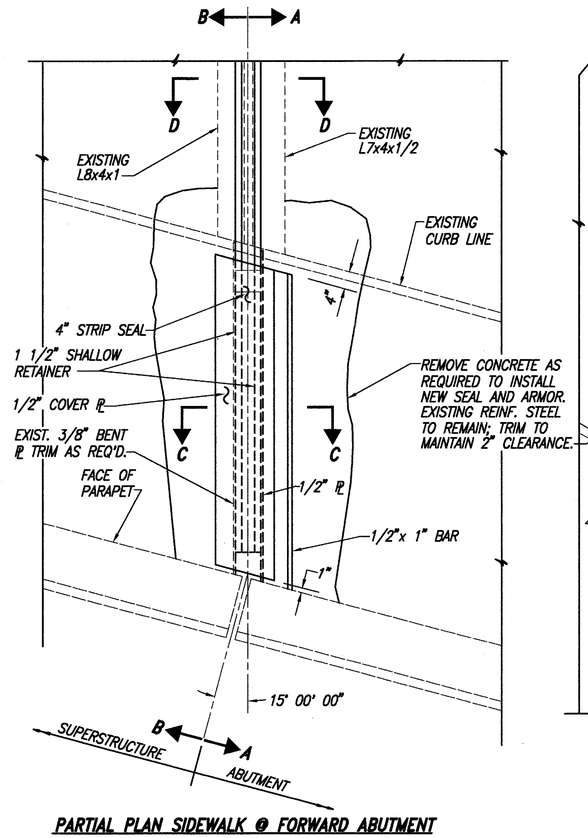


SECTION E-E



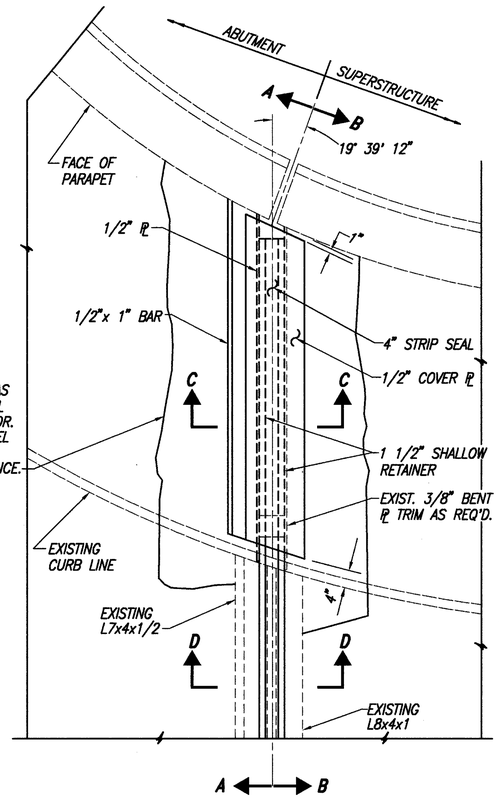
⊡ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



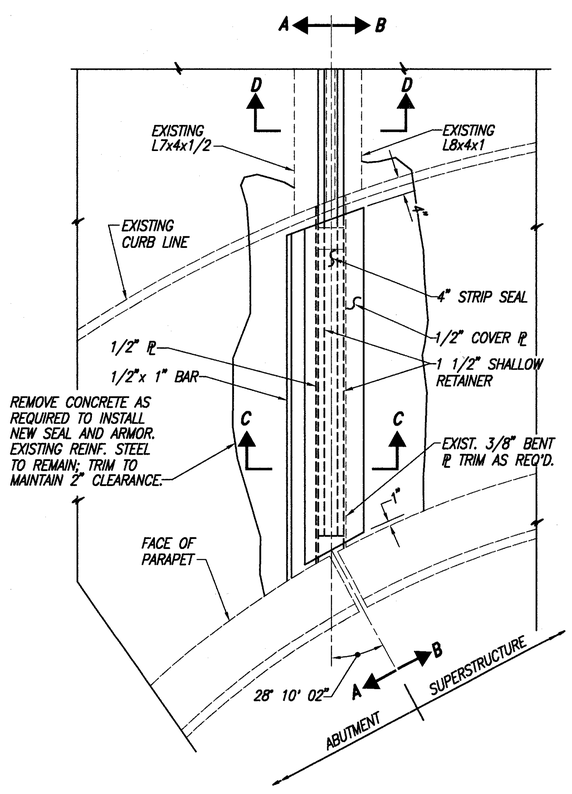
PARTIAL PLAN SIDEWALK @ FORWARD ABUTMENT

(RIGHT SIDEWALK SHOWN, LEFT SIDEWALK OPPOSITE HAND)
(SKEW = 15° 00' 00" RIGHT FORWARD)



PARTIAL PLAN LEFT SIDEWALK @ REAR ABUTMENT

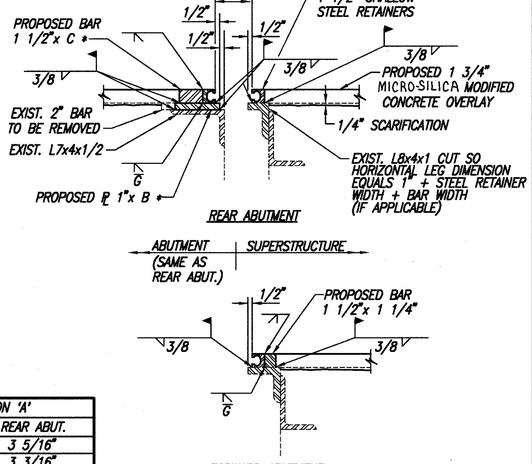
(SKEW = 15° 00' 00" RIGHT FORWARD)



PARTIAL PLAN RIGHT SIDEWALK @ REAR ABUTMENT

(SKEW = 15° 00' 00" RIGHT FORWARD)

TEMPERATURE	DIMENSION 'A'	
	FORWARD ABUT.	REAR ABUT.
30° F	3 5/16"	3 5/16"
40° F	3 3/16"	3 3/16"
50° F	3 1/16"	3 1/16"
60° F	2 15/16"	2 15/16"
70° F	2 13/16"	2 13/16"
80° F	2 11/16"	2 11/16"
90° F	2 9/16"	2 1/2"



SECTION D-D

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0500
WOODBURN AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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CALC BY M.A.P. DATE 12-2-91	HAMILTON COUNTY HAM-71-2.92	OHIO	543
CHKD BY A.M. DATE 12-13-91		F.H.W.A. REGION 5	615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267502	1071	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
516	31001	300	LIN.FT.	JOINT SEALER (705.04), AS PER PLAN
516	11211	124	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	30	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	25	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
601	21001	89	SQ.YD.	CONCRETE SLOPE PROTECTION, AS PER PLAN
SPEC.	53000800	1557	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	156	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1557	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	89	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1557	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
2. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
3. FILL BACKWALL CRACKS WITH EPOXY.
4. SEAL CURBS, SIDEWALKS AND PARAPETS.
5. PATCH ABUTMENTS AS INDICATED.
6. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET 49/615.
7. OTHER WORK AS DESCRIBED IN THESE PLANS.
8. TRIM 6" CORRUGATED METAL PIPE TO 1/2"+/- TO SURFACE OF CONCRETE SLOPE PROTECTION AND REMOVE ANY DEBRIS FROM INSIDE 6" CMP.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4/4

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0500
WOODBURN AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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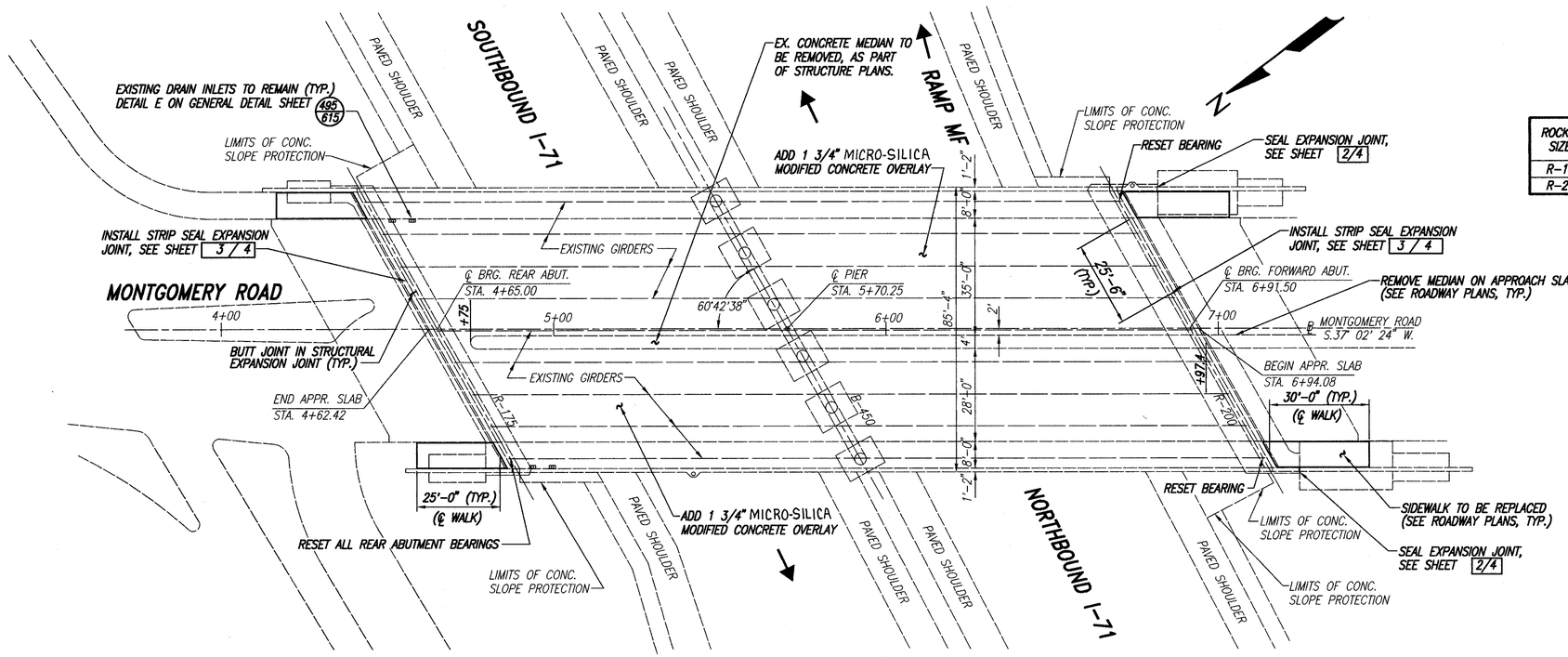
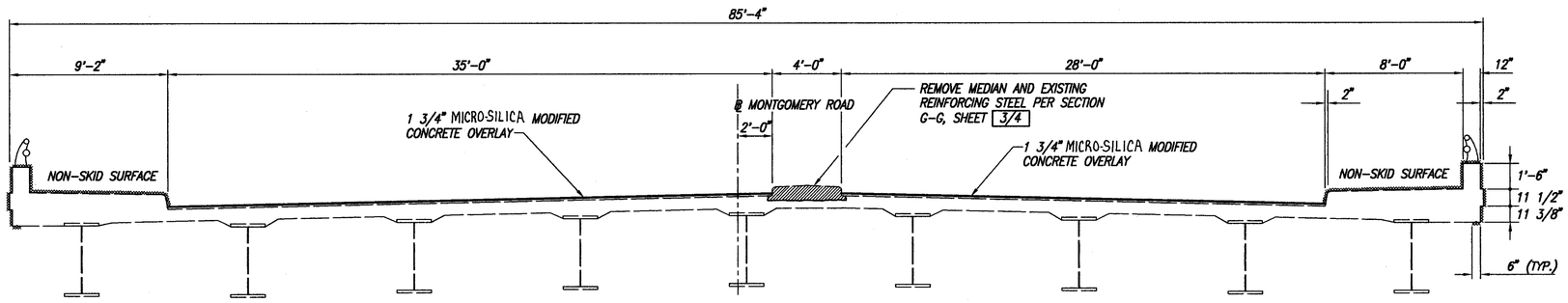
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO	544 615
CHKD BY DATE		F.H.W.A. REGION 5	



ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-175	125 TON
R-200	125 TON

PLAN



TYPICAL SECTION

SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND RAILINGS AS INDICATED.
2. TRIM 6" C.M.P. TO 1/2"(±) PARALLEL TO THE SURFACE OF THE CONCRETE SLOPE PROTECTION.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE.

SPANS: 105'-3" AND 121'-3" C/C BEARINGS.

ROADWAY: 67'-0" F/F CURBS INCLUDING 4'-0" RAISED MEDIAN WITH 8'-0" SIDEWALKS (BOTH SIDES)

SKEW: 29° 17' 22" RF

LIVE LOAD: HS 20-44

WEARING SURFACE: 1" MONOLITHIC CONCRETE.

APPROACH SLABS: AS-1-67 (30'-0" LONG)

ALIGNMENT: TANGENT

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/4

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-22-0446 (HAM-71-0522)
MONTGOMERY ROAD OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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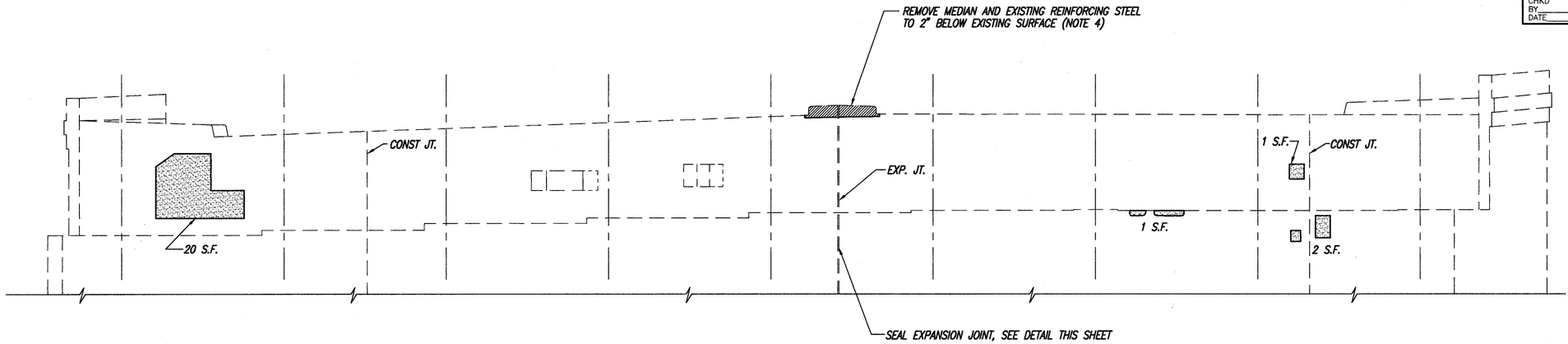
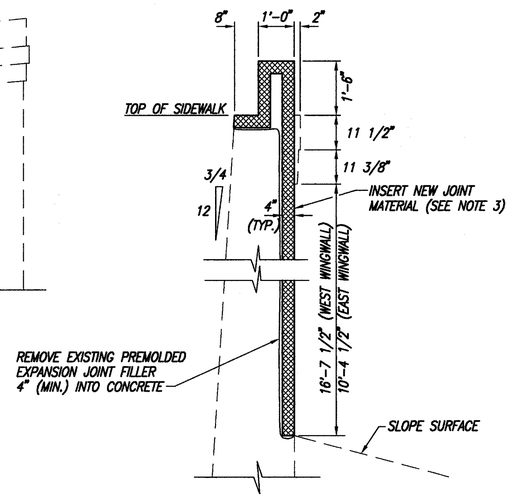
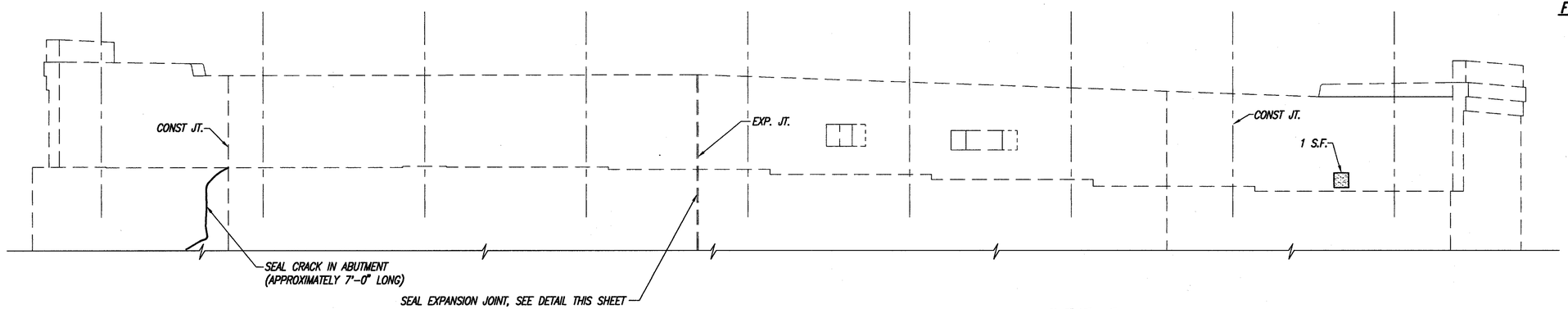
CHKD BY DATE			



PARTIAL FORWARD ABUTMENT ELEVATION



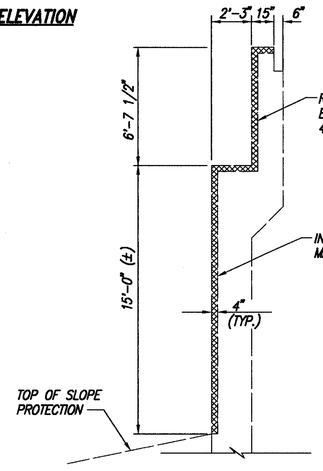
FORWARD ABUTMENT TO WINGWALL EXPANSION JOINT



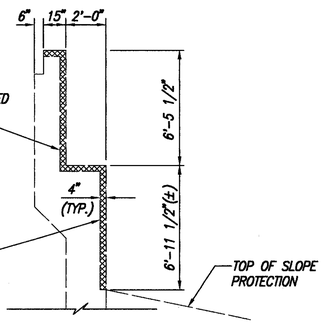
PARTIAL REAR ABUTMENT ELEVATION

LEGEND

- PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.
- SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).
- EXISTING OPENING TO REMAIN.



FORWARD ABUTMENT EXPANSION JOINT DETAIL



REAR ABUTMENT EXPANSION JOINT DETAIL

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
REAR	2 SQ. FT.
FORWARD	36 SQ. FT.
TOTAL	38 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURE".
2. SEAL CRACK IN FACE OF REAR ABUTMENT AS INDICATED PER "ITEM SPECIAL – EPOXY INJECTION".
3. INSERT "ITEM 516 – STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN", AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC., OR EQUIVALENT.
4. THE MEDIAN ON THE ABUTMENT SHALL BE REMOVED AT THE SAME TIME THE MEDIAN ON THE DECK IS REMOVED. WIDTH OF REMOVAL SHALL BE THE SAME (4'-6"). THE ABUTMENT SHALL BE REBUILT TO THE SCARIFICATION LEVEL WITH "ITEM SPECIAL – MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS)". CONCRETE REMOVAL SHALL BE PAID FOR UNDER "ITEM 202 – PORTIONS OF STRUCTURE REMOVED".

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

2 / 4

ABUTMENT DETAILS

BRIDGE NO. HAM-22-0446 (HAM-71-0522)
MONTGOMERY ROAD OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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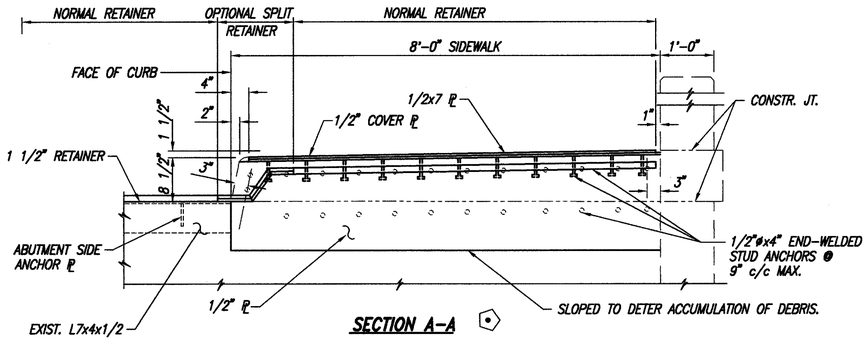
CALC BY	DATE
CHKD BY	DATE

HAMILTON COUNTY
HAM-71-2.92

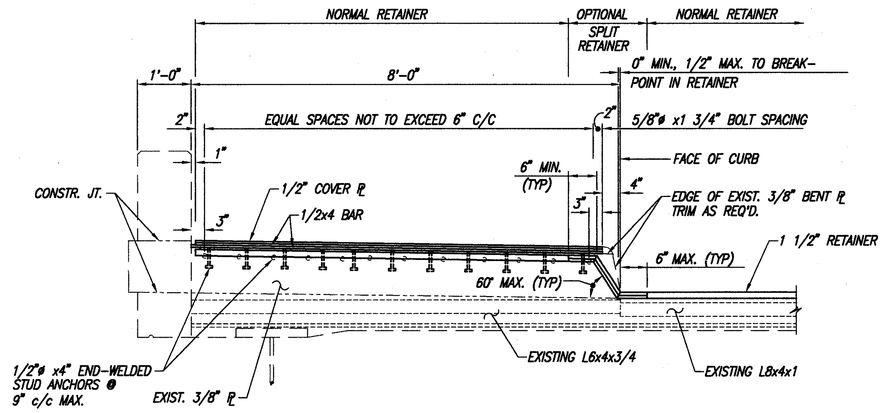
OHIO
F.H.W.A. 5
REGION

546
615

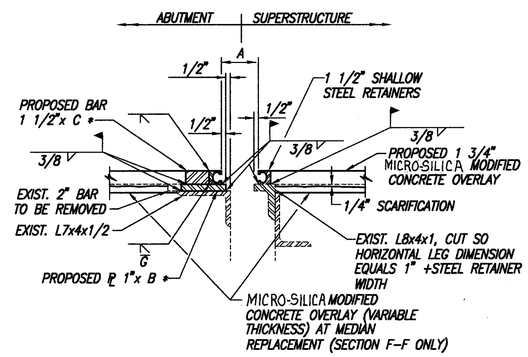


SECTION A-A

⊙ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.

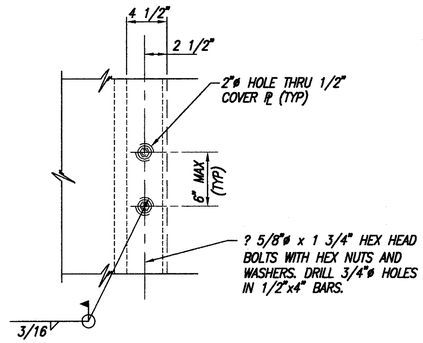


SECTION B-B

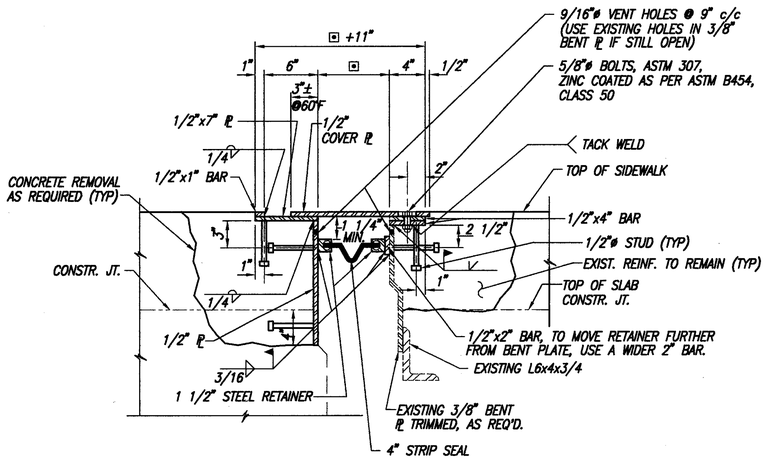


SECTION D-D
SECTION F-F

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

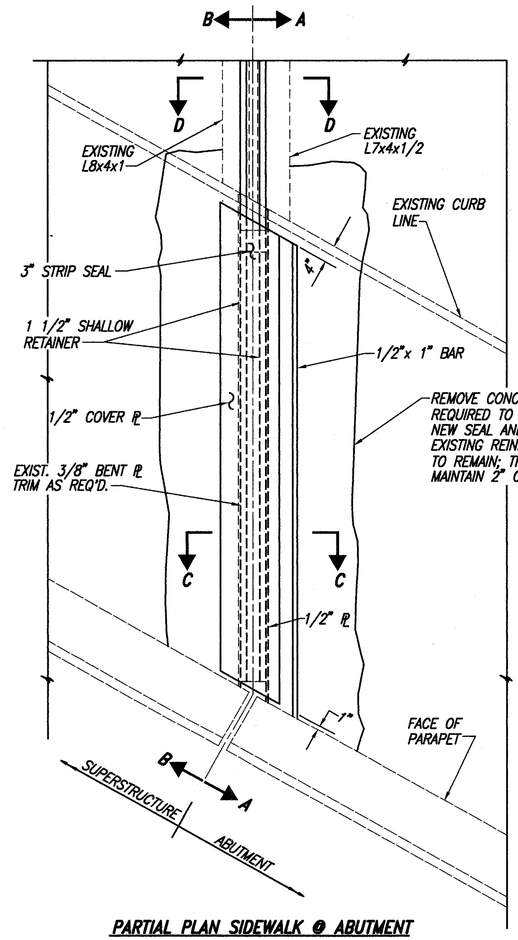


SECTION E-E



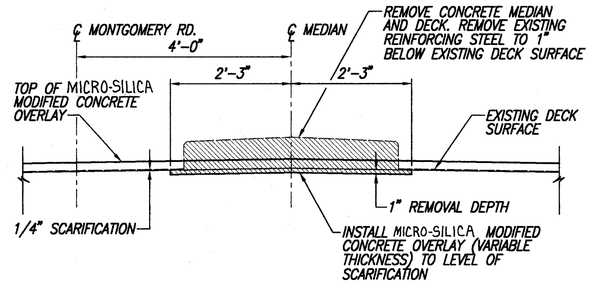
▣ THIS DIMENSION IS THE SUM OF 2X STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C

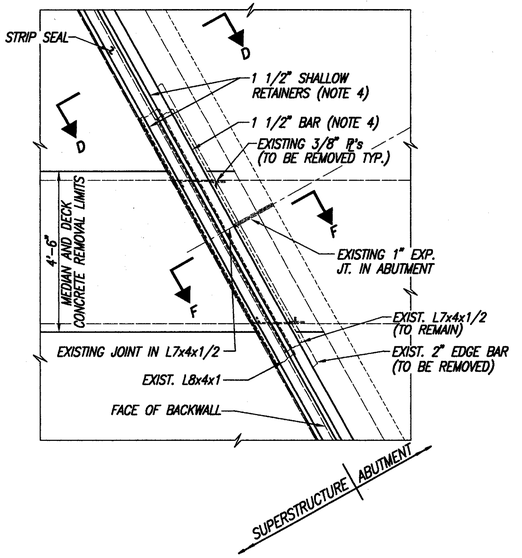


PARTIAL PLAN SIDEWALK @ ABUTMENT

LEFT REAR AND RIGHT FORWARD SIDEWALKS AS SHOWN
LEFT FORWARD AND RIGHT REAR SIDEWALKS OPPOSITE HAND
(SKEW = 29° 17' 22" RIGHT FORWARD)



SECTION G-G



PARTIAL PLAN MEDIAN @ FORWARD ABUTMENT

SKEW = 29° 17' 22" RIGHT FORWARD

TEMPERATURE	DIMENSION 'A' REAR ABUT.	DIMENSION 'A' FORWARD ABUT.
30° F	3 1/4"	3"
40° F	3 3/16"	2 15/16"
50° F	3 1/8"	2 7/8"
60° F	3 1/16"	2 13/16"
70° F	3"	2 11/16"
80° F	2 15/16"	2 5/8"
90° F	2 7/8"	2 9/16"

NOTES

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.
4. THE 1 1/2" SHALLOW RETAINER AND 1 1/2" BAR SHALL SPAN THE GAP IN THE L7x4x1/2.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-22-0446 (HAM-71-0522)
MONTGOMERY ROAD OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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CALC BY M.A.P. DATE 3-25-94	HAMILTON COUNTY HAM-71-5.22	OHIO	547 615
CHKD BY A.M. DATE 3-29-94		F.H.W.A. REGION 5	

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
513	21000	1	EACH	TRIMMING OF BEAM END
SPEC.	51267502	1064	SQ.YD.	SEALING OF CONCRETE SURFACE (EPOXY) *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
516	11211	192	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	46701	18	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE
516	14600	83	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER, MISC.: 2" x 4" SEALER, AS PER PLAN
518	12900	4	EACH	SCUPPER LENGTHENING
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	38	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	7	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000800	1700	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	480	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1700	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	48	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	1700	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. RESET ALL ABUTMENT BEARINGS AS INDICATED.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE ON DECK, USING HYDRODEMOLITION
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL "F" ON GENERAL DETAIL SHEET (495/615).
5. FILL ABUTMENT CRACKS WITH EPOXY.
6. SEAL CURBS, PARAPETS, AND SIDEWALKS.
7. PATCH ABUTMENTS AS INDICATED.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
9. REMOVE MEDIAN AS SHOWN ON SHEET [2 & 3/4].
10. OTHER WORK AS DESCRIBED IN THESE PLANS.
11. TRIM 6" CORRUGATED METAL PIPE TO 1/2": . SEE SHEET (544/615)
12. CLEAN WEEPHOLES IN BACKWALLS.

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WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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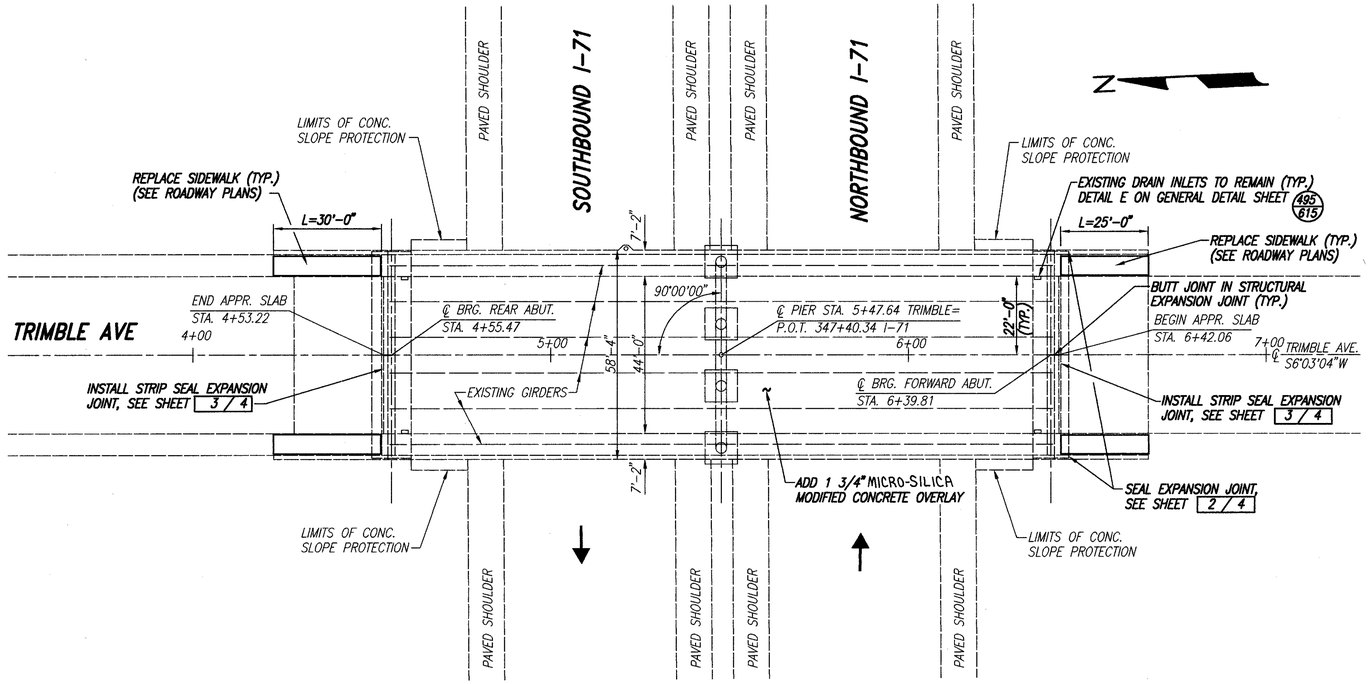
QUANTITIES AND GENERAL NOTES

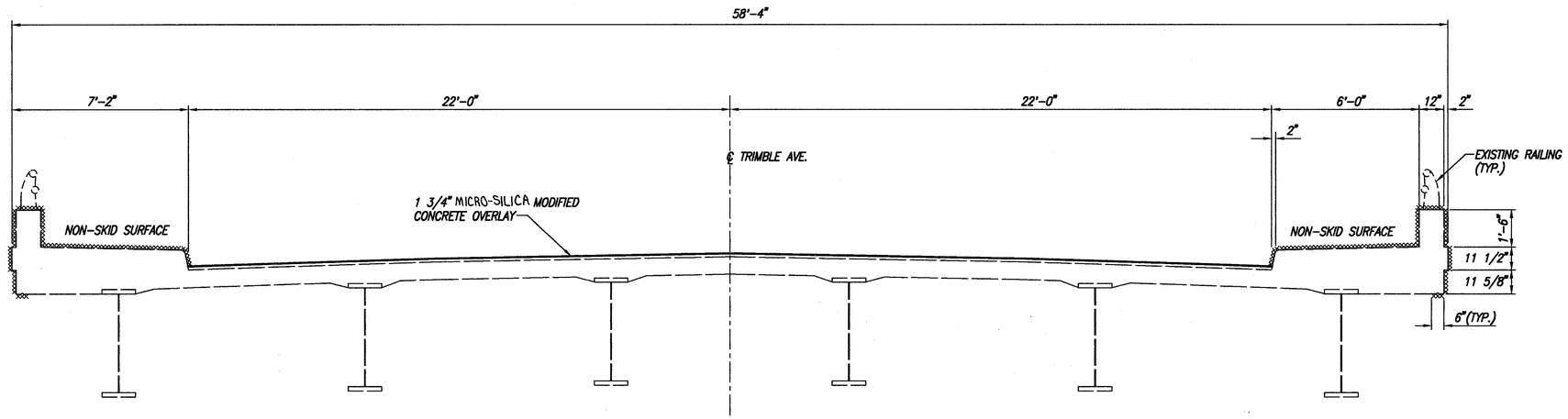
BRIDGE NO. HAM-22-0446 (HAM-71-0522)
MONTGOMERY RD. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	C.M.S.	A.M.	RWZ	2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO	548
CHKD BY DATE		F.H.W.A. REGION 5	615



PLAN



TYPICAL SECTION

SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON THE DECK AND WINGWALLS.
2. TRIM 6" C.M.P. TO 1/2"(±) PARALLEL TO SURFACE OF CONCRETE SLOPE PROTECTION.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 2 @ 92'-2" C/C BEARINGS

ROADWAY: 44'-0 F/F CURBS WITH 6'-0" SIDEWALKS

SKEW: NONE

LIVE LOAD: HS 20-44

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0" LONG)

ALIGNMENT: TANGENT

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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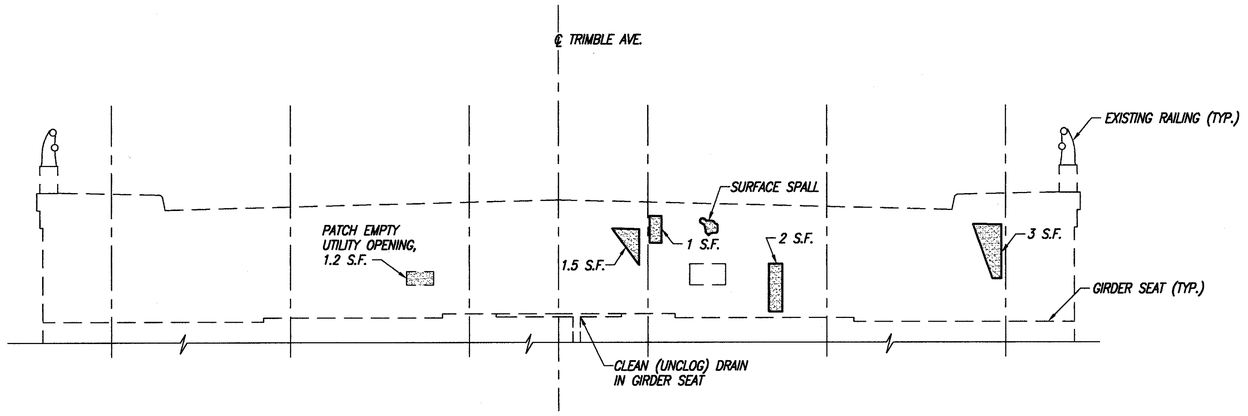
GENERAL PLAN AND TYPICAL SECTION

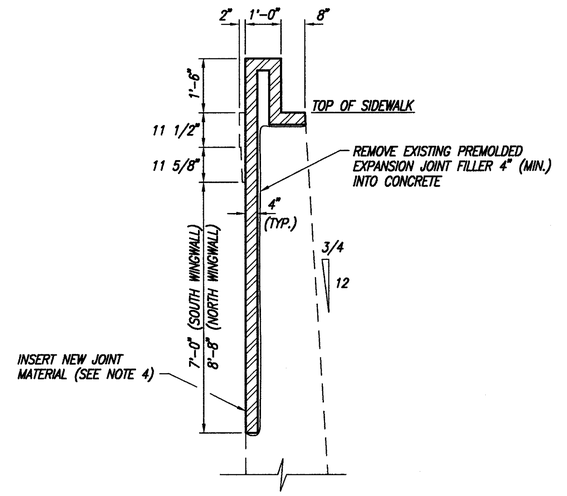
BRIDGE NO. HAM-71-0546
TRIMBLE AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

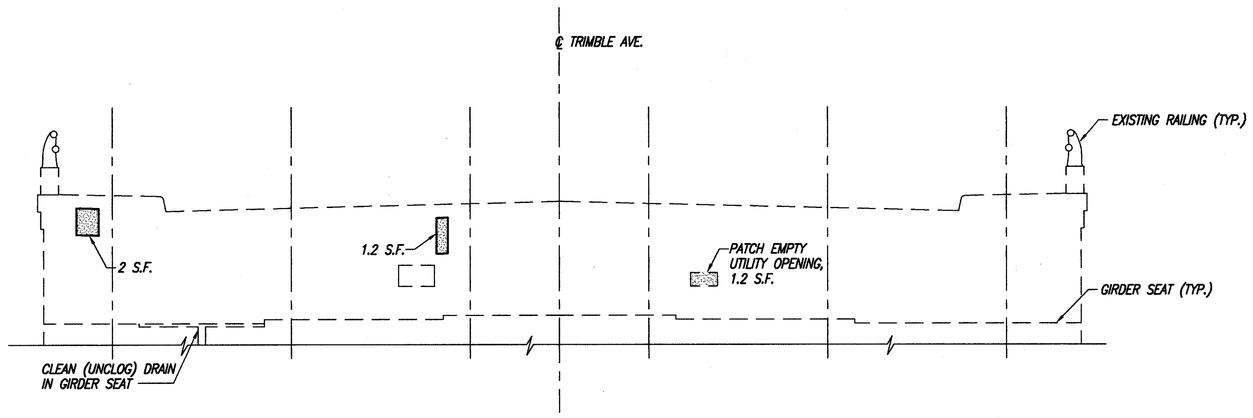
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	549 615
CHKD BY DATE			



PARTIAL FORWARD ABUTMENT ELEVATION



FORWARD ABUTMENT TO WINGWALL EXPANSION JOINTS



PARTIAL REAR ABUTMENT ELEVATION

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
REAR	7 SQ. FT.
FORWARD	13 SQ. FT.
TOTAL	20 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519-PATCHING CONCRETE STRUCTURE".
2. CLEAN ABUTMENT GIRDER SEAT DRAINS INDICATED.
3. REMOVE SMALL TREE (2") LOCATED AT TOP OF CONCRETE SLOPE PROTECTION AT THE FACE OF THE REAR ABUTMENT.
4. INSERT "ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN", AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC. OR EQUIVALENT.

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

EXISTING OPENING

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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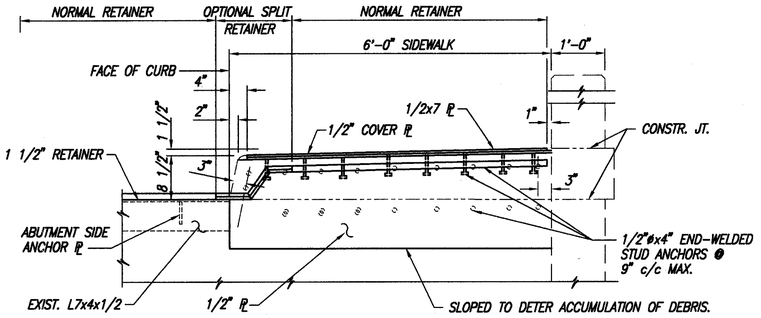
ABUTMENT DETAILS

BRIDGE NO. HAM-71-0546
TRIMBLE AVE. OVER I-71
HAMILTON COUNTY

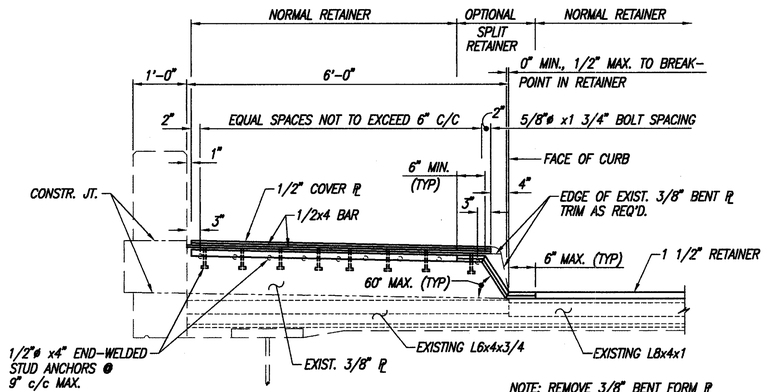
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO	550 615
CHKD BY			F.H.W.A. 5 REGION	
DATE				



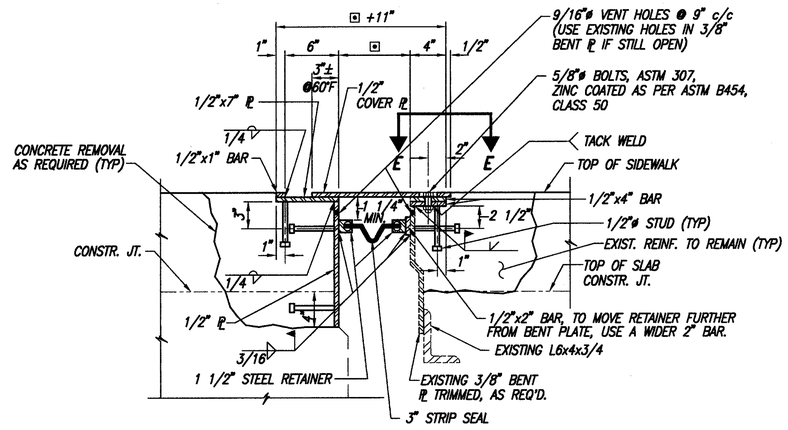
SECTION A-A ⬡

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS:
IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



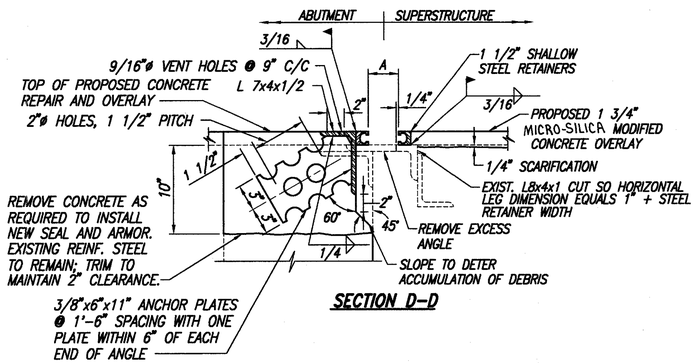
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT

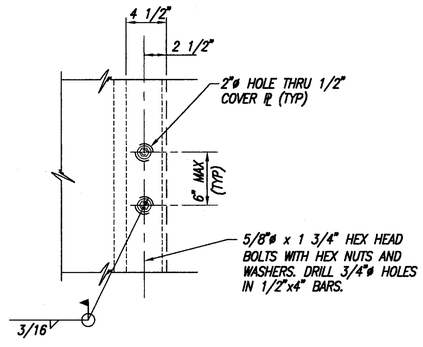


▣ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



SECTION D-D



SECTION E-E

PARTIAL PLAN SIDEWALK @ ABUTMENT

LEFT REAR AND RIGHT FORWARD SIDEWALKS AS SHOWN
LEFT FORWARD AND RIGHT REAR SIDEWALKS OPPOSITE HAND
(SKEW = NONE)

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

TEMPERATURE	DIMENSION 'A'
30° F	1 13/16"
40° F	1 3/4"
50° F	1 11/16"
60° F	1 5/8"
70° F	1 9/16"
80° F	1 1/2"
90° F	1 7/16"*

* INSTALLATION OF THE STRIP SEAL SHALL BE POSTPONED UNTIL THE TEMPERATURE HAS DROPPED SUFFICIENTLY TO PROVIDE A MINIMUM DIMENSION 'A' OF 1 1/2 INCHES.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0546
TRIMBLE AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

CALC BY M.A.P. DATE 11-14-91	HAMILTON COUNTY HAM-71-2.92	OHIO	551 615
CHKD BY A.M. DATE 11-28-91		F.H.W.A. REGION 5	

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	720	SQ.YD.	SEALING OF CONCRETE SURFACES *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
516	11211	113	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	14600	58	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER MISC. 2" x 4" SEALER, AS PER PLAN
518	12900	4	EACH	SCUPPER, LENGTHENING
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	20	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	53000800	918	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	96	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	918	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	53	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	918	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
2. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
3. CLEAN OUT ABUTMENT GIRDER SEAT DRAINS AS INDICATED.
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL 'F' ON GENERAL DETAIL SHEET (495/615).
5. SEAL CURBS, SIDEWALKS AND PARAPETS.
6. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
7. OTHER WORK AS DESCRIBED IN THESE PLANS.
8. REMOVE CONDRETE AND SIDEWALK USING VERTICAL SAW CUT. COVERPLATES SHALL BE UTILIZED WHEN AREA IS OPEN. SEE SHEET (550/615)

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

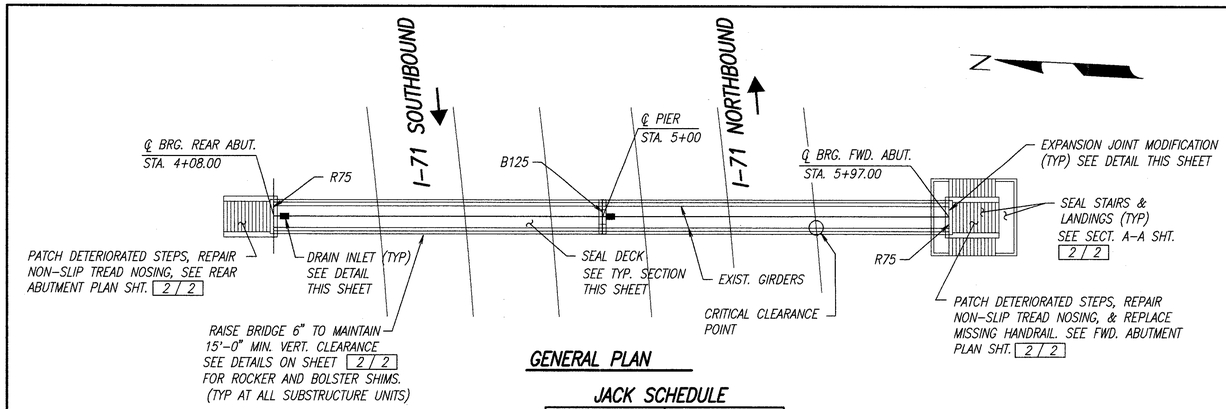
4/4

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0546
TRIMBLE AVENUE OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

CALC BY D.E.M. DATE 2/18/94	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	552 615
CHKD BY J.L.T. DATE 2/3/95			



GENERAL PLAN

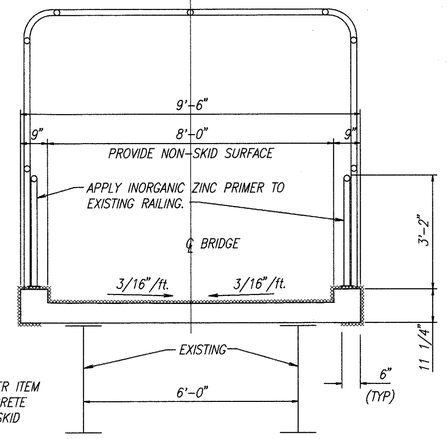
JACK SCHEDULE

ROCKER OR BOLSTER SIZE	JACK CAPACITY REQ'D. (MIN)
R75	75 TONS
B125	125 TONS

FOR ROCKER AND BOLSTER SHIM ℄ SEE DETAILS SHT. 2 / 2

PROPOSED WORK

1. PATCH DETERIORATED STEPS, AND REPAIR NOSE PLATE.
2. REPLACE MISSING HANDRAIL.
3. REPAIR BROKEN LIGHTS. SEE LIGHTING PLANS FOR DETAILS.
4. JACK SUPERSTRUCTURE AT PIERS AND ABUTMENTS (USING TEMPORARY SUPPORTS AND LONGITUDINAL BLOCKING) AND INSTALL STEEL SHIM PLATES. THE BRIDGE SHALL HAVE A MINIMUM 15'-0" VERTICAL CLEARANCE, AFTER OVERLAY HAS BEEN PLACED ON I-71.
5. APPLY ORGANIC ZINC PRIMER TO ALL RAILING.
6. SEAL ALL CONCRETE AS PER PROPOSAL NOTE.
7. AT LEAST ONE LANE OF TRAFFIC UNDER THE BRIDGE, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES. PEDESTRIAN TRAFFIC ON THE BRIDGE SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES, SEE SHT. 48 615
8. OTHER OTHER AS DESCRIBED IN THESE PLANS.



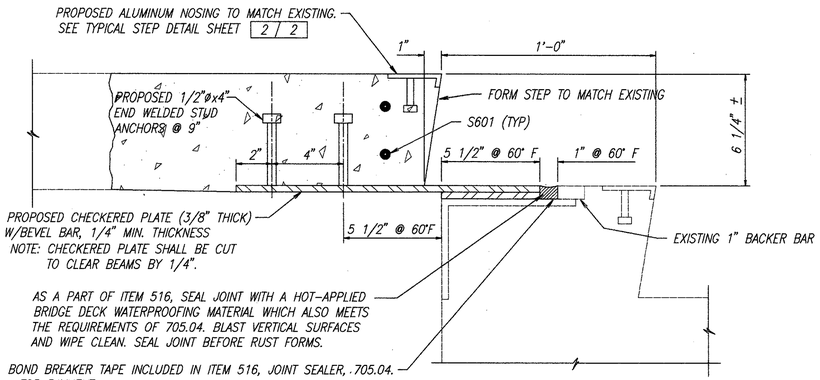
xxxx SURFACE TO BE SEALED UNDER ITEM SPECIAL - 'SEALING OF CONCRETE SURFACES'. PROVIDE A NON-SKID SURFACE WHERE SHOWN.

TYPICAL SECTION

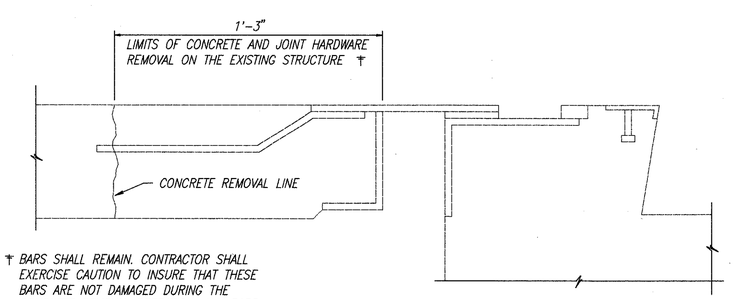
ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
509	15840	106	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
SPEC.	51267500	270	SQ.YD.	SEALING OF CONCRETE SURFACES *
SPEC.	51267502	40	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) *
514	03000	LUMP	LUMP	SURFACE PREPARATION OF EXISTING STEEL *
514	03600	LUMP	LUMP	FIELD PAINTING EXISTING STRUCTURAL STEEL, COMPLETE COAT PRIME (OZ)
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	31001	15	LIN.FT.	JOINT SEALER, 705.04, AS PER PLAN
516	46701	2	EACH	REFURBISH BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE *
517	76300	13	LIN.FT.	RAILING MISC. GALV. STEEL PIPE RAILING 1½" NOMINAL PIPE SIZE, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	50	SQ.FT.	PATCHING CONCRETE STRUCTURE

NOTE: 50 LBS. OF REPLACEMENT STEEL IS INCLUDED IN REINFORCING QUANTITIES.

12"	7'-8"	12"	BAR	QTY.	LENGTH	WT.
			S601 (4 REQ'D)	9'-4"	.56 LBS.	

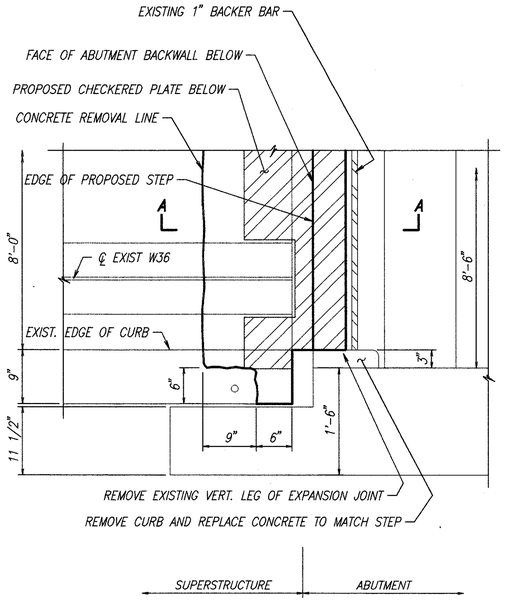


PROPOSED SECTION A-A



† BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO INSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL OPERATION. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.

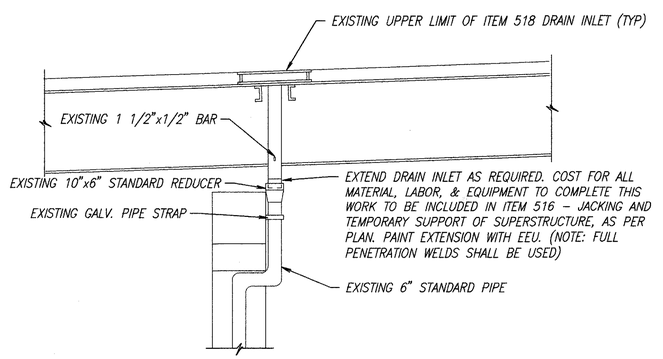
EXISTING SECTION A-A



EXPANSION JOINT MODIFICATION PLAN

FORWARD RIGHT ABUTMENT SHOWN OTHER ABUTMENTS SIMILAR

COST OF ALL MATERIALS, EQUIPMENT AND LABOR TO COMPLETE THIS WORK INCLUDING JOINT REMOVAL AND REPLACEMENT TO BE INCORPORATED INTO THE PRICE BID FOR ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.



DRAIN INLET

EXISTING STRUCTURE

TYPE: TWO SPAN CONTINUOUS ROLLED BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 92'-0" & 97'-0" c/c BEARINGS

WIDTH: 8'-0" f/f CURBS

LOADING: 85 LBS. PER SQ. FT. (UNIFORM)

SKEW: NONE

ALIGNMENT: TANGENT

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

1 / 2

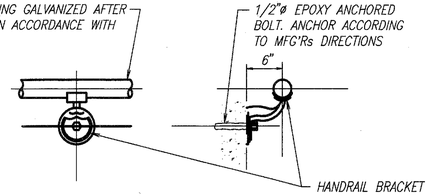
GENERAL PLAN, TYP. SECTION & QUANTITIES

BRIDGE NO. HAM-71-0566
PEDESTRIAN BRIDGE OVER I-71

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-27-95

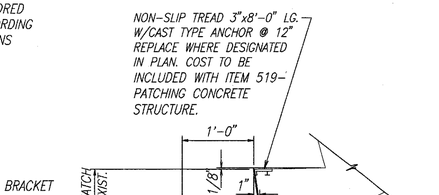
CALC BY		HAMILTON COUNTY	OHIO	553
CHKD BY		HAM-71-2.92	F.H.W.A. REGION 5	615
DATE				



NOTES:

- HANDRAIL BRACKET SHALL BE MALLEABLE IRON & SHALL BE JULIUS BLUM & Co., INC., STOCK No. 1306; J.G. BRAUN Co. STOCK No. 4549-3" OR APPROVED EQUAL.
- RAILING SHALL BE FABRICATED FROM NOMINAL SIZE 1 1/2"øx0.145" WALL THICKNESS STEEL PIPE MEETING THE REQUIREMENTS OF THE SPECIFICATION FOR WELDED & SEAMLESS PIPE ASTM DESIGNATION A53 STANDARD WEIGHT, SCHEDULE No. 40. THE INSTALLED HANDRAIL SHALL BE FREE FROM BURRS, OR SHARP PROJECTIONS. 1 1/2" PIPE RAILING IS MEASURED ON SLOPE FOR PAYMENT.
- ALL MATERIAL, EQUIPMENT, AND LABOR REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED IN ITEM 517 - RAILING MISC.: GALVANIZED STEEL PIPE RAILING, 1 1/2" NOM. PIPE SIZE, AS PER PLAN.

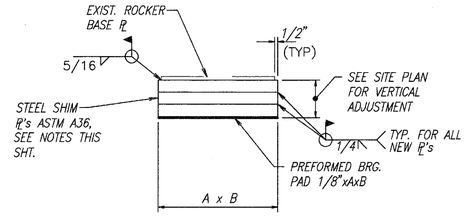
HANDRAIL DETAIL



NOTE:

- TREADS TO BE TYPE 101 CAST ALUMINUM WITH INTEGRAL CAST ANCHORS & ABRASIVE CROSS HATCHED SURFACE, MFGR'D. BY WOOSTER PRODUCTS INC., WOOSTER, OHIO; McKINLEY IRON WORKS, FORT WORTH, TEXAS, OR APPROVED EQUAL. ALL ALUMINUM SURFACES IN CONTACT W/CONCRETE SHALL BE COATED WITH A BITUMINOUS PAINT. ALL MATERIAL, EQUIPMENT, AND LABOR REQUIRED TO COMPLETE THIS WORK TO BE INCLUDED IN ITEM 519 - PATCHING CONCRETE STRUCTURE.

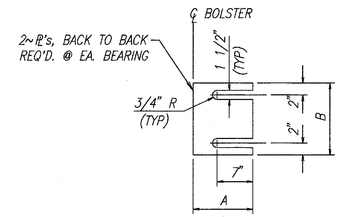
TYP. STEP PATCHING DETAIL



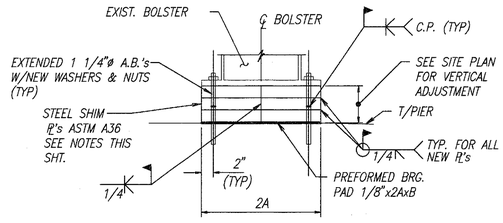
ELEVATION - ROCKER SHIM PLATES

NOTES:

- STEEL ℄ THICKNESS SHALL NOT BE LESS THAN 1/2" NOR MORE THAN 2" THICK & THE TOTAL NUMBER OF ℄'s SHALL BE AT A MIN. TO OBTAIN THE VERTICAL ADJUSTMENT HEIGHT.
- STEEL SHIM ℄'s ARE INCLUDED IN ITEM 516-JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE FOR PAYMENT.
- C.P. = COMPLETE PENETRATION



PLAN - BOLSTER SHIM PLATE

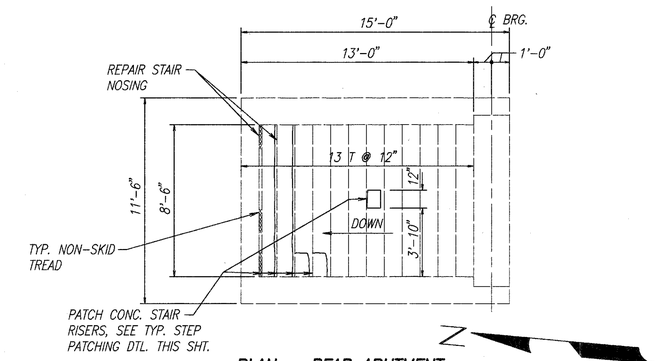


ELEVATION - BOLSTER SHIM PLATES

PLATE SCHEDULE

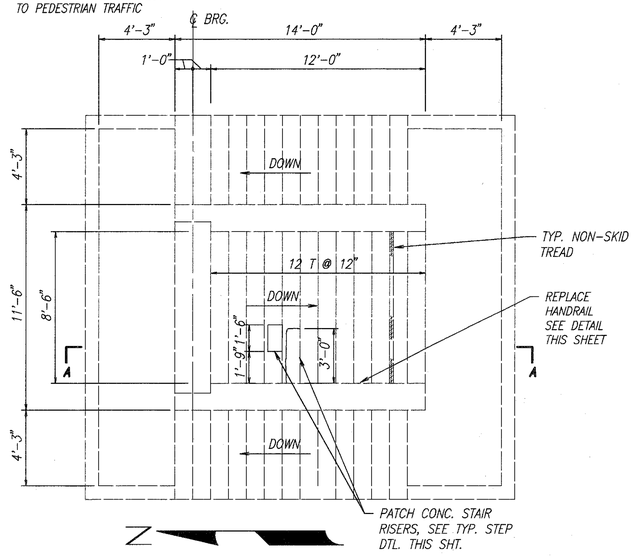
ROCKER OR BOLSTER SIZE	DIMENSIONS A	DIMENSIONS B
R75	9"	19"
B125	10"	11"

ITEM 516-JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, SHALL INCLUDE THE COSTS FOR ALL LABOR, MATERIALS, AND EQUIPMENT TO RAISE THE SUPERSTRUCTURE TO GAIN THE SPECIFIED ADDITIONAL CLEARANCE OVER I-71 (SEE PROPOSAL NOTE). INCLUDED WITH THIS WORK ARE JACKS, TEMPORARY SUPPORTS, LONGITUDINAL BLOCKING, STEEL SHIM PLATES, WELDING AND PAINTING STEEL SHIM PLATES, CLEANING AND PAINTING OF EXISTING ABUTMENT ROCKER ASSEMBLIES, INCLUDING BASE PLATES, AND PAINTING OF ALL NEW STRUCTURAL STEEL IN ACCORDANCE WITH ALL THE PROPOSAL NOTE ENTITLED "FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)". THE 1/8" PREFORMED BEARING PADS AND EXPANSION JOINT MODIFICATIONS SHALL ALSO BE INCLUDED WITH THIS PAY ITEM. PAYMENT SHALL BE MADE BY LUMP SUM FOR ITEM 516-JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE.

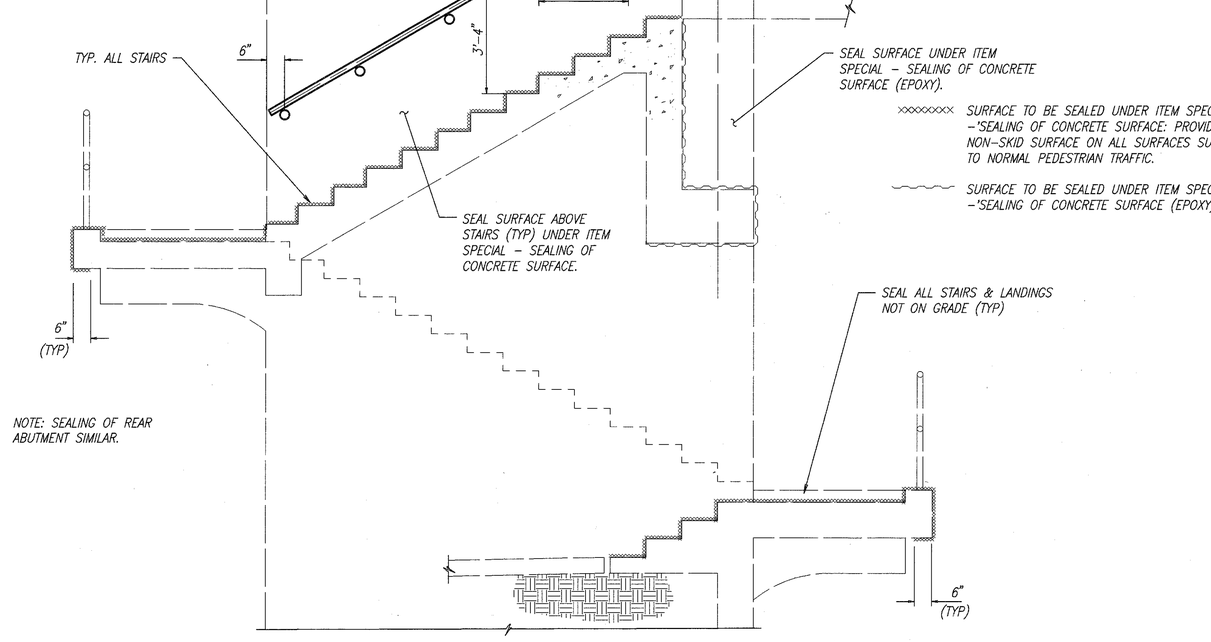


PLAN - REAR ABUTMENT

NOTE: PROVIDE NON-SKID SURFACE ON ALL SURFACES SUBJECT TO PEDESTRIAN TRAFFIC



PLAN - FWD. ABUTMENT



SURFACE TO BE SEALED UNDER ITEM SPECIAL -"SEALING OF CONCRETE SURFACE: PROVIDE NON-SKID SURFACE ON ALL SURFACES SUBJECT TO NORMAL PEDESTRIAN TRAFFIC.

SURFACE TO BE SEALED UNDER ITEM SPECIAL -"SEALING OF CONCRETE SURFACE (EPOXY)

SECTION A-A

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

2/2

SECTIONS, DETAILS, AND QUANTITIES

BRIDGE NO. HAM-71-0566
PEDESTRIAN BRIDGE OVER I-71

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

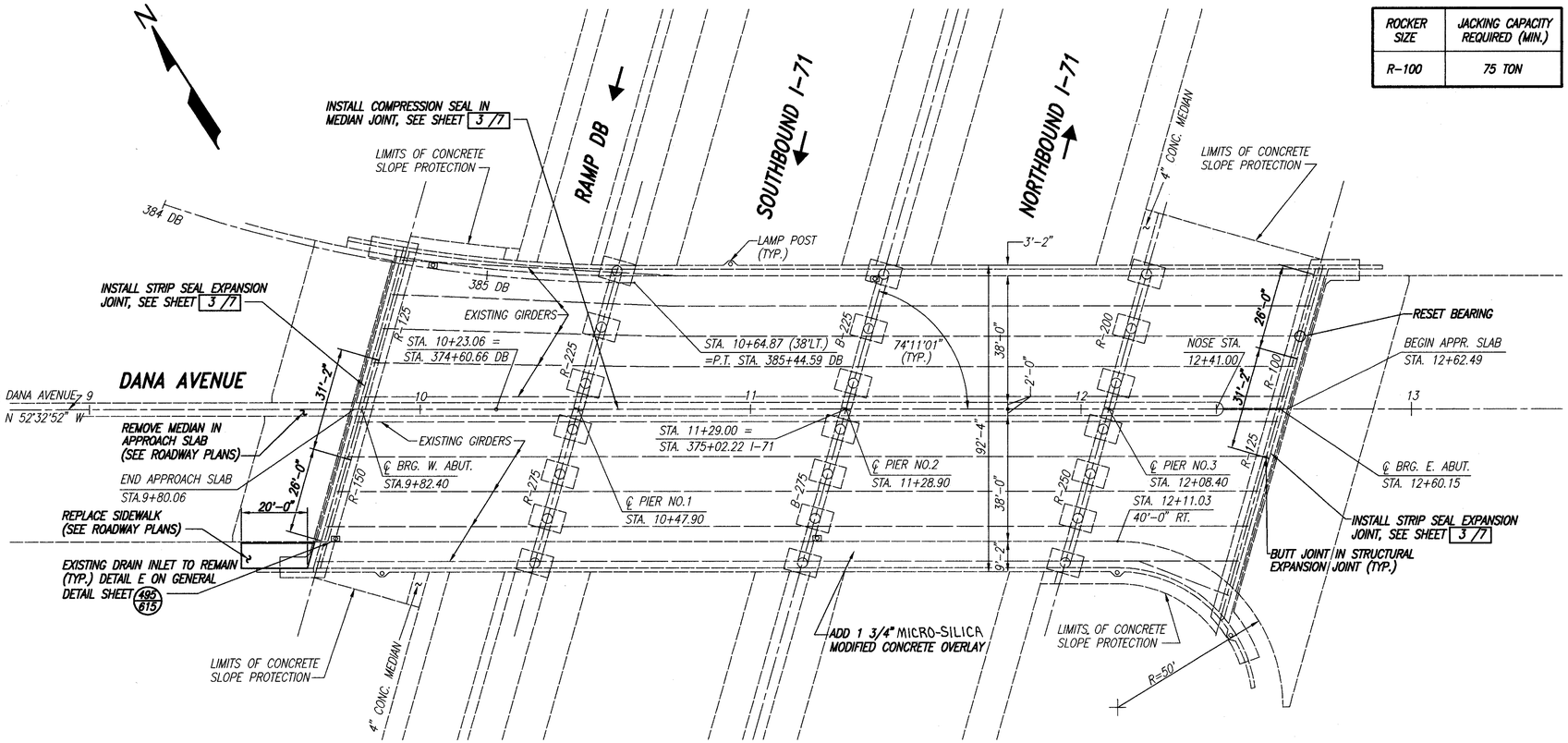
CALC BY	DATE
CHKD BY	DATE

HAMILTON COUNTY
HAM-71-2.92

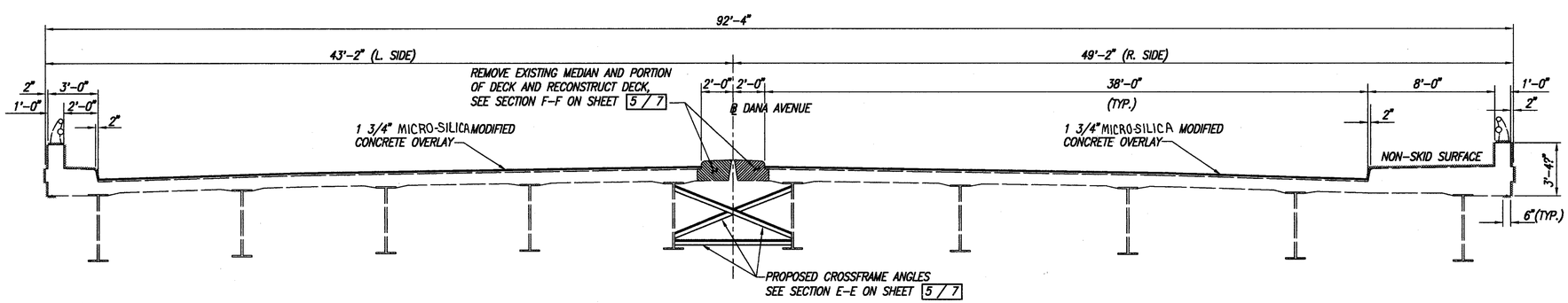
OHIO
F.H.W.A. 5 REGION

554
615

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-100	75 TON



PLAN



TYPICAL SECTION

SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES

1. SEAL CURBS, SIDEWALKS AND RAILINGS AS INDICATED ON DECK AND WINGWALLS.
2. TRIM 6" C.M.P. TO 1/2" (±) PARALLEL TO SURFACE OF CONCRETE SLOPE PROTECTION.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL PLATE GIRDERS WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 65'-6", 81'-0" 79'-6" AND 51'-9" C/C BEARINGS ALONG ℄ DANA AVENUE

ROADWAY: 80'-0"F/F CURBS MIN. INCLUDING 4'-0" RAISED MEDIAN WITH 2'-0" SAFETY CURB ALONG WESTBOUND ROADWAY AND 8'-0" SIDEWALK ALONG EASTBOUND ROADWAY

LIVE LOADING: HS 20-44

SKEW: 15° 48' 59"L.F.

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0"LONG)

ALIGNMENT: TANGENT

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1 / 7

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0598
DANA AVANUE OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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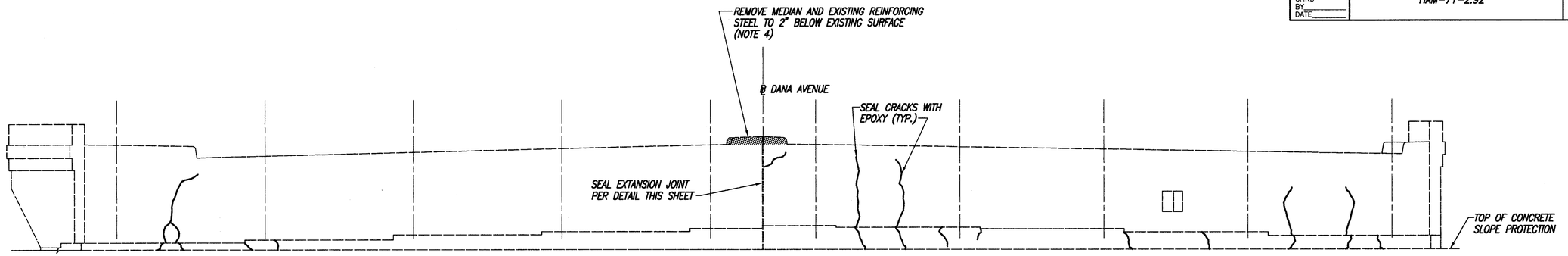
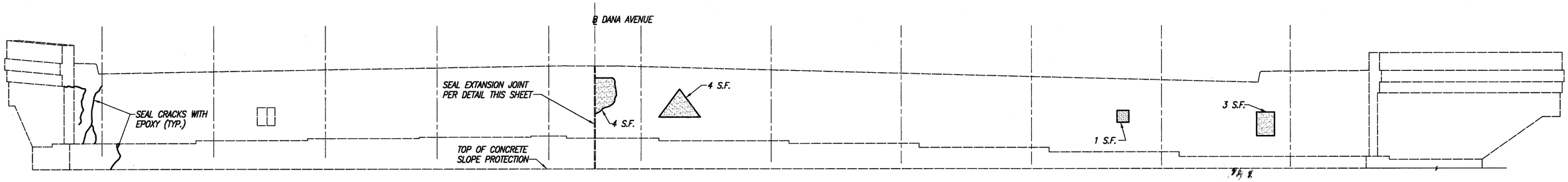
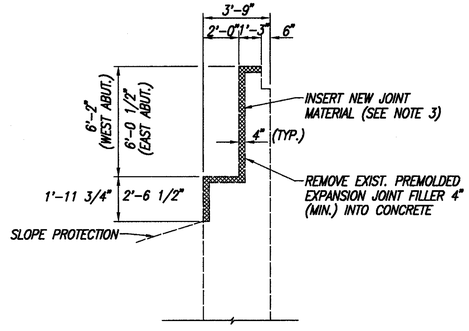
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	555 615
CHKD BY DATE			



PARTIAL ELEVATION WEST ABUTMENT



PARTIAL ELEVATION EAST ABUTMENT



ABUTMENT EXPANSION JOINT DETAIL

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
REAR	18 SQ. FT.
FORWARD	0 SQ. FT.
TOTAL	18 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

EXISTING OPENING TO REMAIN.

NOTES:

1. PATCH ABUTMENTS AS INDICATED PER "ITEM 519-PATCHING CONCRETE STRUCTURES".
2. SEAL CRACKS WITH EPOXY PER "ITEM SPECIAL - EPOXY INJECTION".
3. INSERT "ITEM 516 - STRUCTURAL JOINT SEALER, MISC.: 2"x4" SEALER, AS PER PLAN", AS MANUFACTURED BY WILL-SEAL OR A CLOSED CELL EXPANDED NEOPRENE KNOWN AS WILLIAMS NEOPRENE, MANUFACTURED BY WILLIAMS PRODUCTS INC., OR EQUIVALENT.
4. THE MEDIAN ON THE ABUTMENT SHALL BE REMOVED AT THE SAME TIME THE MEDIAN ON THE DECK IS REMOVED. WIDTH OF REMOVAL SHALL BE THE SAME (4'-6"). THE ABUTMENT SHALL BE REBUILT TO THE SCARIFICATION LEVEL WITH "ITEM 511 - CLASS "S" CONCRETE, SUPERSTRUCTURE (RECONSTRUCTION)".

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/7

ABUTMENT ELEVATIONS

BRIDGE NO. HAM-71-0598
DANA AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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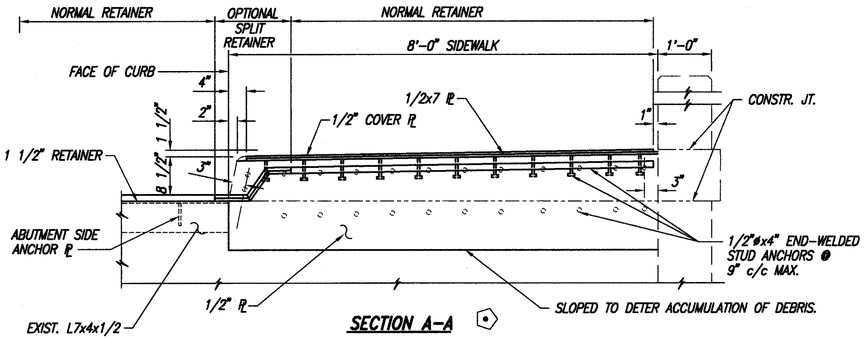
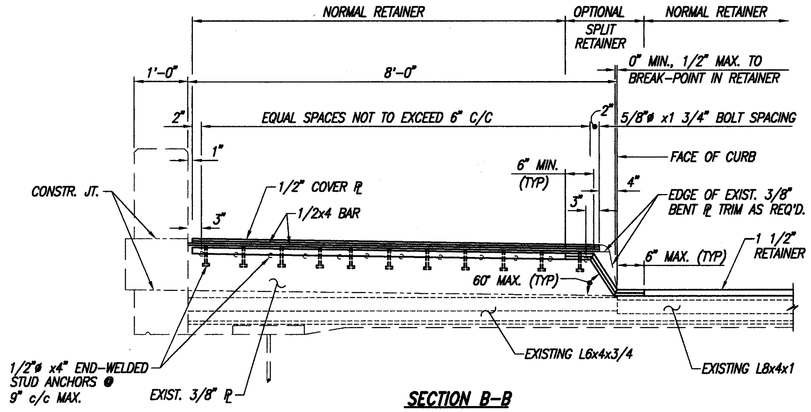
CHKD BY DATE			

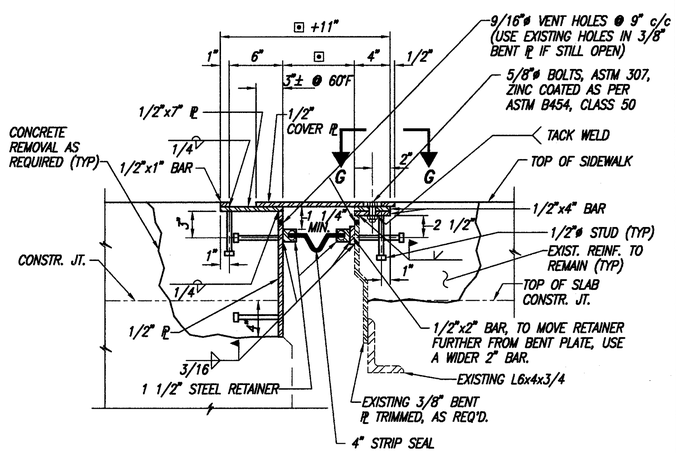


SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.

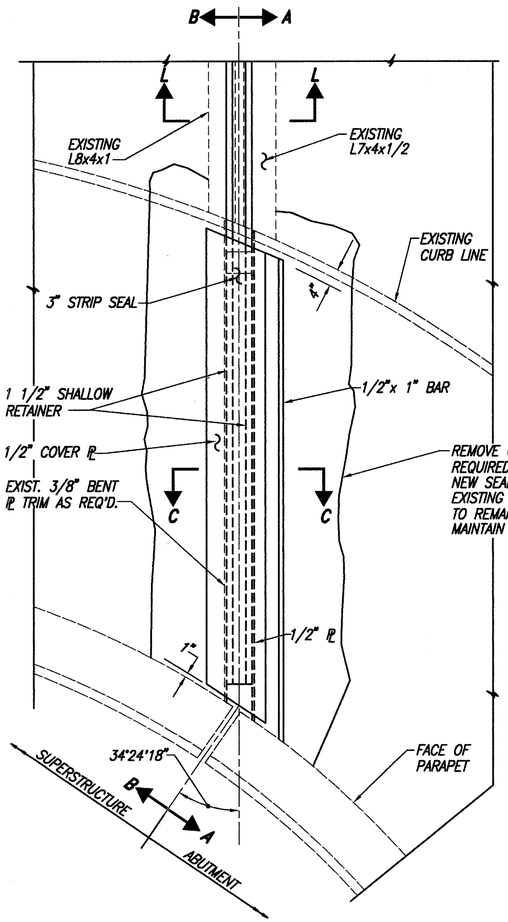


SECTION B-B

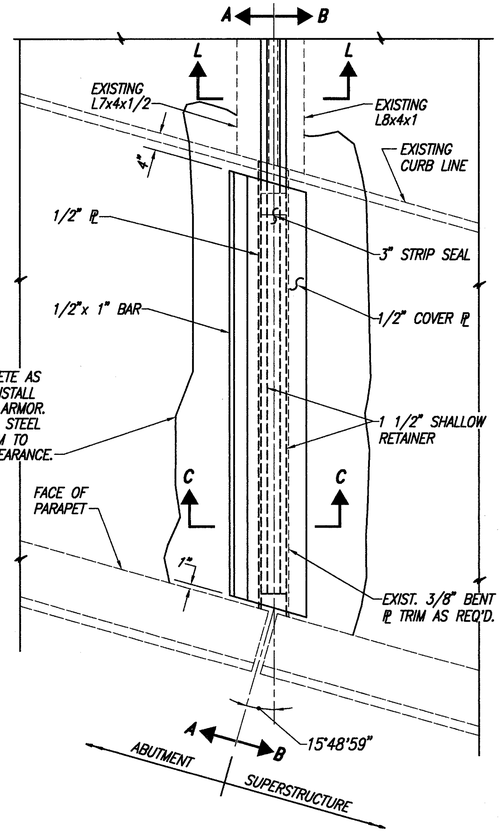


▣ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C

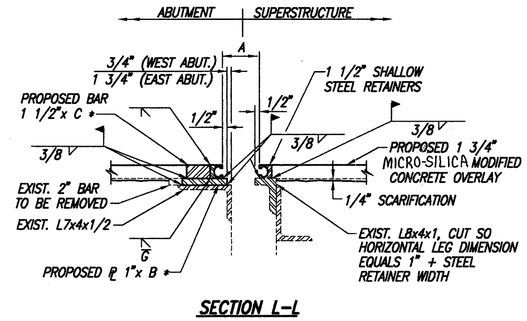


PARTIAL PLAN RIGHT SIDEWALK @ EAST ABUTMENT



PARTIAL PLAN RIGHT SIDEWALK @ WEST ABUTMENT

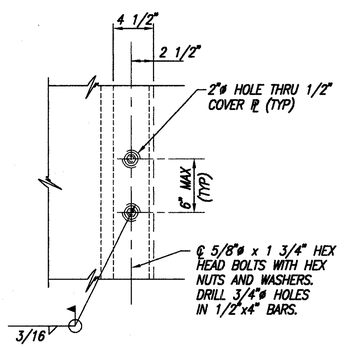
(SKEW = 15° 48' 59" LEFT FORWARD)



SECTION L-L

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

TEMPERATURE	DIMENSION 'A' WEST ABUT.	DIMENSION 'A' EAST ABUT.
30° F	3 1/16"	3 1/16"
40° F	2 15/16"	2 15/16"
50° F	2 13/16"	2 7/8"
60° F	2 3/4"	2 3/4"
70° F	2 5/8"	2 11/16"
80° F	2 1/2"	2 9/16"
90° F	2 3/8"	2 7/16"



SECTION G-G

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

3 / 7

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0598
DANA AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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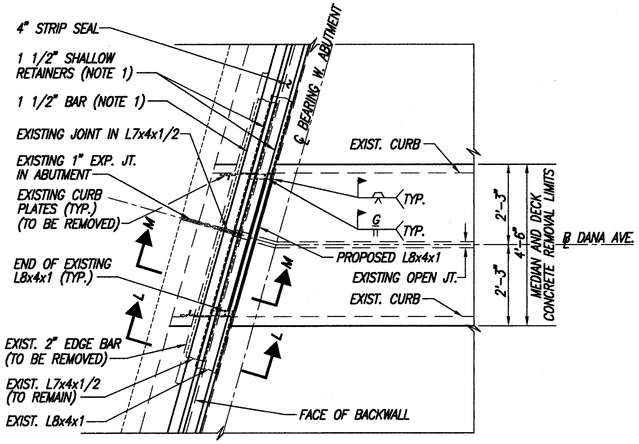
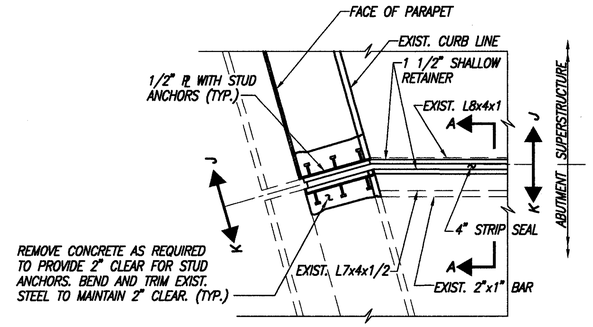
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	557 615
CHKD BY DATE			

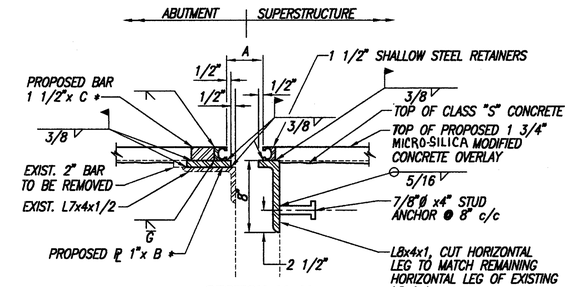


PARTIAL PLAN VIEW – WEST ABUTMENT @ MEDIAN REMOVAL



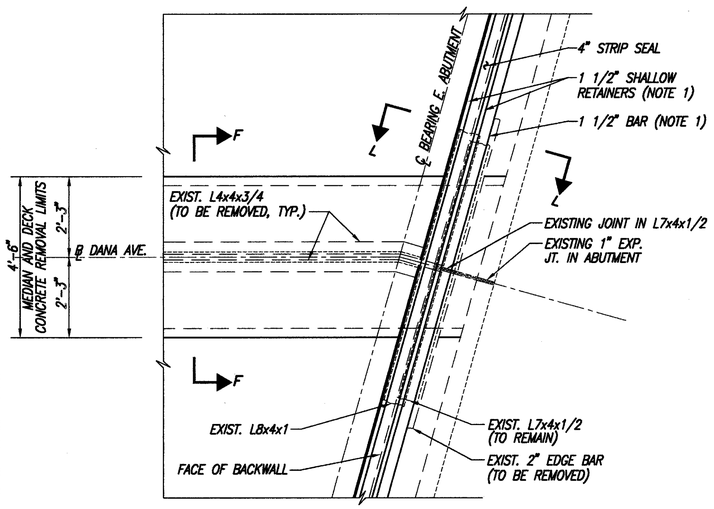
PARTIAL PLAN AT LEFT RAILING

REAR ABUTMENT SHOWN (SKEW = 5°-36'-34" L.F.)
FORWARD ABUTMENT OPPOSITE HAND (SKEW = 15°-48'-59" L.F.)
(RIGHT RAILINGS ARE SIMILAR)

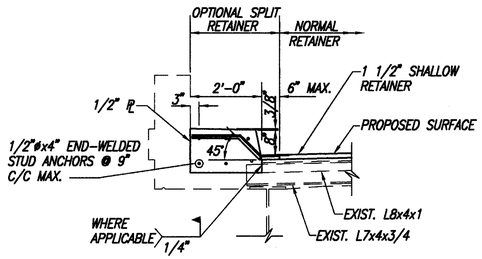


SECTION M-M

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

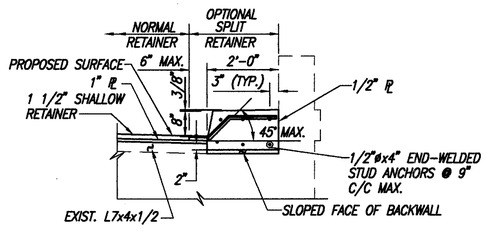


PARTIAL PLAN VIEW – EAST ABUTMENT @ MEDIAN REMOVAL



SECTION J-J

WEST ABUTMENT LEFT & EAST ABUTMENT RIGHT SHOWN,
WEST ABUTMENT RIGHT & EAST ABUTMENT LEFT OPPOSITE HAND.



SECTION K-K

WEST ABUTMENT LEFT & EAST ABUTMENT RIGHT SHOWN,
WEST ABUTMENT RIGHT & EAST ABUTMENT LEFT OPPOSITE HAND.

TEMP.	DIMENSION "A"	
	SOUTH ABUTMENT	NORTH ABUTMENT
30°	3"	3 1/2"
40°	2 15/16"	3 3/8"
50°	2 15/16"	3 5/16"
60°	2 7/8"	3 3/16"
70°	2 13/16"	3 1/8"
80°	2 13/16"	3 1/16"
90°	2 3/4"	2 15/16"

NOTE

1. THE 1 1/2" SHALLOW RETAINER AND 1 1/2" BARS SHALL SPAN THE GAP IN THE L7x4x1/2 AND L8x4x1 AT THE EAST ABUTMENT, AND THE GAP IN THE L7x4x1/2 AT THE WEST ABUTMENT.
2. FOR SECTIONS NOT SHOWN ON THIS SHEET, SEE SHEETS 3 & 5 /7

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4 /7

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0598
DANA AVANUE OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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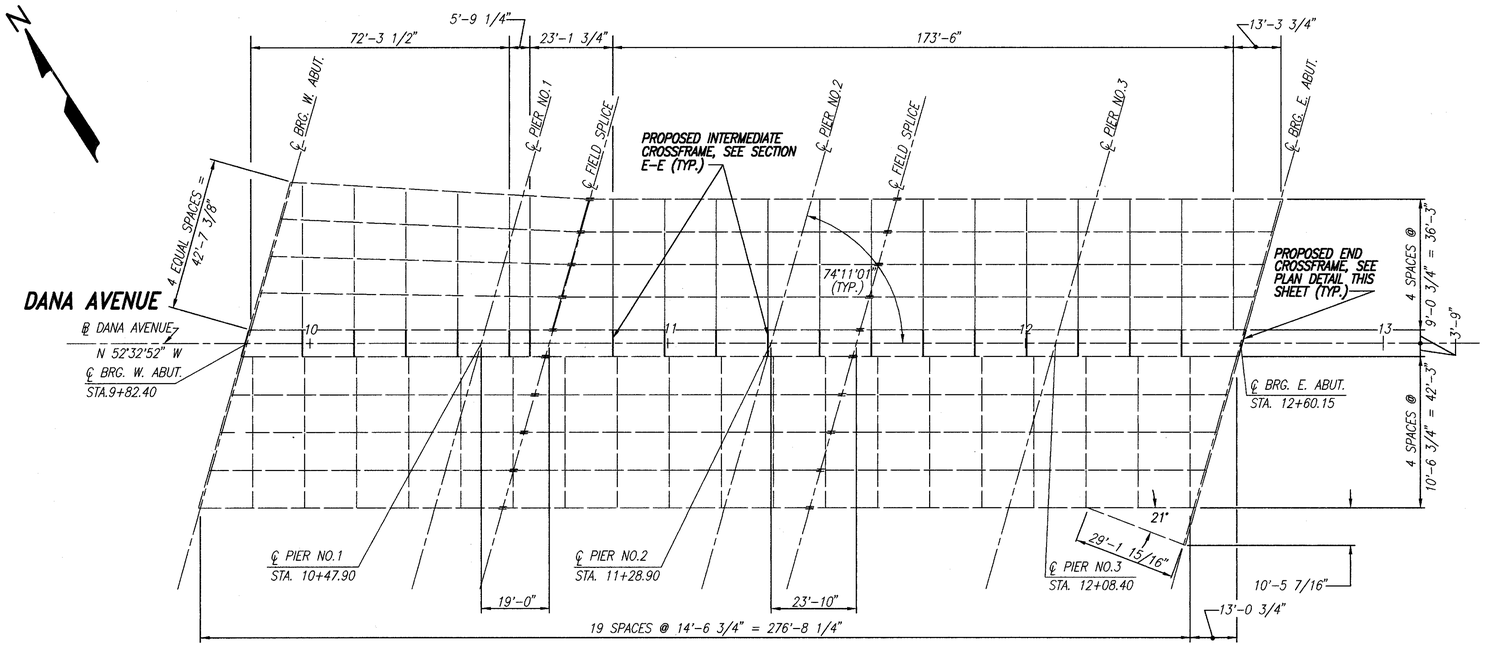
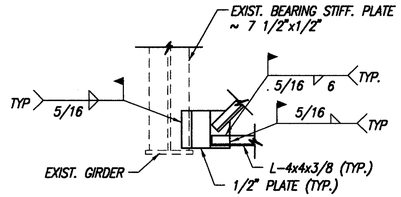
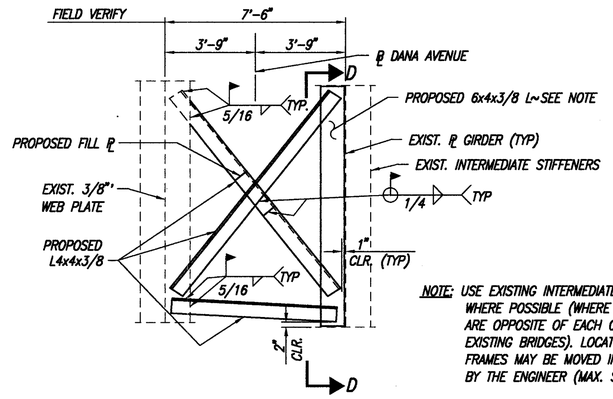
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	558 615
CHKD BY DATE			



FRAMING PLAN

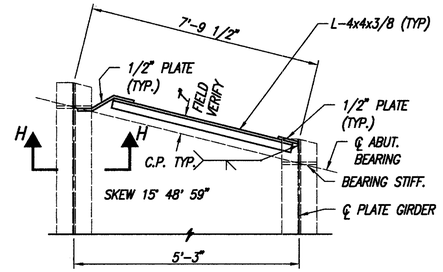


SECTION H-H



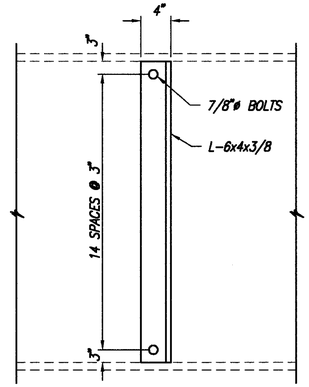
NOTE: USE EXISTING INTERMEDIATE STIFFENERS WHERE POSSIBLE (WHERE STIFFENERS ARE OPPOSITE OF EACH OTHER BETWEEN EXISTING BRIDGES). LOCATION OF CROSS-FRAMES MAY BE MOVED IF APPROVED BY THE ENGINEER (MAX. SPACING ~15').

SECTION E-E

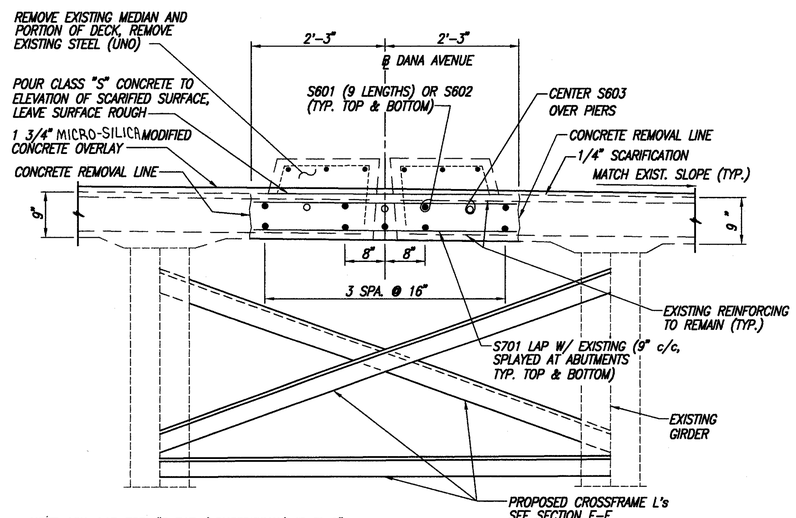


PLAN END CROSSFRAME

C.P. = COMPLETE PENETRATION
FOR FRAME DETAILS NOT SHOWN SEE STD. DRAWING SD-1-69



SECTION D-D



NOTE: MIN. LAP FOR #6 BAR (LONGITUDINAL) IS 3'-0"

SECTION F-F

UNO = UNLESS NOTED OTHERWISE

NOTES:

CUT LINE CONSTRUCTION JOINT PREPARATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1" DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. WHERE PRACTICABLE AT LEAST 2'-0" LENGTH OF PROTRUDING REINFORCING STEEL SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS AS SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACE AND EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THEN, THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE. OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. CONCRETE BONDING SURFACES SHALL BE WET WITHOUT FREE WATER AS CONCRETE IS PLACED.

SUPERSTRUCTURE CONCRETE REMOVAL:

REMOVAL SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HAMMER HEAVIER THAN 35 POUNDS, BUT NOT TO EXCEED 85 POUNDS, MAY BE USED AT THE APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

STRUCTURAL STEEL FOR PROPOSED CROSSFRAMES, SHALL BE PAID FOR AS ITEM 513, STRUCTURAL STEEL FOR REHABILITATION. STRUCTURAL STEEL UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE ENGINEER SHALL HAVE THE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED ON REQUEST BY THE BUREAU OF BRIDGES. MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THAT THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL SEND ONE APPROVED SET TO THE BUREAU OF BRIDGES FOR INFORMATION. PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH 513 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUBMITTED TO THE ENGINEER FOR HIS REVIEW AND APPROVAL. THE FABRICATOR SHALL FURNISH A 35 MILLIMETER MICROFILM COPY OF EACH SHOP DRAWING, WHICH SHALL BE MOUNTED ON AN APERTURE CARD AS SPECIFIED IN 501.05.

NEW STEEL SHALL BE PAINTED ACCORDING TO THE PROPOSAL NOTE "PAINTING OF NEW STEEL, SYSTEM IZEU". COST FOR PAINTING SHALL BE INCLUDED WITH ITEM SPECIAL - PAINTING OF NEW STEEL, SYSTEM IZEU, FOR PAYMENT.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

5 / 7

FRAMING PLAN

BRIDGE NO. HAM-71-0598
DANA AVANUE OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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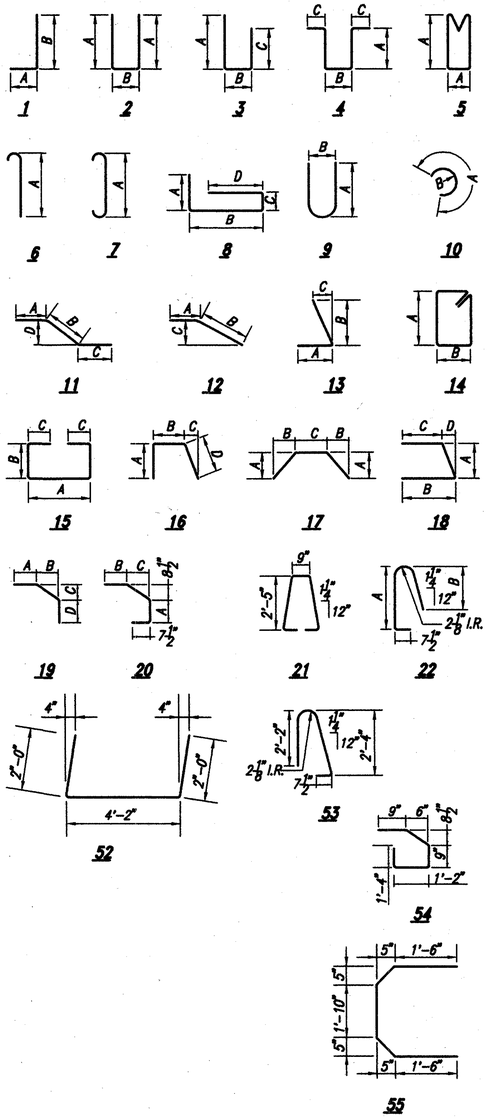
MARK	NO. REQ'D	LGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
SUPERSTRUCTURE									
S601	81	30'-0"	STR.						3,650
S602	9	34'-10"	STR.						471
S603	9	36'-0"	STR.						487
S701	744	4'-2"	STR.						6,341
								SUB TOTAL =	10,949
								ADDITIONAL REPLACEMENT STEEL =	500
								TOTAL =	11,449

NOTES

ALL DIMENSIONS ARE OUT TO OUT.

ALL REINFORCING STEEL SHALL BE EPOXY COATED.



CALC BY M.A.P. DATE 3-24-94	CHKD BY A.M. DATE 3-29-94	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	559 615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
509	15840	11449	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
511	34450	34	CU.YD.	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN
SPEC.	51267500	1010	SQ.YD.	SEALING OF CONCRETE SURFACES *
513	16000	5900	LBS	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN
513	21000	4	EACH	TRIMMING OF BEAM END
SPEC.	51400056	5900	LBS.	FIELD PAINTING OF NEW STEEL, SYSTEM IZEU *
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	31001	125	LIN.FT.	JOINT SEALER (705.04), AS PER PLAN
516	46701	20	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	11211	210	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	14600	24	LIN.FT.	STRUCTURE JOINT OR JOINT SEALER MISC: 2" x 4" SEALER, AS PER PLAN
516	46701	1	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMP. SUPPORT OF SUPERSTRUCTURE *
518	12900	4	EACH	SCUPPER, LENGTHENING
518	12801	4	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	18	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	60	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	607399I0	237	LIN.FT.	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC
SPEC.	53000800	2437	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	480	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	8	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	2437	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	158	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	2437	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* See Proposal Note

PROPOSED WORK

1. REMOVE MEDIAN AND PORTION OF DECK, ADD CROSSFRAME ANGLES AND REPLACE DECK.
2. RESET ALL ABUTMENT BEARINGS INDICATED.
3. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
4. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
5. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS, PER DETAIL 'F' ON GENERAL DETAIL SHEET (495/615).
6. FILL BACKWALL CRACKS WITH EPOXY.
7. SEAL CURBS, SIDEWALKS AND RAILINGS.
8. PATCH ABUTMENTS AS INDICATED.
9. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
10. OTHER WORK AS DESCRIBED IN THESE PLANS.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

6/7

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0598
DANA AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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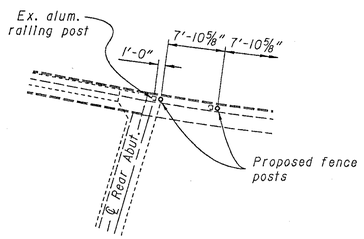
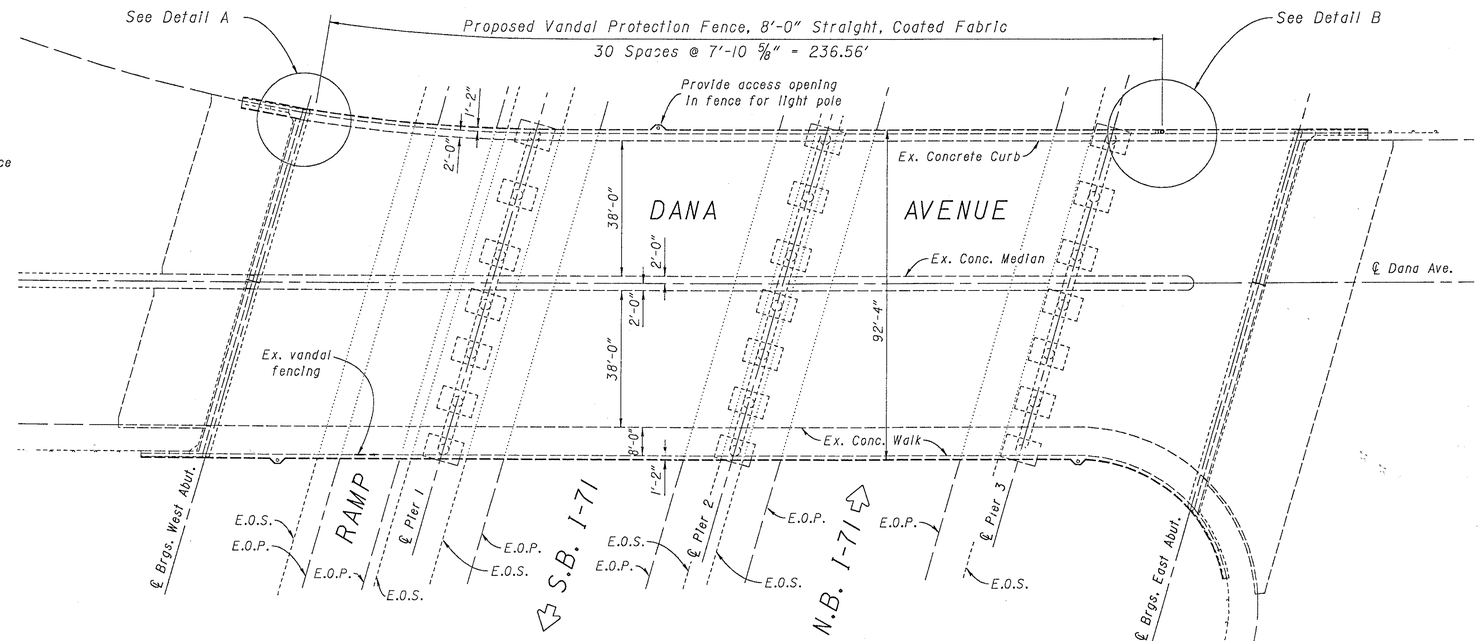
FHWA REGION	STATE	PROJECT	
5	OHIO		

560/615

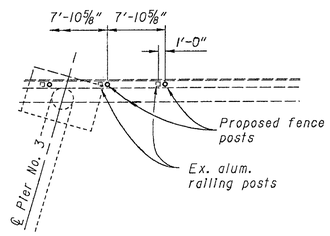
HAM-71-2.92



DETAIL A



FENCE PLAN



DETAIL B

FENCE QUANTITY

Item Special 237 Lin. Ft. Vandal protection fence, 8' Straight, Coated Fabric

FENCE NOTES

PROPOSED WORK:

Proposed work includes the following:

1) Install temporary traffic control devices as directed by the Project Engineer.
2) Remove existing aluminum railing and store for re-use.
3) Layout and install proposed base plates for fence posts on existing concrete railing.
4) Install vandal protection fence fabric.
5) Re-install aluminum railing.
6) Remove temporary traffic control devices and restore normal traffic pattern.

DESIGN DATA:

Threaded anchors for base plates are designed for a minimum concrete strength of f' = 4,000 p.s.i. Special designs are required for concrete strength less than this amount.

EXISTING ALUMINUM RAILING, REMOVED AND REINSTALLED:

The existing aluminum railing tubing shall be carefully removed and stored to permit installation of the proposed base plates. Existing hardware shall be saved for re-use. Damaged stainless steel cap screws shall be replaced in kind. Any portions of the existing railing that is damaged by the Contractor's operations shall be replaced at his expense. The reinstallation of the railing shall be performed in accordance with Item 517.05 of the Specifications. Payment for all labor, material, and equipment necessary to remove, store and reinstall the aluminum railing shall be included with the appropriate Vandal Protection Fence item.

ITEM SPECIAL - VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC:

This item shall include furnishing all materials, labor, equipment and incidentals necessary to install vandal protection fence on the existing concrete bridge railing.

The work shall be performed in accordance with Items 517 and 607 of the Specifications and Standard Drawing No. VPF-1-90 except where modified herein:

1) Expansion sleeves shall be installed in the line rails and the top rail at every expansion joint in the bridge, and at 100 ft. intervals in the top rail.
2) The proposed line spacings of fence posts shown on the plan sheets were obtained from the original plan drawings. They are included to enable the Contractor to make a reasonable estimate of the material required; however, they should be considered approximate. Prior to drilling the holes for the base plates, the location of the fence posts shall be carefully laid out and adjusted as necessary to achieve the clearances shown on the Standard Drawings between the fence posts and the existing aluminum railing posts and/or concrete deflection joints.
3) Care shall be taken not to damage the existing barrier reflectors. Any reflectors damaged by the Contractor's operations shall be replaced in kind at his expense.
4) Any concrete that is spalled or otherwise damaged by the installation of vandal fence shall be repaired by patching with a trowelable epoxy mortar. The patching shall be performed at the direction of the Project Engineer and in accordance with the Manufacturer's recommendations.
5) Fencing stainless steel closure plates shown on Sheet 6 of 6 of Std. Dwg. No. VPF-1-90 shall be installed for all Post Sections PS-1, PS-2 and PS-3 as shown on Sheet 4 of 6. Stainless steel closure plates are not required for Post Section PS-4, Sheet 4 of 6, due to the bottom rail shown in the PS-4 detail. Any railing details without a bottom rail shall require the installation of a stainless steel closure plate. Materials and installation shall be as per Sheet 6 of 6.
6) Fence posts, base plates, fence anchors, rails, sleeves, fence fabric, stretcher bars, tension bands, truss rods, ties and miscellaneous hardware shall be galvanized in accordance with 711.02 and shall receive a bonded polyvinyl chloride coating. The color of the polyvinyl chloride coating shall be a dark green as approved by the City of Cincinnati. The stainless steel closure plates shall be coated with green polyvinyl chloride.
7) Existing aluminum railing is BR-1-65 with Type 2 posts.
8) Base plate shall be BP-1 type. Post section shall be PS-3 type.

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

7/7

VANDAL FENCING PLAN

BRIDGE NO. HAM-71-0598

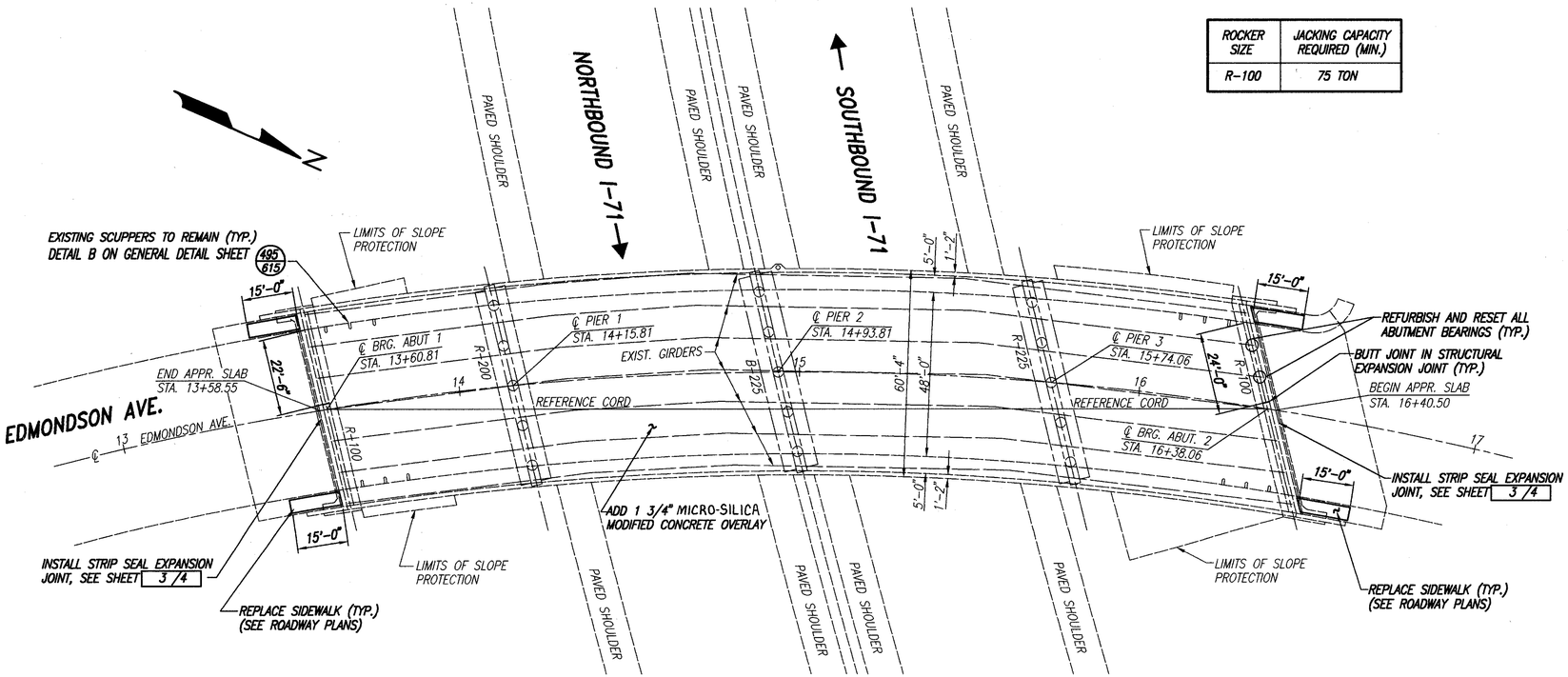
Dana Ave. over I.R. 71

DESIGNED	DRAWN	REVIEWED	DATE	REVISED
MLM	CJB MLM	RLE	6-21-94	

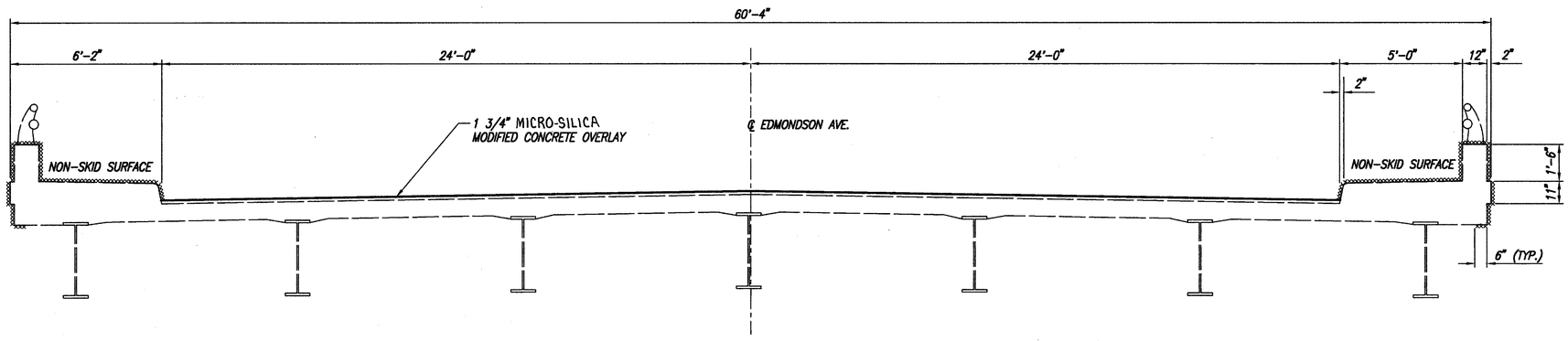
404 BLACK 562 - 615

CALC BY: DATE:	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	562 615
CHKD BY: DATE:			

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-100	75 TON



PLAN



TYPICAL SECTION

xxxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON THE DECK AND WINGWALLS.

EXISTING STRUCURE

TYPE: CONTINUOUS ROLLED STEEL BEAM WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 55'-0", 78'-0", 80'-3" AND 64'-0" C/C BEARINGS

ROADWAY: 48'-0"F/F CURBS WITH 5'-0" SIDEWALKS

SKEW: 13°31'56"RF

LOAD FREQUENCY: CF=400(57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0"LONG)

ALIGNMENT: 6° 30' CURVE RT.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0670
EDMONDSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	RWG	2-22-95

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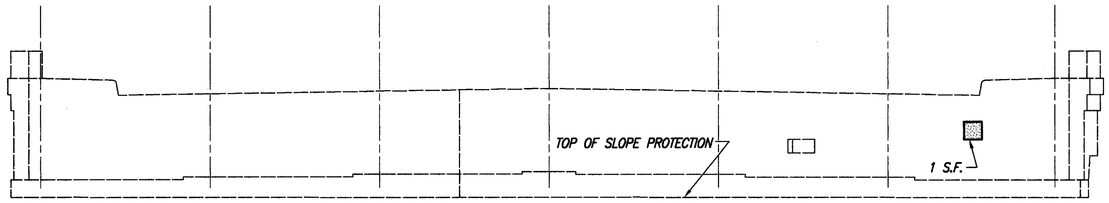
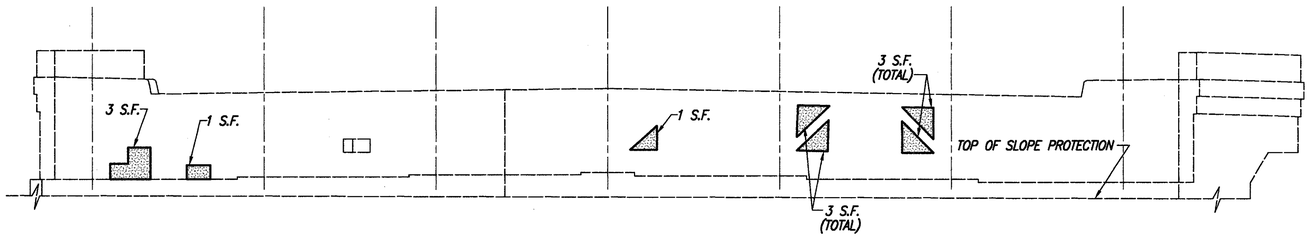
CHKD BY DATE			



PARTIAL ELEVATION ABUTMENT NO. 1



PARTIAL ELEVATION ABUTMENT NO. 2

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
NO. 1	2 SQ. FT.
NO. 2	17 SQ. FT.
TOTAL	19 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENTS AS INDICATED PER "ITEM 519-PATCHING CONCRETE STRUCTURE."

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

EXISTING OPENING TO REMAIN.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/4

ABUTMENT ELEVATIONS

BRIDGE NO. HAM-71-0670
EDMONDSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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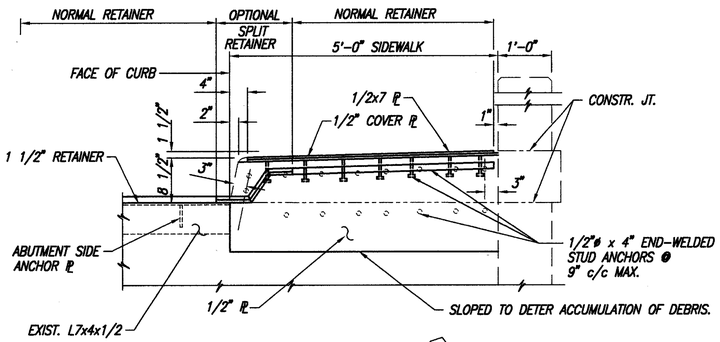
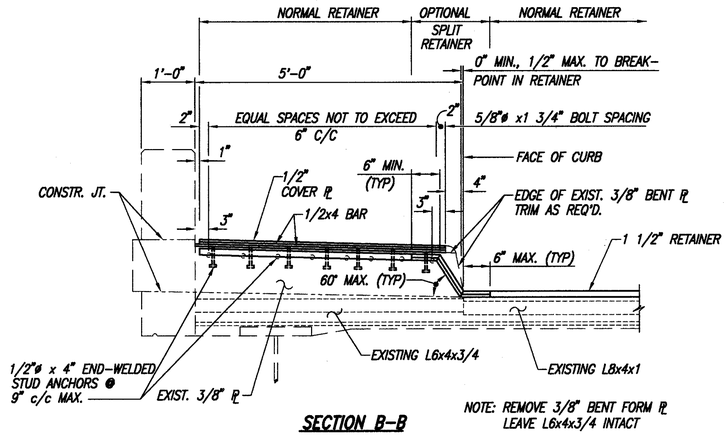
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	564 615
CHKD BY / DATE			



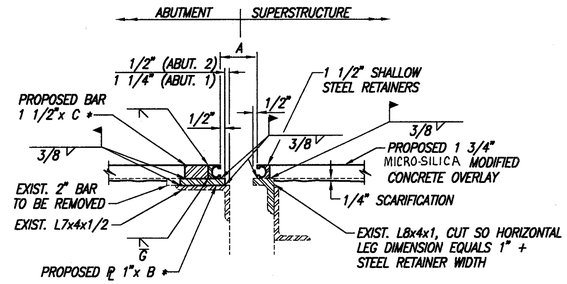
SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS:
IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



SECTION B-B

NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT

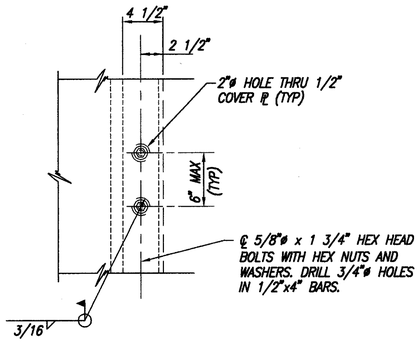


SECTION D-D

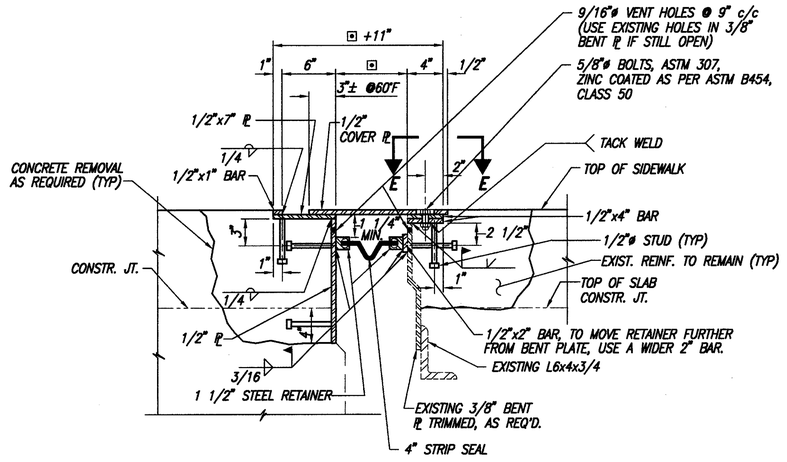
B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

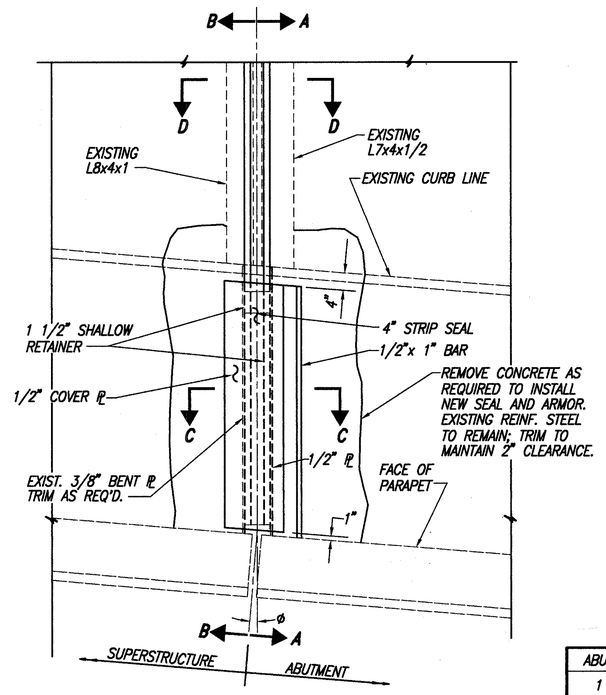


SECTION E-E



▣ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



PARTIAL PLAN SIDEWALK @ ABUTMENT

(ABUTMENT 1 LEFT SIDEWALK AND ABUTMENT 2 RIGHT SIDEWALK AS SHOWN, REMAINING SIDEWALKS ARE OPPOSITE HAND)

ABUT.	SIDEWALK	ø
1	RIGHT	4° 42'
1	LEFT	4° 20'
2	RIGHT	24° 12'
2	LEFT	22° 30'

TEMPERATURE	DIMENSION 'A' ABUT. 1	DIMENSION 'A' ABUT. 2
30° F	3 1/16"	3 5/16"
40° F	2 15/16"	3 3/16"
50° F	2 13/16"	3 1/16"
60° F	2 3/4"	3"
70° F	2 5/8"	2 7/8"
80° F	2 1/2"	2 3/4"
90° F	2 3/8"	2 11/16"

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

3/4

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0670
EDMONDSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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CALC BY M.A.P. DATE 12-4-91	HAMILTON COUNTY HAM-71-2.92	OHIO	565 615
CHKD BY A.M. DATE 12-18-91		F.H.W.A. REGION 5	

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
201	11000	LUMP	LUMP	CLEARING AND GRUBBING
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	844	SQ.YD.	SEALING OF CONCRETE SURFACES
514	27700	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
516	11211	122	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	14	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPER STRUCTURE *
517	73500	16	LIN.FT.	BRIDGE RAILING REBUILT
518	12801	12	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	12	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	19	SQ.FT.	PATCHING CONCRETE STRUCTURE
601	34200	3	CU.YD.	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER
SPEC.	53000800	1485	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	240	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	8	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1485	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	92	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	1485	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. REFURBISH AND RESET ALL ABUTMENT BEARINGS.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK USING HYDRODEMOLITION.
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL "F" ON GENERAL DETAIL SHEET (495/615).
5. SEAL CURBS, SIDEWALKS AND PARAPETS.
6. PATCH ABUTMENTS AS INDICATED.
7. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
8. OTHER WORK AS DESCRIBED IN THESE PLANS.

Note:

CONTRACTOR SHALL SAW CUT WINGWALL PARAPET TO ALLOW 2" MIN. CLEARANCE BETWEEN WINGWALL AND PARAPET WALL. PAYMENT UNDER PORTION OF STRUCTURE REMOVED.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4/4

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0670
EDMONDSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	AM	2-22-95

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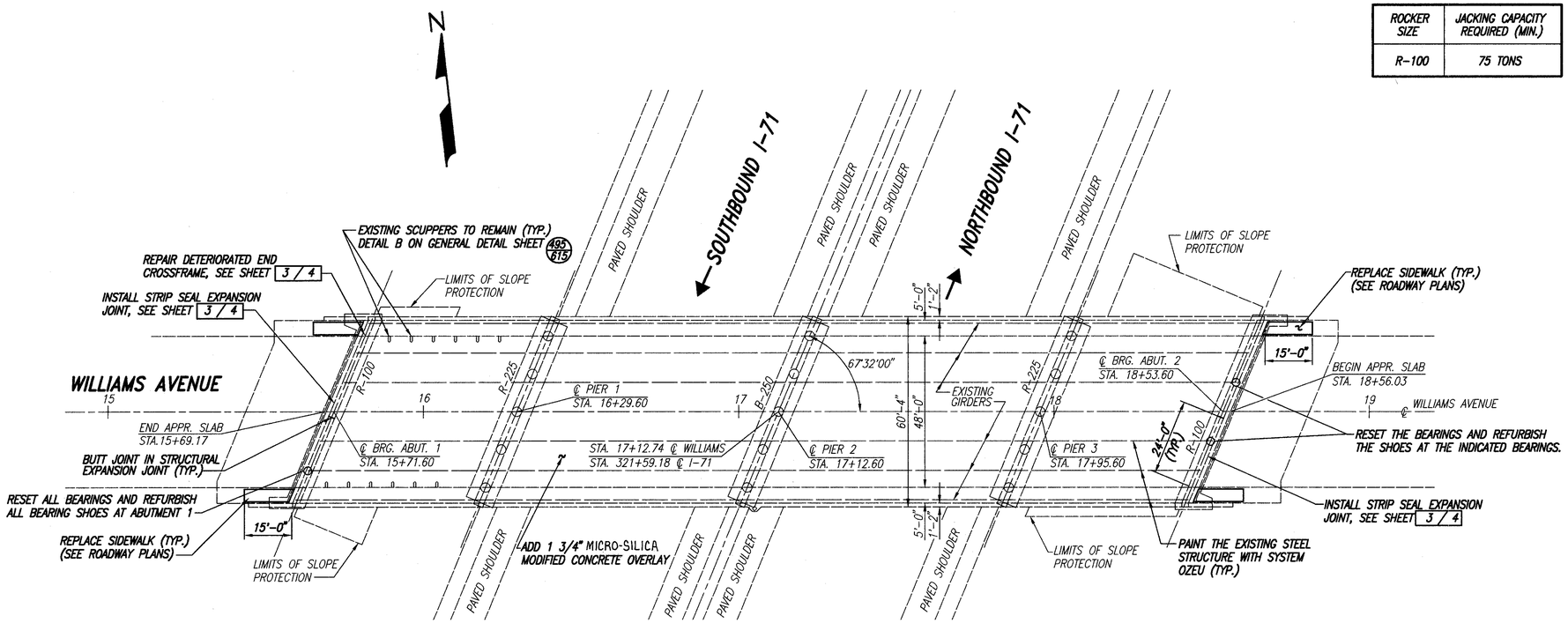
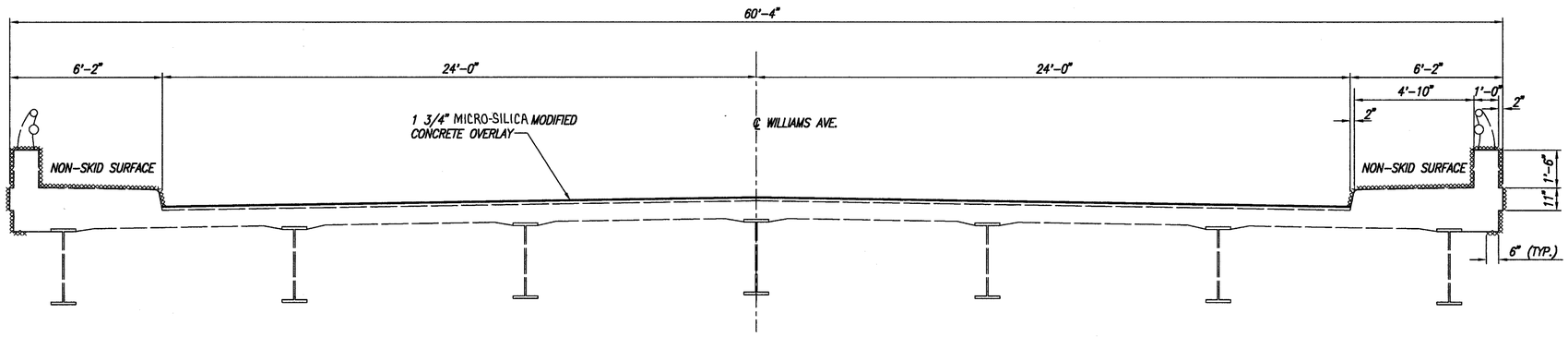
CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO	566
DATE			F.H.W.A. 5 REGION	615
CHKD BY				
DATE				

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-100	75 TONS



PLAN



TYPICAL SECTION

SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON DECK AND WINGWALLS.

EXISTING STRUCURE

TYPE: CONTINUOUS ROLLED STEEL BEAM WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 58'-0", 83'-0",83'-0" AND 58'-0" C/C BEARINGS

ROADWAY: 48'-0"F/F CURBS WITH 5'-0" SIDEWALKS

SKEW: 22°-28'-00" LF

LOAD FREQUENCY: CF=400 (57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0"LONG)

ALIGNMENT: TANGENT

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/4

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-561-0314 (HAM-71-0691)
WILLIAMS AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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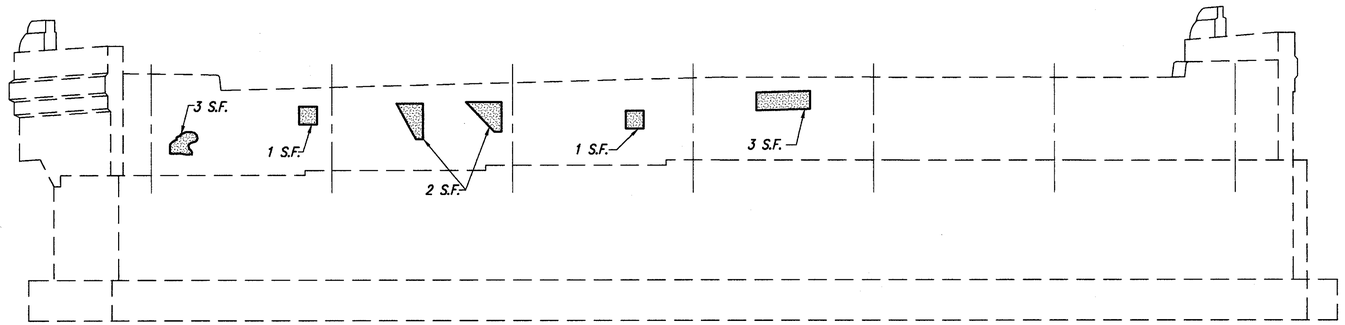
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO	567
CHKD BY DATE		F.H.W.A. REGION 5	615



ELEVATION ABUTMENT NO. 1

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
NO. 1	18 SQ. FT.
NO. 2	0 SQ. FT.
TOTAL	18 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENT AREAS INDICATED PER 'ITEM 519–PATCHING CONCRETE STRUCTURES'.

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/4

ABUTMENT ELEVATION

BRIDGE NO. HAM-561-0314 (HAM-71-0691)
WILLIAMS AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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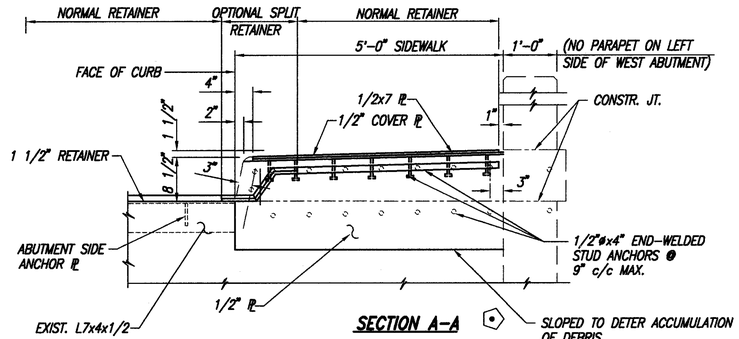
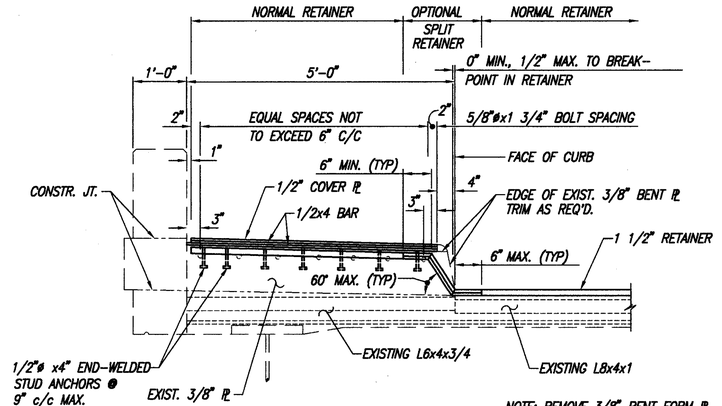
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	568 / 615
CHKD BY / DATE			



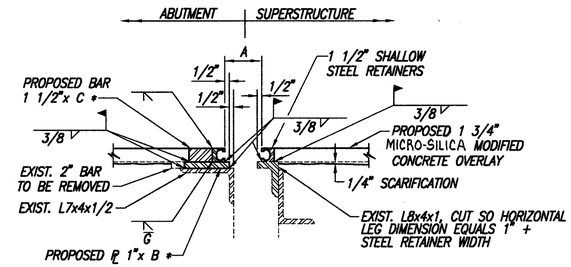
SECTION A-A

⬡ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS:
IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



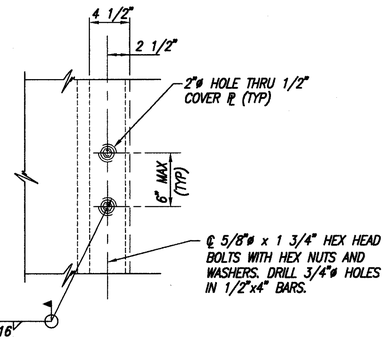
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM PL LEAVE L6x4x3/4 INTACT

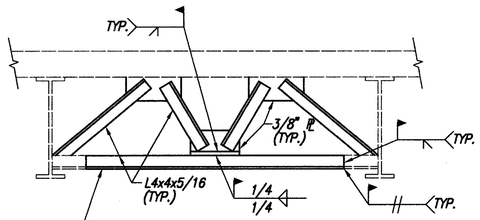


SECTION D-D

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

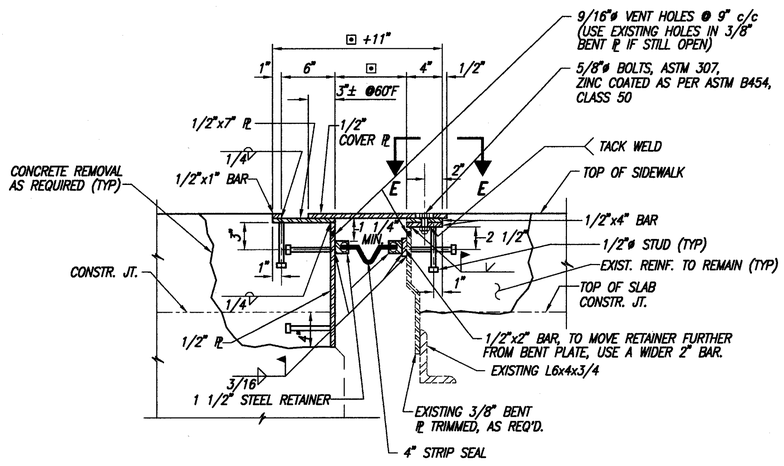


SECTION E-E



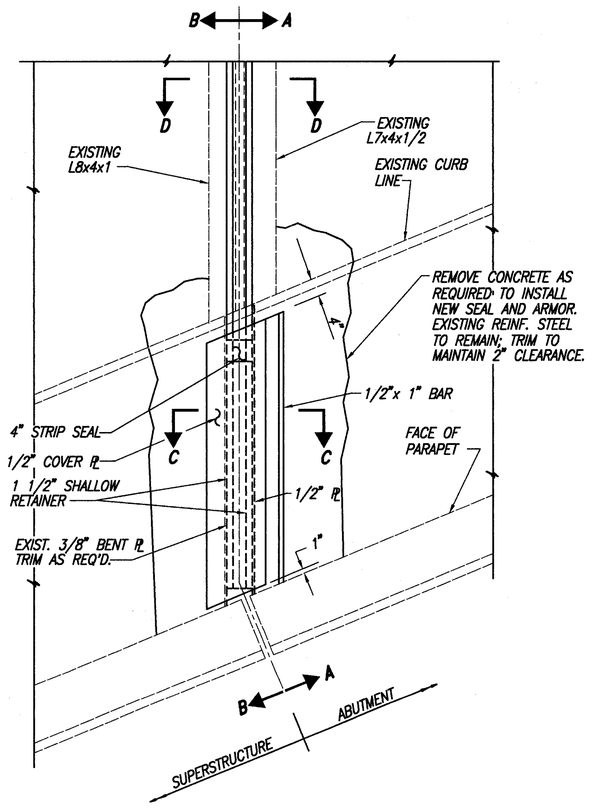
END CROSSFRAME DETAIL

CONTRACTOR IS TO CLEAN BOTTOM ANGLE AND PLATE AND REPLACE LENGTH OF ANGLE AND PLATE AS DIRECTED BY THE ENGINEER. PREPARE, PRIME AND PAINT BOTTOM ANGLES AND PLATE AS PER ITEM 514, SYSTEM EEU AT LEAST 2" BEYOND NEW STEEL. ALL WORK TO BE INCLUDED IN PRICE BID FOR 'ITEM 513 - STRUCTURAL STEEL (MISC. AND CASTINGS), AS PER PLAN'.



▣ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



PARTIAL PLAN SIDEWALK @ ABUTMENT

(LEFT SIDEWALK ABUT.1 & RIGHT SIDEWALK ABUT.2 AS SHOWN;
LEFT SIDEWALK ABUT.2 & RIGHT SIDEWALK ABUT.1 OPPOSITE HAND)
(SKEW = 22°28'00" LEFT FORWARD)

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR 'ITEM 516 STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER 'ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

TEMPERATURE	DIMENSION 'A'	
	ABUTMENT 1	ABUTMENT 2
30° F	3 5/16"	3 9/16"
40° F	3 3/16"	3 7/16"
50° F	3 1/8"	3 3/8"
60° F	3"	3 1/4"
70° F	2 7/8"	3 1/8"
80° F	2 13/16"	3 1/16"
90° F	2 11/16"	2 15/16"

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

3 / 4

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-561-0314 (HAM-71-0691)
WILLIAMS AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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CALC BY M.A.P. DATE 11-22-91	HAMILTON COUNTY HAM-71-2.92	OHIO	569 615
CHKD BY A.M. DATE 12-2-91		F.H.W.A. REGION 5	

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
SPEC.	51267500	852	SQ.YD.	SEALING OF CONCRETE SURFACES *
513	15501	97	LBS	STRUCTURAL STEEL MISC. AND CASTING, AS PER PLAN
513	21000	4	EACH	TRIMMING OF BEAM ENDS
815	00050	22670	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	22670	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	22670	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	22670	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
815	00508	3640	LIN.FT.	GRINDING FLANGE EDGES
516	11211	126.5	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	14	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
516	10000	25	LIN.FT.	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705.11)
517	73500	10	LIN.FT.	BRIDGE RAILING REBUILT
518	12801	12	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	12	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	18	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51922300	LUMP		TEST SLAB *
601	34200	3	CU.YD.	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER
SPEC.	53000800	1510	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	156	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1510	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	86	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1510	SQ.YD.	SCARIFICATION OF EXISTING DECK

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. RESET BEARINGS AND REFURBISH SHOES AS INDICATED.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE BEAMS PER DETAIL "F" ON GENERAL DETAIL SHEET (492/615).
5. SEAL CURBS, SIDEWALKS AND PARAPETS.
6. PATCH THE ABUTMENTS AS INDICATED.
7. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
9. OTHER WORK AS DESCRIBED IN THESE PLANS.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4/4

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-561-0314 (HAM-71-0691)
WILLIAMS AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	[signature]	2-22-95

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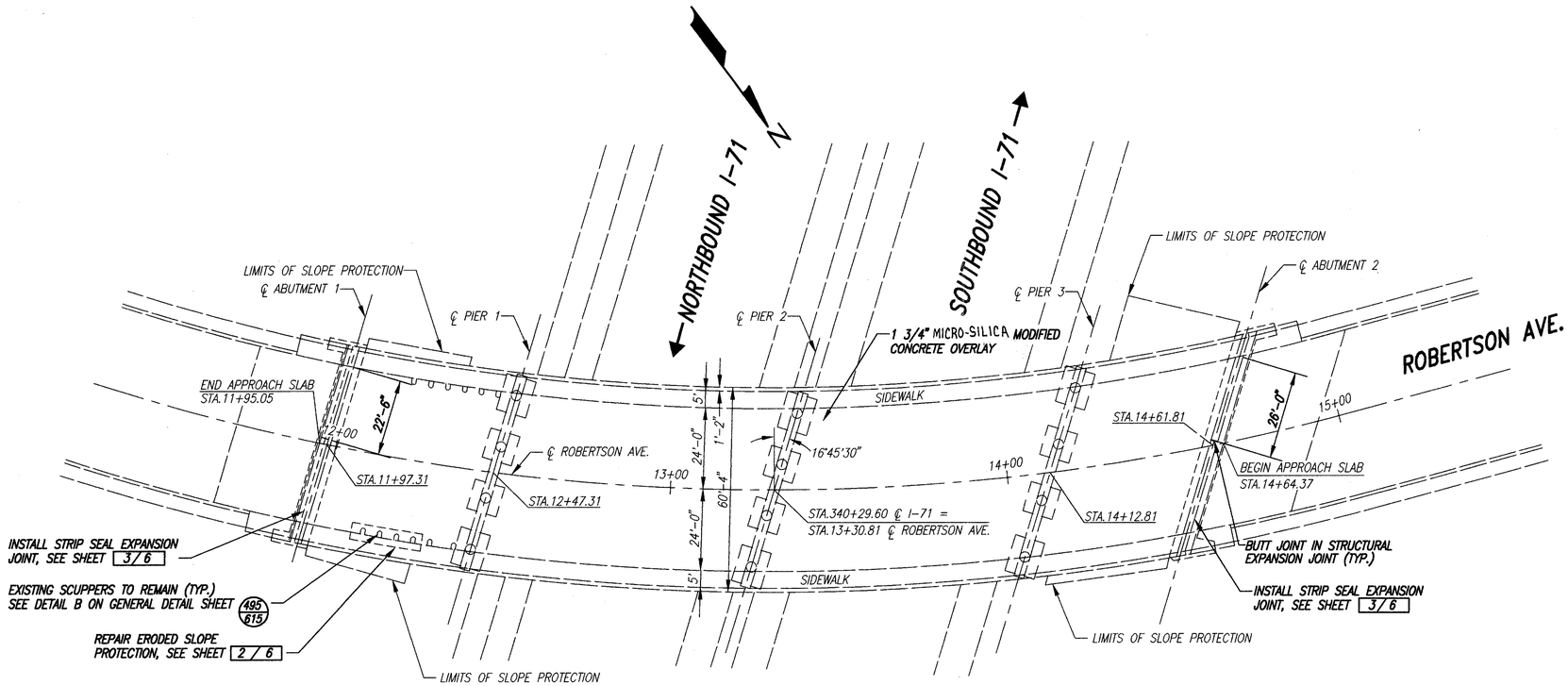
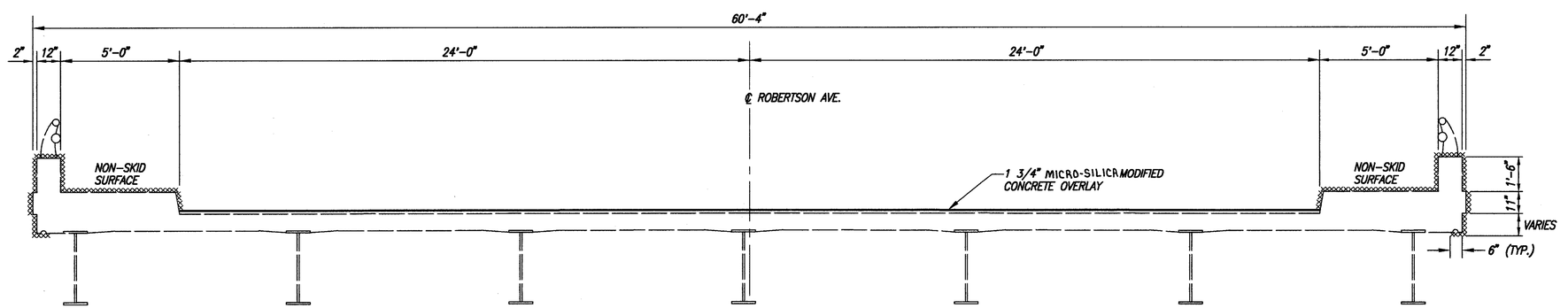
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	570 615
CHKD BY DATE			



PLAN



TYPICAL SECTION

xxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL – SEALING OF CONCRETE SURFACES

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON THE DECK AND WINGWALLS.
2. TRIM 6" C.M.P. TO 1/2" (±) PARALLEL TO SURFACE OF SLOPE PROTECTION.

EXISTING STRUCTURE

TYPE: CONTINUOUS ROLLED STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURES

SPANS: 50'-0", 83'-6", 82'-0", 49'-0"
ROADWAY: 48'-0" FACE TO FACE OF 5'-0" SIDEWALKS

SKEW: 16°45'30" L.F.
LOAD FREQUENCY: CF=400(57)
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-67 (25'-0"LONG)
ALIGNMENT: 8°45'00" CURVE LT.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/6

GENERAL PLAN & TYPICAL SECTION

BRIDGE NO. HAM-71-0726
ROBERTSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

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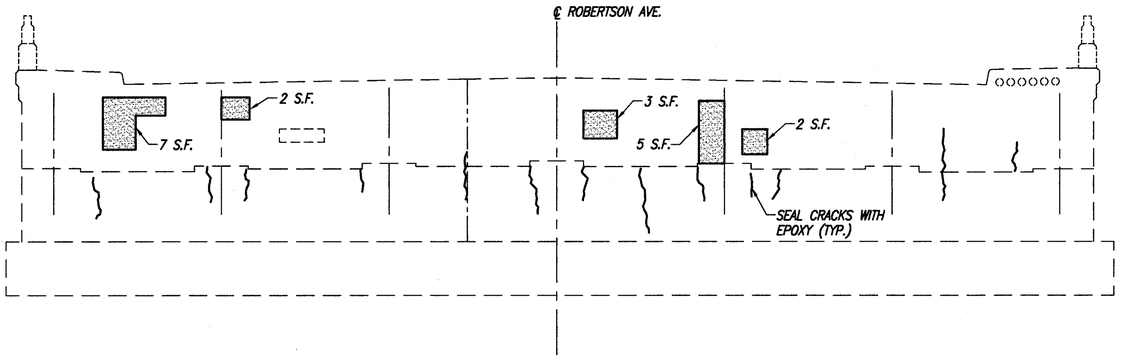
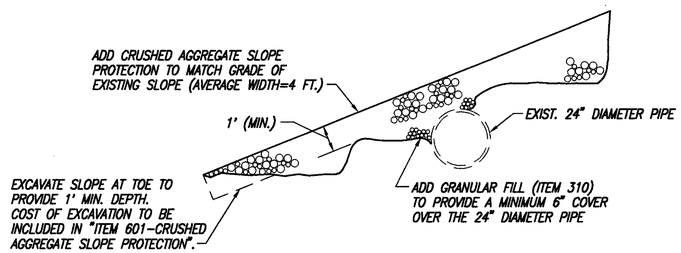
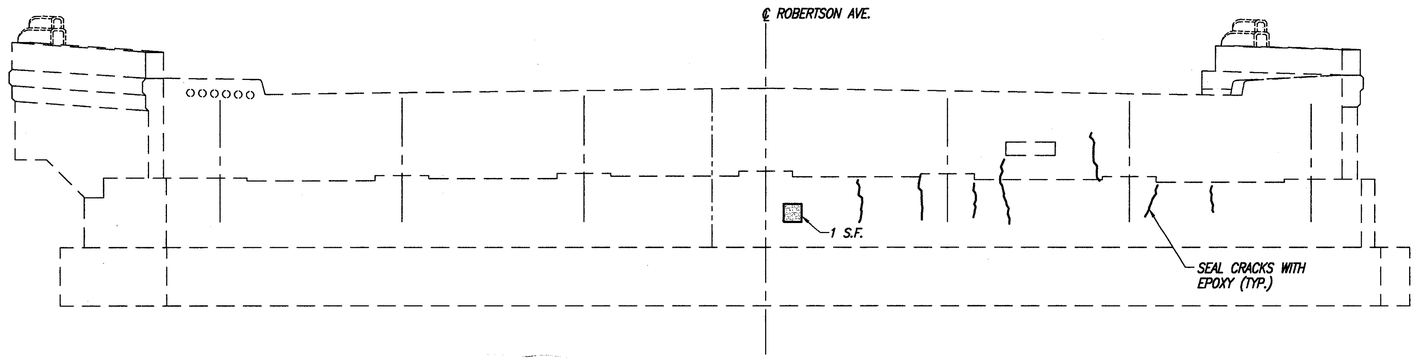
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	571 615
CHKD BY DATE			



ELEVATION ABUTMENT 1
(CRACKS TO SEAL BACKWALL NOT SHOWN)



SLOPE PROTECTION REPAIR



ELEVATION ABUTMENT 2

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
NO. 1	28.5 SQ. FT.
NO. 2	1.5 SQ. FT.
TOTAL	30.0 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURE".
2. SEAL CRACKS IN ABUTMENTS PER "ITEM SPECIAL – EPOXY INJECTION" (TOTAL LENGTH ~ 43 L.F.).
3. REMOVE SMALL TREE FROM SLOPE BELOW BRIDGE AT ABUTMENT 2.

LEGEND

- PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.
- SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).
- [ ] EXISTING OPENING TO REMAIN.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

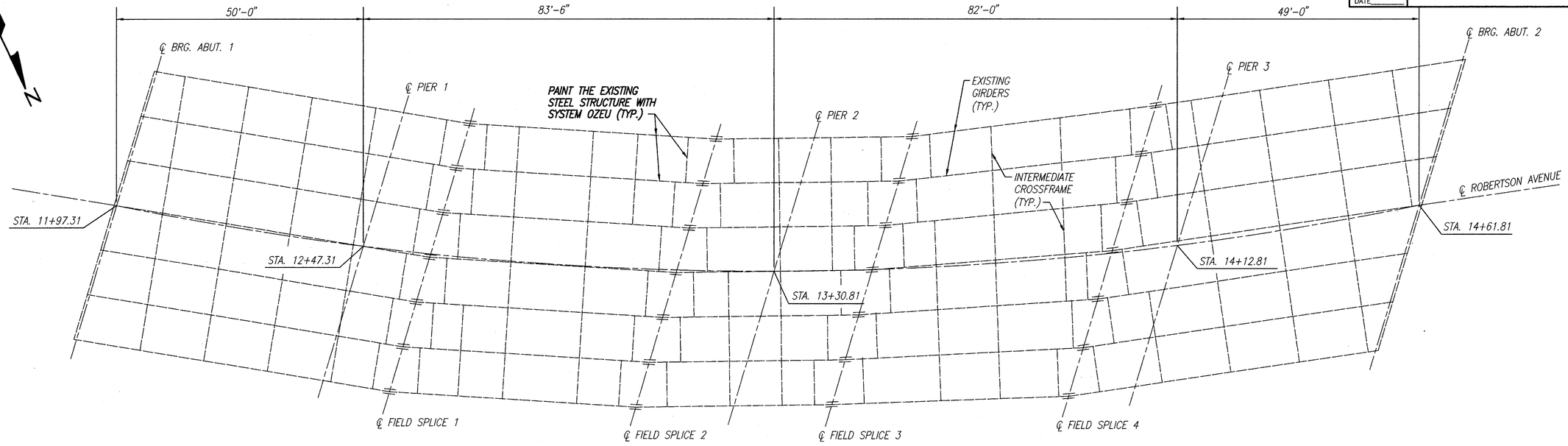
2/6

ABUTMENT DETAILS

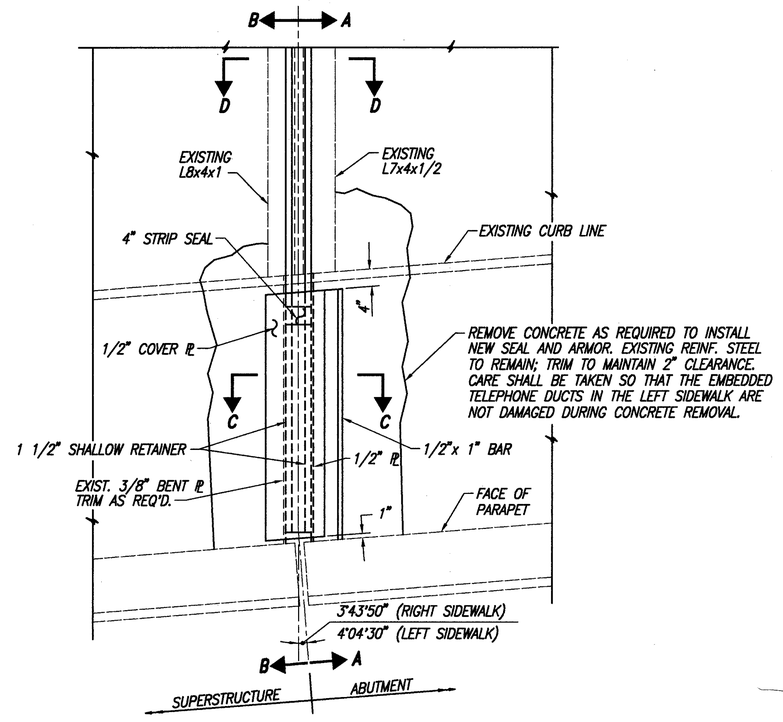
BRIDGE NO. HAM-71-0726
ROBERTSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

CALC BY / DATE		HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	572 615
CHKD BY / DATE				

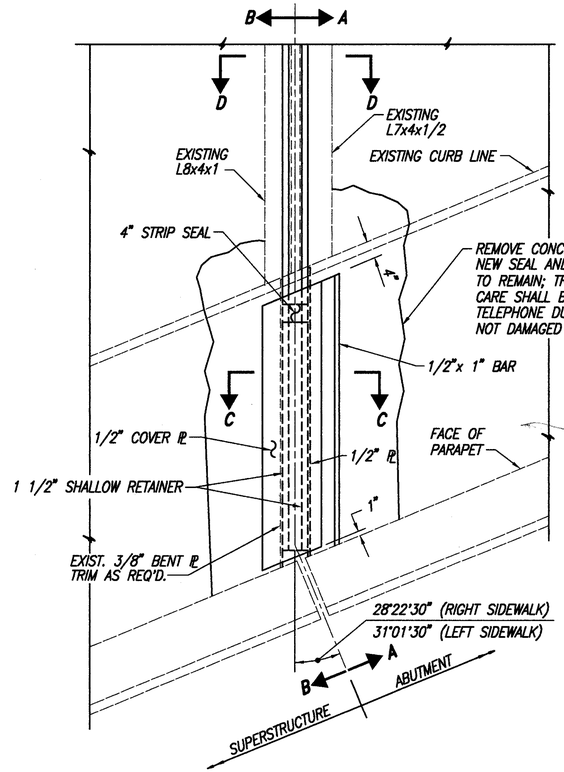


FRAMING PLAN



PARTIAL PLAN SIDEWALK @ ABUTMENT 1

(LEFT SIDEWALK SHOWN, RIGHT SIDEWALK OPPOSITE HAND)



PARTIAL PLAN SIDEWALK @ ABUTMENT 2

(RIGHT SIDEWALK SHOWN, LEFT SIDEWALK OPPOSITE HAND)

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

3/6

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0726
ROBERTSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

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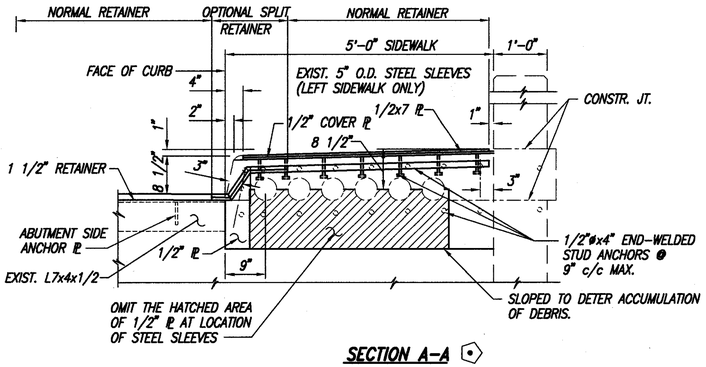
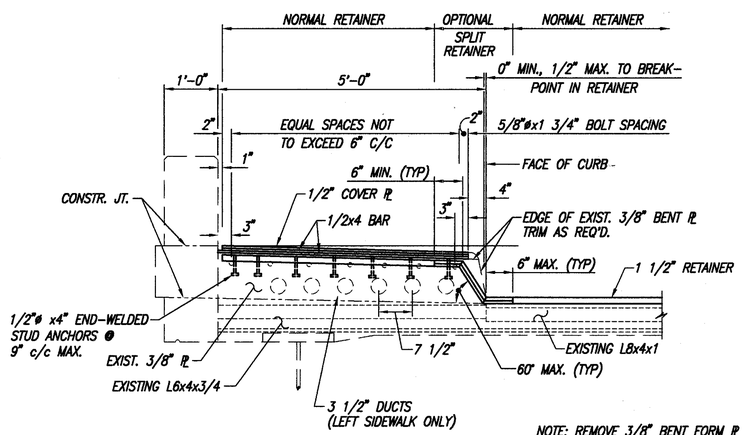
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	573 615
CHKD BY DATE			



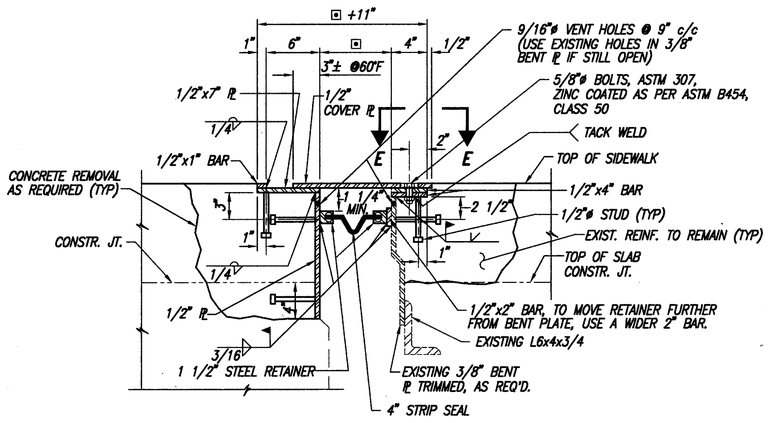
SECTION A-A ⊙

⊙ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS:
IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



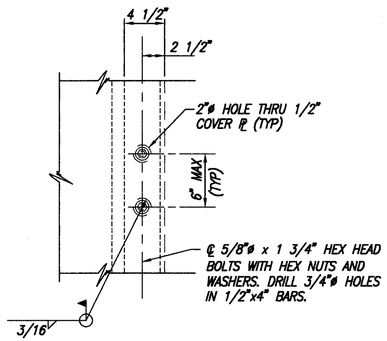
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM ℄ LEAVE L6x4x3/4 INTACT

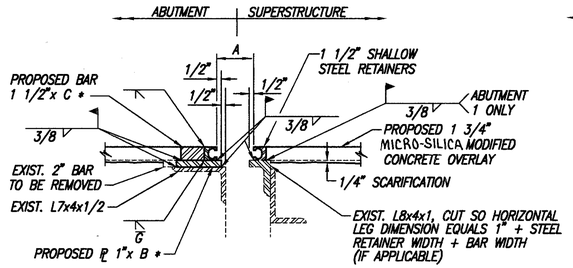


⊡ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C

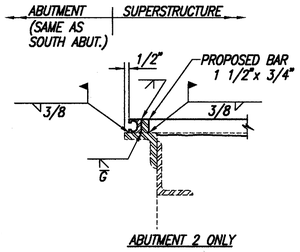


SECTION E-E



SECTION D-D

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"



ABUTMENT 2 ONLY

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

TEMPERATURE	DIMENSION 'A'	
	ABUTMENT 1	ABUTMENT 2
30° F	3 9/16"	3 9/16"
40° F	3 7/16"	3 7/16"
50° F	3 3/8"	3 3/8"
60° F	3 1/4"	3 1/4"
70° F	3 3/16"	3 1/8"
80° F	3 1/16"	3 1/16"
90° F	2 15/16"	2 15/16"

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4/6

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0726
ROBERTSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

CALC BY M.A.P. DATE 12-4-91	HAMILTON COUNTY HAM-71-2.92	OHIO	574 615
CHKD BY A.M. DATE 1-3-92		F.H.W.A. REGION 5	

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
202	54101	12	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN
310	10000	1	CU.YD.	SUBBASE
SPEC.	51267500	813	SQ.YD.	SEALING OF CONCRETE SURFACES *
815	00050	22410	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	22410	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	22410	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	22410	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
513	16001	56	LBS.	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN
516	11211	125	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	17	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
517	75500	10	LIN.FT.	BRIDGE RAILING REBUILT
518	12801	12	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	12	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC. : SCUPPER AND DRAINAGE CLEANOUT
519	11100	12	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	43	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
601	20000	8	SQ.YD.	CRUSHED AGGREGATE SLOPE PROTECTION
SPEC.	53000800	1417	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	144	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1417	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	81	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1417	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
2. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
3. EXTEND SCUPPERS TO 8" BELOW BRIDGE BEAMS PER DETAIL 'F' ON GENERAL DETAIL SHEET (495/615).
4. FILL BACKWALL CRACKS WITH EPOXY.
5. SEAL CURBS, SIDEWALKS AND PARAPETS.
6. PATCH ABUTMENTS AS INDICATED.
7. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
9. OTHER WORK AS DESCRIBED IN THESE PLANS.
10. TRIM 6" CMP TO 1/2" +/- PARALLAL TO SURFACE OF SLOPE PROTECTION.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

5/6

QUANTITIES AND GENERAL NOTES

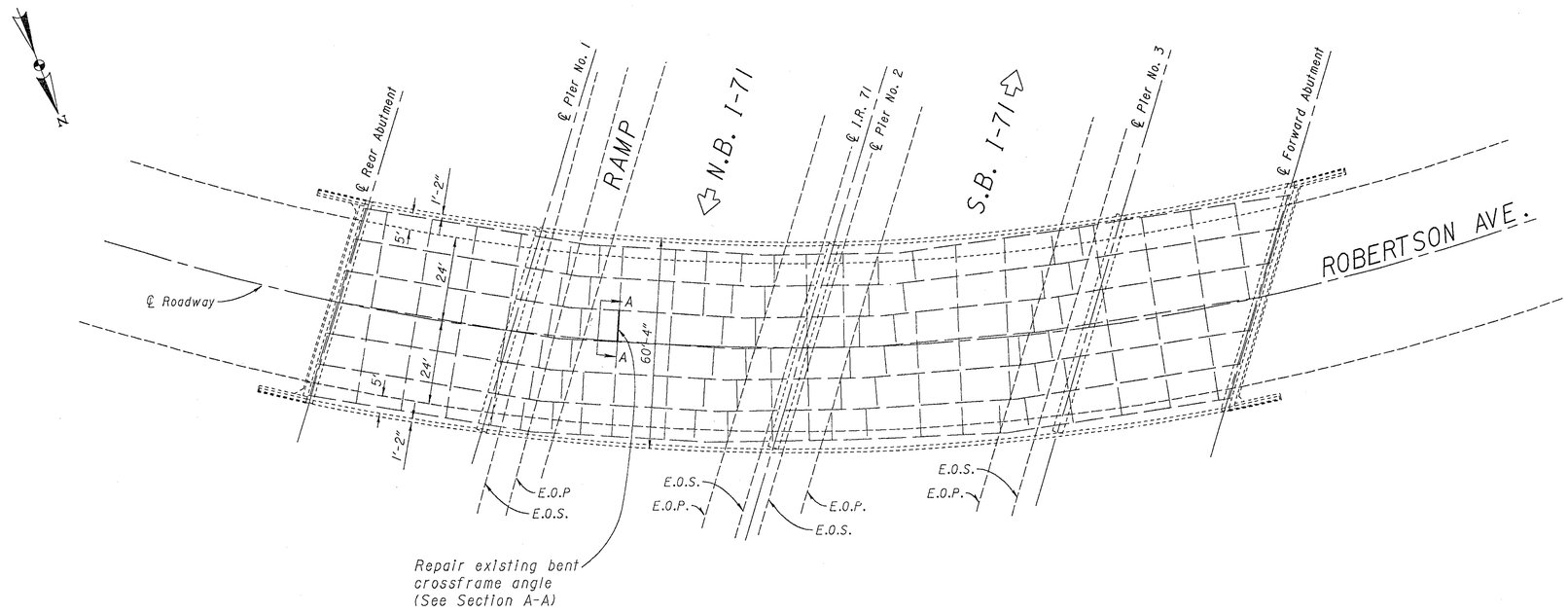
BRIDGE NO. HAM-71-0726
ROBERTSON AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

FHWA REGION	STATE	PROJECT	
5	OHIO		

575
615

HAM-71-2.92



EXISTING FRAMING PLAN

REPAIR QUANTITY

ITEM 513 56 LBS. STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN

ITEM 513 - STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN

Existing crossframes identified by the Project Engineer that are damaged shall be completely removed flush with the beam web. Any remaining portions of steel angle or weld metal shall be removed by grinding to obtain a smooth surface. Burrs, nicks, gouges, scrapes, etc. shall be ground as smooth as possible to eliminate points of stress concentrations. Care shall be taken not to gouge or otherwise damage the existing steel beams or girders. New crossframe angles shall be replaced in the same position as the existing angles. Fabricator certification as specified in 501.04 of the Specifications is not required.

Obvious tears or cracks present in the beams/girders as a result of the accident shall be repaired with full penetration butt welding as per 513.17 and subsequent non-destructive testing as per 513.17, unless otherwise specified on the plans. The Contractor will be responsible for having this welding radiographically inspected. Radiographs shall be submitted to the Engineer for review and approval.

Minor cracks in the flanges (less than ½" long) discovered as a result of this inspection shall be removed by grinding. Larger cracks shall be reviewed by the Engineer and shall be properly prepared and welded or plated by bolting. Extra work incurred as a result of this crack repair shall be handled on a force account basis.

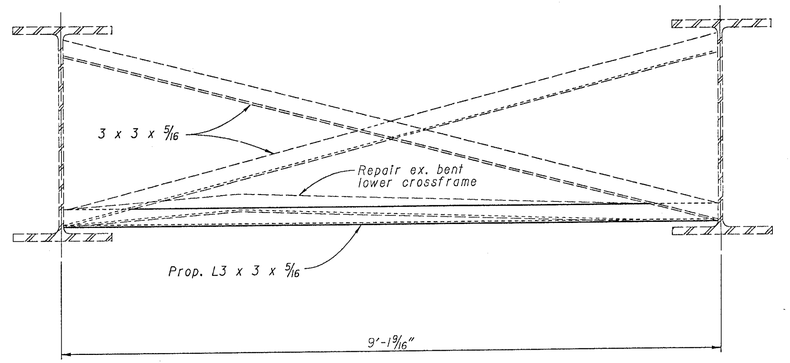
This item shall include replacement of all damaged cross frames and other attachments by the same method of attachment as originally constructed. All welding shall be performed by qualified welders in accordance with 513.17.

The Contractor shall provide safe access to the Engineer to areas suspected of having damaged crossframes so these areas can be identified by the Engineer and repaired by the Contractor .

Steel members to be fabricated under this item will not require shop drawings prior to fabrication. The Contractor shall make necessary measurements and prepare sketches, drawings, tables, etc. The Engineer shall have authority and responsibility for ensuring that the fabricated steel is aceptable. Technical assistance will be provided on request by the Bureau of Bridges. Mill test reports and shipping documents shall be submitted to the Engineer for review and approval prior to incorporating steel items into the work, as required by 501.07. After fabrication, the Contractor shall submit shop drawings to the Engineer for review and approval to ensure that the drawings depict the steel as actually incorporated into the work. The Engineer will then send one approved set to the Bureau of Bridges for information.

Pay weights shall be computed in compliance with 513 of the Construction and Materials Specifications and submitted to the Engineer for his review and his approval. The fabricator shall furnish a 35 millimeter microfilm copy of each shop drawing, which shall be mounted on an aperture card as specified in 501.05.

The steel shall be painted in accordance with System EEU. Payment shall be made at the contract bid price Item 513 Structural Steel for Rehabilitation, As Per Plan and shall include removing the existing damaged crossframes, grinding the existing welds smooth and preparing the existing surface, making measurements, preparing drawings, fabricating and installing the new steel, and any additional work that may be necessary to complete the item.



SECTION A - A

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

6/6

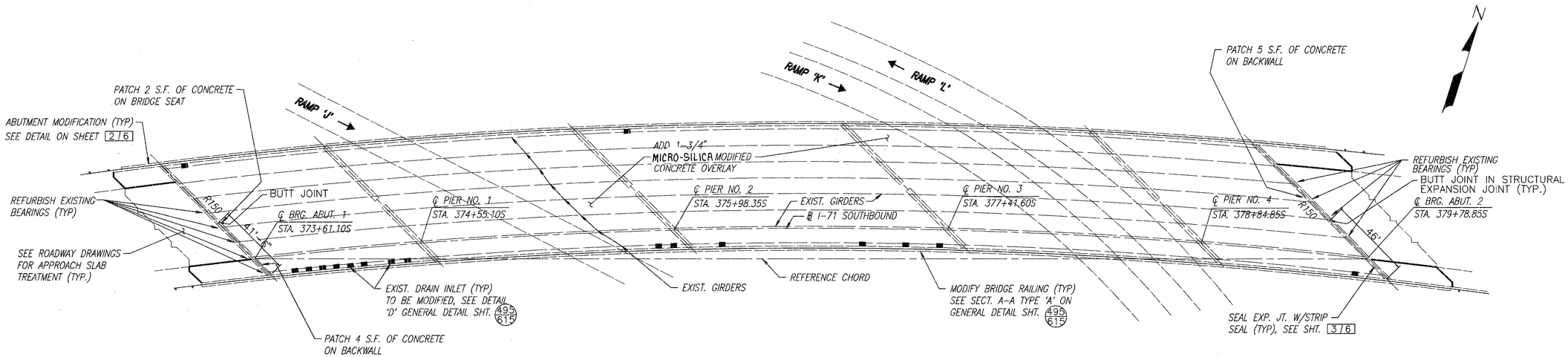
CROSSFRAME REPAIR PLAN

BRIDGE NO. HAM-71-0726

Robertson Ave. over I.R. 71

DESIGNED	DRAWN	REVIEWED	DATE	REVISED
MLM	CJB MLM	RLE	6-21-94	

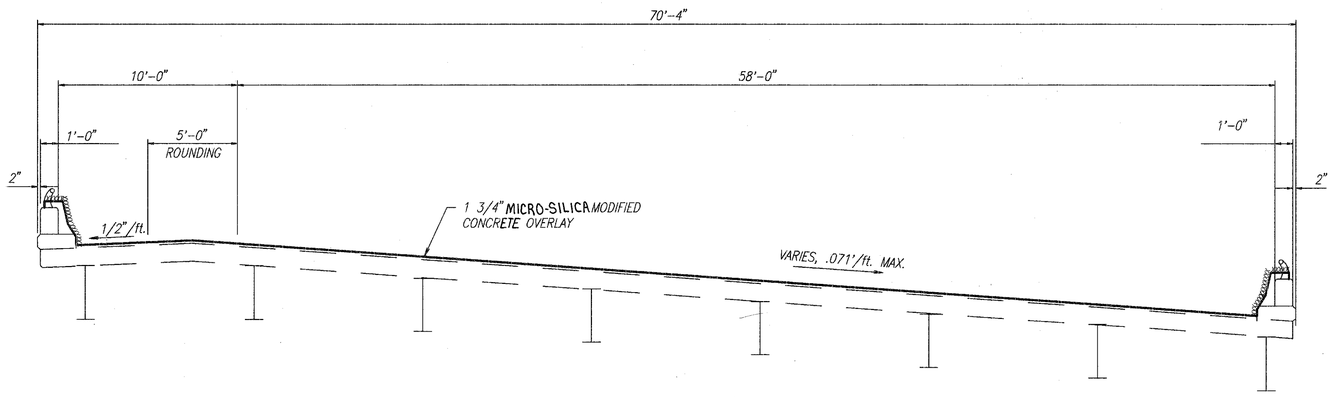
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	579 615
CHKD BY DATE			



GENERAL PLAN

ROCKER OR BOLSTER SIZE	JACK CAPACITY REQ'D. (MIN)
R150	100 TON

NOTES: EXTEND ALL DRAIN OUTLETS.
FOR DETAIL SEE GENERAL DETAIL SHT. 495 615



TYPICAL SECTION

EXISTING STRUCTURE

TYPE: CONTINUOUS WELDED PLATE GIRDER W/REINF. CONCRETE DECK AND SUBSTRUCTURE

SPANS: 94'-0", 143'-3", 143'-3", 143'-3", 94'-0"

ROADWAY: 68'-0" f/f OF PARAPETS

LOAD FREQUENCY: C.F.= 2000 (57), ADEQUATE FOR AASHO ALTERNATE LOADING

SKEW: 44°46'32" R.F.

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0" LONG)

ALIGNMENT: 3°00' CURVE AND 550' SPIRAL RIGHT

SUPERELEVATION: VARIES, 0.071 1/1 MAX.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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GENERAL PLAN AND TYPICAL SECTION

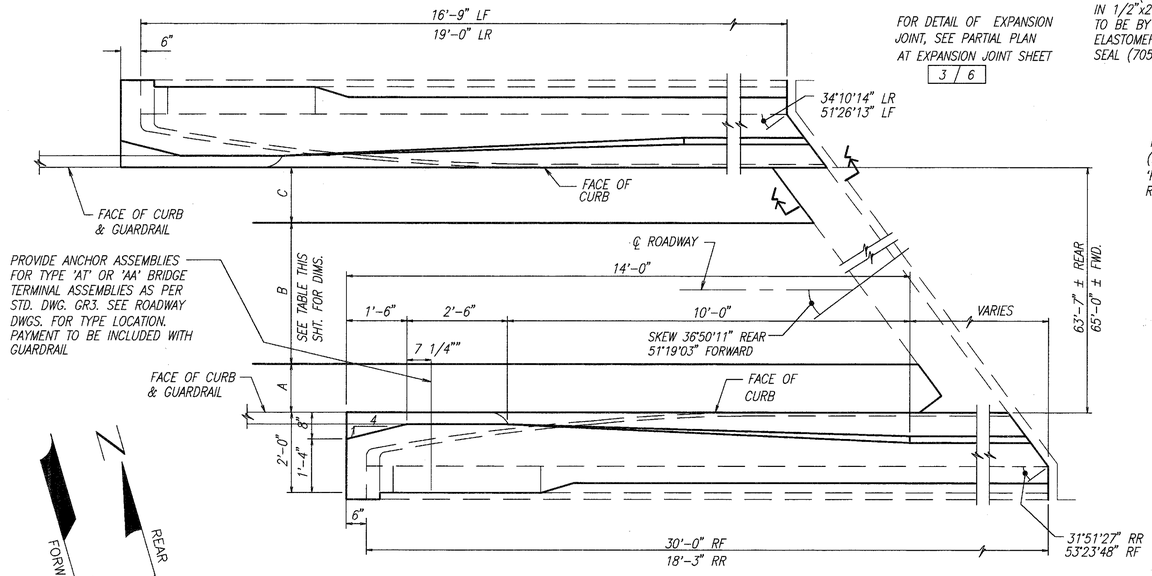
BRIDGE NO. HAM-71-0788 L
I-71 S.B. OVER RAMPS 'J', 'K', & 'L'

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.	[signature]	2-21-95

G:\STR\18007-19\07885ff1 Last Revised By: D.E.E. MAR. 17, 1993 @ 10:39 AM

CALC BY		HAMILTON COUNTY	OHIO	580
DATE		HAM-71-2.92	F.H.W.A. REGION 5	615
CHKD BY				
DATE				

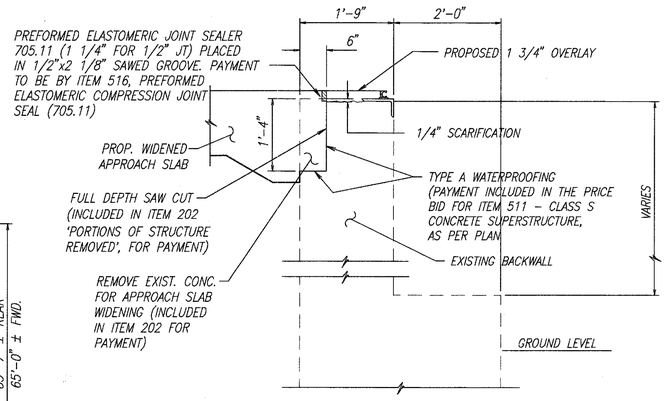


PLAN – ABUTMENT MODIFICATION

ABUTMENT 1 SHOWN (REAR)
ABUTMENT 2 (FORWARD) OPPOSITE HAND.
SEE GENERAL PLAN FOR WINGWALL ORIENTATION AT FORWARD ABUTMENT

LOCATION	DIMENSIONS		
	A	B	C
REAR	8'-10 1/4"	47'-0"	7'-9"
FORWARD	9'-4 3/4"	49'-4"	7'-2"

SEE ELEVATION BELOW FOR SECTIONS



SECTION L-L

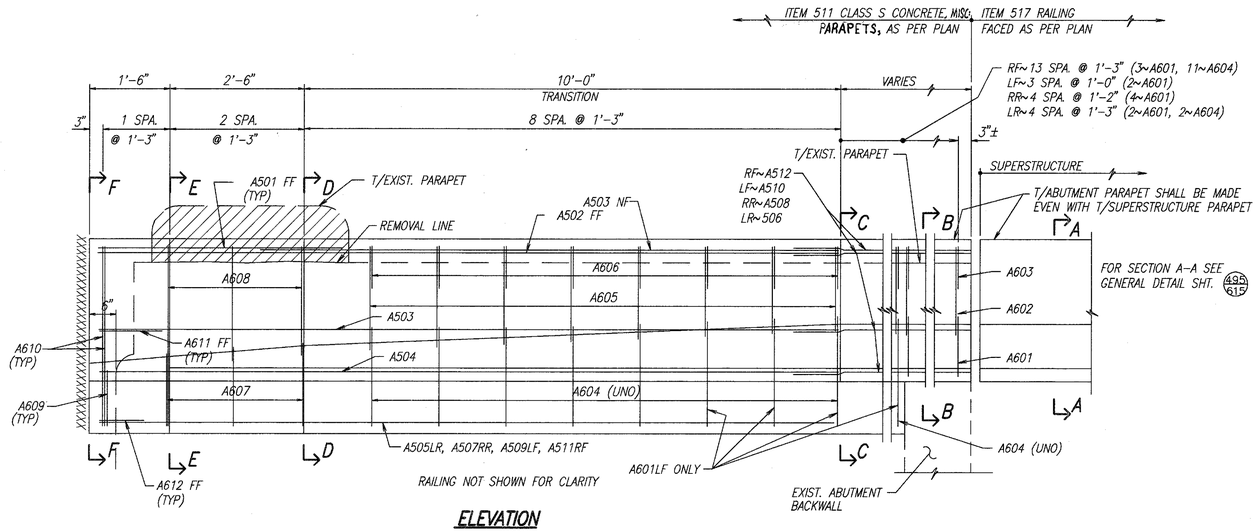
EXIST. CURB AND PARAPET TO BE REMOVED UNDER ITEM 202-'PORTIONS OF STRUCTURE REMOVED'

EXIST. RAILING AND POSTS TO BE REMOVED AND STACKED NEATLY ALONG THE RIGHT-OF-WAY FOR SUBSEQUENT DISPOSAL BY THE CONTRACTOR. ALL WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 202-'PORTIONS OF STRUCTURE REMOVED'.

XXXXXXXX SURFACES TO BE SEALED UNDER ITEM SPECIAL -'SEALING OF CONCRETE SURFACES'.

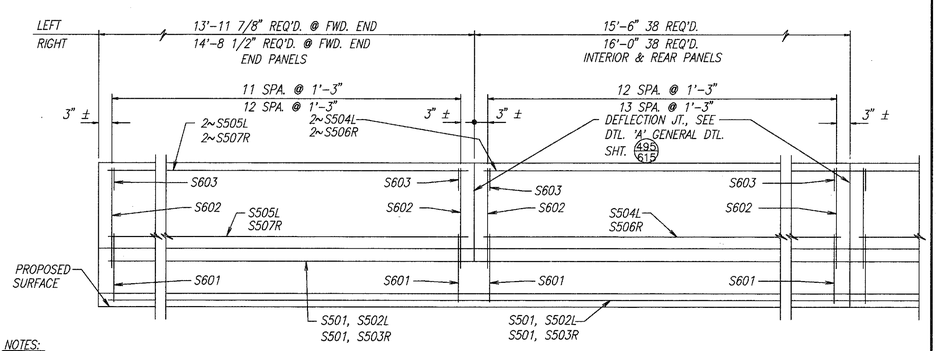
NOTES:

1. PREFORMED EXPANSION JOINT FILLER AND SEALER AT CORNERS AND SIDES OF THE APPR. SLAB SHALL BE INCLUDED IN THE PRICE BID PER S.Y. FOR THE APPR. SLAB.
2. TYPE 'A' WATERPROOFING AT THE BRIDGE LIMIT END OF THE WIDENED APPR. SLAB (AS PER STD. DWG. AS-1-81) SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 511 – CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN.



ELEVATION

LEFT REAR SHOWN.
OTHERS SIMILAR.



NOTES:

L DENOTES LEFT SIDE
R DENOTES RIGHT SIDE
RF DENOTES RIGHT FORWARD
LF DENOTES LEFT FORWARD
RR DENOTES RIGHT REAR
LR DENOTES LEFT REAR
NF DENOTES NEAR FACE
FF DENOTES FAR FACE

ELEVATION SUPERSTRUCTURE PARAPET

FOR SECTIONS B-B, C-C, D-D, E-E, AND F-F SEE SHEET 3 / 6

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2 / 6

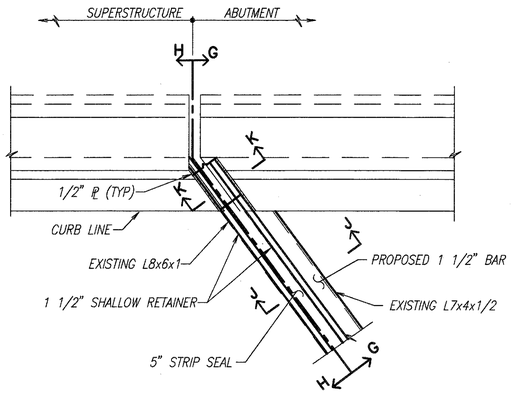
ABUTMENT PLAN, ELEVATION, & DETAILS

BRIDGE NO. HAM-71-0788 L
I-71 S.B. OVER RAMPS 'J', 'K', & 'L'

HAMILTON COUNTY

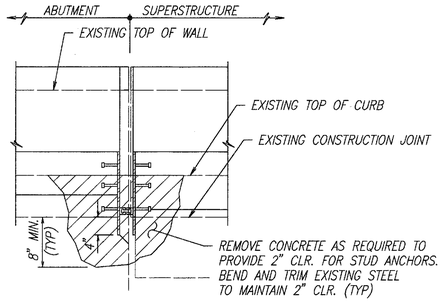
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	581/615
CHKD BY				
DATE				



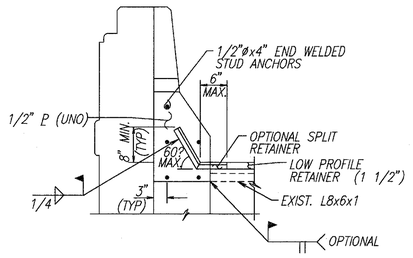
PART PLAN @ EXPANSION JOINT

LF SHOWN, OTHERS SIMILAR

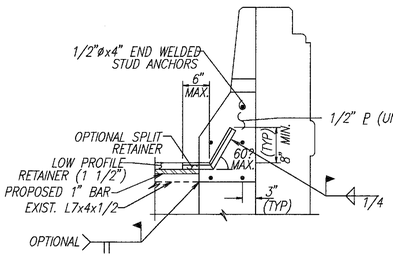


SECTION K-K

† BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO INSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONC. REMOVAL OPERATION. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.



SECTION H-H

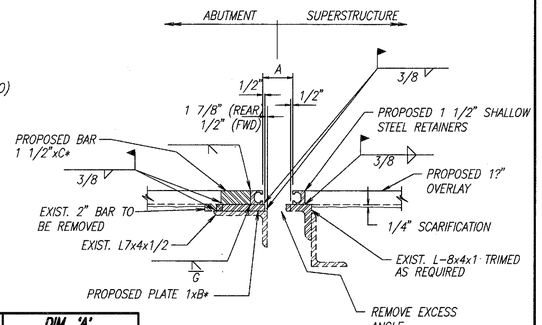


SECTION G-G

NOTES:

1. EXPANSION JT. DETAILS TO BE WORKED WITH STD. DWG. EXJ-4-87 SHTS. 1 thru 5.
2. WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE END OF THE ABUTMENT TO DETER ACCUMULATION OF DEBRIS.

TEMPERATURE	DIM. 'A'	
	FORWARD	REAR
40° F	3 1/8"	4"
50° F	3"	3 3/4"
60° F	2 7/8"	3 1/2"
70° F	2 3/4"	3 1/4"
80° F	2 5/8"	3"
90° F	2 1/2"	2 3/4"

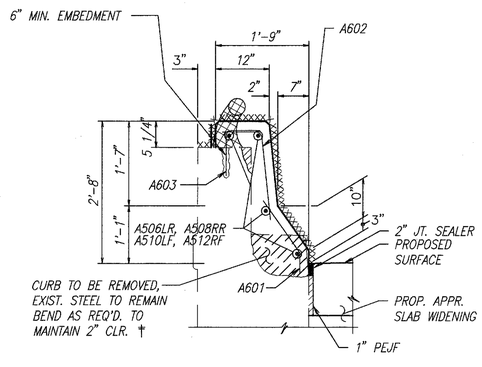


B* = ANGLE LEG MINUS 2 3/8" (REAR), 1" (FORWARD)
C* = B* MINUS WIDTH OF RETAINER MINUS 1"

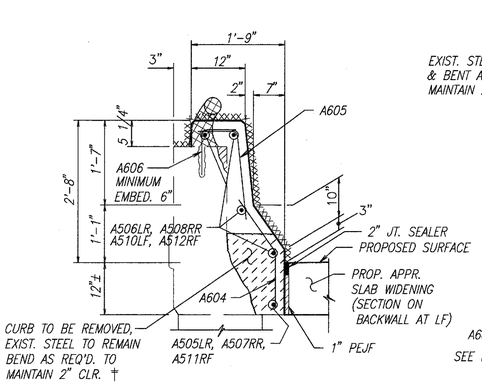
SECTION J-J

NOTES:

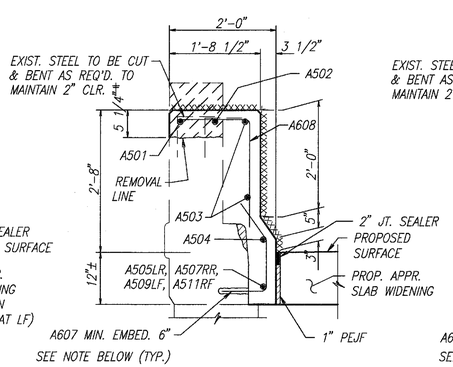
1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING THE EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516-'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS', SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTIAL ITEMS, AS DETAILED. REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202-'PORTIONS OF STRUCTURE REMOVED.
3. FOR DETAILS NOT SHOWN REFER TO DRAWING EXJ-4-87 SHEETS 3 AND 4.
4. STRIP SEAL SHALL BE INSTALLED IN ONE PIECE (NO OPEN JOINTS).



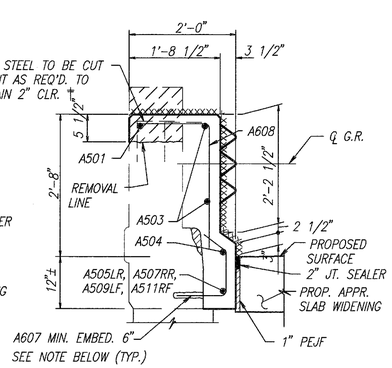
SECTION B-B



SECTION C-C



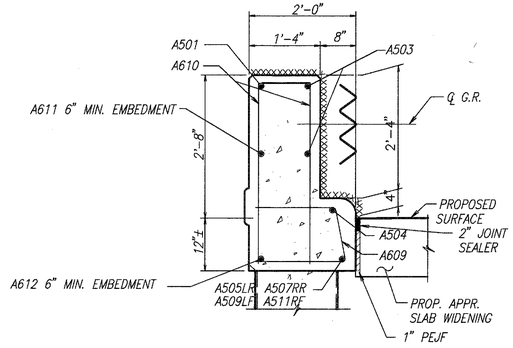
SECTION D-D



SECTION E-E

xxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL - 'SEALING OF CONCRETE SURFACES.'

NOTE: WHERE 6" MINIMUM EMBEDMENT INTO EXISTING CONCRETE IS SPECIFIED FOR REINFORCING STEEL, PROVIDE DOWEL HOLE AS PER ITEM 510 USING EPOXY GROUT AS PER SUPPLEMENTAL SPECIFICATIONS 852 AND CMS 705.20.



SECTION F-F

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437				3/6
SECTIONS, & DETAILS				
BRIDGE NO. HAM-71-0788 L I-71 S.B. OVER RAMPS 'J', 'K', & 'L'				
HAMILTON COUNTY				
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

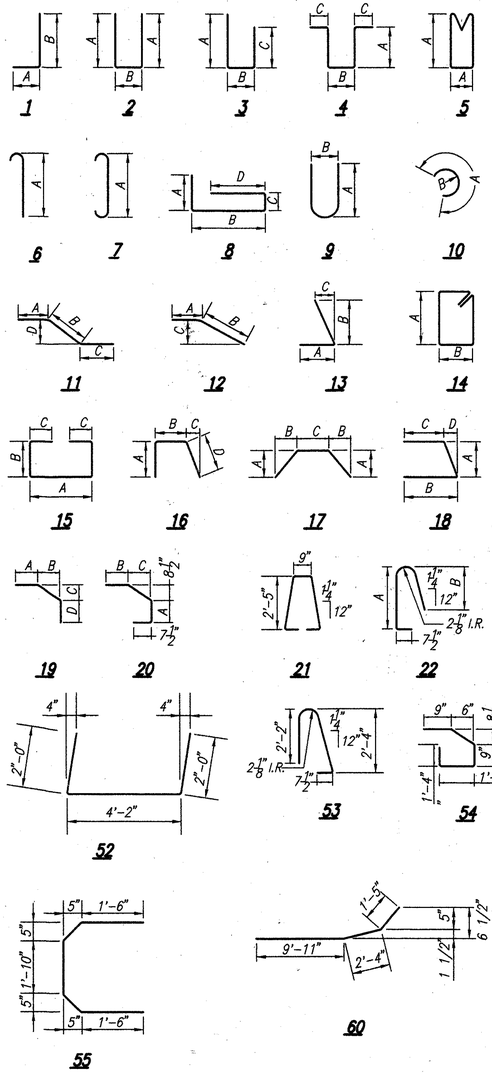
G:\STR\18007-19\07888113 Last Revision By: J.R.F. JAN. 27, 1994 @ 11:27 AM

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
SUPERSTRUCTURE									
S501	86	30'-0"	STR.						2691
S502	2	14'-8"	STR.						31
S503	2	6'-4"	STR.						13
S504	114	15'-0"	STR.						1784
S505	3	13'-6"	STR.						42
S506	114	15'-6"	STR.						1843
S507	3	14'-2"	STR.						44
S601	1051	1'-9"	12	4"	1'-5"	10"			2763
S602	1051	2'-4"	16		8"	2"	1'-9"		3678
S603	1051	1-4"	1	8"	9"				2100
								SUBTOTAL =	14,989
ABUTMENT									
A501	4	5'-0"	STR.						21
A502	4	11'-6"	STR.						48
A503	8	13'-8"	60						114
A504	4	13'-10"	STR.†						58
A505	1	17'-6"	STR.						18
A506	4	8'-0"	STR.						33
A507	1	13'-6"	STR.						14
A508	4	6'-6"	STR.						27
A509	1	10'-3"	STR.						11
A510	4	5'-0"	STR.						21
A511	1	13'-0"	STR.						14
A512	4	19'-0"	STR.						79
A601	14	1'-9"	12	4"	1'-5"	10"			37
A602	24	2'-4"	16		8"	2"	1'-9"		84
A603	24	1'-4"	1	8"	9"				48
A604	42	2'-6"	12	1'-1"	1'-5"	10"			158
	4 SERIES	2'-6"					1'-10"		
A605	OF 8	TO	16		8"	2"	TO	1 3/4"	144
	= 32	3'-6"					2'-10"		
	4 SERIES	1'-4"		8"					
A606	OF 8	TO	1	TO	9"			1/2"	72
	= 32	1'-8"		11 1/2"					
	4 SERIES					5 1/2"			
A607	OF 3	2'-6"	16	11"	1'-0"	TO	10"	1 1/4"	45
	= 12					8"			
A608	12	3'-6"	1	1'-4"	2'-4"				63
A609	4	3'-10"	18	11 3/4"	1'-8"	1'-6"	2"		23
A610	8	4'-2"	1	1'-0"	3'-4"				50
A611	4	1'-2"	STR.						7
A612	4	10"	STR.						5
								SUBTOTAL =	1,194
								REPLACEMENT STEEL =	100
								GRAND TOTAL = 14,989 + 1,194 + 100 =	16,283

NOTES

ALL DIMENSIONS ARE OUT TO OUT.

† FIELD BEND AS REQUIRED



ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
202	54101	40	EACH	RPM REMOVED FOR STORAGE, AS PER PLAN
509	15840	16328	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
510	10001	86	EACH	DOWEL HOLES **WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN**
511	34450	9	CU.YD.	CLASS S CONCRETE, MISC.: **PARAPET, AS PER PLAN**
SPEC.	51267500	665	SQ.YD.	SEALING OF CONCRETE SURFACES *
SPEC.	51425650	LUMP	LUMP	SURFACE PREP. OF EXISTING STEEL (EEU) *
SPEC.	51425656	LUMP	LUMP	SPOT PRIME COAT (EPOXY)
SPEC.	51425660	LUMP	LUMP	FULL PRIME COAT (EPOXY)
SPEC.	51425666	LUMP	LUMP	COMPLETE COAT FINISH (URETHANE)
516	10000	189	LIN.FT.	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705.11)
516	11211	200	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	9	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
516	31001	160	LIN.FT.	JOINT SEALER, (705.04), AS PER PLAN
517	76201	1230	LIN.FT.	RAILING FACED, AS PER PLAN
518	12900	17	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: **SCUPPER AND DRAINAGE CLEANOUT**
519	11100	11	SQ.FT.	PATCHING CONCRETE STRUCTURE
601	21001	3	SQ.YD.	CONCRETE SLOPE PROTECTION, AS PER PLAN
SPEC.	5300400	256	EACH	STRUCTURE MISC. LAT. BRACING GUESSET PLATE RETROF. UPGRADE (INTER)
SPEC.	53000800	4475	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	468	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	4475	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	256	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	4475	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE

PROPOSED WORK

1. MODIFY PARAPETS ON THE SUPERSTRUCTURE AND ABUTMENTS. SEAL PARAPETS AS SHOWN.
2. REFURBISH ABUTMENT BEARINGS.
3. PLACE 1-3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. SEAL JOINTS AS NOTED.
5. SEAL EXPANSION JOINT WITH STRIP SEAL.
6. PLACE GUARDRAIL AS SHOWN ON ROADWAY PLANS.
7. EXTEND DRAIN OUTLETS.
8. PATCH SUBSTRUCTURE AS NOTED.
9. ONE LANE OF TRAFFIC ON S.B. I-71 AND EACH RAMP SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES, SEE SHT. 48 (615)
10. OTHER WORK AS DESCRIBED IN THESE PLANS.

11. TRIM 6" CORRUGATED METAL PIPE TO ½" ±.

CALC BY D.E.M. DATE 2/18/94
CHKD BY J.L.T. DATE 2/3/95

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

582 / 615

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4 / 6

REINFORCING QUANTITIES & PROPOSED WORK

BRIDGE NO. HAM-71-0788 L
I-71 S.B. OVER RAMPS 'J', 'K', & 'L'

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.	RJB	2-21-95

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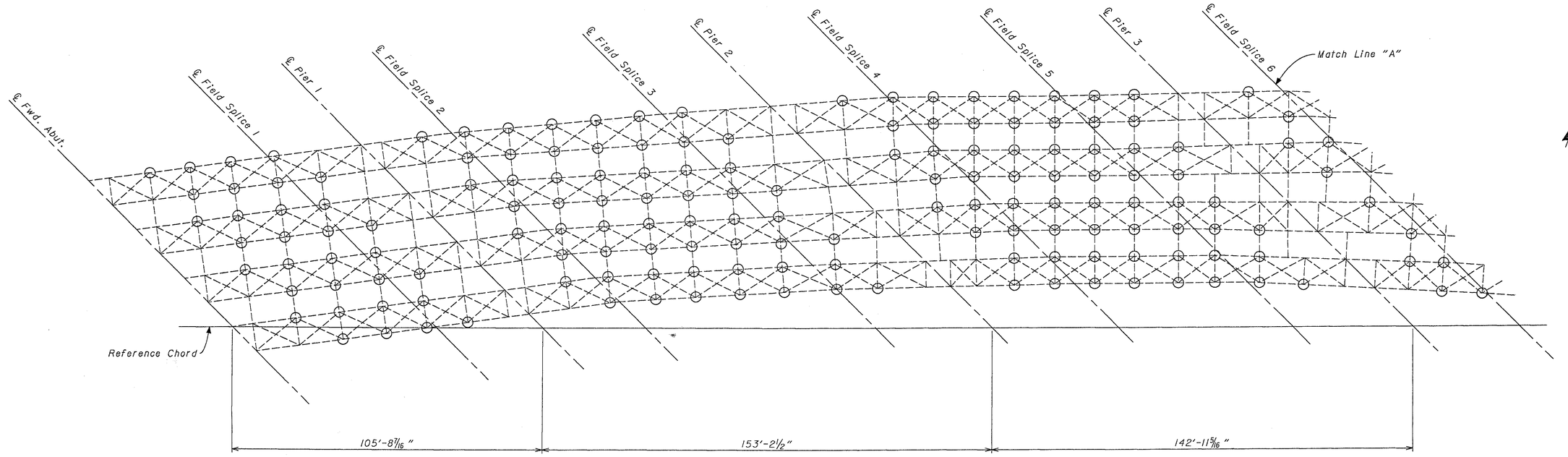
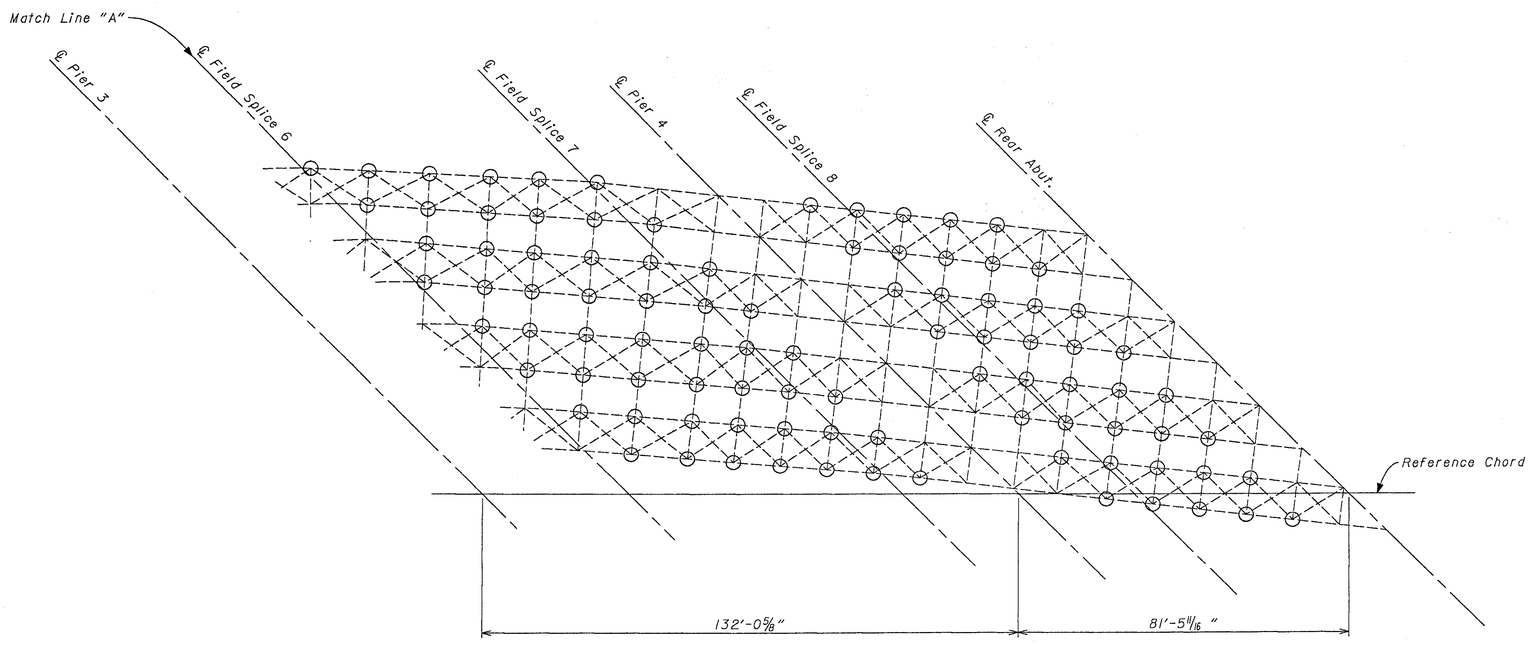
CHKD. BY: DATE:			





Notes

1. See Applicable Notes on Sheet 599/615.

LEGEND

○ Area of Lower Lateral Retrofit Locations
See Detail 4 of Retrofits on Sheet 6/6

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

5/6

FRAMING PLAN
BRIDGE NO. HAM-71-0788L
Southbound I-71 over Ramps J, K, & L

DESIGNED	DRAWN	REVIEWED	CHECKED	DATE	REVISIONS
SDC	CJB	RLE	RLE	9/25/03	

7107882.dgn

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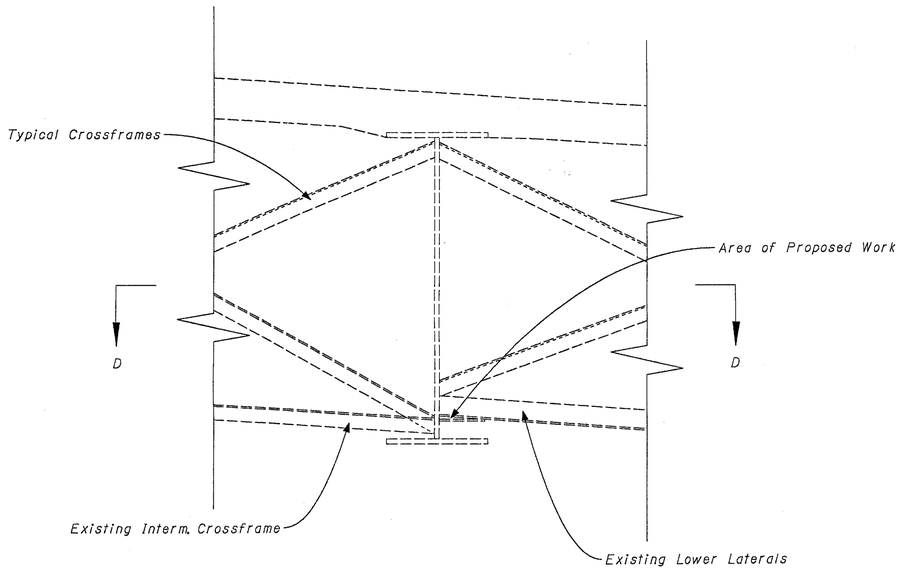
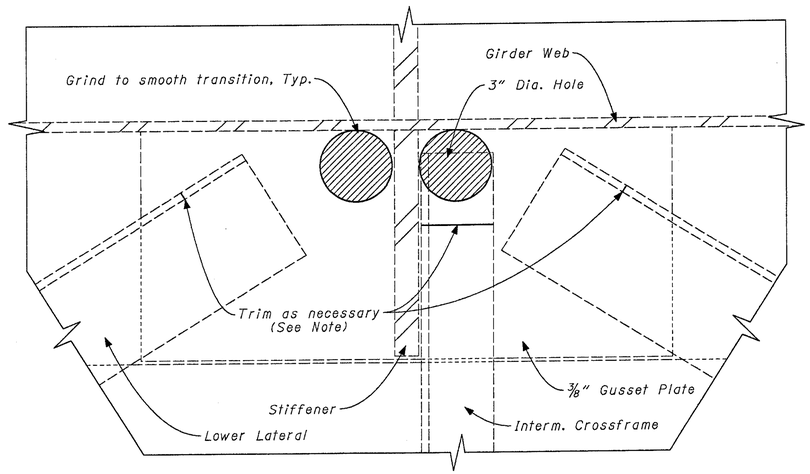
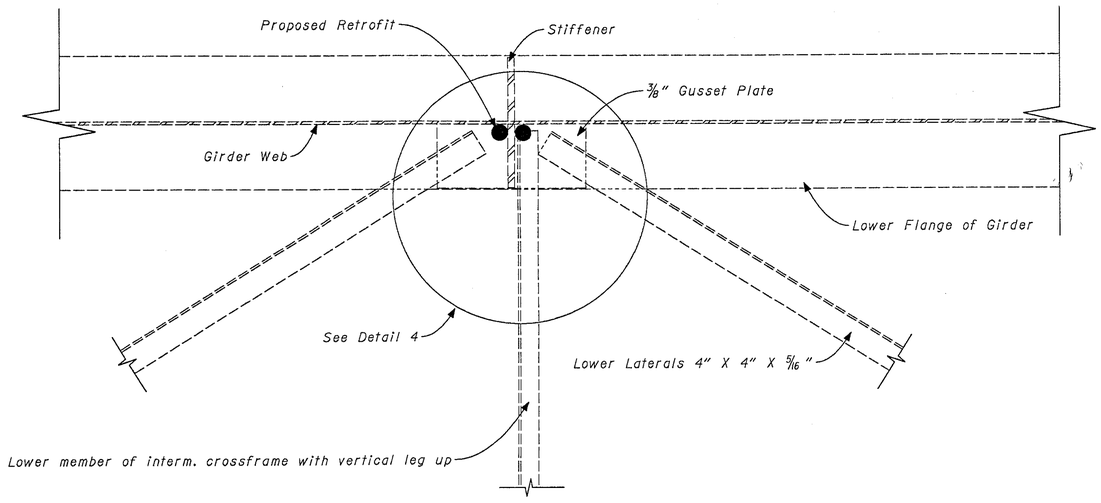
CHKD. BY: DATE:			



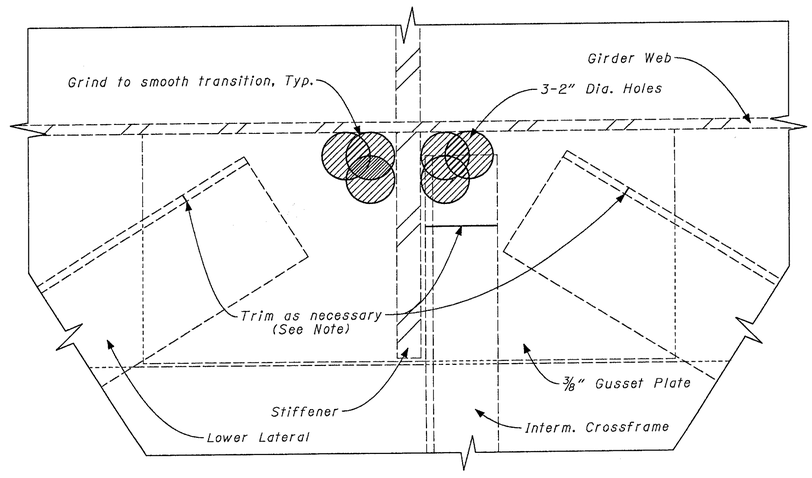
TYPICAL SECTION



DETAIL 4 OPTION A



SECTION D-D
(EXISTING LOWER LATERAL CONNECTION DETAIL 4)



DETAIL 4 OPTION B

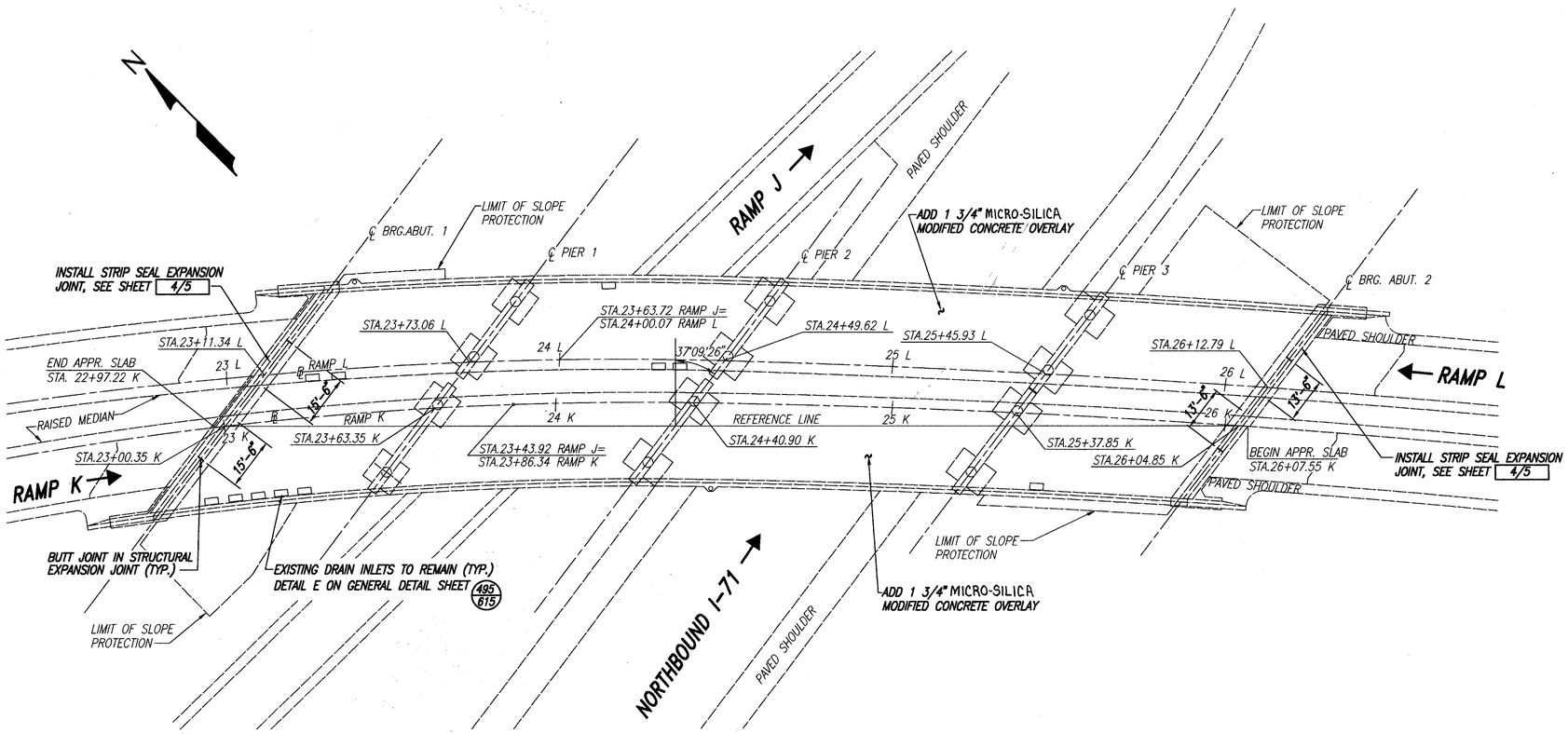
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

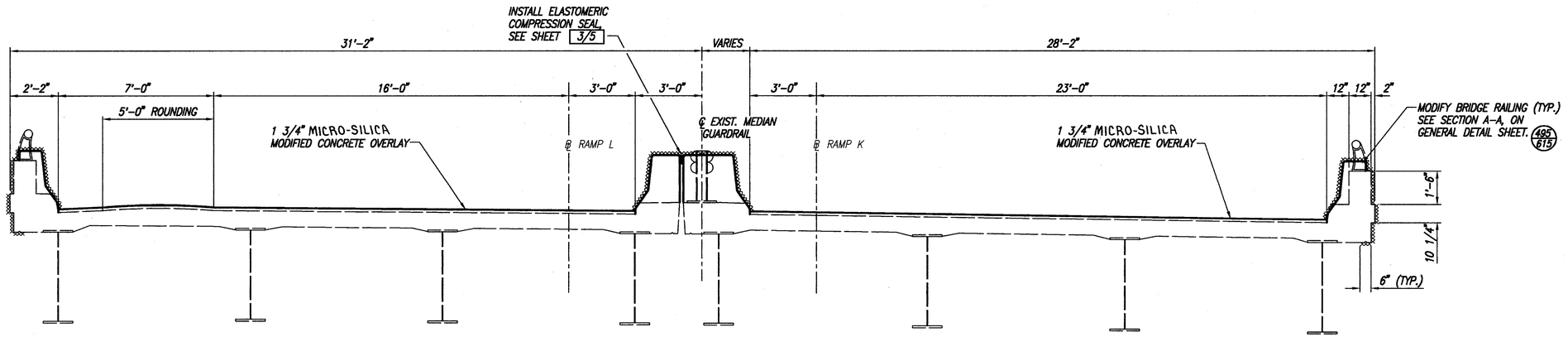
6/6

RETROFIT DETAILS
BRIDGE NO. HAM-71-0788L
I-71 Southbound over
Ramps J, K, L

DESIGNED	DRAWN	REVIEWED	CHECKED	DATE	REVISIONS
SDC	CJB	SDC	RLE	4/24/13	

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	585 615
CHKD BY DATE			





TYPICAL SECTION

xxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES

NOTES:

1. SEAL PARAPET AND DECKS AS INDICATED ON DECK AND WINGWALLS.

EXISTING STRUCURE

TYPE: CONTINUOUS WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 63'-0", 77'-6 5/8", 96'-11 3/8" AND 67'-0" C/C BEARINGS

ROADWAY: VARIES

SKEW: 37°09'26" LF

LOAD FREQUENCY: CF=2000(57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0"LONG)

ALIGNMENT: 400' SPIRAL (Dc= 8°00')RT.

SUPERELEVATION: VARIES .0833 FT/FT MAX.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/5

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0799R
RAMPS K & L OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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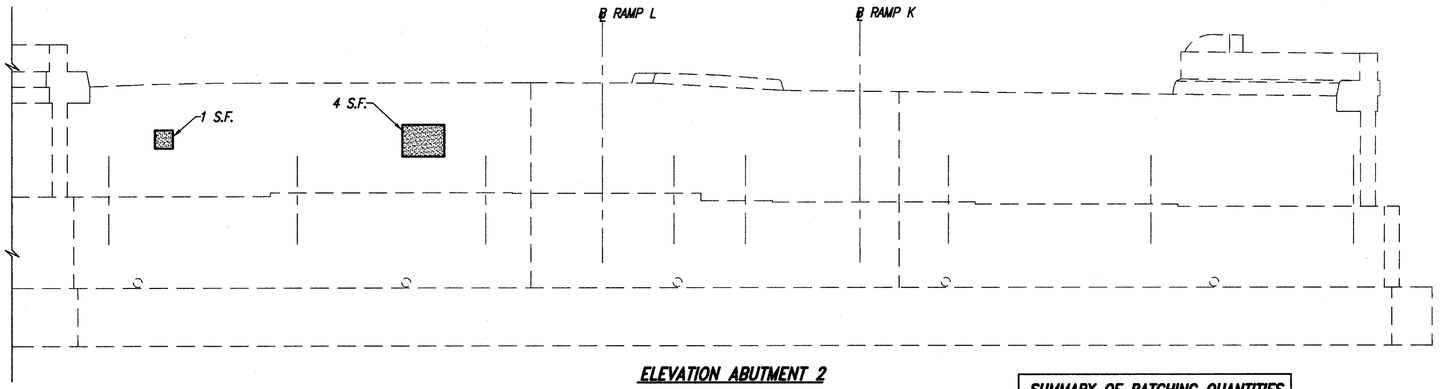
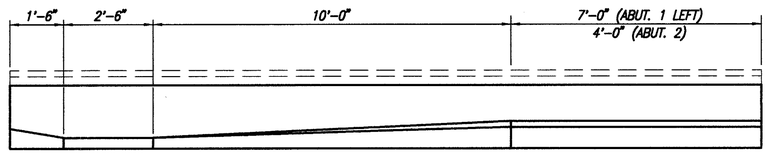
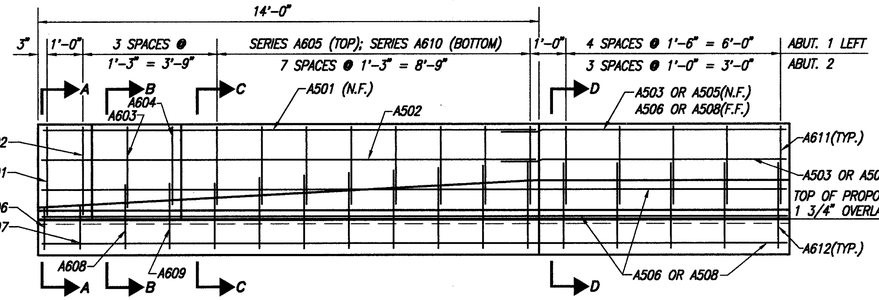
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	586 615
CHKD BY / DATE			



ELEVATION ABUTMENT 2

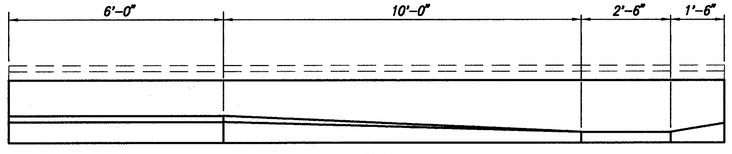


PLAN

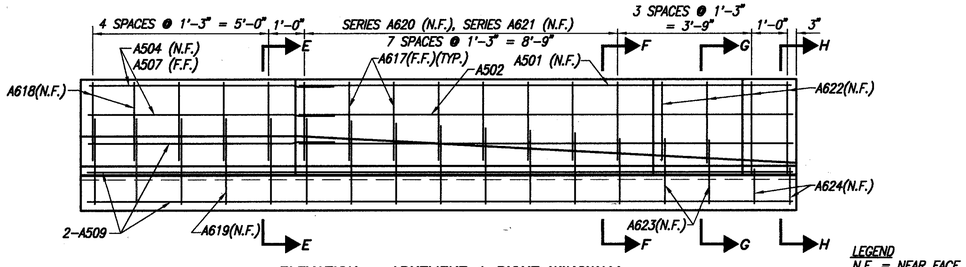


ELEVATION - ABUTMENT WINGWALLS

(ABUT.1 LEFT AND ABUT. 2 RIGHT AS SHOWN, ABUT. 2 LEFT IS OPPOSITE HAND)



PLAN



ELEVATION - ABUTMENT 1 RIGHT WINGWALL

LEGEND
N.F. = NEAR FACE
F.F. = FAR FACE

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
NO. 1	0 SQ. FT.
NO. 2	8 SQ. FT.
TOTAL	8 SQ. FT.

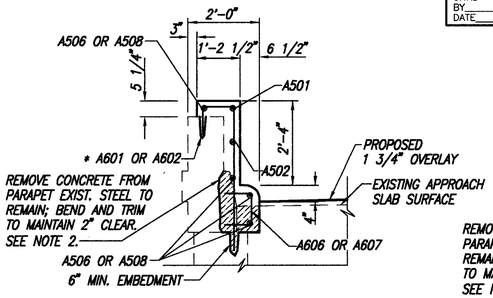
* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

LEGEND

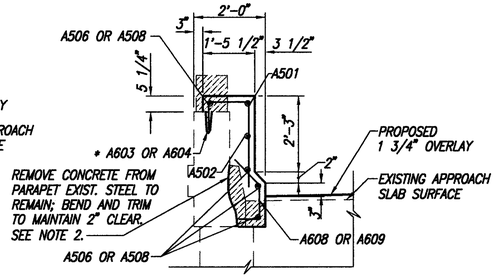
PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).



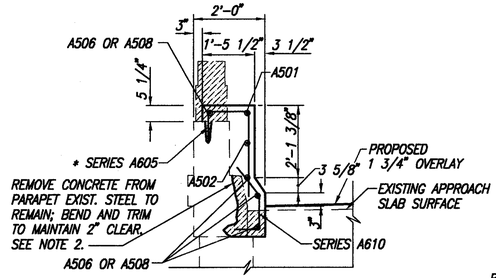
SECTION A-A

* 6" MIN. EMBEDMENT SEE NOTE 5



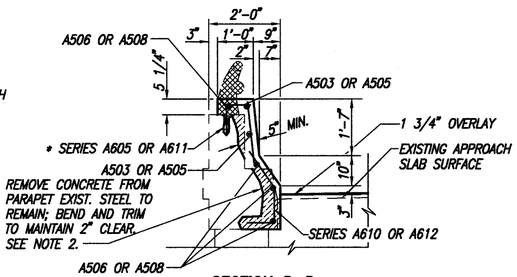
SECTION B-B

* 6" MIN. EMBEDMENT SEE NOTE 5



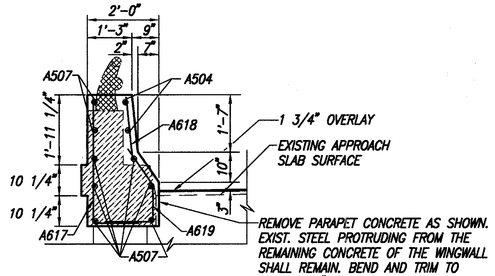
SECTION C-C

* 6" MIN. EMBEDMENT SEE NOTE 5

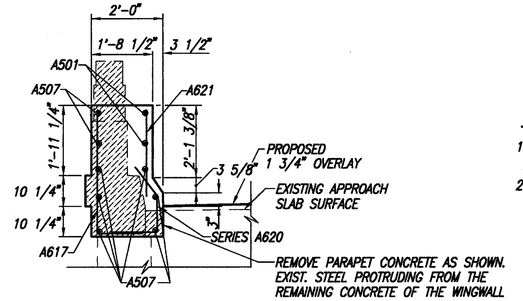


SECTION D-D

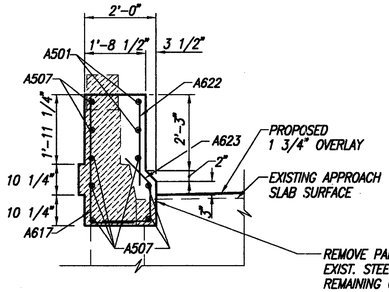
* 6" MIN. EMBEDMENT SEE NOTE 5



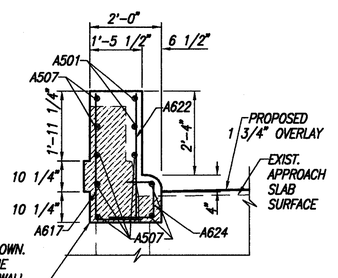
SECTION E-E



SECTION F-F



SECTION G-G



SECTION H-H

NOTES

1. PATCH ABUTMENTS AS INDICATED PER "ITEM 519- PATCHING CONCRETE STRUCTURE".
2. BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.
3. THE PARAPET CONCRETE ON THE ABUTMENT AND WINGWALLS SHALL BE PLACED PER "ITEM 511 - CLASS 'S' CONCRETE, MISC.: PARAPET, AS PER PLAN".
4. ALL CONCRETE REMOVED FROM THE EXISTING BARRIER PARAPETS SHALL BE INCLUDED IN "ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN" FOR PAYMENT.
5. WHERE 6" MINIMUM EMBEDMENT INTO EXISTING CONCRETE IS SPECIFIED FOR REINFORCING STEEL, PROVIDE DOWEL HOLE AS PER ITEM 510 USING EPOXY GROUT AS PER SUPPLEMENTAL SPECIFICATIONS 852 AND CMS 705.20.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

2/5

ABUTMENT DETAILS AND SECTIONS

BRIDGE NO. HAM-71-0799R
RAMPS K & L OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	PWL	2-22-95

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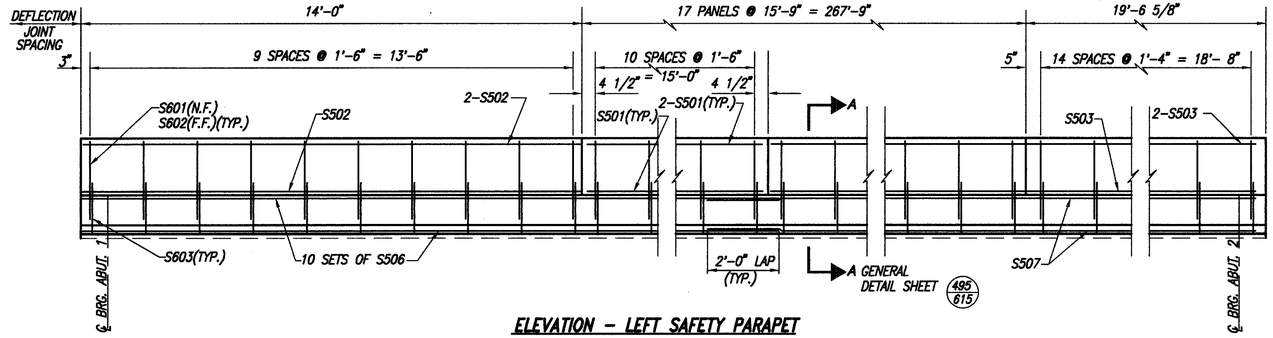
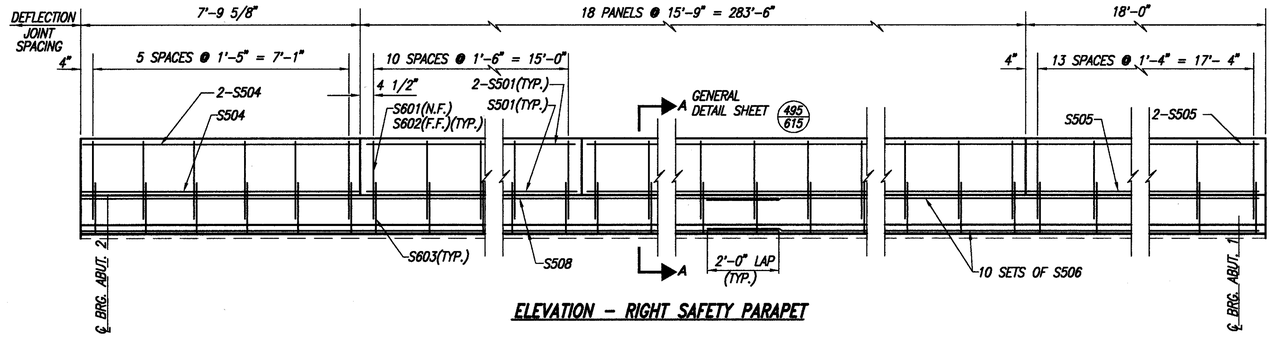
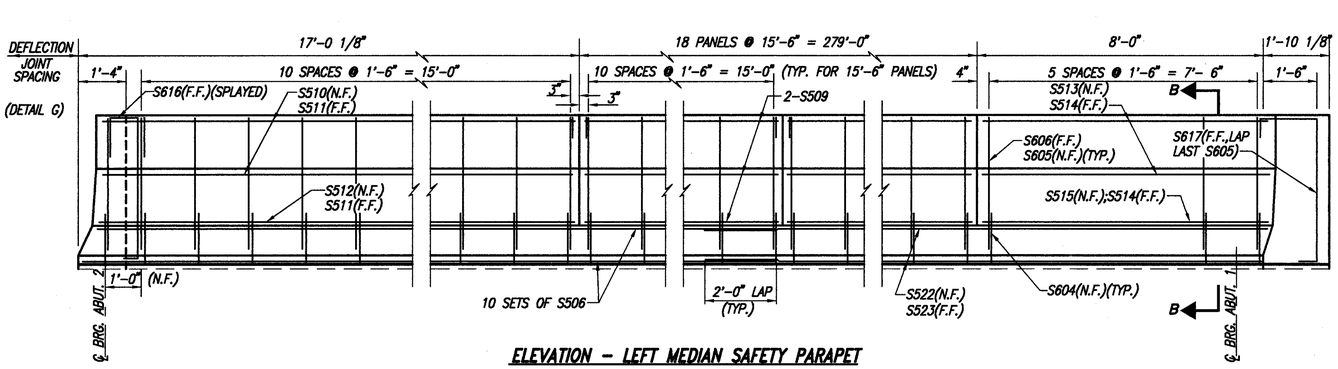
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	587 / 615
CHKD BY / DATE			



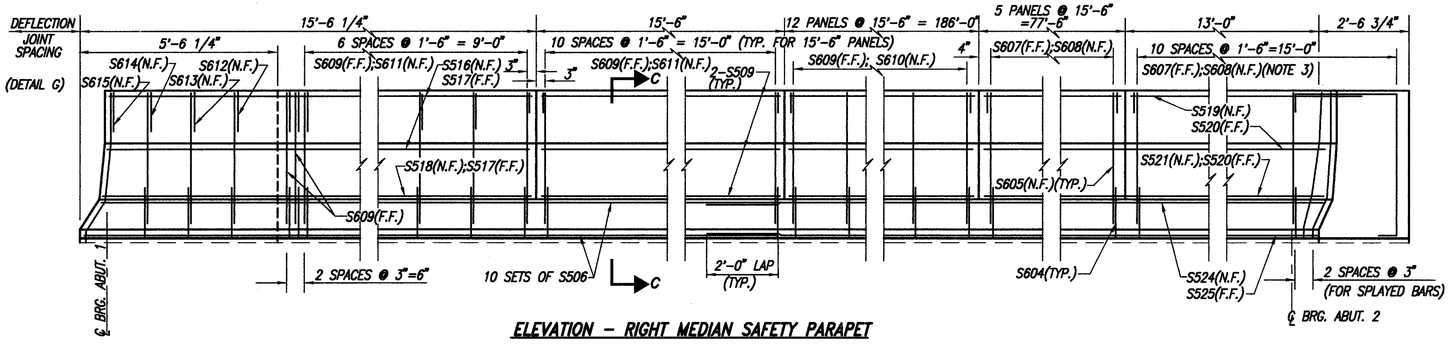
ELEVATION – LEFT SAFETY PARAPET



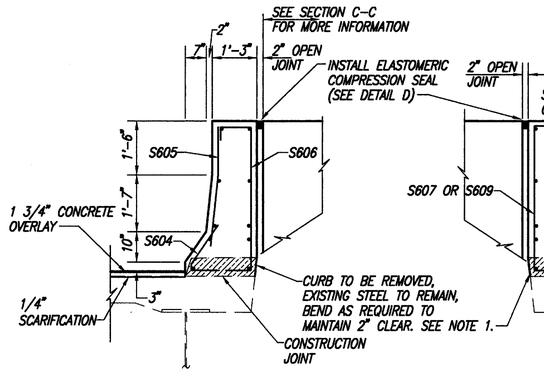
ELEVATION – RIGHT SAFETY PARAPET



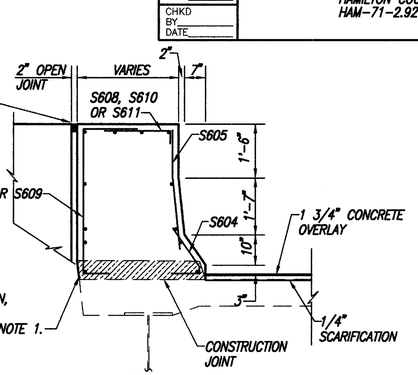
ELEVATION – LEFT MEDIAN SAFETY PARAPET



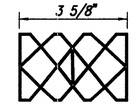
ELEVATION – RIGHT MEDIAN SAFETY PARAPET



SECTION B-B

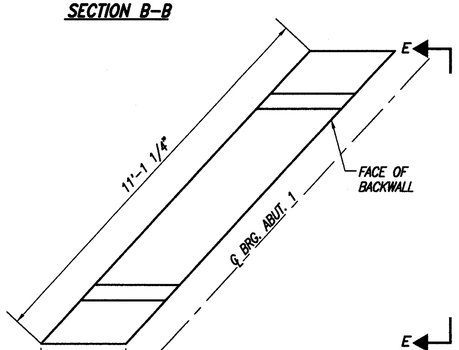


SECTION C-C

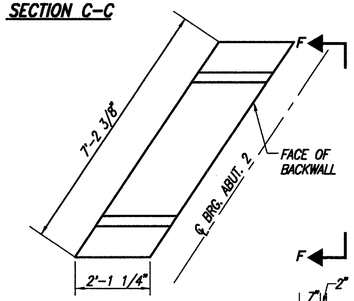


DETAIL D

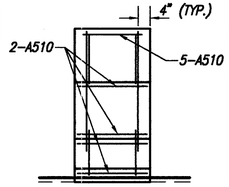
ELASTOMERIC COMPRESSION SEAL MODEL AWF-362 (3 5/8"x2 1/4") AS MADE BY WATSON BOWMAN ACME CORP.; D.S BROWN COMPANY AW-362, ELASTOMER SEALS INC. LP-3500, OR AN APPROVED EQUAL. PAYMENT SHALL BE MADE PER 'ITEM 516 – ELASTOMERIC COMPRESSION SEAL'. AN ALTERNATE SEAL DETAIL MAY BE USED. SEE "RAISED CONCRETE MEDIAN BARRIER SEAL" DETAIL ON GENERAL DETAILS SHEET 495/615.



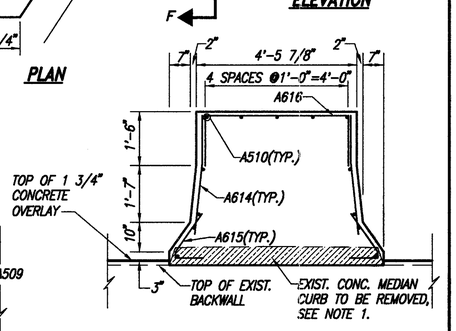
PLAN



PLAN

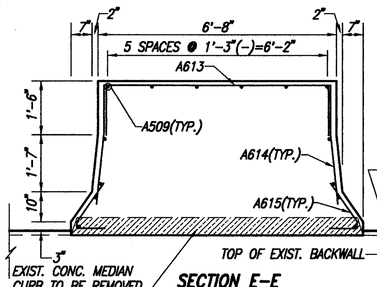


ELEVATION

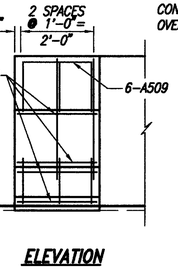


SECTION F-F

MEDIAN BARRIER – ABUTMENT 2

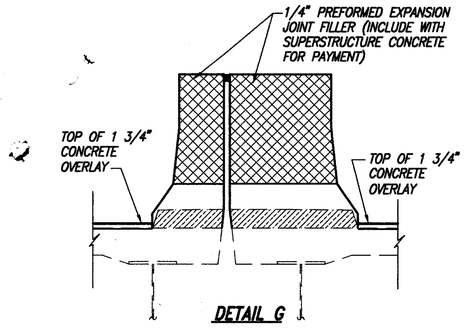


SECTION E-E



ELEVATION

MEDIAN BARRIER – ABUTMENT 1



DETAIL G

NOTES

1. BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL OPERATION. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.
2. THE MEDIAN SAFETY PARAPET CONCRETE ON THE SUPERSTRUCTURE AND ABUTMENTS SHALL BE PLACED PER "ITEM 511–CLASS 'S' CONCRETE, PARAPET, AS PER PLAN.
3. DIMENSIONS APPLY TO SPACING ALONG EACH FACE UNLESS NOTED OTHERWISE FOR SPLAYING PURPOSES.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

3 / 5

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0799R
RAMPS K & L OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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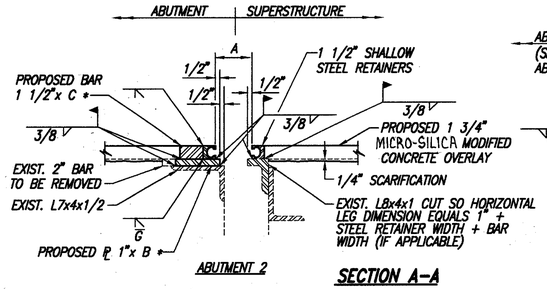
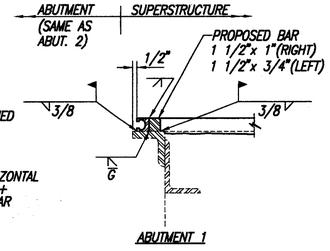
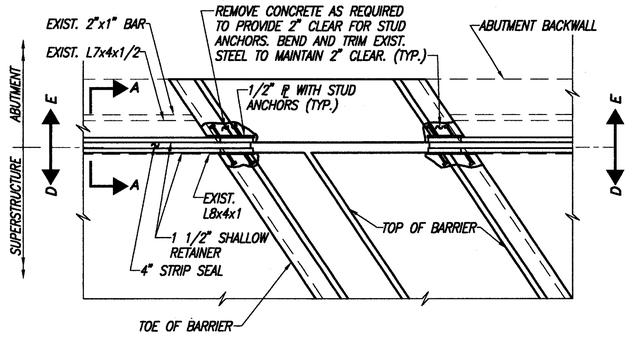




SECTION A-A

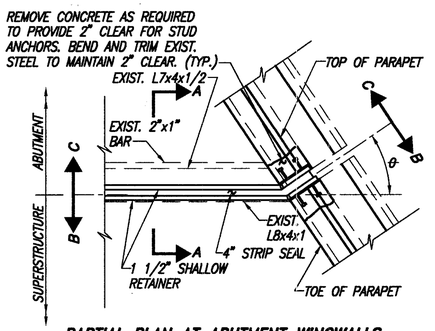
B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

TEMP. (°F)	DIMENSION "A"	
	ABUTMENT 1	ABUTMENT 2
30°	3 5/16"	3 9/16"
40°	3 3/16"	3 7/16"
50°	3 1/8"	3 5/16"
60°	3 1/16"	3 1/4"
70°	2 15/16"	3 1/8"
80°	2 7/8"	3"
90°	2 13/16"	2 15/16"



PARTIAL PLAN MEDIAN BARRIER AT ABUTMENT

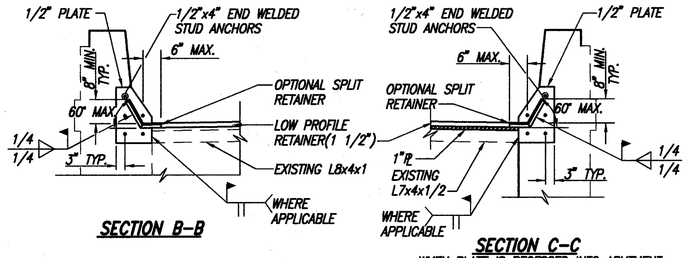
ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR



PARTIAL PLAN AT ABUTMENT WINGWALLS

ABUT. 1 LEFT AND ABUT. 2 RIGHT AS SHOWN, OTHERS ARE OPPOSITE HAND.

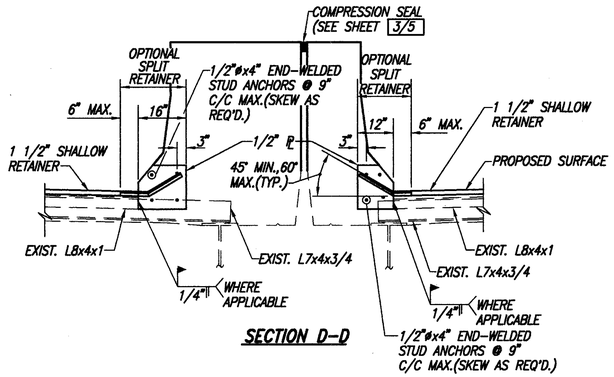
θ	LOCATION
46°-15'-00"	ABUT. 1 RIGHT
41°-43'-30"	ABUT. 1 LEFT
33°-29'-30"	ABUT. 2 RIGHT
33°-30'-00"	ABUT. 2 LEFT



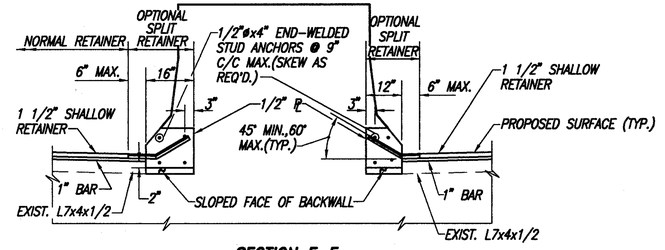
SECTION B-B

SECTION C-C

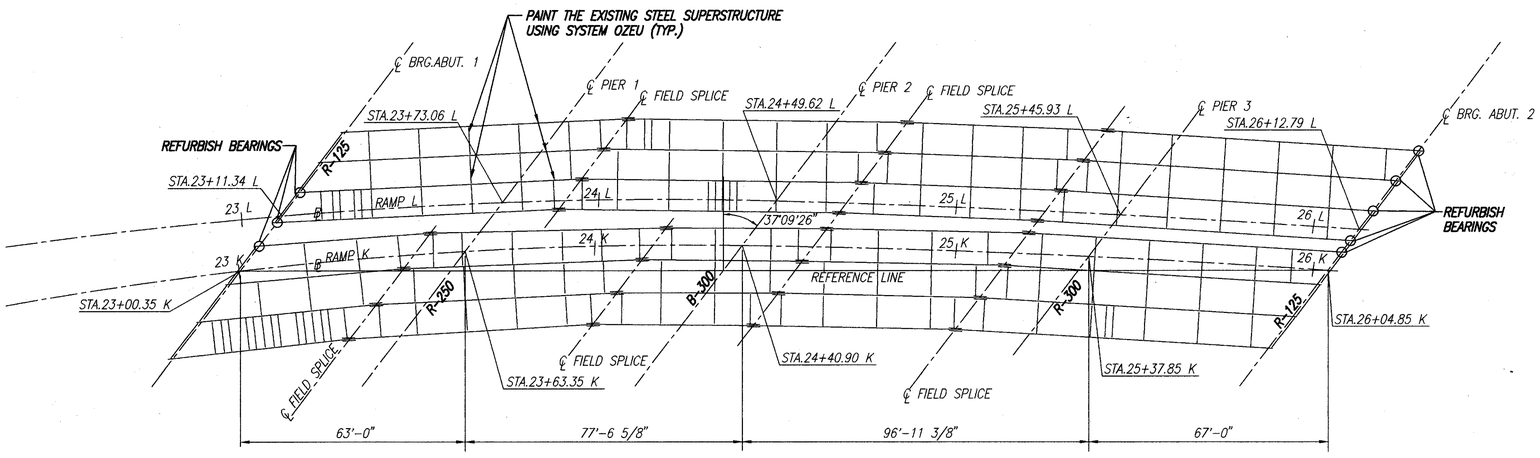
WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE END OF THE ABUTMENT TO DETER THE ACCUMULATION OF DEBRIS.



SECTION D-D



SECTION E-E



FRAMING PLAN

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R - 125	100 TON

NOTE

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDING UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.

CALC BY DATE
CHKD BY DATE

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

588
615

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4/5

SUPERSTRUCTURE DETAILS

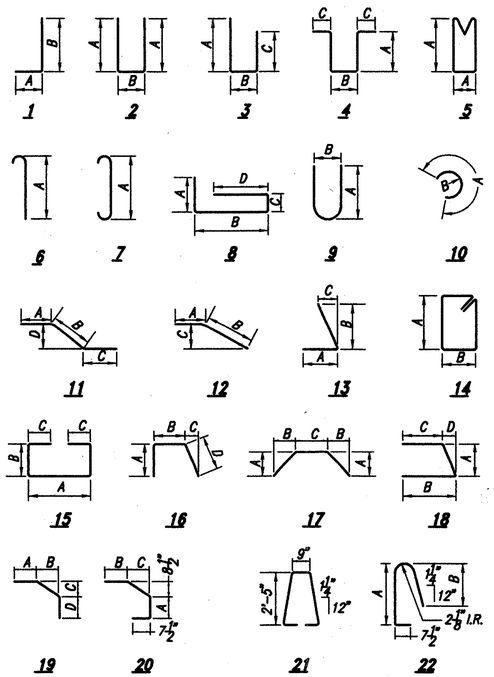
BRIDGE NO. HAM-71-0799R
RAMPS K & L OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
ABUTMENT WINGWALLS									
A501	4	13'-8"	60						57
A502	4	13'-8"	60						57
A503	2	9'-0"	ST						19
A504	2	8'-0"	ST						17
A505	4	6'-0"	ST						25
A506	4	20'-8"	ST						86
A507	8	19'-8"	ST						164
A508	8	17'-8"	ST						147
A509	14	2'-0"	ST						29
A510	13	1'-9"	ST						24
A601	3	3'-10"	3	0'-9"	0'-10"	2'-6"			17
A602	3	4'-1"	3	0'-9"	1'-1"	2'-6"			18
A603	3	4'-1"	3	0'-9"	1'-1"	2'-6"			18
A604	3	4'-1"	3	0'-9"	1'-1"	2'-6"			18
SERIES	3 SETS	2'-11"			0'-8"	0'-2"	1'-10"		
OF	OF 8	TO	16	0'-9"	TO	TO	TO	ΔL=1 7/16"	120
A605	= 24	3'-9"			1'-1"	0'-0"	2'-3"		
A606	3	2'-2"	3	0'-9"	0'-11"	0'-9"			10
A607	3	2'-1"	16	0'-9"	0'-11"	0'-4"	0'-8"		9
A608	3	2'-2"	16	0'-9"	0'-11"	0'-6 1/2"	0'-9"		10
A609	3	2'-4"	16	0'-9"	0'-11"	0'-8 1/2"	0'-11"		11
SERIES	3 SETS	2'-7"					1'-2 1/8"		
OF	OF 8	TO	16	0'-9"	0'-11"	1'-5"	TO	ΔL= 5/16"	90
A610	= 24	2'-5"					1'-0"		
A611	13	2'-11"	16	0'-9"	0'-8"	0'-2"	1'-10"		57
A612	13	2'-7"	16	0'-9"	0'-11"	1'-5"	1'-2 1/8"		50
A613	3	8'-10"	2	1'-6"	6'-2"				40
A614	10	3'-6"	12	1'-8"	2'-0"	0'-2 1/2"			53
A615	10	2'-2"	16	0'-10"	0'-3"	1'-2"	1'-5"		33
A616	2	6'-8"	2	1'-6"	4'-0"				20
A617	17	4'-10"	1	1'-8"	3'-3"				123
A618	5	2'-6"	ST						19
A619	5	2'-11"	20	0'-9"	1'-2"	0'-6"			22
SERIES	1 SET	2'-11"			1'-2"	0'-6"			
OF	OF 8	TO	20	0'-9"	TO	TO		Δ L=1/8"	35
A620	= 8	2'-10"			1'-0"	0'-8"			
A621	8	3'-0"	ST						36
A622	4	3'-4"	ST						20
A623	2	2'-10"	20	0'-9"	1'-0"	0'-8"			9
A624	2	3'-7"	2	1'-6"	0'-11"				11
								SUBTOTAL =	1474
SUPERSTRUCTURE									
S501	105	15'-5"	ST						1688
S502	3	13'-8"	ST						43
S503	3	19'-2"	ST						60
S504	3	7'-5"	ST						23
S505	3	17'-8"	ST						55
S506	120	30'-0"	ST						3755
S507	2	20'-11"	ST						44
S508	2	28'-11"	ST						60
S509	216	15'-2"	ST						3418
S510	2	16'-0"	ST						33
S511	3	15'-4"	ST						48
S512	1	16'-2"	ST						17
S513	2	8'-4"	ST						17
S514	3	9'-4"	ST						29
S515	1	8'-2"	ST						9
S516	2	14'-3"	ST						30
S517	3	9'-9"	ST						31
S518	1	14'-5"	ST						15

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
SUPERSTRUCTURE (CONT.)									
S519	2	13'-3"	ST						28
S520	3	15'-1"	ST						47
S521	1	13'-2"	ST						14
S522	2	23'-8"	ST						49
S523	2	24'-2"	ST						50
S524	2	27'-1"	ST						56
S525	2	24'-3"	ST						51
S601	430	2'-3"	16		0'-8"	0'-2"	1'-9"		1453
S602	430	1'-3"	1	0'-9"	0'-8"				807
S603	430	1'-8"	12	0'-4"	1'-5"	0'-10"			1077
S604	436	2'-2"	16	0'-10"	0'-3"	1'-2"	1'-5"		1419
S605	436	3'-6"	12	1'-8"	2'-0"	0'-2 1/2"			2292
S606	215	6'-9"	8	0'-10"	4'-0"	0'-11"	1'-6"		2180
S607	66	7'-2"	3	0'-10"	4'-0"	2'-8"			710
S608	66	4'-0"	1	1'-6"	2'-8"				397
S609	152	7'-10"	3	0'-10"	4'-0"	3'-4"			1788
S610	132	4'-8"	1	1'-6"	3'-4"				926
S611	18	4'-10"	1	1'-6"	3'-6"				131
S612	1	4'-11"	1	1'-6"	3'-7"				7
S613	1	5'-3"	1	1'-6"	3'-11"				8
S614	1	5'-10"	1	1'-6"	4'-6"				9
S615	1	6'-7"	1	1'-6"	5'-3"				10
S616	1	7'-2"	8	0'-10"	4'-10"	1'-4"	1'-6"		11
S617	1	7'-7"	8	0'-10"	4'-0"	1'-9"	1'-6"		11
								SUBTOTAL =	22,906
								REPLACEMENT STEEL =	220
								TOTAL =	24,600

NOTE
ALL DIMENSIONS ARE OUT TO OUT.



CALC BY M.A.P. DATE 3-9-93
CHKD BY A.M. DATE 4-21-93

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. 5 REGION

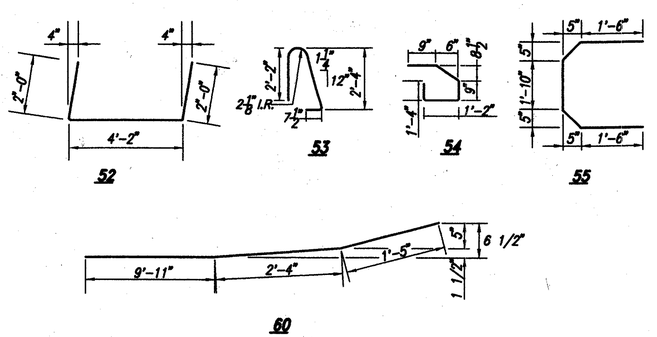
589
615

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
203	20000	30	CU.YD.	EMBANKMENT
509	15840	24600	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
510	10001	102	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN
511	34450	294	CU.YD.	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN
SPEC.	51267500	1144	SQ.YD.	SEALING OF CONCRETE SURFACES *
815	00050	40395	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	40395	SQ.FT.	FIELD PAINTING OF EXISTING STEEL PRIME COAT, SYSTEM OZEU
815	00060	40395	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	40395	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, AND SLIVERS
516	10900	350	LIN.FT.	ELASTOMERIC COMPRESSION SEAL
516	11211	146	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	9	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
516	31001	320	LIN.FT.	JOINT SEALER, (705.04), AS PER PLAN
517	76201	611	LIN.FT.	RAILING FACED, AS PER PLAN
518	12801	11	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	11	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
SPEC.	51922300	LUMP		TEST SLAB *
519	11100	8	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	53000800	1751	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	180	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1751	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	100	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1751	SQ.YD.	SCARIFICATION OF EXISTING DECK

* SEE Peoposal Note

PROPOSED WORK

1. MODIFY PARAPETS ON SUPERSTRUCTURE AND ABUTMENTS AS PER PLAN. SEAL PARAPETS AS SHOWN ON PLANS.
2. REFURBISH ABUTMENT BEARINGS AS INDICATED.
3. SEAL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS. SEAL LONGITUDINAL EXPANSION JOINTS WHERE SPECIFIED WITH COMPRESSION SEALS.
4. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE ON DECK, USING HYDRODEMOLITION
5. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL 'F' ON GENERAL DETAIL SHEET (495/615).
6. PATCH ABUTMENTS AS INDICATED.
7. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES SEE SHEET (48/615).
9. OTHER WORK AS DESCRIBED IN THESE PLANS.
10. TRIM 6" CORRUGATED METAL PIPE TO 1/2" ±.
11. PLACE EMBANKMENT AT BOTTOM OF SLOPE PROTECTION.



WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0799R
RAMPS K & L OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	AW12	2-22-95

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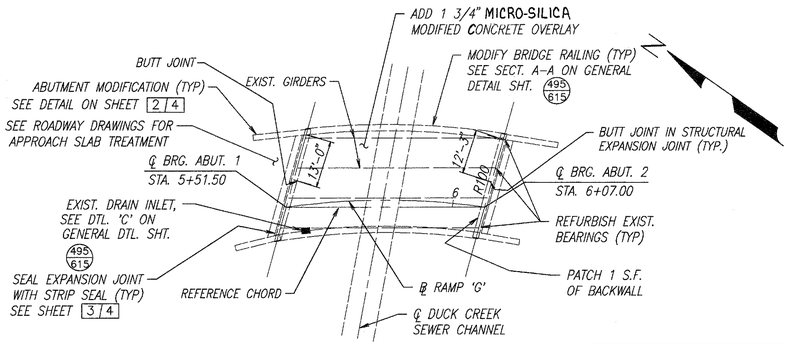
CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	590 615
CHKD BY				
DATE				

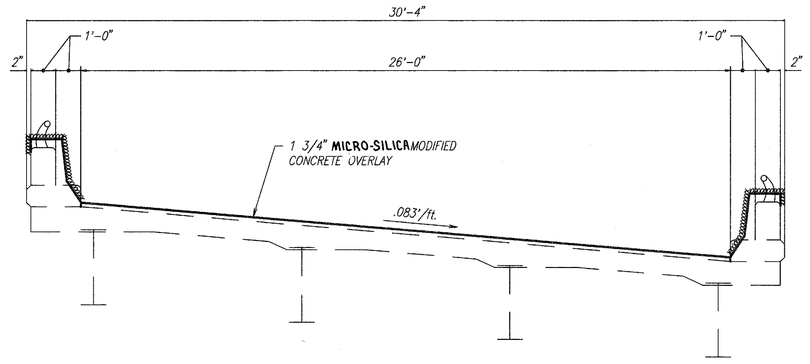


GENERAL PLAN

ROCKER OR BOLSTER SIZE	JACK CAPACITY REQ'D. (MIN)
R100	100 TON

NOTE:
1. EXTEND SCUPPER. FOR DETAIL SEE GENERAL DETAIL SHEET 495/615

2. SEAL PARAPETS AND BACKWALL.



TYPICAL SECTION

EXISTING STRUCTURE

TYPE: SIMPLE SPAN ROLLED BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 55'-6"

ROADWAY: 28'-0" f/f OF PARAPETS

LOAD FREQUENCY: C.F.= 2000 (57)

SKEW: 15°35'03" L.F.

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0" LONG)

ALIGNMENT: 28°30'00" CURVE RIGHT

SUPERELEVATION: 0.083/ft.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1/4

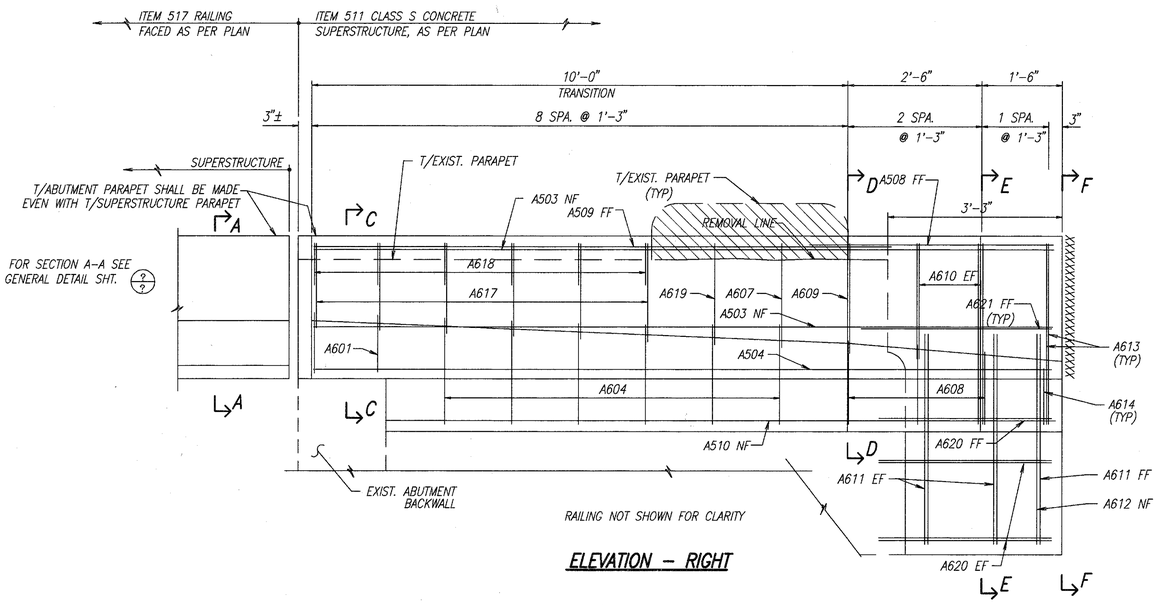
GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0815 S
RAMP 'G' OVER DUCK CREEK SEWER

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	591 615
CHKD BY / DATE			

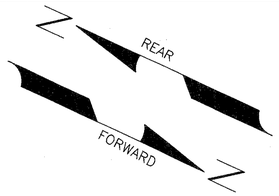


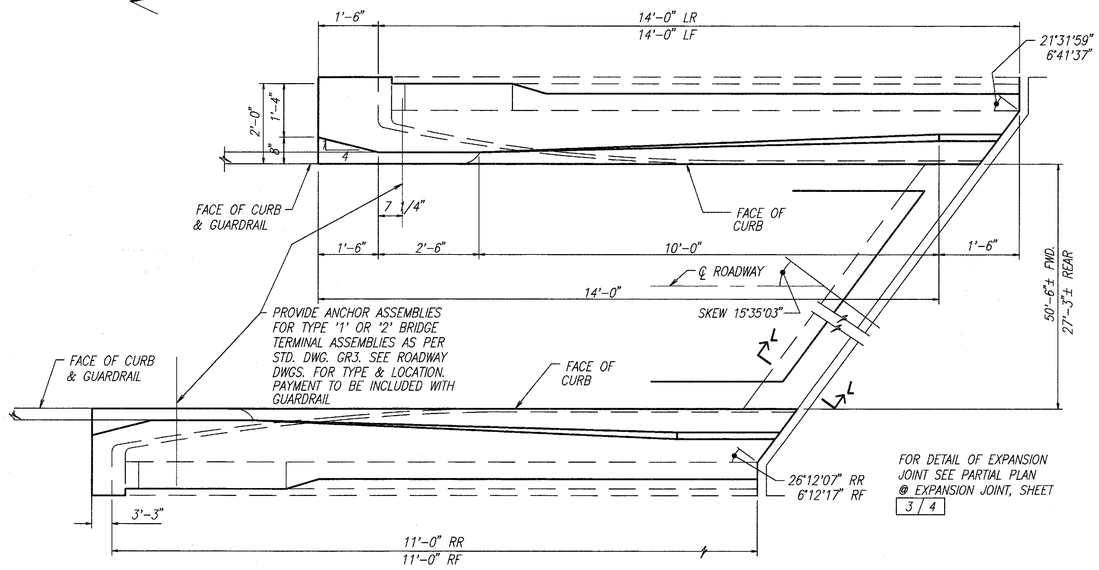
ELEVATION – RIGHT

EXIST. CURB AND PARAPET TO BE REMOVED UNDER ITEM 202–'PORTIONS OF STRUCTURE REMOVED'

EXIST. RAILING AND POSTS TO BE REMOVED AND STACKED NEATLY ALONG THE RIGHT-OF-WAY FOR SUBSEQUENT DISPOSAL BY THE CONTRACTOR. ALL WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 202–'PORTIONS OF STRUCTURE REMOVED'.

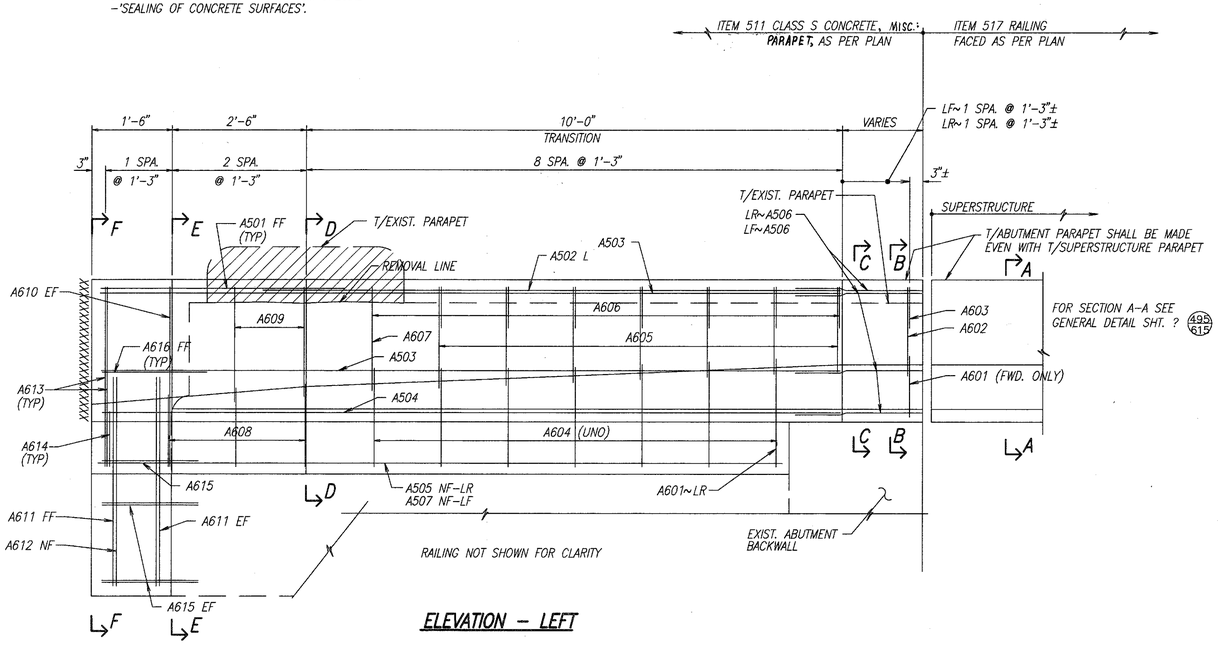
XXXXXXX SURFACES TO BE SEALED UNDER ITEM SPECIAL –'SEALING OF CONCRETE SURFACES'.



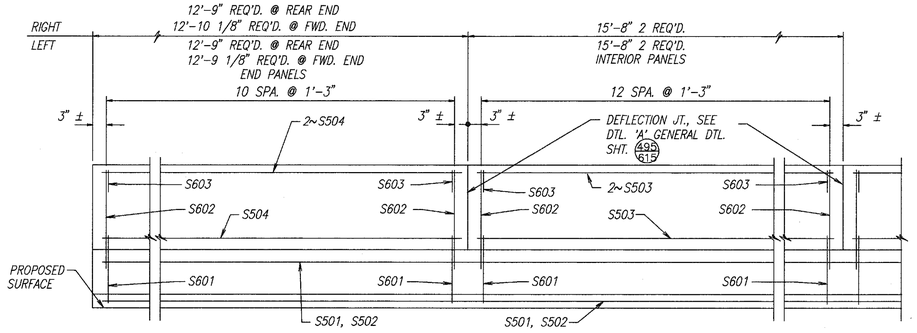


PLAN – ABUTMENT MODIFICATION

REAR ABUTMENT SHOWN, FORWARD IS OPPOSITE HAND (SAME SKEW ANGLE) SEE GENERAL PLAN FOR WINGWALL ORIENTATION AT FORWARD ABUTMENT.



ELEVATION – LEFT



NOTES:

L DENOTES LEFT SIDE
R DENOTES RIGHT SIDE
RF DENOTES RIGHT FORWARD
LF DENOTES LEFT FORWARD
RR DENOTES RIGHT REAR
LR DENOTES LEFT REAR
NF DENOTES NEAR FACE
FF DENOTES FAR FACE

ELEVATION SUPERSTRUCTURE PARAPET

FOR SECTIONS B-B, C-C, D-D, E-E, AND F-F SEE SHEET 3 / 4

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

2 / 4

ABUTMENT PLAN, ELEVATION, & DETAILS

BRIDGE NO. HAM-71-0815 S
RAMP 'G' OVER DUCK CREEK SEWER

HAMILTON COUNTY

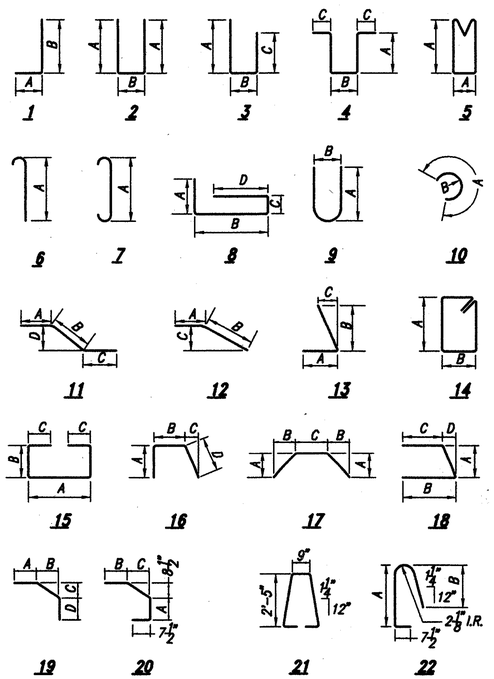
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

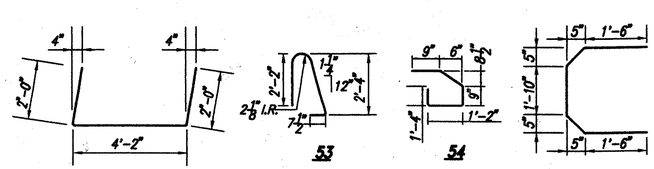
MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
ABUTMENT WINGWALLS									
A501	4	13'-8"	60						57
A502	4	13'-8"	60						57
A503	2	9'-0"	ST						19
A504	2	8'-0"	ST						17
A505	4	6'-0"	ST						25
A506	4	20'-8"	ST						86
A507	8	19'-8"	ST						164
A508	8	17'-8"	ST						147
A509	14	2'-0"	ST						29
A510	13	1'-9"	ST						24
A601	3	3'-10"	3	0'-9"	0'-10"	2'-6"			17
A602	3	4'-1"	3	0'-9"	1'-1"	2'-6"			18
A603	3	4'-1"	3	0'-9"	1'-1"	2'-6"			18
A604	3	4'-1"	3	0'-9"	1'-1"	2'-6"			18
SERIES	3 SETS	2'-11"			0'-8"	0'-2"	1'-10"		
OF	OF 8	TO	16	0'-9"	TO	TO	TO	ΔL=1 7/16"	120
A605	= 24	3'-9"			1'-1"	0'-0"	2'-3"		
A606	3	2'-2"	3	0'-9"	0'-11"	0'-9"			10
A607	3	2'-1"	16	0'-9"	0'-11"	0'-4"	0'-8"		9
A608	3	2'-2"	16	0'-9"	0'-11"	0'-6 1/2"	0'-9"		10
A609	3	2'-4"	16	0'-9"	0'-11"	0'-8 1/2"	0'-11"		11
SERIES	3 SETS	2'-7"					1'-2 1/8"		
OF	OF 8	TO	16	0'-9"	0'-11"	1'-5"	TO	ΔL= 5/16"	90
A610	= 24	2'-5"					1'-0"		
A611	13	2'-11"	16	0'-9"	0'-8"	0'-2"	1'-10"		57
A612	13	2'-7"	16	0'-9"	0'-11"	1'-5"	1'-2 1/8"		50
A613	3	8'-10"	2	1'-6"	6'-2"				40
A614	10	3'-6"	12	1'-8"	2'-0"	0'-2 1/2"			53
A615	10	2'-2"	16	0'-10"	0'-3"	1'-2"	1'-5"		33
A616	2	6'-8"	2	1'-6"	4'-0"				20
A617	17	4'-10"	1	1'-8"	3'-3"				123
A618	5	2'-6"	ST						19
A619	5	2'-11"	20	0'-9"	1'-2"	0'-6"			22
SERIES	1 SET	2'-11"			1'-2"	0'-6"			
OF	OF 8	TO	20	0'-9"	TO	TO		Δ L=1/8"	35
A620	= 8	2'-10"			1'-0"	0'-8"			
A621	8	3'-0"	ST						36
A622	4	3'-4"	ST						20
A623	2	2'-10"	20	0'-9"	1'-0"	0'-8"			9
A624	2	3'-7"	2	1'-6"	0'-11"				11
								SUBTOTAL =	1474
SUPERSTRUCTURE									
S501	105	15'-5"	ST						1688
S502	3	13'-8"	ST						43
S503	3	19'-2"	ST						60
S504	3	7'-5"	ST						23
S505	3	17'-8"	ST						55
S506	120	30'-0"	ST						3755
S507	2	20'-11"	ST						44
S508	2	28'-11"	ST						60
S509	216	15'-2"	ST						3418
S510	2	16'-0"	ST						33
S511	3	15'-4"	ST						48
S512	1	16'-2"	ST						17
S513	2	8'-4"	ST						17
S514	3	9'-4"	ST						29
S515	1	8'-2"	ST						9
S516	2	14'-3"	ST						30
S517	3	9'-9"	ST						31
S518	1	14'-5"	ST						15

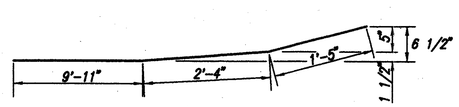
MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
SUPERSTRUCTURE (CONT.)									
S519	2	13'-3"	ST						28
S520	3	15'-1"	ST						47
S521	1	13'-2"	ST						14
S522	2	23'-8"	ST						49
S523	2	24'-2"	ST						50
S524	2	27'-1"	ST						56
S525	2	24'-3"	ST						51
S601	430	2'-3"	16		0'-8"	0'-2"	1'-9"		1453
S602	430	1'-3"	1	0'-9"	0'-8"				807
S603	430	1'-8"	12	0'-4"	1'-5"	0'-10"			1077
S604	436	2'-2"	16	0'-10"	0'-3"	1'-2"	1'-5"		1419
S605	436	3'-6"	12	1'-8"	2'-0"	0'-2 1/2"			2292
S606	215	6'-9"	8	0'-10"	4'-0"	0'-11"	1'-6"		2180
S607	66	7'-2"	3	0'-10"	4'-0"	2'-8"			710
S608	66	4'-0"	1	1'-6"	2'-8"				397
S609	152	7'-10"	3	0'-10"	4'-0"	3'-4"			1788
S610	132	4'-8"	1	1'-6"	3'-4"				926
S611	18	4'-10"	1	1'-6"	3'-6"				131
S612	1	4'-11"	1	1'-6"	3'-7"				7
S613	1	5'-3"	1	1'-6"	3'-11"				8
S614	1	5'-10"	1	1'-6"	4'-6"				9
S615	1	6'-7"	1	1'-6"	5'-3"				10
S616	1	7'-2"	8	0'-10"	4'-10"	1'-4"	1'-6"		11
S617	1	7'-7"	8	0'-10"	4'-0"	1'-9"	1'-6"		11
								SUBTOTAL =	22,906
								REPLACEMENT STEEL =	220
								TOTAL =	24,600

NOTE

ALL DIMENSIONS ARE OUT TO OUT.







CALC BY M.A.P. DATE 3-9-93
CHKD BY A.M. DATE 4-21-93

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

589
615

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
203	20000	30	CU.YD.	EMBANKMENT
509	15840	24600	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
510	10001	102	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN
511	34450	294	CU.YD.	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN
SPEC.	51267500	1144	SQ.YD.	SEALING OF CONCRETE SURFACES *
815	00050	40395	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	40395	SQ.FT.	FIELD PAINTING OF EXISTING STEEL PRIME COAT, SYSTEM OZEU
815	00060	40395	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	40395	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, AND SLIVERS
516	10900	350	LIN.FT.	ELASTOMERIC COMPRESSION SEAL
516	11211	146	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	9	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
516	31001	320	LIN.FT.	JOINT SEALER, (705.04), AS PER PLAN
517	76201	611	LIN.FT.	RAILING FACED, AS PER PLAN
518	12801	11	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	11	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
SPEC.	51922300	LUMP		TEST SLAB *
519	11100	8	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	53000800	1751	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	180	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1751	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	100	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1751	SQ.YD.	SCARIFICATION OF EXISTING DECK

* SEE Peoposal Note

PROPOSED WORK

1. MODIFY PARAPETS ON SUPERSTRUCTURE AND ABUTMENTS AS PER PLAN. SEAL PARAPETS AS SHOWN ON PLANS.
2. REFURBISH ABUTMENT BEARINGS AS INDICATED.
3. SEAL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS. SEAL LONGITUDINAL EXPANSION JOINTS WHERE SPECIFIED WITH COMPRESSION SEALS.
4. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE ON DECK, USING HYDRODEMOLITION
5. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL 'F' ON GENERAL DETAIL SHEET (495/615).
6. PATCH ABUTMENTS AS INDICATED.
7. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES SEE SHEET (48/615).
9. OTHER WORK AS DESCRIBED IN THESE PLANS.
10. TRIM 6" CORRUGATED METAL PIPE TO 1/2":.
11. PLACE EMBANKMENT AT BOTTOM OF SLOPE PROTECTION.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

5/5

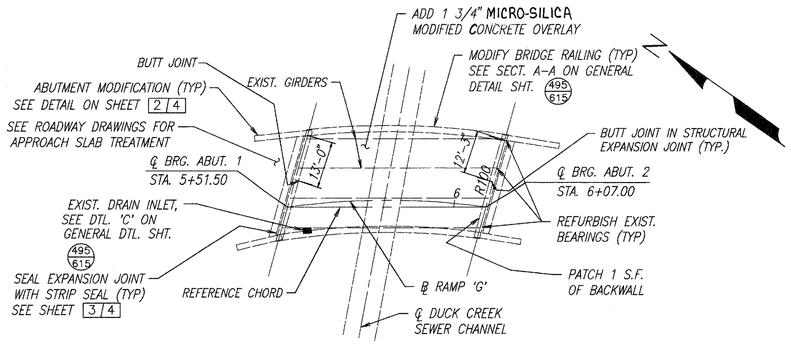
QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0799R
RAMPS K & L OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	AW/2	2-22-95

G:\TRANS\18007\0799R\07990QUAN.dwg - FEB 14, 1995 - 09:18:25

CALC BY _____ DATE _____	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	590 615
CHKD BY _____ DATE _____			

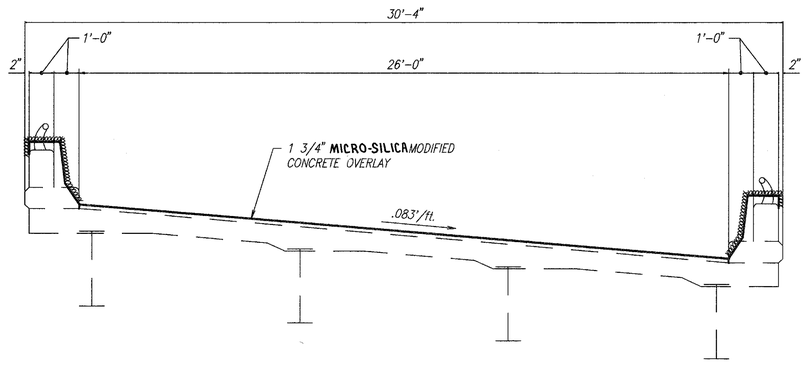


GENERAL PLAN

ROCKER OR BOLSTER SIZE	JACK CAPACITY REQ'D. (MIN)
R100	100 TON

NOTE:
1. EXTEND SCUPPER. FOR DETAIL SEE GENERAL DETAIL SHEET 495 615

2. SEAL PARAPETS AND BACKWALL.



TYPICAL SECTION

EXISTING STRUCTURE

TYPE: SIMPLE SPAN ROLLED BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 55'-6"

ROADWAY: 28'-0" f/f OF PARAPETS

LOAD FREQUENCY: C.F.= 2000 (57)

SKEW: 15°35'03" L.F.

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0" LONG)

ALIGNMENT: 28°30'00" CURVE RIGHT

SUPERELEVATION: 0.083/ft.

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400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1 / 4

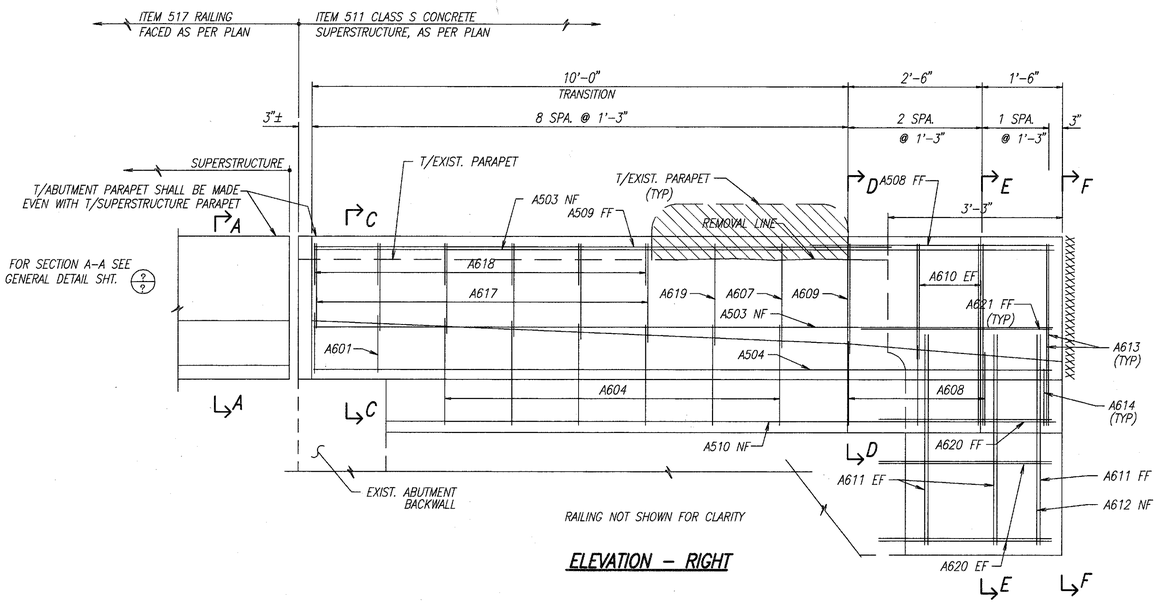
GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0815 S
RAMP 'G' OVER DUCK CREEK SEWER

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

CALC BY		HAMILTON COUNTY	OHIO	591
CHKD BY		HAM-71-2.92	F.H.W.A. REGION 5	615
DATE				



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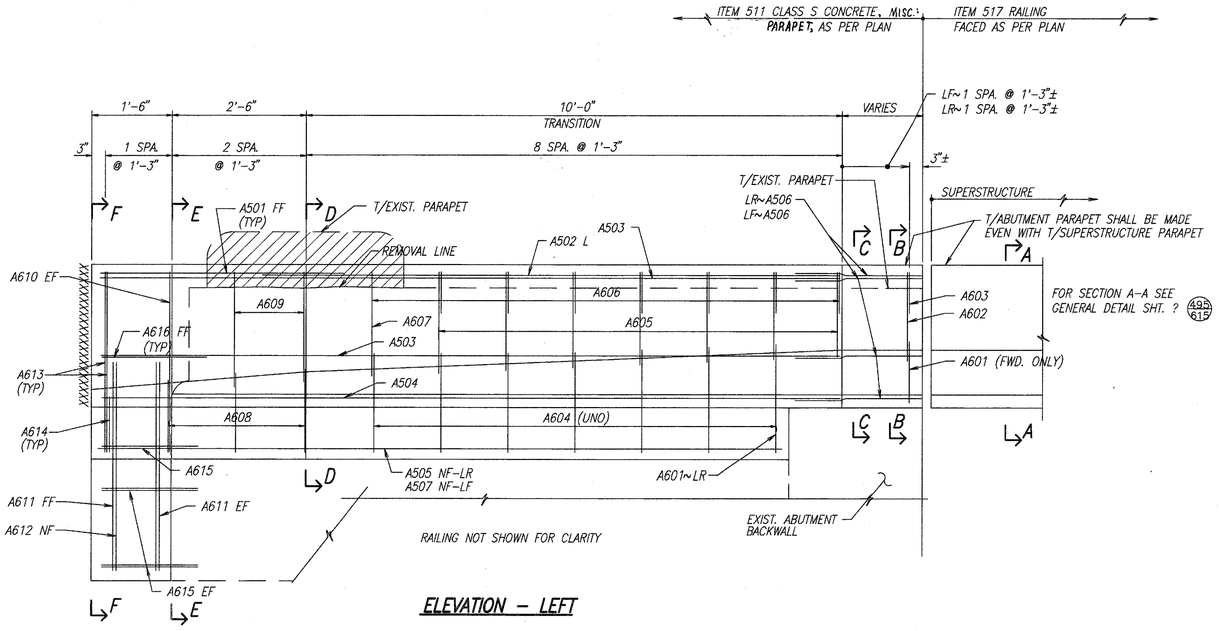
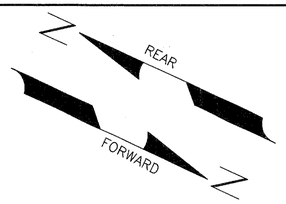
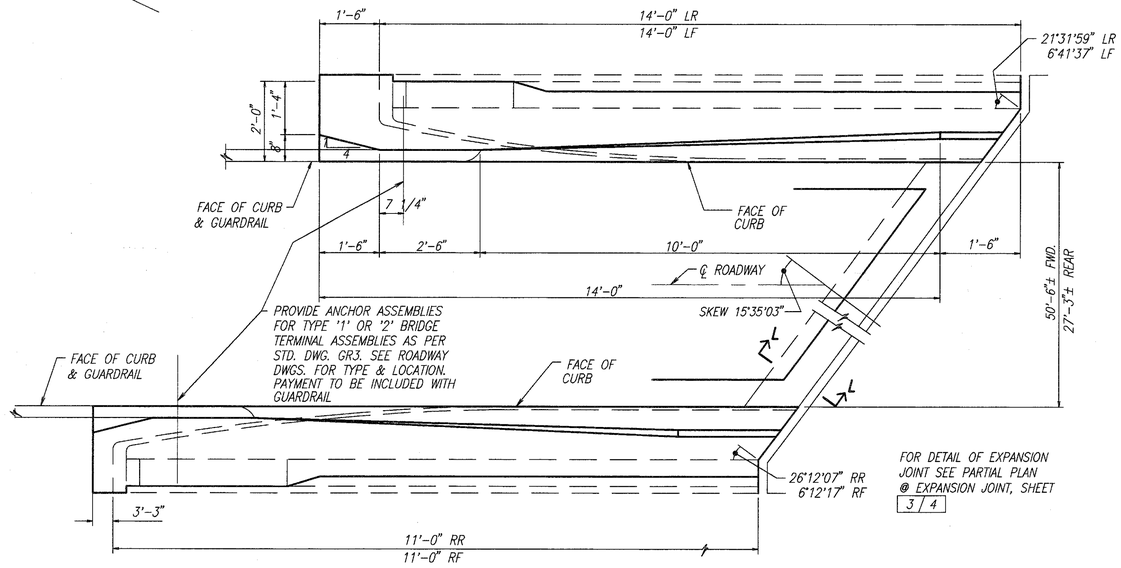


ELEVATION – LEFT

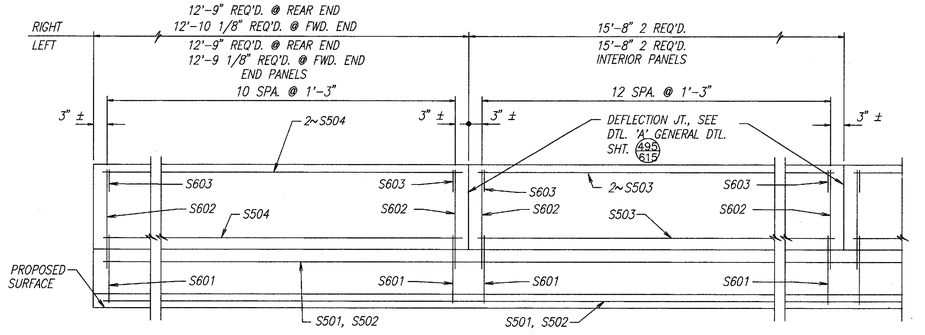




FOR DETAIL OF EXPANSION JOINT SEE PARTIAL PLAN @ EXPANSION JOINT, SHEET 3/4

PLAN – ABUTMENT MODIFICATION

REAR ABUTMENT SHOWN, FORWARD IS OPPOSITE HAND (SAME SKEW ANGLE) SEE GENERAL PLAN FOR WINGWALL ORIENTATION AT FORWARD ABUTMENT.



NOTES:

L DENOTES LEFT SIDE
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NF DENOTES NEAR FACE
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ELEVATION SUPERSTRUCTURE PARAPET

FOR SECTIONS B-B, C-C, D-D, E-E, AND F-F SEE SHEET 3/4

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/4

ABUTMENT PLAN, ELEVATION, & DETAILS

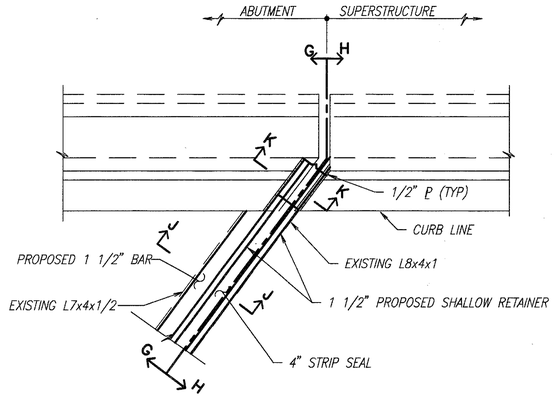
BRIDGE NO. HAM-71-0815 S
RAMP 'G' OVER DUCK CREEK SEWER

HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

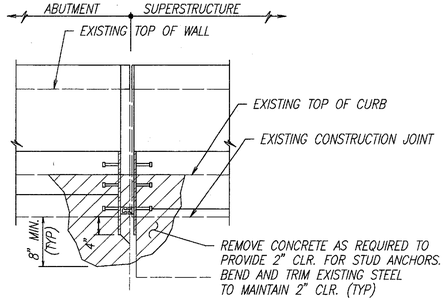
G:\STR\18007-19\08155ft2 Last Revision By: D.E. MAR. 17, 1993 @ 11:23 AM

CALC BY		HAMILTON COUNTY	OHIO	592
CHKD BY		HAM-71-2.92	F.H.W.A. REGION 5	615
DATE				



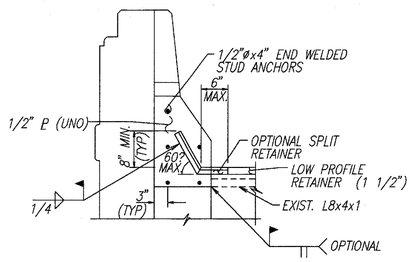
PART PLAN @ EXPANSION JOINT

LEFT REAR SHOWN, OTHER LOCATIONS SIMILAR.

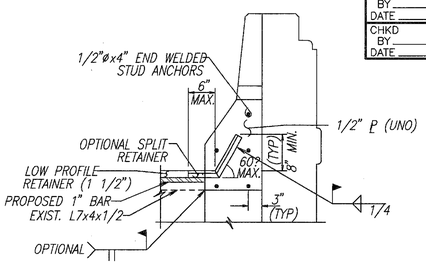


SECTION K-K

† BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONC. REMOVAL OPERATION. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.



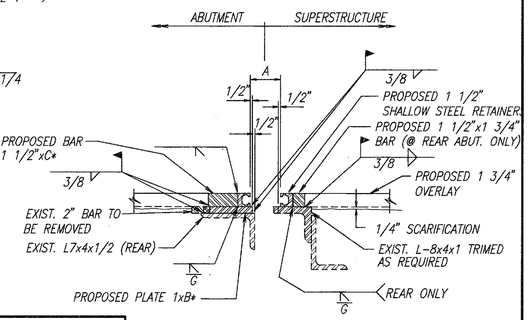
SECTION H-H



SECTION G-G

NOTES:

1. EXPANSION JT. DETAILS TO BE WORKED WITH STD. DWG. EXJ-4-87 SHTS. 1 thru 5.
2. WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE END OF THE ABUTMENT TO DETER ACCUMULATION OF DEBRIS.



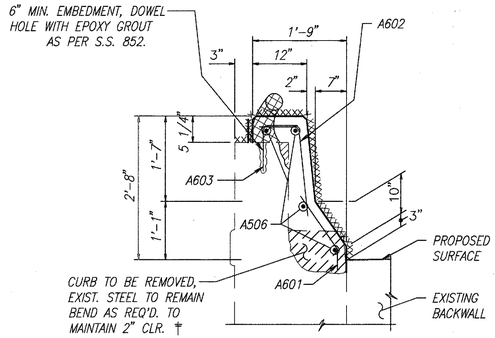
TEMPERATURE	DIM. 'A'	
	FORWARD	REAR
40° F	2 7/8"	2 1/2"
50° F	2 3/4"	2 1/2"
60° F	2 3/4"	2 1/2"
70° F	2 3/4"	2 1/2"
80° F	2 5/8"	2 1/2"
90° F	2 5/8"	2 1/2"

B* = ANGLE LEG MINUS 1"
C* = B* MINUS WIDTH OF RETAINER MINUS 1"

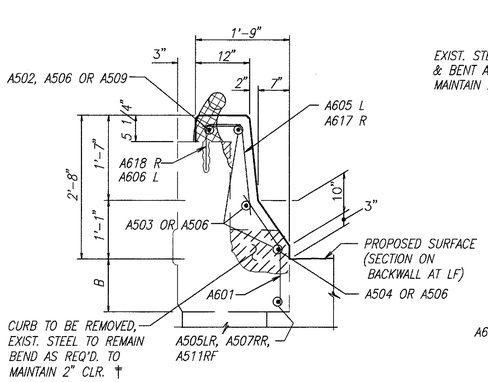
SECTION J-J

NOTES:

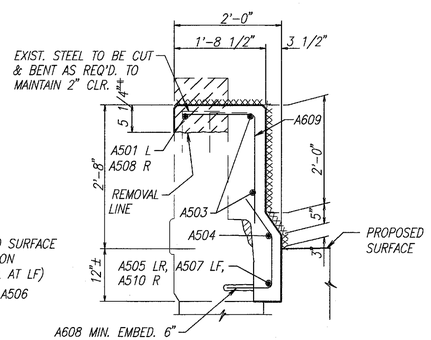
1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING THE EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516-'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS', SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTIAL ITEMS, AS DETAILED. REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202-'PORTIONS OF STRUCTURE REMOVED.
3. FOR DETAILS NOT SHOWN REFER TO DRAWING EXJ-4-87 SHEETS 3 AND 4.
4. STRIP SEAL SHALL BE INSTALLED IN ONE PIECE (NO OPEN JOINTS).
5. WHERE 6" MINIMUN EMBEDMENT INTO EXISTING CONCRETE IS SPECIFIED FOR REINFORCING STEEL, PROVIDE DOWEL HOLE AS PER ITEM 510 USING EPOXY GROUT AS PER SUPPLEMENTAL SPECIFICATION 852 AND CMS 705.20.



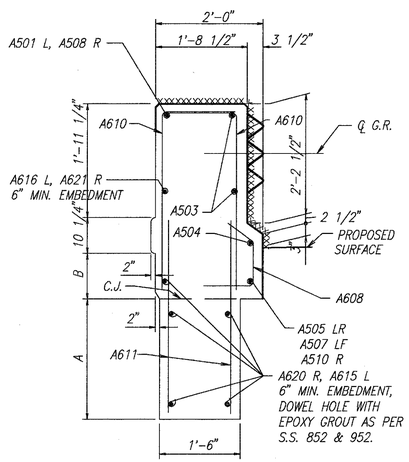
SECTION B-B



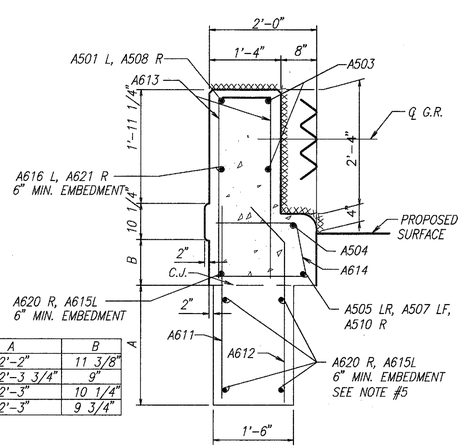
SECTION C-C



SECTION D-D



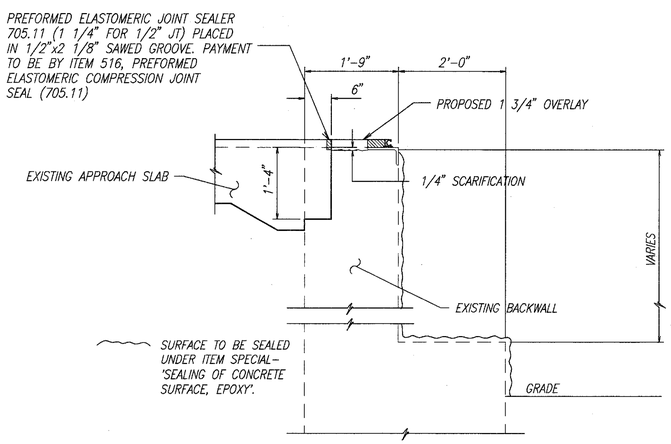
SECTION E-E



	A	B
LR	2'-2"	11 3/8"
RR	2'-3 3/4"	9"
LF	2'-3"	10 1/4"
RF	2'-3"	9 3/4"

SECTION F-F

xxxxxxxxxxxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL - SEALING OF CONCRETE SURFACES.



SECTION L-L

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

3/4

SECTIONS, DETAILS, & QUANTITIES

BRIDGE NO. HAM-71-0815 S
RAMP 'G' OVER DUCK CREEK SEWER

HAMILTON COUNTY

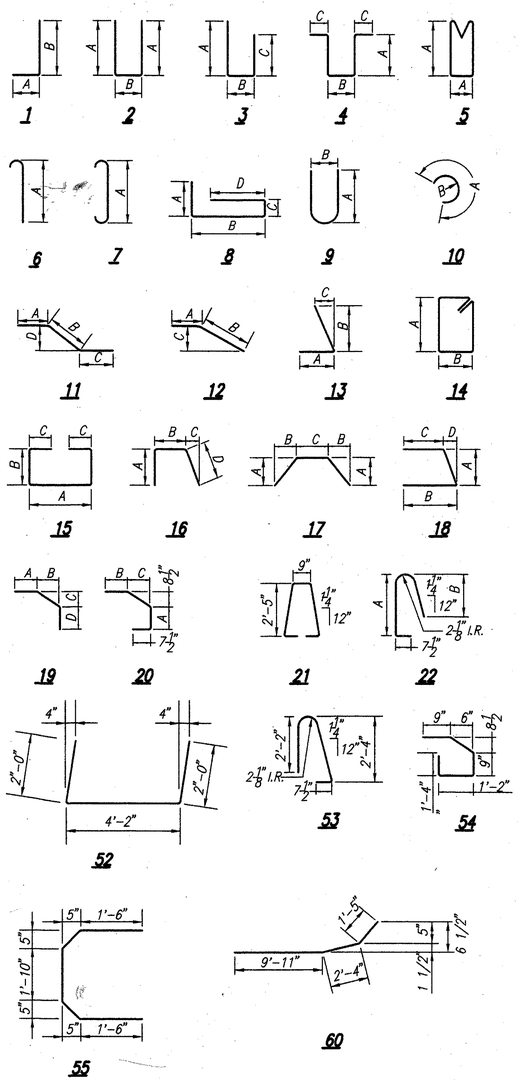
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
SUPERSTRUCTURE									
S501	4	30'-0"	STR.						125
S502	4	28'-8"	STR.						120
S503	12	15'-2"	STR.						190
S504	12	12'-4"	STR.						154
S601	96	1'-9"	12	4"	1'-5"	10"			252
S602	96	2'-4"	16		8"	2"	1'-9"		336
S603	96	1-4"	1	8"	9"				192
								SUBTOTAL =	1,369
ABUTMENT									
A501	2	6'-6	STR.						14
A502	2	9'-6"	STR.						20
A503	8	13'-8"	60						114
A504	4	13'-10"	STR.†						58
A505	1	12'-8"	STR.						13
A506	8	2'-9"	STR.						23
A507	1	13'-3"	STR.						14
A508	2	8'-3"	STR.						17
A509	2	7'-9"	STR.						16
A510	2	12'-0"	STR.						25
A601	8	1'-7"	12	4"	1'-5"	10"			19
A602	2	2'-4"	16		8"	2"	1'-9"		7
A603	2	1'-4"	1	8"	9"				4
A604	25	2'-6"	12	1'-1"	1'-5"	10"			94
	2 SERIES	2'-6"					1'-10"		
A605	OF 7	TO	16		8"	2"	TO	1 3/4"	62
	= 14	3'-5"					2'-8 3/4"		
	2 SERIES	1'-4"		8"					
A606	OF 7	TO	1	TO	9"			1/2"	31
	= 14	1'-7"		11"					
A607	4	4'-0"	16		1'-4"	2"	2'-10"		24
	4 SERIES					5 1/2"			
A608	OF 3	2'-6"	16	11"	1'-0"	TO	10"	1 1/4"	45
	= 12					8"			
A609	6	3'-6"	1	1'-4"	2'-4"				32
A610	12	4'-4"	1	1'-4"	3'-2"				78
A611	16	4'-3"	STR.						102
A612	4	4'-2"	12	2'-10"	1'-5"	1'-0"			25
A613	8	4'-1"	1	1'-0"	3'-3"				49
A614	4	3'-10"	18	11 3/4"	1'-8"	1'-6"	2"		23
A615	10	1'-9"	STR.						26
A616	2	2'-1"	STR.						6
	2 SERIES	2'-6"					1'-10"		
A617	OF 6	TO	16		8"	2"	TO	1 3/4"	52
	= 12	3'-3"					2'-6 3/4"		
	2 SERIES	1'-4"		8"					
A618	OF 6	TO	1	TO	9"			1/2"	26
	= 12	1'-7"		10 1/2"					
A619	2	3'-6"	16		11"	2"	2'-9"		11
A620	10	3'-3"	STR.						49
A621	2	3'-7"	STR.						11
								SUBTOTAL =	1090
								REPLACEMENT STEEL =	100
								GRAND TOTAL = 1,369 + 1090 + 100 =	2,559

NOTES

ALL DIMENSIONS ARE OUT TO OUT.

† FIELD BEND AS REQUIRED



ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
509	15840	2559	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
510	10001	64	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN
511	34450	8	CU.YD.	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN
SPEC.	51267500	88	SQ.YD.	SEALING OF CONCRETE SURFACES *
SPEC.	51267502	66	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) *
514	27704	LUMP	LUMP	FIELD PAINTING, MISC.: FIELD PAINTING EXISTING STEEL (EEU) *
516	10000	35	LIN.FT.	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL (705.11)
516	11211	60	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	4	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPRORARY SUPPORT OF SUPERSTRUCTURE *
516	31001	40	LIN.FT.	JOINT SEALER, (705.04), AS PER PLAN
517	76201	114	LIN.FT.	RAILING FACED, AS PER PLAN
518	12801	1	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	1	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	1	SQ.FT.	PATCHING CONCRETE STRUCTURE
601	21001	7	SQ.YD.	CONCRETE SLOPE PROTECTION, AS PER PLAN
SPEC.	51922300	LUMP		TEST SLAB *
SPEC.	53000800	170	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	24	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED)
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	170	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	10	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	170	SQ.YD.	SCARIFICATION OF EXISTING DECK

* SEE PROPOSAL NOTE

PROPOSED WORK

1. PLACE 1 3/4" MICRO-SILICA MODIFIED CONCRETE OVERLAY, USING HYDRODEMOLITION
2. REFURBISH BEARINGS.
3. MODIFY PARAPETS ON THE SUPERSTRUCTURE AND ABUTMENTS, SEAL PARAPETS AS SHOWN ON PLANS.
4. EXTEND SCUPPER.
5. SEAL BACKWALL AS SHOWN ON PLANS.
6. PATCH SUBSTRUCTURE AS REQUIRED.
7. SEAL EXPANSION JOINTS WITH STRIP SEALS.
8. ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES, SEE SHEET (48/615)
9. OTHER WORK AS DESCRIBED IN THESE PLANS.

CALC BY D.E.M. DATE 2/18/94
CHKD BY J.L.T. DATE 2/3/95

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

593/615

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4/4

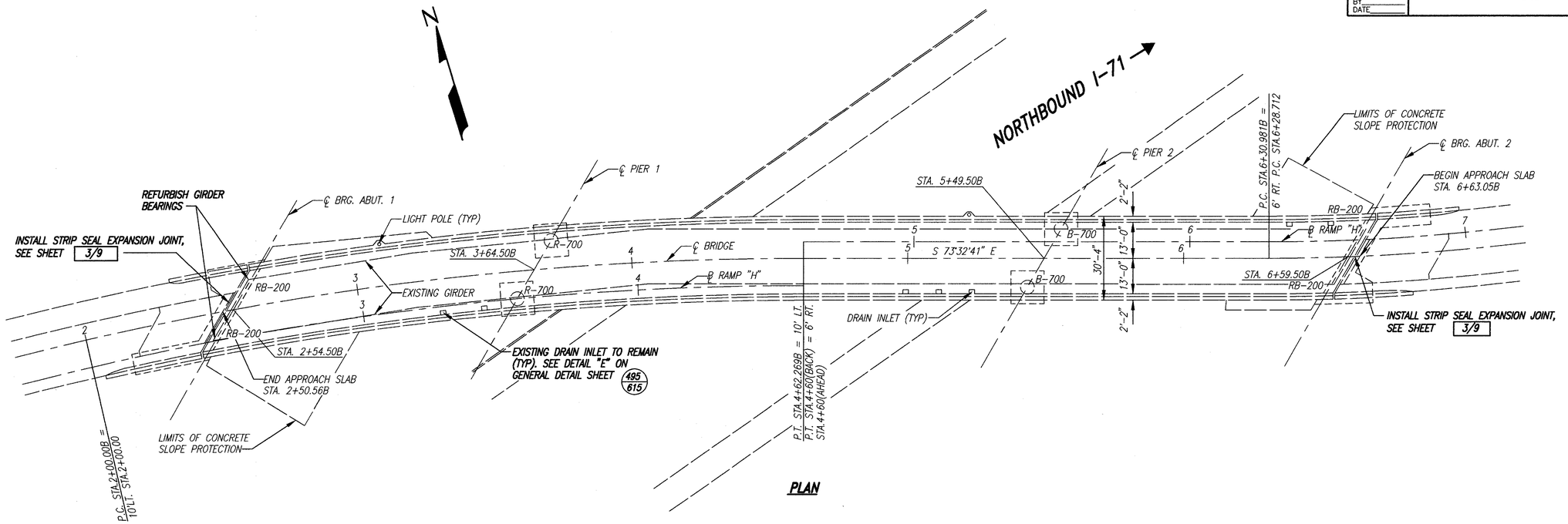
REINFORCING & QUANTITIES

BRIDGE NO. HAM-71-0815S
RAMP 'G' OVER DUCK CREEK SEWER

HAMILTON COUNTY

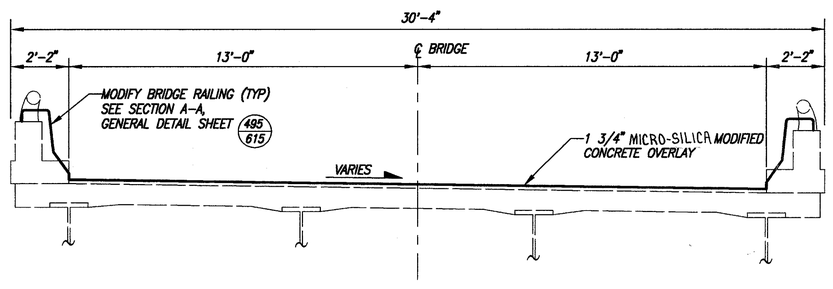
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
L.A.M.	R.M.J.	D.E.M.		2-21-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	594 615
CHKD BY DATE			



PLAN

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
RB200	175 TON



TYPICAL SECTION

NOTES

1. REFURBISH DRAINAGE PIPING, SEE SHEET 3/9.
2. SEAL MODIFIED RAILING AS SHOWN IN SECTION A-A ON GENERAL DETAIL SHEET 495/615
3. TRIM 6" C.M.P. TO 1/2" (±) PARALLEL TO SURFACE OF CONCRETE SLOPE PROTECTION.

EXISTING STRUCTURE

TYPE: CONTINUOUS WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 110'-0", 185'-0", 110'-0"

ROADWAY: 26'-0" FACE TO FACE OF PARAPETS

SKEW: 30°00'LF

LOAD FREQUENCY: CF=2000(57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 SPECIAL (25'-0"LONG)

SUPERELEVATION: VARIES

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

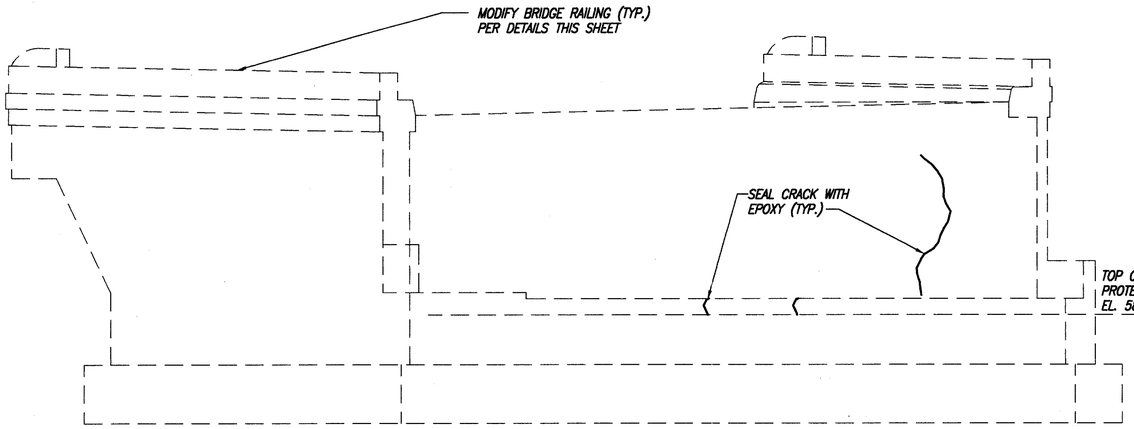
1 / 9

GENERAL PLAN & TYPICAL SECTION

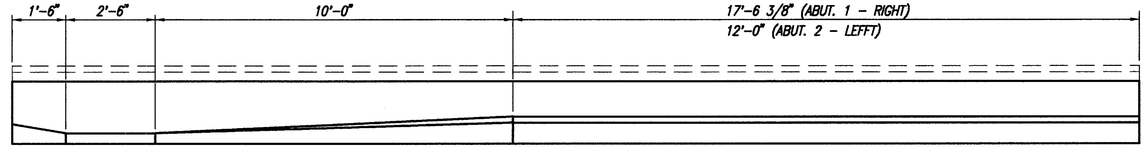
BRIDGE NO. HAM-71-0817R
RAMP H OVER I-71 NORTHBOUND
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

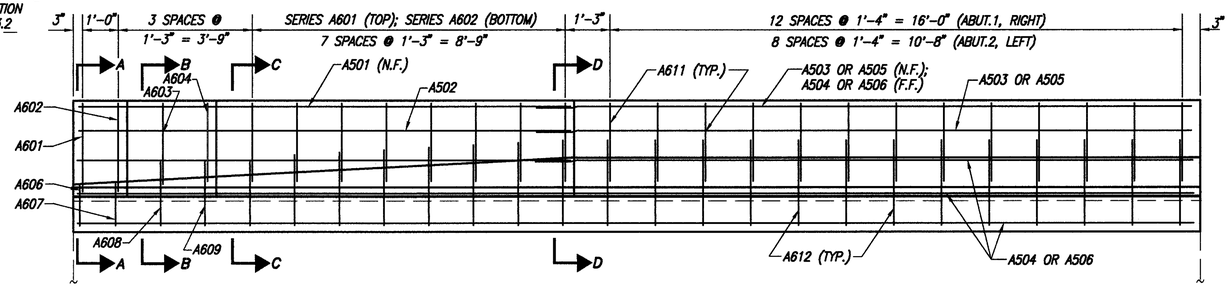
CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO	595
CHKD BY / DATE		F.H.W.A. REGION 5	615



ELEVATION ABUTMENT 1



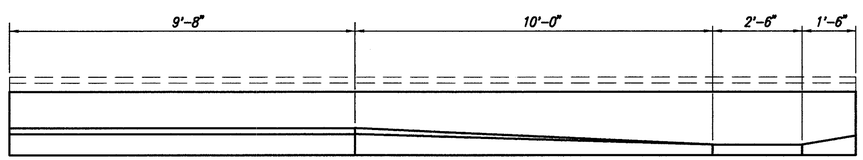
PLAN



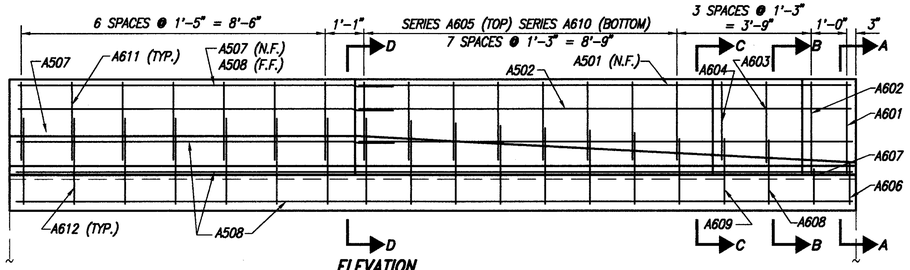
ELEVATION

ABUTMENT 1 RIGHT WINGWALL

ABUTMENT 2 LEFT WINGWALL



PLAN



ELEVATION

ABUTMENT 1 LEFT WINGWALL

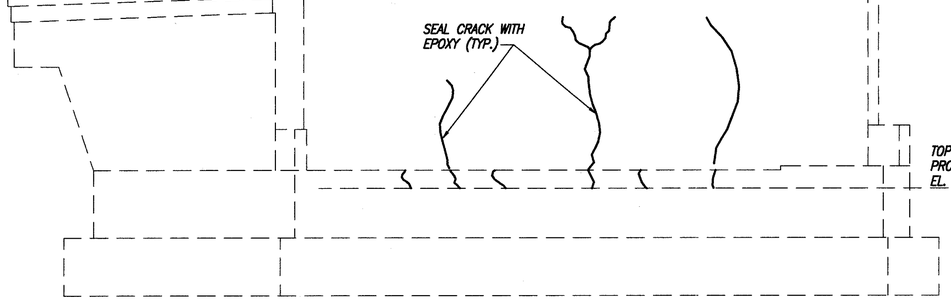
ABUTMENT 2 RIGHT WINGWALL

LEGEND

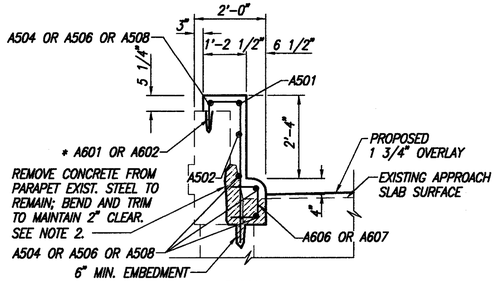
N.F. = NEAR FACE
F.F. = FAR FACE

NOTES

1. SEAL CRACKS IN ABUTMENTS PER "ITEM SPECIAL - EPOXY INJECTION" (TOTAL LENGTH ~ 50 L.F.)
2. BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.
3. THE PARAPET CONCRETE ON THE ABUTMENT WINGWALLS SHALL BE PLACED PER "ITEM 511 - CLASS 'S' CONCRETE, MISC.: AS PER PLAN.
4. WHERE 6" EMBEDMENT INTO EXISTING CONCRETE IS SPECIFIED FOR REINFORCING STEEL, PROVIDE DOWEL HOLE AS PER ITEM 510 USING EPOXY GROUT AS PER SUPPLEMENTAL SPECIFICATIONS 852 AND CMS 705.20.

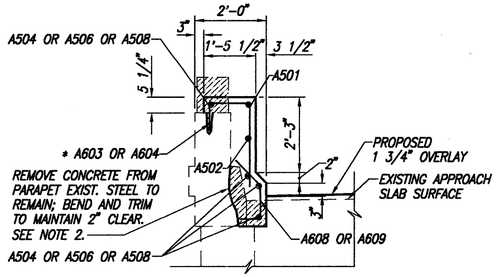


ELEVATION ABUTMENT 2



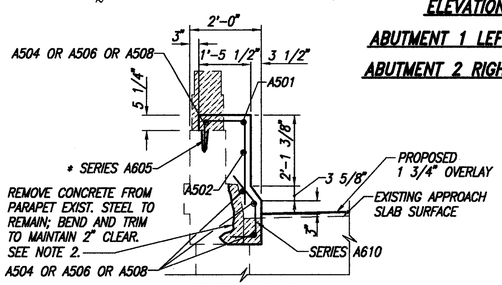
SECTION A-A

* 6" MIN. EMBEDMENT SEE NOTE 4



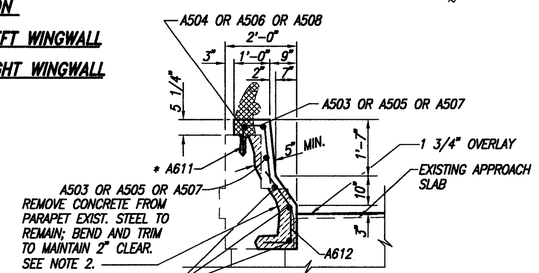
SECTION B-B

* 6" MIN. EMBEDMENT SEE NOTE 4



SECTION C-C

* 6" MIN. EMBEDMENT SEE NOTE 4



SECTION D-D

* 6" MIN. EMBEDMENT SEE NOTE 4

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2 / 9

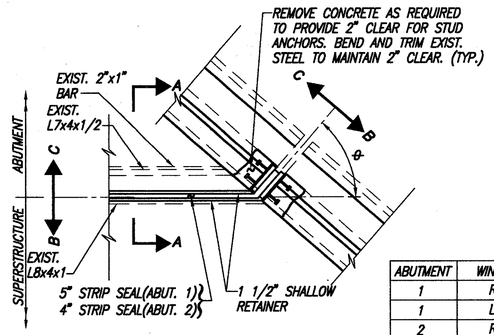
ABUTMENT DETAILS

BRIDGE NO. HAM-71-0817R
RAMP H OVER I-71 NORTHBOUND
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	PWD	2-22-95

G:\TRANS\160071\06\71ABUT.dwg - FEB 14, 1995 - 08:32:57

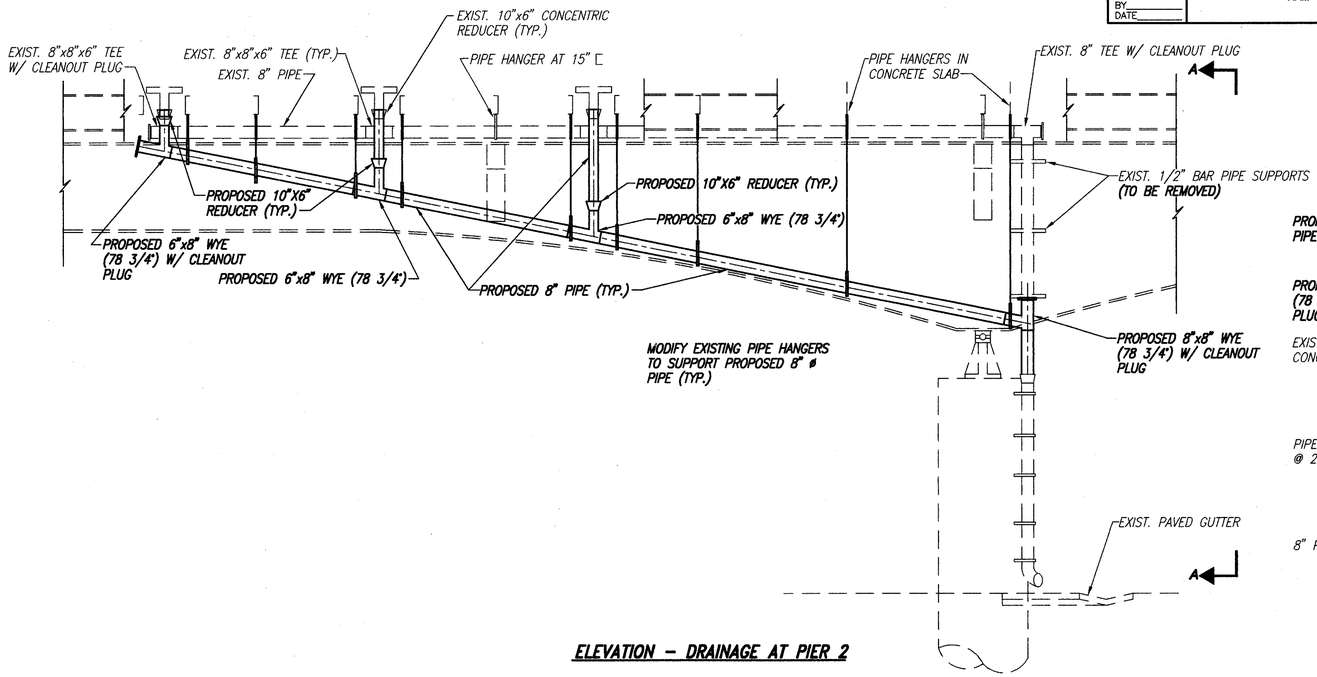
CALC BY		HAMILTON COUNTY HAM-71-2.92	OHIO	596
CHKD BY			F.H.W.A. REGION 5	615
DATE				



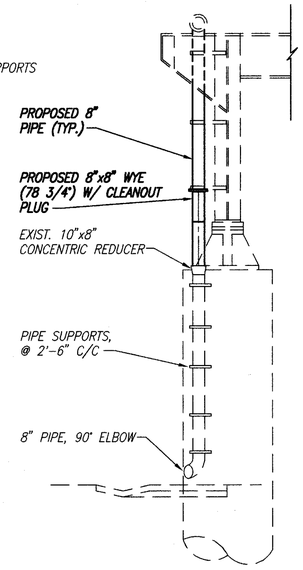
ABUTMENT	WINGWALL	θ (APPROXIMATE)
1	RIGHT	49°-17'-30"
1	LEFT	49°-37'-00"
2	RIGHT	57°-33'-30"
2	LEFT	56°-06'-45"

PARTIAL PLAN - ABUTMENT

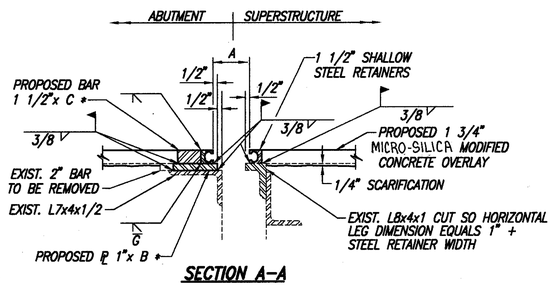
LEFT WINGWALL ABUTMENT 1 AND RIGHT WINGWALL ABUTMENT 2 AS SHOWN, OTHER WINGWALLS SIMILAR.



ELEVATION - DRAINAGE AT PIER 2



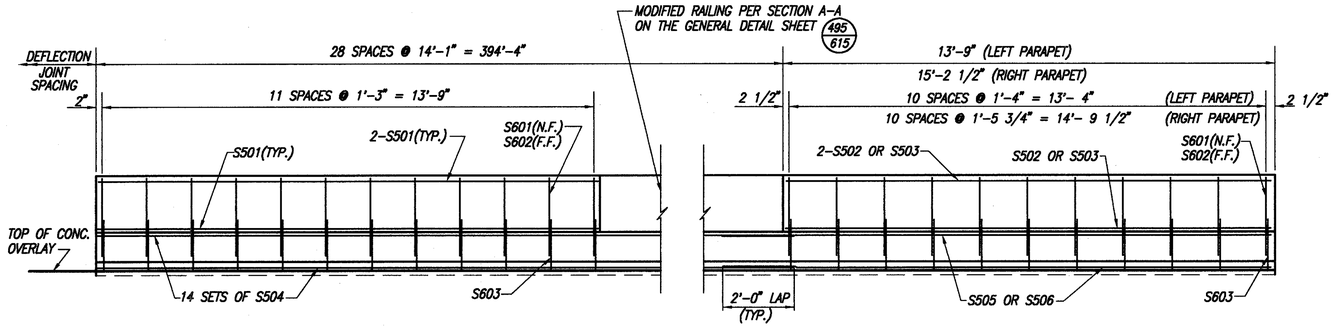
SECTION A-A



SECTION A-A

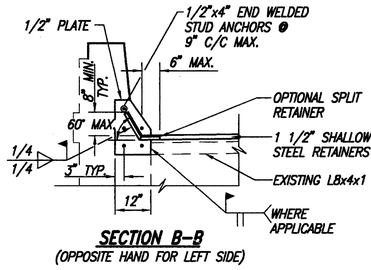
B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER MINUS 1"

TEMP.(°F)	DIMENSION "A" ABUTMENT 1	DIMENSION "A" ABUTMENT 2
30°	4 1/8"	3 9/16"
40°	3 15/16"	3 1/2"
50°	3 3/4"	3 3/8"
60°	3 9/16"	3 5/16"
70°	3 3/8"	3 1/4"
80°	3 3/16"	3 3/16"
90°	3"	3 1/8"



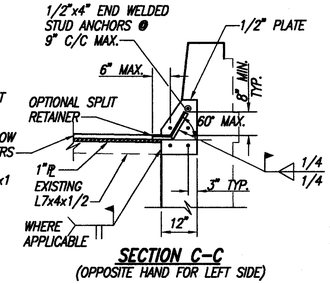
ELEVATION OF SAFETY SHAPE PARAPET

(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)



SECTION B-B

(OPPOSITE HAND FOR LEFT SIDE)



SECTION C-C

(OPPOSITE HAND FOR LEFT SIDE)

NOTES

1. EXPANSION JT. DETAILS TO BE WORKED WITH STD. DWG. EXJ-4-87 SHTS. 1 THRU 5.
2. WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE END OF THE ABUTMENT TO

NOTES

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR 'ITEM 516 STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER 'ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.
4. FOR DRAINAGE PIPING REQUIREMENTS, SEE GENERAL NOTES ON SHEET 494/615.
5. APPROXIMATE NUMBER OF LINEAL FEET OF PROPOSED 8"ø PIPE (INCLUDING SPECIALS) = 66 L.F.
6. WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE END OF THE ABUTMENT TO DETER THE ACCUMULATION OF DEBRIS.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

3/9

SUPERSTRUCTURE AND DRAINAGE DETAILS

BRIDGE NO. HAM-71-0817R
RAMP H OVER I-71 NORTHBOUND
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	PWL	2-22-95

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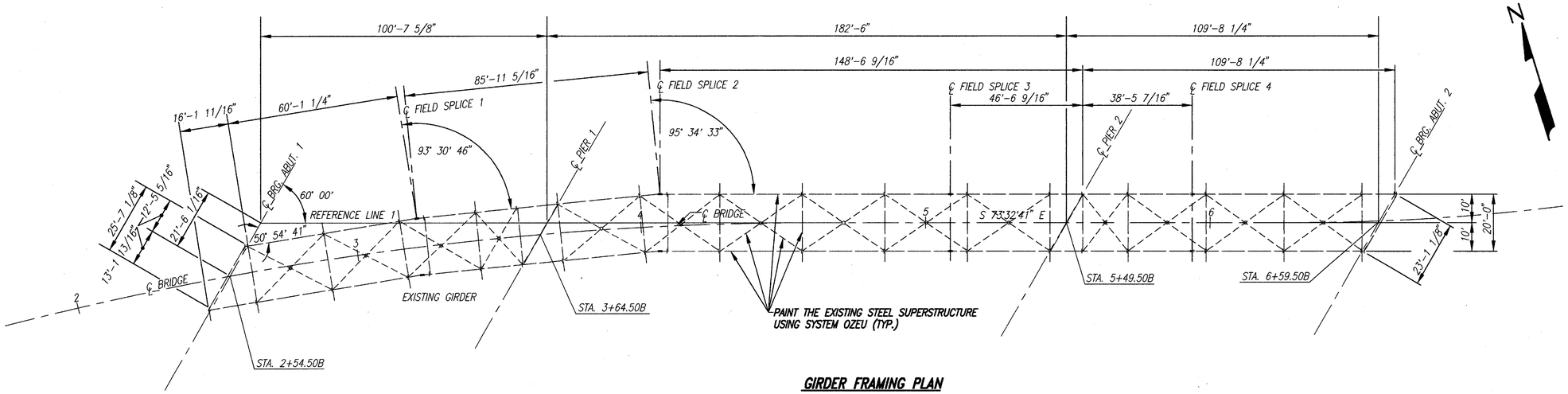
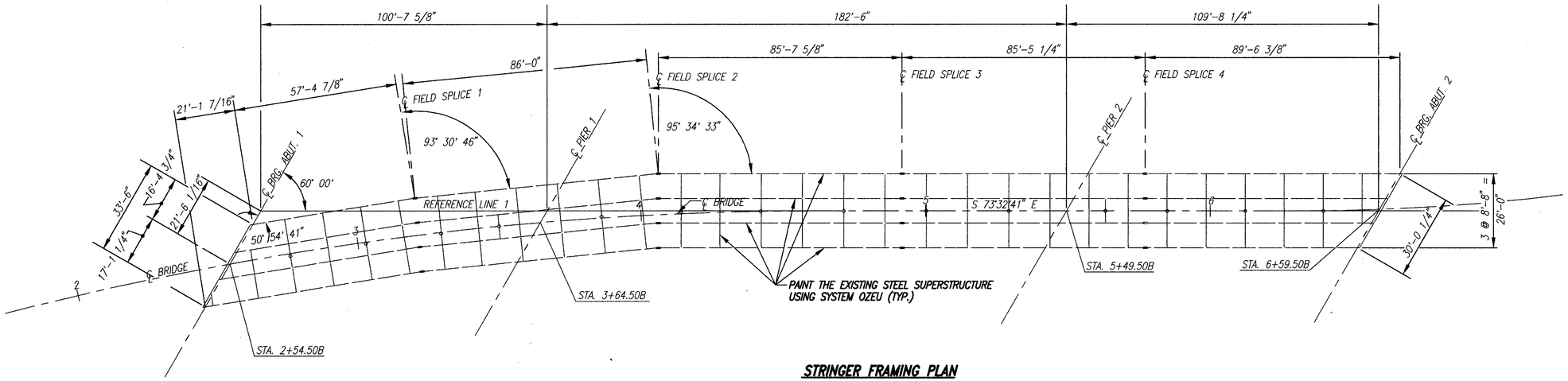
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	597 615
CHKD BY DATE			



GIRDER FRAMING PLAN



STRINGER FRAMING PLAN

NOTES

1. PAINT THE EXISTING STEEL SUPERSTRUCTURE USING SYSTEM OZEU. OTHER SUPERSTRUCTURE STRUCTURAL STEEL ITEMS SHALL ALSO BE PAINTED.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4 / 9

GIRDER AND STRINGER FRAMING PLAN

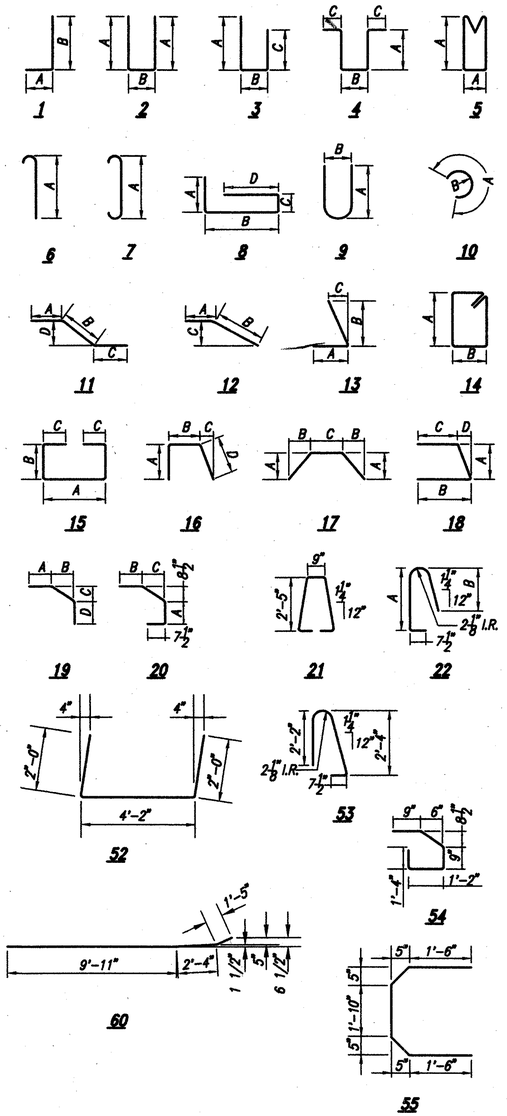
BRIDGE NO. HAM-71-0817R
RAMP H OVER I-71 NORTHBOUND
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
ABUTMENT WINGWALLS									
A501	4	13'-8"	60						57
A502	4	13'-8"	60						57
A503	2	19'-4"	ST						40
A504	4	31'-2"	ST						130
A505	2	13'-10"	ST						29
A506	4	25'-8"	ST						107
A507	4	11'-6"	ST						48
A508	8	23'-4"	ST						195
A601	4	3'-10"	3	0'-9"	0'-10"	2'-6"			23
A602	4	4'-1"	3	0'-9"	1'-1"	2'-6"			25
A603	4	4'-1"	3	0'-9"	1'-1"	2'-6"			25
A604	4	4'-1"	3	0'-9"	1'-1"	2'-6"			25
SERIES	4 SETS	2'-11"			0'-8"	0'-2"	1'-10"		
OF	OF 8	TO	16	0'-9"	TO	TO	TO	△L=1 7/16"	160
A605	= 32	3'-9"			1'-1"	0'-0"	2'-3"		
A606	4	2'-2"	3	0'-9"	0'-11"	0'-9"			13
A607	4	2'-1"	16	0'-9"	0'-11"	0'-4"	0'-8"		13
A608	4	2'-2"	16	0'-9"	0'-11"	0'-6 1/2"	0'-9"		13
A609	4	2'-4"	16	0'-9"	0'-11"	0'-8 1/2"	0'-11"		14
SERIES	4 SETS	2'-7"					1'-2 1/8"		
OF	OF 8	TO	16	0'-9"	0'-11"	1'-5"	TO	△L= 5/16"	120
A610	= 32	2'-5"					1'-0"		
A611	36	2'-11"	16	0'-9"	0'-8"	0'-2"	1'-10"		158
A612	36	2'-7"	16	0'-9"	0'-11"	1'-5"	1'-2 1/8"		140
								SUBTOTAL =	1392
SUPERSTRUCTURE									
S501	168	13'-9"	ST						2409
S502	3	13'-5"	ST						42
S503	3	14'-10"	ST						46
S504	56	30'-0"	ST						1752
S505	2	15'-9"	ST						33
S506	2	17'-2"	ST						36
S601	694	2'-3"	16		0'-8"	0'-2"	1'-9"		2345
S602	694	1'-3"	1	0'-9"	0'-8"				1303
S603	694	1'-8"	12	0'-4"	1'-5"	0'-10"			1738
								SUBTOTAL =	9704
								REPLACEMENT STEEL =	104
								TOTAL =	11,200

NOTE

ALL DIMENSIONS ARE OUT TO OUT.



ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
509	15840	11200	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
510	10001	176	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALIC GROUT, AS PER PLAN
511	34450	9	CU.YD.	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN.
SPEC.	51267500	867	SQ.YD.	SEALING OF CONCRETE SURFACES *
815	00050	48000	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	48000	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	48000	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	48000	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	11211	69	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	45305	2	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
516	31001	50	LIN.FT.	JOINT SEALER, 705.04, AS PER PLAN
517	76201	818	LIN.FT.	RAILING FACED, AS PER PLAN
518	12801	7	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	4	EACH	SCUPPER, LENGTHENING
518	63300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC., MODIFICATION DRAINAGE PIPING, AS PER PLAN
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
SPEC.	51912600	50	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000400	27	EACH	STRUCTURE MISC., LATERAL BRACING GUSSET PLATE RETROFIT UPGRADE (INTER.)
SPEC.	53000800	1181	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	480	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED)
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1181	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	97	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1181	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* See Proposal Note

PROPOSED WORK

1. MODIFY PARAPETS ON BRIDGE AND ABUTMENTS, AS PER PLAN.
2. REFURBISH ABUTMENT 1 GIRDER BEARINGS.
3. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
4. PLACE 1-3/4" THICK MICRO-SILICA MODIFIED CONCRETE ON DECK, USING HYDRODEMOLITION
5. REFURBISH DRAINAGE PIPING.
6. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL 'F' ON GENERAL DETAIL SHEET 495/615.
7. SEAL BACKWALL CRACKS WITH EPOXY.
8. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
9. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES SEE SHEET 48&49/615
10. OTHER WORK AS DESCRIBED IN THESE PLANS.
11. TRIM 6" CORRUGATED METAL PIPE TO 1/2" ±

CALC BY M.A.P. DATE 2-17-95
CHKD BY A.M. DATE 3-29-95

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

598/615

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

5/9

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0817R
RAMP H OVER I-71 NORTHBOUND
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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GENERAL NOTES FOR LOWER LATERAL RETROFIT

CALC. BY: DATE:	HAM-71-2.92 HAMILTON COUNTY	OHIO FHWA REGION 5	599 615
CHKD. BY: DATE:			

ITEM SPECIAL - LATERAL BRACING GUSSET PLATE RETROFIT UPGRADE

This work shall consist of the following sequence of operations performed on one lateral bracing gusset plate:

1. **Drill** the two 3 inch or six 2 inch vertical holes through the gusset plate removing the gusset plate to web and gusset plate to stiffener fillet welds at the locations without gouging the web or stiffener. See retrofit details for each structure. If the bolts are found to interfere with the retrofit, they may be removed prior to drilling and replaced after the retrofit is performed.

2. Drill the two 3 inch or six 2 inch vertical holes through the gusset plate removing the outside corners of the gusset plate without gouging the web.

3. Any remaining fillet welds at the gusset plate shall be ground so that the resulting surfaces of the web and stiffener are smooth. Extreme care shall be taken to ensure the full thickness of the web is maintained and no undercut, gouging or overgrinding of the web takes place. If the holes of step 1 and step 2 did not touch the face of the adjacent surface, the hole shall be ground so that a 1 inch minimum radius results.

The accepted number of retrofits described herein will be paid for at the contract unit price per location, which price and payment shall be full compensation for furnishing all material, labor, and equipment necessary to clean, drill, cut and grind the lateral bracing gusset retrofit area. A single location is considered to be one drilling operation, i.e. one or three holes depending on whether option A or option B is the selected method of retrofit. Payment will be made at the contract price bid under:

ITEM	UNIT	DESCRIPTION
Special	Each	Structure Misc: Lateral Bracing Gusset Plate Retrofit Upgrade (Intermediate)

CUTTING OF VERTICAL LEGS

At certain locations the lower lateral bracing and/or the horizontal member of the crossframe may have a section of its vertical leg cut in order to drill the holes as deemed necessary by the Engineer. If so the Contractor may cut the minimal amount of the vertical leg that the Engineer deems necessary to remove. The Contractor shall make the cut leaving a smooth arc or grind it smooth after the cut. Any damage done by the Contractor thru neglect or carelessness shall be repaired by him at no additional cost to the State of Ohio. The above work shall be included in Item Special - **Structure** Misc: Lateral Bracing Gusset Plate Retrofit Upgrade (Intermediate) for payment.

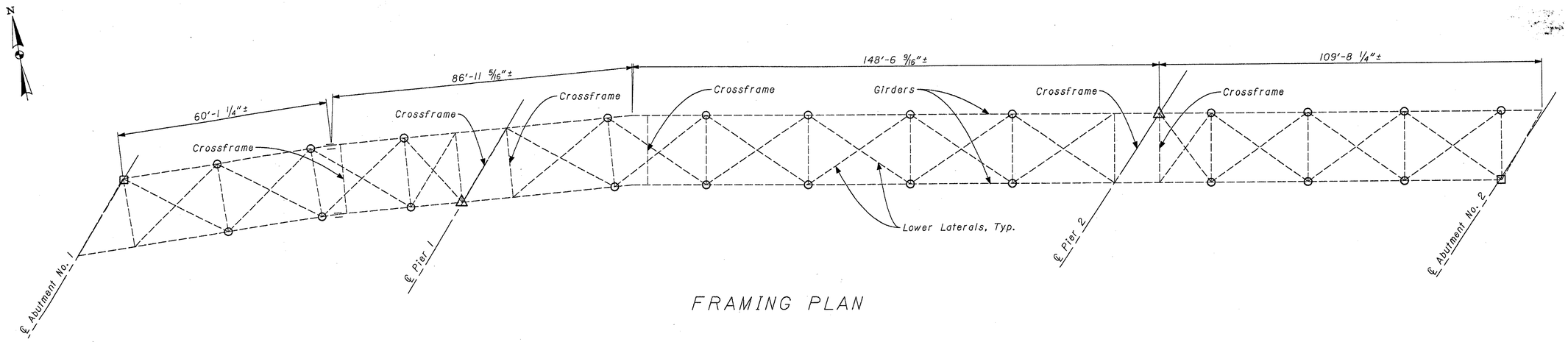
FIELD PAINTING OF EXISTING STEEL USING EPOXY AND URETHANE

(HAM-71-0788L & HAM-71-0769)

THE PROPOSAL NOTE ENTITLED FIELD PAINTING OF EXISTING STEEL USING EPOXY AND URETHANE SHALL BE USED TO COAT A PORTION OF THE STRUCTURE IN ALL THE REPAIR AREAS.

ALL PAINTED STRUCTURAL STEEL DAMAGE BY THE CONTRACTORS' OPERATION SHALL BE PAINTED

PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID UNDER THE PERTINENT ITEM.



FRAMING PLAN

LEGEND - Area of Lower Lateral Retrofit Locations

- □ Detail A Retrofit at Abutment on Sheet 7/9
- ○ Detail B-Interm. Lower Laterals on Sheet 8/9
- △ Detail C-Retrofit at Piers on Sheet 9/9

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

6/9

FRAMING PLAN
BRIDGE NO. HAM-71-0817R
Ramp H over I-71 Northbound

DESIGNED	DRAWN	REVIEWED	CHECKED	DATE	REVISIONS
SDC	JDD	SDC	RLE	9/21/13	

17-JUN-993
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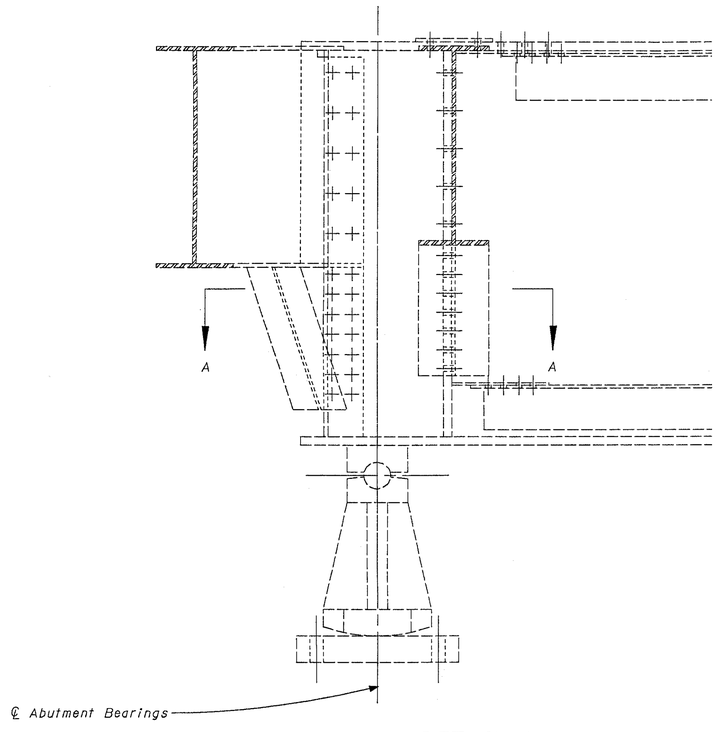
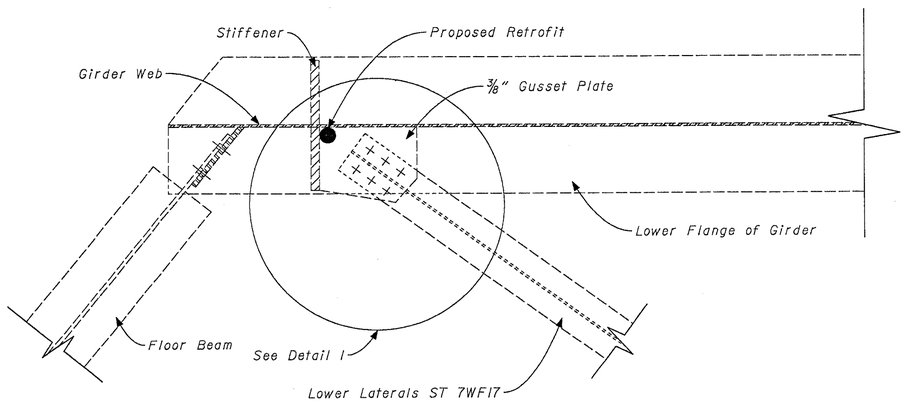
CALC. BY: DATE: / CHKD. BY: DATE:	HAM-71-2.92 HAMILTON COUNTY	OHIO FHWA REGION 5	600 615



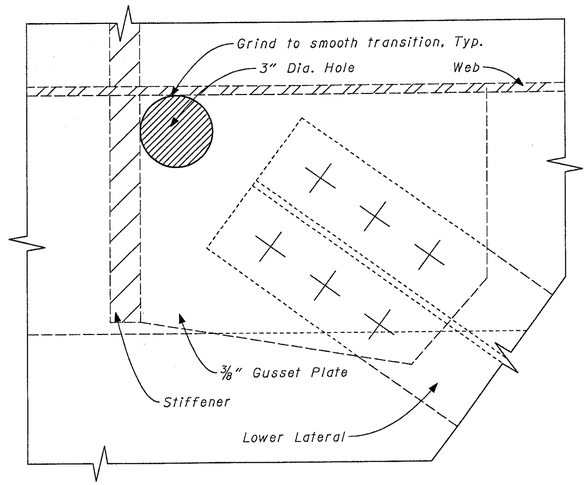
DETAIL A

(SEE SHEET 679 FOR LOCATIONS)

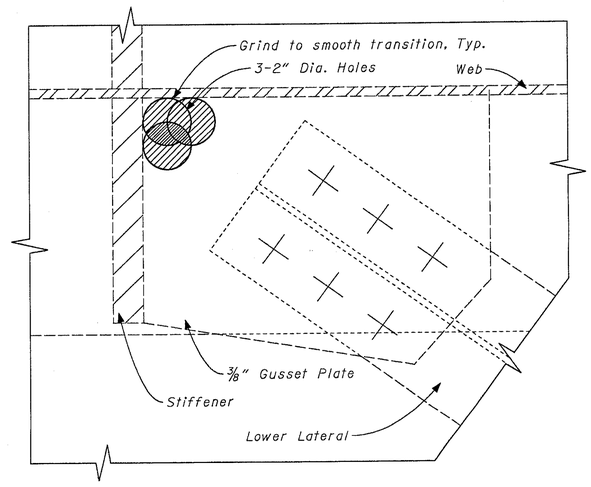


SECTION A-A

(EXISTING LOWER LATERAL CONNECTION DETAIL)



DETAIL I OPTION A



DETAIL I OPTION B

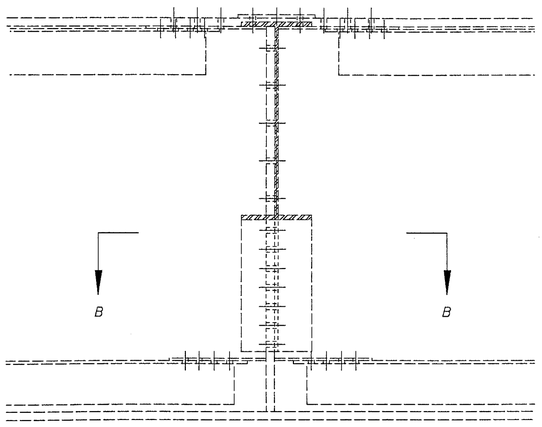
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

719

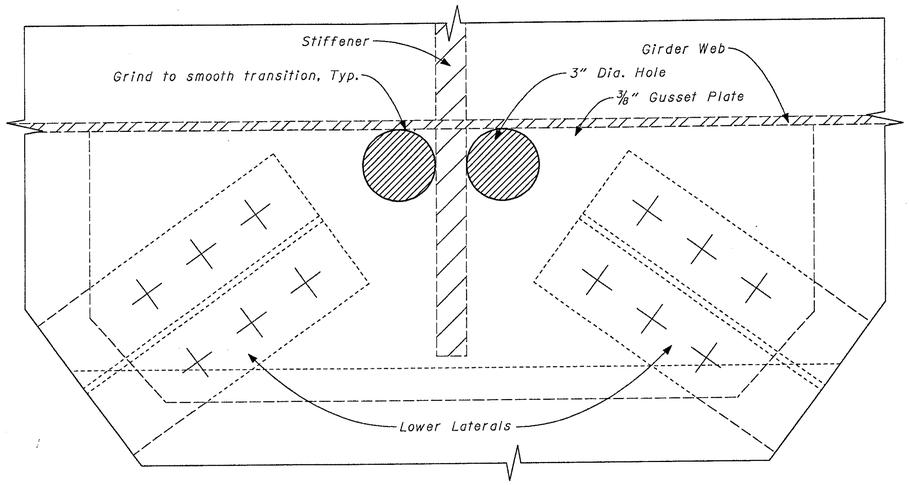
RETROFIT DETAIL A
BRIDGE NO. HAM-71-0817R
Ramp H over I-71 Northbound

DESIGNED	DRAWN	REVIEWED	CHECKED	DATE	REVISIONS
SDC	CJB	SDC	RLE	6/1/93	

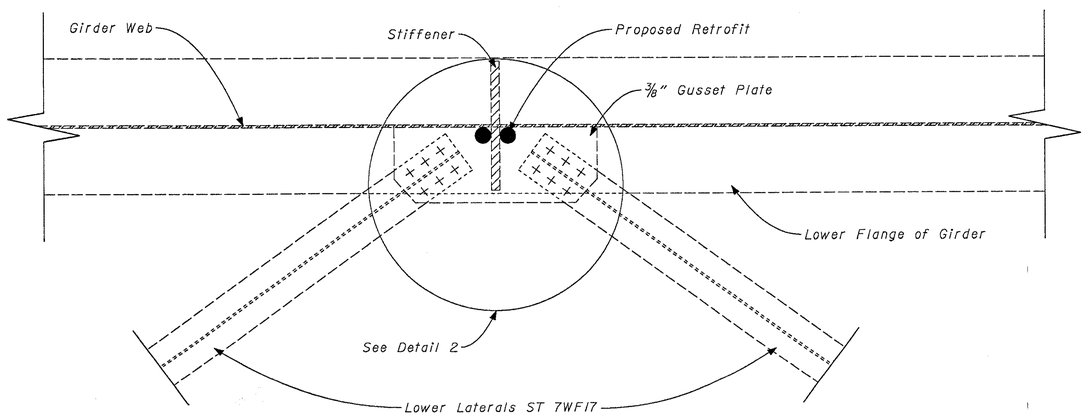
CALC. BY: DATE: CHKD. BY: DATE:	HAM-71-2.92 HAMILTON COUNTY	OHIO FHWA REGION 5	601 615



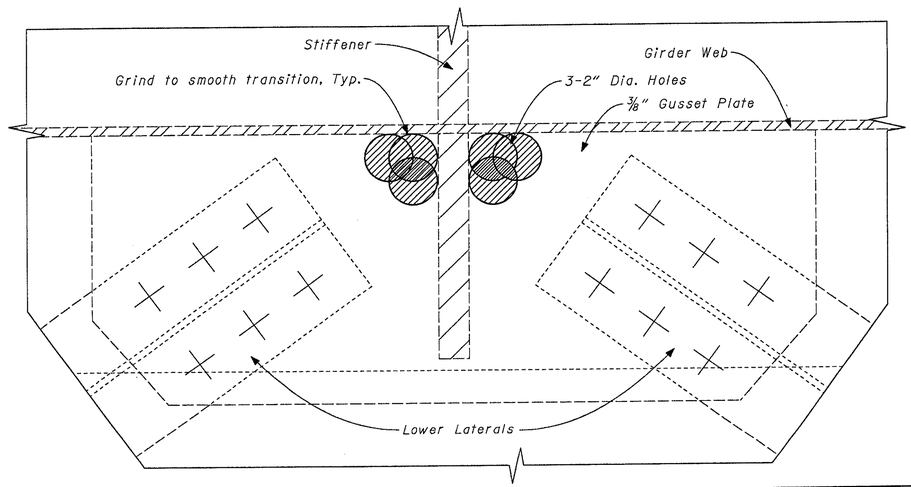
DETAIL B
(SEE SHEET 6/9 FOR DETAILS)



DETAIL 2 OPTION A



SECTION B-B
(EXISTING LOWER LATERAL CONNECTION DETAIL)



DETAIL 2 OPTION B

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

8/9

RETROFIT DETAIL B
BRIDGE NO. HAM-71-0817R
Ramp H over I-71 Northbound

DESIGNED	DRAWN	REVIEWED	CHECKED	DATE	REVISIONS
SDC	CJB	SDC	RLE		

17-JUN-1993
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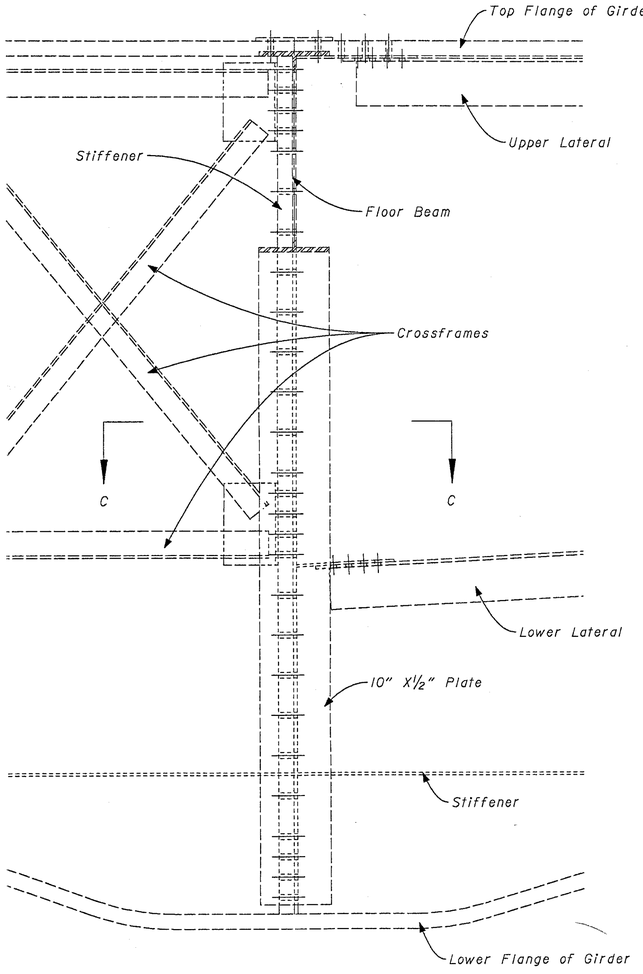
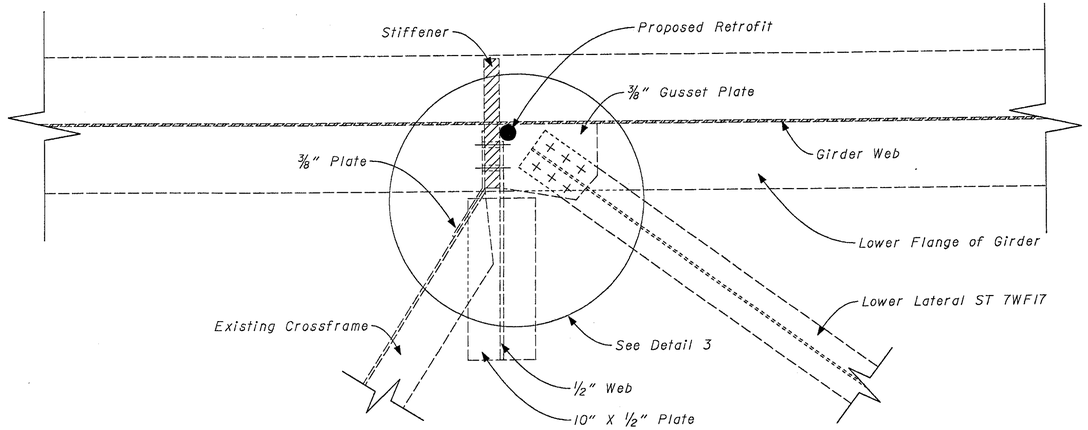
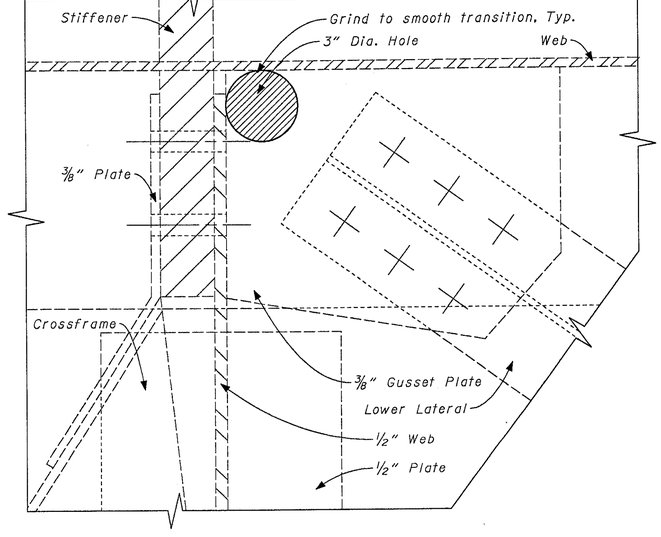
CALC. BY: DATE:	HAM-71-2.92 HAMILTON COUNTY	OHIO FHWA REGION 5	602 615
CHKD. BY: DATE:			



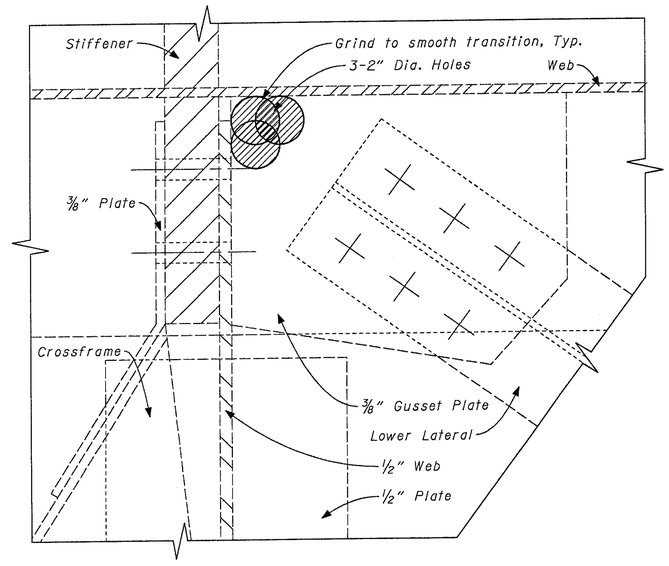
DETAIL C
(SEE SHEET 6/9 FOR LOCATIONS)



SECTION C-C
(EXISTING LOWER LATERAL CONNECTION DETAIL)



DETAIL 3 OPTION A



DETAIL 3 OPTION B

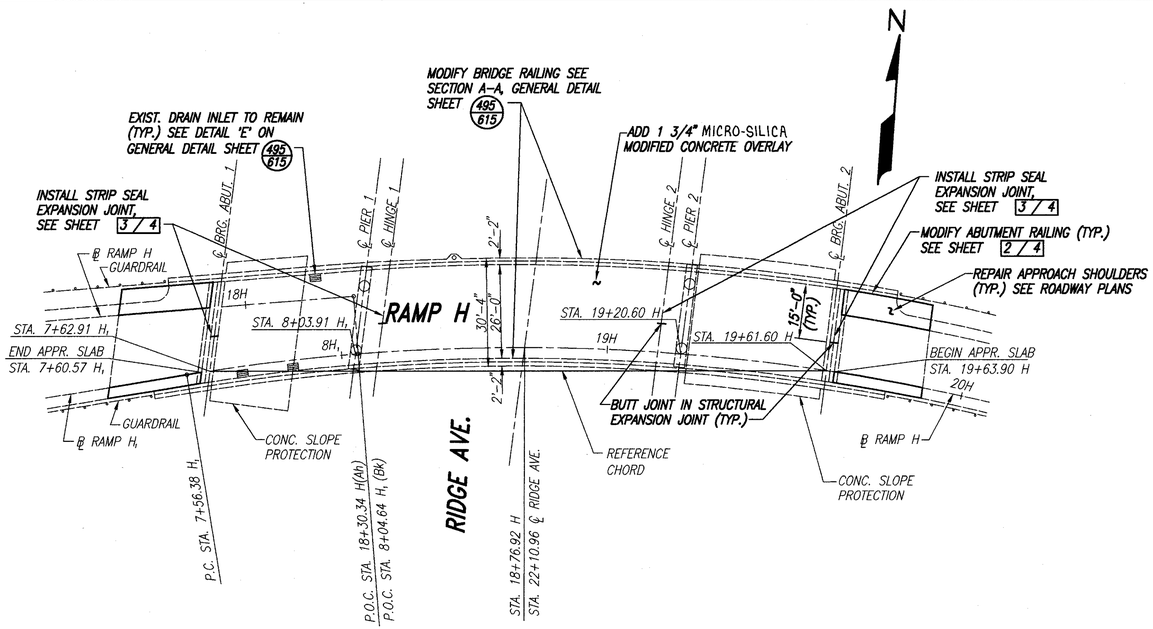
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 8 BRIDGE DEPARTMENT

9/9

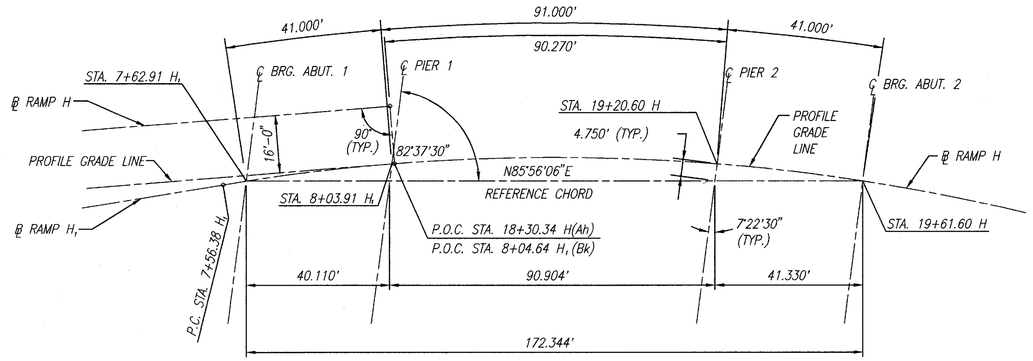
RETROFIT DETAIL C
BRIDGE NO. HAM-71-0817R
Ramp H over I-71 Northbound

DESIGNED	DRAWN	REVIEWED	CHECKED	DATE	REVISIONS
SDC	CJB	SDC	RLE	8/96	

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	603 615
CHKD BY DATE			



PLAN



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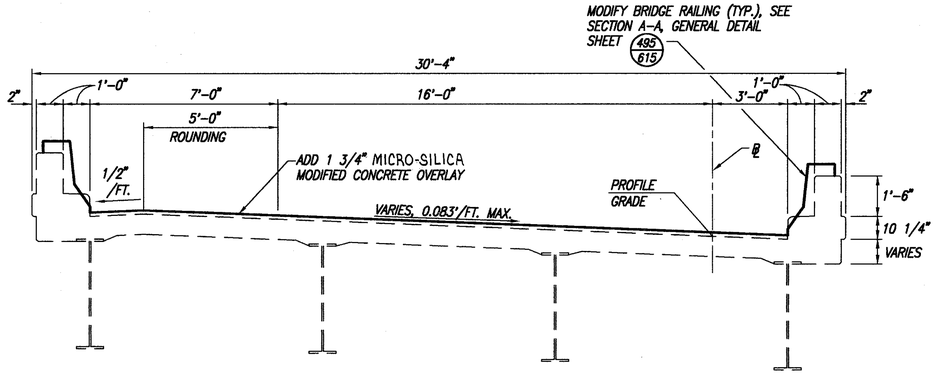


TYPICAL SECTION

NOTES

1. SEAL PARAPETS AND DECKS AS SHOWN IN SECTION A-A, TYPE A ON THE GENERAL DETAIL SHEET 495 615 .
2. FOR BARRIER RETROFIT AT JUNCTION BOXES, SEE JUNCTION BOX EXTENSION DETAIL, GENERAL DETAIL SHEET 495 615 . REFER TO LIGHTING DETAIL PLANS FOR FURTHER INFORMATION.

EXISTING STRUCTURE

TYPE: CANTILEVERED WELDED PLATE GIRDER
END SPANS WITH WELDED PLATE GIRDER
CENTER SPAN & REINFORCED CONCRETE
DECK & SUBSTRUCTURE

SPANS: 41'-0", 91'-0" AND 41'-0"

ROADWAY: VARIES, 28'-0" MIN., FACE TO FACE OF PARAPETS

SKEW: 7°22'30" L.F.

LOAD FREQUENCY: CF=2000(57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (25'-0"LONG)

ALIGNMENT: TANGENT & 10° CURVE RIGHT

SUPERELEVATION: VARIES, 0.083'/' MAX.

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

1 / 4

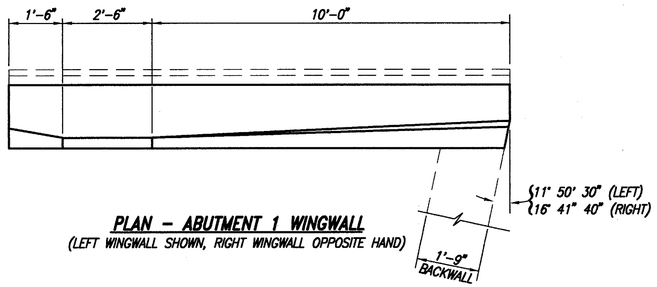
GENERAL PLAN

BRIDGE NO. HAM-71-0838S
RAMP H OVER RIDGE AVE.

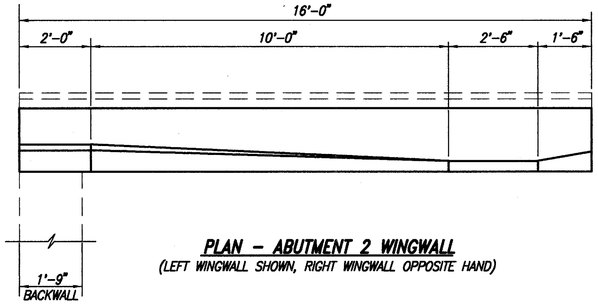
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

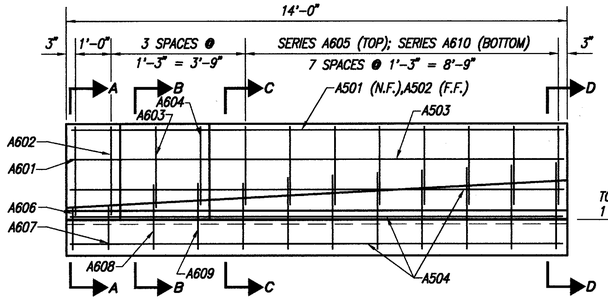
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	604 615
CHKD BY DATE			



PLAN - ABUTMENT 1 WINGWALL
(LEFT WINGWALL SHOWN, RIGHT WINGWALL OPPOSITE HAND)

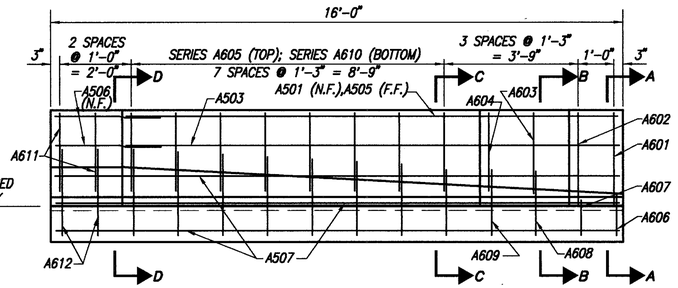


PLAN - ABUTMENT 2 WINGWALL
(LEFT WINGWALL SHOWN, RIGHT WINGWALL OPPOSITE HAND)



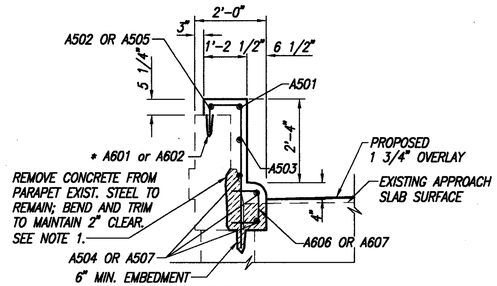
ELEVATION - ABUTMENT 1 WINGWALL
(LEFT WINGWALL SHOWN, RIGHT WINGWALL OPPOSITE HAND)

TOP OF PROPOSED 1 3/4" OVERLAY

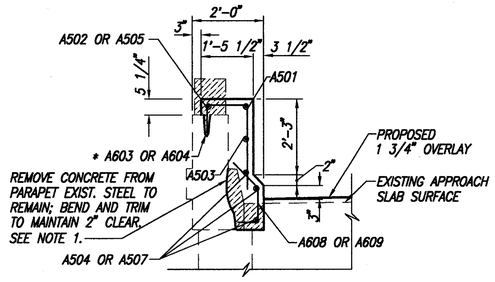


ELEVATION - ABUTMENT 2 WINGWALL
(LEFT WINGWALL SHOWN, RIGHT WINGWALL OPPOSITE HAND)

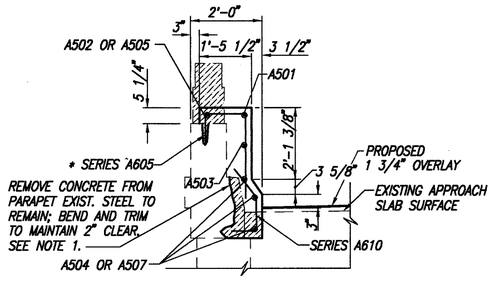
LEGEND
N.F. = NEAR FACE
F.F. = FAR FACE



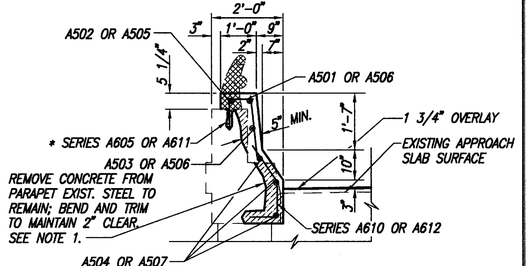
SECTION A-A
* 6" MIN. EMBEDMENT SEE NOTE 3



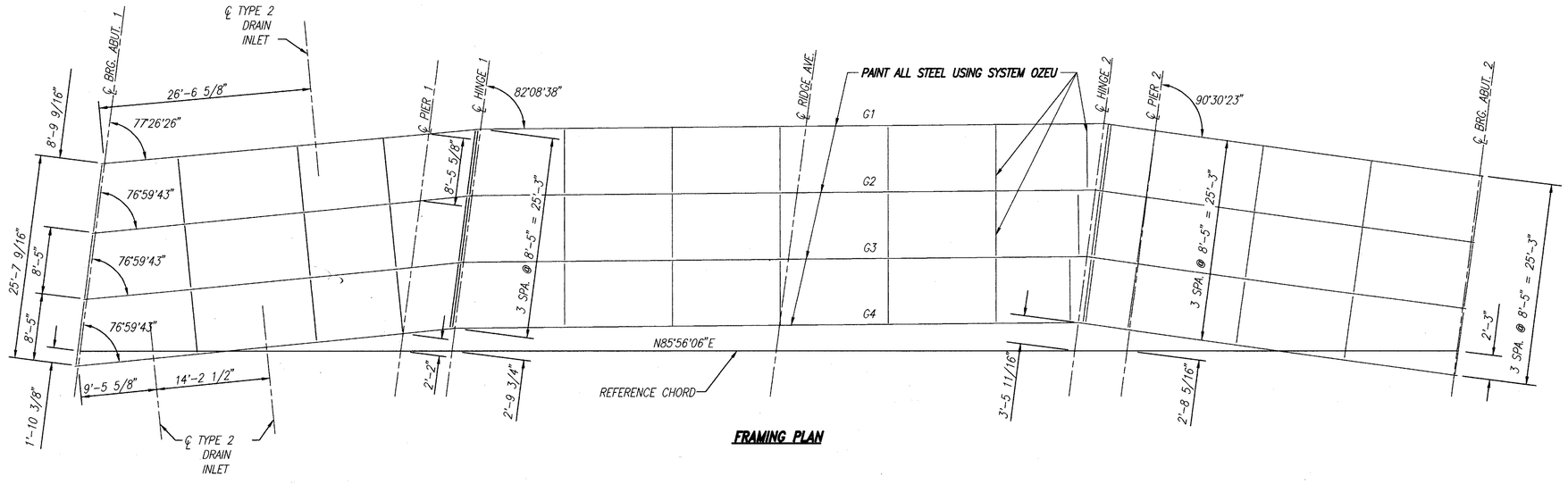
SECTION B-B
* 6" MIN. EMBEDMENT SEE NOTE 3



SECTION C-C
* 6" MIN. EMBEDMENT SEE NOTE 3



SECTION D-D
* 6" MIN. EMBEDMENT SEE NOTE 3



FRAMING PLAN

NOTES

1. BARS SHALL REMAIN. CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT THESE BARS ARE NOT DAMAGED DURING THE CONCRETE REMOVAL OPERATION. ANY BARS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. METHOD OF REPAIR OR REPLACEMENT WILL BE AT THE DISCRETION OF THE DIRECTOR.
2. THE PARAPET CONCRETE ON THE ABUTMENT WINGWALLS SHALL BE PLACED PER "ITEM 511 - CLASS 'S' CONCRETE, MISC.: PARAPET, AS PER PLAN.
3. WHERE 6" EMBEDMENT INTO EXISTING CONCRETE IS SPECIFIED FOR REINFORCING STEEL, PROVIDE DOWEL HOLE AS PER ITEM 510 USING EPOXY GROUT AS PER SUPPLEMENTAL SPECIFICATIONS 852 AND C.M.S 705.20.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

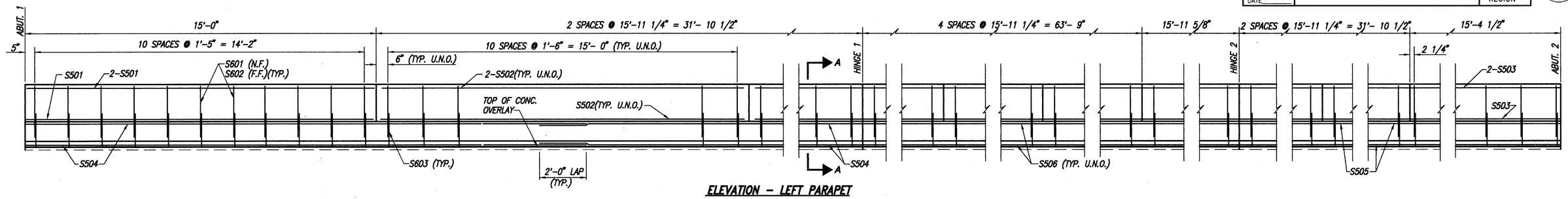
2/4

ABUTMENT AND FRAMING DETAILS

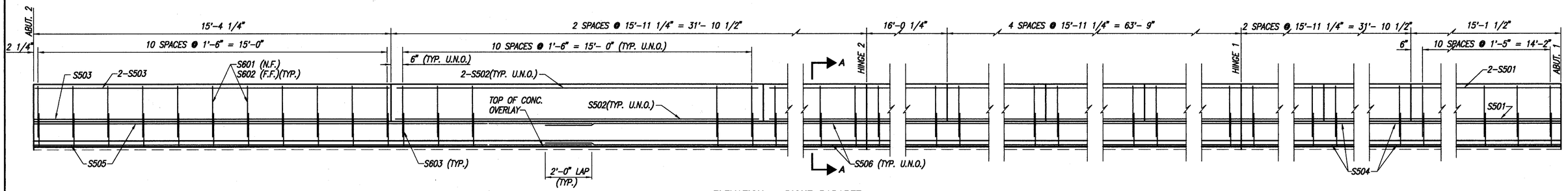
BRIDGE NO. HAM-71-0838S
RAMP H OVER RIDGE AVE.
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	[illegible]	2-22-95

CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	605 615
CHKD BY DATE			



ELEVATION – LEFT PARAPET



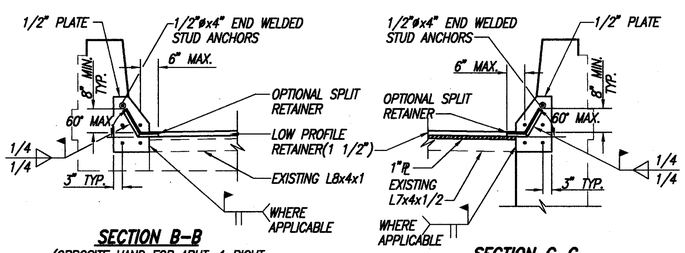
ELEVATION – RIGHT PARAPET

LEGEND

N.F. = NEAR FACE
F.F. = FAR FACE
U.N.O. = UNLESS NOTED OTHERWISE
TYP. = TYPICAL

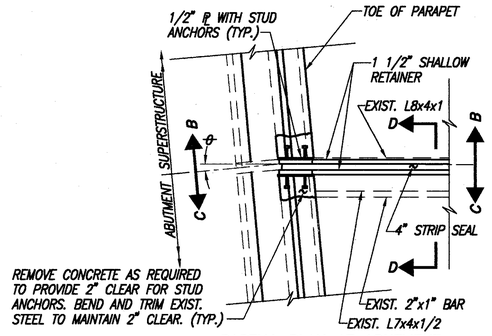
NOTES

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR 'ITEM 516 STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER 'ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87 SHTS. 3 AND 4.
4. SECTION A–A IS AS SHOWN IN THE GENERAL DETAILS, SHEET (495/615).
5. WHEN PLATE IS RECESSED INTO ABUTMENT, CONCRETE BELOW PLATE SHALL BE SLOPED FROM BOTTOM OF THE PLATE TO THE ABUTMENT TO DETER ACCUMULATION OF DEBRIS.



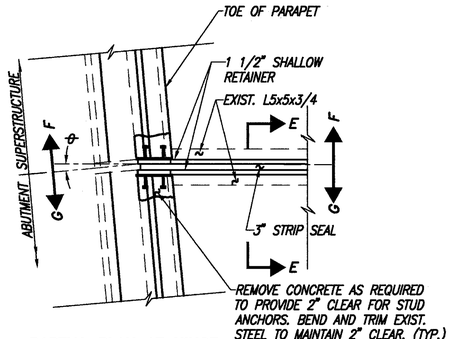
SECTION B–B
(OPPOSITE HAND FOR ABUT. 1 RIGHT AND ABUT. 2 LEFT)

SECTION C–C
(OPPOSITE HAND FOR ABUT. 1 RIGHT AND ABUT. 2 LEFT)

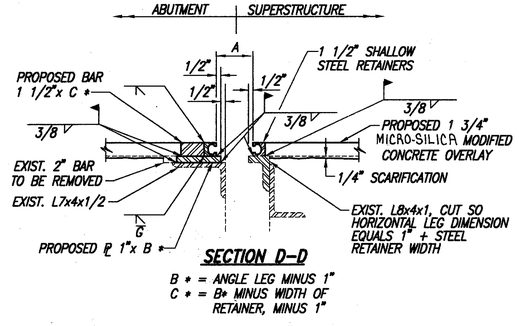


PARTIAL PLAN AT ABUTMENT
(ABUT. 1 LEFT AND ABUT. 2 RIGHT, SHOWN, ABUT. 1 RIGHT AND ABUT. 2 LEFT, OPPOSITE HAND)

JOINT LOCATION	θ (APPROXIMATE)
ABUT. 1 RIGHT	16°-41'-40"
ABUT. 1 LEFT	11°-50'-30"
HINGE 1 RIGHT	12°-00'-40"
HINGE 1 LEFT	11°-26'-20"
HINGE 2 RIGHT	2°-50'-40"
HINGE 2 LEFT	2°-42'-40"
ABUT. 2 RIGHT	2°-08'-40"
ABUT. 2 LEFT	00°-00'-00"

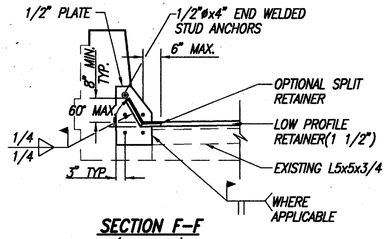


PARTIAL PLAN AT HINGE
(LEFT PARAPET AS SHOWN, RIGHT PARAPET OPPOSITE HAND)



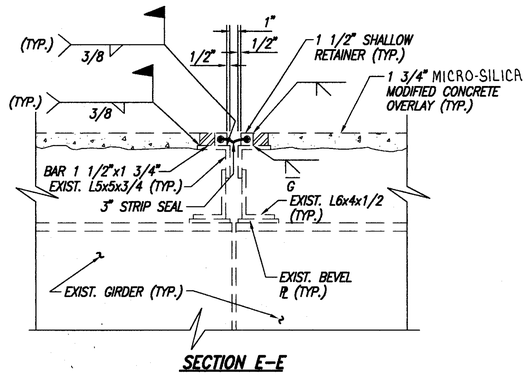
SECTION D–D
B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

TEMP.	DIMENSION "A"	
	ABUTMENT 1	ABUTMENT 2
30°	3 1/2"	3 5/16"
40°	3 1/2"	3 3/16"
50°	3 7/16"	3 1/8"
60°	3 7/16"	3"
70°	3 3/8"	2 7/8"
80°	3 3/8"	2 13/16"
90°	3 5/16"	2 11/16"



SECTION F–F
(AS SHOWN)

SECTION G–G
(OPPOSITE HAND)



SECTION E–E

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

3/4

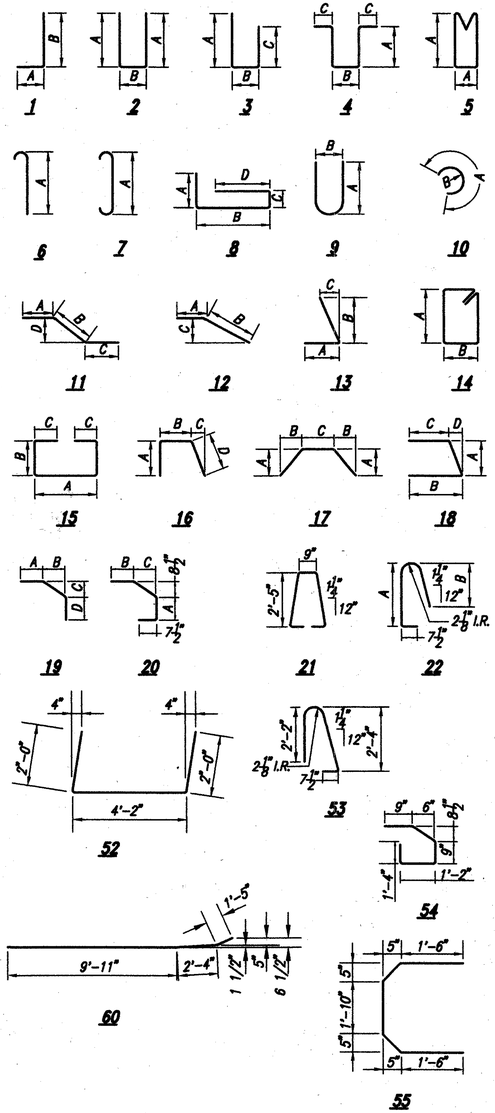
SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0838S
RAMP H OVER RIDGE AVE.
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.	WEIGHT LBS.
ABUTMENT WINGWALLS									
A501	4	13'-8"	60						57
A502	2	13'-8"	ST						29
A503	4	13'-8"	60						57
A504	6	13'-8"	ST						86
A505	2	15'-8"	ST						33
A506	4	4'-0"	ST						17
A507	6	15'-8"	ST						98
A601	4	3'-10"	3	0'-9"	0'-10"	2'-6"			23
A602	4	4'-1"	3	0'-9"	1'-1"	2'-6"			25
A603	4	4'-1"	3	0'-9"	1'-1"	2'-6"			25
A604	4	4'-1"	3	0'-9"	1'-1"	2'-6"			25
SERIES	4 SETS	2'-11"			0'-8"	0'-2"	1'-10"		
OF	OF 8	TO	16	0'-9"	TO	TO	TO	ΔL=1 7/16"	160
A605	= 32	3'-9"			1'-1"	0'-0"	2'-3"		
A606	4	2'-0"	3	0'-9"	0'-9"	0'-9"			12
A607	4	1'-11"	16	0'-9"	0'-9"	0'-4"	0'-8"		12
A608	4	2'-0"	16	0'-9"	0'-9"	0'-6 1/2"	0'-9"		12
A609	4	2'-2"	16	0'-9"	0'-9"	0'-8 1/2"	0'-11"		13
SERIES	4 SETS	2'-5"					1'-2 1/8"		
OF	OF 8	TO	16	0'-9"	0'-9"	1'-5"	TO		112
A610	= 32	2'-3"					1'-0"		
A611	4	2'-11"	16	0'-9"	0'-8"	0'-2"	1'-10"		18
A612	4	2'-5"	16	0'-9"	0'-9"	1'-5"	1'-2 1/8"		15
								SUBTOTAL =	829
SUPERSTRUCTURE									
S501	6	14'-6"	ST						91
S502	54	15'-6"	ST						873
S503	6	14'-10"	ST						93
S504	8	24'-3"	ST						202
S505	8	24'-6"	ST						204
S506	12	27'-8"	ST						346
S601	242	2'-3"	16		0'-8"	0'-2"	1'-9"		818
S602	242	1'-3"	1	0'-9"	0'-8"				454
S603	242	1'-8"	12	0'-4"	1'-5"	0'-10"			606
								SUBTOTAL =	3687
								REPLACEMENT STEEL =	84
								TOTAL =	4600

NOTE
ALL DIMENSIONS ARE OUT TO OUT.



CALC BY M.A.P. DATE 2-1-93
CHKD BY A.M. DATE 3-30-93

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

606
615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
509	15840	4600	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60
510	10001	104	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN
511	34450	6	CU.YD.	CLASS S CONCRETE, MISC.: PARAPET, AS PER PLAN
SPEC.	51267500	384	SQ.YD.	SEALING OF CONCRETE SURFACES *
513	21000	1	EACH	TRIMING OF BEAM END
815	00050	11535	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	11535	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	11535	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	11535	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	11211	59	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	31001	130	LIN.FT.	JOINT SEALER, (705.04), AS PER PLAN
517	76201	348	LIN.FT.	RAILING FACED, AS PER PLAN
518	12801	3	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	3	EACH	SCUPPER, LENGHTENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
SPEC.	51922300	LUMP		TEST SLAB *
519	11100	4	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	53000800	507	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	60	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	507	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	30	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	507	SQ.YD.	SCARIFICATION OF EXISTING DECK

* SEE Proposal Note

PROPOSED WORK

1. MODIFY PARAPETS ON BRIDGE AND ABUTMENTS AS PER PLAN.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1-3/4" THICK MICRO-SILICA MODIFIED CONCRETE ON DECK, USING HYDRODEMOLITION
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL 'F' ON GENERAL DETAILS, SEE SHEET 495/615.
5. SEAL PARAPETS AS INDICATED.
6. PAINT EXISTING STEEL STRUCTURE.
7. AT LEAST ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. FOR NOTES SEE SHEET 49/615.
8. OTHER WORK AS DESCRIBED IN THESE PLANS.
9. TRIM 6" CORRUGATED METAL PIPE TO 1/2"±. SEE SHEET 512/615

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4/4

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0838S
RAMP H OVER RIDGE AVE.
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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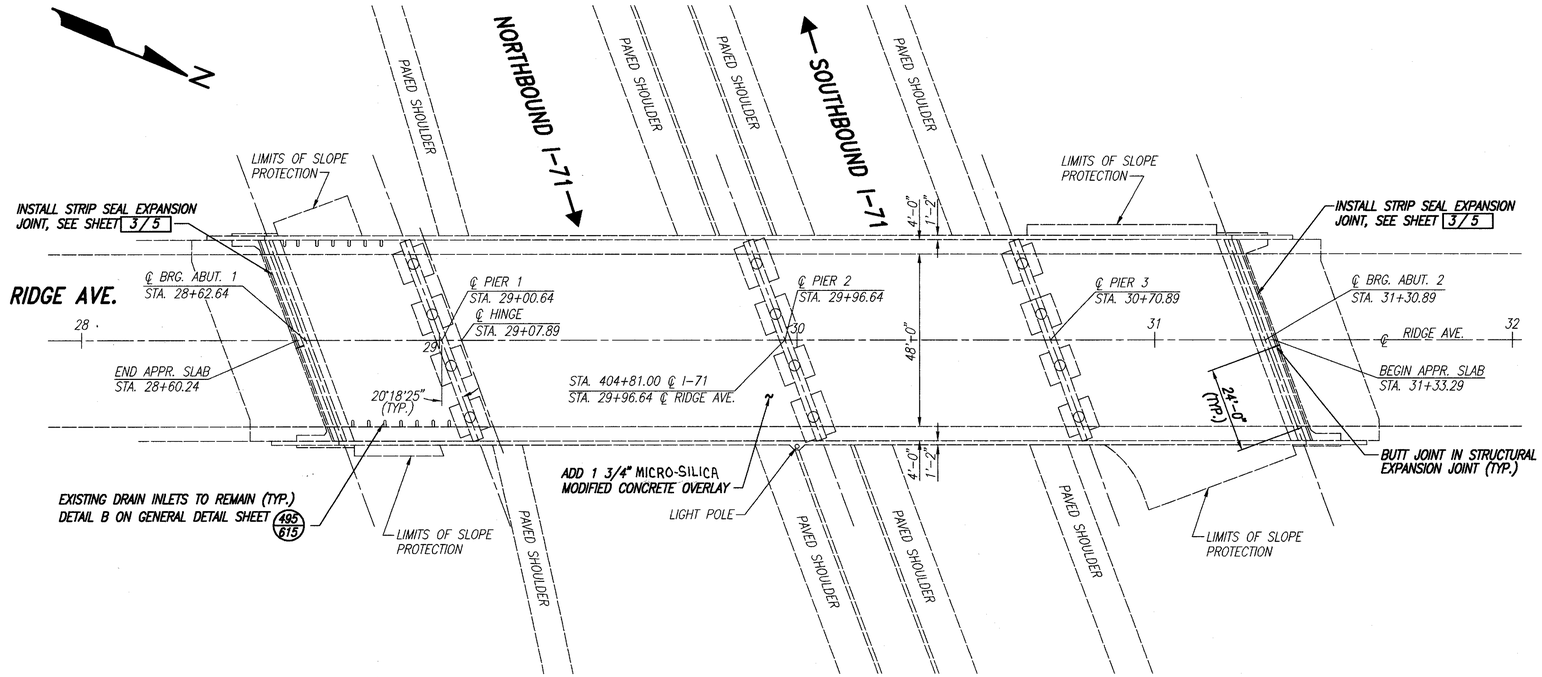
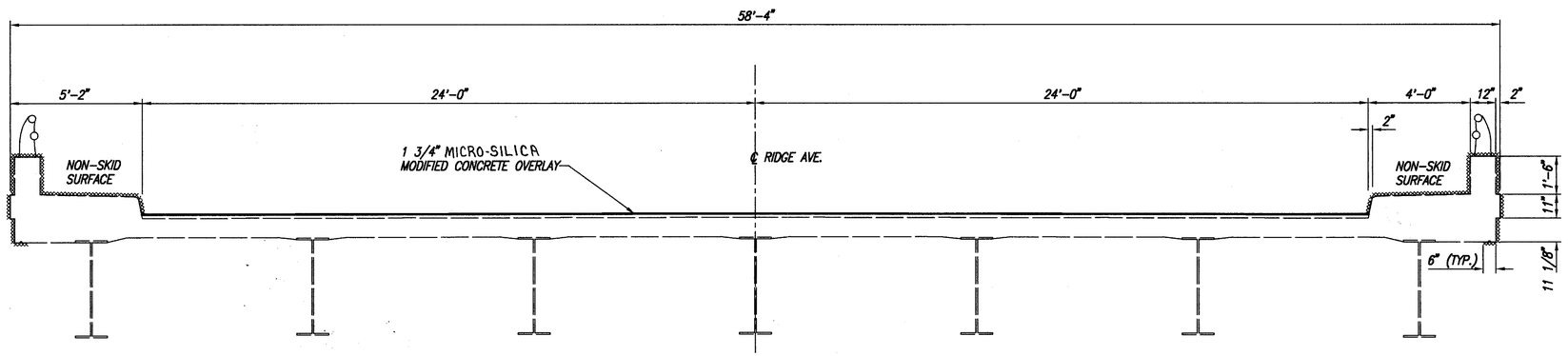
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	607 615
CHKD BY DATE			



PLAN



TYPICAL SECTION

xxxxxx SURFACES TO BE SEALED UNDER ITEM SPECIAL-SEALING OF CONCRETE SURFACES.

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON THE DECK AND WINGWALLS.

EXISTING STRUCURE

TYPE: CANTILEVERED WELDED PLATE GIRDER END SPAN AND CONTINUOUS WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE

SPANS: 38'-0", 96'-0", 74'-3" AND 60'-0" C/C BEARINGS

ROADWAY: 48'-0"F/F CURBS WITH 4'-0" SIDEWALKS

SKEW: 20°18'25"RF

LOAD FREQUENCY: CF=2000(57)

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-67 (20'-0"LONG)

ALIGNMENT: TANGENT

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

1/5

GENERAL PLAN AND TYPICAL SECTION

BRIDGE NO. HAM-71-0846
RIDGE AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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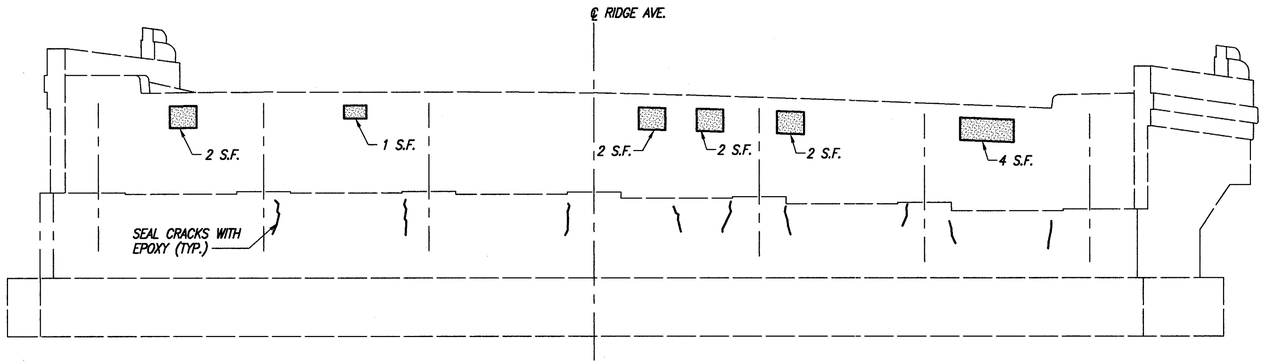
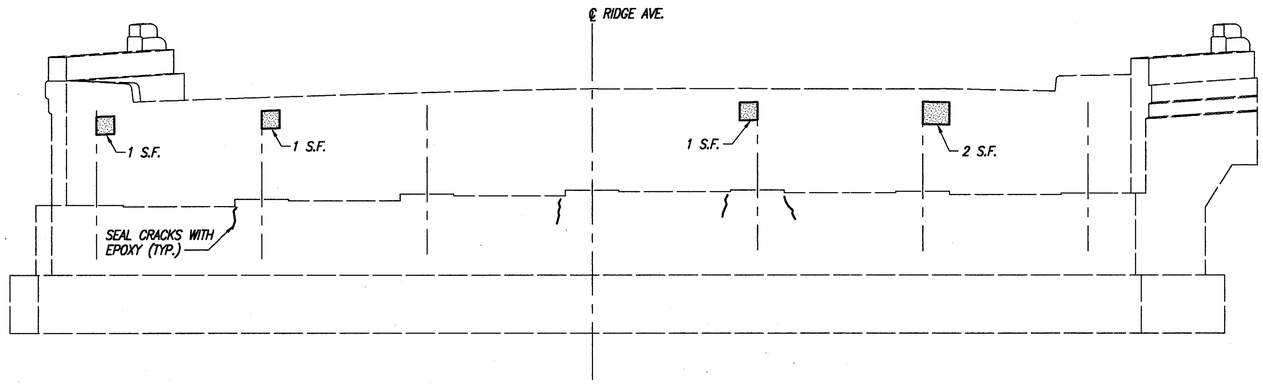
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	608 615
CHKD BY DATE			



ELEVATION ABUTMENT 1



ELEVATION ABUTMENT 2

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
NO. 1	19.5 SQ. FT.
NO. 2	7.5 SQ. FT.
TOTAL	27.0 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURE".
2. SEAL CRACKS IN ABUTMENTS PER "ITEM SPECIAL – EPOXY INJECTION" (TOTAL LENGTH ~ 25 L.F.).

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/5

ABUTMENT DETAILS

BRIDGE NO. HAM-71-0846
RIDGE AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

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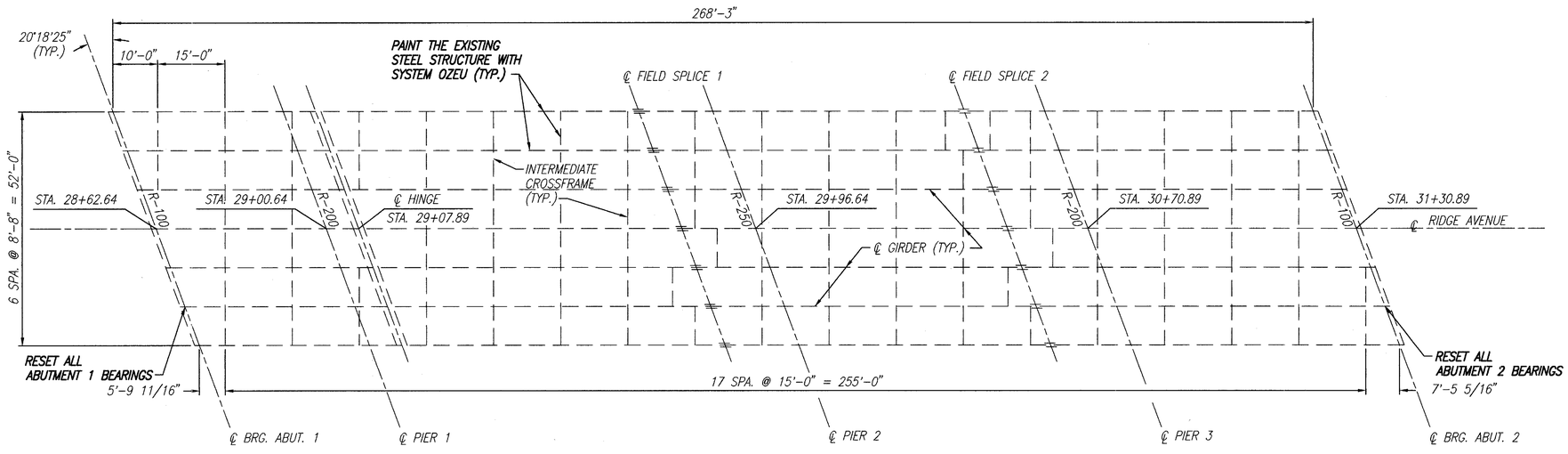
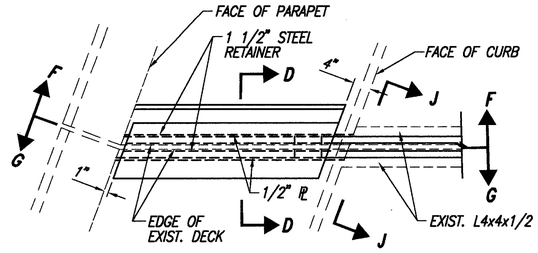
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	609 615
CHKD BY DATE			

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-100	75 TON

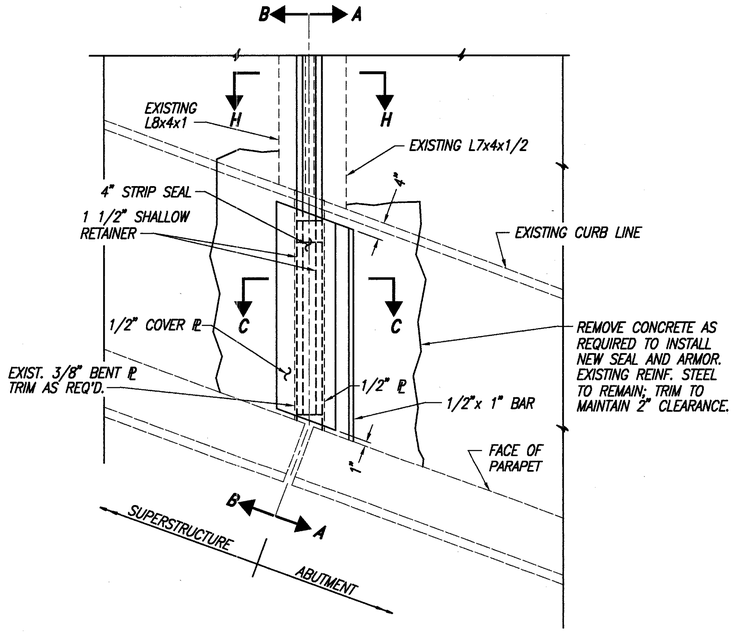


FRAMING PLAN



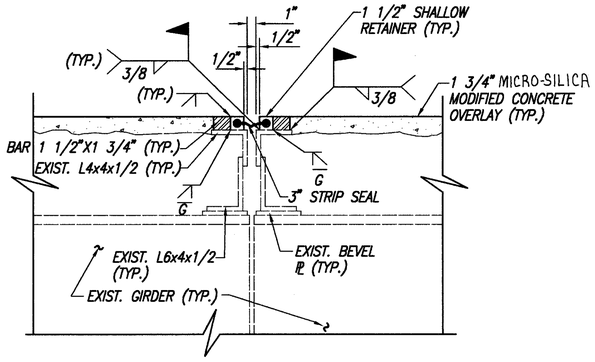
PARTIAL PLAN SIDEWALK @ HINGE

(LEFT SIDEWALK SHOWN, RIGHT SIDEWALK OPPOSITE HAND)
(SKEW = 20°18'25" RIGHT FORWARD)



PARTIAL PLAN SIDEWALK @ ABUTMENT

(RIGHT SIDEWALK ABUT. 2 AND LEFT SIDEWALK ABUT. 1 SHOWN OTHERS OPPOSITE HAND)
(SKEW = 20°18'25" RIGHT FORWARD)



SECTION J-J

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WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

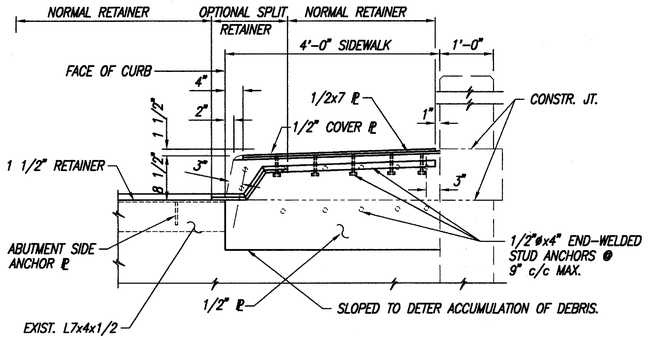
3 / 5

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0846
RIDGE AVE. OVER I-71
HAMILTON COUNTY

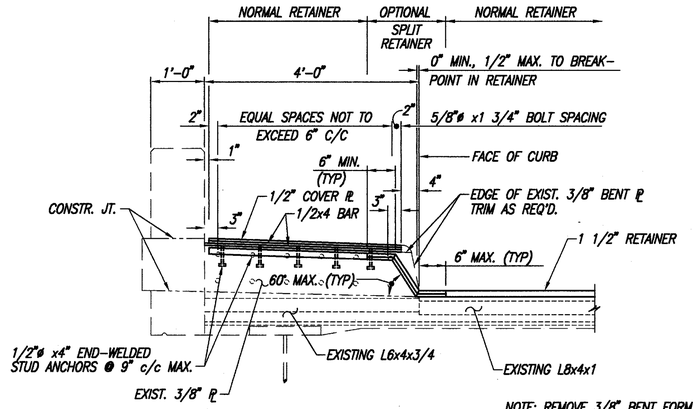
DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.	PWD	2-22-95

CALC BY / DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. REGION 5	610 / 615
CHKD BY / DATE			



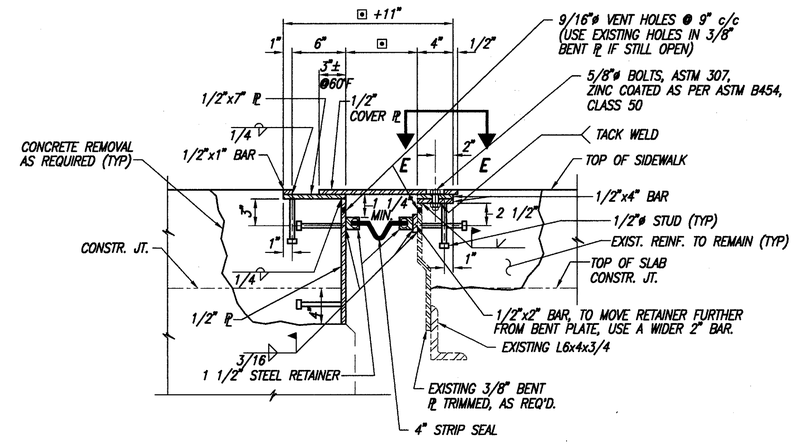
SECTION A-A ⊙

⊙ – SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



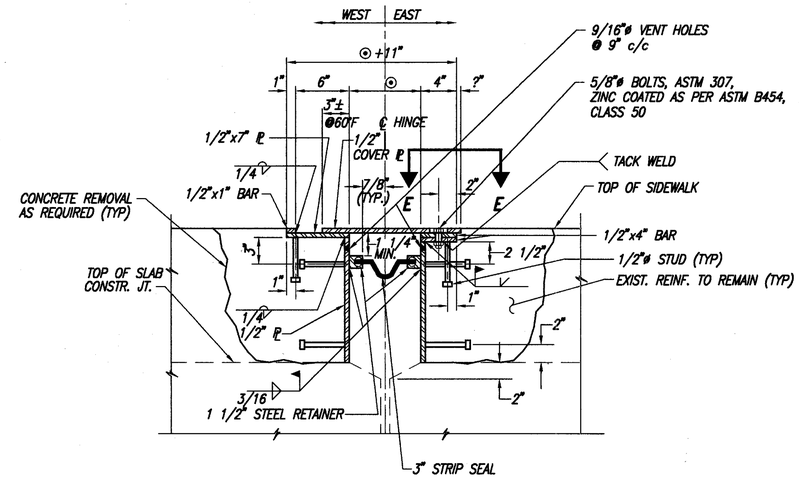
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM ℄ LEAVE L6x4x3/4 INTACT



⊡ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C



⊙ THIS DIMENSION IS THE SUM OF 2x STEEL RETAINER WIDTH + 2"

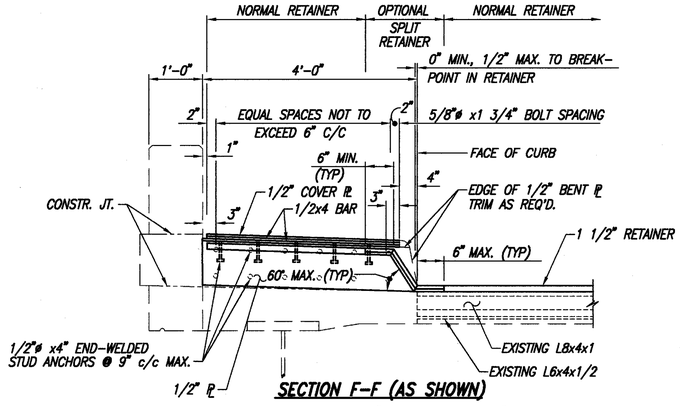
SECTION D-D

NOTE:

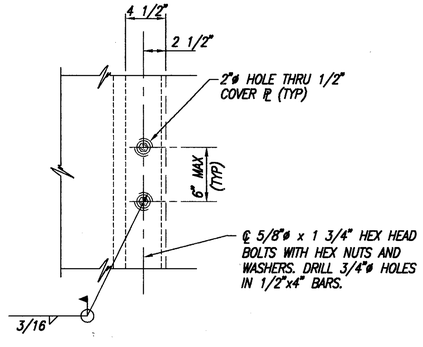
1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER ITEM 202 'PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ-4-87, SHTS. 3 AND 4.

TEMPERATURE	DIMENSION 'A'
30° F	3 1/16"
40° F	2 15/16"
50° F	2 7/8"
60° F	2 3/4"
70° F	2 11/16"
80° F	2 9/16"
90° F	2 1/2"

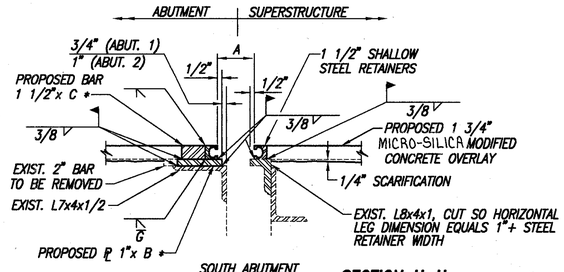
SEE SECTION C-C AND SECTION H-H



SECTION F-F (AS SHOWN)
SECTION G-G (OPPOSITE HAND)



SECTION E-E



SECTION H-H

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

4 / 5

MISCELLANEOUS DETAILS

BRIDGE NO. HAM-71-0846
RIDGE AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.	AWL	2-22-95

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CALC BY M.A.P. DATE 11-24-91
CHKD BY A.M. DATE 12-10-91

HAMILTON COUNTY
HAM-71-2.92

OHIO
F.H.W.A. REGION 5

611
615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
202	54101	13	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE AS PER PLAN
SPEC.	51267500	757	SQ.YD.	SEALING OF CONCRETE SURFACES *
513	21000	7	EACH	TRIMING OF BEAM ENDS
815	00050	30145	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	30145	SQ.FT.	FIELD PAINTING OF EXISITING STEEL, PRIME COAT, SYSTEM OZEU
815	00060	30145	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	30145	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	11211	239	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	46701	18	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
516	10000	25	LIN.FT.	PREFORMED ELASTOMERIC JOINT SEALER (705.11) AS PER PLAN
518	12801	14	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	14	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	27	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	51912600	25	LIN.FT.	CONCRETE REPAIR BY EPOXY INJECTION *
SPEC.	53000800	1437	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	144	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	8	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1437	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	82	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL Only *
SPEC.	53000800	1437	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

PROPOSED WORK

1. RESET ALL ABUTMENT BEARINGS.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL "F" ON GENERAL DETAIL SHEET (495/615).
5. SEAL CURBS, SIDEWALKS AND PARAPETS.
6. PATCH ABUTMENTS AND SEAL CRACKS WITH EPOXY AS INDICATED.
7. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
9. OTHER WORK AS DESCRIBED IN THESE PLANS.
10. REMOVE TREE GROWING BETWEEN BACKWALL AND SLOPE PROTECTION. INCLUDED UNDER CLEARING AND GRUBBING ON GENERAL SUMMARY
11. TRIM 6" CORRUGATED METAL PIPE TO 1/2": SEE SHEET (512/615)

WOOLPERT
400 SOUTH FIFTH STREET
COLUMBUS, OHIO 43215-5437

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QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0846
RIDGE AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.	RWB	2-22-95

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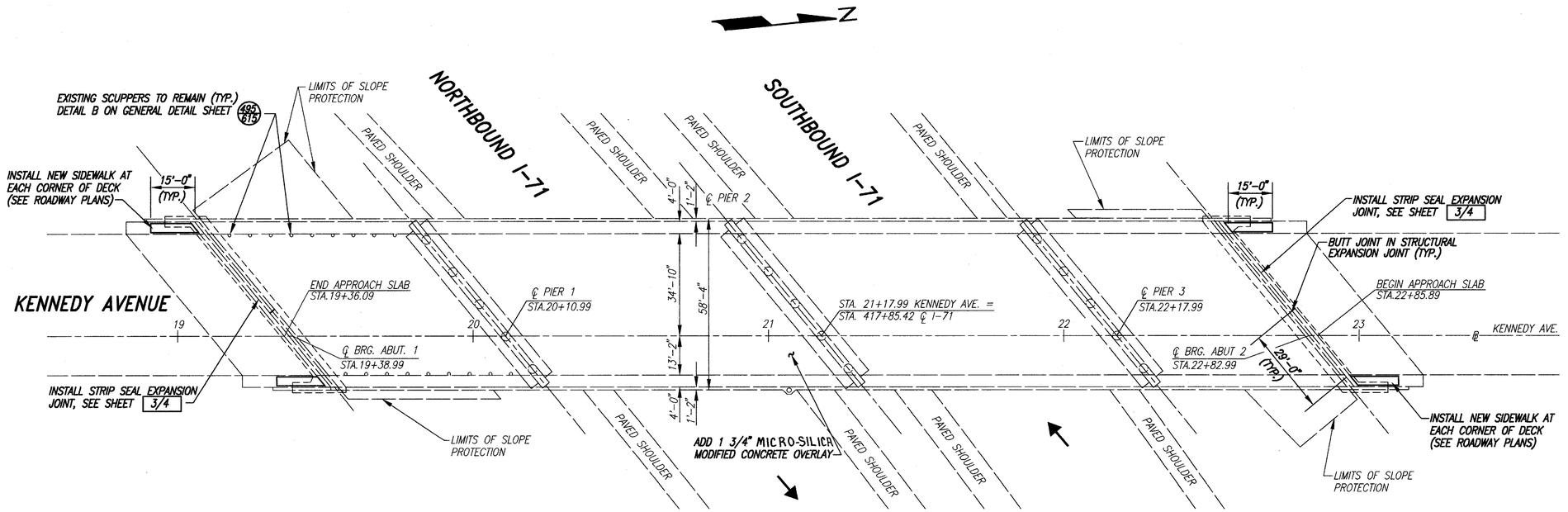
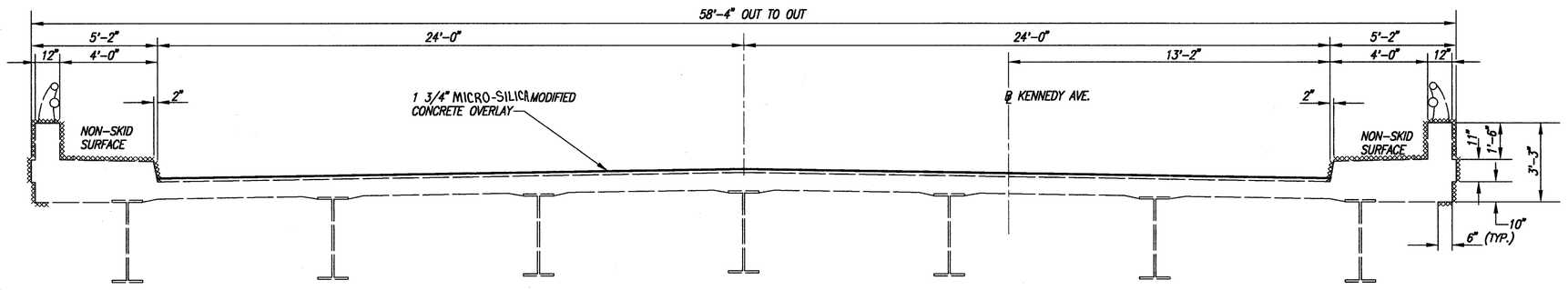
CALC BY DATE	HAMILTON COUNTY HAM-71-2.92	OHIO F.H.W.A. 5 REGION	612 615
CHKD BY DATE			



PLAN



TYPICAL SECTION

xxxxx INDICATES SURFACES TO BE SEALED UNDER ITEM SPECIAL - SEALING OF CONCRETE SURFACES

NOTES:

1. SEAL CURBS, SIDEWALKS AND PARAPETS AS INDICATED ON THE DECK AND WINGWALLS.
2. REMOVE VEGETATION AND SLOPE SPILLAGE FROM THE ABUTMENT BRIDGE GIRDER SEATS.

EXISTING STRUCTURE

TYPE: CONTINUOUS WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 72'-0", 107'-0", 100'-0", 65'-0"
ROADWAY: 48'-0" FACE TO FACE OF 4'-0" SIDEWALK
SKEW: 39°20'00" R.F.
LOAD FREQUENCY: CF=400(57)
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-67 (25'-0" LONG)
ALIGNMENT: TANGENT

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

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GENERAL PLAN & TYPICAL SECTION

BRIDGE NO. HAM-71-0870
KENNEDY AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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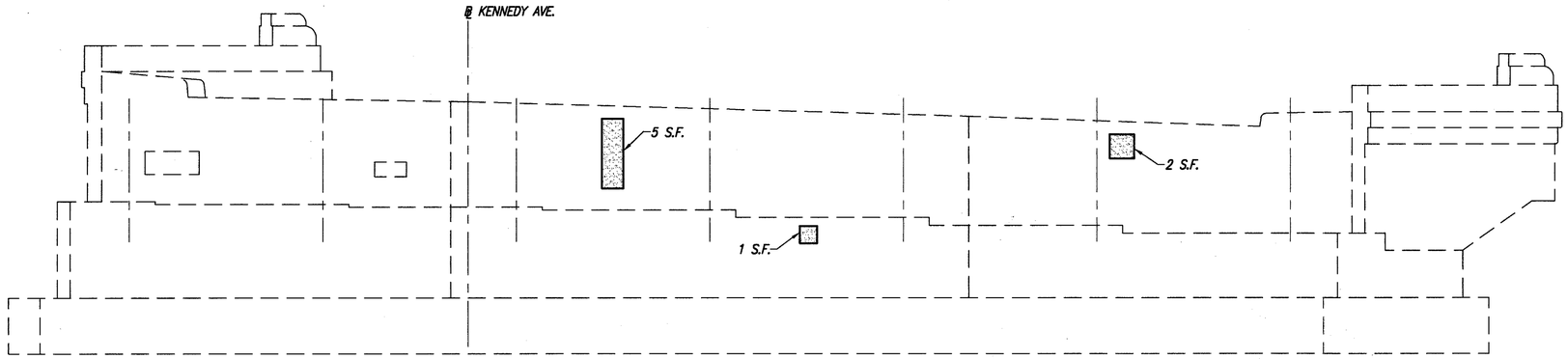
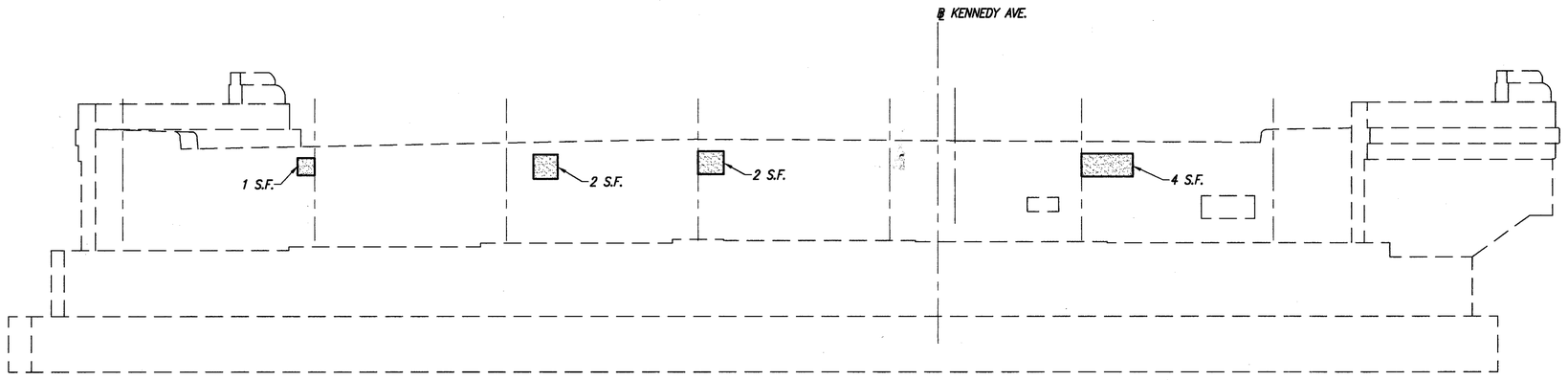
CALC BY_____ DATE_____	HAMILTON COUNTY HAM-71-2.92	OHIO	613 615
CHKD BY_____ DATE_____		F.H.W.A. 5 REGION	



ELEVATION ABUTMENT 1



ELEVATION ABUTMENT 2

SUMMARY OF PATCHING QUANTITIES	
ABUTMENT	ESTIMATED QUANTITIES *
NO. 1	12 SQ. FT.
NO. 2	14 SQ. FT.
TOTAL	26 SQ. FT.

* ESTIMATED QUANTITY HAS BEEN INCREASED 50% OVER FIELD MARKED QUANTITY TO ALLOW FOR ADDITIONAL DETERIORATION.

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST 1991.

NOTES:

1. PATCH ABUTMENT AREAS INDICATED PER "ITEM 519 – PATCHING CONCRETE STRUCTURE".

LEGEND

PATCH CONCRETE PER ITEM 519 'PATCHING CONCRETE STRUCTURE'.

SEAL CRACKS PER ITEM SPECIAL 'EPOXY INJECTION' (SEE PROPOSAL NOTE).

EXISTING OPENING TO REMAIN.

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

2/4

ABUTMENT DETAILS

BRIDGE NO. HAM-71-0870
KENNEDY AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	J.C.D.	A.M.		2-22-95

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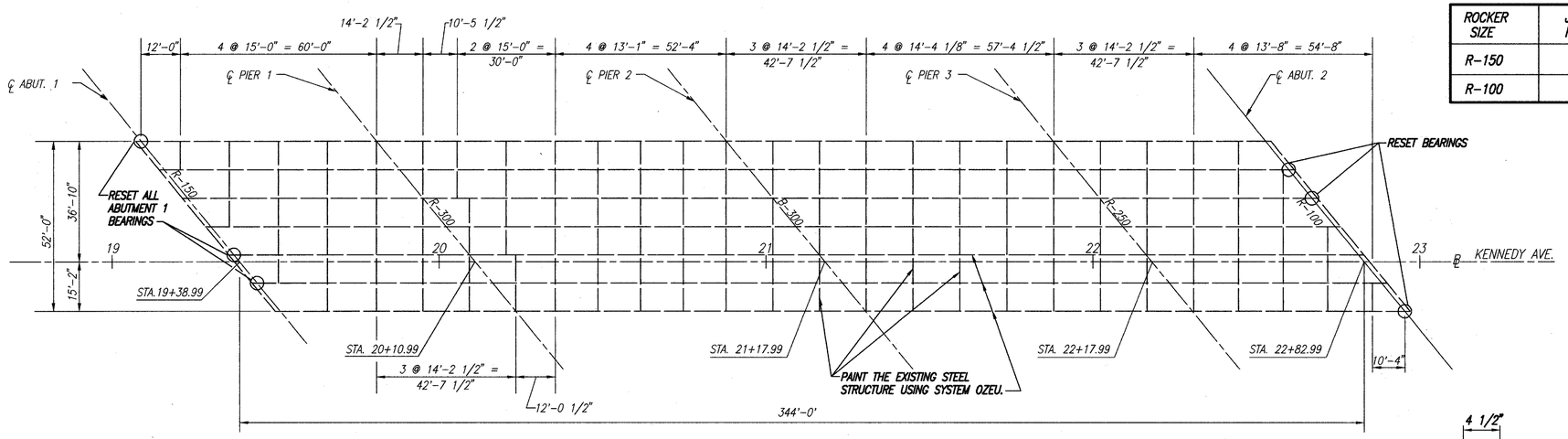
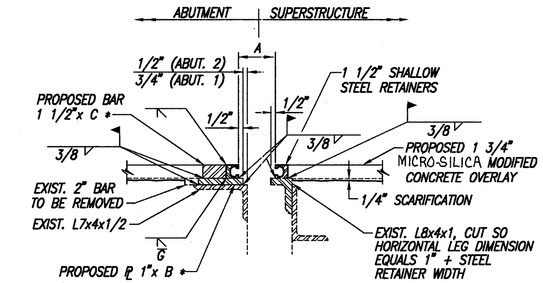
CALC BY DATE	HAMILTON COUNTY HAM--71--2.92	OHIO F.H.W.A. REGION 5	614 / 615
CHKD BY DATE			

ROCKER SIZE	JACKING CAPACITY REQUIRED (MIN.)
R-150	75 TONS
R-100	75 TONS

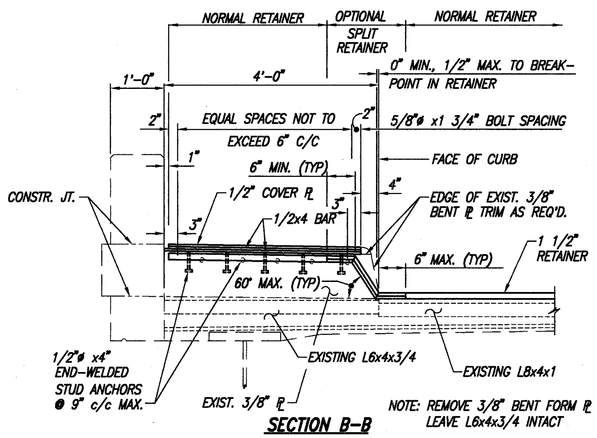


FRAMING PLAN



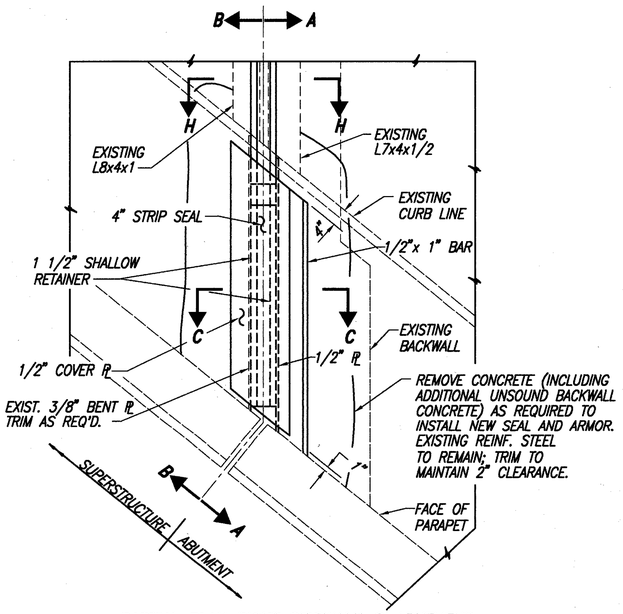
SECTION D-D

B * = ANGLE LEG MINUS 1"
C * = B* MINUS WIDTH OF RETAINER, MINUS 1"



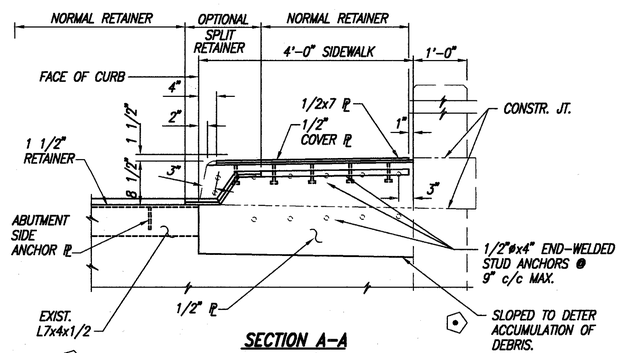
SECTION B-B

NOTE: REMOVE 3/8" BENT FORM ℄ LEAVE L6x4x3/4 INTACT



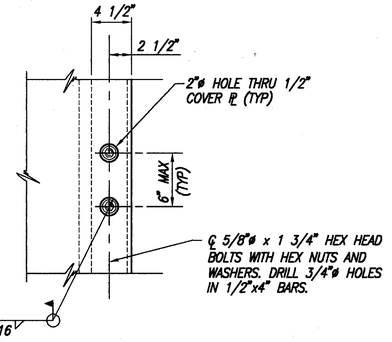
PARTIAL PLAN RIGHT SIDEWALK @ ABUTMENT

(SKEW = 39°00'00" RIGHT FORWARD)
(LEFT SIDEWALK ABUT. 1 AND RIGHT SIDEWALK ABUT. 2 AS SHOWN. RIGHT SIDEWALK ABUT. 1 AND LEFT SIDEWALK ABUT. 2 OPPOSITE HAND.)

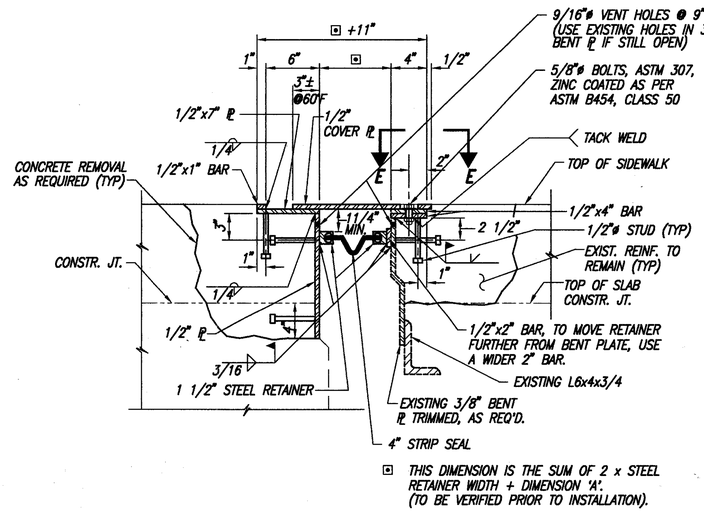


SECTION A-A

⬡ - SIDEWALK AND PARAPET JOINT ARMOR ANCHORS: IN LIEU OF THE 1/2"ø END-WELDED STUDS SHOWN, ALTERNATE METHODS OF ANCHORING THE 1/2" PLATES MAY BE USED, SUBJECT TO APPROVAL BY THE DIRECTOR.



SECTION E-E



⊡ THIS DIMENSION IS THE SUM OF 2 x STEEL RETAINER WIDTH + DIMENSION 'A'. (TO BE VERIFIED PRIOR TO INSTALLATION).

SECTION C-C

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO MODIFYING EXPANSION JOINT.
2. THE PRICE BID FOR ITEM 516 'STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN' SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY OTHER INCIDENTAL ITEMS, AS DETAILED. (REMOVAL OF CURB OR PARAPET AS SHOWN SHALL BE INCLUDED UNDER 'ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN').
3. FOR DETAILS NOT SHOWN REFER TO STANDARD DWG. EXJ--4--87 SHTS. 3 AND 4.

	DIMENSION 'A'	
TEMPERATURE	ABUT. 1	ABUT. 2
30° F	3 1/16"	3 9/16"
40° F	2 15/16"	3 7/16"
50° F	2 7/8"	3 3/8"
60° F	2 3/4"	3 1/4"
70° F	2 5/8"	3 3/16"
80° F	2 1/2"	3 1/16"
90° F	2 7/16	2 15/16"

WOLFPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

3 / 4

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-71-0870
KENNEDY AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.	RWD	2-22-95

CALC BY M.A.P. DATE 12-9-91	HAMILTON COUNTY HAM-71-2.90	OHIO	615
CHKD BY A.M. DATE 1-2-92		F.H.W.A. REGION 5	615

ESTIMATED QUANTITIES

ITEM	ITEM EXTENSION	QUANTITY	UNITS	DESCRIPTION
201	11000	LUMP	LUMP	CLEARING AND GRUBBING
202	11203	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
202	54101	12	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN
SPEC.	51267500	521	SQ.YD.	SEALING OF CONCRETE SURFACES *
815	00050	36894	SQ.FT.	SURFACE PREP. OF EXISTING STEEL, SYSTEM OZEU
815	00056	36894	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT SYSTEM OZEU
815	00060	36894	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, INTER. COAT, SYSTEM OZEU
815	00066	36894	SQ.FT.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU
815	00504	100	MAN HRS	GRINDING FINS, TEARS, SLIVERS
516	11211	146	LIN.FT.	STRUCTURE EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEALS, AS PER PLAN
516	46701	10	EACH	RESET BEARING, AS PER PLAN
516	47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE *
516	10000	25	LIN.FT.	PREFORMED ELASTOMERIC JOINT SEALER (705.11) AS PER PLAN
518	12801	18	EACH	SCUPPER MODIFICATION, AS PER PLAN
518	12900	18	EACH	SCUPPER, LENGTHENING
SPEC.	51863300	LUMP	LUMP	STRUCTURE DRAINAGE, MISC.: SCUPPER AND DRAINAGE CLEANOUT
519	11100	26	SQ.FT.	PATCHING CONCRETE STRUCTURE
SPEC.	53000800	1843	SQ.YD.	TYPE I REMOVALS, HYDRODEMOLITION SURFACE PREPARATION *
SPEC.	53000800	192	SQ.YD.	TYPE II REMOVALS, MISC: DEBONDED EXISTING PATCHED & OVERLAY MATERIALS (IF REQUIRED) *
SPEC.	53000800	4	SQ.YD.	TYPE III REMOVALS *
SPEC.	51922500	1843	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY PLACEMENT *
SPEC.	51922510	106	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY @ 1-3/4 INCHES & VARIABLE THICKNESS, MATERIAL ONLY *
SPEC.	53000800	1843	SQ.YD.	SCARIFICATION OF EXISTING DECK
SPEC.	51922300	LUMP		TEST SLAB *

* SEE PROPOSAL NOTE.

NOTE: REMOVE EXCESS DIRT (8-12 CU.YDS.) WHICH HAS BEEN PLACED UNDER BEAM #7. PAYMENT UNDER ITEM 201.

PROPOSED WORK

1. RESET BEARINGS AS INDICATED.
2. SEAL ALL TRANSVERSE EXPANSION JOINTS WITH STRIP SEALS.
3. PLACE 1 3/4" THICK MICRO-SILICA MODIFIED CONCRETE OVERLAY ON DECK, USING HYDRODEMOLITION
4. EXTEND SCUPPERS TO 8" BELOW BRIDGE GIRDERS PER DETAIL F ON GENERAL DETAIL SHEET (49/615).
5. SEAL CURBS, SIDEWALKS AND PARAPETS.
6. PATCH ABUTMENTS AS INDICATED.
7. PAINT EXISTING STEEL STRUCTURE USING SYSTEM OZEU.
8. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON THE BRIDGE AT ALL TIMES. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. FOR NOTES SEE SHEET (49/615).
9. OTHER WORK AS DESCRIBED IN THESE PLANS.
10. TRIM 6" CORRUGATED METAL PIPE TO ½":. SEE SHEET (512/615)

WOOLPERT 400 SOUTH FIFTH STREET COLUMBUS, OHIO 43215-5437

4/4

QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-71-0870
KENNEDY AVE. OVER I-71
HAMILTON COUNTY

DESIGNED	DRAWN	CHECKED	IN CHARGE	DATE
M.A.P.	D.M.S.	A.M.		2-22-95

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