2530 Orange I-54

MICROFILMED
MAY 10 1995

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

NH -13 (62)

HAMILTON COUNTY HAM-50-19.36	OHIO	1/255
NH-13 (62)	FHWA REGION 5 FEDERAL PROJECT	

HAM-50-19.36

CITY OF CINCINNATI
HAMILTON COUNTY

DESIGN DESIGNATION

Current A.D.T. (1990)	= 43,286
Design Year A.D.T. (2010)	= 57,200
D.H.V.	= 6,864
D	= 80%
T	= 5%
Design Speed	= 50 MPH
Legal Speed	= 35 & 50 MPH
Functional Classification	= Urban Freeway /Expressway

For Design Exception - See Sheet No. 2

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line 352 353
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light.

Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA & RW
Existing Right of Way
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)

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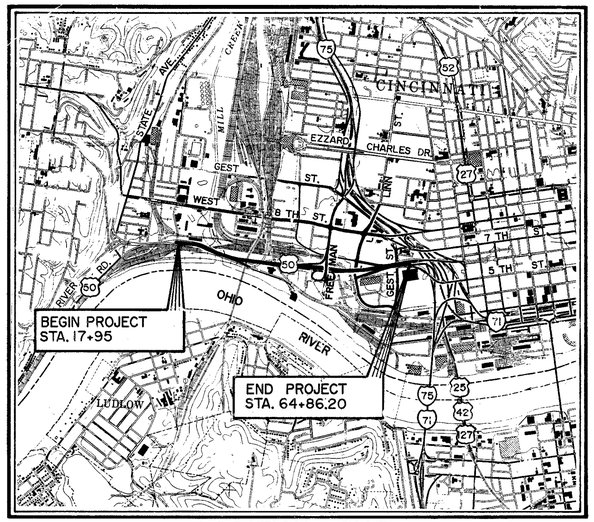
Sheets Not Used	29,40,77,102



LOCATION MAP

SCALE IN MILES
1/2 1/4 0 1/2 1

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan 0 20 40
Profile: Horizontal 0 100 200 300 400, Vertical 0 10 20 30 40

LINE DATA

BEGIN PROJECT	Sta. 17+95	
Station Equation	Sta. 14+27.54	= 367.46 Lin. Ft.
Station Equation	Sta. 0+93.13 EB	
END PROJECT	Sta. 64+86.20 EB	= 6393.07 Lin. Ft.
Length of Project		6760.53 Lin. Ft. or 1.280 Miles
BEGIN WORK	Sta. 18+79	
Station Equation	Sta. 14+27.54 = Sta. 0+93.13 EB	
END WORK	Sta. 66+22 EB	
		6980.33 Lin. Ft.

ADDED WORK

Mehring Way	Sta. 19+80 to Sta. 23+93.19	= 413.19 Lin. Ft.
Freeman Ave.	Sta. 11+80 to Sta. 30+20	= 1840.00 Lin. Ft.
Linn St.	Sta. 7+58.20 to Sta. 13+68.70	= 610.50 Lin. Ft.
Sixth St.	Sta. 47+45 to Sta. 49+55.50	= 210.50 Lin. Ft.
Gest St.	Sta. 8+67.50 to Sta. 11+57.80	= 290.30 Lin. Ft.
	Length of Work	= 10344.82 Lin. Ft. or 1.959 Miles

ADDED WORK (Lighting Only)

Mehring Way	Sta. 12+13 to Sta. 19+80	= 767.00 Lin. Ft.
	Sta. 23+93.19 to Sta. 28+85	= 491.81 Lin. Ft.
Harriet St.	Sta. 26+10 to Sta. 33+41	= 531.00 Lin. Ft.
Sixth St./Carr St.	Sta. 10+00 to Sta. 16+00	= 600.00 Lin. Ft.
Dalton St.	Sta. 38+30 to Sta. 46+88.30	= 858.30 Lin. Ft.
Mainline	Sta. 66+22 to Sta. 67+73	= 151.00 Lin. Ft.
	Length of Work	= 3399.11 or 0.644 Miles

Total Length of Work = 13743.93 or 2.603 Miles

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

Plan Prepared By:
EALKE ENGINEERS
Cincinnati, Ohio
And In Association With
WOOLPERT CONSULTANTS
Dayton, Ohio

SEAL

SUPPLEMENTAL SPECIFICATIONS	
802	4-13-90
852	6-10-87
820	3-18-92
836	11-12-85
921	12-4-72
931	3-18-92
902	8-31-79
923	1-10-69

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-2.1	2-21-92	GR-3.2	5-6-91	MT-95.81	2-23-90	MT-95.30	10-10-88	HL-10.11	5-1-87	TC-7.65	3-1-79		
BP-2.2	2-21-92	GR-4.1	5-6-91	BP-1.1	2-21-92	MT-95.31	10-10-88	HL-10.12	5-1-87	TC-21.10	9-1-92	TC-42.10	8-19-77
BP-3.1	2-21-92	GR-4.2	5-6-91	BP-6.1	2-21-92	MT-95.32	8-25-89	HL-10.13	5-1-87	TC-21.20	9-1-92	TC-42.20	3-26-79
BP-5.1	2-21-92	GR-8	10-25-90	BP-8.1	2-21-92	MT-97.10	4-29-88	HL-20.11	5-1-87	TC-21.41	9-1-92	TC-51.10	1-20-84
BP-7.1	10-30-92	MC-4	7-26-76	F-3	5-1-76	MT-98.12	8-25-89	HL-20.14	5-1-87	TC-21.40	9-1-92	TC-51.11	1-20-84
BP-2.5	2-21-92	MC-9.3	10-30-92	F-4	11-10-83	MT-98.13	8-25-89	HL-20.31	5-1-87	TC-22.10	9-1-92	TC-52.10	4-3-79
BP-2.4	2-21-92	MC-9A	1-11-85	F-5	5-1-76	MT-98.14	8-25-89	HL-30.11	5-1-87	TC-22.20	9-1-92	TC-52.20	4-3-79
F-1	11-10-83	MC-9.2	5-6-91	F-6	5-1-76	MT-98.15	8-25-89	HL-30.21	5-1-87	TC-31.21	9-1-92	TC-72.20	2-26-82
GR-1.1	5-6-91	MC-9.4	10-30-92	MC-11	8-1-78	MT-99.10	11-14-86	HL-30.22	5-1-87	TC-32.10	9-1-92	TC-83.10	3-18-92
GR-1.2	10-30-92	I-3A8B	4-1-80			MT-105.10	7-1-92	HL-30.31	5-1-87	TC-32.11	9-1-92	TC-35.10	8-29-84
GR-2.1	5-6-91	AS-1-81	11-21-81			MT-105.11	7-1-92	HL-30.32	5-1-87	TC-41.10	8-29-84	TC-18.24	4-25-79
GR-2.2	10-30-92	MH-1	12-18-84			HL-50.21	5-1-87	HL-40.10	5-1-87	TC-41.20	3-26-79	EX.J-4-87	1-5-89
GR-3.1	5-6-91	MH-3	12-18-84	HL-30.33	5-1-87	HL-60.11	5-1-87	HL-60.31	5-1-87	TC-41.40	6-18-79	VPF-1-90	2-1-92

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

1991 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 Not Require the closing to traffic of the Highway and that Provisions for the Maintenance and safety of Traffic will be as set forth on the Plans and Estimate.

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 George Rowe
Date 5/22/92 Director of Public Works City of Cincinnati
Approved William W. Brayden
Date 5-22-92 Hamilton County Engineer
Approved David J. Krings
Date 5/27/92 County Administrator

Approved Gary M. Kline
Date 6-19-92 District Deputy Director of Transportation

Approved B.D. Habbasman
Date 9/14/92 Engineer, Bureau of Bridges and Structural Design

Approved George L. Bartzis
Date 12/30/92 Deputy Director, Design

Approved Jerry Wray
Date 12-30-92 Director, Department of Transportation

REVISED 2-18-93

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR — DATE

Project: HAM-50-19.36
Date of Letting ____ 19__, Contract No. ____

LD0300 Rev. 1-1-81

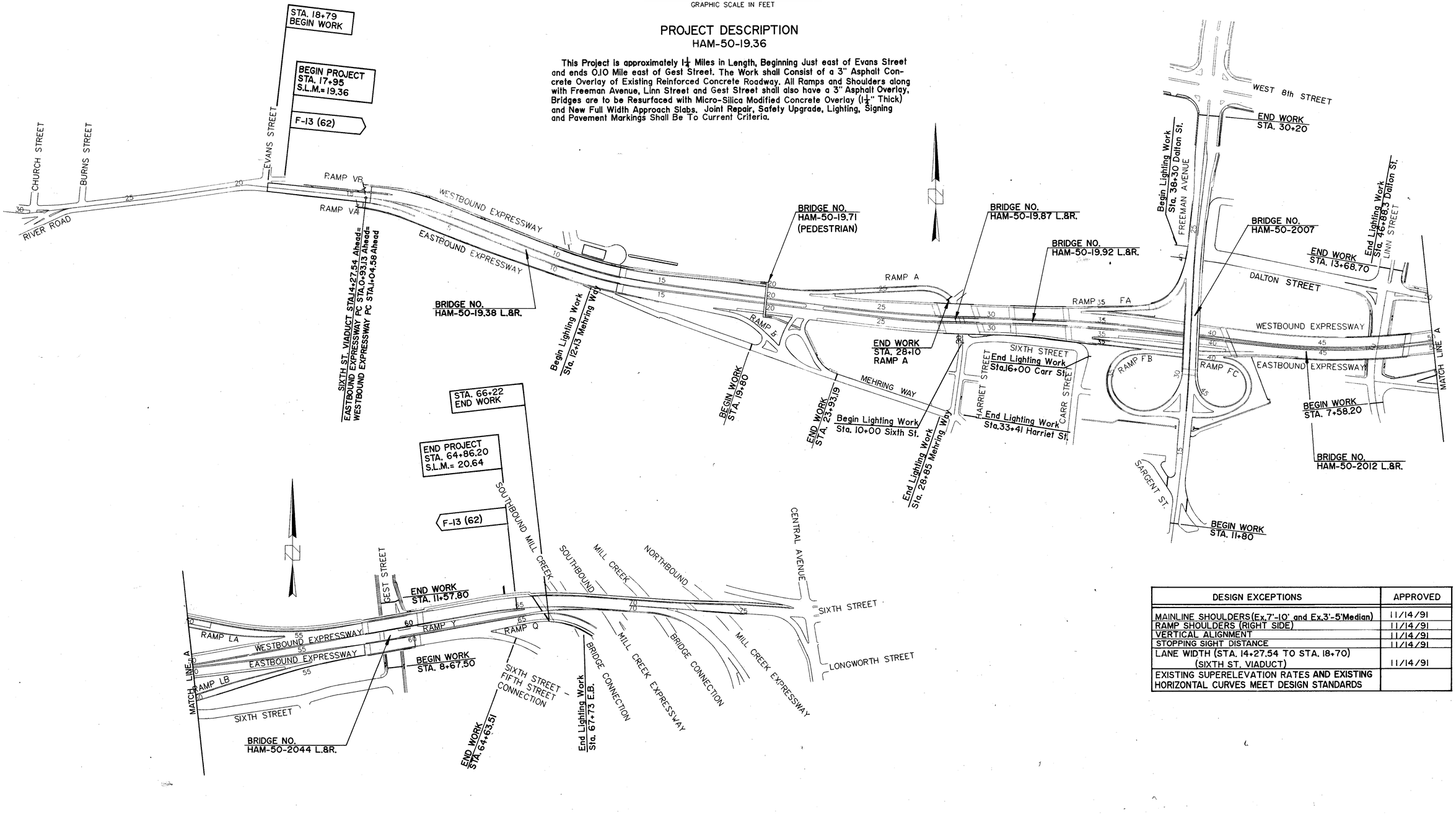
CALC. BY		HAM.-50-19.36	OHIO
DATE			F.H.W.A. REGION 5
CHKD. BY			
DATE			

SCHEMATIC PLAN

200 0 200 400 600
GRAPHIC SCALE IN FEET

PROJECT DESCRIPTION
HAM-50-19.36

This Project is approximately 1¼ Miles in Length, Beginning Just east of Evans Street and ends 0.10 Mile east of Gest Street. The Work shall Consist of a 3" Asphalt Concrete Overlay of Existing Reinforced Concrete Roadway. All Ramps and Shoulders along with Freeman Avenue, Linn Street and Gest Street shall also have a 3" Asphalt Overlay, Bridges are to be Resurfaced with Micro-Silica Modified Concrete Overlay (1¼" Thick) and New Full Width Approach Slabs. Joint Repair, Safety Upgrade, Lighting, Signing and Pavement Markings Shall Be To Current Criteria.

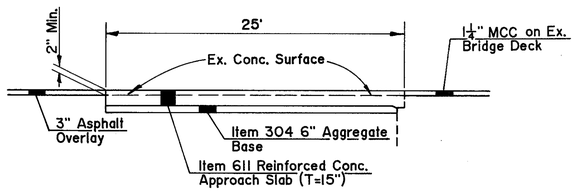


DESIGN EXCEPTIONS	APPROVED
MAINLINE SHOULDERS (Ex.7'-10' and Ex.3'-5'Median)	11/14/91
RAMP SHOULDERS (RIGHT SIDE)	11/14/91
VERTICAL ALIGNMENT	11/14/91
STOPPING SIGHT DISTANCE	11/14/91
LANE WIDTH (STA. 14+27.54 TO STA. 18+70) (SIXTH ST. VIADUCT)	11/14/91
EXISTING SUPERELEVATION RATES AND EXISTING HORIZONTAL CURVES MEET DESIGN STANDARDS	

TYPICAL SECTIONS

CALC. BY: LEH	HAMILTON COUNTY	OHIO	3
DATE 11-90	HAM-50-19.36	FHWA REGION 5	255
CHKD. BY: REA			
DATE 12-5-91			

Scale in Feet: 0 6 12

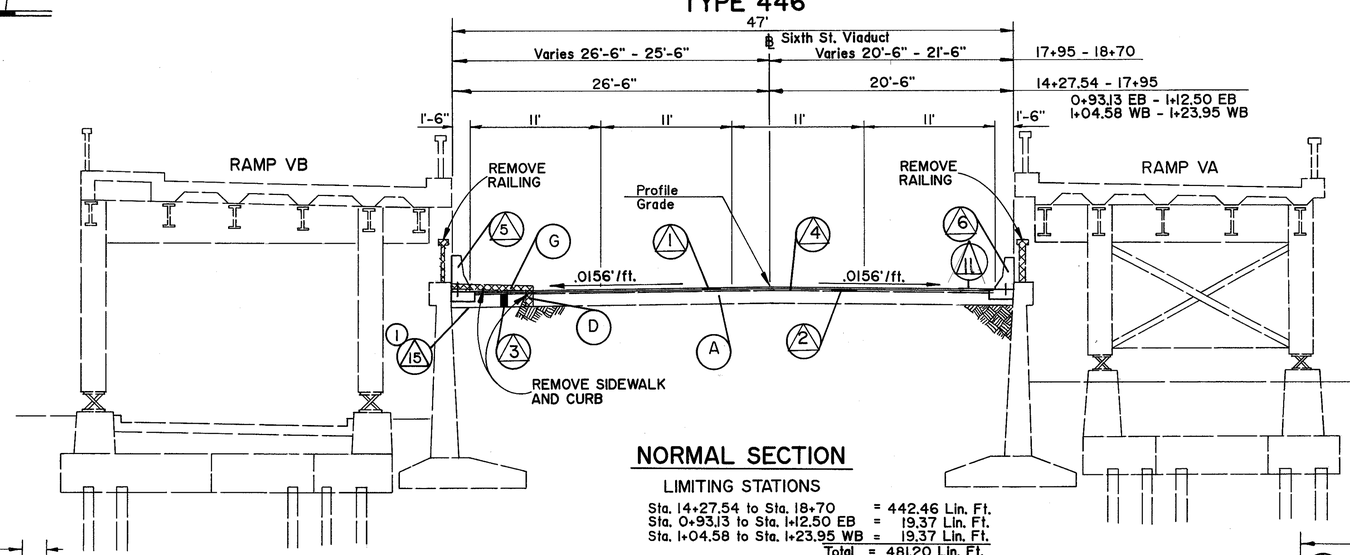


APPROACH SLAB TYPICAL SECTION

LIMITING STATIONS

Sta. 13+01.64 to Sta. 13+26.64 EB
Sta. 13+09.96 to Sta. 13+34.96 WB
Sta. 27+56.10 to Sta. 27+81.10 EB
Sta. 27+48 to Sta. 27+73 WB
Sta. 29+32.88 to Sta. 29+57.88 EB
Sta. 29+25.33 to Sta. 29+50.33 WB
Sta. 30+84.63 to Sta. 31+09.63 EB
Sta. 30+83.93 to Sta. 31+08.93 WB
Sta. 33+33.18 to Sta. 33+58.18 EB
Sta. 33+32.25 to Sta. 33+57.25 WB
Sta. 40+60.46 to Sta. 40+85.46 EB
Sta. 40+56.11 to Sta. 40+81.11 WB
Sta. 48+69.42 to Sta. 48+94.42 EB
Sta. 48+76.70 to Sta. 49+01.70 WB
Sta. 57+83.77 to Sta. 58+08.77 EB
Sta. 57+87.32 to Sta. 58+12.32 WB
Sta. 60+14.06 to Sta. 60+39.06 EB
Sta. 60+39.84 to Sta. 60+64.84 WB

TYPE 446



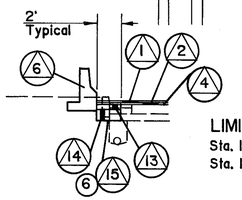
NORMAL SECTION

LIMITING STATIONS

Sta. 14+27.54 to Sta. 18+70 = 442.46 Lin. Ft.
Sta. 0+93.13 to Sta. 1+12.50 EB = 19.37 Lin. Ft.
Sta. 1+04.58 to Sta. 1+23.95 WB = 19.37 Lin. Ft.
Total = 481.20 Lin. Ft.

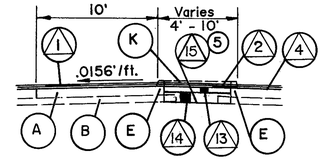
EXISTING LEGEND

- (A) 9" REINFORCED PORTLAND CONCRETE PAVEMENT
- (B) 6" SUBBASE
- (C) 3" BITUMINOUS AGGREGATE BASE W/POROUS BASE COURSE
- (D) CONCRETE CURB, TYPE 6
- (E) CONCRETE CURB, TYPE 2A
- (F) GUARDRAIL
- (G) 4" SIDEWALK
- (H) 6" PIPE UNDERDRAIN
- (I) 6" BITUMINOUS AGGREGATE BASE W/POROUS BASE COURSE
- (J) CONCRETE CURB, TYPE 7A
- (K) TYPE I MEDIAN PAVEMENT
- (L) STABILIZED CRUSHED AGGREGATE



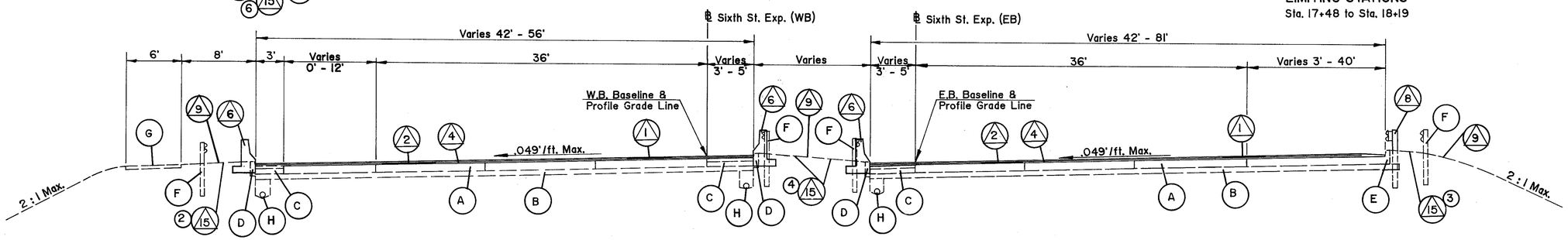
LIMITING STATIONS

Sta. 13+34.96 to Sta. 14+25 WB Lt.&Rt.
Sta. 13+26.64 to Sta. 13+75 EB Lt.



LIMITING STATIONS

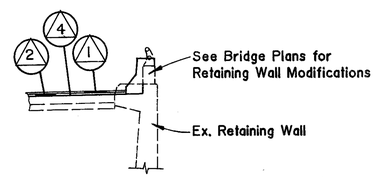
Sta. 17+48 to Sta. 18+19



SUPERELEVATED SECTION

LIMITING STATIONS

Sta. 13+34.96 to Sta. 20+11.35 WB = 676.39 Lin. Ft.
Sta. 13+26.64 to Sta. 18+19 EB = 492.36 Lin. Ft.
Total = 1168.75 Lin. Ft.



LIMITING STATIONS

Sta. 13+26.64 to Sta. 19+94

LEGEND

- (1) ITEM 446 1¼" ASPHALT CONCRETE SURFACE COURSE TYPE I, AC-20
- (2) ITEM 446 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, AC-20
- (3) ITEM 451 9" REINFORCED CONCRETE PAVEMENT
- (4) ITEM 407 TACK COAT
- (5) ITEM 622 CONCRETE BARRIER, TYPE D
- (6) ITEM 622 CONCRETE BARRIER, TYPE D, AS PER PLAN
- (7) ITEM 304 6" AGGREGATE BASE, AS PER PLAN
- (8) ITEM 606 GUARDRAIL TYPE 5 (5A)
- (9) ITEM 659 SEEDING AND MULCHING
- (10) ITEM 608 CONCRETE WALK
- (11) ITEM SPEC. MICRO-SILICA MODIFIED CONCRETE OVERLAY (1¼" THICK) (SEE PROPOSAL NOTE)
- (12) ITEM 609 CURB, TYPE 6 & TYPE 2A
- (13) ITEM 301 6" BITUMINOUS AGGREGATE BASE AC-20
- (14) ITEM 304 9" AGGREGATE BASE, AS PER PLAN
- (15) ITEM 203 LINEAR GRADING (METHOD I THRU METHOD 6)

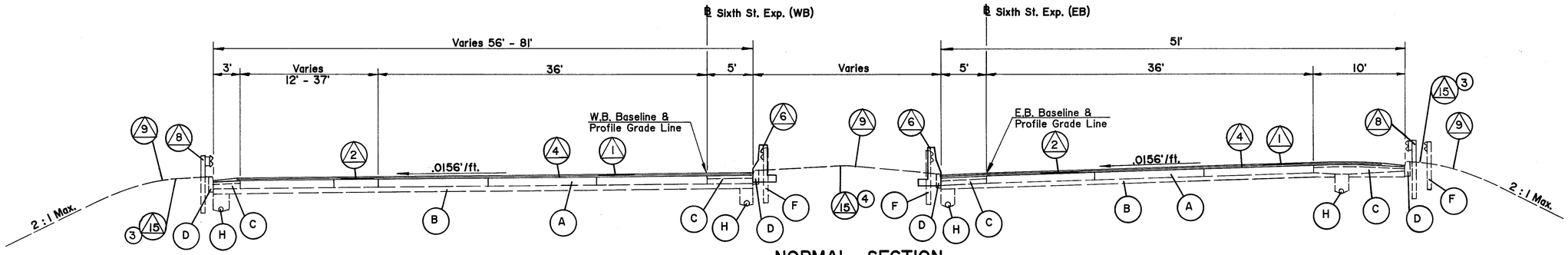
Indicates Method (I)

CALC. BY LEH DATE 1-11-90	HAMILTON COUNTY HAM-50-19.36	OHIO	4
CHKD. BY REA DATE 12-5-91		FHWA REGION 5	255

TYPICAL SECTIONS

0 6 12
Scale in Feet

TYPE 446



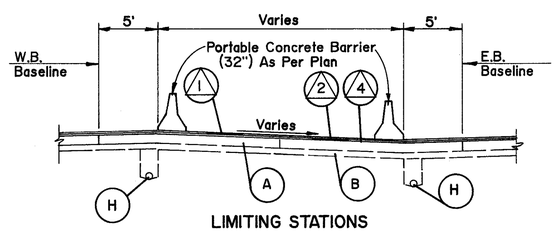
NORMAL SECTION

LIMITING STATIONS

Sta. 20+11.35 to Sta. 22+85 WB = 273.65 Lin. Ft.
Sta. 18+19 to Sta. 22+42 EB = 423.00 Lin. Ft.
Total = 696.65 Lin. Ft.

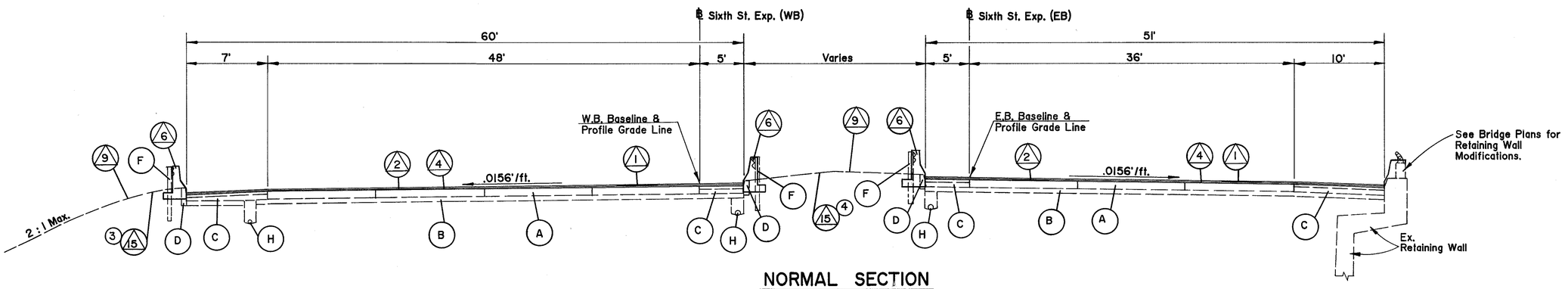
BRIDGE LIMITS w/APPROACH SLABS

Sta. 1+12.50 to Sta. 13+26.64 EB
Sta. 1+23.50 to Sta. 13+34.96 WB
Sta. 27+56.10 to Sta. 29+57.88 EB
Sta. 27+48 to Sta. 29+50.33 WB
Sta. 30+84.63 to Sta. 33+58.18 EB
Sta. 30+83.93 to Sta. 33+57.25 WB
Sta. 40+60.46 to Sta. 48+94.42 EB
Sta. 40+56.11 to Sta. 48+01.70 WB
Sta. 57+83.77 to Sta. 60+39.06 EB
Sta. 57+87.32 to Sta. 60+64.84 WB



LIMITING STATIONS

Sta. 21+56 EB to Sta. 22+36 EB



NORMAL SECTION

LIMITING STATIONS

Sta. 29+50.33 to Sta. 30+83.93 WB = 133.60 Lin. Ft.
Sta. 29+57.88 to Sta. 30+84.63 EB = 126.75 Lin. Ft.
Total = 260.35 Lin. Ft.

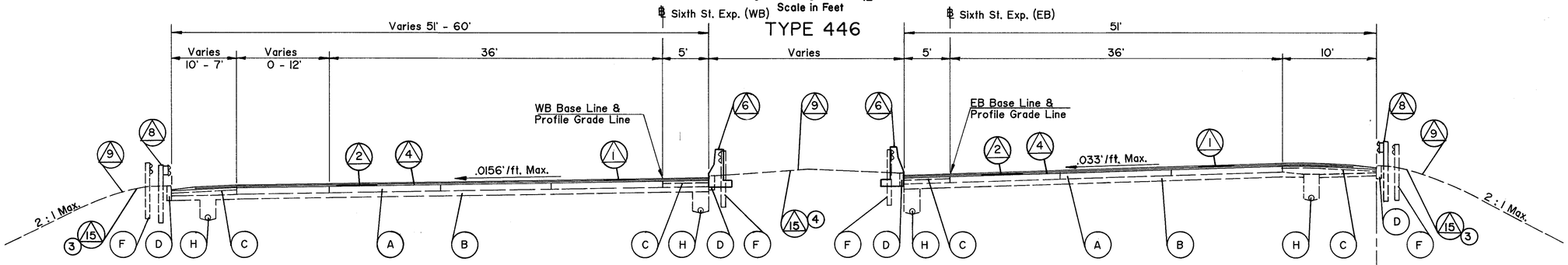
Note:
For Item Legend See Sheet No. 3

TYPICAL SECTIONS

CALC. BY LEH DATE 1-11-90	HAMILTON COUNTY HAM-50-19.36	OHIO	5
CHKD. BY REA DATE 12-5-91		FHWA REGION 5	255

0 6 12 Scale in Feet

TYPE 446

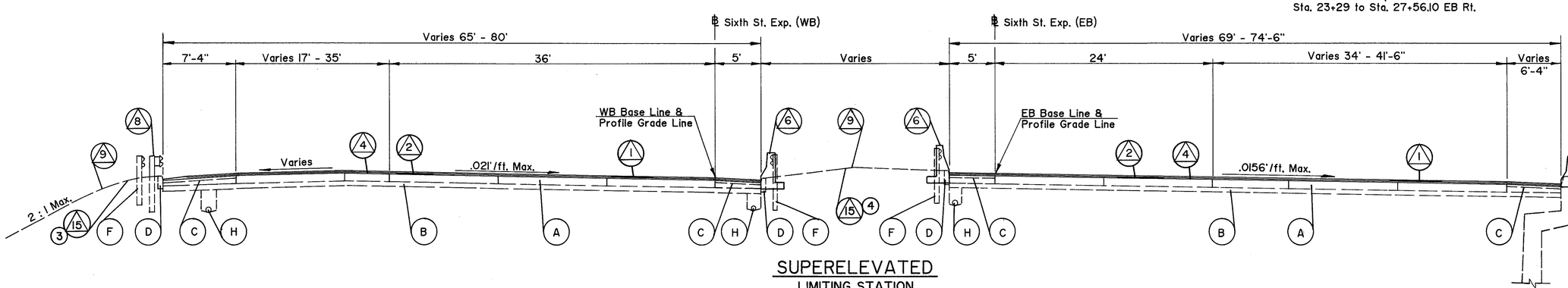


SUPERELEVATED

LIMITING STATION

Sta. 22+85 to Sta. 27+48 WB = 463.00 Lin. Ft.
Sta. 22+42 to Sta. 27+56.10 EB = 514.10 Lin. Ft.
Total 977.10 Lin. Ft.

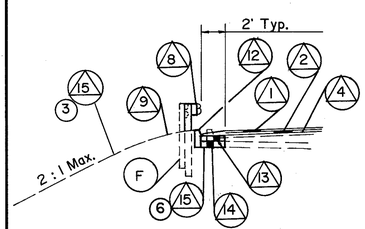
Sta. 23+29 to Sta. 27+56.10 EB Rt.



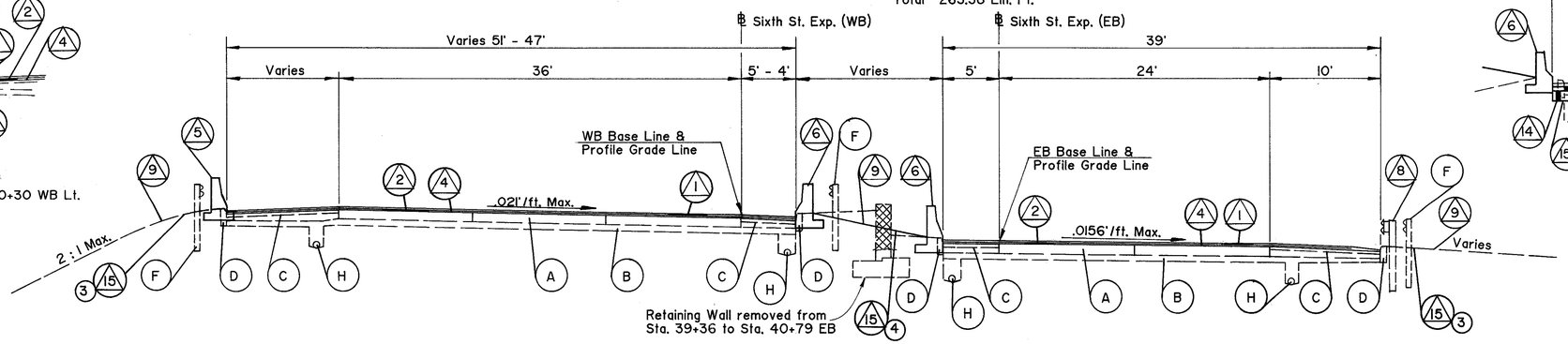
SUPERELEVATED

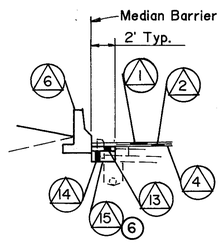
LIMITING STATION

Sta. 33+57.25 to Sta. 35+23 WB = 165.75 Lin. Ft.
Sta. 33+58.18 to Sta. 34+55.81 EB = 97.63 Lin. Ft.
Total 263.38 Lin. Ft.



Sta. 39+75 to Sta. 40+30 WB Lt.





Sta. 40+00 to Sta. 40+58 EB Lt.
* Sta. 40+00 to Sta. 40+58 WB Rt.
* Opposite Hand

SUPERELEVATED

LIMITING STATION

Sta. 35+23 to Sta. 40+56.11 WB = 533.11 Lin. Ft.
Sta. 34+55.81 to Sta. 40+60.46 EB = 604.65 Lin. Ft.
Total 1137.76 Lin. Ft.

Note:
For Item Legend See Sheet No. 3

TYPICAL SECTIONS

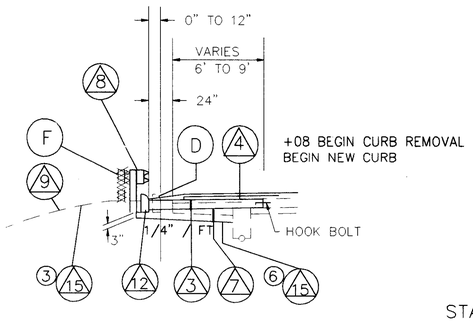
CALC. BY SED DATE 1-23-91	HAM-50-19.36	OHIO
CHKD. BY SPH DATE 1-24-91		F.H.W.A. REGION 5

6/255

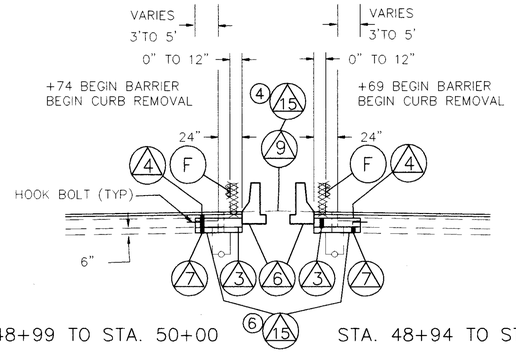
0 6 12
GRAPHIC SCALE IN FEET

NOTE: FOR GUTTER FINISH DETAIL
SEE SHEET NO. 11

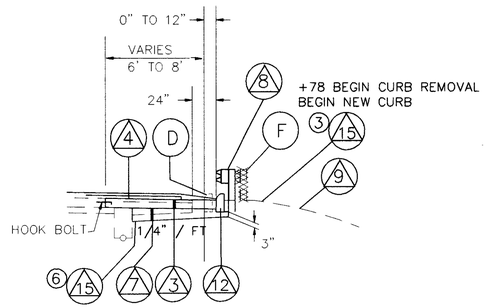
FOR TRANSITION – SEE
FEATHER DETAILS – SHEET NO. 92



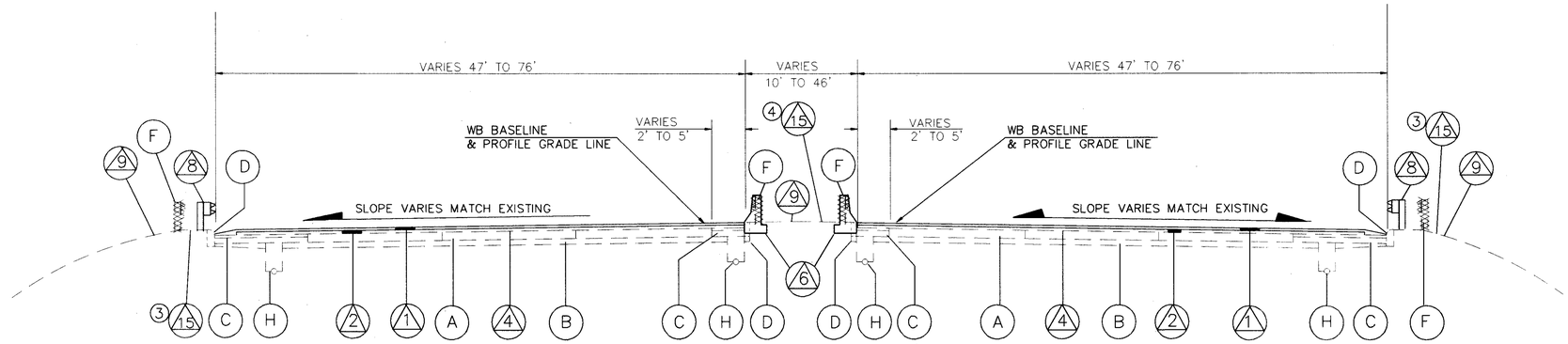
STA. 49+11.70 TO STA. 50+00



STA. 48+99 TO STA. 50+00 STA. 48+94 TO STA. 49+95



STA. 48+83 TO STA. 49+95



WESTBOUND

STA. 48+75.70 TO STA. 49+00.70 (INCL. APPROACH SLAB)	=	25.00 LIN. FT.
STA. 49+00.70 TO STA. 49+61.70 (INCL. IN TRANSITION)	=	61.00 LIN. FT.
STA. 49+61.70 TO STA. 54+33.41	=	471.71 LIN. FT.
		557.71 LIN. FT.

EASTBOUND

STA 48+69.14 TO STA. 48+94.14 (INCL. APPROACH SLAB)	=	25.00 LIN. FT.
STA. 48+94.14 TO STA. 49+44.42 (INCL. IN TRANSITION)	=	50.28 LIN. FT.
STA. 49+44.42 TO STA. 54+36.52	=	492.10 LIN. FT.
		567.38 LIN. FT.

FOR ITEM LEGEND SEE SHEET NO. 3

H:\SKETA\TYPSEC\TYP-6.dwg - MAY 08, 1992

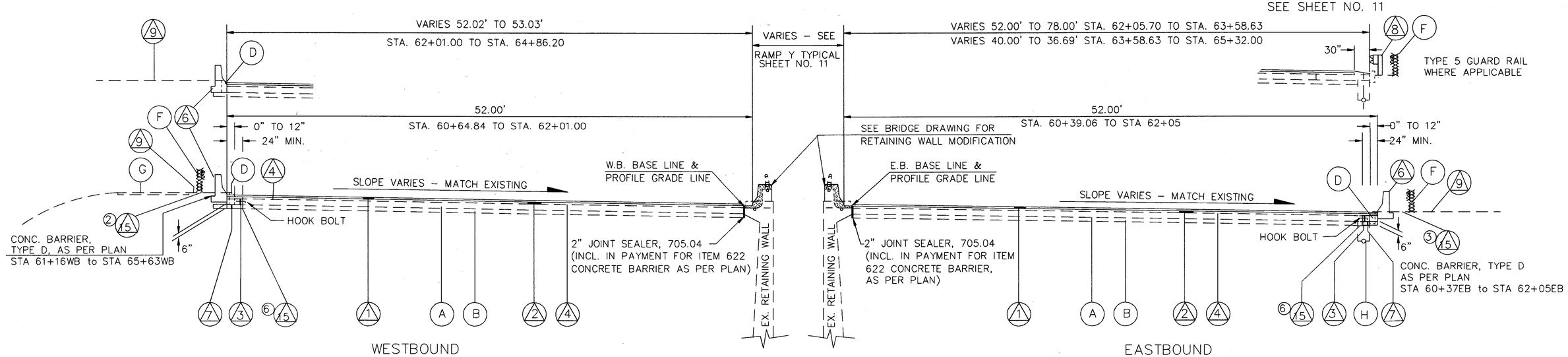
TYPICAL SECTIONS

CALC. BY SED DATE 1-22-91	HAM-50-19.36	OHIO
CHKD. BY SPH DATE 1-25-91		F.H.W.A. REGION 5

7 / 255

GRAPHIC SCALE IN FEET (0, 6, 12)

NOTE: FOR GUTTER FINISH DETAIL
SEE SHEET NO. 11



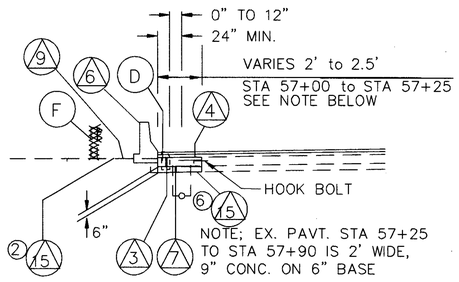
WESTBOUND

STA. 57+87.32 TO STA. 58+12.32 (INCL. IN APPROACH SLAB)	= 25.00 LIN. FT.
STA. 58+12.32 TO STA. 60+39.84 (INCL. IN HAM-50-20.43L)	= 227.52 LIN. FT.
STA. 60+39.84 TO STA. 60+64.84 (INCL. IN APPROACH SLAB)	= 25.00 LIN. FT.
STA. 60+64.84 TO STA. 64+86.20	= 421.36 LIN. FT.
STA. 64+86.20 TO STA. 66+01.50 (INCL. IN TRANSITION)	= 115.30 LIN. FT.
	814.18 LIN. FT.

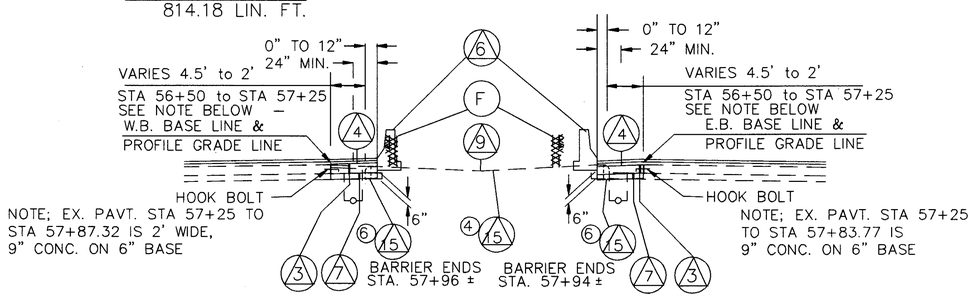
NOTE: FOR TRANSITIONS
SEE FEATHER DETAILS
SHEET NO. 92

EASTBOUND

STA. 57+83.77 BK. = STA. 57+89.03 AH. (STATION EQUATION)	
STA. 57+83.79 TO STA. 58+08.79 (INCL. IN APPROACH SLAB)	= 25.00 LIN. FT.
STA. 58+08.79 TO STA. 60+14.06 (INCL. IN HAM-50-20.43R)	= 205.27 LIN. FT.
STA. 60+14.06 TO STA. 65+32.00	= 517.94 LIN. FT.
STA. 65+32.00 TO STA. 66+22.00 (INCL. IN TRANSITION)	= 90.00 LIN. FT.
	838.21 LIN. FT.

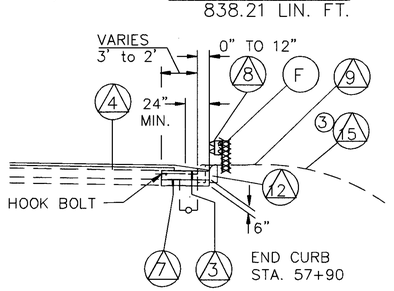


WESTBOUND STA. 57+00 TO STA. 57+90

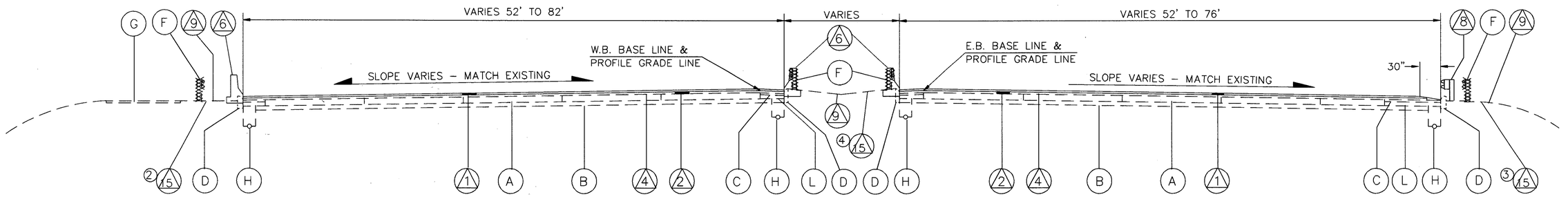


WESTBOUND STA. 57+50 TO STA. 57+87.32

EASTBOUND TA. 56+50 TO STA. 57+83.77



EASTBOUND STA.57+00 TO STA 57+80



WESTBOUND

STA. 54+33.41 TO STA. 57+87.32 = 353.91 LIN.FT.

EASTBOUND

STA. 54+36.52 TO STA. 57+83.77 = 347.25 LIN.FT.

FOR ITEM LEGEND
SEE SHEET NO. 3

H:\DATA\TYPSEC\TYP-7.dwg - MAR 10, 1992 - 11:40:39

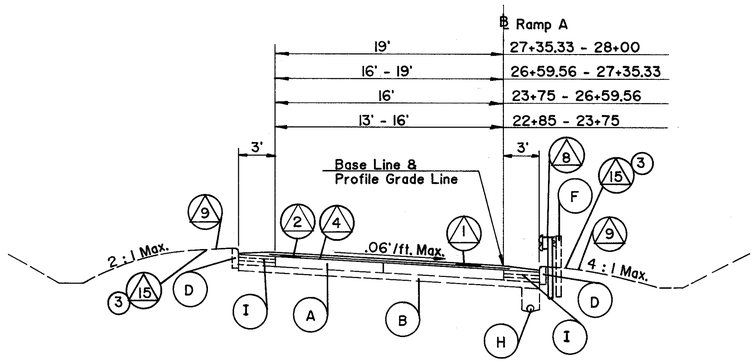
TYPICAL SECTIONS

TYPICAL SECTIONS

CALC. BY LEH DATE 1-11-90 CHKD. BY REA DATE 12-5-91	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA 5 REGION	8 255

0 6 12
Scale in Feet

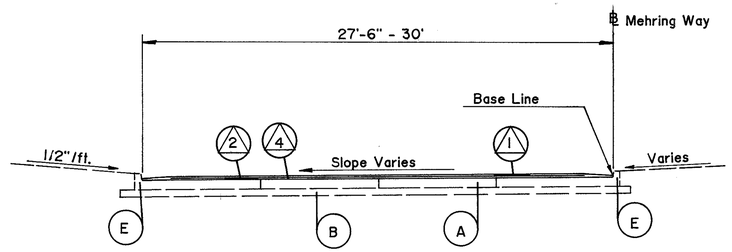
TYPE 446



SUPERELEVATED RAMP SECTION

LIMITING STATION

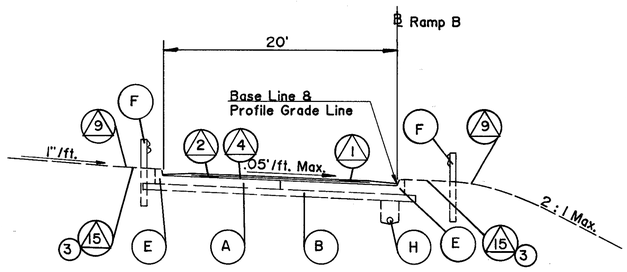
Sta. 22+85 to Sta. 28+10 = 525 Lin. Ft.



SUPERELEVATED SECTION

LIMITING STATION

Sta. 19+80 to Sta. 23+93.19 = 413.19 Lin. Ft.



SUPERELEVATED RAMP SECTION

LIMITING STATION

Sta. 18+22 to Sta. 20+83.64 = 261.64 Lin. Ft.

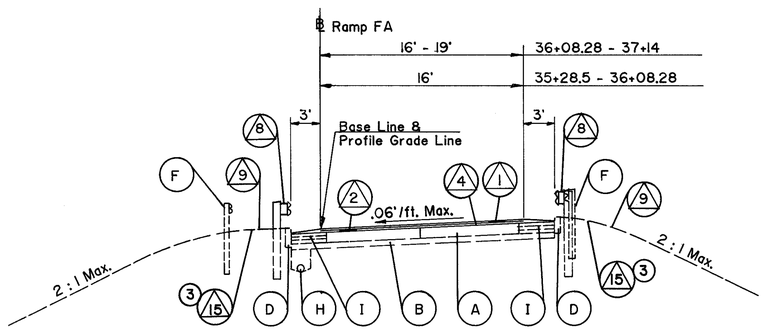
Note:
For Item Legend See Sheet No. 3

TYPICAL SECTIONS

CALC. BY LEH DATE 1-11-90	HAMILTON COUNTY HAM-50-19.36	OHIO	9
CHKD. BY REA DATE 12-5-91		FHWA REGION 5	255

0 6 12
Scale in Feet

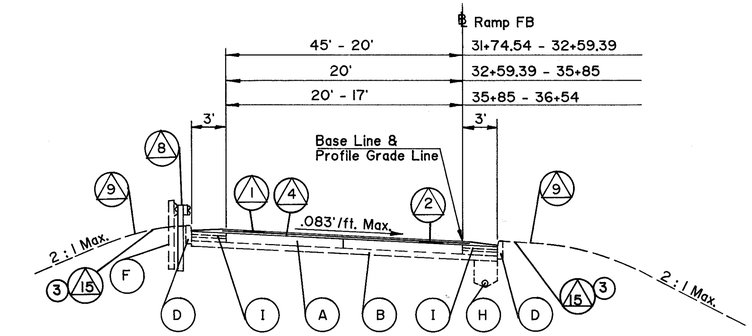
TYPE 446



SUPERELEVATED RAMP SECTION

LIMITING STATION

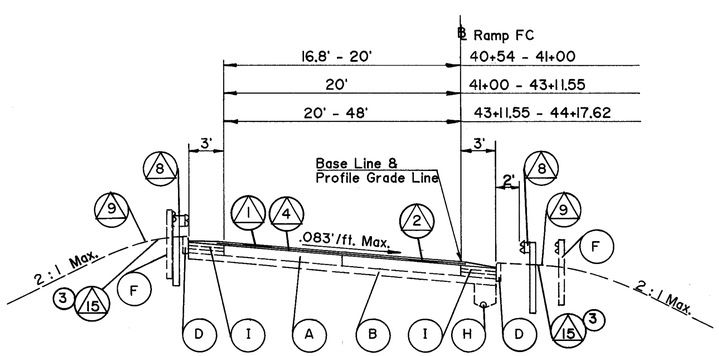
Sta. 35+28.5 to Sta. 37+14 = 185.50 Lin. Ft.



SUPERELEVATED RAMP SECTION

LIMITING STATION

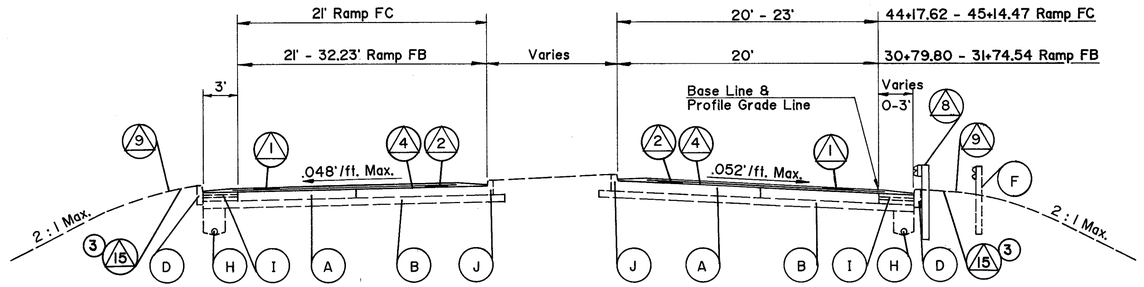
Sta. 31+74.54 to Sta. 36+54 = 479.46 Lin. Ft.



SUPERELEVATED RAMP SECTION

LIMITING STATION

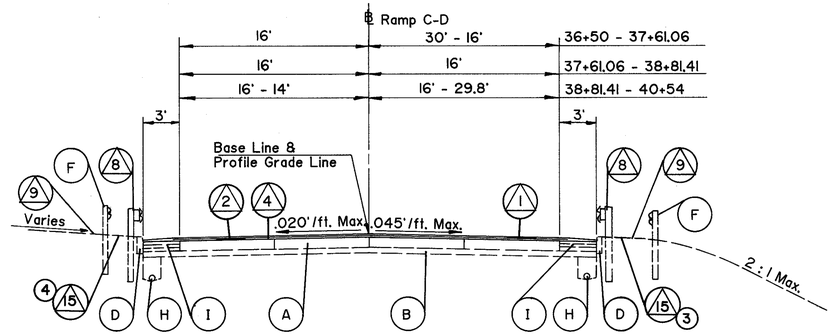
Sta. 40+54 to Sta. 44+17.62 = 363.62 Lin. Ft.



SUPERELEVATED RAMP SECTION

LIMITING STATION

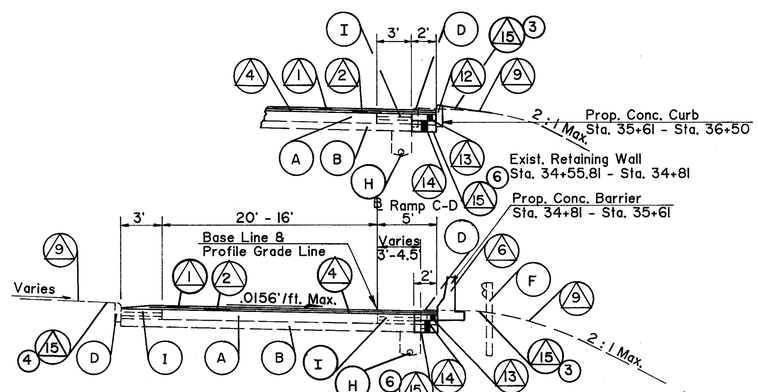
Sta. 30+79.80 to Sta. 31+74.54 (Ramp FB) = 94.74 Lin. Ft.
Sta. 44+17.62 to Sta. 45+14.47 (Ramp FC) = 96.85 Lin. Ft.
Total = 191.59 Lin. Ft.



SUPERELEVATED RAMP SECTION

LIMITING STATION

Sta. 36+50 to Sta. 40+54 = 404 Lin. Ft.



SUPERELEVATED RAMP SECTION

LIMITING STATION

Sta. 34+55.81 to Sta. 36+50 = 194.19 Lin. Ft.

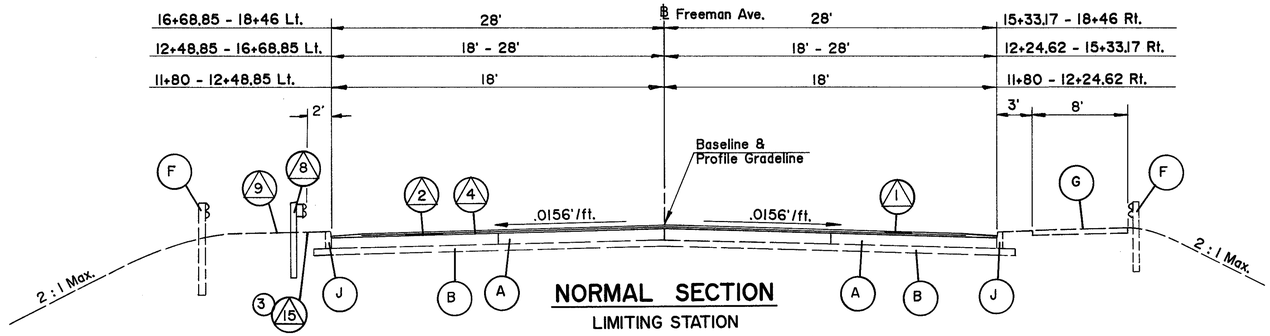
Note:
For Item Legend See Sheet No. 3

TYPICAL SECTIONS

CALC. BY LEH DATE 1-11-90	HAMILTON COUNTY HAM-50-19.36	OHIO	10
CHKD. BY REA DATE 12-5-91		FHWA REGION 5	255

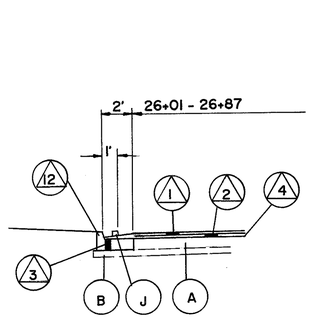
Scale in Feet
0 6 12

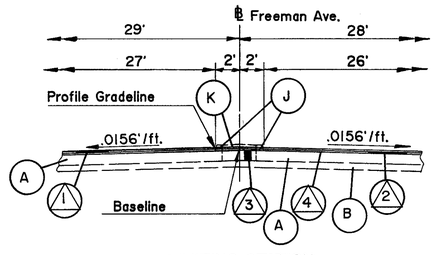
TYPE 446



NORMAL SECTION

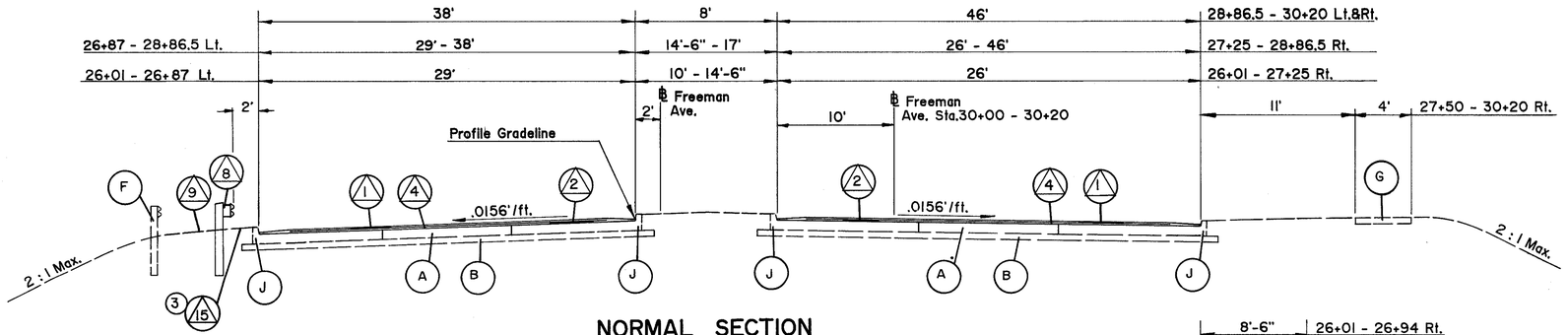
LIMITING STATION
Sta. 11+80 to Sta. 16+81 = 501 Lin. Ft.





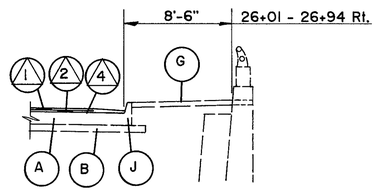
LIMITING STATION
Sta. 16+81 to Sta. 18+46 = 165 Lin. Ft.

BRIDGE LIMITS w/APPROACH SLABS
Sta. 18+46 to Sta. 26+01 Freeman Ave.



NORMAL SECTION

LIMITING STATION
Sta. 26+01 to Sta. 30+20 = 419 Lin. Ft.



Note:
For Item Legend See Sheet No. 3

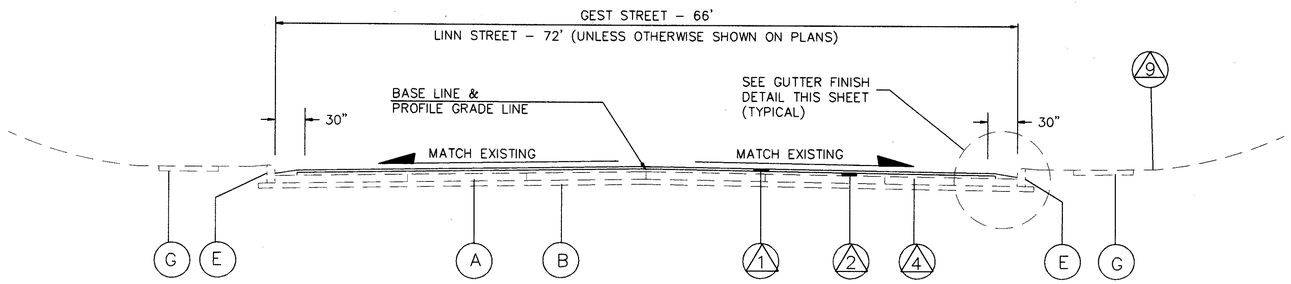
TYPICAL SECTIONS

CALC. BY SED DATE 1-22-91	HAM-50-19.36	OHIO
CHKD. BY SPH DATE 1-23-91		F.H.W.A. REGION 5

11 / 255

NOTE: FOR TRANSITIONS- SEE FEATHER DETAILS - SHEET NO. 92

0 6 12
GRAPHIC SCALE IN FEET

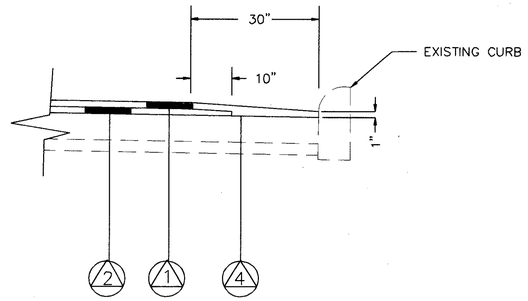


LINN STREET

STA. 7+58.20 TO STA. 8+03.20 (INCL. IN TRANSITION)	=	45.00 LIN. FT.
STA. 8+03.20 TO STA. 13+23.70	=	520.50 LIN. FT.
STA. 13+23.70 TO STA. 13+68.70 (INCL. IN TRANSITION)	=	45.00 LIN. FT.
		610.5 LIN. FT.

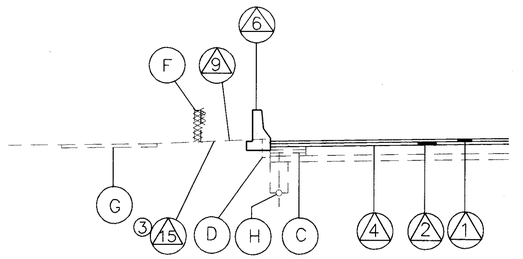
GEST STREET

STA. 8+67.50 TO STA. 9+12.50 (INCL. IN TRANSITION)	=	45.00 LIN. FT.
STA. 9+12.50 TO STA. 11+12.80	=	200.30 LIN. FT.
STA. 11+12.80 TO STA. 11+57.80 (INCL. IN TRANSITION)	=	45.00 LIN. FT.
		290.3 LIN. FT.

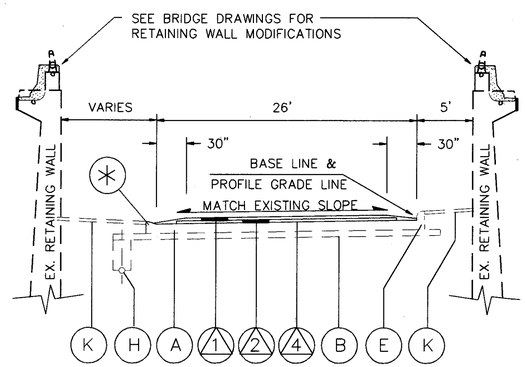


GUTTER FINISH DETAIL

NOT TO SCALE



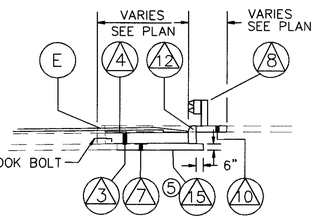
RAMP LA STA. 49+50 TO STA. 54+36.13 = 486.13 LIN.FT.



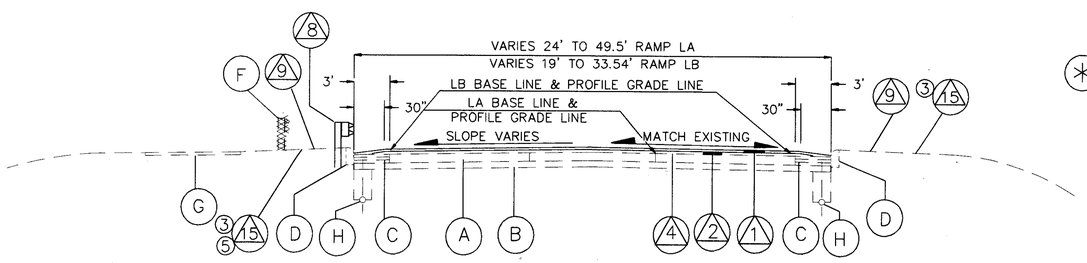
RAMP Y

STA. 59+44 TO 64+86.20 = 542.20 LIN.FT.

(*) : EXISTING CURB TYPE A FROM ORIGINAL PLANS IS EQUIVALENT TO TYPE 3A CURB MODIFIED TO 6" HEIGHT.

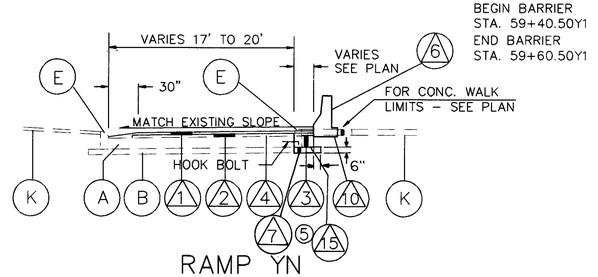


CURB STA. 59+31.50 YI TO STA. 59+40.50 YI
CURB STA. 59+60.50 YI TO STA. 59+63.00 Y



RAMP LA & LB

STA. 49+28.28 TO STA. 54+36.13	=	507.85 LIN. FT.
STA. 49+01.78 TO STA. 54+36.52	=	534.74 LIN. FT.
		1042.59 LIN. FT.



RAMP YN

STA. 58+96.60 TO STA. 59+41.60 INCL. IN TRANSITIONS)	=	45.00 LIN. FT.
STA. 59+41.60 TO STA. 60+29.30	=	87.70 LIN. FT.
		132.70 LIN. FT.

NOTE: FOR RAMP YN GEOMETRICS SEE INSERT, SHEET 89

FOR ITEM LEGEND SEE SHEET NO. 3

H:\SHTM\TYPSEC\TYP-11.dwg - MAY 08, 1992

GENERAL NOTES

CALC. BY DATE	L.E.H. 1-7-90	HAMILTON COUNTY HAM-50-19.36	OHIO	12
CHKD. BY DATE	R.E.A. 12-5-91		FHWA REGION 5	255

UNDERGROUND UTILITIES

The locations of the underground untilities shown on the plans are as obtained from the owners of the utility as required by Section 153.64 ORC.

UTILITY OWNERSHIP

The following utilities and owners are located within the work limits of this project:

Electric	Cincinnati Gas & Electric Company P.O.Box 960, Room 347-C Cincinnati, Ohio 45201 (513) 632-3791
Gas	Cincinnati Gas & Electric Company P.O.Box 960, Room 460-A Cincinnati, Ohio 45201 (513) 632-2733
Telephone	Cincinnati Bell Telephone Co. 1717 Dixie Highway, Ste.800 Ft. Wright, Kentucky 41001 (606) 344-7038
Sewer	Metropolitan Sewer District 1600 Gest Street Cincinnati, Ohio 45204 (513)244-1354
Water	Cincinnati Water Works 4747 Spring Grove Avenue Cincinnati, Ohio 45232 (513) 352-4636
Protection	Ohio Utilities Protection Service 100 Federal Plaza East, Lower Level Youngstown, Ohio 44503 (800) 362-2764 United Utilities Protection Service 201 East Fourth Street Room 274 Cincinnati, Ohio 45201 (513) 397-4664

REVIEW OF DRAINAGE FACILITIES

Before any work is started on the project, and again before final acceptance by the State, representatives of the State and the Contractor, along with local representatives, shall make an inspection of the existing conduits within the work limits which are to remain in service and which may be affected by the work. The condition of the existing conduits and their appurtenances shall be determined from field observations. Records of the inspection shall be kept in writing by the State.

All new conduits, inlets, catch basins, and manholes constructed as a part of the project shall be free of all foreign matter and in a clean condition before the project will be accepted by the State.

All existing conduits inspected initially by the above-mentioned parties shall be maintained and left in a condition reasonably comparable to that determined by the original inspection. Any change in the conditon resulting from the Contractor's operations shall be corrected by the Contractor to the satisfaction of the Engineer.

Payment for all operations described above, including the video tape, shall be included in the unit prices bid for the pertinent 603 conduit items of the contract.

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.

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 if necessary at the ODOT District 8 office (HAM-50-19.38, 1962, HAM-50-19.76, 1962, HAM-25-0.46 and HAM-50-20.43, dates unknown). The proposed asphalt concrete overlay shall have a uniform thickness of approximately 3 inches.

PLACEMENT OF ASPHALT CONCRETE

On sideroads, two-way traffic shall be maintained at all times except that one-way traffic will be permitted for minimum periods of time consistent with the requirements of the specifications for protection of completed asphalt concrete courses.

CONNECTION TO EXISTING PIPE

Where the plans provide for proposed conduit to be connected to, or to cross either over or under an existing conduit, it shall be the responsibility of the Contractor to locate the existing pipe both as to line and grade before he starts to lay the proposed conduit.

Payment for all operations described above shall be included in the unit price bid for the pertinent 603 conduit items.

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

The castings shall be carefully removed and stored within the right-of-way for salvage by City forces.

Payment for all of the above shall be included in the unit price bid for the pertinent 202 item.

CONNECTING PROPOSED CONDUIT TO EXISTING CONDUIT

Where a proposed conduit is connected to an existing conduit, connections shall be made by use of a concrete collar as per Standard Construction Drawing MC-4.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

The following estimated quantities are to be used as directed by the Engineer, for temporary erosion and sediment control measures:

207	Temporary seeding and mulching	4174	Sq.Yd.
207	Straw or hay bales	192	Each
659	Commercial Fertilizer	0.19	Ton
659	Water	9	M Gal.

WATERING PERMANENT SEEDED AREAS

The following estimated quantity is to be used as directed by the Engineer to promote growth and to care for the permanent seeded areas:

659	Water	46	M Gal.

SEEDING AND MULCHING

Estimated quantities for seeding and mulching are calculated using a subsummary on Sheet No. 50. Length is established by station to station and width is controlled by Item 203, Linear Grading Methods 2-5.

LOCATION OF GUARDRAIL

The locations of guardrail runs, as shown in these plans, are subject to adjustment prior to final acceptance. The Engineer shall be satisfied that all installations will afford maximum protection for traffic.

GUARDRAIL REPLACEMENT

No hazard shall be left unprotected except for the actual time necessary 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.

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 widening trench which is open at any one time shall be held to a minimum and shall at all times be subject to approval of the Engineer.

The base widening on this project will be completed to a depth of 1.25 inches below the existing pavement by the end of the work day. Except for a short length of work section (25 feet or less) at the end of the trench, no trench will be left open overnight. In case work must be suspended because of inclement weather or other reasons, the trench for the uncompleted base widening will be backfilled at the direction of the Engineer.

ITEM 407 TACK COAT

The rate of application of 407 Tack Coat shall be subject to adjustment, as directed by the Engineer, and shall be considered incidental to, and included in Item 407 Tack Coat. Plan quantities indicate an average application rate of 0.075 gallons per square yard of Tack Coat for estimating purposes only.

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.

ITEM 203 LINEAR GRADING, METHOD 1 THRU METHOD 6

This work shall consist of preparing the subgrade for pavement widening. Excavation shall be to the depth and width shown on plans, or as directed by the Engineer. Compaction shall be carried out to the satisfaction of the Engineer by means of a trench rolloer as per 401.11. Areas graded in excess of depths specified or directed by the Engineer shall be backfilled to desired grade using material meeting requirements of Item 304 Aggregate Base, at the Contractor's expense. After all operations of placing and compacting have been completed, all excess excavation material shall be disposed of by the Contractor, as directed by the Engineer, at no additional cost to the State. Also included shall be the preparation and restoration of the graded median and shoulder areas. Guardrail holes shall be filled and compacted and area finished off to accept the seeding and mulching. Payment for Linear Grading, Method 1 thru 6, shall be measured in one hundred foot (100') stations. All work described above shall be included with pertinent method of linear grading.

Method 1: Linear grading, pavement widening 6.5' between Sta. 18+56 Rt. to Sta. 1+12.50 Lt.

Method 2: Linear grading for 7' shoulder restoration.

Method 3: Linear grading for 10' median or shoulder restoration.

Method 4: Linear grading for median area between concrete barrier, variable width. See plans.

Method 5: Linear grading for shoulder area, variable width. See plans.

Method 6: Pavement widening 2'-9' at bridge approaches. See plan for location.

FILE: 89086N01 LAST EDIT: 4 FEB 1992

GENERAL NOTES

CALC. BY DATE	L.E.H. 1-7-90	HAMILTON COUNTY HAM-50-19.36	OHIO	13
CHKD. BY DATE	R.E.A. 12-5-91		FHWA REGION 5	255

FEATHERING 446 AT BRIDGES

The 446 is a 3" course on the pavement only and no surfacing material shall be placed on any bridges or approach slabs. This transition shall be made as shown on the plans, off of the approach slab, and at the limits of the project.

ITEM 607 FENCE TYPE CL, AS PER PLAN AND ITEM 607 FENCE TYPE CLT, AS PER PLAN

The Contractor shall reference existing fence before removed. Installation of new fence shall be in present location. Any modifications from existing alignment are shown on plans with station and offsets.

ITEM SPECIAL - IMPACT ATTENUATOR, G-R-E-A-T SYSTEM

This work shall consist of furnishing impact attenuators, as required in the plans. This item shall include all related hardware, not separately specified, as required by the manufacturer to construct complete and functional G-R-E-A-T impact attenuator systems. The impact attenuator shall be manufactured by the Energy Absorption Systems, Inc., One East Wacker Dr., Chicago,Illinois 60601; Telephone (312) 467-6750. The attenuator shall be placed in accordance with the manufacturer's specifications and at the locations shown on the plans.

The Contractor shall be responsible for inspection, repairing, and otherwise restoring the impact attenuator in accordance with the manufacturer's maintenance instructions while it is in use on the project. Such repairs shall be performed within 48 hours of the incident which caused damage to the attenuator. The Contractor shall be responsible for supplying all necessary materials and equipment required to perform the above described restoration of the attenuator.

The nose cover of the attenuator shall be marked with evenly spaced four (4) inch wide horizontal stripes of white reflective material, meeting the requirements of C.M.S. 730.19.

Payment for the above work shall be made at the unit price bid for each, Item Special, as described below, which price shall be considered full payment for furnishing, installing, at the specified locations, restoration after each vehicle impact, including all labor, tools, equipment and miscellaneous hardware and materials necessary to complete this item of work in place.

Item Special - Impact Attenuator, G-R-E-A-T System,
Model Number 206206SF2..... 1 Each (Freeman)

Item Special - Impact Attenuator, G-R-E-A-T System,
Model Number 206206SF4..... 1 Each (Ramp CD)

Item Special - Impact Attenuator, G-R-E-A-T System,
Model Number 206206SF5..... 2 Each (Mainline)*

*(SEE PLAN-ONE IS A BIDIRECTIONAL UNIT)

Impact Attenuator (see detail on Sheet No. 93)

Station

22+74 - 22+86.75 (Freeman)
40+52.25 - 40+71 (Ramp CD)
1+96 - 2+17.75 WB (Mainline)
2+24.25 - 2+46 EB (Mainline)

FURNISH COMPLETE CASTINGS FOR EXISTING MANHOLES

All existing castings are suitable for salvage and reuse at the particular structure to be adjusted to grade. However, existing castings may prove to be unsuitable, as determined by the Engineer, during construction of the project. To provide for this contingency an estimated quantity of:

Item 604 Manhole Frame and Cover, as per plan

Std. Casting for ODOT (MH-1 12/18/84) 5 Each
Std. Casting for City of Cinti. (See Detail on Sh. 94) 5 Each
Total = 10

These items have been included in the General Summary to be used in any quantity required as directed by the Engineer. It shall be the contractor's responsibility to provide the casting of the required type, size and strength for the particular structure in question.

The contractor is cautioned to use extreme care in the removal, storage and placement of all existing castings. Any casting damaged by the contractor's negligent operations as determined by the Engineer, shall be replaced with the proper new casting by the contractor, at no expense to the state.

ITEM 304 AGGREGATE BASE, AS PER PLAN

Materials furnished for this item shall exclude all slag except granulated slag or crushed air-cooled blast furnace slag. [The maximum total percent passing the No. 200 sieve for 304 shall be 8 percent as opposed to the 13 percent shown in 304.02.]

~~At the contractor's option, crushed concrete obtained from concrete pavement on this project or projects constructed under ODOT specifications may be used for Item 304 aggregate. All crushed concrete passing the No. 4 sieve shall be replaced by material obtained from approved sources. The recycled concrete pavement shall not contain more than 1.0% recycled asphalt pavement. All other requirements of 304 and 703.04 shall apply.~~

VOID

Item 304 Aggregate Base listed in plans is to be understood to be Item 304 Aggregate Base, as per plan.

ITEM 202 PORTION OF STRUCTURE REMOVED

Removal of reinforced concrete railing along Sixth Street Viaduct between Sta. 18+48 to Sta. 15+07 Lt. & Rt.

Work shall consist of removing rail and four (4) inches down into retaining wall. Wall shall be saw cut four (4) inches down to assure a clean cut. Wall shall be formed and concrete poured to original height.

Remove portion of wingwall between station 65+44.5 to station 65+53.5 Lt.

Work shall consist of removing wingwall to one foot below existing ground line. Removal of this item shall follow The Construction and Material Specification Item 202.

ITEM 202 STRUCTURE REMOVED

Work shall consist of removal of concrete bridge piers (7 in total). See Sheets 61 and 76 for locations.

Also, under Structure Removed shall be the removal of concrete retaining wall from Sta. 39+36 Lt. to 40+79 Lt. in the median, and removal of concrete stops between Sta. 64+37 to Sta. 64+43 Lt. All area disturbed shall be restored.
Removal of this item shall follow the Construction and Material Specification Item 202.

ITEM 604 INLET NO. 3A, AS PER PLAN, NO. 1
ITEM 604 INLET NO. 3A, AS PER PLAN, NO. 2

The cost of furnishing, supplying and constructing Inlet No. 3A in accordance with the plans shall be included in the contract unit price bid for each Item 604 Inlet No. 3A, as per plan, No. 1 or No. 2. See detail on Sheet No. 91. REINFORCING STEEL SHALL BE EPOXY COATED PER 509.10. ALSO SEE DETAIL ON SHEET No. 94.

ITEM 622 CONCRETE BARRIER, TYPE D, AS PER PLAN

The cost of furnishing, supplying and constructing concrete barrier in accordance with the plans shall be included in the contract unit price bid per linear foot per Item 622, Concrete Barrier Type D, as per plan. See Sheet No. 91 for details, and sheet No. 93.

ITEM 622 PORTABLE CONCRETE BARRIER (32"), AS PER PLAN

Portable Concrete Barrier shall be constructed between Sta. 21+56 Lt. to Sta. 22+36 Lt. as shown on plan Sheet No. 61. Work shall consist of placing barrier and anchoring together per detail on Standard Construction Drawing MC-9.2. Also included shall be the placement of 3/4" diameter hinge bars inserted into permanent Concrete Barrier, Type D, as per plan. Payment for all of the above shall be included in the unit price bid for Item 622 Portable Concrete Barrier (32"), as per plan.

CONSTRUCTION NOTES

I. Gas facilities are to be kept in service at all times.

II. The contractor shall be responsible for all damages to gas facilities during or as a result of his construction. All damage to gas facilities requiring adjustments, relocations and/or repairs will be made the contractor's cost.

III. A. The contractor shall sheet and shore all excavations where gas facilities are within the zone of influence (as determined by the natural angle of repose of the soil), to continuously maintain their support.

B. The contractor shall be responsible for sheeting and shoring of existing gas facility trenches within the zone of influence of his excavation.

IV. The contractor shall not backfill exposed gas facilities until the utility has inspected its facilities and performed any adjustments and/or maintenance that may be required.

V. A. Where welded steel coated and wrapped gas mains are exposed or otherwise interfered with by the contractor, protection by the contractor will be required against damage to coating and wrapping materials.

B. Where gas facilities are exposed or otherwise interfered with by the contractor, they may be reinforced or replaced by the utility based on conditions to be determined by the utility.

C. Where the support of gas facilities is disturbed, the contractor shall protect the main as necessary against damage. As soon as feasible, the contractor shall take additional appropriate steps to provide permanent support. The methods used shall be based on conditions to be determined by the utility.

VI. Blasting in the vicinity of gas facilities is prohibited unless a blasting plan is submitted to CG&E in writing by a blasting expert, identifying all pertinent information.

FILE: 8908GN02 LAST EDIT: 9 APRIL 1992

MAINTENANCE OF TRAFFIC NOTES

CALC BY S.A.W. DATE 5/11/92	HAM–50–19.36	OHIO
CHKD BY J.M. DATE 5/11/92		F.H.W.A. REGION 5

GENERAL REQUIREMENTS

It is the intention to perform the required work with the least inconvenience to and the maximum safety of the Contractor and the traveling public. 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, 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.

Should the Contractor desire to, an alternate Maintenance of Traffic Plan may be submitted 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 eastbound and westbound lanes, provided the operations do not interfere with each other. The Contractor shall arrange his operations so as to prevent any interference to the flow of traffic. 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 not 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 behind the guardrail.

The Contractor shall arrange traffic control devices so traffic to and from HAM–50 is maintained at all times and at all interchanges, unless otherwise approved by the Engineer. A "ROAD CONSTRUCTION AHEAD" sign (OW–128) shall be placed on all ramps leading onto HAM–50 and at work limits. Covering of signs shall be done in a manner that shall not damage the face of the sign.

The Contractor will be required to provide, erect, maintain (proper position, kept clean and legible, and in good working condition), and remove lights, signs, drums, cones and all other traffic control devices necessary for the maintenance of traffic. All signs shall be reflectorized or illuminated. 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) 11' lanes in each direction, except during Stage 2 construction when one (1) lane shall be maintained in order to perform work. Maintaining one (1) lane of traffic shall be held to an absolute minimum, and when only one lane of traffic is open in each direction the Contractor shall work 24 hours a day. Should the contractor fail to meet any of these requirements, the contractor shall be assessed liquidated damages in the amount of $10,000 per day. Access to and from all ramps shall be maintained at all times; except as noted in the plans.

During all hours when traffic is restricted to less than the number of existing lanes, the contractor shall employ at least one full time qualified person to patrol the restricted area(s), to maintain all lights, signs, barricades, cones, 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) for two persons who can be contacted 24 hours a day by the Engineer and affected public 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 City of Cincinnati shall be responsible for the erecting and maintaining all detours. The contractor shall provide the City of Cincinnati Fourteen (14) days notice in advance of implementing each Maintenance of Traffic Phase.

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 MAINTENANCE OF 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.

No restrictions will be permitted when the contractor is not actively working.

Lane closure for pavement, joint repairs, pavement resurfacing, or bridge deck work may not be in more than two lanes of pavement direction at any given time.

Interference with vehicular traffic shall be kept to a minimum at all times. Any closures shall be implemented during non–peak hours, 9:00A.M. to 3:00P.M. when it is necessary to close one lane of traffic adjacent to the work. All advance warning signs for any condition which restricts traffic shall be erected before any such restriction is put into effect. All such signs shall be covered or removed from the view of traffic when they are not applicable, as determined by the Engineer. For work which is confined to the shoulder, traffic control application shall conform to Figure C–12 of the OMUTCD. If the Contractor fails to comply with the traffic control as set forth in these plans and provisions of the OMUTCD and this failure to comply results in a condition at the work site which is unsafe for traffic, the Engineer will suspend work until the Contractor complies with the necessary requirements.
The above work will be included in the lump sum price for ITEM 614 MAINTAINING TRAFFIC.

FINAL COMPLETION DATE

In lieu of the schedule of liquidated damages found in section 108.07 of the Ohio Department Of Transportation's Construction and Material Specifications dated 1991, the Department shall assess $20,000 in liquidated damages for each and every calendar day work is continued beyond the completion date.

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.

The standard device for closing any lane(s) to traffic shall be properly weighted and reflectorized plastic drums.

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 25 feet center to center on mainline, and 10 feet center to center on ramps unless shown otherwise on these plans. All Drums along the edge of the work area shall be equipped with Type C barricade warning lights. 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 WORK AHEAD" sign (OW–134). 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 "ROAD WORK AHEAD" sign. The necessity for these signs shall be constantly monitored by the Contractor.

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

ITEM 404 – BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC

An estimated 50 Cu. Yds. of "Item 404 Bituminous Concrete for Maintaining Traffic" is carried to the General Summary to be used as directed by the Engineer.

ITEM 410 – TRAFFIC COMPACTED SURFACE, AS PER PLAN

Item 410, Traffic Compacted Surface, As Per Plan shall meet the requirements specified in 304.02. An estimated 50 Cu. Yds. of "Item 410 Traffic Compacted Surface, As Per Plan" is carried to the General Summary to be used as directed by the Engineer.

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 and covered prior to starting work or may be erected 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 which is 1/2 miles or more in length and expected to last at least 30 consecutive calendar 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 open 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 a 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 sign 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 removal of the signs and supports.

Pay Item	Unit	Description
Item 614	15 Each	Work Zone Speed Limit Sign

ITEM 615 – TEMPORARY PAVEMENT, AS PER PLAN

Temporary Pavement, As Per Plan shall be constructed of 8" of Item 301 Bituminous Aggregate Base.

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MAINTENANCE OF TRAFFIC NOTES

CALC. BY S.A.N. DATE 5/11/92
CHKD. BY J.F.M. DATE 5/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

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ITEM 614 - BARRIER REFLECTORS

THESE REFLECTORS AND THEIR MOUNTING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 802 EXCEPT THAT SPACING SHALL BE AS SHOWN IN THE SUBSUMMARY TABLE ON SHEET 16.

ITEM 622 - PORTABLE CONCRETE BARRIER, 32 INCH

Portable concrete barriers shall be used at the edge of the traveled lane prior to the full depth removal in the adjacent lane. They shall be placed such that the traveled lane has a minimum width of eleven (11) feet. These barriers shall remain in place until the work in the area is completed, as directed by the engineer.

The method of measurement for PCB shall include the total of each individual placement of PCB required by the plans without regard to whether the same specific section of PCB could be re-used again on the project. All PCB shall be "pin connection" type.

ITEM SPECIAL - LAW ENFORCEMENT OFFICER WITH PATROL CAR

During the erection/take down of the temporary traffic control devices needed for closing/opening a lane or lanes to traffic, the Contractor shall provide for the services of a law enforcement officer with a patrol car for controlling traffic and to protect these workers placing/removing the traffic control devices.

Payment for the above will be made under "ITEM SPECIAL-LAW ENFORCEMENT OFFICER WITH PATROL CAR." an estimated quantity of 300 hours is provided in the GENERAL SUMMARY.

ITEM SPECIAL - REPLACEMENT DRUMS

Drums furnished by the contractor in accordance with the requirements of the plans, specifications and proposals which become damaged by traffic for reasons beyond the control of the Contractor shall be replaced in kind when ordered by the Engineer, and shall be paid for under ITEM SPECIAL-REPLACEMENT DRUMS. Payment for each new drum shall include: (1) The cost of removing and disposing of the damaged drums and (2) providing, maintaining and removing the replacement drums in accordance with the contract requirements of the original drums. An estimated quantity of 1000 each Replacement Drums 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 proposals which become damaged by traffic for reasons beyond the control of the Contractor shall be replaced in kind when ordered by the Engineer. Payment shall include the cost of removing and disposing of the damaged signs, hardware and supports, etc. Replacement signs shall be new but other materials may be used subject to approval of the Engineer. Payment for the new sign shall be made at the bid price per square foot for ITEM SPECIAL-REPLACEMENT SIGNS, for which an estimated quantity of 100 sq. ft. has been provided in the GENERAL SUMMARY.

ITEM SPECIAL--IMPACT ATTENTUATOR, G.R.E.A.T. SYSTEM (TEMPORARY)

THIS WORK SHALL CONSIST OF FURNISHING IMPACT ATTENUATORS AS REQUIRED IN THE PLANS. THIS ITEM SHALL INCLUDE ALL RELATED HARDWARE, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER TO CONSTRUCT COMPLETE AND FUNCTIONAL G.R.E.A.T. IMPACT ATTENUATOR SYSTEMS. THE ATTENUATORS SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AT THE LOCATIONS SHOWN ON THE PLANS. THE IMPACT ATTENUATOR SHALL BE MANUFACTURED BY THE ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, ILLINOIS 60601; TELEPHONE: (312) 467-6750, OR APPROVED EQUAL.

~~BARRIER SHAPE TO A RECTANGULAR SHAPE FOR USE AS A CONCRETE BACKUP FOR THE G.R.E.A.T. SYSTEM. THE MANUFACTURER SHALL PROVIDE THE DETAILS FOR THIS SHAPE MODIFICATION. THE COSTS FOR THIS WORK NECESSARY FOR COMPLETION OF THIS ITEM SHALL BE CONSIDERED INCIDENTAL.~~ VOID

THE NOSE COVER OF THE ATTENUATOR SHALL BE MARKED WITH THREE EVENLY SPACED FOUR (4) INCH WIDE HORIZONTAL STRIPES OF WHITE REFLECTIVE MATERIAL MEETING THE REQUIREMENTS OF CMS 730.19 FOR A PERMANENT INSTALLATION. FOR A TEMPORARY INSTALLATION THE NOSE COVER SHALL MEET THE REQUIREMENTS OF STANDARD DRAWING MT-95.81.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, REPAIRING, AND OTHERWISE RESTORING THE IMPACT ATTENUATOR IN ACCORDANCE WITH THE MANUFACTURER'S MAINTENANCE INSTRUCTIONS WHILE IT IS IN USE ON THE PROJECT. SUCH REPAIRS SHALL BE PERFORMED WITHIN 12 HOURS OF THE INCIDENT WHICH CAUSED DAMAGE TO THE PROJECT. IN ADDITION TO ONE EXTRA UNIT SUPPLIED FOR THIS PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT REQUIRED TO PERFORM THE ABOVE DESCRIBED RESTORATION OF THE ATTENUATOR.

AN ESTIMATED QUANTITY AS LISTED BELOW SHALL BE USED AS DIRECTED BY THE ENGINEER FOR USE IN THE ABOVE MENTIONED RESTORATION ONLY WHEN IT IS DECIDED THAT MINOR OR MAJOR REPAIRS CANNOT BE PERFORMED IN A SAFE AND TIMELY MANNER.

ITEM SPECIAL--TEMPROARY IMPACT ATTENUATOR, G.R.E.A.T. TYPE, MODEL NO. 200200NF6GCZ, 9 EACH

ITEM SPECIAL--REMOVE AND REPLACE IMPACT ATTENUATOR
9 EACH

ITEM SPECIAL--A TEMPORARY IMPACT ATTENUATOR, G.R.E.A.T. TYPE, (REPLACEMENT), MODEL NO. 200200NF6GCZ, 1 EACH

FOR THE LOCATIONS OF THE ATTENUATORS SEE PLAN SHEETS 24-27, 35-38

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR EACH, ITEM SPECIAL, IMPACT ATTENUATOR AND SHALL BE CONSIDERED FULL PAYMENT FOR FURNISHING, INSTALLING AT THE SPECIFIED LOCATIONS, RESTORATION AFTER EACH VEHICLE IMPACT, INCLUDING ALL LABOR, TOOLS, EQUIPMENT AND MISCELLANEOUS HARDWARE AND MATERIALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

PAYMENT

Payment for all the Maintenance of Traffic except for items designated as "ITEM 404, Bituminous Concrete for Maintaining Traffic," "ITEM 410, Traffic Compacted Surface, As Per Plan," "ITEM 614, Temporary Pavement Markings," "ITEM 615, Temporary Pavement, As Per Plan," "ITEM 616, Calcium Chloride," "ITEM 616, Water," "ITEM 622, Portable Concrete Barrier, 32 Inch," "ITEM SPECIAL, Law Enforcement Officer with Patrol Car," "ITEM SPECIAL, Replacement Signs," "ITEM SPECIAL, Replacement Drums," and "ITEM SPECIAL, Impact Attenuator, G.R.E.A.T. System," shall be included in the Lump Sum "ITEM 614, Maintaining Traffic." Estimated quantities have been carried to the General Summary.

REMOVE AND REPLACE IMPACT ATTENUATOR

THIS PAY ITEM SHALL BE USED FOR EACH MOVEMENT OF A TEMPORARY IMPACT ATTENUATOR WHEN THE IMPACT ATTENUATOR CAN BE USED FOR MORE THAN ONE PHASE. THIS INCLUDES THE COST OF DISMANTLING, TRANSPORTING TO THE NEW LOCATION AND REASSEMBLY, INCLUDING HARDWARE, FOR A COMPLETE FUNCTIONAL IMPACT ATTENUATOR SYSTEM. THE FINAL REMOVAL COSTS OF THE TEMPORARY IMPACT ATTENUATORS FROM A PROJECT ARE INCLUDED IN THE ORIGINAL COSTS OF THE ATTENUATORS.

TEMPORARY IMPACT ATTENUATOR, G.R.E.A.T. TYPE (REPLACEMENT)

THIS ITEM IS TO BE USED AS SPARE ATTENUATORS TO REPLACE THOSE DAMAGED AS STATED IN THE TEMPORARY IMPACT ATTENUATOR NOTE ON THIS SHEET. THE COST OF REMOVING THE DAMAGED ATTENUATOR IS INCLUDED IN THE ORIGINAL COST OF THE IMPACT ATTENUATOR. THIS ITEM INCLUDES THE COSTS OF ASSEMBLY, MAINTENANCE AND REMOVAL WHEN NO LONGER REQUIRED FOR THAT PHASE.

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MAINTENANCE OF TRAFFIC NOTES

CALC. BY S.A.N. DATE 5/14/92	HAM-50-19.36	OHIO
CHKD. BY: FM DATE 5/14/92		F.H.W.A. REGION 5

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PORTABLE CONCRETE BARRIER, 32", CHART

SHEET NO.	DIRECTION	STATION FROM	STATION TO	LENGTH	TAPER LENGTH	TOTAL LENGTH
24	E	13+00	13+25	25	180	205
24	W	13+10	13+35	25	180	205
25	E	27+55	33+62	607	180	787
25	W	27+35	33+50	615	180	795
26	W	40+36	40+67	31	180	211
26	E	48+62	48+98	26	180	206
26	W	48+80	49+05	25	180	205
27	W	57+87	60+67	280	180	460
27	E	57+80	60+37	257	180	437
				SUBTOTAL		3511
ITEM 622 PORTABLE CONCRETE BARRIER						X 2*
TOTAL CARRIED TO GENERAL SUMMARY						7022

*NOTE: STAGE 2 SHOWN DOUBLE QUANTITIES SINCE STAGE 3 USES SAME BARRIER

614 BARRIER REFLECTORS

STAGE	STATIONING (FROM-TO)	SPACING	TYPE A	TYPE B W	TYPE B Y	614 OBJECT MARKERS	REMARKS
2	11+20EB - 13+25EB	25'			9	9	
2	13+10WB - 15+15WB	25'			9	9	
2	25+75EB - 33+62EB	25'			32	32	
2	27+35WB - 35+30WB	25'			33	33	
2	40+36WB - 42+47WB	25'			9	9	
2	46+82EB - 48+98EB	25'			9	9	
2	48+80WB - 50+85WB	25'			9	9	
2	57+87WB - 62+47WB	25'			19	19	
2	56+00EB - 60+37EB	25'			18	18	
3	11+20EB - 13+25EB	25'		9		9	
3	13+10WB - 15+15WB	25'		9		9	
3	25+75EB - 33+62EB	25'		32		32	
3	27+35WB - 35+30WB	25'		33		33	
3	40+36WB - 42+47WB	25'		9		9	
3	46+82EB - 48+98EB	25'		9		9	
3	48+80WB - 50+85WB	25'		9		9	
3	57+87WB - 62+47WB	25'		19		19	
3	56+00EB - 60+37EB	25'		18		18	
	TOTALS			147	147		
				294		294	

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR WORK ZONE MARKINGS:

ITEM	STAGE	QUANTITY	UNIT	DESCRIPTION
614	2	0.20	MILES	TEMPORARY LANE LINES, CLASS I
614	3	2.28	MILES	TEMPORARY LANE LINES, CLASS I, 740.05, TYPE C
614	2	6.98	MILES	TEMPORARY EDGE LINES, CLASS I
614	3	5.87	MILES	TEMPORARY EDGE LINES, CLASS I, 740.05, TYPE C
614	2	1663	LIN. FT.	TEMPORARY CHANNELIZING LINES, CLASS I
614	3	1413	LIN. FT.	TEMPORARY CHANNELIZING LINES, CLASS I, 740.05, TYPE C
614	3	200	LIN. FT.	TEMPORARY TRANSVERSE LINES, CLASS I, 740.05, TYPE C
614	3	96	LIN. FT.	TEMPORARY STOP LINES, CLASS I, 740.05, TYPE C

MAINTENANCE OF TRAFFIC

CALC. BY Z.A.N. DATE 5/11/98
CHKD. BY J.F.M DATE 5/11/98

HAM–50–19.36

OHIO
F.H.W.A. REGION 5

17
255

MAINTENANCE OF TRAFFIC DETAILS

Construction on HAM–50 shall be staged as follows:

Stage 1

During Stage 1, the Contractor shall direct traffic to the left–hand and center lanes utilizing drums. During this phase the Contractor will construct the Temporary Pavement, As Per Plan (See Table Below). No work shall be performed on any ramp during stage 1.

Stage 2

After Stage 1 has been completed for the entire length of the project, the Contractor shall direct traffic to the outside shoulder and the right–hand lane utilizing temporary pavement markings and drums to maintain the 12 ft. width of the one traveled lane. Portable concrete barrier shall be used instead of drums at locations adjacent to full depth pavement replacement. During this phase, the Contractor will complete the paving operations in the left–hand and center lanes and the inside shoulder as well as installation of the concrete barrier in the median area. The new barrier must be in place before these lanes are reopened to traffic.

RAMP DETAILS:
During Stage 2, the Contractor shall close Ramp FB & Ramp Y to traffic and complete the paving operations in those ramps. On Ramps A, B, LA, VA, & VB the Contractor shall direct traffic to the outside shoulder and pavement utilizing temporary pavement markings and drums to maintain the 10 ft. width of the traveled lane. During this phase, the Contractor shall complete the paving operations in the inside shoulder and pavement as well as replacement of the guardrail adjacent to the inside shoulder as specified in the plans. The new rail must be in place before this side of the ramp is reopened to traffic.

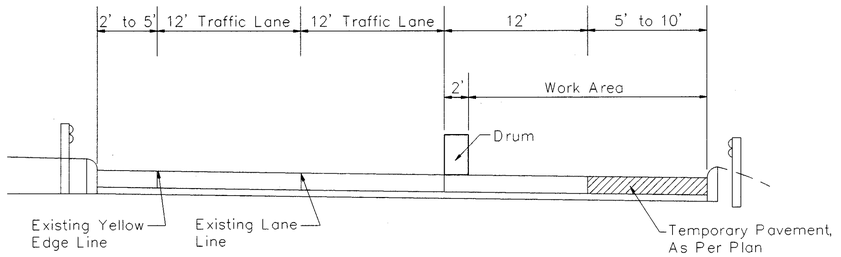
Stage 3

After Stage 2 has been completed for the entire length of the project, the Contractor shall direct traffic to the inside shoulder and the left–hand lane utilizing temporary pavement markings and drums to maintain the 11 ft. width of the two traveled lanes. Portable concrete barrier shall be used instead of drums at locations adjacent to full depth pavement replacement. During this phase, the Contractor will complete the paving operations in the right–hand lane and the outside shoulder.

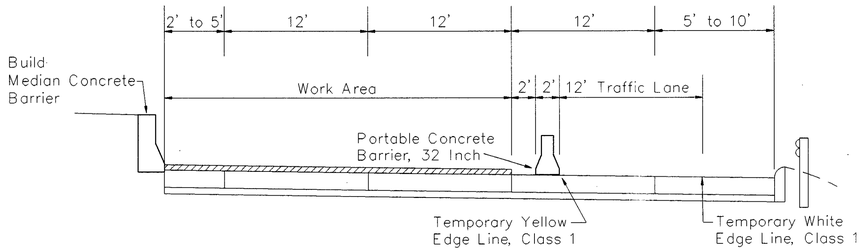
RAMP DETAILS:

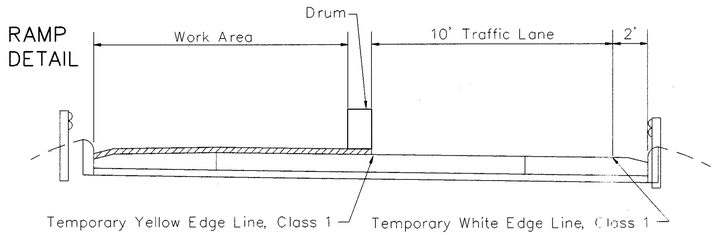
During Stage 3, the Contractor shall reopen Ramp Y to traffic. Ramp FB shall remain closed to allow the Contractor to complete work on the eastern bridge approach slab. Once this work has been completed, Ramp FB shall be reopened to traffic. The Contractor shall close Ramps FA, FC, & LB to traffic and complete the paving operations in those ramps. On Ramps A, B, LA, VA, & VB the Contractor shall direct traffic to the inside shoulder and pavement utilizing temporary pavement markings and drums to maintain the 10 ft. width of the traveled lane. During this phase, the Contractor shall complete the paving operations in the outside shoulder and pavement as well as replacement of the guardrail adjacent to the inside shoulder as specified in the plans. The new rail must be in place before this side of the ramp is reopened to traffic.

STAGE 1

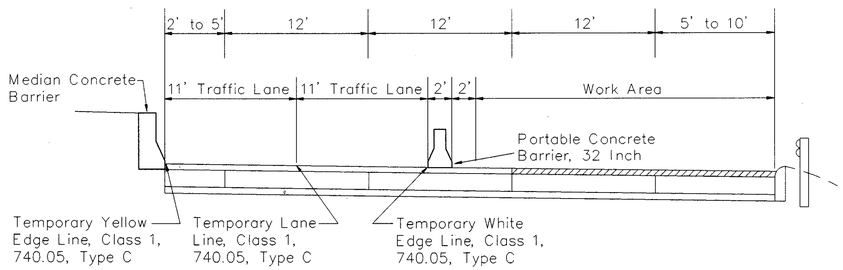


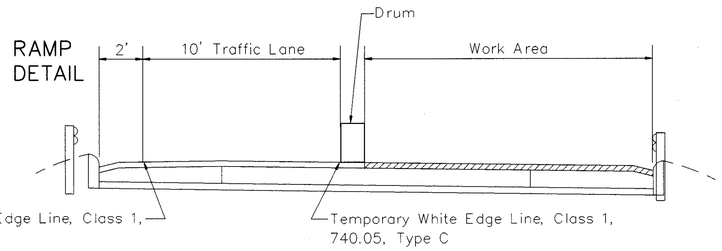
STAGE 2





STAGE 3

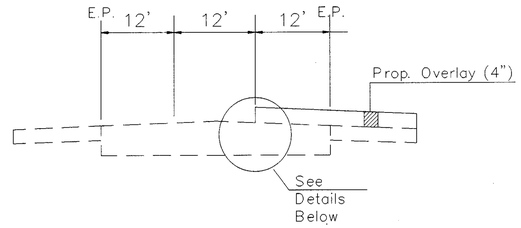


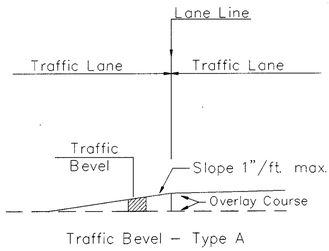


LONGITUDINAL JOINTS

In any case where traffic crosses a longitudinal joint greater than 1 1/2" in depth, 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

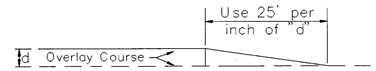
TRAFFIC BEVEL DETAILS





Traffic Bevel – Type A

FEATHERING AT RAMP ENTRANCES



ITEM 615 – TEMPORARY PAVEMENT, AS PER PLAN

TEMPORARY PAVEMENT, AS PER PLAN WILL BE USED TO STRENGTHEN THE RIGHT SHOULDER FOR TRAFFFIC USE DURING STAGE 1 OF CONSTRUCTION ON HAM–50.

THE TEMPORARY PAVEMENT LOCATIONS AND QUANTITY CALCULATIONS ARE AS FOLLOWS:

SHEET	DIRECTION	STATION	TO STATION	LENGTH	AREA
	EASTBOUND	13+26	14+36	110'	61.1 S.Y.
	EASTBOUND	26+52	27+62	110'	97.8 S.Y.
	EASTBOUND	29+69	30+88	119'	105.8 S.Y.
	EASTBOUND	48+83	49+93	110'	85.6 S.Y.
	EASTBOUND	56+70	57+80	110'	85.6 S.Y.
	EASTBOUND	60+39	62+14	175'	97.2 S.Y.
	WESTBOUND	13+34	14+44	110'	61.1 S.Y.
	WESTBOUND	26+20	27+30	110'	97.8 S.Y.
	WESTBOUND	29+33	30+80	147'	130.7 S.Y.
	WESTBOUND	33+50	40+35	685'	532.8 S.Y.
	WESTBOUND	49+11	50+21	110'	85.6 S.Y.
	WESTBOUND	60+66	61+76	110'	61.1 S.Y.
				TOTAL	1502.2 S.Y.

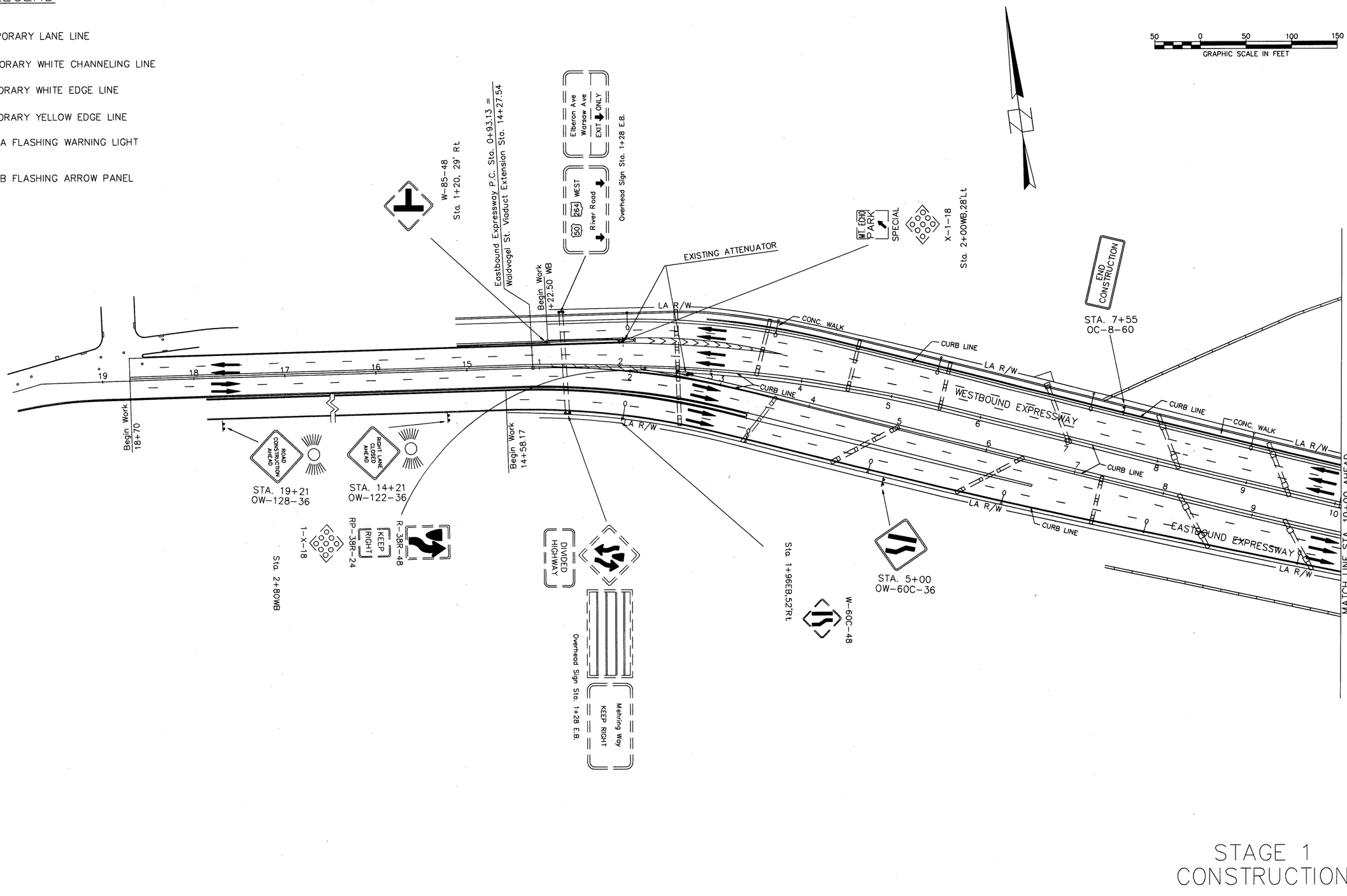
A TOTAL OF 1502.2 S.Y. HAS BEEN CARRIED TO THE GENERAL SUMMARY

H:\PWM-50\STAGE.dwg JUN 11, 1998

CALC. BY S.A.N. DATE 5/11/98	HAM–50–19.36	OHIO
CHKD. BY J.F.M. DATE 5/11/98		F.H.W.A. REGION 5

LEGEND

- (TL) TEMPORARY LANE LINE
- (TC) TEMPORARY WHITE CHANNELING LINE
- (TW) TEMPORARY WHITE EDGE LINE
- (TY) TEMPORARY YELLOW EDGE LINE
- TYPE A FLASHING WARNING LIGHT
- TYPE B FLASHING ARROW PANEL



STAGE 1 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 21+00 TO STA. 10+00

G:\HAM-50\01-10.dwg - MAY 05, 1998 - 10:32:49

CALC. BY S.AN. DATE 5/14/92	HAM–50–19.36	OHIO
CHKD. BY J.F.M. DATE 5/14/92		F.H.W.A. REGION 5

19
255

50 0 50 100 150
GRAPHIC SCALE IN FEET

MATCH LINE STA. 10+00
SEE SHEET NO. 18

Overhead Sign Sta. 10+08 W.B.
50 264 WEST
River Road
Elberon Ave
Warsaw Ave
EXIT ONLY

SPEED LIMIT 35
R–10–48
Sta. 10+15WB,2'Rt.
Sta. 10+15WB,50'Lt.

REMOVE EX. PVMT. MARKINGS

MT. ECHO PARK
NEXT RIGHT

Ground Mounted Sign Sta. 17+84 W.B.

13' X 3.5' BLACK ON ORANGE OVERLAY
KEEP RIGHT

Elberon Ave
Warsaw Ave
EXIT ONLY
Freeway Ends
1/2 MILE
Overhead Sign Sta. 20+15 W.B.

REDUCED SPEED 35 AHEAD

R–11A–48
Sta. 20+08WB,
61.60' Rt. & 14.55' Lt.

MERGE
W–49R–48
Sta. 23+89WB,49'Rt.

FOR ENTRANCE RAMP AREA DETAILS
SEE SHEET NO. 45

DRUMS SPACED AT 10'

DRUMS SPACED AT 25'

R/W

LA R/W

6' Walk

Flood Gate Storage House

Conc. Walk

Curb Line

Face of Flood Wall

DRUMS SPACED AT 10'

Overhead Pedestrian Bridge

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

(OPEN) RAMP A

(OPEN) RAMP B

Bridge Pier

Retaining Wall

Access Road to Flood Gate Area

Sta. 17+42 E.B.

DRUMS SPACED AT 25'

BEGIN WORK
STA. 19+80

EMERGENCY LANE A

EMERGENCY LANE B

5' Walk

Power Supply Pole

MEHRING WAY

END WORK
23+93.19

MATCH LINE STA. 25+00
SEE SHEET NO. 20

FLASHING ARROW PANEL
Sta. 10+00

540' TAPER

Columbia Parkway EAST

Mehring Way

Overhead Sign Sta. 10+45 E.B.

SPEED LIMIT 45
SPEED LIMIT 50
R–10–48
Sta. 10+40EB (Lt. & Rt.)
Sta. 10+40EB,42'Lt.

REMOVE OR COVER

FOR EXIT RAMP AREA DETAILS
SEE O.D.O.T. STD. CONST.
DWG. MT–98.13.

3' X 2' BLANK ORANGE OVERLAY

50 264 EAST
TO 75 NORTH
Freemont Ave
EXIT 1/2 MI
Mehring Way

Overhead Sign Sta. 16+50 E.B.

STADIUM COLISEUM SPECIAL

EXIT GF–72

Sta. 18+21EB,49'Rt.

R–10–48
Sta. 19+50EB, 50' Rt.

SPEED LIMIT 45
SPEED LIMIT 50
REMOVE OR COVER

50 264 EAST
TO 75 NORTH
Freemont Ave
EXIT ONLY

Overhead Sign Sta. 24+08 E.B.

NEXT RIGHT

13' X 3.5' BLACK ON ORANGE OVERLAY

FOR LEGEND
SEE SHEET NO. 18

STAGE 1 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 10+00 TO STA. 25+00

H:\HAM-50\10-25.dwg – JAN. 08, 1992

Type GG(III) , GE(III)
Overhead Sign
Sta. 22+58F, 37'Lt.

CALC. BY S.A.N. DATE 5/11/92
CHKD. BY JEK DATE 5/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

20
255

50 0 50 100 150
GRAPHIC SCALE IN FEET

SEE SHEET NO. 19
MATCH LINE STA. 25+00

RAMP A

LA R/W

26 27 (OPEN)

End Work
Sta. 28+70

FOR ENTRANCE RAMP AREA DETAILS
SEE SHEET NO. 45

DRUMS SPACED
AT 10'

TC

REMOVE EX. PVMT. MRKS.

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

DRUMS SPACED
AT 25'

Sta. 30+53A
MOUNT ON
TELEPHONE POLE

SPEED LIMIT 45
R-10-48
STA. 27+65

50 WEST
M-1-30-2
M-40-30
M-22-24

FOR EXIT RAMP AREA DETAILS
SEE O.D.O.T. STD. CONST. DWG.
MT-98.13.

EXIT
GF-72 X 60
Sta. 34+65EB, 40'Rt.

Conc. Walk

8' Walk

50 WEST
River Road
Type GE
Bridge Mounted Sign Sta. 29+78 E.B.
Harriet St.

50 264 EAST
JCT 3/4 MILE SOUTH 75
Overhead Sign Sta. 33+90 E.B.

TO 75 NORTH
Freeman Ave
EXIT ONLY

SPEED LIMIT 45
R-10-48
STA. 34+42FA

W-49R-48
Sta. 34+90EB, 103.96' Rt.

MERGE
W-50R-48
Sta. 36+45OD, 6'Rt.

R-2-48
Sta. 37+15FB, 10'Rt.
YIELD

W-98-48
Sta. 39+90FC, 10'Rt.

EXIT 20 M.P.H.

X-1-18

W-13-30

RAMP FA (OPEN)

Retaining Wall

SPEED LIMIT 45
R-10-48
STA. 36+63WB

W-49R-48
Sta. 38+60EB

W-49R-48
Sta. 38+00WB, 48'Lt.

CHANGEABLE MESSAGE CENTER
SPECIAL
36 X 48
Sta. 39+09 42' Rt.

50 EAST TO 71 75
NEXT RIGHT

50 WEST
River Road

264
Fifth St
Downtown
EXIT 1/2 MILE

DALTON AVE.

R/W

LA R/W

FREEMAN AVENUE

Sign

Retaining Wall

ROAD CD

RAMP FB (OPEN)

Overhead Sign
Sta. 17+15F, 33'Lt.
Type GE(III)

50 EAST TO 71 75

Approach Slab

Wall

TO 75 NORTH
Freeman Ave.
SOUTH NORTH

Overhead Sign
Sta. 44+66RC, 38'Lt.
Type GG(III)

MATCH LINE STA. 40+00
SEE SHEET NO. 21

Flood Wall

EAST TO
50 75
SOUTH NORTH
75

Overhead Sign Sta. 16+89F, 42'Rt.
Type GH(III)

FREEMAN AVENUE

ACCESS DRIVE

X-1-18

Sta. 44+66RC, 38'Lt.

FOR LEGEND
SEE SHEET NO. 18

STAGE 1
CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 25+00 TO STA. 40+00

H:\HAM-50\25-40.dwg - DEC. 30, 1991

CALC. BY S.A.N. DATE 5/11/94
CHKD. BY JFM DATE 5/11/94

HAM-50-19.36

OHIO F.H.W.A. REGION 5

21 / 255

50 0 50 100 150
GRAPHIC SCALE IN FEET

SEE SHEET NO. 20
MATCH LINE STA. 40+00

DALTON AVE.

R/W

R/W

SPEED LIMIT 45
R-10-48
STA. 41+00CD

Retaining Wall

DRUMS SPACED AT 25'

LA R/W

Conc. Walk

LINN STREET

Conc. Walk

LA R/W

DRUMS SPACED AT 10'

OW-49R-48

FOR ENTRANCE RAMP AREA DETAILS SEE SHEET NO. 45

Conc. Walk

540' TAPER

DRUMS SPACED AT 25'

LA R/W

LA R/W

(OPEN) RAMP FC

Sta. 41+75 RAMP CD 27' RT.

W-33-30

Sta. 44+00 Ahead

Match Line

Flood Wall

Retaining Wall

Flood Wall

Butterfly Sign GF 72 X 60
Sta. 40+95 RAMP CD, 14' RT.

Sta. 41+25 RAMP CD 27' RT.

W-33-30

Sta. 41+50 RAMP CD 27' RT.

W-33-30

W-32-48

50 EAST TO 71 75

75 NORTH TO Freeman Ave

X-1-18

TO M-8-30
NORTH M-37-30
75 M-5-30-2
M-24-24

LINN STREET

Overhead Sign
Sta. 49+22LB, 35Rt.
Type GE(III), GE(III)

50 EAST TO 71 75

Sixth St
Gest St

SIXTH STREET

Dalton Ave.
Linn St.
SOUTH NORTH

Sta. 52+00 RAMP LA, 40' RT.

FLASHING ARROW PANEL
STA. 53+00, 37' LT.

EXIT 35 M.P.H.
W-97-48
Sta. 54+25LA, 6.5' Lt.

EXIT

GF-72 X 60
Sta.54+16WB,5'Lt..

LA R/W

Conc. Walk

RAMP LA (OPEN)

540' TAPER

FOR RIGHT LANE CLOSURE DETAILS SEE O.D.O.T. STD. CONST. MT-95.30

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

Sign

Match Line Sta. 50+00

RAMP LB (OPEN)

Sign

SPEED LIMIT 45
R-10-48
STA. 54+05

LA R/W

LA R/W

Ground Mounted Sign Sta. 51+50

71 SOUTH TO Greater Cinti Airport

W-600-48
Sta. 50+00LB, 6.05' Rt.

W-49R-48
Sta. 52+90EB,53'Rt.

MATCH LINE STA. 55+00
SEE SHEET NO. 22

FOR LEGEND SEE SHEET NO. 18

STAGE 1 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 40+00 TO STA. 55+00

© \HAM-50\40-55.dwg - JAN. 17, 1996

CALC. BY S.A.N. DATE 3/11/92
CHKD. BY D.F.M. DATE 5/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

22
255

GRAPHIC SCALE IN FEET
50 0 50 100 150

Lynn St
Dalton Ave
EXIT ONLY

Elberon Ave
Warsaw Ave
EXIT 1 MILE

260 264 WEST
River Road

Overhead Sign Sta. 56+05 W.B.

MUSEUM CENTER
MUSIC HALL
NEXT RIGHT

GCP(III)
Sta. 61+68WB,51'Lt

STOWE SCHOOL

SPECIAL
EXISTING, TO BE REMOVED
Sta. 64+54WB,6.56' Rt

EXIT
25
M.P.H.

W-97-48
Ex. Sta. 64+40, 6.56' Rt.

REMOVE
OR COVER

SPEED LIMIT 50

R-10-48
Sta. 63+03WB,59'Lt

SPEED LIMIT 45

R-10-48
STA. 63+03WB

FOR RIGHT LANE
CLOSURE DETAILS
SEE O.D.O.T. STD. CONST. MT-95.30

IM-37-24
NORTH
M-5-30-2
75

Sta. 64+54, 6.56' Rt.

X-1-18
Sta. 65+20, 6' Rt.

GEST STREET

RAMP YN

DRUMS SPACED
AT 25'
Ex. Walk

540'
TAPER

Ex. Retaining Wall

RAMP Y (OPEN)

Ex. Retaining Wall

WESTBOUND EXPRESSWAY

SEE SHEET NO. 21
MATCH LINE
STA. 55+00

DRUMS SPACED
AT 10'

FOR ENTRANCE RAMP
AREA DETAILS SEE
SHEET NO. 45

Conc. Walk

Conc. Walk

EASTBOUND EXPRESSWAY

DRUMS SPACED
AT 25'

SIXTH STREET

Sta. 56+45, 51' Rt.
SPECIAL
CONCRETE
CONSTRUCTION

EXIT
RAMP
OPEN
AHEAD

OC-45-48
STA. 62+00WB

W-143-24
35 MPH

Sta. 63+53EB, 59' Lt.
W-1-36

End Work
Sta. 63+50

SIXTH STREET - FIFTH STREET CONNECTION

600'

820'

NEXT RIGHT

13'X3.5' BLACK ON
ORANGE OVERLAY

Overhead Sign Sta. 65+45 W.B.

FLASHING ARROW PANEL
STA. 67+00

FOR RIGHT LANE CLOSURE DETAILS
SEE O.D.O.T. STD. CONST. DWG. MT-95.30

Gest St
LEFT LANE

Overhead Sign

X-1-18
Sta. 63+90, 44' Rt.

W-98-48
30
M.P.H.

Sta. 650+73, 40.89' Rt.
RAMP

Overhead Sign Sta. 650+73, 40.89' Rt.

OC-8-60

Sta. 64+06EB, 44' Rt.
W-1-36

W-143-24
35 MPH

R-10-48
Sta. 65+33EB, 4'Lt

SPEED LIMIT 40

Overhead Sign Sta. 63+47 E.B.

GF-72 X 60
Sta. 635+73.37Lt.

EXIT

NORTH 77 EAST 50
Columbus
Columbia Pky
Keep Left

77 75 SOUTH
Louisville
Lexington

264
Fifth St
Downtown
EXIT ONLY

NORTH 77 EAST 50
Columbus
Columbia Pky

77 75 SOUTH
Louisville
Lexington

264
Fifth St
Downtown
EXIT ONLY

Overhead Sign Sta. 57+00 E.B.

ARROW COVERED
3' X 2' BLANK
ORANGE OVERLAY

R-11A-48
Sta. 57+00EB,63'Rt.

REDUCE SPEED 40 AHEAD

77 75 SOUTH
Louisville
Lexington
KEEP RIGHT

OC-8-60

FOR LEGEND
SEE SHEET NO. 18

STAGE 1
CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - STA. 55+00 TO STA. 70+00

C:\HAM-50\55-70.dwg - JAN. 30, 1992

CALC. BY S.A.N DATE 5/11/92	HAM-50-19.36	OHIO
CHKD. BY J.F.M DATE 5/11/92		F.H.W.A. REGION 5

22A
255

WARSAW AVE.

ELBERON AVE.

OW-128-36 ROAD CONSTRUCTION AHEAD

500'

500'

500'

500'

OW-143-24 35 MPH

OW-123-36 LEFT LANE CLOSED AHEAD

OW-128-36 ROAD CONSTRUCTION AHEAD

OW-60D-36

END CONSTRUCTION

OC-8-60

500'

RAMP VB

MATCH LINE SEE SHEET NO. 23

RAMP VA

TEMP. YELLOW EDGE LINE

320' TAPER

DRUMS SPACED AT 25'

FLASHING ARROW PANEL

MATCH LINE ~ SEE SHEET NO. 23

50 0 50 100 150

GRAPHIC SCALE IN FEET

FOR LEGEND SEE SHEET 23

STAGE 2 CONSTRUCTION

© VHAM-50\MR\MR1.dwg - JAN 30, 1992

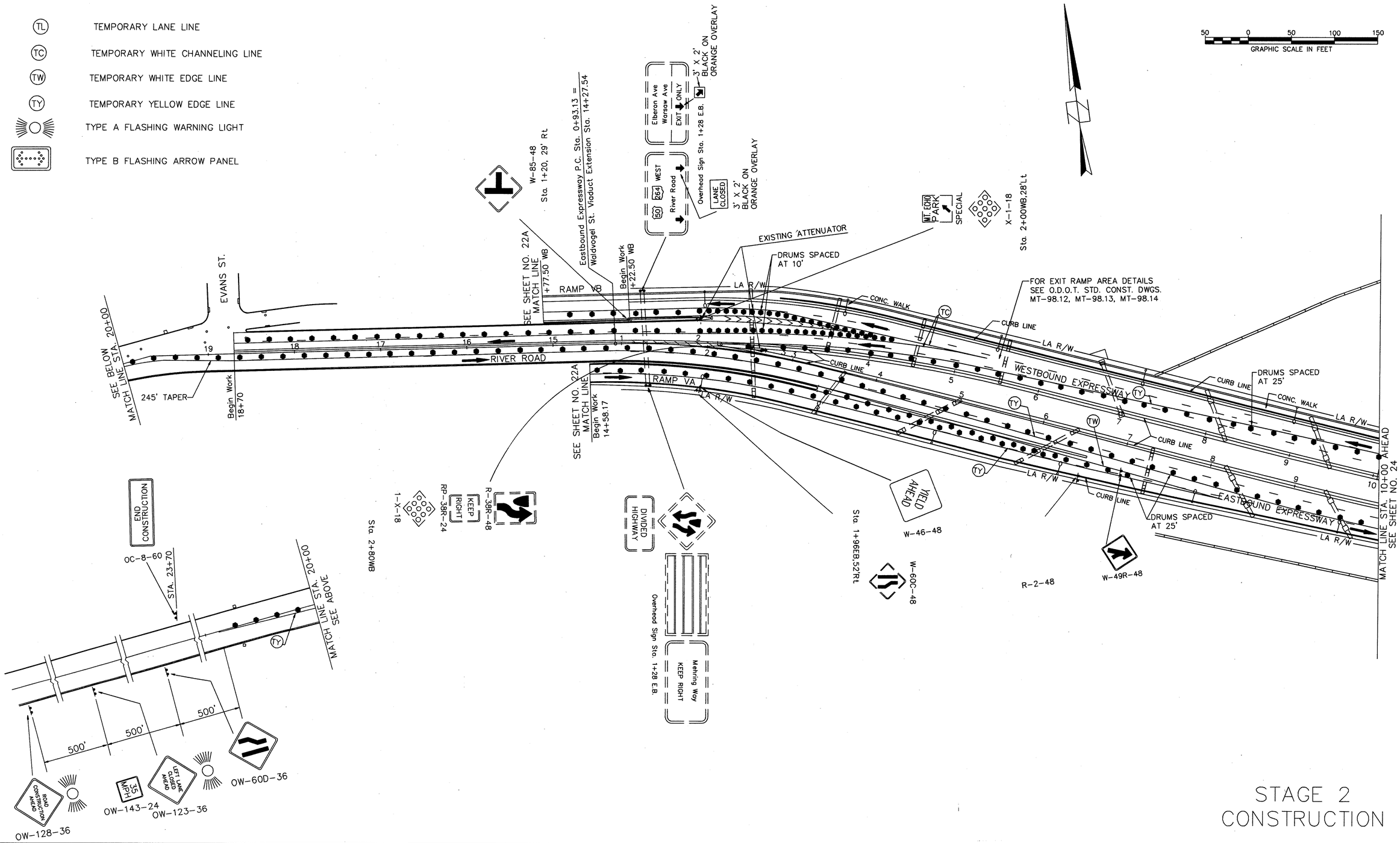
MAINTENANCE OF TRAFFIC DETAILS — SIXTH STREET EXPRESSWAY

CALC. BY S.A.N. DATE 5/11/94	HAM–50–19.36	OHIO
CHKD BY J.F.M. DATE 5/11/94		F.H.W.A. REGION 5

LEGEND

- (TL) TEMPORARY LANE LINE
- (TC) TEMPORARY WHITE CHANNELING LINE
- (TW) TEMPORARY WHITE EDGE LINE
- (TY) TEMPORARY YELLOW EDGE LINE
- TYPE A FLASHING WARNING LIGHT
- TYPE B FLASHING ARROW PANEL

50 0 50 100 150
GRAPHIC SCALE IN FEET



STAGE 2 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 21+00 TO STA. 10+00

© MAY – Sep – 10 – 1994 09:22:08

CALC. BY S.A.N. DATE 5/11/92
CHKD. BY J.F.M DATE 5/11/92

HAM–50–19.36

OHIO
F.H.W.A. REGION 5

50 0 50 100 150
GRAPHIC SCALE IN FEET

MATCH LINE STA. 10+00
SEE SHEET NO. 23

MATCH LINE STA. 25+00
SEE SHEET NO. 25

R/W
LA R/W
Face of Flood Wall
Curb Line
Conc. Walk
6' Walk
Flood Gate Storage House
Access Road to Flood Gate Area
Retaining Wall
15:1 TAPER
Overhead Pedestrian Bridge
Bridge Pier
Power Supply Pole
RAMP A (OPEN)
RAMP B (OPEN)
WESTBOUND EXPRESSWAY
EASTBOUND EXPRESSWAY
MEHRING WAY
ONE 12' TRAFFIC LANE
EMERGENCY LANE B
EMERGENCY LANE A
RRR
Sta. 17+42 E.B.
BEGIN WORK STA. 19+80
END WORK STA. 23+69

PORTABLE CONCRETE BARRIER, 32 INCH
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
FOR EXIT RAMP AREA DETAILS SEE O.D.O.T. STD. CONST. DWGS. MT–98.12, MT–98.13, MT–98.14
FOR ENTRANCE RAMP AREA DETAILS SEE SHEET NO. 45
FOR SIGNING & FLAGGER DETAIL ON MEHRING WAY SEE STANDARD DRAWING MT–97.10
FOR LEGEND SEE SHEET NO. 23

DRUMS SPACED AT 25'
DRUMS SPACED AT 10'

Ground Mounted Sign Sta. 17+84 W.B.
Overhead Sign Sta. 20+15 W.B.
Freeway Ends 1/2 MILE
Elberon Ave
Warsaw Ave
EXIT ONLY
NEXT RIGHT
13'x3.5' BLACK ON ORANGE OVERLAY
Overhead Sign Sta. 10+08 W.B.
3'x2' BLACK ON ORANGE OVERLAY
3'x2' BLANK ORANGE OVERLAY
LANE CLOSED
River Road
WEST
SPEED LIMIT 35
R–10–48
Sta. 10+15WB,2'Rt.
Sta. 10+15WB,50'Lt.
MT. ECHO PARK
REDUCED SPEED 35 LAHEAD
R–11A–48
Sta. 20+08WB, 61.60' Rt. & 14.55' Lt.
MERGE
W–49R–48
Sta. 23+89WB,49'Rt.
Overhead Sign Sta. 10+45 E.B.
Columbia Parkway
EAST
Mehring Way
SPEED LIMIT 45
SPEED LIMIT 50
R–10–48
Sta. 10+40EB (Lt. & Rt.)
Sta. 10+40EB,42'Lt.
REMOVE OR COVER
Overhead Sign Sta. 16+50 E.B.
TO 75 NORTH
Freeman Ave
EXIT 1/2 MI
Sta. 18+21EB,49'Rt.
EXIT
GF–72
STADIUM COLISEUM SPECIAL
R–10–48
Sta. 19+50EB, 50' Rt.
Overhead Sign Sta. 24+08 E.B.
EXIT ONLY
13'x3.5' BLANK ORANGE OVERLAY

STAGE 2 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 10+00 TO STA. 25+00

H:\HAM-50\10-25dwg\HAM-50-19.36_NAT - 6-MAY-1992

Type GG(III) , GE(III)
Overhead Sign
Sta. 22+58F, 37'Lt.

CALC. BY S.A.N. DATE 5/11/94
CHKD. BY J.P.M. DATE 5/11/94

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

25
255

50 0 50 100 150
GRAPHIC SCALE IN FEET

12'x9.5' BLANK ORANGE OVERLAY
Fifth St Downtown EXIT 1/2 MILE 354

NEXT RIGHT
50 EAST
TO 71 75
RAMP CLOSED
50 WEST
River Road
13'x3.5' BLACK ON ORANGE OVERLAY

SPEED LIMIT 45
R-10-48
STA. 36+63WB

W-49R-48
Sta. 38+00WB,48'Lt.

W-49R-48
Sta. 38+60EB

SPECIAL 36 X 48 Sta. 36+60 42' Rt.

DALTON AVE.
R/W
LA R/W
24
23
22
21
20
19
18
17
16

SEE SHEET NO. 24
MATCH LINE STA. 25+00

BARRELS SPACED AT 10'
TY
LA R/W
RAMP A(OPEN)
End Work Sta. 28+10
50' TAPER
TW
WESTBOUND EXPRESSWAY
PORTABLE CONCRETE BARRIER, 32 INCH
SPEED LIMIT 45
R-10-48
STA. 34+42FA
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
BARRELS SPACED AT 25'
TL
RAMP FA(OPEN)
Retaining Wall
See Sheet No. 30 Sta. 38+00
15:1 TAPER
R/W
PORTABLE CONCRETE BARRIER, 32 INCH
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
SPEED LIMIT 45
R-10-48
STA. 27+65
Sta. 30+53A
MOUNT ON
TELEPHONE POLE
SIXTH STREET
EASTBOUND EXPRESSWAY
HARRIET STREET
Conc. Walk
8' Walk
50 WEST
River Road
Type GE
Bridge Mounted Sign Sta. 29+78 E.B.
Harriet St.
M-1-30-2
M-40-30
M-22-24
EXIT
COVER OR REMOVE
GF-72 X 60
Sta.34+65EB,40'Rt.
Sta. 34+90EB, 103.96' Rt.
W-49R-48
MERGE
COVER OR REMOVE
Sta. 36+45CD,6'Rt.
W-50R-48
COVER OR REMOVE
13'x2.5' BLANK ORANGE OVERLAY
Overhead Sign Sta. 33+90 E.B.
50 WEST
SOUTH
EAST
OCT 3/4 MILE
254
NEXT RIGHT
13'x3.5' BLACK ON ORANGE OVERLAY
TO 75 NORTH
Freeman Ave
EXIT ONLY
Sta. 37+15FB,10'Rt.
R-2-48
YIELD
RAMP FB (CLOSED)
Overhead Sign
Sta. 17+15F, 33'Lt.
Type GE(III)
RAMP CLOSED
13'x3.5' BLACK ON ORANGE OVERLAY
TO 71 75
EAST
50
Match Line Sta. 32+00
See Sheet No. 30
Flood Wall
RAMP CLOSED
13'x3.5' BLACK ON ORANGE OVERLAY
EAST TO 50 75
SOUTH
NORTH
4'x2.5' BLANK ORANGE OVERLAY
W-13-30
Overhead Sign Sta. 16+89F, 42'Rt.
Type GH(III)
X-1-18
EXIT 20 M.P.H.
Sta. 39+90FC,10'Rt.
W-98-48
FREEMAN AVENUE
LA R/W
ACCESS DRIVE
PORTABLE CONCRETE BARRIER, 32 INCH
MATCH LINE STA. 40+00
SEE SHEET NO. 26
Overhead Sign
Sta. 44+66RC, 38'Lt.
Type GG(III)
TO 75 NORTH Freeman Ave.
SOUTH NORTH
Sta. 44+66RC,38'Lt.

STAGE 2
CONSTRUCTION

FOR LEGEND
SEE SHEET NO. 23

FOR FREEMAN AVE. PLAN
SEE SHEET NO. 30 & 31

H:\HAM-50\25-40.dwg - DEC. 30, 1991

MAINTENANCE OF TRAFFIC DETAILS - STA. 25+00 TO STA. 40+00

CALC. BY S.A.N. DATE 5/14/92
CHKD. BY J.F.M. DATE 5/14/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

50 0 50 100 150
GRAPHIC SCALE IN FEET

DALTON AVE.
R/W
R/W
LA R/W
Conc. Walk
LINN STREET
Sta. 52+00 RAMP LA, 40' RT.
Dalton Ave.
Linn St.
SOUTH NORTH
EXIT
GF-72 X 60
Sta.54+16WB,51'Lt.
EXIT 35 M.P.H.
W-97-48
Sta. 54+25LA, 6.5' Lt.
SEE SHEET NO. 31
Match Line Sta. 50+00
BARRELS SPACED AT 10'
RAMP LA (OPEN)
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
PORTABLE CONCRETE BARRIER, 32"
15:1 TAPER
WESTBOUND EXPRESSWAY
BARRELS SPACED AT 25'
EASTBOUND EXPRESSWAY
RAMP LB (OPEN)
SPEED LIMIT 45
R-10-48
STA. 54+05
SIXTH STREET
MATCH LINE STA. 55+00
SEE SHEET NO. 27
SEE SHEET NO. 25
MATCH LINE STA. 40+00
Retaining Wall
Flood Wall
RAMP FC (OPEN)
Sta. 41+75 RAMP CD 27' RT.
W-33-30
SEE SHEET NO. 30
Match Line Sta. 44+00
Butterfly Sign GF 72 X 60
Sta. 40+95 RAMP CD, 14' RT.
W-32-48
Sta. 41+25 RAMP CD 27' RT.
W-33-30
Sta. 41+50 RAMP CD 27' RT.
W-33-30
EAST TO 50 71 75
TO 75 NORTH Freeman Ave
X-1-18
TO M-8-30
NORTH M-37-30
75 M-5-30-2
M-24-24
Overhead Sign Sta. 49+22LB, 35'Rt. Type GE(III), GE(III)
EAST TO 50 71 75
Sixth St Gest St
Ground Mounted Sign Sta. 51+50
75 SOUTH TO Greater Cinti Airport
W-60-48
Sta. 50+00LB, 6.05' Rt.
W-49R-48
Sta. 52+90EB,53'Rt.
FOR LINN ST. PLAN SEE SHEET NO. 32
FOR LEGEND SEE SHEET NO. 23

STAGE 2 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - STA. 40+00 TO STA. 55+00

G:\DWM-50\40-05.dwg - dwm, 12, 1992

CALC. BY S.A.N. DATE 5/14/92
CHKD. BY J.F.M DATE 5/14/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

27
255

GRAPHIC SCALE IN FEET
50 0 50 100 150

13'x3.5' BLACK ON ORANGE OVERLAY
NEXT EXIT
Lynn St
Dalton Ave
EXIT ONLY
Elberon Ave
Warsow Ave
EXIT 1 MILE
50 264 WEST
River Road
Overhead Sign Sta. 56+05 W.B.
3'x2' BLACK ON ORANGE OVERLAY
CLOSED
5'x2' BLACK ON ORANGE OVERLAY
GF-72
STA. 56+85
EXIT
MUSEUM CENTER
MUSIC HALL
NEXT RIGHT
GCP(III)
Sta. 61+68WB,51'Lt
STOWE SCHOOL
SPECIAL
EXISTING, TO BE REMOVED
Sta. 64+54WB,6.56' Rt.
EXIT
25
M.P.H.
W-97-48
Ex. Sta. 64+40, 6.56' Rt.
SPEED LIMIT 45
R-10-48
STA. 63+03WB
COVER OR REMOVE
SPEED LIMIT 50
R-10-48
Sta. 63+03WB,59'Lt
NORTH 75
IM-37-24
IM-5-30-2
Sta. 64+54, 6.56' Rt.
X-1-18
Sta. 65+20, 6' Rt.
Lynn St
Dalton Ave
EXIT ONLY
Elberon Ave
Warsow Ave
EXIT 1 1/4 MILE
50 264 River Road
Overhead Sign Sta. 65+45 W.B.
CLOSED
7.5'x3.5' BLACK ON ORANGE OVERLAY
Gest St
CLOSED
5'x2' BLACK ON ORANGE OVERLAY
Lynn St
Dalton Ave
NEXT RIGHT
50 264 WEST
River Road
Overhead Sign
Gest St
LEFT LANE
RAMP CLOSED
12'x3.5' BLACK ON ORANGE OVERLAY
INSTALL TEMP. G.R.E.A.T SYSTEM ATTENUATOR
15:1 TAPER
DRUMS SPACED AT 25'
WESTBOUND EXPRESSWAY
TC TL TY
Ex. Walk
GEST STREET
RAMP YN
Ex. Walk
Ex. Retaining Wall
RAMP Y (CLOSED)
MATCH LINE STA. 61+00
SEE SHEET NO.
Ex. Retaining Wall
62 REMOVE EX. PMVT. MRKS. 63
RAMP Q
540' TAPER
320' TAPER
100'
500'
500'
SIXTH STREET - FIFTH STREET CONNECTION
End Work Sta. 643+50
MATCH LINE STA. 70+00
SEE SHEET NO. 28
X-1-18
Sta. 63+90, 44' Rt.
DRUMS SPACED AT 10'
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
PORTABLE CONCRETE BARRIER, 32 INCH
DRUMS SPACED AT 10'
DRUMS SPACED AT 25'
DRUMS SPACED AT 10'
EASTBOUND EXPRESSWAY
Conc. Walk
Conc. Walk
Sta. 59+45 51' Rt.
DOWNTOWN CENTER SPECIAL 36 X 48
SIXTH STREET
GF-72
STA. 62+76
EXIT
W-143-24
35 MPH
Sta. 63+53EB, 59' Lt.
W-1-36
GF-72 X 60
Sta. 635+73.37 Lt.
Overhead Sign Sta. 63+47 E.B.
W-143-24
35 MPH
Sta. 64+06EB, 44' Rt.
W-1-36
30 M.P.H
RAMP
W-98-48
Sta. 650+73, 40.89' Rt.
Overhead Sign Sta. 650+73, 40.89' Rt.
*OC-8-60
END CONSTRUCTION
*OC-8-60
END CONSTRUCTION
R-10-48
Sta. 65+33EB, 4'Lt.
SPEED LIMIT 40
R-11A-48
Sta. 57+00EB, 63'Rt.
REDUCE SPEED 40 AHEAD
NORTH 50 EAST
Columbus
Columbia Pky
Overhead Sign Sta. 57+00 E.B.
3'x2' BLACK ON ORANGE OVERLAY
5'x2' BLACK ON ORANGE OVERLAY
CLOSED
Columbus
Columbia Pky
Keep Left
3'x2' BLACK ON ORANGE OVERLAY
5'x2' BLACK ON ORANGE OVERLAY
CLOSED
71 SOUTH
Louisville
Lexington
KEEP RIGHT
264 Fifth St
Downtown
EXIT ONLY
*NOTE: THESE SIGNS WERE ERECTED DURING STAGE 1

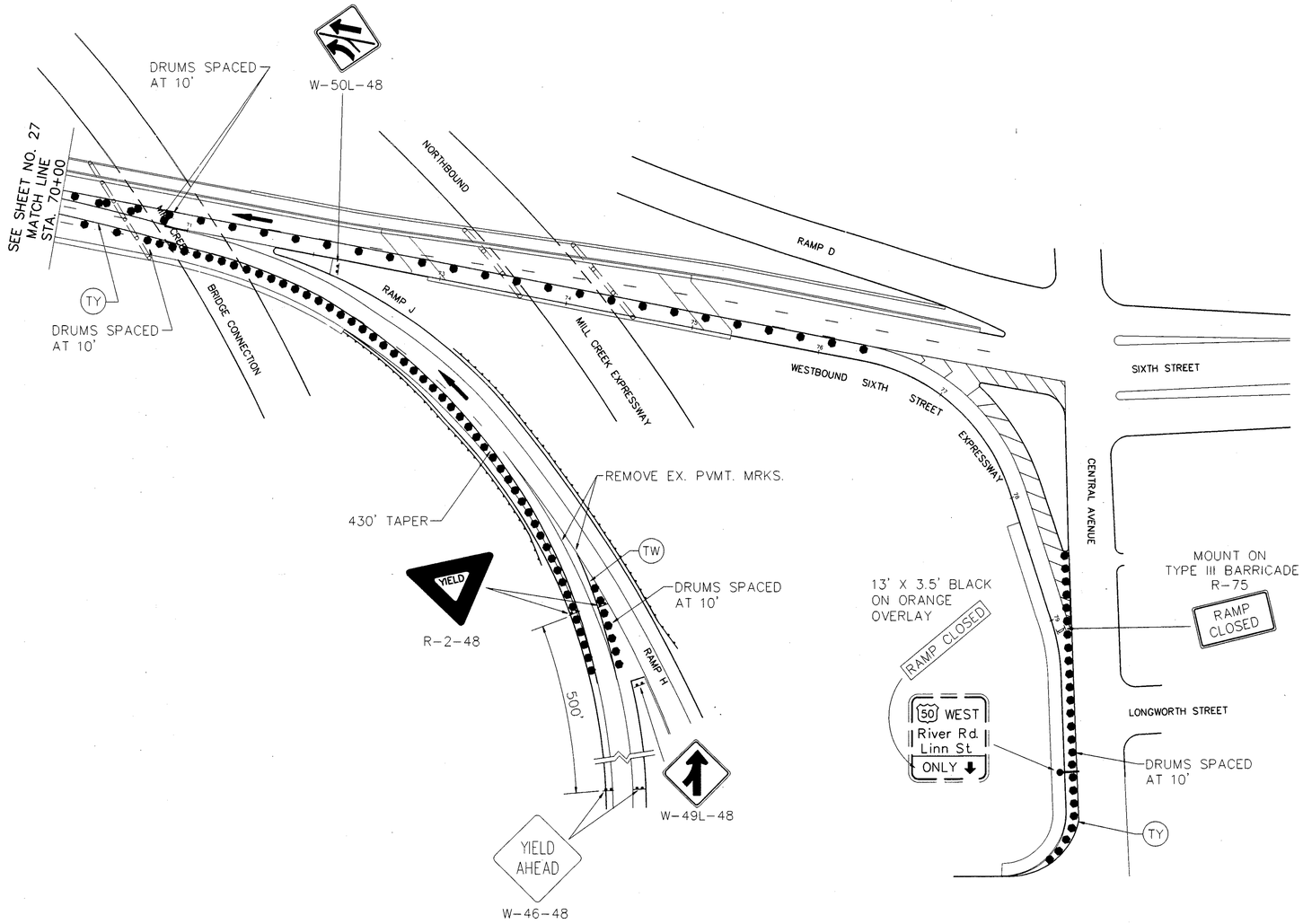
FOR LEGEND SEE SHEET NO. 23
FOR GEST ST. SEE SHEET NO. 33

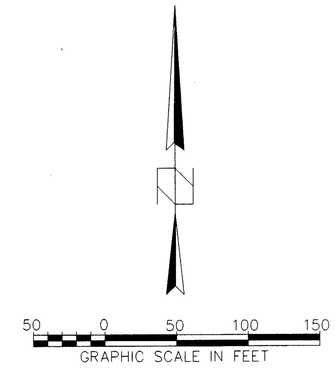
STAGE 2 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 55+00 TO STA. 70+00

G:\HAM-50\55-70.dwg - JAN. 30, 1992

CALC. BY S.A.N. DATE 5/11/92	HAM-50-19.36	OHIO
CHKD. BY J.F.M. DATE 5/11/92		F.H.W.A. REGION 5





FOR LEGEND
SEE SHEET NO. 23

STAGE 2 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS — RAMPS J & H

H:\PVMT-50\RAMPJH.dwg - JUN 12, 1991

CALC BY S.A.N. DATE 5/11/92	HAM–50–19.36	OHIO
CHKD BY J.F.M. DATE 6/11/92		F.H.W.A. REGION 5

30
255

LEGEND

(TY) TEMPORARY YELLOW EDGE LINE, CLASS 1
(TW) TEMPORARY WHITE EDGE LINE, CLASS 1
(TYT) TEMPORARY YELLOW EDGE LINE, CLASS 1, 740.05, TYPE C
(TWT) TEMPORARY WHITE EDGE LINE, CLASS 1, 740.05, TYPE C
(TCT) TEMPORARY CHANNELIZING LINE, CLASS 1, 740.05, TYPE C

TYPE A FLASHING WARNING LIGHT
TYPE B FLASHING ARROW PANEL

50 0 50 100 150
GRAPHIC SCALE IN FEET

FRONT STREET
ROAD CLOSED
MOUNT ON TYPE III BARRICADE R-75-48
End Work Sta. 11+79
R-55-12 Sta. 12+34,20'Lt.
NO PARKING ANY TIME
R-1-48 Sta. 13+00,28'Lt.
STOP
SARGENT STREET
R/W
STADIUM COLISEUM
SPECIAL 36X48 Sta. 16+27,44'Lt.
ENTER DO NOT
R-41B-36 Sta. 16+51,41'Rt.
RAMP CLOSED
MOUNT ON TYPE III BARRICADE R-75-48
DRUMS SPACED AT 10'
DRUMS SPACED AT 25'
YIELD
R-2-48 Sta. 16+83,98'Lt.
See Sheet 25 Match Line STA. 32+00
RAMP FB (CLOSED)
RAMP 20 M.P.H.
RAMP CLOSED
MOUNT ON TYPE III BARRICADE R-75-48
PROHIBITED PEDESTRIANS BICYCLES MOTORCYCLES
R-150-30 Sta. 16+85,74'Lt.
W-32-48 Sta. 38+20FA,35'Rt.
See Sheet No. 25 Match Line STA. 38+00
INTERCITY Bus Passenger Station
SPECIAL
RAMP FA (OPEN)
Sign
DALTON AVE.
R/W
LA R/W
DRUMS SPACED AT 25'
SEE SHEET NO. 31
MATCH LINE STA. 26+00
FREEMAN AVENUE
DRUMS SPACED AT 10'
TY
TYT
5' Walk
Sign
ACCESS DRIVE
(OPEN)
RAMP FC
ONE 12' TRAFFIC LANE
R-121-24 STA. 16+36
See Sheet No. 26 Match Line STA. 44+00
EASTBOUND EXPRESSWAY
WESTBOUND EXPRESSWAY
W-47-48 Sta. 22+26,38'Rt.
DRUMS SPACED AT 10'
TWT
ONLY
R-31A-36
FIFTH STREET
100'
245' TAPER
200'
FRONT STREET
OW-60D-36
OW-123-36
LEFT LANE CLOSED AHEAD
R-55-12 Sta. 12+61,23'Rt.
NO PARKING ANY TIME
R-2-48 Sta. 13+50,37'Rt.
YIELD
REMOVE OR COVER
R-41B-36 Sta. 12+61,23'Rt.
FLASHING ARROW PANEL
DO NOT ENTER
R-41B-36 Sta. 13+50,31'Rt.
R-10-24 Sta. 14+21,35'Rt.
SPEED LIMIT 35
STOP
R-1-48 Sta. 16+81,42'Rt.
ONE WAY
R-43L-36 Sta. 16+51,41'Rt.
ONE WAY
R-43R-36 Sta. 16+51,41'Rt.
ENTER DO NOT
R-41B-36 Sta. 16+81,42'Rt.
R-2-48 Sta. 17+78,61'Rt.
YIELD

STAGE 2
CONSTRUCTION

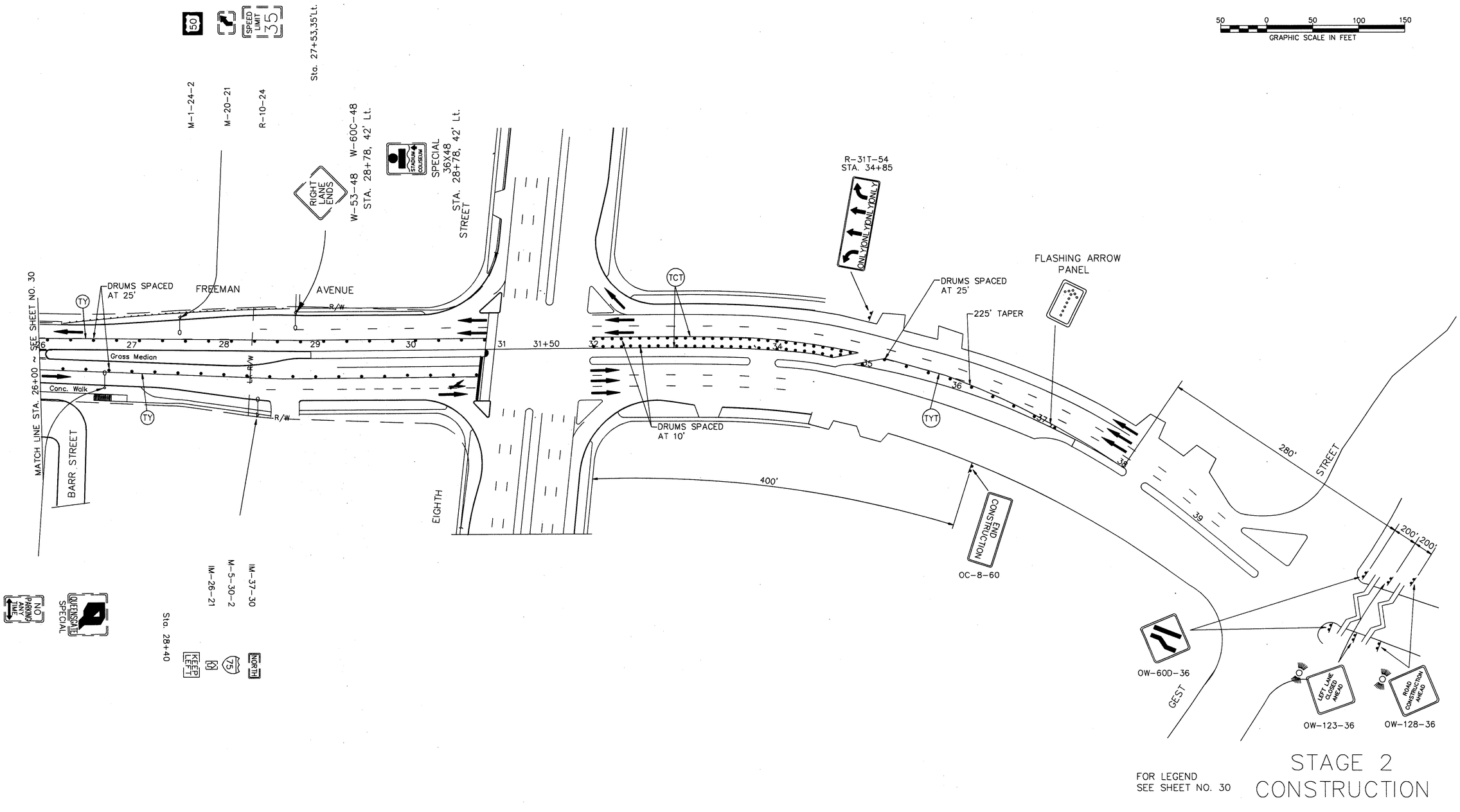
MAINTENANCE OF TRAFFIC DETAILS – FREEMAN AVENUE STA. 11+00 TO STA. 26+00

G:\HAM-50\FRM11-26.dwg - JAN. 30, 1992

CALC. BY S.A.N. DATE 5/14/94	HAM-50-19.36	OHIO
CHKD. BY J.F.M. DATE 5/14/94		F.H.W.A. REGION 5

31
255

50 0 50 100 150
GRAPHIC SCALE IN FEET



FOR LEGEND
SEE SHEET NO. 30

STAGE 2
CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS — FREEMAN AVENUE STA. 26+00 TO EIGHTH STREET

G:\HAM-50\FRM-8TH.dwg - JAN. 30, 1992

CALC. BY S.A.N. DATE 5/11/92	HAM-50-19.36	OHIO	32
CHKD. BY S.E.M DATE 5/14/92		F.H.W.A. REGION 5	255

GRAPHIC SCALE IN FEET
50 0 50 100 150

Sta. 12+20L, 33.5'Lt.

IM-24-21
M-1-24-3
M-1-24-2
M-15-24
R-2-36
Sta. 12+20L, 43'Rt.

IM-39-24 M-1-24-2 IM-38-24 M-5-24-2 M-5-24-2 IM-26-21
Sta. 7+99L, 34.5'Lt.

IM-8-24 IM-38-24 M-5-24-2 IM-26-21
Sta. 10+57L, 37.5'Lt.

EAST 42 SOUTH 75 71
NO PARKING ANYTIME
R-55-12 Sta. 8+81L, 36'Lt.
W-60C-36 Sta. 9+37L, 37.5'Lt.
TO SOUTH 75
NO PARKING ANYTIME
R-55-12 Sta. 11+62L, 53'Rt.
YIELD
RIGHT LANE ENDS
W-53-36 Sta. 12+20L, 33.5'Lt.

R-1-48 Sta. 8+36L, 46.5'Lt.
STOP

DALTON AVE.
LA R/W
29ST
SIXTH ST
30ST
LINN STREET
End Work Sta. 29+73S
End Work Sta. 18+84L
Conc. Walk
47K(S)
48K(S)
End Work Sta. 46+83K
DRUMS SPACED AT 25'
End Work Sta. 13+46L
TY
TYT
245' TAPER
FLASHING ARROW PANEL
STA. 15L+90
200'
OW-60D-36
10L 11 12L 13L 14L 15L 16L 17L 18L 19L
48K 47K 46K 15' 18'
Conc. Walk
LINN STREET
DRUMS SPACED AT 25'
DRUMS SPACED AT 10'
DRUMS SPACED AT 25'
LA R/W
Conc. Walk
Match Line Sta. 50+00LA See Sheet 26
R-41B-36 Sta. 49+15LA, 32'Lt.
ENTER
DO NOT
500'
LEFT LANE CLOSED AHEAD
OW-123-36
270'
20L
21L
22L
23L
24L
STREET
ROAD CONSTRUCTION AHEAD
OW-128-36
END CONSTRUCTION
OC-8-60
EIGHTH

Sta. 47+83S
Sta. 16+8
DRUMS SPACED AT 25'
DRUMS SPACED AT 10'
IM-8-24 IM-38-24 M-5-24-2 IM-26-21 Sta. 7+66L, 35'Rt.
TO SOUTH 75
SIXTH ST.
48S 49S 49 48
LA R/W
49LB
RAMP LB
50
Match Line Sta. 50+00LB See Sheet 26
EASTBOUND EXPRESSWAY
WESTBOUND EXPRESSWAY
STA. 12+11L, 38.5'Rt.
R-43L-36
ONE WAY
ONE WAY
R-43R-36 Sta. 12+11L, 38.5'Rt.
50LA
RAMP LA
Match Line Sta. 50+00LA See Sheet 26
R-31C-48 Sta. 49+15LA, 32'Lt.
ONLY ONLY
YIELD
R-2-36 Sta. 48+66LA, 52'Lt.
R-31FF-48 Sta. 12+11L, 38.5'Rt.
ONLY ONLY ONLY
FOR LEFT LANE CLOSURE DETAILS SEE O.D.O.T. STD. CONST. DWG. MT-95.32

FOR LEGEND SEE SHEET NO. 30

STAGE 2 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - LINN STREET

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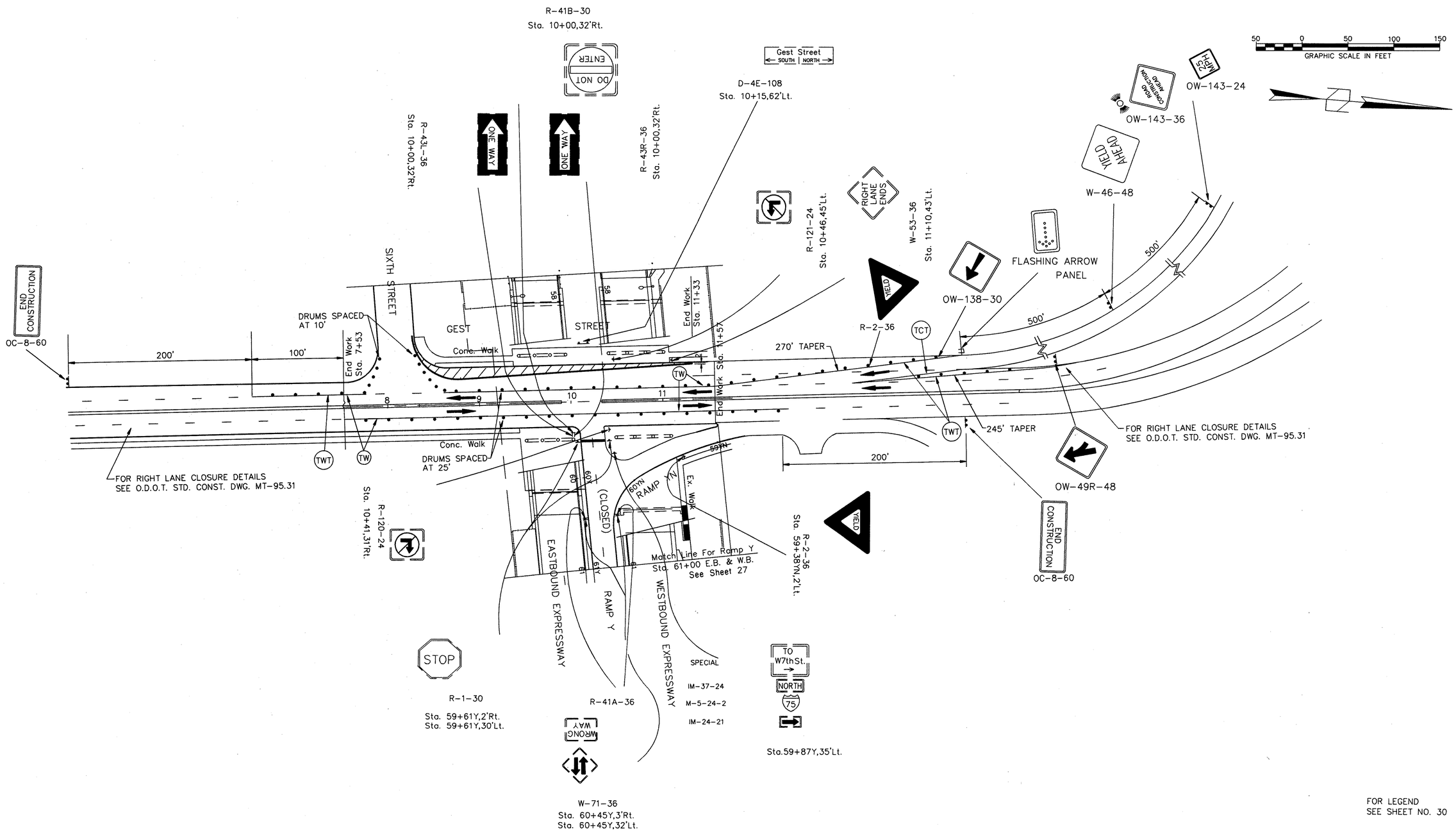
CALC. BY S.A.N. DATE 5/14/96	HAM-50-19.36	OHIO
CHKD. BY S.F.M DATE 5/14/96		F.H.W.A. REGION 5



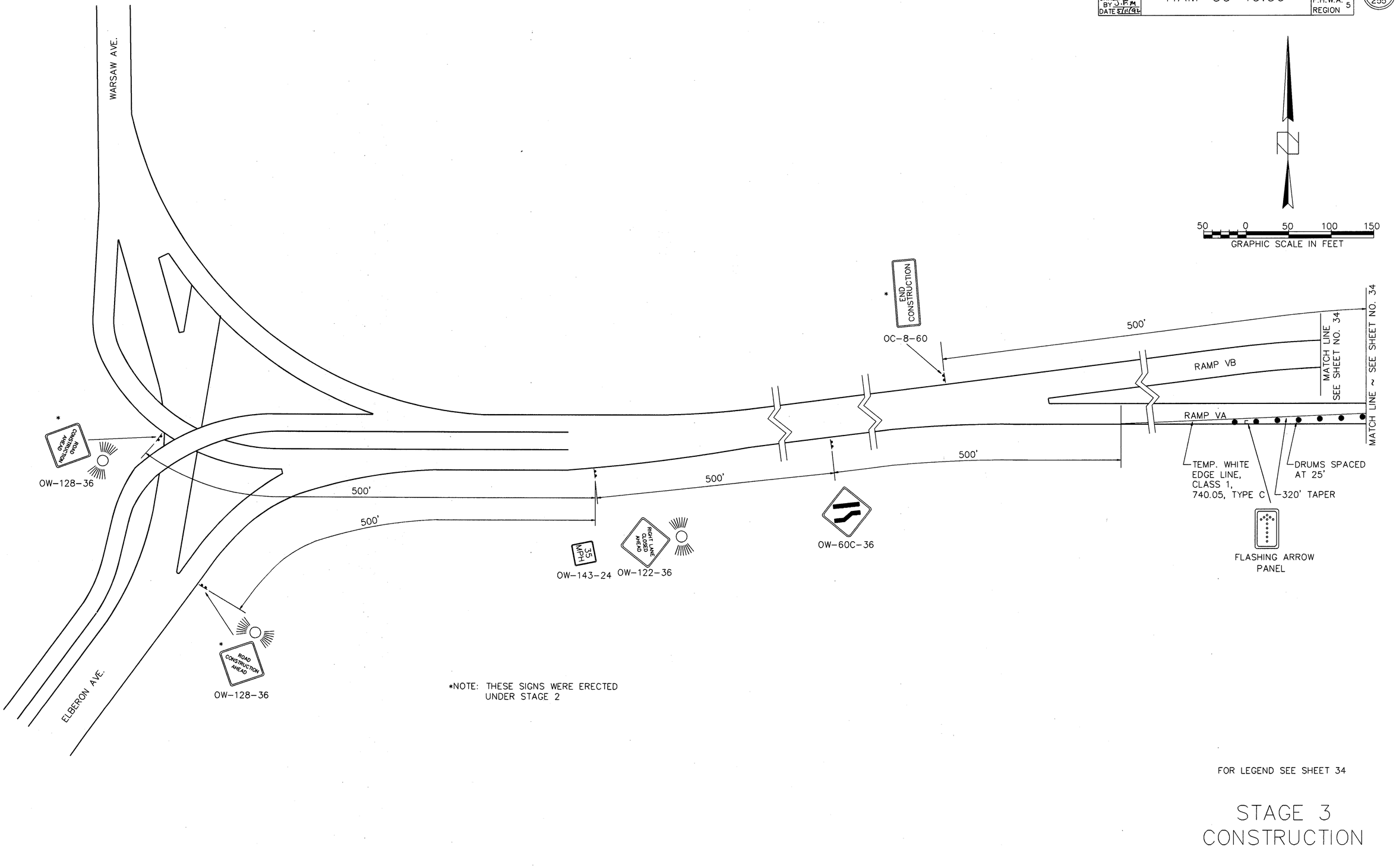
FOR LEGEND
SEE SHEET NO. 30

STAGE 2 CONSTRUCTION

H:\HAM-50\GEST_ST.dwg - JUL 25, 1991

SIGNING AND PAVEMENT MARKINGS - GEST STREET

CALC. BY S.A.N. DATE 5/11/92	HAM-50-19.36	OHIO	33A
CHKD. BY J.F.M DATE 5/11/92		F.H.W.A. REGION 5	255



*NOTE: THESE SIGNS WERE ERECTED UNDER STAGE 2

FOR LEGEND SEE SHEET 34

STAGE 3 CONSTRUCTION

G:\HAM-50\GEN.dwg - JAN. 30, 1992

MAINTENANCE OF TRAFFIC DETAILS — SIXTH STREET EXPRESSWAY

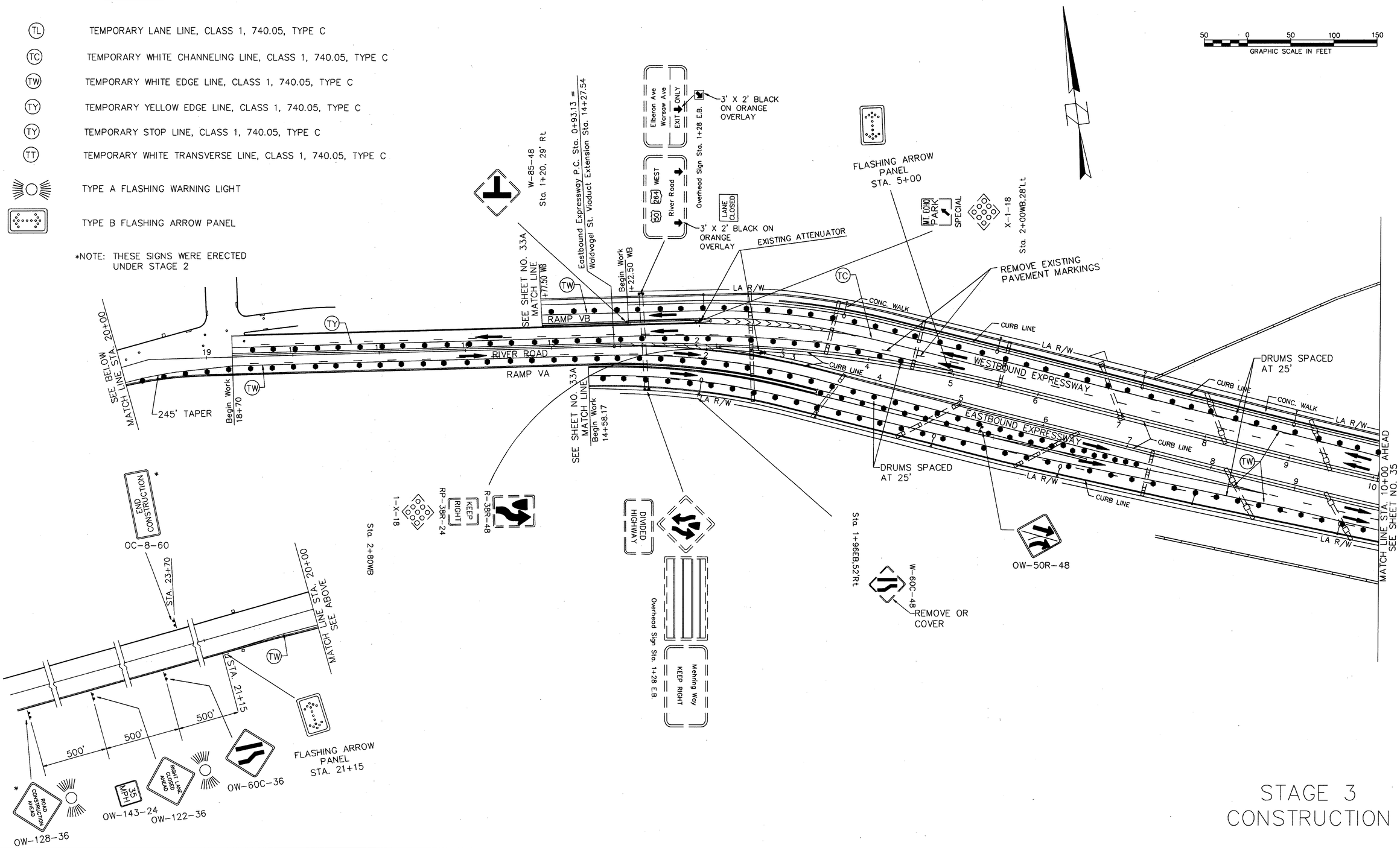
CALC. BY S.A.N. DATE 5/14/92	HAM-50-19.36	OHIO
CHKD. BY J.F.M DATE 5/14/92		F.H.W.A. REGION 5

LEGEND

- (TL) TEMPORARY LANE LINE, CLASS 1, 740.05, TYPE C
- (TC) TEMPORARY WHITE CHANNELING LINE, CLASS 1, 740.05, TYPE C
- (TW) TEMPORARY WHITE EDGE LINE, CLASS 1, 740.05, TYPE C
- (TY) TEMPORARY YELLOW EDGE LINE, CLASS 1, 740.05, TYPE C
- (TY) TEMPORARY STOP LINE, CLASS 1, 740.05, TYPE C
- (TT) TEMPORARY WHITE TRANSVERSE LINE, CLASS 1, 740.05, TYPE C
- TYPE A FLASHING WARNING LIGHT
- TYPE B FLASHING ARROW PANEL

*NOTE: THESE SIGNS WERE ERECTED UNDER STAGE 2

50 0 50 100 150
GRAPHIC SCALE IN FEET



STAGE 3 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS — STA. 21+00 TO STA. 10+00

G:\HAM-50\V1-10.dwg - MAY 05, 1992 - 10:32:48

CALC. BY S.A.N. DATE 5/11/92
CHKD. BY J.F.M. DATE 5/11/94

HAM–50–19.36

OHIO
F.H.W.A. REGION 5

35
255

50 0 50 100 150
GRAPHIC SCALE IN FEET

FOR ENTRANCE RAMP AREA DETAILS
SEE SHEET NO. 45

MATCH LINE STA. 10+00
SEE SHEET NO. 34

MATCH LINE STA. 25+00
SEE SHEET NO. 36

Elberon Ave
Warsaw Ave
EXIT ONLY
13' X 3.5' BLACK ON ORANGE OVERLAY
RIGHT LANE
Overhead Sign Sta. 10+08 W.B.
50 264 WEST
River Road
13' X 3.5' BLACK ON ORANGE OVERLAY
LEFT LANE
SPEED LIMIT 35
R-10-48
Sta. 10+15WB,2'Rt.
Sta. 10+15WB,50'Lt.
PORTABLE CONCRETE BARRIER, 32 INCH
15:1 TAPER
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
MT. ECHO PARK NEXT RIGHT
Ground Mounted Sign Sta. 17+84 W.B.
13' X 3.5' BLACK ON ORANGE OVERLAY
RIGHT LANE
Elberon Ave
Warsaw Ave
EXIT ONLY
Freeway Ends 1/2 MILE
Overhead Sign Sta. 20+15 W.B.
REDUCED SPEED AHEAD 35
R-11A-48
Sta. 20+08WB, 61.60' Rt. & 14.55' Lt.
W-49R-48
Sta. 23+89WB,49'Rt.
MERGE
DRUMS SPACED AT 25'
DRUMS SPACED AT 10'
(OPEN) RAMP A
WESTBOUND EXPRESSWAY
EASTBOUND EXPRESSWAY
(OPEN) RAMP B
MEHRING WAY
Flood Gate Storage House
Conc. Walk
Curb Line
Face of Flood Wall
Retaining Wall
Access Road to Flood Gate Area
Overhead Pedestrian
Bridge Pier
Abutment
Power Supply Pole
MOUNT ON TYPE III BARRICADE R-75
ROAD CLOSED
BEGIN WORK STA. 19+80
BEGIN TAPER STA. 17+80
Sta. 17+42 E.B.
200' TAPER
FOR SIGNING & FLAGGER DETAIL ON MEHRING WAY SEE STANDARD DRAWING MT-97.10
END WORK 23+93.19
END TAPER STA. 25+93
FOR EXIT RAMP AREA DETAILS
SEE O.D.O.T. STD. CONST. DWGS.
MT-98.12, MT-98.13, MT-98.14
SPEED LIMIT 45
SPEED LIMIT 50
R-10-48
Sta. 10+40EB (Lt. & Rt.)
Sta. 10+40EB,42'Lt.
REMOVE OR COVER
Columbia Parkway EAST
Mehring Way
Overhead Sign Sta. 10+45 E.B.
50 264 EAST
TO 71 NORTH Freeman Ave EXIT 1/2 MI
Mehring Way
Overhead Sign Sta. 16+50 E.B.
RAMP CLOSED
13' X 3.5' BLACK ON ORANGE OVERLAY
Sta. 18+21EB,49'Rt.
EXIT GF-72
STADIUM EVENTS SPECIAL
R-10-48
Sta. 19+50EB, 50' Rt.
REMOVE OR COVER
50 264 EAST
TO 71 NORTH Freeman Ave EXIT ONLY
Overhead Sign Sta. 24+08 E.B.
RAMP CLOSED
13' X 3.5' BLACK ON ORANGE OVERLAY
FOR LEGEND
SEE SHEET NO. 34

STAGE 3 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 10+00 TO STA. 25+00

H:\HAM-50\10-25.dwg - JAN. 08, 1992

CALC. BY S.A.N. DATE 5/1/92
CHKD. BY J.F.M DATE 5/4/92

Type GG(III), GE(III) Overhead Sign Sta. 22+58F, 37'Lt.

13' X 3.5' BLACK ON ORANGE OVERLAY

RAMP CLOSED

NEXT RIGHT TO 50 71 75 EAST

50 WEST River Road

Fifth St Downtown EXIT 1/2 MILE 264

SPEED LIMIT 45

R-10-48 STA. 36+63WB

W-49R-48 Sta. 38+00WB,48'Lt.

Sta. 39+09 42' Rt. CONVENTION CENTER SPECIAL 36 X 48

Sta. 38+60EB W-49R-48

R-10-48 STA. 34+42FA

MOUNT ON TYPE III BARRICADE R-75-48

RAMP CLOSED

GRAPHIC SCALE IN FEET 50 0 50 100 150

DRUMS SPACED AT 10'

RAMP A (OPEN)

End Work Sta. 28+10

L A R/W

SEE SHEET NO. 35 MATCH LINE STA. 25+00

PORTABLE CONCRETE BARRIER, 32 INCH

15:1 TAPER

INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR

RAMP FA (CLOSED)

Retaining Wall

Match Line Sta. 38+00 See Sheet No. 41

DALTON AVE.

R/W

DRUMS SPACED AT 25'

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

R/W

15:1 TAPER

PORTABLE CONCRETE BARRIER, 32 INCH

Sta. 30+53A MOUNT ON TELEPHONE POLE

INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR

SPEED LIMIT 45

R-10-48 STA. 27+65

SIXTH STREET

STREET

Rt. Bldg.

FREEMAN AVENUE

DRUMS SPACED AT 25'

SEE SHEET NO. 37 MATCH LINE STA. 40+00

50 M-1-30-2

WEST M-40-30

M-22-24

R/W

HARRIET STREET

Conc. Walk

8' Walk

50 WEST River Road Type GE

Bridge Mounted Sign Sta. 29+78 E.B. Harriet St.

EXIT COVER OR REMOVE

GF-72 X 60 Sta. 34+65EB, 40'Rt.

Sta. 34+90EB, 103.96' Rt.

MERGE W-49R-48 Sta. 36+45CD, 61'Rt.

W-50R-48

RAMP FB (OPEN)

Overhead Sign Sta. 17+15F, 33'Lt. Type GE(III)

50 71 75 EAST

DRUMS SPACED AT 10'

Approach Slab

PORTABLE CONCRETE BARRIER, 32 INCH

INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR

8' Walk

Match Line Sta. 32+00 See Sheet No. 41

RAMP CD (CLOSED)

RAMP CD

Overhead Sign Sta. 44+66RC, 38'Lt. Type GG(III)

TO 75 NORTH Freeman Ave.

SOUTH NORTH 75

50 264 EAST

JCT 3/4 MILE 71 75 SOUTH

TO 75 NORTH Freeman Ave EXIT ONLY

Overhead Sign Sta. 33+90 E.B.

RAMP CLOSED

13' X 3.5' BLACK ON ORANGE OVERLAY

REMOVE OR COVER

YIELD

R-2-48 Sta. 37+15FB, 10'Rt.

Flood Wall

L A R/W

ACCESS DRIVE

EAST TO 50 75 SOUTH NORTH 75

Overhead Sign Sta. 16+89F, 42'Rt. Type GH(III)

W-98-48 Sta. 39+90FC, 10'Rt.

EXIT 20 M.P.H.

X-1-18

W-13-30

X-1-18 Sta. 44+66RC, 38'Lt.

NOTE: RAMP FB SHALL REMAIN CLOSED TO TRAFFIC UNTIL WORK ON THE APPROACH SLAB BETWEEN APPROX. STA. 40+90 & 41+15 HAS BEEN COMPLETED

FOR LEGEND SEE SHEET NO. 34

FOR FREEMAN AVE. PLAN SEE SHEET NO. 41 & 42

STAGE 3 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS – STA. 25+00 TO STA. 40+00

H:\HAM-50\25-40.dwg – DEC. 30, 1991

CALC. BY S.A.N. DATE 5/11/92
CHKD. BY S.F.M DATE 5/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

37
255

GRAPHIC SCALE IN FEET
50 0 50 100 150

SEE SHEET NO. 36
MATCH LINE STA. 40+00

R/W
R/W
DALTON AVE.
SPEED LIMIT 45
R-10-48
STA. 41+00CD

PORTABLE CONCRETE BARRIER, 32 INCH
Retaining Wall
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
LA R/W
DRUMS SPACED AT 10'
DRUMS SPACED AT 25'
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
DRUMS SPACED AT 25'
LA R/W
LA R/W
FOR ENTRANCE RAMP AREA DETAILS SEE SHEET NO. 45
DRUMS SPACED AT 25'
Conc. Walk
LINN STREET
LA R/W
Conc. Walk
Conc. Walk
Conc. Walk
Retaining Wall
Flood Wall
(CLOSED)
RAMP FC
SEE SHEET NO. 44
Match Line Sta. 44+00
Sta. 41+75 RAMP CD 27' RT. 14' ON
W-33-30
Sta. 41+50 RAMP CD 27' RT.
W-33-30
Sta. 41+25 RAMP CD 27' RT.
W-33-30
W-32-48
MOUNT ON TYPE III BARRICADE R-75
RAMP CLOSED
Flood Wall
Butterfly Sign GF 72 X 60
Sta. 40+95 RAMP CD, 14' RT.
TO 50 EAST TO 71 75
TO Freeman Ave 75 NORTH
RAMP CLOSED
1.3' X 3.5' BLACK ON ORANGE OVERLAY
X-1-18
M-5-30-2
IM-24-24
TO 75 NORTH
M-37-30
TO
M-8-30
LINN STREET

Dalton Ave. Linn St. SOUTH NORTH
Sta. 52+00 RAMP LA, 40' RT.
EXIT
GF-72 X 60
Sta.54+16WB,51'Lt..
EXIT 35 M.P.H.
W-97-48
Sta. 54+25LA, 6.5' Lt.
LA R/W
LA R/W
Conc. Walk
SEE SHEET NO. 43
Match Line Sta. 50+00
DRUMS SPACED AT 10'
(OPEN)
RAMP LA
TW
TC
Conc. Walk
MATCH LINE STA. 55+00
SEE SHEET NO. 38
INSTALL TEMP. G.R.E.A.T. SYSTEM ATTENUATOR
PORTABLE CONCRETE BARRIER, 32 INCH
WESTBOUND EXPRESSWAY
EASTBOUND EXPRESSWAY
DRUMS SPACED AT 25'
TW
TL
TC
MOUNT ON TYPE III BARRICADE R-75
RAMP CLOSED
LA R/W
Match Line Sta. 99+00
SEE SHEET NO. 43
RAMP LB (CLOSED)
Sign
SPEED LIMIT 45
R-10-48
STA. 54+05
SIXTH STREET
RAMP CLOSED
1.3' X 3.5' BLACK ON ORANGE OVERLAY
TO 50 EAST TO 71 75
Sixth St Geest St.
Overhead Sign
Sta. 49+22LB, 35' Rt.
Type GE(III), GE(III)
Ground Mounted Sign Sta. 51+50
TO 75 SOUTH TO Greater Cinti Airport
W-60D-48
Sta. 50+00LB, 6.05' Rt.
W-49R-48
Sta. 52+90EB,53'Rt.
REMOVE OR COVER

FOR LEGEND SEE SHEET NO. 34
FOR LINN ST. PLAN SEE SHEET NO. 43

STAGE 3 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - STA. 40+00 TO STA. 55+00

© VHAM-50\40-55.dgn - JAN. 17, 1992

CALC. BY S.A.N. DATE 5/14/92
CHKD. BY J.F.M DATE 5/14/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

38
255

GRAPHIC SCALE IN FEET 50 0 50 100 150

Lynn St
Dalton Ave
EXIT ONLY

Elberon Ave
Warsaw Ave
EXIT 1 MILE

50 264 WEST
River Road

Overhead Sign Sta. 56+05 W.B.

ARROW COVERED
3' X 2' BLANK
ORANGE OVERLAY

MUSEUM CENTER
MUSIC HALL
NEXT RIGHT

GCP(III)
Sta. 61+68WB,51'Lt

STOWE SCHOOL

SPECIAL
EXISTING, TO BE REMOVED
Sta. 64+54WB,6.56' Rt

EXIT
25
M.P.H.

W-97-48
Ex. Sta. 64+40, 6.56' Rt.

REMOVE OR
COVER

SPEED LIMIT 50

SPEED LIMIT 45

R-10-48
STA. 63+03WB

R-10-48
Sta. 63+03WB,59'Lt

NORTH 75

IM-37-24

IM-5-30-2

Sta. 64+54, 6.56' Rt.

X-1-18
Sta. 65+20, 6' Rt.

END WORK STA. 66+15

Gest St

Lynn St
Dalton Ave
EXIT ONLY

Elberon Ave
Warsaw Ave
EXIT 1 1/4 MILE

50 264
River Road

Overhead Sign Sta. 65+45 W.B.

NEXT RIGHT

13' X 3.5' BLACK
ON ORANGE OVERLAY

LANE CLOSED

3' X 2' BLACK ON
ORANGE OVERLAY

Lynn St
Dalton Ave
NEXT RIGHT

50 264 WEST
River Road

Gest St
LEFT LANE

Overhead Sign

FOR EXIT RAMP AREA DETAILS
SEE O.D.O.T. STD. CONST. DWGS.
MT-98.12, MT-98.13, & MT-98.14

INSTALL TEMP.
G.R.E.A.T. SYSTEM
ATTENUATOR

GEST STREET

RAMP YN

Ex. Walk

PORTABLE CONCRETE
BARRIER, 32 INCH

DRUMS SPACED
AT 10'

15:1 TAPER

Ex. Retaining Wall

RAMP Y (OPEN)

245' TAPER

MATCH LINE STA. 61+00
SEE SHEET NO. 45

WESTBOUND EXPRESSWAY

SEE SHEET NO. 37
MATCH LINE STA. 55+00

RAMP Q

DRUMS SPACED
AT 25'

DRUMS SPACED
AT 25'

DRUMS SPACED
AT 10'

100'

820'

500'

MATCH LINE STA. 70+00
SEE SHEET NO. 39

Sta. 63+90, 44' Rt.

X-1-18

INSTALL TEMP.
G.R.E.A.T. SYSTEM
ATTENUATOR

15:1 TAPER

EAST BOUND EXPRESSWAY

Cone Work

Conc. Walk

DRUMS SPACED
AT 10'

PORTABLE CONCRETE
BARRIER, 32 INCH

CONNECTOR CENTER
SPECIAL
36 X 48
Sta. 59+45 51' Rt

35 MPH
W-143-24

Sta. 63+53EB 59' Lt.
W-1-36

FOR EXIT RAMP AREA DETAILS
SEE O.D.O.T. STD. CONST. DWGS.
MT-98.12, MT-98.13, & MT-98.14

End Work
Sta. 64S+50

SIXTH STREET - FIFTH STREET CONNECTION

SIXTH STREET

Sta. 64+06EB, 44' Rt.
W-1-36

35 MPH
W-143-24

RAMP
30
M.P.H
W-98-48

Sta. 650+73, 40.89' Rt.

Overhead Sign Sta. 650+73, 40.89' Rt.

END CONSTRUCTION

OC-8-60

OC-8-60

77 NORTH 50 EAST
Columbus
Columbia Pky
Keep Left

77 75 SOUTH
Louisville
Lexington
KEEP RIGHT

77 NORTH 50 EAST
Columbus
Columbia Pky

77 75 SOUTH
Louisville
Lexington

EXIT

GF-72 X 60
Sta. 63S+73.37Lt.

Overhead Sign Sta. 63+47 E.B.

R-10-48
Sta. 65+33EB, 4'Lt.

SPEED LIMIT 40

R-11A-48
Sta. 57+00EB,63'Rt.

REDUCE SPEED 40 AHEAD

Overhead Sign Sta. 57+00 E.B.

13' X 3.5' BLACK
ON ORANGE OVERLAY

NEXT RIGHT

77 264
Fifth St
Downtown
EXIT ONLY

LANE CLOSED

3' X 2' BLACK ON
ORANGE OVERLAY

FOR GEST STREET
SEE SHEET NO. 44

*NOTE: THESE SIGNS WERE
ERECTED DURING
STAGE 2.

FOR LEGEND
SEE SHEET NO. 34

STAGE 3 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - STA. 55+00 TO STA. 70+00

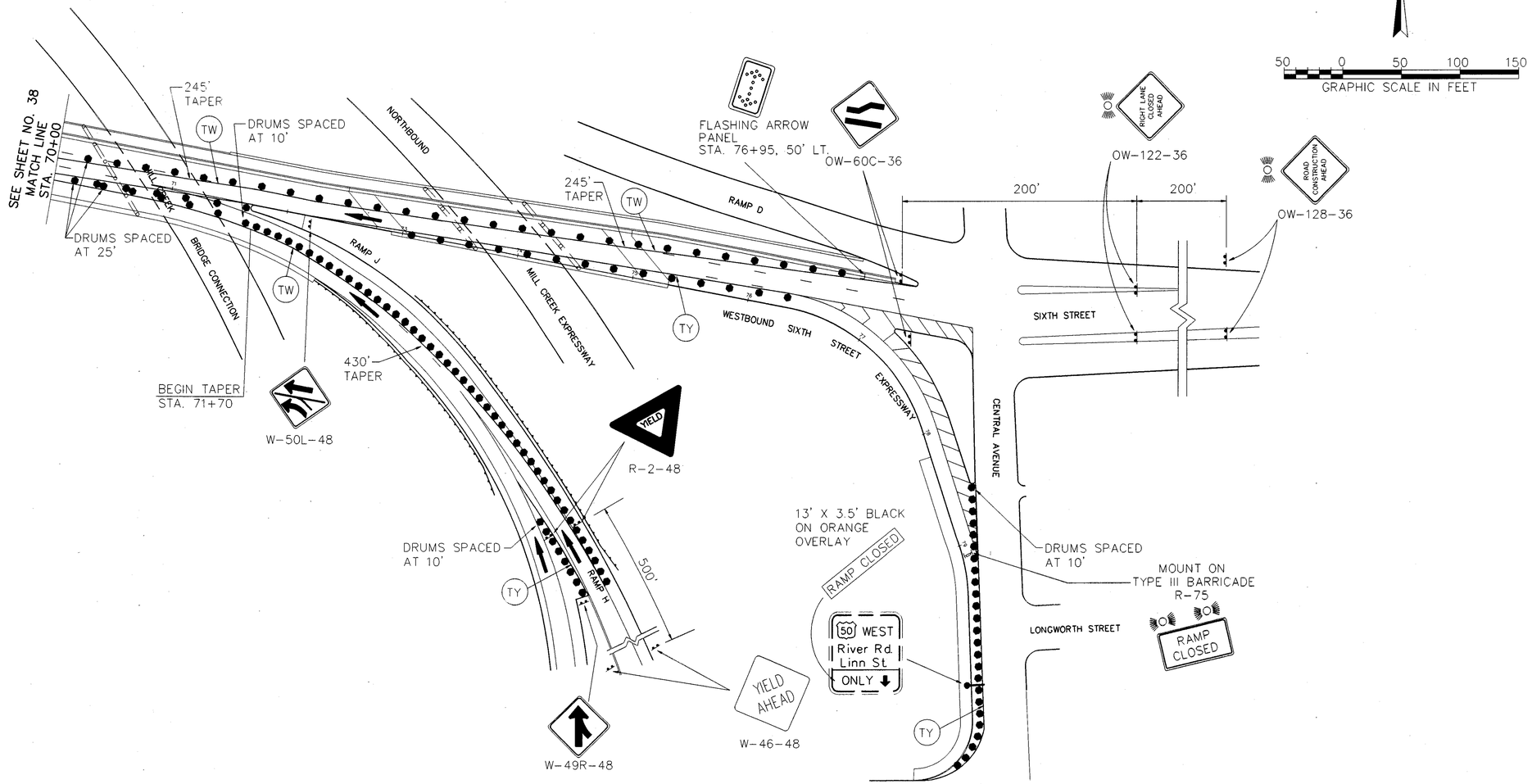
S:\HAM-50-19.36\dgn\50-19-36_MOT_STG3.dgn - Jun. 30, 1992

CALC. BY S.A.N. DATE 5/11/92
CHKD. BY J.F.A DATE 5/14/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

39
255



FOR LEGEND
SEE SHEET NO. 34

STAGE 3 CONSTRUCTION

H:\HAM-50\RAMP-JK.dwg — JAN 12, 1991

MAINTENANCE OF TRAFFIC DETAILS — RAMPS J & H

CALC BY S.A.N. DATE 5/11/92
CHKD BY J.F.A. DATE 5/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

41
255

50 0 50 100 150
GRAPHIC SCALE IN FEET

R-1-48
Sta. 13+00,28'Lt.

STOP

R-55-12
Sta. 12+34,20'Lt.

NO PARKING ANY TIME

End Work
Sta. 11+79

TW

SARGENT STREET

R/W

SPECIAL
36X48
Sta. 16+27,44'Lt.

STADIUM COLISEUM

R-41B-36
Sta. 16+51,41'Rt.

DO NOT ENTER

R-2-48
Sta. 16+83,98'Lt.

YIELD

SEE SHEET 36
Match Line
STA. 32+00

RAMP FB

(OPEN)

R-150-30
Sta. 16+85,74'Lt.

PROHIBITED PEDESTRIANS BICYCLES MOTOR VEHICLES

RAMP
20
M.P.H.

W-32-48
Sta. 38+20FA,35'Rt.

SEE SHEET 36
Match Line
STA. 38+00

AMTRAK rail passenger station

SPECIAL

MOUNT ON TYPE III BARRICADE R-75-48

RAMP CLOSED

DALTON AVE.

RAMP FA

(CLOSED)

SIGN

DRUMS SPACED AT 10'

DRUMS SPACED AT 25'

LA R/W

FREEMAN AVENUE

ACCESS DRIVE

5' Walk

Sign

RAMP FC

Match Line
STA. 44+00

SEE SHEET NO. 37

EASTBOUND EXPRESSWAY

WESTBOUND EXPRESSWAY

ONE 12' TRAFFIC LANE

SEE SHEET NO. 42

MATCH LINE STA. 26+00

100'

DRUMS SPACED AT 25'

307' TAPER

200'

200'

OW-60C-36

FLASHING ARROW PANEL

R-41B-36
Sta. 12+61,23'Rt.

RIGHT LANE CLOSED AHEAD

OW-122-36

R-55-12
Sta. 12+61,23'Rt.

R-2-48
Sta. 13+50,31'Rt.

R-41B-36
Sta. 13+50,31'Rt.

R-10-24
Sta. 14+21,35'Rt.

SPEED LIMIT 35

R-1-48
Sta. 16+81,42'Rt.

ONE WAY

R-43L-36
Sta. 16+51,41'Rt.

R-43R-36
Sta. 16+51,41'Rt.

R-2-48
Sta. 17+78,61'Rt.

R-41B-36
Sta. 16+81,42'Rt.

W-47-48
Sta. 22+26,38'Rt.

FOR LEGEND
SEE SHEET NO. 34

STAGE 3 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - FREEMAN AVENUE STA. 11+00 TO STA. 26+00

G:\HAM-50\FRM11-26.dwg - JAN. 30, 1992

CALC BY S.A.N. DATE 5/11/92	HAM-50-19.36	OHIO
CHKD BY J.F.M DATE 5/11/92		F.H.W.A. REGION 5

50 0 50 100 150
GRAPHIC SCALE IN FEET

OW-122-36
RIGHT LANE CLOSED AHEAD
200'
200'
OW-60C-36
245' TAPER
SPECIAL 36X48 28+78, 42' Lt.
STA. 28+78, 42' Lt.
STREET
W-60C-48
W-53-48 STA. 28+78, 42' Lt.
Sta. 27+53,35'Lt.
M-1-24-2
M-20-21
R-10-24
50
SPEED LIMIT 35
RIGHT LANE ENDS
COVER OR REMOVE
DRUMS SPACED AT 25'
FREEMAN
AVENUE
R/W
SEE SHEET NO. 41
MATCH LINE STA. 26+00
26
27
28
29
30
31
31+50
32
33
34
35
36
37
38
39
Grass Median
Conc. Walk
TW
TS
BARR STREET
EIGHTH
ONLY
R-31A-36
STA. 28+30
DRUMS SPACED AT 10'
RIGHT LANE MUST TURN RIGHT
R-32R-30
ONLY
ONLY
R-31M-48
100'
245' TAPER
250'
400'
CONSTRUCTION END
OC-8-60
RIGHT LANE MUST TURN RIGHT
R-32R-30
ROAD CONSTRUCTION AHEAD
OW-128-36
130'
R-2-36
STREET
ROAD CONSTRUCTION AHEAD
OW-128-36
GEST
R-55-12
Sta. 12+34,20'Rt.
NO PARKING ANY TIME
SPECIAL
Sta. 28+40
IM-37-30
M-5-30-2
IM-26-21
75
KEEP LEFT
NORTH

FOR LEGEND
SEE SHEET NO. 34

STAGE 3
CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - FREEMAN AVENUE STA. 26+00 TO EIGHTH STREET

G:\HAM-50\FRM-8TH.dwg - JAN. 30, 1992

CALC BY S.A.N. DATE 5/11/92	HAM-50-19.36	OHIO
CHKD BY S.F.M. DATE 6/11/92		F.H.W.A. REGION 5

GRAPHIC SCALE IN FEET
50 0 50 100 150

Sta. 12+20L, 33.5'Lt.
IM-24-21
M-1-24-3
M-1-24-2
M-15-24
R-2-36
Sta. 12+20L, 43'Rt.

IM-39-24
M-1-24-2
IM-38-24
M-5-24-2
M-5-24-2
IM-26-21
Sta. 7+99L, 34.5'Lt.

IM-8-24
IM-38-24
M-5-24-2
IM-26-21
Sta. 10+57L, 37.5'Lt.

FOR RIGHT LANE CLOSURE DETAILS
SEE O.D.O.T. STD. CONST. DWG. MT-95.31

R-55-12
Sta. 8+81L, 36'Lt.

W-60C-36
Sta. 9+37L, 37.5'Lt.

R-55-12
Sta. 11+62L, 53'Rt.

W-53-36
Sta. 12+20L, 33.5'Lt.

R-1-48
Sta. 8+36L, 46.5'Lt.

DALTON AVE.

End Work
Sta. 46+83K

End Work
Sta. 13+46L

DRUMS SPACED
AT 25'

245' TAPER

FLASHING ARROW
PANEL

OW-60C-36

200'

OW-122-36

R-2-36

500'

STREET

200'

OW-128-36

End Work
Sta. 29+73ST

LINN STREET

SIXTH ST

29ST

30ST

Conc. Walk

Sta. 47+83S

Sta. 8+91L

DRUMS SPACED AT 10'

LINN STREET

DRUMS SPACED
AT 10'

IM-8-24
IM-38-24
M-5-24-2
IM-26-21
Sta. 7+66L, 35'Rt.

SIXTH ST.

RAMP LB
(CLOSED)

MOUNT ON
TYPE III BARRICADE
R-75-48

RAMP CLOSED

Match Line Sta. 50+00LB
SEE SHEET 37

R-31FF-48
Sta. 12+11L, 38.5'Rt.

EASTBOUND EXPRESSWAY

WESTBOUND EXPRESSWAY

R-43L-36
Sta. 12+11L, 38.5'Rt.

ONE WAY

R-43R-36
Sta. 12+11L, 38.5'Rt.

RAMP LA

Match Line
Sta. 50+00LA
SEE SHEET 37

R-41B-36
Sta. 49+15LA, 32'Lt.

R-31C-48
Sta. 49+15LA, 32'Lt.

R-31A-36

R-2-36
Sta. 48+66LA, 52'Lt.

COVER OR REMOVE

OC-8-60

EIGHTH

DRUMS SPACED
AT 10'

FOR LEGEND
SEE SHEET NO. 34

FOR RIGHT LANE CLOSURE DETAILS
SEE O.D.O.T. STD. CONST. DWG. MT-95.31

STAGE 3
CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - LINN STREET

© V:\HAM-50\LINN_ST.dwg - JAN. 30, 1992

CALC. BY S.A.N. DATE 5/11/92
CHKD. BY J.F.M DATE 5/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

44
255

R-41B-30
Sta. 10+00,32'Rt.

50 0 50 100 150
GRAPHIC SCALE IN FEET

Gest Street
SOUTH | NORTH

D-4E-108
Sta. 10+15,62'Lt.

R-43L-36
Sta. 10+00,32'Rt.

R-43R-36
Sta. 10+00,32'Rt.

R-121-24
Sta. 10+46,45'Lt.

W-53-36
Sta. 11+10,43'Lt.

R-2-36
Sta. 12+45, 50'Lt.

END CONSTRUCTION
OC-8-60

SIXTH STREET

GEST STREET

End Work Sta. 7+53

End Work Sta. 11+33

End Work Sta. 11+57

200'

100'

245' TAPER

DRUMS SPACED AT 25'

245' TAPER

FOR LEFT LANE CLOSURE DETAILS
SEE O.D.O.T. STD. CONST. DWG. MT-95.32

Conc. Walk

245' TAPER

ONE 13' TRAFFIC LANE

FOR LEFT LANE CLOSURE DETAILS
SEE O.D.O.T. STD. CONST. DWG. MT-95.32

200'

DRUMS SPACED AT 25'

RAMP YN

Ex. Work

R-120-24
Sta. 10+41,31'Rt.

EASTBOUND EXPRESSWAY

WESTBOUND EXPRESSWAY

RAMP Y

Match Line For Ramp Y
Sta. 61+00 E.B. & W.B.

R-2-36
Sta. 59+38YN,2'Lt.

END CONSTRUCTION
OC-8-60

STOP

R-1-30

Sta. 59+61Y,2'Rt.
Sta. 59+61Y,30'Lt.

R-41A-36

SPECIAL

IM-37-24
M-5-24-2
IM-24-21

TO W7thSt.
NORTH
75

Sta.59+87Y,35'Lt.

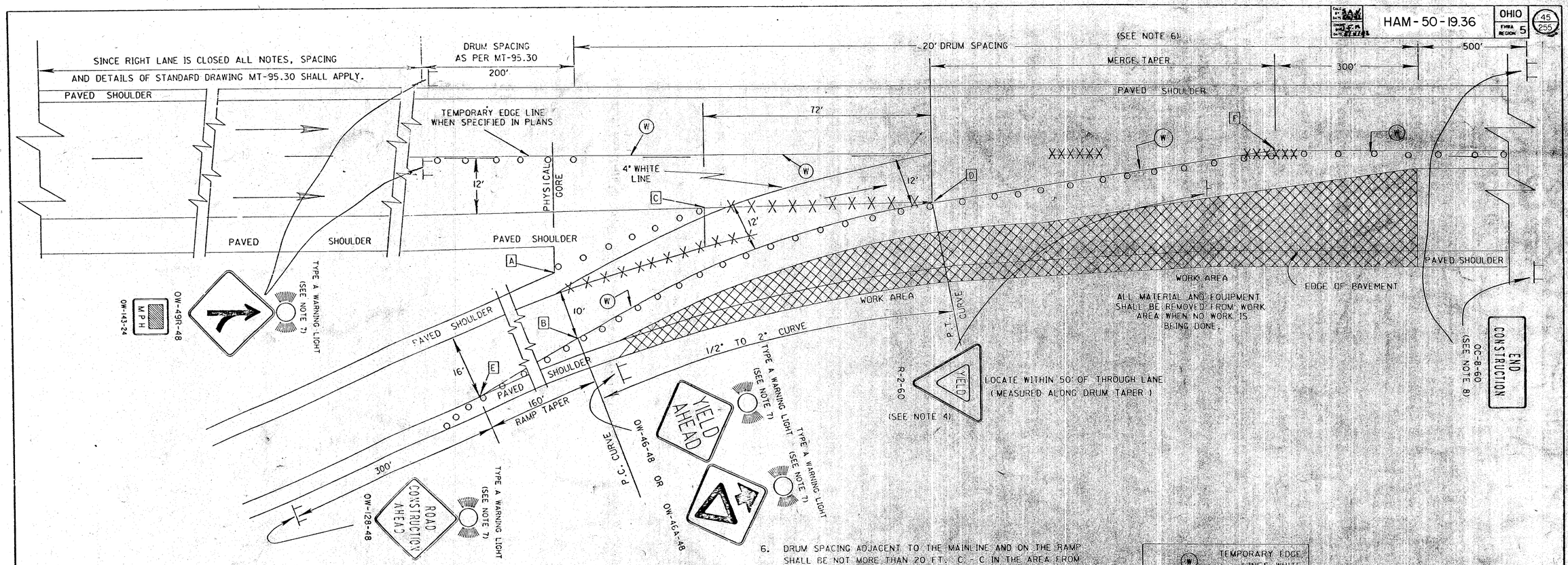
W-71-36
Sta. 60+45Y,3'Rt.
Sta. 60+45Y,32'Lt.

FOR LEGEND
SEE SHEET NO. 34

STAGE 3 CONSTRUCTION

MAINTENANCE OF TRAFFIC DETAILS - GEST STREET

H:\HAM\50\2052\ST3.dwg - JUL 29, 1992



GENERAL NOTES

1. THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL BE EMPLOYED WHEN: (1) THE LATERAL CLEARANCE BETWEEN CHANNELIZING DEVICES AT THE RIGHT EDGE OF THE WORK AREA AND THE EDGE OF PAVEMENT IS LESS THAN 10 FT. (12 FT. IF THE SHOULDER PAVEMENT IS USED) AS SHOWN ON DRAWING MT-98.15 AND (2) THE REQUIRED RAMP TAPERS AND CURVES CAN BE PROVIDED AS SHOWN. IN THE EVENT THE WORK ZONE CONDITION WOULD PERMIT THE USE OF EITHER MT-98.15 OR MT-98.16, MT-98.16 SHALL BE USED. THIS TRAFFIC CONTROL MEASURE SHALL NOT BE PLACED IN EFFECT UNTIL IMMEDIATELY BEFORE THE CONTRACTOR IS FULLY PREPARED TO PERFORM THE WORK ON THE RAMP OR LANE ADJACENT TO IT. ONCE THIS MEASURE IS PLACED INTO EFFECT THE CONTRACTOR SHALL EXPEDITIOUSLY PURSUE THE WORK (WORKING CONTINUOUSLY WITH FULL CREW IN THE RAMP AREA ON ALL NORMAL WORKING DAYS) UNTIL IT IS COMPLETED AND SHALL IMMEDIATELY OPEN THE AREA TO NORMAL TRAFFIC OR, AS A MINIMUM, REVERT TO THE METHODS SHOWN ON MT-98.15. IT IS THE INTENT THAT THE LONGEST MERGING TAPER LENGTH POSSIBLE SHALL BE CHOSEN, COMMENSURATE WITH THE REQUIREMENTS OF CONSTRUCTION.

2. THE RAMP TAPER SHALL DESIRABLY BE LOCATED TO PROVIDE A 10' MINIMUM PATH BETWEEN DRUMS AND THE PAVED SHOULDER IN THE GORE. THE RAMP TRAFFIC MAY BE PLACED ON THE PAVED GORE AS SHOWN ABOVE ONLY IF (1) THE TRAFFIC WILL USE THE PAVED SHOULDER PAVEMENT LESS THAN ONE DAY AND THE SHOULDER PAVEMENT IS IN GOOD CONDITION AND IS LEVEL AND SMOOTH OR (2) IF THE SHOULDER PAVEMENT IS ADEQUATELY STRENGTHENED, LEVELED AND SMOOTHED TO CARRY THE ANTICIPATED LOAD. A MINIMUM OF 3 DRUMS SHALL BE USED IN THE RAMP SHOULDER TAPER.

3. RAMP SIGNS SHALL BE DUAL MOUNTED ON MULTI-LANE RAMPS. WHEN THE RAMP IS NOT LONG ENOUGH TO ALLOW PLACEMENT AS SPECIFIED ABOVE, THE SIGNS MAY BE SPACED PROPORTIONATELY WITHIN THE SPACE AVAILABLE AS DETERMINED BY THE ENGINEER (A 200 FOOT MINIMUM SPACING MUST BE MAINTAINED).

4. IT WILL BE NECESSARY TO MOVE THE LOCATION OF ANY EXISTING YIELD CONDITION. IN THESE CASES, THE PERMANENT R-2 SIGN INSTALLATION SHALL BE COVERED AND THE TEMPORARY INSTALLATION SHALL BE MOUNTED APPROPRIATELY. IF THE REQUIRED DISTANCES (RAMP TAPER, CURVE AND MERGE TAPER) CANNOT BE OBTAINED, THE ENGINEER MAY APPROVE SLIGHTLY LOWER VALUES FOR A SHORT TIME, IN WHICH CASE THE YIELD SIGN SHALL BE REMOVED AND A 36" STOP SIGN PLACED APPROPRIATELY TO BE VISIBLE TO RAMP TRAFFIC BUT NOT BE OBTRUSIVE TO MAINLINE TRAFFIC.

5. IF THE CONSTRUCTION OPERATION REQUIRES THE LANE CLOSURE FOR MORE THAN ONE DAY THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS AND REFLECTORS FROM THE RAISED PAVEMENT MARKERS (RPM'S) SHALL BE REMOVED AND THE APPROPRIATE COLOR TEMPORARY EDGE LINES SHALL BE APPLIED ALONG THE TAPER. TEMPORARY EDGE LINES WHICH WOULD CONFLICT WITH FINAL TRAFFIC LANES SHALL BE REMOVABLE (947.03 TYPE-C) TAPE UNLESS THE AREA WILL BE RESURFACED IN THE NEXT WORK PHASE. AFTER COMPLETION OF THE WORK, TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND THE ORIGINAL MARKINGS AND RAISED PAVEMENT MARKERS REFLECTORS SHALL BE RESTORED.

6. DRUM SPACING ADJACENT TO THE MAINLINE AND ON THE RAMP SHALL BE NOT MORE THAN 20 FT. C - C IN THE AREA FROM THE PHYSICAL GORE TO 300 FT. BEYOND THE MERGE TAPER. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAYTIME LANE CLOSURES. PROVISIONS SHALL BE MADE TO SAFELY STABILIZE THE CONES TO PREVENT THEM FROM BLOWING OVER. IF THIS CANNOT BE ACHIEVED, DRUMS SHALL BE USED. TYPE C STEADY BURNING WARNING LIGHTS SHALL BE ERECTED ON EACH DRUM FOR NIGHT LANE CLOSURE.

7. TYPE A FLASHING WARNING LIGHTS ARE REQUIRED ON THE ROAD CONSTRUCTION AHEAD (OW-128-48), MERGE (OW-49R-48), AND THE YIELD AHEAD (OW-46-48) SIGNS WHEN NIGHT LANE CLOSURE IS NECESSARY.

8. THE OC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.

9. FROM THE END OF THE GORE AREA GRADED SHOULDER (POINT A), LOCATE THE PC OF THE CURVE BY MEASURING PERPINDICULAR TO THE RAMP CENTERLINE 10' OF RAMP PAVEMENT, NOT INCLUDING PAVED SHOULDER WIDTH (POINT B). FROM THE END OF THE GORE AREA PAVED SHOULDER (POINT C), LOCATE THE PT OF THE CURVE BY MEASURING 72' FROM POINT C ALONG THE EDGE OF PAVEMENT EXTENDED (POINT D).

10. PLACEMENT OF DRUMS SHALL BEGIN AT (POINT E) 160' UP THE RAMP FROM THE PREVIOUSLY LOCATED PC (POINT B) AND AT THE RIGHT EDGE OF RAMP PAVEMENT. FROM THIS POINT A DRUM TAPER SHALL BE PLACED TO THE PC (POINT B) AND THEN ALONG A CURVE AS SHOWN TO THE PT (POINT D) WHERE A 48' (MIN.) MERGE TAPER SHALL MEET MAINLINE TRAFFIC CONTROL (POINT F).

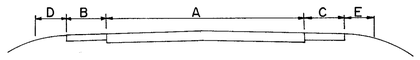
W — TEMPORARY EDGE LINES WHITE
A — LAYOUT POINTS
XXXXXXXXX — MARKINGS REMOVED

PRELIMINARY
PREPARED BY
TECHNICAL SUPPORT SECTION
ALF H. HANSEN P.E.
WALTER C. CHADWICK D.S.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE C & M SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF OMUTCD. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

REVISED BY:	DATE:
209816	DATE 04/03/90
LANE CLOSURE AT ENTRANCE RAMP PLAN B	
PLAN INSERT SHEET	

WCC



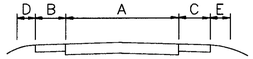
CALC. BY LEH DATE 11-28-90	HAM-50-19.36	OHIO	46
CHKD. BY REA DATE 12-6-91		FHWA REGION 5	255

PAVEMENT DATA										407	446			SPEC.	451	301	304	611	304		254	202	254	
REFERENCE NO.	LOCATION	SHEET NO.	SIDE	STATION FROM	STATION TO	LENGTH	WIDTH TOTAL	WIDTH A+B+C FROM DIAGRAM ABOVE	PAVEMENT AREA	TACK COAT 0.075GAL./SQ. YD	1 1/4" ASPHALT CONCRETE SURFACE COURSE TYPE 1 AC-20	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 AC-20	ASPHALT CONCRETE SURFACE COURSE TYPE 1 AS PER PLAN (VARIABLE DEPTH) AC-20	MICRO-SILICA MODIFIED CONCRETE OVERLAY (1-1/4" THICK)	9" REINFORCED CONCRETE PAVEMENT	6" BITUMINOUS AGGREGATE BASE	9" AGGREGATE BASE AS PER PLAN	REINFORCED CONCRETE APPROACH SLAB (T=15")	6" AGGREGATE BASE, AS PER PLAN	WIDTH A FROM DIAGRAM ABOVE	PAVEMENT PLANING BITUMINOUS	PAVEMENT REMOVED	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE	
						LIN. FT.			SQ. YD.	GAL.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	SQ. YD.	CU. YD.	CU. YD.	SQ. YD.	CU. YD.		SQ. YD.	SQ. YD.	SQ. YD.	
1-P	HAM-50 (SIXTH ST.)	55	LT/RT	18+70	17+95	75		44'	366.67	28			26							40'	40'x50'x1/9=222			
1-P	HAM-50 (SIXTH ST.)	55	LT/RT	17+95	14+58.17	336.83		44'	1646.72	124	58	80												
1-P	HAM-50 (SIXTH ST.)	55	LT/RT	14+58.17	14+12.5EB	50		44'	244.44	19			17							40'	40'x25'x1/9=111			
1-P	HAM-50 (SIXTH ST.)	55	LT.	18+55	14+12.5EB	446.83		4.37' AVE.	216.96						217									
1-P	HAM-50 (SIXTH ST.)	58	LT(WB)	13+10.32	13+35.32	25		42'	116.67									117	20	41'		41x25x1/9=114		
2-P	HAM-50 (SIXTH ST.)	58	LT(WB)	13+34.96	13+59.96	25		42'	116.67	9			8											
2-P	HAM-50 (SIXTH ST.)	58	LT(WB)	13+59.96	14+08	48.04		42'	224.19	17	8	11												
2-P	HAM-50 (SIXTH ST.)	58	LT/RT	13+34.96	14+25	90.04		2'	20.01							4	5							
3-P	HAM-50 (SIXTH ST.)	58	RT(EB)	13+01.25	13+26.25	25		42'	116.67									117	20	41		41x25x1/9=114		
4-P	HAM-50 (SIXTH ST.)	58	RT(EB)	13+26.64	13+51.64	25		42-43.33'	118.51	9			8											
4-P	HAM-50 (SIXTH ST.)	58	RT(EB)	13+51.64	14+00	48.36		43.33-46'	240.00	18	9	12												
4-P	HAM-50 (SIXTH ST.)	58	LT	13+26.64	13+75	48.36		2'	10.75							2	3							
6-P	HAM-50 (SIXTH ST.)	59	LT(WB)	14+08	14+50	42		42'	196	15	7	10												
6-P	HAM-50 (SIXTH ST.)	59	LT(WB)	14+50	18+00	350		42-56'	1905.56	143	67	93												
6-P	HAM-50 (SIXTH ST.)	59	LT(WB)	18+00	20+06	206		56'	1281.78	96	45	63												
7-P	HAM-50 (SIXTH ST.)	59	RT(EB)	14+00	18+19	419		46-81'	2956.28	222	103	144				* 10	*15							
7-P	HAM-50 (SIXTH ST.)	59	RT(EB)	18+19	20+00	181		51'	1025.67	77	36	50												
8-P	HAM-50 (RAMP B)	59	LT.	18+22	18+50	28		22'	68.44	5	3	4												
1-P	HAM-50 (SIXTH ST.)	61	RT.(WB)	21+62	22+42	80		16'	142.22	11	5	7												
1-P	HAM-50 (SIXTH ST.)	61	LT(WB)	20+06	20+11.35	5.35		56'	33.29	3	1	2												
1-P	HAM-50 (SIXTH ST.)	61	LT(WB)	20+11.35	22+85	273.65		56-81'	2082.78	156	73	101												
1-P	HAM-50 (SIXTH ST.)	61	LT(WB)	22+85	26+04	319		51-57.5'	1922.86	144	67	94												
2-P	HAM-50 (SIXTH ST.)	61	RT.	20+00	26+00	600		51'	3400.00	255	118	166												
3-P	HAM-50 (RAMP A)	61	LT.	22+85	23+75	90		19-22'	205.00	16	7	10												
3-P	HAM-50 (RAMP A)	61	LT.	23+75	26+00	225		22'	550.00	41	19	27												
4-P	HAM-50 (SIXTH ST.)	62	LT(WB)	26+04	27+49	133 AVE		57.5-60'	868.19	65	30	42												
4-P	HAM-50 (SIXTH ST.)	62	LT(WB)	27+25	27+75	25 AVE		60'	166.67									167	28	60'		60x25x1/9=167		
5-P	HAM-50 (SIXTH ST.)	62	LT(WB)	29+05	29+53	25 AVE		60'	166.67									167	28	60'		60x25x1/9=167		
5-P	HAM-50 (SIXTH ST.)	62	LT(WB)	29+30	30+85	139.5 AVE		60'	930.00	70	33	45												
5-P	HAM-50 (SIXTH ST.)	62	LT(WB)	30+78.5	31+09.5	25 AVE		60'	166.67									167	28	60'		60x25x1/9=167		
6-P	HAM-50 (SIXTH ST.)	62	RT(EB)	26+00	27+73	162.5 AVE		51'	920.83	69	32	45												
6-P	HAM-50 (SIXTH ST.)	62	RT(EB)	27+53	27+97.5	25 AVE		51'	141.67									142	24	51'		51x25x1/9=142		
7-P	HAM-50 (SIXTH ST.)	62	RT(EB)	29+30.5	29+75	25 AVE		51'	141.67									142	24	51'		51x25x1/9=142		
7-P	HAM-50 (SIXTH ST.)	62	RT(EB)	29+46.5	30+91	121.5 AVE		51'	688.50	52	24	34												
7-P	HAM-50 (SIXTH ST.)	62	RT(EB)	30+84	31+16	25 AVE		51'	141.67									142	24	51'		51x25x1/9=142		
8-P	HAM-50 (RAMP A)	62	LT.	26+00	26+59.56	59.56		22'	145.59	11	5	7												
8-P	HAM-50 (RAMP A)	62	LT.	26+59.56	27+35.33	75.77		22-25'	197.84	15	7	10												
8-P	HAM-50 (RAMP A)	62	LT.	27+35.33	28+00	64.67		25'	179.64	14	6	9												
8-P	HAM-50 (RAMP A)	62	LT.	28+00	28+08	8		25-22'	20.89	2	1	1												
8-P	HAM-50 (RAMP A)	62	LT.	28+08	28+10	2		22'	4.89	1	1	1												
1-P	HAM-50 (SIXTH ST.)	64	LT(WB)	33+21	33+55	25 AVE		63.5-65'	178.47															
1-P	HAM-50 (SIXTH ST.)	64	LT(WB)	33+47	35+23	172 AVE		65-80'	1385.56	104	48	68						179	30	63.5' ~ 65'		63.5+65/2x25x1/9=179		
1-P	HAM-50 (SIXTH ST.)	64	LT(WB)	35+23	38+05	282		51'	1598.00	120	56	78												
2-P	HAM-50 (RAMP FA)	64	RT.	35+28.5	36+08.28	79.78		22'	195.02	15	7	10												
2-P	HAM-50 (RAMP FA)	64	RT.	36+08.28	36+89	80.72		22-24.25'	207.41	16	7	10												
2-P	HAM-50 (RAMP FA)	64	RT.	37+14	37+39	25		25-27'	72.22															
2-P	HAM-50 (RAMP FA)	64	RT.	36+89	37+14	25		24.25-25'	68.40	5			5					73	12	25		25 x 25 x 1/9= 70		
3-P	HAM-50 (SIXTH ST.)	64	RT(EB)	33+32.5	33+67	25 AVE		67.5-69'	189.58											23.5'-25'			23.5+25/2x25x1/9=68	
3-P	HAM-50 (SIXTH ST.)	64	RT(EB)	33+58	34+58.21	94 AVE		69-74.5'	749.39	56	26	37						190	32	67.5-69'		67.5+69/2x25x1/9=190		
3-P	HAM-50 (SIXTH ST.)	64	RT(EB)	34+58.21	35+75	116.79		43-39'	532.04	40	19	26												
3-P	HAM-50 (SIXTH ST.)	64	RT(EB)	35+75	38+00	225		39'	975.00	73	34	48												
4-P	HAM-50 (RAMP C-D)	64	LT.	34+55.81	35+40	84.19		27.5-24'	240.88	18	9	12												
4-P	HAM-50 (RAMP C-D)	64	LT.	35+40	36+50	110.00		24'	293.33	22	10	15												
4-P	HAM-50 (RAMP C-D)	64	RT.	34+81	36+50	169.00		2'	37.56							7	10							
4-P	HAM-50 (RAMP C-D)	64	LT/RT	36+50	37+97	AREA PLANIMETERED			670.89	51	24	33												
4-P	HAM-50 (RAMP FB)	64	LT.	35+85	36+54	69		26-23'	187.83	14	7	9												
7-P	HAM-50 (SIXTH ST.)	65	LT(WB)	38+05	38+32	27		51'	153.00	12	6	8												
7-P	HAM-50 (SIXTH ST.)	65	LT(WB)	38+32	40+58	212.50 AVE		51-47'	1156.95	87	40	56												
7-P	HAM-50 (SIXTH ST.)	65	LT(WB)	40+31	40+82	25 AVE		47'	130.56									131	22	47'		47x25x1/9=131		
7-P	HAM-50 (SIXTH ST.)	65	LT(WB)	39+75	40+31	56		2'	12.44							2	3							
7-P	HAM-50 (SIXTH ST.)	65	RT(WB)	40+00	40+58	58		2'	12.88							2	3							
8-P	HAM-50 (SIXTH ST.)	65	RT(EB)	38+00	40+53	242.75 AVE		39'	1051.92	79	37	51												
8-P	HAM-50 (SIXTH ST.)	65	RT(EB)	40+32.5	40+91C-D	AREA PLANIMETERED			192.44	15			14											
8-P	HAM-50 (SIXTH ST.)	65	RT(EB)	40+57	41+14C-D	AREA PLANIMETERED			193.33									194	33	PLANIMETERED		PLANIMETERED 194		
8-P	HAM-50 (SIXTH ST.)	65	LT(EB)	40+00	40+57	57		2'	12.67							2	3							
8-P	HAM-50 (RAMP C-D)	65	RT	40+71	40+91	20		2'	4.44							1	1							
9-P	HAM-50 (RAMP C-D)	65	LT/RT	37+97	38+81.41	84.41		38'	356.40	27	13	18												
9-P	HAM-50 (RAMP C-D)	65	LT/RT	38+81.41	40+66	AREA PLANIMETERED *			972.22	73	34	47												
9-P	HAM-50 (RAMP FC)	65	LT.	40+60	40+85	AREA PLANIMETERED			8.22							2	2							

*Also Includes Ramp FC to Sta. 41+00

* Limiting Stations 17+48-18+19
59.17 Sq. yds.

PAVEMENT CALCULATIONS SUB-SUMMARY



PAVEMENT CALCULATIONS SUB-SUMMARY

CALC. BY SPH DATE 1/10/91
CHKD. BY SED DATE 1/11/91

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

47
255

REFERENCE NO.	LOCATION	SIDE	SHEET NO.	STATION FROM	STATION TO	LENGTH LIN. FT.	WIDTH TOTAL	WIDTH A+B+C FROM DIAGRAM ABOVE	PAVEMENT AREA SQ. YD.	254 PAVEMENT PLANING BITUMINOUS SQ.YD.	202 PAVEMENT REMOVED SQ.YD.	254 PAVEMENT PLANING PORTLAND CEMENT CONCRETE SQ. YD.	304 AGGREGATE BASE AS PER PLAN CU. YD.	407 TACK COAT .075GAL. /SQ. YD. GAL.	446 ASPHALT CONC. SURFACE COURSE TYPE 1 AC-20 CU. YD.	446 ASPHALT CONC. INTERMEDIATE COURSE TYPE 2 AC-20 CU. YD.	446 ASPHALT CONC. INTERMEDIATE COURSE TYPE 1 AS PER PLAN CU. YD.	451 9" REINFORCED CONCRETE PAVEMENT AS PER PLAN SQ. YD.	611 REINFORCED CONCRETE APPROACH SLAB (T=15") SQ. YD.
1P	HAM-50(SIXTH)	WB	67	48+75.70	49+00.70	25		47	130.56		130.56		21.76						130.56
2P	HAM-50(SIXTH)	WB	67	49+00.70	49+61.70	AVE. 53.5		36	214.00	214.00		214.00		16.05			14.98		
3P	HAM-50(SIXTH)	WB	67	49+61.70	50+00.00	AREA PLANIMETERED			160.44					12.03	5.35	7.49			
4P	HAM-50(SIXTH)	EB	67	48+69.14	48+94.14	25		47	130.56		130.56		21.76						130.56
5P	HAM-50(SIXTH)	EB	67	48+94.14	49+44.42	AVE.53.5		36	214.00	214.00		214.00		16.05			14.98		
6P	HAM-50(SIXTH)	EB	67	49+44.42	49+95.00	AREA PLANIMETERED			218.22					16.37	7.27	10.18			
7P	HAM-50(SIXTH)	WB	67	49+11.70	50+00.00	88.3		8	78.49				17.53	5.89	2.62	3.66		78.49	
8P	HAM-50(SIXTH)	WB	67	49+00.70	50+00.00	98.3		4.5	49.15				8.19	3.69	1.64	2.29		49.15	
9P	HAM-50(SIXTH)	EB	67	48+94.42	49+95.00	100.6		4.5	50.30				8.38	3.77	1.68	2.35		50.30	
10P	HAM-50(SIXTH)	EB	67	48+83.00	49+95.00	112.0		7.5	93.33				20.84	7.00	3.11	4.36		93.33	
11P	HAM-50(SIXTH)	WB	68	50+00.00	50+89.86	89.9		AVE. 50.2	501.44					37.61	17.41	24.38			
12P	HAM-50(SIXTH)	WB	68	50+89.86	53+13.41	223.6		51	1267.07					95.03	44.00	61.59			
13P	HAM-50(SIXTH)	WB	68	53+13.41	54+33.41	120		AVE 53	706.67					53.00	24.54	34.35			
14P	HAM-50(SIXTH)	WB	68	54+33.41	56+00.00	AREA PLANIMETERED			1293.78					76.28	44.58	62.41			
15P	HAM-50(SIXTH)	EB	68	49+95.00	51+85.50	190.5		AVE 49.7	1051.98					78.90	36.53	51.14			
16P	HAM-50(SIXTH)	EB	68	58+85.50	54+14.00	228.5		51	1294.83					99.11	44.96	62.94			
17P	HAM-50(SIXTH)	EB	68	54.+14.00	56+00.00	AREA PLANIMETERED			1377.33					103.30	47.82	66.95			
	TOTALS CARRIED TO SUB-SUMMARY SHEET 69									428	262	428	99	625	282	395	30	272	262
1P	HAM-50(SIXTH)	WB	70	56+00.00	56+50.00	AREA PLANIMETERED			331.11					24.83	11.50	16.10			
2P	HAM-50(SIXTH)	WB	70	56+50.00	57+00.00	50		53.09	294 94					22.12	9.83	13.76			
3P	HAM-50(SIXTH)	WB	70	57+00.00	57+30.00	30		49.51	165.03					12.38	5.50	7.70			
4P	HAM-50(SIXTH)	WB	70	57+30.00	57+90.00	AVE. 58.66		AVE. 49.8	324.59	324.59		324.59		24.34			22.54		
5P	HAM-50(SIXTH)	WB	70	57+00.00	57+90.00	90		AVE 2.25	22.50				3.75	1.69	0.75	1.05		22.50	
6P	HAM-50(SIXTH)	WB	70	56+50.00	57+87.32	137.32		AVE 3.25	49.59				8.27	3.72	1.65	2.31		49.59	
7P	HAM-50(SIXTH)	WB	70	57+87.32	58+12.32	25		52	144.44		144.44		24.07						144.44
8P	HAM-50(SIXTH)	WB	70	60+39.84	60+64.84	25		52	144.44		144.44		24.07						144.44
9P	HAM-50(SIXTH)	WB	70	60+64.84	61+16.00	51.16		52	295.59					22.17	9.85	14.78			
10P	HAM-50(SIXTH)	WB	70	61+16.00	62+01.00	85		50	472.22					35.42	15.74	22.04			
11P	HAM-50(SIXTH)	WB	70	61+16.00	62+01.00	85		2	18.89				3.15	1.42	.66	.92		18.89	
12P	HAM-50(SIXTH)	EB	70	56+00.00	56+50.00	AREA PLANIMETERED			327.79					24.58	11.38	15.93			
13P	HAM-50(SIXTH)	EB	70	56+50.00	57+00.00	50		51.33	285.17					21.39	9.51	13.31			
14P	HAM-50(SIXTH)	EB	70	57+00.00	57+30.00	30		48.30	161.00					12.08	5.37	7.51			
15P	HAM-50(SIXTH)	EB	70	57+30.00	57+83.77	AVE. 51.89		47.72	275.13	275.13		275.13		20.63			18.34		
16P	HAM-50(SIXTH)	EB	70	57+83.79	58+08.79	25		52	144.44		144.44		24.07						144.44
17P	HAM-50(SIXTH)	EB	70	56+50.00	57+83.77	133.77		AVE 3.25	48.31				8.05	3.62	1.61	2.25		48.31	
18P	HAM-50(SIXTH)	EB	70	57+00.00	57+80.00	80		AVE 2.50	22.22				3.70	1.67	0.74	1.04		22.22	
19P	HAM-50(SIXTH)	EB	70	60+14.06	60+39.06	25		52	144.44		144.44		24.07						144.44
20P	HAM-50(SIXTH)	EB	70	60+39.06	62+00.00	160.94		50	894.11					67.06	31.05	43.46			
21P	HAM-50(SIXTH)	EB	70	60+39.06	62+00.00	160.94		2	35.76				5.96	2.68	1.24	1.74		35.76	
22P	RAMP Y	WB	70	61+00.00	62+00.00	100		26	288.89					21.67	9.62	14.44			
1P	HAM-50(SIXTH)	WB	71	62+01.00	64+25.00	224		52	1294.22					97.07	44.94	62.71			
2P	HAM-50(SIXTH)	WB	71	64+25.00	64+86.20	61.2		AVE. 52.52	357.14					26.79	12.40	17.36			
3P	HAM-50(SIXTH)	WB	71	64+86.20	66+01.50	AREA PLANIMETERED			796.44	796.44				59.73			55.31		
4P	HAM-50(SIXTH)	EB	71	62+00.00	63+58.63	AREA PLANIMETERED			1049.33					78.70	36.44	51.01			
5P	RAMP Q	EB	71	63+58.63	65+32.00	173.37		AVE. 38.35	738.65					55.40	25.65	35.91			
6P	RAMP Q	EB	71	65+32.00	66+22.00	AREA PLANIMETERED			326.67	326.67		326.67		24.50			22.69		
7P	SIXTH-FIFTH CONN	SB	71	63+53.08	63+88.51	35.42		AVE. 31.35	123.38					9.25	4.28	6.00			
8P	SIXTH-FIFTH CONN	SB	71	63+88.51	64+63.51	75		AVE. 29.4	245.00	245.00		245.00		18.38			17.01		
9P	RAMP Y	WB	71	62+00.00	64+00.00	200		26	577.78					43.33	20.06	28.09			
10P	RAMP Y	WB	71	64+00.00	64+84.00	84		AVE. 24	224.00					16.80	7.78	10.89			
11P	HAM-50(SIXTH)	EB	71	62+00.00	62+05.00	5		2	1.11				0.19	.08	.04	.05		1.11	
	TOTALS CARRIED TO SUB-SUMMARY SHEET 72									1968	578	1172	130	754	278	391	136	199	578

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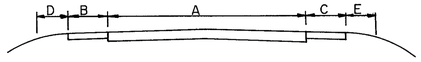
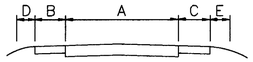


CALC. BY LEH DATE 11-28-90	HAM-50-19.36	OHIO	48
CHKD. BY REA DATE 12-6-91		FHWA REGION 5	255

PAVEMENT DATA										407	446				451	611	304		202	254	
REFERENCE NO.	LOCATION	SHEET NO.	SIDE	STATION FROM	STATION TO	LENGTH	WIDTH TOTAL	WIDTH A+B+C FROM DIAGRAM ABOVE	PAVEMENT AREA	TACK COAT 0.075 GAL./SQ.YD.	1 1/4" ASPHALT CONCRETE SURFACE COURSE TYPE I AC-20	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 AC-20	ASPHALT CONCRETE SURFACE COURSE TYPE I AS PER PLAN (VARIABLE DEPTH) AC-20		9" REINFORCED CONCRETE PAVEMENT	REINFORCED CONCRETE APPROACH SLAB (T= 15")	6" AGGREGATE BASE AS PER PLAN	WIDTH A FROM DIAGRAM ABOVE	PAVEMENT REMOVED	PAVEMENT PLANING PORTLAND CEMENT CONCRETE	
						LIN. FT.			SQ. YD.	GAL.	CU. YD.	CU. YD.	CU. YD.		SQ. YD.	SQ. YD.	CU. YD.		SQ. YD.	SQ. YD.	
1-P	Ramp B	76	Lt.	18+50	20+83.64	233.64		20	519.20	39	18	26									
1-P	Ramp B	76	Rt.	20+00	20+34	Area Planimetered			122.22	9	5	6									
2-P	Mehring Way	76	Lt.	19+80	20+10	30		27.5	91.67	7			7					27.5'		30'x27.5'x1/9=92	
2-P	Mehring Way & Turn.	76	Lt.	20+10	23+63.19	Area Planimetered			2488.56	187	87	121									
2-P	Mehring Way	76	Lt.	23+63.19	23+93.19	30		30	100	8			7					30'		30'x30'x1/9=100	
1-P	Ramp FB	79	Lt.	30+00	30+79.80	Area Planimetered			111.11	9	4	6									
1-P	Ramp FB	79	Lt.	30+79.80	31+30	50.2		21.9 - 23	125.22	10	5	6									
1-P	Ramp FB	79	Lt.	31+30	31+74.54	44.54		23	113.82	9	4	6									
1-P	Ramp FB	79	Lt.	31+74.54	32+59.39	Area Planimetered			566.67*	43	20	28									
1-P	Ramp FB	79	Lt.	32+59.39	35+85	325.61		26	940.65	71	33	46									
5-P	Ramp FC	80	Lt.	41+00	43+11.55	211.55		26	611.14	46	22	30									
5-P	Ramp FC	80	Lt.	43+11.55	44+17.62	Area Planimetered			714.22*	54	25	35									
5-P	Ramp FC	80	Lt.	44+17.62	45+14.47	96.85		26 - 23	263.65	20	9	13									
5-P	Ramp FC	80	Lt.	45+14.47	45+81	Area Planimetered			96.67	7	4	5									
1-P	Freeman Ave.	82	Lt/Rt	16+81	18+46	165		4	73.33												
1-P	Freeman Ave.	82	Lt/Rt	11+80	12+10	30		36	120	9					74						
1-P	Freeman Ave.	82	Lt.	12+10	12+48.85	38.85		18	77.70	6	3	4	9					36'		30'x36'x1/9=120	
1-P	Freeman Ave.	82/83	Lt.	12+48.85	16+68.85	420		18 - 28	1073.33	81	37	52									
1-P	Freeman Ave.	82	Lt.	16+68.85	18+21	152.15		28	473.36	36	17	23									
1-P	Freeman Ave.	82	Rt.	12+10	12+24.62	14.62		18	29.24	2	1	2									
1-P	Freeman Ave.	82	Rt.	12+24.62	15+33.17	308.55		18 - 28	788.52	59	28	39									
1-P	Freeman Ave.	82/83	Rt.	15+33.17	18+21	287.83		28	895.47	67	31	44									
1-P	Freeman Ave.	83	Lt/Rt	18+21	18+46	25		56	155.56	12			11								
1-P	Freeman Ave.	83	Lt/Rt	18+46	18+71	25		58-57	159.72												
2-P	Sargent St.	82	Lt.	—	—	Area Planimetered			234.22	18			17			160	27	56 Planimetered		25'x56'x1/9= 156	235 (Planimetered)
3-P	Sargent St.	82	Rt.	—	—	Area Planimetered			243.33	18			17					Planimetered			234 (Planimetered)
5-P	Freeman Ave.	84	Lt/Rt	25+76	26+01	25		63.27-65	178.15							179	30	63.25-65		63.25-65/2x25x1/9=179	
6-P	Freeman Ave	84	Lt.	26+01	26+26	25		29	80.55	6			6		6			1		1x25x1/9 = 3	
6-P	Freeman Ave.	84	Lt.	26+26	26+87	61		29	196.55	15	7	10			14			1'-2'		k2 /2 x61 x 1/9= 10	
6-P	Freeman Ave.	84/85	Lt.	26+87	28+86.5	199.5		29-38	742.58	56	26	36									
6-P	Freeman Ave.	85	Lt.	28+86.5	29+90	103.5		38	437	33	15	21									
6-P	Freeman Ave.	85	Lt.	29+90	30+20	30		38	126.67	10			9					38'		30'x38'x1/9=127	
7-P	Freeman Ave.	84	Rt.	26+01	26+26	25		26	72.22	6			5								
7-P	Freeman Ave.	84	Rt.	26+26	27+25	99		26	286.00	22	10	14									
7-P	Freeman Ave.	84/85	Rt.	27+25	28+86.5	Area Planimetered			624.67	47	22	31									
7-P	Freeman Ave.	85	Rt.	28+86.5	29+90	103.5		46	529	40	19	26									
7-P	Freeman Ave.	85	Rt.	29+90	30+20	30		46	153.33	12			11					46		30'x46'x1/9=153	

*Also Includes Ramp on Other Side of Traffic Island to Freeman Avenue

PAVEMENT CALCULATIONS SUB-SUMMARY



PAVEMENT CALCULATIONS SUB-SUMMARY

CALC. BY SPH DATE 1/10/91
CHKD. BY SED DATE 1/11/91

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

REFERENCE NO.	LOCATION	SHEET NO.	STATION FROM	STATION TO	LENGTH LIN. FT.	WIDTH TOTAL	WIDTH A+B+C FROM DIAGRAM ABOVE	PAVEMENT AREA SQ. YD.	254 PAVEMENT PLANING BITUMINOUS SQ.YD.	254 PAVEMENT PLANING PORTLAND CEMENT CONCRETE SQ. YD.	407 TACK COAT .075GAL. /SQ. YD. GAL.	446 ASPHALT CONC. SURFACE COURSE TYPE 1 AC-20 CU. YD.	446 ASPHALT CONC. INTERMEDIATE COURSE TYPE 2 AC-20 CU. YD.	446 ASHPALT CONC. INTERMEDIATE COURSE TYPE 1 AS PER PLAN CU. YD.	451 9" REINFORCED CONCRETE PAVEMENT AS PER PLAN SQ. YD.
1P	LINN ST.	87	7+58.20	8+03.20	AREA PLANIMETERED			328.89	328.89		24.67			22.84	
2P	LINN ST.	87	8+03.20	13+23.70	AREA PLANIMETERED			6555.11		328.89	491.63	227.61	318.65		
3P	LINN ST.	87	13+23.70	13+68.70	AREA PLANIMETERED			248.89	248.89		18.67			17.28	
4P	LINN ST.	87	13+23.70	13+68.70	AREA PLANIMETERED			213.33	213.33	248.89	16.00			14.81	
5P	SIXTH ST.	87	46+25.80	46+79.00	AVE. 42.95		29	138.39	138.39	213.33	10.38			9.61	
6P	SIXTH ST.	87	49+10.50	49+55.50	45		40	200.00	200.00	138.39	15.00			13.89	
7P	DALTON ST.	87	46+88.30	47+33.30	AREA PLANIMETERED			191.11	191.11	200.00	14.33			13.27	
8P	DALTON ST.	87	46+88.30	47+33.30	AREA PLANIMETERED			139.56	139.56	191.11	10.47			9.69	
										139.56					
1P	RAMP LA	88	50+00.00	51+37.45	AREA PLANIMETERED			652.28			48.92	22.65	31.71		
2P	RAMP LA	88	51+37.45	54+36.13	298.68		AVE. 32.71	1085.54			81.42	37.69	52.77		
3P	RAMP LB	88	49+01.78	50+00.00	98.22		AVE. 31.77	346.72			26.00	12.04	16.85		
4P	RAMP LB	88	50+00.00	51+60.03	160.03		30	533.43			40.00	18.52	25.93		
5P	RAMP LB	88	51+60.03	54+36.52	276.49		AVE. 24.5	752.67			56.45	26.13	36.59		
1P	GEST ST.	89	8+67.50	9+12.50	45		66	330.00	330.00		24.75			22.72	
2P	GEST ST.	89	9+12.50	11+12.80	200.3		66	1468.87		330.00	110.17	51.00	71.40		
3P	GEST ST.	89	11+12.80	11+57.80	45		66	330.00	330.00		24.75			22.72	
4P	RAMP Y	89	59+44Y	61+00Y	156		26	450.67		330.00	33.80	15.65	21.91		
5P	RAMP YN	89	59+41.60YN	60+60YN	AREA PLANIMETERED			193.33			14.50	6.71	9.40		
6P	RAMP YN	89	58+96.60YN	59+41.60YN	45		AVE. 16.50	82.5	82.50	82.50	6.19			5.73	
7P	RAMP YN	89	59+31.50YN	59+63Y	AREA PLANIMETERED			46.23			3.47	1.54	2.16		46.23
TOTALS CARRIED TO SUB-SUMMARY SHEET 90									2203	2203	1072	420	588	153	47

PAVEMENT CALCULATIONS SUB-SUMMARY

Sep 09-98 08:45:07 AM 262

STATION TO STATION	SIDE	ITEM 659 SEEDING & MULCHING (SQ. YD.)	ITEM 203 LINEAR GRADING (STATION) II	III	IV	V
13+66 - 14+08 WB	Lt.	33	0.4			
13+09 - 14+08 WB	Rt.	110		1.0		
13+00 - 14+00 EB	Lt.	110		1.0		
14+08 - 19+84 WB	Lt.	448	5.8			
19+84 - 20+06 WB	Lt.	25		0.2		
14+00 - 20+00 EB	Lt.	1133		2.0	5.0	
18+19 - 20+00 EB	Rt.	201		1.8		
14+79 EB - 18+50 Ramp B	Rt.	407		3.7		
20+06 WB - 26+00 Ramp A	Lt.	657		5.9		
22+85 WB - 26+00 Ramp A	Rt.	308		2.4		0.8
22+85 - 26+04 WB	Lt.	354		3.2		
20+00 - 21+58 EB	Lt.	237			1.6	
22+35 - 26+00 EB	Lt.	588			3.7	
20+00 - 21+03 EB	Rt.	112		1.0		
21+18 - 21+55 EB	Rt.	36		0.3		
21+74 - 23+42 EB	Rt.	182		1.6		
26+00 - 28+10 Ramp A	Lt.	261		2.4		
26+00 - 28+10 Ramp A	Rt.	227		2.0		
26+04 - 27+52 WB	Lt.	164		1.5		
29+19 - 30+87 WB	Lt.	187		1.7		
26+00 - 27+63 EB	Lt.	317			1.7	
29+40 - 30+96 EB	Lt.	269			1.6	
33+24 - 37+40 Ramp FA	Lt.	462		4.2		
35+28.5 - 37+43 Ramp FA	Rt.	195		1.3		1.0
37+35 - 38+05 WB	Lt.	78		0.7		
33+38 - 38+00 EB	Lt.	667			4.7	
34+81 - 36+50 C-D	Rt.	236		1.9		0.4
35+85 FB- 37+97 C-D	Rt.	229		2.1		
35+34 - 38+00 EB	Rt.	517			2.7	
38+05 - 40+53 WB	Lt.	276		2.5		
38+00 - 40+79 EB	Lt.	217			2.8	
38+00 - 40+62 EB	Rt.	452			2.6	
37+97 C-D - 41+00 FC	Rt.	334		3.0		
40+74 - 41+09 C-D	Rt.	30				0.3
48+93 - 50+03 WB	Lt.	122		1.1		
48+70 - 50+00 EB	Lt.	83			1.3	
48+63 - 50+00 EB	Rt.	152		1.4		
50+03 - 53+95 WB	Lt.	436		3.9		
54+36.13 - 56+00 LA	Lt.	127	1.6			
50+00 - 56+00 EB	Lt.	1095		6.0	3.0	
50+00 - 54+13 EB	Rt.	459		4.2		
54+36.52 - 56+00 LB	Rt.	182		1.6		
56+00 - 57+90 WB	Lt.	148	1.9			
56+00 - 57+96 WB	Rt.	218		2.0		
56+00 - 57+94 EB	Lt.	216		1.9		
56+00 - 58+07 EB	Rt.	230		2.1		
60+88 - 62+01 WB	Lt.	126		1.2		
60+50 - 62+00 EB	Rt.	167		1.5		
62+01 - 65+54 WB	Lt.	392		3.5		
62+00 EB - 64+64 Connector	Rt.	293		2.6		
63+77 - 66+22 EB	Rt.	368		3.2		0.2
18+50 - 20+85 Ramp B	Lt.	259		2.1		0.3
18+50 - 20+14 Ramp B	Rt.	234		2.1		
29+67 - 35+85 Ramp FB	Rt.	653		5.9		
31+45 - 35+85 Ramp FB	Lt.	623		5.6		
41+00 - 46+20 Ramp FC	Rt.	547		4.9		
41+00 - 44+61 Ramp FC	Lt.	556		5.0		
13+84 - 16+00 Freeman	Lt.	240		2.2		
26+09 - 28+00 Freeman	Lt.	212		1.9		
28+00 - 28+78 Freeman	Lt.	87		0.8		
8+84 - 9+64 Linn	Rt.	178				
10+74 - 12+22 Linn	Rt.	329				
48+05 - 49+00 Ramp LB	Lt.	106		1.0		
48+95 - 50+00 Ramp LA	Lt.	82	1.0			
48+60 - 50+00 Ramp LA	Rt.	156		1.4		
50+00 - 54+36 Ramp LA	Lt.	339		4.4		
50+00 - 54+00 Ramp LA	Rt.	442		3.6		0.5
49+00 - 54+00 Ramp LB	Lt.	360				5.0
49+00 - 54+36.5 Ramp LB	Rt.	596		5.4		
59+60.5-60+15 Ramp YN	Lt.					0.7
TOTALS		20872 ₸	10.7	129.9	30.7	9.2
			USE 11 ₸	USE 130 ₸	USE 31 ₸	USE 9 ₸

₸ QUANTITIES CARRIED TO GENERAL SUMMARY.

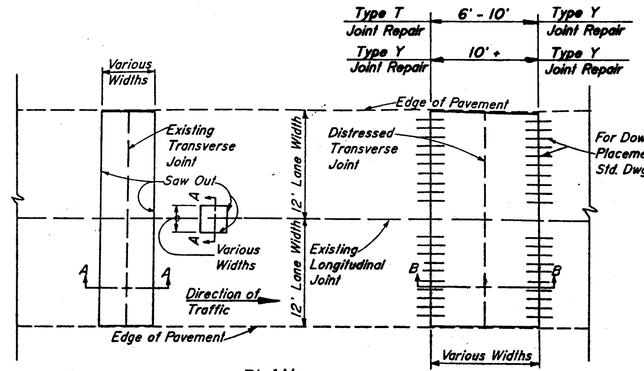
CALC. BY LEH DATE 1-3-90		OHIO	50
CHKD. BY REA DATE 12-6-91	HAM-50-19.36	FHWA REGION 5	255

FERTILIZER & WATER — 20872 Sq. Yd. (SEEDING & MULCHING)

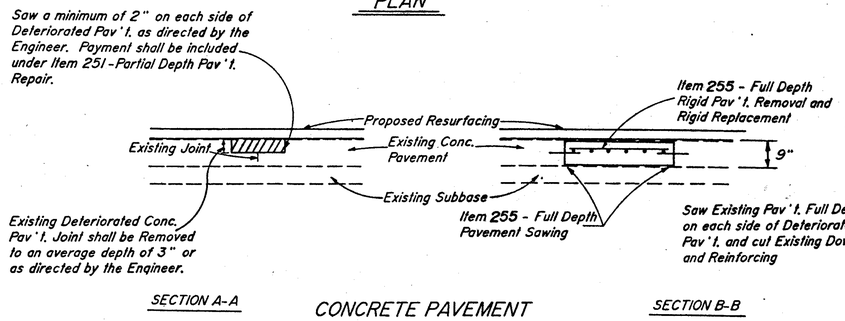
659 COMMERCIAL FERTILIZER *
20872 S.Y. × 9 S.F./S.Y. × 20# × 1/2000 = 1.88 TON
1000 S.F.

659 WATER
2(20872 S.Y. × 9 S.F./S.Y. × 120 Gal. × 1/1000 = 45.08 M GAL.
1000 S.F. Use 46 M GAL. ₸₸

* QUANTITIES CARRIED TO GENERAL SUMMARY
₸₸ QUANTITIES CARRIED TO GENERAL NOTES



PLAN



SECTION A-A — SECTION B-B

CONCRETE PAVEMENT JOINT REPAIR DETAILS

ESTIMATED PAVEMENT REPAIR			
Item	Description	Quantities	Unit
251	Partial Depth Pavement Repair	* 1050	Sq. Yd.
255	Full Depth Pavement Removal & Rigid Replacement, Class C	* 8125	Sq. Yd.
255	Full Depth Pavement Sawing	* 18850	Lin. Ft.

* Quantities Carried to General Summary

SUB-SUMMARY

802 BARRIER REFLECTORS

CALC. BY LEH	HAMILTON COUNTY	OHIO	51
CHKD. BY REA	HAM-50-19.36	FHWA REGION 5	255
DATE 12-6-91			

STATION TO STATION	SIDE	SPACING	802 BARRIER REFLECTOR TYPE A(WHITE)	802 BARRIER REFLECTOR TYPE A(YELLOW)	802 BARRIER REFLECTOR TYPE B(WHITE)	802 BARRIER REFLECTOR TYPE B(YELLOW)	SHEET NO.
		LIN. FT.	EA.	EA.	EA.	EA.	
SIXTH ST. EXP.							
18+45-16+45 6th ST.	LT.	100			3		55
17+20-1+00.67 EB	L/R	75			3		55
1+12 EB	RT.	100			1		55
18+43-1+89.12 WB	R/L	100			6		55
1+63 WB	LT.	--				1	55
1+54 WB	LT.	85			1		55
2+12-7+12 EB	RT.	100			6		56
2+65-7+65 EB	LT.	100				6	56
2+80-5+50 WB	RT.	90				4	56
6+50-7+50 WB	RT.	100				2	56
2+34-4+00 WB	LT.	85			3		56
5+00-8+00 WB	LT.	100			4		56
8+12-13+12 EB	RT.	100			6		58
8+65-13+65 EB	LT.	100				6	58
8+50-13+50 WB	RT.	100				6	58
9+00-14+00 WB	LT.	100			6		58
14+12-17+12 EB	RT.	100	3		1		59
18+90-19+55 EB	RT.	65	2				59
14+65-19+65 EB	LT.	100				6	59
14+50-19+50 WB	RT.	100				6	59
15+00-20+00 WB	LT.	100			6		59
20+20 EB	RT.	65	1				61
22+56-25+56 EB	RT.	100	1		3		61
20+65-25+65 EB	LT.	100				6	61
20+50-25+50 WB	RT.	100				6	61
21+00 WB	LT.	100	1				61
24+21-25+91 WB	LT.	85	3				61
26+56-31+56 EB	RT.	100			6		62
26+65-31+65 EB	LT.	100				6	62
26+50-31+50 WB	RT.	100				6	62
26+76-31+76 WB	LT.	100	1		5		62
32+56--36+56 C-D	RT.	100			4		64
37+90 EB	RT.	85	1				64
32+65-37+65 EB	LT.	100				6	64
32+50-37+50 WB	RT.	100				6	64
32+76-34+76 WB	LT.	100	2		1		64
35+25-37+25 WB	LT.	100			3		64
38+75-39+60 EB	RT.	85	2				65
40+75C-D-43+75 EB	RT.	100			4		65
38+65--43+65 EB	LT.	100				6	65
38+50--43+50 WB	RT.	100				6	65
38+25-43+25 WB	LT.	100	3		3		65
44+75-49+75 EB	RT.	100	1		5		67
44+65-49+65 EB	LT.	100				6	67
44+50-49+50 WB	RT.	100				6	67
44+25-49+25 WB	LT.	100	1		5		67
SUBTOTAL			22	0	85	97	

STATION TO STATION	SIDE	SPACING	802 BARRIER REFLECTOR TYPE A(WHITE)	802 BARRIER REFLECTOR TYPE A(YELLOW)	802 BARRIER REFLECTOR TYPE B(WHITE)	802 BARRIER REFLECTOR TYPE B(YELLOW)	SHEET NO.
		LIN. FT.	EA.	EA.	EA.	EA.	
SIXTH ST. EXP.							
50+75-51+75 EB	RT.	100	2				68
52+64-53+53 EB	RT.	89	2				68
54+77-55+77 EB	RT.	100	2				68
50+65-55+65 EB	LT.	100				6	68
50+50-55+50 WB	RT.	100				6	68
50+25-52+25 WB	LT.	100	3				68
54+50-55+50 WB	LT.	100			2		68
56+77-58+77 EB	RT.	100	2		1		70
59+62-60+47 EB	RT.	85			2		70
56+65-61+65 EB	LT.	100				6	70
56+50-61+50 WB	RT.	100				6	70
56+50-61+50 WB	LT.	100			6		70
62+62-63+42 EB	RT.	80	2				71
62+65 EB	LT.	100				1	71
63+50-65+20 EB	LT.	85				3	71
62+50-64+50 WB	RT.	100				3	71
62+50-65+50 WB	LT.	100			4		71
RAMP A							
24+10-25+60	RT.	75		3			61
RAMP FA							
32+24-37+22	RT.	100		3			64
37+64--39+96	RT.	50				4	64,84
35+76--36+76	LT.	100	2				64
37+26-40+76	LT.	50			8		64,84
RAMP FB							
30+25-31+25	RT.	100	3				79
31+69-32+57	RT.	44	3				79
32+00-35+83	LT.	50		10			79
RAMP FC							
40+80-44+26	LT.	50		10			65,80
40+77-45+00	RT.	50	9				65,80
RAMP CD							
37+88-39+58	LT.	85		3			64,65
37+77-39+77	RT.	100	3				64,65
40+27	RT.	50	1				65
RAMP LA							
49+50-53+50	LT.	100			5		87,88
RAMP YN							
59+35-59+95	RT.	60				2	89
FREEMAN							
14+20-15+70	LT.	75	3				82
18+60-22+60	LT.	100			5		83,84
25+47-28+47	LT.	100	3		1		84
SUBTOTAL			40	29	34	37	
TOTAL			62	29	119	134	
			91*		253*		

*QUANTITIES CARRIED TO GENERAL SUMMARY SEE SHEET No. 95

REFLECTORS SUB-SUMMARY

CALC. BY L.E.H. DATE 1-7-90
CHKD. BY R.E.A. DATE 12-10-91

HAMILTON COUNTY
HAM-50-19.36

OHIO
FHWA REGION 5

GENERAL SUMMARY

SHEET NUMBER																							ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
	12	13	14	15	16	17		50	57	60	63	66	69	72	78	81	86	90									ROADWAY
	LUMP																						201	11000	LUMP		CLEARING AND GRUBBING
									LUMP		LUMP	LUMP		LUMP	LUMP								202	11000	LUMP		STRUCTURE REMOVED (SEE SHEET NO. 13)
									LUMP					LUMP									202	11200	LUMP		PORTIONS OF STRUCTURE REMOVED (SEE SHEET NO. 13)
										275	927	784	536	751			348						202	23000	3621	SQ. YD.	PAVEMENT REMOVED
									1953	148				350	439	923	305	907					202	30000	5025	SQ. FT.	WALK REMOVED
																	119						202	30600	119	SQ. YD.	CONCRETE MEDIAN REMOVED
									24	38				10									202	30700	72	LIN. FT.	CONCRETE BARRIER REMOVED
									462	2169	2282	2323.5	1842	1462	69	304	347	1003					202	32000	12264	LIN. FT.	CURB REMOVED
										1928	2639	2667	1861	1174	250	1632	573	572					202	38000	13296	LIN. FT.	GUARDRAIL REMOVED
											80												202	38300	80	LIN. FT.	GUARDRAIL REMOVED, BARRIER DESIGN
											114	170	100										202	32001	384	LIN. FT.	CURB REMOVED, AS PER PLAN (SEE SHEET NO. 93)
									4														202	58000	4	EACH	MANHOLE REMOVED
									1														202	58400	1	EACH	INLET ABANDON
										1214	1723	938	480	593	130	315		1152					202	75000	6545	LIN. FT.	FENCE REMOVED
									4.5														203	60200	5	STA.	LINEAR GRADING, METHOD 1
								11															203	60204	11	STA.	LINEAR GRADING, METHOD 2
								130															203	60300	130	STA.	LINEAR GRADING, METHOD 3
								31															203	60400	31	STA	LINEAR GRADING, METHOD 4
								9															203	60404	9	STA.	LINEAR GRADING, METHOD 5
										2.5		3.2	4.0	7.0									203	60000	17	STA	LINEAR GRADING, METHOD 6
										81.25	587.5	1123	782	329.5		1582	481.25	68.75					606	13000	5035.25	LIN. FT.	GUARDRAIL, TYPE 5
												112.5	161.5			25							606	13050	299	LIN. FT.	GUARDRAIL, TYPE 5A
										1	3	3	2			1	2						606	25000	12	EACH	ANCHOR ASSEMBLY, TYPE A
											2	3	1	1		3	3	1					606	26500	14	EACH	ANCHOR ASSEMBLY, TYPE T
										1	2	1	1	1		1	1	1					606	35000	9	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1
											1	3	1	1		1							606	35100	7	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2
										1113	818	998	480	1205				1270					607	20001	5884	LIN. FT.	FENCE, TYPE CL, AS PER PLAN (SEE SHEET NO. 13)
										101	1019				210	315							607	23001	1645	LIN. FT.	FENCE, TYPE CLT, AS PER PLAN (SEE SHEET NO. 13)
										2	3												607	50900	5	EACH	GATE, TYPE CL
										148				348	372	863	225	573					608	10000	2529	SQ. FT.	4" CONCRETE WALK
															1	1							608	51000	2	EACH	CURB RAMP, TYPE 2
															75	69	92						608	54000	236	SQ. FT.	CURB RAMP, TYPE 2
																	1						SPECIAL	69010200	1	EACH	IMPACT ATTENUATOR G.R.E.A.T. TYPE MODEL NO. 206206SF2 (SH.13)
												1											SPECIAL	69010200	1	EACH	IMPACT ATTENUATOR G.R.E.A.T. TYPE MODEL NO. 206206 SF4
									1														SPECIAL	69010200	1	EACH	IMPACT ATTENUATOR GR.E.A.T. TYPE MODEL NO 206206 SF5
									1														SPECIAL	69010200	1	EACH	IMPACT ATTENUATOR G.R.E.A.T. TYPE MODEL NO. 206206SF5, BIDIRECTIONAL

GENERAL SUMMARY

CALC. BY L.E.H. DATE 1-7-90	HAMILTON COUNTY	OHIO	53
CHKD. BY R.E.A. DATE 12-10-91	HAM-50-19.36	FHWA REGION 5	255

SHEET NUMBER 12	13	14	15	16	17	50	57	60	63	66	69	72	78	81	86	90	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
																					EROSION CONTROL
4175																	207	10000	4175	SQ. YD.	TEMPORARY SEEDING AND MULCHING
192																	207	70000	192	EACH	STRAW OR HAY BALES
						20872											659	10000	20872	SQ. YD.	SEEDING AND MULCHING
0.19						1.88											659	20000	2.07	TON	COMMERCIAL FERTILIZER
~~9 46~~																	659	35000	55	M. GAL.	WATER
																					DRAINAGE
								120	50	70	20	10				20	603	01500	290	LIN. FT.	6" CONDUIT, TYPE F 707.17 NON-PERFORATED, ASTM 3034, SDR 35 OR SUPL. SPEC. 931
							18	44	20	24	8	4				8	603	04400	126	LIN. FT.	12" CONDUIT, TYPE B 707.13
								16		8							603	05900	24	LIN. FT.	15" CONDUIT, TYPE B 707.13
							1	10	4	6	2					2	604	14501	25	EACH	INLET, NO. 3A, AS PER PLAN NO.1 (SEE SHEET NO. 13)
									1			1					604	14501	2	EACH	INLET, NO. 3A, AS PER PLAN NO.2 (SEE SHEET NO. 13)
									1	2							604	20600	3	EACH	INLET ADJUSTED TO GRADE
	10																604	33501	10	EACH	MANHOLE FRAME AND COVER, AS PER PLAN (SEE SHEET NO. 13)
							1		1			6	3		4	14	604	34500	29	EACH	MANHOLE ADJUSTED TO GRADE
															1		604	35500	1	EACH	MANHOLE RECONSTRUCTED TO GRADE
																					PAVEMENT
						1050											251	01200	1050	SQ. YD.	PARTIAL DEPTH PAVEMENT JOINT REPAIR
							333				428	1968				2203	254	01000	4932	SQ. YD.	PAVEMENT PLANING, BITUMINOUS
											428	1172	192		879	2203	254	01010	4874	SQ. YD.	PAVEMENT PLANING PORTLAND CEMENT CONCRETE
						8125											255	10000	8125	SQ. YD.	FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, CLASS C
						18850											255	20000	18850	LIN. FT.	FULL DEPTH PAVEMENT SAWING
								16		16							301	10002	32	CU. YD.	BITUMINOUS AGGREGATE BASE, AC-20
								63	156	151	99	130			57		304	20001	656	CU. YD.	AGGREGATE BASE, AS PER PLAN (SEE SHEET NO. 13)
							171	611	925	827	625	754	250	269	555	1072	407	10000	6059	GAL.	TACK COAT
							80	387	601	511	395	391	153	175	302	588	446	01200	3583	CU. YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
							58	278	429	383	282	278	110	126	216	420	446	01400	2572	CU. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
							43	16		28	30	136	14		85	153	446	01401	505	CU. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN (VARIABLE DEPTH)
							217				272	199			94	47	451	14000	829	SQ. YD.	9" REINFORCED CONCRETE PAVEMENT
							44										SPEC.	45132000	44	LIN. FT.	PRESSURE RELIEF JOINT, TYPE C
								20					48	62	341	373	609	14000	844	LIN. FT.	CURB, TYPE 2A
							39		145	89	213	90		224		88	609	26000	888	LIN. FT.	CURB, TYPE 6
																9	609	30001	9	LIN. FT.	CURB, TYPE B, AS PER PLAN (SEE SHEET 88)

GENERAL SUMMARY

GENERAL SUMMARY

CALC. BY L.E.H. DATE 1-7-90	HAMILTON COUNTY	OHIO	54
CHKD. BY R.E.A. DATE 12-10-91	HAM-50-19.36	FHWA REGION 5	255

SHEET NUMBER																									ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
		12	13	14	15	16	17		50	57	60	63	66	69	72	78	81	86	90										
											234	927	767	262	578			339							611	25000	3107	SQ. YD.	REINFORCED CONCRETE APPROACH SLAB (T=15")
										420			475.5												622	24000	896	LIN. FT.	CONCRETE BARRIER, TYPE D
										436	2121.5	2066.5	1540	1581	1167				466						622	24001	9378	LIN. FT.	CONCRETE BARRIER, TYPE D, AS PER PLAN (SEE SHEET NO. 13)
													70												SPEC.	519 22000	70	SQ. YD.	MICRO SILICA MODIFIED CONCRETE OVERLAY (1 1/4"THICK), ON EXISTING DECK (SEE PROPOSAL NOTE)
																													— MAINTENANCE OF TRAFFIC —
				50																					404	35000	50	CU. YD.	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC
				50																					410	14001	50	CU. YD.	TRAFFIC COMPACTED SURFACE, AS PER PLAN
				15																					614	12470	15	EACH	WORK ZONE SPEED LIMIT SIGN
						294																			614	13300	294	EACH	BARRIER REFLECTOR, TYPE B
						0.20																			614	20000	0.20	MILE	TEMPORARY LANE LINE, CLASS 1
						2.28																			614	20300	2.28	MILE	TEMPORARY LANE LINE, CLASS 1, 740.05, TYPE C
						6.98																			614	22000	6.98	MILE	TEMPORARY EDGE LINE, CLASS 1
						5.87																			614	22300	5.87	MILE	TEMPORARY EDGE LINE, CLASS 1, 740.05, TYPE C
						1663																			614	23000	1663	LIN. FT.	TEMPORARY CHANNELIZING LINE, CLASS 1
						1413																			614	23600	1413	LIN. FT.	TEMPORARY CHANNELIZING LINE, CLASS 1, 740.05, TYPE C
						200																			614	25600	200	L.F.	TEMPORARY TRANSVERSE LINE, CLASS 1, 704.05, TYPE C
						96																			614	26600	96	L.F.	TEMPORARY STOP LINE, CLASS 1, 704.05, TYPE C
												160													622	40021	160	L.F.	PORTABLE CONCRETE BARRIER, 32", AS PER PLAN (See Sh No. 13)
						294																			614	13350	294	EA.	OBJECT MARKER
							1502																		615	35001	1502	SQ. YD.	TEMPORARY PAVEMENT, AS PER PLAN (SEE SHEET NO. 14)
						1618																			642	30000	1618	LIN. FT.	REMOVAL OF PAVEMENT MARKING
						7022																			622	40020	7022	LIN. FT.	PORTABLE CONCRETE BARRIER, 32"
					300																				SPEC.	61411100	300	HOURS	LAW ENFORCEMENT OFFICER WITH PATROL CAR (SEE SHEET NO. 15)
					100																				SPEC.	61412500	100	SQ. FT.	REPLACEMENT SIGNS (SEE SHEET NO. 15)
					1000																				SPEC.	61412600	1000	EACH	REPLACEMENT DRUMS (SEE SHEET NO. 15)
					9																				SPEC.	69010300	9	EACH	TEMPORARY IMPACT ATTENUATOR, (G.R.E.A.T. TYPE) MODEL NO. 200200NF6GCZ (SEE SHEET NO. 15)
					9																				SPEC.	69010500	9	EACH	REMOVE AND REPLACE IMPACT ATTENUATOR (SEE SHEET NO. 15)
					1																				SPEC.	69010600	1	EACH	TEMPORARY IMPACT ATTENUATOR, G.R.E.A.T. TYPE (REPLACEMENT) MODEL NO. 200200NF6GCZ (SEE SHEET NO. 15)
																													FOR LIGHTING GENERAL SUMMARY (SEE SHEET NO. 123 & 128)
																													FOR TRAFFIC CONTROL GENERAL SUMMARY (SEE SHEET NO. 95)
																													FOR STRUCTURES 20' AND OVER SEE SHTS. (154, 181, 183, 195, 228 & 241)
																									614	11000	LUMP		MAINTAINING TRAFFIC
																									619	15010	LUMP		FIELD OFFICE, TYPE B
																									623	10000	LUMP		CONSTRUCTION LAYOUT STAKES
																									624	10000	LUMP		MOBILIZATION

55 - 149 2540range

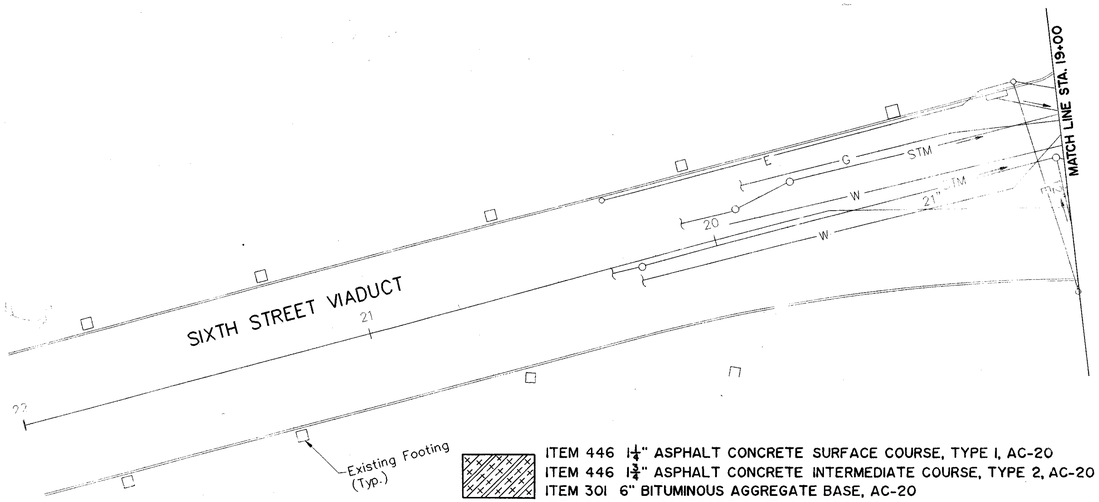
CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

55
255

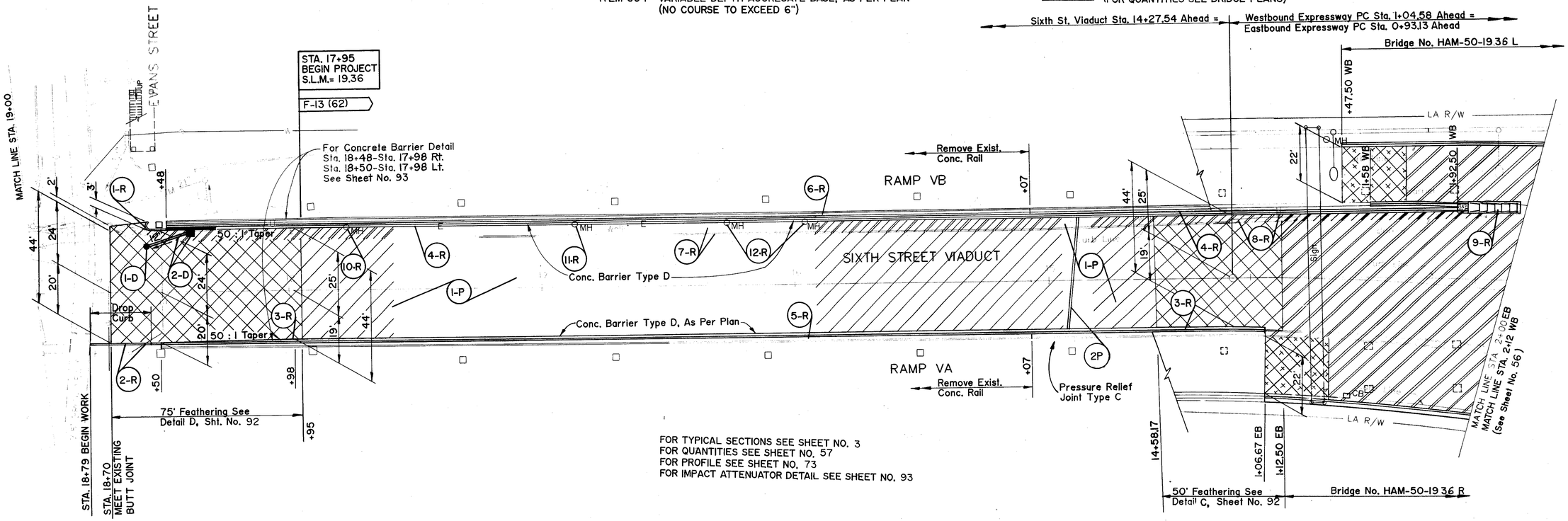
20 0 20 40 60
GRAPHIC SCALE IN FEET

PAVING LEGEND

- ITEM 446 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
  ITEM 446 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
  ITEM 407 TACK COAT
- ITEM SPEC. MICRO-SILICA MODIFIED CONCRETE OVERLAY (1½" THICK) (FOR QUANTITIES SEE BRIDGE PLANS)
- ITEM 611 REINFORCED CONCRETE APPROACH SLABS (T=15")
  ITEM 304 6" AGGREGATE BASE, AS PER PLAN
- ITEM 446 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
  ITEM 446 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
  ITEM 451 9" REINFORCED CONCRETE PAVEMENT
  ITEM 407 TACK COAT
- ITEM 446 VARIABLE DEPTH ASPHALT SURFACE AND INTERMEDIATE COURSE TYPE 1, AC-20 (2"-3")
  ITEM 407 TACK COAT
  ITEM 254 PAVEMENT PLANING PORTLAND CEMENT CONCRETE OR BITUMINOUS
- ITEM SPECIAL SEALING OF CONCRETE SURFACES (SEE BRIDGE DETAILS)
- ITEM 608 4" CONCRETE WALK
- ITEM SPEC. MICRO-SILICA MODIFIED CONCRETE OVERLAY (1½" THICK)
  ITEM 451 REINFORCED CONCRETE PAVEMENT (SEE BRIDGE DETAILS)
- ITEM SPEC. MICRO-SILICA MODIFIED CONCRETE OVERLAY (1½" THICK)
  ITEM 254 PAVEMENT PLANING PORTLAND CEMENT CONCRETE OR BITUMINOUS (FOR QUANTITIES SEE BRIDGE PLANS)



- ITEM 446 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
  ITEM 446 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
  ITEM 301 6" BITUMINOUS AGGREGATE BASE, AC-20
  ITEM 304 9" AGGREGATE BASE, AS PER PLAN
- ITEM 446 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
  ITEM 446 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
  ITEM 407 TACK COAT @ 0.075 GAL./SQ. YD.
  ITEM 451 9" REINFORCED CONCRETE PAVEMENT
  ITEM 304 VARIABLE DEPTH AGGREGATE BASE, AS PER PLAN (NO COURSE TO EXCEED 6")

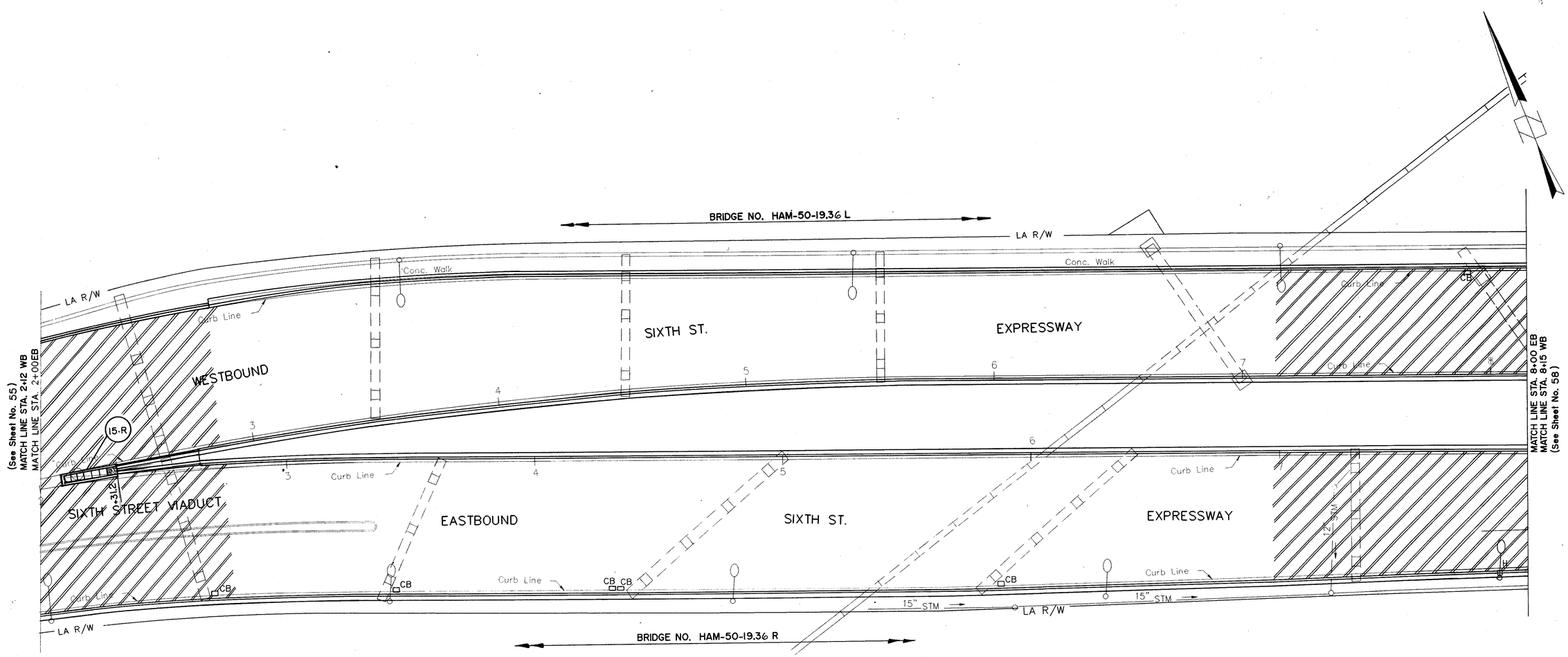


FOR TYPICAL SECTIONS SEE SHEET NO. 3
FOR QUANTITIES SEE SHEET NO. 57
FOR PROFILE SEE SHEET NO. 73
FOR IMPACT ATTENUATOR DETAIL SEE SHEET NO. 93

STA. 22+00 TO STA. 2+00

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

20 0 20 40 60
GRAPHIC SCALE IN FEET



FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 57
FOR PROFILE SEE SHEET NO. 73
FOR IMPACT ATTENUATOR DETAIL SEE SHEET NO. 93

STA. 2+00 TO SAT. 8+00

ESTIMATED QUANTITIES

CALC. BY LEH	HAM-50-19.36	OHIO	57
DATE 1-3-90		FHWA REGION 5	255
CHKD. BY REA			
DATE 12-6-91			

DRAINAGE

REF. NO.	STATION TO STATION	SIDE	202 INLET ABANDON	603 12" CONDUIT TYPE B 707.13	604 I-3A CATCH BASIN AS PER PLAN NO. 1	604 MANHOLE ADJUSTED TO GRADE	SEE SHEET NO.
			EACH	LIN. FT.	EACH	EACH	
	SIXTH STREET EXP.						
I-D	18+56	RT.				1 *	55-91
2-D	18+38.5 - 18+56	RT.	1	18	1		55-91
TOTAL			1	18	1	1	

* Adj. + .05'

ROADWAY & PAVEMENT

★ BIDIRECTIONAL UNIT

REF. NO.	STATION TO STATION	SIDE	202 WALK REMOVED	202 CURB REMOVED	202 MANHOLE REMOVED	202 PORTION OF STRUCTURE REMOVED	202 STRUCTURE REMOVED	202 CONCRETE BARRIER REMOVED	203 LINEAR GRADIN METHOD #	254 PAVEMENT PLANING BITUM.	446 1.1/4" ASPH. CONC. SURF. COURSE TYPE 1 AC-20	446 1.3/4" ASPH. CONC. INT. COURSE TYPE 2 AC-20	446 ASPH. CONC. SURF. COURSE VAR. DEPT. TYPE I	407 TACK COAT	451 9" REINFORCED CONCRETE PAVEMENT	609 CURB TYPE 6	622 CONCRETE BARRIER TYPE D	622 CONCRETE BARRIER TYPE D AS PER PLAN	SPEC. IMPACT ATTENUATOR GREAT SYSTEM	Pressure Relief Joint Type C	SEE SHEET NO.
			SQ. FT.	LIN. FT.	EACH	LUMP	LUMP	LIN. FT.	STA.	S.Y.	CU. YD.	CU. YD.	CU. YD.	GAL.	SQ. YD.	LIN. FT.	LIN. FT.	LIN. FT.	EACH		
	SIXTH STREET VIADUCT																				
I-P	18+70-I+12.50 EB	LT./RT.							4.5	333	58	80	43	171	217						55
2-P	14+88 - 14+92																			44	55
	SIXTH STREET VIADUCT																				
I-R	18+48-18+56	RT.														10					55
2-R	18+50-18+79	LT.		29												29					55
3-R	18+50-I+06.67 EB	LT./RT.																436			55
4-R	18+28-I+12.50 EB	RT./LT.															420				55
5-R	18+50-15+07	LT.				LUMP															55
6-R	18+48-15+07	RT.				LUMP															55
7-R	18+56-I+12.50 EB	RT./LT.	1953	433																	55
8-R	0+93.13-I+12.50 EB	LT.						24													55
9-R	I+92.50-2+14.25 WB	LT.					LUMP												1		55
10-R	17+76	RT.			1																55
11-R	16+86	RT.			1																55
12-R	16+26-15+96	RT.			2																55
15-R	2+09.45-2+31.2	LT.					LUMP												1 ★		56
TOTAL			1953	462	4	LUMP	LUMP	24	4.5	333	58	80	43	171	217	39	420	436	2	44	

QUANTITIES
STA. 22+00 SIXTH ST. VIADUCT-STA. 8+00

CALC. BY LEH		OHIO	58
DATE 1-3-90	HAM-50-19.36	F.H.W.A. REGION 5	255
CHKD. BY REA			
DATE 12-6-91			

20 0 20 40 60
GRAPHIC SCALE IN FEET

R/W
15" STM
12" STM
Flood Gate Storage House
LA R/W
Conc. Walk
Curb Line
CB
Sign
SIXTH ST.
BRIDGE NO. HAM-50-19.38 L
EXPRESSWAY
WESTBOUND
EASTBOUND
Face of Flood Wall
BRIDGE NO. HAM-50-19.38 R
Station Equation
Sta. 13+35.32(Back)=
Sta. 13+34.98(Ahead)
PROP. 5' TYPE CL FENCE
21" STM
C.P.A.
E.P.A.
25'
Feathering See Detail B, Sheet No. 92
12"
A.C.
F-1
9-R
1-R
4-R
7-R
8-R
2-P
1-P
2-R
5-R
3-R
6-R
4-P
3-P
F-2
2'
42'
46'
+15
+05
+79
EB
Access Road to Flood Gate Area
SEE BRIDGE PLAN FOR RETAINING WALL MODIFICATION
Station Equation
Sta. 13+26.25(Back)=
Sta. 13+26.64(Ahead)
(See Sheet No. 56)
MATCH LINE STA. 8+15 WB
MATCH LINE STA. 8+00 EB
(See Sheet No. 59)
MATCH LINE STA. 14+00 EB
MATCH LINE STA. 14+08 WB

FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 60
FOR PROFILE SEE SHEET NO. 73
FOR TYPICAL SECTIONS SEE SHEET NO. 3

LEGEND
A.C. = Abutment Connection
C.P.A. = Corner Post Assembly
E.P.A. = End Post Assembly

ACAD FILENAME: B_HAEN6

STA. 8+00 TO STA. 14+00

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

59
255

QUANTITIES CARRIED ON SHEET NO. 57

GRAPHIC SCALE IN FEET 20 0 20 40 60

(See Sheet No. 58)
MATCH LINE STA. 14+08 WB
MATCH LINE STA. 14+00 EB

R/W
21" STM
24" STM
PROP. 5' TYPE CL FENCE
F-3
21-R
15" STM
+25 WB
+50 WB
6' Walk
1-D
15-R
2-D
WESTBOUND
SIXTH ST.
12" STM
R.R. Bridge Pier
E.P.A.
LA R/W
42" STM
+00 WB
3-D
56'
4-D
Overhead Pedestrian Bridge
MATCH LINE STA. 20+00EB
MATCH LINE STA. 20+06 WB
(See Sheet No. 61)
6-P
EXPRESSWAY
27-R
16-R
22-R
23-R
24-R
6-D
Bridge Pier
Signal Control Cabinet
Pull Box
25-R
8-D
9-D
7-D
17-R
5-D
7-P
EASTBOUND
46'
12'-0" Brick Stm.
Sign
Overhead RR Bridge
SIXTH ST.
EXPRESSWAY
81'
51'
36'
+19 EB
Transition Curb From 0" to 6" in 10'
10'
20'
18'
+35.25
Bridge Terminal Assembly Type I
+39.5
10-D
51'
26-R
Anchor Assembly Type A
20-R
+57.5
RAMP B
BRIDGE NO. HAM-50-19.71
Retaining Wall
F-4
+94 EB
19-R
+14 EB
+22 Ramp B
8-P
Prop. 5' Type CLT Fence
C.P.A.
MATCH LINE STA. 18+50 RAMP B (See Sheet No. 76)
SEE BRIDGE PLANS FOR RETAINING WALL MODIFICATIONS
E.P.A.
PROP. 5' TYPE CL FENCE
Access Road to Flood Gate Area
Face of Flood Wall
Sluice Gate Chambers
SOUTHERN
Bridge Pier
22" STM
WM
20" STM
12" WM
16" WM

FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 60
FOR PROFILE SEE SHEET NO. 73
FOR TYPICAL SECTIONS SEE SHEET NO. 3, 4 & 8
FOR DRAINAGE DETAILS SEE SHEET NO. 91

LEGEND
C.P.A. = Corner Post Assembly
E.P.A. = End Post Assembly

ACAD FILENAME 14-20.DWG

STA. 14+00 TO STA. 20+00

CALC. BY LEH		OHIO
DATE 1-3-90	HAM-50-19.36	FHWA 5
CHKD. BY REA		REGION
DATE 12-6-91		

60
255

ESTIMATED QUANTITIES

DRAINAGE & FENCE

* Non-Perforated, ASTM 3034
SDR 35 or Supl. Spec., 931

REF. NO.	STATION TO STATION	SIDE	202	603			604	607						SEE SHEET NO.
			FENCE REMOVED	* 6" CONDUIT TYPE F 707.17	12" CONDUIT TYPE B 707.13	15" CONDUIT TYPE B 707.13	I.30 CATCH BASIN AS PER PLAN NO. 1	FENCE TYPE CLT AS PER PLAN	FENCE TYPE CL AS PER PLAN	GATE TYPE CL		CORNER POST ASSEMBLY	ABUTMENT CONNECTION	END POST ASSEMBLY	
			LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	EACH		EACH	EACH	EACH	
1-D	14+68-14+88 WB	LT.		10	4	4	1								59
2-D	16+42-16+62 WB	LT.		10	4	4	1								59
3-D	18+15-18+35 WB	LT.		10	4	4	1								59
4-D	19+88-20+08 WB	LT.		10	4		1								59
5-D	14+52-14+72 EB	LT.		10	4		1								59
6-D	16+12-16+32 EB	LT.		10	4		1								59
7-D	17+73-17+93 EB	LT.		10	4		1								59
8-D	19+28-19+48 EB	LT.		10	4		1								59
9-D	19+79-19+99 EB	LT.		20	8	4	1								59
10-D	19+79-19+99 EB	RT.		20	4		1								59
F-1	13+22 - 14+08 WB	LT.	107						107	1		1	1	2	58
F-2	13+70 - 14+00 EB	RT.	30						30			1	1		58
F-3	14+08 - 20+06 WB	LT.	593						593					2	59
F-4	14+00 EB - 18+50 RAMP B	RT.	484					101	383	1		2		5	59
TOTAL			1214	120	44	16	10	101	1113	2		4 ≠	2 ≠	9 ≠	

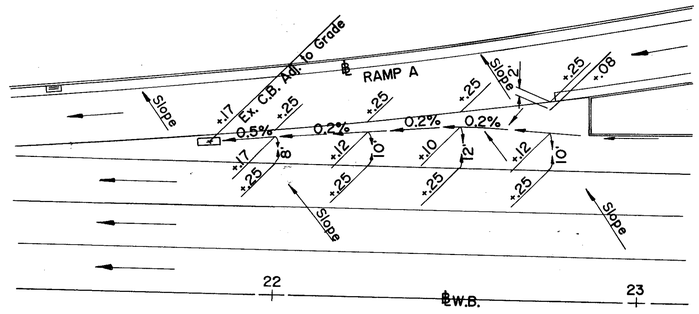
≠ Contractor Information Only

ROADWAY & PAVEMENT

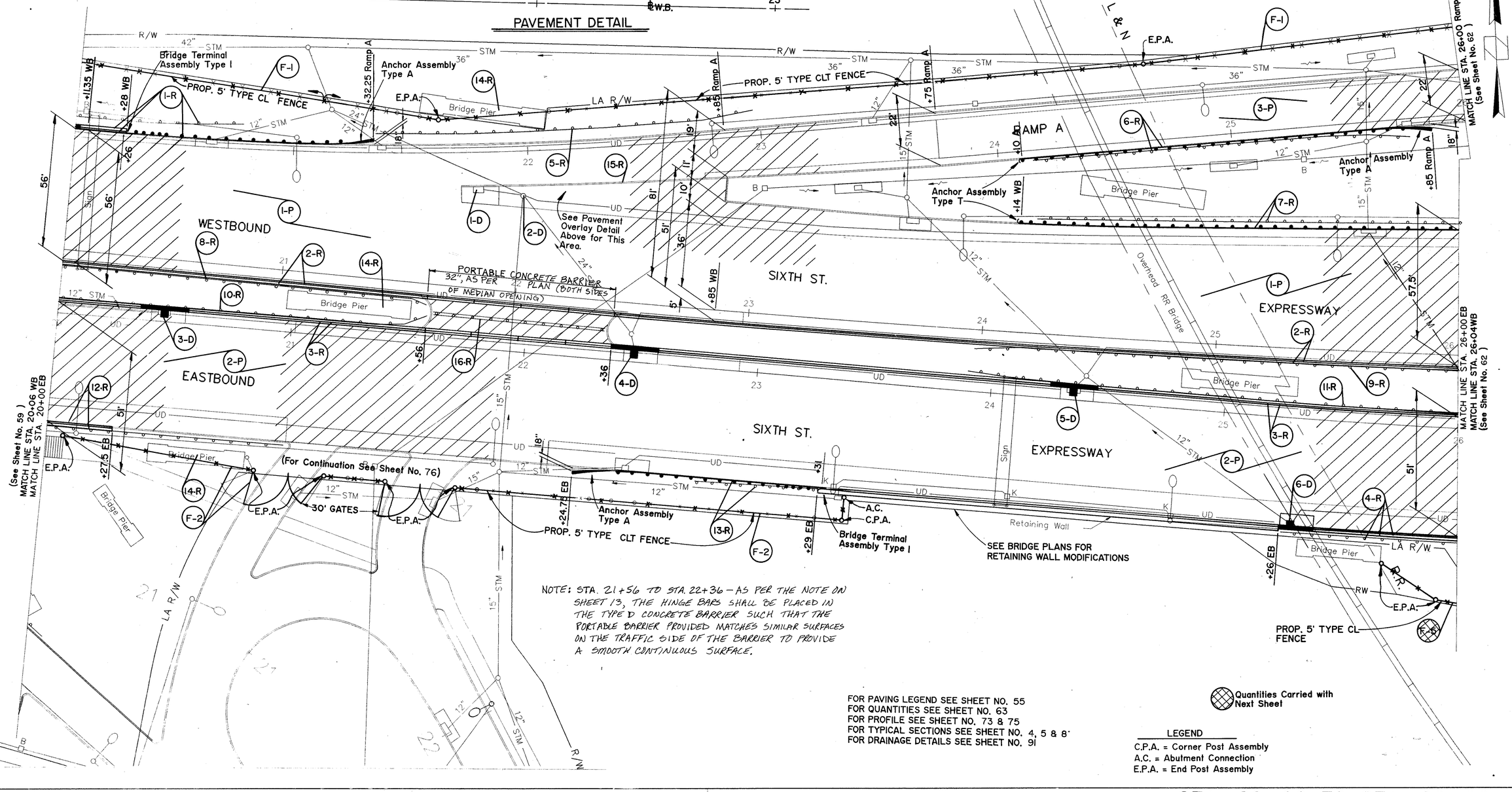
REF. NO.	STATION TO STATION	SIDE	202							203	446			407		304	301	606			608	609		611	622		SEE SHEET NO.
			PAVEMENT REMOVED		WALK REMOVED	CURB REMOVED	GUARDRAIL REMOVED			LINEAR GRADING METHOD # 6	ASPH. CONC. SURF. COURSE TYPE I VAR. DEPTH	1.4" ASPH. CONC. SURF. COURSE TYPE I AC-20	1.3/4" ASPH. CONC. INT. COURSE TYPE 2 AC-20	TACK COAT		AGGREGATE BASE AS PER PLAN	BITUMINOUS AGGREGATE BASE	GUARDRAIL TYPE 5		ANCHOR ASSEMBLY TYPE A	BRIDGE TERMINAL ASSEMBLY TYPE I		4" CONCRETE WALK	CURB TYPE 2A	REINFORCED CONCRETE APPROACH SLAB(T=15")		CONCRETE BARRIER TYPE D AS PER PLAN	
			SQ. YD.		SQ. FT.	LIN. FT.	LIN. FT.			STA.	CU. YD.	CU. YD.	CU. YD.	GAL.		CU. YD.	CU. YD.	LIN. FT.		EACH	EACH		SQ. FT.	LIN. FT.	SQ. YD.		LIN. FT.	
	SIXTH STREET EXP.																											
1-P	13+10.32-13+35.32 WB	LT.	114													20								117			58
2-P	13+34.96-14+25 WB	LT.								1.5	8	8	11	26		5	4										58-59
3-P	13+01.25-13+26.25 EB	RT.	114													20								117			58
4-P	13+26.64-14+00 EB	RT.									8	9	12	27		3	2										58
6-P	14+08-20+06 WB	LT.								1.0		119	166	254													59
7-P	14+00-20+00 EB	RT.										139	194	299		15	10										59
8-P	18+22-18+50 RAMP B	LT.										3	4	5													59
1-R	13+34.96-14+08 WB	LT.				73																			73		58
2-R	13+15-14+08 WB	RT.				73																			93		58
3-R	13+26.64-14+00 EB	LT.				74																			95		58
4-R	13+70-14+08 WB	LT.					38																				58
5-R	13+15-14+08 WB	RT.					93																				58
6-R	13+05-14+00 EB	LT.					95																				58
7-R	13+34.96-13+71 WB	LT.							38																		58
8-R	13+09-13+19 WB	LT.			60																	60					58
9-R	13+64-13+77 WB	LT.			88																	88					58
15-R	14+08-20+06 WB	LT.				598																			520		59
16-R	14+08-20+06 WB	RT.				598																			598		59
17-R	14+00-20+00 EB	LT.				600																			500		59
18-R	NOT USED																										59
19-R	14+94-17+14 EB	RT.					220																		220		59
20-R	18+53.25-20+00 EB	RT.					122											81.25		1	1				22.5		59
21-R	14+08-20+06 WB	LT.					598																				59
22-R	14+08-18+16 WB	RT.					408																				59
23-R	14+00-14+60 EB	LT.					60																				59
24-R	15+94-17+31 EB	LT.					137																				59
25-R	18+86-20+00 EB	LT.					114																				59
26-R	17+52-18+29 EB	RT.	47			153																	20				59
27-R	19+63-20+06 WB	RT.					43																				59
TOTAL			275		148	2169	1928		38	2.5	16	278	387	611		63	16	81.25		1	1		148	20	234		2121.5	

QUANTITIES
STA. 8+00-STA. 20+00

CALC. BY LEH DATE 1-3-90		OHIO	61
CHKD. BY REA DATE 12-6-91	HAM-50-19.36	F.H.W.A. REGION 5	255



PAVEMENT DETAIL



NOTE: STA. 21+56 TO STA. 22+36 – AS PER THE NOTE ON SHEET 13, THE HINGE BARS SHALL BE PLACED IN THE TYPE D CONCRETE BARRIER SUCH THAT THE PORTABLE BARRIER PROVIDED MATCHES SIMILAR SURFACES ON THE TRAFFIC SIDE OF THE BARRIER TO PROVIDE A SMOOTH CONTINUOUS SURFACE.

FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 63
FOR PROFILE SEE SHEET NO. 73 & 75
FOR TYPICAL SECTIONS SEE SHEET NO. 4, 5 & 8
FOR DRAINAGE DETAILS SEE SHEET NO. 91

Quantities Carried with Next Sheet

LEGEND
C.P.A. = Corner Post Assembly
A.C. = Abutment Connection
E.P.A. = End Post Assembly

STA. 20+00 TO STA. 26+00

ROAD FILE NAME: 22-26.DWG

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

62
255

GRAPHIC SCALE IN FEET 20 0 20 40 60

(See Sheet No. 61) MATCH LINE STA. 26+00, RAMP A

F-3 PROP. 5' TYPE CLT FENCE LA R/W +59.56 +35.33 27-R

RAMP A +83 8-P 25' 22' 30" STM 22' UD 27

F-3 END WORK RAMP A STA. 28+10 +00 25' 30" STM 12" STM +08 22' 12" STM

E.P.A. C.P.A. F-4 A.C. 18" STM 20" STM

LA R/W C.P.A. PROP. 5' TYPE CL FENCE C.P.A.

SEE DETAIL A SHT NO. 92 +12 WB +37 WB 20-R Bridge Terminal Assembly Type 2

SEE DETAIL A SHT NO. 92 +19 WB 21-R

SEE DETAIL A SHT NO. 92 +87 WB C.P.A. A.C. F-4 C.P.A.

(See Sheet No. 61) MATCH LINE STA. 26+04 WB MATCH LINE STA. 26+00 EB

WESTBOUND 4-P 57.5' 60' +14 12" STM 27 UD 12" STM 4-P

BRIDGE NO. HAM-50-19.86 L

SIXTH ST. 5-P 60' 5-P 5-P

EXPRESSWAY BRIDGE NO. HAM-50-19.92 L

24-R 22-R +61 WB +63 EB 25-R 23-R +43 WB +45 EB +97 WB +96 EB

MATCH LINE STA. 32+00 EB MATCH LINE STA. 32+03 WB (See Sheet No. 64)

EASTBOUND 10-D 51' 6-P 27 UD 6-P 12" STM

BRIDGE NO. HAM-50-19.86 R

SIXTH ST. 7-P 51' 7-P 7-P

EXPRESSWAY BRIDGE NO. HAM-50-19.92 R

26-R +84 EB SEE DETAIL A SHT NO. 92 A.C. C.P.A. F-5 F-5

LA R/W E.P.A. PROP. 5' TYPE CL FENCE C.P.A.

12" STM 21" STM SEE DETAIL A SHT NO. 92 SEE BRIDGE PLANS FOR RETAINING WALL MODIFICATIONS 21" STM SEE DETAIL A SHT NO. 92 18" STM

SIXTH STREET

HARRIET STREET R/W R/W

FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 63
FOR PROFILE SEE SHEET NO. 73
FOR TYPICAL SECTIONS SEE SHEET NO. 4, 5 & 8
FOR DRAINAGE DETAILS SEE SHEET NO. 91

LEGEND
C.P.A. = Corner Post Assembly
A.C. = Abutment Connection
E.P.A. = End Post Assembly

ACAD FILENAME 26-32.DWG

STA. 26+00 TO STA. 32+00

ESTIMATED QUANTITIES

DRAINAGE & FENCE

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		FHWA REGION 5

63 / 255

* Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931

REF. NO.	STATION TO STATION	SIDE	202 FENCE REMOVED LIN. FT.	603 *6" CONDUIT TYPE F 707.17 LIN. FT.	603 12" CONDUIT TYPE B 707.13 LIN. FT.	604 I-3A CATCH BASIN AS PER PLAN NO. 1 EACH	604 I-3A CATCH BASIN AS PER PLAN NO. 2 EACH	604 MANHOLE ADJUSTED TO GRADE EACH	604 INLET ADJUSTED TO GRADE EACH	607 FENCE TYPE CL AS PER PLAN LIN. FT.	607 GATE TYPE CL EACH	607 FENCE TYPE CLT AS PER PLAN LIN. FT.	607 CORNER POST ASSEMBLY EACH	607 ABUTMENT CONNECTION EACH	607 END POST ASSEMBLY EACH	SEE SHEET NO.
1-D	21+80 WB	LT.							1 (2)							61
2-D	22+00 WB	LT.						1 (1)								61
3-D	20+35-20+55 EB	LT.		10	4	1										61
4-D	22+36-22+56 EB	LT.		10	4	1										61
5-D	24+25-24+45 EB	LT.		10	4	1										61
6-D	25+26-25+41 EB	RT.		10	4		1									61
10-D	26+03-26+23 EB	LT.		10	4	1										62
F-1	20+06 WB - 26+00 RAMP A	LT.	534							50		540			2	61
F-2	20+07 - 23+42 EB	RT.	202								2	232	1	1	5	61
F-3	26+00 - 28+12 RAMP A	LT.	247									~~247~~			1	62
F-4	28+58 - 31+48 WB	LT.	420							420	1		7	2	2	62
F-5	25+70- 28+46 EB	RT.	320							348			2	1	3	62
TOTAL			1723	50	20	4	1	1	1	818	3	1019	10 F	4 F	13 F	

(1) Adj. + .20'
(2) Adj. + .17'

F Contractor Information Only

ROADWAY & PAVEMENT

REF. NO.	STATION TO STATION	SIDE	202 PAVEMENT REMOVED SQ. YD.	202 CURB REMOVED AS PER PLAN LIN. FT.	202 CURB REMOVED LIN. FT.	202 GUARDRAIL REMOVED LIN. FT.	202 GUARDRAIL REMOVED BARRIER DESIGN LIN. FT.	202 STRUCTURE REMOVED LUMP	304 6" AGGREGATE BASE AS PER PLAN CU. YD.	446 1 1/4" ASPH. CONC. SURF. COURSE TYPE I AC-20 CU. YD.	446 3 3/4" ASPH. CONC. INT. COURSE TYPE 2 AC-20 CU. YD.	407 TACK COAT GAL.	606 GUARDRAIL TYPE 5 LIN. FT.	606 ANCHOR ASSEMBLY TYPE A EACH	606 ANCHOR ASSEMBLY TYPE T EACH	606 BRIDGE TERMINAL ASSEMBLY TYPE 1 EACH	606 BRIDGE TERMINAL ASSEMBLY TYPE 2 EACH	609 CURB TYPE 6 LIN. FT.	611 REINFORCED CONCRETE APPROACH SLAB(T=15") SQ. YD.	622 CONCRETE BARRIER TYPE D AS PER PLAN LIN. FT.	622 PORTABLE CONCRETE BARRIER AS PER PLAN LIN. FT.	SEE SHEET NO.
	SIXTH STREET EXP.																					
1-P	20+06-26+04 WB	LT.								146	204	314										61
2-P	20+00-26+00 EB	RT.								118	166	255										61
3-P	22+85-26+00 RAMP A	LT.								26	37	57										61
4-P	26+04-27+75 WB	LT.	167						28	30	42	65							167			62
5-P	29+05-31+09.5 WB	LT.	334						56	33	45	70							334			62
6-P	26+00-27+97.5 EB	RT.	142						24	32	45	69							142			62
7-P	29+30.5-31+16 EB	RT.	284						48	24	34	52							284			62
8-P	26+00-28+10 RAMP A	LT.								20	28	43										62
	SIXTH STREET EXP.																					
1-R	20+06- 21+32.25 WB	LT.			22	72							81.25	1		1				20		61
2-R	20+06-26+04 WB	RT.			531															518	80	61
3-R	20+00-26+00 EB	LT.			533															460	80	61
4-R	25+26-26+00 EB	RT.			74	74														59		61
5-R	21+35-22+97 RAMP A	LT.				162																61
6-R	24+10-25+85 RAMP A	RT.				160							137.5	1	1							61
7-R	24+14-26+04 WB	LT.				180							177.5		1							61
8-R	20+06-21+62 WB	RT.				156																61
9-R	23+97-26+04 WB	RT.				207																61
10-R	20+00-21+58 EB	LT.				158																61
11-R	23+90-26+00 EB	LT.				210																61
12-R	20+00-21+00 EB	RT.				100														27.5		61
13-R	22+24.75-23+31 EB	RT.				50							81.25	1		1						61
14-R	20+43EB-22+10 RAMP A	RT. & LT.						LUMP														61
15-R	21+71-22+85 RAMP A	RT.		114																		61
16-R	21+58-22+38 EB	LT.					80															61
20-R	26+04-27+37 WB	LT.				133							110				1			25		62
21-R	29+19-30+87 WB	LT.			168	168														168		62
22-R	26+04-27+61 WB	RT.			157	157														157		62
23-R	29+43-30+97 WB	RT.			154	154														154		62
24-R	26+00-27+63 EB	LT.			163	163														143		62
25-R	29+45-30+96 EB	LT.			151	151														151		62
26-R	26+00-27+84 EB	RT.			184	184														184		62
27-R	26+83-28+10 RAMP A	LT.			145														145			62
TOTAL			927	114	2282	2639	80	LUMP	156	429	601	925	587.5	3	2	2	1	145	927	2066.5	160	

QUANTITIES
STA. 20+00-STA. 32+00

CALC. BY LEH DATE 1-3-90
CHKD. BY REA DATE 12-6-91

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

64
255

GRAPHIC SCALE IN FEET 20 0 20 40 60

C.P.A.
E.P.A.
PROP. 5' TYPE CL FENCE
LA R/W
F-1
54" STM
R.R.
RR R/W
SEE DETAIL A SHT NO. 92
Type 5A Guardrail
12" STM
15" STM
+49.5
+74.5
+28.5 FA
+08.26 FA
Anchor Assembly Type T
25' Feathering See Detail B Sheet No. 92
+89 FA
+14 FA
+25 Ramp FA
+39 FA
Bridge Terminal Assembly Type 2
Bridge Terminal Assembly Type 1
A.C.
+39 Ramp FA
+37
1-R
16-R
2-P
2-R
3-R
4-D
RAMP FA
Retaining Wall
Paved Gutter
BRIDGE NO. HAM-50-19.92 L
WESTBOUND
63.5'
65'
1-P
SIXTH ST.
1-D
5-R
EXPRESSWAY
UD
34
35
36
37
38
+41 WB
+43 EB
9-R
8-R
+58.21 EB
2-D
3-D
12" STM
5-R
(See Sheet No. 62) MATCH LINE STA. 32+03 WB MATCH LINE STA. 32+00 EB
(See Sheet No. 84) MATCH LINE STA. 38+25 RAMP FA
MATCH LINE STA. 38+00 EB MATCH LINE STA. 38+05 WB (See Sheet No. 65)
EASTBOUND
BRIDGE NO. HAM-50-19.92 R
67.5'
69'
74.5'
43'
6-R
3-P
Overhead RR Bridge
+75 EB
39'
12-R
Anchor Assembly Type A
+65 EB
SIXTH STREET
SEE BRIDGE PLANS FOR RETAINING WALL MODIFICATIONS
SEE DETAIL A SHT NO. 92
+55.81 C-D
+81 C-D
+40 C-D
+61 C-D
5-D
7-R
10-R
11-R
4-P
15-R
13-R
14-R
+63 C-D
+52 C-D
F-2
C.P.A.
E.P.A.
PROP. 5' TYPE CL FENCE
SOUTHERN
LA R/W
RAMP FB
+54 FB
37+61.06 FB
6-D
(See Sheet No. 79) MATCH LINE STA. 35+85 Ramp FB

FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 66
FOR PROFILE SEE SHEET NO. 73 & 75
FOR TYPICAL SECTIONS SEE SHEET NO. 5 8 9
FOR DRAINAGE DETAILS SEE SHEET NO. 91

LEGEND
C.P.A. = Corner Post Assembly
A.C. = Abutment Connection
E.P.A. = End Post Assembly

STA. 32+00 TO STA. 38+00

A:\PD FILENAME 32-38.DGN

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

55
255

20 0 20 40 60
GRAPHIC SCALE IN FEET

E.P.A.
E.P.A.
PROP. 5' TYPE CL FENCE
E.P.A.
F-3
A.C.
15" STM
12" STM
15" STM
12" STM
FREEMAN AVENUE
(Overpass)
Retaining Wall
Paved Gutter
12" STM
SEE DETAIL A
SHT NO. 92
LA R/W
STM
+32 WB
UD
11-D
3-R
75 WB
+38.5 WB
51'
51'
(See Sheet No. 64)
MATCH LINE STA. 38+05 WB
MATCH LINE STA. 38+00 EB
20-R
22-R
7-P
WESTBOUND
23-R
+00 WB
Retaining Wall
21-R
8-P
EASTBOUND
+36 EB
+00 EB
12-R
39'
+65 EB
Anchor Assembly
Type T
13-R
+63 C-D
38'
MATCH LINE STA. 37+97 C-D
9-P
14-R
15" STM
12" STM
+64.5 C-D
+81.41 C-D
+52 C-D
TYPE 5A GUARDRAIL
12" STM
Approach Slab
8' Walk
12" STM
47'
7-P
+82 WB
+82 EB
SIXTH ST.
BRIDGE NO. HAM-50-20.11 L
EXPRESSWAY
42
43
44
Feathering
See Detail
B Sht
No. 92
+79
8-P
8-P
10-D
27-R
+01 C-D
24-R
SIXTH ST.
BRIDGE NO. HAM-50-20.11 R
EXPRESSWAY
LA R/W
+52.25
+68 C-D
+71 C-D
22'
4'
Bridge Terminal
Assembly Type 2
25-R
27-R
26-R
22.8'
+50
14-R
9-P
26'
RAMP FC
Retaining Wall
Paved Gutter
24" STM
24" STM
12" STM
12" STM
MATCH LINE STA. 41+00
RAMP FC
(See Sheet No. 80)
MATCH LINE STA. 44+00 EB
MATCH LINE STA. 44+05 WB
(See Sheet No. 67)

LEGEND

A.C. = Abutment Connection
E.P.A. = End Post Assembly

FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 66
FOR PROFILE SEE SHEET NO. 73 & 75
FOR TYPICAL SECTIONS SEE SHEET NO. 5 & 9
FOR IMPACT ATTENUATOR DETAIL SEE SHEET NO. 93

LOAD FILENAME 38-44.DWG

STA. 38+00 TO STA. 44+00

CALC. BY LEH		OHIO	66
CHKD. BY REA	HAM-50-19.36	FHWA REGION 5	255
DATE 1-3-90 / DATE 12-6-91			

ESTIMATED QUANTITIES

DRAINAGE & FENCE

* Non-Perforated, ASTM 3034 SDR 35 or Supl. Spec. 931

REF. NO.	STATION TO STATION	SIDE	202 FENCE REMOVED	603 *6" CONDUIT TYPE F 707.17	603 12" CONDUIT TYPE B 707.13	603 15" CONDUIT TYPE B 707.13	604 I-3A CATCH BASIN AS PER PLAN NO. 1	604 INLET ADJUSTED TO GRADE	607 FENCE TYPE CL AS PER PLAN	607 CORNER POST ASSEMBLY	607 ABUTMENT CONNECTION	607 END POST ASSEMBLY	SEE SHEET NO.
	SIXTH STREET EXP.		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LIN. FT.	EACH	EACH	EACH	
I-D	34+51-34+71 WB	RT.		10	4	4	1						64
2-D	35+99-36+19 WB	RT.		10	4		1						64
3-D	36+50-36+70 WB	RT.		20	8		1						64
4-D	36+80-37+00 WB	LT.		20	4		1						64
5-D	34+90-35+10 RAMP C-D	RT.				4	1						64
6-D	36+60 RAMP C-D	RT.						1					64
10-D	40+68 RAMP C-D	LT.						1**					65
11-D	38+50-38+70 WB	LT.		10	4		1						65
F-1	32+69 WB - 38+32RAMP FA	LT.	572						632	1		5	64
F-2	34+23 CD - 35+45 CD	RT.	146						146	1	1	1	64
F-3	38+23 - 40+33 WB	LT.	220						220		1	4	65
TOTAL			938	70	24	8	6	2	998	2F	2F	10F	

** Adj. + .21'

F Contractor Information Only

ROADWAY & PAVEMENT

REF. NO.	STATION TO STATION	SIDE	202 PAVEMENT REMOVED	202 CURB REMOVED AS PER PLAN	202 STRUCTURE REMOVED	202 CURB REMOVED	202 GUARDRAIL REMOVED	203 LINEAR GRADING METHOD #6	301 6" BITUMINOUS AGGREGATE BASE	446 ASPH. CONC. SURF. COURSE TYPE 1 WAR. DEPTH	446 1 1/4" ASPH. CONC. SURF. COURSE TYPE 2 AC-20	446 1 3/4" ASPH. CONC. INT. COURSE TYPE 2 AC-20	407 TACK COAT	304 AGGREGATE BASE AS PER PLAN	606 GUARDRAIL TYPE 5	606 GUARDRAIL TYPE 5A	606 ANCHOR ASSEMBLY TYPE A	606 ANCHOR ASSEMBLY TYPE T	606 BRIDGE TERMINAL ASSEMBLY TYPE I	606 BRIDGE TERMINAL ASSEMBLY TYPE 2	609 CURB TYPE 6	611 REINFORCED CONCRETE APPROACH SLAB(T=9")	622 CONCRETE BARRIER TYPE D	622 CONCRETE BARRIER TYPE D AS PER PLAN	690 IMPACT ATTENUATOR CRASH. SYSTEM	SEE SHEET NO.
	SIXTH STREET EXP.		SQ. YD.	LIN.FT.	LUMP	LIN. FT.	LIN. FT.	STA.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	GAL.	CU. YD.	LIN. FT.	LIN. FT.	EA.	EA.	EACH	EACH	LIN. FT.	SQ. YD.	LIN. FT.	LIN. FT.	EACH	
I-P	33+21-38+05 WB	LT.	179								104	146	224	30								179				64
2-P	35+28.5-37+39 RAMP F A	RT.	70							14	20	5	36	12								73				64
3-P	33+32.5-38+00 EB	RT.	190								79	111	169	32								190				64
4-P	34+55.81-37+97 RAMP C-D	LT.						1.7	7		50	69	105	10												64
7-P	38+05-40+82 WB	LT./RT.	131					1.1	4		46	64	99	28								131				65
8-P	38+00-41+14 RAMP C-D	RT./LT.	194					0.4	3	14	37	51	94	37								194				65
9-P	37+97-40+66 RAMP C-D	LT./RT.							2		47	65	100	2												65
	SIXTH STREET EXP.																									
I-R	33+37-37+27 RAMP F A	LT.					385								362.5	25			1	1						64
2-R	35+21-37+30 RAMP F A	RT.					175								200			1		1						64
3-R	35+23- 40+38.5 WB	LT.				515.5	250																475.5			64-65
4-R	NOT USED																									
5-R	33+41-38+05 WB	RT.				464																		404		64
6-R	33+43-38+00 EB	LT.				457																		457		64
7-R	34+81-35+61 RAMP C-D	RT.				80																		60		64
8-R	33+41-38+05 WB	RT.					464																			64
9-R	33+43-36+16 WB	LT.					273																			64
10-R	34+81-35+66 RAMP C-D	RT.					85																			64
11-R	35+61-36+50 RAMP C-D	RT.				89															89					64
12-R	37+65-39+65 EB	RT.					175								162.5		1	1								64
13-R	37+63-39+63 RAMP C-D	LT.					175								162.5		1	1								64
14-R	37+52-41+00 RAMP C-D	RT.					340								235.5	87.5	1									64
15-R	36+50-36+82 RAMP C-D	RT.		31																						64
16-R	34+05-35+23 WB	LT.		120																						64
20-R	38+05-40+82 WB	RT.				252																		277		65
21-R	38+00-40+82 EB	LT.				257																		282		65
22-R	38+05-40+82 WB	RT.					277																			65
23-R	39+36-40+79 EB	LT.			LUMP																					65
24-R	40+62-41+90 RAMP C-D	LT.		19		105																				65
25-R	40+52.25-40+71 RAMP C-D	RT.			LUMP																				1	65
26-R	40+71-41+01 RAMP C-D	RT.					68																			65
27-R	40+52-41+01 RAMP C-D	RT.	20			100														1				60		65
TOTAL			784	170	LUMP	2323.5	2667	3.2	16	28	383	511	827	151	1123	112.5	3	3	1	3	89	767	475.5	1540	1	

QUANTITIES
STA. 32+00-STA. 44+00

CALC. BY S.E.D. DATE 1-14-9
CHKD. BY S.H. DATE 1-15-9

HAM-50-19.36

OHIO
F.H.W.A REGION 5

67
255

20 0 20 40 60
GRAPHIC SCALE IN FEET

NOTE: FOR FEATHERING DETAILS SEE SHEET NO. 92

RAMP LA

LA R/W

15" STM

Conc. Walk

LINN STREET
SEE SHEET NO. 87

48" STM

12" STM

Building

Ex. Type 1 Paved Gutter

+06 BRIDGE TERMINAL ASSEMBLY TYPE

+08 WB

STA. 49+11.70 BEGIN TRANSITION

STA. 49+61.70 END TRANSITION BEGIN FULL DEPTH OVERLAY

+00 WB

7P 18P 21R 1R

9'

2P 3P 8P 19P 2R 16R 1P

EXPRESSWAY

49.46'

48.40'

22' Approach Slab

47'

+74 WB

Pull Box D

+69 EB

20P 3R 17R 5P 9P 6P 4P

47.76'

48.48'

8'

5'

50'

MATCH LINE STA. 50+00 EB
MATCH LINE STA. 50+03 WB
(See Sheet No. 68)

+76 BRIDGE TERMINAL ASSEMBLY TYPE 2

+78 EB

+83

STA. 48+94.42 BEGIN TRANSITION

STA. 49+44.42 END TRANSITION BEGIN FULL DEPTH OVERLAY

+95 EB

21P 10P 4R 22R

WESTBOUND
HAM-50-20.11 L

SIXTH ST.

EASTBOUND
HAM-50-20.11 R

SIXTH ST.

(See Sheet No. 65)
MATCH LINE STA. 44+05 WB
MATCH LINE STA. 44+00 EB

Ex. Type 1 Paved Gutter

RAMP LB

8" WM

18" STM

AGAD FILENAME 44-50.DWG

STA. 44+00 TO STA. 50+00

CALC. BY S.E.D. DATE 1-14-91
CHKD. BY J.S.P.H. DATE 1-15-91

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

68
255

GRAPHIC SCALE IN FEET
20 0 20 40 60

Parking Garage

SEE SHEET NO. 88

53+33.06 LA
64.35' LT., E.P.A.

L A R/W

PROP. 5' TYPE CL FENCE

RAMP LA

STA. 54+36.13 LA MATCH LINE

Conc. Walk

Ex. Type 1 Paved Gutter

50+37.25 WB BEGIN TYPE 5A GUARDRAIL

50+62.25 END TYPE 5A GUARDRAIL

+89.86

51+99.75 WB BEGIN TYPE 5A GUARDRAIL

52+24.75 WB END TYPE 5A GUARDRAIL

52+62.25 WB TYPE A ANCHOR ASSEMBLY

Sign

WESTBOUND

SIXTH ST.

EXPRESSWAY

Ex. Sign Base, Abandoned

+13.41

+33.41

+14

EASTBOUND

SIXTH ST.

EXPRESSWAY

Ex. Sign Base (Abandoned)

50+01 EB BEGIN TYPE 5A GUARDRAIL

50+38.50 EB END TYPE 5A GUARDRAIL

+85.50

51+88.50 EB BEGIN TYPE 5A GUARDRAIL

52+26 EB END TYPE 5A GUARD RAIL

+76

TYPE T ANCHOR ASSEMBLY

Ex. Type 1 Paved Gutter

SEE SHEET NO. 88

RAMP LB

+48.25 TYPE A ANCHOR ASSEMBLY

54+36.52 LB MATCH LINE

PROP. 5' TYPE CL FENCE

SEE SHEET NO. 88

53+73.44 E.B.
120.44' Rt., E.P.A.

LA R/W

MATCH LINE STA. 50+03 WB
MATCH LINE STA. 50+00 EB
(SEE SHEET NO. 67)

MATCH LINE STA. 56+00 EB & WB
(SEE SHEET NO. 69)

CAD FILENAME: 50-56.DWG

STA. 50+00 TO STA. 56+00

CALC. BY S.E.D. DATE 1/15/91	HAM-50-19.36	OHIO
CHKD. BY P.H. DATE 1/16/91		F.H.W.A. REGION 5

69
255

ESTIMATED QUANTITIES

** NON PERFORATED ASTM 3034
STR 35 OR SUPL. SPEC. 931

DRAINAGE & FENCE

REF. NO.	STATION TO STATION	SIDE	202 FENCE REMOVED	603 6" CONDUIT TYPE F **	603 12" CONDUIT TYPE B 707.13	604 INLET 3A AS PER PLAN NO. 1	607 END POST ASSEMBLY	607 CORNER POST ASSEMBLY	607 ABUTMENT CONNECTION	607 FENCE TYPE CL AS PER PLAN	SEE SHEET NO.
			L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.	L.F.	
1F	53+33.06LA TO 56+00LA	LT	247				1			247	68
2F	53+73.04 EB TO 56+00EB	RT	233				1			233	68
1D	50+50 EB	LT		10	4	1					68
2D	55+75 WB	RT		10	4	1					68
TOTAL TO GENERAL SUMMARY			480	20	8	2	*	*	*	480	

* ITEM NOT CARRIED TO GENERAL SUMMARY

ROADWAY & PAVEMENT

REF. NO.	STATION TO STATION	SIDE	202 GUADRAIL REMOVED	202 CURB REMOVED	202 CURB REMOVED AS PER PLAN	202 PAVEMENT REMOVED	203 LINEAR GRADING METHOD #6	606 GUADRAIL TYPE 5	606 ANCHOR ASSEMBLY TYPE A	606 ANCHOR ASSEMBLY TYPE T	606 GUADRAIL TYPE 5A	606 BRIDGE TERMINAL ASSEMBLY TYPE 1	606 BRIDGE TERMINAL ASSEMBLY TYPE 2	SEE SHEET NO.
			L.F.	L.F.	L.F.	S.Y.	STA.	L.F.	EA.	EA.	L.F.	EA.	EA.	
1R	49+06WB TO 50+03WB	LT	95	95				97.0				1		67
2R	48+74WB TO 50+03WB	LT	129	129										67
3R	48+69EB TO 50+00EB	RT	131	131										67
4R	48+76EB TO 50+00EB	RT	122	122				98.0			24.0		1	67
5R	50+03WB TO 52+62.25EB	LT	209					171.75	1		62.5			68
6R	50+03WB TO 51+90WB	RT	187											68
7R	50+00EB TO 51+98EB	LT	198											68
8R	50+03WB TO 56+00WB	RT		597										68
9R	50+00EB TO 56+00EB	LT		600										68
10R	55+49WB TO 56+00WB	RT	51											68
11R	54+92EB TO 56+00EB	LT	108											68
12R	50+00EB TO 53+76EB	RT	355					288.5		1	75.0			68
13R	54+36.5LB TO 55+36.5LB	LT			100									68
14R	54+48.25LB TO 56+00LB	RT	112					126.75	1					68
15R	54+36.13LA TO 56+00	LT	164	164										68
24R	54+70LB TO 54+74LB	RT		4										68
1P-17P	FROM PAVEMENT CALCULATIONS					262								47
18P	49+11.7WB TO 50+00WB	LT				79	9							67
19P	49+00.7WB TO 50+00WB	RT				50	1.0							67
20P	48+94.42EB TO 49+95EB	LT				51	1.0							67
21P	48+83EB TO 49+95EB	RT				94	1.1							67
TOTAL TO GENERAL SUMMARY			1861	1842	100	536	4.0	782.0	2	1	161.5	1	1	

REF. NO.	STATION TO STATION	SIDE	254 PAVEMENT PLANING BITUMINOUS	254 PAVEMENT PLANING PCC	304 6" AGGREGATE BASE, AS PER PLAN	407 TACK COAT .075GAL. /SQ.YD.	446 ASPH. CONC SURFACE COURSE TYPE 1	446 ASPH. CONC INTERMED. COURSE TYPE 2	446 ASPH.CONC. SURF.CRSE. TYPE 1 AS PER PLAN	451 9" REINF. CONCRETE PAVEMENT	609 CURB TYPE 6	611 REINF.CONC APPR.SLAB T = 15"	622 CONC BAR. TYPE D AS PER PLAN	SEE SHEET NO.
			S.Y.	S.Y.	C.Y.	GAL.	C.Y.	C.Y.	C.Y.	S.Y.	L.F.	S.Y.	L.F.	
16R	48+74WB TO 50+03WB	RT												
17R	48+69EB TO 50+00EB	LT												
18R	50+03WB TO 56+00WB	RT												
19R	50+00EB TO 56+00EB	LT												
20R	54+36.13LA TO 56+00	LT												
21R	49+08WB TO 50+00WB	RT									92			67
22R	48+78EB TO 49+95EB	LT									117			67
23R	54+70LB TO 54+74LB	RT									4			68
1P-17P	FROM PAVEMENT CALCULATIONS		428	428	99	625	282	395	30	272		262		47
TOTAL TO GENERAL SUMMARY			428	428	99	625	282	395	30	272	213	262	1581.0	

* FOR CONTRACTOR'S INFORMATION ONLY

H:\DATA\SUB-69.dng - MAR 10, 1992 - 13:45:07

ESTIMATED QUANTITIES SUB-SUMMARY

CALC. BY S.E.D. DATE 1-16-91	HAM-50-19.36	OHIO
CHKD BY S.P.H. DATE 1-17-91		F.H.W.A. REGION 5

70
255

GRAPHIC SCALE IN FEET 20 0 20 40 60

PARKING GARAGE

RAMP YN

WESTBOUND HAM-50-20.43L

EASTBOUND HAM-50-20.43R

GEST STREET

SIXTH ST.

SIXTH STREET

EXPRESSWAY

RAMP Y

PROP. 5' TYPE CL FENCE

56+59.20 LA
64.76' LT., E.P.A.

58+18 WB
115.52' LT., C.P.A.

58+18 WB
64' LT., A.C.

57+30 END FULL DEPTH OVERLAY BEGIN TRANSITION

+90 WB END TRANSITION

58+13.50 WB
3.5' RT.± A.C.

58+10 EB
3.5' LT.± A.C.

+83.77 BK
+83.79 AH END TRANS.

57+30 BEGIN TRANSITION END FULL DEPTH OVERLAY

58+08 EB
54' RT.±, A.C.

+92 BRIDGE TERMINAL ASSEMBLY TYPE I

58+08 EB
106.59' RT., C.P.A.

60+41.36 WB
104.98' LT., C.P.A.

60+41.36 WB
70.83' LT., E.P.A.

60+50.37 EB
52.83' RT., A.C.

60+50.37 EB
77.20' RT., E.P.A.

Existing 6' Type CL w/ 3 Strands Barbed Wire (Do not disturb)

Existing Ornamental Iron Security Fence (Do Not Disturb)

Ex. Walk

Ex. Retaining Wall

Conc. Walk

Slope Approach

12" STM

18" STM

21" STM

24" STM

SEE SHEET NO. 89

(See Sheet No. 68) MATCH LINE STA. 56+00 EB & WB

(See Sheet No. 71) MATCH LINE STA. 62+00 EB & WB

✳SEE BRIDGE PLANS FOR RETAINING WALL MODIFICATIONS (SHEETS 251-252)

NOTE: FOR FEATHERING DETAILS SEE SHEET NO. 92

ACAD FILENAME: 56-62.DWG

STA. 56+00 TO STA. 62+00

CALC BY S.E.D. DATE 1-16-91 CHKD BY R.P.H. DATE 1-17-91	HAM-50-19.36	OHIO F.H.W.A. REGION 5	71 255

20 0 20 40 60
GRAPHIC SCALE IN FEET

PARKING GARAGE

62+67.24 WB
103.78' LT., E.P.A.

63+44.20 WB
117.00' LT., On Fence

64+45.91 WB
117.85' LT., E.P.A.

END PROJECT
STA. 64+86.20
S.L.M.

F-13(62)

Drive

L A R/W

6F

Ex. Steps

15R

BEGIN TRANSITION

65+18.58 WB
137.08' LT., C.P.A.

END WORK
STA. 66+01.50 WB

END TRANSITION
MEET EXISTING

+63.5±

+32.5±

9R

65+55.87 WB
62.83' LT., A.C.

Ex. Joint

10'

10R

Existing Concrete SAW CUT Walk

+25

27R

7R

1P

6D

WESTBOUND

12" STM

5D

63

64

52'

SIXTH ST.

2P

53.03'

+92

65

3P

Approach Slab

EXPRESSWAY

Concrete Barrier

SOUTHBOUND MILL CREEK

RAMP W

(See Sheet No. 70)
MATCH LINE STA. 62+01 WB
MATCH LINE STA. 62+00 EB

Ex. Retaining Wall

UD

18" STM

+00Y

Ex. Attenuator

Conc. Slab

66

9P

RAMP Y

4D

+98.63

26'

10P

7D

22'

+22

67

Ex. Retaining Wall

63

64

65

40'

EASTBOUND SIXTH ST. EXPRESSWAY

5P

18" STM

36.69'

6P

Approach Slab

RAMP Q

BRIDGE CONNECTION

11P

14R

4P

12" STM

+32

BEGIN TRANSITION

END TRANSITION
MEET EXISTING

26R

+05

63S

8R

32'

7P

30.7'

SIXTH STREET

8P

28.1'

END WORK
STA. 66+22.00
EB

Existing 6' Type CL w/3 Strands Barbed Wire

L A R/W

(Do not disturb)

+53.08S

+88.61S

64S

FIFTH STREET

+03 BRIDGE TERMINAL ASSEMBLY, TYPE 2

+53S TYPE T ANCHOR ASSEMBLY

BEGIN TRANSITION

+63.51S

65S

CONNECTION

END TRANSITION
MEET EXISTING

*SEE BRIDGE PLANS FOR RETAINING WALL MODIFICATIONS (SHEETS 251-252)

NOTE: FOR FEATHERING DETAILS SEE SHEET NO. 92

ACAD FILENAME: 62-68.DWG

STA. 62+00 TO STA. 68+00

** NON-PERFORATED ASTM 3034
STR 35 OR SUPL. SPEC. 931

ESTIMATED QUANTITIES

CALC. BY S.E.D. DATE 1/17/91
CHKD. BY S.P.H. DATE 1/18/91

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

72
255

DRAINAGE & FENCE

REF. NO.	STATION TO STATION	SIDE	202 FENCE REMOVED	603 CONDUIT TYPE F **	603 12" CONDUIT TYPE B 707.13	604 INLET 3A AS PER PLAN NO. 2	604 MANHOLES ADJUSTED TO GRADE	607 CORNER POST ASSEMBLY	607 ABUTMENT CONNATION	607 FENCE TYPE GL AS PER PLAN	607 END POST ASSEMBLY	SEE SHEET NO.
			L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.	L.F.	EA.	
1F	56+00EB TO 58+18EB	LT	270					1	1	270	1	70
2F	58+10EB TO 58+13.50WB	RT	40						2	40		70
3F	56+00EB TO 58+08EB	LT/RT	260					1	1	260		70
4F	60+41.36WB TO 62+00WB	LT						1		197	1	70
5F	60+50.37EB	RT	23						1	23	1	70
6F	62+00WB TO 65+55.87WB	LT						1	1	415	2	71
1D	60+55.37EB	RT		10	4	1						70
2D	61+90YWB	LT					1					70
3D	61+50WB	LT					1					70
4D	63+50Y	LT					1					71
5D	62+52WB	LT					1					71
6D	63+50WB	LT					1					71
7D	64+60Y	LT					1					71
TOTAL TO GENERAL SUMMARY			593	10	4	1	6	*	*	1205	*	

ROADWAY & PAVEMENT

* ITEM NOT CARRIED TO GENERAL SUMMARY

REF. NO.	STATION TO STATION	SIDE	202 GUADRAIL REMOVED	202 STRUCTURE REMOVED (STEPS)	202 CURB REMOVED	202 CONCRETE WALK REMOVED	202 CONCRETE BARRIER REMOVED	202 PAVEMENT REMOVED	203 LIN. GRAD. METHOD #6	202 PORTIONS OF STRUCT. REMOVED (WINGWALL)	606 BRIDGE TERMINAL ASSEMBLY 1	606 BRIDGE TERMINAL ASSEMBLY 2	606 ANCHOR ASSEMBLY TYPE T	606 GUARDRAIL TYPE 5	608 CONCRETE WALK	SEE SHEET NO.
			L.F.	LUMP	L.F.	S.F.	S.Y.	S.Y.	STA	EA.	EA.	EA.	EA.	L.F.	S.F.	
1R	56+00LA TO 57+92LA	LT	190		190	60									60	70
2R	56+00WB TO 57+96WB	RT			196											70
3R	56+00WB TO 57+26WB	RT	126													70
4R	56+00EB TO 57+94EB	LT	194		194											70
5R	56+00LB TO 57+90LB	RT	190		190						1			192		70
6R	61+16WB TO 62+00WB	LT	84		84											70
7R	62+00WB TO 65+63WB	LT	353		363											71
8R	62+03S TO 63+53S	RT	37									1	1	137.5		71
9R	65+32.5 TO 65+63.5WB	LT				290									288	71
10R	65+44.5 TO 65+53.5WB	LT					10			LUMP						71
11R	61+16WB TO 62+00WB	LT						19	0.9							70
12R	60+50.4 TO 62+00EB	RT			150											70
13R	57+00 TO 57+90EB	RT			90											70
14R	62+00 TO 62+05EB	RT			5			1	0.1							71
15R	64+37 TO 64+43WB	LT		LUMP												
1P-22P	FROM PAVEMENT CALCULATIONS							578								47
23P	60+39.06 TO 62+00EB	RT						37	1.6							70
24P	57+00 TO 57+90WB	LT						23	0.9							70
25P	56+50 TO 57+87.32WB	RT						35	1.4							70
26P	56+50 TO 57+83.77EB	LT						35	1.3							70
27P	57+00 TO 57+80EB	RT						23	0.8							70
TOTAL TO GENERAL SUMMARY			1174	LUMP	1462	350	10	751	7.0	LUMP	1	1	1	329.5	348	

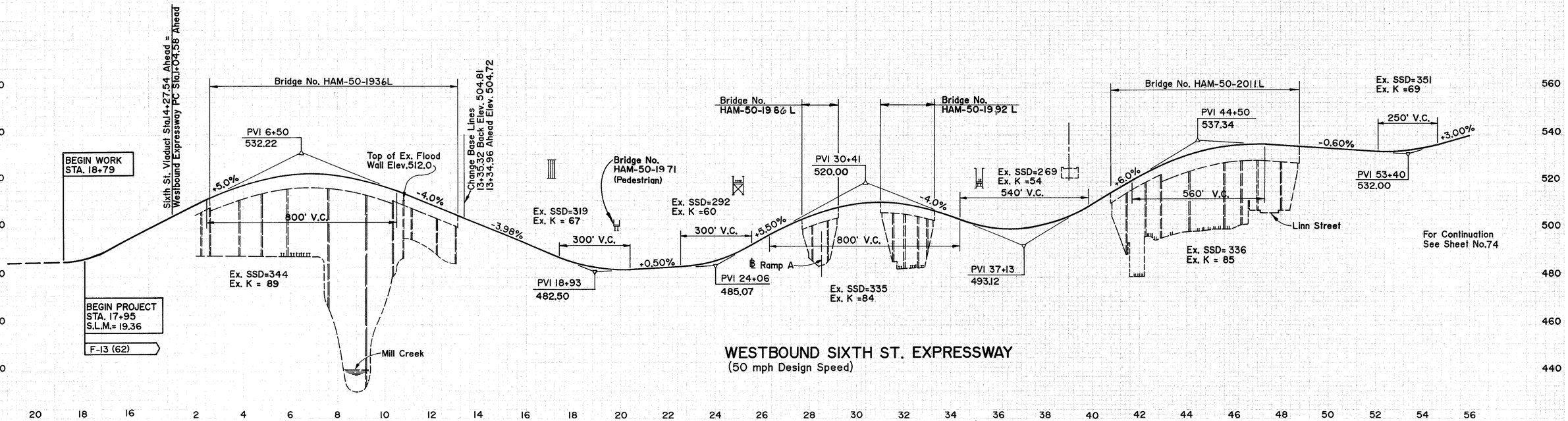
REF. NO.	STATION TO STATION	SIDE	254 PAVEMENT PLANING BITUMINOUS	254 PAVEMENT PLANING PCC	304 AGGREGATE BASE AS PER PLAN	609 CURB TYPE 6	407 TACK COAT .075GAL./SQ.YD.	446 ASPH.CONC. SURFACE COURSE TYPE 1	446 ASPH.CONC. INTERMED. COURSE TYPE 2	446 ASPH.CONC. SURF. CRSE. TYPE 1 AS PER PLAN	451 9" REINF. CONCRETE PAVEMENT	611 REINF.CONC APPR.SLAB T = 15"	622 CONCRETE BARRIER TYPE D AS PER PLAN	SEE SHEET NO.
			S.Y.	S.Y.	C.Y.	L.F.	GAL.	C.Y.	C.Y.	C.Y.	S.Y.	S.Y.	L.F.	
16R	56+00LA TO 57+90LA	LT											190.0	70
17R	56+00WB TO 57+96WB												196.0	70
18R	56+00EB TO 57+94EB	LT											194.0	70
19R	61+16WB TO 62+01WB	LT											85.0	70
20R	60+50.4EB TO 62+00EB	RT											134.6	70
21R	NOT USED													
22R	NOT USED													
23R	NOT USED													
24R	NOT USED													
25R	57+00 TO 57+90EB	RT				90								70
26R	62+00WB TO 62+05WB	RT											5.0	71
27R	62+01WB TO 65+63WB	LT											362.0	71
1P-22P	FROM PAVEMENT CALCULATIONS		1968	1172	130		754	278	391	136	199	578		47
TOTAL TO GENERAL SUMMARY			1968	1172	130	90	754	278	391	136	199	578	1167	

* FOR CONTRACTOR'S INFORMATION ONLY

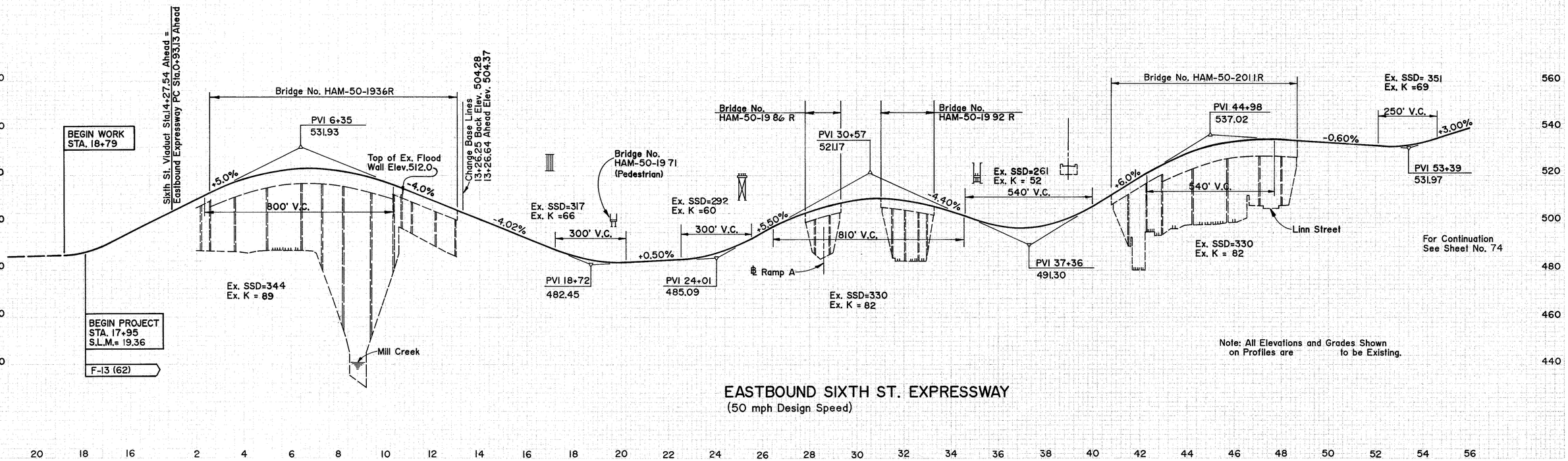
H:\SHTM\SUB-22.dgn - MAR 19, 1992 - 14:17:55

ESTIMATED QUANTITIES SUB-SUMMARY

CALC. BY LEH	HAMILTON COUNTY	OHIO	73
DATE 1-3-90	HAM-50-19.36	FHWA 5 REGION	255
CHKD. BY REA			
DATE 12-6-91			



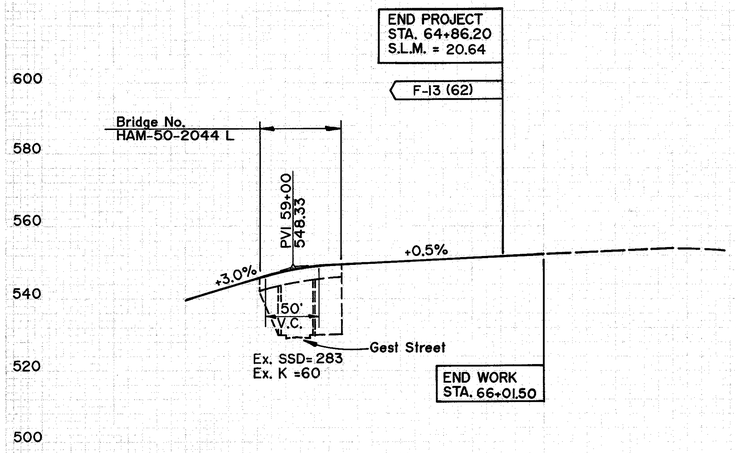
WESTBOUND SIXTH ST. EXPRESSWAY
(50 mph Design Speed)



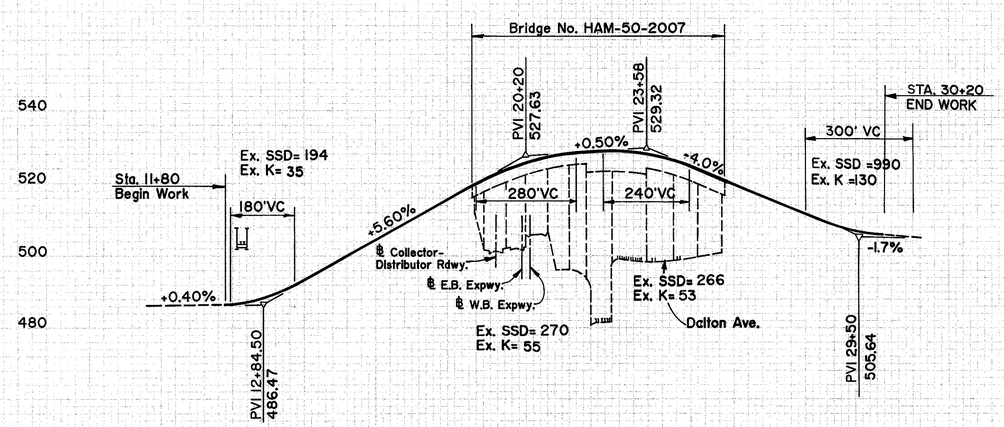
EASTBOUND SIXTH ST. EXPRESSWAY
(50 mph Design Speed)

MAINLINE PROFILES

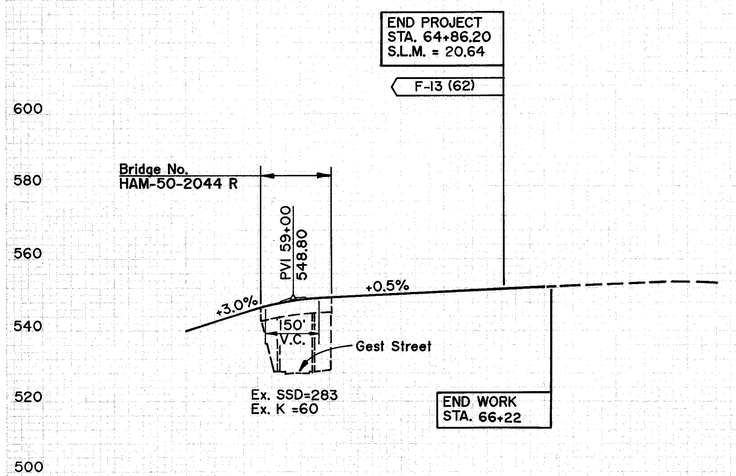
CALC. BY LEH	HAMILTON COUNTY	OHIO	74
DATE 1-3-90	HAM-50-19.36		255
CHKD. BY REA		FHWA 5 REGION	
DATE 12-6-91			



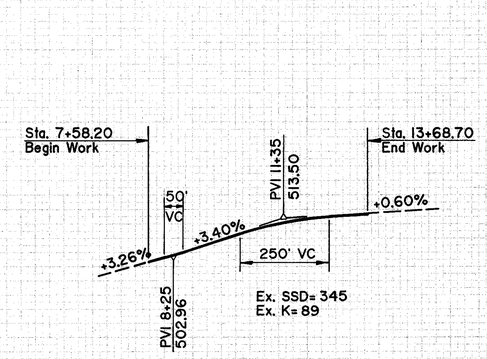
WESTBOUND SIXTH ST. EXPRESSWAY
(50 mph Design Speed)



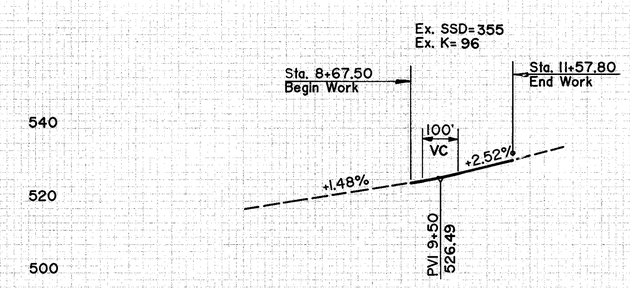
FREEMAN AVENUE
(25 mph Design Speed)



EASTBOUND SIXTH ST. EXPRESSWAY
(50 mph Design Speed)



LINN STREET
(25 mph Design Speed)

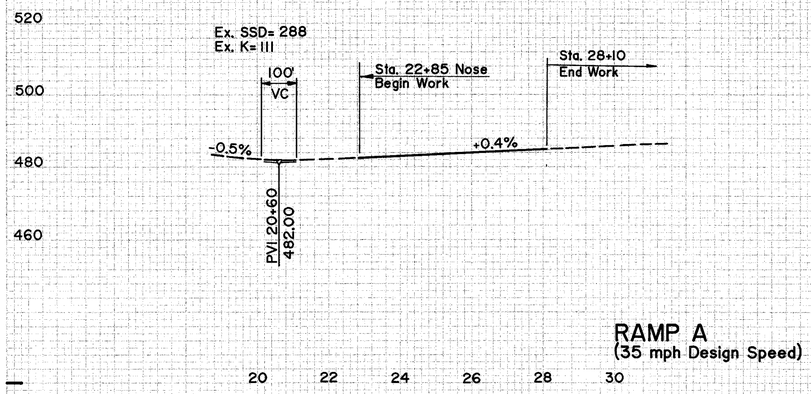


Note: All Elevations and Grades Shown on Profiles are Assume to be Existing.

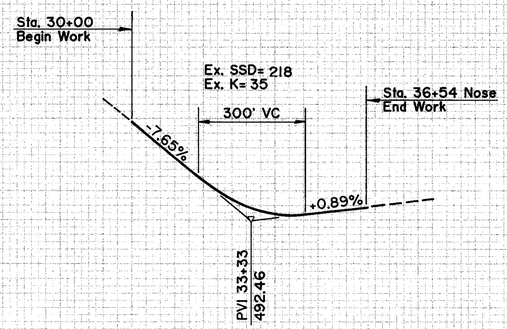
GEST STREET
(25 mph Design Speed)

MAINLINE & SIDEROAD PROFILES

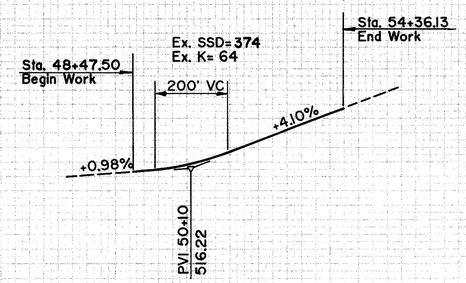
CALC. BY LEH	HAMILTON COUNTY	OHIO	75
DATE 1-3-90	HAM-50-19.36	FHWA 5 REGION	255
CHKD. BY REA			
DATE 12-6-91			



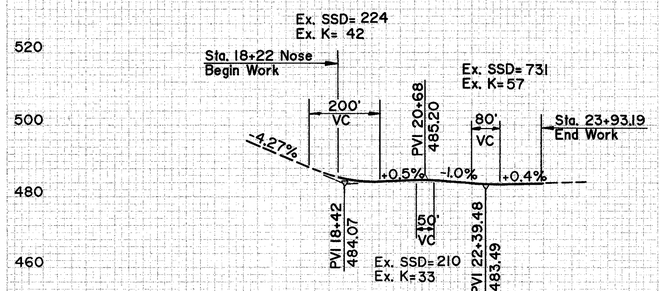
RAMP A
(35 mph Design Speed)



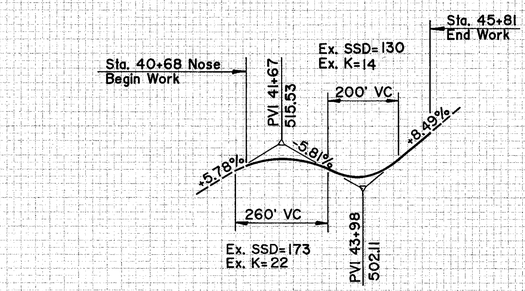
RAMP FB
(35 mph Design Speed)



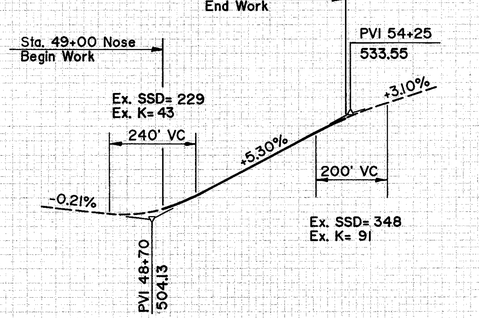
RAMP LA
(35 mph Design Speed)



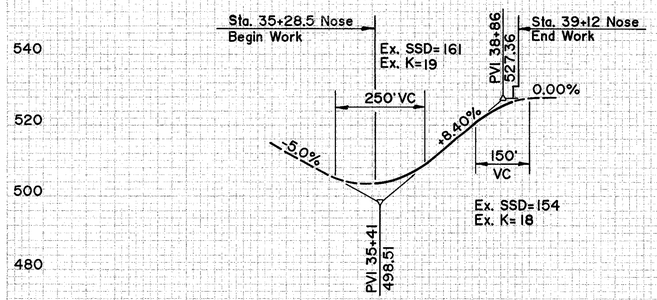
RAMP B
(35 mph Design Speed)



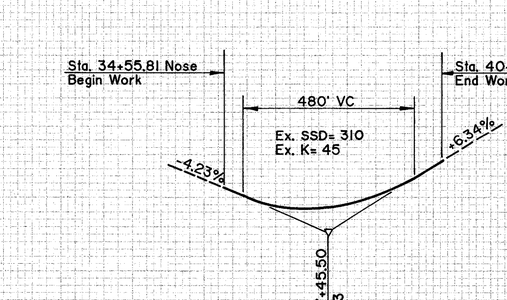
RAMP FC
(35 mph Design Speed)



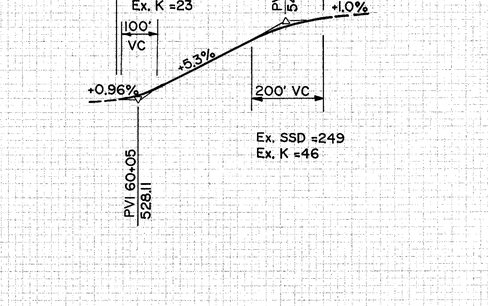
RAMP LB
(35 mph Design Speed)



RAMP FA
(35 mph Design Speed)



(35 mph Design Speed)
CD RAMP
(COLLECTOR DISTRIBUTOR RAMP)



Note: All Elevations and Grades Shown on Profiles are Assume to be Existing.

RAMP Y
(35 mph Design Speed)

RAMP PROFILES

PLATE 2 CROSS SECTION & T. S. & M. K. STANDARD

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

76
255

20 0 20 40 60
GRAPHIC SCALE IN FEET

LA R/W
42" STM
6' Walk
UD
19
20
21
22
23
15" STM
12" STM
24" STM
Overhead Pedestrian Bridge
Sign
Bridge Pier
SIXTH ST. EXPRESSWAY
WESTBOUND
EASTBOUND
(For Continuation See Sheet No. 61)
Item 608 Conc. Walk
62'x6' =372 Sq. Ft.
8-R
9-R
2-P
3-R
1-R
1-P
2-R
4-R
5-R
F-1
7-R
C.P.A.
E.P.A.
PROP. 5' TYPE CLT FENCE
(See Sheet No. 59) MATCH LINE STA. 18+50 RAMP B
RAMP B
20'
16'
24'
21EL A
21TA
22TA
19TA
20TA
23TA
R/W
22+56.92 TA
30'
Power Supply Pole
1-D
2-D
3-D
6-R
20+83.64 B
22"
20"
12"
WM
19M
20M
21M
22M
23M
24M
27'-6"
30'
3%
30' Feathering Overlay See Sht. No. 92 DETAIL E
Face of Tied Wall
STA. 19+80 MEET EXISTING BUTT JOINT
STA. 23+93.19 MEET EXISTING BUTT JOINT

LEGEND
C.P.A. = Corner Post Assembly
E.P.A. = End Post Assembly

FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 78
FOR PROFILE SEE SHEET NO. 75
FOR TYPICAL SECTIONS SEE SHEET NO. 8

STA. 18+50-STA. 20+83.64 RAMP B
STA. 19+80-STA. 23+93.19 MEHRING WAY

ACAD FILENAME: MEHRING.DWG

ESTIMATED QUANTITIES

DRAINAGE & FENCE

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO	78
CHKD. BY REA DATE 12-6-91		FHWA 5 REGION	255

REF. NO.	STATION TO STATION	SIDE	202 FENCE REMOVED	604 MANHOLE ADJUSTED TO GRADE	607 FENCE TYPE CLT AS PER PLAN	CORNER POST ASSEMBLY	END POST ASSEMBLY	SEE SHEET NO.
			LIN. FT.	EACH	LIN. FT.	EACH	EACH	
1-D	20+27 MEHRING	LT.		1				76
2-D	21+10 MEHRING	LT.		1				76
3-D	23+02 MEHRING	LT.		1				76
F-1	18+50 ~ 19+90 RAMP B	RT.	130		210	3	2	76
TOTAL			130	3	210	3F	2F	

ROADWAY & PAVEMENT

F Contractor Information Only

REF. NO.	STATION TO STATION	SIDE	202 WALK REMOVED	202 STRUCTURE REMOVED	202 CURB REMOVED	202 GUARDRAIL REMOVED	254 PAVEMENT PLANING PORTLAND CEMENT CONCRETE	446 ASPH. CONC SURF COURSE TYPE I VAR. DEPTH	446 1 1/4" ASPH. CONC. SURF COURSE TYPE I AC-20	446 1 3/4" ASPH. CONC. INT. COURSE TYPE 2 AC-20	407 TACK COAT	608 4" CONCRETE WALK	608 CURB RAMP TYPE 2	608 CURB RAMP TYPE 2	609 CURB TYPE 2A	SEE SHEET NO.
			SQ. FT.	LUMP	LIN. FT.	LIN. FT.	SQ. YD.	CU. YD.	CU. YD.	CU. YD.	GAL.	SQ. FT.	SQ. FT.	EACH	LIN. FT.	
1-P	18+50 ~ 20+83.64 RAMP B	LT/RT							23	32	48					76
2-P	19+80 ~ 23+93.19 MEHRING	LT.					192	14	87	121	202					76
1-R	18+98 ~ 20+16 MEHRING	LT.				125										76
2-R	18+73 ~ 20+00 RAMP B	RT.				125										76
3-R	19+80 ~ 20+19 RAMP B	LT.		LUMP												76
4-R	20+04 ~ 20+09 RAMP B	LT.			5										5	76
5-R	20+82 ~ 20+85 RAMP B	LT.			6										6	76
6-R	20+85 ~ 21+00 RAMP B	RT.			26										26	76
7-R	18+58 ~ 20+00 MEHRING	LT/RT		LUMP												76
8-R	21+40 ~ 21+58 RAMP	LT/RT	395		18							372	25	1	11	76
9-R	20+59-20+74 RAMP ELB	LT/RT	44		14								50			76
TOTAL			439	LUMP	69	250	192	14	110	153	250	372	75	1	48	

QUANTITIES
STA. 18+50-STA. 20+83.64 RAMP B
STA. 28+10-STA. 30+08 RAMP A
MEHRING WAY, HARRIET ST.
SIXTH ST. & CARR ST.

CALC. BY LEH DATE 1-3-90
CHKD. BY REA DATE 12-6-91

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

79
255

GRAPHIC SCALE IN FEET
20 0 20 40 60

CARR STREET

RR R/W

LA R/W

SOUTHERN RR

PROP. 5' TYPE CL FENCE

C-D RDWY.

RAMP FB

RAMP FC

Anchor Assembly Type T

+83

C.P.A.

F-1

(See Sheet No. 64) MATCH LINE STA. 35+85 Ramp FB

Bridge Terminal Assembly Type 2

STA. 18+60 FREEMAN

+62 FREEMAN Approach Slab

+37 FREEMAN

Type 5A Guardrail

+12 FREEMAN

AVENUE

FREEMAN

8' Walk

STA. 30+79.80 FB

219'

I-R

STA. 31+30 FB

23'

STA. 31+74.54 FB

I-P

Sign

(For Continuation See Sheet No. 83)

STA. 32+59.39 FB

STA. 32+58 FB

Anchor Assembly Type T

PROP. 5' TYPE CLT FENCE

C.P.A.

E.P.A.

F-1

2-R

26'

24'

35.23'

18"

STA. 32+16 RAMP FB

Anchor Assembly Type A

Flood Wall

LA R/W

R/W

LEGEND

C.P.A. = Corner Post Assembly
E.P.A. = End Post Assembly

FOR TYPICAL SECTIONS SEE SHEET NO. 9
FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 81
FOR PROFILE SEE SHEET NO. 75

A-CAD FILENAME: RAMPFB.DWG

RAMP FB

CALC. BY LEH DATE 1-3-90
CHKD. BY REA DATE 12-6-91

HAM-50-19.36

OHIO F.H.W.A. REGION 5

80 255

FREEMAN AVENUE

ACCESS DRIVE

RAMP FC

Approach Slab

Approach Slab

+58 FREEMAN

Sta. 18+56 Freeman

Bridge Terminal Assembly Type 1

+93

+69

Item 609 Conc. Walk 115'x7.5' =863 Sq. Ft.

8' Walk

MATCH LINE STA 41+00 RAMP FC (See Sheet No. 65)

Sta. 45+00 Ramp FC

+14.47

+11.55

+17.62

+83

Sta. 44+38 Ramp FC

Anchor Assembly Type T

Retaining Wall

Paved Gutter

Flood Wall

Sign

Sign

LA R/W

R/W

(For Continuation See Sheet No. 83)

FOR TYPICAL SECTIONS SEE SHEET NO. 9
FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 81
FOR PROFILE SEE SHEET NO. 75

20 0 20 40 60
GRAPHIC SCALE IN FEET

RAMP FC

ESTIMATED QUANTITIES

DRAINAGE & FENCE

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		FHWA REGION 5

81
255

REF. NO.	STATION TO STATION	SIDE	202 FENCE REMOVED	607 FENCE TYPE CLT AS PER PLAN	607 CORNER POST ASSEMBLY	607 END POST ASSEMBLY	SEE SHEET NO.
			LIN. FT.	LIN. FT.	EACH	EACH	
F-1	33+50-35+65 RAMP FB	LT.	315	315	2	1	79
TOTAL			315	315	2F	1F	

F Contractor Information Only

ROADWAY & PAVEMENT

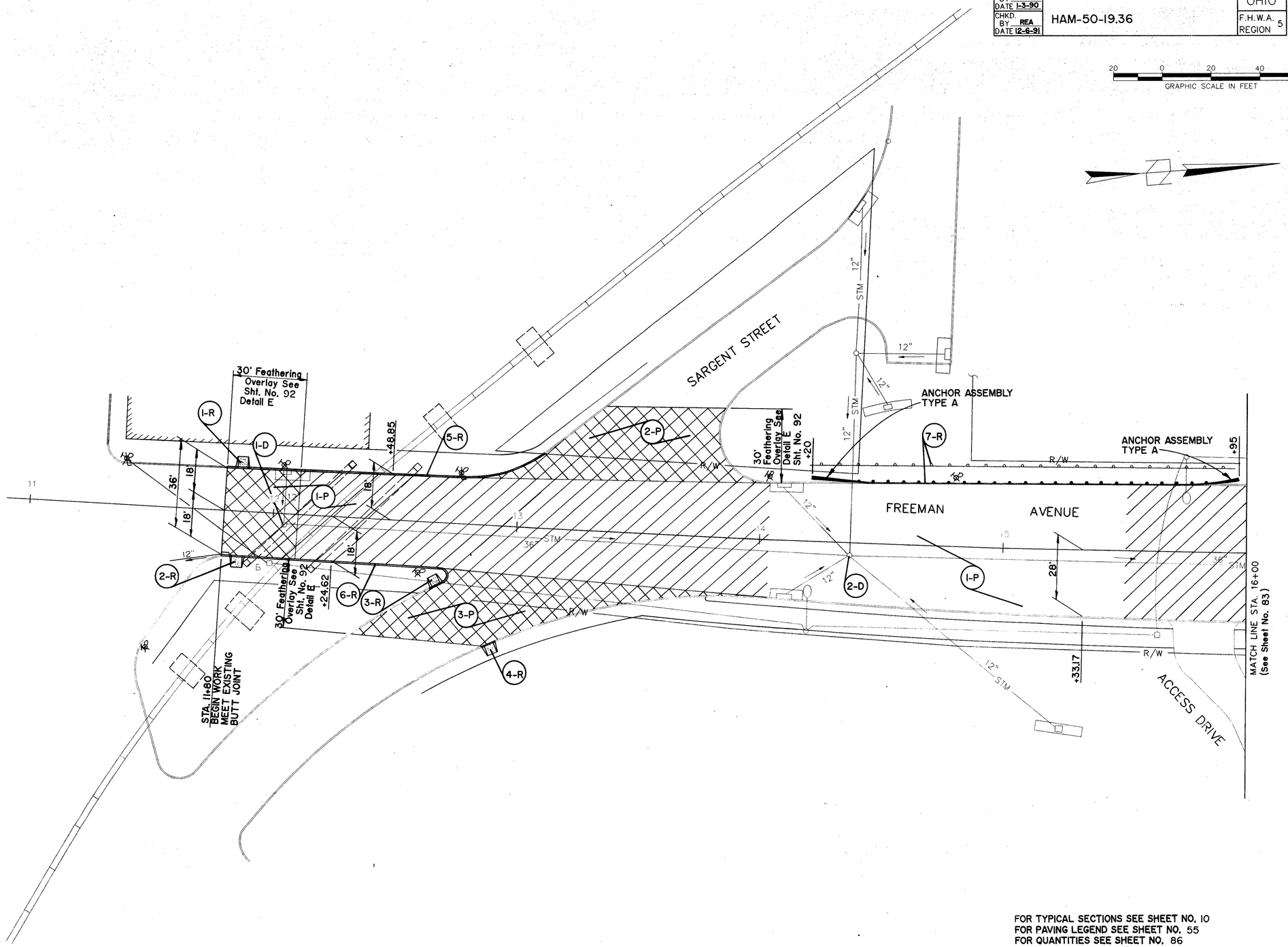
REF. NO.	STATION TO STATION	SIDE	202 WALK REMOVED	202 CURB REMOVED	202 GUARDRAIL REMOVED	446 1 1/4" ASPH. CONC. SURF. COURSE TYPE 1 AC-20	446 3 1/4" ASPH. CONC. INT. COURSE TYPE 2 AC-20	407 TACK COAT	606 GUARDRAIL TYPE 5A	606 GUARDRAIL TYPE 5	606 ANCHOR ASSEMBLY TYPE A	606 ANCHOR ASSEMBLY TYPE T	606 BRIDGE TERMINAL ASSEMBLY TYPE 1	606 BRIDGE TERMINAL ASSEMBLY TYPE 2	608 4" CONCRETE WALK	608 CURB RAMP TYPE 2	608 CURB RAMP TYPE 2	609 CURB TYPE 6	609 CURB TYPE 2A	SEE SHEET NO.
			SQ. FT.	LIN. FT.	LIN. FT.	CU. YD.	CU. YD.	GAL.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	SQ. FT.	SQ. FT.	EACH	LIN. FT.	LIN. FT.	
1-P	30+00-35+85 RAMP FB	LT.				66	92	142												79
5-P	41+00-45+81 RAMP FC	LT.				60	83	127												80
1-R	18+62 FREEMAN-32+58 RAMP FB	RT.			265				25	237.5		1		1						79
2-R	32+16-35+83 RAMP FB	LT.			473					437.5	1	1								79
5-R	41+00 RAMP FC-18+58 FREEMAN	RT.			470					480			1							80
6-R	NOT USED																			
7-R	41+00-44+38 RAMP FC	LT.			424					427		1								80
8-R	43+25-43+37 RAMP FC	LT.		14														14		80
9-R	43+83-45+93 RAMP FC	RT.		210														210		80
10-R	45+00 RAMP FC-18+69 FREEMAN	RT.	863												863		1			80
11-R	45+15-45+18 RAMP FC	LT.		6															6	80
12-R	45+05 RAMP FC	LT.	20	6												23				80
13-R	44+67 RAMP FC	LT.	20													23				80
14-R	44+62-44+72 RAMP FC	LT.		15															9	80
15-R	44+56 RAMP FC	LT.	20	6												23				80
16-R	44+12-44+34 RAMP FC	LT.		47															47	80
TOTAL			923	304	1632	126	175	269	25	1582	1	3	1	1	863	69	1	224	62	

QUANTITIES
STA. 30+00-STA. 35+85 RAMP FB
STA. 41+00-STA. 45+93 RAMP FC

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

82
255

20 0 20 40 60
GRAPHIC SCALE IN FEET



FOR TYPICAL SECTIONS SEE SHEET NO. 10
FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 86
FOR PROFILE SEE SHEET NO. 74

ACAD FILENAME 16-16FRM.DWG

FREEMAN AVENUE STA. 10+00 TO STA. 16+00

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

83
255

20 0 20 40 60
GRAPHIC SCALE IN FEET

Flood Wall
R/W
RAMP FB (For Continuation See Sheet No. 79)
Sign
STM +68.85
30"
12"
UD
B
32
31
37
38
Retaining Wall
EXPRESSWAY
EXPRESSWAY
Type 2 Paved Gutter
15"
STM
P
(See Sheet No. 82)
MATCH LINE STA. 16+00
28'
FREEMAN
AVENUE
7-D
5-D
6-D
I-P
10-R
I-P
17
18
19
20
21
29
28
Approach Slope
36"
(For Continuation See Sheet No. 80)
8' Walk
25' Feathering Overlay See Detail B Sheet No. 92
+21
+46
21"
RAMP FC
ACCESS DRIVE
SIXTH ST.
EASTBOUND
SIXTH ST.
WESTBOUND
Approach Slab
Approach Slab
H
J
B
For Fence Detail See Structural Drawings
(See Sheet No. 84)
MATCH LINE STA. 22+00
FOR TYPICAL SECTIONS SEE SHEET NO. 10
FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 86
FOR PROFILE SEE SHEET NO. 74

ACAD FILENAME: 15-22FRM.DWG

FREEMAN AVENUE STA. 16+00 TO STA. 22+00

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		F.H.W.A. REGION 5

84
255

20 0 20 40 60
GRAPHIC SCALE IN FEET

Quantities Carried on Sheet No. 64

KENYON ST.

(See Sheet No. 64) MATCH LINE STA. 38+25 Ramp FA

PROP. 5' TYPE CL FENCE

E.P.A.

54"

36" STM

L A R/W

R/W

12" STM

24" STM

Sign

11-R

+76.5

FREEMAN AVENUE

(See Sheet No. 83) MATCH LINE STA. 22+00

24

25

Conc. Median

Insc. Median

27

+01

+24

+26

16-R

Bridge Terminal Assembly Type I

+87

14-R

+95

4'

29'

6-P

63.27'

65'

29'

+22

5-P

12-R

26'

7-P

26'

Walk

For Fence Detail See Structural Drawings

25' Feathering Overlay See Detail B Sheet No. 92

13-R

+95.5

+25

Anchor Assembly Type T

15-R

Item 609 Conc. Walk
10'x8' =80 Sq. Ft.
25'x5' =125 Sq. Ft.
4'x5' =20 Sq. Ft.
Total =225 Sq. Ft.

MATCH LINE STA. 28+00 (See Sheet No. 85)

30" STM

12" STM

B

BARR STREET

LEGEND

E.P.A. = End Post Assembly

FOR TYPICAL SECTIONS SEE SHEET NO. 10
FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 86
FOR PROFILE SEE SHEET NO. 74
FOR IMPACT ATTENUTOR DETAIL SEE SHEET NO. 93

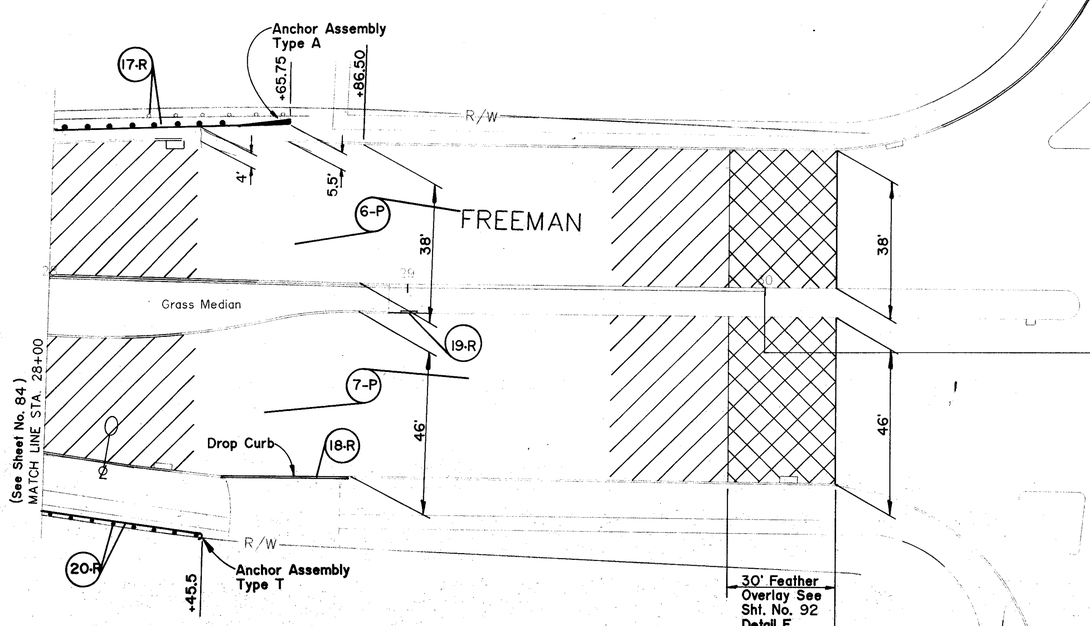
4CAD FILENAME: 22-28FRM.DWG

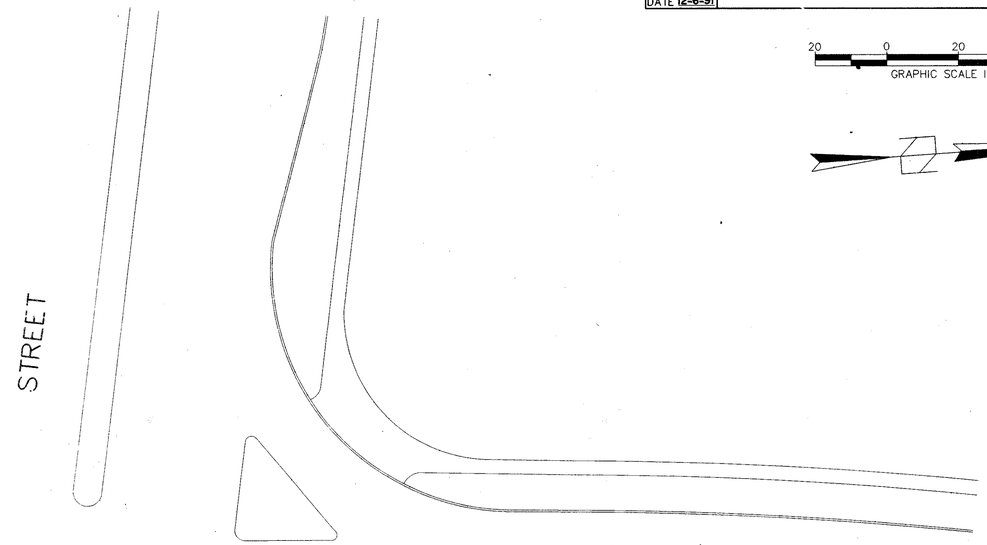
FREEMAN AVENUE STA. 22+00 TO STA. 28+00.

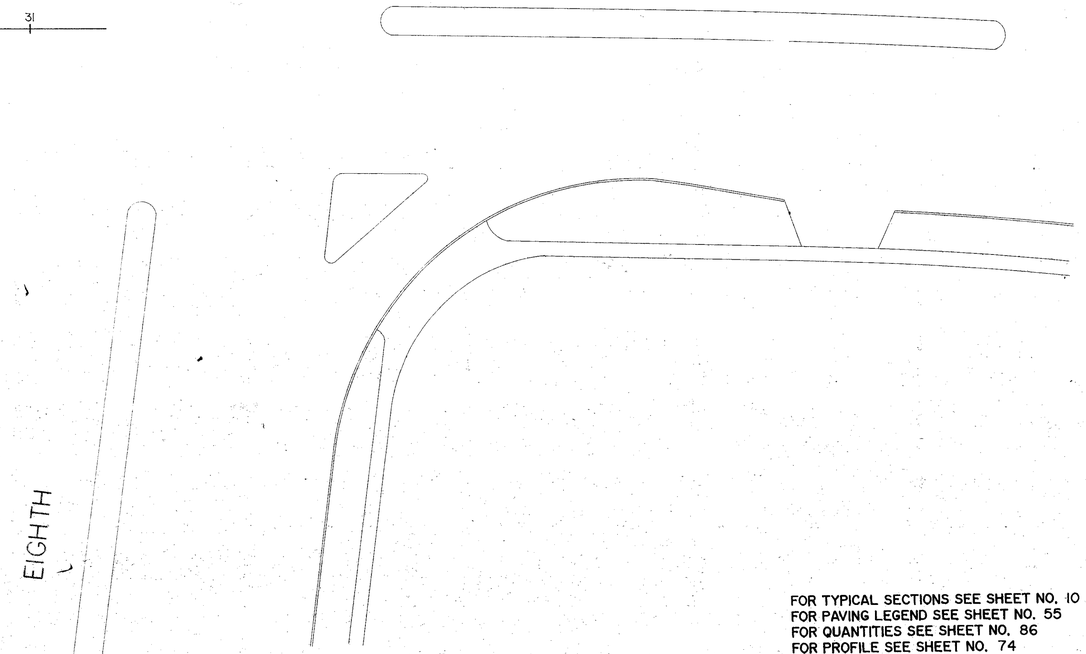
CALC. BY LEH DATE 1-3-90		OHIO
CHKD. BY REA DATE 12-6-91	HAM-50-19.36	F.H.W.A. REGION 5

85
255

20 0 20 40 60
GRAPHIC SCALE IN FEET







FOR TYPICAL SECTIONS SEE SHEET NO. 10
FOR PAVING LEGEND SEE SHEET NO. 55
FOR QUANTITIES SEE SHEET NO. 86
FOR PROFILE SEE SHEET NO. 74

CAD FILENAME 28-34PRO1.DWG

FREEMAN AVENUE STA. 28+00 TO STA. 34+00

ESTIMATED QUANTITIES

DRAINAGE

CALC. BY LEH DATE 1-3-90	HAM-50-19.36	OHIO
CHKD. BY REA DATE 12-6-91		FHWA 5 REGION

86
255

REF. NO.	STATION TO STATION	SIDE	604 MANHOLE ADJUSTED TO GRADE	604 MANHOLE RECONSTRUCTED TO GRADE	SEE SHEET NO.
			EACH	EACH	
1-D	12+05 FREEMAN	RT.	1 (1)		82
2-D	14+37.5 FREEMAN	RT.	1		82
5-D	16+27 FREEMAN	RT.	1		83
6-D	16+63 FREEMAN	RT.	1		83
7-D	16+87 FREEMAN	℄		1 (2)	83
TOTAL			4	1	

(1) Adj. +.21'
(2) Reconstructed To Grade -.25'

ROADWAY & PAVEMENT

REF. NO.	STATION TO STATION	SIDE	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONC. MEDIAN REMOVED	202 CURB REMOVED	202 GUARDRAIL REMOVED	254 PAVEMENT PLANING PORTLAND CEMENT CONCRETE	304 6" AGGREGATE BASE, AS PER PLAN	446 ASPH. CONC. BASE COURSE TYPE 1 VAR. DEPTH	446 1½" ASPH. CONC. SURF. COURSE TYPE 1 AC-20	446 4" ASPH. CONC. INT. COURSE TYPE 2 AC-20	407 TACK COAT	451 9" REINF. CONCRETE PAVEMENT	606 GUARDRAIL TYPE 5	606 ANCHOR ASSEMBLY TYPE A	606 ANCHOR ASSEMBLY TYPE T	606 BRIDGE TERMINAL ASSEMBLY TYPE I	608 4" CONCRETE WALK	608 CURB RAMP TYPE 2	609 CURB TYPE 2A	611 REINFORCED CONCRETE APPROACH SLAB (T=9")	690 IMPACT ATTENUATOR G.R.E.A.T. SYSTEM	SEE SHEET NO.
			SQ. YD.	SQ. FT.	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	GAL.	SQ. YD.	LIN. FT.	EACH	EACH	EACH	SQ. FT.	SQ. FT.	LIN. FT.	SQ. YD.	EACH	
1-P	11+80-18+71 FREEMAN	LT./RT.	156					120	27	20	117	164	272	74								160		82-83
2-P	SARGENT ST.	LT.						235		17			18											82
3-P	SARGENT ST.	RT.						244		17			18											82
5-P	25+76-26+01 FREEMAN	LT./RT.	179						30													179		84-85
6-P	26+01-30+20 FREEMAN	LT.	13					127		15	48	67	120	20							63			84-85
7-P	26+01-30+20 FREEMAN	RT.						153		16	51	71	127											84-85
1-R	11+86.5 FREEMAN	LT.		20																23				82
2-R	11+86.5 FREEMAN	RT.		20																23				82
3-R	12+69 FREEMAN	RT.		20																23				82
4-R	12+91 FREEMAN	RT.		20		6														23				82
5-R	11+80-13+10 FREEMAN	LT.				133															133			82
6-R	11+80-12+73.5 FREEMAN	RT.				105															105			82
7-R	14+20-15+95 FREEMAN	LT.					175								137.5	1	1							82
10-R	16+81-18+71 FREEMAN	LT./RT.			84																			83
11-R	22+76.5 - 22+89.25 FREEMAN	LT.																					1	84
12-R	25+76-26+06 FREEMAN	LT./RT.			35																			84
13-R	26+72-27+20 FREEMAN	RT.		225															225					84
14-R	26+22-28+00 FREEMAN	LT.					176								178			1						84
15-R	26+95.5-28+00 FREEMAN	RT.					104.5								92		1							
16-R	26+24 - 26+87 FREEMAN	LT.				63																		85
17-R	28+00-28+72 FREEMAN	LT.					72								40.75	1								85
18-R	28+49-28+85 FREEMAN	RT.				36															36			85
19-R	28+98-29+02 FREEMAN	RT.				4															4			85
20-R	28+00 - 28+45.5 FREEMAN	RT.					45.5								33		1							
TOTAL			348	305	119	347	573	879	57	85	216	302	555	94	481.25	2	3	1	225	92	341	339	1	

QUANTITIES
STA. 11+80-STA. 30+20 FREEMAN AVE.

CALC. BY S.E.D. DATE 1-16-91	HAM-50-19.36	OHIO
CHKD. BY J.S.P.H. DATE 1-17-91		F.H.W.A. REGION 5

87
255

GRAPHIC SCALE IN FEET 20 0 20 40 60

NOTE: WHERE EXISTING FENCE POSTS HAVE BEEN REMOVED TO JUST ABOVE GROUND LEVEL THE REMAINING PORTION SHALL BE REMOVED ENTIRELY. THE GROUND SHALL BE REPAIRED TO ORIGINAL CONDITION. WHERE POSTS ARE IMBEDDED IN EXISTING CONCRETE THE CONCRETE SHALL BE SAW CUT TO A MIN. 1' SQUARE AND REPAIRED TO MATCH EXISTING AS REQUIRED. COST SHALL BE INCLUDED IN ITEM 202, FENCE REMOVAL.

NOTE: FOR FEATHERING DETAILS SEE SHEET NO. 92

END WORK
END TRANSITION
STA. 46+88.30
MEET EXISTING

BEGIN TRANSITION
STA. 13+23.70

END WORK
END TRANSITION
STA. 13+68.70
MEET EXISTING

DALTON STREET

LINN STREET

EASTBOUND

WESTBOUND

LA R/W

Sta. 46+25.80
End Transition

Meet Existing

Sta. 46+46.30
End Transition

Saw Cut @ Ex. Joint

Conc. Walk

SHRUB ROW (TO BE REMOVED)

Portion of Ex. Posts Remain
See Note This Sheet

PROP. 5' TYPE CL FENCE

8+95 LINN ST.
57' RT., C.P.A.

48+05 L.B.
13' LT., E.P.A.

12+20 LINN ST.
61' RT. C.P.A.

12+29 LINN ST.
95' RT. E.P.A.

SHRUB ROW REMOVAL LIMIT

Begin Transition

SIXTH ST.

SIXTH STREET

25' Approach Slab

SHRUBS AND TREES

EXPRESSWAY

Type 1 Paved Gutter

RAMP LB

RAMP LA

PROP. 5' TYPE CL FENCE
(SEE SHEET 88 FOR FENCE)

PARKING LOT

NOTE: ELECTRIC M.H.'S, GAS & WTR. VALVES TO BE ADJUSTED TO GRADE BY OWNERS.

END WORK
END TRANSITION
STA. 7+58.20
MEET EXISTING

BEGIN TRANSITION
STA. 8+03.20

BEGIN TRANSITION
STA. 49+10.50

END TRANSITION
END WORK
STA. 49+55.50
MEET EXISTING

MATCH LINE
STA. 49+01.78 LB
(SEE SHEET NO. 88)

MATCH LINE
STA. 50+00 LA
(SEE SHEET NO. 88)

Saw Cut @ Ex. Joint

ACAD FILENAME: LINNST.DWG

LINN STREET

CALC. BY LEH DATE 1-3-90 CHKD. BY REA DATE 12-6-91	HAM-50-19.36	OHIO F.H.W.A. 5 REGION	88 255

20 0 20 40 60
GRAPHIC SCALE IN FEET

48+85.50 LA
66' RT., E.P.A.

Parking Lot

Parking Garage

53+33.06 LA
64.35' LT., E.P.A.

LA R/W

2F

PROP. 5' TYPE CL FENCE

SEE SHEET NO. 68

24" STM

48" STM

12" STM

15" STM

Conc. Walk

LINN STREET

SEE SHEET NO. 87

UD

49

50

51

52

53

54

+37.45

41.42'

24'

1P

15D

8R

2R

16D

RAMP LA

2P

STA. 54+36.13 LA
MATCH LINE
SEE SHEET
NO. 68

MATCH LINE
STA. 50+00 LA

PROP. 5' TYPE CL FENCE
SEE SHEET NO. 87

12

Type 1 Paved Gutter

WESTBOUND SIXTH ST. EXPRESSWAY

Slab

EASTBOUND

SIXTH ST. EXPRESSWAY

MATCH LINE
STA. 49+01.78 LB

Ex. Type 1 Paved Gutter

+60.03

+00

33.54'

30'

LA R/W

SEE SHEET
NO. 87

3P

4P

RAMP LB

5P

EX. TYPE 8 CURB

9R

3R

SEE NOTE
BELOW

19'

8" WM

STM 24"

18" STM

49+39.12 E.B.
157.90' RT., E.P.A.

49+76.70 E.B.
167.09' RT., C.P.A.

3F

PROP. 5' TYPE CL FENCE

Ex. C. Basin
Abandoned
(TO REMAIN
ABANDONED)

53+45.66 E.B.
109.73' RT. E.P.A.

53+73.44 E.B.
120.44' RT., E.P.A.
SEE SHEET NO. 68

STA. 54+36.52 LB
MATCH LINE
SEE SHEET NO. 68

NOTE: REMOVE EXISTING TYPE 8 CURB AND REPLACE WITH TYPE 8 CURB TAPERING FROM 9" TO 5" HEIGHT @ STA. 54+36.52 OVERLAY AT NOSE TO BE 3" DEPTH RESULTING IN 2" EXPOSED CURB @ STA. 54+36.52

ACAD FILENAME: _1A1B.DWG

RAMPS 1A AND 1B

CALC. BY S.E.D. DATE 1-16-91	HAM-50-19.36	OHIO	89
CHKD. BY S.P.H. DATE 1-17-91		F.H.W.A. REGION 5	255

GRAPHIC SCALE IN FEET 20 0 20 40 60

SIXTH STREET

EASTBOUND SIXTH ST.

WESTBOUND SIXTH ST.

25' Approach Slab

25' Approach Slab

Building

BEGIN WORK
BEGIN TRANSITION
STA. 8+67.50

END TRANSITION
STA. 9+12.50

BEGIN TRANSITION
STA. 11+12.80

END TRANSITION
STA. 11+57.8
END WORK
STA. 11+59

MEET EXISTING

MEET EXISTING

+83.5 +20.5 +53.5 +82.5 +89.5 +13.5 +25.5 +58.5 +69.5 +06 +09

12" STM

Conc. Walk

5R

5R

5R

8'

30" STM

24" STM

24" STM

21" STM

12" STM

24" STM

8" STM

9 WAY E

GEST STREET

BUTT JOINT @ EX. JOINT

JOINT @ EX. JOINT

2 WAY E

4 WAY E

1P

10D

11D

2P

12D

3P

66'

53'

10'

11'

5'

STA 59+44 Y

+60.50 YI

+40.50 YI

5R

5R

13D

8'

12" STM

FLARED END SECTION

2'

5'

8'

+59+63Y

+71Y

+87Y

+20.5

+38.5

12" STM

40'

26'

SAW CUT @ EX. JOINTS

11R

6P

10R

12R

4R

7P

5P

4P

14D

59YN

16'

BUTT JOINT

MEET EXISTING

END WORK
END TRANSITION
STA. 58+96.60 YN

BEGIN TRANSITION
STA. 59+41.60 YN

BRIDGE TERMINAL ASSEMBLY TYPE 1 RAMP YN (See Insert Left)

ANCHOR ASSEMBLY TYPE T

Ex. Walk

Ex. Type 2A Curb

60YN

109'

60X

25' Approach Slab

25' Approach Slab

Parking Garage

60+60YN

* 10' EXISTING CURB TRANSITION

RAMP Y

Ex. Type A Curb

12" STM

61'

26'

MATCH LINE
STA. 61+00 Y
SEE SHEET NO. 70

NOTE: FOR FEATHERING DETAILS SEE SHEET NO. 92

INSERT

GEST STREET

STA. 59+44Y

N 5° 57' 24" W

28.26 28.28 28.40 28.53 28.67 28.80 28.93 29.39 29.71 30.13 30.32 30.50 30.50 31.54

21'

28.56 N 79°46' 13" W

60Y

28.87 28.78 28.48 28.36 29.54 20.16 20.83 16.3' N 66°35'07" E

60 YI

60 YN

RAMP YN

59YN

STATION EQUATION
STA. 59+20.60 YN =
STA. 59+20.60 YI

LEGEND

29.50 EX. GUT. ELEV.

29.50 PROP. GUT. ELEV.

EX. TYPE 2-A CURB

PROP. TYPE 6 CURB

PROP. TYPE D CONC. BARRIER

CURVE DATA

CURVE ①
R = 20.00'
Δ = 109° 15'
L = 38.13'

CURVE ②
R = 600.00'
Δ = 7° 14' 24"
L = 75.81'

CURVE ③
PC STA. 59+94.51 YN
PCC STA. 58+27.98 YN
R = 300'
Δ = 10° 00' 41.5"
L = 52.42'

CURVE ④
PCC STA. 60+59.92 YN
PT STA. 59+94.51 YN
R = 60.00'
Δ = 62° 28' 44"
L = 65.43'

ACAD FILENAME: GEST1WG

GEST STREET

CALC. BY SPH DATE 1/11/91
CHKD. BY SED DATE 1/14/91

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

90
255

ESTIMATED QUANTITIES

** NON-PERFORATED ASTM 3034
STR 35 OR SUPL. SPEC. 931

DRAINAGE & FENCE

REF. NO.	STATION TO STATION	SIDE	202 FENCE REMOVED	603 6" CONDUIT TYPE F **	604 INLET 3A AS PER PLAN NO. 1	604 MANHOLE ADJUSTED TO GRADE	603 12" CONDUIT TYPE B 707.13	607 FENCE TYPE CL AS PER PLAN	607 CORNER POST ASSEMBLY	607 END POST ASSEMBLY	SEE SHEET NO.
			L.F.	L.F.	EA.	EA.	L.F.	L.F.	EA.	EA.	
1F	48+05LB TO 12+29 LINN	RT	274					392	2	2	87
2F	48+85.5LA TO 53+33.06LA	LT	440					440		1	88
3F	49+39.12EB TO 53+73.44EB	RT	438					438	1	2	88
1D	7+98 LINN	RT				1					87
2D	47+78 SIXTH	LT				1					87
3D	8+99 LINN	RT				1					87
4D	10+68 LINN	RT				1					87
5D	11+97 LINN	RT				1					87
6D	47+02 KENYON	LT				1					87
7D	49+22 SIXTH	LT				1					87
8D	12+88 LINN	RT				1					87
9D	13+32 LINN	RT				1					87
10D	9+28 GEST	LT				1					89
11D	10+18 GEST	LT				1					89
12D	11+35 GEST	LT				1					89
13D	59+51 Y	LT				1					89
14D	60+33 Y	LT				1					89
15D	51+48 LA	LT		10	1		4				88
16D	54+05 LA	LT		10	1		4				88
TOTAL TO GENERAL SUMMARY			1152	20	2	14	8	1270	*	*	

* ITEM NOT CARRIED TO GENERAL SUMMARY

ROADWAY & PAVEMENT

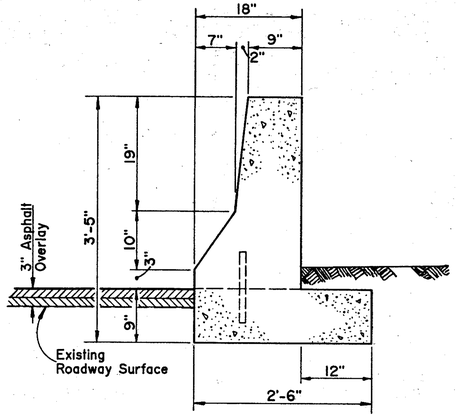
REF. NO.	STATION TO STATION	SIDE	202 WALK REMOVED	202 GUARDRAIL REMOVED	202 CURB REMOVED	254 PAVEMENT PLANING BITUMINOUS	254 PAVEMENT PLANING PCC	407 TACK COAT 0.075 GAL./SQ. YD.	606 GUARDRAIL TYPE 5	606 ANCHOR ASSEMBLY TYPE T	606 BRIDGE TERMINAL ASSEMBLY TYPE 1	608 CONCRETE WALK	609 CURB TYPE 8 AS PER PLAN	609 CURB TYPE 6	609 CURB TYPE 2A	622 CONCRETE BARRIER TYPE D AS PER PLAN	446 ASPH.CONC. SURF.CRSE. TYPE 1 AC-20	446 ASPH.CONC. INT.CRSE. TYPE 2 AC-20	446 ASPH.CONC. INTER.CRSE. TYPE 1 AS PER PLAN	451 9" REINF. CONCRETE PAVEMENT	SEE SHEET NO.
			S.F.	L.F.	L.F.	S.Y.	S.Y.	GAL.	L.F.	EA.	EA.	S.F.	L.F.	L.F.	L.F.	L.F.	C.Y.	C.Y.	C.Y.	S.Y.	
1R	49+50LA TO 50+00LA	LT		50	50																87
2R	50+00LA TO 54+36.13LA	LT		436	436																88
3R	54+28.0LB TO 54+36.5LB	LT			8.5																88
4R	59+31.5YN TO 59+63Y	RT	907	86	135				68.75	1	1	573									89
5R	AS SHOWN ON GEST ST.	LT/RT			132										132						89
6R	AS SHOWN ON LINN ST.	LT/RT			241										241						87
7R	49+50LA TO 50+00LA	LT														50					87
8R	50+00LA TO 54+36.13LA	LT														396					88
9R	54+28.02LB TO 54+36.52LB	LT											8.5								88
10R	59+40.5Y1 TO 59+60.5Y1	RT														20					89
11R	59+31.5Y1 TO 59+40.5Y1	RT												9							89
12R	59+60.5Y1 TO 59+63Y	LT/RT												79							89
1P-8P	FROM PAVEMENT CALCULATIONS					2203	2203	1072									420	588	153	47	49
TOTAL TO GENERAL SUMMARY			907	572	1003	2203	2203	1072	68.75	1	1	573	9	88	373	466	420	588	153	47	

* FOR CONTRACTOR'S INFORMATION ONLY

H:\DATA\SUB-Rdwy - MAR 11, 1992 - 10:09:00

CALC. BY LEH DATE 4-19-91	HAM-50-19.36	OHIO	91
CHKD. BY REA DATE 12-11-91		FHWA REGION 5	255

Note: See Std. Construction Drawing MC-9.3



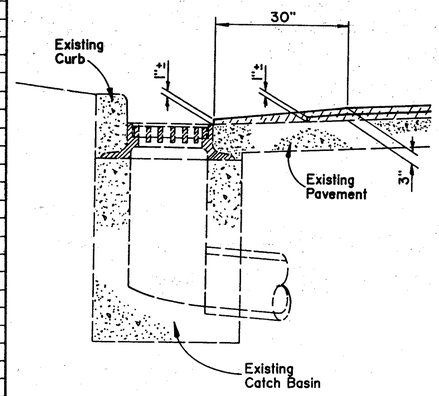
TYPE D CONCRETE BARRIER AS PER PLAN

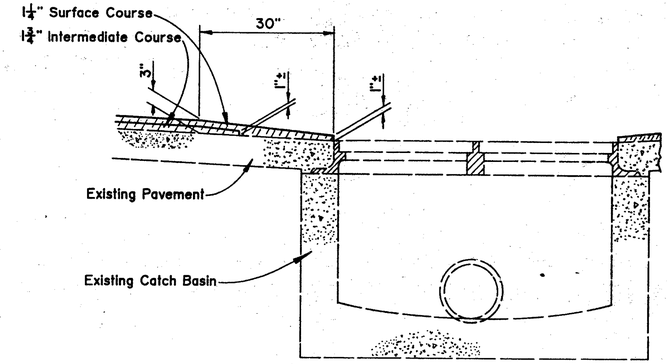
STATION	REF. NO.	EX. SIZE & PROP. DEPTH OF OUTLET	EX. SIZE & PROP. DEPTH OF INLET	EX. U.D. DEPTH INLET	EX. U.D. DEPTH INLET	SEE SHEET NO.
14+78 WB	1-D	15"/6.06' (3)	12"/5.81' (1)	4.31' (2)	—	59
16+52 WB	2-D	15"/8.57' (3)	12"/8.32' (1)	4.37' (2)	—	59
18+25 WB	3-D	15"/5.86' (3)	12"/5.56' (1)	4.46' (2)	—	59
19+98 WB	4-D	12"/5.17' (3)	—	4.42' (2)	—	59
14+62 EB	5-D	12"/5.23' (3)	—	4.43' (2)	—	59
16+22 EB	6-D	12"/5.32' (3)	—	4.48' (2)	—	59
17+83 EB	7-D	12"/5.12' (3)	—	4.43' (2)	—	59
19+38 EB	8-D	12"/4.63' (4)	—	4.38' (2)	—	59
19+89 EB	9-D	15"/5.89' (3)	12"/5.59' (2)(4)	4.24' (2)	4.24' (4)	59
19+89 EB	10-D	12"/4.67' (1)		4.24' (2)	4.24' (4)	59
20+45 EB	3-D	12"/4.62' (2)	—	4.44' (4)	—	61
22+46 EB	4-D	12"/4.40' (3)	—	3.60' (4)	—	61
24+35 EB	5-D	12"/4.84' (3)	—	4.24' (4)	—	61
25+31 EB	6-D	12"/5.46' (4)	—	4.50' (1)	—	61
26+13 EB	10-D	12"/4.31' (3)	—	4.31' (4)	—	62
34+61 WB	1-D	15"/4.95' (1)	—	4.45' (4)	—	64
36+09 WB	2-D	12"/5.75' (2)	—	4.77' (4)	—	64
36+60 WB	3-D	12"/5.88' (2)	12"/5.68' (4)	4.88' (2)	4.88' (4)	64
36+90 WB	4-D	12"/4.67' (1)	—	4.42' (2)	4.42' (4)	64
35+00 EB	5-D	15"/5.20' (2)	—	—	—	64
38+60 WB	1 1D	12"/5.23 (3)	—	4.41' (1)	—	65
50+50 EB	1-D	12"/7.02' (1)	—	5.02' (2)	—	68
55+77.5 WB	2-D	12"/5.43' (3)	—	4.68' (2)	—	68
60+55.37 EB	1-D	12"/4.53' (3)	—	4.28' (2)	—	70
51+48 Ramp LA	15-D	12"/5.18' (3)	—	4.90' (4)	—	88
54+05 Ramp LA	16-D	12"/5.96' (3)	—	4.96' (4)	—	88

Pipe Entry or Exit Code
(1) Front
(2) Left Side
(3) Rear
(4) Right Side

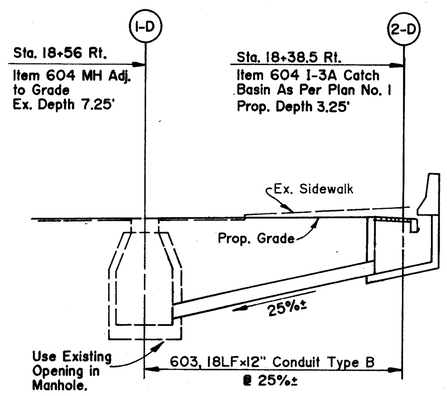
Note:
1) It is Assumed that existing pipe is Type B Conduit and that Proposed Pipe shall Match Existing.
2) Contractor shall Reference Existing Catch Basins that are to be removed along with reference elevations at Window Flowline. New Elevations at Windows shall be 0.25' Higher then existing, unless Otherwise Shown in Plans.
3) Depth Shown in Chart are Approximate and are to be used for Contractor's Bidding purpose Only.

Note: See Std. Drawing BP-5



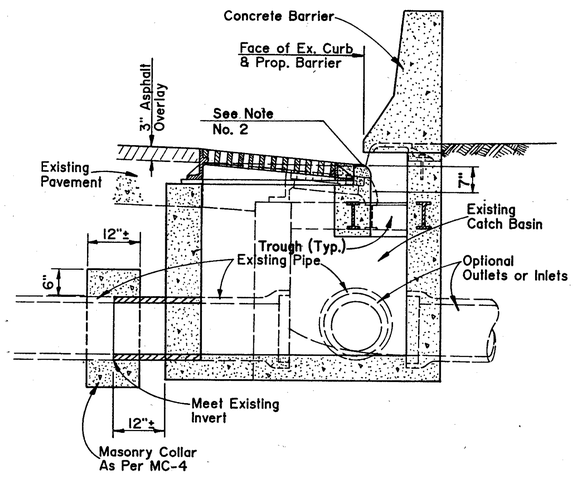


GUTTER FINISH AT CATCH BASINS

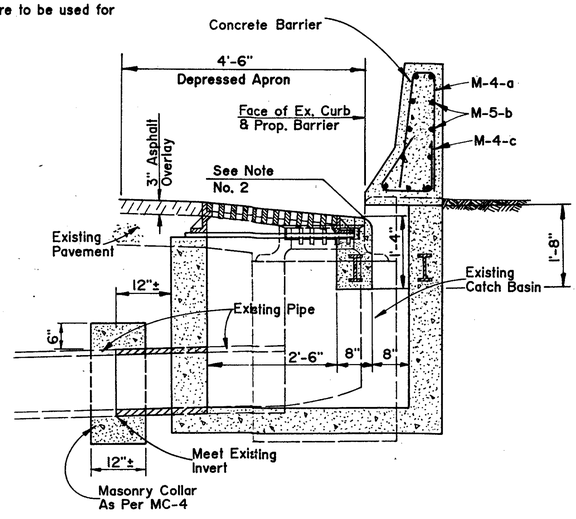


STORM SEWER PROFILE

Notes:
1) Dimensions, Reinforcing and Details not shown shall Conform to Standard Construction Drawing I-3A & B
2) Cost of connecting Existing Underdrains and Conduits to New Drainage Structures shall be Included in the Unit Price for Item 604 Inlet No. I-3A.
3) Removal of Existing Catch Basin is Included in Excavation for Proposed Catch Basin.



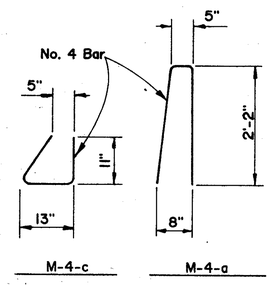
DRAINAGE DETAIL A
(Existing Inlet W/ Window)



DRAINAGE DETAIL B
(Existing Inlet W/O Window)

INLET NO. I-3A AS PER PLAN NO. 1

STEEL LIST							
M-4-a		M-5-b		M-4-c		S6×12.5	
No	LF	No	LF	No	LF	No	LF
10	4'-9"	11	19'-8"	10	3'-1"	1	11'-0"



See Std. Drawing I-3A & B and MC-9 for Other Details.

LIMITING STATIONS

DETAIL A

STA. 27+56.10 ~ STA. 27+81.10 EB
STA. 27+48 ~ STA. 27+73 WB
STA. 29+32.88 ~ STA. 29+57.88 EB
STA. 29+25.33 ~ STA. 29+50.33 WB
STA. 30+84.63 ~ STA. 31+09.63 EB
STA. 30+83.93 ~ STA. 31+08.93 WB
STA. 33+33.18 ~ STA. 33+58.18 EB
STA. 33+32.25 ~ STA. 33+57.25 WB
STA. 40+56.11 ~ STA. 40+81.11 WB
STA. 60+39.84 ~ STA. 60+64.84 WB
STA. 60+14.06 ~ STA. 60+39.06 EB

DETAIL B

STA. 13+26.64 ~ STA. 13+51.64 EB
STA. 13+34.96 ~ STA. 13+59.96 WB
STA. 40+35.46 ~ STA. 40+60.46 EB
STA. 17+96- STA. 18+46 FREEMAN
STA. 26+01 ~ STA. 26+51 FREEMAN

DETAIL C

STA. 14+58.17 ~ STA. 1+12.50 EB(SIXTH ST. VIADUCT)

* STA. 49+01.70 ~ STA. 49+51.70 WB (50'-81')
* STA. 48+94.42 ~ STA. 49+44.42 EB (50'-61')
* STA. 57+30 ~ STA. 57+90 WB (57.32'-60')
* STA. 57+00 ~ STA. 57+83.77 EB (80'-83.77')

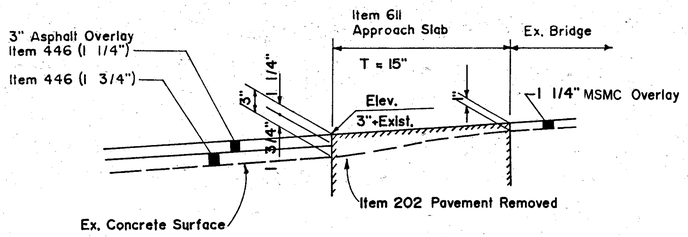
DETAIL D

STA. 18+70 ~ STA. 17+95(SIXTH ST. VIADUCT)
STA. 63+88.51 ~ STA. 64+63.51 EB

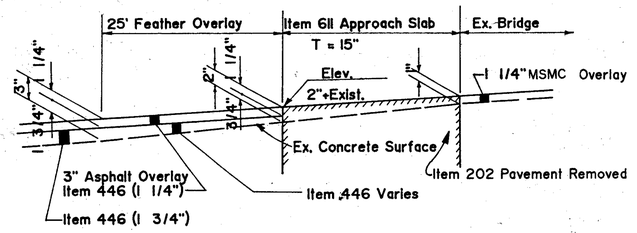
DETAIL E

STA. 19+80 ~ STA. 20+10 MEHRING WAY	(30')
STA. 23+63.19 ~ STA. 23+93.19 MEHRING WAY	(30')
STA. 11+80 ~ STA. 12+10 FREEMAN	(30')
STA. 12+95± ~ FREEMAN LT.-SARGENT ST.	(30')
STA. 13+33± ~ FREEMAN RT.-SARGENT ST.	(30')
STA. 29+90 ~ STA. 30+20 FREEMAN	(30')
STA. 7+58.20 ~ STA. 8+03.20 LINN	(45')
STA. 13+23.70 ~ STA. 13+68.70 LINN	(45')
STA. 46+88.30 ~ STA. 47+33.30 DALTON	(45')
* STA. 46+25.80 ~ STA. 46+79 SIXTH ST.	(32.7'-53.2')
STA. 49+10.50 ~ STA. 49+55.50 SIXTH ST.	(45')
STA. 8+67.50 ~ STA. 9+12.50 GEST	(45')
STA. 11+12.80 ~ STA. 11+57.80 GEST	(45')
STA. 58+96.60 ~ STA. 59+41.60 RAMP YN	(45')

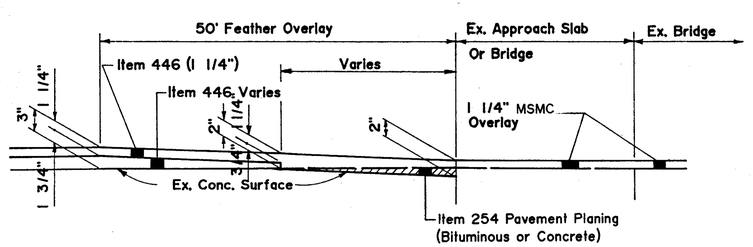
* Indicates a Variable or Non-Standard Feathering Length.



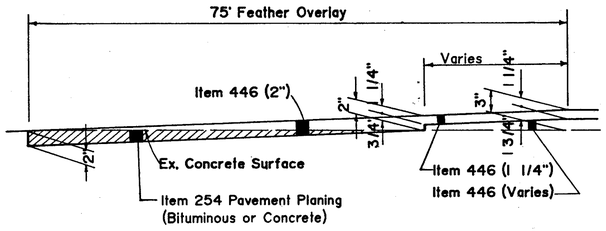
DETAIL A



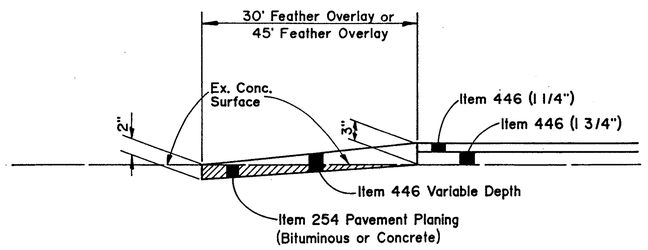
DETAIL B



DETAIL C



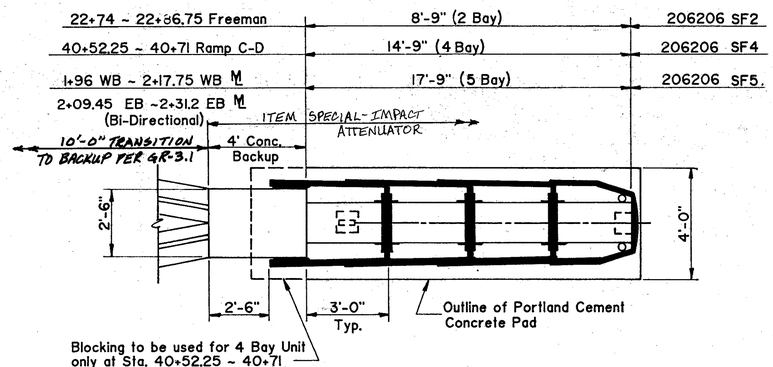
DETAIL D



DETAIL E

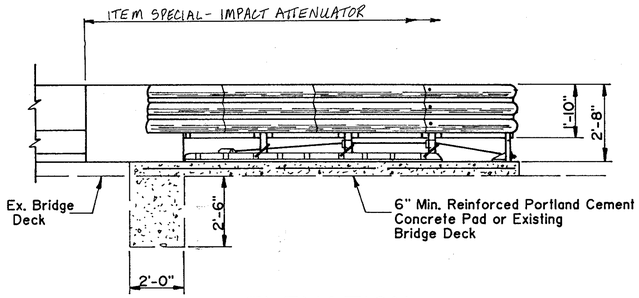
CALC. BY LEH DATE 10-90	HAM-50-19.36	OHIO	93
CHKD. BY REA DATE 12-11-91		FHWA REGION 5	255

22+74 ~ 22+86.75 Freeman	8'-9" (2 Bay)	206206 SF2
40+52.25 ~ 40+71 Ramp C-D	14'-9" (4 Bay)	206206 SF4
1+96 WB ~ 2+17.75 WB ℄	17'-9" (5 Bay)	206206 SF5.
2+09.45 EB ~ 2+31.2 EB ℄ (Bi-Directional)		

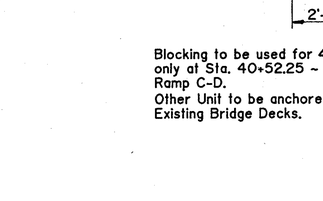


Blocking to be used for 4 Bay Unit only at Sta. 40+52.25 ~ 40+71 Ramp C-D.
Other Unit to be anchored to Existing Bridge Decks.

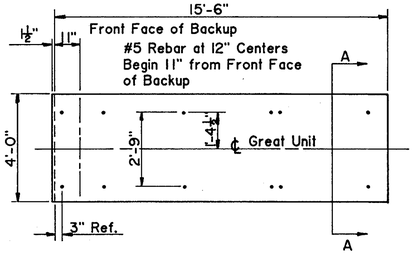
PLAN



ELEVATION



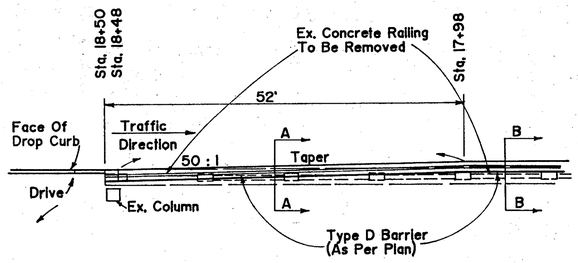
SECTION A-A

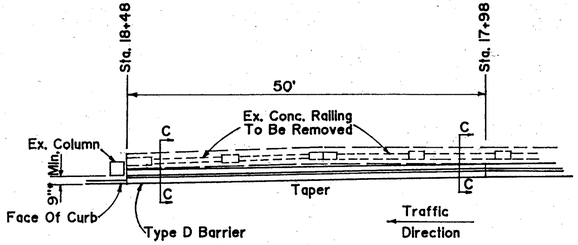


CONCRETE PAD PLAN

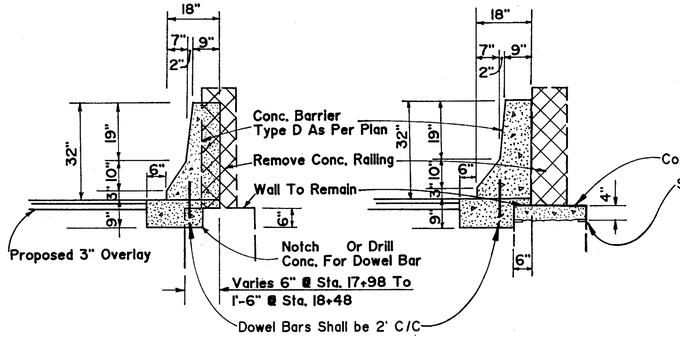
Sta. 40+52.25 ~ 40+71 Ramp C-D(Only)

NOTE: THE CONCRETE PAD AND BACKUP SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE ITEM SPECIAL IMPACT ATTENUATOR PAY ITEM.



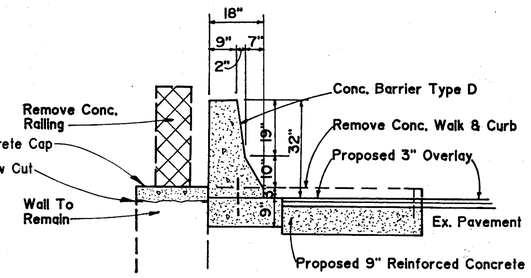


* 9" Min. Clearance From Face Of Curb To Face Of Column

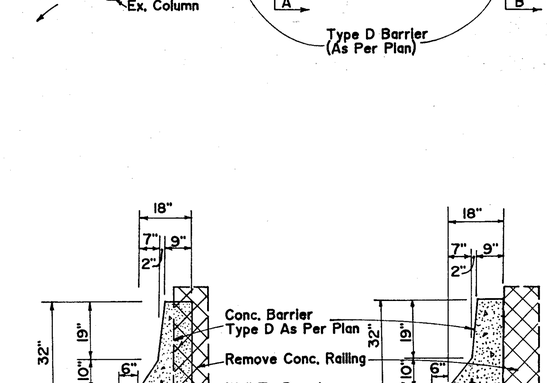


DETAIL A

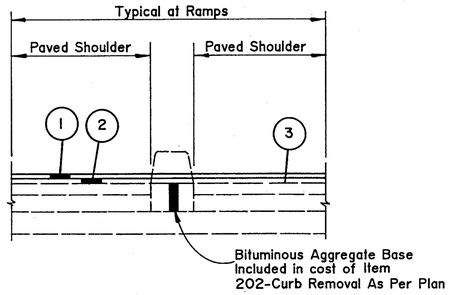
DETAIL B



DETAIL C



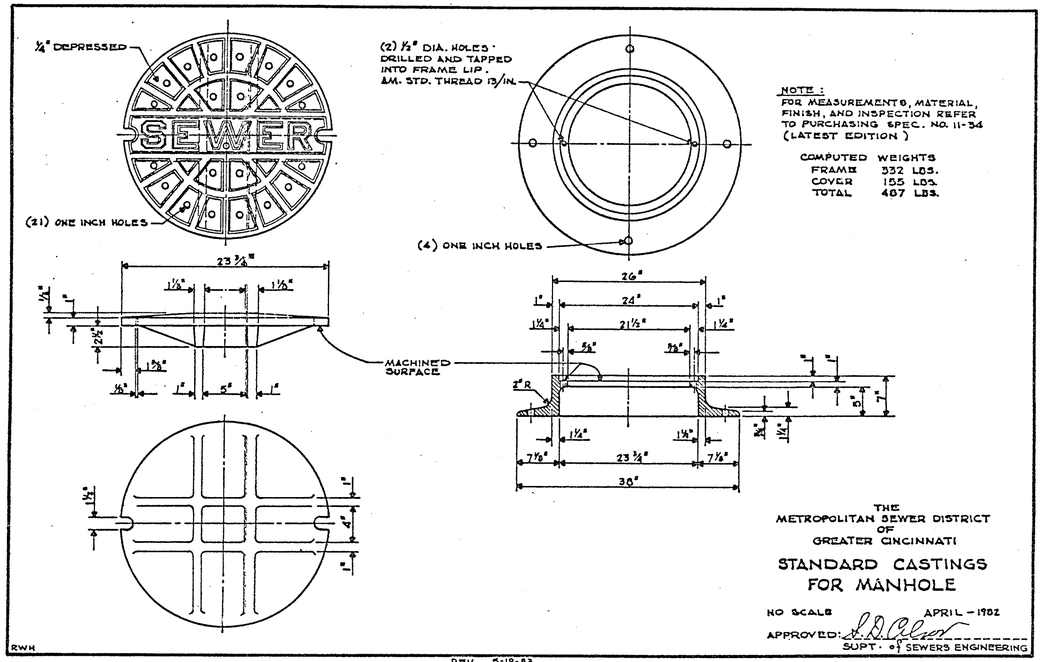
GUARDRAIL POST DETAIL AT PIER OR SIGNS



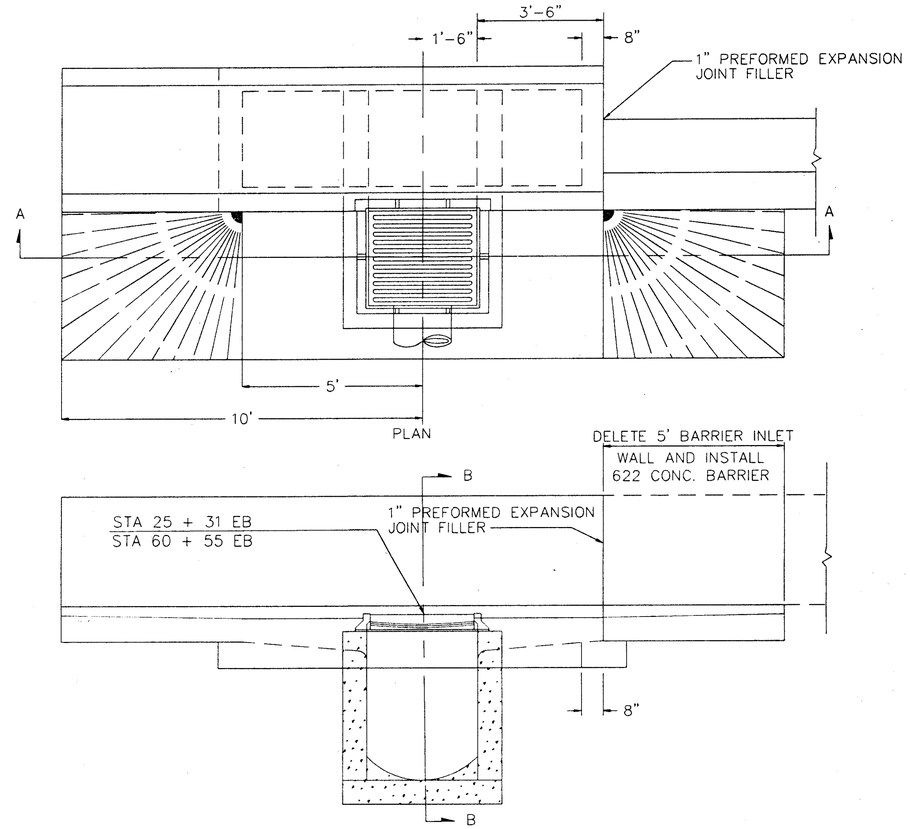
TYPICAL BARRIER CURB REMOVAL

(Between Paved Shoulders)

PAVEMENT DETAILS & MISC.



DETAIL
STD. CASTING FOR CITY OF CINCINNATI
REFER TO GENERAL NOTE ON SHT. 13



NOTE: FOR SECTION B-B, SEE DRAINAGE DETAIL B SHEET NO. 91

DETAIL
BARRIER MEDIAN INLET 1-3A
AS PER PLAN NO. 2

STA. 25+32.00EB
STA. 60+55.37EB

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TRAFFIC CONTROL GENERAL NOTES

CALC. BY TMB DATE 5/11/92	HAM-50-19.36	OHIO
CHKD. BY J.E.M DATE 5/11/92		F.H.W.A. REGION 5

94A 255

SIGN SERVICE, AS PER PLAN

REMOVE EXISTING WIRING FROM THE JUNCTION BOX TO THE DISCONNECT SWITCH AND FROM THE DISCONNECT SWITCH TO THE SIGN LUMINAIRE. CLEAN ALL CONDUITS AND DISCONNECT SWITCHES AND REPLACE THE EXISTING FUSES IN KIND. IN ADDITION, THIS SHALL INCLUDE ALL THE REQUIREMENTS OF 631.06 SIGN SERVICE.

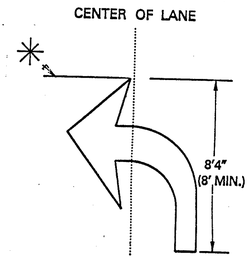
631.13 MERCURY VAPOR LUMINAIRE, AS PER PLAN

LUMINAIRES SHALL HAVE A SINGLE RATED 120 VAC, INTEGRAL REGULATOR BALLAST FOR USE WITH 100W AND 175W MERCURY VAPOR LAMPS, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. LUMINAIRES SHALL BE SPAULDING "LISBON", HOLOPHANE, AMERICAN OR EQUAL AS APPROVED BY THE ENGINEER. MERCURY VAPOR LAMPS SHALL BE GENERAL ELECTRIC "STANDARD" SYLVANIA "METALARC", WESTINGHOUSE "STANDARD" OR EQUAL AS APPROVED BY THE ENGINEER. LAMPS SHALL BE OF THE 120 VAC DESIGN AND CONFORM TO THE FOLLOWING: 100W MV, ANSI H38HT: 175W MV, ANSI H39KB.

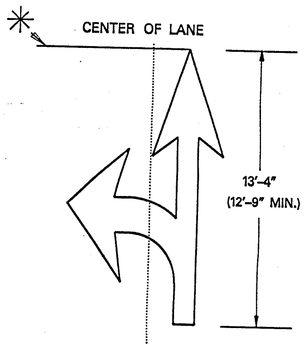
TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS

REFERENCES TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 861, 957, 958 AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 730, 731 AND 733.

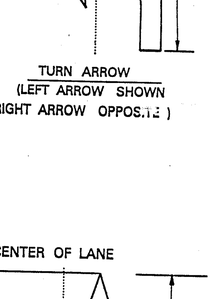
G:\HAM-50\TCGN.dwg - JAN. 14, 1992



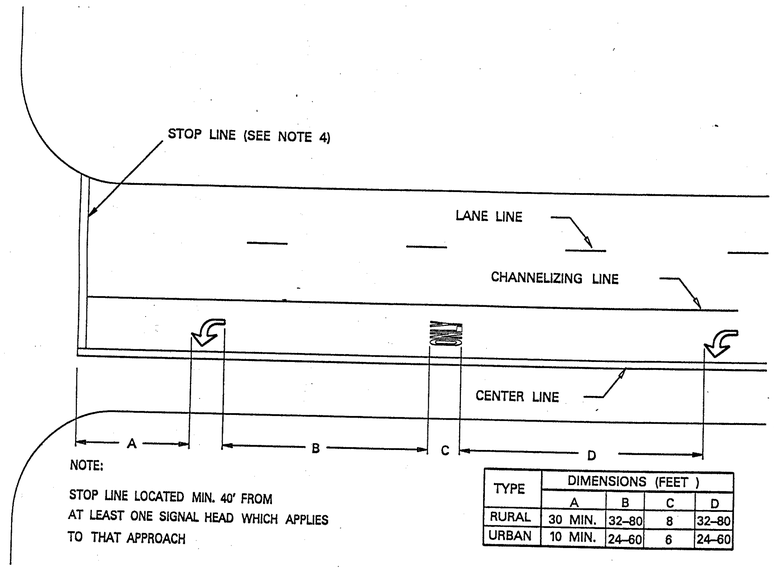
TURN ARROW
(LEFT ARROW SHOWN
RIGHT ARROW OPPOSITE)



COMBINED ARROW
(THREE HEAD DIRECTIONAL ARROWS CAN BE ACHIEVED BY THE COMBINATION OF TURN ARROWS.)



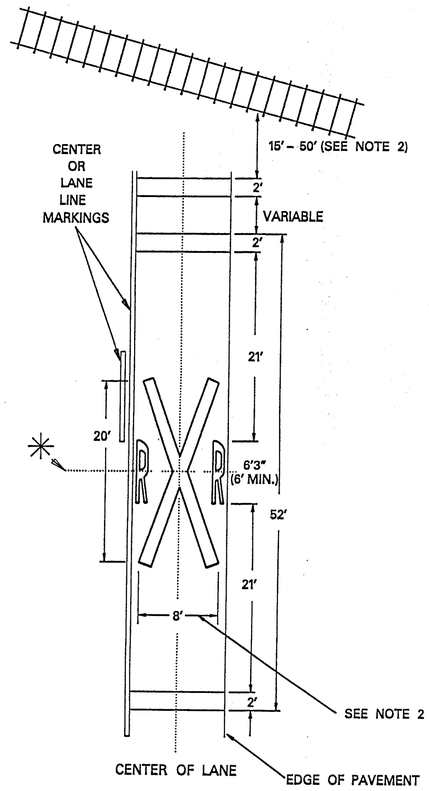
THROUGH ARROW

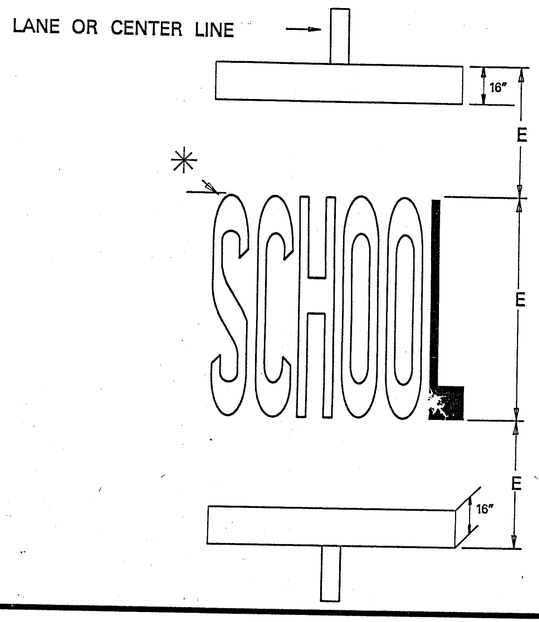


NOTE:

STOP LINE LOCATED MIN. 40' FROM AT LEAST ONE SIGNAL HEAD WHICH APPLIES TO THAT APPROACH

TYPE	DIMENSIONS (FEET)			
	A	B	C	D
RURAL	30 MIN.	32–80	8	32–80
URBAN	10 MIN.	24–60	6	24–60





TYPE	E (INCHES)	
	STANDARD	OPTIONAL
RURAL	96	100
URBAN	72	75

CENTER OF LANE

NOTES:

1. ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE RAILROAD SYMBOLS SHALL EXTEND ACROSS ALL APPROACH LANES AND SYMBOLS SHALL BE PLACED IN EACH APPROACH LANE.

2. THE RAILROAD SYMBOL SHALL BE LOCATED SO THAT THE W-94, 'RAILROAD ADVANCE WARNING SIGN', IS WITHIN THE TWO TRANSVERSE BOUNDARY LINES OF THE RAILROAD SYMBOL. THE STOP LINE SHALL BE LOCATED FOR BEST SIGHT DISTANCE WITHIN 15 FEET TO 50 FEET OF THE NEAR EDGE OF THE TRACKS. STOP LINES SHALL BE PERPENDICULAR TO THE CENTER LINE OF THE ROADWAY. WIDTH OF 'X' MAY VARY ACCORDING TO LANE WIDTH.

3. PREFERABLY, THE WORD 'SCHOOL' SHOULD BE CONTAINED IN A SINGLE LANE. ON ONE LANE APPLICATIONS, THE TRANSVERSE LINES SHALL EXTEND ACROSS THE LANE WHICH APPROACHES THE ZONE WITH THE WORD 'SCHOOL' CENTERED ACROSS THAT LANE. FOR TWO APPROACH LANES, EACH LANE SHOULD HAVE A SEPARATE WORD 'SCHOOL' CENTERED ACROSS IT. ON TWO LANE, TWO WAY ROADWAYS WITH INSUFFICIENT PAVEMENT WIDTH, THE WORD AND TRANSVERSE LINES SHALL EXTEND ACROSS BOTH LANES OF TRAFFIC. ON FOUR LANE, TWO WAY ROADWAYS WITH INSUFFICIENT PAVEMENT WIDTH, THE WORD AND TRANSVERSE LINES SHALL EXTEND ACROSS BOTH LANES ENTERING THE SCHOOL ZONE. CENTER OR LANE LINES SHALL NOT PASS THROUGH THE 'SCHOOL' MARKING.

4. THE STOP LINE SHOULD BE PLACED WHERE CROSS-CORNER VISION IS MAXIMUM, IN NO CASE MORE THAN 30 FEET OR LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. FOR NORMAL INTERSECTIONS A MAXIMUM DISTANCE OF 10 FEET IS RECOMMENDED.

   IF A MARKED CROSSWALK IS PRESENT, THE STOP LINE SHOULD BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK.

5 FOR TRAFFIC PAINT AND POLYESTER APPLICATION, TEMPLATE GAPS SHALL BE FILLED WITH MARKING MATERIAL IN ACCORDANCE WITH 641.03. FOR EXTRUDED THERMOPLASTIC MATERIAL, THESE GAPS MAY REMAIN UNFILLED IN ACCORDANCE WITH 644.03.

6. USE STANDARD DIMENSIONS CONFORMING TO REQUIREMENTS OF OMUTCD SECTIONS 3B-40, 3B-41 AND 3B-43 WHICH CONFORMS TO THE 1977 METRIC EDITION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING WITH ERRATA.

✳ - INDICATES STATION REFERENCE POINT

REVISED BY: DATE:

207110

WORDS, SYMBOLS AND ARROWS

PLAN INSERT SHEET

DATE
02/21/91
08/02/91

WCC

TRAFFIC CONTROL SUMMARY

CALC BY TMB DATE 5/4/92
CHKD BY J.F.O. DATE 6/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

95
255

SHEET NUMBER															ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
51	115	119	121	112	114														
			21												625	32000	21	EACH	GROUND ROD
			33.8												630	00000	33.8	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
		6.52													630	00100	6.52	C.Y.	CONCRETE FOR EMBEDDED FOUNDATION
		192													630	02100	192	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 2 POST
		412													630	03100	412	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 3 POST
		549													630	04100	549	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 4 POST
		215													630	06400	215	LIN. FT.	GROUND MOUNTED SUPPORT, S4x7.7 BEAM
		45													630	07500	45	LIN. FT.	GROUND MOUNTED SUPPORT, W10x22 BEAM
		58													630	08100	58	LIN. FT.	ONE WAY SUPPORT, NO. 4 POST
		18													630	09000	18	EACH	BREAKAWAY BEAM CONNECTION
			1												630	45500	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8, 51'-0" SPAN
			1												630	48000	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8, 81'-0" SPAN
			1												630	48500	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8, 89'-6" SPAN
			1												630	77000	1	EACH	OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.24
		57													630	79500	57	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED
		1104													630	80102	1104	SQ.FT.	SIGN, FLAT SHEET, TYPE "G"
		460	4737												630	80204	5197	SQ.FT.	SIGN, EXTRUSHEET, TYPE "G"
			1												630	84100	1	EACH	BARRIER WALL ASSEMBLY, TYPE TC-21.41, DESIGN 1
		157													630	84900	157	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
		3													630	85400	3	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL
		71													630	86002	71	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
		14													630	86102	14	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL
			44												630	87400	44	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL
			1												630	88600	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, TYPE TC-18.24
			3												630	89802	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65
			3												SPECIAL	630 89902	3	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC CONTROL ITEM: REMOVAL OF CHANGEABLE MESSAGE SIGN AND STORAGE
			41												631	70100	41	EACH	BALLAST WIRING ENCLOSURE, TYPE B
			4												631	84000	4	EACH	SIGN SERVICE
			17												631	84001	17	EACH	SIGN SERVICE, AS PER PLAN
			41												631	84300	41	EACH	SIGN WIRED
			21												631	85100	21	EACH	DISCONNECT SWITCH WITH ENCLOSURE, TYPE X
			9												631	86900	9	EACH	BALLAST, TYPE CMRI-100-120, REMOTE
			6												631	86910	6	EACH	BALLAST, TYPE CMRI-100-120, INTEGRAL
			40												631	87150	40	EACH	BALLAST, TYPE CMRI-175-120, REMOTE
			26												631	87154	26	EACH	BALLAST, TYPE CMRI-175-120, INTEGRAL
			15												631	89101	15	EACH	MERCURY VAPOR LUMINAIRE, TYPE T.C. 31.21, WITH 100 WATT LAMP, AS PER PLAN
			66												631	89201	66	EACH	MERCURY VAPOR LUMINAIRE, TYPE T.C. 31.21, WITH 175 WATT LAMP, AS PER PLAN
			81												631	94000	81	EACH	REMOVAL OF LUMINAIRE AND STORAGE
			19												631	94300	19	EACH	REMOVAL OF DISCONNECT SWITCH AND STORAGE
			81												631	94400	81	EACH	REMOVAL OF BALLAST AND STORAGE
	6.99														642	00102	6.99	MILE	EDGE LINE, TYPE 2
	6.54														642	00202	6.54	MILE	LANE LINE, TYPE 2
	0.59														642	00302	0.59	MILE	CENTER LINE, TYPE 2
	6552														642	00402	6552	LIN. FT.	CHANNELIZING LINE, TYPE 2
	449				111										642	00502	560	LIN. FT.	STOP LINE, TYPE 2
	460														642	00602	460	LIN. FT.	CROSSWALK LINE, 6", TYPE 2
	2049														642	00702	2049	LIN. FT.	TRANSVERSE LINE, TYPE 2
	1926														642	00802	1926	LIN. FT.	CURB MARKING, TYPE 2
	89														642	00910	89	SQ. FT.	ISLAND MARKING, TYPE 2
	4														642	01290	4	EACH	LANE ARROW, TYPE 2
	1														642	01402	1	EACH	WORD ON PAVEMENT, 72", TYPE 2
91															802	00100	91	EACH	BARRIER REFLECTOR, TYPE A
253															802	00200	253	EACH	BARRIER REFLECTOR, TYPE B

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CALC BY JMB DATE 5/14/99
CHKD BY J.F.M DATE 5/14/99

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

96
255

LEGEND

- (CW) CURB MARKING WHITE
- (CY) CURB MARKING YELLOW
- (D) DOUBLE YELLOW CENTERLINE
- (L) LANE LINE
- (C) 4" WHITE CHANNELIZING LINE
- (CA) 8" WHITE CHANNELIZING LINE
- (S) STOP LINE
- (X) 6" CROSSWALK LINE
- (Y) YELLOW EDGE LINE
- (W) WHITE EDGE LINE
- (T) TRANSVERSE LINE, WHITE
- (TY) TRANSVERSE LINE, YELLOW
- (I) ISLAND MARKING, YELLOW
- (B/Y) BLACK ON YELLOW OVERLAY
- (W/G) WHITE ON GREEN OVERLAY
- (W/BR) WHITE ON BROWN OVERLAY

NOTE: ALL GUIDE SIGNS ARE LEVEL 2 UNLESS OTHERWISE NOTED.

50 0 50 100 150
GRAPHIC SCALE IN FEET

EVANS STREET

21C W-85-48 Sta. 1+20, 29' Rt.

Eastbound Expressway P.C. Sta. 0+93.13 = Waldvogel St. Viaduct Extension Sta. 14+27.54

Elberon Ave / Warsaw Ave EXIT ONLY
Overhead Sign Sta. 1+28 E.B. 16' X 8'
I-50 I-264 WEST River Road

Elberon Ave / Warsaw Ave EXIT ONLY
Overhead Sign Sta. 1+28 E.B. 16' X 7'
I-50 I-264 WEST River Road
(T) Overhead Sign Type GG, GE

EXISTING ATTENUATOR

93 EXIT Type GF-72

23B NT EMD PARK SPECIAL

23A X-1-18 Sta. 2+00WB, 28'Lt.

Begin Work +22.50 WB

LA R/W
Sta. 2+03 W.B.
Sta. 2+03 W.B.
Sta. 3+75 W.B.
Sta. 3+22 W.B.
Gore Sta. 1+14 E.B.
Sta. 3+11 E.B.
Sta. 3+36 E.B.
Sta. 3+36 E.B.
CONC. WALK
CURB LINE
LA R/W
CURB LINE
CONC. WALK
LA R/W
CURB LINE
Gore Sta. 6+57 E.B.
LA R/W
CURB LINE
LA R/W

Begin Work 18+70 18+50

Begin Work 14+58.17

Sta. 1+96EB.52'Rt.

22 W-49R-48 W-60C-48

MATCH LINE STA. 10+00 AHEAD
SEE SHEET 97

21A R-37R-36 1-X-18

21B R-38R-48 KEEP RIGHT RP-38R-24 KEEP RIGHT

Sta. 2+80WB X-1-18

DIVIDED HIGHWAY

Overhead Sign Sta. 1+28 E.B. 14' X 5'
Mehring Way KEEP RIGHT

(T) OVERHEAD SIGN TYPE GB
Mehring Way EXIT 1/4 MILE
STA. 01+28 E.B.

EXISTING VARIABLE MESSAGE SIGN SHALL BE REMOVED AND DELIVERED TO:
CITY OF CINCINNATI TRAFFIC SERVICES BUREAU
1408 QUEEN CITY AVE.
CINCINNATI, OHIO 45214

SIGNING AND PAVEMENT MARKINGS – STA. 21+00 TO STA. 10+00

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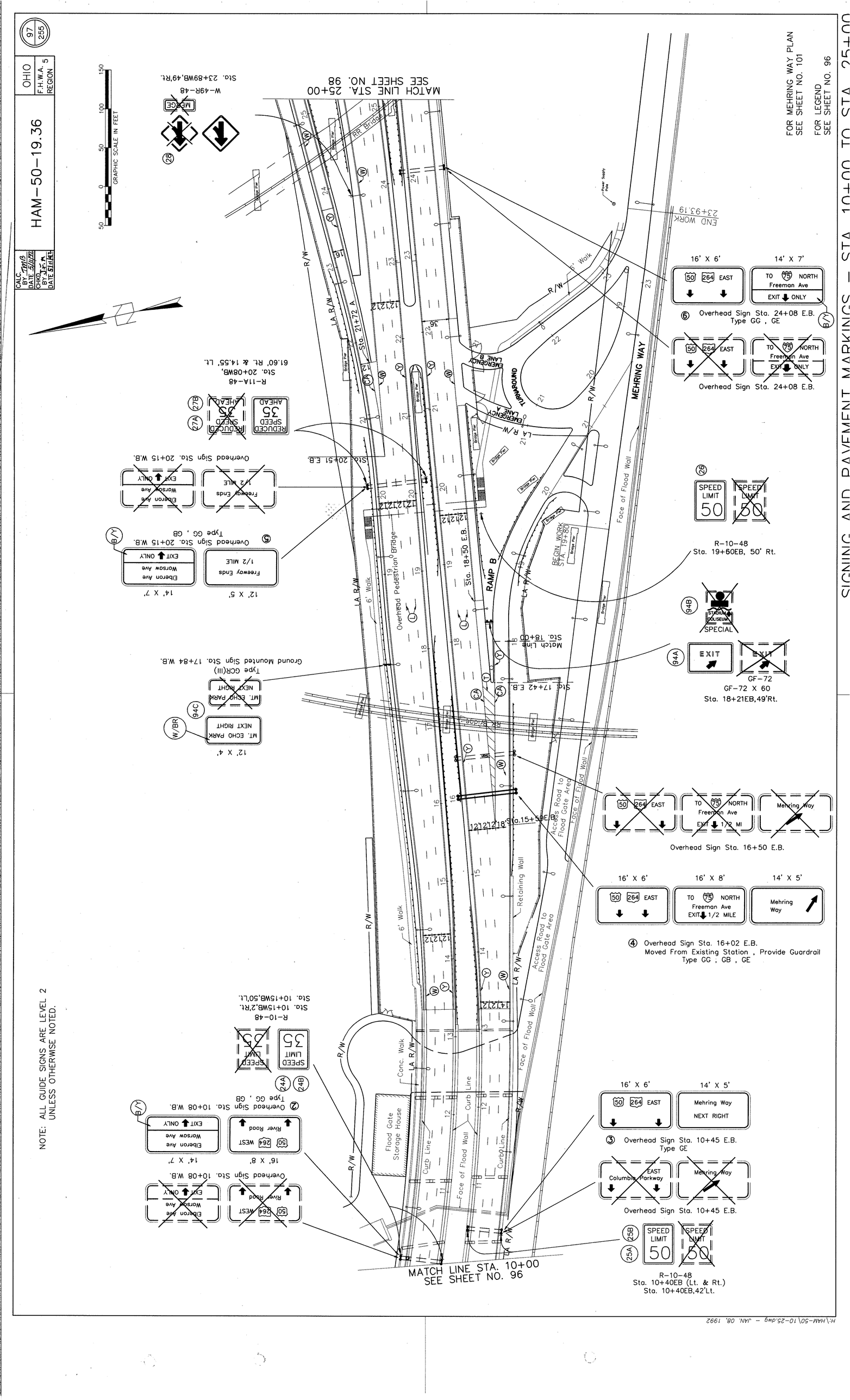
SIGNING AND PAVEMENT MARKINGS — STA 10+00 TO STA 25+00
OHIO
F.H.W.A. 5
REGION
HAM-50-19.36
CALC. BY
DRAWN BY
CHKD. BY
DATE
97
255
GRAPHIC SCALE IN FEET
FOR MEHRING WAY PLAN SEE SHEET NO. 101
FOR LEGEND SEE SHEET NO. 96
MATCH LINE STA. 25+00 SEE SHEET NO. 98
END WORK 23+93.19
Sta. 23+89WB,49'Rt.
W-49R-48
NEROE
Sta. 21+72 A
LA R/W
R/W
RR Bridge
Bridge Pier
Power Supply Pole
TURNAROUND
EMERGENCY LANE B
EMERGENCY LANE A
MEHRING WAY
Face of Flood Wall
6' Walk
Overhead Pedestrian Bridge
Sta. 20+51 E.B.
Overhead Sign Sta. 20+15 W.B.
Elderon Ave
Warsaw Ave
EXIT ONLY
Freeway Ends
1/2 MILE
12' X 5'
14' X 7'
Type GG , GB
Overhead Sign Sta. 20+15 W.B.
R-11A-48
Sta. 20+08WB,
61.60' Rt. & 14.55' Lt.
REDUCED SPEED AHEAD
35
27A
27B
Sta. 18+50 E.B.
RAMP B
BEGIN WORK STA. 13+80
Match Line Sta. 18+00
Sta. 17+42 E.B.
Ground Mounted Sign Sta. 17+84 W.B.
Type GCR(III)
MT. ECHO PARK
NEXT RIGHT
12' X 4'
W/BR
94C
Retaining Wall
Access Road to Flood Gate Area
Sta. 15+58E.B.
Sta. 15+42 E.B.
Flood Gate Storage House
Curb Line
Conc. Walk
R-10-48
Sta. 10+15WB,2'Rt.
Sta. 10+15WB,50'Lt.
SPEED LIMIT
35
25A
24A
24B
Overhead Sign Sta. 10+08 W.B.
Type GG , GB
RIVER ROAD
50 264 WEST
16' X 8'
14' X 7'
Overhead Sign Sta. 10+08 W.B.
MATCH LINE STA. 10+00 SEE SHEET NO. 96
NOTE: ALL GUIDE SIGNS ARE LEVEL 2 UNLESS OTHERWISE NOTED.
16' X 6'
14' X 7'
50 264 EAST
TO 75 NORTH Freeman Ave
EXIT ONLY
⑥ Overhead Sign Sta. 24+08 E.B.
Type GG , GE
Overhead Sign Sta. 24+08 E.B.
SPEED LIMIT 50
R-10-48
Sta. 19+60EB, 50' Rt.
STADIUM OR COLISEUM
SPECIAL
EXIT
GF-72
GF-72 X 60
Sta. 18+21EB,49'Rt.
Mehring Way
Overhead Sign Sta. 16+50 E.B.
16' X 8'
TO 75 NORTH Freeman Ave
EXIT 1/2 MILE
14' X 5'
Mehring Way
④ Overhead Sign Sta. 16+02 E.B.
Moved From Existing Station , Provide Guardrail
Type GG , GB , GE
NEXT RIGHT
③ Overhead Sign Sta. 10+45 E.B.
Type GE
Columbia Parkway
Overhead Sign Sta. 10+45 E.B.
R-10-48
Sta. 10+40EB (Lt. & Rt.)
Sta. 10+40EB,42'Lt.
H:\HAM-50\10-25.dwg - JAN. 08, 1992

NOTE: ALL GUIDE SIGNS ARE LEVEL 2
UNLESS OTHERWISE NOTED

CALC BY TMB DATE 5/11/92	HAM-50-19.36	OHIO
CHKD. BY J.F.K. DATE 6/11/92		F.H.W.A. REGION 5

98/255

50 0 50 100 150
GRAPHIC SCALE IN FEET

SEE SHEET NO. 97
MATCH LINE STA. 25+00

RAMP A

LA R/W

End Work Sta. 28+10

Gore Sta. 32+94

RAMP FA

Sta. 34+08 FA

Sta. 34+06 W.B.

Retaining Wall

Sta. 35+77 E.B.

Sta. 34+56 C.D.

Sta. 31+55 E.B.

Bridge Pier

Abutment Slope

Approach Slope

RW

R/W

Sta. 30+53A
MOUNT ON
TELEPHONE POLE

99A 99B 99C

M-1-30-2
M-40-30
M-22-24

Conc. Walk

6' Walk

Type GE
Bridge Mounted Sign Sta. 29+78 E.B.
Harriet St.
7C

15' X 6'

14' X 8'
Type GG , GB
16' X 6'

Overhead Sign Sta. 33+90 E.B. 7

Sta. 33+83,64'Rt.
W-49R-48

Sta. 34+65EB, 40'Rt.
GF-72 X 60

29A

29B

Sta. 34+90EB, 103.96' Rt.
W-49R-48

Sta. 36+45CD, 6'Rt.
W-50R-48

30

Sta. 37+15FB, 10'Rt.
R-2-48

34D

33C

W-98-48
Sta. 39+90FC, 10'Rt.

33B

X-1-18

33A

W-13-30

FOR FREEMAN AVE. PLAN
SEE SHEETS NO. 103 & 104

FOR LEGEND
SEE SHEET NO. 96

Type GG(III) , GE(III)
Overhead Sign 17
Sta. 22+58F, 37'Lt.

13' X 10'

Overhead Sign Sta. 38+60EB
Type GB 8

Fifth St
Downtown
EXIT 1/2 MILE
264

River Road
50 264 WEST

NEXT RIGHT
TO 75 EAST
50 WEST

13' X 5'

13' X 7'

TO 75 SOUTH
50 EAST

Sta. 38+60EB
W-50R-48 W-49R-48

Sta. 38+00WB, 48'Lt.
W-49R-48

32A 32B 31

34A

CONCRETE CENTER SPECIAL
36 X 48
Sta. 39+09 4.2' Rt.

DALTON AVE.

R/W

LA R/W

See Sheet No. 103
Match Line Sta. 36+00

FREEMAN AVENUE

Sta. 38+55CD
W-13-36

MATCH LINE STA. 40+00
SEE SHEET NO. 66

34C
20 M.P.H.
EXIT
34B

RAMP FB

Overhead Sign
Sta. 17+15F, 33'Lt.
Type GE(III) 15

18' X 7'
TO 75 SOUTH
50 EAST

Overhead Sign Sta. 38+55FB
Type GE , GE 9

TO 75 NORTH
Freeman Ave.
EXIT ONLY

15' X 8'

Match Line See Sheet No. 103
Sta. 32+00

13' X 5'-6"

Overhead Sign
Type GE(III)
Sta. 44+66RC, 38'Lt. 18

TO 75 NORTH
Freeman Ave.
SOUTH NORTH

12' X 6'-9"

Flood Wall

13' X 7'-6"

EAST TO
50 75
SOUTH NORTH
75

EAST TO
50 71
SOUTH NORTH
75

16 Overhead Sign Sta. 16+89F, 42'Rt.
Type GH(III)

ACCESS DRIVE

34E

X-1-18

Sta. 44+66RC, 38'Lt.

SIGNING AND PAVEMENT MARKINGS — STA. 25+00 TO STA. 40+00

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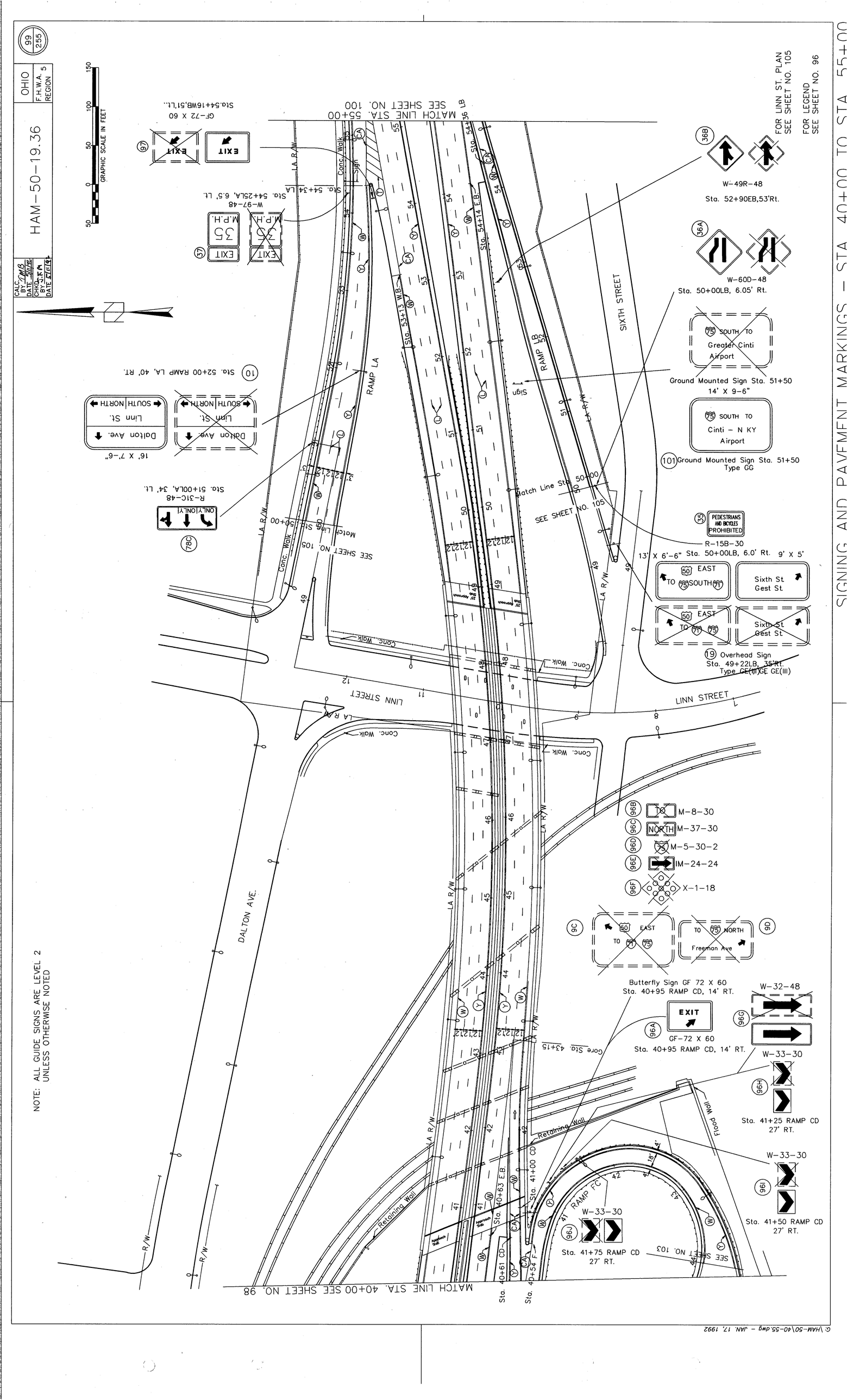
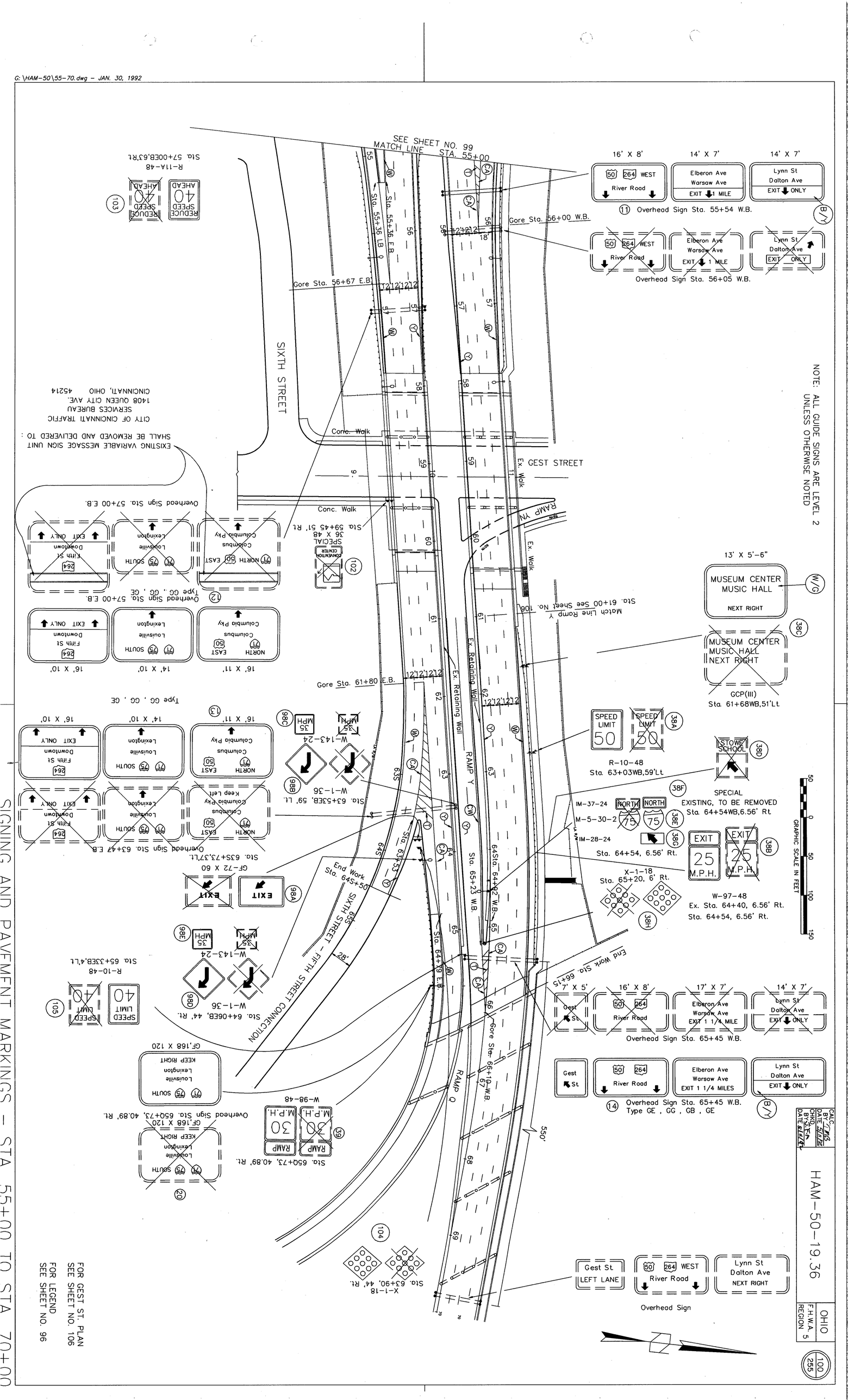
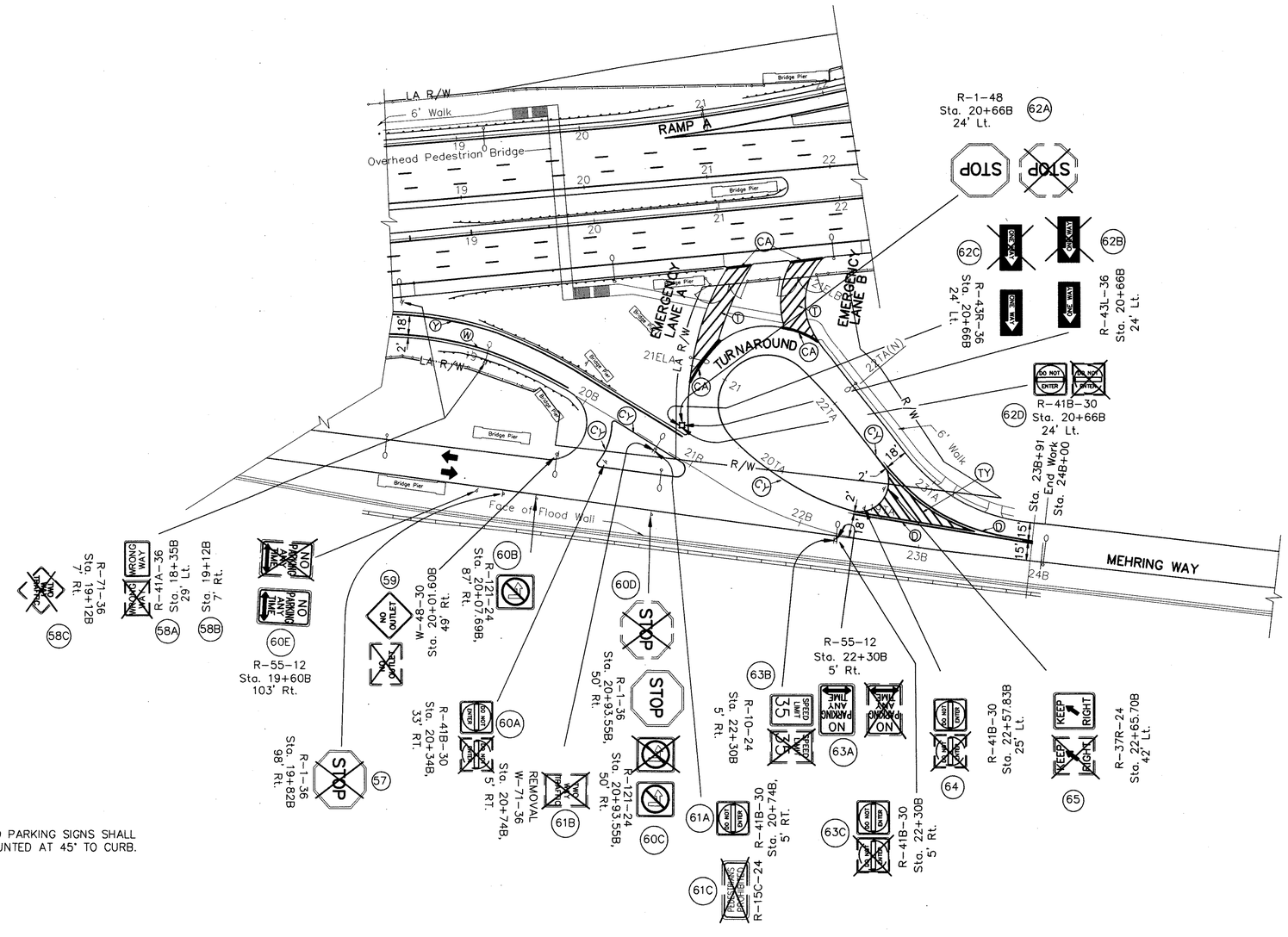

SIGNING AND PAVEMENT MARKINGS - STA 40+00 TO STA 55+00
99
255
OHIO
F.H.W.A. 5
REGION
HAM-50-19.36
CALC. BY TMB DATE 7/1/92
CHKD. BY J.F.M. DATE 7/17/92
GRAPHIC SCALE IN FEET
0 50 100 150
50
NOTE: ALL GUIDE SIGNS ARE LEVEL 2 UNLESS OTHERWISE NOTED
FOR LINN ST. PLAN SEE SHEET NO. 105
FOR LEGEND SEE SHEET NO. 96
MATCH LINE STA. 55+00 SEE SHEET NO. 100
MATCH LINE STA. 40+00 SEE SHEET NO. 98
SEE SHEET NO. 105
SEE SHEET NO. 103
SIXTH STREET
LINN STREET
DALTON AVE.
RAMP LA
RAMP LB
LA R/W
R/W
Conc. Walk
Curb
Sign
Retaining Wall
Flood Wall
Gore Sta. 43+15
Match Line Sta. 50+00
Match Line Sta. 50+00
Sta. 54+14 E.B.
Sta. 53+13 WB
Sta. 40+63 E.B.
Sta. 41+00 CD
Sta. 40+61 CD
Sta. 40+54 F
W-49R-48
Sta. 52+90EB,53'Rt.
W-60D-48
Sta. 50+00LB, 6.05' Rt.
SOUTH TO Greater Cinti Airport
Ground Mounted Sign Sta. 51+50 14' X 9-6"
SOUTH TO Cinti - N KY Airport
Ground Mounted Sign Sta. 51+50 Type GG
PEDESTRIANS AND BICYCLES PROHIBITED
R-15B-30
13' X 6'-6" Sta. 50+00LB, 6.0' Rt. 9' X 5'
EAST TO SOUTH
Sixth St West St
Overhead Sign Sta. 49+22LB, 35'Rt. Type GE(III) GE(III)
M-8-30
M-37-30
M-5-30-2
IM-24-24
X-1-18
Butterfly Sign GF 72 X 60 Sta. 40+95 RAMP CD, 14' RT.
EXIT
GF-72 X 60 Sta. 40+95 RAMP CD, 14' RT.
W-32-48
W-33-30
Sta. 41+25 RAMP CD 27' RT.
Sta. 41+50 RAMP CD 27' RT.
Sta. 41+75 RAMP CD 27' RT.
41' RAMP FC
18°
W-97-48
Sta. 54+25LA, 6.5' Lt.
Sta. 54+34 LA
GF-72 X 60
Sta.54+16WB,51'Lt.
Sta. 52+00 RAMP LA, 40' RT.
Dalton Ave. Linn St. SOUTH NORTH
16' X 7'-6"
R-31C-48
Sta. 51+00LA, 34' Lt.
ONLY
78C
10
35
M.P.H.
EXIT
12'
12'12'12'
C:\HAM-50\40-55.dwg - JAN. 17, 1992


G:\HAM-50\55-70.dwg - JAN. 30, 1992
SEE SHEET NO. 99
MATCH LINE STA. 55+00
SIXTH STREET
Ex. GEST STREET
Conc. Walk
Ex. Walk
Ex. Retaining Wall
RAMP Y
RAMP Q
SIXTH STREET - FIFTH STREET CONNECTION
Gore Sta. 56+00 W.B.
Gore Sta. 56+67 E.B.
Sta. 55+36 LB
Sta. 55+36 E.B.
Gore Sta. 61+80 E.B.
Gore Sta. 66+10 W.B.
Sta. 64+92 W.B.
Sta. 65+23 W.B.
Sta. 64+79 E.B.
End Work Sta. 64S+50
Sta. 63S+73
Match Line Ramp Y Sta. 61+00 See Sheet No. 106
16' X 8'
14' X 7'
14' X 7'
50 264 WEST
River Road
Elberon Ave
Warsaw Ave
EXIT 1 MILE
Lynn St
Dalton Ave
EXIT ONLY
(11) Overhead Sign Sta. 55+54 W.B.
Overhead Sign Sta. 56+05 W.B.
13' X 5'-6"
MUSEUM CENTER
MUSIC HALL
NEXT RIGHT
GCP(III)
Sta. 61+68WB,51'Lt
SPEED LIMIT 50
R-10-48
Sta. 63+03WB,59'Lt
STOWE SCHOOL
SPECIAL
EXISTING, TO BE REMOVED
Sta. 64+54WB,6.56' Rt
IM-37-24
M-5-30-2
IM-28-24
NORTH 75
Sta. 64+54, 6.56' Rt.
EXIT 25 M.P.H.
X-1-18
Sta. 65+20, 6' Rt.
W-97-48
Ex. Sta. 64+40, 6.56' Rt.
Sta. 64+54, 6.56' Rt.
7' X 5'
Gest St.
16' X 8'
17' X 7'
14' X 7'
Overhead Sign Sta. 65+45 W.B.
Overhead Sign Sta. 65+45 W.B.
Type GE , GG , GB , GE
Gest St.
LEFT LANE
Lynn St
Dalton Ave
NEXT RIGHT
Overhead Sign
NOTE: ALL GUIDE SIGNS ARE LEVEL 2 UNLESS OTHERWISE NOTED
CITY OF CINCINNATI TRAFFIC
SERVICES BUREAU
1408 QUEEN CITY AVE.
CINCINNATI, OHIO 45214
EXISTING VARIABLE MESSAGE SIGN UNIT
SHALL BE REMOVED AND DELIVERED TO :
Overhead Sign Sta. 57+00 E.B.
Type GG , GG , GE
16' X 11'
14' X 10'
16' X 10'
NORTH 71
EAST 50
Columbus Pky
SOUTH 71 75
Lexington
Louisville
264
Fifth St
Downtown
EXIT ONLY
Sta. 59+45 51' Rt
36 X 48
SPECIAL
CONSTRUCTION
CENTER
Sta. 63+53EB, 59' Lt.
W-1-36
W-143-24
35 MPH
Overhead Sign Sta. 63+47 E.B.
Sta. 63S+73.37'Lt.
GF-72 X 60
EXIT
Sta. 64+06EB, 44' Rt.
R-10-48
Sta. 65+33EB,4'Lt
SPEED LIMIT 40
GF,168 X 120
KEEP RIGHT
W-98-48
Overhead Sign Sta. 650+73, 40.89' Rt.
M.P.H. 30
RAMP
Sta. 650+73, 40.89' Rt.
X-1-18
Sta. 63+90, 44' Rt.
R-114-48
Sta. 57+00EB,63'Rt
REDUCE SPEED 40 AHEAD
FOR GEST ST. PLAN
SEE SHEET NO. 106
FOR LEGEND
SEE SHEET NO. 96
SIGNING AND PAVEMENT MARKINGS - STA 55+00 TO STA 70+00
GRAPHIC SCALE IN FEET
50 0 50 100 150
CALC. ZMG 2/26/92
BY: ZMG
CHKD. E.F.A.
DATE 6/14/92
HAM-50-19.36
OHIO
F.H.W.A. REGION 5
100 255

CALC BY TMB DATE 5/11/99	HAM-50-19.36	OHIO
CHKD BY J.F.A. DATE 5/14/99		F.H.W.A. REGION 5

101
255

50 0 50 100 150
GRAPHIC SCALE IN FEET



NOTE: ALL NO PARKING SIGNS SHALL BE MOUNTED AT 45° TO CURB.

FOR LEGEND SEE SHEET NO. 96

K:\HAM-50\MEHRING.dwg - Jul 29, 1999

SIGNING AND PAVEMENT MARKINGS - MEHRING WAY

CALC. BY TMB DATE 5/14/97	HAM–50–19.36	OHIO
CHKD. BY J.F.M DATE 5/14/97		F.H.W.A. REGION 5

103
255

GRAPHIC SCALE IN FEET
50 0 50 100 150

R–1–48
Sta. 13+00,28'Lt.

R–55–12
Sta. 12+34,20'Lt.

R–41B–36
Sta. 16+51,41'Rt.

SPECIAL
36X48
Sta. 16+27,44'Lt.

R–2–48
Sta. 16+83,98'Lt.

R–150–30
Sta. 16+85,74'Lt.

W–98–36
STA. 30+60FB

W–1–30

W–32–48
Sta. 38+20FA,35'Rt.

SPECIAL

R–150–30
Sta. 22+58,38'Lt.

See Sheet No. 98
Match Line
STA. 32+00

See Sheet No. 98
Match Line
STA. 38+00

End Work
Sta. 11+79

SARGENT STREET

FREEMAN AVENUE

ACCESS DRIVE

RAMP FB

RAMP FA

RAMP FC

DALTON AVE.

Sta. 18+70

Sta. 19+18

Sta. 22+

Sta. 39+00

Sta. 23+33

Match Line
STA. 44+00
See Sheet No. 99

R–2–48
Sta. 13+50,31'Rt.

R–41B–36
Sta. 13+50,31'Rt.

R–10–24
Sta. 14+21,35'Rt.

R–1–48
Sta. 16+81,42'Rt.

R–2–48
Sta. 17+78,61'Rt.

W–47–48
Sta. 22+26,38'Rt.

R–55–12
Sta. 12+61,23'Rt.

R–41B–36
Sta. 12+61,12'Rt.

R–43L–36
Sta. 16+51,41'Rt.

R–43R–36
Sta. 16+51,41'Rt.

R–41B–36
Sta. 16+81,42'Rt.

SEE SHEET NO. 104

MATCH LINE STA. 26+00

FOR LEGEND
SEE SHEET NO. 96

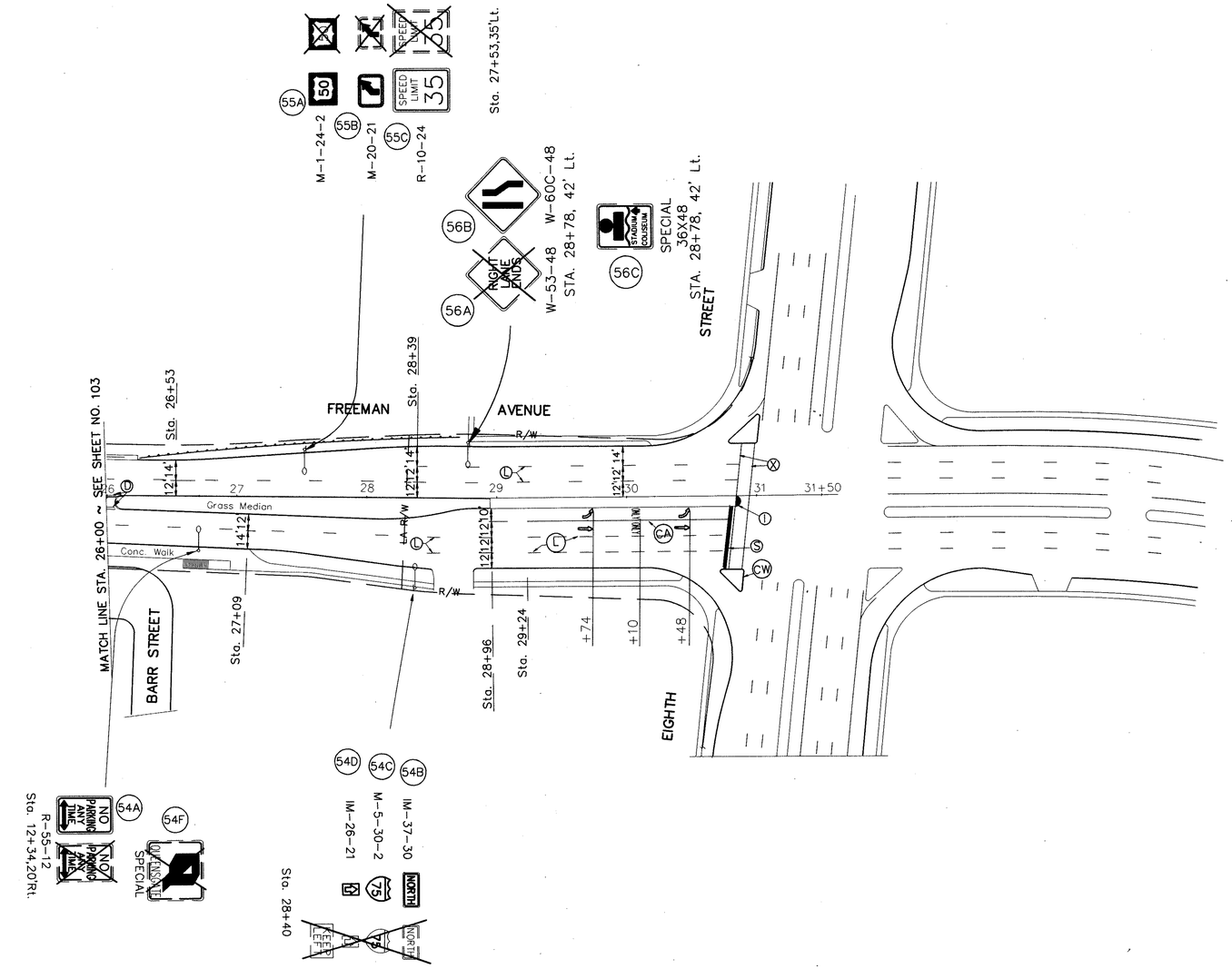
G:\HAM-50\FRM11-26.dwg - JAN. 30, 1992

SIGNING AND PAVEMENT MARKINGS – FREEMAN AVENUE STA. 11+00 TO STA. 26+00

CALC. BY CMB DATE 5/11/92	HAM–50–19.36	OHIO
CHKD. BY J.F.M DATE 5/11/92		F.H.W.A. REGION 5

104
255

50 0 50 100 150
GRAPHIC SCALE IN FEET



FOR LEGEND
SEE SHEET NO. 96

G:\HAM-50\FRM-8TH.dwg - MAY 07, 1992 - 14:49:45

SIGNING AND PAVEMENT MARKINGS – FREEMAN AVENUE STA. 26+00 TO EIGHTH STREET

CALC. BY TMB DATE 5/11/92
CHKD. BY J.F.M. DATE 5/11/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

105
255

GRAPHIC SCALE IN FEET
50 0 50 100 150

Sta. 12+20L, 33.5'Lt.
76E IM-24-21
76D M-1-24-3
76C M-1-24-2
76B M-15-24
R-2-36
Sta. 12+20L, 43'Rt.

73A IM-8-24
73B IM-38-24
73C M-5-24-2
73D IM-26-21
Sta. 10+57L, 37.5'Lt.

70A IM-39-24
70B M-1-24-2
70C IM-38-24
70D M-5-24-2
70E M-5-24-2
70F IM-26-21
Sta. 7+99L, 34.5'Lt.

71
72
W-60C-36
Sta. 9+37L, 37.5'Lt.
R-55-12
Sta. 8+81L, 36'Lt.

74
R-55-12
Sta. 11+62L, 53'Rt.

75
DALTON AVE.

76A
W-53-36
Sta. 12+20L, 33.5'Lt.

R-1-48
Sta. 8+36L, 46.5'Lt.
69E

End Work
Sta. 46+83K, 25'Lt.
End Work
Sta. 13+46
R-41B-36
Sta. 48+54LA, 17.5'Rt.
80

29ST
SIXTH ST
LINN STREET
30ST
End Work
Sta. 29+73ST
End Work
Sta. 7+84L
Sta. 10+65L
Sta. 10+95L
Sta. 10+15L
Sta. 13+35L, 38'Rt.
Sta. 48+74LA, 25'Rt.
Conc. Walk
LA R/W
47K(S)
48K(S)
49K(S)
49LA
50LA

Sta. 47+83S
Sta. 7+66L, 35'Rt.
69A IM-8-24
69B IM-38-24
69C IM-5-24-2
69D IM-26-21
SIXTH ST.
Sta. 49+07S
RAMP LB
Match Line Sta. 50+00LB
See Sheet No. 99

LINN STREET

77B
77C
R-43L-36
STA. 12+11L, 38.5'Rt.
R-43R-36
Sta. 12+11L, 38.5'Rt.
77A
R-31FF-48
Sta. 12+11L, 38.5'Rt.

RAMP LA
Match Line
Sta. 50+00LA
See Sheet No. 99

78A
R-31C-48
Sta. 49+15LA, 32'Lt.
R-31C-48
Sta. 50+00LA, 32'Lt.

78B
R-41B-36
Sta. 49+15LA, 32'Lt.

79
R-2-36
Sta. 48+66LA, 52'Lt.

EIGHTH STREET

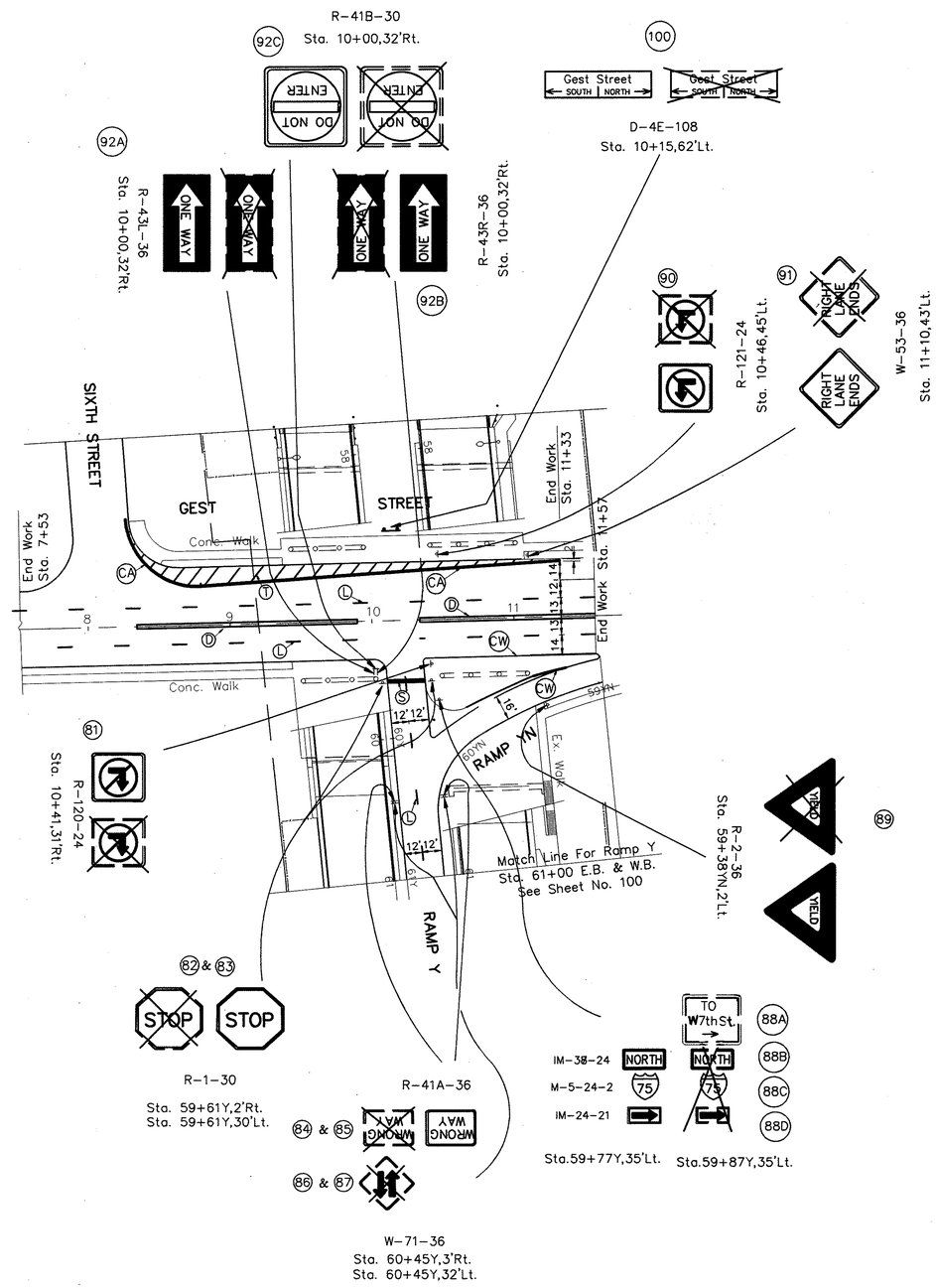
FOR LEGEND
SEE SHEET NO. 96

H:\HAM-50\LINN_ST.dwg - JAN. 08, 1992

SIGNING AND PAVEMENT MARKINGS - LINN STREET

CALC. BY TMB DATE 5/11/92	HAM–50–19.36	OHIO
CHKD. BY J.F.S DATE 5/11/92		F.H.W.A. REGION 5

106
255



50 0 50 100 150
GRAPHIC SCALE IN FEET

FOR LEGEND
SEE SHEET NO. 96

H:\HAM-50\GEST_ST.dwg – JUL 25, 1991

SIGNING AND PAVEMENT MARKINGS – GEST STREET

NOTE:
UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ARE TO BE LEVEL 2 SIGNING.

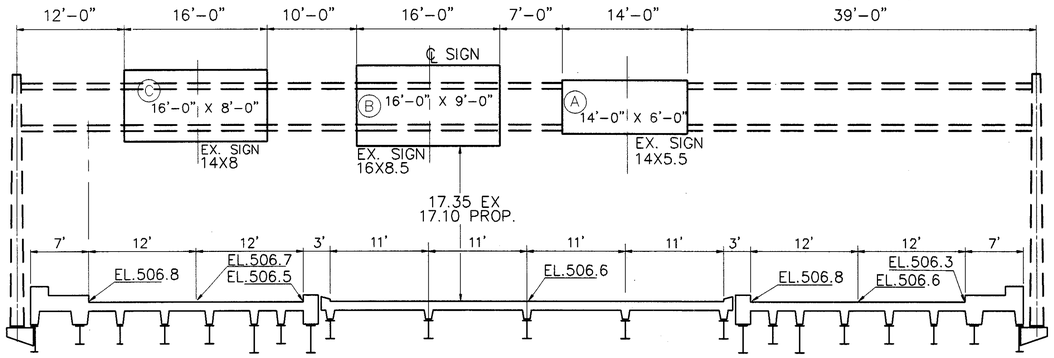
FOR ALL DIMENSIONS:
SCALE
HORIZ. – 1/8 = 1'–0"
VERT. – 1/8 = 1'–0"

CALC. BY T.M.B. DATE 5/11/12
CHKD. BY J.F.M. DATE 5/11/12

HAM–50–19.36

OHIO
F.H.W.A. REGION 5

107
255



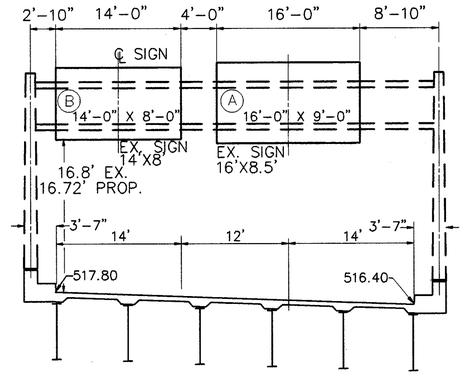
OVERHEAD SIGN SUPPORT NO. 1

STA. 1+28 ℄ U.S. 50 (EASTBOUND)
SPAN = 114'–0"
TOTAL AREA = 310 SQ. FT.

(A)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 100W, HT. = 6'–0"

(B)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 9'–0"

(C)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 100W, HT. = 8'–0"

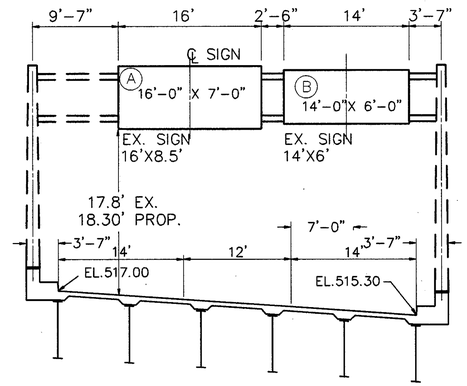


OVERHEAD SIGN SUPPORT NO. 2

STA. 10+08 ℄ U.S. 50 (WESTBOUND)
SPAN = 45'–8"
TOTAL AREA = 224 SQ. FT.

(A)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT.= 9'–0"

(B)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT.= 8'–0"

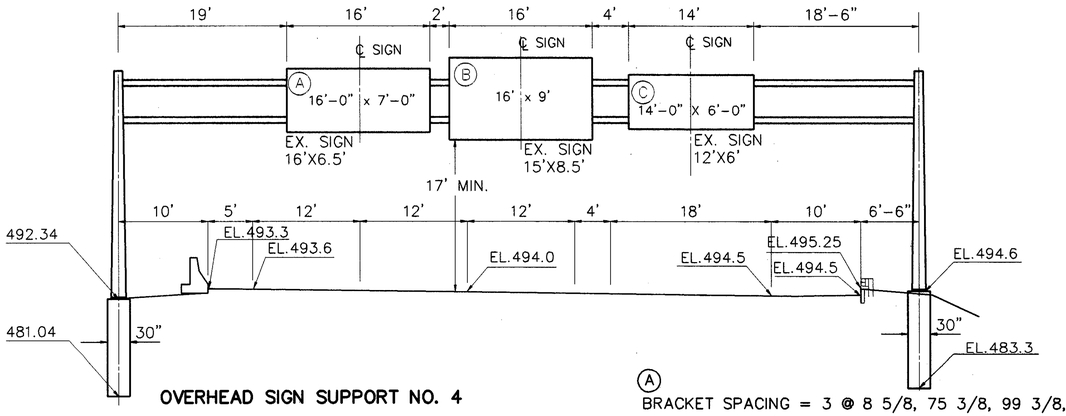


OVERHEAD SIGN SUPPORT NO. 3

STA. 10+45 ℄ U.S. 50 (EASTBOUND)
SPAN = 45'–8"
TOTAL AREA = 166 SQ. FT.

(A)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT.= 7'–0"

(B)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 100W, HT.= 6'–0"



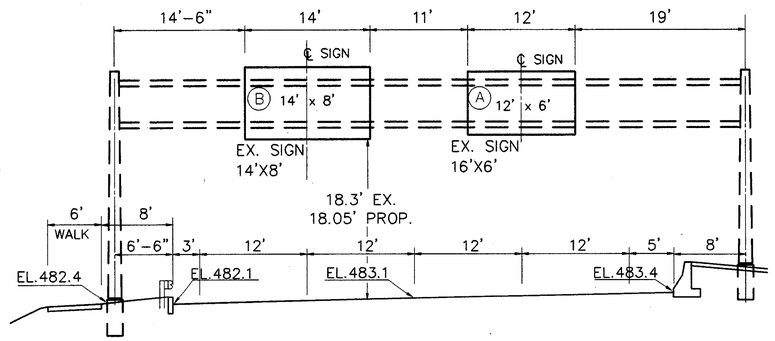
OVERHEAD SIGN SUPPORT NO. 4

STA. 16+02 ℄ U.S. 50 (EASTBOUND)
TYPE TC–7.65 DESIGN = 8
SPAN = 89'–6"
LT. POLE= 28' RT. POLE= 28'
LT. BASE EL. = 492.34 RT. BASE EL. = 494.6
TOTAL AREA = 294 SQ. FT.

(A)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 7'–0"

(B)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 9'–0"

(C)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 100W, HT. = 6'–0"



OVERHEAD SIGN SUPPORT NO. 5

STA. 20+15 ℄ U.S. 50 (WESTBOUND)
SPAN = 64'–0"
TOTAL AREA = 158 SQ. FT.

(A)
BRACKET SPACING = 3 @ 6, 66, 66, 6
LUMINAIRES REQ'D = 2 @ 100W, HT.= 5'–0"

(B)
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT.= 8'–0"

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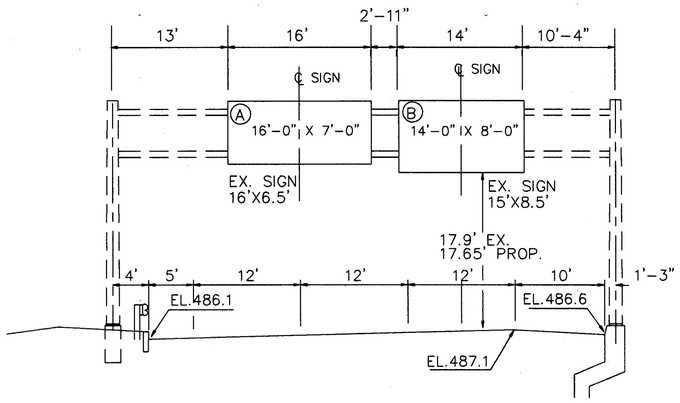
GUIDE SIGN ELEVATION VIEWS

CALC. BY TMB DATE 5/1/19	HAM–50–19.36	OHIO
CHKD. BY J.F.M DATE 5/1/19		F.H.W.A. REGION 5

108
255

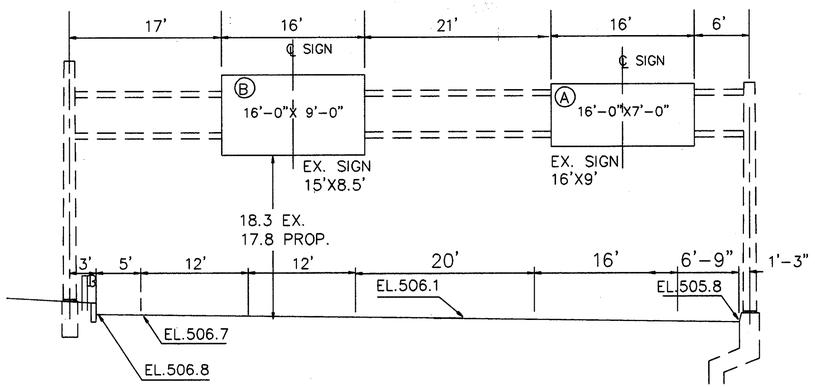
FOR ALL DIMENSIONS:
SCALE
HORIZ. – 1/8 = 1'–0"
VERT. – 1/8 = 1'–0"



OVERHEAD SIGN SUPPORT NO. 6

STA. 24+08 ℄ U.S. 50 (EASTBOUND)
SPAN = 56'–3"
TOTAL AREA = 208 SQ. FT.

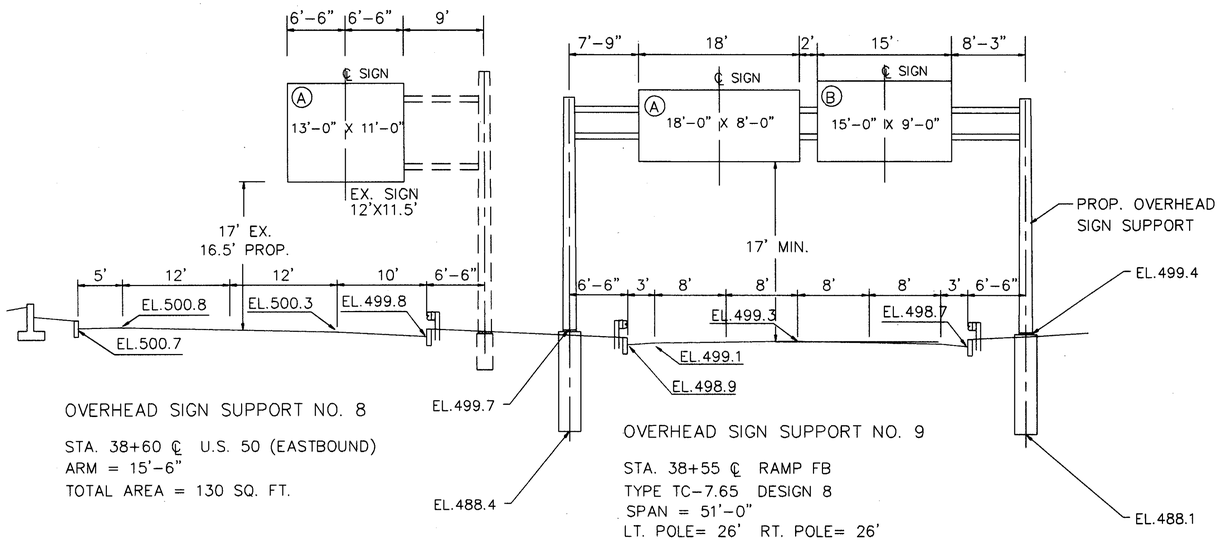
Ⓐ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 7'–0"
Ⓑ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 8'–0"



OVERHEAD SUPPORT SIGN NO. 7

STA. 33+90 ℄ U.S. 50 (EASTBOUND)
SPAN = 76'
TOTAL AREA = 224 SQ. FT.

Ⓐ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 7'–0"
Ⓑ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 9'–0"



OVERHEAD SIGN SUPPORT NO. 8

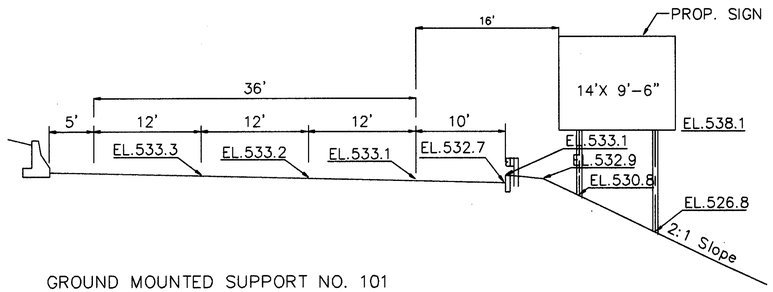
STA. 38+60 ℄ U.S. 50 (EASTBOUND)
ARM = 15'–6"
TOTAL AREA = 130 SQ. FT.

Ⓐ
BRACKET SPACING = 3 @ 6, 72, 72, 6
LUMINAIRES REQ'D = 2 @ 175W, HT. = 11'–0"

OVERHEAD SIGN SUPPORT NO. 9

STA. 38+55 ℄ RAMP FB
TYPE TC–7.65 DESIGN 8
SPAN = 51'–0"
LT. POLE= 26' RT. POLE= 26'
LT. BASE EL. = 499.7 RT. BASE EL. = 499.4
TOTAL AREA = 246 SQ. FT.

Ⓐ
BRACKET SPACING = 3 @ 8 5/8, 99 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 8'–0"
Ⓑ
BRACKET SPACING = 3 @ 14 5/8, 75 3/8, 75 3/8, 14 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 9'–0"



GROUND MOUNTED SUPPORT NO. 101

STA. 51+50 ℄ U.S. 50 (EASTBOUND)
DESIGN: W10 X 22
C = 16'–1"
TOTAL AREA = 133 SQ. FT.

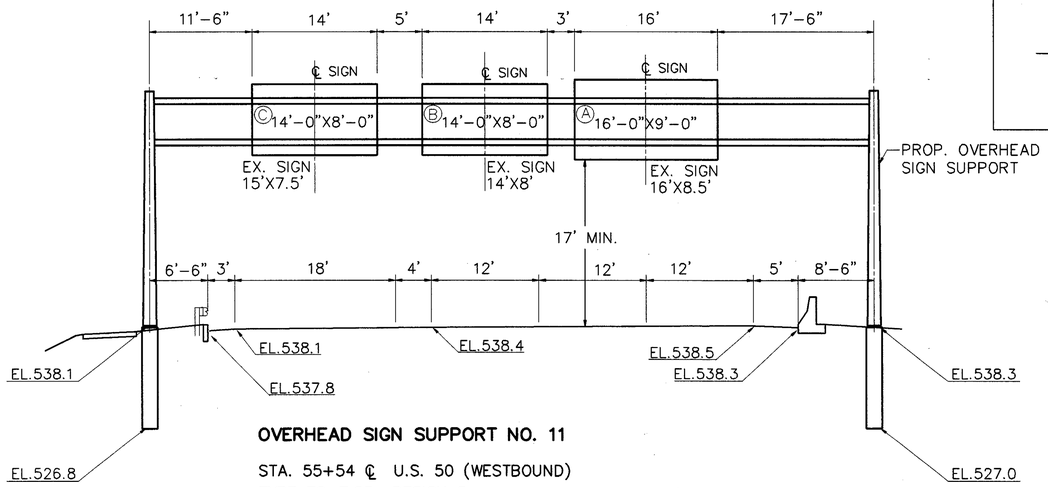
GUIDE SIGN ELEVATION VIEWS

CALC. BY	
DATE	
CHKD. BY	
DATE	

HAM-50-19.36

OHIO | F.H.W.A. REGION 5

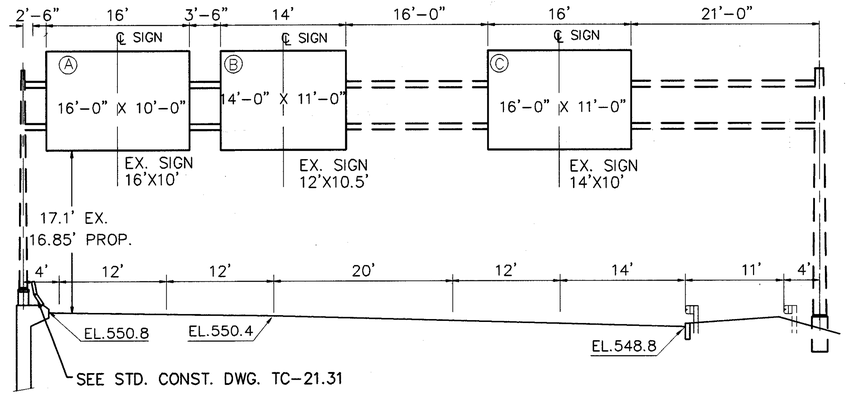
FOR ALL DIMENSIONS:
SCALE
HORIZ. – 1/8 = 1'-0"
VERT. – 1/8 = 1'-0"



OVERHEAD SIGN SUPPORT NO. 11

STA. 55+54 ℄ U.S. 50 (WESTBOUND)
TYPE TC-7.65 DESIGN 8
SPAN = 75'-0"
LT. POLE=26' RT. POLE=26'
LT. BASE EL. = 538.1 RT. BASE EL. = 538.3
TOTAL AREA = 324 SQ. FT.

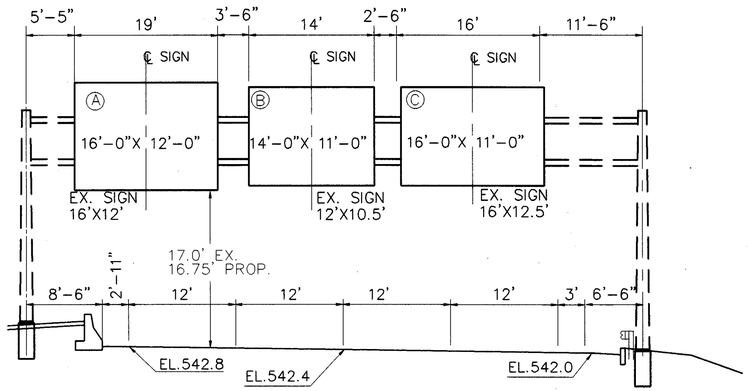
Ⓐ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 9'-0"
Ⓑ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 8'-0"
Ⓒ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 8'-0"



OVERHEAD SIGN SUPPORT NO. 13

STA. 63+47 ℄ U.S. 50 (EASTBOUND)
SPAN = 89'-0"
TOTAL AREA = 490 SQ.FT.

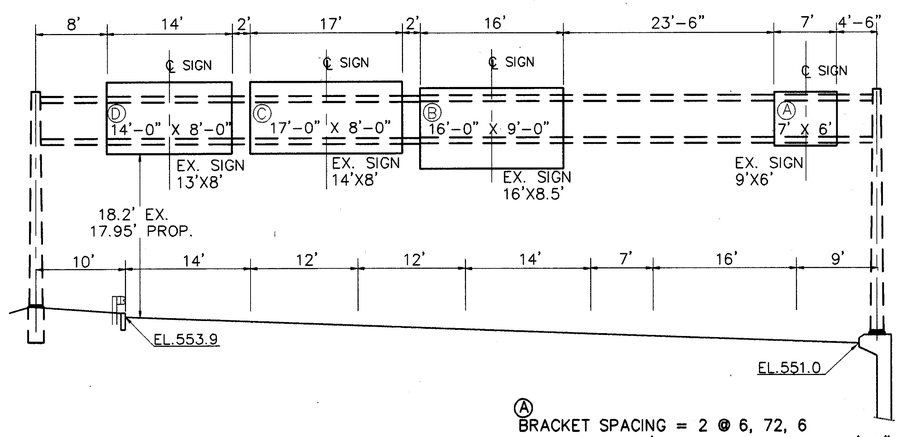
Ⓐ
BRACKET SPACING = 3 @ 8 5/8, 99 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 11'-0"
Ⓑ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 11'-0"
Ⓒ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 11'-0"



OVERHEAD SIGN SUPPORT NO. 12

STA. 57+00 ℄ U.S. 50 (EASTBOUND)
SPAN = 68'-11"
TOTAL AREA = 476 SQ. FT.

Ⓐ
BRACKET SPACING = 3 @ 8 5/8, 99 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 11'-0"
Ⓑ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 11'-0"
Ⓒ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 11'-0"



OVERHEAD SIGN SUPPORT NO. 14

LEFT POLE STA. 65+45 ℄ U.S. 50 (WESTBOUND)
RIGHT POLE STA. 65+26 RAMP "Y" U.S. 50
SPAN = 94'-0"
TOTAL AREA = 380 SQ. FT.

Ⓐ
BRACKET SPACING = 2 @ 6, 72, 6
LUMINAIRES REQ'D = 1 @ 100W, HT. = 6'-0"
Ⓑ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 9'-0"
Ⓒ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 99 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 8'-0"
Ⓓ
BRACKET SPACING = 3 @ 8 5/8, 75 3/8, 75 3/8, 8 5/8
LUMINAIRES REQ'D = 2 @ 175W, HT. = 8'-0"

GUIDE SIGN ELEVATION VIEWS

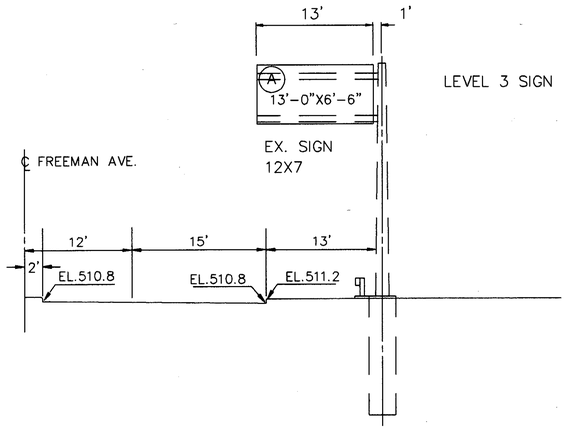
CALC BY TMB DATE 5/14/92
CHKD BY J.F.M DATE 5/14/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

110
255

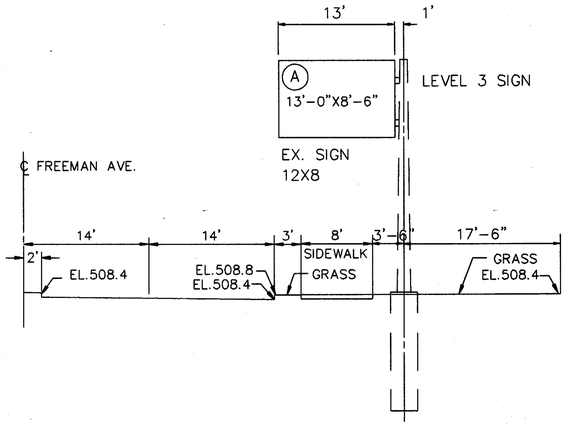
FOR ALL DIMENSIONS:
SCALE
HORIZ. – 1/8 = 1'-0"
VERT. – 1/8 = 1'-0"



CANTILEVER SIGN SUPPORT NO. 15

STA. 17+15 33'LT. ℄ FREEMAN AVE.
ARM=1'-0 3/8"
TOTAL AREA = 71.5 SQ. FT.

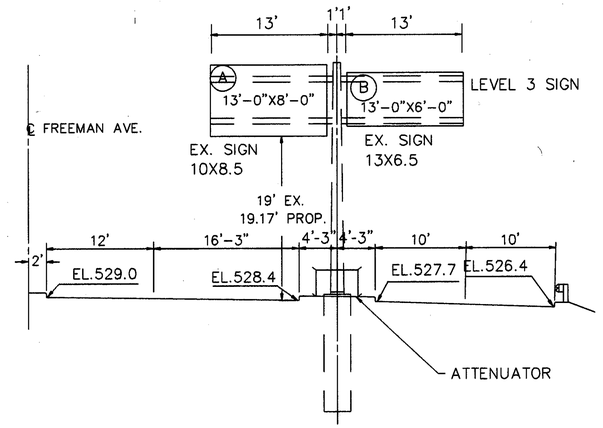
(A)
BRACKET SPACING = 3 @ 6, 72, 22, 6
LUMINAIRES REQ'D = 2 @ 175W, HT. 6'-6"



CANTILEVER SIGN SUPPORT NO. 16

STA. 16+89 42' RT. ℄ FREEMAN AVE.
ARM=8'-6"
TOTAL AREA = 97.5 SQ. FT.

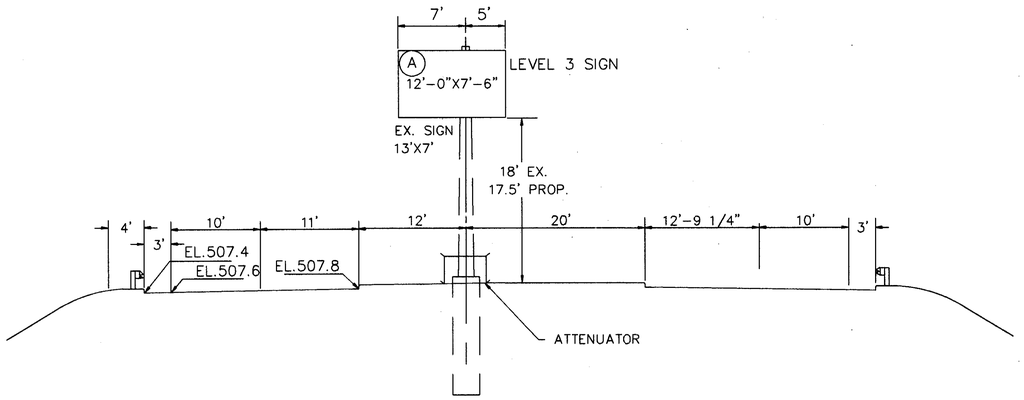
(A)
BRACKET SPACING = 3 @ 6, 72, 22, 6
LUMINAIRES REQ'D = 2 @ 175W, HT. 8'-6"



CENTER MOUNT SUPPORT NO. 17

STA. 22+58 37' LT. ℄ FREEMAN AVE.
ARM = 2'-7 1/2"
TOTAL AREA = 156 SQ. FT.

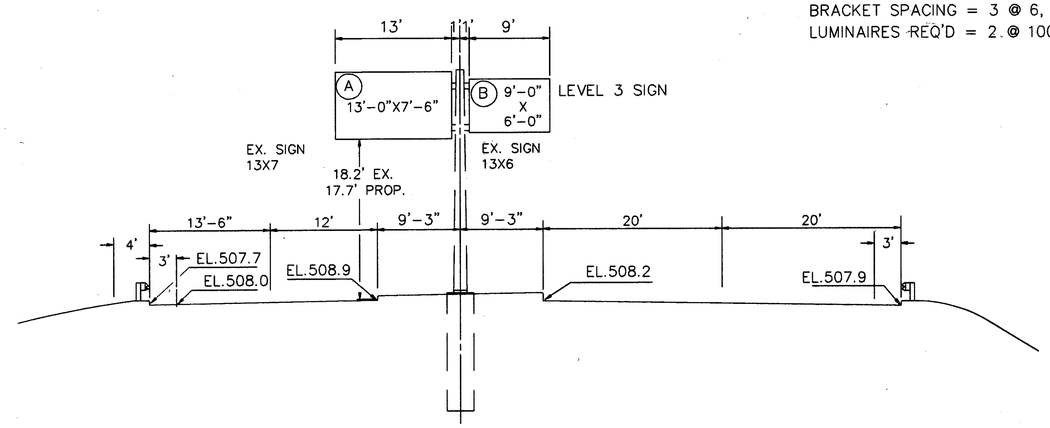
(A)
BRACKET SPACING = 3 @ 6, 72, 72, 6
LUMINAIRES REQ'D = 2 @ 175W, HT. 8'-0"
(B)
BRACKET SPACING = 3 @ 6, 72, 72, 6
LUMINAIRES REQ'D = 2 @ 100W, HT. 6'-0"



CENTER MOUNT SIGN SUPPORT NO. 18

STA. 44+66 38' LT. ℄ RAMP FC
ARM=2'-10 1/4"
TOTAL AREA = 78.0 SQ. FT.

(A)
BRACKET SPACING = 3 @ 6, 66, 66, 6
LUMINAIRES REQ'D = 2 @ 175W, HT. 7'-6"



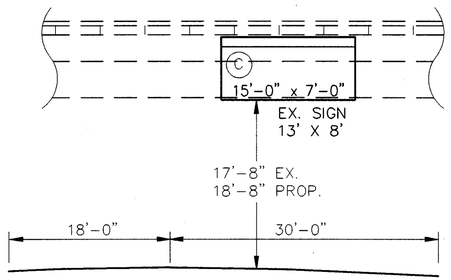
CENTER MOUNT SIGN SUPPORT NO. 19

STA. 49+22, 35'Rt. ℄ RAMP LB
ARM = 4'-0 1/2"
TOTAL AREA = 129.5 SQ. FT.

(A)
BRACKET SPACING = 3 @ 6, 72, 72, 6
LUMINAIRES REQ'D = 2 @ 175W, HT. 7'-6"
(B)
BRACKET SPACING = 3 @ 6, 72, 72, 6
LUMINAIRES REQ'D = 2 @ 100W, HT. 6'-0"

H:\HAM-50\SHEET1.dwg - JAN. 08, 1992

GUIDE SIGN ELEVATION VIEWS



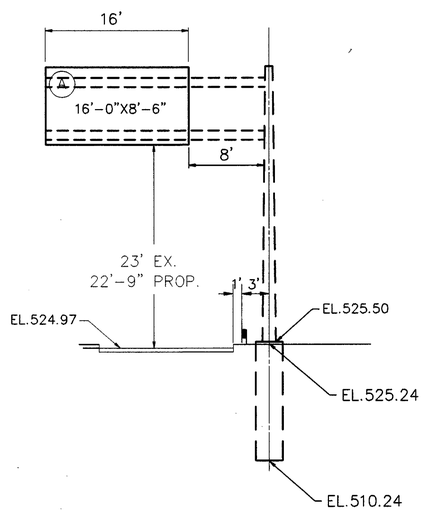
BRIDGE MOUNT SIGN SUPPORT NO. 7C

STA. 29+78 15' LT. ℄ HARRIET ST.

TOTAL AREA = 90 SQ. FT.

(C)

BRACKET SPACING = 3 @ 14⅝", 75⅜", 75⅜", 14⅜"
LUMINAIRES REQ'D = 2 @ 175W

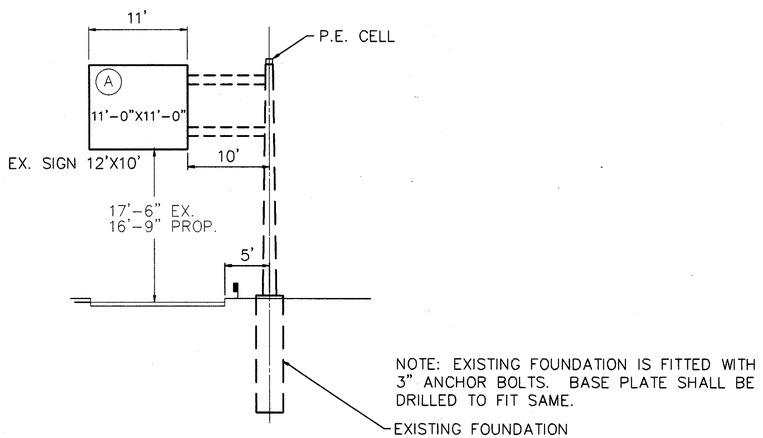


CANTILEVER SIGN SUPPORT NO. 10

RAMP LA STA.52+00 LINN ST. EXIT
12.24 24' ARMS

(A)

BRACKETS: 3 @ 8⅝", 75⅜", 99⅜", 8⅝"
LUMINAIRES REQ'D = 2 @ 175W



CANTILEVER SIGN SUPPORT NO. 20

RAMP Q STA. 65Q+73
12.24 DES. #5 MOD. 22' ARMS

(A)

BRACKETS: 2 @ 16⅜", 99⅜", 16¼"
LUMINAIRES REQ'D = 1 @ 175W

FOR ALL DIMENSIONS:
SCALE
HORIZ. – ⅛ = 1'-0"
VERT. – ⅛ = 1'-0"

CALC BY T.M.B. DATE 5/11/94
CHKD BY J.F.M. DATE 5/11/94

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

111
255

H:\HAM-50\SHTS.dwg - JAN 08, 1992

GUIDE SIGN ELEVATION VIEWS

CALC BY TMB DATE 5/11/92
CHKD BY J.F.M. DATE 5/14/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

112
255

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS - ITEM 642

ROADWAY	SIDE	STATION FROM	STATION TO	EDGE LINES (WHITE)	EDGE LINES (YELLOW)	4" LANE LINES	CURB MARKING (WHITE)	CURB MARKING (YELLOW)		CENTER LINE SOLID DOUBLE			6" CROSSWALK LINE	8" CHANNELIZING LINE (WHITE)		24" STOP LINE	24" TRANSVERSE LINE (WHITE)	24" TRANSVERSE LINE(YELLOW)	LANE ARROWS	WORD "ONLY" ON PAVEMENT	ISLAND MARKING (YELLOW)	
				LIN.FT.	LIN.FT.	LIN.FT.	EACH	EACH		LIN.FT.			LIN.FT.	LIN.FT.		LIN.FT.	LIN.FT.	LIN.FT.	EACH	EACH	SQ.FT.	
SIXTH	LT	1+14	64+96		6382																	
SIXTH	LT	18+50	66+15			6994																
SIXTH	LT	1+12	66+15			6503																
SIXTH	LT	2+03	3+75											172								
SIXTH	LT	2+03	3+75											172								
SIXTH	LT	2+22	3+75														166					
SIXTH	LT	18+50	2+03	275																		
SIXTH	LT	1+12	20+70	1958																		
SIXTH	LT	1+12	2+03		91																	
SIXTH	CL	1+14	2+22														45					
SIXTH	CL	18+50	1+14							443												
SIXTH	RT	1+14	66+30		6516																	
SIXTH	RT	18+50	66+30			6959																
SIXTH	RT	6+57	31+55			2498																
SIXTH	RT	14+58	6+57			594																
SIXTH	RT	18+50	6+57	986																		
SIXTH	RT	14+58	18+00	1737																		
SIXTH	RT	14+58	3+36		273																	
SIXTH	RT	15+59	17+42											183								
SIXTH	RT	3+36	6+57											321								
SIXTH	RT	15+59	18+50											291								
SIXTH	RT	15+59	17+42														152					
SIXTH	RT	17+42	18+00		58																	
SIXTH	RT	18+50	37+60	1910																		
SIXTH	RT	31+55	34+56														284					
SIXTH	RT	31+55	34+56											301								
SIXTH	RT	31+55	35+77											422								
SIXTH	RT	34+56	40+61		605																	
SIXTH	RT	35+77	43+15	738																		
SIXTH	LT	18+50	20+70			220																
SIXTH	LT	20+70	21+72											102								
SIXTH - RAMP A	LT	20+70	28+10	740																		
SIXTH - RAMP A	LT	21+72	28+10		638																	
SIXTH	LT	20+70	32+23	1153																		
SIXTH	LT	25+00	32+23			723																
SIXTH - RAMP FA	LT	32+23	38+00	577																		
SIXTH - RAMP FA	LT	34+08	38+00		392																	
SIXTH - RAMP FB	RT	32+00	36+83		483																	
SIXTH - RAMP FB	RT	36+83	37+60											77								
SIXTH - RAMP FB	RT	32+00	37+60	560																		
SIXTH	LT	32+23	34+08											185								
SIXTH	LT	32+23	53+13	2090																		
SIXTH - RAMP FC	RT	37+60	44+00	640																		
SIXTH - RAMP FC	RT	40+54	44+00		346																	
SIXTH	RT	39+40	40+54											114								
SIXTH	RT	39+40	41+00											160								
SIXTH	RT	40+61	43+15											254								
SIXTH	RT	41+00	54+14	1314																		
SIXTH - RAMP LB	RT	50+00	54+36		436																	
SIXTH - RAMP LB	RT	50+00	56+67	667																		
SIXTH	RT	54+36	56+67											231								
SIXTH	RT	54+14	56+67											253								
SIXTH	RT	43+15	61+80			1865																
SIXTH	LT	53+13	56+00											287								
SIXTH	LT	54+34	56+00											166								
TOTALS THIS SHEET				15345	16220	26306	0	0		443			0	3691		0	647	0	0	0	0	

PAVEMENT MARKING QUANTITIES

G:\HAM-50\PAVQUANTS.dgn - JAN. 15, 1992

TRAFFIC CONTROL QUANTITIES

CALC. BY TMB DATE 5/14/92
CHKD. BY J.F.M. DATE 5/14/92

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

113
255

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS - ITEM 642

ROADWAY	SIDE	STATION FROM	STATION TO	EDGE LINES (WHITE)	EDGE LINES (YELLOW)	4" LANE LINES	CURB MARKING (WHITE)	CURB MARKING (YELLOW)		CENTER LINE SOLID DOUBLE			6" CROSSWALK LINE	8" CHANNELIZING LINE (WHITE)		24" STOP LINE	24" TRANSVERSE LINE (WHITE)	24" TRANSVERSE LINE(YELLOW)	LANE ARROWS	WORD "ONLY" ON PAVEMENT	ISLAND MARKING (YELLOW)	
				LIN.FT.	LIN.FT.	LIN.FT.	EACH	EACH		LIN.FT.			LIN.FT.	LIN.FT.		LIN.FT.	LIN.FT.	LIN.FT.	EACH	EACH	SQ.FT.	
SIXTH - RAMP LA	LT	50+00	54+34	434																		
SIXTH - RAMP LA	LT	50+00	54+34		434																	
SIXTH - RAMP LA	LT	50+00	53+50			350																
SIXTH - RAMP LA	LT	50+00	51+00			100																
SIXTH	LT	54+34	66+00	1166																		
SIXTH	LT	54+34	56+00														164					
SIXTH	LT	56+00	66+15			1015																
SIXTH	RT	56+67	64+50			783																
SIXTH	RT	56+67	64+50	783																		
SIXTH	RT	61+80	63+53											173								
SIXTH	RT	63+53	64+50		97																	
SIXTH	RT	61+80	63+53														163					
SIXTH	RT	61+80	64+79											299								
SIXTH	RT	64+79	66+45	166																		
SIXTH	LT	64+92	66+10											118								
SIXTH	LT	65+23	66+10														51					
SIXTH - GEST	CL	61+00	66+10											510								
SIXTH - GEST	CL	61+00	66+15		515																	
MEHRING RAMP B	LT	18B+00	20B+75		275																	
MEHRING RAMP B	LT	18B+00	19B+82	182																		
MEHRING RAMP B	RT	20B+28	21B+00B					185														
MEHRING RAMP B	LT	22B+40	23B+91							151												
MEHRING TURNAROUND	LT	19TA+00	22TA+65					395														
MEHRING TURNAROUND	RT	22TA+65	23B+91							126												
MEHRING TURNAROUND	RT	22TA+65	23TA+45															178				
MEHRING EMERGENCY LANE A														64								
MEHRING EMERGENCY LANE A																	220					
MEHRING EMERGENCY LANE B														58								
MEHRING EMERGENCY LANE B																	193					
RAMP FC	LT	44+98														21						
RAMP FB	LT	30+75	32+25				158															
RAMP FB	LT	30+75	31+85					110														
RAMP FC	LT	44+15	45+20				178															
RAMP FC	LT	44+15	45+20					120														
FREEMAN	CL	11+79	16+00							421												
FREEMAN	RT	11+79	16+00			421																
FREEMAN	LT	11+79	16+00			421																
FREEMAN	CL	16+84	26+20							936												
FREEMAN	RT	24+00	26+20							220												
FREEMAN	LT	16+80																				
FREEMAN	LT	16+80	30+85			1405															3.53	
FREEMAN	RT	16+80	30+85			1405																
FREEMAN	LT	28+39	30+85			246																
FREEMAN	LT	28+39	30+85			246																
FREEMAN	RT	29+24	30+85											161								
FREEMAN	RT	29+74	29+74																1			
FREEMAN	RT	30+10	30+10																	1		
FREEMAN	RT	30+39	30+39																1			
FREEMAN	CL	30+80														48						
FREEMAN	CL	30+83											96									
FREEMAN	CL	30+95											96									
FREEMAN	RT	30+70	30+90				57															
FREEMAN	RT	30+83																			31.81	
TOTALS THIS SHEET				2731	1321	6392	393	810		1854			192	1383		69	791	178	2	1	35.34	

PAVEMENT MARKING QUANTITIES

G:\HAM-50\PAVQUANT2.dwg - JAN. 15, 1992

TRAFFIC CONTROL QUANTITIES

CALC BY TMB DATE 5/4/92	HAM-50-19.36	OHIO
CHKD BY J.F.M DATE 5/11/92		F.H.W.A. REGION 5

114/255

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS - ITEM 642

ROADWAY	SIDE	STATION FROM	STATION TO	EDGE LINES (WHITE) LIN.FT.	EDGE LINES (YELLOW) LIN.FT.	4" LANE LINES LIN.FT.	CURB MARKING (WHITE) EACH	CURB MARKING (YELLOW) EACH		CENTER LINE SOLID DOUBLE LIN.FT.			6" CROSSWALK LINE LIN.FT.	8" CHANNELIZING LINE (WHITE) LIN.FT.		24" STOP LINE LIN.FT.	24" TRANSVERSE LINE (WHITE) LIN.FT.	24" TRANSVERSE LINE(YELLOW) LIN.FT.	LANE ARROWS EACH	WORD "ONLY" ON PAVEMENT EACH	ISLAND MARKING (YELLOW) SQ.FT.	
RAMP FB	LT	18+70	32+00	239																		
RAMP FB	LT	31+05	32+00		95																	
RAMP FC	LT	44+00	18+67	217																		
RAMP FC	LT	44+00	44+95		95																	
RAMP FA	LT	22+14	23+33											119								
RAMP FA	LT	39+00	39+65											65								
RAMP FA	LT	38+00	39+00	100	100																	
RAMP FA	LT	38+00	39+00																			
RAMP FA	LT	27+90	23+33														25					
RAMP LB	LT	49+00LB	50+00LB	100																		
RAMP LB	CL	48+00S	49+07S											107								
RAMP LB	LT	48+00S	49+00LB											100								
RAMP LB	LT	48+00LB	49+00LB														146					
RAMP LB	LT	47+83	50+00		217																	
RAMP LA	RT	49+30	50+00											70								
RAMP LA	LT	49+30	50+00											70								
RAMP LA	RT	49+30	50+00														16					
RAMP LA	RT	48+50	49+30				175															
RAMP LA	RT	48+50	48+75											125								
RAMP LA	RT	48+65														24						
RAMP LA	RT	48+05	50+00	95																		
RAMP LA	RT	48+65	50+00			135																
DALTON	CL	46+45	47+60							105												
DALTON	RT	47+60																			6.28	
DALTON	RT	47+57														15						
DALTON	RT	46+83	47+57											74								
DALTON	RT	46+83	47+20											37								
DALTON	RT	47+59											43									
DALTON	RT	47+69											43									
DALTON	LT	47+42	47+78																			
DALTON	RT	47+20	47+70				175							137								
LINN	RT	8+91																	1			
LINN	RT	8+91	12+12			321																
LINN	RT	10+95	12+12											117								
LINN	RT	12+12														34						
LINN	CL	10+55	12+15							160												
LINN	CL	8+91	10+55							164												
LINN	CL	10+55	10+95							40												
LINN	CL	10+15	10+55							40												
LINN	CL	10+15	10+55															30				
LINN	LT	8+85	12+15			330																
LINN	LT	8+85	12+15			330																
LINN	CL	8+91	10+15											124								
LINN	CL	13+00																			47.52	
LINN	CL	13+06	13+46					40														
LINN	RT	13+06	13+46					40														
LINN	CL	13+25											93									
LINN	CL	13+33											89									
LINN	LT	13+35														38						
LINN	RT	11+92																	1			
TOTALS FROM THIS SHEET				751	507	1116	350	80		509			268	1145		111	187	30	2	0	53.80	

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PAVEMENT MARKING QUANTITIES

TRAFFIC CONTROL QUANTITIES

CALC BY TMB DATE 5/10/92
CHKD BY J.F.O DATE 5/11/94

HAM-50-19.36 | OHIO | F.H.W.A. REGION 5 | 115/255

NOTE: STATIONS ARE APPROXIMATE

PAVEMENT MARKINGS - ITEM 642

ROADWAY	SIDE	STATION FROM	STATION TO	EDGE LINES (WHITE)	EDGE LINES (YELLOW)	4" LANE LINES	CURB MARKING (WHITE)	CURB MARKING (YELLOW)		CENTER LINE SOLID DOUBLE			6" CROSSWALK LINE	8" CHANNELIZING LINE (WHITE)		24" STOP LINE	24" TRANSVERSE LINE (WHITE)	24" TRANSVERSE LINE(YELLOW)	LANE ARROWS	WORD "ONLY" ON PAVEMENT	ISLAND MARKING (YELLOW)	
				LIN.FT.	LIN.FT.	LIN.FT.	EACH	EACH		LIN.FT.			LIN.FT.	LIN.FT.		LIN.FT.	LIN.FT.	LIN.FT.	EACH	EACH	SQ. FT.	
SIXTH	CL	29+73ST	29+83ST							10												
SIXTH	RT	29+78ST														14						
RAMP Y	RT	59+57	60+87			130																
RAMP Y	RT	59+60																				
RAMP Y	RT	59+45	59+90				293									27						
GEST	RT	8+60	9+90			130																
GEST	LT	8+25	11+57			332																
GEST	RT	10+35	11+57			122																
GEST	CL	8+35	9+90							155												
GEST	CL	10+35	11+57							122												
GEST	LT	8+25	11+33											333								
GEST	LT	8+25	11+33														216					
TOTALS THIS SHEET				0	0	714	293	0		287				333		41	216	0	0	0	0	
TOTALS FROM SHEET 112				15345	16220	26306	0	0		443				3691		0	647	0	0	0	0	
TOTALS FROM SHEET 113				2731	1321	6392	393	810		1854			192	1383		69	791	178	2	1	35.34	
TOTALS FROM SHEET 114				751	507	1116	350	80		509			268	1145		298	187	30	2	0	53.80	
TOTALS TO TRAFFIC CONTROL SUMMARY				18827	18048	34528	1036	890		3093			460	6552		449	1841	208	4	1	89.14	
				=3.57 MI.	=3.42 MI.	=6.54 MI.				=0.59 MI.												

C:\HAM-50\PMQUANTS.dwg - MAY. 06, 1992

TRAFFIC CONTROL QUANTITIES

CALC. BY TMB DATE 5/14/96
CHKD. BY J.F.M DATE 5/14/97

HAM-50-19.36 | OHIO | F.H.W.A. REGION 5 | 116 / 255

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS														
					FLAT SHEET	EXTRU SHEET	NO. 2 POST	NO. 3 POST	NO. 4 POST		S4X7.7 BEAM	W10X22 BEAM	SIGN SUPPORT ASSEMBLY POLE MOUNTED	ONE WAY SUPPORT 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.	LIN.FT	LIN.FT	LIN.FT		LIN.FT	LIN.FT	EACH	LIN.FT	CU. FT	EACH		EACH	EACH	EACH	EACH	
	SIXTH STREET EXPRESSWAY																				
21A	2+80WB	RT.	X-1-18	18X18	2.25				35									2			1	
21B	2+80WB	RT.	R-37R-36	48X60	20.00													1				
21C	1+20	RT.	W-85-48	48X48	16.00				32									1			1	
22	1+96EB	RT.	W-60C-48	48X48	16.00				32									1			1	
23A	2+00WB	LT.	REMOVAL															1			1	
23B	2+00WB	LT.	REMOVAL															1				
24A	10+15WB	RT.	R-10-48	48X60	20.00								1					1				
24B	10+15WB	LT.	R-10-48	48X60	20.00								1					1				
25A	10+40EB	LT.	R-10-48	48X60	20.00								1					1				
25B	10+40EB	RT.	R-10-48	48X60	20.00								1					1				
26	19+60EB	RT.	R-10-48	48X60	20.00				29									1			1	
27A	20+08WB	LT.	R-11A-48	48X60	20.00								1					1				
27B	20+08WB	RT.	R-11A-48	48X60	20.00								1					1				
28	23+89WB	RT.	W-49R-48	48X48	16.00								1					2				
29A	33+83EB	RT.	W-49R-48	48X48	16.00								1									
29B	34+90EB	RT.	REMOVAL															2			1	
30	36+45CD	RT.	REMOVAL															1			1	
31	38+00WB	LT.	W-49R-48	48X48	16.00								1					1				
32A	38+60WB	RT.	W-50R-48	48X48	16.00								1									
32B	38+60EB	RT.	REMOVAL															1			1	
33A	39+90FC	RT.	REMOVAL															1			1	
33B	39+90FC	RT.	REMOVAL															1				
33C	39+90FC	RT.	W-98-48	48X60	20.00				32									1				
34A	39+09EB	RT.	REMOVAL															1				
34B	38+55CD	RT.	W-13-36	36X36	9								1									
34C	38+55CD	RT.	W-97-48	48X60	20.00								1									
34D	37+15FB	RT.	R-2-48	48X48X48	6.93			26										1			1	
34E	44+66RC	LT.	X-1	18X18	2.25								1									
35	50+00LB	RT.	R-15B-30	30X30	6.25			11														
36A	50+00LB	RT.	W-60D-48	48X48	16.00				27									1			1	
36B	52+90EB	RT.	W-49R-48	48X48	16.00				27									1			1	
37	54+25LA	RT.	W-97-48	48X60	20.00				32									1			1	
38A	63+03WB	LT.	R-10-48	48X60	20.00				32									1			1	
38B	64+40WB	RT.	W-97-48	48X60	20.00				32				1					1			1	
38C	61+68WB	RT.	GCP (III)	156X66		71.50												1			1	
38D	64+54WB	RT.	REMOVAL															1			1	
38E	64+54WB	RT.	M-5-30-2	30X30	6.25								1					1				
38F	64+54WB	RT.	IM-37-24	24X12	2.00								1					1				
38G	64+54WB	RT.	IM-28-24	24X18	3.00								1									
38H	65+20WB	LT.	X-1-18	18X18	2.25				35									1				
39	65+73WB	RT.	W-98-48	48X60	20.00								1					1				
	FREEMAN AVENUE																					
40A	12+61	RT.	R-41B-36	36X36	9.00				14									1			1	
40B	12+61	RT.	R-55-12	12X18	1.50		11											1			1	
41	12+34	LT.	R-55-12	12X18	1.50		11											1			1	
42	13+00	LT.	R-1-48	48X48	16.00			27										1			2	
43A	13+50	RT.	R-41B-36	36X36	9.00													1			2	
43B	13+50	RT.	R-2-48	48X48X48	6.93			26					1					1				
44	14+21	RT.	R-10-24	24X30	5.00													1				
	TOTALS THIS SHEET				497.11	71.50	22	90	359		0	0	19	0	0	0		44	0	0	24	

GROUND MOUNTED SIGN QUANTITIES

D:\HAM-50\GRAN\TSK.dwg - MAY 08, 1997 - 14:36:13

TRAFFIC CONTROL QUANTITIES

CALC BY TMB DATE 5/14/12
CHKD BY J.F.M DATE 5/14/12

HAM-50-19.36 | OHIO | F.H.W.A. REGION 5 | 117 / 255

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS															
					FLAT SHEET	EXTRU SHEET	NO. 2 POST	NO. 3 POST	NO. 4 POST		S4X7.7 BEAM	W10X22 BEAM	SIGN SUPPORT ASSEMBLY POLE MOUNTED	ONE WAY SUPPORT 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.	LIN.FT	LIN.FT	LIN.FT		LIN.FT	LIN.FT	EACH	LIN.FT	CU. FT	EACH		EACH	EACH	EACH	EACH	
	FREEMAN AVENUE CONTINUED																					
45A	16+51	RT.	R-43L-36	48X18	6.00				14					15				1				
45B	16+51	RT.	R-43R-36	48X18	6.00													1				
45C	16+51	RT.	R-41B-36	36X36	9.00													1			1	
46A	16+81	RT.	R-1-48	48X48	16.00				27									1			2	
46B	16+81	RT.	R-41B-36	36X36	9.00													1				
47	17+78	RT.	R-2-48	48X48X48	6.93		26											1			2	
48	16+27	LT.	SPECIAL			EXISTING TO REMAIN																
49	16+83	LT.	R-2-48	48X48X48	6.93		26											1			2	
50	16+85	LT.	R-15D-30	30X30	6.25			12										1			1	
51A	30+60FB	RT.	W-98-48	48X60	20.00				14.75									1			1	
51B	30+60FB	RT.	W-1-30	30X30	6.25			13														
52	22+26	RT.	W-47-48	48X48	16.00								1					1				
53A	22+58	LT.	R-15D-30	30X30	6.25								1									
53B	22+58	LT.	REMOVAL															1				
53C	38+20FA	RT.	W-32-48	48X24	8.00			23										1			2	
54A	12+34	RT.	R-55-12	12X18	1.50								1					1				
54B	29+39	RT.	IM-37-30	30X15	3.13								1					1				
54C	29+39	RT.	M-5-30-2	30X30	6.25								1					1				
54D	29+39	RT.	IM-26-24	24X18	3.00								1					1				
54E	29+39	RT.	REMOVAL															1				
54F	12+34	RT.	REMOVAL															1				
55A	27+53	LT.	M-1-24-2	24X24	4.00								1					1				
55B	27+53	LT.	M-20-21	21X15	2.19								1					1				
55C	27+53	LT.	R-10-24	24X30	5.00								1					1				
56A	28+78	LT.	REMOVAL															1				
56B	28+78	LT.	W-60C-48	48X48	16.00								1					1				
56C	28+78	LT.	SPECIAL			EXISTING TO REMAIN																
	MEHRING WAY																					
57	19+82B	RT.	REMOVAL															1			1	
58A	18+35B	LT.	R-41A-36	36X36	9.00								1					1				
58B	19+12B	RT.	R-41A-36	36X36	9.00								1					1				
58C	19+12B	RT.	REMOVAL															1				
59	20+02B	RT.	W-48-30	30X30	6.25								1					1				
60A	20+34B	RT.	R-41B-30	30X30	6.25			13										1			1	
60B	20+07B	RT.	R-121-24	24X24	4.00		11.5															
60C	20+93B	RT.	R-121-24	24X24	4.00		11.5											1			1	
60D	20+93B	RT.	R-1-36	36X36	9.00				12.5									1				
60E	19+60B	RT.	R-55-12	12X18	1.50		11											1			1	
61A	20+74B	RT.	R-41B-30	30X30	6.25				12.5				1									
61B	20+74B	RT.	REMOVAL															1				
61C	20+74B	RT.	REMOVAL															1				
62A	20+66B	LT.	R-1-48	48X48	16.00				14									1			2	
62B	20+66B	LT.	R-43L-36	36X12	3.00									15				1				
62C	20+66B	LT.	R-43R-36	36X12	3.00													1				
62D	20+66B	LT.	R-41B-30	30X30	6.25			12										1				
63A	22+30B	RT.	R-55-12	12X18	1.50								1					1				
63B	22+30B	RT.	R-10-24	24X30	5.00								1					1				
63C	22+30B	RT.	R-41B-30	30X30	6.25								1					1				
64	22+58B	LT.	R-41B-30	30X30	6.25			12										1			1	
65	23+14B	LT.	R-37R-24	24X30	6.00			12										1			1	
	TOTALS THIS SHEET				272.18	0	86	97	94.75		0	0	17	30	0	0		43	0	0	19	

G:\HAM-50\DRAWINGS\2.dwg - JAN. 15, 1992

TRAFFIC CONTROL QUANTITIES

CALC. BY TMB DATE 5/11/92
CHKD. BY J.F.M. DATE 5/11/92

HAM-50-19.36 | OHIO | F.H.W.A. REGION 5 | 118 / 255

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS														
					FLAT SHEET	EXTRU SHEET	NO. 2 POST	NO. 3 POST	NO. 4 POST		S4X7.7 BEAM	W10X22 BEAM	SIGN SUPPORT ASSEMBLY POLE MOUNTED	ONE WAY SUPPORT 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.	LIN.FT	LIN.FT	LIN.FT		LIN.FT	LIN.FT	EACH	LIN.FT	CU. FT	EACH		EACH	EACH	EACH	EACH	
	LINN ST.																				
69A	7+66	RT.	REMOVAL															1			1	
69B	7+66	RT.	REMOVAL															1				
69C	7+66	RT.	REMOVAL															1				
69D	7+66	RT.	REMOVAL															1				
69E	8+36	LT.	R-1-48	48X48	16.00			27										1			2	
70A	7+99	LT.	IM-39-24	24X12	2.00								1					1				
70B	7+99	LT.	M-1-24-2	24X24	4.00								1					1				
70C	7+99	LT.	IM-38-24	24X12	2.00								1					1				
70D	7+99	LT.	M-5-24-2	24X24	4.00								1					1				
70E	7+99	LT.	M-5-24-2	24X24	4.00								1					1				
70F	7+99	LT.	IM-26-21	21X15	2.19								1					1				
71	8+81	LT.	R-55-12	12X18	1.50		11											1			1	
72	9+37	LT.	W-60C-36	36X36	9.00			13										1			1	
73A	10+57	LT.	IM-8-24	24X12	2.00				14.75									1			1	
73B	10+57	LT.	IM-38-24	24X12	2.00													1				
73C	10+57	LT.	M-5-24-2	24X24	4.00													1				
73D	10+57	LT.	IM-26-21	21X15	2.19													1				
74	11+62L	RT.	R-55-12	12X18	1.50		11											1			1	
75	12+20L	RT.	R-2-36	36X36X36	3.90		13											1			1	
76A	12+20	LT.	W-53-36	36X36	9.00								1					1				
76B	12+20	LT.	M-15-24	24X12	2.00								1					1				
76C	12+20	LT.	M-1-24-2	24X24	4.00								1					1				
76D	12+20	LT.	M-1-24-3	30X24	5.00								1					1				
76E	12+20	LT.	IM-24-21	21X15	2.19								1					1				
77A	12+11	RT.	R-31FF-48	48X36	12.00				13									1			2	
77B	12+11	RT.	R-43L-36	36X18	4.50									14				1				
77C	12+11	RT.	R-43R-36	36X18	4.50													1				
78A	50+00LA	LT.	R-31C-48	48X30	10.00			25										1			2	
78B	49+15LA	LT.	R-41B-36	36X36	9.00								1					1				
78C	49+15LA	LT.	R-31C-48	48X30	10.00			25														
79	48+66LA	LT.	R-2-36	36X36X36	3.90		13											1			1	
80	48+54LA	RT.	R-41B-36	36X36	9.00			25														
	GEST ST.																					
81	10+41	RT.	R-120-24	24X24	4.00		11.5											1			1	
82	59+61Y	RT.	R-1-30	30X30	6.25			12										1			1	
83	59+61Y	LT.	R-1-30	30X30	6.25			12										1			1	
84	60+45Y	RT.	R-41A-36	36X36	9.00													1			1	
85	60+45Y	LT.	R-41A-36	36X36	9.00													1			1	
86	60+45Y	LT.	REMOVAL															1				
87	60+45Y	RT.	REMOVAL															1				
88A	59+77Y	LT.	SPECIAL	30X30	EXISTING TO REMAIN				32.5												1	
88B	59+77Y	LT.	IM-37-24	24X12	2													1				
88C	59+77Y	LT.	M-5-24-2	24X24	4													1				
88D	59+77Y	LT.	IM-24-21	21X15	2.19													1				
89	59+38YN	LT.	R-2-36	36X36X36	3.90		13											1			1	
90	10+46	LT.	R-121-24	24X24	4		11.5											1			1	
91	11+10	LT.	W-53-36	36X36	9			13										1			1	
92A	10+00	RT.	R-43L-48	48X18	6.00			12.5						13.5				1			1	
92B	10+00	RT.	4-43R-48	48X18	6.00													1				
92C	10+00	RT.	R-41B-30	30X30	6.25													1				
	TOTALS THIS SHEET				223.21	0	84	164.5	60.25		0	0	12	27.5	0	0		46	0	0	23	

G:\HAM-50\GRANT3KL.dwg - JAN. 30, 1992

CALC. BY TMB DATE 5/11/94
CHKD. BY D.F.M DATE 5/11/94

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

119
255

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

GROUND MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	SIGNS		GROUND MOUNTED SIGN SUPPORTS															
					FLAT SHEET	EXTRU SHEET	NO. 2 POST	NO. 3 POST	NO. 4 POST		S4X7.7 BEAM	W10X22 BEAM	SIGN SUPPORT ASSEMBLY POLE MOUNTED	ONE WAY SUPPORT 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.	LIN.FT	LIN.FT	LIN.FT		LIN.FT	LIN.FT	EACH	LIN.FT	CU. FT	EACH		EACH	EACH	EACH	EACH	
93	2+00WB	LT.	GF-72	72X60		30.00					27				.54	2						
94A	18+21EB	RT.	GF-72	72X60		30.00					27				.54	2		1		2		
94B	18+21EB	RT.	REMOVAL															1				
94C	17+84WB	LT.	GCR	144X48		48.00					28				.54	2			1	2		
95	34+65EB	RT.	GF-72	72X60		30.00					27				.54	2		1		2		
96A	40+95CD	LT.	GF-72	72X60		30.00					27				.54	2		1				
96B	40+95CD	LT.	REMOVAL															1				
96C	40+95CD	LT.	REMOVAL															1				
96D	40+95CD	LT.	REMOVAL															1				
96E	40+95CD	LT.	REMOVAL															1				
96F	40+95CD	LT.	REMOVAL															1				
96G	41+25CD	LT.	W-33-48	48X24	8.00			23														
96H	41+25CD	LT.	W-33-30	30X36	7.50			12.5										1			1	
96I	41+50CD	LT.	W-33-30	30X36	7.50			12.5										1			1	
96J	41+75CD	LT.	W-33-30	30X36	7.50			12.5										1			1	
97	54+16WB	LT.	GF-72	72X60		30.00					27				.54	2		1		2		
98A	63S+73	LT.	GF-72	72X60		30.00					27				.54	2		1		2		
98B	63+53EB	LT.	W-1-36	36X36	9.00								1					1				
98C	63+53EB	LT.	W-143-24	24X24	4.00								1					1				
98D	64+06EB	RT.	W-1-36	36X36	9.00								1					1				
98E	64+06EB	RT.	W-143-24	24X24	4.00								1					1				
99A	30A+53HARR.	LT.	M-1-30-2	30X30	6.25								1					1				
99B	30A+53HARR.	LT.	M-40-30	30X15	3.125								1					1				
99C	30A+53HARR.	LT.	M-22-24	24X18	3.00								1					1				
100	10+15GEST	LT.	D-4E-108	108X36		27					25				.54	2			1	2		
101	51+50EB	RT.	GG-156	168X114		133						44.5			2.20	2			1	2		
102	59+45EB	RT.	REMOVAL															1			1	
103	57+00EB	LT.	R-11A-48	48X60	20.00								1					1				
104	63+90EB	RT.	X-1-18	18X18	2.25				35									1			1	
105	65+45EB	LT.	R-10-48	48X60	20.00								1					1				
TOTALS THIS SHEET					111.125	388.0	0	60.5	35		215	44.5	9	0	6.52	18		24	3	14	5	
TOTALS SHEET NO. 116					497.11	71.5	22	90	359		0	0	19	0	0	0		44	0	0	24	
TOTALS SHEET NO. 117					272.18	0	86	97	94.75		0	0	17	30	0	0		43	0	0	19	
TOTALS SHEET NO. 118					223.21	0	84	164.5	60.25		0	0	12	27.5	0	0		46	0	0	23	
TOTALS CARRIED TO TRAFFIC CONTROL SUMMARY					1103.629	459.5	192	412	549.00		215	44.5	57	57.5	6.52	18		157	3	14	71	

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GROUND MOUNTED SIGN QUANTITIES

CALC. BY TMB DATE 5/4/94
CHKD. BY J.F.M. DATE 5/11/94

HAM-50-19.36

OHIO | F.H.W.A. REGION 5

120/255

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	ITEM 630											ITEM 631												ITEM 625
					EXTRU SHEET TYPE G	CONCRETE FOR ANCHOR BASE FOUNDATION	OVERHEAD SIGN SUPPORT T.C.-7.65 DESIGN 8 81' SPAN	OVERHEAD SIGN SUPPORT T.C.-7.65 DESIGN 8 51' SPAN	OVERHEAD SIGN SUPPORT T.C.-7.65 DESIGN 8 89'6" SPAN	OVERHEAD STRUCTURE MOUNTED SIGN SUPPORT TYPE TC-18.24	BARRIER WALL ASSEMBLY, TYPE TC-21.31, DESIGN 1	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF MISC. TRAFFIC CONTROL ITEM: REMOVAL OF CHANGEABLE MESSAGE SIGN AND STORAGE	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL TYPE TC-7.65	REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, TYPE TC-18.24	REMOVAL OF LUMINAIRE AND STORAGE	REMOVAL OF DISCONNECT SWITCH AND STORAGE	REMOVAL OF BALLAST AND STORAGE	MERCURY VAPOR LUMINAIRE TYPE T.C. 31.21 WITH 100 WATT LAMP, AS PER PLAN	MERCURY VAPOR LUMINAIRE TYPE T.C. 31.21 WITH 175 WATT LAMP, AS PER PLAN	SIGN SERVICE	SIGN SERVICE, AS PER PLAN	SIGN WIRED	BALLAST, REMOTE (INTEGRAL*), TYPE CMRI 100/120	BALLAST, REMOTE (INTEGRAL*), TYPE CMRI 175/120	BALLAST WIRING ENCLOSURE, TYPE B	DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	GROUND ROD
					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
1A	1+28 EB	RT	GB	168x66	77							1							2				1	1	2		1	1	1
1B	1+28 EB	RT	GG	192x102	136							1								2				1		2	1		
1C	1+28 EB	RT	GE	192x90	120							1							2					1	2		1		
1D	1+28 EB	CL	W-85-48	REMOVAL								1				2	1	2											
1E	1+28 EB	CL		REMOVAL								1				2		2											
1F	1+28 EB	RT		REMOVAL									1			2		2											
2A	10+08 WB	LT	GG	192x102	136							1				2	1	2		2		1	1		2	1	1	1
2B	10+08 WB	LT	GE	168x90	105							1				2		2		2			1		2	1		
3A	10+45 EB	RT	GG	192x78	104							1				2	1	2		2		1	1		2	1	1	1
3B	10+45 EB	RT	GB	168x66	77							1				2		2	2				1	2		1		
4A	16+02 EB	RT	GG	192x78	104	11.26			1											2	1		1		2*	1	1	1
4B	16+02 EB	RT	GE	192x102	136															2			1		2*	1		
4C	16+02 EB	RT	GB	168x66	77														2				1	2*		1		
4D	16+50 EB	RT	GG	REMOVAL								1			1	2	1	2										
4E	16+50 EB	RT	GE	REMOVAL								1				2		2										
4F	16+50 EB	RT	GB	REMOVAL								1				2		2										
5A	20+15 WB	LT	GB	144x66	66							1				2	1	2	2			1	1	2		1	1	1
5B	20+15 WB	LT	GE	168x90	105							1				2		2		2			1		2	1		
6A	24+08 EB	RT	GG	192x78	104							1				2	1	2		2		1	1		2	1	1	1
6B	24+08 EB	RT	GE	168x90	105							1				2		2		2			1		2	1		
7A	33+90 EB	RT	GG	192x78	104							1				2	1	2		2		1	1		2	1	1	1
7B	33+90 EB	RT	GE	192x102	136							1				2		2		2			1		2	1		
7C	29+78 HARR	LT	GE	180X78	97.5					1		1			1	2		2		2	1		1		2	1	1	1
8A	38+60 EB	RT	GB	156x126	136.5							1				2	1	2		2		1	1		2	1	1	1
9A	38+55 CD	RT	GE	216x90	135	11.26		1												2	1		1		2*	1	1	1
9B	38+55 CD	RT	GE	180x102	127.5															2			1		2*	1		
9C	40+95 CD	RT	GE	REMOVAL								1		1		2	1	2										
9D	40+95 CD	RT	GE	REMOVAL								1				2		2										
10	52+00 LA.	RT	D-4E	192X96	128							1										1					1	1
11A	55+54 WB	LT	GG	192x102	136	11.26	1													2	1		1		2*	1	1	1
11B	55+54 WB	LT	GE	168x90	105															2			1		2*	1		
11C	55+54 WB	LT	GE	168x90	105															2			1		2*	1		
11D	56+05 WB	LT	GG	REMOVAL								1		1		2	1	2										
11E	56+05 WB	LT	GG	REMOVAL								1				2		2										
11F	56+05 WB	LT	GE	REMOVAL								1				2		2										
12A	57+00 EB	RT	GG	192x138	184							1	1			2	1	2		2		1	1		2	1	1	1
12B	57+00 EB	RT	GG	168x126	147							1				2		2		2			1		2	1		
12C	57+00 EB	RT	GE	192x126	168							1	1			2		2		2			1		2	1		
TOTAL THIS SHEET					3161.5	33.78	1	1	1	1	0	29	3	3	1	52	11	52	10	42	4	9	26	8 (2*)	28 (14*)	26	13	13

OVERHEAD MOUNTED GUIDE SIGN QUANTITIES

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CALC BY TMB DATE 5/11/92
CHKD BY J.F.M DATE 5/11/92

HAM-50-19.36 | OHIO | F.H.W.A. REGION 5

TRAFFIC CONTROL QUANTITIES

NOTE: STATIONS ARE APPROXIMATE

OVERHEAD MOUNTED SIGNS

REFERENCE NUMBER	STATION	SIDE	SIGN CODE	SIZE	ITEM 630 EXTRU SHEET TYPE G	ITEM 630 CONCRETE FOR ANCHOR BASE FOUNDATION	ITEM 630 OVERHEAD SIGN SUPPORT T.C.-7.65 DESIGN 8 81' SPAN	ITEM 630 OVERHEAD SIGN SUPPORT T.C.-7.65 DESIGN 8 51' SPAN	ITEM 630 OVERHEAD SIGN SUPPORT T.C.-7.65 DESIGN 8 89'6" SPAN	ITEM 630 OVERHEAD STRUCTURE MOUNTED SIGN SUPPORT TYPE TC-18.24	ITEM 630 BARRIER WALL ASSEMBLY, TYPE TC-21.41, DESIGN 1	ITEM 630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	ITEM 630 REMOVAL OF MISC. TRAFFIC CONTROL ITEM: REMOVAL OF CHANGEABLE MESSAGE SIGN AND STORAGE	ITEM 630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL TYPE TC-765	ITEM 630 REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, TYPE TC-18.24	ITEM 631 REMOVAL OF LUMINAIRE AND STORAGE	ITEM 631 REMOVAL OF DISCONNSECT SWITCH AND STORAGE	ITEM 631 REMOVAL OF BALLAST AND STORAGE	ITEM 631 MERCURY VAPOR LUMINAIRE TYPE T.C. 31.21 WITH 100 WATT LAMP, AS PER PLAN	ITEM 631 MERCURY VAPOR LUMINAIRE TYPE T.C. 31.21 WITH 175 WATT LAMP, AS PER PLAN	ITEM 631 SIGN SERVICE	ITEM 631 SIGN SERVICE, AS PER PLAN	ITEM 631 SIGN WIRED	ITEM 631 BALLAST, REMOTE (INTEGRAL*), TYPE CMRI 100/120	ITEM 631 BALLAST, REMOTE (INTEGRAL*), TYPE CMRI 175/120	ITEM 631 BALLAST WIRING ENCLOSURE, TYPE B	ITEM 631 DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	ITEM 625 GROUND ROD
					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
13A	63+53 EB	RT	GG	192x114	152						1									2		1	1		2	1	1	1
13B	63+53 EB	RT	GG	168x126	147															2			1		2	1		
13C	63+53 EB	RT	GE	192x126	168															2			1		2	1		
13D	63+53 EB	RT	GG	REMOVAL								1				2	1	2										
13E	63+53 EB	RT	GG	REMOVAL								1				2		2										
13F	63+53 EB	RT	GE	REMOVAL								1				2		2										
14A	65+45 WB	LT	GF	84x66	38.5							1				1	1	1	1			1	1	1		1	1	1
14B	65+45 WB	LT	GG	192x102	136							1				2		2		2			1		2	1		
14C	65+45 WB	LT	GB	204x90	127.5							1				2		2		2			1		2	1		
14D	65+45 WB	LT	GE	168x90	105							1				2		2		2			1		2	1		
15A	17+15FB	LT	GE	156x72	88							1				2	1	2		2		1	1		2*	1	1	1
16A	16+89F	RT	GH	156x96	104							1				2	1	2		2		1	1		2*	1	1	1
17A	22+58F	LT	GH	156x90	97.5							1				2	1	2		2		1	1		2*	1	1	1
17B	22+58F	LT	GE	156x66	71.5							1				2		2	2				1	2*		1		
18	44+66 FC	LT	GE	144x84	84							1				2	1	2		2		1	1		2*	1	1	1
19A	49+22 LB	RT	GE	156x84	91							1				2	1	2		2		1	1		2*	1	1	1
19B	49+22 LB	RT	GE	108x66	49.5							1				2		2	2				1	2*		1		
20	65Q+73.	RT	GH	122X126	115.5							1				2	1	2		2		1	1		2*	1	1	1
TOTAL THIS SHEET					1575	0	0	0	0	0	1	15	0	0	0	29	8	29	5	24	0	8	15	1 (4*)	12 (12*)	15	8	8
TOTAL FROM SHEET NO. 120					3161.5	33.78	1	1	1	1	0	29	3	3	1	52	11	52	10	42	4	9	26	8 (2*)	28 (14*)	26	13	13
TOTAL TO TRAFFIC CONTROL SUMMARY					4736.5	33.78	1	1	1	1	1	44	3	3	1	81	19	81	15	66	4	17	41	9 (6*)	40 (26*)	41	21	21

OVERHEAD MOUNTED GUIDE SIGN QUANTITIES

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LIGHTING GENERAL NOTES

625.03 – GENERAL

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

CINCINNATI GAS AND ELECTRIC COMPANY
139 EAST FOURTH STREET
CINCINNATI, OHIO 45202

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. UPON COMPLETION OF THIS PROJECT, POWER SERVICE ELECTRICAL ENERCY 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.

625.07–713.11 – LUMINAIRES

STYLE B LUMINAIRES SHALL HAVE SINGLE RATED 240 VOLT, 250 WATT, INTEGRAL REGULATOR BALLASTS FOR USE WITH HIGH PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M400A2, CROUSE–HINDS OVM, AMERICAN 25/26 OR EQUAL AS APPROVED BY THE ENGINEER.

625.07–713.11 – LUMINAIRES FOR UNDERPASSES

WALL MOUNTED LUMINAIRES SHALL HAVE SINGLE RATED 240 VAC, 100W, INTEGRAL REGULATOR BALLASTS FOR USE WITH HIGH PRESSURE SODIUM LAMPS, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. LUMINAIRES SHALL BE HOLOPHANE "UNDERPASS WALL PACK", CROUSE–HINDS "WA", GENERAL ELECTRIC "WL–250" OR EQUAL AS APPROVED BY THE ENGINEER.

LUMINAIRES MOUNTED TO UNDERSIDE OF DECK OVERPASS SHALL HAVE A SINGLE RATED 240V AC, 150W INTEGRAL REGULATOR BALLAST FOR USE WITH HIGH PRESSURE SODIUM LAMPS, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. LUMINAIRES SHALL BE HOLOPHANE BANT15 BHP24885 OR EQUAL AS APPROVED BY THE ENGINEER.

625.07–713.14 – LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", SYLVANIA "LUMALUX", PHILLIPS "CERAMALUX" OR EQUAL AS APPROVED BY THE ENGINEER. LAMPS SHALL BE OF THE 240 VAC DESIGN AND CONFORM TO THE FOLLOWING: 100W HPS, ANSI S54; 150W HPS, ANSI S56; 250W HPS, ANSI S50.

ITEM SPECIAL – REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN ASBESTOS CEMENT CONDUIT

THIS ITEM SHALL CONSIST OF REMOVAL OF EXISTING WIRES AND CLEANING OF THE EXISTING ASBESTOS CEMENT CONDUIT SYSTEM, TO FACILITATE THE INSTALLATION OF PROPOSED DISTRUBUTION CABLES. COMPLETELY CLEAN AND SWAB ALL RUNS OF CONDUIT, REMOVING ALL FOREIGN MATERIALS. CONTRACTOR SHALL ENSURE MONITORING OF ASBESTOS CONTENT IN AIR DURING CLEANING OF EXISTING ASBESTOS CEMENT CONDUIT ACCORDING TO OHIO EPA REGULATIONS. THE CONTRACTOR SHALL NOTIFY OHIO EPA IF CONDITIONS PREVAIL THAT ARE IN CONFLICT OF AIR POLLUTION/HAZARDOUS MATERIAL REGULATIONS. 1926.58 A3. ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.

THE UNIT PRICE BID FOR ITEM SPEICAL "REMOVAL OF EXISTING WIRES AND CLEAN ASBESTOS CEMENT CONDUIT" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM SPECIAL – REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN CONDUIT

THIS ITEM SHALL CONSIST OF REMOVAL OF EXISTING WIRES AND THE CLEANING OF THE EXISTING CONDUIT SYSTEM, INCLUDING EXISTING PULL BOXES TO FACILITATE THE INSTALLATION OF PROPOSED DISTRIBUTION CABLES.

COMPLETELY CLEAN AND SWAB ALL RUNS OF CONDUIT, REMOVING ALL FOREIGN MATERIALS. ALL MATERIALS REMOVED SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.

THE UNIT PRICE BID FOR ITEM SPECIAL "REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN CONDUIT" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM SPECIAL – REMOVAL OF EXISTING CABLE AND CONDUIT

THIS ITEM SHALL CONSIST OF THE REMOVAL OF THE EXISTING CONDUCTOR, CONDUIT AND CONDUIT SUPPORT ASSEMBLIES. ALL MATERIALS REMOVED SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTORS.

THE UNIT BID PRICE FOR ITEM SPECIAL "REMOVAL OF EXISTING CABLE AND CONDUIT" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 202 – LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVAL OF EXISTING LUMINARIES. REMOVAL INCLUDES DISCONNECTING ALL EXISTING CIRCUIT WIRES, REMOVAL OF BALLASTS AND LUMINAIRES.

THE LUMINAIRES SHALL BE SALVAGED AND STORED ON SITE UNTIL REMOVED BY TRAFFIC SERVICES BUREAU, 1408 QUEEN AVENUE, CINCINNATI, OHIO, AS DIRECTED BY THE ENGINEER.

ITEM 202 – LIGHT POLE REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF THE REMOVAL OF EXISTING LIGHT POLES. REMOVAL INCLUDES DISCONNECTING ALL EXISTING CIRCUIT AND GROUND WIRING. REMOVAL OF THE BALLASTS, THE POLE AND BRACKET ARM AND ANY TRANSFORMER BASES, AND REMOVAL FROM THE SITE OF ALL THESE MATERIALS. THIS ITEM SHALL ALSO INCLUDE PROTECTION FROM DAMAGE OF THE EXISTING ANCHOR BOLTS AND POLE FOUNDATIONS DURING THE CONSTRUCTION PERIOD. ANY DAMAGE TO THE EXISTING ANCHOR BOLTS OR POLE FOUNDATION SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE AND AS APPROVED BY THE ENGINEER.

ITEM 202 – LIGHT POLE FOUNDATION REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVAL OF THE TOP PORTION OF THE LIGHT POLE FOUNDATION. REMOVAL INCLUDES REMOVAL OF CONCRETE TO A MINIMUM OF 12" BELOW GRADE. EXPOSED STEEL REINFORCING RODS AND ANCHOR BOLTS SHALL BE REMOVED FLUSH WITH REMAINING CONCRETE. SUITABLE FILL MATERIAL SHALL BE USED TO RESTORE THE AREA TO A GRADE CONSISTENT WITH THE SURROUNDING AREA.

ITEM SPECIAL – REMOVAL OF EXISTING PRIMARY SERVICE EQUIPMENT

THIS ITEM SHALL INCLUDE THE REMOVAL OF ALL EXISTING PRIMARY SERVICE EQUIPMENT FOR POWER SERVICE TO THE EXISTING HIGHWAY LIGHTING CIRCUITS. THE EXISTING PRIMARY SERVICE EQUIPMENT IS MOUNTED ON CINCINNATI GAS AND ELECTRIC COMPANY POLES. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THEIR REQUIREMENTS AND REGULATIONS. EQUIPMENT WHICH IS THE PROPERTY OF CINCINNATI GAS AND ELECTRIC COMPANY SHALL BE REMOVED BY THEM. ALL OTHER EQUIPMENT SHALL BE REMOVED AND DISPOSED OF OFF SITE BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH THE POWER COMPANY FOR THE REMOVAL OF SERVICE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL CHARGES MADE BY THE POWER COMPANY FOR REMOVAL OR REARRANGEMENT OF POWER COMPANY EQUIPMENT AND ELECTRICAL SERVICE.

THE UNIT PRICE BID FOR ITEM SPECIAL "REMOVAL OF EXISTING PRIMARY SERVICE EQUIPMENT" SHALL BE FULL COMPENS ATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COORDINATE AND COMPLETE THE WORK AS SPECIFIED.

ITEM SPECIAL – REMOVAL OF EXISTING TRANSFORMER AND TRANSCLOSURE

THIS ITEM SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF EXISTING 2400 VOLTS TO 120/240V NON–PCB TRANSFORMER. THIS ITEM SHALL INCLUDE REMOVAL AND DISPOSAL OF THE TRANSFORMER, TRANSCLOSURE, CUTOUTS, LIGHTNING ARRESTORS, CONTACTOR PANELS, CONNECTOR KITS AND TERMINATIONS. REMOVAL INCLUDES DISCONNECTING ALL EXISTING WIRING TO THE TRANSFORMER AND CONTACTOR PANELS.

ITEM SPECIAL – REMOVAL AND DISPOSAL OF PCB TRANSFORMERS AND PCB–CONTAMINATED TRANSFORMER

THIS ITEM SHALL CONSIST OF REMOVAL AND DISPOSAL OF EXISTING 2400 VOLTS TO 120/240V PCB TRANSFORMERS AND PCB–CONTAMINATED TRANSFORMER. THIS ITEM SHALL INCLUDE REMOVAL AND DISPOSAL OF THE TRANSFORMER, TRANSCLOSURE, CONTACTOR PANELS, CUTOUTS, LIGHTNING ARRESTORS, CONNECTOR KITS, AND TERMINATIONS.

REMOVAL INCLUDES DISCONNECTING ALL EXISTING WIRING TO THE TRANSFORMER, CONTACTOR PANELS, AND GROUNDS.

HANDLING, STORAGE, MARKING, AND DISPOSAL OF POLYCHLORINATED BYPHENYL (PCB) ITEMS; THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

- TAKE ALL NECESSARY ACTIONS TO INSURE THE SAFE HANDLING, STORAGE, AND DISPOSAL OF PCBS AND PCB ITEMS ACCORDING TO ALL APPLICABLE REGULATIONS.
- INSURE THAT THOSE PCBS AND PCB ITEMS THAT REQUIRE MARKING UNDER EPA REGULATIONS ARE PROPERLY LABELLED.
- IMPLEMENT ANY RECORD KEEPING REQUIREMENTS OF THE EPA REGUALTIONS FOR PCBS AND PCB ITEMS.
- INSPECT, AS REQUIRED IN THE EPA REGULATIONS, FOR LEAKS FROM PCB TRANSFORMERS AND PCB CONTAMINATED TRANS–FORMERS IN STORAGE FOR DISPOSAL AND DEVELOP RAPID RESPONSE CLEAN–UP AND DECONTAMINATION PROCEDURES FOR PCB OR SUSPECTED PCB SPILLS.
- DISPOSAL OF ALL PCBS AND PCB ITEMS SHALL BE IN AN EPA APPROVED INCINERATOR.
- CONTRACTOR SHALL PROVIDE DOCUMENTATION OF EPA LICENSURE FOR PCB DISPOSAL.

THE UNIT PRICE BID FOR ITEM SPEICAL "REMOVAL AND DISPOSAL OF PCB AND PCB–CONTAMINATED TRANSFORMER" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, DISPOSAL AND INCIDENTALS NECESSARY TO PERFORM THE WORK AS SPECIFIED.

ITEM SPECIAL – REMOVAL OF TRANSFORMER FOUNDATION

THIS ITEM SHALL CONSIST OF REMOVAL OF THE TRANSFORMER FOUNDATION. REMOVAL SHALL INCLUDE REMOVAL OF ANY CONDUIT AND GROUND RODS THAT MIGHT BE EXPOSED BY REMOVAL OF THE CONCRETE PADS TO A MINIMUM OF 12" BELOW GRADE. SUITABLE FILL MATERIAL SHALL BE USED TO RESTORE THE AREA TO A GRADE CONSISTENT WITH THE SURROUNDING AREA AS APPROVED BY THE ENGINEER. ALL MATERIALS REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR. IF FOR ANY REASON IT IS FOUND THAT A PCB TRANSFORMER HAS LEAKED ONTO A PAD OR SURROUNDING AREA, THEN THE REMOVAL OF CONCRETE PAD AND RESTORATION OF THE SURROUNDING AREA SHALL BE AS REQUIRED BY EPA REGULATIONS FOR DISPOSAL OF CONTAMINATED MATERIALS.

ITEM SPECIAL – MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THEIS 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 CURCUITS, 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 OR 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 EXCEPTIONS 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 SEPERATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS.

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 HEIGHTS, 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 WILL 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 ENERCY CONSUMED BY THE 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 BID PRICE FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

ITEM SPECIAL – PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 48KA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH SPECIFICATION 631.08, PARAGRAPH 3. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

ITEM SPECIAL – REMOVAL OF EXISTING TRANSFORMER MOUNTED ON BRIDGE

THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF EXISTING 2400 VOLTS TO 120/240 VOLT NON–PCB TRANSFORMER MOUNTED ON THE BRIDGE STRUCTURE. THIS ITEM SHALL INCLUDE REMOVAL AND DISPOSAL OF THE TRANSFORMER, CUTOUTS, LIGHTING ARRESTORS, CONTACTOR PANELS, CONNECTOR KITS AND TERMINATIONS. REMOVAL INCLUDES DISCONNECTING ALL EXISTING WIRING TO THE TRANSFORMER AND CONTACTOR PANELS.

THE UNIT PRICE BID FOR ITEM SPECIAL "REMOVAL OF EXISTING TRANSFORMER MOUNTED ON BRIDGE" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS REQUIRED.

ITEM SPECIAL – CLEAN HANDHOLES, JUNCTION BOXES AND PULL BOXES

THIS ITEM SHALL INCLUDE THE CLEANING OF HANDHOLES, JUNCTION BOXES AND PULL BOXES; REMOVING ANY EXISTING BALLASTS, CONNECTOR KITS, WIRING AND ALL DIRT AND FOREIGN MATERIAL.

THE UNIT PRICE BID FOR ITEM SPECIAL "CLEAN HANDHOLES, JUNCTION BOXES AND PULL BOXES" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS REQUIRED.

ITEM SPECIAL – REMOVAL OF PEDESTRIAN FLOODLIGHT

THIS ITEM SHALL INCLUDE THE REMOVAL OF PEDESTRIAN FLOODLIGHT. REMOVAL INCLUDES DISCONNECTING ALL EXISTING CIRUCIT WIRES AND FLOODLIGHT AND DISPOSAL OF ALL MATERIALS OFF–SITE BY THE CONTRACTOR.

THE UNIT PRICE BID FOR ITEM SPECIAL "REMOVAL OF PEDESTRIAN FLOODLIGHT" SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM SPECIAL – UNDERPASS LUMINAIRE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING UNDERPASS LUMINAIRE AND ASSOCIATED HARDWARE. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM SPECIAL "UNDERPASS LUMINAIRE REMOVED, AS PER PLAN".

ITEM SPECIAL – REMOVAL OF PHOTO ELECTRIC CONTROL

THIS ITEM SHALL INCLUDE THE REMOVAL OF PHOTO ELECTRIC CONTROLS. REMOVAL INCLUDES DISCONNECTING ALL EXISTING CIRCUIT WIRES AND PHOTO ELECTRIC CONTROL AND DISPOSAL OF ALL MATERIALS OFF–SITE BY THE CONTRACTOR.

THE UNIT PRICE BID FOR ITEM SPECIAL "REMOVAL OF PHOTO ELECTRIC CONTROL" SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

LIGHTING GENERAL NOTES (Cont'd)

ITEM SPECIAL – DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF TERMINATING AN EXISTING CIRCUIT BY CUTTING AND REMOVING THE CIRCUIT WIRES AT THE APPROPRIATE EXISTING PULL BOX OR LIGHT POLE. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT IN THE PULL BOX OR CONDUITS.

DISCONNECTION AT A LIGHT POLE SHALL INVOLVE THE REMOVAL OF THAT PART OF CABLE AND CONNECTOR KITS THAT IS TO BE ABANDONED FROM THE POLE. ANY CABLE THAT IS TO BE USED FOR RECONNECTION SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING PULL BOXES.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM SPECIAL "DISCONNECT EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE DISCONNECTION IN A SATISFACTORY WORKMANLIKE MANNER.

ITEM SPECIAL – REMOVAL OF EXISTING CABLE AND ABANDON CONDUIT IN PLACE

THIS ITEM SHALL INCLUDE THE REMOVAL OF EXISTING CABLES AND PERMANENTLY SEALING ALL ENDS OF THE CONDUIT WITH EPOXY CEMENT. CABLES SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY. OFF OF SITE.

THE UNIT PRICE BID FOR ITEM SPECIAL "REMOVAL OF EXISTING CABLE AND ABANDON CONDUIT IN PLACE" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

ITEM SPECIAL – ABANDON EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES IN PLACE

THIS ITEM SHALL INCLUDE THE REMOVAL OF ANY EXISTING BALLASTS, CONNECTOR KITS, WIRING AND ANY FOREIGN MATERIAL FROM THE EXISTING HANDHOLES AND PULL BOXES. THE HANDHOLES AND PULL BOXES SHALL BE BACKFILLED AND PERMANENTLY SEALED WITH EPOXY CEMENT. ALL MATERIAL REMOVED SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.

THE UNIT PRICE FOR ITEM SPECIAL "ABANDON EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES IN PALCE" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS TO COMPLETE THE WORK.

CONDUIT, 2", 713.04, AS PER PLAN

THIS ITEM OR WORK SHALL CONSIST OF MOUNTING RIGID STEEL 2" CONDUIT ON AN EXISTING STRUCTURE AS SHOWN IN THE DETAIL SHEETS.

PAYMENT WILL BE MADE FOR EACH LINEAR FEET FOR ITEM 625 "CONDUIT, 2",713.04, AS PER PLAN" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE INSTALLATION IN A SATISFACTORY WORKMANLIKE MANNER.

CONDUIT ON STRUCTURE

EXPANSION FITTINGS FOR CONDUIT ON STRUCTURES SHALL BE OF TYPE AX, CROUSE-HINDS TYPE XJ-4, APPLETON TYPE XJ-4, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL HAVE A COPPER EXTERNAL BONDING JUMPER.

CONDUIT, 2", 713.07, AS PER PLAN

THIS ITEM SHALL CONSIST OF MOUNTING 2" PVC CONDUIT FOR CONCRETE ENCASEMENT. CONCRETE WILL BE PAID FOR UNDER SEPARATE ITEM. CONCRETE IS INCLUDED IN BARRIER OR PARAPET RENNOVATION. INSTALLATION SHALL CONFORM TO STD. CONST. DWG. HL-30.33

PAYMENT WILL BE MADE FOR EACH LINEAR FEET FOR ITEM "CONDUIT, 2" 713.07, AS PER PLAN" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE INSTALLATION IN A SATISFACTORY WORKMANLIKE MANNER.

SERVICE TO UNDERPASS LIGHTING, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE, EXCEPT FOR LUMINAIRES AND STRUCTURE GROUNDING, FOR AN UNDERPASS LIGHTING SYSTEM. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTING, FITTINGS, JUNCTION BOXES, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE OR RE-ESTABLISH, THE SERVICE AS DETAILED ON PLAN SHEETS E-7, E-8 AND ON HL-20.31.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 625 "SERVICE TO UNDERPASS LIGHTING, AS PER PLAN" AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE INSTALLATION IN A SATISFACTORY WORKMANLIKE MANNER.

LIGHT POLE, DESIGN A12B6B40

THIS ITEM SHALL INCLUDE LIGHT POLE DESIGN A12B6B40 – BRACKET ARMS INCLUDED SHALL BE 1 – 6 FT ARM INSTALLED CURBSIDE AND 1 – 12 FT ARM INSTALLED ROADSIDE.

THE UNIT PRICE BID FOR "LIGHT POLE, DESIGN A12B6B40" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE WORK AS REQUIRED.

ITEM SPECIAL – LOOP EXISTING SERIES CIRCUIT AT EXISTING LIGHT POLE BASE

THIS ITEM SHALL INCLUDE LOOPING OF EXISTING SERIES CIRUCUT AND RETAINING INTEGRITY OF SERIES CIRCUIT BEYOND SCOPE OF WORK.

THE UNIT PRICE BID FOR "LOOP EXISTING SERIES CIRCUIT AT EXISTING LIGHT POLE BASE" SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE WORK AS REQUIRED.

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.

LIGHTING GENERAL SUMMARY - DEMOLITION

SHEET NUMBER				SUBTOTALS			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
DS-2	DS-3	DS-4	DS-5	DS-1							
6	55	51	40				202	75401	152	EACH	LIGHT POLE REMOVED, AS PER PLAN
–	5	–	5				202	75501	10	EACH	LIGHT POLE FOUNDATION REMOVED, AS PER PLAN
6	55	57	40				202	75505	158	EACH	LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN
46	17	21	35				625	98000	119	EACH	LIGHTING MISC.: ABANDON EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES IN PLACE
1	–	–	–				SPECIAL	625 98000	1	EACH	LIGHTING MISC.: REMOVAL OF EXISTING TRANSFORMER MOUNTED ON BRIDGE
7	–	–	–				SPECIAL	625 98000	7	EACH	LIGHTING MISC.: REMOVAL OF EXISTING TRANSFORMER AND TRANSCLOSURE
4	–	–	–				SPECIAL	625 98000	4	EACH	LIGHTING MISC.: REMOVAL AND DISPOSAL OF EXISTING PCB AND PCB CONTAMINATED TRANSFORMER
9	–	–	–				SPECIAL	625 98000	9	EACH	LIGHTING MISC.: REMOVAL OF TRANSFORMER FOUNDATION
2	–	–	–				SPECIAL	625 98000	2	EACH	LIGHTING MISC.: REMOVAL OF EXISTING PRIMARY SERVICE EQUIPMENT
–	27	14	16				SPECIAL	625 98000	57	EACH	LIGHTING MISC.: CLEAN HANDHOLES, JUNCTION BOXES, AND PULL BOXES
–	1	–	–				SPECIAL	625 98000	1	EACH	LIGHTING MISC.: REMOVAL OF PEDESTRIAN FLOODLIGHT
–	4	–	–				SPECIAL	625 98000	4	EACH	LIGHTING MISC.: UNDERPASS LUMINAIRE REMOVED
303	325	72	738				SPECIAL	625 98100	1438	LIN. FT.	LIGHTING MISC.: REMOVAL OF EXISTING CABLE AND CONDUIT
6368	2170	3117	1694				SPECIAL	625 98100	13,349	LIN. FT.	LIGHTING MISC.: REMOVAL OF EXISTING CABLE AND ABANDON CONDUIT IN PLACE
–	920	–	–				SPECIAL	625 98100	920	LIN. FT.	LIGHTING MISC.: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN CONDUIT
–	4394	4247	2090				SPECIAL	625 98100	10,731	LIN. FT.	LIGHTING MISC.: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN ASBESTOS CEMENT CONDUIT
1	3	4	2				SPECIAL	631 94420	10	EACH	REMOVAL MISC.: REMOVAL OF PHOTO ELECTRIC CONTROL
3	3	4	2				SPECIAL	625 40020	12	EACH	SPECIAL – DISCONNECT EXISTING CIRCUIT

LIGHTING GENERAL SUMMARY IS CONTINUED ON SHEET 128.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO STANDARD DRAWING HL-30.11 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 "120 LINEAR FEET OF ITEM 603, 4" CONDUIT TYPE E" IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

ITEM SPECIAL – PULL BOX, MISC.: CITY OF CINCINNATI, PULL BOX, 713.08, 12x18 TYPE A

THIS ITEM OF WORK SHALL CONSIST OF SUPPLYING AND INSTALLING A PULL BOX AS SHOWN ON SHEET

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM-SPECIAL – "PULL BOX MISC.: CITY OF CINCINNATI, PULL BOX, 713.08, 12x18 TYPE A".

CALC. BY		HAM-50-19.36	OHIO
DATE			F.H.W.A. REGION 5
CHKD. BY			
DATE			

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DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	SPECIAL: REMOVAL OF EXISTING CABLE AND CONDUIT (LIN. FT.)	SPECIAL: REMOVAL OF EXISTING CABLE AND ABANDON CONDUIT IN PLACE (LIN. FT.)	SPECIAL: ABANDON EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES IN PLACE (EACH)	SPECIAL: REMOVAL OF EXISTING TRANSFORMER MOUNTED ON BRIDGE (EACH)	SPECIAL: REMOVAL OF EXISTING TRANSFORMER AND TRANSCLOSURE (EACH)	SPECIAL: REMOVAL AND DISPOSAL OF EXISTING PCB AND PCB CONTAMINATED TRANSFORMER (EACH)	SPECIAL: REMOVAL OF TRANSFORMER FOUNDATION (EACH)	SPECIAL: REMOVAL OF EXISTING PRIMARY SERVICE EQUIPMENT (EACH)	SPECIAL:	SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN CONDUIT (LIN. FT.)	SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN ASBESTOS CEMENT CONDUIT (LIN. FT.)	SPECIAL: CLEAN HANDHOLES, JUNCTION BOXES AND PULL BOXES (EACH)	202: LIGHT POLE REMOVED, AS PER PLAN (EACH)	202: LIGHT POLE FOUNDATION REMOVED, AS PER PLAN (EACH)	202: LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN (EACH)	SPECIAL: REMOVAL OF PEDESTRIAN FLOODLIGHTS (EACH)	SPECIAL: UNDERPASS LUMINAIRE REMOVED (EACH)	SPECIAL: REMOVAL OF PHOTO ELECTRIC CONTROL (EACH)	SPECIAL: DISCONNECT EXISTING CIRCUIT (EACH)												
				EVANS ST. & SMITH ST.			166	2																															
D-1	PRI	2+66		TRANSFORMER #1	WB				1																														
D-1	PRI	2+66	2+75		WB/EB	116		2																														
D-1	PRI	2+75	4+13		EB/VA		138	1																														
D-1	PRI	4+13	6+14		VA		201	1																														
D-1	PRI	6+14	8+14		VA		200	1																														
D-1	PRI	8+14	10+17		VA/EB		193	1																														
D-1	PRI	10+17	12+04		EB		107	1																														
D-2	PRI	12+04	12+04		EB		75	1																														
D-2	PRI	12+04	12+10	TRANSFORMER #2 & 3	EB/CL		115	1		2		2																										
D-2	PRI	12+04	13+83		EB		171	1																														
D-2	PRI	13+82	15+89		EB		210	1																														
D-2	PRI	15+89	18+00		EB		210	1																														
D-2	PRI	18+00	20+10		EB		210	1																														
D-2	PRI	20+10	19+80		EB/TA		150	1																										1				
D-2	PRI	19+80	23+80	PRIMARY SERVICE	TA		202	1					1																									
D-2	PRI	19+80	21+40		TA/EB		160	1																														
D-2	PRI	21+40	23+00		EB/WB		202	1																														
D-3	PRI	23+00	25+30		WB		230	1																														
D-3	PRI	25+30	27+60		WB/A		230	1																														
D-3	PRI	27+60	27+75		A		45																															
D-3	PRI	27+75		TRANSFORMER #4 & 5	A					1	1	2																						1					
D-6	PRI	19+80		PRIMARY SERVICE	S(N)			1					1																									
D-6	PRI	19+80	18+70		S(N)		120	1																														
D-6	PRI	18+70	33+50		S(N)/FB		177	1																														
D-6	PRI	33+50	32+00		FB		198	1																														
D-6	PRI	32+00	31+88		FB		12	1																														
D-6	PRI	31+88		TRANSFORMER #6	FB					1		1																											
D-6	PRI	31+88	31+50		FB		86	1																														
D-6	PRI	31+50	29+25		FB		207	1																														
D-6	PRI	29+25	39+00		FB/EB		30																															
D-6	PRI	39+00		TRANSFORMER #7	EB					1	1	1																											
D-6	PRI	39+00	39+29		EB		29	1																														
D-6	PRI	39+29	19+15		EB/FM	30	7	1																														
D-6	PRI	19+15	39+28		FM/WB		166	1																														
D-6	PRI	20+81	23+00		FM		219	1																														
D-6	PRI	23+00	24+92		FM		192	1																														
D-6	PRI	24+92	24+92		FM		45																															
D-6	PRI	24+92		TRANSFORMER #8	FM					1	1	1																											
D-3	PRI	39+28	40+55		WB		132	2																														
D-4	PRI	40+55	42+00		WB		145	1																														
D-4	PRI	42+00	44+00		WB		200	1																														
D-4	PRI	44+00	46+00		WB		200	1																														
D-4	PRI	46+00	47+95		WB		195	1																														
D-4	PRI	47+95	48+15		WB	30	35																															
D-4	PRI	48+15		TRANSFORMER #9 & 10	WB					1	1	2																											
D-1	CIR1	2+66	2+55		WB/VA	127																												1	1			
D-1	CIR1	2+55	1+91	L1-1	VA		64	2												1		1															
D-1	CIR1	2+55	3+26	L1-3	VA		71	1												1		1															
D-1	CIR1	3+26	4+67	L1-4	VA		141	1												1		1															
D-1	CIR1	4+67	6+18	L1-5	VA		151	1												1		1															
D-1	CIR1	6+18	7+78	L1-6	VA		160	1												1		1															
D-1	CIR1	7+78	9+49	L1-7	VA		171	1												1		1															
				TOTALS		303	6202	44	1	7	4	9	2					6		6			1	3														

CALC. BY
DATE
CHKD. BY
DATE

HAM-50-19.36

OHIO
F.H.W.A. REGION 5

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DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	SPECIAL: REMOVAL OF EXISTING CABLE AND CONDUIT (LIN. FT.)	SPECIAL: REMOVAL OF EXISTING CABLE AND ABANDON CONDUIT IN PLACE (LIN. FT.)	SPECIAL: ABANDON EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES IN PLACE (EACH)	SPECIAL: REMOVAL OF EXISTING TRANSFORMER MOUNTED ON BRIDGE (EACH)	SPECIAL: REMOVAL OF EXISTING TRANSFORMER AND TRANSCLOSURE (EACH)	SPECIAL: REMOVAL AND DISPOSAL OF EXISTING PCB AND PCB CONTAMINATED TRANSFORMER (EACH)	SPECIAL: REMOVAL OF TRANSFORMER FOUNDATION (EACH)	SPECIAL: REMOVAL OF EXISTING PRIMARY SERVICE EQUIPMENT (EACH)	SPECIAL: (EACH)	SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN CONDUIT (LIN. FT.)	SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN ASBESTOS CEMENT CONDUIT (LIN. FT.)	SPECIAL: CLEAN HANDHOLES, JUNCTION BOXES AND PULL BOXES (EACH)	202: LIGHT POLE REMOVED, AS PER PLAN (EACH)	202: LIGHT POLE FOUNDATION REMOVED, AS PER PLAN (EACH)	202: LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN (EACH)	SPECIAL: REMOVAL OF PEDESTRIAN FLOODLIGHTS (EACH)	SPECIAL: UNDERPASS LUMINAIRE REMOVED (EACH)	SPECIAL: REMOVAL OF PHOTO ELECTRIC CONTROL (EACH)	SPECIAL: DISCONNECT EXISTING CIRCUIT (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)	SPECIAL: (EACH)
D-1	CIR2	2+10	3+76	L2-1	WB		166	2										1		1																
D-1	CIR2	3+76	5+56	L2-2	WB		180	1										1		1																
D-1	CIR2	5+56	7+18	L2-3	WB		162	1										1		1																
D-1	CIR2	7+18	8+97	L2-4	WB		179	1										1		1																
D-1	CIR2	8+97	10+76	L2-5	WB		179	2										1		1																
D-2	CIR2	10+76	12+59	L2-6	WB		238	2										1		1																
D-2	CIR2	12+59	14+40	L2-7	A		191	2										1		1		1	1													
D-2	CIR2	14+40	16+20	L2-8	A												180	1		1																
D-2	CIR2	14+40	17+80	L2-9	A												160	1		1																
D-2	CIR2	17+80	19+20	L2-10	A												140	1		1																
D-2	CIR2	19+20	20+15	L2-12	A												180	1		1																
D-2	CIR2	20+15	21+00	L2-13	A													1		1																
D-2	CIR3	10+45	11+40		EB		95	1																												
D-2	CIR3	11+40	13+10	L3-1	EB		285	3										1		1		1	1													
D-2	CIR3	13+10	14+70	L3-2	B		160	1										1		1																
D-2	CIR3	14+70	16+10	L3-3	B		140	1										1		1																
D-2	CIR3	16+10	17+50	L3-4	B		40										100	1	1																	
D-2	CIR3	17+50	19+10	L3-5	B												160	1	1																	
D-2	CIR3	19+10	18+35EB	L3-6	B												68		1																	
D-2	CIR3	18+35	20+10	L3-8	EB												175		1																	
D-2	CIR3	21+90	21+90	L3-10	EB												180		1			1														
D-2	CIR3	21+90		L3-11	EB														1																	
D-2	CIR3	12+13	13+35														125																			
D-2	CIR3	13+35	15+00	L3-12													165		1																	
D-2	CIR3	15+00	16+90	L3-13													190		1																	
D-2	CIR3	16+90	18+20	L3-14													130		1																	
D-2	CIR3	16+20	19+60	L3-15													140		1																	
D-2	CIR3	19+60	20+50	L3-16	B		22										97	1	1																	
D-2	CIR3		20+50	L3-17	EB														1	1																
D-2	CIR3	20+90	20+70	L3-18	B		13												1	1																
D-2	CIR3	20+90	21+08	L3-19	ELB												88		1																	
D-2	CIR3	20+90	22+30	L3-20	B												159	1	1																	
D-2	CIR3	19+70	22+00	L3-21	TA												88		1																	
D-2	CIR4	22+80	24+90	L4-1	A												210	1	1																	
D-2	CIR4	24+90	26+40	L4-2	A												150		1																	
D-3	CIR4	26+40	27+95	L4-3	A												155		1																	
D-3	CIR4	27+95	27+75	L4-4	A												59	1	1																	
D-3	CIR4	23+90	25+50	L4-5	WB	160													1	1																
D-3	CIR4	25+50	27+15	L4-6	WB	165												1	1	1																
D-3	CIR4	27+15	28+65	L4-7	WB											199	45	5	1	1		2														
D-3	CIR4	28+65	30+15	L4-10	WB											45	108	2	1				1	1												
D-3	CIR4	30+15	31+65	L4-11	WB											58	90	1	1																	
D-3	CIR4	31+65	33+15	L4-12	FA											150		1	1																	
D-3	CIR4	33+15	34+65	L4-13	FA											20	130		1																	
D-3	CIR4		34+65	L4-14	FA														1																	
D-2	CIR5	23+36	24+80	L5-1	EB												144	3	1																	
D-2	CIR5	24+80	26+10	L5-2	EB												130		1																	
D-3	CIR5	26+10	27+92	L5-3	EB												182		1																	
D-3	CIR5	27+92	29+75	L5-4	EB		120									260	27	5	1			2														
D-3	CIR5	29+75	31+50	L5-7	CD											38	137		1																	
D-3	CIR5	31+50	33+00	L5-8	CD											150		1	1																	
D-3	CIR5	33+00		L5-9	CD													1	1																	
D-2	CIR5	24+00	25+75	L5-10	B														1																	
D-3	CIR5	25+75	27+30	L5-11	B														1																	
D-3	CIR5	27+30	28+85	L5-12	B														1																	
D-3	CIR5	28+85	32+55	L5-13	B												107	1	1																	
D-3	CIR5	32+55	30+60	L5-14	A												195		1																	
				TOTALS		325	2170	17								920	4394	27	55	5	55	2	4	3	3											

SHEET DS-3

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	SPECIAL: REMOVAL OF EXISTING CABLE AND CONDUIT	SPECIAL: REMOVAL OF EXISTING CABLE AND ABANDON CONDUIT IN PLACE	SPECIAL: ABANDON EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES IN PLACE	SPECIAL: REMOVAL OF EXISTING TRANSFORMER MOUNTED ON BRIDGE	SPECIAL: REMOVAL OF EXISTING TRANSFORMER AND TRANSCLOSURE	SPECIAL: REMOVAL AND DISPOSAL OF EXISTING PCB AND PCB CONTAMINATED TRANSFORMER	SPECIAL: REMOVAL OF TRANSFORMER FOUNDATION	SPECIAL: REMOVAL OF EXISTING PRIMARY SERVICE EQUIPMENT	SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN CONDUIT	SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN ASBESTOS CEMENT CONDUIT	SPECIAL: CLEAN HANDHOLES, JUNCTION BOXES AND PULL BOXES	202: LIGHT POLE REMOVED, AS PER PLAN	202: LIGHT POLE FOUNDATION REMOVED, AS PER PLAN	202: LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN	SPECIAL: REMOVAL OF PEDESTRIAN FLOODLIGHTS	SPECIAL: UNDERPASS LUMINAIRE REMOVED	SPECIAL: REMOVAL OF PHOTO ELECTRIC CONTROL	SPECIAL: DISCONNECT EXISTING CIRCUIT
						LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
D-3	CIR5	30+60	28+25	L5-15	A		235	2									1		1			1	1
D-3	CIR5	30+60	31+40	L5-16	A										130	1	1		1				
D-3	CIR5	30+60	11+00	L5-17	S										105		1		1				
D-3	CIR5	11+00	12+80	L5-18	S		180										1		1				
D-3	CIR5	12+80	14+70	L5-19	S										190		1		1				
D-3	CIR5	14+70	16+00	L5-20	S										107		1		1				
D-6	CIR6	31+88FB	15+75		FM		23								100	1							
D-6	CIR6	15+75	14+20	L6-1	FM										216	1	1		1				
D-6	CIR6	14+20		L6-2	FM												1		1				
D-6	CIR6	31+88	32+90		FB		130																
D-6	CIR6	32+90	34+50	L6-3	FB												1		1			1	1
D-6	CIR6	34+50	35+90	L6-4	FB												1		1				
D-6	CIR6	35+90		L6-5	FB												1		1				
D-6	CIR6	34+35	18+20	L6-6	S(N)		137								40	1	1		1				
D-6	CIR6	18+20	20+00	L6-7	S(N)										180		1		1				
D-6	CIR6	31+88	30+20	L6-8	FB										207	1	1		1				
D-6	CIR6	31+35	31+50	L6-10 & L6-11	FM										45		1		2				
D-6	CIR6	31+35	17+25	L6-12 & L6-13	FM										138	1	1		2				
D-6	CIR6	44+70	45+00	L6-15	FC										89		1		1				
D-6	CIR6	44+00	43+20	L6-16	FC												1		1				
D-6	CIR6	43+20	41+70	L6-17	FC												1		1				
D-3	CIR7	39+00	38+00		EB		156	2															
D-3	CIR7	38+00	36+30	L7-1 & L7-2	EB										170		1		2			1	1
D-3	CIR7	36+30	34+52	L7-3 & L7-4	EB										178	1	1		2				
D-3	CIR7	34+52	39+90	L7-6	EB		217	1									1		1				
D-3	CIR7	39+90	41+52	L7-7 & L7-8	EB		177	3									1		2				
D-4	CIR7	41+52	43+38	L7-10	CD		186	1								1	1		1				
D-4	CIR7		43+38	L7-11	CD											1	1		1				
D-3	CIR8	39+45	38+30	L8-1	K		50								115	1	1		1				
D-4	CIR8	39+45	41+70		K										225	1							
D-4	CIR8	41+70	44+40	L8-2	K										270		1		1				
D-4	CIR8	44+40	46+95	L8-3	K										255		1		1				
D-4	CIR8	46+95		L8-4	K												1		1				
D-4	CIR8	40+35	40+20	L8-5	K		67										1		1				
D-4	CIR8	40+20	43+00	L8-6	K										280		1		1				
D-4	CIR8	43+00	45+70	L8-7	K										270		1		1				
D-4	CIR8	24+92	35+75	L8-8	F		200	1									1		1				
D-6	CIR8	25+00	24+32	L8-12	F		68	1									1		1			1	1
D-6	CIR8	24+32	39+50	L8-14	FA	72	245	4							4		1		1				
D-6	CIR8	38+98	37+89	L8-15	FA		109										1		1				
D-6	CIR8	22+64	22+16	L8-16	F		48	1									1		1				
D-6	CIR8	22+16	20+99	L8-17	F		188	2									1		1				
D-6	CIR8	20+99	19+63	L8-18	F		132	1									1		1				
D-3	CIR8	20+99	38+00	L8-19	WB		170	1									1		1				
D-3	CIR8	38+00	36+39	L8-20	WB										161	1	1		1				
D-3	CIR8	36+39	36+20	L8-21	WB										50		1		1				
D-3	CIR8	39+40	39+80	L8-22	WB		40										1		1				
D-4	CIR8	39+80	41+59	L8-23	WB		109	2							70		1		1				
D-4	CIR8	41+59	43+38	L8-24	WB		179	1									1		1				
D-4	CIR9	48+15	11+20		L		71																
D-4	CIR9	11+20	12+20	L9-1	L										308	2	1		1				
D-4	CIR9	12+20	49+15	L9-2 & L9-3	L										230		1		2				
D-4	CIR9	49+15	13+40	L9-6	LA										114		1		1				
D-4	CIR9		13+40	L9-7	L												1		1				
D-4	CIR9	49+15	50+60	L9-8	LA												1		1				
D-4	CIR9	50+60	52+05	L9-9	LA												1		1				
TOTALS						72	3117	21							4247	14	51		57			4	4

DEMOLITION SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	SPECIAL: REMOVAL OF EXISTING CABLE AND CONDUIT (LIN. FT.)	SPECIAL: REMOVAL OF EXISTING CABLE AND ABANDON CONDUIT IN PLACE (LIN. FT.)	SPECIAL: ABANDON EXISTING HANDHOLES, JUNCTION BOXES AND PULL BOXES IN PLACE (EACH)	SPECIAL: REMOVAL OF EXISTING TRANSFORMER MOUNTED ON BRIDGE (EACH)	SPECIAL: REMOVAL OF EXISTING TRANSFORMER AND TRANSCLOSURE (EACH)	SPECIAL: REMOVAL AND DISPOSAL OF EXISTING PCB AND PCB CONTAMINATED TRANSFORMER (EACH)	SPECIAL: REMOVAL OF TRANSFORMER FOUNDATION (EACH)	SPECIAL: REMOVAL OF EXISTING PRIMARY SERVICE EQUIPMENT (EACH)		SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN CONDUIT (LIN. FT.)	SPECIAL: REMOVAL OF EXISTING WIRES FROM CONDUIT AND CLEAN ASBESTOS CEMENT CONDUIT (LIN. FT.)	SPECIAL: CLEAN HANDHOLES, JUNCTION BOXES AND PULL BOXES (EACH)	202: LIGHT POLE REMOVED, AS PER PLAN (EACH)	202: LIGHT POLE FOUNDATION REMOVED, AS PER PLAN (EACH)	202: LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN (EACH)	SPECIAL: REMOVAL OF PEDESTRIAN FLOODLIGHTS (EACH)	SPECIAL: UNDERPASS LUMINAIRE REMOVED (EACH)	SPECIAL: REMOVAL OF PHOTO ELECTRIC CONTROL (EACH)	SPECIAL: DISCONNECT EXISTING CIRCUIT (EACH)
D-4	CIR9	48+15	46+93		WB		186	2																
D-4	CIR9	46+93	45+11	L9-13	WB		182												1		1			1	1
D-4	CIR9	45+11		L9-14	WB														1		1				
D-4	CIR9	47+93	48+67		WB		74	4																	
D-4	CIR9	48+67	50+50	L9-15	WB	143	43	1											1		1				
D-4	CIR9	50+50	52+20	L9-16	WB	170													1	1	1				
D-4	CIR9	52+20	54+00	L9-17	WB	235													1	1	1				
D-4	CIR9	54+00	53+50	L9-18	LA			1											1	1	1				
D-4	CIR9	53+50		L9-20	LA														1		1				
D-4	CIR9	54+30	54+95	L9-21	LA														1		1				
D-5	CIR9	54+95	56+45	L9-22	LA														1		1				
D-4	CIR9	50+50	52+10		EB		200	1																	
D-4	CIR9	52+10	50+20	L9-23	EB	190											190		1	1	1				
D-4	CIR9	50+20		L9-24	EB												20		1	1	1				
D-4	CIR9	52+10	52+95		LB		102																		
D-4	CIR9	52+95	54+80	L9-25	LB		185												1		1				
D-4	CIR9	54+80	56+30	L9-26	LB														1		1				
D-5	CIR9		56+30	L9-27	LB														1		1				
D-4	CIR10	48+15	48+44		EB		155	3																	
D-4	CIR10	48+44	46+68	L10-1	EB		121	3											1		1			1	1
D-4	CIR10	46+68	45+08	L10-5	EB		160	1											1		1				
D-4	CIR10	45+08		L10-6	EB														1		1				
D-4	CIR10	9+70	9+10		L		85										20	1							
D-4	CIR10	9+10		L10-7	L														1		1				
D-4	CIR10	8+90	8+00		L												175	1							
D-4	CIR10		8+00	L10-9	L																				
D-4	CIR10	8+90	48+05		L												95								
D-4	CIR10		48+05	L10-8	L														1		1				
D-4	CIR10	8+90	49+40		L												225	2							
D-4	CIR10	49+40	51+20	L10-11	L												180		1		1				
D-4	CIR10	51+20	51+95	L10-12	L												75	1	1		1				
D-5		57+90	57+97		EB												160	2	1		1				
D-5		57+97	59+00		EB																				
D-5		59+00	59+50		EB			1											1		1				
D-5		59+50	61+00		EB												160	1	1		1				
D-5		61+00	62+50		EB			1											1		1				
D-5		62+50	64+00		EB		50	3											1		1				
D-5		64+00	65+76		EB																				
D-5		64+00	64+12		EB			1									70	1	1		1				
D-5		64+12	65+70		EB			3											1		1				
D-5		65+70	65+70		EB		45	1																	
D-5		65+70	65+66		WB		94											1	1		1				
D-5		65+66	64+11		WB			4											1		1				
D-5		64+11	62+60		WB			1											1		1				
D-5		62+60	61+04		WB			2											1		1				
D-5		61+04	60+60		WB												44	1	1		1				
D-5		60+60	59+51		WB			1											1		1				
D-5		59+51	58+00		WB													1	1		1				
D-5		64+46	64+54		WB		63	1										1	2		2				
D-5		64+54	63+04		WB												156	1	1		1				
D-5		63+04	61+53		WB												150	1	1		1				
D-5		61+53	60+07		WB												150	1	1		1				
D-5		60+07	57+95		WB												220								
				TOTALS		738	1694	35									2090	16	40	5	40			2	2

LIGHTING GENERAL SUMMARY - INSTALLATION

SHEET NUMBER					SUBTOTALS		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
ES-2	ES-3	ES-4	ES-5	ES-6	DS-1						
74	62	54	72	44			625	00500	306	EACH	CONNECTOR KIT, TYPE II
15	9	36	12	9			625	01004	81	EACH	CONNECTOR KIT, TYPE VII B
42	81	63	72	33			625	01500	291	EACH	CABLE SPLICING KIT
31	15	13	23	9			625	05200	91	EACH	LIGHT POLE DESIGN A10B40
4	16	10	12	13			625	05300	55	EACH	LIGHT POLE DESIGN A12B40
1	–	4	–	–			625	05720	5	EACH	LIGHT POLE DESIGN A12BB40
1	–	–	1	–			625	10500	2	EACH	LIGHT POLE, MISC.: LIGHT POLE DESIGN A10BB40
2	–	–	–	–			625	10500	2	EACH	LIGHT POLE MISC.: LIGHT POLE, DESIGN A12B6B40
1	7	7	11	10			625	14100	36	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP
2688	–	–	705	723			625	23200	4116	LIN. FT.	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE
1281	–	–	–	900			625	23300	2181	LIN. FT.	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE
15,906	18,888	16,526	21,246	9783			625	23302	82,349	LIN. FT.	NO. 6 AWG 5000 VOLT DISTRIBUTION CABLE
1335	–	–	–	–			625	23308	1335	LIN. FT.	DISTRIBUTION CABLE, MISC.: NO. 2/0 AWG 5000 VOLT DISTRIBUTION CABLE
3283	2761	2501	3113	1966			625	23400	13,624	LIN. FT.	NO. 10 AWG POLE AND BRACKET CABLE
					120		603	06400	120	LIN.FT.	4" CONDUIT, TYPE E
–	618	110	200	648			625	25401	1576	LIN. FT.	CONDUIT, 2", 713.04, AS PER PLAN
2359	–	952	1717	–			625	25403	5038	LIN. FT.	CONDUIT, 2", 713.07, AS PER PLAN
975	1694	1545	2555	2136			625	25802	8905	LIN. FT.	CONDUIT, CONCRETE ENCASED, SIZE: 2", 713.07
–	–	–	130	40			625	25900	170	LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 3"
39	31	31	37	22			625	27600	160	EACH	LUMINAIRE, STYLE B, TYPE II, 250WATT HIGH PRESSURE SODIUM, 713.11, 240 VOLT
–	4	–	6				625	27500	10	EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13
975	1534	1545	2555	2136			625	29002	8745	LIN. FT.	TRENCH 24" DEEP
19	5	11	12	3			625	29900	50	EACH	JUNCTION BOX
6	5	8	12	7			SPECIAL	625 31600	36	EACH	PULL BOX MISC.: CITY OF CINCINNATI PULL BOX 713.08 12"x18", TYPE A
1	2	2	2	1			625	34000	8	EACH	POWER SERVICE
–	2	–	1	–			625	37101	3	EACH	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN
–	–	–	–	1			625	98000	1	EACH	LIGHTING MISC: LOOP EXISTING SERIES CIRCUIT AT EXISTING LIGHT POLE BASE
							SPECIAL	625 40000	LUMP		MAINTAIN EXISTING LIGHTING

LIGHTING GENERAL SUMMARY IS CONTINUED FROM SHEET 123.

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LIGHTING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500 EACH	CONNECTOR KIT TYPE VII B 625 01004 EACH	CABLE SPLICING KIT 625 01500 EACH	LIGHT POLE DESIGN A10B40 625 05200 EACH	LIGHT POLE DESIGN A12B40 625 05300 EACH	LIGHT POLE DESIGN A10BB40 625 10500 EACH	LIGHT POLE DESIGN A12BB40 625 05720 EACH	LIGHT POLE FOUNDATION 24" X 8' DEEP 625 14100 EACH	#2/0 AWG 5000 VOLT DISTRIBUTION CABLE 625 23308 LIN FT	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200 LIN. FT.	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300 LIN. FT.	#6 AWG 5000 VOLT DISTRIBUTION CABLE 625 23302 LIN. FT.	#10 AWG POLE AND BRACKET CABLE 625 23400 LIN. FT.	CONDUIT, 2" 713.04 - AS PER PLAN 625 25401 LIN. FT.	CONDUIT, 2" 713.07, AS PER PLAN 625 25403 LIN. FT.	CONDUIT, CONCRETE ENCASED, SIZE: 2", 713.07 625 25802 LIN. FT.	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900 LIN. FT.	LUMINAIRE STYLE B, TYPE II 250W HPS, 713.11, 240V 625 26400 EACH	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500 EACH	TRENCH 24" DEEP 625 29003 LIN. FT.	JUNCTION BOX 625 29900 EACH	PULL BOX, CITY STAND, ES-2-1, 12"x18", TYPE A 625 31600 EACH		POWER SERVICE 625 34000 EACH	SERVICE TO UNDERPASS LIGHTING AS PER PLAN 625 37101 EACH	LIGHT POLE MISC.: LIGHT POLE DESIGN A12BB40 EACH	LOOP EXIST SERIES CIRCUIT AT EXISTING LIGHT POLE BASE ITEM SPECIAL EACH
E-1	CIR1	1+91.25 VA	3+26.10 VA	1-1-1	EB	2			1								435	87		135			1		1							
E-1	CIR1	3+26.10 VA	4+67.77 VA	1-1-2	EB	2			1								456	87		142			1		1							
E-1	CIR1	4+67.77 VA	6+18.04 VA	1-1-3	EB	2			1								483	87		151			1		1							
E-1	CIR1	6+18.04 VA	7+78.33 VA	1-1-4	EB	2			1								513	87		161			1		1							
E-1	CIR1	7+78.33 VA	9+49.67 VA	1-1-5	EB	2			1								546	87		172			1		1							
E-1/E-2	CIR1	9+49.67 VA	10+45 EB	1-1-6	EB	2			1								318	87		96			1		1							
E-2	CIR1	10+45 EB	11+40.42 EB	JB FOR SIGN S1-3	EB		3										318			96					1							
E-2	CIR1	11+40.42 EB	13+10 B	1-1-7	EB	2			1						540			87		170			1		1							
E-2	CIR1	13+10 B	14+70 B	1-1-8	EB	2			1						510			87			160		1	160	1							
E-2	CIR1	14+70 B	15+00 B	1-1-9	EB	2			1						120			87			30		1	30	1							
E-2	CIR1	15+00 B	16+10 B	B1-2 PULL BOX	EB			3							360						110			110		1						
E-2	CIR1	B1-2	B1-1	B1-1 PULL BOX	EB			3							180						50			50		1						
E-2	CIR1	16+10 B	16+10 B	1-1-10	EB	2				1			1				90	91			20		1	20								
E-2	CIR1	16+10 B	16+60 B	B3-3 PULL BOX (S1-4)	EB		3										180				50			50		1						
E-2	CIR1	16+60 B	17+50 B	EXISTING PULL BOX	EB			3									360															
E-2	CIR1	17+50 B	17+80 B	1-1-11	EB	2			1								120	87					1									
E-2	CIR1	17+80 B	19+10 B	1-1-13	EB	2			1								420	87					1									
E-2	CIR1	17+80 B	18+35 EB	EXISTING PULL BOX	EB			3									240															
E-2	CIR1	18+35 EB	20+10 EB	1-1-12	EB	2				1							555	91					1									
E-2	CIR1	20+10 EB	21+90 EB	1-1-14	EB	2						1					570	115					2								1	
E-2	CIR1	21+90 EB	21+90 EB	1-1-15	EB	2				1								91					1									
				END OF CIRCUIT																												
E-1	CIR2	1+28 WB	2+10.22 WB	JB FOR SIGN S2-1	WB		3										279			83					1							
E-1	CIR2	2+10.22 WB	3+76.39 WB	1-2-1	WB	2			1								531	87		167			1		1							
E-1	CIR2	3+76.39 WB	5+56.58 WB	1-2-2	WB	2			1								573	87		181			1		1							
E-1	CIR2	5+56.58 WB	7+18.52 WB	1-2-3	WB	2			1								516	87		162			1		1							
E-1	CIR2	7+18.52 WB	8+97.79 WB	1-2-4	WB	2			1						570			87		180			1		1							
E-1/E-2	CIR2	8+97.79 WB	10+08 WB	1-2-5	WB	2			1						363			87		111			1		1							
E-2	CIR2	10+08 WB	10+76.90 WB	JB FOR SIGN S2-2	WB		3									237				69					1							
E-2	CIR2	10+76.90 WB	12+59.40 WB	1-2-6	WB	2			1							579		87		183			1		1							
E-2	CIR2	12+59.40 WB	13+60 WB	1-2-7	WB	2			1							375		87		100	15		1	15	1							
E-2	CIR2	13+60 WB	14+39 A	B2-3 PULL BOX	WB												270				80			80								
E-2	CIR2	14+39 WB	16+20 A	1-2-8 & B2-4 PULLBOX	WB	2		3	1								603	87			5		1	5								
E-2	CIR2	16+20 A	17+80 A	1-2-9	WB	2			1								510	87					1									
E-2	CIR2	17+80 A	19+20 A	1-2-10	WB	2			1								450	87					1									
E-2	CIR2	19+20 A	20+15 A	1-2-11	WB	2					1						315	107					2								1	
E-2	CIR2	20+15 A	21+00 A	1-2-12 / S2-5	WB	2	3			1							285	91					1									
E-2	CIR2			FEEDER SEGMENT CIR1&2																												
E-2	CIR2	13+60 WB	13+05 A	B2-3	WB			3						270							80			80		1						
E-2	CIR2	13+05 WB	13+05 EB	B2-2 CROSSOVER	WB/EB			3						450							140			140		1						
E-2	CIR2	13+05 EB	14+75 EB	B2-1 TO B1-1	EB			3						570							180			180		1						
E-2	CIR1,2,3	B1-1	CC#1	B2-1 / CC#1	EB			3						45	45	90					5			5				1				
				END OF CIRCUIT																												
E-2	CIR1&3	B1-1	15+00	B1-1 / 1-3-1	EB	2		3	1								300	87			50		1	50								
E-2	CIR1&3	15+00	13+35	1-3-2	EB	2			1								525	87					1									
E-2	CIR1&3	15+00	16+90	1-3-3	EB	2			1								1100	87					1									
E-2	CIR1&3	16+90	18+20	1-3-4	EB	2			1								750	87					1									
E-2	CIR1&3	18+20	19+60	1-3-5	EB	2			1								800	87					1									
E-2	CIR1&3	19+60	20+60	EXISTING PULL BOX	EB			6									600															
E-2	CIR1&3	20+60	20+55 B	1-3-6	EB	2			1								75	87					1									
E-2	CIR1	20+60	20+50 B	1-1-16 (STATE)	EB	2			1								90	87					1									
E-2	CIR1	20+60	21+08 B	1-1-17 (STATE)	EB	2			1								300	87					1									
E-2	CIR1&3	20+60	21+70 B	EXISTING PULL BOX	EB			6									950															
E-2	CIR1	21+70	22+30 B	1-3-7	EB	2			1								300	87					1									
E-2	CIR1	21+70	22+00 TA	1-1-18 (STATE)	EB	2			1								180	87					1									
				END OF CIRCUIT																												
						74	15	39	31	4	1	1	1	1335	2688	1281	15,906	3283		2359	975		39		975	19	6		1		2		

LIGHTING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500	CONNECTOR KIT TYPE VII B 625 01004	CABLE SPLICING KIT 625 01500	LIGHT POLE DESIGN A10B40 625 05200	LIGHT POLE DESIGN A12B40 625 05300	LIGHT POLE DESIGN A10BB40 625 10500	LIGHT POLE DESIGN A12BB40 625 05720	LIGHT POLE FOUNDATION 24" X 8' DEEP 625 14100	#2/0 AWG 5000 VOLT DISTRIBUTION CABLE 625 23308	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300	#6 AWG 5000 VOLT DISTRIBUTION CABLE 625 23302	#10 AWG POLE AND BRACKET CABLE 625 23400	CONDUIT, 2" 713.04 - AS PER PLAN 625 25401	CONDUIT, 2" 713.07, AS PER PLAN 625 25403	CONDUIT, CONCRETE ENCASED, SIZE: 2", 713.07 625 25802	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900	LUMINAIRE STYLE B, TYPE II 250W HPS, 713.11, 240V 625 26400	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500	TRENCH 24" DEEP 625 29003	JUNCTION BOX 625 29900	PULL BOX, CITY STAND, ES-2-1, 12"x18", TYPE A 625 31600		POWER SERVICE 625 34000	SERVICE TO UNDERPASS LIGHTING AS PER PLAN 625 37101	LIGHT POLE MISC.: LIGHT POLE DESIGN A12B6B40	LOOP EXIST SERIES CIRCUIT AT EXISTING LIGHT POLE BASE ITEM SPECIAL
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN FT	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LIN. FT.	EACH	EACH		EACH	EACH	EACH	EACH
E-2	CIR4	23+36.88 EB	24+11	2-4-1 (EXIST PULL BOX)	EB	2		3		1							255	91					1									
E-2	CIR4	24+11	24+80.36	S3-6 (EXIST PULL BOX)	EB		3										240															
E-2/E-3	CIR4	24+80.36 EB	26+10 EB	2-4-2 (EXIST PULL BOX)	EB	2		3		1							420	91					1									
E-3	CIR4	26+10 EB	27+92.40 EB	2-4-3	EB	2				1							955	91			181		1		181							
E-3	CIR4	27+92.40 EB	28+50	2-4-4	EB	2				1							340	91	50		8		1		8							
E-3	CIR6	28+50 EB	28+50 EB	UNDERPASS LTG	EB			9									285		85					2						1		
E-3	CIR4	28+50 EB	28+78 EB	JB FOR SIGN S4-7C	EB		3										120		28							1						
E-3	CIR4	28+78 EB	29+75.76	2-4-5	EB	2				1							390	91	80		30		1		30							
E-3	CIR4	29+75.76 EB	30+90 EB	JB FOR SIGN S4-7	EB		3										378									1						
E-3	CIR4	30+90 EB	31.50 CD	2-4-6	EB	2				1							510	91					1									
E-3	CIR4	31+50 CD	33+00 CD	2-4-7	EB	2				1							480	91					1									
E-3	CIR4&6	26+10 EB	B4-1	SEGMENT FEED	EB			6									1300				240				240		1					
				END OF CIRCUIT																												
E-2/E-3	CIR6	24+00 B	25+75 B	2-6-1	EB	2			1				1				555	87			175		1		175							
E-3	CIR6	25+75 B	27+30 B	2-6-2	EB	2			1				1				495	87			155		1		155							
E-3	CIR6	27+30 B	28+85 B	2-6-3	EB	2			1				1				495	87			155		1		155							
E-3	CIR6	28+85 B	EXIST PULLB	2-6-4	EB	2			1								180	87					1									
E-3	CIR6	EXIST PULLBOX	32+55 A	2-6-5	EB	2		3	1								270	87					1									
E-3	CIR6	32+55 A	30+60 A	EXISTING PULL BOX	EB			3									600															
E-3	CIR6	30+60 A	30+60 A	CROSSOVER	EB			6									150															
E-3	CIR6	EXIST PULLBOX	31+40	2-6-6	EB	2			1								270	87					1									
E-3	CIR6	30+60 A	11+00 S	2-6-8	EB	2			1								420	87					1									
E-3	CIR6	30+60 A	B4-1	2-6-7	EB	2		3	1								240	87			70		1		70		1					
E-3	CIR6	B4-1	CC#2	SEGMENT FEED	EB			6									125				15				15				1			
				END OF CIRCUIT																												
E-2	CIR5	22+80 A	EXIST PULLBOX	3-5-1	WB	2			1								360	87					1									
E-2	CIR5	EXIST PULLBOX	24+90 A	EXIST PULL BOX	WB			3									330															
E-2/E-3	CIR5	24+90 A	26+40 A	3-5-3	WB	2			1								480	87					1									
E-2/E-3	CIR5	26+40 A	27+95 A	3-5-5	WB	2			1								570	87					1									
E-2/E-3	CIR5	27+95 A	27+85 WB	3-5-7	WB	2		9	1								300	87					1									
E-3	CIR5A			SERVICE TO UNDERPASS LTG	WB																									1		
E-2/E-3	CIR5A	27+85 WB	28+45 WB	UNDERPASS LTG	WB			9									300							2								
E-2/E-3	CIR5	27+85 WB	27+15 WB	3-5-6/B5-2	WB	2		3		1			1				270	91			165		1				1					
E-2/E-3	CIR5	27+15 WB	25+50 WB	3-5-4	WB	2				1			1				525	91			168		1		165							
E-2/E-3	CIR5	25+50 WB	23+90 WB	3-5-2	WB	2				1			1				510	91			160		1		160							
E-2/E-3	CIR5&5A	28+45 WB	28+16 WB	3-5-8	WB	2		3		1							150	91					1									
E-2/E-3	CIR5&5A	28+65 WB	30+15 WB	3-5-9	WB	2				1							800	91					1									
E-2/E-3	CIR5&5A	30+15 WB	31+65 WB	3-5-10	WB	2				1							800	91					1									
E-2/E-3	CIR5&5A	31+65 WB	33+15 FA	3-5-11	WB	2		3		1							800	91	20				1			1						
E-2/E-3	CIR5&5A	33+15 WB	34+65 FA	3-5-12	WB	2			1								480	87					1									
E-2/E-3	CIR5&5A	34+65 FA	36+20 FA	3-5-13	WB	2			1				1				495	87	155				1				1					
E-2/E-3	CIR5&5A	36+20 FA	37+89 FA	3-5-16	WB	2		6	1								570	87	180		10		1		10	2						
E-2/E-3	CIR5&5A	36+20 FA	36+39 WB	3-5-14	WB	2				1							180	91					1									
E-2/E-3	CIR5&5A	36+39 WB	38+00 WB	3-5-15	WB	2				1							525	91					1									
				END OF CIRCUIT																							1					
E-2/E-3	CIR5&5A	JUNC BOX	B5-1	SEGMENT FEED	WB			3									120		20		10				10				1			
E-2/E-3	CIR5&5A	B5-1	CC#3	CC#3	WB												850				160				160							
						62	9	81	15	16			7				18,888	2761	618		1694		31	4	1534	5	4		2	2		

CALC. BY		HAM-50-19.36	OHIO
CHKD. BY			F.H.W.A. REGION 5
DATE			

LIGHTING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500	CONNECTOR KIT TYPE VII B 625 01004	CABLE SPLICING KIT 625 01500	LIGHT POLE DESIGN A10B40 625 05200	LIGHT POLE DESIGN A12B40 625 05300	LIGHT POLE DESIGN A10BB40 625 10500	LIGHT POLE DESIGN A12BB40 625 05720	LIGHT POLE FOUNDATION 24" X 8' DEEP 625 14100	#2/0 AWG 5000 VOLT DISTRIBUTION CABLE 625 23308	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300	#6 AWG 5000 VOLT DISTRIBUTION CABLE 625 23302	#10 AWG POLE AND BRACKET CABLE 625 23400	CONDUIT, 2" 713.04 - AS PER PLAN 625 25401	CONDUIT, 2" 713.07, AS PER PLAN 625 25403	CONDUIT, CONCRETE ENCASED, SIZE: 2", 713.07 625 25802	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900	LUMINAIRE STYLE B, TYPE II 250W HPS, 713.11, 240V 625 26400	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500	TRENCH 24" DEEP 625 29003	JUNCTION BOX 625 29900	PULL BOX, CITY STAND. ES-2-1, 12"x18", TYPE A 625 31600		POWER SERVICE 625 34000	SERVICE TO UNDERPASS LIGHTING AS PER PLAN 625 37101	LIGHT POLE MISC.: LIGHT POLE DESIGN A12B6B40	LOOP EXIST SERIES CIRCUIT AT EXISTING LIGHT POLE BASE ITEM SPECIAL
						EACH	EACH	EACH	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.	EACH	EACH	LIN. FT.	EACH	EACH		EACH	EACH	EACH	EACH
E-3	CIR7	20+00 S(N)	18+20 S(E)	4-7-1	EB	2			1									390	87					1									
E-3	CIR7	18+20 S(E)	18+20 S(N)	4-7-2/EXIST PULLBOX	EB	2		3	1									150	87					1									
E-3	CIR7	18+20 S(E)	B7-1	B7-1	EB			3										660				210				210							
E-3	CIR7&8	B7-1	16+00 S(N)	4-7-3	EB	2		3	1									200	87			30		1		30		1					
E-3	CIR7&8	16+00 S(N)	14+70 S	4-7-4	EB	2			1									360	87					1									
E-3	CIR7&8	14+70 S	12+80 S	4-7-5	EB	2			1									600	87					1				1					
				END OF CIRCUIT																													
E-6	CIR7&8	B7-1	B8-1	B8-1	EB			6										300				50				50		1					
E-6	CIR7&8	B8-1	35+90 FB	4-8-1	EB	2			1				1					450	87			80		1		80							
E-6	CIR7&8	35+90 FB	34+50 FB	4-8-2/B8-1A	EB	2		3		1			1					950	91			180		1		180		1					
E-6	CIR7&8	34+50 FB	32+90 FB	4-8-3	EB	2		3		1			1					960	91			150		1		150							
E-6	CIR7&8	32+90 FB	B8-18	B8-18	EB			6										960				150				150		1					
E-6	CIR7	B8-2	15+75	4-7-8/B2-2	EB	2		3		1								360	91					1				1					
E-6	CIR7	15+75	14+20 F	4-7-9	EB	2		3		1								570	91					1									
E-6	CIR7&8	B8-2	EXIST PULLBOX	EXIST PULLBOX	EB			6										450															
E-6	CIR7&8	EXIST PULLBOX	31+50 FB	4-8-4	EB	2						1						150	115					2									
E-6	CIR7	EXIST PULLBOX	30+20 FB	4-7-6	EB	2				1								420	91					1									
E-6	CIR8	EXIST PULLBOX	17+15 F	SIGN S8-15	EB		3	–										120															
E-6	CIR7&8	EXIST PULLBOX	EXIST PULLBOX	EXIST PULLBOX	EB			3										650															
E-6	CIR7	EXIST PULLBOX	17+20 F	4-7-7	EB	2				1			1					90	91			20		1		20							
E-6	CIR8	EXIST PULLBOX	17+25 F	4-8-5	EB	2				1								105	91					1									
E-6	CIR8	EXIST PULLBOX	44+66 FC	SIGN S8-18	EB		3	–										90															
E-6	CIR8	EXIST PULLBOX	16+89 F	SIGN S8-16	EB		3	–										90															
E-6	CIR8	EXIST PULLBOX	45+00 FC(S)	4-8-6	EB	2			1									165	87					1									
E-6	CIR8	EXIST PULLBOX	43+20 FC	4-8-7/B8-16	EB	2	3			1			1					570	91			180		1		180		1					
E-6	CIR8	43+20 FC	41+70 FC	4-8-8	EB	2				1			1					570	91			180		1		180							
E-6	CIR7&8	B8-1B	EXIST PULLBOX	EXIST PULLBOX	EB			6										330				50				50							
E-3	CIR8	16+00 S(N)	34+52.44 CD	4-8-9	EB	2				1								180	91			50		1		50							
E-3	CIR8	34+52.44 CD	EXIST PULLBOX	EXIST PULLBOX	EB			3										210															
E-3	CIR8	EXIST PULLBOX	36+30 EB	4-8-10	EB	2						1						420	115					2									
E-3	CIR8	36+30 EB	38+00 EB	4-8-11	EB	2						1						540	115					2									
E-3	CIR8	38+00 EB	EXIST PULLBOX	EXIST PULLBOX	EB			3										120															
E-3	CIR8	EXIST PULLBOX	38+60 EB	B8-3/S7-8/S7-9	EB		3											90				20				20		1					
E-3	CIR8	38+60 EB	39+90 EB	4-8-12	EB	2						1	1					420	115			130		2		130							
				END OF CIRCUIT																													
E-3	CIR7&8	B7-1		CC#4	FEEDER SEGMENT	EB			6									125				15				15				1			
E-6	CIR9	20+99.12 F	22+65F J BOX	5-9-1	WB	2			1									528	87		166			1			1						
E-6	CIR9	22+65 F	22+70 F	JUNCTION BOX/S9-17	WB		6											45			5						2						
E-6	CIR9	22+70 F	39+50.75 FA	5-9-2	WB	2	3		1									300	87	30	50			1			2						
E-6	CIR9	39+50.75 FA	24+52 FA	JUNCTION BOX	WB		3											360			110						1						
E-6	CIR9	24+52 FA	25+75.24 F	5-9-3	WB	2			1									420	87		127			1			1						
E-6	CIR9	19+63.59 F	22+16.70 F	5-9-6	WB	2			1									795	87		253			1			1						
E-6	CIR9	22+16.70 F	22+41 F	5-9-5/JUNCTION BOX	WB	2	3		1									105	87		25			1			2						
E-6	CIR9	22+41 F	24+32.57F(NB)	5-9-4	WB	2			1									708	87		216			1			1						
E-6	CIR9	22+41 F	22+70	JUNC. BOX TO JUNC. BO	WB		6											270		80													
E-6	CIR9	24+52/B9-1	CC#5	FEEDER SEGMENT	WB			3										180				50				50		1		1			
						54	36	63	13	10		4	7					16,556	2501	110	952	1545		31		1545	11	8		2			

CALC. BY		HAM-50-19.36	OHIO
DATE			F.H.W.A. REGION 5
CHKD. BY			
DATE			

LIGHTING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500	CONNECTOR KIT TYPE VII B 625 01004	CABLE SPLICING KIT 625 01500	LIGHT POLE DESIGN A10B40 625 05200	LIGHT POLE DESIGN A12B40 625 05300	LIGHT POLE DESIGN A10BB40 625 10500	LIGHT POLE DESIGN A12BB40 625 05720	LIGHT POLE FOUNDATION 24" X 8' DEEP 625 14100	#2/0 AWG 5000 VOLT DISTRIBUTION CABLE 625 23308	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300	#6 AWG 5000 VOLT DISTRIBUTION CABLE 625 23302	#10 AWG POLE AND BRACKET CABLE 625 23400	CONDUIT, 2" 713.04 - AS PER PLAN 625 25401	CONDUIT, 2" 713.07, AS PER PLAN 625 25403	CONDUIT, CONCRETE ENCASED, SIZE: 2", 713.07 625 25802	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900	LUMINAIRE STYLE B, TYPE II 250W HPS, 713.11, 240V 625 26400	LUMINAIRE UNDERPASS, 150W HPS, 240V 713.13 625 27500	TRENCH 24" DEEP 625 29003	JUNCTION BOX 625 29900	PULL BOX, CITY STAND, ES-2-1, 12"x18", TYPE A 625 31600		POWER SERVICE 625 34000	SERVICE TO UNDERPASS LIGHTING AS PER PLAN 625 37101	LIGHT POLE MISC.: LIGHT POLE DESIGN A12B6B40	LOOP EXIST SERIES CIRCUIT AT EXISTING LIGHT POLE BASE ITEM SPECIAL
						EACH	EACH	EACH	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.	EACH	EACH	LIN. FT.	EACH	EACH		EACH	EACH	EACH	EACH
E-4	CIR10	41+52.99 CD	43+38.85 CD	6-10-1	BE	2			1									588	91		186						1						
E-4	CIR10	43+38.85 CD	45+08.05 EB	6-10-2	EB	2				1								540	91		170			1			1						
E-4	CIR10	45+08.05 EB	46+68.61 EB	6-10-3	EB	2			1									513	87		161			1			1						
E-4	CIR10	46+68.61 EB	48+44.86 EB	6-10-4	EB	2			1									540	87		170			1			1						
E-4	CIR10&11	46+93 EB	48+44.86 EB	6-10-5	EB	2		3	1															1			1						
E-4	CIR10&11	48+44.86 EB	48+95 EB	B10-2	EB			3										300			30	20				20		1					
E-4	CIR10	48+95	50+20 EB	6-10-6	EB	2				1			1					405	91			125		1		125							
E-4	CIR10	50+20	52+10 EB	6-10-7	EB	2				1			1					600	91			190		1		190							
E-4	CIR10	52+10	53+80 EB	6-10-8	EB	2				1			1					540	91			170		1		170							
E-4	CIR10&11	B10-1	B10-2	FEEDER SEGMENT	EB			6										300				50				50							
E-4	CIR11	47+05	47+95	J-BOX TO J-BOX UNDERPASS	EB		6											270									2						
E-4	CIR11	B10-1	EXIST PULL		EB			3										390				120				120							
E-4	CIR11	EXIST PULL	EXIST PULL		EB			3										570				180				180							
E-4	CIR11	EXIST PULL	48+05 LB	6-11-3	EB	2			1									90	87					1									
E-4	CIR11	EXIST PULL	9+10 L	6-11-2	EB	2			1									330	87					1									
E-4	CIR11	EXIST PULL	8+00 L	6-11-1	EB	2		3	1									600	87					1									
E-4	CIR11	EX PULL 8+95	48+00 EB	UNDERPASS LIGHTING				3										240				70			6	70		1			1		
E-4	CIR12	39+80 WB	40+30 WB	6-12-1	WB	2				1								180	91					1									
E-4	CIR12	40+30 WB	41+59.19 WB	B12-2	WB			3										420			130							1					
E-4	CIR12	41+59.19 WB	43+38.35 WB	6-12-2	WB	2				1								570	91		180			1			1						
E-4	CIR12	43+38.35 WB	45+11.98 WB	6-12-3	WB	2			1									555	87		175			1			1						
E-4	CIR12	45+11.98 WB	46+93.83 WB	6-12-4	WB	2			1									585	87		185			1			1						
E-4	CIR12	46+93.83 WB	48+67.56 WB	6-12-5	WB	2				1								555	91		175			1			1						
E-4	CIR12	48+67.56 WB	49+00 WB	6-12-6	WB	2				1								105	91		25			1			1						
E-4	CIR12	49+00 WB	50+50 WB	B12-1/6-12-7	BW	2		3		1			1					480	91			150		1		150		1					
E-4	CIR12	50+50 WB	52+20 WB	6-12-8	WB	2				1			1					540	91			170		1		170							
E-4	CIR12	52+20 WB	54+00 WB	6-12-9	WB	2				1			1					570	91			180		1		180							
				END OF CIRCUIT																													
E-4	CIR12	B12-1	B10-1	FEEDER SEGMENT	EB/WB			3							630							200				200		1					
E-4	CIR10,11,12	B10-1	CC#6		EB			9							75			150													1		
E-4	CIR13	38+30 K	41+70 K	7-13-1	WB	2		6	1									1110	87					1									
E-4	CIR13	41+70 K	44+40 K	7-13-3	WB	2			1									840	87					1									
E-4	CIR13	44+40 K	45+90 K	7-13-5	WB	2			1									480	87					1									
E-4	CIR13	45+90 K	46+95 K	B13-5/7-13-7	WB	2		3	1									365	87					1				1					
E-4	CIR13	40+20 K	43+00 K	7-13-2	WB	2			1									870	87					1									
E-4	CIR13	43+00 K	45+70 K	7-13-4	WB	2			1									840	87					1									
E-4	CIR13	45+70 K	45+90 K	7-13-6/BB-4	WB	2		3	1									90	87			20		1		20		1					
E-4	CIR13	45+90 K(S)	45+00 K(N)	B13-4 TO B13-5	WB													240			70		70										
E-4	CIR13	45+90 K	47+35 K	B13-4 TO B13-3	WB			3										465				145				145		1					
E-4	CIR13	47+35 K	12+35 L	B13-3 TO B13-2	WB			3										210			60		60					1					
E-4	CIR13	12+35 L	12+20 L	7-13-8	WB	2					1							75	107					2									
E-4	CIR13	12+35 L	12+15 L	EXIST PULLBOX	WB			3										330															
				END OF CIRCUIT																													
E-5	CIR14	56+45 LA	55+55 WB	7-14-6	WB	2			1				1					300	87			90		1		90							
E-5/E-4	CIR14	55+55 WB	54+95 LA	B14-2 FOR S14-11	WB		3											255				75				75		1					
E-4	CIR14	54+95 LA	58+50 LA	7-14-5	WB	2			1				1					465	87			145		1		145							
E-4	CIR14	53+50 LA	52+15 LA	7-14-4	WB	2			1				1					465	87			145		1		145							
E-4	CIR14	52+05 LA	51+90 LA	7-14-3	WB	2			1				1					45	87			15		1		15							
E-4	CIR14	51+90 LA	50+60 LA	B14-1 FOR S14-10	WB		3											420				130				130		1					
E-4	CIR14	50+60 LA	49+15 LA	7-14-2	WB	2			1				1					465	87			145		1		145							
E-4	CIR14	49+15 LA	48+75 LA	7-14-1/EXIST PULLBOX	WB	2		3	1									250	87					1									
E-4	CIR13&14	13+40 L	49+15 LA	7-13-1	WB	2			1									240	87					1									
E-4	CIR13&14	48+75 LA	11+20 L	EXIST PULLBOX/7-13-9	WB	2			1									750	87					1									
E-4	CIR13&14	11+20 L	CC#7	FEEDER SEGMENT	WB			6										150				20				20		1		1			
						72	12	72	23	12	1		11		705			21,246	3200	200	1717	2555	130	37	6	2555	13	12		2	1			

LIGHTING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	CONNECTOR KIT, TYPE II 625 00500	CONNECTOR KIT TYPE VII B 625 01004	CABLE SPLICING KIT 625 01500	LIGHT POLE DESIGN A10B40 625 05200	LIGHT POLE DESIGN A12B40 625 05300	LIGHT POLE DESIGN A10BB40 625 10500	LIGHT POLE DESIGN A12BB40 625 05720	LIGHT POLE FOUNDATION 24" X 8' DEEP 625 14100	#2/0 AWG 5000 VOLT DISTRIBUTION CABLE 625 23308	#4 AWG 5000 VOLT DISTRIBUTION CABLE 625 23200	#2 AWG 5000 VOLT DISTRIBUTION CABLE 625 23300	#6 AWG 5000 VOLT DISTRIBUTION CABLE 625 23302	#10 AWG POLE AND BRACKET CABLE 625 23400	CONDUIT, 2" 713.04 - AS PER PLAN 625 25401	CONDUIT, 2" 713.07, AS PER PLAN 625 25403	CONDUIT, CONCRETE ENCASED, SIZE: 2", 713.07 625 25802	CONDUIT JACKED OR DRILLED UNDER PAVEMENT 625 25900	LUMINAIRE STYLE B, TYPE II 250W HPS, 713.11, 240V 625 26400	LUMINAIRE UNDERPASS 150W HPS, 240V 713.13 625 27500	TRENCH 24" DEEP 625 29003	JUNCTION BOX 625 29900	PULL BOX, CITY STAND. ES-2-1, 12"x18", TYPE A 625 31600		POWER SERVICE 625 34000	SERVICE TO UNDERPASS LIGHTING AS PER PLAN 625 37101	LIGHT POLE MISC.: LIGHT POLE DESIGN A12BB40	LOOP EXIST SERIES CIRCUIT AT EXISTING LIGHT POLE BASE ITEM SPECIAL
						EACH	EACH	EACH	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.	EACH	EACH	LIN. FT.	EACH	EACH		EACH	EACH	EACH	EACH
E-4	CIR15	49+22 LB	49+40 LB	S15-19/EXIST PULLBOX	EB			3										84															
E-4	CIR15	49+40 LB	51+20 LV	8-15-12	EB	2			1									570	87					1									
E-4	CIR15	51+20 LB	51+94 LB	8-15-11	EB	2			1									255	87					1									
E-4	CIR15	51+94 LB	52+95 LB	EXIST PULLBOX	EB			3										303				101				101							
E-4	CIR15	52+95 LB	54+80 LB	8-15-10	EB	2			1				1					585	87			185		1		185							
E-4/E-5	CIR15	54+80 LB	56+30 LB	8-15-9	EB	2				1			1					480	91			150		1		150							
E-5	CIR15	56+30 LB	56+95 EB	8-15-8	EB	2				1			1					225	91			65		1		65							
E-5	CIR15	56+95 EB	58+50 EB	B15-6 FOR S15-12	EB		3											525				165				165		1					
E-5	CIR15	65+74 Q	64+12 Q	8-15-7	EB	2				1			1					516	91			162		1		162							
E-5	CIR15	64+12 Q	64+00 Q	8-15-6/B15-3	EB	2		3		1			1					270	91			40	40	1		40		1					
E-5	CIR15	64+00 Q	63+25 Q	8-15-5	EB	2				1			1					255	91			75		1		75							
E-5	CIR15	63+25 Q	62+50 Q	B15-2 FOR S15-13	EB		3											255				75				75		1					
E-5	CIR15	62+50 EB	61+00 EB	8-15-4	EB	2				1			1					480	91			150		1		150							
E-5	CIR15	64+00 EB	59+50.42 EB	8-15-3	EB	2				1								483	91			151		1		151							
E-5	CIR15	59+50.42 EB	57+97 EB	8-15-2	EB	2			1									492	87	154				1			1						
E-5	CIR15	57+97 EB	57+82 EB	8-15-1	EB	2			1									75	87			15		1		15							
E-5	CIR16	65+66.38-	65+45	8-16-12	WB	2				1			1					93	91			21		1		21							
E-5	CIR16	65+45	64+11	B16-1 FOR S16-14	WB		3											432				134				134		1					
E-5	CIR16	64+11	62+60	8-16-10	WB	2				1			1					483	91			151		1		151							
E-5	CIR16	62+60	61+04	8-16-8	WB	2				1			1					198	91			156		1		156							
E-5	CIR16	61+04	59+51.07	8-16-6	WB	2		3		1								522	91	90				1			1						
E-5	CIR16	59+51.07	58+00	8-16-4	WB	2				1					483				91	151					1								
E-5	CIR16	58+00 WB	58+00 EB	CROSSOVER B16-2 TO B15-5	WB	2		12		1						480			91			150		1		150		2					
				B15-5																													
E-5	CIR16	64+53.93	63+04.77	8-16-11	WB	2			1									480	87					1									
E-5	CIR16	63+04.77	61+53.02	8-16-9	WB	2			1									483	87					1									
E-5	CIR16	61+53.02	60+07.12	8-16-7	WB	2		3	1									468	87	46		100		1		100	1						
E-5	CIR16	60+07.12	58+00	8-16-5	WB	2			1									681	87	207				1									
E-5	CIR15&16	B15-5	B15-1	SEGMENT FEEDER	WB			3							240	240						70				70		1					
E-5	CIR15&16	B15-1	CC#8		WB			3								180	90					20				20				1			
E-5	EXIST.	65+70 S	65+78 S	EXISTING POLE BASE	EB																												1
						44	9	33	9	13			10		723	900	10,083	1966	648		2136	40	22	-	2136	5	7		1			1		

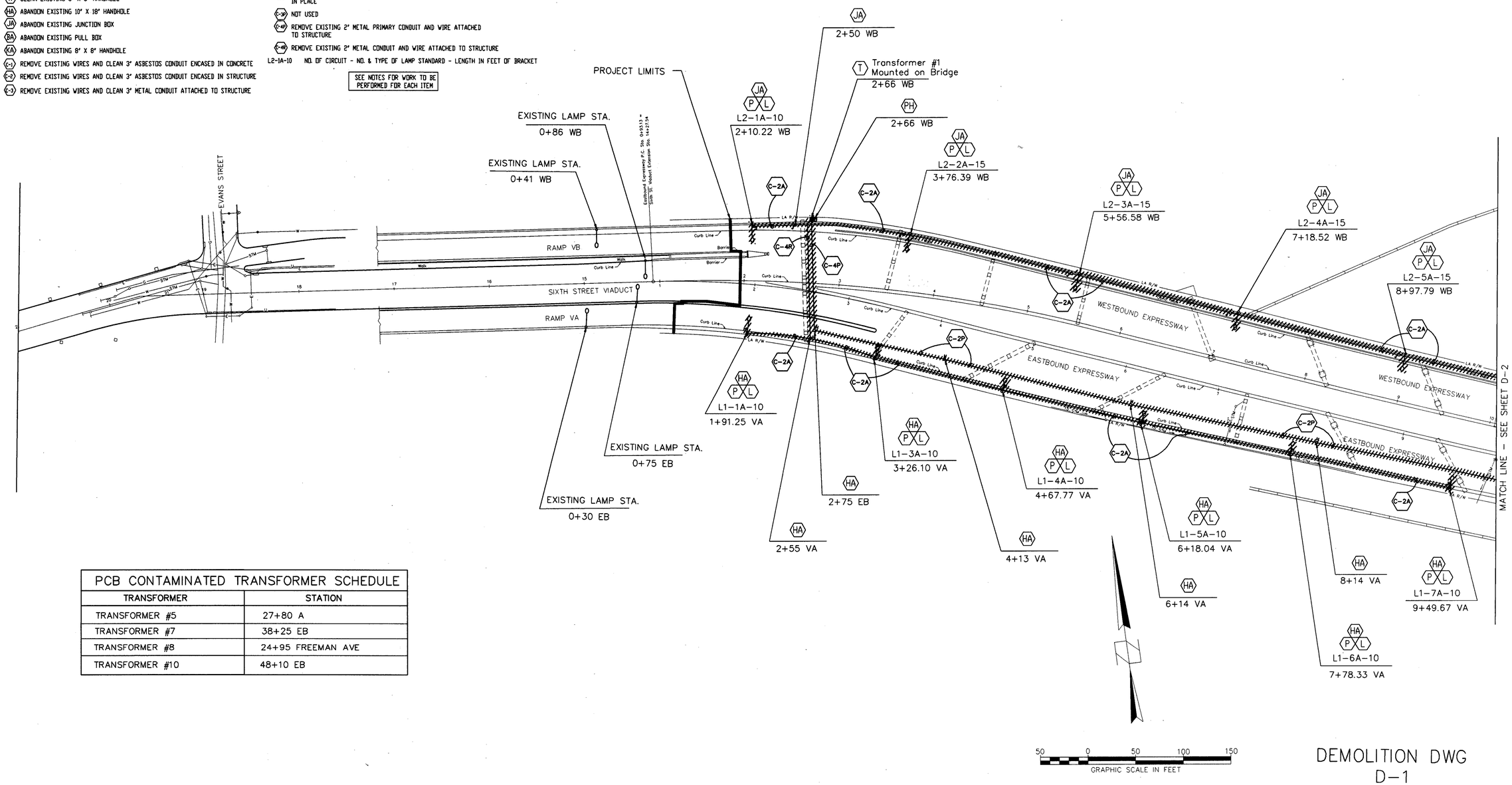
CALC. BY			
DATE	HAM-50-19.36	OHIO	134
CHKD. BY		F.H.W.A. REGION 5	255
DATE			

LEGEND

- (F) REMOVE EXISTING LUMINAIRE, POLE, BRACKET ARM AND FOUNDATION
- (P) REMOVE EXISTING POLE & BRACKET ARM/PROTECT EXISTING FOUNDATION FROM DAMAGE
- (L) REMOVE EXISTING LUMINAIRE
- (T) REMOVE EXISTING TRANSFORMER
- (PH) REMOVE EXISTING PHOTO ELECTRIC CONTROL
- (H) CLEAN EXISTING 10" X 18" HANDHOLE
- (J) CLEAN EXISTING JUNCTION BOX
- (B) CLEAN EXISTING PULL BOX
- (K) CLEAN EXISTING 8" X 8" HANDHOLE
- (HA) ABANDON EXISTING 10" X 18" HANDHOLE
- (JA) ABANDON EXISTING JUNCTION BOX
- (BA) ABANDON EXISTING PULL BOX
- (KA) ABANDON EXISTING 8" X 8" HANDHOLE
- (C-1) REMOVE EXISTING WIRES AND CLEAN 3" ASBESTOS CONDUIT ENCASED IN CONCRETE
- (C-2) REMOVE EXISTING WIRES AND CLEAN 3" ASBESTOS CONDUIT ENCASED IN STRUCTURE
- (C-3) REMOVE EXISTING WIRES AND CLEAN 3" METAL CONDUIT ATTACHED TO STRUCTURE
- (C-4) REMOVE EXISTING PULL BOX
- (C-4A) ABANDON EXISTING 3" ASBESTOS CONDUIT AND WIRE ENCASED IN CONCRETE IN PLACE
- (C-2A) ABANDON EXISTING 3" ASBESTOS CONDUIT AND WIRE ENCASED IN STRUCTURE IN PLACE
- (C-3A) NOT USED
- (C-4A) NOT USED
- (C-5A) ABANDON DIRECT BURIED WIRE IN PLACE
- (C-1P) ABANDON EXISTING 3" ASBESTOS PRIMARY CONDUIT AND WIRE ENCASED IN CONCRETE IN PLACE
- (C-2P) ABANDON EXISTING 3" ASBESTOS PRIMARY CONDUIT AND WIRE ENCASED IN STRUCTURE IN PLACE
- (C-3P) NOT USED
- (C-4P) REMOVE EXISTING 2" METAL PRIMARY CONDUIT AND WIRE ATTACHED TO STRUCTURE
- (C-4R) REMOVE EXISTING 2" METAL CONDUIT AND WIRE ATTACHED TO STRUCTURE

L2-1A-10 NO. OF CIRCUIT - NO. & TYPE OF LAMP STANDARD - LENGTH IN FEET OF BRACKET

SEE NOTES FOR WORK TO BE PERFORMED FOR EACH ITEM



PCB CONTAMINATED TRANSFORMER SCHEDULE	
TRANSFORMER	**STATION**
TRANSFORMER #5	27+80 A
TRANSFORMER #7	38+25 EB
TRANSFORMER #8	24+95 FREEMAN AVE
TRANSFORMER #10	48+10 EB

DEMOLITION DWG
D-1

STA. 1+00 TO STA. 10+00

CALC. BY			
DATE	HAM-50-19.36	OHIO	135
CHKD. BY		F.H.W.A. REGION 5	255
DATE			

MATCH LINE – SEE SHEET D-1

MATCH LINE – SEE SHEET D-3

JA 10+07 WB

P L JA L2–6A–15 10+76.90 WB

T Transformer #2 T Transformer #3 12+10 CL

JA 12+24 WB

PH JA P L I2–7A–15 12+59.40 WB

JA 13+50 A

P L L2–8A–12 14+40 A

P L L2–9A–12 16+20 A

P L L2–10A–12 17+80 A

B 17+80 B

Remove Pole–Mounted Floodlights

P L L2–12A–12 19+20 A

B 20+15 A

Remove Pole–Mounted Floodlights

P L L3–10A–15 20+10 EB

P L L2–13A–10 21+00 A

BA 23+00 WB

P L L4–1A–12 22+80 A

BA 21+40 EB

B 23+90 WB

P L L4–2A–10 24+90 A

P L L4–5A–15 23+90 WB

K 24+07 EB

P L K L5–2A–15 24+80.36 EB

P L K L5–1A–15 23+36.88 EB

F L L5–10A–15 24+00 B

P L L3–20A–10 22+30 B

B 19+70 TA

P L L3–11A–15 21+90 EB

P L L3–21A–10 22+00 TA

BA 23+80 TA

Remove Existing Primary Service

Power Supply Pole

BA 19+80 TA

B 20+90 B

Remove Foundation P L L3–18A–10 20+70 B

P L L3–16A–10 19+60

BA 20+10 EB

Remove Foundation P L L3–17A–10 20+50 B

P L L3–6A–10 19+10 B

P L L3–8A–15 1'8+35 EB

P L L3–15A–10 18+20

BA 18+00 EB

P L L3–5A–10 17+50 B

P L L3–14A–10 16+90

HA P L L3–3A–10 14+70 B

P L L3–4A–10 16+10 B

B 16+50 B

P L L3–13A–10 15+00

BA 15+89 EB

HA P L L3–2A–10 13+10 B

P L L3–12A–10 13+35

BA 13+82 EB

HA 12+13 B

BA 12+13 EB

HA 12+04 EB

BA 12+04 EB

HA 10+07 EB

JA 10+45 EB

HA P L L3–1A–10 11+40.42 EB

50 0 50 100 150

GRAPHIC SCALE IN FEET

RAMP A

RAMP B

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

Flood Gate Storage House

Overhead Pedestrian Bridge

Bridge Pier

Retaining Wall

Access Road to Flood Gate Area

Face of Flood Wall

Curb Line

Guide Rail

Concrete Barrier

EMERGENCY LANE A

TURNAROUND

DEMOLITION DWG D–2

STA. 10+00 TO STA. 25+00

CALC. BY		HAM–50–19.36	OHIO
DATE			F.H.W.A. REGION 5
CHKD. BY			
DATE			

136
255

BA 25+30 A

P L L4–6A–15 25+50 WB

P L L4–2A–10 26+40 A

C-4 26+50 WB

P L L4–7A–15 27+15 WB

BA 27+60 A

T T Transformer #4 #5 27+75 A

B 27+90 A

J 27+85 WB

P L L4–4A–10 27+95 A

J J J 28+46 WB

P L J L4–10A–12 28+65 WB

L L L L 28+46 WB

P L L4–11A–12 30+15 WB

P L J L4–12A–12 31+65 WB

P L J L4–13A–12 33+15 FA

P L L4–14A–12 34+65 FA

P L L8–22A–12 39+80 WB

P L L8–1A–10 38+30 K

B 39+45 K

P L L8–19A–15 38+00 WB

P L K L8–20A–15 36+39 WB

P L L8–21A–10 36+20 FA

BA 39+40 WB

HA 39+28 WB

P L PH L5–4A–15 27+92.40 EB

BA 28+25 EB

J J J 28+48 EB

J 28+35 EB

P L L5–3A–15 26+10 EB

P L PH L5–15A–10 30+60 A

B 30+60 A

P L K L5–7A–15 29+75.76 EB

P L L5–17A–10 11+00 S

C-1A

P L L5–18A–10 12+80 S

P L J L5–8A–15 31+50 CD

P L L5–16A–10 31+40 A

P L J L5–9A–12 33+00 CD

P L L5–19A–10 14+70 S

HA 34+00 EB

P L L5–20A–10 16+00 S(N)

P L K L7–6A–10 34+52.44 CD

P L L7–3A–15 L7–4A–15 36+30 EB

P L L L PH L7–1A–15 L7–2A–15 38+00 EB

B 35+00 CD

BA 38+25 EB

BA 38+25 EB

F L L7–7A–15 L7–8A–15 39+90 EB

P L L5–14A–10 32+55 A

B 29+05 B

F L L5–1A–10 25+75 B

F L L5–12A–10 27+30 B

P L L5–13A–10 28+85 B

C-5A

50 0 50 100 150
GRAPHIC SCALE IN FEET

MATCH LINE – SEE SHEET D-2

MATCH LINE – SEE SHEET D-4

RAMP A

RAMP FA

RAMP FB

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

SIXTH STREET

DALTON ST.

FREEMAN AVENUE

CARR STREET

FRONT STREET

HARRIET STREET

ACCESS DRIVE

NOTE:
SEE SHEET D–6 FOR FREEMAN AVENUE AND RAMPS FA, FB, FC, AND CARR STREET.

DEMOLITION DWG – D–3

STA. 25+00 TO STA. 40+00

CALC. BY		HAM-50-19.36	OHIO
CHKD. BY			F.H.W.A. REGION 5
DATE			

137
255

B
40+35 K

P L
L8-2A-10
41+70 K

P L
L8-3A-10
44+40 K

P L
L8-4A-10
46+95 K

P L
L8-5A-10
40+20 K

P L
L8-6A-10
43+00 K

P L
L8-7A-10
45+70 K

B
12+20 L

P L L
L2-2A-10
L2-3A-10
12+20 L

B
12+20 L

B
48+75 L

P L
L9-7A-10
43+40 L

P L
L9-6A-10
49+15 LA

F L
L9-8A-10
50+60 LA

F L
L9-16A-15
50+50 WB

C-4
51+50 EB

F L
L9-9A-10
52+05 LA

F L
L9-17A-15
52+20 WB

F L
L9-20A-10
53+50 LA

P L
L9-18A-15
54+00 WB

F L
L9-21A-10
54+95 LA

BA
54+30 LA

2 SETS OF 3" CONDUIT

P L
L9-1A-10
11+20 L

T T
Transformer #9
Transformer #10
48+15 WB

P L
L9-15A-10
48+67.56 WB

C-4
49+10 WB

HA
9+70 L

P L HA PH
L10-1A-10
48+44.86 EB

HA
40+30 WB

HA
40+55 WB

P L HA
L8-23A-10
41+59.19 WB

HA
42+00 WB

P L HA
L8-24A-10
43+38.35 WB

HA
44+00 WB

P L HA
L9-14A-10
45+11.98 WB

HA HA HA HA HA
47+95 WB
47+93 WB
47+77 WB
47+66 WB
47+27 WB

P L HA PH
L9-13A-10
46+93.83 WB

HA
46+00 WB

P L HA
L10-6A-10
45+08.05 EB

P L HA
L7-11A-10
43+38.85 CD

P L HA
L10-5A-10
46+68.61 EB

B
8+90 L

P L
L10-9A-10
8+00 L

H
40+90 CD

HA
41+05 CD

P L HA
L7-10A-10
41+52.99 CD

P L
L10-8A-10
48+05 LB

B
8+90 L

HA HA HA
47+28 EB
47+37 EB
47+61 EB

HA
47+89 EB

P L
L10-9A-10
9+10 L

B
51+95 LB

P L
L10-12A-10
51+20 LB

F
L9-26A-10
54+80 LB

B
49+35 LB

P L B
L10-11A-10
49+40 LB

F L
L9-24A-15
50+20 EB

F
L9-23A-15
52+10 EB

F
L9-25A-10
52+95 LB

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

DALTON ST.

LINN STREET

RAMP FC

RAMP LA

SIXTH STREET

MATCH LINE - SEE SHEET D-3

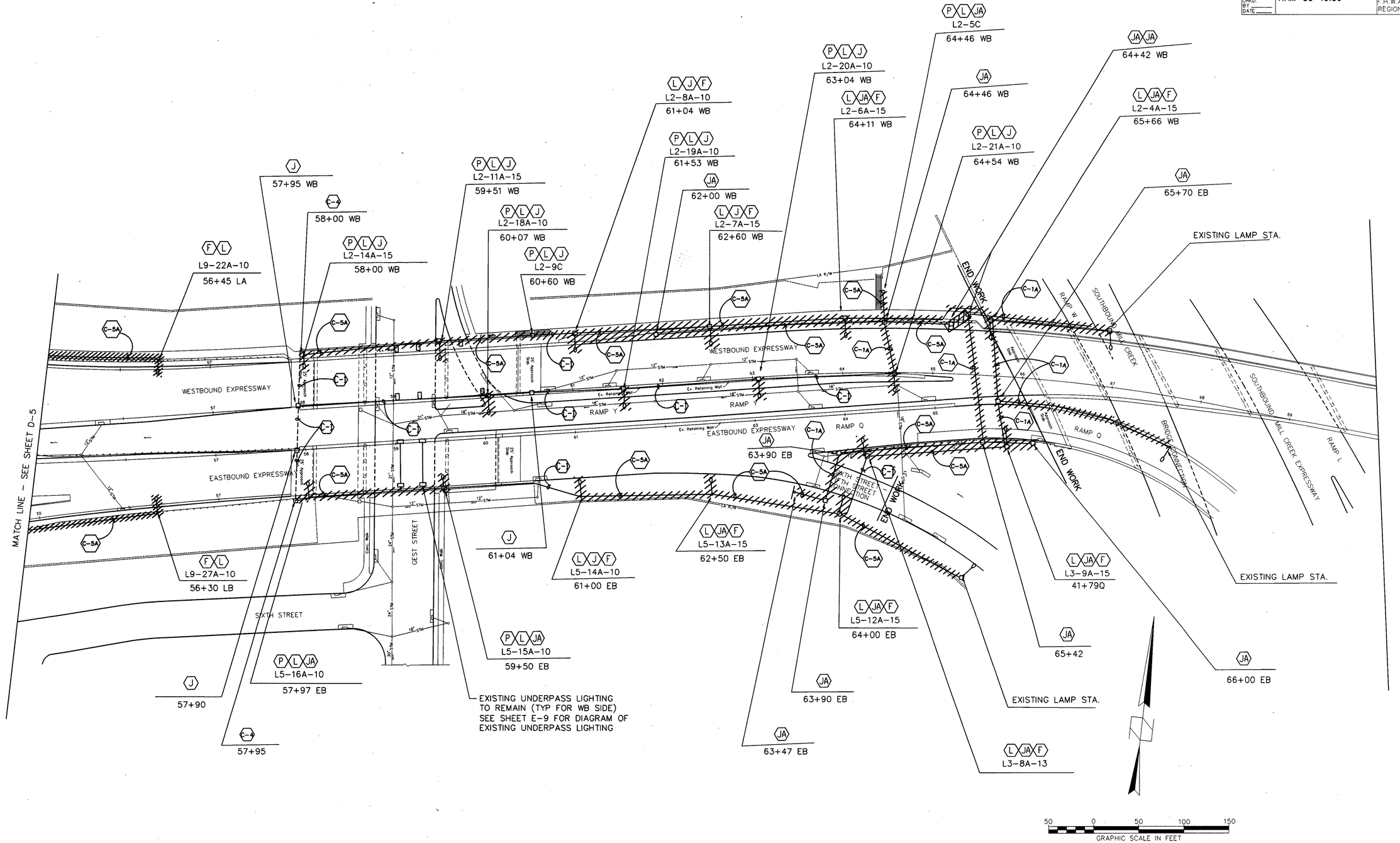
MATCH LINE - SEE SHEET D-5

50 0 50 100 150
GRAPHIC SCALE IN FEET

DEMOLITION DWG
D-4

STA. 40+00 TO STA. 55+00

CALC. BY			
DATE	HAM–50–19.36	OHIO	138
CHKD. BY		F.H.W.A. REGION 5	255
DATE			



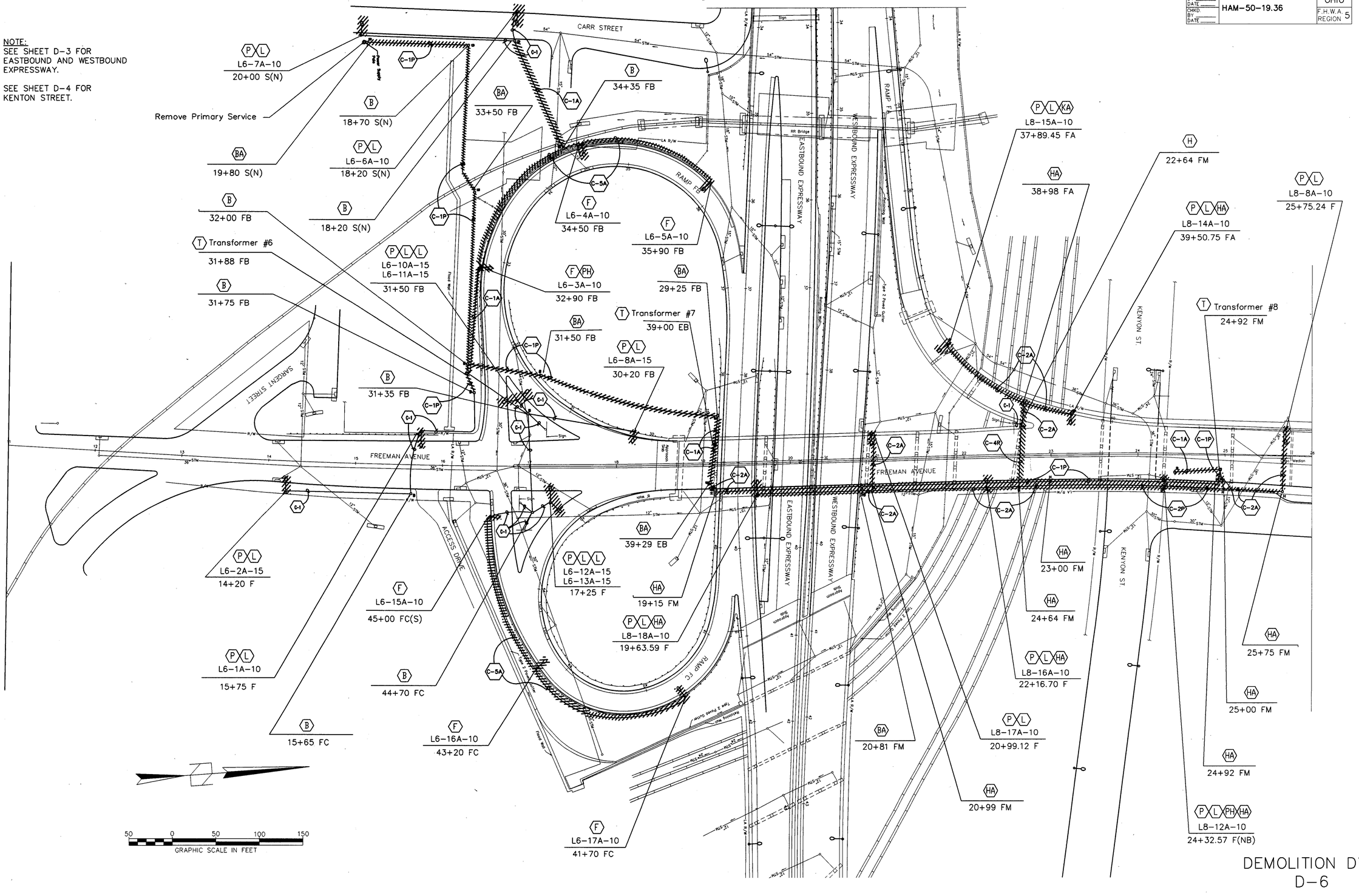
DEMOLITION DWG
D–5

STA. 55+00 TO STA. 70+00

CALC. BY		HAM-50-19.36	OHIO
CHKD. BY			F.H.W.A. REGION 5
DATE			

NOTE:
SEE SHEET D-3 FOR EASTBOUND AND WESTBOUND EXPRESSWAY.

SEE SHEET D-4 FOR KENTON STREET.



DEMOLITION DWG
D-6

FREEMAN AVENUE STA 11+00 TO STA 26+00

CALC. BY DATE	HAM–50–19.36	OHIO F.H.W.A. REGION 5
CHKD. BY DATE		

140
255

DISCONNECT SWITCH
30A FUSED AT 10A
S.S. ENCLOSURE, LOCKABLE
NEMA TYPE 3R, (TYPICAL)

PROJECT LIMITS

① OVERHEAD SIGN
S2–1
1+28 EB

Exist. Lamp Std.
0+86 WB

Exist. Lamp Std.
0+41 WB

Eastbound Expressway P.C. Sta. 0+43.13 *
Sixth St. Viaduct Extension Sta. 1+47.24 *

1–2–1,10;(1)
2+10.22 WB

1–2–2,10;(1) *
3+76.39 WB

1–2–3,10;(1) *
5+56.58 WB

1–2–4,10;(1) *
7+18.52 WB

1–2–5,10;(1) *
8+97.79 WB

EVANS STREET

RAMP VB

SIXTH STREET VIADUCT

RAMP VA

Gore Sta. 1+95 E.B.

Sta. 2+03 W.B.

Sta. 2+33 W.B.

Sta. 2+11 E.B.

Sta. 3+36 E.B.

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

Exist. Lamp Std.
0+75 EB

Exist. Lamp Std.
0+30 EB

1–1–1,10;(1)
1+91.25 VA

1–1–2,10;(1)
3+26.10 VA

1–1–3,10;(1)
4+67.77 VA

1–1–4,10;(1)
6+18.04 VA

1–1–5,10;(1)
7+78.33 VA

1–1–6,10;(1)
9+49.67 VA

EXISTING VARIABLE MESSAGE
SIGN SHALL BE REMOVED AND
STORED ON SITE FOR PICKUP BY:
CITY OF CINCINNATI TRAFFIC
SERVICES BUREAU
1408 QUEEN CITY AVE
CINCINNATI, OH 45214

MATCH LINE – SEE SHEET E–2

LEGEND

1–1–1, 10; (1) *
1 + 91.25 VA

- CONTROL CENTER
- CIRCUIT NUMBER
- POLE NUMBER
- BRACKET ARM LENGTH
- DETAIL REFERENCE NUMBER (①) INDICATES NEW FOUNDATION PER ODOT STANDARD HL–20.11
- INDICATES 11 1/2" BOLT CIRCLE
- STATIONING

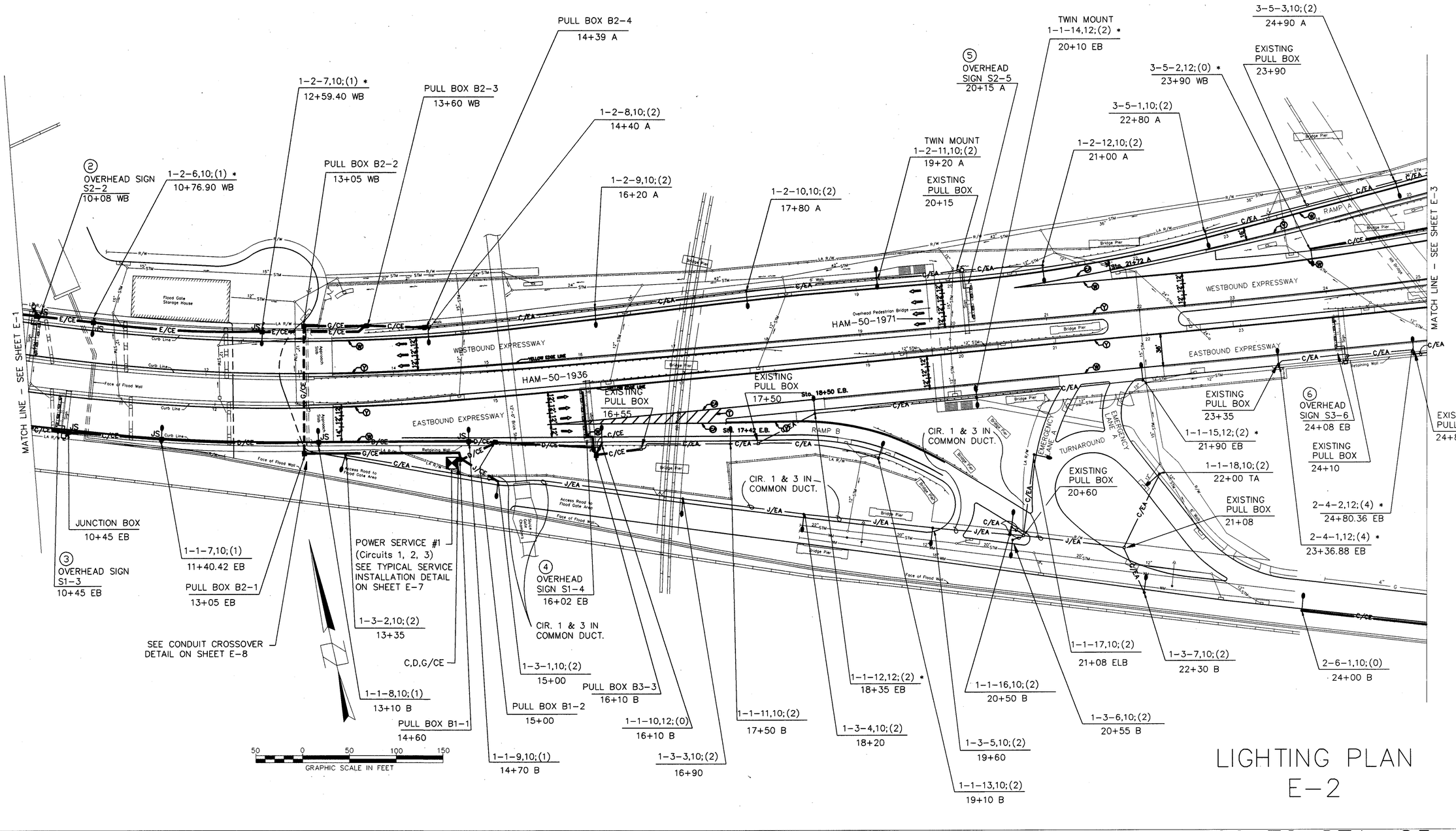
	NEW CONDUIT & NEW CONDUCTORS
	EXISTING CONDUIT WITH NEW CONDUCTORS
CONDUCTOR/CONDUIT	
A/	NOT USED
B/	NOT USED
C/	2–#6, 1–#6 GND
D/	2–#4, 1–#4 GND
E/	2–#2, 1–#2 GND
F/	2–#1/0, 1–#1/0 GND
G/	2–#2/0, 1–#2/0 GND
H/	2–#4, 2–#6, 1–#4 GND
J/	4–#6, 1–#6 GND
/CA	NEW 2" METALLIC CONDUIT ATTACHED TO STRUCTURE
/CE	NEW 2" PVC CONDUIT ENCASED IN CONCRETE
/EA	EXISTING 3" ASBESTOS CEMENT CONDUIT ENCASED IN CONCRETE
/ES	EXISTING 3" ASBESTOS CEMENT CONDUIT ENCASED IN STRUCTURE
	NEW POLE WITH NEW 250W HPS TYPE III DISTRIBUTION LUMINAIRE
J	NEW JUNCTION BOX ATTACHED TO STRUCTURE
JS	NEW JUNCTION BOX ENCASED IN CONCRETE STRUCTURE
B1–1 STATION	NEW PULL BOX CONCRETE ENCASED
	NEW POWER SERVICE POLE LOCATION
	NEW WALL MOUNTED 150W HPS LUMINAIRE
	NEW UNDER VIADUCT LUMINAIRE 150W HPS
	STAINLESS STEEL DISCONNECT ENCLOSURE
①	SIGN TYPE, SEE SHEET E–8
1+38WB	STATIONING
S2–1	SIGN CIRCUIT NUMBER – SIGN NUMBER

50 0 50 100 150
GRAPHIC SCALE IN FEET

LIGHTING PLAN
E–1

STA. 1+00 TO STA. 10+00

CALC. BY			OHIO
DATE	HAM-50-19.36	F.H.W.A. REGION 5	141 / 255
CHKD. BY			
DATE			



LIGHTING PLAN
E-2

STA. 10+00 TO STA. 25+00

CALC. BX DATE	HAM-50-19.36	OHIO F.H.W.A. REGION 5
CHKD. BX DATE		

142
255

MATCH LINE - SEE SHEET E-2

3-5-4,12;(0) *
25+50 WB

3-5-5,10;(2)
26+40 A

3-5-6,12;(0) *
27+15 WB

3-5-7,10;(2)
27+95 A

3-5-8,12;(3)
28+65 WB

3-5a-1
28+45 A

3-5a-2
28+75 A

3-5-9,12;(2)
30+15 WB

3-5-10,12;(3)
31+65 WB

SEE POWER SERVICE FROM CONTROL CENTER #3 DETAIL ON SHEET E-8

PULL BOX B5-1
32+92 WB

3-5-11,12;(3)
33+15 FA

EXISTING PULL BOX
35+00

3-5-12,12;(2)
34+65 FA

3-5-13,10;(0)
36+20 FA

3-5-16,10;(1)
37+89.45 FA

PULL BOX B5-2
37+25 FA

7-13-1,10;(2)
38+30 K

EXISTING PULL BOX
39+50 K

6-12-1,12;(2)
39+80 WB
DALTON ST.

3-5-15,12;(2) *
38+00 WB

SEE DETAIL SHEET E-7
3-5-14,12;(4) *
36+39 WB

SEE SHEET E-6 FOR FREEMAN AVE LIGHTING

EXISTING PULL BOX
27+70 A

RAMP A

WESTBOUND EXPRESSWAY

HAM-50-1986

HAM-50-1992

EASTBOUND EXPRESSWAY

SEE UNDERPASS LIGHTING DETAIL ON SHEET E-8 (SIDE TYP.)

Gore Sta. 32+23 FA

Sta. 34+06 FA

Sta. 34+06 W.B.

Gore Sta. 31+55 E.B.

Sta. 35+77 E.B.

Sta. 34+56 C.D.

RAMP FA

(8) OVERHEAD SIGN S8-8
38+60 EB

HAM-50-2007

FREEMAN AVENUE

PULL BOX B8-3
38+60 EB

2-4-4,12;(3) *
27+92.40 EB

POWER SERVICE #2
(CIRCUITS 4, 6)
SEE TYPICAL SERVICE INSTALLATION DETAIL ON SHEET E-7

2-4-3,12;(2) *
26+10 EB

B4-1
30+00 A

SIXTH STREET

(7) OVERHEAD SIGN S4-7
30+90 EB

2-4-5,12;(3) *
29+75.76 EB

2-6-8,10;(2)
11+00 S

2-6-10
29+30 A

2-6-9
29+60 A

2-4-7,12;(3)
33+00 CD

4-7-5,10;(2)
12+80 S

2-4-6,12;(3) *
31+50 CD

POWER SERVICE #3
(Circuit 5, 5a)
SEE TYPICAL SERVICE INSTALLATION DETAIL ON SHEET E-8

4-7-4,10;(2)
14+70 S

4-7-3,10;(2)
16+00 S(N)

PULL BOX B7-1
16+25 S(N)

4-8-9,12;(4)
34+52.44 CD

POWER SERVICE #4
(CIRCUITS 7 & 8)
SEE TYPICAL SERVICE INSTALLATION DETAIL ON SHEET E-7

4-7-2,10;(2)
18+20 S(N)

EXISTING PULL BOX
18+25

4-7-1,10;(2)
20+00 S(N)

SEE SHEET E-8 FOR CIRCUIT 8

RAMP FB

TWIN MOUNT
4-8-10,12;(2) *
36+30 EB

PULL BOX B8-1
35+00 EB

TWIN MOUNT
4-8-11,12;(2) *
38+00 EB

EXISTING PULL BOX
38+25 EB

(9) OVERHEAD SIGN S8-9
38+55 EB

TWIN MOUNT
4-8-12,12;(0) *
39+90 EB

HARRIET STREET

CARR STREET

FRONT STREET

EXISTING PULL BOX
29+05 B

2-6-7,10;(2)
30+60 A

2-6-5,10;(2)
32+55 A

EXISTING PULL BOX
30+60 A

EXISTING PULL BOX
30+60 A

(7C) OVERHEAD BRIDGE MOUNTED SIGN S4-7C
29+78

2-6-6,10;(2)
31+40 A

2-6-2,10;(0)
25+75 B

2-6-3,10;(0)
27+30 B

2-6-4,10;(2)
28+85 B

50 0 50 100 150
GRAPHIC SCALE IN FEET

MATCH LINE - SEE SHEET E-4

LIGHTING PLAN
E-3

STA. 25+00 TO STA. 40+00

CALC. BY		HAM-50-19.36	OHIO
DATE			F.H.W.A. REGION 5
CHKD. BY			
DATE			

7-13-3,10;(2)
41+70 K

EXISTING
PULL BOX
40+30

7-13-5,10;(2)
44+40 K

PULL BOX
B13-2
47+50

7-13-7,10;(2)
46+95 K

PULL BOX
B13-5
45+85

7-13-10,10;(2)
13+40 L

CIRCUITS 13 & 14
IN COMMON DUCT

7-14-1,10;(2)
49+15 LA

EXISTING
PULL BOX
48+65 LA

POWER SERVICE #7
(Circuits 13, 14)
SEE TYPICAL SERVICE
INSTALLATION DETAIL
ON SHEET E-7

(10)
OVERHEAD SIGN
S14-10
52+00

7-14-5,10;(0)
54+95 LA

7-14-4,10;(0)
53+50 LA

7-14-2,10;(0)
50+60 LA

6-12-9,12;(0) *
54+00 WB

7-14-3,10;(0)
52+05 LA

PULL BOX
B14-1
51+90

DALTON ST.

7-13-2,10;(2)
40+20 K

7-13-4,10;(2)
43+00 K

EXISTING
PULL BOX
12+20 L

PULL BOX
B12-2

7-13-6,10;(2)
45+70 K

PULL BOX
B13-4
45+80

PULL BOX
B13-3
47+15

TWIN MOUNT
7-13-8,10; (2)
12+20 L

7-13-9,10;(2)
11+20 L

6-12-7,12;(0) *
50+50 WB

6-12-8,12;(0) *
52+20 WB

6-12-6,12;(1) *
48+67.56 WB

6-12-2,12;(1)
41+59.19 WB

6-12-3,10;(1)
43+38.35 WB

6-12-5,10;(1)
46+93.83 WB

6-12-4,10;(1)
45+11.98 WB

PULL BOX
B13-1

LINN STREET

PULL BOX B12-1
49+00 WB

SEE CONDUIT CROSSOVER AT STATION 48+70
DETAIL ON SHEET E-8

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

HAM-50-2011

6-11-6

6-11-5

6-11-4

6-11-7

6-11-8

6-11-9

PULL BOX B10-2
48+95 EB

6-10-6,12;(0)*
50+20 EB

PULL BOX
B10-1
48+45

6-10-5,10;(1)
48+44.86 EB

RAMP LA

RAMP LB

RAMP FC

SIXTH STREET

EXISTING
PULL BOX
51+90

NEW LIGHT STANDARD
6-10-8,12;(0)
53+80 EB

8-15-9,12;(0)
54+80 LB

8-15-10,10;(0)
52+95 LB

EXISTING
PULL BOX
49+35

8-15-11,10;(2)
51+20 LB

(101)
GROUND
MOUNTED SIGN
51+50
(NOT LIGHTED)

6-10-7,12;(0) *
52+10 EB

EXISTING
PULL BOX
49+37

(19)
OVERHEAD SIGN
S15-19
49+22 LB

8-15-12,10;(2)
49+40 LB

6-11-3,10;(2)
48+05 LB

6-11-2,10;(2)
9+10 L

6-11-1,10;(2)
8+00 L

EXIT SIGN
40+95 CD
(NOT LIGHTED)

6-10-1,12;(1)
41+52.99 CD

6-10-2,12;(1)
43+38.85 CD

6-10-3,10;(1)
45+08.05 EB

6-10-4,10;(1)
46+68.61 EB

EXISTING
PULL BOX
8+90

PULL BOX
B11-1
47+90

EXISTING
PULL BOX
8+95

SEE DETAIL ON SHEET E-7
FOR UNDERPASS LIGHTING AT
LINN STREET

POWER SERVICE #6
Circuits 10, 11, 12
SEE TYPICAL SERVICE
INSTALLATION DETAIL
ON SHEET E-7

MATCH LINE - SEE SHEET E-3

MATCH LINE - SEE SHEET E-5

Sta. 40+63 E.B.
Sta. 40+61 CD
Sta. 41+00 CD
Sta. 40+54 F
Sta. 53+13 W.B.
Sta. 54+14 E.B.
Sta. 54+36 LB
Gore Sta. 43+15

50 0 50 100 150
GRAPHIC SCALE IN FEET

LIGHTING PLAN
E-4

STA. 40+00 TO STA. 55+00

CALC. BY			
DATE	HAM–50–19.36	OHIO	144
CHKD. BY		F.H.W.A. REGION 5	255
DATE			

(11) OVERHEAD SIGN S14–11 55+54 WB

PULL BOX B14–2 55+55 WB

7–14–6,12;(0) 56+45 LA

PULL BOX B16–2 58+00

8–16–1,12;(2) * 58+00 WB

8–17–9

8–17–8

8–16–4,12;(1) * 59+51.07

8–17–10

8–17–7

8–16–5,10;(4) 60+07.12

8–16–6,12;(2) 61+04

8–16–7,10;(4) 61+53.02

8–16–8,12;(0) * 62+60

8–16–9,10;(4) 63+04.77

8–16–10,12;(0) * 64+11

8–16–11,10;(4) 64+53.93

PULL BOX B16–1 65+45

(14) OVERHEAD SIGN S16–14 65+45

8–16–12,12;(0) * 65+66.38

MATCH LINE – SEE SHEET E–4

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

SIXTH STREET

WEST STREET

EXISTING CONDUIT TO UNDERPASS LIGHTING TO REMAIN

EXISTING PULL BOXES 57+90

HAM–50–2043

RAMP Y

RAMP Q

RAMP W

RAMP L

SOUTHBOUND MILL CREEK

SOUTHBOUND MILL CREEK EXPRESSWAY

BRIDGE CONNECTION

FIFTH STREET – SIXTH STREET CONNECTION

Gore Sta. 54+00 W.B.

Sta. 55+36 E.B.

Gore Sta. 56+67 E.B.

Sta. 55+36 L.B.

Gore Sta. 61+50 E.B.

Sta. 64+79 E.B.

Sta. 64+92 W.B.

Gore Sta. 66+22 W.B.

Sta. 65+23 W.B.

8–17–6

8–17–5

8–17–4

8–17–3

8–17–2

8–17–1

PULL BOX B15–5 57+90

E,D/CE C,E,E/CE

8–15–1,10;(2) 57+97 EB

8–15–8,12;(0) 56+30 LB

(12) OVERHEAD SIGN S15–12 57+00 EB

PULL BOX B15–6 56+95 EB

PULL BOX B15–1 58+50

POWER SERVICE #8 (CIRCUITS 15, 16 & 17) SEE TYPICAL SERVICE INSTALLATION DETAIL ON SHEET E–7.

8–15–2,10;(2) 59+50.42

8–15–3,12;(2) * 61+00

EXISTING UNDERPASS LIGHTING FIXTURES AND ASSOCIATED CONDUIT TO REMAIN (TYPICAL FOR WB SIDE) SEE SHEET E–9 FOR CIRCUIT DIAGRAM

8–15–4,12;(0) * 62+50

(13) OVERHEAD SIGN S15–13 63+53

PULL BOX B15–2 63+25

GROUND MOUNTED SIGN NOT LIGHTED 63+80

8–15–5,12;(0) * 64+00

8–15–7,12;(0) * 65+74

8–15–6,12;(0) * 64+12

PULL BOX B15–3 64+12

EXISTING STANDARD AT STATION 65+78 S LOOP EXISTING SERIES CIRCUIT AT LIGHT POLE BASE

50 0 50 100 150

GRAPHIC SCALE IN FEET

LIGHTING PLAN
E–5

STA. 55+00 TO STA. 70+00

CALC. BY			
DATE	HAM-50-19.36	OHIO	145
CHKD. BY		F.H.W.A. REGION 5	255
DATE			

CARR STREET

POWER SERVICE POLE # 4 (Circuits 7 & 8) SEE TYPICAL SERVICE INSTALLATION DETAIL ON SHEET E-7

EXISTING PULL BOX 34+00 FB

PULL BOX B8-1 35+00

J/CE

RAMP FC

CIR. 7 & 8 IN COMMON DUCT. 4-8-2,12;(0) 34+50 FB

PULL BOX B8-1A 35+70

4-8-1,10;(0) 35+90 FB

CIR. 7 & 8 IN COMMON DUCT. 4-8-3,12;(0) 32+90 FB

TWIN MOUNT 4-8-4,12;(0) * 31+50 FB

PULL BOX B8-2 31+80

EXISTING PULL BOX 31+65

PULL BOX B8-1B 30+60

4-7-6,12;(2) 30+20 FB

PROJECT LIMITS

SANGENY STREET

(15) OVERHEAD SIGN S8-15 17+15 F

4-7-8,12;(2) 15+75 F

EXISTING PULL BOX 30+61

FREEMAN AVENUE

C/EA

C/CE

CIR. 7 & 8 IN COMMON DUCT.

4-8-5,12;(0) * 17+25 F

PULL BOX C8-1C 44+75

4-7-7,12;(0) 17+20 F

EXISTING PULL BOX 44+80

5-9-6,10;(1) 19+63.59 F

4-8-8,12;(0) 41+70 FC

ACCESS DRIVE

4-7-9,12;(2) * 14+20 F

4-8-6,10;(2) 45+00 FC(S)

EXISTING PULL BOX 15+65

(16) OVERHEAD SIGN S8-16 16+89 F

(18) OVERHEAD SIGN S8-18 44+66 FC

4-8-7,12;(0) 43+20 FC

RAMP FC

EASTBOUND EXPRESSWAY

WESTBOUND EXPRESSWAY

RR Bridge

RAMP FC

(17) OVERHEAD SIGN S9-17 22+58 F

5-9-2,10;(1) 39+50.75 FA

POWER SERVICE #5 (Circuit 9) SEE TYPICAL SERVICE INSTALLATION DETAIL ON SHEET E-7

SEE POWER SERVICE FROM CONTROL CENTER #5 DETAIL ON SHEET E-8

PULL BOX B9-1 24+52 FA

5-9-3,10;(1) 25+75.24 F

KENYON ST.

HAM-50-2007

FREEMAN AVENUE

Conc. Median

5-9-5,10;(1) 22+16.70 F

5-9-1,10;(1) 20+99.12 F

5-9-4,10;(1) 24+32.57 F(NB)

KENYON ST

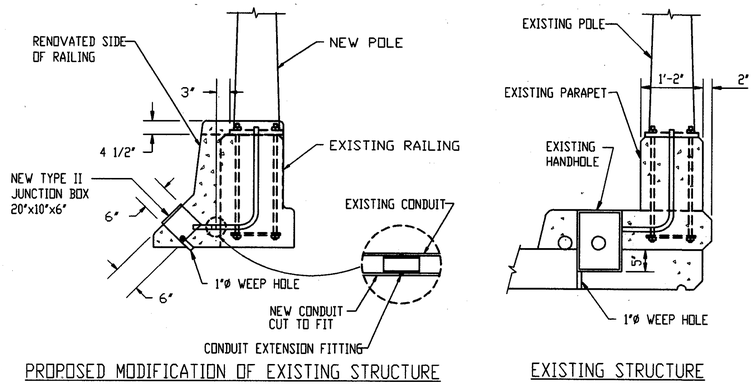
PROJECT LIMITS

50 0 50 100 150

GRAPHIC SCALE IN FEET

LIGHTING PLAN
E-6

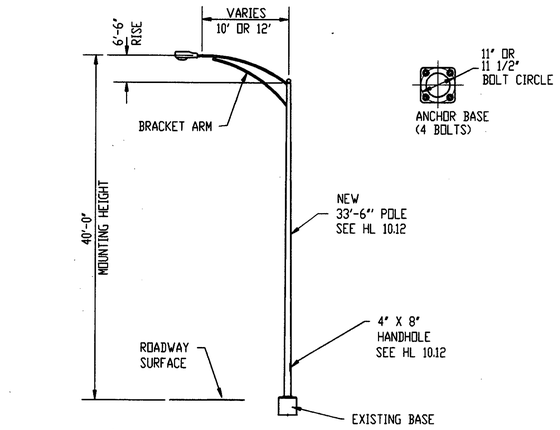
FREEMAN AVENUE STA. 11+00 TO STA. 26+00



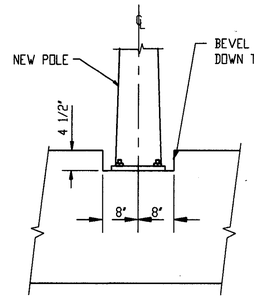
PROPOSED MODIFICATION OF EXISTING STRUCTURE

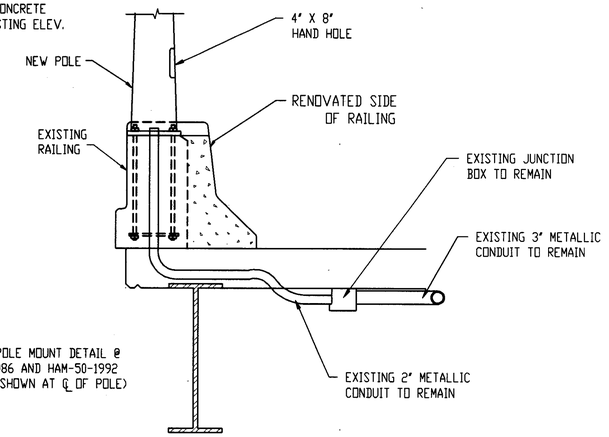
EXISTING STRUCTURE

1 / E-1,E-2,E-4,E-6 — TYPE (1) MOUNTING DETAIL
NEW CONDUIT ENCASED IN RENOVATED BRIDGE RAIL
NTS



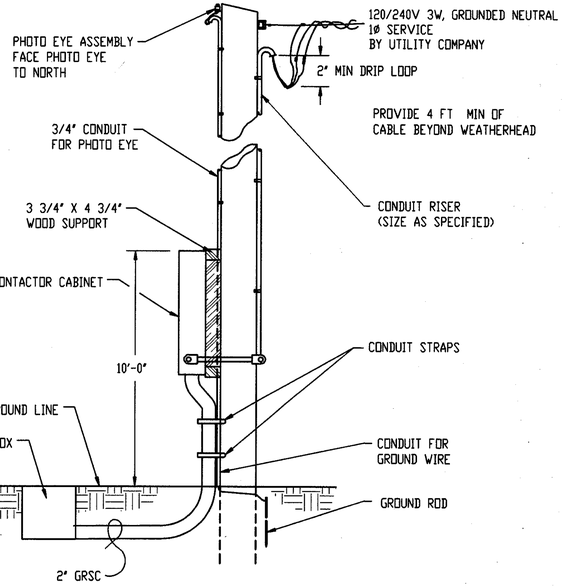
2 / E-2,E-3,E-4,E-5,E-6 — TYPE (2) MOUNTING DETAIL
TYPICAL LIGHT STANDARD ON EXISTING BASE
SEE HL-10.11 TYPE III POLE FOR ADDITIONAL DETAILS
NTS



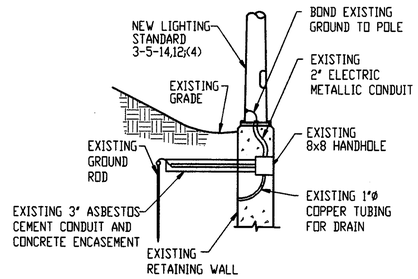


TYPICAL POLE MOUNT DETAIL @ HAM-50-1986 AND HAM-50-1992 (SECTION SHOWN AT ℄ OF POLE)

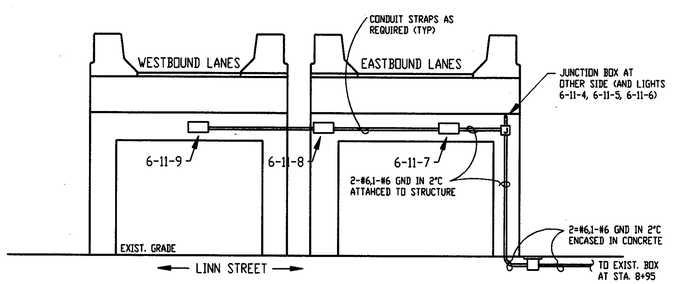
3 / E-3 — TYPE (3) MOUNTING DETAIL
EXISTING CONDUIT IN RENOVATED BRIDGE RAIL
NTS



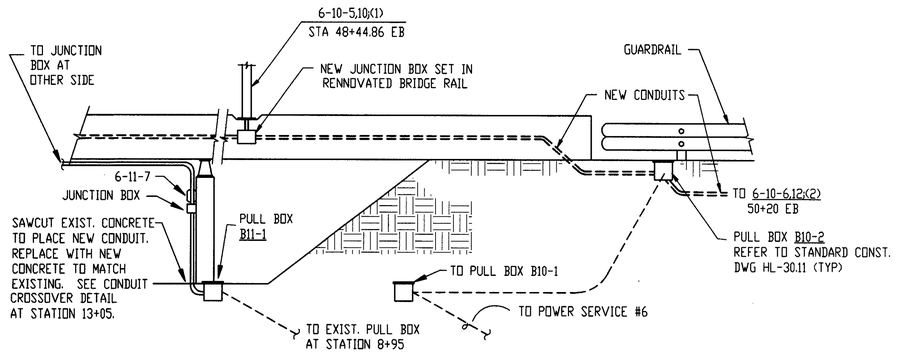
TYPICAL SERVICE INSTALLATION
NTS SEE HL-40.10 FOR ADDITIONAL DETAILS



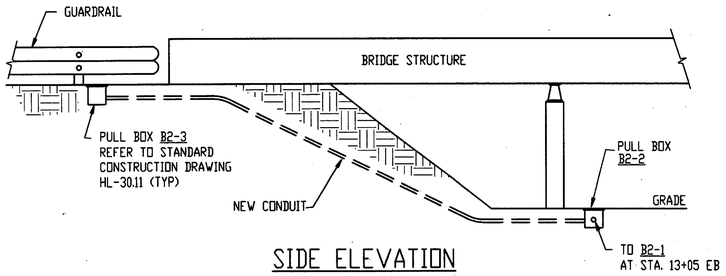
4 / E2, E4 — TYPE (4) MOUNTING DETAIL (STATION 36+39WB SHOWN)
TYPICAL LIGHT STANDARD ON EXISTING RETAINING WALL
NTS



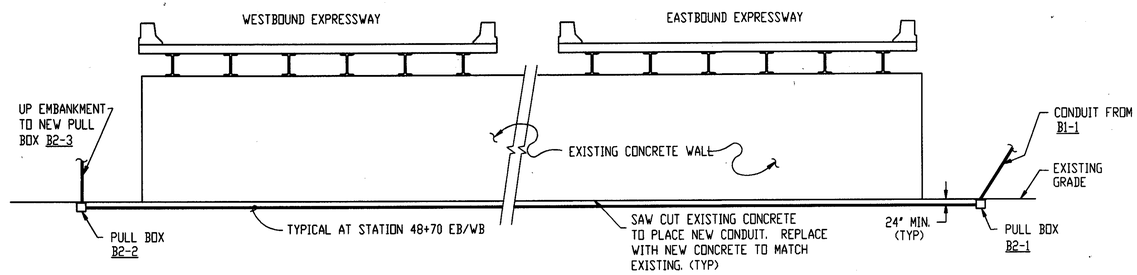
UNDERPASS LIGHTING AT LINN ST. - STA. 48+70
NTS



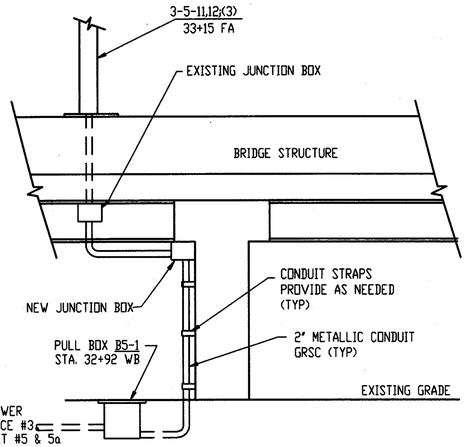
CONDUIT CROSSOVER AT STATION 48+70 EB/WB
NTS



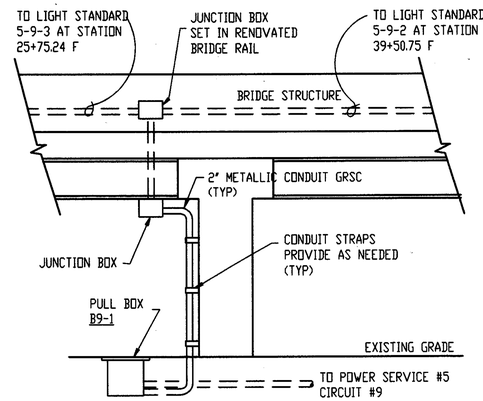
SIDE ELEVATION
STATION 13+05 WB



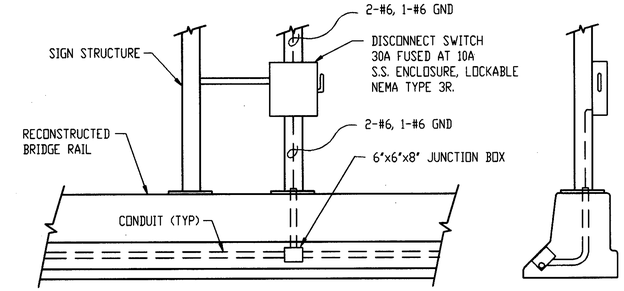
CONDUIT CROSSOVER AT STATION 13+05
NTS



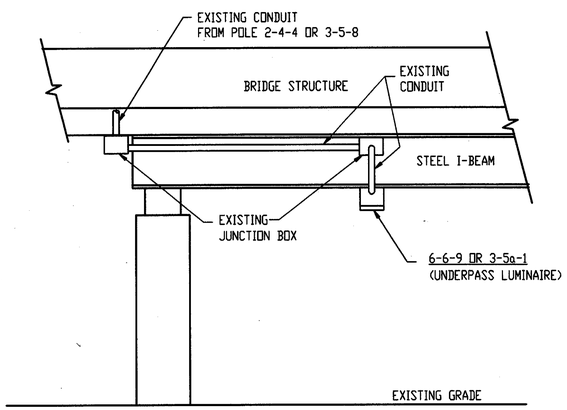
POWER SERVICE FROM CONTROL CENTER #3 AT STATION 31+65 WB
NTS



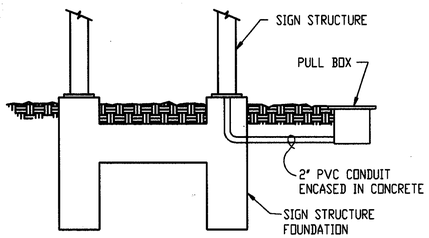
POWER SERVICE FROM CONTROL CENTER #5 AT STATION 24+52 FA
NTS



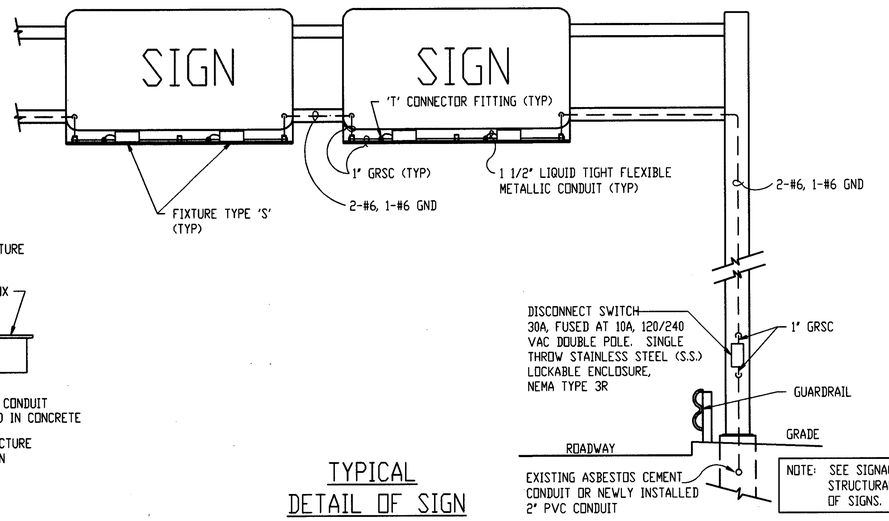
TYPICAL SIGN INSTALLATION DETAIL
NTS



UNDERPASS LIGHTING AT STATION 28+50 EB/WB
NTS



SIGN FOUNDATION
NTS



TYPICAL DETAIL OF SIGN LIGHTING
NTS

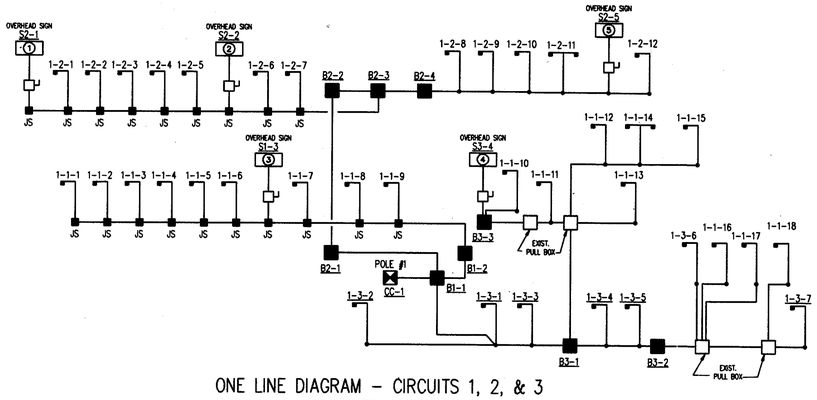
NOTE: SEE SIGNAGE PLANS FOR STRUCTURAL REQUIREMENTS OF SIGNS.

SIGN SCHEDULE

SIGN NO.	STATION	LUMINAIRES REQUIRED	WATTAGE	TOTAL LOAD AMPS	REFERENCE* DRAWING
1	1+28 EB	4 2	100 175	3.5	
2	10+08 WB	4	175	3.2	
3	10+45 EB	2 2	100 175	2.6	
4	16+02 EB	2 4	100 175	4.2	
5	20+15 WB	2 2	100 175	2.6	
6	24+08 EB	4	175	3.2	
7	33+90 EB	4	175	3.2	
7C	29+78	2	175	1.6	
8	38+60 EB	2	175	1.6	
9	38+55 CD	4	175	3.2	
10	51+50 EB	2	175	1.6	
11	56+05 WB	6	175	4.8	
12	57+00 EB	6	175	4.8	
13	63+47 EB	6	175	4.8	
14	65+31 WB	2 6	100 175	5.4	
15	17+15 FREEMAN	2	175	1.6	
16	16+89 FREEMAN	2 2	175 100	1.6	
17	22+58 FREEMAN	2	175	2.6	
18	44+66 FC	2 2	175 100	1.6	
19	49+22 LB	2	175	2.6	
20	65+73	1	175	0.8	

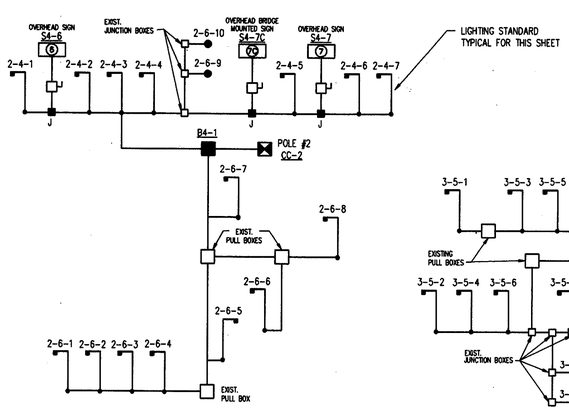
* SEE REFERENCE DRAWINGS LISTED FOR SIGN DETAILS.

DETAIL SHEET E-8



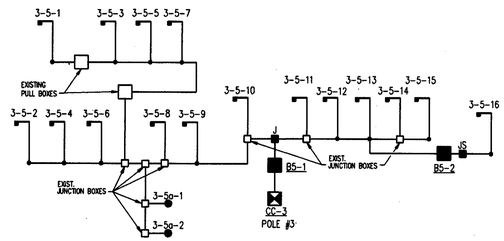
ONE LINE DIAGRAM – CIRCUITS 1, 2, & 3
FROM POWER POLE #1 AT
STATION 14+60 EB

NTS



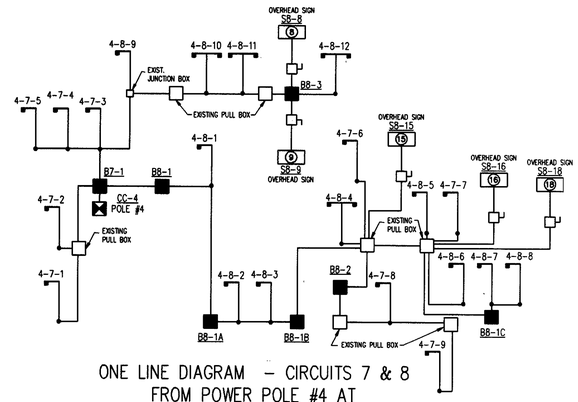
ONE LINE DIAGRAM – CIRCUITS 4 & 6
FROM POWER POLE #2 AT
STATION 29+90 A

NTS



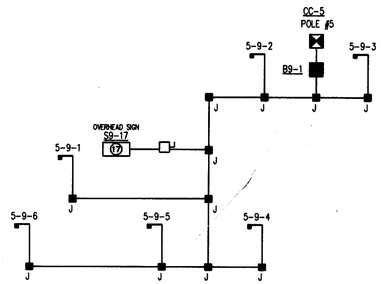
ONE LINE DIAGRAM – CIRCUIT 5
FROM POWER POLE #3 AT
STATION 33+00 EB

NTS



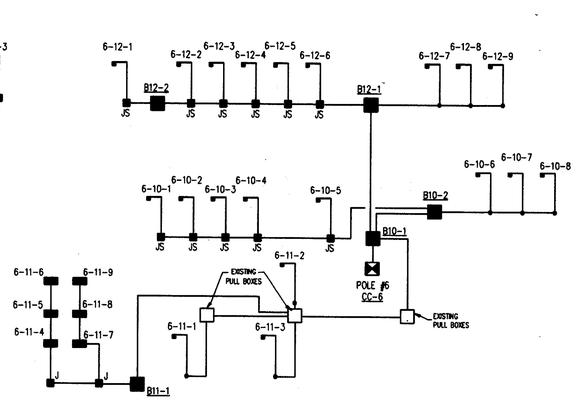
ONE LINE DIAGRAM – CIRCUITS 7 & 8
FROM POWER POLE #4 AT
STATION 16+00 S(N)

NTS



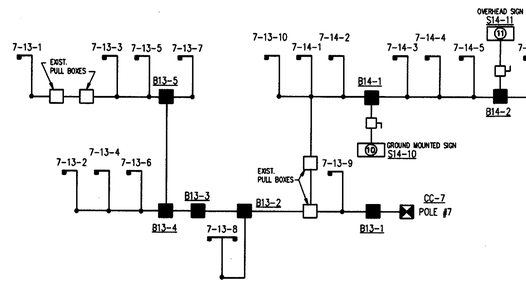
ONE LINE DIAGRAM – CIRCUIT 9
FROM POWER POLE #5 AT
STATION 37+50 FA

NTS



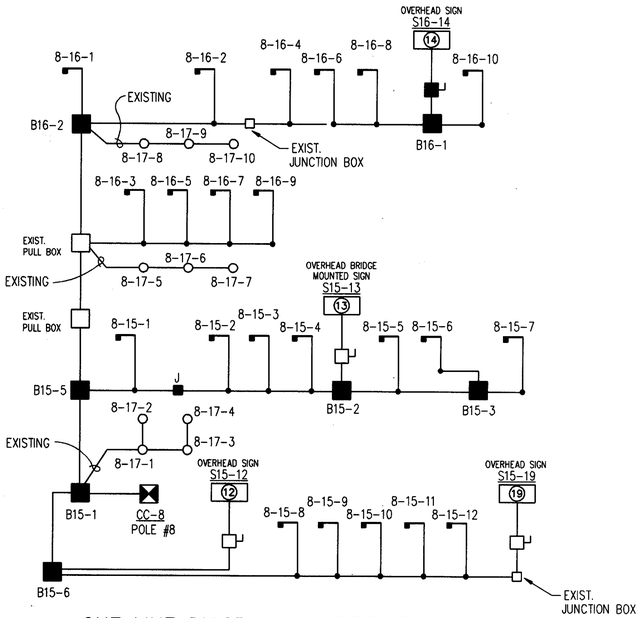
ONE LINE DIAGRAM – CIRCUITS 10, 11 & 12
FROM POWER POLE #6 AT
STATION 48+80 EB

NTS



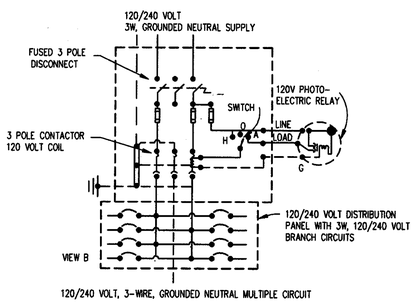
ONE LINE DIAGRAM – CIRCUITS 13 & 14
FROM POWER POLE #7 AT
STATION 11+00 L

NTS



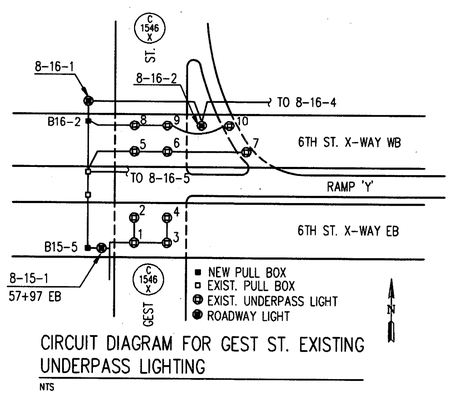
ONE LINE DIAGRAM – CIRCUITS 15 & 16
FROM POWER POLE #8 AT
STATION 58+50 EB SIDE

NTS



TYPICAL CONTROL CENTER
WIRING DIAGRAM

NTS



CIRCUIT DIAGRAM FOR GEST ST. EXISTING
UNDERPASS LIGHTING

NTS

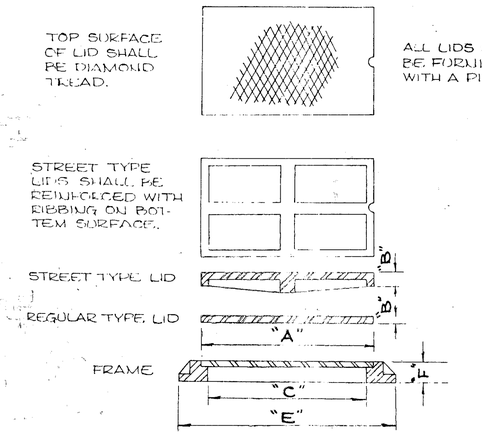
CONTROL CENTER DATA

CONTROL CENTER LOCATION	POWER SERVICE	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE–AWG	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE	MAINTAINING AGENCY
CC–1 STA 14+60EB	120/240 VAC 1ø, 3W GROUNDED NEUTR	16.3	NO.2 AWG	100	1 2 3	32.0 26.1 9.8	40 40 20	CITY OF CINCINNATI
CC–2 STA 16+40S(N)	120/240 VAC 1ø, 3W GROUNDED NEUTR	7.0	NO.2 AWG	60	4 6	17.8 11.2	30 30	CITY OF CINCINNATI
CC–3 STA 31+80WB	120/240 VAC 1ø, 3W GROUNDED NEUTR	5.9	NO.2 AWG	60	5 5a	22.4 2.0	30 20	CITY OF CINCINNATI
CC–4 STA 16+00S(N)	120/240 VAC 1ø, 3W GROUNDED NEUTR	9.4	NO.2 AWG	60	7 8	12.6 26.4	20 40	CITY OF CINCINNATI
CC–5 STA 37+50FA	120/240 VAC 1ø, 3W GROUNDED NEUTR	2.6	NO.2 AWG	60	9	11.0	20	CITY OF CINCINNATI
CC–6 STA 48+80EB	120/240 VAC 1ø, 3W GROUNDED NEUTR	7.4	NO.2 AWG	60	10 11 12	11.2 7.2 12.6	20 20 20	CITY OF CINCINNATI
CC–7 STA 48+90LA	120/240 VAC 1ø, 3W GROUNDED NEUTR	6.9	NO.2 AWG	60	13 14	14.0 14.8	20 20	CITY OF CINCINNATI
CC–8 STA 58+60 EB	120/240 VAC 1ø, 3W GROUNDED NEUTR	13.6	NO.2 AWG	100	15 16 17	29.8 19.4 7.3	40 30 20	CITY OF CINCINNATI

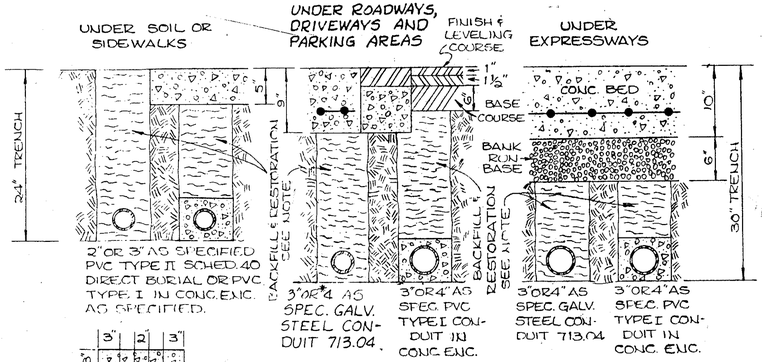
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
5	OHIO	HAM-50-19.36	

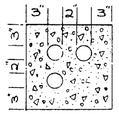
149
255

TYPICAL PULLBOX FRAME & COVER DIMENSIONS



TYPICAL CONDUIT INSTALLATIONS



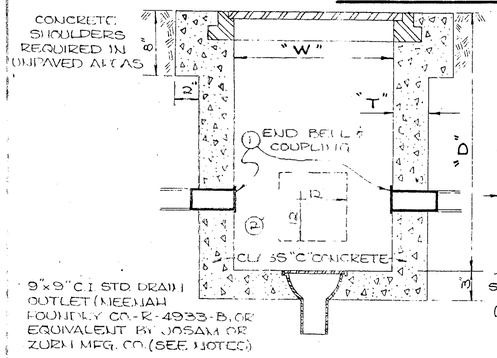


TYPICAL CONCRETE ENCASEMENT DIMENSION FOR 1 OR MORE CONDUITS. 3" COVER ON ALL SIDES AND 2" SPACING BETWEEN CONDUITS.

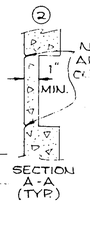
* DIMENSIONS ALSO APPLY FOR CONDUIT JACKED UNDER PAVEMENT.

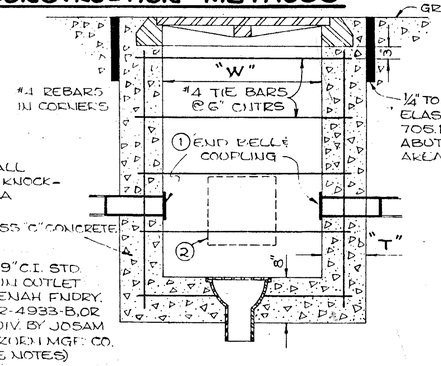
BACKFILL SHALL COMPLY TO ITEM 625.12
RESTORATION SHALL COMPLY TO ITEM 603.09
PVC CONDUIT SHALL BE CONCRETE ENCASED WHERE INSTALLED IN SLOPE AREAS AND WHERE PRIMARY CABLE (ABOVE 600 VOLT CLASS) IS SPECIFIED TO BE INSTALLED IN THE CONDUIT. CONCRETE ENCASEMENT SHALL BE CLASS "C" CONCRETE.

TYPICAL PULLBOX CONSTRUCTION METHODS



USE WHERE DRAINAGE TO SEWER SYSTEM SPECIFIED
(TYPE "AD" PULLBOXES)

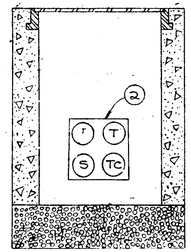




¼" TO ½" PREFORMED ELASTIC JOINT SEALER, 705.11 ON ALL SIDES ABUTTING PAVED AREAS. (TYPICAL)

WHERE SPECIFIED TO BE INSTALLED IN A ROADWAY OR DRIVEWAY, THE PULLBOX SHALL BE CONSTRUCTED (AS ABOVE) WITH 8" WALLS, REINFORCING STEEL, & A STREET TYPE (HEAVY-DUTY) FRAME & COVER.
(TYPE "D" & "G" PULLBOXES)

TYPICAL U.G. CABLING ASSIGNMENT SHOWING FOUR DUCT

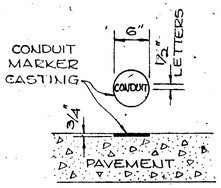


USE MANUFACTURER'S STANDARD SPACERS. INSTALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDED METHODS.

ALL CABLE INSTALLED IN CONDUIT SHALL BE IDENTIFIED BY RESPECTIVE CKT., ETC., AND SHALL BE MAINTAINED IN THE SAME DUCT THROUGHOUT THE ENTIRE RUN.

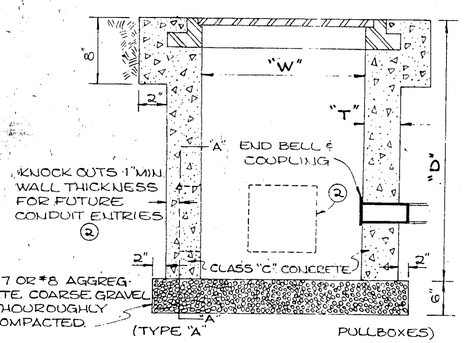
(R) SPARE (RESERVE FOR COMM DIV)
(T) LOCAL TRAFFIC (TOP-ST. SIDE)
(TC) TRAFFIC SIG. INTERCONNECTION (BOTTOM-ST. SIDE)
(S) STREET LIGHTING (BOTTOM-FIELD SIDE)

CONDUIT MARKER
(USE WHERE CONDUIT TERMINATE UNDERGROUND)



DESIGN DATA

FRAME & COVER DIMENSIONS (IN INCHES)						PULLBOX DIMENSIONS (INCHES) & CLASS						DESIGN COND USE PER PULLBOX SIZE
NOMINAL SIZE OF LID	NOMINAL THICKNESS OF LID ±1/16	NOMINAL SIZE OF OPENING ±⅛	NOMINAL FRAME SIZE ±⅛	FRAME DEPTH	* DESIGN NO.	OVERALL DEPTH	INSIDE WALL	WALL THICKNESS MIN.	CLASSIFICATION OR TYPE AS SPECIFIED			MAX. NO. OF COND. PER PULL BOX WALL W/MAX. COND SIZE 4"
"A"	"B"	"C"	"E"	"F"		"D"	"W"	"T"	REGULAR	STREET	W/DRAIN	
10¾"x18¾"	½	10x18	16x24	3	R-6684-2 E-1840	30	10x18	3	A		AD	2



(TYPE "A" PULLBOXES)

* REFER TO ACCEPTABLE FRAMES & COVERS FURNISHED BY: CHRIS, ERHARDT FOUNDRY & MACHINE CO., CINCINNATI, OHIO ("E" NUMBERS); NEENAH FOUNDRY CO., NEENAH, WISC. ("R" NUMBERS)

NOTES

FRAME & COVER

REGULAR TYPE PULLBOX FRAMES & COVERS SHALL BE CONSTRUCTED OF GRAY IRON MEETING THE REQUIREMENTS OF ASTM-A48, CLASS 30, WITH MINIMUM TENSILE STRENGTH OF 30000# PSI.
STREET TYPE PULLBOX FRAMES & COVERS SHALL BE CONSTRUCTED OF DUCTILE IRON, MEETING THE REQUIREMENTS OF ASTM A-536, GRADE 60-40-18, WITH A MIN. TENSILE STRENGTH OF 60,000# PSI.
ALL FRAMES & COVERS SHALL BE OF UNIFORM QUALITY & FREE FROM BLOWHOLES, HARDSPOTS, SHRINKAGE DISTORATION, & OTHER DEFECTS, AND SHALL HAVE THE DIMENSIONS SPECIFIED IN THE DESIGN DATA TABLE.
COVERS (OR LIDS) SHALL BE TREADED AND EQUIPPED WITH PICK HOLES FOR LIFTING LID OFF FRAME.

PULLBOX CONSTRUCTION

PULLBOXES SHALL BE CONSTRUCTED AS SHOWN, & WITH FRAME, SHALL BE CAST IN PLACE, OR APPROVED PRE-CAST WITH FRAME PRECAST INTO BOX AND WITH REINF, EXCEPT STREET TYPE BOXES.
EXISTING PULLBOXES MAY BE MODIFIED WITH CONCRETE BRICK MEETING THE REQUIREMENTS OF ITEM 704.02. IF CONCRETE BRICK IS USED, THE SIDE WALLS SHALL HAVE A MINIMUM THICKNESS OF 7½", AND BRICK MASONRY SHALL HAVE CONSTRUCTED IN ACCORDANCE WITH ITEM 602.
STREET TYPE PULLBOXES SHALL BE CAST-IN-PLACE CLASS "C" CONCRETE WITH REINFORCING MEETING THE REQUIREMENTS OF ITEM 703.01

DRAINAGE

WHERE A PULLBOX IS SPECIFIED TO BE DRAINED TO THE SEWER SYSTEM, A 9"x9" CAST IRON STANDARD DRAIN OUTLET, WITH LID, (NEENAH FOUNDRY CO. R-4933-B, OR EQUIVALENT BY JOSAM OR ZURN MFG. CO) SHALL BE INSTALLED AT THE BOTTOM OF PULLBOX AND CONNECTED TO A 3" CAST IRON PIPE DRAIN LINE TO THE SPECIFIED SEWER CONNECTION. DRAIN LINE SHALL HAVE A MIN. SLOPE OF ¼" PER FOOT TOWARD SEWER. CAST IRON PIPE, ELBOWS, & OTHER FITTINGS SHALL CONFORM TO REQUIREMENTS OF ASTM-A-74.
UNLESS OTHERWISE SPECIFIED, PULLBOX DRAINAGE SHALL CONSIST OF 6" OF COMPACTED, COARSE, WASHED GRAVEL # 7 OR # 8 AGGREGATE PER ITEM 703.

CONDUIT ENTRIES

① A CONDUIT ENTRY THROUGH A PULLBOX WALL SHALL CONSIST OF AN END BELL & COUPLING WHICH SHALL PROTRUDE BEYOND THE OUTER FACE OF THE WALL, SUFFICIENT IN SIZE & LENGTH FOR CONNECTION TO THE PROPOSED DUCT SYSTEM.

② A SECTION OF EACH WALL SHALL BE KNOCHED AND RECESSED FOR PROPOSED AND FUTURE CONDUIT ENTRIES. (SEE DETAIL)
WHEN CONDUITS ARE INSTALLED, ALL OPENINGS & SPACES SHALL BE FILLED WITH "CLASS "C" CONCRETE & FINISHED OR POINTED UP TO SATISFACTION OF THE ENGINEER.
IN CUTTING OR BREAKING INTO WALLS WHERE THE INSTALLATION OF ADDITIONAL CONDUIT IS SPECIFIED CONNECTED TO AN EXISTING PULLBOX, ANY DAMAGE TO THE WALL SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

UNDERGROUND CONDUIT

ALL CONDUIT SPECIFIED AS PVC TYPE I, (INDUSTRIAL TYPE A-THIN WALL) SHALL BE CONCRETE ENCASED. (NOTE: - ALL UNDERGROUND CONDUIT SHALL BE PVC, CONCRETE ENCASED, UNLESS SPECIFIED OTHERWISE ON THE PLANS).
ALL CONDUIT SPECIFIED AS DIRECT BURIAL SHALL BE:
PVC - TYPE II (INDUSTRIAL SCHEDULE 40 - HEAVY WALL) OR,
RIGID METAL CONDUIT (RMC) - 713.04
MAXIMUM CONDUIT RUN BETWEEN PULLBOXES SHALL NOT EXCEED 150 FT.
EACH UNUSED CONDUIT SHALL BE PROVIDED WITH A #10 AWG SOLID COPPER PULL WIRE.

BACKFILL

EXCAVATED MATERIAL SHALL BE USED AS BACKFILL.
BACKFILL SHALL BE PLACED IN LAYERS AND TAMPED TO PREVENT FUTURE SETTLEMENT OF BACKFILL MATERIAL IN ACCORDANCE WITH 625.12.

RESTORATION

SHALL COMPLY WITH 603.09

SPECIFICATION NUMBERS REFER TO OHIO DEPT. OF TRANSP. "CONSTR. & MATERIAL" SPECS. & ASTM SPECIFICATIONS.
CITY OF CINCINNATI SUPPLEMENTAL SPECS. TO O.D.O.T. C&M SPECS. ITEM 1322 ALSO APPLIES FOR CITY PROJECTS AND CONTRACTS.

DESIGN	REVISION	DATE	WO #	SCALE	SOURCE	DRAWN	FILE NO.
R.R.R.	APPROVED	10-21-80			ES-6 REDRAWN	J.C.A.	ES-2

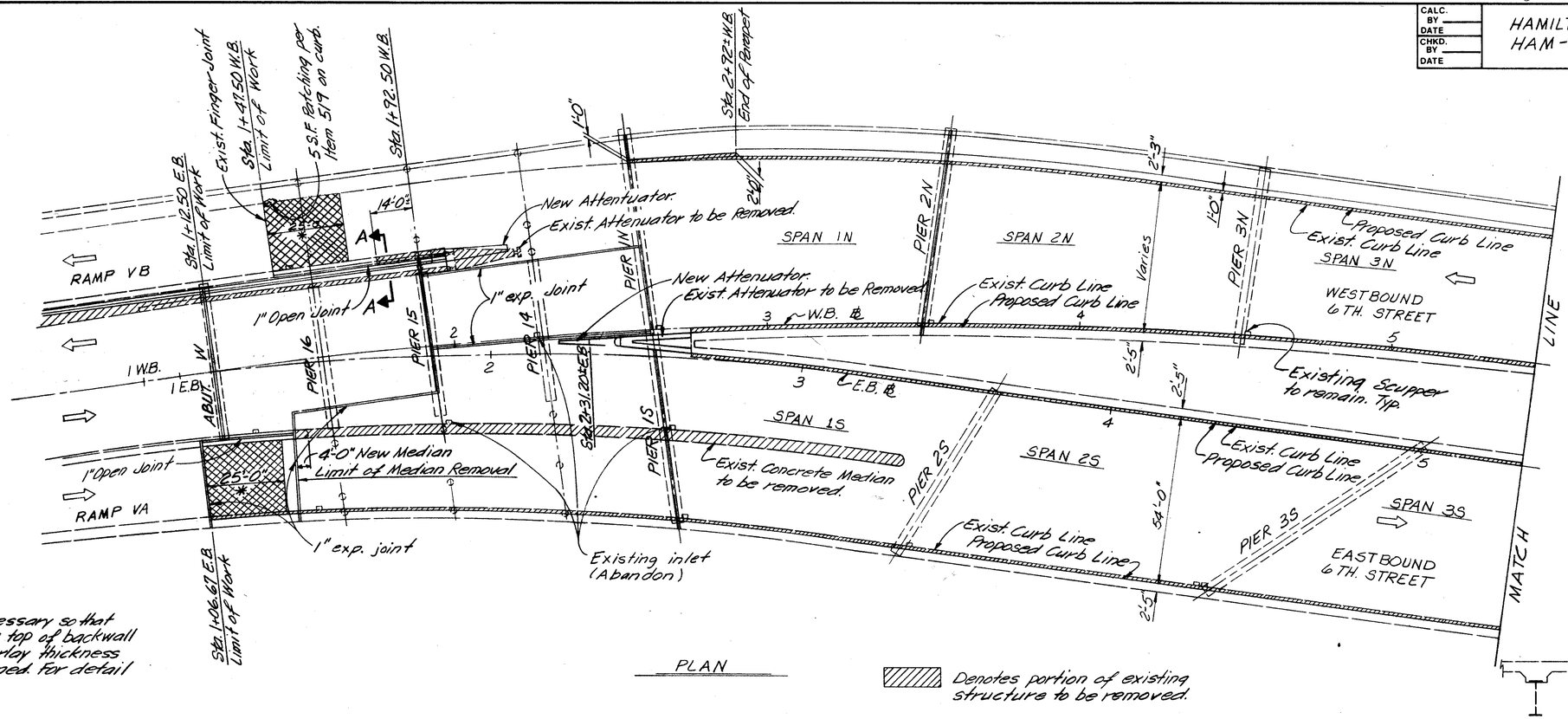
R.R.R.	R&K TRENCH REQ. FOR UNDER RDWYS.	11-2-87	

CONDUIT SYSTEMS
STANDARD PULLBOXES & CONDUIT SYSTEM
CITY OF CINCINNATI
DEPT. OF PUBLIC WORKS
DIV. OF TRAFFIC ENGR.

APPROVED _____ DATE 8-26-81
APPROVED _____ DATE _____

255 Orange 150-~~255~~

CALC. BY		HAMILTON COUNTY HAM-50-19.36	OHIO	150/255
CHKD. BY			FHWA REGION 5	
DATE				

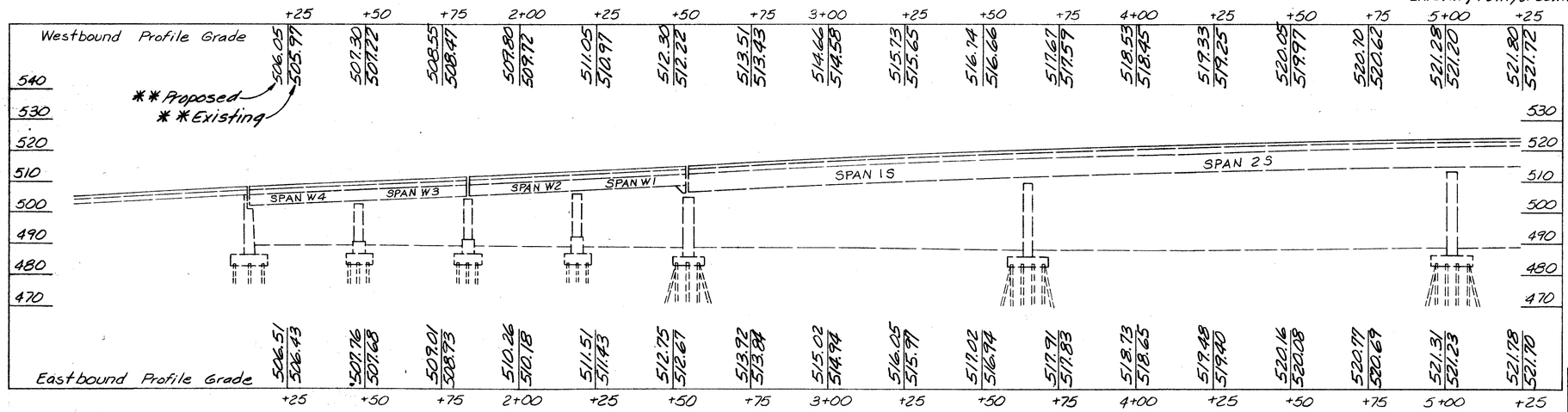


PLAN

Denotes portion of existing structure to be removed.

SECTION A-A

* Plane concrete as necessary so that overlay meets existing top of backwall at joint. Minimum overlay thickness of 1¼" to be maintained. For detail see Sheet (92/255).



ELEVATION

** Elevations are provided for information only. The 1¼" micro-silica modified concrete overlay shall be of uniform thickness & the final deck elevations will not necessarily conform to these profile elevations.

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	1/30

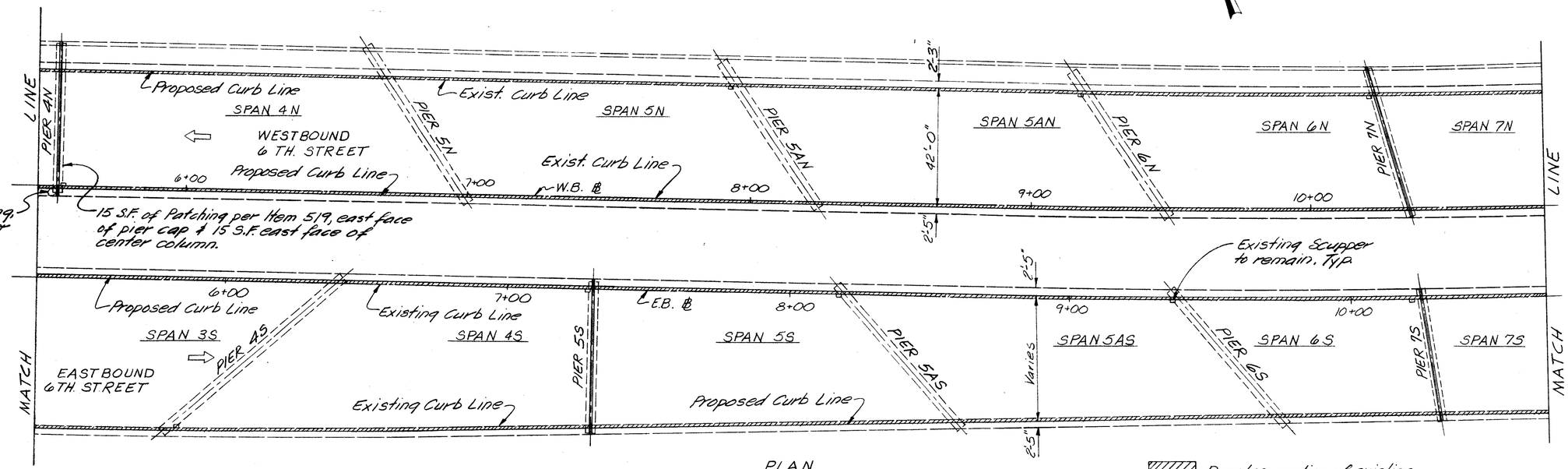
GENERAL PLAN

BRIDGE NO. HAM-50-1936 LT. & RT.
SIXTH ST. EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 1/30/92

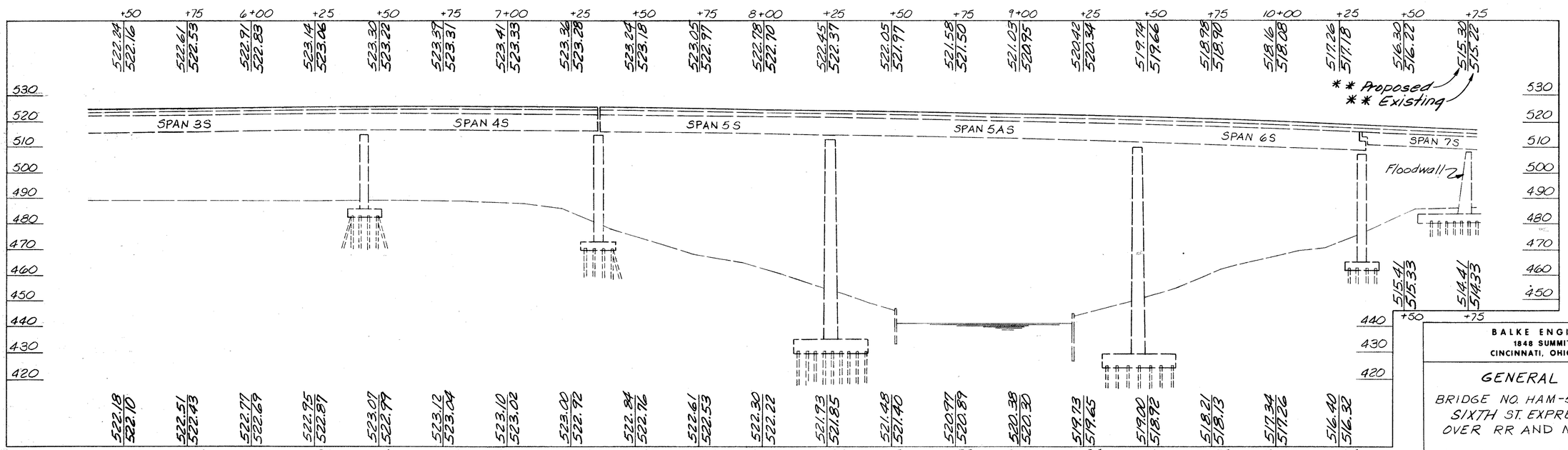
CALC. BY / DATE	HAMILTON COUNTY	OHIO	151
CHKD. BY / DATE	HAM-50-19.36	FHWA REGION 5	255



PLAN

Denotes portion of existing structure to be removed.

** See note sheet 1/30.



ELEVATION

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

2/30

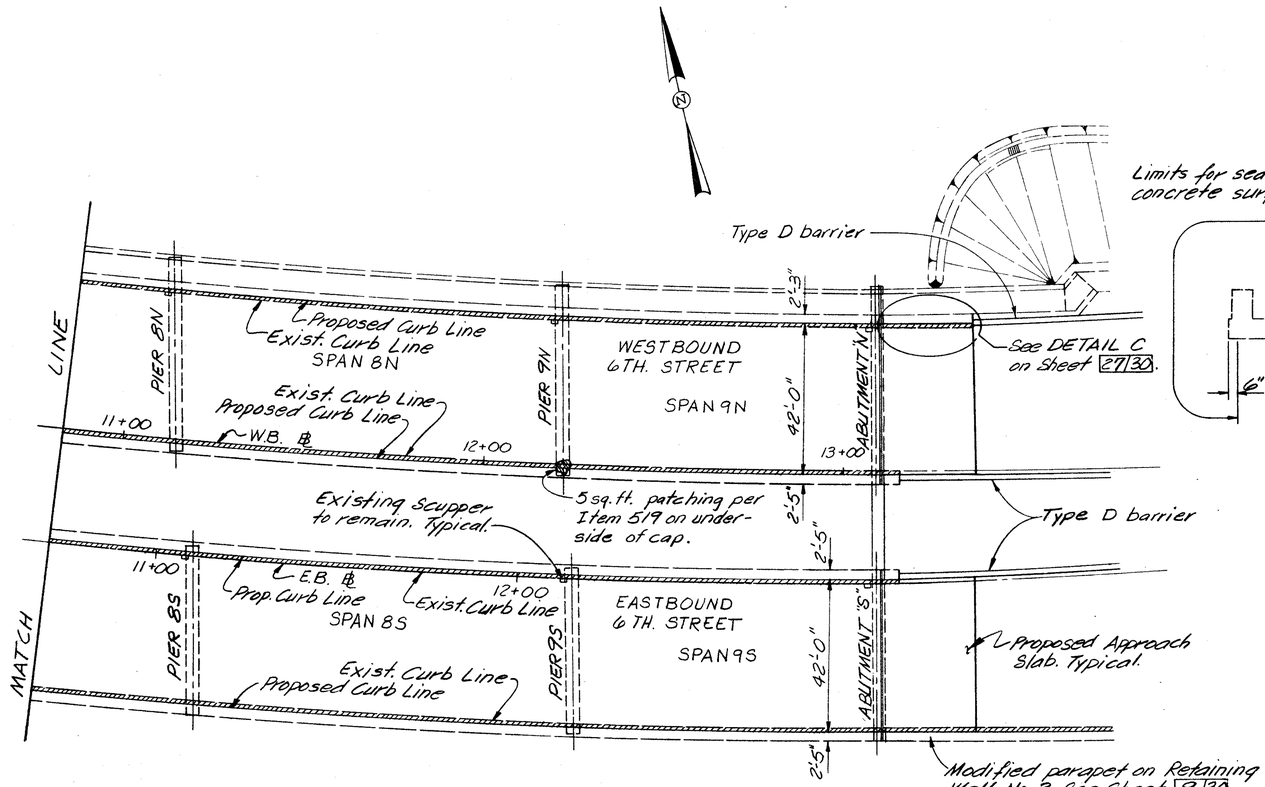
GENERAL PLAN

BRIDGE NO. HAM-50-1936 LT. & RT.
SIXTH ST. EXPRESSWAY
OVER RR AND MILL CREEK

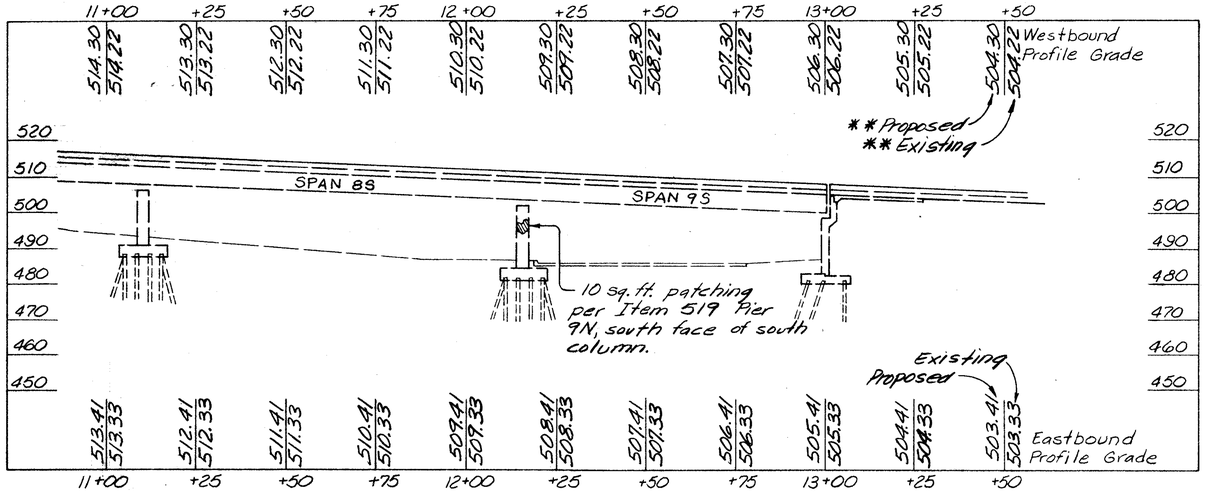
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT N1992

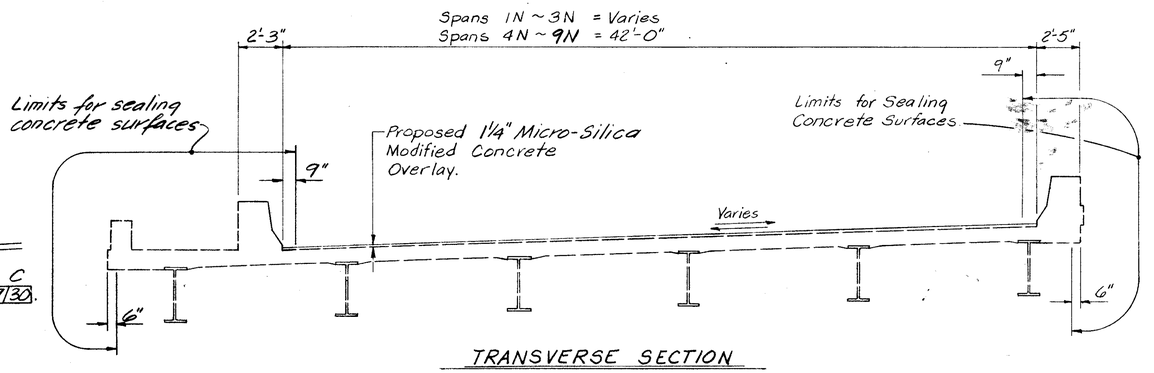
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	152 255
CHKD. BY / DATE			



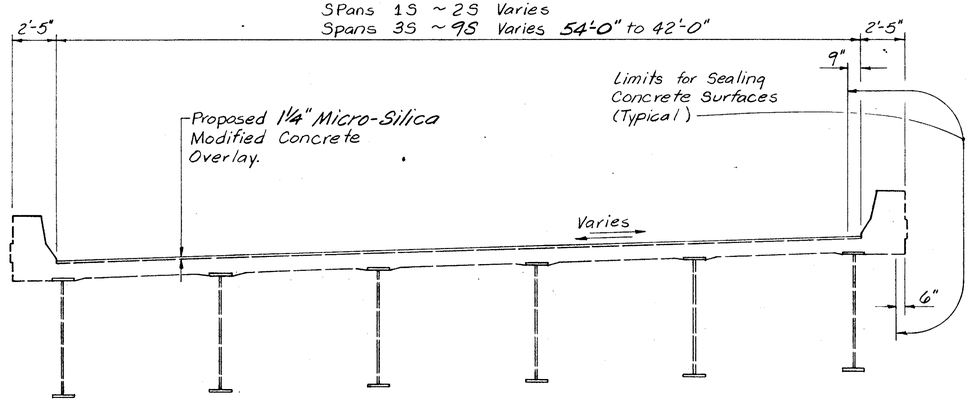
PLAN



ELEVATION



TRANSVERSE SECTION
(Typical for Spans 1N thru 9N)



TRANSVERSE SECTION
(Typical for Spans 1S thru 9S)

▨ Denotes portion of existing structure to be removed.

** See note sheet 1/30.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

3/30

GENERAL PLAN

BRIDGE NO. HAM-50-1936 LT.&RT.
SIXTH ST. EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO DOT 1990

CALC. BY DATE		HAMILTON COUNTY HAM-50-19.36	OHIO	153
CHKD. BY DATE			FHWA REGION 5	255

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

Reference shall be made to standard drawings:
AS-1-81 Dated 11-27-81
EXJ-4-87 Dated 1-5-89

Reference shall be made to supplemental specifications:
836 Dated 11-12-85
852 Dated 12-14-88

DESIGN STRESSES

Concrete compressive strength-
Class S - 4500 PSI
Class C - 4000 PSI

Reinforcing steel - ASTM A615, A616, A617
Minimum yield strength
Grade 60 - 60,000 PSI

SCOPE OF WORK

The scope of work to be performed shall be executed in stages as shown and includes:

1. Add strip seals.
2. Refurbish and reset abutment bearings.
3. Replace sliding bearings as indicated on plans.
4. Refurbish drains.
5. Trim beam ends at east abutment to clear backwall.
6. Replace deteriorated portions of backwalls, as indicated on plans.
7. Seal cracks in east abutments with epoxy injection.
8. Retrofit railings, as indicated on plans.
9. Seal parapets, abutments and piers as shown.
10. Overlay deck with $1\frac{1}{4}$" micro-silica modified concrete.
11. Patch abutments and piers as shown, and seal vertical joint between abutment and retaining wall.
12. Replace approach slabs.
13. Drill hole at end of crack in steel girder as shown on plan.
14. Rehab box girder @ Pier 5N as shown.

EXISTING STRUCTURE VERIFICATION

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and/or from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work, but they shall be considered tentative and approximate. It is the intent of these plans that the proposed additions to these structures match existing conditions. The Contractor is referred to CMS sections 102.05 and 105.02.

Contract bid prices shall be based upon a recognition of the uncertainties described in the preceding paragraph and upon a prebid examination of the existing structure by the Contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the Contractor in the field.

ITEM 202 - PORTIONS OF STRUCTURES REMOVED

Removal of portions of existing structure shall be performed in such a manner as to prevent debris from falling onto the road, railroad, or into the creek below. All debris shall be removed from the site and disposed of by the Contractor.

REPLACEMENT OF EXISTING REINFORCING

Any existing reinforcing bars which are to be incorporated into the new work and which are made unusable by the contractor's concrete removal operations shall be replaced with new steel at his cost. Any existing reinforcing bars deemed by the Engineer to be unusable because of corrosion shall be replaced with new steel. An allowance of 100 pounds is included in Item 509 for this purpose.

ITEM SPECIAL - MICRO-SILICA MODIFIED CONCRETE OVERLAY

Longitudinal joints in the concrete overlay are permitted but only to the extent necessary to accommodate the width of the finishing machine, to facilitate changes in the roadway crown, and to permit maintenance of vehicular traffic. See proposal note for details.

MAINTENANCE OF TRAFFIC

For maintenance of traffic on Sixth Street Expressway, see highway drawings.

PLANS FOR EXISTING BRIDGE

Plans of the existing structure are available for reference at the City of Cincinnati Engineer's Office and at the ODOT District Eight office.

ITEM 516 - REFURBISH BEARING DEVICE

This Item shall include all work necessary to clean and paint rocker bearings at east abutment and piers 1N, 1S, 2N, 4N, 5S, 7N & 7S. Included shall be:

1. Disassembly of rockers.
2. Hand cleaning (grinding if required.)
3. Sandblasting and painting as required by field painting of existing steel, System OZEU, proposal note.
4. Replacement of any damaged sheet lead (711.19). Preformed bearing pads 1/8" thick, meeting the requirements of 711.21, may be substituted for the sheet lead.
5. Installation of any necessary 1/8" thick steel shims of the same size as the bearings to provide a snug fit.
6. Reassembly of the rockers.

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. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 - REFURBISH BEARING DEVICE.

ITEM 516 - JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE

The ends of the beams at each location where bearings are to be refurbished shall be jacked and the beams supportedso bearing may be removed. Prior to jacking, the Contractor shall submit his jacking plan to the Engineer for approval.

ITEM 516 - RESET BEARINGS

Refurbished bearings shall be reset to be vertical at 60° F. Masonry plates shall be adjusted to be centered under bearing.

ITEM 513 - TRIMMING OF BEAM ENDS

The ends of the beams at the east abutment shall be trimmed by removing 1". Care shall be taken not to damage the crossframe while trimming the end of the beam.

ITEM SPECIAL - EPOXY INJECTION

The cracks in the east abutment shall be sealed by epoxy injection.

SEALING OF CONCRETE SURFACES

Portions of the structure shall be sealed as noted below. See the proposal note for application procedures & materials. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of sealer to be used.

1. Parapets shall be sealed as shown on sheet 3/30 with an epoxy or non-epoxy sealer. Walk surfaces shall be sealed with a non-epoxy sealer.
2. Abutment backwalls, beam seats, and the face of the breastwall and wingwalls to the ground line shall be sealed with an epoxy sealer.
3. The total surface of all piers shall be sealed with an non-epoxy sealer.

REFURBISH DRAINS

This item shall include the cleaning and flushing out of the scupper inlet and downspout. The downspout shall be throughly cleaned so that water flows freely. All exposed pipes and supports shall be cleaned and painted as required by field painting of existing steel, system OZEU proposal note. Payment for all the above described labor and materials will be made at the contract price bid for Item 518 - structural drainage, misc: refurbish drains.

ITEM 510 - DOWEL HOLES

Dowel holes shall be drilled and grouted per Supplemental Specification 852 and CMS 705.20.

PAINTING OF STRUCTURAL STEEL

All steel from the west limits of work to piers 1N and 1S shall be painted. In addition, all steel within 6 feet of an expansion joint shall be painted. Painting shall be in accordance with field painting of existing steel, system OZEU proposal note.

See plans for additional areas to be painted per proposal note for Field Painting of Existing Steel, Using Epoxy and Urethane (EEU). See sht. 103 of 255.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

4/30

GENERAL NOTES
BRIDGE NO. HAM-50-1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO	154
CHKD. BY DATE		FHWA REGION 5	255

ESTIMATED QUANTITIES

ITEM	CODE	TOTAL	UNIT	DESCRIPTION	LEFT BRIDGE			RIGHT BRIDGE		
					ABUTMENTS	SUPERST.	GENERAL	ABUTMENTS	SUPERST.	GENERAL
202	11202	L.S.	Lump sum	Portions of structures removed, Over 20 foot span	–	–	L.S.	–	–	L.S.
509	15800	77,491	Lbs.	Epoxy coated reinforcing steel, grade 60	3917	35,185	50	2617	33,534	2188
510	12200	3809	Lin. Ft.	Dowel hole	110	1459	–	99	1853	288
511	34400	470	Cu. Yd.	Class S concrete, superstructure (repair or reconstruction)	–	233	–	–	237	–
511	45700	76	Cu. Yd.	Class C concrete, abutment (repair or reconstruction)	29	–	–	30	–	17
SPECIAL	51267500	6439	Sq. Yd.	Sealing of concrete surfaces *	–	3826	–	–	2613	–
SPECIAL	51267502	244	Sq. Yd.	Sealing of concrete surfaces (epoxy) *	130	–	–	114	–	–
SPECIAL	51267504	4835	Sq. Yd.	Sealing of concrete surfaces (non-epoxy) *	–	–	2364	–	–	2471
513	16600	L.S.	Lump sum	Structural steel, misc.: repair of fracture critical box girder pier cap	–	L.S.	–	–	–	–
513	16600	L.S.	Lump Sum	Structural steel, misc.: crack repair	–	–	–	–	L.S.	–
513	16800	6	Each	Structural steel misc.: splice plate replacement	–	6	–	–	–	–
513	16800	10	Each	Structural steel misc.: removal of backing-bar stitch weld including N.D.T.	–	10	–	–	–	–
513	21000	12	Each	Trimming of beam end	–	6	–	–	6	–
SPECIAL	51400100	L.S.	Lump Sum	Surface preparation of existing steel, system OZEU * ∝	–	–	L.S.	–	–	L.S.
SPECIAL	51400200	L.S.	Lump Sum	Field painting of existing steel, prime coat, system OZEU * ∝	–	–	L.S.	–	–	L.S.
SPECIAL	51400300	L.S.	Lump Sum	Field painting of existing steel, intermediate coat, system OZEU * ∝	–	–	L.S.	–	–	L.S.
SPECIAL	51400400	L.S.	Lump Sum	Field painting of existing steel, finish coat, system OZEU * ∝	–	–	L.S.	–	–	L.S.
514	27704	L.S.	Lump Sum	Field painting, misc.: Surface preparation (EEU) * ∝	–	–	L.S.	–	–	L.S.
514	27704	L.S.	Lump Sum	Field painting, misc.: Spot prime (Epoxy mastic) * ∝	–	–	L.S.	–	–	L.S.
514	27704	L.S.	Lump Sum	Field painting, misc.: Full prime (Epoxy mastic) * ∝	–	–	L.S.	–	–	L.S.
514	27704	L.S.	Lump Sum	Field painting, misc.: Complete coat finish (Urethane) * ∝	–	–	L.S.	–	–	L.S.
516	10901	109	Lin. Ft.	Elastomeric compression seal, as per plan	–	109	–	–	–	–
516	11210	542	Lin. Ft.	Structural expansion joint including elastomeric strip seal	–	320	–	–	222	–
516	11800	172	Lin. Ft.	Vertical extension of structural expansion joint	–	86	–	–	86	–
516	44000	25	Each	Elastomeric brg. w/ internal laminates & load plate (neoprene) 1 3/8" thick x5"x10"	–	12	–	–	13	–
516	45304	105	Each	Refurbish bearing device	–	62	–	–	43	–
516	46700	105	Each	Reset bearing	–	62	–	–	43	–
516	47000	L.S.	Lump Sum	Jacking and temporary support of superstructure	–	L.S.	–	–	L.S.	–
518	21200	38	Cu. Yd.	Porous backfill with filter fabric	20	–	–	18	–	–
518	63300	L.S.	Lump Sum	Structure drainage misc.: refurbish drains	–	–	L.S.	–	–	L.S.
SPECIAL	51911600	90	Sq. Ft.	Patching concrete structure	25	–	30	25	–	10
SPECIAL	51912600	24	Lin. Ft.	Concrete repair by epoxy injection*	12	–	–	12	–	–
SPECIAL	51922000	12,083	Sq. Yd.	Micro-silica modified concrete overlay (1 1/4" thick)*	–	5598	–	–	6485	–
SPECIAL	51922100	387	Cu. Yd.	Micro-silica modified concrete overlay (variable thickness)*	–	155	–	–	232	–
SPECIAL	51922200	3	Cu. Yd.	Full depth repair (micro-silica)*	–	1	–	–	2	–
SPECIAL	51922300	L.S.	Lump sum	Test slab*						
SPECIAL	51619600	36	Lin. Ft.	Precompressed joint filler	–	–	18	–	–	18

ESTIMATED QUANTITIES CALCULATED BY : WJH DATE : 12/91

CHECKED BY : EHC DATE : 1/92

* See proposal note

∝ See also note on sht. 153 of 255

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

5 /30

ESTIMATED QUANTITIES

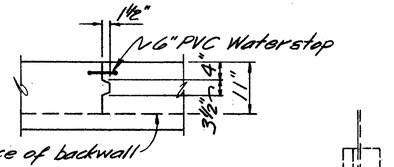
BRIDGE NO. HAM-50-1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

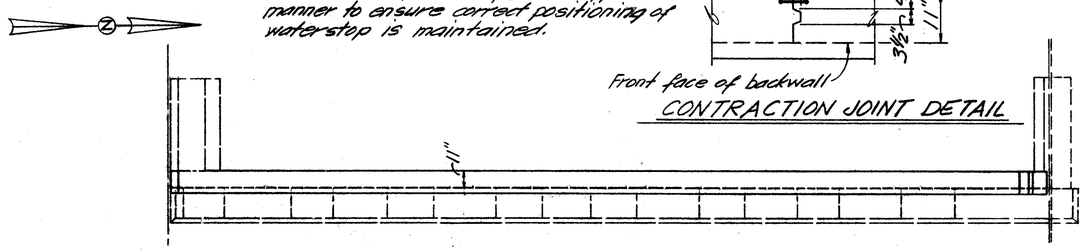
DISK 5 1936Q2

CALC. BY / DATE	HAMILTON COUNTY	OHIO	155
CHKD. BY / DATE	HAM-50-19.36	FHWA REGION 5	255

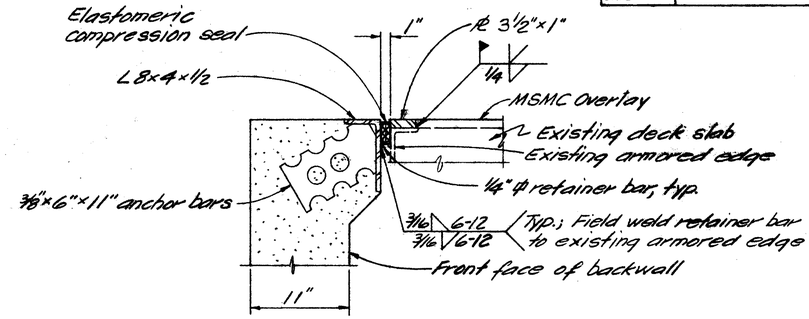
Waterstop to be Vinylex R4-316, Greenstreak 781 or approved equal. Waterstop to be securely held in place in approved manner to ensure correct positioning of waterstop is maintained.



CONTRACTION JOINT DETAIL

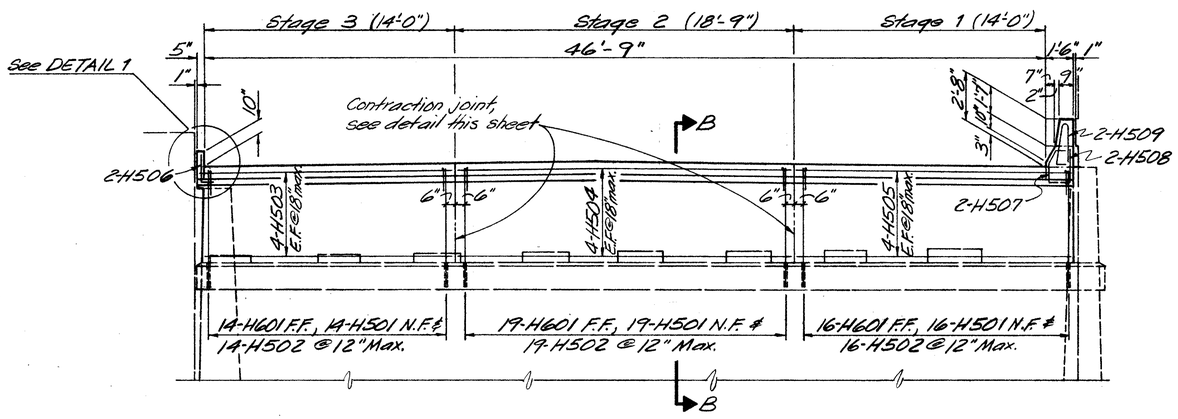


PLAN

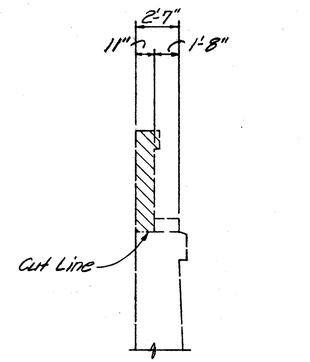


EXPANSION JOINT DETAIL

For additional information refer to Std. Dwg. EXJ-2-81



ELEVATION



SECTION A-A

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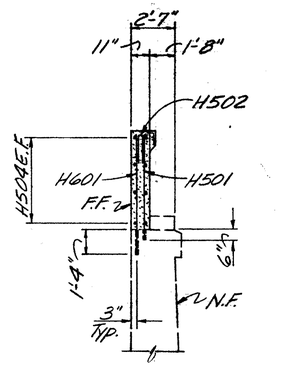
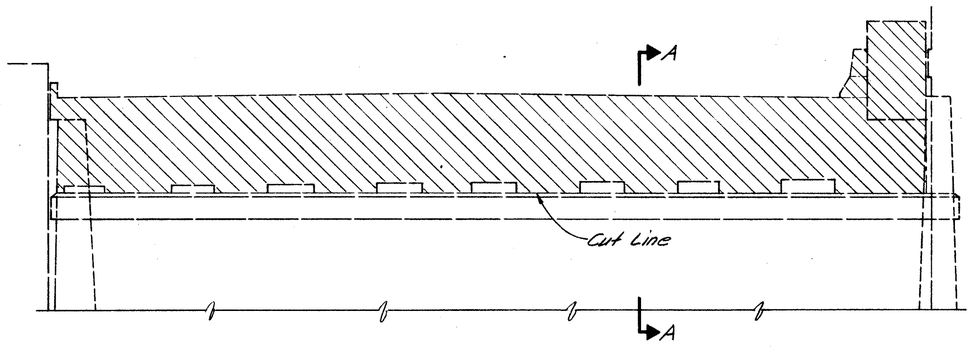


SECTION B-B



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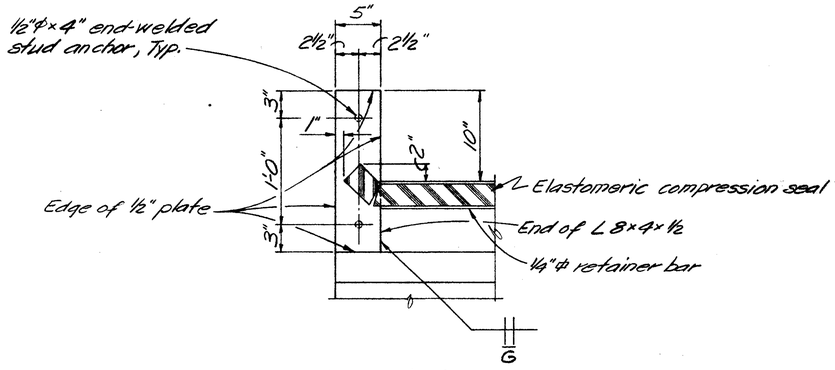


DETAIL 1

Denotes portion of existing structure to be removed.

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face

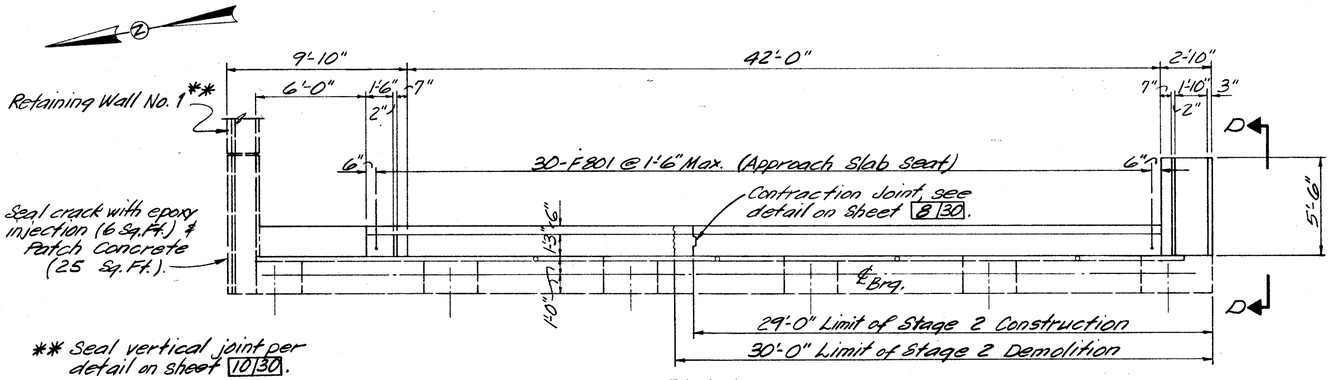
BALKE ENGINEERS	6/30
1848 SUMMIT RD. CINCINNATI, OHIO 45237	

ABUTMENT W
BRIDGE NO. HAM-50-1936 R. & L.
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

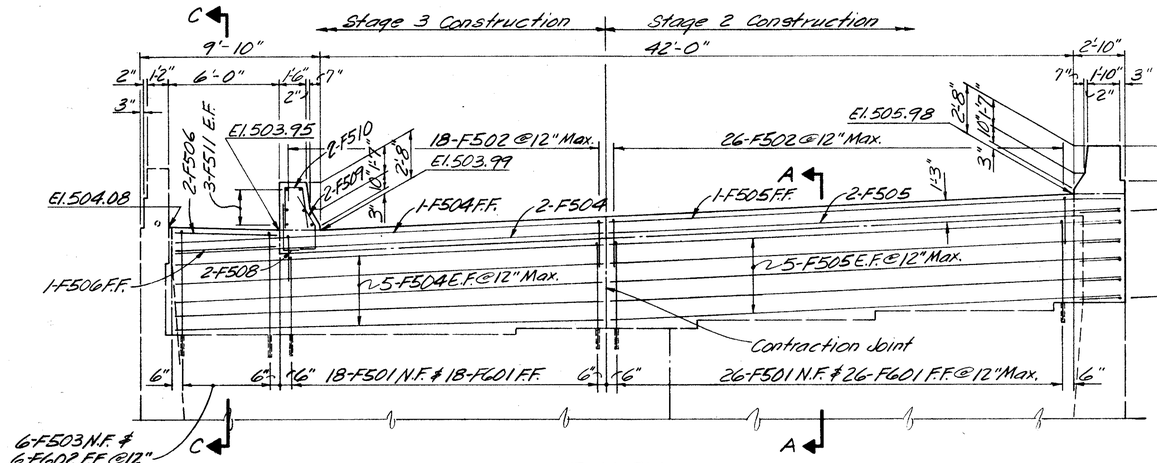
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 142960

CALC. BY		HAMILTON COUNTY	OHIO	156
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



PLAN



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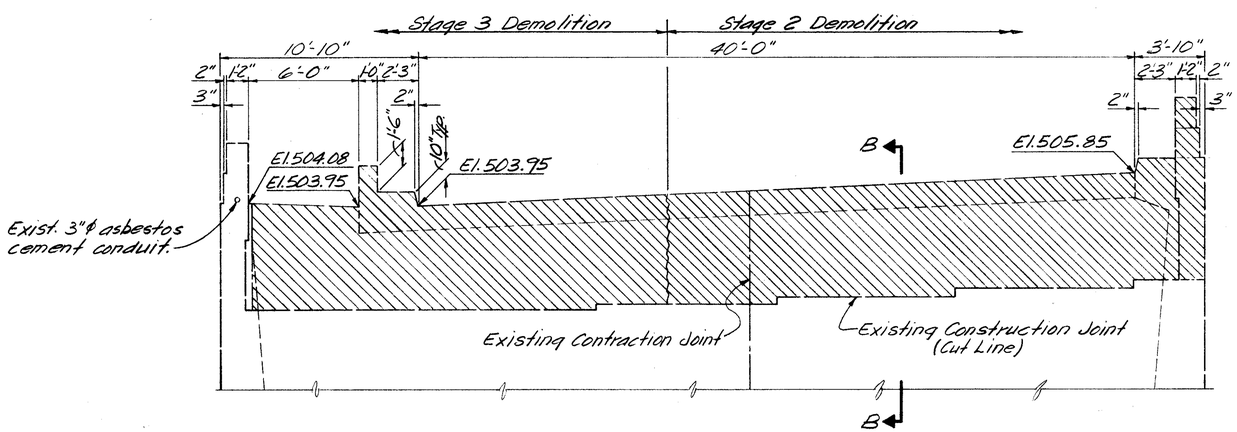
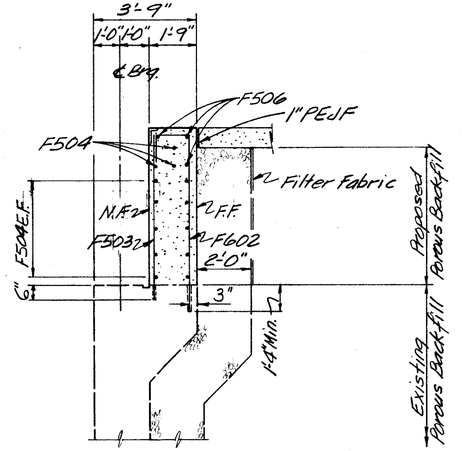
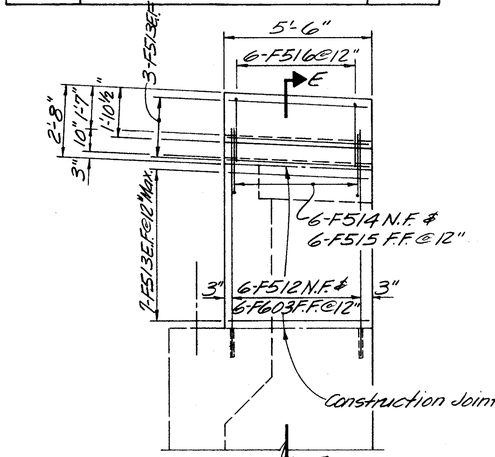


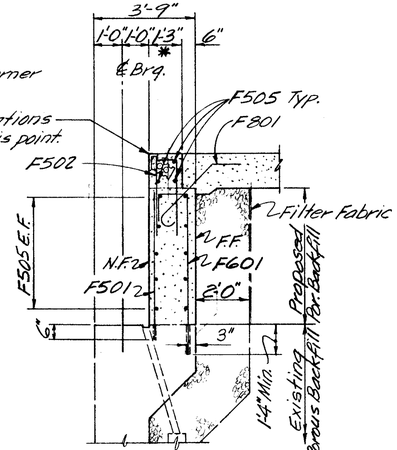
ELEVATION
(Showing Removal)



SECTION C-C

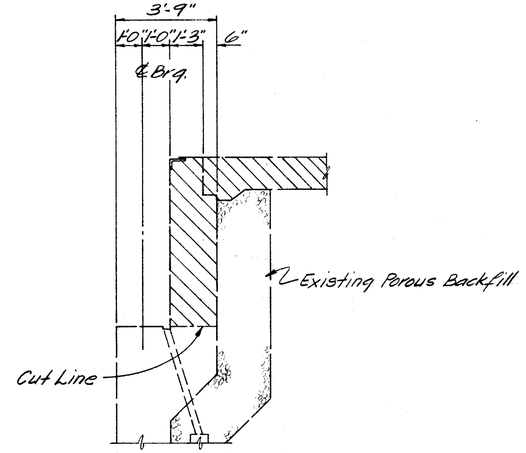


ELEVATION D-D



SECTION A-A

* This dimension based on opening required for expansion joint.



SECTION B-B
(Showing Removal)

Note:
1. E.F. = Each Face
   F.F. = Far Face
   N.F. = Near Face
2. For Section E-E see sheet 9 30.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

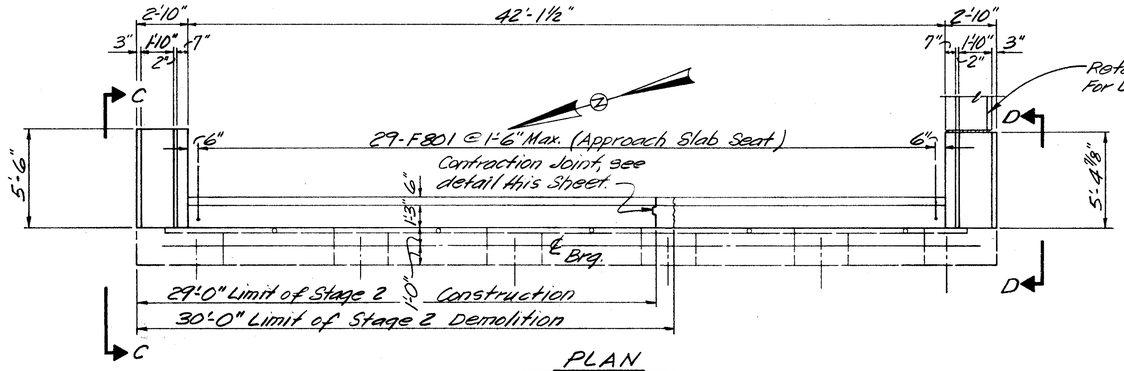
7 30

ABUTMENT N
BRIDGE NO. HAM-50-1936 R & L
SIXTH STREET EXPRESSWAY
OVER
R.R. AND MILL CREEK

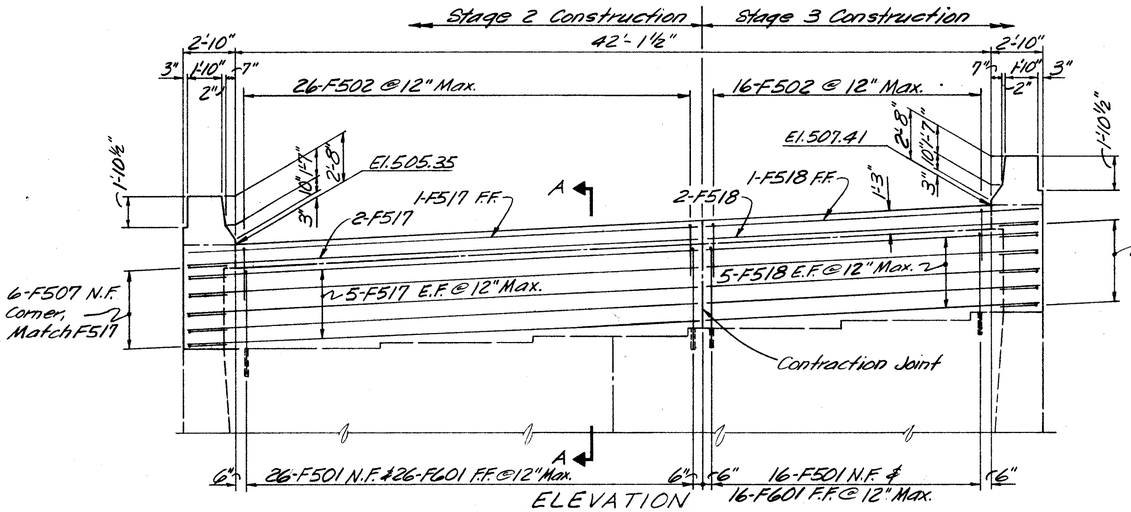
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 9/92	

OHIO BLUE PRINT M-2963

CALC. BY / DATE	HAMILTON COUNTY	OHIO	157
CHKD. BY / DATE	HAM-50-19.36	FHWA REGION 5	255



PLAN



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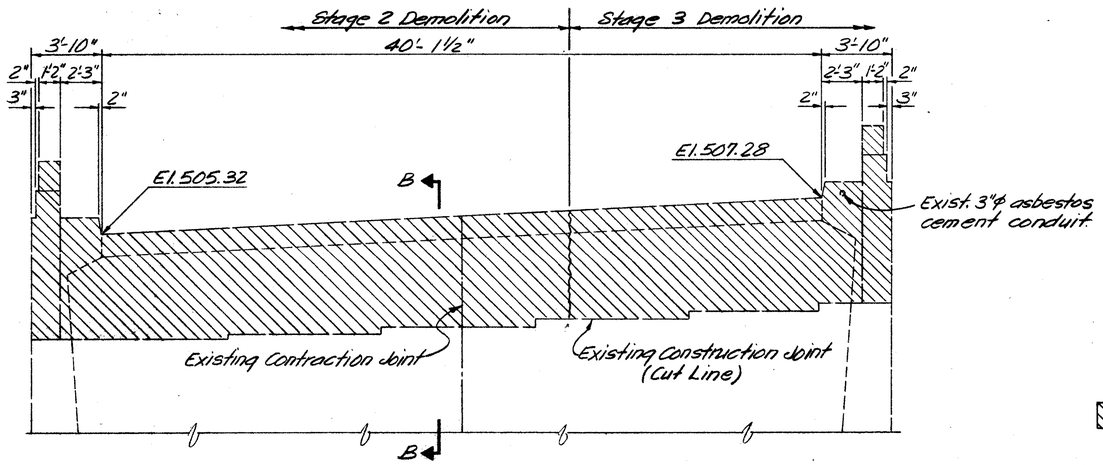

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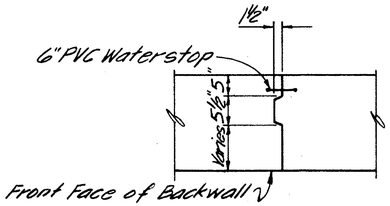
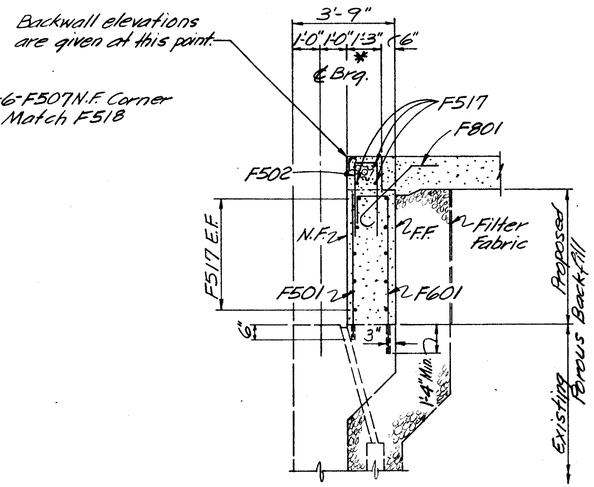


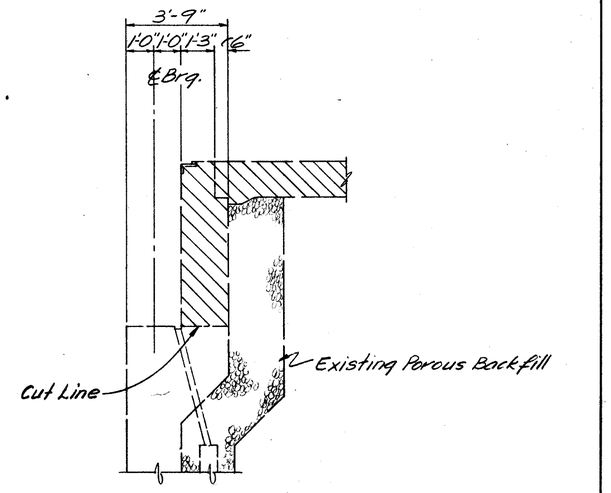
CONTRACTION JOINT DETAIL
(Proposed)

Waterstop to be Vinylex R4-316, Greenstreak 781 or approved equal. Waterstop to be securely held in place in approved manner to ensure correct positioning of waterstop is maintained.



SECTION A-A

* This dimension based on opening required for expansion joint.



SECTION B-B
(Showing Removal)

Notes:
1. E.F. = Each Face
   F.F. = Far Face
   N.F. = Near Face
2. For Elevation C-C & D-D see Sheet 9|20.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

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ABUTMENT S
BRIDGE NO. HAM-50-1936 R. & L.
SIXTH STREET EXPRESSWAY
OVER
R.R. AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 1457A3

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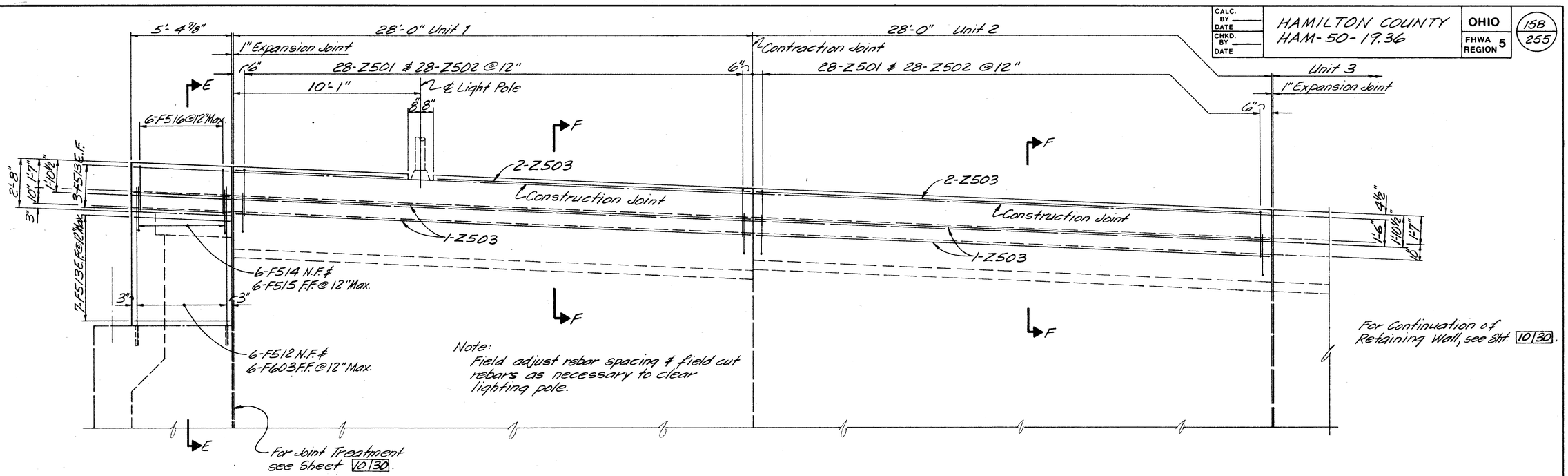
HAMILTON COUNTY
HAM-50-19.36

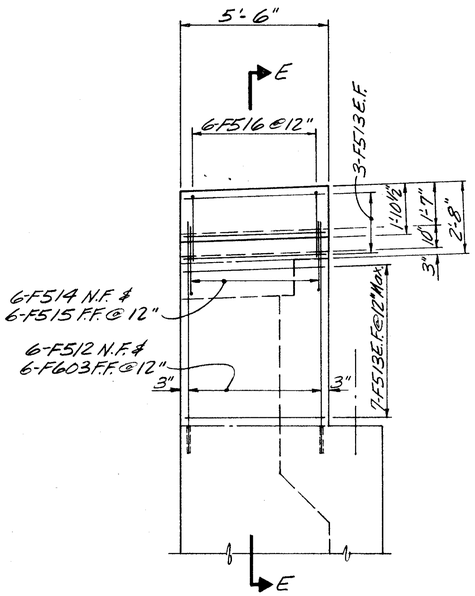
OHIO
FHWA REGION 5

158
255

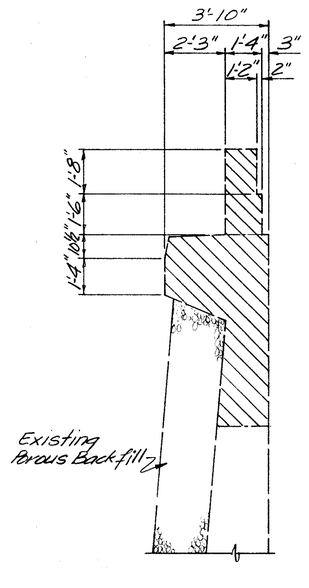


ELEVATION D-D

ELEVATION RETAINING WALL NO. 2



ELEVATION C-C



SECTION E-E
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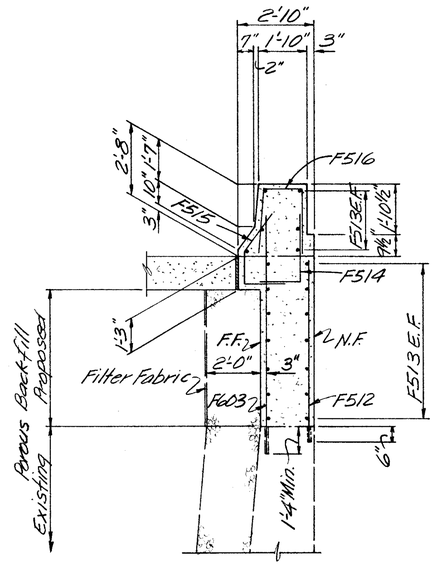
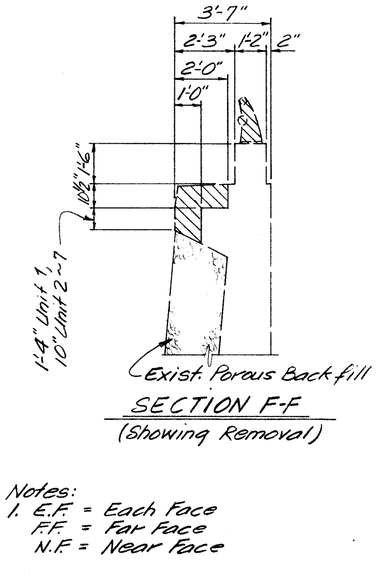


SECTION E-E



SECTION F-F
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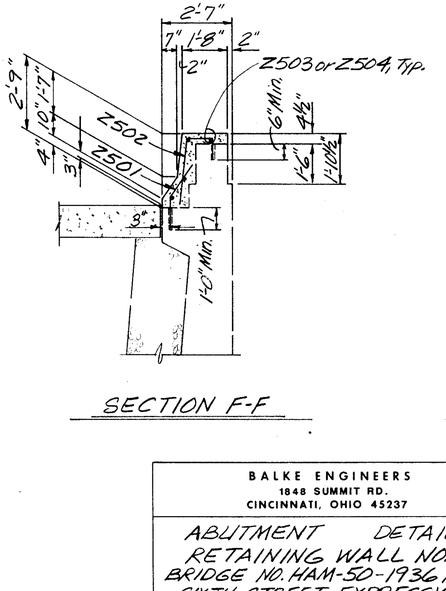

SECTION F-F

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face

Denotes portion of existing structure to be removed.

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ABUTMENT DETAILS & RETAINING WALL NO. 2
BRIDGE NO. HAM-50-1936 R & L.
SIXTH STREET EXPRESSWAY
OVER
R.R. AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT FX5763

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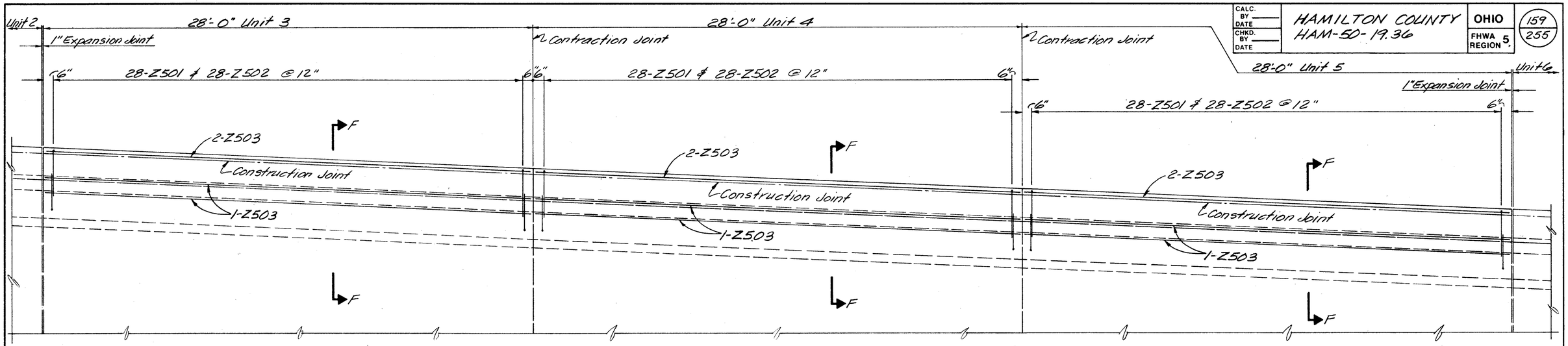
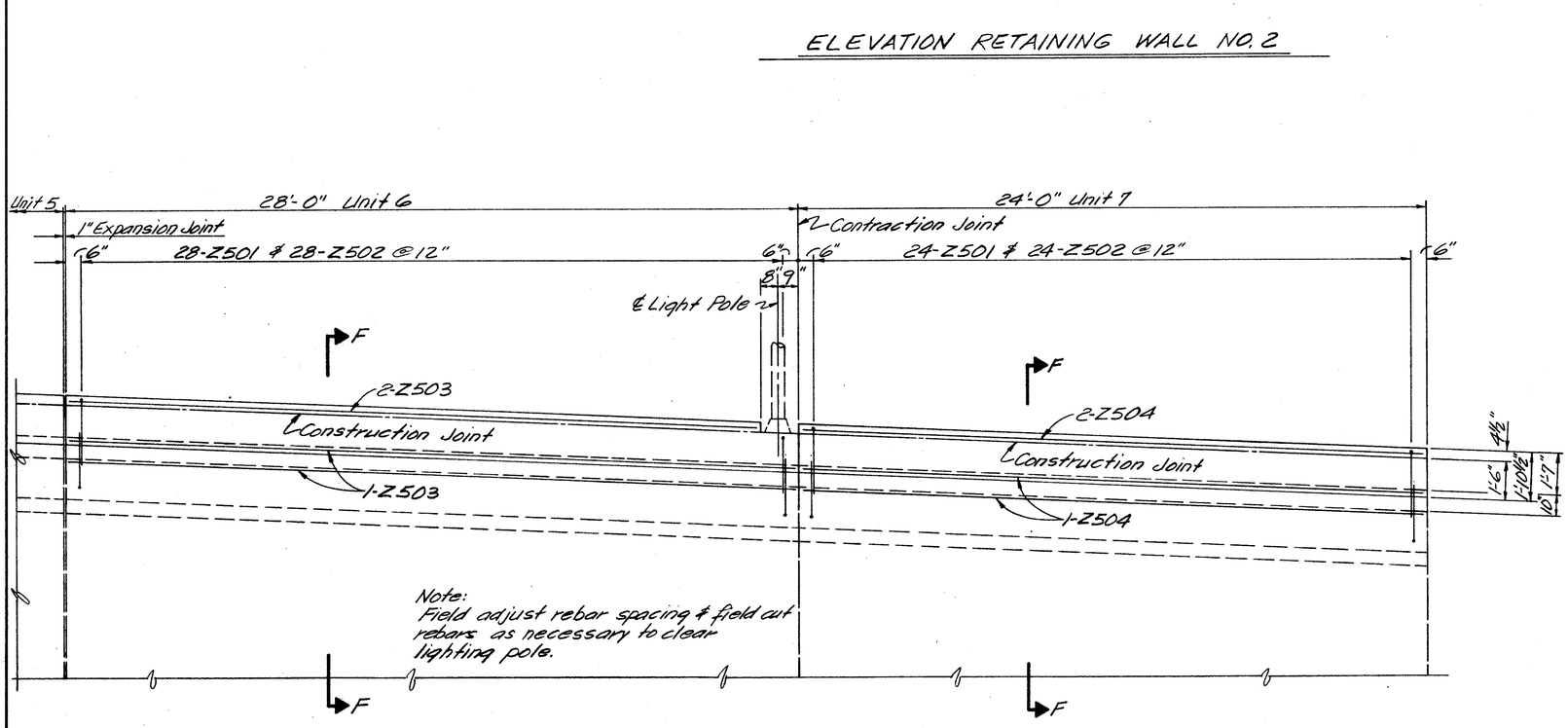
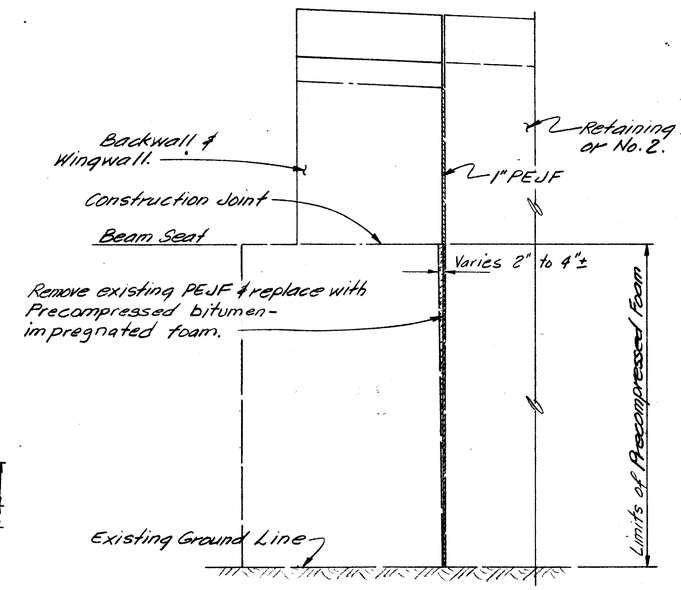


ELEVATION RETAINING WALL NO. 2



ELEVATION



VERTICAL EXPANSION JOINT TREATMENT

(East & West bound abutment)

Notes:
1. For Section F-F, see Sheet 9/30.
2. PEJF = Preformed Expansion Joint Filler.

BALKE ENGINEERS
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RETAINING WALL NO. 2
BRIDGE NO. HAM-50-1936 R. & L.
SIXTH STREET EXPRESSWAY
OVER
R.R. AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
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DATE			FHWA REGION 5	255
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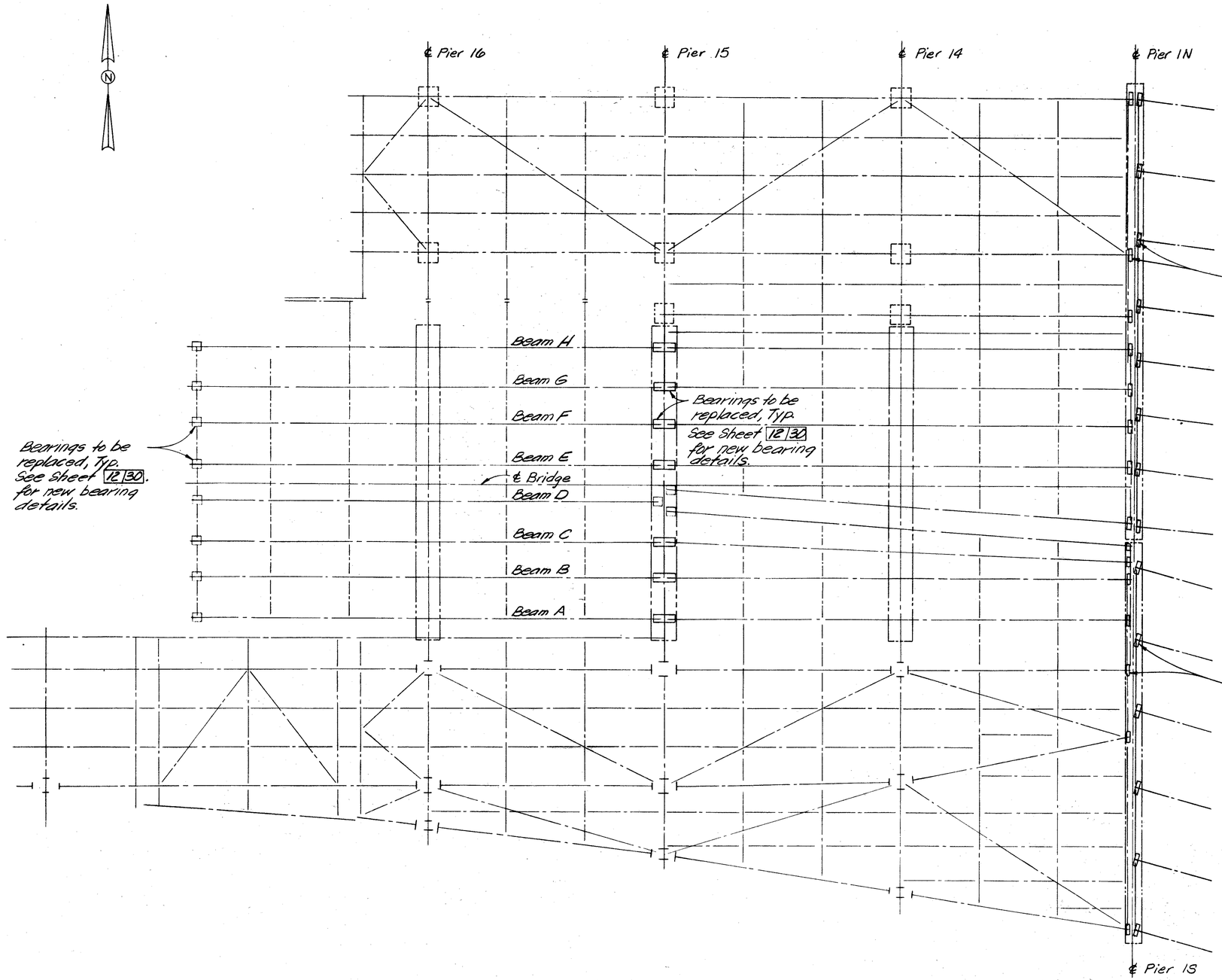
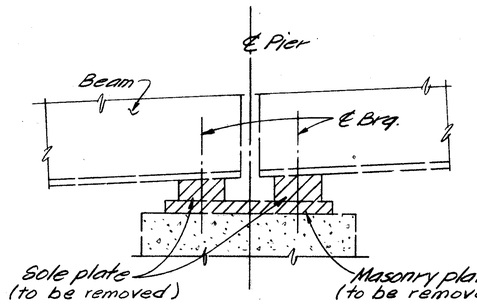


PLAN OF BEARING LOCATIONS



TYPICAL EXISTING BEARING TO BE REPLACED

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CINCINNATI, OHIO 45237

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BEARING LOCATIONS
BRIDGE NO. HAM-50-1936 R&L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
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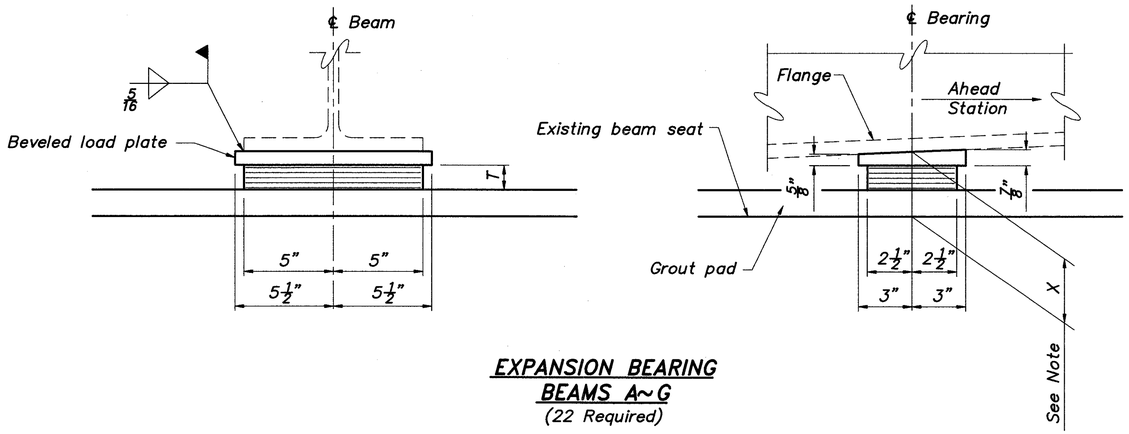
OHIO BLUE PRINT 1/2INCH



EXPANSION BEARING
BEAMS A~G
(22 Required)

Thickness of external elastomer = .125"
(2 required)

Thickness of internal elastomer = .1875"
(4 required)

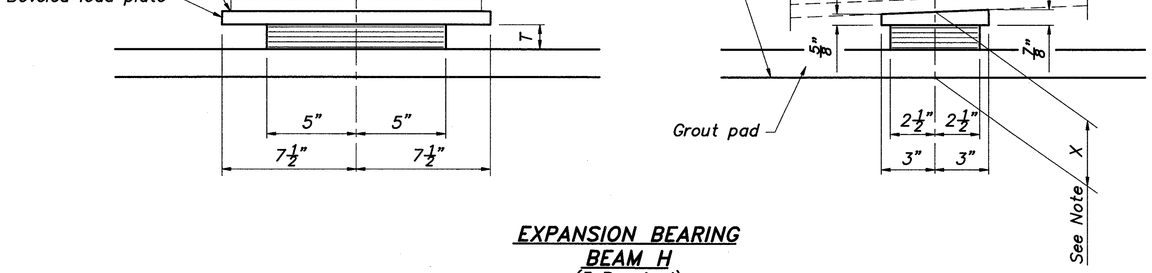
T = 1⅜"

Internal steel laminate
Thickness = .0747" (14 gage)
(5 required)

D.L. = 11.7 K
L.L. = 28.5 K

Durometer 50

Steel load plate A36



EXPANSION BEARING
BEAM H
(3 Required)

Thickness of external elastomer = .125"
(2 required)

Thickness of internal elastomer = .1875"
(4 required)

T = 1⅜"

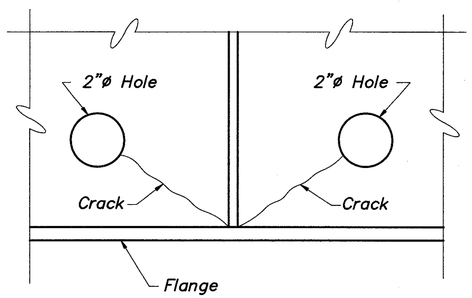
Internal steel laminate
Thickness = .0747" (14 gage)
(5 required)

D.L. = 13.5 K
L.L. = 28.5 K

Durometer 50

Steel load plate A36

NOTE:
The existing dimension (X) from beam seat to bottom flange of beam shall be maintained. Contractor shall field measure this dimension prior to jacking. Thickness of grout pad shall be the measured dimension minus the thickness of the bearing and the load plate (X-2⅛").



CRACK REPAIR DETAIL

Cracks are located at Pier 3S in the web of the 4th girder from the south on the eastbound structure. Contractor shall locate end of cracks by use of dye penetrant. A 2" diameter hole shall be drilled at the end of crack such that end of crack is removed. Area around repair shall be painted per proposal note for Field Painting of Existing Steel, Using Epoxy and Urethane (EEU).
All labor, materials and equipment necessary to complete this work are included for payment with Item 513 Structural Steel, Misc: Crack Repair.

Tolerances:
Individual elastomer layer thickness: = 20% of design value (not to exceed ±⅛")

Plan dimensions	-0, +¼"
Design thickness ≤ 1¼"	-0, +⅛"
Design thickness > 1¼"	-0, +¼"
Edge cover of embedded laminates	-0, +⅛"

Load plate
The steel load plate shall be bonded by vulcanization to the elastomer during the molding process.

Welding of the load plate to the superstructure shall be controlled so that the plate temperature at the elastomer bonded surface shall not exceed 400°F as determined by the use of pyrometric sticks or other monitoring devices.

Basis of payment
The unit bid price shall include all materials, labor and incidentals necessary to furnish and install laminated elastomeric expansion bearings. Payment will be made at the contract price for Item 516, each, elastomeric bearing with internal laminates and load plate (neoprene) (less than 2" thick x 5 x 10).

Elastomeric test pad
The elastomeric bearing manufacturer shall supply a plain elastomeric pad for testing purposes. The pad shall be furnished from the same batch of neoprene that is used in the fabrication of the laminated elastomeric bearings and the fabricator shall certify the identity of the elastomer. The pad shall have a ½ inch thickness, and shall have minimum length and width dimensions of 6 inches. Payment for the test pad will be included in the price bid for the bearings.

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BEARING DETAILS
BRIDGE NO. HAM-50-1936 R. & L.
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KS	WJH	~	MRS	CRS	4/92	

DISK 6 1936B1

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO	162
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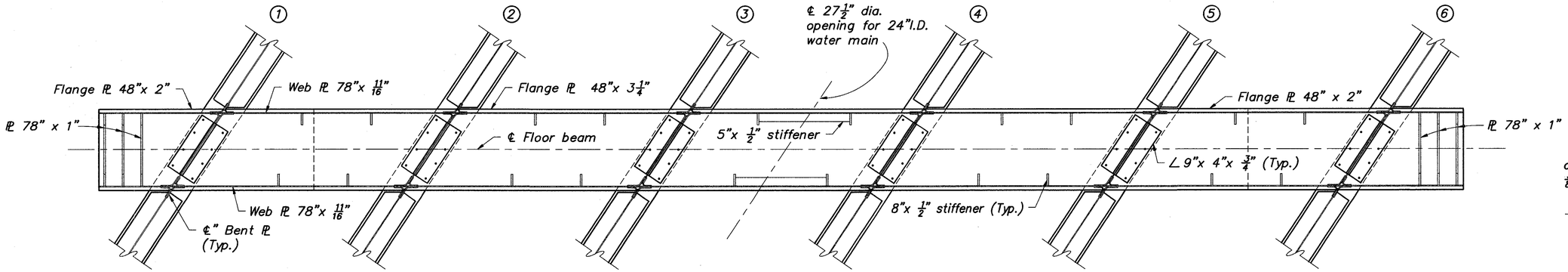
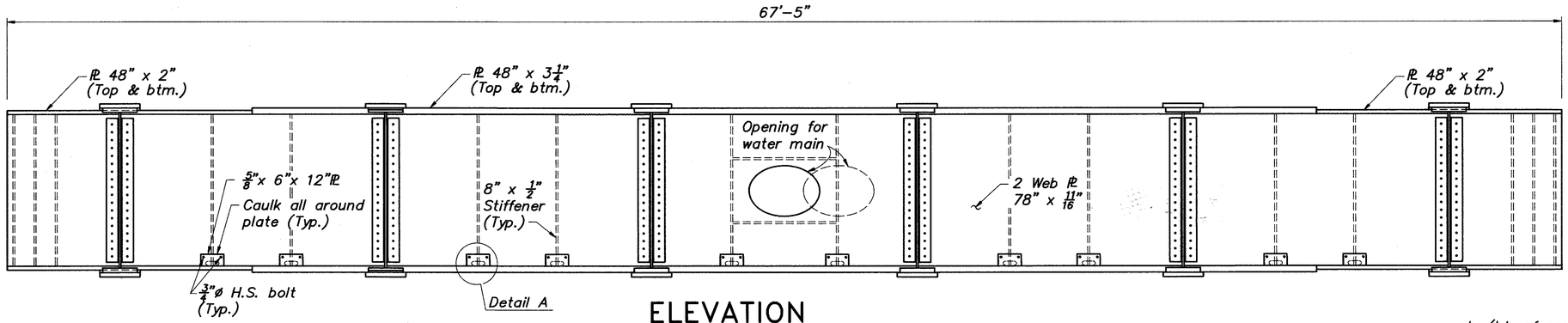
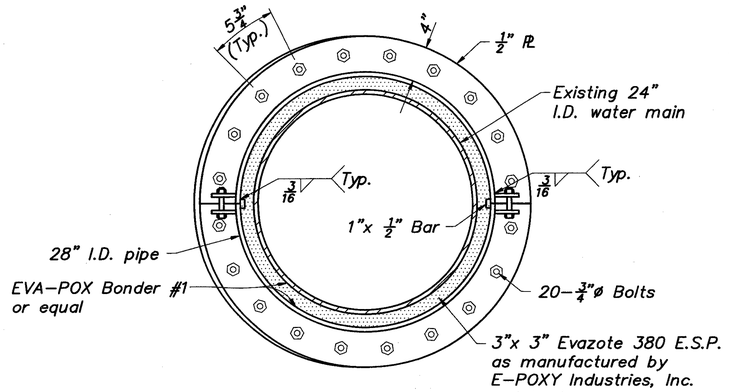


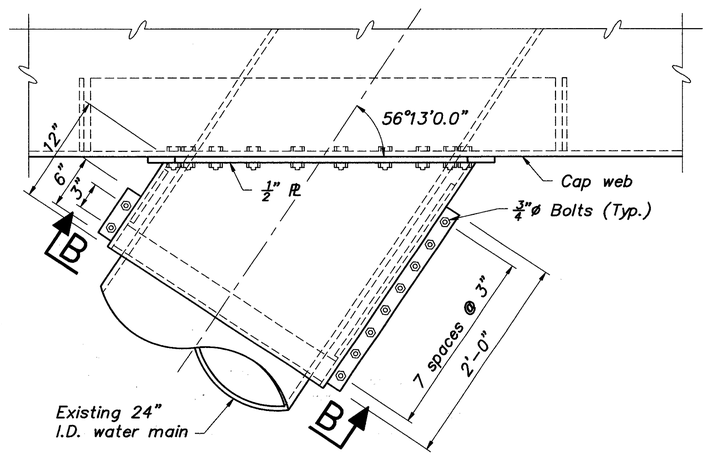
SECTION A–A



ELEVATION



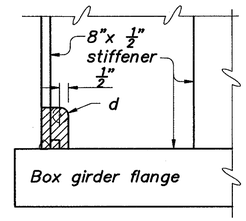
SECTION B–B



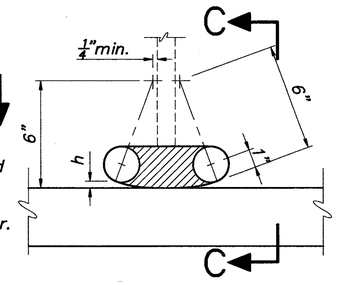
PLAN OF CAP

Retrofit detail to seal cap around watermain

d=diameter of hole= ⅜" + width of backing bar.



SECTION C–C



h=(ht. of groove weld + ⅛") or (ht. of backing bar + ⅛"), whichever is greater.

DETAIL A

(Showing removal)
See Procedure Notes this Sheet.

NOTES:
1. See sheet 14/30 for description of required work.

PROCEDURE

1. Drill hole in stiffener.
2. Drill twin 2"ø holes through web and backing bar.
3. Remove crosshatched areas by grinding. Preliminary removals may be by other methods as approved by the Engineer, provided NO DAMAGE is done to the metal which is to remain. Grinding shall be used to make all surfaces smooth and according to plan contours.
4. Perform magnetic particle and/or dye penetrant tests of the remaining metal in the presence of the Engineer.

13/30

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

PIER 5N DETAILS
BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
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CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO	163
CHKD. BY DATE		FHWA REGION 5	255

SCOPE OF WORK:

The following work is required at the box girder floorbeam at Pier 5N.

1. Remove bird droppings & nests from bottom flanges of girders.
2. Remove bird & wasp nests & trash from interior of box girder.
3. Retrofit backing bars at stiffeners inside box girder as noted on plans.
4. Excess weld material is present on underside of bottom flange near girder #5. Grind excess material flush with bottom flange.
5. Clean & prime corroded and repaired areas on the interior of the box girder. Apply final coat of paint to entire inside of box girder. Final coat to be silver or white in color. Cleaning & painting to be per System EEU.
6. Seal opening around water main. See Sheet 13/30 for details.
7. Provide 1/8" neoprene gasket for each access hatch cover. Gasket to be same dimensions as cover. Provide additional bolts as indicated.

All labor, material, & equipment necessary to execute items 1 thru 7 shall be included for payment in the unit price bid for Item 513, Structural steel, misc.: repair fracture critical box girder pier cap.

8. Replace the bottom splice plates connecting the longitudinal girders.

All labor, material, & equipment necessary to execute item 8 shall be included for payment in the unit price bid for Item 513, Structural steel, misc.: splice plate replacement.

9. Remove stitch welds along backing bars as noted with the following restrictions: Stitch welds 2" or less in length shall not be removed; stitch welds from 2" to 4" in length shall not be removed between girders 1 & 2 and 5 & 6. After stitch welds have been removed, the web-to-flange groove weld adjacent to removal areas shall be examined by the use of dye penetrant or magnetic particle testing to check for damage. The Engineer shall approve the welds to be removed.

All labor, material, & equipment necessary to execute item 9 shall be included for payment in the unit price bid for Item 513, Structural steel, misc.: removal of backing bar stitch weld including NDT.

NOTES:

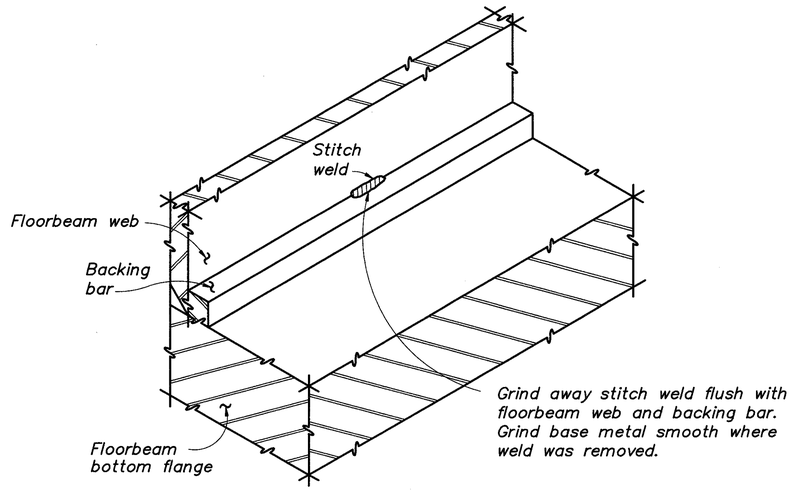
The box girder pier cap is a fracture critical member and as such, requires high quality work be performed in a careful manner which will not damage the member.

SPLICE PLATE REPLACEMENT:

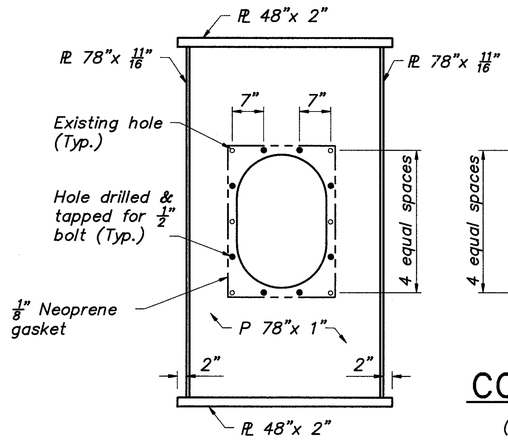
Suggested procedure is as follows:

a. Shore girders on each side of the box girder pier cap to relieve dead load.
b. Remove the bottom splice plate and, where present, the fill plate from the bottom flange of the box girder pier cap by removing the bolts and chipping through the welds. Care shall be taken not to gouge or remove any portion of the flange of the box girder.
c. Remove the splice plate and fill plates from the bottom flange of the longitudinal girders.
d. Grind flush remaining weld material on bottom flange of box girder.
e. Reassemble new splice plates and fill plates to the girders and box girder with new 1" dia. ASTM A325 bolts and nuts.
f. Clean and paint repaired areas per OZEU except that faying surfaces shall be coated with primer only.∝
g. Tighten all existing bolts in web connection angles to proper torque.

The Contractor shall submit his shoring plan to the Engineer for approval. Alternate construction methods may be submitted by the Contractor for approval.

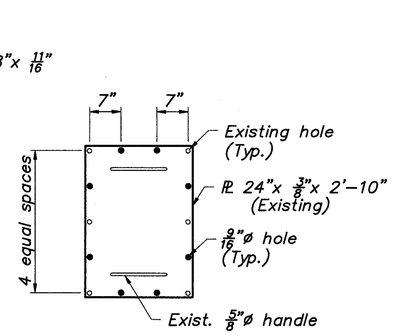


STITCH WELD REMOVAL ON BACKING BAR



END VIEW

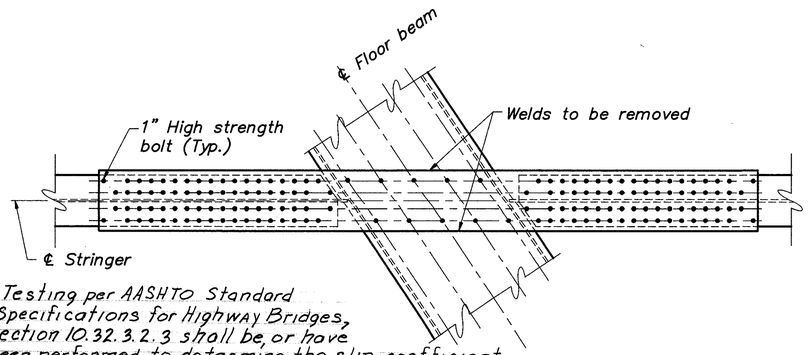
(For each end of floor beam)



COVER PLATE

(For access hole)

ACCESS COVER DETAIL



∝Testing per AASHTO Standard Specifications for Highway Bridges, Section 10.32.3.2.3 shall be, or have been performed, to determine the slip coefficient. A min. coeff. of 0.33 is required. Certification showing the test results shall be furnished.∝

PLAN OF BOTTOM SPLICE PLATE

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CINCINNATI, OHIO 45237

14/30

PIER 5N DETAILS
BRIDGE NO. HAM-50-1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
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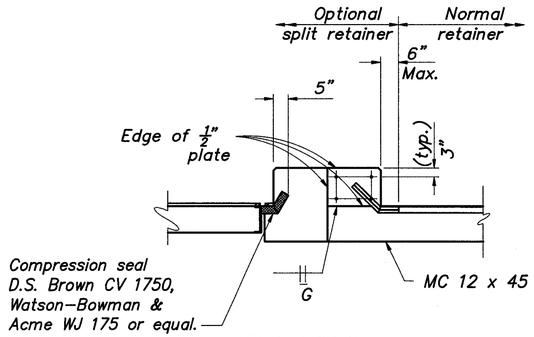
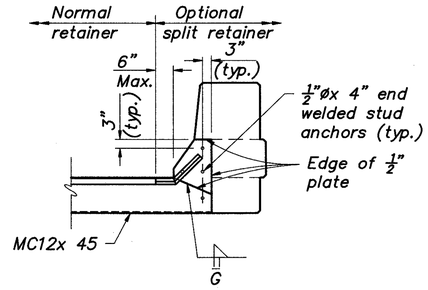
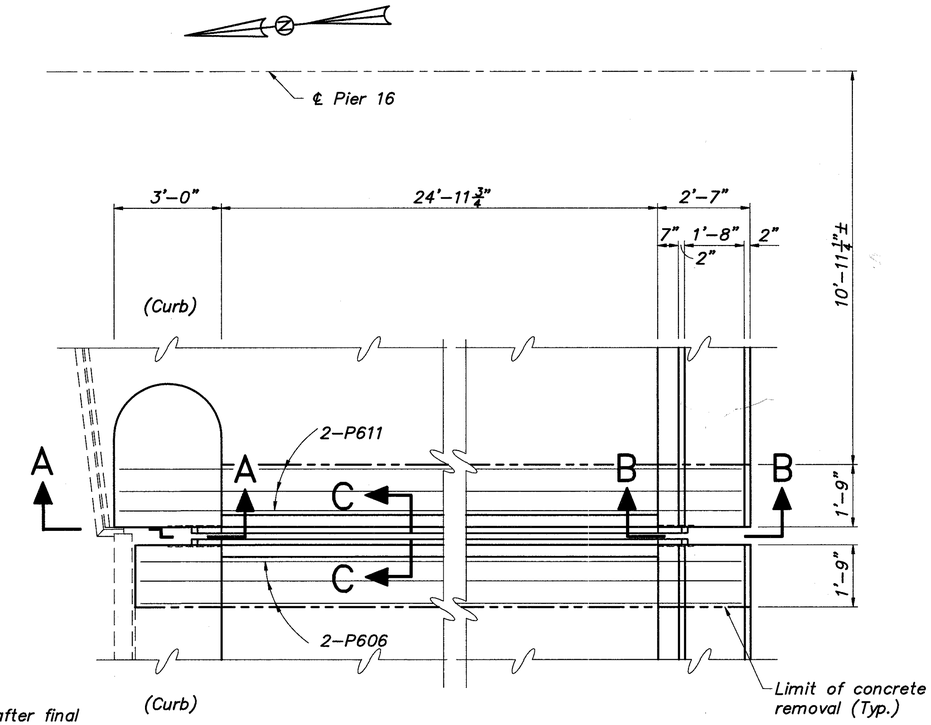


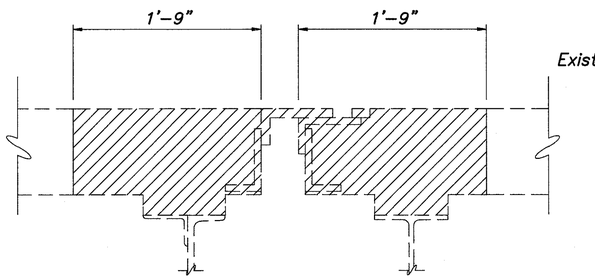
SECTION A–A



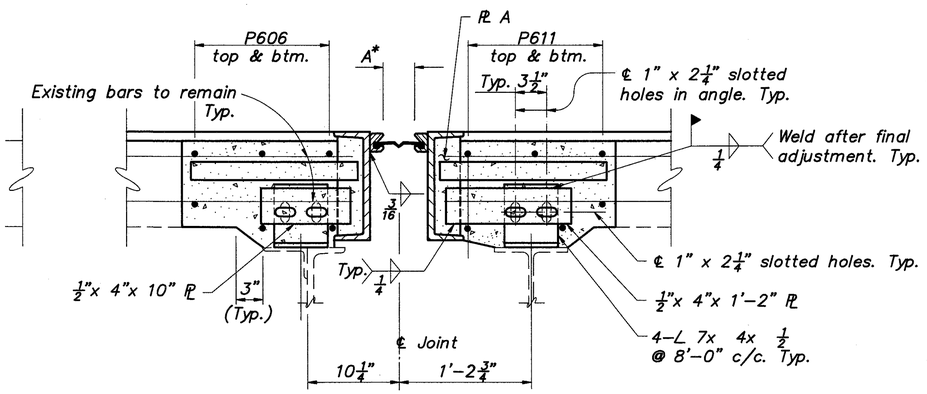
SECTION B–B



PARTIAL PLAN AT RAMP VA



SECTION C–C
(SHOWING REMOVAL)



SECTION C–C
(PROPOSED)

* OPENING WIDTH	
°F	DIM A
90	1 5/8"
80	1 5/8"
70	1 3/4"
60	1 3/4"
50	1 3/4"
40	1 7/8"
30	1 7/8"

Denotes portion of structure to be removed.

Strip seal gland shall be D.S. Brown 300L, Watson–Bowman & Acme SE–300, or equal.

NOTE:
For additional details on expansion joint, see Std. Drawing EXJ –4–87.

See Sheet 23/30 for location of joint.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

15/30

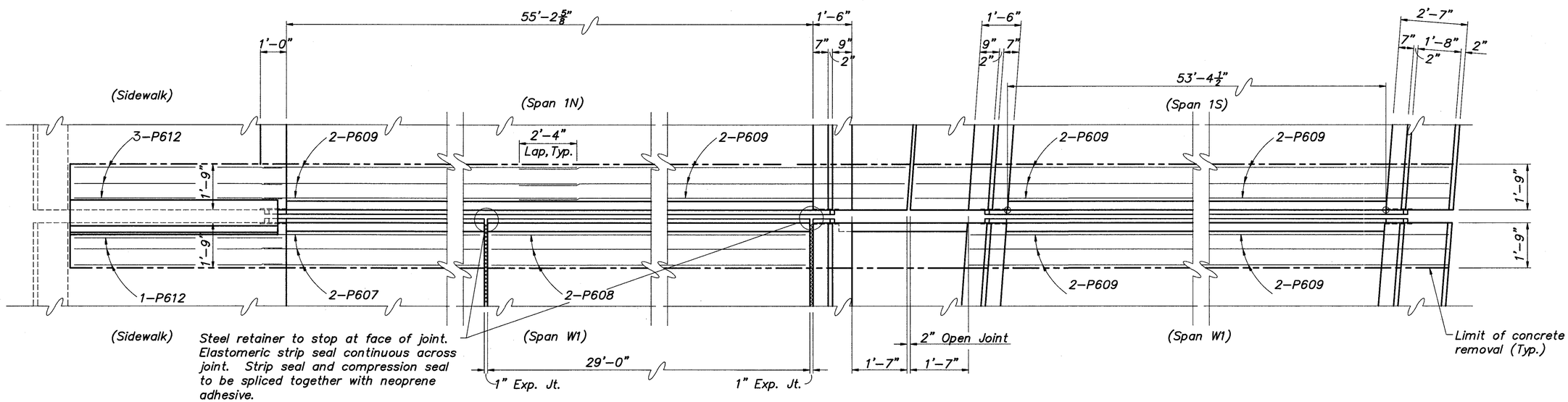
EXPANSION JOINT DETAILS
BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 4 1936EJ6

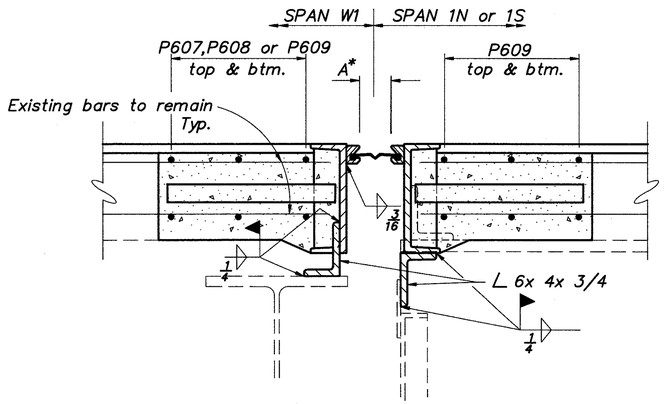
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

165/255

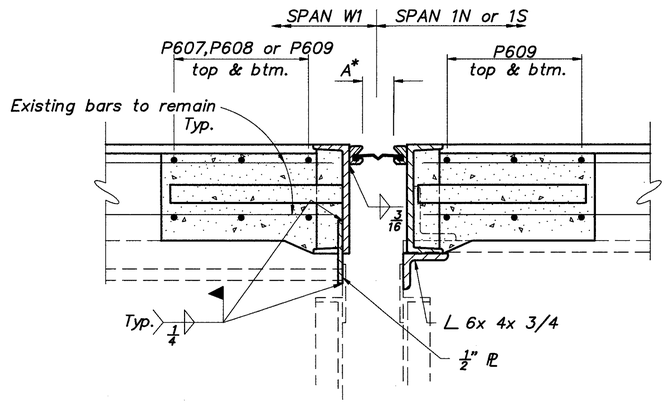


PARTIAL PLAN AT PIER 1N

PARTIAL PLAN AT PIER 1S



SECTION A–A
(PROPOSED)



SECTION B–B
(PROPOSED)

Strip seal gland shall be D.S. Brown 300L, Watson–Bowman & Acme SE–300, or equal.

* OPENING WIDTH	
°F	DIM A
90	1 1/2"
80	1 1/2"
70	1 1/2"
60	1 5/8"
50	1 3/4"
40	1 7/8"
30	2"

NOTE:

For additional details on expansion joint, see Std. Drawing EXJ–4–87.

For location of sections A–A & B–B, see sheet 17/30 .

16/30

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

EXPANSION JOINT DETAILS

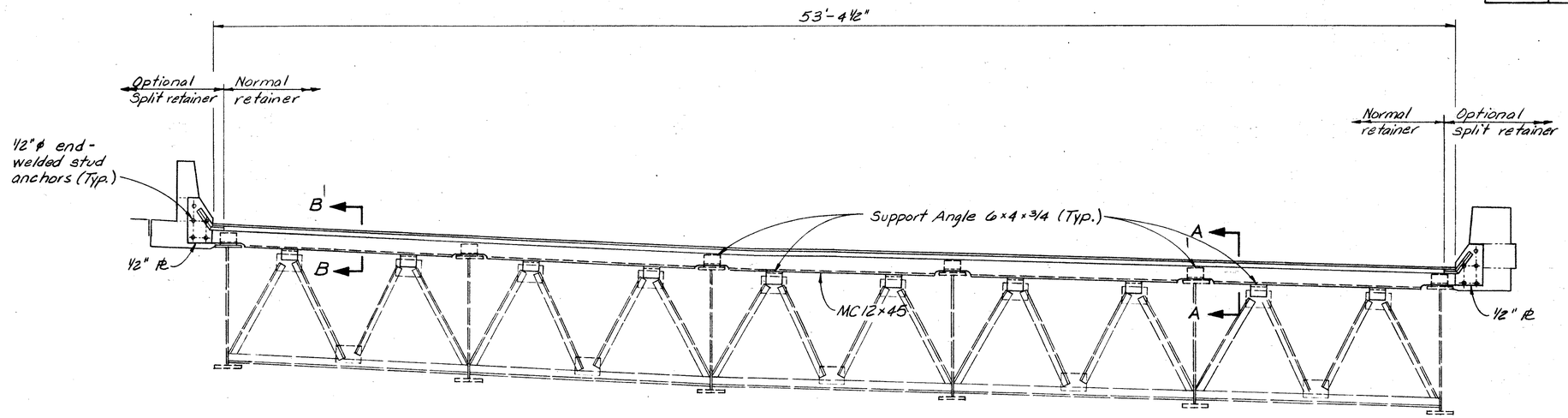
BRIDGE NO. HAM–50–1936 R & L

SIXTH STREET EXPRESSWAY OVER RR AND MILL CREEK

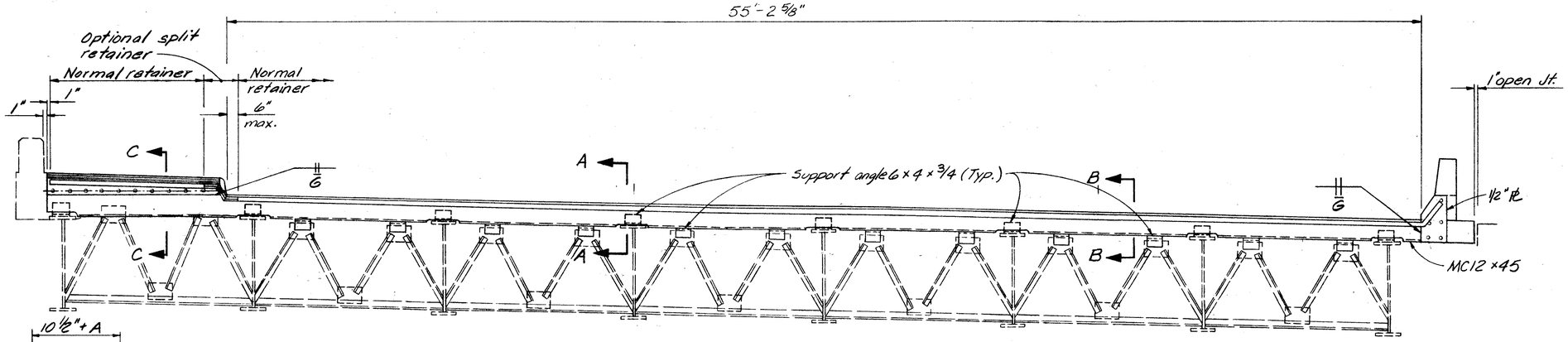
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

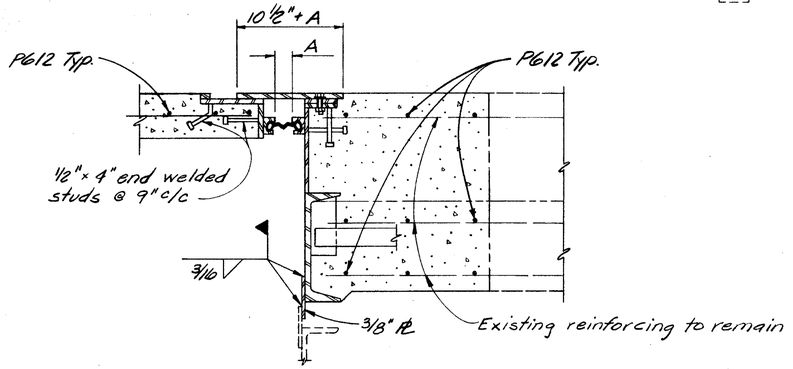
DISK 4 1936EJ4

CALC. BY / DATE	HAMILTON COUNTY	OHIO	166
CHKD. BY / DATE	HAM-50-19.36	FHWA REGION 5	255



CROSS SECTION @ PIER 1S LOOKING EAST





SECTION C-C

CROSS SECTION @ PIER 1N LOOKING EAST

NOTES:
1. For additional details on expansion Jt., see Standard Dwg. EXJ-4-87.
2. For Section A-A and B-B, see sheet 16|30.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

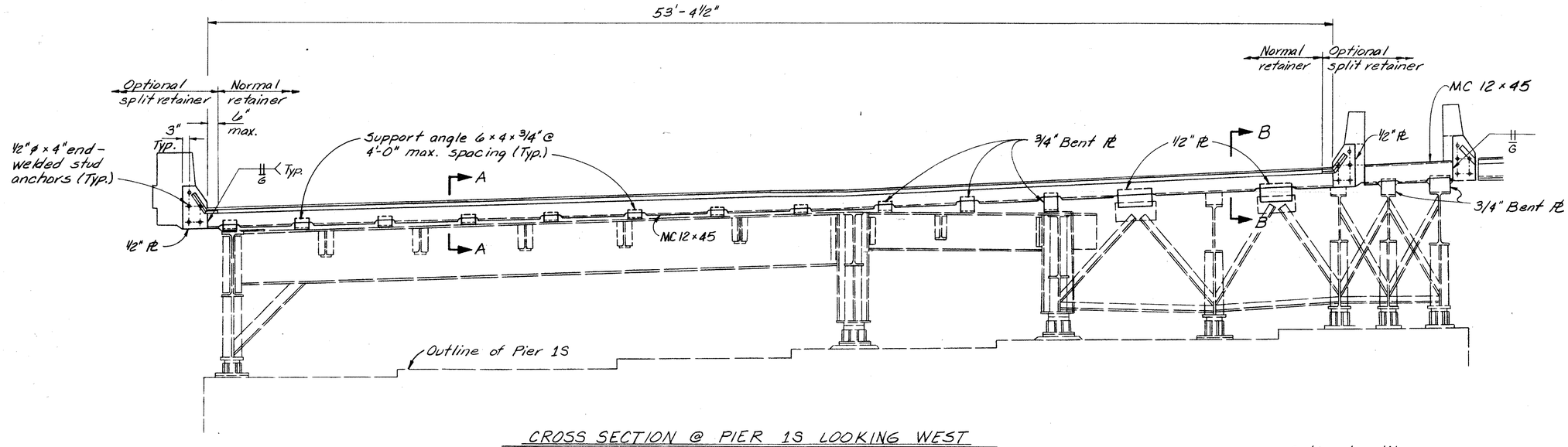
17|30

EXPANSION JOINT DETAILS
BRIDGE NO. HAM-50-1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

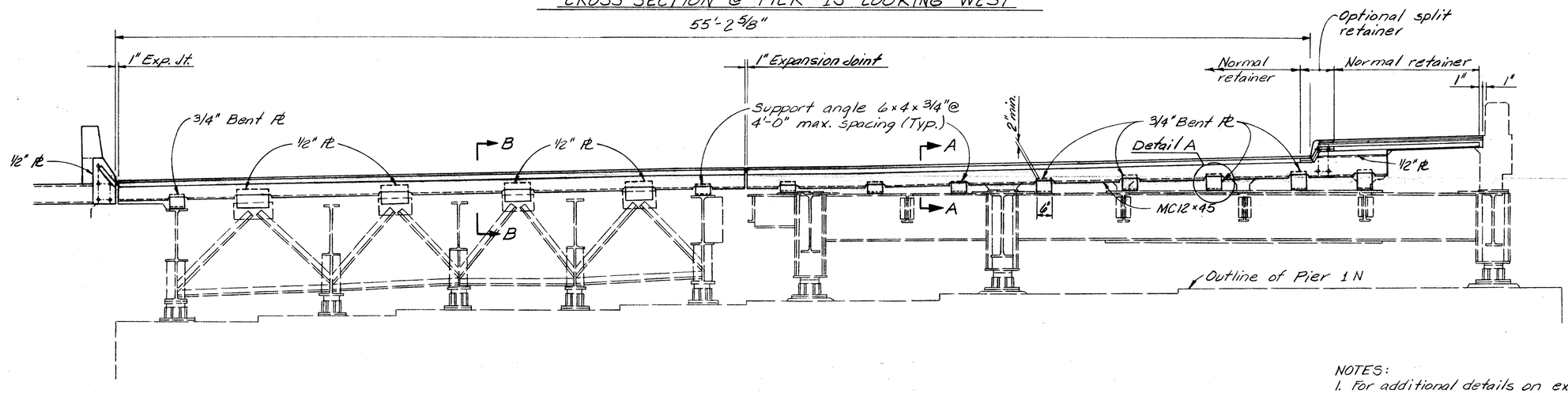
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 7/27/93

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	167 255
CHKD. BY / DATE			

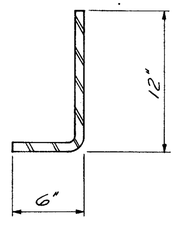


CROSS SECTION @ PIER 1S LOOKING WEST



CROSS SECTION @ PIER 1N LOOKING WEST

NOTES:
1. For additional details on expansion Joint, see Std. Dwg. EXJ-4-87.
2. For Section A-A and B-B, see sheet 16/30.

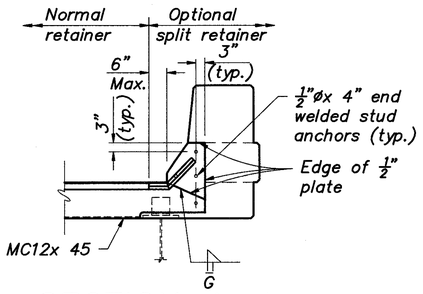


DETAIL A

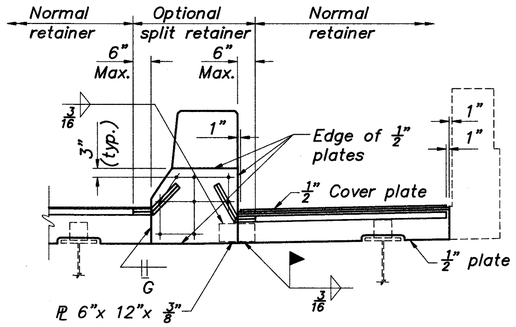
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					18/30
EXPANSION JOINT DETAILS BRIDGE NO. HAM-50-1936 R & L SIXTH STREET EXPRESSWAY OVER RR AND MILL CREEK					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 102793

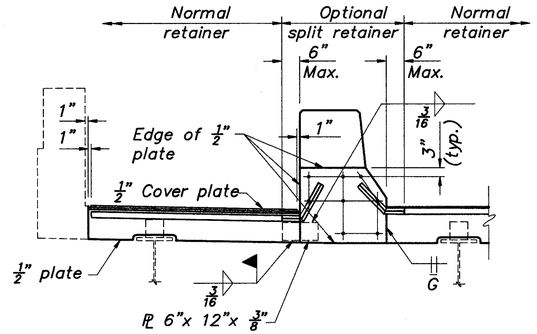
CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	168 255
CHKD. BY DATE			



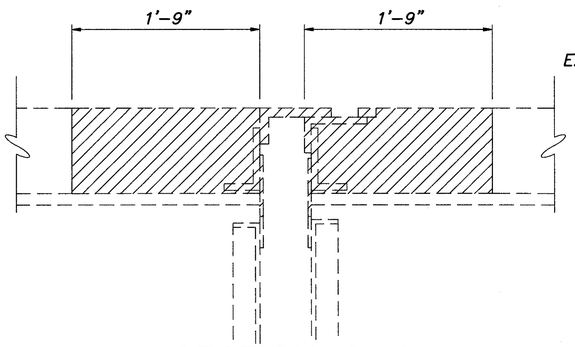
SECTION A–A



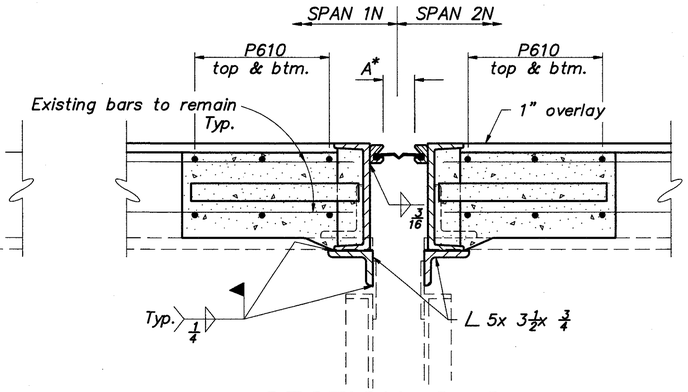
SECTION B–B



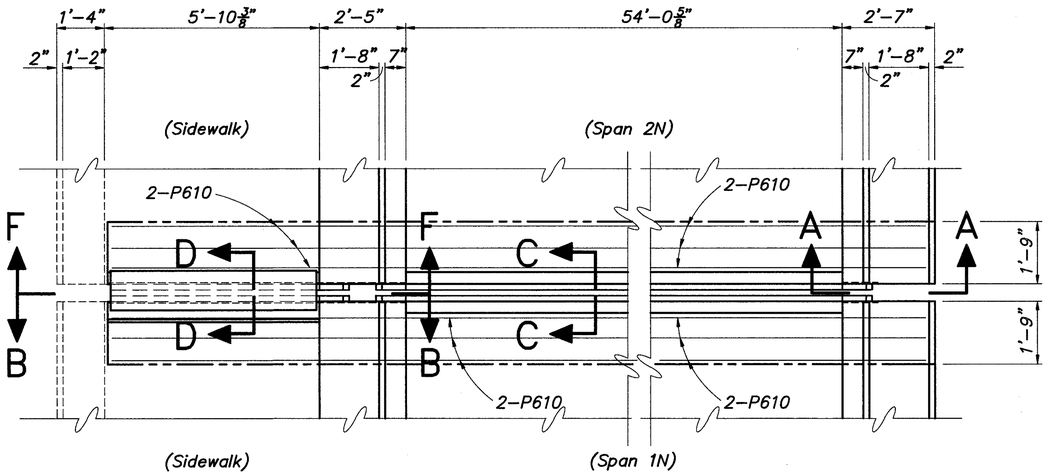
SECTION F–F



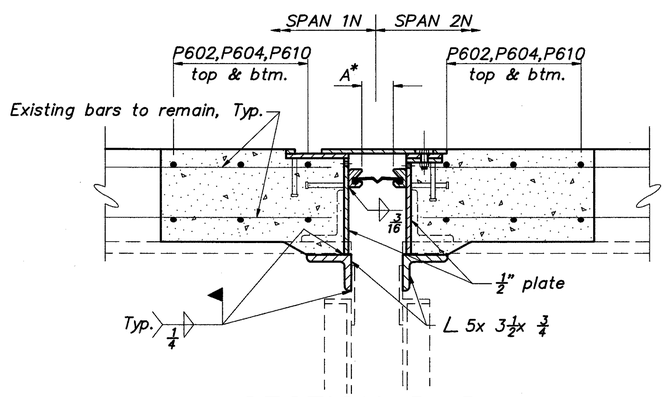
SECTION C–C
(SHOWING REMOVAL)



SECTION C–C
(PROPOSED)



PARTIAL PLAN AT PIER 2N



SECTION D–D
(PROPOSED)

Denotes portion of structure to be removed.

*

OPENING WIDTH	
°F	DIM A
90	1 1/2"
80	1 5/8"
70	1 3/4"
60	1 3/4"
50	1 3/4"
40	1 7/8"
30	2"

NOTE:
For additional details on expansion joint, see Std. Drawing EXJ-4-87.

NOTE:
Lap P610 bars 2'-4" minimum.

Strip seal gland shall be D.S. Brown 300L, Watson-Bowman & Acme SE-300, or equal.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

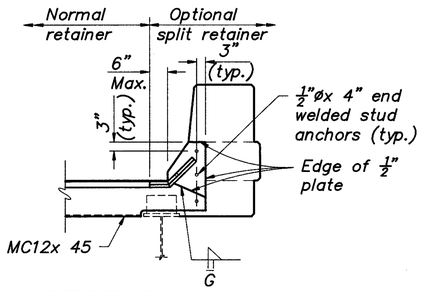
19/30

EXPANSION JOINT DETAILS
BRIDGE NO. HAM-50-1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 5 1936EJ5

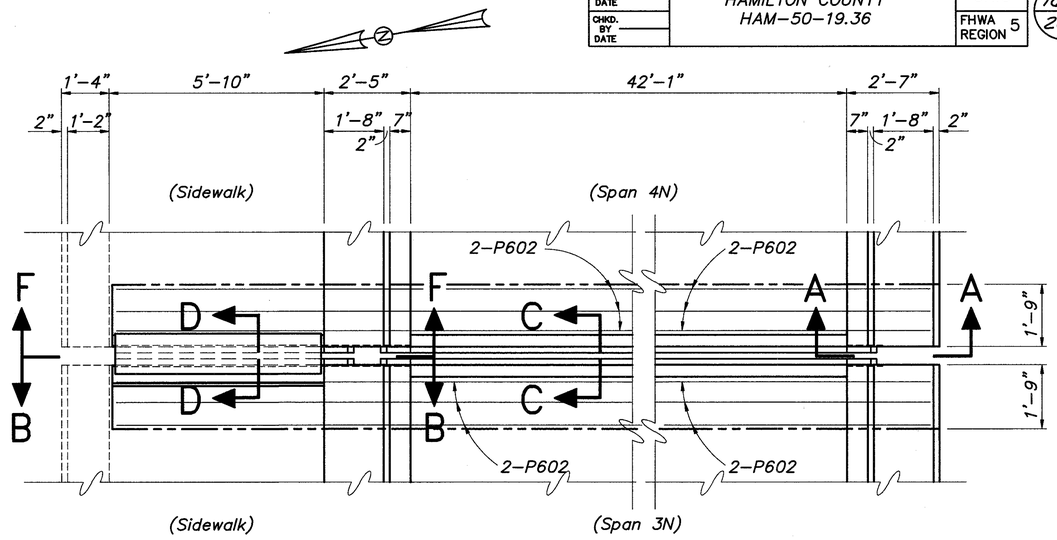
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO FHWA REGION 5	169 255
CHKD. BY DATE			



SECTION A–A

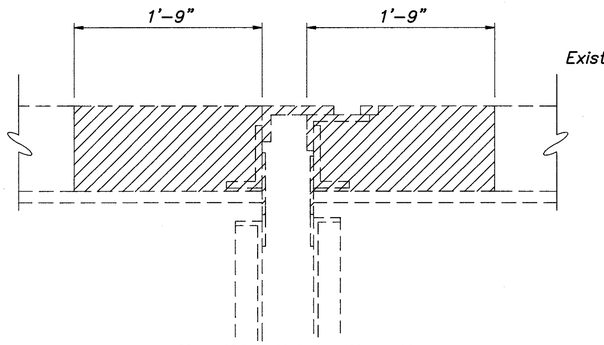
*

°F	OPENING WIDTH Pier 4N DIM A	Pier 5S DIM A
90	–	1½"
80	–	1¾"
70	–	2⅛"
60	1½"	2⅜"
50	1¾"	2⅝"
40	1⅞"	3"
30	2"	3¼"

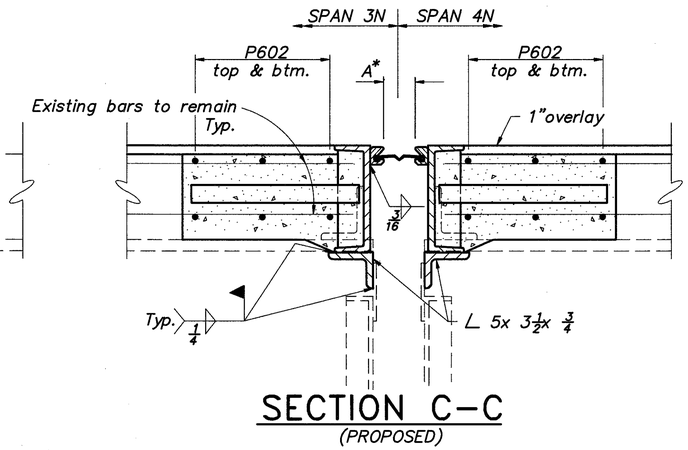


PARTIAL PLAN AT PIER 4N

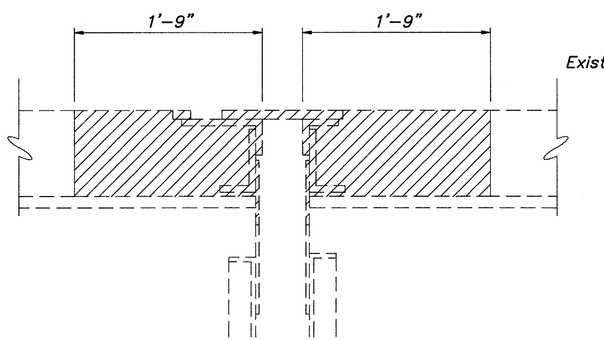
NOTE:
Lap P602 bars 2'–4" minimum.



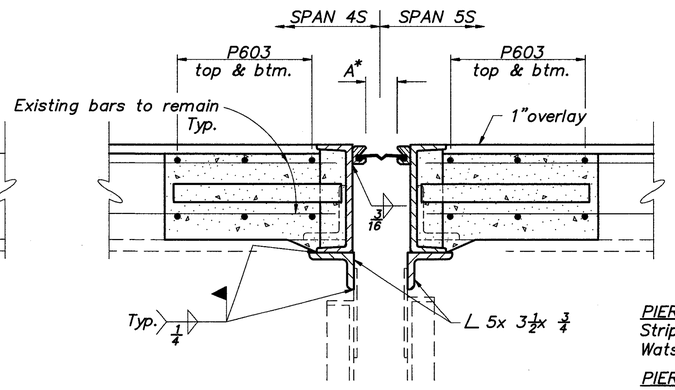
SECTION C–C
(SHOWING REMOVAL)



SECTION C–C
(PROPOSED)

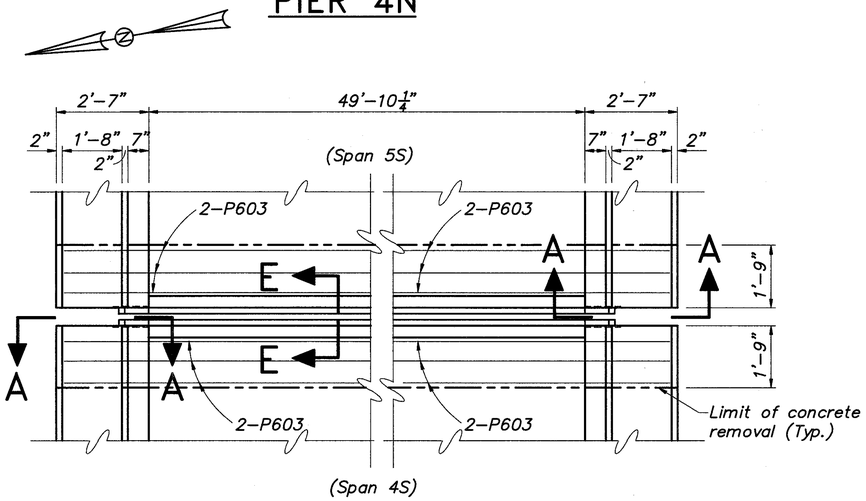


SECTION E–E
(SHOWING REMOVAL)



SECTION E–E
(PROPOSED)

Denotes portion of structure to be removed.



PARTIAL PLAN AT PIER 5S

NOTE:
Lap P603 bars 2'–4" minimum.

PIER 4N
Strip seal gland shall be D.S. Brown 300L, Watson–Bowman & Acme SE–300, or equal.

PIER 5S
Strip seal gland shall be D.S. Brown 500L, Watson–Bowman & Acme SE–500, Structural Accessories 50SEQ, or equal.

NOTE:
For additional details on expansion joint, see Std. Drawing EXJ–4–87.

For Section B–B, D–D & F–F, see sheet 19/30 .

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

20/30

EXPANSION JOINT DETAILS

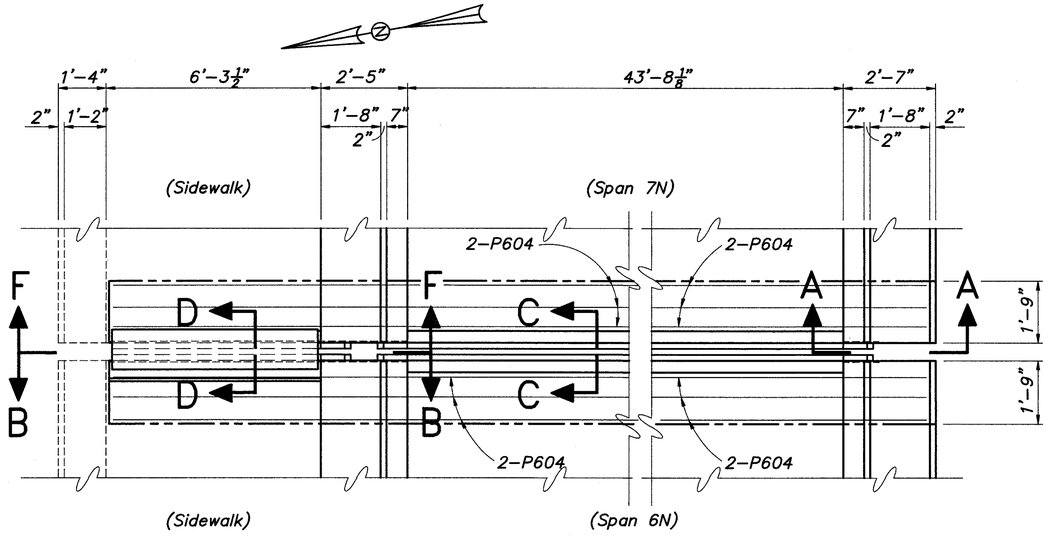
BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 4 1936EJ3

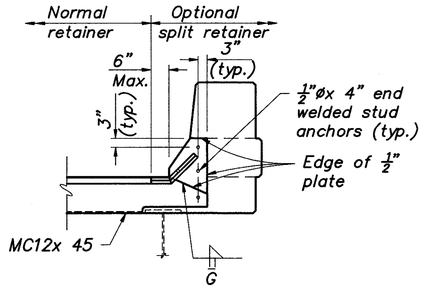
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

170/255



PARTIAL PLAN AT PIER 7N

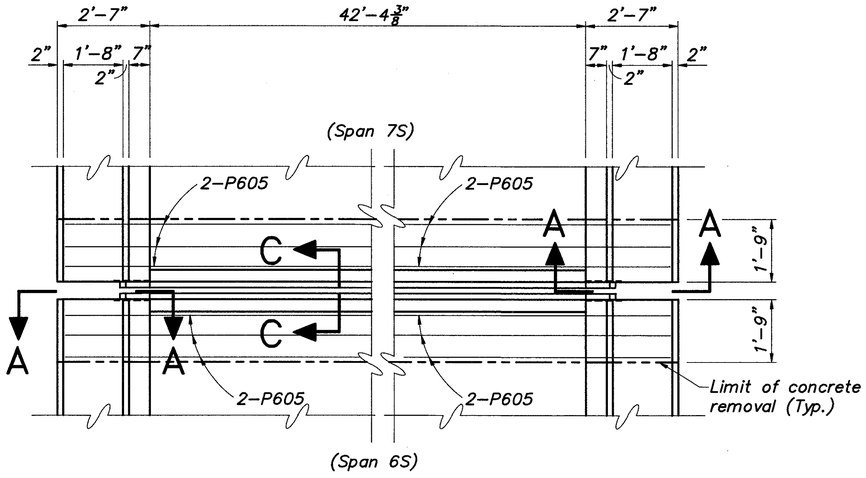
NOTE:
Lap P604 bars 2'–4" minimum.



SECTION A–A

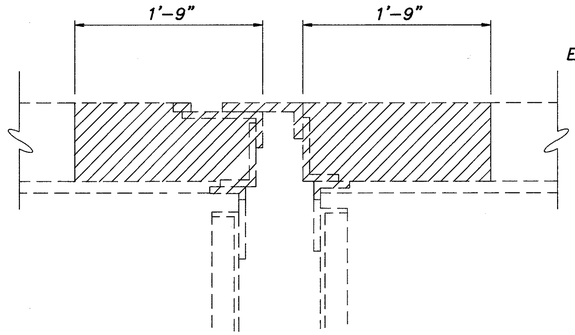
*

°F	OPENING WIDTH Pier 7N DIM A	Pier 7S DIM A
90	–	–
80	1 5/8"	1 5/8"
70	1 7/8"	1 3/4"
60	2 1/4"	2"
50	2 5/8"	2 1/4"
40	2 7/8"	2 1/2"
30	3 1/4"	2 5/8"



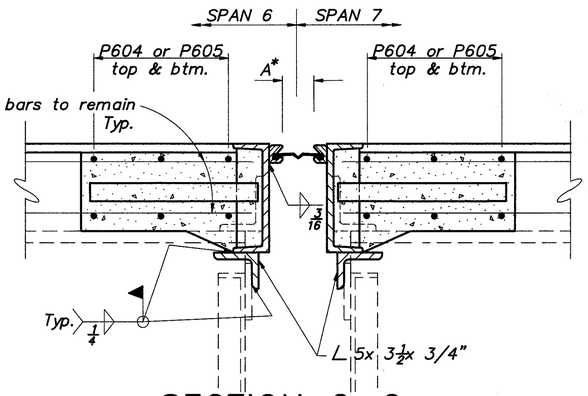
PARTIAL PLAN AT PIER 7S

NOTE:
Lap P605 bars 2'–4" minimum.



SECTION C–C
(SHOWING REMOVAL)

Denotes portion of structure to be removed.



SECTION C–C
(PROPOSED)

NOTE:
For additional details on expansion joint, see Std. Drawing EXJ –4–87.
For Section B–B, D–D & F–F, see sheet 19/30 .

PIER 7N
Strip seal gland shall be D.S. Brown 500L, Watson–Bowman & Acme SE–500, Structural Accessories 50SEQ, or equal.

PIER 7S
Strip seal gland shall be D.S. Brown 400L, Watson–Bowman & Acme SE–400, Structural Accessories 40SEQ, or equal.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

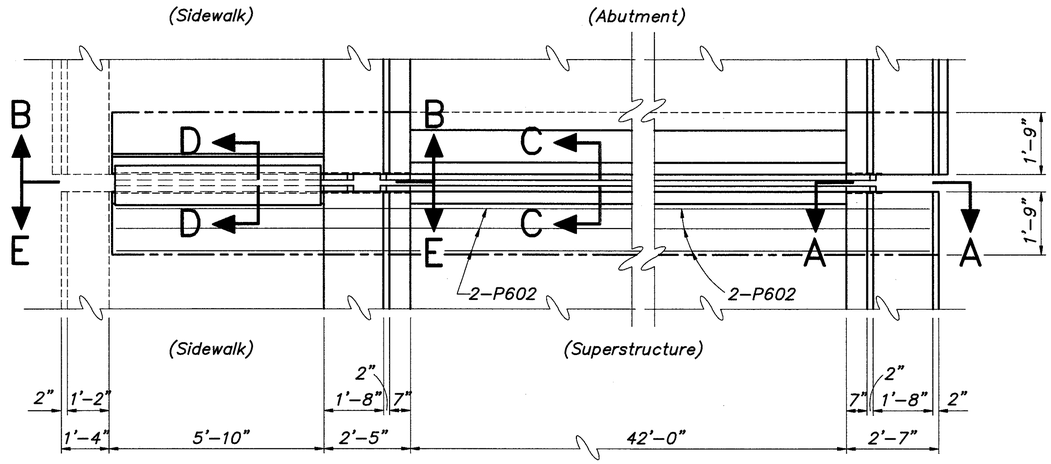
21/30

EXPANSION JOINT DETAILS
BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

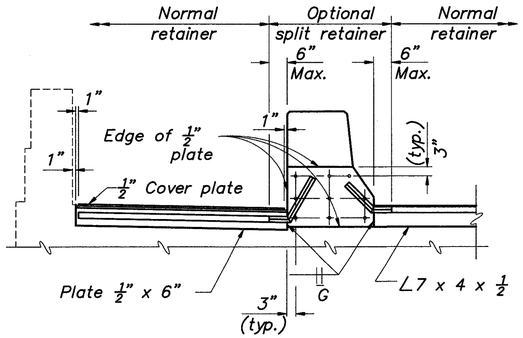
DISK 5 1936EJ2

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO FHWA REGION 5	171 255
CHKD. BY DATE			

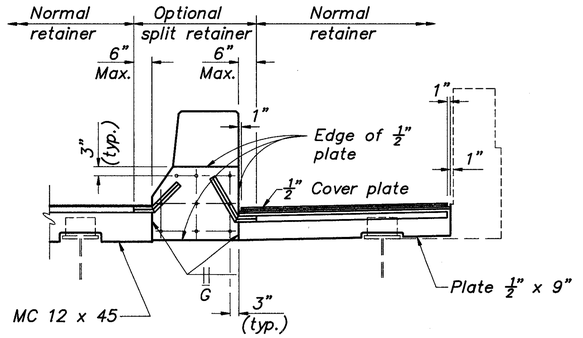


PARTIAL PLAN AT ABUTMENT N

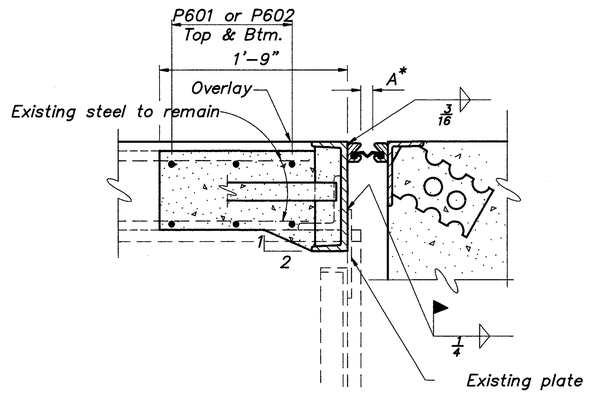
Lap P602 bars 2'–4" minimum.



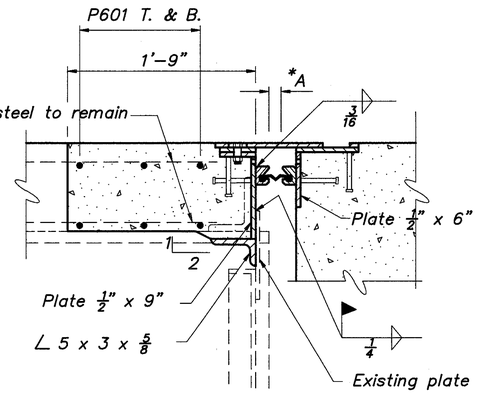
SECTION B–B



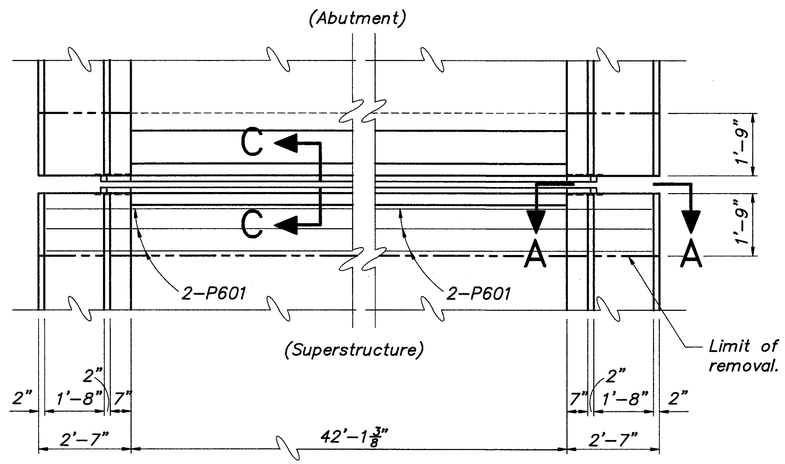
SECTION E–E



SECTION C–C



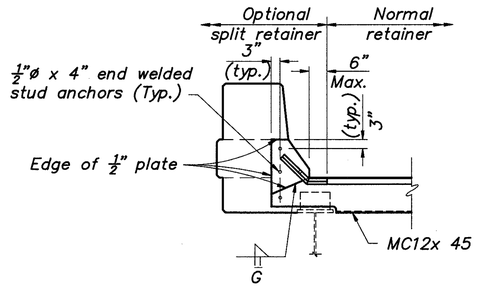
SECTION D–D



PARTIAL PLAN AT ABUTMENT S

Lap P601 bars 2'–4" minimum.

Strip seal gland shall be D.S. Brown 300L, Watson–Bowman & Acme SE–300, or equal.



SECTION A–A

* OPENING WIDTH	
°F	DIM A
90	–
80	–
70	–
60	1½"
50	1⅝"
40	1¾"
30	2"

NOTE:
For additional details on expansion joint, see Std. Drawing EXJ–4–87.

22/30

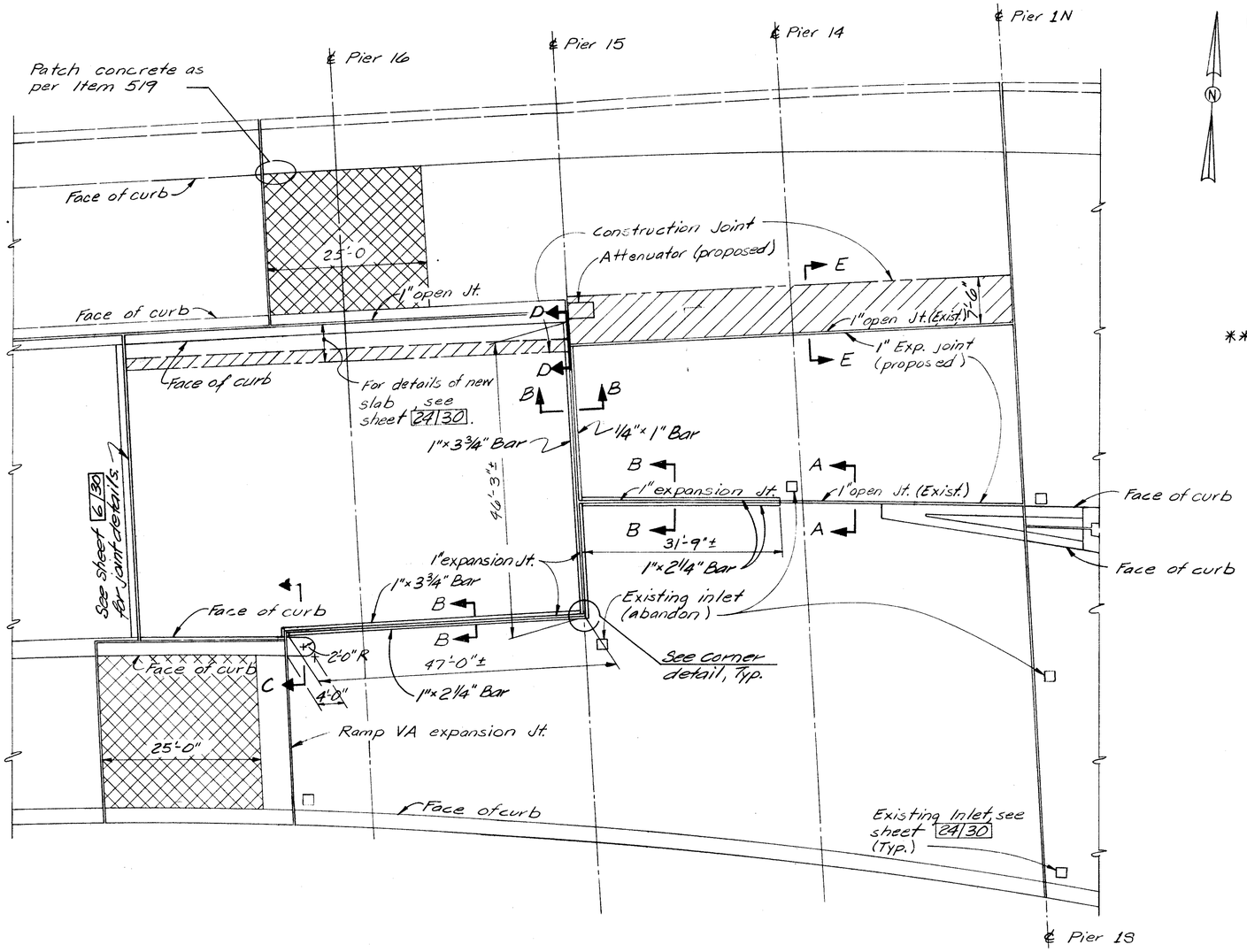
BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

EXPANSION JOINT DETAILS
BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 4 1936EJ1

CALC. BY		HAMILTON COUNTY	OHIO	172
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				

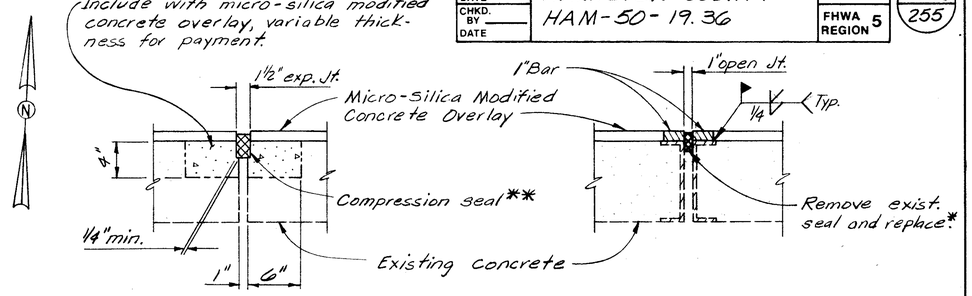


PARTIAL PLAN

To be removed

Pavement planing Portland cement concrete. Include with Item special - Micro-Silica modified overlay (1 1/4" thick)

NOTES:
1. For details of joint 1N and 1S, see sheet 16|30.
2. For details of Ramp VA expansion Jt., see sheet 15|30.
3. At intersections of joints & at changes in width of joints, elastomeric compression seals shall be spliced with neoprene adhesive approved by manufacturer.
4. For Section D-D, see sheet 24|30.

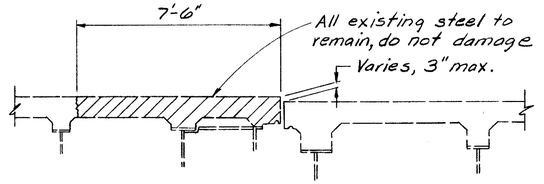


SECTION A-A

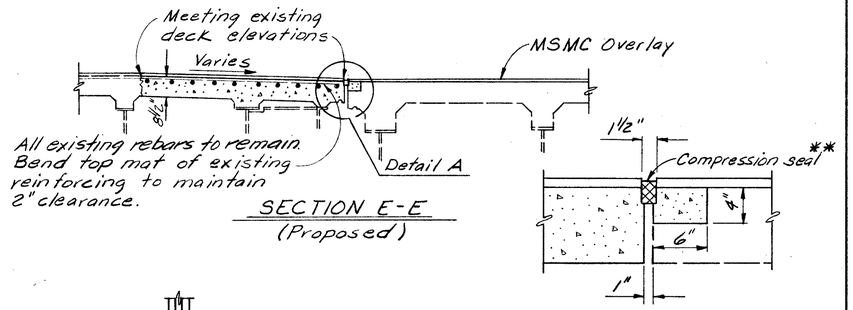
** Compression seal shall be D.S. Brown CV2250, Watson-Bowman & Acme WJ225 or equal.

SECTION B-B

* Included for payment in price bid for Item 516, Vertical extension of structural expansion joint. Compression seal shall be D.S. Brown CV-1750, Watson-Bowman WJ-175 or equal.

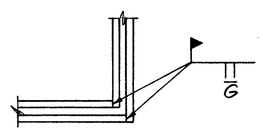


SECTION E-E
(Showing Removal)

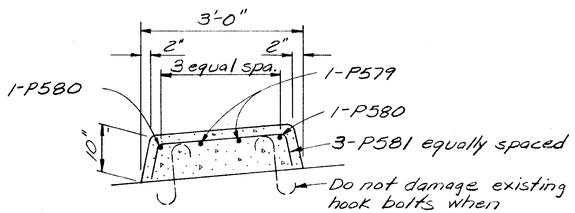


SECTION E-E
(Proposed)

DETAIL A



CORNER DETAIL
TYPICAL



SECTION C-C

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

23|30

EXPANSION JOINT DETAILS
BRIDGE NO. HAM-50-1936 R&L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO RULE PRINT 102563

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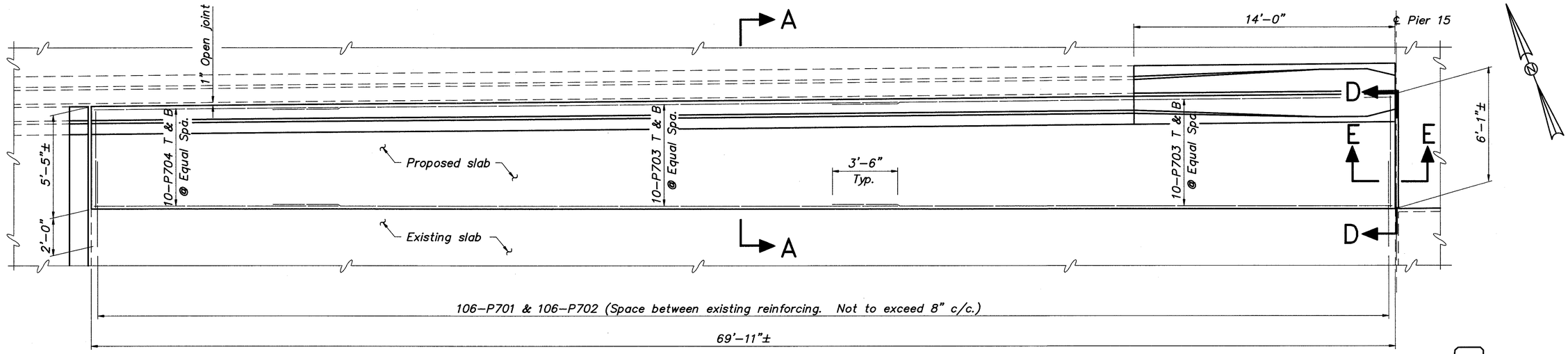
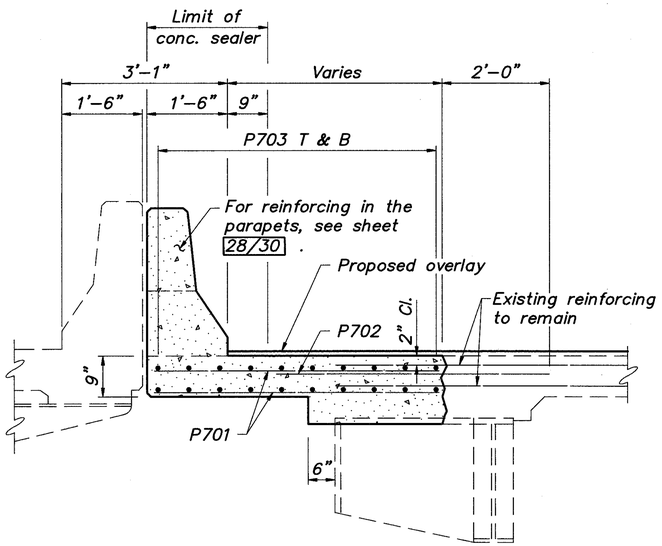
CHKD. BY DATE		FHWA REGION 5

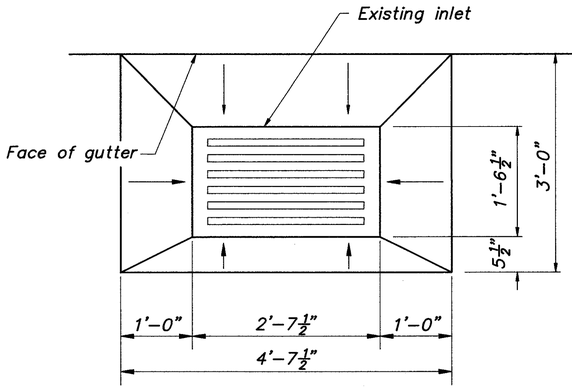
173/255



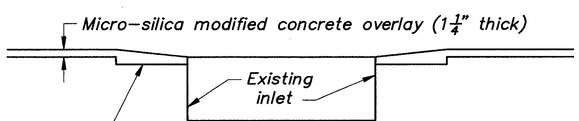


SECTION A–A

(See sheet 1/30 for removal detail)

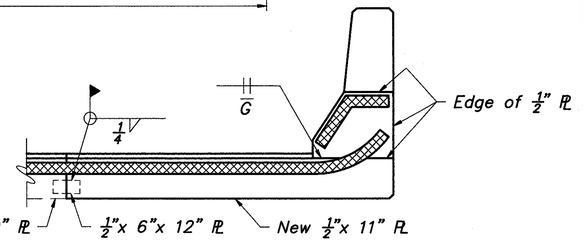


PLAN AT INLET*

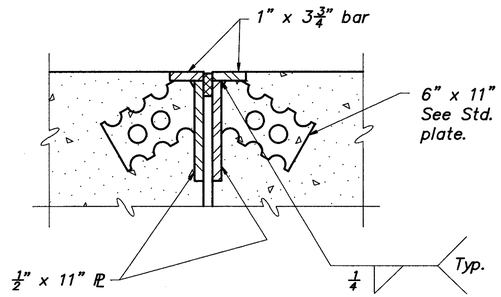


SECTION THRU INLET

* At inlets to be abandoned, see sheet 23/30 for location, remove top of grating, plug drain pipe, and fill inlet with micro–silica modified concrete to surface of existing deck.



SECTION D–D



SECTION E–E

NOTES:
1. For location of slab, see sheet 23/30 .
2. Work this sheet together with sheet 28/30 .

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

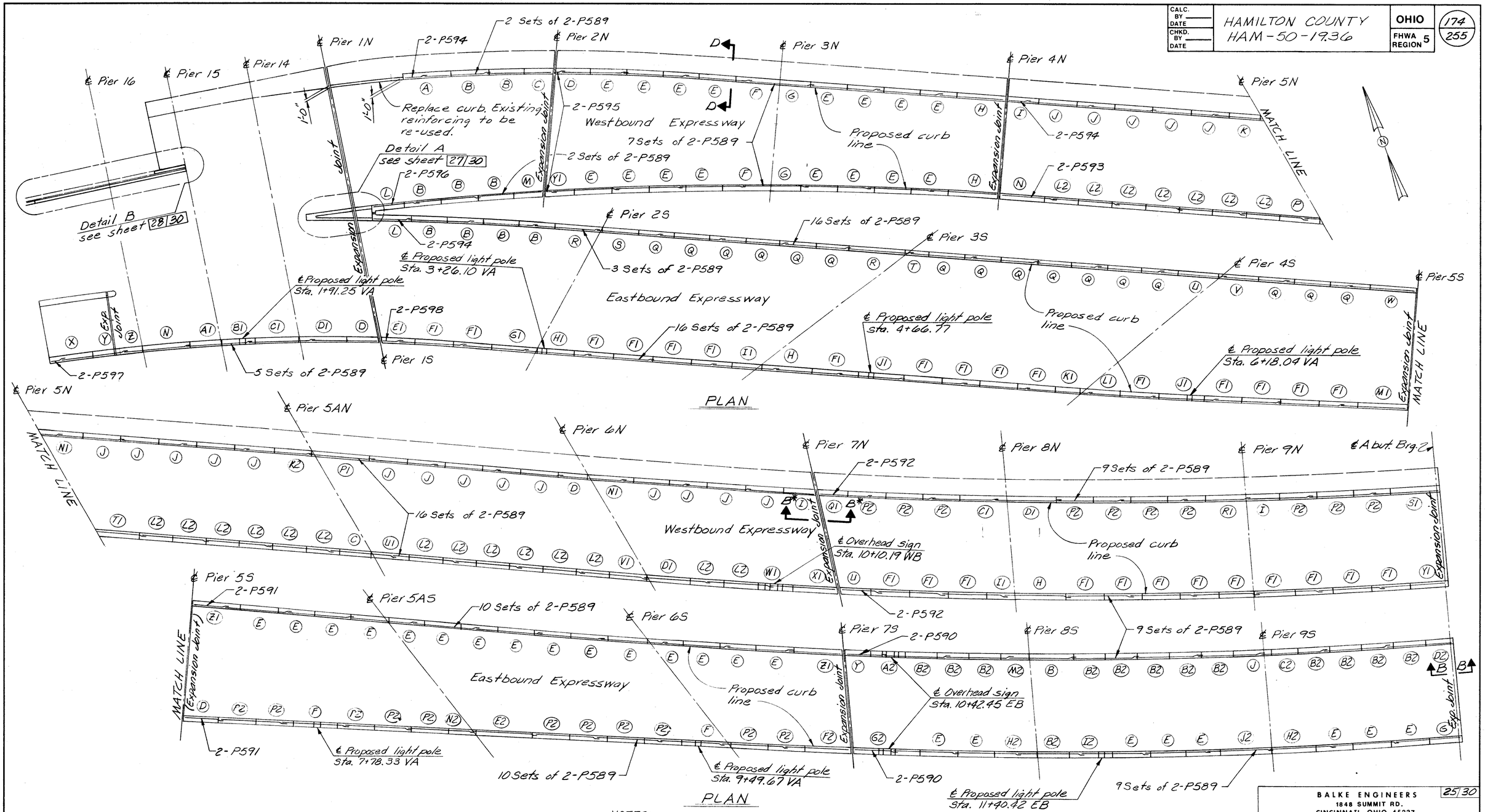
24/30

SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 5 1936P2

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	174 255
CHKD. BY / DATE			



NOTES:

1. For typical panel details, sections of parapets, proposed light pole detail and overhead sign detail, see sheet 26/30.
* 2. Section B-B typical for all parapets at expansion joints, see sheet 26/30.
3. For section D-D, see sheet 26/30.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

25/30

PARAPET DETAILS

BRIDGE NO. HAM-50-1936 R&L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

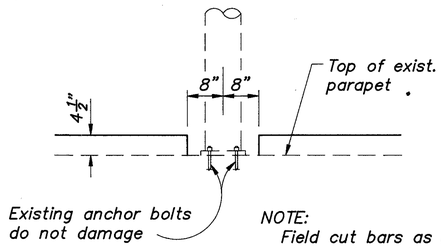
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/72	

OHIO BLUE PRINT 742963

CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

175/255

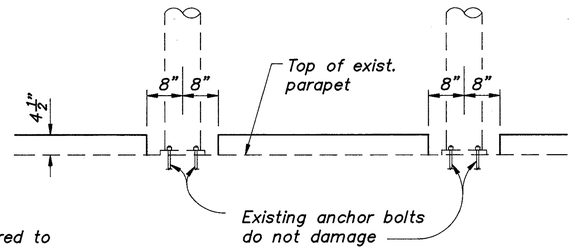
PARAPET PANELS				
MARK	NO.	PANEL LENGTH	DIM. X	BARS NEEDED
A	1	21'-4 1/2	2 1/4	15-P501, 15-P502, 5-P503
B	10	16'-2	2	12-P501, 12-P502, 5-P504
C	2	13'-5	2	10-P501, 10-P502, 5-P505
D	5	13'-10	2	10-P501, 10-P502, 5-P506
E	39	16'-8	2	12-P501, 12-P502, 5-P507
F	4	19'-10	2	14-P501, 14-P502, 5-P508
G	3	13'-6	2	10-P501, 10-P502, 5-P509
H	4	22'-8	2	16-P501, 16-P502, 5-P510
I	3	14'-8	2	11-P501, 11-P502, 5-P511
J	20	17'-2	4	12-P501, 12-P502, 5-P512
K	1	13'-10 1/2	2 1/4	10-P501, 10-P502, 5-P506
L	2	13'-1 1/2	2	10-P501, 10-P502, 5-P514
M	1	13'-8	2	8-P501, 8-P502, 5-P515
N	2	20'-10	2	15-P501, 15-P502, 5-P516
O		Not Used		
P	1	17'-11 1/2	2	13-P501, 13-P502, 5-P518
Q	16	16'-4	2	12-P501, 12-P502, 5-P519
R	2	21'-5	2 1/2	15-P501, 15-P502, 5-P520
S	1	19'-5	2	14-P501, 14-P502, 5-P521
T	1	11'-3	4 1/2	8-P501, 8-P502, 5-P522
U	2	14'-3	4 1/2	10-P501, 10-P502, 5-P523
V	1	18'-5	2 1/2	13-P501, 13-P502, 5-P524
W	1	21'-9 1/2	4 3/4	13-P501, 13-P502, 5-P525
X	1	19'-2 1/2	2	14-P501, 14-P502, 5-P526
Y	2	12'-1 1/2	2	7-P501, 7-P502, 5-P527
Z	1	11'-0	3	6-P501, 6-P502, 5-P528
A1	1	14'-1 1/2	3 3/4	10-P501, 10-P502, 5-P529
B1	1	14'-11 1/2	2	11-P501, 11-P502, 5-P530
C1	2	20'-0 1/2	3 1/4	14-P501, 14-P502, 5-P531
D1	3	22'-0	6	15-P501, 15-P502, 5-P532
E1	1	14'-10	2	9-P501, 9-P502, 5-P533
F1	28	17'-4	2	13-P501, 13-P502, 5-P534
G1	1	20'-8	2	15-P501, 15-P502, 5-P535
H1	1	17'-0	3	12-P501, 12-P502, 5-P536
I1	2	12'-0	2	9-P501, 9-P502, 5-P537
J1	2	20'-4	5	14-P501, 14-P502, 5-P538
K1	1	11'-0	3	8-P501, 8-P502, 5-P539
L1	1	23'-8	2	17-P501, 17-P502, 5-P540
M1	1	23'-3	4 1/2	14-P501, 14-P502, 5-P541
N1	2	20'-5 1/2	5 3/4	14-P501, 14-P502, 5-P542
O1		Not Used		
P1	1	27'-0 1/2	2	19-P501, 19-P502, 5-P544
Q1	1	13'-7 1/2	2	8-P501, 8-P502, 5-P545
R1	1	19'-0 1/2	6	13-P501, 13-P502, 5-P546
S1	1	22'-0 1/2	6	13-P501, 13-P502, 5-P547
T1	1	19'-11 1/2	2 3/4	14-P501, 14-P502, 5-P548
U1	1	16'-11 1/2	2 3/4	12-P501, 12-P502, 5-P549
V1	1	15'-11 1/2	5 3/4	11-P501, 11-P502, 5-P550
W1	1	15'-10	5	11-P501, 11-P502, 5-P551
X1	1	20'-3	4 1/2	12-P501, 12-P502, 5-P552
Y1	2	14'-4	5	8-P501, 8-P502, 5-P553
Z1	2	22'-4 1/2	2	16-P501, 16-P502, 5-P554
A2	1	15'-6	3	11-P501, 11-P502, 5-P555
B2	13	14'-6	6	10-P501, 10-P502, 5-P556
C2	1	11'-10 1/2	2	9-P501, 9-P502, 5-P557
D2	1	12'-8	4	7-P501, 7-P502, 5-P558
E2	1	26'-5 1/2	5 3/4	18-P501, 18-P502, 5-P559
F2	1	22'-3	2	14-P501, 14-P502, 5-P560
G2	1	30'-8 1/2	4 1/4	19-P501, 19-P502, 5-P561
H2	2	18'-10	5	13-P501, 13-P502, 5-P562
I2	1	19'-8	2	14-P501, 14-P502, 5-P563
J2	1	22'-10	2	16-P501, 16-P502, 5-P564
K2	1	15'-10 1/2	5 1/4	11-P501, 11-P502, 5-P551
L2	21	15'-2	2	11-P501, 11-P502, 5-P517
M2	1	12'-10 1/2	5 1/4	9-P501, 9-P502, 5-P513
N2	1	15'-7 1/2	3 3/4	11-P501, 11-P502, 5-P555
O2		Not Used		
P2	21	16'-10	2	12-P501, 12-P502, 5-P543



NOTE: Field cut bars as required to clear pole anchorages.

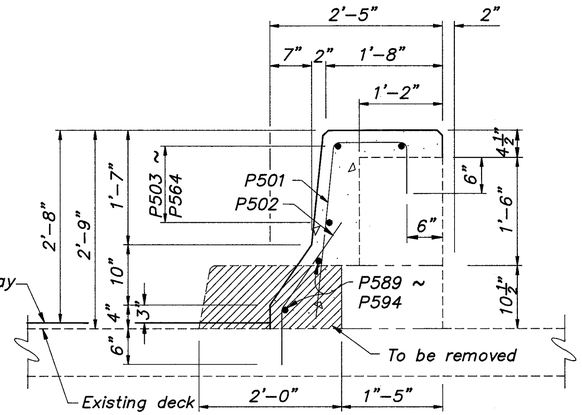
LIGHT POLE SUPPORT DETAIL

NOTE: Light pole locations match existing pole locations.

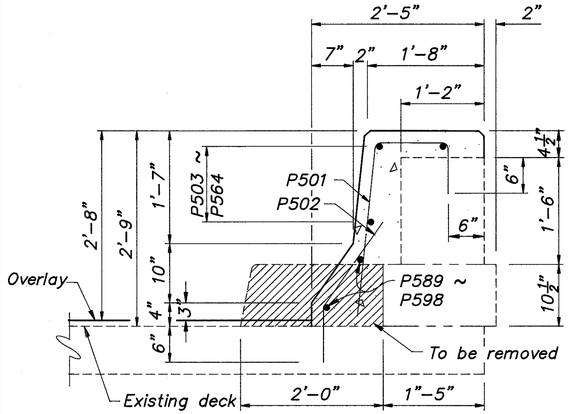


OVERHEAD SIGN SUPPORT DETAIL

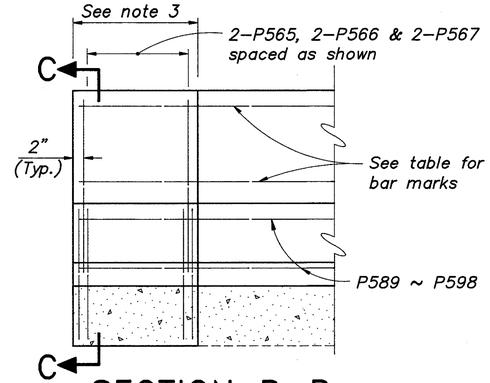
NOTE: Sign pole locations match existing pole locations.



SECTION D-D

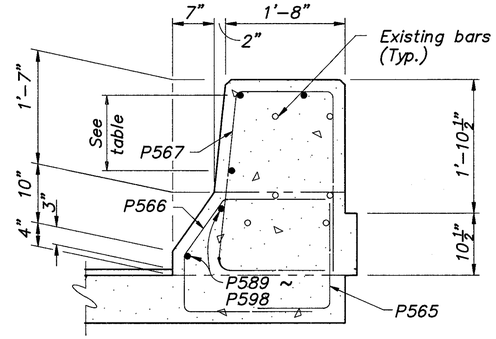


TYPICAL SECTION THRU PARAPET

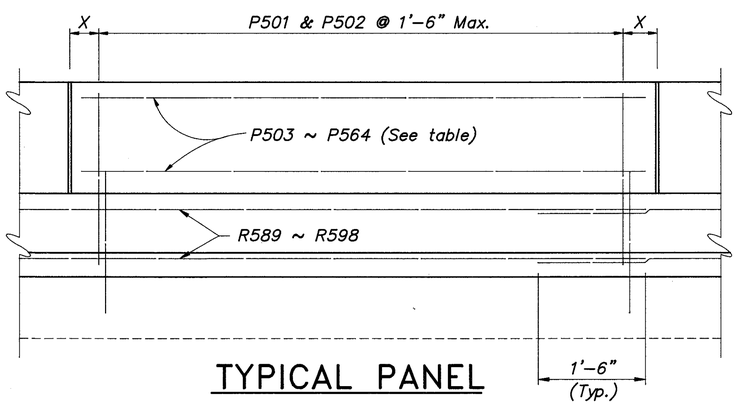


SECTION B-B

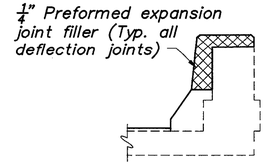
(28 REQUIRED)



SECTION C-C



TYPICAL PANEL



DEFLECTION JOINT DETAIL

New deflection joints shall match the existing deflection joints locations.

NOTE:
1. For additional panel information, see sheet 27/30
2. P501 & P502 to be dowelled into existing concrete as shown.
3. Within limits shown, remove full parapet and curb section and replace as shown in section C-C. Care shall be taken not to damage horizontal steel during concrete removal. This steel shall be incorporated in the new parapet. For limits of concrete removal and replacement, see sheet 15/30 thru 22/30 .
4. All reinforcing bars to be epoxy coated.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

26/30

PARAPET DETAILS

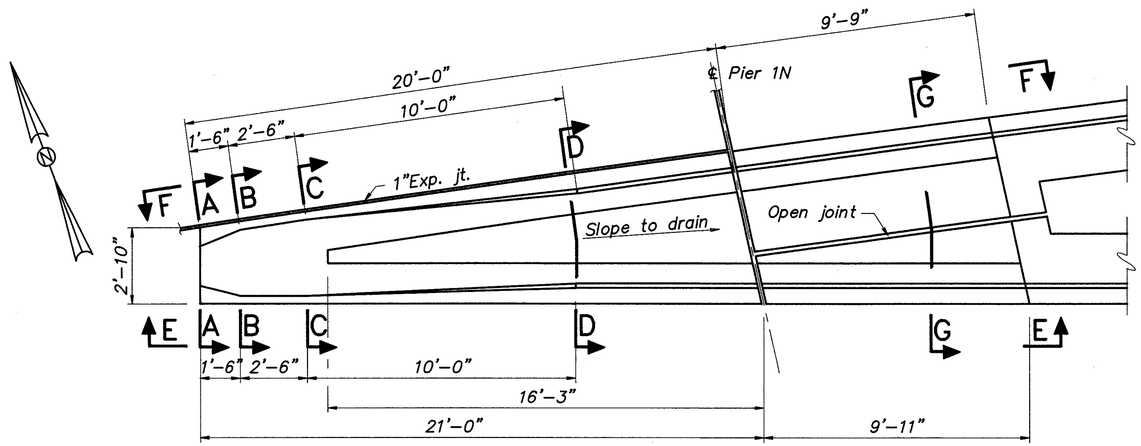
BRIDGE NO. HAM-50-1936 R & L

SIXTH STREET EXPRESSWAY OVER RR AND MILL CREEK

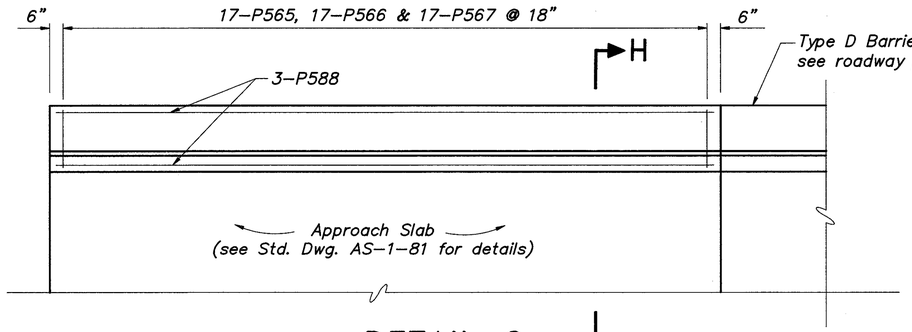
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 5 1936P1

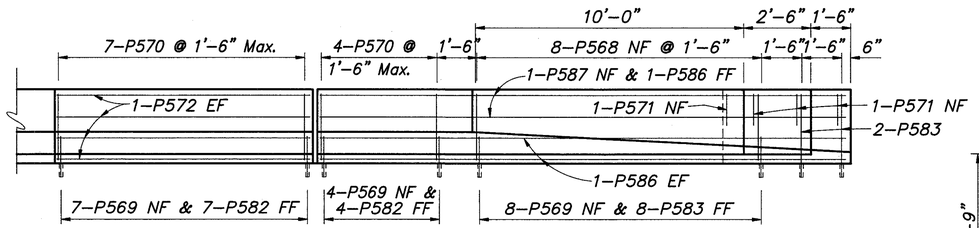
CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO	176
CHKD. BY DATE			FHWA REGION 5	255



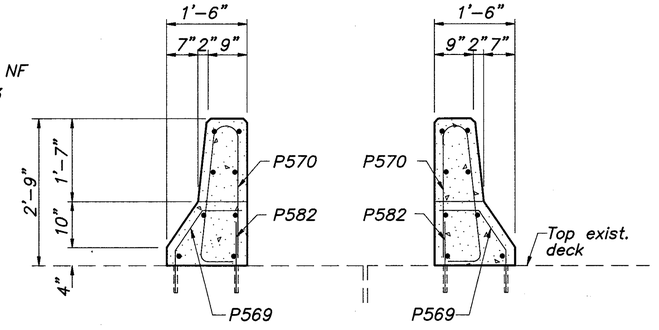
DETAIL A



DETAIL C

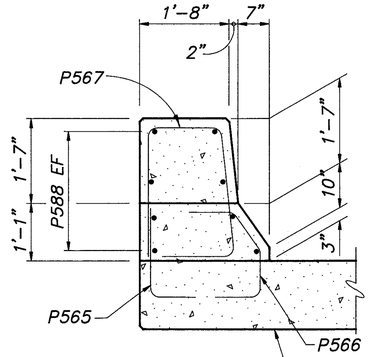


VIEW F–F



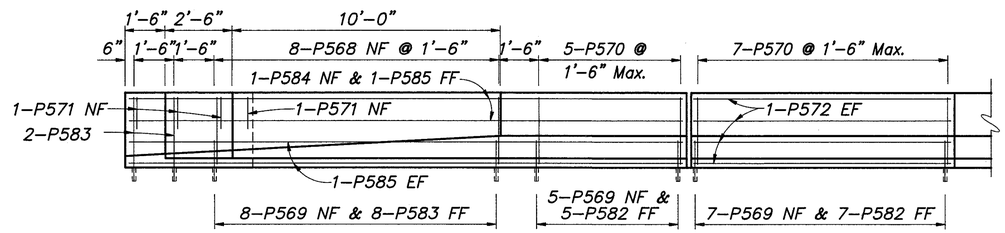
All horizontal bars are P572 .

SECTION G–G



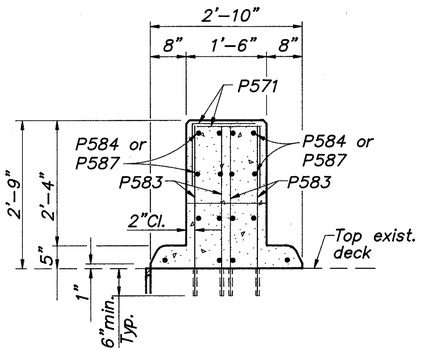
See Std. Dwg. AS–1–81 for reinforcing in approach slab.

SECTION H–H



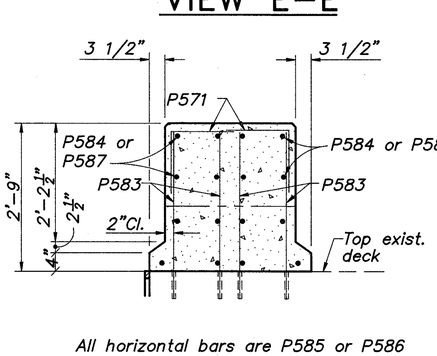
VIEW E–E

NOTE:
For location of DETAIL A, see sheet 25/30 .
For location of DETAIL C, see sheet 3/30 .
EF = Each Face
NF = Near Face
FF = Far Face



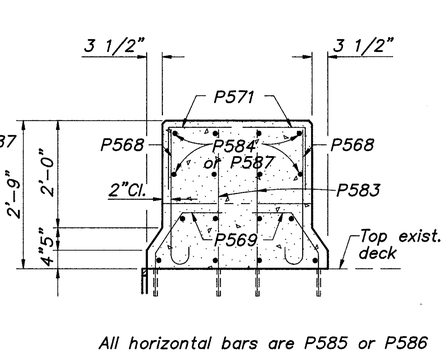
All horizontal bars are P585 or P586 except as noted.

SECTION A–A



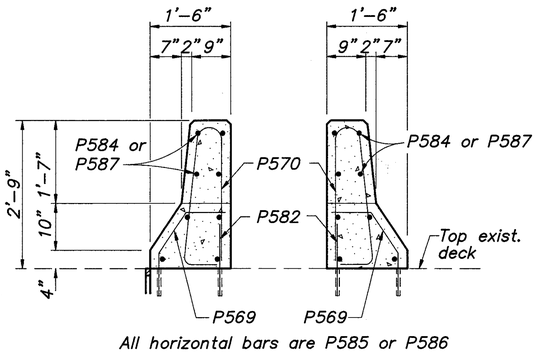
All horizontal bars are P585 or P586 except as noted.

SECTION B–B



All horizontal bars are P585 or P586 except as noted.

SECTION C–C



All horizontal bars are P585 or P586 except as noted.

SECTION D–D

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

27/30

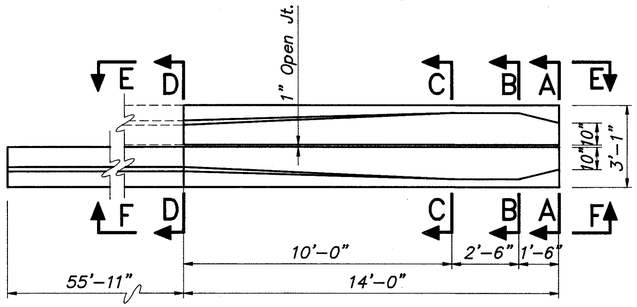
PARAPET DETAILS
BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

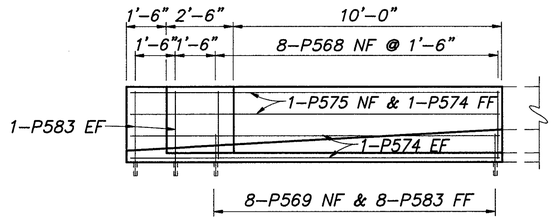
DISK 4 1936P3

CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

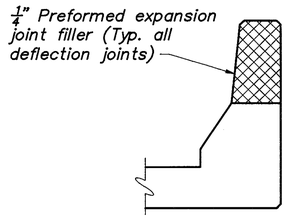
177/255



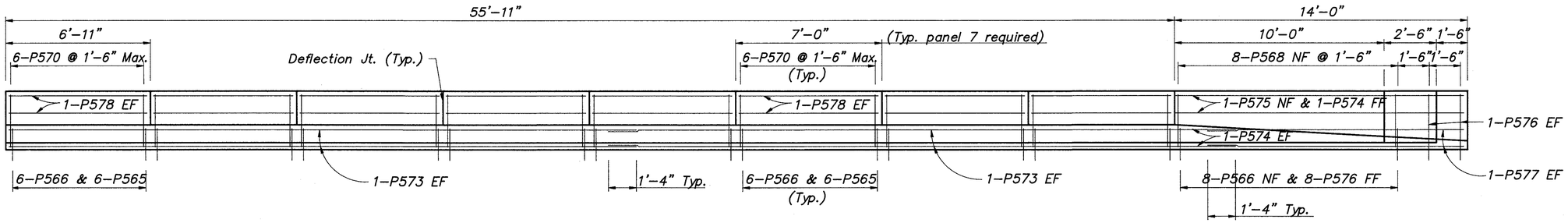
DETAIL B



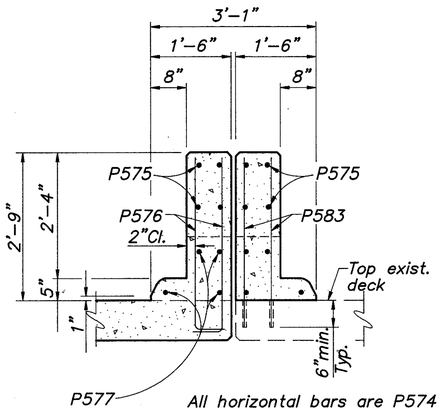
VIEW E-E



DEFLECTION JOINT DETAIL

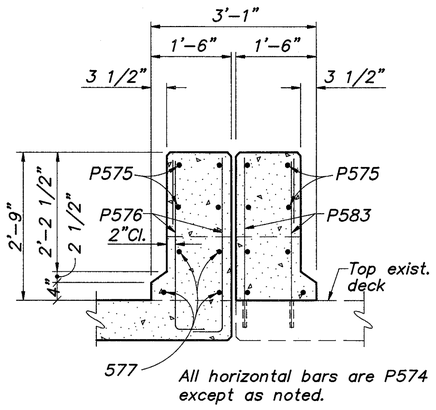


VIEW F-F



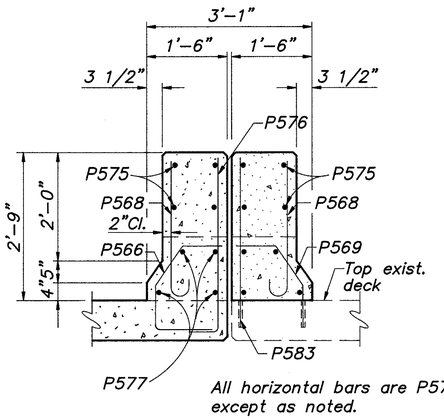
All horizontal bars are P574 except as noted.

SECTION A-A



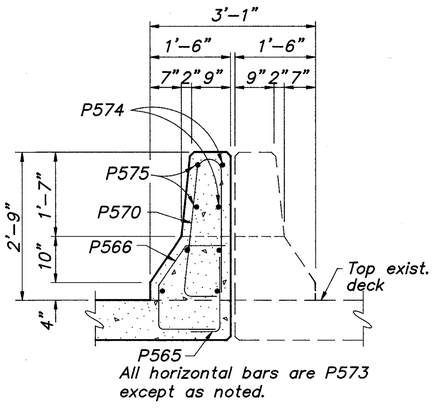
All horizontal bars are P574 except as noted.

SECTION B-B



All horizontal bars are P574 except as noted.

SECTION C-C



All horizontal bars are P573 except as noted.

SECTION D-D

NOTE:
For location of DETAIL B, see sheet 25/30 .

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

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PARAPET DETAILS
BRIDGE NO. HAM-50-1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 5 1936P4

REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
F801	59	4'–0	630	8	1'–5	2'–7	1'–0	1'–0		30	29
F601	86	8'–1	1044	2	6'–4	1'–4	0'–9			44	42
F602	6	9'–3	83	2	7'–6	1'–4	0'–9			6	–
F603	18	9'–4	252	Str.						6	12
F501	86	5'–3"	471	Str.						44	42
F502	86	6'–0	538	2	2'–9	0'–9	2'–9			44	42
F503	6	6'–0	38	Str.						6	–
F504	13	23'–9	322	Str.						13	–
F505	13	28'–8	389	Str.						13	–
F506	3	5'–9	18	Str.						3	–
F507	18	3'–11	74	1	2'–0	2'–0				6	12
F508	2	3'–3	7	1	0'–10	2'–6				2	–
F509	2	3'–9	8	4	0'–10	1'–3	1'–9	1'–5 1/4		2	–
F510	2	5'–11	12	4	2'–5	1'–2	2'–5	0'–3		2	–
F511	6	0'–11	6	Str.						6	–
F512	18	6'–3	117	Str.						6	12
F513	60	5'–0	313	Str.						20	40
F514	18	3'–3	61	1	0'–10	2'–6				6	12
F515	18	3'–9	70	4	0'–10	1'–3	1'–9	1'–5 1/4		6	12
F516	18	6'–1	114	4	2'–5	1'–5	2'–5	0'–3		6	12
F517	13	28'–6	386	Str.						–	13
F518	13	18'–5	250	Str.						–	13
P701	106	5'–1	1101	Str.						106	–
P702	106	5'–6	1192	Str.						106	–
P703	40	30'–0	2453	Str.						40	–
P704	20	16'–7	678	Str.						20	–
P601	12	24'–8	445	Str.						–	12
P602	36	27'–6	1487	Str.						36	–
P603	24	28'–6	1027	Str.						–	24
P604	24	28'–4	1021	Str.						24	–
P605	24	24'–7	886	Str.						–	24
P606	6	29'–6	266	Str.						–	6
P607	6	27'–6	248	Str.						6	–
P608	6	28'–6	257	Str.						6	–
P609	36	30'–8	1658	Str.						–	36
P610	24	33'–6	1208	Str.						24	–
P611	6	30'–3	273	Str.						–	6
P612	12	7'–9"	140	Str.						12	–
P501	3047	3'–11	12447	4	0'–9	1'–0	2'–5	0'–3		1216	1831
P502	3047	2'–3	7151	5	1'–5	0'–10	0'–10	1'–2		1216	1831
P503	5	21'–1	110	Str.						5	–
P504	50	15'–10	826	Str.						25	25
P505	10	13'–1	136	Str.						10	–
P506	25	13'–6	352	Str.						15	10
P507	195	16'–4	3322	Str.						80	115
P508	20	19'–6	406	Str.						10	10
P509	15	13'–2	206	Str.						10	5
P510	20	22'–4	465	Str.						15	5
P511	15	14'–4	224	Str.						15	–
P512	100	16'–10	1756	Str.						95	5
P513	5	12'–7	66	Str.						–	5
P514	10	12'–10	134	Str.						5	5
P515	5	13'–4	70	Str.						5	–
P516	10	20'–6	214	Str.						5	5
P517	105	14'–10	1624	Str.						105	–
P518	5	17'–8	92	Str.						5	–
P519	80	16'–0	1335	Str.						–	80
P520	10	20'–11	218	Str.						–	10
P521	5	19'–1	100	Str.						–	5
P522	5	10'–11	57	Str.						–	5
P523	10	13'–11	146	Str.						5	5
P524	5	18'–0	94	Str.						–	5
P525	5	21'–6	112	Str.						–	5
P526	5	18'–11	99	Str.						–	5
P527	10	11'–10	123	Str.						–	10
P528	5	10'–8	56	Str.						–	5
P529	5	13'–10	72	Str.						–	5

REINFORCING STEEL LIST

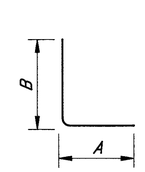
MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
P530	5	14'–8	76	Str.						–	5
P531	10	19'–9	206	Str.						5	5
P532	15	21'–8	339	Str.						10	5
P533	5	14'–6	76	Str.						–	5
P534	140	17'–0	2482	Str.						60	80
P535	5	20'–4	106	Str.						–	5
P536	5	16'–8	87	Str.						–	5
P537	10	11'–8	122	Str.						5	5
P538	10	20'–0	209	Str.						–	10
P539	5	10'–8	56	Str.						–	5
P540	5	23'–4	122	Str.						–	5
P541	5	22'–11	120	Str.						–	5
P542	10	20'–2	210	Str.						10	–
P543	105	16'–6	1807	Str.						50	55
P544	5	26'–8	139	Str.						5	–
P545	5	13'–4	70	Str.						5	–
P546	5	18'–8	97	Str.						5	–
P547	5	21'–8	113	Str.						5	–
P548	5	19'–8	103	Str.						5	–
P549	5	16'–8	87	Str.						5	–
P550	5	15'–8	82	Str.						5	–
P551	10	15'–6	162	Str.						10	–
P552	5	19'–11	104	Str.						5	–
P553	10	14'–0	146	Str.						10	–
P554	10	22'–1	230	Str.						–	10
P555	10	15'–2	158	Str.						–	10
P556	65	14'–2	960	Str.						–	65
P557	5	11'–7	60	Str.						–	5
P558	5	12'–4	64	Str.						–	5
P559	5	26'–2	136	Str.						–	5
P560	5	21'–11	114	Str.						–	5
P561	5	30'–5	159	Str.						–	5
P562	10	18'–6	193	Str.						–	10
P563	5	19'–4	101	Str.						–	5
P564	5	22'–6	117	Str.						–	5
P565	121	2'–5	304	1	0'–10	1'–8				97	24
P566	129	3'–1	415	3	0'–10	0'–10	0'–10	0'–9	0'–6	105	24
P567	73	6'–0	457	12	2'–6	1'–4	2'–6	0'–2		49	24
P568	32	3'–1	103	10	2'–6					24	8
P569	47	2'–4	115	6	0'–10	0'–10 1/2	0'–8	0'–6	0'–8 1/2	27	20
P570	71	5'–3	389	7	2'–2	2'–5	0'–7 1/2			59	12
P571	8	2'–3	18	1	1'–2	1'–2				4	4
P572	16	9'–5	158	Str.						8	8
P573	8	30'–0	250	Str.						8	–
P574	8	13'–8	114	Str.						8	–
P575	4	13'–8	57	9	9'–11	2'–4	1'–5			4	–
P576	12	4'–0	50	1	0'–10	3'–3				12	–
P577	4	12'–8	53	Str.						4	–
P578	32	6'–8	223	Str.						32	–
P579	2	3'–8	8	Str.						–	2
P580	2	2'–2	5	Str.						–	2
P581	3	3'–9	12	11	0'–8 3/8	0'–1 5/8	2'–4	0'–8 1/2		–	3
P582	23	1'–6	36	Str.						11	12
P583	36	3'–1	116	Str.						24	12
P584	2	20'–4	42	9	16'–7	2'–4	1'–5			–	2
P585	6	20'–4	127	Str.						–	6
P586	6	19'–8	123	Str.						6	–
P587	2	19'–8	41	9	15'–11	2'–4	1'–5			2	–
P588	6	24'–8	154	Str.						6	–
P589	292	30'–0	9136	Str.						136	156
P590	4	15'–5	64	Str.						–	4
P591	4	20'–9	87	Str.						–	4
P592	4	22'–11	96	Str.						4	–
P593	2	25'–4	53	Str.						2	–
P594	6	10'–9	67	Str.						4	2
P595	4	3'–10	16	Str.						4	–
P596	2	18'–0	38	Str.						2	–
P597	2	5'–8	12	Str.						–	2
P598	2	6'–10	14	Str.						–	2

CALC. BY DATE
CHKD. BY DATE

HAMILTON COUNTY
HAM–50–19.36

OHIO
FHWA REGION 5

178
255



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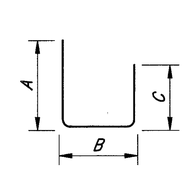

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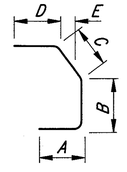

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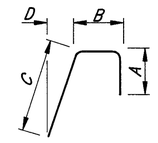

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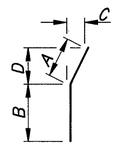

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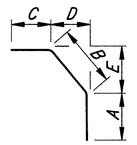

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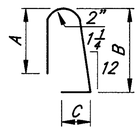

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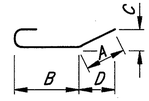

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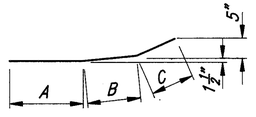

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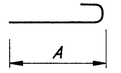

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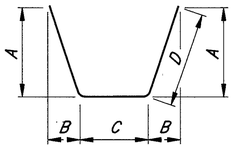

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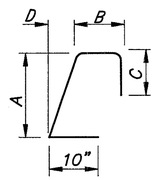


Type 12

NOTES

1. REINFORCING STEEL SAMPLES: REFER TO CMS SECTION 106.03, 700, 709.01 THRU. 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. ALL BARS ARE TO BE EPOXY COATED.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

29/30

REINFORCING STEEL LIST

BRIDGE NO. HAM–50–1936 R & L
SIXTH STREET EXPRESSWAY
OVER RR AND MILL CREEK

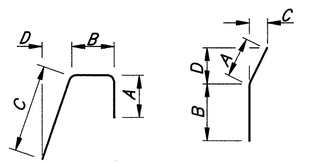
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 4 1936RS1

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO	179
CHKD. BY DATE		FHWA REGION 5	255

RETAINING WALL NO. 2 REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E
Z501	192	2'–9	551	5	1'–5	1'–4	0'–9 7/8	1'–1 7/8	
Z502	192	4'–0	801	4	0'–9	1'–0	2'–6	0'–3 1/8	
Z503	24	27'–6	688	Str.					
Z504	4	23'–6	98	Str.					

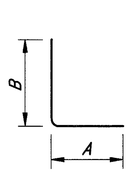


Type 4

Type 5

ABUTMENT W REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E
H601	49	6'–4	466	Str.					
H501	49	5'–6	281	Str.					
H502	49	3'–2	162	2	1'–6	0'–5	1'–6		
H503	8	13'–9	115	Str.					
H504	8	18'–6	154	Str.					
H505	8	15'–0	125	Str.					
H506	2	2'–3	5	1	0'–10	1'–6			
H507	2	3'–3	7	3	0'–10	1'–0	0'–10 3/8	0'–9	0'–6
H508	2	2'–6	5	1	0'–10	1'–9			
H509	2	5'–3	11	7	2'–2	2'–5	0'–7 1/2		



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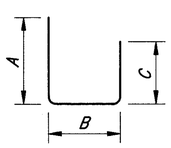

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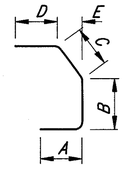

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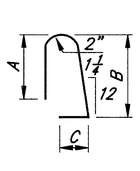


Type 7

NOTES

1. REINFORCING STEEL SAMPLES: REFER TO CMS SECTION 106.03, 700, 709.01 THRU. 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. ALL BARS ARE TO BE EPOXY COATED.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

30/30

REINFORCING STEEL LIST

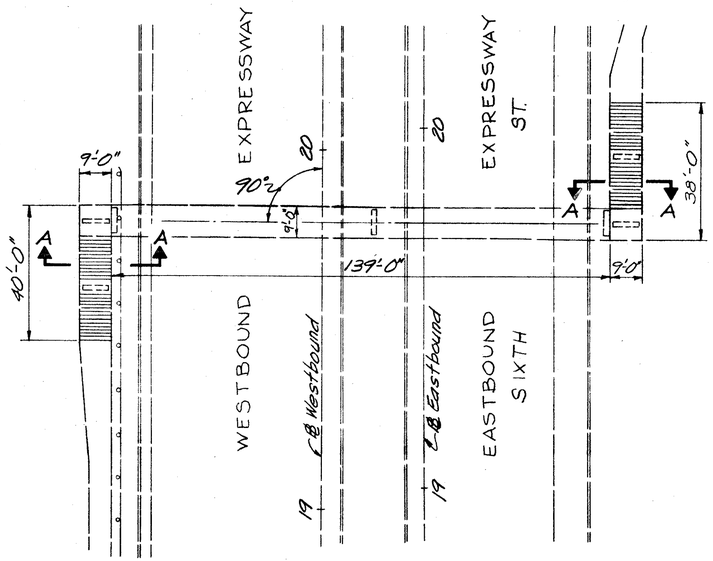
BRIDGE NO. HAM–50–1936 R & L

SIXTH STREET EXPRESSWAY OVER RR AND MILL CREEK

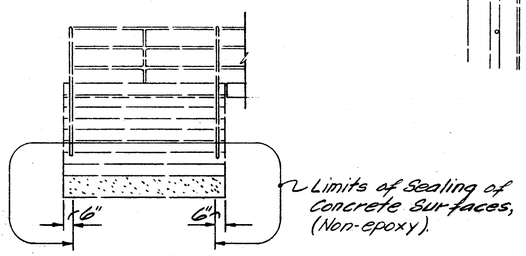
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 4 1936RS2

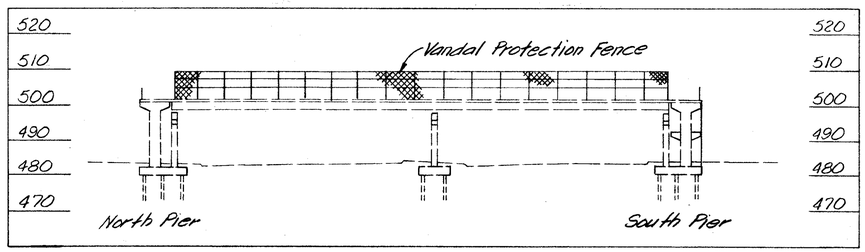
CALC. BY		HAMILTON COUNTY	OHIO	180
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



PLAN



SECTION A-A



ELEVATION

GENERAL NOTES

STANDARD DRAWINGS
Reference shall be made to the following Standard Drawings:
VPF-1-90 Dated 9-26-90

SCOPE OF WORK
The scope of work to be performed includes:
1. Add Vandal Protection Fence.
2. Seal Concrete Surfaces as noted on plans.
3. Clean and paint the structural steel.

EXISTING STRUCTURE VERIFICATION
Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and/or from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work, but they shall be considered tentative and approximate. It is the intent of these plans that the proposed additions to these structures match existing conditions. The contractor is referred to CMS sections 102.05 and 105.02.

Contract bid prices shall be based upon a recognition of the uncertainties described in the preceding paragraph and upon a prebid examination of the existing structure by the contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the contractor in the field.

MAINTENANCE OF TRAFFIC
For maintenance of traffic on Sixth Street Expressway, see highway drawings.

PLANS FOR EXISTING BRIDGE
Plans of the existing structure are available for reference at the City of Cincinnati Engineer's Office and the ODOT District Eight office.

SEALING OF CONCRETE SURFACES
The steps, landings, and bridge concrete shall be sealed with an epoxy or non-epoxy sealer. Also seal sides and ends of piers with epoxy sealer. See the proposal note for details.

ITEM 516 : REFURBISH BEARING DEVICE
This item shall include all work necessary to clean and paint sliding expansion bearings at north and south piers. Included shall be:
1. Disassembly of bearings.
2. Hand cleaning (grinding if required).
3. Sandblasting and painting as required by field painting of existing steel, system OZEU, proposal note.
4. Replacement of any damaged sheet lead (711.19). Preformed bearing pads 1/8" thick, meeting the requirements of 711.21, may be substituted for the sheet lead.
5. Installation of any necessary 1/8" thick steel shims of the same size as the bearings to provide a snug fit.
6. Reassembly of the bearings.

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. Payment for all the above described labor and materials will be made at the contract price bid for Item 516: Refurbish Bearing Device.

ITEM 516: JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE
The ends of the beams at the north and south pier shall be jacked and the beams supported so bearing may be removed. Prior to jacking, the Contractor shall submit his jacking plan to the Engineer for approval.

ITEM 516: RESET BEARINGS
Refurbished bearings shall be reset to be centered at 60°F.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

1 / 2

GENERAL PLAN

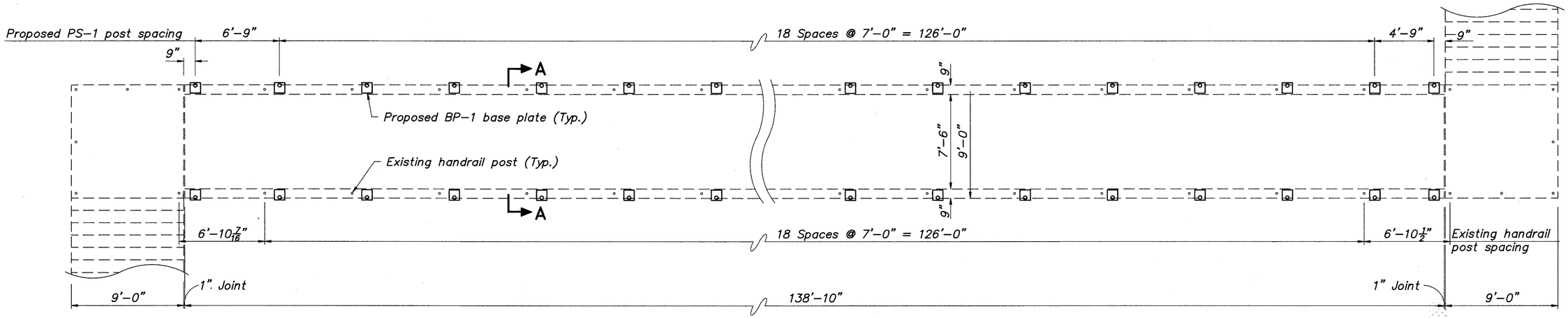
BRIDGE NO. HAM-50-1971
PEDESTRIAN BRIDGE OVER
SIXTH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT N18/02

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

181 / 255



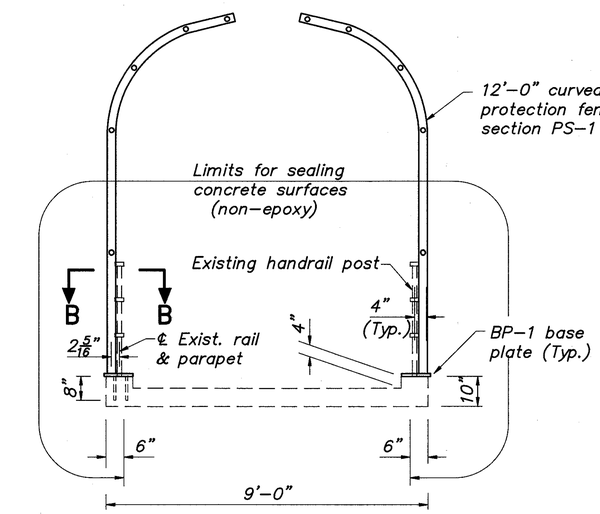
DECK PLAN

ESTIMATED QUANTITIES						
ITEM	CODE	TOTAL	UNIT	DESCRIPTION	SUPERST.	GENERAL
SPECIAL	51267502	93	Sq. Yd.	Sealing of concrete surfaces (epoxy) *		93
SPECIAL	51267504	331	Sq. Yd.	Sealing of concrete surfaces (non–epoxy) *	331	
SPECIAL	51400050	2575	Sq. Ft.	Surface preparation of existing steel, system OZEU *	2575	
SPECIAL	51400056	2575	Sq. Ft.	Field painting of existing steel, prime coat, system OZEU *	2575	
SPECIAL	51400060	2575	Sq. Ft.	Field painting of existing steel, intermediate coat, system OZEU *	2575	
SPECIAL	51400066	2575	Sq. Ft.	Field painting of existing steel, finish coat, System OZEU *	2575	
516	45304	4	Each	Refurbish bearing device	4	
516	46700	4	Each	Reset bearing	4	
516	47000	L.S.	Lump Sum	Jacking and temporary support of superstructure	L.S.	
SPECIAL	60739930	275	Lin. Ft.	Vandal protection fence, 12' curved, coated fabric	275	

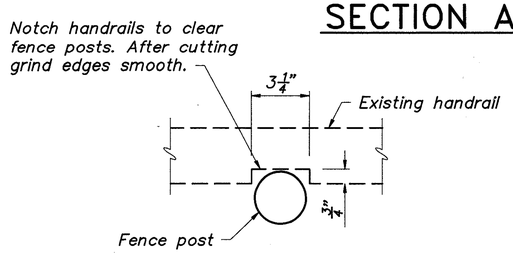
ESTIMATED QUANTITIES CALCULATED BY : MRS DATE : 11/91

CHECKED BY : EHC DATE : 1/92

* See Proposal Note
Contact Principal Structural Design Engineer at City of Cincinnati to determine color of material to be used on the project.



SECTION A–A



SECTION B–B

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

2 / 2

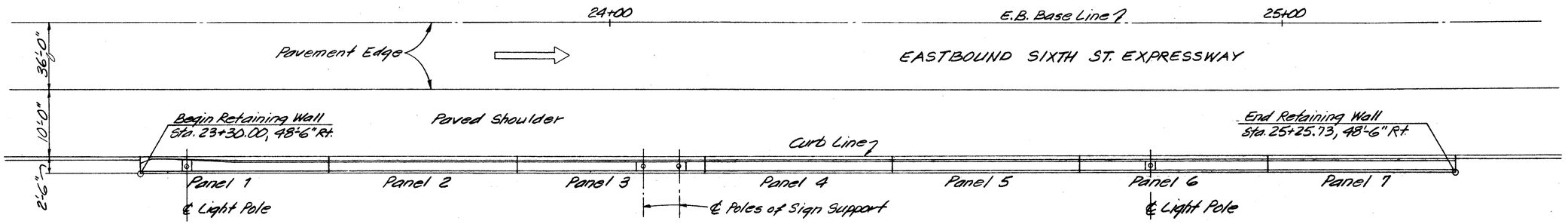
VANDAL PROTECTION FENCE

BRIDGE NO. HAM–50–1971
PEDESTRIAN BRIDGE OVER
SIXTH. ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 3 1971F1

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	181A 255
CHKD. BY / DATE			



PLAN

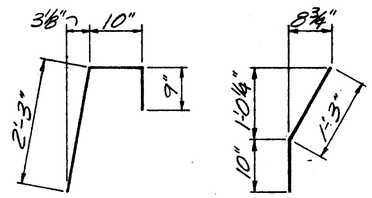
ESTIMATED QUANTITIES

ITEM	CODE	TOTAL	UNIT	DESCRIPTION
202	11202	L.S.	Lump Sum	Portions of structures removed
509	15800	1974	Lbs.	Epoxy coated reinforcing steel, grade 60
510	12200	196	Lin. Ft.	Dowel hole
511	45700	21	Cu. Yd.	Class C concrete, retaining wall, (repair or reconstruction)
SPECIAL	51267500	150	Sq. Yd.	Sealing of concrete surfaces (see proposal note)

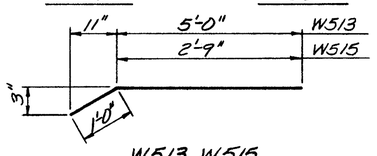
Estimated Quantities calculated by: MRS Date: 3/93
checked by: WJH Date: 3/93

STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHAPE
W501	191	2'-1"	415	B
W502	181	3'-9"	708	B
W503	10	2'-1"	22	S
W504	2	23'-9"	50	S
W505	20	20'-0"	42	S
W506	20	27'-8"	577	S
W507	2	4'-0"	8	S
W508	2	17'-5"	36	S
W509	2	2'-6"	5	S
W510	1	9'-0"	9	S
W511	2	9'-5"	20	S
W512	2	16'-6"	34	S
W513	1	6'-0"	6	B
W514	1	5'-10"	6	S
W515	1	3'-9"	4	B
W516	3	3'-9"	12	S
W517	6	3'-3"	20	S
		Total:	1974 lbs	



W502 W501



W513, W515

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS
Reference shall be made to supplemental specifications:
836 Dated 11-12-85
852 Dated 12-14-88

SCOPE OF WORK
The scope of work to be performed shall be executed in stages as shown and includes:
1. Retrofit railing, as indicated on plans.
2. Seal railing

ITEM 510
Dowel holes shall be drilled and grouted per Supplemental Specifications 852 and CMS 705.20.

SEALING OF CONCRETE SURFACES
Portions of the structure shall be sealed as noted below. See the proposal note for application rates and materials. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of sealer to be used.
1. Parapets shall be sealed as shown on sheet 2/3 with an epoxy or non-epoxy sealer.

For additional notes, see Bridge Ham-50-1986 R & L, sheet 2/2.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

1/3

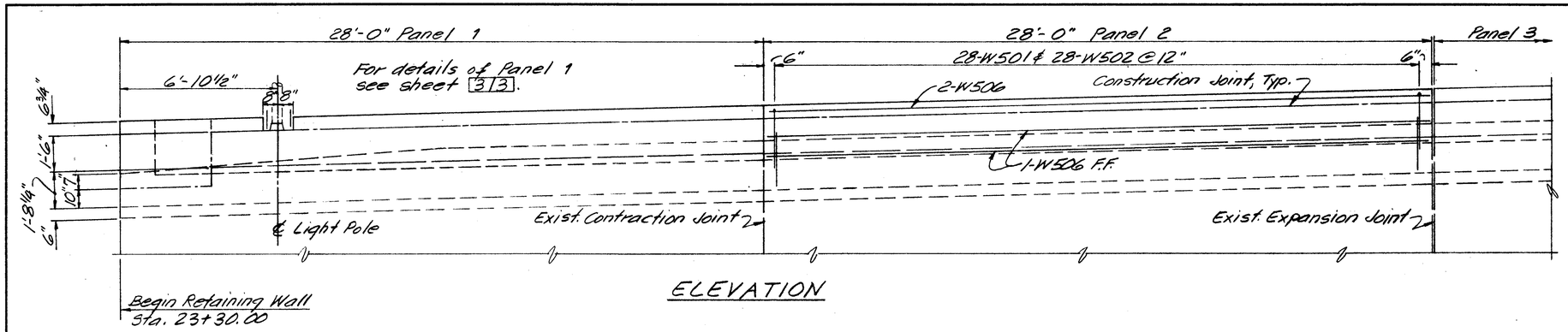
RETAINING WALL NO. 5
6TH STREET EXPRESSWAY
EASTBOUND

STA. 23+30.00 TO STA. 25+25.73

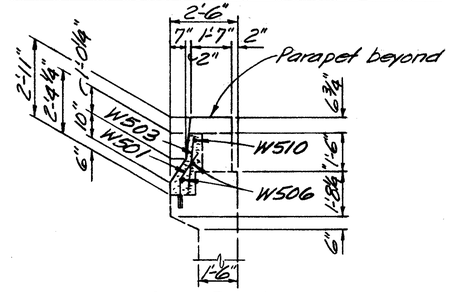
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	VDG	CRS	

OHIO BLUE PRINT 1-21-92

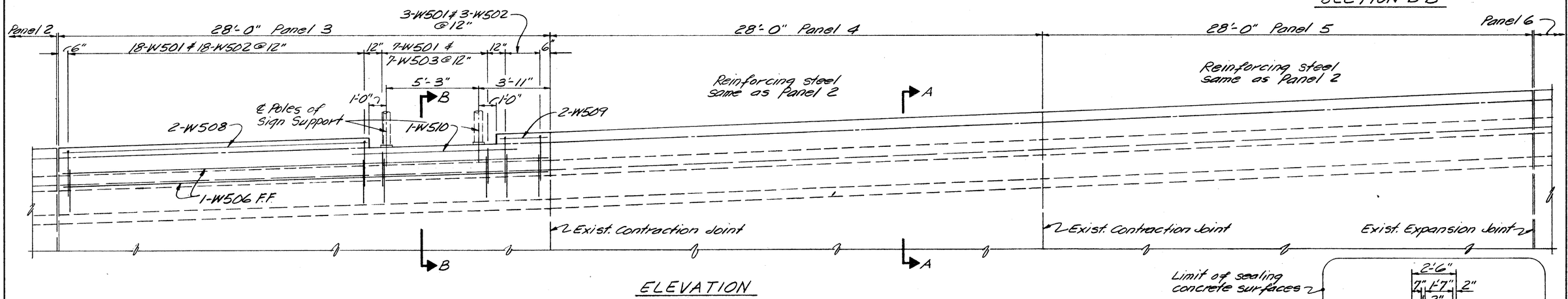
CALC. BY		HAMILTON COUNTY	OHIO	181B
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



ELEVATION



SECTION B-B



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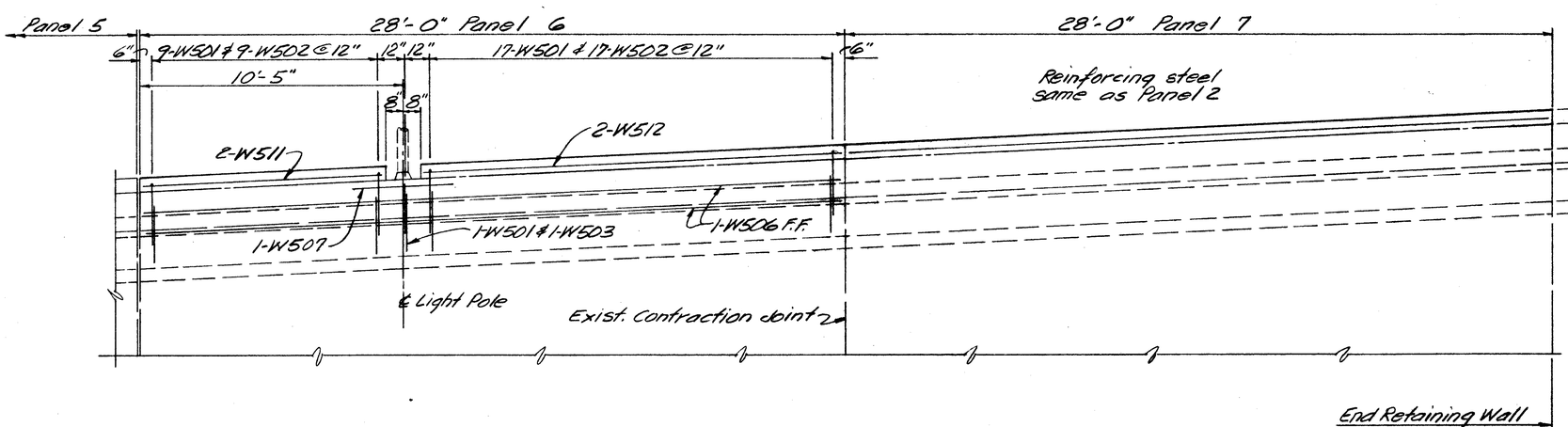

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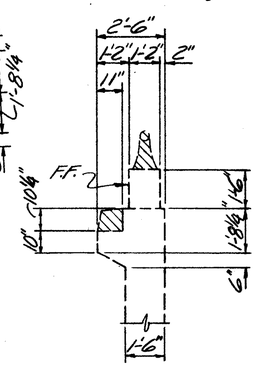
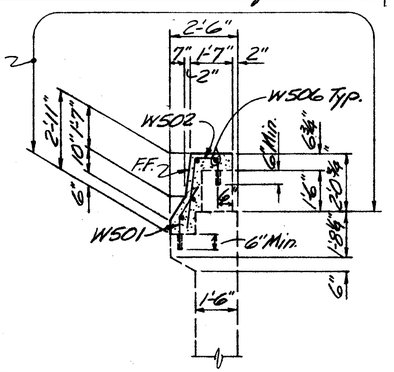


SECTION A-A
(Showing Removal)
TYPICAL



SECTION A-A
TYPICAL

Note: F.F. = Far Face

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

2/3

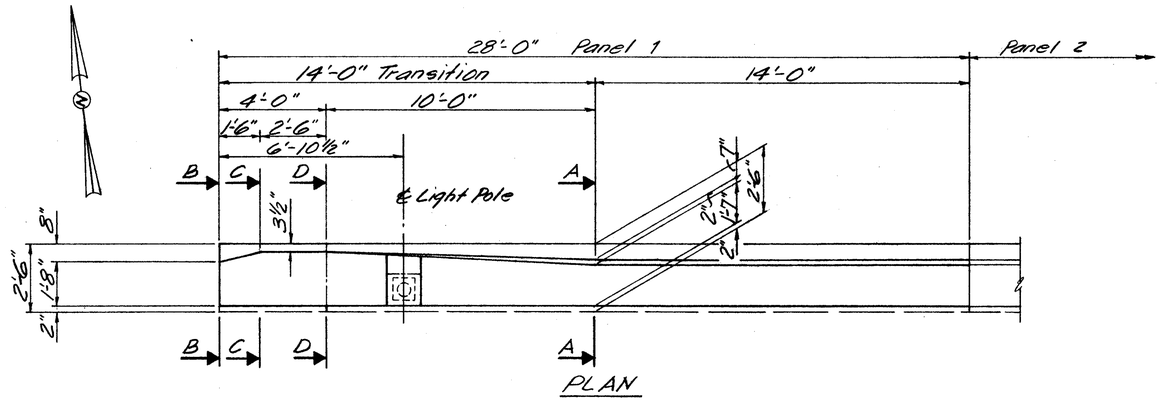
RETAINING WALL NO. 5
6TH STREET EXPRESSWAY
EASTBOUND

STA. 23+30.00 TO STA. 25+25.73

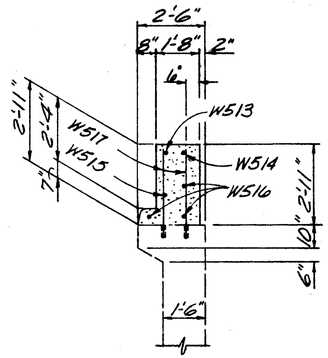
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WH	~	VDG	CRS	

OHIO KLIP PRINT N2963

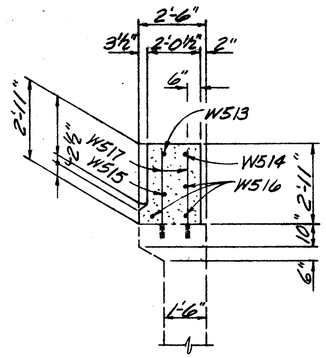
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	181C 255
CHKD. BY / DATE			



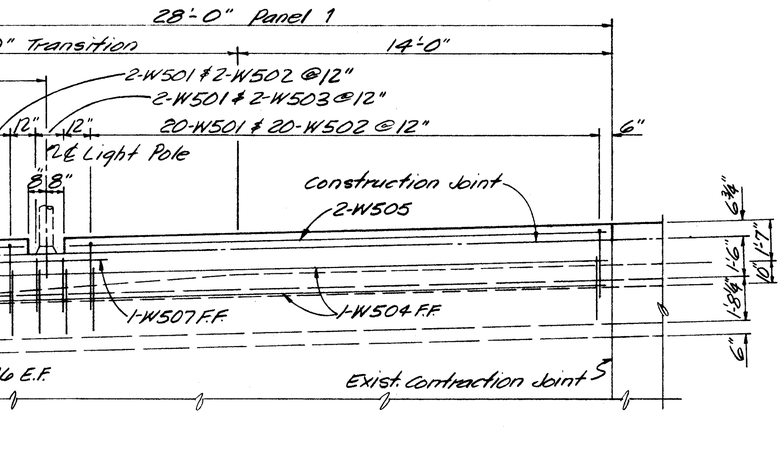
PLAN



SECTION B-B



SECTION C-C



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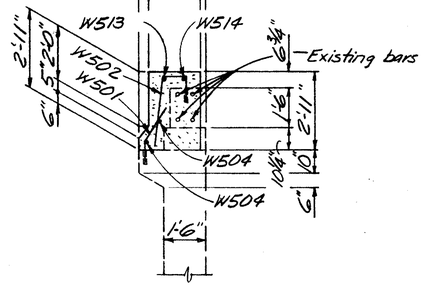
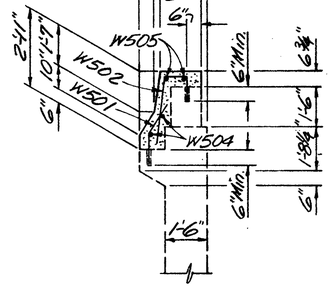
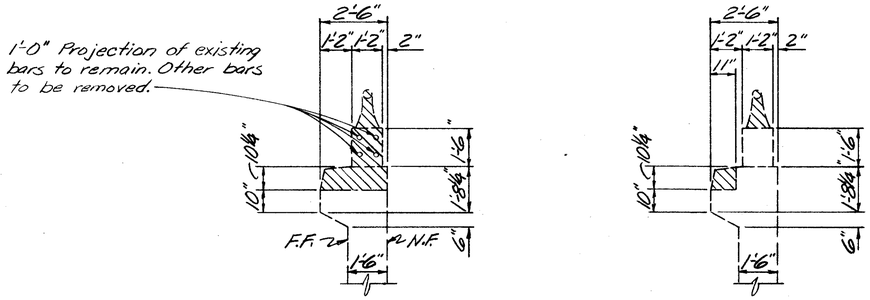


SECTION D-D



SECTION A-A



SECTIONS SHOWING REMOVAL

FIRST 4'-0" REMAINDER

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	3 / 3

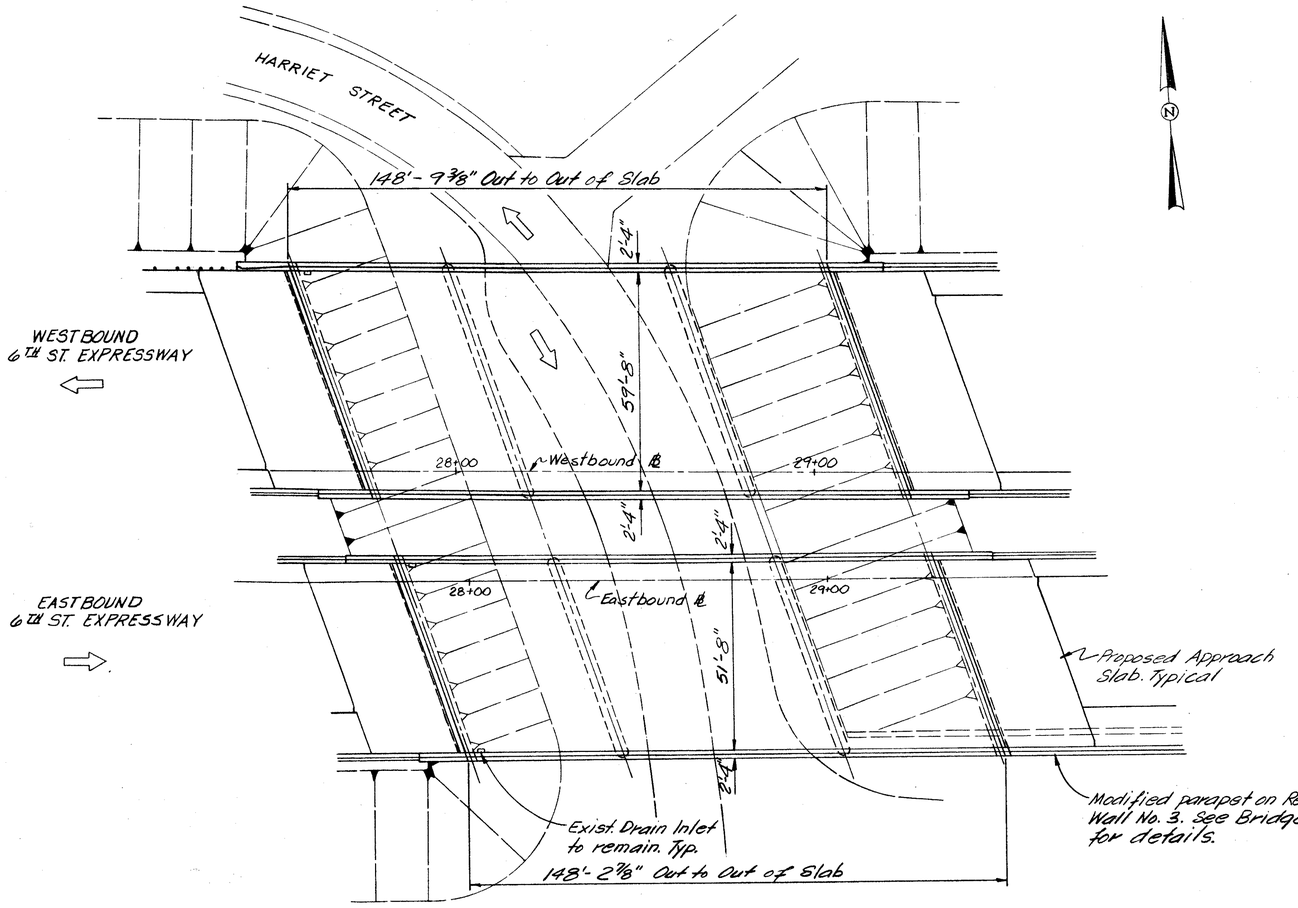
RETAINING WALL NO. 5
6TH STREET EXPRESSWAY
EASTBOUND

STA. 23+30.00 TO STA. 25+25.73

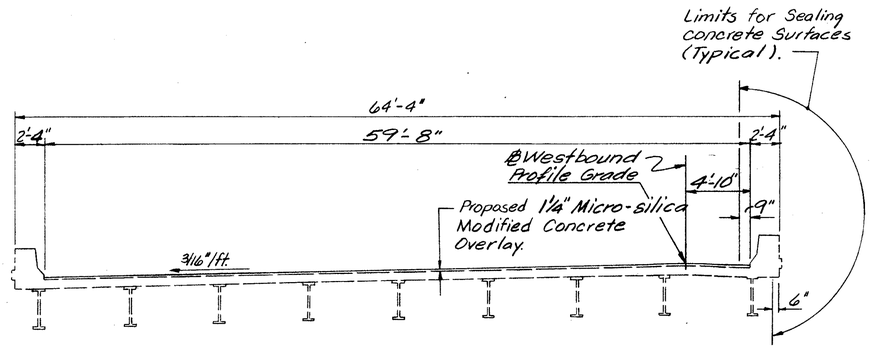
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	VDG	CRS	

OHIO BLUE PRINT 143783

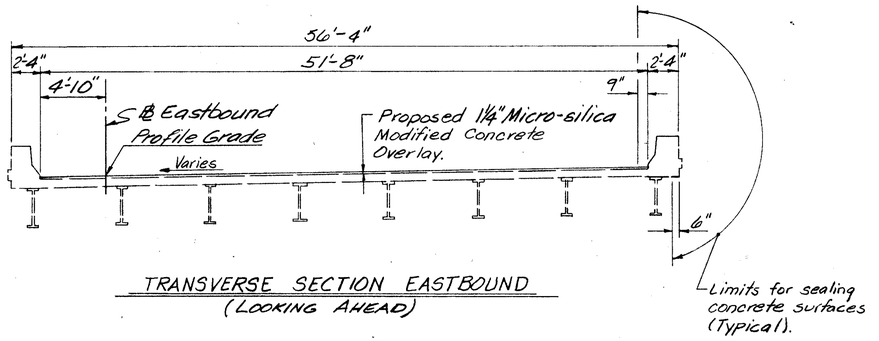
CALC. BY		HAMILTON COUNTY	OHIO	182
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



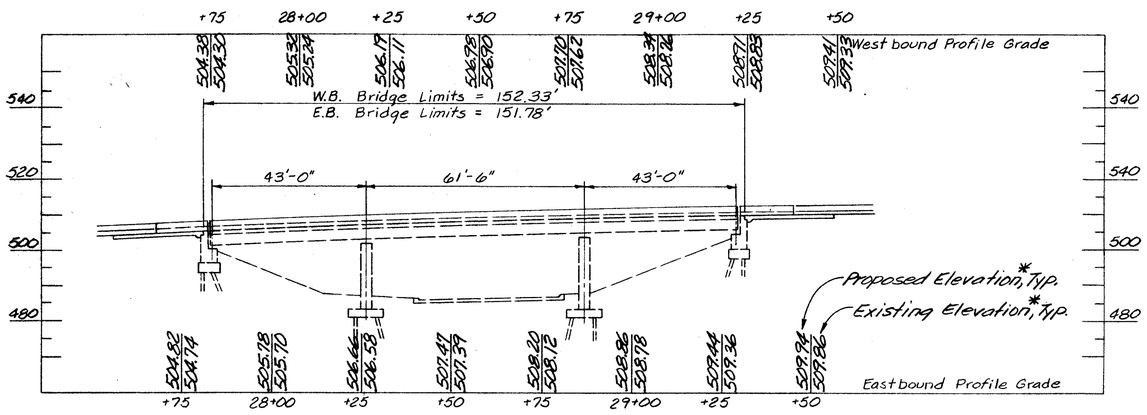
PLAN



TRANSVERSE SECTION WESTBOUND
(LOOKING AHEAD)



TRANSVERSE SECTION EASTBOUND
(LOOKING AHEAD)



ELEVATION

* Elevations shown are for information only. The 1¼" micro-silica modified concrete overlay shall be of uniform thickness & final deck elevations will not necessarily conform to profile shown.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

1/12

GENERAL PLAN
BRIDGE NO. HAM-50-1986 (LT. & RT.)
6TH ST. EXPRESSWAY OVER
HARRIET STREET
HAMILTON COUNTY STA. 28+52.52

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 11/80

CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO	183
CHKD. BY DATE			FHWA REGION 5	255

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

Reference shall be made to standard drawings:

AS–1–81	Dated	11–27–81
EXJ–4–87	Dated	1–5–89

Reference shall be made to supplemental specifications:

836	Dated	11–12–85
852	Dated	12–14–88

DESIGN STRESSES

Concrete compressive strength–
Class S – 4500 PSI
Class C – 4000 PSI
Reinforcing steel – ASTM A615, A616, A617
Minimum yield strength
Grade 60 – 60,000 PSI

SCOPE OF WORK

The scope of work to be performed shall be executed in stages as shown and includes:

1. Add strip seals.
2. Refurbish and reset abutment bearings.
3. Refurbish drains.
4. Replace portions of abutment backwalls, as indicated on plans.
5. Retrofit railings, as indicated on plans.
6. Seal railings, abutments and piers..
7. Overlay deck with $1\frac{1}{4}$" micro–silica modified concrete.
8. Clean and paint the fascia beams at the abutments over a six foot length.
9. Replace approach slabs.
10. Repair vertical joint between abutment & retaining wall. (See plans for Bridge No. HAM–50–1992 for details & quantities).

EXISTING STRUCTURE VERIFICATION

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and/or from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work, but they shall be considered tentative and approximate. It is the intent of these plans that the proposed additions to these structures match existing conditions. The Contractor is referred to CMS sections 102.05 and 105.02.

Contract bid prices shall be based upon a recognition of the uncertainties described in the preceding paragraph and upon a prebid examination of the existing structure by the Contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the Contractor in the field.

ITEM 202 – PORTIONS OF STRUCTURES REMOVED

Removal of portions of existing structure shall be performed in such a manner as to prevent debris from falling onto the roadway below. All debris shall be removed from the site and disposed of by the Contractor.

REPLACEMENT OF EXISTING REINFORCING

Any existing reinforcing bars which are to be incorporated into the new work and which are made unusable by the contractors concrete removal operations shall be replaced with new steel at his cost. Any existing reinforcing bars deemed by the Engineer to be unusable because of corrosion shall be replaced with new steel. An allowance of 100 pounds is included in item 509 for this purpose.

ITEM SPECIAL – MICRO–SILICA MODIFIED CONCRETE OVERLAY

Longitudinal joints in the concrete overlay are permitted, but only to the extent necessary to accommodate the width of the finishing machine, to facilitate changes in the roadway crown, and to permit maintenance of vehicular traffic, see proposal note for details.

MAINTENANCE OF TRAFFIC

For maintenance of traffic on Sixth Street Expressway, see highway drawings.

PLANS FOR EXISTING BRIDGE

Plans of the existing structure are available for reference at the City of Cincinnati Engineer's Office and at the ODOT District Eight office.

ITEM 516 – REFURBISH BEARING DEVICE

This Item shall include all work necessary to clean and paint abutment rocker bearings. Included shall be:

1. Disassembly of rockers.
2. Hand cleaning (grinding if required.)
3. Sandblasting and painting as required by Field Painting of Existing Steel System OZEU proposal note.
4. Replacement of any damaged sheet lead (711.19). Preformed bearing pads 1/8" thick, meeting the requirements of 711.21 may be substituted for the sheet lead.
5. Installation of any necessary 1/8" thick steel shims of the same size as the bearings to provide a snug fit.
6. Reassembly of the rockers.

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. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 – REFURBISH BEARING DEVICE.

ITEM 516 – JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE

The ends of the beams at each abutment shall be jacked and the beams supported so the bearing may be removed. The Contractor shall submit his jacking plan to the Engineer for approval prior to jacking.

ITEM 516 – RESET BEARINGS

Bearings at the abutments shall be reset to be vertical at 60° F. Masonry plates shall be adjusted to be centered under bearings.

ITEM 510

Dowel holes shall be drilled and grouted per Supplemental Specifications 852 and CMS 705.20.

ITEM 514 – CLEANING AND PAINTING OF EXISTING STRUCTURAL STEEL, AS PER PLAN

The end 6 feet of the exterior beams at each abutment shall be cleaned and painted as required by field painting of existing steel, System OZEU proposal note. The color of the final coat shall match, as near as possible, the existing color of the beams.

SEALING OF CONCRETE SURFACES

Portions of the structure shall be sealed as noted below. See the proposal note dor application rates and materials. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of sealer to be used.

1. Parapets shall be sealed as shown on sheet 1/12 with an epoxy or non–epoxy sealer.
2. Abutment backwalls, beam seats, and the face of the breastwall and wingwalls down to the groundline shall be sealed with an epoxy sealer.
3. The total surface of all piers shall be sealed with a non–epoxy sealer.

REFURBISH DRAINS

This item shall include the cleaning and flushing out of the scupper inlet and downspout. The downspout shall be throughly cleaned so that water flows freely. All exposed pipes and supports shall be cleaned and painted as required by field painting of existing steel, system OZEU proposal note. Payment for all the above described labor and materials will be made at the contract price bid for Item 518 – structural drainage, misc: Refurbish drains.

ESTIMATED QUANTITIES

ITEM	CODE	TOTAL	UNIT	DESCRIPTION	LEFT BRIDGE			RIGHT BRIDGE		
					ABUTMENTS	SUPERST.	GENERAL	ABUTMENTS	SUPERST.	GENERAL
202	11202	L.S.	Lump Sum	Portions of structures removed, over 20 foot span	–	–	L.S.	–	–	L.S.
509	15800	13,601	Lbs.	Epoxy coated reinforcing steel, grade 60	2892	4028	50	2411	4170	50
510	12200	1315	Lin. Ft.	Dowel hole	485	205	–	421	204	–
511	34400	65	Cu. Yd.	Class S concrete, superstructure (repair or reconstruction)	–	33	–	–	32	–
511	45700	26	Cu. Yd.	Class C concrete, abutment (repair or reconstruction)	14	–	–	12	–	–
SPECIAL	51267500	730	Sq. Yd.	Sealing of concrete surfaces *	57	316	–	42	315	–
SPECIAL	51267502	210	Sq. Yd.	Sealing of concrete surfaces (epoxy) *	112	–	–	98	–	–
SPECIAL	51267504	609	Sq. Yd.	Sealing of concrete surfaces (non–epoxy) *	–	–	318	–	–	291
514	25501	L.S.	Lump Sum	Cleaning and painting of existing structural steel, as per plan	–	L.S.	–	–	L.S.	–
516	11210	246	Lin. Ft.	Structural expansion joint including elastomeric strip seal	–	132	–	–	114	–
516	45304	34	Each	Refurbish bearing device	18	–	–	16	–	–
516	46700	34	Each	Reset bearing	18	–	–	16	–	–
516	47000	L.S.	Lump Sum	Jacking and temporary support of superstructure	–	L.S.	–	–	L.S.	–
518	63300	L.S.	Lump Sum	Structural drainage, misc.: refurbish drains	–	L.S.	–	–	L.S.	–
SPECIAL	51922000	1838	Sq. Yd.	Micro–silica modified concrete overlay ($1\frac{1}{4}$" thick)*	–	987	–	–	851	–
SPECIAL	51922100	50	Cu. Yd.	Micro–silica modified concrete overlay (variable thickness)*	–	35	–	–	15	–

* See proposal note

ESTIMATED QUANTITIES CALCULATED BY : MRS DATE : 11/91

CHECKED BY : EHC DATE : 1/92

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

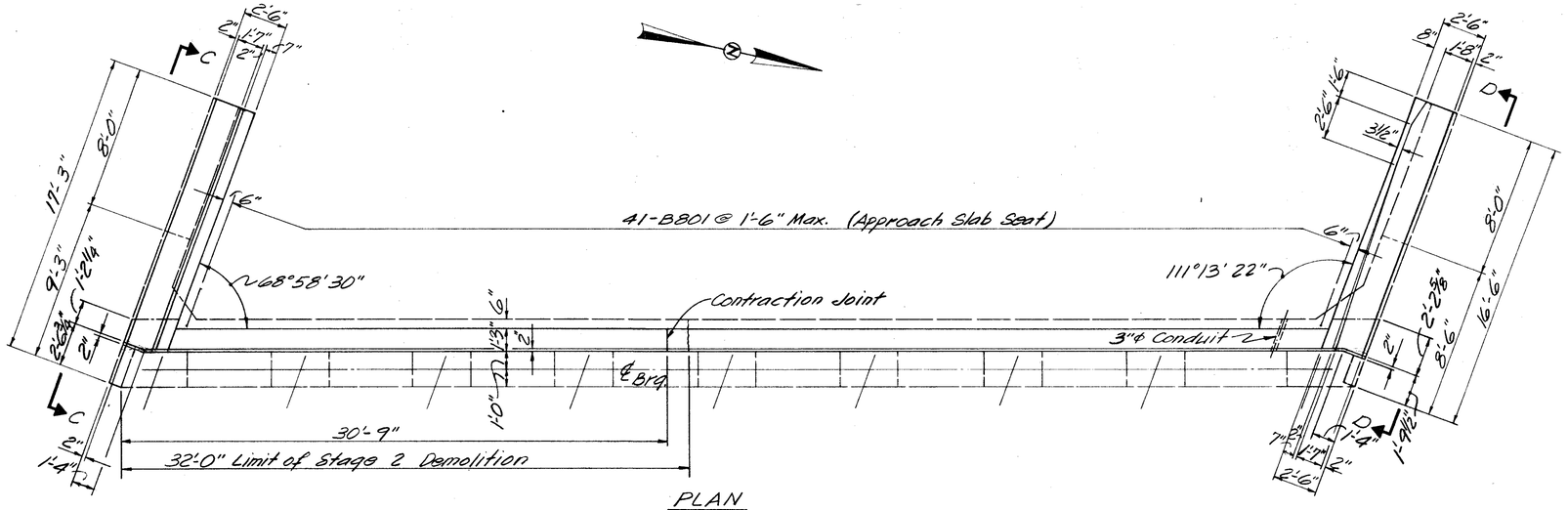
2 / 12

GENERAL NOTES & QUANTITIES

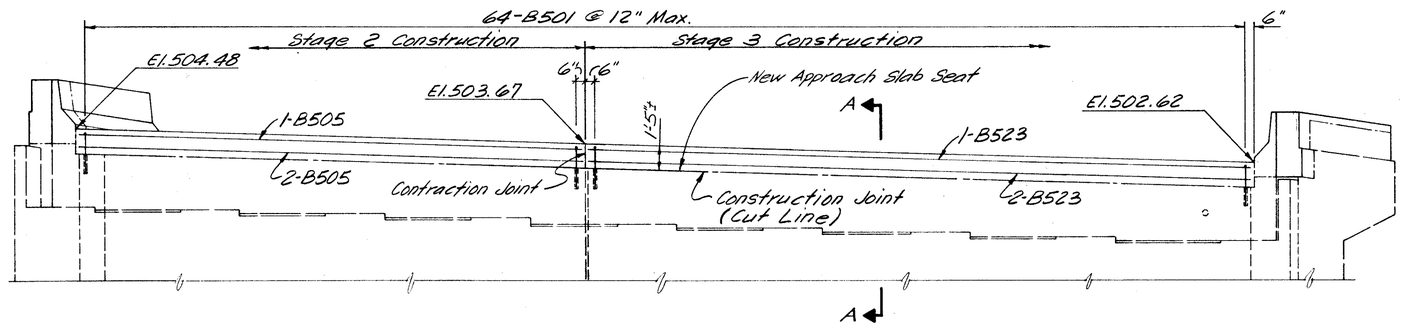
BRIDGE NO. HAM–50–1986 R & L
SIXTH STREET EXPRESSWAY
OVER HARRIET STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

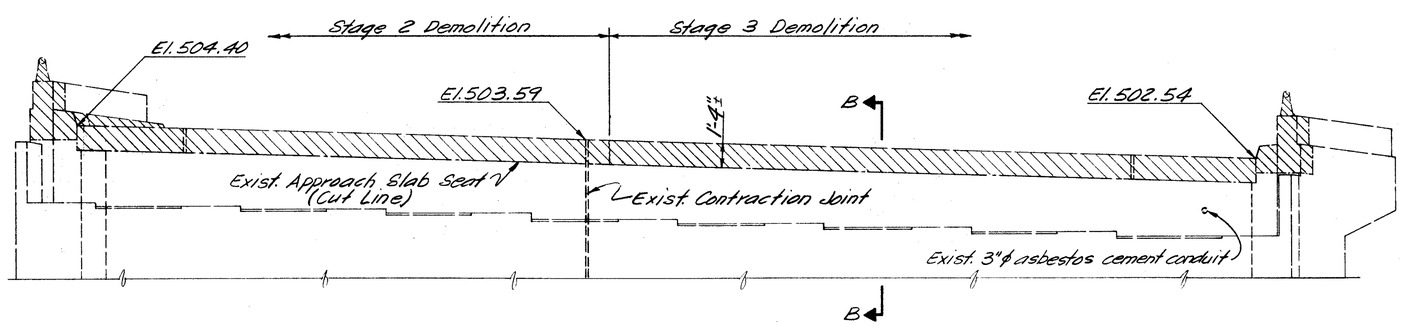
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	184 255
CHKD. BY / DATE			



PLAN



ELEVATION



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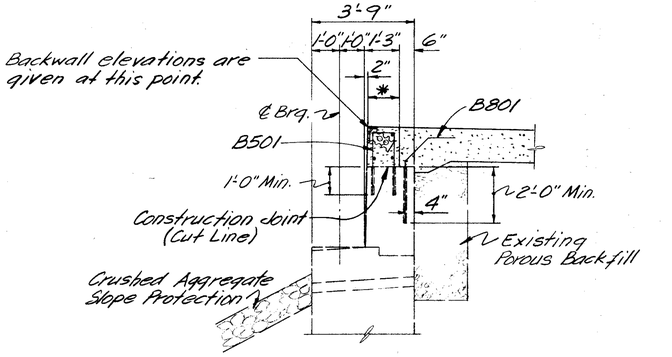
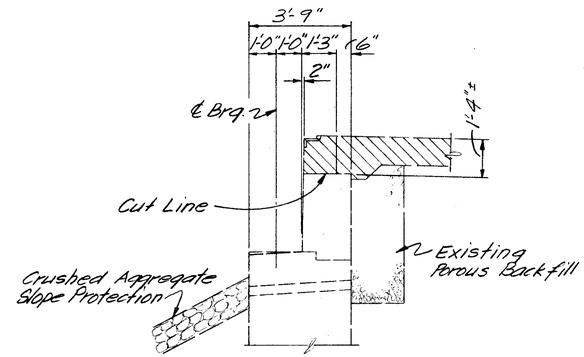


* This dimension based on opening width of expansion joint.

SECTION A-A



SECTION B-B
(Showing Removal)

Notes:
1. For Elevation C-C & D-D, see Sht. 5/12.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

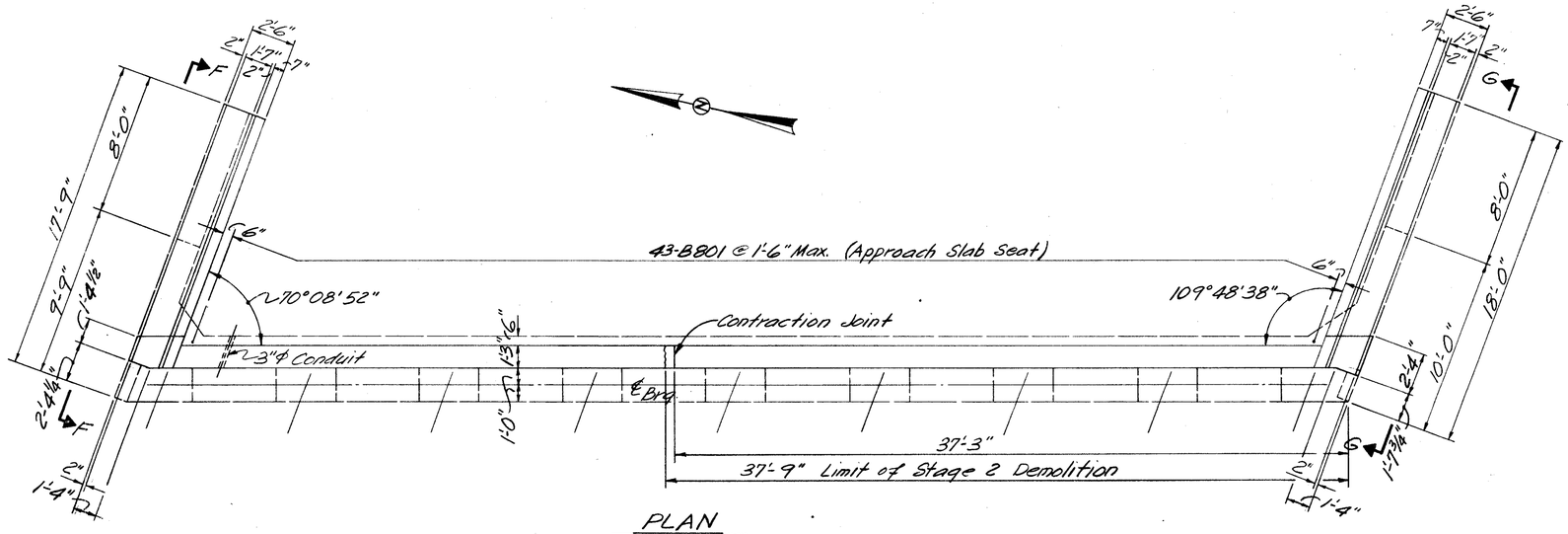
3/12

WEST ABUTMENT
BRIDGE NO. HAM-50-1986L
WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER HARRIET STREET

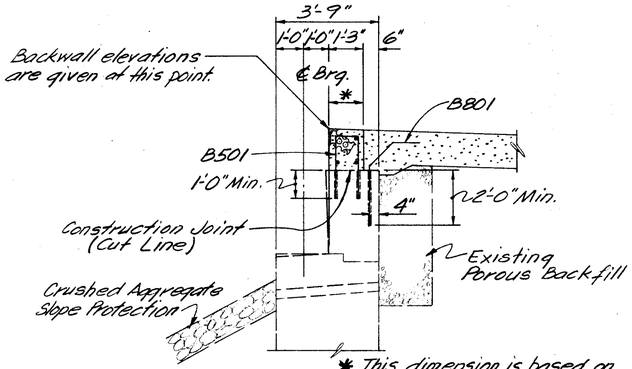
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 1432963

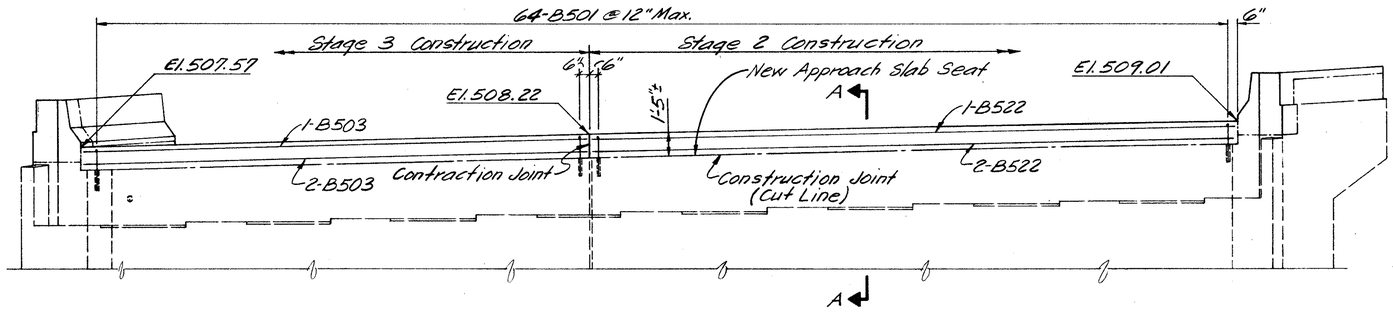
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	185 255
CHKD. BY / DATE			



PLAN



SECTION A-A



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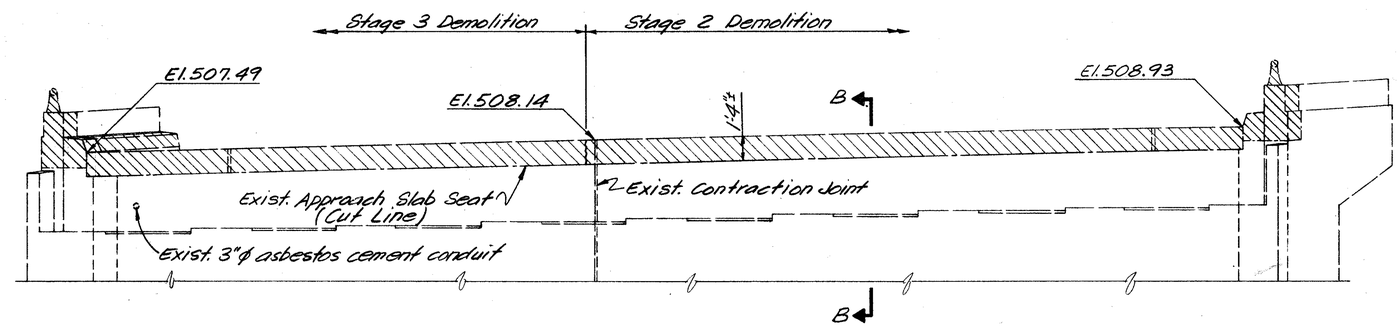
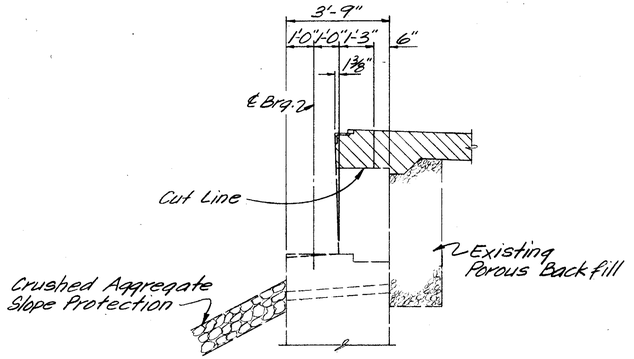


ELEVATION
(Showing Removal)



SECTION B-B
(Showing Removal)

Notes:
1. For Elevation F-F & G-G, see Sht. 5/12.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

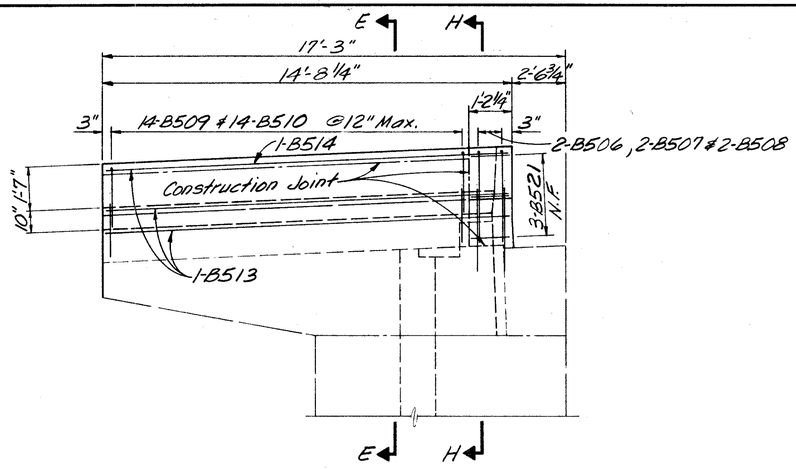
4/12

EAST ABUTMENT
BRIDGE NO. HAM-50-1986 L
WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER HARRIET STREET

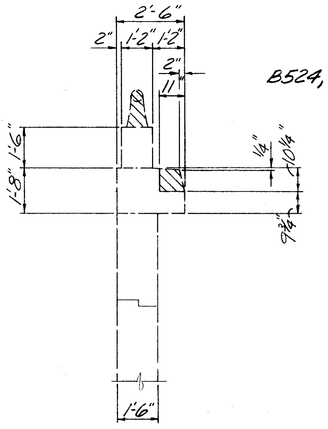
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WLH	~	DWI	CRS 4/92	

OHIO BLUE PRINT MERRILL

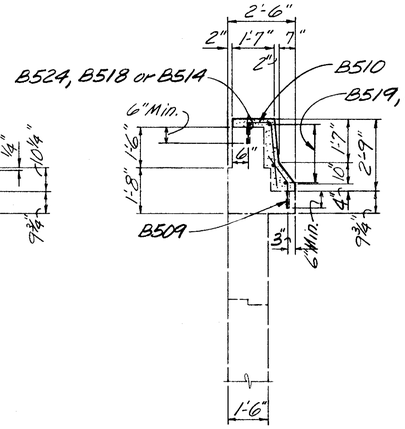
CALC. BY / DATE	HAMILTON COUNTY	OHIO	186
CHKD. BY / DATE	HAM-50-19.36	FHWA REGION 5	255



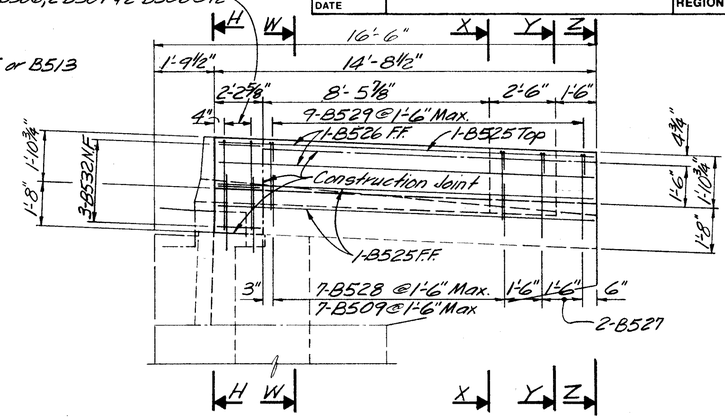
ELEVATION C-C



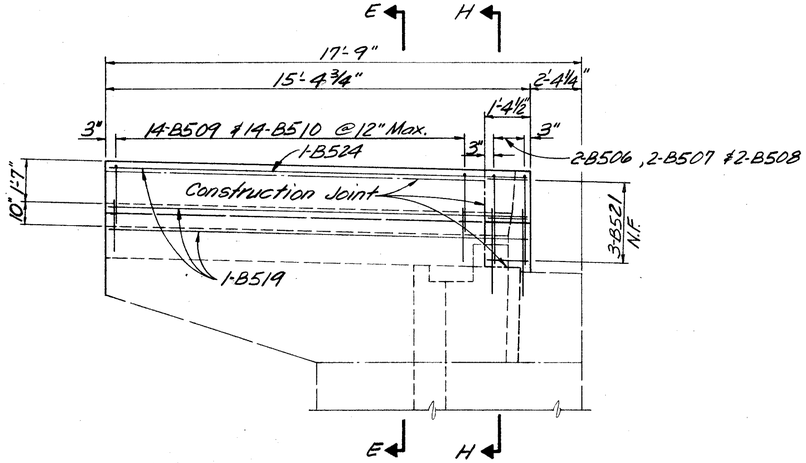
SECTION E-E
(Showing Removal)



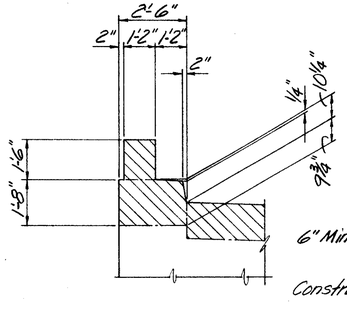
SECTION E-E



ELEVATION D-D



ELEVATION F-F



SECTION H-H
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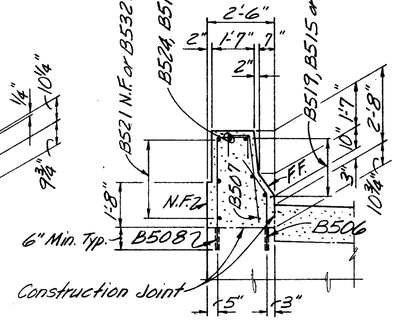
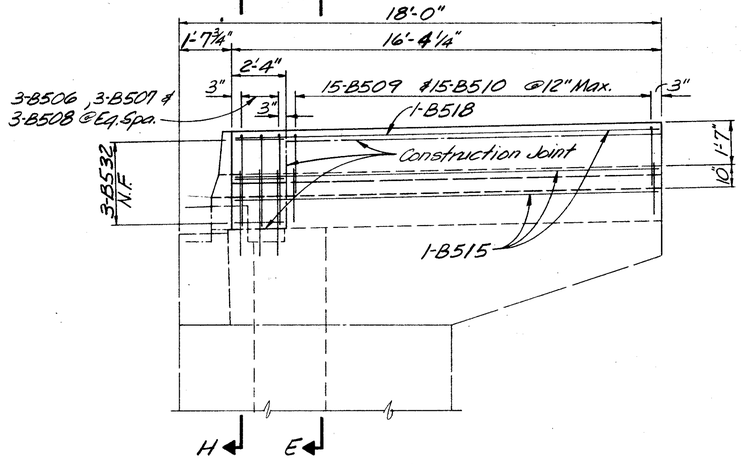


SECTION H-H



ELEVATION G-G

Notes:
1. N.F. = Near Face
F.F. = Far Face

2. For Section W-W, X-X, Y-Y & Z-Z, see Sheet 6 12.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

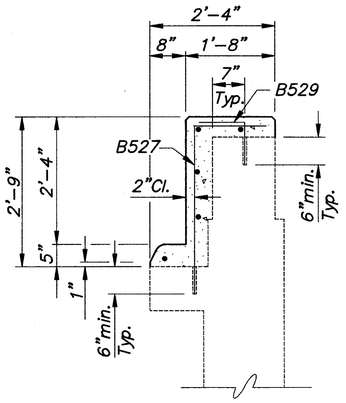
5/12

ABUTMENT DETAILS
BRIDGE NO. HAM-50-1986 L
WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER HARRIET STREET

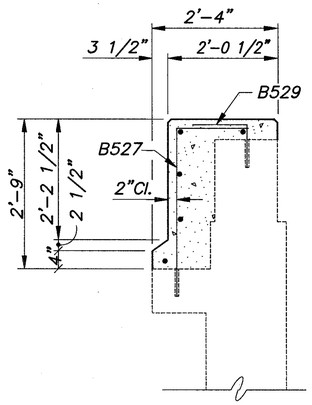
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 142763

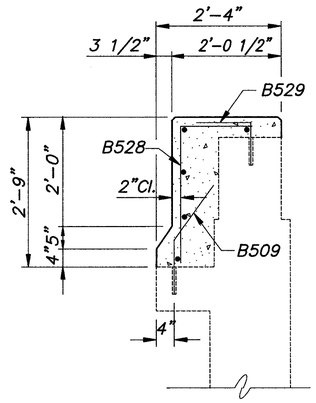
CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO	187
CHKD. BY DATE			FHWA REGION 5	255



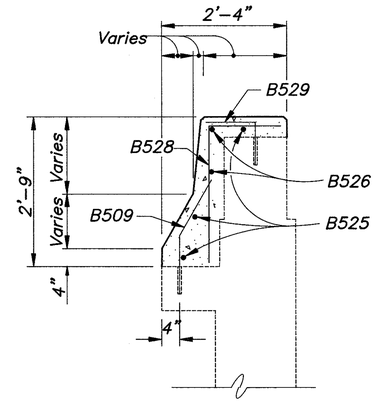
SECTION Z–Z



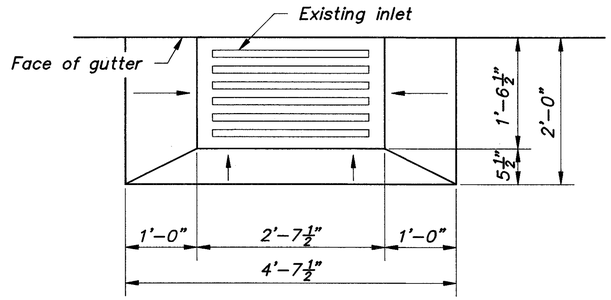
SECTION Y–Y



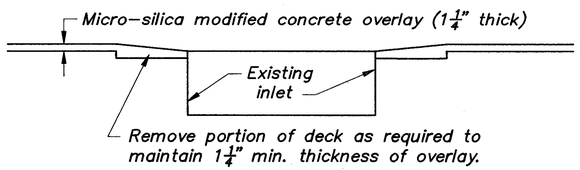
SECTION X–X



SECTION W–W



PLAN AT INLET



SECTION THRU INLET

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

6/12

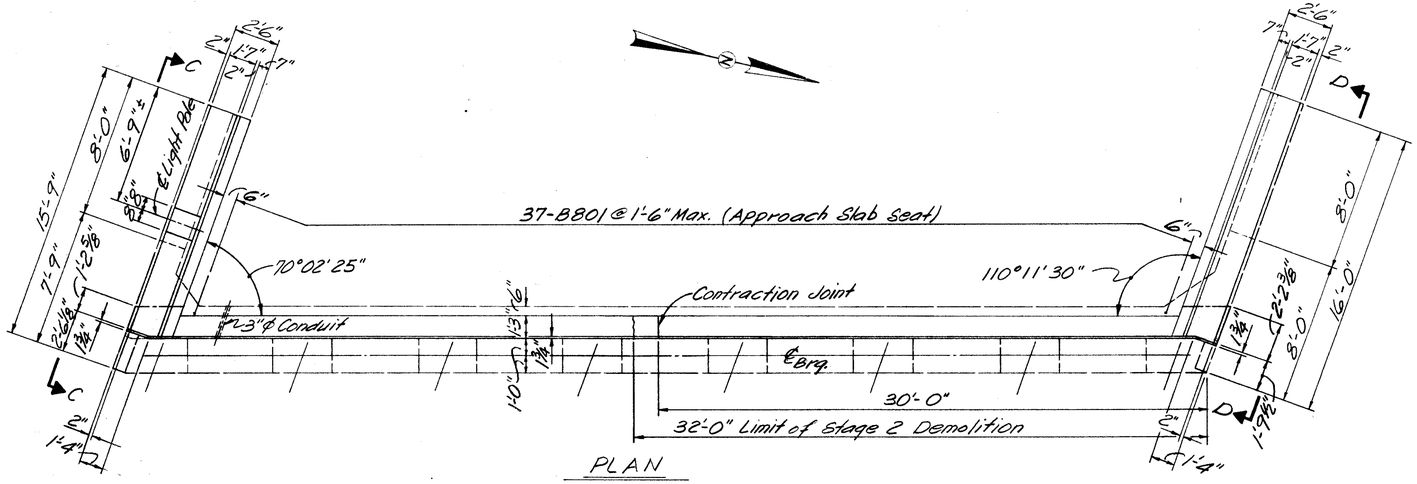
MISCELLANEOUS DETAILS

BRIDGE NO. HAM–50–1986 R & L
SIXTH STREET EXPRESSWAY
OVER HARRIET STREET

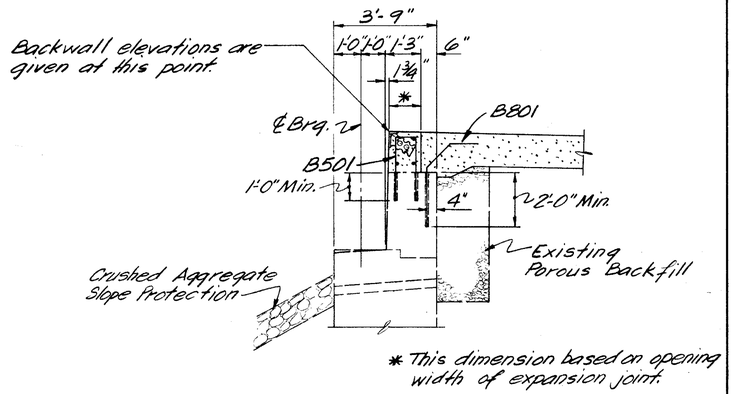
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 1 1986MC1

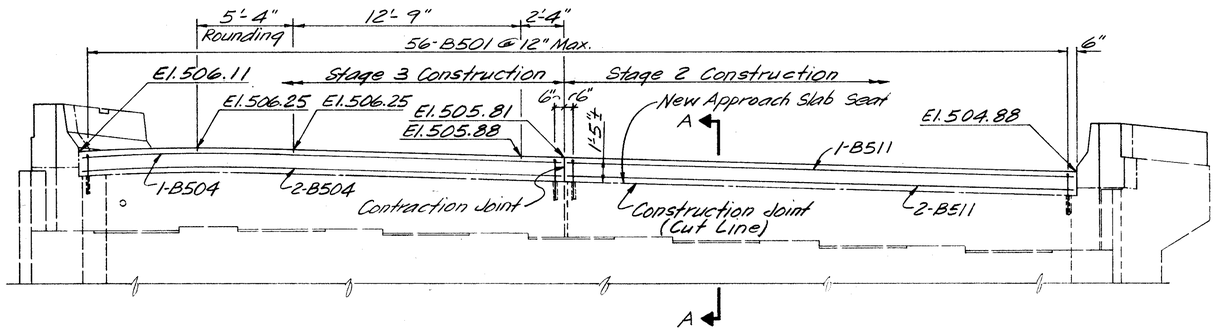
CALC. BY / DATE	HAMILTON COUNTY	OHIO	188
CHKD. BY / DATE	HAM-50-19.36	FHWA REGION 5	255



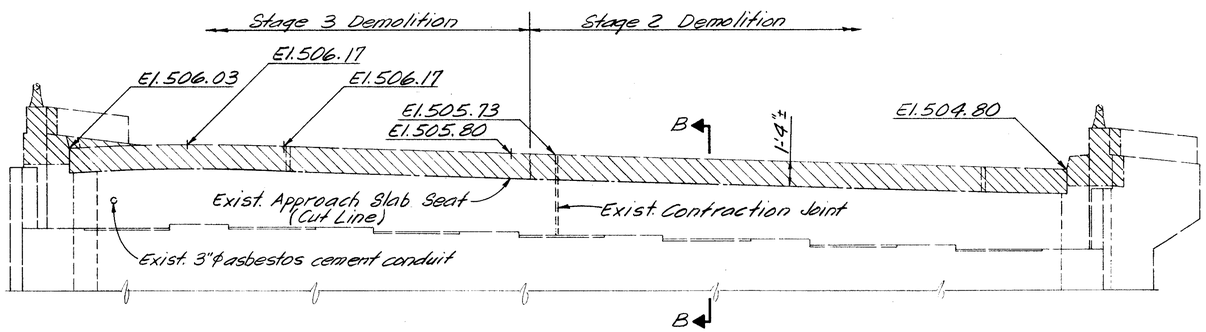
PLAN



SECTION A-A



ELEVATION



ELEVATION
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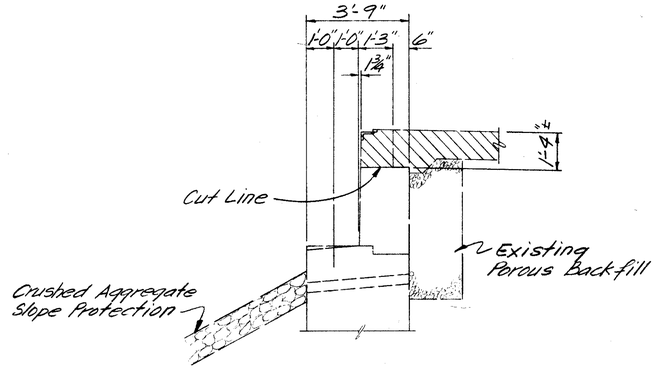


SECTION B-B
(Showing Removal)

Notes:
1. For Elevation C-C & D-D, see Sht. 9/12.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

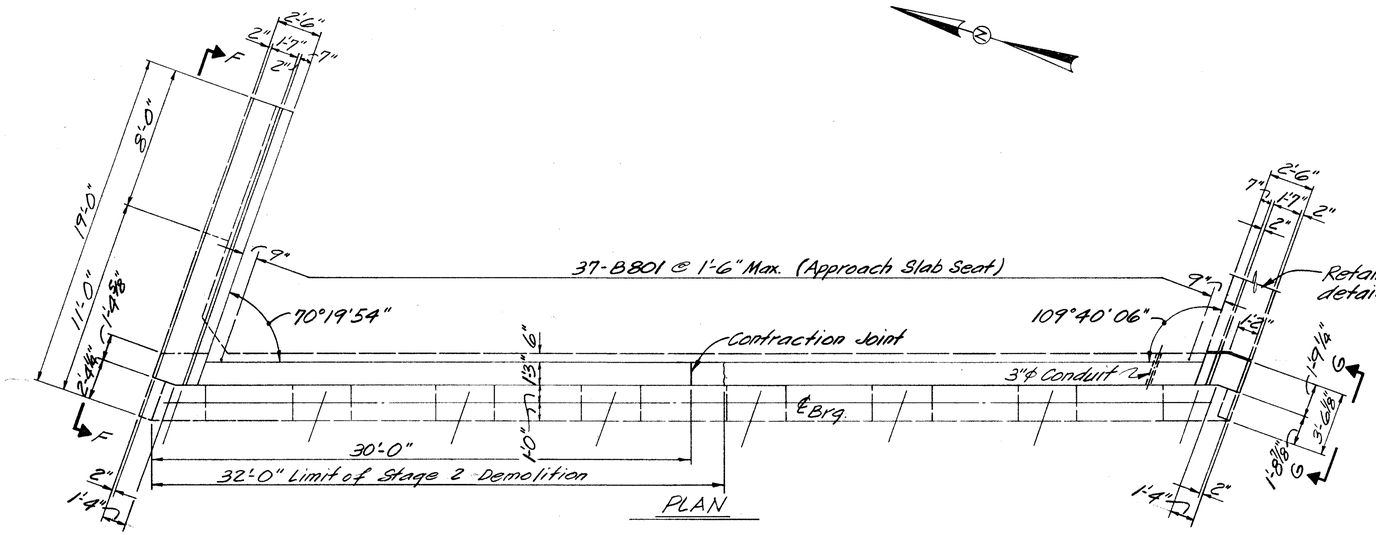
7/12

WEST ABUTMENT
BRIDGE NO. HAM-50-1986R
EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER HARRIET STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

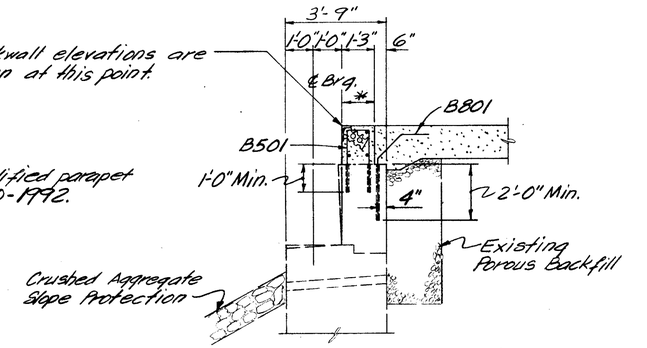
OHIO BLUE PRINT 1529R3

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	189 255
CHKD. BY / DATE			



PLAN

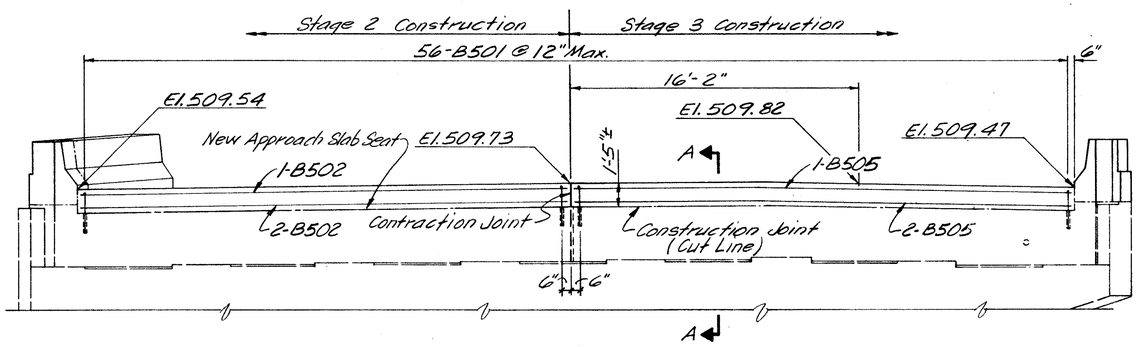
Retaining Wall No. 3. For modified parapet details, see Bridge HAM-50-1992.



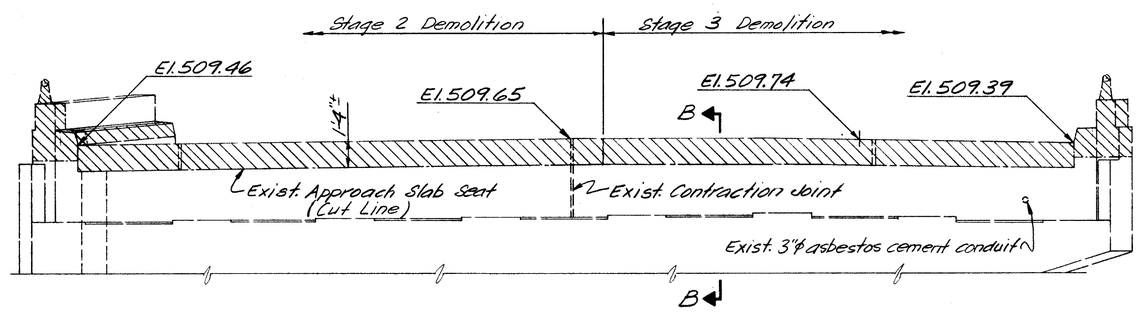
Backwall elevations are given at this point.

* This dimension based on opening width of expansion joint.

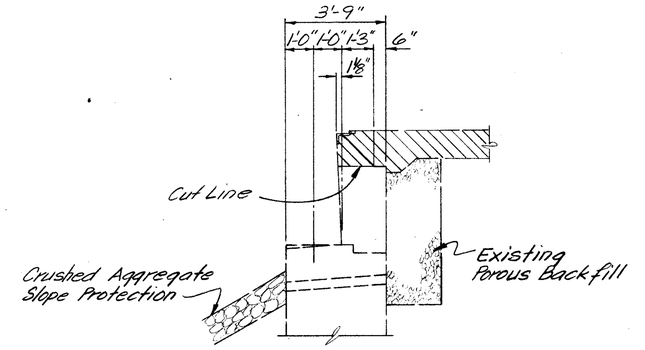
SECTION A-A



ELEVATION



ELEVATION
(Showing Removal)



SECTION B-B
(Showing Removal)

Notes:
1. For Elevation F-F & G-G, see Sht. 9/12.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

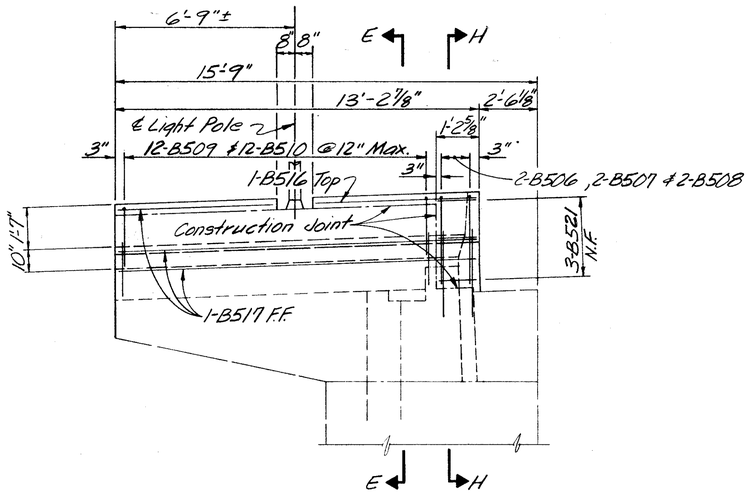
8/12

EAST ABUTMENT
BRIDGE NO. HAM-50-1986 R
EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER HARRIET STREET

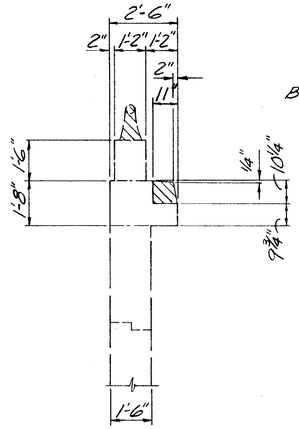
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT - 142963

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	190 255
CHKD. BY / DATE			



ELEVATION C-C



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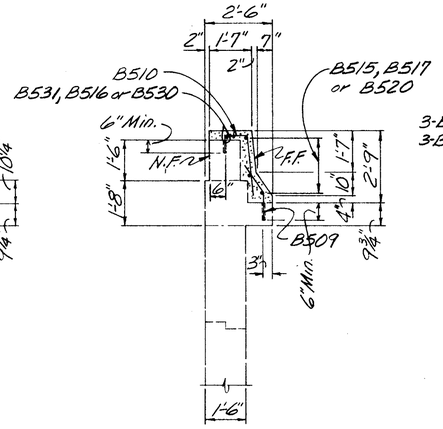
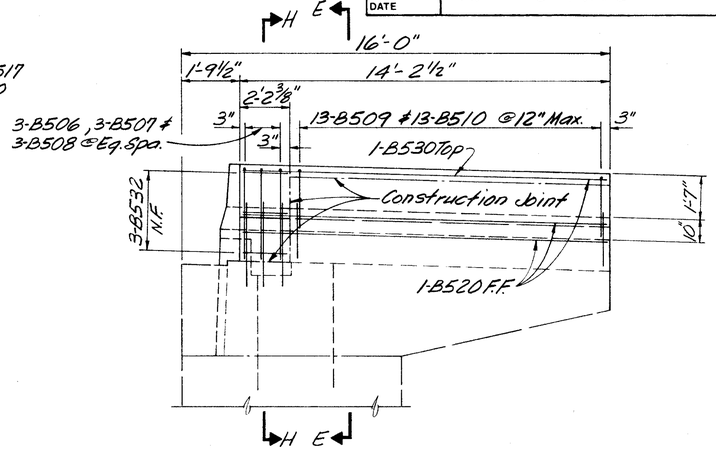
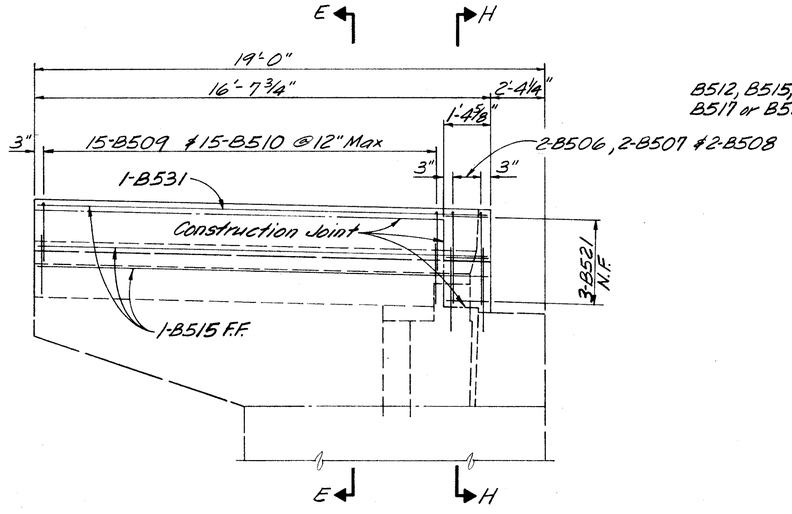


SECTION E-E

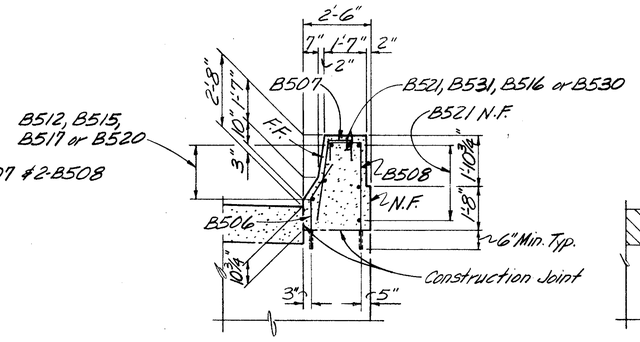


ELEVATION D-D

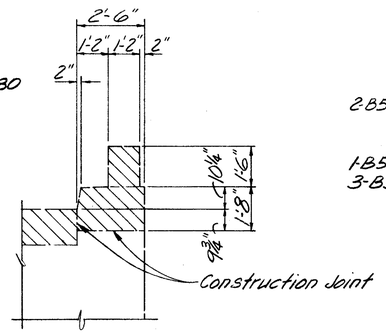
Note: Field adjust rebar spacing & field cut rebars as necessary to clear lighting pole.



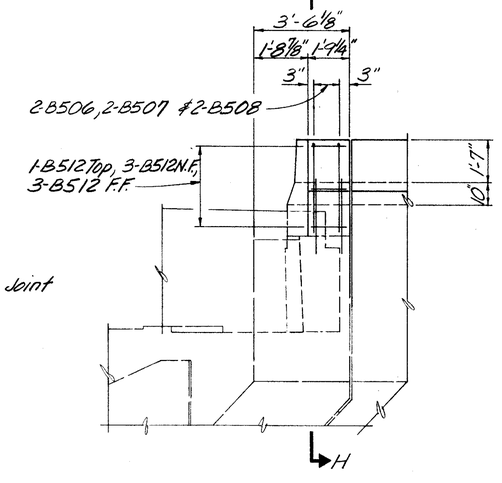
ELEVATION F-F



SECTION H-H



SECTION H-H
(Showing Removal)



ELEVATION G-G

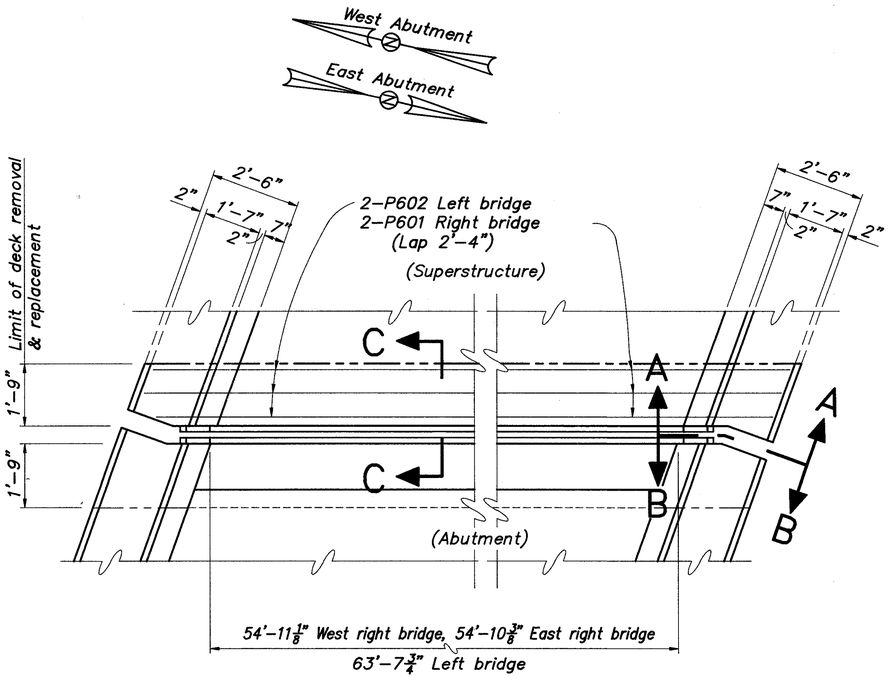
Note:
N.F. = Near Face
F.F. = Far Face

Denotes portion of existing structure to be removed.

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					9/12
ABUTMENT DETAILS BRIDGE NO. HAM-50-1986 R EASTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER HARRIET STREET					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT N52963

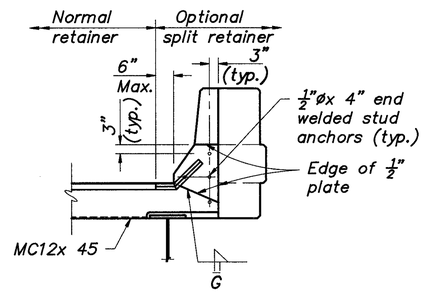
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO	191
CHKD. BY DATE		FHWA REGION 5	255



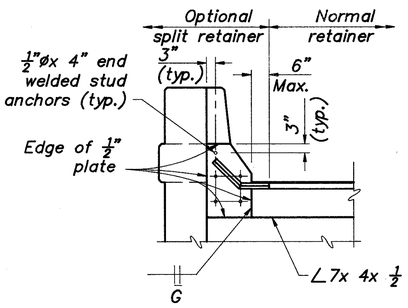
PARTIAL PLAN

STRIP SEAL GLAND			
LOCATION	MANUFACTURER		
	D.S. Brown Co.	Watson–Bowman & Acme Corp.	Structural Acc. Inc.
Abutments	300L	SE–300	–

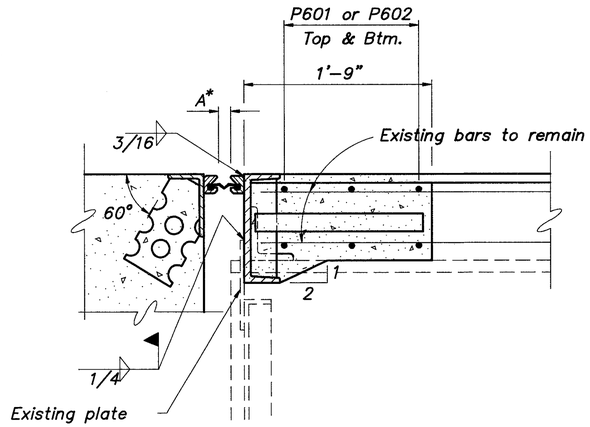
Gland shall be provided in continuous strip and inserted after all phases of extrusion installation are complete.



SECTION A–A



SECTION B–B



SECTION C–C

*

°F	OPENING WIDTH	
	WEST ABUT. DIM A	EAST ABUT. DIM A
90	1 1/2"	1 5/8"
80	1 5/8"	1 3/4"
70	1 5/8"	1 3/4"
60	1 3/4"	1 3/4"
50	1 7/8"	1 3/4"
40	1 7/8"	1 7/8"
30	2"	1 7/8"

NOTE:
For additional details & notes on expansion joint, see Std. Drawing EXJ –4–87.

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CINCINNATI, OHIO 45237

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EXPANSION JOINT DETAILS

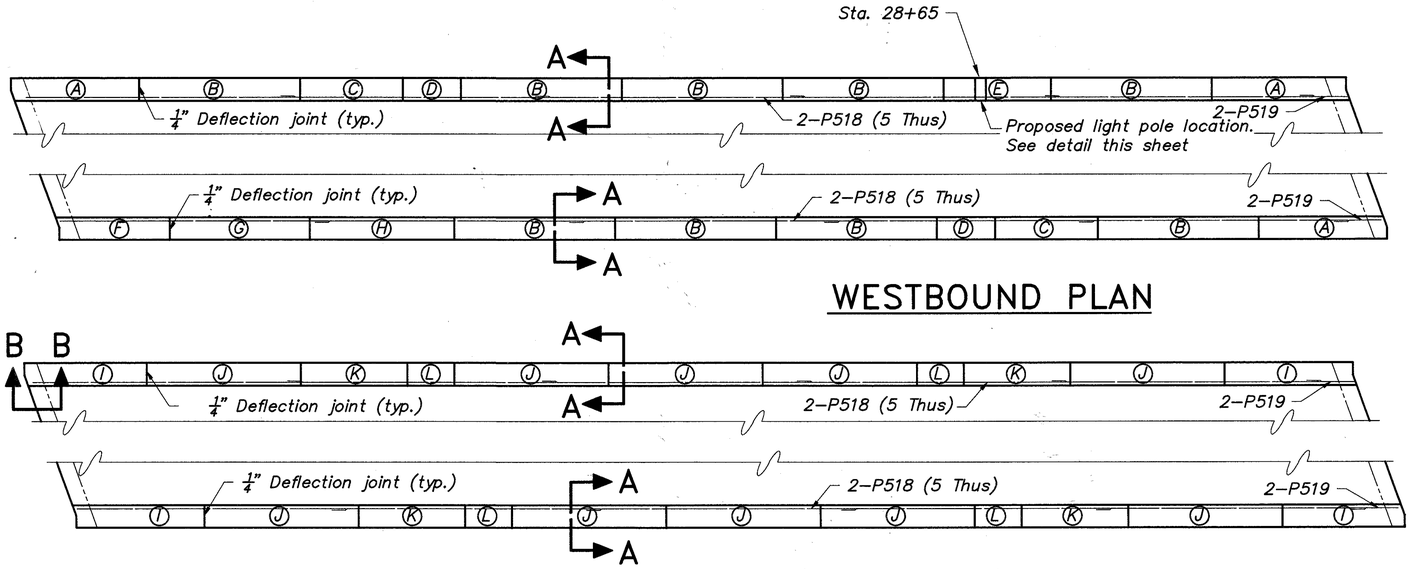
BRIDGE NO. HAM–50–1986 R & L
SIXTH STREET EXPRESSWAY
OVER HARRIET STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 1 1986EJ1

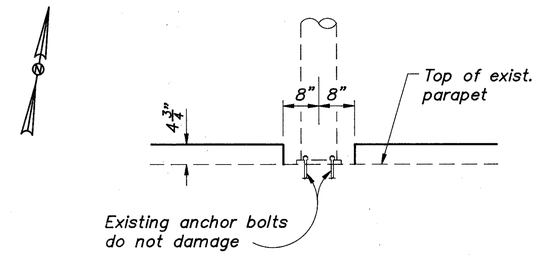
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

192/255



WESTBOUND PLAN

EASTBOUND PLAN

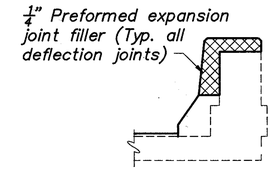


LIGHT POLE SUPPORT DETAIL

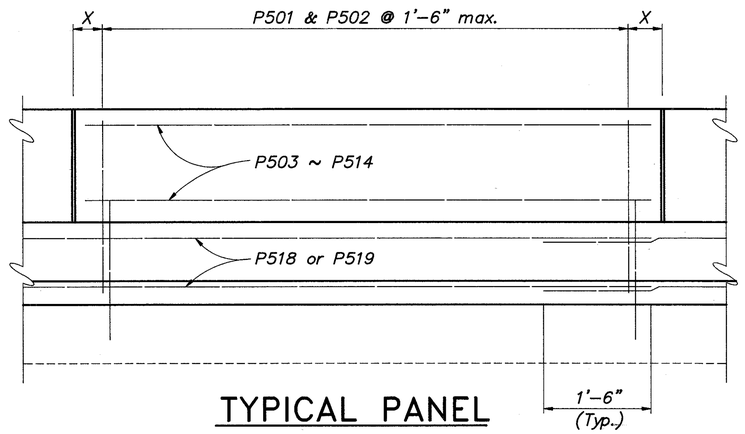
NOTE: Light pole locations match existing pole locations.

PARAPET PANELS				
MARK	NO.	PANEL LENGTH	DIM. X	BARS NEEDED
A	3	14'–8	7"	8–P501, 8–P502 & 3–P503
B	9	18'–0	2"	13–P501, 13–P502 & 3–P504
C	2	11'–6	6"	8–P501, 8–P502 & 3–P505
D	2	6'–6	3"	5–P501, 5–P502 & 3–P506
E	1	12'–0	2"	9–P501, 9–P502 & 3–P507
F	1	12'–8	4"	7–P501, 7–P502 & 3–P508
G	1	15'–8	4"	11–P501, 11–P502 & 3–P509
H	1	16'–2	7"	11–P501, 11–P502 & 3–P510
I	4	14'–0	3"	8–P501, 8–P502 & 3–P511
J	10	17'–3	4 1/2"	12–P501, 12–P502 & 3–P512
K	4	11'–11	2"	9–P501, 9–P502 & 3–P513
L	4	5'–3	4 1/2"	4–P501, 4–P502 & 3–P514

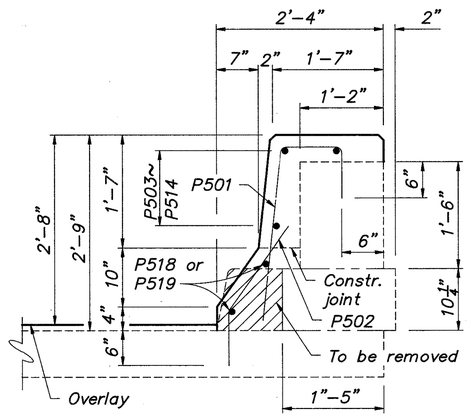
All reinforcing bars to be epoxy coated.



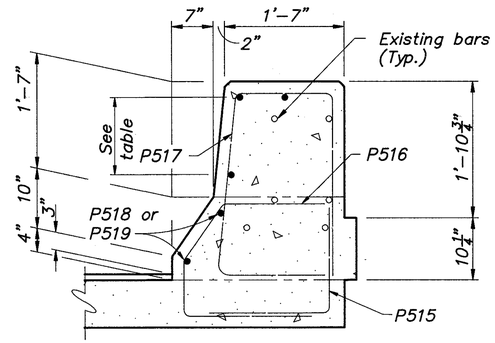
DEFLECTION JOINT DETAIL



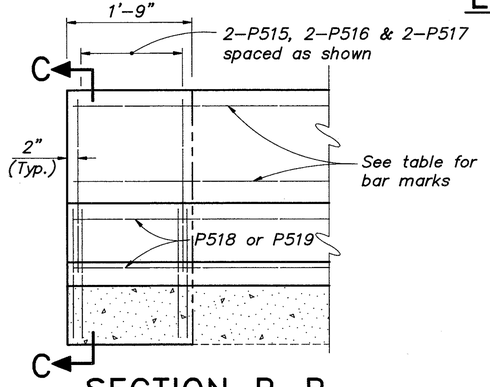
TYPICAL PANEL



SECTION A–A

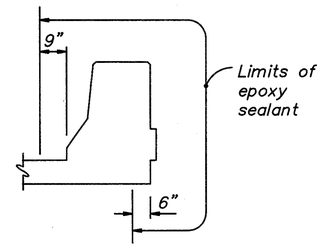


SECTION C–C



SECTION B–B

(8 REQUIRED)



LIMITS OF EPOXY COATING

NOTE:
New deflection joints shall match the existing deflection joints locations.

SECTION B–B is typical at all expansion joints.

BALKE ENGINEERS
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CINCINNATI, OHIO 45237

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PARAPET DETAILS

BRIDGE NO. HAM–50–1986 R & L
SIXTH STREET EXPRESSWAY
OVER HARRIET STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 1 1986P1

CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

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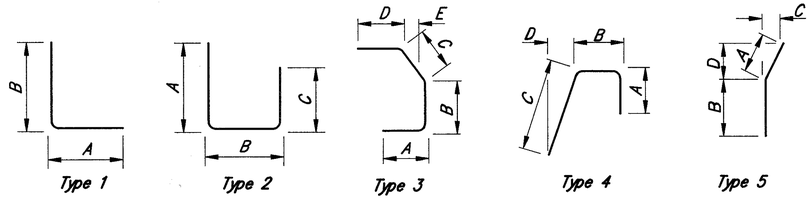
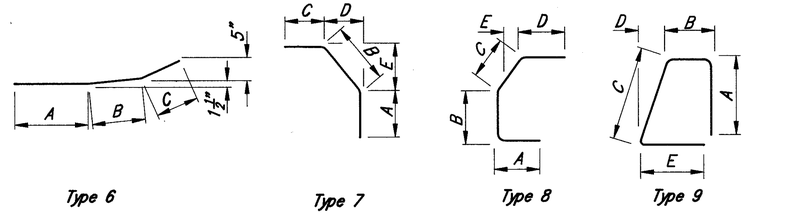
REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
B801	154	4'-11	2022	7	2'-3	1'-3	1'-5	0'-10 5/8	0'-10 5/8	84	70
B501	240	4'-11	1230	2	2'-3	0'-8	2'-3			128	112
B502	3	27'-0	84	Str.						–	3
B503	3	29'-0	91	Str.						3	–
B504	3	34'-9	109	Str.						–	3
B505	6	27'-3	170	Str.						3	3
B506	18	3'-3	62	5	1'-9	1'-6	1'-0 1/8	1'-5 1/4		9	9
B507	18	4'-9	90	4	0'-9	0'-10	3'-3	0'-4		9	9
B508	18	5'-6	104	2	3'-10	1'-2	0'-9			9	9
B509	90	2'-1	196	5	1'-3	0'-10	0'-8 3/4	1'-0 1/4		50	40
B510	83	3'-9	324	4	0'-9	0'-10	2'-3	0'-2 7/8		43	40
B511	3	22'-0	69	Str.						–	3
B512	7	1'-5	10	Str.						–	7
B513	3	14'-0	44	Str.						3	–
B514	1	14'-6	15	Str.						1	–
B515	6	16'-3	102	Str.						3	3
B516	1	13'-0	14	Str.						–	1
B517	3	12'-6	39	Str.						–	3
B518	1	15'-9	16	Str.						1	–
B519	3	14'-6	45	Str.						3	–
B520	3	13'-9	43	Str.						–	3
B521	12	1'-0	12	Str.						6	6
B522	3	34'-6	108	Str.						3	–
B523	3	35'-9	112	Str.						3	–
B524	1	15'-0	16	Str.						1	–
B525	3	14'-9	46	Str.						3	–
B526	2	14'-3	30	6	10'-6	2'-4	1'-5			2	–
B527	2	4'-4	9	1	1'-4	3'-1				2	–
B528	7	3'-9	27	1	1'-4	2'-6				7	–
B529	9	1'-6	14	1	0'-9	0'-10				9	–
B530	1	13'-6	14	Str.						–	1
B531	1	16'-9	17	Str.						–	1
B532	9	2'-0	19	Str.						6	3
P501	409	3'-9	1600	4	0'-9	0'-10	2'-3	0'-3		205	204
P502	409	2'-1	888	5	1'-3	0'-10	0'-8 3/4	1'-0 1/4		205	204
P503	9	14'-4	135	Str.						9	–
P504	27	17'-8	498	Str.						27	–
P505	6	11'-2	70	Str.						6	–
P506	6	6'-2	39	Str.						6	–
P507	3	11'-8	37	Str.						3	–
P508	3	12'-4	39	Str.						3	–
P509	3	15'-4	48	Str.						3	–
P510	3	15'-10	50	Str.						3	–
P511	12	13'-8	171	Str.						–	12
P512	30	16'-11	529	Str.						–	30
P513	12	11'-7	145	Str.						–	12
P514	12	4'-11	62	Str.						–	12
P515	16	2'-5	40	1	0'-10	1'-8				8	8
P516	16	3'-1	52	3	0'-10	0'-10	0'-10	0'-9	0'-6	8	8
P517	16	6'-0	100	9	2'-6	1'-3	2'-6	0'-2	0'-10	8	8
P518	40	30'-0	1252	Str.						20	20
P519	8	5'-6	46	Str.						4	4
P601	24	31'-1	1120	Str.						24	–
P602	24	35'-5	1277	Str.						–	24
		TOTAL	13,501								





NOTES

1. REINFORCING STEEL SAMPLES: REFER TO CMS SECTION 106.03, 700, 709.01 THRU. 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. ALL BARS ARE TO BE EPOXY COATED.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

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REINFORCING STEEL LIST

BRIDGE NO. HAM-50-1986 R & L

SIXTH STREET EXPRESSWAY

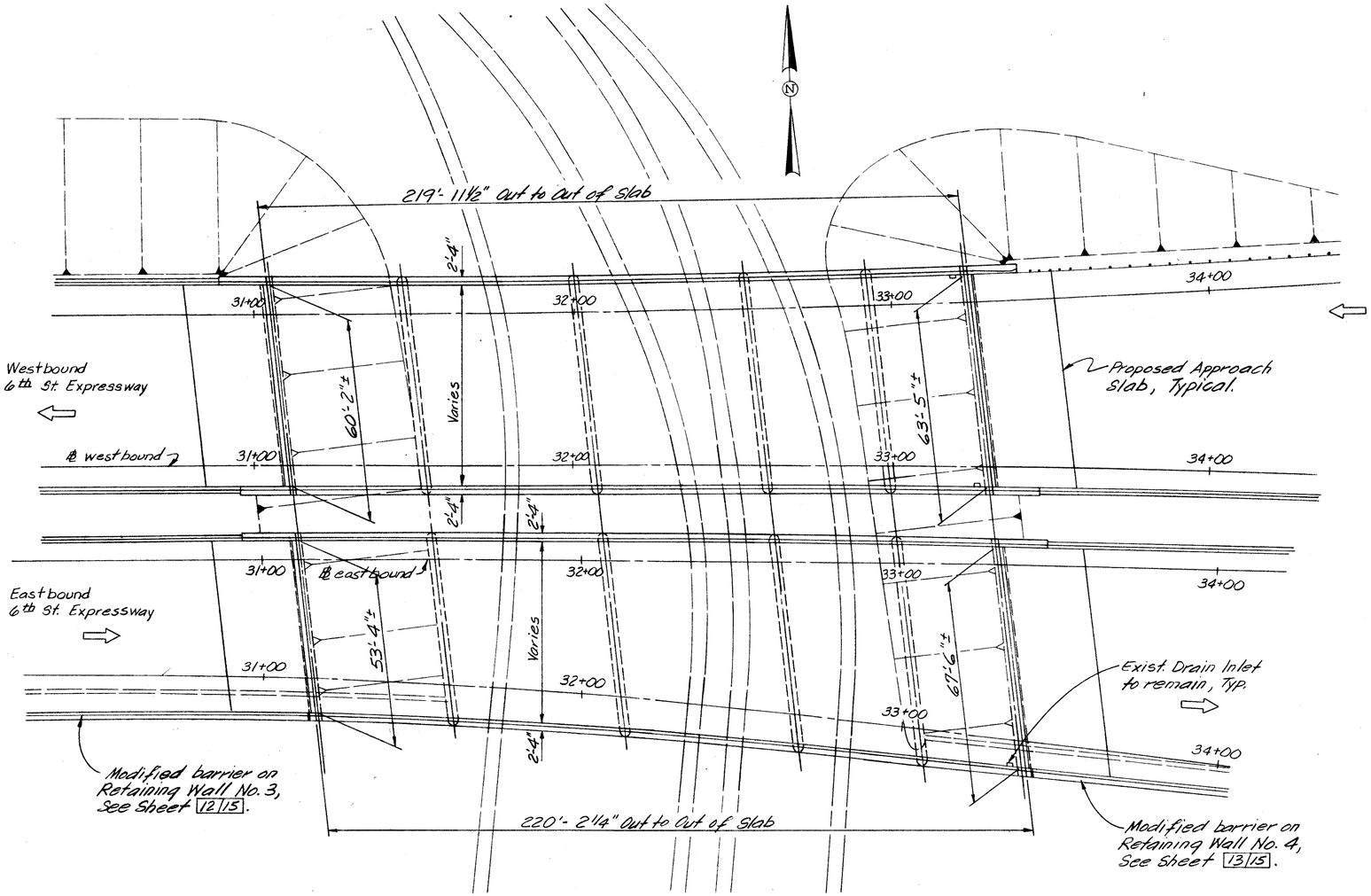
OVER HARRIET STREET

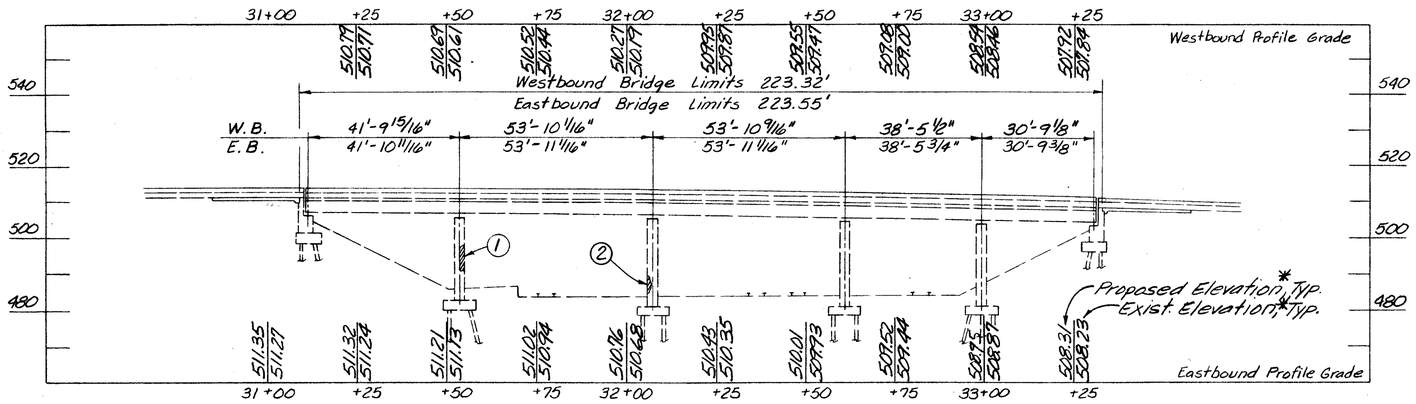
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

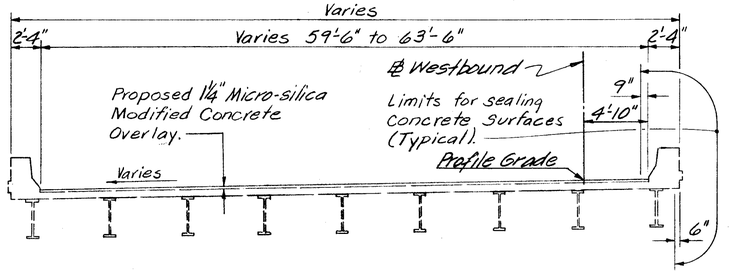
DISK 1 1986RS1

256 Orange 194 - 255

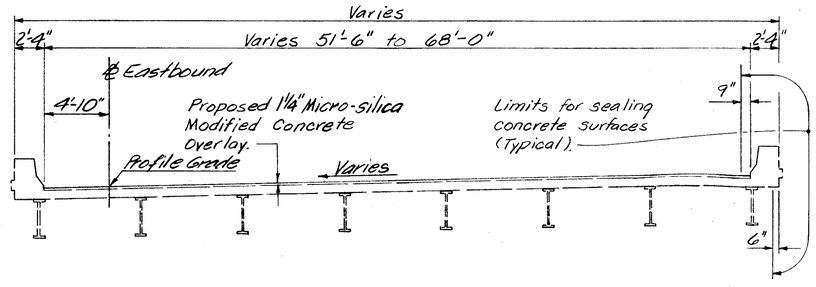
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO	194
CHKD. BY / DATE		FHWA REGION 5	255







TRANSVERSE SECTION WESTBOUND
(LOOKING AHEAD)



TRANSVERSE SECTION EASTBOUND
(LOOKING AHEAD)

① Patching per Item 519, 95 Sq. Ft. - North column 20 Sq. Ft. - second column.

② Patching per Item 519, 10 Sq. Ft. - second column from North.

* Elevations shown are for information only. The 1¼" micro-silica modified concrete overlay shall be of uniform thickness & final deck elevations will not necessarily conform to profile shown.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

1/15

GENERAL PLAN
BRIDGE NO. HAM-50-1992 Lt. & Rt.
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	–	DWI	CRS 4/92	

OHIO BLUE PRINT 11/80/20

CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO	195 255
CHKD. BY DATE			FHWA REGION 5	

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

Reference shall be made to standard drawings:
AS–1–81 Dated 11–27–81
EXJ–4–87 Dated 1–5–89

Reference shall be made to supplemental specifications:
836 Dated 11–12–85
852 Dated 12–14–88

DESIGN STRESSES

Concrete compressive strength–
Class S – 4500 PSI
Class C – 4000 PSI
Reinforcing steel – ASTM A615, A616, A617
Minimum yield strength
Grade 60 – 60,000 PSI

SCOPE OF WORK

The scope of work to be performed shall be executed in stages as shown and includes:

1. Add strip seals.
2. Refurbish and reset abutment bearings.
3. Refurbish drains.
4. Replace portions of abutment backwalls, as indicated on plans.
5. Retrofit railings, as indicated on plans.
6. Seal railings and abutments.
7. Overlay deck with $1\frac{1}{4}$" micro–silica modified concrete.
8. Clean and paint the fascia beams. Clean and paint a 6 foot length @ the end of all beams.
9. Replace approach slabs.
10. Repair vertical joint between abutment and retaining wall.

EXISTING STRUCTURE VERIFICATION

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and/or from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work, but they shall be considered tentative and approximate. It is the intent of these plans that the proposed additions to these structures match existing conditions. The Contractor is referred to CMS sections 102.05 and 105.02.

Contract bid prices shall be based upon a recognition of the uncertainties described in the preceding paragraph and upon a prebid examination of the existing structure by the Contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the Contractor in the field.

REPLACEMENT OF EXISTING REINFORCING

Any existing reinforcing bars which are to be incorporated into the new work and which are made unusable by the Contractor's concrete removal operations shall be replaced with new steel at his cost. Any existing reinforcing bars deemed by the Engineer to be unusable because of corr–osion shall be replaced with new steel. An allowance of 100 pounds is included in item 509 for this purpose.

ITEM SPECIAL – MICRO–SILICA MODIFIED CONCRETE OVERLAY

Longitudinal joints in the concrete overlay are permitted but only to the extent necessary to accommodate the width of the finishing machine, to facilitate changes in the roadway crown, and to permit maintenance of vehic–ular traffic. See proposal note for details.

MAINTENANCE OF TRAFFIC

For maintenance of traffic on Sixth Street Expressway, see highway drawings.

PLANS FOR EXISTING BRIDGE

Plans of the existing structure are available for reference at the City of Cincinnati Engineer's Office and the ODOT District Eight office.

ITEM 516 – REFURBISH BEARING DEVICE

This Item shall include all work necessary to clean and paint abutment rocker bearings. Included shall be:

1. Disassembly of rockers.
2. Hand cleaning (grinding if required.)
3. Sandblasting and painting as required by Field Painting of Existing Steel, System OZEU proposal note.
4. Replacement of any damaged sheet lead (711.19). Preformed bearing pads 1/8" thick, meeting the requirements of 711.21, may be substituted for the sheet lead.
5. Installation of any necessary 1/8" thick steel shims of the same size as the bearings to provide a snug fit.
6. Reassembly of the rockers.

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. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 – REFURBISH BEARING DEVICE.

ITEM 516 – JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE

The end of the beams at each abutment shall be jacked and the beams supported so that bearings may be removed. The Contractor shall submit his jacking plan for approval prior to jacking.

ITEM 516 – RESET BEARINGS

Bearings at the abutments shall be reset to be vertical at 60° F. Masonry plates shall be adjusted to be centered under bearings.

ITEM 510

Dowel holes shall be drilled and grouted per Supplemental Specifications 852 and CMS 705.20.

ITEM 514 – CLEANING AND PAINTING OF EXISTING STRUCTURAL STEEL, AS PER PLAN

The end 6 feet of all beams at each abutment and the complete fascia beams shall be cleaned and painted as required by Field Painting of Existing Steel, System OZEU proposal note. The color of the final coat shall match, as near as possible, the existing color of the beams.

REFURBISH DRAINS

This item shall include the cleaning and flushing out of the scupper inlet and downspout. The downspout shall be throughly cleaned so that water flows freely. All exposed pipes and supports shall be cleaned and painted as required by Field Painting of Existing Steel, system OZEU proposal note. Payment for all the above described labor and materials will be made at the contract price bid for Item 518 – structural drainage, misc: Refurbish drains.

SEALING OF CONCRETE SURFACES

Portions of the structure shall be sealed as noted below. See the proposal note for application rates and materials. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of sealer to be used.

1. Parapets shall be sealed as shown on sheet 1/15 with an epoxy or non–epoxy sealer.
2. Abutment backwalls, beam seats, and the face of the breastwall and wingwalls down to the groundline shall be sealed with an epoxy sealer.
3. The total surface of all piers shall be sealed with a non–epoxy sealer.

ESTIMATED QUANTITIES

ITEM	CODE	TOTAL	UNIT	DESCRIPTION	LEFT BRIDGE			RIGHT BRIDGE		
					ABUTMENTS	SUPERST.	GENERAL	ABUTMENTS	SUPERST.	GENERAL
202	11202	L.S.	Lump Sum	Portions of structures removed, over 20 foot span	–	–	L.S.	–	–	L.S.
509	15800	20,688	Lbs.	Epoxy coated reinforcing steel, grade 60	2858	6003	50	2533	6082	3162
510	12200	1848	Lin. Ft.	Dowel hole	477	312	–	444	315	300
511	34400	86	Cu. Yd.	Class S concrete, superstructure (repair or reconstruction)	–	43	–	–	43	–
511	45700	50	Cu. Yd.	Class C concrete, abutment (repair or reconstruction)	14	–	–	12	–	24
SPECIAL	51267500	1354	Sq. Yd.	Sealing of concrete surfaces *	–	527	–	–	508	319
SPECIAL	51267502	1064	Sq. Yd.	Sealing of concrete surfaces (epoxy) *	126	–	–	938	–	–
SPECIAL	51267504	1942	Sq. Yd.	Sealing of concrete surfaces (non–epoxy) *	–	–	989	–	–	953
514	25501	L.S.	Lump Sum	Cleaning & painting of existing structural steel, as per plan*	–	L.S.	–	–	L.S.	–
516	11210	251	Lin. Ft.	Structural expansion joint including elastomeric strip seal	–	127	–	–	124	–
516	45304	34	Each	Refurbish bearing device	16	–	–	18	–	–
516	46700	34	Each	Reset bearing	16	–	–	18	–	–
516	47000	L.S.	Lump Sum	Jacking and temporary support of superstructure	–	L.S.	–	–	L.S.	–
518	63300	L.S.	Lump Sum	Structure drainage, misc.: refurbish drains	–	L.S.	–	–	L.S.	–
519	11100	75	Sq. Ft.	Patching concrete structure	–	75	–	–	–	–
SPECIAL	51922000	2988	Sq. Yd.	Micro–silica modified concrete overlay ($1\frac{1}{4}$" thick)*	–	1510	–	–	1478	–
SPECIAL	51922100	95	Cu. Yd.	Micro–silica modified concrete overlay (variable thickness)*	–	31	–	–	64	–
SPECIAL	51614600	72	Lin. Ft.	Precompressed joint filler	–	–	–	–	–	72

* See proposal note

ESTIMATED QUANTITIES CALCULATED BY : WJH DATE : 11/91

CHECKED BY : EHC DATE : 1/92

/8

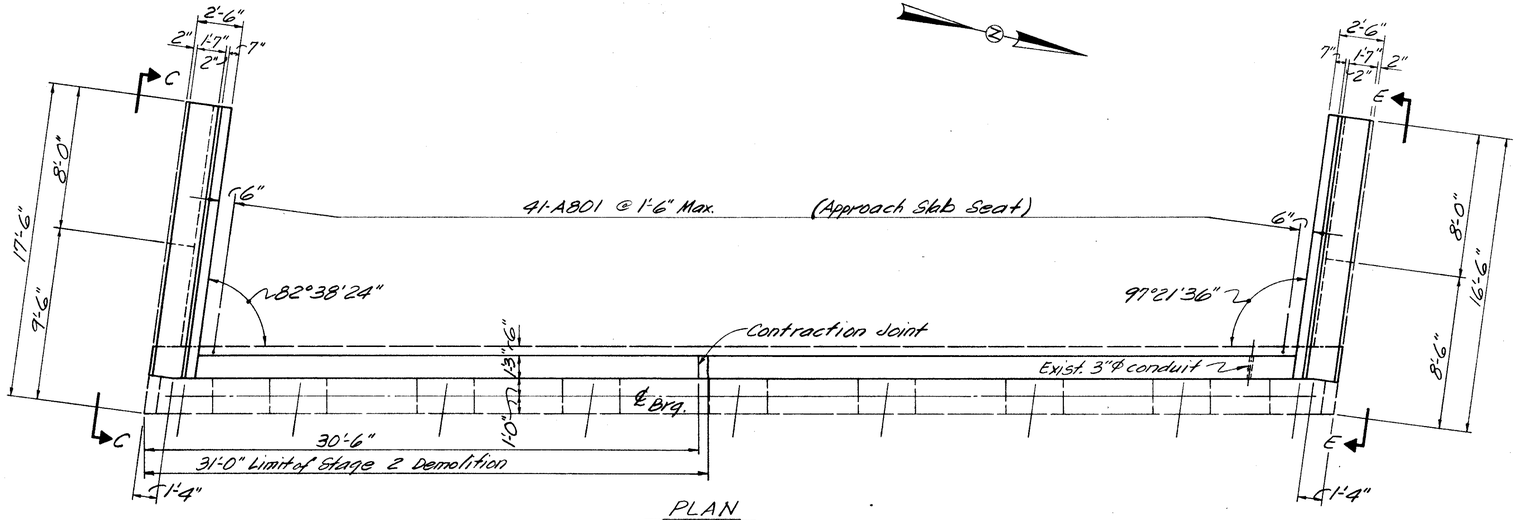
BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

2/15

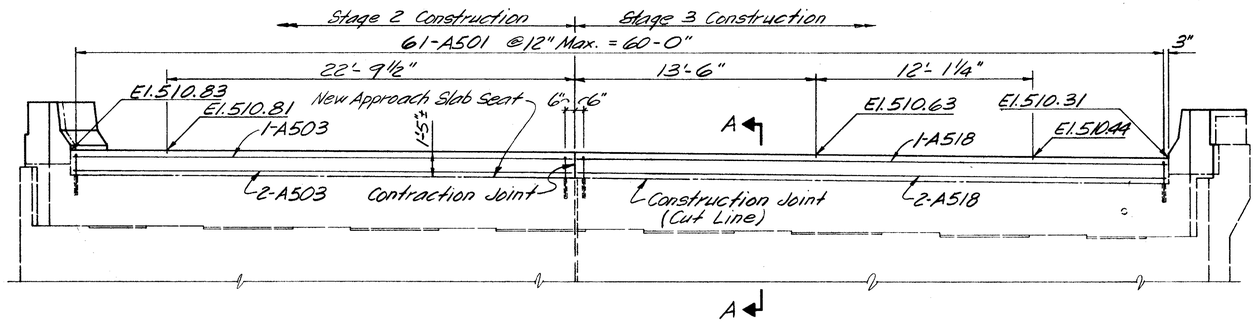
GENERAL NOTES & QUANTITIES
BRIDGE NO. HAM–50–1992 R & L
SIXTH STREET EXPRESSWAY
OVER R.R. SIDING WEST OF FREEMAN AVE.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

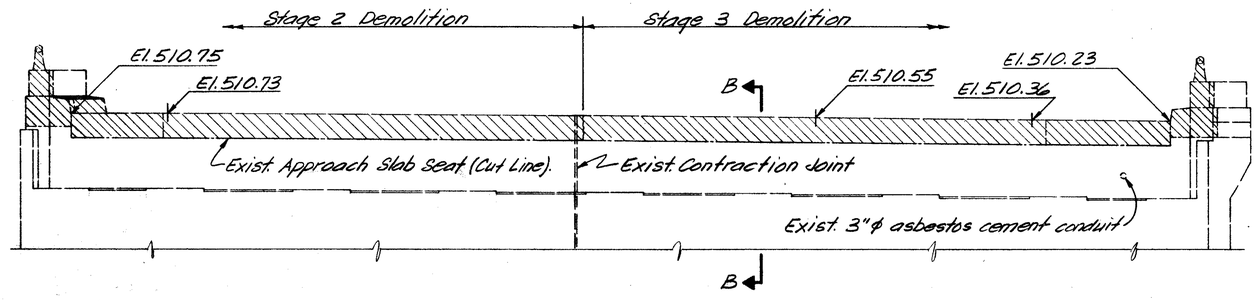
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	196 255
CHKD. BY / DATE			



PLAN



ELEVATION



ELEVATION
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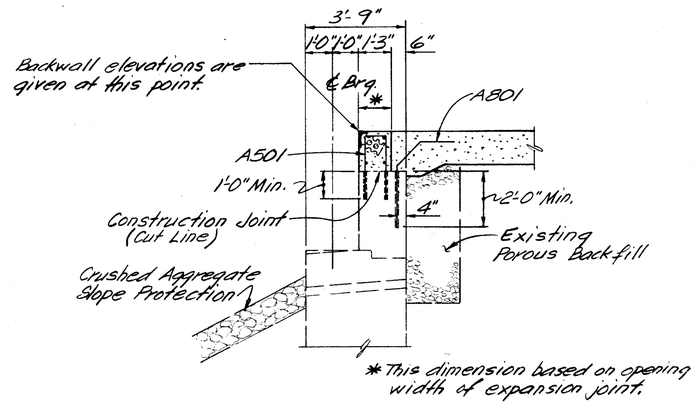
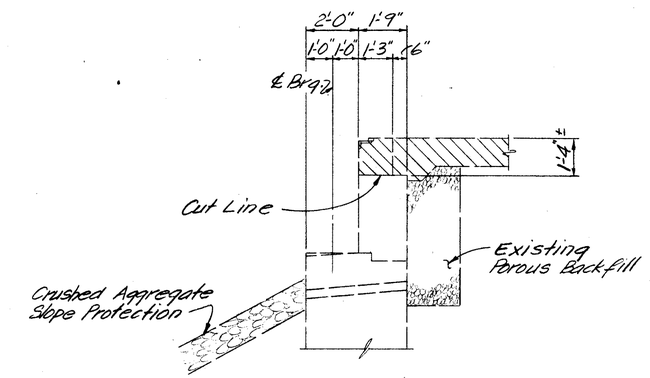


* This dimension based on opening width of expansion joint.

SECTION A-A



SECTION B-B
(Showing Removal)

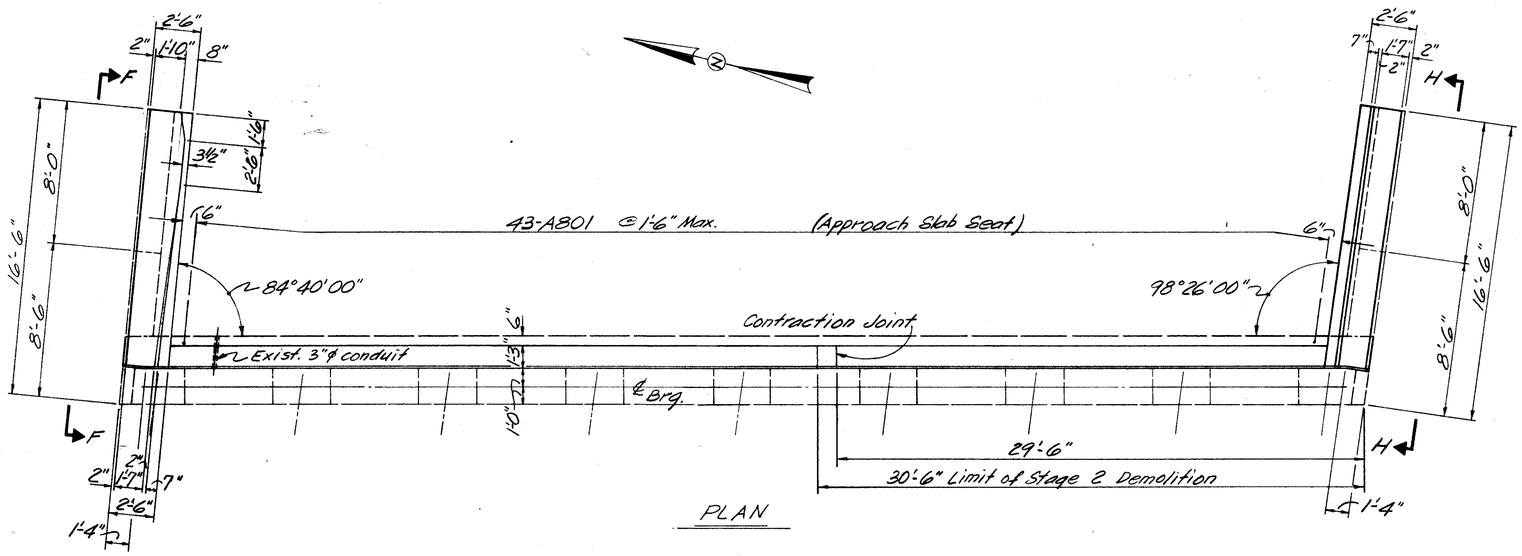
Notes:
1. For Elevation C-C & E-E, see Sht. 5/15.

Denotes portion of existing structure to be removed.

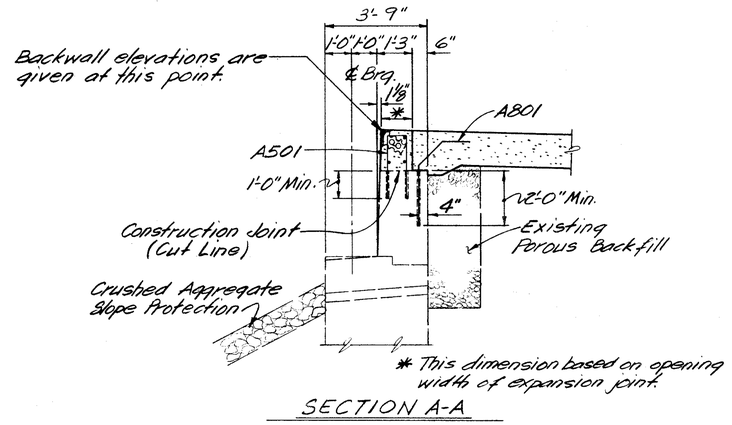
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					3/15
WEST ABUTMENT BRIDGE NO. HAM-50-1992 L WESTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER R.R. SIDING W. OF FREEMAN AVE.					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO SLIDE PRINT M2940

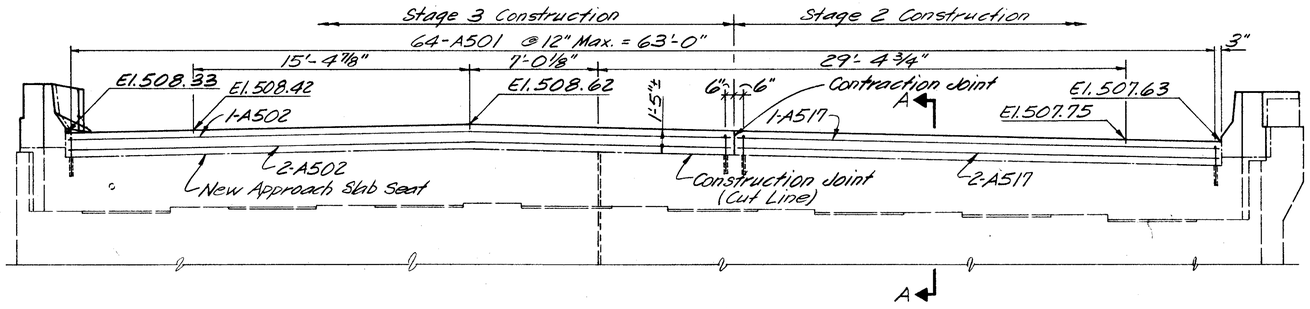
CALC. BY		HAMILTON COUNTY HAM-50-19.36	OHIO	197
DATE			FHWA REGION 5	255
CHKD. BY				
DATE				



PLAN



SECTION A-A



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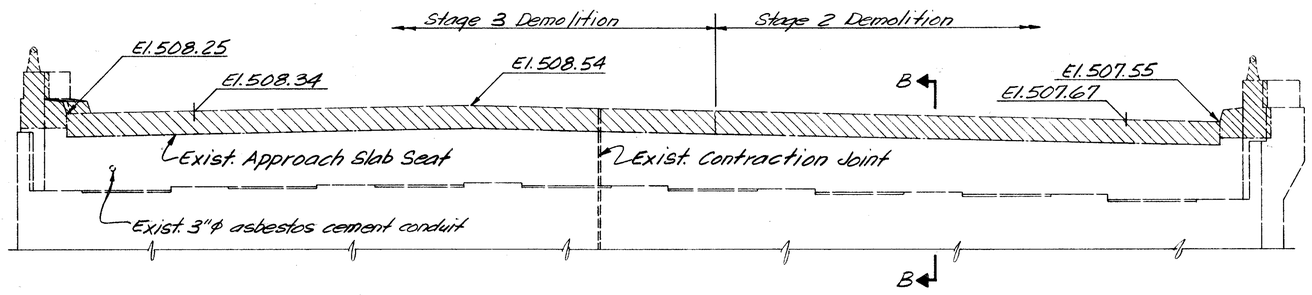

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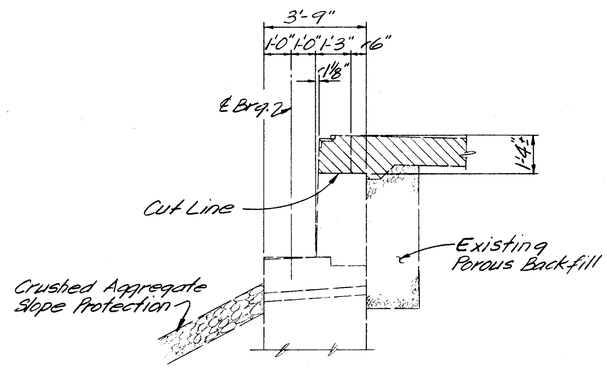
(Showing Removal)



SECTION B-B
(Showing Removal)

Notes:
1. For Elevation F-F & H-H, see Sht. 5/15.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

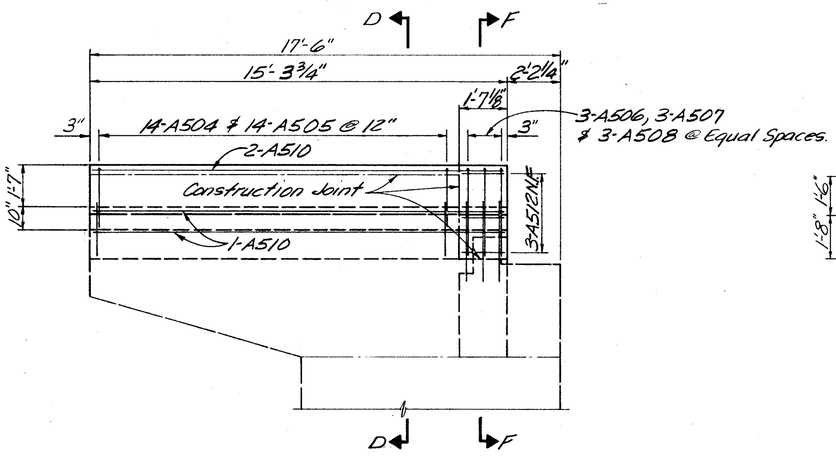
4/15

EAST ABUTMENT
BRIDGE NO. HAM-50-1992 L
WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

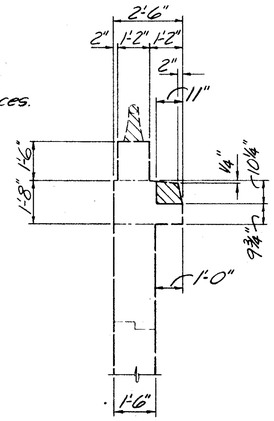
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT H-5763

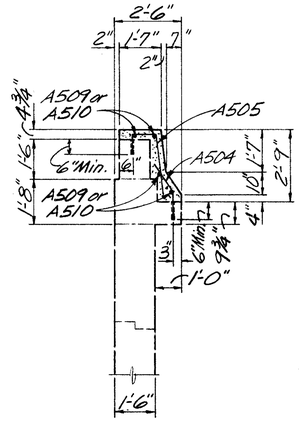
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	198 255
CHKD. BY / DATE			



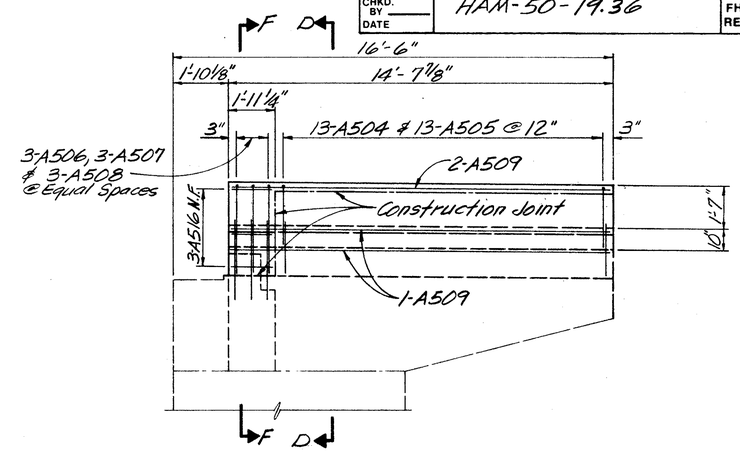
ELEVATION C-C



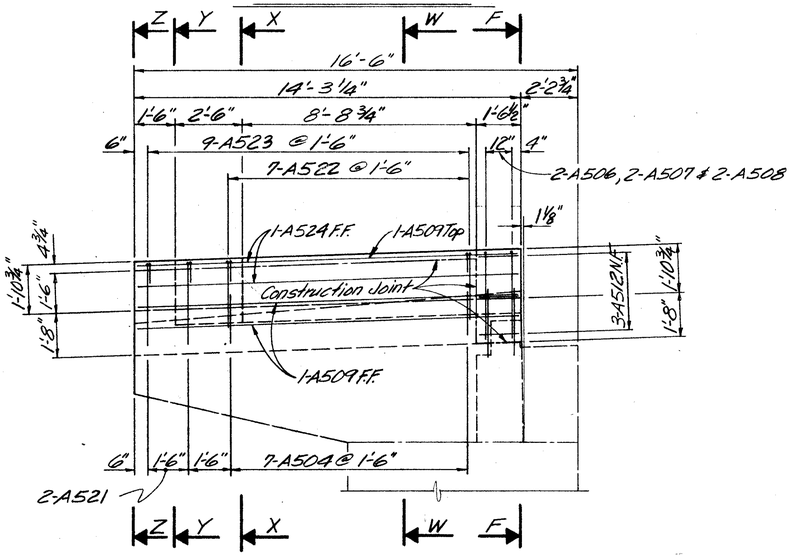
SECTION D-D
(Showing Removal)



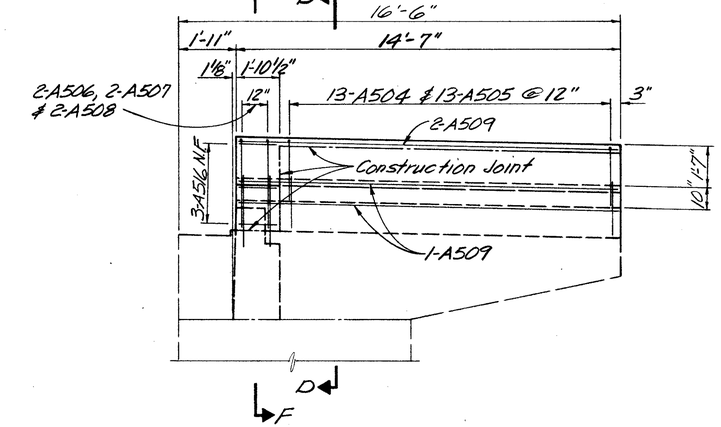
SECTION D-D



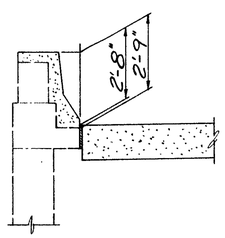
ELEVATION E-E



ELEVATION F-F



ELEVATION H-H



SECTION WITH APPROACH SLAB
TYPICAL

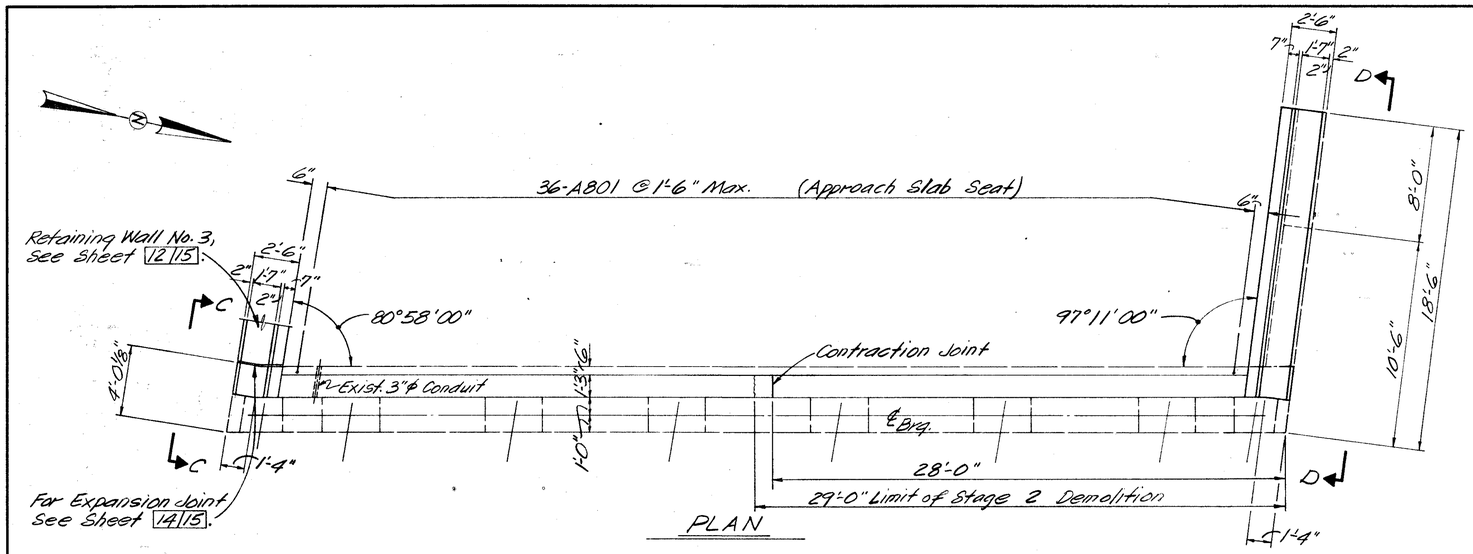
Notes:
1. For Section F-F, see Sheet 8 15.
2. N.F. = Near Face ; F.F. = Far Face
3. For Section W-W, X-X, Y-Y & Z-Z, see Sht. 9 15.

Denotes portion of existing structure to be removed.

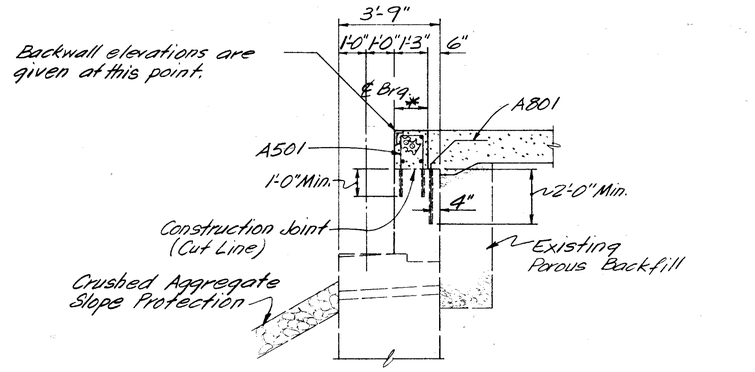
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					5 15
ABUTMENT DETAILS BRIDGE NO. HAM-50-1992 L WESTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER R.R. SIDING W. OF FREEMAN AVE.					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 142963

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	199 255
CHKD. BY / DATE			

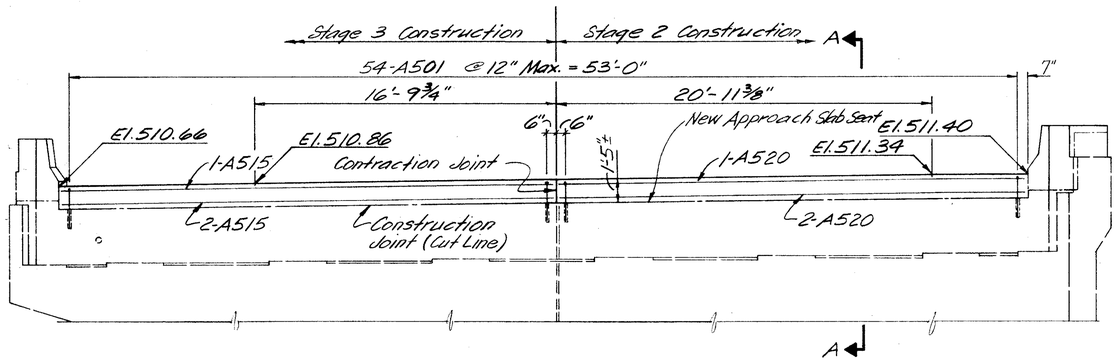


PLAN

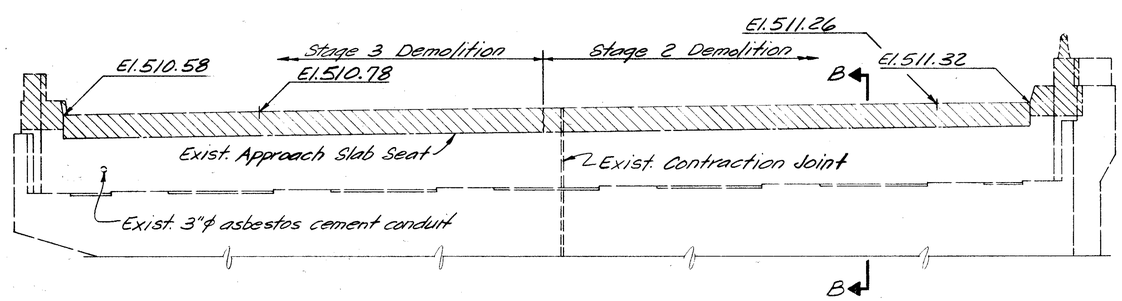


* This dimension based on opening width of expansion joint.

SECTION A-A



ELEVATION



ELEVATION
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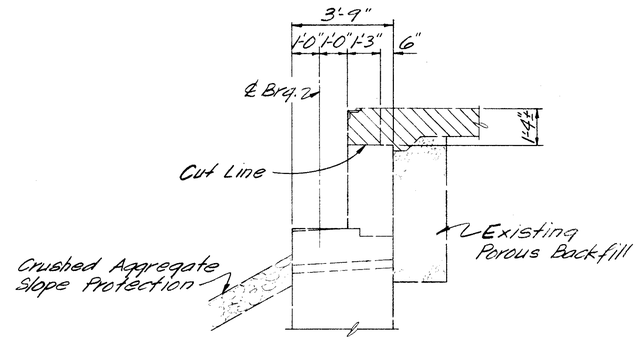


SECTION B-B
(Showing Removal)

Notes:
1. For Elevation C-C & D-D, see Sht. 8|15.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

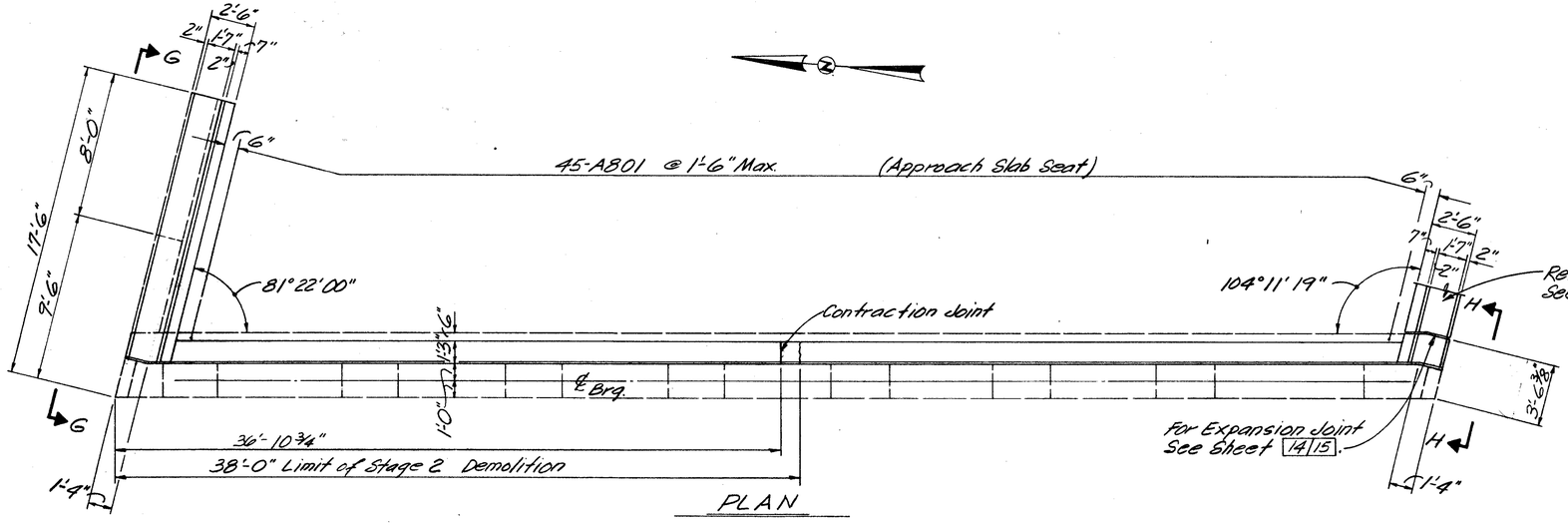
6|15

WEST ABUTMENT
BRIDGE NO. HAM-50-1992 R
EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. of FREEMAN AVE.

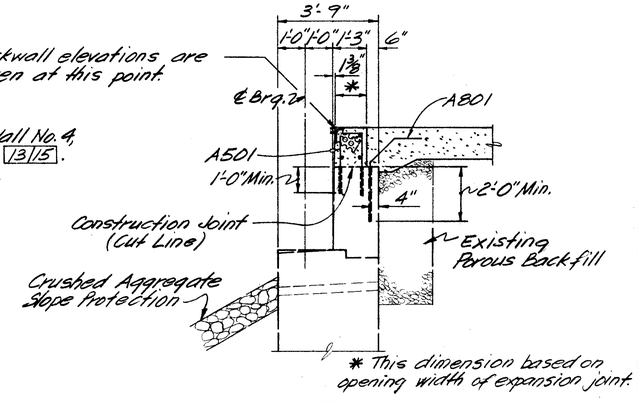
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 142563

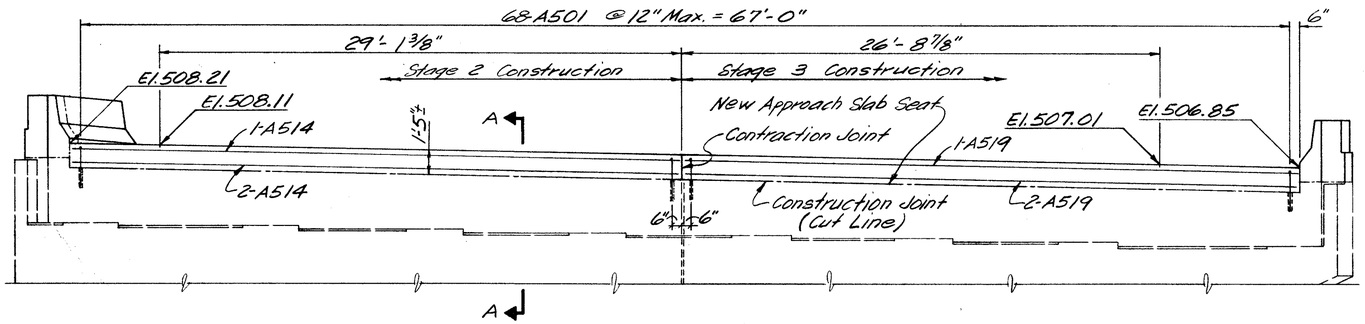
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	200 255
CHKD. BY / DATE			



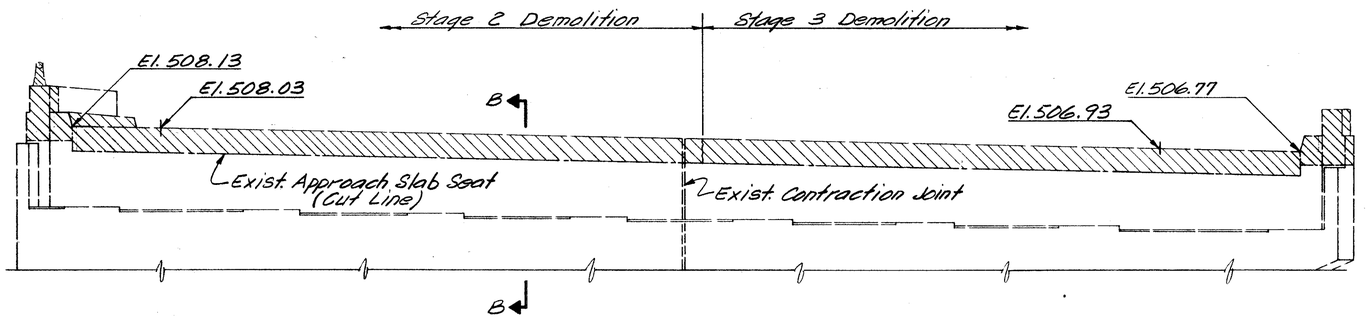
PLAN



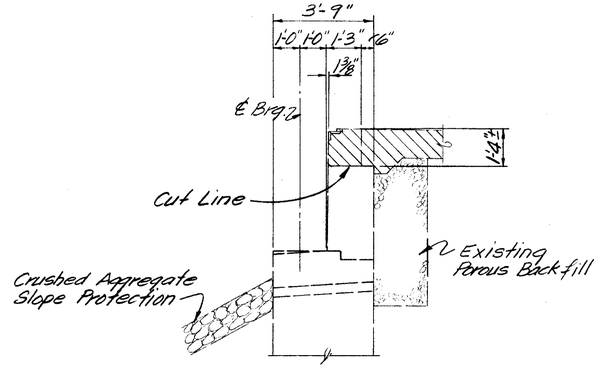
SECTION A-A



ELEVATION



ELEVATION
(Showing Removal)



SECTION B-B
(Showing Removal)

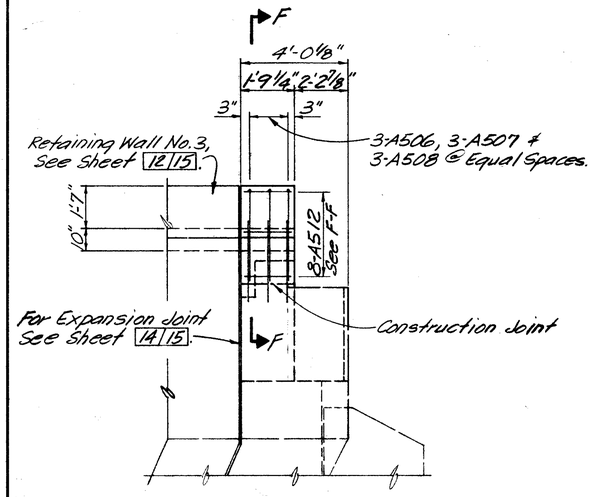
Notes:
1. For Elevation G-G & H-H, see Sht. 8 15.

Denotes portion of existing structure to be removed.

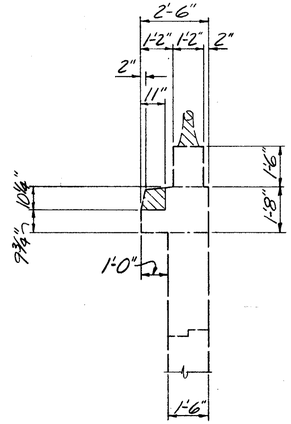
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					7 15
EAST ABUTMENT BRIDGE NO. HAM-50-1992 R EASTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER R.R. SIDING W. OF FREEMAN AVE.					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 107963

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	201 255
CHKD. BY / DATE			



ELEVATION C-C



SECTION E-E
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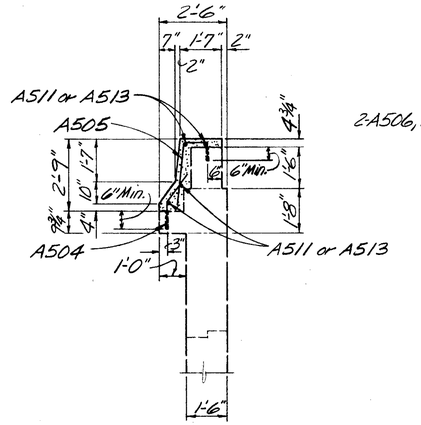
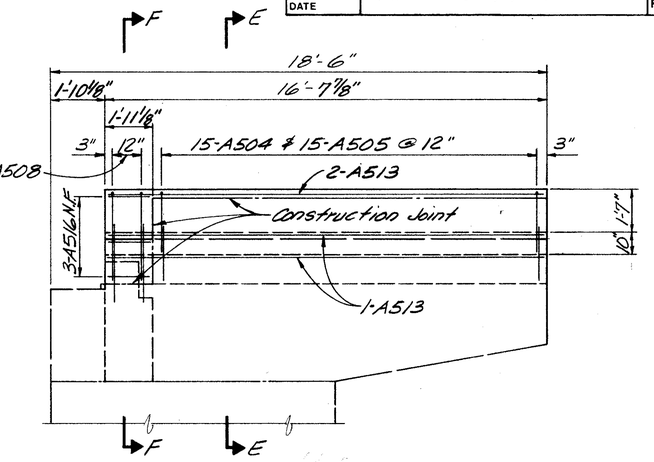
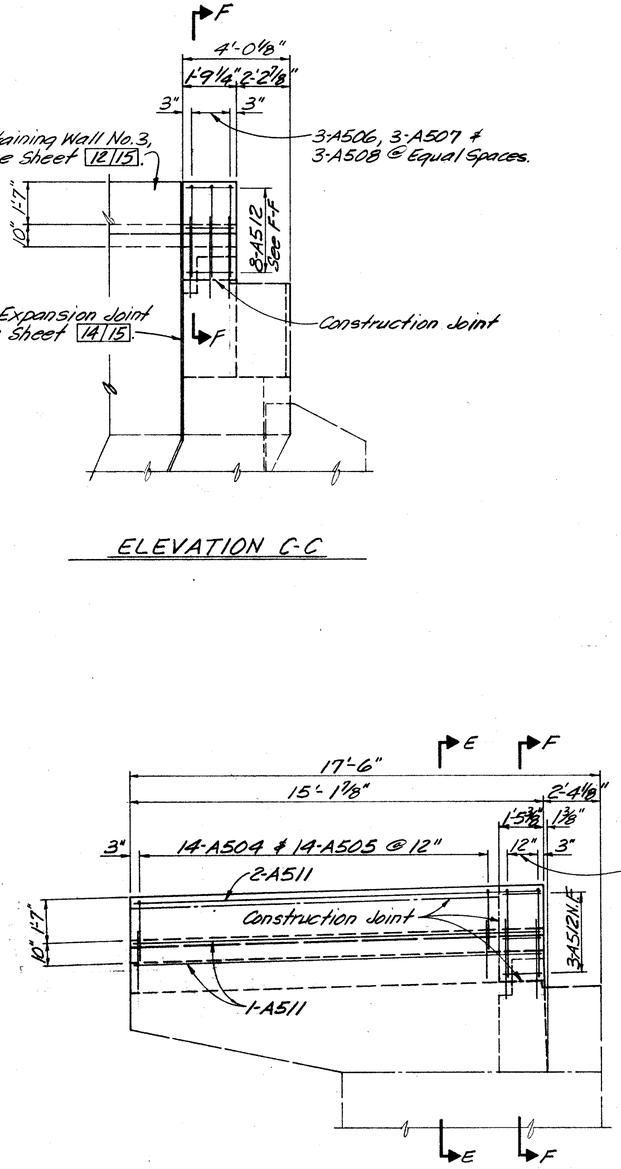


SECTION E-E

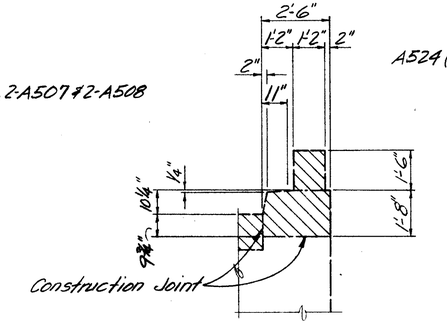


ELEVATION D-D

Note:
N.F. = Near Face



ELEVATION G-G



SECTION F-F
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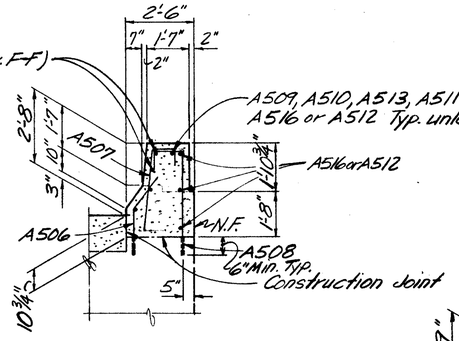
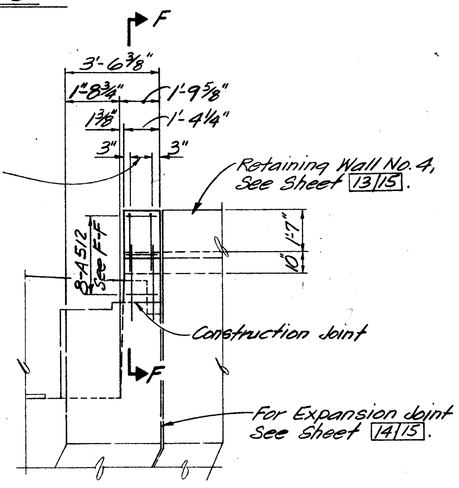
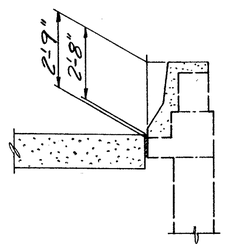


SECTION F-F



ELEVATION H-H

Denotes portion of existing structure to be removed.



SECTION WITH APPROACH SLAB
TYPICAL

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

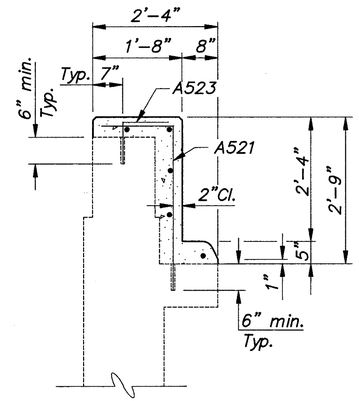
8|15

ABUTMENT DETAILS
BRIDGE NO. HAM-50-1992 R
EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

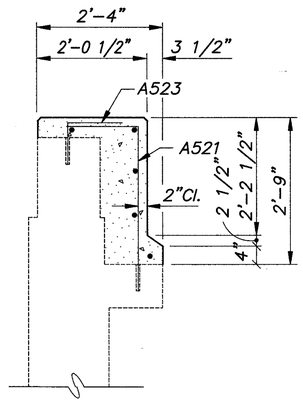
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	ORS 4/92	

OHIO BLUE PRINT 142963

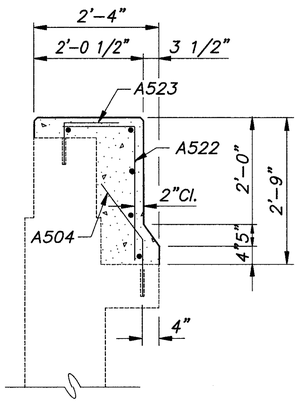
CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO FHWA REGION 5	202 255
CHKD. BY DATE				



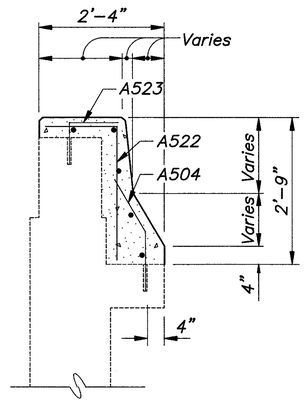
SECTION Z–Z



SECTION Y–Y



SECTION X–X



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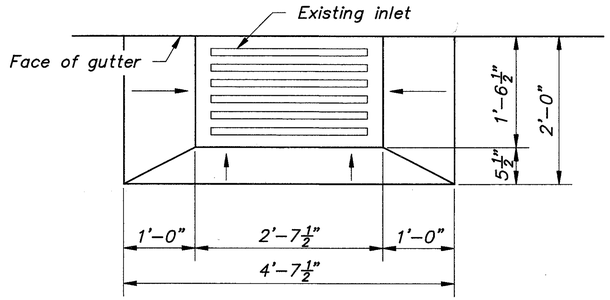
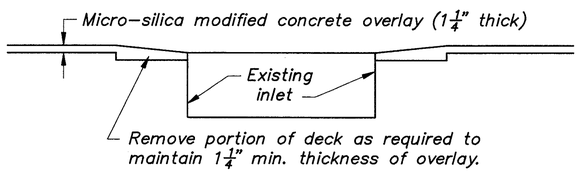


PLAN AT INLET



SECTION THRU INLET

BALKE ENGINEERS 1848 SUMMIT ROAD CINCINNATI, OHIO 45237	9/15

MISCELLANEOUS DETAILS

BRIDGE NO. HAM–50–1992 R & L

SIXTH STREET EXPRESSWAY

OVER RR SIDING WEST OF FREEMAN AVE.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

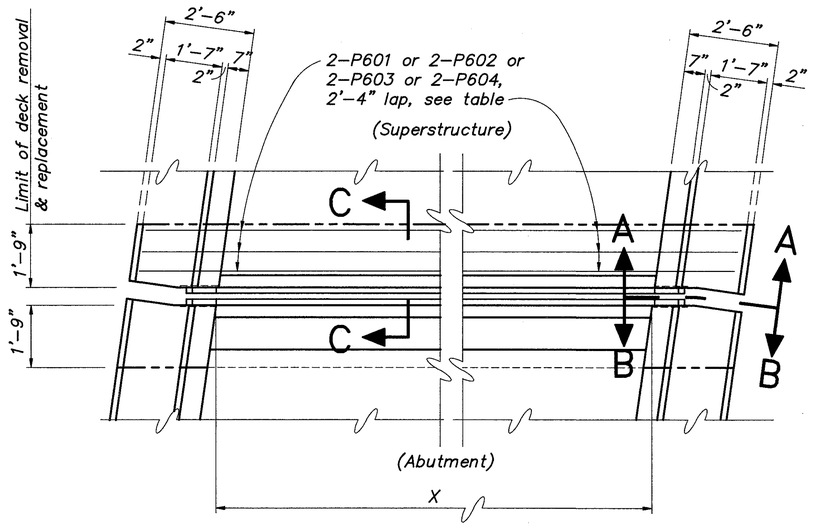
DISK 1 1992MC1

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO	203
CHKD. BY DATE		FHWA REGION 5	255

West Abutment

East Abutment

SUPERSTRUCTURE BARS			
LEFT BRIDGE		RIGHT BRIDGE	
WEST ABUT	EAST ABUT	WEST ABUT	EAST ABUT
P601	P602	P603	P604

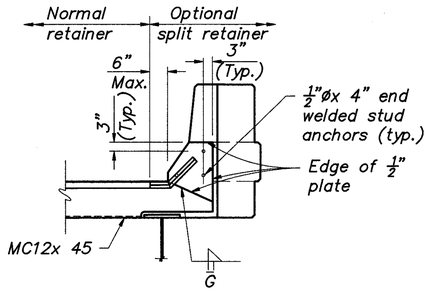


PARTIAL PLAN

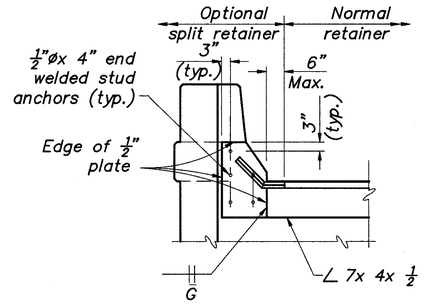
FACE TO FACE OF CURB (DIM. X)			
LEFT BRIDGE		RIGHT BRIDGE	
WEST ABUT	EAST ABUT	WEST ABUT	EAST ABUT
60'–1 7/8"	63'–5 1/8"	53'–4 1/4"	67'–6 3/8"

STRIP SEAL GLAND			
LOCATION	MANUFACTURER		
	D.S. Brown Co.	Watson–Bowman & Acme Corp.	Structural Acc. Inc.
Abutments	300L	SE–300	–

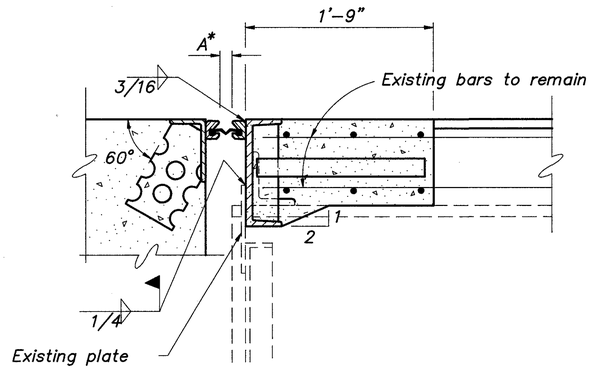
Gland shall be provided in continuous strip and inserted after all phases of extrusion installation are complete.



SECTION A–A



SECTION B–B



SECTION C–C

*	OPENING WIDTH	
°F	WEST ABUT. DIM A	EAST ABUT. DIM A
90	1 1/2"	1 1/2"
80	1 5/8"	1 1/2"
70	1 3/4"	1 5/8"
60	1 3/4"	1 3/4"
50	1 7/8"	1 7/8"
40	1 7/8"	2"
30	2"	2"

NOTE:
For additional details & notes on expansion joint, see Std. Drawing EXJ –4–87.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

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EXPANSION JOINT DETAILS

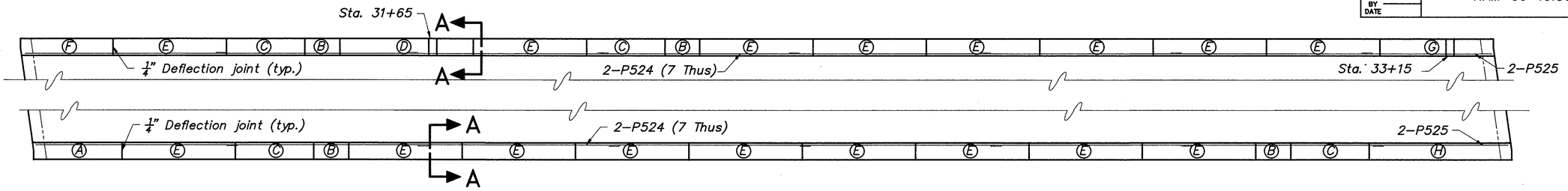
BRIDGE NO. HAM–50–1992 R & L
SIXTH STREET EXPRESSWAY
OVER RR SIDING WEST OF FREEMAN AVE.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

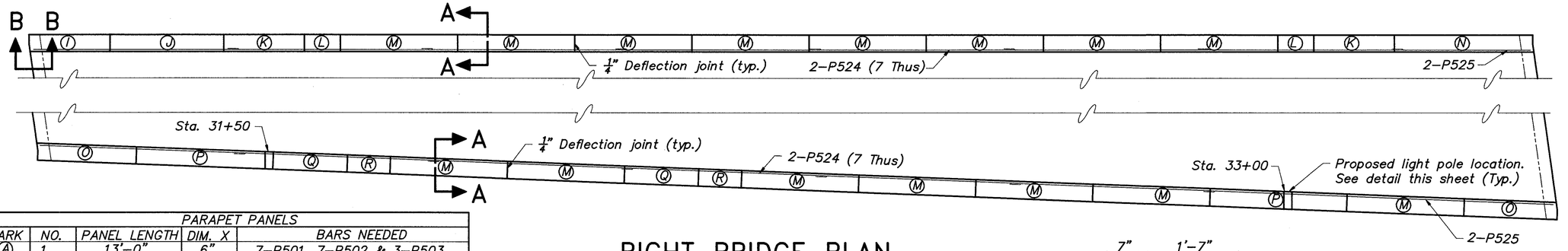
DISK 1 1992EJ1

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

204 / 255



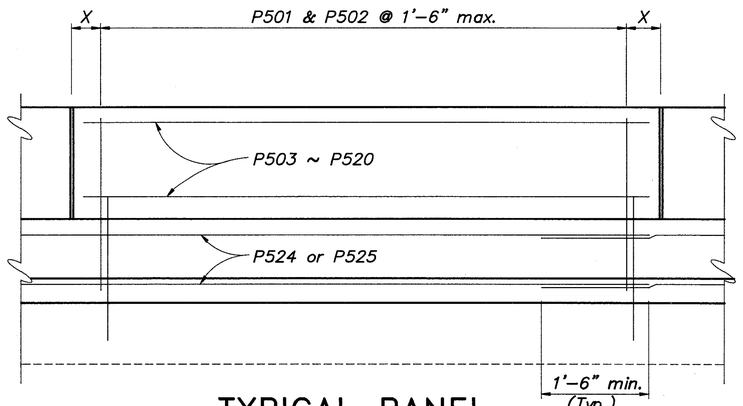
LEFT BRIDGE PLAN



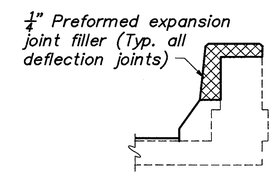
RIGHT BRIDGE PLAN

PARAPET PANELS				
MARK	NO.	PANEL LENGTH	DIM. X	BARS NEEDED
A	1	13'–0"	6"	7–P501, 7–P502 & 3–P503
B	4	5'–2 3/4"	4 3/8"	4–P501, 4–P502 & 3–P504
C	4	11'–8 1/4"	2"	9–P501, 9–P502 & 3–P505
D	1	19'–11"	2 1/2"	14–P501, 14–P502 & 3–P506
E	17	16'–11"	2 1/2"	12–P501, 12–P502 & 3–P507
F	1	14'–0"	3"	8–P501, 8–P502 & 3–P508
G	1	17'–0"	3"	10–P501, 10–P502 & 3–P509
H	1	20'–5"	2"	13–P501, 13–P502 & 3–P510
I	1	12'–1"	2"	7–P501, 7–P502 & 3–P511
J	1	16'–8 1/2"	2"	12–P501, 12–P502 & 3–P512
K	2	11'–10"	2"	9–P501, 9–P502 & 3–P513
L	2	5'–3 1/2"	4 3/4"	4–P501, 4–P502 & 3–P514
M	15	17'–2 1/2"	7"	12–P501, 12–P502 & 3–P515
N	1	20'–3 1/2"	4 3/4"	12–P501, 12–P502 & 3–P516
O	2	14'–2 1/2"	7"	8–P501, 8–P502 & 3–P517
P	2	20'–1 1/2"	3 3/4"	14–P501, 14–P502 & 3–P518
Q	2	10'–10 1/2"	2"	8–P501, 8–P502 & 3–P519
R	2	6'–4"	2"	5–P501, 5–P502 & 3–P520

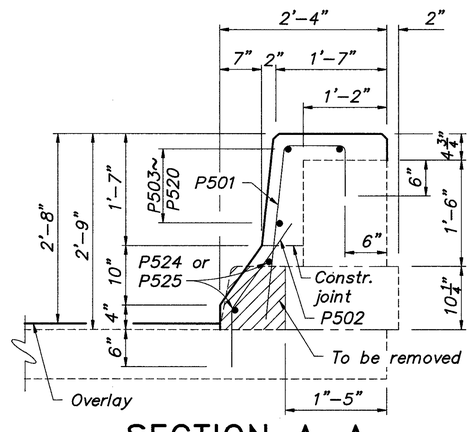
All reinforcing bars to be epoxy coated.



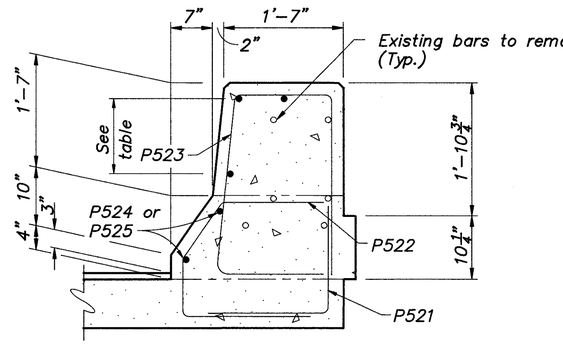
TYPICAL PANEL



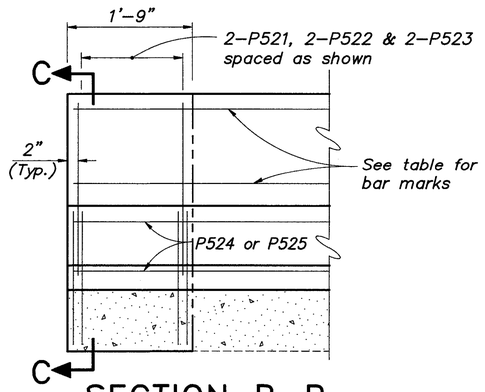
DEFLECTION JOINT DETAIL



SECTION A–A

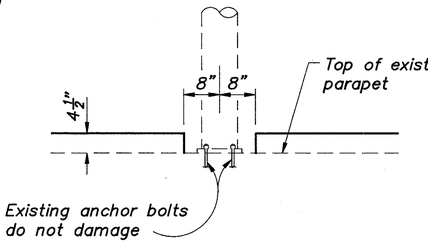


SECTION C–C



SECTION B–B

(8 REQUIRED)



LIGHT POLE SUPPORT DETAIL

NOTE: Light pole locations match existing pole locations.

NOTE:
New deflection joints shall match the existing deflection joints locations.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

11/15

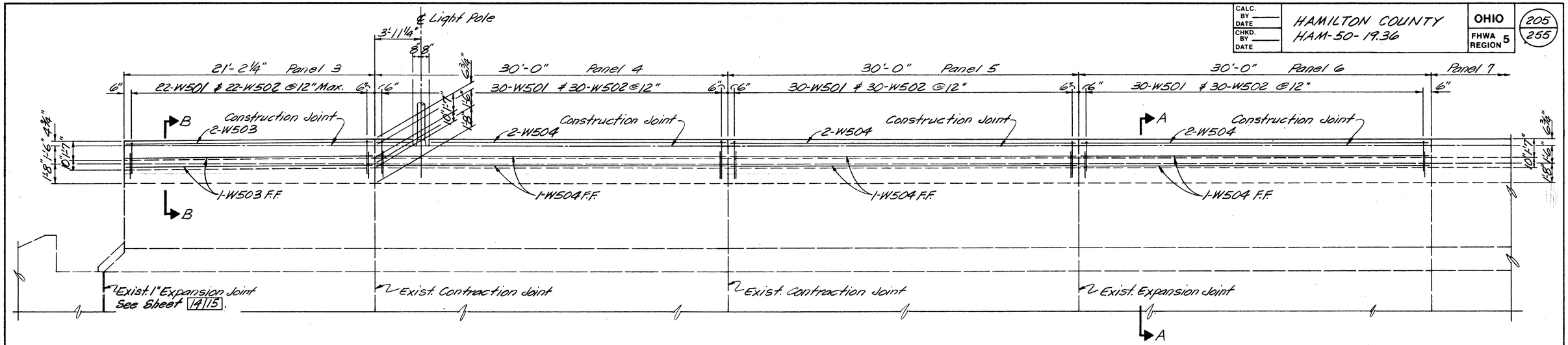
PARAPET DETAILS

BRIDGE NO. HAM–50–1992 R & L
SIXTH STREET EXPRESSWAY
OVER RR SIDING WEST OF FREEMAN AVE.

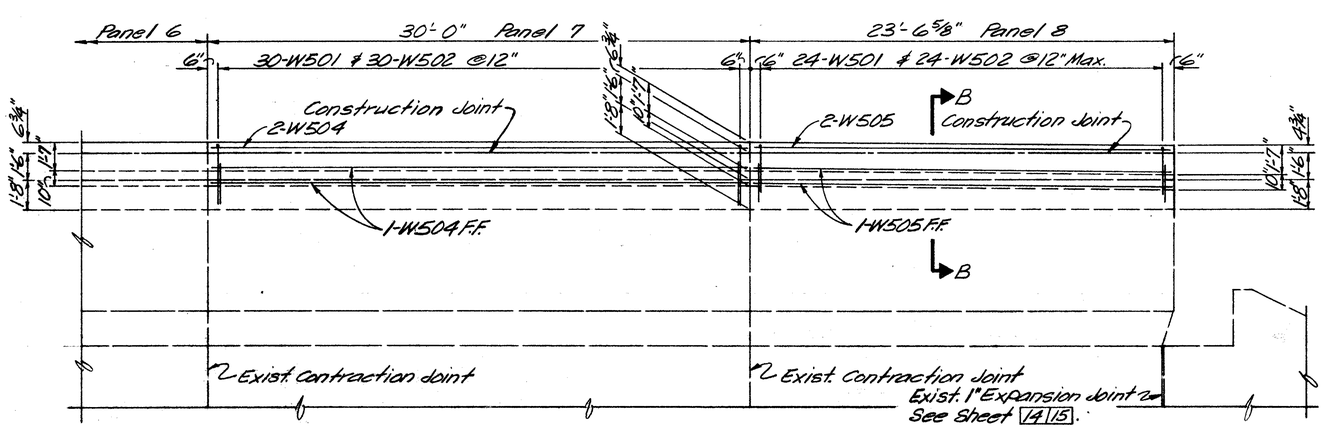
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 1 1992P1

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	205 255
CHKD. BY / DATE			



ELEVATION



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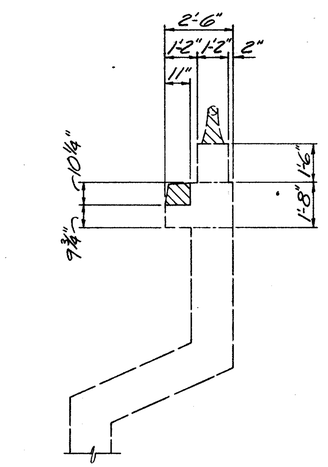
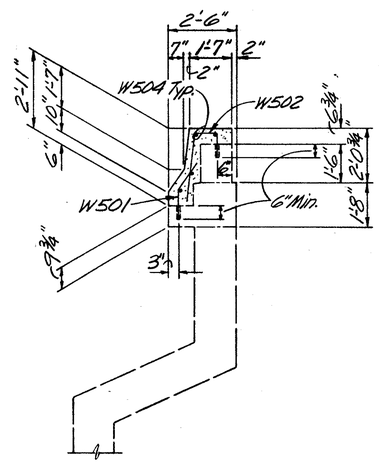
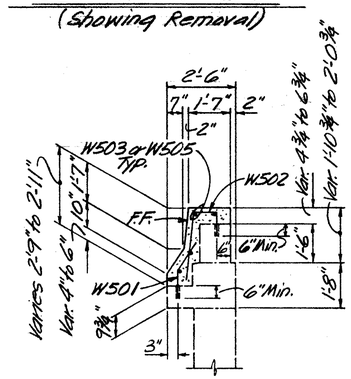


SECTION A-A & B-B
(Showing Removal)



SECTION A-A
PANEL 4, 5, 6 & 7



SECTION B-B
PANEL 3 & 8

Notes:
1. Field adjust rebar spacing & field cut rebars as necessary to clear lighting pole.
2. F.F. = Far Face

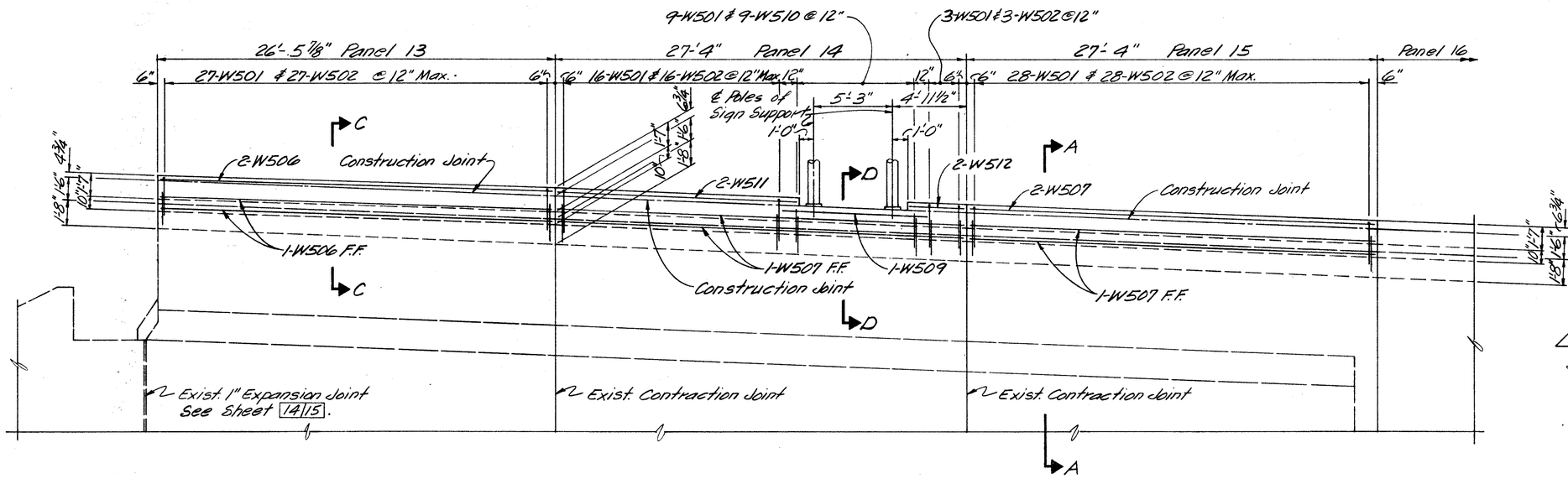
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	12|15

RETAINING WALL NO. 3
BRIDGE NO. HAM-50-1992 R
EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

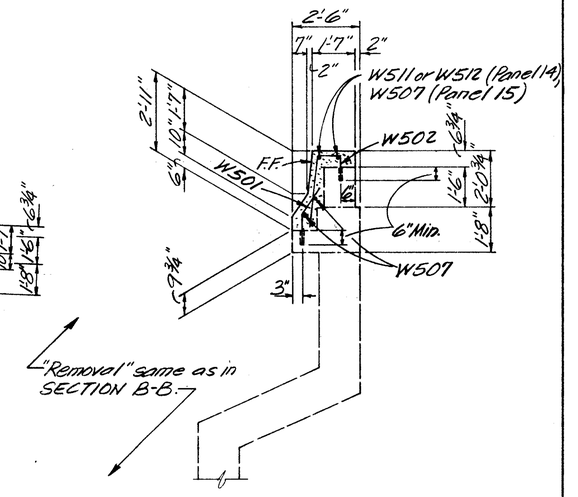
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO DEPT. OF TRANSPORTATION

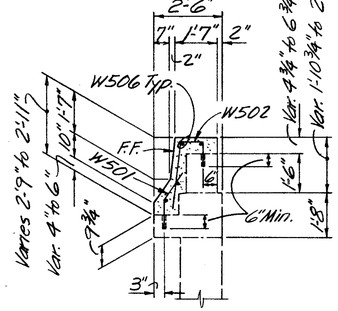
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	206 255
CHKD. BY / DATE			



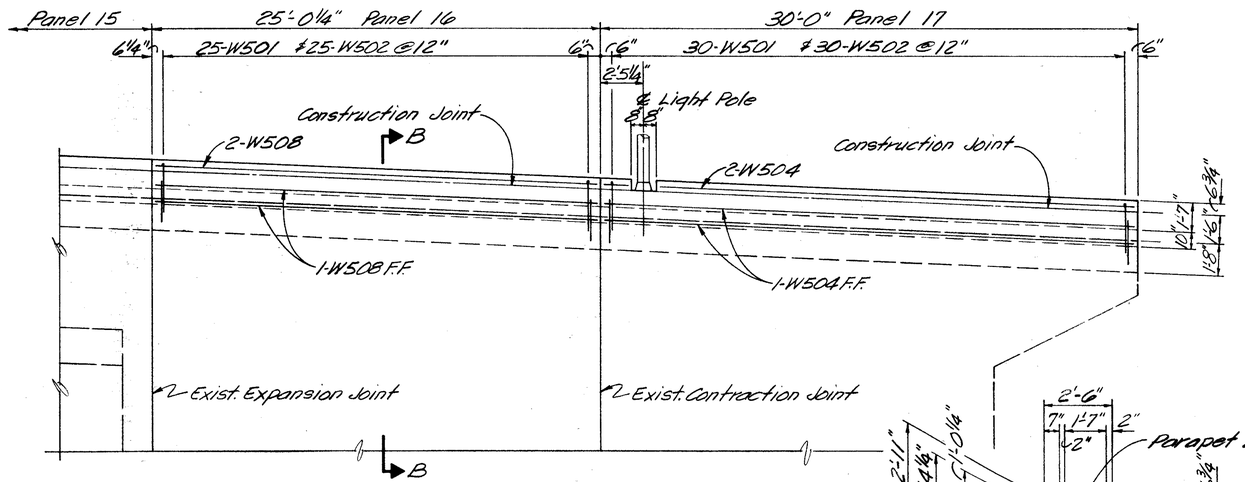
ELEVATION



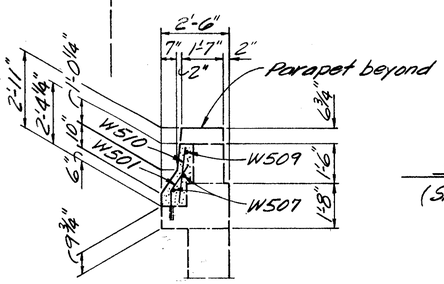
SECTION A-A
PANEL 14 & 15



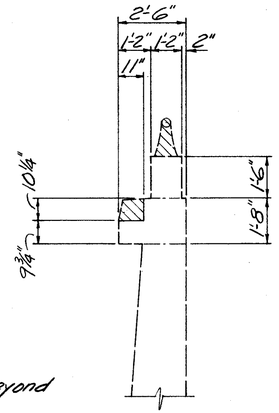
SECTION C-C
PANEL 13



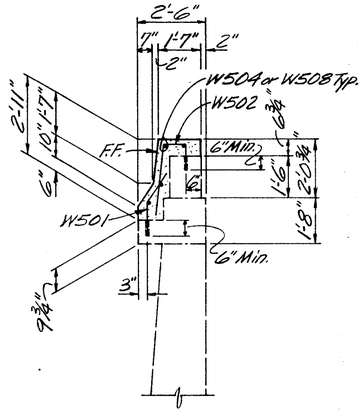
ELEVATION



SECTION D-D



SECTION B-B
(Showing Removal)



SECTION B-B
PANEL 16 & 17

Notes:
1. Field adjust rebar spacing & field cut rebars as necessary to clear lighting pole.
2. F.F. = Far Face

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

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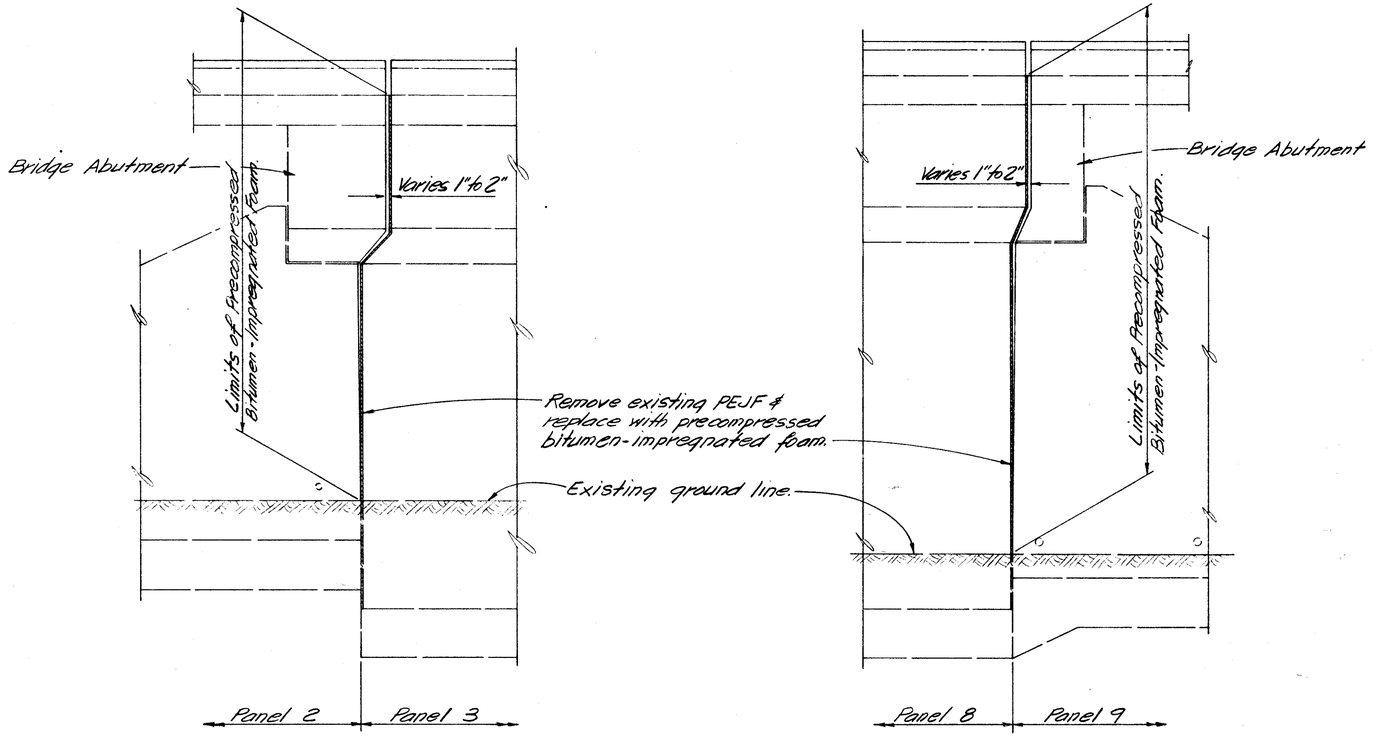
RETAINING WALL NO. 4
BRIDGE NO. HAM-50-1992 R
EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
over R.R. SIDING W. of FREEMAN AVE.

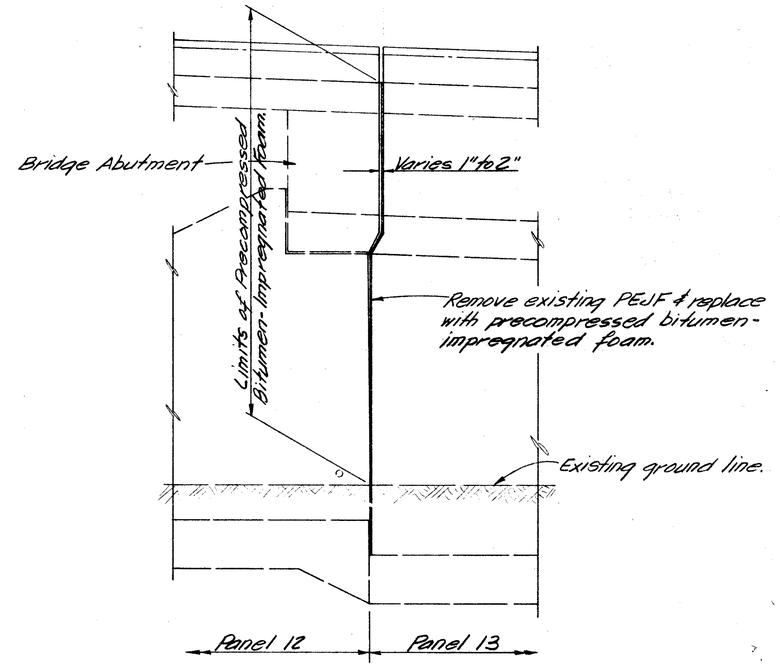
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 1432963

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	207 255
CHKD. BY / DATE			



RETAINING WALL NO. 3



RETAINING WALL NO. 4

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					14/15
RETAINING WALL NO. 3 & NO. 4 BRIDGE NO. HAM-50-1992 R EASTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER R.R. SIDING W. of FREEMAN AVE.					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 1-57963

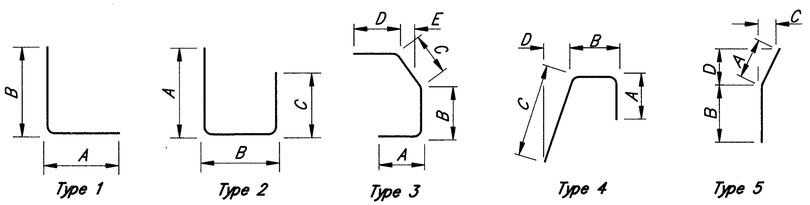
CALC. BY DATE		HAMILTON COUNTY HAM-50-19.36	OHIO	208
CHKD. BY DATE			FHWA REGION 5	255

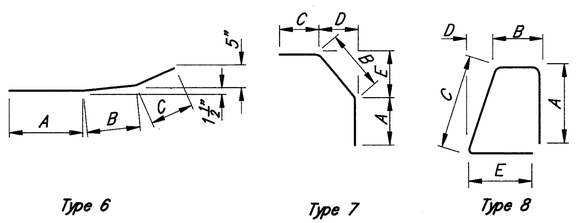
REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
A801	165	4'-11	2166	7	2'-3	1'-3	1'-5	0'-10 5/8	0'-10 5/8	84	81
A501	247	5'-0	1288	2	2'-3	0'-9	2'-3			125	122
A502	3	36'-0	113	Str.						3	–
A503	3	27'-9	87	Str.						3	–
A504	76	2'-1	165	5	1'-3	0'-10	0'-8 3/4	1'-0 1/4		47	29
A505	69	3'-9	269	4	0'-9	0'-10	2'-3	0'-2 3/4		40	29
A506	19	3'-3	65	5	1'-9	1'-6	1'-0 1/8	1'-5 1/4		10	9
A507	19	4'-9	95	4	0'-9	0'-10	3'-3	0'-4		10	9
A508	19	5'-6	109	2	3'-10	1'-2	0'-9			10	9
A509	11	14'-0	161	Str.						11	–
A510	4	15'-0	63	Str.						4	–
A511	4	14'-6	60	Str.						–	4
A512	25	1'-0	10	Str.						6	19
A513	4	16'-0	67	Str.						–	4
A514	3	34'-0	106	Str.						–	3
A515	3	27'-7	86	Str.						–	3
A516	9	1'-4	36	Str.						6	3
A517	3	26'-8	83	Str.						3	–
A518	3	32'-0	100	Str.						3	–
A519	3	33'-0	103	Str.						–	3
A520	3	25'-2	79	Str.						–	3
A521	2	4'-4	9	1	1'-4	3'-1				2	–
A522	7	3'-9	27	1	1'-4	2'-6				7	–
A523	9	1'-6	14	1	0'-9	0'-10				9	–
A524	2	14'-3	30	6	10'-6	2'-4	1'-5			2	–
P501	627	4'-2	2725	4	0'-11	0'-9	2'-5	0'-3		312	315
P502	627	3'-1	2016	5	1'-5	0'-10	0'-8 3/4	1'-0 1/4		312	315
P503	3	12'-8	40	Str.						3	–
P504	12	4'-10	60	Str.						12	–
P505	12	11'-4	142	Str.						12	–
P506	3	19'-7	61	Str.						3	–
P507	51	16'-7	882	Str.						51	–
P508	3	13'-8	43	Str.						3	–
P509	3	16'-8	52	Str.						3	–
P510	6	20'-1	126	Str.						3	3
P511	3	11'-9	37	Str.						–	3
P512	3	16'-4	51	Str.						–	3
P513	6	11'-6	72	Str.						–	6
P514	6	4'-11	31	Str.						–	6
P515	45	16'-10	790	Str.						–	45
P516	3	19'-11	62	Str.						–	3
P517	6	13'-10	87	Str.						–	6
P518	6	19'-9	124	Str.						–	6
P519	6	10'-6	66	Str.						–	6
P520	6	6'-0	38	Str.						–	6
P521	16	2'-11	48	1	0'-10	1'-8				8	8
P522	16	3'-1	52	3	0'-10	0'-10	0'-10	0'-9	0'-6	8	8
P523	16	6'-0	100	8	2'-6	1'-3	2'-6	0'-2	0'-10	8	8
P524	56	30'-0	1752	Str.						28	28
P525	8	20'-6	172	Str.						4	4
P601	12	33'-6	604	Str.						12	–
P602	12	35'-3	635	Str.						12	–
P603	12	30'-2	544	Str.						–	12
P604	12	37'-4	673	Str.						–	12
		Total									

RETAINING WALL NO. 3 & 4 REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	WALL 3	WALL 4
W501	304	2'-1	661	5	1'-3	0'-10	0'-8 3/4	1'-0 1/4"		166	138
W502	304	3'-9	1189	4	0'-9	0'-10	2'-3	0'-3 1/8		166	138
W503	4	20'-9	87	Str.						4	–
W504	20	29'-6	615	Str.						16	4
W505	4	23'-0	96	Str.						4	–
W506	4	26'-0	108	Str.						–	4
W507	8	27'-0	225	Str.						–	8
W508	4	24'-6	102	Str.						–	4
W509	1	9'-6	10	Str.						–	1
W510	9	2'-0	19	Str.						–	9
W511	2	15'-6	32	Str.						–	2
W512	2	3'-6	7	Str.						–	2





NOTES

1. REINFORCING STEEL SAMPLES: REFER TO CMS SECTION 106.03, 700, 709.01 THRU. 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. ALL BARS ARE TO BE EPOXY COATED.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

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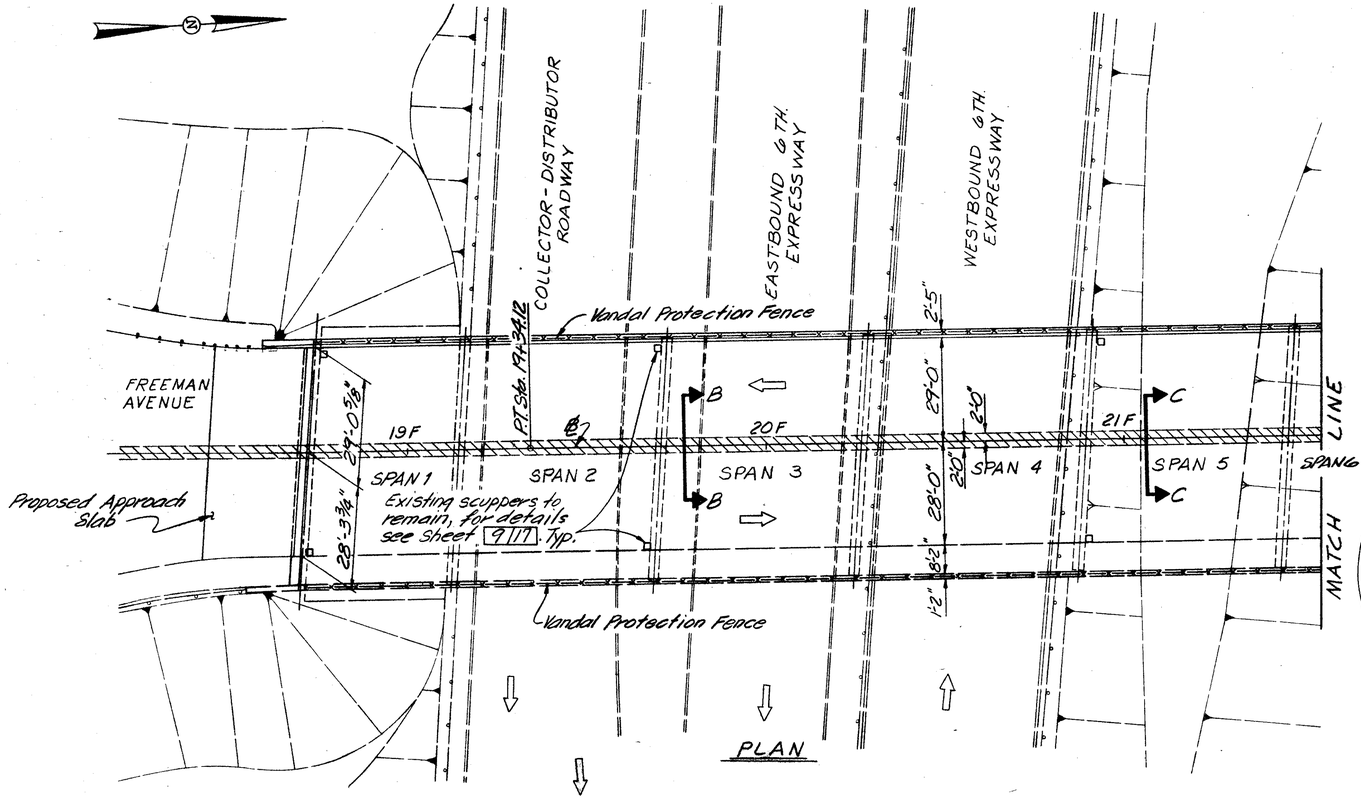
REINFORCING STEEL LIST

BRIDGE NO. HAM-50-1992 R & L
6TH STREET EXPRESSWAY
OVER RR SIDING WEST OF FREEMAN AVE.

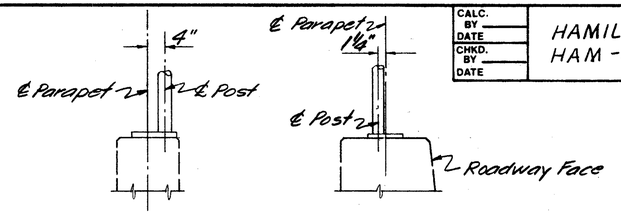
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 1 1992RS1

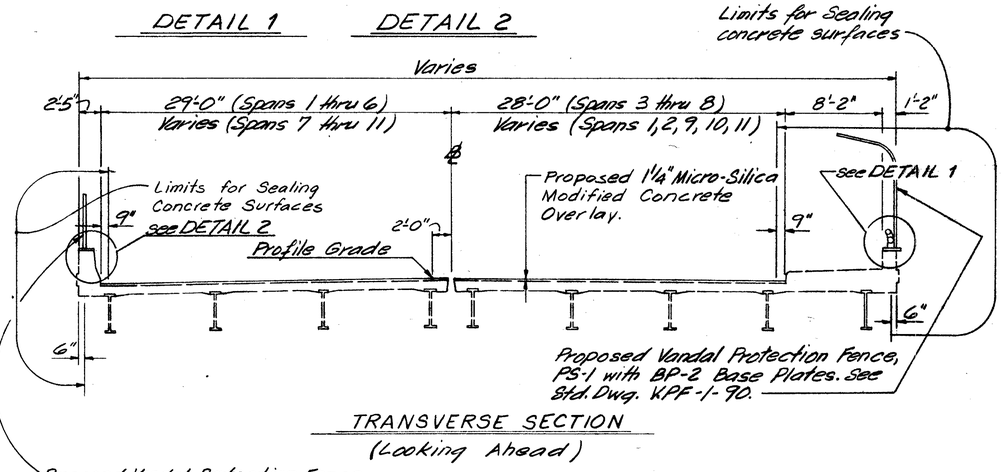
CALC. BY		HAMILTON COUNTY	OHIO	209
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



PLAN



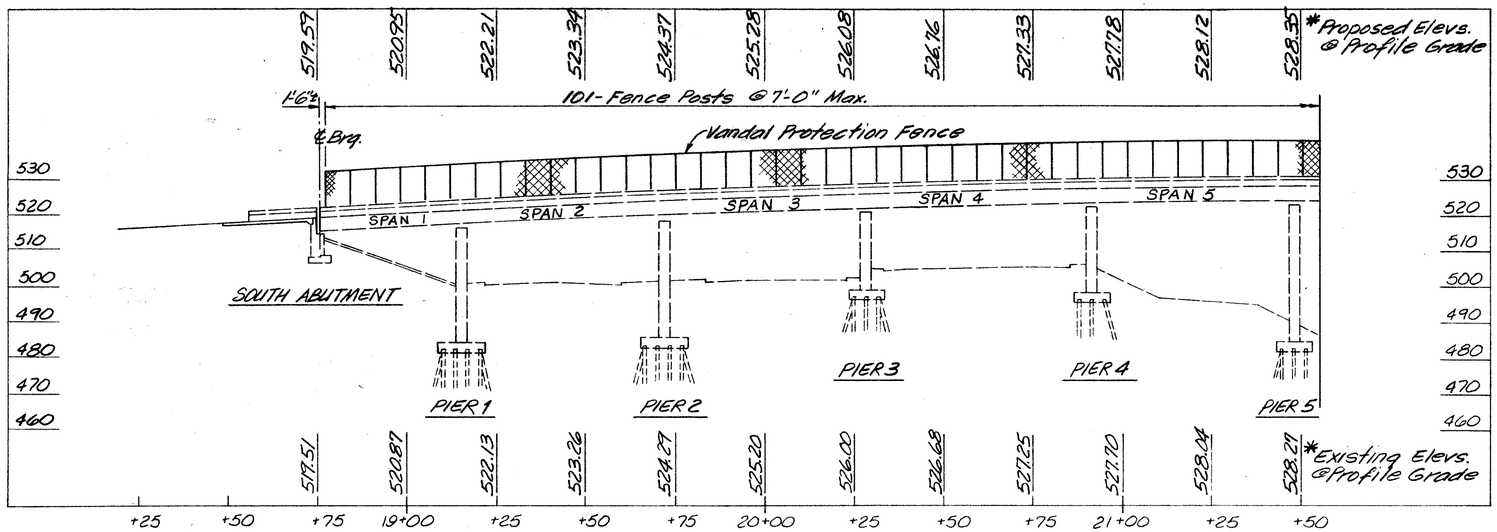
DETAIL 1 DETAIL 2



TRANSVERSE SECTION
(Looking Ahead)

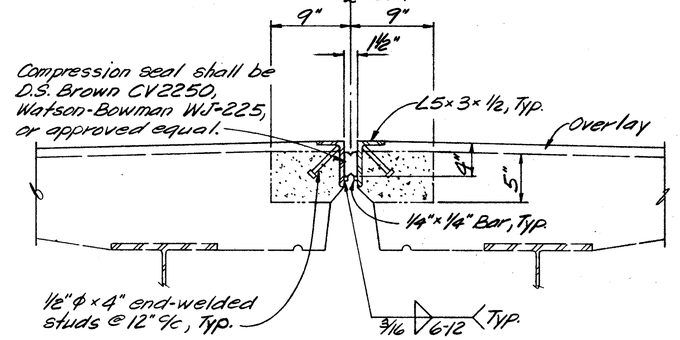
Proposed Vandal Protection Fence, PS-4 with BP-5 Base Plates. see Std. Dwg. VPF-1-90.

Denotes portion of existing structure to be removed.



ELEVATION

* Elevations shown are for information only. The 1¼" micro-silica modified concrete overlay shall be of uniform thickness and final deck elevations will not necessarily conform to profile shown.



Note: Care shall be taken not to damage existing reinforcement.

SECTION C-C
(Typical Replacement)

Notes:
1. For removal see SECTION B-B on Sht. 2117.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

1/17

GENERAL PLAN
BRIDGE NO. HAM-50-2007
SIXTH STREET EXPRESSWAY
UNDER
FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS	

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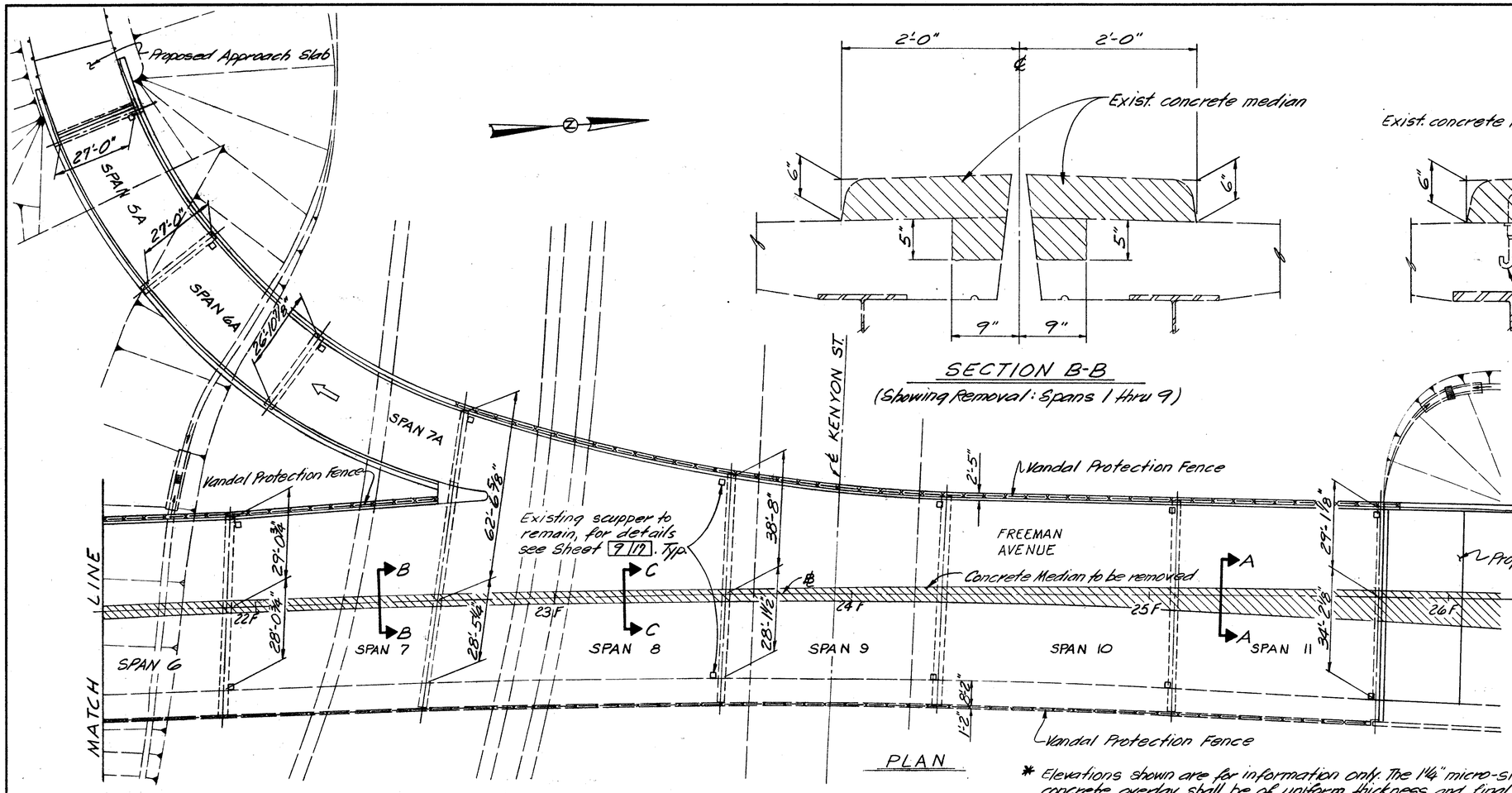
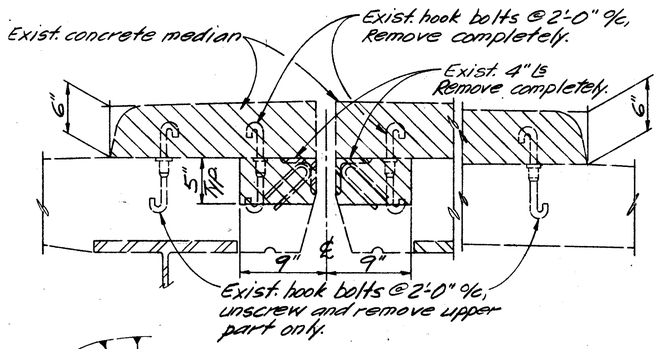
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	210 255
CHKD. BY / DATE			



PLAN

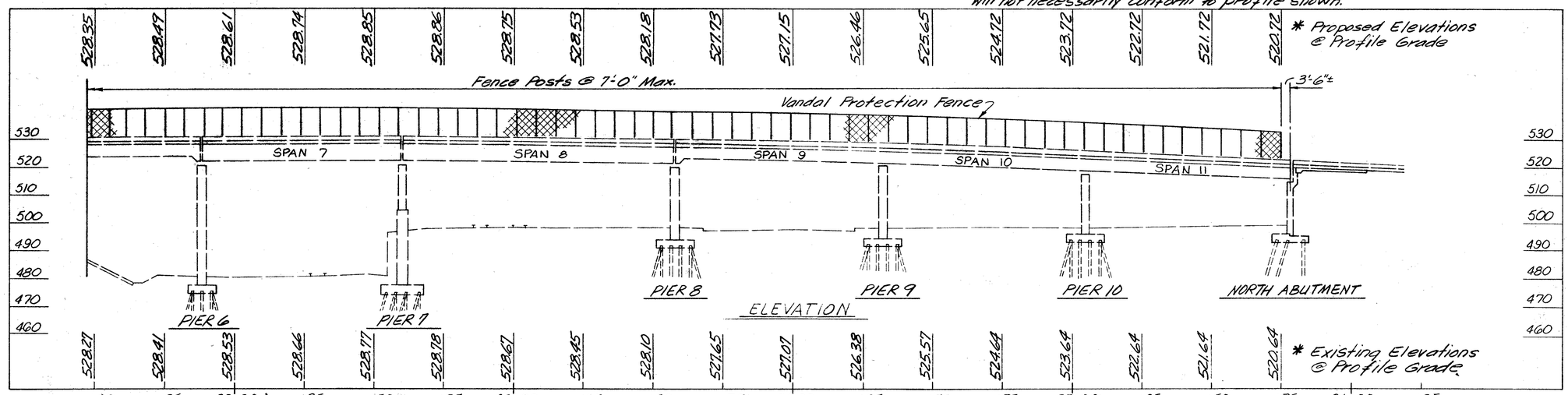
SECTION B-B
(Showing Removal: Spans 1 thru 9)



SECTION A-A
(Showing Removal: Span 10 & 11)

Denotes portion of existing structure to be removed.

* Elevations shown are for information only. The 1¼" micro-silica modified concrete overlay shall be of uniform thickness and final deck elevations will not necessarily conform to profile shown.



ELEVATION

Notes:
1. For replacement detail, see SECTION C-C on Sht. 1 of 17.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

2 / 17

GENERAL PLAN
BRIDGE NO. HAM-50-2007
SIXTH STREET EXPRESSWAY
UNDER
FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS	

OHIO BLUE PRINT 11/1/82

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CHKD. BY DATE			FHWA REGION 5	255

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

Reference shall be made to the Standard Drawings:

AS–1–81	Dated	11–27–81
EXJ–4–87	Dated	1–5–89
VPF–1–90	Dated	9–26–90

Reference shall be made to supplemental specifications:

836	Dated	11–12–85
852	Dated	12–14–88

DESIGN STRESSES

Concrete compressive strength–
Class S – 4500 PSI
Class C – 4000 PSI

Reinforcing steel – ASTM A615, A616, A617
Minimum yield strength
Grade 60 – 60,000 PSI

EXISTING STRUCTURE VERIFICATION

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and/or from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work, but they shall be considered tentative and approximate. It is the intent of these plans that the proposed additions to these structures match existing conditions. The Contractor is referred to CMS sections 102.05 and 105.02.

Contract bid prices shall be based upon a recognition of the uncertainties described in the preceding paragraph and upon a prebid examination of the existing structure by the Contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the Contractor in the field.

SCOPE OF WORK

The scope of work to be performed shall be executed in stages as shown and includes:

1. Seal cracks in piers 3, 9, & 10 by epoxy injection.
2. Refurbish and reset bearings adjacent to expansion joints.
3. Refurbish drains.
4. Remove tee sections from ends of beams at south abutment.
5. Trim beam ends to clear the backwall at north abutment.
6. Crack in end weld of cover plate – Remove the existing weld and reweld.
7. Seal vertical joints.
8. Replace abutment backwalls, as indicated on plans.
9. Patch cap at pier 8 per item 519.
10. Retrofit railings, as indicated on plans.
11. Seal railings, abutments and piers.
12. Install vandal protection fence
13. Overlay deck with $1\frac{1}{4}$" micro–silica modified concrete.
14. Paint all structural steel with system OZEU.
15. Add strip seals.

ESTIMATED QUANTITIES

ITEM	CODE	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	SUPERST.	GENERAL
202	11202	L.S.	Lump sum	Portions of structures removed, over 20 foot span	L.S.		
509	15800	22,295	Lbs.	Epoxy coated reinforcing steel, grade 60	7,288	15,007	100
510	12200	1164	Lin. Ft.	Dowel hole	440	724	
511	34400	104	Cu. Yd.	Class S concrete, superstructure (repair or reconstruction)		104	
511	45700	54	Cu. Yd.	Class C concrete, abutment (repair or reconstruction)	54		
512	44400	2	Sq. Yd.	Type B waterproofing	2		
SPEC	51267500	1,227	Sq. Yd.	Sealing of concrete surfaces *	90	1,137	
SPEC	51267502	314	Sq. Yd.	Sealing of concrete surfaces (epoxy) *	314		
SPEC	51267504	2,492	Sq. Yd.	Sealing of concrete surfaces (non–epoxy) *			2,492
513	16600	L.S.	Lump Sum	Structural steel, misc. : replace weld		L.S.	
513	16800	9	Each	Structural steel, misc: remove tee sections		9	
513	21000	11	Each	Trimming of beam end		11	
SPEC	51400050	105,965	Sq. Ft.	Surface preparation of existing steel, System OZEU*		105,965	
SPEC	51400056	105,965	Sq. Ft.	Field painting of existing steel, prime coat System OZEU*		105,965	
SPEC	51400060	105,965	Sq. Ft.	Field painting of existing steel, intermediate coat System OZEU*		105,965	
SPEC	51400066	105,965	Sq. Ft.	Field painting of existing steel, finish coat System OZEU*		105,965	
516	11210	427	Lin. Ft.	Structural expansion joint including elastomeric strip seal		427	
516	10501	710	Lin. Ft.	Structural steel jt. & elastomeric compression seal as per plan		710	
516	13600	18	Sq. Ft.	1" preformed expansion joint filler	18		
516	45304	108	Each	Refurbish bearing device		108	
516	46700	108	Each	Reset bearing		108	
516	47000	L.S.	Lump Sum	Jacking and temporary support of superstructure		L.S.	
518	21200	42	CU. Yd.	Porous backfill with filter fabric	42		
518	63300	L.S.	Lump Sum	Structure drainage, misc.: refurbish drains		L.S.	
519	11100	9	Sq. Ft.	Patching concrete structure	9		
SPEC	51912600	327	Lin. Ft.	Concrete repair by epoxy injection*			327
SPEC	51922000	5,352	Sq. Yd.	Micro–silica modified concrete overlay ($1\frac{1}{4}$" thick)*		5,352	
SPEC	51922100	32	Cu. Yd.	Micro–silica modified concrete overlay (variable thickness)*		32	
SPEC	51922200	1	Cu. Yd.	Full depth repair (micro–silica)*		1	
SPEC	60739930	703	Lin. Ft.	Vandal protection fence, 12' curved, coated fabric		703	
SPEC	60739900	710	Lin. Ft.	Vandal protection fence, 6' straight, coated fabric		710	
SPEC	51614600	44	Lin. Ft.	Precompressed joint filler	44		

* See proposal note

ITEM 202 – PORTIONS OF STRUCTURES REMOVED

Removal of portions of existing structure shall be performed in such a manner as to prevent debris from falling onto the roadway and railroad below. All debris shall be removed from the site and disposed of by the Contractor.

REPLACEMENT OF EXISTING REINFORCING

Any existing reinforcing bars which are to be incorporated into the new work and which are made unusable by the contractors concrete removal operations shall be replaced with new steel at his cost. Any existing reinforcing bars deemed by the Engineer to be unusable because of corrosion shall be replaced with new steel. An allowance of 100 pounds is included in item 509 for this purpose.

ITEM SPECIAL – MICRO–SILICA MODIFIED CONCRETE OVERLAY

Longitudinal joints in the concrete overlay are permitted but only to the extent necessary to accommodate the width of the finishing machine, to facilitate changes in the roadway crown, and to permit maintenance of vehicular traffic. See proposal note for details.

MAINTENANCE OF TRAFFIC

For maintenance of traffic on Freeman Avenue, see highway drawings.

PLANS FOR EXISTING BRIDGE

Plans of the existing structure are available for reference at the City of Cincinnati Engineer's Office and at the ODOT District Eight office.

ITEM 516 – REFURBISH BEARING DEVICE

This Item shall include all work necessary to clean and paint the rocker bearings at the abutments & piers 6, 7, 8, 5A & 6A. Included shall be:

1. Disassembly of rockers.
2. Hand cleaning (grinding if required.)
3. Sandblasting and painting as required by field painting of existing steel, System OZEU, proposal note.
4. Replacement of any damaged sheet lead (711.19). Preformed bearing pads 1/8" thick, meeting the requirements of 711.21 may be substituted for the sheet lead.
5. Installation of any necessary 1/8" thick steel shims of the same size as the bearings to provide a snug fit. Shims are required at the south abutment bearings.
6. Reassembly of the rockers.

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. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 – REFURBISH BEARING DEVICE.

ITEM 516 – JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE

The ends of the beams or girders at each location where bearings are to be refurbished shall be jacked and the beams supported so the bearings may be removed. Before jacking operations begin, the Contractor shall submit his jacking plan to the Engineer for approval.

ITEM 510

Dowel holes shall be drilled and grouted per Supplemental Specifications 852 and CMS 705.20.

PAINTING OF EXISTING STEEL

See proposal note for requirements of System OZEU. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of paint to be used.

ITEM 516 – RESET BEARINGS

Bearings which have been refurbished shall be reset to be vertical at 60° F. Masonry plates shall adjusted to be centered under bearing.

ITEM 513 – TRIMMING OF BEAM ENDS

The ends of the beams at the north abutment shall be trimmed by removing 1". Care shall be taken not to damage the cross–frame while trimming the end of the beam.

ITEM SPECIAL – CONCRETE REPAIR BY EPOXY INJECTION

The horizontal cracks in the south face of columns on pier 3, north face of columns on pier 9 & 10 shall be sealed by epoxy injection.

SEALING OF CONCRETE SURFACES

Portions of the structure shall be sealed as noted below. See the proposal note for application rates and materials. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of sealer to be used.

1. Parapets shall be sealed as shown on sheet 2/17 with an epoxy or non–epoxy sealer. Walk surface shall be sealed with a non–epoxy sealer.
2. Abutment backwalls, beam seats, and the face of the breastwall and wingwalls down to the groundline shall be sealed with an epoxy sealer.
3. The total surface of all piers shall be sealed with a non–epoxy sealer.

ITEM 513 STRUCTURAL STEEL, MISC. REPLACE WELD

The south end weld on the bottom coverplate of the east fascia beam at pier 1 shall be removed and re–welded with a 5/16" fillet weld. Care shall be taken to not damage the flange of the beam. Payment for this Item shall include all labor, material & equipment necessary to perform the work.

ITEM 513 STRUCTURAL STEEL, MISC. REMOVE TEE SECTIONS

The beams at the south abutment have tee sections welded to the end of the beams. After the backwall has been removed, the tee sections shall be removed from all beams (9 total). Payment for this item shall include all labor, material & equipment necessary to perform the work.

REFURBISH DRAINS

This item shall include the cleaning and flushing out of the scupper inlet and downspout. The downspout shall be throughly cleaned so that water flows freely. All exposed pipes and supports shall be cleaned and painted as required by field painting of existing steel, system OZEU proposal note. Payment for all the above described labor and materials will be made at the contract price bid for Item 518 – structural drainage, misc: Refurbish drains.

ASBESTOS CEMENT CONDUIT

For notes concerning this, see Bridge No. HAM–50–2043, sheet 2/16.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

3/17

GENERAL NOTES & QUANTITIES
BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

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CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	212 255
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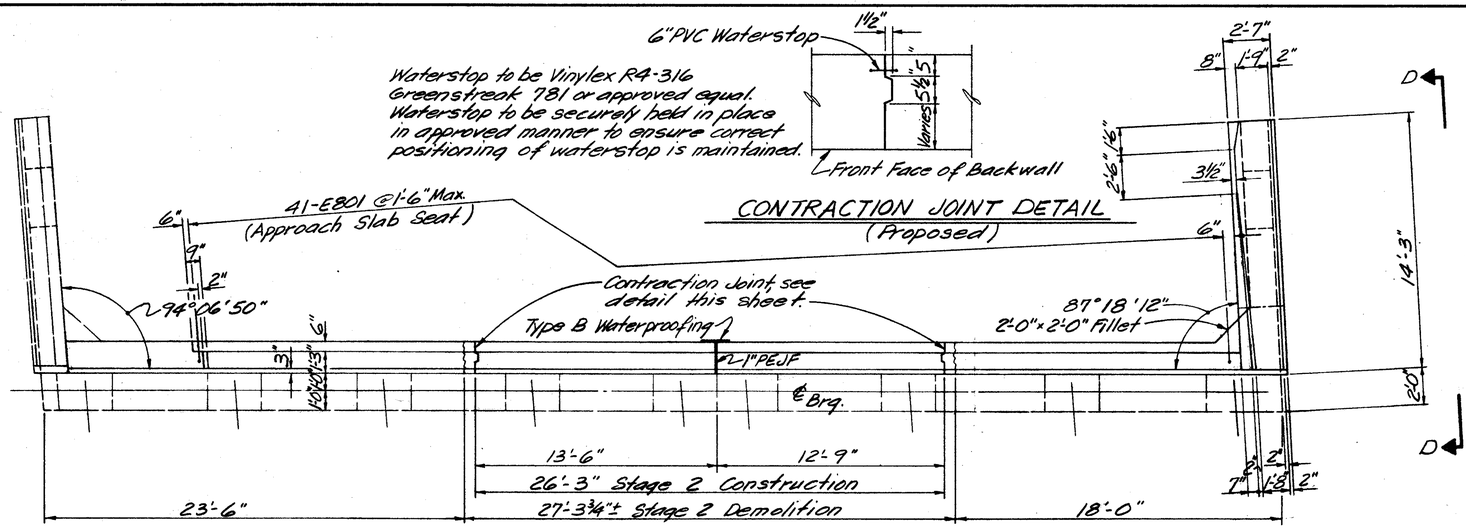
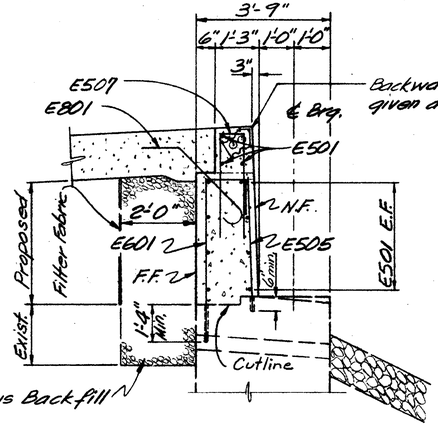
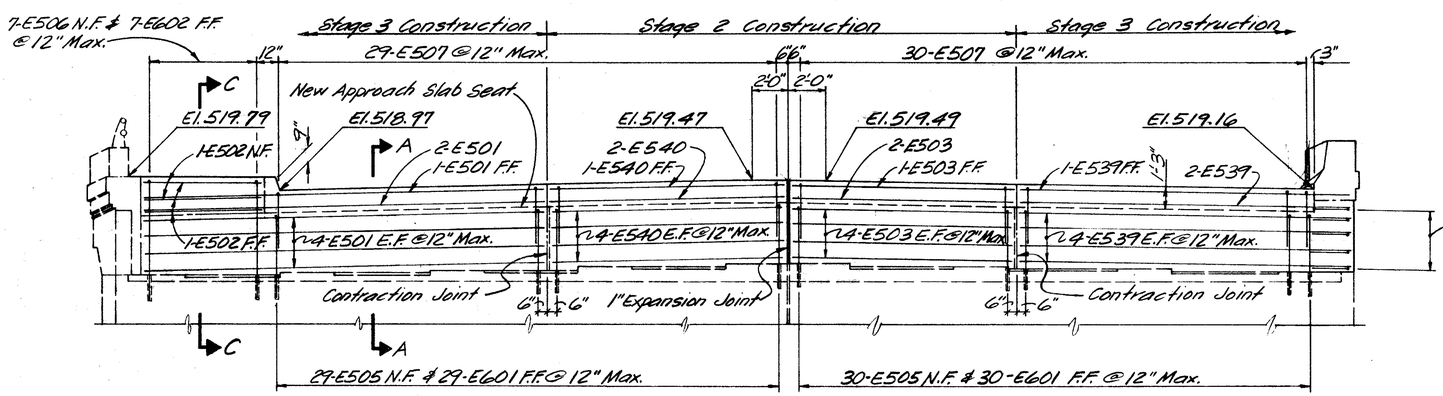


PLAN



SECTION A-A

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Elevation D-D, see Sht. 5 17.
3. PEJF = Preformed Expansion Joint Filler.



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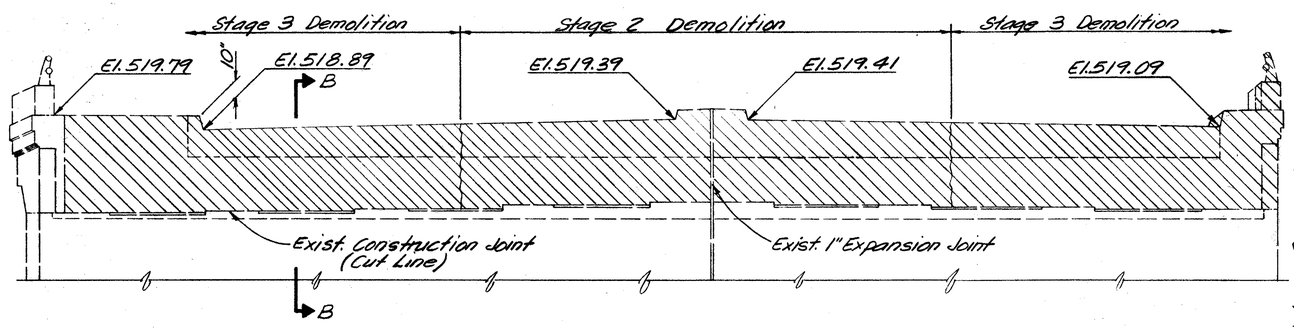
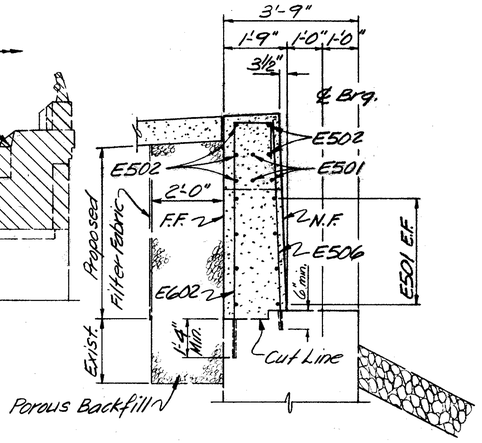
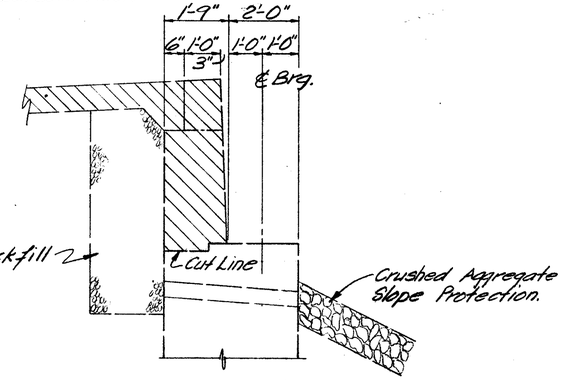


ELEVATION
(Showing Removal)

Denotes portion of existing structure to be removed.



SECTION C-C



SECTION B-B
(Showing Removal)

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	4/17

SOUTH ABUTMENT
BRIDGE NO. HAM-50-2007
SIXTH STREET EXPRESSWAY
UNDER
FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS	

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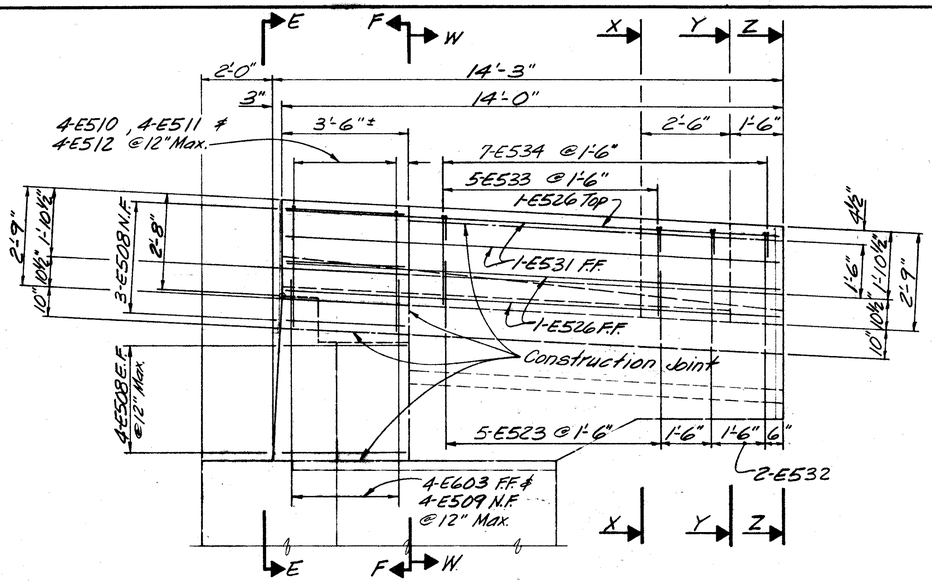
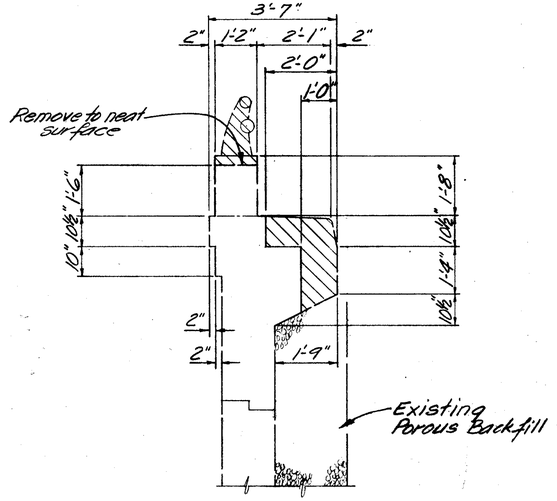


ELEVATION D-D



SECTION F-F
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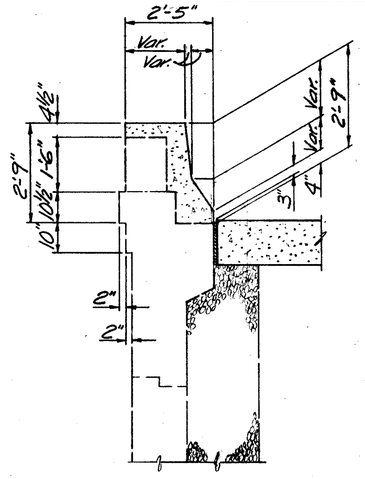
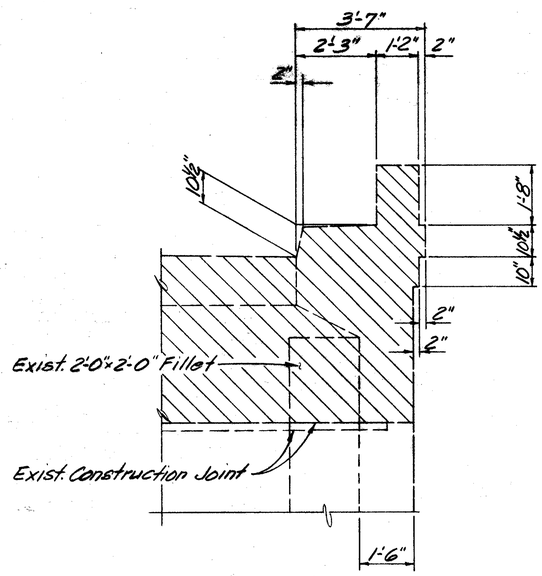


SECTION F-F
(For Information Only)



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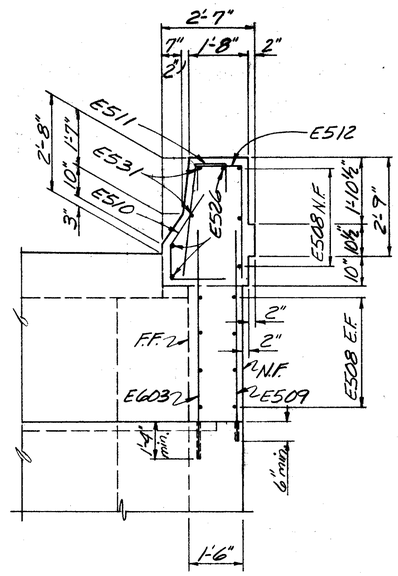

SECTION E-E

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Section W-W, X-X, Y-Y & Z-Z, see Sht. 9/17.

Denotes of portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

5/17

SOUTH ABUTMENT
BRIDGE NO. HAM-50-2007
SIXTH STREET EXPRESSWAY
UNDER
FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS	

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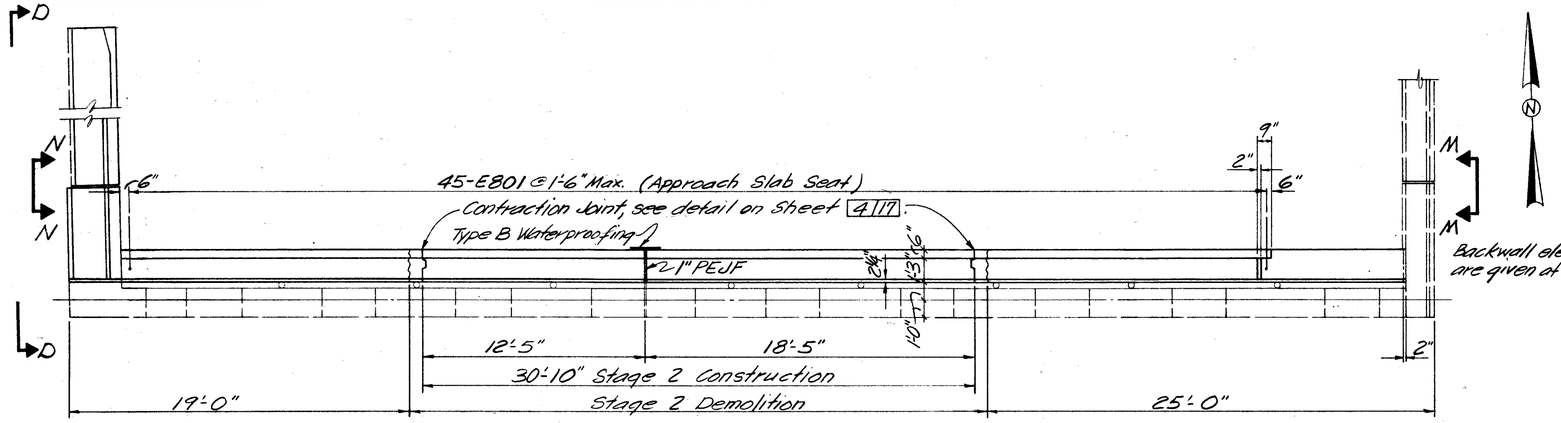
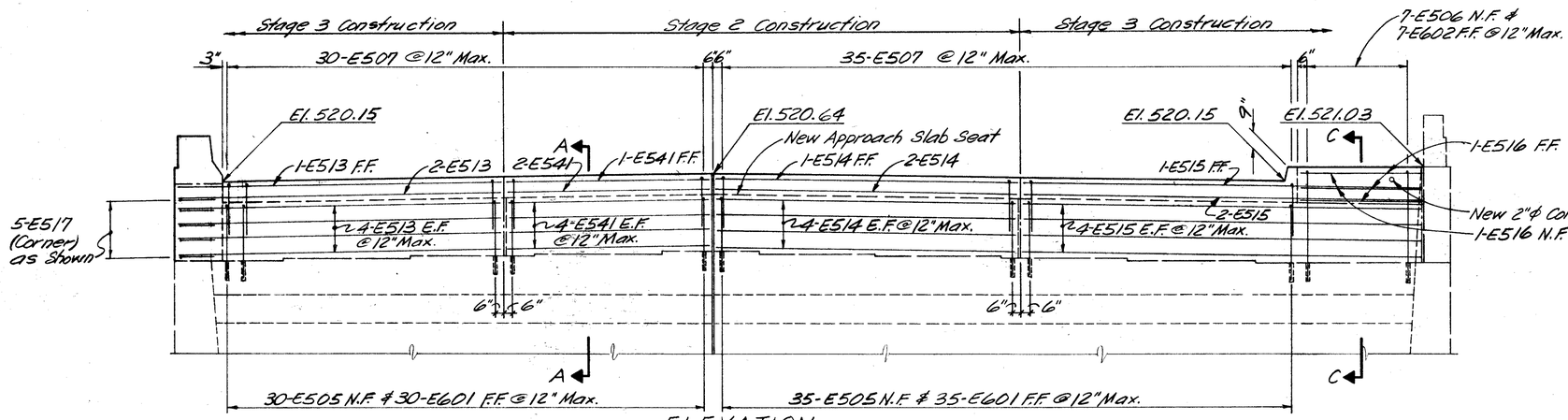


PLAN



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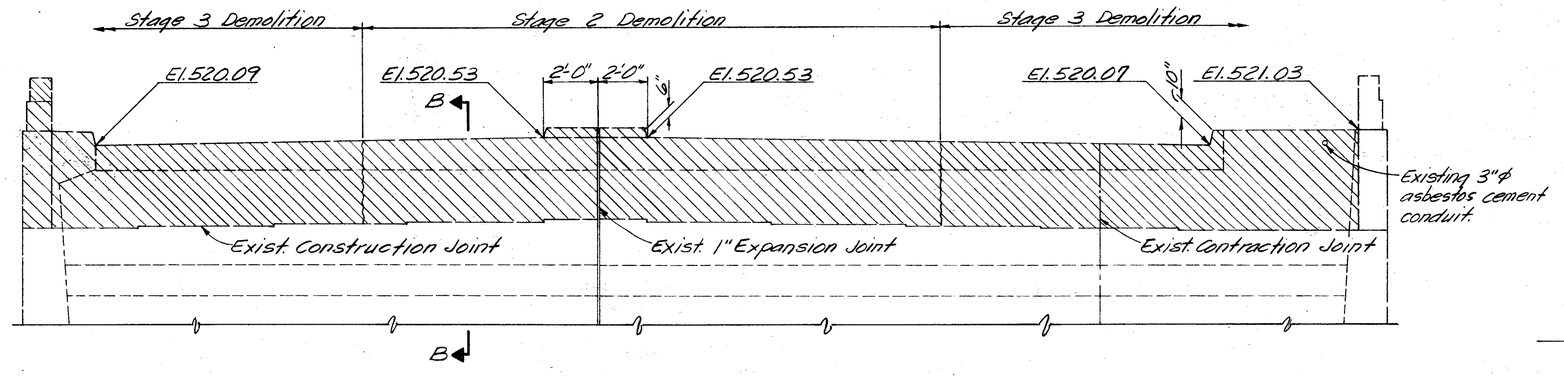

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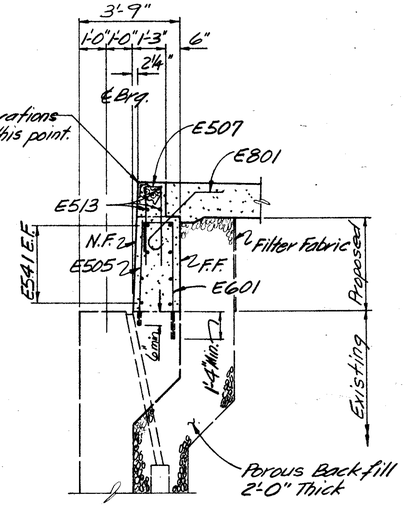
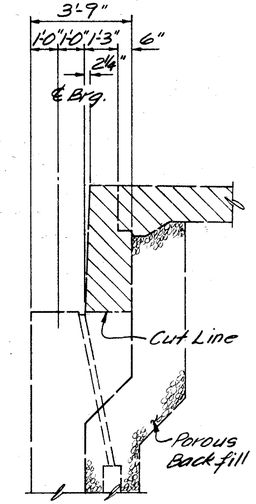


SECTION A-A



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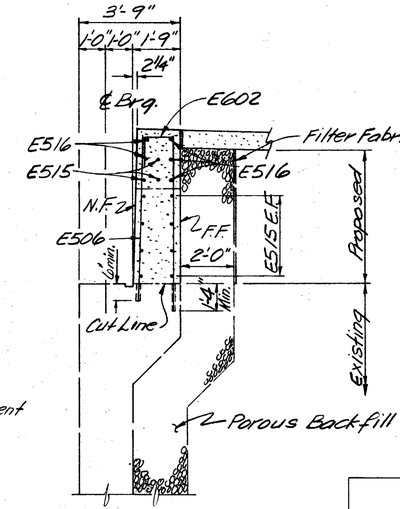

SECTION C-C

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Elevation D-D, see Sht. 7 17.
3. For Views M-M & N-N see Sheet 7 17.
4. PEJF = Preformed Expansion Joint Filler.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	6 17

NORTH ABUTMENT
BRIDGE NO. HAM-50-2007
SIXTH STREET EXPRESSWAY
UNDER
FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS	

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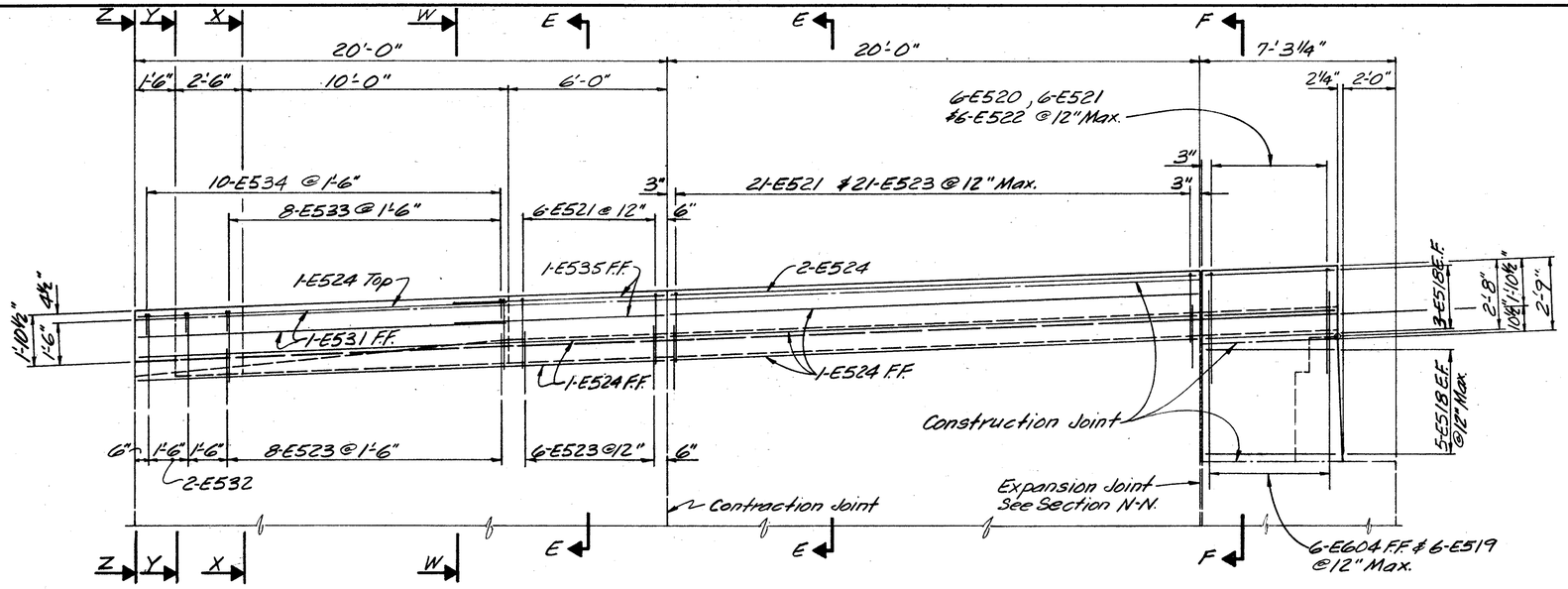
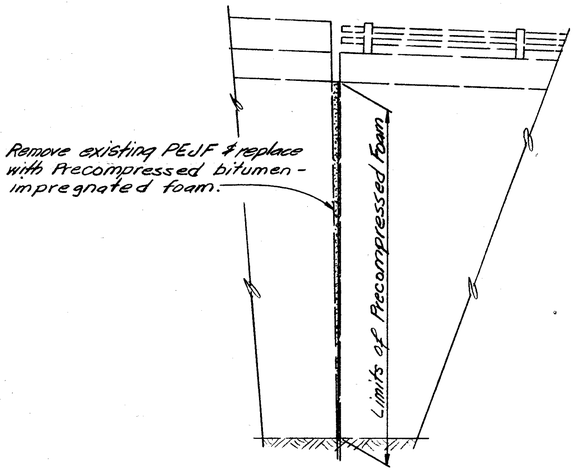
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	215 / 255
CHKD. BY / DATE			



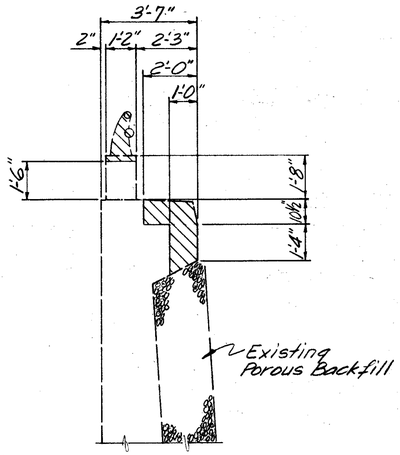
ELEVATION D-D



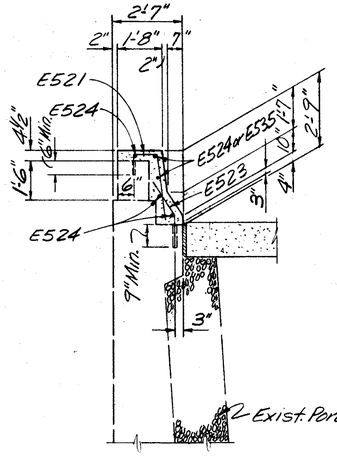
VIEW M-M
VIEW N-N Similar

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Section W-W, X-X, Y-Y & Z-Z see Sht. 9/17.
3. PEJF = Preformed Expansion Joint Filler.

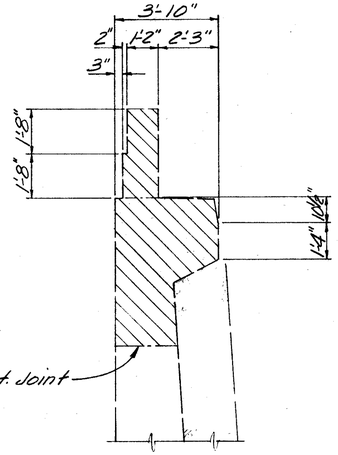
Denotes portion of existing structure to be removed.



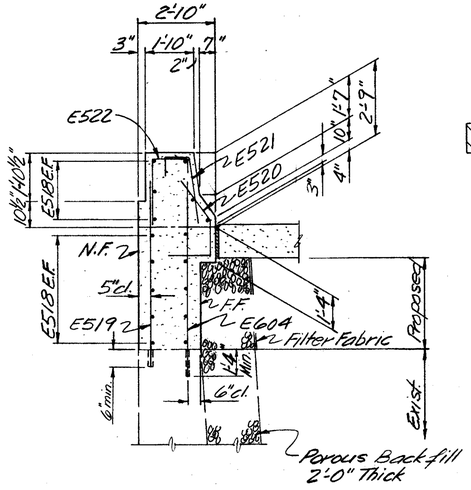
SECTION E-E
(Showing Removal)



SECTION E-E



SECTION F-F
(Showing Removal)



SECTION F-F

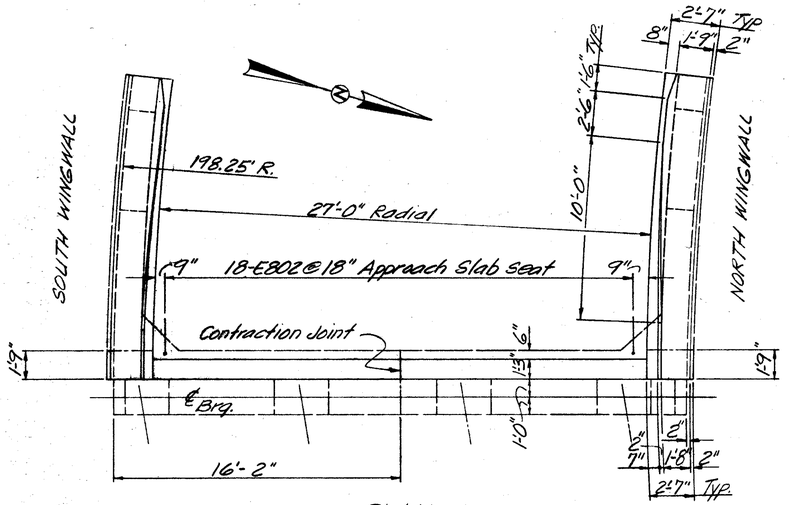
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	7/17

NORTH ABUTMENT
BRIDGE NO. HAM-50-2007
SIXTH STREET EXPRESSWAY
UNDER
FREEMAN AVENUE

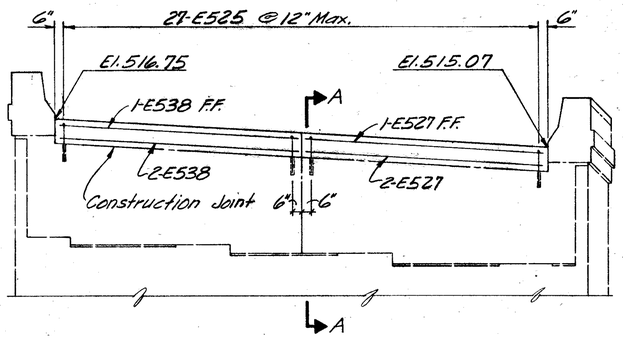
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJA	~	DWI	CRS	

OHIO BLUE PRINT 7-57963

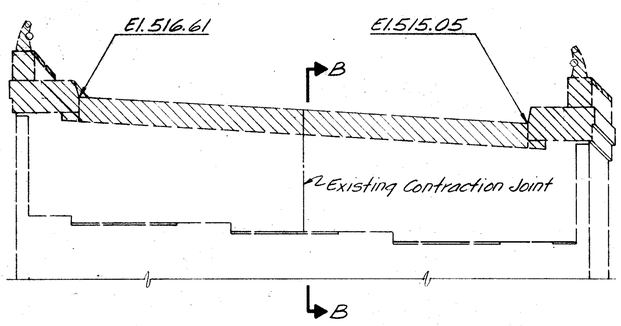
CALC. BY		HAMILTON COUNTY	OHIO	216
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



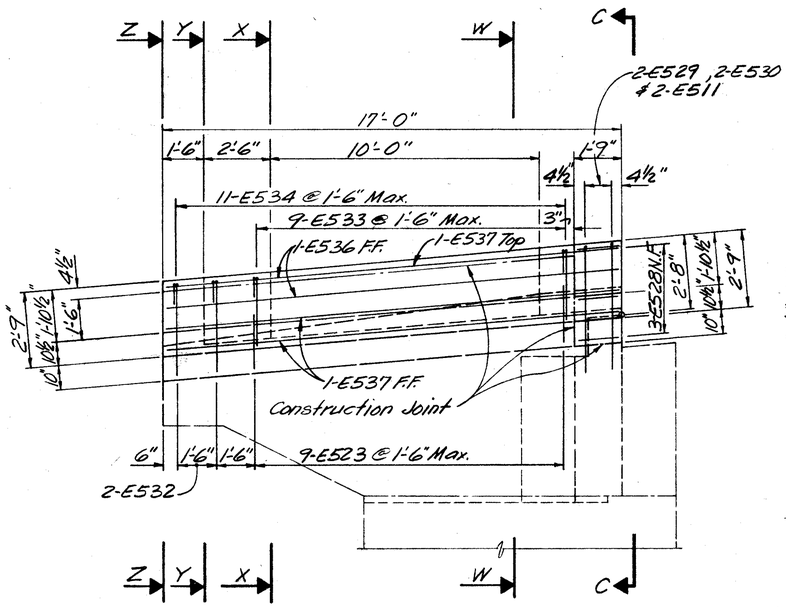
PLAN



ELEVATION

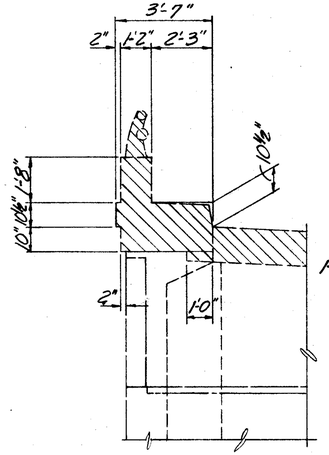


ELEVATION



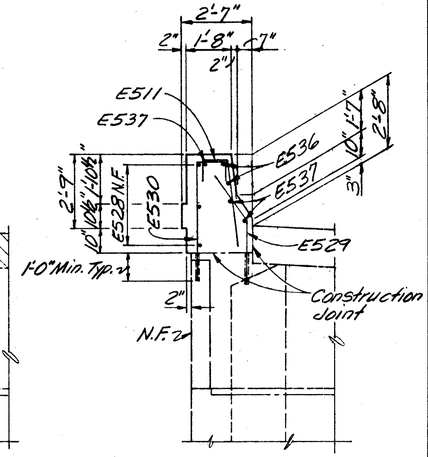
ELEVATION: SOUTH WINGWALL

North Wingwall is similar

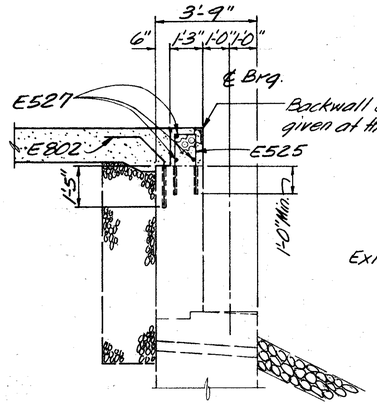


SECTION C-C

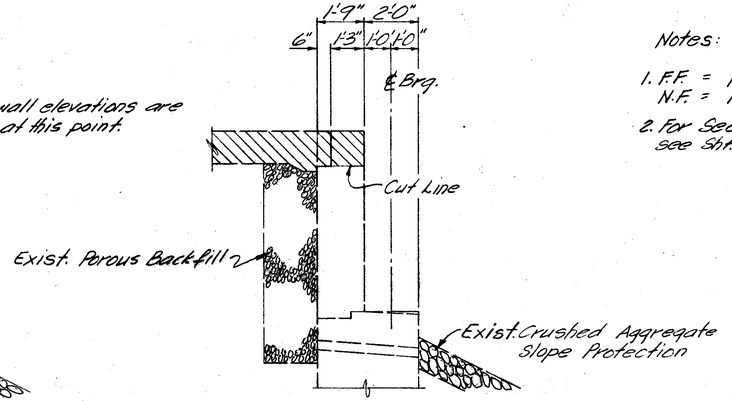
(Showing Removal)



SECTION C-C



SECTION A-A



SECTION B-B

(Showing Removal)

Notes:

1. F.F. = Far Face
   N.F. = Near Face
2. For Section W-W, X-X, Y-Y & Z-Z, see Sht. 9/17.

Denotes portion of existing structure to be removed

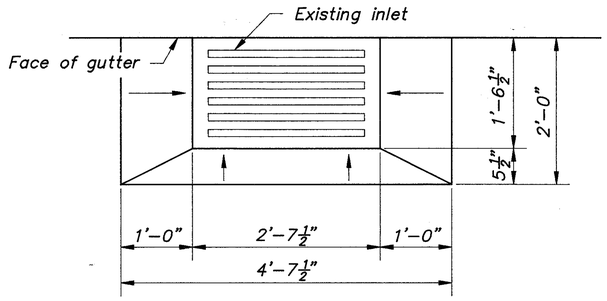
BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

8/17

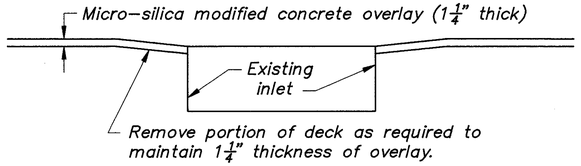
WEST ABUTMENT
BRIDGE NO. HAM-50-2007
SIXTH STREET EXPRESSWAY
UNDER
FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS	

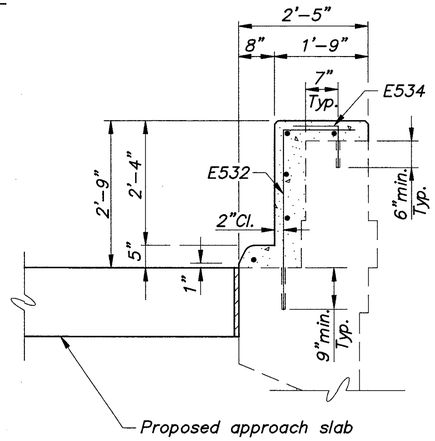
OHIO BLUE PRINT 10-29-93



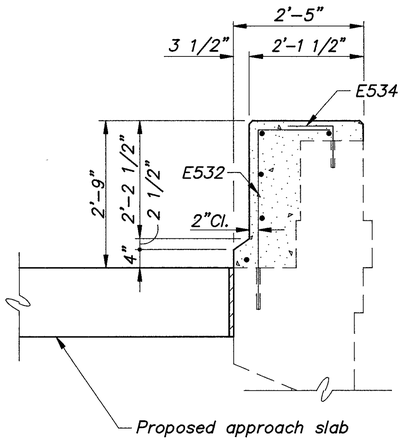
PLAN AT INLET
(EAST CURB LINE)



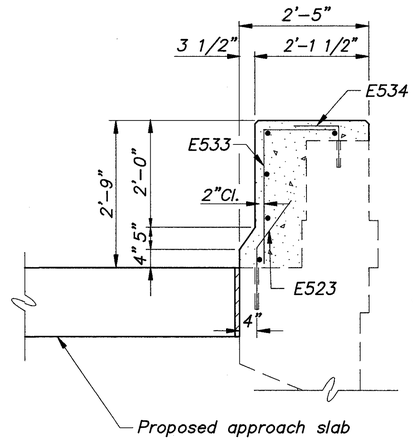
SECTION THRU INLET
(EAST CURB LINE)



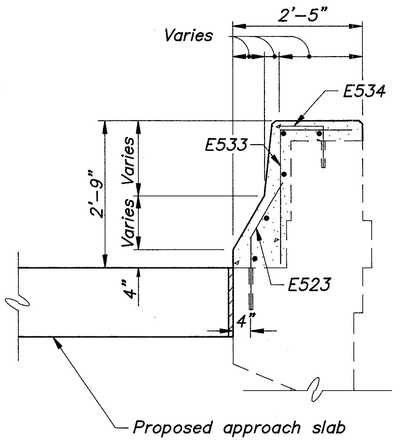
SECTION Z–Z



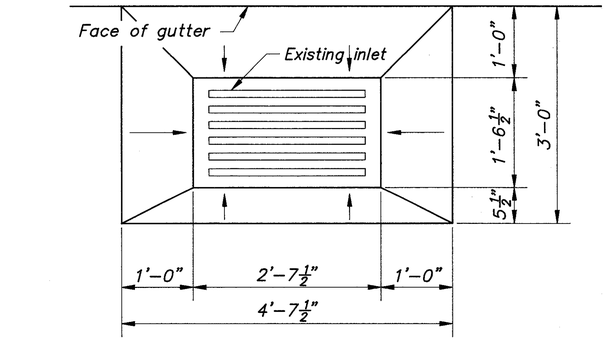
SECTION Y–Y



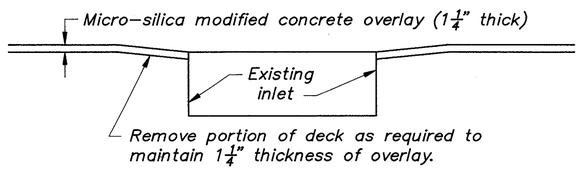
SECTION X–X



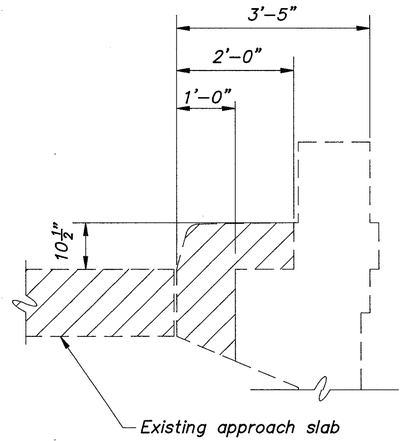
SECTION W–W



PLAN AT INLET
(WEST CURB LINE)



SECTION THRU INLET
(WEST CURB LINE)



SECTION THRU WING TYPICAL
(Showing Removal)

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237
9/17

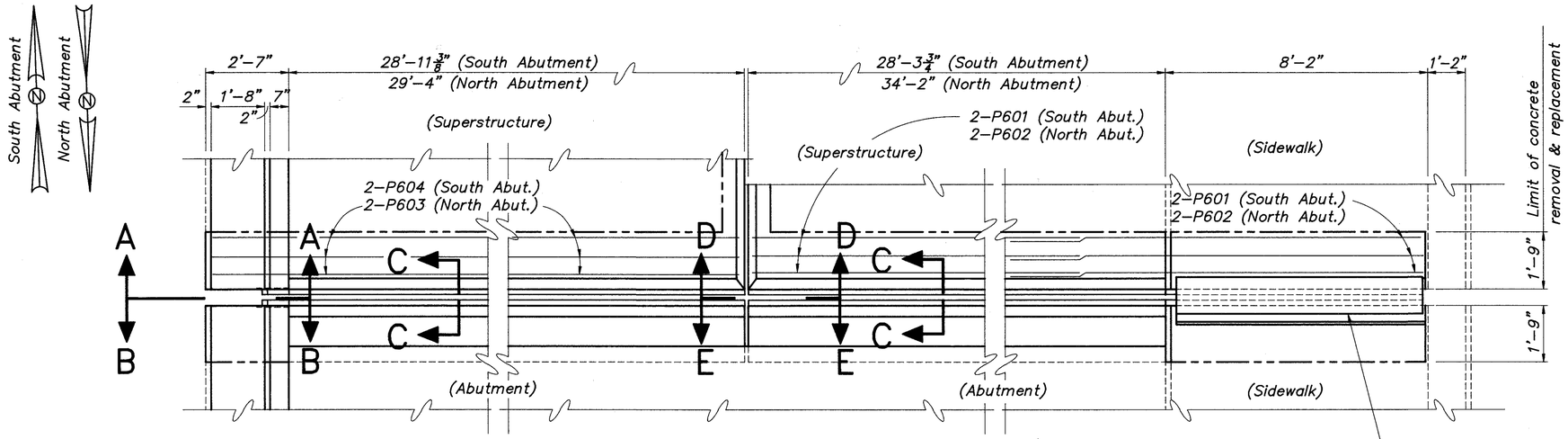
MISCELLANEOUS DETAILS
BRIDGE NO. HAM–50–2007
FREEMAN AVENUE OVER
SIXTH. STREET EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 3 8908\2007MC1

CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

218/255



NOTE: Lap P601, P602, P603 & P604 bars 2'-4" minimum.

For sections and elevations of sidewalk, see Std. Dwg. EXJ-4-87.

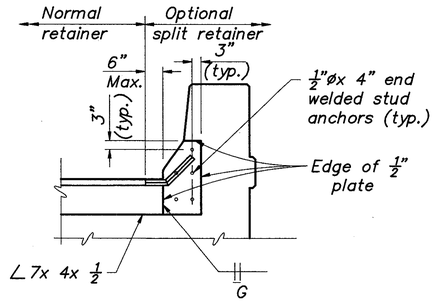
PARTIAL PLAN @ ABUTMENTS

(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)

*

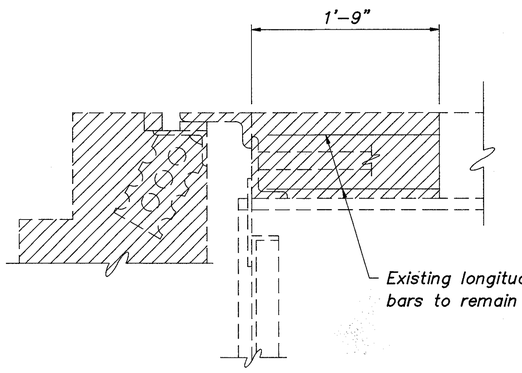
°F	OPENING WIDTH NORTH ABUT. DIM A	OPENING WIDTH SOUTH ABUT. DIM A
90	1 5/8"	1 1/4"
80	1 5/8"	1 3/8"
70	1 3/4"	1 1/2"
60	1 3/4"	1 5/8"
50	1 3/4"	1 3/4"
40	1 7/8"	1 7/8"
30	1 7/8"	2"

Strip seal gland shall be as follows: D.S. Brown 3001, Watson-Bowman & Acme SE300, or equal. Gland seal shall be continuous with no joints or splices except at the longitudinal deck joint.

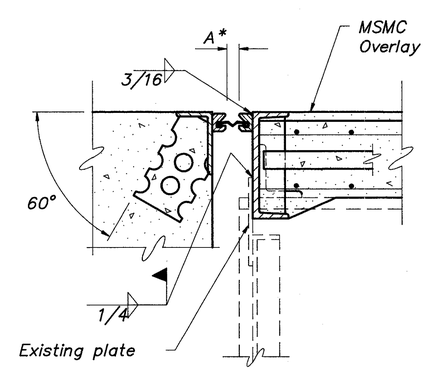


SECTION E-E

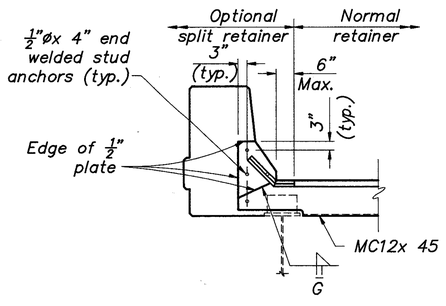
SECTION B-B



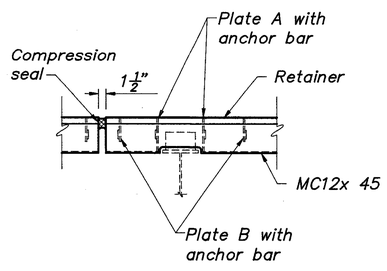
SECTION C-C
(SHOWING REMOVAL)



SECTION C-C
(PROPOSED)



SECTION A-A



SECTION D-D

Denotes portion of structure to be removed.

NOTE:
For additional details on expansion joint, see Std. Drawing EXJ -4-87.

BALKE ENGINEERS 1848 SUMMIT ROAD CINCINNATI, OHIO 45237	10/17

EXPANSION JOINT DETAILS

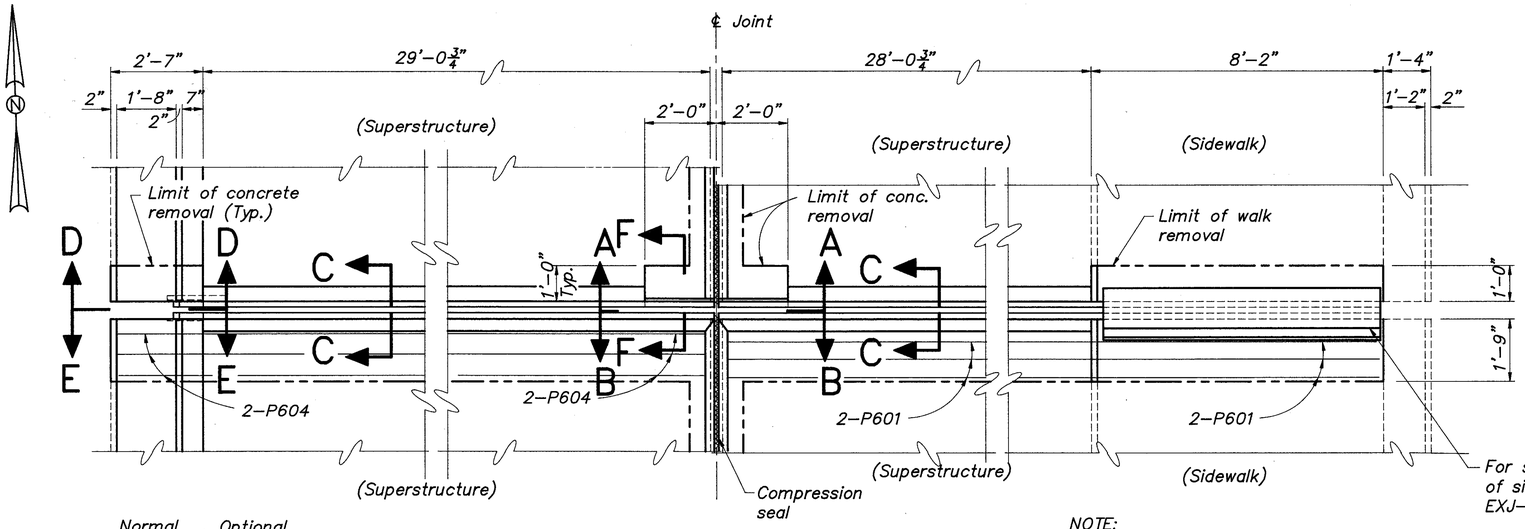
BRIDGE NO. HAM-50-2007

SIXTH STREET EXPRESSWAY UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

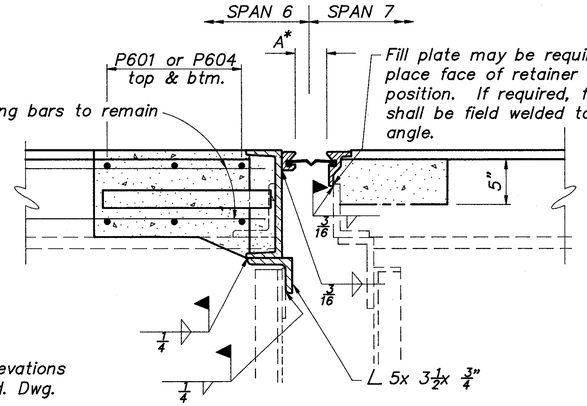
DISK 3 2007EJ1

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO	219
CHKD. BY DATE		FHWA REGION 5	255

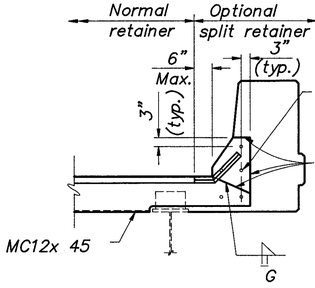


NOTE:
Lap P601 & P605 bars 2'–4" minimum.

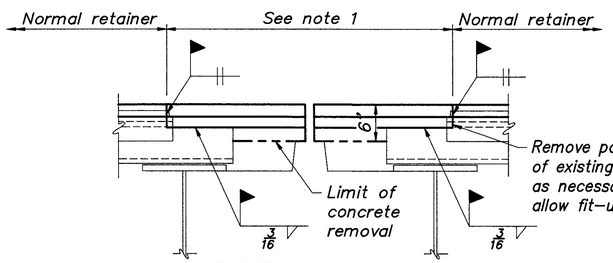
PARTIAL PLAN (PIER 6)



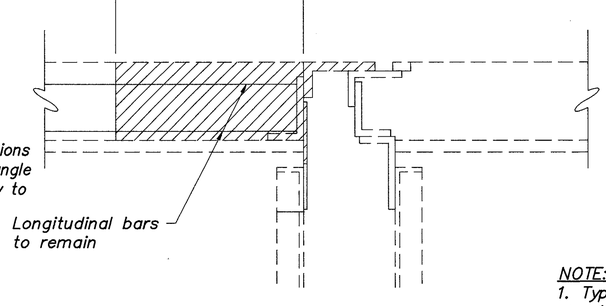
SECTION F–F
(PROPOSED)



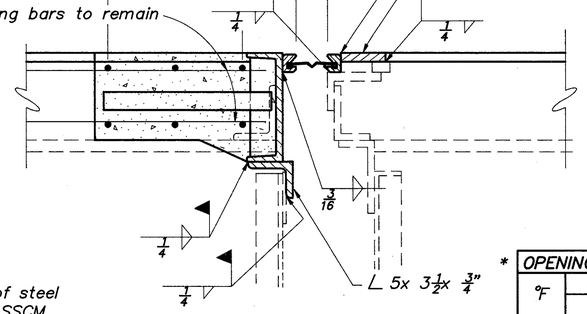
SECTION E–E



SECTION A–A



SECTION C–C
(SHOWING REMOVAL)

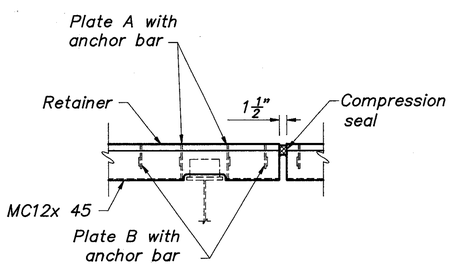


NOTE:
1. Typical limit of steel retainer type SSCM from D.S. Brown, Type M from Watson–Bowman & Acme, or approved equal.
2. For additional details on expansion joint, see Std. Drawing EXJ –4–87.

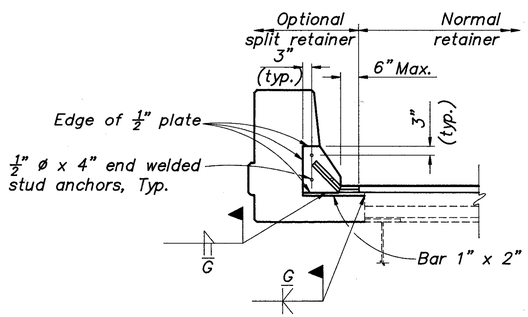
*

°F	OPENING WIDTH PIER 6 DIM A
90	3 3/8"
80	3 1/2"
70	3 5/8"
60	3 3/4"
50	3 7/8"
40	4"
30	4 1/8"

SECTION C–C
(PROPOSED)



SECTION B–B



SECTION D–D

Denotes portion of structure to be removed.

LOCATION	STRIP SEAL GLAND MANUFACTURER		
	D.S. Brown Co.	Watson–Bowman & Acme Corp.	Structural Acc. Inc.
Pier 6	500L	SE–500	50SEQ

Gland shall be continuous with no splices or joints except at the longitudinal deck joint.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

11/17

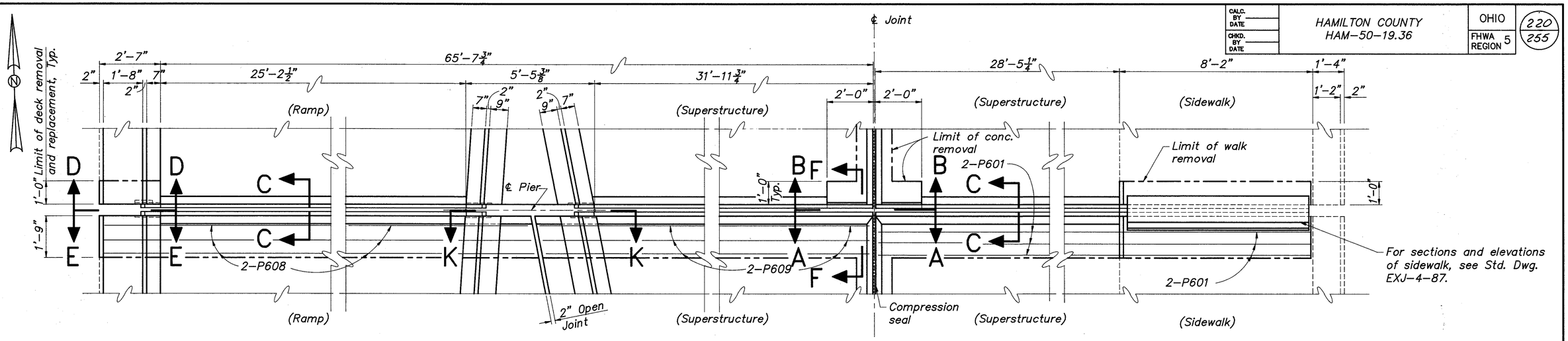
EXPANSION JOINT DETAILS
BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 3 2007EJ2

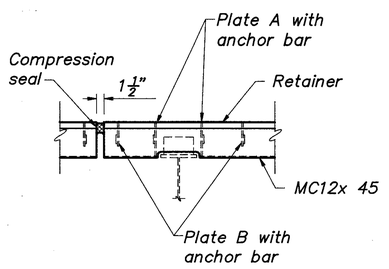
CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE			FHWA REGION 5

220/255

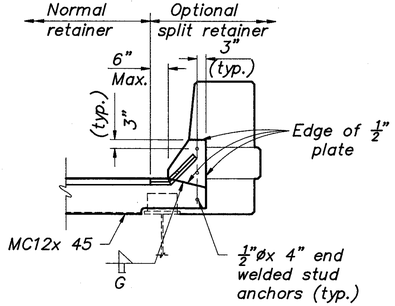


NOTE:
Lap P608, P609 & P610 bars 2'–4" minimum.

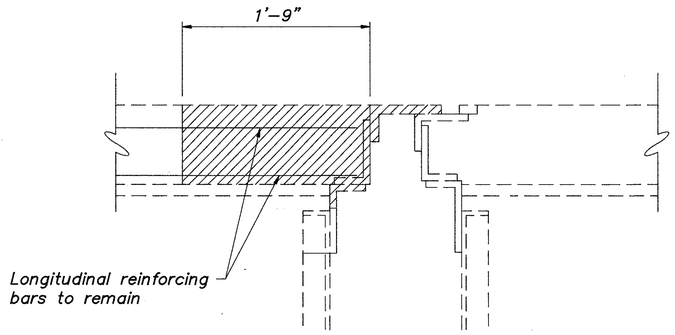
PARTIAL PLAN (PIER 7)



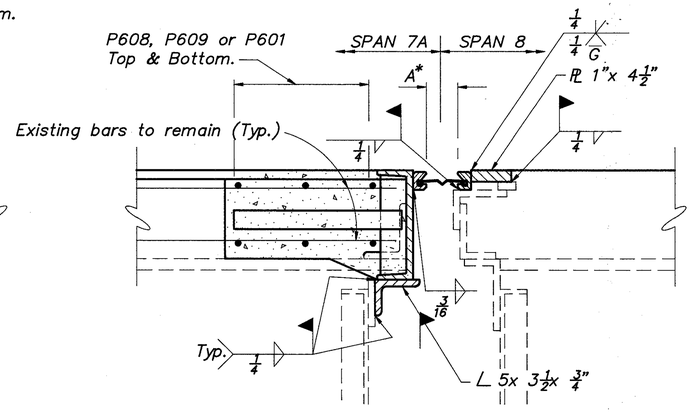
SECTION A–A



SECTION E–E

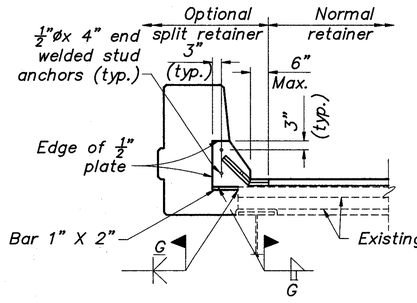


SECTION C–C
(SHOWING REMOVAL)

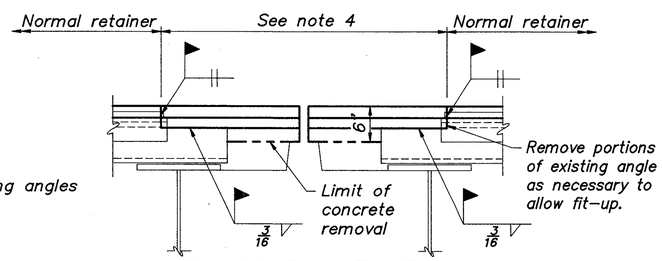


SECTION C–C
(PROPOSED)

Denotes portion of structure to be removed.



SECTION D–D



SECTION B–B

* OPENING WIDTH	
°F	PIER 7
	DIM A
90	3⅜"
80	3½"
70	3⅝"
60	3¾"
50	3⅞"
40	4"
30	4⅛"

	STRIP SEAL GLAND		
	MANUFACTURER		
LOCATION	D.S. Brown Co.	Watson–Bowman & Acme Corp.	Structural Acc. Inc.
Pier 7	500L	SE–500	50SEQ

Gland shall be continuous with no splices or joints except at the longitudinal deck joint.

NOTE:
1. For additional details on expansion joint, see Std. Drawing EXJ–4–87.
2. All longitudinal reinforcing deck steel is to remain.
3. For section K–K, see sheet 14/17 .
4. Typical limit of steel retainer Type SSCM from D.S. Brown, Type M from Watson–Bowman & Acme, or approved equal.
5. For section F–F, see sheet 11/17 .

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

12/17

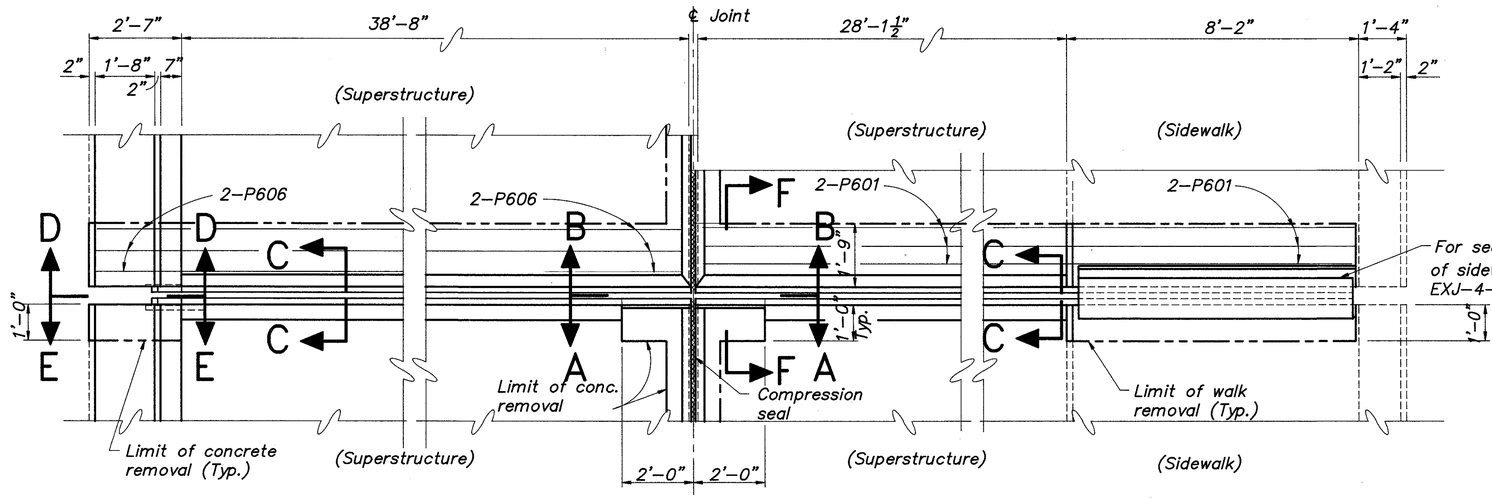
EXPANSION JOINT DETAILS

BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 3 2007EJ3

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

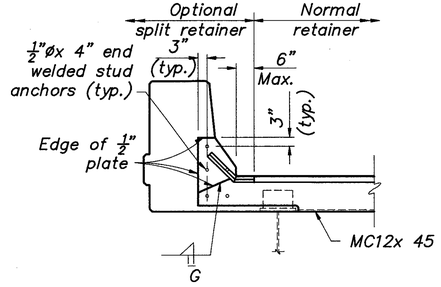


PARTIAL PLAN (PIER 8)

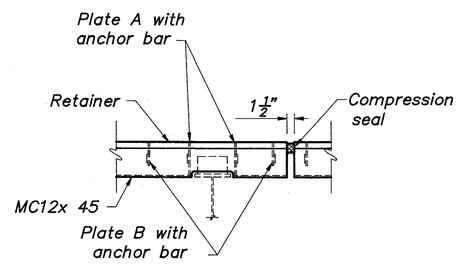
NOTE:
Lap P601 & P606 bars 2'–4" minimum.

*

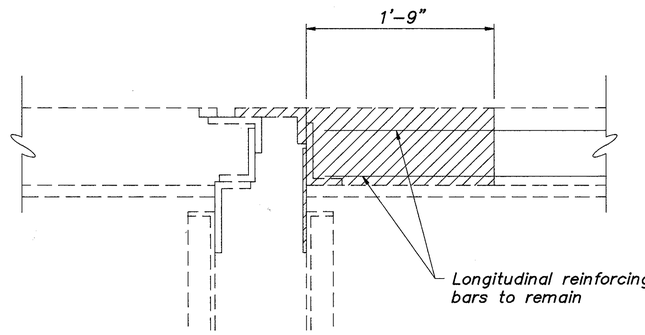
°F	OPENING WIDTH PIER 8 DIM A
90	3½"
80	3⅝"
70	3¾"
60	3⅞"
50	4"
40	4⅛"
30	4¼"



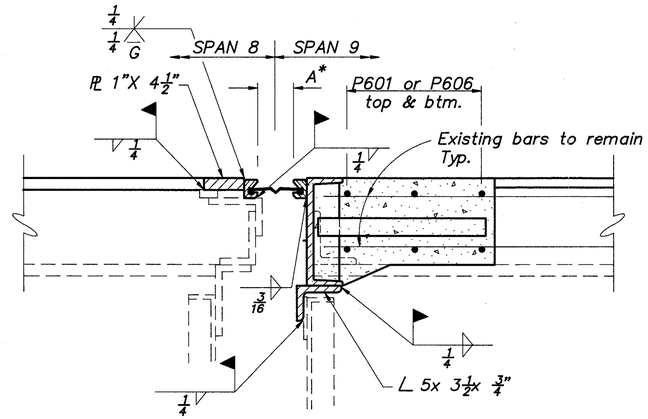
SECTION D–D



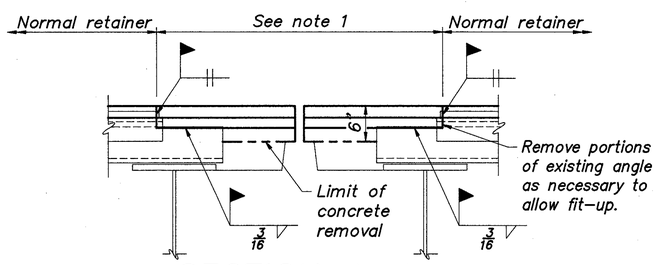
SECTION B–B



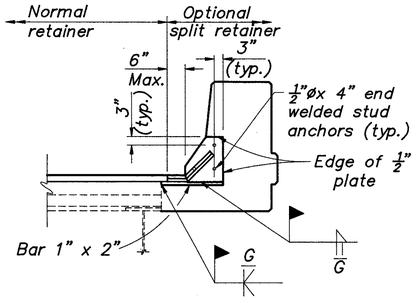
SECTION C–C
(SHOWING REMOVAL)



SECTION C–C
(PROPOSED)



SECTION A–A



SECTION E–E

NOTE:
1. Typical limit of steel retainer type SSCM from D.S. Brown, Type M from Watson–Bowman & Acme, or approved equal.
2. For additional details on expansion joint, see Std. Drawing EXJ –4–87.
3. For section F–F, see sheet 11/17 .

Denotes portion of structure to be removed.

LOCATION	STRIP SEAL GLAND MANUFACTURER		
	D.S. Brown Co.	Watson–Bowman & Acme Corp.	Structural Acc. Inc.
Pier 8	500L	SE–500	50SEQ

Gland shall be continuous with no splices or joints except at the longitudinal deck joint.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

13/17

EXPANSION JOINT DETAILS
BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

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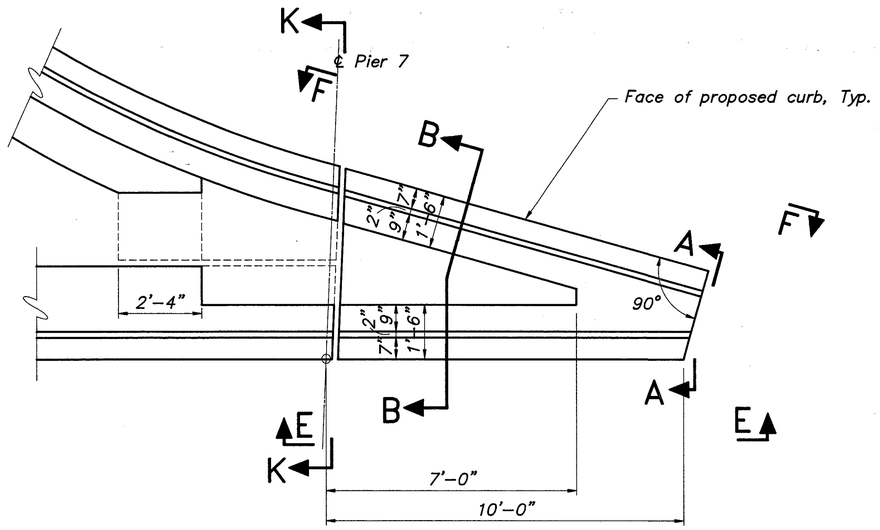
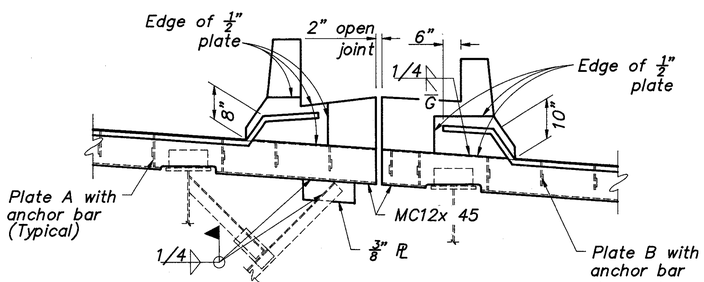
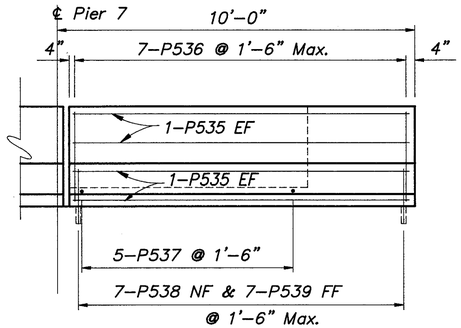


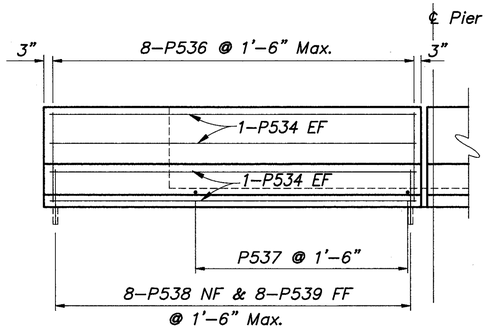
DETAIL R



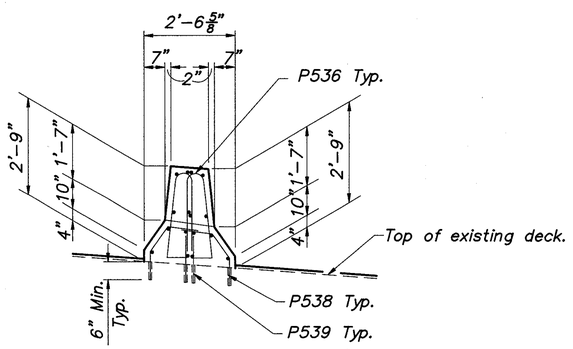
VIEW K–K



VIEW E–E

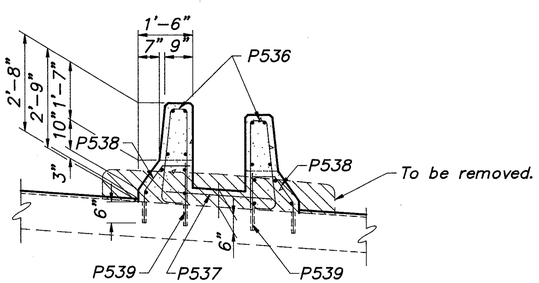


VIEW F–F



All horizontal bars are P534 or P535.

VIEW A–A



All horizontal bars are P534 or P535.

SECTION B–B

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

14/17

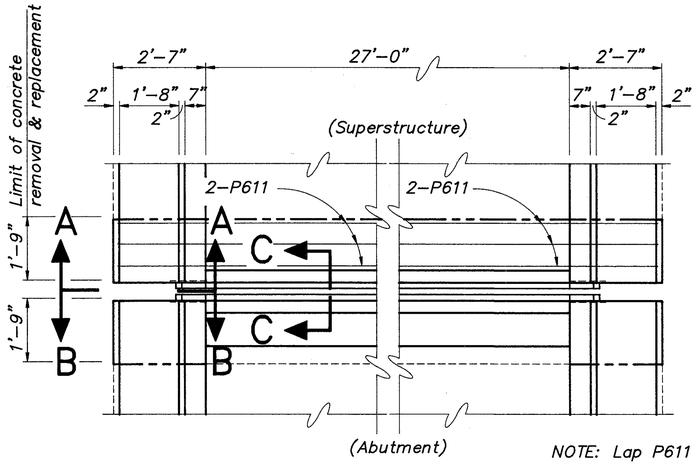
EXPANSION JOINT DETAILS
BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 3 2007EJ5

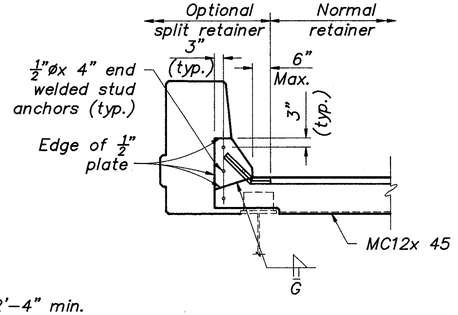
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

223/255

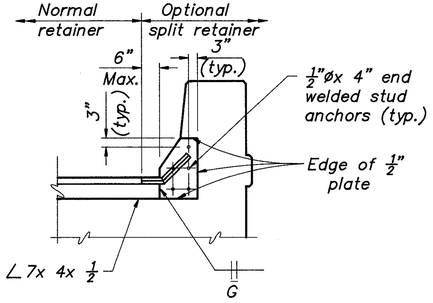


NOTE: Lap P611 bars 2'–4" min.

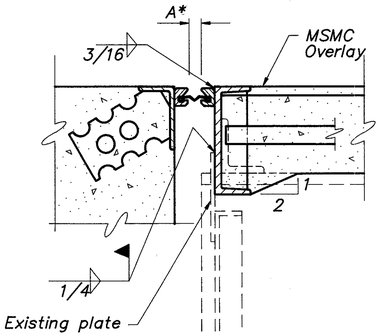
PARTIAL PLAN (WEST ABUT.) RAMP



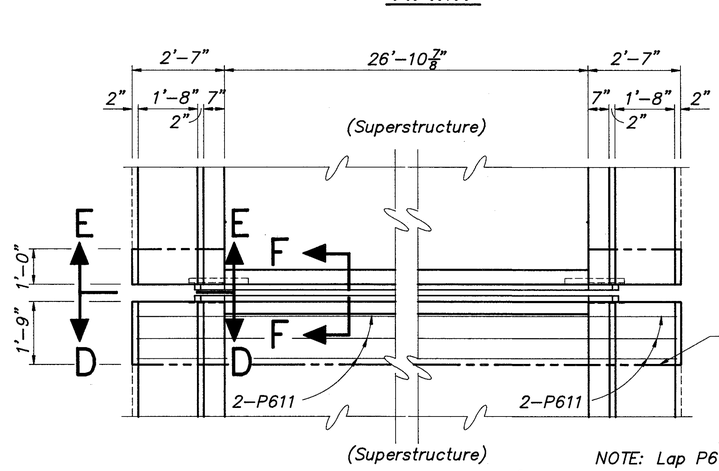
SECTION A–A



SECTION B–B

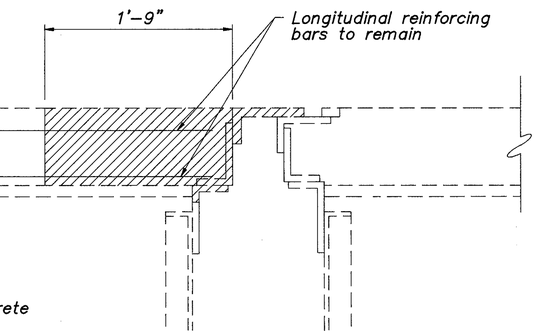


SECTION C–C

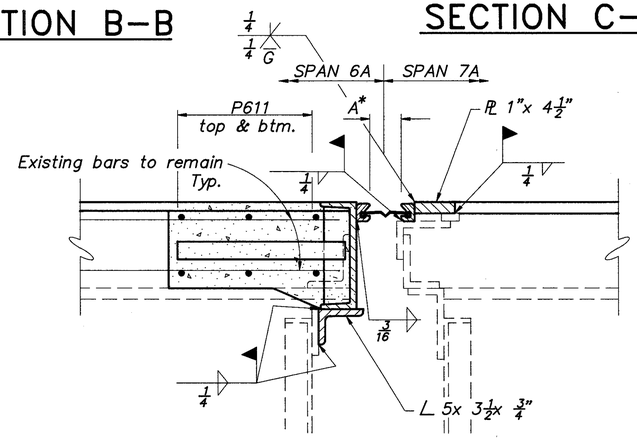


NOTE: Lap P611 bars 2'–4" min.

PARTIAL PLAN (PIER 6A) RAMP

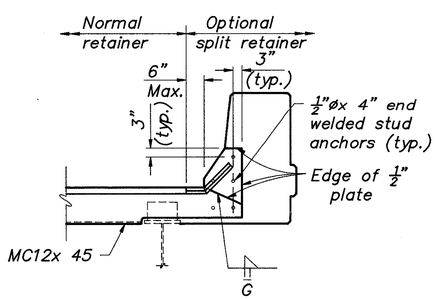


SECTION F–F
(SHOWING REMOVAL)

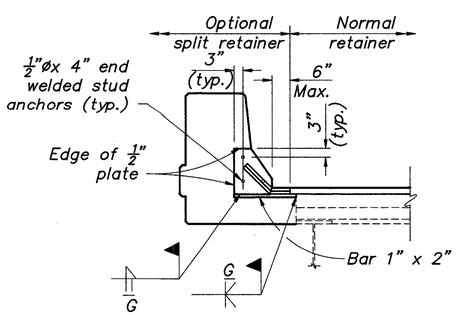


SECTION F–F
(PROPOSED)

Denotes portion of structure to be removed.



SECTION D–D



SECTION E–E

* OPENING WIDTH		
°F	WEST ABUT.	PIER 6A
	DIM A	DIM A
90	1⅝"	4½"
80	1¾"	4⅝"
70	1¾"	4⅝"
60	1¾"	4⅝"
50	1¾"	4⅝"
40	1⅞"	4¾"
30	1⅞"	4¾"

STRIP SEAL GLAND			
LOCATION	MANUFACTURER		
	D.S. Brown Co.	Watson–Bowman & Acme Corp.	Structural Acc. Inc.
West abut.	300L	SE–300	–
Pier 6A	500L	SE–500	50SEQ

Gland shall be provided in continuous strip and inserted after all stages of extrusion installation are complete.

NOTE:
1. For additional details on expansion joint, see Std. Drawing EXJ–4–87.
2. All longitudinal reinforcing deck steel is to remain.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

15/17

EXPANSION JOINT DETAILS

BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 3 2007EJ4

CALC. BY DATE	HAMILTON COUNTY HAM–50– 19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

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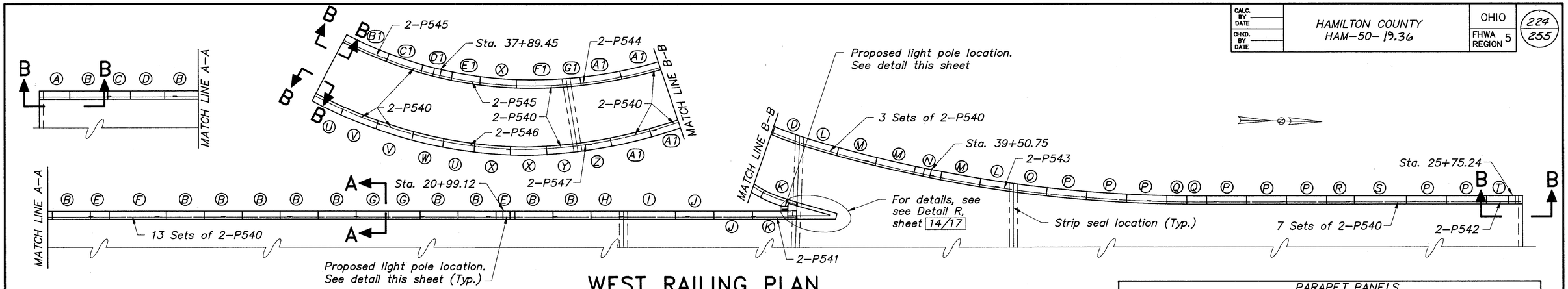
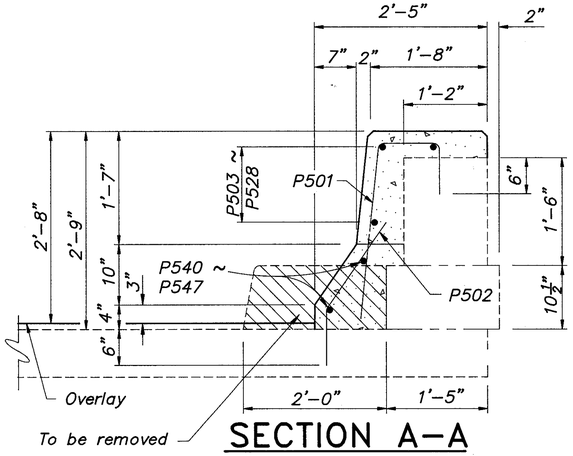
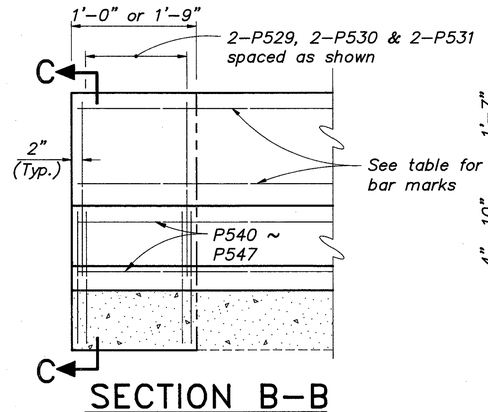


WEST RAILING PLAN

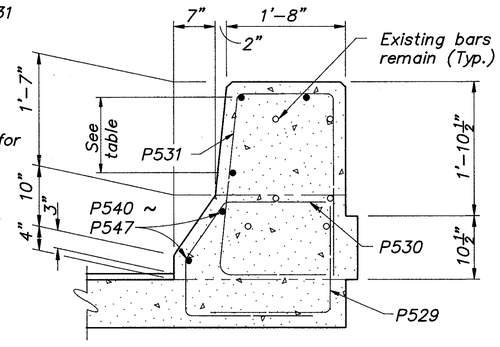


SECTION A–A



SECTION B–B

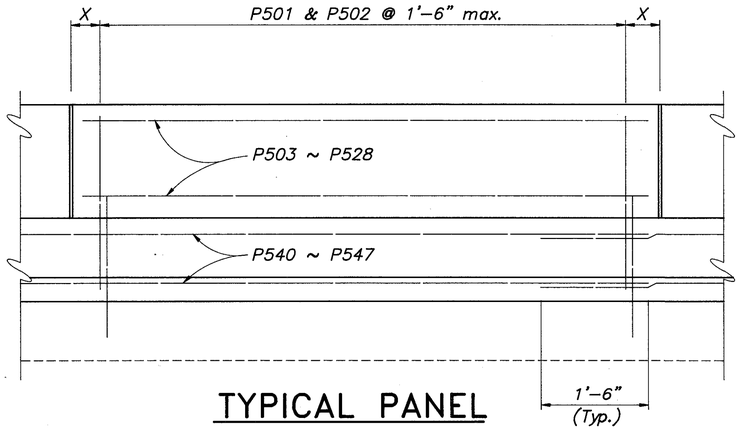
Typical at all expansion joints (16 REQUIRED)



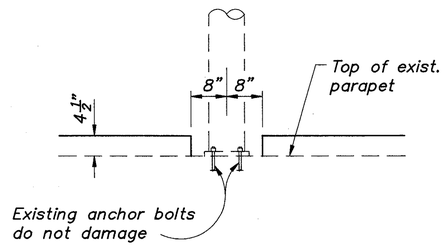
SECTION C–C

PARAPET PANELS				
MARK	NO.	PANEL LENGTH	DIM. X	BARS NEEDED
A	1	13'–0 7/8	2"	8–P501, 8–P502 & 3–P503
B	12	16'–4	2"	12–P501, 12–P502 & 3–P504
C	1	9'–10	5"	7–P501, 7–P502 & 3–P505
D	2	14'–8	2"	11–P501, 11–P502 & 3–P506
E	2	8'–2	2"	7–P501, 7–P502 & 3–P507
F	1	24'–6	3"	17–P501, 17–P502 & 3–P508
G	2	13'–9	2"	10–P501, 10–P502 & 3–P509
H	1	14'–0	3"	8–P501, 8–P502 & 3–P510
I	1	22'–3 3/4	2"	13–P501, 13–P502 & 3–P511
J	2	16'–7	2"	12–P501, 12–P502 & 3–P512
K	2	15'–2	2"	9–P501, 9–P502 & 3–P513
L	2	14'–2 3/4	4 1/4"	8–P501, 8–P502 & 3–P510
M	3	17'–0	3"	12–P501, 12–P502 & 3–P514
N	1	11'–6	2"	9–P501, 9–P502 & 3–P515
O	1	14'–7 1/2	2"	9–P501, 9–P502 & 3–P506
P	8	17'–2	2"	13–P501, 13–P502 & 3–P514
Q	2	8'–7	2"	7–P501, 7–P502 & 3–P516
R	1	11'–11 1/2	2"	9–P501, 9–P502 & 3–P517
S	1	22'–4 1/2	2"	16–P501, 16–P502 & 3–P518
T	1	15'–6 1/2	3 1/4"	9–P501, 9–P502 & 3–P519
U	2	13'–4 3/4	2"	8–P501, 8–P502 & 3–P520
V	2	16'–0	2"	12–P501, 12–P502 & 3–P521
W	1	13'–5 3/4	2"	8–P501, 8–P502 & 3–P520
X	3	15'–6	3"	11–P501, 11–P502 & 3–P519
Y	1	13'–3 1/2	2"	8–P501, 8–P502 & 3–P522
Z	1	14'–7	2"	9–P501, 9–P502 & 3–P506
A1	4	17'–4	2"	13–P501, 13–P502 & 3–P523
B1	1	20'–7 3/8	2"	13–P501, 13–P502 & 3–P524
C1	1	15'–4	2"	11–P501, 11–P502 & 3–P525
D1	1	13'–1	2"	8–P501, 8–P502 & 3–P503
E1	1	12'–2 1/2	2"	7–P501, 7–P502 & 3–P526
F1	1	21'–4 1/2	2 1/4"	13–P501, 13–P502 & 3–P527
G1	1	6'–0	2"	3–P501, 3–P502 & 3–P528

All reinforcing bars to be epoxy coated.

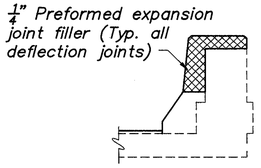


TYPICAL PANEL



LIGHT POLE SUPPORT DETAIL

NOTE: Light pole locations match existing pole locations.



DEFLECTION JOINT DETAIL

New deflection joints shall match the existing deflection joints locations.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

16/17

PARAPET DETAILS

BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

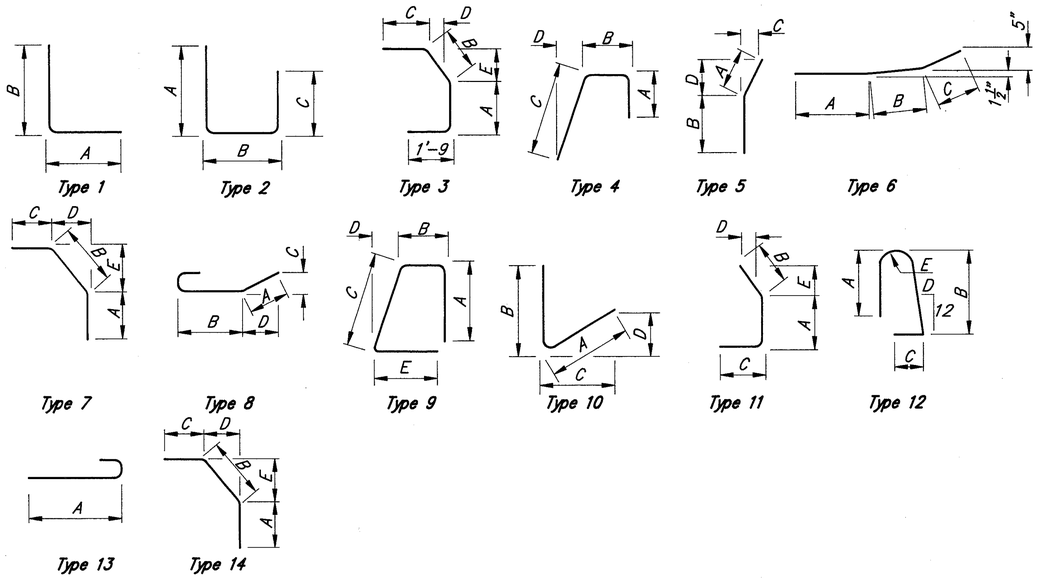
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 5 2007P1

CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO	225
CHKD. BY DATE			FHWA REGION 5	255

REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E
E801	86	4'–11	1129	8	1'–5	2'–7	0'–8½		
E802	18	4'–10	232	14	1'–5	2'–0	1'–5	1'–5	1'–5
E601	124	6'–8	1242	2	4'–10	1'–2	1'–0		
E602	14	8'–7	180	2	6'–10	1'–1	1'–0		
E603	4	6'–10	41	Str.					
E604	6	7'–7	68	Str.					
E501	11	22'–3	255	Str.					
E502	5	6'–9	35	Str.					
E503	11	12'–5	142	Str.					
E504	5	4'–0	21	10	2'–0	2'–0	2'–0	0'–1¾	
E505	124	3'–9	485	Str.					
E506	14	5'–8	83	Str.					
E507	124	6'–4	819	2	3'–0	0'–8	3'–0		
E508	11	3'–2	36	Str.					
E509	4	6'–0	25	Str.					
E510	4	4'–0	17	11	1'–0	1'–9	1'–6	1'–0⅛	1'–5¼
E511	4	4'–9	20	4	0'–9	0'–10	3'–3	0'–4	
E512	4	5'–1	21	2	3'–3	1'–4	0'–9		
E513	11	19'–2	220	Str.					
E514	11	18'–1	207	Str.					
E515	11	23'–6	270	Str.					
E516	5	7'–0	37	Str.					
E517	5	4'–0	21	1	2'–0	2'–0			
E518	16	4'–8	78	Str.					
E519	6	6'–9	42	Str.					
E520	6	4'–5	28	11	1'–3	1'–9	1'–6	1'–0⅛	1'–5¼
E521	33	4'–0	138	4	0'–9	0'–10	2'–6	0'–3⅛	
E522	6	4'–6	28	2	2'–6	1'–6	0'–9		
E523	58	2'–7	156	5	1'–6	1'–1	0'–8¾	1'–0¼	
E524	8	19'–7	163	Str.					
E525	27	5'–0	141	2	2'–2	0'–11	2'–2		
E526	3	13'–7	43	Str.					
E527	3	13'–0	41	Str.					
E528	6	1'–6	9	Str.					
E529	4	4'–0	17	5	1'–9	2'–3	1'–0⅛	1'–5¼	
E530	4	7'–3	30	2	4'–5	2'–2	0'–9		
E531	4	13'–8	57	6	9'–11	2'–4	1'–5		
E532	8	4'–7	38	1	1'–4	3'–4			
E533	31	3'–9	121	1	1'–4	2'–6			
E534	39	1'–6	61	1	0'–8	0'–10			
E535	2	8'–0	17	Str.					
E536	4	16'–6	69	6	12'–9	2'–4	1'–5		
E537	6	16'–6	103	Str.					
E538	3	13'–6	42	Str.					
E539	11	17'–8	203	Str.					
E540	11	13'–2	151	Str.					
E541	11	12'–0	138	Str.					
P601	48	19'–3	1388	Str.					
P602	12	22'–2	400	Str.					
P603	12	16'–10	303	Str.					
P604	24	16'–9	604	Str.					
P605	NOT	USED							
P606	12	21'–7	389	Str.					
P607	NOT	USED							
P608	12	16'–4	294	Str.					
P609	12	18'–3	329	Str.					
P610	NOT	USED							
P611	24	17'–1	616	Str.					
P501	724	3'–9	2832	4	0'–8	0'–9	2'–5	0'–3	
P502	724	2'–3	1699	5	1'–5	0'–10	0'–10	1'–2	
P503	6	12'–8	79	Str.					
P504	36	16'–0	601	Str.					
P505	3	9'–6	30	Str.					
P506	9	14'–4	135	Str.					



REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E
P507	6	7'–10	49	Str.					
P508	3	24'–2	76	Str.					
P509	6	13'–5	84	Str.					
P510	9	13'–8	128	Str.					
P511	3	21'–11	69	Str.					
P512	6	16'–3	102	Str.					
P513	6	14'–10	93	Str.					
P514	33	16'–8	574	Str.					
P515	3	11'–2	35	Str.					
P516	6	8'–3	52	Str.					
P517	3	11'–7	36	Str.					
P518	3	22'–0	69	Str.					
P519	12	15'–2	190	Str.					
P520	9	13'–0	122	Str.					
P521	6	15'–8	98	Str.					
P522	3	12'–11	40	Str.					
P523	12	17'–0	213	Str.					
P524	3	20'–3	63	Str.					
P525	3	15'–0	47	Str.					
P526	3	11'–8	37	Str.					
P527	3	21'–0	66	Str.					
P528	3	5'–8	18	Str.					
P529	32	2'–11	97	1	1'–6	1'–6			
P530	32	4'–10	161	3	0'–11	0'–10¾	1'–5	0'–6	0'–8½
P531	32	7'–4	245	9	2'–5	1'–4	2'–5	0'–3½	1'–5
P532	NOT	USED							
P533	NOT	USED							
P534	8	9'–9	81	Str.					
P535	8	9'–4	78	Str.					
P536	15	5'–3	82	12	2'–2	2'–5	0'–7½	0'–1¼	0'–2
P537	5	3'–0	16	Str.					
P538	15	2'–4	37	14	0'–10	0'–10	0'–8	0'–6	0'–8½
P539	15	1'–6	23	Str.					
P540	62	30'–0	1940	Str.					
P541	2	17'–0	35	Str.					
P542	2	19'–3	40	Str.					
P543	2	5'–6	11	Str.					
P544	2	26'–10	56	Str.					
P545	4	21'–6	90	Str.					
P546	2	28'–9	60	Str.					
P547	2	12'–3	26	Str.					

12

1. REINFORCING STEEL SAMPLES: REFER TO CMS SECTION 106.03, 700, 709.01 THRU. 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. ALL BARS ARE TO BE EPOXY COATED.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

17/17

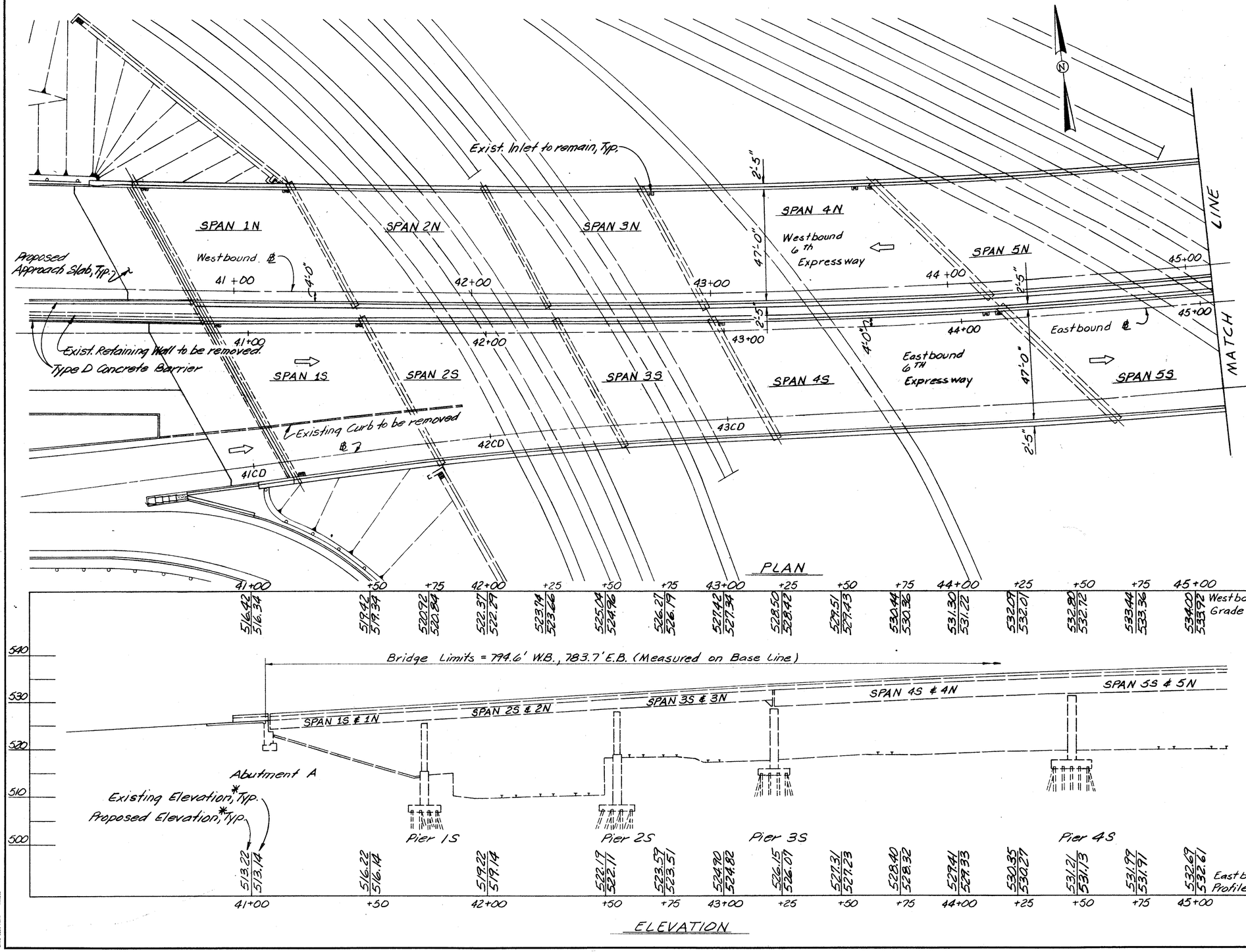
REINFORCING STEEL LIST

BRIDGE NO. HAM–50–2007
SIXTH STREET EXPRESSWAY
UNDER FREEMAN AVENUE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 3 2007RS1

CALC. BY		HAMILTON COUNTY	OHIO	226
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



41+00	+50	+75	42+00	+25	+50	+75	43+00	+25	+50	+75	44+00	+25	+50	+75	45+00
516.42 / 516.34	519.42 / 519.34	520.92 / 520.84	522.37 / 522.29	523.74 / 523.66	525.04 / 524.96	526.27 / 526.19	527.42 / 527.34	528.50 / 528.42	529.51 / 529.43	530.44 / 530.36	531.30 / 531.22	532.09 / 532.01	532.80 / 532.72	533.44 / 533.36	534.00 / 533.92
513.22 / 513.14	516.22 / 516.14	517.22 / 517.14	522.17 / 522.11	523.57 / 523.51	524.90 / 524.82	526.15 / 526.09	527.31 / 527.23	528.40 / 528.32	529.41 / 529.33	530.35 / 530.27	531.21 / 531.13	531.99 / 531.91	532.69 / 532.61		

* TABLE of SPAN LENGTHS	
SPAN	LENGTH
1N	64.80'
2N	81.00'
3N	64.80'
4N	117.70'
5N	148.81'
5AN	72.19'
6N	70.72'
7N	99.64'
8N	70.00'
1S	64.29'
2S	80.48'
3S	64.63'
4S	124.38'
5S	148.19'
6S	127.24'
7S	99.62'
8S	69.95'

* Measured Along Base Lines

* Elevations shown are for information only. The 1¼" micro-silica modified concrete overlay shall be of uniform thickness & final deck elevations will not necessarily conform to profile shown.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

1/14

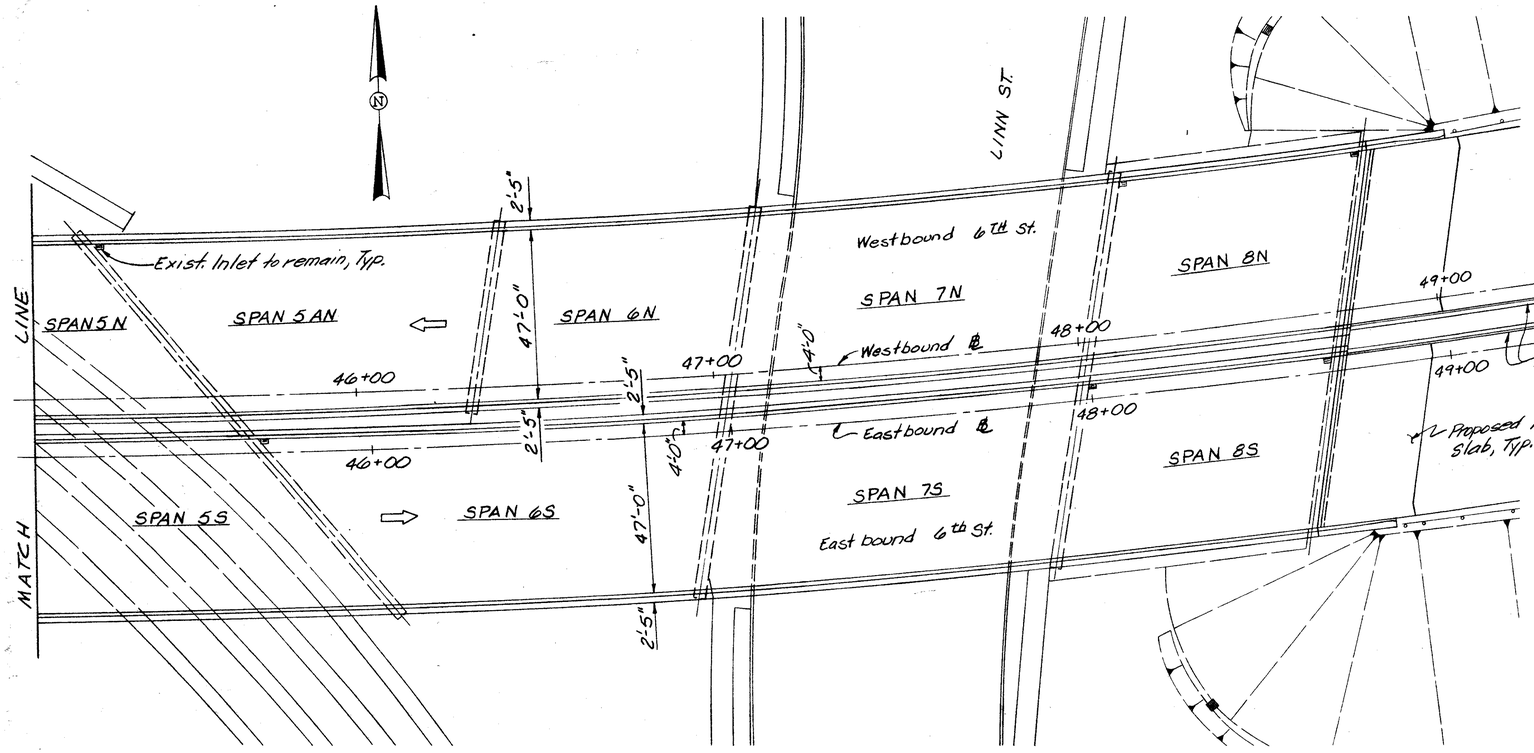
GENERAL PLAN

BRIDGE NO. HAM-50-2011 R. & L.
SIXTH ST. EXPRESSWAY
OVER CONRAIL AND LINN STREET

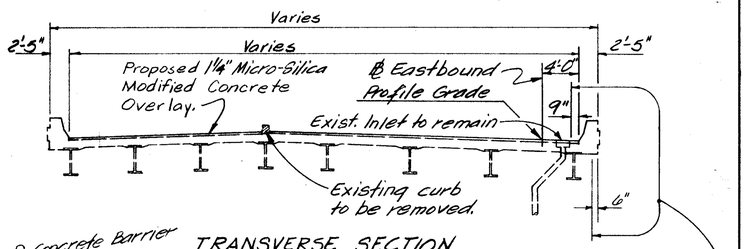
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT H1842

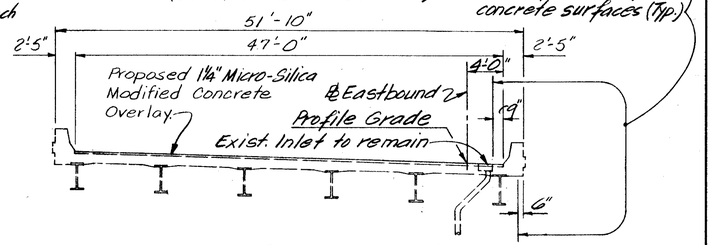
CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	227 255
CHKD. BY DATE			



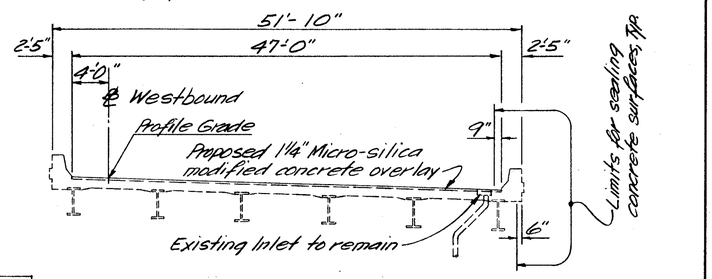
PLAN



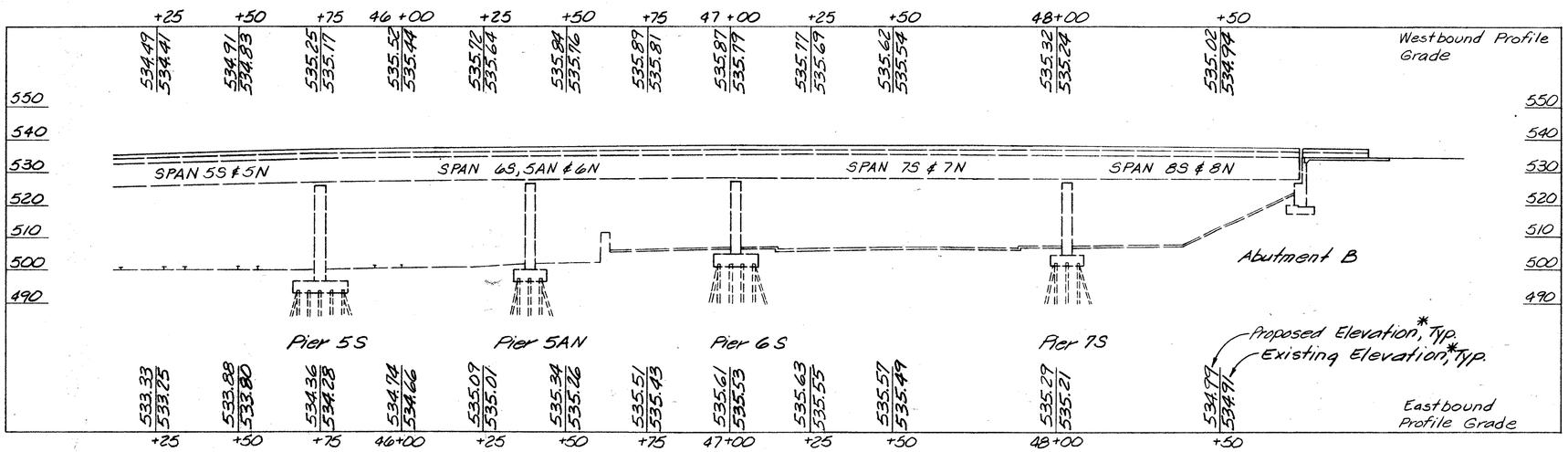
TRANSVERSE SECTION
(Typical for Spans 1S thru 3S)
(LOOKING BACK STATION)



TRANSVERSE SECTION
(LOOKING BACK STATIONS)
Typ. from Sta. 43+91.66 E.B. thru Span 8S



TYPICAL SECTION
(LOOKING BACK STATIONS)
Typical for Spans 1N thru 8N



ELEVATION

* See note on sheet 1 14.

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	2 14

GENERAL PLAN
BRIDGE NO. HAM-50-2011 R. & L.
SIXTH ST EXPRESSWAY
OVER CONRAIL AND LINN STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO SLAB PRINT 11/16/00

CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO	228
CHKD. BY DATE			FHWA REGION 5	255

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

Reference shall be made to standard drawings:

AS–1–81		11–27–81
EXJ–4–87	Dated	1–5–89

Reference shall be made to supplemental specifications:

836	Dated	11–12–85
852	Dated	12–14–88

DESIGN STRESSES

Concrete compressive strength
- Class S – 4500 PSI
- Class C – 4000 PSI

Reinforcing steel – ASTM A615, A616, A617
- Minimum yield strength
- Grade 60 – 60,000 PSI

SCOPE OF WORK

The scope of work to be performed shall be executed in stages as shown and includes:
1. Add strip seals.
2. Refurbish and reset bearings at abutments & pier 3.
3. Refurbish drains.
4. Trim beam ends to clear backwall at east & west abutments.
5. Replace deteriorated portions of backwalls, as indicated on plans.
6. Seal cracks in pier 2.
7. Retrofit railings, as indicated on plans.
8. Seal railings, abutments and piers.
9. Overlay deck with $1\frac{1}{4}$" micro–silica modified concrete.
10. Clean and paint the structural steel as necessary.
11. Replace approach slabs.

EXISTING STRUCTURE VERIFICATION

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and/or from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work, but they shall be considered tentative and approximate. It is the intent of these plans that the proposed additions to these structures match existing conditions. The Contractor is referred to CMS sections 102.05 and 105.02.

Contract bid prices shall be based upon a recognition of the uncertainties described in the preceding paragraph and upon a prebid examination of the existing structure by the Contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the Contractor in the field.

ITEM 202 – PORTIONS OF STRUCTURES REMOVED

Removal of portions of existing structure shall be performed in such a manner as to prevent debris from falling onto the roadway below. All debris shall be removed from the site and disposed of by the Contractor.

REPLACEMENT OF EXISTING REINFORCING

Any existing reinforcing bars which are to be incorporated into the new work and which are made unusable by the contractor's concrete removal operations shall be replaced with new steel at his cost. Any existing reinforcing bars deemed by the Engineer to be unusable because of corrosion shall be replaced with new steel. An allowance of 100 pounds is included in item 509 for this purpose.

ITEM SPECIAL – MICRO–SILICA MODIFIED CONCRETE OVERLAY

Longitudinal joints in the concrete overlay are permitted but only to the extent necessary to accommodate the width of the finishing machine, to facilitate changes in the roadway crown, and to permit maintenance of vehicular traffic. See proposal note for details.

MAINTENANCE OF TRAFFIC

For maintenance of traffic on Sixth Street Expressway, see highway drawings.

PLANS FOR EXISTING BRIDGE

Plans of the existing structure are available for reference at the City of Cincinnati Engineer's Office and at the ODOT District Eight office.

ITEM 516 – REFURBISH BEARING DEVICE

This Item shall include all work necessary to clean and paint rocker bearings at abutments and pier 3. Included shall be:
1. Disassembly of rockers.
2. Hand cleaning (grinding if required.)
3. Sandblasting and painting as required by Field Painting of Existing Steel, System OZEU proposal note.
4. Replacement of any damaged sheet lead (711.19). Preformed bearing pads 1/8" thick, meeting the requirements of 711.21, may be substituted for the sheet lead.
5. Installation of any necessary 1/8" thick steel shims of the same size as the bearings to provide a snug fit.
6. Reassembly of the rockers.

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. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 – REFURBISH BEARING DEVICE.

ITEM 516 – JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE

The ends of the beams or girders at each abutment & pier 3 shall be jacked and the beams supported so the bearing may be removed. Prior to jacking, the Contractor shall submit his jacking plan to the Engineer for approval.

ITEM 516 – RESET BEARINGS

Bearings at the abutments & pier 3 shall be reset to be vertical at 60° F. Masonry plates shall be adjusted to be centered under bearing.

ITEM 513 – TRIMMING OF BEAM ENDS

The ends of the beams at each abutment shall be trimmed by removing 1". Care shall be taken not to damage the crossframe while trimming the end of the beam.

ITEM SPECIAL – CONCRETE REPAIR BY EPOXY INJECTION

The horizontal cracks in the west face of pier 2 shall be sealed by epoxy injection.

SEALING OF CONCRETE SURFACES

Portions of the structure shall be sealed as noted below. See the proposal note for application rates and materials. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of sealer to be used.
1. Parapets shall be sealed as shown on sheet 2/14 with an epoxy or non–epoxy sealer.
2. Abutment backwalls, beam seats, and the face of the breastwall and wingwalls down to the ground line shall be sealed with an epoxy sealer.
3. The total surface of all piers shall be sealed with a non–epoxy sealer.

ITEM 514 – CLEANING & PAINTING OF STRUCTURAL STEEL, AS PER PLAN

All steel at all expansion joints shall be cleaned and painted for a length of 6' along the beams each side of the joint. The fascia beams shall be painted as indicated in detail A below. Cleaning and painting shall be in accordance with field painting of existing existing steel, system EEU proposal note.

REFURBISH DRAINS

This item shall include the cleaning and flushing out of the scupper inlet and downspout. The downspout shall be throughly cleaned so that water flows freely. All exposed pipes and supports shall be cleaned and painted as required by field painting of existing steel, system OZEU proposal note. Payment for all the above described labor and materials will be made at the contract price bid for Item 518 – structural drainage, misc: Refurbish drains.

ITEM 510

Dowel holes shall be drilled and grouted per Supplemental Specifications 852 and CMS 705.20.

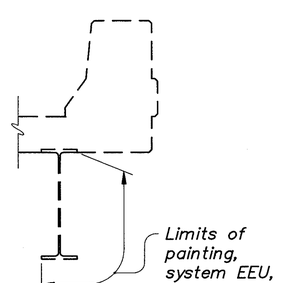
ASBESTOS CEMENT CONDUIT

For notes concerning this, see Bridge No. HAM–50–2043, sheet 2/16.

CALCULATED BY : WJH DATE : 11/91 — ESTIMATED QUANTITIES — CHECKED BY : EHC DATE : 1/92

ITEM	CODE	TOTAL	UNIT	DESCRIPTION	LEFT BRIDGE			RIGHT BRIDGE		
					ABUTMENTS	SUPERST.	GENERAL	ABUTMENTS	SUPERST.	GENERAL
202	11202	L.S.	Lump sum	Portions of structures removed, over 20 foot span	–	–	L.S.	–	–	L.S.
509	15800	49873	Lbs.	Epoxy coated reinforcing steel, grade 60	6311	17325	50	7221	18916	50
510	12200	2811	Lin. Ft.	Dowel hole	229	1164	–	310	1108	–
511	34400	288	Cu. Yd.	Class S concrete, superstructure (repair or reconstruction)	–	147	–	–	141	–
511	45700	106	Cu. Yd.	Class C concrete, abutment (repair or reconstruction)	50	–	–	56	–	–
SPECIAL	51267500	3469	Sq. Yd.	Sealing of concrete surfaces *	48	1728	–	48	1645	–
SPECIAL	51267502	329	Sq. Yd.	Sealing of concrete surfaces (epoxy) *	161	–	–	168	–	–
SPECIAL	51267504	3332	Sq. Yd.	Sealing of concrete surfaces (non–epoxy) *	–	–	1678	–	–	1654
513	21000	26	Each	Trimming of beam end	–	12	–	–	14	–
514	25501	L.S.	Lump sum	Cleaning & painting of existing structural steel, as per plan *	–	L.S.	–	–	L.S.	–
516	11210	235	Lin. Ft.	Structural expansion joint including elastomeric strip seal	–	107	–	–	128	–
516	13600	30	Sq. Ft.	1" Preformed expansion joint filler	–	–	–	30	–	–
516	45304	52	Each	Refurbish bearing device	–	24	–	–	28	–
516	46700	52	Each	Reset bearing	–	24	–	–	28	–
516	47000	L.S.	Lump Sum	Jacking and temporary support of superstructure	–	L.S.	–	–	L.S.	–
518	21200	98	Cu. Yd.	Porous backfill with filter fabric	47	–	–	51	–	–
518	63300	L.S.	Lump Sum	Structure drainage, misc.: refurbish drains	–	L.S.	–	–	L.S.	–
SPECIAL	51912600	72	Lin. Ft.	Concrete repair by epoxy injection *	–	–	36	–	–	36
SPECIAL	51922000	9859	Sq. Yd.	Micro–silica modified concrete overlay ($1\frac{1}{4}$" thick)*	–	4609	–	–	5250	–
SPECIAL	51922100	203	Cu. Yd.	Micro–silica modified concrete overlay (variable thickness)*	–	72	–	–	131	–
SPECIAL	51922200	1	Cu. Yd.	Full depth repair (micro–silica) *	–	1	–	–	–	–

* See proposal note



DETAIL A

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

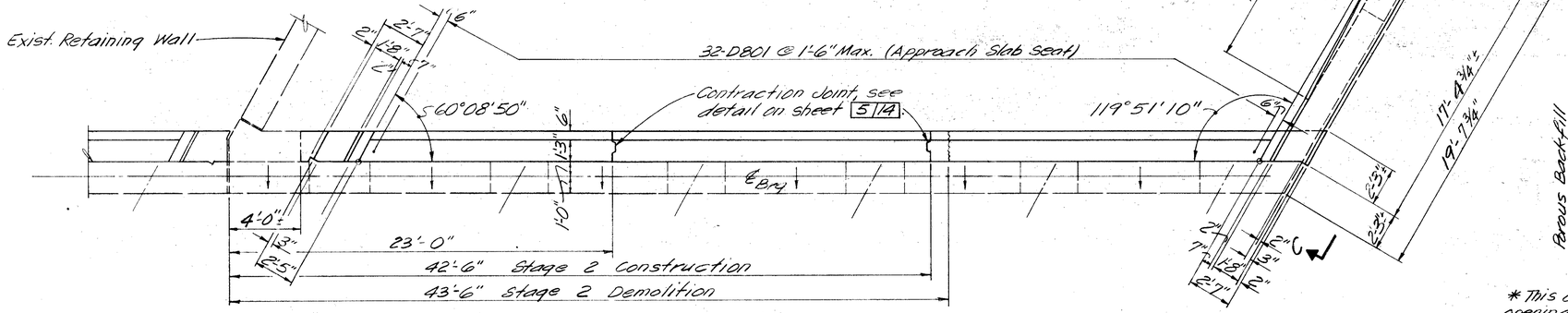
3/14

GENERAL NOTES & QUANTITIES
BRIDGE NO. HAM–50–2011 R & L
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

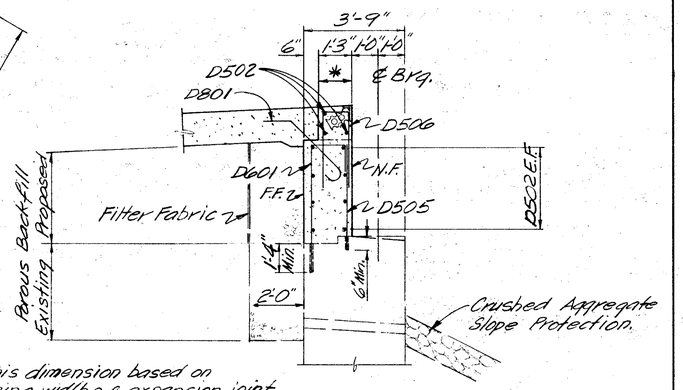
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

DISK 2 8908\2011Q1

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	229 255
CHKD. BY / DATE			

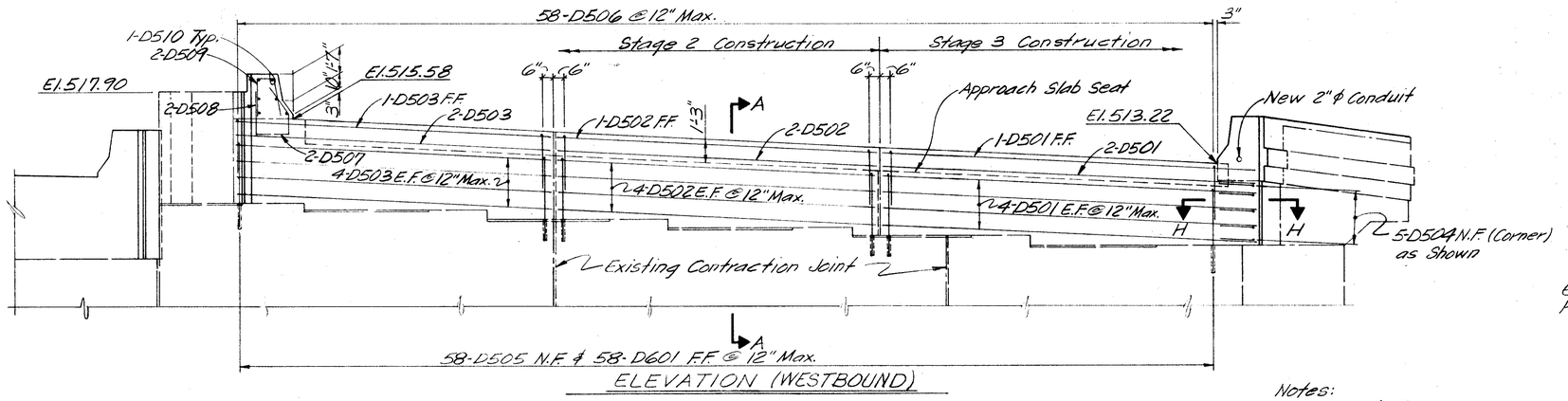


PLAN (WESTBOUND)

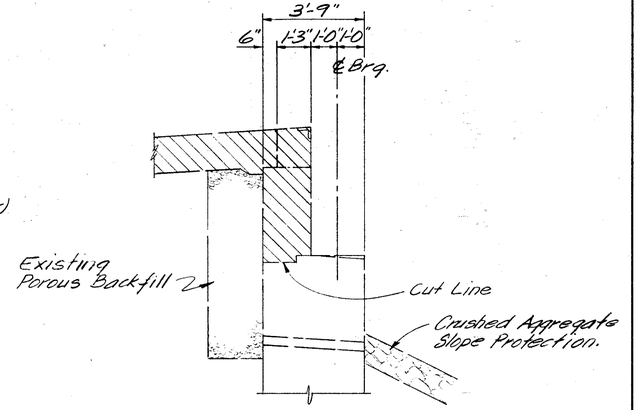


* This dimension based on opening width of expansion joint.

SECTION A-A

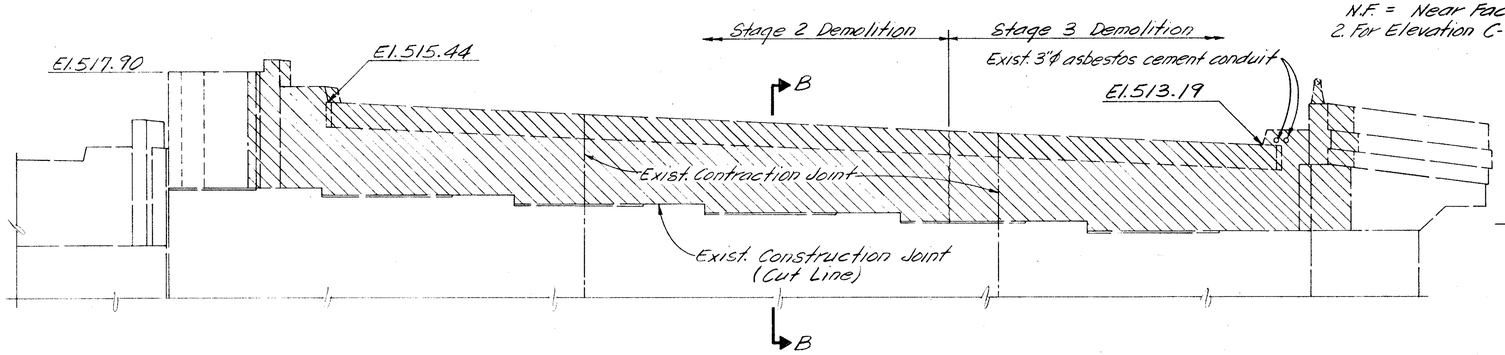


ELEVATION (WESTBOUND)

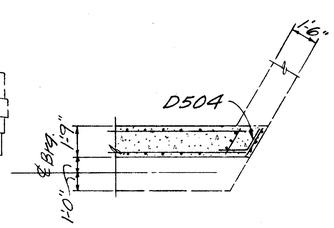


SECTION B-B
(Showing Removal)

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Elevation C-C, see Sht. 6 14.



ELEVATION (WESTBOUND)
(Showing Removal)



SECTION H-H

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

4 14

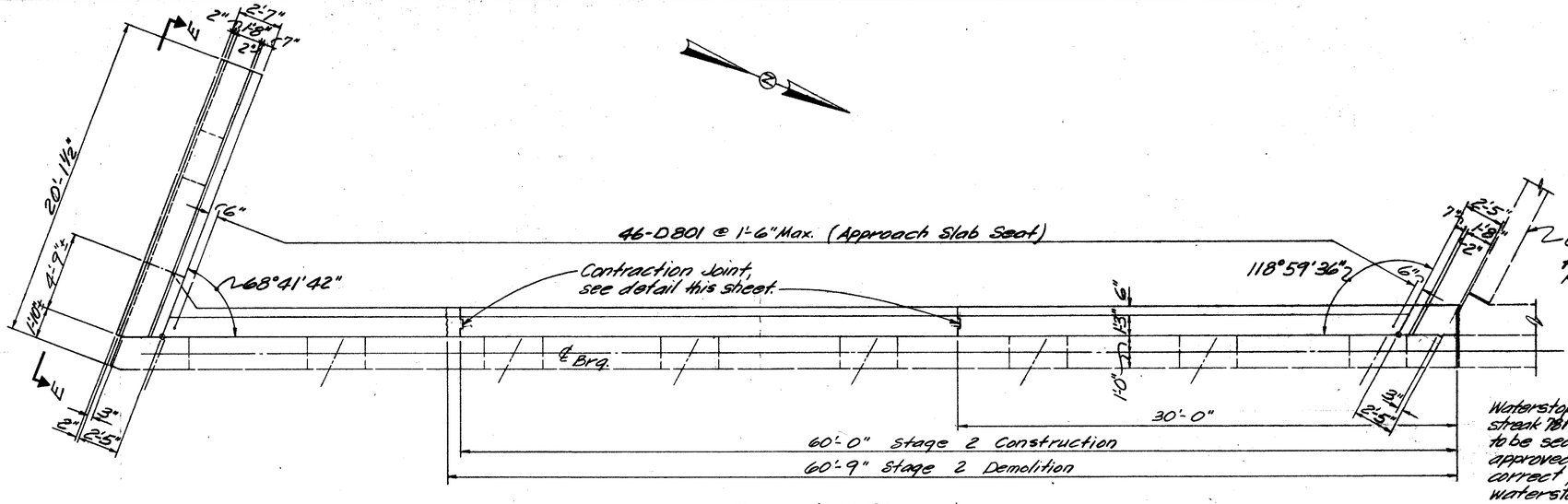
ABUTMENT A

BRIDGE NO. HAM-50-2011 R. & L.
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

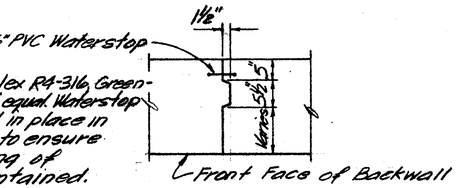
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 11-5-92

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	230 255
CHKD. BY / DATE			

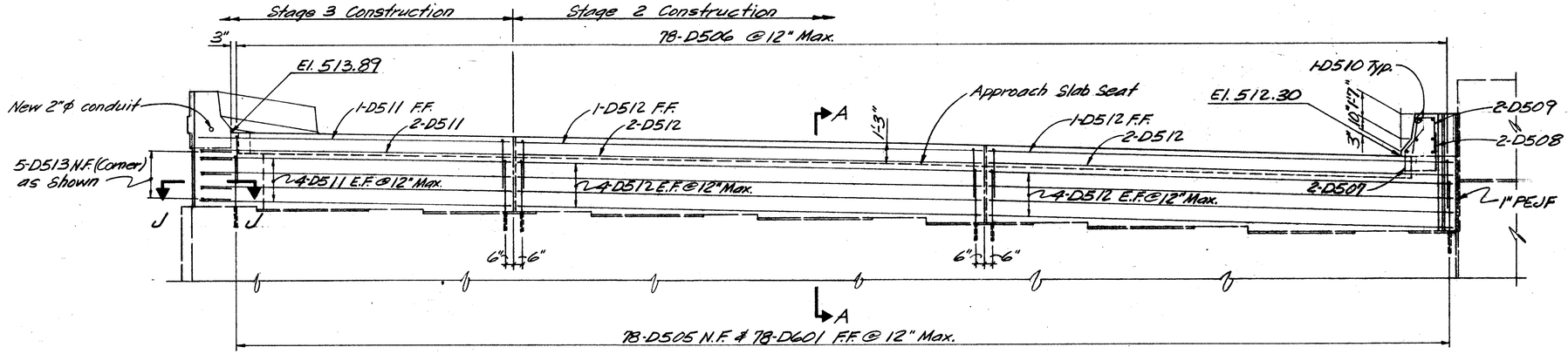


PLAN (EASTBOUND)

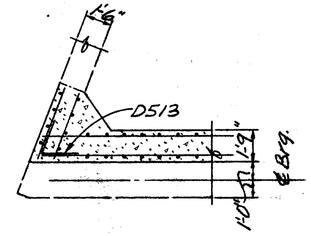


Waterstop to be Vinylex R4-316 Greenstreak 781 or approved equal. Waterstop to be securely held in place in approved manner to ensure correct positioning of waterstop is maintained.

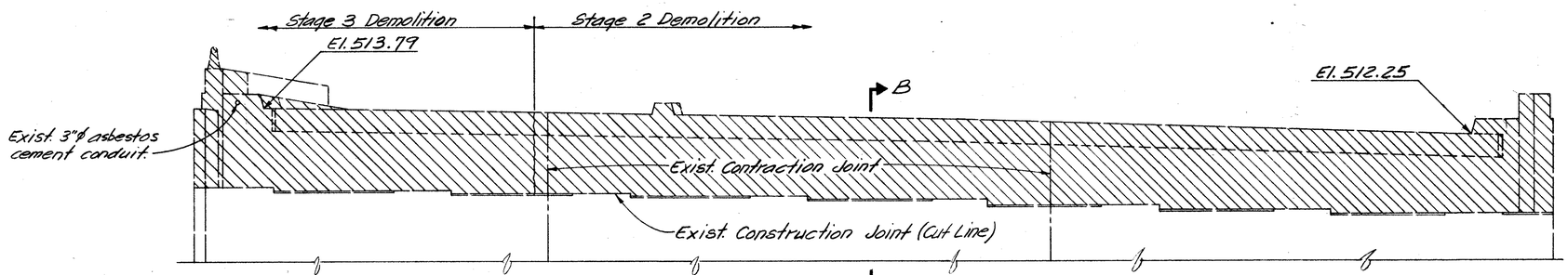
CONTRACTION JOINT DETAIL
(Proposed)



ELEVATION (EASTBOUND)



SECTION J-J



ELEVATION (EASTBOUND)

Denotes portion of existing structure to be removed

Notes:
1. For Section A-A & B-B, see Sht. 4/14.
   For Elevation E-E, see Sht. 6/14.

2. E.F. = Each Face
   F.F. = Far Face
   N.F. = Near Face
   PEJF = Preformed Expansion Joint Filler

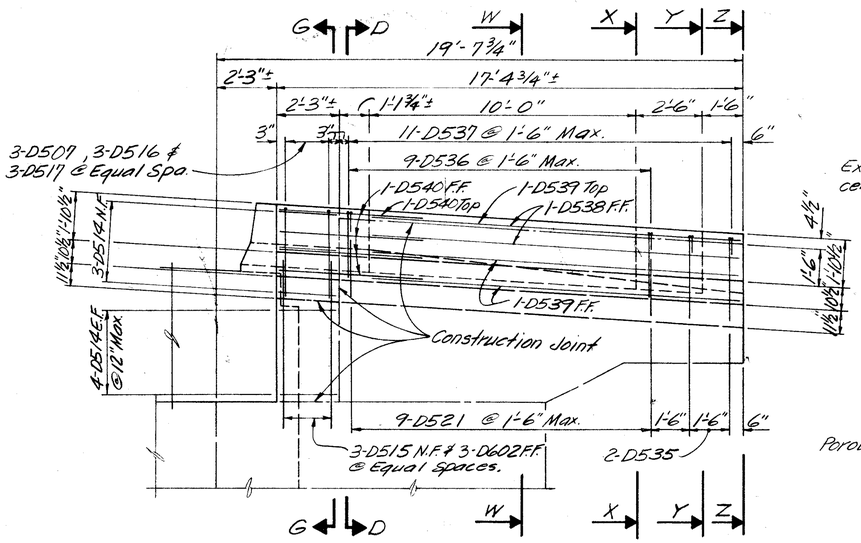
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237	5/14

ABUTMENT A
BRIDGE NO. HAM-50-2011 R. & L.
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

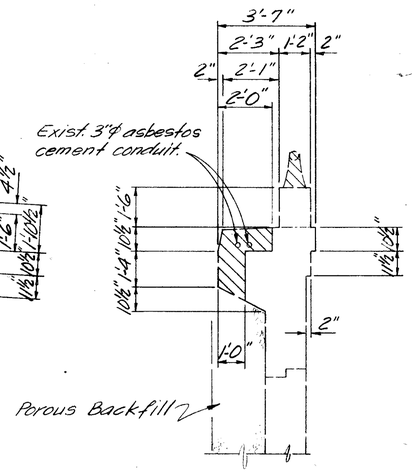
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO ELLE PRINT H2563

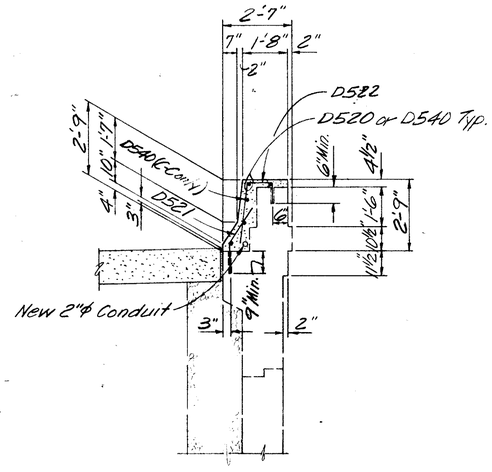
CALC. BY		HAMILTON COUNTY	OHIO	231
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



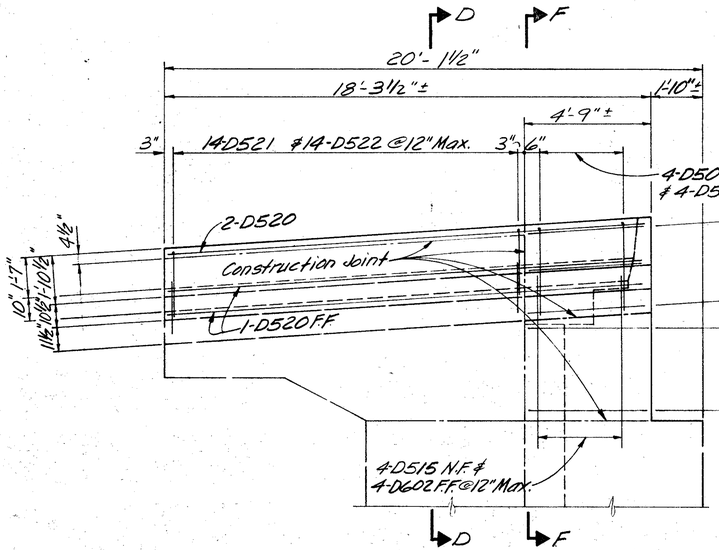
ELEVATION C-C



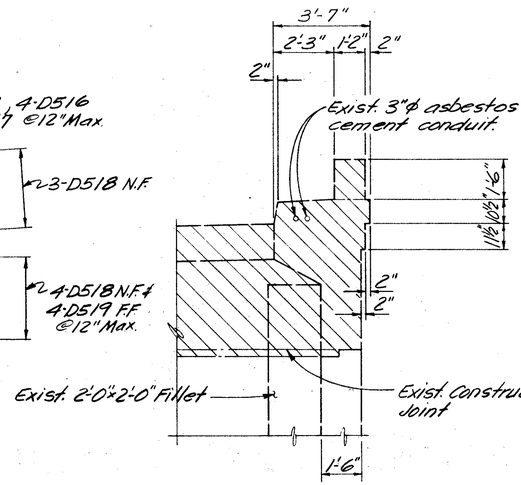
SECTION D-D
(Showing Removal)



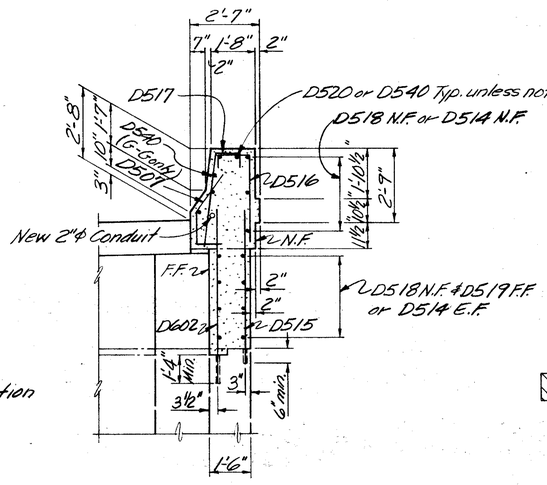
SECTION D-D



ELEVATION E-E



SECTION F-F
SECTION G-G (OPPOSITE HAND)
(Showing Removal)



SECTION F-F
SECTION G-G (OPPOSITE HAND)

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Section W-W, X-X, Y-Y & Z-Z see Sheet 10 | 14.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

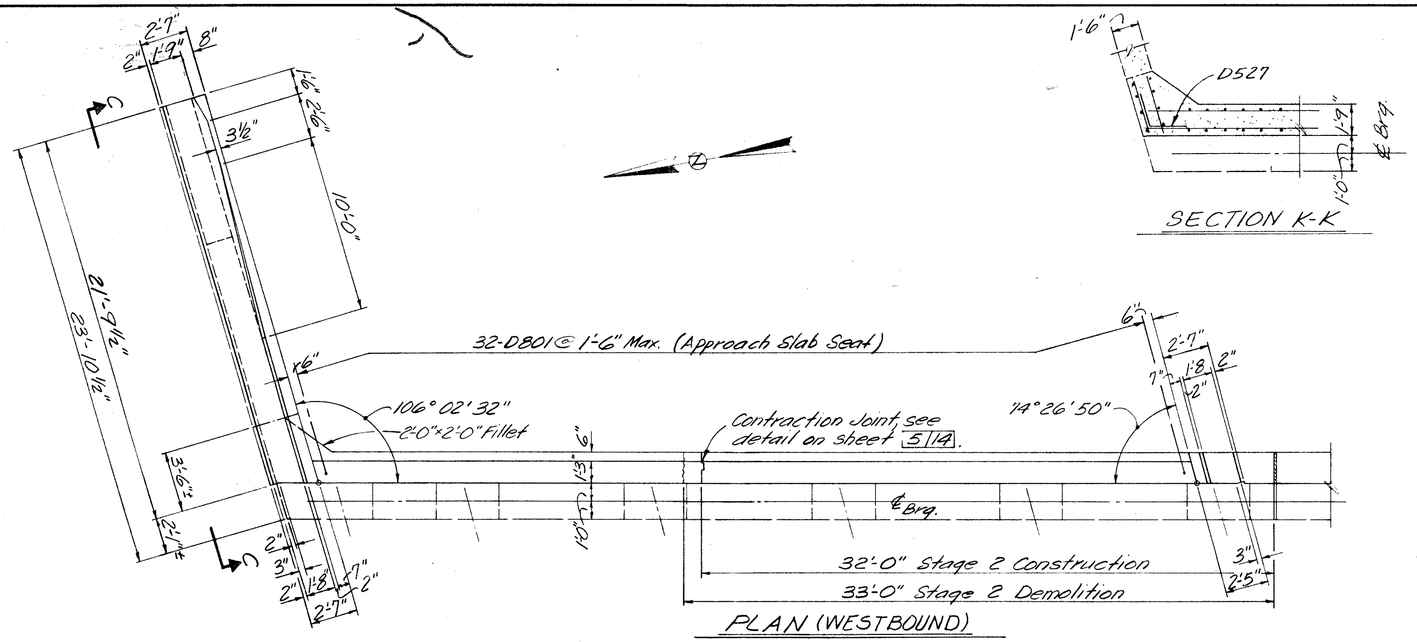
6 | 14

ABUTMENT A
BRIDGE NO. HAM-50-2011 R. & L.
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

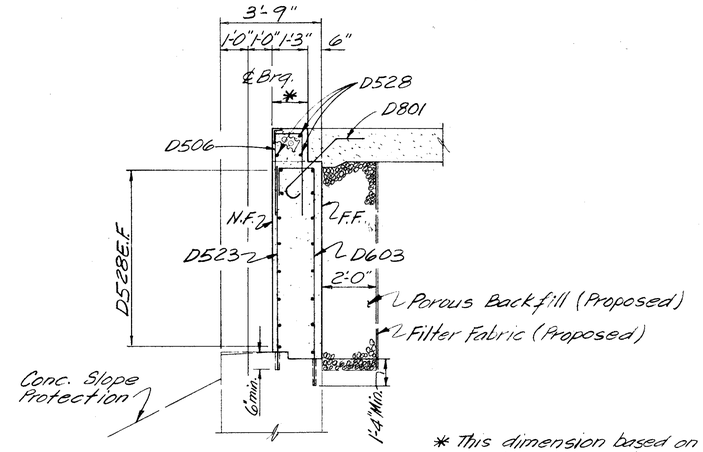
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 102563

CALC. BY DATE		HAMILTON COUNTY HAM-50-17.36	OHIO	232 255
CHKD. BY DATE			FHWA REGION 5	

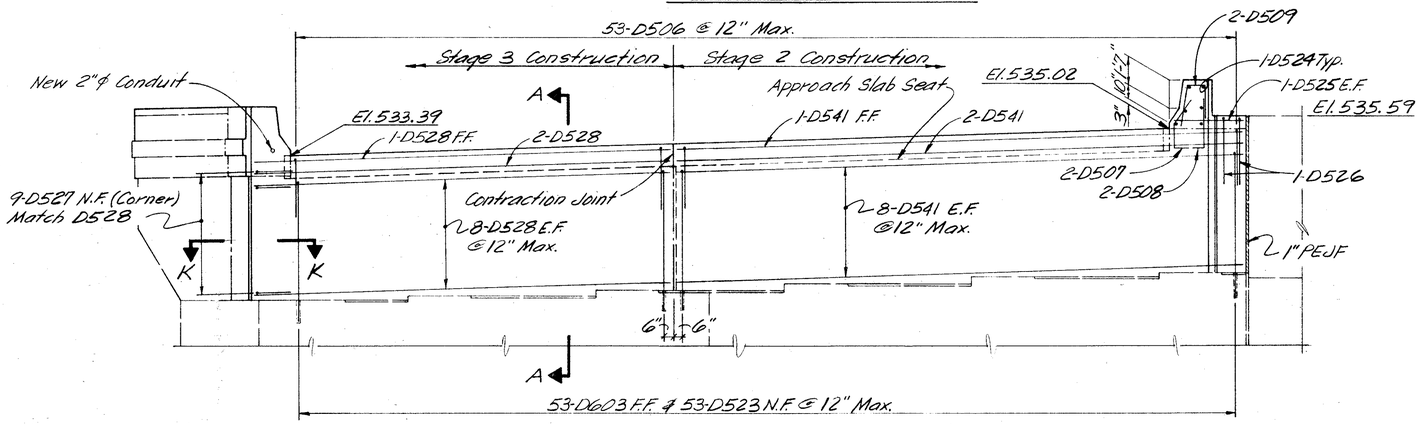


SECTION K-K

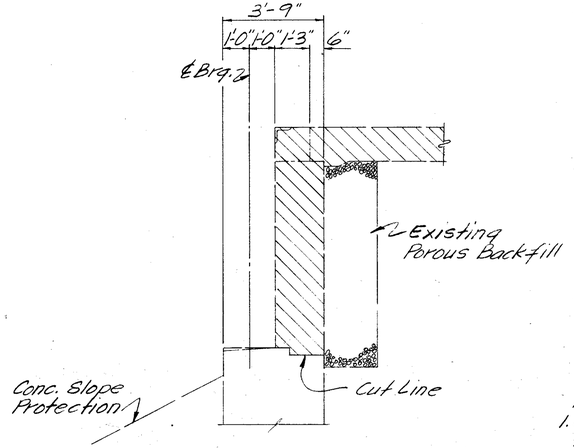


* This dimension based on opening width of expansion joint.

SECTION A-A



ELEVATION (WESTBOUND)



SECTION B-B
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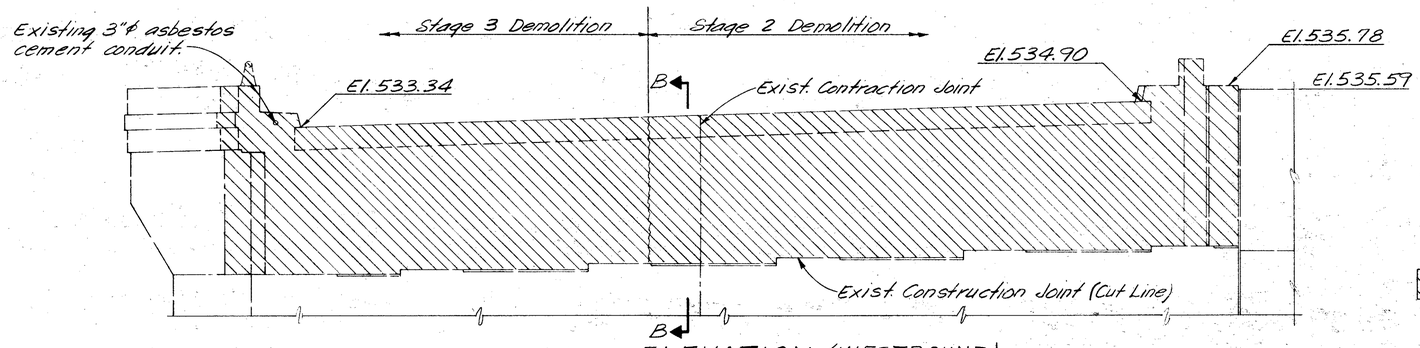


ELEVATION (WESTBOUND)
(Showing Removal)

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
PEJF = Preformed Expansion Joint Filler.
2. For Elevation C-C, see Sht. 9/14.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

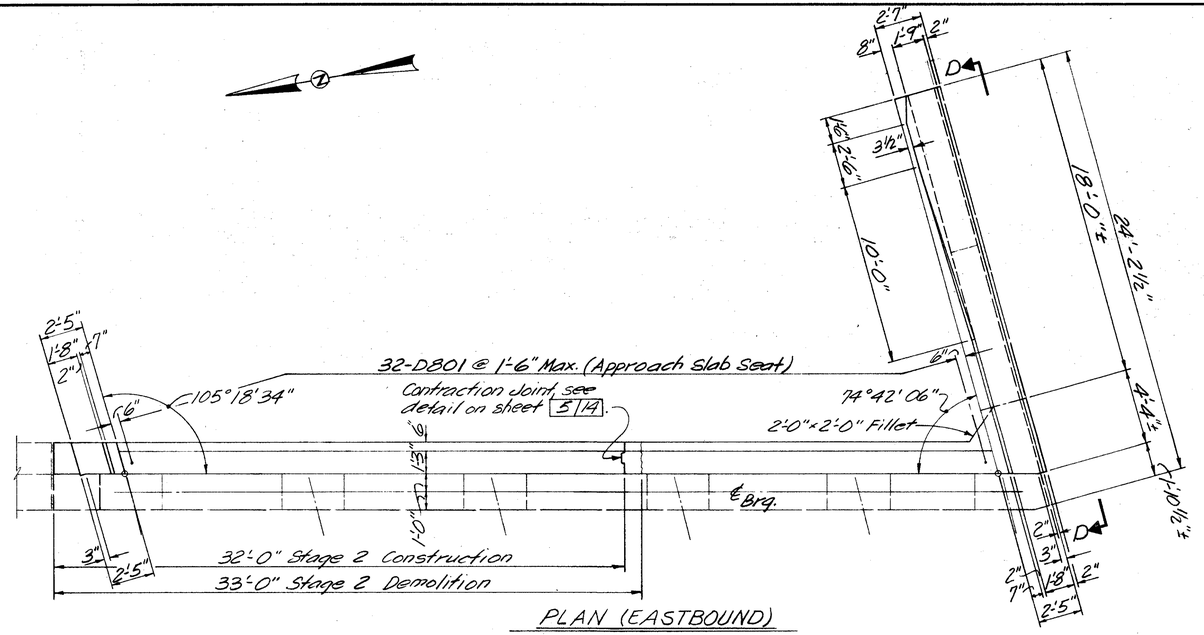
7/14

ABUTMENT B
BRIDGE NO. HAM-50-2011 R&L
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

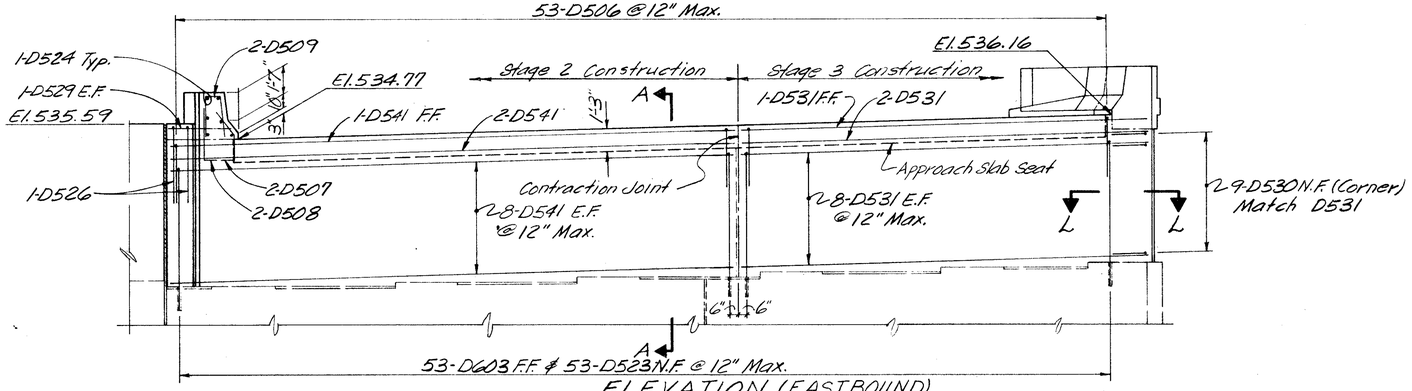
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT F-57063

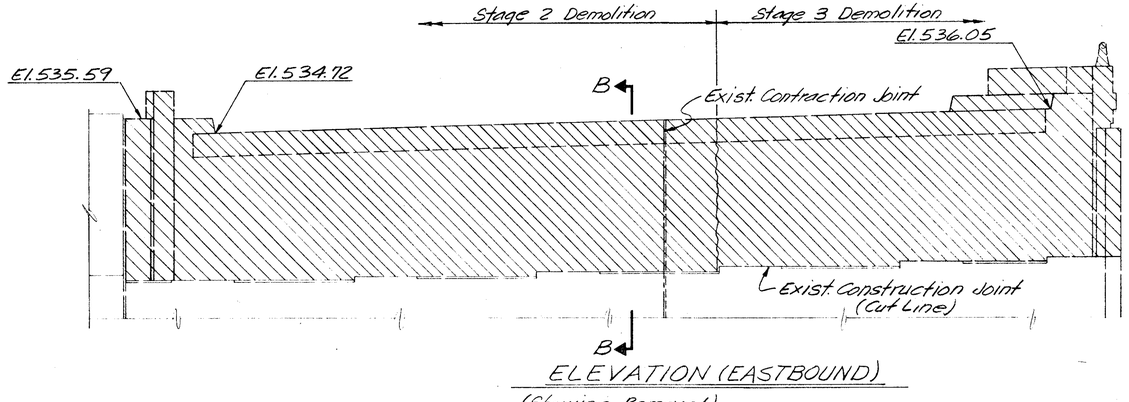
CALC. BY		HAMILTON COUNTY	OHIO	233
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



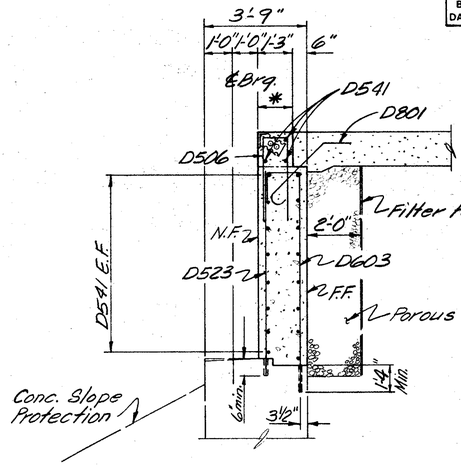
PLAN (EASTBOUND)



ELEVATION (EASTBOUND)

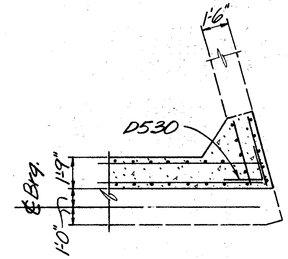


ELEVATION (EASTBOUND)
(Showing Removal)

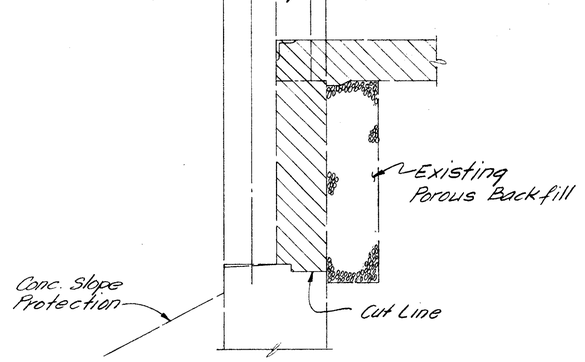


SECTION A-A

* This dimension based on opening width of expansion joint.



SECTION L-L



SECTION B-B
(Showing Removal)

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face

2. For Elevation D-D, see Sht. 9 14.

Denotes portion of existing structure to be removed.

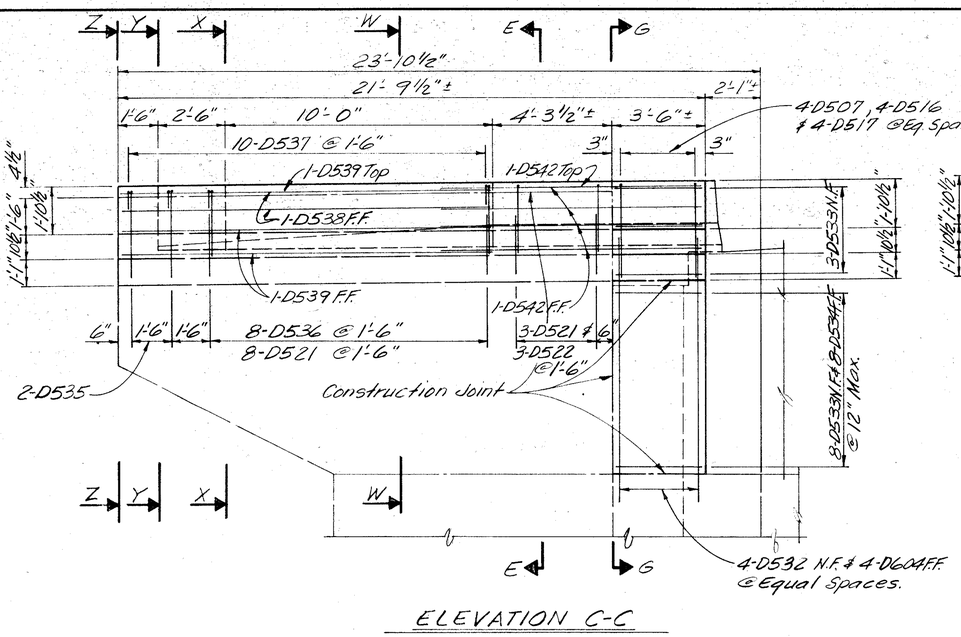
BALKE ENGINEERS	8 14
1848 SUMMIT RD. CINCINNATI, OHIO 45237	

ABUTMENT B
BRIDGE NO. HAM-50-2011 R. & L.
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

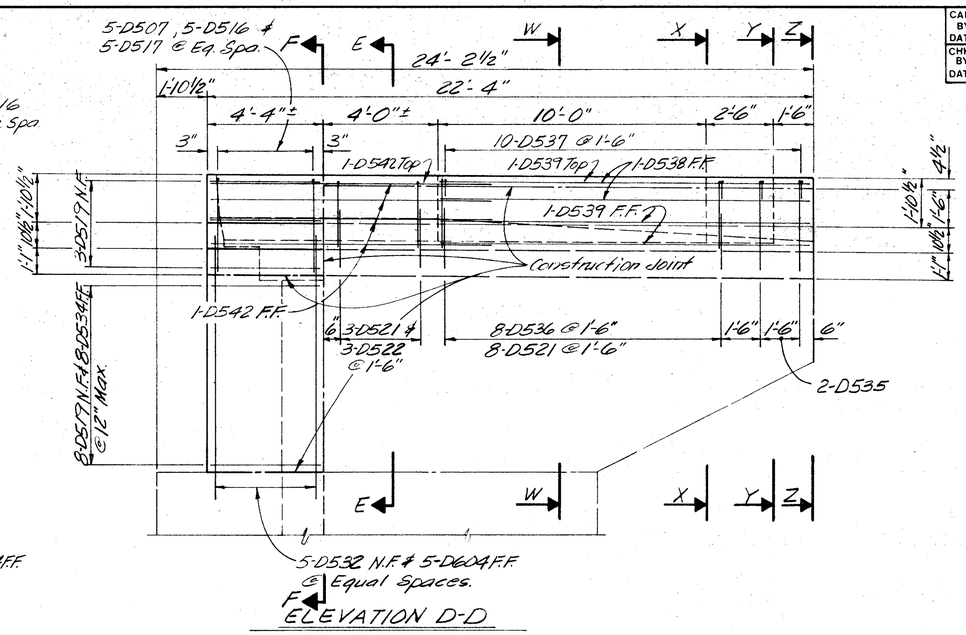
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 1-1-79

CALC. BY		HAMILTON COUNTY	OHIO	234
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



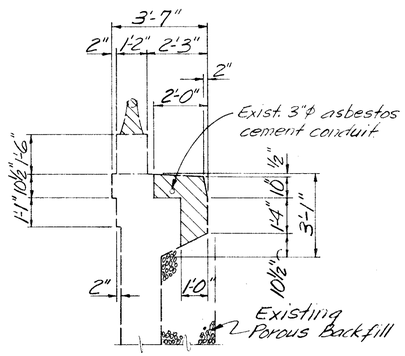
ELEVATION C-C



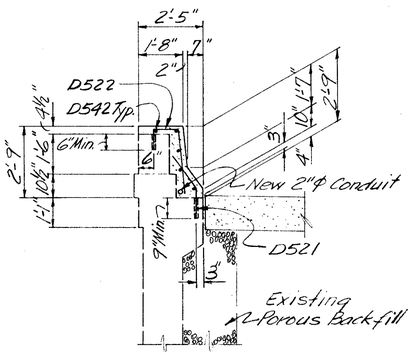
ELEVATION D-D

Notes:

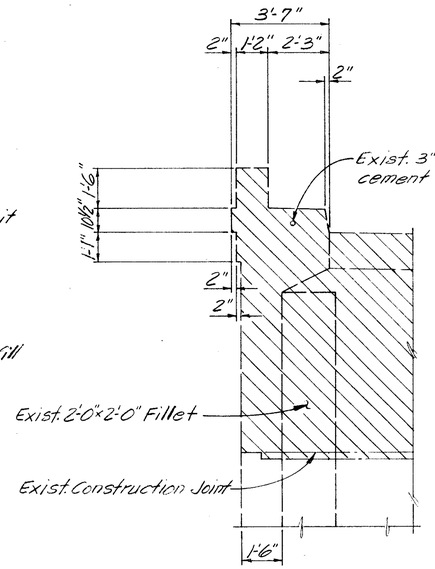
1. F.F. = Far Face
   N.F. = Near Face
2. For Section W-W, X-X, Y-Y & Z-Z, see Sheet 10 | 14.



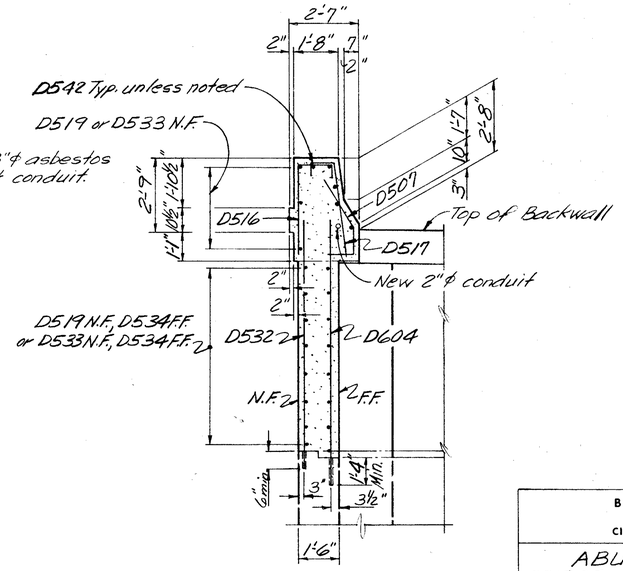
SECTION E-E
(Showing Removal)



SECTION E-E



SECTION F-F
SECTION G-G (OPPOSITE HAND)
(Showing Removal)



SECTION F-F
SECTION G-G (OPPOSITE HAND)

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

9 | 14

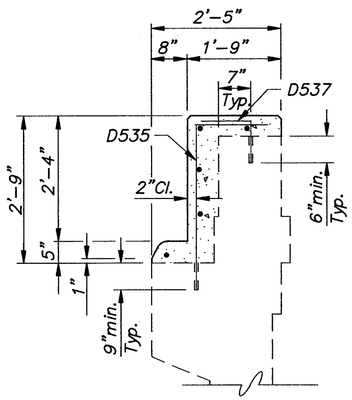
ABUTMENT B
BRIDGE NO. HAM-50-2011 R. & L.
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	.

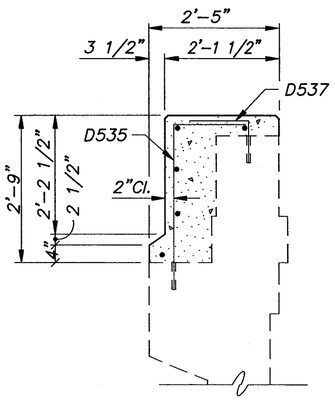
OHIO BLUE PRINT 7-2760

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

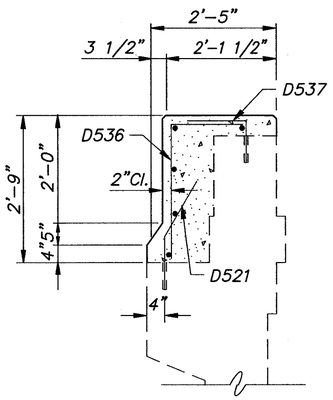
235/255



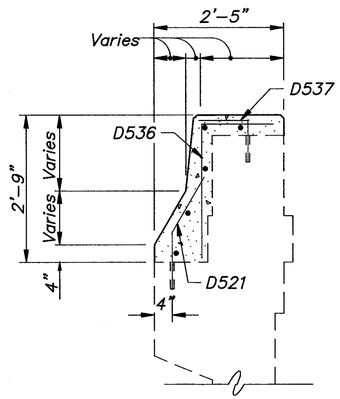
SECTION Z–Z



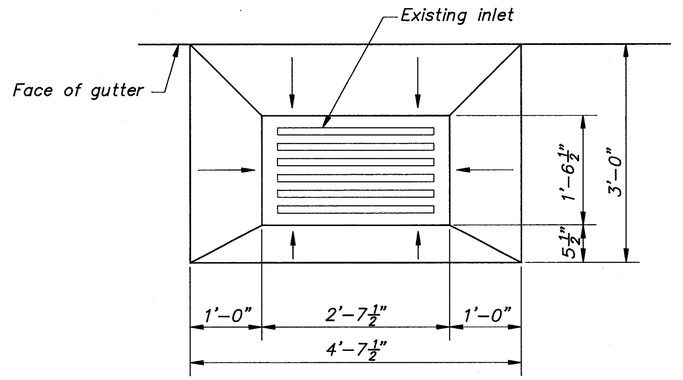
SECTION Y–Y



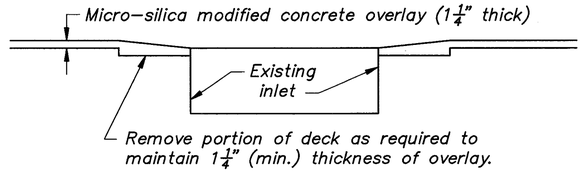
SECTION X–X



SECTION W–W



PLAN AT INLET



SECTION THRU INLET

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

10/14

MISCELLANEOUS DETAILS

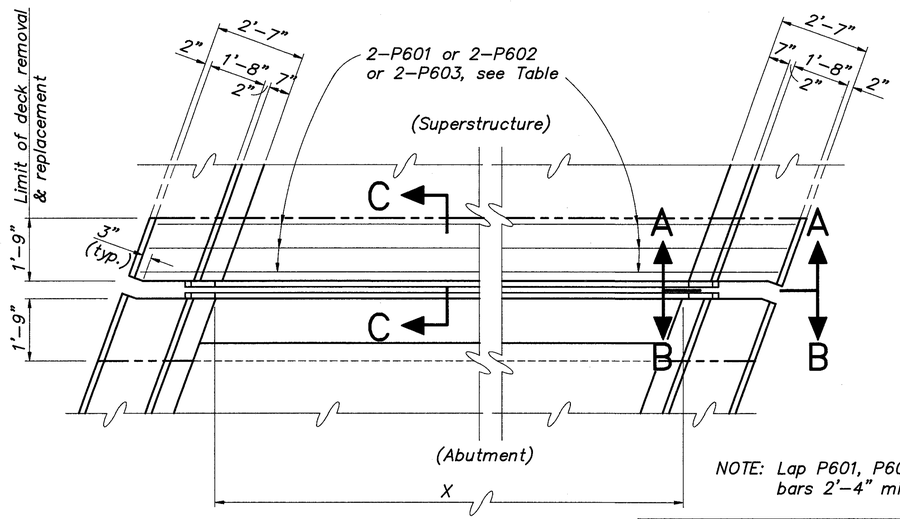
BRIDGE NO. HAM–50–2011 R & L
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 2 8908\2011MC1

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO	236
CHKD. BY DATE		FHWA REGION 5	255

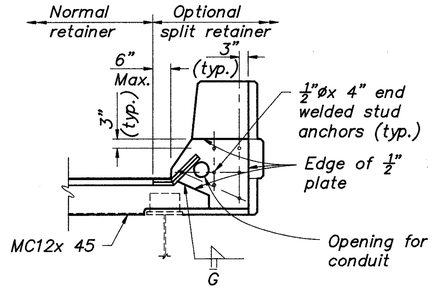
SUPERSTRUCTURE BARS			
LEFT BRIDGE		RIGHT BRIDGE	
ABUT. A	ABUT. B	ABUT. A	ABUT. B
P601	P602	P603	P602



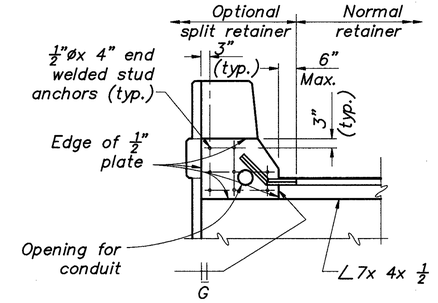
NOTE: Lap P601, P602 & P603 bars 2'–4" minimum.

PARTIAL PLAN
(ABUTMENTS)

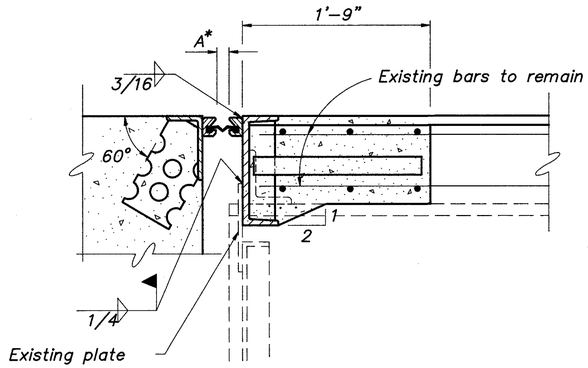
FACE TO FACE OF CURB (DIM. X)			
LEFT BRIDGE		RIGHT BRIDGE	
ABUT. A	ABUT. B	ABUT. A	ABUT. B
54'–2 1/4"±	48'–9 1/2"±	74'–6 1/2"±	48'–8 3/4"±



SECTION A–A



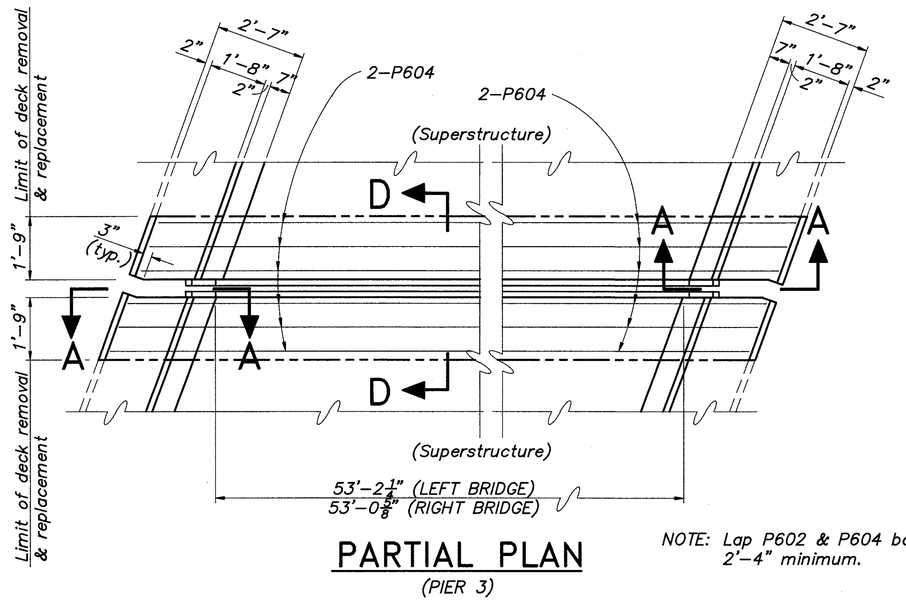
SECTION B–B



SECTION C–C

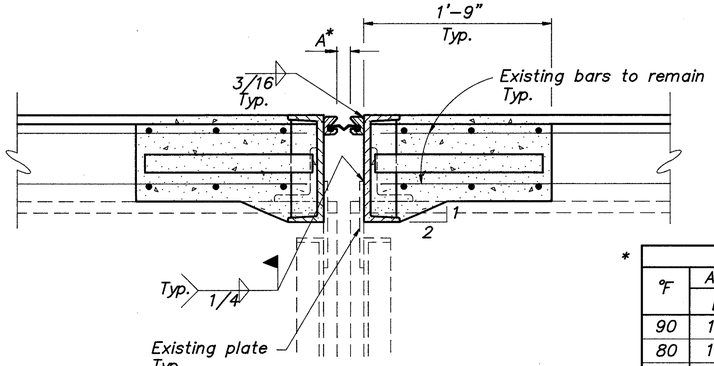
STRIP SEAL GLAND			
LOCATION	MANUFACTURER		
	D.S. Brown Co.	Watson–Bowman & Acme Corp.	Structural Acc. Inc.
Abut. A	300L	SE–300	–
Pier 3	500L	SE–500	50SEQ
Abut. B	500L	SE–500	50SEQ

Gland shall be provided in continuous strip and inserted after all phases of extrusion installation are complete.



NOTE: Lap P602 & P604 bars 2'–4" minimum.

PARTIAL PLAN
(PIER 3)



SECTION D–D

*

°F	OPENING WIDTH		
	ABUT. A	ABUT. B	PIER 3
	DIM A	DIM A	DIM A
90	1 1/4"	2"	1 7/8"
80	1 3/8"	2 1/4"	2 1/8"
70	1 1/2"	2 1/2"	2 3/8"
60	1 5/8"	2 3/4"	2 5/8"
50	1 3/4"	3"	2 7/8"
40	1 7/8"	3 1/4"	3 1/8"
30	2"	3 1/2"	3 3/8"

NOTE:
For additional details on expansion joint, see Std. Drawing EXJ –4–87.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

11/14

EXPANSION JOINT DETAILS

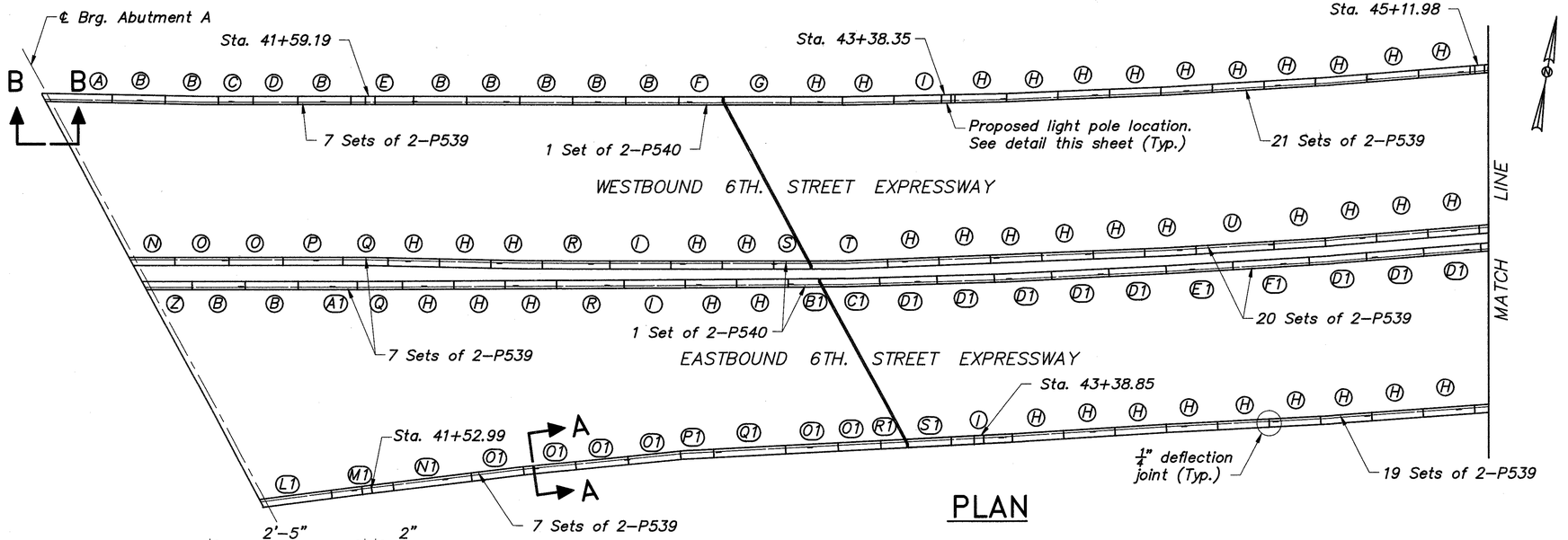
BRIDGE NO. HAM–50–2011 R & L
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

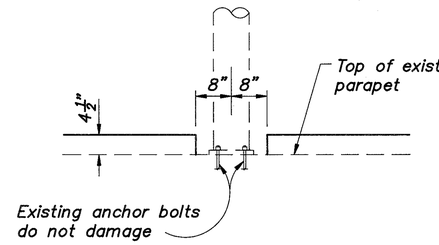
DISK 2 2011EJ1

CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

237/255

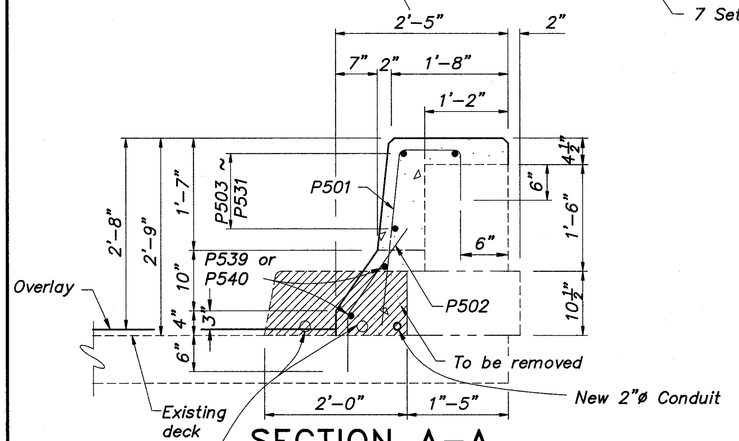


PLAN

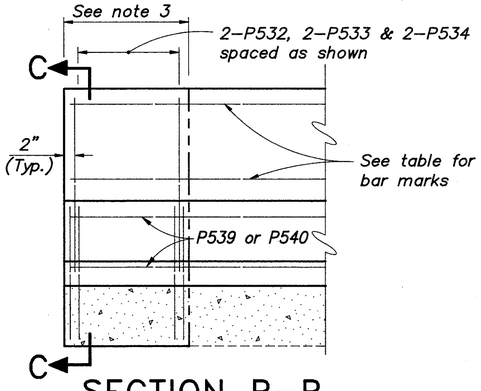


LIGHT POLE SUPPORT DETAIL

NOTE: Light pole locations match existing pole locations.

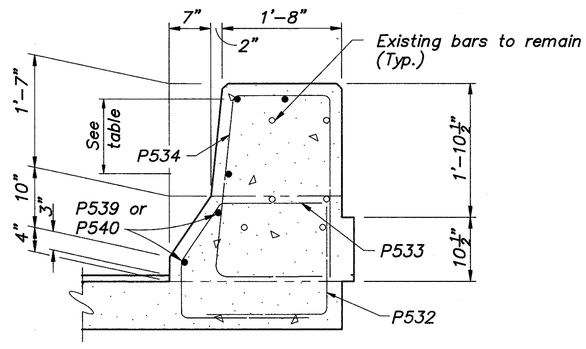


SECTION A-A

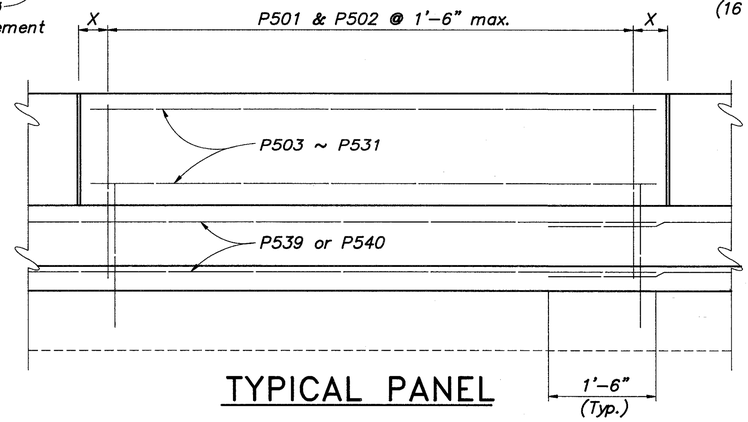


SECTION B-B

(16 REQUIRED)

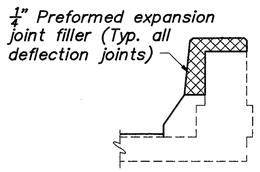


SECTION C-C



TYPICAL PANEL

(See table, sheet 13/14 for number of bars and value of X)



DEFLECTION JOINT DETAIL

New deflection joints shall match the existing deflection joints locations.

NOTE:
1. For additional panel information, see sheet 13/14
2. P501 & P502 to be dowelled into existing concrete as shown.
3. Within limits shown, remove full parapet and curb section and replace as shown in section C-C. Care shall be taken not to damage horizontal steel during concrete removal. This steel shall be incorporated in the new parapet. For limits of concrete removal and replacement, see expansion joint details.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

12/14

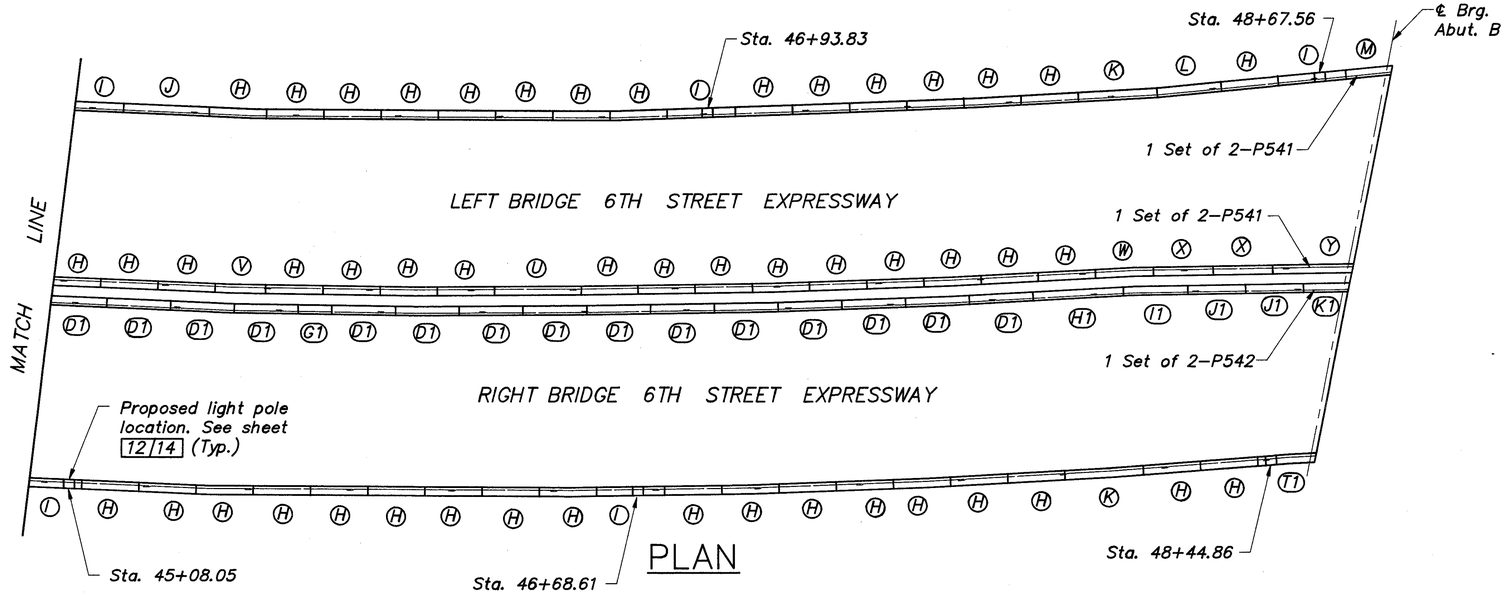
PARAPET DETAILS

BRIDGE NO. HAM-50-2011 R & L
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 2 2011P1

CALC. BY DATE	HAMILTON COUNTY HAM-50-19.36	OHIO	238
CHKD. BY DATE		FHWA REGION 5	255



PARAPET PANELS				
MARK	NO.	PANEL LENGTH	DIM. X	BARS NEEDED
(A)	1	21'-10 1/8	5"	13-P501, 13-P502 & 3-P503
(B)	10	16'-6	2"	12-P501, 12-P502 & 3-P504
(C)	1	10'-10 1/2	2 1/4"	8-P501, 8-P502 & 3-P505
(D)	1	13'-10 1/2	2 1/4"	10-P501, 10-P502 & 3-P506
(E)	1	19'-6	2"	14-P501, 14-P502 & 3-P507
(F)	1	13'-10	2"	8-P501, 8-P502 & 3-P506
(G)	1	21'-0 1/4	2"	13-P501, 13-P502 & 3-P508
(H)	90	16'-0	2"	12-P501, 12-P502 & 3-P509
(I)	9	19'-0	2"	14-P501, 14-P502 & 3-P510
(J)	1	24'-0	2"	17-P501, 17-P502 & 3-P511
(K)	2	22'-0	2"	16-P501, 16-P502 & 3-P512
(L)	1	18'-0	2"	13-P501, 13-P502 & 3-P513
(M)	1	13'-4	2"	8-P501, 8-P502 & 3-P514
(N)	1	11'-8	2"	7-P501, 7-P502 & 3-P535
(O)	2	16'-10	2"	12-P501, 12-P502 & 3-P504
(P)	1	18'-7 1/2	3 3/4"	13-P501, 13-P502 & 3-P515
(Q)	2	14'-0	3"	10-P501, 10-P502 & 3-P506
(R)	1	21'-0	2"	15-P501, 15-P502 & 3-P508
(S)	1	13'-5 5/8	2"	8-P501, 8-P502 & 3-P514
(T)	1	21'-6 7/8	3 1/2"	13-P501, 13-P502 & 3-P516
(U)	2	24'-3	2"	17-P501, 17-P502 & 3-P511
(V)	1	14'-1 1/2	3 3/4"	10-P501, 10-P502 & 3-P517
(W)	1	16'-3 1/2	2"	12-P501, 12-P502 & 3-P518
(X)	2	16'-8	2"	12-P501, 12-P502 & 3-P504
(Y)	1	20'-4 1/4	2"	12-P501, 12-P502 & 3-P538
(Z)	1	11'-3 5/8	2"	7-P501, 7-P502 & 3-P536

PARAPET PANELS				
MARK	NO.	PANEL LENGTH	DIM. X	BARS NEEDED
(A1)	1	18'-4 1/2	2 1/4"	13-P501, 13-P502 & 3-P519
(B1)	1	13'-8 1/8	2"	8-P501, 8-P502 & 3-P520
(C1)	1	14'-5 1/4	2"	9-P501, 9-P502 & 3-P521
(D1)	23	17'-10	2"	13-P501, 13-P502 & 3-P522
(E1)	1	20'-9 1/2	2"	15-P501, 15-P502 & 3-P523
(F1)	1	23'-9 1/2	2"	17-P501, 17-P502 & 3-P524
(G1)	1	9'-4 1/2	2 1/4"	7-P501, 7-P502 & 3-P525
(H1)	1	25'-3 1/2	2"	18-P501, 18-P502 & 3-P526
(I1)	1	18'-0 1/2	2"	13-P501, 13-P502 & 3-P513
(J1)	2	16'-2	2"	12-P501, 12-P502 & 3-P518
(K1)	1	19'-2 3/8	2"	12-P501, 12-P502 & 3-P537
(L1)	1	21'-8 3/4	4 3/8"	13-P501, 13-P502 & 3-P516
(M1)	1	19'-4	2"	14-P501, 14-P502 & 3-P527
(N1)	1	24'-6	3"	17-P501, 17-P502 & 3-P528
(O1)	6	16'-4	2"	12-P501, 12-P502 & 3-P518
(P1)	1	10'-3	2"	8-P501, 8-P502 & 3-P529
(Q1)	1	22'-5	2"	16-P501, 16-P502 & 3-P530
(R1)	1	5'-1 1/2	2"	3-P501, 3-P502 & 3-P531
(S1)	1	13'-6	2"	8-P501, 8-P502 & 3-P514
(T1)	1	16'-5 1/2	2"	10-P501, 10-P502 & 3-P504

All reinforcing bars to be epoxy coated.

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13/14

PARAPET DETAILS

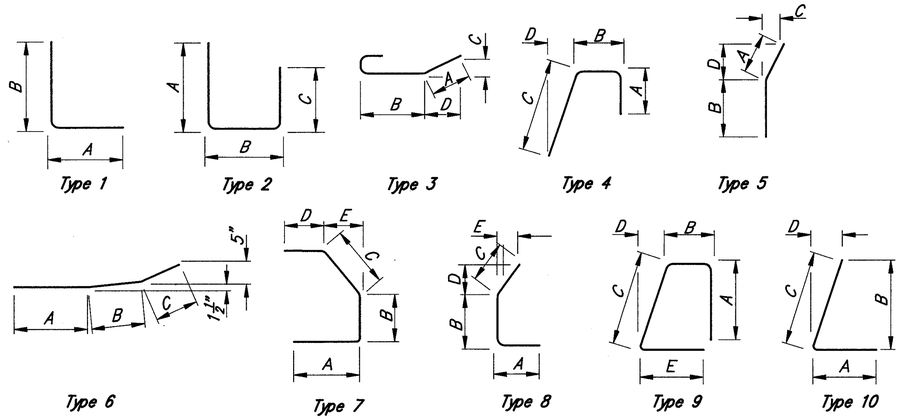
BRIDGE NO. HAM-50-2011 R & L
SIXTH STREET EXPRESSWAY
OVER CONRAIL AND LINN STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

CALC. BY DATE		HAMILTON COUNTY HAM-50-19.36	OHIO	239/255
CHKD. BY DATE			FHWA REGION 5	

REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
D801	142	4'-11	1864	3	1'-5	2'-7	0'-8 1/2	0'-8 1/2		64	78
D601	136	6'-10	1396	2	4'-10	1'-4	1'-0			58	78
D602	7	7'-1	75	Str.						3	4
D603	106	10'-0	1592	2	8'-0	1'-4	1'-0			53	53
D604	9	10'-4	140	Str.						4	5
D501	11	21'-9	250	Str.						11	–
D502	11	18'-8	214	Str.						11	–
D503	11	18'-4	210	Str.						11	–
D504	5	3'-0	16	5	1'-6	1'-6	1'-5	0'-6 1/8		5	–
D505	136	4'-1	579	Str.						58	78
D506	242	6'-8	1683	2	3'-0	0'-11	3'-0			111	131
D507	24	3'-9	94	8	0'-10	1'-3	1'-9	1'-5 1/4	1'-0 1/8	11	13
D508	8	3'-9	32	1	0'-10	3'-0				4	4
D509	8	5'-9	48	4	2'-3	1'-4	2'-3	0'-2 3/4		4	4
D510	12	1'-6	18	Str.						6	6
D511	11	19'-6	224	Str.						–	11
D512	22	29'-8	681	Str.						–	22
D513	5	4'-0	21	10	2'-0	1'-10 3/8	2'-0	0'-8 3/4		–	5
D514	11	1'-9	20	Str.						11	–
D515	7	5'-6	40	Str.						3	4
D516	16	5'-0	84	2	3'-3	1'-4	0'-9			7	9
D517	16	4'-9	80	4	0'-9	1'-0	3'-3	0'-4		7	9
D518	7	4'-3	31	Str.						–	7
D519	15	3'-9	59	Str.						–	15
D520	4	16'-8	70	Str.						–	4
D521	45	2'-9	129	5	1'-9	1'-0	1'-0 1/8	1'-5 1/4		20	25
D522	20	3'-9	78	4	0'-8	1'-0	2'-3	0'-2 3/4		3	17
D523	106	7'-2	792	Str.						53	53
D524	12	1'-3	16	Str.						6	6
D525	2	4'-0	8	Str.						2	–
D526	4	9'-1	38	2	4'-0	1'-4	4'-0			2	2
D527	9	4'-0	38	5	2'-0	2'-0	1'-11	0'-6 3/4		9	–
D528	19	23'-3	461	Str.						19	–
D529	2	3'-3	7	Str.						–	2
D530	9	4'-0	38	10	2'-0	1'-11 1/8	2'-0	0'-6 1/2		–	9
D531	19	22'-3	441	Str.						–	19
D532	9	9'-6	90	Str.						4	5
D533	11	3'-0	34	Str.						11	–
D534	16	3'-6	58	Str.						8	8
D535	6	4'-7	29	1	1'-4	3'-4				4	2
D536	25	3'-9	97	1	1'-4	2'-6				17	8
D537	31	1'-7	52	1	0'-8	1'-0				21	10
D538	6	15'-6	97	6	11'-9	2'-4	1'-5			4	2
D539	9	15'-6	145	Str.						6	3
D540	5	4'-0	21	Str.						5	–
D541	38	31'-8	1256	Str.						19	19
D542	10	8'-4	86	Str.						5	5
P601	12	30'-9	554	Str.						12	–
P602	24	28'-1	1012	Str.						12	12
P603	12	40'-10	736	Str.						–	12
P604	48	30'-1	2169	Str.						–	48
P501	2272	4'-0	9479	4	0'-8	1'-0	2'-5	0'-3		1164	1108
P502	2272	2'-3	5332	5	1'-5	0'-10	0'-10	1'-2		1164	1108
P503	3	21'-6	67	Str.						3	–
P504	45	16'-2	759	Str.						36	9
P505	3	10'-6	33	Str.						3	–
P506	12	13'-6	169	Str.						9	3
P507	3	19'-2	60	Str.						3	–
P508	9	20'-8	194	Str.						6	3
P509	270	15'-8	4412	Str.						174	96
P510	27	18'-8	526	Str.						15	12
P511	9	23'-8	222	Str.						9	–
P512	6	21'-8	136	Str.						3	3
P513	6	17'-8	110	Str.						3	3
P514	9	13'-0	122	Str.						6	3
P515	3	18'-4	57	Str.						3	–
P516	6	21'-3	132	Str.						3	3
P517	3	13'-10	43	Str.						3	–
P518	27	15'-11	448	Str.						3	24



REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
P519	3	18'-0	56	Str.						–	3
P520	3	13'-4	42	Str.						–	3
P521	3	14'-1	44	Str.						–	3
P522	69	17'-6	1259	Str.						–	69
P523	3	20'-6	64	Str.						–	3
P524	3	23'-6	74	Str.						–	3
P525	3	9'-0	28	Str.						–	3
P526	3	24'-11	78	Str.						–	3
P527	3	19'-0	59	Str.						–	3
P528	3	24'-2	76	Str.						–	3
P529	3	9'-11	31	Str.						–	3
P530	3	22'-1	69	Str.						–	3
P531	3	4'-10	15	Str.						–	3
P532	32	2'-11	98	1	1'-6	1'-6				16	16
P533	32	5'-0	166	7	2'-0	0'-10	1'-0	1'-4	0'-6	16	16
P534	32	7'-2	240	9	2'-5	1'-3	2'-5	0'-3 1/2	1'-5	16	16
P535	3	11'-4	35	Str.						3	–
P536	3	10'-11 1/2	34	Str.						–	3
P537	3	18'-10 1/2	59	Str.						–	3
P538	3	20'-0	63	Str.						3	–
P539	216	30'-0	6759	Str.						110	106
P540	6	12'-6	78	Str.						4	2
P541	4	8'-0	33	Str.						4	–
P542	2	4'-3	9	Str.						–	2

NOTES

1. REINFORCING STEEL SAMPLES: REFER TO CMS SECTION 106.03, 700, 709.01 THRU. 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. ALL BARS ARE TO BE EPOXY COATED.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

14/14

REINFORCING STEEL LIST

BRIDGE NO. HAM-50-2011 R & L

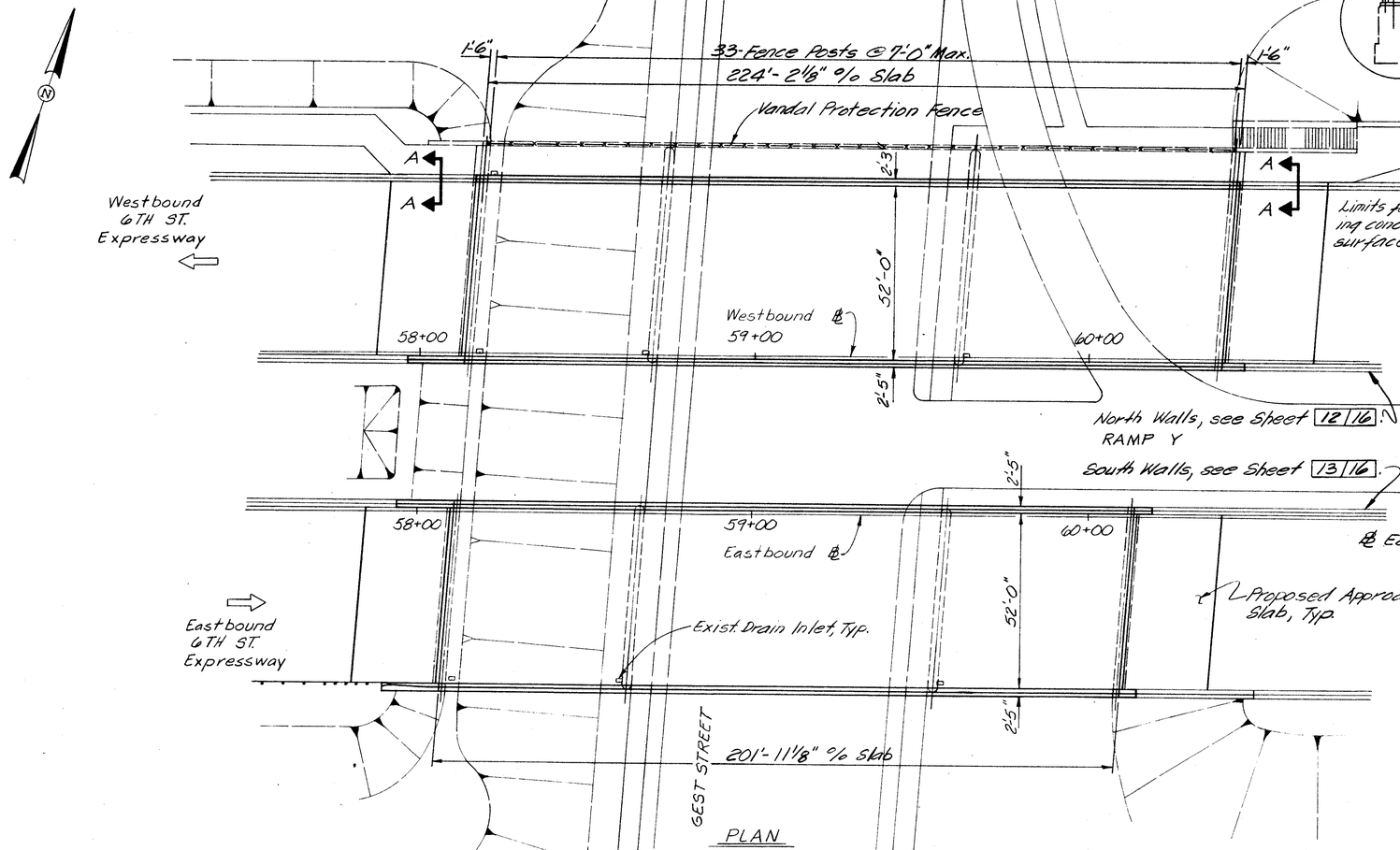
SIXTH STREET EXPRESSWAY

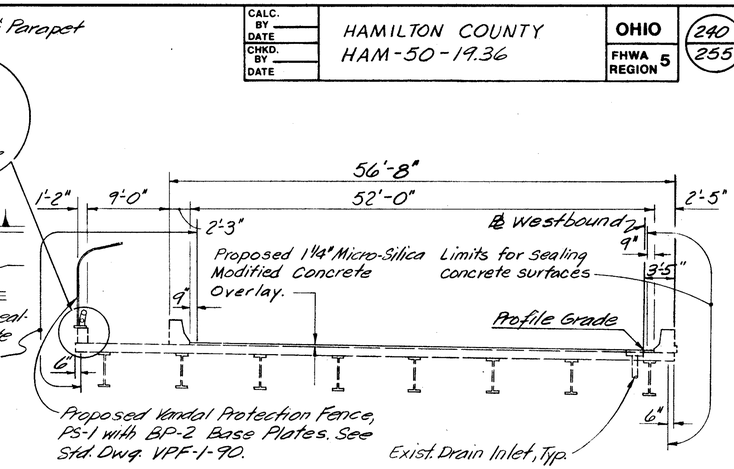
OVER CONRAIL AND LINN STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

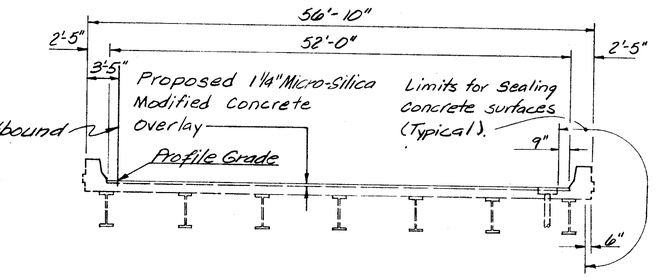
DISK 2 2011RS1

CALC. BY		HAMILTON COUNTY	OHIO	240
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				

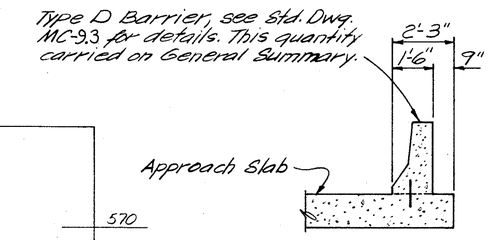




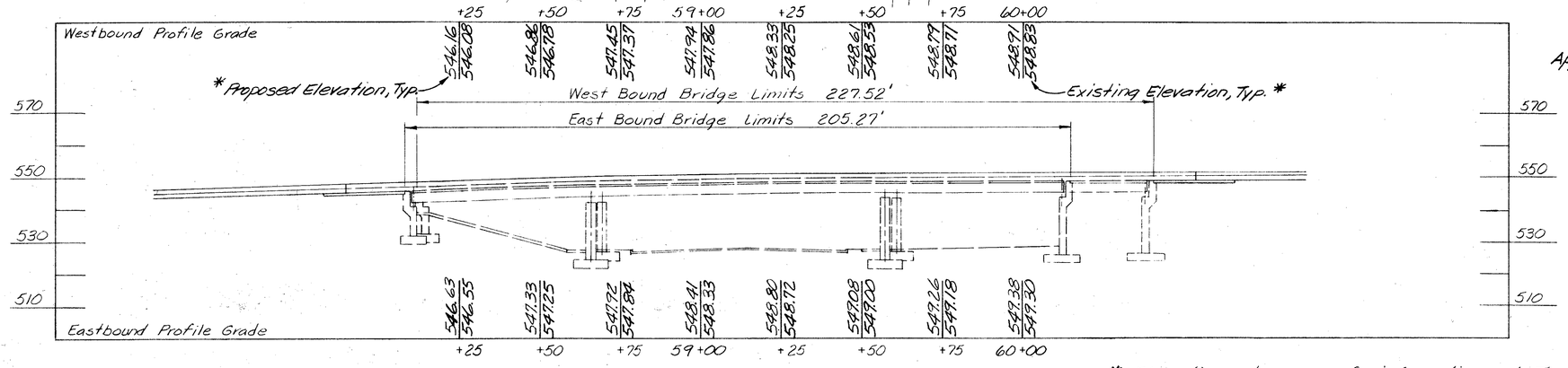
TRANSVERSE SECTION WESTBOUND



TRANSVERSE SECTION EASTBOUND



SECTION A-A



ELEVATION

* Elevations shown are for information only. The 1 1/4" micro-silica modified concrete overlay shall be of uniform thickness and final deck elevations will not necessarily conform to profile shown.

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1848 SUMMIT RD.
CINCINNATI, OHIO 45237

1 16

GENERAL PLAN

BRIDGE NO. HAM-50-2043 LT. & RT.
SIXTH ST. EXPRESSWAY
OVER GEST STREET
HAMILTON COUNTY STA. 59+19.20

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	ALH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 1-800-22

CALC. BY DATE		HAMILTON COUNTY HAM–50–19.36	OHIO	241
CHKD. BY DATE			FHWA REGION 5	255

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

Reference shall be made to standard drawings:

AS–1–81	Dated	11–27–81
EXJ–4–87	Dated	1–5–89
VPF–1–90	Dated	9–26–90

Reference shall be made to supplemental specifications:

836	Dated	11–12–85
852	Dated	12–14–88

DESIGN STRESSES

Concrete compressive strength
- Class S – 4500 PSI
- Class C – 4000 PSI

Reinforcing steel – ASTM A615, A616, A617
- Minimum yield strength
- Grade 60 – 60,000 PSI

SCOPE OF WORK

The scope of work to be performed shall be executed in stages as shown and includes:

1. Add strip seals.
2. Refurbish and reset abutment bearings.
3. Refurbish drains.
4. Trim beam ends to clear backwall at all abutments.
5. Replace abutment backwalls, as indicated on plans.
6. Patch abutments & repair vertical joints.
7. Retrofit railings, as indicated on plans.
8. Seal railings, abutments and piers.
9. Overlay deck with $1\frac{1}{4}$" micro–silica modified concrete.
10. Replace approach slabs.

EXISTING STRUCTURE VERIFICATION

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and/or from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work, but they shall be considered tentative and approximate. It is the intent of these plans that the proposed additions to these structures match existing conditions. The contractor is referred to CMS sections 102.05 and 105.02.

Contract bid prices shall be based upon a recognition of the uncertainties described in the preceding paragraph and upon a prebid examination of the existing structure by the Contractor. However, all project work shall be based upon actual details and dimensions which have been verified by the Contractor in the field.

ITEM 202 – PORTIONS OF STRUCTURES REMOVED

Removal of portions of existing structure shall be performed in such a manner as to prevent debris from falling onto the roadway below. All debris shall be removed from the site and disposed of by the Contractor.

REPLACEMENT OF EXISTING REINFORCING

Any existing reinforcing bars which are to be incorporated into the new work and which are made unusable by the Contractor's concrete removal operations shall be replaced with new steel at his cost. Any existing reinforcing bars deemed by the Engineer to be unusable because of corrosion shall be replaced with new steel. An allowance of 100 pounds is included in item 509 for this purpose.

ITEM SPECIAL – MICRO–SILICA MODIFIED CONCRETE OVERLAY

Longitudinal joints in the concrete overlay are permitted, but only to the extent necessary to accommodate the width of the finishing machine, to facilitate changes in the roadway crown, and to permit maintenance of vehicular traffic, see proposal note for details.

MAINTENANCE OF TRAFFIC

For maintenance of traffic on Sixth Street Expressway, see highway drawings.

PLANS FOR EXISTING BRIDGE

Plans of the existing structure are available for reference at the City of Cincinnati Engineer's Office and at the ODOT District Eight office.

ITEM 516 – REFURBISH BEARING DEVICE

This Item shall include all work necessary to clean and paint abutment rocker bearings. Included shall be:

1. Disassembly of rockers.
2. Hand cleaning (grinding if required.)
3. Sandblasting and Painting as required by Field Painting of Existing Steel, System OZEU, proposal note.
4. Replacement of any damaged sheet lead (711.19). Preformed bearing pads 1/8" thick, meeting the requirements of 711.21, may be substituted for the sheet lead.
5. Installation of any necessary 1/8" thick steel shims of the same size as the bearings to provide a snug fit.
6. Reassembly of the rockers.

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. Payment for all the above described labor and materials will be made at the contract price bid for Item 516 – REFURBISH BEARING DEVICE.

ITEM 516 – JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE

The ends of the beams at each abutment shall be jacked and the beams supported so bearings may be removed. Prior to jacking, the Contractor shall submit his jacking plan to the Engineer for approval.

ITEM 516 – RESET BEARINGS

Bearings at the abutments shall be reset to be vertical at 60° F. Masonry plates shall be adjusted to be centered under bearing.

ITEM 513 – TRIMMING OF BEAM ENDS

The ends of the beams shall be trimmed by removing 1". Care shall be taken not to damage the crossframe frame while trimming the end of the beam. A length of one foot shall be painted at each end of the beams with system EEU (see proposal note). Cost of painting shall be included with Item 513, Trimming of beam end for payment.

SEALING OF CONCRETE SURFACES

Portions of the structure shall be sealed as noted below. See the proposal note for application rates & materials. City of Cincinnati Principal Structural Design Engineer shall be contacted to determine color of sealer to be used.

1. Parapets shall be sealed as shown on sheet 1 / 16 with an epoxy or non–epoxy sealer. Walk surface shall be sealed with a non–epoxy sealer.
2. Abutment backwalls, beam seats, the face of the breastwall, wingwall, and retaining wall down to the groundline shall be sealed with an epoxy sealer.
3. The piers shall be sealed with an epoxy sealer. The sealer shall be applied to the sides and ends of the cap and the total surface of the columns.

REFURBISH DRAINS

This item shall include the cleaning and flushing out of the scupper inlet and downspout. The downspout shall be throughly cleaned so that water flows freely. All exposed pipes and supports shall be cleaned and painted as required by field painting of existing steel, system OZEU proposal note. Payment for all the above described labor and materials will be made at the contract price bid for Item 518 – structural drainage, misc: Refurbish drains.

ITEM 510

Dowel holes shall be drilled and grouted per Supplemental Specifications 852 and CMS 705.20.

EXISTING ASBESTOS CEMENT CONDUIT

The Contractor shall be aware that an asbestos cement conduit is present on the structure and may be encountered during conrete removal on the superstructure and abutments. All necessary precautions shall be taken to prevent contamination of the air and to avoid endangering the public or personnel on the job.

All federal, state and local environmental protection laws, regulations and ordinances including, but not limited to, air quality, waste containment and waste removal must be observed when working in areas containing asbestos cement conduit. It is

the responsibility of the Contractor to comply with all applicable laws.

Costs associated with removal and disposal of asbestos contaminated material shall be included for payment with Item 202, Portions of structures removed.

ESTIMATED QUANTITIES

ITEM	CODE	TOTAL	UNIT	DESCRIPTION	LEFT BRIDGE			RIGHT BRIDGE		
					ABUTMENTS	SUPERST.	GENERAL	ABUTMENTS	SUPERST.	GENERAL
202	11202	L.S.	Lump sum	Portions of structures removed, over 20 foot span	–	–	L.S.	–	–	L.S.
509	15800	32094	Lbs.	Epoxy coated reinforcing steel, grade 60	5698	5669	4573	5982	5050	5122
510	12200	2094	Lin. Ft.	Dowel hole	265	318	448	276	286	501
511	34400	85	Cu. Yd.	Class S concrete, superstructure (repair or reconstruction)	–	43	–	–	42	–
511	45700	174	Cu. Yd.	Class C concrete, abutment (repair or reconstruction)	44	–	39	47	–	44
SPECIAL	51267500	1940	Sq. Yd.	Sealing of concrete surfaces *	24	481	433	77	438	487
SPECIAL	51267502	1721	Sq. Yd.	Sealing of concrete surfaces (epoxy) *	624	–	183	730	–	184
513	21000	30	Each	Trimming of beam end*	–	16	–	–	14	–
516	11210	236	Lin. Ft.	Structural expansion joint including elastomeric strip seal	–	128	–	–	108	–
516	45304	30	Each	Refurbish bearing device	–	16	–	–	14	–
516	46700	30	Each	Reset bearing	–	16	–	–	14	–
516	47000	L.S.	Lump Sum	Jacking and temporary support of superstructure	–	L.S.	–	–	L.S.	–
516	13600	32	Sq. Ft.	1" preformed expansion joint filler	13	–	–	19	–	–
518	21200	62	Cu. Yd.	Porous backfill with filter fabric	34	–	–	28	–	–
518	63300	L.S.	Lump Sum	Structure drainage, misc.: refurbish drains	–	L.S.	–	–	L.S.	–
SPECIAL	51922000	2467	Sq. Yd.	Micro–silica modified concrete overlay ($1\frac{1}{4}$" thick)*	–	1298	–	–	1169	–
SPECIAL	51922100	155	Cu. Yd.	Micro–silica modified concrete overlay (variable thickness)*	–	93	–	–	62	–
SPECIAL	60739930	221	Lin. Ft.	Vandal protection fence, 12' curved, coated fabric	–	221	–	–	–	–
SPECIAL	51619600	34	Lin. Ft.	Precompressed joint filler	20	–	–	14	–	–

* See proposal note

CALCULATED BY : WJH DATE : 11/91

CHECKED BY : MRS DATE : 12/91

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

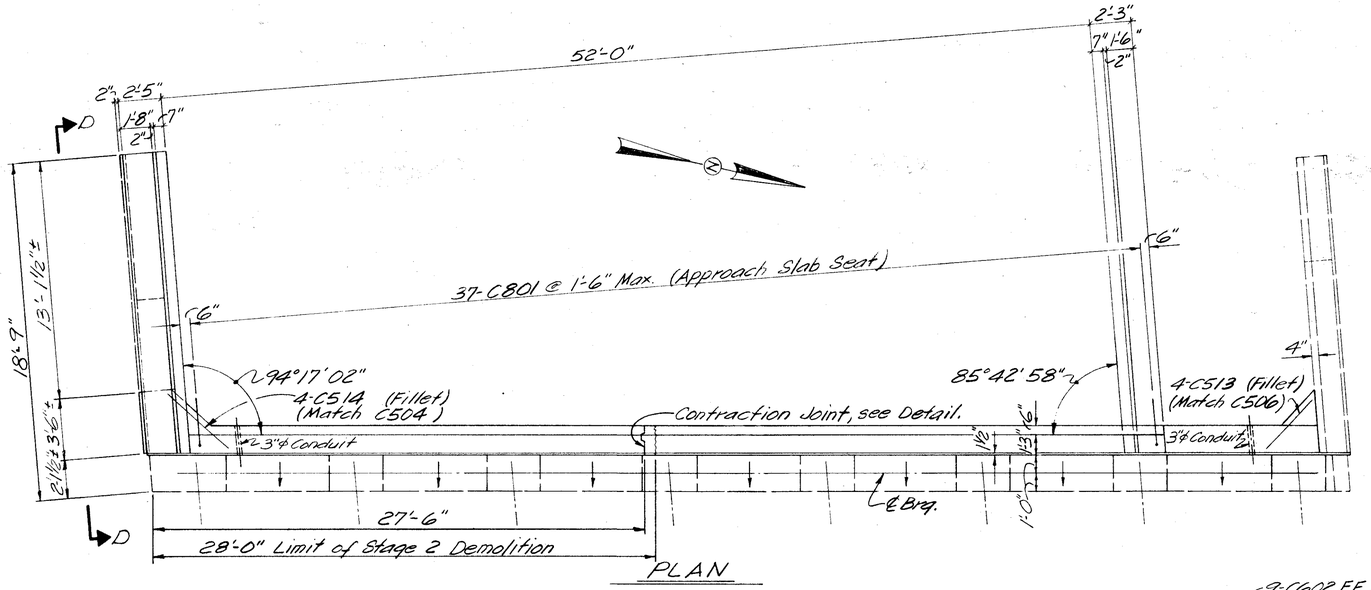
2 / 16

GENERAL NOTES & QUANTITIES

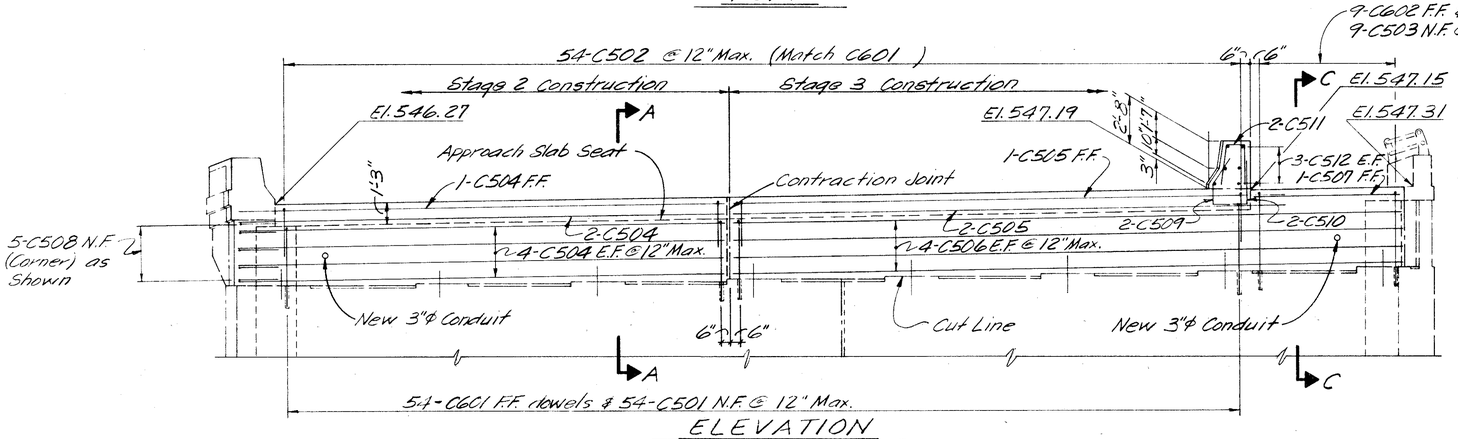
BRIDGE NO. HAM–50–2043 R & L
SIXTH STREET EXPRESSWAY
OVER GEST STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS	

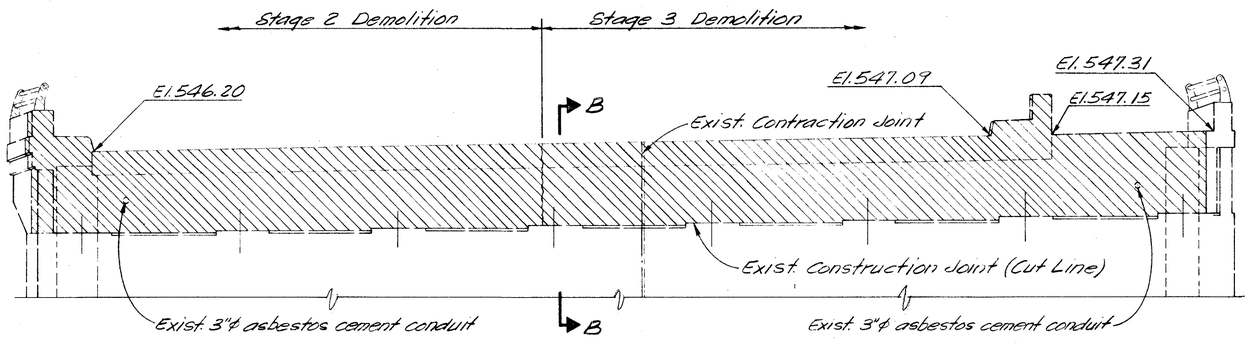
CALC. BY		HAMILTON COUNTY	OHIO	242
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



PLAN

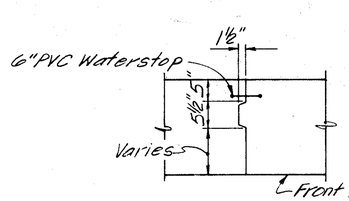


ELEVATION



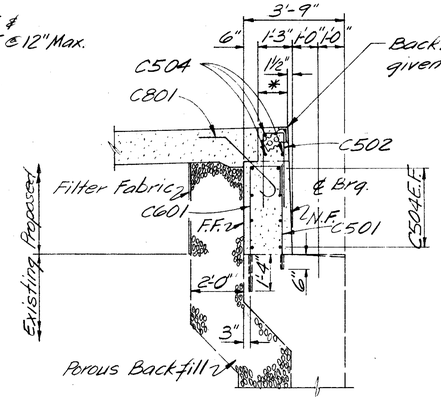
ELEVATION
(Showing Removal)

Denotes portion of existing structure to be removed.



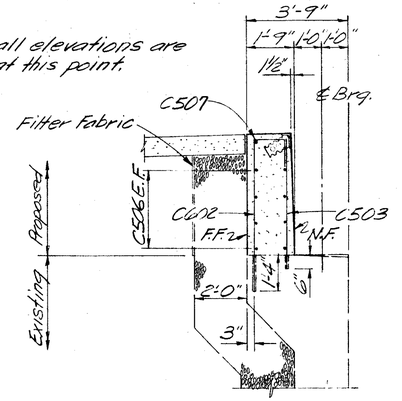
CONTRACTION JOINT DETAIL
(Proposed)

Waterstop to be Vinylex R4-316, Greenstreak 781 or approved equal. Waterstop to be securely held in place in approved manner to ensure correct positioning of waterstop is maintained.

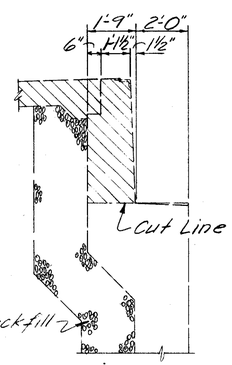


SECTION A-A

* This dimension based on opening width of expansion joint.



SECTION C-C

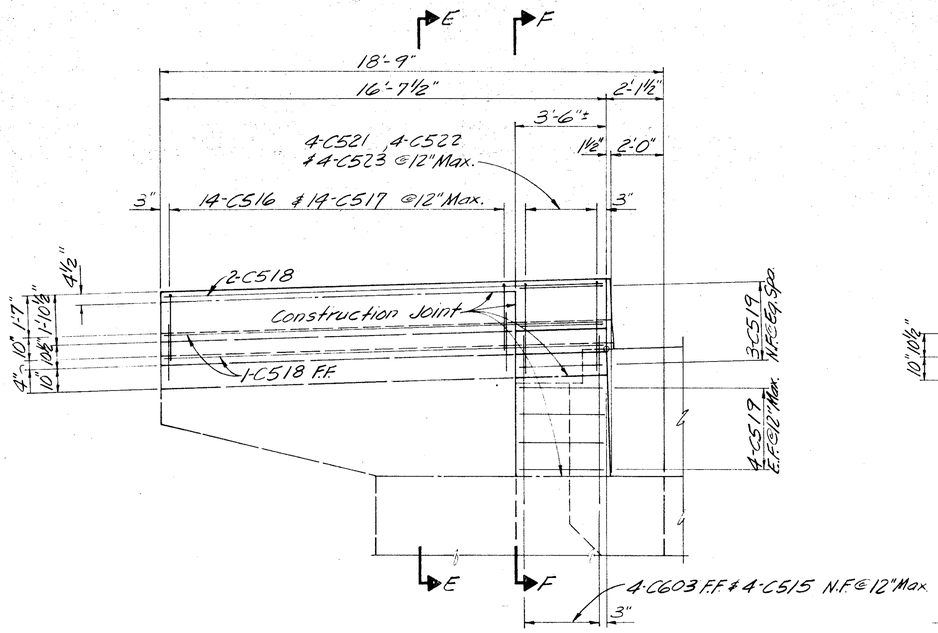


SECTION B-B
(Showing Removal)

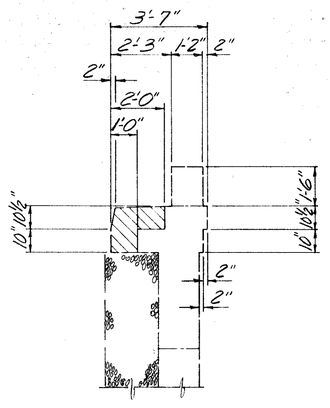
Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Elevation D-D, see Sht. 4/16.

BALKE ENGINEERS					3/16
1848 SUMMIT RD. CINCINNATI, OHIO 45237					
WEST ABUTMENT BRIDGE NO. HAM-50-2043 L WESTBOUND 6TH ST EXPRESSWAY OVER GEST STREET					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	.

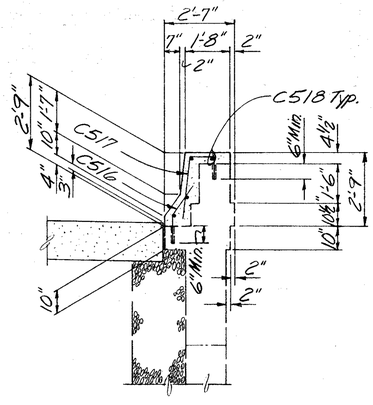
CALC. BY		HAMILTON COUNTY	OHIO	243
CHKD. BY		HAM-50-19.36	FHWA REGION 5	255
DATE	DATE			



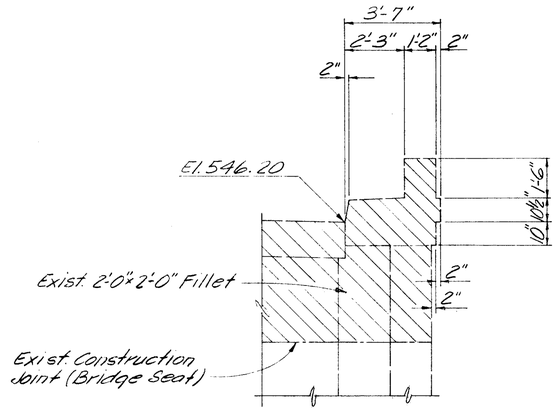
ELEVATION D-D



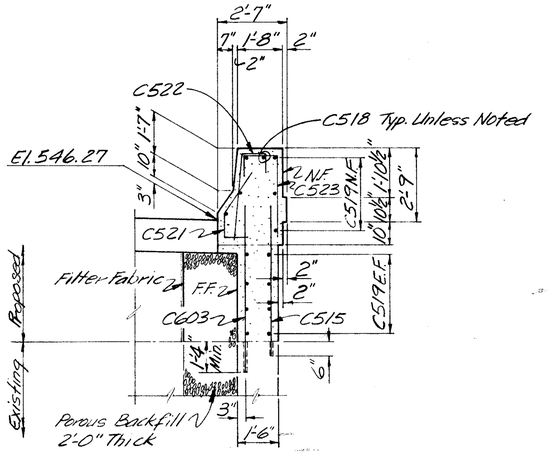
SECTION E-E
(Showing Removal)



SECTION E-E



SECTION F-F
(Showing Removal)



SECTION F-F

Note:
E.F. = Each Face
F.F. = Far Face
N.F. = Near Face

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

4/16

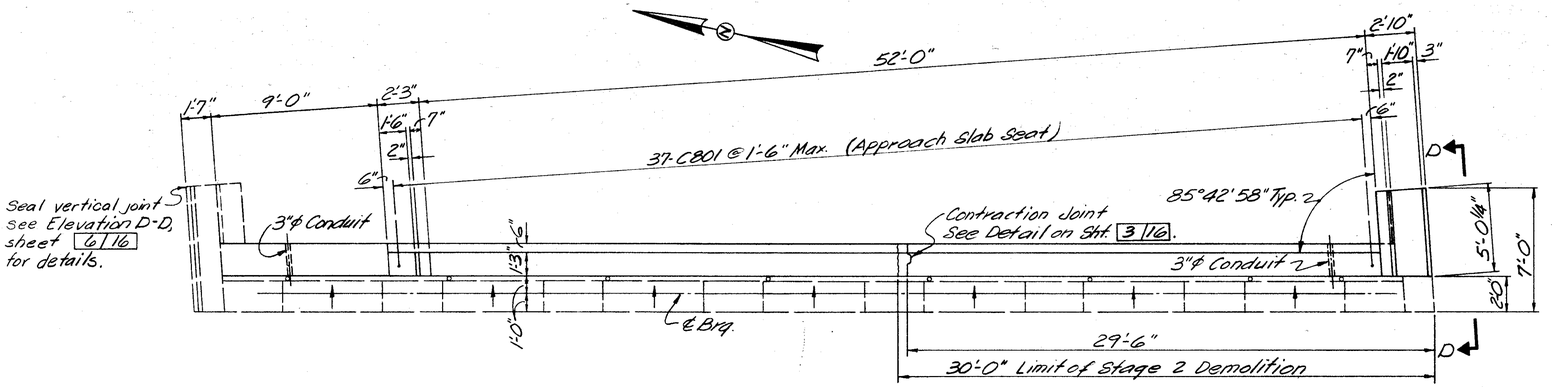
WEST ABUTMENT

BRIDGE NO. HAM-50-2043 L
WESTBOUND 6TH ST. EXPRESSWAY
OVER GEST STREET

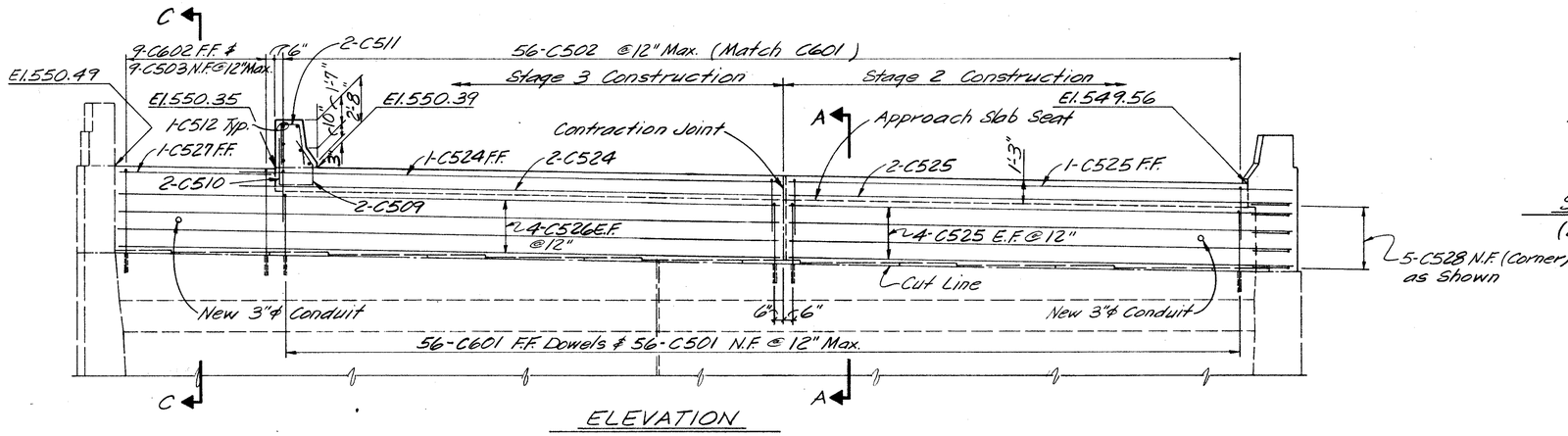
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	.

OHIO MUL PROJ NO(S)

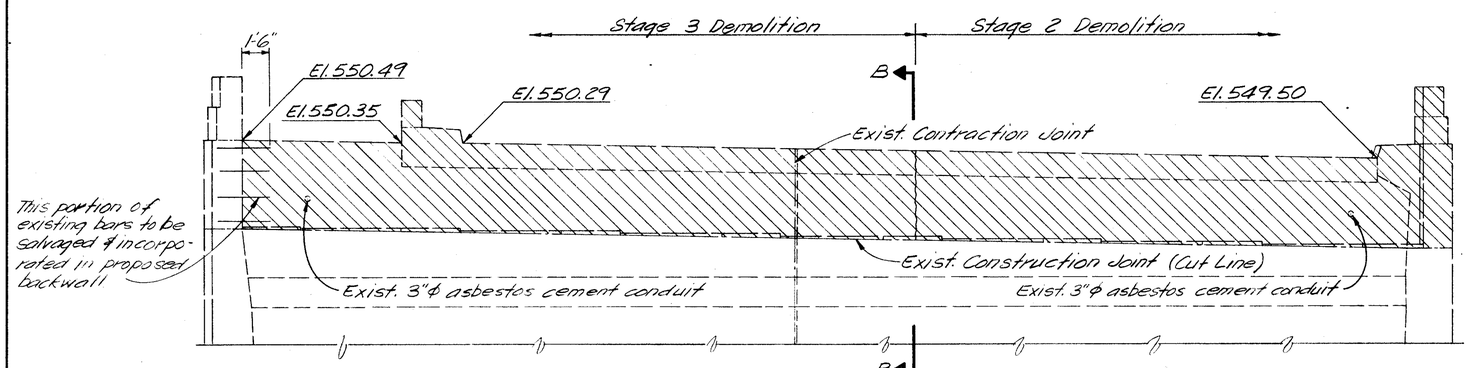
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	244 255
CHKD. BY / DATE			



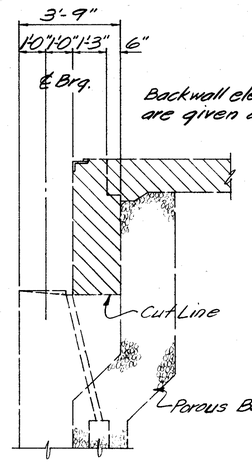
PLAN



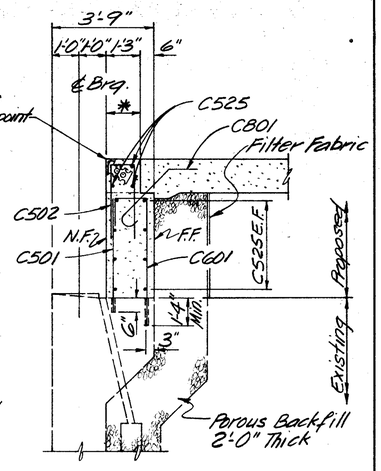
ELEVATION



ELEVATION
(Showing Removal)

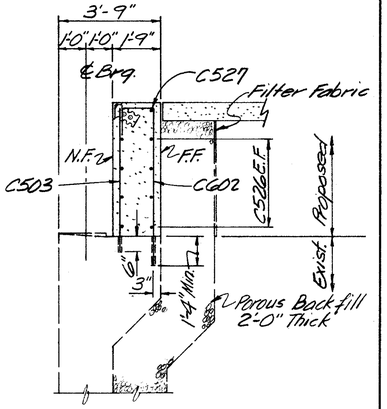


SECTION B-B
(Showing Removal)



SECTION A-A

* This dimension based on opening width of expansion joint.



SECTION C-C

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Elevation D-D, see Sht. 6/16.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

5/16

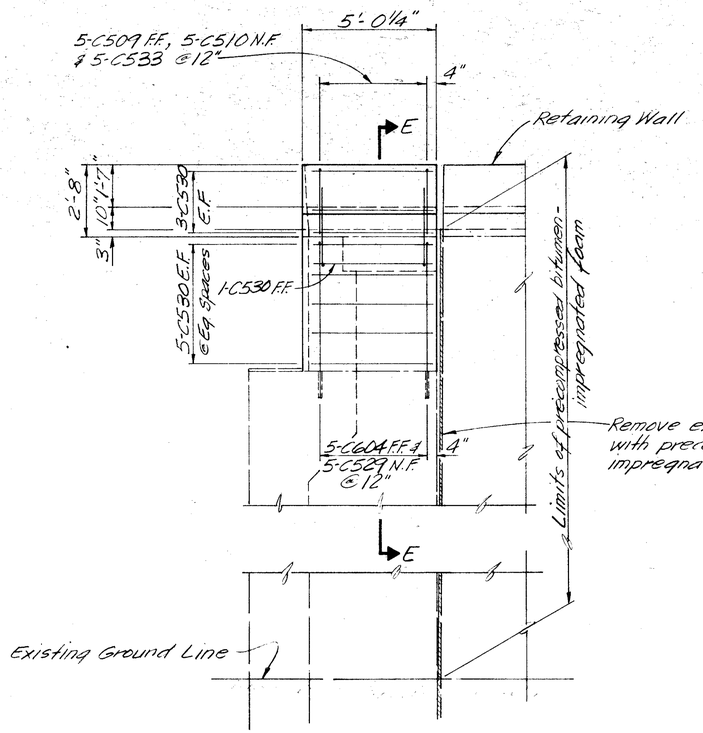
EAST ABUTMENT

BRIDGE NO HAM-50-2043 L
WESTBOUND 6TH ST. EXPRESSWAY
OVER GEST STREET

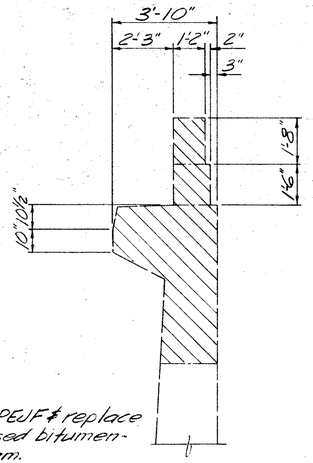
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 152963

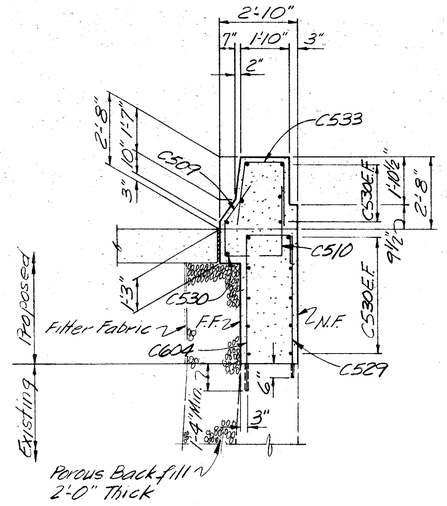
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	245 255
CHKD. BY / DATE			



ELEVATION D-D



SECTION E-E
(Showing Removal)



SECTION E-E

Note:
E.F. = Each Face
F.F. = Far Face
N.F. = Near Face

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

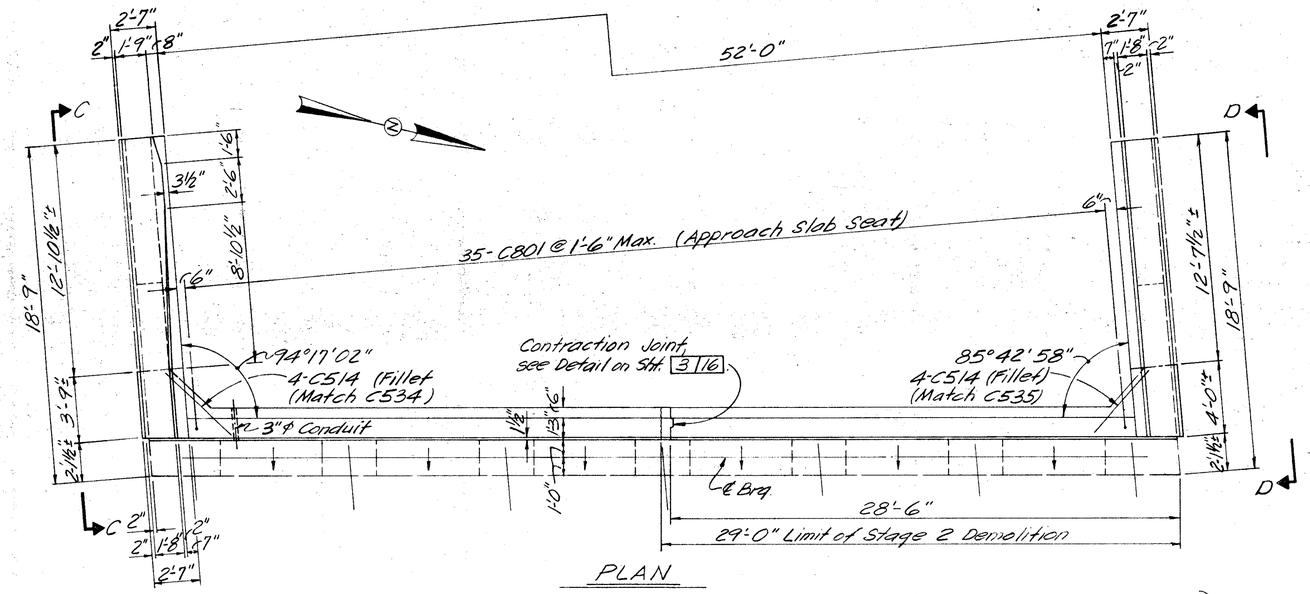
6/16

EAST ABUTMENT
BRIDGE NO. HAM-50-2043 L
WESTBOUND 6TH ST. EXPRESSWAY
OVER GEST STREET

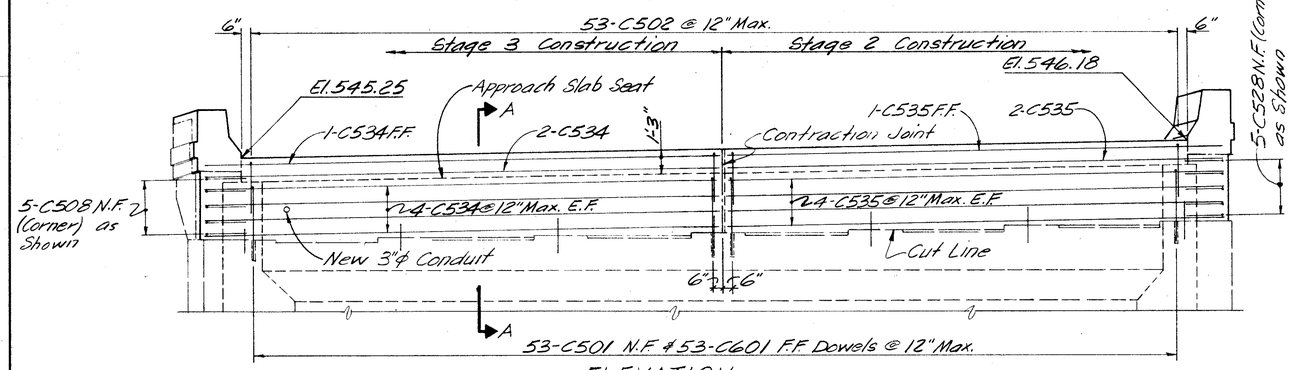
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO RLS HUNT 5.2 Rev

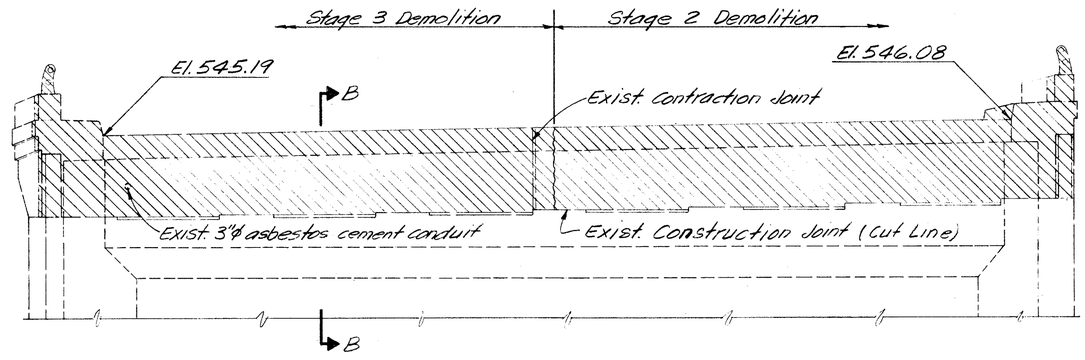
CALC. BY		HAMILTON COUNTY	OHIO	246
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



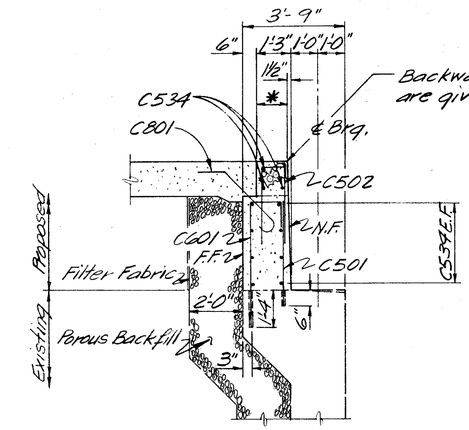
PLAN



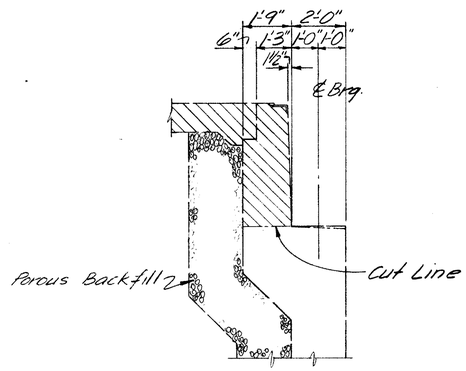
ELEVATION



ELEVATION
(Showing Removal)



SECTION A-A



SECTION B-B
(Showing Removal)

* This dimension based on opening width of expansion joint.

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Elevation C-C & D-D, see Sht. 8 16.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

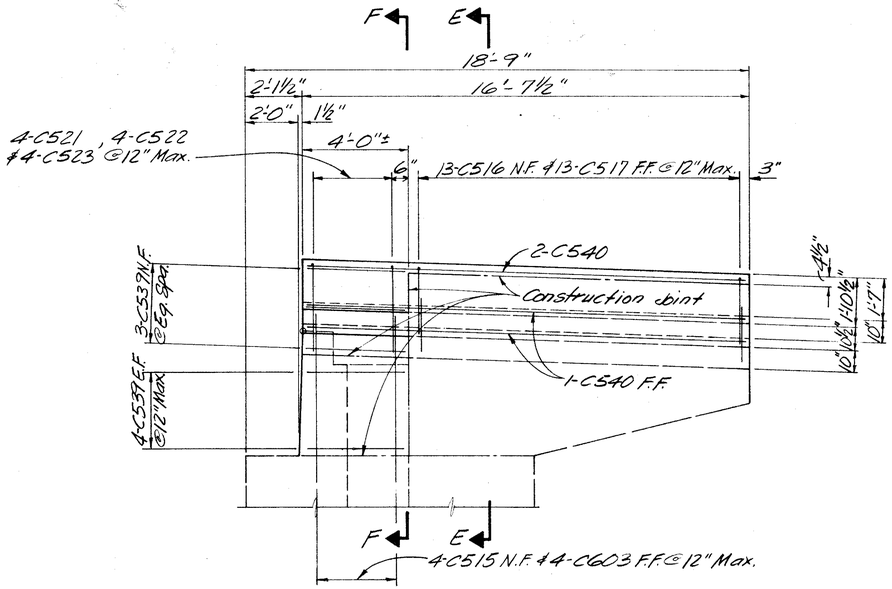
7 16

WEST ABUTMENT
BRIDGE NO. HAM-50-2043 R
EASTBOUND 6TH ST. EXPRESSWAY
OVER GEST STREET

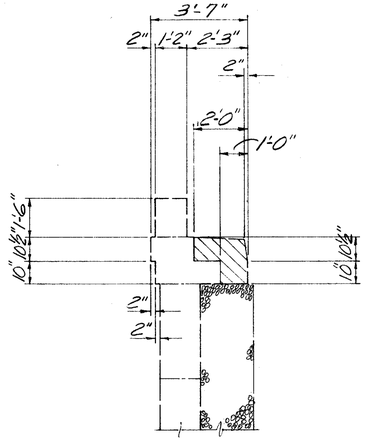
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO 3416.00 PRINT 11/16/00

CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	247 255
CHKD. BY / DATE			



ELEVATION D-D



SECTION E-E
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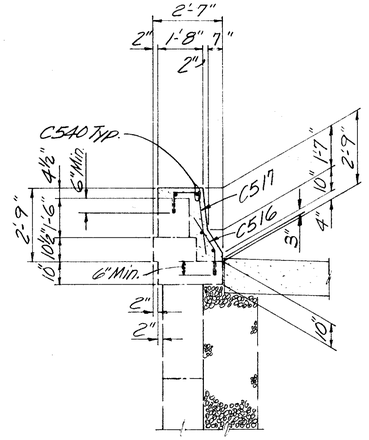
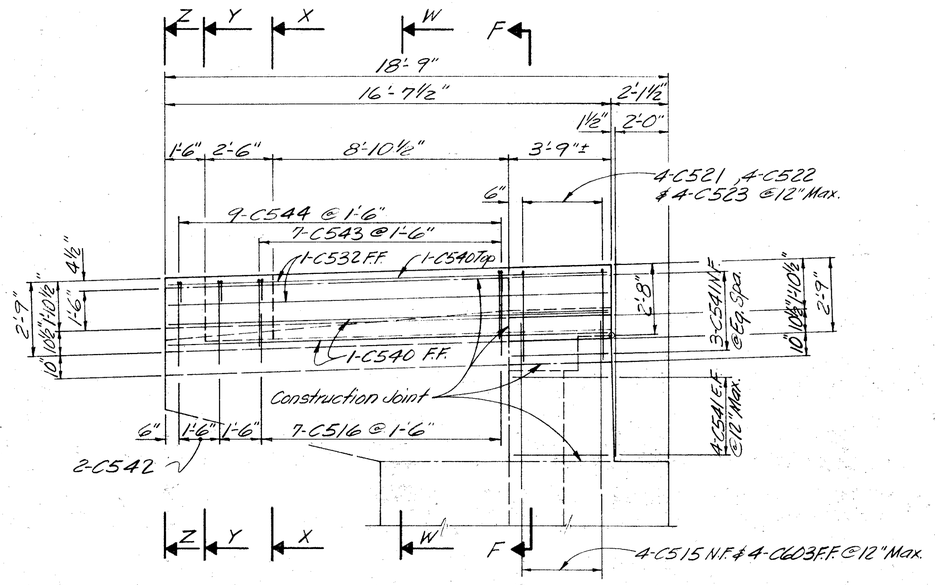
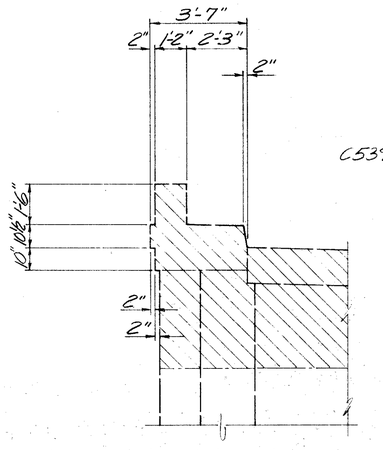


SECTION E-E



ELEVATION C-C



SECTION F-F
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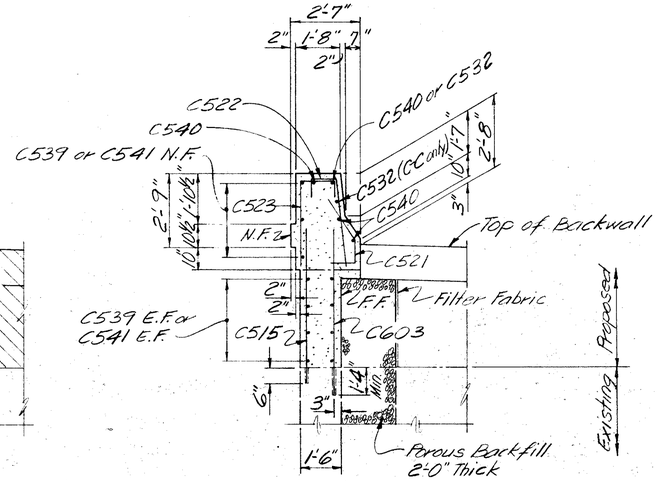


SECTION F-F

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Section W-W, X-X, Y-Y & Z-Z, see Sht. 9 16.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

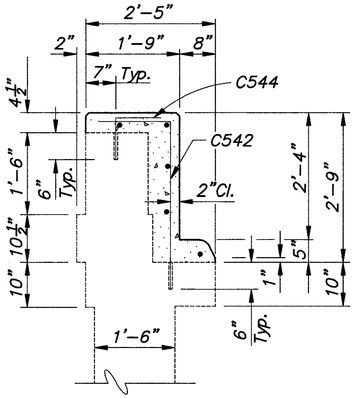
8 16

WEST ABUTMENT
BRIDGE NO. HAM-50-2043 R
EASTBOUND 6TH ST. EXPRESSWAY
OVER GEST STREET

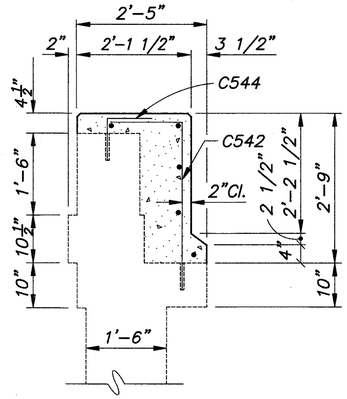
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT NO.963

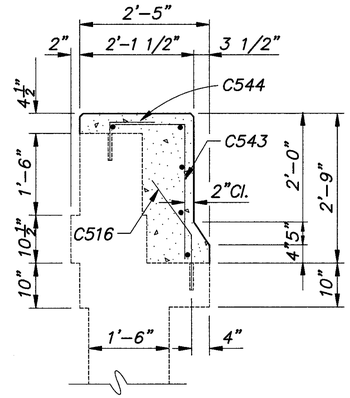
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO	248
CHKD. BY DATE		FHWA REGION 5	255



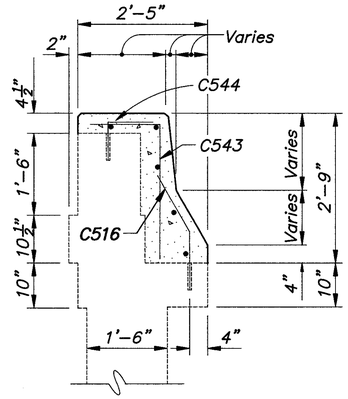
SECTION Z–Z



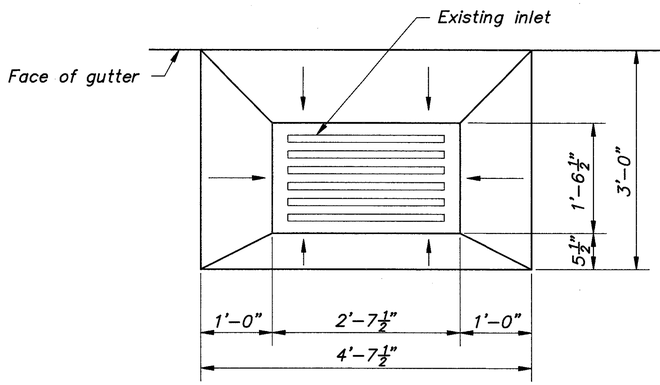
SECTION Y–Y



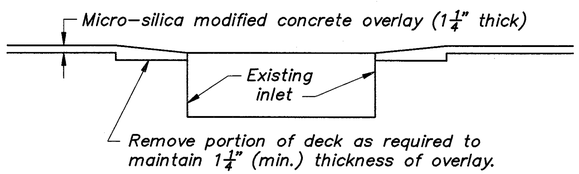
SECTION X–X



SECTION W–W



PLAN AT INLET

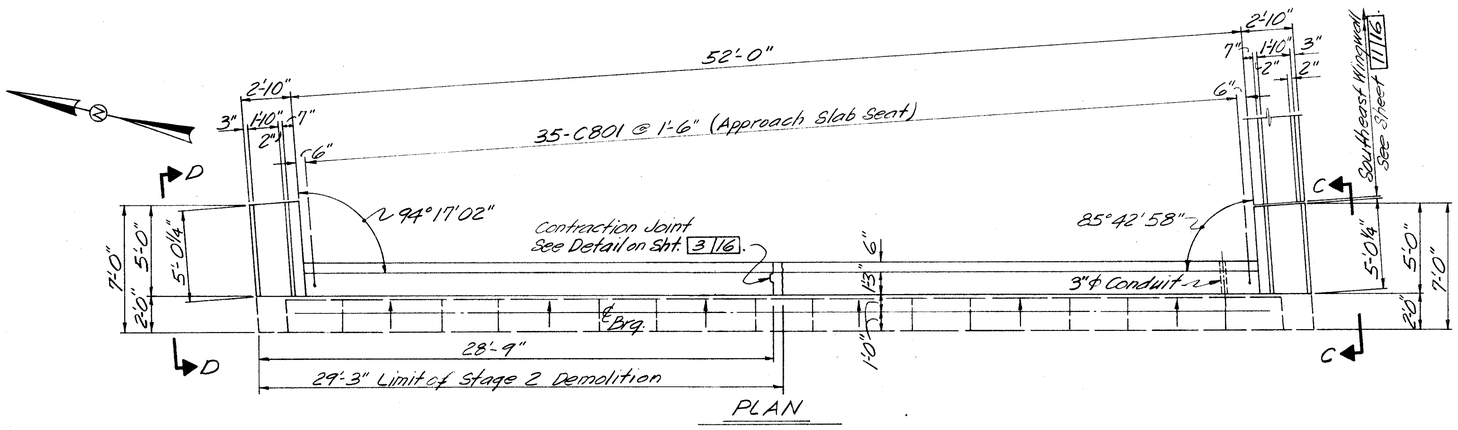


SECTION THRU INLET

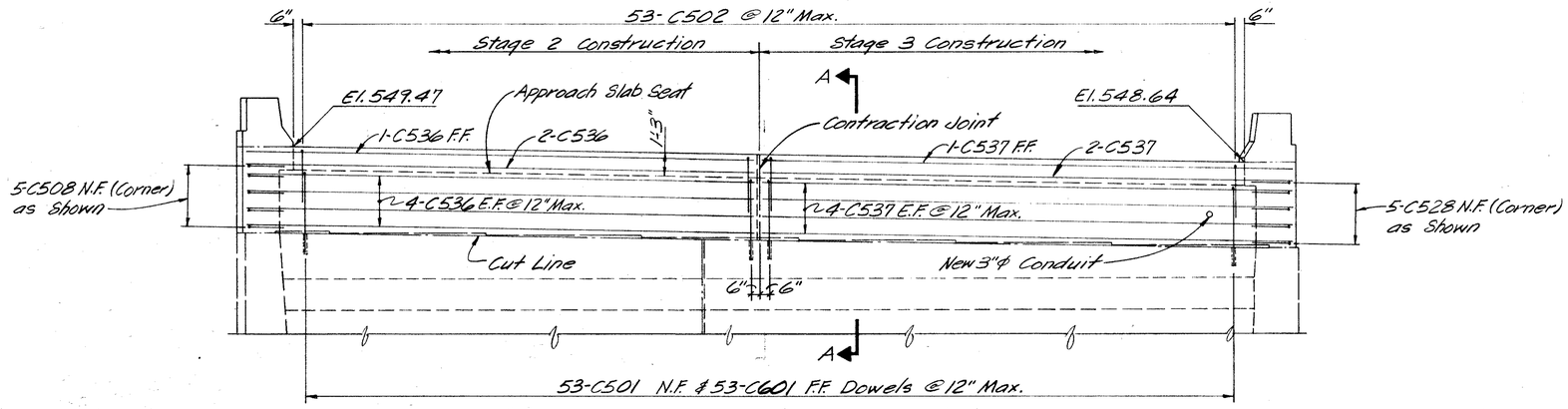
BALKE ENGINEERS 1848 SUMMIT ROAD CINCINNATI, OHIO 45237					9/16
MISCELLANEOUS DETAILS BRIDGE NO. HAM–50–2043 R & L SIXTH STREET EXPRESSWAY OVER GEST STREET					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 2 2043MC1

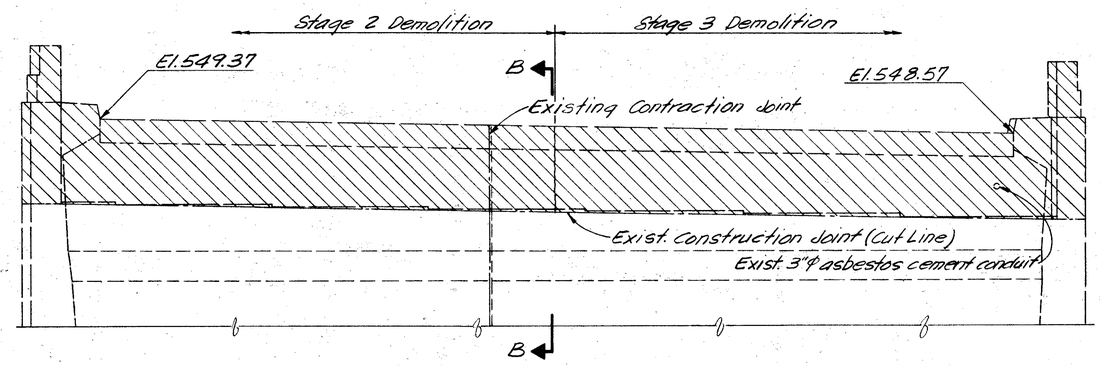
CALC. BY / DATE	HAMILTON COUNTY HAM-50-17.36	OHIO FHWA REGION 5	249 255
CHKD. BY / DATE			



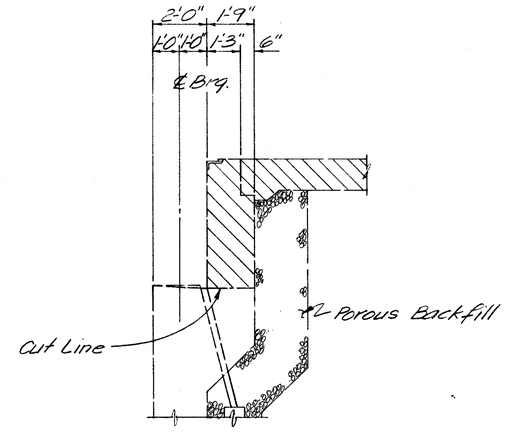
PLAN



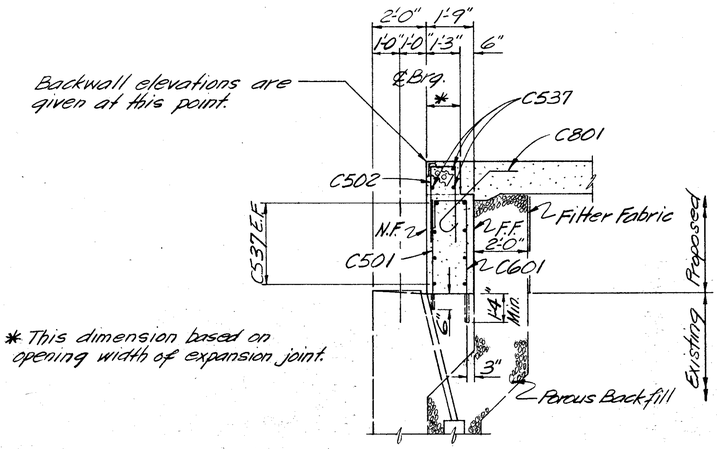
ELEVATION



ELEVATION
(Showing Removal)



SECTION B-B
(Showing Removal)



SECTION A-A

Notes:
1. E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
2. For Elevation C-C & D-D, see Sht. 11 16.

Denotes portion of existing structure to be removed.

BALKE ENGINEERS
1848 SUMMIT RD.
CINCINNATI, OHIO 45237

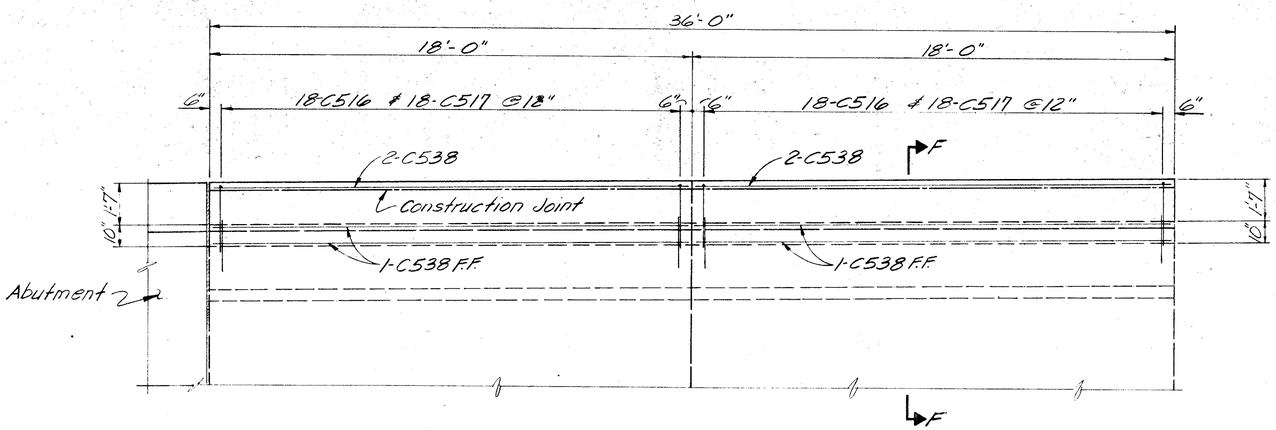
10 16

EAST ABUTMENT
BRIDGE NO. HAM-50-2043 R
EASTBOUND 6TH ST. EXPRESSWAY
OVER GEST STREET

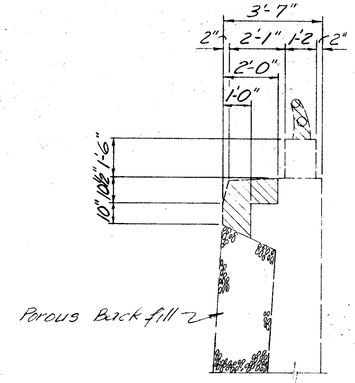
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT N3PK3

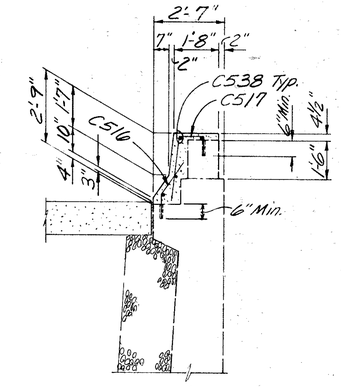
CALC. BY		HAMILTON COUNTY	OHIO	250
DATE		HAM-50-19.36	FHWA REGION 5	255
CHKD. BY				
DATE				



ELEVATION: SOUTHEAST WINGWALL

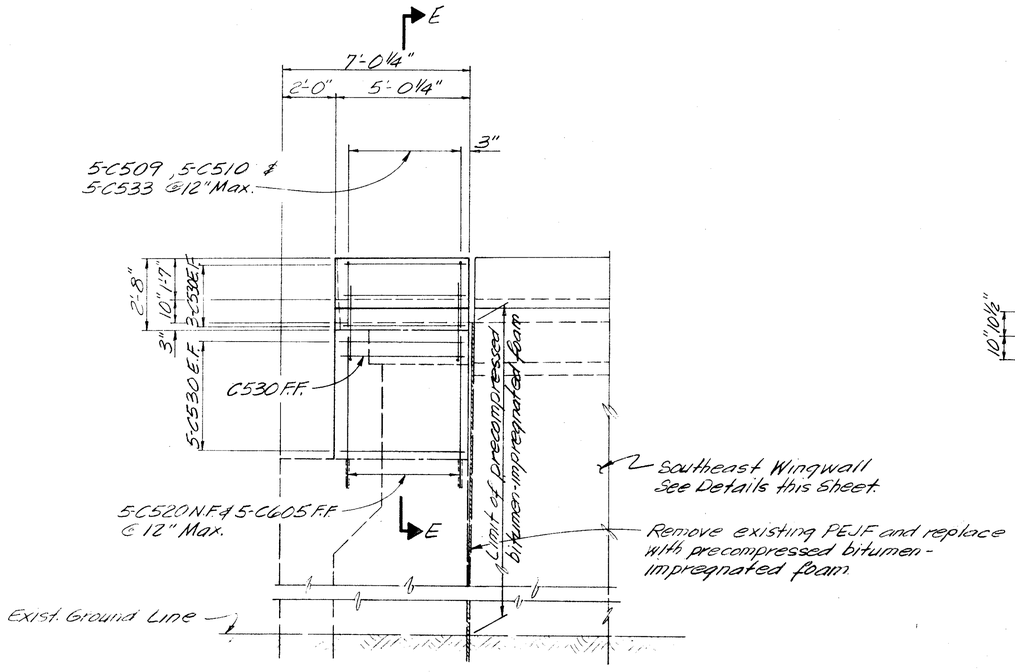


SECTION F-F

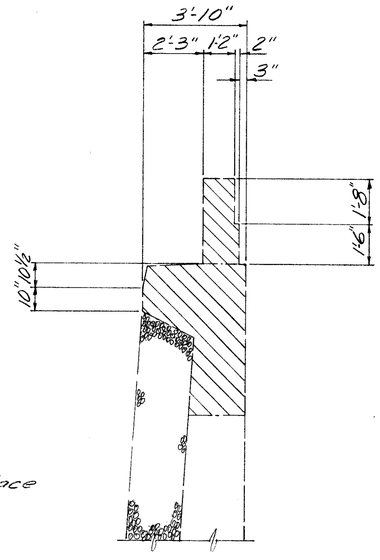


SECTION F-F

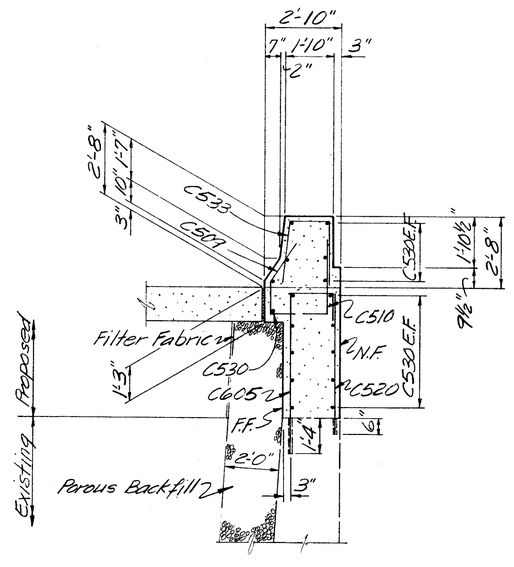
Denotes portion of existing structure to be removed.



ELEVATION C-C (Shown)
ELEVATION D-D (Similar)



SECTION E-E
(Showing Removal)



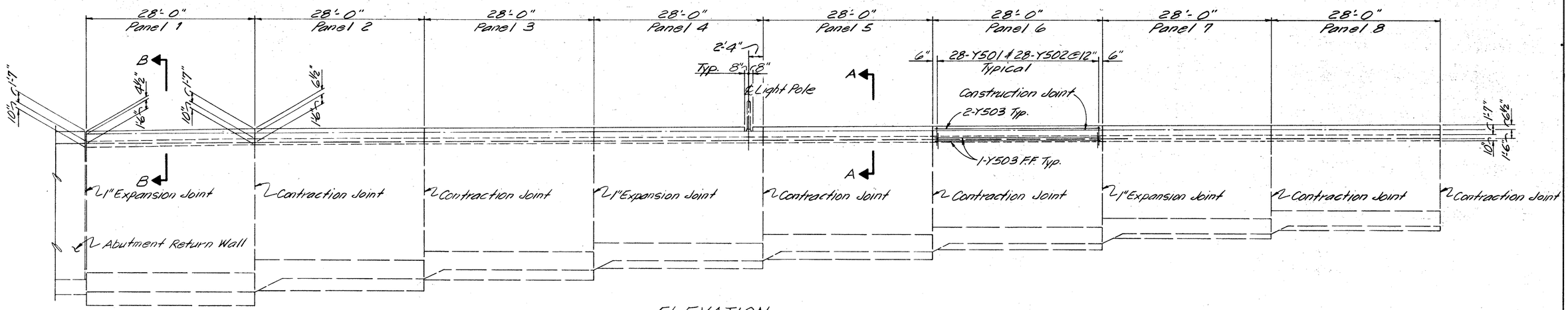
SECTION E-E

Note:
E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
PEJF = Preformed Expansion Joint Filler

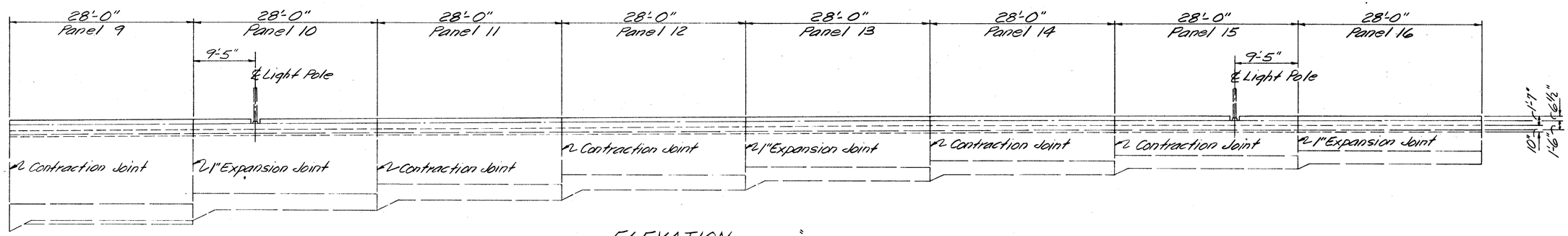
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					11/16
EAST ABUTMENT BRIDGE NO. HAM-50-2043 R EASTBOUND 6TH ST. EXPRESSWAY OVER GEST STREET					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	DWI	CRS 4/92	

OHIO BLUE PRINT 11/16/03

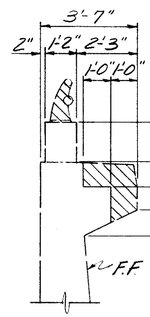
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO	251
CHKD. BY / DATE		FHWA REGION 5	255



ELEVATION

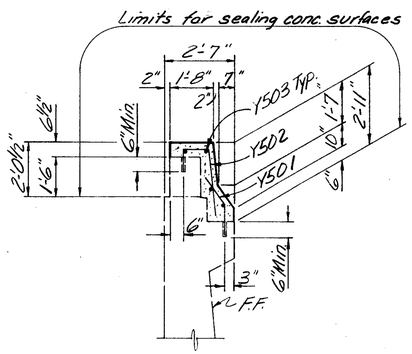


ELEVATION



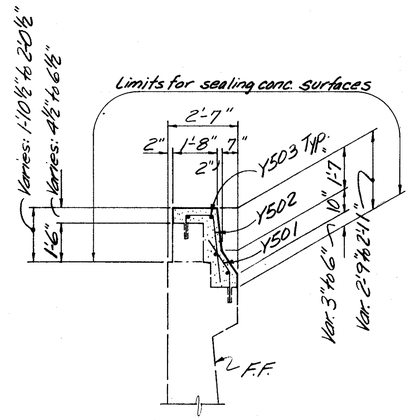
SECTION A-A

(Showing Removal)
Typical



SECTION A-A

Typical: North Walls, Panels 2~16
Typical: South Walls, Panels 2~11, 13~18



SECTION B-B

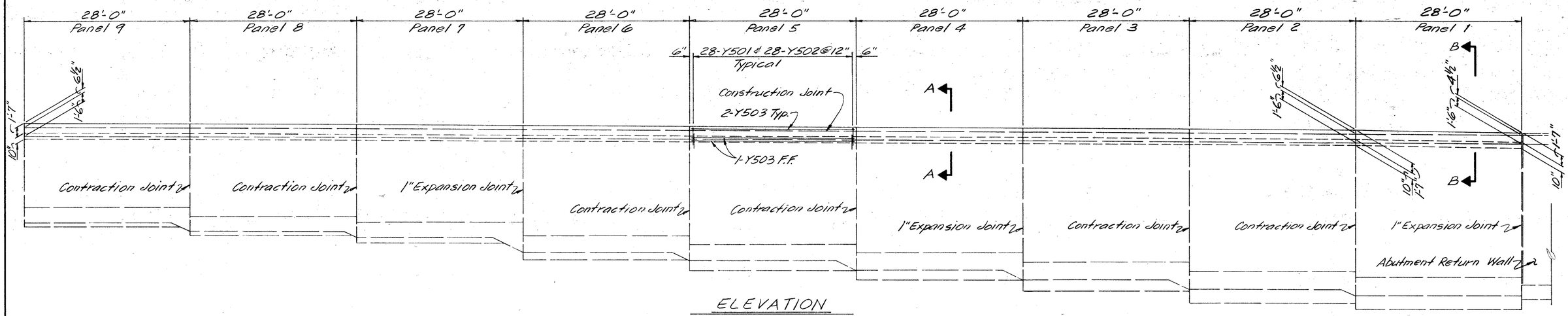
North Walls, Panel 1
South Walls, Panel 1

Notes:
1. Field adjust rebar spacing & Field cut rebars as necessary to clear lighting poles.
2. F.F. = Far Face

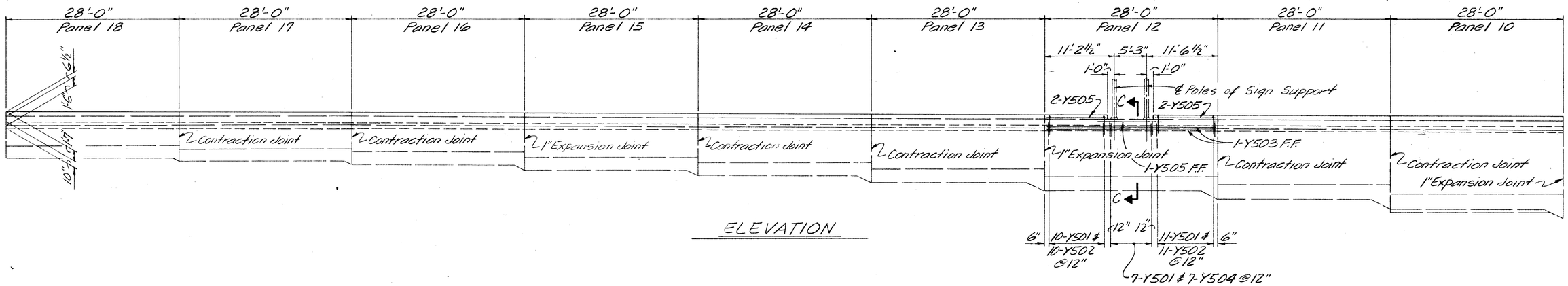
BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					12/16
NORTH WALLS - RAMP Y BRIDGE NO. HAM-50-2043.L WESTBOUND 6TH ST. EXPRESSWAY OVER GEST STREET					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	VDG	CRS 4/92	

OHIO BLUE PRINT N2963

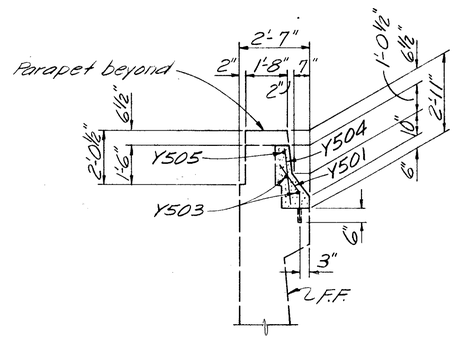
CALC. BY / DATE	HAMILTON COUNTY HAM-50-19.36	OHIO FHWA REGION 5	252 255
CHKD. BY / DATE			



ELEVATION



ELEVATION



SECTION C-C

Panel 12 Only

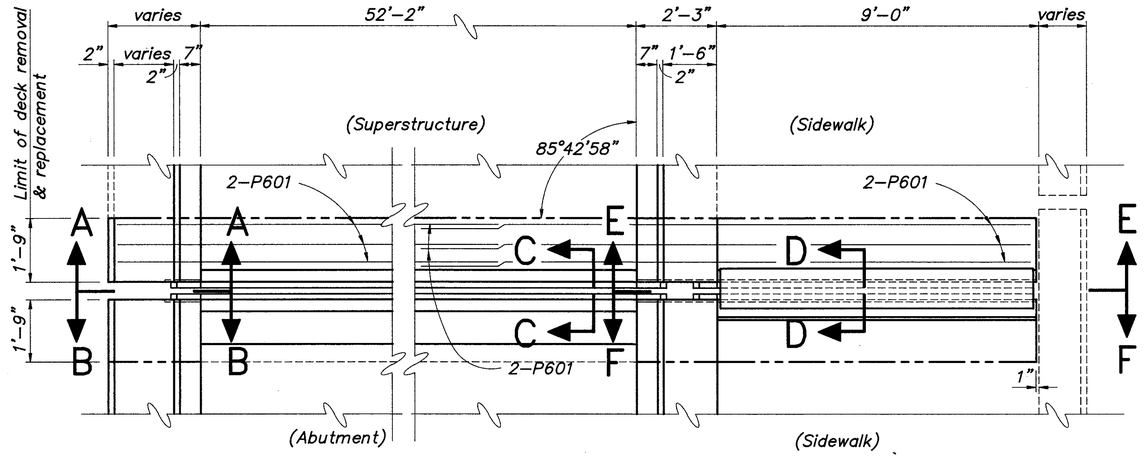
Notes:
1. Field adjust rebar spacing as necessary to clear poles of sign support.
2. F.F. = Far Face
3. For Section A-A & B-B, see Sheet 12/16.

BALKE ENGINEERS 1848 SUMMIT RD. CINCINNATI, OHIO 45237					13/16
SOUTH WALLS - RAMP Y BRIDGE NO. HAM-50-2043 R EASTBOUND 6TH ST. EXPRESSWAY OVER GEST STREET					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MRS	WJH	~	VDG	CRS 4/92	

OHIO BLUE PRINT 10-29-93

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

253/255



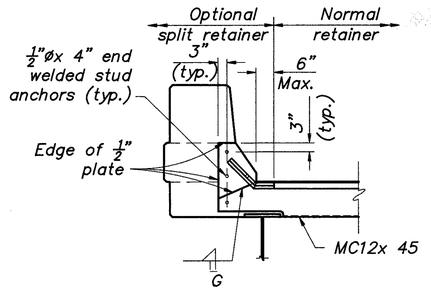
NOTE: Lap P601 bars 2'–4" minimum.

PARTIAL PLAN
LEFT BRIDGE ABUTMENTS

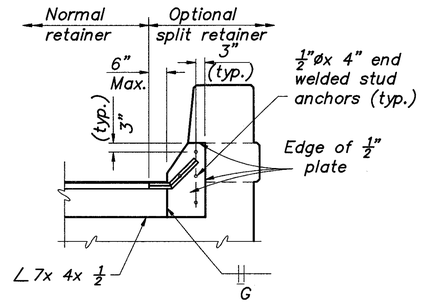
*

OPENING WIDTH		
	DIMENSION A	
°F	WEST ABUT.	EAST ABUT.
90	1 5/8"	1 1/4"
80	1 5/8"	1 3/8"
70	1 3/4"	1 1/2"
60	1 3/4"	1 5/8"
50	1 3/4"	1 3/4"
40	1 7/8"	1 7/8"
30	1 7/8"	2"

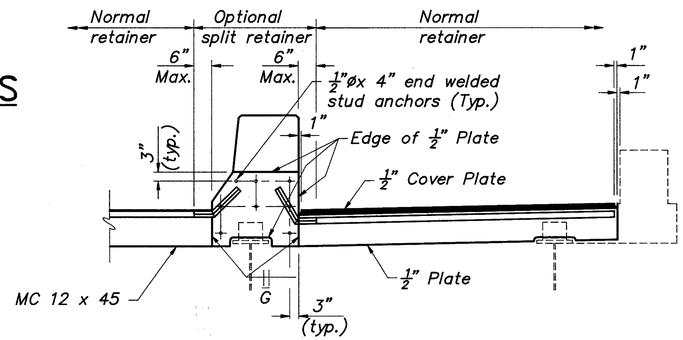
Strip seal gland shall be D.S. Brown 300L, Watson–Bowman & Acme SE–300 or equal.



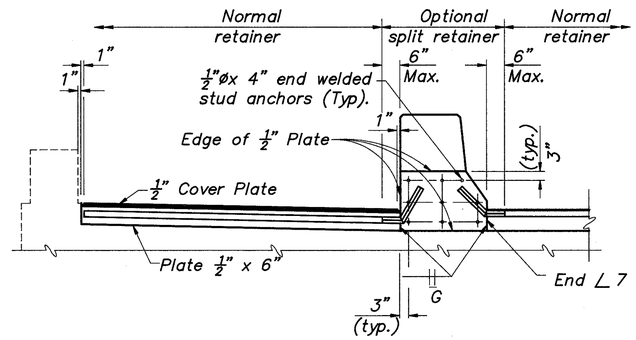
SECTION A–A



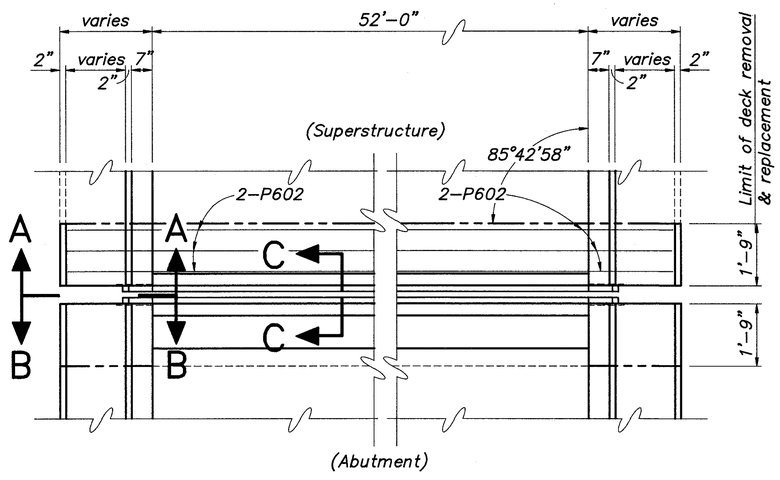
SECTION B–B



SECTION E–E

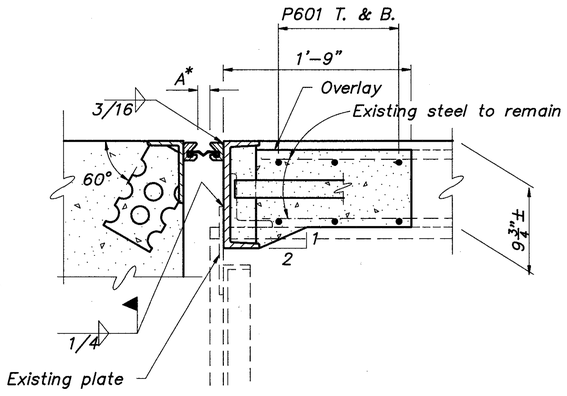


SECTION F–F

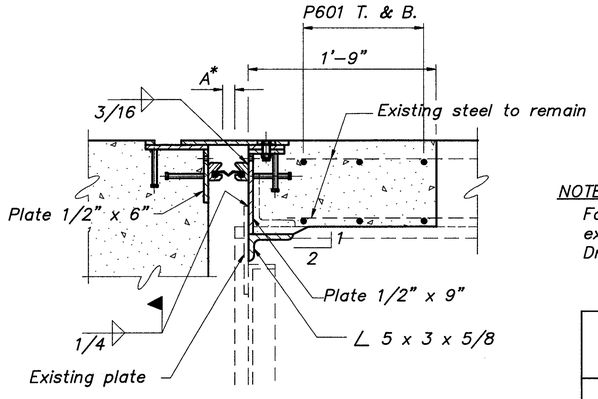


NOTE: Lap P602 bars 2'–4" minimum.

PARTIAL PLAN
RIGHT BRIDGE ABUTMENTS



SECTION C–C



SECTION D–D

NOTE:
For additional details & notes on expansion joint, see Std. Drawing EXJ –4–87.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

14/16

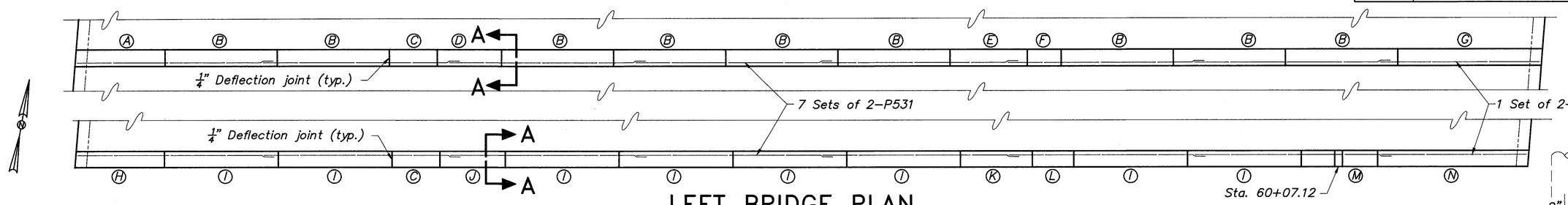
EXPANSION JOINT DETAILS

BRIDGE NO. HAM–50–2043 R & L
SIXTH STREET EXPRESSWAY
OVER GEST STREET

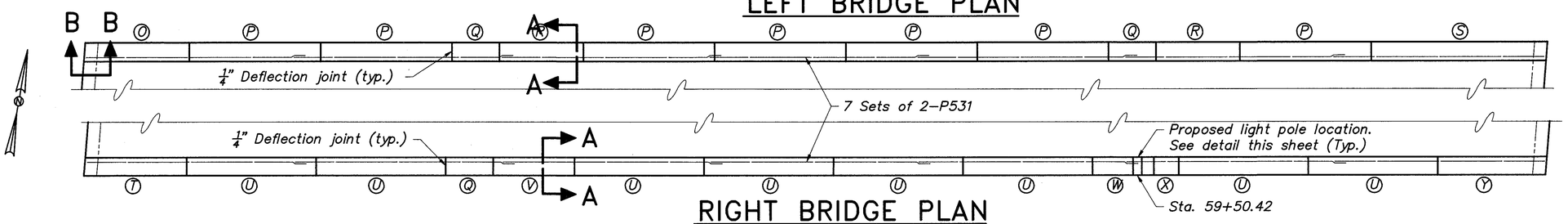
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

DISK 2 2043EJ1

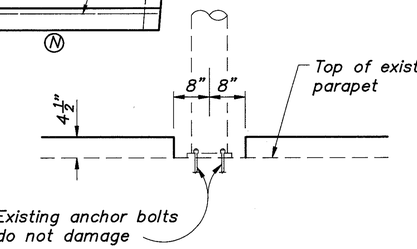
CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO FHWA REGION 5	254 255
CHKD. BY DATE			



LEFT BRIDGE PLAN

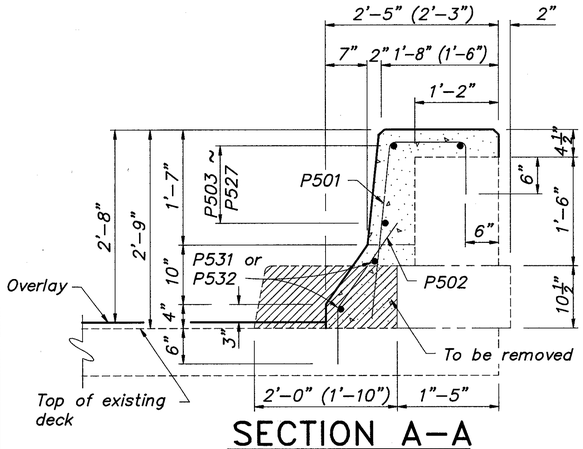


RIGHT BRIDGE PLAN



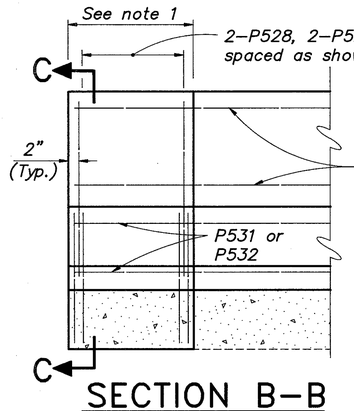
LIGHT POLE SUPPORT DETAIL

NOTE: Light pole locations match existing pole locations.



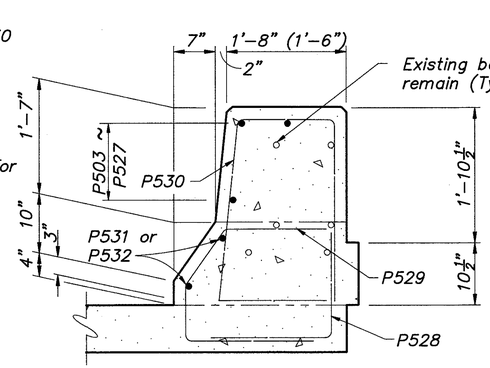
SECTION A–A

(See note 3)

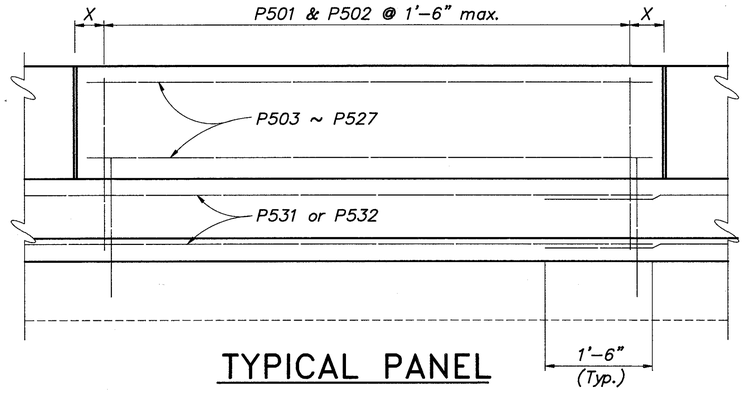


SECTION B–B

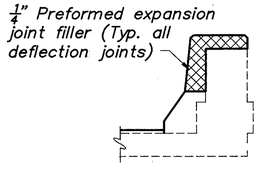
(8 REQUIRED)



SECTION C–C



TYPICAL PANEL



DEFLECTION JOINT DETAIL

New deflection joints shall match the existing deflection joints locations.

PARAPET PANELS				
MARK	NO.	PANEL LENGTH	DIM. X	BARS NEEDED
(A)	1	13'–7"	2"	8–P501, 8–P502 & 3–P503
(B)	9	17'–2"	4"	12–P501, 12–P502 & 3–P504
(C)	2	7'–4"	2"	6–P501, 6–P502 & 3–P505
(D)	1	9'–10"	5"	7–P501, 7–P502 & 3–P506
(E)	1	11'–10"	2"	9–P501, 9–P502 & 3–P507
(F)	1	5'–2"	4"	4–P501, 4–P502 & 3–P508
(G)	1	22'–2"	2"	14–P501, 14–P502 & 3–P509
(H)	1	13'–6"	2"	8–P501, 8–P502 & 3–P510
(I)	8	17'–5"	2"	13–P501, 13–P502 & 3–P511
(J)	1	10'–0"	2"	8–P501, 8–P502 & 3–P512
(K)	1	11'–0"	3"	8–P501, 8–P502 & 3–P513
(L)	1	6'–4"	2"	5–P501, 5–P502 & 3–P514
(M)	1	11'–8"	2"	9–P501, 9–P502 & 3–P515
(N)	1	23'–2"	4"	14–P501, 14–P502 & 3–P514
(O)	1	14'–3"	4 1/2"	8–P501, 8–P502 & 3–P517
(P)	7	18'–0"	2"	13–P501, 13–P502 & 3–P518
(Q)	3	6'–6"	3"	5–P501, 5–P502 & 3–P519
(R)	2	11'–6"	2"	9–P501, 9–P502 & 3–P520
(S)	1	24'–2"	2"	15–P501, 15–P502 & 3–P521
(T)	1	14'–1"	3 1/2"	8–P501, 8–P502 & 3–P522
(U)	8	17'–9"	2"	13–P501, 13–P502 & 3–P523
(V)	1	11'–2"	4"	8–P501, 8–P502 & 3–P524
(W)	1	8'–5"	2"	7–P501, 7–P502 & 3–P525
(X)	1	3'–5"	2 1/2"	3–P501, 3–P502 & 3–P526
(Y)	1	14'–9"	2"	9–P501, 9–P502 & 3–P527

All reinforcing bars to be epoxy coated.

NOTES

1. Within limits shown, remove full parapet and curb section and replace as shown in Section C–C. Care shall be taken not to damage horizontal steel during concrete removal. This steel shall be incorporated in the new parapet. For limits of concrete removal and replacement, see abutment plans.
2. P501 & P502 to be dowelled into existing concrete as shown.
3. Dimensions shown ( ) are for the north parapet on the left bridge.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

15/16

PARAPET DETAILS

BRIDGE NO. HAM–50–2043 R & L
SIXTH STREET EXPRESSWAY
OVER GEST STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	

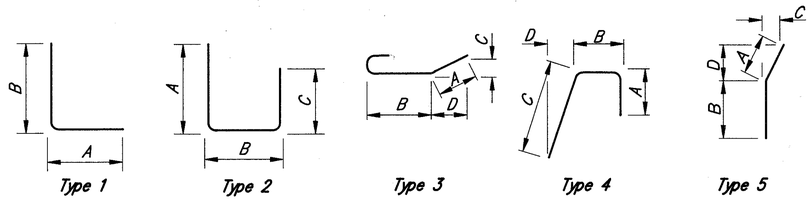
DISK 2 2043P1

CALC. BY DATE	HAMILTON COUNTY HAM–50–19.36	OHIO
CHKD. BY DATE		FHWA REGION 5

255
255

REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
C801	144	4'–11	1890	3	1'–5	2'–7	0'–8½	0'–8½		74	70
C601	216	6'–7	2136	2	4'–8	1'–3	1'–0			110	106
C602	18	7'–7	205	2	5'–8	1'–3	1'–0			18	–
C603	12	6'–10	123	Str.						4	8
C604	5	8'–6	64	2	6'–2	1'–8	1'–0			5	–
C605	10	8'–4	125	2	5'–11	1'–8	1'–0			–	10
C501	216	3'–9	845	Str.						110	106
C502	216	6'–7	1483	2	3'–0	0'–10	3'–0			110	106
C503	18	4'–11	92	Str.						18	–
C504	11	27'–3	313	Str.						11	–
C505	3	30'–0	94	Str.						3	–
C506	8	37'–3	311	Str.						8	–
C507	1	8'–3	9	Str.						1	–
C508	15	4'–0	63	5	2'–0	2'–0	2'–0	0'–2		5	10
C509	19	3'–9	74	8	1'–0	1'–3	1'–9	1'–0⅛	1'–5¼	9	10
C510	19	3'–7	71	1	1'–0	2'–9				9	10
C511	4	5'–6	23	4	2'–3	1'–2	2'–3	0'–2¾		4	–
C512	12	0'–10	10	Str.						12	–
C513	4	3'–9	16	Str.						4	–
C514	12	4'–6	57	Str.						4	8
C515	12	6'–0	75	Str.						4	8
C516	70	2'–0	146	5	1'–3	0'–10	0'–8¾	1'–0¼		14	56
C517	63	3'–9	247	4	0'–8	0'–10	2'–6	0'–3⅜		14	49
C518	4	16'–3	68	Str.						4	–
C519	11	3'–2	36	Str.						11	–
C520	10	5'–0	52	Str.						–	10
C521	12	3'–8	46	8	1'–0	1'–0	1'–9	1'–0⅛	1'–5¼	4	8
C522	12	4'–8	58	4	0'–8	0'–10	3'–3	0'–4		4	8
C523	12	5'–1	63	2	3'–3	1'–4	0'–9			4	8
C524	3	30'–0	94	Str.						3	–
C525	11	28'–6	327	Str.						11	–
C526	8	37'–9	315	Str.						8	–
C527	1	9'–0	9	Str.						1	–
C528	15	4'–0	63	7	2'–0	2'–0	0'–2			5	10
C529	5	5'–4	28	Str.						5	–
C530	51	4'–3	226	Str.						17	34
C531	Not	used									
C532	2	16'–3	34	6	12'–6	2'–4	1'–5			–	2
C533	15	5'–9	90	4	2'–3	1'–6	2'–3	0'–2¾		5	10
C534	11	28'–9	330	Str.						–	11
C535	11	27'–9	318	Str.						–	11
C536	11	28'–3	324	Str.						–	11
C537	11	29'–3	336	Str.						–	11
C538	8	17'–6	146	Str.						–	8
C539	11	3'–6	40	Str.						–	11
C540	7	16'–0	117	Str.						–	7
C541	11	3'–4	38	Str.						–	11
C542	2	4'–4	9	1	1'–5	3'–1				–	2
C543	7	3'–9	27	1	1'–4	2'–6				–	7
C544	9	1'–6	14	1	1'–0	0'–8				–	9
Y501	952	2'–0	1986	5	1'–3	0'–10	0'–8¾	1'–0¼		448	504
Y502	945	3'–9	3696	4	0'–8	0'–10	2'–6	0'–3⅜		448	497
Y503	134	27'–6	3843	Str.						64	70
Y504	7	2'–7	19	Str.						–	7
Y505	5	9'–9	51	Str.						–	5
P601	36	23'–6	1271	Str.						36	–
P602	24	30'–0	1081	Str.						–	24
P501	604	3'–7	2257	4	0'–8	0'–9	2'–5	0'–3		318	286
P502	604	2'–3	1417	5	1'–5	0'–10	0'–10	1'–2		318	286
P503	3	13'–3"	41	Str.						3	–
P504	27	16'–10"	474	Str.						27	–
P505	6	7'–0"	44	Str.						6	–
P506	3	9'–6"	30	Str.						3	–
P507	3	11'–6"	36	Str.						3	–



REINFORCING STEEL LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	LEFT BRIDGE	RIGHT BRIDGE
P508	3	4'–10	15	Str.						3	–
P509	3	21'–10	68	Str.						3	–
P510	3	13'–2	41	Str.						3	–
P511	24	17'–1	428	Str.						24	–
P512	3	9'–8	30	Str.						3	–
P513	3	10'–8	33	Str.						3	–
P514	3	6'–0	19	Str.						3	–
P515	3	11'–4	35	Str.						3	–
P516	3	22'–10	71	Str.						3	–
P517	3	13'–11	44	Str.						–	3
P518	21	17'–8	387	Str.						–	21
P519	9	6'–2	58	Str.						–	9
P520	6	11'–2	70	Str.						–	6
P521	3	23'–10	75	Str.						–	3
P522	3	13'–9	43	Str.						–	3
P523	24	17'–5	436	Str.						–	24
P524	3	10'–10	34	Str.						–	3
P525	3	8'–1	25	Str.						–	3
P526	3	3'–1	10	Str.						–	3
P527	3	14'–5	45	Str.						–	3
P528	16	2'–11	48	1	1'–6	1'–6				8	8
P529	16	5'–0	84	10	2'–0	0'–10	1'–0	1'–4	0'–6	8	8
P530	16	7'–2	120	9	2'–5	1'–3	2'–5	0'–3 1/2	1'–5	8	8
P531	56	30'–0	1752	Str.						28	28
P532	4	23'–3	97	Str.						4	–

NOTES

1. REINFORCING STEEL SAMPLES: REFER TO CMS SECTION 106.03, 700, 709.01 THRU. 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. ALL BARS ARE TO BE EPOXY COATED.

BALKE ENGINEERS
1848 SUMMIT ROAD
CINCINNATI, OHIO 45237

16/16

REINFORCING STEEL LIST

BRIDGE NO. HAM–50–2043 R & L
SIXTH STREET EXPRESSWAY
OVER GEST STREET

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISION
MRS	ALH	~	DWI	CRS 4/92	