9-14-81

I-275-3 (15) 40

FHWA REGION	STATE	PROJECT	
5	OHIO	I-275-3 (15) 40	1 / 630

HAMILTON COUNTY
HAM-275-3.86

Red
400
I-74

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

HAM-275-3.86

WHITEWATER TOWNSHIP
GRADE SEPARATION WITH THE
PENN CENTRAL TRANSPORTATION COMPANY
HAMILTON COUNTY

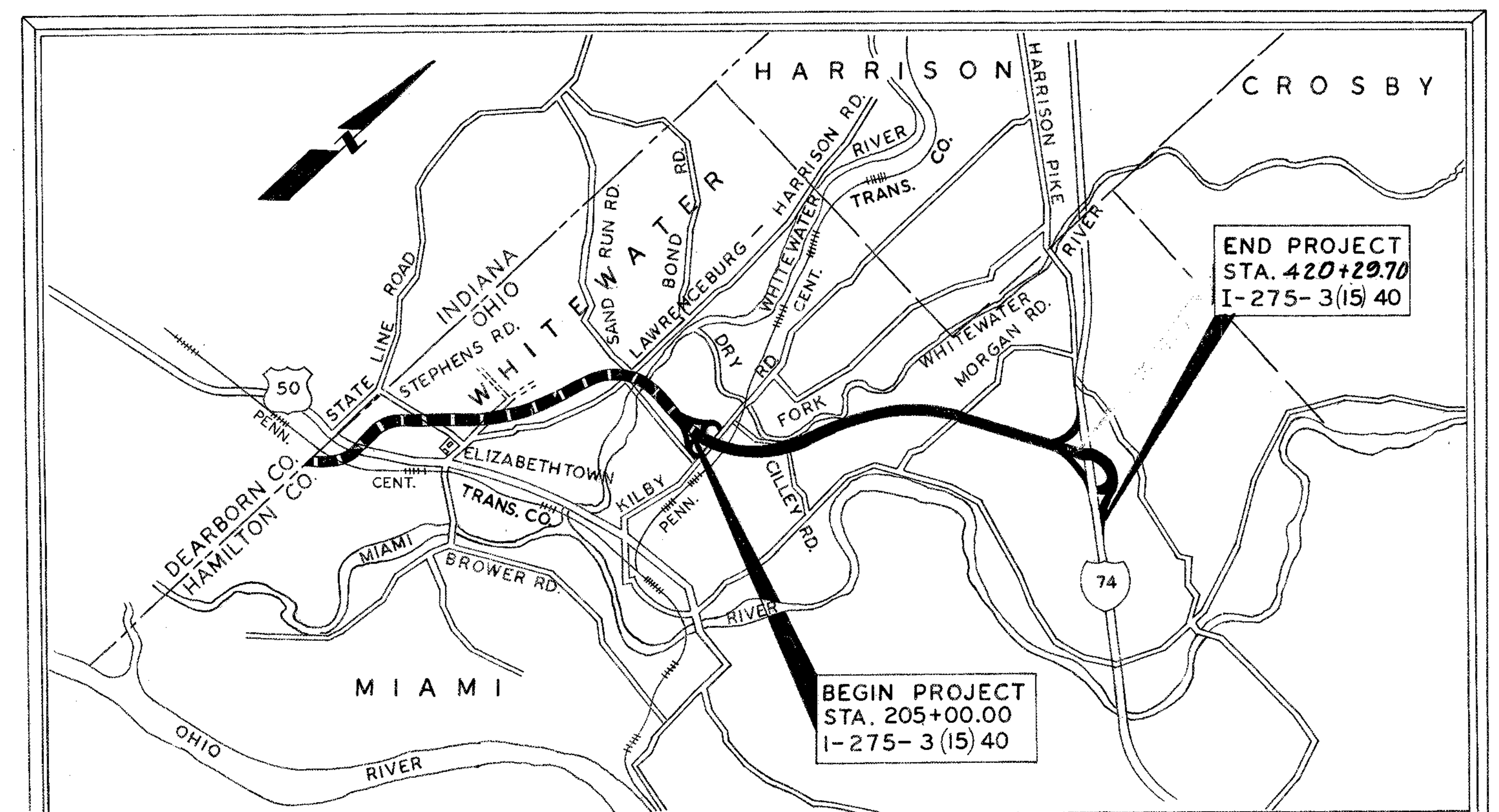
LINE DATA

BEGIN PROJECT	STA. 205+00.00
END PROJECT	STA. 420+29.70
NET LENGTH PROJECT	21,529.70 LIN. FT. OR 4.077 MILES
ADD FOR APPROACHES	
KILBY ROAD	STA. 24+70.20 TO STA. 64+50.00 = 3,979.80 LIN. FT.
CILLEY ROAD	STA. 0+58.72 TO STA. 0+98.72 = 40.00 LIN. FT. STA. 1+12.42 TO STA. 51+00.00 = 4,987.58 LIN. FT.
SUSPENSION BRIDGE ROAD	STA. 16+50.00 TO STA. 19+67.62 = 317.62 LIN. FT.
MORGAN ROAD	STA. 15+15.00 TO STA. 27+58.49 = 1,243.49 LIN. FT.
I-74	STA. 181+40 TO STA. 310+01.44 = 12,861.44 LIN. FT. STA. 310+01.44 BK = STA. 312+10.76 AH STA. 312+10.76 TO STA. 398+62 = 8,651.24 LIN. FT.
HAM-275-0.00 DITCHES	STA. 168+15.00 TO STA. 205+00.00 = 3,685.00 LIN. FT.
TOTAL LENGTH OF WORK =	57,295.87 LIN. FT. OR 10.851 MILES

CONVENTIONAL SIGNS

STATE LINE	
COUNTY LINE	
TOWNSHIP LINE	
SECTION LINE	
CENTER LINE	
CORPORATION LINE	
FENCE LINE	x x x
GUARD RAIL EXISTING	
GUARD RAIL PROPOSED	
STEAM RAILROAD	
POWER POLES	
TELEPHONE POLES	
TREE OR STUMP EXISTING	12" 18" 24"
PROPERTY LINE	P/L
LIMITED ACCESS & RIGHT OF WAY	L.A. R/W
RIGHT OF WAY ONLY	R.W.
EXISTING RIGHT OF WAY	
LIMITED ACCESS ONLY	L.A.

INDEX OF SHEETS



Sheets 548, 558, & 574 revised 9-4-73 EBL
Sheets 511, 520, 558, 559, & 573 revised 2-28-74 B.D.B.
Sheets 569 & 570 revised 6-26-74 EBL

LOCATION MAP
SCALE OF MILES

0 1 2 3 4

PORTION TO BE IMPROVED UNDER THIS CONTRACT
PORTION TO BE IMPROVED UNDER SEPARATE CONTRACT
FUTURE CONSTRUCTION
STATE & FEDERAL ROADS
OTHER ROADS

SCALE

PLAN	0 50 100
PROFILE HORIZONTAL	0 50 100
PROFILE VERTICAL	0 10 20
CROSS SECTIONS HORIZONTAL AND VERTICAL	0 10 20

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 OF TRANSPORTATION IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

1973 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATION LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT

THE RIGHT-OF-WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO

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 ESTIMATES.

APPROVED R. F. Bevis
DATE 3/2/72 DISTRICT DEPUTY DIRECTOR TRANSPORTATION

APPROVED Robert B Pfeifer
DATE 1-15-73 ENGINEER, BUREAU of BRIDGES

APPROVED E. J. Schaefer
DATE 3-12-73 ENGINEER, BUREAU of ROADWAY DESIGN

APPROVED William E. Sholl
DATE 3-12-73 ASSISTANT DEPUTY DIRECTOR for HIGHWAY DESIGN

APPROVED J. J. Greenwa
DATE 3-12-73 ASSISTANT DEPUTY DIRECTOR for REAL ESTATE

APPROVED William Bunkley
DATE 3-12-73 ASSISTANT DEPUTY DIRECTOR for PROGRAM DEVELOPMENT

APPROVED William A Bake
DATE 3-12-73 CHIEF ENGINEER, DIVISION of HIGHWAYS

APPROVED R. Messlinge
DATE 3-13-73 DEPUTY DIRECTOR, DIVISION of HIGHWAYS

APPROVED William P. McKenna
DATE 3-12-73 ASSISTANT DIRECTOR DEPARTMENT of TRANSPORTATION

APPROVED Phillip Dudley
DATE 3/14/73 DIRECTOR, DEPARTMENT of TRANSPORTATION

PREPARED BY
VOGT, IVERS & ASSOCIATES, INC.
ENGINEERS
CINCINNATI, O

Robert de Vogt

SUPPLEMENTAL SPECS.	
808	1-1-71
815	9-20-72
816	9-20-72
1001	9-20-72
839	11-25-70
836	1-1-71
934	1-1-69
941	11-25-70

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ENGINEER DATE

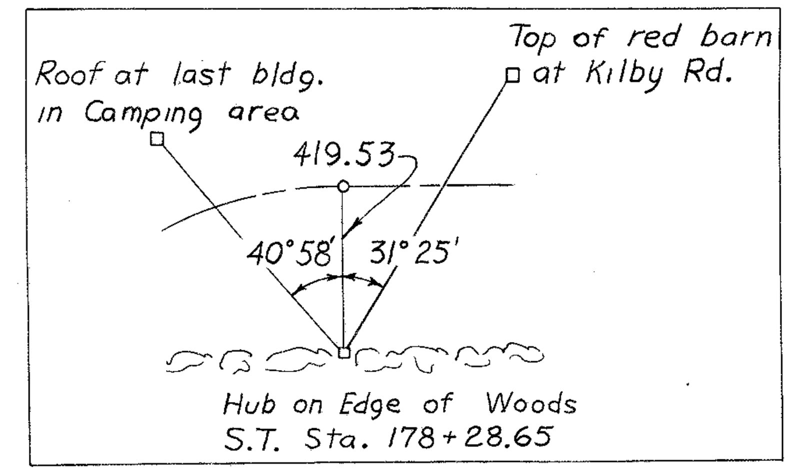
SUPPLEMENTAL PRINTS OF STANDARD CONST. DWGS.

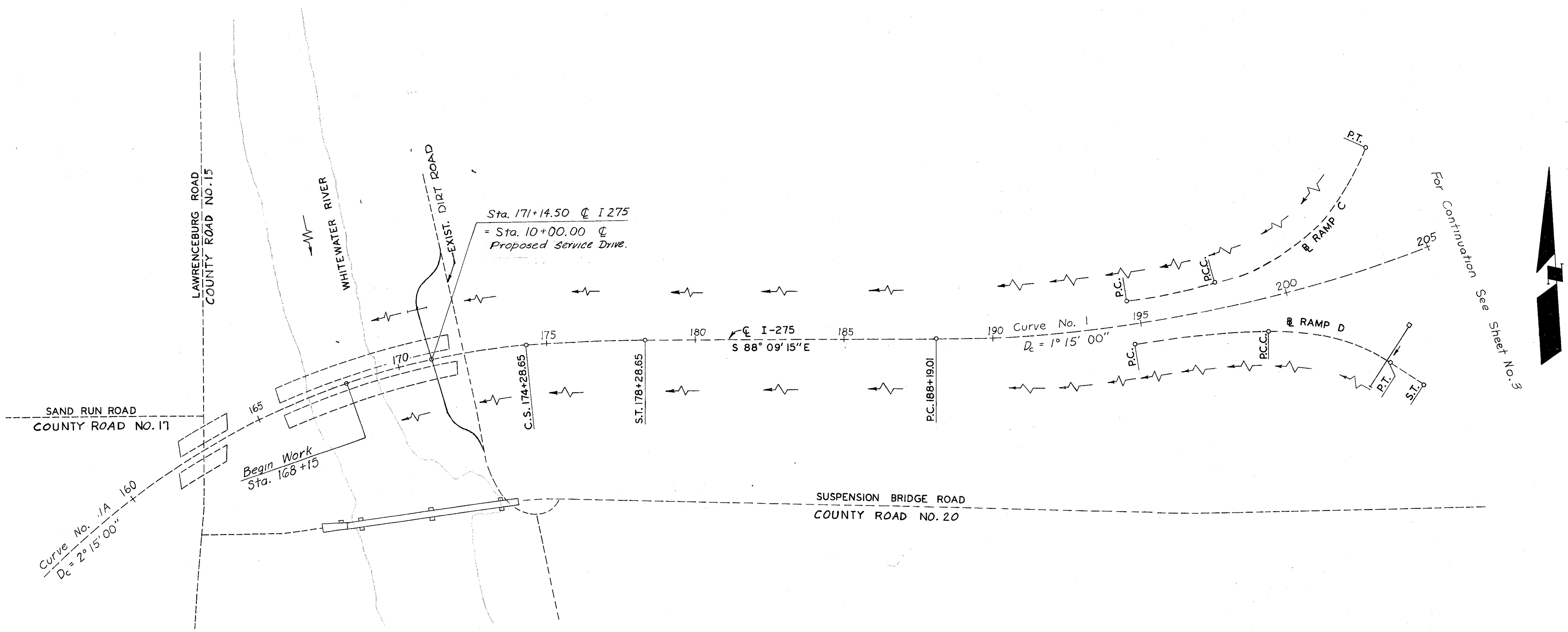
BP-1	6-1-65	CB-2-2-A & B	6-1-65	F-1	6-1-72	FACI-2	4-20-71	AS-1-67	6-12-69	MC-1	6-13-69
BP-2	12-1-68	CB-2-3 & 2-4	6-1-65	F-2	1-1-71	MH-2A	10-1-68	SD-1-69	6-12-69	MC-3	6-20-69
BP-3	1-1-71	CB-3	6-1-65	F-3	3-10-69	GR-2B	11-9-71	MC-8	12-1-67	MC-4	6-13-69
BP-4	1-1-71	CB-4	9-1-69	RB-1-55	2-2-59	GR-3	11-9-71			MC-5	6-1-65
BP-5	6-1-72	CB-5	9-1-69	F-5	3-10-69	GR-4	11-9-71	HW-2	6-1-65	MC-6	6-1-65
BP-7	1-1-66	CB-6	6-1-65	F-6	10-1-66	GR-5	1-1-71	HW-4	1-1-70	MC-7	10-1-68
		CB-458A	6-6-68	BR-1-67 Sht. 1	10-15-71	GR-6	1-1-71	MH-2	10-1-68	MH-1	10-1-68
BP-9	1-1-71	BP-6	6-1-65	FACI-1	4-20-71	L-1	6-1-65	I-2	6-6-69	MH-1A	10-1-68

FILE NO.	HAMILTON COUNTY DATE OF LETTING CONTRACT NO.	HAM-275-3.86 19

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			2 / 630

HAM. 275-3.86
HAMILTON COUNTY





CURVE NO.	LOCATION	POINT	STATION	COORDINATES NORTH	COORDINATES EAST
1-A	I-275	T.S.	142+16.86	437,806.57	348,274.42
		S.C.	146+16.86	438,179.69	348,418.25
		P.I.	162+77.88	439,748.40	348,965.13
		C.S.	174+28.65	439,684.43	350,625.19
		S.T.	178+28.65	439,682.01	351,025.08
1	I-275	P.C.	188+19.01	439,650.11	352,014.92
		P.I.	222+69.74	439,538.96	355,463.86
		P.T.	247+34.79	442,822.68	356,524.39

For Legend, See Sh. No. 3

For Curve Data, See Sh. No. 31, 33, 210

For Design Designation See Sheet No. 3

SCHEMATIC LAYOUT PLAN

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

HAM.-275-3.86
HAMILTON COUNTY

CURVE NO.	LOCATION	POINT	STATION	COORDINATES	
				NORTH	EAST
1	I-275	P.C.	188 + 19.01	439,650.11	352,014.92
		P.I.	222 + 69.74	439,538.96	355,436.86
		P.T.	247 + 34.79	442,822.68	356,524.39
C.R.-1	CILLEY ROAD	P.C.	2 + 17.98	439,049.20	354,636.98
		P.I.	6 + 34.71	439,107.08	355,049.67
		P.T.	9 + 80.98	439,485.40	355,224.18
C.R.-2	CILLEY ROAD	P.C.	42 + 05.11	442,412.40	356,576.36
		P.I.	47 + 82.60	442,936.67	356,818.51
		P.T.	49 + 77.13	442,525.66	357,224.18

DESIGN DESIGNATION

1965 ADT = 16,100
1993 ADT = 36,320
D.H.V. = 4,700
D (DIRECTIONAL DISTRIBUTION) = 62% - 38%
T (PERCENT B & C TRUCKS) = 5%
V (DESIGN SPEED) = 70 MPH

For Curve Data, See Sheet Nos. 210, 260, 262, 33

DEVELOPED | CHECKED

SCHEMATIC LAYOUT PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

4 / 630

HAM.-275-386
HAMILTON COUNTY

CURVE NO.	LOCATION	POINT	STATION	COORDINATES	
				NORTH	EAST
2	I-275	P.C.	255 +29.86	443,579.28	447,172.33
		P.I.	263 +46.50	444,356.40	357,019.72
		P.T.	271 +56.97	444,062.90	357,429.30
3	I-275	P.C.	295 +95.24	444,172.33	358,652.19
		P.I.	310 +67.26	448,445.83	359,390.47
		P.T.	324 +76.96	449,205.76	360,651.17

DEVELOPED | CHECKED

SCHEMATIC LAYOUT PLAN

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

5/630

HAM. 275-3.86
HAMILTON COUNTY

CURVE NO.	LOCATION	POINT	STATION	COORDINATES NORTH	COORDINATES EAST
W.B.-1	W.B. I-275	T.S.	383+78.79	452,278.26	365,690.25
		S.C.	388+78.79	452,504.12	366,135.15
		P.I.	399+70.00	453,099.72	367,053.03
		C.S.	403+49.77	452,075.72	367,438.62
		S.T.	408+49.77	451,629.96	367,662.78
W.B-2	W.B. I-275	T.S.	410+23.28	451,478.89	367,751.44
		P.I.	414+24.32	451,108.47	367,905.11
		S.C.	415+23.28	451,033.13	367,975.60
		C.S.	416+29.70	450,948.96	368,040.64
W.B.-3	W.B. I-275	C.S.	416+29.70	450,948.96	368,040.64
		P.I.	417+75.69	450,837.70	368,135.16
		S.C.	420+29.70	450,678.29	368,334.51
W.B.-4	W.B. I-275	S.C.	420+29.70	450,678.29	368,334.51
		P.I.	425+08.34	450,379.37	368,708.33
		P.T.	429+86.42	450,112.65	369,105.79

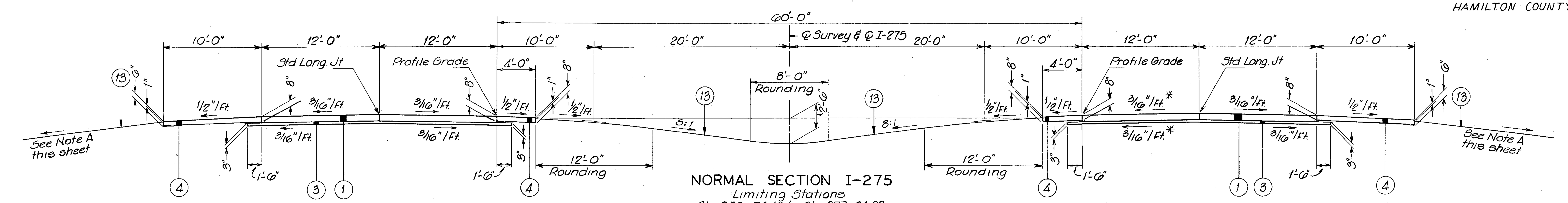
CURVE NO.	LOCATION	POINT	STATION	COORDINATES NORTH	COORDINATES EAST
4	I-74	P.C.	312+10.76 AH.	452,837.25	364,984.92
		P.I.	318+18.12	452,472.58	365,470.62
		P.T.	324+25.20	452,134.15	365,974.95
E.B.-1	E.B. I-275	P.C.	348+71.23	450,385.26	362,735.79
		P.I.	353+72.98	450,644.29	363,165.51
		P.C.C.	358+74.06	450,864.77	363,616.22
E.B.-2	E.B. I-275	P.C.C.	358+74.06	450,864.77	363,616.22
		P.I.	384+66.08	452,003.74	365,944.59
		P.T.	405+92.10	450,595.48	368,120.69

For Design Designation, See Sht. No. 3
For Curve Data, See Sht. Nos. 291, 292, 334, 336
337, 367, 383, 384, 405

DEVELOPED | CHECKED

SCHEMATIC LAYOUT PLAN

TYPICAL SECTIONS
TYPE 451 ON 301



NORMAL SECTION I-275
Limiting Stations
Sta. 359+76.12 to Sta. 377+84.00

Note:
See Acceleration Lane Detail, Sheet No. 10.
Sta. 351+04.94 To Sta. 363+04.94 Westbound Lanes

*
Sta. 376+00 to 377+84.00
Slope varies from 3/16"/Ft. Lt. to 3/16"/Ft. Rt.
For Details, See Sh. No. 14

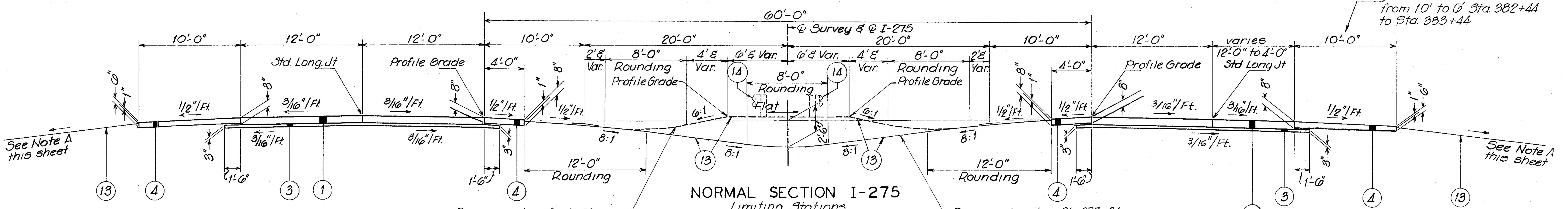
NORMAL SECTION I-275
Limiting Stations
Sta. 342+50.00 to Sta. 359+76.12

Note:
See Acceleration Lane Detail, Sheet No. 10.
Sta. 351+04.94 To Sta. 363+04.94 Westbound Lanes

(13)** Except Sta. 342+50 to Sta. 346+00 (approx.)
Natural rock surface

Note:
See Deceleration Lane Detail, Sheet No. 10.
Sta. 348+71.23 To Sta. 358+74.06
Eastbound Lanes

Shoulder width varies from 10' to 6' Sta. 382+44 to Sta. 383+44



NORMAL SECTION I-275
Limiting Stations
Sta. 377+84.00 to Sta. 383+44.00

Barrier median for I-74 structure pier protection Sta. 382+00 to Sta. 383+44
See plan sheets for configuration of transitions and limits of guard rail

Depressed median Sta. 377+84 to Sta. 382+00

★ See Note "PAVEMENT DESIGN" on Sheet 20.

ITEM LEGEND

(1) Item 451 10" Reinforced Portland Cement Concrete Pavement
(2) Item 451 9" Reinforced Portland Cement Concrete Pavement
(3) Item 301★ Bituminous Aggregate Base; 702.01 (85-100 or AC-20) or 702.09, RT-11 or RT-12
(4) Item 301 Bituminous Aggregate Base; 702.01 (85-100, or AC-20) or 702.09, RT-11 or RT-12, Thickness as per typical Section
(5) Item 404 1 1/4" Asphalt Concrete (70-85 or AC-20)
(6) Item 404 2" Asphalt Concrete (70-85 or AC-20)
(7) Item 402 1 3/4" Asphalt Concrete (70-85 or AC-20) 0" Min. pre-leveling on widening and resurfacing typicals (See note in proposal)
(8) Item 408 Bituminous Prime Coat; 702.09, RT-2 or RT-3 Applied at the rate of 0.40 gallon per square yard
(9) Item 304 Aggregate Base, Thickness as per typical section
(10) Item 310 Subbase, Thickness as per typical section
(11) Item 310 Subbase, Grading "A" 6" thick except where otherwise noted
(12) Item 407 Tack Coat: 702.04, MS-2 or RS-1; or 702.02, RC-70 or RC-250. Applied at the rate of 0.10 gallon per sq. yd. & cover aggr.
(13) Item 659 Seeding and Mulching (See General Note)
(14) Item 606 Guard Rail, Type 5
(15) Item 609 Curb, Type 2A
(16) Item 609 Curb, Type 8
(17) Item 609 Combination Curb and Gutter, Standard Type 2
(18) Item 612 Concrete Median
(19) Item 613 Traffic Dividers
(20) Existing 9" Portland Cement Concrete Pavement Constructed under previous contract (HAM 52-2.52)
(21) Existing 6" Subbase Constructed under previous contract (HAM 52-2.52)
(22) Existing Shoulder (Bituminous Surface Treatment, 3" Waterproofed Aggregate Base Course & 5" Stabilized Crushed Aggregate) const. under prev. contract (HAM 52-2.52)
(23) Existing 6" Underdrains Constructed under previous contract (HAM 52-2.52)
(24) Existing sod const. under previous contract (HAM 52-2.52)

NOTES

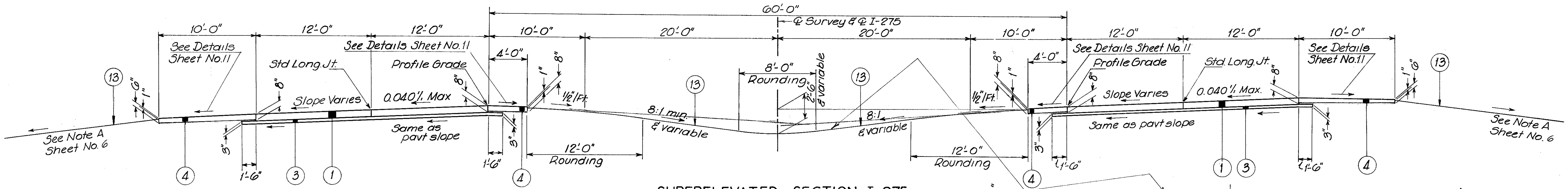
A. The slope rate appearing throughout these typical sections shall be considered to read: Slope rates shall be as shown on Sideslope Treatment Details Sheets No. 7 & 10 or as otherwise shown on cross sections.
B. For pavement edge elevations, see Superelevation Tables or Pavement Detail sheets.
C. For pavement and shoulder slopes and variation in widths, see Pavement Detail sheets and plan sheets.

ITEM LEGEND

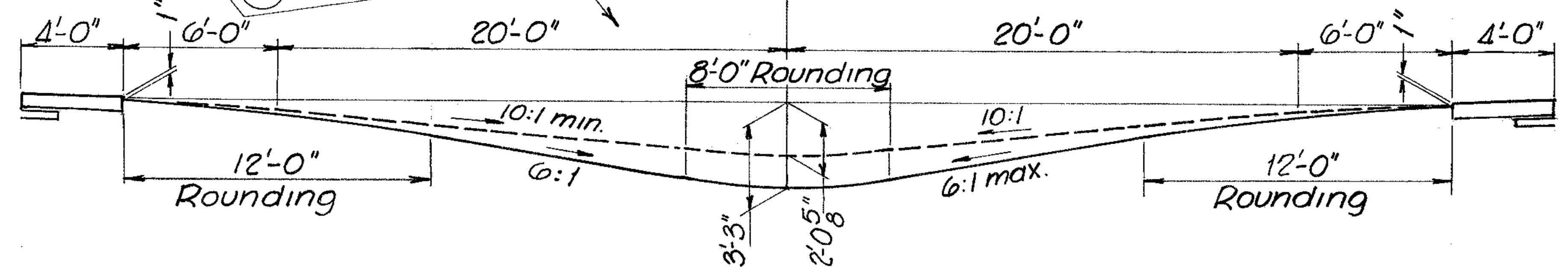
(25) Item 409 Seal Coat Bituminous Material; 702.09, RT-9, RT-10 or 702.02, MC-800 or MC-3000 Applied at the rate of 0.25 gallon per square yard.
(26) Item 409 Seal Coat Cover Aggregate No. 8 Applied at the rate of 0.0075 cubic yard per square yard.
(27) Item 612 Concrete Traffic Island

For Item Legend Continued See Sheet No. 13

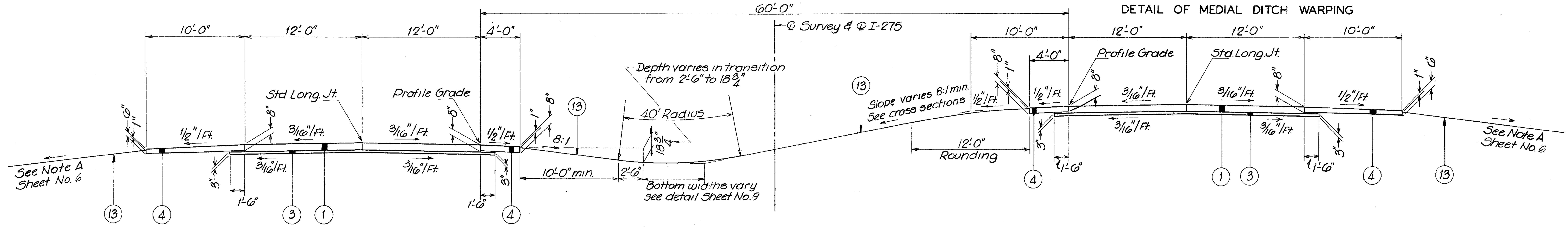
TYPICAL SECTIONS
TYPE 451 ON 301



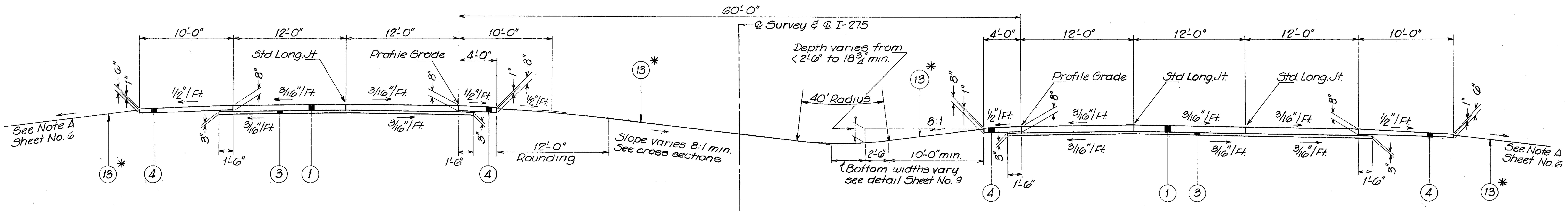
SUPERELEVATED SECTION I-275
Limiting Stations
Sta. 205+00.00 to Sta. 210+58.92
Sta. 210+58.92 to Sta. 213+64.72 (Bridge & Appr. Slabs)
Sta. 213+64.72 to Sta. 246+00.00
Sta. 246+00.00 to Sta. 248+75.60 (Vert. Bifurcation)



DETAIL OF MEDIAL DITCH WARPING



NORMAL BIFURCATED SECTION I-275
Limiting Stations
Sta. 248+75.60 to Sta. 253+62.49



NORMAL BIFURCATED SECTION I-275
Limiting Stations
Sta. 326+28.78 to Sta. 342+50.00

(13)* Except Sta. 327+00 to Sta. 342+50 (approx.) Natural rock surface

Note:
For Item Legend, See Sheet Nos. 6 & 13.

DEVELOPED | CHECKED

TYPICAL SECTIONS
TYPE 451 ON 301

FED. RD. DIVISION	STATE	PROJECT			8 / 630
2	OHIO				

HAM-275-3.86
HAMILTON COUNTY

Note: Guard Rail Shall Be Provided On The Upper Roadway Median Shoulder When The Median Slope Is 4:1 Or Greater. See Plan Sheets For Guard Rail Location.

NORMAL BIFURCATED SECTION I-275
Limiting Stations
Sta. 273+16.65 to Sta. 285+00.00

Note: Guard Rail Shall Be Provided On The Upper Roadway Median Shoulder When The Median Slope Is 4:1 Or Greater. See Plan Sheets For Guard Rail Location.

(13)* Except Sta. 288+70 to Sta. 294+62 (approx.) Natural rock surface

NORMAL BIFURCATED SECTION I-275
Limiting Stations
Sta. 285+00.00 to Sta. 294+61.92

Item 605: 6" Deep Pipe Underdrains. Sta. 303+00 To Sta. 306+50 Only.

(13)* Westbound Pav't exception
Sta. 294+62 to Sta. 296+20 (approx.)
Natural rock surface

** Note: From Sta. 321+12 to Sta. 326+28.78 profile grade elev. of Westb'd Pav't is higher than Eastb'd Pav't and medial ditch and slope configuration is opposite hand from that shown above

Note: Guard Rail Shall Be Provided On The Upper Roadway Median Shoulder When The Median Slope Is 4:1 Or Greater. See Plan Sheets For Guard Rail Location.

(13)* Eastbound Pav't exceptions
Sta. 294+62 to Sta. 295+55 (approx.)
Sta. 312+50 to Sta. 313+40 (approx.)
Sta. 318+00 to Sta. 321+10 (approx.)
Natural rock surface

Item 605: 6" Deep Pipe Underdrains. Sta. 304+00 To Sta. 307+50 Only.

SUPERELEVATED BIFURCATED SECTION I-275
Limiting Stations
Sta. 253+62.49 to Sta. 273+16.65
Sta. 294+61.92 to Sta. 326+28.78

Note: For Item Legend, See Sheet Nos. 6 & 13.

DEVELOPED | CHECKED

TYPICAL SECTIONS

TYPICAL SECTIONS
TYPE 451

* Varies From 4' to 10' at Sta. 340+94.72 to Sta. 341+94.72, respectively (Ahead, Shoulder Width remains 10')

\# \# Varies From 4' to 10' at Sta. 339+64.32 to Sta. 340+64.32, respectively (Ahead, Shoulder Width remains 10')

Note:
For Item Legend, See Sheet Nos. 6 & 13.

TYPICAL SECTIONS

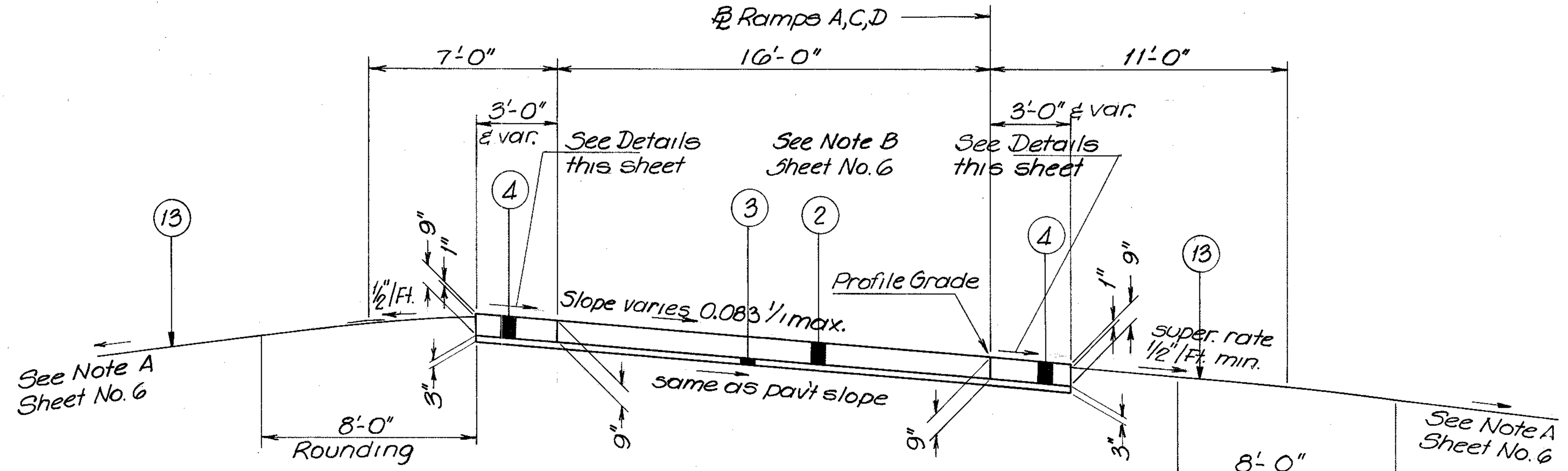
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

10/630

HAM-275-3.86
HAMILTON COUNTY

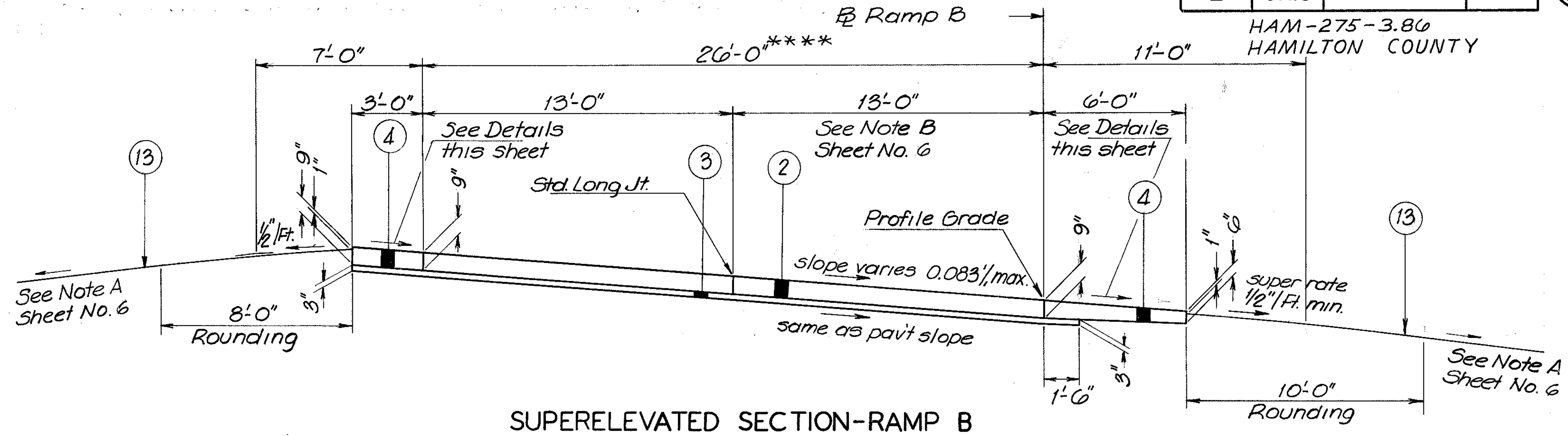
TYPICAL SECTIONS

TYPICAL SECTIONS



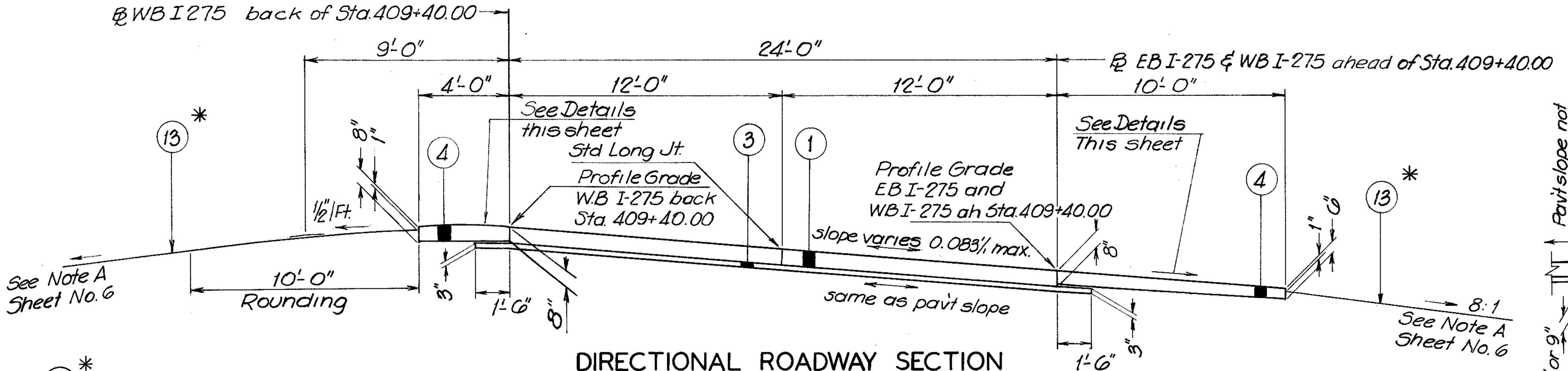
SUPERELEVATED RAMP SECTION

Limiting Stations: Ramp A: Sta. 203+70.00 to Sta. 209+00.75; Ramp C: Sta. 204+00.00 to Sta. 205+95.00
Ramp D: Sta. 204+90.73 to Sta. 205+75.00



SUPERELEVATED SECTION-RAMP B

Limiting Stations
Ramp B: Sta. 201+44.00 to Sta. 205+15.00
**** Ramp B: Sta. 205+15.00 to Sta. 208+15.00 (Varies: 26'-0" to 24'-0")

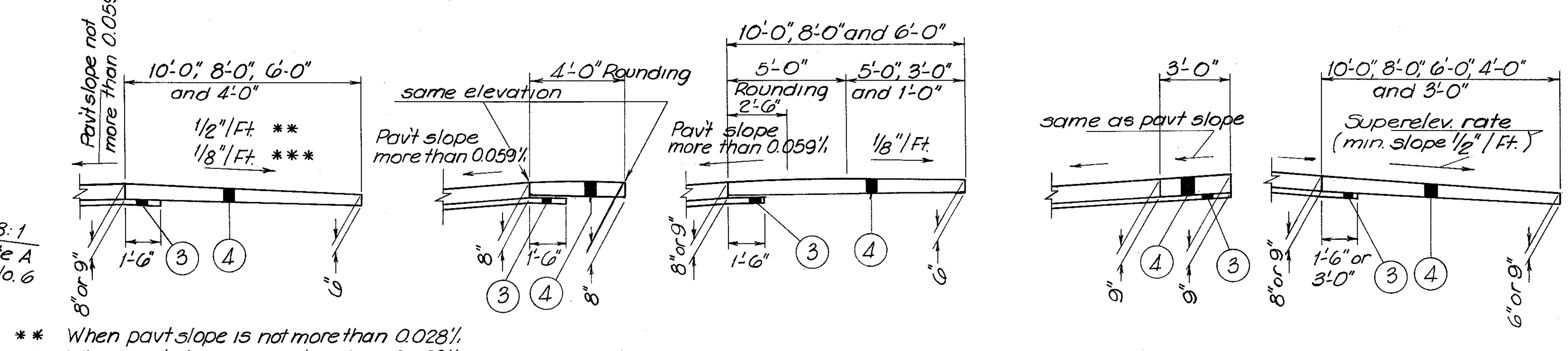


DIRECTIONAL ROADWAY SECTION

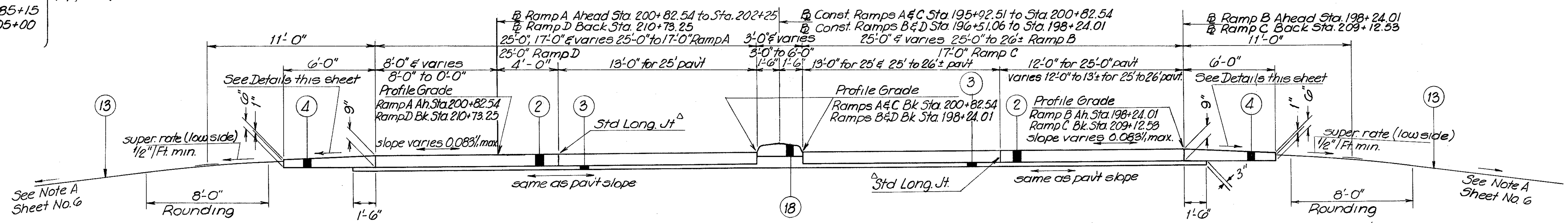
Limiting Stations
EB I 275: Sta 358+74.06 to Sta. 402+96.00
WB I 275: Sta. 403+60.00 to Sta. 420+29.70 (Looking downstation)

(13)* Except EB I-275
Sta. 350+70 to Sta. 356+15
Sta. 366+40 to Sta. 367+90
Sta. 384+10 to Sta. 395+55
Except WB I-275
Sta. 383+44 to Sta. 385+15
Sta. 386+90 to Sta. 405+00 (approx.)
Natural rock surface

SHOULDER CONDITIONS IN SUPERELEVATED SECTIONS
I-275, DIRECTIONAL ROADWAYS AND RAMPS



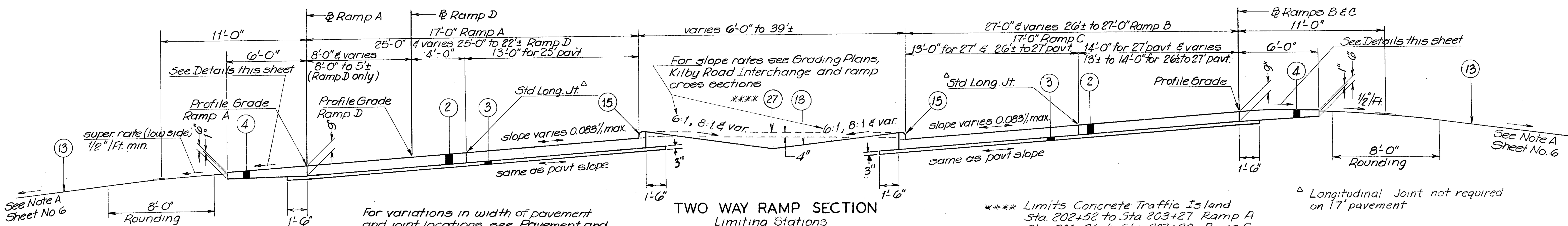
** When pav't slope is not more than 0.028'/'
*** When pav't slope is greater than 0.028'/' but not more than 0.059'/'



TWO WAY RAMP SECTION

△ Longitudinal Joint not required on 17' pavement

Limiting Stations
Ramps A & C: Sta. 196+23.51 to Sta. 202+52.00 (Ramp A Stationing)
Ramps B & D: Sta. 196+81.56 to Sta. 199+55.00 (Ramp B Stationing)



For variations in width of pavement and joint locations see Pavement and Channelization Details Kilby Road

TWO WAY RAMP SECTION

Limiting Stations
Ramps A & C: Sta. 202+52.00 to Sta. 203+70.00 Ramp A; Sta. 205+95.00 to Sta. 207+20.00 Ramp C
Ramps B & D: Sta. 199+55.00 to Sta. 201+44.00 Ramp B; Sta. 207+12.00 to Sta. 209+39.00 Ramp D

**** Limits Concrete Traffic Island
Sta. 202+52 to Sta 203+27 Ramp A
Sta. 206+36 to Sta. 207+20 Ramp C
Sta. 199+55 to Sta. 200+68 Ramp B
Sta. 208+12 to Sta. 209+39 Ramp D

△ Longitudinal Joint not required on 17' pavement

Note:
For Item Legend, See Sheet Nos. 6 & 13.

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			12/630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED | CHECKED

TYPICAL SECTIONS

TYPICAL SECTIONS

TYPE 404 ON 301

ITEM LEGEND (Continued From Sheet No. 6)

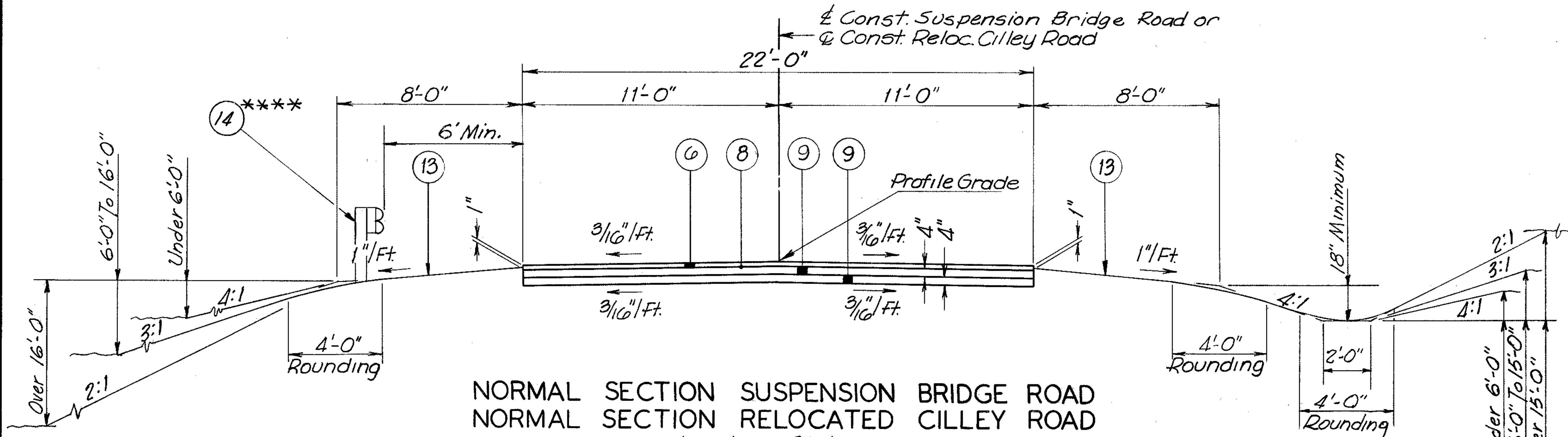
- (28) Item 409 Seal Coat Bituminous Material: 702.09, RT-9 or RT-10; or 702.02, MC-800 or MC-3000 Applied at the rate of 0.30 gallon per square yard.
- (29) Item 409 Seal Coat Cover Aggregate No. 8 Applied at the rate of 0.008 cubic yard per square yard
- (30) Item 605 6" Pipe Underdrain Shallow: 30" Top of Pipe to Subgrade
  Deep: 50" Top of Pipe to Subgrade
- (31) Item Special Drainage Connection, Using No. 8 Aggregate
- (32) Item 606 Guard Rail, Type 5, Barrier Design

NOTE:
For Additional Kilby Road Typical Sections, See Sh. No. 14

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			14 / 630

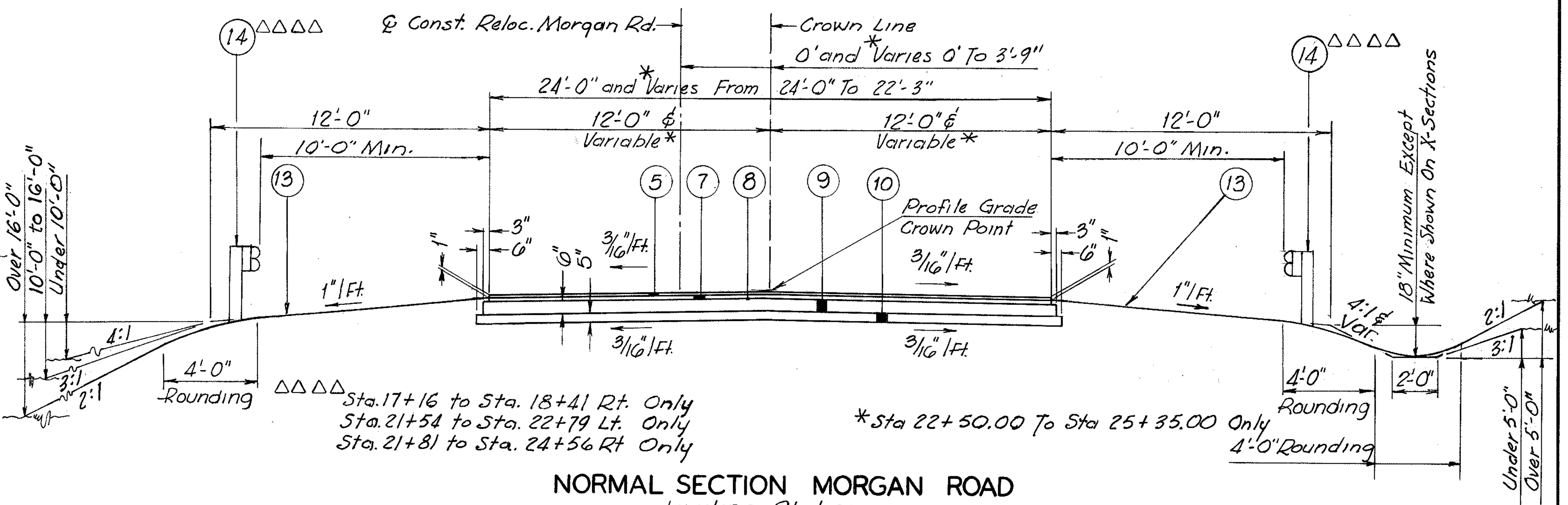
HAM-275-3.86
HAMILTON COUNTY



NORMAL SECTION SUSPENSION BRIDGE ROAD
NORMAL SECTION RELOCATED CILLEY ROAD

Limiting Stations
Suspension Bridge Road
Sta. 16+50.00 to Sta. 19+67.62
Relocated Cilley Road
Sta. 11+03.38 to Sta. 40+92.31
Sta. 50+99.53 to Sta. 51+00.00

****Cilley Road Only.
Sta. 25+50 to Sta. 30+50 Lt.

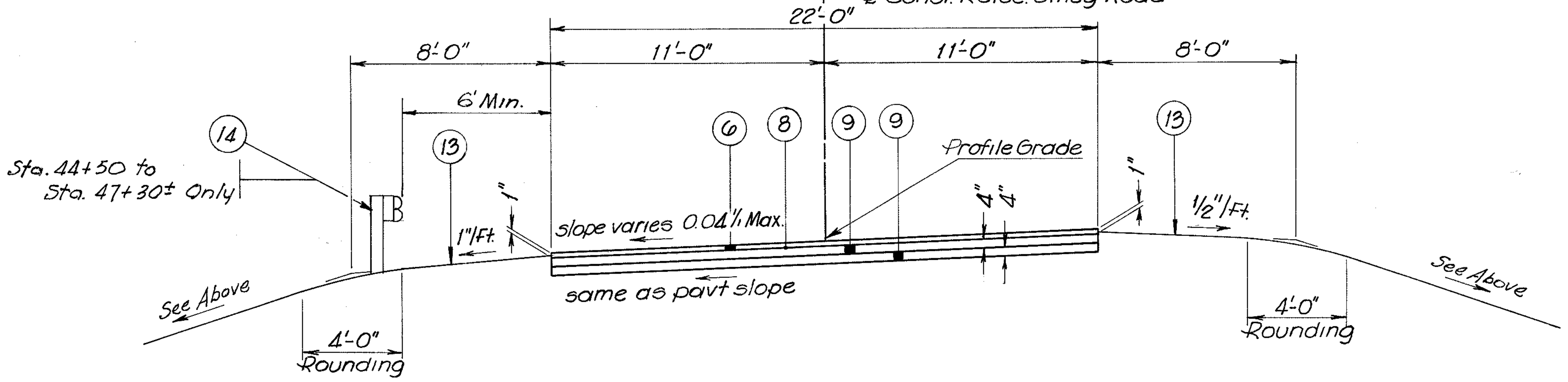


ΔΔΔSta. 17+16 to Sta. 18+41 Rt. Only
Sta. 21+54 to Sta. 22+79 Lt. Only
Sta. 21+81 to Sta. 24+56 Rt. Only

*Sta 22+50.00 To Sta 25+35.00 Only

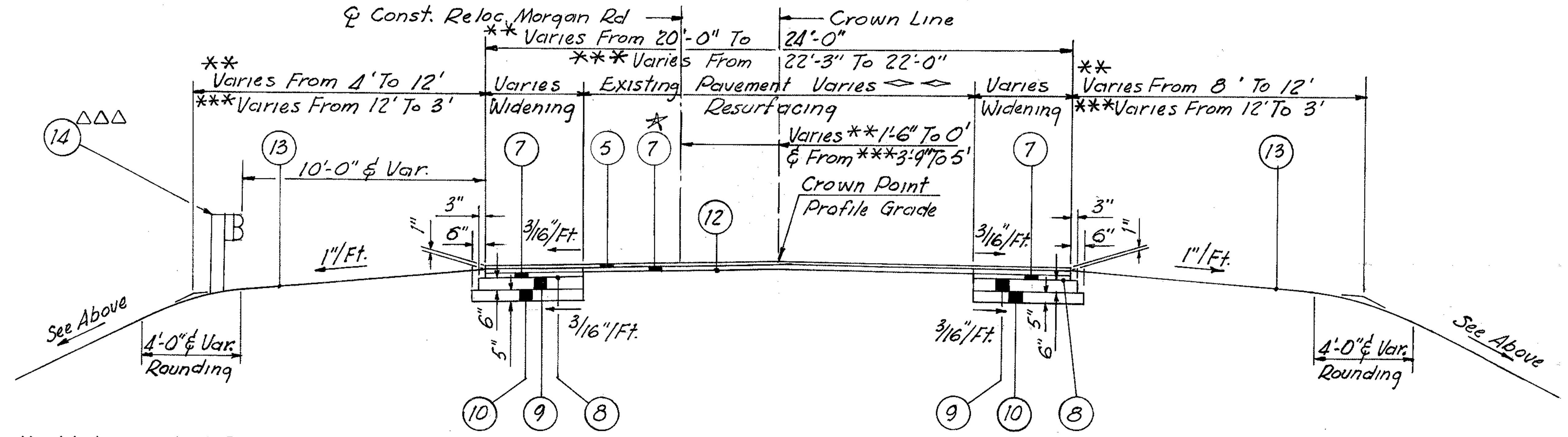
NORMAL SECTION MORGAN ROAD

Limiting Stations
Sta. 17+00.00 to Sta. 18+21.57
Sta. 21+69.68 to Sta. 25+35.00
Sta. 18+21.57 to Sta. 21+69.68 (Bridge & Approach Slabs.)



SUPERELEVATED SECTION RELOCATED CILLEY ROAD

Limiting Stations
Sta. 0+58.72 to Sta. 0+98.72
Sta. 0+98.72 to Sta. 1+12.42 (Railroad Crossing)
Sta. 1+12.42 to Sta. 11+03.38
Sta. 40+92.31 to Sta. 50+99.53



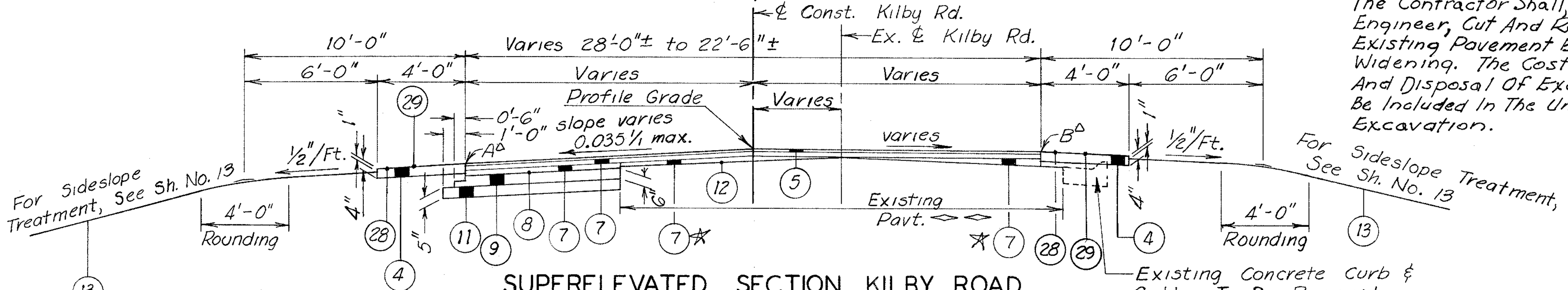
Within the Widening And Resurfacing Limits Of Work On Kilby Road And Morgan Road The Contractor Shall, Under The Direction Of Engineer, Cut And Remove One Foot (1') Of Existing Pavement Before Placing The Widening. The Cost Of Cutting, Trimming, And Disposal Of Excavated Material Shall Be Included In The Unit Price Bid For 203 Excavation.

NORMAL SECTION MORGAN ROAD
WIDENING AND RESURFACING

Limiting Stations
Sta. 15+45.00 to Sta. 17+00.00
Sta. 25+35.00 to Sta. 26+25.00

**Sta 15+45.00 To Sta 17+00.00 Only
***Sta 25+35.00 To Sta 26+25.00 Only
ΔΔΔSta 15+46.5 To Sta. 17+00.00 Only

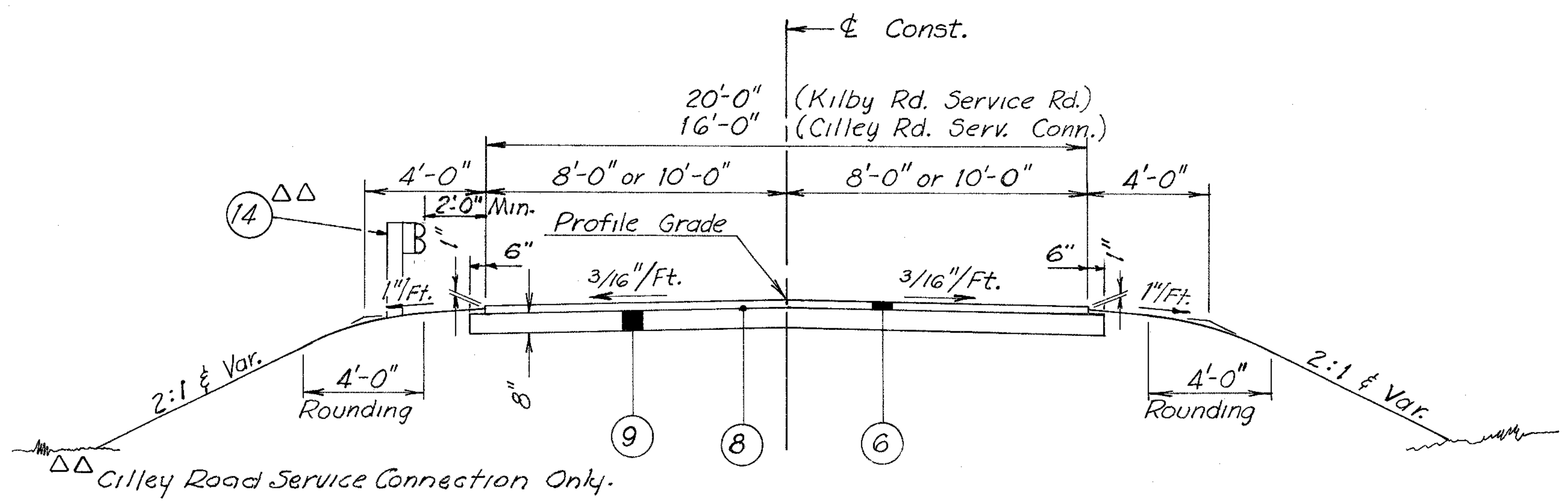
★ Pre-leveling Course



SUPERELEVATED SECTION KILBY ROAD
WIDENING AND RESURFACING

Limiting Stations
Sta. 62+00.00 to Sta. 64+30.00

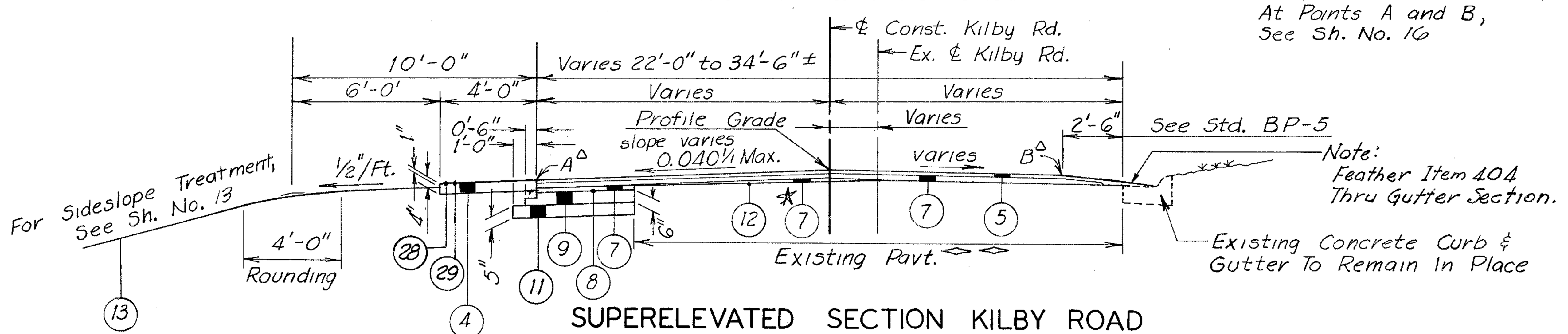
ΔFor Finished Grade Elevations At Points A and B, See Sh. No. 16



ΔΔCilley Road Service Connection Only.

NORMAL SECTION KILBY RD. SERVICE ROAD
NORMAL SECTION CILLEY RD. SERVICE CONN.

Limiting Stations
Kilby Rd. Service Road
Sta. 10+22.5 to Sta. 11+64
Cilley Rd. Service Connection
Sta. 10+11 to Sta. 11+00



SUPERELEVATED SECTION KILBY ROAD
WIDENING AND RESURFACING

Limiting Stations
Sta. 26+35.88 to Sta. 30+00.00

Note: For Item Legend, See Sheet Nos. 6 & 13.

DEVELOPED	CHECKED

SUPERELEVATION TABLES

CURVE NO. 1

D 1° 15'00" — S.E. 0.040 ′/′

STATION	WESTBOUND LANE LEFT EDGE	WESTBOUND LANE C.L.	WESTBOUND LANE PR. GRADE RT. EDGE	EASTBOUND LANE PR. GRADE LT. EDGE	EASTBOUND LANE C.L.	EASTBOUND LANE RIGHT EDGE
205+00	518.84	519.32	519.80	519.80	520.28	520.76
	P.G.-0.96	P.G.-0.48			P.G.+0.48	P.G.+0.96
246+26.79	508.83	509.31	509.79	509.80	510.28	510.76
+50	509.01	509.44	509.87	509.89	510.32	510.76
+75	509.22	509.60	509.97	510.01	510.38	510.76
247+00	509.46	509.77	510.09	510.16	510.48	510.80
+25	509.70	509.96	510.22	510.33	510.59	510.85
+34.79	509.80	510.04	510.28	510.41	510.65	510.89
+50	509.96	510.16	510.37	510.53	510.74	510.94
+58.41	510.05	510.23	510.42	510.60	510.79	510.98
+75	510.23	510.42	510.53	510.75	510.94	511.05
248+00	510.52	510.71	510.71	511.00	511.19	511.19
+00.60	510.53	510.72	510.72	511.01	511.19	511.19
+25	510.78	510.97	510.91	511.27	511.46	511.40
+50	511.06	511.24	511.12	511.57	511.76	511.63
+75	511.35	511.54	511.35	511.89	512.08	511.89
+75.60	511.36	511.55	511.36	511.90	512.09	511.90

M.L. PAV'T. TAPER & SLOPE TRANSITION

STATION	EASTBOUND LANE PAV'T WIDTH	EASTBOUND LANE P.R GRADE LEFT EDGE	EASTBOUND LANE ℄	EASTBOUND LANE RIGHT EDGE
376+00	24.00	649.69	649.88	649.69
+25		650.56	650.70	650.51
+50		651.44	651.52	651.33
+75		652.31	652.35	652.16
+92		652.91	652.91	652.72
377+00		653.19	653.17	652.98
+25		654.06	653.99	653.80
+50		654.94	654.82	654.63
+75		655.81	655.64	655.45
+84	24.00	656.13	655.94	655.75
378+00	23.77	656.69		656.32
379+00	22.34	660.19		659.84
380+00	20.91	663.69		663.36
381+00	19.48	667.19		666.89
+59	18.64	669.25		668.96
382+00	18.06	670.69		670.41
383+00	16.63	674.19		673.93
+44	16.00	675.73		675.48

CURVE NO. 2

D 0°45' 00" — S.E. 0.024 ′/′

STATION	WESTBOUND LANE LEFT EDGE	WESTBOUND LANE C.L.	WESTBOUND LANE PR. GRADE RT. EDGE	EASTBOUND LANE PR. GRADE LT. EDGE	EASTBOUND LANE C.L.	EASTBOUND LANE RIGHT EDGE
253+62.49				520.55	520.74	520.55
+75				520.78	520.94	520.75
254+00				521.24	521.34	520.93
+25				521.70	521.73	521.54
+37.49				521.93	521.93	521.74
+50				522.16	522.11	521.92
+69.89				522.53	522.39	522.20
+75				522.62	522.46	522.27
+79.71				522.71	522.52	522.34
+82.44	518.84	519.03	518.84			
255+00	519.11	519.25	519.06	523.08	522.85	522.62
+25	519.49	519.57	519.38	523.54	523.25	522.96
+25.12				523.54	523.25	522.96
+50	519.87	518.89	519.70			
+57.33	519.98	519.98	519.79			
+75	520.28	520.20	520.01			
+89.60	520.53	520.39	520.20			
+99.35	520.70	520.51	520.32			
256+00	520.71	520.52	520.33		P.G-0.29	P.G.-0.58
+25	520.14	520.89	520.64			
+44.40	521.47	521.18	520.89			
270+49.51				551.59	551.30	551.01
+50				551.60	551.31	551.02
+75				552.06	551.83	551.60
+94.56	P.G.+0.58	P.G+0.29		552.42	552.23	552.05
271+00				552.52	552.36	552.17
+04.39				552.60	552.46	552.27
+25				552.98	552.93	552.74
+36.98				553.20	553.20	553.01
+50				553.44	553.47	553.28
+54.25	540.58	540.29	540.00			
+75	540.75	540.51	540.27	553.90	553.99	553.80
+99.47	540.96	540.77	540.58			
272+00	540.96	540.77	540.58	554.36	554.52	554.33
+09.25	541.03	540.89	540.70			
+12.09				554.58	554.77	554.58
+25	541.16		540.90			
+41.67	541.30	541.30	541.11			
+50	541.38	541.41	541.22			
+75	541.63	541.73	541.53			
273+00	541.89	542.04	541.85			
+16.65	542.06	542.25	542.06			

CURVE NO. 3

D 1°00'00" — S.E. 0.032 ′/′

STATION	WESTBOUND LANE LEFT EDGE	WESTBOUND LANE C.L.	WESTBOUND LANE PR. GRADE RT. EDGE	EASTBOUND LANE PR. GRADE LT. EDGE	EASTBOUND LANE C.L.	EASTBOUND LANE RT. EDGE THRU PAV'T	EASTBOUND LANE RIGHT EDGE
294+61.92	588.07	588.26	588.07				
+75	588.50	588.65	588.46				
+90.13				602.28	602.47	602.28	602.09
295+00	589.31	589.40	589.21	602.53	602.69	602.50	602.31
+25	590.12	590.15	589.96	602.15	603.25	603.06	602.87
+36.92	590.51	590.51	590.32				
+50	590.96	590.90	590.71	603.78	603.81	603.62	603.43
+65.13				604.15	604.15	603.96	603.77
+75	591.82	591.65	591.46	604.40	604.35	604.16	603.97
+79.11	591.96	591.77	591.58				
+81.13	592.02	591.83	591.64				
296+00	592.67	592.44	592.21	605.02	604.52	604.68	604.52
+07.41				605.20	605.01	604.83	604.65
+09.45				605.26	605.07	604.88	604.69
+25	593.53	593.24	592.96	605.04	605.42	605.20	604.98
+50	594.39	594.05	593.71	606.27	605.99	605.70	605.41
+67.01	594.99	594.60	594.22				
+75				608.89	606.55	606.21	605.87
				607.42	607.04	606.65	606.26
	P.G+0.77	P.G.+0.38					
					P.G.-0.38	P.G.-0.77	P.G.-1.16
323+58.58	675.74	675.35	674.97				
+75	676.16	675.81	675.46				
324+00	676.80	676.50	676.21				
+22.88				675.31	674.93	674.54	674.15
+25	677.43	676.20	676.96	675.36	674.99	674.60	674.21
+44.53	677.93	677.74	677.55				
+46.54	677.99	677.80	677.61				
+50	678.07	677.90	677.71	675.99	675.65	675.32	674.99
+75	678.70	678.64	678.45	676.61	676.31	676.04	675.77
+88.57	679.04	679.04	678.85				
325+00	679.33	679.36	679.17	677.23	676.98	676.66	676.54
+09.56				677.47	677.23	677.04	676.85
+11.59				677.52	677.33	677.15	676.97
+25	679.97	680.06	679.87	677.85	677.72	677.54	677.36
+50	680.58	680.73	680.54	678.48	678.46	678.27	678.08
+53.78				678.57	678.57	678.38	678.19
+63.57	680.91	681.10	680.91				
+75				679.10	679.15	678.96	678.77
326+00				679.72	679.84	679.65	679.46
+25				680.34	680.53	680.34	680.15
+28.78				680.44	680.63	680.44	680.25

SUPERELEVATION TABLES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

16 / 630

HAM-275-3.86
HAMILTON COUNTY

RAMP A

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
From Sta. 195+60.51 to Sta. 197+00 See 20 Scale Detail Sheet No. 248					
From Sta. 197+00 to Sta. 198+28.54					
Constant	-0.39	26.5	P.G.	18.5	-0.27
			P.G. @ Med. Edge		
198+82.54	500.48	26.5	500.87	18.5	500.87
199+00	500.68	26.5	501.22	18.5	501.34
199+25	500.98	26.5	501.72	18.5	502.02
199+50	501.26	26.5	502.22	18.5	502.70
199+75	501.55	26.5	502.72	18.5	503.37
200+00	501.84	26.5	503.22	18.5	504.05
200+25	502.12	26.5	503.72	18.5	504.73
200+50	502.41	26.5	504.22	18.5	505.40
200+75	502.70	26.5	504.72	18.5	506.08
200+82.54 BK.	502.79	26.5	504.87	18.5	506.28
			P.G. @ B.L.		
200+82.54 AH.	502.80	8	503.46	17	504.87
201+00	503.15	8	503.81	17	505.22
201+25	503.65	8	504.31	17	505.72
201+50	504.15	8	504.81	17	506.22
201+75	504.65	8	505.31	17	506.72
202+00	504.48	4	505.81	17	507.22
202+25	506.31	0	506.31	17	507.72
Sta. 202+25 to Sta. 203+70 BK					
Constant	P.G.	—	P.G.	17	+1.41
Sta. 203+70 AH to Sta. 207+00.75					
Constant	P.G.	—	P.G.	16	+1.33
207+00.75	515.82	—	515.82	16	517.15
207+25	516.16	—	516.16	16	517.42
207+50	516.59	—	516.59	16	517.78
207+75	517.01	—	517.01	16	518.12
208+00	517.41	—	517.41	16	518.45
208+25	517.80	—	517.80	16	518.76
208+50	518.19	—	518.19	16	518.99
208+75	518.55	—	518.55	16	519.35
209+00	518.91	—	518.91	16	519.64
209+00.75	518.92	—	518.92	16	519.64
Sta. 209+00.75 to Sta. 213+57 See 20 Scale Detail Sheet No. 216					

RAMP B

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
Sta. 196+19.06 to Sta. 197+50 See 20 Scale Detail Sheet No. 247					
Sta. 197+50 to Sta. 198+24+01 BK (P.G. @ Med. Edge)					
Constant	-0.39	26.5	P.G.	26.5	-0.39
198+24.01AH	498.60	25.00	498.21		
198+25	498.64	25.01	498.24		
198+50	499.48	25.17	498.93		
198+75	500.32	25.34	499.62		
199+00	501.17	25.51	500.31		
199+25	502.01	25.67	501.00		
199+50	502.86	25.84	501.69		
199+75	503.70	26.01	502.38		
200+00	504.55	26.17	503.07		
200+25	505.39	26.34	503.76		
200+50	506.24	26.51	504.45		
200+75	507.08	26.67	505.14		
201+00	507.92	26.84	505.83		
201+24.01	508.73	27.00	506.49		
201+25	508.76	27.00	506.52		
201+44 BK	509.45	27.00	507.21		
Sta. 201+44 AH to 205+15					
Constant	+2.16	26	P.G.		P.G.
205+15	519.52	26.00	517.36		
205+25	519.64	25.93	517.54		
205+50	520.12	25.77	518.17		
205+75	520.57	25.60	518.77		
206+00	520.97	25.43	519.32		
206+25	521.34	25.27	519.84		
206+50	521.67	25.10	520.32		
206+75	521.96	24.93	520.76		
207+00	522.21	24.77	521.16		
207+25	522.44	24.60	521.53		
207+50	522.61	24.43	521.85		
207+75	522.75	24.26	522.14		
208+00	522.85	24.10	522.39		
208+15	522.91	24.00	522.53		
Sta 208+15 to Sta 214+35 See 20 Scale Detail Sheet No. 216					

Profile Grade

RAMP C

Station	P.G. - ℄	Right Side Width	Right Side Elevation
204+00	510.47	16	511.55
204+25	510.36	16	511.31
204+50	510.25	16	511.08
204+75	510.14	16	510.84
204+81.43	510.11	16	510.78
205+00	510.03	16	510.61
205+25	509.92	16	510.37
205+50	509.81	16	510.14
205+63.43	509.75	16	510.00
205+75	509.70	16	509.90
205+95 BK	509.61	16	509.71
205+95 AH	509.61	17	509.73
206+00	509.59	17	509.68
206+18.56	509.51	17	509.51
206+25	509.48	17	509.43
206+50	509.37	17	509.15
206+75	509.26	17	508.86
207+00	509.15	17	508.58
207+25	509.01	17	508.26
207+50	508.82	17	507.89
207+75	508.58	17	507.48
208+00	508.28	17	507.00
208+18.56	508.01	17	506.60
Sta. 208+18.56 to Sta. 209+12.53			
Constant	P.G.	17	-1.41

RAMP D

Station	Left Side Elevation	Left Side Width	P.G.	Right Side Width	Right Side Elevation
204+90.73	511.31	16	511.31		
205+00	511.18	16	511.23		
205+25	510.84	16	511.02		
205+50	510.49	16	510.81		
205+75	510.15	16	510.60		
206+00	509.81	16	510.39		
206+25	509.47	16	510.18		
206+50	509.12	16	509.97		
206+75	508.75	16	509.73	0	509.73
207+00	508.31	16	509.42	4	509.67
207+12 BK	508.07	16	509.25	5.92	509.62
207+12 AH	507.99	17	509.25	5.92	509.62
207+25	507.71	17	509.04	8	508.21
207+40.73	507.15	17	508.56	8	507.81
Sta. 270+40.73 to Sta. 207+68.25					
Constant	-1.41	17	P.G.	8	+0.66
207+68.25	507.83	17	508.24	8	508.90
207+75	507.73	17	508.10	8	508.74
208+00	506.29	17	507.52	8	508.10
208+25	505.80	17	506.89	8	507.40
208+50	505.23	17	506.18	8	506.62
208+75	504.30	17	505.41	8	505.79
209+00	503.91	17	504.58	8	504.89
209+25	503.16	17	503.68	8	503.93
209+50	502.33	17	502.71	8	502.89
209+75	501.47	17	501.71	8	501.82
210+00	500.66	17	500.76	8	500.81
210+18.25	500.04	17	500.04	8	500.04
210+25	499.90	17	499.87	8	499.86
210+50	499.20	17	499.04	8	498.97
210+73.25	498.60	17	498.33	8	498.21

KILBY ROAD

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
	Widen + Resurface			Resurface	
26+35.88	486.14	11.00	486.20		486.01
26+65.88	486.16		486.37		486.20
26+75	486.11		486.32		486.16
27+00	486.00		486.23		486.08
27+25	485.92		486.15		486.00
27+50	485.84		486.08		485.93
27+75	485.81		486.05		485.90
28+00	485.84		486.08		485.94
28+25	485.92		486.16		486.01
28+50	485.99		486.25		486.08
28+75	486.08		486.33		486.14
29+00	486.17		486.40		486.22
29+25	486.36		486.67		486.49
29+50	486.55		486.95		486.74
29+75	486.56		487.11		486.91
30+00	486.57		487.27		487.08
	Begin Full Depth Construction				
30+00	486.57		487.27	13.73	487.06
30+24.12	486.67		487.40		——
30+25	486.68		487.41		487.10
30+34.00	486.78	18.79	487.46		——
30+50	486.95		487.55		487.31
30+75	487.21		487.69		487.43
30+88.12	487.35		487.76		——
31+00	487.48		487.83		487.56
31+04.12	487.52		487.85		——

Elevation Given Is 2.5' From Ex. Curb

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
31+04.12	487.52		487.85		——
31+25	487.64		487.97		487.68
31+50	487.77		488.11		487.80
31+75	487.91		488.25		487.93
31+95.91	——		488.37	21.32	488.04
32+00	488.05		488.39		488.06
32+25	488.18		488.53		488.19
32+32.12	488.24		488.57		488.25
32+50	488.31		488.67		488.33
32+75	488.45		488.81		488.46
33+00	488.58		488.95		488.60
33+25	488.72		489.09		488.73
33+45.64	——		489.21	23.18	488.85
33+50	488.86		489.23		488.87
33+75	489.00		489.37		489.00
34+00	489.14		489.51		489.14
34+25	489.28		489.65		489.28
34+50	489.42		489.79		489.42
34+75	489.56		489.93		489.56
34+98.36	489.69	27.93	490.06		——
35+00	489.70		490.07		489.70
35+25	489.84		490.21		489.84
35+50	489.98		490.35		489.98
35+64.55	——		490.46	29.64	490.09
35+75	490.12		490.49		490.12
36+00	490.26		490.63		490.26
36+25	490.67		491.04		490.67

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
36+25	490.67		491.04		490.67
36+50	491.08		491.45		491.08
36+75	491.49		491.86		491.49
37+00	491.90		492.27		491.90
37+03.30	491.95	32.00	492.32	32.00	491.95
Sta. 37+03.30 to Sta. 56+25.28					
Constant	-0.37	32.00	P.G.	32.00	-0.37
56+25.28	500.13	32.00	500.50	32.00	500.13
56+50	499.99		500.36		499.99
56+75	499.85		500.22		499.85
57+00	499.71		500.08		499.71
57+25	499.57		499.94		499.57
57+50	499.43		499.80		499.43
57+75	499.29		499.66		499.29
58+00	499.15		499.52		499.15
58+11.93	——		499.45	30.49	499.08
58+25	499.01		499.38		499.01
58+50	498.87		499.24		498.87
58+75	498.73		499.10		498.73
58+93.72	498.63	25.43	499.00		——
59+00	498.59		498.96		498.59
59+25	498.45		498.82		498.45
59+50	498.31		498.68		498.31
59+75	498.27		498.54		498.17
60+00	498.06		498.40		498.03
60+25	497.94		498.27		497.91
60+26.90	497.93		498.26		497.91

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
60+26.90	497.93		498.26		497.91
60+50	497.93		498.17		497.94
60+75	497.77		498.07		497.96
61+00	497.75		498.03		498.05
61+24.16	497.73	16.17	498.00		——
61+25	497.73		498.00		498.14
61+50	497.73		497.99		498.26
61+50.90	497.74		498.00		498.27
61+54.90	497.72		498.00		498.30
61+75	497.62		498.00		498.39
62+00	497.54		498.04		498.56
	End Full Depth Construction				
	Widen + Resurface			Widen + Resurface	
62+00	497.51		498.04		498.51
62+25	497.62		498.12		498.58
62+50	497.74		498.20		498.66
62+75	497.83		498.28		498.69
63+00	497.95		498.35		498.67
63+25	498.00		498.38		498.56
63+50	498.05		498.40		498.45
63+75	498.02		498.28		498.18
64+00	497.98		498.15		497.98
64+30	497.45		497.73		497.58

DEVELOPED | CHECKED

SUPERELEVATION TABLES

W.B. I-275

Station	Left Edge	C.L.	Right Edge	Station	Left Edge	C.L.	Right Edge	Station	Left Edge	C.L.	Right Edge	Station	Left Edge	C.L.	Right Edge
I-275			(Profile Grade)		P.G+1.99	P.G.+1.00			P.G.	P.G+0.19		414+00	706.31	707.09	707.86
383 +03.79	674.32	674.51	674.32		↓	↓			↓	↓		+25	706.45	707.27	708.09
+25	675.12	675.26	675.07									+50	706.60	707.46	708.33
+44 BK	675.83	675.92	675.73	403+49.77	702.15	701.16	700.16					+75	706.74	707.65	708.56
WB I-275				+50	702.15	701.16	700.16	409+40.00	(Profile Grade Shifts to Left Edge)			415+00	706.89	707.85	708.80
383 +44 AH	675.83	675.92	675.73	+75	702.21	701.26	700.31			↑	↑	+23.28	707.03	708.03	709.02
+50	676.06	676.13	675.94	404+00	702.27	701.36	700.46							↑	↑
+75	677.00	677.01	676.82	+25	702.32	701.46	700.60								
+78.79	677.11	677.11	676.92	+50	702.38	701.56	700.75			P.G.+0.19	P.G.				
384 +00	677.95	677.88	677.69	+75	702.44	701.67	700.90							P.G.+1.00	P.G.+1.99
+25	678.92	678.76	678.57	405+00	702.49	701.76	701.04			↓	↓				
+30.37	679.15	678.96	678.77	+25	702.55	701.87	701.19								
+50	680.88	679.66	679.44	+50	701.60	701.97	701.33	409+48.28	703.66	703.85	703.66			↓	↓
+75	681.86	680.59	680.33	+75	702.66	702.07	701.48	+50	703.67	703.86	703.67	416+29.70	707.64	708.64	709.63
385+00	681.81	681.50	681.19	406+00	702.72	702.17	701.63	+75	703.82	704.01	703.83	+50	707.76	708.72	709.67
+25	682.73	682.37	682.01	+25	702.77	702.27	701.77	410+00	703.97	704.16	704.13	+75	707.88	708.78	709.69
+50	683.69	683.29	682.89	+50	702.83	702.38	701.92	+23.28	704.10	704.29	704.29	417+00	707.98	708.84	709.69
+75	684.59	684.14	683.69	+75	702.88	702.48	702.06	+25	704.11	704.30	704.30	+25	708.06	708.86	709.67
386+00	685.44	684.98	684.45	407+00	702.94	702.57	702.21	+50	704.26	704.45	704.49	+50	708.14	708.89	709.64
+25	686.36	685.72	685.18	+25	702.99	702.67	702.35	+75	704.40	704.59	704.77	+75	708.20	708.90	709.60
+50	687.05	686.46	685.88	+50	703.05	702.78	702.50	+75.23	704.41	704.60	704.79	418+00	708.24	708.89	709.54
+75	687.82	687.19	686.56	+75	703.11	702.88	702.65	411+00	704.55	704.78	705.01	+25	708.25	708.85	709.45
387+00	688.43	687.76	687.08	+97.82	703.16	702.97	702.78	+25	704.70	704.98	705.25	+50	708.25	708.80	709.35
+25	689.22	688.50	687.78	408+00	703.17	702.99	702.80	+50	704.84	705.16	705.48	+75	708.24	708.74	709.24
+50	689.88	689.11	688.35	+25	703.22	703.13	702.94	+75	704.99	705.36	705.73	419+00	708.21	708.66	709.11
+75	690.51	689.70	688.89	+49.77	703.28	703.28	702.09	412+00	705.14	705.55	705.96	+25	708.15	708.55	708.95
388+00	691.09	690.24	689.38	+50	703.28	703.28	703.09	+25	705.28	705.74	706.20	+50	708.08	708.43	708.78
+25	691.64	690.74	689.84	+75	703.36	703.43	703.24	+50	705.43	705.93	706.43	+75	708.01	708.31	708.61
+50	692.17	691.22	690.28	409+00	703.44	703.57	703.38	+75	705.58	706.13	706.68	420+00	707.91	708.16	708.41
+75	692.66	691.67	690.68	+24.77	703.53	703.72	703.53	413+00	705.72	706.32	706.91	+25	707.79	707.99	708.19
+78.79	692.71	691.72	690.72		↑	↑		+25	705.87	706.51	707.15	+29.70	707.77	707.96	709.15
	↑	↑						+50	706.01	706.69	707.38				
								+75	706.16	706.89	707.62	Sta. 420+29.70 to Sta. 429+86.45			
	P.G.+1.99	P.G.+1.00			P.G.	P.G.+0.19		414+00	706.31	707.09	707.86	See 20' Scale Detail Sheet No. 339			

E.B. I-275

Station	Left Side Elevation	Left Side Width	Rt. Side PR. Grade
Sta. 348+71.23 to Sta. 359+75			
See 20' Scale Detail Sheet No. 299			
Sta. 359+75 to Sta. 404+50			
Constant	+0.96	24	P.G.
Sta. 404+50 to Sta. 405+92.10			
See 20' Scale Detail Sh. No. 298			

RAMP E

Station	Left Side Elevation	Left Side Width	Rt. Side PR. Grade
383+44.00	675.73	16.00	675.48
+50	675.95	↑	675.69
+75	676.89		676.56
384+00	677.84		677.44
+25	678.78		678.32
+50	679.72		679.19
+75	680.66		680.06
385+00	681.60		680.94
+25	682.53		681.80
+50	683.42		682.62
+75	684.27		683.41
386+00	685.11		684.18
+25	685.91		684.91
+50	686.66		685.60
+75	687.38		686.25
387+00	688.09		686.89
+25	688.75	↓	687.49
+44.00	689.23	16.00	687.92
Sta. 387+44.00 to Sta. 396+25			
Constant	+1.31	16.00	P.G.
396+50	697.13	16.00	695.81
396+75	697.31	16.00	695.98
Sta. 396+75 to Sta. 407+26.69			
Constant	+1.33	16.00	P.G.
Sta. 407+26.69 to Sta. 412+27.69			
See 20' Scale Detail Sheet No. 369			

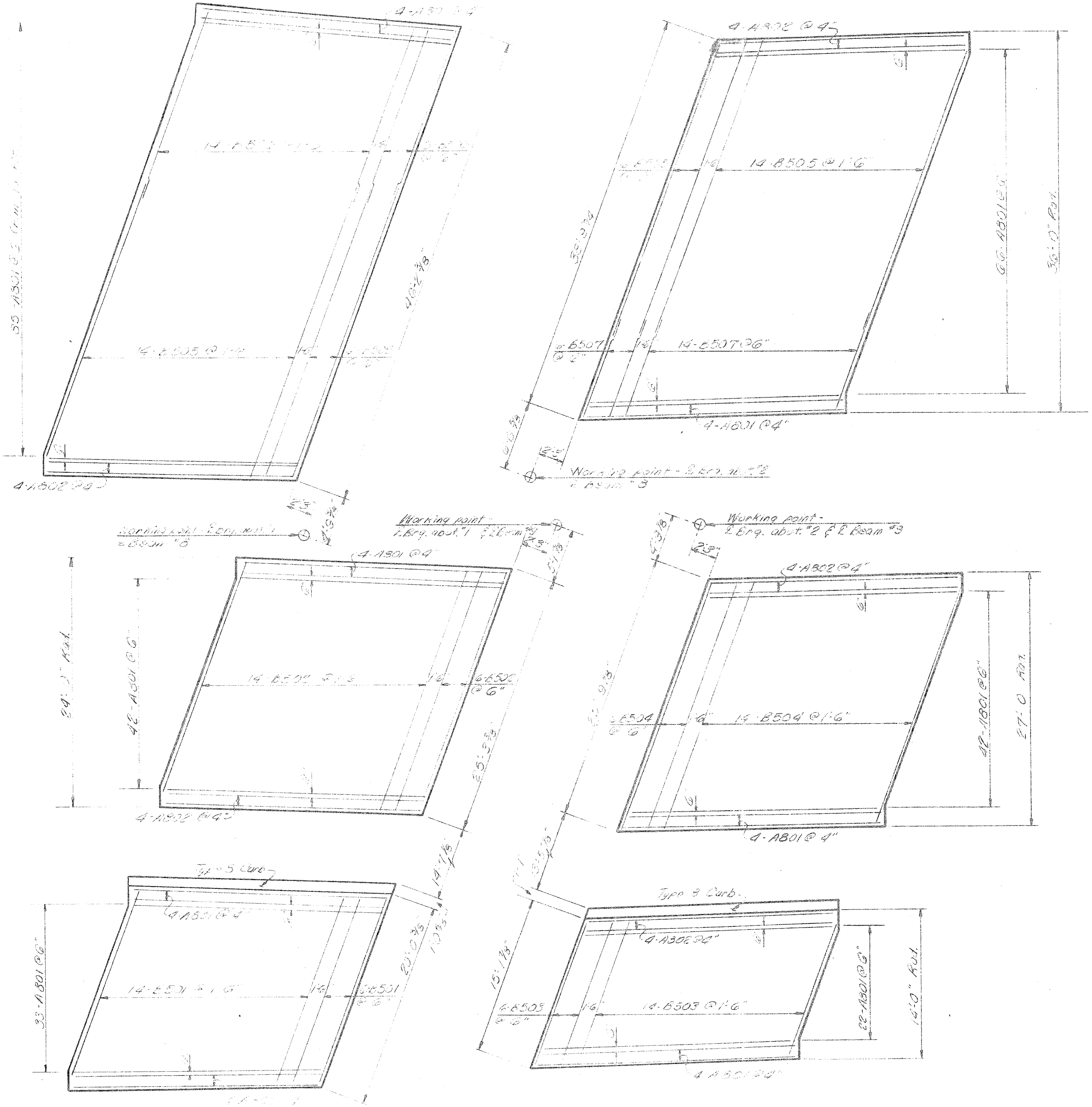
RAMP F

Station	Lt. Side PR. Grade	Right Side Width	Right Side Elevation
Sta. 363+04.92 to Sta. 367+36.12			
See 20' Scale Detail Sheet No. 385			
Sta. 367+36.12 to Sta. 385+24.19			
Constant	P.G.	16.00	+1.31
385+24.19	653.90	16.00	655.21
+25	653.56	↑	654.87
+50	653.23		654.41
+75	652.85		653.91
386+00	652.44		653.37
+25	651.98		652.79
+50	651.49		652.17
+55.39	651.43		652.09
+75	650.95		651.51
+00	650.37	↓	650.80
+06.59	650.22	16.00	650.62
Sta. 386+06.59 to Sta. 392+08.87			
See 20' Scale Detail Sheet No. 385			

FED.RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

18
630

HAM-275-03.86



REINFORCING STEEL					
Mark	No.	Length	Type	"A"	Remarks
A801	315	25-7	1	24-6	#8 Type 1 Bar
A802	24	24-6	1	23-5	"A"
B501	20	19-6	Straight		#5 Bar
B502	20	24-9	Straight		#5 Bar
B503	20	14-6	Straight		#5 Bar
B504	20	25-3	Straight		#5 Bar
B505	40	30-0	Straight		#5 Bar
B506	20	18-9	Straight		#5 Bar
B507	20	10-0	Straight		#5 Bar

NOTES:

For working point locations see sheet 12/16 of Bridge HAM 275-0399 L/R.

For all other notes, cross-sections and details not shown see Standard Drawing AS-1-67, revised 6-12-69.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

APPROACH SLAB DETAILS

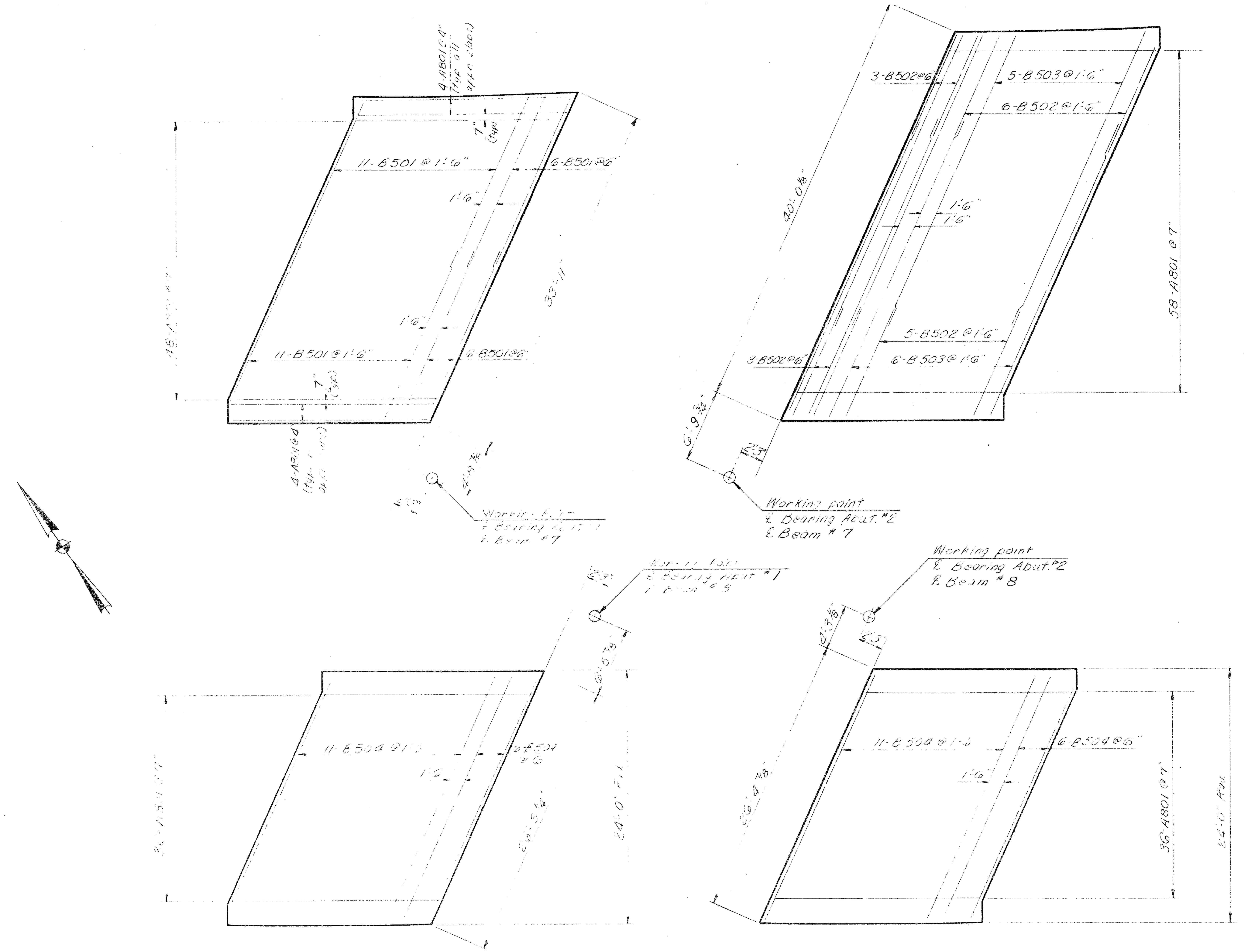
BRIDGE NO. HAM 275-0399 L/R
F.A.I. ROUTE 275 OVER
KILBY ROAD & PENN CENTRAL CO.

HAMILTON COUNTY — STA. 210+83.92, STA. 213+39.72

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	
J.P.	J.P.	K.M.	D.S.		62570

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

HAM-275-03.86



REINFORCING STEEL					
Mark	No.	Length	Type	"A"	Remarks
A801	210	20'-7"	1	19'-6"	Type 1 #8 Bar
					"A"
B501	34	17-6	S		#5 Bar
B502	17	11-6	S		#5 Bar
B503	17	30-0	S		#5 Bar
B504	34	25-10	S		#5 Bar

NOTES:

For working point locations see sheet 10/14 bridge HAM-275-0726 I-74 over I-275.

For all other notes, cross-sections and details not shown see Standard Drawing AS-1-67 revised 6-12-69.

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

APPROACH SLAB DETAILS
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.S.	D.S.	K. M.	J. P.		8-25-70	

GENERAL NOTES

MAINTAINING TRAFFIC

MINIMUM PROVISIONS FOR THE MAINTENANCE OF TRAFFIC ON ROADS AFFECTED BY THIS IMPROVEMENT SHALL BE AS FOLLOWS:

1. KILBY ROAD

ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES ON THE EXISTING ROAD UNTIL THE FOLLOWING CONSTRUCTION HAS BEEN PLACED:

(A) THE PROPOSED SOUTHBOUND PAVEMENT LANES AND MEDIAN CONSTRUCTION (LEFT EDGE OF PAVEMENT TO CENTERLINE OF CONSTRUCTION) FROM STA. 32 + 00 THRU STA. 60 + 50±.

(B) EIGHT (8) FEET OF MEDIAN AND/OR PAVEMENT ADJACENT TO AND ON THE RIGHT OF THE CENTERLINE OF CONSTRUCTION FROM STA. 34 + 90 THRU STA. 59 + 31.82.

(C) TWO (2) TEMPORARY ROADS, ITEM 615, AS SHOWN ON THE PLANS. (CLASS B PAVEMENT SHALL BE USED FOR THE TEMPORARY ROADS).

CONSTRUCTION OF THE PROPOSED PAVEMENT AND MEDIAN AS DESCRIBED ABOVE SHALL BE STAGED SO AS TO ALLOW EXISTING KILBY ROAD AND THE EXISTING SUSPENSION BRIDGE ROAD INTERSECTION TO REMAIN OPEN FOR THE MAXIMUM PERIOD OF TIME.

ALL TRAFFIC WILL BE TRANSFERRED TO AND MAINTAINED ON THE FACILITIES DESCRIBED ABOVE (ONE LANE OF TRAFFIC IN EACH DIRECTION) WHEN THE ABOVE CONSTRUCTION IS COMPLETED AND APPROVED BY THE ENGINEER. THE WIDENING AND RESURFACING OPERATIONS FOR THE NORTHBOUND LANE, FROM STA. 62 + 00 THRU STA. 64 + 30, WILL THEN BE PERFORMED AS SOON AS FEASIBLE. UPON COMPLETION OF THE FOREGOING AND WHEN APPROVED BY THE ENGINEER, ALL TRAFFIC WILL BE TRANSFERRED TO THE NORTHBOUND LANE AND RIGHT SHOULDER AREA, BETWEEN STA. 60 + 00± AND STA. 64 + 30±, AND MAINTAINED HERE UNTIL THE SOUTHBOUND LANE PROPOSED CONSTRUCTION, BETWEEN STA. 60 + 50 and STA. 64 + 30, IS COMPLETED.

ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES, EXCEPT DURING THE CONTRACTOR'S NORMAL WORKING OPERATIONS BY USE OF . THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT, THE TEMPORARY ROADS, & . THE EXISTING OR PROPOSED SHOULDERS SURFACED WITH ITEM 410 AGGREGATE AND STABILIZED WITH ITEM 616, CALCIUM CHLORIDE.

2. SUSPENSION BRIDGE ROAD

ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES ON THE EXISTING ROAD, THRU ITS CONNECTION WITH EXISTING KILBY ROAD, UNTIL CONSTRUCTION IS REQUIRED ON THE SOUTHBOUND LANES OF PROPOSED KILBY ROAD AT SUSPENSION BRIDGE ROAD. AT THIS TIME THE SUSPENSION BRIDGE ROAD PROPOSED CONSTRUCTION MUST ALSO BE PERFORMED. DURING THIS CONSTRUCTION ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES ON SUSPENSION BRIDGE ROAD PROPER, EXCEPT DURING THE CONTRACTOR'S NORMAL WORKING OPERATIONS, BY USE OF THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT & THE EXISTING OR PROPOSED SHOULDERS SURFACED WITH ITEM 410 AGGREGATE AND STABILIZED WITH ITEM 616, CALCIUM CHLORIDE.

3. CILLEY ROAD

ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES, EXCEPT AS NOTED BELOW, ON THE EXISTING ROAD UNTIL PROPOSED, RELOCATED CILLEY ROAD HAS BEEN CONSTRUCTED AND OPENED TO TRAFFIC.

DURING THE CONSTRUCTION OF THE EASTERLY CONNECTION OR RELOCATED CILLEY ROAD TO EXISTING CILLEY ROAD, TWO LANE TRAFFIC (ONE LANE OF TRAFFIC IN EACH DIRECTION) SHALL BE MAINTAINED AT ALL TIMES, EXCEPT DURING THE CONTRACTOR'S NORMAL WORKING OPERATIONS, BY USE OF THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT & THE EXISTING OR PROPOSED SHOULDERS SURFACED WITH ITEM 410 AGGREGATE AND STABILIZED WITH ITEM 616, CALCIUM CHLORIDE.

4. MORGAN ROAD

ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES ON THE EXISTING ROAD UNTIL THE TEMPORARY ROAD, ITEM 615, HAS BEEN CONSTRUCTED AND OPENED TO TRAFFIC. CLASS B PAVEMENT SHALL BE USED FOR THE TEMPORARY ROAD.

ONE LANE OF TRAFFIC, IN EACH DIRECTION, SHALL BE MAINTAINED AT ALL TIMES DURING THE MORGAN ROAD CONSTRUCTION, INCLUDING THE WIDENING AND RESURFACING PHASE, EXCEPT DURING THE CONTRACTOR'S NORMAL WORKING OPERATIONS BY USE OF THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT, THE TEMPORARY ROAD, & THE EXISTING OR PROPOSED SHOULDERS SURFACED WITH ITEM 410 AGGREGATE AND STABILIZED WITH ITEM 616, CALCIUM CHLORIDE.

5. I–74

TWO WAY, FOUR LANE, DIVIDED TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON THE EXISTING ROAD UNTIL THE TEMPORARY CROSSOVERS HAVE BEEN PLACED AND OPENED TO TRAFFIC. CLASS A PAVEMENT SHALL BE USED FOR THE TEMPORARY CROSSOVERS. A DOUBLE TEMPORARY CROSSOVER SHALL BE PLACED AND MAINTAINED AT STA. 312 + 75 AND AT STA. 337 +75.

UPON COMPLETION OF THE FOREGOING AND WHEN APPROVED BY THE ENGINEER THE EASTBOUND TRAFFIC SHALL BE TRANSFERRED TO THE EXISTING WESTBOUND LANES WHERE TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WITHIN THE LIMITS OF THE TEMPORARY CROSSOVERS (AS SPECIFIED WITHIN THE PLANS)DURING THE CONSTRUCTION OF THE EASTBOUND BRIDGE OVER I–275.

CONSTRUCTION OF THE WESTBOUND BRIDGE SHALL NOT BEGIN UNTIL THE EASTBOUND BRIDGE AND APPROACH PAVEMENTS HAVE BEEN COMPLETED AND ARE READY TO SUSTAIN TRAFFIC. AT THAT TIME ALL TRAFFIC SHALL BE DIRECTED THRU THE CROSSOVERS TO THE EXISTING EASTBOUND LANES WHERE TWO–WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WITHIN THE LIMITS OF THE TEMPORARY CROSSOVERS DURING THIS CONSTRUCTION PHASE.

THE TRAFFIC, IN ALL CASES, SHALL BE CHANNELIZED IN ACCORDANCE WITH "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", CURRENT EDITION, LATEST REVISIONS.

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC (EXCEPT FOR THE ITEM 615 PAVEMENTS) PROVIDED THE INTENT OF THE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

IT IS NOT INTENDED THAT TEMPORARY ROADWAYS BE USED EXCLUSIVELY FOR MAINTAINING TRAFFIC ON THIS PROJECT BUT THAT MAXIMUM USAGE BE MADE OF EXISTING AND PROPOSED PAVEMENTS.

PAYMENT FOR ALL OF THE FOREGOING, EXCEPT ITEMS 410, 615 and 616, IS INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ROADWAY

FIELD OFFICE

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 800 SQ. FT. OF FLOOR SPACE AND IN ADDITION TO THE REQUIREMENTS OF ITEM 619, HE SHALL PROVIDE AND MAINTAIN SANITARY PROVISIONS AS PER 107.06. ALL THE ABOVE IS INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 619, FIELD OFFICE.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS.

ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT. ESTIMATED QUANTITIES OF MATERIALS SHALL NOT BE ORDERED FOR DELIVERY TO THE PROJECT UNLESS AUTHORIZED BY THE ENGINEER.

ITEM 410	TRAFFIC COMPACTED SURFACE TYPE A OR B	2000 CU. YD.
ITEM 616	CALCIUM CHLORIDE	100 TONS
ITEM 616	WATER	700 M. GAL.

PAVEMENT DESIGN

SUBSEQUENT TO THE COMPLETION OF THESE PLANS THE PAVEMENT DESIGN WAS CHANGED FROM AN 8" CONTINUOUSLY REINFORCED CONCRETE PAVEMENT TO A 10" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND THE 301 BITUMINOUS AGGREGATE BASE UNDER ALL AREAS OF 10" AND 9" REINFORCED CONCRETE PAVEMENTS SHOWN AS 3" THROUGHOUT THE PLANS SHALL BE CONSIDERED TO BE 4" THICK. EVEN THOUGH THE CROSS SECTIONS STILL REFLECT THE 8" THICKNESS OF REINFORCED CONCRETE PAVEMENT AND THE 3" BITUMINOUS AGGREGATE BASE THE FOLLOWING ESTIMATED QUANTITY ADJUSTMENTS ARE CARRIED TO THE GENERAL SUMMARY ON SHEET 24. THE ACTUAL QUANTITIES WILL BE DETERMINED AT TIME OF FINAL MEASUREMENT.

203, EXCAVATION +10,000 C.Y. , 203 EMBANKMENT -9,000 C.Y. & 301 BIT. AGGR. BASE +7380 C.Y.

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS AT EACH OF THE FOLLOWING APPROXIMATE LOCATIONS:

1. RT. SIDE OF KILBY RD. AT STA. 25 + 50
2. LT. SIDE OF KILBY RD. AT STA. 66 + 00

3. RT. SIDE OF MORGAN RD. AT STA. 14 + 50
4. LT. SIDE OF MORGAN RD. AT STA. 27 +50
5. RT. SIDE OF I–74 AT STA. 293 + 00
6. LT. SIDE OF I–74 AT STA. 369 +00

SIGN DETAILS SHALL BE AS SPECIFIED ON STANDARD DRAWING FACI–1, "CODE N–55(1) - 120(2)."

THE SIGNS SHALL BE ERECTED IN ACCORDANCE WITH STANDARD DRAWING FACI–2. ADDITIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH NOTES IN THE PROPOSAL.

MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON STANDARD DRAWING MC–1. FOR LOCATIONS, SEE SHEET NO. 592 .

ITEM 604, MONUMENT ASSEMBLIES:	32 EACH
ITEM 604, CENTERLINE REFERENCE MONUMENTS	41 EACH

USGS BENCHMARK

THE CONTRACTOR SHALL PROTECT, REFERENCE AND PRESERVE, AS PER SECTION 107.12, THE EXISTING, U.S.G.S. BENCHMARK LOCATED NEAR MORGAN ROAD, UNTIL SUCH TIME AS THE STATE DEPARTMENT HAS NOTIFIED THE UNITED STATES GEOLOGICAL SURVEYING DEPARTMENT.

ROADWAY

UTILITY OWNERS

THE UTILITY OWNERS INVOLVED ON THIS PROJECT ARE AS FOLLOWS:

CINCINNATI GAS AND ELECTRIC COMPANY, 4th & Main St., Cincinnati, Ohio 45202
CINCINNATI BELL, INC., 225 E. 4th St., Cincinnati, Ohio 45202
GULF OIL CORPORATION, P.O. Box 7 Cleves, Ohio 45002
GULF REFINING COMPANY, P.O. Box 6206, Cleveland, Ohio 44101
TEXAS EASTERN TRANSMISSION CORPORATION, P.O. Box 426, Scymour Indiana 47274

ITEM 203 – PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

THE EXISTING PAVEMENT AS INDICATED ON THE PLANS SHALL BE REMOVED AND DISPOSED OF, THE OLD ROADWAY GRADED TO THE LEVEL OF THE SURROUNDING GROUND, THE OLD DITCHES FILLED, AND THE DISTURBED AREAS SLOPED TO DRAIN AND LEFT IN A NEAT CONDITION READY FOR SEEDING. SEEDING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ITEM 659; NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS SEEDING BUT WILL BE INCLUDED IN THE I–275 (MAINLINE) SEEDING QUANTITIES.

PAYMENT FOR THE ABOVE, EXCEPT SEEDING, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, "EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, AS PER PLAN."

ITEM 202 – GUARD RAIL REMOVED FOR STORAGE

THE EXISTING GUARD RAIL, WITHIN THE LIMITS OF THE I–74 INTERCHANGE AND WHICH IS DESIGNATED FOR REMOVAL, SHALL BE CAREFULLY DISMANTLED AND STORED ON THE RIGHT OF WAY FOR SALVAGE BY THE STATE FORCES.

ITEM 203 PROOF ROLLING

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE IN PROOF ROLLING OF SUBGRADE FOR THE MAINLINE AND RAMP PAVEMENTS, AND FOR PAVED SHOULDERS,

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS SECTIONS ON THIS PLAN INDICATE SPECIFIC WIDTHS AND DEPTHS OF PROPOSED BENCHING OF THE EMBANKMENT FOUNDATION IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED AND ALL OTHER SLOPED FOUNDATION AREAS SHALL BE BENCHED AS SET FORTH IN 203.09. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED BY THE PROVISIONS OF 203.09.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE PERFORMED ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH TEMPORARY GUIDE MARKERS 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.

EARTHWORK (WIDENING ON EXISTING I–74)

WATERING OF EMBANKMENTS, BENCHING, DENSITY TESTS, AND THE REMOVAL OF SOD FROM THE SHOULDER WILL NOT BE REQUIRED ON THIS PROJECT. HOWEVER, ITEM 203 SHALL INCLUDE THE THOROUGH COMPACTING OF EMBANKMENT IN LAYERS NOT EXCEEDING EIGHT (8) INCHES LOOSE DEPTH, AND SHALL INCLUDE ANY OPERATIONS OF GRADING NECESSARY TO FINISH THE SHOULDERS AND SLOPES SUBSTANTIALLY TO THE LINES INDICATED ON THE TYPICAL SECTIONS. NO PROVISIONS OF THE SPECIFICATIONS SHALL BE WAIVED FOR EMBANKMENT WHICH SUPPORTS ANY PORTION OF THE NEW PAVEMENT OR PAVEMENT FORMS.

LOCATIONS OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS AS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT TO ASSURE THAT THE PLANNED INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

ITEM 202 – STONE WALL REMOVED

THE EXISTING STONE WALL LOCATED ON THE WEST SIDE OF MORGAN ROAD AT STA. 23 + 48 SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ITEM 202 TO A LENGTH JUST SUFFICIENT TO PROVIDE FOR THE PROPOSED MORGAN ROAD AND ADJACENT DRIVEWAY CONSTRUCTION AS DEFINED BY THE CONTRACT PLANS.

PAYMENT FOR THIS ITEM OF WORK WILL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, WHICH PRICE AND PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR ALL SERVICES, MATERIAL, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM, INCLUDING INCIDENTAL EXCAVATION.

Rev. 5-10-73

GENERAL NOTES

ROADWAY

REMOVAL OF TREES AND STUMPS

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO.TREES	NO.STUMPS
18"	3,521	621
30"	111	600
48"	10	0
60"	0	0

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING.

ITEM 202 SEPTIC TANK REMOVED

SEPTIC TANKS ARE INDICATED ON THE PLANS AT EACH OF THE FOLLOWING APPROXIMATE LOCATIONS:

STATION AND LOCATION

236 + 25, LT. C.L. I-275
238 + 40, LT. C.L. I-275
249 + 15, LT. C.L. I-275

46 + 13, LT. C.L. KILBY RD.
53 + 88, LT. C.L. KILBY RD.

ITEM 607 – WOVEN WIRE FENCE, TYPE 47, REBUILT

THIS ITEM SHALL INCLUDE THE CAREFUL RECONDITIONING AND RE-ERECTING OF FENCE AND COMPONENT PARTS AS DETAILED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. FENCE OF COMPONENT PARTS WHICH ARE DAMAGED OR ARE OTHERWISE UNSATISFACTORY FOR REUSE SHALL BE REPLACED IN KIND BY THE CONTRACTOR. ANY NEW PARTS WHICH ARE NEEDED AS DETERMINED BY THE ENGINEER SHALL BE SUPPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

THE AMOUNT OF REBUILT FENCE TO BE PAID FOR WILL BE THE NUMBER OF LINEAR FEET REBUILT, COMPLETED, IN PLACE AND MEASURED AS PROVIDED FOR IN 607.10.

THE FOOTAGE MEASURED AS ABOVE PROVIDED WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR ITEM 607 WOVEN FENCE, TYPE 47, REBUILT.

FOR TABULATION OF LOCATIONS NOTED ON THE PLANS, SEE SHEET NO. 27.

WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR EROSION AND SILTATION CONTROL MEASURES.

207, TEMPORARY SEEDING AND MULCHING	199,725 SQ. YD.
659, COMMERCIAL FERTILIZER (12-12-12)	12 TON
207, WATER	431 M. GALLON
207, TEMPORARY SLOPE DRAINS	18,240 LIN. FT.
207, TEMPORARY BENCHES, DIKES, DAMS AND SEDIMENT BASINS	3,692 CU. YD.
659, REPAIR SEEDING AND MULCHING	49,431 SQ. YD.
207, Mowing	2,224 M Sq. Ft.

ROADWAY

ITEM SPECIAL, DRILLED WELL ABANDONED

THE EXISTING CONCRETE OR STONE SLAB WELL COVER AND PUMPING EQUIPMENT SHALL BE REMOVED AND DISPOSED OF. THE CASING SHALL BE CUT OFF AT LEAST ONE (1) FOOT BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST ONE (1) FOOT BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS C CONCRETE OR A STANDARD THREADED PIPE CAP.

THE UNIT PRICE BID FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

DRILLED WELLS ARE INDICATED ON THE PLANS AT EACH OF THE FOLLOWING, APPROXIMATE LOCATIONS:

STATION AND LOCATION

235 + 98, LT. C.L. I-275
238 + 55, LT. C.L. I-275
46 + 19, LT. C.L. KILBY RD.
53 + 79, LT. C.L. KILBY RD.
54 + 25, LT. C.L. KILBY RD

SEEDING

1) OUTSIDE INTERSTATE LIMITS

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS.

2) INTERSTATE LIMITS

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE RIGHT-OF-WAY FENCE LINES, BETWEEN THE RIGHT-OF-WAY LINES IN UNFENCED AREAS, AND WITHIN THE WORK LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT EXCEPT FROM STA. 168 + 15± TO STA. 204 + 50± WHERE QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE WORK LIMITS AS SHOWN ON THE CROSS SECTIONS. THE PERMANENT SEEDING OF PROPOSED DITCHES FROM STA. 168+15± TO STA. 204+50± SHOULD BE PERFORMED IMMEDIATELY AFTER THE DITCH EXCAVATION IS COMPLETED.

AGRICULTURAL LIMING, AS PER PLAN

THE LOCATION AND NEED FOR AGRICULTURAL LIMING WILL BE DETERMINED BY LABORATORY TESTS, AFTER ROUGH GRADING OPERATIONS HAVE BEEN PERFORMED. QUANTITIES OF AGRICULTURAL LIMING, AS SHOWN ON THE PLANS, ARE SUFFICIENT FOR THE ENTIRE PROJECT, BUT WILL BE NONPERFORMED FOR THE AREAS WHERE TESTS SHOW THAT THE LIMING IS NOT REQUIRED.

PAVEMENT

SEALED JOINT BETWEEN CONCRETE PAVEMENT AND PAVED SHOULDER

A JOINT NOT LESS THAN 2" DEEP AND WITH A MINIMUM WIDTH OF 1/4 INCH SHALL BE FORMED IN THE BITUMINOUS CONCRETE BASE COURSE IMMEDIATELY ADJACENT TO THE PORTLAND CEMENT CONCRETE PAVEMENT. THIS JOINT SHALL BE PLACED IN ALL AREAS WHERE BITUMINOUS CONCRETE SHOULDERS CONTACT PORTLAND CEMENT CONCRETE PAVEMENT. THE JOINT SHALL BE SEALED WITH MATERIAL MEETING THE REQUIREMENTS OF 705.01 OR 705.02 IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF 451.13.
PAYMENT FOR CONSTRUCTING AND SEALING THIS JOINT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE PAVEMENT.

CONTRACTION AND EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN PAVEMENT WIDENING

WHERE NEW PAVEMENT IS PLACED ADJACENT TO EXISTING PAVEMENT, CONTRACTION JOINTS SHALL BE PROVIDED IN THE NEW PAVEMENT SO AS TO FORM A CONTINUOUS JOINT WITH THAT IN THE EXISTING PAVEMENT.

ADDITIONAL CONTRACTION JOINTS WILL BE REQUIRED IN THE NEW PAVEMENT AT MIDPOINTS BETWEEN EXISTING JOINTS TO PROVIDE CONTRACTION JOINTS AT INTERVALS OF APPROXIMATELY 30 FEET.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY OF BUILDING PORTIONS OF THIS PROJECT UNDER TRAFFIC AND CONSTRUCTING THE PAVEMENT PART AT A TIME, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT ON CENTERLINE IN THE 304 AND 310 COURSES.

THIS SHALL BE ACCOMPLISHED BY BUILDING THE 304 AND 310 COURSES PLACED WITH THE FIRST PORTION OF THE PAVEMENT BUILT AT LEAST EIGHTEEN (18) INCHES BEYOND THE CENTERLINE OR THE PROPOSED EDGE OF THE FIRST STAGE CONSTRUCTION AND BY SURFACING NO CLOSER THAN EIGHTEEN (18) INCHES TO THIS EDGE OF THE ABOVE COURSES. WHEN THE SECOND PORTION OF THE PAVEMENT IS BUILT, AT LEAST TWELVE (12) INCHES OF THESE PROJECTING COURSES SHALL BE BROKEN DOWN AND THOROUGHLY KEYED IN WITH THE NEWLY PLACED CORRESPONDING COURSES IN THE SECOND PORTION OF THE PAVEMENT BUILT. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT PAVEMENT ITEMS.

ITEM 310 SUBBASE, GRADING A AS PER PLAN

Material for this item shall meet the requirements of grading A of 310.02 except that no more than 10% of the material shall pass a No. 200 sieve after all operations of placing and compacting have been completed.

DRAINAGE

SPECIAL DITCHES

FOR SPECIAL DITCH GRADES, SEE CROSS SECTIONS AND GRADING PLANS.

LOCATION OF DRAINAGE STRUCTURES

THE FOLLOWING CRITERIA SHALL BE USED FOR DETERMINING THE LOCATION OF DRAINAGE STRUCTURES.

MANHOLES:	STATION AND OFFSET ARE GIVEN TO THE CENTER OF THE MANHOLE BASE. TOP OF COVER ELEVATION IS ALSO SHOWN.
DITCH CATCH BASINS:	STATION & OFFSET ARE GIVEN TO THE CENTER OF THE CATCH BASIN BASE. GRATE ELEVATION, INCLUDING STANDARD DEPRESSION, IS ALSO SHOWN.
CURB TYPE CATCH BASINS:	STATION AND OFFSET ARE TO THE CENTER OF THE CATCH BASIN BASE. GRATE ELEVATION, INCLUDING STANDARD DEPRESSION, IS ALSO SHOWN.

CONNECTION TO EXISTING PIPE

THE PLACES WHERE THE PLANS PROVIDE FOR

1) THE CONNECTION OF A NEW SEWER TO AN EXISTING SEWER OR APPURTENANCE,
OR
2) THE CONNECTION OF AN EXISTING SEWER TO A NEW SEWER OR APPURTENANCE,
OR
3) A NEW SEWER TO CROSS OVER OR UNDER AN EXISTING SEWER OR APPURTENANCE.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING SEWER OR APPURTENANCE BOTH AS TO LINE AND GRADE BEFORE COMMENCING CONSTRUCTION OF THE PROPOSED SEWER. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE 603 CONDUIT.

REMOVAL OF EXISTING PIPE

THE REMOVAL OF ALL EXISTING PIPE DRAINS WHICH WOULD NORMALLY BE REMOVED IN VARIOUS EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

END WALL REMOVED AND CONCRETE COLLAR REMOVED

AT LOCATIONS NOTED ON THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER, EXISTING CONCRETE END WALLS AND/OR CONCRETE COLLARS WHICH ARE NOT TO REMAIN AS AN INTEGRAL PART OF THE CONDUIT SYSTEM ARE TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ITEM 202. THESE ITEMS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED TO BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR THE ITEM 603, CONDUIT SPECIFIED FOR EACH OF THE RESPECTIVE PIPE EXTENSIONS AND SUCH PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR ALL SERVICES, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM INCLUDING INCIDENTAL EXCAVATION.

REINFORCED CONCRETE CATCH BASINS

CATCH BASINS OVER 12 FEET IN DEPTH SHALL BE BUILT OF CLASS C CONCRETE REINFORCED BY PLACING 1/2" DIAMETER BARS 12" CENTER TO CENTER BOTH VERTICALLY AND HORIZONTALLY WITH A 2" CLEARANCE FROM THE INSIDE FACE OF THE WALL. PAYMENT FOR FURNISHING AND PLACING THE REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604, CATCH BASINS OF THE VARIOUS TYPES SPECIFIED.
^ Reinforced Concrete

ITEM 202 – HEADWALLS REMOVED

THE EXISTING STONE HEADWALLS WHICH ARE LOCATED ON THE WEST SIDE OF THE PENN CENTRAL RAILROAD TRACK AND ON THE EAST SIDE OF KILBY ROAD OPPOSITE PROPOSED CENTERLINE STA. 56 + 06 SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ITEM 202 AND/OR AS DIRECTED BY THE ENGINEER.

THE UNIT PRICE BID FOR EACH ITEM 202, "HEADWALLS REMOVED", SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

GENERAL NOTES

DRAINAGE

CHANNEL EMBANKMENTS

PORTIONS OF THE EXISTING CHANNEL OUTSIDE THE ROADBED SHALL BE FILLED AND SLOPED TO DRAIN AS CALLED FOR ON THE PLANS AND INCLUDED FOR PAYMENT IN THE PRICE BID FOR ITEM 203 EMBANKMENT. THE CONTRACTOR SHALL USE EITHER SUITABLE OR UNSUITABLE MATERIAL TO THE EXTENT AVAILABLE FOR CHANNEL EMBANKMENTS.

AREAS WHERE CHANNEL EMBANKMENTS ARE TO BE PLACED SHALL BE CLEARED OF WEEDS AND BRUSH.

THE REQUIREMENTS FOR MOISTURE, DENSITY CONTROL, BENCHING, AND SUITABLE MATERIALS SHALL BE WAIVED.

THE DEPTH OF LAYERS IN WHICH THE EMBANKMENTS ARE PLACED AND THEIR COMPACTION SHALL, IN LIEU OF THE REQUIREMENTS OF ITEM 203, CONFORM WITH ACCEPTABLE CONSTRUCTION PRACTICES AS DETERMINED BY THE ENGINEER.

NO PROVISION OF THE SPECIFICATIONS SHALL BE WAIVED FOR EMBANKMENTS WHICH SUPPORT ANY PORTION OF THE NEW ROADBED OR STRUCTURAL MEMBERS.

AN ESTIMATED QUANTITY OF 555 CU. YDS. HAS BEEN PROVIDED IN THE PLANS FOR CHANNEL EMBANKMENTS.

FARM DRAINS

ALL FARM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE RIGHT-OF-WAY LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL TILE FIELDS WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603 TYPE E CONDUIT AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REQUIRED REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 603	6" CONDUIT, TYPE B	200 LIN. FT.
ITEM 603	6" CONDUIT, TYPE E	500 LIN. FT.
ITEM 603	6" CONDUIT, TYPE F	100 LIN. FT.
ITEM 601	ROCK CHANNEL PROTECTION TYPE B (18" THICK) 20 CU YDS.	

ALL NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEM.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL REQUESTED BY THE ENGINEER.

MAINTENANCE OF SEWER FLOWS

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES SEWER FLOWS THROUGH EXISTING FACILITIES TO REMAIN IN PLACE AND THROUGH EXISTING FACILITIES TO BE REPLACED UNTIL NEW FACILITIES ARE COMPLETED AND PLACED INTO USE.

PAYMENT FOR ANY ADDITIONAL COST INVOLVED IN MAINTAINING THESE FLOWS BY PUMPING OR BY ANY OTHER MEANS APPROVED BY THE ENGINEER SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE RESPECTIVE ITEMS OF 603 CONDUIT.

REMOVAL OF EXISTING HOUSE DRAINS

THE REMOVAL, WHERE REQUIRED, OF ALL EXISTING HOUSE CONNECTIONS, WHICH INCLUDE SANITARY, YARD, ROOF, BASEMENT OR OTHER SIMILAR PIPE DRAINS WITHIN THE CONSTRUCTION LIMITS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 203, EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION, AS PER PLAN, UNLESS ITEMIZED FOR PAYMENT OTHERWISE IN THE PLAN.

SODDING

ALL SOD SHALL BE PLACED ON A MINIMUM 6" OF SOIL; PAYMENT FOR WHICH SHALL BE INCLUDED UNDER ITEM 660.

NO. 6 CATCH BASINS, MODIFIED AS PER PLAN

A 3" DEPRESSION SHALL BE PROVIDED FOR ALL CB-6 CATCH BASINS CONSTRUCTED IN THE SHOULDER AREA IN LIEU OF THE 1" DEPRESSED PAVEMENT AS CALLED FOR ON THE STANDARD DRAWING. A 2" DEPRESSION IS TO BE USED FOR CB-6 CATCH BASINS CONSTRUCTED IN RAMP A AND RAMP D PAVEMENTS.

ADJUSTMENT OF CATCH BASIN TO GRADE

WHEN ADJUSTMENT OF CATCH BASIN TO GRADE IS SPECIFIED, THE WORK SHALL CONSIST OF THE CAREFUL REMOVAL OF THE EXISTING GRATE AND FRAME, REMOVAL OF THE EXISTING CONCRETE APRON, RAISING THE CATCH BASIN TO THE NEW GRADE, AND REPLACEMENT OF THE CONCRETE APRON, CONFORMING WITH THE PERTINENT DETAILS OF THE STANDARD CONSTRUCTION DRAWING CB-4, USING THE SALVAGED GRATING AND FRAME. THE TYPE OF CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ITEM 604 OF THE SPECIFICATIONS. PAYMENT FOR THIS TREATMENT SHALL BE PER EACH ADJUSTMENT AS CALLED FOR ON THE PLANS. THE COST OF CONCRETE APRON SHALL BE INCLUDED IN THE PRICE BID FOR ADJUSTMENT OF CATCH BASIN TO GRADE.

DRAINAGE

PIPE CUT-OFFS

WHEN BELL AND SPIGOT PIPE IS USED, ANY NECESSARY PIPE CUT-OFFS WILL BE MADE AT THE SPIGOT END OF THE LENGTH OF PIPE ADJACENT TO THE END LENGTH. WHEN TONGUE AND GROOVE PIPE IS USED, THE LENGTH OF PIPE NEXT TO THE END LENGTH SHALL BE CUT AND BUTT JOINT FORMED WITH A COLLAR AS DETAILED IN STANDARD DRAWING NO. MC-4. THE COST OF THE JOINT AND COLLAR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEM.

PIPE ENDS

ALL CULVERTS, WHETHER TERMINATING IN HEADWALLS OR ENDWALLS, SHALL BEGIN AND END WITH PIPE ENDS AS NORMALLY FABRICATED BY THE MANUFACTURER. ENDS SHALL NOT BE CUT TO FIT EITHER SKEW OR SLOPE. IF FIELD CUTTING IS FOUND TO BE NECESSARY TO FIT AN EXACT LENGTH CONTROL, THE CUT END SHALL BE LOCATED AT AN INTERIOR JOINT AND CRADLE, COLLAR OR BAND SHALL BE PROVIDED TO ASSURE A STABLE JOINT. PAYMENT FOR THE JOINT SHALL BE INCLUDED IN THE PRICE BID FOR THE PERTINENT 603 CONDUIT ITEM.

SANITARY FLOW INTO INTERSTATE HIGHWAY DRAINAGE SYSTEMS

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY EXISTING OR NEW DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM WHEN SUCH DRAINS CARRY FLOW FROM ANY PLUMBING FIXTURES INCLUDING FLOOR DRAINS AND SINK DRAINS OR DRAINS FROM LIVESTOCK LOTS OR BARNS OR POLLUTED WATER OF ANY KIND.

EXISTING PIPE CARRYING FLOW WHICH COMES WITHIN THE CATEGORY OUTLINED ABOVE SHALL BE PLUGGED WITH CLASS C CONCRETE AT THE RIGHT-OF-WAY LINE. PAYMENT FOR SAID PLUGGING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, AS PER PLAN.

TREATED SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEMS OTHER THAN INTERSTATE

TREATED SANITARY FLOW MAY BE DISCHARGED INTO THE HIGHWAY DRAINAGE SYSTEM PROVIDED THE OWNER HAS SECURED THE APPROVAL OF THE LOCAL HEALTH AUTHORITIES AND HAS ACQUIRED FROM THE STATE HIGHWAY DEPARTMENT, THE OFFICAL PERMIT TO HAVE THE CONNECTION MADE.

IN EACH CASE WHERE A PERMIT HAS BEEN ISSUED FOR A SANITARY CONNECTION TO BE MADE INTO A HIGHWAY DRAINAGE CONDUIT, IT SHALL BE PROVIDED WITH AN INSPECTION WELL, IN ACCORDANCE WITH THE STANDARD DRAWING M.C.-8.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY, FOR USE AS DIRECTED BY THE ENGINEER, IN MAKING THE ABOVE DESCRIBED CONNECTIONS:

ITEM 603	6" CONDUIT, TYPE C	500 LIN. FT.
*ITEM 604	INSPECTION WELLS	2 EACH

ALL NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEM.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.

*NO INSPECTION WELL IS REQUIRED IF EFFLUENT IS DISCHARGED INTO AN OPEN DITCH, CHANNEL, CATCH BASIN OR MANHOLE.

SPRING DRAINS

REFERENCE IS MADE TO STANDARD DRAWING MC-1 SHOWING THE METHOD OF DRAINING ANY SPRING THAT MAY BE SHOWN ON THE PLAN OR ENCOUNTERED DURING CONSTRUCTION AS DETERMINED BY THE ENGINEER. THE FOLLOWNG ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE:

ITEM 605	6" UNCLASSIFIED PIPE UNDERDRAIN, 707.01 TYPE III OR 707.12 AS PER PLAN	500 L.F.
ITEM 605	AGGREGATE DRAINS FOR SPRINGS AS PER PLAN	25 L.F.

THE CONTRACTOR SHALL NOT ORDER MATERIALS FOR "SPRING DRAINS" UNTIL AUTHORIZED BY THE ENGINEER AND IN THE EVENT NO SPRINGS ARE ENCOUNTERED, THE ITEM SHALL BE NON-PERFORMED.

EROSION PROTECTION AT CULVERTS AND OTHER OUTLETS

EROSION PROTECTION, SUCH AS PAVED GUTTERS, ROCK CHANNEL PROTECTION, ETC., WHERE PROVIDED IN THE PLAN AT STRUCTURES AND OTHER PIPE OUTLETS, SHALL BE PLACED IMMEDIATELY AFTER INSTALLATION OF THE PIPE OR STRUCTURE.

EROSION CONTROL

ITEMS 601, 660AND667 ARE PROVIDED IN THESE PLANS FOR EROSION CONTROL. ROCK OF STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE THESE ITEMS. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

DRAINAGE

ITEM 604 – STANDARD MANHOLE NO. 2, MODIFIED AS PER PLAN

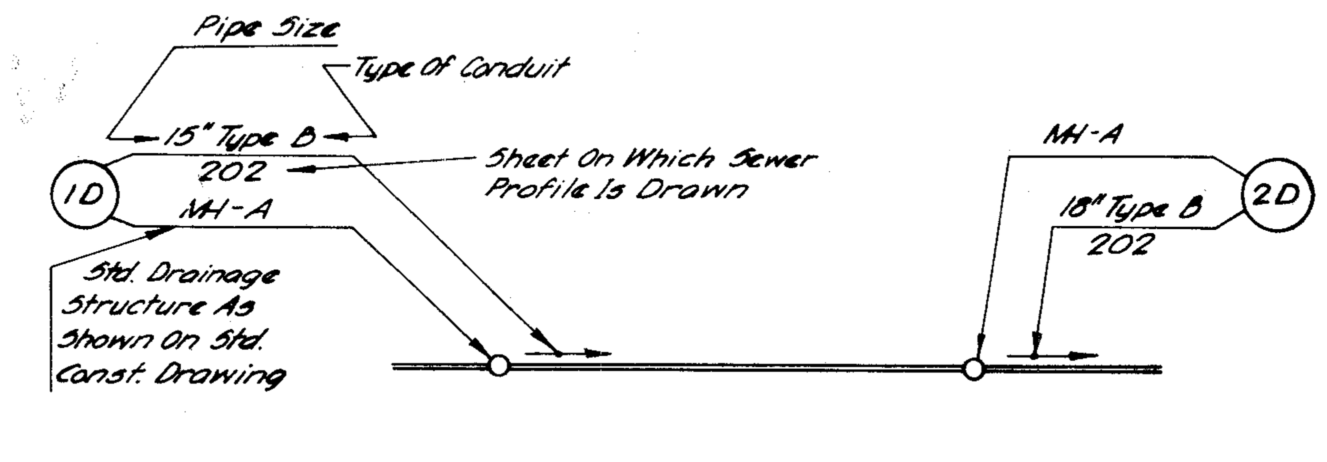
THE STANDARD MANHOLE NO. 2, MODIFIED AS PER PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF STANDARD DRAWING MH-2 AND ITEM 604 BUT ONLY TO THE HEIGHT SHOWN ON THE DETAIL ON SHEET NO. 477.

THE REINFORCED PORTLAND CEMENT CONCRETE COVER SLAB SHALL BE CONSTRUCTED WITH CLASS C CONCRETE AND IN ACCORDANCE WITH THE DETAILS AS SHOWN ON SHEET NO. 477 AND THE APPLICABLE PROVISIONS OF ITEMS 499 AND 511.

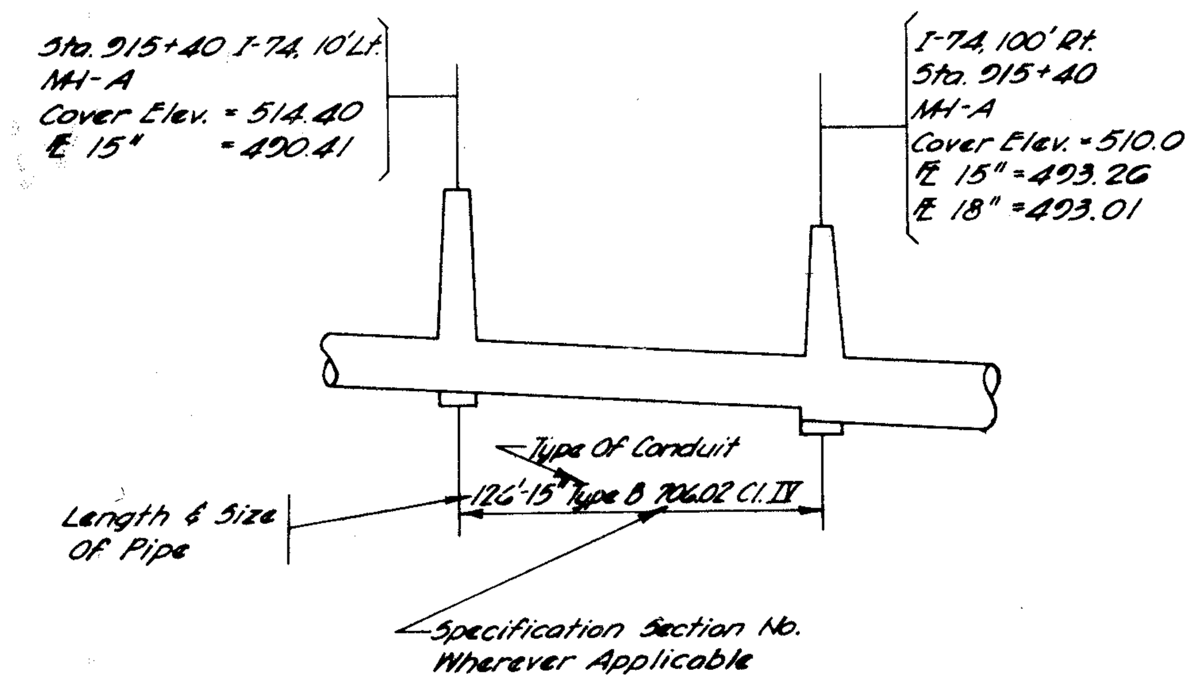
ONE (1) ANCHOR BOLT (OF THE TYPE AND DIMENSIONS DETAILED ON STANDARD DRAWING HW-4) SHALL BE PLACED AT THE MID-POINTS OF THE FOUR (4) SIDES AND 18" FROM THE OUTER EDGE OF EACH SIDE TO PREVENT THE SLAB FROM SHIFTING WHILE THE FILL IS PUT INTO PLACE.

FOR OTHER DETAILS SEE ITEM 25D ON SHEET NO. 295.

THE UNIT PRICE BID FOR EACH "STANDARD MANHOLE NO. 2, MODIFIED AS PER PLAN SHALL INCLUDE PAYMENT FOR ALL SERVICES, LABOR, EQUIPMENT, TOOLS, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK INCLUDING ALL REINFORCING BARS AND ALL CLASS C CONCRETE.



LEGEND FOR PLAN SHEETS



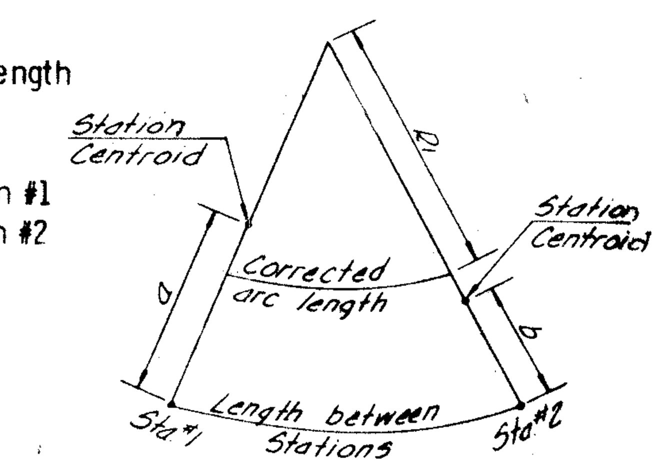
LEGEND FOR SEWER PROFILE SHEETS

EARTHWORK VOLUME COMPUTATIONS

The volume computations in non-tangent cross sections was obtained by the following formula:

$$V = \frac{L_1 \left[A_1 + A_2\right]}{54} \text{ (cy)}$$

Where: Lo = Length between Stations
Ro = Curve Radius
Ri = Adjusted Radius
$= Ro \pm \frac{(a+b)}{2}$
L_1 = Corrected Arc Length
$= Lo \frac{Ri}{Ro}$
A_1 = End Area Station #1
A_2 = End Area Station #2



GENERAL SUMMARY

SHEET NUMBER

TYPE CODE 7223

ITEM	20	21	22	27	37	42	47	51	48	52 A	239	244	258	263	280	297	338	403	409	ITEM	QUAN.	UNIT	DESCRIPTION
																							Code Type 7223 Unless Otherwise Noted
																							ROADWAY
201		Lump Sum																		201	Lump	L.S.	Clearing and Grubbing
202												3,450								202	3450	L.F.	Curb and Gutter Removed
202															Lump Sum					202	Lump	L.S.	Portions of Structure Removed
202												63							2 022	202	2,085	Sq. Yd.	Pavement Removed
202																			5 250	202	5250	L.F.	Guard Rail Removed For Storage
202												20								202	20	L.F.	Fence Removed
203	+10,000			3,953,983	393				17	1,715										203	3,966,108	Cu. Yd.	Excavation Not Including Embankment Construction As Per Plan
203	-9,000		555	3,704,047																203	3,695,602	Cu. Yd.	Embankment
203				207,928																203	201,428	Sq. Yd.	Subgrade Compaction
203				56																203	56	Hour	Proof Rolling
410	2,000																			410	2,000	Cu. Yd.	Traffic Compacted Surface Type A or B
604	32																			604	32	Each	Monument Assembly
604	41																			604	41	Each	Centerline Reference Monument
606					100														1862.5	606	1962.5	L.F.	Guard Rail, Type 5, Barrier Design
606					2,462.5	7 275	3387.5	2,787.5		485	2,500	2,875		750	700	4,975	2,387.5	4,025	3100.0	606	37,710	L.F.	Guard Rail, Type 5
606					2	7	11	3			4	4		3	4	6	6	4	10	606	64	Each	Anchor Assembly
606					2		2	1				2					1		4	606	12	Each	Anchor Assembly, Barrier Design
606					4						2				4				5	606	15	Each	Bridge Terminal Assembly, Type A
607				44,519																607	44,519	L.F.	Fence, Type 47
607				1,823																607	1,823	L.F.	Fence, Type CL
607				12,003																607	12,003	L.F.	Woven Wire Fence, Type 47 Rebuilt
616	700																			616	700	M. Gal.	Water
616	100																		4	616	104	Tons	Calcium Chloride
202		5																		202	5	Each	Septic Tank Removed
Special		5																		Special	5	Each	Drilled Well Abandoned
615																			5600	615	5,600	Sq. Yd.	Temporary pavement, Class A
615												2020			2369					615	4,398	Sq. Yd.	Temporary pavement, Class B
615												Lump			Lump				Lump	615	Lump	Lump	Temporary roads
																							PAVEMENT
301	+7,380				5,403	6486	6,887	2,001			2 046	2,719			5	3,115	2374	2,444	2,699	301	43,559	Cu. Yd.	Bituminous Aggregate Base; 702.01 (85-100 or AC-20) or 702.09, RT-11 or RT-12
304					15							156	201	2,809	254		169			304	3,604	Cu. Yd	Aggregate Base
310															194					310	194	Cu. Yd.	Subbase
310												3,751					262			310	4013	Cu. Yd	Subbase, Grading A as per plan
402												1,113			96					402	1209	Cu. Yd.	Asphalt Concrete (70-85 or AC-20)
404					23							788	51	703	91				11	404	1,667	Cu. Yd.	Asphalt Concrete (70-85 or AC-20)
407					47							137			68				28	407	280	Gal.	Tack Coat; 702.04, MS-2 or RS-1; or 702.02, RC-70 or RC-250
408					27							304	361	5,050	604					408	6,346	Gal.	Bituminous Prime Coat; 702.09, RT-2 or RT-3
407					2							5			3				1	407	11	Tons	Cover aggregate
409												856			14				141	409	1,011	Gal.	Seal Coat Bituminous Material; 702.09, RT-9 or RT-10, or 702.02, MC-800 or MC-3000
409												24			1				4	409	29	Cu. Yd.	Seal Coat Cover Aggregate No. 8
411					269							35			35				54	411	393	Cu. Yd.	Stabilized Crushed Aggregate
451					25,036	32,591	35,980	9,586								12,508	9,703	134		451	125,628	Sq. Yd.	10" Reinforced Portland Cement Concrete Pavement
451					2,024		1,667				12,337					1,744	898	10,445	12,720	451	41,835	Sq. Yd.	9" Reinforced Portland Cement Concrete Pavement
609											678									609	678	L.F.	Concrete Curb, Standard Type 2-A
609											128					156		176		609	460	L.F.	Concrete Curb, Standard Type 7
609											361					299		840		609	1500	L.F.	Concrete Curb, Standard Type 8
609												453								609	453	L.F.	Combination Curb and Gutter, Standard Type 2
611					455															611	455	Sq. Yd.	Reinforced Concrete Approach Slabs (T = 13")
611															107				258	611	365	Sq. Yd.	Reinforced Concrete Approach Slabs (T = 12")
612											357	908								612	1265	Sq. Yd.	Standard Concrete Median
612											299									612	299	Sq. Yd.	Concrete Traffic Island
613												105								613	105	Each	Traffic Divider
																	47		387	Special	434	Cu. Yd.	Drainage Connection, Using No. 8 Aggregate

For Lighting Quantities, See Sh. No. 489A
For Signing Quantities, See Sh. No. 510
For Signal Quantities, See Sh. No. 545

STRUCTURES 20' SPAN AND OVER

Bridge No. HAM-275-0399 L/R; For Quantities See Sh. No. 559
Bridge No. HAM-275-0620; For Quantities, See Sh. No. 549
Bridge No. HAM-275-0726; For Quantities, See Sh. No. 575

DEVELOPED		CHECKED	
2/71	JWI	9/71	R.D

Rev. 5-10-73

DEVELOPED | CHECKED

GENERAL SUMMARY

GENERAL SUMMARY

SHEET NUMBER

★ 200' for Farm Drain Crossings

ITEM	TYPE CODE 7223												TYPE CODE Y005												ITEM	QUAN.	UNIT	DESCRIPTION Code Type 7223 Unless Otherwise Noted
	22	38	43	48	52	240	245	264	297	338	403	410	22 & 27	38	43	48	52	240	245	264	297	338	403	410				
																												DRAINAGE
202		37					278	91		66		1,722													202	2,194	L.F.	Pipe Removed, 24" and Under
202		73			40																				202	113	L.F.	Pipe Removed, Over 24"
202							4					1													202	5	Each	Catch Basin Removed
202							4																		202	4	Each	Inlet Removed
202							2																		202	2	Each	Structure Removed
602		7.7	6.0	9.4	7.8	3.4	5.6	5.9	7.8	2.5	5.2	8.7													602	70	Cu.Yd.	Concrete Masonry
603											12														603	12	L.F.	18" Conduit, Type A, 707.05,
											14	63													603	77	L.F.	21" Conduit, Type A, 707.05,
603										266															603	266	L.F.	21" Conduit, Type A, 707.05, (0.079")
603						320				30		62													603	412	L.F.	24" Conduit, Type A, 706.02 or 706.08
603								104																	603	104	L.F.	24" Conduit, Type A, 706.02, Cl. III or 706.08
603											30														603	30	L.F.	27" Conduit, Type A, 706.02 or 706.08
603											30														603	30	L.F.	30" Conduit, Type A, 706.02, Cl. III; 706.08
603											170														603	170	L.F.	30" Conduit, Type A, 706.02, Cl. V
603									304		548														603	852	L.F.	36" Conduit, Type A, 707.07, (0.079")
603									24		64	74													603	162	L.F.	30" Conduit, Type A, 707.05,
603				142																					603	142	L.F.	36" Conduit, Type A, 706.02 706.08 or 707.05,
603			30	72					34		34														603	170	L.F.	36" Conduit, Type A, 706.02 Cl. III, 706.08 or 707.05,
603			168	294																					603	462	L.F.	36" Conduit, Type A, 706.02 Cl. IV or 707.05,
603			116	162	34							114													603	426	L.F.	36" Conduit, Type A, 707.05
603								82																	603	82	L.F.	42" Conduit, Type A, 706.02
603				356																					603	356	L.F.	42" Conduit, Type A, 707.07
603		302																							603	302	L.F.	48" Conduit, Type A, 706.02,
603			32																						603	32	L.F.	48" Conduit, Type A, 706.02, Cl. III, 707.05,
603			382																						603	382	L.F.	48" Conduit, Type A, 707.07 (0.109")
603				596																					603	596	L.F.	60" Conduit, Type A, 707.03, (0.168" - 0.188")
603									380																603	380	L.F.	48" Conduit, Type A, 707.07 (0.168") elongated
603		206																							603	206	L.F.	66" Conduit, Type A, 707.07
603							150																		603	150	L.F.	72" Conduit, Type A, 706.02,
603							46																		603	46	L.F.	72" Conduit Under Railroad, Type A, 706.02 Cl. V As Per Plan
603										150															603	150	L.F.	72" Conduit, Type A, 707.03, (0.188" - 0.218")
603									28																603	28	L.F.	72" Conduit, Type A, 707.03,
603									58																603	58	L.F.	84" Conduit, Type A, 707.03
603					1,032																				603	1,032	L.F.	84" Conduit, Type A, 707.03, (0.280"), Elongated With 6 Bolts Per Foot
603	200											118													603	★ 318	L.F.	6" Conduit, Type B
603		222	82	284	68	294			64	192	50	8													603	1264	L.F.	15" Conduit, Type B
603									158																603	158	L.F.	15" Conduit, Type B, 706.02, Cl V
603			130	102							78														603	310	L.F.	18" Conduit, Type B
603						174																			603	174	L.F.	18" Conduit, Type B, 706.02, Cl. III
603						196																			603	196	L.F.	18" Conduit, Type B, 706.02, Cl V
603			60					72																	603	132	L.F.	21" Conduit, Type B
603		56						168																	603	224	L.F.	24" Conduit, Type B
603								58																	603	58	L.F.	27" Conduit, Type B
603		426	296					72		180															603	974	L.F.	30" Conduit, Type B
603			388																						603	388	L.F.	30" Conduit, Type B, 706.02 Cl. III, 706.08 or 707.13
603	500																								603	500	L.F.	6" Conduit, Type C
603					34		4	14				162													603	214	L.F.	12" Conduit, Type C
603								112																	603	112	L.F.	24" Conduit, Type C, 706.02 Cl. IV or 707.13
603							10					216													603	226	L.F.	15" Conduit, Type C
603									60	534															603	594	L.F.	18" Conduit, Type C
603				62																					603	62	L.F.	21" Conduit, Type C, 706.01 Cl. 3, 706.02, 706.08 E.S. or 707.13
603							8																		603	8	L.F.	24" Conduit, Type C
603			38																						603	38	L.F.	30" Conduit, Type C, 706.01 Cl. 3, 706.02, 706.08 E.S. or 707.13
603								32																	603	32	L.F.	42" Conduit, Type C, 706.02
603								136																	603	136	L.F.	12" Conduit, Type D,
603		62																							603	62	L.F.	54" Conduit, Type D,
603	500																								603	500	L.F.	6" Conduit, Type E

DEVELOPED		CHECKED	
2/71	JWI	9/71	R.D.

GENERAL SUMMARY

SHEET NUMBER

ITEM	CODE TYPE 7223													CODE TYPE Y005													ITEM	QUAN.	UNIT	DESCRIPTION
	20	22	38	43	48	52	240	245	264	297	338	403	410	22 & 27	21 & 38	43	48	52	240	245	264	297	338	403	410	R/W				Code Type 7223 Unless Otherwise Noted
																														DRAINAGE (CONT)
603		100		20									146														603	266	L.F.	6" Conduit, Type F,
603						125	260				78																603	463	L.F.	15" Conduit, Type F
603							66																				603	66	L.F.	18" Conduit, Type F
603				88					82																		603	170	L.F.	21" Conduit, Type F
603			100																								603	100	L.F.	24" Conduit, Type F
603											78																603	78	L.F.	30" Conduit, Type F
604								1																			604	1	Each	Standard No. 2-2-A Catch Basin
604								1					1														604	2	Each	Standard No. 2-2-B Catch Basin
604							1																				604	1	Each	Standard No. 2-10 Median Inlet
604			1						4																		604	5	Each	Standard No. 2-3 Catch Basin
604												1															604	1	Each	Standard No. 2-4 Reinforced Concrete Catch Basin
604								1																			604	1	Each	Standard No. 3 Catch Basin
604			2	1	4	1							2														604	10	Each	Standard No. 4 Catch Basin
604			3	3	2																						604	8	Each	Standard No. 4A Catch Basin
													3														604	3	Each	Catch Basin Adjusted to Grade
604				2		1	2			2	3	1	1														604	12	Each	Standard No. 5 Catch Basin
604								2	2																		604	4	Each	Standard No. 5 Catch Basin With B Grate
604			2	4							3																604	9	Each	Standard No. 5A Catch Basin
604					1		4			1		1															604	7	Each	Standard No. 6 Catch Basin, Modified as per plan
604							1																				604	1	Each	Standard No. 2-6 Median Inlet
604										1																	604	1	Each	Standard No. 2 Manhole, Modified as per plan
604											1		2														604	3	Each	Standard No. 1 Manhole
604				3	2	1				1		2															604	9	Each	Standard No. 1A Manhole
604									2																		604	2	Each	Manhole, Reconstructed To Grade
604		2																									604	2	Each	Standard Inspection Well
605													5474														605	5474	L.F.	6" Pipe Underdrains, Shallow
605				710									3109														605	3819	L.F.	6" Deep Pipe Underdrains
605		500																									605	500	L.F.	6" Unclassified Pipe Underdrains, 707.01 Type III or 707.12 As Per Plan
605		25																									605	25	L.F.	Aggregate Drains For Springs, As Per Plan
																														EROSION CONTROL Code Type Y005
601															85	8	8	9			77	14	61	59	70		601	391	Sq. Yd.	Riprap, Using 6" Reinforced Concrete Slab
601																		44				44			18		601	106	Cu. Yd.	Rock Channel Protection, Type A
601														20 555	691	423	1,228	767	168	25	148	862	280	307	215		601	5689	Cu. Yd.	Rock Channel Protection, Type B
601														23	5	7					12	4		5	2		601	58	Cu. Yd.	Rock Channel Protection, As Per Plan
601																	239										601	239	L.F.	Paved Gutter, Standard Type 1-4
659														988,626													659	988,626	Sq. Yd.	Seeding and Mulching
659														92.26	12												659	104.26	Ton	Commercial Fertilizer (12-12-12)
659														461.30													659	461.30	Ton	Agricultural Liming, As Per Plan
660															3 363	5,449	3,278	2,354	919		4 549	611	545	787	885		660	22,740	Sq. Yd.	Sodding
660															332										216		660	548	Sq. Yd.	Sodding For Special Berm and Slope Protection, As Per Plan
667															2 027									231	930		667	3,188	Sq. Yd.	Seeding and Jute Matting
207															199,725 (See Sh. No. 21)												207	199,725	Sq. Yd.	Temporary Seeding and Mulching
207															18,240 (See Sh. No. 21)												207	18,240	L.F.	Temporary Slope Drains
207															431												207	431	M.Gals.	Water
207															3,692 (See Sh. No. 21)												207	3,692	Cu. Yd.	Temporary Benches, Dikes, Dams and Sediment Basins
659															49,431 (See Sh. No. 21)												659	49,431	Sq. Yd.	Repair Seeding and Mulching
207															2,224												207	2,224	M. Sq. Ft.	Mowing
																														BUILDING REMOVALS
202																										Lump	202	Lump	L.S.	Parcel # 120-WL, Removal of one frame abandoned cabin
202																										Lump	202	Lump	L.S.	Parcel # 132-WL, Removal of One 1-Sty. brick residence w/ attached 2-car garage
202																										Lump	202	Lump	L.S.	Parcel # 136-WL, Removal of One 1½-sty brick residence
202																										Lump	202	Lump	L.S.	Parcel # 138-WL, Removal of One 1-Sty brick residence w/ 2-car basement garage
202																										Lump	202	Lump	L.S.	Parcel # 145-WL, Removal of One 1 Story Steel Barn, Concrete Block Shed
202																										Lump	202	Lump	L.S.	Parcel # 146-WL, Removal of Two 2-Story Frame Residences, concrete block garage, frame garage, two frame corn cribs, frame barn, three frame sheds
202																										Lump	202	Lump	L.S.	Parcel # 147-WL, Removal of One 2-Story Frame residence, frame and block shed, one 1-story brick residence
202																										Lump	202	Lump	L.S.	Parcel # 162-WL, Removal of One 1-Story Concrete Block Building, One 1-Story Frame Residence, Frame Shed
614	Lump																										614	Lump	L.S.	Maintaining Traffic
619	Lump																										619	Lump	L.S.	Field Office
623																											623	Lump	L.S.	Construction Layout Stakes

DEVELOPED		CHECKED	
2/71	FWI	9/71	R.D.

RIGHT OF WAY FENCE

Station to Station		Code 7223: Woven Wire Fence Type 47 Rebuilt	Code 7223: Type 47	Code 7223: Chain Link
202+00 ₿ Ramp D - 207+40.73 ₿ Ramp D	Rt.		546	
202+00 ₿ Ramp C - 208+90 ₿ Ramp C	Lt.		718	
208+90 ₿ Ramp C - 56+23 ℄ Kilby Rd.	Lt.		—	522
207+40.73 ₿ Ramp D - 197+60 ₿ Ramp B	Lt-Rt		—	424
36+00 ℄ Kilby Rd - 38+00 ℄ Kilby Rd.	Lt.		—	203
38+80 ℄ Kilby Rd. - 40+79 ℄ Kilby Rd.	Lt.		—	199
40+93 ℄ Kilby Rd. - 197+60 ₿ Ramp B	Lt.		—	47
56+23 ℄ Kilby Rd - 58+71 ℄ Kilby Rd.	Lt.		—	252
58+71 ℄ Kilby Rd - 59+50 ℄ Kilby Rd.	Lt.		—	80
59+80 ℄ Kilby Rd - 60+76 ℄ Kilby Rd.	Lt.		—	96
213+13 - 213+04	Rt.		120	
213+15± Rt - 213+48± Lt	Rt-Lt.		50	
213+67 - 213+87	Lt.		79	
213+13 - 222+23	Rt.		949	
213+87 - 223+00	Lt.		885	
222+23 - 234+78	Rt.		1303	
223+00 - 235+00	Lt.		1164	
234+78 - 235+11	Rt.		70	
235+00 - 243+00	Lt.		761	
235+11 - 244+45	Rt.		972	
243+00 - 254+00	Lt.		1086	
244+45 - 245+00	Rt.		60	
245+00 - 251+80	Rt.		691	
251+80 - 262+00	Rt.		1,001	
254+00 - 260+50	Lt.		660	
260+50 - 286+85	Lt.		2658	
262+00 - 281+20	Rt.		2657	
281+20 - 299+45	Rt.		1850	
286+85 - 300+33	Lt.		1390	
299+52 - 310+02.75	Rt.		1030	
300+41 - 314+60	Lt.		1480	
310+02.75 - 326+86±	Rt.		1684	
314+60 - 328+52±	Lt.		1440	
327+40± - 327+65	Rt.		68	
327+65 - 340+00	Rt		1235	
329+06± - 330+25	Lt.		130	
330+25 - 347+50	Lt.		1,726	
340+00 - 358+00	Rt.		1,800	
347+50 - 355+00	Lt.		751	
355+00 ℄ I-275 - 364+43 ₿ Ramp F	Lt.		977	
358+00 ℄ I-275 - 364+86 ₿ E.B. I-275	Rt.		700	
364+54 ₿ Ramp F - 371+60 ₿ Ramp F	Lt.		685	
364+96 ₿ E.B. I-275 - 371+74 ₿ E.B. I-275	Rt.		712	
371+89 ₿ E.B. I-275 - 373+96 ₿ E.B. I-275	Rt.		267	
374+04 ₿ E.B. I-275 - 384+50 ₿ E.B. I-275	Rt.		1062	
371+82 ₿ Ramp F - 379+00 ₿ Ramp F	Lt.		636	
317+00 ℄ I-74 - 320+37 ℄ I-74	Lt.		334	
312+10.76 ℄ I-74 - 322+00 ℄ I-74	Rt	1122	—	
317+00 ℄ I-74 - 320+37 ℄ I-74	Lt.	506	—	
379+00 Lt ₿ Ramp F - 295+20 Rt ℄ I-74	Lt-Rt		1430	
297+38 ℄ I-74 - 310+00 ℄ I-74	Rt.	1552	—	
320+37 ℄ I-275 - 395+00 ₿ WB I-275	Lt.		1070	
322+00 ℄ I-74 - 329+00 ℄ I-74	Rt.	714	—	
322+00 ℄ I-74 - 329+00 ℄ I-74	Lt.	678	—	
395+00 ₿ WB I-275 - 400+00 ₿ WB I-275	Lt.		462	
329+00 ℄ I-74 - 339+00 ℄ I-74	Rt	1004	—	
329+00 ℄ I-74 - 339+00 ℄ I-74	Lt.	1005	—	
384+50 ₿ EB I-275 - 395+50 ₿ E.B. I-275	Rt.		1,075	
395+50 ₿ EB I-275 - 344+52 ℄ I-74	Rt		450	
344+69 ₿ EB I-275 - 348+50 ℄ I-74	Rt.		470	
400+00 ₿ WB I-275 - 347+29 ℄ I-74	Lt.		1540	
339+00 ℄ I-74 - 349+00 ℄ I-74	Rt.	1083	—	
339+00 ℄ I-74 - 349+00 ℄ I-74	Lt.	1112	—	
347+43 ℄ I-74 - 363+00 ℄ I-74	Lt.		1635	
349+00 ℄ I-74 - 365+00 ℄ I-74	Rt.	1598	—	
349+00 ℄ I-74 - 365+00 ℄ I-74	Lt.	1629	—	
TOTALS (Per Column)		12,003	44,519	1823

ROCK CHANNEL PROTECTION TYPE B

Item 601

For Quantity Breakdown See R/W Sheet No.	Standard Cu. Yd.	As Per Plan Cu. Yd.
605	15	
613	30	
614	30	
615	30	
616	75	
617	60	
618	60	
620	45	
621	30	
622	30	14
623	15	6
624	45	
625	30	
628	15	3
629	45	
TOTAL	555	23

SEEDING CALCULATIONS

	Area Within Const. Limits	Area Const Limits to R/W
Mainline	Sq. Yd.	Sq. Yd.
168+15 - 255+00	89,123	34,638
255+00 - 310+00	115,055	59,832
310+00 - 365+00	70,922	47,519
365+00 - 383+44	55,753	
Ramps A, B, C, D	111,889	6,300
Kilby Road	22,925	0
Suspension Bridge Rd.	1041	0
Cilley Road	39,422	0
Morgan Road	5,666	0
E.B. I-275	94,197	35,194
W.B. I-275	43,688	21,770
Ramps E and F	64,487	25,175
Mainline I-74	43,961	10,069
Sub-Totals	758,129	240,497
Net Area To Be Seeded And Protected	998,626 Sq. Yd.	

FERTILIZER & LIMING MATERIAL

Seeding Area	998,626
Sodding Area	22,792
Sodding For Special Slope And Berm Protection, As Per Plan	548
Seeding And Jute Matting	3,188
Total Area. (Sq. Yd)	1,025,154
Fertilizer @ 20 lbs/1000 Sq. Ft. (Tons)	92.26
Lime @ 100 lbs/1000 Sq. Ft. (Tons)	461.30

203 PROOF ROLLING

Location	Sq. Yd.	Hours @ 3000 S.Y Per Hour
Mainline (451)	76,355	25.4
Mainline Paved Should.	40,800	13.6
Ramps A,B,C,D,E,F (451)	18,140	6.0
Ramps Paved Shoulders	5,430	1.8
E.B. I-275 (451)	9,341	3.1
E.B. I-275 Paved Should.	5,731	1.9
W.B I-275 (451)	7,479	2.5
W.B I-275 Paved Should.	3,442	1.1
Approach Slabs (611)	731	.2
TOTAL	167,449	55.7

203 SUBGRADE COMPACTION

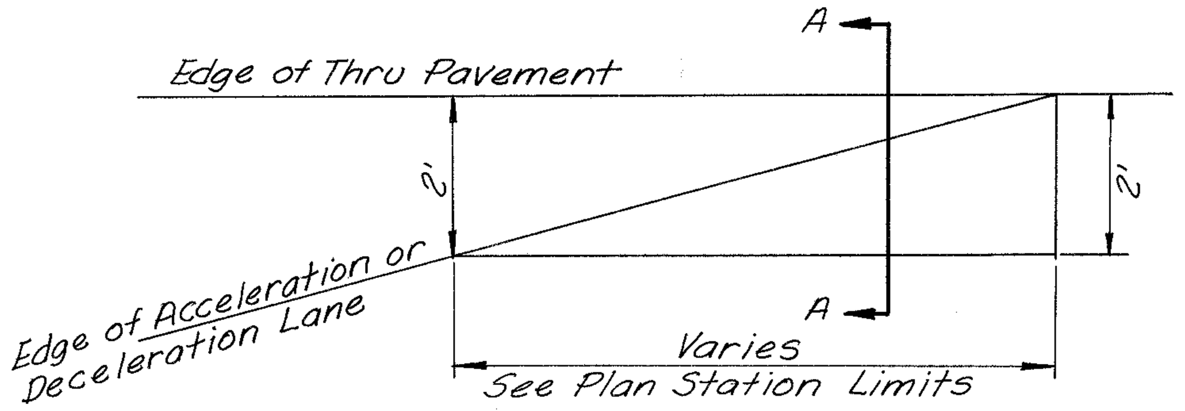
Location	Sq. Yd.
Mainline, Ramps, and Directional Roadway Pavement (451)	111,315
Mainline, Ramps and Directional Roadway Paved Shoulders	55,403
Approach Slabs (611)	731
Kilby, Suspension Bridge Road, Cilley and Morgan Road Pavements (flexible)*	37,978
Kilby Paved Shoulders	2,501
TOTAL	207,928

* Includes Paved Median and Curb and Gutter Areas Where Applicable

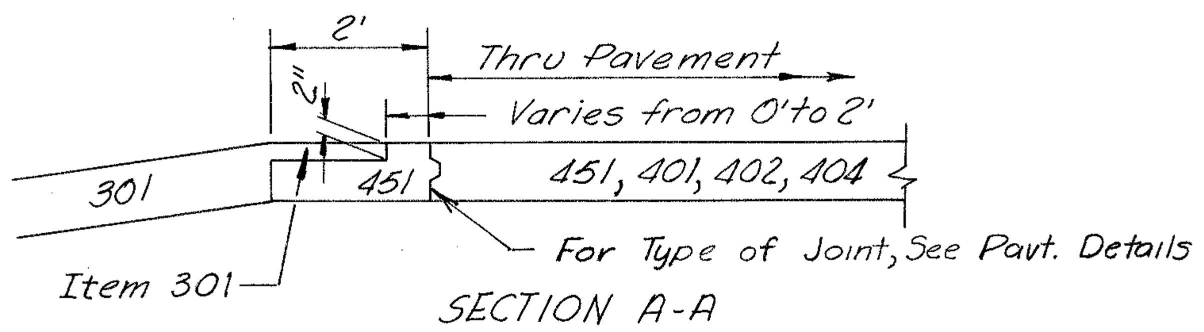
* (Not Including Embankment Construction, As Per Plan)

EXCAVATION AND EMBANKMENT

Station to Station	Excavation 203 * Cu. Yd.	Embankment 203 Cu. Yd
Mainline I-275		
168+15 - 175+00	7802	0
175+00 - 190+00	16,676	0
190+00 - 205+00	2,894	93,615
205+00 - 215+00	260	140,308
215+00 - 230+00	4,443	220,076
230+00 - 245+00	40,534	15,876
245+00 - 255+00	82,170	5,346
255+00 - 270+00	225,462	275
270+00 - 285+00	82,236	85,488
285+00 - 300+00	342,534	50,814
300+00 - 310+00	60,334	91,755
310+00 - 325+00	184,013	104,060
325+00 - 340+00	591,620	3,270
340+00 - 355+00	438,144	27,265
355+00 - 365+00	32,851	163,504
365+00 - 380+00	36,170	722,385
380+00 - 383+44	23,799	23,965
Kilby Road Interchange		
Ramp A	3,146	100,116
Ramp B	8,409	148 461
Ramp C	2,698	55855
Ramp D	7806	58,645
Kilby Road		
26+35.88 - 30+00	28	99
30+00 - 45+00	2,340	21,197
45+00 - 60+00	2,866	28,438
60+00 - 64+61.44	149	74
Suspension Bridge Road	33	1244
Cilley Road		
0+58.72 - 15+00	2834	8581
15+00 - 30+00	6,057	11,247
30+00 - 45+00	9,440	6,050
45+00 - 51+00	5974	3,888
Morgan Road	3,000	3,678
E.B. I-275		
348+71.23 - 355+00	36,462	5,381
355+00 - 370+00	24,550	231,175
370+00 - 385+00	46,584	523,240
385+00 - 400+00	304,783	91,088
400+00 - 405+92.12	5,037	49,887
W.B. I-275		
383+44 - 395+00	314,566	0
395+00 - 410+00	472,546	8,266
410+00 - 425+00	27,035	173,424
425+00 - 429+86.42	10,835	187
Ramp E	407,860	378
Ramp F		
363+04.94 - 378+00	15,540	300,843
378+00 - 392+08.89	8,746	101,978
Mainline I-74		
293+00 - 308+00	2,534	7,567
308+00 - 325+00	18,356	2,197
325+00 - 340+00	7,566	943
340+00 - 355+00	7,802	10,039
355+00 - 368+60	16,459	1,879
TOTAL (Includes Benching Quantity)	3,953,983	3,704,047



Note: The Shaded Area shown shall be constructed of Concrete 451 to an elevation 2" lower than the adjacent pavement and surfaced with 2" of 301 material.
The Shaded Area shall be paid for as full depth 451 and the surface treatment shall be paid for as 301



SECTION A-A

DETAIL AT END OF ACCELERATION OR DECELERATION TAPER

JOINT LEGEND

- (A) Standard Longitudinal Joint
- (B) Longitudinal Joint Without Tie Bars
- (C) Standard Expansion Joint
- (D) Standard Contraction Joint
- (E) Key Joint Without Tie Bars
- (F) Standard Expansion Joint Without Dowel Bars
- (G) Expansion Bolt Joint
- (J) Standard Construction Joint

PAVEMENT DETAIL

Item 203 (Pavement Removal Outside Normal Construction Limits)
Excavation not including Embankment Construction As Per Plan

Item 404 1¼" Asphalt Concrete (70-85 or AC-20)
Item 402 1¾" Asphalt Concrete (70-85 or AC-20)
Item 402 Asphalt Concrete (70-85 or AC-20)
(Thickness Varies in Resurfacing)
Item 407 Tack Coat: 702.04 MS-2 or RS-1; or 702.02 RC-70 or RC-250. Applied at the rate of 0.10 gallon per square yard & cover aggregate

Item 404 1¼" Asphalt Concrete (70-85 or AC-20)
Item 402 1¾" Asphalt Concrete (70-85 or AC-20)
Item 402 1¾" Asphalt Concrete (70-85 or AC-20)
Item 408 Bituminous Prime Coat, 702.09, RT-2 or RT-3
Applied at the rate of 0.40 gallon per square yard
Item 304 Aggregate Base, Thickness as per typical section
Item 310 Subbase Grading A, 6" Thick except where otherwise noted. (Kilby Only)
Item 310 Subbase, Thickness as per typical section (Morgan Only)

Item 409 Seal Coat Cover Aggregate No. 8
Applied at the rate of 0.0075 cubic yard per square yard.
Item 409 Seal Coat Bituminous material; 702.02, MC-800 or MC-300, or 702.09, RT-9 or RT-10
Applied at the rate of 0.25 gallon per square yard

Item 202 Existing pavement removed

Item 409 Seal Coat Cover Aggregate No. 8
Applied at the rate of 0.008 cubic yard per square yard
Item 409 Seal Coat Bituminous Material: 702.09, RT-9 or RT-10; or 702.02, MC-800 or MC-3000
Applied at the rate of 0.30 gallon per square yard

Item 301 Bituminous Aggregate Base; 702.01 (85-100 or AC-20) or 702.09, RT-11 or RT 12, 4" Thick

Item 451 10" Reinforced Portland Cement Concrete Pavement.
Item 301 3" Bituminous Aggregate Base: 702.01 (85-100 or AC-20) or 702.09, RT-11 or RT-12

Item 451 9" Reinforced Portland Cement Concrete Pavement
Item 301 3" Bituminous Aggregate Base: 702.01 (85-100 or AC-20) or 702.09, RT-11 or RT-12

Item 301 Bituminous Aggregate Base; 702.01 (85-100 or AC-20) or 702.09, RT-11 or RT-12
Thickness as per typical section

Item 612 Concrete Median

Item 404 1¼" Asphalt Concrete (70-85 or AC-20)
Item 402 1¾" Asphalt Concrete (70-85 or AC-20)
Item 301 Bituminous Aggregate Base; 702.01 (85-100 or AC-20) or 702.09, RT-11 or RT-12, Thickness as per typical section
Item 310 Subbase, Grading "A" 6" Thick except where otherwise noted

Item 404 1¼" Asphalt Concrete (70-85 or AC-20)
Item 402 1¾" Asphalt Concrete (70-85 or AC-20)
Item 408 Bituminous Prime Coat; 702.09, RT-2 or RT-3
Applied at the rate of 0.40 gallon per square yard
Item 304 Aggregate Base, Thickness as per typical section
Item 310 Subbase, Thickness as per typical section

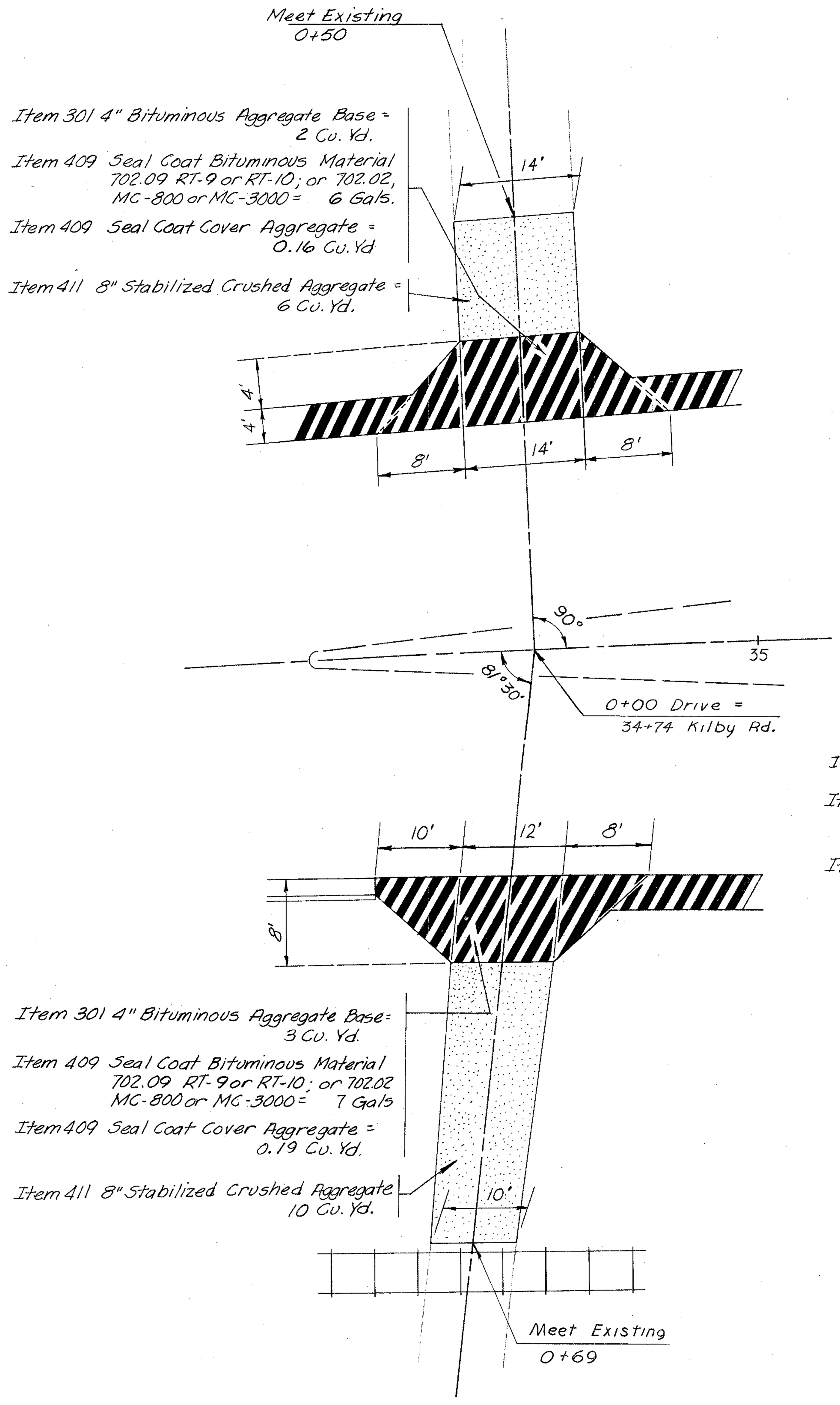
Item 404 2" Asphalt Concrete (70-85 or AC-20)
Item 408 Bituminous Prime Coat; 702.09, RT-2 or RT-3
Applied at the rate of 0.40 gallon per square yard
Item 304 Aggregate Base, Thickness as per typical section
Item 304 Aggregate Base, Thickness as per typical section

Item 411 Stabilized Crushed Aggregate
6" or 8" as per Driveway Details

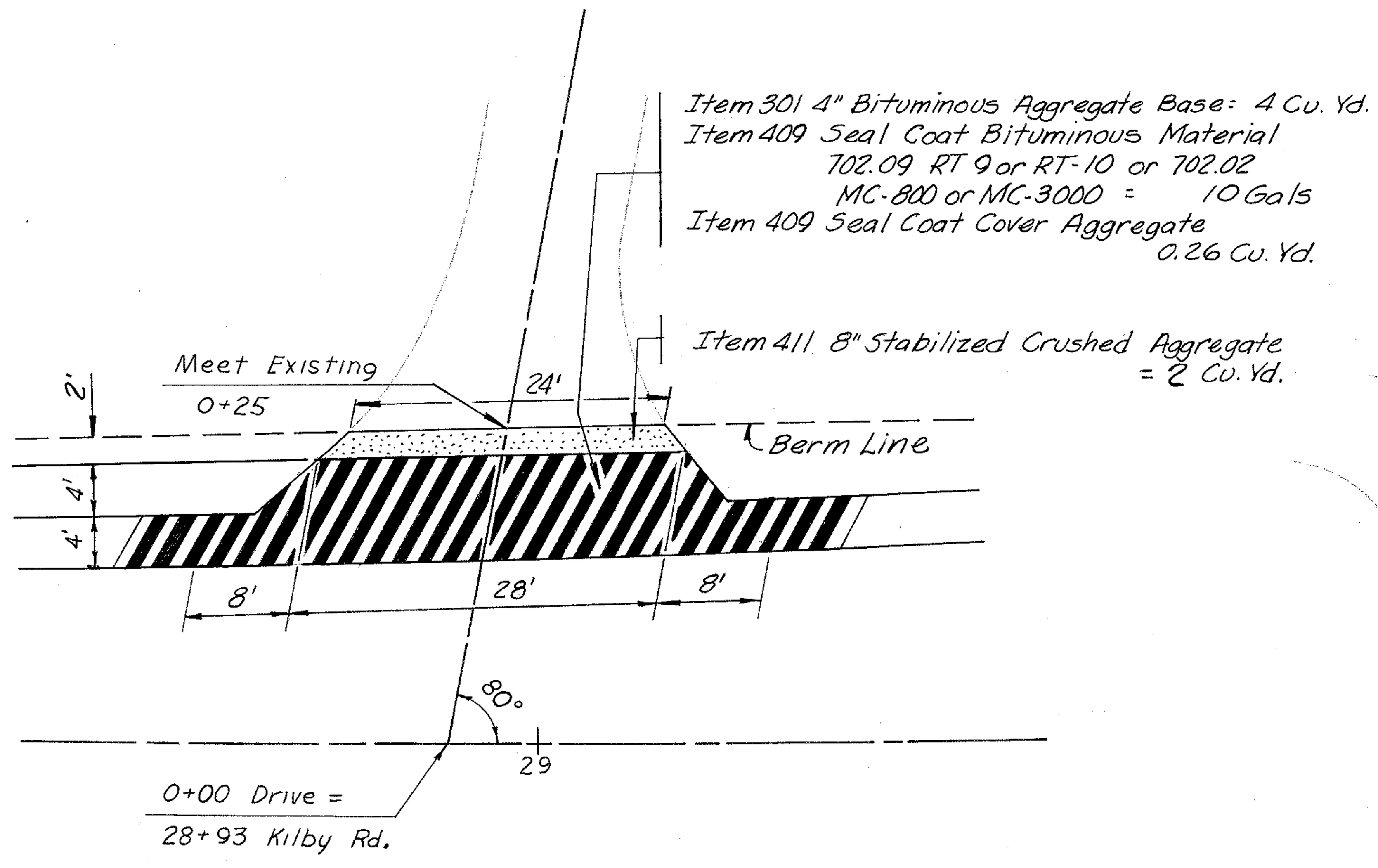
Item 404 2" Asphalt Concrete (70-85 or AC-20
Item 408 Bituminous Prime Coat; 702.09, RT-2 or RT-3
Applied at the rate of 0.40 gallon per square yard
Item 304 6" Aggregate Base Coarse

Item 404 2" Asphalt Concrete (70-85 or AC-20
Item 408 Bituminous Prime Coat; 702.09, RT-2 or RT-3
Applied at the rate of 0.40 gallon per square yard
Item 304 8" Aggregate Base

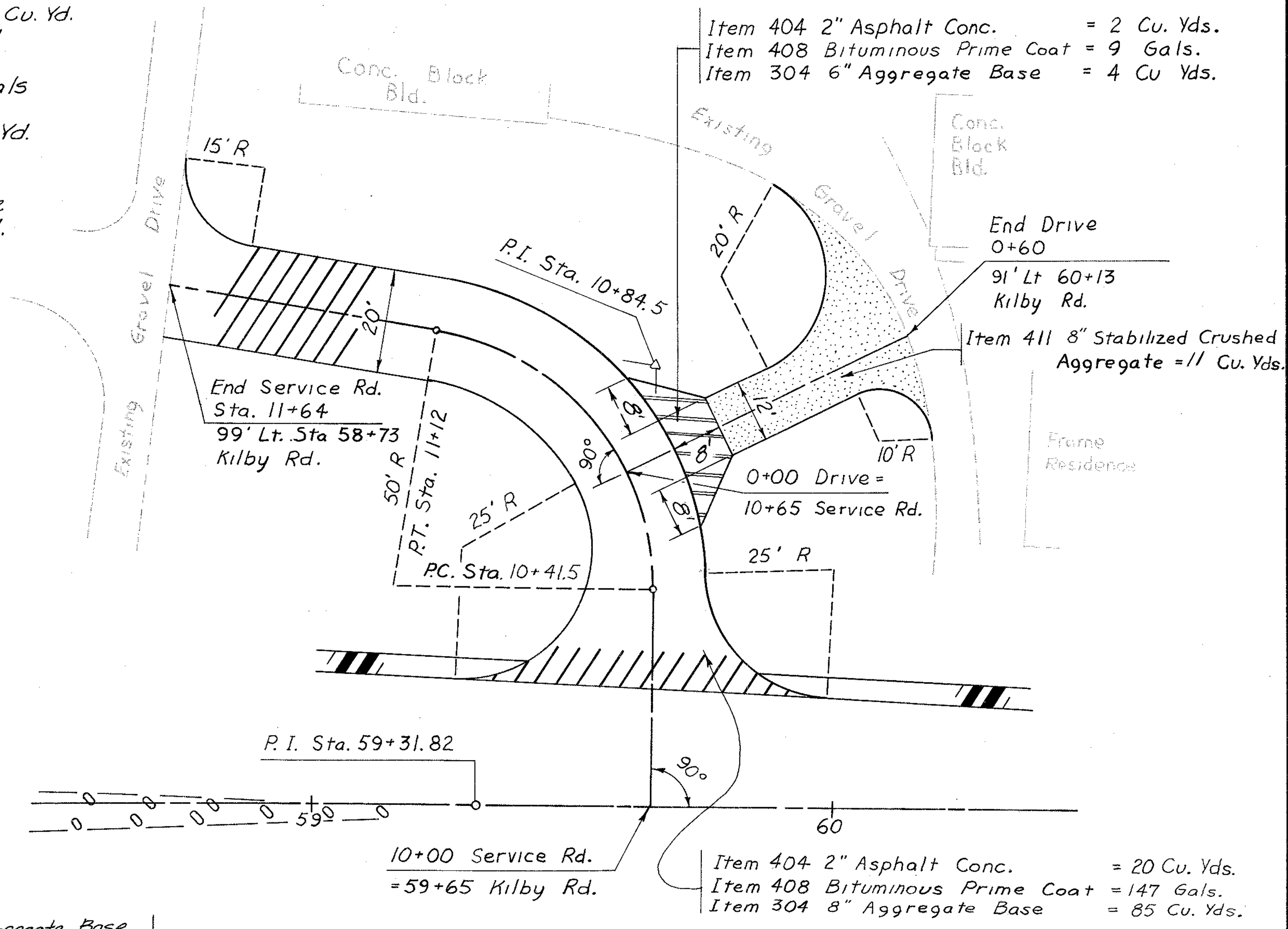
Item 612 Concrete Traffic Island



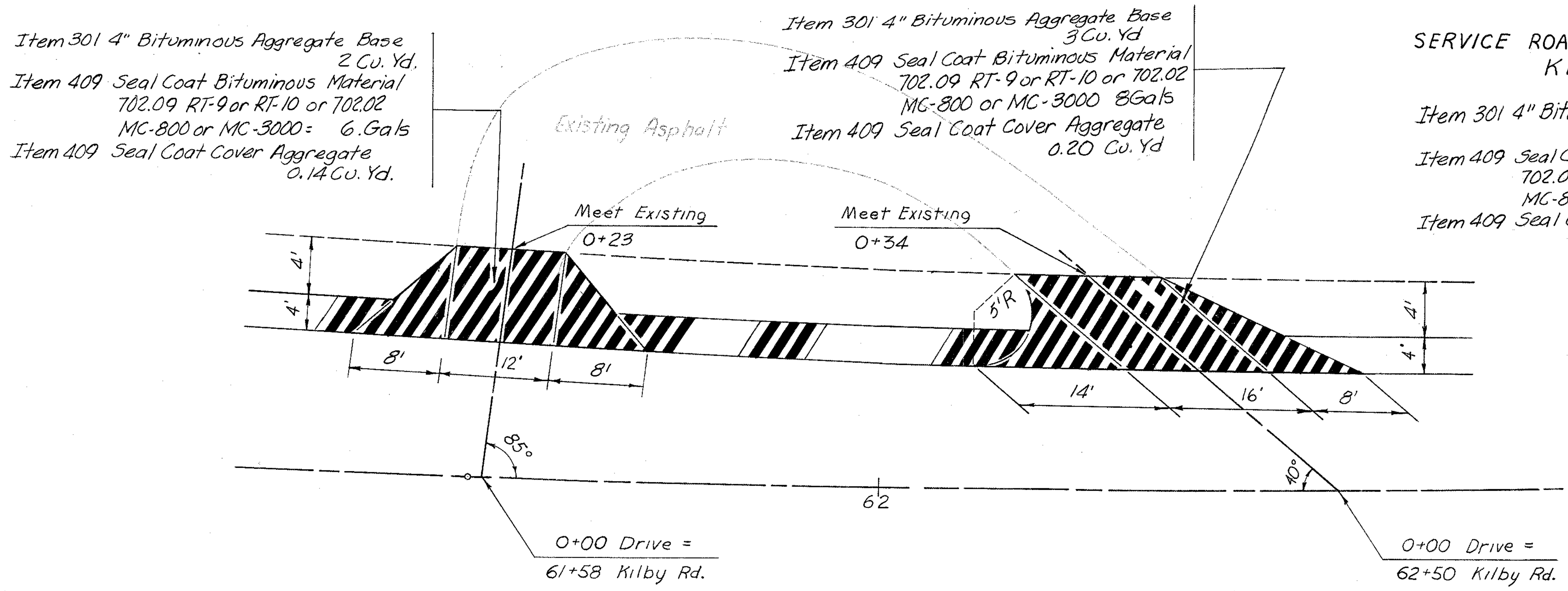
DRIVE AT STA. 34+74
RIGHT & LEFT
KILBY ROAD



DRIVE AT STA. 28+93 LEFT
KILBY ROAD

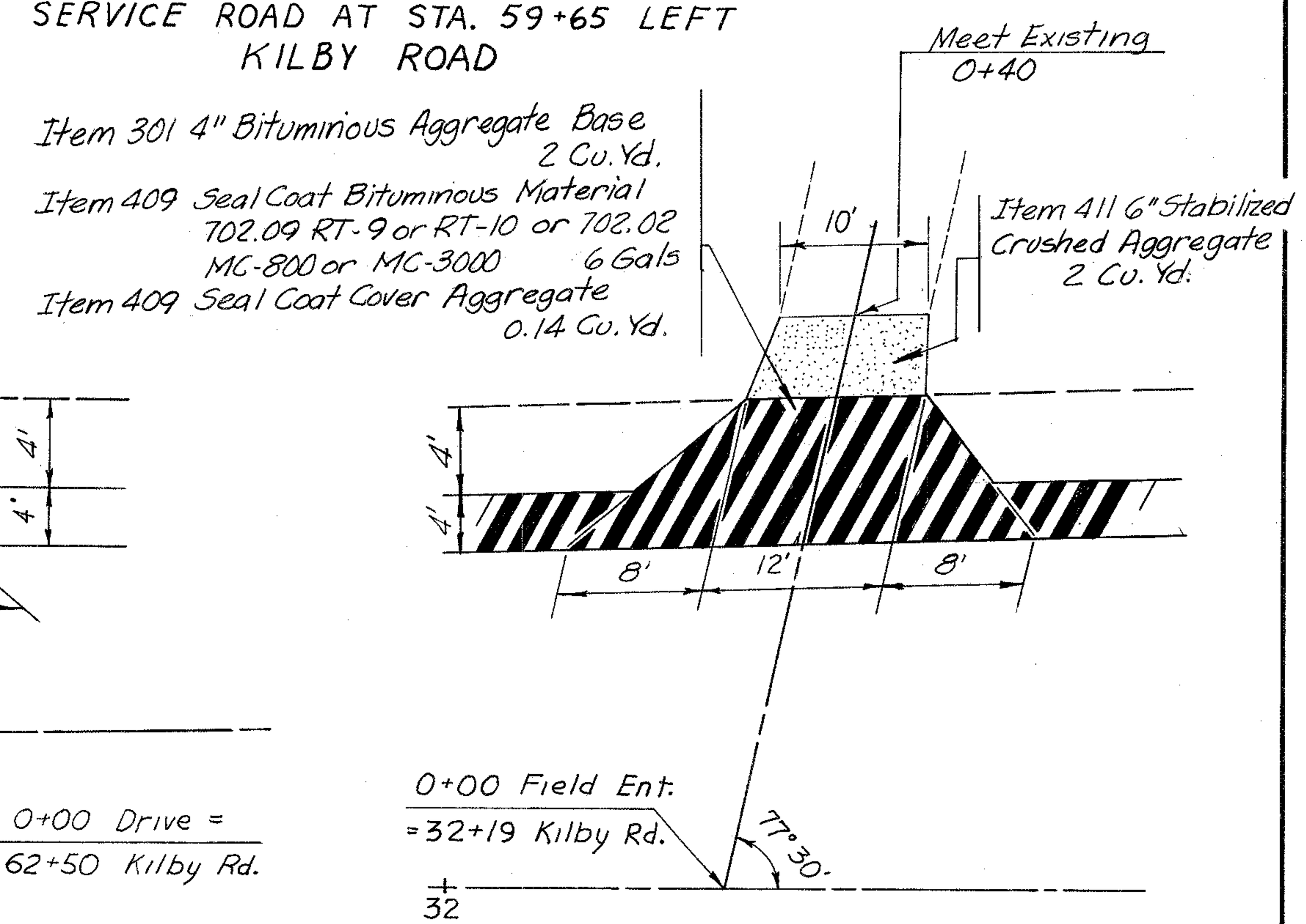


SERVICE ROAD AT STA. 59+65 LEFT
KILBY ROAD



DRIVE AT STA. 61+58 LEFT
KILBY ROAD

DRIVE AT STA. 62+50 LEFT
KILBY ROAD



FIELD ENTRANCE AT STA. 32+19 LEFT
KILBY ROAD

Note:
For Driveway Profiles
See Station Cross Sections

No Scale

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

30 / 630

HAM 3.86
HAMILTON COUNTY

Note:
For Driveway Profiles
See Station Cross Sections

No Scale

DEVELOPED		CHECKED	
4/71	R.W.	8/71	J.H.

DRIVEWAY DETAILS

31
630
HAM 275-3.86
HAMILTON COUNTY
Sand Run Road
Lawrenceburg Road
Whitewater
River
SERVICE DRIVE ALIGNMENT
No Scale
Begin Service Drive P.C. Sta 5+95
P.R.C. Sta 7+27±
P.T. Sta 8+29
Sta 171+14.50 ₵ I-275
Sta 10+00.00 ₵ Service Drive
₵ I-275
P.C. Sta 11+76
P.R.C. Sta 12+95±
End Service Drive P.T. Sta 14+17.0
171.0'
186.5'
100'R
85°15' To Local Tangent
₵ Ex. Service Drive
LA-R/W
1D
54" Type D Below
3D
Rock Channel Protection Type B 18" Thick
487
₵ Channel
Future Pavement
Curve No. 1-A
₵ I 275
175' ₵ to ₵
170 ₵ to ₵
175' ₵ to ₵ Sta. 172+00
170' ₵ to ₵ Sta 174+00
165' ₵ to ₵ Sta 174+00 S.C. Sta. 174+28.65
Sta. 171+14.50 ₵ I-275 : Sta. 10+00.00 ₵ Service Drive
Sta. 172+36.00 ₵ Ex. Service Drive
Service Drive
Ex. Service Drive
Prop. Rock channel Protection Type B 18" Thick
Sta. 172+00 - 170' ₵ to ₵
2D
Riprap using 6" Reinforced Conc. Slab - as per plan
Rock Channel Protection TYPE B, 18" Thick.
4D
487
Begin Work Sta. 168+15
BM. #32 Elev. 476.58
R.R. spike in 12" Sycamore Tree
500' Rt. of Sta. 174+30
For Service Drive Profile & Typical Sec. See Sh. No 52A
For Quantities See Sh. Nos. 37,38
TYPICAL CHANNEL SECTION
Varies
4' ₵ Var.
Original Ground
2:1
CURVE NO 1-A
P.I Sta. 162+77.88
Δ = 72°15'55" Rt.
Dc = 2°15'00"
Rc = 2546.48
Ts = 2061.02'
Es = 609.69
Lc = 2,811.79'
Ls = 400.00'
507.60
0.00%
175' Lt. F.L. = 466.0
175' Lt. F.L. = 466.6
+69
+31
1.0%
62'-54" Type D, Above
500
490
480
470
460
482.5 482.5 482.4 483.0 484.4 484.3 483.4 481.8 480.01 481.2 481.7 481.0 480.7 465.5 465.5 465.6 466.3 467.5 476.0 477.8 477.8 475.4 473.1 474.5 475.4 475.4 475.3 475.1 476.1 476.7 478.1 478.8 478.6 478.5
160 161 162 163 164 165 166 167 168 169 170 172 173 174 175
Sta. 168+15 to Sta. 175+00

STA. 175+00 TO STA. 190+00

33
630
HAM-275-3.86
HAMILTON COUNTY
For Typical Channel Section
See Sh. No. 31
Curve No. 1
P.I. Sta. = 222+69.74
Δ = 73°56'50"
Dc = 1°15'00"
Rc = 4,583.66'
T = 3,450.73'
E = 1,153.71'
Lc = 5,915.78'
End Channel
Begin Roadway Ditch
L.A.-R/W
For Ramp C Plan and Profile
See Sh. No. 228
For Interramp Grading
See Sh. No. 212
Ramp C
℄ Channel
170' ℄ to ℄ Sta. 190+00
180' ℄ to ℄ Sta. 194+00
SEC. 17, T.1, R.1E.
SEC. 16, T.1, R.1E.
Future Pavement
℄ I 275
Curve No. 1
190 191 192 193 194 195 196 197 198 199 200 201 202 203 204
For Interramp Grading
See Sh. No. 213
Construction Limits
165' ℄ to ℄ Sta. 190+00
175' ℄ to ℄ Sta. 191+00
180' ℄ to ℄ Sta. 192+00
180' ℄ to ℄ Sta. 194+00
181' ℄ to ℄ Sta. 194+76
115' ℄ to ℄ Sta. 199+00 Ramp D
Ramp D
For Ramp D Plan and Profile
See Sh. No. 234
B.M. #34 Elev. 488.00
R.R. spike in Telephone Pole
650' Rt. of Sta. 198+00
For Quantities
See Sh. Nos. 37, 38
510.04 510.65 511.26 511.87 512.48 513.09 513.70 514.31 514.92 515.53 516.14 516.75 517.36 517.97 518.58 519.19
520 510 500 490 480 470
+0.61%
6:1
+95
480.3 481.0 479.0 +83 480.0 +23 481.0 +63 482.0 +34 482.0 +75 481.0 +07 480.0 +72 481.0 +40 481.0 481.0 481.0 481.2 481.2 481.6 481.8 482.2 482.3 +65 482.0 +03 483.0
190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205
Sta. 190+00 to Sta. 205+00

HAM. 275 - 3.86
HAMILTON COUNTY

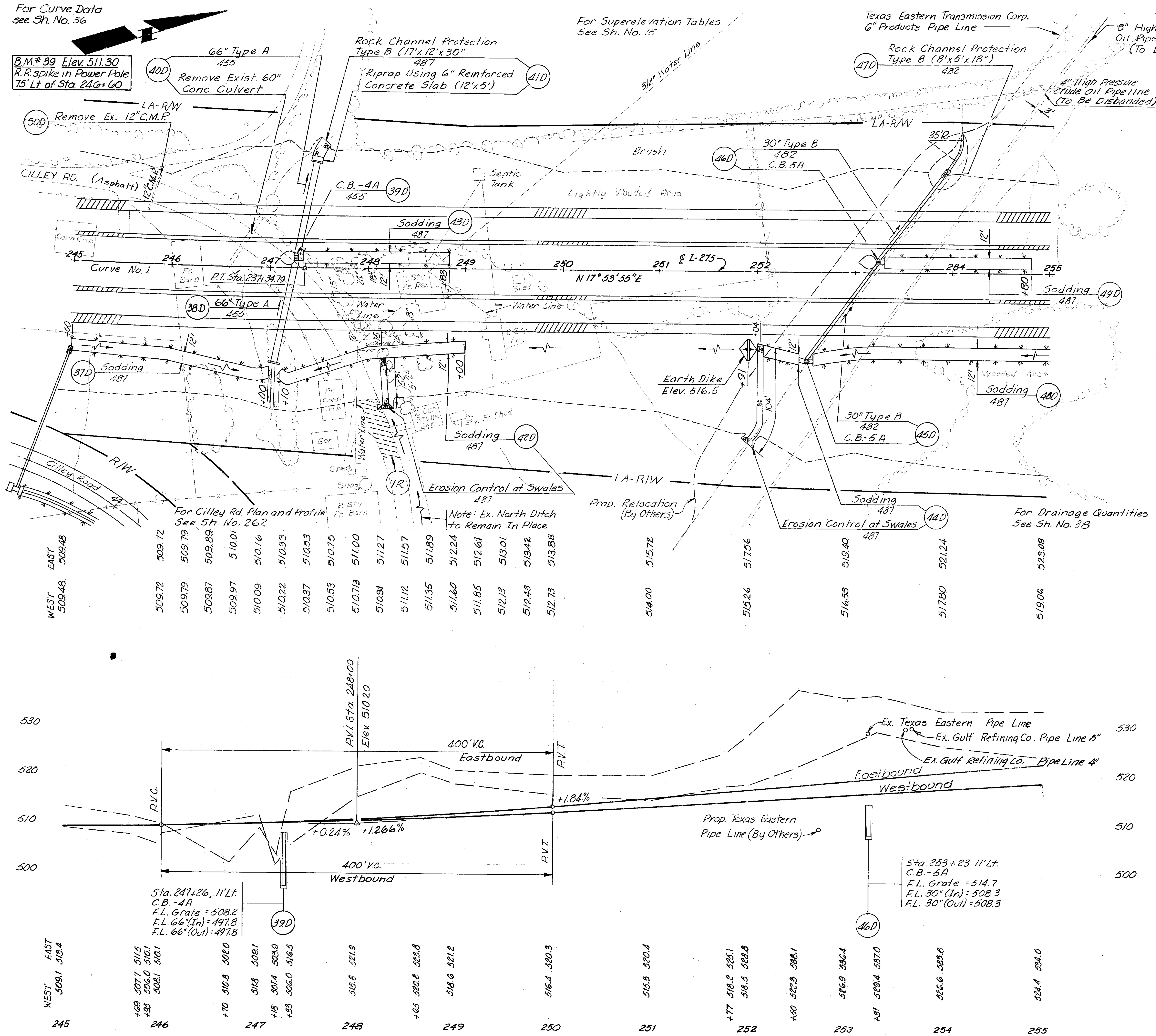
PROPOSED STRUCTURES - HAM 275 - 0399 L&R

TYPE: Five span continuous steel beam with reinforced concrete deck and substructures
SPANS: 39'-6", 49'-6", 56'-6", 58'-6", 47'-0"
ROADWAY: Varies, W.B. lanes average 52' and E.B. lanes average 67' f/f of parapets
LOADING: HS 20-44 and Interstate alternate
SKEW: 20°40'42" L.F. Local Tangent at R.R. ℄
WEARING SURFACE: 1½" Asphalt Concrete
APPROACH SLABS: AS-1-67 (25' long)
ALIGNMENT: 1°15'00" curve left
SUPERELEVATION: 0.04 ft. per ft.

HAM. 275-3.86
HAMILTON COUNTY

Sta. 215+00 to Sta. 230

Sta. 230+00 to Sta. 245+00



Item	301 Bitum. Aggr. Base Cu.Yd.	301 Bitum. Aggr. Base Cu.Yd.	304 Aggr. Base Cu.Yd.	404 Asph. Conc. Cu.Yd. (*1½" Thickness)	408 Bitum. Prime Coat Gals.	451 10" Reinf. P.C.C. Pav't. Sq.Yd.	451 9" Reinf. P.C.C. Pav't. Sq.Yd.	611 Reinf. Conc. Appr. Slabs Sq.Yd.	407 Tack Coat Gals.	407 Bit. Aggr. Tons	203 Exc. Not Incl. Embank. Const. As Per Plan Cu.Yd.	606 Guard Rail Type 5 L.F.	606 Guard Rail Type 5 Br. Des. L.F.	606 Anchor Assem. Ea.	606 Anchor Assem. Barr. Des. Ea.	606 Bridge Terminal Assem. Type A Ea.
PAVEMENT																
1P 210+60 - 210+84 Rt.				*5				122	13	0.5						
2P 210+60 - 210+84 Lt.				*5				125	13	0.5						
3P 213+40 - 213+64 Rt.				*4.5				108	11	0.4						
4P 213+40 - 213+64 Lt.				*4.5				100	10	0.4						
5P 235+80			15	4	27											
205+00 - 215+00 Lt.&Rt.	302	429				3703										
215+00 - 230+00 Lt.&Rt.	732	656				8000										
230+00 - 245+00 Lt.&Rt.	750	945				8000										
245+00 - 255+00 Lt.&Rt.	500	630				5333										
Acceleration Taper 214+35 - 215+00 Rt.	16	11					178									
215+00 - 226+35 Rt.	142	199					1513									
Deceleration Taper 215+57 - 216+00 Lt.	14	24					146									
216+00 - 216+92.33 Lt.	18	35					187									
ROADWAY																
1R 208+65 - 210+63 Lt.&Rt.												125	50			
2R 213+14 Ramp D - 225+03 Rt.												1175				
3R 213+62 - 215+61 Lt.&Rt.												125	50			
4R 213+81 - 224+03 Lt.												975				
5R 235+80												62.5				
6R 237+00 Lt.											340					
7R 248+16 Rt.											53					
Total	2474	2929	15	23	27	25036	2024	455	47	1.8 Use 2	393	2462.5	100	2	2	4

DEVELOPED		CHECKED	
3/71	H.G.	8/71	J.H.

Sta. 245+00 to Sta. 255+00

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	Bends 24" 15°	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect. Type B	601 Rock Channel Protect. As Per Plan	601 Rock Channel Protect. Type B Farm Drain Crossing	602 Conc. Masonry	603 Type A 706.02 48"	603 Type A 707.07 66"	603 Type B 15"	603 Type B 24"	603 Type B 30"	603 Type D 54"	603 Type F 24"	604 Catch Basins C.B. 2-3	604 Catch Basins C.B.-4	604 Catch Basins C.B.-4A	604 Catch Basins C.B.-5A	660 Sodding	660 Sdng For Sp. Berm & Slope Protect. As Per Plan	667 Seeding & Jute Matting	SEE SHEET NO.
	UNIT			L.F.	L.F.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Each	Sq. Yd.	Sq. Yd.	Sq. Yd.	
	DRAINAGE																								
1D	170+69 - 171+31	Lt.														62									31
2D	170+99 - 171+61	Rt.				78																			31
3D	171+31 - 173+00	Lt.					200																		31
4D	171+61 - 173+00	Rt.					206		17																31
5D																									
6D																									
7D	205+00 - 206+57	℄																	1			150			34
8D	205+00	Rt.					2						100												34
9D	210+30 Ramp B	Rt.																					102		34
10D	210+50 Ramp B	Rt.																						442	34
11D	211+00 Ramp A	Lt.																					88		34
12D	211+25 Ramp A	Lt.																						448	34
13D	212+99	Lt. & Rt.					7			2.18	302														34
14D	212+75 Ramp B	Rt.																						609	34
15D	213+20 Ramp B	Rt.																					73		34
16D	213+57 Ramp A	Lt.																						528	34
17D	213+85	Lt.																					69		34
18D																									
19D																									
20D	220+00 - 221+00	Rt.					89																		35
21D	224+00 - 232+00	Rt.																				1067			35
22D	225+99 - 227+43	℄																				200			35
23D	227+50	℄ & Rt.								0.25			122						1						35
24D	227+50	Rt.					2																		35
25D																									
26D																									
27D	235+99 - 239+07	℄																				400			36
28D	36+00 Cilley Rd.	Lt. & Rt.	2							*0.18				56				1							36
29D	35+83 Cilley Rd.	Lt.															100				1				36
30D	237+50	Rt.													90										36
31D	237+50 - 238+00	Lt.																				50			36
32D	237+50	℄ & Lt.								0.56					100					1					36
33D	238+00	Lt.					47																		36
34D	237+57 - 239+07	Rt.																				200			36
35D																									
36D																									
37D	246+00 - 247+00	Rt.																				267			37
38D	247+24									2.06		108													37
39D	247+24	Lt.																		1					37
40D	247+24	Lt.			73					2.06		98													37
41D	247+24	Lt.				7	23																		37
42D	247+10 - 249+00	Rt.					25															254			37
43D	247+33 - 248+83	Lt.																				200			37
44D	252+16 - 252+43	Rt.					44	5														61			37
45D	253+16	Rt.													126					1					37
46D	253+16	Lt.								0.56					110						1				37
47D	253+16	Lt.					3																		37
48D	252+57 - 255+00	Rt.																				324			37
49D	253+30 - 254+80	Lt.																				200			37
50D	245+73	Lt.		37																					37
51D	212+30±	Rt.					26																		
TOTALS			2	37	73	85	674	5	17	7.67	302	206	222	56	426	62	100	1	2	3	2	3363	332	2027	

* Concrete Collar (For Information Only Not Included In Total)

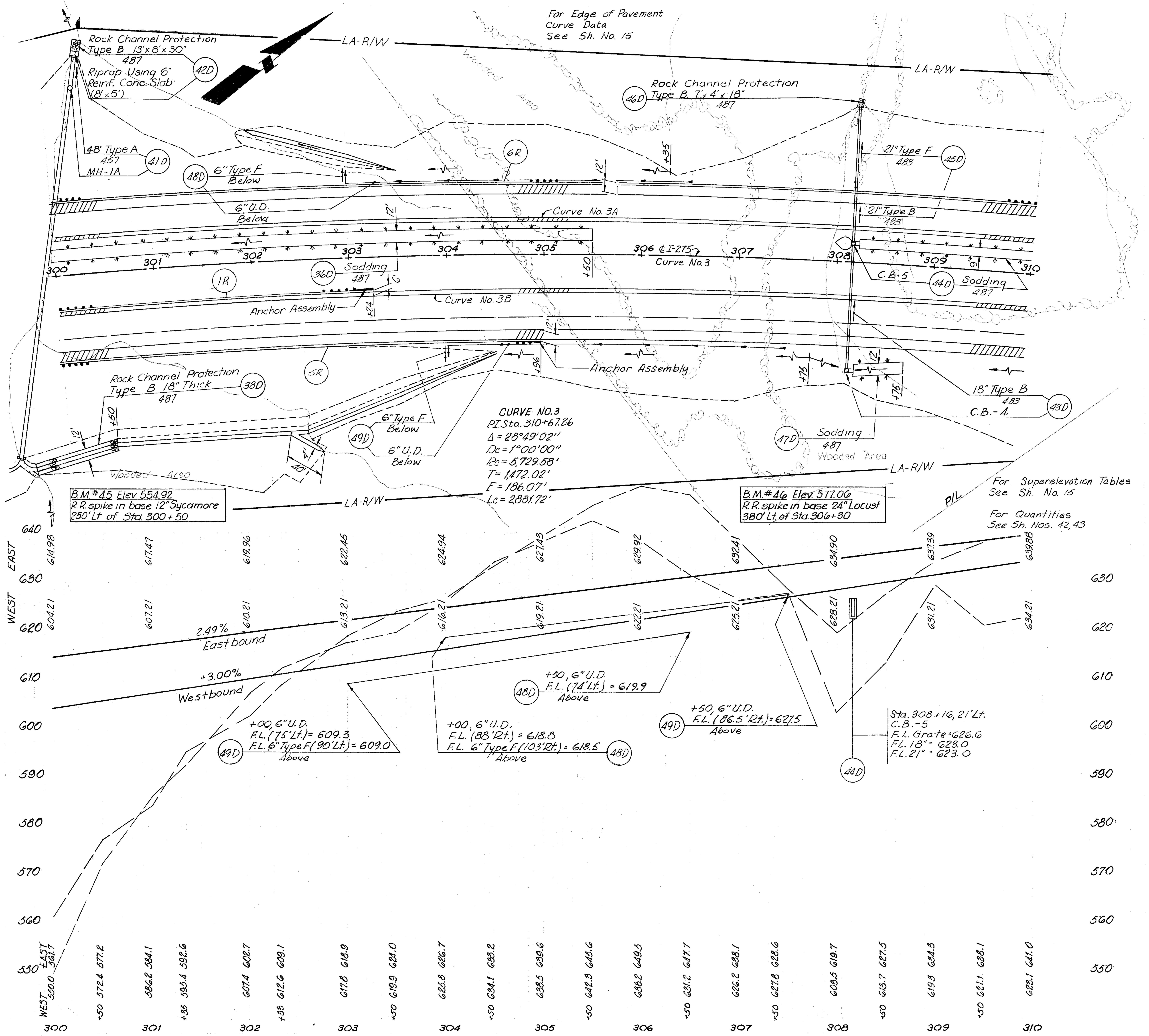
DEVELOPED		CHECKED	
8/71	J.H.	9/71	R.D.

HAM. 275-3.86
HAMILTON COUNTY

Sta. 255+00 to Sta. 270+00


HAM. 275-3.86
HAMILTON COUNTY
LA-R/W
Wooded Area
Brush
P.T. Sta. 271+56.97
Anchor Assembly
P.T. Sta. 272+09.25
Curve No. 2A
Curve No. 2
Curve No. 2B
P.T. Sta 271+04.40
℄ I-275
N 30°06'07"E
Rock Channel Protection
Type B (9'x6'x18")
487
36" Type A
456
MH-1A
36" Type A
C.B.-5A
456
Sodding
487
Earth Dike
Elev. 563.0
Erosion Control at Swales
487
Rock Channel Protection
Type B 18" Thick
487
For Curve Data
See Sh. No. 39
For Superelevation Tables
See Sh. No. 15
B.M. #42 Elev. 505.24
R.R. spike in root of 36" Ash, 200' Lt. of Sta. 275+30
For Quantities
See Sh. Nos. 42, 43
P/L
SEC. 9 T.1, R.1 E.
SEC. 10 T.1, R.1 E.
EAST
WEST
400' V.C.
Eastbound
P.V.C.
1.84%
Eastbound
Westbound
400 V.C.
Westbound
+1.266%
+3.00%
P.V.I. Sta 283+75
Elev. 555.46
Sta. 281+18, 23' Lt.
C.B.-5A
F.L. Grate = 550.1
F.L. 36" = 544.7
DEVELOPED
CHECKED

HAM. 275 - 3.86
HAMILTON COUNTY
B.M #44 Elev. 598.24
R.R. spike in base of
12" Black Walnut,
120' Lt. of Sta. 292+20
CURVE NO. 3A
P.I. 223.29' Lt. Sta. 309+68.92
Δ = 28°49'02"
Dc = 1°00'00"
Rc = 5,729.58'
T = 1,472.02'
E = 186.07'
Lc = 2,881.72'
P.C. = 42' Lt. Sta. 295+81.13
P.T. = 30.09' Lt. Sta. 324+44.53
For Superelevation Tables
See Sh. No. 15
For Quantities
See Sh. Nos. 42, 43
Rock Channel Protection
Type B 18" Thick
487
Sodding
487
Wooded Area
Rock Channel Protection
Type B (8'x5'x18")
487
30" Type C
483
MH-1A
LA-R/W
SEC. 4, T.1, R.1 E.
SEC. 9, T.1, R.1 E.
SEC. 4, T.1, R.1 E.
SEC. 3, T.1, R.1 E.
P/L
Rock Channel Protection
Type B (6'x4'x18")
487
Anchor Assembly
P.C. Sta. 295+95.24
Curve No. 3A
15" Type B
483
C.B. 5
Curve No. 3
Sodding
487
Curve No. 3B
30" Type B
483
C.B.-5A
Sodding
487
℄ I-275
N 30° 06' 07" E
30" Type B
483
C.B.-4A
Begin Taper
Sta. 285+00.00
End Taper
Sta. 286+00
Sodding
487
Earth Dike
Elev. 582.0
SEC. 9, T.1, R.1 E.
SEC. 10, T.1, R.1 E.
Erosion Control at Swales
487
Sodding
487
SEC. 3, T.1, R.1 E.
SEC. 10, T.1, R.1 E.
CURVE No. 3B
P.I. = 148.95' Lt. Sta. 310+60.00
Δ = 28°49'02"
Dc = 1°00'00"
Rc = 5,729.58'
T = 1,472.02'
E = 186.07'
Lc = 2881.72'
P.C. = 41.98' Rt. Sta. 296+09.42
P.T. = 30.00' Rt. Sta. 325+09.56
CURVE No. 3
P.I. = Sta. 310+67.26
Δ = 28°49'02
Dc = 1°00'00"
Rc = 5,729.58'
T = 1,472.02'
E = 186.07'
Lc = 2,881.72'
Anchor Assembly
Rock Channel Protection
Type B 18" Thick
487
Rock Channel Protection
Type B 18" Thick
487
48" Type A
457
Wooded Area
EAST
WEST
Sta. 298+80 22' Lt.
C.B.-5
F.L. Grate = 598.5
F.L. 15" = 596.4
P.V.I. Sta. 286+00
Elev. 580.12
400' V.C.
Eastbound
P.V.T.
Eastbound
Westbound
+1.844%
+2.49%
Sta. 287+22, 23' Lt.
C.B.-5A
F.L. Grate = 563.8
F.L. 30" (In) = 559.5
F.L. 30" (Out) = 558.3
400' V.C.
Westbound
P.V.T.
+3.00%
+90, 48" Type A
F.L. = 554.0
457
285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300
DEVELOPED CHECKED



DEVELOPED		CHECKED	
3/71	M.G.	8/71	J.M.

Sta. 300+00 to Sta. 310+00

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	Bends 21° 25°	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	604 Catch Basins C.B-4	604 Catch Basins C.B-4A	603 Type F 6"	605 6" Deep Pipe Under-drains	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect. Type B	601 Rock Channel Protect. As Per Plan	602 Conc. Masonry
	UNIT			L.F.	L.F.	Each	Each	L.F.	L.F.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.
	DRAINAGE												
1D	255+00 - 259+47	Rt.											
2D	259+50	Rt.									47	5	
3D	260+81	Rt.					1						
4D	260+81	Lt.											0.56
5D	260+81	Lt.								3	6		
6D	260+88 - 262+38	Lt.											
7D	260+88 - 268+50	Rt.											
8D	269+56	Rt.					1						
9D	269+56	Lt.											0.56
10D	269+56	Lt.									4		
11D	269+63 - 271+13	Lt.											
12D	269+63 - 276+00	Rt.											
13D													
14D													
15D	278+13	Rt.									29		
16D	280+00 - 281+32	Rt.											
17D	281+20	Rt.											0.76
18D	281+20	Lt.											
19D	281+20	Lt.											0.76
20D	281+20	Lt.									4		
21D	281+25 - 284+50	Lt.											
22D	281+42 - 285+60	Rt.									52		
23D													
24D													
25D	287+80	Rt.									28	2	
26D	287+30	Rt.					1						
27D	287+30	Lt.											
28D	287+30	Lt.											0.56
29D	287+30	Lt.									3		
30D	287+83 - 288+25	Rt.											
31D	287+29 - 287+50	Lt											
32D	286+69 - 290+25	Lt.									116		
33D	298+50 - 299+44	Rt.									42		
34D	298+80	Lt.											0.25
35D	298+80	Lt.									2		
36D	298+87 - 305+50	Lt.											
37D	299+90	Rt.											1.10
38D	299+64 - 300+50	Rt.									76		
39D													
40D													
41D	299+90	Lt.											1.10
42D	299+90	Lt.								5	12		
43D	308+16	Rt.				1							
44D	308+16 - 310+00	Lt.											
45D	308+16	Lt.	2										0.39 *0.16
46D	308+16	Lt.									2		
47D	308+22 - 308+75	Rt.											
48D	303+00 - 306+50	Lt						10	355				
49D	304+00 - 307+50	Rt.						10	355				
TOTALS			2			1	3	20	710	8	423	7	6.04

REF. NO.	603 Type A See Below For Type *36"	603 Type A 707.05 36"	603 Type A See Below For Type *36"	603 Type A 707.07 (0.109") 48"	603 Type A See Below For Type *48"	603 Type B 15"	603 Type B 18"	603 Type B 21"	603 Type B 30"	603 706.02 Cl. III, 706.08 or 707.13 30"	603 Type C See Below For Type *30"	603 Type F 21"	604 Catch Basins C.B.-5	604 Catch Basins C.B.-5A	604 Manholes MH-1A	660 Sodding	SEE SHEET NO.
UNIT	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Sq. Yd.	
1D																596	39
2D																	39
3D									110								39
4D									96					1			39
5D																	39
6D																200	39
7D																1016	39
8D										120							39
9D									90					1			39
10D																	39
11D																200	39 & 40
12D																848	39 & 40
13D																	
14D																	
15D																	40
16D																176	40
17D	168																40
18D		116												1			40
19D			30												1		40
20D																	40
21D																433	40
22D																467	40 & 41
23D																	
24D																	
25D																	41
26D										146							41
27D										122				1			41
28D											38				1		41
29D																	41
30D																56	41
31D																27	41
32D																300	41
33D																	41
34D						82							1				41
35D																	41
36D																884	41 & 42
37D				382													41
38D																	41 & 42
39D																	
40D																	
41D					32										1		42
42D																	42
43D							130										42
44D													1			177	42
45D								60				88					42
46D																	42
47D																69	42
48D																	
49D																	
TOTALS	168	116	30	382	32	82	130	60	296	388	38	88	2	4	3	5449	

* Concrete Collar (For Information Only Not Included In Total)

*707.05 706.02 Cl. IV,

*706.02 Cl. III; 706.08; 707.05

*706.02 Cl. III 707.05

*706.01 Cl. 3, 706.02, 706.08ES or 707.13

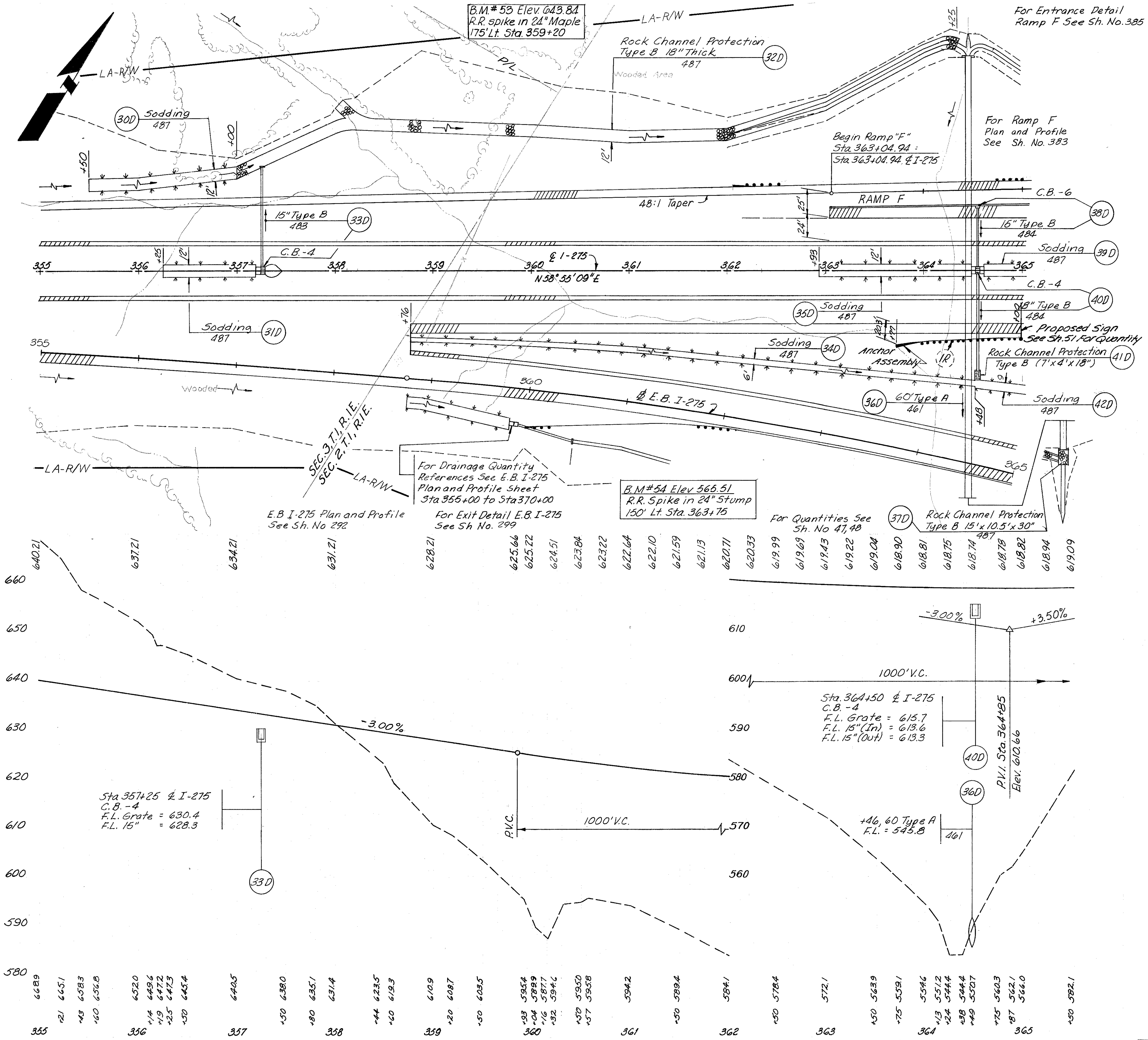

B.M.#48 Elev 638.89
#40 Spike in 18" Stump
230' Lt. of Sta. 321+50
CURVE NO. 3A
P.I. 223+29' Lt. Sta. 309+68.92
Δ = 28° 49' 02"
Dc = 1° 00' 00"
Rc = 5,729.58'
T = 1,472.02'
E = 186.07'
Lc = 2881.72'
P.C. 42.00'Lt Sta. 295+81.13
P.T. 30.09'Lt Sta. 324+44.53
Rock Channel Protection
Type B, 11' x 6' x 30"
487
Riprap Using 6" Reinforced
Concrete Slab (6'x 5')
HAM. 275 - 3.86
HAMILTON COUNTY
Rock Channel Protection
Type B, 18" Thick
487
LA-R/W
Wooded Area
36" Type A
458
MH-1A
Rock Channel Protection
Type B, 18" Thick
487
M.H-1A
36" Type A
459
P.T. Sta. 324+76.96
Curve No. 3A
Curve No. 3
Curve No. 3B
C.B.-4A
Sodding
487
CURVE NO. 3B
P.I. 148.95' Lt. Sta. 310+60.60
Δ = 28° 49' 02"
Dc = 1° 00' 00"
Rc = 5,729.58'
T = 1,472.02'
E = 186.07'
Lc = 2881.72'
P.C. 41.98 Rt. Sta. 296+09.42
P.T. 30.00 Rt. Sta. 325+09.56
CURVE NO. 3
P.I Sta. 310+67.26
Δ = 28° 49' 02"
Dc = 1° 00' 00"
Rc = 5,729.58'
T = 1472.02'
E = 186.07'
Lc = 2,881.72'
B.M.#47 Elev. 594.22
#40 Spike in root 36" Black Oak, 250' Lt. of Sta. 314+00
For Superelevation Tables
See Sh. No. 15
For Quantities
See Sh. Nos. 47, 48
C.G.& E. Transmission Line
P/L
EAST 639.88 642.37 644.86 647.35 649.84 652.33 654.82 657.31 659.80 662.29 664.78 667.27 669.76 672.25 674.74 677.23
WEST 634.21 637.21 640.21 643.21 646.21 649.21 652.21 655.21 658.21 661.21 664.21 667.21 670.21 673.21 676.21 677.71 679.17
1800 V.C.
Westbound
P.V.C.
Sta. 315+60, 14' Lt.
C.B.-4A
F.L. Grate = 648.6
F.L. 36" = 643.1
+2.49%
Eastbound
3.00%
Westbound
Sta 323+92, 7' Rt.
C.B.-4A
F.L. Grate = 672.0
F.L. 36" = 657.2
680 670 660 650 640 630
310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325

DEVELOPED | CHECKED

Sta. 325+00 to Sta. 340+00

HAM. 275-3.86
HAMILTON COUNTY

Sta. 340+00 to Sta. 355+00



			301 Bitum. Aggr. Base Cu.Yd.	301 Bitum. Aggr. Base Cu.Yd.	451 10" Reinf. Conc. Pavt. Sq.Yd.	451 9" Reinf. Portland Cem. Conc. Sq. Yd.	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Each	606 Anchor Assembly Barr. Des. Each	Sheet
PAVEMENT										
	310+00 - 325+00	Lt.&Rt.	916	944	9990					44
	325+00 - 340+00	Lt.&Rt.	917	945	10000					45
	340+00 - 355+00	Lt.&Rt.	902	794	10000					46
	355+00 - 365+00	Lt.&Rt.	538	510	5990					47
Acceleration Taper	351+04.92 - 355+00	Lt.	21	153		181				46
	355+00 - 363+04.92	Lt.	135	112		1486				47
ROADWAY										
1R	310+00 - 329+50	Lt.					1987.5	1		44&45
2R										
3R	326+47 - 329+47	℄					500		2	45
4R	325+45 - 328+20	Rt.					225	2		45
5R	325+50 - 327+25	Rt.						2		45
6R	347+00 - 350+50	Rt.					300	2		46
7R	353+15 - 354+90	Rt.					125	2		46
8R	353+15 - 354+90	Rt.					125	2		46
			3429	3458	35980	1667	3387.5	11	2	
			6887							

DEVELOPED		CHECKED	
4/71	M.G.	9/71	J.M.

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

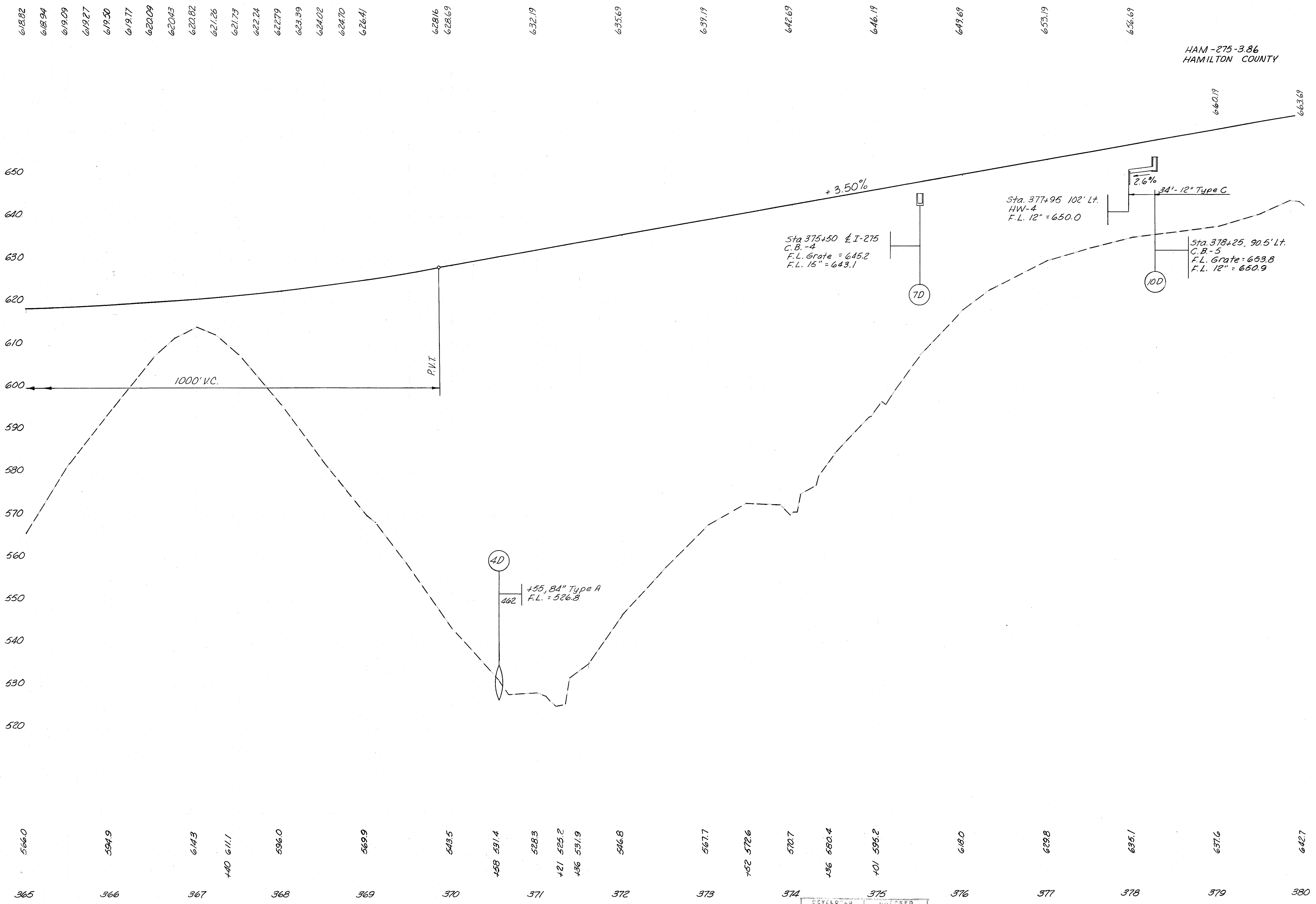
HAM-275-3.86
HAMILTON COUNTY

REF. NO.	STATION to STATION	SIDE	Bends	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	203 Excav. Not Incl. Embank. Const. As Per Plan	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect. Type B	601 Paved Gutter Type 1-4	602 Conc. Masonry	603 Type A See Below For Type *36"	603 Type A 707.05 36"	603 Type A See Below For Type *36"	603 See Below For Type *36"	603 707.07 42"	603 707.03 (0.168"-0.188") 60"	603 Type B 15"	603 Type B 18"	603 Type C See Below For Type *21"	604 Catch Basins C.B.-4	604 Catch Basins C.B.-4A	604 Catch Basins C.B.-6	604 Manhole MH-1A	660 Sodding	SEE SHEET NO.
	UNIT			L.F.	L.F.	Cu. Yd.	Sq. Yd.	Cu. Yd	L.F.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Each	Sq. Yd.	
	DRAINAGE																								
1D	310+00 - 312+50	Lt.																						250	44
2D	315+67	Rt.								0.76	142														44
3D	315+67 - 321+00	Lt.																			1			533	44
4D	315+67	Lt.										162											1		44
5D	315+67	Lt.								0.76			36												44
6D	314+58 - 316+42	Lt.						274																	44
7D	316+32 - 316+50	Rt.																						24	44
8D	323+87	Rt								0.76				148							1				44
9D	323+87	Lt.												146									1		44
10D	323+87	Lt.								0.76			36												44
11D	323+87	Lt.					4	7																	44
12D	322+92 - 325+00	Lt.						123																	44
13D	323+99 - 327+50	Rt																						351	44,45
14D	324+78 - 327+25	Rt.																						329	44,45
15D																									
16D																									
17D	325+15 - 327+54	Lt.							239															80	45
18D																									
19D																									
20D	342+50 - 347+42	Lt.						104																500	46
21D	346+43	℄ & Rt.															112			1					46
22D	346+90	Rt								0.37									62						46
23D	348+46	Lt. & Rt.								1.84					356					1					46
24D	347+57 - 348+38	Lt.						72																	46
25D	347+50 - 349+42	Rt.						173																	46
26D	348+46	Rt.					4	11																	46
27D	349+50 - 350+75	℄																						167	46
28D																									
29D																									
30D	355+50 - 357+00	Lt.																						200	47
31D	356+25 - 357+18	℄																						124	47
32D	357+00 - 364+25	Lt.						444																	47
33D	357+25	℄ Lt.								0.25							106			1					47
34D	358+76 - 364+48	Rt																						404	47
35D	362+93 - 364+43	℄																						207	47
36D	364+46	Lt. & Rt.				17				3.56						596									47
37D	364+46	Rt.						18																	47
38D	364+50	Lt.															66					1			47
39D	364+57 - 365+00	℄																						57	47
40D	364+50	℄ Rt.								0.31								102		1					47
41D	364+50	Rt.						2																	47
42D	364+48 - 365+00	Rt.																						52	47
											* 706.02 706.08 707.05		* 706.02 Cl. III 706.08 707.05	* 706.02 Cl. IV 707.05					* 706.01 Class 3, 706.02, 706.08 ES, 707.13						
TOTALS						17	8	1228	239	9.37	142	162	72	294	356	596	284	102	62	4	2	1	2	3278	

DEVELOPED		CHECKED	
7/71	J.M.	9/71	R.D.

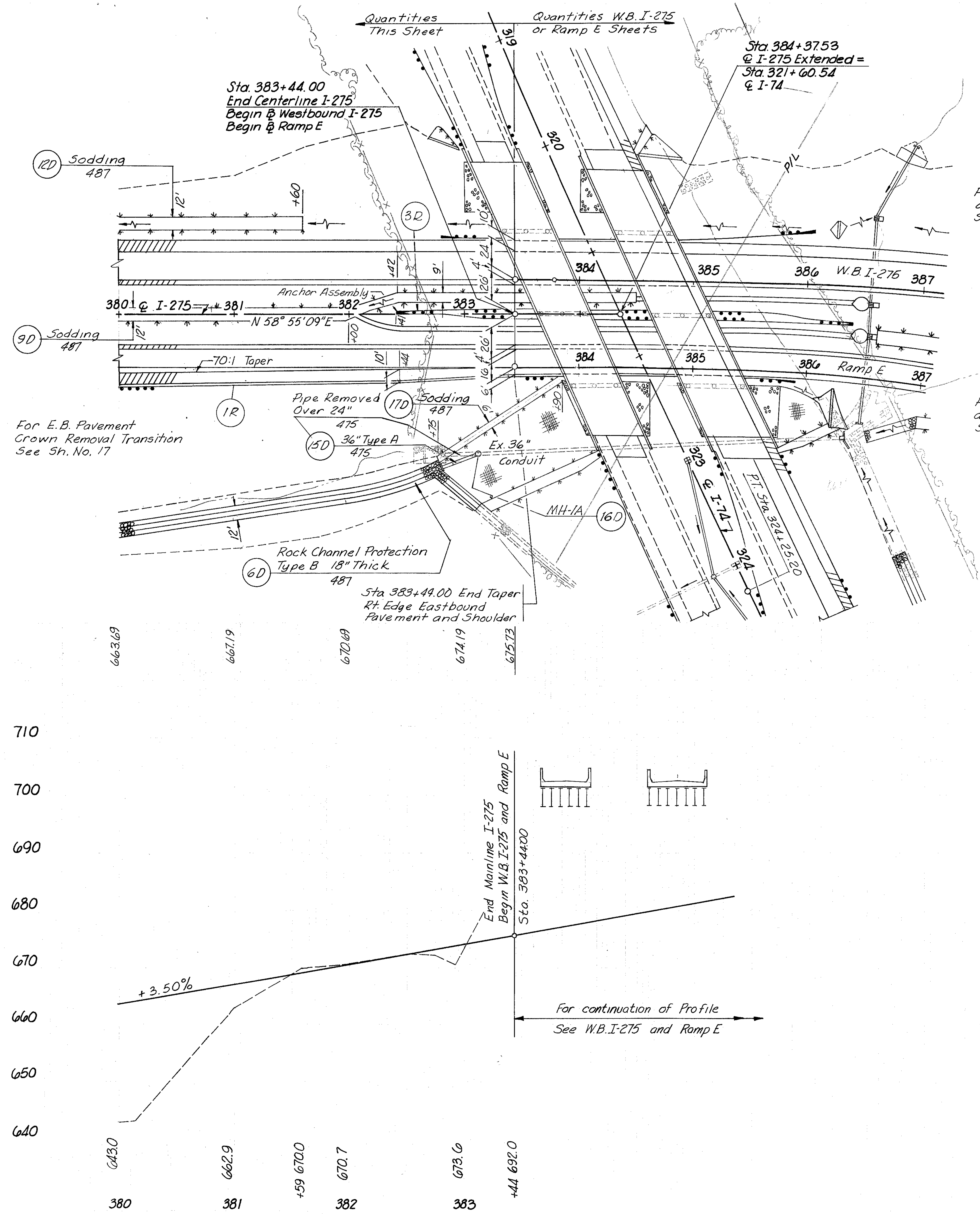
Sta. 365+00 to Sta. 380+00

HAM-275-3.86
HAMILTON COUNTY



DEVELOPED | CHECKED

I-275 PROFILE Sta. 365+00 to Sta. 380+00



For W.B. I-275 Plan and Profile See Sh. No. 334

For Ramp E Plan and Profile See Sh. Nos. 367, 368

For E.B. Pavement Crown Removal Transition See Sh. No. 17

B.M. #57 Elev. 706.22
Top conc. monument
on ℄ I-74, Sta. 324+25.20

For Quantities See Sh. No. 51, 52

	Sheet	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Each	606 Anchor Assembly Barr. Des. Each
ROADWAY 1R 363+77 - 383+39.5 Rt.	49,51	1937.5	1	
2R 370+67 - 378+16 Lt.	49,51	700	2	
3R 382+41 - 383+41 ℄	51	150		1
Total		2787.5	3	1

	Sheet	301 Bitum. Aggr. Base Cu.Yd.	301 Bitum. Aggr. Base Cu.Yd.	451 10" Reinf. Conc. Pavt. Sq.Yd.
PAVEMENT 365+00 - 380+00 Lt.&Rt.	49	664	975	7963
380+00 - 383+44 Lt.&Rt.	50	154	208	1623
Total		818	1183	9,586
		2001		

DEVELOPED		CHECKED	
4/71	M.G.	9/71	J.M.

Sta. 380+00 to Sta. 383+44.00

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-3.86
HAMILTON COUNTY

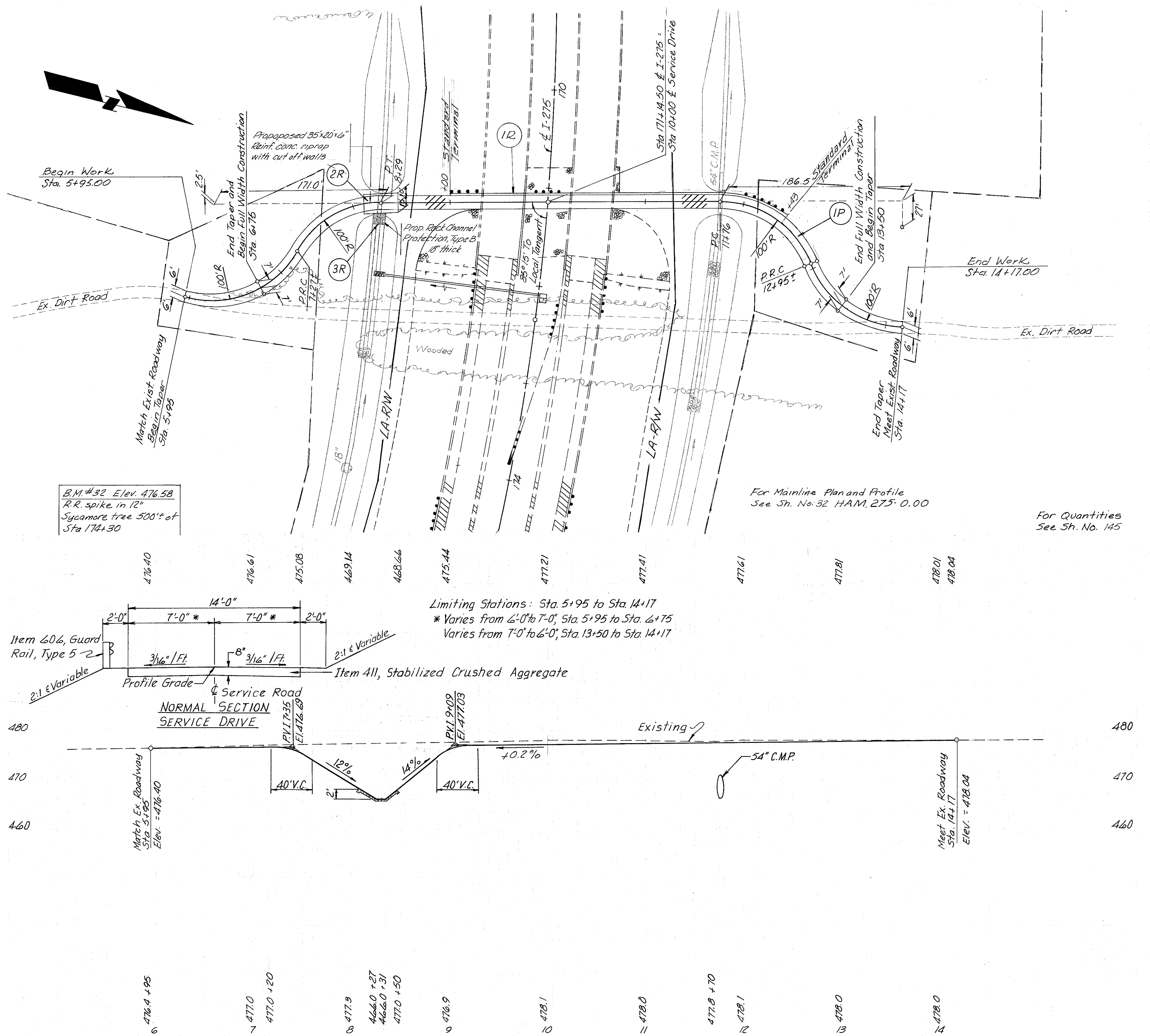
REF. NO.	STATION TO STATION	SIDE	Bends 15" 25°	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect. Type A	601 Rock Channel Protect. Type B	602 Conc. Masonry	603 Type A 707.05 36"	603 Type A See Below For Type *84"	603 Type B 15"	603 Type C 12"	603 Type F 15"	604 Catch Basins C.B.-4	604 Catch Basins C.B.-5	604 Manhole MH-1A	660 Sodding	SEE SHEET NO.
	UNITS			L.F.	L.F.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Sq. Yd.	
	DRAINAGE																		
1D	365+00 - 371+50	℄																867	49
2D	365+00 - 365+83	Rt.																83	49
3D	367+38 - 367+88	Lt.																33	49
4D	370+55	Lt. & Rt.							6.60		1032								49
5D	370+55	Rt				9	44												49
6D	374+14 - 382+75	Rt.						765											49 & 51
7D	375+50	℄ Lt.	2						*0.11			68			1				49
8D	375+50	Lt.							0.27					125					49
9D	375+57-382+00	℄																857	49 & 51
10D	377+95-378+25	Lt.							0.20				34			1			49
11D	378+25	Lt.						2											49
12D	378+32 - 381+60	Lt																437	49 & 51
13D																			
14D																			
15D	382+75-383+13	Rt.			40				0.76	34									51
16D	383+13	Rt.															1		51
17D	382+75 - 383+90	Rt.																77	51
TOTALS			2		40	9	44	767	7.83	34	1032	68	34	125	1	1	1	2354	

* Concrete Collar (For Information Only Not Included In Total)

* 707.03 (0.280") Elong. and with 6 Bolts Per Foot.

DEVELOPED		CHECKED	
7/71	J.M	9/71	R.D

HAM-275-3.86
HAMILTON COUNTY



For Quantities See Sh. No. 145

Item	485	485
606 Guard Rail Type 5 L.F.	485	485
601 Rock Chan. Prot. Type B 18" Sq. Yd.	16	16
601 Riprap Using 6" Reinf. Conc. Slab Sq. Yd.	78	78
203 Excav. not incl. Emb. Constr. As per Plan Cu. Yd.	1715 *	
411 Stab. Crush. Aggr. T=8" Cu. Yd.	286	286

* Carried forward from Sheet 52 B.

PAVEMENT
1P 5+95 - 14+17

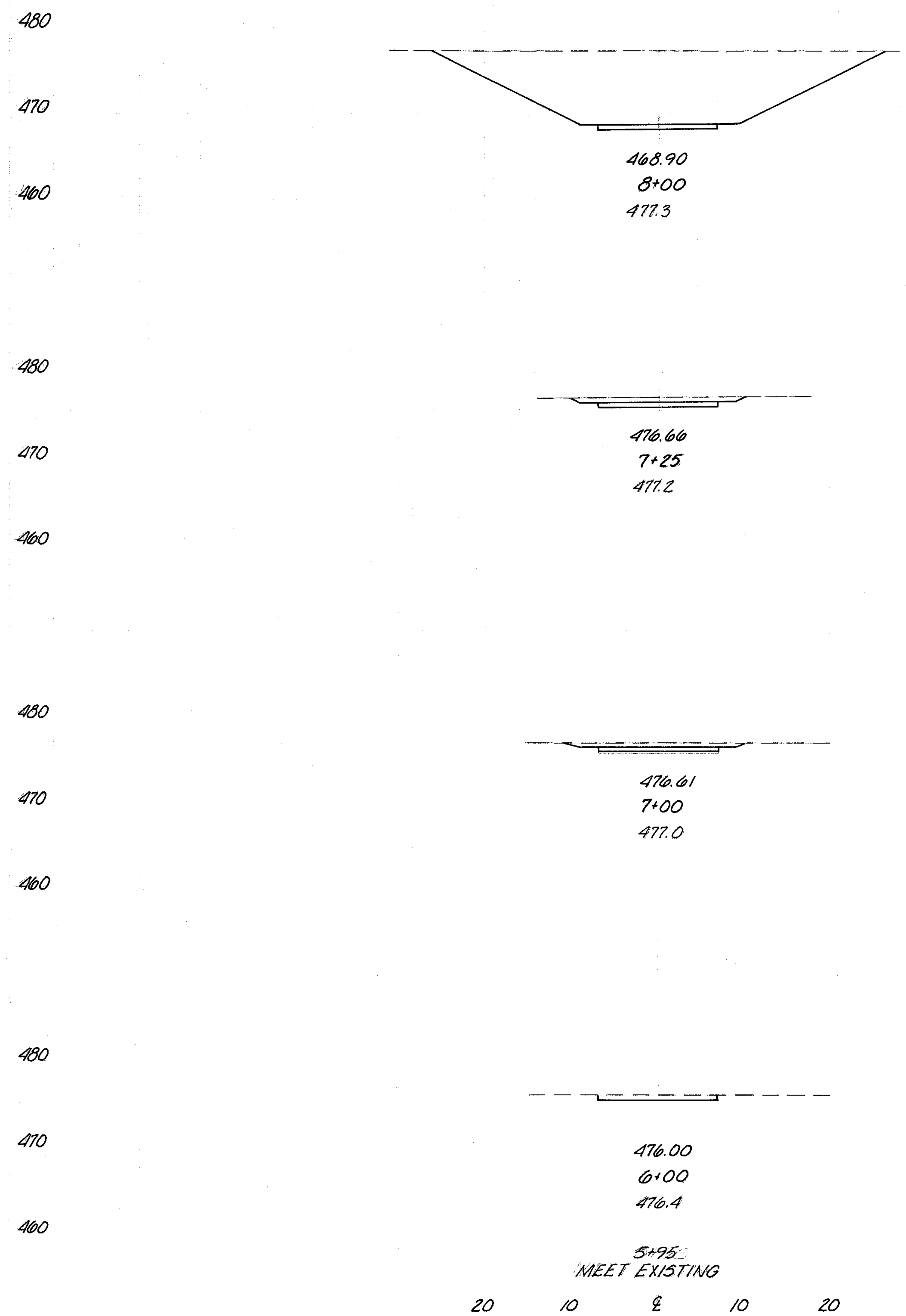
ROADWAY
1R 7+58 - 12+43
2R 8+29
3R 8+29

EXCAVATION
5+95 - 14+17

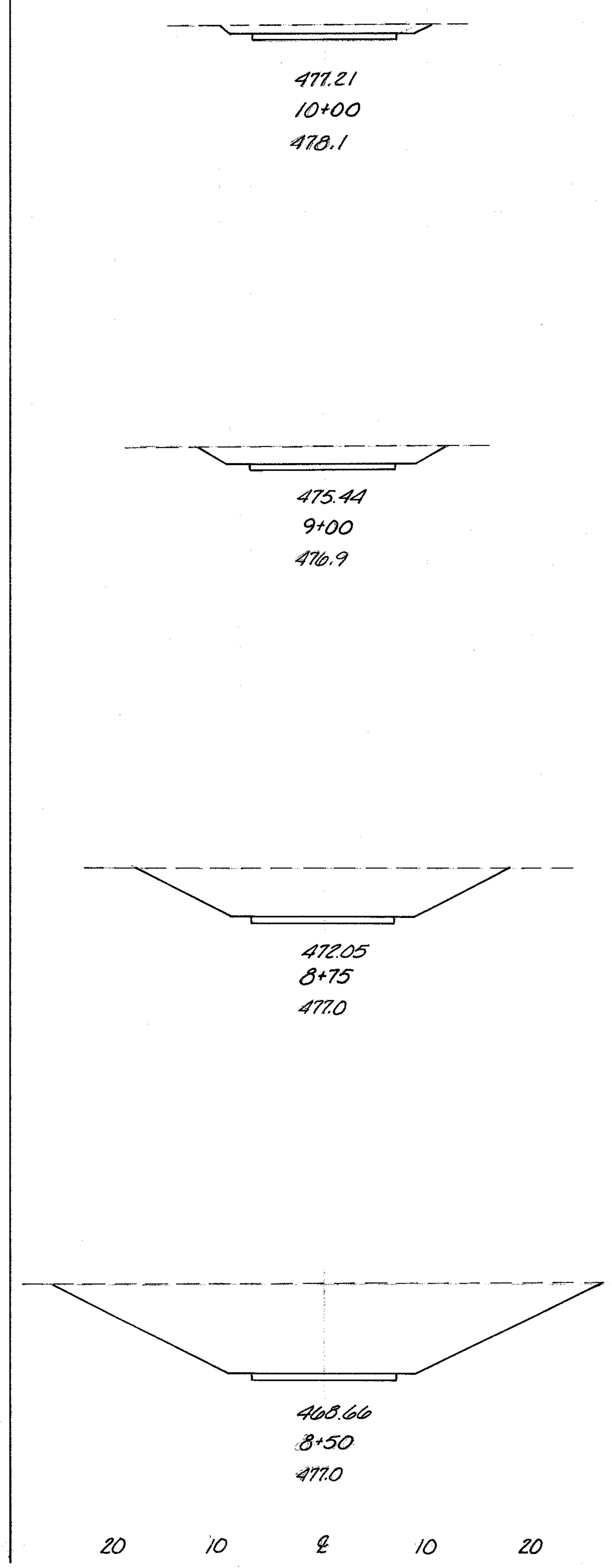
DEVELOPED		CHECKED	
10/71	J.M.	12/71	M.S.

SERVICE DRIVE Sta. 5+95 to Sta 14+17

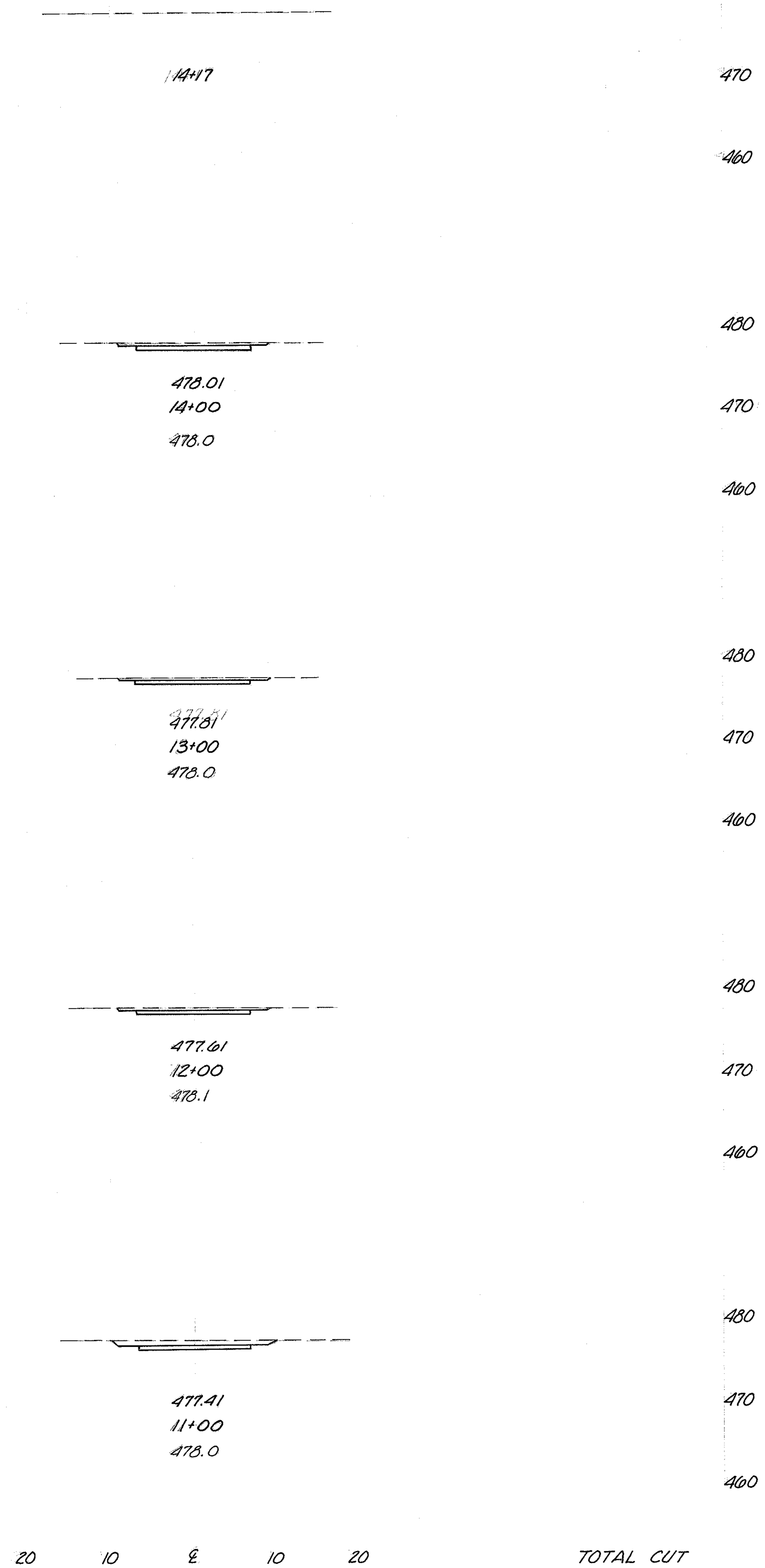
HAM.-275-3.86
HAMILTON COUNTY



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
304	0		
		447	0
18	0		
		18	0
20	0		
		54	0
9	0		
		1	0
0	0		



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28	0		
		113	0
33	0		
		75	0
128			
		210	0
326	0		
		583	0



0	0
3	0
10	0
37	0
10	0
37	0
10	0
52	0
18	0
85	0

TOTAL CUT 1715

X-SECTIONS-SERVICE DRIVE 5+95 to 14+17

HAM-275-3.86
HAMILTON COUNTY

24

92 0

Note:
Permanent seeding of proposed ditches from Sta. 168+15 to Sta. 204+50 ± will be performed immediately after the excavation of ditches is completed.

AH
22
BK
6
50
6 Sta 168+15

BEGIN WORK
Sta 168+15

Begin Rt. Ditch
Sta. 168+90

AH.
25 0
BK.
2 0

10 0

Begin Rt. Ditch
Sta. 168+15

2 0

220 200 180 160 140 120 100 ℄ 100 120 140 160 180 200 220

DEVELOPED	CHECKED
6/66 P.T.	8/69 [illegible]

Sta. 168+15 to Sta. 171+61


54
630
HAM-275-3.86
HAMILTON COUNTY
220 200 180 160 140 120 100 ℄ 100 120 140 160 180
Future Construction
480
470
2:1
471.4
469.2
507.60
176+00
478.8
91
396 0
989
471.1
468.9
507.60
175+00
478.5
86
1435 0
379 0
944
470.8
468.6
507.60
174+00
478.6
85
1415 0
385 0
967
470.5
468.3
507.60
173+00
478.8
AH
89
BK
65
1439 0
392 0
744
468.0
466.9
507.60
172+00
476.7
69
1526 0
432 0
670 0
368
220 200 180 160 140 120 100 ℄ 100 120 140 160 180 200 220
DEVELOPED
6/66 P.T.
CHECKED
8/69 AW
Sta. 172+00 to Sta. 176+00


55
630
HAM - 275 - 3.86
HAMILTON COUNTY
Future Construction
2:1
472.9
470.7
507.60
181+00
480.2
472.6
470.4
507.60
180+00
480.0
472.3
470.1
507.6
179+00
479.5
472.0
469.8
507.60
178+00
479.3
471.7
469.5
507.60
177+00
479.2
316 0
1152 0
306 0
1181 0
332 0
1318 0
380 0
1370 0
360 0
1400 0
80
877
78
888
82
933
87
956
85
978
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 177+00 to Sta. 181+00

HAM-275-3.86
HAMILTON COUNTY

Sta. 182+00 to Sta. 186+00

DEVELOPED	CHECKED
6/66 P.T.	8/69 A.W.

57
630

HAM-275-3.86
HAMILTON COUNTY

6/66 P.T. 8/69 A.W.

Sta. 187+00 to Sta. 191+00

58
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
6/66 P.T.	8/69 A.W.

Sta. 192+00 to Sta. 194+76

HAM 275 - 3.86
HAMILTON COUNTY

DEVELOPED 6/66 P.T. CHECKED 8/69 A.W.

Sta. 201+47 to Sta. 202+00

60
630

HAM 275 -3.86
HAMILTON COUNTY

G&G P.T. | 8/69 | A.W.

Sta. 203+00 to Sta. 204+00

61
630

HAM-275-3.86
HAMILTON COUNTY

Sta. 204+40 to Sta. 205+00

62
630
HAM-275-3.86
HAMILTON COUNTY
See Ramp A
See Ramp B
Back
Ahead
8:1
Var.
AH
63
BK
61
AH.
O 4148
BK.
O 3726
521.02
208+00
491.4
800
88
O 15397
520.41
207+00
491.4
O 4630
1178
129
O 19074
519.80
206+00
491.0
O 5722
856
O 11591
519.50
205+50
490.0
179
O 6796
O 14968
1133
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 205+50 to Sta. 208+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 6/66 P.T. CHECKED 8/69 A.W.

Sta. 209+00 to Sta. 210+00

64
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 6/66 P.T. CHECKED 8/69 A.W.

Sta. 210+75 to Sta. 211+47

HAM-275-3.86
HAMILTON COUNTY

Sta. 212+56 to Sta. 213+50


66
630
HAM-275-3.86
HAMILTON COUNTY
Ahead
Back See Ramp B
Var.
Var.
522.8
2:1
524.29
214+35
492.1
522.9
524.24
214+00
492.2
523.0
24:1
524.19
213+75
492.2
See Ramp B
486.5
48:1
Sta. 213+75 to Sta. 214+35
6/66 P.T. 8/69 A.W.

HAM-275-3.86
HAMILTON COUNTY
67
630
524.00
216+50
491.9
521.5
Var.
8:1
524.16
216+00
491.8
8:1
6:1
522.6
524.26
215+50
492.0
8:1
6:1
522.7
524.31
215+00
492.0
2:1
48:1
487.1
487.0
486.8
486.7
235
236
236
238
1311
1311
1317
1726
65 6918
137 12949
77 7067
181 13068
111 7046
208 13135
105 7140
260 17272
DEVELOPED
CHECKED
6166 P.T.
8169 A.W.
Sta. 215+00 to Sta. 216+50


68
630
HAM-275-3.86
HAMILTON COUNTY
522.81
218+50
492.0
523.19
218+00
491.9
523.51
217+50
491.9
523.78
217+00
491.8
487.6
487.5
487.3
487.2
2:1
48:1
228
230
233
234
1272
1283
1300
1306
49 6328
96 11963
51 6602
99 12291
52 6673
97 12182
49 6584
110 12052
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 217+00 to Sta. 218+50

HAM-275-3.86
HAMILTON COUNTY
69
630
521.34
220+13
493.5
521.46
220+00
492.6
521.92
219+50
492.0
522.38
219+00
491.8
48:1
2:1
488.9
487.9
487.8
487.7
203
298
AH 208
BK 230
1256
223
1244
226
1261
39 5596
26 2725
65 5722
103 10872
43 6020
90 11256
51 6137
96 11541
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 219+00 to Sta. 220+13


HAM-275-3.86
HAMILTON COUNTY
70
630
519.62
222+00
498.4
520.06
221+52
498.8
520.15
221+42
496.9
520.54
221+00
494.4
521.00
220+50
493.5
495.8
495.6
495.6
495.5
491.7
2:1
48:1
189
1019
194
216
196
910
AH
195
BK
183
1055
197
822
44 3799
126 6975
93 4048
28 1562
54 4388
77 7029
42 4649
99 9146
62 5229
71 7417
DEVELOPED
CHECKED
6166 P.T.
8169 A.W.
Sta. 220+50 to Sta. 222+00

71
630
HAM-275-386
HAMILTON COUNTY
518.01
223+75
503.0
23 2584
518.24
223+50
500.7
19 2656
17 3152
518.47
223+25
498.7
16 3086
16 3515
518.70
223+00
498.3
20 3316
26 3648
519.16
222+50
498.5
50 6808
27 3705
68 6948
1033
DEVELOPED 6/66 P.T.
CHECKED 8/69 P.W.
Sta. 222+50 to Sta. 223+75


HAM-275-3.86
HAMILTON COUNTY
72
630
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
520
510
500
170
3:1
8:1
8:1
3:1
3:1
498.3
198 1763
515.48
226+50
504.5
956
174
384 3437
498.2
205 1949
515.94
226+00
504.1
1011
191
378 3800
498.0
191 2155
516.40
225+50
504.5
1061
192
8:1
3:1
3:1
338 4074
479.9
163 2246
516.86
225+00
504.3
1011
172
2.5:1
2.5:1
255 4234
497.8
104 2327
517.32
224+50
504.4
933
AH
164
BK
176
8:1
3:1
2:1
48:1
2:1
2:1
497.7
144 4249
47 2262
517.78
224+00
504.2
33 2244
503
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140
DEVELOPED 6166 P.T.
CHECKED 8169 R.W.
Sta. 224+00 to Sta. 226+50

73
630
HAM-275-3.86
HAMILTON COUNTY
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
157
520
510
500
3:1
8:1
8:1
3:1
120
140
499.5
6:1
512.72
229+50
502.8
36 1740
878
158
66 2380
498.9
513.18
229+00
502.5
35 1831
889
162
80 3265
498.8
6:1
513.64
228+50
503.4
922
52 1695
171
142 3066
498.7
Var.
514.10
228+00
504.6
102 1616
944
169
153 2878
3:1
498.6
514.56
227+50
504.9
63 1492
922
164
230 2926
8:1
3:1
8:1
3:1
3:1
498.4
515.02
227+00
505.0
185 1668
927
355 2992
DEVELOPED 2-66 P.T.
CHECKED 3-1-69 A.W.
Sta. 227+00 to Sta. 229+50

74
630

HAM-275-3.86
HAMILTON COUNTY

Sta. 230+00 to Sta. 232+50

DEVELOPED 6/66 P.T. CHECKED 8/69 A.W.

HAM-275-3.86
HAMILTON COUNTY
75
630
507.99
235+00
505.1
503.6
506.1
8:1
6:1
30 215
694
508.27
234+50
504.9
503.8
505.9
57 541
32 370
711
508.62
234+00
505.2
3:1
8:1
504.9
6:1
61 692
34 378
161
508.70
233+89
506.1
504.9
10 150
16 360
238
508.84
233+73
505.8
504.8
6 231
25 420
509.04
233+50
504.9
504.7
Var.
17 399
36 514
750
509.50
233+00
503.8
504.5
3:1
67 1130
36 707
744
46 1384
DEVELOPED
6/66 P.T.
8/64 R.W.
Sta. 233+00 to Sta. 235+00

76
630
HAM-275-3.86
HAMILTON COUNTY
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
176
8:1
6:1
6.25:1
8:1
3:1
140
502.6
504.3
505.5
507.68
237+50
509.7
1146 0
883
143
Var.
Var.
502.8
504.4
506.9
507.60
237+00
509.0
1754 0
748 0
767
133
3:1
503.0
504.6
506.7
507.59
236+50
507.9
1168 0
513 0
744
134
Var.
Var.
4:1
503.2
504.7
506.5
779 4
507.65
236+00
506.9
328 4
756
138
7.5:1
8:1
8:1
8:1
6:1
503.4
506.3
507.78
235+50
506.0
395 56
99 57
111 252
728
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140
6/66 P.T.
8/69 A.W.
Sta. 235+50 to Sta. 237+50

HAM-275-3.86
HAMILTON COUNTY

Sta. 238+00 to Sta. 241+00


78
630
HAM-275-3.86
HAMILTON COUNTY
Red
401
178 - 160
509.48
245+00
511.4
8:1
2:1
507.8
A
530
520
510
120
130
140
Ex. 12" C.M.P.
509.24
244+00
511.3
508.5
509.00
243+00
512.9
508.76
242+00
513.4
DEVELOPED
CHECKED
6/66 P.T.
8/69 P.W.
Sta. 242+00 to Sta. 245+00

79
630
HAM-275-3.86
HAMILTON COUNTY
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140
530
520
510
500
490
AH
133
BK
150
8:1
Ex. 12" C.M.P.
8:1
4'
8:1
8:1
2:1
507.5
509.72
246+00
510.1
626 30
118 12
83
150
507.5
509.71
245+95
510.6
653 104
667 78
465
171
8:1
8:1
2:1
507.6
509.65
245+69
509.0
753 58
2312 75
1318
DEVELOPED
6/66 P.T.
CHECKED
8/69 F.A.W.
Sta. 245+69 to Sta. 246+00

HAM-275-3.86
HAMILTON COUNTY

P.T. 8/69 R.W.

Sta. 246+70 to Sta. 247+18

81
630

HAM-275-3.86
HAMILTON COUNTY

Sta. 247+33 to Sta. 248+65

HAM-275-3.81
HAMILTON COUNTY
82
630
30'
540
120
140
32.5
28.5
2:1
8:1
3:1
514.00
515.1
251+00
518.8
515.72
520.3
182
500 1621 121
1900
5750 309
512.73
516.4
250+00
518.8
513.88
520.4
160
500 1484 46
1856
6050 239
48:1
510.2
511.60
518.5
249+00
520.2
512.24
521.3
AH
175
BK
163
500 1783 83
2447 88
602
6/66 P.T. 8/69 A.W.
Sta. 249+00 to Sta. 251+00

Sta. 251+77 to Sta. 252+50

HAM-275-3.86
HAMILTON COUNTY

Sta. 253+00 to Sta. 253+31

DEVELOPED		CHECKED	
6/66	P.T.	8/69	R.W.

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 6/66 P.T. CHECKED 8/69 R.W.

Sta. 254+00 to Sta. 255+00

HAM-275-3.86
HAMILTON COUNTY

Sta. 256+00 to Sta. 256+79

HAM-275-3.86
HAMILTON COUNTY

Sta. 257+00 to Sta. 257+63

HAM-275-3.86
HAMILTON COUNTY

Sta. 258+00 to Sta. 258+28

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
6/66 P.T.	8/69 R.W.

Sta. 259+00 to Sta. 259+50

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	R.W.

Sta. 260+00 to Sta. 260+50

HAM-275-3.86
HAMILTON COUNTY

GKG P.T. 8/69 A.W.

Sta. 260+81 to Sta. 261+00


92
630
HAM-275-3.86
HAMILTON COUNTY
3:1
8:1
8:1
2:1
533.2
528.15
539.0
262+18
545.2
536.29
552.0
197
4348 1
2832 2
412
3:1
8:1
8:1
2:1
532.9
527.92
536.4
262+00
543.9
535.96
550.5
215
4242
2:1
15605 7
2478
6/66 PT 8/69 A.W.
Sta. 262+00 to Sta. 262+18

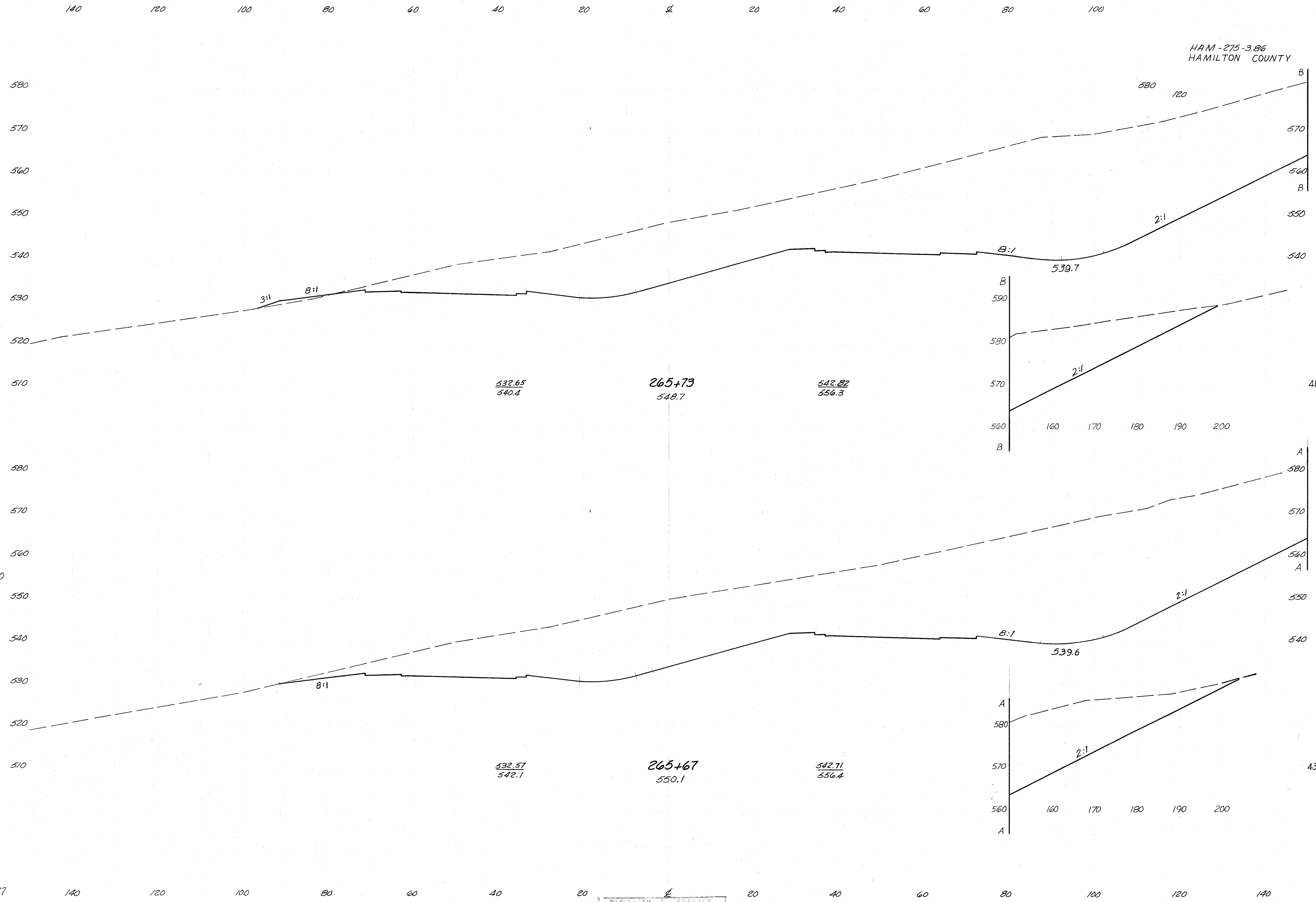
HAM-275-3.86
HAMILTON COUNTY

Sta. 263+00 to Sta. 264+00


94
630
HAM-275-3.86
HAMILTON COUNTY
265+00
549.8
531.72
542.8
541.48
557.0
8:1
48:1
2:1
538.4
230
4476
264+71
550.2
531.35
544.2
540.95
557.7
537.9
222
728
4683
4869
12284
1759
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 264+71 to Sta. 265+00

95
630

HAM-275-3.86
HAMILTON COUNTY



216
4141 9
150
923 1
235
4308 0
10776 0
1727

6/66 P.T. 8/69 AW

Sta. 265+67 to Sta. 265+73

HAM-275-3.86
HAMILTON COUNTY

Sta. 266+00 to Sta. 266+50

HAM-275-3.86
HAMILTON COUNTY

Sta. 267+00 to Sta. 267+50

6/66 P.T. 8/69 A.W.

98
630

HAM-275-3.86
HAMILTON COUNTY

6/66 P.T. 8/69 A.W.

Sta. 268+00 to Sta. 269+00

99
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 270+00 to Sta. 270+50

HAM-275-3.86
HAMILTON COUNTY

Sta. 271+00 to Sta. 271+85

101
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 272+00 to Sta. 273+00

102
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 273+50 to Sta. 274+00

103
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 274+44 to Sta. 275+00

104
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T	8/69	A.W.

Sta. 275+25 to Sta. 275+49

105
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/64	P.T.	8/64	A.W.

Sta. 275+61 to Sta. 275+81

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T	8/69	A.W

Sta. 276+00

107
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 276+50 to Sta. 276+61

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 277+00 to Sta. 277+70

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 278+00 to Sta. 278+14

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T	8/69	A.W.

Sta. 278+37 to Sta. 279+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 280+00 to Sta. 280+78

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 281+00 to Sta. 281+21

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 281+50 to Sta. 282+00

114
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 283+00 to Sta. 284+00

115
630

HAM-275-3.86
HAMILTON COUNTY

Sta. 284+50 to Sta. 285+00

HAM-275-3.86
HAMILTON COUNTY

Sta. 286+00 to Sta. 286+41

6166 P.T. 8169 A.W.

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 286+85 to Sta. 287+00

HAM-275-3.86
HAMILTON COUNTY

6/66 P.T. 8/69 AW Sta. 287+45 to Sta. 288+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/68	P.T.	8/69	A.W.

Sta. 289+00 to Sta. 290+00

HAM-275-3.86
HAMILTON COUNTY
120
630
Estimated Rock Surface
3:1
8:1
8:1
1:1
2:1
A
A
A
A
577.21
608.7
291+00
626.0
592.57
636.4
84
933
10899 0
38025 0
DEVELOPED
CHECKED
G/GG
P.T.
8/69
A.W.
Sta. 291+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 291+50 to Sta. 291+60

Sta. 292+00 to Sta. 292+50

Sta. 293+00 to Sta. 293+44


HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
8:1
1:1
587.53
629.6
294+44
635.1
601.14
640.4
11418 0
Estimated Rock Surface
586.21
626.4
294+00
633.8
600.04
641.3
11439 0
18624 0
23469 0
357
448
73
124
630
DEVELOPED
6/66 P.T.
CHECKED
8/69 A.W.
Sta. 294+00 to Sta. 294+44

HAM-275-3.86
HAMILTON COUNTY

Sta. 295+00 to Sta. 296+00

Sta. 296+50 to Sta. 297+00

DEVELOPED 6-66 P.T. 8/69 A.W.

127
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED			
6/66	P.T.	8/69	A.W.

Sta. 297+50 to Sta. 298+50


128
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
48:1
24:1
2:1
299+50
570.7
602.71
572.1
613.74
566.3
566.6
95 9660
12:1
348 13714
1433
228
Estimated Rock Surface
299+00
581.3
601.21
584.9
612.49
579.7
292 5250
573.0
10:1
110 3434
478
298+80
586.3
600.61
590.3
611.99
580.7
580.2
113 4070
202
288
603
Estimated Rock Surface
101 3639
DEVELOPED
CHECKED
G/66 P.T. 8/69 A.W.
Sta. 298+80 to Sta. 299+50

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 299+64 to Sta. 300+00

130
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 300+50 to Sta. 301+00

131
630
HAM-275-3.86
HAMILTON COUNTY
2:1
48:1
582.6
593.8
24:1
611.20
612.7
302+33
613.6
620.78
598.9
261
765 3467
581.8
4:1 ±
994
1217 4280
588.2 Exist
281
610.21
607.4
302+00
607.3
619.96
602.5
1226 3594
1933
580.1
2626 10,648
256
608.26
595.5
301+35
596.3
618.34
592.7
956 5312
1015
955 7680
DEVELOPED | CHECKED
6/66 | P.T. | 8/69 | A.W.
Sta. 301+35 to Sta. 302+33

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 303+00 to Sta. 304+00

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 304+50 to Sta. 305+50

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 306+00 to Sta. 307+50

HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
8:1
A
A
633.7
631.21
619.0
309+00
626.2
637.39
634.2
Estimated Rock Surface
2:1
5.4:1
631.9
629.71
613.7
308+50
621.2
636.15
627.4
Estimated Rock Surface
2:1
5.4:1
8:1
2:1
630.9
628.21
603.6
308+00
614.8
634.90
619.8
DEVELOPED
6/66 P.T.
CHECKED
8/69 A.W.
Sta. 308+00 to Sta. 309+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 309+50 to Sta. 310+00

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 311+00 to Sta. 312+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 312+18 to Sta. 312+38

139
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 313+00 to Sta. 314+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 315+00 to Sta. 315+73

HAM-275-3.86
HAMILTON COUNTY

187
610 217 4483

80 2197

247

183
600 144 5403

324 2896

275

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 315+88 to Sta. 316+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 317+00 to Sta. 318+00


143
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
661.21
664.0
319+00
674.2
662.29
687.3
8:1
2:1
1:1
6561 864
Estimated Rock Surface
659.71
661.9
318+50
670.0
661.05
678.0
11,114 1602
5442 866
9341 1864
91
578
118
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 318+50 to Sta. 319+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 320+00 to Sta. 321+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 321+48 to Sta. 321+56

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 322+00 to Sta. 322+50

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 323+00 to Sta. 323+79

148
630

HAM-275-3.86
HAMILTON COUNTY

6/66	P.T.	8/69	A.W.

Sta. 324+00 to Sta. 324+50

Sta. 325+00 to Sta. 327+00

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.


HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
328+00
719.9
686.17
722.8
684.45
718.6
682.5
327+81
717.9
685.81
720.8
684.05
714.4
682.1
327+77
717.1
685.74
719.7
683.97
714.1
682.0
Estimated Rock Surface
Estimated Rock Surface
708.0
Station 327+54
Sta. 327+54
AH
6213 0
BK
6169 0
9292 0
6209 0
8355 0
1216 0
8062 0
6080 0
10444 0
Sta. 327+77 to Sta. 328+00
DEVELOPED P.T. 8/69 CHECKED A.W.

151
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
1:1
8:1
Var.
4:1
4:1
683.0
1.71:1
686.67
724.0
328+28
729.4
685.02
728.1
10730 0
86
1.92:1
7586 0
200
Estimated Rock Surface
682.6
1.92:1
686.31
723.1
328+08
720.2
684.61
722.3
94
9751 0
101
2821 0
DEVELOPED
6/66 P.T.
CHECKED
8/69 A.W.
Sta. 328+08 to Sta. 328+28

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 328+69 to Sta. 329+00

HAM -275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6 6 6	P.T.	8 7 6 9	A.W.

Sta. 330+00 to Sta. 331+00

154
630

HAM-275-3.86
HAMILTON COUNTY

6/66 P.T. 8/69 A.W.

Sta. 331+82 to Sta. 332+00


155
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
108
691.17
723.0
334+00
724.7
690.58
727.3
9374 0
36899 0
Estimated Rock Surface
86
691.17
727.4
333+00
732.3
690.43
736.5
10550 0
39979 0
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 333+00 to Sta. 334+00

HAM-275-3.86
HAMILTON COUNTY

Sta. 334+31 to Sta. 335+00

157
630

HAM -275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
6/66 P.T.	8/69 A.W.

Sta. 335+10


158
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
1:1
8:1
75
690.37
741.4
335+75
739.9
689.99
737.8
12283 0
Estimated Rock Surface
2:1
1:1
8:1
12358 0
240
80
690.56
738.4
335+47
736.7
690.16
734.7
11551 0
329
15647 0
G66 P.T. 8/69 A.W.
Sta. 335+47 to Sta. 335+75

159
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
1:1
8:1
61
689.71
749.0
336+50
747.5
689.42
744.9
14241 O
Estimated Rock Surface
378
75
690.17
743.7
336+00
742.2
689.82
739.9
25070 O
12836 O
11630 O
208
DEVELOPED
CHECKED
6/66 P.T.
8/69 A.W.
Sta. 336+00 to Sta. 336+50

160
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 337+00 to Sta. 337+35

Sta. 337+85 to Sta. 338+00

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A W

Sta. 338+50 to Sta. 338+68

HAM-275-3.86
HAMILTON COUNTY

Sta. 339+00 to Sta. 339+18

Sta. 339+50 to Sta. 340+00


165
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
1:1
8:1
64
683.23
749.3
340+42
748.0
683.19
744.6
16030 O
Estimated Rock Surface
54
4784 O
58
683.41
750.1
340+34
749.3
683.37
744.6
16262 O
234
20986 O
DEVELOPED
CHECKED
6/66 P.T.
8/69 A.W.
Sta. 340+34 to Sta. 340+42

166
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
1:1
8:1
681.30
745.9
341+21
743.4
681.29
740.2
60
14670 0
Estimated Rock Surface
144
11559 0
681.83
746.9
341+00
745.7
681.82
742.1
57
15053 0
386
33385 0

167
630
HAM - 275 - 3.86
HAMILTON COUNTY
Estimated Rock Surface
2:1
1:1
8:1
680.46
341+53
742.6
60
14357 0
Estimated Rock Surface
4833 0
124
59
680.97
745.5
341+34
743.9
680.95
739.8
14643 0
87
7057 0
6/66 P.T. 8/69 AW
Sta. 341+34 to Sta. 341+53

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 6/66 P.T. CHECKED 8/69 A.W.

Sta. 341+61 to Sta. 342+00

169
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
G.G.G.	P.T.	8/69	A.W.

Sta. 342+50 to Sta. 343+00

170
630

HAM-275-3.86
HAMILTON COUNTY

16015 0

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 343+27 to Sta. 343+53

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 344+00 to Sta. 344+32

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 344+50 to Sta. 345+00

178
630
HAM-275-3.86
HAMILTON COUNTY
Estimated Rock Surface
665.71
346+50
672.0
658.5
662.6
Estimated Rock Surface
667.21
346+00
688.1
664.2
664.9
Estimated Rock Surface
668.71
345+50
704.8
666.2
DEVELOPED
CHECKED
6/66 P.T. 8/69 A.W.
Sta. 345+50 to Sta. 346+50

174
630

HAM-275-3.86
HAMILTON COUNTY

6/66 P.T. | 8/69 A.W.

Sta. 347+00 to Sta. 347+57

Sta. 347+66 to Sta. 348+11

BUTLER COUNTY
BUT-25-2.59

CINCINNATI-DAYTON RD. INTERCHANGE-RAMPS C&D

176
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 348+18 to Sta. 348+38

HAM-275-3.86
HAMILTON COUNTY

Sta. 348+56 to Sta. 348+70

HAM-275-3.86
HAMILTON COUNTY

Sta. 348+75 to Sta. 349+00

Sta. 349+18 to Sta. 349+50

HAM-275-3.86
HAMILTON COUNTY

Sta. 349+80 to Sta. 350+50

6-6-6 P.T. 8/69 A.W.

HAM-275-3.86
HAMILTON COUNTY

Sta. 351+00 to Sta. 351+50

182
630

HAM-275-3.86
HAMILTON COUNTY

648.13
352+36
699.2

32

9776 0

12771 0

31

649.21
352+00
695.6

9381 0

15749 0

183 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 352+00 to Sta. 352+36

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 352+55 to Sta. 352+65

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 353+00 to Sta. 353+50

185
630

HAM-275-3.86
HAMILTON COUNTY

DESIGNED 6/66 P.T. CHECKED 8/69 A.W.

Sta. 354+00 to Sta. 355+00

HAM-275-3.86
HAMILTON COUNTY

DESIGNED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 355+38 to Sta. 356+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 356+20 to Sta. 358+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 358+12 to Sta. 360+00

Sta. 360+19 to Sta. 361+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 362+00 to Sta. 362+35


191
630
HAM-275-3.86
HAMILTON COUNTY
See Ramp F
See E.B. I-275
8:1
3:1
AH
87
BK
72
570 0 10734
540 0 32490
590
585.2
2:1
2:1
48:1
580
180 170 160
A
A
618.80
364+00
554.5
STA. 363+05
AH.
0 7734
BK.
43 10029
See E.B. I-275
8:1
3:1
2:1
1300
161
1127
8 1857
550 43 10029
126 21307
619.43
363+00
572.0
DEVELOPED
CHECKED
6/66 P.T.
8/69 A.K.
Sta. 363+00 to Sta. 364+00

192
630

HAM-275-3.86
HAMILTON COUNTY

O 11924
O 5326
O 12042
O 8014

Sta. 364+19 to Sta. 364+31

6/66 P.T. 8/69 A.W.

HAM-275-3.86
HAMILTON COUNTY

193
630

DEVELOPED 6/66 P.T. CHECKED 8/69 R.W.

Sta. 364+40 to Sta. 366+00


194
630
HAM-275-3.86
HAMILTON COUNTY
See Ramp F
3:1
8:1
See E.B. I-275
160
625.42
369+00
569.7
Ahead
Back
2:1
AH
160
BK
147
622.80
368+00
596.0
AH.
123 4800
BK.
123 4260
621.54
367+40
610.0
620.83
367+00
614.3
228 31774
769 6469
569 1562
1028 1750
819 801
1517 9572
0 12358
1956
927
578
1367
193
130
131
DEVELOPED 6/66 P.T.
CHECKED 8/69 F.W.
Sta. 367+00 to Sta. 369+00

195
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
6/66 P.T.	8/69 A.W.

Sta 370+00

HAM-275-3.86
HAMILTON COUNTY

O 29258

O 56255

DEVELOPED 6/66 P.T. | CHECKED 8/69 A.W.

Sta. 370+58

HAM - 275 - 3.86
HAMILTON COUNTY

O 14247

O 33837

DEVELOPED		CHECKED	
G66	P.T.	8/69	AW

Sta. 371+00

198
630


HAM-275-3.86
HAMILTON COUNTY
120 100 80 60 40 20 ℄ 20 40 60 80 100 120
A
580
2:1
570
48:1
2:1
See E.B.I-275
140
160
560
550
540
530
A
170 180 190 200 210 220 230 240
630
See Ramp F
620
610
600
590
580
570
560
550
540
520
VAR.
VAR.
2:1
A
A
275
632.92
371+21
624.5
0 29834
0 17143
632
120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140 160
DEVELOPED 6/66 P.T.
CHECKED 8/69 A.W.
Sta. 371+21

HAM-275-3.86
HAMILTON COUNTY

282

463

0 29454

0 16497

DEVELOPED	CHECKED
6/66 P.T.	8/69 A.W.

Sta. 371+36

200
630
HAM-275-3.86
HAMILTON COUNTY
See Ramp F
2:1
48:1
For F.L.
See E.B. I-275
635.69
372+00
546.4
335
2190
O 27131
O 67064
DEVELOPED
6/66 P.T.
CHECKED
8/69 A.W.
Sta. 372+00

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 373+00 to Sta 373+52

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 374+00 to Sta. 374+36

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 375+00 to Sta. 376+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 377+00 to Sta. 378+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 379+00 to Sta. 380+00

206
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 381+00 to Sta. 381+59

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/66	P.T.	8/69	A.W.

Sta. 382+00 to Sta. 383+00

HAM 275-3.86
HAMILTON COUNTY

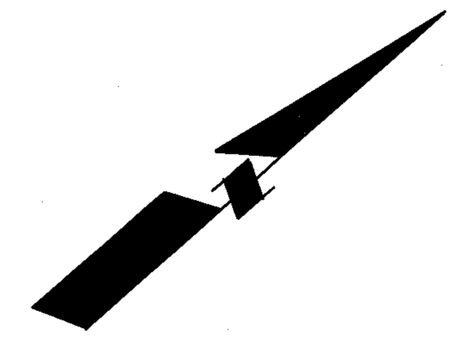
END I-275 MAINLINE
BEGIN W.B. I-275 AND RAMP E

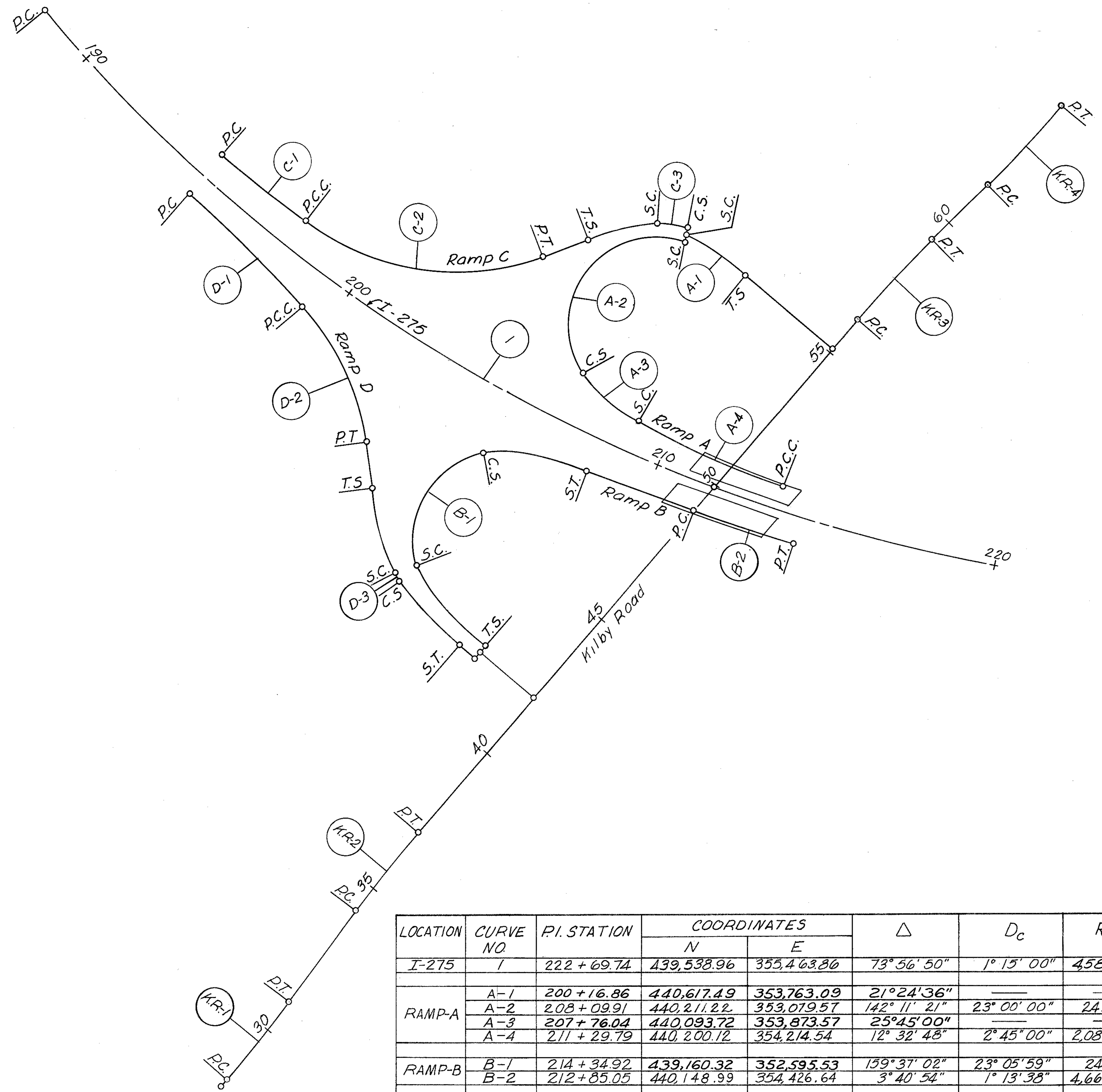
DEVELOPED	CHECKED
6/66 PT	8/69 AW.

Sta. 383+44

SCHEMATIC PLAN KILBY ROAD INTERCHANGE

HAM 275 -3.86
HAMILTON COUNTY





LOCATION	CURVE NO.	P.I. STATION	COORDINATES N	COORDINATES E	Δ	D_c	R_c	L_c	T_1	T_2	L_s	θ_s	θ_{s2}	E
I-275	1	222 + 69.74	439,538.96	355,463.86	73° 56' 50"	1° 15' 00"	4583.66	5,915.78	3,450.73	3,450.73	—	—	—	1,153.71
RAMP-A	A-1	200 + 16.86	440,617.49	353,763.09	21° 24' 36"	—	—	—	134.32	67.57	200.00	21° 24' 36"	—	—
	A-2	208 + 09.91	440,211.22	353,079.57	142° 11' 21"	23° 00' 00"	249.11	618.21	727.37	727.37				519.73
	A-3	207 + 76.04	440,093.72	353,873.57	25° 45' 00"	—	—	—	75.28	128.15	200.00	23° 00' 00"	2° 45' 00"	—
	A-4	211 + 29.79	440,200.12	354,214.54	12° 32' 48"	2° 45" 00"	2,083.48	456.25	229.04	229.04	—	—	—	12.55
RAMP-B	B-1	214 + 34.92	439,160.32	352,595.53	159° 37' 02"	23° 05' 59"	248.04	390.99	1,610.91	1,610.91	300.00	34° 38' 58"	34° 38' 58"	103.72
	B-2	212 + 85.05	440,148.99	354,426.64	3° 40' 54"	1° 13' 38"	4,668.74	300.00	150.05	150.05	—	—	—	2.41
RAMP-C	C-1	196 + 19.78	439,773.37	352,804.73	3° 49' 06"	1° 16' 22"	4,501.63	300.00	150.06	150.06	—	—	—	2.50
	C-2	201 + 58.07	439,878.87	353,332.70	56° 56' 13"	8° 00' 00"	716.20	711.71	388.35	388.35	—	—	—	98.52
	C-3	208 + 11.83	440,612.37	353,625.53	38° 50' 37"	20° 01' 32"	286.11	93.97	193.27	110.13	200.00	20° 01' 32"	—	3.90
RAMP-D	D-1	197 + 01.98	439,635.44	352,902.74	5° 39' 19"	1° 15' 00"	4,583.66	452.43	226.40	226.40	—	—	—	5.59
	D-2	201 + 49.37	439,640.96	353,350.47	34° 21' 03"	8° 00' 00"	716.20	429.38	221.36	221.36	—	—	—	33.43
	D-3	207 + 63.07	439,293.56	353,872.47	41° 37' 40"	15° 00' 00"	381.97	27.52	272.34	272.34	250.00	18° 45' 00"	18° 45' 00"	0.25
KILBY ROAD	K.R.-1	28 + 62.47	438,067.36	354,630.85	9° 02' 41"	2° 00' 00"	2,864.79	452.24	226.59	226.59	—	—	—	8.95
	K.R.-2	35 + 62.28	438,752.85	354,485.40	3° 59' 50"	1° 25' 00"	4,044.41	282.16	141.14	141.14	—	—	—	2.46
	K.R.-3	57 + 78.63	440,947.83	354,177.59	4° 32' 49"	1° 29' 00"	3,862.44	306.54	153.35	153.35	—	—	—	3.04
	K.R.-4	63 + 08.25	441,476.65	354,145.82	4° 32' 49"	1° 29' 00"	3,862.44	306.54	153.35	153.35	—	—	—	3.04

Scale 1" = 200'

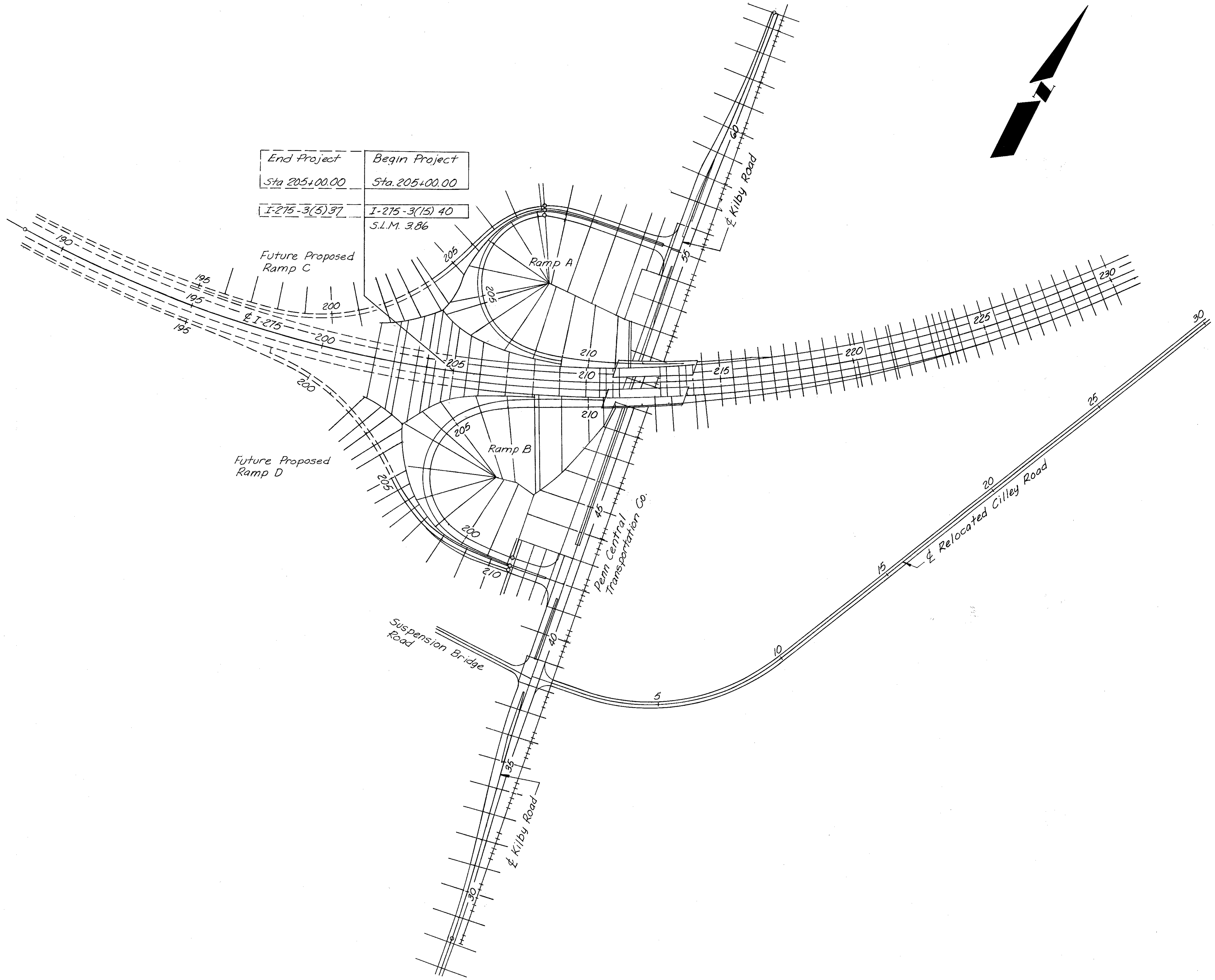
DESIGNED CHECKED
G/66 P.T. 8/69 R.W.

GEOMETRIC LAYOUT KILBY ROAD INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

211
630

HAM 275-3.86
HAMILTON COUNTY

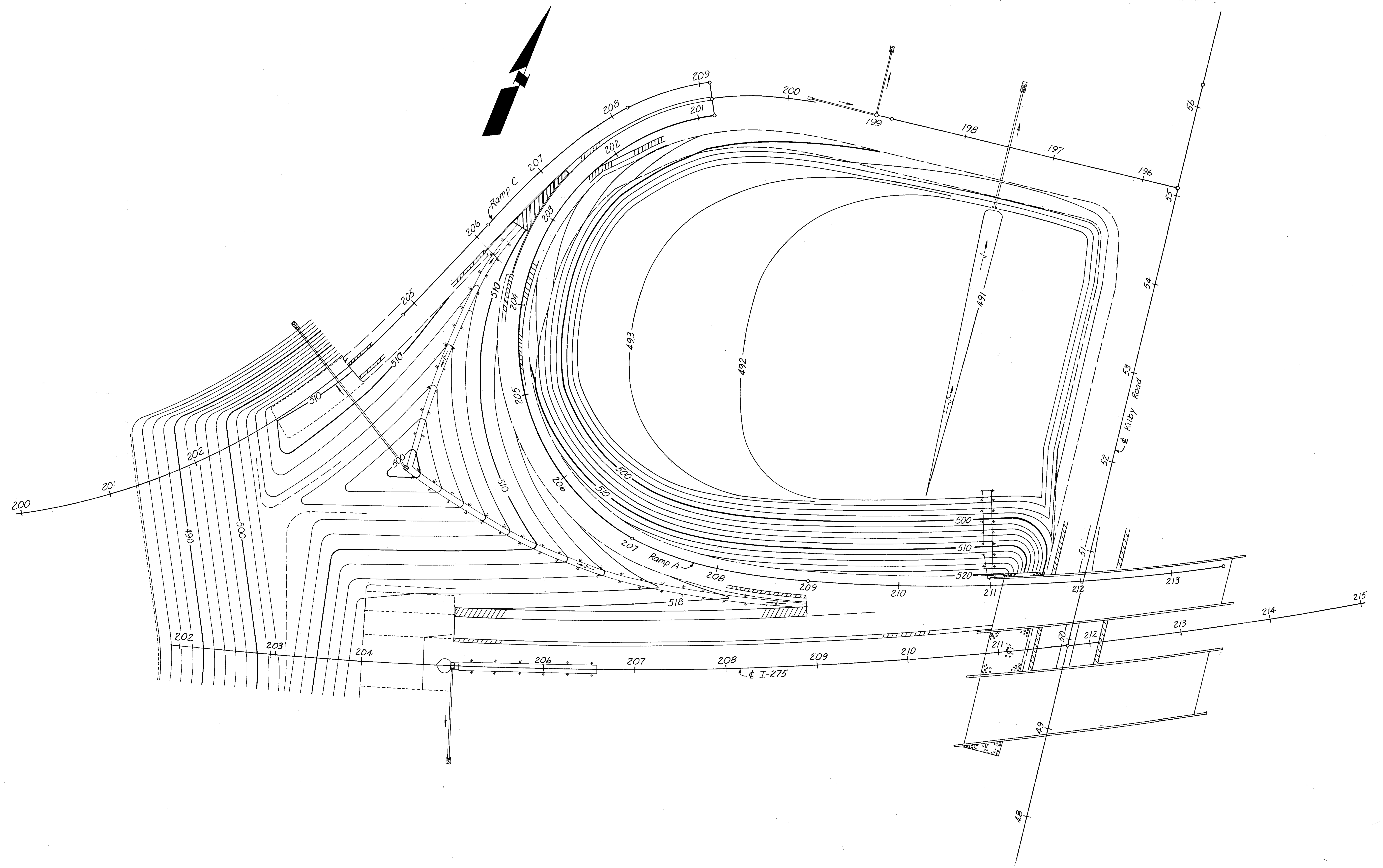


CROSS SECTION LAYOUT KILBY ROAD INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

212/630

HAM. 275-3.86
HAMILTON COUNTY



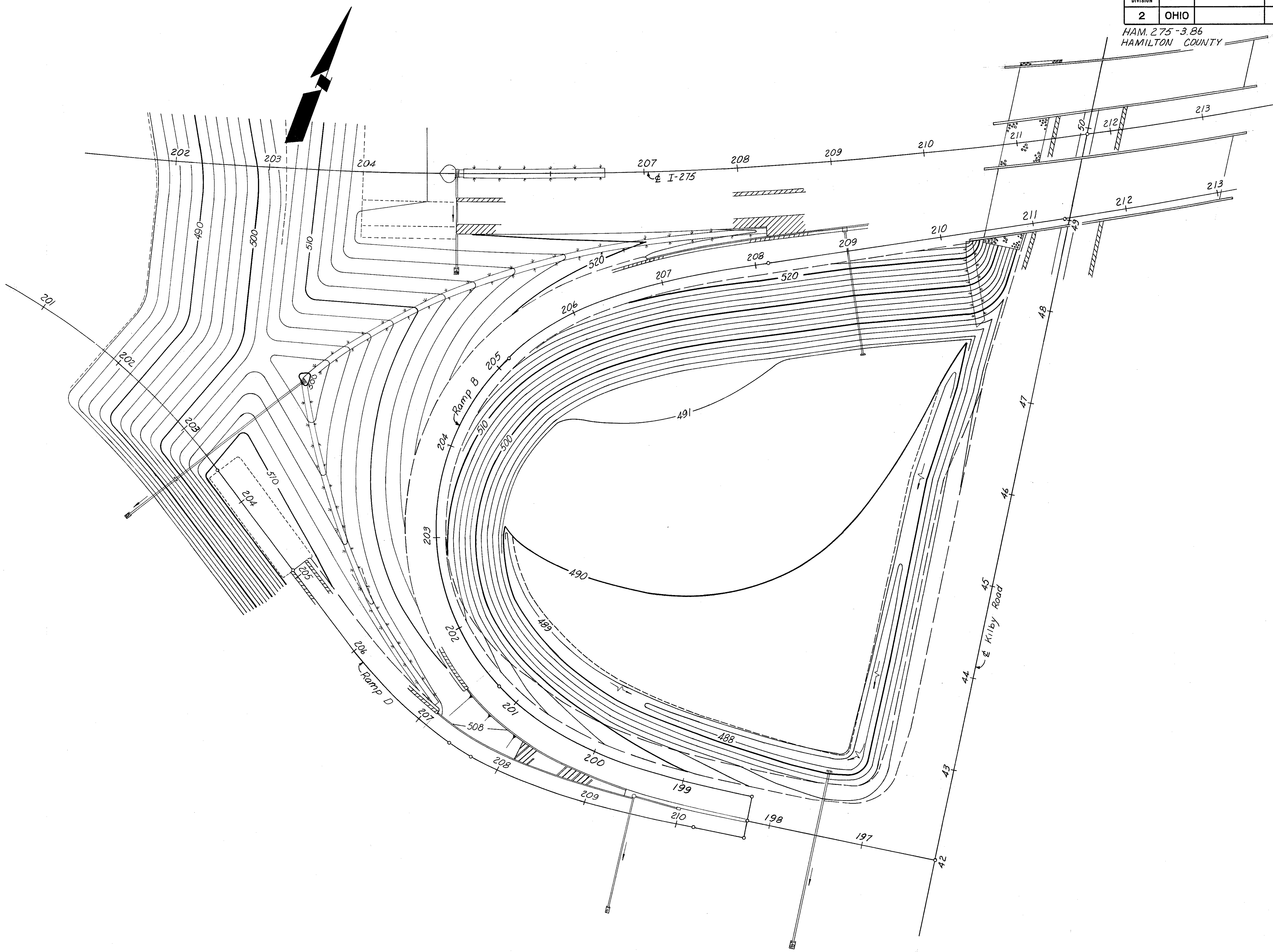
GRADING PLANS KILBY ROAD INTERCHANGE NW QUADRANT

CHECKED

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

213
630

HAM. 275-3.86
HAMILTON COUNTY



GRADING PLANS KILBY ROAD INTERCHANGE SW QUADRANT

PLAN KILBY RD. INT. RAMPS A & B

HAM 275 -3.86
HAMILTON COUNTY

PROFILES RAMPS A & B

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

216
630

HAM-275-3.86
HAMILTON COUNTY

PAVEMENT DETAILS KILBY ROAD INTERCHANGE RAMPS A & B

HAM 275-3.86
HAMILTON COUNTY

R/66 DS 967 RAMP A Sta.195+92 to Sta.200+00

218
630

HAM 275-3.86
HAMILTON COUNTY

DEVELOPED 8/66 D.S. | CHECKED 9/67 Jm

RAMP A Sta. 200+83 to Sta. 203+00

HAM 275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
8/66	D.S.	9/69	fm

RAMP A Sta. 204+00 to Sta. 206+00

8/66 D.S. 9/69 Jm

RAMP A Sta. 207+00 to Sta. 210+00

RAMP A Sta. 211+00 to Sta. 211+57


222
630
HAM 275 -3.86
HAMILTON COUNTY
Back
Ahead
2:1
2:1
48:1
481.1
490
480
8:1
3:1
48:1
3:1
6:1
487.6
498.60
198+24
490.3
AH 247
BK 361
AH 357 329
BK 568 761
997
481.2
549 668
Ahead
Back
AH 387
BK 180
498.0
198+00
490.5
487.5
AH 667 742
BK 291 742
983
481.3
See Kilby Road
494 1330
173
8:1
3:1
6:1
497.23
197+50
490.0
487.3
243 694
906
See Kilby Road
389 1447
160
481.5
497.29
197+00
490.2
177 869
See Kilby Road
436
161 2103
0
497.96
196+51
490.0
BEGIN RAMP B
0 1449
8/66 D.S 9/67
RAMP B Sta. 196+51 to Sta. 198+24

223
630

HAM 275-8.86
HAMILTON COUNTY

RAMP B Sta. 199+00 to Sta. 203+00

224
630

HAM 275-3.86
HAMILTON COUNTY

DEVELOPED 8/66 D.S. CHECKED 9/67

RAMP B Sta. 204+00 to Sta. 205+00

RAMP B Sta. 206+00 to Sta. 209+00

DEVELOPED 8/66 D.S. | CHECKED 9/67

RAMP B Sta. 210+00 to Sta. 213+00

HAM 275-3.86
HAMILTON COUNTY

8/66 D.S 9/67 HM

RAMP B Sta. 213+12 to Sta. 214+35

HAM 275 -3.86
HAMILTON COUNTY

RAMP C Sta. 204+00 to Sta. 209+12.53

229
630

HAM-275-3.86
HAMILTON COUNTY

11/66 H.L. 7/68 C.H. RAMP C Sta. 194+70 to Sta. 195+00

HAM 275-3.86
HAMILTON COUNTY

DETAILED 7/68 M.L. CHECKED 7/68 C.H.

RAMP C Sta. 195+85 to Sta. 200+00

231
630

HAM 275-3.86
HAMILTON COUNTY

11/66 M.L. 7/68 C.H.

RAMP C Sta. 201+00 to Sta. 203+00

HAM 275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
11/66 M.L.	7/68 C.H.

RAMP C Sta. 203+70 to Sta. 206+00

HAM 275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
7/66 M.L.	7/68 C.H.

RAMP C Sta. 207+00 to Sta. 209+12

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

234/630

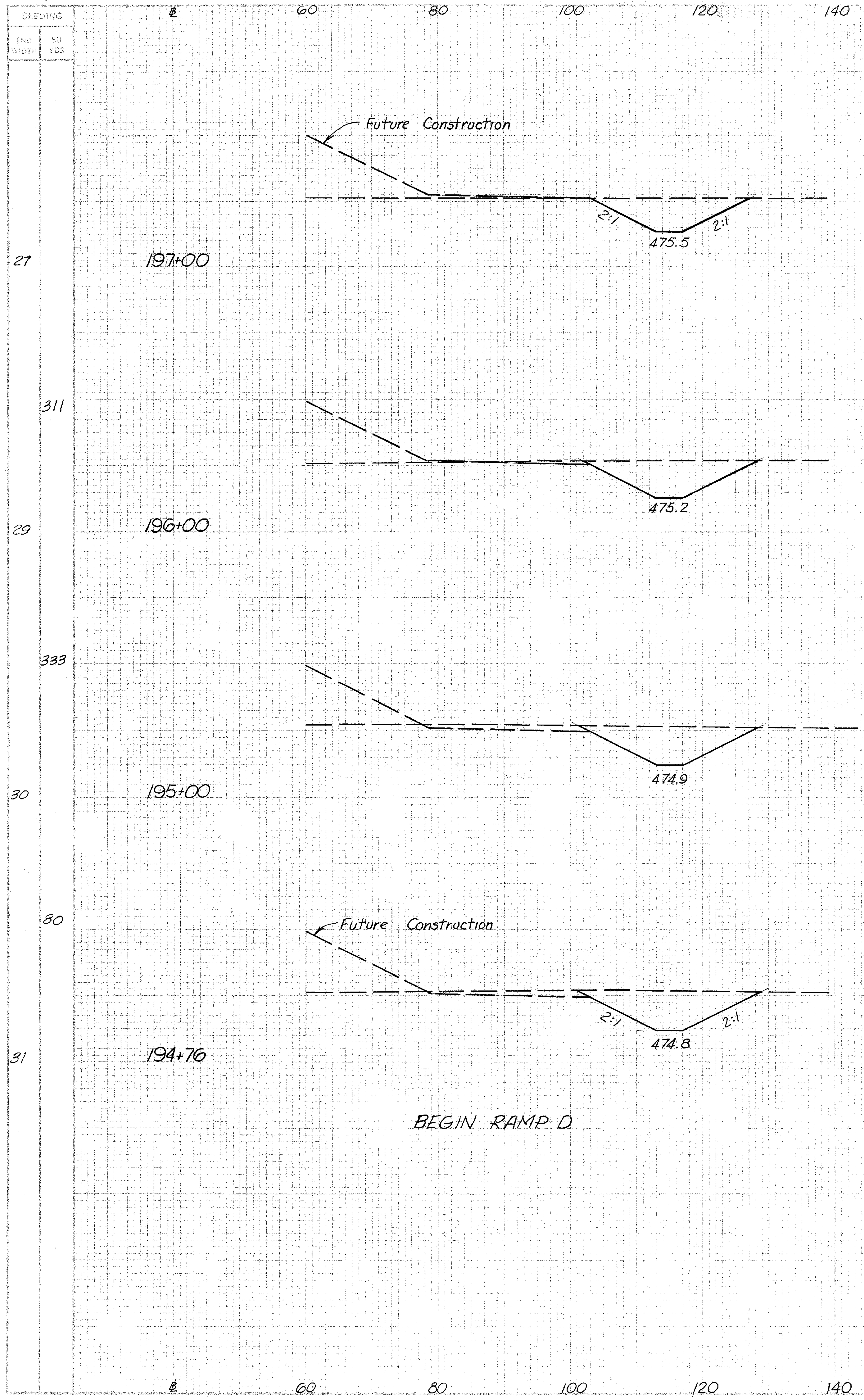
HAM-275-3.86
HAMILTON COUNTY

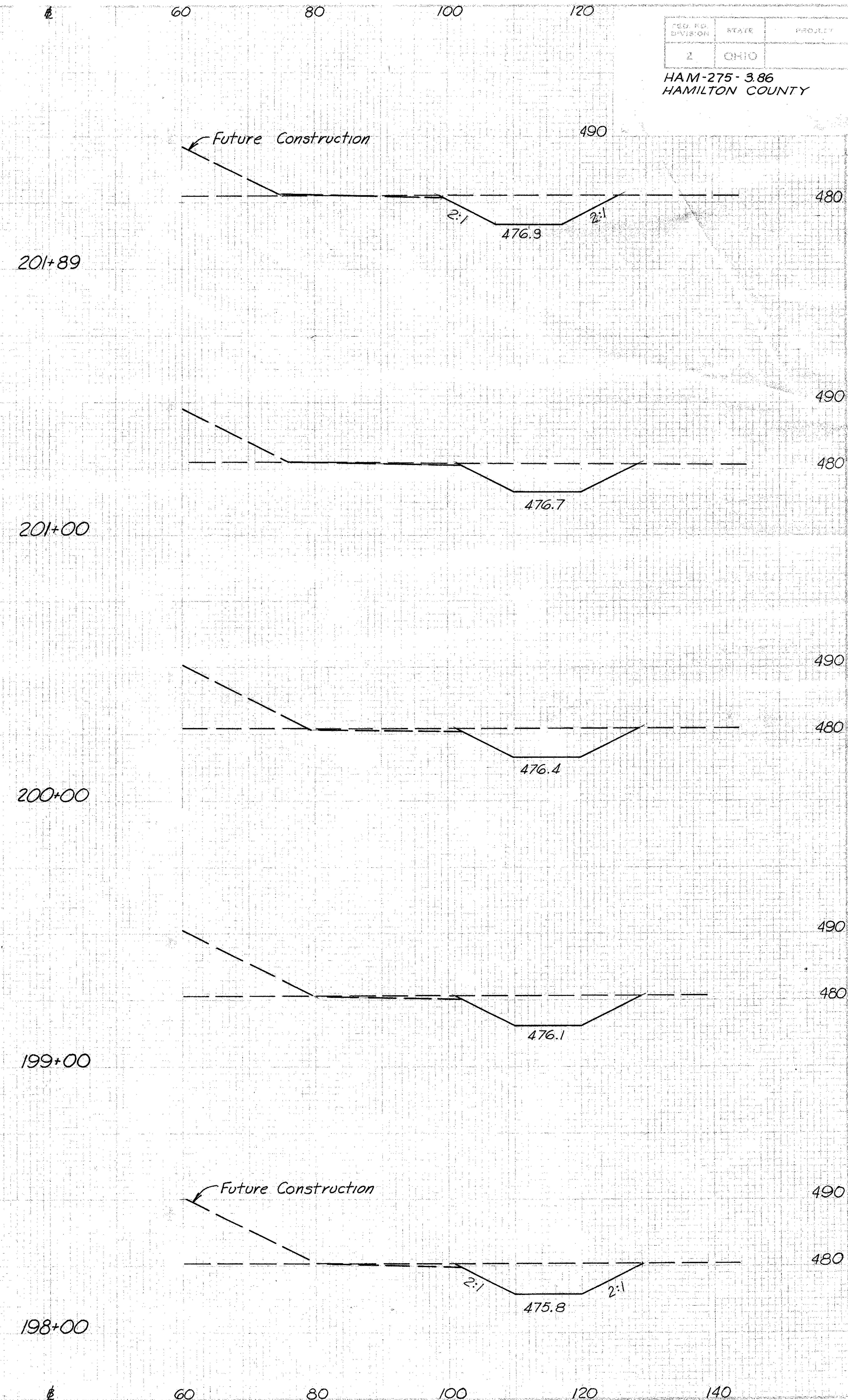
RAMP D Sta. 204+91.35 to Sta. 210+73.25

HAM-275-3.86
HAMILTON COUNTY

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

235
630





Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill	Seeding End Width	Seeding Sq. Yds.
197+00	70	0			29	
			271	0		286
196+00	80	0			29	
			309	0		333
195+00	91	0			30	
			81	0		333
194+76	96	0			30	
						333
198+00					30	
						311

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
201+89	76	0		
			212	0
201+00	77	0		
			244	0
200+00	80	0		
			257	0
199+00	85	0		
			312	0
198+00	88	0		
			285	0

Seeding End Width	Seeding Sq. Yds.
27	
	311
29	
	333
30	
	80
31	

DEVELOPED	CHECKED
8/69 J.B.	12/70 Fwl

RAMP D Sta. 194+76 to Sta. 201+54

236
630

HAM 275 -3.86
HAMILTON COUNTY

RAMP D Sta. 202+00 to Sta. 204+00

HAM 275-3.86
HAMILTON COUNTY

DEVELOPED 11/66 J.B. CHECKED 10/70

RAMP D Sta. 205+00 to Sta. 206+40

238
630

HAM 275-3.86
HAMILTON COUNTY

8169 ✓B 10/70 ✓HM

RAMP D Sta. 207+00 to Sta. 210+73

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	301 Bitum. Aggr. Base	301 Bitum. Aggr. Base	451 9" Reinf. Portland Cem. Conc. Pav't	609 Curb Type 2A	609 Curb Type 7	609 Curb Type 8	612 Conc. Median	612 Conc. Traffic Island	606 Guard Rail Type 5	606 Anchor Assembly	606 Bridge Terminal Assembly Type A	SEE SHEET NO.
	UNIT		Cu. Yd.	Cu. Yd.	Sq. Yd.	L.F.	L.F.	L.F.	Sq. Yd	Sq. Yd.	L.F.	Each	Each	
	PAVEMENT													
	Ramp A													
1P	196+23.51 - 202+52	℄ & Rt.							244					214
2P	202+52 - 203+70	Rt.				126								214
	195+92.51 - 213+57.00	Lt. & Rt.	364	256	3715									214
	Ramp B													
3P	196+81.56 - 199+55	℄ & Lt.							113					214
4P	199+55 - 201+44	Lt.				209								214
5P	206+90 - 208+18	Lt.					128							214
6P	208+18 - 210+54	Lt.						238						214
7P	213+12 - 214+35	Lt.						123						214
8P														
9P														
	196+51.06 - 214+35	Lt. & Rt.	416	303	4360									214
	Ramp C													
10P	205+95 - 207+20	Rt.				125								228
11P	206+36 - 207+20	Rt.								118				228
12P														
	204+00 - 209+12.53	Lt. & Rt.	99	93	906									228
	(Eq. Sta 209+12.53 Ramp C = Sta 200+82.54 Ramp A)													
	200+82.54* - 195+92.51*	Rt.	118	59	1088									228
	* Ramp A Stationing													
	Ramp D													
13P	207+12 - 209+39	Lt.				218								234
14P	208+12 - 209+39	Lt.								181				234
	204+90.73 - 210+73.25	Lt. & Rt.	146	88	1470									234
	(Eq. Sta. 210+73.25 Ramp D = Sta. 198+24.01 Ramp B													
	198+24.01** - 196+51.06**	Lt.	76	28	798									234
	** Ramp B Stationing													
	ROADWAY													
	Ramp A													
1R	204+12 - 211+02	Lt.									650	1	1	214
2R														
	Ramp B													
3R	200+87 - 210+32	Rt.									900	1	1	214
4R														
	Ramp C													
5R	204+10 - 209+00	Lt.									475	1		228
6R														
7R														
	Ramp D													
8R	205+09 - 209+98	Rt.									475	1		234
9R														
10R														
			1,219	827										
TOTALS			2,046		12,337	678	128	361	357	299	2500	4	2	

DEVELOPED		CHECKED	
8/71	J.M	9/71	R.D

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-3.86
HAMILTON COUNTY

REF. NO.	STATION TO STATION	SIDE	Bends 15" 20°	Bends 15" 25°	Bends 18" 25°	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	601 Rock Channel Protect Type B	602 Conc. Masonry	603 Type A 706.02 706.08 24"	603 Type B 15"	603 Type B 706.02 Cl V 18"	603 Type B 706.02 Cl III 18"	603 Type F 15"	603 Type F 18"	604 Catch Basins C.B.-5	604 Catch Basins C.B.-6	604 Inlets I-2-6	604 Inlets I-2-10	660 Sodding	SEE SHEET NO.
	UNIT					L.F.	L.F.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Each	Sq. Yd.	
	DRAINAGE																				
	RAMP A																				
1D	197+50	Lt. & Rt.						3	0.86	132											214
2D	199+00 - 199+74	℄									74'						1				214
3D	199+00	℄ & Rt.							0.25		72							1			214
4D	199+00	Rt.						2													214
5D	203+27 - 209+00	Rt.																		384	214
	RAMP B																				
6D	197+50	Lt. & Rt.						3	0.86	188											214
7D	201+50 - 208+18	Lt.																		445	214
8D	213+45	Lt.															1				214
9D	213+45	Lt. & Rt.		2					0.27 *0.11		22			92							214
10D	209+00	Lt & Rt									30						1				
11D	209+00	Rt.	2						0.27 *0.11					102							
	RAMP C																				
12D	200+25 Ramp A - 209+00 Ramp C	Lt.																		90	228
13D	203+80	Lt. & Rt.							0.31			196				1					228
14D	203+80	Lt.						3													228
15D																					
16D																					
	RAMP D																				
17D	209+50 - 210+00	Lt.									50						1				234
18D	209+50	Lt. & Rt.	1								46								1		234
19D	209+50	Rt.	1					7	0.27 *0.11					66							234
20D	205+00 - 206+00	Rt.						148													234
21D	203+37	Lt. & Rt.							*0.14				174			1					234
22D	203+37	Rt.			2			2	0.33						66						234
TOTALS			4	2	2			168	3.42	320	294	196	174	260	66	2	4	1	1	919	

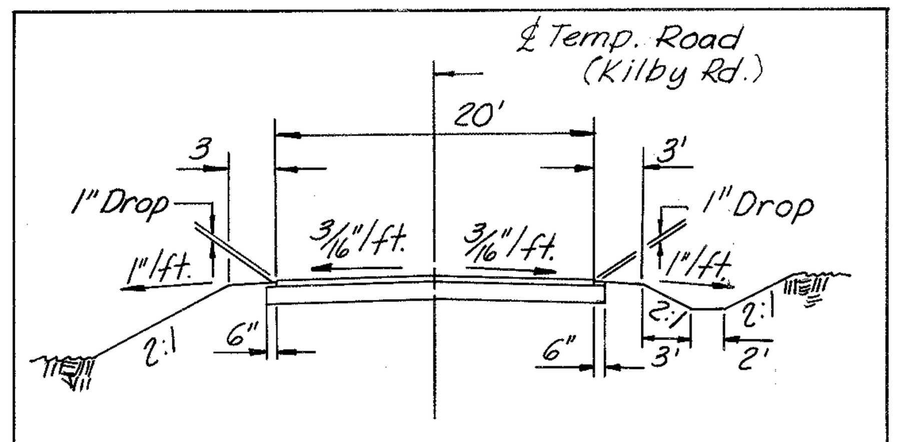
* Concrete Collar (For Information Only Not Included In Total)

DEVELOPED		CHECKED	
8/71	JM	9/71	R.D.

RAMPS A, B, C, & D

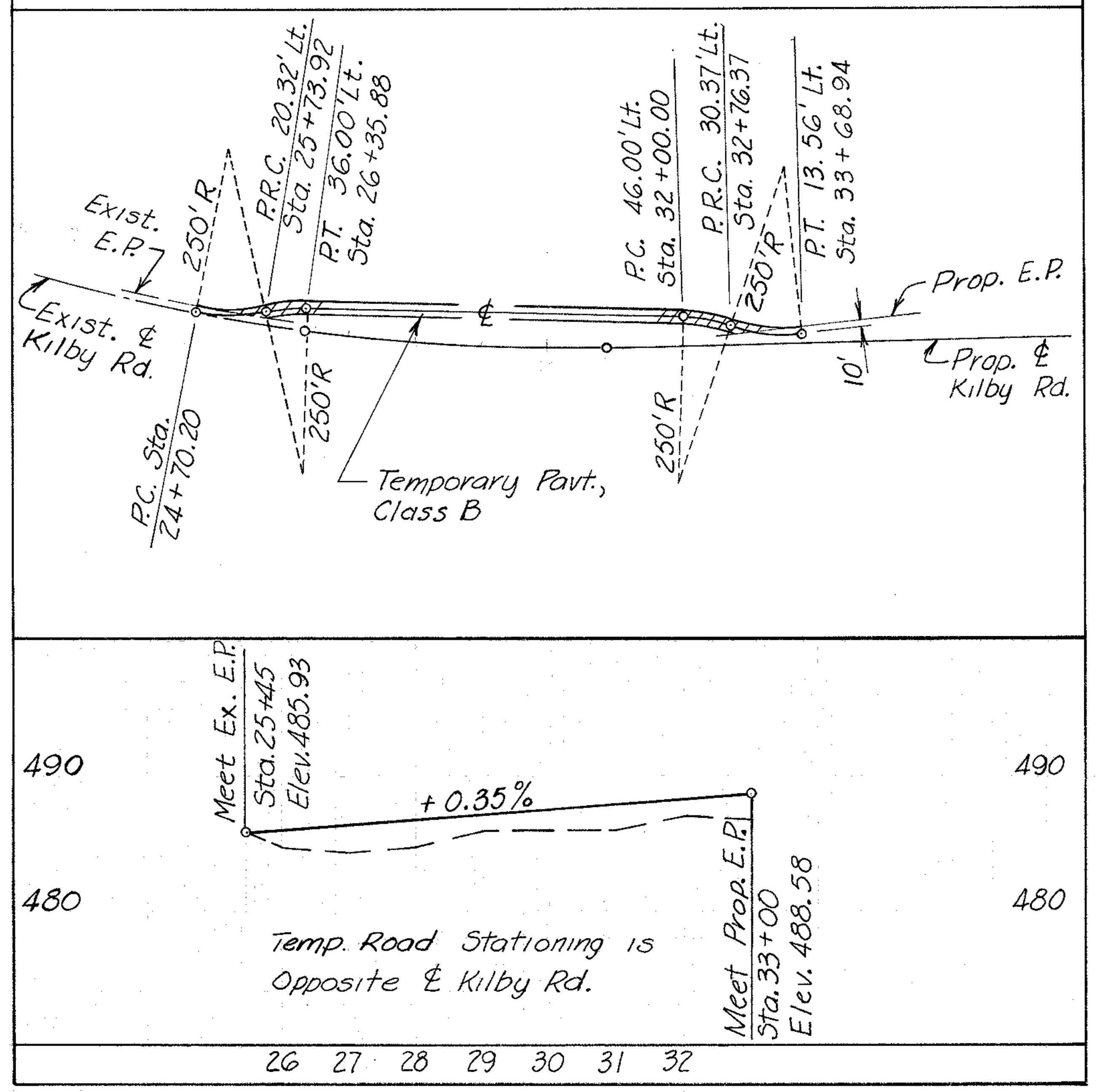
EDGE OF PAVEMENT CURVE DATA

Curve No.	P.I. Station	Δ	D_c	R_c	L_c	T	E	P.C. Station	P.T. Station
KR-5	3.46' Lt. 28+43.85	10°12'40"	2°28'00"	2,322.80	413.96'	207.53	9.25	11.00 Lt. 26+35.88	17.86 Lt 30+52.29
KR-6	33.31 Lt. 36+00.79	5°09'49"	2°30'00"	2,291.83	206.54	103.34	2.33	27.93 Lt. 34+98.36	32.00 Lt. 37+03.30
KR-7	19.91' Rt 30+97.96	3°45'56"	1°54'58"	2,990.21	196.52'	98.30	1.62	13.73' Rt. 30+00.00	21.32' Rt. 31+95.91
KR-8	24.42 Rt. 34+54.89	3°16'14"	1°30'00"	3,819.72	218.04	109.05	1.56	23.18 Rt. 33+45.64	29.64 Rt. 35+64.55
KR-9	34.36 Lt. 57+59.58	6°45'56"	2°30'00"	2,291.83	270.62	135.47	4.00	32.00 Lt. 56+25.28	25.43 Lt. 58+93.72
KR-10	7.32 Lt. 62+92.76	6°45'56"	2°00'44"	2,847.39	336.22	168.31	4.97	16.17 Lt. 61+24.16	11.00 Lt. 64+61.44
KR-11	30.88 Rt. 57+18.61	1°51'05"	1°00'00"	5,729.58	185.14	92.58	0.75	32.00 Rt. 56+25.28	30.49 Rt. 58+11.93
KR-12	12.11 Rt. 63+69.14	1°51'05"	1°00'00"	5,729.58	185.14	92.58	0.75	12.43 Rt. 62+76.86	11.00 Rt. 64+61.44

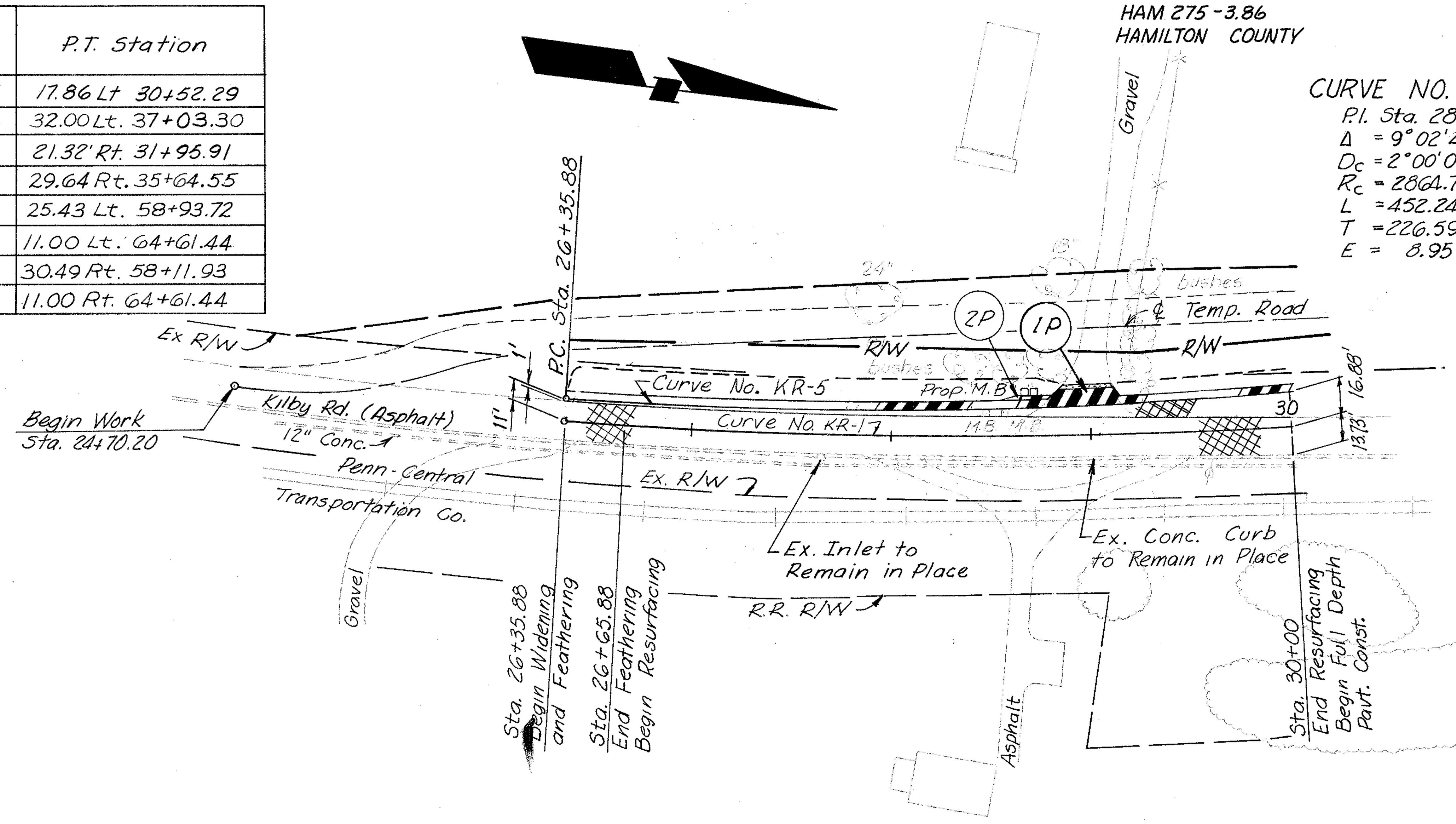


TYPICAL SECTION
Temporary Pavement, Class B

TEMPORARY ROAD



For Driveway Details See Sh. No. 29

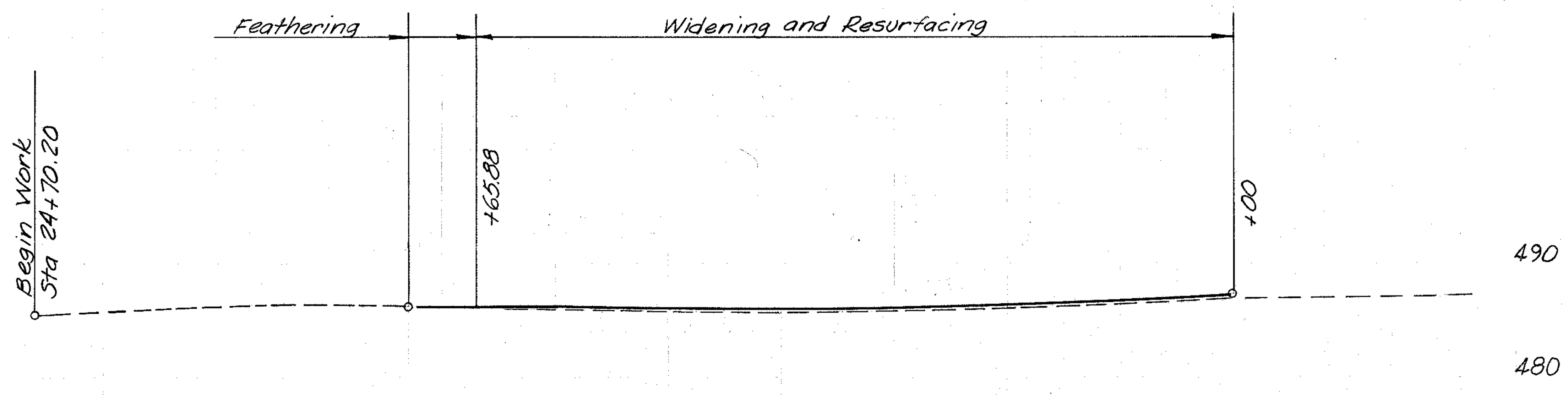


CURVE NO. KR-1
P.I. Sta. 28+62.47
Δ = 9°02'41"
D_c = 2°00'00"
R_c = 2864.79'
L = 452.24'
T = 226.59'
E = 8.95'

For Superelevation Tables See Sh. No. 16

For Quantities See Sh. Nos. 244, 245

486.20 486.37 486.23 486.15 486.08 486.05 486.08 486.16 486.25 486.33 486.40 486.67 486.95 487.11 487.27



486.2 486.1 +65 486.0 485.8 485.7 485.9 486.1 486.6 486.9

24 25 26 27 28 29 30

DEVELOPED | CHECKED

KILBY ROAD Sta. 26+35.88 to Sta. 30+00

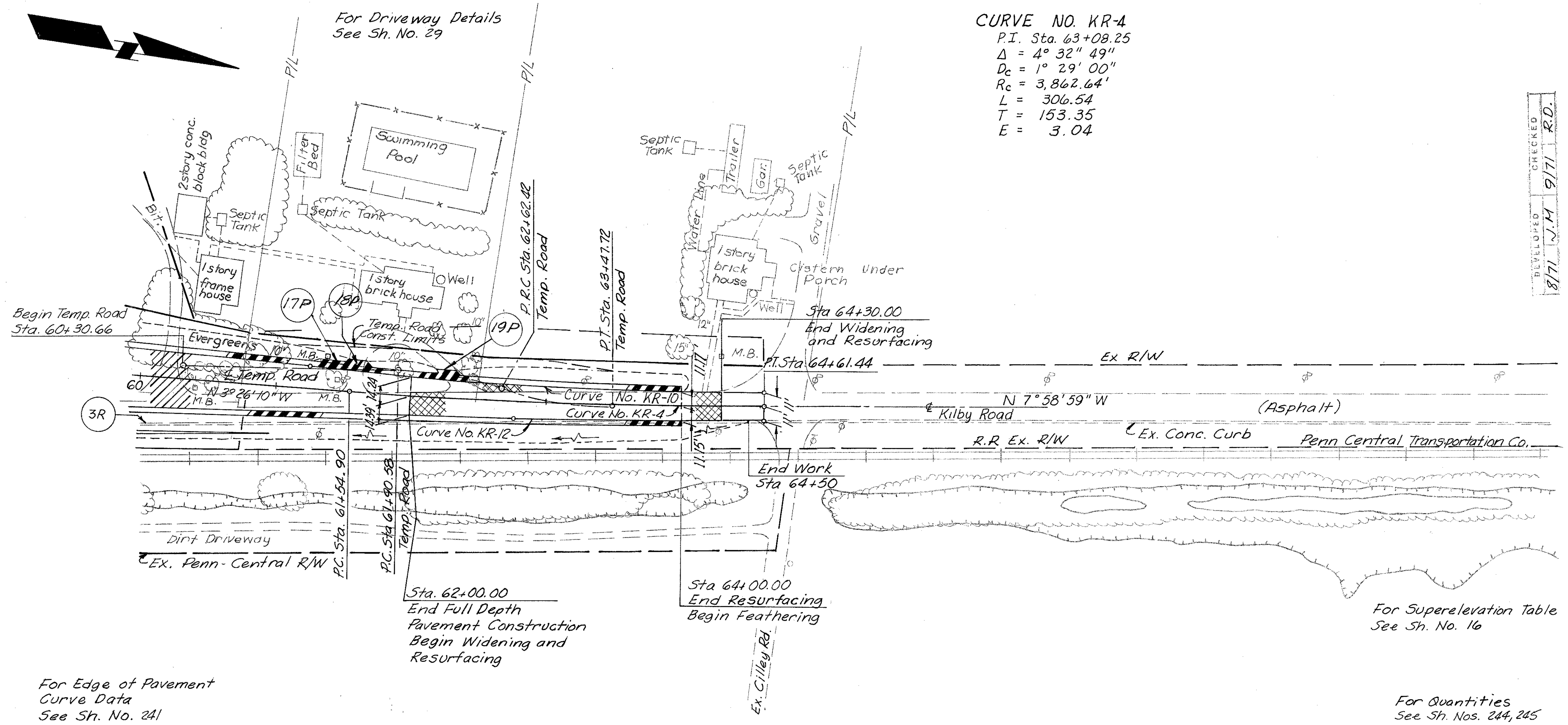
HAM. 275-3.86
HAMILTON COUNTY

KILBY ROAD STA. 30+00 TO STA. 45+00

KILBY ROAD STA. 45+00 TO STA. 60+00

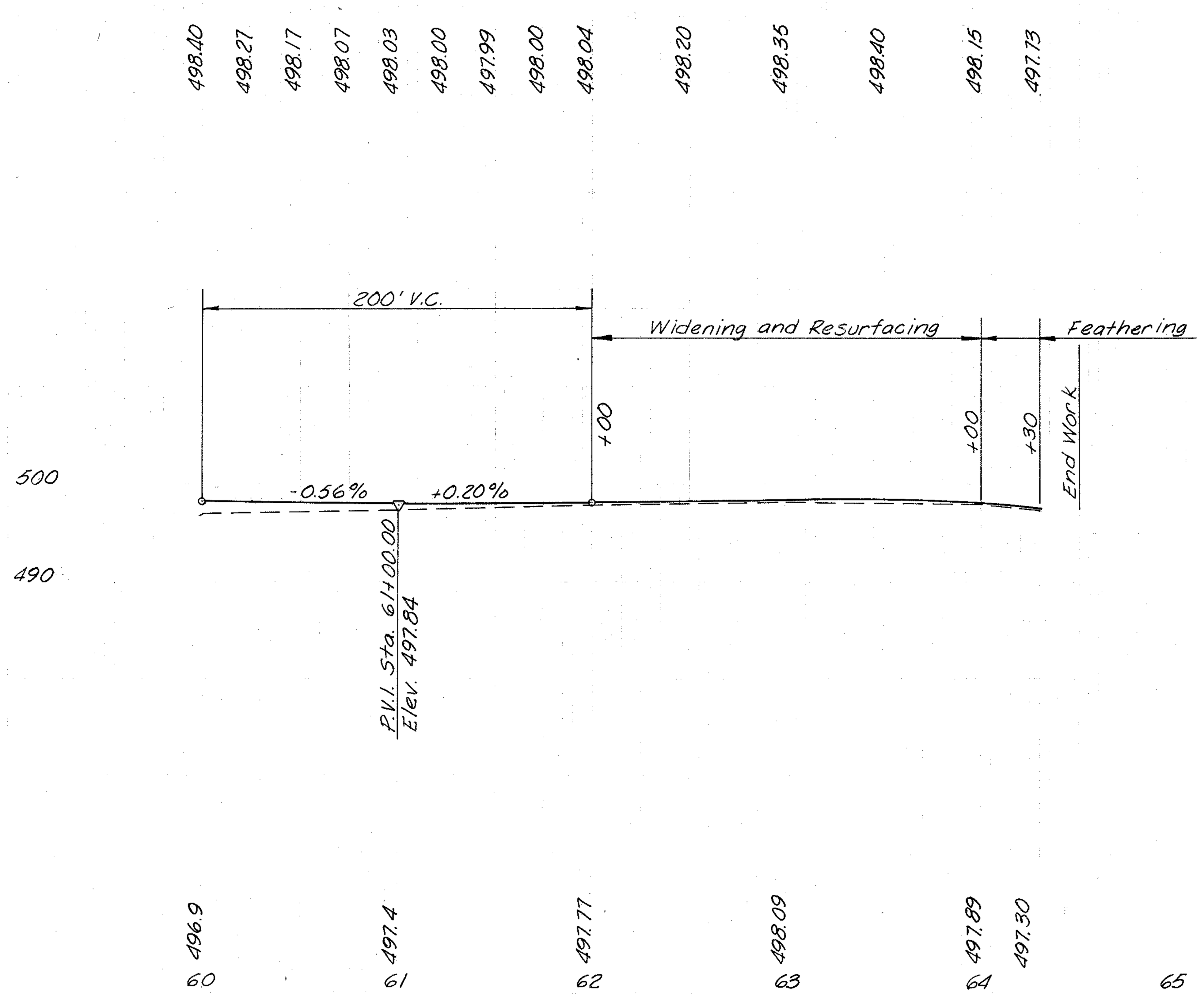
HAM 275-3.86
HAMILTON COUNTY

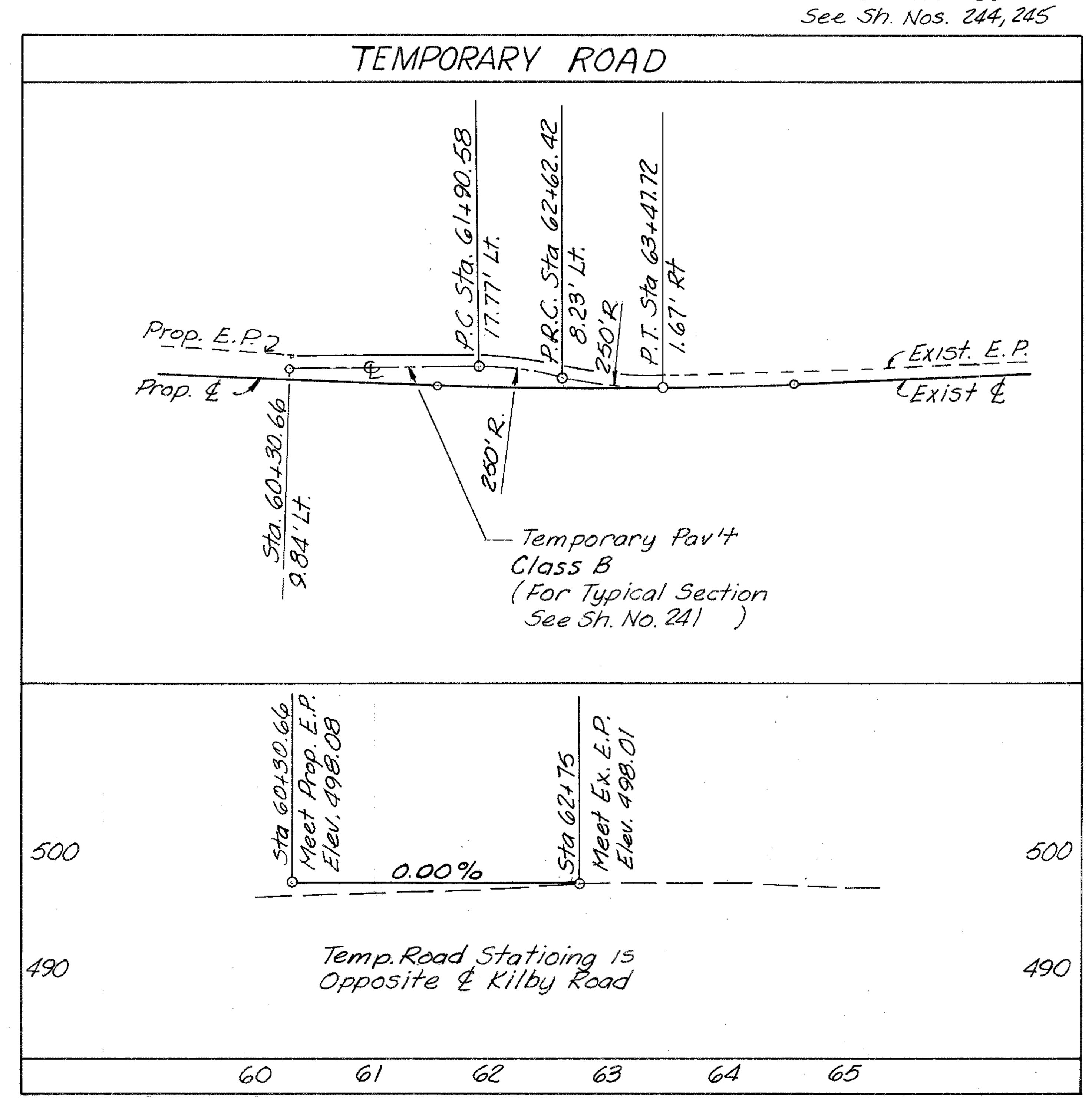
CURVE NO. KR-4
P.I. Sta. 63+08.25
Δ = 4° 32" 49"
D_c = 1° 29' 00"
R_c = 3,862.64'
L = 306.54
T = 153.35
E = 3.04



For Edge of Pavement
Curve Data
See Sh. No. 241

For Quantities
See Sh. Nos. 244, 245





DEVELOPED		CHECKED	
8/71	J.M.	9/71	R.D.

Location	202 C&G Removed Lin. Ft.	301 Bitum. Aggr. Base Cu. Yd.	304 Aggr. Base Cu. Yd.	310 Subbase Grading "A" Cu. Yd.	402 Asph. Conc. Cu. Yd.	404 Asph. Conc. Cu. Yd.	407 Tack Coat & Cov. Aggr. Gal./Ton	202 Fence Rem. L.F.	408 Bitum. Prime Coat Gals.	411 Stabilized Crushed Aggregate Cu. Yd.	615 Temporary Pavement Class B Sq. Yd.	612 Concrete Median Sq. Yd.	609 Comb. Curb & Gutter Std. Ty. 2 Lin. Ft.	613 Traffic Dividers Each	409 Seal Ct. Bitum. Water'l Gal.	409 Seal Ct. Cover Agg. No. 8 Cu. Yd.	202 Pav't Remove Sq. Yd.	606 Anchor Assem. Barr. Des. Each	606 Guard Rail Type 5 Lin. Ft.	606 Anchor Assembly Each	Sheet
PAVEMENT																					
1P 28+93 Lt.		4								2					10	0.3					241
2P 28+72 Lt.		0.5								1					2	0.1					
3P 34+52 Lt.		0.5								1					1	0.1					
4P 30+00 - 34+53 Rt.													453								242
5P 32+19 Lt.		2								2					6	0.1					242
6P 34+74 Lt.		2								6					6	0.2					242
7P 34+74 Rt.		3								10					7	0.2					242
8P 35+10 - 37+79.35 Lt.&Rt.														45							242
9P 39+00.81 - 41+44.16 Lt.												82									242
10P 42+50.24 - 54+51.55 Lt.&Rt.												826									242&243
11P 59+27 Lt.		1								1				60	2	0.1					
12P																					
13P 55+57.63 - 59+13.96 Lt.&Rt.																					243
14P 59+65 Lt.			85			20			147												243
15P 60+00 Lt.			4			2			9	11											243
16P 61+47 Lt.		1								1					2	0.1					
17P 61+58 Lt.		2													6	0.1					244
18P 62+50 Lt.		3													8	0.2					244
19P 26+35.88 - 30+00 Lt.&Rt.		2,405	43	38	63	36	137		94												
30+00 - 62+00 Lt.&Rt.		295		3691	994	709	5														
(Shlder) 26+35.88 - 64+00.00 Lt.&Rt.															806	22					
62+00 - 64+00 Lt.&Rt.			24	22	56	21			54												
24+70.20 - 33+68.94 Lt.											1,758										
60+30.66 - 62+75 Lt.											271										
ROADWAY																					
1R 34+50 - 64+50 Rt.	3450							20													
2R 30+00 - 57+95 Rt.																					
3R 38+95 - 52+00 ℄																			1,850	2	242&243
4R 47+75																			750		242&243
5R																		2			
6R 48+57 - 51+82 Lt.																					
7R 54+30 Lt.																	63		275	2	
Total	3450	2719	156	3751	1,113	788	137/5	20	304	35	2,029	908	453	105	856	23.5	63	2	2,875	4	

DEVELOPED		CHECKED	
8/71	J.M.	9/71	R.D.

KILBY ROAD STA. 60+00 TO STA. 64+61.44

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

245/630

HAM-275-3.86
HAMILTON COUNTY

REF. NO.	STATION TO STATION	SIDE	Bends	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	202 Catch Basin Removed	202 Inlet Removed	202 Structure Removed (Headwall)	601 Rock Channel Protect. Type B	602 Conc. Masonry	603 Type A 706.02 72"	603 Type A Conduit Under RR. 706.02 Cl.V 72" As Per Plan	603 Type C 12"	603 Type C 15"	603 Type C 24"	604 Catch Basins C.B. 2-2-A	604 Catch Basins C.B. 2-2-B	604 Catch Basins C.B.-3	604 Catch Basins C.B.-5 With B Grate	SEE SHEET NO.
	UNIT			L.F.	L.F.	Each	Each	Each	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Each	
	DRAINAGE																			
	KILBY ROAD																			
1D	30+38	Rt.				1											1			242
2D	30+38	Rt.											4					1		242
3D	35+13	Rt.				1										1				242
4D	37+91	Rt.				1														242
5D																				
6D	39+15	Rt.					1													242
7D	40+70 - 40+85	Rt.																		242
8D	40+75	Rt.		15										10					1	242
9D	40+85	Lt. & Rt.							25	5.54, *0.43	150	46								242
10D	43+15	Rt.					1													242
11D																				
12D																				
13D																				
14D	53+81 - 56+06	Rt.		225			1													243
15D	56+06	Rt.								* 0.18					8				1	243
16D	56+06	Rt.				1		2												243
17D	56+06 - 56+44	Rt.		38			1													243
TOTALS				278		4	4	2	25	5.54	150	46	4	10	8	1	1	1	2	

* Concrete Collar (For Information Only Not Included In Total)

DEVELOPED		CHECKED	
8/71	JM	9/71	RD

KILBY ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM 275 - 3.86
HAMILTON COUNTY

CURVE NO.	P.I. STATION	Δ	D_c	R_c	L_c	T	E	P.C. STATION	P.T. STATION
KR-13	8.32' Lt. 30+00.16	5° 09' 49"	2° 31' 39"	2,266.83'	204.29'	102.21'	2.41'	2.95' Lt. 34+99.35	7.00' Lt. 37+0330
KR-14	2.24' Rt. 35+06.94	1° 44' 32"	1° 29' 25"	3,844.72'	116.91'	58.76'	0.45'	0.75' Rt. 34+48.48	4.65' Rt. 35+65.41

PAVEMENT AND CHANNELIZATION DETAILS KILBY ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

217/630

HAM 275 - 3.86
HAMILTON COUNTY

SCALE OF FEET
0 20 40 60

DEVELOPED | CHECKED

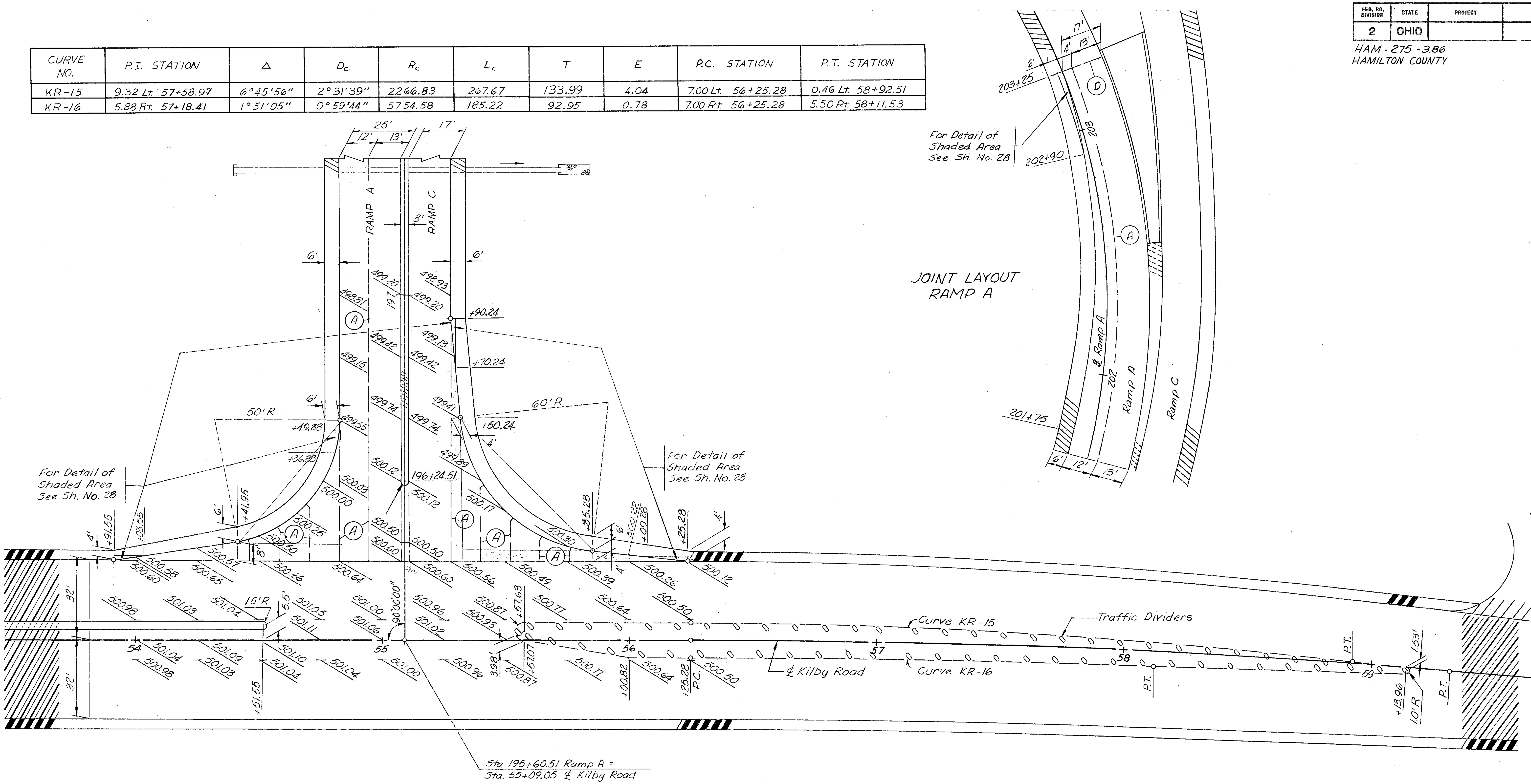
PAVEMENT AND CHANNELIZATION DETAILS KILBY ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

248
630

HAM - 275 - 3.86
HAMILTON COUNTY

CURVE NO.	P.I. STATION	Δ	D_c	R_c	L_c	T	E	P.C. STATION	P.T. STATION
KR-15	9.32 Lt. 57+58.97	6°45'56"	2°31'39"	2266.83	267.67	133.99	4.04	7.00 Lt. 56+25.28	0.46 Lt. 58+92.51
KR-16	5.88 Rt. 57+18.41	1°51'05"	0°59'44"	5754.58	185.22	92.95	0.78	7.00 Rt. 56+25.28	5.50 Rt. 58+11.53



DEVELOPED | CHECKED

PAVEMENT AND CHANNELIZATION DETAILS KILBY ROAD


249
630
HAM 275 -3.86
HAMILTON COUNTY
℄ Temp. Road
6:1
Ex. 12" Storm Sewer
C = 0
F = 25
487.83
31+00
487.1
Ahead
Back
Ex. Pavt.
0
16
487.27
30+00
486.88
AH.
19 2
BK.
7 2
Ex. Pavt.
0
7
486.40
29+00
486.10
℄ Kilby Rd.
Meet Ex. 0+25
Elev. 485.7
4.2%
E.P.
Driveway Sta. 28+93
Ex. Pavt.
0
33
486.08
28+00
485.78
℄ Temp. Road
Ex. Pavt.
6:1
Ex. 12" Storm Sewer
C = 0
F = 35
486.23
27+00
485.98
Sta. 26+00
C = 0 F = 18
Sta. 25+00
C = 0 F = 4
Sta. 24+70
C = 0 F = 0
BEGIN TEMPORARY ROAD - STA. 24+70
BEGIN WORK - KILBY ROAD
STA. 26+36
Sta 26+36
DEVELOPED 10/69 JLM
CHECKED 11/70 HS
KILBY ROAD Sta. 26+36 to Sta. 31+00

DEVELOPED 10/69 JM | CHECKED 11/70 M.S.

KILBY ROAD Sta. 32+00 to Sta. 36+00

251
630

HAM 275-3.81
HAMILTON COUNTY

DEVELOPED		CHECKED	
10/69	[illegible]	11/70	M.S.

KILBY ROAD Sta. 37+00 to Sta. 40+00

HAM 275 -3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
10/69	Am	11/70	M.S.

KILBY ROAD Sta. 41+00 to Sta. 44+00

253
630

HAM 275-3.86
HAMILTON COUNTY

KILBY ROAD Sta. 45+00 to Sta. 48+00

HAM 275 -3.86
HAMILTON COUNTY

KILBY ROAD Sta. 49+00 to Sta. 52+00

DEVELOPED		CHECKED	
10/69	twl	11/70	M.S

KILBY ROAD Sta. 53+00 to Sta. 57+00


HAM 275 - 3.86
HAMILTON COUNTY
256
630
Meet Ex.
0+34
Elev. 497.8
1.3 %
E.P.
Driveway Sta. 62+50 Left
¢ Temp Road
498.0
Back
Ahead
Ex. Pavt.
6:1
4:1
2:1
496.7
498.04
62+00
497.77
C = 10
F : 2
AH.
16 3
BK.
22 4
Meet Ex.
0+23
Elev. 497.8
1.2 %
Driveway Sta. 61+58 Left
61 28
Exist. Pavt.
¢ Temp Road
496.4
498.02
61+00
497.4
C = 2
F = 5
Begin Temporary Road
Sta. 60+31
C = 0
F = 0
11 11
¢ Service Rd.
497.2
1.8 %
End Drive
0+60
91' Lt. Sta. 60+13
Kilby Rd.
Elev. 496.3
Driveway Sta. 10+65 Right
54 59
Ex. Pavt.
496.1
498.40
60+00
496.9
18 21
End Service Rd.
11+64
Elev. 495.7
1.7%
497.4
3.6%
498.2
4.2%
¢ Kilby Rd.
Service Road Sta. 59+65 Left
52 307
495.8
498.96
59+00
495.9
10 145
33 667
8:1
495.3
499.52
58+00
496.1
8 215
33 1194
DEVELOPED 10/69 J.M.
CHECKED 11/70 M.S.
KILBY ROAD Sta. 58+00 to Sta. 62+00

HAM 275-3.86
HAMILTON COUNTY

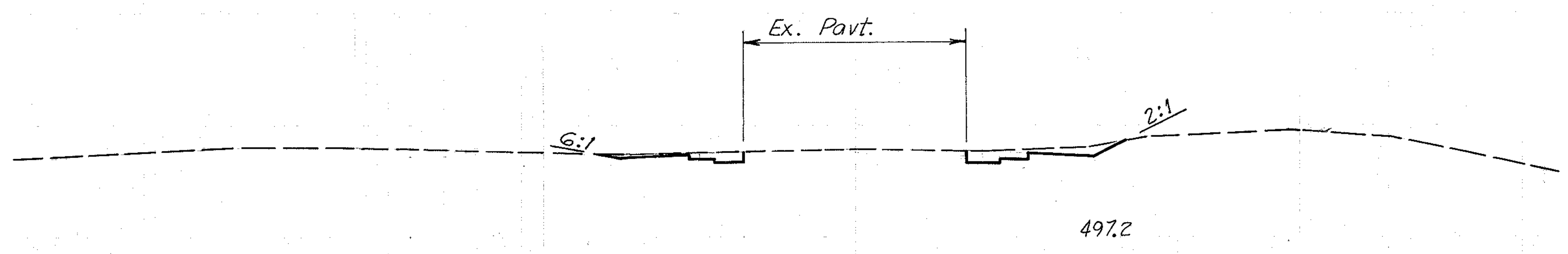
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

9 Sta. 64+50

END WORK
STA. 64+50

Sta. 64+50
0 0

50

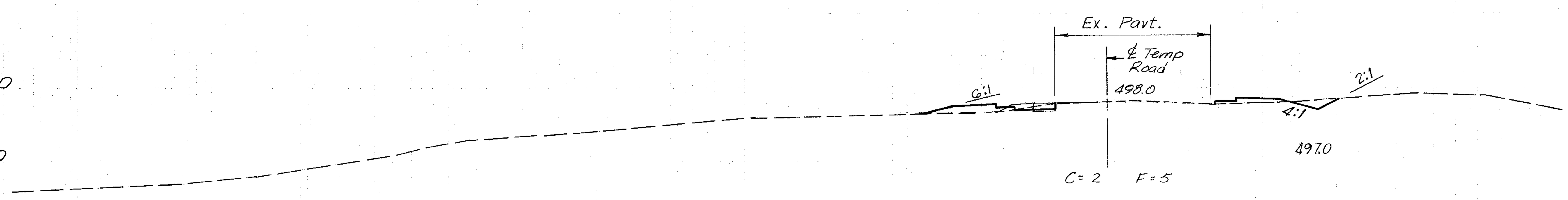


497.89
64+00
497.89

13 0

End Temp. Road - Sta. 63+48
C=0 F=0

244



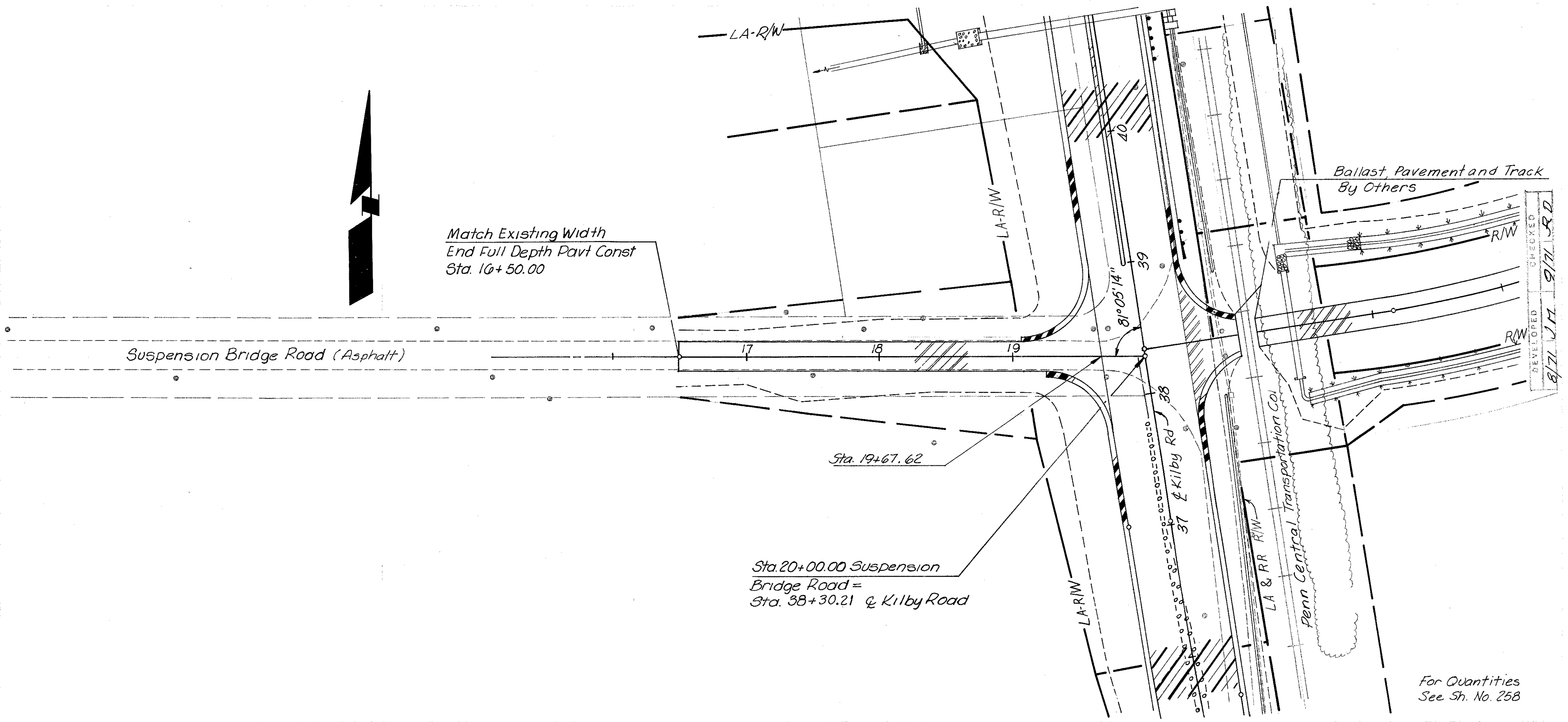
C=2 F=5

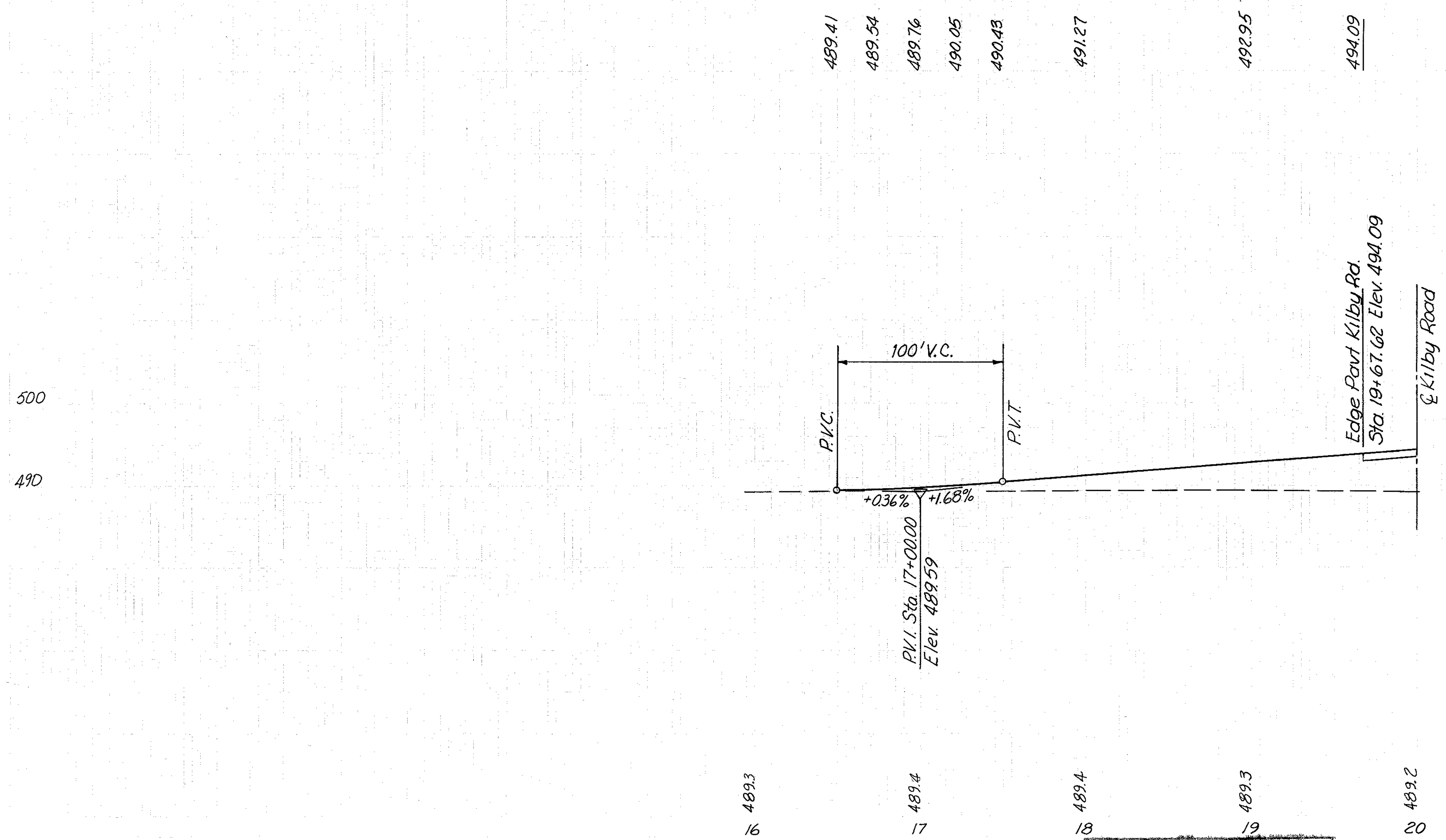
498.35
63+00
498.09

6 11

41 26

256 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140



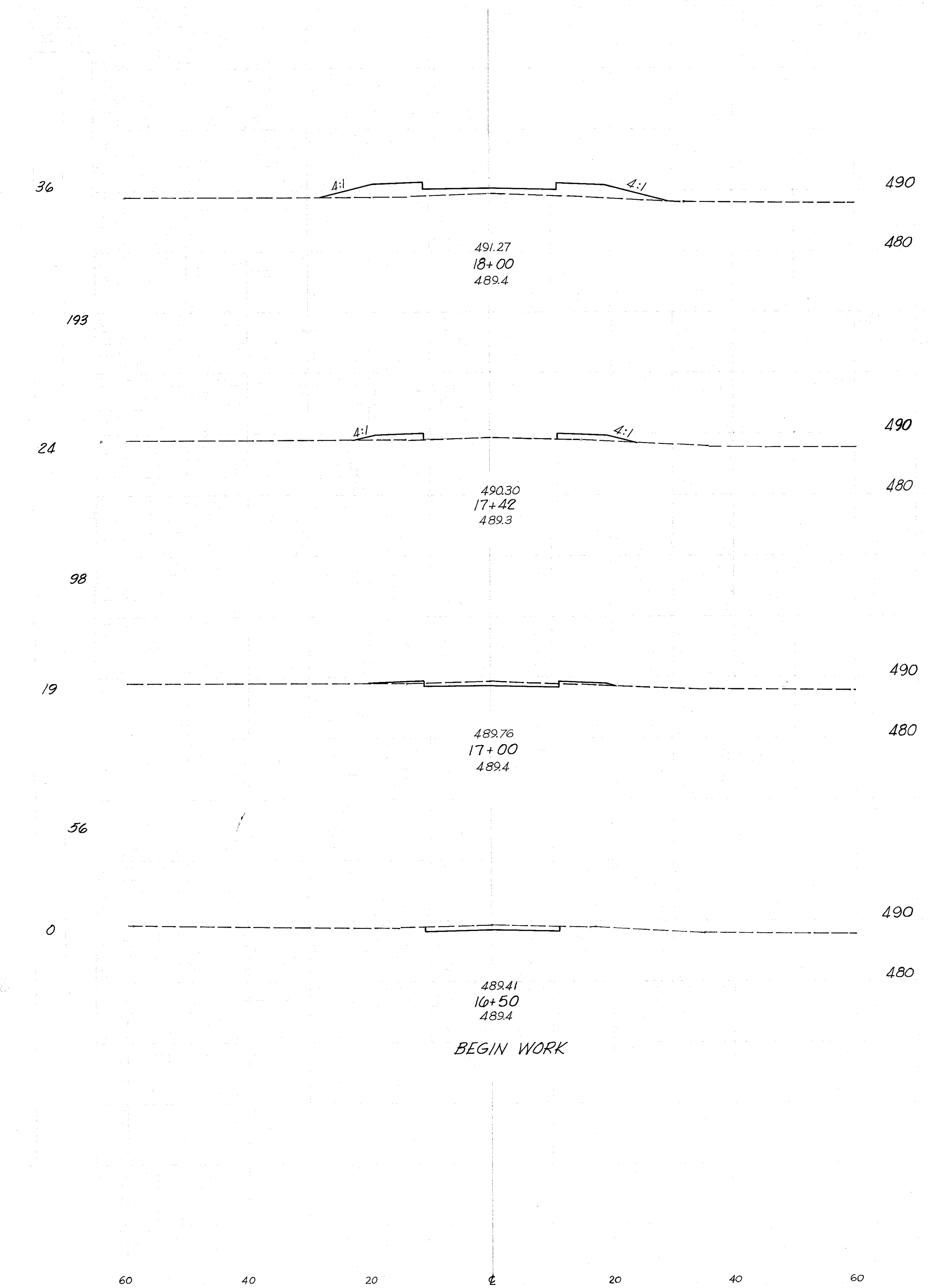


258

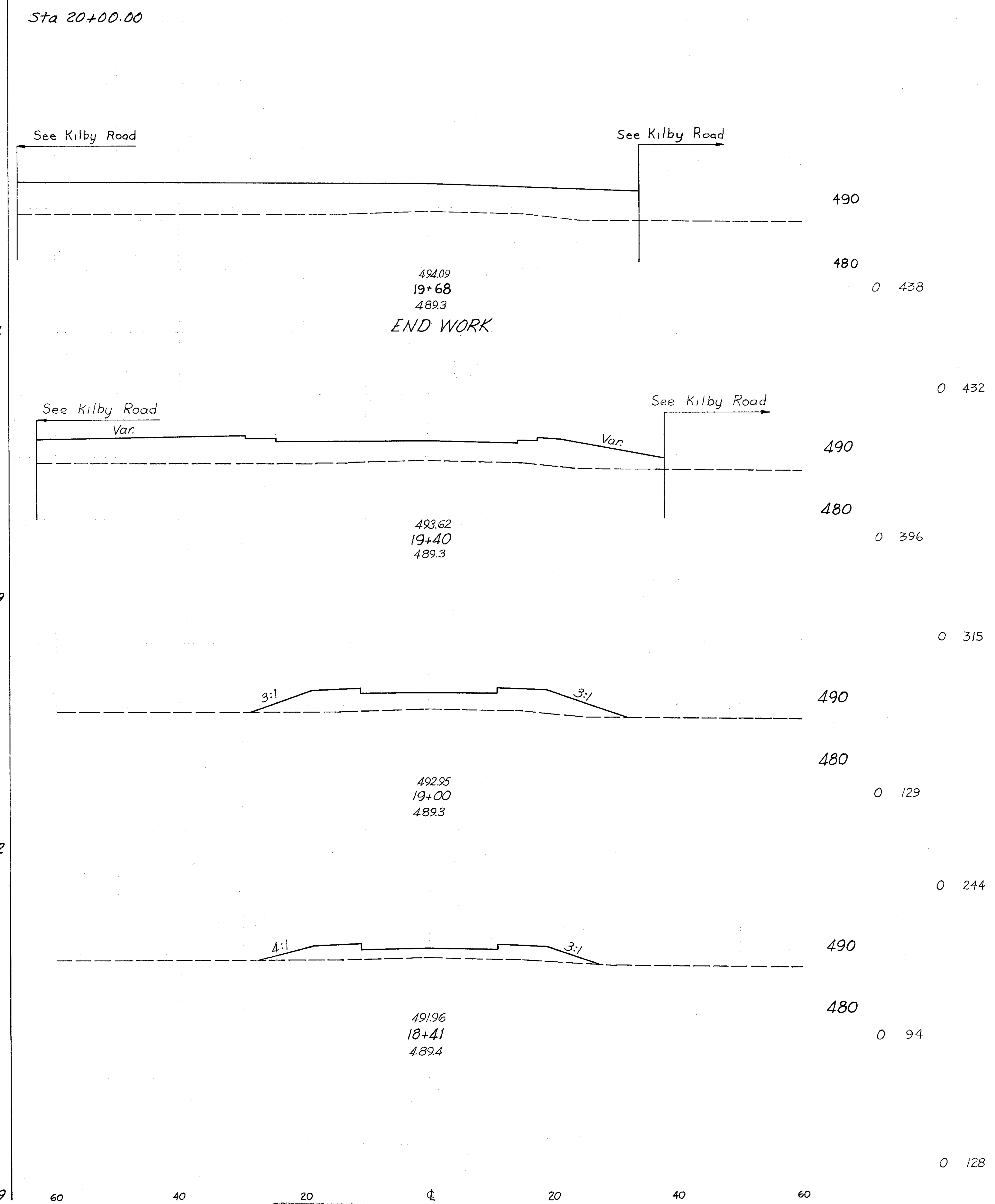
UNIT	304 Aggr. Base Cu. Yd.	404 Asph. Conc. Cu. Yd.	408 Bitum. Prime Coat Gal.
PAVEMENT 16+50 - 19+67.62 Lt., Rt.	201	51	361
	201	51	361

SUSPENSION BRIDGE ROAD Sta 16+50 to Sta. 20+00.00

HAM 275-3.86
HAMILTON COUNTY



END AREA		VOLUME		SEEDING	
CUT	FILL	CUT	FILL	END WIDTH	SQ. YDS.
				0	
					0
0	74				
				0	
		0	102		
					84
0	21				
				55	
		8	19		
					209
11	4				
				40	
		25	4		
					242
16	0				
				34	
					159



DEVELOPED		CHECKED	
1/70	D.W.	8/70	R.D.

SUSPENSION BRIDGE ROAD STA 16+50 TO STA. 19+68

DEVELOPED | CHECKED

CILLEY ROAD Sta. 0+58.72 to Sta 15+00


HAM. 275-3.86
HAMILTON COUNTY
L.A. R/W
P/L
R/W
℄ CILLEY ROAD
N 24° 47' 30" E
27" Type B
479
C.B. 2-3
9D
Rock Channel Protection
Type B 7'x4'x18"
487
24" Type B
479
12D
Anchor Assembly
3R
Earth Dike
Elev. 505.0
Sodding
487
6D
Sodding
487
10D
Earth Dike
Elev. = 515.6
C.B. 2-3
11D
Erosion Control at Swales
487
14D
Riprap Using
6" Reinforced Concrete
13D
Erosion Control
at Swales
487
16D
Erosion Control at Swales
487
17D
Sodding
487
15D
Earth Dike
Elev. 526.5
For Quantities
See Sh. Nos. 263, 264
502.04
503.28
504.52
505.76
507.00
507.33
507.73
508.17
508.68
509.23
509.85
510.51
511.24
514.24
517.24
520.24
523.24
523.95
524.60
525.17
525.68
526.11
526.48
526.77
527.00
527.76
528.52
529.28
540
530
520
510
500
200' V.C.
P.V.C.
P.V.T.
+1.24%
+3.00%
P.V.I. Sta. 20+00.00
Elev. 508.24
P.V.I. Sta. 26+00.00
Elev. 526.24
+3.00%
+0.76%
200' V.C.
Sta. 19+00, 28' Lt.
CB-2-3
F.L. Grate = 504.5
F.L. 27" = 500.9
Sta. 23+25, 36' Rt.
CB-2-3
F.L. Grate = 513.5
F.L. 24" = 509.0
500.2
500.8
503.1
502.6
502.9
503.7
505.9
510.1
514.5
519.0
521.7
522.2
523.1
524.5
526.2
525.7
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
DEVELOPED
CHECKED
CILLEY ROAD Sta. 15+00 to Sta. 30+00

SUPERELEVATION TABLE

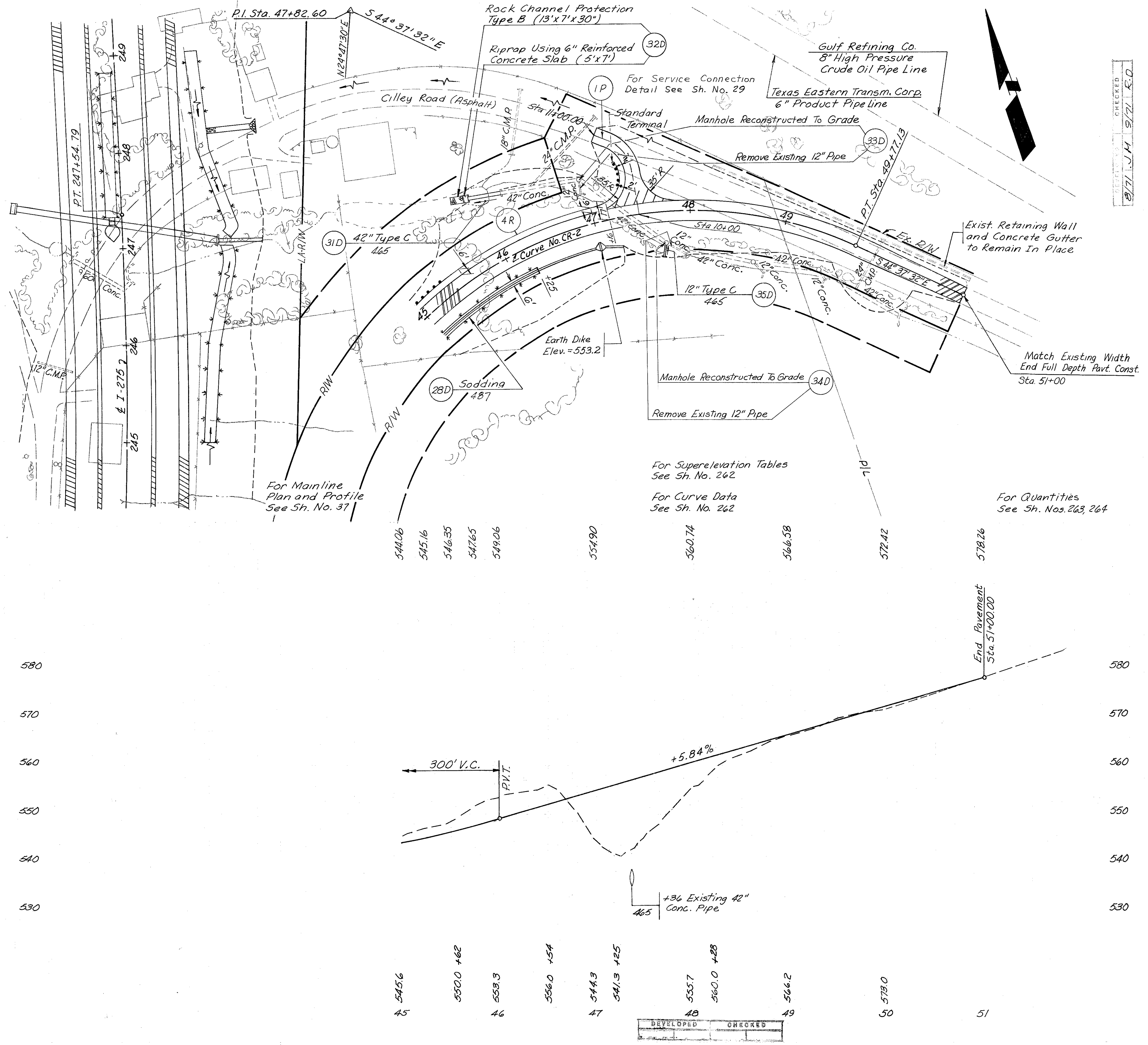
Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
Sta. 0+26.72 to Sta. 1+75 See 20' Scale Detail Sheet No.					
1+75	493.50	11.00	493.67	11.00	493.68
2+00	493.50	↑	↑	↑	493.80
+08.38	493.50				493.84
+17.98	493.45				493.89
+25	493.42				493.92
+50	493.29	↓	↓	↓	494.05
+61.98	493.23	11.00	493.67	11.00	494.11
Sta. 2+61.98 to Sta. 9+36.98					
Constant	-0.44	11.00	P. G.	11.00	+0.44
9+36.98	494.62	11.00	495.06	11.00	495.50
+50	494.85	↑	495.22	↑	495.59
+75	495.28		495.53		495.78
+80.98	495.38	↓	495.60	↓	495.82
+90.58	495.55	11.00	495.72	11.00	495.89

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
9+90.58	495.55	11.00	495.72	11.00	495.89
10+00	495.67	↑	495.84	↑	495.96
+24.98	495.98		496.15		496.15
+25	495.98		496.15		496.15
+50.00	496.29		496.46		496.40
+75.00	496.60	↓	496.77	↓	496.65
+93.78	496.83	11.00	497.00	11.00	496.83
Sta. 11+03.38 to Sta. 40+92.31					
Constant	-0.172	11.00	P.G.	11.00	-0.172
40+92.31	573.41	11.00	537.38	11.00	537.41
41+00	537.49	↑	537.64	↑	537.47
+25	537.74		537.83		537.66
+50	537.99		538.02		537.85
+61.11	538.10		538.10		537.93
+75	538.27		538.21		538.04
+95.51	538.53	↓	538.56	↓	538.19
42+00	538.59	11.00	538.40	11.00	538.21

Station	Left Side Elevation	Left Side Width	Profile Grade	Right Side Width	Right Side Elevation
42+00	538.59	11.00	538.40	11.00	538.21
+05.11	538.66	↕	538.44	↕	538.22
+25	538.91		538.59		538.27
+49.11	539.21	11.00	538.77	11.00	538.33
Sta. 42+49.11 to Sta. 49+33.13					
Constant	+0.44	11.00	P.G.	11.00	-0.44
49+33.13	568.95	11.00	568.51	11.00	568.07
+50	569.86	↑	569.50	↑	569.14
+75	571.19		570.96		570.73
+77.13	571.30		571.08		570.86
+86.73	571.82		571.65		571.48
50+00	572.52		572.42		572.25
+21.13	573.65		573.65		573.68
+25	573.87		573.88		573.71
+50	575.28		575.34		575.17
+75	576.68	↓	576.80	↓	576.63
51+00.00	578.09	11.00	578.26	11.00	578.09

DEVELOPED | CHECKED

CILLEY ROAD Sta. 30+00 to Sta. 45+00



UNIT		Gal.	Cu. Yd.	Cu. Yd.	Each	
		408 Bitum Prime Coat	404 Asph. Conc.	304 Aggr. Base	606 Guard Anchor Rail Assemb. Type 5	L.F.
PAVEMENT	0+58.72 - 15+00	1442	201	Lt.&Rt. 801		
	15+00 - 30+00	1467	204	Lt.&Rt. 815		
	30+00 - 45+00	1467	204	Lt.&Rt. 815		
	45+00 - 51+00	587	82	Lt.&Rt. 326		
IP 47+46		87	12	Lt. 52		
ROADWAY 1R 2R						
3R 25+50 - 30+50				Lt.	2	450
4R 44+52 - 47+36				Lt.	1	300
		5,050	703	2,809	3	750

CILLEY ROAD Sta. 45+00 to Sta. 51+00

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

264/630

HAM-275-3.86
HAMILTON COUNTY

REF. NO.	STATION TO STATION	SIDE	Bends 21" 15°	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect Type B	601 Rock Channel Protect As Per Plan	602 Conc. Masonry	603 Type A 706.02 Cl. III or 706.08 24"	603 Type A 706.02 42"	603 Type B 21"	603 Type B 24"	603 Type B 27"	603 Type B 30"	603 Type C 12"	603 Type C 706.02 Cl. IV or 707.13 24"	603 Type C 706.02 42"	603 Type D 12"	603 Type F 21"	604 Catch Basins C.B. 2-3	604 Catch Basins C.B.-5 With B Grate	604 Manholes Manholes Reconst. To Grade	660 Sodding	SEE SHEET NO.
	UNIT			L.F.	L.F.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Sq. Yd.	
	DRAINAGE																								
	CILLEY ROAD																								
1D	1+36 - 2+00	Lt.					50																		260
2D	1+40	Lt. & Rt.							1.68		82														260
3D	1+44 - 12+50	Rt.																						834	260
4D	2+00 - 13+00	Lt.																						1106	260
5D	13+00	Lt. & Rt.							0.56						72						1				260
6D	13+02 - 18+50	Rt.																						548	260 & 261
7D																									
8D																									
9D	19+00	Lt. & Rt.							0.49					58							1				261
10D	19+02 - 22+50	Rt.																						348	261
11D	23+25	Rt.																			1				261
12D	23+25	Lt. & Rt.					2		0.43				80												261
13D	23+27 - 24+00	Rt.				73																			261
14D	23+74	Rt.					17	2																	261
15D	24+00 - 27+90	Rt.																						390	261
16D	25+15	Rt.					16	2																	261
17D	25+90	Rt.					13	2																	261
18D																									
19D																									
20D	30+15	Rt.					15	3																	262
21D	30+20	Lt. & Rt.							0.43				88								1				262
22D	30+20	Lt.					3																		262
23D	30+22 - 34+25	Rt.																						403	262
24D	31+66	Rt.					11	3																	262
25D	36+02 - 40+50	Rt.																						398	262
26D	43+00	Lt. & Rt.							*0.16			72										1			262
27D	43+00	Lt.	2				2		0.39											82					262
28D	43+07 - 46+25	Rt.																						269	262 & 263
29D																									
30D																									
31D	45+96 - 46+29	Lt.							0.84									32							263
32D	45+96	Lt.				4	10																		263
33D	45+95	Lt.		14																			1		263
34D	47+71	Rt.		25																			1		263
35D	47+71	Rt.							0.20							14									263
36D	1+40	Rt.					9																		
	MORGAN ROAD																								
1D	15+30 - 17+50	Rt.																						147	280
2D	21+85 - 24+04	Lt.																						106	280
3D	21+97	Lt. & Rt.							0.43	104															280
4D	21+97	Lt.							0.43								112					1			280
5D	22+04 - 22+36	Lt.																	32						280
6D	22+72	Lt. & Rt.		52																					280
7D	23+28 - 23+56	Lt.																	28						280
8D	24+04 - 24+40	Lt.																	36						280
9D	25+88 - 26+28	Lt.																	40						280
TOTALS			2	91		77	148	12	5.88	104	82	72	168	58	72	14	112	32	136	82	4	2	2	4549	

* Concrete Collar (For Information Only Not Included In Total)

DEVELOPED		CHECKED	
8/71	JM	9/71	R.D.

MORGAN RD. & CILLEY RD.

CILLEY ROAD Sta. 0+85 to Sta. 2+00

DEVELOPED	CHECKED
1/70 F.M.	2/70 D.W.

CILLEY ROAD Sta. 3+00 to Sta. 7+00

267
630

HAM-275-3.86
HAMILTON COUNTY

CILLEY ROAD Sta. 8+00 to Sta. 12+00

HAM-275-3.86
HAMILTON COUNTY

CILLEY ROAD Sta. 13+00 to Sta. 17+00

269
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 1/69 Jm | CHECKED 2/70 D.W.

CILLEY ROAD Sta. 18+00 to Sta. 21+00

270
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
1/69	fm	2/70	D.W.

CILLEY ROAD Sta. 22+00 to Sta. 24+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
1/69	JM	2/70	D.W

CILLEY ROAD Sta. 25+00 to Sta. 27+00

272
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
11/69	J.H.M.	2/70	D.W.

CILLEY ROAD Sta. 28+00 to Sta. 30+00

273
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
11/69	fm	2/70	D.W.

CILLEY ROAD Sta. 31+00 to Sta. 32+00

274
630

HAM -275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
1/69	JM	2/70	D.W

CILLEY ROAD Sta. 33+00 to Sta. 35+00

275
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
1/69	tw	2/70	DW

CILLEY ROAD Sta. 36+00 to Sta. 38+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
1/69 Jm	2/70 D.W.

CILLEY ROAD Sta. 39+00 to Sta. 41+00

277
630

HAM-275-3.86
HAMILTON COUNTY

LEVEL-PEG CHECKED
1/69 Jm 2/70 D.W.

CILLEY ROAD Sta. 42+00 to Sta. 44+00

DEVELOPED		CHECKED	
1/69	JWJ	2/70	D.W.

CILLEY ROAD Sta. 45+00 to Sta. 47+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
11/69	[illegible]	2/70	D.W.

CILLEY ROAD Sta. 48+00 to Sta. 51+00

DEVELOPED		CHECKED	
8/71	JM	9/71	R.D.

PROPOSED STRUCTURE - HAM-275-0620

TYPE: Four span continuous welded steel girder with reinforced concrete deck and substructures.
SPANS: 58'-6", 97'-3", 83'-0", 64'-0"
ROADWAY: 44'-0" face to face of parapets
LOADING: HS-20-44
SKEW: 33° 03' 19" R.F.
WEARING SURFACE: 1½" Asphalt Concrete
APPROACH SLABS: AS-1-67 (20' long)
ALIGNMENT: Tangent
SUPERELEVATION: None

DEVELOPED		CHECKED	
8/71	JM	9/71	R.D.

MORGAN ROAD Sta. 15+15 to Sta. 26+55

DEVELOPED		CHECKED	
6/68	C.H.	7/69	R.D.

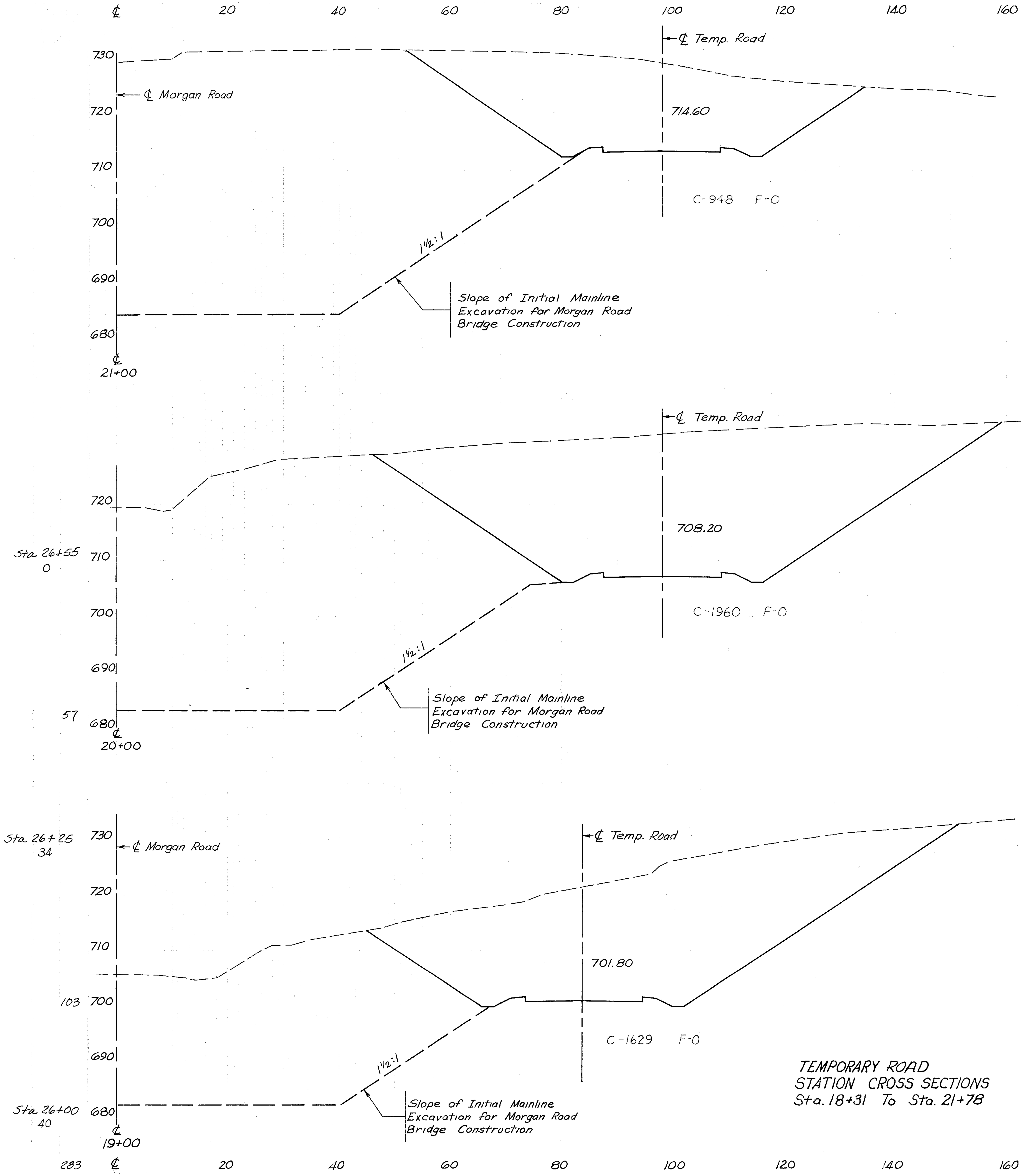
MORGAN ROAD Sta. 15+15 to Sta.17+00

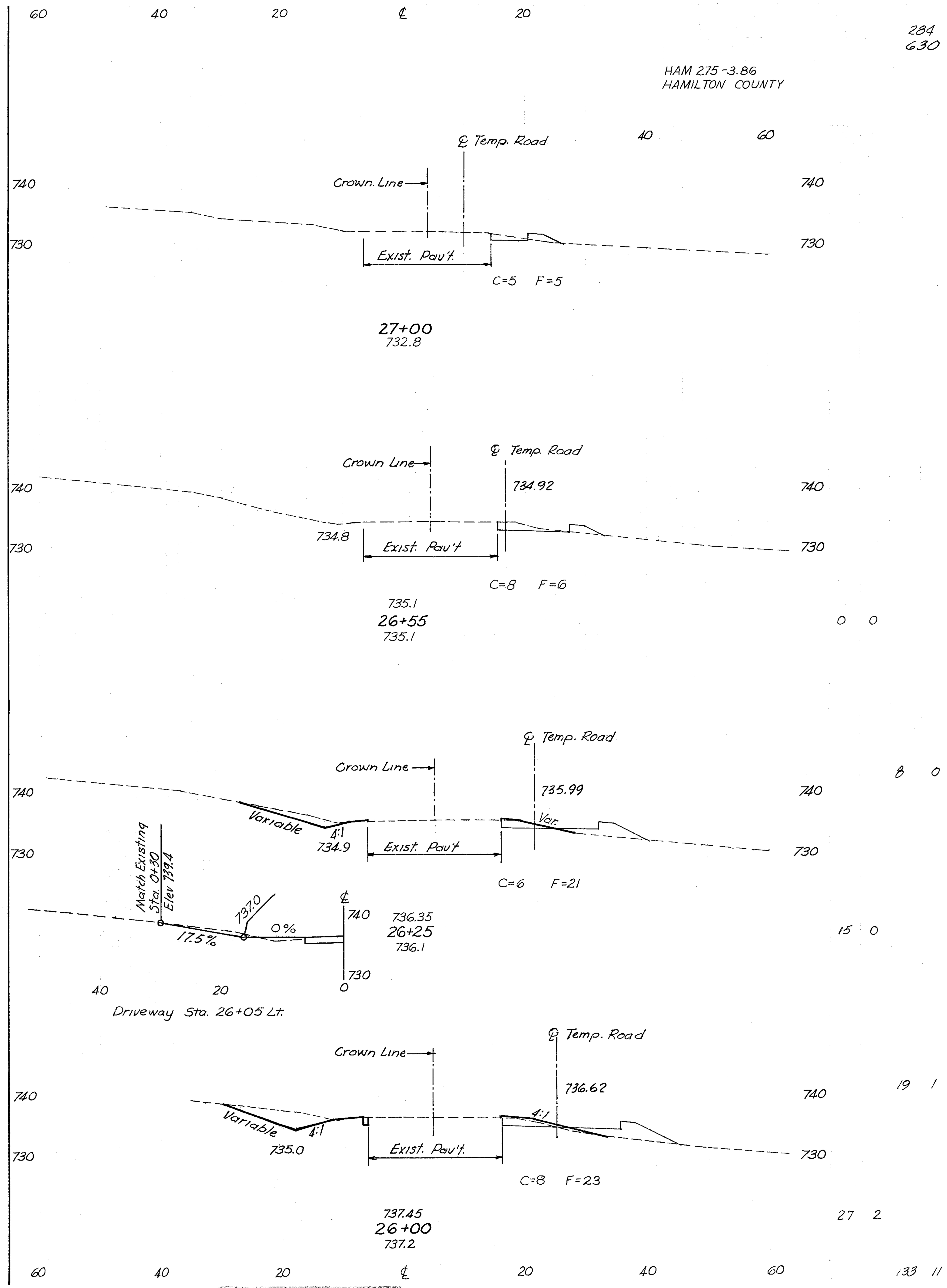
282
630

HAM 275-3.86
HAMILTON COUNTY

6/68 CH 7/69 R.D. MORGAN ROAD Sta. 18+00 to Sta. 22+00


HAM 275-3.86
HAMILTON COUNTY
Match Existing Sta. 0+43 Elev. 742.0
738.1
16.7%
0%
Driveway Sta. 25+25 Lt.
735.7
2:1
4:1
Exist. Pavt
℄ Temp. Road
737.22
3:1
C=1 F=88
738.35
25+50
738.1
Station 25+35
AH 108 15
BK 130 15
Match Existing Sta. 0+42 Elev. 739.0
736.3
13.1%
0%
Driveway Sta. 24+22 Lt.
℄ Temp. Road
736.91
C=0 F=189
738.13
25+00
736.9
℄ Temp. Road
733.58
C=0 F=602
735.98
24+00
732.1
℄ Temp. Road
732.18
730.6
C=0 F=687
Match Existing Sta. 0+46 Elev. 729.9
732.4
10.7%
8.33%
Driveway Sta. 23+43 Lt.
735.10
23+75
730.8
℄ Temp. Road
727.40
726.0
C=0 F=566
731.58
23+00
727.3
DEVELOPED 6/68 C.H.
CHECKED 7/69 R.D.
MORGAN ROAD Sta. 23+00 to Sta. 25+50


℄ 20 40 60 80 100 120 140 160
℄ Temp. Road
℄ Morgan Road
730 720 710 700 690 680
714.60
C-948 F-0
1½:1
Slope of Initial Mainline Excavation for Morgan Road Bridge Construction
℄ 21+00
℄ Temp. Road
720 710 700 690 680
708.20
C-1960 F-0
Sta. 26+55 0
57
℄ 20+00
Sta. 26+25 34
℄ Temp. Road
℄ Morgan Road
730 720 710 700 690 680
701.80
C-1629 F-0
103
Sta. 26+00 40
℄ 19+00
283
TEMPORARY ROAD
STATION CROSS SECTIONS
Sta. 18+31 To Sta. 21+78


60 40 20 ℄ 20 40 60
℄ Temp. Road
Crown Line
740 730
Exist. Pav't.
C=5 F=5
27+00
732.8
℄ Temp. Road
Crown Line
734.92
734.8
Exist. Pav't
C=8 F=6
735.1
26+55
735.1
0 0
℄ Temp. Road
Crown Line
735.99
Variable
4:1
Var.
734.9
Exist. Pav't
C=6 F=21
8 0
Match Existing Sta. 0+30 Elev 739.4
737.0
0%
17.5%
740 730
736.35
26+25
736.1
40 20 0
Driveway Sta. 26+05 Lt.
15 0
℄ Temp. Road
Crown Line
736.62
Variable
4:1
4:1
735.0
Exist. Pav't.
C=8 F=23
19 1
737.45
26+00
737.2
27 2
133 11

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

285
630

HAM 275-3.86
HAMILTON COUNTY

SCHEMATIC PLAN I-74 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

286
630

HAM 275-3.86
HAMILTON COUNTY

403 Rev

Scale 1"=200'

LOCATION	CURVE NO.	P.I. STATION	COORDINATES N	COORDINATES E	△	D_c	R_c	L_c	T_1	T_2	L_s	θ_s	θ_{s2}	E
I-74	4	318+18.12	452,472.58	365,470.62	3°02'10"	0°15'00"	22,918.31	1,214.44	607.36	607.36				8.05
EASTBOUND I-275	EB-1	353+72.98	450,644.29	363,165.51	5°00'51"	0°30'00"	11,459.16	1,002.83	501.75	501.75				10.98
	EB-2	384+66.08	452,003.74	365,944.59	58°58'32"	1°15'00"	4,583.66	4,718.05	2,592.03	2,592.03				682.13
RAMP F	F-1	377+33.30	452,172.51	365,350.17	102°31'24"	5°00'00"	1,145.92	2,050.47	1,428.38	1,428.38				685.31
	F-2	389+32.62	453,382.80	364,148.39	8°18'08"	1°30'00"	3,819.72	553.48	277.23	277.23				10.05
RAMP E	E-1	391+19.59	452,595.59	366,363.92	53°41'49"	5°00'00"	1,145.92	873.94	775.59	587.27	400.00	10°00'00"		88.68
	E-2	399+41.63	452,245.28	367,204.83	58°45'00"				323.69	225.20	500.00	12°30'00	46°15'00"	
	E-3	408+09.48	451,338.93	367,342.45	131°18'15"	18°30'00"	309.71	609.75	691.54	784.77	200.00		18°30'00"	448.02
WESTBOUND I-275	WB-1	399+70.00	453,099.72	367,053.03	98°32'57"	5°00'00"	1,145.92	1,470.98	1591.21	1,591.21	500.00	12°30'00"	12°30'00"	284.70
	WB-2	414+24.32	451,108.47	367,905.11	17°49'15"	5°00'00"	1,145.92	106.42	407.04	209.32	500.00	12°30'00"		1.24
	WB-3	417+75.69	450,837.70	368,135.16	11°00'00"				145.99	255.24	400.00	10°00'00"	1°00'00"	
	WB-4	425+08.34	450,379.37	368,708.33	4°47'01"	0°30'00"	11,459.16	956.72	478.64	478.64				9.99

GEOMETRIC LAYOUT I-74 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

287
630

HAM 275-3.86
HAMILTON COUNTY

CROSS SECTION LAYOUT I-74 INTERCHANGE

GRADING PLANS I275-I74 INTERCHANGE • E.B. I275 & RAMP F @ I 275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

289
630

HAM-275-3.86
HAMILTON COUNTY

GRADING PLANS I 275-I 74 INTERCHANGE-RAMP F & E.B. I 275 @ I 74

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-3.86
HAMILTON COUNTY

GRADING PLANS I275-I74 INTERCHANGE · W.B. I275 & RAMP E @ I74

E.B. I-275 Sta. 348+71.23 to Sta. 355+00

E.B. I-275 Sta. 355+00 to Sta. 370+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

293/630

HAM-275-3.86
HAMILTON COUNTY

CURVE NO. EB-2
P.I Sta. 384+66.08
Δ = 58°58'32"
D_c = 1°15'00"
R_c = 4,583.66'
L_c = 4,718.05'
T = 2,592.03'
E = 682.13'

For Superelevation Tables See Sh. No. 17

For Quantities See Sh. No. 297

DEVELOPED		CHECKED	
6/68	C.H.	7/69	R.D.

PROFILE E.B. I-275 Sta. 370+00 to Sta. 385+00

E.B. I-275 Sta. 385+00 to Sta. 400+00

E.B. I-275 Sta. 400+00 to Sta. 405+92.12

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	Bends	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect. Type A	601 Rock Channel Protect. Type B	601 Rock Channel Protect. As Per Plan	602 Conc. Masonry	603 Type A 707.05 30"	603 Type A 707.07 (0.079") 36"	603 Type A See Below For Type * 36"	603 Type A 707.07 (0.168") Elong. 48"	603 Type A 707.03 72"	603 Type A 707.03 84"	603 Type B 706.02 Cl. V 15"	603 Type B 15	603 Type C 18"	604 Catch Basins C.B.-5	604 Catch Basins C.B.-6	604 Manholes MH-1A	604 Manholes MH-2 Modified	660 Sodding	SEE SHEET NO.
	UNIT			L.F.	L.F.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Each	Sq. Yd.	
	DRAINAGE E.B. I-275																								
1D	358+75 - 359+83	Rt.																						144	292
2D	359+90 - 360+50	Rt.								0.31									60	1					292
3D	363+00 - 364+90	Rt.						84																	292
4D																									
5D																									
6D	372+25 - 373+96	Rt.						152																	293
7D	374+00	Rt.				5		14																	293
8D	374+00	Lt. & Rt.								2.20				380											293
9D	378+46	Lt. & Rt.								0.76		304										1			293
10D	378+46	Rt.								0.76			34												293
11D	378+46	Rt.						4																	293
12D	377+52 - 380+50	Rt.						177																	293
13D	379+04 - 383+00	Lt.						176																	293
14D	381+35	Lt.						15																	293
15D	382+50 - 383+50	Rt.																						67	293
16D	383+00 - 384+50	Lt.																						200	293
17D	383+15	Lt.						13																	293
18D	383+82	Lt.						18																	293
19D	384+80	Lt.						22	4																293
20D																									
21D																									
22D	396+42 - 397+92	Lt.																		1				100	295
23D	396+35	Lt. & Rt.								0.25							158								295
24D	396+35 - 399+40	Rt.						187																	295
25D	399+57	Rt.									24												1		295
26D	399+80	Rt.								3.30					28	58									295
27D	399+80	Rt.				9	44						* 706.02 Cl. III												295
28D													707.05												
29D																									
30D	403+50 - 404+50	Rt.											706.08											100	296
31D	405+75	Lt. & Rt.								0.25								64			1				296
TOTALS						14	44	862	4	7.83	24	304	34	380	28	58	158	64	60	2	1	1	1	611	

REF. NO.	STATION TO STATION	SIDE	301 Bitum. Aggr. Base	301 Bitum. Aggr. Base	451 9" Reinf. Portland Cement Conc.	451 10 Reinf. Conc. Pav't	609 Curb Type 7	609 Curb Type 8	606 Guard Rail Type 5	606 Anchor Assembly	SEE SHEET NO.
	E.B. I-275										
	UNIT		Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	L.F.	L.F.	L.F.	Each	
	PAVEMENT E.B. I-275										
1P	401+40 - 402+95	Lt.					156				296
2P	402+95 - 405+92.10	Lt.						299			296
	348+71.23 - 355+00	Lt. & Rt.	42	135							291
	355+00 - 370+00	Lt. & Rt.	403	459	107	2903					292
	370+00 - 385+00	Lt. & Rt.	376	479		4011					293
	385+00 - 400+00	Lt. & Rt.	376	479		4011					295
	400+00 - 405+92.10	Lt. & Rt.	168	198		1583					296
	Deceleration Taper										
	348+71.23 - 355+00	Lt.			402						
	355+00 - 358+74.06	Lt.			1235						
	ROADWAY										
	E.B. I-275										
1R	360+00 - 383+06	Rt.							2,250	2	292 & 293
2R	364+90 - 383+03	Lt.							1,775	2	292 & 293
3R	395+00 - 405+03	Rt.							950	2	295 & 296
			1365	1750							
TOTALS			3115		1744	12,508	156	299	4975	6	

DEVELOPED		CHECKED	
8/71	J.H.	9/71	R.D.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

298/630

HAM-275-3.81
HAMILTON COUNTY

PAVEMENT DETAILS I-74 INTERCHANGE RAMP E.B. I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

299
630

HAM-275-3.86
HAMILTON COUNTY

PAVEMENT DETAILS I-275 INTERCHANGE RAMP E.B. I-275

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67	J.W.	7/70	M.S.

E.B. I-275 Sta. 348+71 to Sta. 349+50

HAM-275-3.86
HAMILTON COUNTY

E.B. I-275 Sta. 350+00 to Sta. 351+00

DEVELOPED		CHECKED	
5/67	JM	7/70	H.S.

302
630

HAM-275-3.86
HAMILTON COUNTY

E.B. I-275 Sta. 351+50 to Sta. 352+55

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
5/67 Jm	7/70 M.S.

E.B. I-275 Sta. 353+00 to Sta. 353+50

304
630

HAM -275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3167	[illegible]	7/70	M.S.

E.B. I-275 Sta. 354+00 to Sta. 354+50

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67	Jm	7/70	M.S.

E.B. I-275 Sta. 355+00 to Sta. 357+00

E.B. I-275 Sta. 358+00 to Sta. 360+00

DEVELOPED		CHECKED	
5/67	Jm	7/70	M.S.

E.B. I-275 Sta. 361+00 to Sta. 363+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
5/67 Jm	7/70 M.S.

E.B. I-275 Sta. 364+00 to Sta. 364+15

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67	+M	7/70	H.S

E.B. I-275 Sta. 365+00 to Sta. 366+00

HAM - 275 - 3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67	JWI	7/70	M.S

E.B. I-275 Sta. 367+00 to Sta. 367+25

311
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67		7/70	M.S.

E.B. I-275 Sta. 368+00 to Sta. 369+00

HAM-275-386
HAMILTON COUNTY

E.B. I-275 Sta. 370+00

DEVELOPED | CHECKED
5/0 | Jm | 7/70 | M.S.


313
630
HAM-275-3.86
HAMILTON COUNTY
See Mainline
2:1
A
B
Estimated Rock Surface
628.91
370+90
519.9
381
3511
O 25839
O 78972
DEVELOPED 5/67
CHECKED 7/70 M.S.
E.B. I-275 Sta. 370+90

HAM-275-3.86
HAMILTON COUNTY

384

424

0 25703

0 9545

DEVELOPED		CHECKED	
5/67	fm	7/70	M.S.

E.B. I-275 Sta. 371+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/67	4m	7/70	M.S.

E.B. I-275 Sta. 372+00

HAM-275-3.86
HAMILTON COUNTY

4822

DEVELOPED		CHECKED	
5/67	HM	7/70	M.S.

E.B. I-275 Sta. 373+00

1401 79,276

DEVELOPED		CHECKED	
5/67	[illegible]	7/70	H.S

E.B. I-275 Sta. 374+00 to Sta. 375+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67	TM	7/70	M.S

E.B. I-275 Sta. 376+00 to Sta. 376+60

319
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
6/67	+wl	7/70	M.S.

E.B. I-275 Sta. 377+00 to Sta. 378+00

E.B. I-275 Sta. 378+45 to Sta. 379+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 3/67 [illegible] CHECKED 7/70 M.S.

E.B. I-275 Sta. 380+00 to Sta. 382+00

E.B. I-275 Sta. 383+00 to Sta. 386+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67	hm	7/70	M.S

E.B. I-275 Sta. 387+00 to Sta. 388+00

DEVELOPED		CHECKED	
5/67	Jm	7/70	M.S.

E.B. I-275 Sta. 388+50 to Sta. 389+00

HAM-275-3.86
HAMILTON COUNTY

E.B. I-275 Sta. 390+00 to Sta. 391+00

HAM-275-3.86
HAMILTON COUNTY

E.B. I-275 Sta. 392+00 to Sta. 393+00

DEVELOPED 5/67 | CHECKED 7/70 M.S.

327
630

HAM-275-3.86
HAMILTON COUNTY

E.B. I-275 Sta. 394+00 to Sta. 395+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 5/67 HM CHECKED 7/70 M.S.

E.B. I-275 Sta. 396+00 to Sta. 397+00

HAM-275-3.86
HAMILTON COUNTY

154 23661

DEVELOPED 5/67 Am CHECKED 7/70 M.S.

E.B. I-275 Sta. 398+00

E.B. I-275 Sta. 399+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
5/67	Jm	7/70	M.S.

E.B. I-275 Sta. 400+00

HAM-275-3.86
HAMILTON COUNTY

E.B. I-275 Sta. 401+00 to Sta. 402+00

E.B. I-275 Sta. 403+00 to Sta. 405+92

FED. RD. DIVISION 2
STATE OHIO
PROJECT
331/630
HAM-275-3.86
HAMILTON COUNTY
CURVE NO. W.B-1
P.I. Sta. 399+70.00
L_S = 500.00'
Θ_S = 12°30'00"
K = 249.60'
LT = 334.17'
ST = 167.43'
Δ = 98°32'57"
D_c = 5°00'00"
R_c = 1145.92'
L_c = 1470.98'
T_c = 856.47'
T_s = 1,591.21'
E_c = 284.70'
For I-74 Plan and Profile See Sh. No. 405
Quantities I-275 Sheet
Quantities This Sheet W.B. I-275 Only
30.00' Lt. Sta 383+44.00 ℄ I-275
Sta. 383+44.00 ℄ W.B. I-275
Begin Westbound I-275
Sta. 384+23.96 ℄ W.B. I-275
Sta. 321+27.64 ℄ I-74
TS Sta. 383+78.79
SC. Sta. 388+78.79
30" Type F (2D) 485
Earth Dike Elev. 707.5
Earth Dike Elev 685.1
C.B.-5A 30" Type B 485 (3D)
C.B.-5A 30" Type B 485 (4D)
Anchor Assembly
C.B.-5A (5D)
30" Type B 485
18" Type C 485 C.B.-5 (6D)
18" Type C 485 C.B.-5 (8D)
Sodding 487 (1D)
Ex. 36" Conduit
For Cascade Detail See Sh. No. 487
Sodding 487
Riprap Using 6" Reinf. Concrete Slab (7D)
LA-R/W
Curve No. WB-1
℄ W.B. I-275
RAMP E
℄ I 275
N 58° 55' 09" E
℄ I-74
S 56° 08' 10" E
P.I. Sta. 324+25.20
For Ramp E Plan and Profile See Sh. Nos. 367, 368
For I-74 Bridge Data See Sh. No. 405
For Superelevation Tables See Sh. No. 17
For Quantities See Sh. No. 338
Sta. 386+56, 16' Rt. C.B.-5A F.L. Grate = 684.4 F.L. 18" (In) = 681.2 F.L. 30" (In) = 678.2 F.L. 30" (Out) = 678.2
P.V.I. Sta. 387+80 Elev. 690.98
+3.50% +0.585%
550' V.C.
Begin W.B. I-275 Sta. 383+44
P.V.C.
P.V.T.
For continuation of profile See Mainline I-275
Sta 389+00, 20' Rt. C.B.-5 F.L. Grate = 688.7 F.L. 18" (In) = 685.5 F.L. 18" (Out) = 685.5
Sta. 392+00, 24' Rt. C.B.-5 F.L. Grate = 690.8 F.L. 18" = 687.6
383 384 385 386 387 388 389 390 391 392 393 394 395
W.B. I-275 Sta. 383+44 to Sta. 395+00

CURVE DATA W.B. I-275
CURVE NO. WB-1
P.I. Sta. 399+70.00
L_S = 500.00'
θ_S = 12°30'00"
K = 249.60'
LT = 334.17'
ST = 167.43'
Δ = 98°32'57"
D_c = 5°00'00"
R_c = 1145.92'
L_c = 1470.98'
T_c = 856.47'
T_s = 1,591.21'
E_c = 284.70'

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

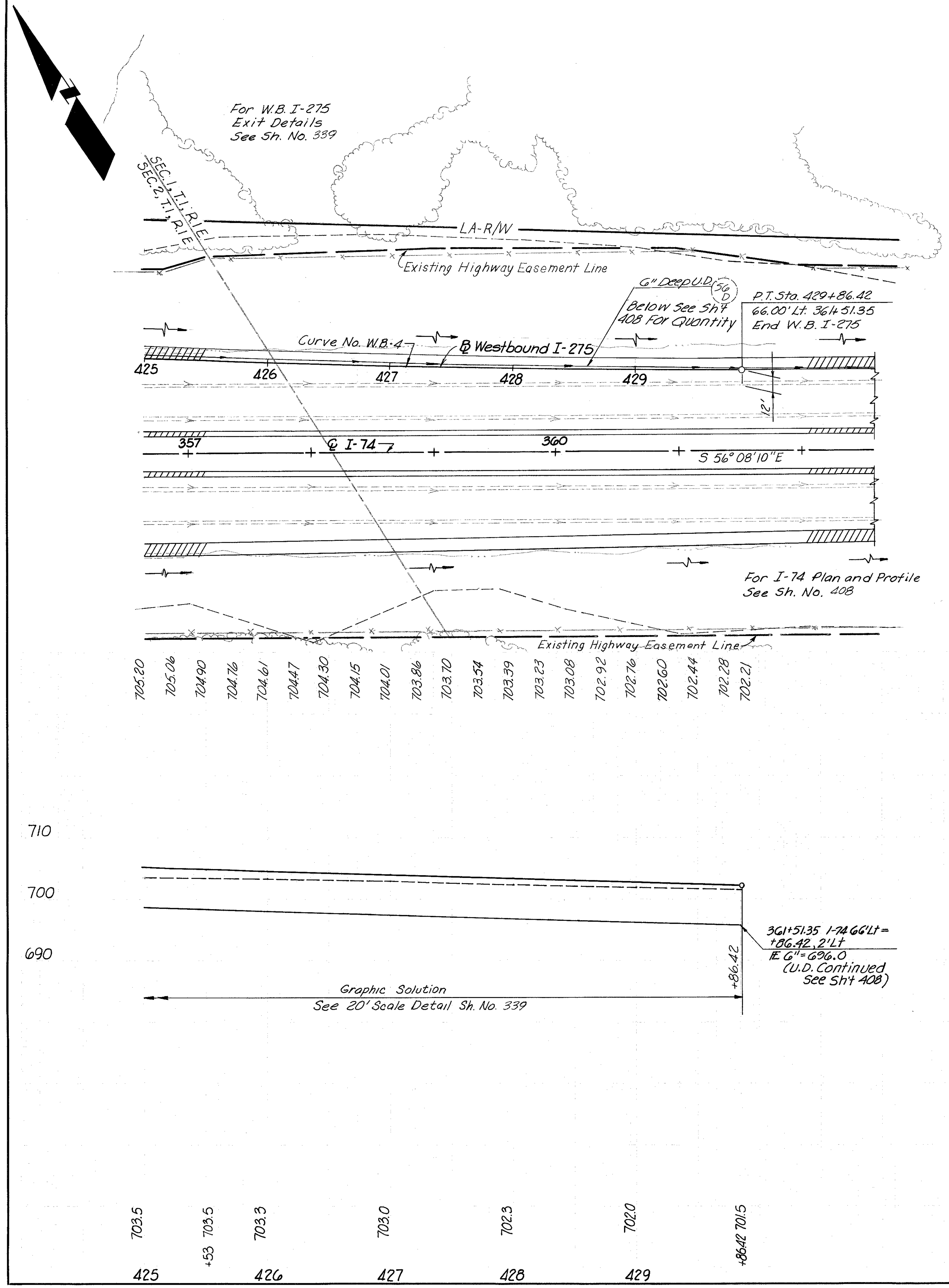
335/630

HAM. 275-3.86
HAMILTON COUNTY

W.B. I-275 Sta. 395+00 to Sta. 410+00


FED. RD. DIVISION 2
STATE OHIO
PROJECT
336
630
HAM-275-3.86
HAMILTON COUNTY
CURVE DATA · WB I-275
CURVE NO. WB-2
P.I. Sta. 414+24.32
Ls = 500.00'
θs = 12°30'00"
K = 249.60'
LT = 334.17'
ST = 167.43'
Δc = 5°19'15"
Dc = 5°00'00"
Rc = 1145.92'
Lc = 106.42'
Tc = 53.25'
Ec = 1.24'
CURVE DATA · WB I-275
CURVE NO. WB-3
P.I. Sta. 417+75.69
Ls = 400.00'
T1 = 145.99'
T2 = 255.24'
θs1 = 10°00'00"
θs2 = 1°00'00"
Δ = 11°00'00"
For Quantities See Sh. No. 338
For Superelevation Tables See Sh. No. 17
For I-74 Plan and Profile See Sh. Nos 407, 408
For Curve Data Curve No. W.B.-4 See Sh. No. 337
End Project Sta. 420+29.70
I-275-3(15)40
I-74-1(14)06
For W.B.-I-275 Exit Details See Sh. No. 339
Rock Channel Protection Type B 18" Thick 487
Rock Channel Protection Type B 18" Thick 487
Riprap Using 6" Reinforced Concrete Slab
Sodding 487
24" Type A 476
15" Type F 486
72" Type A 478
LA-R/W
T.S. Sta. 410+23.28
P/L
℄ W.B. I-275
Anchor Assembly
Curve No. W.B.-2
S.C. Sta. 415+23.28
C.S. Sta. 416+29.70
Curve No. W.B.-3
Anchor Assembly
Existing Highway Easement Line
S.C. Sta. 420+29.70
105.92' Lt. Sta. 351+95.74 I-74
Curve No. W.B.-4
Earth Dike Elev. 705.3
6" U.D. Deep
6" Type B & Type F
6" Deep U.D. Below See Sh. 407 For Quantity
Existing Highway Easement Line
21" Type A 469
Anchor Assembly
Remove Ex. 15" C.M.P.
15" Type B 486
MH-1
Sodding 487
℄ I-74
Remove Ex. 15" Conc. Pipe
Sodding 487
Ex. 72" Conduit
Ex. 24" Conduit
+0.585 %
-0.50 %
P.V.I. Sta. 418+25 El. 708.79
+42, 15" Type B F.L. 703.2
P.V.C.
P.V.T.
400' V.C.
+29.7, 2' Lt ℄ 6" U.D. - 701.5
355+05, 6" U.D. (Ex) ℄ W.B. Lt. = 703.3 Connect to Exist.
423+50, 2' Lt. ℄ 6" = 699.8
6" Type B
+60, 2' Lt ℄ 6" (Deep U.D.) = 699.7
Existing 24" Conduit To Be Extended F.L. = 701.7± For Details See Sh. No. 476
Graphic Solution See 20' Scale Detail Sh. No. 339
423+62 35' Lt. ℄ Outlet 6" Type B = 696.6
+00 21" Type A F.L. = 654.1 469
Existing 72" Conduit To Be Extended F.L. = 606.5± For Details See Sh. No. 478
710
700
690
680
670
660
650
640
630
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425

CURVE DATA · WB I-275
CURVE NO. WB-4
P.I. Sta. 425+08.34
Δ=4°47'01"
D= 0°30'00"
R= 11,459.16'
L= 956.72'
T= 478.64'
E= 9.99'



For Superelevation Tables
See Sh. No. 17

For Quantities
See Sh. No. 338

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	Bends 15" 25°	Bends 30" 25°	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	601 Riprap Using 6" Reinf. Conc. Slab.	601 Rock Channel Protect. Type B	602 Conc. Masonry	603 Type A 707.05 (0.079") 21"	603 Type A 706.02 706.08 24"	603 Type A 707.03 (0.188"-0.218") 72"	603 Type B 15"	603 Type B 30"	603 Type C 18"	603 Type F 15"	603 Type F 30"	604 Catch Basins C.B.-5	604 Catch Basins C.B.-5A	604 Manholes MH-1	660 Sodding	SEE SHEET NO.
	UNIT				L.F.	L.F.	Sq. Yd.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Sq. Yd.	
	DRAINAGE																					
	W.B. I-275																					
1D	382+00 - 384+50	Rt.																			250	334
2D	386+56	Lt.		2					0.60								78					334
3D	386+56	Lt. & Rt.												76					1			334
4D	386+56	Rt.												26					1			334
5D	386+56	Rt.							0.56					78					1			334
6D	386+56 - 389+00	Rt.													240			1				334
7D	391+00	Lt.					3														18	334
8D	389+00 - 392+00	Rt.													294			1				334
9D																						
10D																						
11D	406+00	Lt & Rt.							0.25				98					1				335
12D	406+00	Lt.						2														335
13D																						
14D																						
15D	413+00	Lt & Rt.							0.78	266												336
16D	413+00 - 413+65	Lt.						63														336
17D	414+83	Lt.										150										336
18D	414+75 - 417+50	Rt.																			183	336
19D	414+90 - 418+42	Lt.						215														336
20D	418+42	Rt.			8																	336
21D	418+36	Rt.			58																	336
22D	418+42	Lt & Rt.	2						*0.11				94							1		336
23D	418+42	Lt.							0.27							78						336
24D	419+90 - 420+30	Rt.																			27	336
25D	423+56	Lt.					58														67	336
26D	423+56	Lt.									30											336
TOTALS			2	2	66		61	280	2.46	266	30	150	192	180	534	78	78	3	3	1	545	

*Concrete Collar (For Information Only Not Included In Total)

REF. NO.	STATION TO STATION	SIDE	304 Aggr. Base Course Per Plan	301 Bitum. Aggr. Base	301 Bitum Aggr. Base	310 Subbase Gradding A	451 10" Reinf. Conc. Pav't	9" Reinf Portland Cem. Conc Pav't	Spl. Drainage Connect. Using No. 8 Aggregate	Guard Rail Type 5	606 Anchor Assembly	Anchor Assembly Barrier Design	SEE SHEET NO.
	UNIT		Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Cu. Yd.	L.F.	Each	Each	
	PAVEMENT												
	W.B. I-275												
	383+44 - 395+00	Lt. & Rt.		292	369		3,107						334
	395+00 - 410+00	Lt. & Rt.		378	775		4031						335
	410+00 - 425+00	Lt. & Rt.		259	215	126	2655	710					336
	425+00 - 429+86.42	Lt. & Rt.				39		188					337
	420+29.70 - 429+86.42	Lt.	169		86	97			47				Lt. Shoulder 336, 337
	ROADWAY												
	W.B. I-275												
1R	382+80 - 386+05	Lt.								275	2		334
2R	383+41 - 386+42	Rt.								550		1	334
3R													
4R	405+02 - 419+00	Lt.								1,350	2		335 & 336
5R	412+21 - 414+75	Rt.								212.5	2		336
TOTALS			169	929	1,445	262	9793	898	47	2,387.5	6	1	
				2374									

DEVELOPED		CHECKED	
8/71	JM	9/71	R.D

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			339 / 630

HAM-275-3.86
HAMILTON COUNTY

PAVEMENT DETAILS I-74 INTERCHANGE RAMP W.B. I-275

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	J.B.	4/70	J.M.

WB I-275 Sta 383+44 to Sta. 384+21

HAM-275-3.86
HAMILTON COUNTY

WB I-275 Sta. 384+57 to Sta. 385+47

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 3/68 ✓.B. CHECKED 4/70 ✓.M.

WB I-275 Sta. 386+00 to Sta. 386+56

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
3768 L.B.	4170 L.M.

WB I-275 Sta. 387+00 to Sta. 388+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	J.B.	4/70	J.M.

WB I-275 Sta. 388+78 to Sta. 390+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 3/68 ✓.B. CHECKED 4/70 ✓.M.

WB I-275 Sta. 390+42 to Sta 391+00

HAM-275-3.86
HAMILTON COUNTY

WB I-275 Sta. 392+00 to Sta. 393+00

DEVELOPED	CHECKED
3/68 J.B.	4/70 J.M.

347
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	J.B.	4/70	J.M.

WB I-275 Sta. 394+00 to Sta. 395+00

348
630

HAM-275-3.86
HAMILTON COUNTY

WB I-275 Sta. 396+00 to Sta. 397+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	JB	4/70	JM

WB I-275 Sta. 397+58 to Sta. 398+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 3/68 JB CHECKED 4/70 JM

W.B. I-275 Sta. 399+00 to Sta. 400+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 3/68 FB | CHECKED 4/70 FM

W.B. I-275 Sta. 401+00 to Sta. 402+00


352
630
HAM-275-3.86
HAMILTON COUNTY
See Ramp E
Estimated Rock Surface
3:1
8:1
2:1
2.25:1
700.16
403+50
726.5
699.87
403+00
732.7
699.44
402+25
740.0
W.B. I-275 Sta. 402+25 to Sta. 403+50
3/68 J.B. 4/70 J.M.

HAM-275-3.86
HAMILTON COUNTY

W.B. I-275 Sta. 404+00 to Sta. 405+00

354
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	J.B.	4/70	JWM

W.B. I-275 Sta. 406+00 to Sta. 407+00

355
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	J.B.	4/70	JWI

W.B. I-275 Sta. 408+00 to Sta. 408+49.77

356
630

HAM-275-386
HAMILTON COUNTY

W.B. I-275 Sta. 409+00 to Sta. 410+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	J.B.	4/70	Fm

W.B. I-275 Sta. 411+00 to Sta. 412+00

358
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
3/68	J.B	4/70	J.M

W.B. I-275 Sta. 413+00 to Sta. 414+00

HAM-275-3.86
HAMILTON COUNTY
359
630
See I-74
8:1
3:1
Estimated Rock Surface
611.1
200
150
706.89
415+00
640.0
272 13096
303
2817
8:1
Var.
See I-74
2:1
48:1
612.1
Estimated Rock Surface
200
150
1176 38,637
324
706.42
414+19
628.0
531 12,984
357 7725
692
DEVELOPED CHECKED
3/68 J.B. 4/70 J.M.
W.B. I-275 Sta. 414+19 to Sta. 415+00

360
630

HAM-275-3.86
HAMILTON COUNTY

W.B. I-275 Sta. 416+00

HAM-275-3.86
HAMILTON COUNTY
See I-74
8:1
3:1
2:1
638.4
Estimated Rock Surface
707.98
417+00
668.0
48:1
629.0
707.65
416+30
660.5
DEVELOPED
CHECKED
W.B. I 275 Sta. 416+30 to Sta. 417+00


HAM-275-3.86
HAMILTON COUNTY
362
630
See I-74
6:1
8:1
706.1
708.17
419+22
716.0
59
455 8
2:1
8:1
706.3
708.21
419+00
710.7
130
47
225 38
97 86
2:1
706.7
48:1
671.8
708.26
418+36
686.0
632
131
280 2295
139 1850
706.9
48:1
661.8
708.24
418+00
681.7
556
148
1956
218 3199
217 3085
487 17,500
DEVELOPED 3/68 J.B.
CHECKED 4/70 J.M.
W.B. I-275 Sta. 418+00 to Sta. 419+22

HAM 275-3.86
HAMILTON COUNTY
363
630
707.49
420+82
712.0
707.77
420+30
713.5
707.83
420+17
714.0
707.91
420+00
715.8
708.06
419+60
718.2
See I-74
Ahead
Back
48:1
6:1
8:1
W.B. I-275 Sta. 419+60 to Sta. 420+82
DEVELOPED 3/68 L.B.
CHECKED 4/70

HAM 275-3.86
HAMILTON COUNTY

W.B. I-275 Sta. 421+00 to Sta. 423+00

HAM. 275-3.86
HAMILTON COUNTY

DEVELOPED 3/68 L.B. | CHECKED 4/70 L.M.

W.B. I-275 Sta. 423+69 to Sta. 426+00

HAM 275-3.86
HAMILTON COUNTY

3/68 JB 4/70 JM

W.B. I-275 Sta. 427+00 to Sta. 429+86.42

RAMP E Sta. 383+44.00 to Sta. 412+27.69

368
630

PROFILE RAMP E Sta. 383+44.00 to Sta. 412+27.60

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-3.86
HAMILTON COUNTY

For Mainline Plan and Profile
See Sh. No. 406

Pavement Detail Ramp E

For Joint Legend See Sh. No. 28

SCALE OF FEET
0 20 40 60

PAVEMENT DETAIL I-74 INTERCHANGE RAMP "E"

REG. NO. DIVISION	STATE	PROJECT	
2	OHIO		

370
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
4/68 JB	5/69 RD

RAMP E Sta. 383+44 to Sta. 385+90

HAM - 275 - 3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
4/68 T.B.	5/69 D.R.

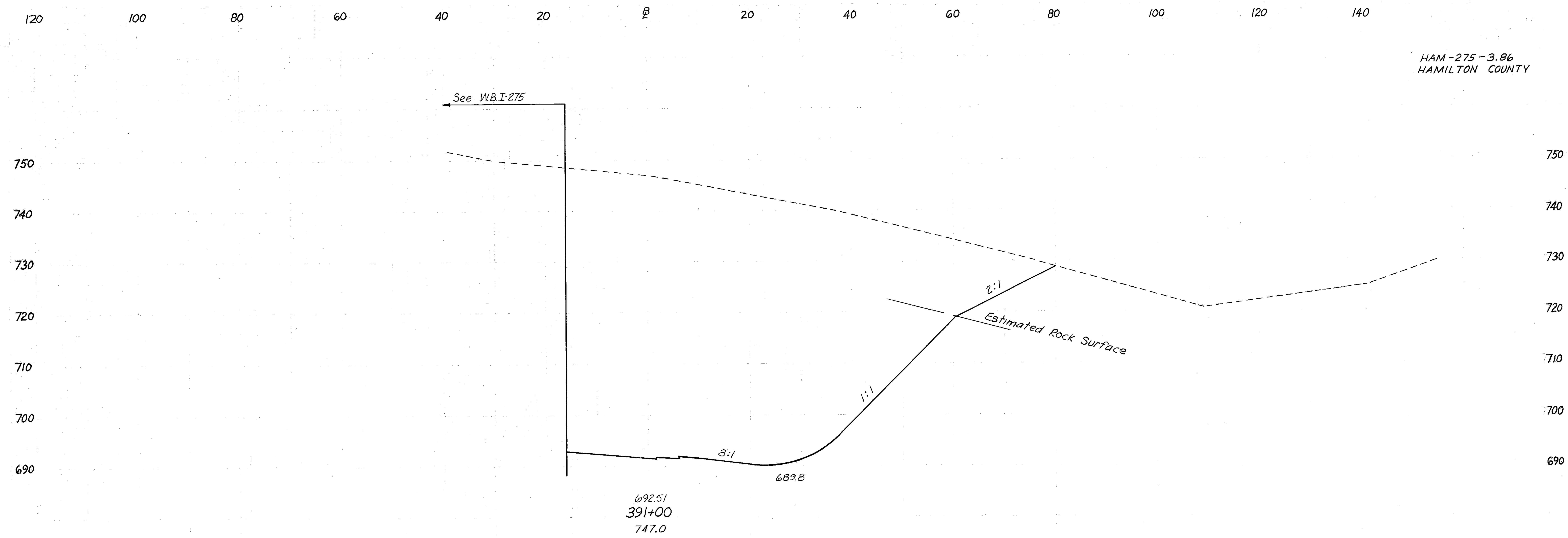
RAMP E Sta. 386+00 to Sta. 387+00

HAM-275-3.86
HAMILTON COUNTY

RAMP E Sta. 388+00 to Sta.390+00

4/68 Jm 5/69 D.R.

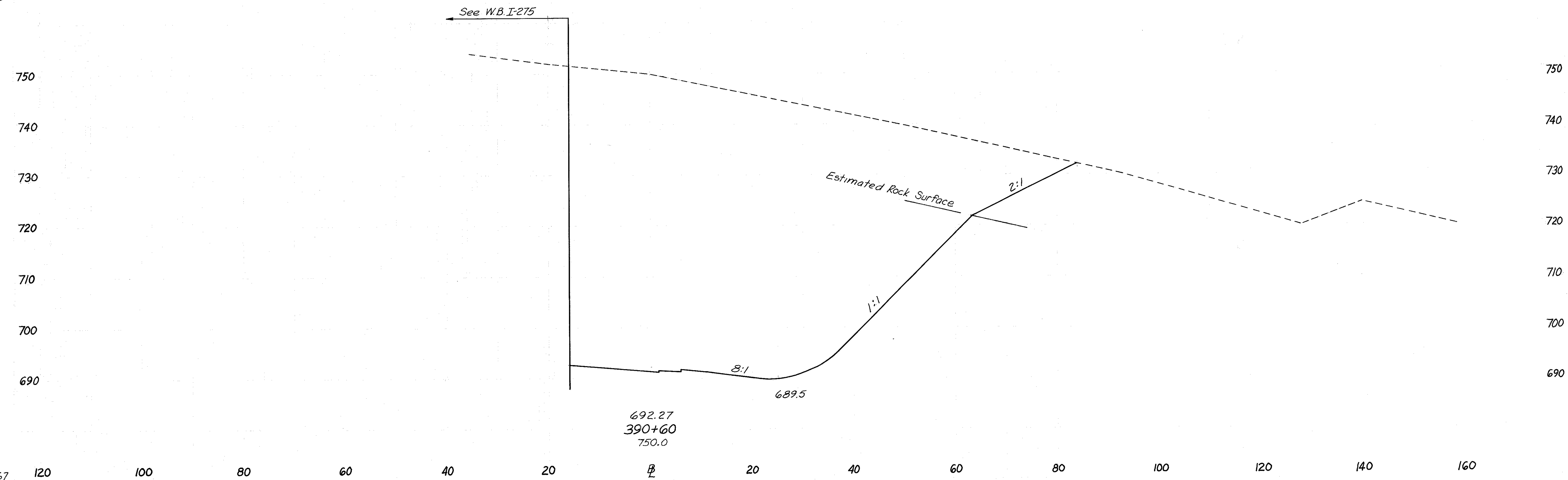
HAM-275-3.86
HAMILTON COUNTY



22

3990 0

98



23

7097 0

5837 0

10565 0

267

4/68 Jm 5/69 D.R.

RAMP E Sta. 390+60 to Sta. 391+00

374
630

HAM-275-3.86
HAMILTON COUNTY

RAMP E Sta. 392+00 to Sta. 393+00

DEVELOPED 4/68 J.B. CHECKED 5/69 D.R.

375
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 2/68 J.B. CHECKED 3/69 D.R.

RAMP E Sta. 394+00 to Sta. 395+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 4/68 J.B. CHECKED 5/69 D.R.

RAMP E Sta. 396+00 to Sta. 397+00

HAM-275-3.86
HAMILTON COUNTY

Sta. 398+70
AH
8706 0
BK
6827 0

DEVELOPED	CHECKED
4/68 JB	5/69 RD

RAMP E Sta. 398+00 to Sta. 399+00

378
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
4/68 JB	5/69 DD

RAMP E Sta. 400+00 to Sta. 401+00

HAM-275-3.86
HAMILTON COUNTY

RAMP E Sta. 402+00 to Sta. 404+00

HAM-275-3.86
HAMILTON COUNTY

380
630

DEVELOPED	CHECKED
J.B.	R.D.

RAMP E Sta. 404+62 to Sta. 406+80

381
630

HAM-275-3.86
HAMILTON COUNTY

4/68 JB 5/69 RD

RAMP E Sta. 407+00 to Sta. 409+00

RAMP E Sta. 410+00 to Sta. 412+28

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM. 275-3.86
HAMILTON COUNTY

Ramp F Sta. 363+04.94 to Sta 378+00

Ramp F Sta. 378+00 to Sta. 392+08.89

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

385/630

HAM-275-3.86
HAMILTON COUNTY

PAVEMENT DETAIL I-74 INTERCHANGE RAMP "F"

HAM 275-3.86
HAMILTON COUNTY

386
630

DEVELOPED		CHECKED	
9/68	C.H.	10/69	MS

RAMP F Sta. 363+05 to Sta. 364+00

RAMP F Sta. 364+05 to Sta. 364+30

388
630

HAM-275-3.86
HAMILTON COUNTY

RAMP F Sta. 365+00 to Sta. 367+00

389
630

HAM-275-3.86
HAMILTON COUNTY

RAMP F Sta. 367+20 to Sta. 369+00

390
630

HAM - 275 - 3.86
HAMILTON COUNTY

RAMP F Sta. 370+00 to Sta. 370+86

HAM-275-3.86
HAMILTON COUNTY

RAMP F Sta. 371+00 to Sta. 372+00

DEVELOPED		CHECKED	
9/68	C.H.	10/69	M.S

RAMP F Sta. 372+38 to Sta. 373+00

393
630

HAM - 275 - 3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
9/68	C.H	10/69	M.S.

RAMP F Sta. 374+00 to Sta. 375+00

HAM -275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
9/68	C.H.	10/69	M.S.

RAMP F Sta. 375+48 to Sta. 376+00

395
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 9/68 CH CHECKED 10/69 M.S

RAMP F Sta. 377+00 to Sta. 378+00

DEVELOPED		CHECKED	
9/68	C.H.	10/69	M.S.

RAMP F Sta. 379+00 to Sta. 380+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
9/68	C.H.	10/69	M.S.

RAMP F Sta. 380+50 to Sta. 381+42

398
630
HAM-275-3.86
HAMILTON COUNTY
See I-74
8:1
4:1
2:1
646.6
654.73
383+00
644.0
See I-74
8:1
4:1
645.0
654.61
382+65
647.0
See I-74
8:1
Var.
2:1
642.0
654.19
382+00
637.3
RAMP F Sta. 382+00 to Sta. 383+00

399
630

HAM-275-3.86
HAMILTON COUNTY

9/68 C.H. 10/69 T.S.

RAMP F Sta. 384+00 to Sta. 385+00

DEVELOPED		CHECKED	
9/68	CH	10/69	H.S.

RAMP F Sta. 386+00 to Sta 387+00

DEVELOPED	CHECKED
9/68 CH	10/69 M.S

RAMP F Sta. 388+00 to Sta. 390+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 9/68 C.H. CHECKED 10/69 M.S. RAMP F Sta. 391+00 to Sta. 392+00

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	Bends	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	203 Excav. Not Incl. Embank Const.	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect. Type B	601 Rock Channel Protect As Per Plan	602 Conc. Masonry	603 Type A 707.05 18"	603 Type A 707.05 21"	603 Type A 706.02 706.08 27"	603 Type A 707.05 30"	603 Type A *See Below For Type 30"	603 Type A 707.07 (0.079") 36"	603 Type A *See Below For Type 36"	603 Type A 706.02 Cl.V 30"	603 Type B 15"	603 Type B 18"	604 Catch Basins Reinf. Conc. C.B. 2-4	604 Catch Basins C.B.-5	604 Catch Basins C.B.-6	604 Manholes MH-1A	660 Sodding	667 Seeding & Jute Matting	SEE SHEET NO.
	UNIT			L.F.	L.F.	Cu.Yd.	Sq.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Each	Sq.Yd.	Sq.Yd.	
	DRAINAGE																										
	RAMP E														*706.08 706.02 Cl. III		*707.05 706.08 706.02 Cl. III										
1D	386+00	Rt.																								231	367
2D	386+57 - 388+00	Lt.																							143		367
3D	386+55 - 388+00	Rt.						37																	100		367
4D	404+07	Lt. & Rt.								0.31										78		1					367
5D	404+07	Lt.						2																			367
6D	404+11 - 405+00	Lt.																							59		367
7D	404+18 - 405+00	Rt.						16	5																80		367
8D	411+00 - 411+30	Rt.																							20		367
9D	411+40	Rt.					56			0.49			30														367
10D	412+13	Lt. & Rt.								0.25									50				1				367
	RAMP F																										
11D	371+82 - 373+00	Lt.						108																			383
12D	373+00	Lt & Rt.								1.20						278											383
13D	377+26	Lt & Rt.								0.60						270											383
14D	377+26	Lt.								0.60							34							1			383
15D	377+26	Lt.						3																			383
16D																											
17D																											
18D	380+50 - 381+25	Rt.																							50		384
19D	381+11	Lt & Rt.								0.56								170									384
20D	381+11	Lt.								0.56					30									1			384
21D	381+11	Lt.						4																			384
22D	381+30 - 386+00	Rt.						130																	335		384
23D	386+06	Lt.									12	14															384
24D	386+06	Lt.								0.60				64							1						384
25D	386+06	Lt.					3	7																			384
TOTALS							59	307	5	5.17	12	14	30	64	30	548	34	170	50	78	1	1	1	2	787	231	

REF. NO.	STATION TO STATION	SIDE	301 Bitum. Aggr. Base	301 Bitum Aggr Base	451 10" Reinf. Conc. Pav't	451 9" Reinf. Portland Cem. Conc. Pav't.	609 Curb Type 7	609 Curb Type 8	606 Guard Rail Type 5	606 Anchor Assembly	SEE SHEET NO.
	UNIT		Cu.Yd.	Cu.Yd	Sq.Yd.	Sq.Yd.	L.F.	L.F.	L.F.	Each	
	PAVEMENT										
	RAMP E										
1P	407+30 - 408+00	Lt.					74				367
2P	408+00 - 412+27.69	Lt.						430			367
3P											
	383+44 - 412+27.69 (Eq. Sta. 412+27.69 RampE = Sta 329+15.31 I-74	Lt & Rt.	535	696	71	5094					367
	RAMP F										
4P	363+04.94 - 367+15	Rt.						410			383
5P	367+15 - 368+16	Rt					102				383
	363+04.94 - 378+00	Lt & Rt.	289	325	63	2,600					383
	378+00 - 392+08.89	Lt. & Rt.	290	309		2,751					384
	ROADWAY										
	RAMP E										
1R	Sta 383+39 I-275 = Sta. 383+39 Ramp E - Sta 385+90 Ramp E	Rt.							225	1	367
2R											
	RAMP F										
3R	Sta 361+96 I-275 Taper Sta 361+96 Ramp F - Sta 391+99 Ramp F	Lt.							2937.5'	1	383 & 384
4R	371+07 - 380+00	Rt.							862.5	2	383 & 384
			1114	1330							
TOTALS			2444		134	10,445	176	840	4025.0	4	

DEVELOPED		CHECKED	
8/71	J.M	9/71	R.D

RAMPS E & F

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

404
630

HAM-275-3.86
HAMILTON COUNTY

I-74 Sta. 293+00 to Sta. 308+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

405/630

HAM-275-3.86
HAMILTON COUNTY

CURVE NO. 4
P.I. Sta. 318+18.12
Δ = 3°02'10"
D = 0°15'00"
R = 22,918.31'
L = 1214.44'
T = 607.36'
E = 8.05'

TYPICAL SECTION
Temporary Pavement Class A

¢ Temp. Crossover Sta. 312+75 & 337+75

2' 7' 7' 2'
1"/Ft. 3/16"/Ft. 1"/Ft.
Var. Var.

The 2 foot aggregate berm shall be 6" of 411 material and stabilized with 616 Calcium Chloride

Class A Pavement

Existing berms are to remain in place and be maintained in good condition.

PROPOSED STRUCTURES - HAM 275-0726

TYPE: Four span continuous steel beams with reinforced concrete deck and substructures.
SPANS: 58'-0", 78'-0", 66'-6", 46'-6", Lt. Bridge
64'-0", 78'-0", 66'-6", 46'-6" Rt. Bridge
ROADWAY: 47'-8" average left bridge f/f parapets
42'-0" right bridge f/f parapets
LOADING: HS 20-44 and Interstate alternate
SKEW: 24°21'32" with reference chord
WEARING SURFACE: 1½" Asphalt Concrete
APPROACH SLABS: AS-1-67 (20' long)
ALLIGNMENT: 0°15'00" curve left
SUPERELEVATION: None

I-74 Sta. 325+00 to Sta. 340+00

I-74 Sta. 340+00 to Sta. 355+00

HAM-275-3.86
HAMILTON COUNTY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

409 / 630

HAM-275-3.86
HAMILTON COUNTY

REF. NO.	STATION TO STATION	SIDE	304	301	301	310	409	409	411	451	611	615	616	SPL	202	202	615	606	606	606	606	606	404	407	407	SEE SHEET NO.
			Aggr. Base Course Per Plan	Bitum. Aggr. Base	Bitum. Aggr. Base	Subbase Grading A	Seal Coat Bitum. Material	Seal Coat Cover Aggr. No.8	Stab. Crushed Aggr.	9" Reinf. Portland Cem. Conc. Pav't	Reinf. Conc. Appr. Slabs T=12"	Temp. Pav't Class A	Calcium Chloride	Drainage Connect. Using No.8 Aggr.	Guard Rail Removed For Storage	Pav't Removed	Temp. Roads	Guard Rail Type 5	Anchor Assembly	Bridge Terminal Assembly Type A	Anchor Assembly Barrier Design	Guard Rail Type 5 Barrier Design	1½" Asph. Conc. (70-85 or AC 20)	Tack Coat	Cover Aggr.	
	UNIT		Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd	Tons	Cu. Yd.	L.F.	Sq. Yd.	Lump	L.F.	Each	Each	Each	L.F.	Cu. Yd.	Gals	Ton	
	PAVEMENT I-74																									
1P	319+76.38 - 319+96.38	Rt.									54												2.3	6	0.2	405
2P	320+22.70 - 320+42.70	Lt.									69												2.9	7	0.3	405
3P	322+57.45 - 322+77.45	Rt.									53												2.3	6	0.2	405
4P	322+95.47 - 323+15.47	Lt.									82												3.5	9	0.3	405
	Note: For W.B. I-275 Quantities See Sub Summary Sh. 338																									
	319+50 - 319+76.38	Rt.		7	16																					405
	319+70 - 320+22.70	Lt.		13	8					71																405
	322+77.45 - 323+05	Rt.		9	41					141																405
	323+15.47 - 323+45	Lt.		7	7					74																405
	329+15.31 - 333+45	Lt.		12	158					79																406
	340+64.32 - 350+64.32	Rt.			255	77	141	4		685																407
	341+94.72 - 351+94.72	Lt.				77				685																407
	350+64.32 - 355+00.00	Rt.				82				581																407
	351+94.72 - 355+00.00	Lt.				151				814																407
	355+00 - 368+00.00	Lt. & Rt.				723				5,200																408
	339+64.32 - 340+64.32	Rt.	12		6	6								5												407
	340+64.32 - 368+00.00	Rt.	484		253	277								134												407&408
	340+94.72 - 341+94.72	Lt.	12		6	6								5												407
	341+94.72 - 368+00.00	Lt.	461		241	264								128												407&408
	361+51.35 - 368+00.00	Lt.	115		60	66								32												407&408
	Deceleration Lane 293+80.11 - 297+27.69	Rt.		29	66					399																404
	Acceleration Taper																									
	317+15.31 - 320+29	Lt.		6	59					125																405
	323+23 - 325+00	Lt.		21	33					285																405
	325+00 - 329+15.31	Lt.		86	77					954																406
	Acceleration Taper																									
	350+64.32 - 355+00	Rt.				182				1180																
	355+00 - 367+44.32	Rt.				199				1447																
	350+64.32 - 367+44.32	Rt.	297		156	170																				407
														83												408
	312+75								27			2800	2				Lump									405
	337+75								27			2800	2				Lump									406
	ROADWAY I-74																									
1R	293+75 - 307+00	Rt.																								
2R	293+75 - 297+37.50	Rt.													1325											
3R	294+50 - 304+50	Lt.																362.5								
4R	298+45 - 300+10	Rt.													1000			950	2							404
5R	317+94 - 319+92	Lt. & Rt.																125	2							404
6R	318+50 - 319+75	Rt.																125		1	1	50				
7R	319+50 - 323+05	Rt.																								405
8R	319+70 - 323+45	Lt.																100	1	1						
9R	320+00 - 324+00	Rt.														947										405
10R	320+55 - 325+30	Lt.													400	1000										405
11R	322+60 - 324+60	Rt.													475											405
12R	323+02 - 325+00	Lt. & Rt.																								405
13R	323+24 - 326+49	Lt.																175	1	1						405
14R																		125		1	1	50				405
15R	340+00 - 345+00	Lt.																300		1	1					405
16R	340+00 - 349+50	Rt.													500			475	1							405&406
17R	345+00 - 346+50	Lt.																								
18R	345+00 - 351+00	Lt.													950											
19R	349+25 - 350+64.32	Rt.																125	1							407
20R	349+00 - 368+00	℄													600											407
21R	355+30 - 357+05	Lt.														75										407
																		112.5			1	1762.5				407
																		125	2							407&408
																										408
TOTALS			1381	190	1442	2280	141	4	54	12,720	258	5600	4	387	5250	2022	Lump	3100.0	10	5	4	1862.5	11	28	1.0	
				1632																						

DEVELOPED		CHECKED	
8/71	J.M	9/71	R.D

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	Bends	202 Catch Basin Removed	202 Pipe Removed 24" & Under	202 Pipe Removed Over 24"	203 Excav. Not Incl. Embank Const.	605 Pipe Underdrain 6" Shallow	605 Pipe Underdrain 6" deep	601 Riprap Using 6" Reinf. Conc. Slab	601 Rock Channel Protect. Type A	601 Rock Channel Protect. Type B	601 Rock Channel Protect. As Per Plan	602 Conc. Masonry	603 Type A 707.05 21"	603 Type A 706.02 706.08 24"	603 Type A 707.05 30"	603 Type A 707.05 14 Ga. 36"	603 Type B 6"	603 Type B 15"	603 Type C 12"	603 Type C 15"	603 Type F 6"	604 Catch Basins C.B 2-2-B	604 Catch Basins C.B-4	604 Catch Basins C.B.-5	604 Manholes MH-1	Catch Basin Adjusted to Grade	660 Sodding	660 Sdng For Sp. Berm & Slope Protect. As Per Plan	667 Seeding & Jute Matting	SEE SHEET NO.
	UNIT			Each	L.F.	L.F.	Cu. Yd.	L.F.	L.F.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Each	Each	Each	Each	Each	Sq. Yd.	Sq. Yd.	Sq. Yd.	
	DRAINAGE																															
	I-74																															
10	296+17	Rt.															74															404
20	296+90	Rt.					534							1.2				110														404
30	296+90	Rt.								6	18																					404
40	307+00	Rt.								3		24																				404
50	299+47	Rt.								3		4		0.4	63																	404
60	Not Used																															
70	319+23	Lt.										32	2																			405
80	319+40 - 319+73	Rt.																												27		405
90	319+72 - 324+00	Rt.			785																											405
100	319+72 - 323+40	Lt.			725																											405
110	320+24	Lt.																												20		405
120	322+30	Rt.																													930	405
130	322+18 - 322+59	Rt.										24																				405
140	322+62	Rt.																												120		405
150	323+00	℄ Rt.																					32									405
160	323+00	℄ Rt.																			102			1								405
170	323+00	℄ Lt.																					24									405
180	323+25	Lt.																												49		405
190	322+84	Lt.												5.80				4														405
200	323+40	Lt.						18															10									405
210	324+00	℄ Rt.		1	22																											405
220	324+00	Rt.																									1					405
230	324+00 - 325+14	℄ Rt.																				116			1							405
240	Not Used																															
250	Not Used																															
260	324+50 - 326+00	Lt.										116																				406
270	326+00 - 326+60	Lt.												0.20							60					1						406
280	Not Used																															
290	Not Used																															
300	339+50 - 340+91	Rt.																											141			407
310	340+50	Rt.										7																				407
320	347+43 - 350+00	℄																				100			1			1	150			407
330	349+70	Lt.																					12									407
340	350+00	Lt.			122																											407
350	353+33 - 354+90	℄																										1	150			407
360	353+90 - 354+36	Rt.																											45			407
370	354+48	Rt.																	66				10									407
380	354+90	Lt. & Rt.												0.86		62																407
390	354+90	Rt.								58		6																				407
400	354+48	Rt.			40																											407
410	355+06	Lt.			28																											407
420	355+06	Lt.																	52				10									407
430	Not Used																															
440	Not Used																															
450	363+00 - 364+87	Lt.																											249			408
460	363+43 - 365+00	℄																										1	150			408
470	365+00	Lt.																					8									408
480	365+00	Lt.												0.25 *0.11						8												408
490	365+00	Lt.										2																				408
500	341+95 - 349+97	Lt.						802																								407
510	340+64 - 350+00	Rt.						936																								407
520	350+64 - 354+55	Rt.							392																							407
530	350+05 - 354+90	Rt.						495															10									407
540	350+05 - 354+90	Lt.						495															10									407
550	420+30 - 423+50 W.B. I-275	Lt.							320																							407
560	423+60 W.B. I-275 - 364+97 I-74	Lt.							967																							408
570	355+00 - 364+97	Lt.						997																								408
580	354+90 - 365+00	Rt.						1010																								408
590	354+65 - 365+00	Rt.							1040																							408
600	365+05 - 368+85	Rt.						374															10				1					408
610	365+05 - 368+85	Lt.						374															10									408
620	365+05 - 368+95	Lt.							390																							408
TOTALS				1	1,722		534	5474	3109	70	18	215	2	8.71	63	62	74	114	118	8	162	216	146	1	2	1	2	3	885	216	930	

*Concrete (Collar For Information Only Not Included In Total)

DEVELOPED		CHECKED	
8/71	J.M	9/71	R.D

2/69 JB 2/71 D.W. I-74 Sta. 293+00 to Sta. 296+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
9/68	CH	10/69	M.S

I-74 Sta. 297+00 to Sta. 298+52

HAM-275-3.86
HAMILTON COUNTY

I-74 Sta. 299+00 to Sta. 299+75


414
630
HAM-275-3.86
HAMILTON COUNTY
See Ramp F
648.49
301+33
645.8
See Ramp F
647.50
301+00
644.5
See Ramp F
644.50
300+00
641.9
See Ramp F
644.08
299+86
641.4
DEVELOPED
9/68 C.H.
CHECKED
10/69 M.S.
I-74 Sta. 299+86 to Sta. 301+33

I-74 Sta. 301+56 to Sta. 302+10

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 9/68 C.H. CHECKED 10/69 M.S.

I-74 Sta. 302+80 to 303+40

417
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
9/68	C.H.	10/69	M.S.

I-74 Sta. 303+90 to Sta. 304+54

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
9/68	C.H.	10/69	M.S.

I-74 Sta. 304+87 to Sta. 305+79

HAM-275-3.86
HAMILTON COUNTY

DESIGNED	CHECKED
2/69 J.B.	2/71 D.W.

I-74 Sta. 306+00 to Sta. 307+00


420
630
HAM-275-3.86
HAMILTON COUNTY
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
680 670 660
0
671.50
309+00
668.8
Sta. 308+50
0 0
0
700 690 680 670 660
AH
0
BK
40
680 670 660 650
0 1
Var.
669.82
308+44
666.9
0 13
445
700 690 680 670 660
143
A
660
650
A
4:1
See Ramp F
160 180 200
312 10
670
338 0
8:1
660
A
A
668.50
308+00
655.8
1270 111
1033
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140
DEVELOPED 2/69 J.B.
CHECKED 2/70 D.M.
I-74 Sta. 308+00 to Sta. 309+00


421
630
HAM-275-3.86
HAMILTON COUNTY
2:1
1:1
674.54
STATION EQUATION
310+01.44 BK=
312+10.76 AH
671.0
673.60
309+70
670.8
672.64
309+38
669.8
671.68
309+06
668.9
DEVELOPED 2/69 J.B.
CHECKED 2/71 D.W.
I-74 Sta. 309+06 to Sta. 312+10.76

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

I-74 Sta. 313+00 to Sta. 314+81

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	JB	2/71	DW

I-74 Sta. 315+00 to Sta. 316+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

I-74 Sta 317+00 to Sta. 319+00

I-74 Sta. 320+00 to Sta. 322+00

2/69 J.B. 2/71 D.W.

426
630

HAM-275-3.86
HAMILTON COUNTY

I-74 Sta 323+00 to 324+00

427
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

I-74 Sta. 325+00 to 326+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

I-74 Sta. 327+00 to 328+50

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

I-74 Sta. 329+00 to Sta. 330+50

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

I-74 Sta. 331+00 to Sta. 331+75

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	JB	2/71	DW

I-74 Sta. 332+00 to Sta. 334+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

I-74 Sta. 335+00 to Sta. 336+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED	CHECKED
2/69 J.B.	2/71 DW

I-74 Sta. 337+00 to Sta. 339+00

2/69 J.B. 2/71 D.W

I-74 Sta. 339+82 to Sta. 341+80

435
630

HAM-275-3.86
HAMILTON COUNTY

1089

714.36
343+00
711.5

715.00
342+00
712.2

173 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140 21 205

DEVELOPED		CHECKED	
2/69	J.B	2/71	D.W

I-74 Sta. 342+00 to Sta. 343+00

436
630

HAM-275-3.86
HAMILTON COUNTY

2/69 JB 2/71 D.W.

I-74 Sta. 343+15

HAM-275-3.86
HAMILTON COUNTY

89

34 140

43 2132

2/69 JB 2/71 D.W I-74 Sta. 343+50

438
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	JB	2/71	D.W

I-74 Sta. 344+00

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED CHECKED
2/69 JB 2/71 DW I-74 Sta. 344+78

HAM-275-3.86
HAMILTON COUNTY

713.07
345+00
710.3

2/69 J.B. 2/71 D.W. I-74 Sta. 345+00

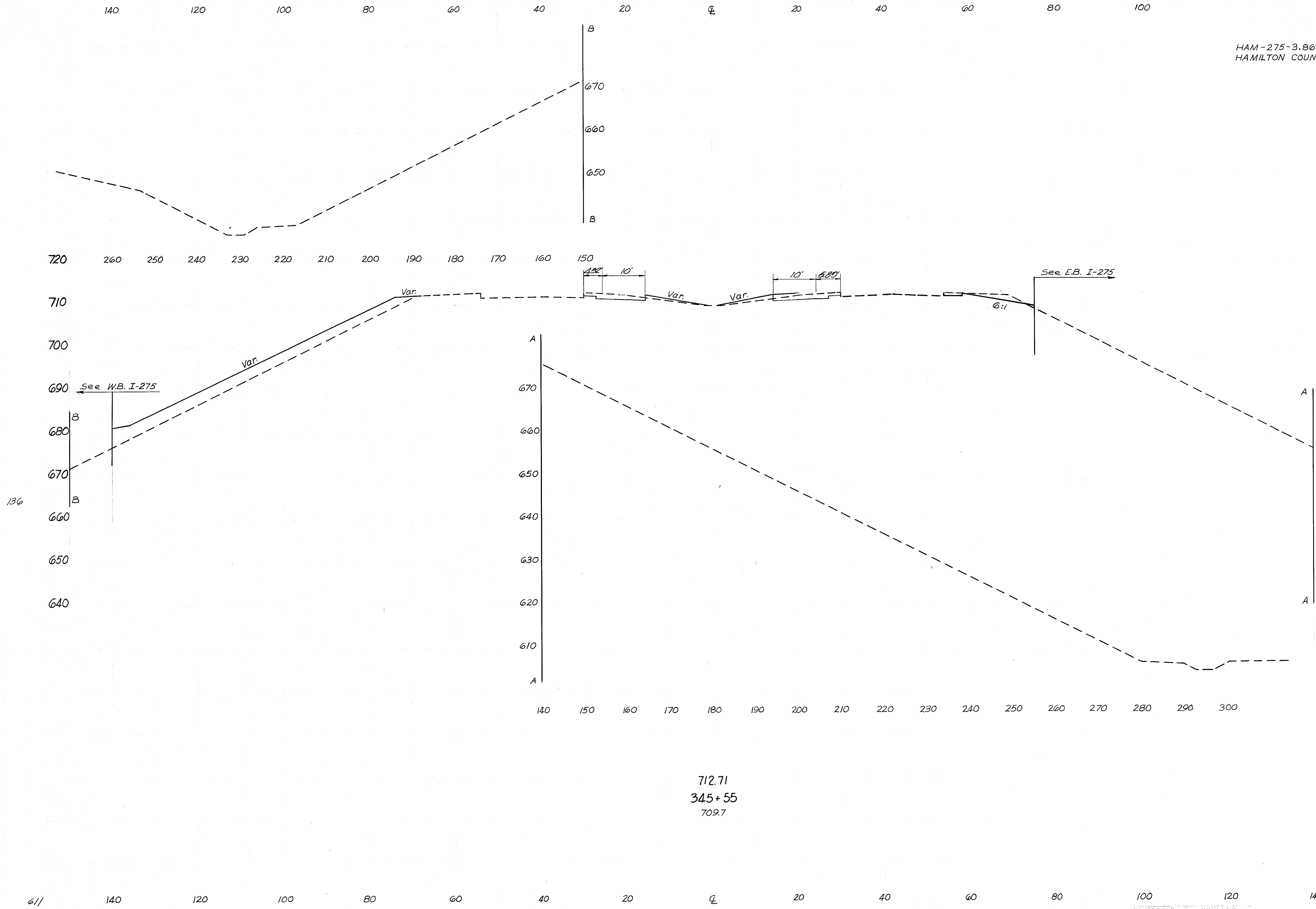
HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	JB	2/71	DW

I-74 Sta. 345+13

442
630

HAM-275-3.86
HAMILTON COUNTY



136

43 208

65 185

611

DEVELOPED 2/69 JB CHECKED 2/71 DW

I-74 Sta. 345+55

443
630

HAM-275-3.86
HAMILTON COUNTY

2/69 J B 2/71 D.W

I-74 Sta. 345+63

414
630

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED		CHECKED	
2/69	JB	2/71	D.W

I-74 Sta. 345+74

445
630

HAM-275-3.86
HAMILTON COUNTY

2/69 J.B. 2/71 D.W. I-74 Sta. 346+00

446
630

HAM-275-3.86
HAMILTON COUNTY

37 322

152 1368

1267

I-74 Sta. 347+00

447
630

HAM-275-3.81
HAMILTON COUNTY

DEVELOPED	CHECKED
2/69 JB	2/71 D.W.

I-74 Sta. 348+00 to

HAM-275-3.86
HAMILTON COUNTY

I-74 Sta. 350+00 to Sta. 353+00

449
630

HAM-275-3.86
HAMILTON COUNTY

2/69 JB 2/71 DW I-74 Sta. 354+00 to Sta. 356+C

HAM-275-3.86
HAMILTON COUNTY

DEVELOPED 2/69 J.B. | CHECKED 2/71 D.W.

I-74 Sta. 357+00 to Sta. 359+50

I-74 Sta. 360+00 to Sta. 363+00

452
830

HAM-275-3.86
HAMILTON COUNTY

2/69 JB 2/71 D.W. I-74 Sta. 364+00 to Sta. 367+50

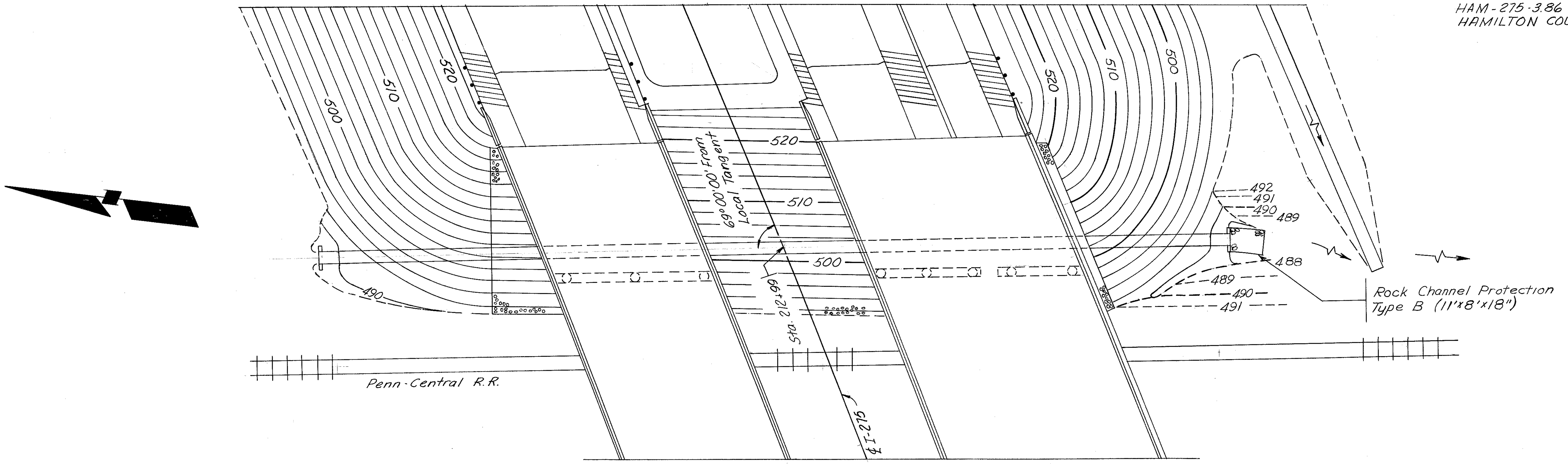
453
630

HAM-275-3.86
HAMILTON COUNTY

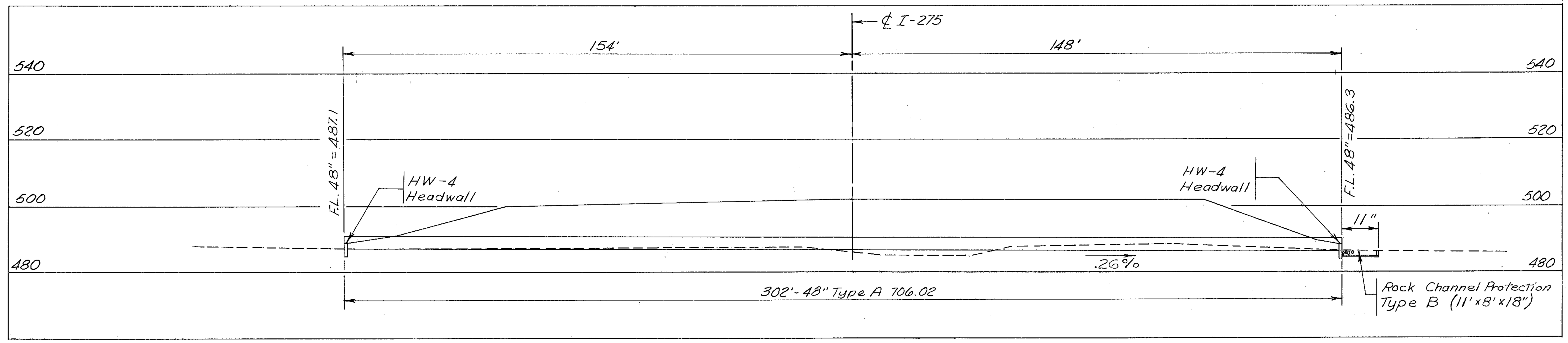
2/69 JB 2/71 DAW
I-74 Sta. 368+00 to Sta. 368+60

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			456/630

HAM-275-3.86
HAMILTON COUNTY



D.A. = 36 Acres
Q_{50} = 81 c.f.s.



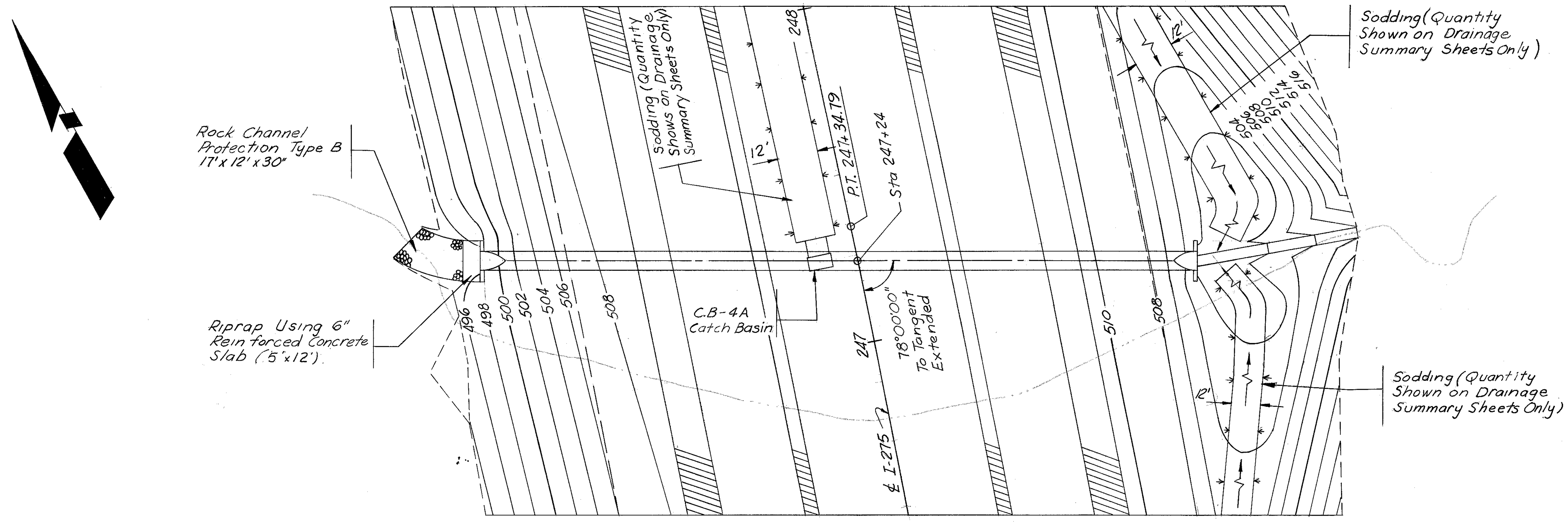
ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	7 Cu.Yd.
602	Concrete Masonry	2.18 Cu.Yd.
603	48" Conduit Type A 706.02	302 Lin.Ft.

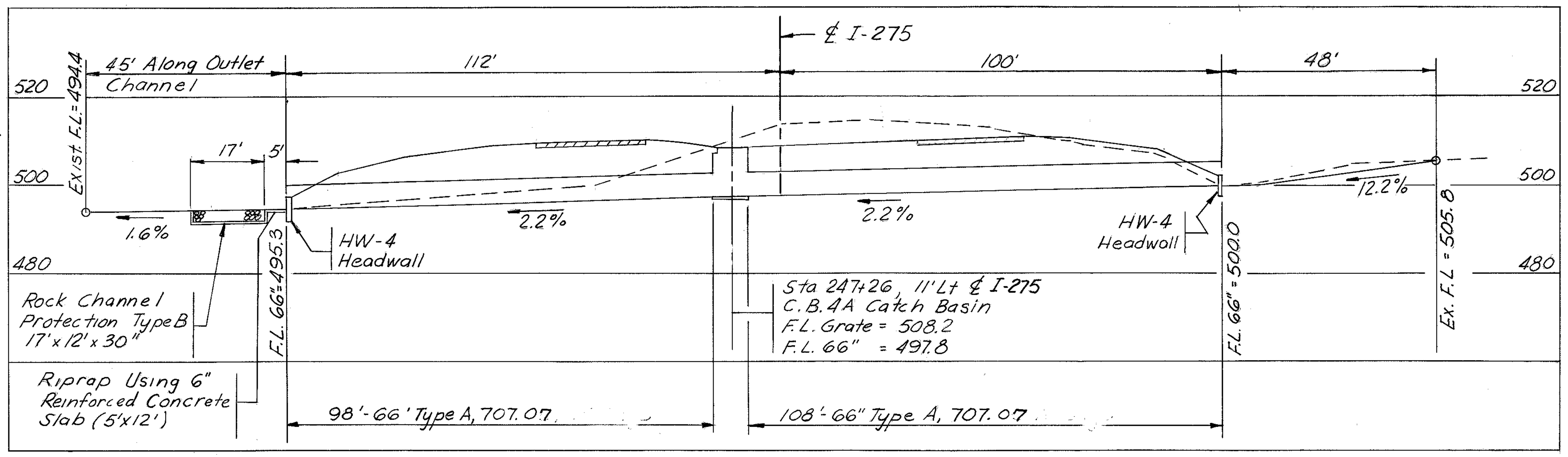
SCALE OF FEET
0 20

DEVELOPED		CHECKED	
2/69	J.B.	2/71	D.W.

PIPE CULVERT Sta 212+99 I-275



D.A. = 94 Ac
Q_{50} = 187 c.f.s.



ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	23	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	7	Sq. Yd.
602	Concrete Masonry	4.12	Cu. Yd.
603	66" Conduit Type A 707.07	206	Lin. Ft.
604	Catch Basin C.B.-4A	1	Each

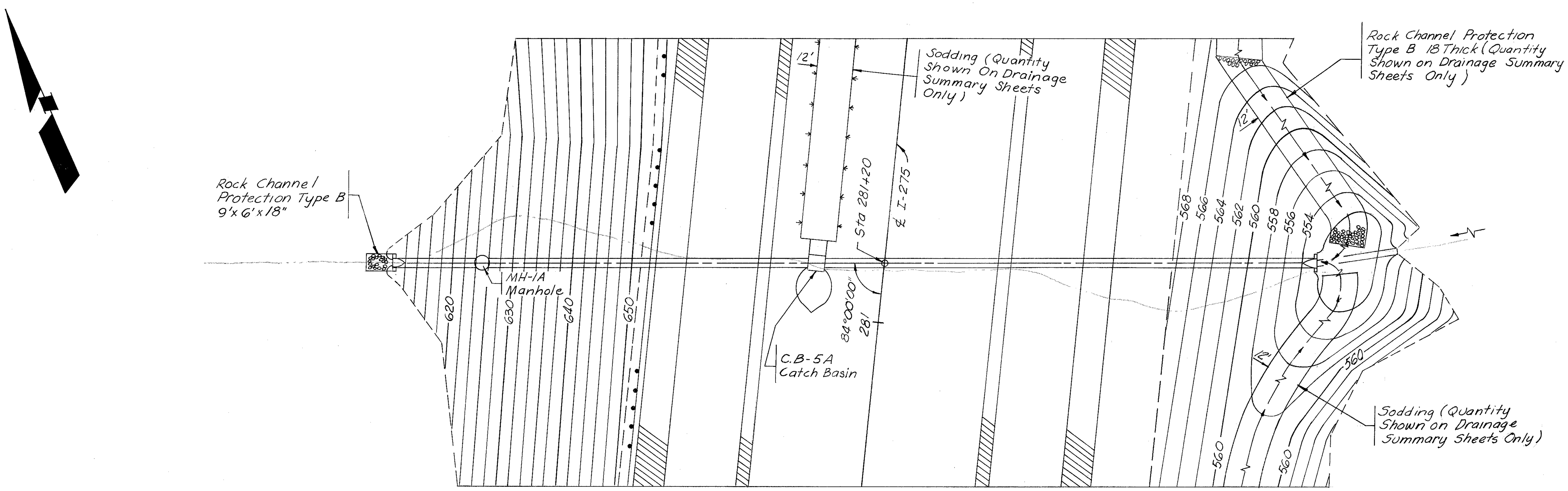
SCALE OF FEET
0 20

DESIGNED 6/70 J.M. CHECKED 7/71 R.W.

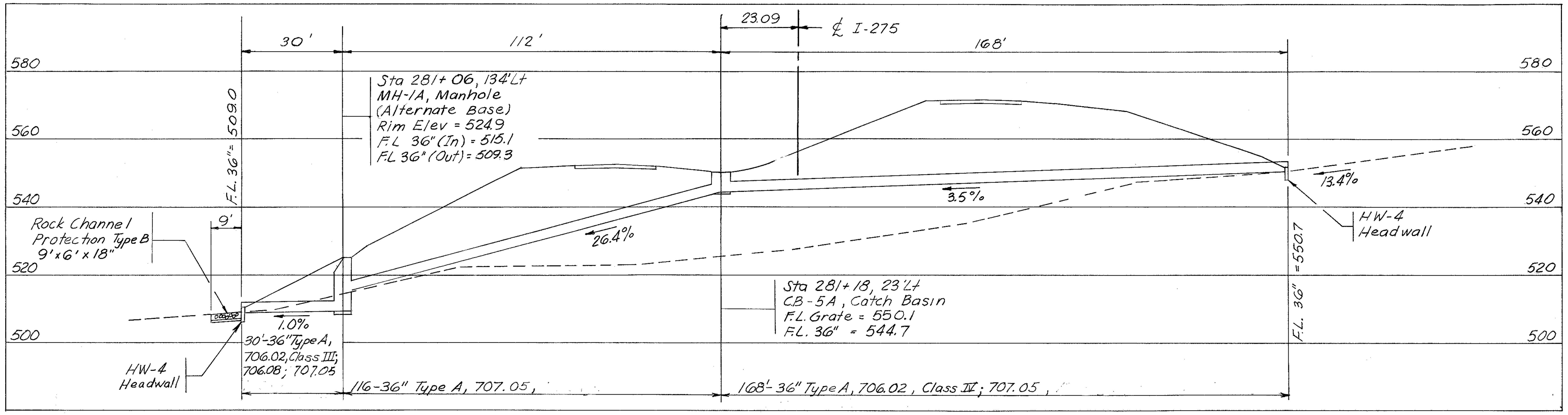
PIPE CULVERT Sta 247+24 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-3.86
HAMILTON COUNTY



D.A	= 25 Ac.
Q_{50}	= 64 c.f.s.



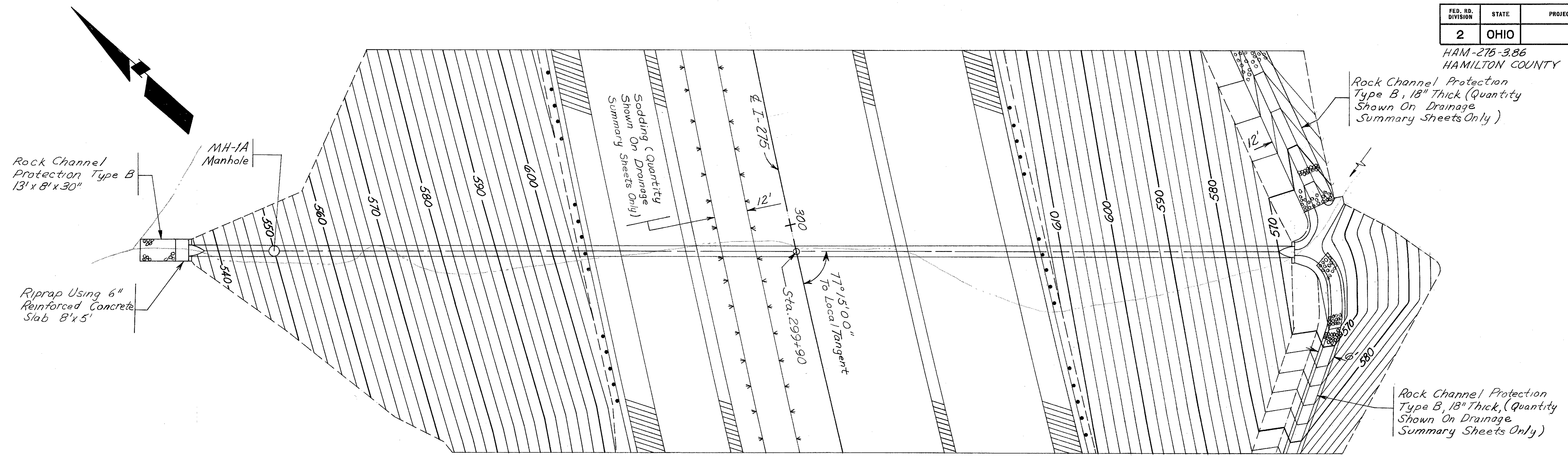
ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	4 Cu.Yd.
602	Concrete Masonry	1.52 Cu.Yd.
603	36" Conduit Type A, 706.02, Class IV, 707.05,	168 Lin.Ft.
603	36" Conduit, Type A, 707.05,	116 Lin.Ft.
603	36" Conduit, Type A, 706.02, Class III; 706.08 ; 707.05.	30 Lin.Ft.
604	Catch Basin, C.B-5A	1 Each
604	Manhole, MH-1A	1 Each

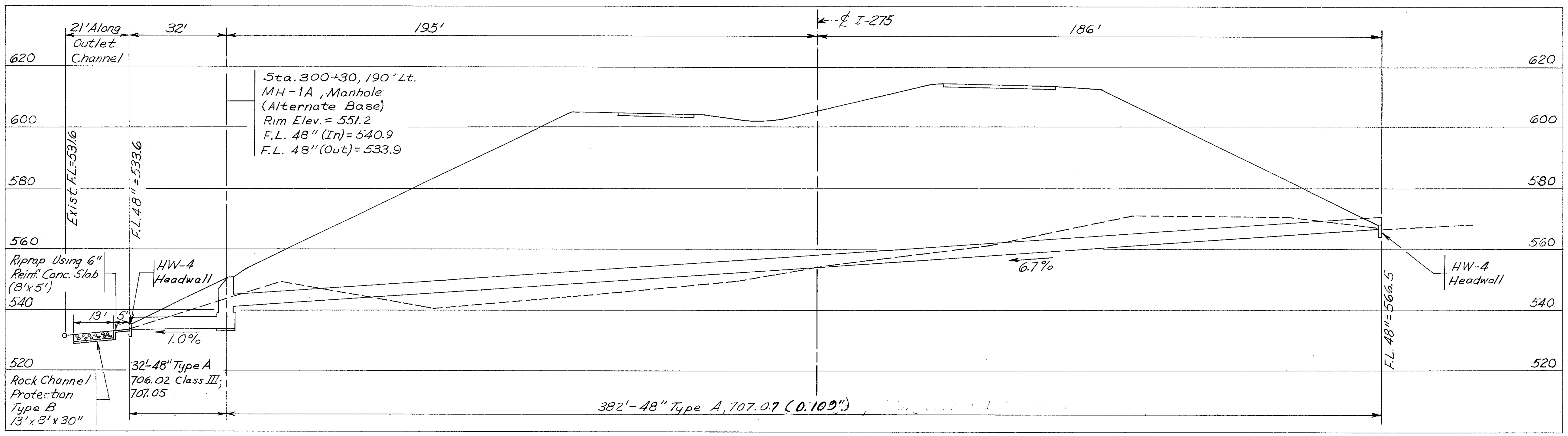
SCALE OF FEET
0 20

DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT Sta. 281+20 I-27



D.A.	39 Ac.
Q_{50}	87 c.f.s.



ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	12	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	5	Sq. Yd.
602	Concrete Masonry	2.20	Cu. Yd.
603	48" Conduit Type A 707.07 (0.109")	382	Lin. Ft.
603	48" Conduit Type A, 706.02, Class III; 707.05,	32	Lin. Ft.
604	Manhole, MH-1A	1	Each

SCALE OF FEET
0 20

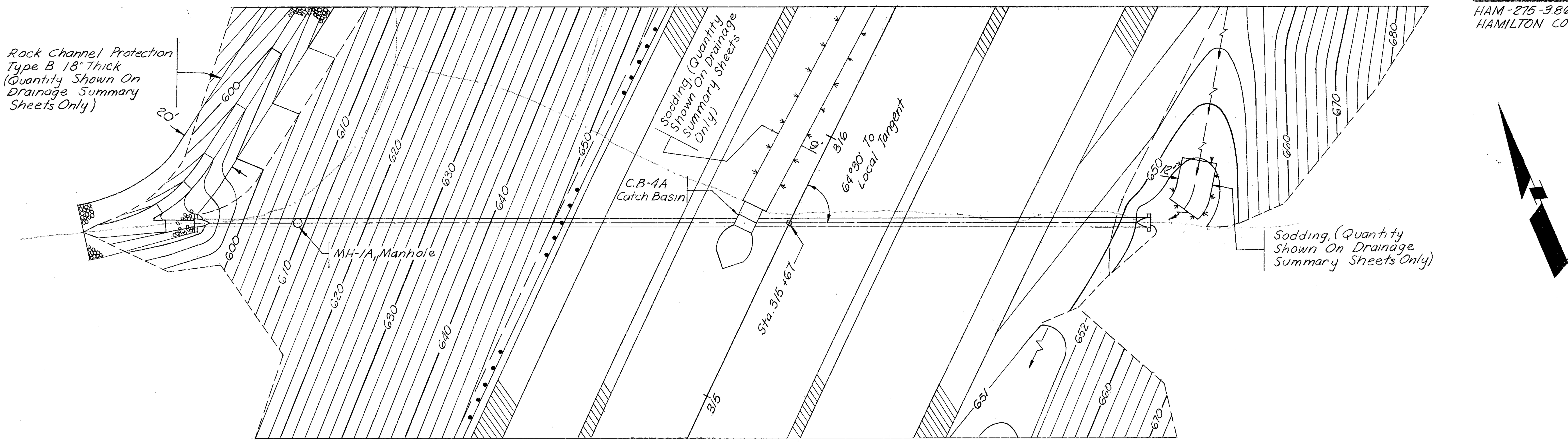
DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

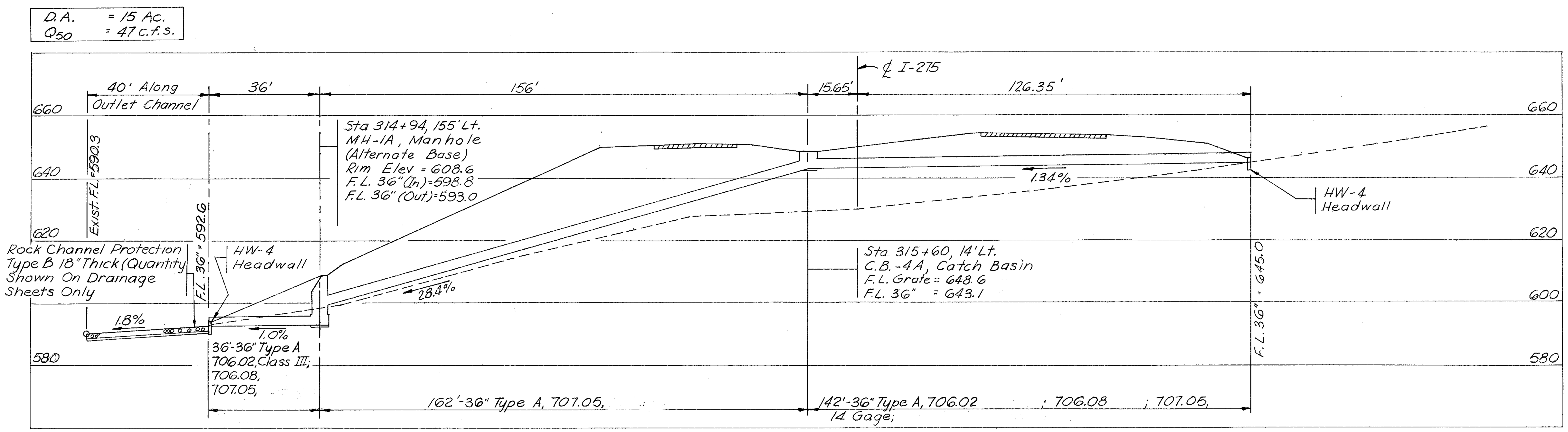
PIPE CULVERT Sta. 299+90, I-275

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

458/630

HAM-275-3.86
HAMILTON COUNTY





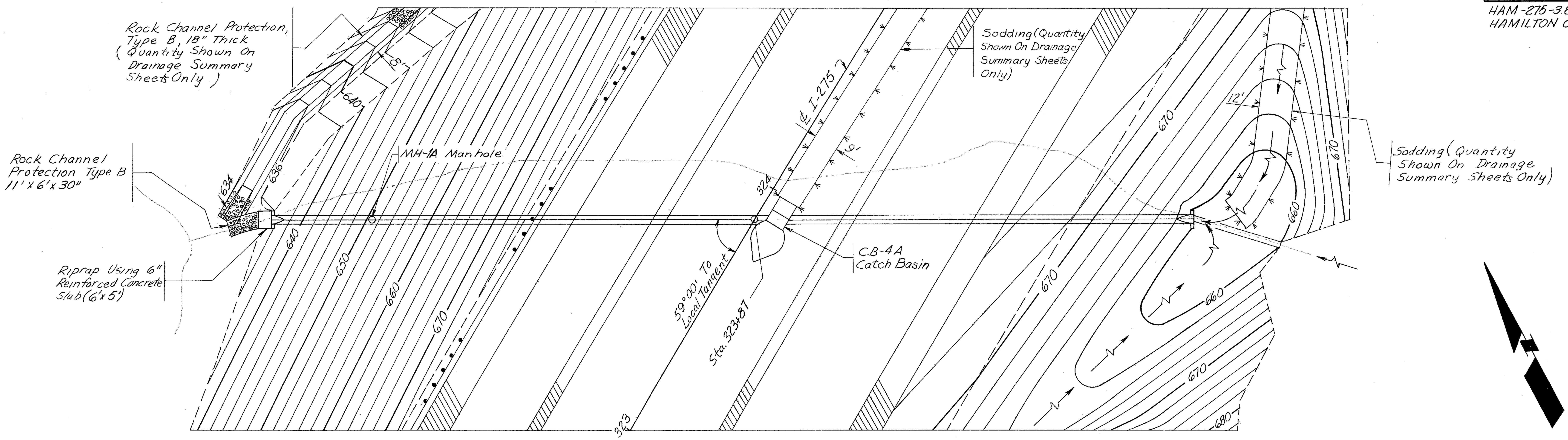
ESTIMATED QUANTITIES

602	Concrete Masonry	1.52 Cu. Yd.
603	36" Conduit Type A, 706.02, 706.08 ; 707.05	142 Lin. Ft.
603	36" Conduit Type A, 707.05,	162 Lin. Ft.
603	36" Conduit Type A 706.02, Class III 706.08 ; 707.05,	36 Lin. Ft.
604	Catch Basin, CB-4A	1 Each
604	Manhole, MH-1A	1 Each

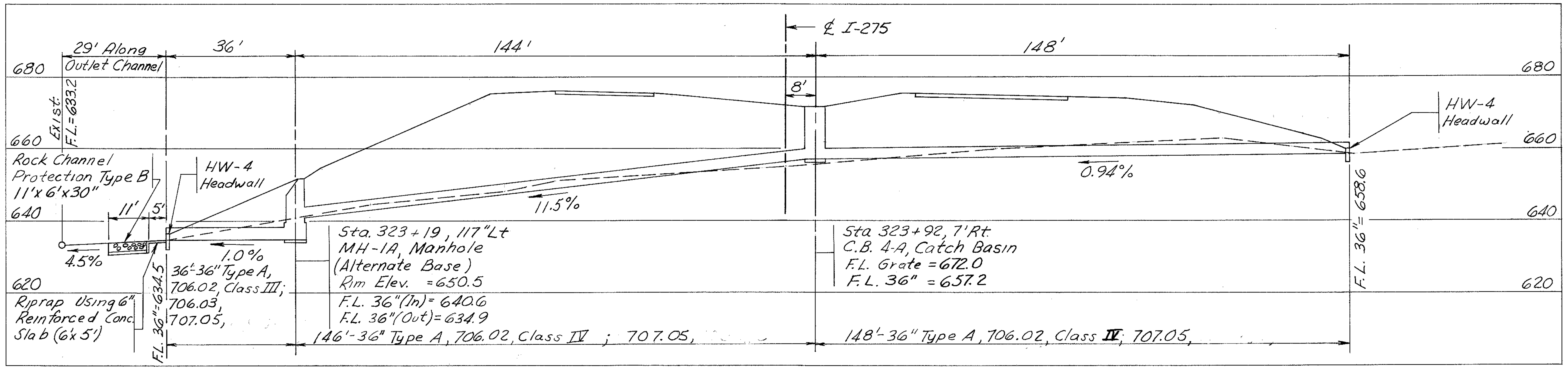
SCALE OF FEET
0 20

DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT Sta 315+67 I-275



D.A.	= 27 Ac.
Q_{50}	= 68 c.f.s.



ESTIMATED QUANTITIES

601	Rock Channel Protection, Type B	7	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	4	Sq. Yd.
602	Concrete Masonry	1.52	Cu. Yd.
603	36" Conduit, Type A, 706.02, Class IV or 707.05,	294	Lin. Ft.
603	36" Conduit, Type A, 706.02, Class III; 706.08 ; 707.05,	36	Lin. Ft.
604	Catch Basin, CB-4A	1	Each
604	Manhole, MH-1A	1	Each

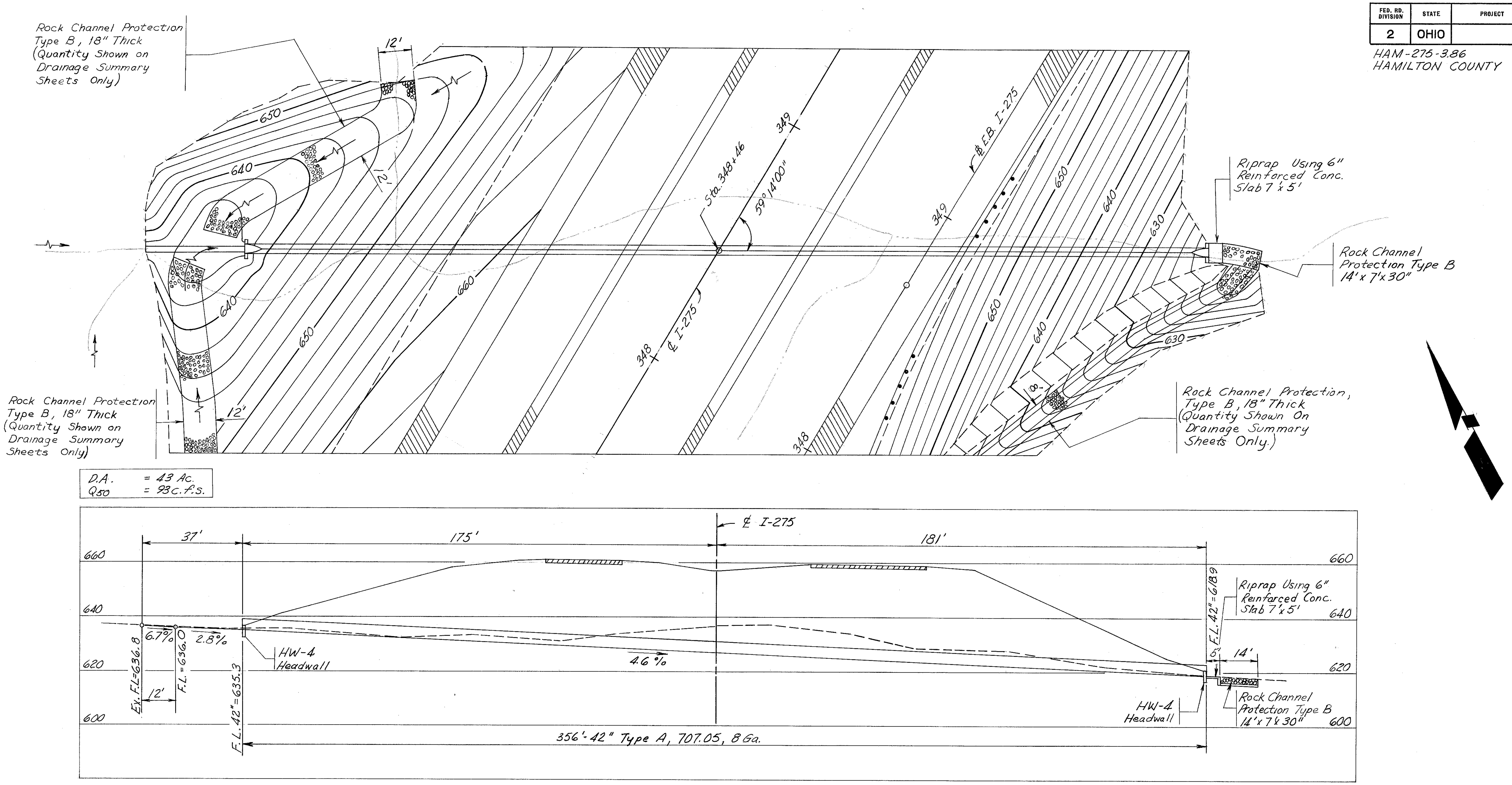
SCALE OF FEET
0 20

DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT Sta 323+87, I-275

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			460/630

HAM-275-3.86
HAMILTON COUNTY



ESTIMATED QUANTITIES

601	Rock Channel Protection, Type B	11	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	4	Sq. Yd.
602	Concrete Masonry	1.84	Cu. Yd.
603	42" Type A, 707.07	356	Lin Ft.

SCALE OF FEET
0 20

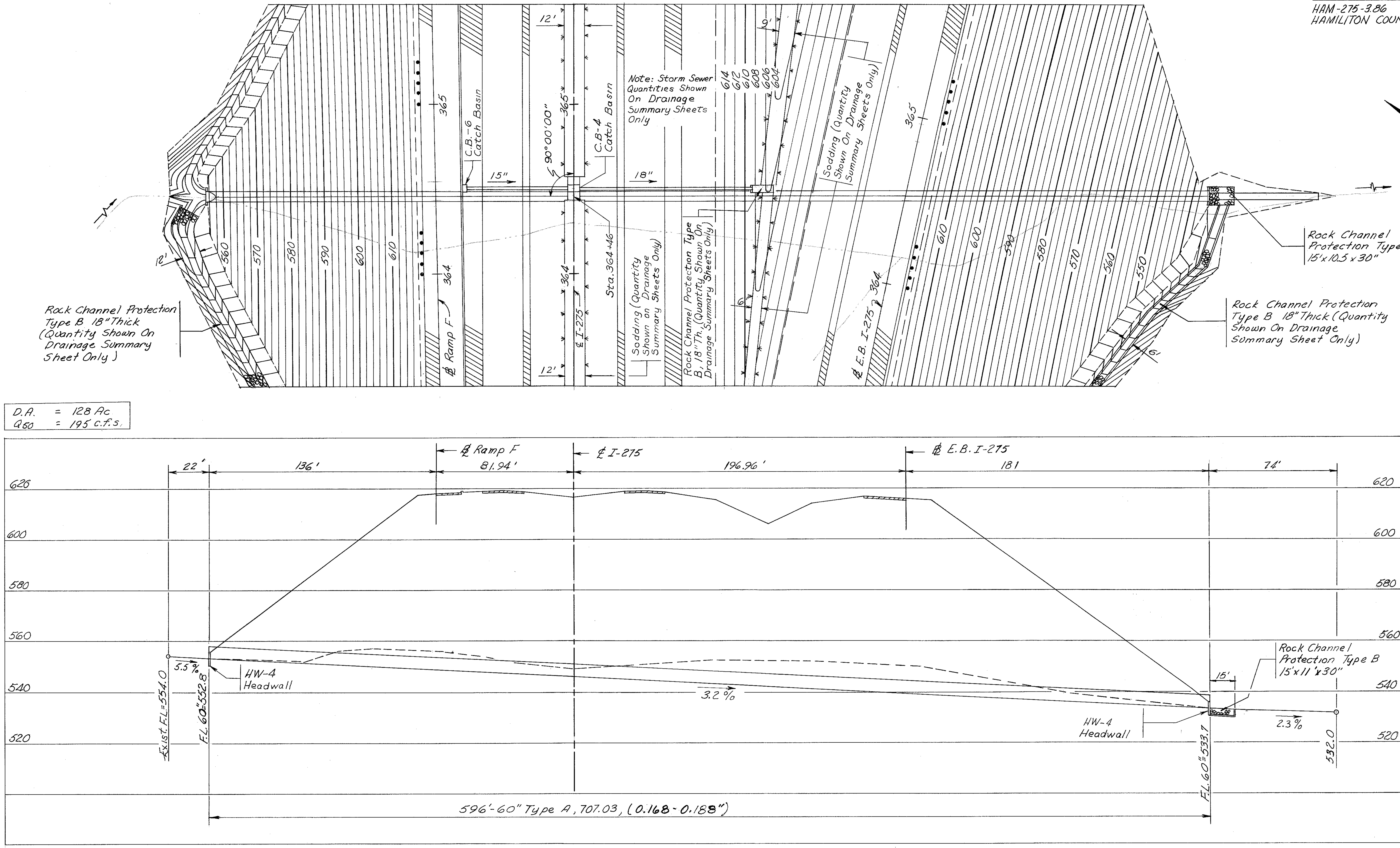
6/70 J.M. 7/71 B.W.

PIPE CULVERT Sta. 348+46 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

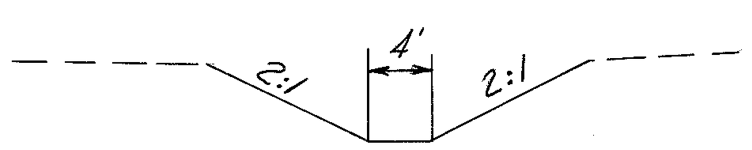
461/630

HAM-275-3.86
HAMILTON COUNTY



ESTIMATED QUANTITIES

203	Excavation, Not Including Embankment Construction	17	Cu. Yds.
601	Rock Channel Protection Type B	18	Cu. Yds.
602	Concrete Masonry	3.56	Cu. Yds.
603	60" Conduit, Type A, 707.03, (0.168"-0.188")	596	Lin. Ft.



TYPICAL CROSS SECTION
OUTLET CHANNEL

HORIZONTAL SCALE OF FEET
0 30

DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT Sta. 364+46 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

462
630

HAM-275-3.86
HAMILTON COUNTY

ESTIMATED QUANTITIES

601	Rock Channel Protection Type A	44	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	9	Sq. Yd.
602	Concrete Masonry	6.6	Cu. Yd.
603	84" Conduit Type A 707.03 (0.280") Elongated and with 6 Bolts per foot	1032	Lin. Ft.

HORIZONTAL SCALE OF FEET
0 30

DEVEL. 6/70 J.M. CHECKED 7/71 R.W.

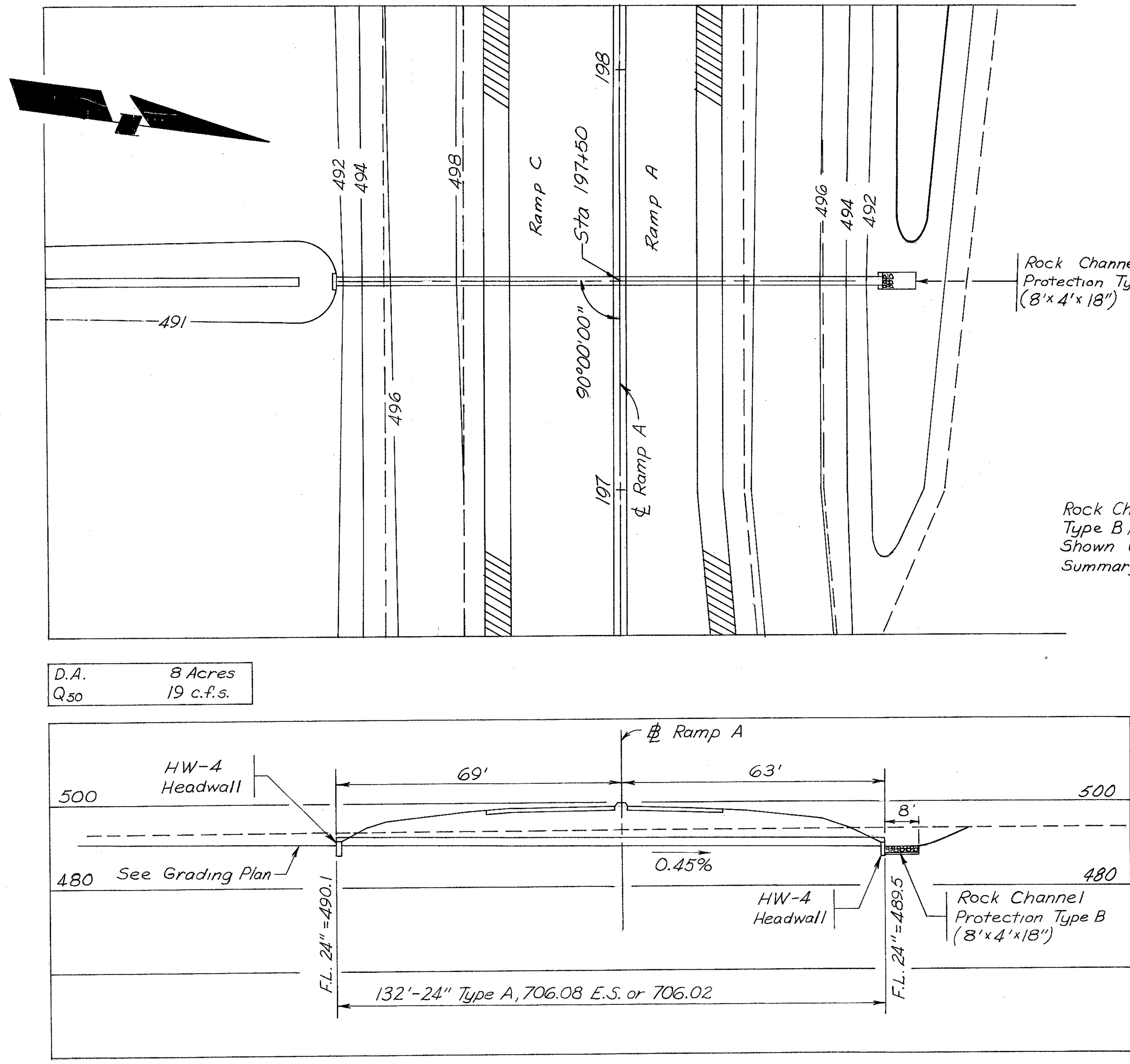
PIPE CULVERT Sta. 370+55 I-275

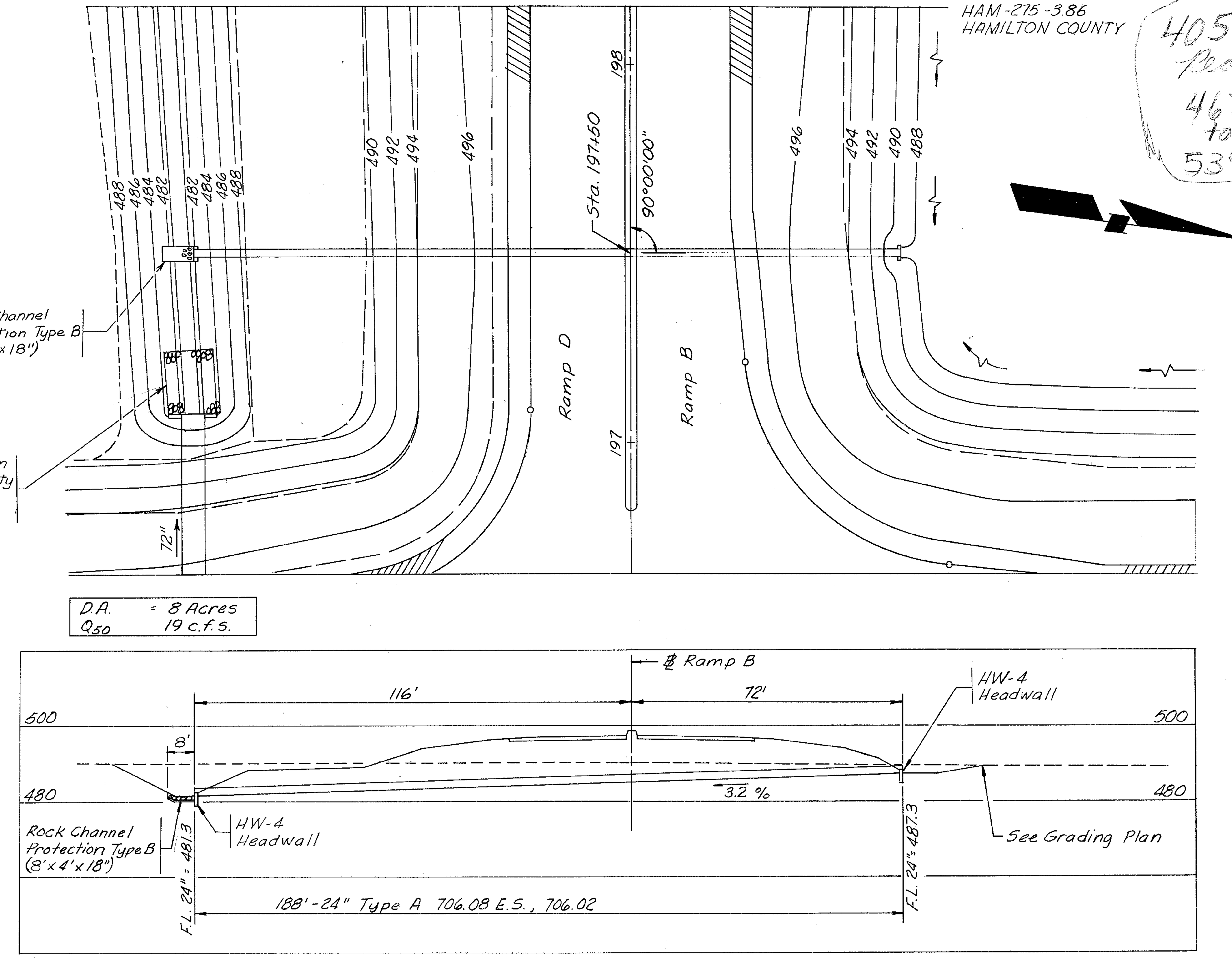
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

463
630

HAM-275-3.86
HAMILTON COUNTY

405
Ped
463
to
539





ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	3	Cu. Yd.
602	Concrete Masonry	0.86	Cu. Yd.
603	24" Conduit Type A 706.08 E.S. or 706.02	132	Lin. Ft.

ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	3	Sq. Yd.
602	Concrete Masonry	0.86	Cu. Yd
603	24" Conduit, Type A 706.08 E.S. 706.02	188	Lin. Ft.

SCALE OF FEET
0 20

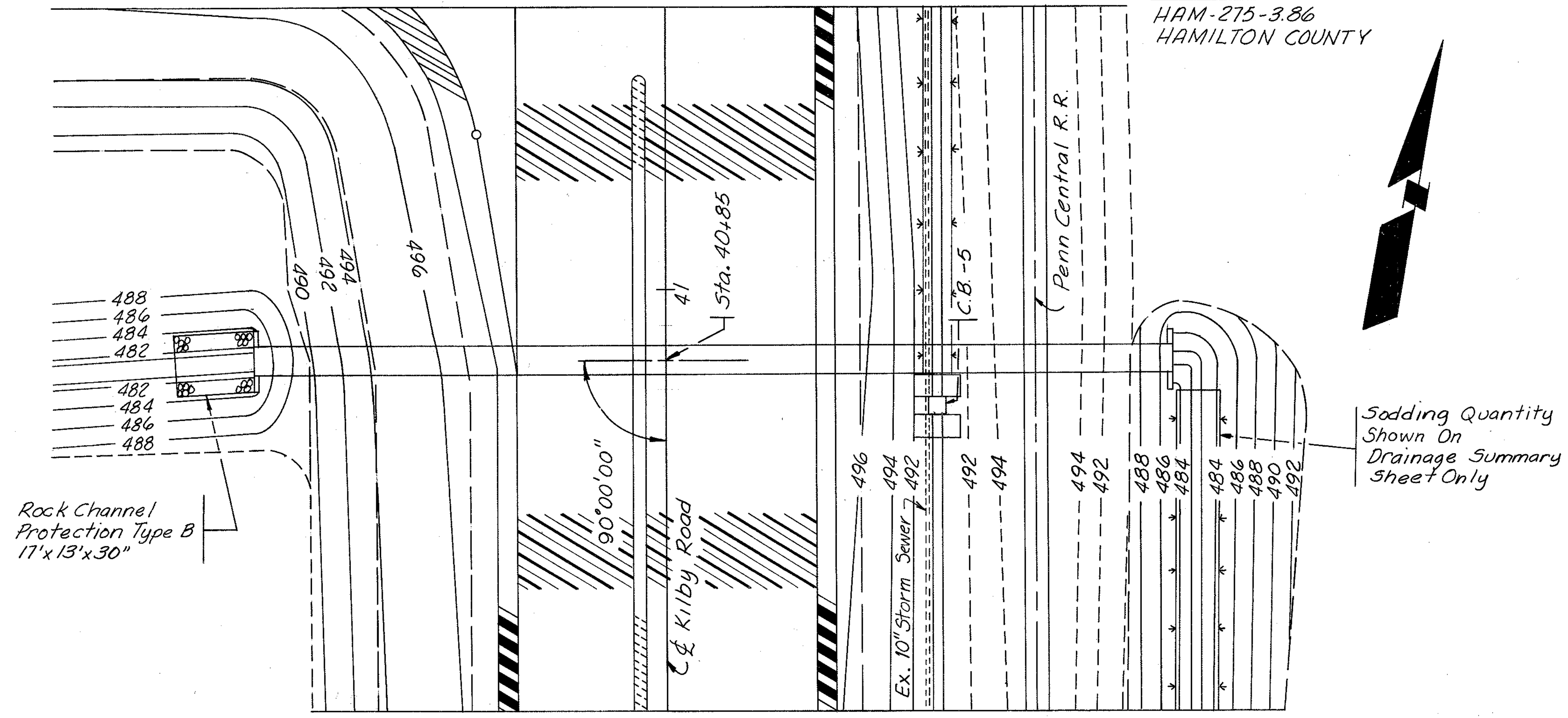
DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERTS Sta. 197+50 Ramps A & B

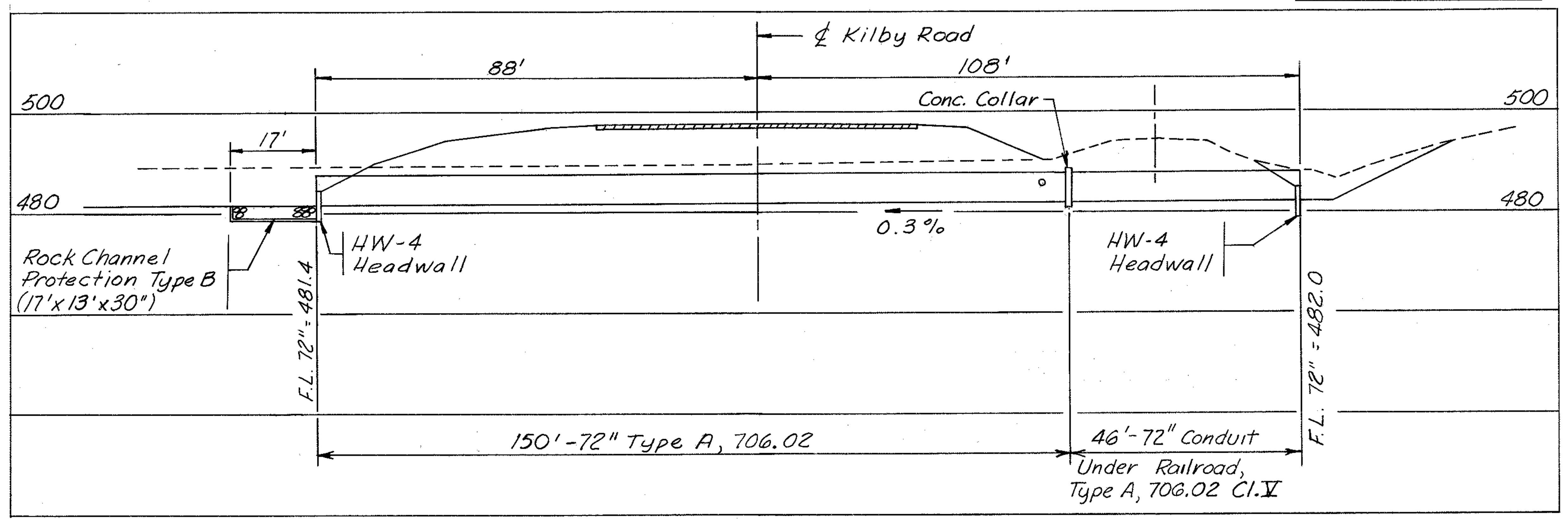
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

464/630

HAM-275-3.86
HAMILTON COUNTY



D.A.	152 Ac.
Q_{50}	212 c.f.s.



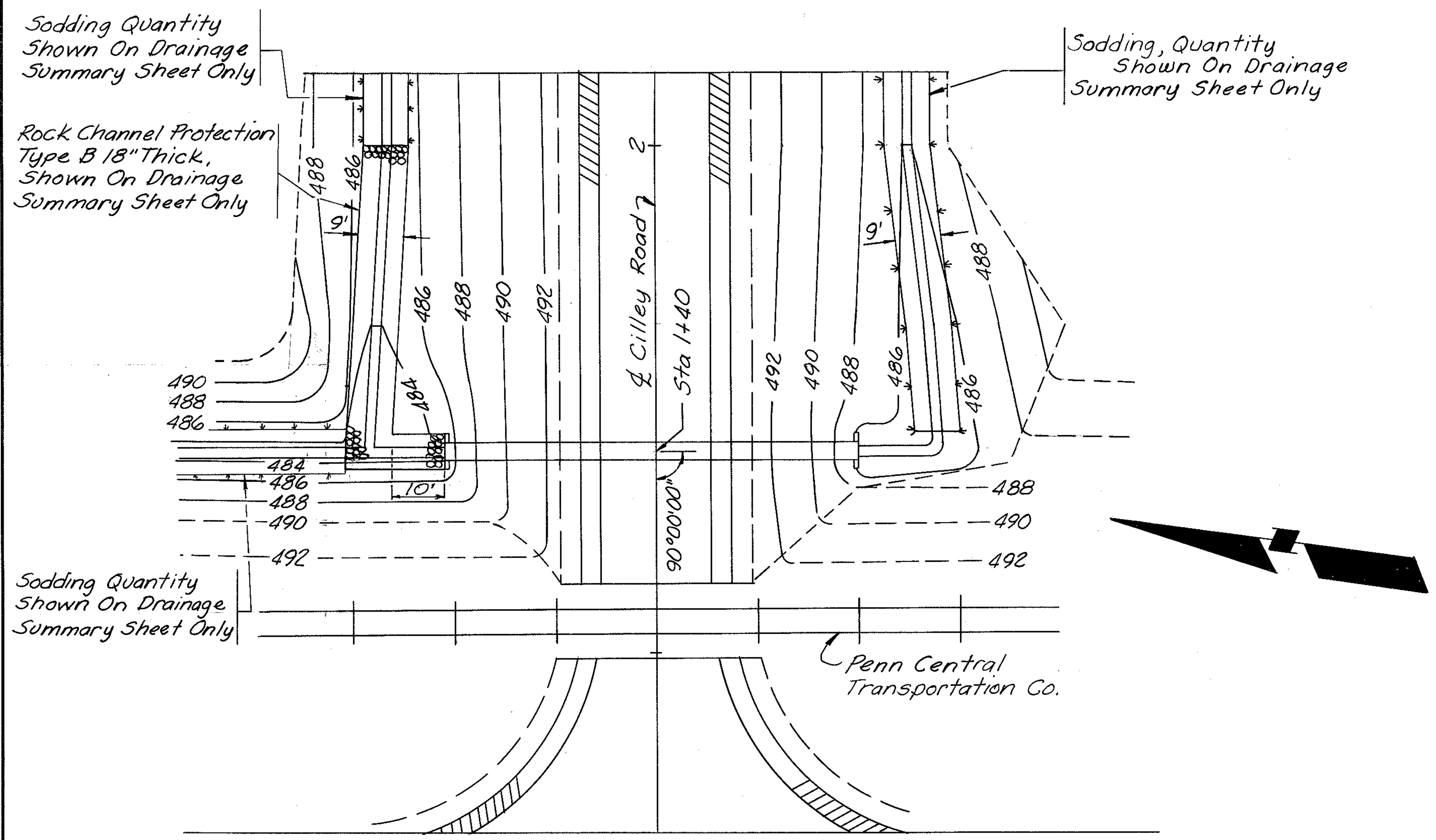
ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	25	Cu. Yd.
602	Concrete Masonry	5.54	Cu. Yd
603	72" Conduit Type A, 706.02	150	Lin. Ft.
603	72" Conduit Under Railroad Type A, 706.02 Cl. V As Per Plan	46	Lin. Ft.

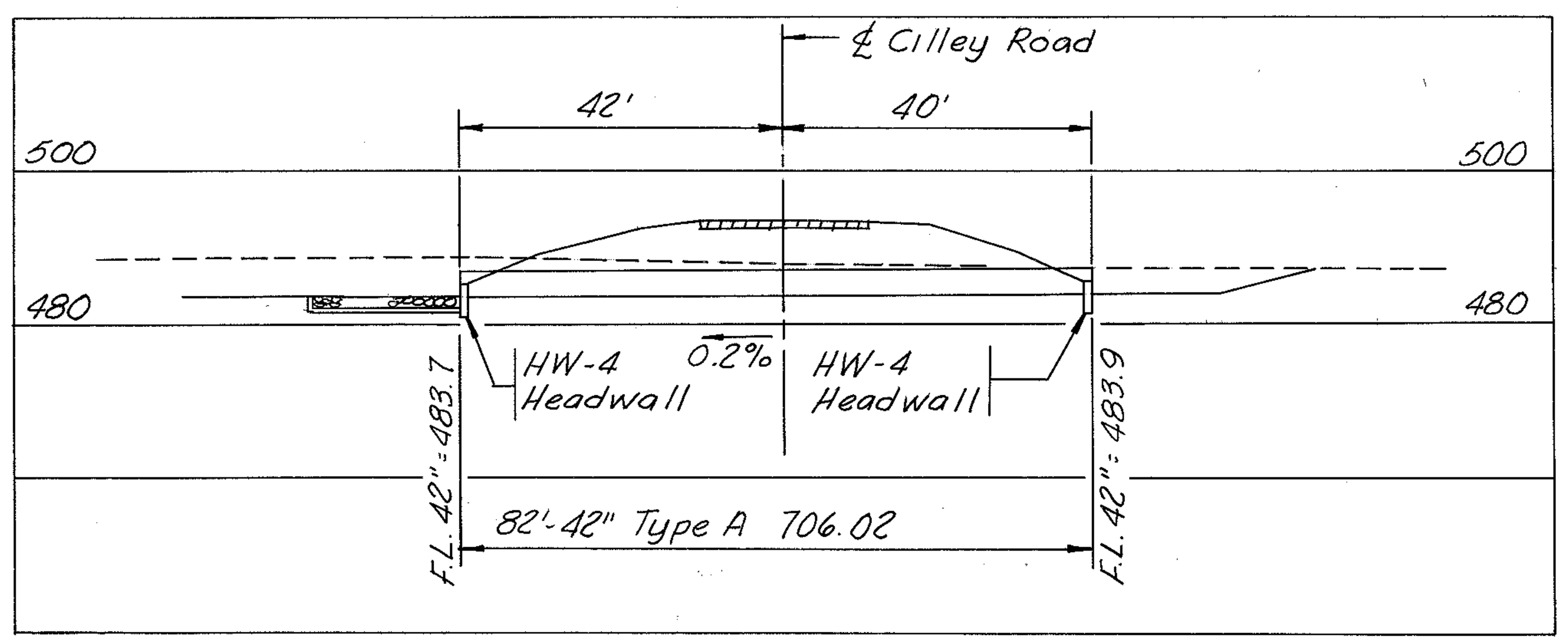
SCALE OF FEET
0 20

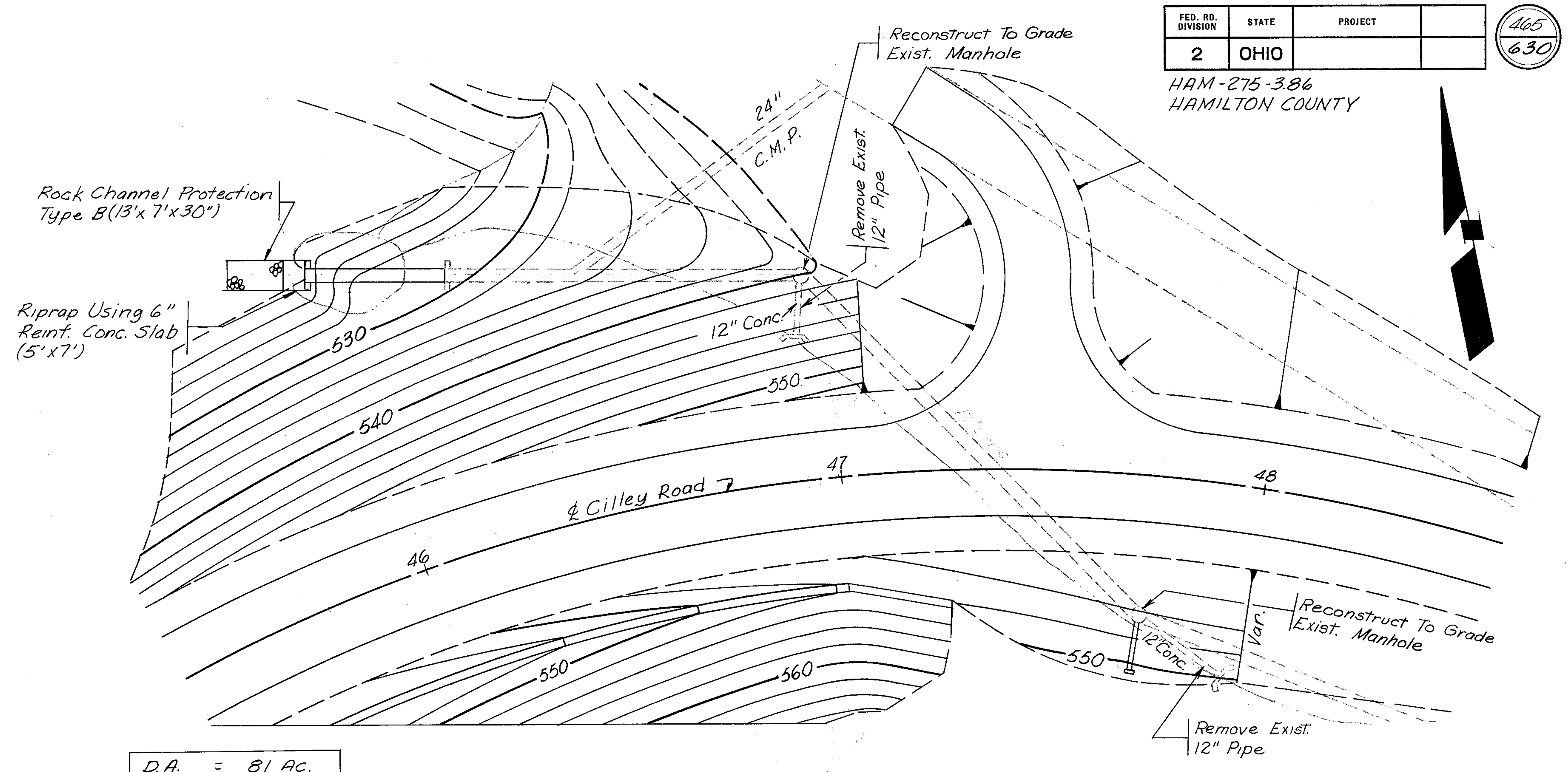
DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT Sta. 40+85 Kilby Rd.

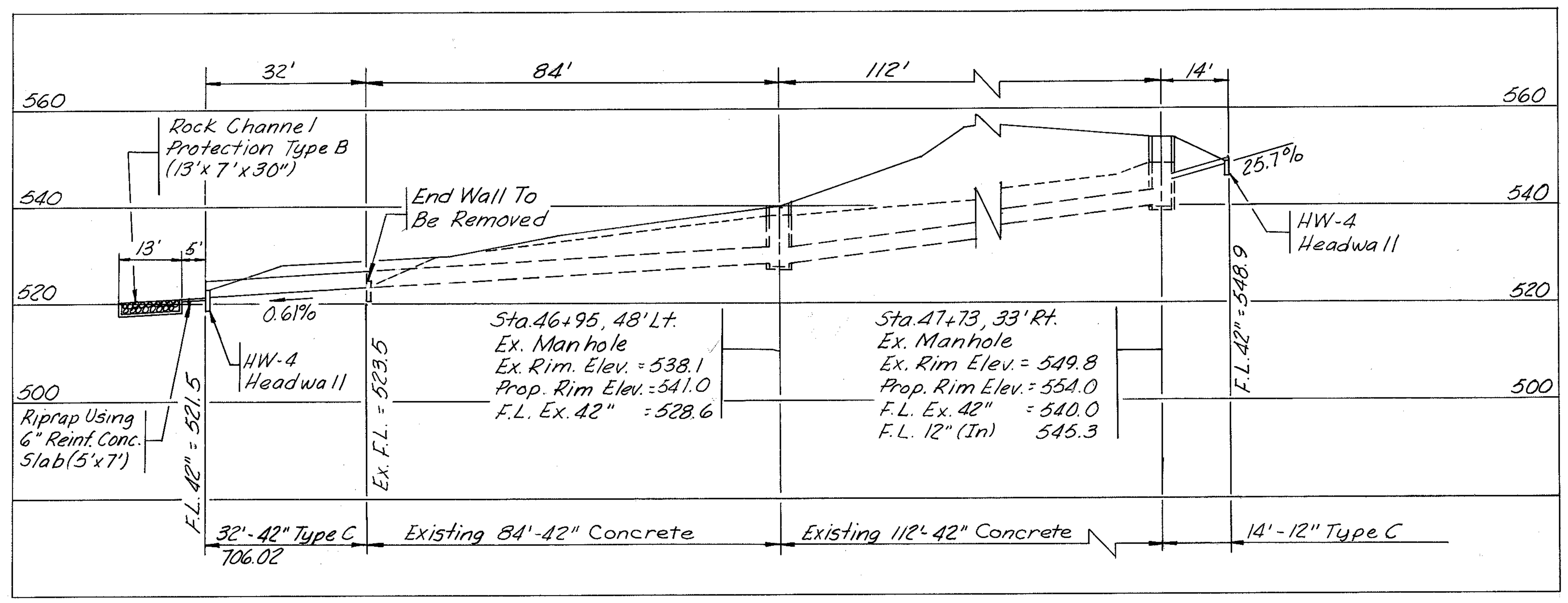


D.A. = 23 Ac.
Q_{25} = 50 c.f.s.





D.A. = 81 Ac.
Q_{25} = 116 c.f.s.

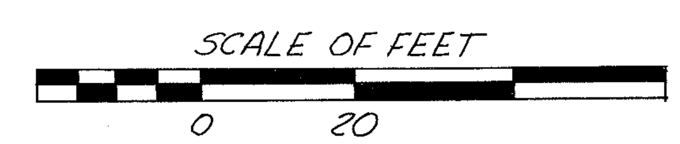


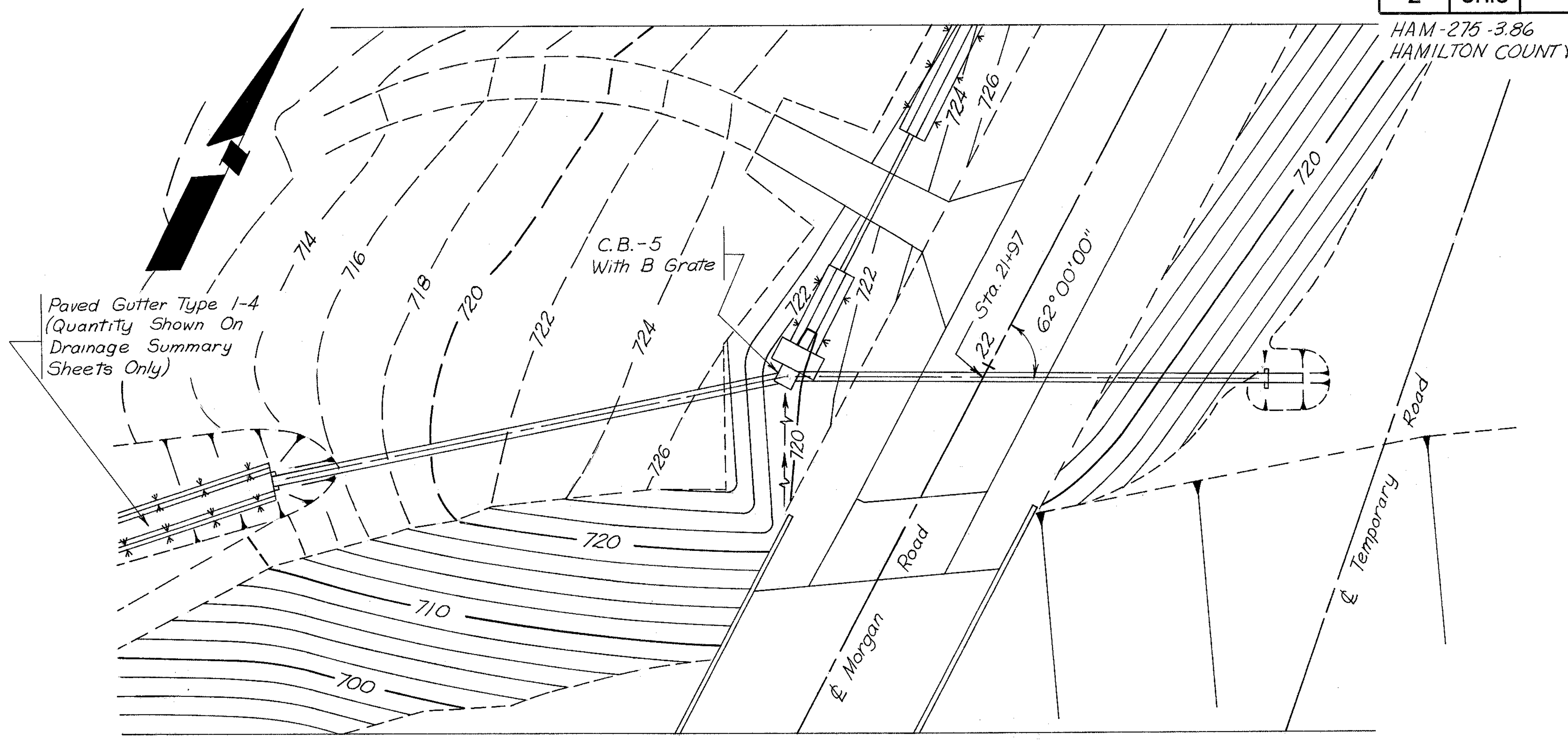
ESTIMATED QUANTITIES

602	Concrete Masonry	1.68 Cu. Yd.
603	42" Conduit Type A, 706.02	82 Lin. Ft.

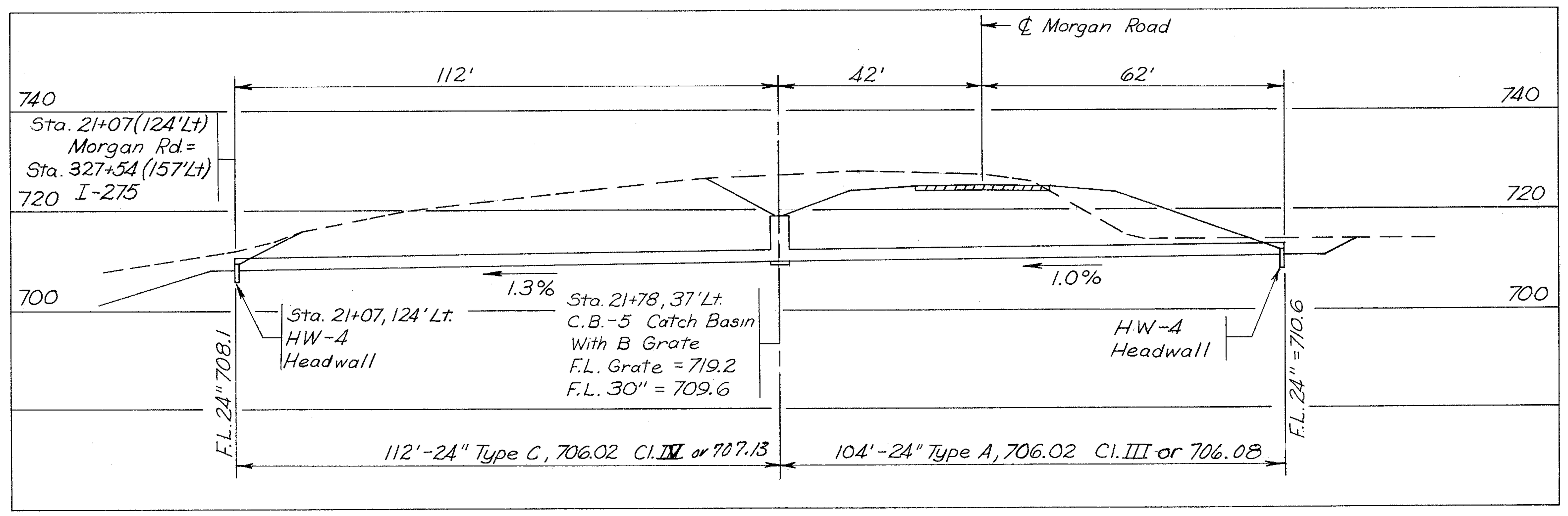
ESTIMATED QUANTITIES

202	Pipe Removed Under 24"	39 Lin. Ft.
601	Rock Channel Protection Type B	10 Cu. Yd.
601	Riprap (6" Reinforced Concrete)	4 Sq. Yd.
602	Concrete Masonry	1.04 Cu. Yd.
603	42" Conduit Type C 706.02	32 Lin. Ft.
603	12" Conduit Type C	14 Lin. Ft.
604	Manholes reconstructed to grade	2 Each





D.A.	6 Acres
Q_{25}	21 c.f.s.



ESTIMATED QUANTITIES

602	Concrete Masonry	0.86	Cu. Yd.
603	24" Type A, 706.02 Cl. III or 706.08	104	Lin. Ft.
603	24" Type C, 706.02 Cl. IV or 707.13	112	Lin. Ft.
604	Catch Basin C.B.-5 With B Grate	1	Each

SCALE OF FEET
0 20

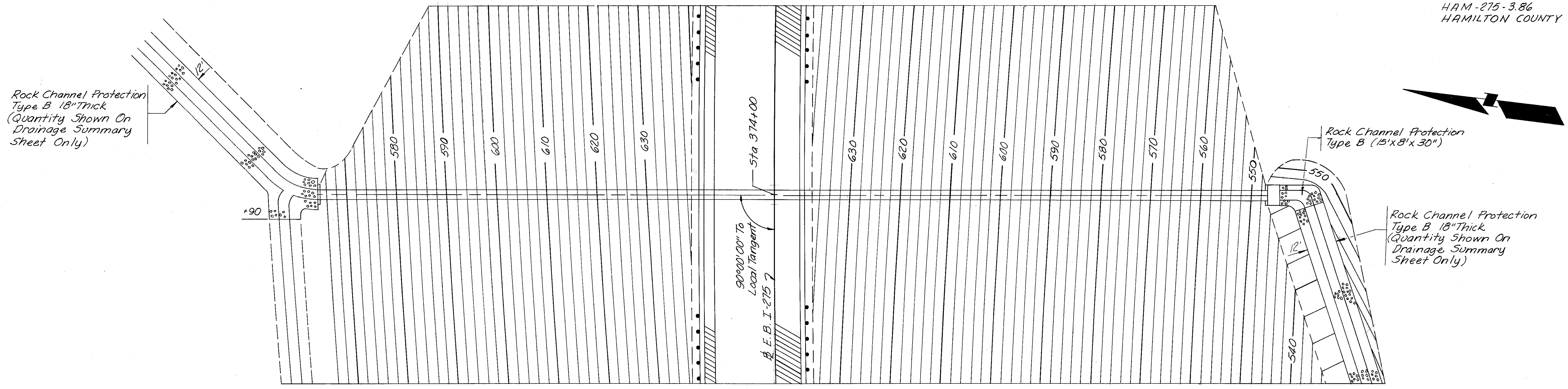
DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERTS MORGAN ROAD Sta. 21+97

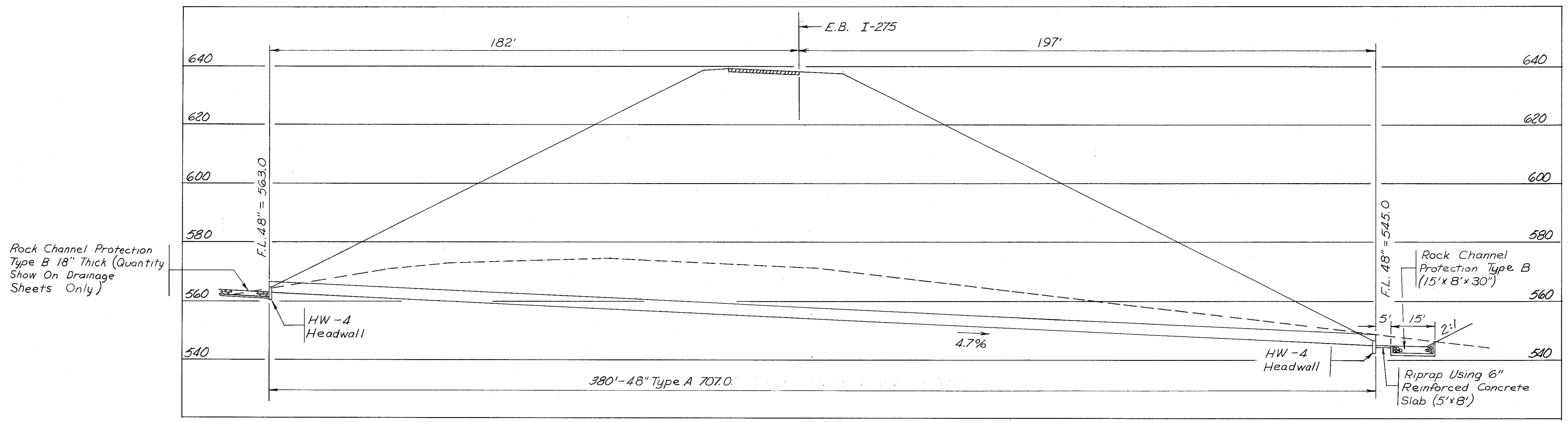
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

467/630

HAM-275-3.86
HAMILTON COUNTY



D.A.	52 Acres
Q_{50}	105 c.f.s.



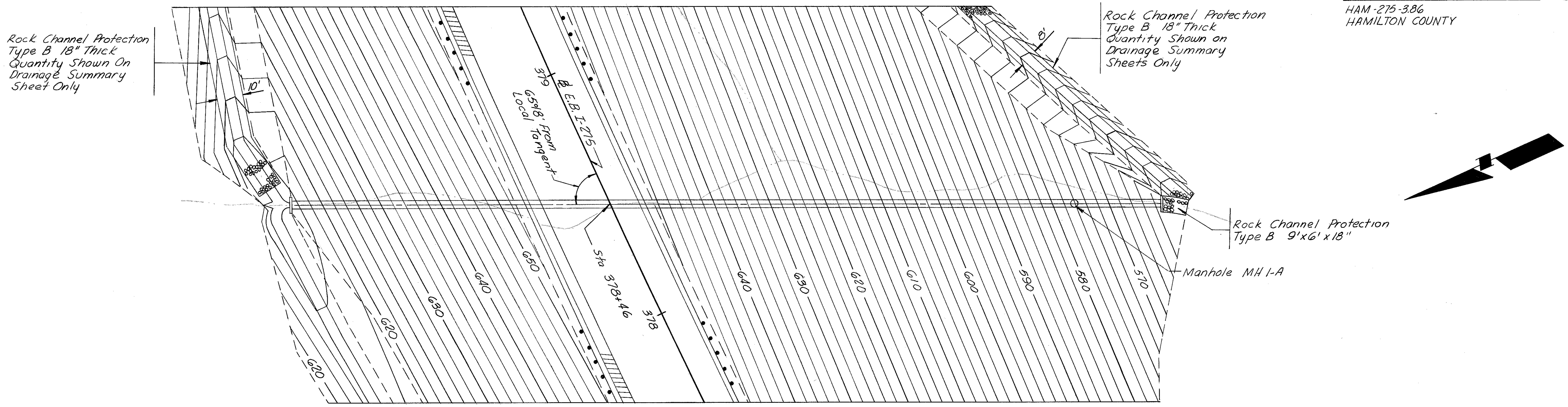
ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	14	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	5	Sq. Yd.
602	Concrete Masonry	2.20	Cu. Yd.
603	48" Conduit Type A 707.07 (0.168") Elongated	380	Lin. Ft.

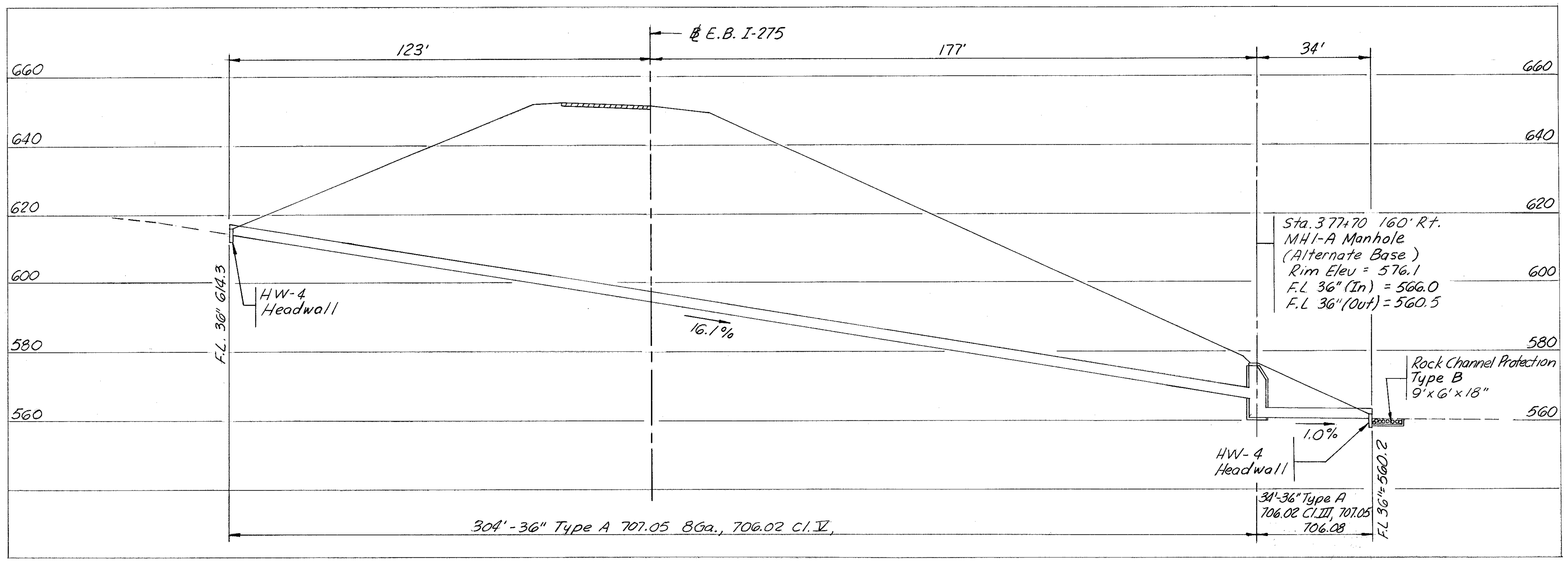
SCALE OF FEET
0 20

DEVELOPED	CHECKED
6/70 J.M.	7/71 R.W.

PIPE CULVERT Sta. 374+00 E.B. I-275



D.A.	20 Ac
Q_{50}	56 c.f.s.



ESTIMATED QUANTITIES

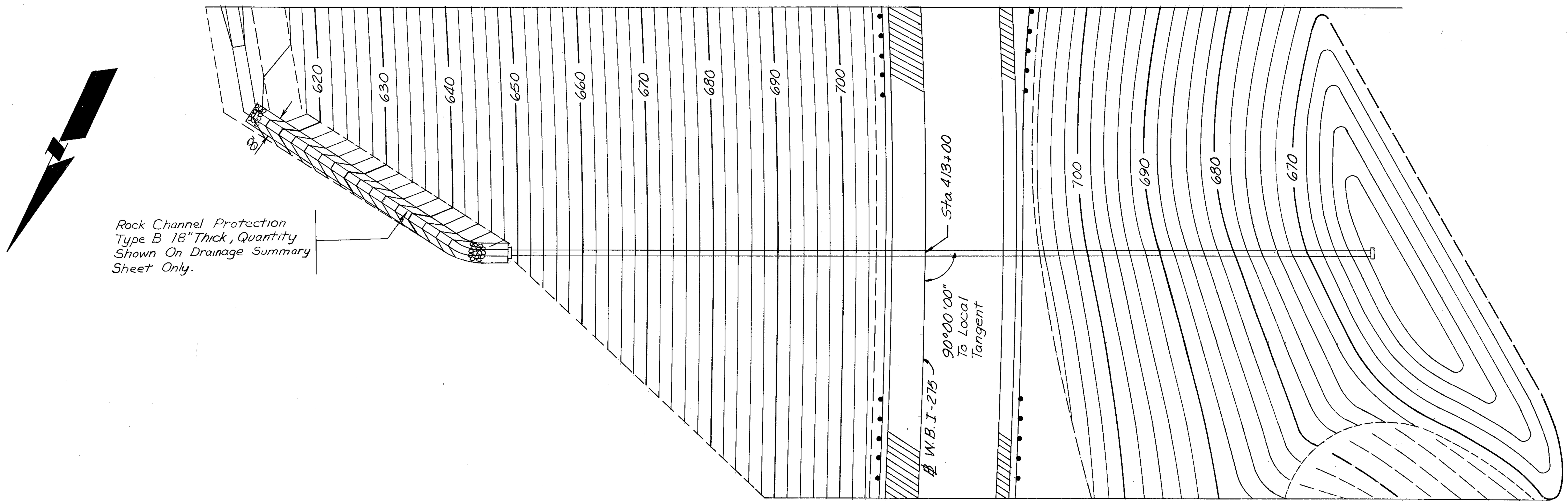
601	Rock Channel Protection Type B	4 Cu.Yd.
602	Concrete Masonry	1.52 Cu.Yd.
603	36" Conduit Type A 707.07 (0.079")	304 Lin.Ft.
603	36" Conduit Type A 706.02 Cl.III, 707.05 706.08	34 Lin Ft.
604	Manhole MH1-A	1 Each

SCALE OF FEET
0 20

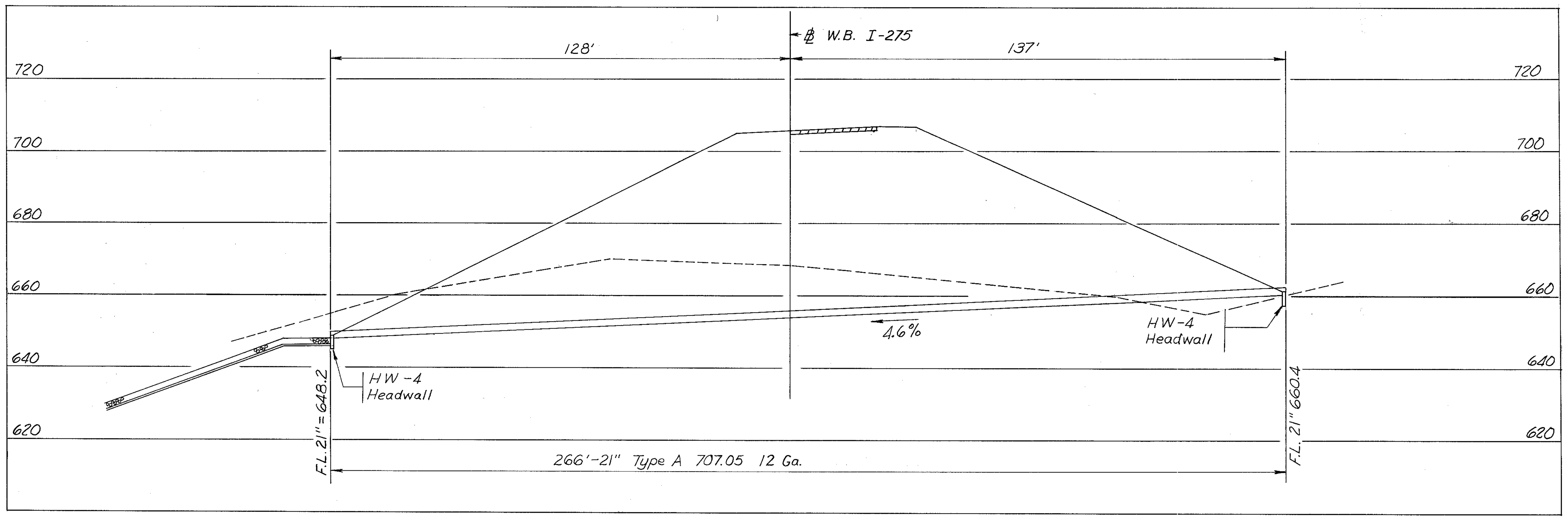
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

469
630

HAM-275-3.86
HAMILTON COUNTY



D.A.	4 Acres
Q_{50}	19 c.f.s.



ESTIMATED QUANTITIES

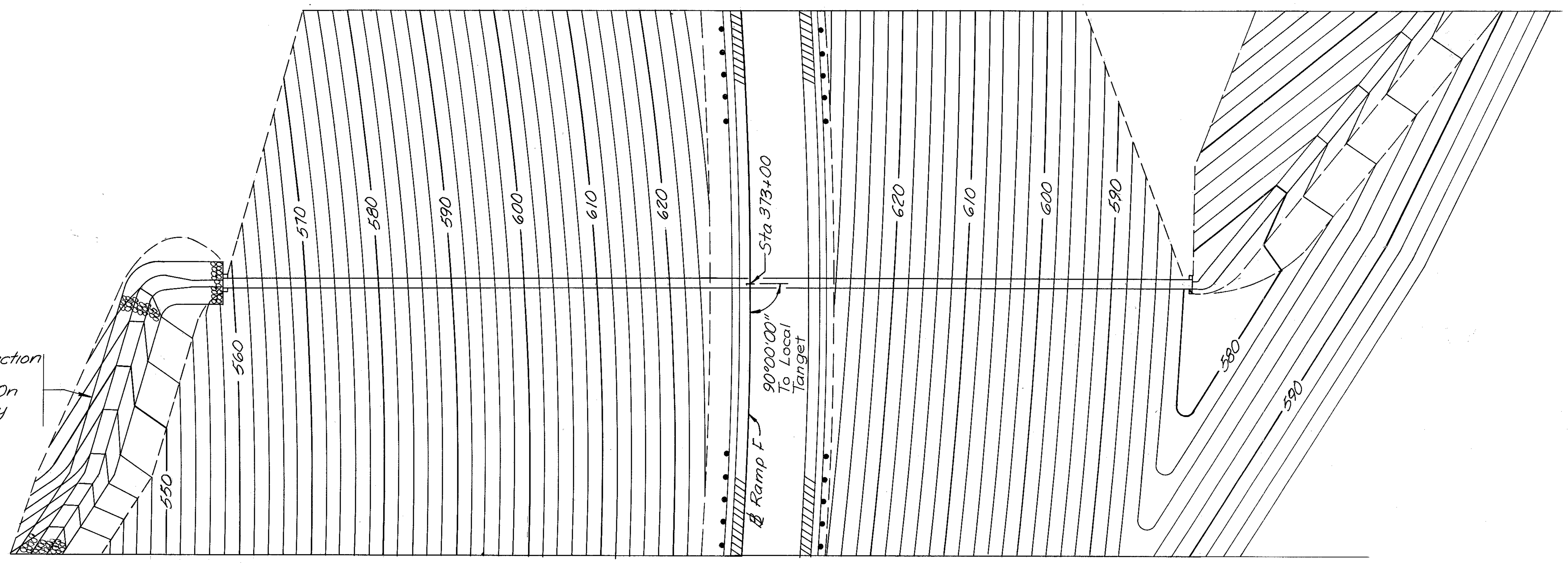
602	Concrete Masonry	0.78 Cu. Yd.
603	21" Conduit Type A 707.05 (0.079")	266 Lin. Ft.

SCALE OF FEET
0 20

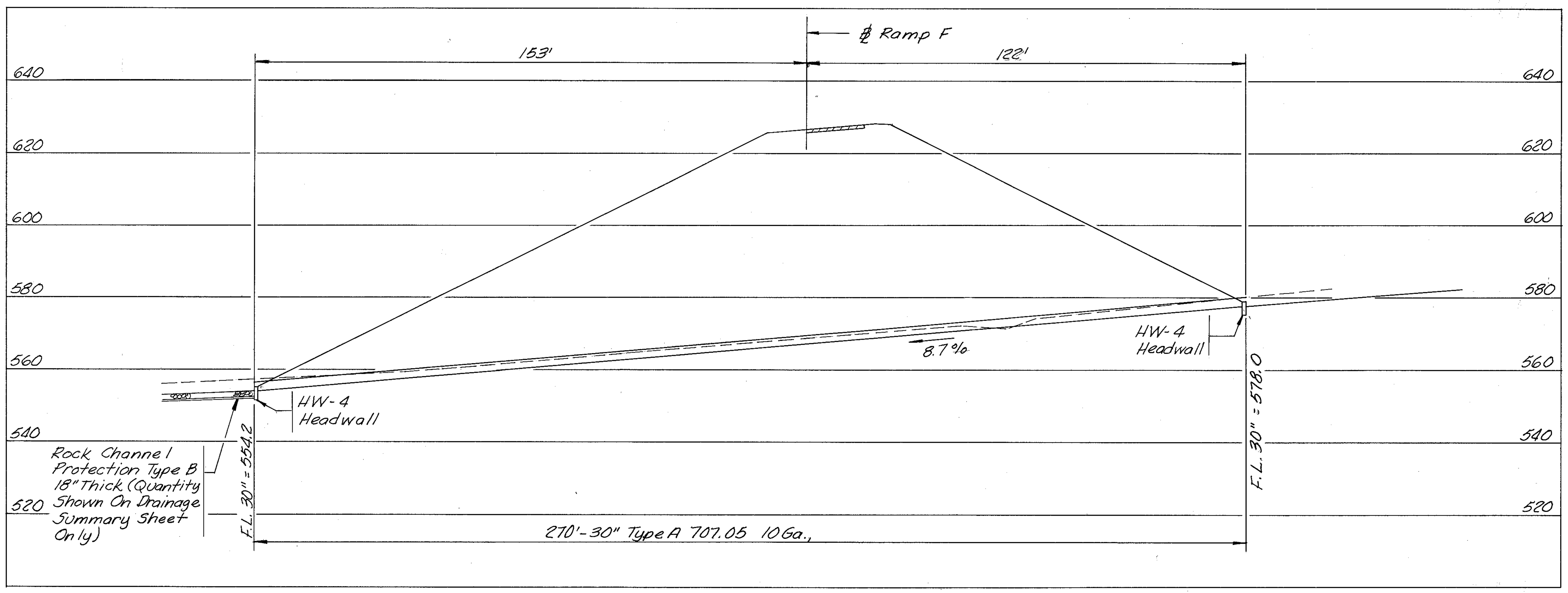
DEVELOPED		CHECKED	
6/70	J.H.	7/71	R.W.

PIPE CULVERT Sta. 413+00 W.B. I-275

HAM-275-3.86
HAMILTON COUNTY



D.A. = 11 Acres
Q_{50} = 38 c.f.s.



ESTIMATED QUANTITIES

602	Concrete Masonry	1.20 Cu. Yd.
603	36" Conduit Type A 707.07 (0.079")	276 Lin. Ft.

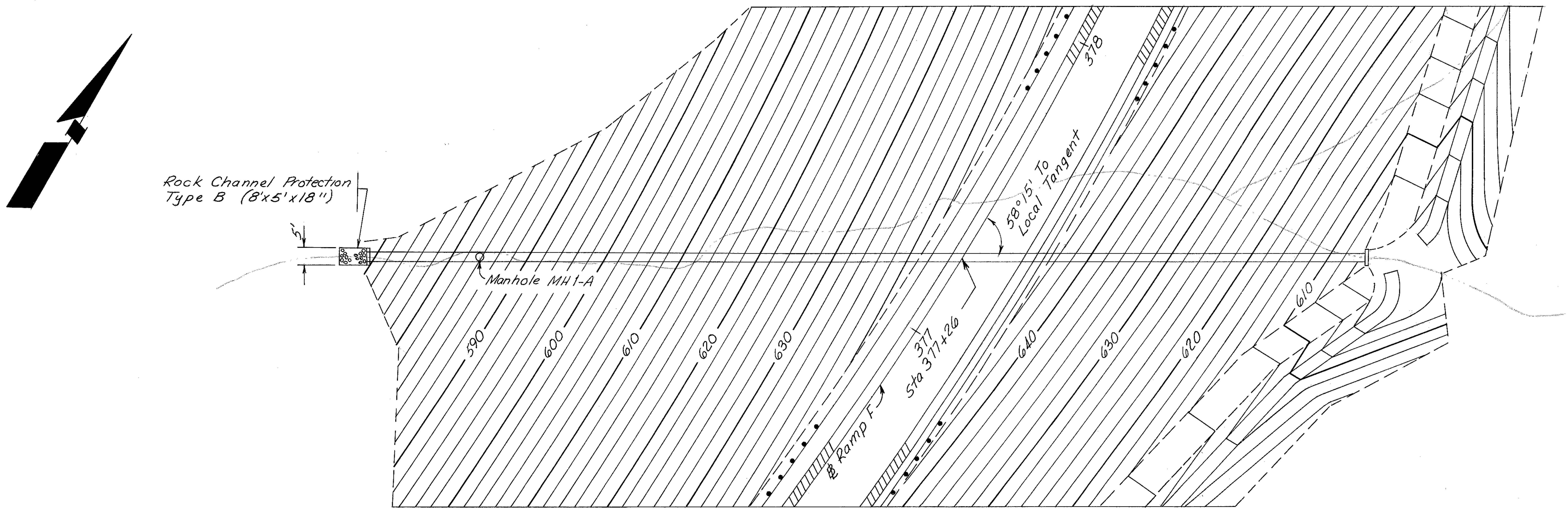
SCALE OF FEET
0 20

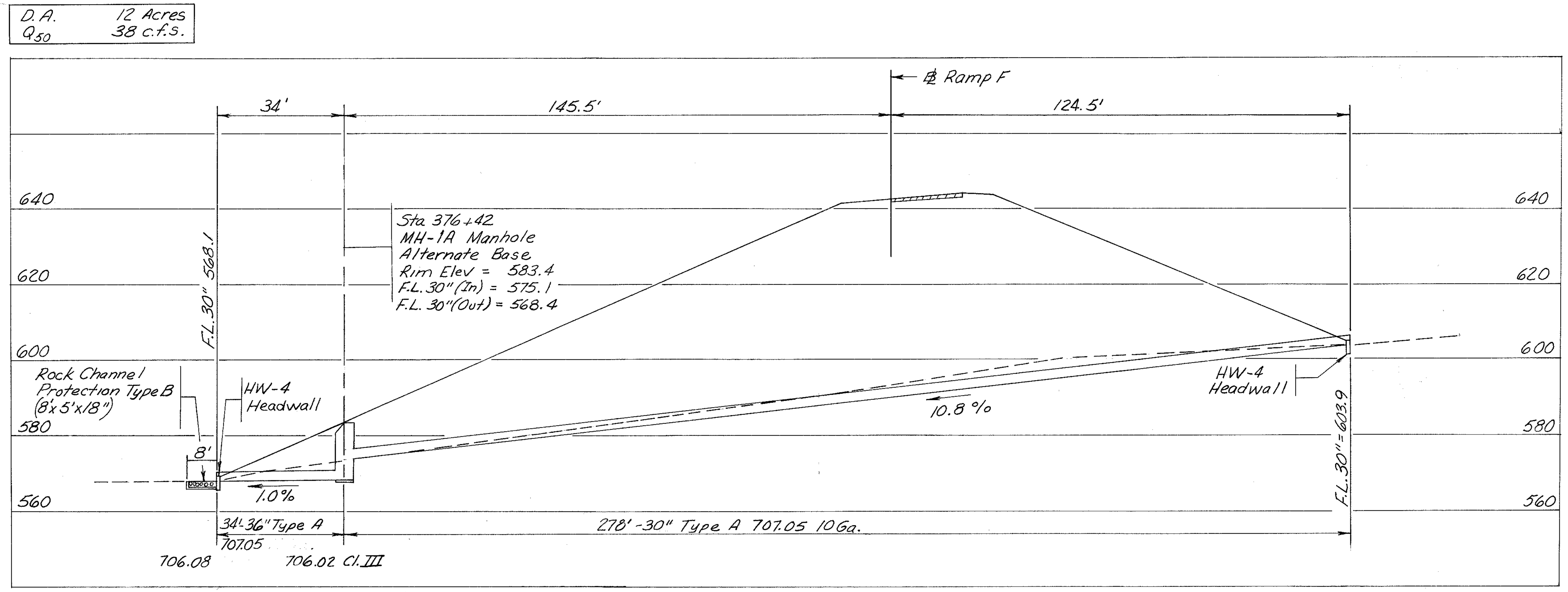
DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT Sta 373+00 Ramp F

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			471/630

HAM-275-3.86
HAMILTON COUNTY





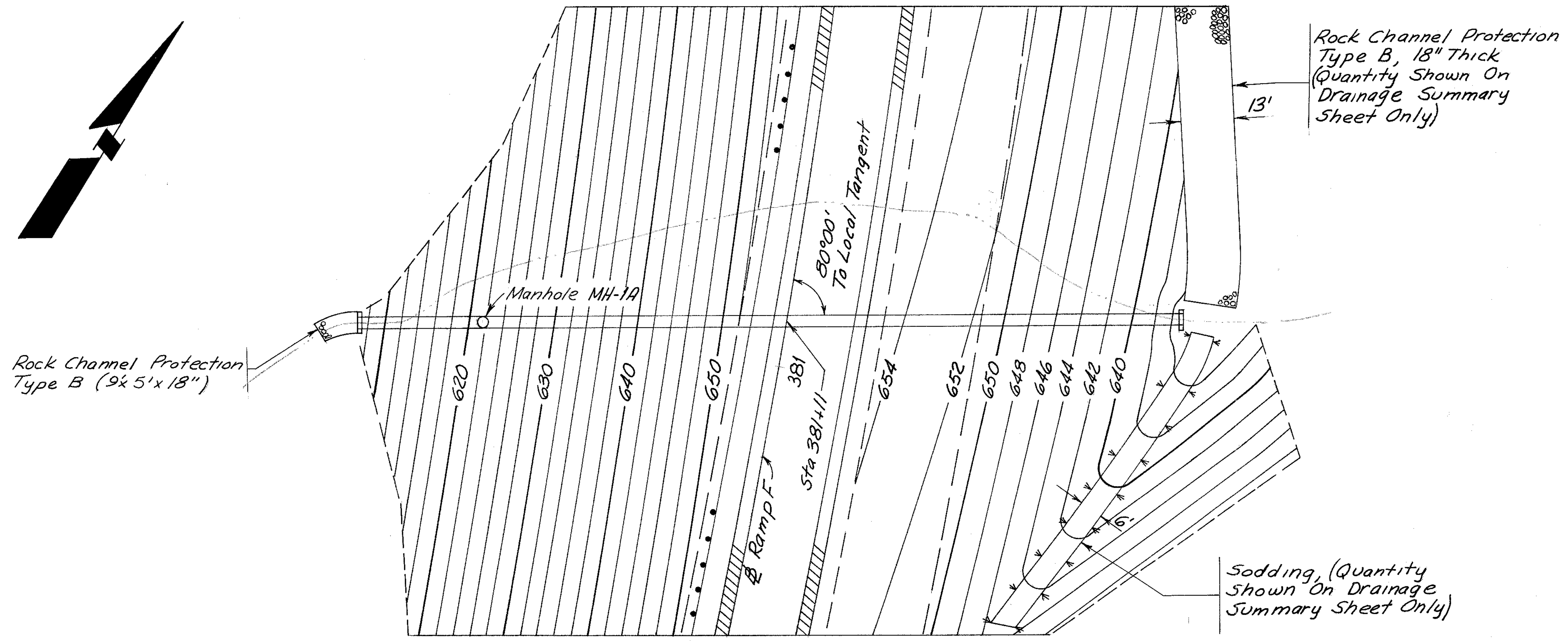
ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	3	Cu. Yd.
602	Concrete Masonry	1.20	Cu. Yd.
603	36" Conduit Type A 707.07 (0.079")	270	Lin. Ft.
603	36" Conduit Type A 707.05 , 706.08 , 706.02 Cl. III,	34	Lin. Ft.
604	Manhole MH 1-A	1	Each

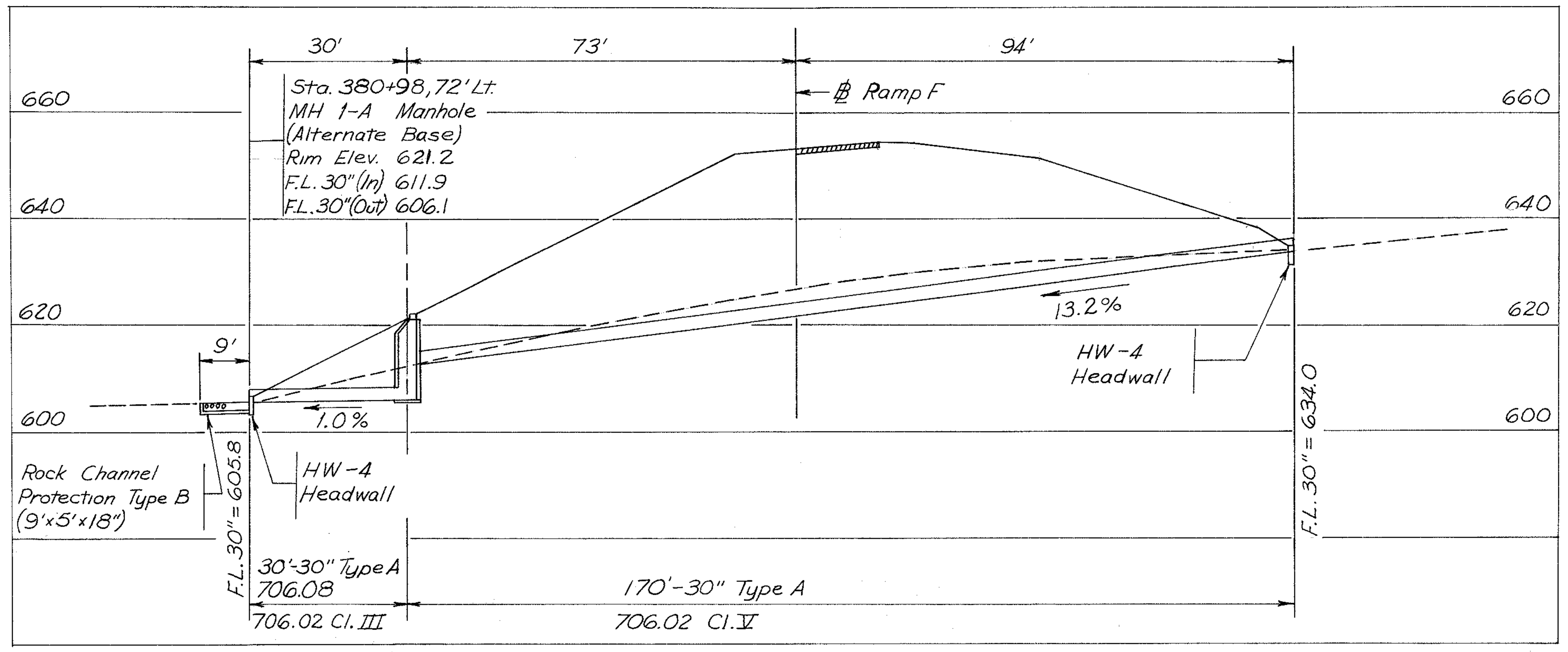
SCALE OF FEET
0 20

DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT Sta. 377+26 Ramp F



D.A. 14 Acres
Q_{50} 42 c.f.s.

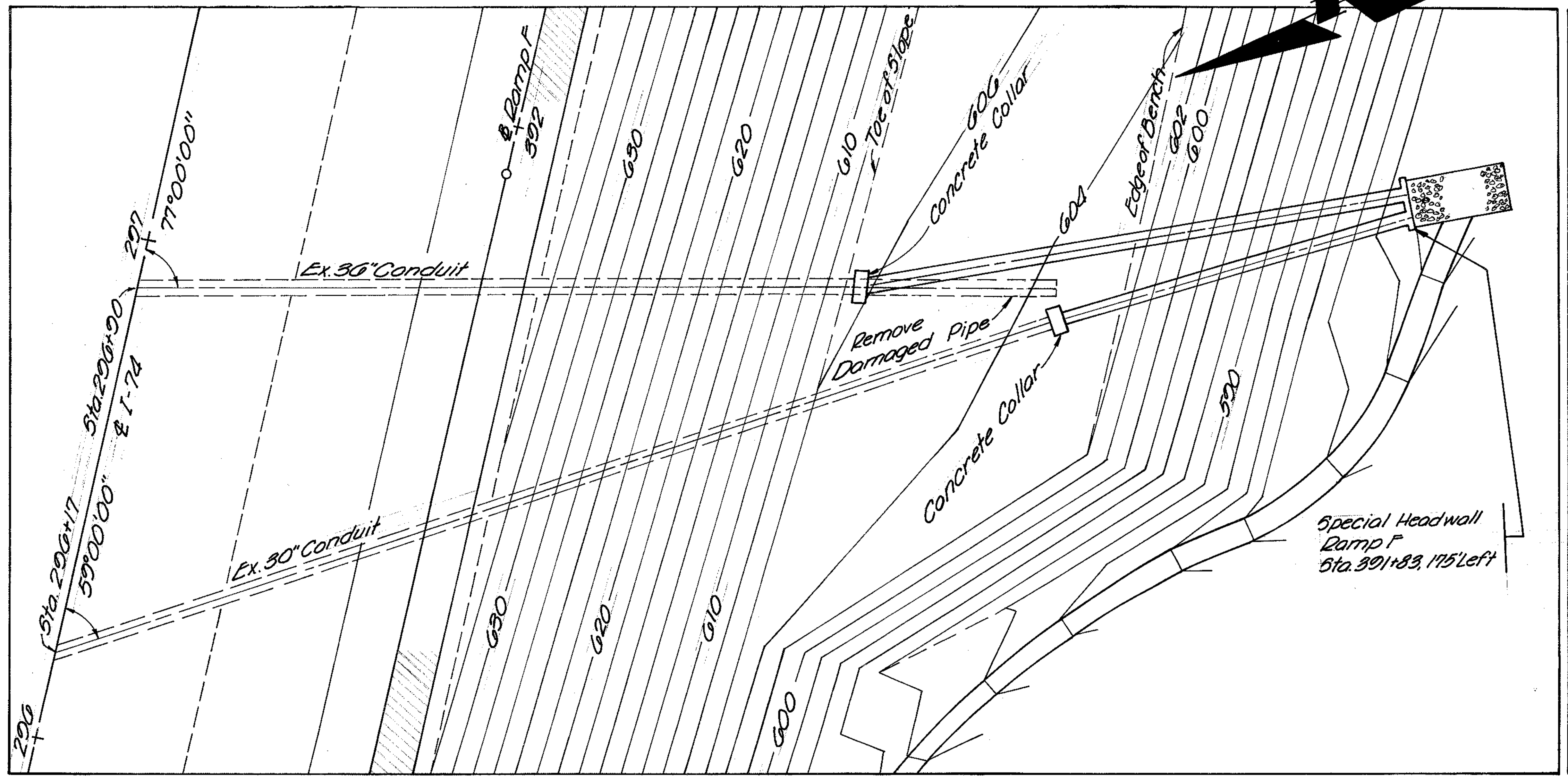


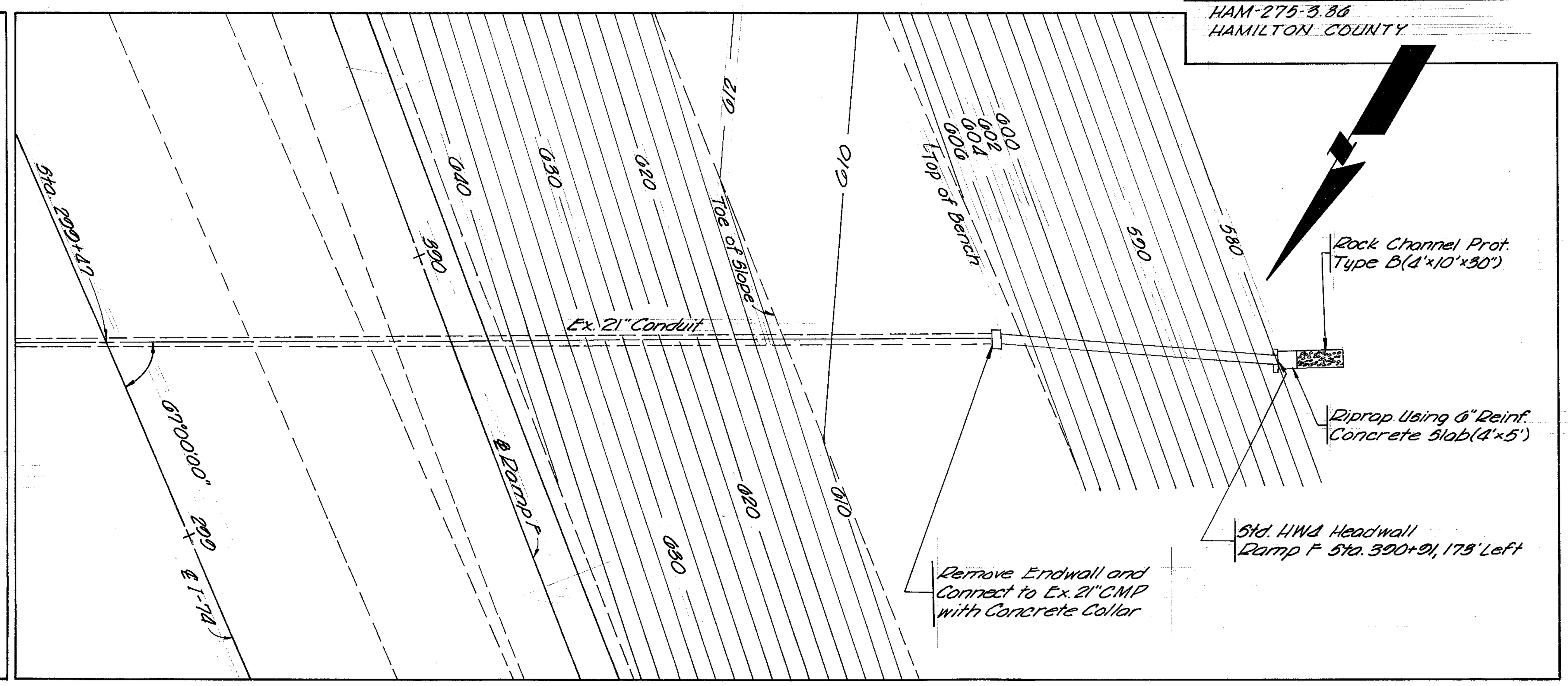
ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	4	Cu. Yd.
602	Concrete Masonry	1.12	Cu. Yd.
603	30" Conduit Type A 706.08 , 706.02 Cl. III	30	Lin Ft.
603	30" Conduit Type A 706.02 Cl. V	170	Lin Ft.
604	Manhole, MH 1-A	1	Each

SCALE OF FEET
0 20

DEVELOPED		CHECKED	
6/70	JWM	7/71	R.W.

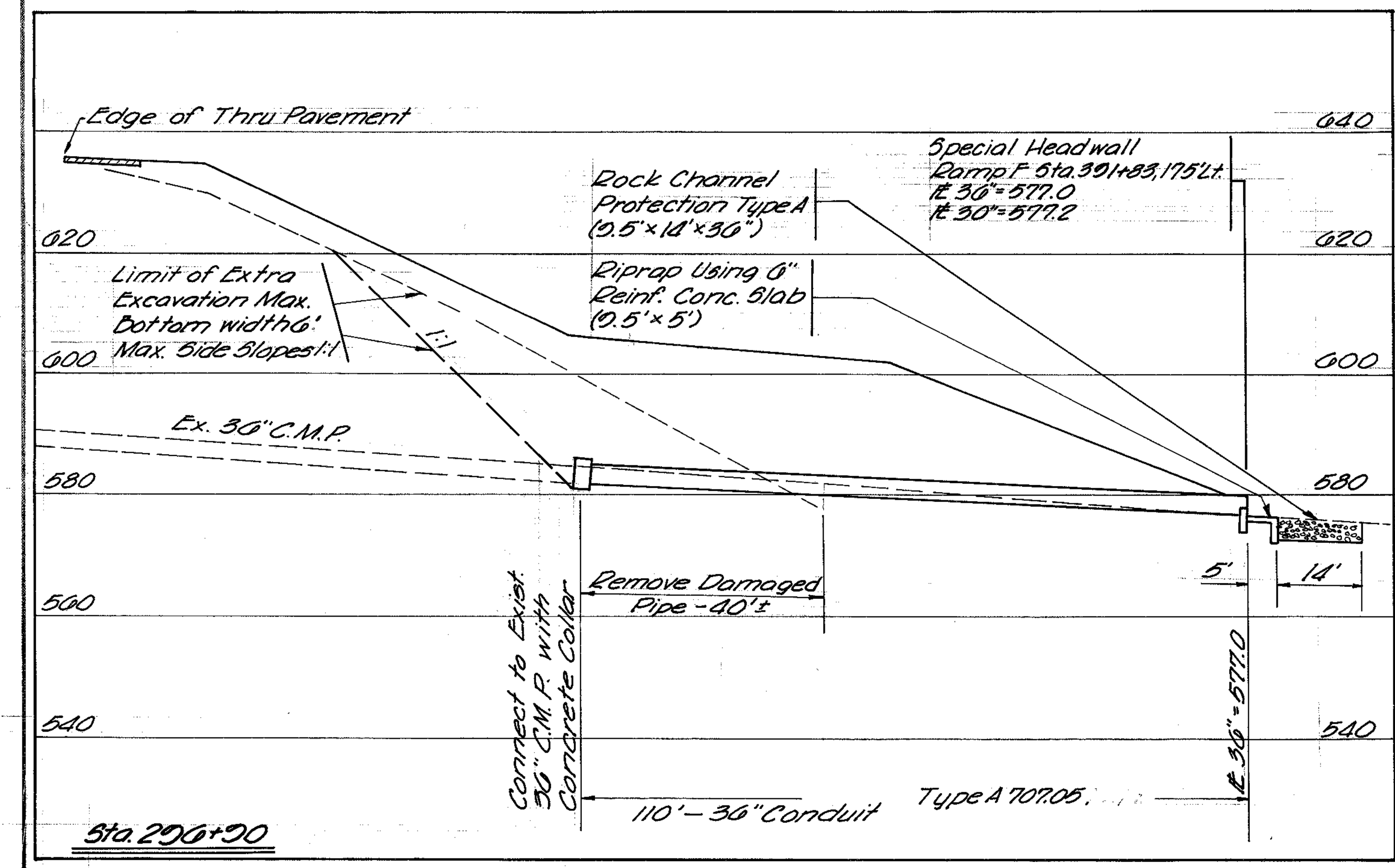


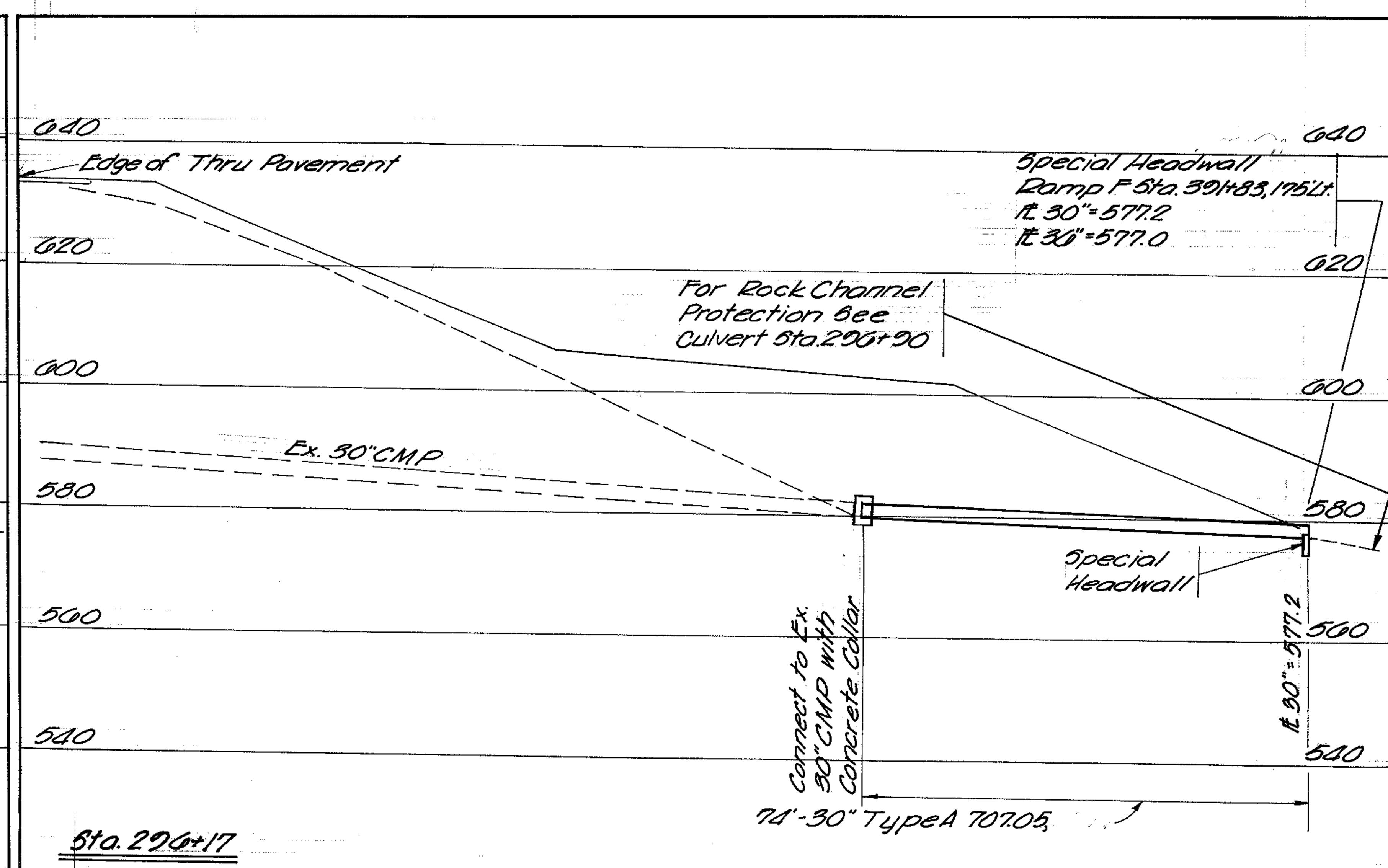


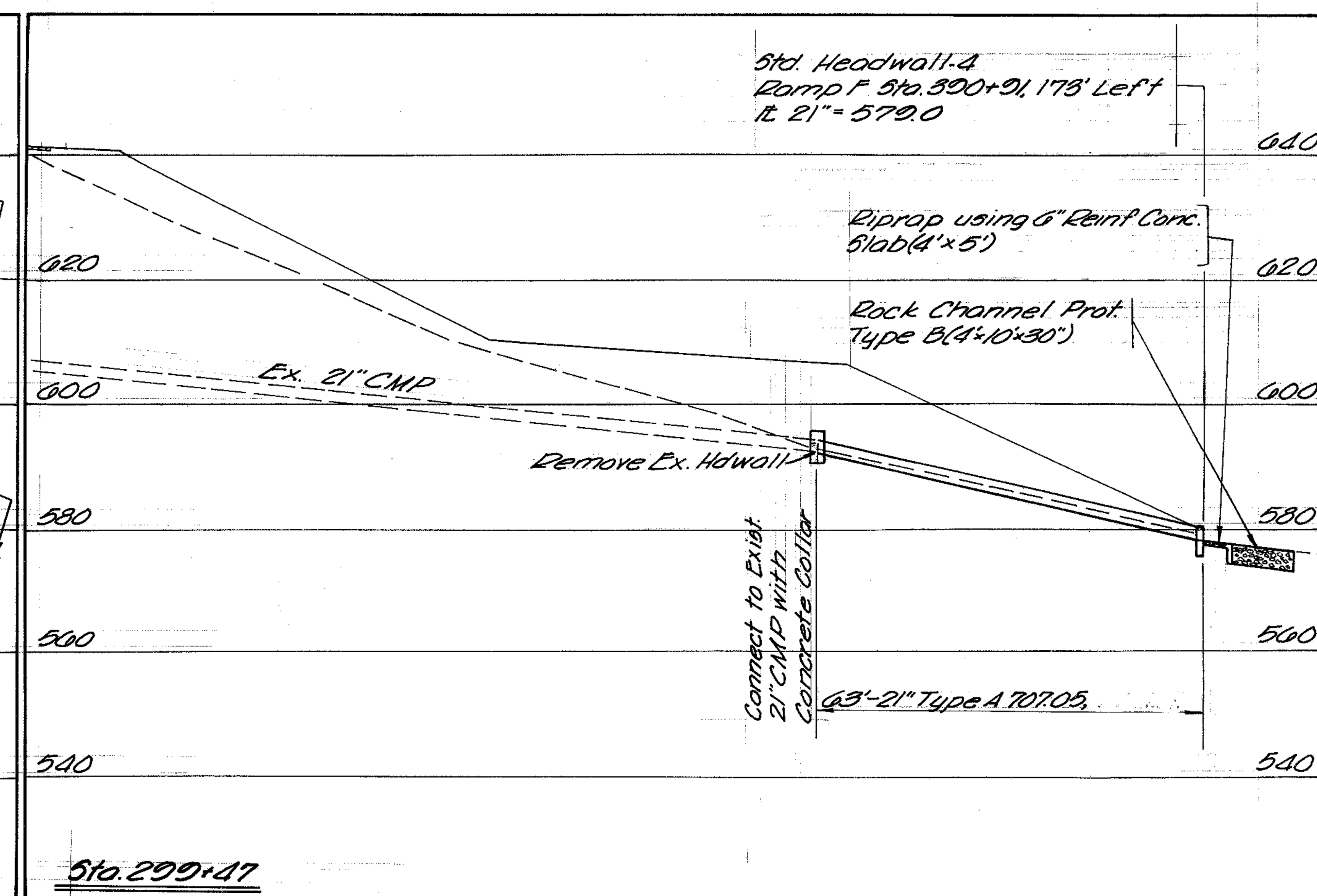
D.A. 24 Ac.
Q50 64 C.f.s.

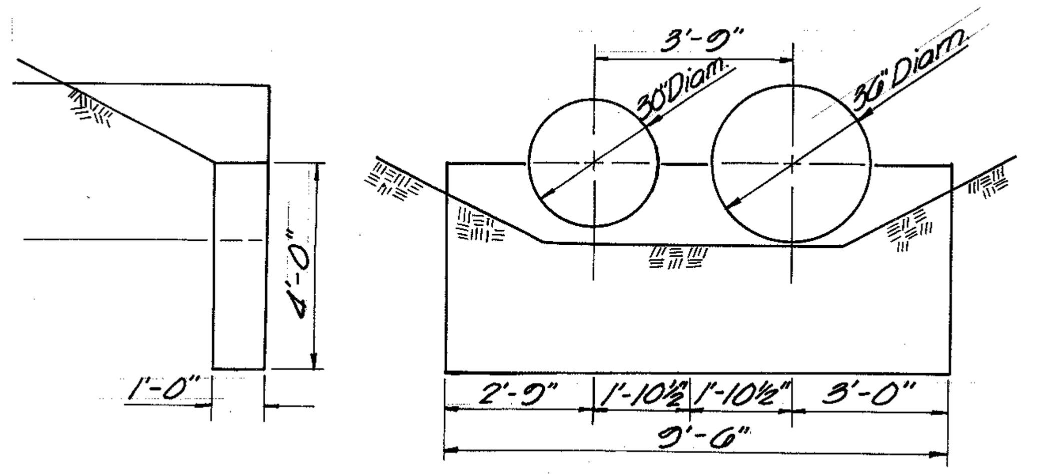
D.A. 18 Ac.
Q50 53 cfs.

D.A. 4.3 Ac.
Q50 20 c.f.s.









SPECIAL HEADWALL DETAIL

Note:
Special Headwall Shall Be Built In Accordance With The Above Dimensions And The Applicable Portions Of Standard HW-4

ESTIMATED QUANTITIES

601	Rock Channel Protection Type A	18 Cu. Yd.
601	Riprap(6" Rienforced Concrete)	6 Sq. Yd.
602	Concrete Masonry	1.2 Cu. Yd.
603	36" Conduit Type A 707.05	110 Lin. Ft.
603	30" Conduit Type A 707.05	74 Lin. Ft.
203	Excavation Not Including Embankment Construction As Per Plan	534 Cu. Yds.

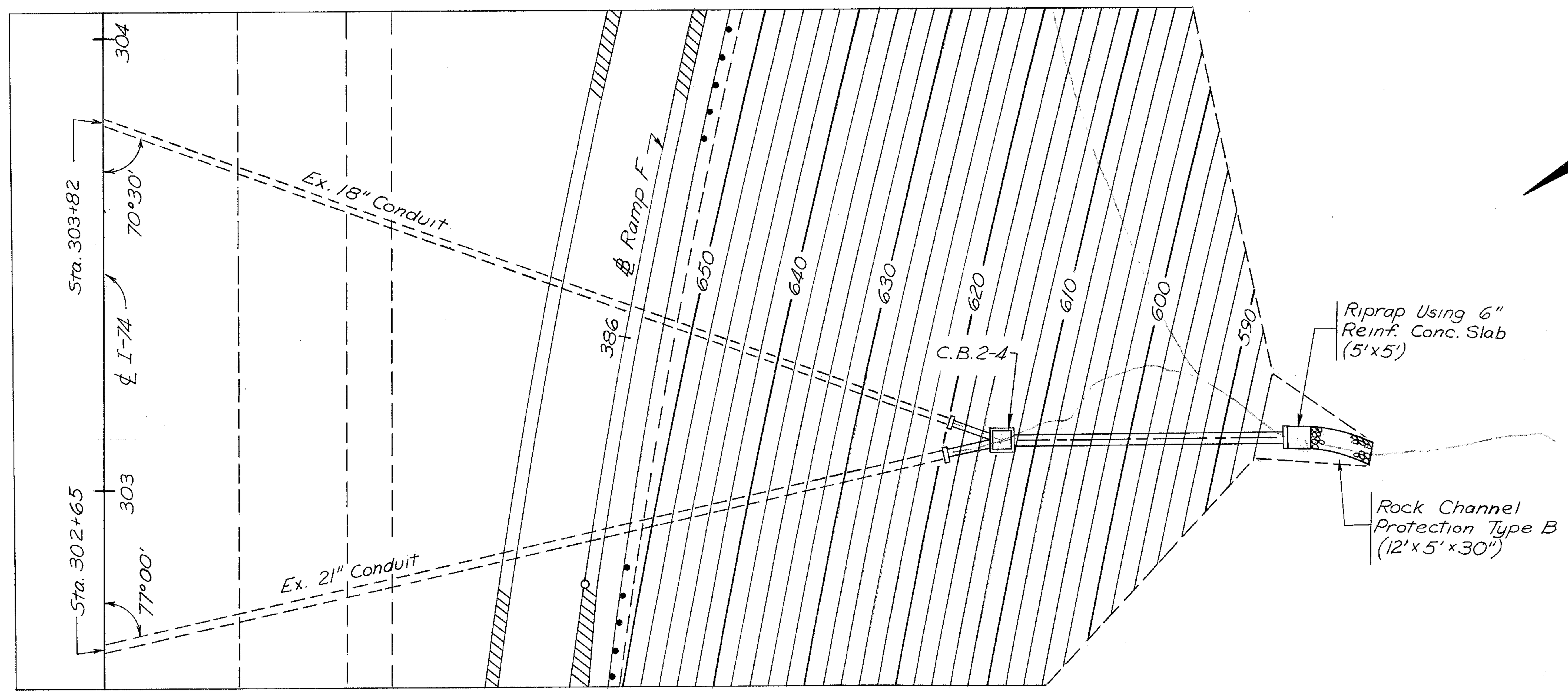
Note: The lower portion of the 36" CMP Culvert at I-74 & Station 296+90 has been damaged, part of the conduit filled with earth and the water entering the inlet and is being discharged through the embankment slope at a point approximately 83 feet left of Ramp F Station 392+05. The damaged sections of this pipe will be removed to the limit determined by the Engineer when the pipe is uncovered. The extension of this culvert will include the replacement pipe. Additional payment will be made under Item 203-"Excavation Not Including Embankment Construction, As Per Plan," for the excavation involved in removing the damaged sections of pipe.

ESTIMATED QUANTITIES
Sta. 299+47

601	Rock Chemical Protection-Type B	4 Cu. Yds.
601	Riprap(6" Reinforced Concrete)	3 Sq. Yd.
602	Concrete Masonry	0.4 Cu. Yd.
603	21" Conduit Type A 707.05	63 Lin. Ft.

SCALE OF FEET
0 20 40 60

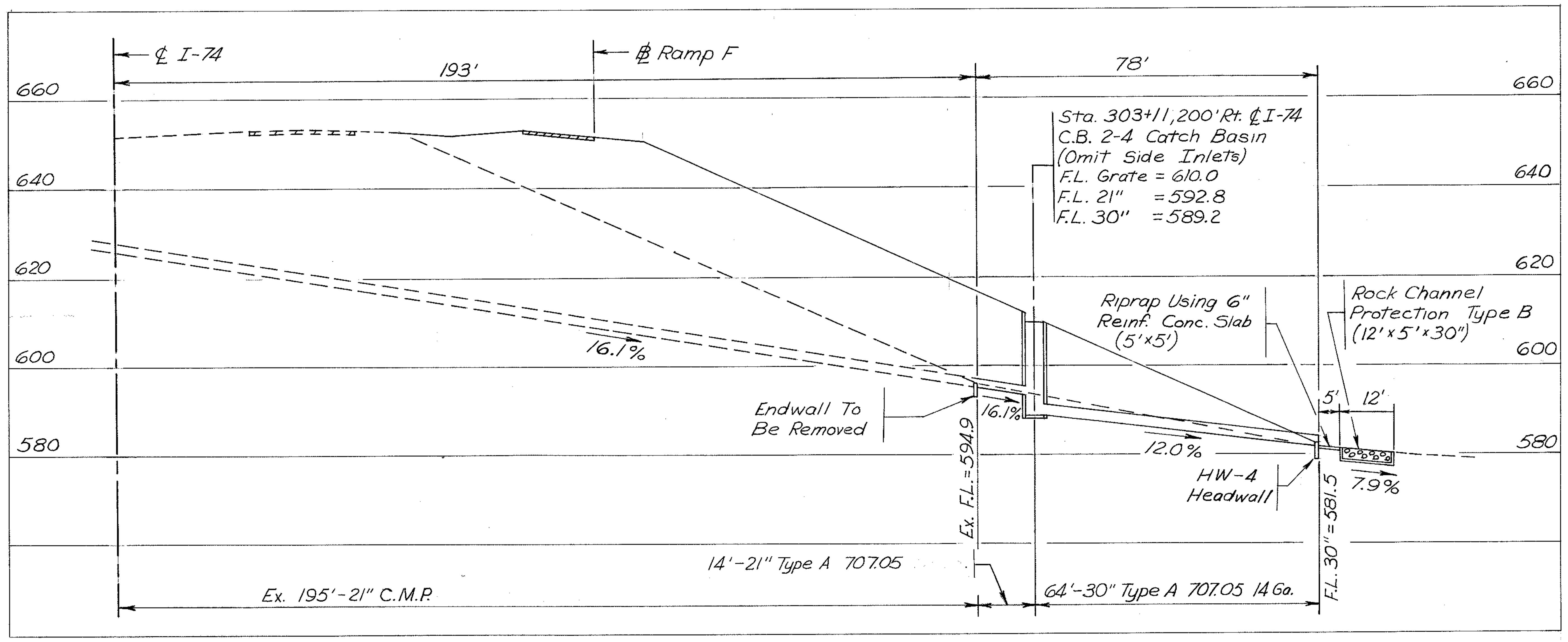
PIPE CULVERTS I-74 Sta. 296+17 & 296+90, Sta. 299+47

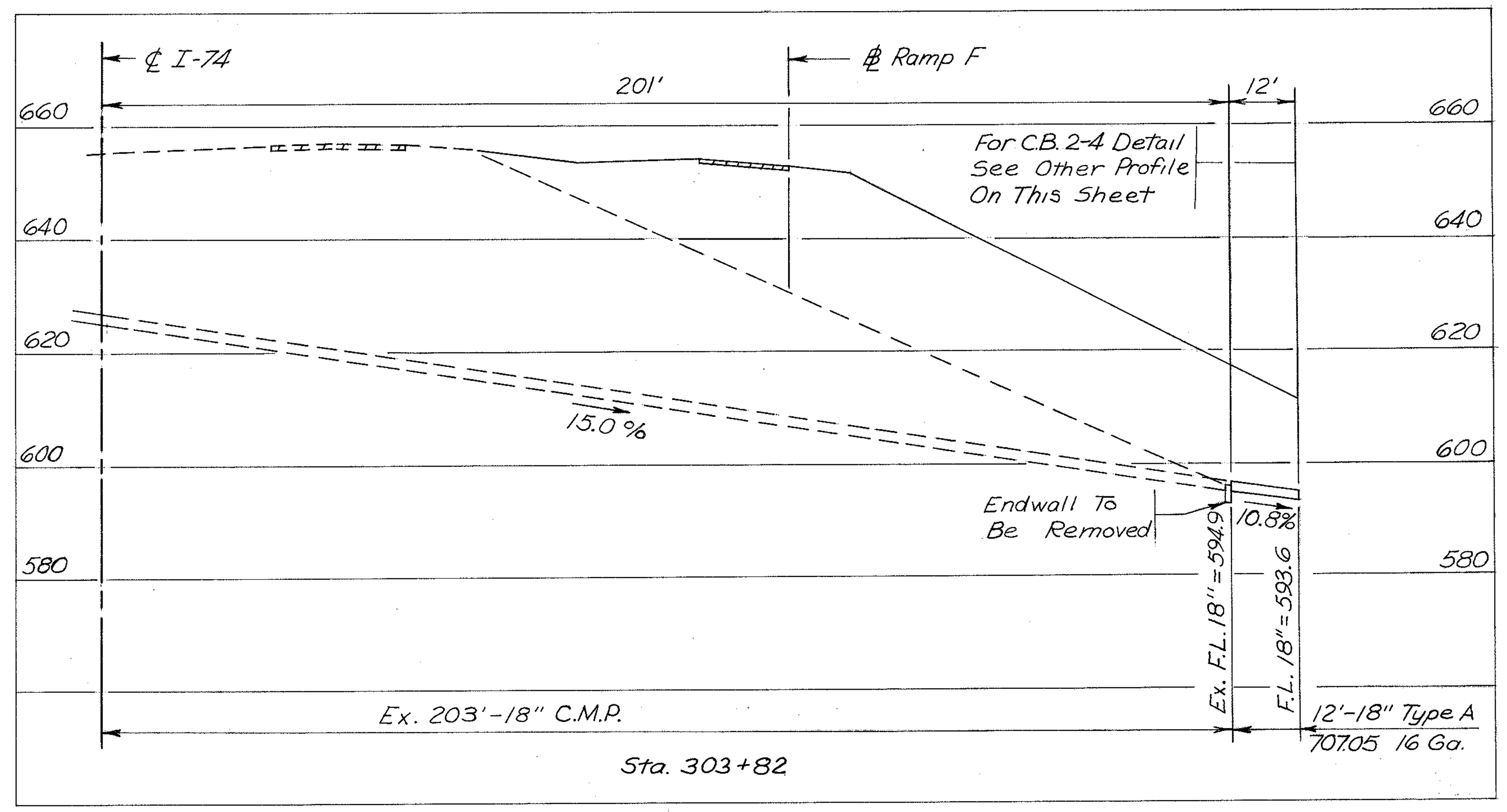


D.A.(21")	4.6 Ac.
Q_{50}	24 c.f.s.

D.A.(30")	8 Ac.
Q_{50}	35 c.f.s.

D.A.(18")	3.4 Ac.
Q_{50}	18 c.f.s.





ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	7	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	3	Sq. Yd.
602	Concrete Masonry	0.60	Cu. Yd.
603	21" Conduit Type A 707.05	14	Lin. Ft.
603	30" Conduit Type A 707.05 14 Ga.	64	Lin. Ft.
604	Catch Basin C.B. 2-4 Reinforced Concrete	1	Each

ESTIMATED QUANTITIES

603	18" Conduit Type A, 707.05	12 Lin. Ft.

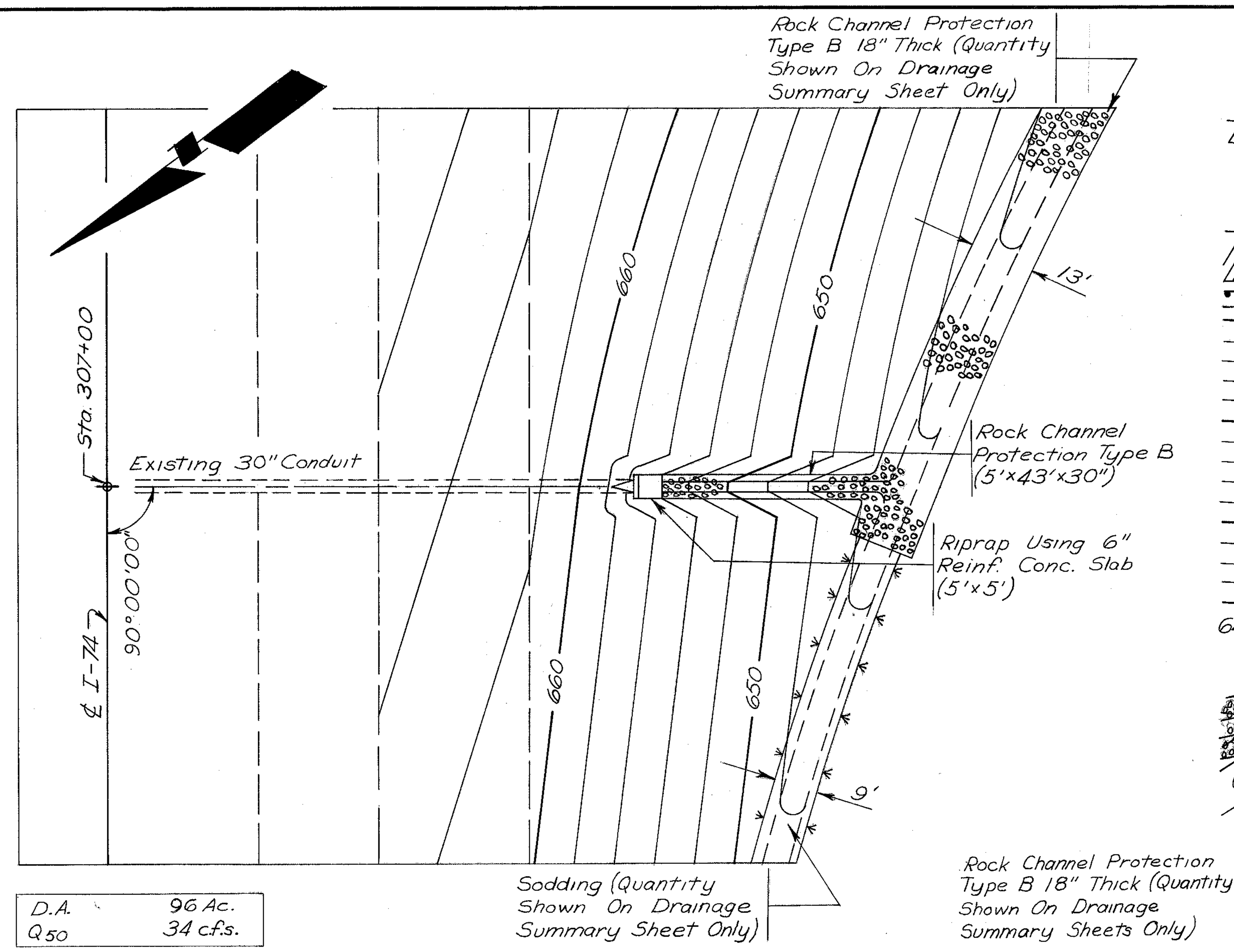
SCALE OF FEET
0 20

DEVELOPED		CHECKED	
2/70	J.M.	7/71	R.W.

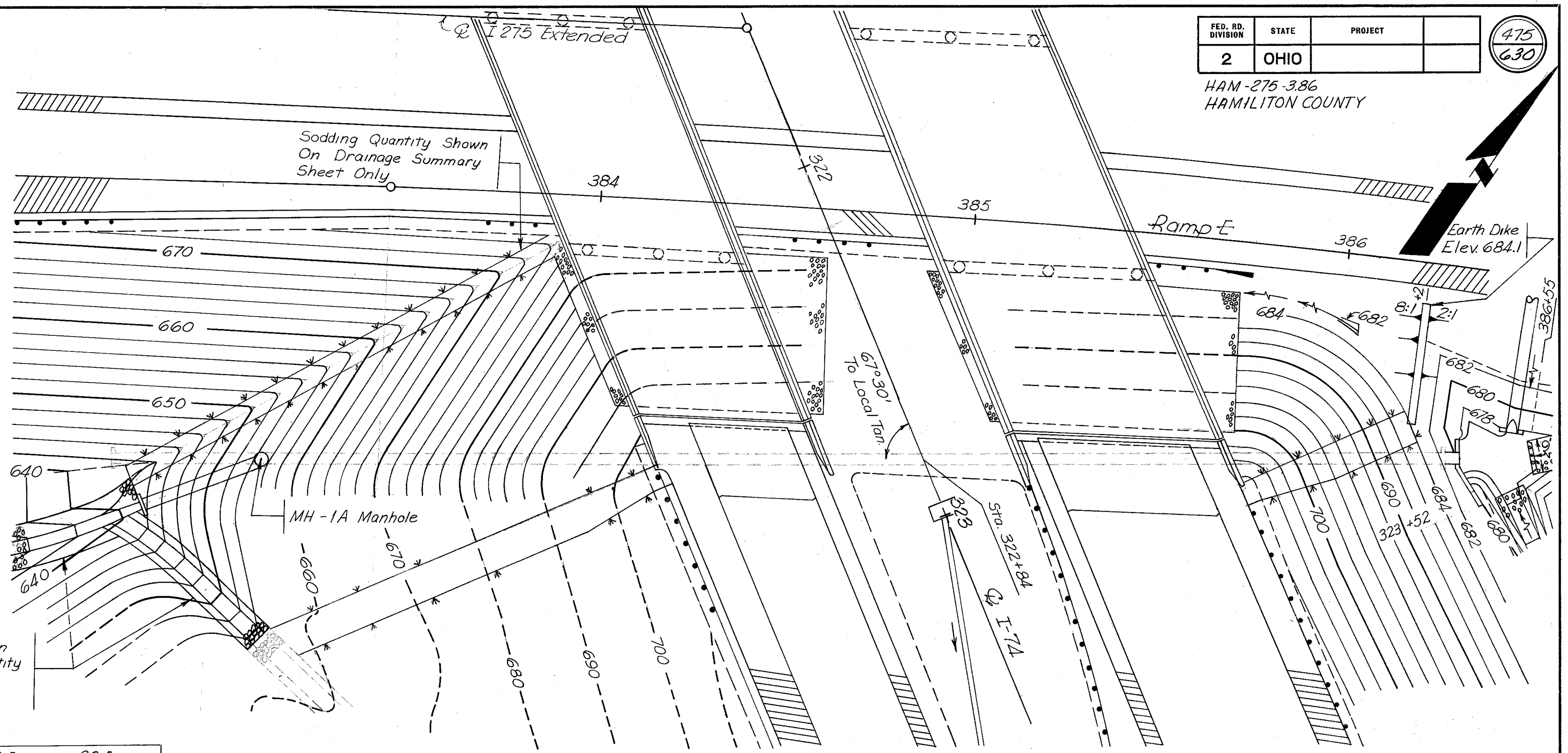
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

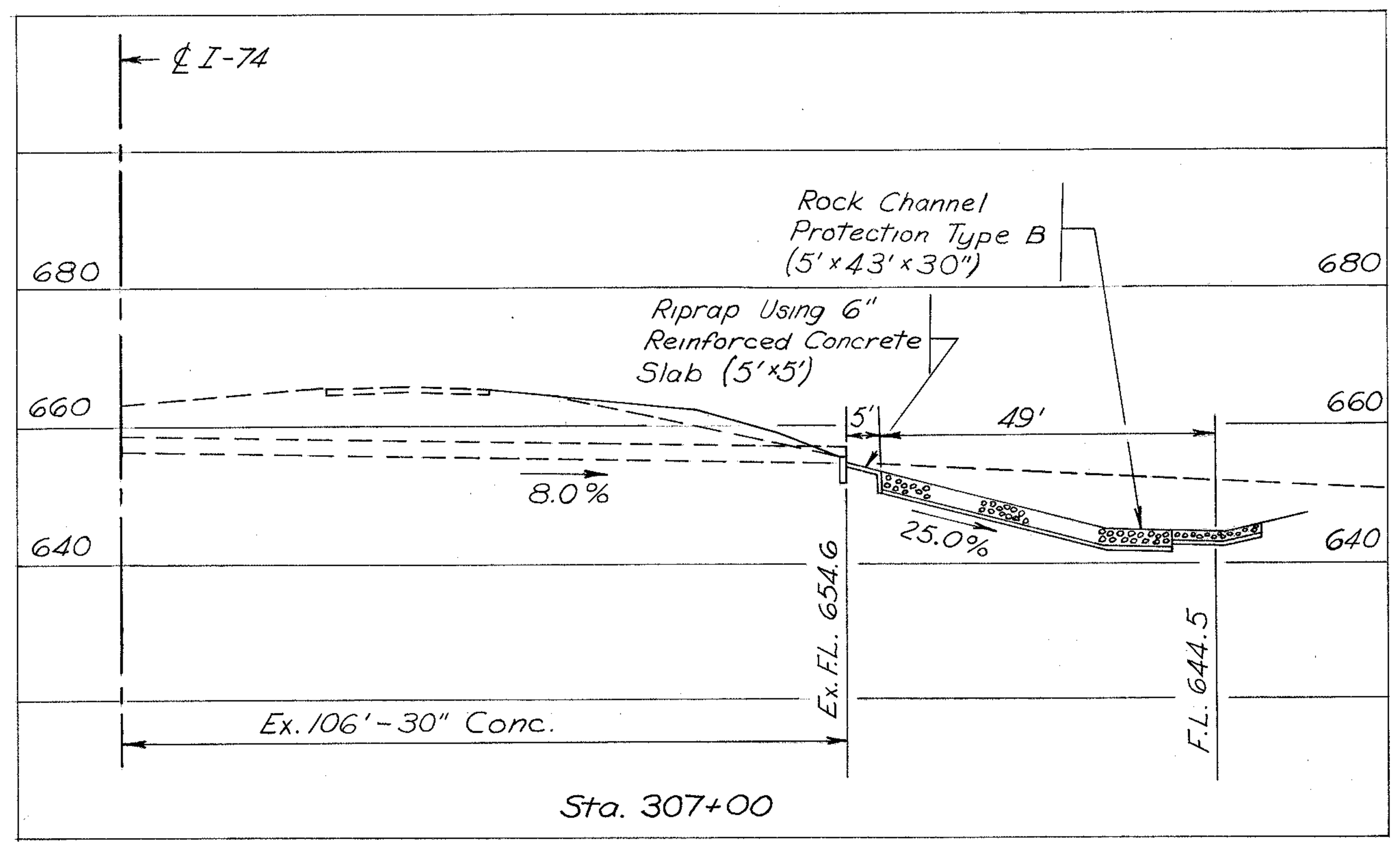
475/630

HAM-275-3.86
HAMILTON COUNTY

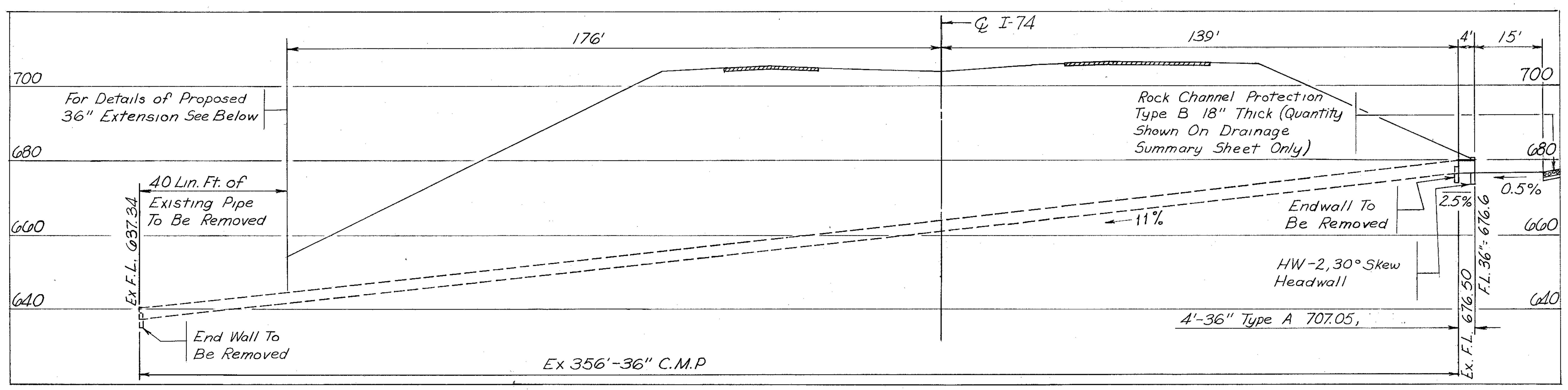


D.A.	96 Ac.
Q_{50}	34 c.f.s.



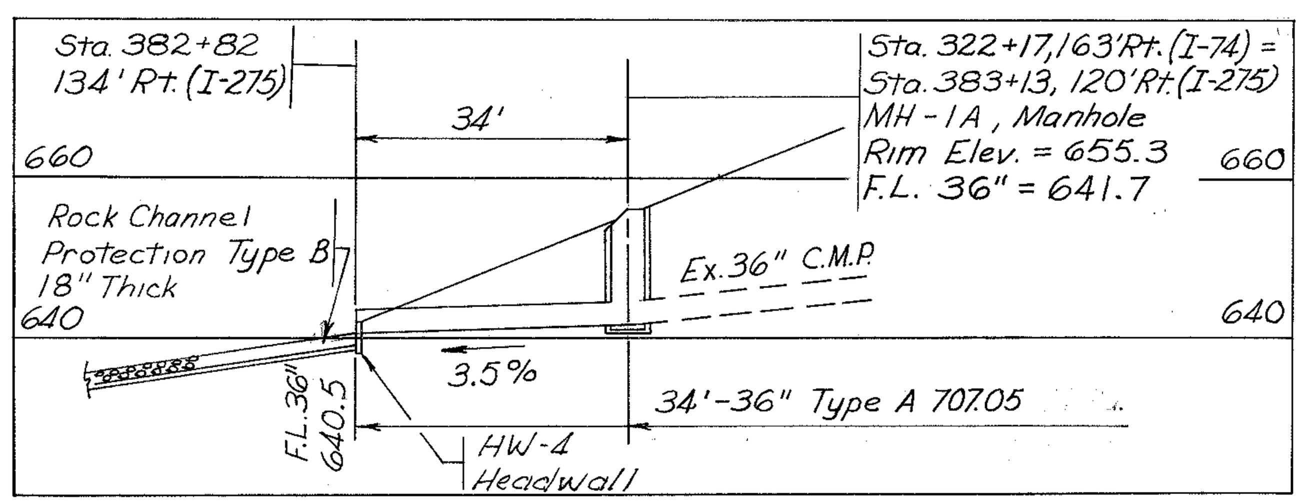


D.A.	28 Acres
Q_{50}	75 c.f.s.



ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	24	Cu. Yd.
601	Riprap (6" Reinfored Concrete)	3	Sq. Yd.



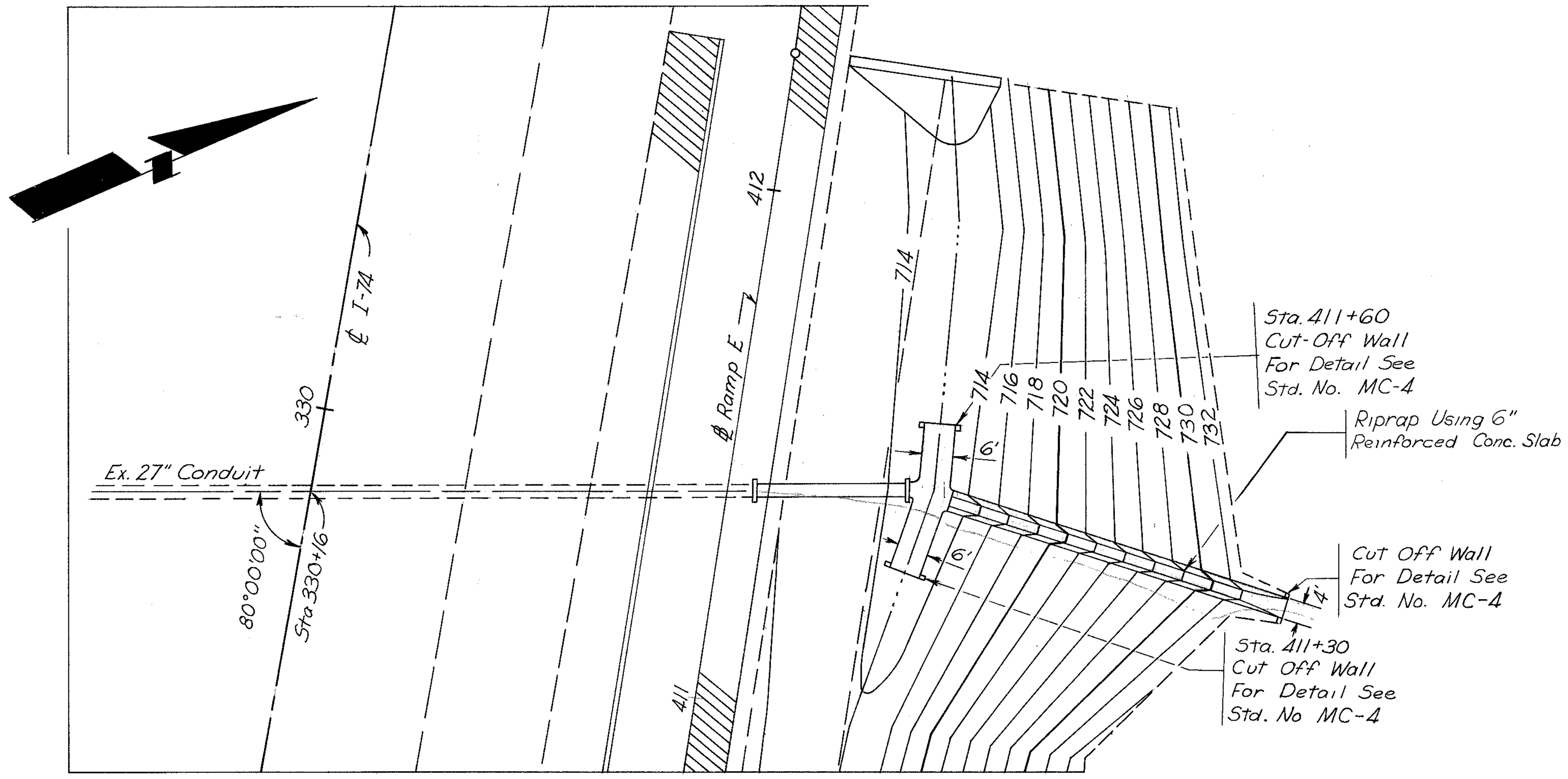
ESTIMATED QUANTITIES

202	Pipe Removed, Over 24"	40 Lin. Ft.
602	Concrete Masonry	6.56 Cu. Yds.
603	36" Conduit Type A 707.05	38 Lin. Ft.
604	Manhole, MH-1A	1 Each

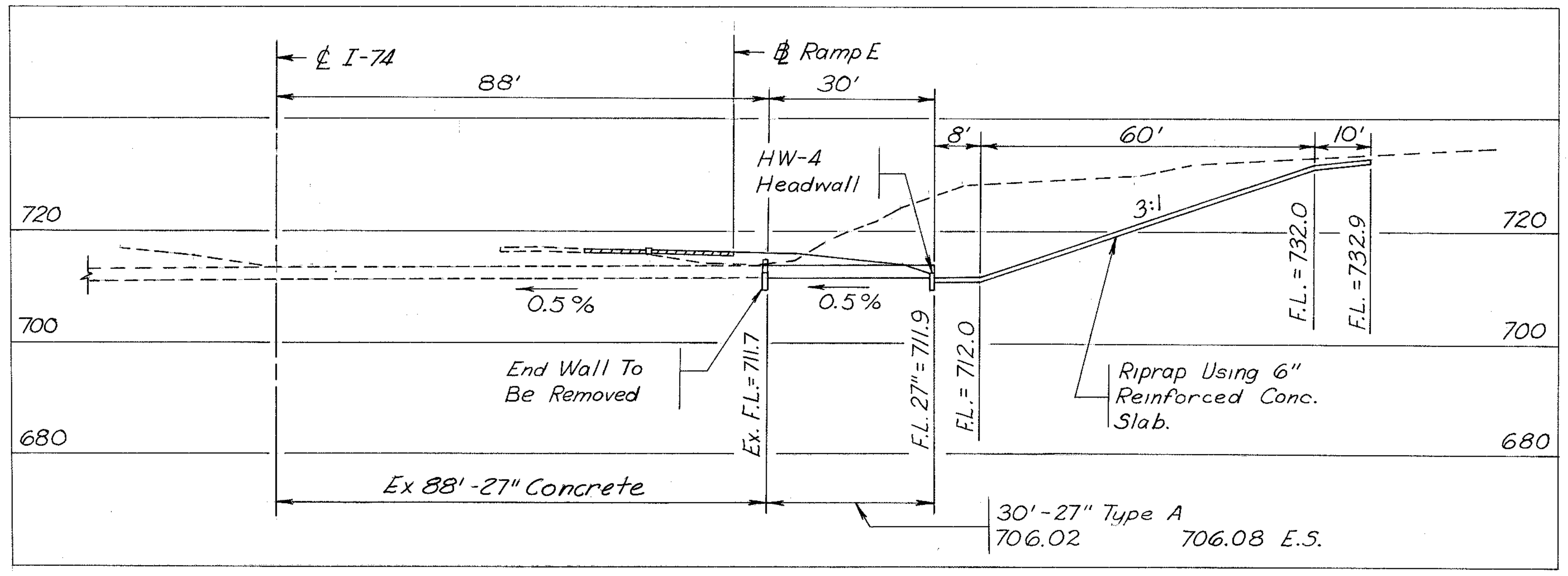
SCALE OF FEET
0 20

DEVELOPED	CHECKED
JM 11/70	M.L. 11-71

PIPE CULVERTS STA. 307+00 & STA. 322+84 I-74

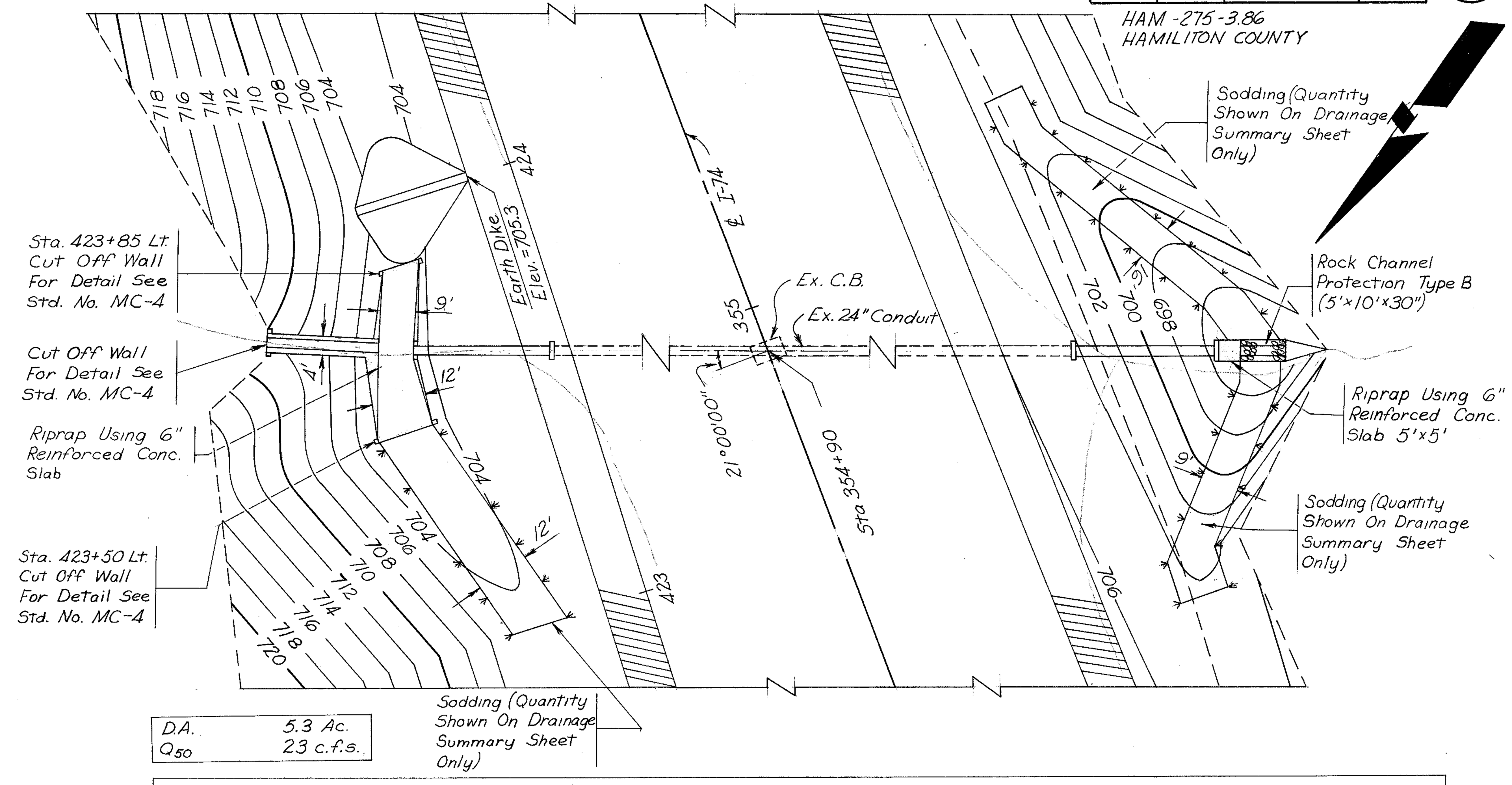


D.A.	= 5 Ac.
Q_{50}	= 22 c.f.s.

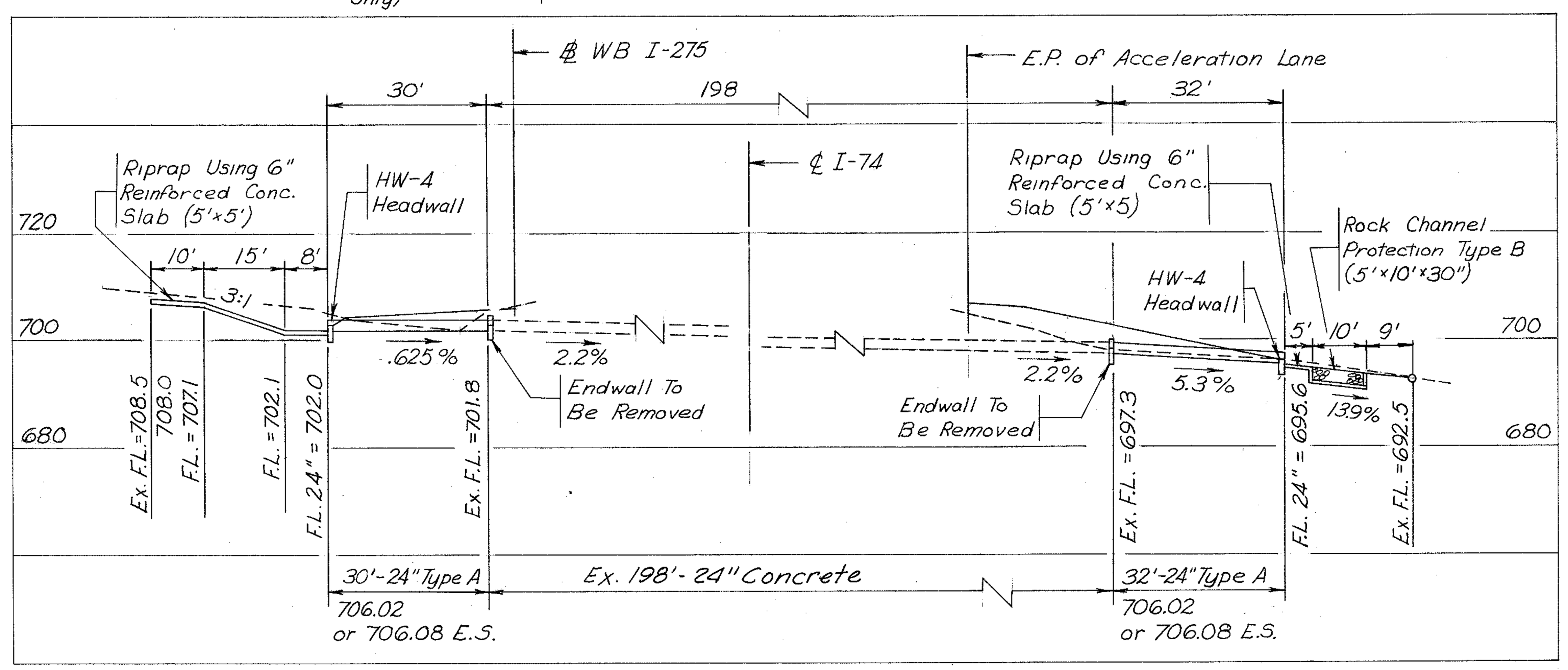


ESTIMATED QUANTITIES

601	Riprap (6" Reinforced Concrete)	52	Sq. Yd.
602	Concrete Masonry	.49	Cu. Yd.
603	27" Conduit Type A 706.02 or 706.08 E.S.	30	Lin. Ft.



D.A.	5.3 Ac.
Q_{50}	23 c.f.s.

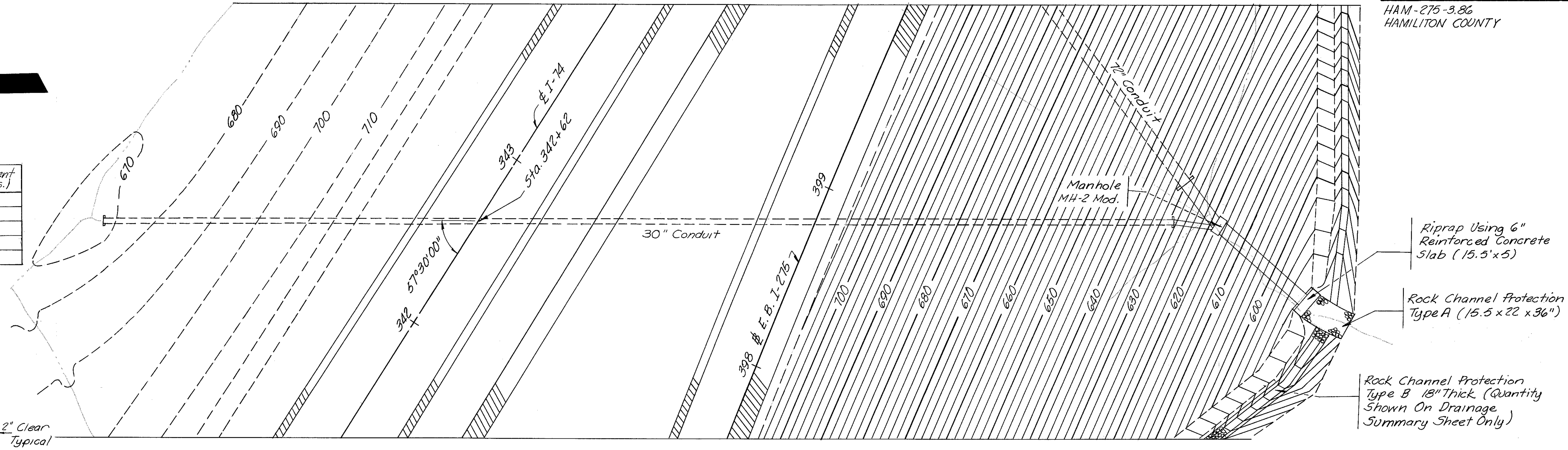


ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	6	Cu. Yd.
601	Riprap (6" Reinforced Concrete)	58	Sq. Yd.
602	Concrete Masonry	0.86	Cu. Yd.
603	24" Conduit Type A 706.02 706.08 E.S.	62	Lin. Ft.

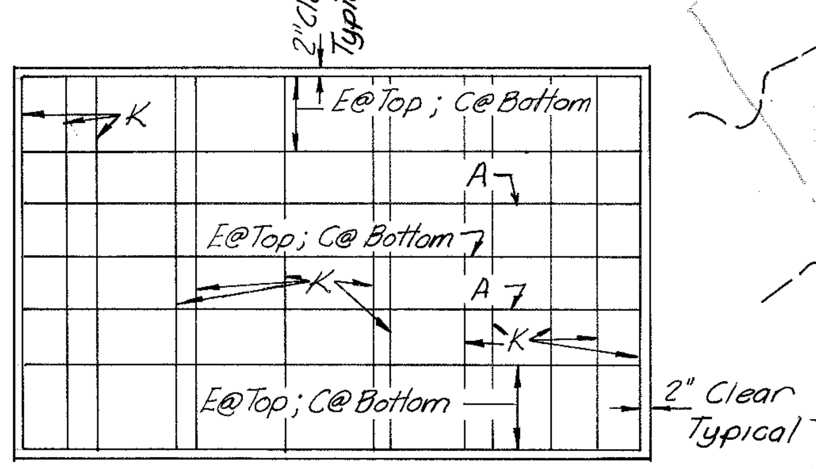
SCALE OF FEET
0 20

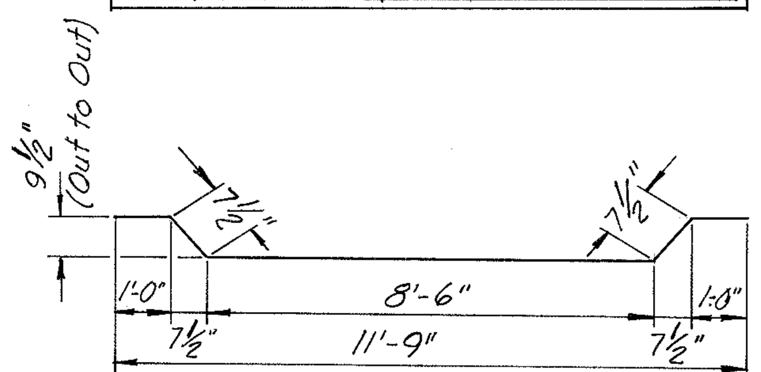
HAM-275-3.86
HAMILTON COUNTY



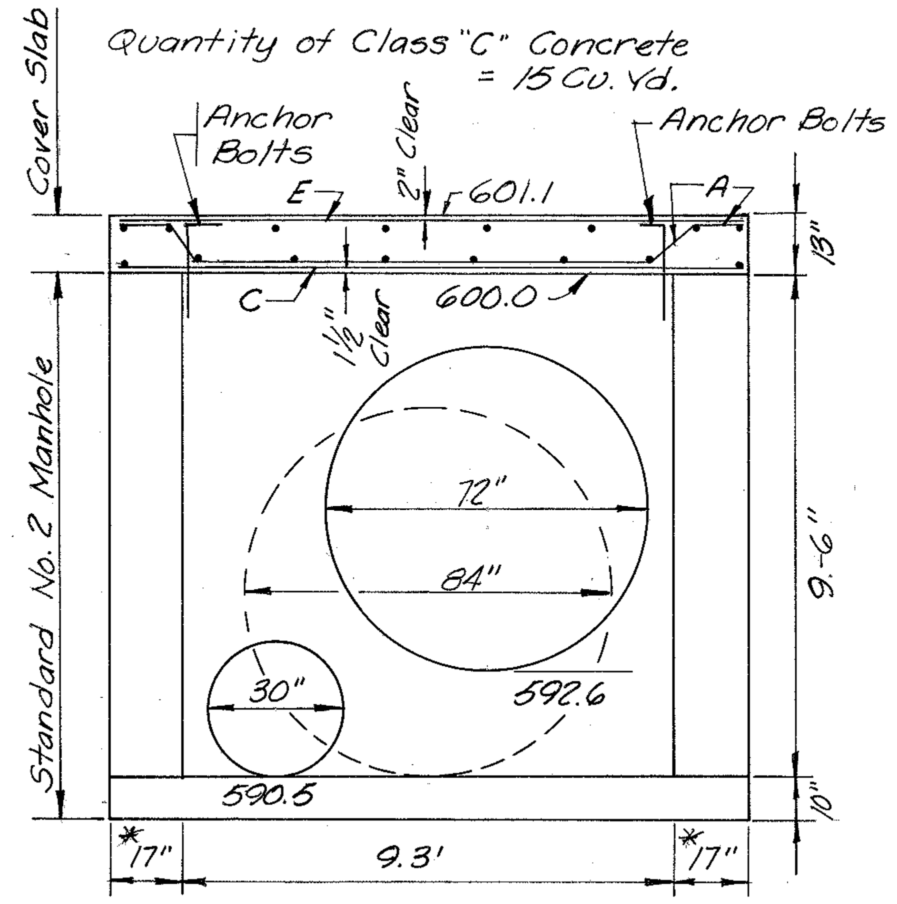
Bar List

Bar Designation	Size	Quantity	Length	Reinforcement Bars (lbs.)
A	#8	2	11'-9"	62.7
C	#8	5	11'-9"	156.9
E	#4	5	11'-9"	39.2
K	#6	16	7'-0"	168.2
		Total (lbs)		427.0





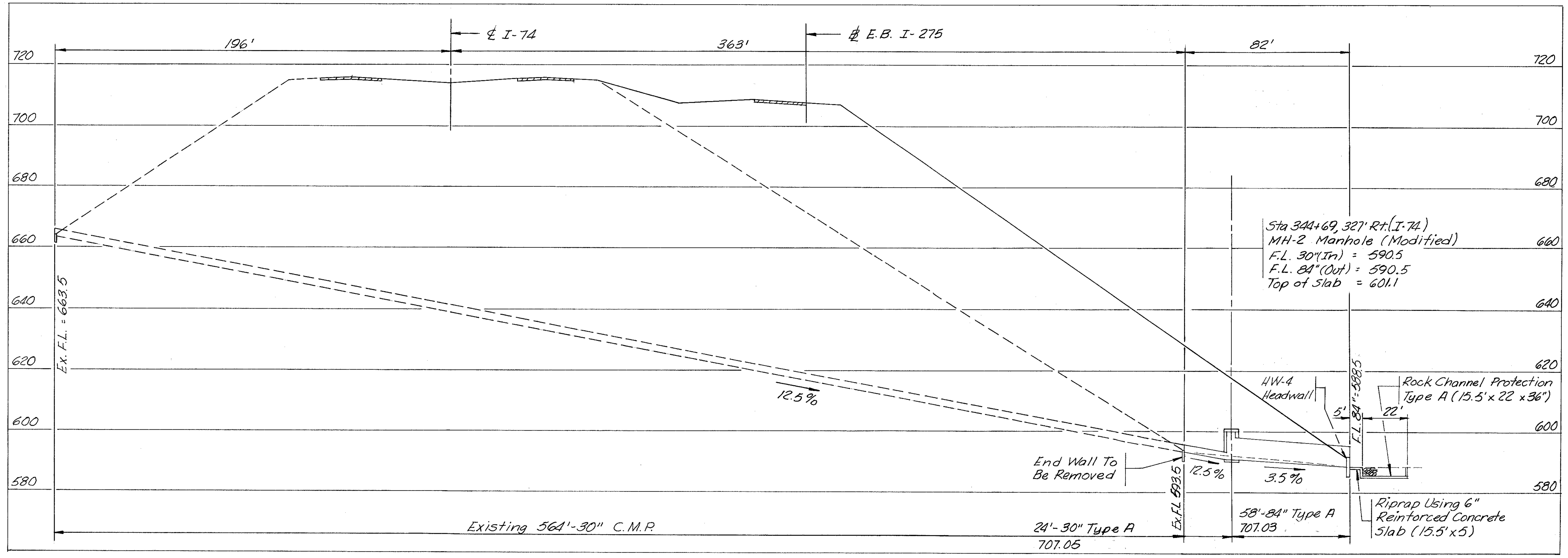
A - Bars



* Assuming Brick

Note:
For Additional Data See General Notes Sheet No. 22

D.A.	15 Ac.
Q_{50}	45 c.f.s.



ESTIMATED QUANTITIES

601	Rock Channel Protection Type A	44 Cu. Yd.	
601	Riprap (6" Reinforced Concrete)	9 Sq. Yd.	
602	Concrete Masonry	18.30 Cu. Yd.	
603	30" Conduit Type A 707.05	24 Lin. Ft.	
603	84" Conduit Type A 707.03	58 Lin. Ft.	
604	MH-2 Manhole, Modified As Per Plan	1 Each	

DETAIL
OF
MH-2, MODIFIED, As Per Plan

No Scale

HORIZONTAL SCALE OF FEET
0 30

DEVELOPED		CHECKED	
6/70	J.M.	7/71	R.W.

PIPE CULVERT I-74 Sta. 342+62

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM 275 3.86
HAMILTON COUNTY

ESTIMATED QUANTITIES

603	72" Conduit Type A 707.03 (0.188"-0.218")	150 Lin. Ft.
603	72" Conduit Type A 707.03	28 Lin. Ft.

HORIZONTAL SCALE OF FEET
0 30

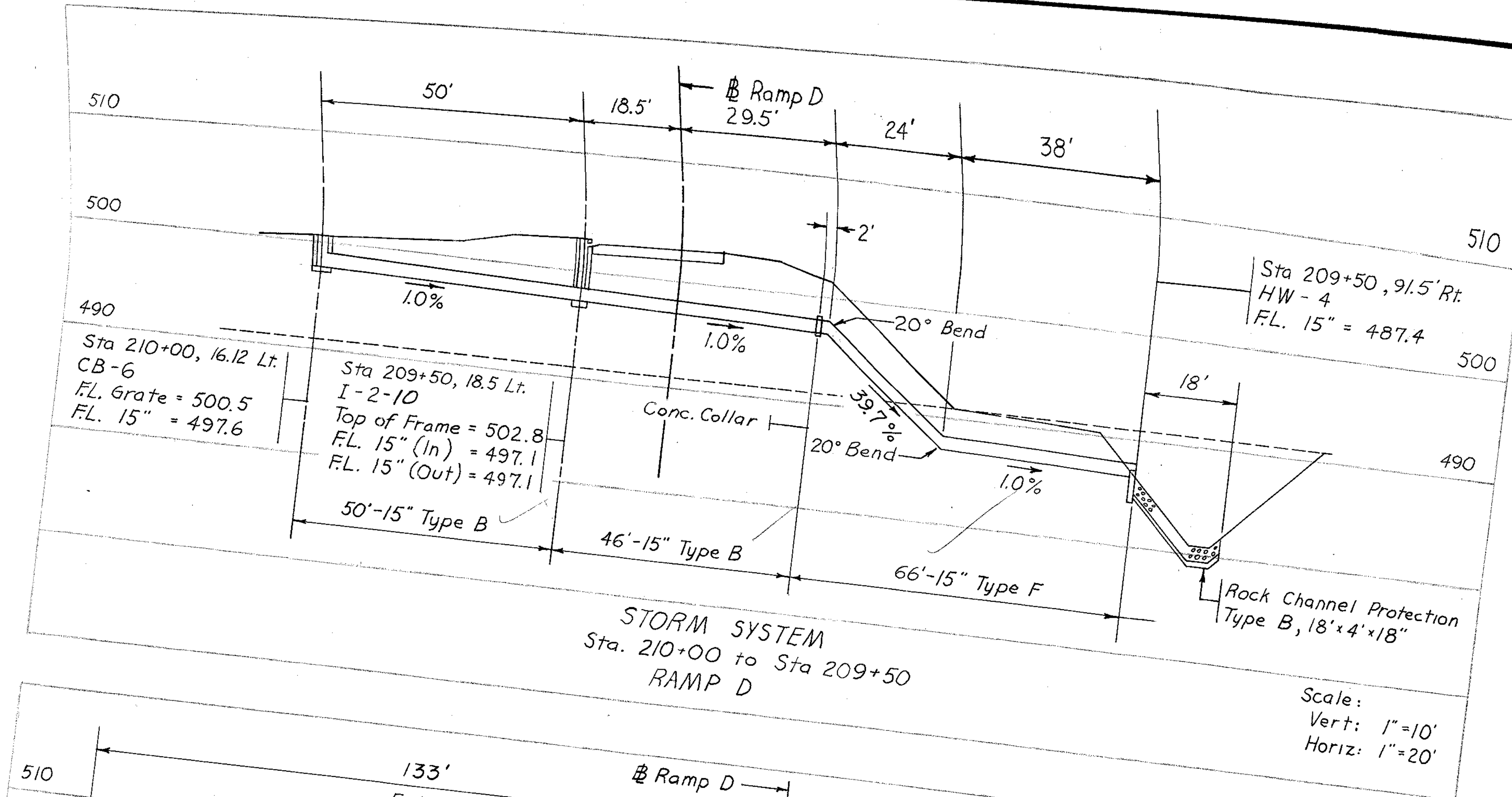
DEVELOPED		CHECKED	
6/70	FM	7/71	R.W.

PIPE CULVERT I-74 Sta. 345+85

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

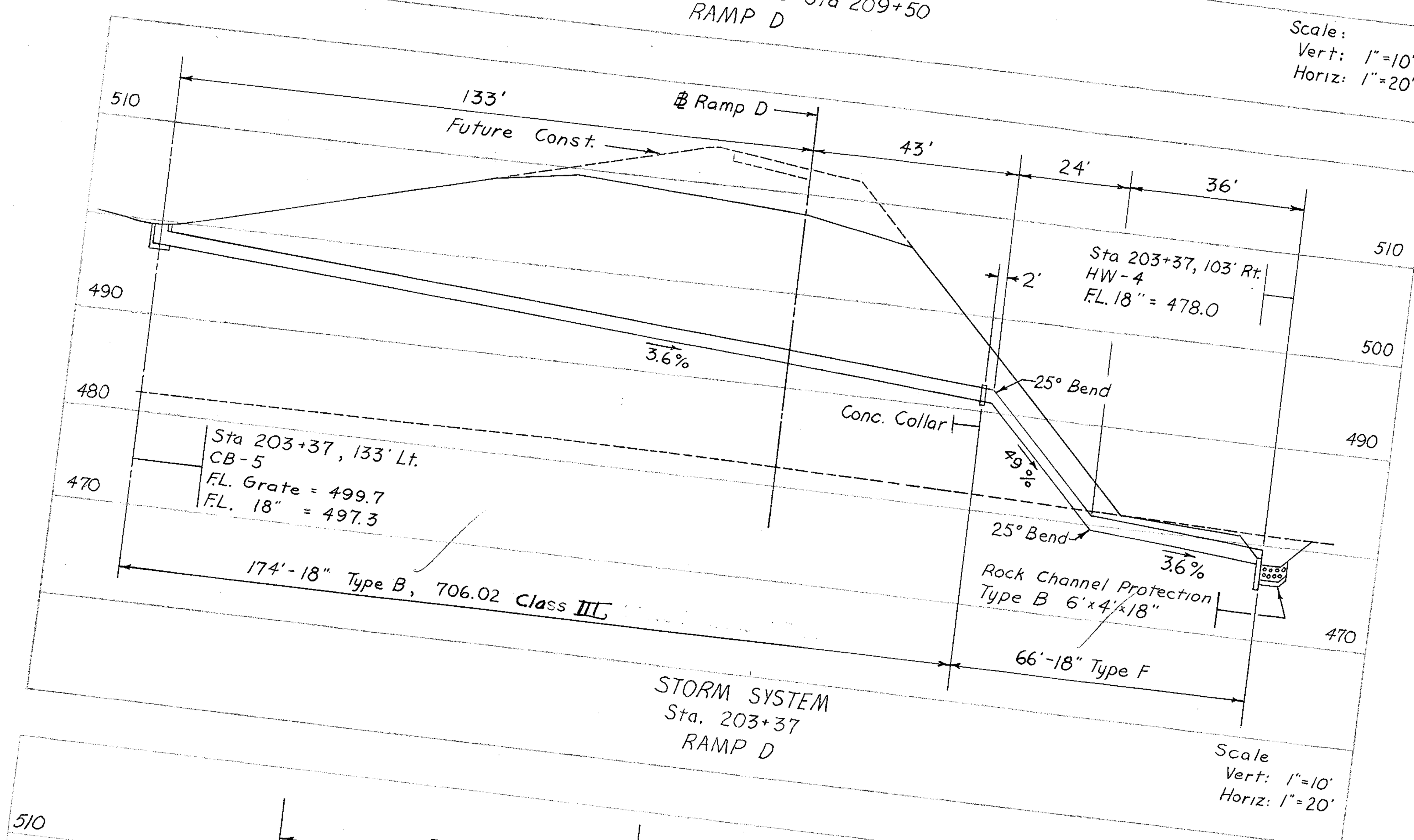
HAM 275-3.86
HAMILTON COUNTY

479/630



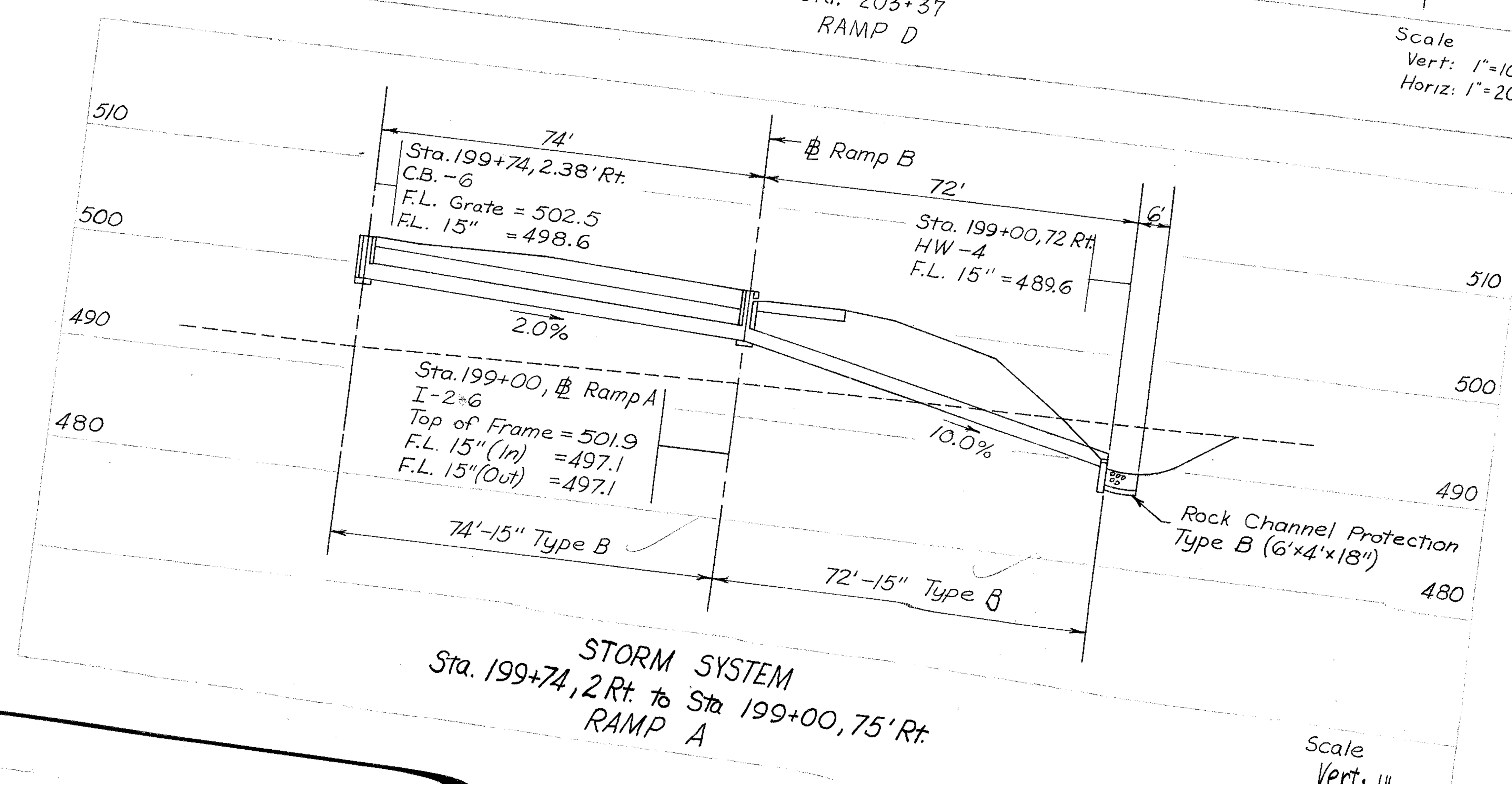
STORM SYSTEM
Sta. 210+00 to Sta 209+50
RAMP D

Scale:
Vert: 1"=10'
Horiz: 1"=20'



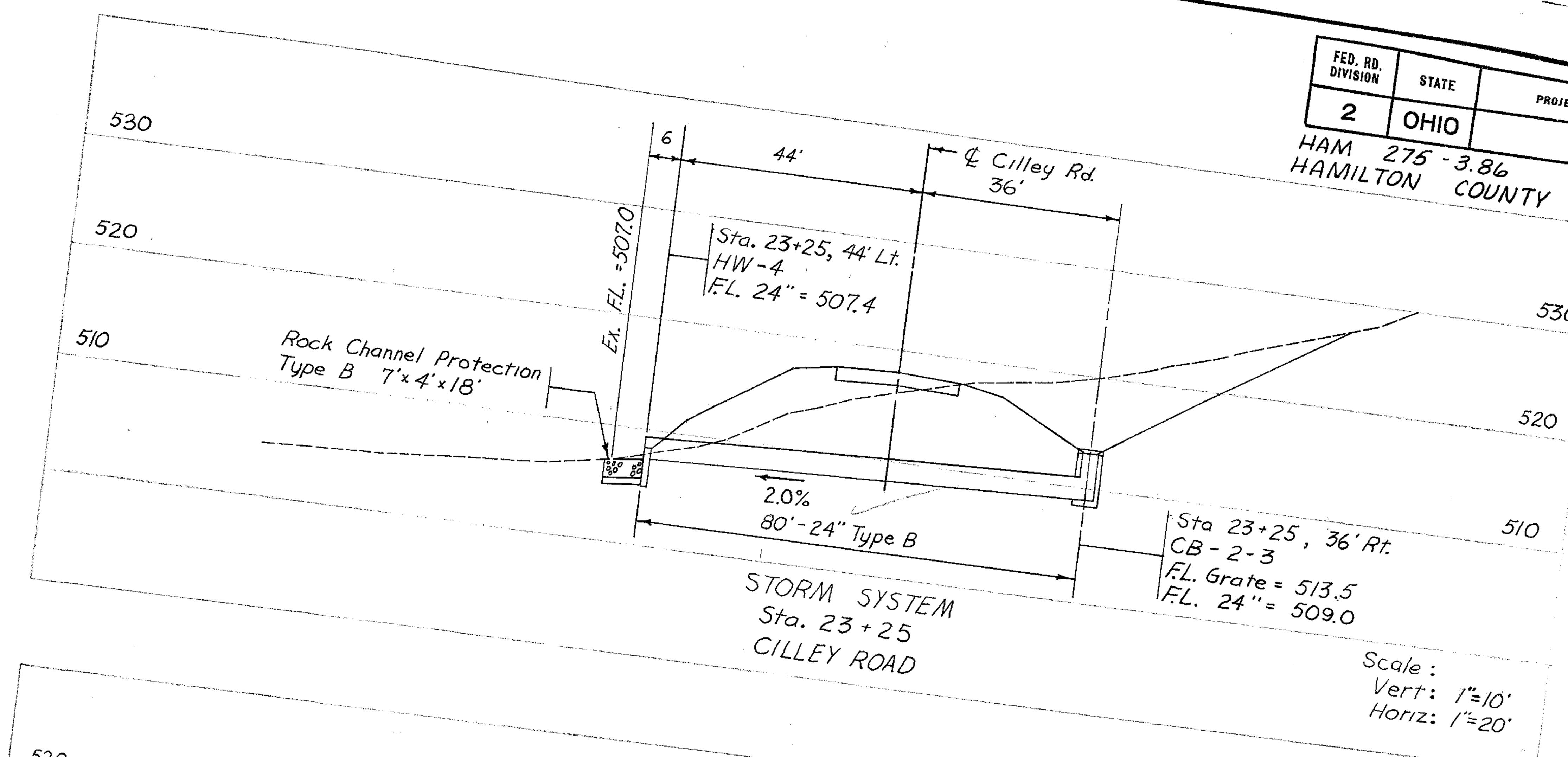
STORM SYSTEM
Sta. 203+37
RAMP D

Scale
Vert: 1"=10'
Horiz: 1"=20'



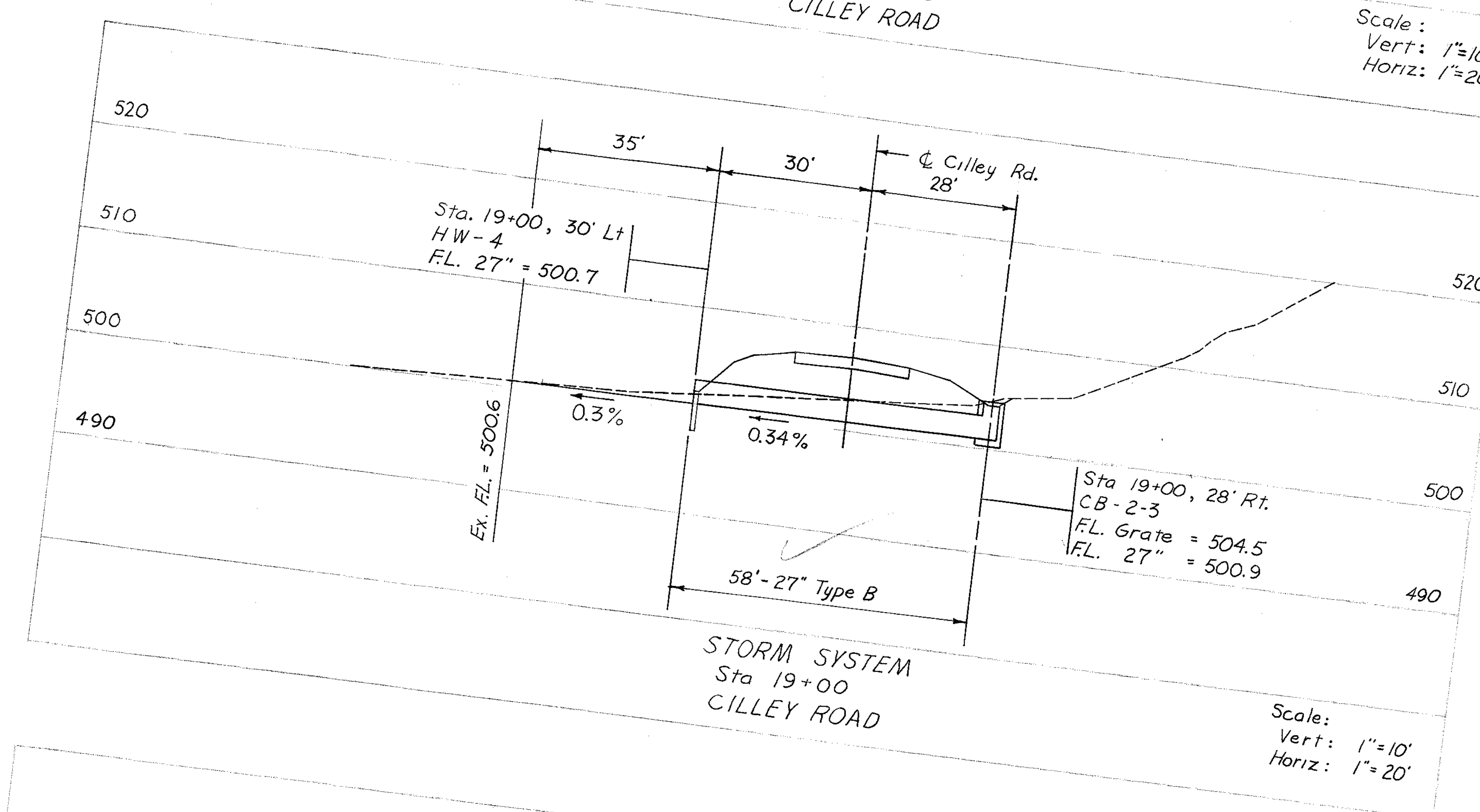
STORM SYSTEM
Sta. 199+74, 2 Rt. to Sta 199+00, 75' Rt.
RAMP A

Scale
Vert. 1"



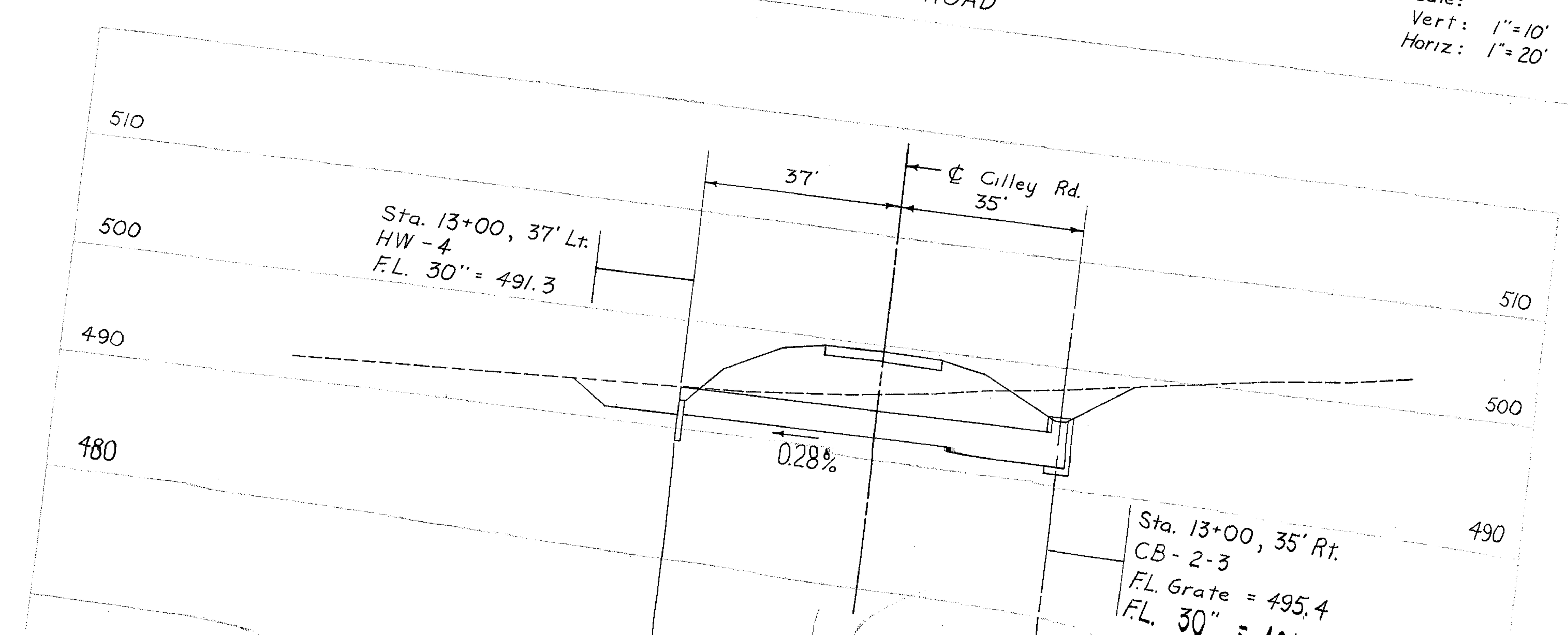
STORM SYSTEM
Sta. 23+25
CILLEY ROAD

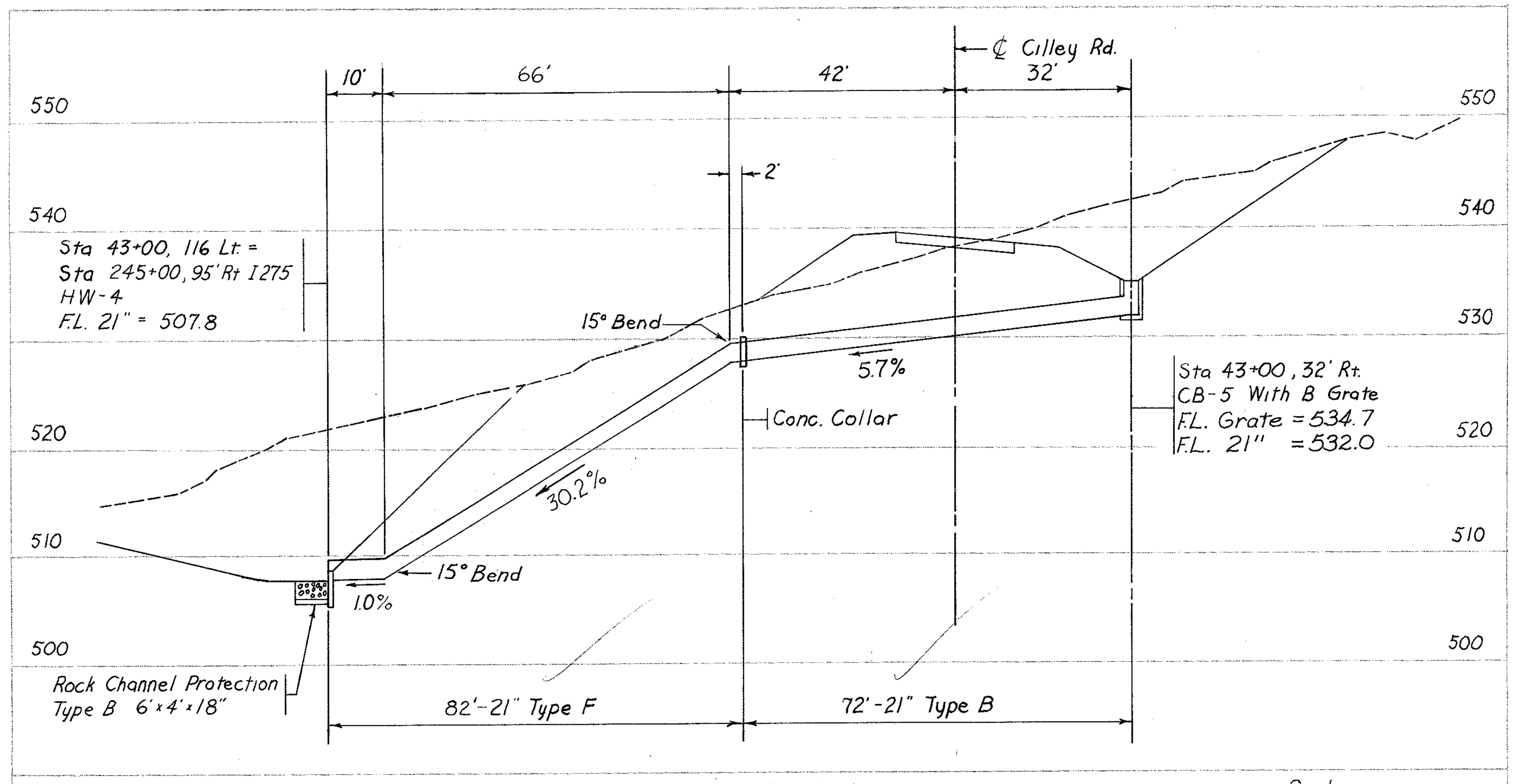
Scale:
Vert: 1"=10'
Horiz: 1"=20'



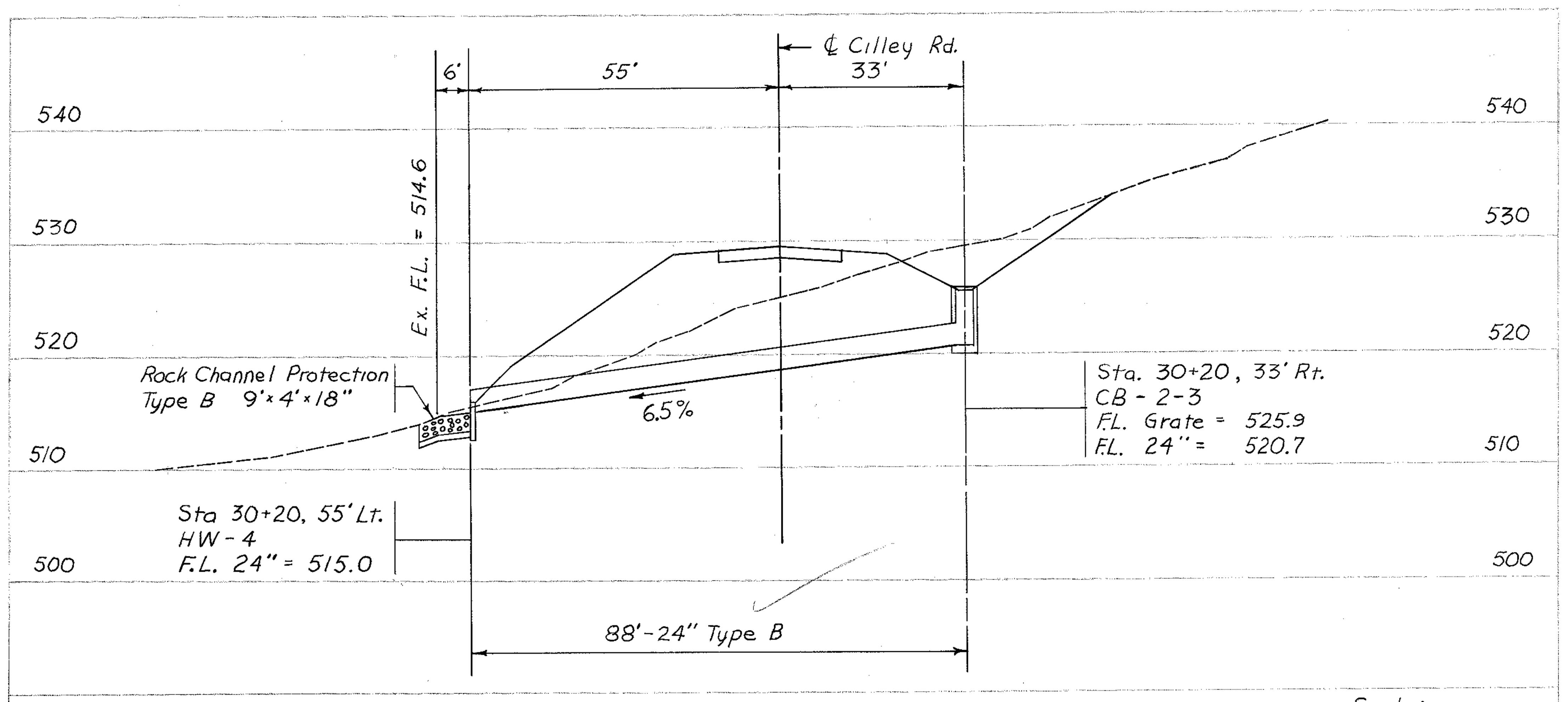
STORM SYSTEM
Sta 19+00
CILLEY ROAD

Scale:
Vert: 1"=10'
Horiz: 1"=20'

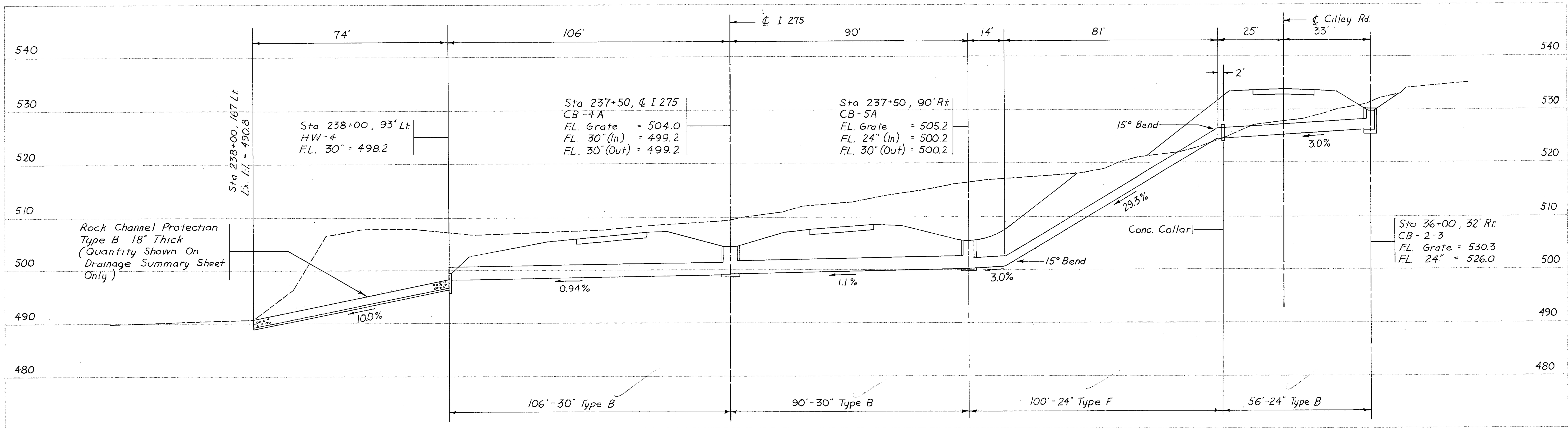




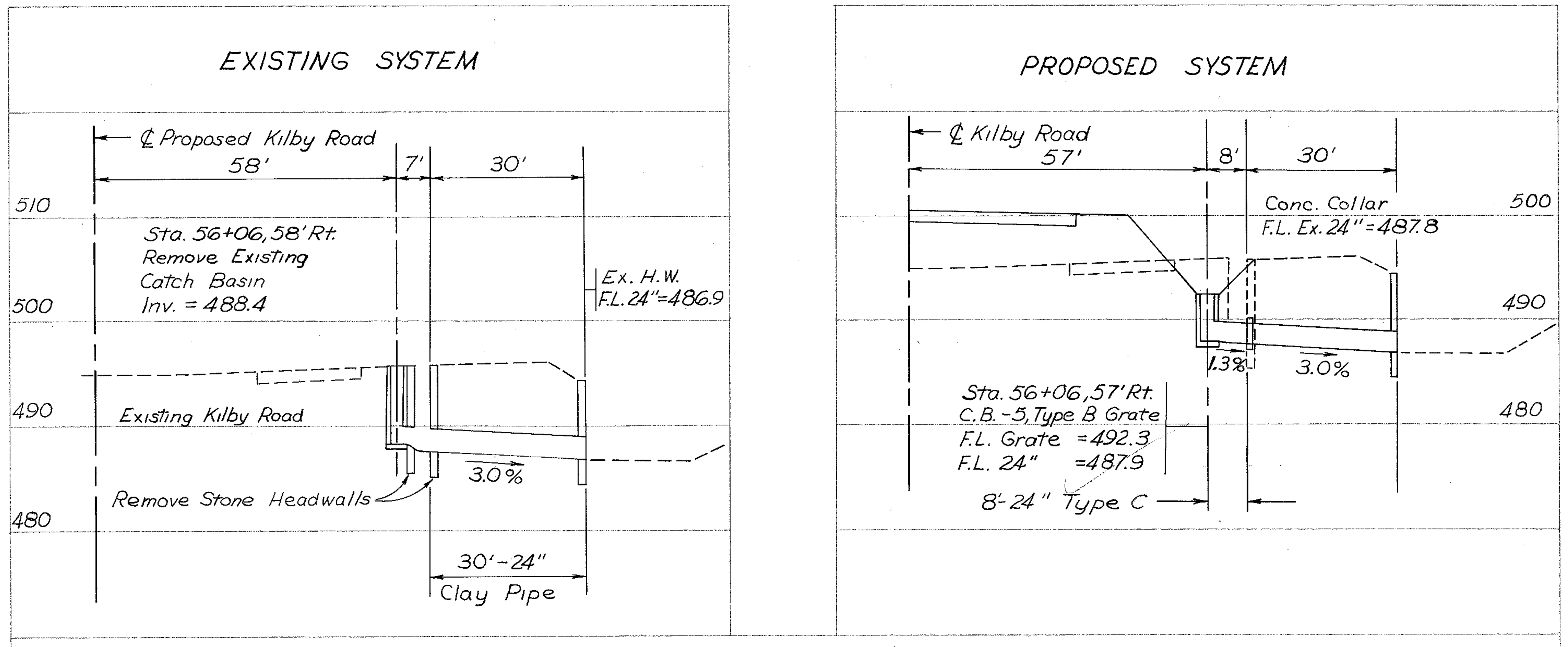
STORM SYSTEM
Sta 43+00
CILLEY ROAD



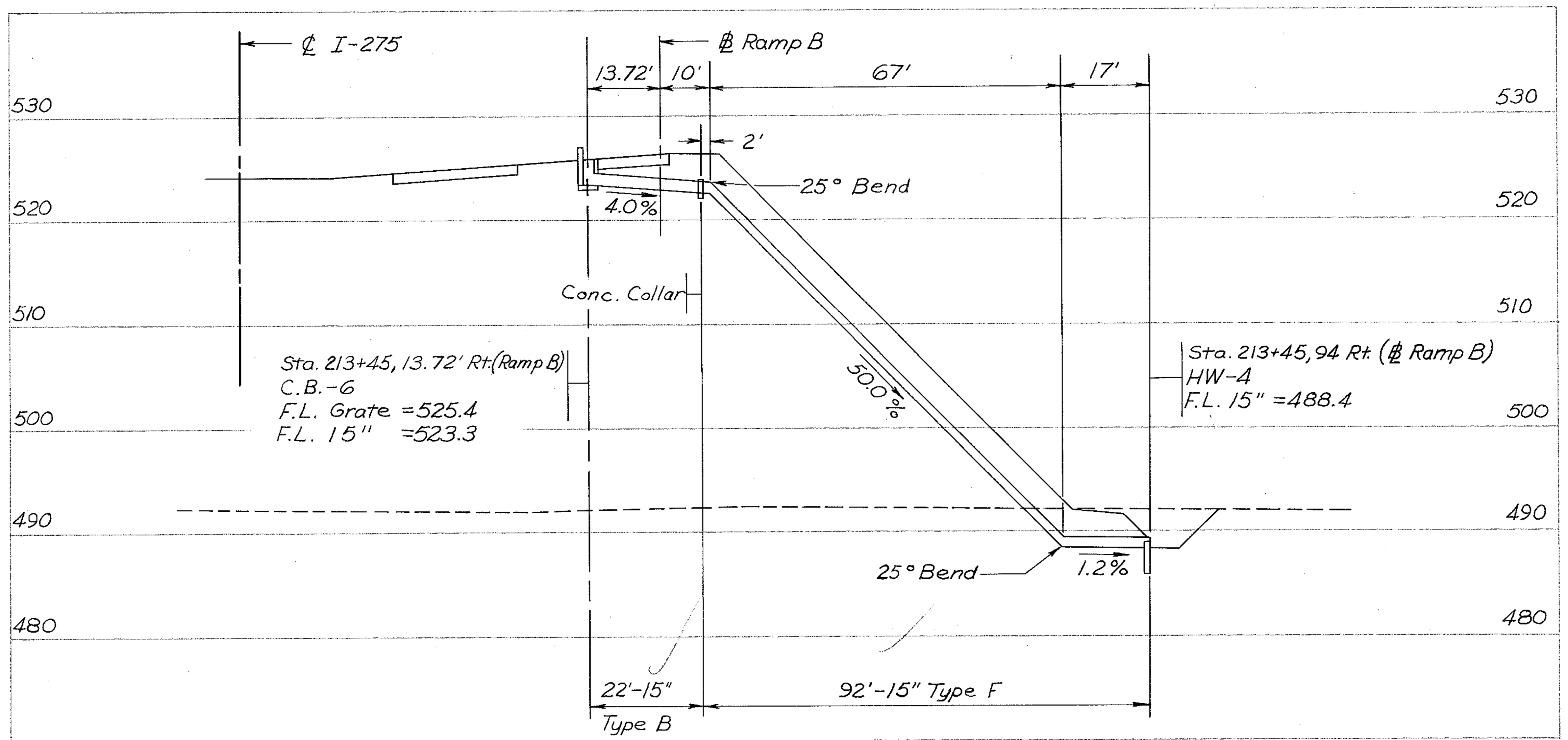
STORM SYSTEM
Sta. 30+20
CILLEY ROAD



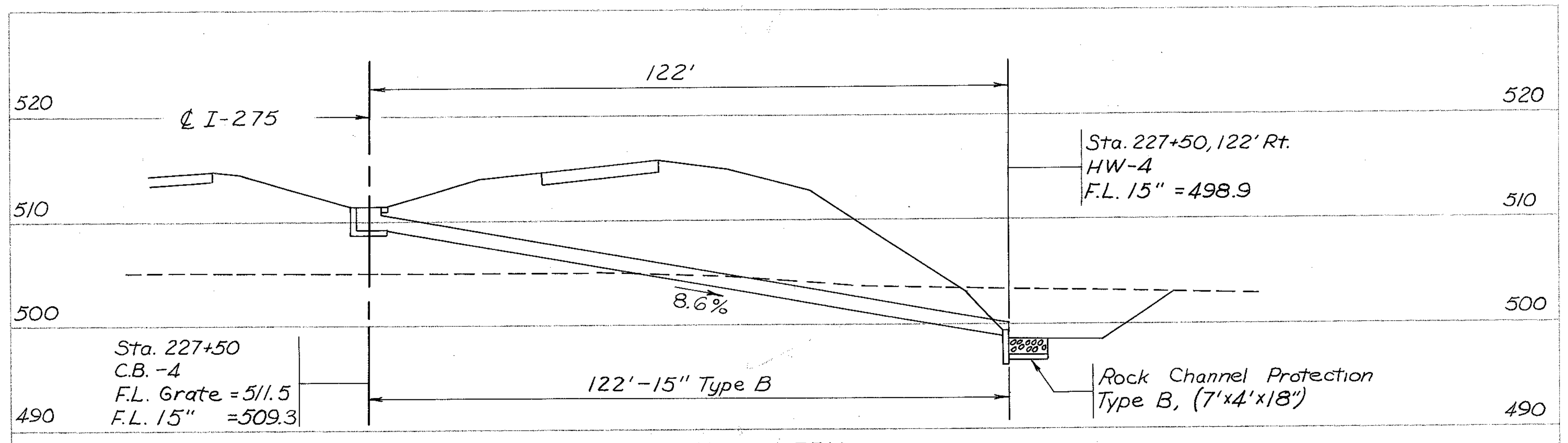
STORM SYSTEM
Sta. 36+00, 32' Rt CILLEY ROAD
to Sta. 238+00, 93 Lt. I 275



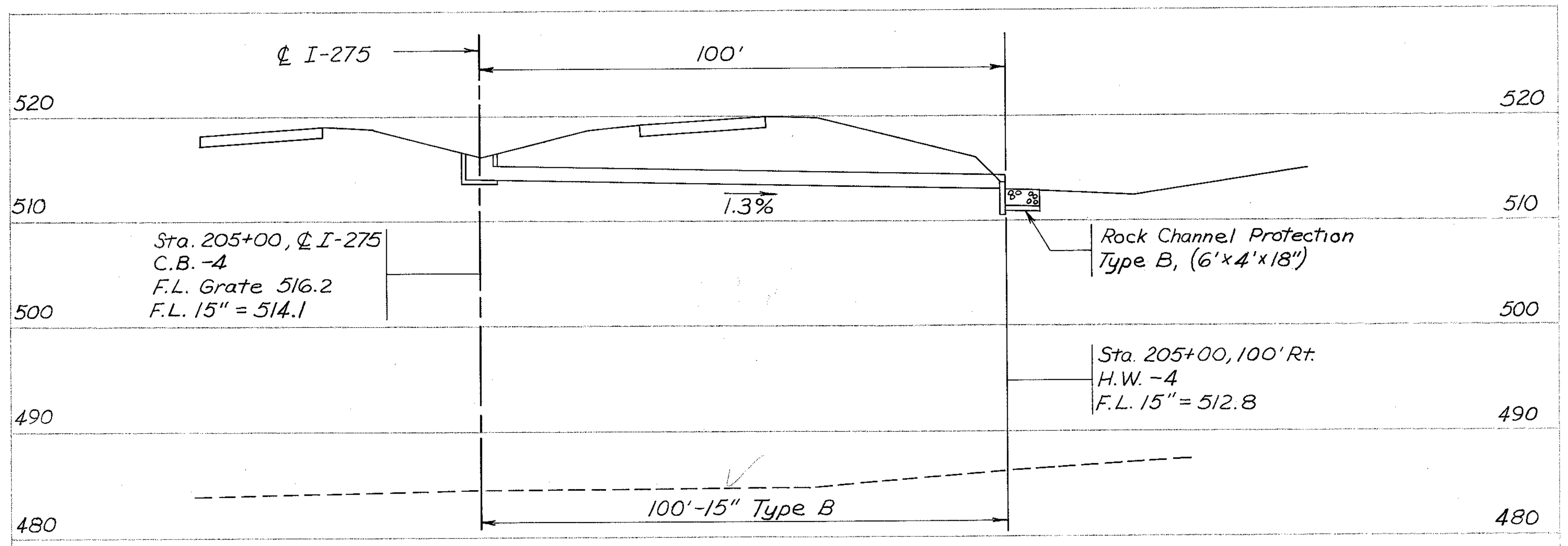
STORM SYSTEM
KILBY ROAD
Sta. 56+06 Rt.



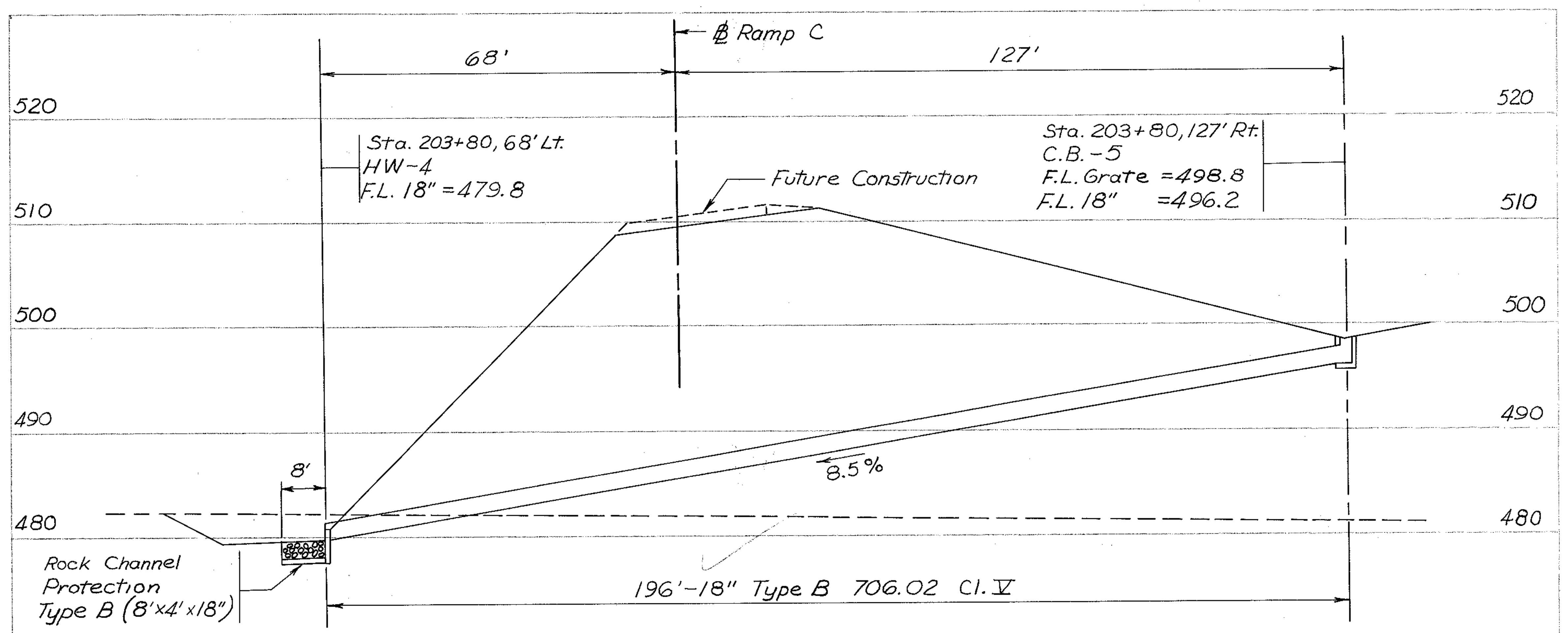
STORM SYSTEM
Sta. 213+45
Ramp B



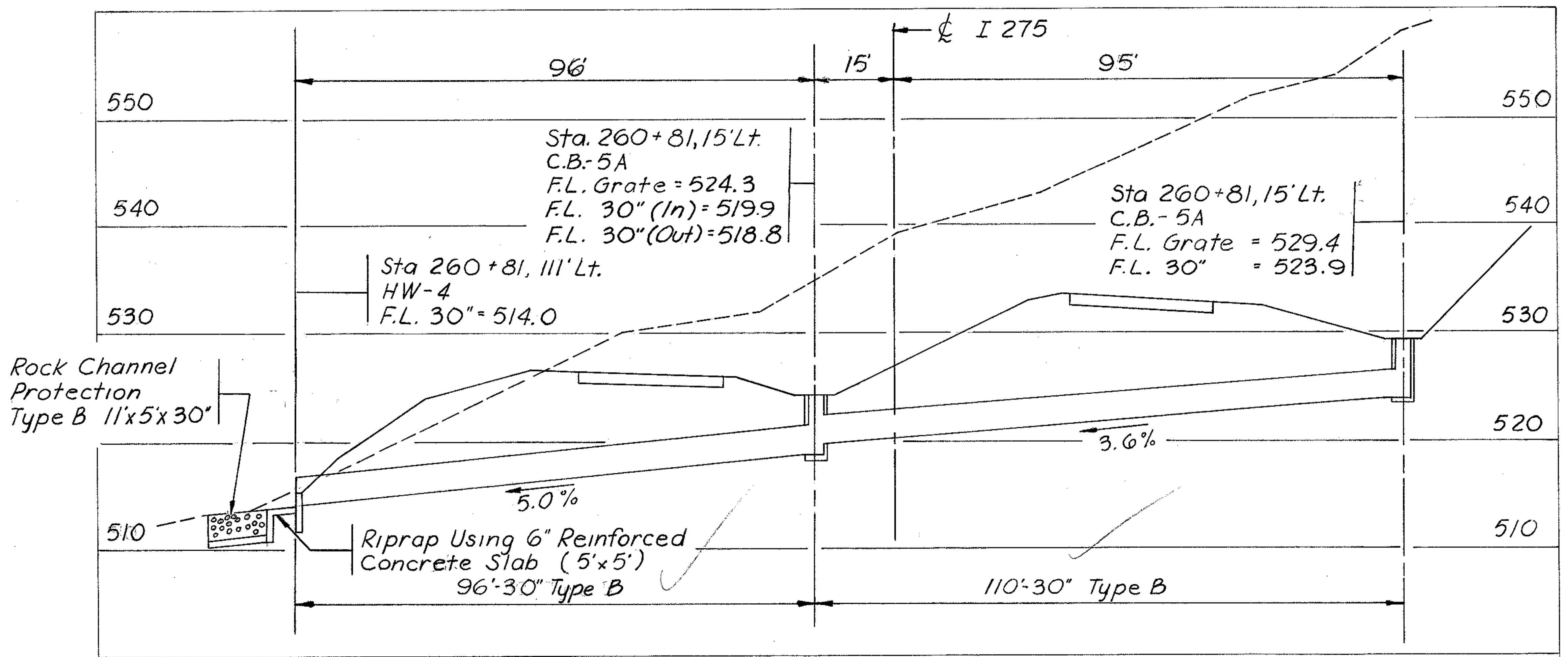
STORM SYSTEM
Sta. 227+50
I-275



STORM SYSTEM
Sta. 205+00
I-275

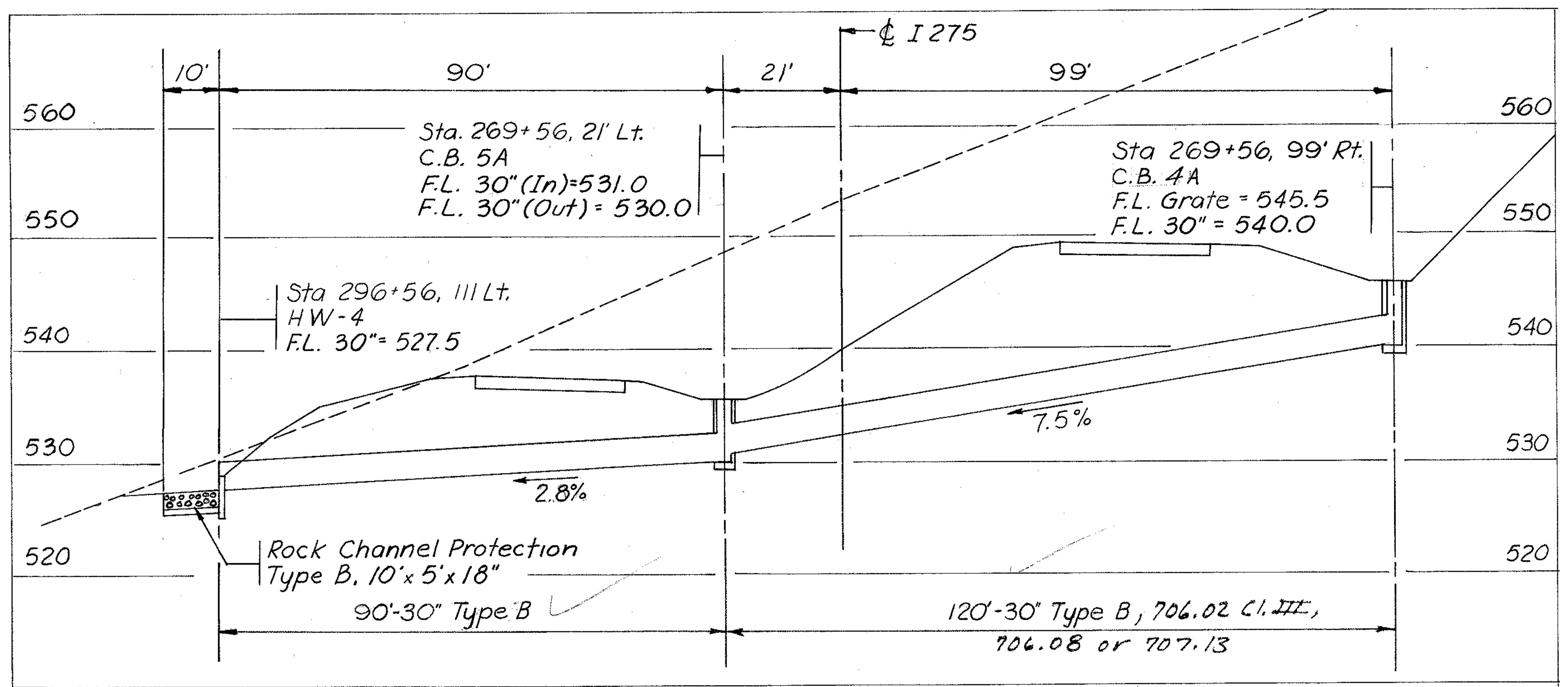


STORM SYSTEM
Sta. 203+80
Ramp C



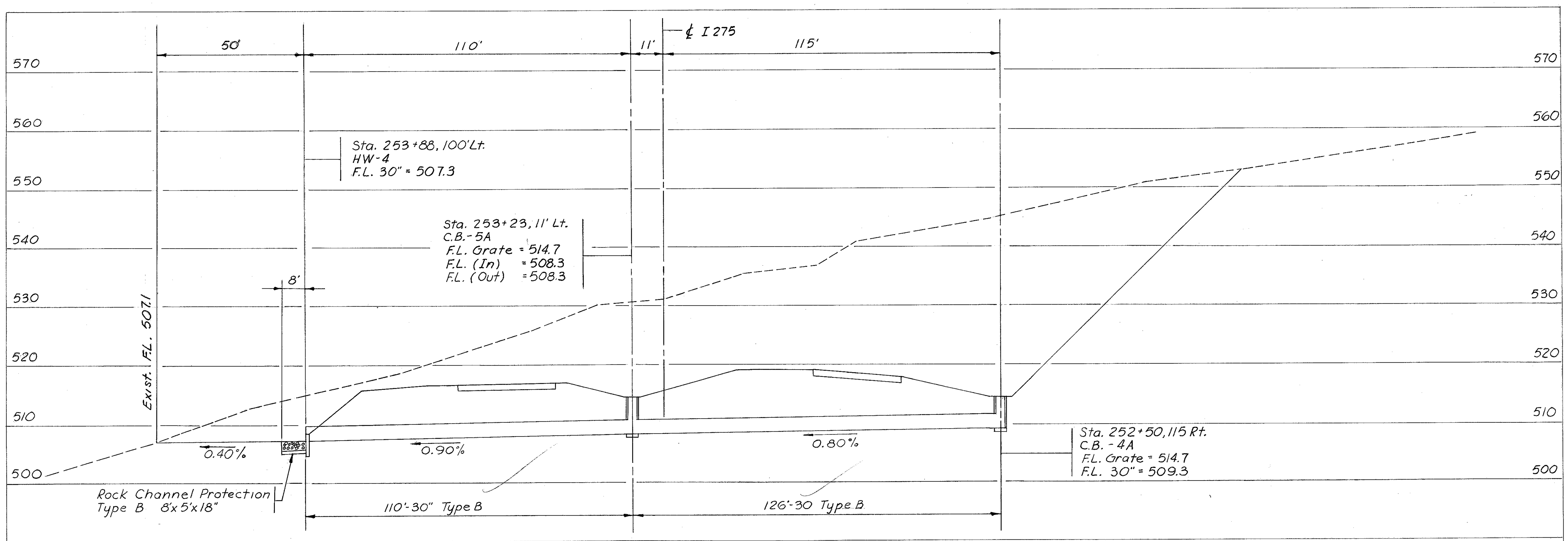
STORM SYSTEM
Sta 260+81
I 275

Scale
Vert. 1" = 10'
Horiz. 1" = 20'



STORM SYSTEM
Sta 269+56
I 275

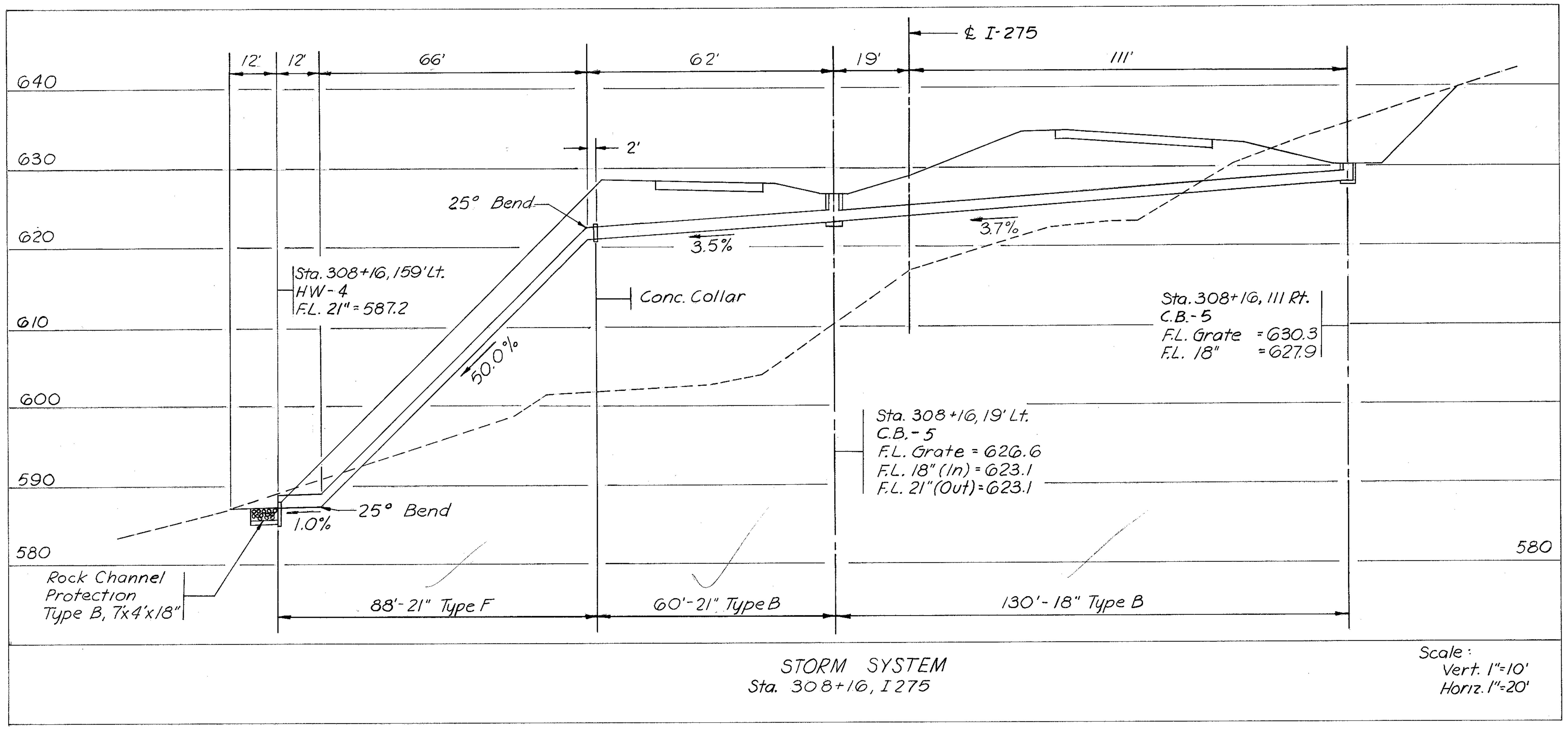
Scale:
Vert. 1" = 10'
Horiz. 1" = 20'

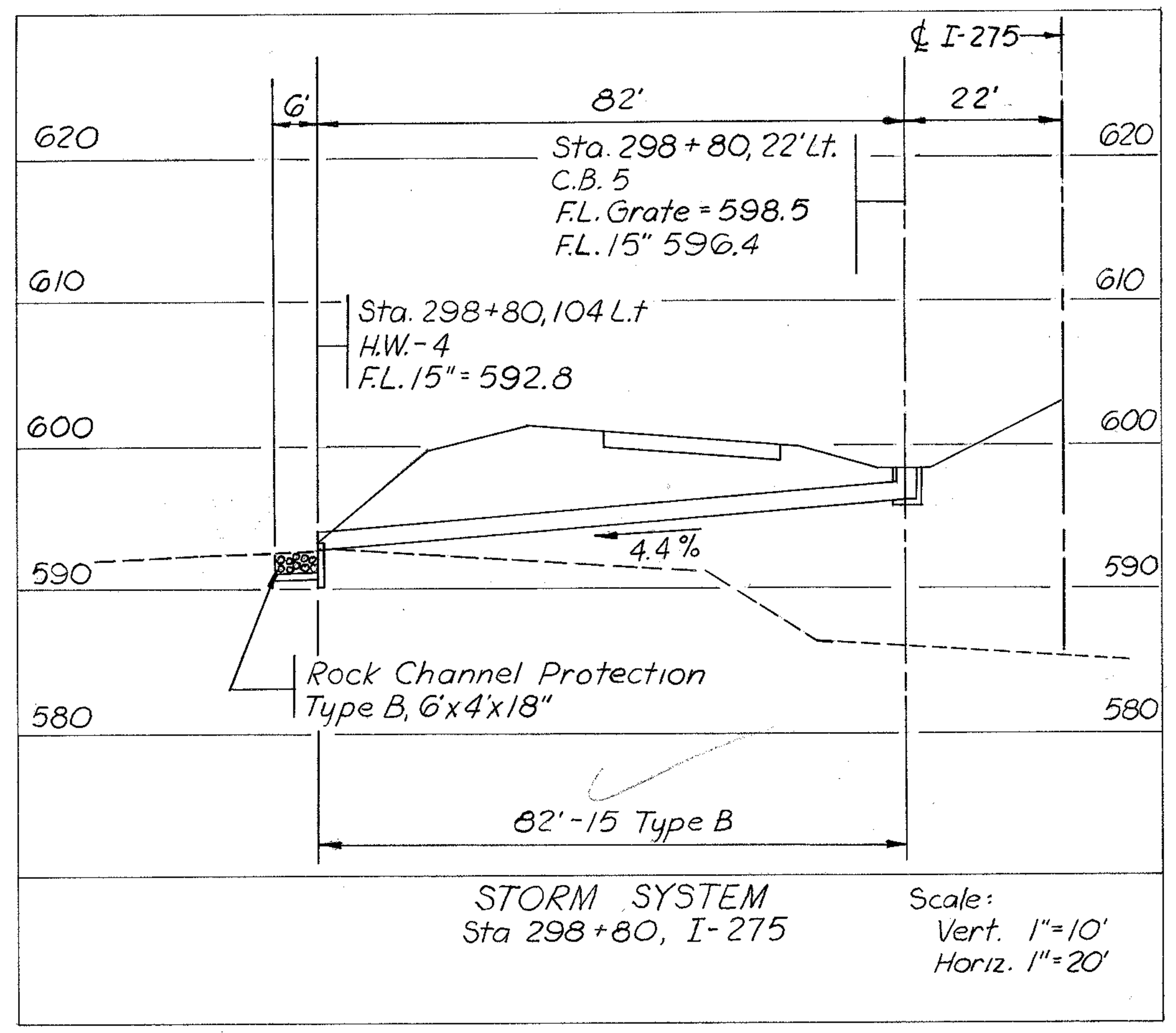


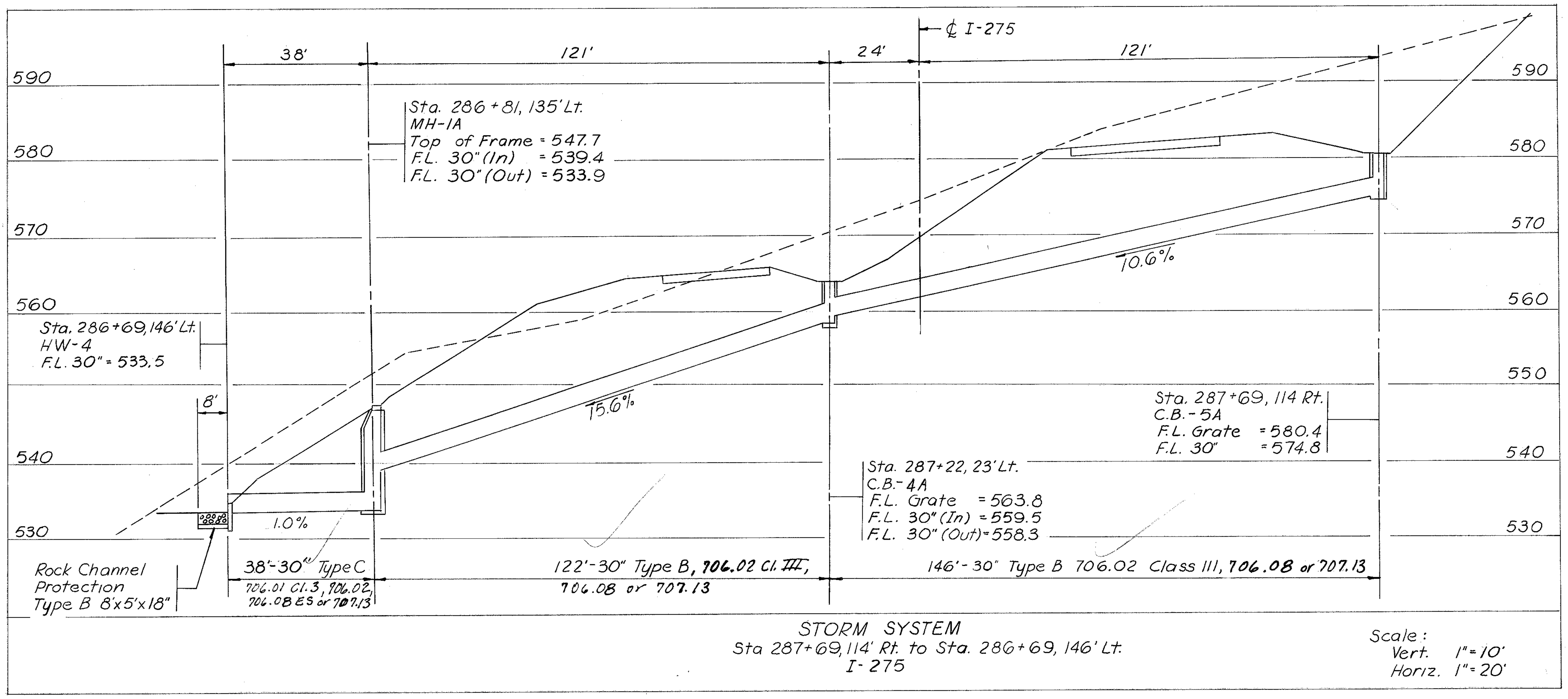
STORM SYSTEM
Sta 252+50, 115 Rt. to Sta 253+88, 100' Lt.
I 275

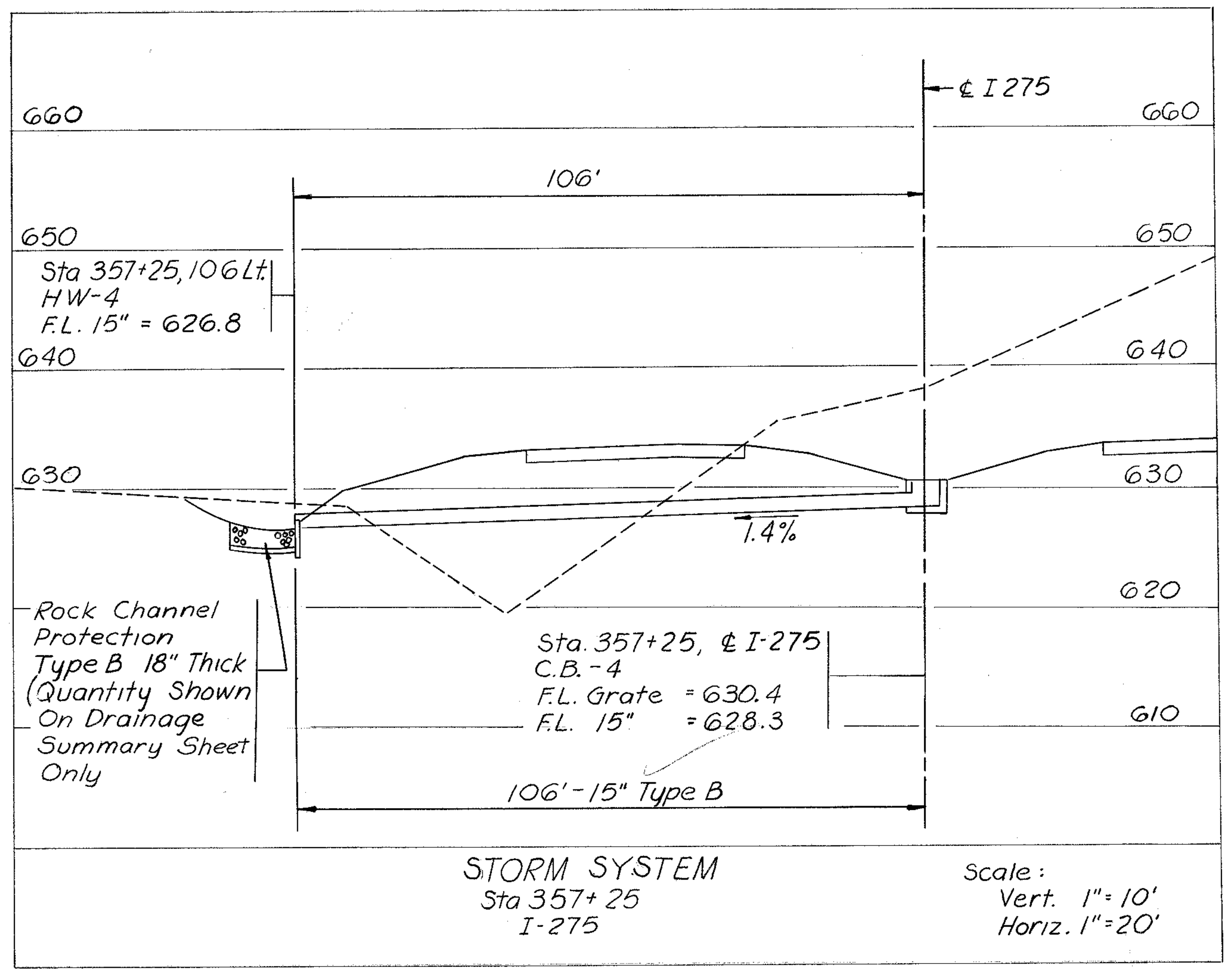
Scale:
Vert. 1" = 10'
Horiz. 1" = 20'

HAM 275 -3.86
HAMILTON COUNTY



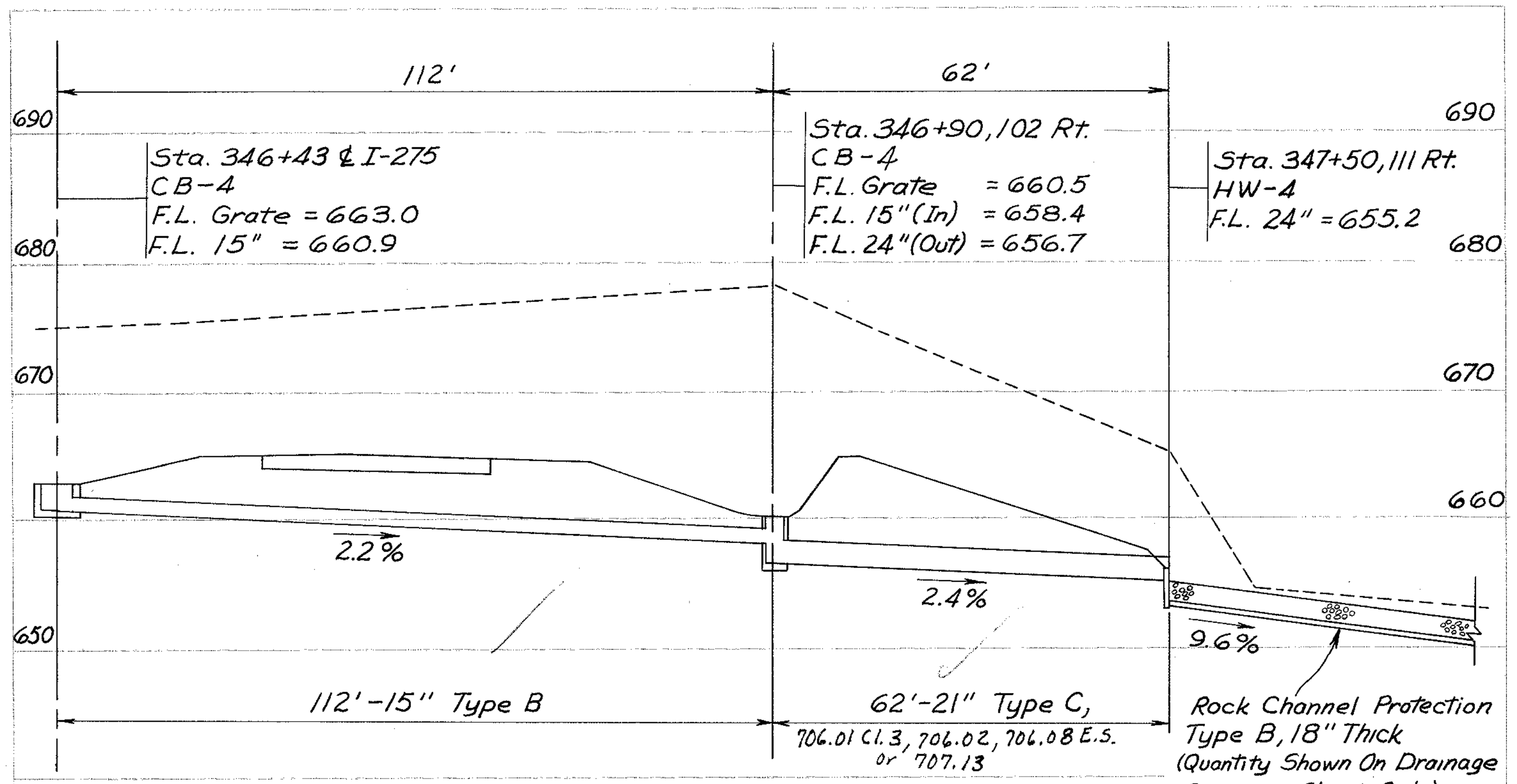






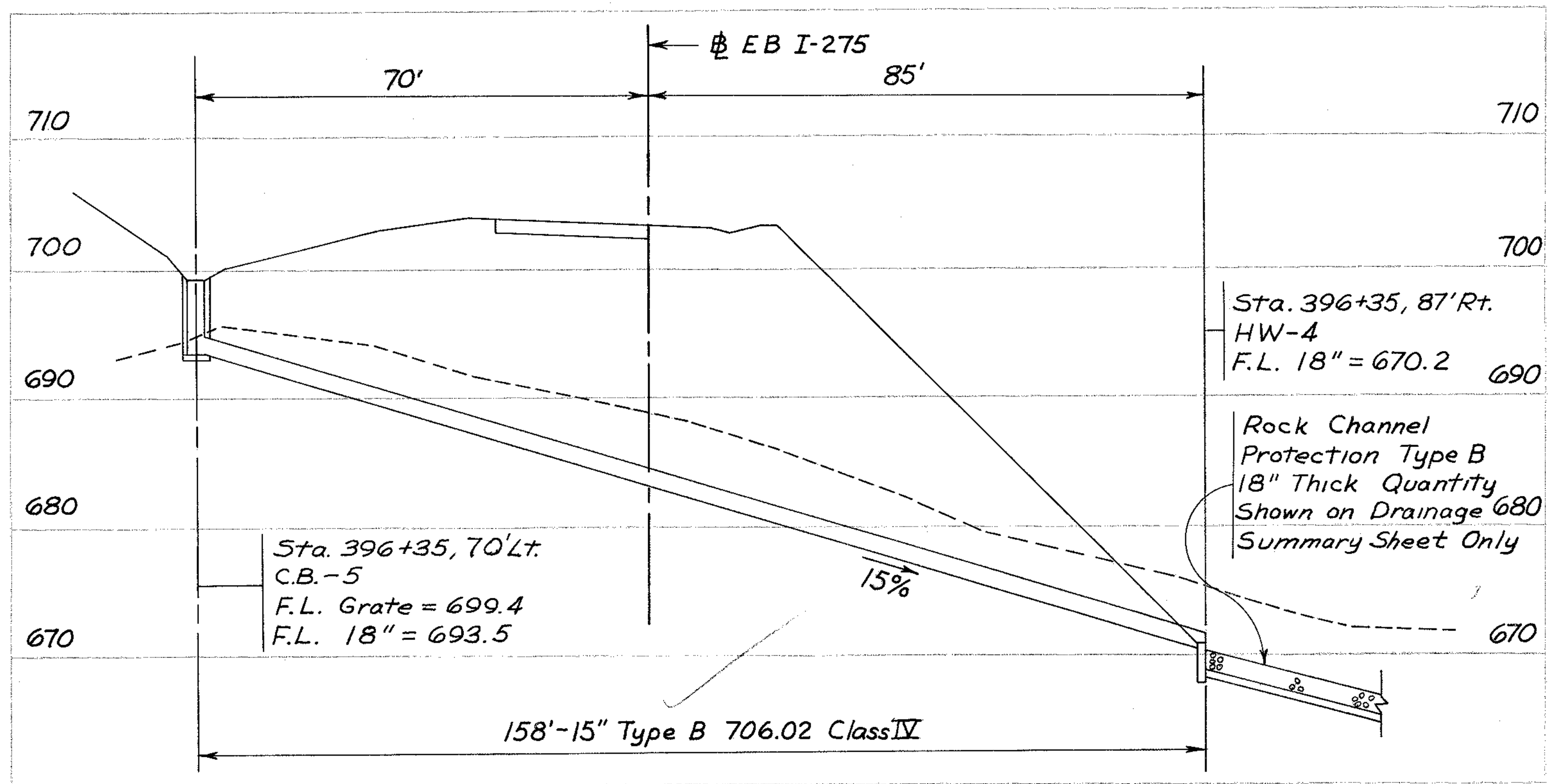
DEVELOPED		CHECKED	
6/70	JM	7/70	R.W.

I-275 STORM SYSTEMS



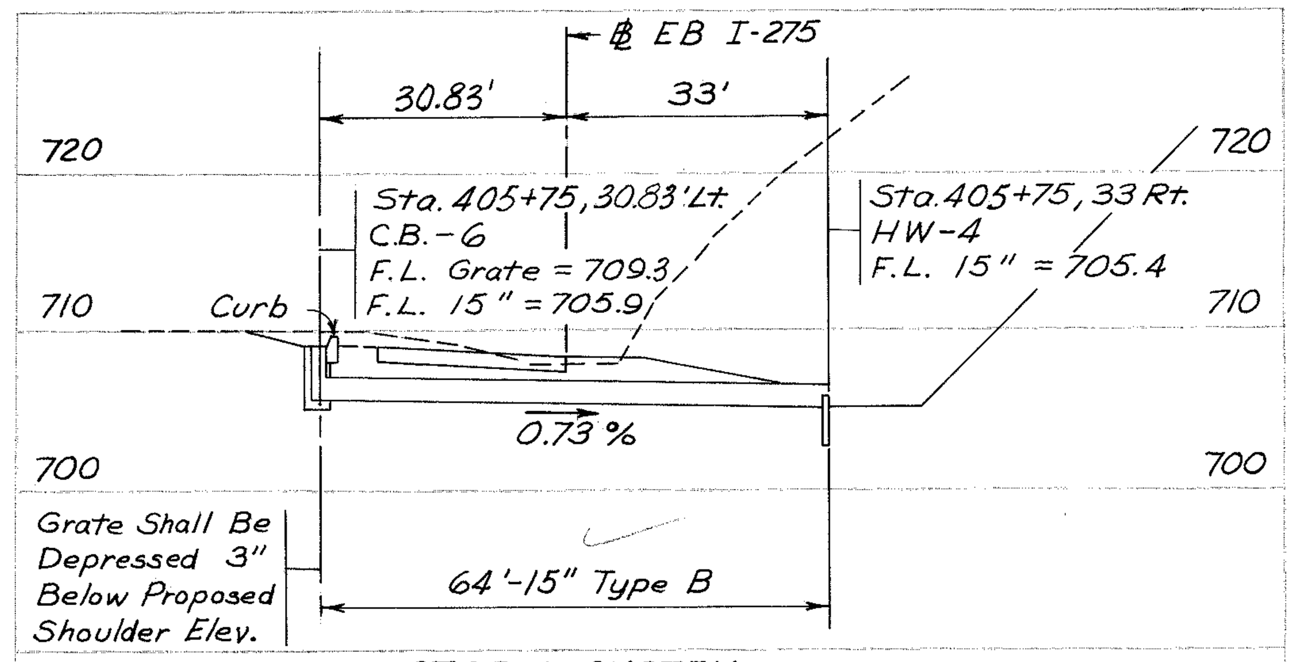
STORM SYSTEM
Sta. 346+43 to Sta. 347+50, 111 Rt.
I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'



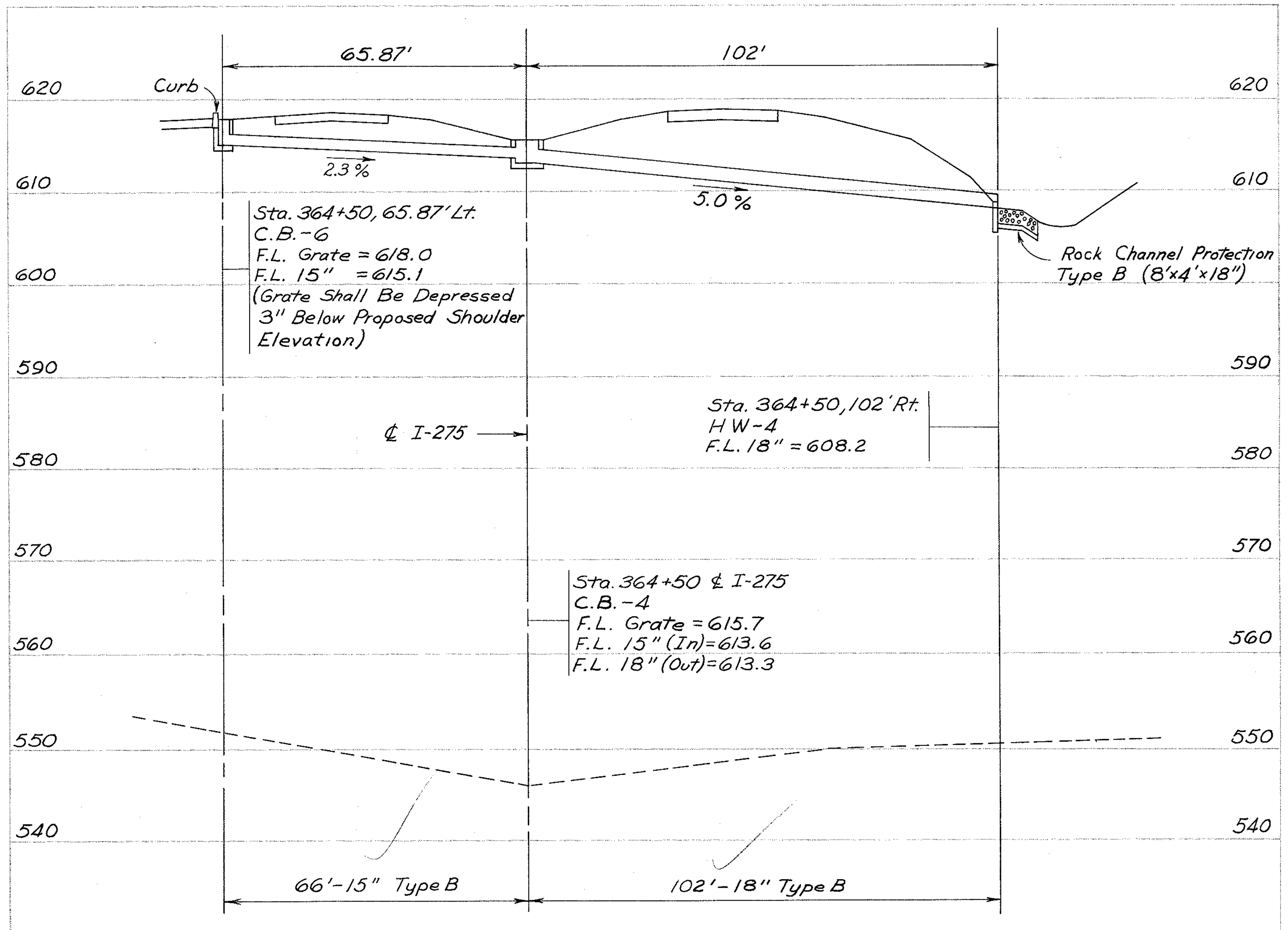
STORM SYSTEM
Sta. 396+35
E.B. I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'



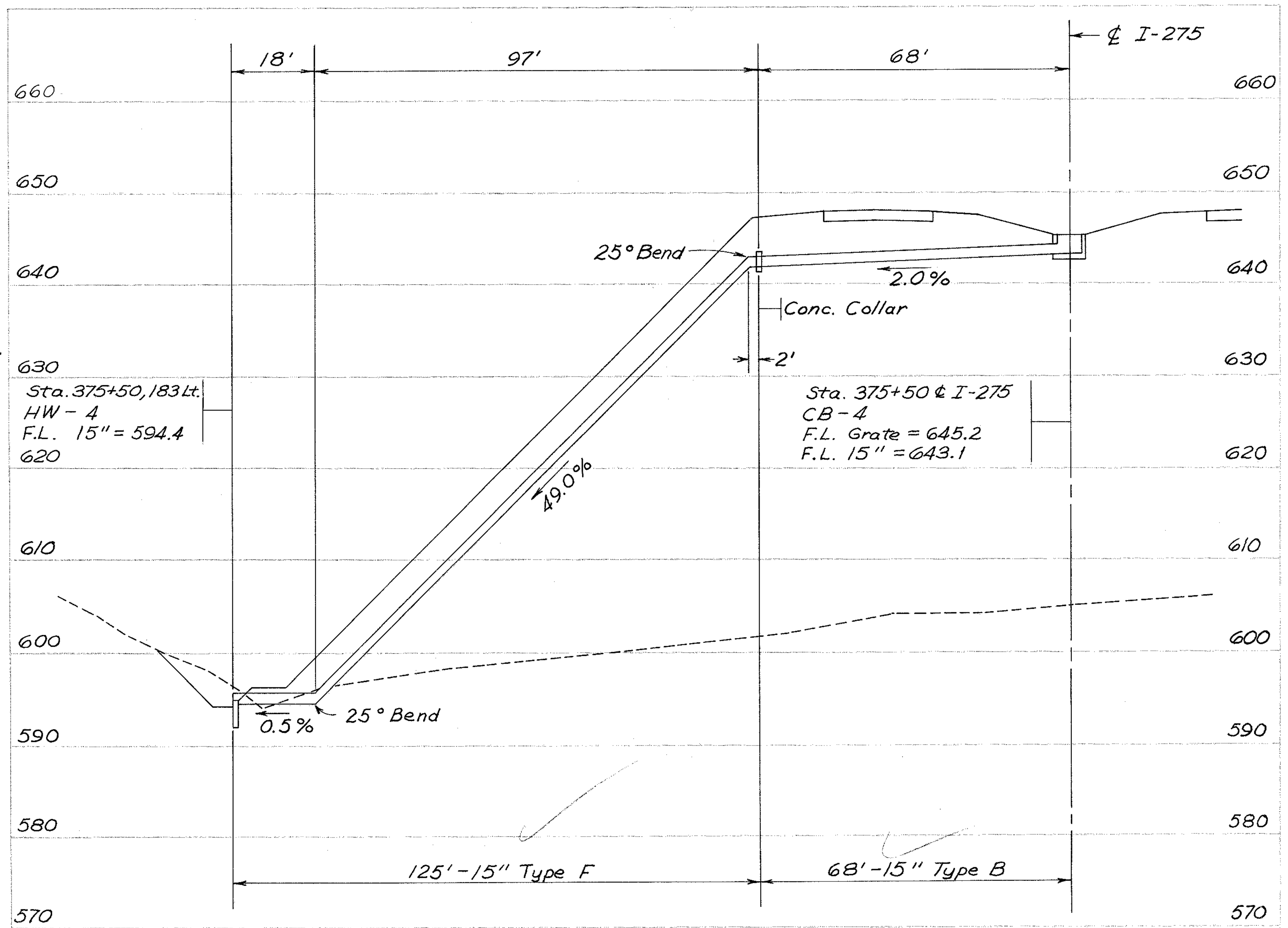
STORM SYSTEM
Sta. 405+75
E.B. I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'



STORM SYSTEM
Sta. 364+50
I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'

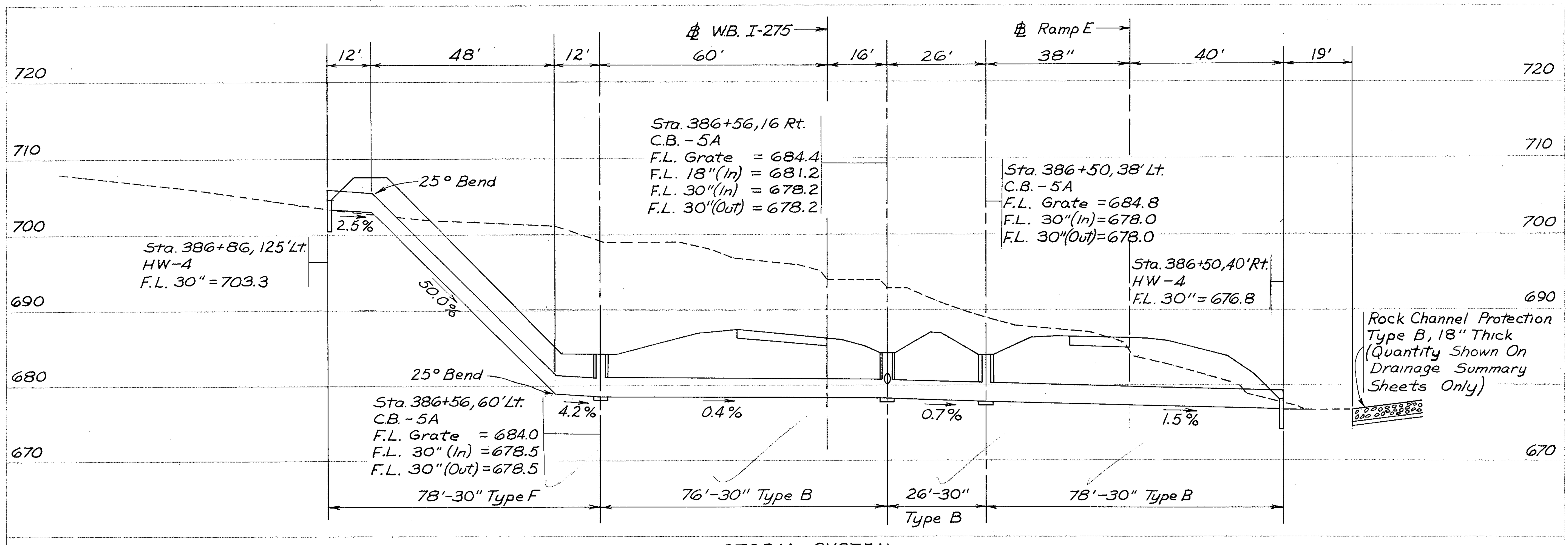


STORM SYSTEM
Sta. 375+50
I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'

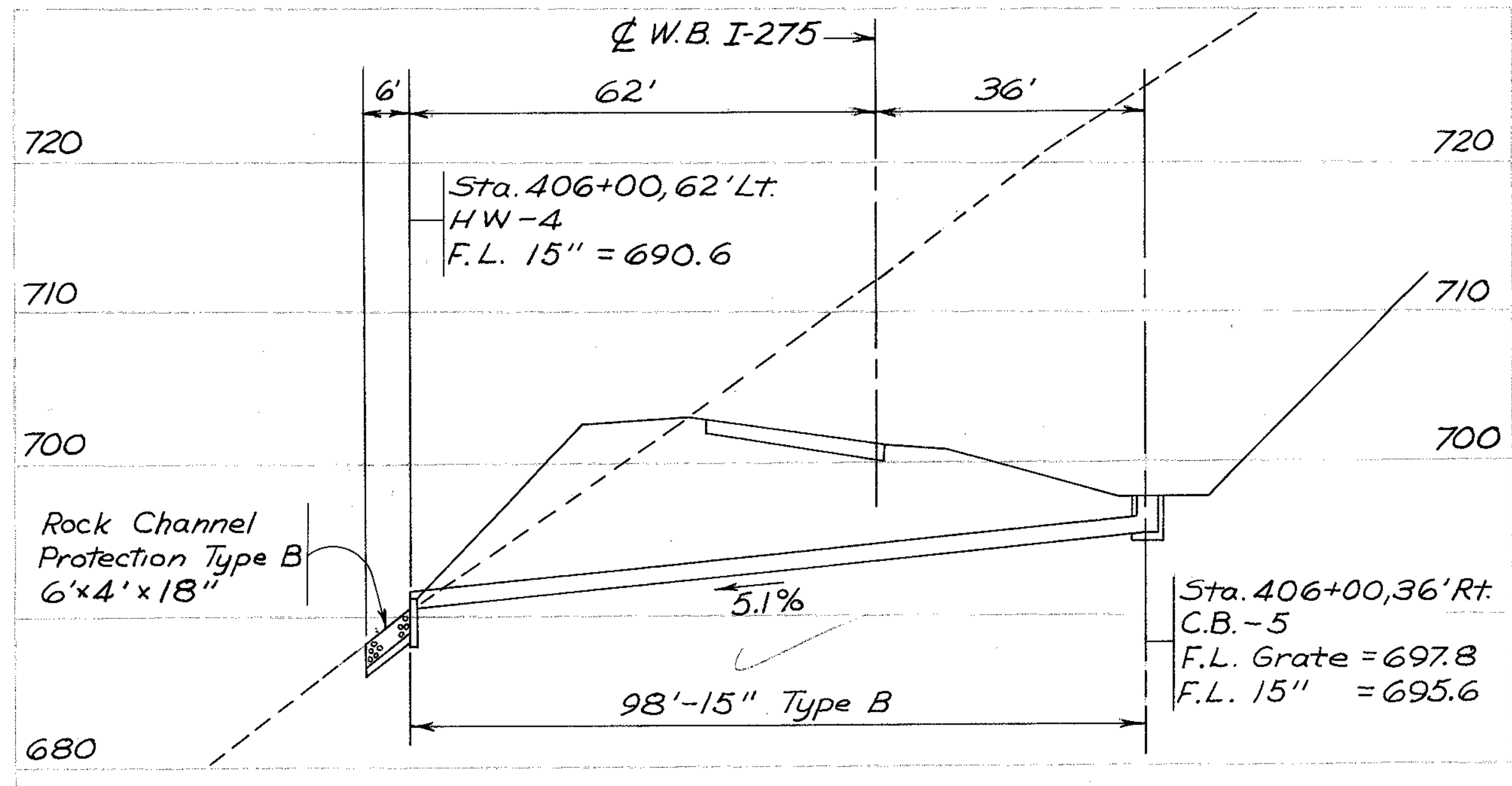
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM 275-3.86
HAMILTON COUNTY



STORM SYSTEM
Sta. 386+56
W.B. I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'



STORM SYSTEM
Sta. 406+00
W.B. I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'

STORM SYSTEM
Sta. 392+00 To Sta 386+56
W.B. I-275

Scale:
Vert: 1"=10'
Horiz: 1"=20'

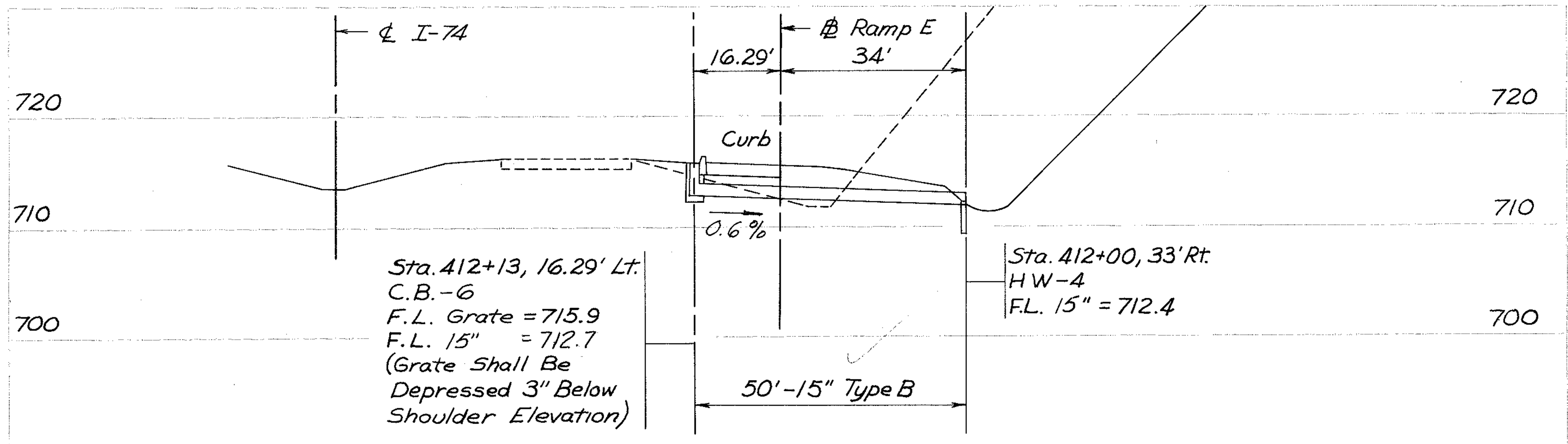
DEVELOPED		CHECKED	
6/70	[illegible]	7/71	[illegible]

WB I-275 STORM SYSTEMS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

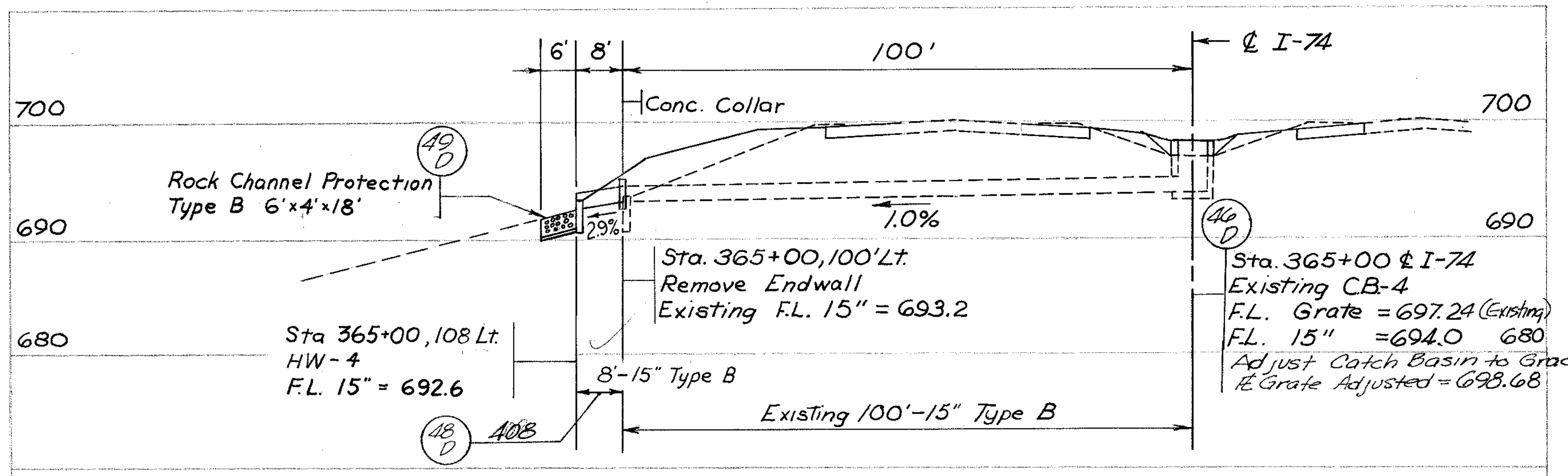
486
630

HAM 275-3.86
HAMILTON COUNTY



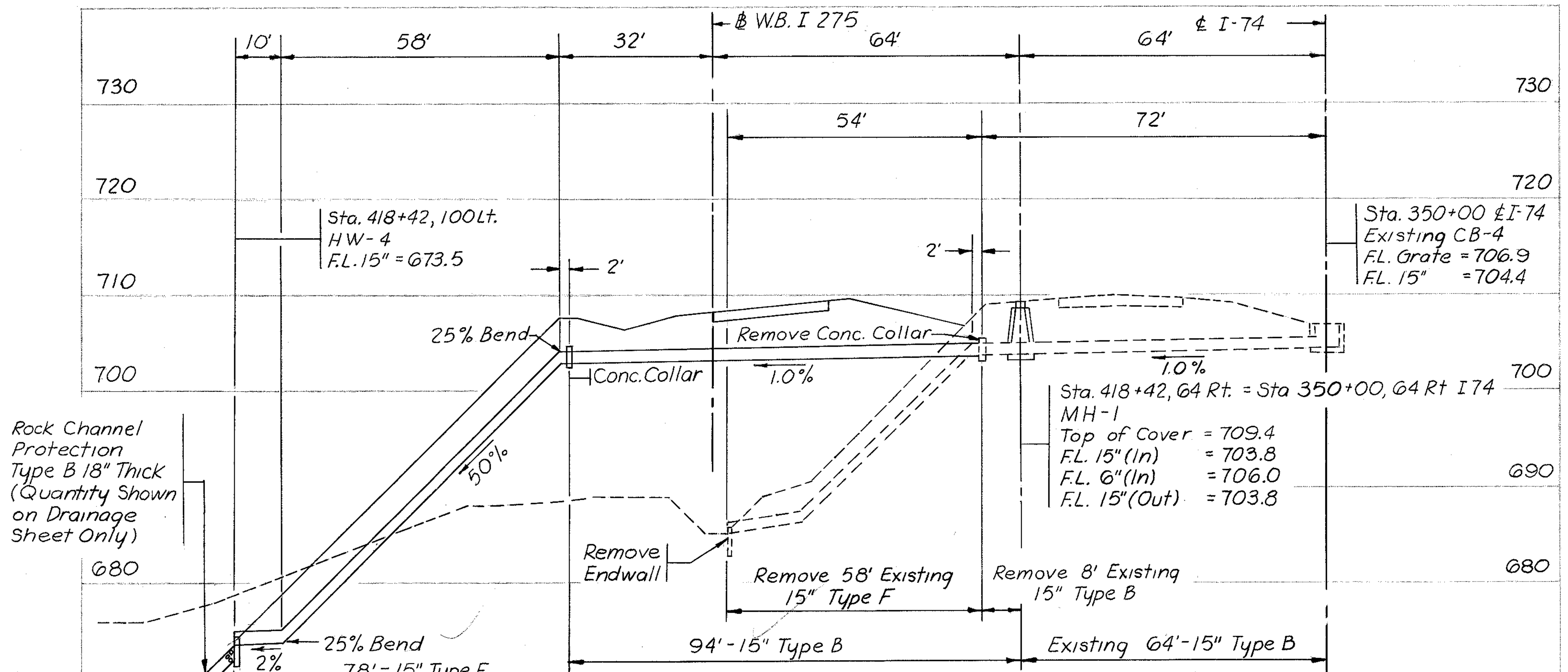
STORM SYSTEM
Sta. 412+13, 16' Lt. to Sta. 412+00, 33' Lt.
RAMP E

Scale:
Vert: 1"=10'
Horiz: 1"=20'



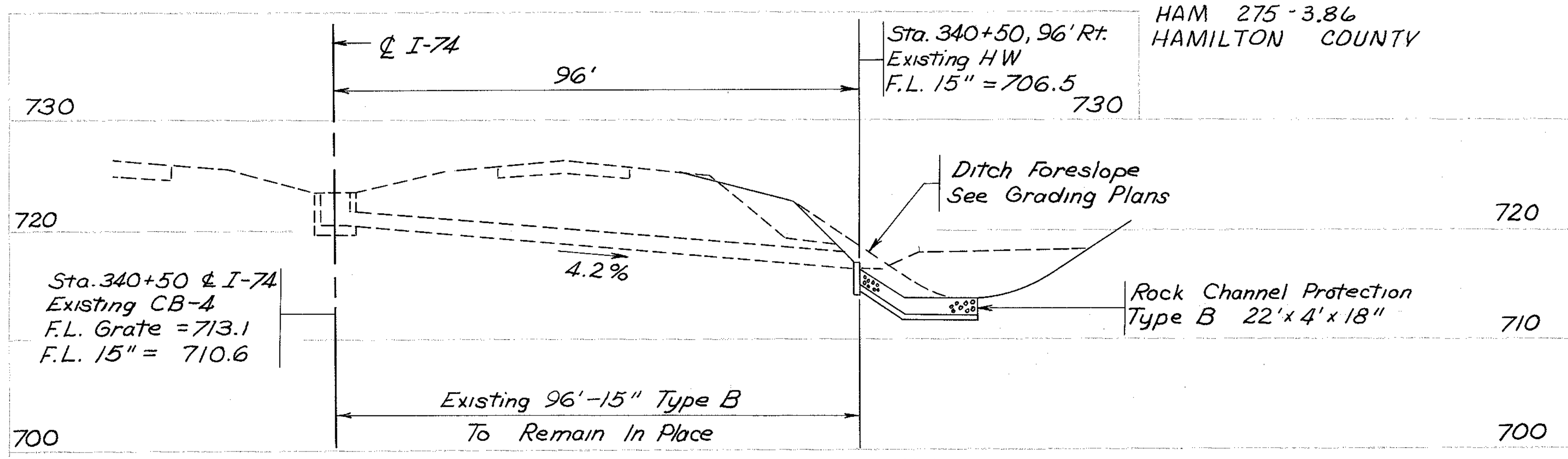
STORM SYSTEM
Sta. 365+00
I-74

Scale:
Vert: 1" = 10'
Horiz: 1" = 20'



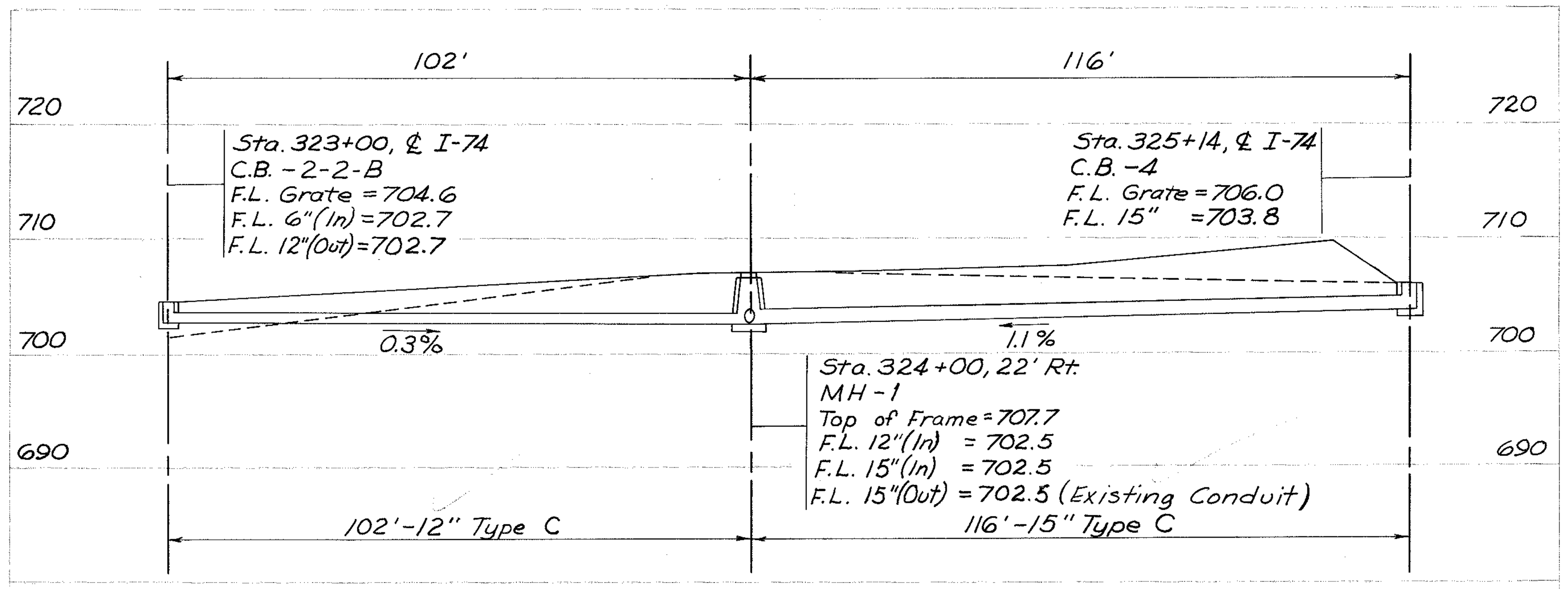
STORM SYSTEM
Sta. 418+42
WB I-275

Scale:
Vert. 1"=10'
Horiz. 1"=20'



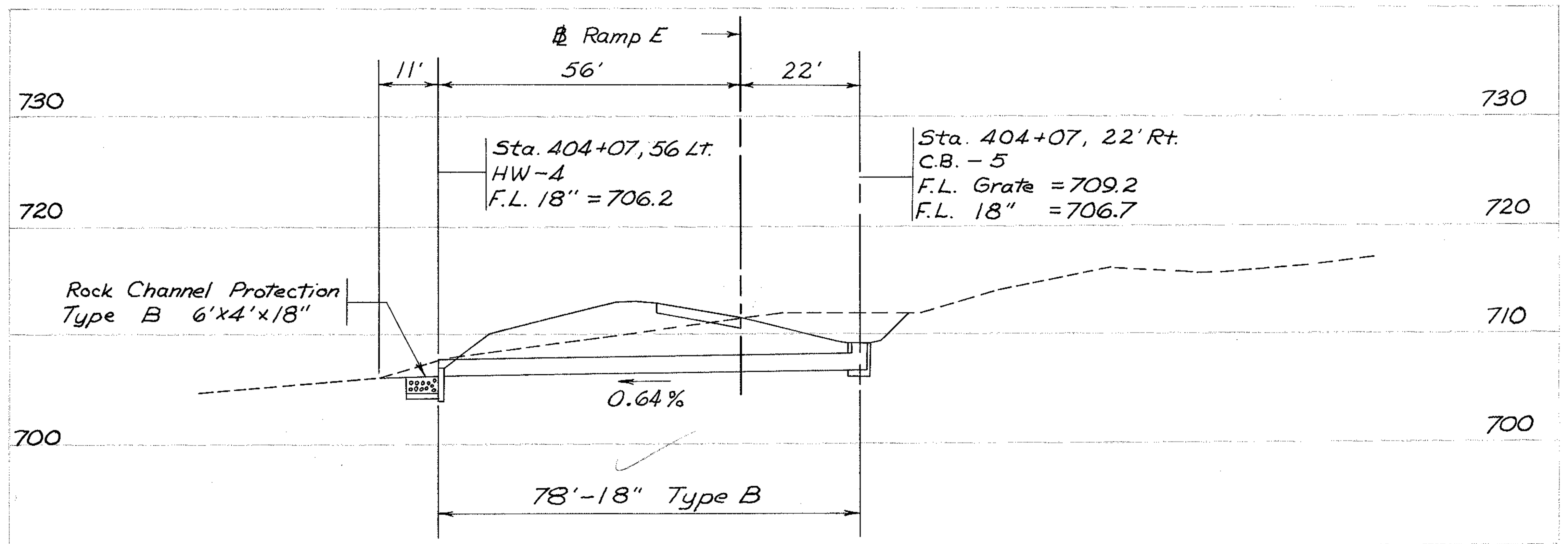
STORM SYSTEM
Sta 340+50
I-74

Scale:
Vert: 1"=10'
Horiz: 1"=20'



STORM SYSTEM
Sta. 323+00 and Sta. 325+14 to Sta. 324+00, 22' Rt.
I-74

Scale:
Vert: 1"=10'
Horiz: 1"=20'

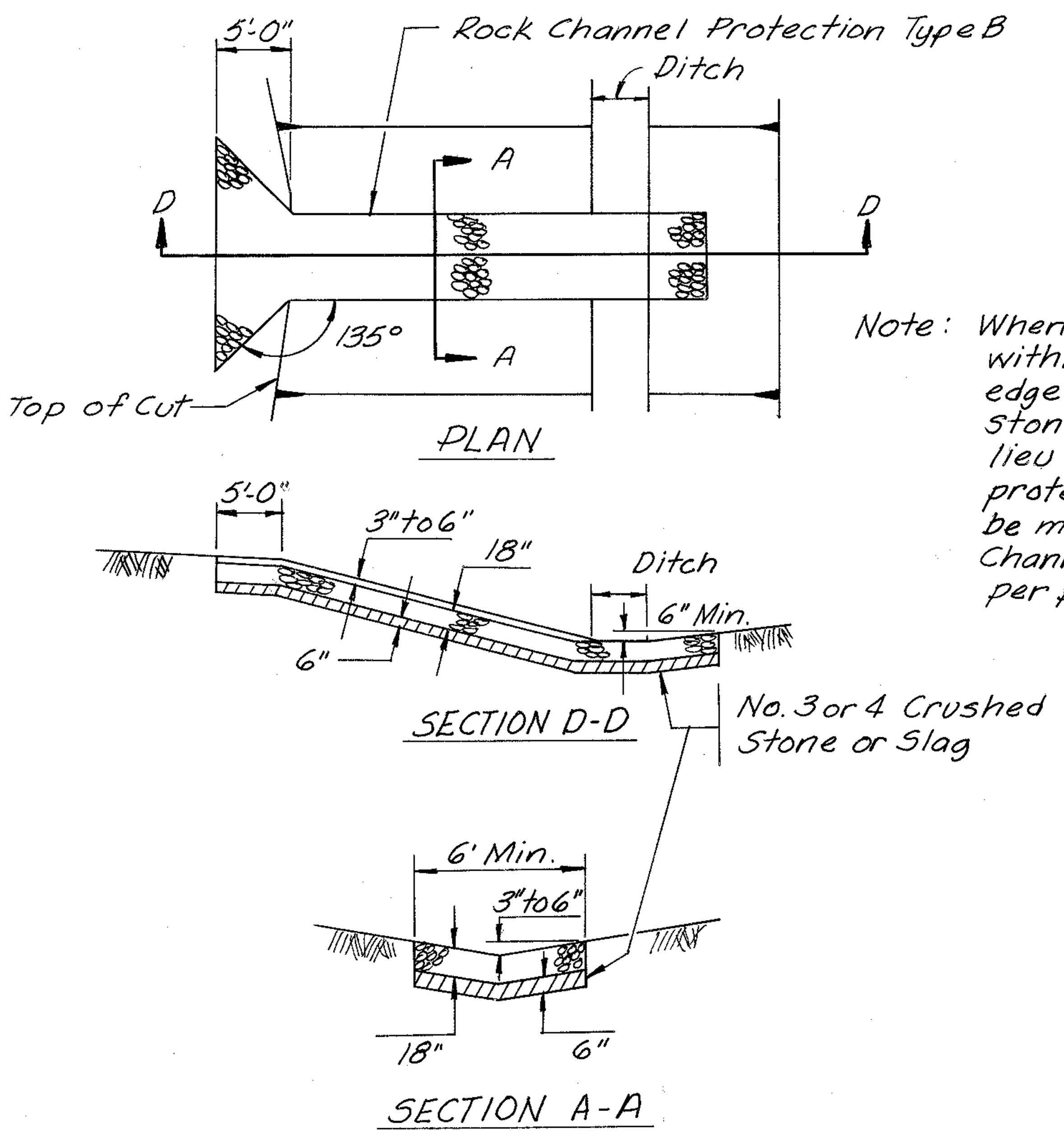


STORM SYSTEM
Sta. 404+07
RAMP E

Scale:
Vert: 1"=10'
Horiz: 1"=20'

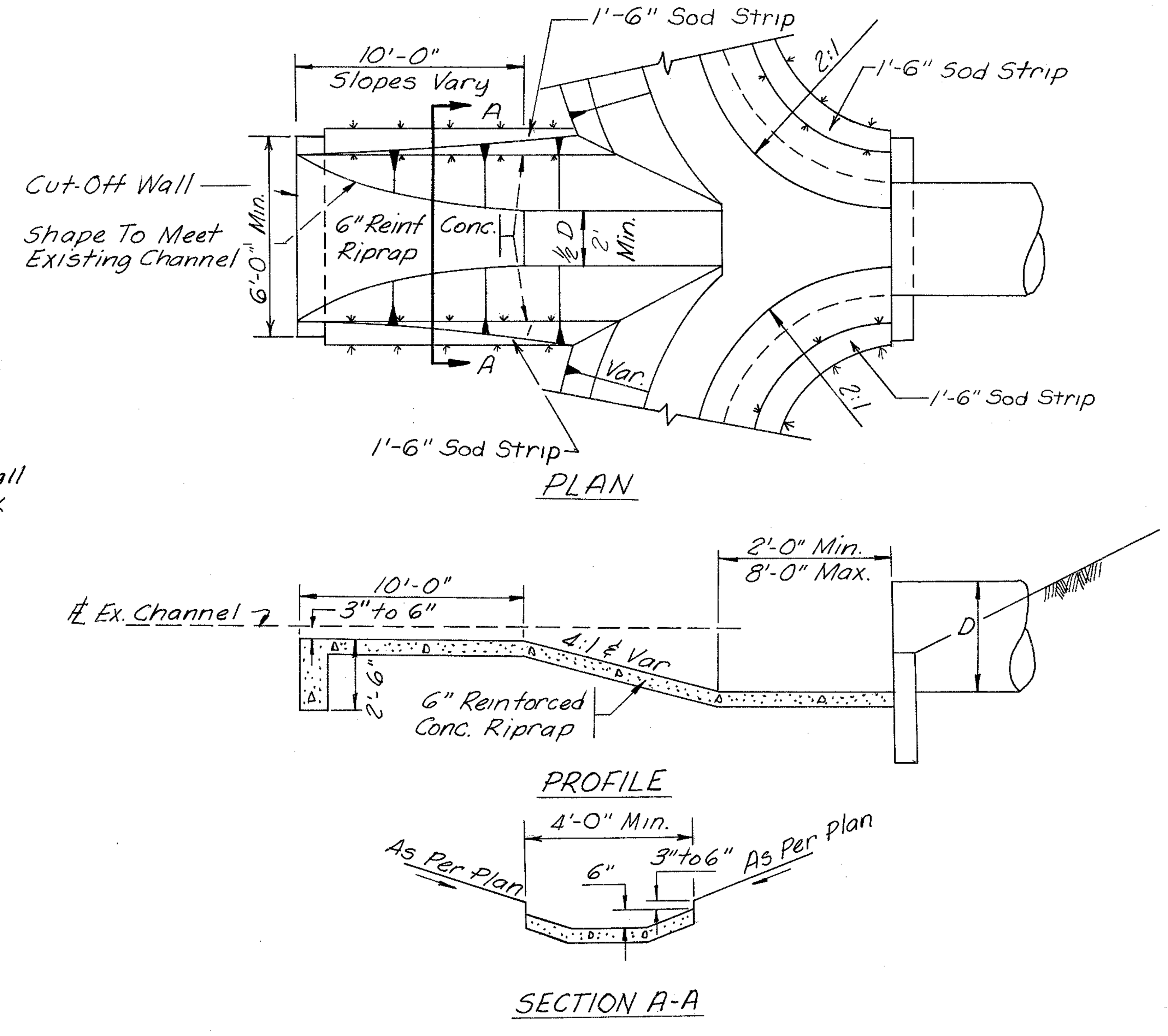
DEVELOPED		CHECKED	
6/76	dm	7/78	R.W.

W.B. I-275, RAMP E & I-74 STORM SYSTEMS

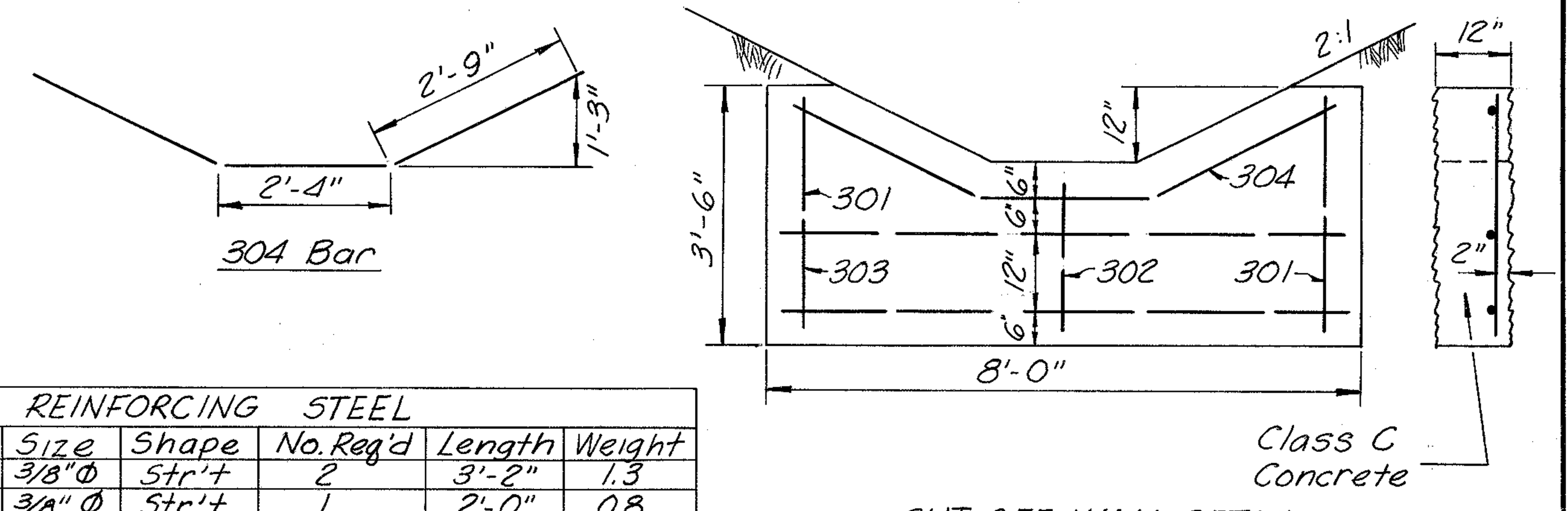


Note: When protection falls within 30' of pavement edge, full depth No. 1 stone shall be used in lieu of rock channel protection. Payment shall be made under 601 Rock Channel Protection as per plan.

EROSION CONTROL AT SWALES



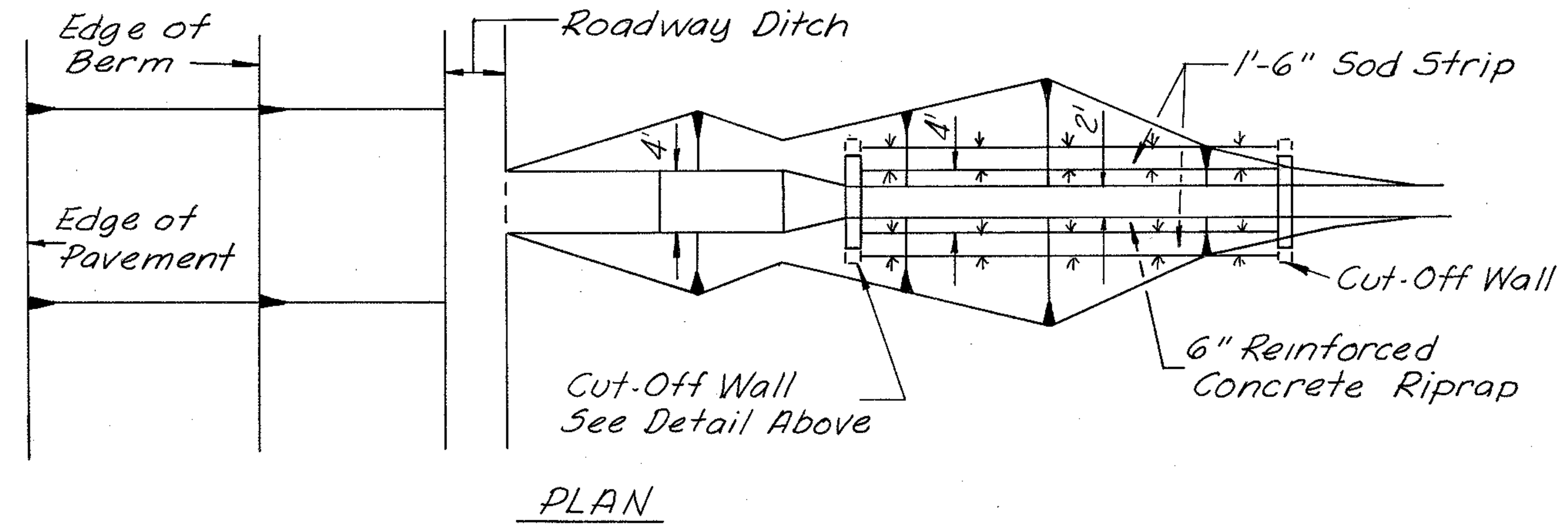
PAVED ENTRANCE DETAIL



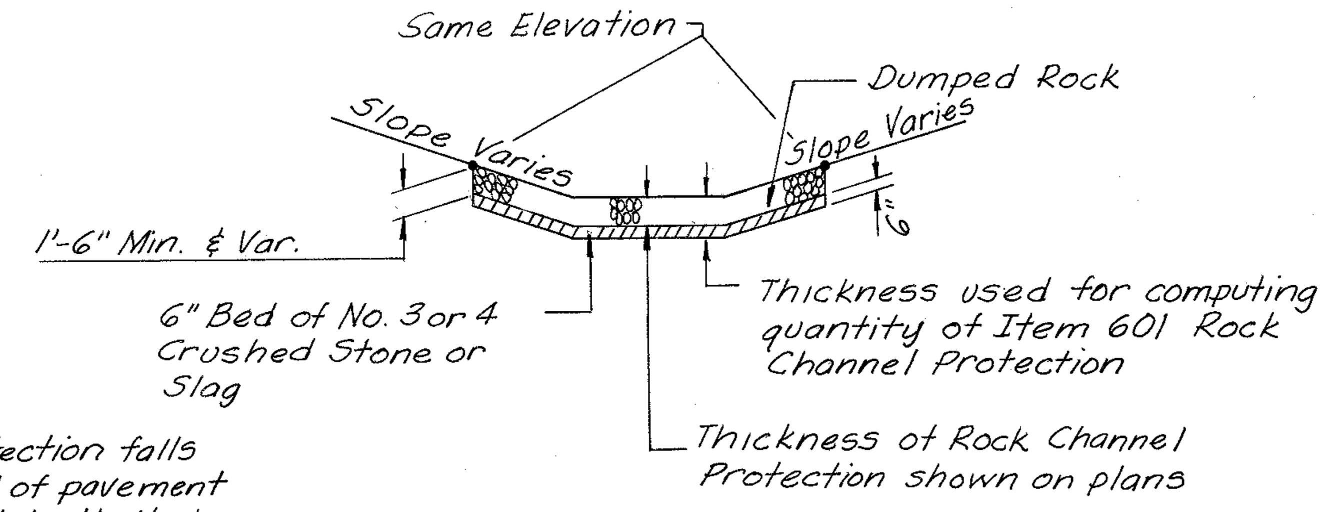
REINFORCING STEEL					
Mark	Size	Shape	No. Req'd	Length	Weight
301	3/8" Ø	Str't	2	3'-2"	1.3
302	3/8" Ø	Str't	1	2'-0"	0.8
303	3/8" Ø	Str't	2	7'-6"	2.8
304	3/8" Ø	Bn't	1	7'-10"	2.9
			Total	(lbs.)	7.8

CUT-OFF WALL DETAIL
Scale 1" = 2'-0"

Note: All steel to be placed 2" clear. Cost of Cut-Off Wall to be included in cost of Item 601 Riprap Using 6" Reinforced Concrete Slab as per plan.

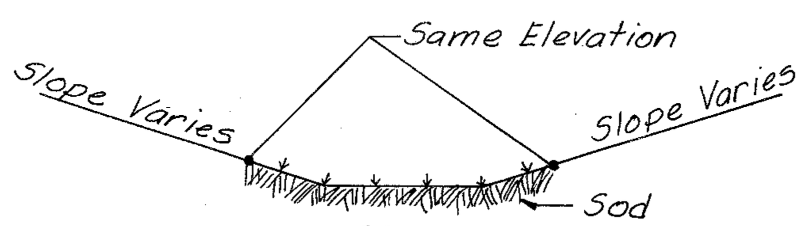


PLAN
Scale 1" = 10'-0"



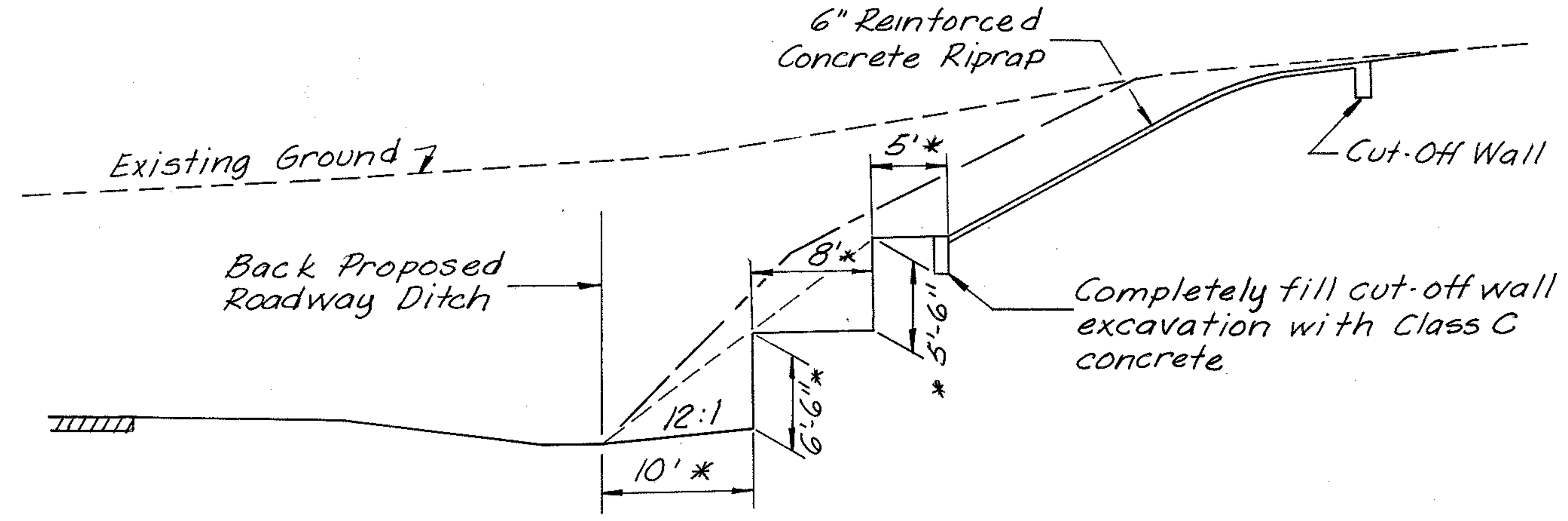
Note: When protection falls within 30' of pavement edge, full depth No. 1 stone shall be used in lieu of Rock Channel protection. Payment shall be made under 601 Rock Channel Protection as per plan.

ROCK CHANNEL PROTECTION



SOD

TYPICAL DITCH PROTECTION



PROFILE
Scale: 1" = 10'-0"

Note: The walls of special flume to be on 1:1 slope between this plane and the top of rock. Below this plane the walls will be vertical.

* Note: These dimensions are to be considered as approximate and may be varied during construction to conform with the natural planes of stratification encountered in the rock.

CASCADE DETAIL

DEVELOPED	CHECKED

LIGHTING INDEX SHEET

LEGEND

Proposed Light Pole, 400 Watt 34.2' Mtg. Htg.
Future Light Pole, 400 Watt 34.2' Mtg. Htg.
Proposed Light Pole, 700 Watt 41.7' Mtg. Htg.
Future Light Pole, 700 Watt 41.7' Mtg. Htg
Proposed Underpass Luminaire, 250 Watt
Proposed Pull Box
Proposed Duct-Cable
Proposed Conduit
Proposed Type B Raceway
Proposed Power Source
Proposed Illuminated Overhead Signs
Structure Ground

DESIGN DATA

Clear Mercury Lamps
1.0 to 1.2 FC. AVG. Initial
4:1 Maximum Uniformity Ratio
480 Volts Multiple Circuits

INDEX TO LIGHTING PLANS

TYPICAL POLE IDENTIFICATION

A 2026+63(14) / III-400-B2-9 (321)

2026+63 – Location Station
(14) — Offset
III — ANSI-IES Type Luminaire
400 — Lamp Watts
B2 — Power Source and Circuit
9 — Light Standard Number
(321) — Sub-Summary Reference Number
(A) — Light Pole Code – See General Summary Sheet 3 and Mechanical Properties Sheet 24

For Light Pole Design Number explanation see Sheet No. 31

℄ 18"-4.5' — Proposed or Existing Drainage Pipe
18"-Pipe ϕ
4.5'-Approx. Depth of Flow Line Below Finished Grade

LIGHTING GENERAL NOTES

SPECIFICATIONS

These notes are supplemental to Items 625 and 713 of the State of Ohio Department of Highways Construction and Material Specifications

~~In lieu of pertinent details shown on the standard construction drawings, the tops of light pole foundations and of pull boxes shall not exceed 1 inch above the surrounding ground elevation at the high point of the surrounding ground.~~

625. 03 - GENERAL

The power supplying agency for this project is:

Cincinnati Gas & Electric Company
Fourth and Main Streets
Cincinnati, Ohio 45202

625. 07 - 713. 11 LUMINAIRES, EXCEPT UNDERPASS LUMINAIRES

1. 400-watt luminaires shall have dual rated 120/240 volt integral regulator ballasts and shall be General Electric M400, Westinghouse OV-25, McGraw-Edison "Unistyle," or equal approved by the Engineer.

2. 700-watt luminaires shall have dual rated 120/240 volts 700-watt integral regulator ballasts and shall be General Electric M-1000, Westinghouse OV-50, McGraw-Edison "Unistyle," or equal approved by the Engineer.

DISTRIBUTION TRANSFORMERS

The distribution transformers installed on this project shall be single-phase, 25 KVA, 60 HZ, with dual primary windings for 2400/7200 Volts, and a 480-volt, two wire, grounded neutral secondary.

The transformers shall be self-cooled, oil-immersed, completely self-protected, and provided with two 2½% taps both above and below the rated voltage tap.

625. 08 - 713. 14 LAMPS

Mercury lamps shall be General Electric "Bonus Line," Westinghouse "Lifeguard," Sylvania "Rough Service," or equal approved by the Engineer.

~~625. 11 PULL BOXES~~

~~Air bells of the following approximate sizes shall be employed in pull boxes:~~

~~18" pull box 16-3/4" diameter x 20-1/2" high~~
~~24" pull box 20-1/2" diameter x 28-1/2" high~~

~~LIGHT POLES~~

~~If transformer bases are not employed, shafts of all light poles shall have hand holes. The alternate hand hole shown on sheet of these plans may be used as an alternate to that shown on Standard Construction Drawing HL-2~~

LIGHT POLE ANCHOR BOLTS FOR BRIDGES AND RETAINING WALLS

Anchor bolts for mounting light poles on bridges and retaining walls shall conform to the requirements of 713.01 and details shown on the plans and standard drawings, for the respective poles to be placed thereon. Payment shall be made at the unit price bid for each set of bolts of the size required and necessary to install one pole and this payment shall constitute full compensation for furnishing and placing bolts.

ELECTRICAL SERVICE FOR ILLUMINATED SIGNS

The pay items in the Lighting General Summary include the pull box or junction box adjacent to each lighted sign and the electrical service connections leading into the box, including connector kits in the pull box or junction box. Quantities for electrical service from the connector kits in the pull box or junction box to the sign are included in the Traffic Control General Summary.

~~REVISION OF LIGHT POLE OFFSETS~~

~~In lieu of the respective details shown on Standard Construction Drawings HL-1 and HL-3 and elsewhere on this plan, the normal trench alignment on this project shall be parallel to the controlling pavement edge or base line and direct from pole to pole, the special conduit elbows in the pole foundations shall be in a vertical plane along the pole alignment, and the normal offset distance of the poles from face of guard rail shall be 36 inches.~~

~~TRANSFORMER BASE POLES~~

~~For pole designs with a base type letter designation of AT, the transformer base shall be cast aluminum as detailed on this plan. Where the base type letter designation is T, the transformer bases furnished may, at the option of the contractor, be either of cast aluminum or of steel materials meeting the requirements of this plan and the Standard Construction Drawings.~~

625. 17 - 713. 15 CABLE CONNECTORS AND CONNECTOR KITS

The fuse amperage rating shown ~~Standard Construction Drawing HL-3,~~ shall apply to this project:

No. of Lamps Served	Lamp Rating (Watts)	Fuse Rating (Amps)
1	250	10
1	400	10
1	700	10
1	1000	15
2	250	10
2	400	10
2	700	15
2	1000	15

CONDUIT ON STRUCTURES

Expansion fittings for conduit on structures shall be OZ Type AX, Crouse-Hinds XJ-4, Appelton Type XJ-4, or equal approved by the Engineer for bridge numbers

CONDUIT (713. 04) CONCRETE ENCASED

Where called for on the plans, conduit shall be encased with Class "C" Concrete as detailed on Sheet No. 506-B.

Payment for furnishing and placing the concrete encasement and for any additional excavation required shall be included in the unit price bid per lineal foot of Item 625 "Conduit Type (713. 04) Concrete Encased" to which it applies.

625 CONTROL CENTERS

Control center "L#K" shall consist of a combination safety switch and lighting contactors in stainless steel enclosure, 3 pole, 600 V, 30 amp. square "D" Cat. # W939FA 609A, Columbus Electric Works Cat. # CEW-17SS 4630A or equal approved by the Engineer.

Control center "M" shall consist of a safety switch in stainless steel enclosure, 2 pole, 250 V, 30 amp. square "D" Cat. # W999FA 230, Columbus Electric Works Cat # CEW101SS4230300 or equal approved by the Engineer.

All enclosures shall be grounded to a common ground separate from lighting arrester grounds. This common ground may be part of the service pole ground or as shown on the plans.

At the time of installation the "window" of the sensing device in the photo electric cell shall be faced due north, if no marking is provided to indicate aiming the device.

Control center housings shall be NEMA Type 4 fabricated from No. 16 gage or heavier AISI Type 302 or Type 303 annealed stainless steel with a brush finish. All seams shall be fully welded. All bolts used in the assembly and mounting bolts shall conform to ASTM A320 (AISI-300 series).

Payment for Item 625 "Control Centers" will be made at the contract lump sum price, in place, completed, and accepted including wiring, terminals, connections, splicing, testing and all incidentals necessary.

DUCT CABLE PROTECTION

Where duct cable is run under guardrail and between guardrail posts in a flared area, it shall be protected against future damage by one of the five methods as detailed on sheet no. 506B

1. ~~Thread duct cable through a ten foot section of three inch, 713.04, Type III Rigid Metal Conduit. This method shall not be used when more than 50 feet of duct cable must be threaded through conduit.~~

2. ~~Installation of a Class C concrete slab with dimensions of 10'-0" x 1'-0" x 0'-3" placed nine inches above and centered over duct cable.~~

3. ~~Pouring four inches of Class C concrete around duct cable.~~

Payment for furnishing and placing duct cable protection shall be included in the unit price bid for duct cable.

HIGH VOLTAGE DIRECT CURRENT TEST

A High Voltage Test, as described in Supplemental Specification 839, shall be performed on all distribution cable, and duct cable systems installed on this project after all construction is completed, including guardrail, fences, delineator posts, signs, etc.

ALTERNATE LIGHT POLE DESIGNS

On this project, pole shafts shall be tapered but may be of an oval, square, multi-sided or fluted cross section, provided the section is closed. Bracket arms may be either straight or tapered but shall be of a section compatible with that of the pole. In addition, plan requirements for bracket arm styles and rise are hereby waived and any arrangement of pole shaft and bracket arm rise and style which provides the specified mounting height is acceptable. However, all poles furnished for the project shall be of the same cross section and of the same style or family of styles.

ITEM 625 - CONDUIT JACKED UNDER PAVEMENT, AS PER PLAN

This item shall consist of furnishing and installing conduit of the size or sizes indicated under existing pavement and contiguous shoulders by an approved method such as "drilling" or "jacking". The contractor shall place the conduit with least amount of disturbance to the existing pavement, subbase, berm pavement, or shoulders of the roadway. All push pits or any necessary excavations shall be backfilled and restored in accordance with 625.01.
Measurement of the conduit shall be the actual amount of lineal feet installed under pavement and shoulders, measured in place, as accepted by the Engineer. The unit price bid for Item 625 "Conduit Jacked Under Pavement, as per plan" shall be full compensation for excavation, drilling or jacking, backfilling, compaction, restoration, and all labor, material, equipment, and incidentals necessary to complete the work as specified.

PULL BOXES INSTALLED IN MEDIANS

Pull boxes installed in depressed or earth barrier medians as part of a lighting cable crossover shall comply with 713.09 Circular Corrugated Metal Pull Box and shall be provided with grade adjustment extensions. Pull boxes shall be located approximately 6 feet from the lowest point in the median along the centerline of the crossover.
Aggregate type drains shall be provided between the pull box and the low point of the median. Dimensions of the aggregate bed, and the method of payment for same, shall conform to the details for "Normal Installation" as shown on Sheet No. 506

Air bells and/or splicing kits shall not be required unless otherwise directed by the Engineer. Slack shall be provided in each cable as described in 625.24.

DEVELOPED		CHECKED	
NOV. '72	W.C.T.	DEC. '72	R.R.S.

GENERAL SUMMARY LIGHTING QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

489A / 630

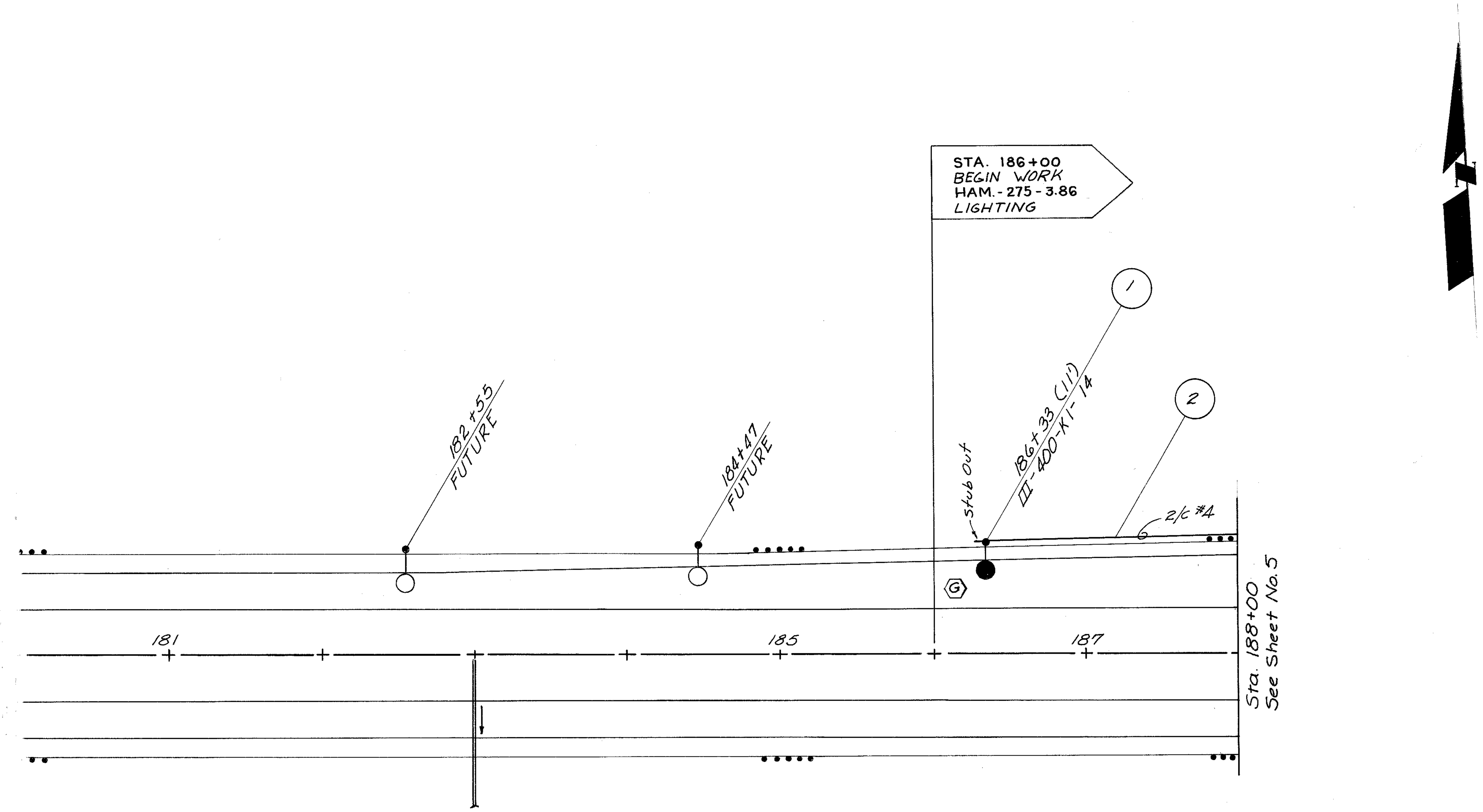
HAM-275-3.86
HAMILTON COUNTY

SHEET NO.	STRUCTURES HAM-275 0399L NORMAL 6	STRUCTURES HAM-275 0399R NORMAL 7	STRUCTURES HAM-275 0620 NORMAL 10	STRUCTURES HAM-275 0726 L NORMAL 15	STRUCTURES HAM-275 0726 R NORMAL 15	STRUCTURES TOTAL	ROADWAY NORMAL 4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	ROADWAY 100% STATE 6	11	16	17	TOTAL	GRAND TOTAL ITEM	QUAN.	UNIT	DESCRIPTION	POLE CODE	REF. LINE NO.
																														TYPE CODE 7223		
														1						1	2						625	2	EACH	LIGHT POLE, DESIGN - AT25 BB 41.7 (TWIN ARM)	X	
														2						4	6				1	1	625	7	EACH	LIGHT POLE, DESIGN - AT 15 B 41.7	D	
								1	4	5							1	1			12						625	12	EACH	LIGHT POLE, DESIGN - T 12 B 34.2	E	
									7	4									8		19			1		1	625	20	EACH	LIGHT POLE, DESIGN - AT 12 B 34.2	F	
							1	4	1		4						2				12						625	12	EACH	LIGHT POLE, DESIGN - T 15 B 34.2	G	
								1	1	2				3			1				8						625	8	EACH	LIGHT POLE, DESIGN - AT 15 B 34.2	H	
		1		1		2																					625	2	EACH	LIGHT POLE, DESIGN - T 12 B 34.2 BRIDGE MOUNTED	I	
										2											2						625	2	EACH	12' BRACKET ARM	M	
														3						5	8				1	1	625	9	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP		
							1	6	13	11	4	-	-	3			4	1	8		51			1		1	625	52	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP		
							1	6	13	13	4	-	4	6			4	1	8	5	65			1	1	2	625	67	EACH	GROUND ROD		
														4						6	10				1	1	625	11	EACH	LUMINAIRE, TYPE III, 700 WATT, 480 VOLT 713.11		
								1	4	5	-	-	-				1		7		18						625	18	EACH	LUMINAIRE, TYPE II, 400 WATT, 480 VOLT 713.11		
		1		1		2	1	5	9	8	4	-	-	3			3	1	1		35			1		1	625	38	EACH	LUMINAIRE, TYPE III, 400 WATT, 480 VOLT 713.11		
														4						6	10				1	1	625	11	EACH	LAMP, 700 WATT 713.14 MERCURY		
		1		1		2	1	6	13	13	4	-	-	3			4	1	8		53			1		1	625	56	EACH	LAMP, 400 WATT 713.14 MERCURY		
								5	9	11	2		3	3	1	2	3	7		3	49						625	49	EACH	PULL BOX 18" 713.09		
								1						1						1	3						625	3	EACH	PULL BOX 18" CIRCULAR, 713.09 WITH GRADE ADJUSTMENT EXTENSION, as per plan.		
							354	2880	3,047	3,288	1158		85	4,070	1,843	2,745	2,367	946	1,506	2,019	26,308						625	26,308	LIN. FT.	TRENCH, 24" DEEP		
	283	276	340	284	286	1469			10	10	20	-	20					40			100						625	1569	LIN. FT.	CONDUIT, TYPE III, 2" 713.04		
								229	406	633	-	-	-	258	-		55			189	1,770						625	1,770	LIN. FT.	CONDUIT, TYPE III, 3" 713.04		
										80			65					165			310						625	310	LIN. FT.	CONDUIT, TYPE III, 3" ENCASED 713.04		
																				70	70						625	70	LIN. FT.	CONDUIT, TYPE III, 3", 713.04 JACKED UNDER PAVEMENT, as per plan.		
		88		88		176	99	588	1,221	1,221	396	-	-	759	-		390	93	744	690	6201			93	114	207	625	6,584	LIN. FT.	#10 AWG POLE AND BRACKET CABLE		
	626	612		512	612	2,362		538	1,242	1626	80	-	150	596	-		1,579	490	-	580	6,881						625	9243	LIN. FT.	#4 AWG DISTRIBUTION CABLE, 600 VOLTS		
												-		306	-				-		306						625	306	LIN. FT.	#2 AWG DISTRIBUTION CABLE, 600 VOLTS		
							364	2731	2,801	2,715	1178			1,620	-	-	923	781	1,586	1,889	16,588						625	16,588	LIN. FT.	1½" DUCT-CABLE WITH 2 #4 AWG CABLES, 600 VOLTS		
														2,282	1,853	2,765					6,900						625	6,900	LIN. FT.	1½" DUCT-CABLE WITH 2 #2 AWG CABLES, 600 VOLTS		
				1		1	1	6	13	14	4	-	-	6	-	-	4	1	8	5	62			1	1	2	625	65	EACH	CONNECTOR KIT, TYPE II		
				1		1	1	6	13	14	4	-	-	6	-	-	4	1	8	5	62			1	1	2	625	65	EACH	CONNECTOR KIT, TYPE III		
							-	-	12	8	4	-	2	6	-	2	-	6	-	2	42						625	42	EACH	CONNECTOR KIT, TYPE I		
	2					2	-	8	10	14	-	-		6	2	2	6	6	-	4	58						625	60	EACH	CONNECTOR KIT, TYPE VII B		
									LUMP												LUMP						625	LUMP	LUMP	SERVICE POLE AND CONTROL CENTER "K"		
													LUMP								LUMP						625	LUMP	LUMP	SERVICE POLE AND CONTROL CENTER "M"		
														LUMP							LUMP						625	LUMP	LUMP	SERVICE POLE AND CONTROL CENTER "L"		
	1					1																					625	1	EACH	STRUCTURE GROUND HAM.-275-0399L		
		1				1																					625	1	EACH	STRUCTURE GROUND HAM.-275-0399R		
			1			1																					625	1	EACH	STRUCTURE GROUND HAM.-275-0620		
				1		1																					625	1	EACH	STRUCTURE GROUND HAM.-275-0726L		
					1	1																					625	1	EACH	STRUCTURE GROUND HAM.-275-0726R		
	2	1	2	1	2	8																					625	8	EACH	JUNCTION BOX, 18" x 8" x 6"		
	1	2	2	2	2	9																					625	9	SET	ANCHOR BOLTS, FOR USE ON STRUCTURE		
																					Lump					Lump	839	LUMP	LUMP	HIGH VOLTAGE TEST		
																						1	1			2	625	2	EACH	25 KVA DISTRIBUTION TRANSFORMER, 2400/7200, 480 VOLTS		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490
630

HAM- 275- 3.86
HAMILTON COUNTY



Scale 1" = 50'

LIGHTING PL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490A
630

HAM-275-3.86
HAMILTON COUNTY

Scale: 1" = 50'

5
39

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490B
630

HAM-275-3.86
HAMILTON COUNTY

Scale: 1" = 50'

6
39

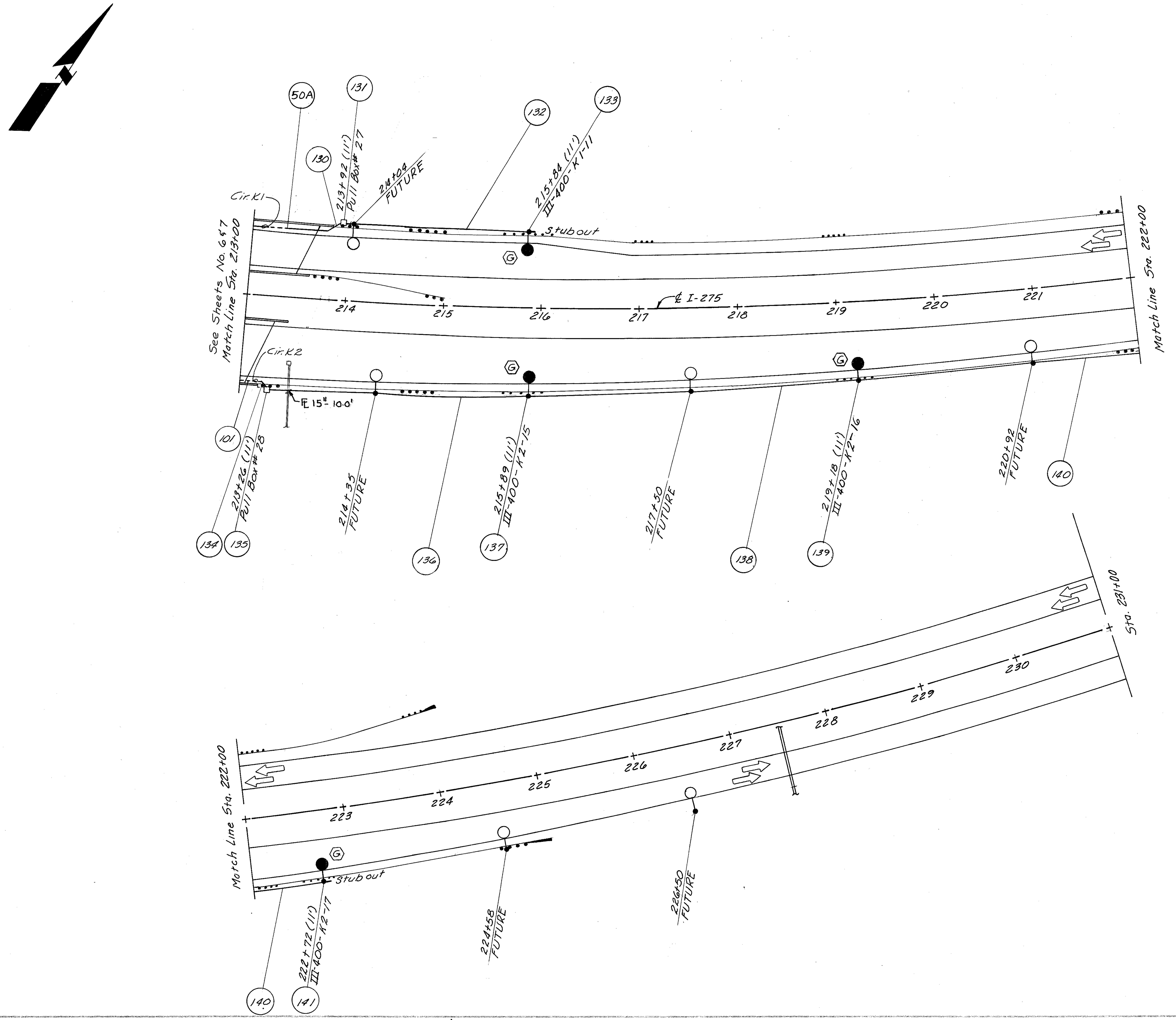
LIGHTING PLAN

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

4900
630

HAM- 275 - 3.86
HAMILTON COUNTY



scale : 1"=50'

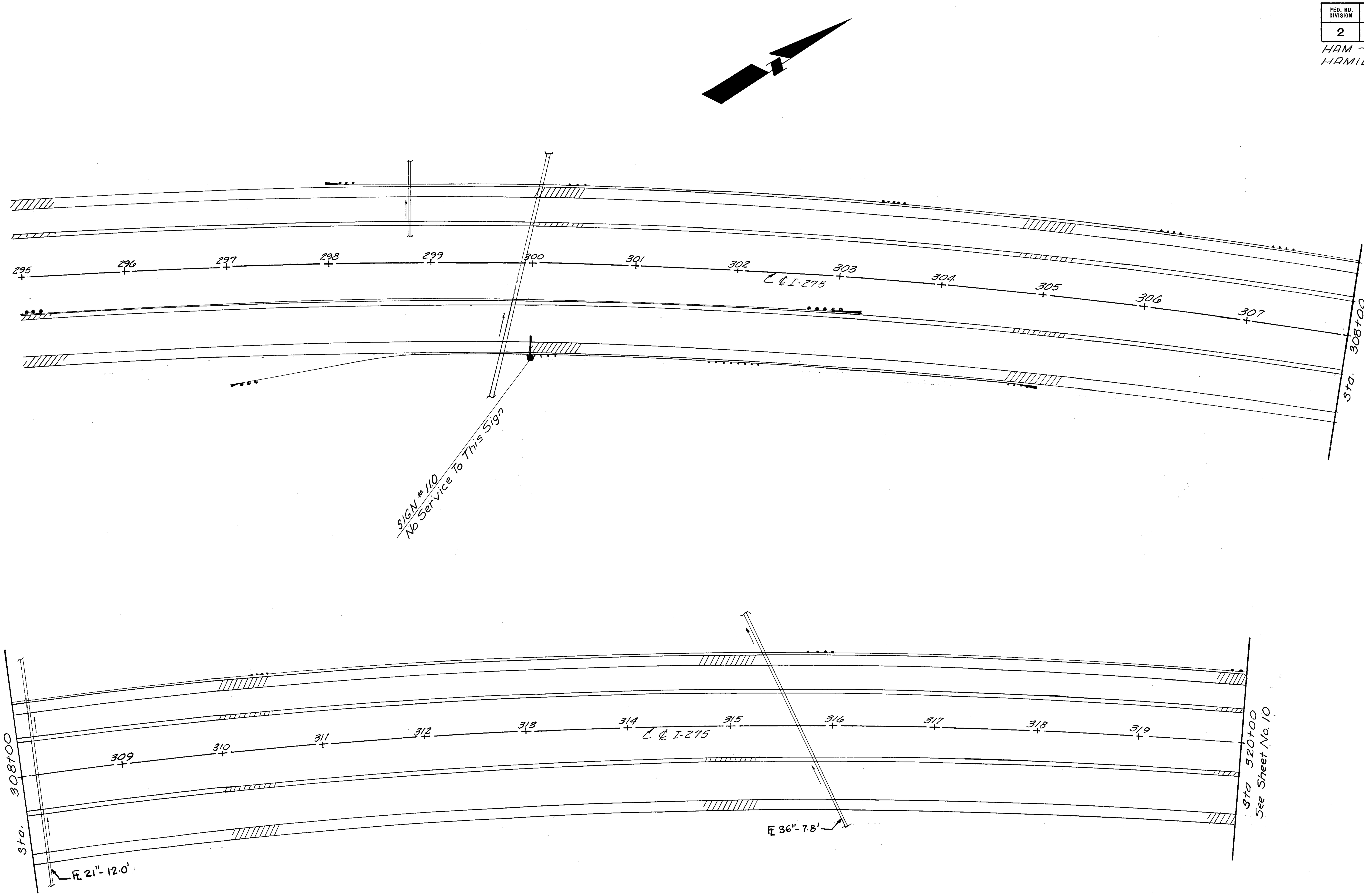
8
39

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490E
630

HAM - 275 - 3.86
HAMILTON COUNTY



Scale: 1"=50'

LIGHTING PLAN

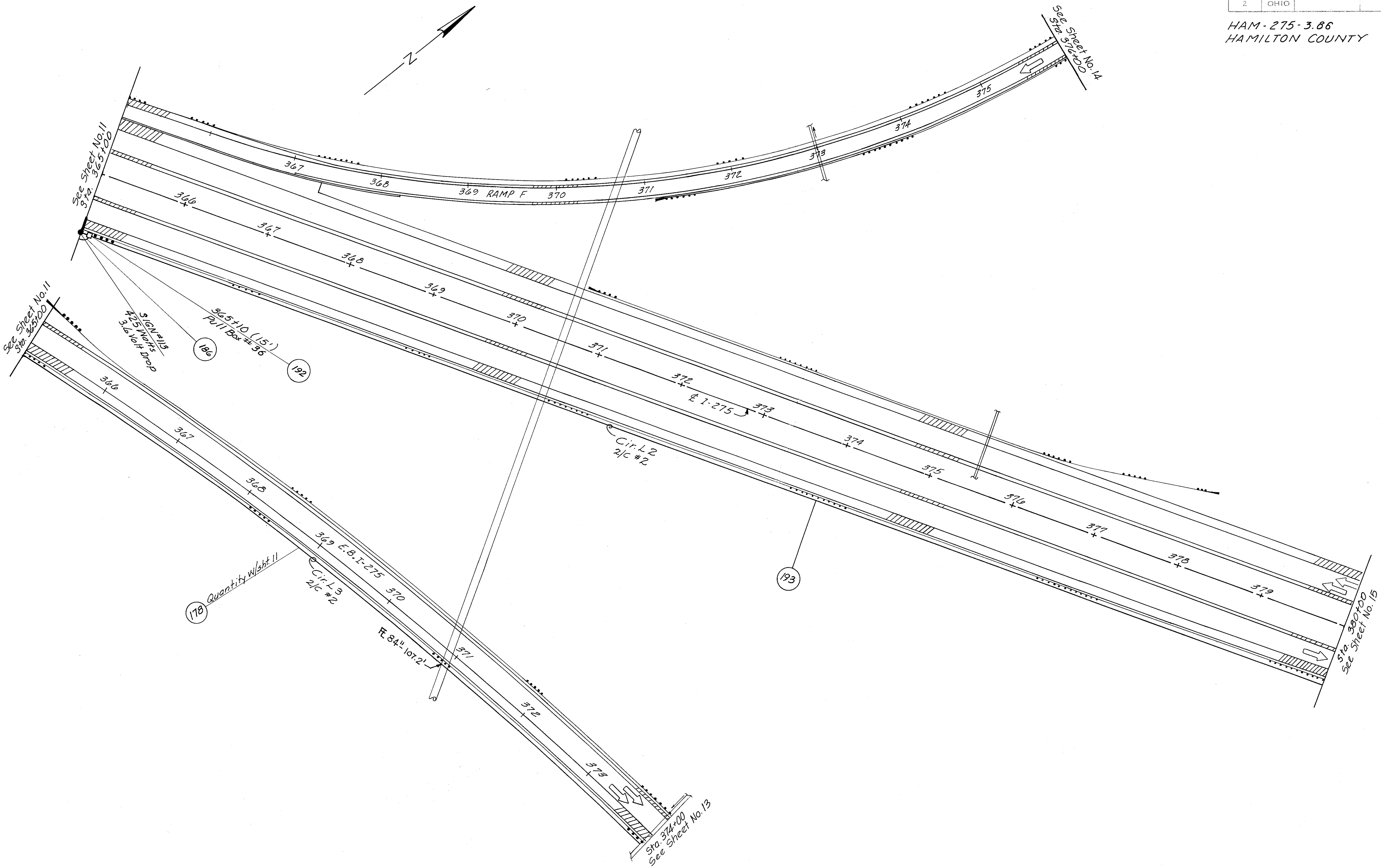
LIGHTING PLAN

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490H
630

HAM-275-3.86
HAMILTON COUNTY



Scale: 1" = 50'

12
39

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490 I
630

HAM-275-3.86
HAMILTON COUNTY

scale: 1" = 50'

13
39

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490J
630

HAM-275-3.86
HAMILTON COUNTY

Scale: 1" = 50'

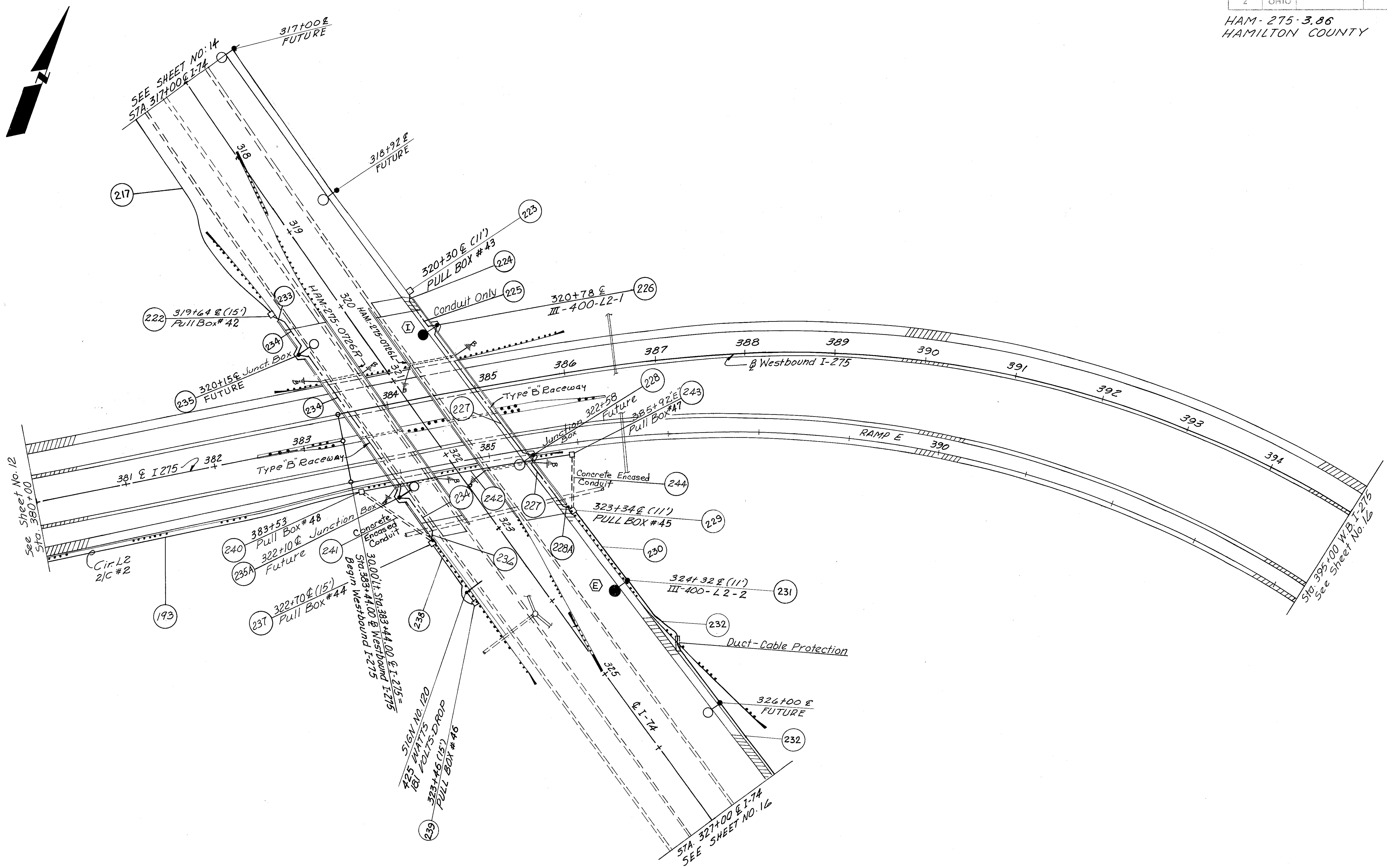
14
39

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490K 630

HAM-275-3.86
HAMILTON COUNTY



Scale: 1"-50'

LIGHTING PLAN

LIGHTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

490M
630

HAM-275-3.86
HAMILTON COUNTY

Scale: 1" = 50'

17
39

LIGHTING PLAN

DEVELOPED	CHECKED
NOV.'72 W.C.T.	DEC.'72 [illegible]

SUB-SUMMARY LIGHTING QUANTITIES

FED RD DIVISION	STATE	PROJECT
2	OHIO	

HAM-275-3.86
HAMILTON COUNTY

Reference Number	Side	Station	Station		Light Pole, Design Y11 AT 25 B 41.7 (Twin)		Light Pole, Design Y11 AT 15 B 41.7	Light Pole, Design E11 T 12 B 34.2	Light Pole, Design E11 AT 12 B 34.2	Light Pole, Design E11 T 15 B 34.2	Light Pole, Design E11 AT 15 B 34.2	Light Pole, Design E7 T 12 B 34.2	Light Pole Foundation 24"x8' Deep	Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"	Pull Box 18" With Grade Adjust Ext. As Per Plans	Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct-Cable	#2 AWG Duct-Cable	#1 AWG Duct-Cable	#1/0 AWG Duct-Cable	#2/0 AWG Duct-Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center K	Service Pole and Control Center M	Service Pole and Control Center L		Structure Ground HAM-275-0399 L	Structure Ground HAM-275-0399 R	Structure Ground HAM-275-0620	Structure Ground HAM-275-0726 L	Structure Ground HAM-275-0726 R	Structure Junction Box	Anchor Bolt "U" Shaped		12' Mast Arm
		UNIT		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		Ea.
1	Lt.	186+33 ℄								1				1	1			1		1							99											1	1																
2	Lt.	186+33 ℄	189+87 ℄																				354										364																						
		TOTAL -	SHEET# 4	-	-	-	-	-	-	1	-	-	-	1	1	-	-	1	-	1	-	-	354	-	-	-	99	-	-	-	-	-	364	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Lt.	189+87 ℄								1				1	1			1		1							99											1	1																
4	Lt.	189+87 ℄	193+16 ℄																				329										339																						
5	Lt.	193+16 ℄								1				1	1			1		1							99											1	1																
6	Lt.	193+16 ℄	199+25 C																				609										619																						
7	Lt.	199+25 C																			1																				2														
8	Lt.	199+25 C	208+00C																				875										885																						
9	Lt./Lt.	199+25 C	199+40 ℄																				47		47			114																											
10	Lt.	199+40 ℄																			1																																		
11	Lt./℄	199+40 ℄	199+40 ℄																				75		75			170																											
12	6'Rt.	199+40																				1																																	
13	℄/Rt.	199+40 ℄	199+40 ℄																				63		63			146																											
14	Rt.	199+40 ℄																			1																				2														
15	Rt.	199+40 ℄	199+30 ℄																				10										20																						
16	Rt.	199+30 ℄									1			1	1			1		1							99											1	1																
17	Rt./Rt.	199+40 ℄	199+41 D																				44		44			108																											
18	Rt.	199+41 D																			1																				2														
19	Rt.	199+41 D	199+80 D																				39										49																						
20	Rt.	199+80D						1						1	1		1			1							93											1	1																
21	Rt./Rt.	199+41 D	197+84 ℄																				151										161																						
22	Rt.	197+84 ℄								1				1	1			1		1							99											1	1																
23	Rt.	197+84 ℄	196+20 ℄																				164										174																						
24	Rt.	196+20 ℄																			1																				2														
25	Rt.	196+20 ℄	191+46 ℄																				474										484																						
26	Rt.	191+46 ℄								1				1	1			1		1							99											1	1																
		TOTAL -	SHEET# 5	-	-	-	-	1	-	4	1	-	-	6	6	-	1	5	-	6	5	1	2880	-	229	-	588	538	-	-	-	-	2731	-	-	-	-	6	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	Lt.	208+00C																			1																				2														
28	Lt./Lt.	208+00C	201+20A																				66		66			152																											
29	Lt.	201+20A																			1																			2															
30	Lt.	201+81A	203+11A																				130										140																						
31	Lt.	203+11A							1					1	1		1			1							93											1	1																
32	Lt.	203+11A	204+61A																				150										160																						
33	Lt.	204+61A						1						1	1		1			1							93											1	1																
34	Lt.	204+61A	206+11A																				150										160																						
35	Lt.	206+11A						1						1	1		1			1							93											1	1																
36	Lt.	206+11A	207+61A																				150										160																						
37	Lt.	207+61A						1						1	1		1			1							93											1	1																
38	Lt.	207+61A	208+06A																				45										55																						
39	Lt.	208+06A																			1																				2														
40	Lt./Lt.	208+06A	207+90℄																				50		50			120																											
41	Lt.	207+90℄									1			1	1			1		1							99											1	1																
42	Lt./Lt.	208+06A	209+32℄																				130										140																						
43	Lt.	209+32℄								1				1	1			1		1							99											1	1																
44	Lt.	209+32℄	210+89℄																				153										163																						
45	Lt.	210+89℄																			1																			2															
46	Lt.	210+89℄	210+99℄																				10	10				40																											
47	Lt.	210+99℄	211+90℄																					91*				202*																			1*								
48	Lt.	211+90℄																																							2*											1*			
49	Lt.	211+90℄	212+34℄																					44*				108*																											
50	Lt.	212+34℄																																																	1*	2*		
50A	Lt.	212+34℄	213+82℄																					148*				316*																											
Structure		Ham-275-0399L	*																					283*				626*													2*						1*					2*	2*		
		SUB-TOTAL	SHEET#6	-	-	-	-	3	1	1	1	-	-	6	6	-	4	2	-	6	4	-	1034	10	116	-	570	312	-	-	-	-	978	-	-	-	-	6	6	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-

18 / 39

DEVELOPED		CHECKED	
NOV. '72	W.C.T.	DEC. '72	R.R.S.

SUB-SUMMARY LIGHTING QUANTITIES

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

HAM-275-3.86
HAMILTON COUNTY

Reference Number	Side	Station	Station		Light Pole, Design Y11 AT25B8 41.7 (Twin)		Light Pole, Design Y11 AT 15 B 41.7	Light Pole, Design E11 T 12 B 34.2	Light Pole, Design E11 AT 12 B 34.2	Light Pole, Design E11 T 15 B 34.2	Light Pole, Design E11 AT 15 B 34.2	Light Pole, Design E7 T 12 B 34.2	Light Pole Foundation 24"x8' Deep	Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"		Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable
		UNIT			Eq.		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
		SUB-TOTAL	SHEET #6	-	-	-	-	3	1	1	1	-	-	6	6	-	4	2		6	4	-	1,034	293	116	-	570	938
51	Lt.	208+00C	208+22C																				22					
52	Lt.	208+22C							1					1	1			1		1							93	
53	Lt./Rt.	208+22C	200+11A																				169					
54	Rt.	208+22A							1					1	1			1		1							93	
55	Rt.	200+11A	198+61A																				150					
									1																			
56	Rt.	198+61A												1	1			1		1							93	
57	Rt.	198+61A	197+11A																				150					
58	Rt.	197+11A							1					1	1			1		1							93	
59	Rt.	197+11A	196+30A																				81					
60	Rt.	196+30A																			1							
61	Rt/Lt.	196+30A	55+74K																				30		30			160
62	Lt.	55+74K																										
63	Rt/Lt.	196+30A	196+30A																				85		85			380
64	Lt.	196+30A																			1							
65	Lt./Rt.	196+30A	54+67K																				112		112			244
66	Rt.	54+67K																			1							
67	Rt.	54+67K	55+70K																				103					
68	Rt.	55+70K						1						1	1			1		1							93	
69	Rt.	55+70K	60+20K																				450					
70	Rt.	60+20K																			1							
71	Rt/Lt.	60+20K	60+20K																				63		63			146
72	Lt.	60+20K							1					1	1			1		1							93	
73	Lt/Lt.	196+30A	54+40K																				33					
74	Lt.	54+40K							1					1	1			1		1							93	
75	Lt.	196+30A	50+55K																				420					
76	Lt.	50+55K																			1							
77	Lt.	50+55K	49+10K																				145					
Structure	Total HAM. 275-0399L *																							283*				626*
		TOTAL -	SHEET #6	-	-	-	-	4	7	1	1	-	-	13	13	-	4	9	-	13	9	-	3047	10	406	-	1221	1242
78	Lt.	49+10K																			1							
79	Lt./Rt.	49+10K	49+10K																				88		88			196
80	Rt.	49+10K																			1							
81A	Rt/Lt.	210+30℄	48+15K																				80			80		180
81	Lt./Rt.	49+10K	48+15K																				95					
82	Lt.	48+15K																			1							
83	Rt.	197+05B	48+15K																				580					
84	Rt.	197+05B																			1							
85	Rt.	202+05B									1			1	1		1			1							99	
86	Rt.	202+05B	203+55B																				150					
87	Rt.	203+55B						1						1	1		1			1							93	
88	Rt.	203+55B	205+05B																				150					
89	Rt.	205+05B						1						1	1		1			1							93	
90	Rt.	205+05B	206+55B																				150					
91	Rt.	206+55B						1						1	1		1			1							93	
92	Rt.	206+55B	208+05B																				150					
93	Rt.	208+05B						1						1	1		1			1							93	
94	Rt./Rt.	208+05B	210+30℄																				221					
95	Rt.	210+30℄																			1							
96	Rt.	210+30℄	210+40℄																				10	10				40
97	Rt.	210+40℄	211+25℄																					85*				190*
98	Rt.	211+25℄																										
99	Rt.	211+25℄	212+80℄																					155*				330*
100	Rt.	212+80℄										1*						1*		1*							88*	
101	Rt.	212+80℄	213+16℄																					36*				92*
Structure	Ham. 275-0399R *											1*						1*		1*				276*			88*	612*
		SUB-TOTAL	SHEET #7	-	-	-	-	4	-	-	1	-	-	5	5	-	5	-	-	5	5		1674	10	88	80	471	416

Reference Number	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct-Cable	#2 AWG Duct-Cable	#1 AWG Duct-Cable	#1/0 AWG Duct-Cable	#2/0 AWG Duct-Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center K	Service Pole and Control Center M	Service Pole and Control Center L	25 KVA Distribution Transformer	Structure Ground HAM-275-0399 L	Structure Ground HAM-275-0399 R	Structure Ground HAM-275-0620	Structure Ground HAM-275-0726 L	Structure Ground HAM-275-0726 R	Structure Junction Box	Anchor Bolt "U" Shaped		12' Mast Arm
UNIT	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		Ea.
SUB-TOTAL SHEET #6	-	-	-	-	978	-	-	-	-	6	6	4	6		-	-	-		1	-	-	-	-	2	2		-
51					32																						
52										1	1																
53					179																						
54										1	1																
55					160																						
56										1	1																
57					160																						
58										1	1																
59					91																						
60												2	2														
61																											
62															LUMP			1 #									
63																											
64												2	2														
65																											
66												2															
67					113																						
68										1	1																
69					460																						
70												2															
71																											
72										1	1																
73					43																						
74										1	1																
75					430																						
76													2														
77					155																						
Structure Total HAM. 275-0399L *													2*						1*					2*	2*		
TOTAL - SHEET #6	-	-	-	-	2801	-	-	-	-	13	13	12	10		LUMP	-	-	1 #		-	-	-	-	-	-		-
78													2														
79																											
80												2															
81A																											
81					105																						
82													2														
83					590																						
84													2														
85										1	1																
86					160																						
87										1	1																
88					160																						
89										1	1																
90					160																						
91										1	1																
92					160																						
93										1	1																
94					231																						
95													2														
96																											
97																				1*							
98																								1*	2*		
99																											
100										1	1														2*		
101																											
Structure Ham. 275-0399R *																				1*				1*	4*		
SUB-TOTAL SHEET #7	-	-	-	-	1566	-	-	-	-	6	6	2	8	-	-	-	-	-	-	-	-	-	-	-	-		

100% STATE PARTICIPATION

SUB-SUMMARY LIGHTING QUANTITIES

Reference Number	Side	Station	Station	Light Pole, Design Y11 T 12 B 41.7	Light Pole, Design Y11 AT25.8B 41.7 (Twin)	Light Pole, Design Y11 T 15 B 41.7	Light Pole, Design Y11 AT 15 B 41.7	Light Pole, Design E11 T 12 B 34.2	Light Pole, Design E11 AT 12 B 34.2	Light Pole, Design E11 T 15 B 34.2	Light Pole, Design E11 AT 15 B 34.2	Light Pole, Design E7 T 12 B 34.2	Light Pole Foundation 24"x8' Deep	Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"		Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct - Cable	#2 AWG Duct - Cable	#1 AWG Duct - Cable	#1/0 AWG Duct - Cable	#2/0 AWG Duct - Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center K	Service Pole and Control Center M	Service Pole and Control Center L		Structure Ground HAM-275-0399 L	Structure Ground HAM-275-0399 R	Structure Ground HAM-275-0620	Structure Ground HAM-275-0726 L	Structure Ground HAM-275-0726 R	Structure Junction Box	Anchor Bolt "U" Shaped		12' Bracket Arm
		UNIT		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		Ea.
		SUB-TOTAL - SHEET #7		-	-	-	-	4	-	-	1	1*	-	5	5	-	5	1*	-	6	5	-	1674	286	88	80	559	1028	-	-	-	-	1566	-	-	-	-	6	6	2	8	-	-	-	-		-	1*	-	-	-	1*	4*		-
102	Rt./Lt.	197+05 B	197+05 B																				87		87			194																											
103	Lt.	197+05 B																			1																				2														
104	Lt./Lt.	197+05 B	41+41 K																				60										70																						
105	Lt.	41+41 K													1			1		1							93											1	1																1
106	Lt.	197+05 B	197+20 B																				15										25																						
107	Lt.	197+20 B							1					1	1			1		1							93											1	1																
108	Lt./Rt.	197+20 B	210+07 D																				170										180																						
109	Rt.	210+07 D							1					1	1			1		1							93											1	1																
110	Rt.	210+07 D	208+40 D																				167										177																						
111	Rt.	208+40 D						1						1	1			1		1							93											1	1																
112	Rt./Rt.	197+05 B	42+47 K																				132		132			284																											
113	Rt.	42+47 K																			1																				2														
114	Rt.	42+47 K	42+60 K																				13										23																						
115	Rt.	42+60 K													1			1		1							93											1	1																1
116	Rt.	42+47 K	39+06 K																				341										351																						
117	Rt.	39+06 K									1			1	1			1		1							99											1	1																
118	Rt.	39+06 K	38+89 K																				17										27																						
119	Rt.	38+89 K																			1																			2															
120	Rt.	38+89 K	37+71 K																				118		118			256																											
121	Rt.	37+71 K																			1																				2														
122	Rt./Lt.	37+71 K	37+71 K																				90		90			200																											
123	Lt.	37+71 K							1					1	1			1		1							93											1	1																
124	Rt.	37+71 K	34+85 K																				286										296																						
125	Rt.	34+85 K																			1																			2															
126	Rt.	34+85 K	34+40 K																				45		45			110																											
127	Rt.	34+40 K																			1																			2															
128	Rt./Lt.	34+40 K	34+40 K																				73		73			166																											
129	Lt.	34+40 K							1					1	1			1		1							93											1	1																
*Structure Total HAM.275-03992 **												1*						1*		1*				276*			88*	612*																			1*				1*	4*		
		TOTAL	SHEET #7	-	-	-	-	5	4	-	2	-	-	11	13	-	5	8	-	13	11	-	3288	10	633	80	1221	1626	-	-	-	-	2715	-	-	-	-	14	14	8	14	-	-	-	-		-	-	-	-	-	-	-		2
130	Lt.	213+82	213+92 ℄																				10	10				40																											
131	Lt.	213+92 ℄																			1																			2															
132	Lt.	213+92 ℄	215+84 ℄																				192										202																						
133	Lt.	215+84 ℄								1				1	1			1		1							99											1	1																
134	Rt.	213+16 ℄	213+26 ℄																				10	10				40																											
135	Rt.	213+26 ℄																			1																			2															
136	Rt.	213+26 ℄	215+89 ℄																				263										273																						
137	Rt.	215+89 ℄								1				1	1			1		1							99											1	1																
138	Rt.	215+89 ℄	219+18 ℄																				329										339																						
139	Rt.	219+18 ℄								1				1	1			1		1							99											1	1																
140	Rt.	219+18 ℄	222+72 ℄																				354										364																						
141	Rt.	222+72 ℄								1				1	1			1		1							99											1	1																
		TOTAL	SHEET #8	-	-	-	-	-	-	4	-	-	-	4	4	-	-	4	-	4	2	-	1,158	20	-	-	396	80	-	-	-	-	1,178	-	-	-	-	4	4	4	-	-	-	-	-										
142																																																							
143																																																							
144																																																							
145																																																							
146																																																							
		TOTAL	SHEET #9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-		

DEVELOPED		CHECKED	
NOV.'72	W.C.T.	DEC.'72	R.B.J.

SUB-SUMMARY LIGHTING QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-3.86
HAMILTON COUNTY

Reference Number	Side	Station	Station	Light Pole, Design Y11 T 12 B 41.7	Light Pole, Design Y11 AT25BB 41.7 (Twin)	Light Pole, Design Y11 T 15 B 41.7	Light Pole, Design Y11 AT 15 B 41.7	Light Pole, Design E11 T 12 B 34.2	Light Pole, Design E11 AT 12 B 34.2	Light Pole, Design E11 T 15 B 34.2	Light Pole, Design E11 AT 15 B 34.2	Light Pole, Design E7 T 12 B 34.2	Light Pole Foundation 24"x8' Deep	Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"	Pull Box 18" with Grade Adjust Ext. As per Plan
		UNIT		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
148	Rt.	326+85 ℄																			1	
149	Rt.	18+00 M	326+85 ℄																			
150	Rt.	18+00 M																				
151	Rt.&Lt.	322+50 ℄	328+00 ℄												4⊙							
152		Not Used																				
153		Not Used																				
154		Not Used																				
155	Lt.	18+02 M																			1	
156	Lt.	18+02 M	18+12 M																			
157	Lt.	18+12 M	18+87 M																			
158	Lt.	18+87 M																				
159	Lt.	18+87 M	20+68 M																			
160	Lt.	20+68 M																				
161	Lt.	20+68 M	21+52 M																			
162	Lt.	21+52 M	21+62 M																			
163	Lt.	21+62 M																			1	
164	Rt.	Not Used																				
165	Rt.	Not Used																				
166	Rt.	Not Used																				
167	Rt.	Not Used																				
STRUCTURE TOTAL HAM 275-0620 ●																						
		TOTAL -	SHEET #10	-	-	-	-	-	-	-	-	-	-	-	4⊙	-	-	-	-	-	3	-
168		Not Used																				
169	Rt.	351+55 ℄					1						1		1	1			1			
170	Rt.	351+55 ℄	354+50 ℄																			
171	Rt.	354+50 ℄																			1	
172	Rt.	354+50 ℄	358+37 ℄																			
173	Rt.	358+37 ℄					1						1		1	1			1			
174	Rt.|Rt.	358+37 ℄	360+32 EB																			
175	Rt.	360+32 EB																			1	
176	Rt.	360+32 EB	360+32 EB																			
177	Rt.	360+32 EB																				
178	Rt.	360+32 EB	378+10 EB																			
179	Lt.	360+32 EB																				
180	Rt.	360+36 ℄			1								1		1	2			2			
181	Rt.	360+36 ℄																				
182	Rt.|℄	360+36 ℄																				1
183	℄	360+36 ℄																				
184	℄/Lt.	360+36 ℄																			1	
185	Lt.	360+36 ℄	361+51 ℄																			
186	Rt.	360+36 ℄	365+10 ℄																			
187	Lt.	354+68 ℄									1			1	1			1		1		
188	Lt.	354+68 ℄	358+22 ℄																			
189	Lt.	358+22 ℄									1			1	1			1		1		
190	Lt.	358+22 ℄	360+36 ℄																			
191	Lt.	361+51 ℄									1			1	1			1		1		
		TOTAL	SHEET #11	-	1	-	2		-	-	3	-	3	3	6	4	-	3	4	3	3	1
192	Rt.	365+10 ℄																			1	
193	Rt.	365+10 ℄	383+53 ℄																			
		TOTAL	SHEET #12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
194	Rt.	378+10 EB																			1	
195	Rt.	378+10 EB	391+80 EB																			
196	Rt.	391+80 EB																			1	
197	Rt.	391+80 EB	405+55 EB																			
		TOTAL	SHEET #13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-

Reference Number	Side	Station	Station	Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct - Cable	#2 AWG Duct - Cable	#1 AWG Duct - Cable	#1/0 AWG Duct - Cable	#2/0 AWG Duct - Cable
		UNIT		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
148	Rt.	326+85 ℄																
149	Rt.	18+00 M	326+85 ℄	65			65		150									
150	Rt.	18+00 M																
151	Rt.&Lt.	322+50 ℄	328+00 ℄															
152		Not Used																
153		Not Used																
154		Not Used																
155	Lt.	18+02 M																
156	Lt.	18+02 M	18+12 M	10	10													
157	Lt.	18+12 M	18+87 M		75●													
158	Lt.	18+87 M																
159	Lt.	18+87 M	20+68 M		181●													
160	Lt.	20+68 M																
161	Lt.	20+68 M	21+52 M		84●													
162	Lt.	21+52 M	21+62 M	10	10													
163	Lt.	21+62 M																
164	Rt.	Not Used																
165	Rt.	Not Used																
166	Rt.	Not Used																
167	Rt.	Not Used																
STRUCTURE TOTAL HAM 275-0620 ●					340													
		TOTAL -	SHEET #10	85	20	-	65	-	150	-	-	-	-	-	-	-	-	-
168		Not Used																
169	Rt.	351+55 ℄						114										
170	Rt.	351+55 ℄	354+50 ℄	295										305				
171	Rt.	354+50 ℄																
172	Rt.	354+50 ℄	358+37 ℄	387										397				
173	Rt.	358+37 ℄						114										
174	Rt.|Rt.	358+37 ℄	360+32 EB	195										205				
175	Rt.	360+32 EB																
176	Rt.	360+32 EB	360+32 EB	30		30			80	160								
177	Rt.	360+32 EB																
178	Rt.	360+32 EB	378+10 EB	1,778											1,788			
179	Lt.	360+32 EB		63		63			146	146								
180	Rt.	360+36 ℄						234										
181	Rt.	360+36 ℄		85		85			190									
182	Rt.|℄	360+36 ℄																
183	℄	360+36 ℄		80		80			180									
184	℄/Lt.	360+36 ℄																
185	Lt.	360+36 ℄	361+51 ℄	115										125				
186	Rt.	360+36 ℄	365+10 ℄	474											494			
187	Lt.	354+68 ℄						99										
188	Lt.	354+68 ℄	358+22 ℄	354										364				
189	Lt.	358+22 ℄						99										
190	Lt.	358+22 ℄	360+36 ℄	214										224				
191	Lt.	361+51 ℄						99										
		TOTAL	SHEET #11	4070	-	258	-	759	596	306	-	-	-	1620	2282	-	-	-
192	Rt.	365+10 ℄																
193	Rt.	365+10 ℄	383+53 ℄	1843											1853			
		TOTAL	SHEET #12	1843	-	-	-	-	-	-	-	-	-	-	1853	-	-	-
194	Rt.	378+10 EB																
195	Rt.	378+10 EB	391+80 EB	1370											1380			
196	Rt.	391+80 EB																
197	Rt.	391+80 EB	405+55 EB	1375											1385			
		TOTAL	SHEET #13	2745	-	-	-	-	-	-	-	-	-	-	2765	-	-	-

Reference Number	Side	Station	Station	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center K	Service Pole and Control Center M	Service Pole and Control Center L	25 KVA Distribution Transformer	Structure Ground HAM-275-0399 L	Structure Ground HAM-275-0399 R	Structure Ground HAM-275-0620	Structure Ground HAM-275-0726 L	Structure Ground HAM-275-0726 R	Structure Junction Box	Anchor Bolt "U" Shaped	12' Mast Arm
		UNIT		Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump	EA.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
148	Rt.	326+85 ℄				2														
149	Rt.	18+00 M	326+85 ℄																	
150	Rt.	18+00 M								LUMP										
151	Rt.&Lt.	322+50 ℄	328+00 ℄																	
152		Not Used																		
153		Not Used																		
154		Not Used																		
155	Lt.	18+02 M																		
156	Lt.	18+02 M	18+12 M																	
157	Lt.	18+12 M	18+87 M												1●					
158	Lt.	18+87 M																1●	2●	
159	Lt.	18+87 M	20+68 M																	
160	Lt.	20+68 M																1●	2●	
161	Lt.	20+68 M	21+52 M																	
162	Lt.	21+52 M	21+62 M																	
163	Lt.	21+62 M																		
164	Rt.	Not Used																		
165	Rt.	Not Used																		
166	Rt.	Not Used																		
167	Rt.	Not Used																		
STRUCTURE TOTAL HAM 275-0620 ●															1			2	4	
		TOTAL -	SHEET #10	-	-	2	-	-	-	LUMP	-		-	-		-	-			-
168		Not Used																		
169	Rt.	351+55 ℄		1	1															
170	Rt.	351+55 ℄	354+50 ℄																	
171	Rt.	354+50 ℄					2													
172	Rt.	354+50 ℄	358+37 ℄																	
173	Rt.	358+37 ℄		1	1															
174	Rt.|Rt.	358+37 ℄	360+32 EB																	
175	Rt.	360+32 EB				4	2													
176	Rt.	360+32 EB	360+32 EB																	
177	Rt.	360+32 EB									Lump	1 #								
178	Rt.	360+32 EB	378+10 EB																	
179	Lt.	360+32 EB																		
180	Rt.	360+36 ℄		1	1	2														
181	Rt.	360+36 ℄																		
182	Rt.|℄	360+36 ℄																		
183	℄	360+36 ℄																		
184	℄/Lt.	360+36 ℄					2													
185	Lt.	360+36 ℄	361+51 ℄																	
186	Rt.	360+36 ℄	365+10 ℄																	
187	Lt.	354+68 ℄		1	1															
188	Lt.	354+68 ℄	358+22 ℄																	
189	Lt.	358+22 ℄		1	1															
190	Lt.	358+22 ℄	360+36 ℄																	
191	Lt.	361+51 ℄		1	1															
		TOTAL	SHEET #11	6	6	6	6	-	-		Lump	1 #	-	-	-	-	-	-	-	-
192	Rt.	365+10 ℄					2													
193	Rt.	365+10 ℄	383+53 ℄																	
		TOTAL	SHEET #12	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
194	Rt.	378+10 EB					2													
195	Rt.	378+10 EB	391+80 EB																	
196	Rt.	391+80 EB				2														
197	Rt.	391+80 EB	405+55 EB																	
		TOTAL	SHEET #13	-	-	2	2	-	-	-	-		-	-	-	-	-	-	-	-

⊙ DENOTES GROUNDING OF HIGHWAY R/W FENCE

100% STATE PARTICIPATION

DEVELOPED		CHECKED	
NOV. '72	W.C.T.	DEC. '72	R.R.S.

SUB-SUMMARY LIGHTING QUANTITIES

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

HAM-275-3.86
HAMILTON COUNTY

Reference Number	Side	Station	Station		Light Pole, Design Y11 AT 25 B 41.7 (Twin)		Light Pole, Design Y11 AT 15 B 41.7	Light Pole, Design E11 T 12 B 34.2	Light Pole, Design E11 AT 12 B 34.2	Light Pole, Design E11 T 15 B 34.2	Light Pole, Design E11 AT 15 B 34.2	Light Pole, Design E7 T 12 B 34.2	Light Pole Foundation 24"x8' Deep	Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"		Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct - Cable	#2 AWG Duct - Cable	#1 AWG Duct - Cable	#1/0 AWG Duct - Cable	#2/0 AWG Duct - Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center K	Service Pole and Control Center M	Service Pole and Control Center L		Structure Ground HAM-275-0399 L	Structure Ground HAM-275-0399 R	Structure Ground HAM-275-0620	Structure Ground HAM-275-0726 L	Structure Ground HAM-275-0726 R	Structure Junction Box	Anchor Bolt "U" Shaped		12' Mast Arm
		UNIT			Ea.		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		Ea.
198																																																							
199																																																							
200																																																							
201																																																							
202																																																							
204	Rt.	294+86℄	I-74							1				1	1			1		1							99											1	1																
205	Rt.	294+86℄	299+70℄																				484										494																						
206	Rt.	299+70℄																			1																				2														
207	Rt.	299+70℄	301+40℄																				170										180																						
208	Rt.	301+40℄								1				1	1			1		1							99											1	1																
209	Rt.	301+40℄	386+25F																				170										180																						
210	Rt.	386+25F																			1																				2														
211	Rt.	386+25F	386+04F																				21										31																						
212	Rt.	386+04F						1						1	1		1			1							93											1	1																
213	Rt./Rt.	386+25F	303+15℄																				55		55			130																											
214	Rt.	303+15℄																			1																				2														
215	Rt.	303+15℄	302+87℄																				28										38																						
216	Rt.	302+87℄									1			1	1			1		1							99											1	1																
217	Rt.	303+15℄	319+64℄																				1439					1449																											
218																																																							
		TOTAL	SHEET #14	-	-	-	-	1	-	2	1	-	-	4	4	-	1	3	-	4	3	-	2367	-	55	-	390	1579	-	-	-	-	923	-	-	-	-	4	4	-	6	-	-	-	-		-	-	-	-	-	-	-		-
222	Rt.	319+64℄	I-74																		1																			2															
223	Lt.	320+30℄																			1																																		
224	Lt.	320+30℄	320+40℄																				10	10																															
225	Lt.	320+40℄	320+78℄																					38*																															
226	Lt.	320+78℄										1*						1*		1*							88*											1*	1*														2*		
227	Lt.	320+78℄	323+24℄																					246*				512*																						1*					
228	Lt.	322+58℄																																																		1*	2*		
228A	Lt.	323+24℄	323+34℄																				10	10				40																											
229	Lt.	323+34℄																			1																				2														
230	Lt.	323+34℄	324+32℄																				98										108																						
231	Lt.	324+32℄						1						1	1			1		1							93											1	1																
232	Lt.	324+32℄	327+61℄																				329										339																						
233	Rt.	319+64℄	319+74℄																				10	10				40																											
234	Rt.	319+74℄	322+60℄																					286●				612●																							1●				
235	Rt.	320+15℄																																																		1●	2●		
235A	Rt.	322+10℄																																																		1●	2●		
236	Rt.	322+60℄	322+70℄																				10	10				40																											
237	Rt.	322+70℄																			1																				2														
238	Rt.	322+70℄	323+46℄																				76										86																						
239	Rt.	323+46℄																			1																			2															
240	Rt.	383+53℄	I-275																		1																				2														
241	Rt.	383+53℄ I-275	322+70℄ I-74																				100			100		220																											
242	Rt.	383+53℄	385+92"E"																				238										248																						
243	Rt.	385+92"E"																			1																			2															
244	Rt./Lt.	385+92"E"	323+34℄ I-74																				65			65		150																											
*STRUCTURE TOTAL HAM 275-0726L												1*						1*		1*				284*			88*	512*										1*	1*											1*		1*	4*		
●STRUCTURE TOTAL HAM 275-0726R																								286●				612●																							1●	2●	4●		
ROADWAY TOTAL SHEET #15								1						1	1			1		1	7		946	40		165	93	490					781					1	1	6	6														

SUB-SUMMARY LIGHTING QUANTITIES

DEVELOPED		CHECKED	
NOV. '72	W.C.T.	DEC. '72	R.R.E.

NOTE: "△" DENOTES 100% STATE PARTICIPATION

SUB-SUMMARY LIGHTING QUANTITIES

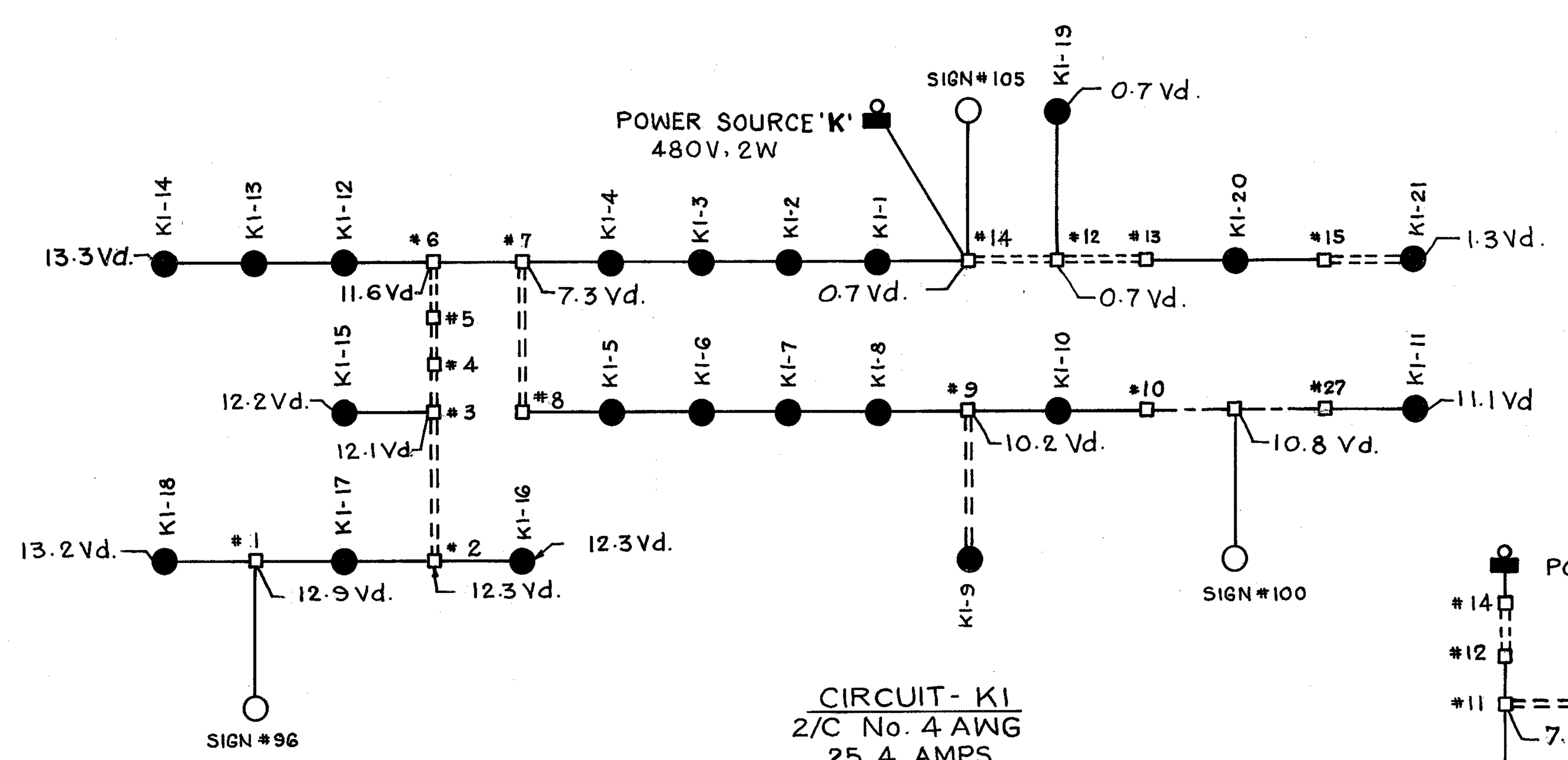
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

HAM-275-3.86
HAMILTON COUNTY

Reference Number	Side	Station	Station	Light Pole, Design Y11 T 12 B 41.7	Light Pole, Design Y11 AT25BB 41.7 (Twin)	Light Pole, Design Y11 T 15 B 41.7	Light Pole, Design Y11 AT 15 B 41.7	Light Pole, Design E11 T 12 B 34.2	Light Pole, Design E11 AT 12 B 34.2	Light Pole, Design E11 T 15 B 34.2	Light Pole, Design E11 AT 15 B 34.2	Light Pole, Design E7 T 12 B 34.2	Light Pole Foundation 24"x8' Deep	Light Pole Foundation 24"x6' Deep	Ground Rod	Luminaire, Type III 700 Watt	Luminaire, Type II 400 Watt	Luminaire, Type III 400 Watt	Lamp, 700 Watt	Lamp, 400 Watt	Pull Box 18"	Pull Box 18" with Grade Adjust. Ext. as per plan	Trench	Conduit 2"	Conduit 3"	Conduit 3" Encased	#10 AWG Pole and Bracket Cable	#4 AWG Distribution Cable	#2 AWG Distribution Cable	#1 AWG Distribution Cable	#1/0 AWG Distribution Cable	#2/0 AWG Distribution Cable	#4 AWG Duct - Cable	#2 AWG Duct - Cable	#1 AWG Duct - Cable	#1/0 AWG Duct - Cable	#2/0 AWG Duct - Cable	Connector Kit Type II	Connector Kit Type III	Connector Kit Type I	Connector Kit Type VII B	Connector Kit Type VII C	Service Pole and Control Center K	Service Pole and Control Center M	Service Pole and Control Center L	Conduit 3" Jacked Under Pavement	Structure Ground HAM-275-0399 L	Structure Ground HAM-275-0399 R	Structure Ground HAM-275-0620	Structure Ground HAM-275-0726 L	Structure Ground HAM-275-0726 R	Structure Junction Box	Anchor Bolt "U" Shaped	12' Mast Arm
		UNIT		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Lump	Lump	Lump	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
245	Lt.	327+611-74							1					1	1			1		1							93											1	1															
246	Lt.	327+611-74	330+69 I-74																				308										318																					
247	Lt.	330+691-74							1 △					1 △	1 △			1 △		1 △							93 △											1 △	1 △															
248	Lt./Rt.	330+691-74	407+75 E																				298										308																					
249	Rt.	407+75 E							1					1	1		1			1							93											1	1															
250	Rt.	407+75 E	406+25 E																				150										160																					
251	Rt.	406+25E							1					1	1		1			1							93											1	1															
252	Rt.	406+25E	404+75E																				150										160																					
253	Rt.	404+75E							1					1	1		1			1							93											1	1															
254	Rt.	404+75 E	403+25E																				150										160																					
255	Rt.	403+25 E							1					1	1		1			1							93											1	1															
256	Rt.	403+25 E	401+75 E																				150										160																					
257	Rt.	401+75 E							1					1	1		1			1							93											1	1															
258	Rt.	401+75 E	400+25E																				150										160																					
259	Rt.	400+25E							1					1	1		1			1							93											1	1															
260	Rt.	400+25E	398+75E																				150										160																					
261	Rt.	398+75 E							1					1	1		1			1							93											1	1															
△ 100% STATE PARTICIPATION TOTAL									1					1	1			1		1							93											1	1															
PROJECT TOTAL			SHEET#16	-	-	-	-	-	8	-	-	-	-	8	8	-	7	1	-	8	-	-	1,506	-	-	-	744	-	-	-	-	-	1,586	-	-	-	-	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
262	Rt.	405+55℄ I-74																			1																				2													
263	Rt/Rt	405+55℄	350+27 ℄																				127		127			274																										
264		NOT USED																																																				
265	Rt./Rt.	405+55EB	352+40I-74																				175										185																					
266	Rt.	352+40I-74					1						1		1	1			1								114											1	1															
267	Rt.	352+40I-74	356+20I-74																				380										390																					
268	Rt.	356+20I-74					1						1		1	1			1								114											1	1															
269	Rt.	356+20I-74	360+40I-74																				420										430																					
270	Rt.	360+40℄					1						1		1	1			1								114											1	1															
271	Lt.	350+27 I-74																				1																																
272	Lt.	350+27 I-74																										160																		70								
273	Lt.	350+27 I-74			1								1		1	2			2								234											1	1															
274	Lt.	350+27 I-74	418+75 WB																				63		63			146																										
275	Lt.	418+75 WB																			1																			2														
276		Not Used																																																				
277		Not Used																																																				
278		Not Used																																																				
279		Not Used																																																				
280		Not Used																																																				
281		Not Used																																																				
282		Not Used																																																				
283	Lt./Lt.	418+75 WB	352+36I-74																				190										200																					
284	Lt.	352+36I-74					1						1		1	1			1								114											1	1															
285	Lt.	352+36I-74	355+70I-74																				334										344																					
286	Lt.	355+70I-74																			1																				2													
287	Lt.	355+70I-74	359+00I-74																				330										340																					
288	Lt.	359+00I-74					1 △						1 △		1 △	1 △			1 △								114 △											1 △	1 △															
△ 100% STATE PARTICIPATION TOTAL							1						1		1	1			1								114											1	1															
PROJECT TOTAL			SHEET#17	-	1	-	4	-	-	-	-	-	5	-	5	6	-	-	6	-	3	1	2019	-	189	-	690	580	-	-	-	-	1889	-	-	-	-	5	5	2	4	-	-	-	-	70	-	-	-	-	-	-	-	-

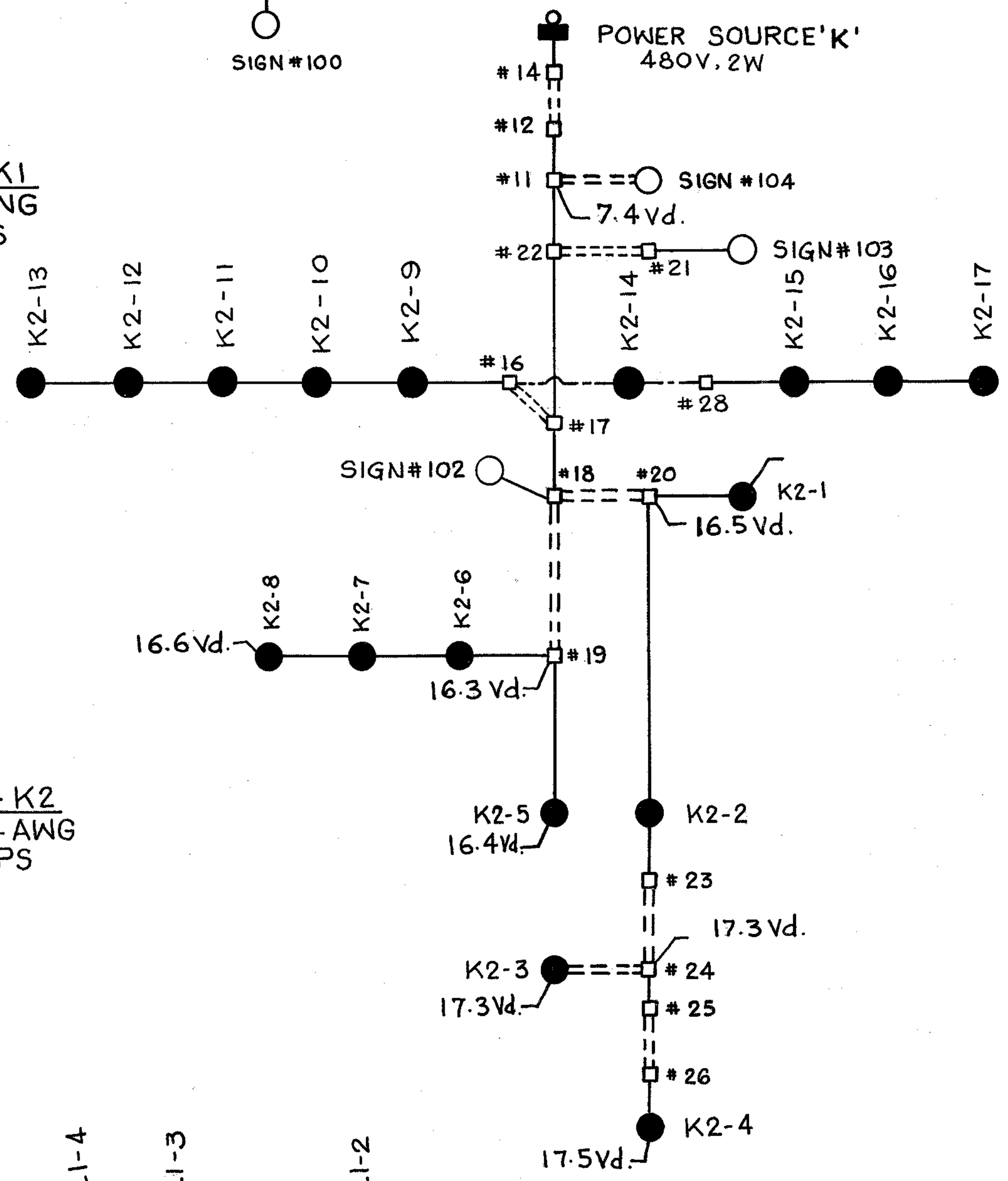
OHIO

HAM.- 275 - 3.86
HAMILTON COUNTY

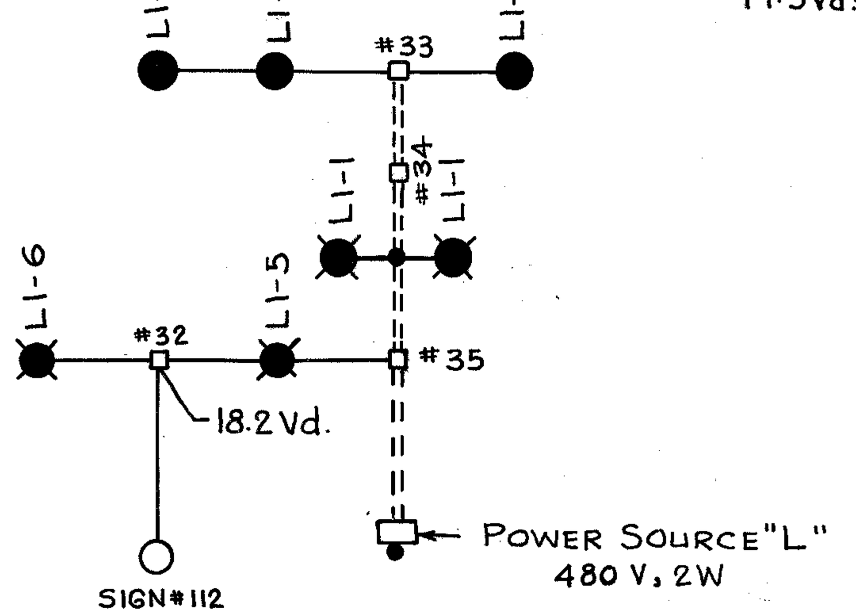


CIRCUIT - K1
2/C No. 4 AWG
25.4 AMPS

TOTAL LOAD "K" = 45.9 Amp.



CIRCUIT - K2
2/C No. 4 AWG
20.5 AMPS

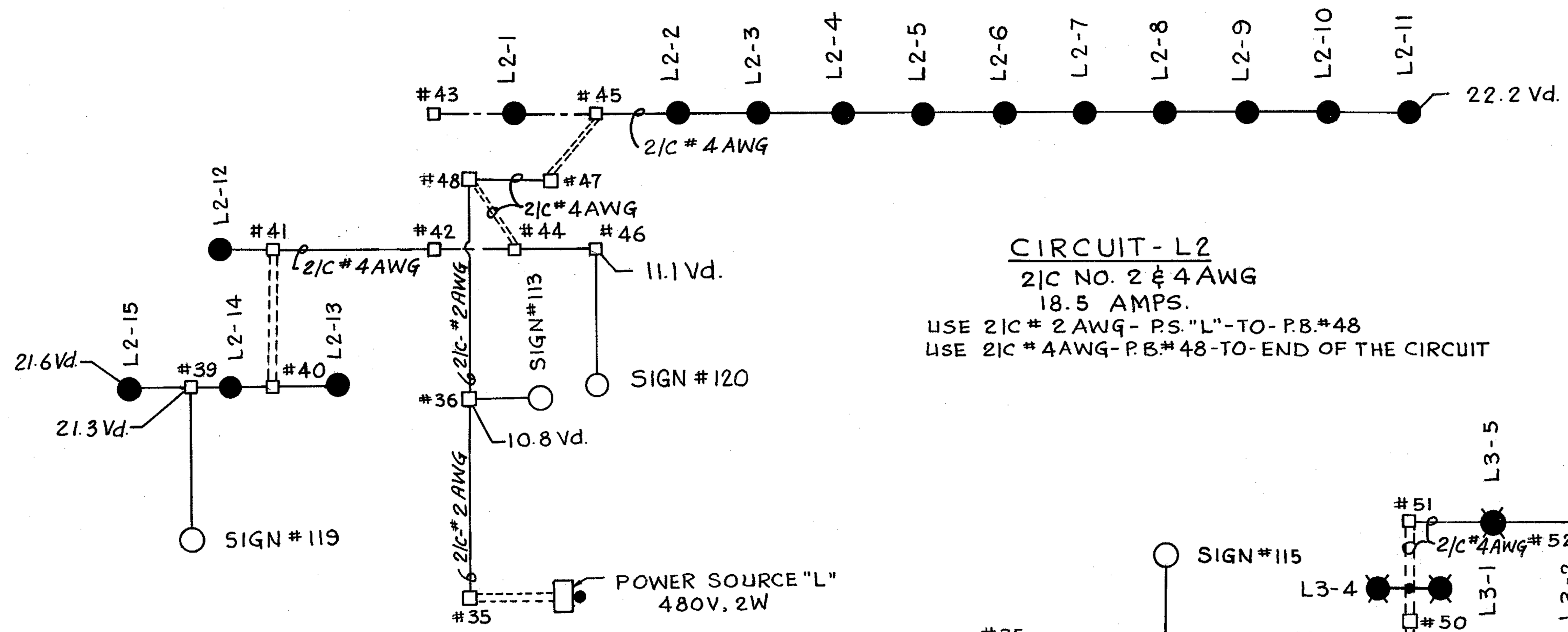


CIRCUIT - L1
2/C No. 4 AWG
9.8 AMPS

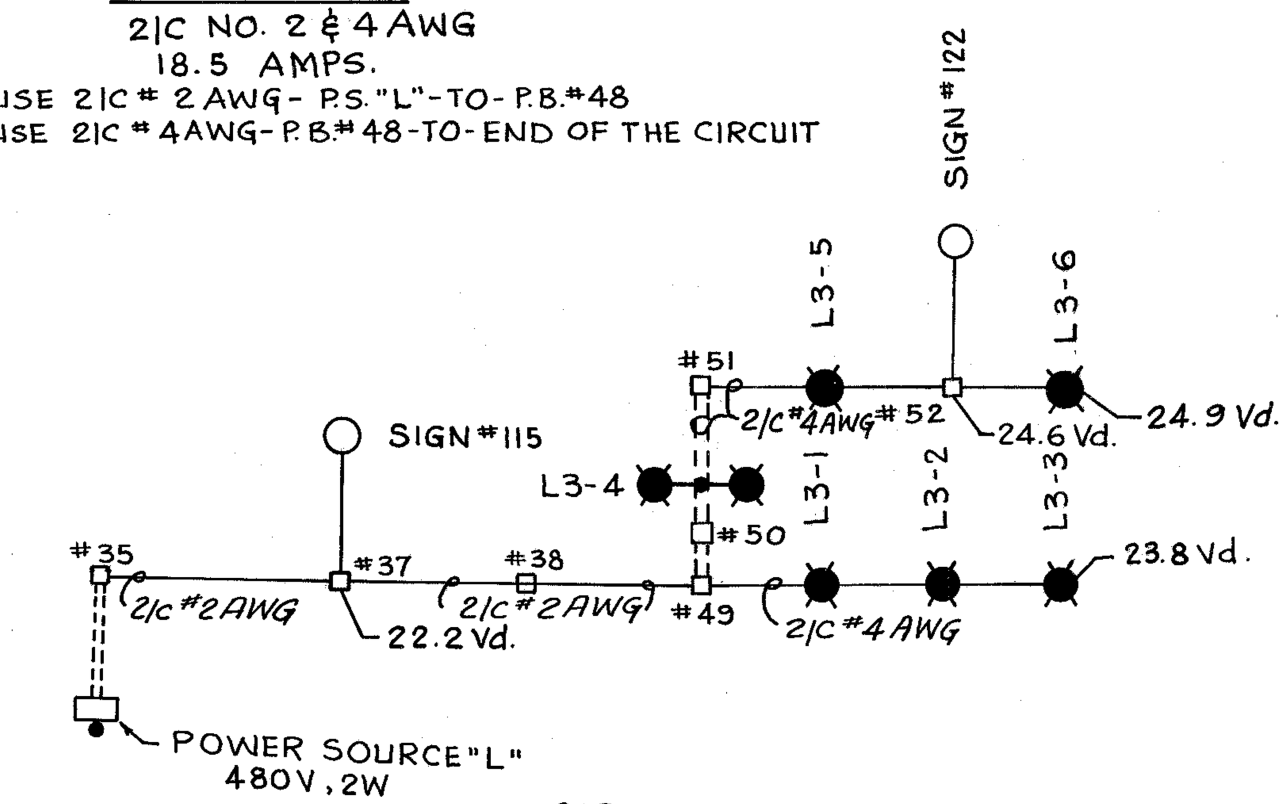
CIRCUIT NO.	FUSE RATING
K1	35 AMPS
K2	30 AMPS
L1	15 AMPS
L2	30 AMPS
L3	30 AMPS

LEGEND

- Duct Cable
- 3" Conduit and Distribution Cable
- 2" Conduit and/or Distribution Cable
- 400 Watt Light Unit
- 700 Watt Light Unit
- Pull Box



CIRCUIT - L2
2/C NO. 2 & 4 AWG
18.5 AMPS.
USE 2/C # 2 AWG - P.S. "L" - TO - P.B. #48
USE 2/C # 4 AWG - P.B. #48 - TO - END OF THE CIRCUIT



TOTAL LOAD "L" = 43.8 Amp.

CIRCUIT - L3
2/C NO. 2 & 4 AWG
15.5 AMPS
USE 2/C #2 AWG - P.S. "L" - TO - P.B. #49
USE 2/C #4 AWG - P.B. #49 - TO - END OF THE CIRCUIT

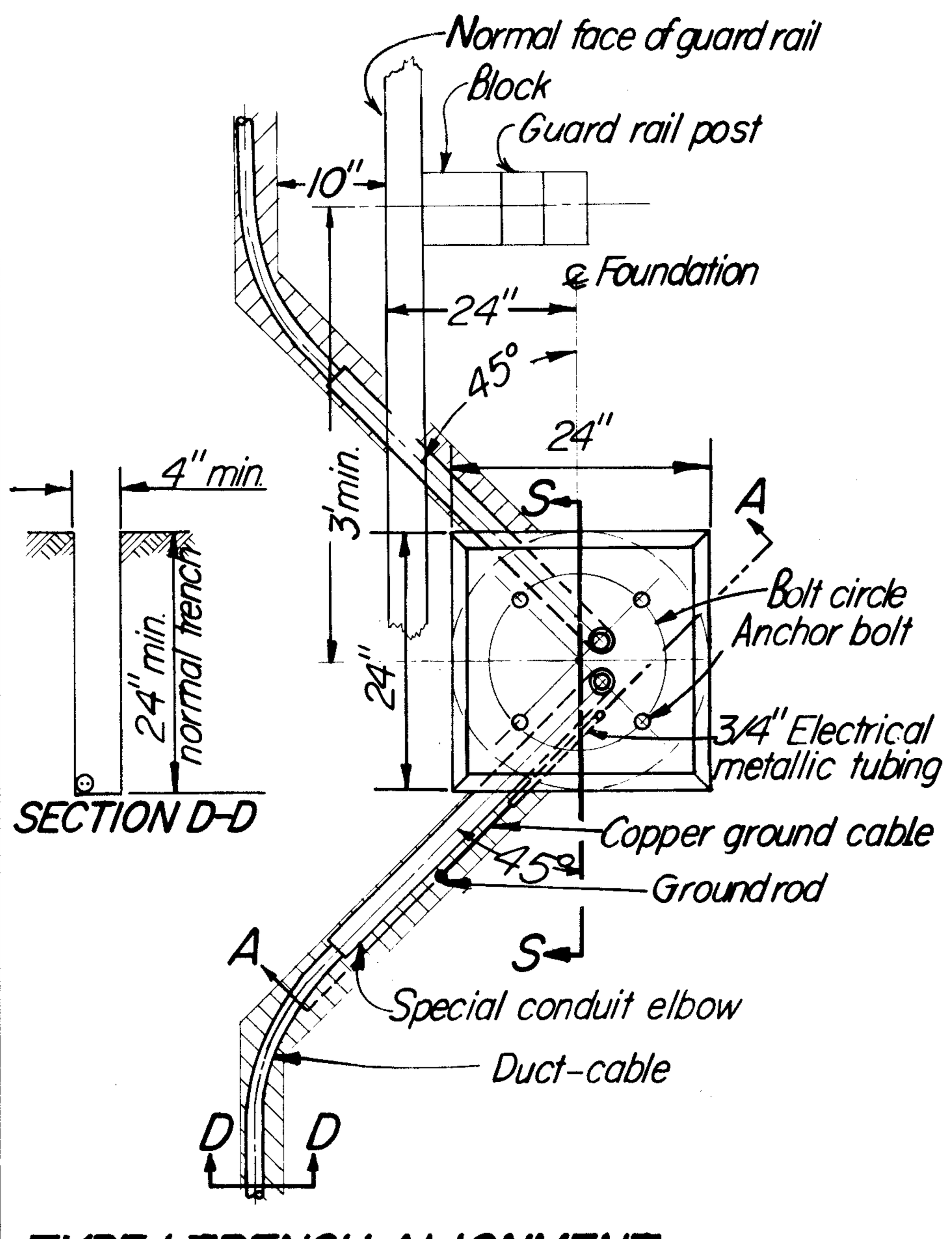
TYPICAL MECHANICAL PROPERTIES FOR LIGHT POLES

REFERENCE LETTER	DESIGN NUMBER	STYLE	SHAFT SIZE	MOUNTING HEIGHT	ARM LENGTH	TAPER INCHES PER FOOT	GUAGE	FOUNDATION ANCHOR BOLTS: SIZE DIAM. x LENGTH	BOLT CIRCLE DIAMETER	PROJECTION ABOVE FNDN.	TRANSFORMER BASE STYLE	FOUNDATION SIZE
X	AT 25BB41.7	III	9.5"x 6.15"x 33'-6"	41.7'	25' TWIN	0.10	7	1¼"φx48"	17¼"	4½"	AT-C	24"x8'0"
D	AT 15B 41.7	III	9"x 5.65"x 33'-6"	41.7'	15'	0.10	11	1"φ x 40"	15"	4½"	AT-A	24"x8'0"
E	T 12 B 34.2	II	9"x 4.87"x 29'-6"	34.2'	12'	0.14	11	1"φx40"	15"	4½"	AT-A OR Steel	24"x6'0"
F	AT 12 B 34.2	II	9"x 4.87"x 29'-6"	34.2'	12'	0.14	11	1"φx40"	15"	4½"	AT-A	24"x6'0"
G	T 15 B 34.2	II	9"x 4.87"x 29'-6"	34.2'	15'	0.14	11	1"φx40"	15"	4½"	AT-A OR Steel	24"x6'0"
H	AT 15B 34.2	II	9"x 4.87"x 29'-6"	34.2'	15'	0.14	11	1"φx40"	15"	4½"	AT-A	24"x6'0"
I	T 12 B 34.2	II	9"x 4.87"x 29'-6"	34.2'	12'	0.14	7	1"φx40"	15"	4½"	AT-A OR Steel	–
FOR FUTURE USE ON STRUCTURES 0399 L&R, 0620, AND 0726 L&R				34.2'	12'			1"φx40"	15"	4½"	AT-A OR Steel	–

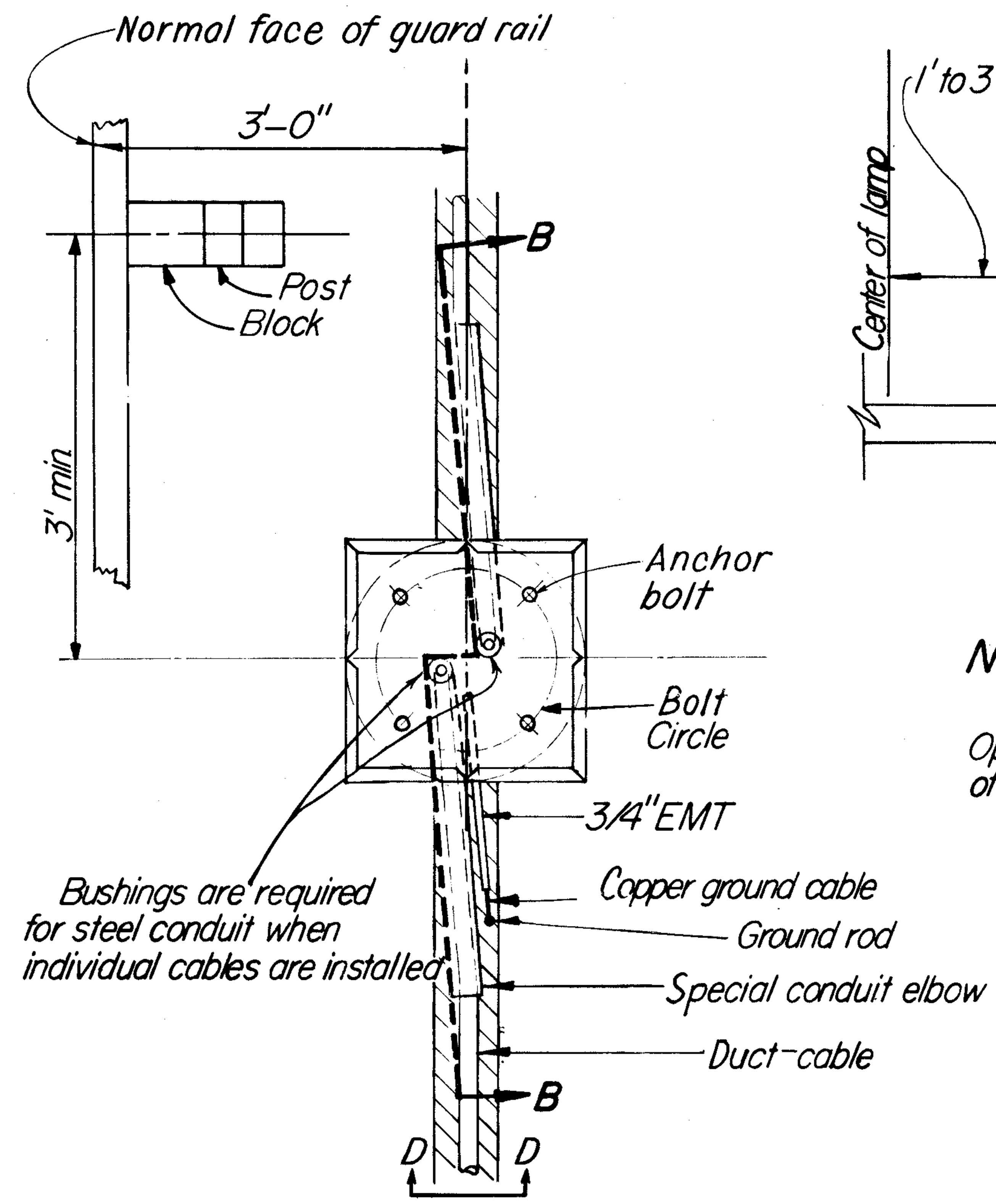
Rev. 5-10-73

CIRCUIT DIAGRAMS

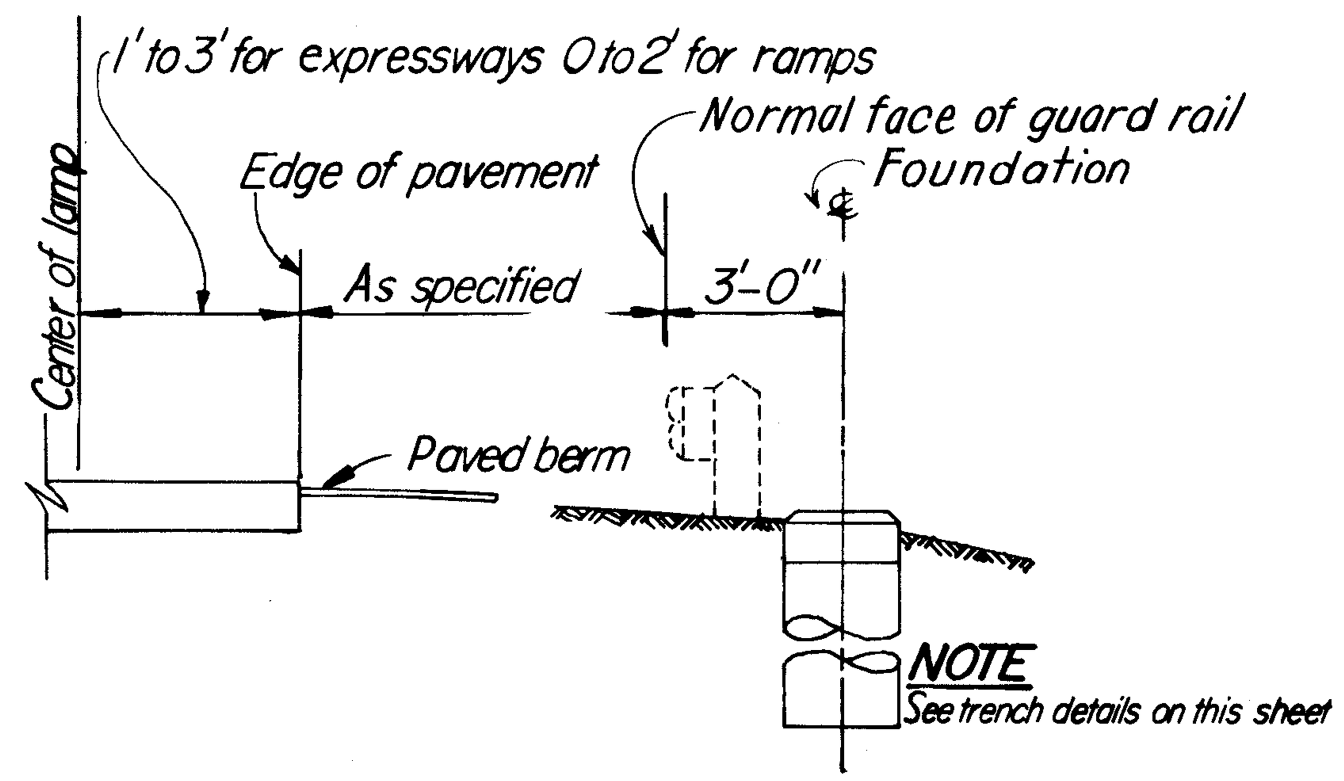
FOUNDATION AND TRENCH DETAILS



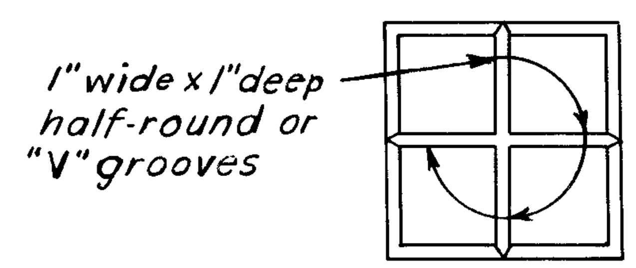
TYPE I TRENCH ALIGNMENT
(Use when specified or directed by the Engineer)



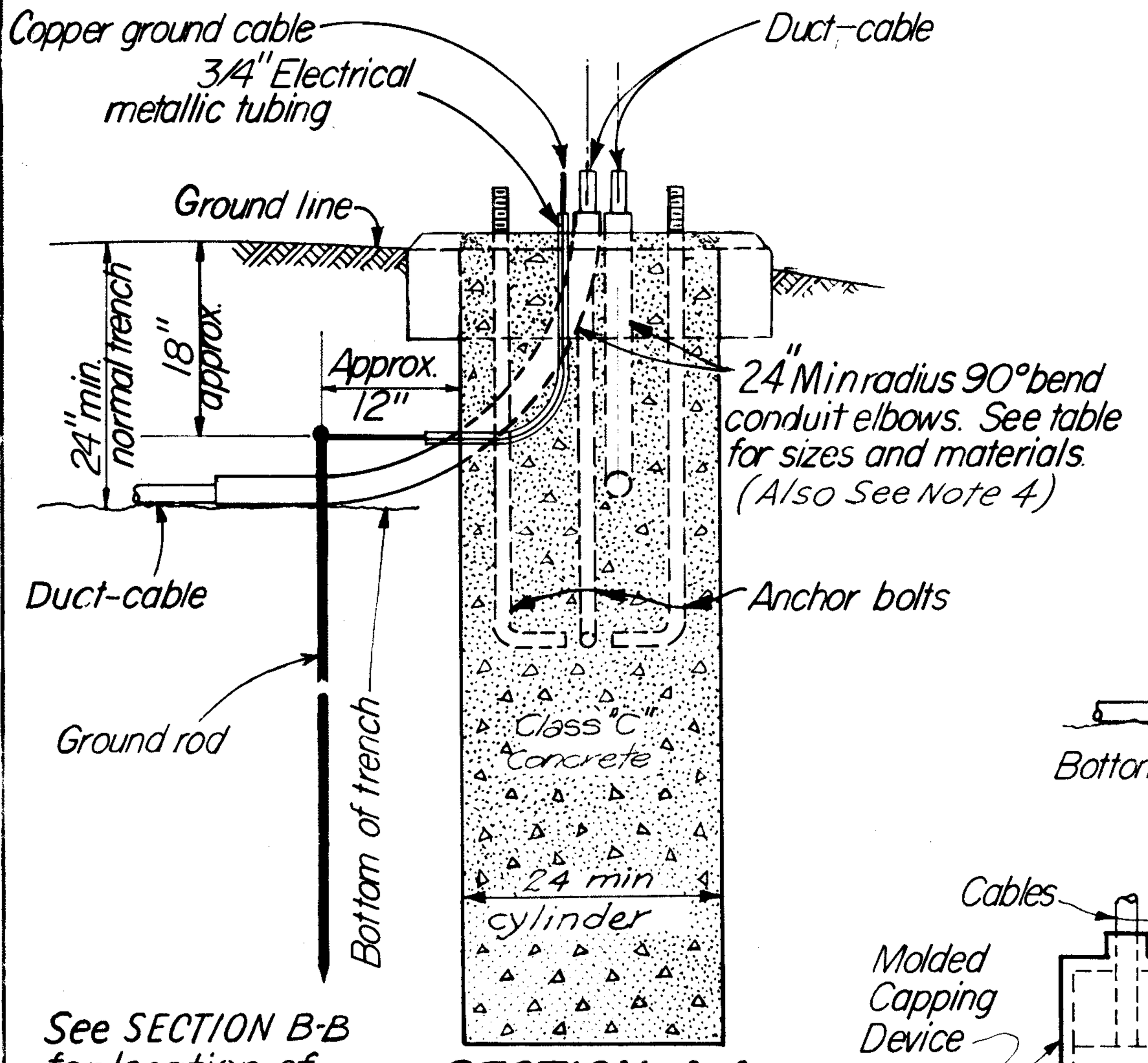
TYPE 2 TRENCH ALIGNMENT (NORMAL)



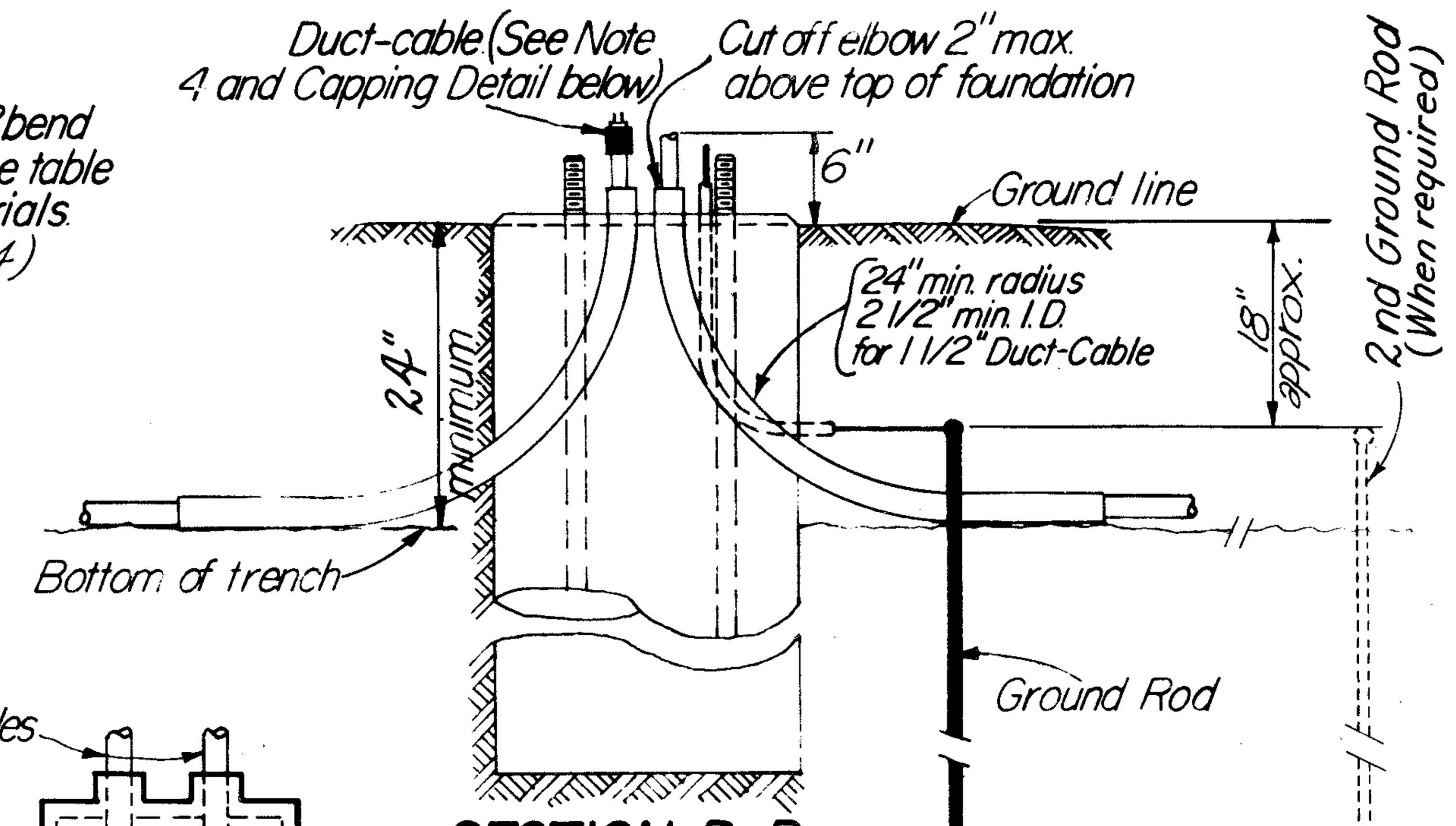
NORMAL LOCATION OF LIGHT POLE FOUNDATION
Opposite hand for poles mounted on left side of pavement.



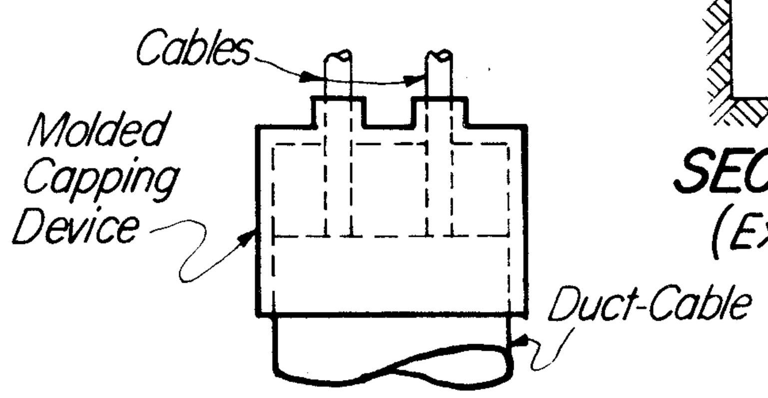
TOP OF FOUNDATION



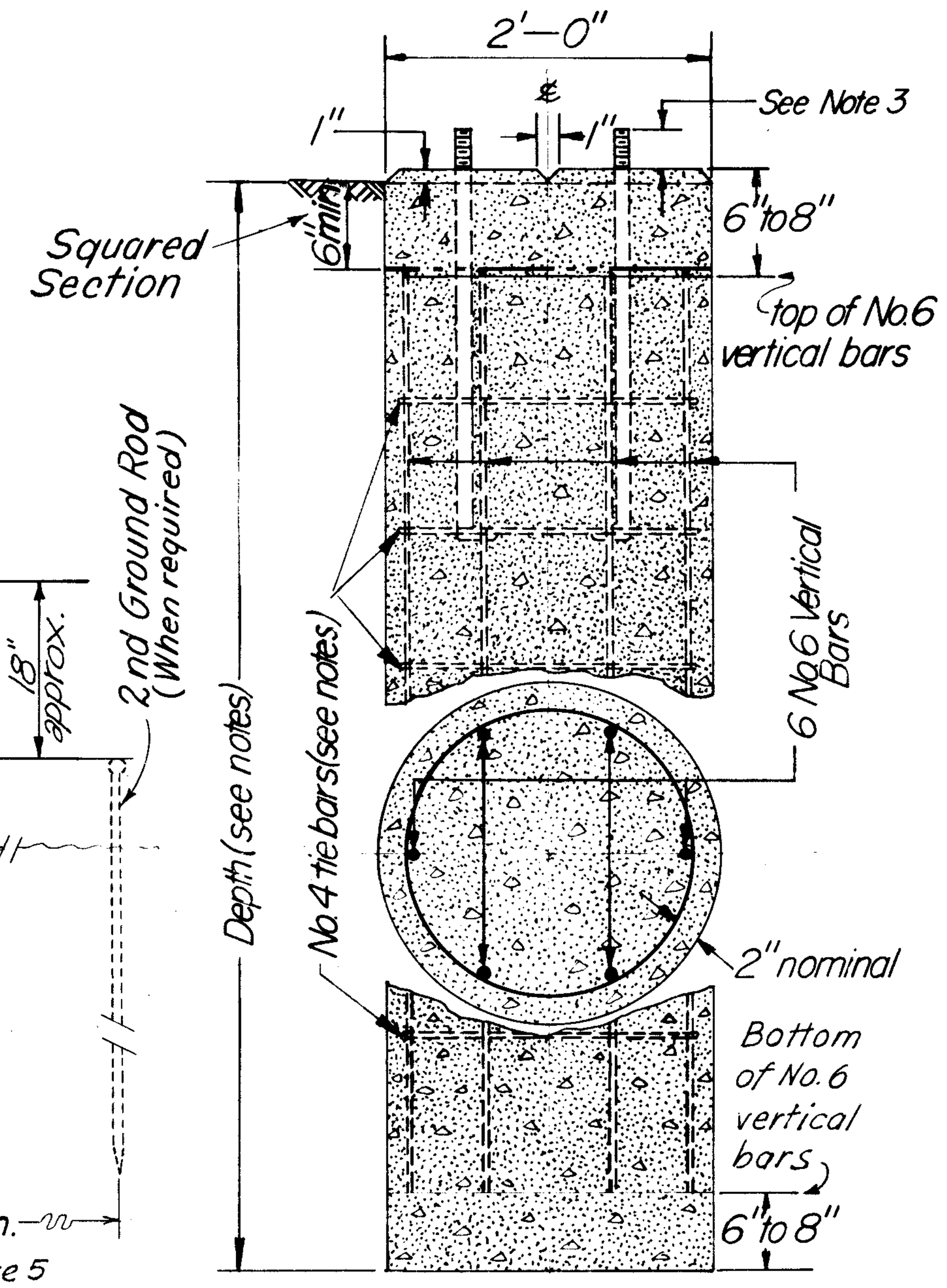
SECTION A-A



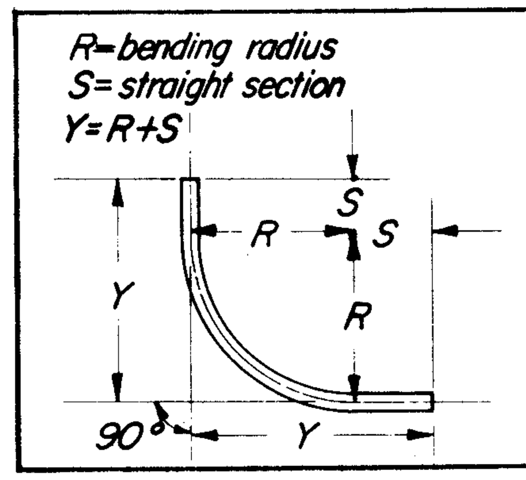
SECTION B-B
(Expanded)



CAPPING DETAIL



SECTION S-S
REINFORCING STEEL



SPECIAL CONDUIT ELBOWS 90° BENDS					
2", 2 1/2" & 3" 713.04			3"-713.05 or 713.06		
R	S	Y	R	S	Y
24"	11"	35"	24"	8"	32"
30"	11"	41"			
36"	11"	47"	36"	2"	38"
42"	12"	54"			
48"	12"	60"			

NOTES

1. FOUNDATION
   Depths to be as follows:
   6 feet for poles having a mounting height less than 40 ft.
   8 feet for poles having a mounting height 40 ft. thru 44 ft.
   9 feet for poles having a mounting height 45 ft. thru 49 ft.
   10 feet for poles having a mounting height of 50 ft. thru 55 ft.
   No. 4 Tie bars required as follows:
   4 No. 4 tie bars for 6 ft. depth
   5 No. 4 tie bars for 8 and 9 ft. depth
   6 No. 4 tie bars for 10 ft. depth
   Rotate bars to clear conduits.
2. COPPER GROUND CABLE:
   No. 4 AWG, stranded insulated copper ground cable shall be used. Exothermically weld cable to ground rod, run free end through 3/4" EMT and connect as shown on "POLE WIRING."
   Use two coats of insulating varnish over exothermic weld and exposed conductor.
3. ANCHOR BOLT DATA:
   For anchor bolt data see "POLE BASE DETAILS."
4. CONDUIT:
   Where 2" or 3" diameter conduit terminates in a foundation the conduit elbows in the foundation shall be the same size as the conduit. The ends of conduit elbows containing distribution cable shall be closed as described in 625.13
   When the terminating conduit is steel the conduit elbows in the pole foundation shall also be steel.
   At the last light pole on a circuit the vacant conduit elbow in the light pole foundation shall be stubbed out and capped.
5. GROUND RODS:
   When a second ground rod is required it shall be installed in the cable trench as shown in **SECTION B-B.**
6. REINFORCING STEEL:
   Reinforcing steel may be assembled in cages by approved welding of bars.

LIGHT POLE DETAILS
(STEEL POLES ONLY)

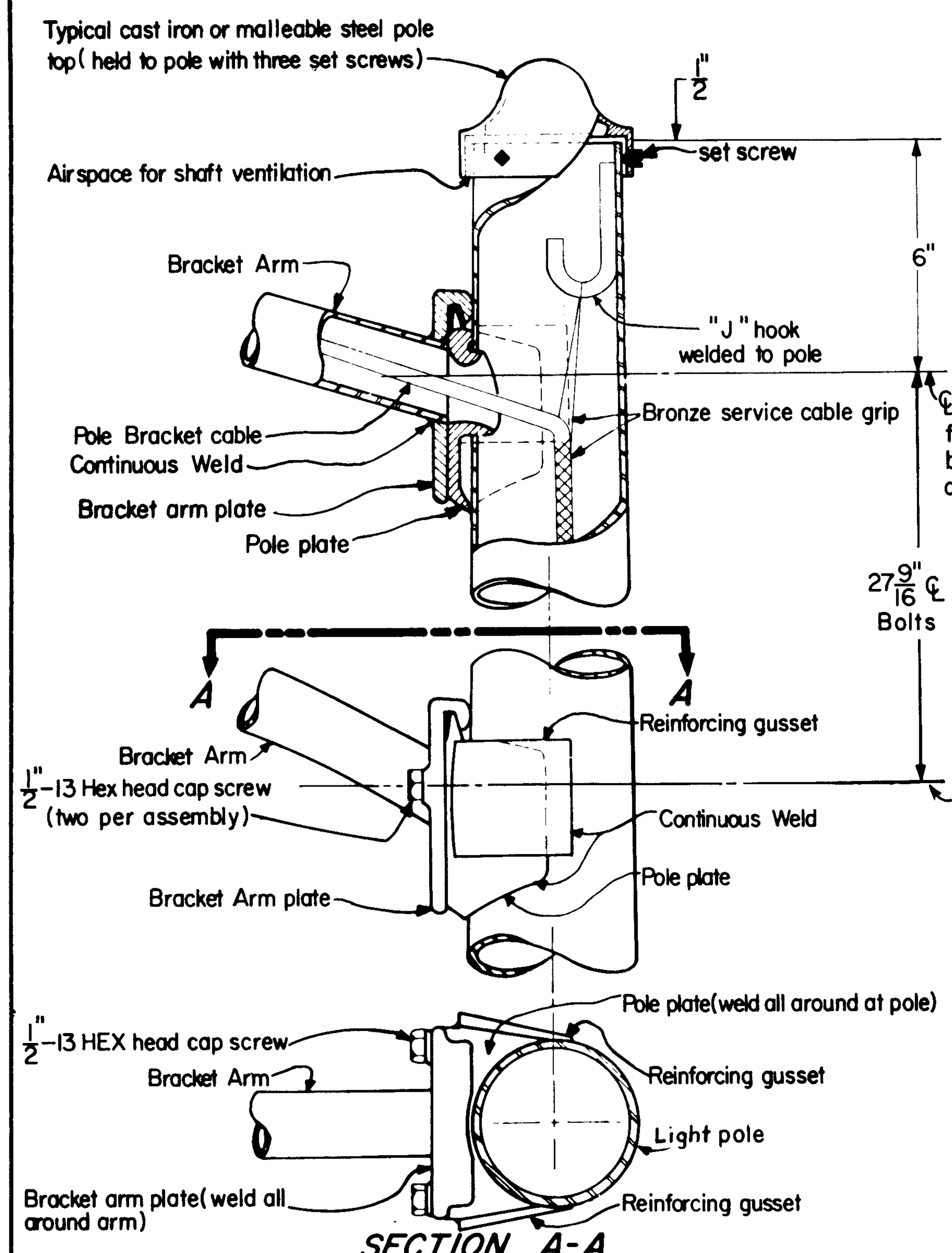
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

499
630

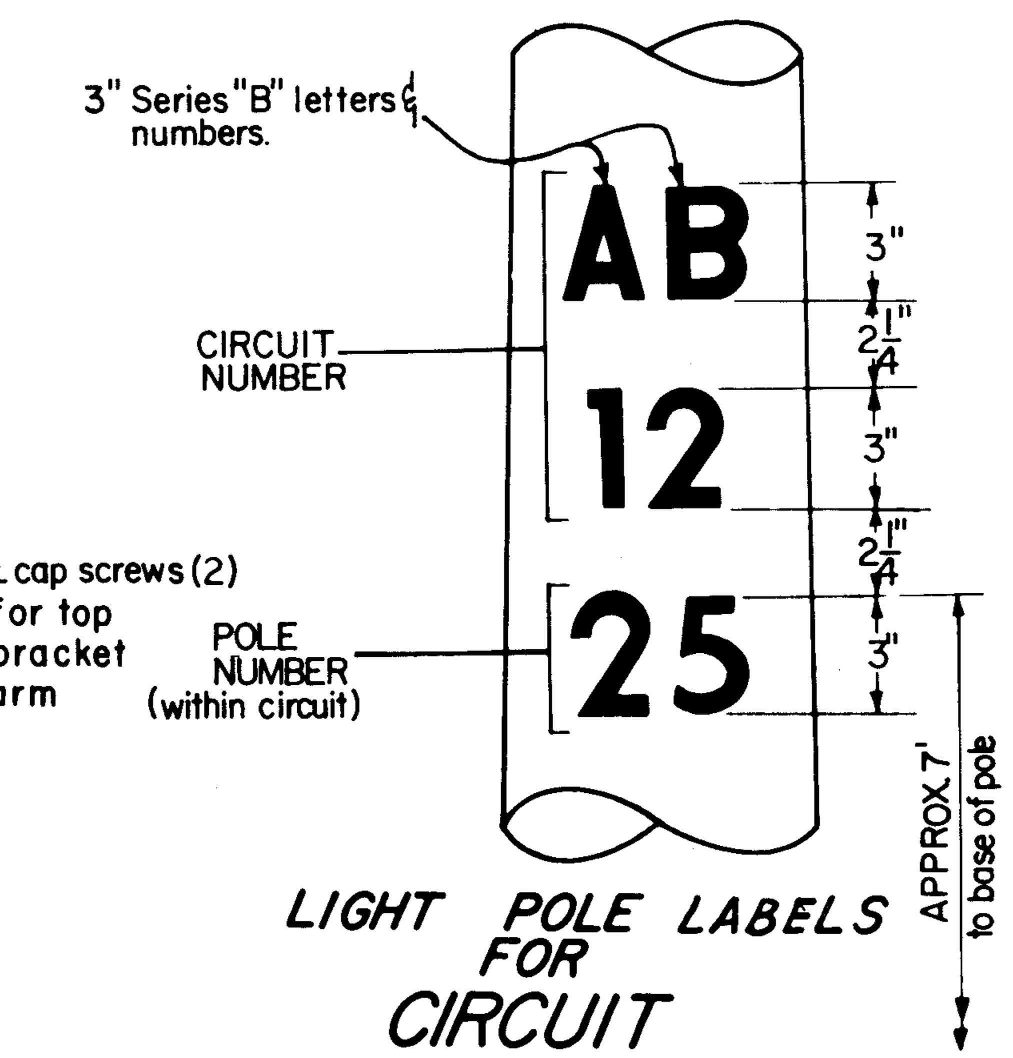
HAM-275-3.86
HAMILTON COUNTY

NOTES

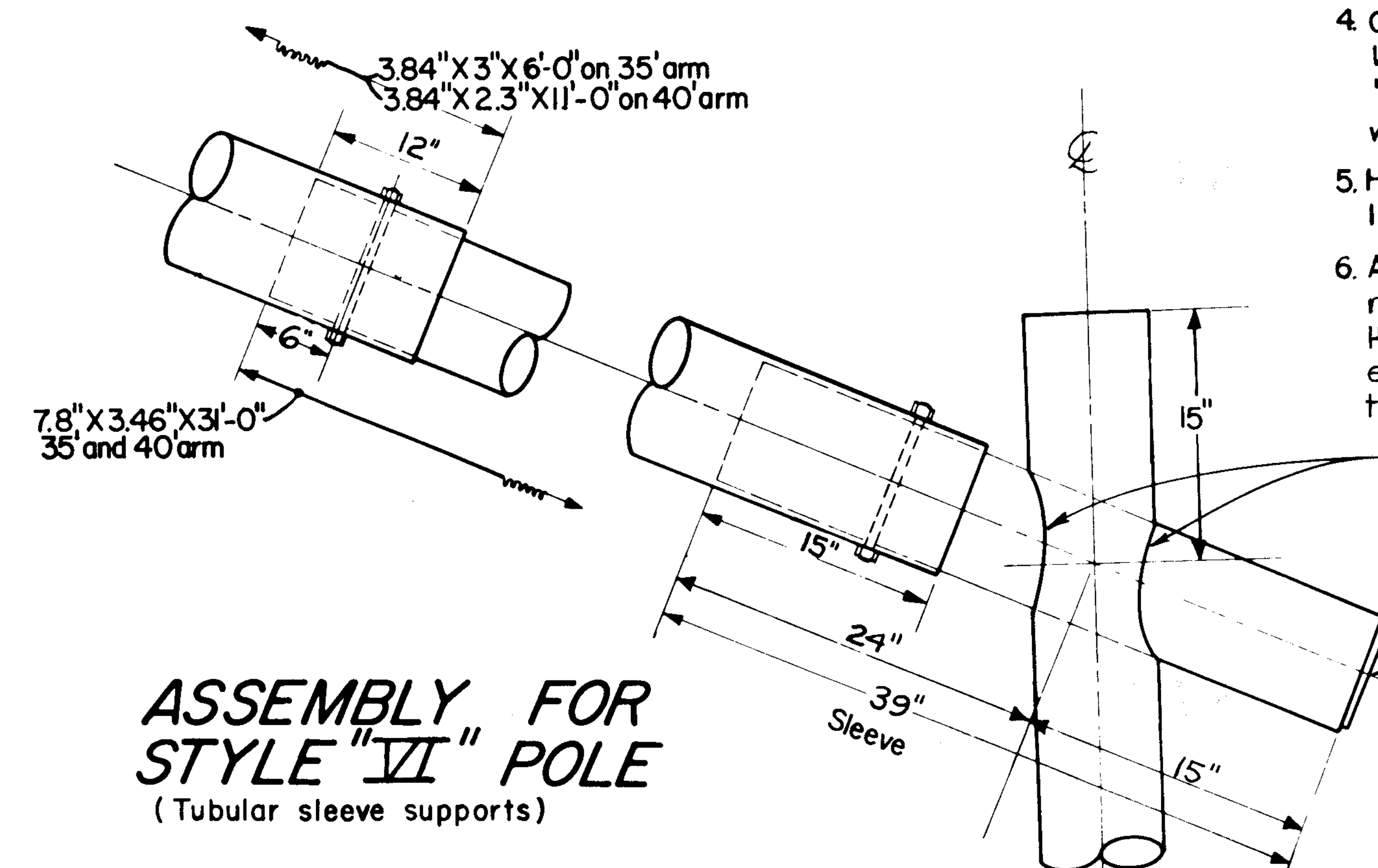
1. Hand holes shall be provided on all poles not mounted on transformer bases.
2. Hand holes shall be opposite the roadway unless such location renders them inaccessible. (See NOTE 6)
3. Use of Reinforcing gussets is optional.
4. Circuit and light pole numbers shall be as scheduled on light plan sheets. Labels shall meet the requirements of 713.18 and shall contain 3 series "B" letters and numbers as per the "Standard Alphabets for Highway Signs" published by the Bureau of Public Roads.
5. Hand holes for bridge poles shall be on roadway side and 17" from center of hand hole to bottom of base.
6. All light poles mounted on raised concrete median barriers shall be equipped with handholes. Handholes shall be located beneath the bracket arm extending over the Northbound or Westbound traffic lanes.



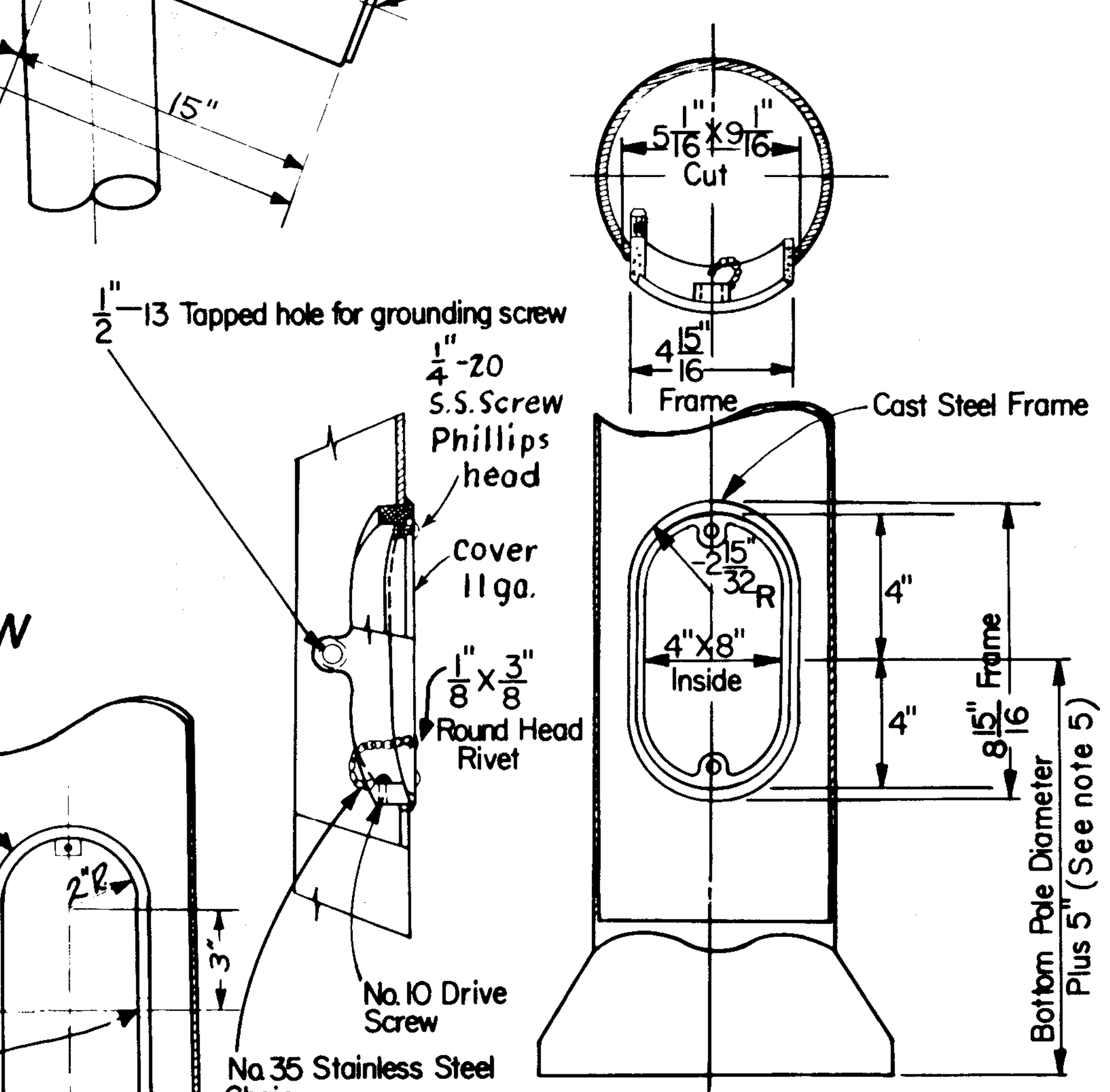
POLE TOP and BRACKET ARM ASSEMBLIES



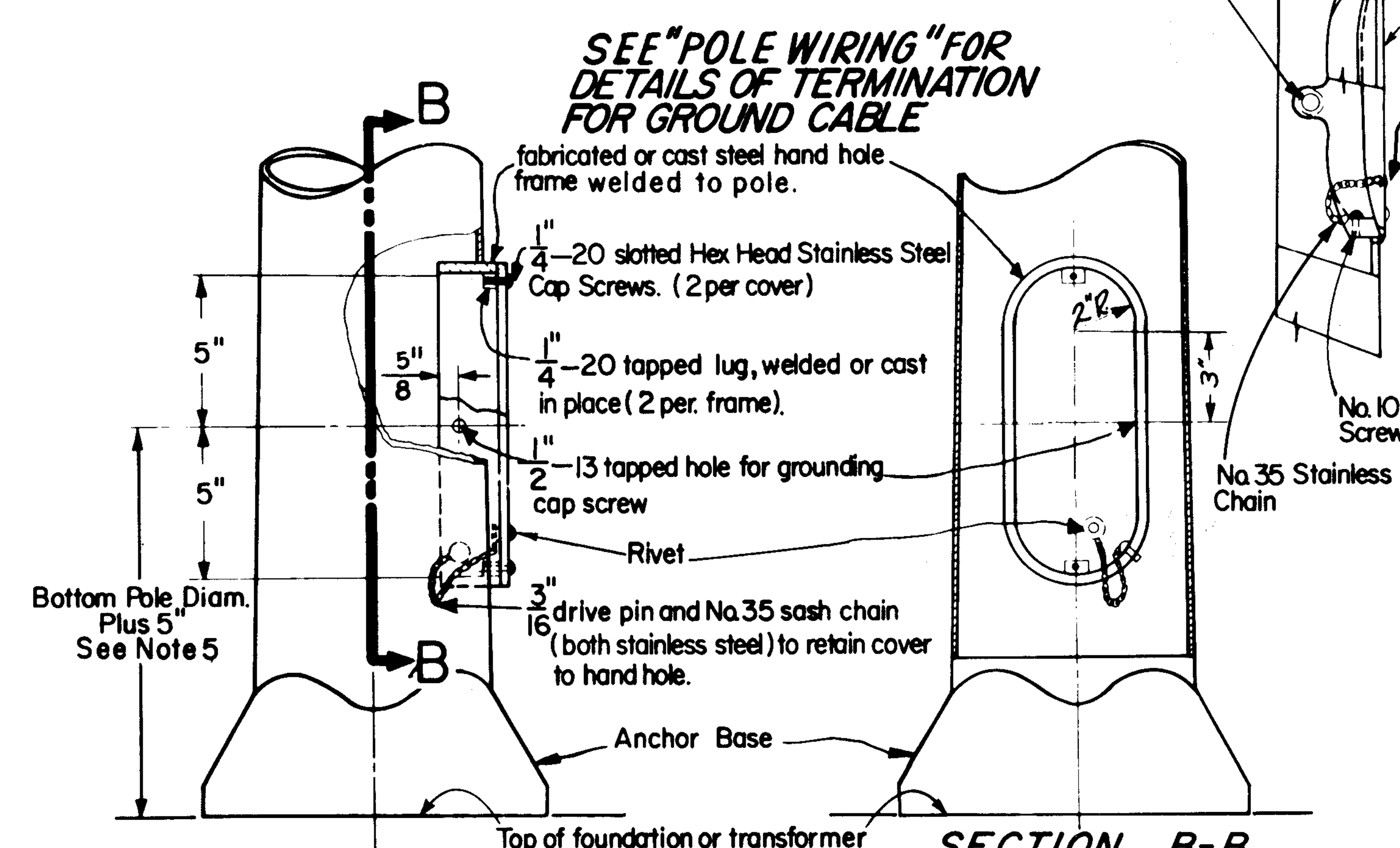
LIGHT POLE LABELS FOR CIRCUIT IDENTIFICATION
(See note 4)



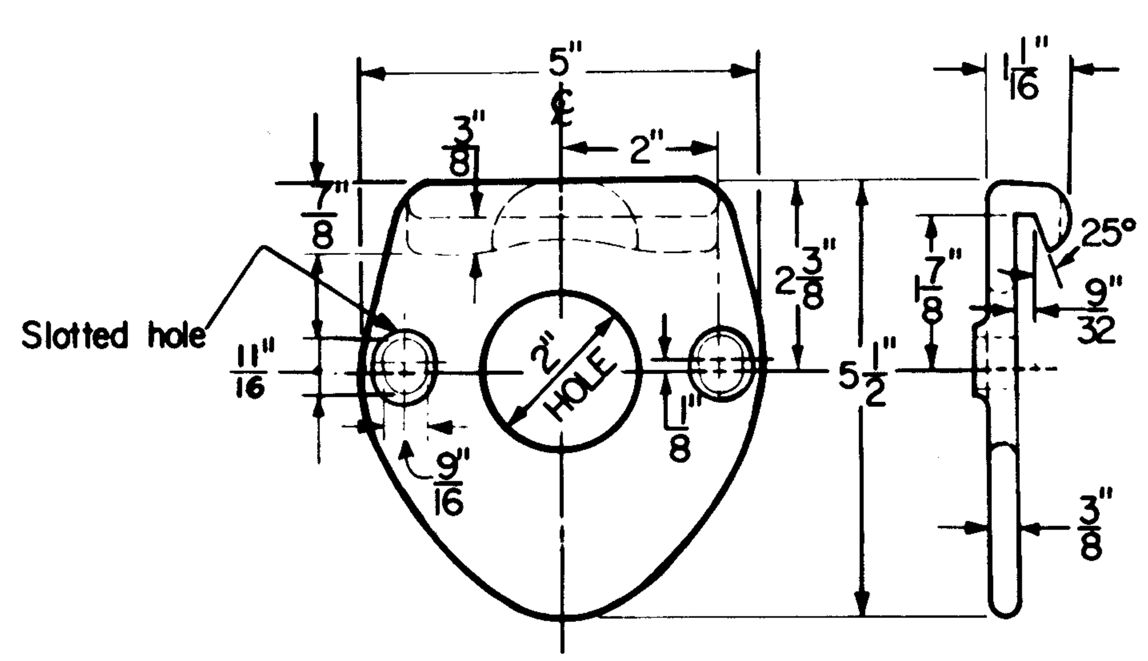
ASSEMBLY FOR STYLE "VI" POLE
(Tubular sleeve supports)



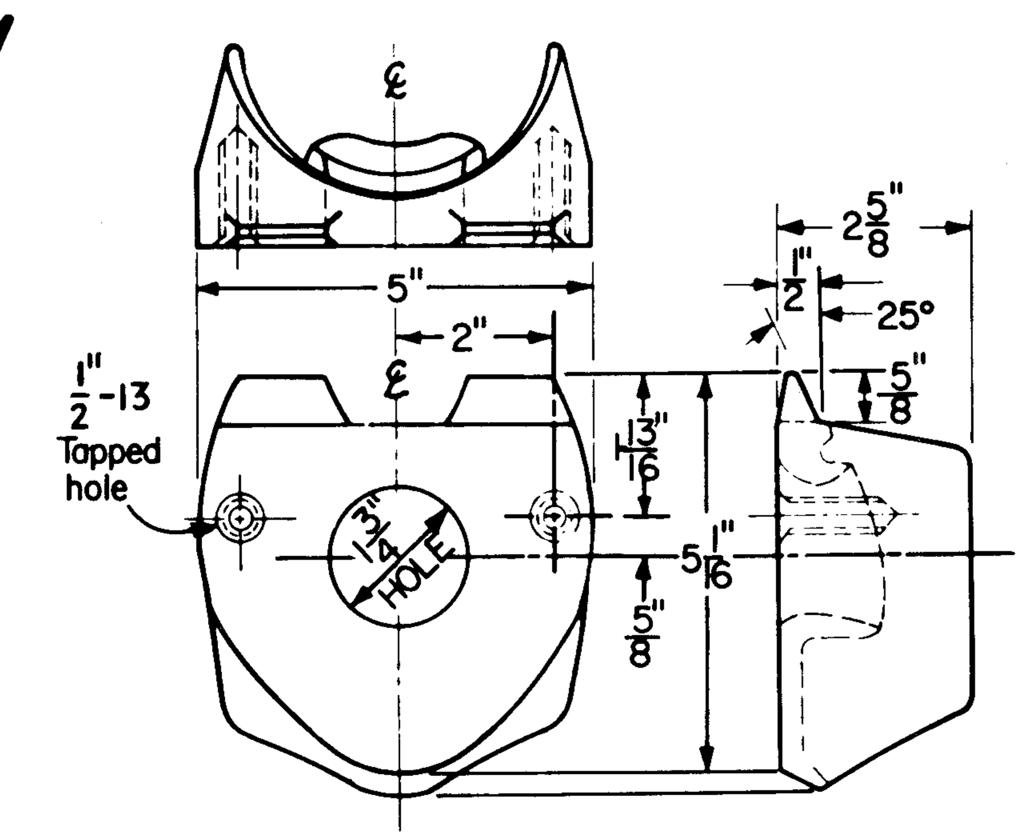
ALTERNATE HAND HOLE



HAND HOLE WITH COVER
See Notes 1 & 2



BRACKET ARM PLATE
(CAST STEEL)

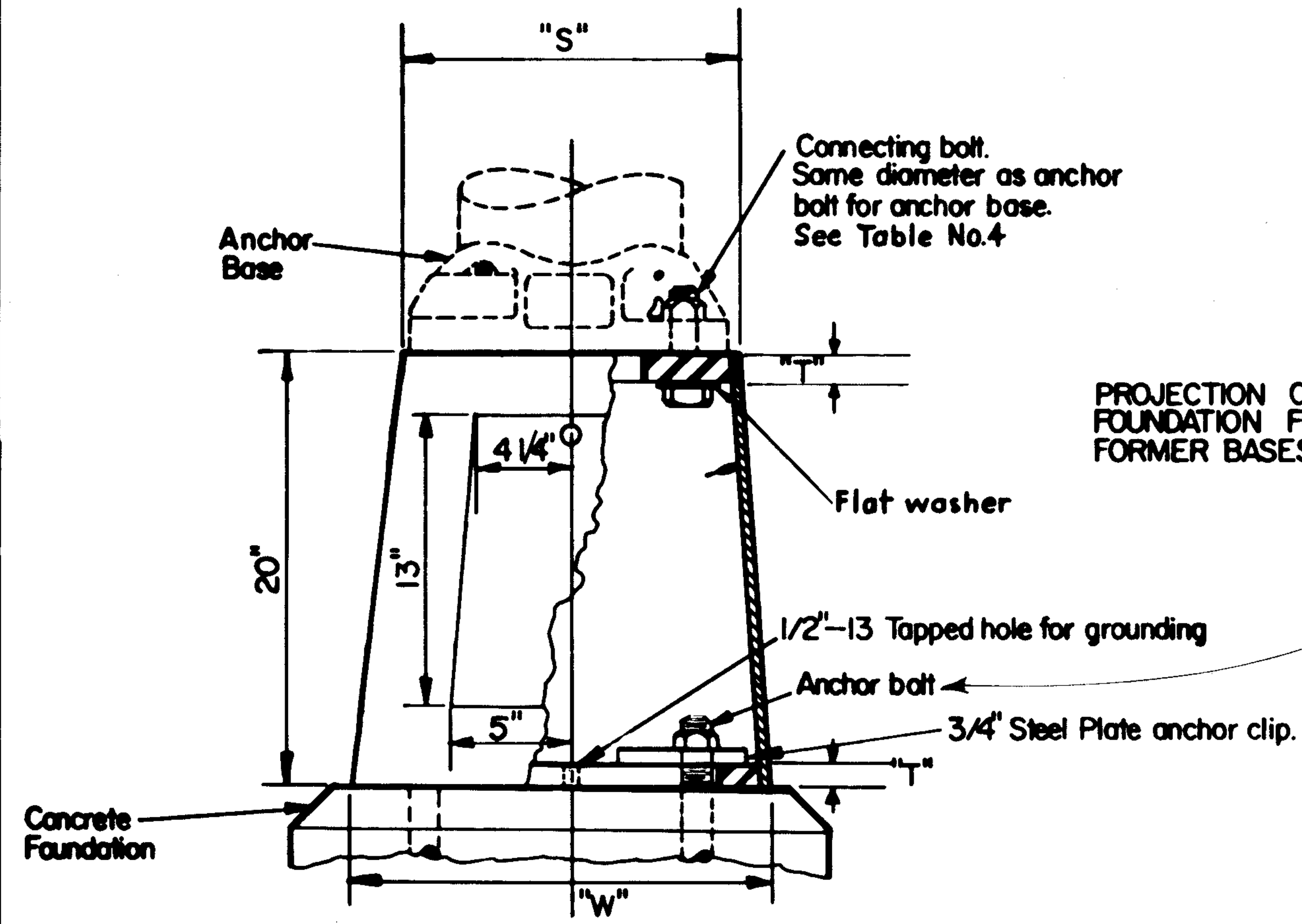


POLE PLATE
(CAST STEEL)

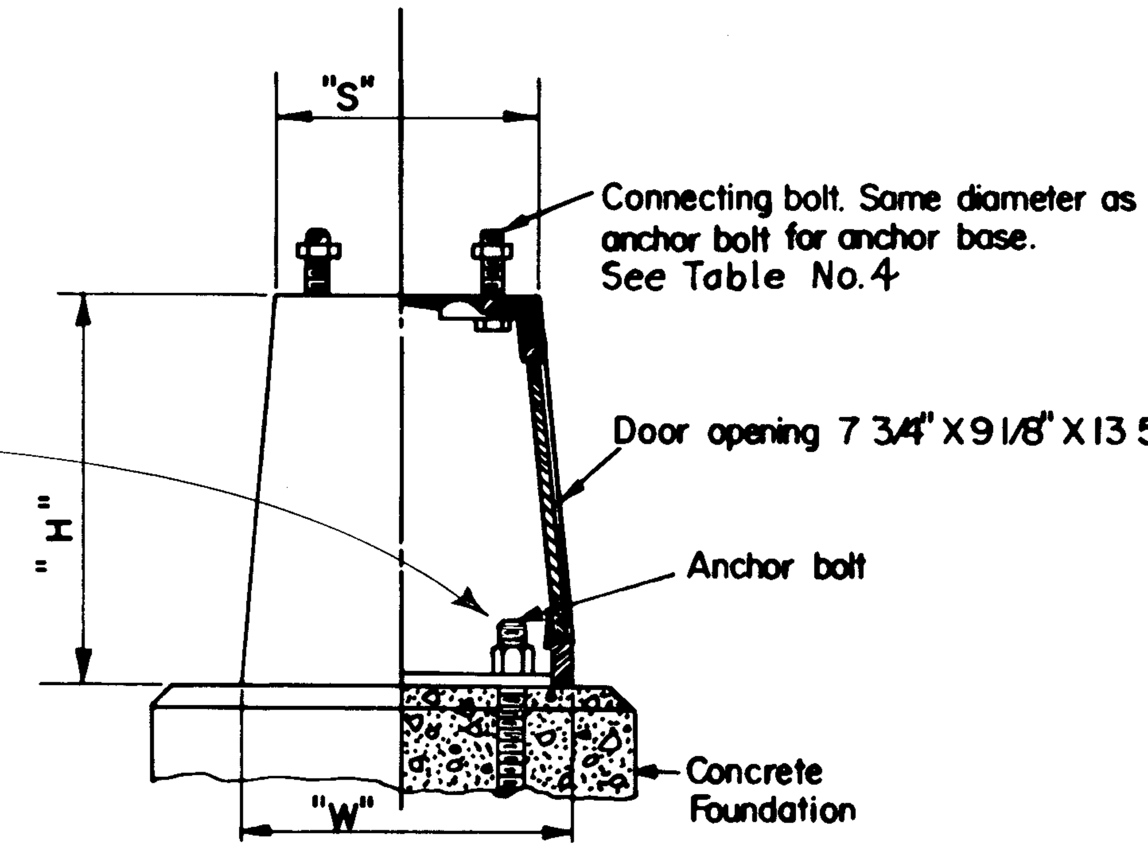
AB-D-GB

26
39

POLE BASE DETAILS
(STEEL POLES ONLY)



PROJECTION OF ANCHOR BOLT ABOVE TOP OF FOUNDATION FOR STEEL AND ALUMINUM TRANSFORMER BASES SHALL BE 4 1/2".



NOTES

1. For pole grounding details see "POLE WIRING."
2. Type AT-A base shall normally be used with anchor base poles having diameters of 6 inches through 9.2, inches inclusive, and mounting heights through 41.7 feet.
3. Type AT-C base must be used for anchor base poles having diameters of 9.5 inches and 10 inches and mounting heights through 51.7 except for exclusions listed below:
   a. All double-arm poles with mounting heights of 50 feet.
   b. All single-arm poles with mounting heights of 50 feet and arm lengths of 25 feet and 30 feet.
   c. All double-arm poles with mounting heights of 45 feet and arm lengths of 25 feet and 30 feet.
   d. All single-arm poles with mounting heights of 45 feet and arm length of 30 feet.

   On excepted poles above, transformer bases of material other than cast aluminum shall be used.
4. U-bolt lengths shown in TABLE NO.5 are developed lengths and may vary ±1/2". Lengths are for 1", 1 1/4", 1 1/2" and 1 3/4" diam. bolts. Lengths shown are for bridges with sidewalk railing. For bridges having a standard roadway railing increase these lengths by 7 inches.
5. For anchor bolt data when transformer bases are to be mounted on bridge pilasters see TABLE NO.1 and TABLE NO.2.
6. Median mounted poles require a pole plate as per Drawing No. 17B.

TABLE NO.1				
STEEL TRANSFORMER BASES				
SHAFT SIZE	"T"	"S"	"W"	BOLT CIRCLE
6.0" thru 9.2"	3/4" min.	13" sq.	16" sq.	15"
8.5" thru 10"	1 1/4" min.	15" sq.	18" sq.	17 1/4"
11" and 12"	1 1/4"	17" sq.	25" sq.	22"

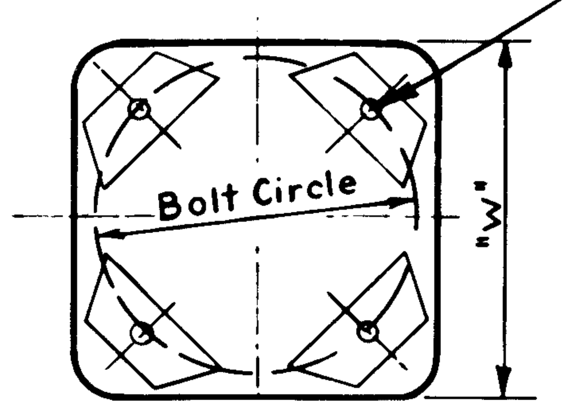
TABLE NO.2			
TRANSFORMER BASE ANCHOR BOLTS			
SHAFT SIZE	POLE GUAGE #11	#7	#3
6.5"	1" ø X 40"	1" ø X 40"	1" ø X 40"
7"			
7.5"			
8"			1 1/4" ø X 48"
8.5"			
9"			
9.5		1 1/4" ø x 48"	
10"			
11"	X		1 1/2" ø x 60"
12"			

40" bolts include 4" bend
48" and 60" bolts include 6" bend

TABLE NO.3					
ALUMINUM TRANSFORMER BASES					
TYPE	"H"	"S"	"W"	BOLT CIRCLE	SHAFT SIZE
AT-A	20"	13"	16 3/8"	15"	SEE NOTE (2)
AT-C	20"	14 5/8"	17 1/4"	17 1/4"	SEE NOTE (3)

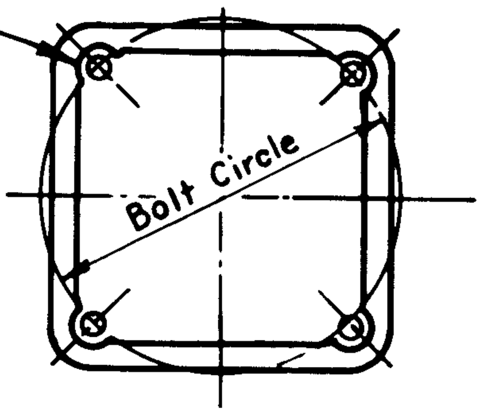
TABLE NO.5		
SHAFT SIZE	"F"	U-BOLT * LENGTH
6.5"	6 3/4"	75"
7.0"	7 1/16"	75"
7.5"	7 7/16"	76 1/2"
8.0"	7 3/4"	76 1/2"
8.5"	8 1/8"	76 1/2"
9.0"	8 7/8"	78"
9.5"	9 3/16"	78"
10.0"	9 9/16"	79 1/2"
11.0"	10 5/8"	79 1/2"
12.0"	11 5	81"

* See NOTES 4 & 5



BASE FRAME

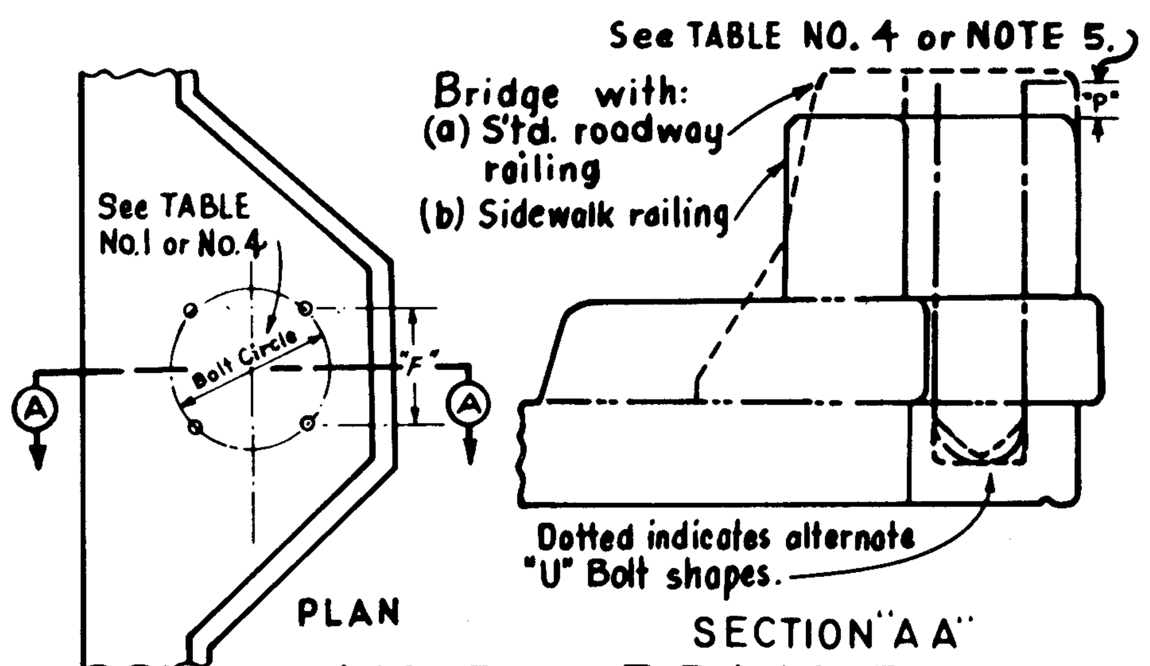
STEEL TRANSFORMER BASES



BASE FRAME

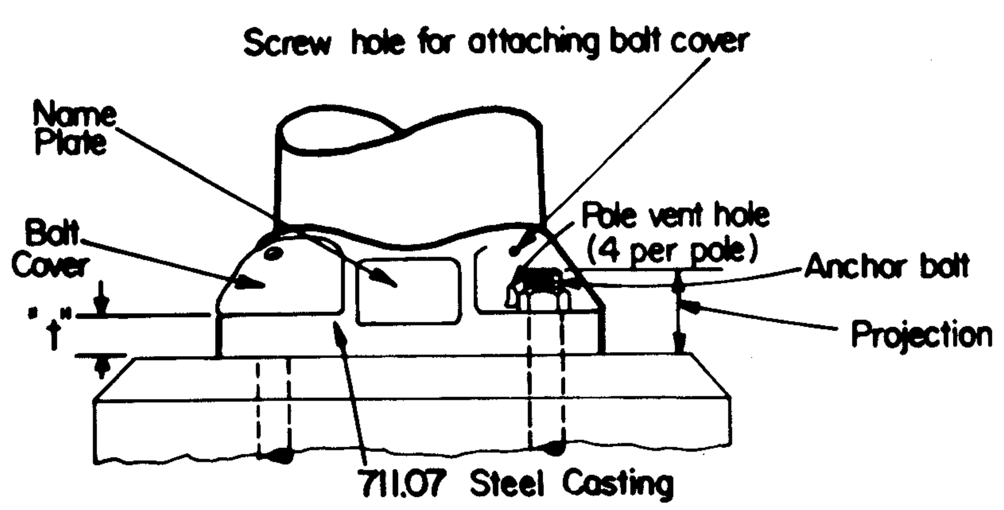
CAST ALUMINUM TRANSFORMER BASES

SHALL NOT BE USED WHERE OVERHEAD WIRING IS REQUIRED



LIGHT POLE PILASTER

BRIDGE MOUNTED POLES

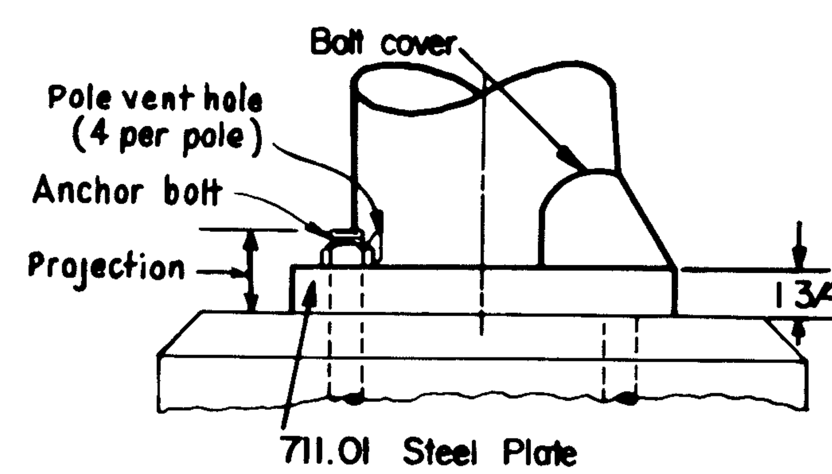


CAST STEEL

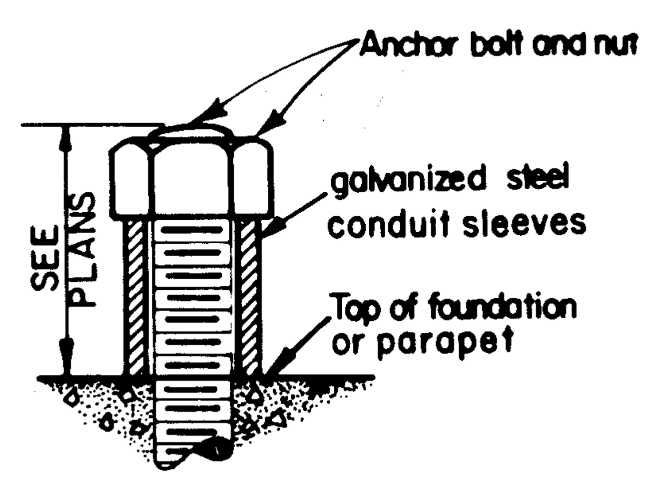
TABLE NO.4						
ANCHOR BOLTS FOR STEEL ANCHOR BASES						
SHAFT SIZE	BOLT CIRCLE	BOLT* PROJ.	"t"	POLE GUAGE NO.11	NO.7	NO.3
6.5"	9 1/2"	2 1/8"	7/8"	1" x 40"	1 1/4" x 48"	1 1/4" x 48"
7"	10"	2 1/4"	1"			
7.5"	10 1/2"	2 5/8"	1 1/8"			
8"	11"	2 5/8"	1 3/16"			
8.5"	11 1/2"	2 3/4"	1 1/4"			
9"	12 1/2"	3"	1 5/16"			1 1/2" x 60"
9.5	13"	3 1/8"	1 3/8"	1 1/4" x 48"		
10"	13 1/2"	3 3/8"	1 7/16"		1 1/2" x 60"	
11"	15"	3 5/8"	1 5/8"	X		1 3/4" x 90"
12"	16"	4	1 11/16"			

* Based on cast steel anchor bases only. Plate bases may deviate.

STEEL ANCHOR BASES



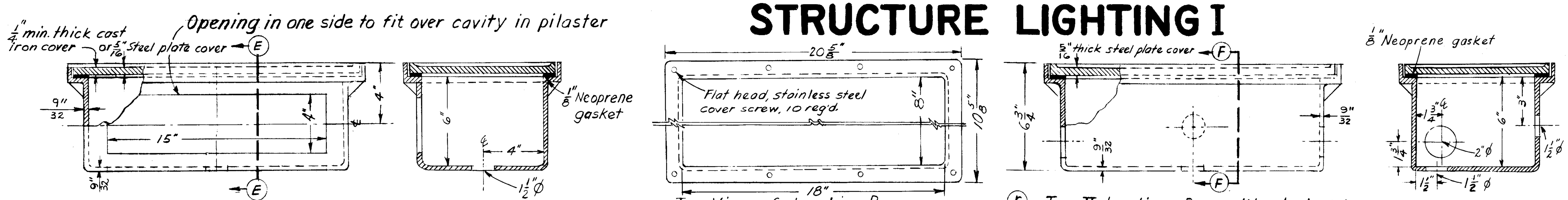
STEEL PLATE



ANCHOR BOLT COVER

Note: To be placed on all light pole anchor bolts provided for future lighting installations.

STRUCTURE LIGHTING I



(c) Type I Junction Box with cast iron or steel plate cover.

Section "E-E"

Top View of Junction Boxes
(Conduit openings not shown)

(r) Type II Junction Box with steel plate cover only

Section "F-F"

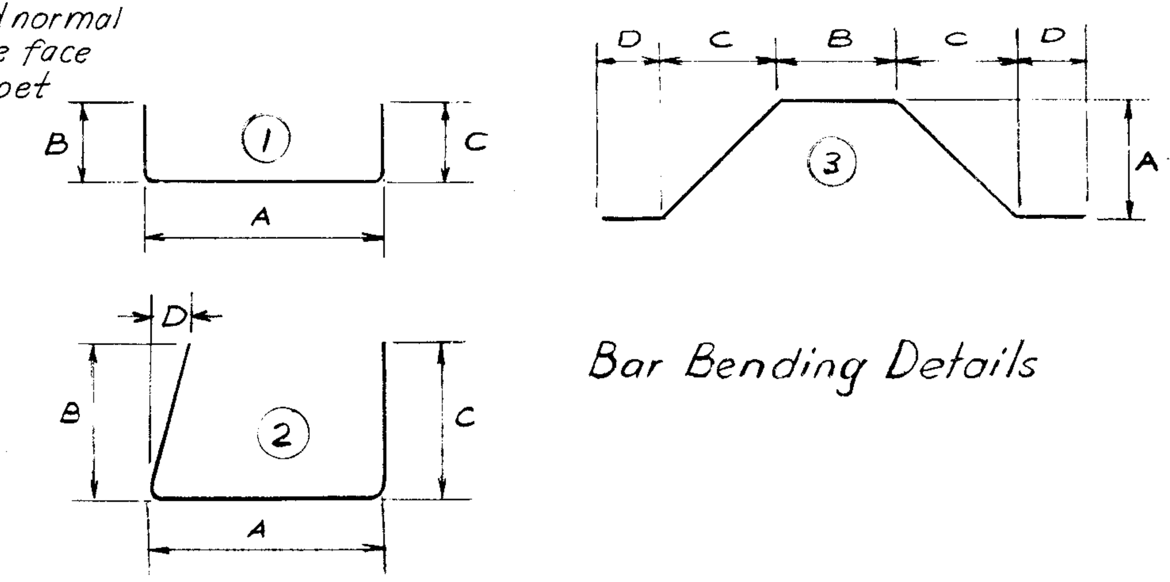
NOTES

1. For grounding details see "STRUCTURE GROUNDING."
2. For anchor bolt details see "POLE BASE DETAILS"
3. Junction Boxes shall conform to 713.10, except that base material composition of galvanized steel plate covers, shall conform to ASTM A-242 or A-36.
4. All conduit openings in junction boxes shall be bossed, drilled and tapped.
5. Payment for pilaster reinforcing steel and concrete shall be included in 509 and 511 items for the structure.
6. Where conduit is provided for future installation of poles the conduit shall be capped.

REINFORCING STEEL LIST – ONE PILASTER

Mark	No.	Length	Weight	Shape	Type	A	B	C	D
L501	4	3'-1"	13	B	1	2'-1"			
L502	4	7'-4"	31	B	1	2'-1"	2'-9"	2'-9"	
L503	6	8'-0"	50	B	3	2'-1"	1'-4"	2'-1"	0'-6"
L504	4	2'-9"	11	S					
L505	4	2'-10"	12	B	1	1'-10"			
L506	4	8'-1"	34	B	2	2'-4"	3-0"	3'-0"	0'-6 1/2"
L507	6	7'-3"	45	B	3	1'-10"	1'-4"	1'-10"	0'-6"
L508	4	3'-0"	13	S					

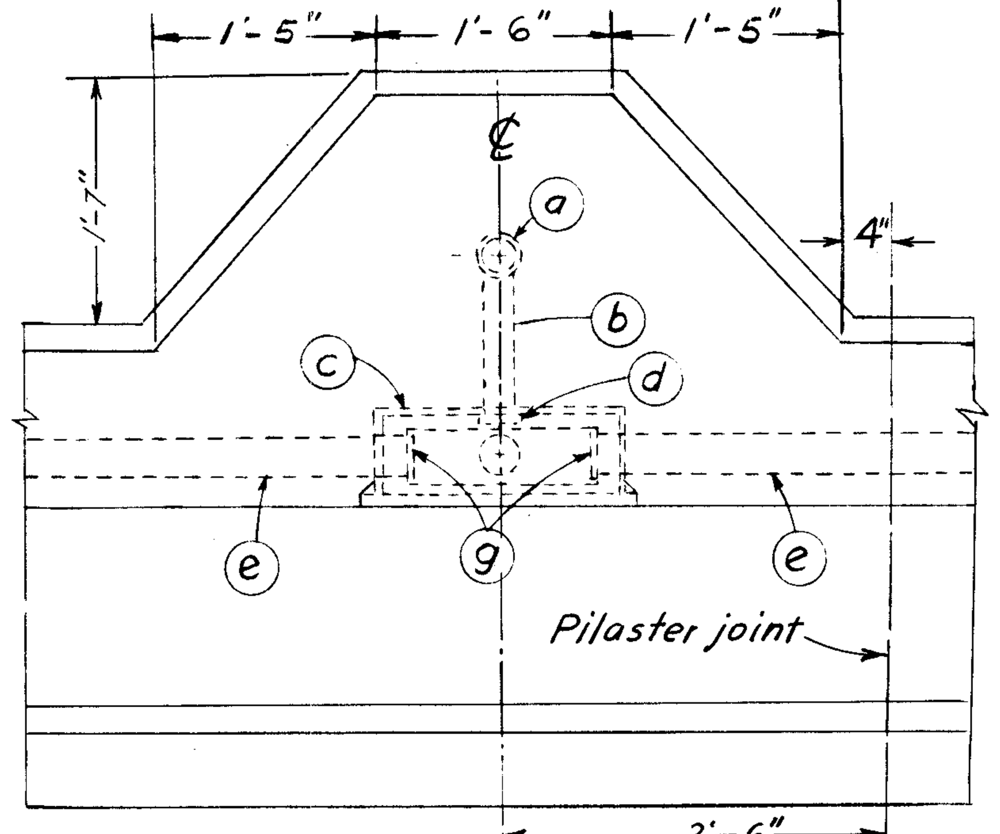
BAR SIZE is indicated in the bar mark. The first digit where three digits are used indicates the bar size number. For example: L501 is a No. 5 size bar.



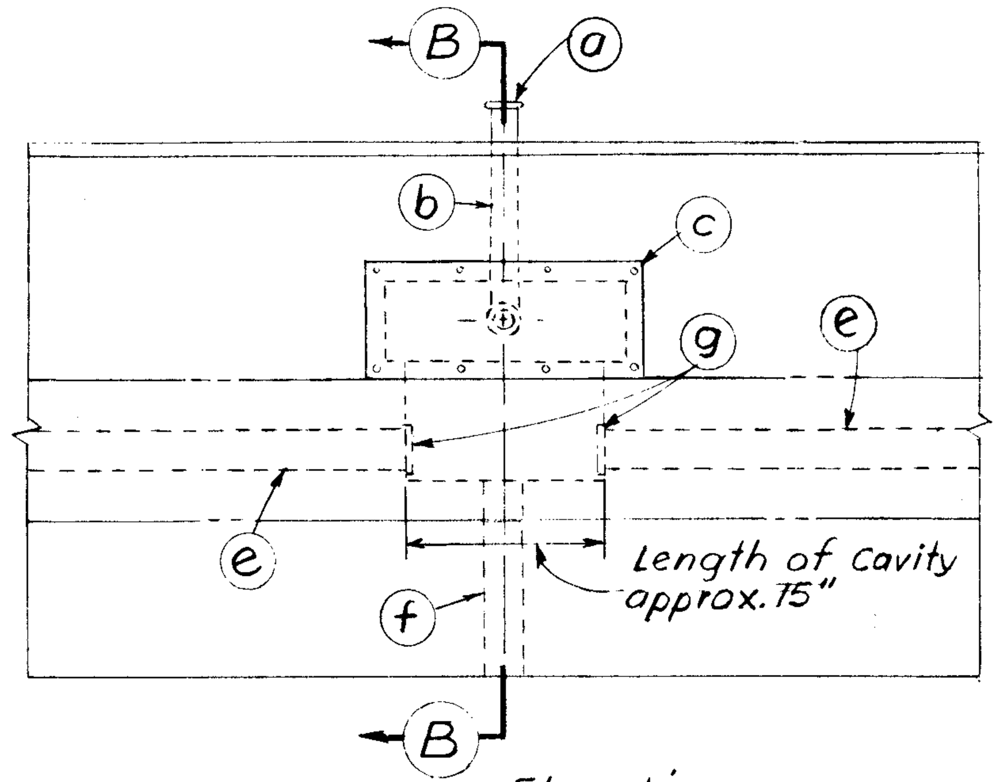
Bar Bending Details

List of Items Shown Below

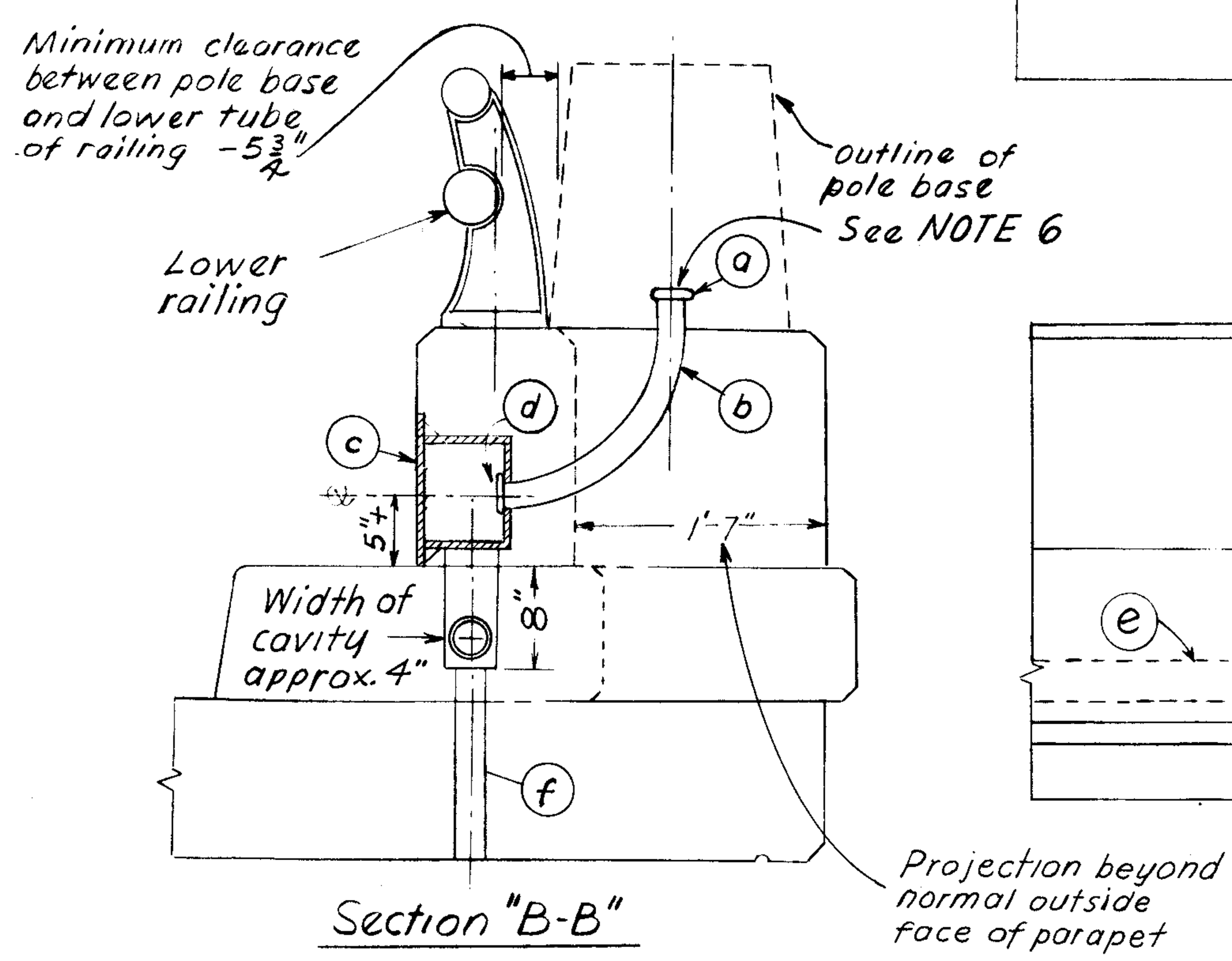
- (a) Bushing for 1 1/2" ∅ conduit
- (b) Modified 1 1/2" ∅ conduit long radius 90° elbow, 713.04, Type III
- (c) Type I Junction Box
- (d) Bushing and locknut for 1 1/2" ∅
- (e) 2" ∅ conduit, 713.04, Type III
- (f) 2" ∅ conduit drain
- (g) Bushing for 2" ∅ conduit



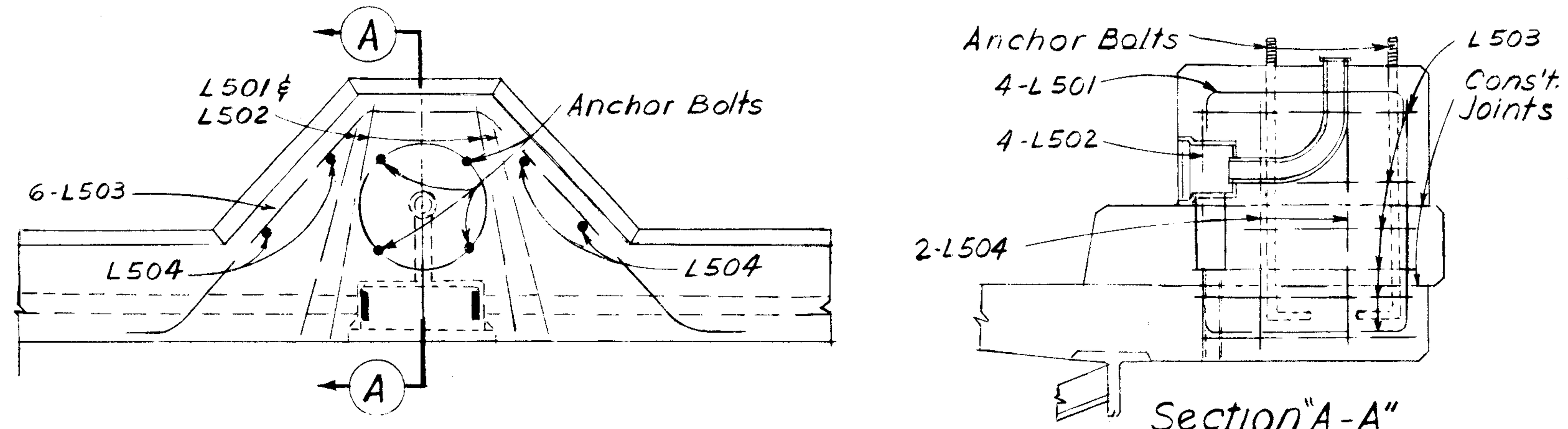
Plan



Elevation



Section "B-B"



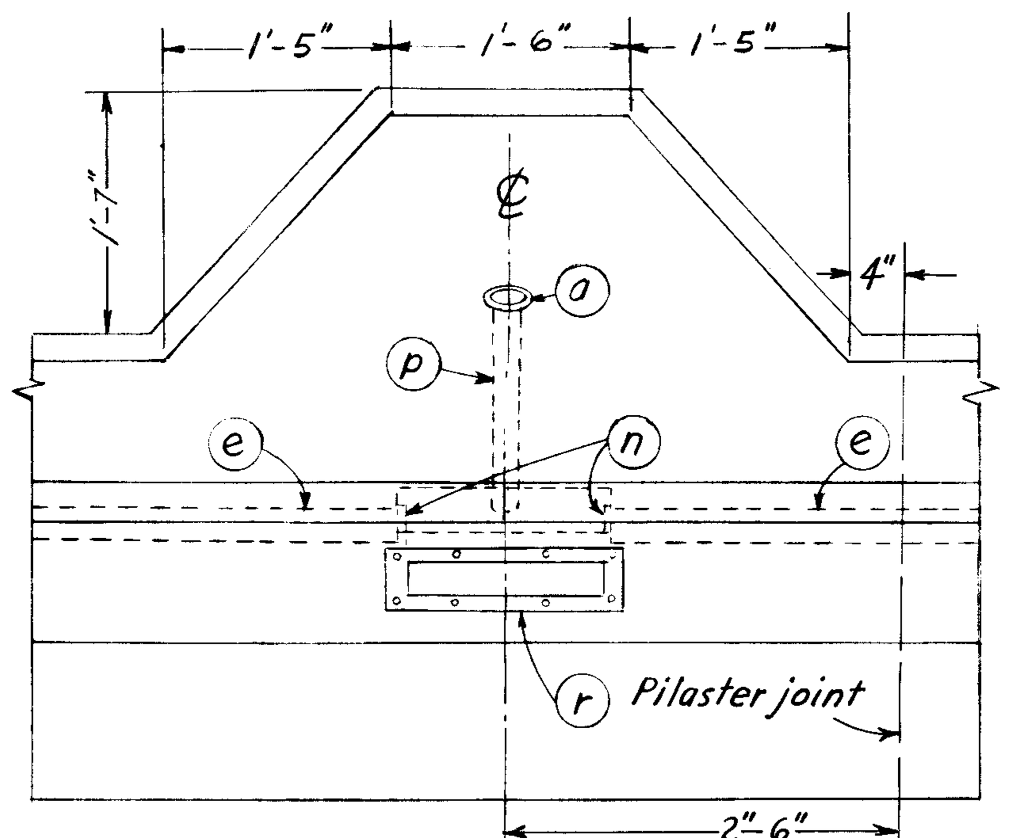
Plan

Section "A-A"

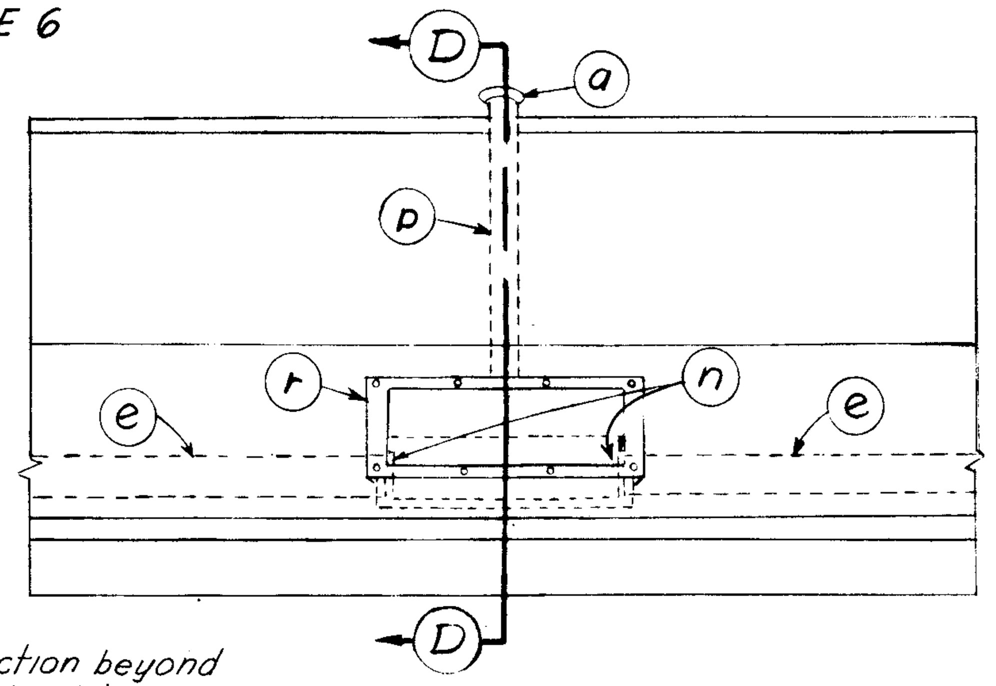
REINFORCING STEEL
LIGHT POLE PILASTER FOR BRIDGE
WITH SIDEWALK RAILING

List of Items Shown Below

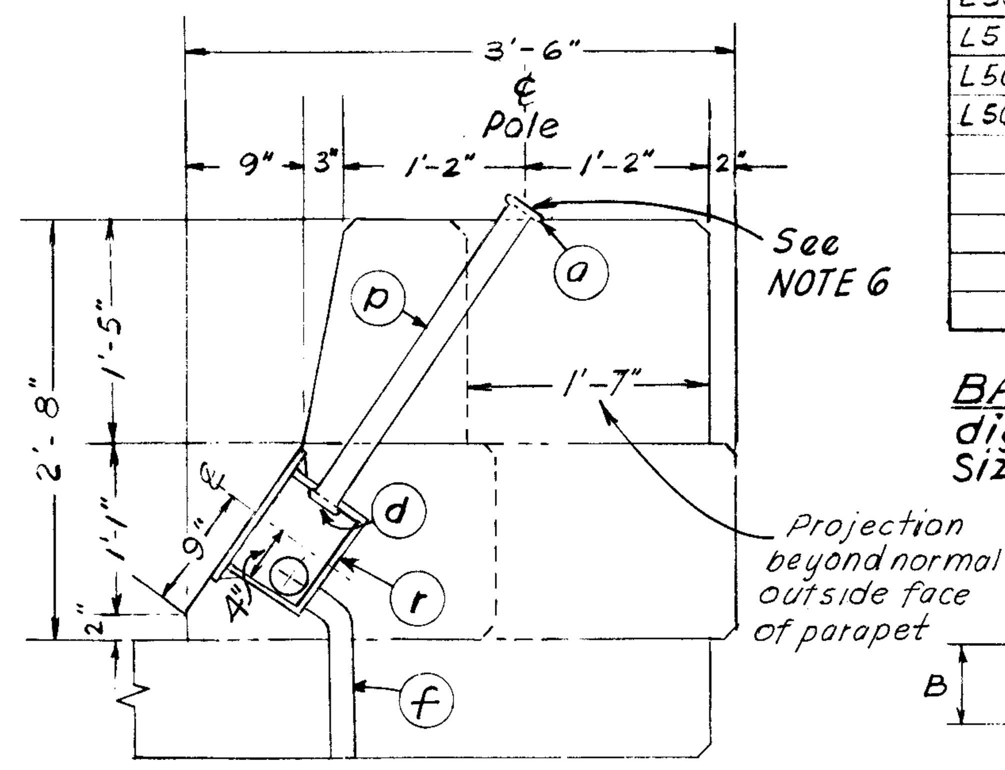
- (a) Bushing for 1 1/2" ∅ conduit
- (d) Bushing and locknut for 1 1/2" ∅ conduit
- (e) 2" ∅ conduit, 713.04, Type III
- (f) 2" ∅ conduit, field bend to form drain
- (n) Bushings & locknuts for 2" ∅ conduit
- (p) 1 1/2" ∅ conduit, 713.04, Type III
- (r) Type II Junction Box



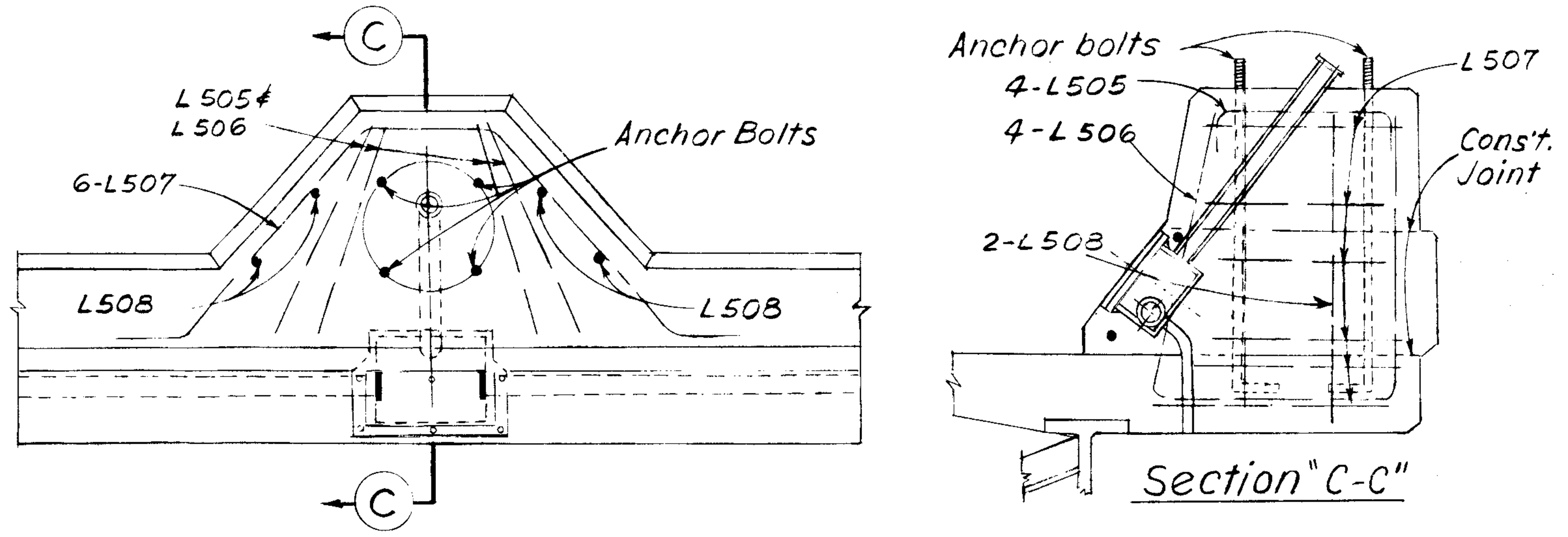
Plan



Elevation



Section "D-D"



Plan

Section "C-C"

REINFORCING STEEL
LIGHT POLE PILASTER FOR BRIDGE
WITH STANDARD ROADWAY RAILING

STRUCTURE LIGHTING II

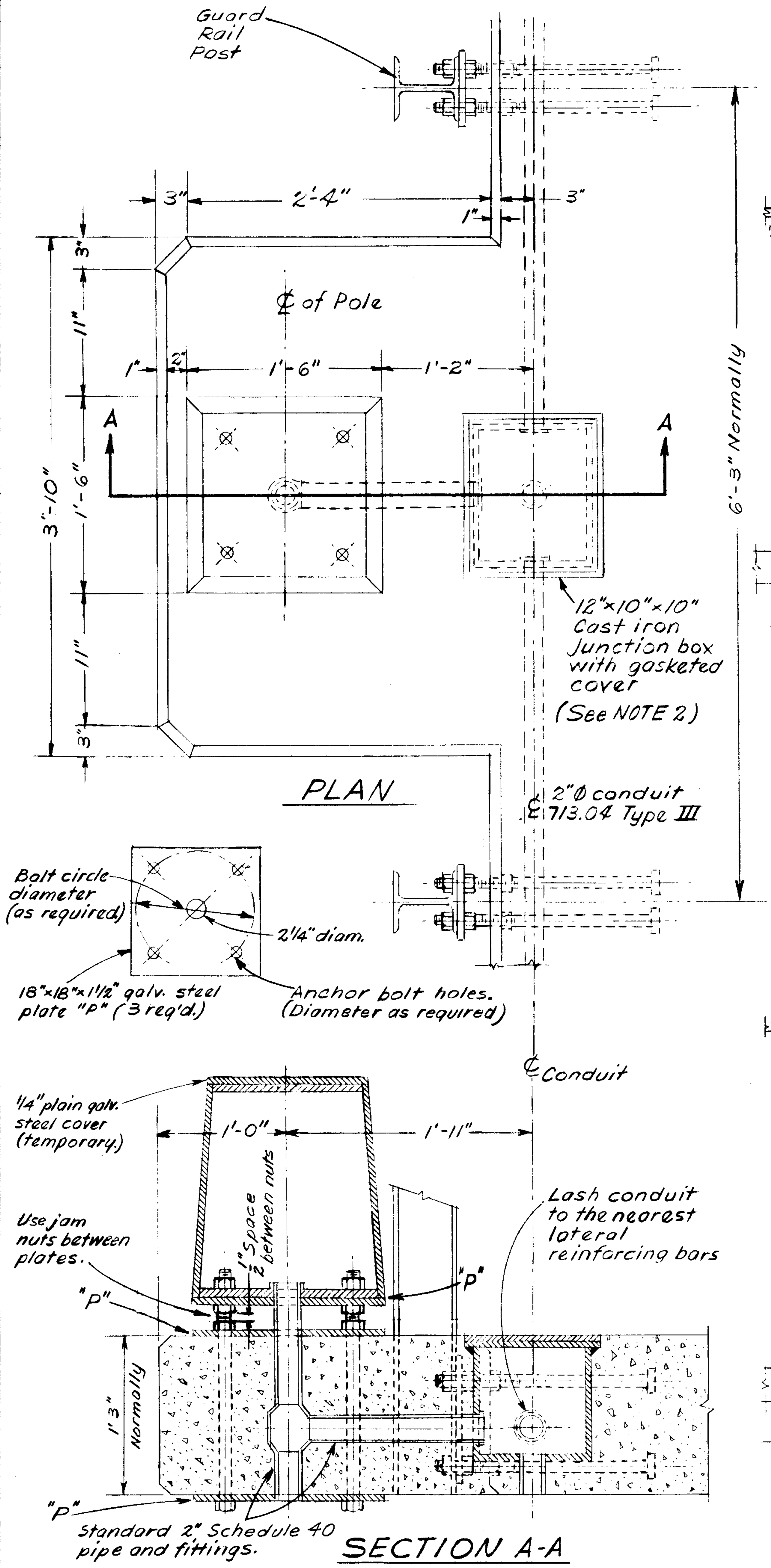
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

502/630

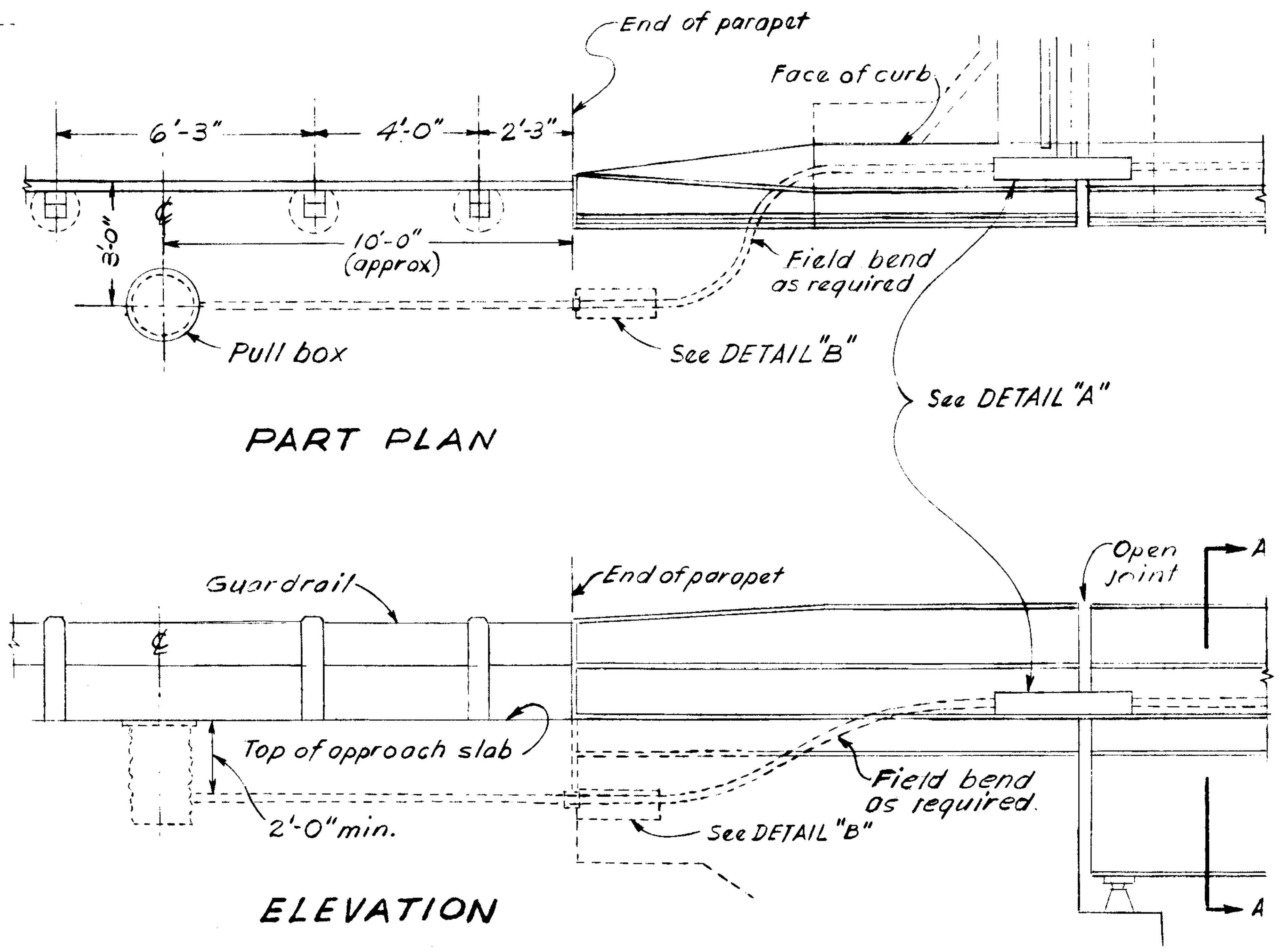
HAM-275-3.86 HAMILTON COUNTY

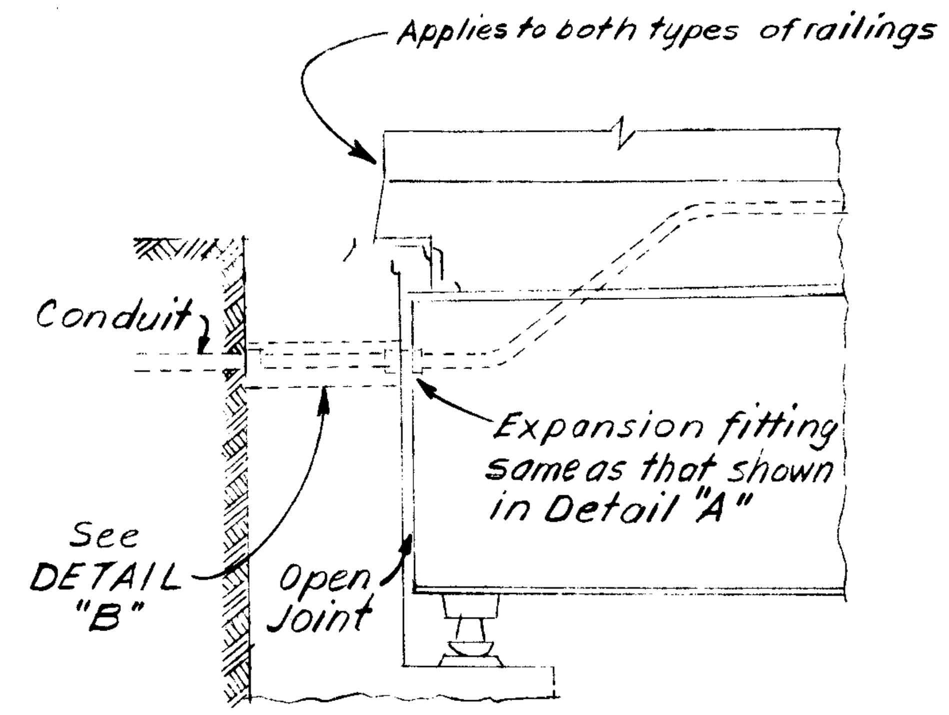
NOTES

1. Fill space around the conduit and/or fittings within the cavity with an approved synthetic, compressable material.
2. All conduit openings in junction boxes shall be bossed drilled and tapped. Covers shall be 1/4" min. thick cast iron.

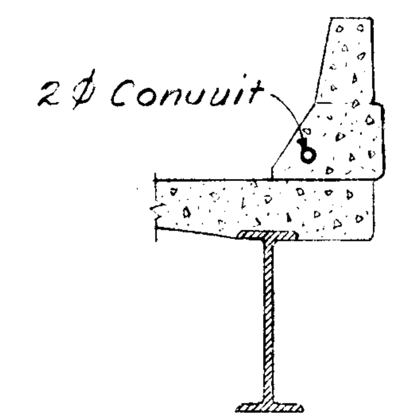


LIGHT POLE PILASTER FOR BRIDGE WITHOUT CURBS AND WITH HIGHWAY GUARD RAIL



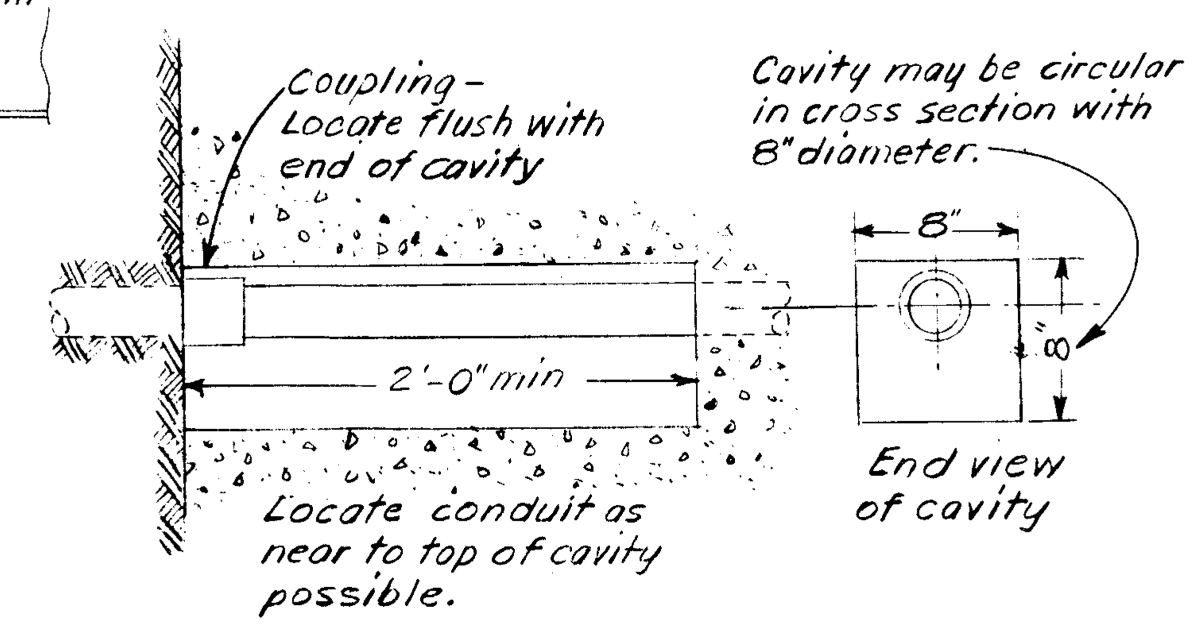


STRAIGHT WING WALL



SECTION A-A

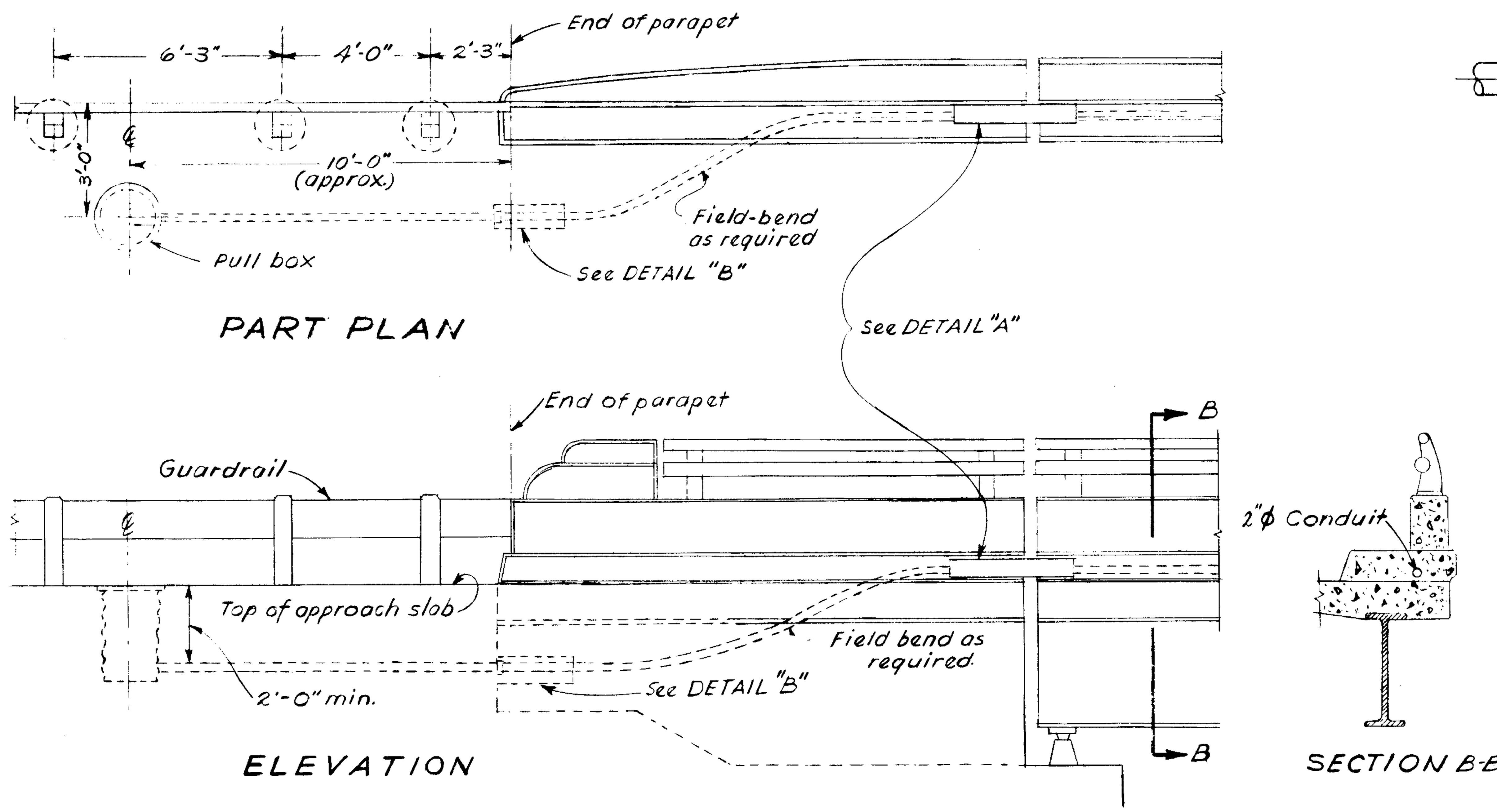
CONDUIT DETAILS FOR BRIDGE WITH STANDARD ROADWAY RAILING



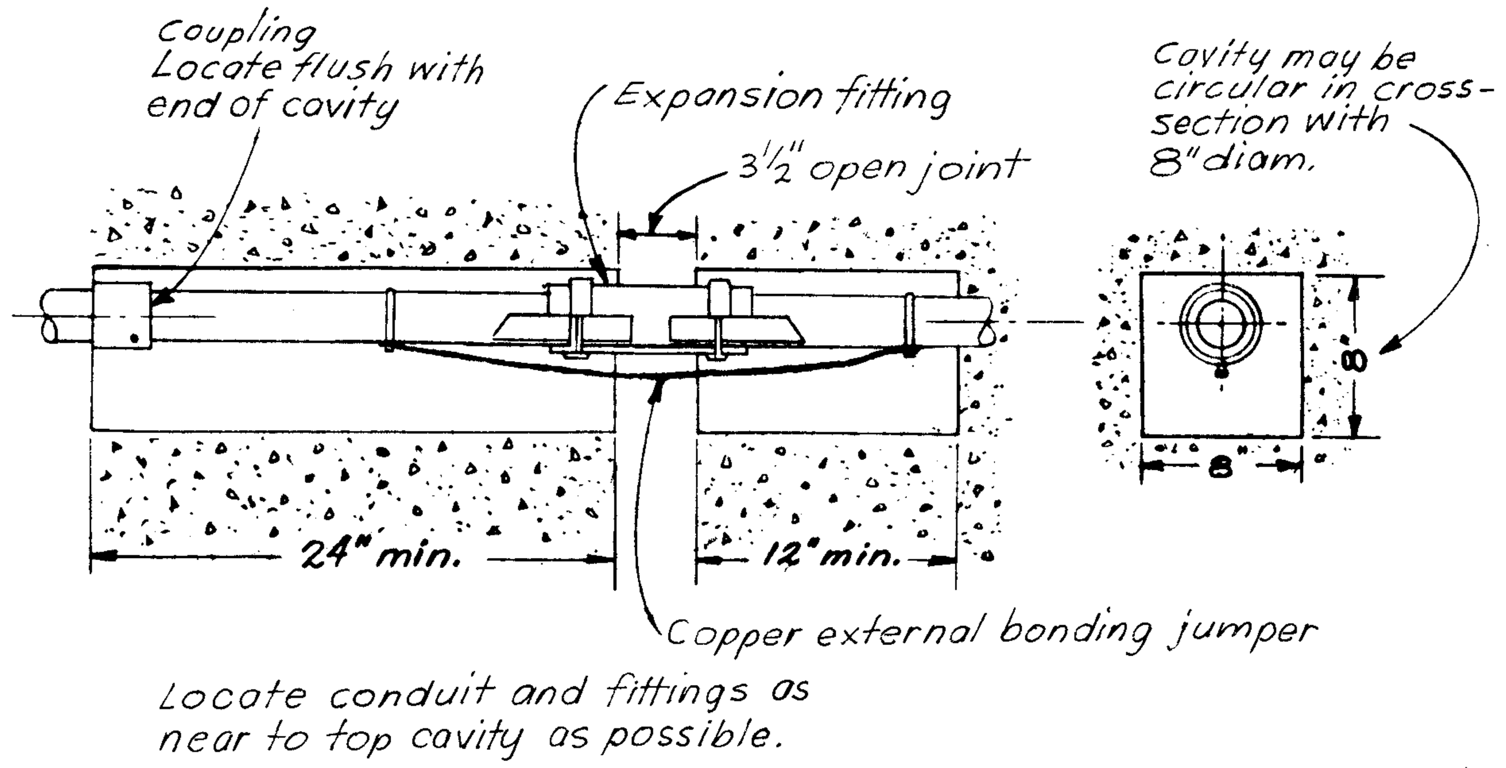
DETAIL "B"

CAVITY FOR CONDUIT CONNECTION AT BRIDGE ABUTMENTS

Dimensions may be altered to fit abutment design



CONDUIT DETAILS FOR BRIDGE WITH SIDEWALK RAILING



DETAIL "A"

CAVITY FOR CONDUIT EXPANSION FITTING

Dimensions may be altered to fit abutment design.

AB-D-GB

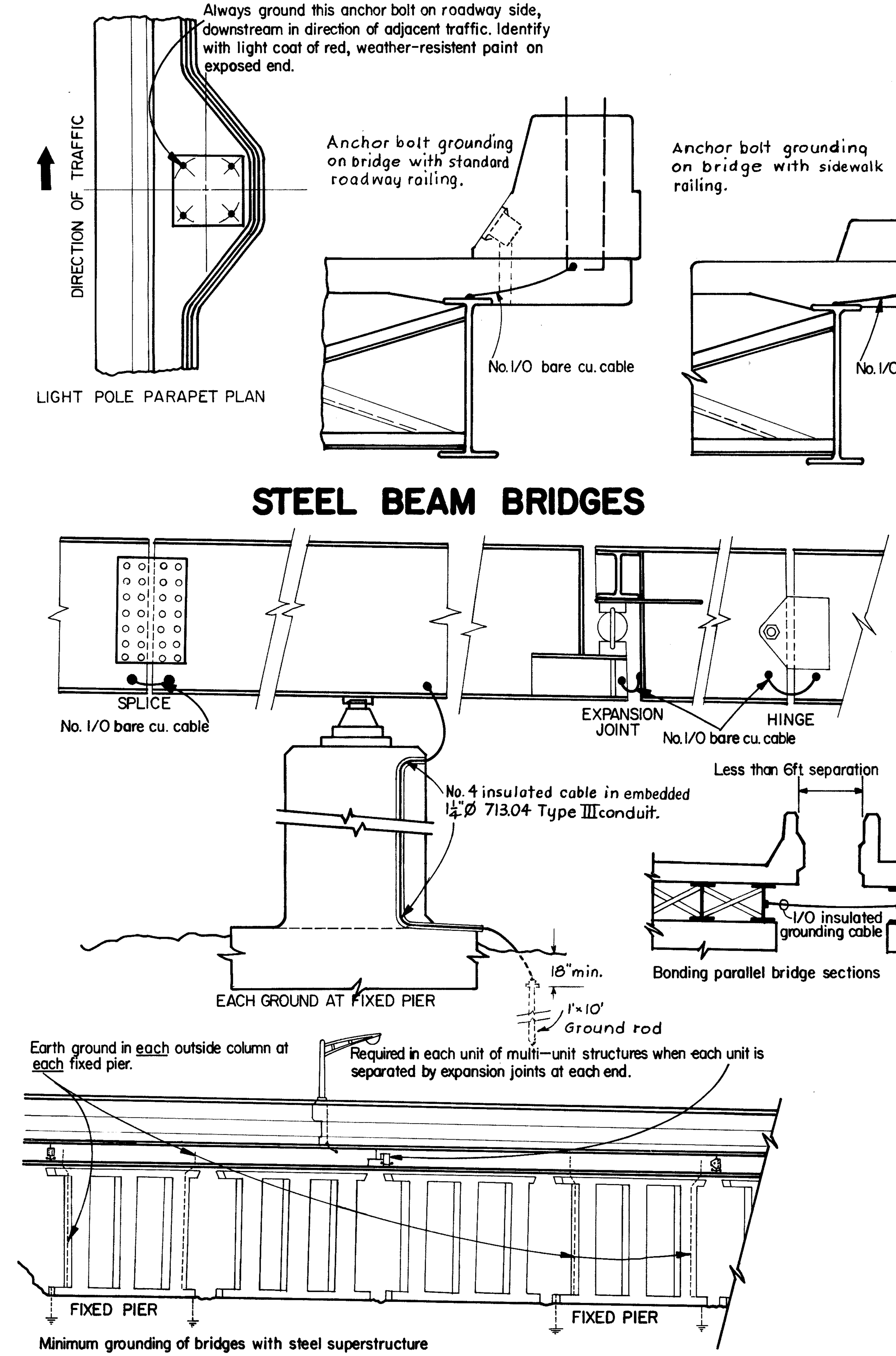
STRUCTURE GROUNDING

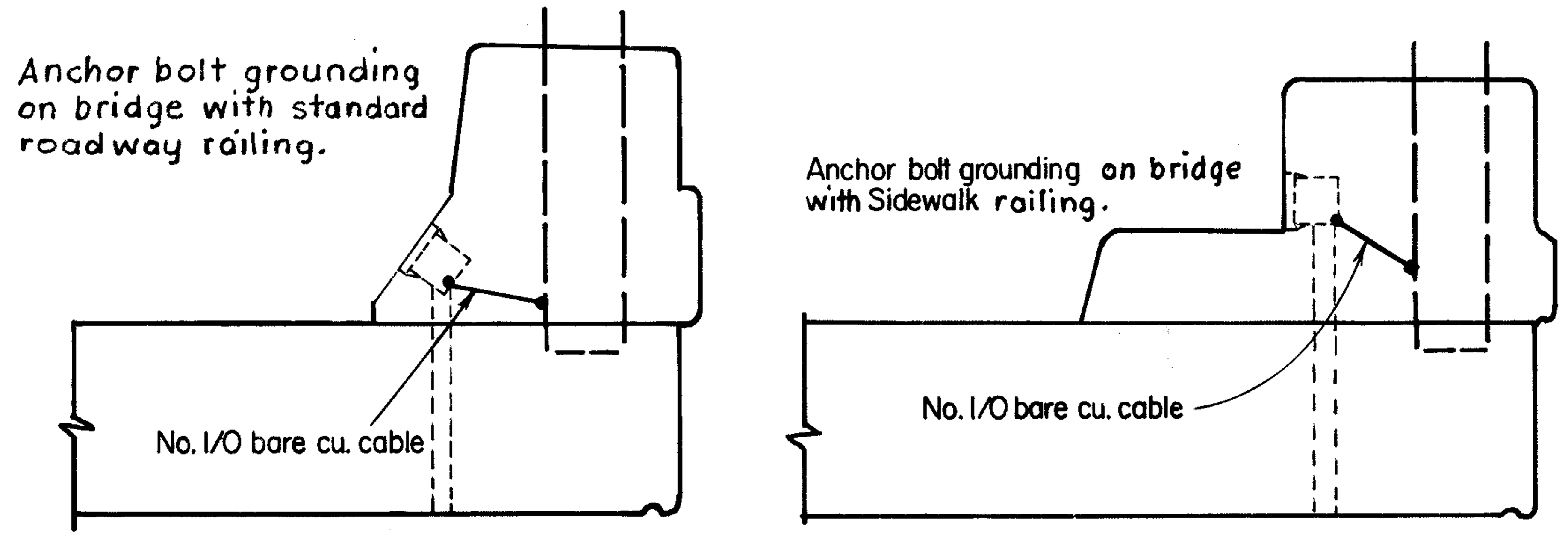
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			503/630

HAM-275-3.86
HAMILTON COUNTY

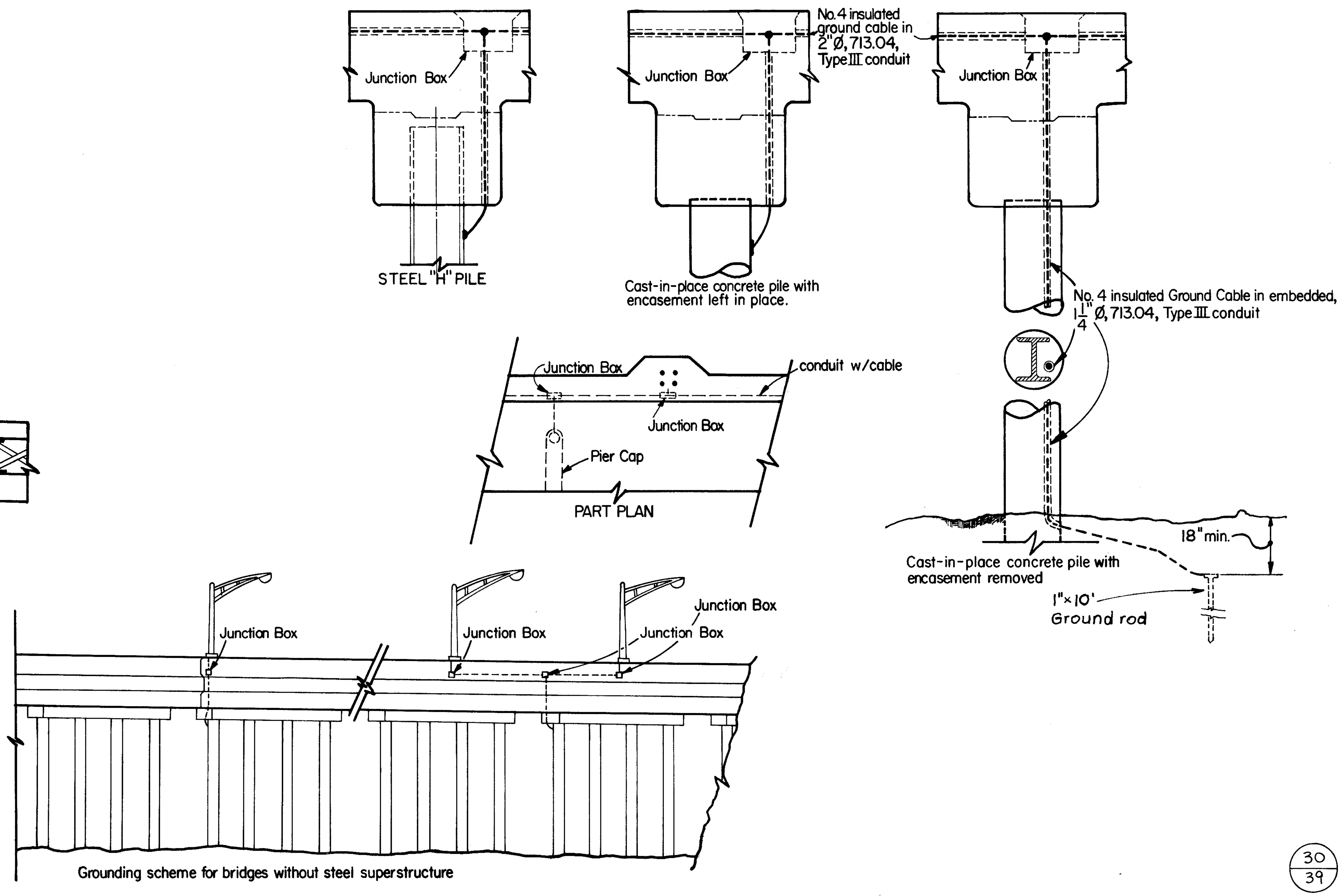
NOTES

1. Copper grounding cable shall be connected to structural steel, pile encasement, piling, ground rods and/or light pole anchor bolts by means of exothermic welding. Two coats of insulating varnish shall be applied over the exothermic weld and exposed cable.



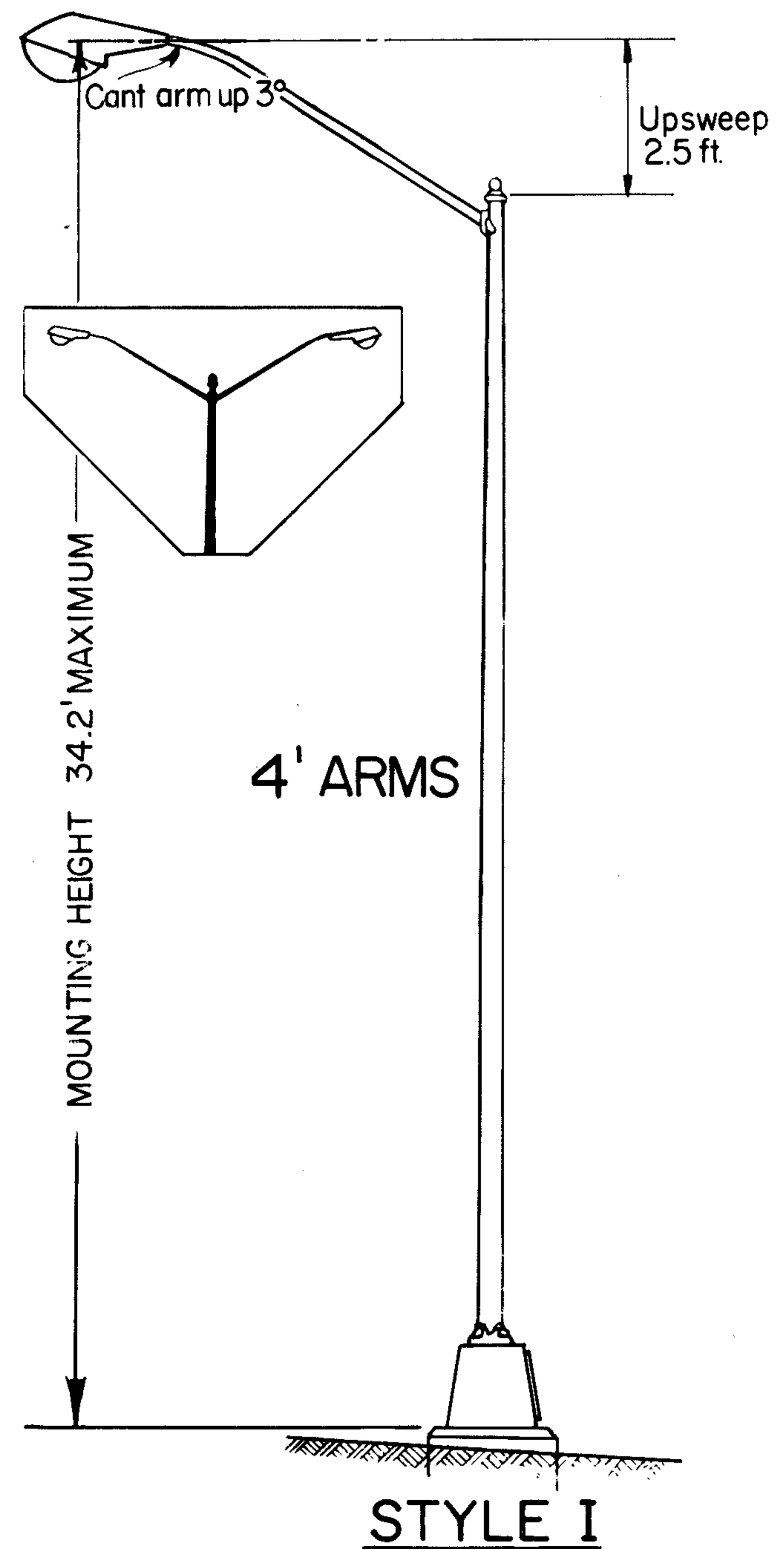


CONCRETE SLAB BRIDGES

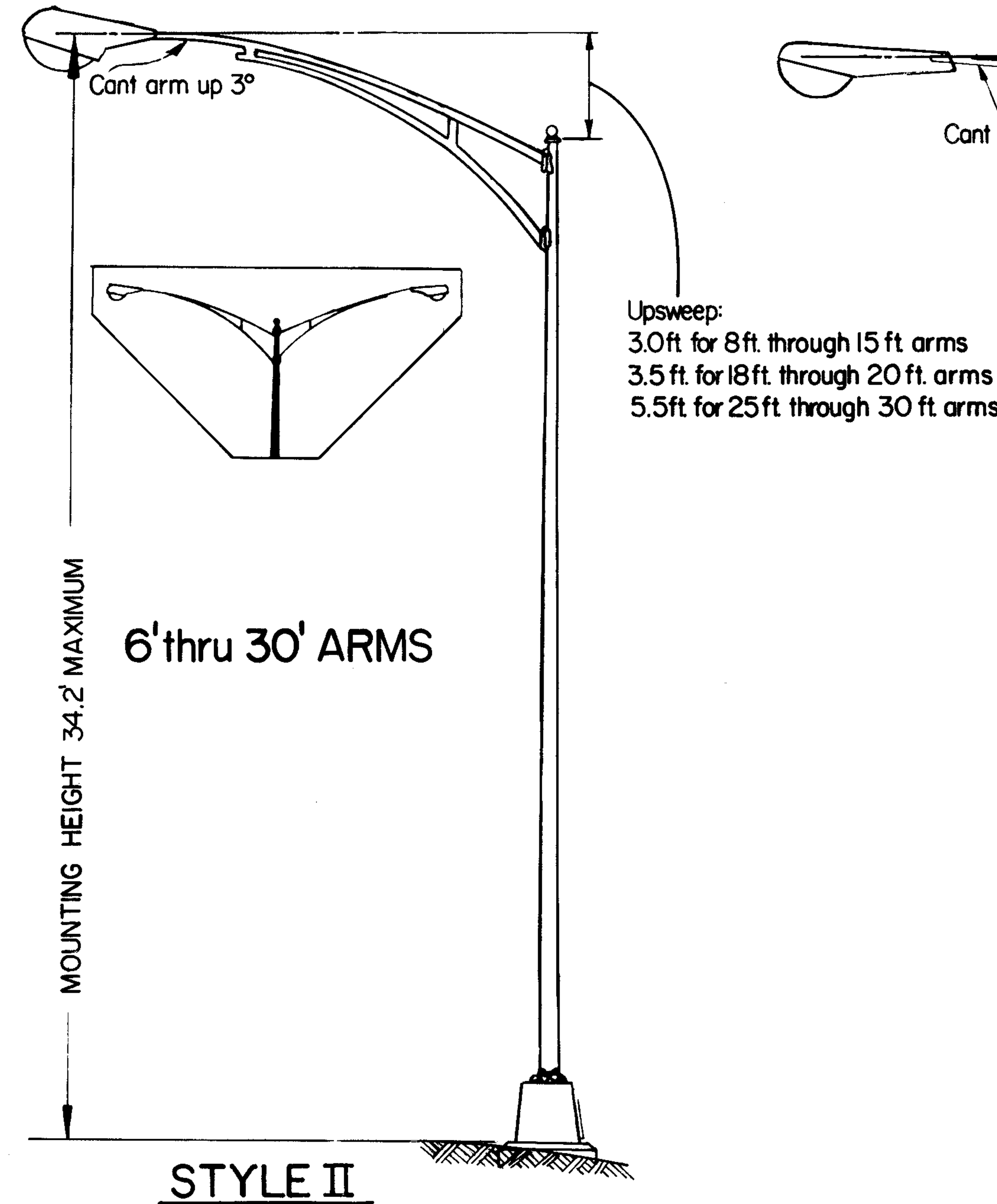


AB-D-GB BRUNING 44-560 10943

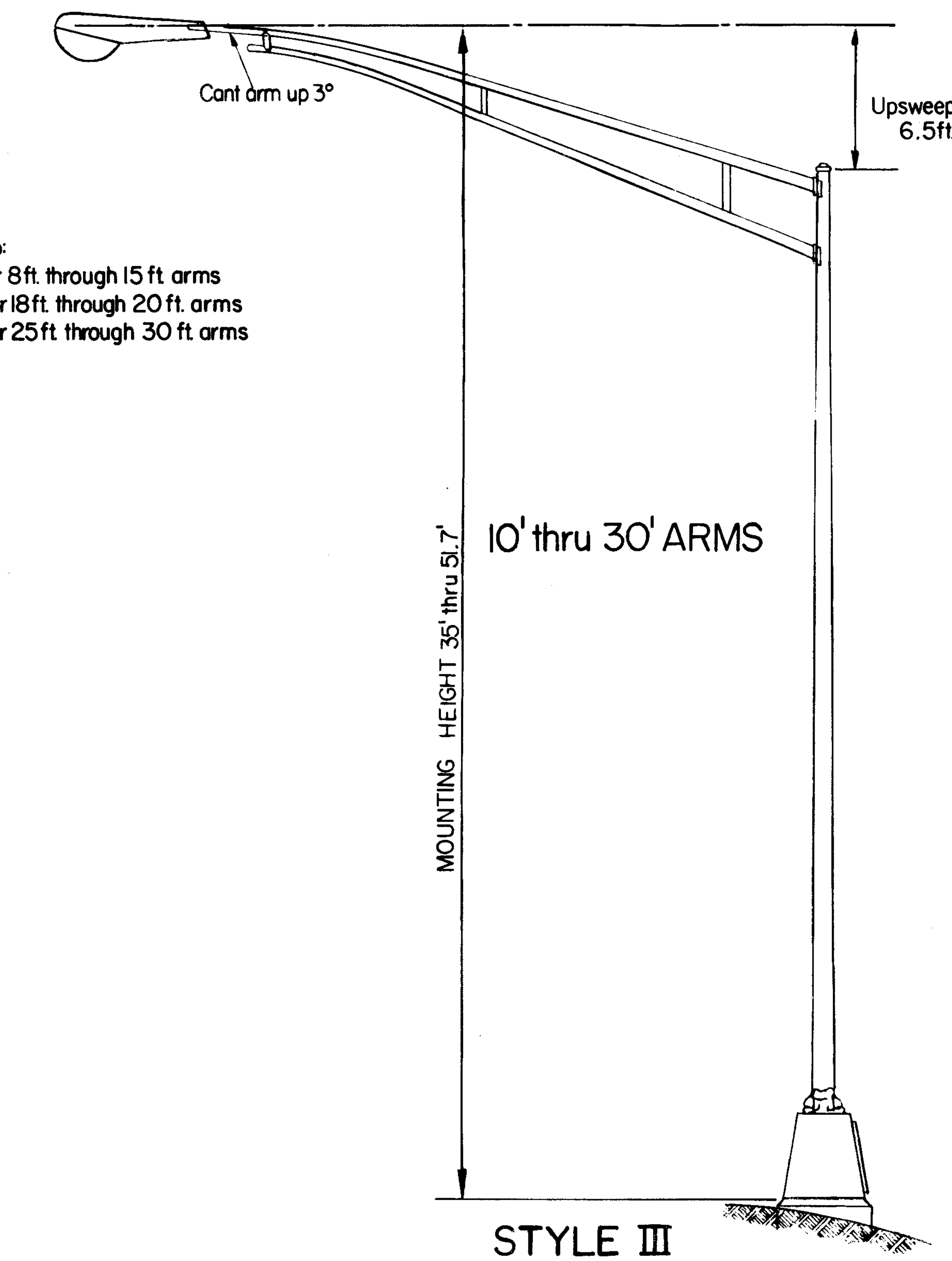
LIGHT POLE STYLES



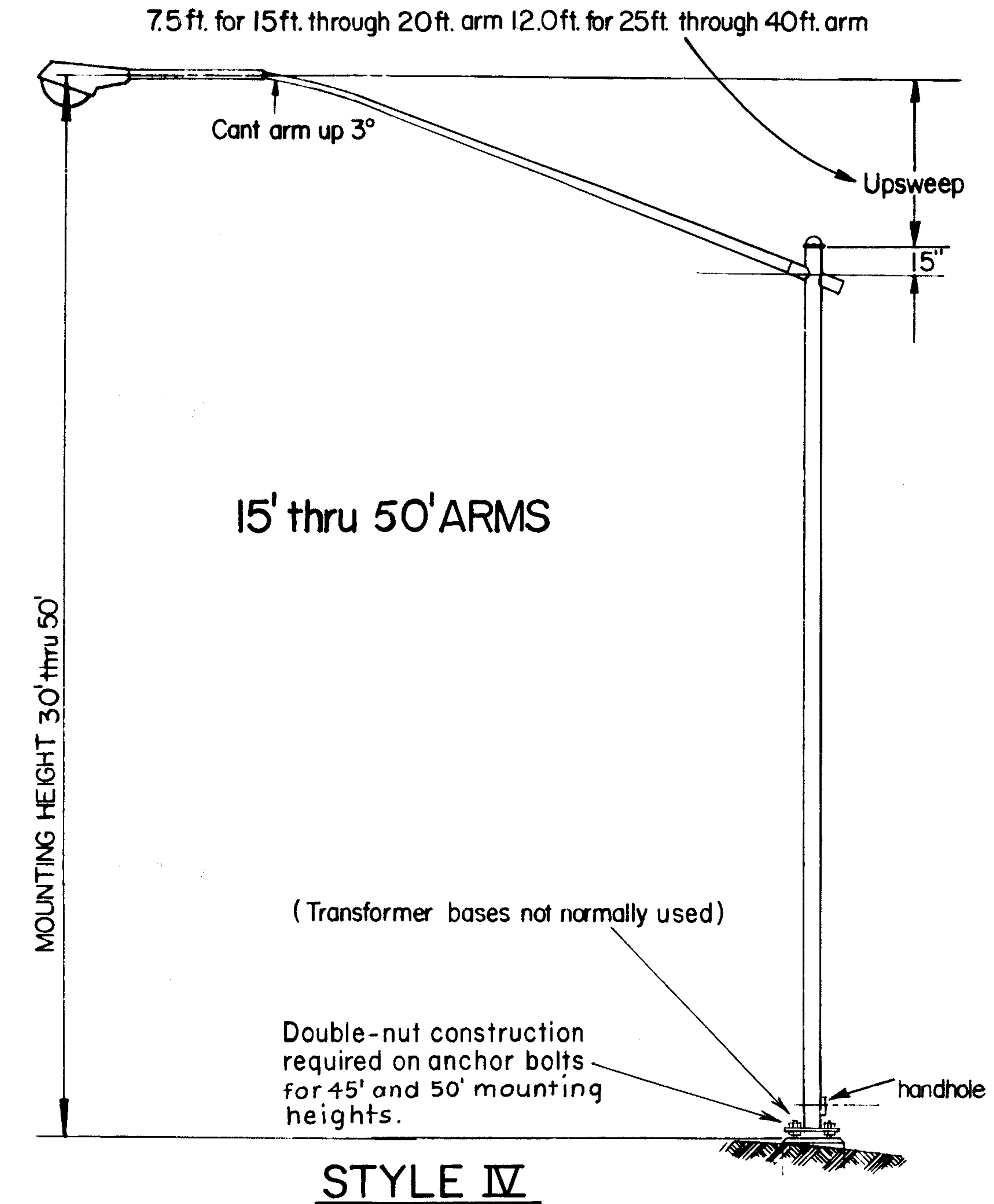
STYLE I



STYLE II

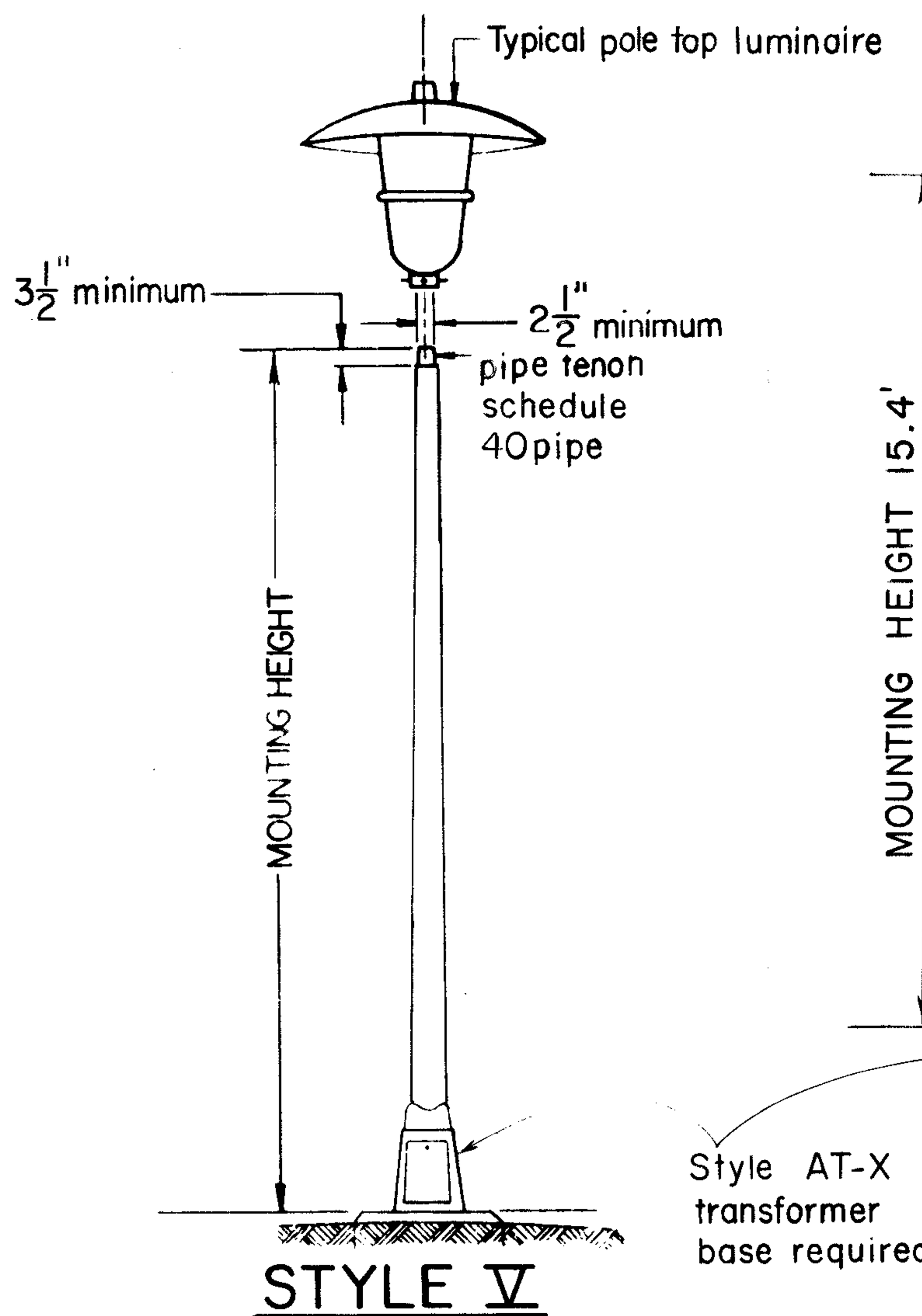


STYLE III

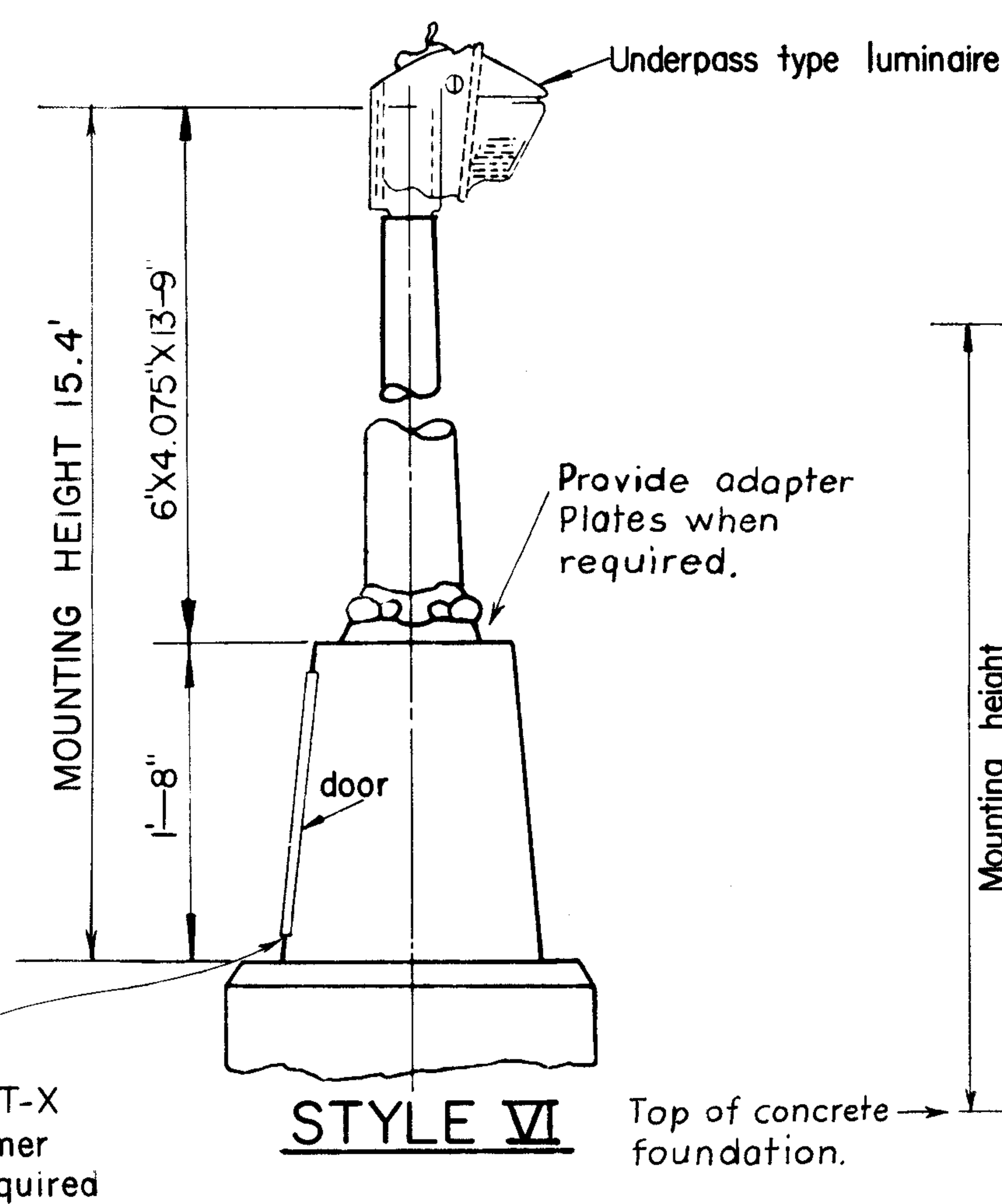


STYLE IV

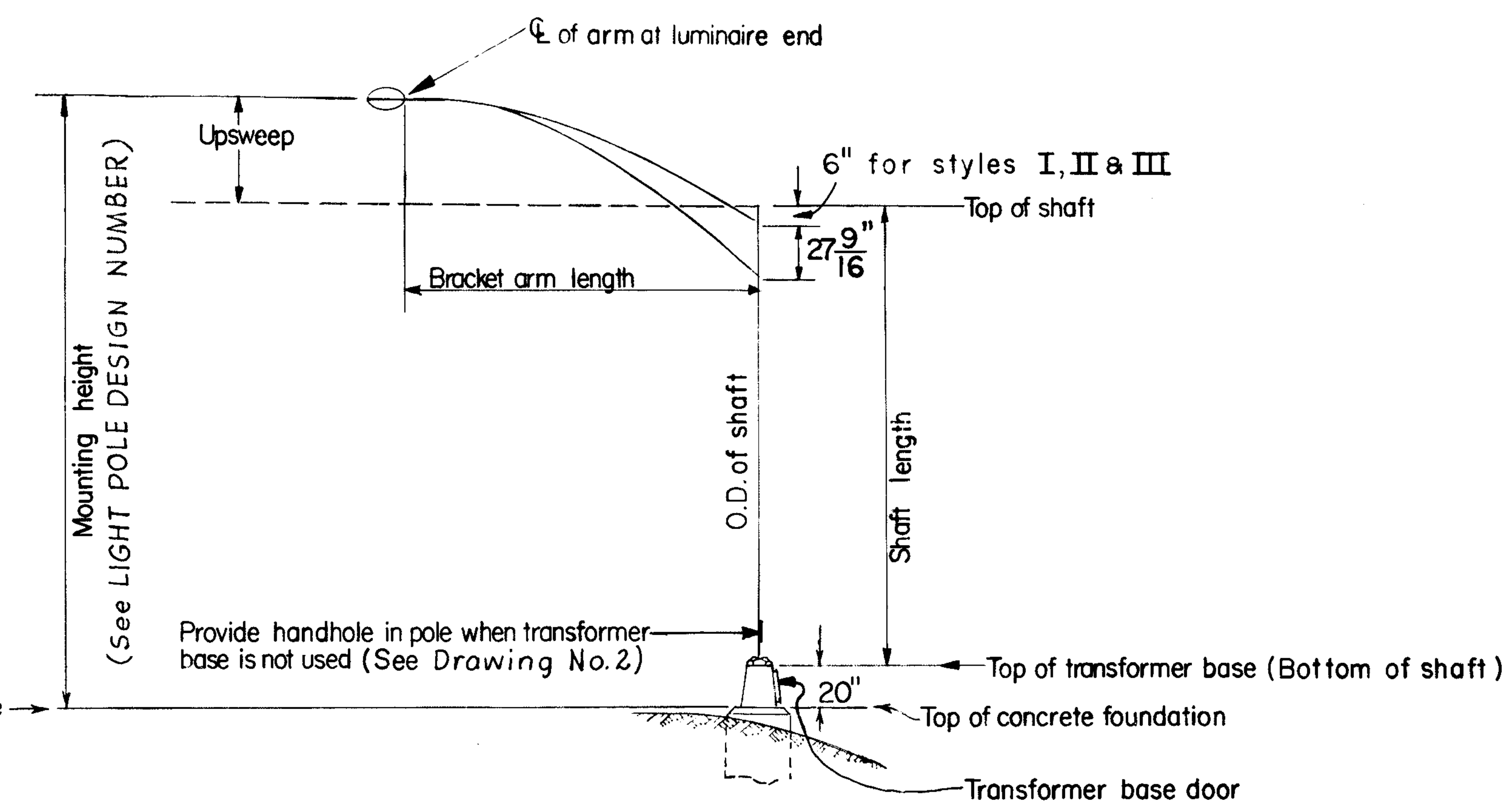
NOTE: Subject to the approval of the Engineer, modification of the ratio of bracket upsweep to arm length is permissible provided the basic pole proportions are maintained as shown.



STYLE V



STYLE VI



Base type: A = Anchor
AT = Aluminum Transformer
ST = Steel Transformer
T = Steel or Aluminum Transformer

A 4 B 25 D

- *Bracket arm(s)*: "B" = Single arm; "BB" = Double arm (If unequal arms Ex. 10B15B); "ON" = Post top
- *Special features (See details).*
- *Mounting height. (The distance from top of foundation, retaining wall or bridge parapet to the center of the bracket arm at the luminaire end.)*
- *Arm Length.*

LIGHT POLE DESIGN NUMBER

POLE WIRING

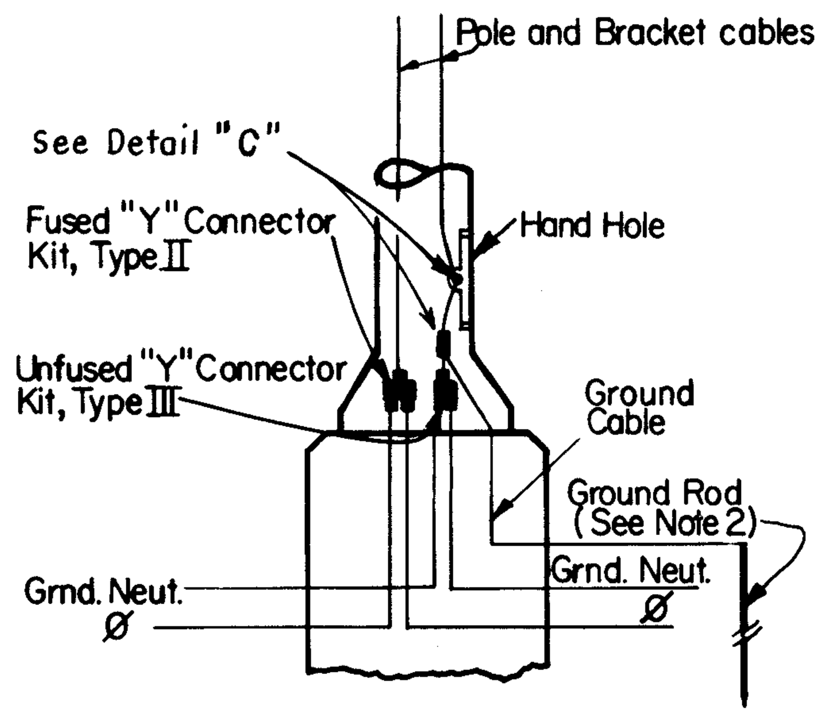
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

505/630

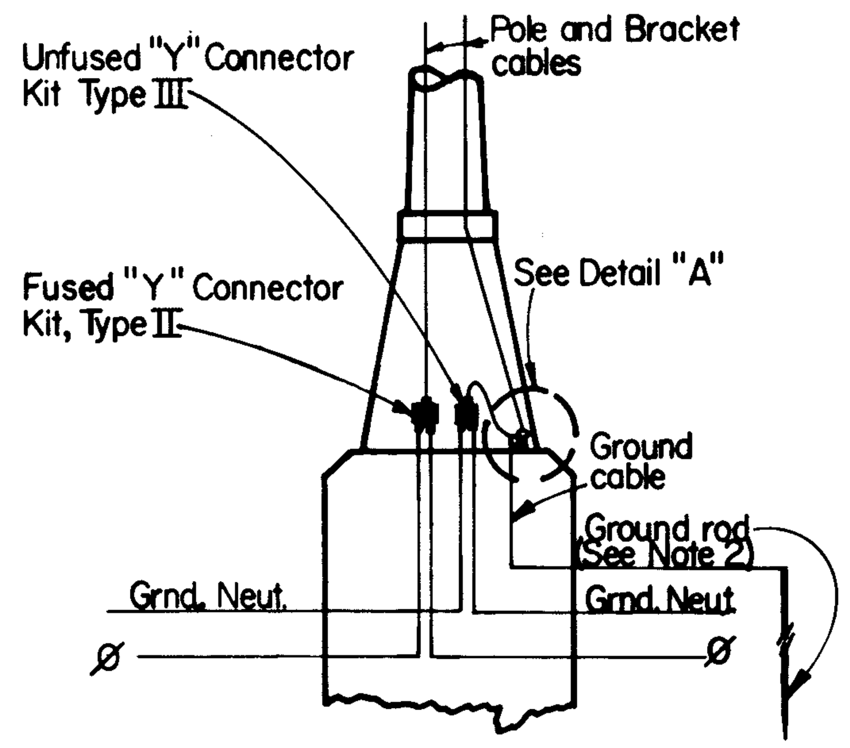
HAM - 275 - 3.86
HAMILTON COUNTY

NOTES

1. Provide sufficient slack in all cables to permit bringing Kits outside of pole base through handhole of anchor base poles or door in transformer base poles.
2. For structure-mounted poles substitute "Structure grounding system" for "ground rod".
3. See Drawing No. 13 for fusing details.

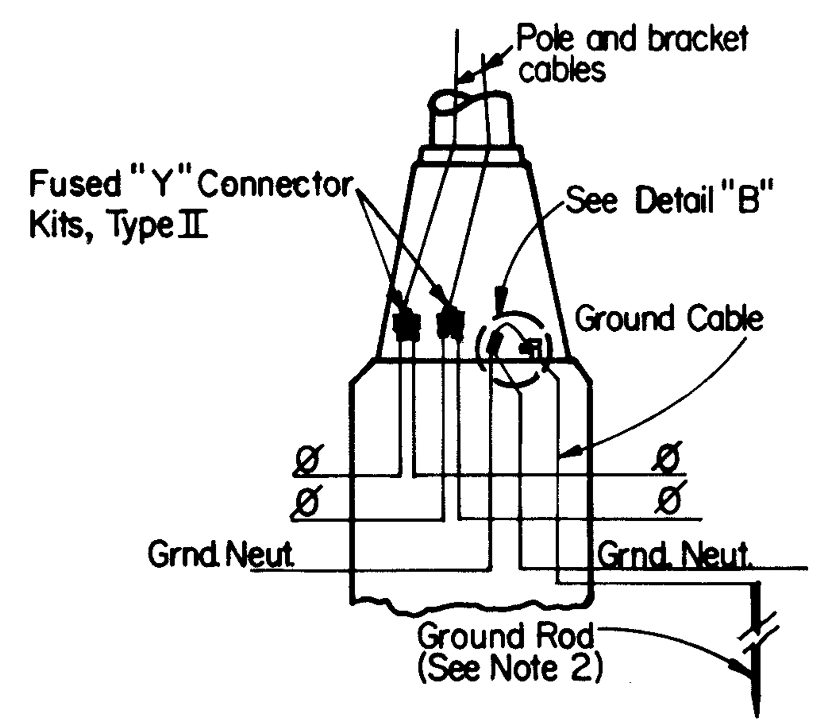


ANCHOR BASE POLE

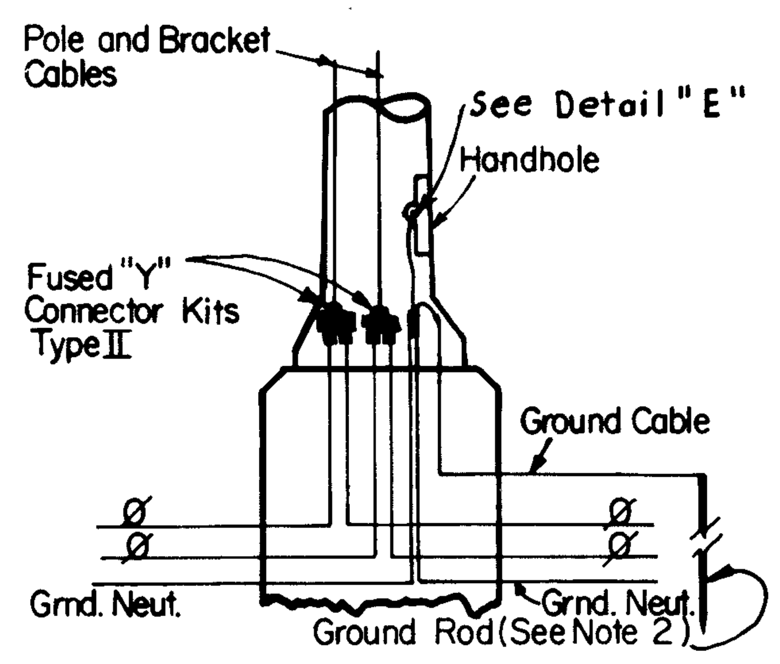


TRANSFORMER BASE POLE

480 VOLT, TWO-WIRE, GROUNDED NEUTRAL

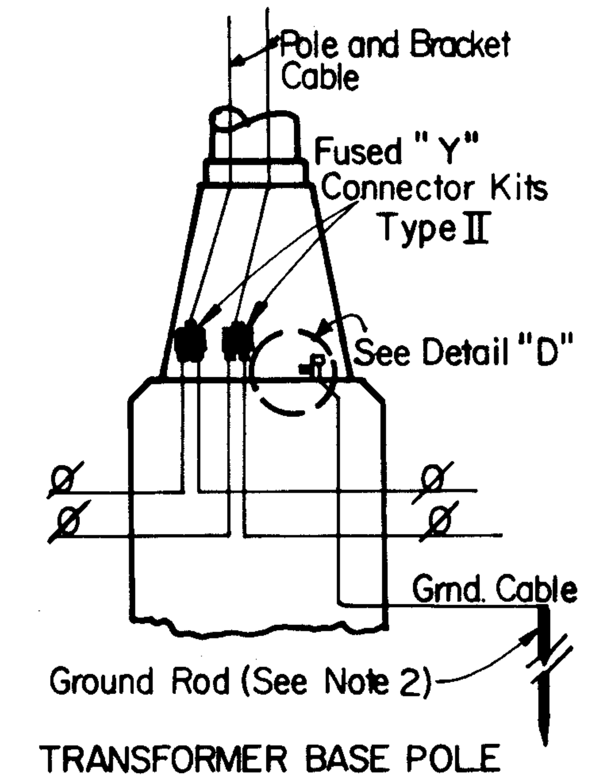


TRANSFORMER BASE POLE



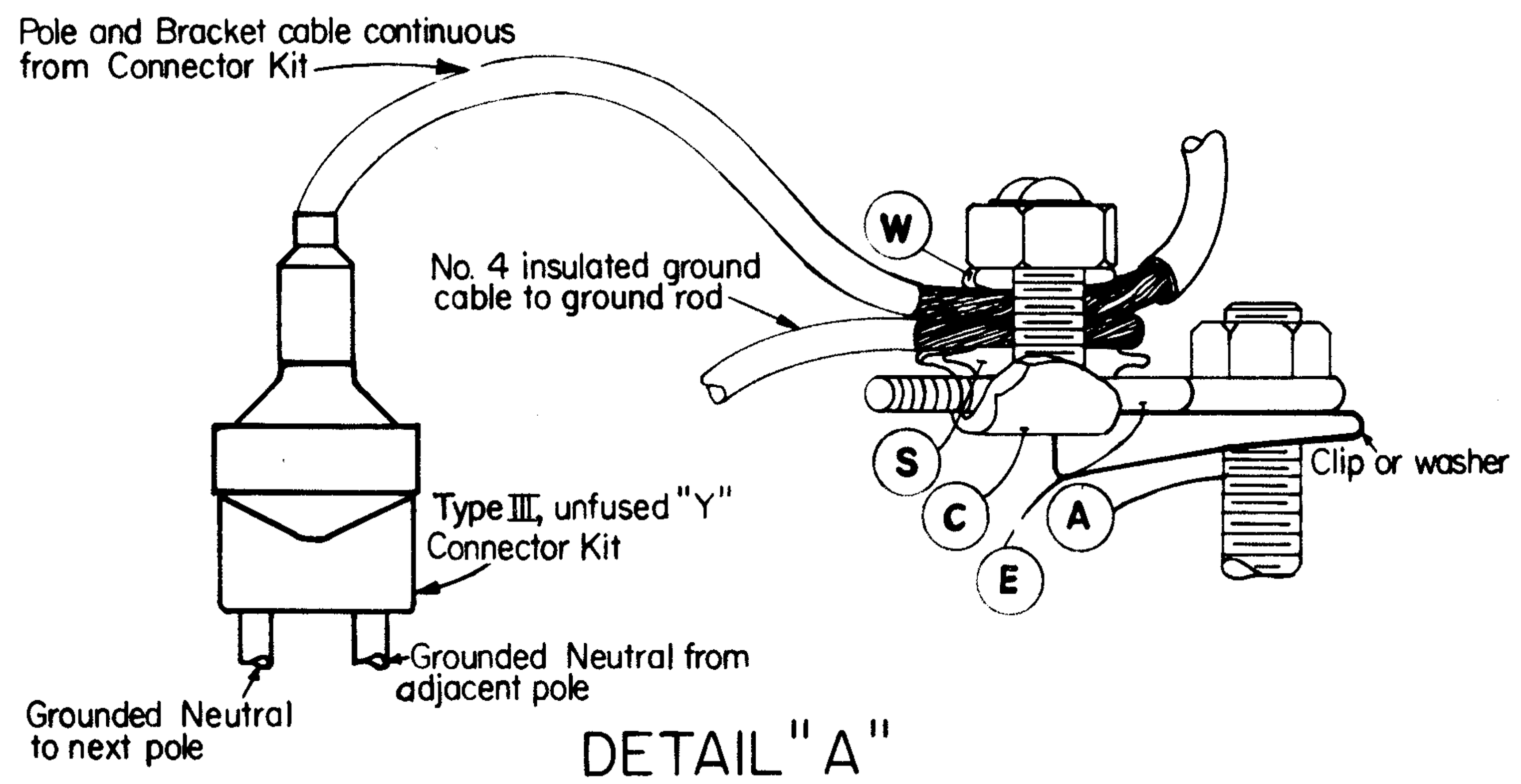
ANCHOR BASE POLE

120/240 VOLTS, THREE WIRE, GROUNDED NEUTRAL

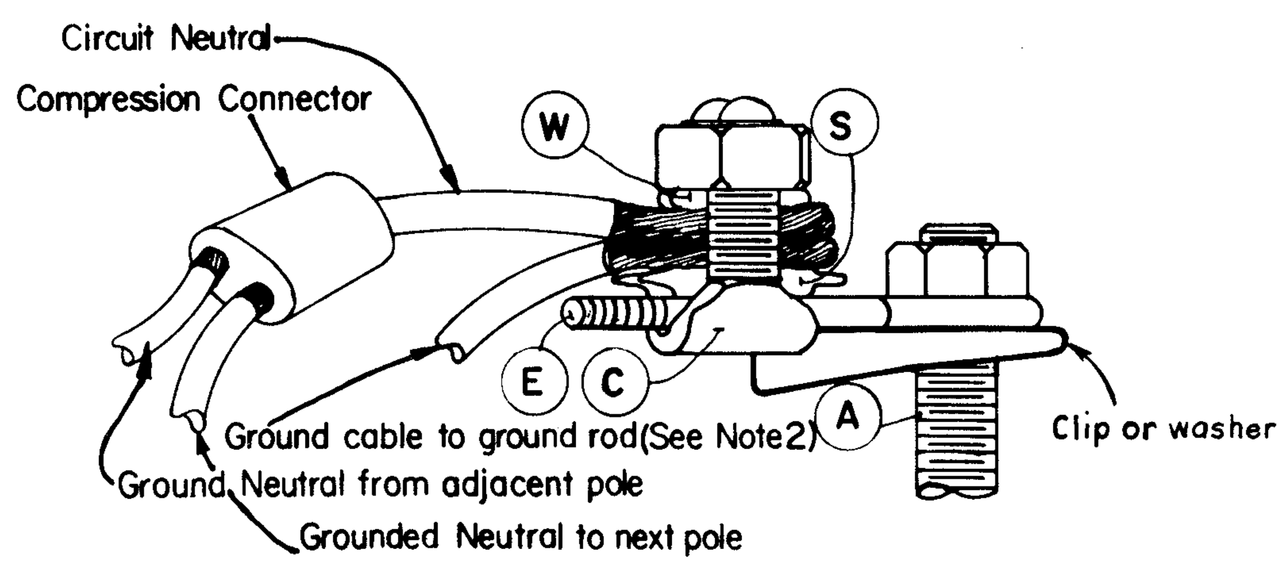


TRANSFORMER BASE POLE

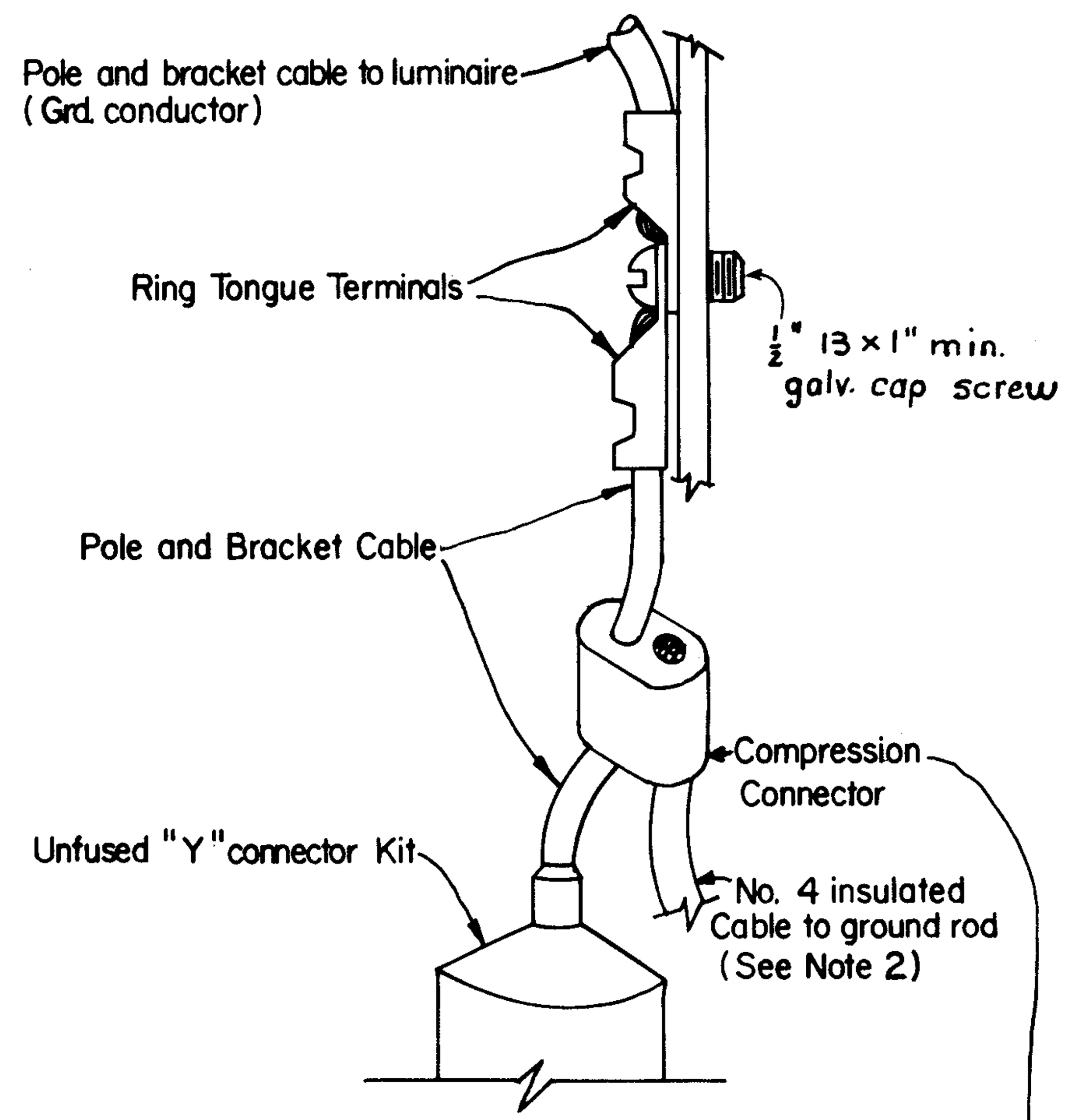
240 or 480 VOLTS, TWO-WIRE, UNGROUNDED



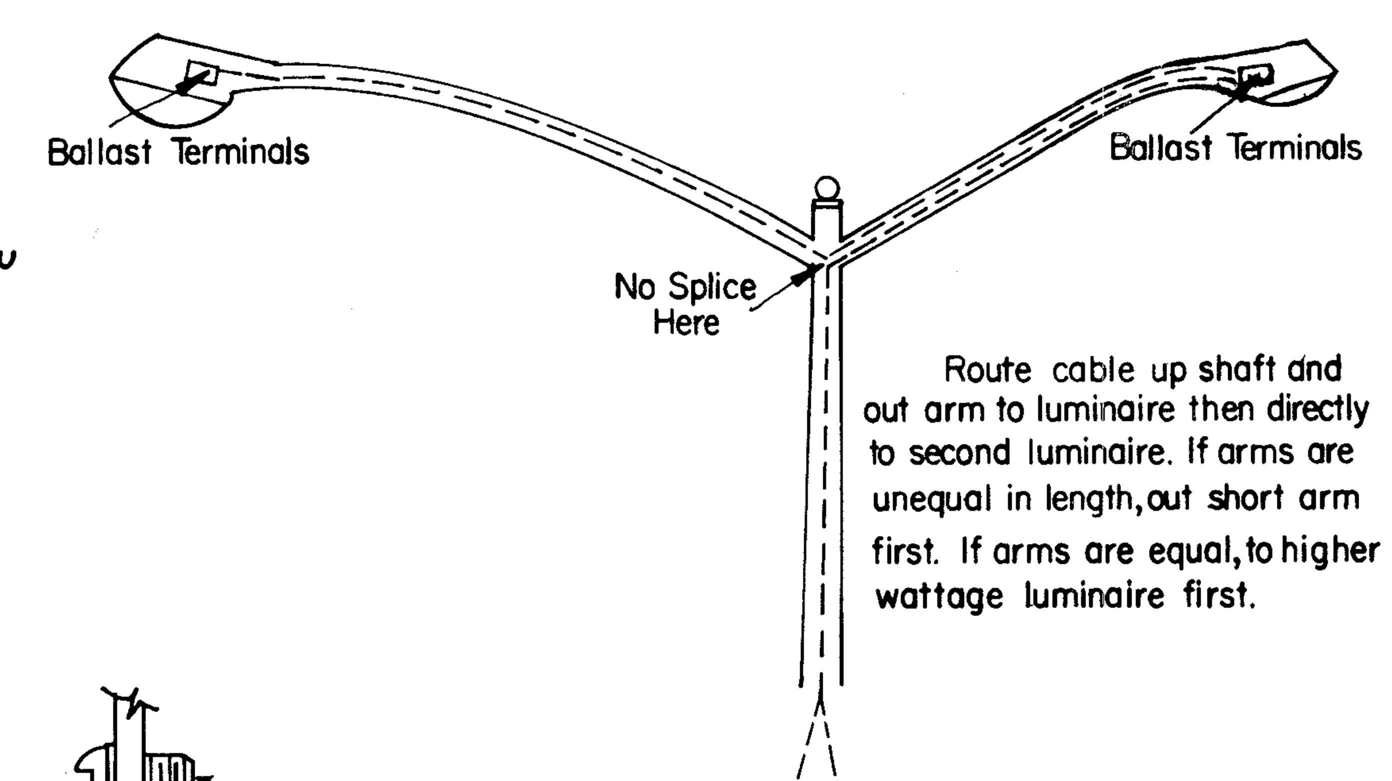
DETAIL "A"
2-Wire Grounded Neutral
Transformer Base Pole



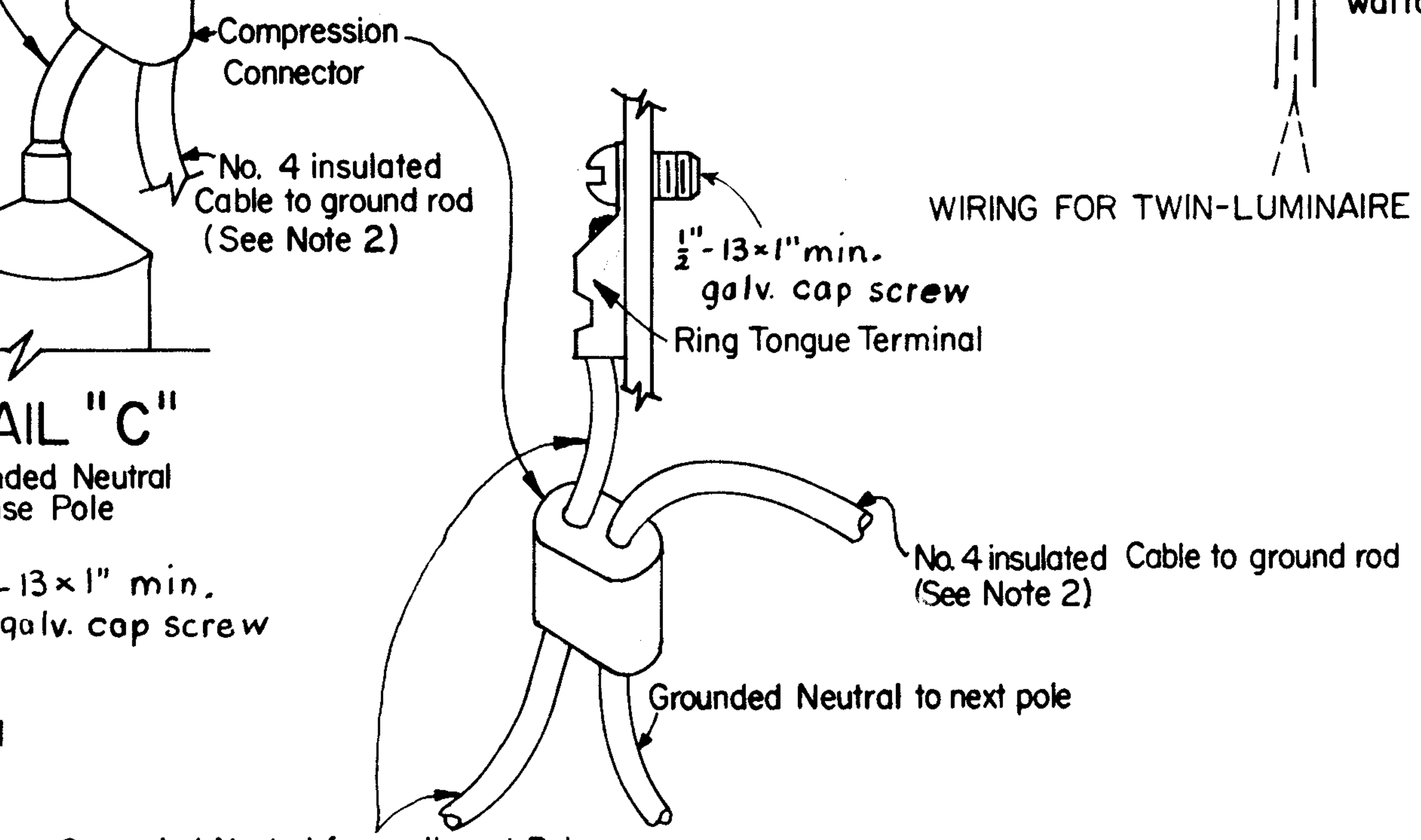
DETAIL "B"
3-WIRE, GROUNDED NEUTRAL
Transformer Base Pole



DETAIL "C"
2-Wire, Grounded Neutral
Anchor Base Pole



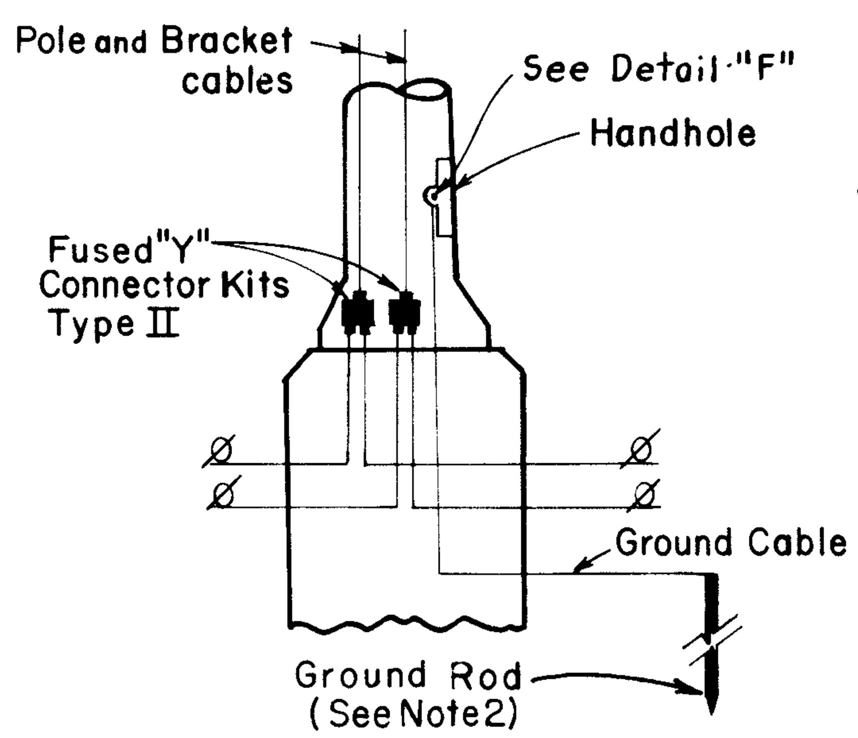
WIRING FOR TWIN-LUMINAIRE POLES



DETAIL "E"
3-Wire, Grounded Neutral
Anchor Base Pole

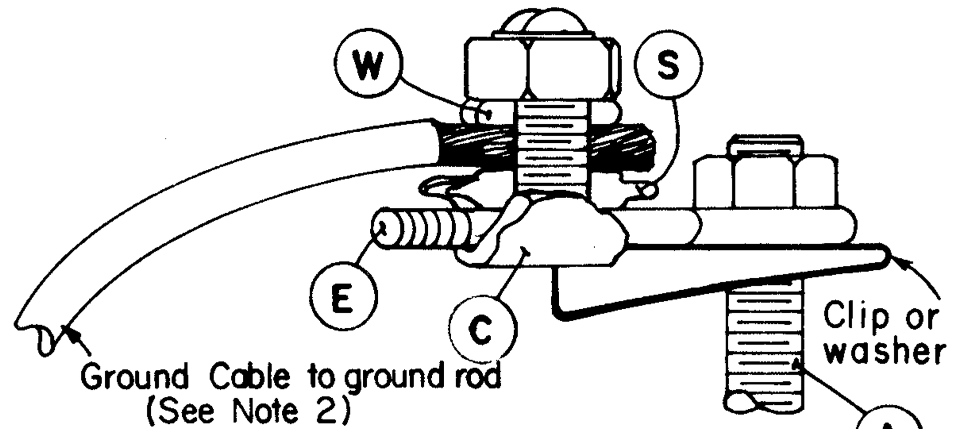
LEGEND of ITEMS COMMON TO DETAILS "A", "B", & "D"

- (A) Anchor Bolt
- (C) Tin Plated Copper Split Bolt Connector with the following components:
  - (S) Spacer (Tin plated)
  - (W) Washer
  - (E) 3/8"X4" Galv. Steel eyebolt

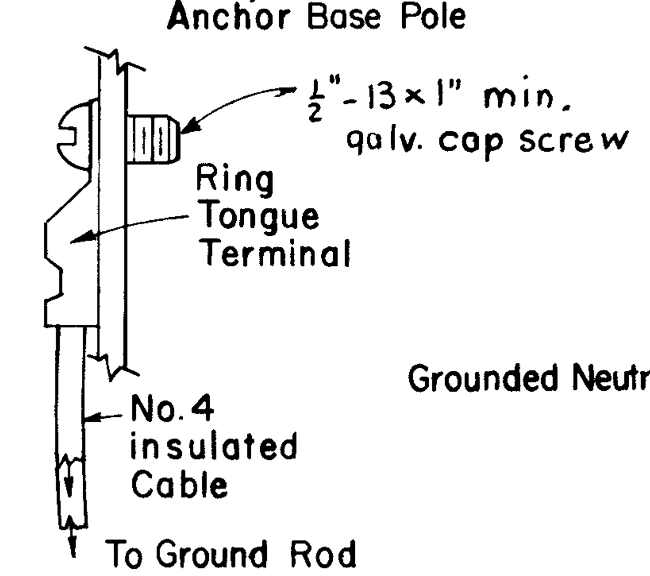


Anchor Base Pole

240 or 480 VOLTS, TWO-WIRE, UNGROUNDED



DETAIL "D"
2-Wire, Ungrounded Circuit
Transformer Base Pole



DETAIL "F"
2-WIRE UNGROUNDED

AB-U-GB

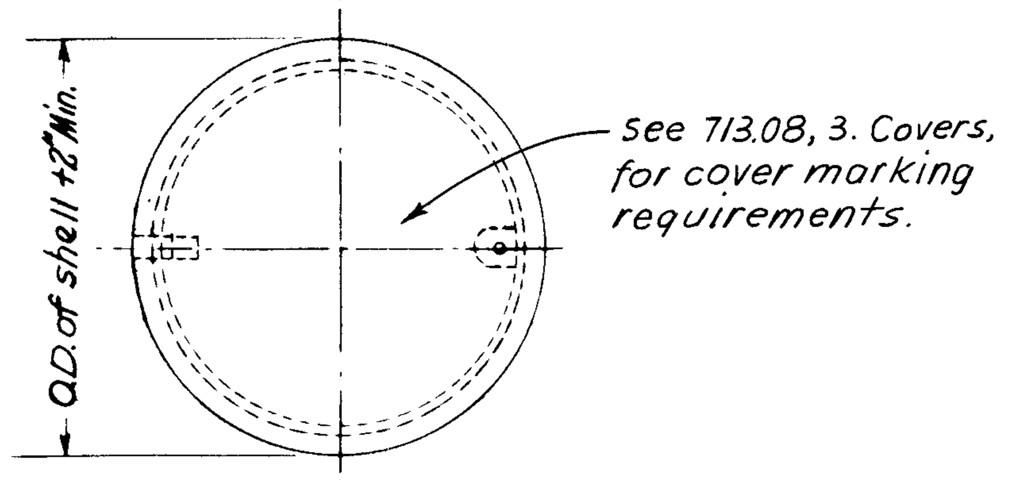
32/39

PULL BOX DETAILS

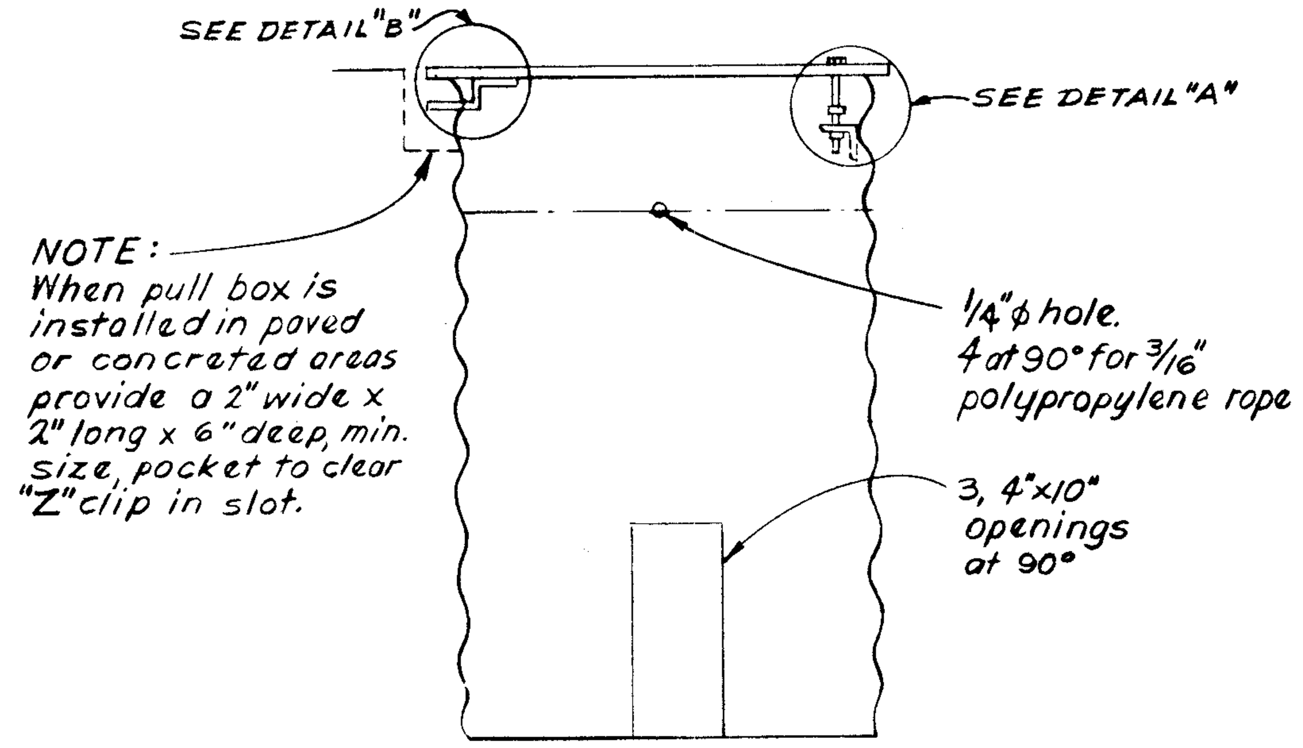
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

506
630

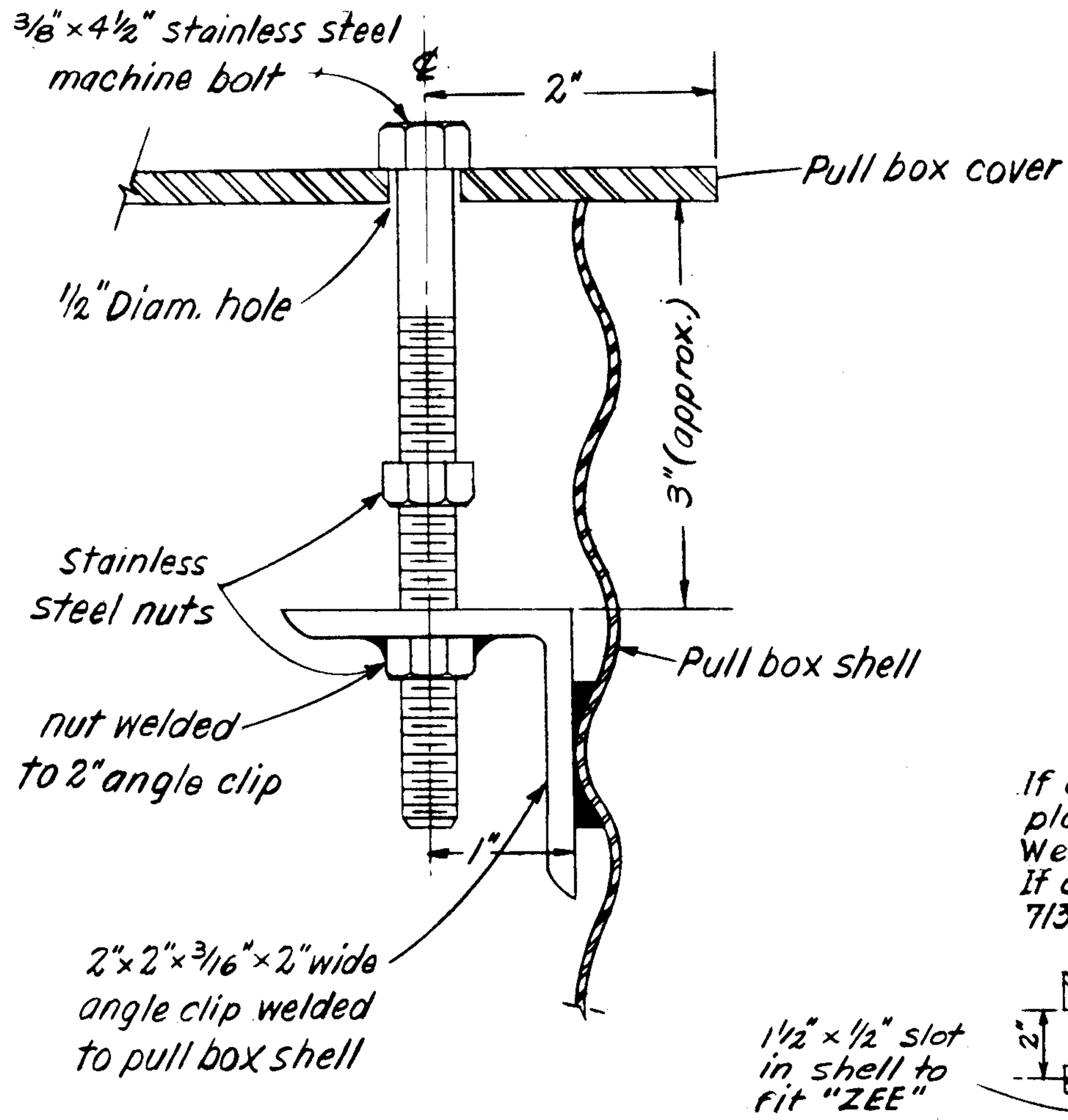
HAM-275-3.86
HAMILTON COUNTY



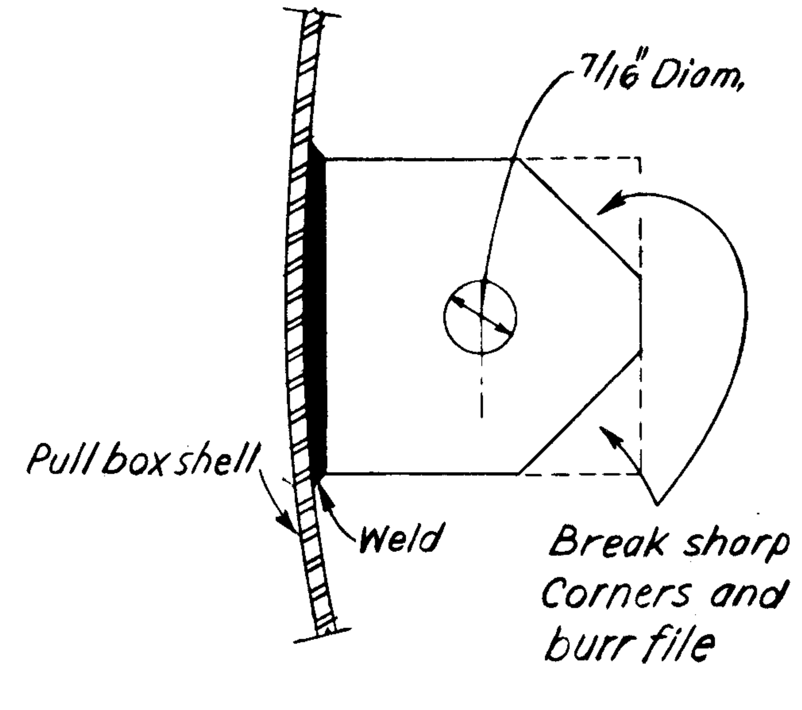
PLAN



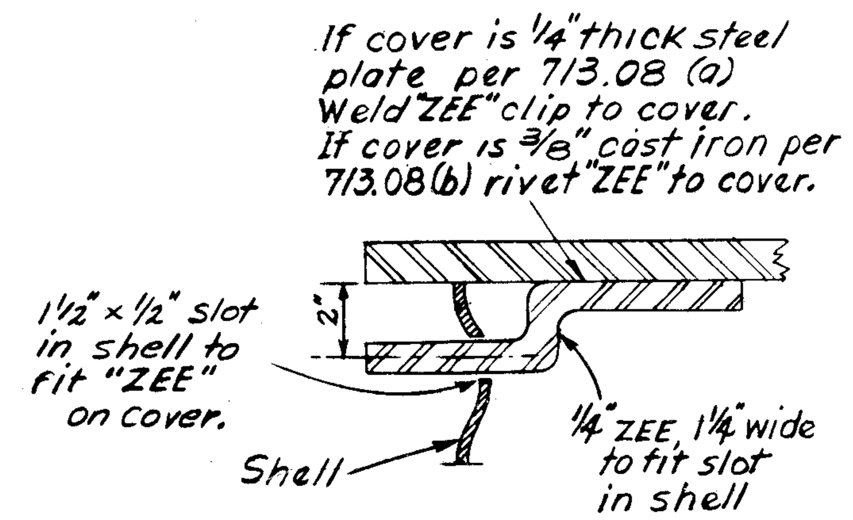
ELEVATION



DETAIL "A"

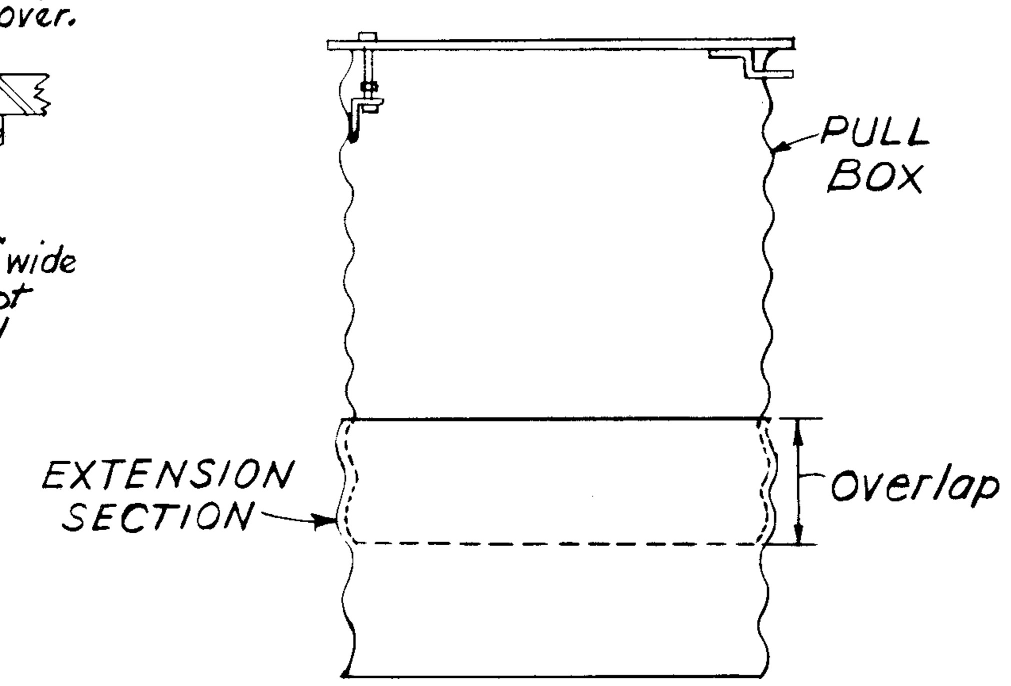


PLAN OF ANGLE CLIP



DETAIL "B"

CORRUGATED STEEL PULL BOX



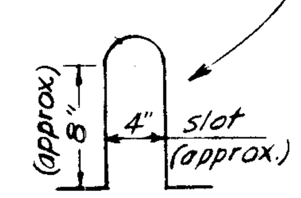
GRADE ADJUSTMENT EXTENSION SECTION

NOTES

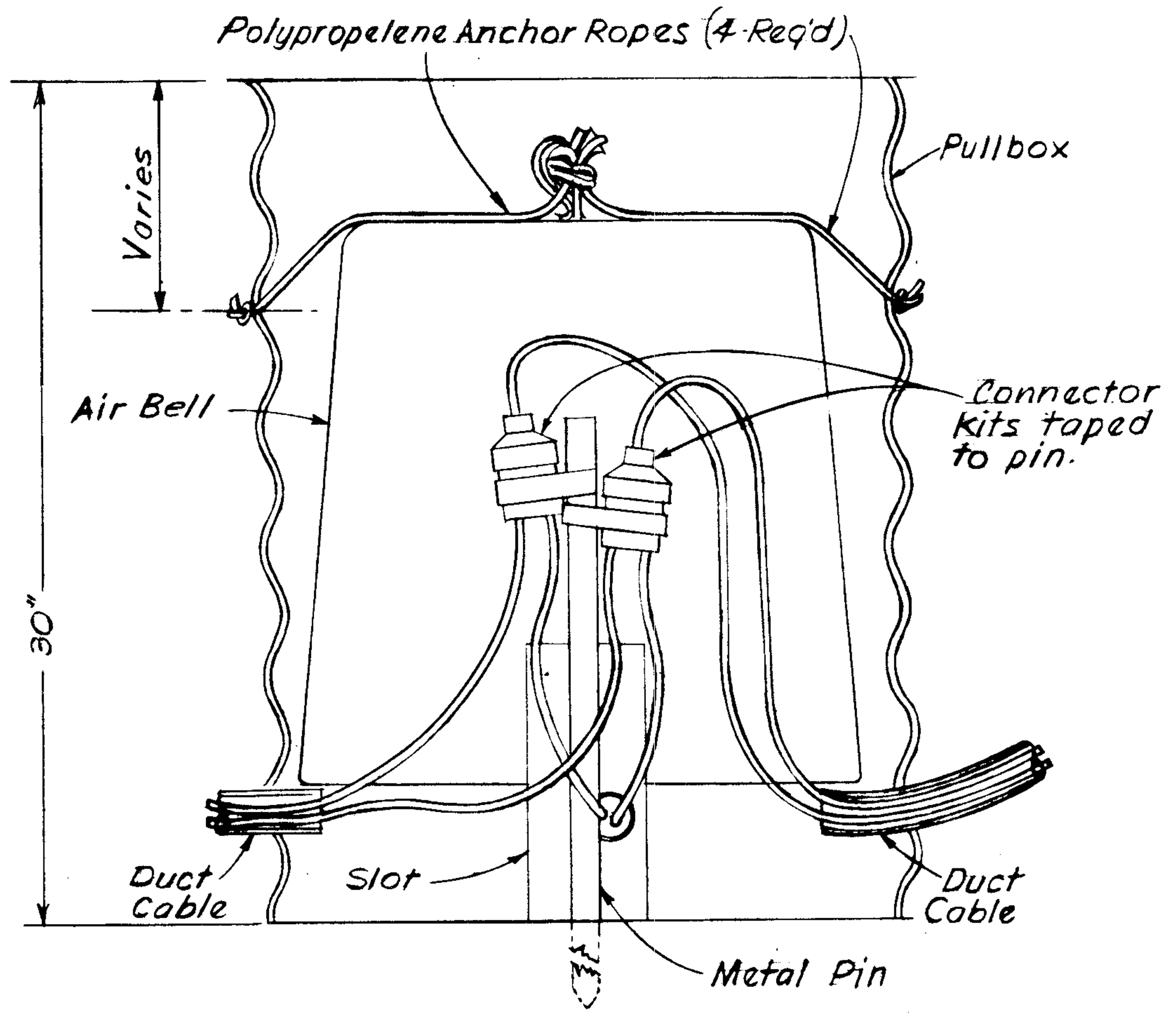
1. Approximate Air Bell sizes:

Pullbox Diameter	Air Bell Diameter	Air Bell Height
18"	16 3/4"	20 1/2"
24"	20 1/2"	28 1/2"

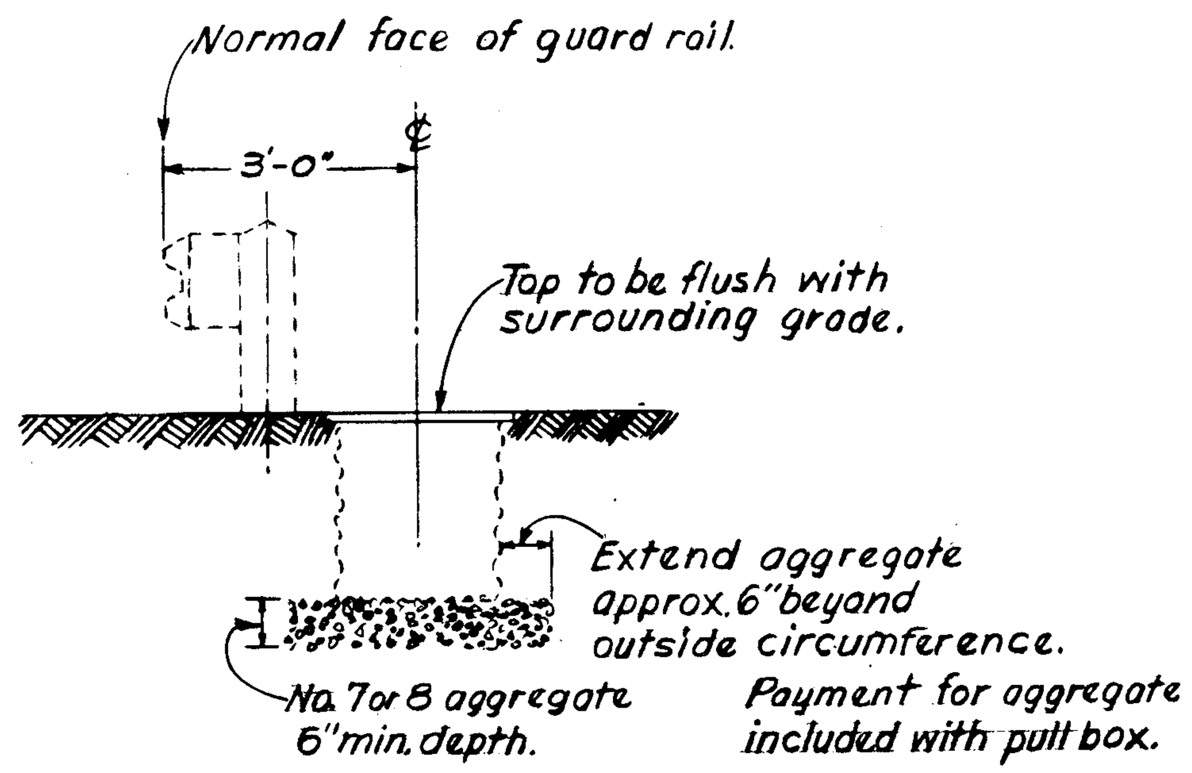
2. When required to provide a clear opening for the duct cable the air bell for the 24" diameter pullbox shall be notched as shown



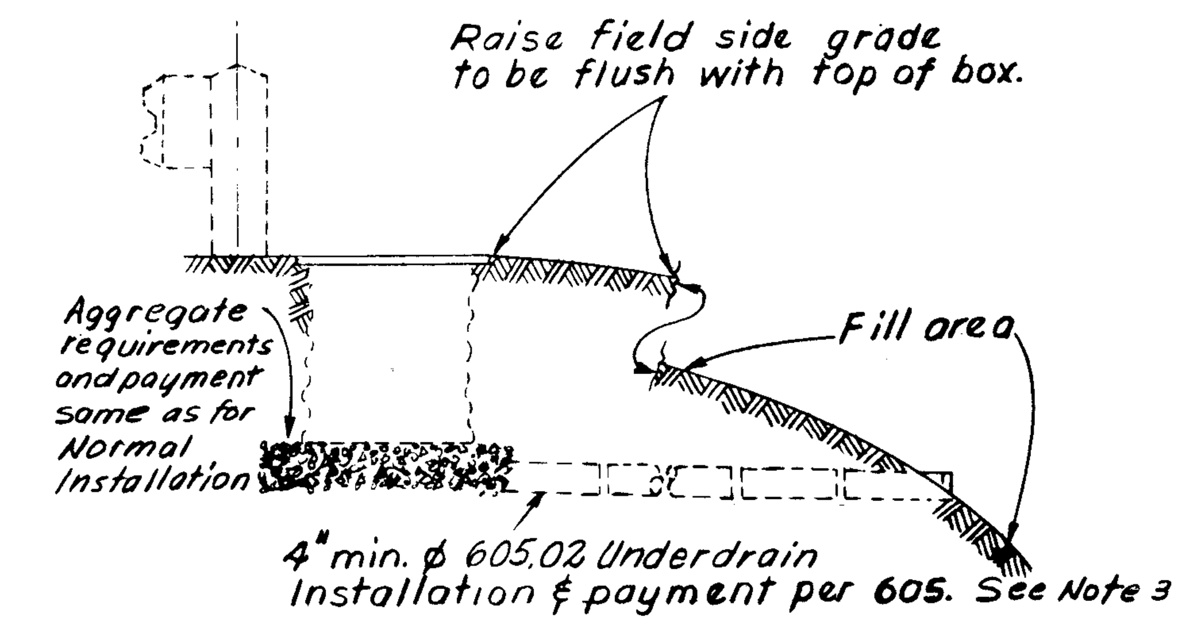
3. Underdrain tile shall be installed only when specified or directed by the Engineer.



INTERIOR VIEW OF PULLBOX SHOWING ANCHORED AIR BELL AND SUPPORT FOR CONNECTOR KITS.
(See Notes 1 and 2)



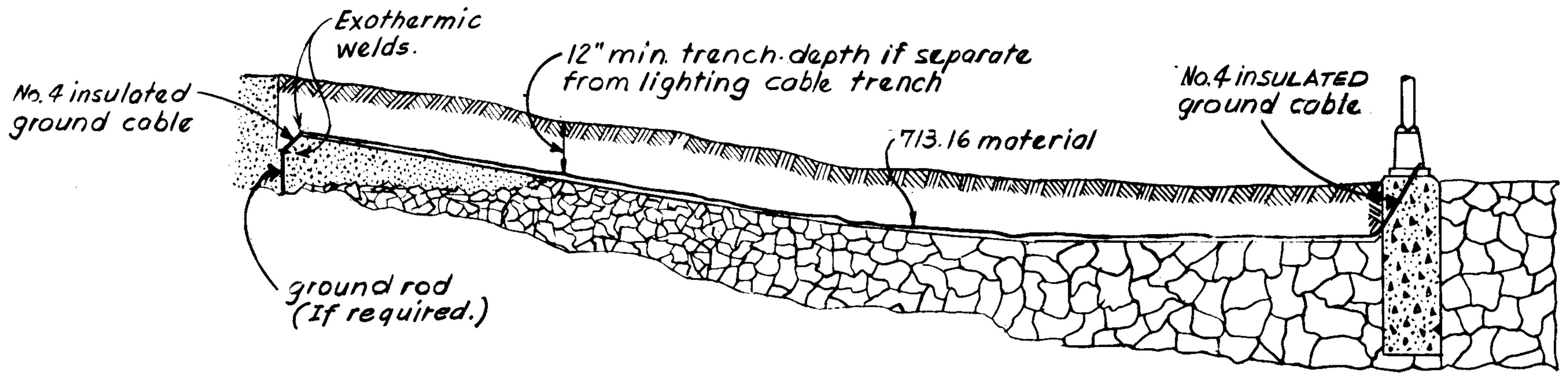
NORMAL INSTALLATION



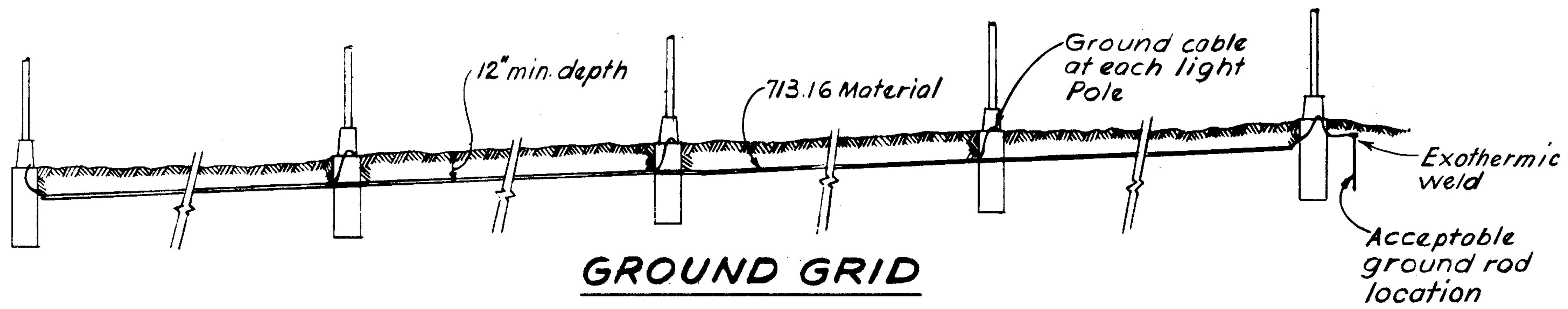
ADJACENT TO FILL AREA

AB-D-GB

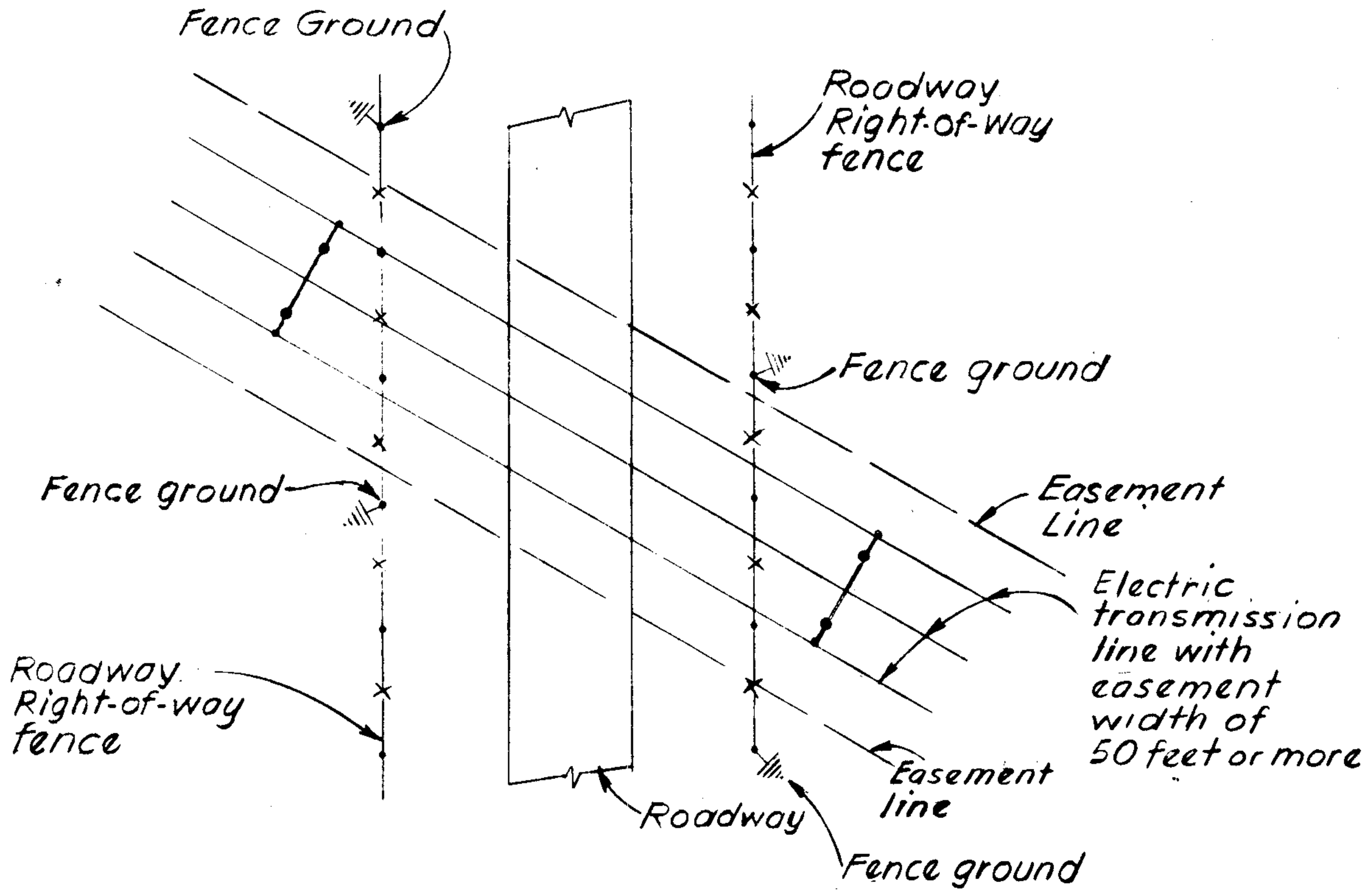
MISCELLANEOUS DETAILS I



MODIFIED GROUND GRID FOR INDIVIDUAL POLE GROUND

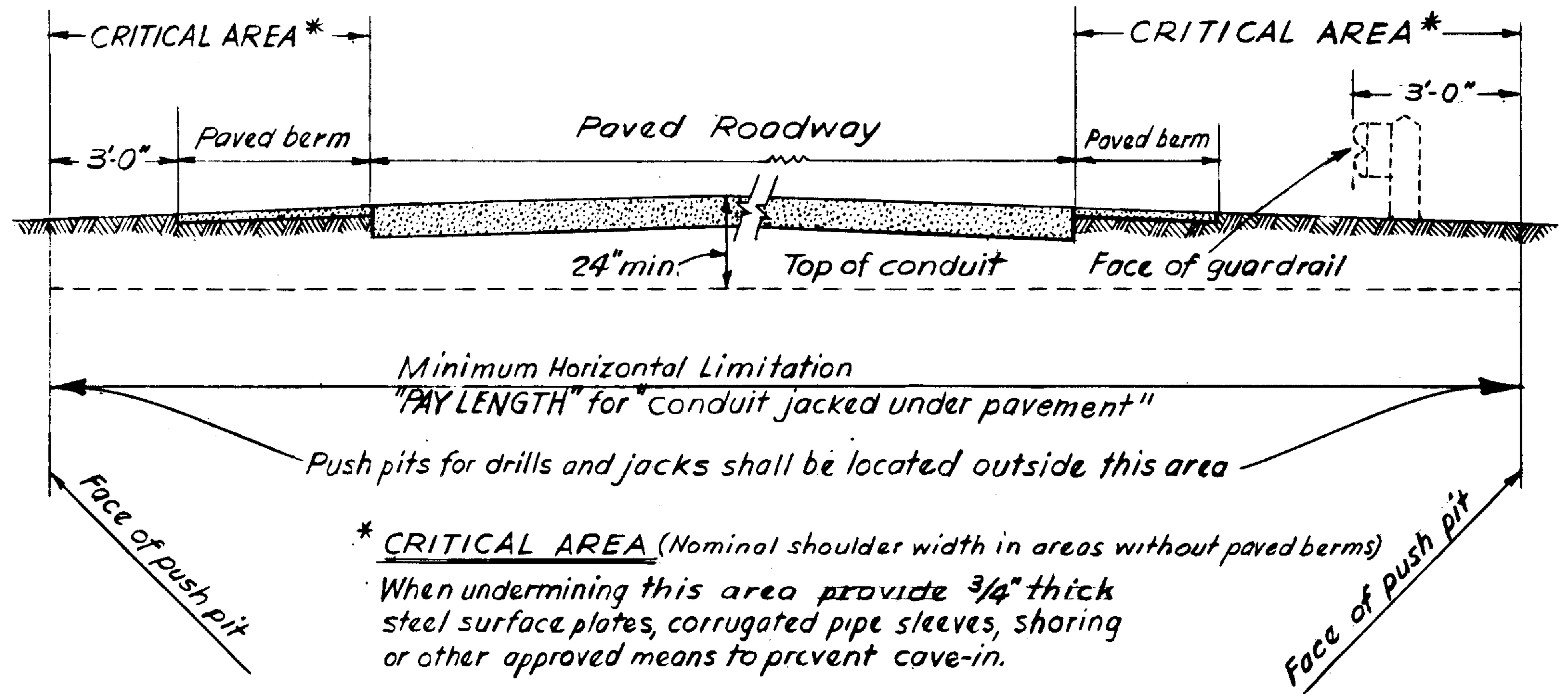


GROUND GRID



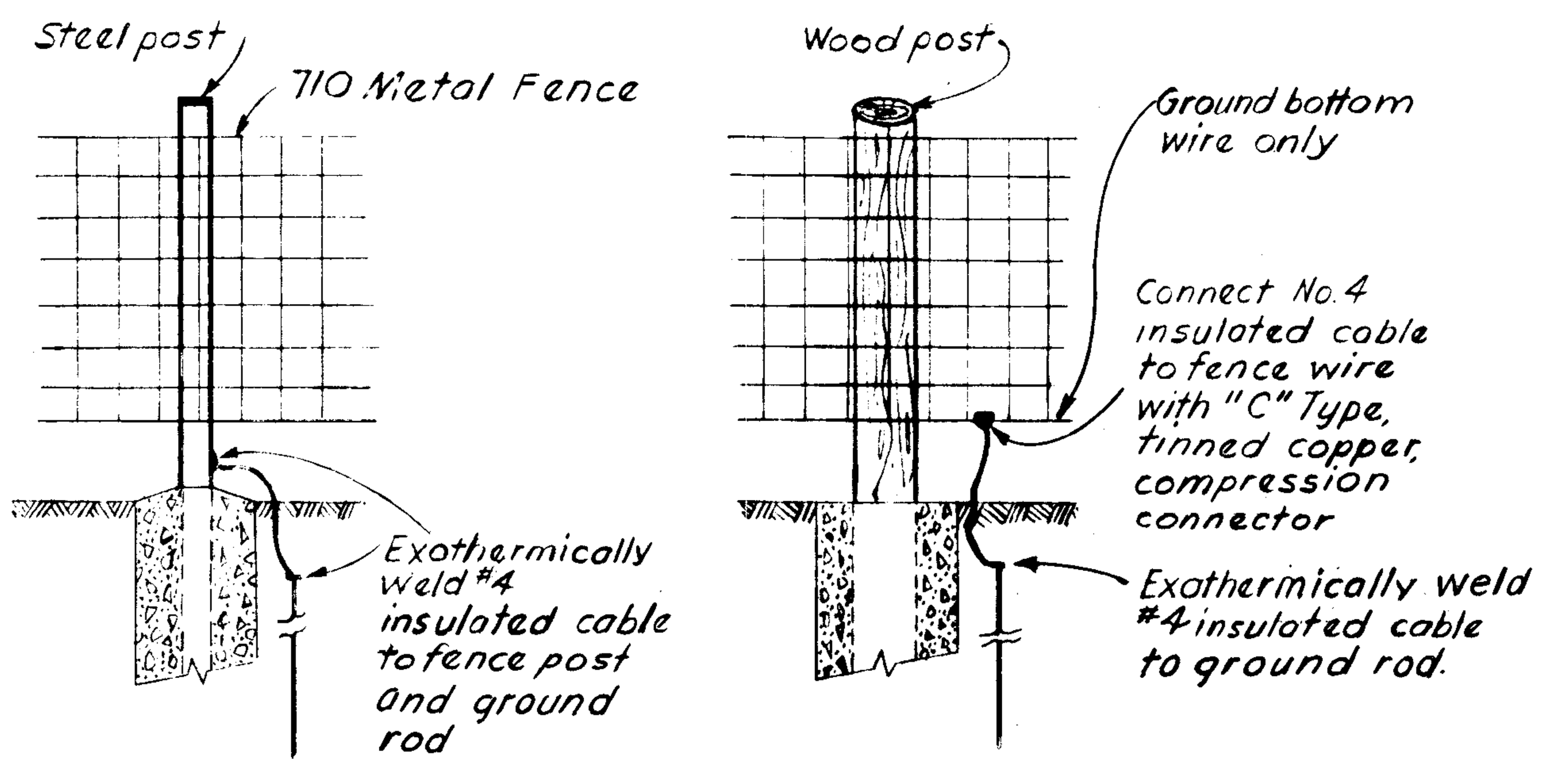
CROSSING OF ROADWAY R/W & TRANSMISSION LINE EASEMENT

(See Note 1)



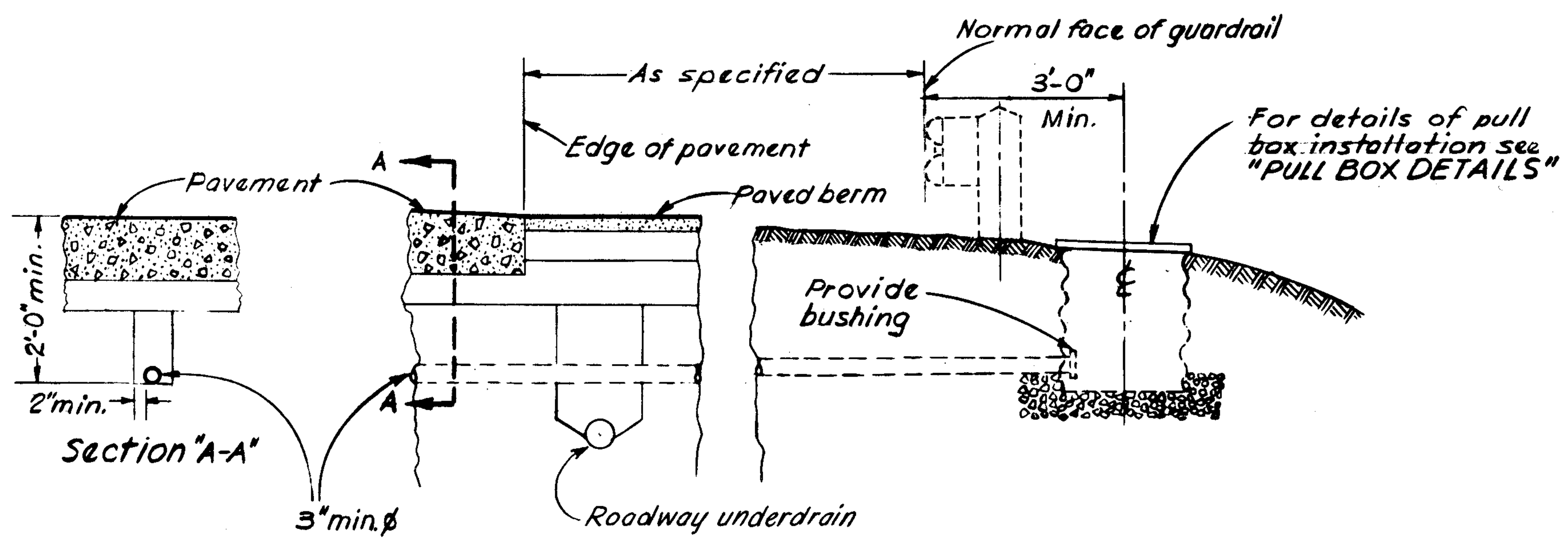
* CRITICAL AREA (Nominal shoulder width in areas without paved berms)
When undermining this area provide 3/4" thick steel surface plates, corrugated pipe sleeves, shoring or other approved means to prevent cave-in.

DETAIL FOR CONDUIT JACKED UNDER PAVEMENT



FENCE GROUND DETAILS

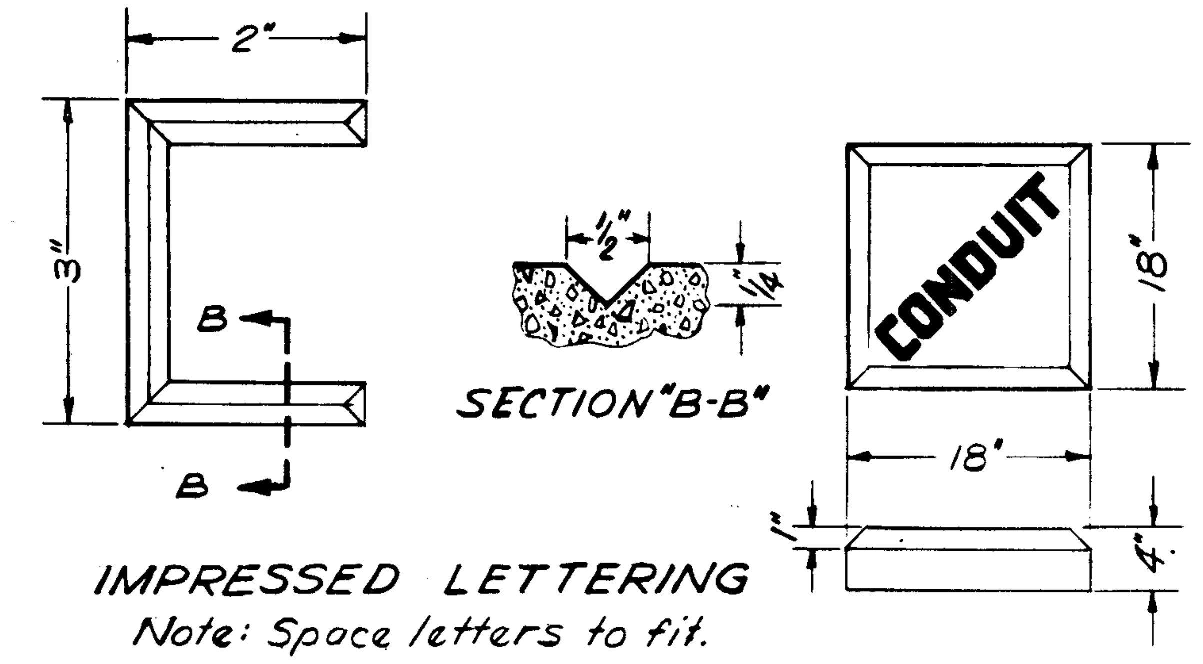
When specified, roadway right-of-way fences shall be grounded as shown hereon. (See also, Notes 1, 2, 3, & 4)



TYPICAL CONDUIT CROSSOVER DETAIL

NOTES FOR FENCE GROUNDING

1. Where overhead transmission line easements 50 feet or more in width cross a fenced roadway right-of-way, each fence shall be grounded as shown hereon.
2. Where overhead electric power line easements less than 50 feet in width cross a fenced roadway right-of-way, each fence shall be grounded directly below the centerline of the power line crossing.
3. Where overhead transmission lines rated 110 KV or higher are parallel to roadway fences and the transmission line easement is contiguous to the roadway right-of-way the roadway fences shall be grounded at least every 300 ft.
4. Fence grounds will be paid for at unit price bid for Ground Rods, item 625.
5. Apply two coats of insulating varnish over all exothermic welds and exposed cable.



IMPRESSED LETTERING
Note: Space letters to fit.

"CONDUIT" - to indicate conduit for future cable or wire.

"CABLE" - to indicate abrupt change in direction of cable

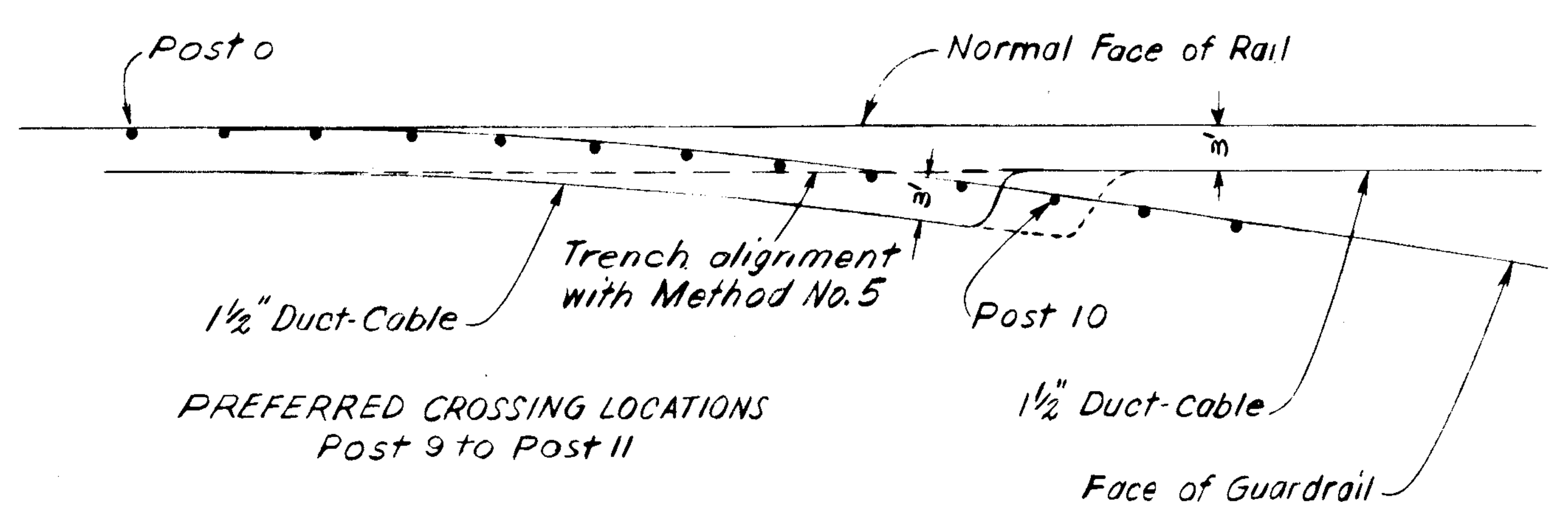
CONCRETE MARKER

(625.16)

MISCELLANEOUS DETAILS II

STANDARD GUARDRAIL FLARE

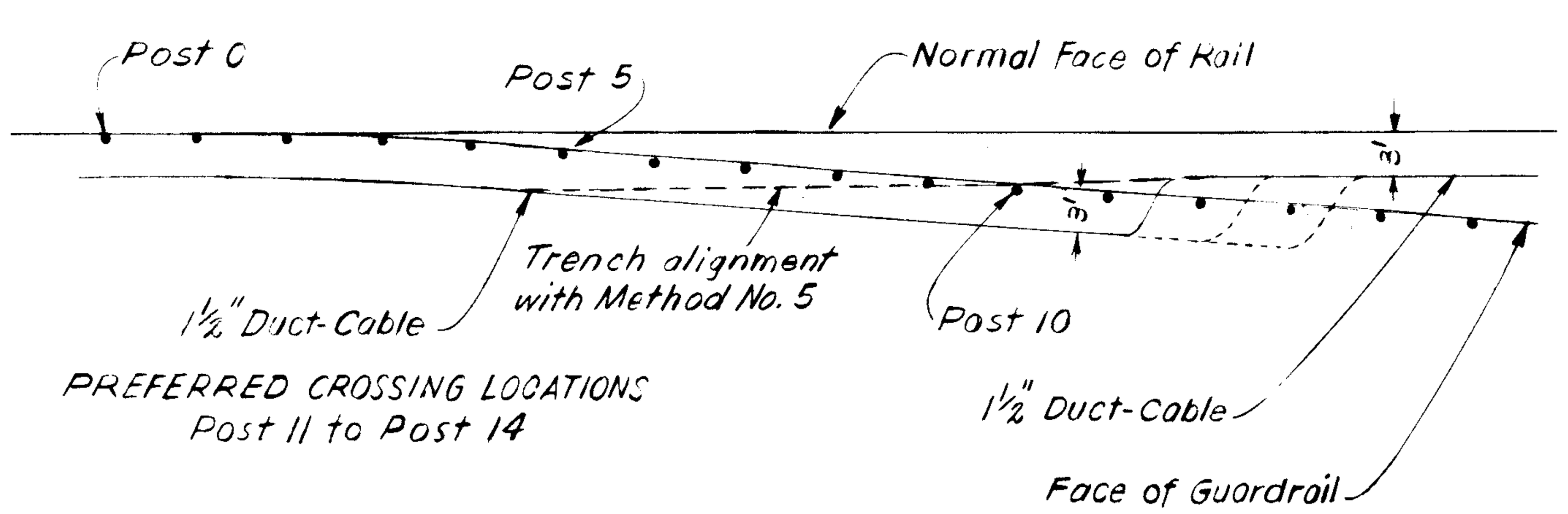
FOR CUT TO FILL AND FILL TO FILL AREAS
1" = 10'



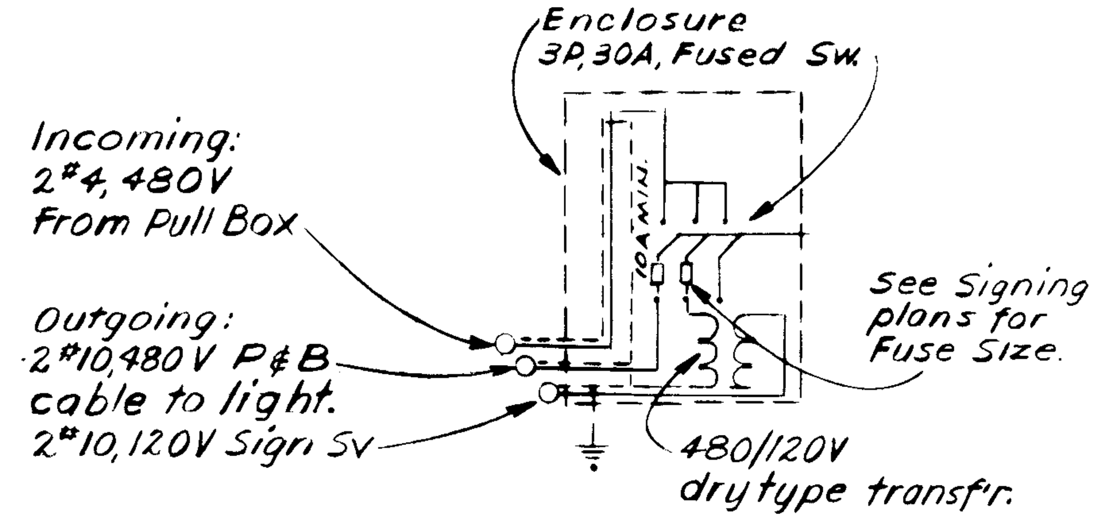
PREFERRED CROSSING LOCATIONS
Post 9 to Post 11

INTRODUCED GUARDRAIL FLARE

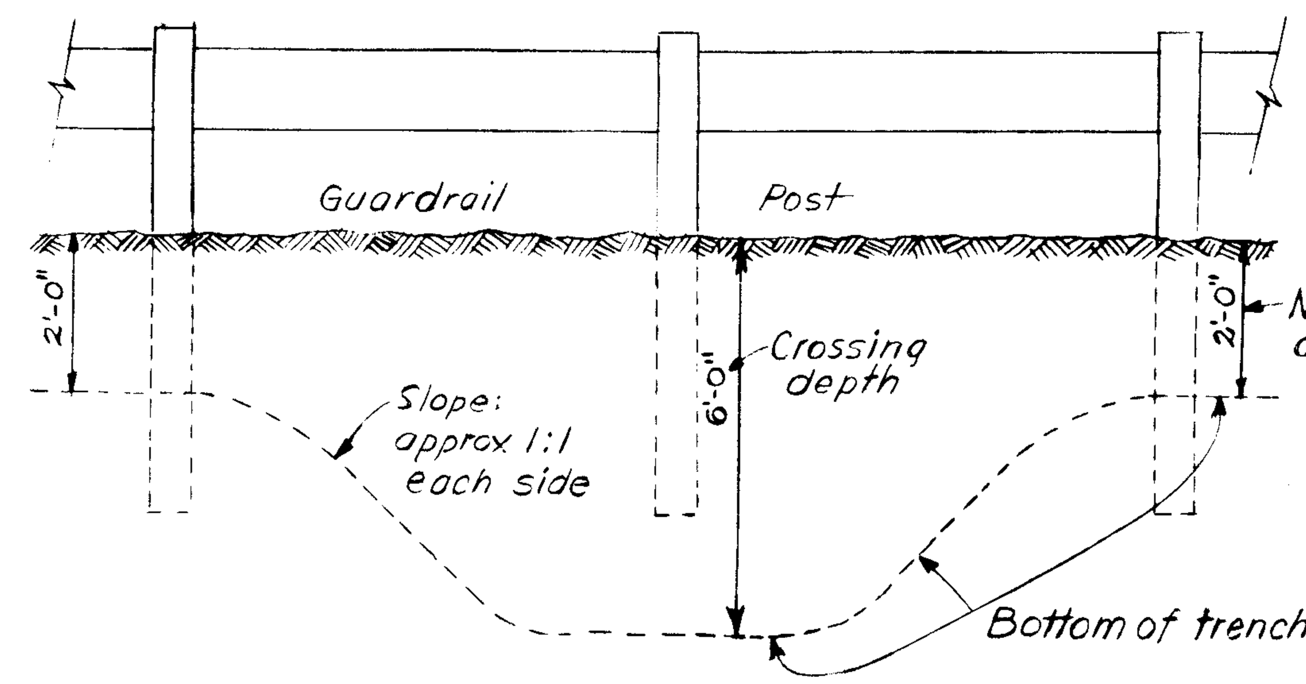
BECAUSE OF OBSTRUCTION
1" = 10'



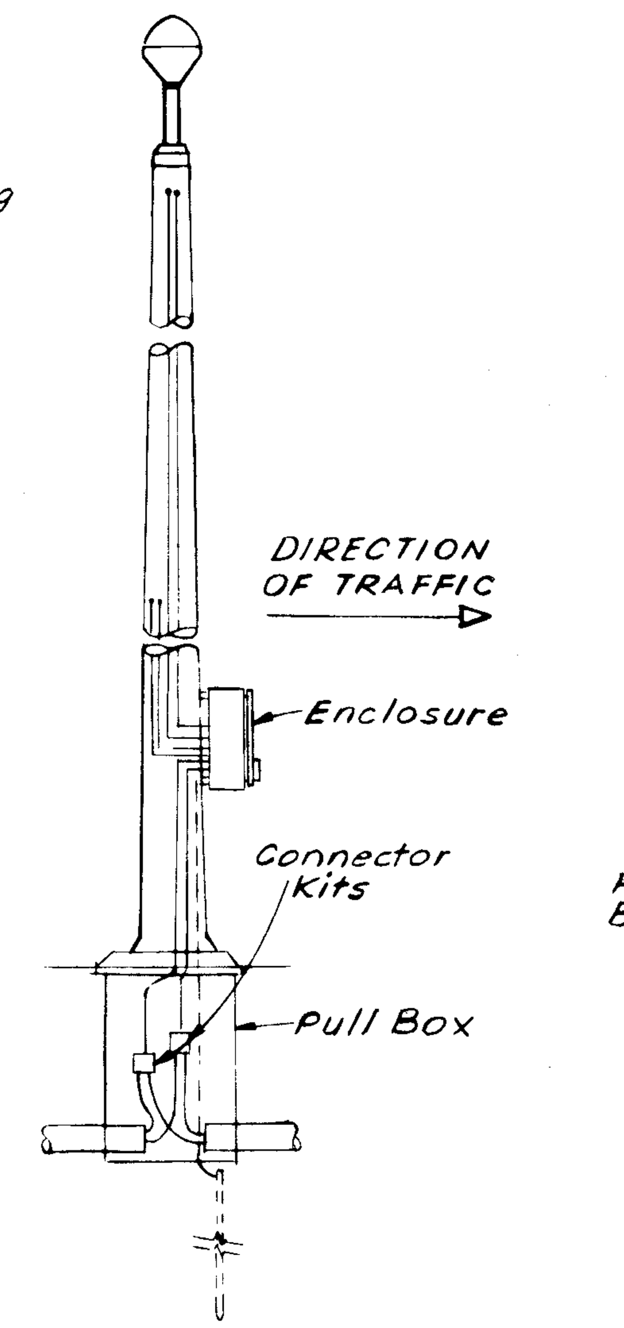
PREFERRED CROSSING LOCATIONS
Post 11 to Post 14



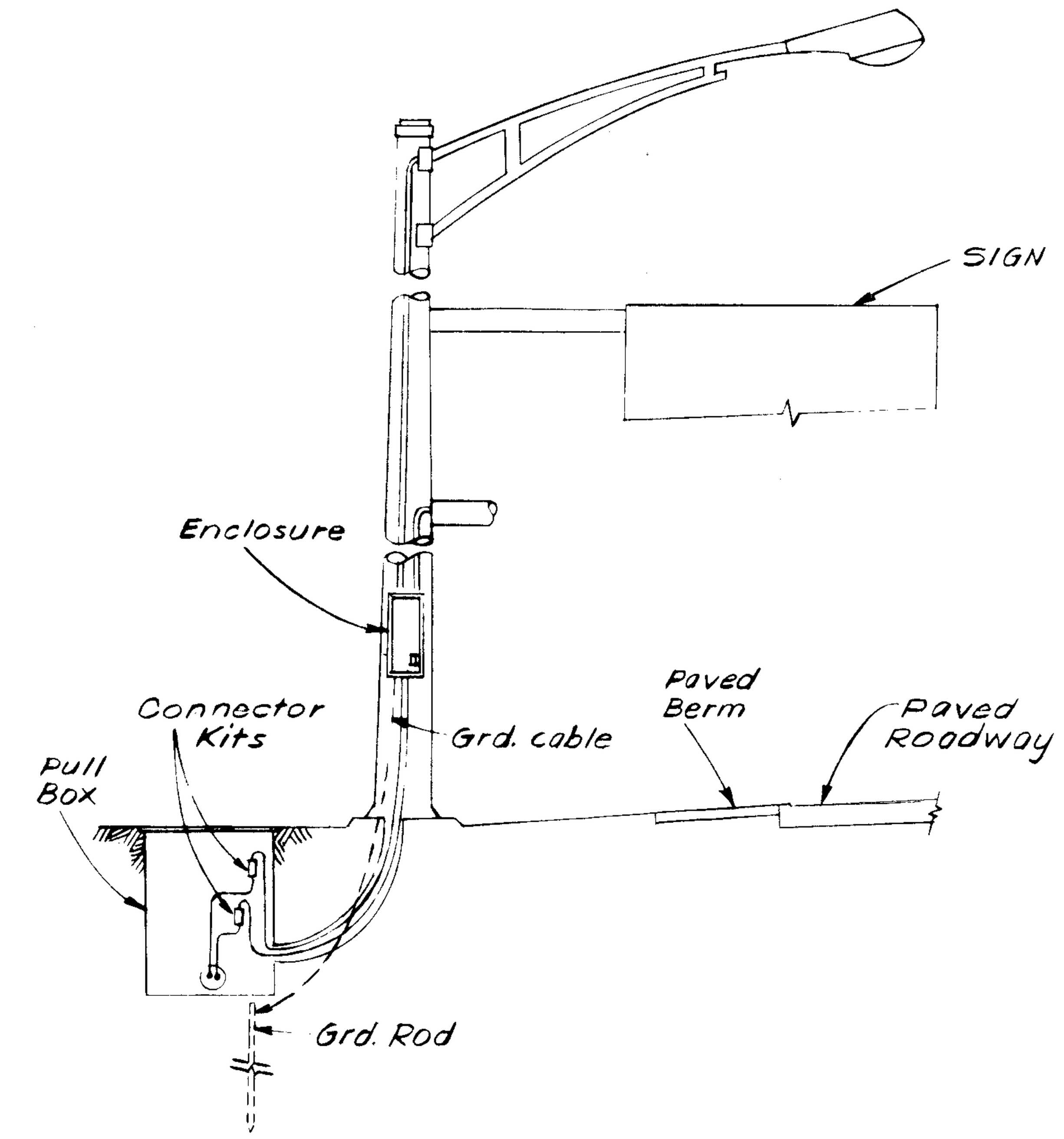
WIRING DIAGRAM



METHOD NO. 5 for PROTECTING DUCT-CABLE UNDER GUARD RAIL
Increased depth of cable trench at point of crossing.
To be used whenever trench alignment is within 1'-6" of posts.
(See NOTE No. 1)



ELEVATION PARALLEL TO ROADWAY

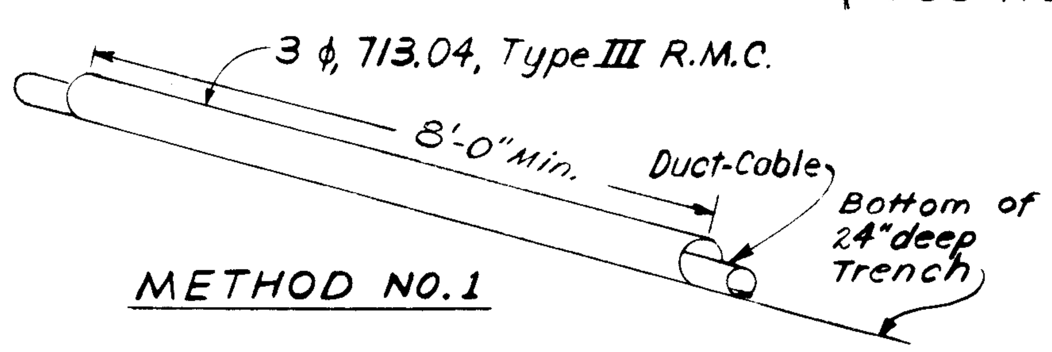


ELEVATION PER PENDICULAR TO ROADWAY

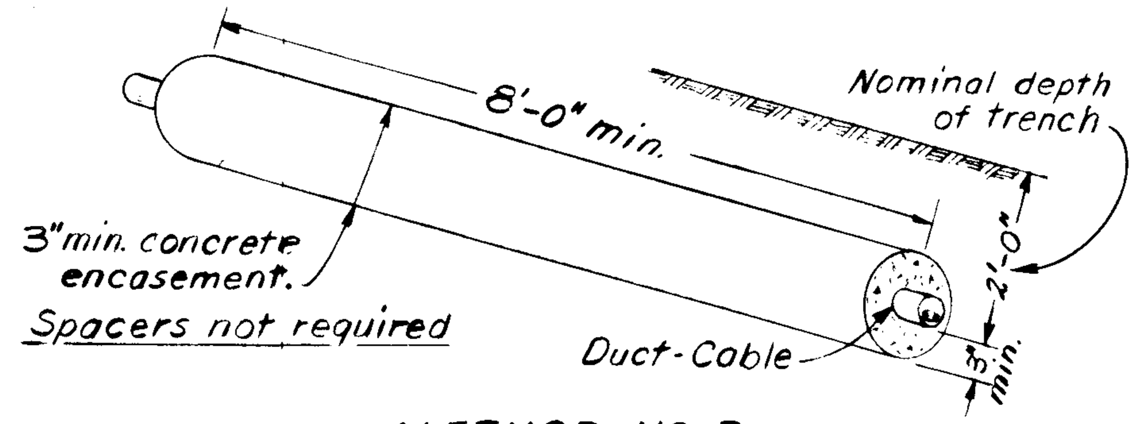
WIRING FOR COMBINATION LIGHT AND SIGN POLE

METHODS OF PROTECTING DUCT-CABLE UNDER GUARD RAIL

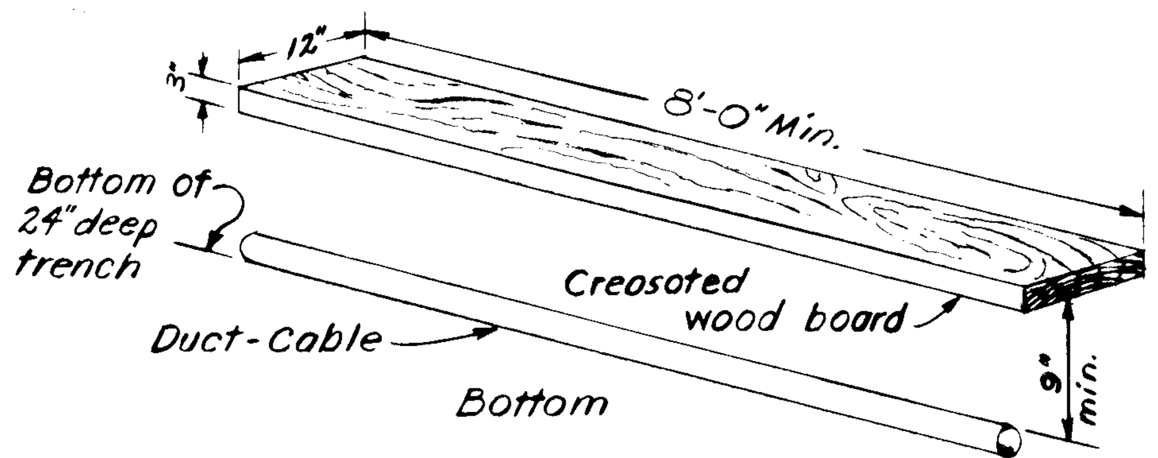
(See NOTE No. 1)



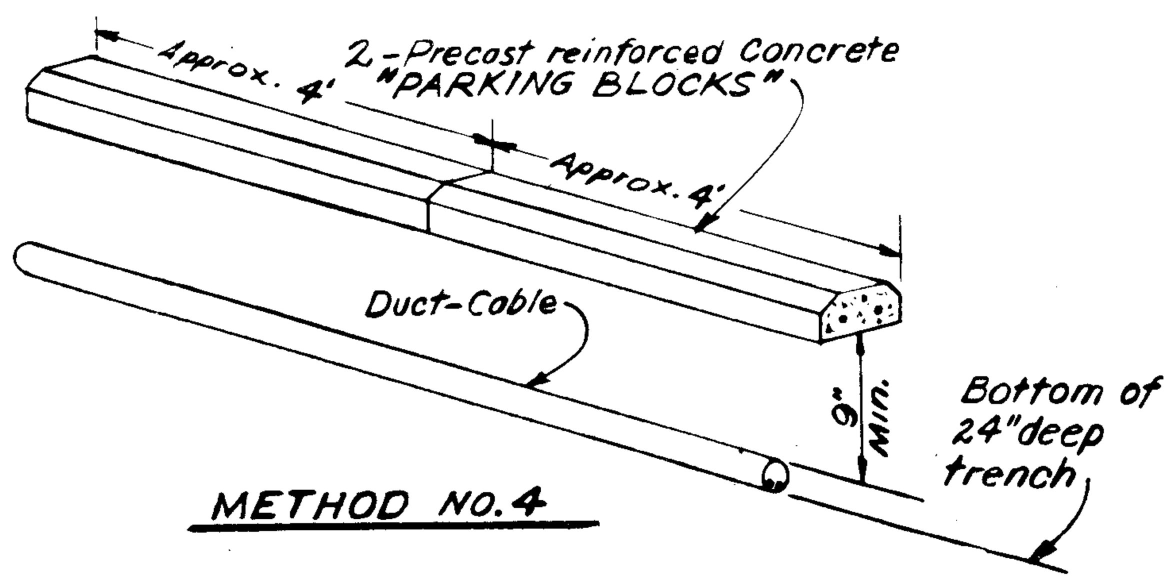
METHOD NO. 1



METHOD NO. 3



METHOD NO. 2

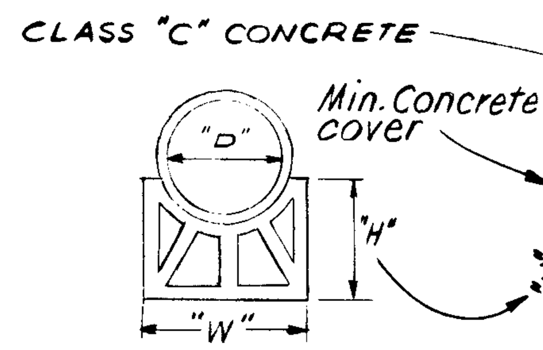


METHOD NO. 4

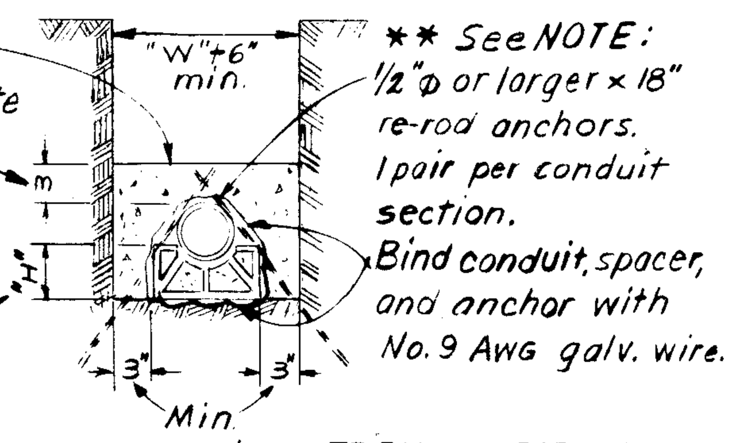
CONCRETE ENCASED CONDUIT

"D"	"H"	"W"
2"	3⅝"	5½"
3"	3⅞"	6½"
4"	4⅛"	7⅝"
5"	4½"	8⅞"

Nominal spacer dimensions

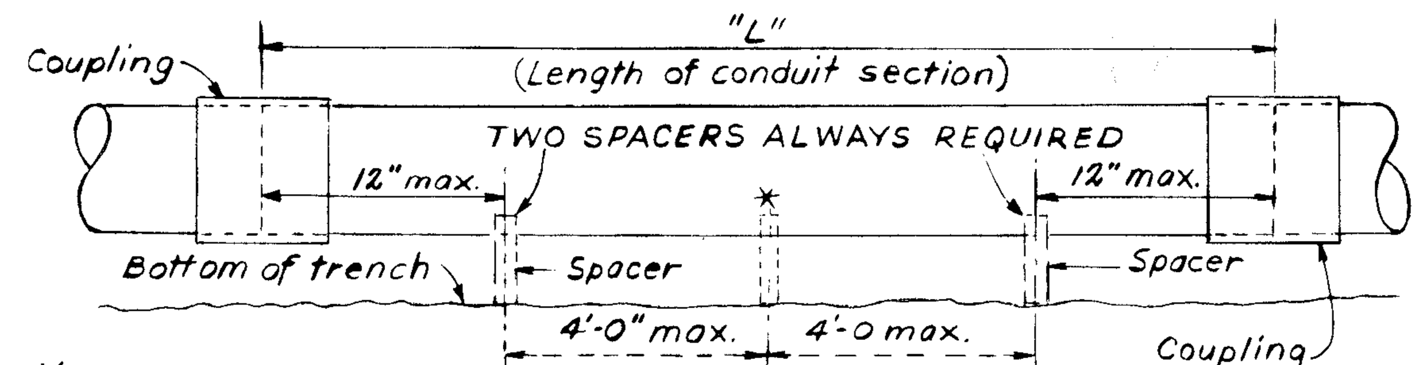


TYPICAL SPACER
("D" = Nom. I.D. of conduit)



** See NOTE:
½" ⌀ or larger × 18" re-rod anchors.
1 pair per conduit section.
Bind conduit, spacer, and anchor with No. 9 AWG galv. wire.

TRENCH SECTION



* Intermediate spacer required when "L" equals 10'-0"
Additional spacers shall be required when "L" exceeds 10'-0"

SIDE ELEVATION

** NOTE: DELETE ANCHORS AND BINDING WIRE WHEN USING STEEL CONDUIT.

NOTES

1. Payment for protection of duct-cable and distribution cable under guard rail, as detailed in Methods 1 thru 5, shall be included in the unit prices bid for the affected cable and trench items.

CABLE CONNECTOR KITS TYPE I THRU TYPE VI.

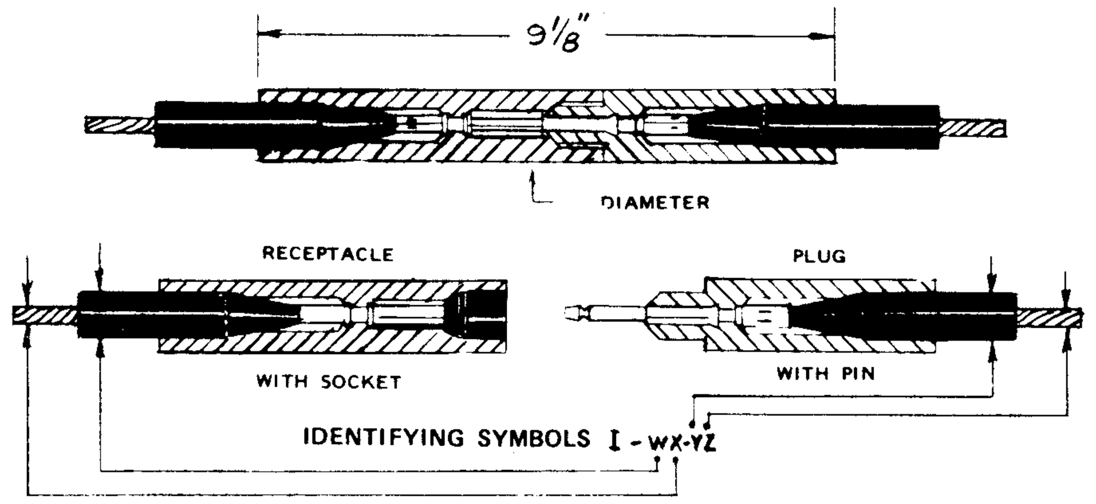
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

506C / 630

HAM - 275 - 3.86
HAMILTON COUNTY

NOTES

1. Diameters usually vary along cable lengths. Take several measurements and select the symbols for "W" and "Y" which will insure a tight fit rather than a loose fit between the cables and the openings in the housings of the connector kits.
2. Where a light is located at the end of the lighting circuit one opening of the "Y" connector kit shall be plugged. The plug shall be of insulating material and have the same overall diameter of the lighting circuit cable occupying the other opening of the "Y" connector kit.
3. If the cable has a nylon jacket the jacket shall be peeled back to a point where no part of the jacket is encased in the boot with the insulated cable.



IDENTIFYING SYMBOLS I - WX-YZ

To specify the proper kit for an installation, select from the tables below the symbols which coincide with the requirements and substitute for (W, X) and (Y, Z) respectively.

CABLE DIAMETER Min	CABLE DIAMETER Max.	Symbol for W and Y
.195"	.260"	B*
.250"	.330"	C*
.320"	.430"	D*
.420"	.585"	E
.575"	.785"	F
.775"	.985"	G
.975"	1.125"	H

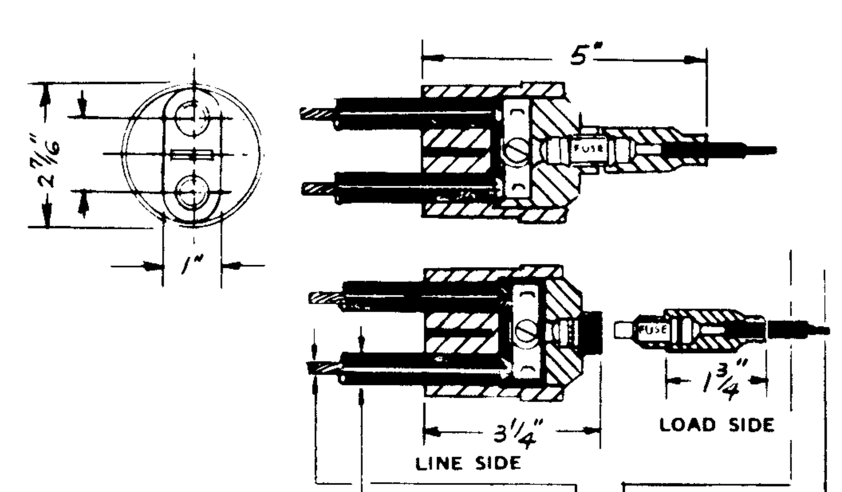
CONDUCTOR SIZE AWG Concentric Stranded	CONDUCTOR SIZE AWG Solid	Symbol for X and Z
#10, #12	#8, #10	6
#8	#6	4
#6	#4	3
#4	–	2
#2	–	1

* Molded rubber adapters are a part of these kits for small diameter cables

EXAMPLE

If the installation requires a receptacle for no. 6 stranded conductor and a cable diameter of .660" and a plug for no. 8 solid conductor and a cable diameter of .460", the kit required will be I - F3 - E6.

TYPE I
INLINE SELF LOCKING CONNECTOR KIT FOR PULL BOX INSTALLATION.



IDENTIFYING SYMBOLS I - (W) (X) (Y) (Z)

CABLE DIAMETER Min.	CABLE DIAMETER Max.	Symbol for (W)
.195"	.260"	B
.250	.330	C
.320	.380	DA
.370	.430	DB
.420	.505	EA
.495	.585	EB
.575	.685	FA
.675	.785	FB

COPPER CONDUCTOR (AWG) Concentric Stranded	COPPER CONDUCTOR (AWG) Solid	Symbol for (X)
–	#8	6
#8	#6	4
#6	#4	3
#4	–	2
#2	–	1
#1	–	0
#1/0	–	10
#2/0	–	20

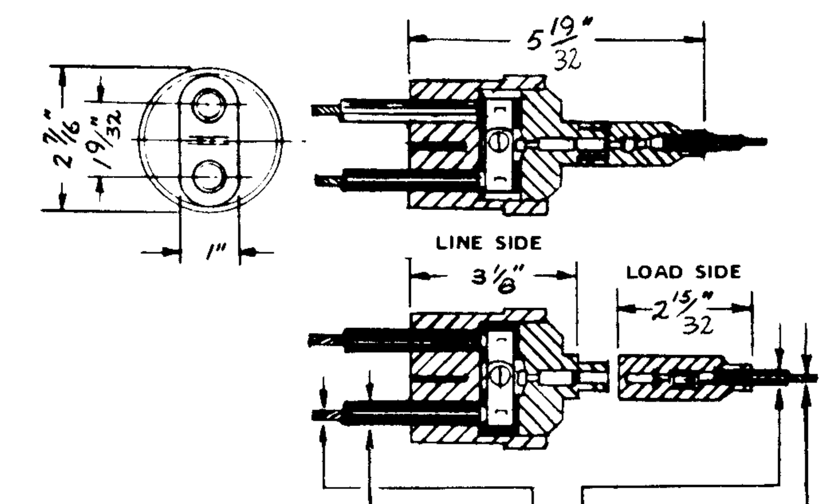
CABLE DIAMETER Min.	CABLE DIAMETER Max.	Symbol for (Y)
.120"	.160"	S
.155	.205	A
.195	.260	B
.250	.330	C
.320	.430	D

COPPER CONDUCTOR (AWG) Concentric Stranded	COPPER CONDUCTOR (AWG) Solid	Symbol for (Z)
#14, #16	#12, #14	8
#10, #12	#8, #10	6
#8	#6	4
#6	#4	3

EXAMPLE

If the line outside diameter (W) is .42" and the conductor (X) is no. 6 stranded, and the load side outside diameter (Y) is .29" and the conductor (Z) is no. 12 stranded, the kit required will be II - DB3 - C6.

TYPE II
FUSED "Y" CONNECTOR KIT FOR POLE BASE INSTALLATION.



IDENTIFYING SYMBOLS III (W) (X) (Y) (Z)

CABLE DIAMETER Min.	CABLE DIAMETER Max.	Symbol for (W)
.195"	.260"	B
.250	.330	C
.320	.380	DA
.370	.430	DB
.420	.505	EA
.495	.585	EB
.575	.685	FA
.675	.785	FB

COPPER CONDUCTOR (AWG) Concentric Stranded	COPPER CONDUCTOR (AWG) Solid	Symbol for (X)
–	#8	6
#8	#6	4
#6	#4	3
#4	–	2
#2	–	1
#1	–	0
#1/0	–	10
#2/0	–	20

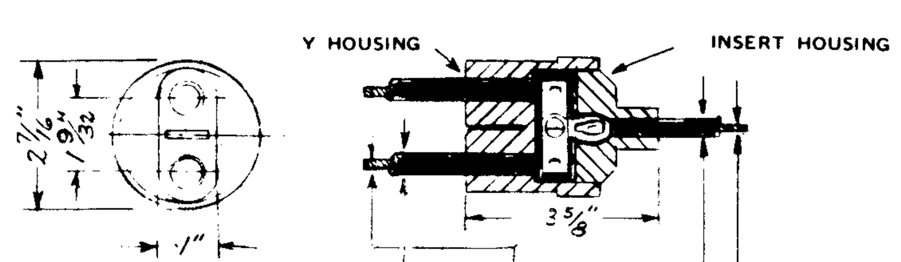
CABLE DIAMETER Min.	CABLE DIAMETER Max.	Symbol for (Y)
.120"	.160"	S
.155	.205	A
.195	.260	B
.250	.330	C
.320	.430	D

COPPER CONDUCTOR (AWG) Concentric Stranded	COPPER CONDUCTOR (AWG) Solid	Symbol for (Z)
#14, #16	#12, #14	8
#10, #12	#8, #10	6
#8	#6	4
#6	#4	3

EXAMPLE

If the line side cable outside diameter (W) is .54" and the conductor (X) is no.2 stranded, and the load side cable outside diameter (Y) is .29" and the conductor (Z) is no. 12 stranded, the kit required will be III - EBI - C6.

TYPE III
UNFUSED "Y" CONNECTOR KIT FOR POLE BASE INSTALLATION.



IDENTIFYING SYMBOLS IV (W) (X) (Y) (Z)

TABLE (X)

CABLE DIAMETER Min	CABLE DIAMETER Max	Symbol for (W)
.195"	.260"	B
.250"	.330"	C
.320"	.380"	DA
.370"	.430"	DB
.420"	.505"	EA
.495"	.585"	EB
.575"	.685"	FA
.675"	.785"	FB

COPPER CONDUCTOR (AWG) Concentric Stranded	COPPER CONDUCTOR (AWG) Solid	Symbol for (X)
–	#8	6
#8	#6	4
#6	#4	3
#4	–	2
#2	–	1
#1	–	0
#1/0	–	10
#2/0	–	20

TABLE (Y)

CABLE DIAMETER Min	CABLE DIAMETER Max	Symbol for (Y)
.120"	.160"	S
.155"	.205"	A
.195"	.260"	B
.250"	.330"	C
.320"	.430"	D
.420"	.585"	E
.575"	.785"	F

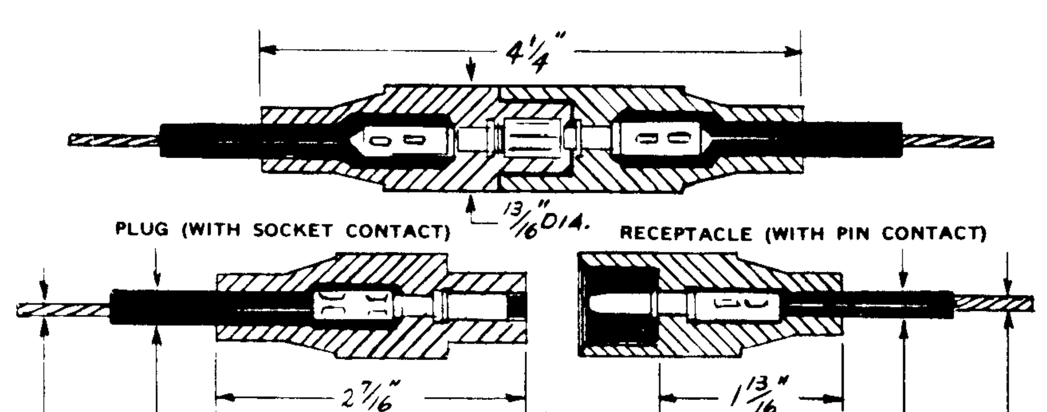
TABLE (Z)

COPPER CONDUCTOR (AWG) Concentric Stranded	COPPER CONDUCTOR (AWG) Solid	Symbol for (Z)
#14, #16	#12, #14	8
#10, #12	#8, #10	6
#8	#6	4
#6	#4	3
#4	–	2
#2	–	1
#1	–	0
#1/0	–	10
#2/0	–	20

EXAMPLE

If the twin cable outside diameter (W) is .54" and their conductor (X) is no. 2 stranded, and the single cable outside diameter (Y) is .29" and the conductor (Z) is no. 12 stranded, the kit required will be IV - EBI - C6.

TYPE IV
UNFUSED "Y" CONNECTOR KIT FOR PULL BOX INSTALLATION



IDENTIFYING SYMBOLS V (W) (X) (Y) (Z)

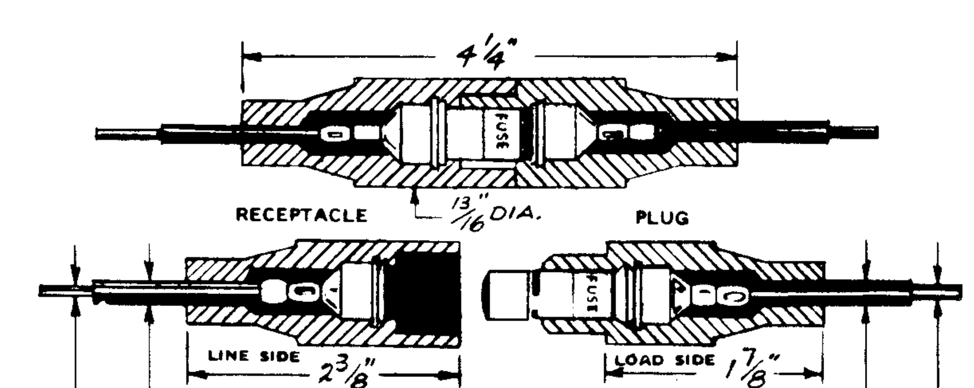
CABLE DIAMETER Min	CABLE DIAMETER Max.	Symbol for (W) and (Y)
.120"	.160"	S
.155"	.205"	A
.195"	.260"	B
.250"	.330"	C
.320"	.430"	D

CONDUCTOR SIZE AWG Concentric Stranded	CONDUCTOR SIZE AWG Solid	Symbol for (X) and (Z)
#14, #16	#12, #14	8
#10, #12	#8, #10	6
#8	#6	4
#6	#4	3

EXAMPLE

If the installation requires a plug for a cable diameter of .38", and a no. 8 stranded conductor, and a receptacle for a cable diameter of .27", and a no. 14 stranded conductor, the kit required will be V - D4 - C8.

TYPE V
UNFUSED INLINE CONNECTOR KIT FOR JUNCTION BOX INSTALLATION.



ORDERING SYMBOLS: 64 (W) (X) (Y) (Z)

TABLE A

CABLE DIAMETER Min.	CABLE DIAMETER Max.	Symbol for (W) and (Y)
.110"	.110"	T
.120	.160	S
.155	.205	A
.195	.260	B
.250	.330	C
.320	.430	D

TABLE B

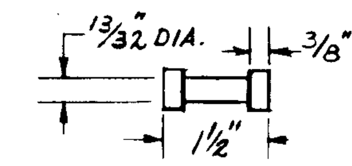
CONDUCTOR SIZE AWG Concentric Stranded	CONDUCTOR SIZE AWG Solid	Symbol for (X) and (Z)
#14, #16	#12, #14	8
#10, #12	#8, #10	6
#8	#6	4
#6	#4	3

EXAMPLE

If the line outside diameter (W) is .42" and the conductor (X) is no. 6 stranded, and the load side outside diameter (Y) is .29" and the conductor (Z) is no. 12 stranded, the kit required will be VI - D3 - C6.

TYPE VI
FUSED INLINE CONNECTOR KIT FOR JUNCTION BOX INSTALLATION.

MIDGET TYPE FUSE



Any standard Midget, Ferrule type fuse, (except glass tube) may be used in this connector.

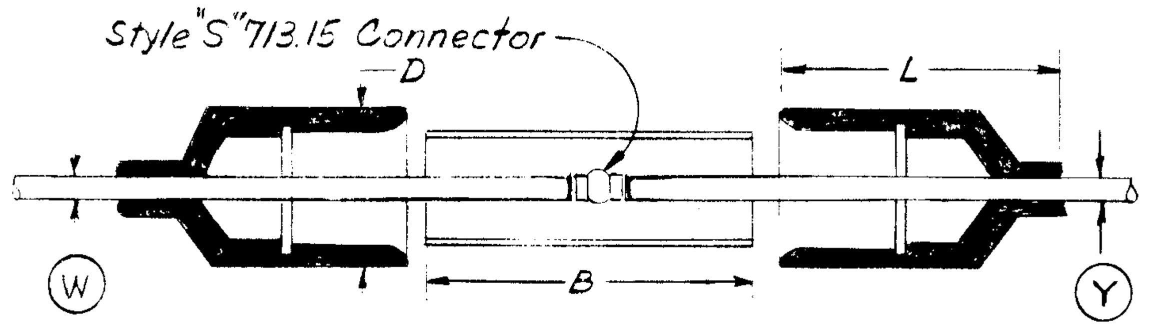
Fuses rated 600 volts and 10 amperes, minimum shall be used unless otherwise specified.

AB-D-GB

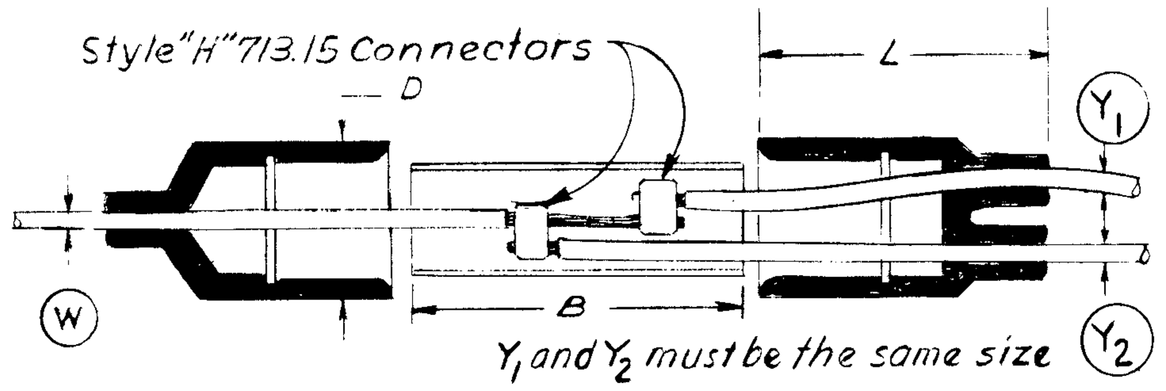
CABLE CONNECTOR KITS TYPES VII, VIII & IX

TYPES VII CABLE CONNECTOR KITS

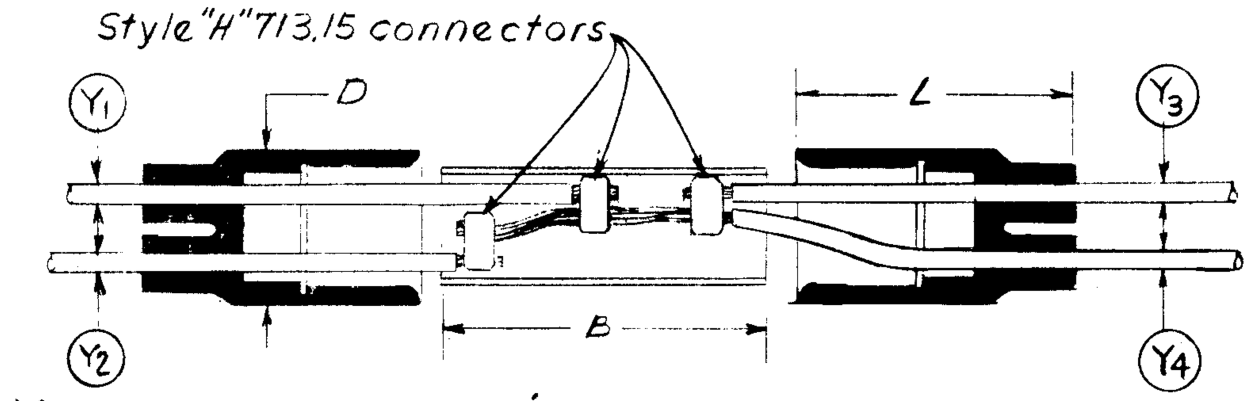
SPLICE INSULATING KITS



TYPE VII A
Straight line Splice



TYPE VII B
Two-way Splice



TYPE VII C
Three-way Splice

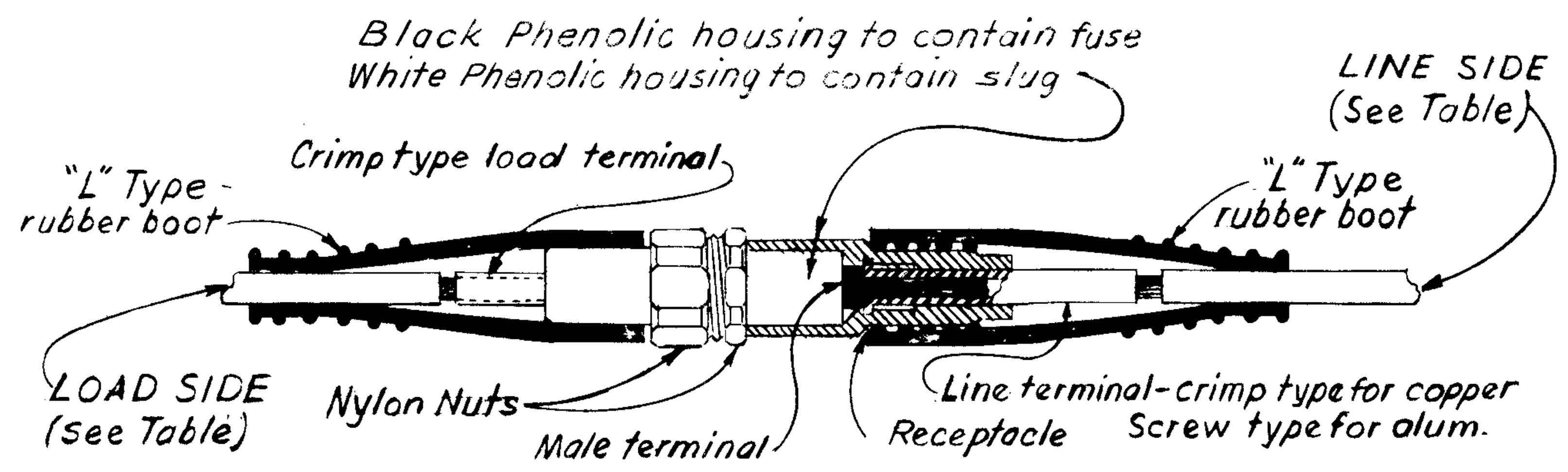
TABLE OF NOMINAL TYPE VII KIT STYLE VARIATIONS REQUIRED

B	D	L	Cable Diameter min.	Cable Diameter max.	AWG. 600V cable per 713.02
3" and 7"	1 29/32"	4 1/16"	.320"	.430"	No.6 and No.4
	"	"	.420"	.585"	No.2 and No.2/0
	"	"	.575"	.785"	No.3/0 -250 MCM*
	"	"	.775"	.985"	300 MCM-400 MCM
	"	4 3/16	.975"	1.185"	500 MCM
	"	4 5/16	1.175"	1.385"	600 MCM-750 MCM

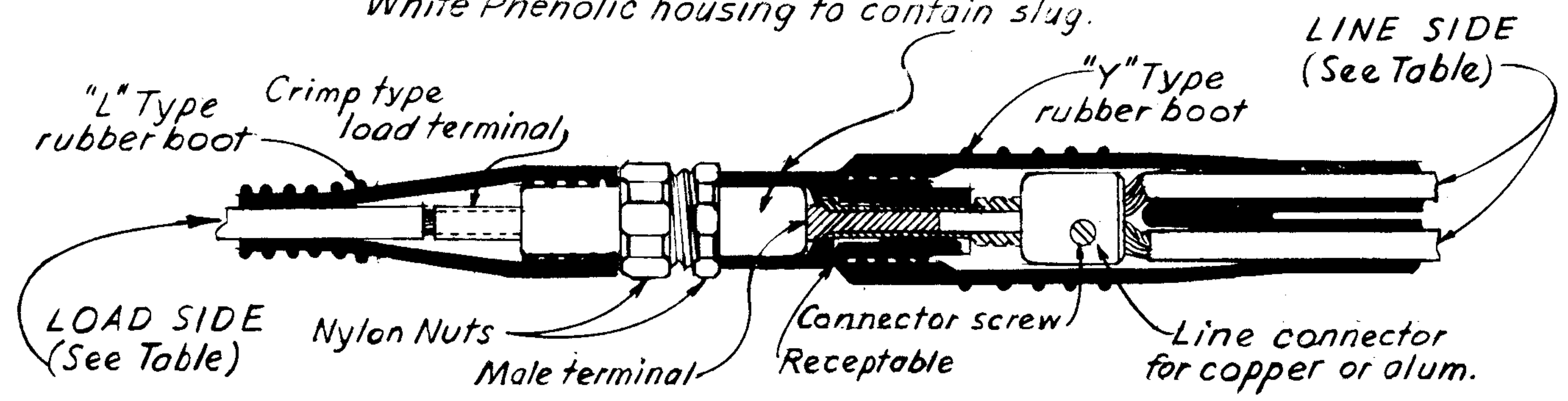
*Maximum "Y" cable size. See catalogs or design drawings for specific kit symbolization required in each application.

TYPES VIII & IX CABLE CONNECTOR KITS

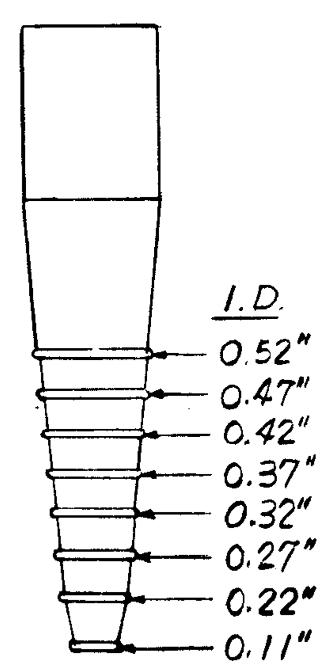
BREAKAWAY FUSEHOLDER KITS



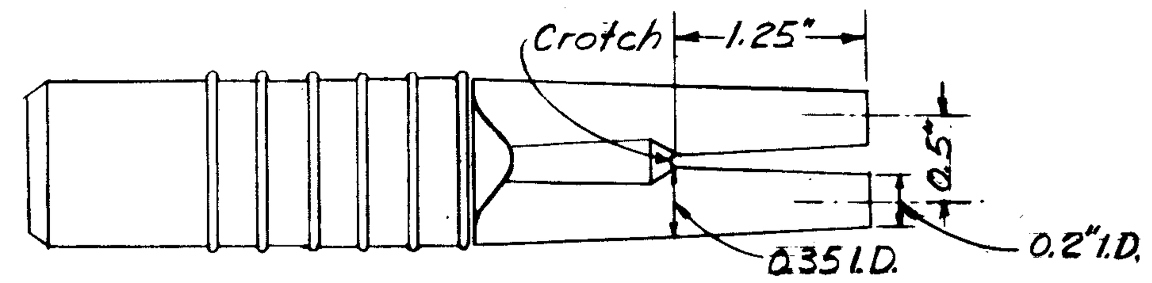
TYPE VIII "AL" for IN-LINE ALUMINUM
TYPE VIII "CU" for IN-LINE COPPER



TYPE IX "AL" for TEE TAP ALUMINUM
TYPE IX "CU" for TEE TAP COPPER



"L" TYPE RUBBER BOOT



"Y" TYPE RUBBER BOOT

NOTES...

FOR BREAKAWAY FUSEHOLDER KITS

1. Acceptable cable size ranges are as follows:

CABLE MAT'L.	LOAD SIDE	LINE SIDE
Copper	No.14 thru No.2	No.12 thru No.2
Aluminum	No.12 thru No.2	No.12 thru No.2

2. See catalogs or design drawings for kit symbolization in specific combinations of load and line cable sizes.
3. The fuseholder shall be capable of retaining a 13/32" diameter by 1 1/2" long fuse rated up to 600 volts and a minimum of 10 amperes.
4. To secure a satisfactory interference fit between a rubber boot and the cable, the outside diameter of the cable should be approximately 0.0625" (1/16") larger than the inside diameter of the boot.
5. When a lubricant is used on the outside of the cable insulation the outside diameter of the cable may be 0.125" (1/8) larger than the inside diameter of the boot in lieu of 1/16" larger without lubrication.
6. Where the "L" type boot is used the maximum inside diameter of the boot shall not be more than 0.42". The upper two rings, namely 0.47" and 0.52" shall not be used.
7. The "Y" type boot shall not be cut beyond the crotch where the inside diameter of each leg is 0.35". Use of a cable of 0.48" O.D. in the "Y" type boot may require the application of a lubricating compound on the cable insulation for it to slide into the boot.
8. If the cable has a nylon jacket the jacket shall be peeled back to a point where no part of the jacket is encased in the boot with the insulated cable.

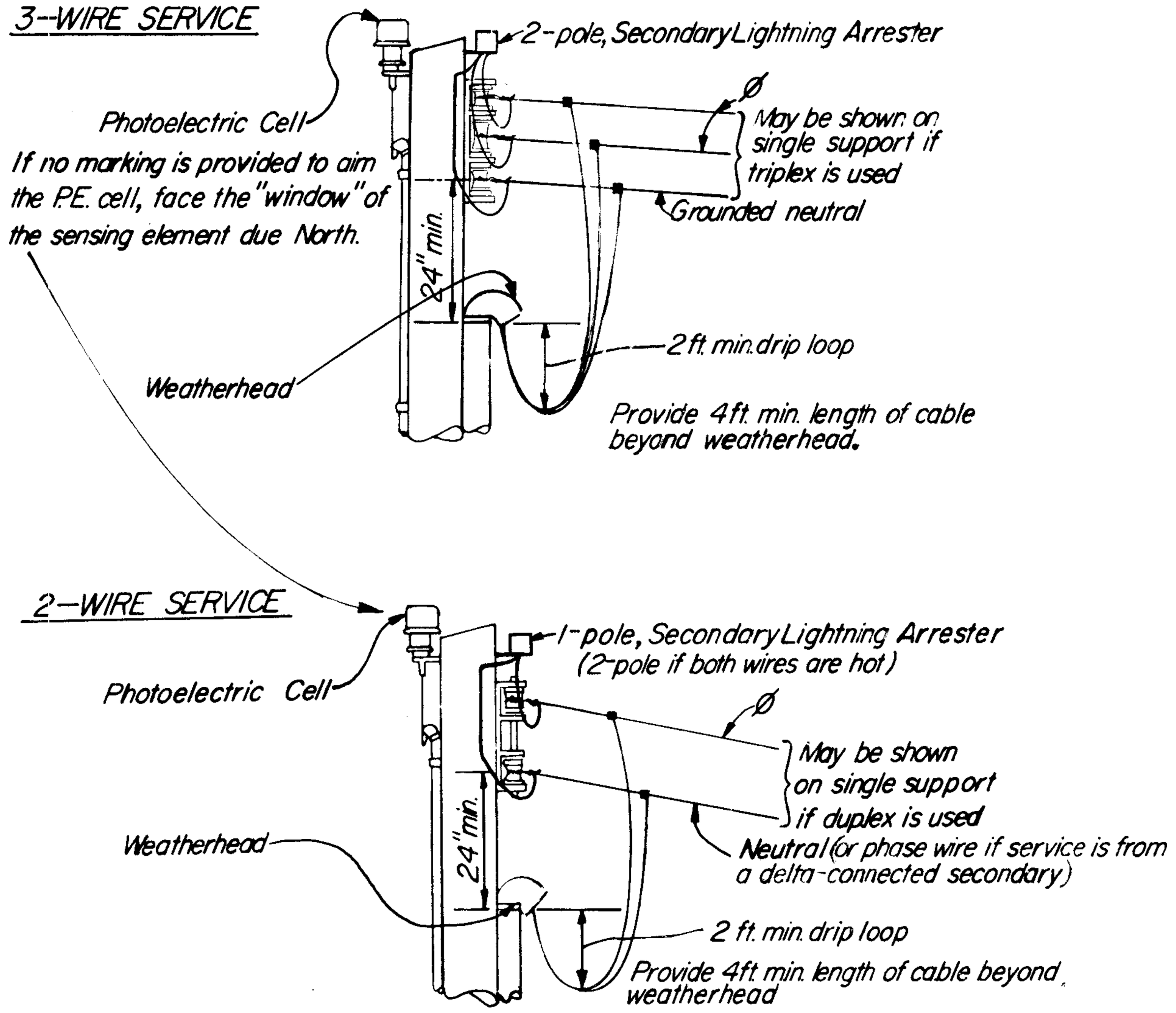
SERVICE POLES AND CONTROL CENTERS

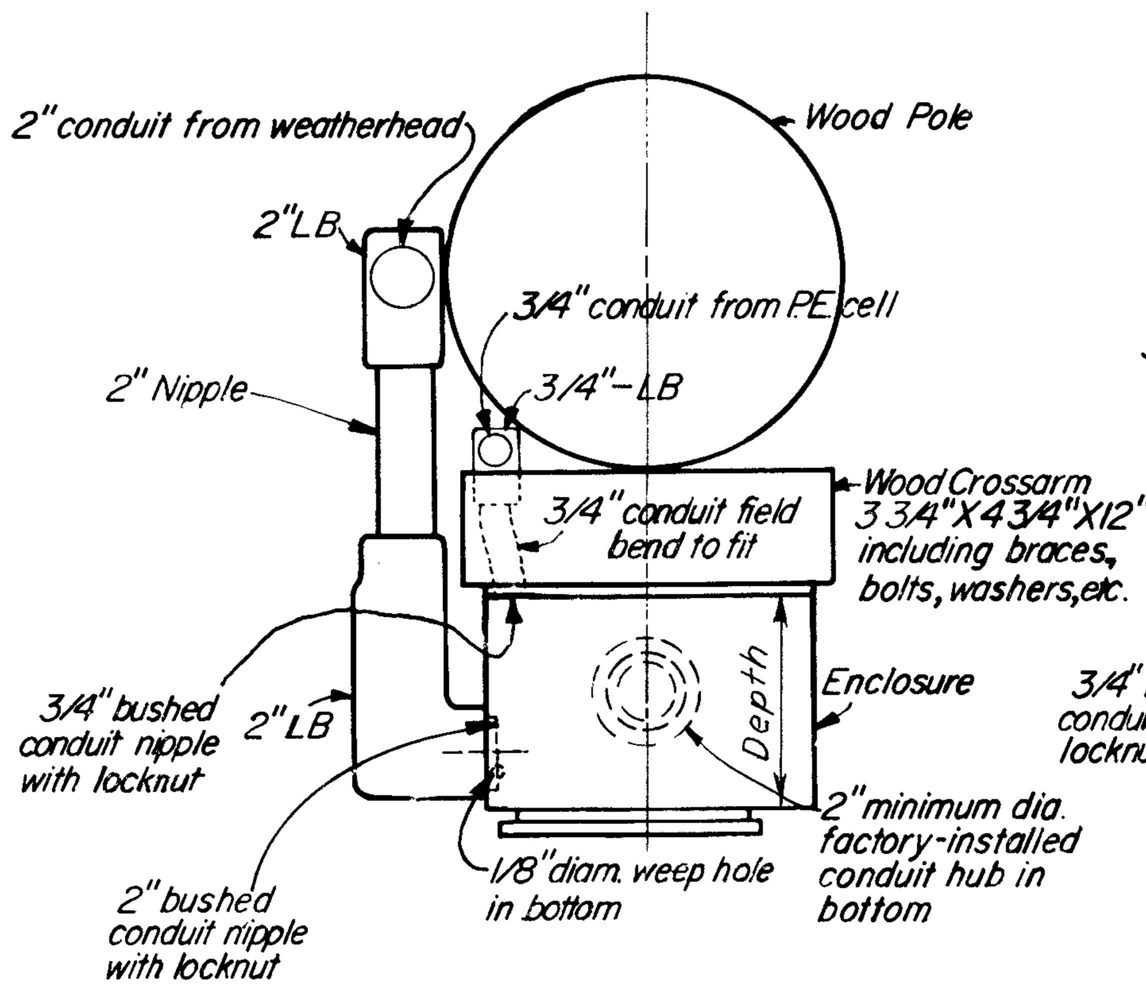
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

506E / 630

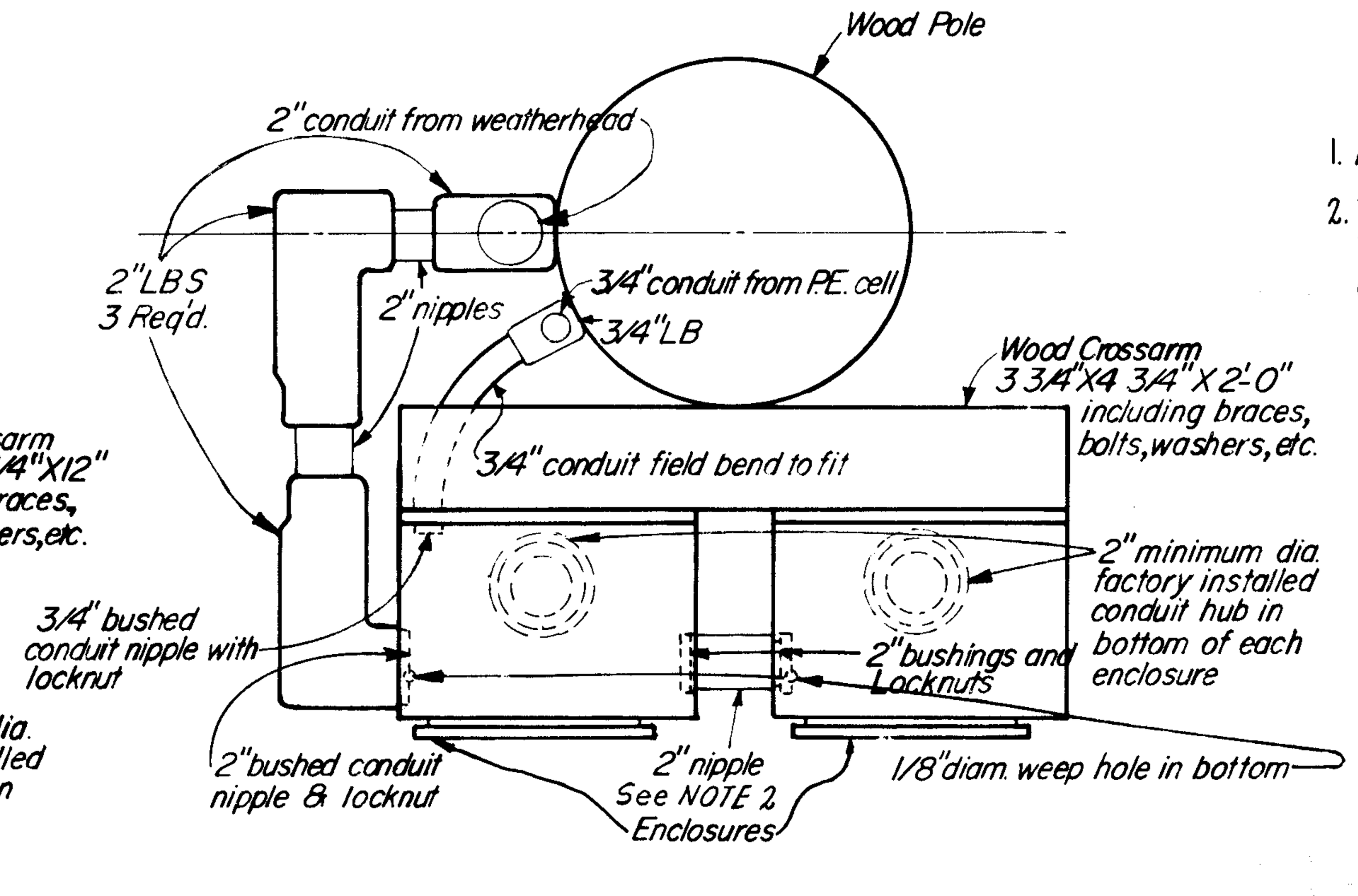
HAM-275-3.86
HAMILTON COUNTY

TYPICAL SERVICE POLE HEADS





PLAN
SINGLE ENCLOSURE



PLAN
DOUBLE ENCLOSURES

NOTES

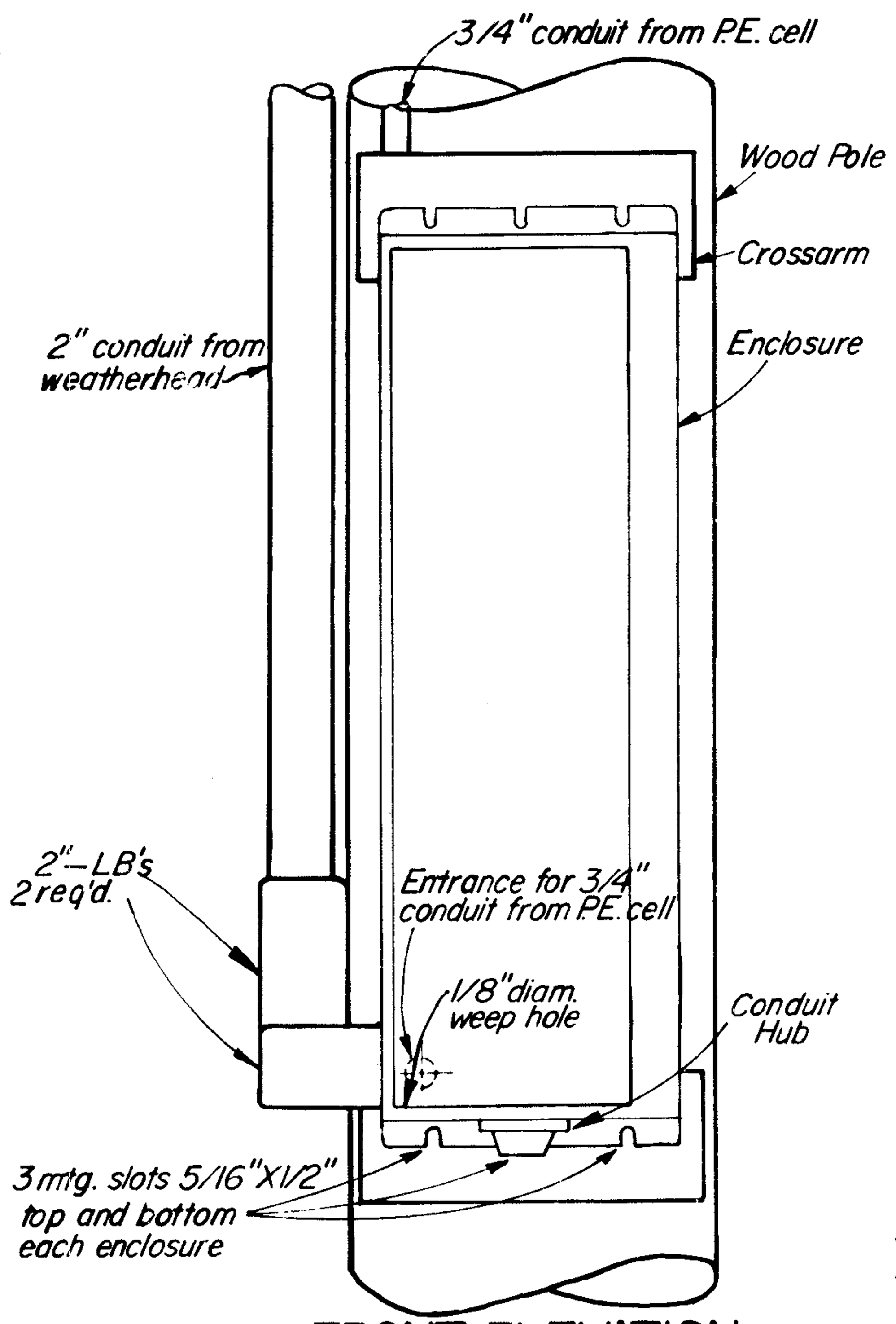
1. All openings in enclosures shall be made by fabricator.
2. Two or more enclosures may be mounted with sides abutting. The 2" nipple shown shall then be replaced by the installation of 2" insulated bushings in the openings for cables.

ENCLOSURE TYPES

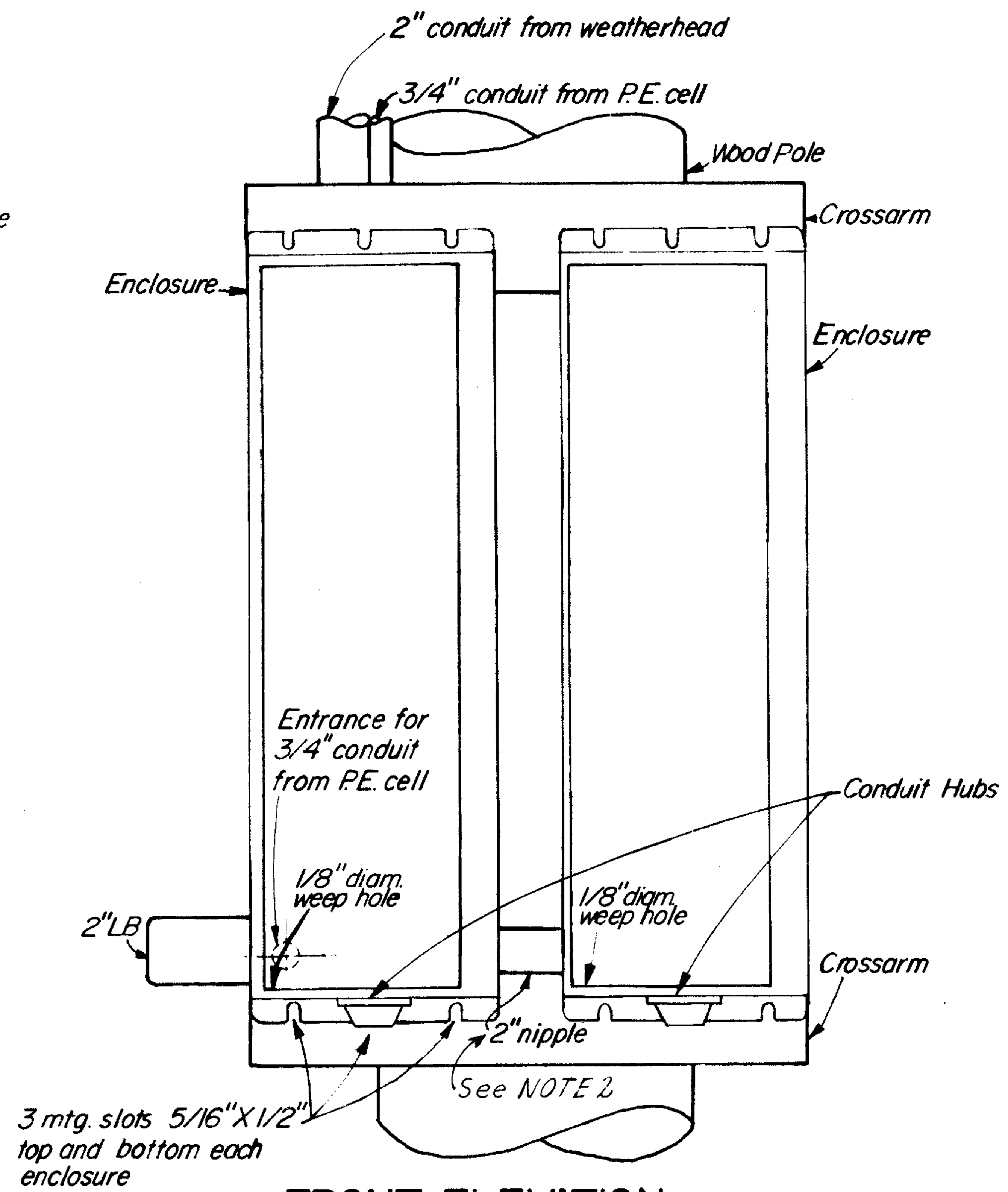
MINIMUM INTERIOR DIMENSIONS

TYPE NO.	PRINCIPLE CONTENTS	WIDTH	HEIGHT	DEPTH*
S-30/60	30 or 60 ampere fused switch.	10 1/2"	18"	6 9/16"
S-100	100 ampere fused switch.	14"	20"	8"
SC-30/60	30 or 60 ampere combination fused switch & contactor.	10 7/16"	32 7/16"	7 5/8"
SC-100	100 ampere combination fused switch & contactor.	14"	41"	8 1/8"

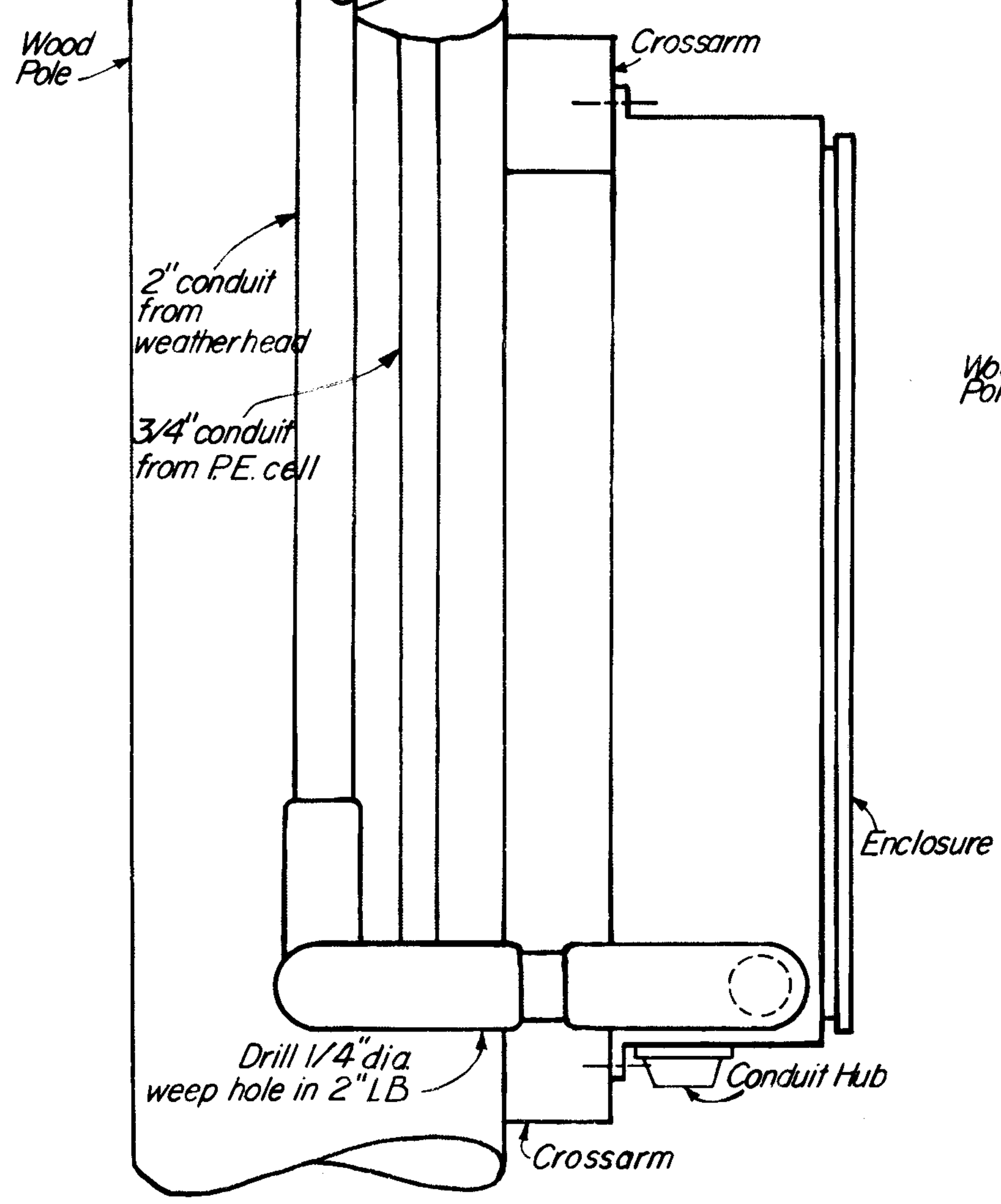
*See "PLAN" view of Single Enclosure.



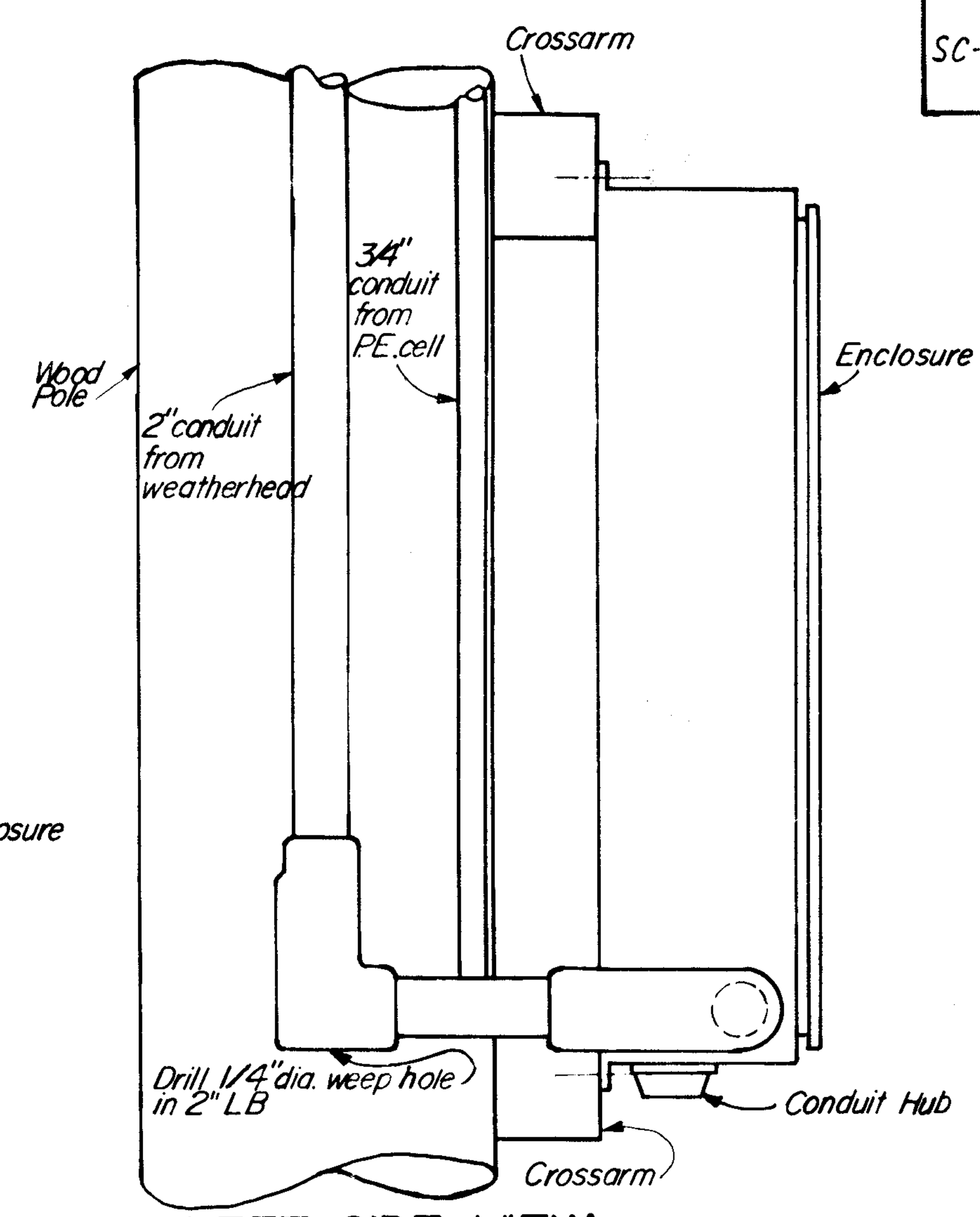
FRONT ELEVATION
SINGLE ENCLOSURE



FRONT ELEVATION
DOUBLE ENCLOSURES



LEFT SIDE VIEW
DOUBLE ENCLOSURES



LEFT SIDE VIEW
SINGLE ENCLOSURE

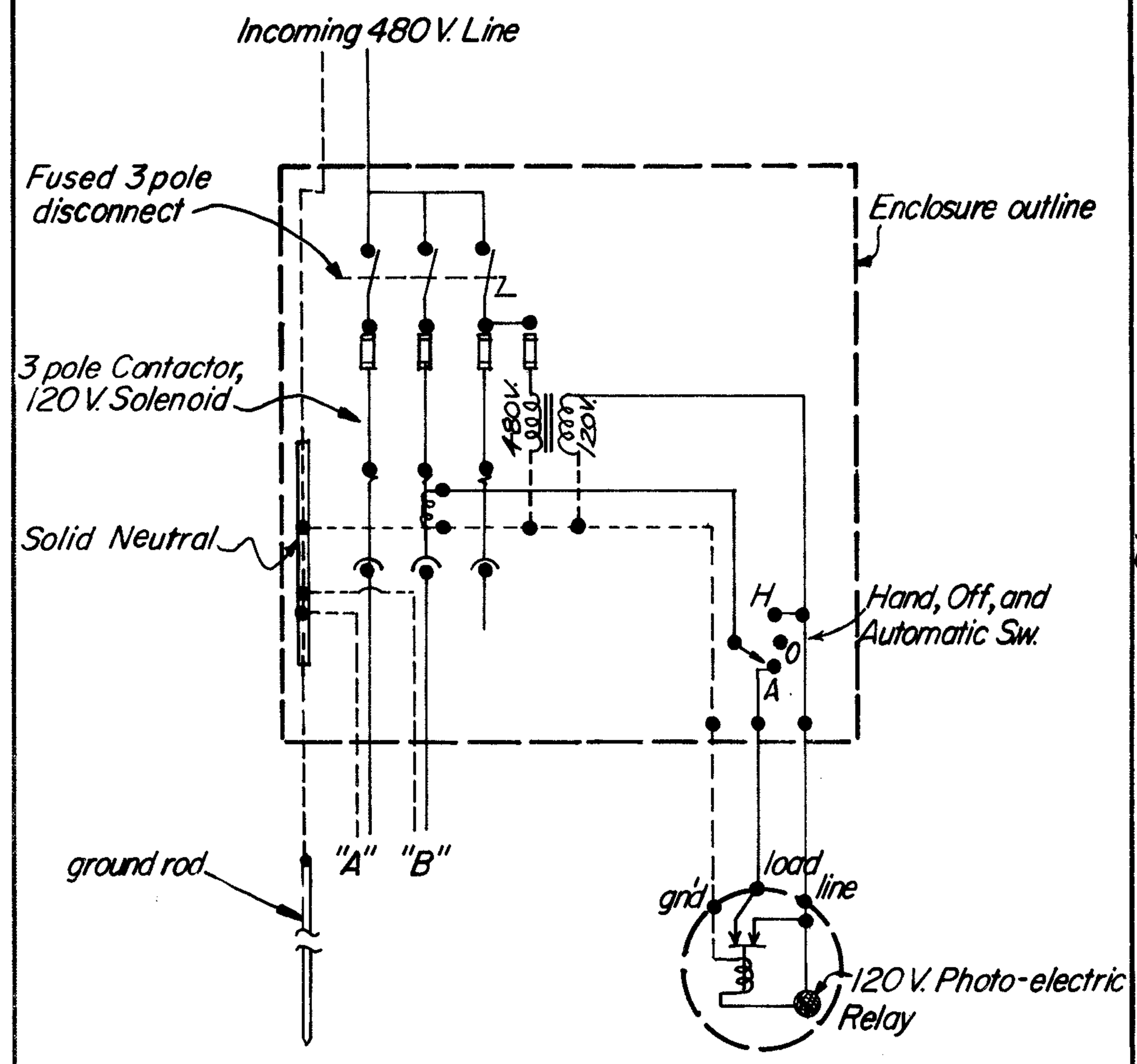
38 / 39

WIRING DIAGRAMS

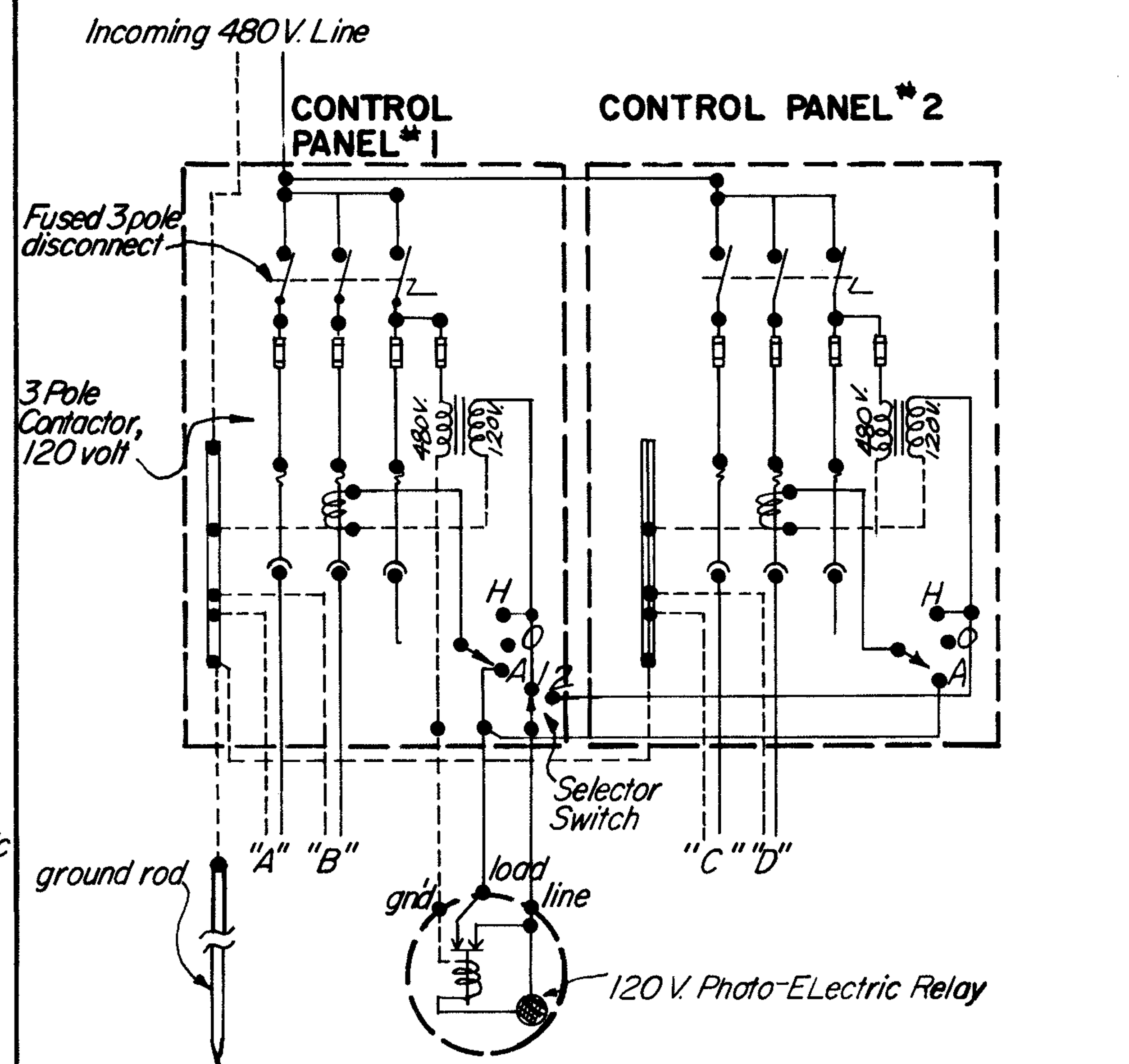
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 275 - 3.86
HAMILTON COUNTY

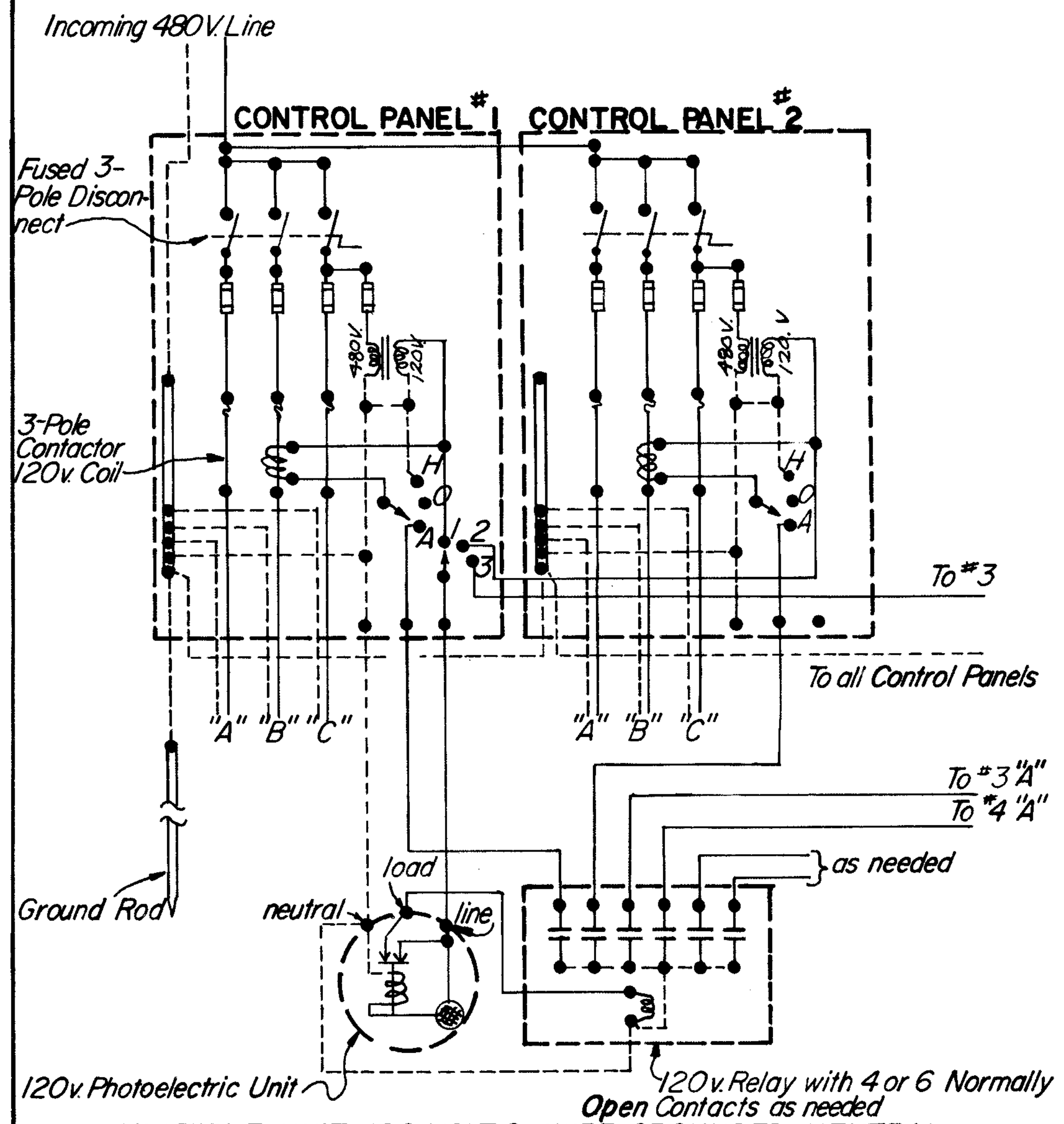
506F
630



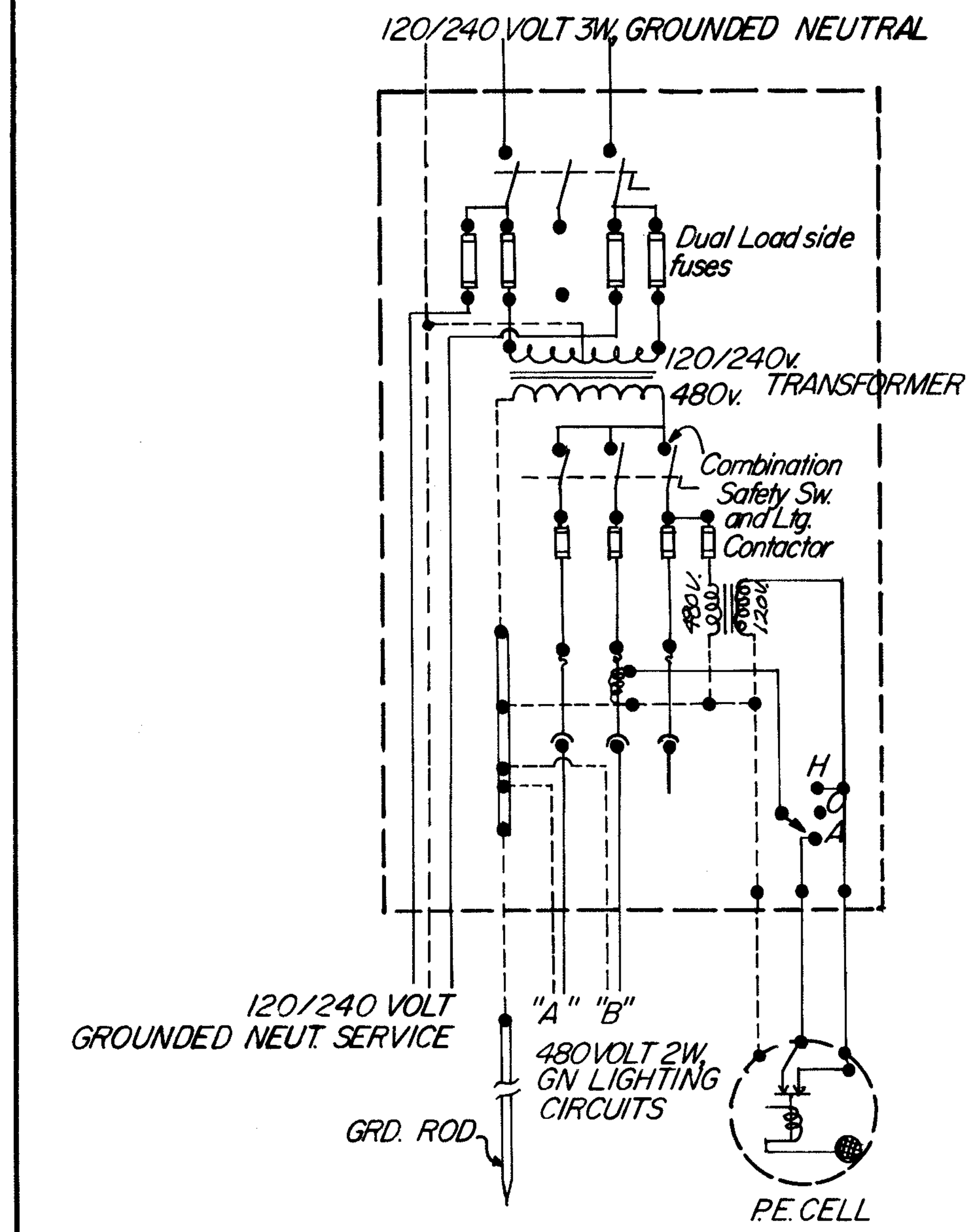
SINGLE UNIT 480 VOLT, 2-WIRE GROUNDED NEUTRAL



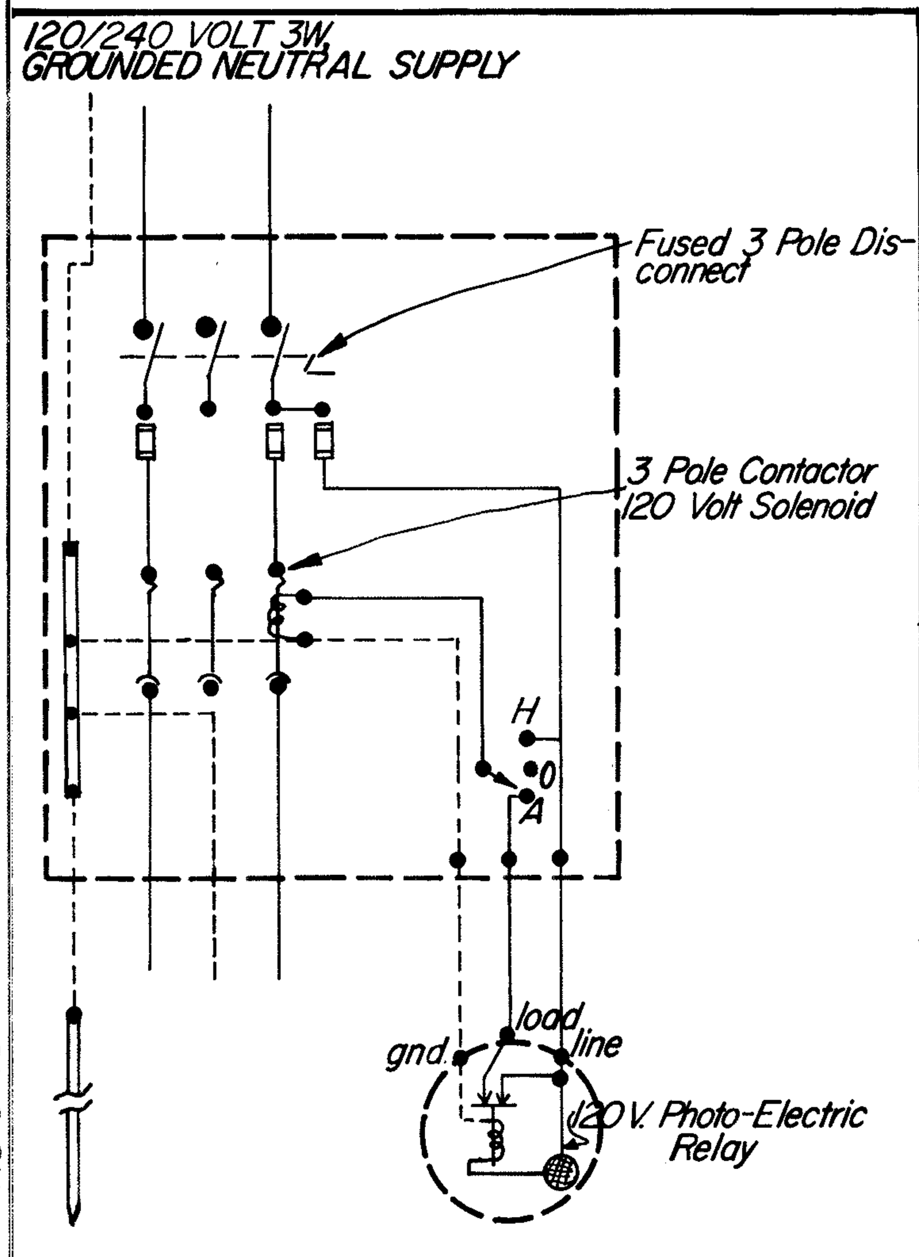
DOUBLE UNIT 480 VOLT, 2-WIRE GROUNDED NEUTRAL



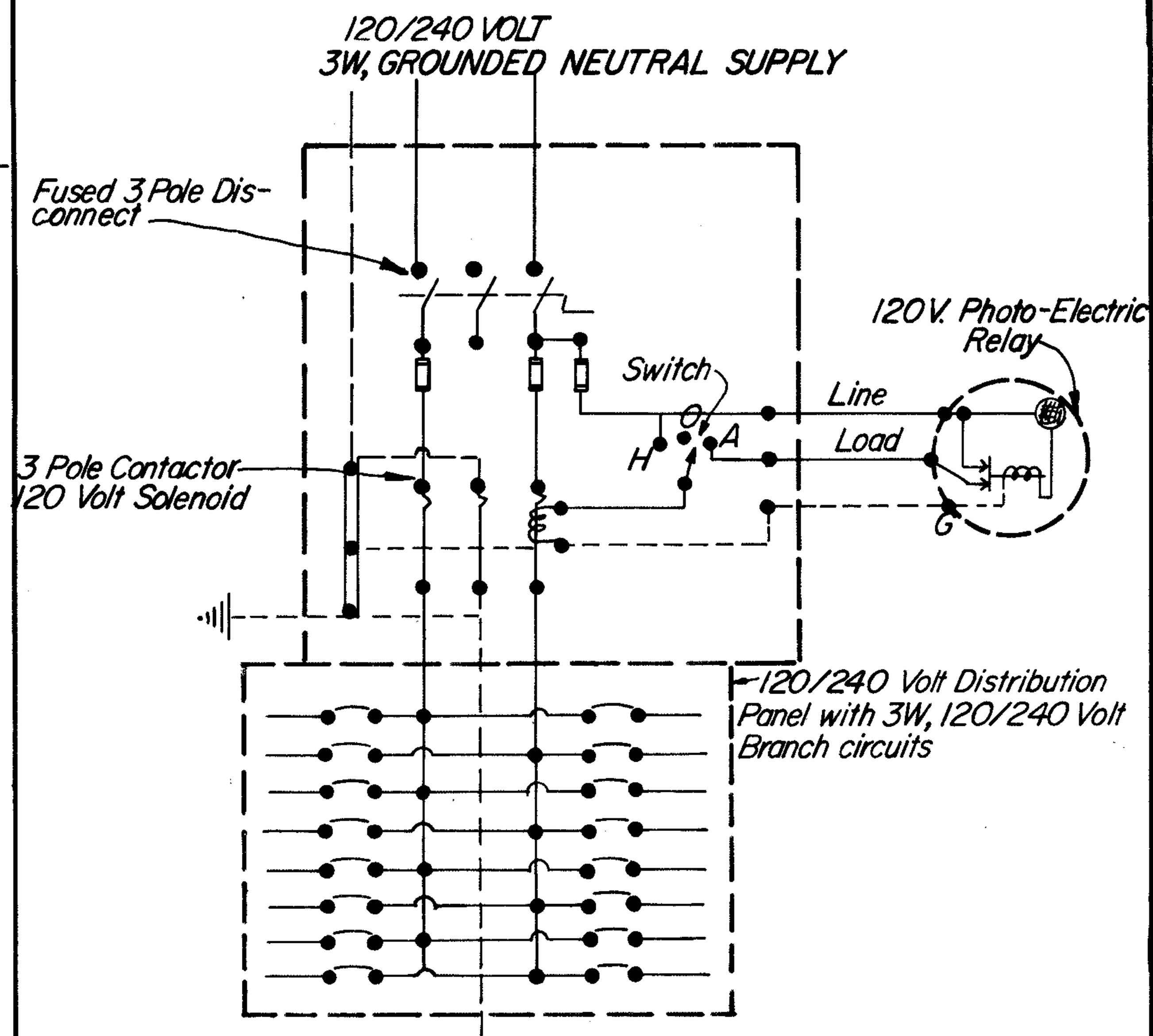
MULTIPLE UNIT 480 VOLT, 2-WIRE GROUNDED NEUTRAL



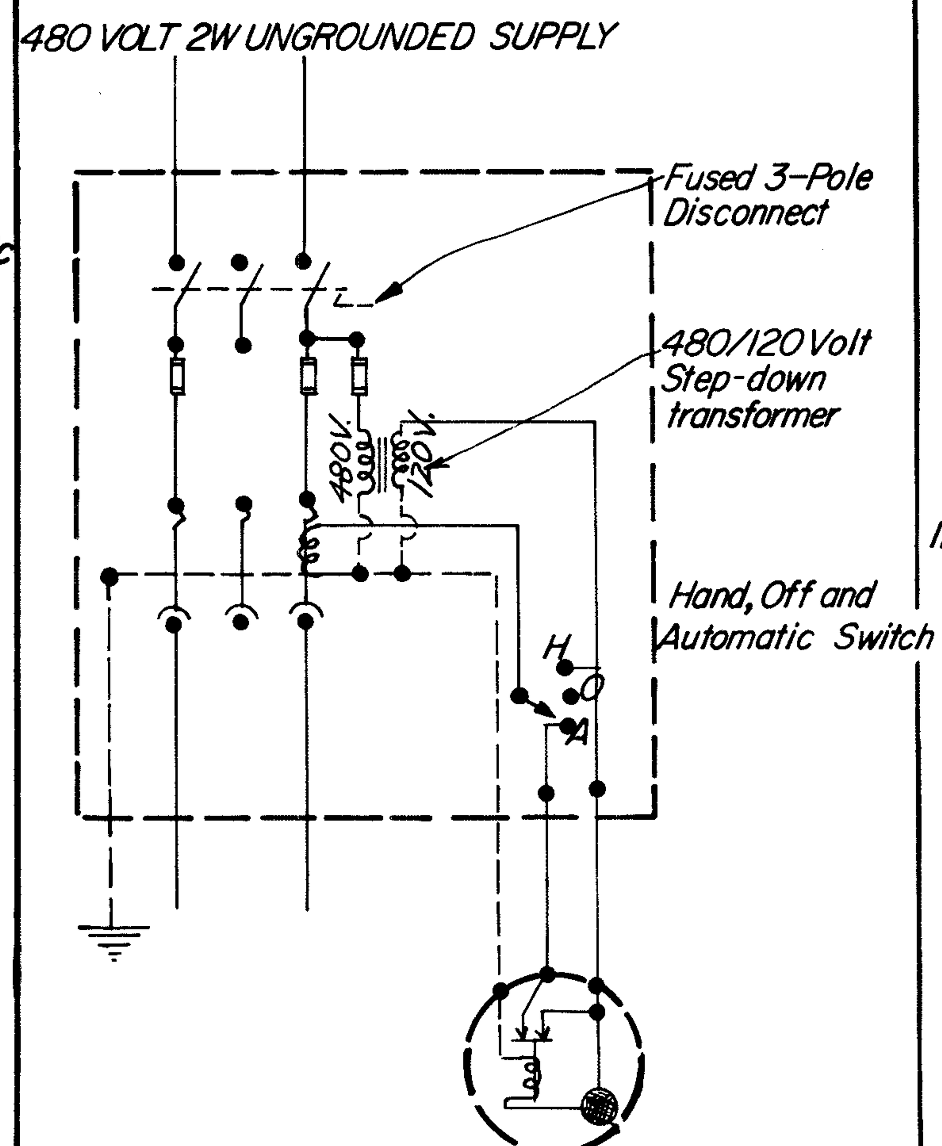
480 VOLT, 2-WIRE, GROUNDED NEUTRAL CONTROL CENTER WITH 120/240 VOLT, 3-WIRE GROUNDED NEUTRAL SUPPLY FOR ASSOCIATED LOAD.



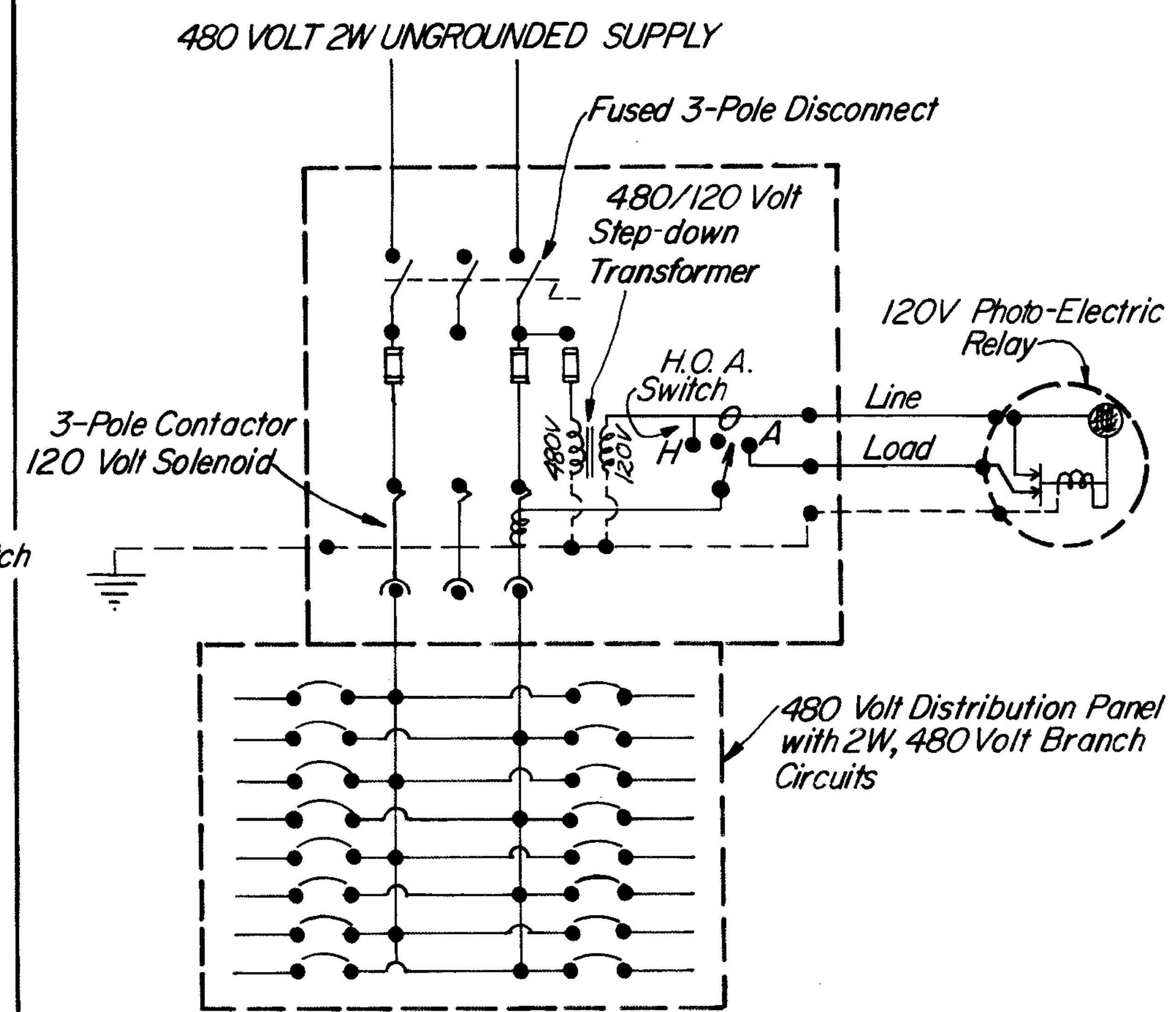
120/240 VOLT, 3-WIRE, GROUNDED NEUTRAL SINGLE CIRCUIT



120/240 VOLT, 3-WIRE, GROUNDED NEUTRAL MULTIPLE CIRCUIT



480 VOLT, 2-WIRE UNGROUNDED SINGLE CIRCUIT



480 VOLT, 2-WIRE UNGROUNDED MULTIPLE CIRCUIT

AB-D-GB

SIGNING TITLE SHEET

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

507/630

HAM-275-3.86
HAMILTON COUNTY

CONVENTIONAL SIGNS

COUNTY LINE
CORPORATION LINE
GUARD RAIL (EXISTING)
GUARD RAIL (PROPOSED)
GROUND MOUNTED SIGNS ON ONE SUPPORT
GROUND MOUNTED SIGNS ON TWO SUPPORTS
GROUND MOUNTED SIGNS ON THREE SUPPORTS
GROUND MOUNTED SIGNS, BACK-TO-BACK ON ONE SUPPORT
GROUND MOUNTED SIGNS, BACK-TO-BACK ON TWO SUPPORTS
SPECIAL "ONE WAY" SIGN SUPPORT
OVERHEAD SIGN SUPPORTS
OVERHEAD SIGN SUPPORT (CANTILEVER TYPE)
OVERHEAD SIGN SUPPORT (BUTTERFLY TYPE)

INDEX

SIGNING GENERAL NOTES

MATERIALS - GENERAL

Materials to be furnished may be specified in the plans by a given manufacturer's catalog number or type. This is for descriptive purposes only and the Contractor may assume that approved equal materials may be furnished.

815 SIGN ERECTION, EXTRUSHEET OR FLAT SHEET TYPE

The Contractor shall erect sign panels as indicated on the Schematic Signing Plan Sheet Number (s) 5 THRU 10 The panels will be furnished by others and shall be mounted on the brackets or beam supports provided in the plans.

All sign material and accessories will be furnished and transported by others to a delivery point designated by the Contractor on or near the subject project. The Contractor shall be responsible for the handling, protection and storage of the sign panels and accessories from the time of unloading by others at the delivery point.

Large guide signs (over 8 feet in height) may be delivered in two pieces. Work shall also consist of assembly of these panels including attachment of demountable sign legend, where necessary, and erection of signs in conformance with the Schematic Sign Plan.

The Contractor shall submit, in three copies, a schedule for sign erection to the Engineer at least 120 calendar days prior to the start of any scheduled erection work. The schedule shall include proposed dates, sign numbers, and delivery point. The Engineer will furnish copies of the schedule to the District Traffic Engineer and to the Engineer of Design Services, 25 South Front Street, Columbus, Ohio 43215.

The price bid per square foot for "Item 815, Sign Erection, By Type", shall include payment for all necessary equipment, labor, and tools to store, assemble, and erect the signs as specified.

815 INTERIM COVERING FOR SIGNS

This item shall consist of furnishing and installing an interim cover and attachment materials for signs so indicated in the Plans or as directed by the Engineer. This item shall also include the subsequent removal of covers when directed by the Engineer.

Material for covering shall be plastic coated burlap blankets in conformance with 705.06.

The Engineer shall approve the method proposed for attaching interim covers to signs prior to installation of covers.

Work shall include all necessary material, hardware, labor, and equipment required to perform the required item of work.

Basis of payment shall be INTERIM COVERING FOR SIGNS, per square foot

A quantity of 500 sq. ft. for Item 815, Iterim covering for signs, has been included to cover signs as directed by the Engineer.

620 INTERIM DELINEATORS, AS PER PLAN

This work shall consist of furnishing and installing interim delineators as specified on plan sheets.

This item shall include 2 pounds per foot steel drive posts 4'-0" long bolted to inside of interim barrels furnished under 606 using a minimum of three 5/16" steel bolts spaced on 12" centers. Post flanges shall be 90 degrees to interim edge lines facing approaching traffic. Type D delineators shall be mounted on the drive post flanges with the top of the delineator 4' above the pavement.

The quantity furnished and installed will be paid for at the price bid per each which price shall be full compensation for furnishing and installing drive posts and delineators including necessary hardware, labor and equipment.

816 STRUCTURAL SUPPORTS, STEEL BEAM (TYPE)

The structural steel beam supports including 6 pound beams, 4 pound posts and hardware shall be galvanized in accordance with ASTM A-123 and A-153 respectively. All fabrication shall be completed prior to galvanizing.

Quantities for Item 816 "Structural Supports, Steel Beam (Type)", appearing in the quantity tables are approximate. The Contractor shall be responsible for determining exact support lengths prior to fabrication and galvanizing of supports. Payment shall be at the contract unit price bid per lin. ft. which price and payment shall include all costs in connection with the embedment of the supports.

The cost of the concrete used for embedment if required will be a separate pay item.

816 BREAKAWAY SIGN SUPPORT CONNECTION

This item consists of cutting and drilling the structural support; furnishing and attaching the fuse plate; and furnishing and attaching the base plates for each structural sign support as indicated on the plans.

All materials, labor and equipment required to fabricate and install this item for each sign support (exclusive of the structural sign support) will be measured and paid for at the unit price bid for Item 816 each Breakaway Sign Support Connection.

816 INTERIM STEEL POSTS, 4 LBS. PER FOOT, AS PER PLAN

This work shall consist of furnishing and installing 4 pounds per linear foot steel posts as specified for interim lane width transitions.

This item shall include 4 pounds per foot steel posts 11'-0" long bolted to the inside of interim barrels furnished under 606 using a minimum of three 5/16" steel bolts spaced on 12" centers.

Post flanges shall be 90 degrees to interim edge lines facing approaching traffic. Steel bearing plates 3" x 2" shall be used at each bolt outside the barrel to prevent pull through. Mounting of signs on the posts with the bottom of the signs 7' above the pavement shall be included in Item 815.

The quantity furnished and installed will be paid for at the price bid per lin. ft. which price shall be full compensation for furnishing and installing posts including necessary hardware, labor and equipment.

816 OVERHEAD SIGN SUPPORT, BY TYPE

All component parts of the overhead sign supports shall be steel, except for the truss and components for the number 7 series which shall be aluminum. For specific details and materials, see sheet numbers 21 through 25.

Cost of furnishing and installing the sign brackets and the fixture support arm, length "G", with mounting holes and hardware shall be included in the contract unit price bid for overhead sign supports.

Modifying supplemental specification 816 switch enclosure mounting brackets including mounting bolts and drilled holes shall be furnished and installed under payment for 816 overhead sign support structures at the contract price per overhead sign support, by type.

Payment for this item shall be made at the contract unit price bid for each overhead sign support, by type, installed in place and accepted, which price shall be full compensation for furnishing all anchor bolts, 2" and 3/4" EHT conduit ells (for installation under 816 Concrete Foundations, for sign Supports), and for furnishing and installing each overhead sign support structure shown on Sheets 11 thru 14 including fixture support arms, switch enclosure mounting bracket, sign brackets and all component parts necessary to make a complete workable installation ready for sign erection, installation of disconnect switch and enclosure, ground rod and wire connections and sign wiring.

Erection of these supports shall be accomplished in a manner meeting the requirements of supplemental specification 816.

In all cases, span type overhead sign supports and signs shall be erected concurrently. At no time shall the box trusses be erected without the sign being in place within eight (8) hours.

816 ALTERNATE DESIGNS FOR OVERHEAD SIGN SUPPORTS

If the Contractor desires to furnish an alternate design for overhead sign supports, the alternate designs must be submitted to the State at least 21 days prior to opening of bids. The Bidder will be notified as to acceptance or rejection of alternate design at least 7 days before bids are to be opened. Alternate designs must utilize tubular structural members. Submissions shall be made to Ohio Department of Transportation, Bureau of Design Services, 25 South Front Street, Columbus, Ohio 43215.

816 OVERHEAD SIGN AND TRAFFIC SIGNAL SUPPORT FABRICATION

In lieu of plan details, the following are fabrication requirements for supports in this project:

All handholes fabricated for supports shall be 4" x 8" in size with face flush with pole exterior at the required locations described in plans.

The electrical service entry through each vertical sign support pole shall be provided by means of a two inch (2") half-coupling centered at a height of 5'-0" above the bottom of the base plate.

The Type "Y" or "Z" disconnect switch enclosure shall be mounted in such a manner that the bottom of the enclosure will be 4'-9-1/2" (1/4") above bottom of base plate.

Payment for the fabrication requirement specified above shall be incidental to the cost of each support structure.

816 CONCRETE FOUNDATIONS, FOR SIGN SUPPORTS

Payment for this item shall be based on plan dimensions (or dimensions as modified by the Engineer in lieu of plan quantities) as required in supplemental specification 816.

Payment for reinforcing steel and installation only of conduit ells shall be included in the cost of concrete foundations for overhead sign supports. Concrete shall be Class "C".

Basis of payment shall be as follows:

1. Concrete for overhead sign support foundations, per cubic yard.
2. Concrete for ground mounted sign support foundations, per cubic yard.

CONSTRUCTION LAYOUT STAKES FOR SIGNS AND TRAFFIC SIGNALS

The Contractor shall stake out all supports in accordance with Supplemental Specification 816 prior to installation of any foundations or supports.

After stakeout the Contractor shall notify the Engineer a minimum of seven (7) days in advance of scheduled work. Support locations for each support will be field checked taking into account both underground and overhead conflicts and obstructions and approved by the Engineer who shall coordinate with the District and/or City Traffic Engineer prior to proceeding with construction work required.

If both major and minor type supports are included within the project it will be permissible to perform the construction stakeout and field inspection in two (2) stages, one for major supports and one for minor supports.

Cost for this item of work will be included in the lump sum bid for Item 623 " Construction Layout Stakes, As Per Plan".

816 STRUCTURAL SUPPORTS DRIVEN TYPE

Driven type structural supports will be driven to a depth of five feet (5'-0") minimum below ground line in such a manner that no deformation within the length of the support, or damage to the support, will occur.

Prior to installation each support shall be significantly marked with paint at a location on the support 5'-6" from the embedded end, and approved by the Engineer. "Structural Supports 6 Lb. Beam, Driven and 6 Lb. Beam, as per plan, Driven" will include the 10"x12"x 1/4" soil plate detailed in the plans.

Payment for installation of sign supports by the above method shall be included in the cost of the various support types specified including all labor, equipment and materials required.

625 SIGN SERVICE

This item shall consist of the completion of the electrical system and components from the connectors in the pull box (included within the roadway lighting quantities) with the primary side of the disconnect switch

Work will include furnishing and installing (including trenching and backfilling) the 2 inch galvanized steel conduit and couplings from the pull box to the conduit ell in the sign support foundation.

This item will also include furnishing and installing No. 4 or 6 AWG 600 volt distribution circuit cable as per 713.02 from the connectors to the disconnect switch.

Basis of payment for this item shall be at Contract Unit Price per each, which shall include all labor, material, and equipment required to complete this item of work.

625 WIRE AND CABLE

Wire and cable installation shall conform to Section 625.14 of the Construction and Materials Specifications and shall be of the sizes and types shown on the plans.

Wire or cable installed in conduit on or with sign structures shall be #10 RHH, 600 volt standard copper wire (pole and bracket cable).

Cable installed underground leading from the pullbox to the disconnect switch shall be #4 or #6 single conductor circuit cable.

625 DISCONNECT SWITCH WITH TYPE "Y" or "Z" ENCLOSURE

This item shall include furnishing of a 30 amp. 600 volt fused disconnect switch of type and make as indicated on Sheet 29 and shall be mounted in a Nema 4 stainless steel enclosure Type "Y" or "Z" and attached to each sign support by means of a mounting bracket as described in detail on the above sheet.

Each switch enclosure shall be furnished with one padlock. Padlocks shall have a brass body and wrought iron shackle equal to Russwin No 2882 KA or Master No. 4 KA or approved equal.

Basis of payment for this item shall be per each at Contract Unit Price, which shall include all labor, material, and equipment to complete this item at work.

625 TRANSFORMER, BY TYPE

This item of work shall consist of furnishing and installing transformers as detailed and specified on Sheet 29 .

Basis of payment for this item shall be at Contract Unit Price per each, which shall include all labor, material and equipment required for this complete item of work.

625 BALLAST, BY TYPE

Ballast for fixtures shall be weatherproof outdoor type for a 120 volt 60 cycle system and shall provide lamp starting at an ambient temperature of -20 degrees F

This item of work shall consist of furnishing all ballast Types A through D as detailed and specified on Sheet 29.

Basis of payment for this item shall be at Contract Unit Price per each, furnished to the job for installation under Item 625 "Signs Wired, Complete."

625 LIGHT FIXTURE WITH LAMP, BY TYPE AND SIZE

This item of work shall consist of furnishing all light fixtures and lamps, types and sizes as specified on Sheet 29.

Basis of payment for this item shall be at Contract Unit Price per each, furnished to the job for installation under item 625 "Signs wired, complete."

SIGNING GENERAL NOTES

625 SIGNS WIRED, COMPLETE

This item shall consist of the completion of the electrical sign lighting system for each illuminated sign.

Work shall include installation of light fixtures and ballasts, and furnishing and installation of all rigid and flexible conduit, condulets, junction boxes, cable, fasteners, hardware, and all other items required to energize the sign lighting system. See details on Sheets 29 & 30.

The cost of furnishing and installing cable, cable grips, cable splice units, and necessary fasteners from the disconnect switch to the signs (or between signs) within sign support members shall be included in this item of work.

Basis of payment shall be at the Contract Unit Price per each sign wired which price shall include all labor, materials, tools, equipment, and other incidentals to provide a complete and accepted item of work.

Illuminated signs requiring two (2) ballasts shall be considered as an equivalent of two (2) separate signs for determination of payment quantities.

625 INSPECTION AND TESTING OF SIGN LIGHTING

Electrical tests of sign lighting circuits shall conform to the requirements of Section 625.22 with the following additions:

1. A voltage and amperage measurement shall be made at the sign support switch.
2. Where a low voltage tap transformer is used, the voltage shall be measured to determine the applicable tap.
3. During the performance test period, adjustments to fixture aiming angles shall be made to obtain maximum uniformity as directed by the Engineer.

The above measurements and voltage tap selection notations shall be included in the test reports furnished to the Engineer.

625 SIGN SERVICE FOR STRUCTURE MOUNTED SIGNS

This item of work shall consist of the completion of the electrical system and components connecting the connectors in the pull box (included within the roadway lighting quantities) with the primary side of the disconnect switch.

Work will include furnishing and installing (including trenching and back-filling) the 1-1/4" Type 11 or 111 metal conduit and No. 4 or 6 AWG 600 Volt distribution circuit cable from the pull box to the switch enclosure and shall also include all fitting and fasteners needed to complete this item of work.

Basis of payment for this item shall be at the Contract Unit Price per each, which shall include all labor, material, and equipment required to complete this item of work.

625 STRUCTURE MOUNTED SIGNS WIRED COMPLETE

This item shall consist of the furnishing and/or installing the electrical sign lighting system components from the disconnect switch to the light fixtures.

Work shall include installation of light fixtures, ballast and the furnishing and installation of rigid and flexible conduit, condulets, junction boxes, cable, fasteners, hardware, grounding system and all other items required to energize the sign lighting system. See details on Sheets 28, 29, & 15 (E1-1, E1-2 and Special Detail Sheet.)

Basis of payment shall be at the Contract Unit Price per each sign wired which price shall include all labor, materials, tools, equipment and incidentals to provide a complete and accepted item of work.

Illuminated signs requiring two (2) ballasts shall be considered as an equivalent of two (2) separate signs for determination of payment quantities.

816 OVERPASS STRUCTURE MOUNTED SIGN SUPPORT BY TYPE

This item of work shall consist of the furnishing, fabrication, and erection of the materials for the overpass structure mounted sign supports in accordance with materials and requirements specified in these plans and detailed on Sheets 5 & 11.

Work shall include all necessary framing, sign brackets, light fixture support arms, welding, bolts, complete and ready for installation of electrical sign lighting components.

Basis of payment shall be at the bid price per each Overpass Structure Mounted Sign Support by Type including all materials, equipment, labor and incidentals required to perform the item of work.

625 DISCONNECT SWITCH ENCLOSURE MOUNTING BRACKETS

This item shall include the fabricating, furnishing and installation of disconnect switch enclosure mounting brackets when enclosures are attached to concrete bridge columns or abutments.

Work shall consist of field drilling, attachment and hardware as detailed on sheet 28.

Basis of payment shall be at the bid price per each mounting bracket which price shall be full compensation for furnishing, fabrication, and installation including all labor, material, and incidentals necessary to complete this item of work.

621 EXISTING INTERIM PAVEMENT MARKINGS REMOVED

This item shall consist of the removal or obliteration of interim pavement markings on the pavement.

The markings may be removed by applying heat or a solvent (pull up tape) or by any other method approved by the Engineer except that the method shall not be injurious to the appearance, texture or strength of the pavement.

Upon removal of all pull up tape, the primer stains shall be removed by use of kerosene, gasoline or other approved solvent.

Payment for Item 621 existing interim pavement markings removed shall be made at the contract unit price per linear foot and shall constitute full compensation for all work, including materials, equipment, labor, incidentals and disposal of surplus materials.

202 REMOVAL OF EXISTING SIGN INSTALLATIONS, AS PER PLAN

This work shall consist of the removal of all existing sign installations on main roadway, ramps and approach roadways within work limits of this project.

Work shall also include removal of sign supports and foundations as required in Section 202.

All signs, supports, and accessories removed shall be stored neatly within the limits of the project at locations approved by the Engineer for removal by State forces. This work shall include disposal of all waste material.

To assure maintenance of adequate traffic control at all times, no signs are to be removed without the approval of the Engineer.

Payment for removal of existing signs shall include all necessary labor and equipment required to perform the required work as indicated above.

1. Basis of payment shall be as follows for signs forty (40) square feet or greater: REMOVAL OF EXISTING MAJOR SIGN INSTALLATIONS AS PER PLAN at the contract price per each.
2. Basis of payment shall be as follows for all other signs: REMOVAL OF EXISTING SIGN INSTALLATIONS AS PER PLAN at the contract lump sum price.

621 INTERIM PAVEMENT MARKING, BY TYPE

This work shall consist of the furnishing and installation of interim removable markings as specified herein and shown on the plans.

1. Material

   Material shall consist of a backing coated with a pressure-sensitive adhesive and a weather and traffic resistant reflective white or yellow colored surface and additional requirements as follows:

   a. Reflection - The white and yellow striping material shall be reflex-reflective reflecting white or yellow respectively and shall be readily visible when viewed with automobile headlights at night.

   b. Adhesive - The striping material shall have a precoated pressure-sensitive adhesive which shall not require a liner for protection from contamination, pre-adhesion, or blocking within the roll as delivered.

   c. Conformability - The striping material shall be thin, flexible, formable, and following application, shall remain conformed to the texture of the pavement surface.

   d. Removability - The striping material backing shall permit removal without requiring sandblast, solvent, or grinding methods.

   e. Durability - The striping material applied in accordance with recommended procedures shall be weather resistant and show no appreciable fading, lifting or shrinkage, prior to completion of this project.

   f. General - The striping material as supplied shall be of good appearance, free from cracks, and edges shall be true, straight, and unbroken. The striping material shall be supplied in rolls and there shall be no more than 3 splices per 60 yards of length.

   The striping material shall be prepared for delivery in standard commercial containers so constructed as to insure acceptance by the carrier and prevent damage during proper shipment and storage.

   The Contractor shall store the material in a cool, dry location where temperature will not exceed 100 degrees F. prior to application of marking on roadway surfaces.

2. Road Surface Preparation

   The road surface must be clean and dry, free of oils and grease, dust or dirt. All surfaces must be primed.

   Concrete pavement shall be surface treated in accordance with Section 621.04. Surface shall then be generously flushed with clean water and allowed to dry thoroughly prior to application of primer and interim markings.

3. Priming

   Method of priming shall be as approved by the Engineer. The Contractor shall submit a proposal for type of priming to be used. Cost for priming surfaces shall be incidental to the cost of various items included in Item 615, Temporary Roads, as per plan.

4. Application

   Interim lines shall be applied to the road surface with a roller type applicator and rolled immediately afterwards by rubber-tired roller with approximate single wheel load between one thousand (1000) and two thousand (2000) pounds.

5. Special Plan Details

   Details for location of interim markings are shown on Sign location plan sheets.

6. Basis of Payment

   Cost of furnishing and installation of interim pavement marking shall be included at the contract unit price per linear foot.

816 STRUCTURAL SUPPORTS, 6 LB. BEAM, AS PER PLAN, DRIVEN

This item shall consist of the furnishing, assembly, and installation of two (2) 3 pound per foot drive posts (6 Lb. Beam) in combination with a square welded or seamless galvanized tubular post extension spliced to the top of the 6 lb. beam. Details are shown on Sheet 33.

Square tubular post material shall conform to ASTM A-570 Grade "B" after fabrication.

Work shall include all labor, materials, equipment, tools, and hardware necessary to perform the required item of work.

Basis of payment shall be for "Structural Supports, 6 Lb. Beam, As Per Plan, Driven" per linear foot measured by total length of combination beam from end to end.

CERTIFICATION AND APPROVAL OF SIGN SUPPORT AND SIGN LIGHTING ITEMS

The Contractor shall submit through proper channels the drawings, information and samples as required below:

A. 8 copies of shop drawings and material lists for approval:
   1. Overhead sign supports
   2. Breakaway sign supports
   3. Sign lighting and signal items

B. 8 copies of catalog cuts descriptions of samples of fabricators standard items as shown in the plans or their equals for approval of their use.

C. Certification and/or samples for all material which have been approved above under "A" and "B".

D. Approval of items under "A" and "B" shall be in the hand of the Contractor prior to any purchase or installation.

E. Certifications of samples under "C" must be in hand and approved prior to contract completion.

MILE MARKER LOCATION

The locations shown in the plans for mile markers are only approximate. The Bureau of Planning Survey will locate the longitudinal position of mile markers by a paint blotch on the completed pavement edge. On divided highways only one pavement edge will be marked. Markers for the opposite direction will be set "across" from those on the marked edge. The Contractor shall notify the project engineer 30 days in advance of the planned marker installation. The project engineer shall then notify the Bureau of Planning Survey.

Any delineator that is within fifty feet (50') of a mile marker shall be nonperformed.

DEVELOPED		CHECKED	
ARS	3/72	REP	3/72

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

TRAFFIC CONTROL SUMMARY

HAM.-275-3.86
HAMILTON COUNTY

TYPE CODE 7223

OVERHEAD AND GROUND MOUNTED SIGNING AND SIGNS LIGHTING QUANTITIES

ITEM	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	122	123	124	125	Total Sh.# 2	Total Sh.#4	Total Sh.#12	Total Sh.#19 100% State	Total Sh.#19 Norm.	Total Sh.#20	ITEM	QUAN.	UNIT	DESCRIPTION
816																															375	816	375	L.F.	Structural Support, 4# Post, Driven
816		325					41.5																				74.0	95.5			637.0	816	806.5	L.F.	Structural Support, 6# Beam, Driven
816								43.0	43.0						45.25												131.25	111.0				816	242.25	L.F.	Structural Support, Steel Beam 10 WF 21
816										57																	57					816	57	L.F.	Structural Support, Steel Beam 12 WF 31
816																												34				816	34	L.F.	Structural Support, 6# Beam, As Per Plan, Driven
816								2	2	2																	6	6				816	12	Ea.	Breakaway Sign Support Connection
816												1															1					816	1	Ea.	Overhead Sign Support No. 7.4, Des. 1, Span-61'-0", Modified
816																	1			1							2					816	2	Ea.	Overhead Sign Support No. 7.4, Des. 1, Span-67'-0", Modified
816																								1			1					816	1	Ea.	Overhead Sign Support No. 7.6, Des. 3, Span-79'-0", Modified
816													1														1					816	1	Ea.	Overhead Sign Support No. 7.6, Des. 3, Span-75'-0", Modified
816																									1		1					816	1	Ea.	Overhead Sign Support No. 7.6, Des. 4, Span-83'-0", Modified
816																						1					1					816	1	Ea.	Overhead Sign Support No. 7.6, Des. 4, Span-99'-0"±, Modified
816						1																					1					816	1	Ea.	Overhead Sign Support No. 9.24, Des. 2, Arms-5'-6" & 5'-6", Modified
816			1																								1					816	1	Ea.	Overhead Sign Support No. 9.24, Des. 2, Arms-7'-0" & 5'-0", Modified
816				1																							1					816	1	Ea.	Overhead Sign Support No. 12.24, Des. 3, Arms-16'-0", Modified
816	1																										1					816	1	Ea.	Overhead Sign Support No. 12.24, Des. 3, Arms-18'-0", Modified
816																1					1		1				3					816	3	Ea.	Overhead Sign Support No. 12.24, Des. 5, Arms-20'-0", Modified
816																		1									1					816	1	Ea.	Overhead Sign Support No. 12.24, Des. 5, Arms-21'-0", Modified
816														1					1								2					816	2	Ea.	Overhead Sign Support No. 12.24, Des. 5, Arms-22'-0", Modified
816											1																1					816	1	Ea.	Overhead Sign Support No. 12.24, Des. 7, Arms-24'-0", Modified
816					1																						1					816	1	Ea.	Overpass Structure Mounted Sign Support
816			3.1	3.1		3.1					4.2	9.0	10.6	3.7		3.7	9.0	3.7	3.7	9.0	3.7	11.1	3.7	10.6	10.6		105.6					816	105.6	C.Y.	Concrete For Overhead Sign Support Foundations
816								2.5	2.5	3.0					2.5												10.5	7.5				816	18	C.Y.	Concrete For Ground Mounted Sign Support Foundations
625					2																						2					625	2	Ea.	Disconnect Switch Enclosure Mounting Brackets
815	98.0	40.0	252.0	91.0	126.0	198.0	40.0	92.0	86.0	198.0	214.0	360.5	486.5	117.0	77.0	174.5	311.0	187.0	159.0	276.0	174.5	495.0	174.5	318.5	348.0		3094.0	286.0				815	5380	Sq.Ft.	Sign Erection, Extru Sheet Type
815		11.0					11.0																				22.00				956	815	978	Sq.Ft.	Sign Erection, Flat Sheet Type
																										500						815	500	Sq. Ft.	Interim Covering For Signs
625	1		1	1		1						1	1	1		1	1	1	1	1	1	1	1	1	1		17					625	17	Ea.	Sign Service
625					1																						1					625	1	Ea.	Sign Service For Structure Mounted Sign
625	1			1	1									1		1		1	1		1		1				9					625	9	Ea.	Disconnect Switch W/Type 'Y' Enclosure
625			1			1						1	1				1			1		1		1	1		9					625	9	Ea.	Disconnect Switch W/Type 'Z' Enclosure
625	1			1																							2					625	2	Ea.	Transformer, Type II
625					1									1		1		1	1		1		1				7					625	7	Ea.	Transformer, Type III
625																	1										1					625	1	Ea.	Transformer, Type IV
625			1			1						1								1				1	1		6					625	6	Ea.	Transformer, Type V
625													1									1					2					625	2	Ea.	Transformer, Type VI
625	1			1													1										3					625	3	Ea.	Ballast, Type B
625			2		1	2						2	3	1		1	1	1	1	2	1	3	1	2	2		26					625	26	Ea.	Ballast, Type D
625	2			2													1										5					625	5	Ea.	72" Fixture w/HO Lamp
625			4		2							2	4	2		2	2	2	2	2	2	4	2	2	2		36					625	36	Ea.	72" Fixture w/SHO Lamp
625																	1										1					625	1	Ea.	96" Fixture w/HO Lamp
625						2						2	2							2		2		2	2		14					625	14	Ea.	96" Fixture w/SHO Lamp
625	1		1	1		1					1	1	1	1		1	1	1	1	1	1	1	1	1	1		18					625	18	Ea.	Ground Rod
625	1		2	1		2						2	3	1		1	2	1	1	2	1	3	1	2	2		28					625	28	Ea.	Sign Wired, Complete
625					1																						1					625	1	Ea.	Structure Mounted Sign Wired, Complete
																															171	620	171	Ea.	Delineator, Type A, Post Mounted
																															2	620	2	Ea.	Delineator, Type A, Bracket Mounted
																															413	620	413	Ea.	Delineator, Type D, Post Mounted
																															6	620	6	Ea.	Delineator, Type D, Bracket Mounted
																														28.27		621	28.27	MI.	4" Edge Line
																													.31	.90		621	1.21	MI.	4" Lane Lines
																													12.54	.39		621	12.93	MI.	6" Lane Lines
																														6		621	6	Each	Words (ONLY)
																														1.74		621	1.74	MI.	4" Center Line
																														276		621	276	L.F.	24" Stop Line
																													4467	770		621	5237	L.F.	8" Channelizing Line [White]
																														5095		621	5095	L.F.	Curb Painting (Yellow)
																														1232		621	1232	Sq.Ft.	Island Painting
																														6		621	6	Ea.	Lane Arrows
																													2257			621	2257	L.F.	24" Broad Transverse Lines [White]
																														200		621	200	L.F.	12" Broad Transverse Lines [White]
																														40		621	40	L.F.	12" Broad Transverse Lines [Yellow]
																														1485		621	1485	L.F.	Curb Painting (White)
																														2620		621	2620	L.F.	Interim Pavement Marking, 4" Edge Line
																															99	816	99	L.F.	Interim Structural Support, 4# Post
																															2	202	* 2	Ea.	Removal Of Existing Major Sign Installation, as per plan
																																202	*Lump	Lump Sum	Removal Of Existing Sign Installation, as per plan
																															18	620	18	Ea.	Interim Delineator, As per Plan

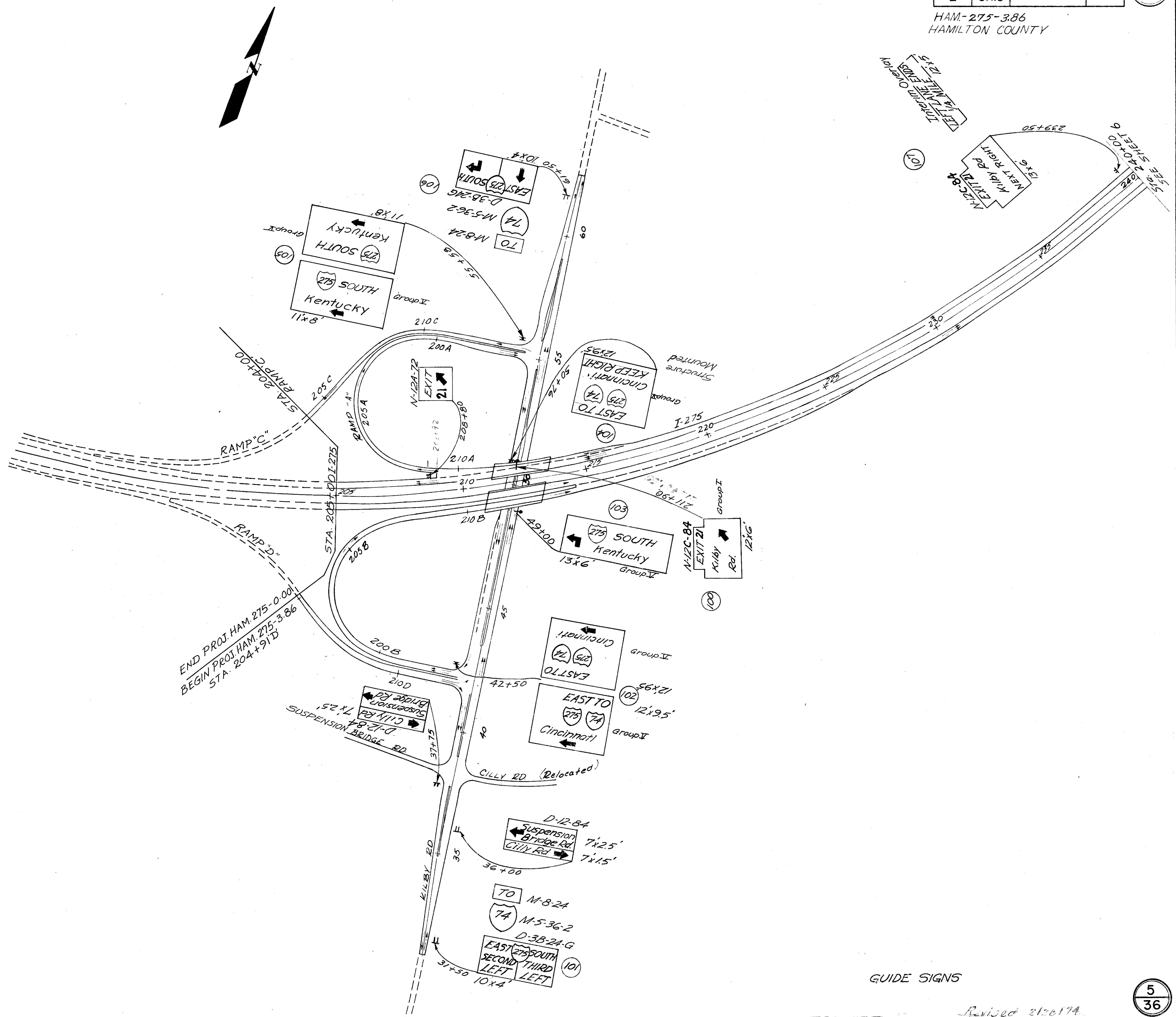
* 100% STATE

Rev 5-10-73

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

511
630

HAM-275-3.86
HAMILTON COUNTY



GUIDE SIGNS

Revised 2/26/74

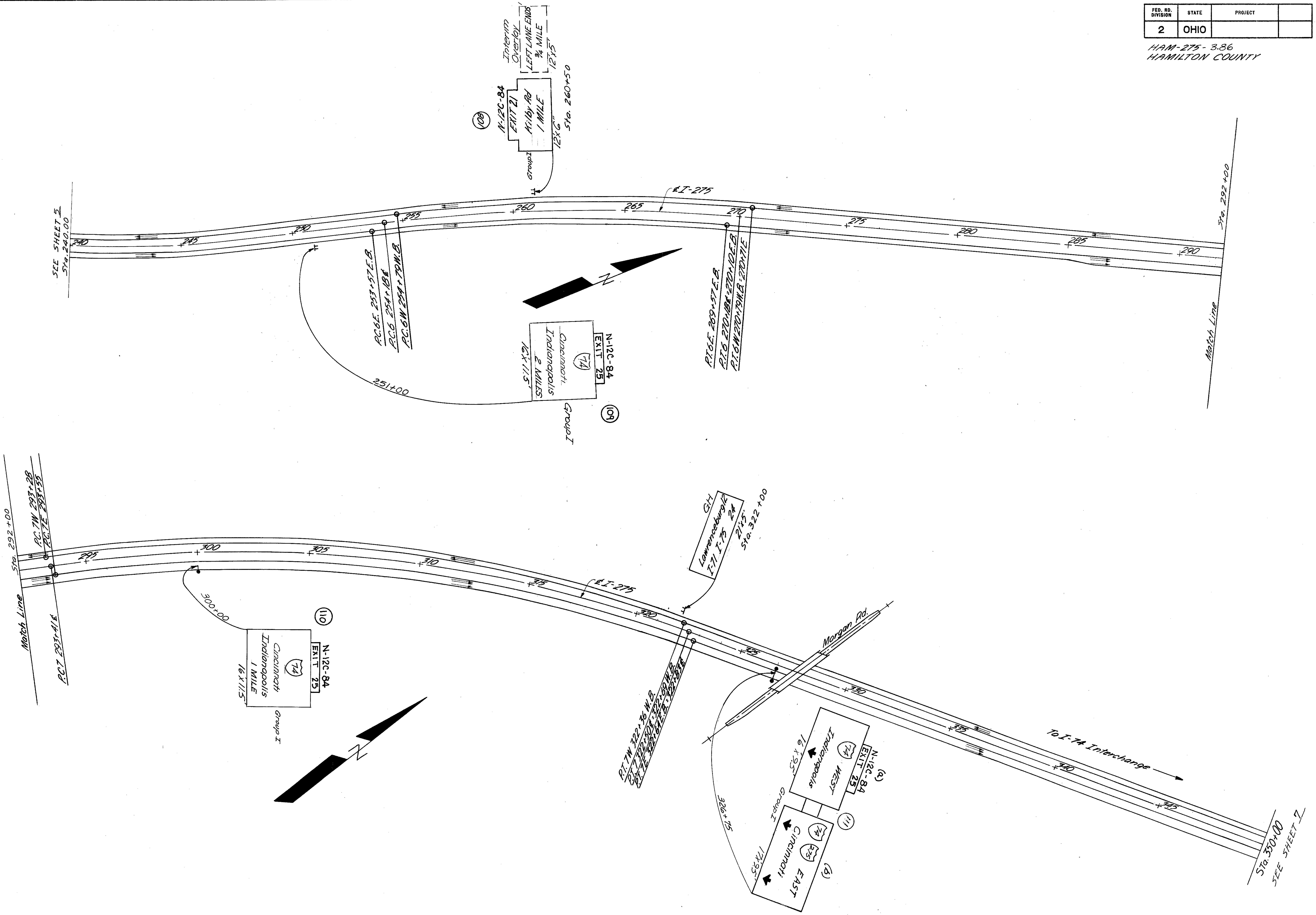
SIGNING PLAN

5
36

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

512/630

HAM-275- 3.86
HAMILTON COUNTY



6/36

GUIDE SIGNS

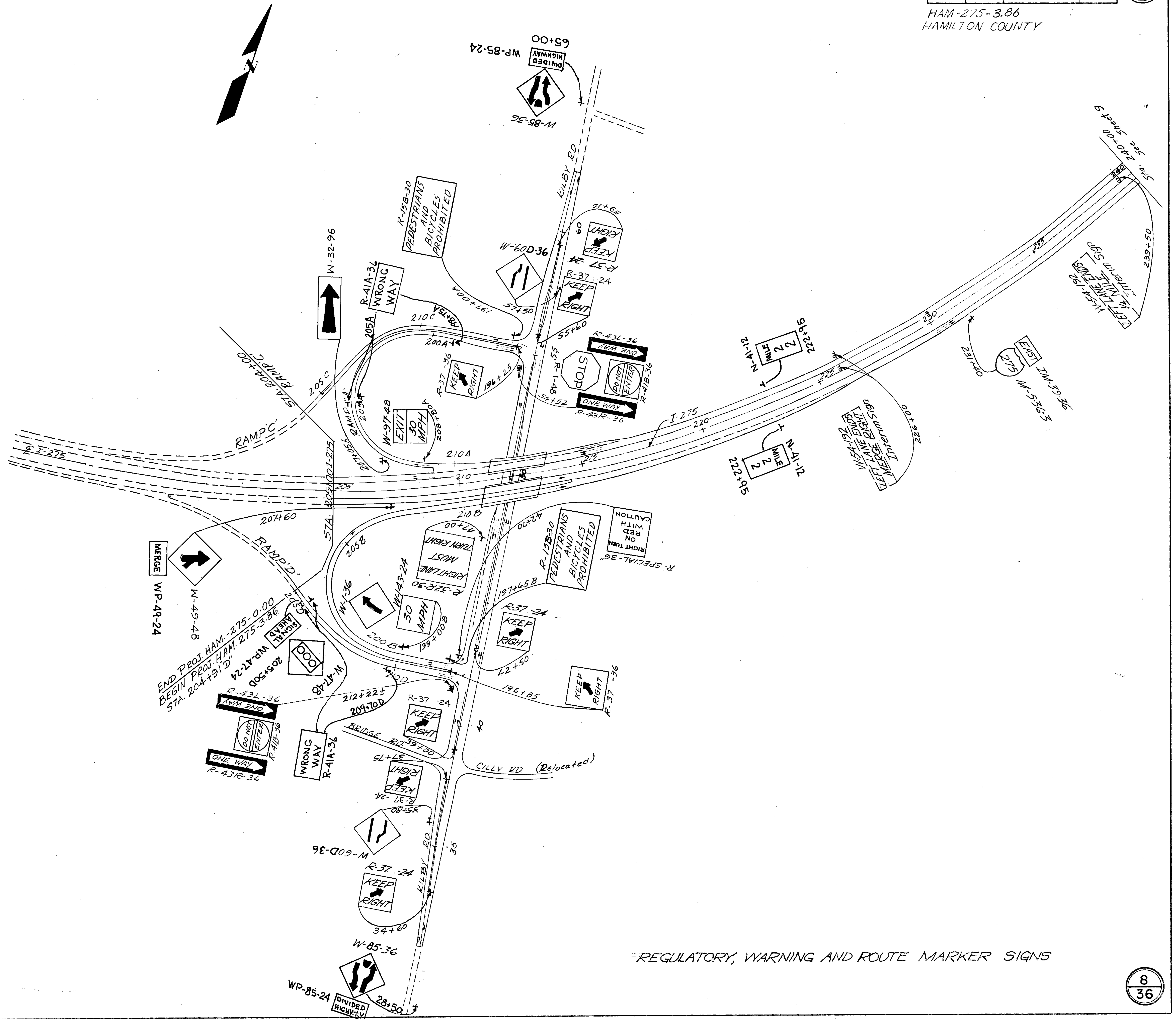
SIGNING PLAN

SIGNING PLAN

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

514
630

HAM-275-3.86
HAMILTON COUNTY



REGULATORY, WARNING AND ROUTE MARKER SIGNS

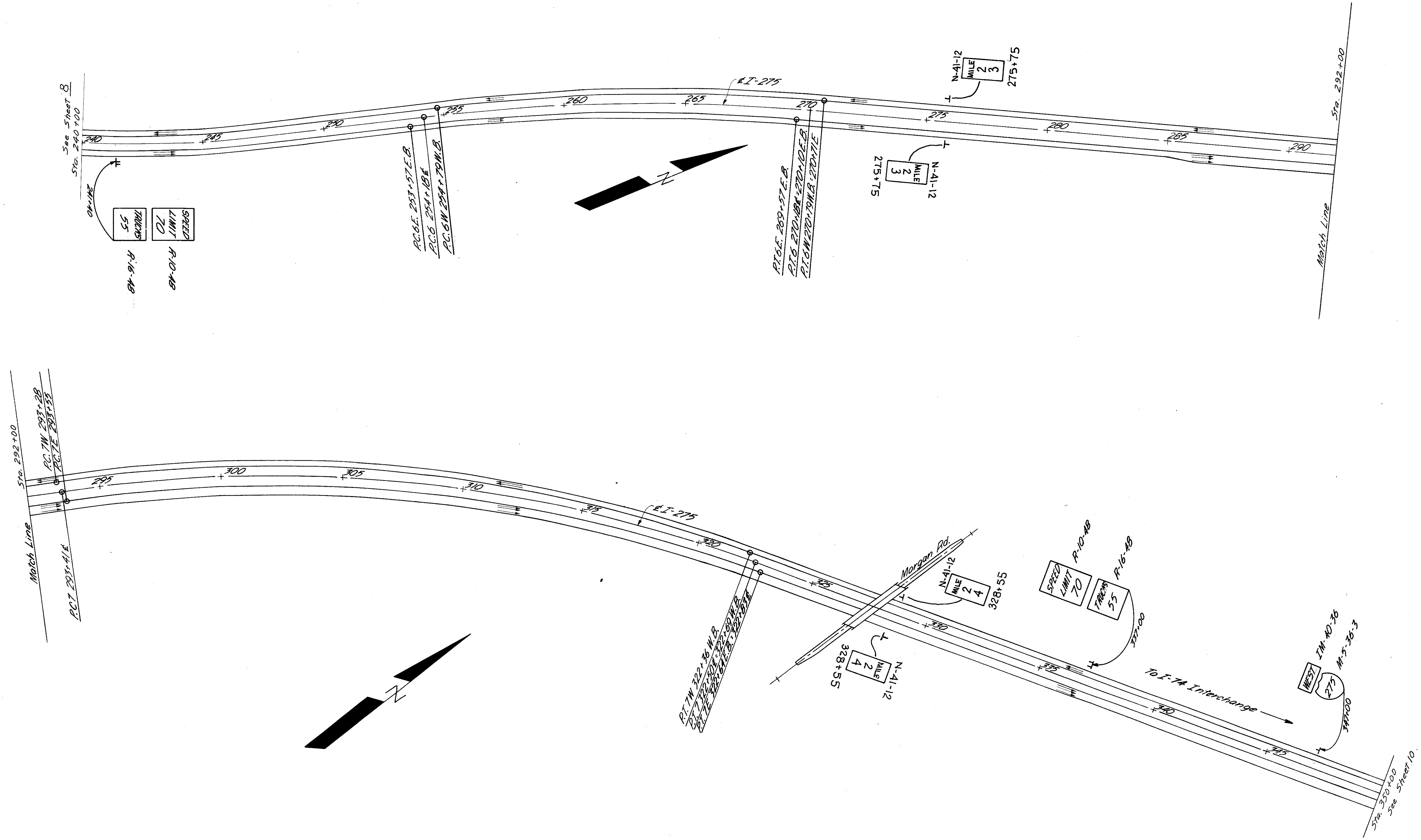
8
36

SIGNING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

515/630

HAM-275-3.86
HAMILTON COUNTY



9/36

REGULATORY, WARNING AND ROUTE MARKER SIGNS

SIGNING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-275-3.86
HAMILTON COUNTY

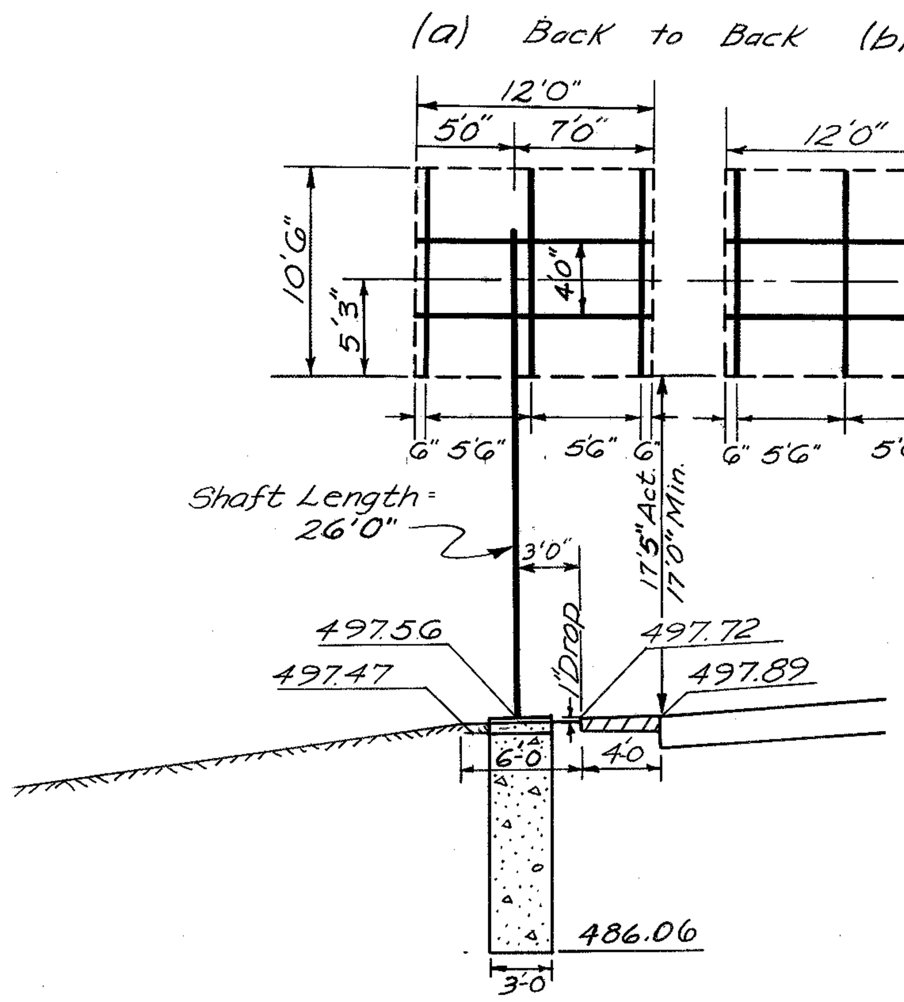
Additional mile markers located at following approximate stations:

Mile 5 Station 275+27 I-74
Mile 4 Station 222+47 I-74

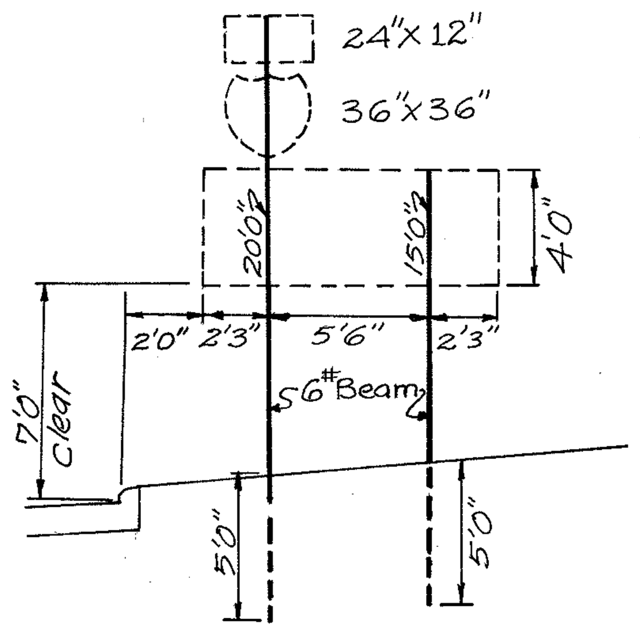
REGULATORY, WARNING AND ROUTE MARKER SIGNS

SIGNING PLAN

Ballast Lamps
(a) 1-(D) 2-72" SHO
(b) 1-(D) 2-72" SHO

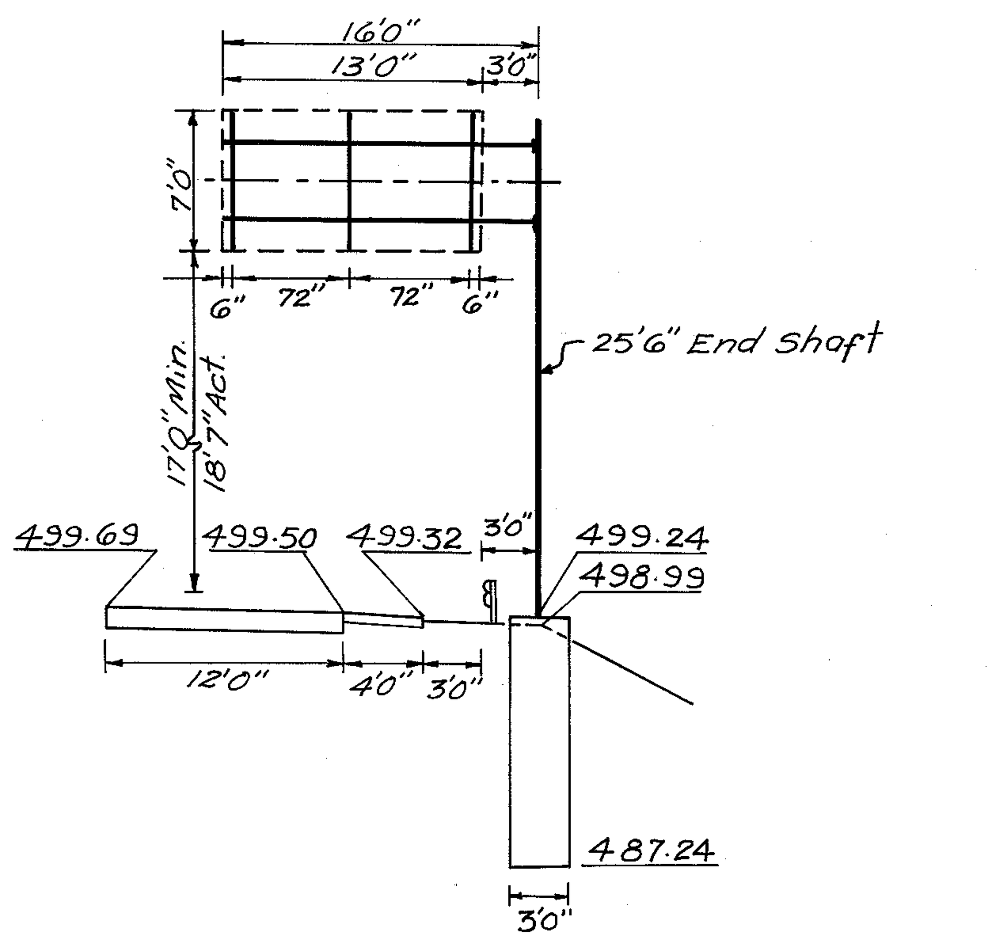


OVERHEAD SIGN SUPPORT NO. 102
Sta. 42+50 Kilby Rd
816 No. 9.24 Design #2 (Modified)
Arm Lengths 7'0" & 5'0"
Y Brackets - Steel (Detail A, Std Dwg EI-1)
TOP GLARE SHIELD
Top Illuminated

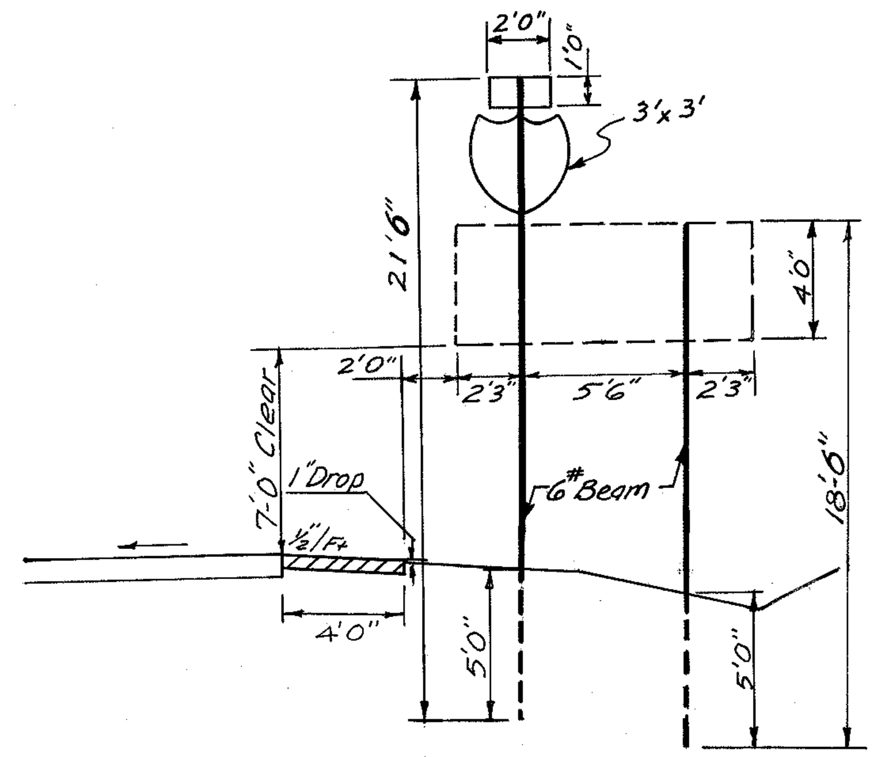


G.M. SIGN SUPPORT NO. 101
Sta. 31+50 Kilby Rd.

Ballast Lamps
1-(B) 2-72" H.O.

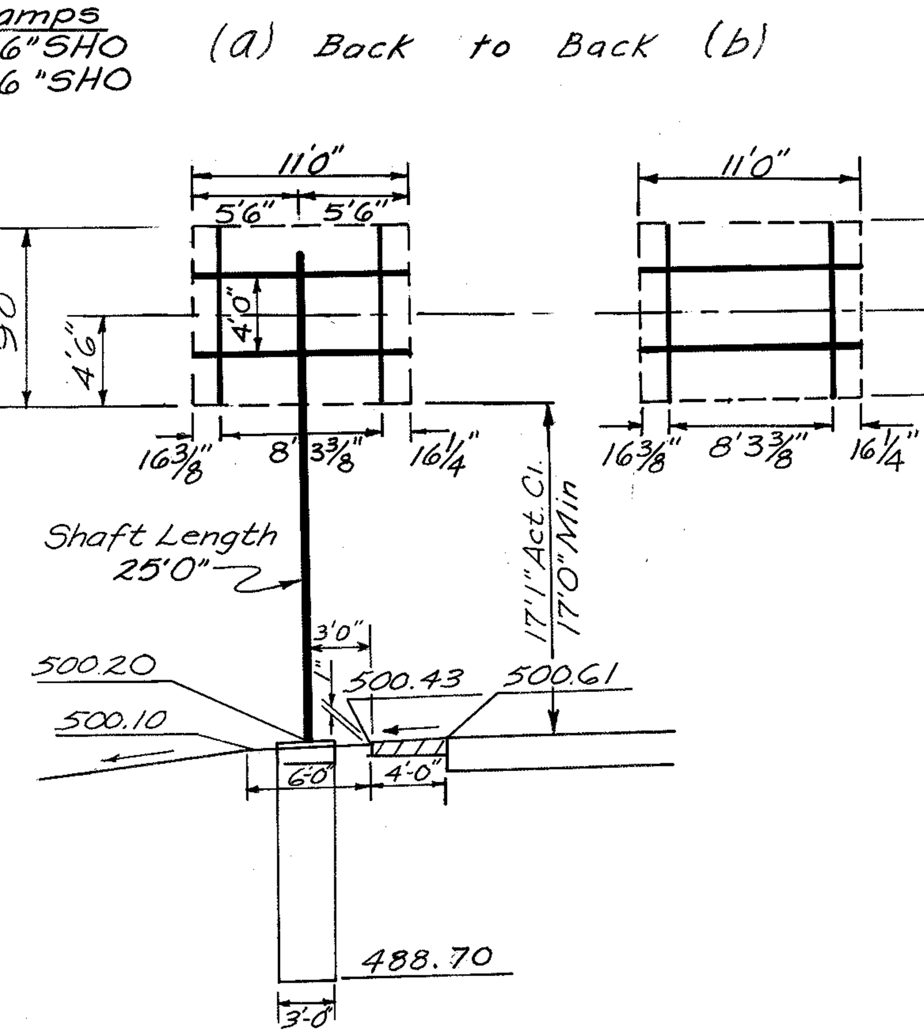


OVERHEAD SIGN SUPPORT NO. 103
Sta. 49+00 Kilby Rd ℄
816 NO. 12.24, Des. #3
Arms - 16'0"
Y- Brackets - Steel (Detail A, Std. Dwg. EI-1)
Illuminated

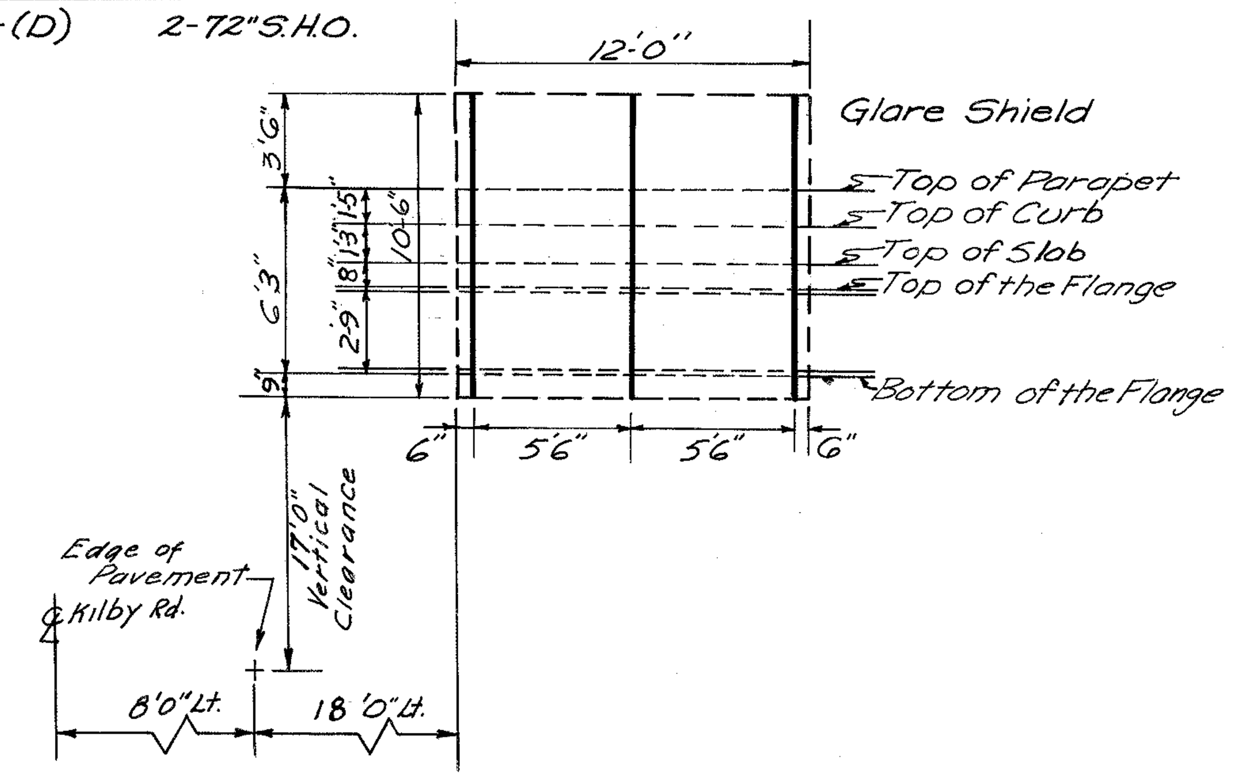


GROUND MOUNT SIGN SUPPORT NO. 106
Sta 61+50 Kilby Rd

Ballast Lamps
(a) 1-(D) 1-96" SHO
(b) 1-(D) 1-96" SHO

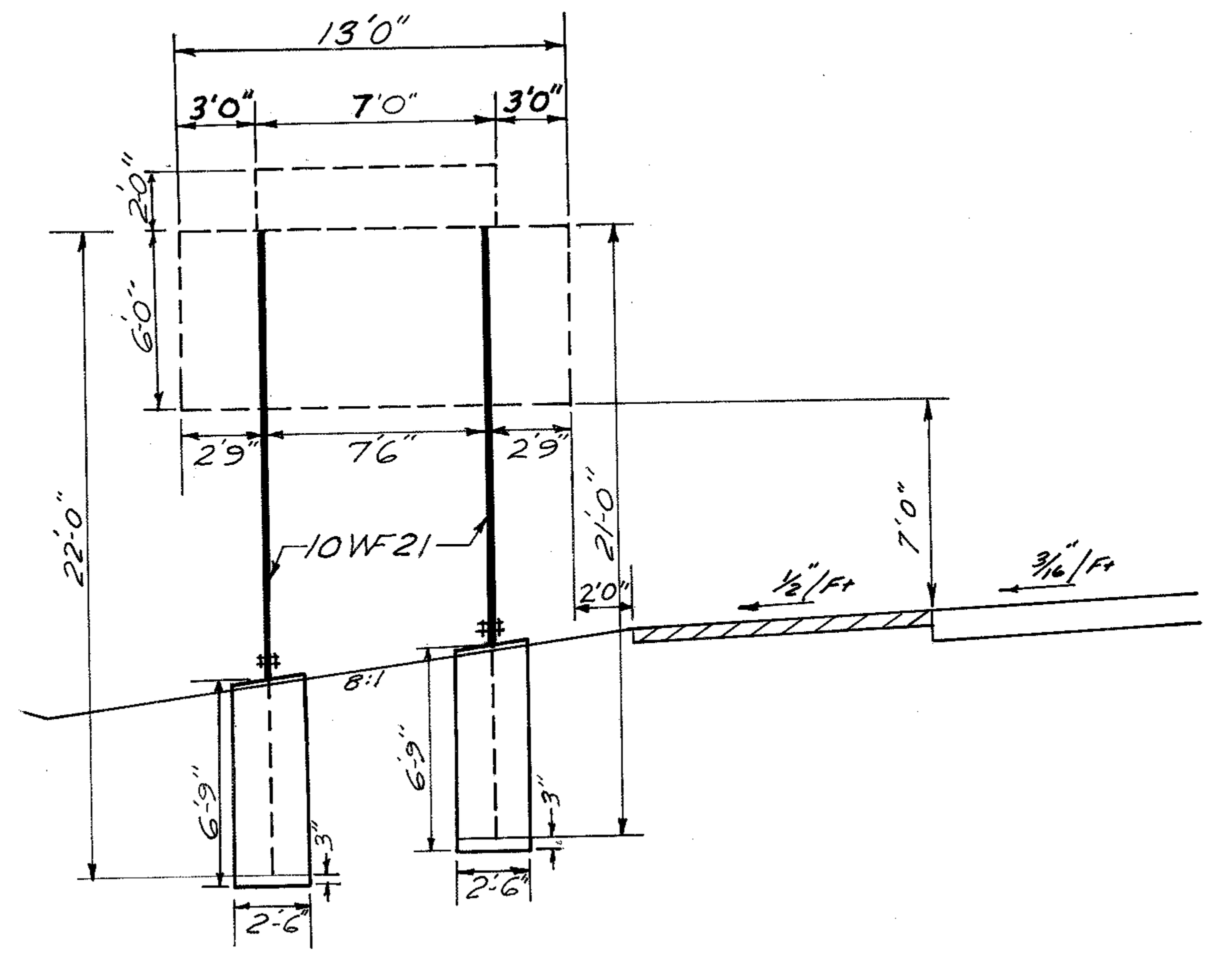


Ballast Lamps
1-(D) 2-72" S.H.O.



OVERHEAD SIGN SUPPORT NO. 104
Sta. 50+76± Kilby Road ℄ Lt.
Overpass Structure Mounted Sign Support
Special Sign Support SPL 816 (Modified)
Type 3 Design 3 Bridgeskew 20°40'42" Frameskew 25°
TOP ILLUMINATED

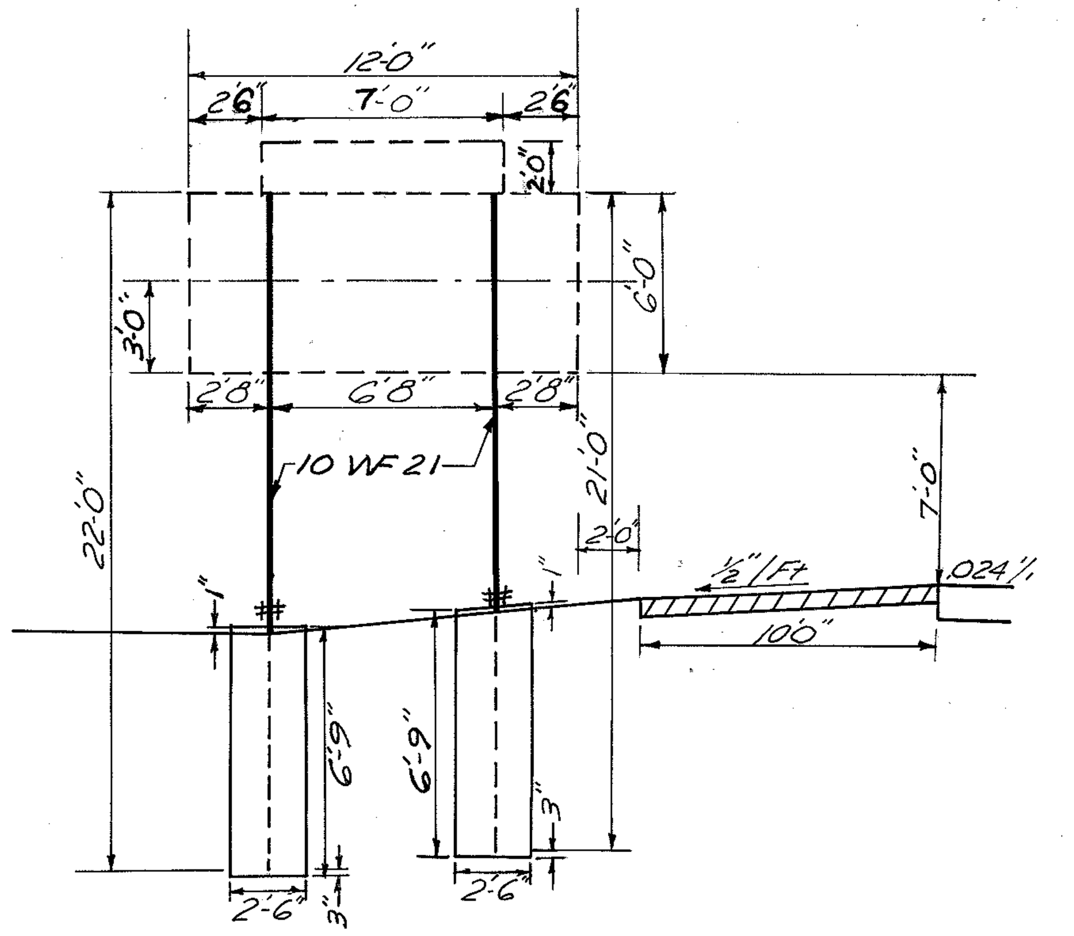
OVERHEAD SIGN SUPPORT NO. 105
Sta. 55+58 Kilby Rd
816 No 9.24 Design #2 (Modified)
Arm Lengths 5'6" & 5'6"
Y Brackets - Steel
ILLUMINATED



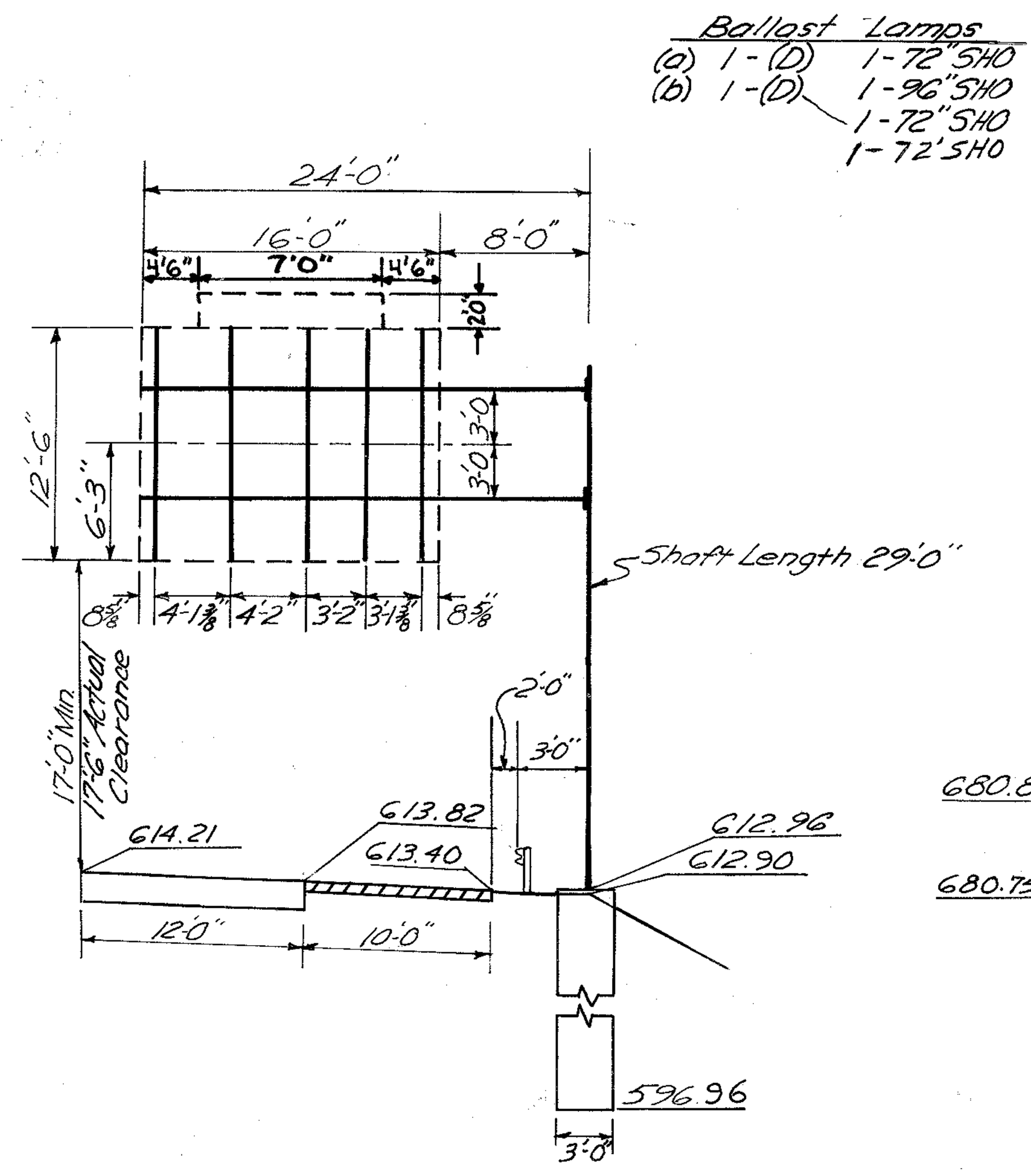
GROUND MOUNT SIGN SUPPORT NO. 107
Sta. 239+50 I-275 ℄

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

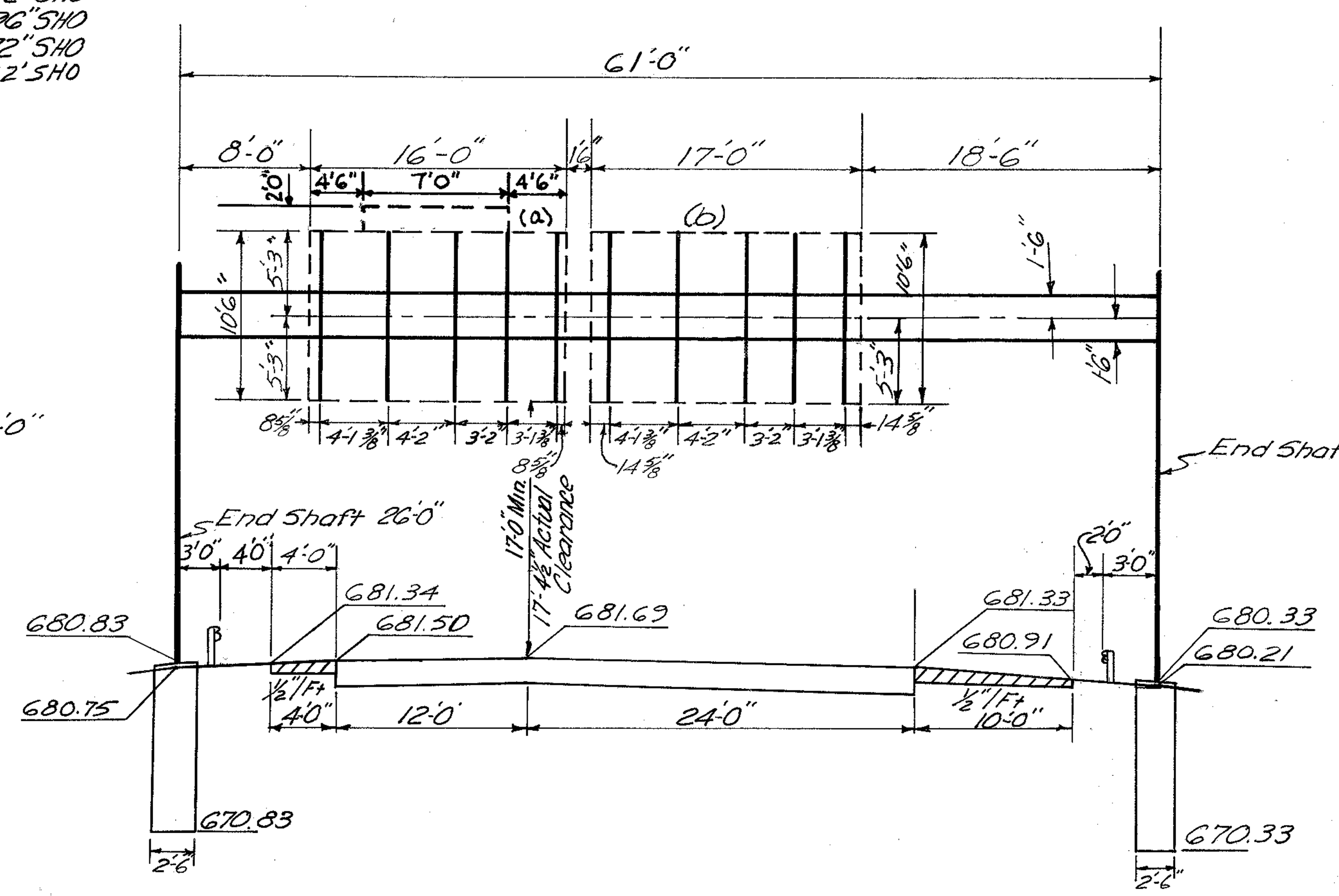
HAM-275-3.86
HAMILTON COUNTY



GRND. MOUNT SIGN SUPPORT NO.108
Sta 260+50 I275 ℄

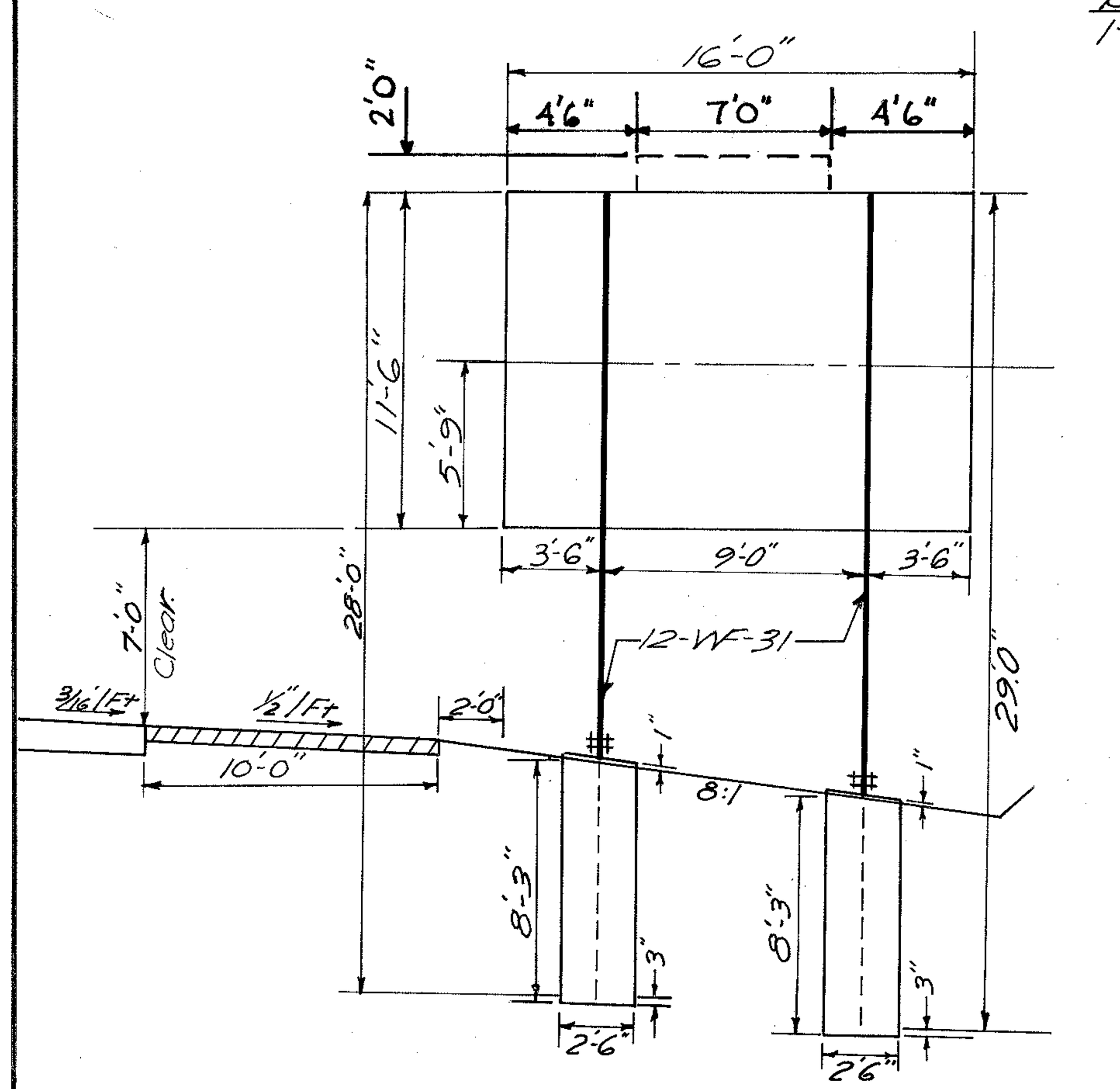


OVERHEAD SIGN SUPPORT NO.110
Sta 300+00 I275 ℄
816 No. 12.24 Design 7 (Modified)
Arm Length 24'-0"
Y Brackets-Steel

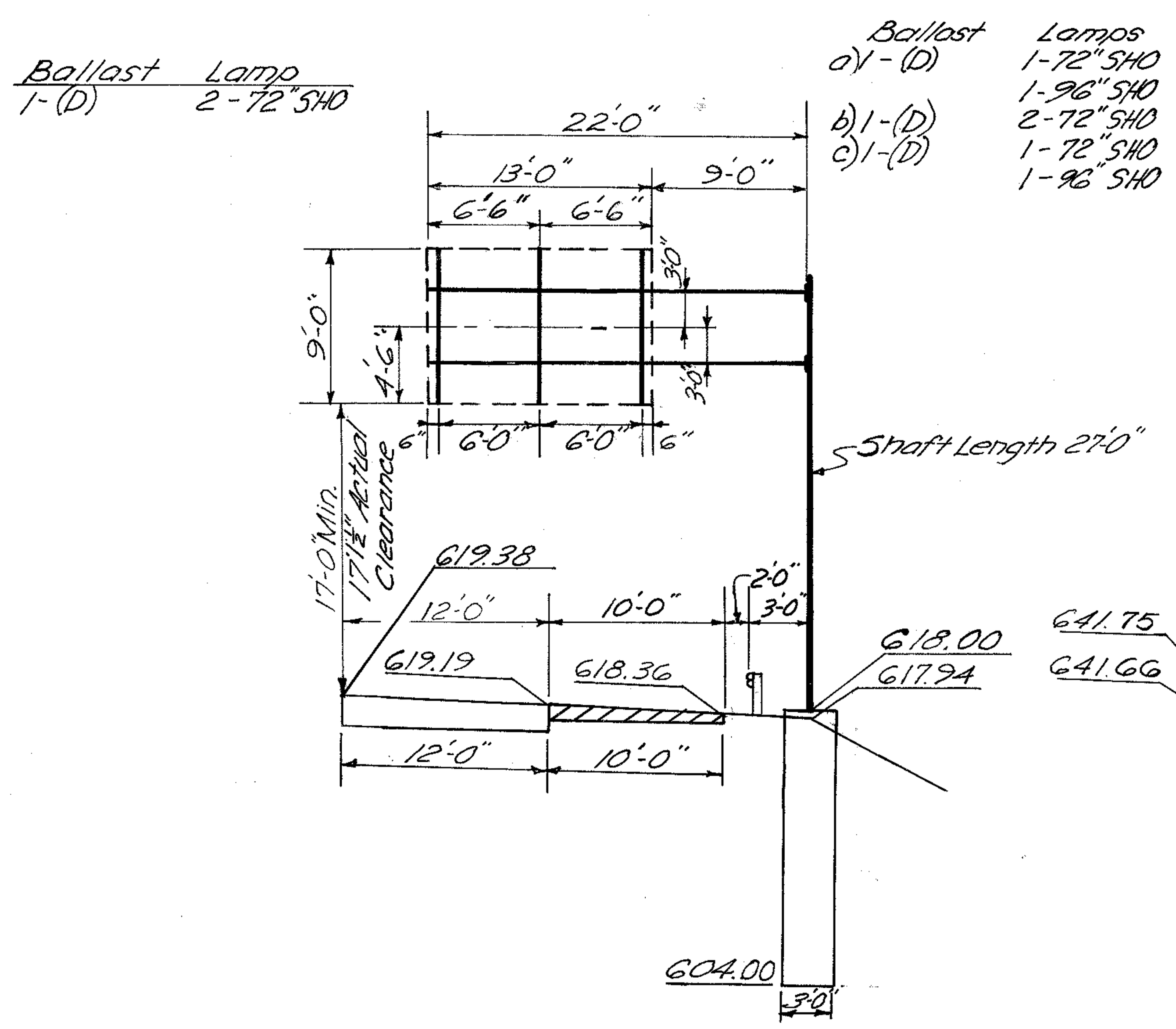


OVERHEAD SIGN SUPPORT NO. 111
Sta 326+75 I.275 ℄
816 No. 7.4 Design 1 Modified
Span Length 61'-0"
Y-Brackets-Aluminum
Illuminated

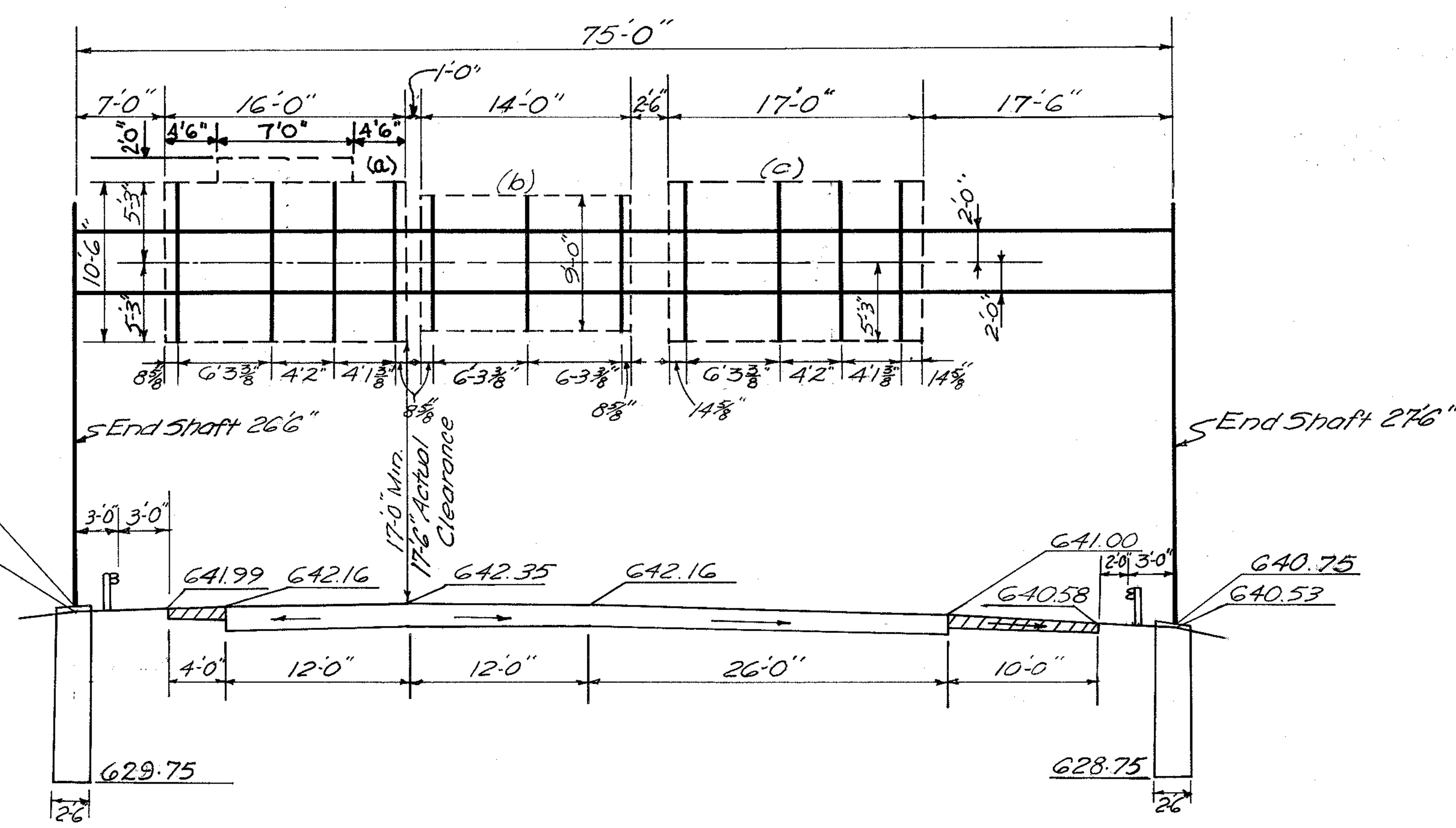
GUIDE-SIGNS											
SHEET No.	CODE No.	LOCATION	SIDE	815 SIGN ERECTION EXTRU SHEET SQ.FT.	816 SIGN SUPPORTS 4# POST LIN. FT.	6# BEAM LIN. FT.	8# BEAM LIN. FT.	10WF21 LIN. FT.	CONCRETE CU. YDS.	PARTICIPATION	BREAKAWAY CONNECTION
5	D-12-84	36+00 KILBY RD.	Rt.	28.0		15.0 16.0					
5	D-12-84	37+75 KILBY RD.	Lt.	28.0		15.0 16.0					
7	GH 19'x5'	292+50 I-74	Lt	95.0				50.0	3.75		3
6	GH21'x5'	322+00	Lt.	105.0				61.0	3.75		3
5	N-12A-72	208+80	Lt.	30.0		16.5 17.0					
	TOTAL			286.0		95.5		111.0	7.50		6



GRND. MOUNT SIGN SUPPORT NO.109
Sta 251+00 I275 ℄



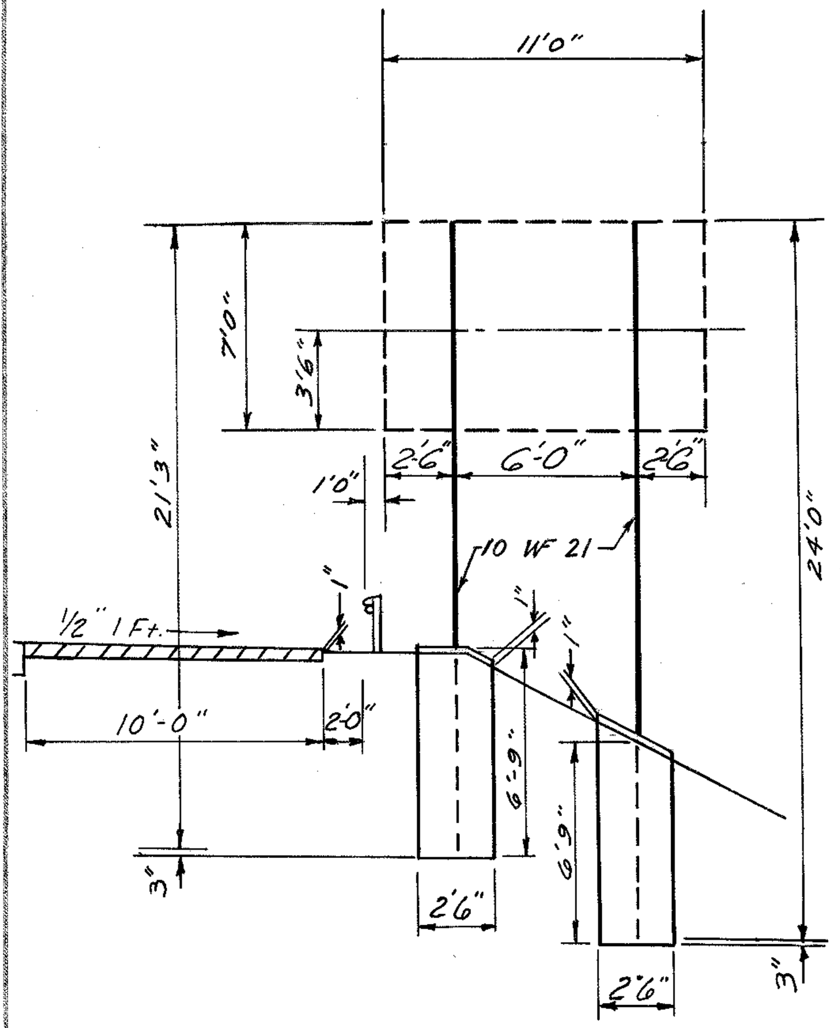
OVERHEAD SIGN SUPPORT NO.113
Sta 365+00 I275 ℄
816 No 12.24 Design 5 (Modified)
Arm Length 22'-0"
Y Brackets-Steel (Detail A Std. Dwg. E.I-1)
Illuminated



OVERHEAD SIGN SUPPORT NO. 112
Sta 354+40 I275 ℄
816 No. 7.6 Design 3 (Modified)
Span 75'-0"
Y Brackets-Alluminum
Illuminated

Rev. 5-10-73

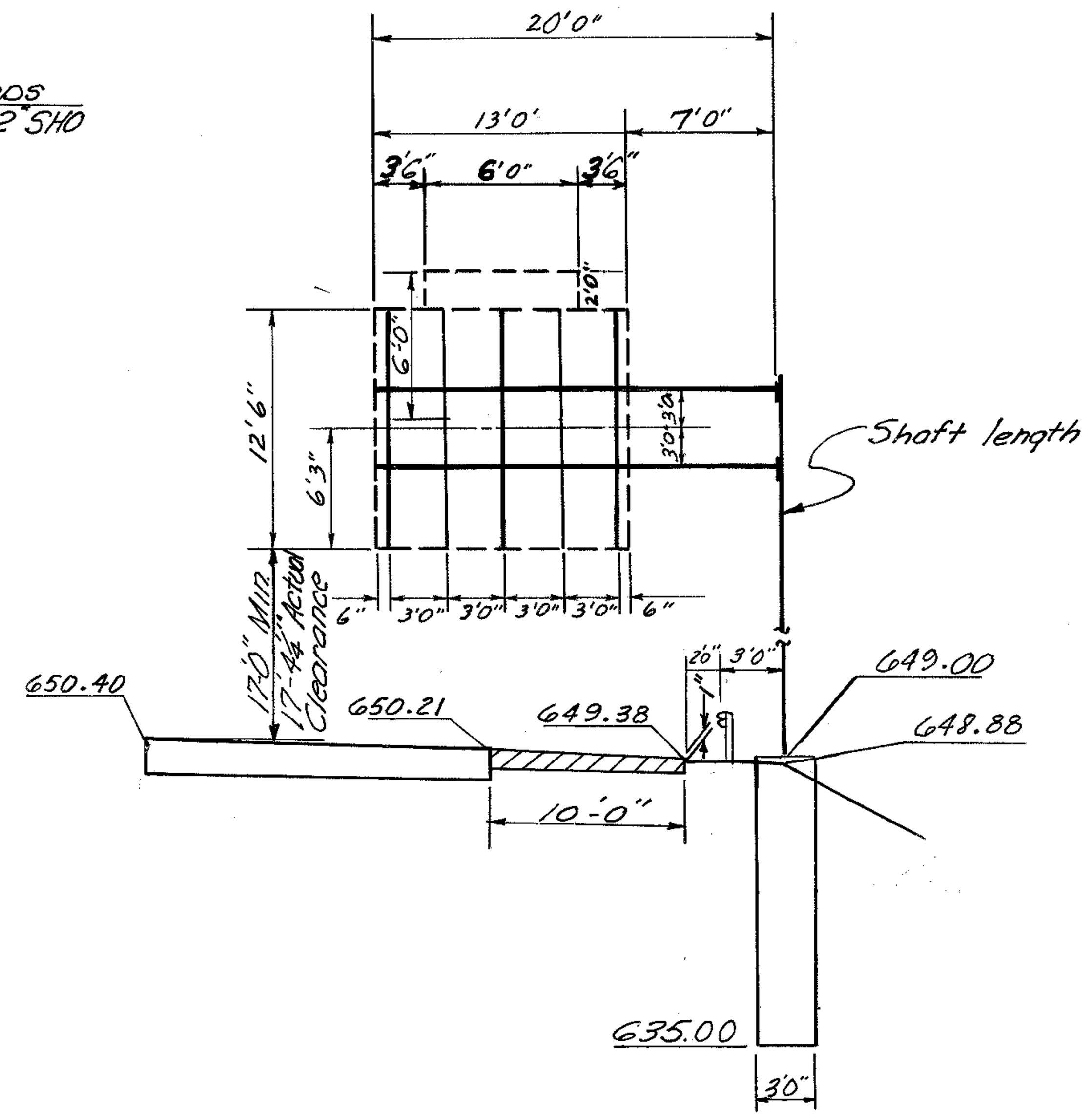
SIGNING DETAILS



GRAND MOUNT SIGN SUPPORT NO. 114

Sta 375+00 I275 ℄

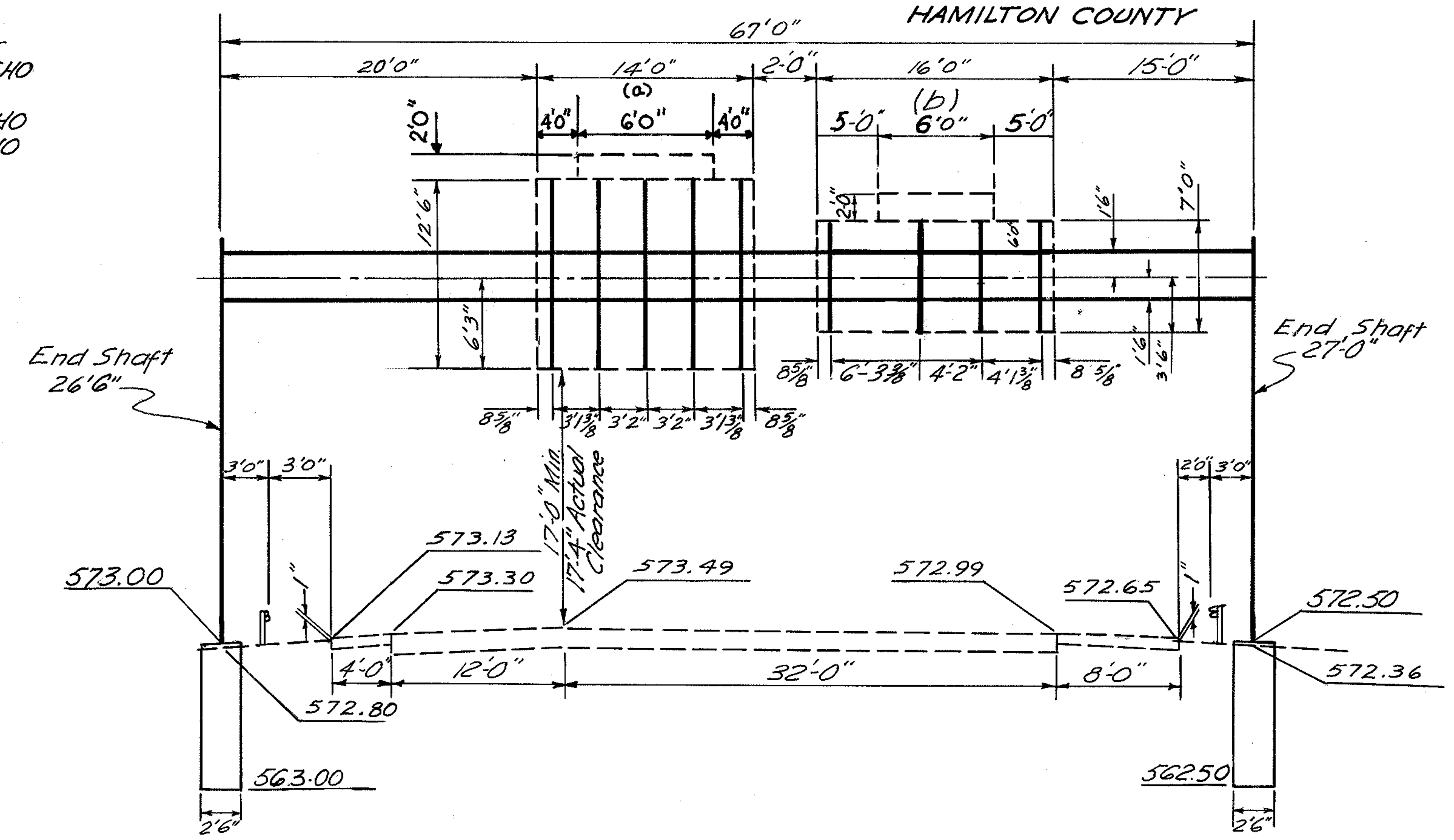
Ballast Lamps
1-(D) 2-72"SHO



OVERHEAD SIGN SUPPORT NO. 115

Sta. 378+00 East Bound I275 Ramp ℄
816 No. 12.24 Design 5 (Modified)
Arm Length 20'-0"
Y Brackets Steel (Detail A Std. Dwg EI-1)
Illuminated

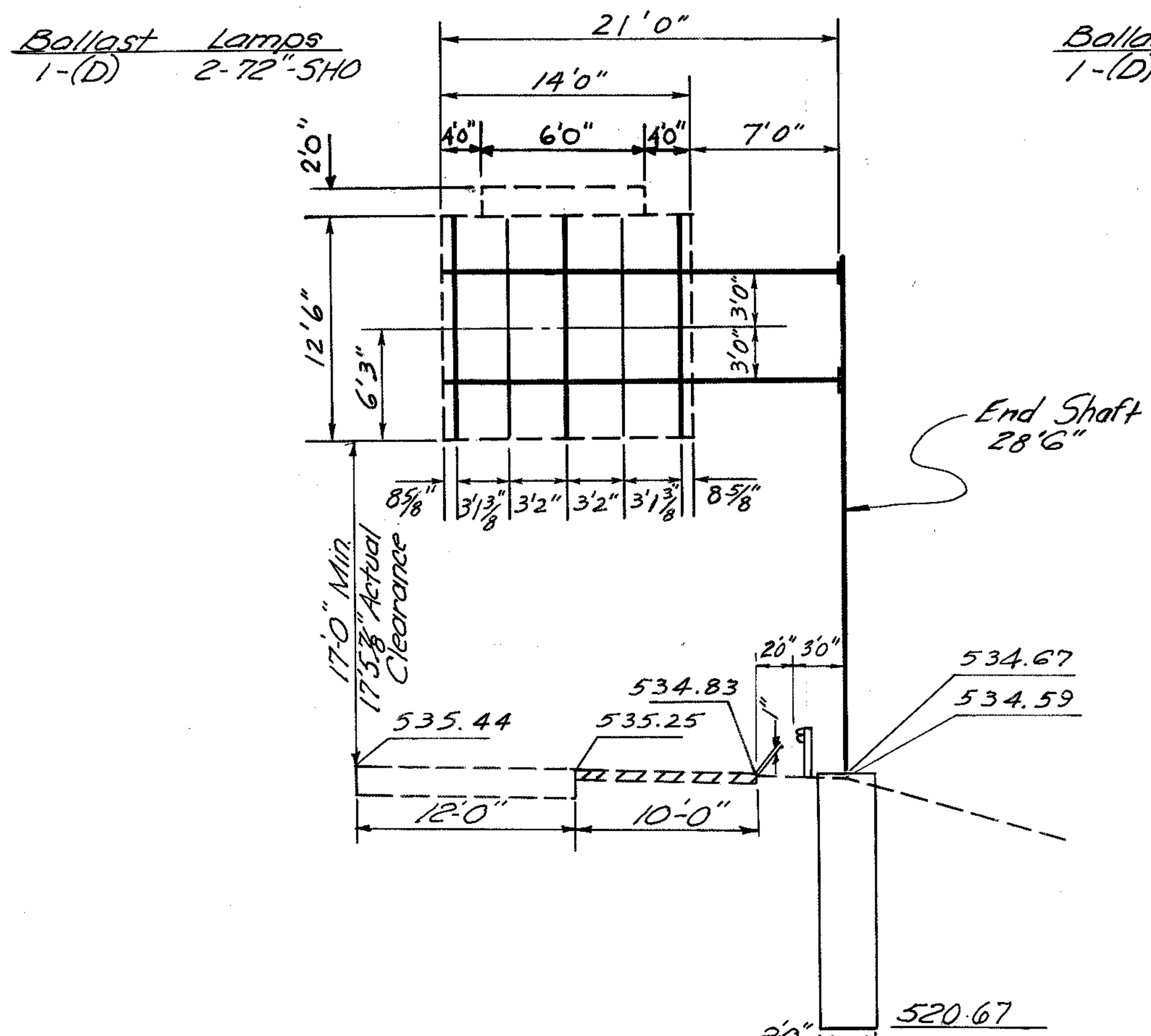
Ballast Lamps
(a) 1-D 2-72 SHO
(b) 1-B 1-72 HO
1-96 HO



OVERHEAD SIGN SUPPORT NO. 116

Sta. 192+00 I 74 ℄
816 No. 7.4 Design 1
Span Length 67'0"
Y Brackets Aluminum
ILLUMINATED

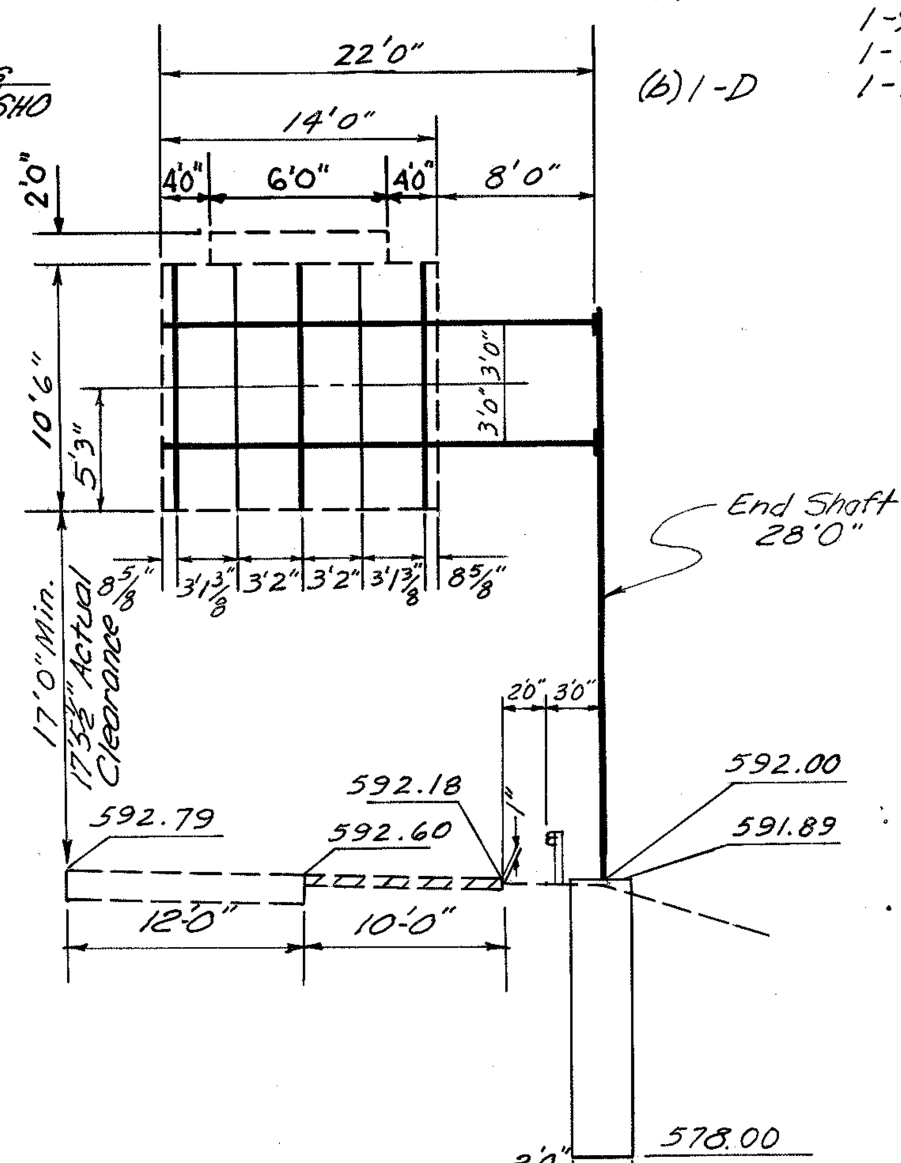
Ballast Lamps
1-(D) 2-72"-SHO



OVERHEAD SIGN SUPPORT NO. 117

Sta 218+50 I-74 ℄
816 No 12.24 Design 5 (Modified)
Arm Length 21'-0"
Y Brackets - Steel
Illuminated

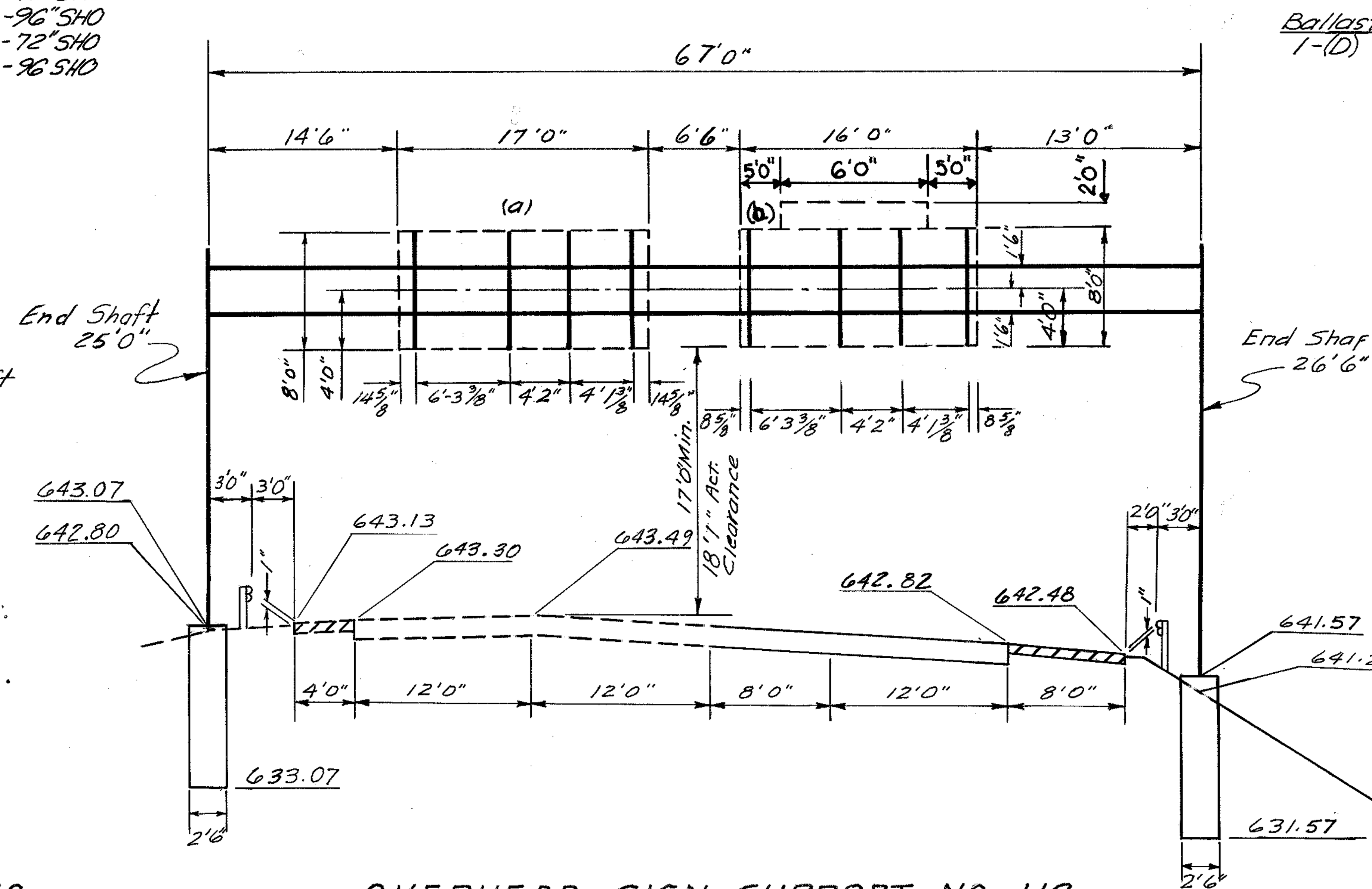
Ballast Lamps
1-(D) 2-72-SHO



OVERHEAD SIGN SUPPORT NO. 118

Sta 245+00 I-74 ℄
816 No 12.24 Design 5 (Modified)
Arm Length 22'0"
Y Brackets - Steel
Illuminated

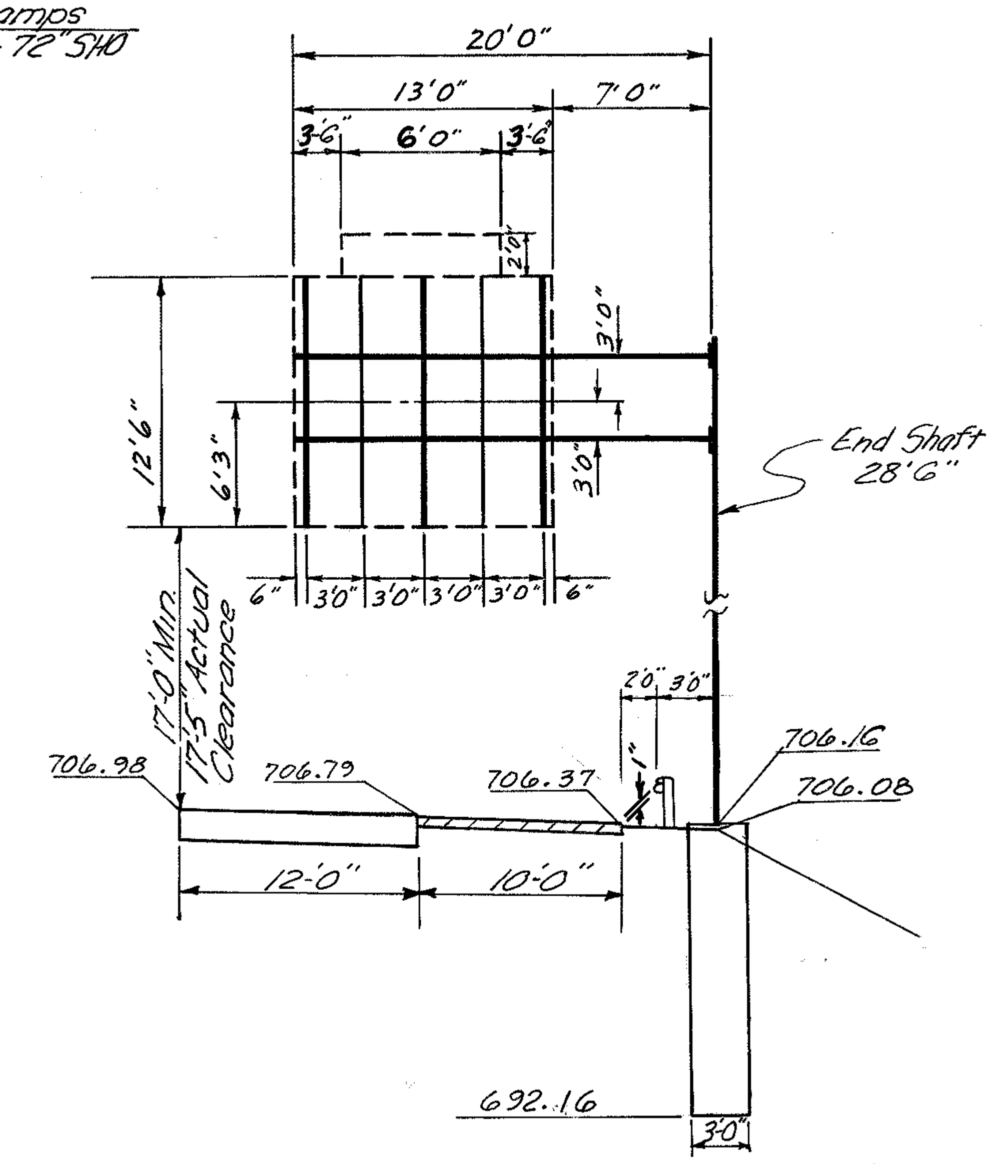
Ballast Lamps
(a) 1-D 1-72"SHO
1-96"SHO
(b) 1-D 1-72"SHO
1-96 SHO



OVERHEAD SIGN SUPPORT NO. 119

Sta 299+60 I-74 ℄
816 No. 7.4 Design 1
Span Length 67-0"
Y Brackets - Alluminum
Illuminated

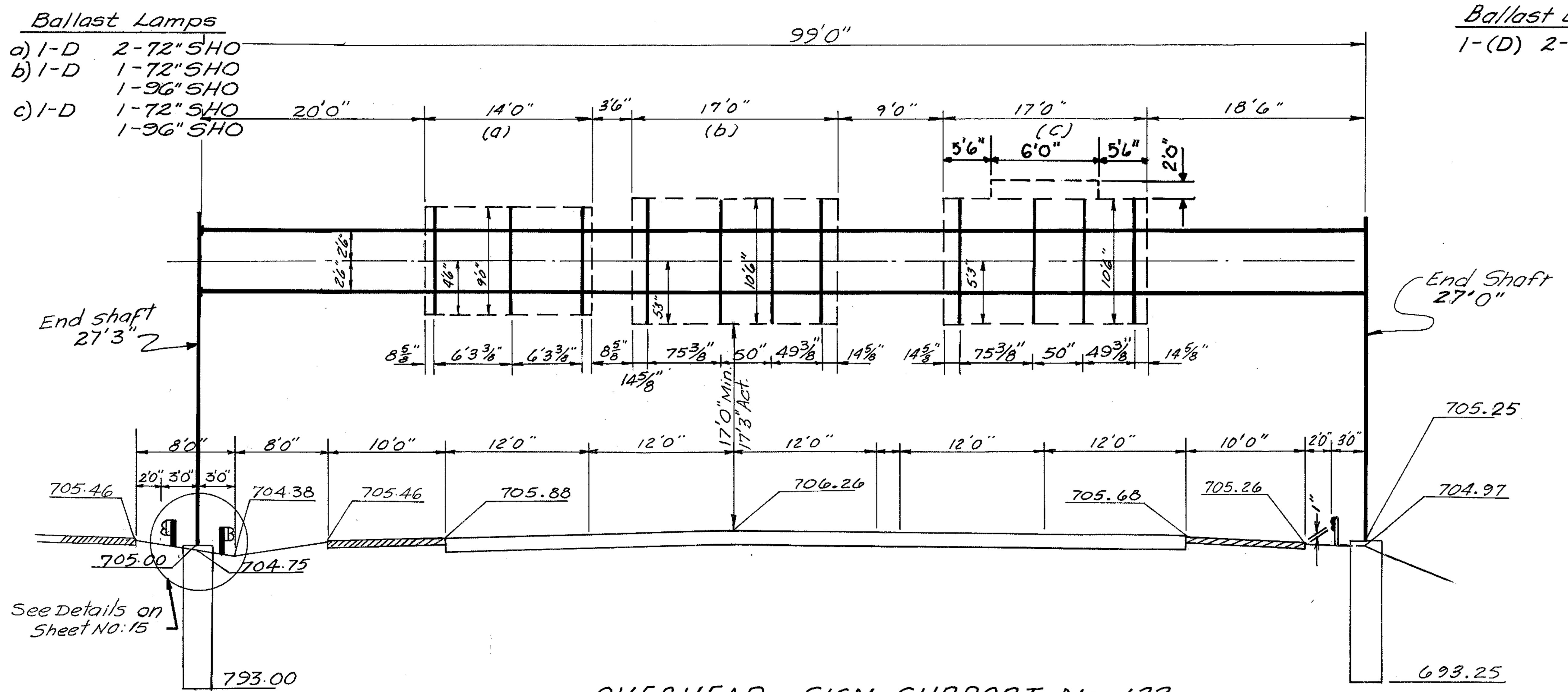
Ballast Lamps
1-(D) 2-72"SHO



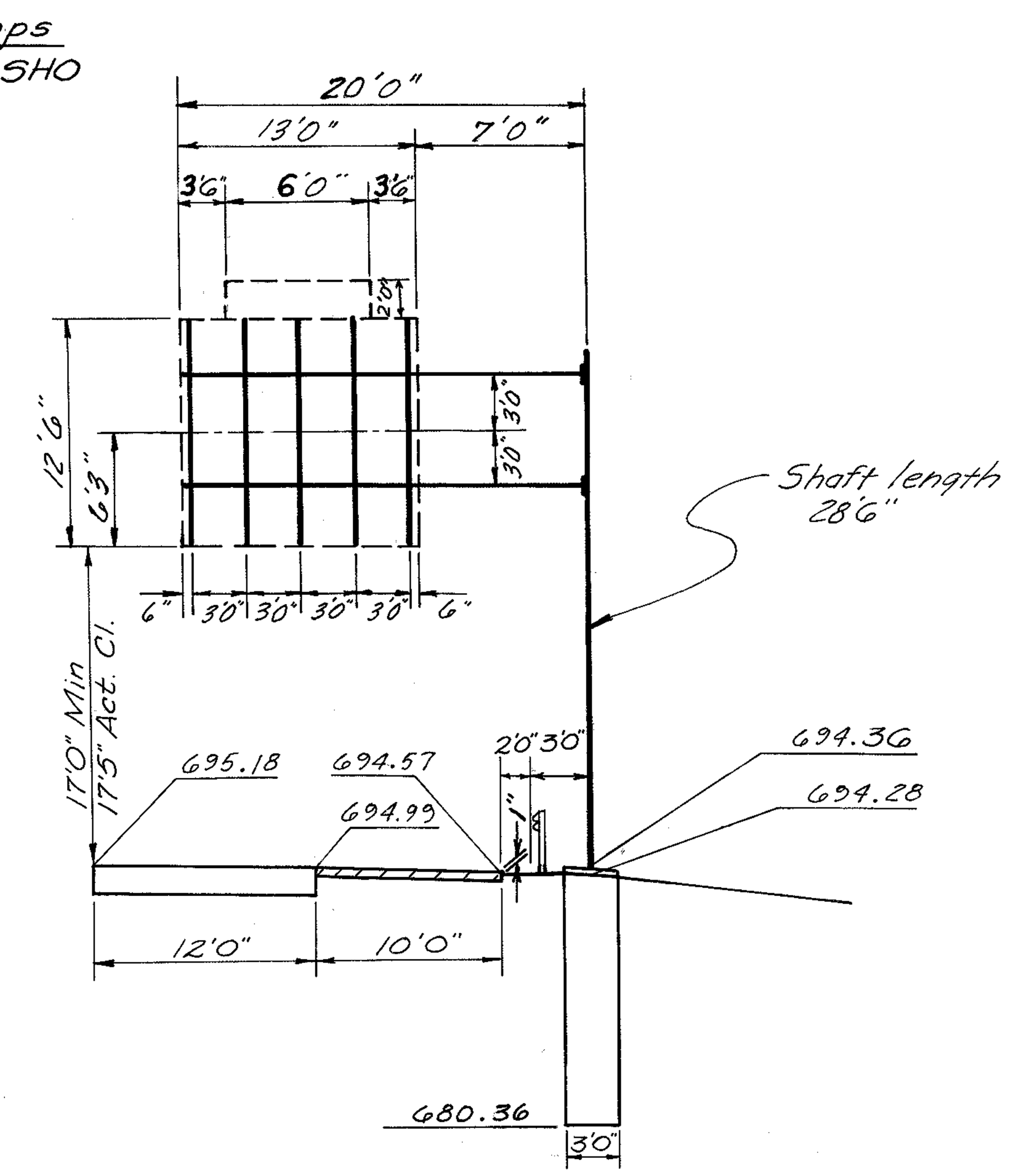
OVERHEAD SIGN SUPPORT NO. 120

Sta 323+36 I-74 ℄
816 No 12.24 Design 5 (Modified)
Arm Length 20'0"
Y Brackets Steel (Detail A. Std. Dwg EI-1)
Illuminated

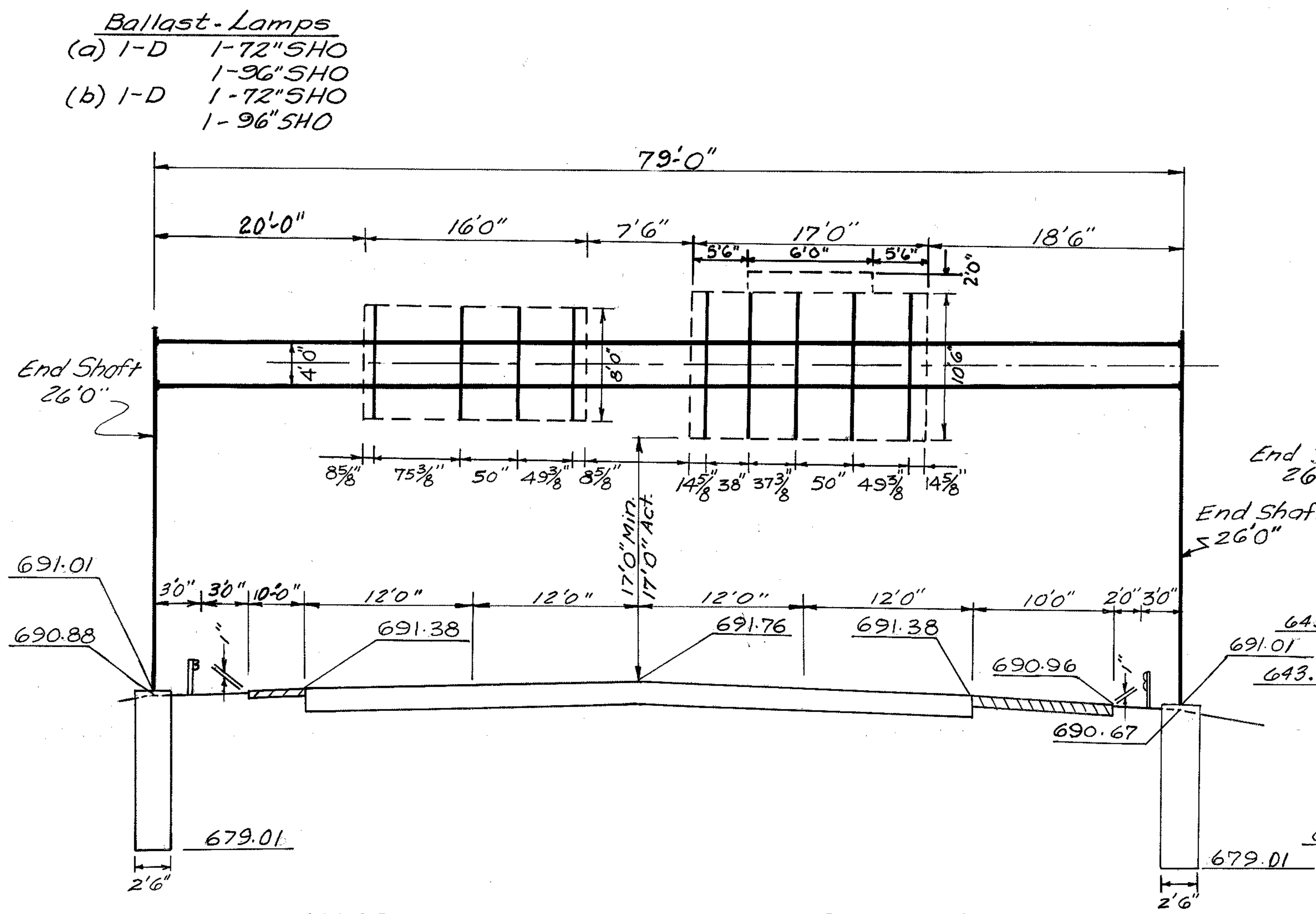
HAM 275 - 3.86
HAMILTON COUNTY



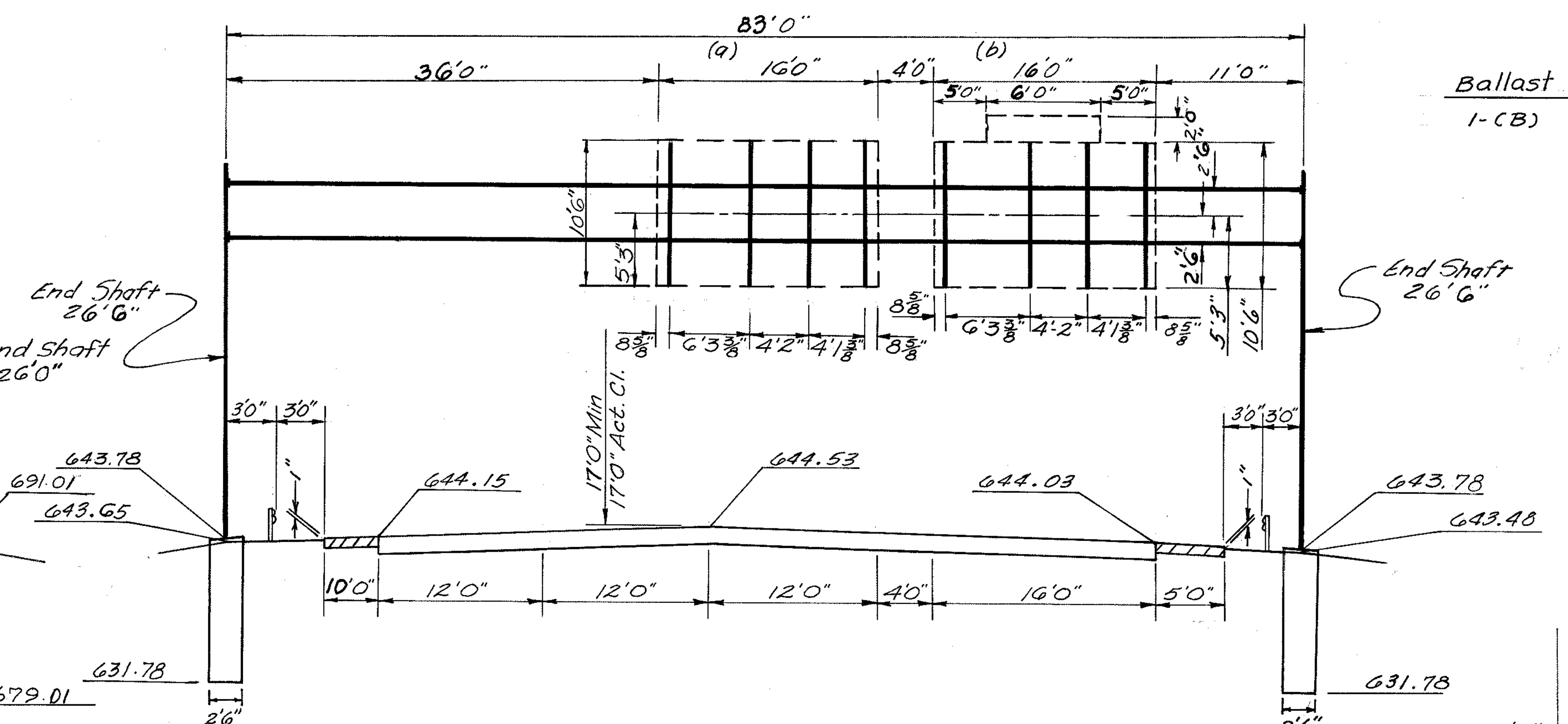
OVERHEAD SIGN SUPPORT No. 122
Sta. 355+80 I-74 ℄
816 No. 7.6 Design 4 (Modified)
Span length 99'0"
Y-Brackets-Aluminum
ILLUMINATED



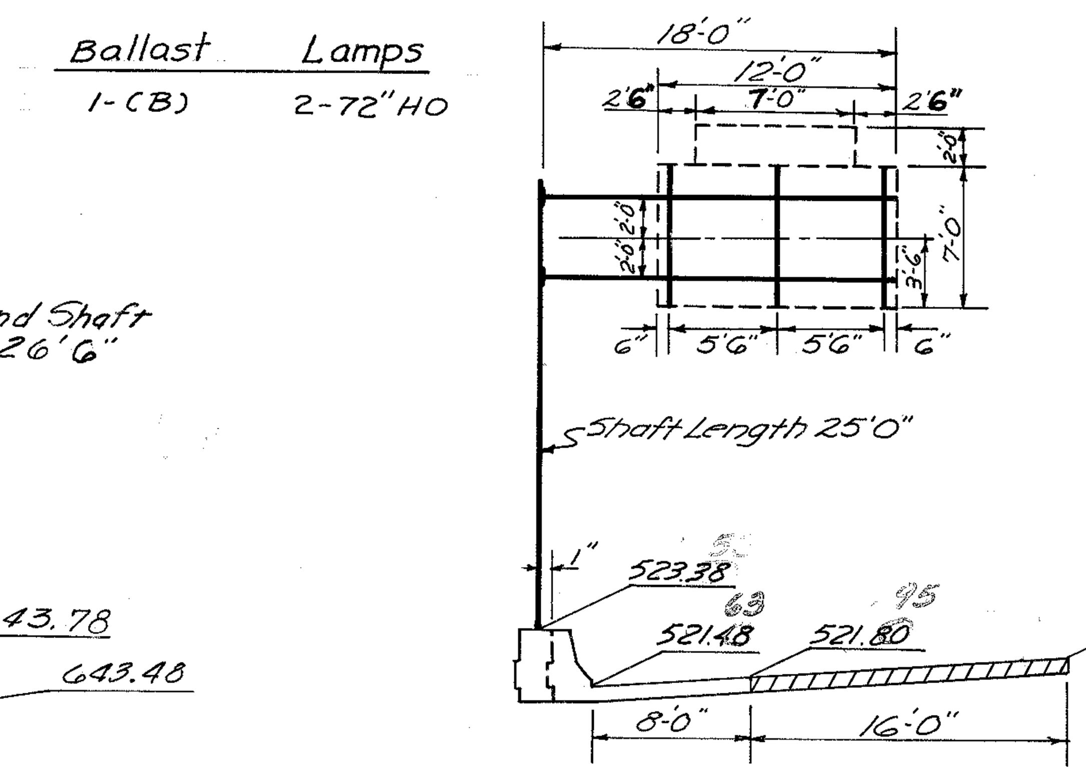
OVERHEAD SIGN SUPPORT No. 123
Sta. 373+00 I-74 ℄
816 No. 12.24 Design #5 (Modified)
Arm length 20'0"
Y Brackets - Steel (Detail A, Std. Dwg EI-1)
ILLUMINATED



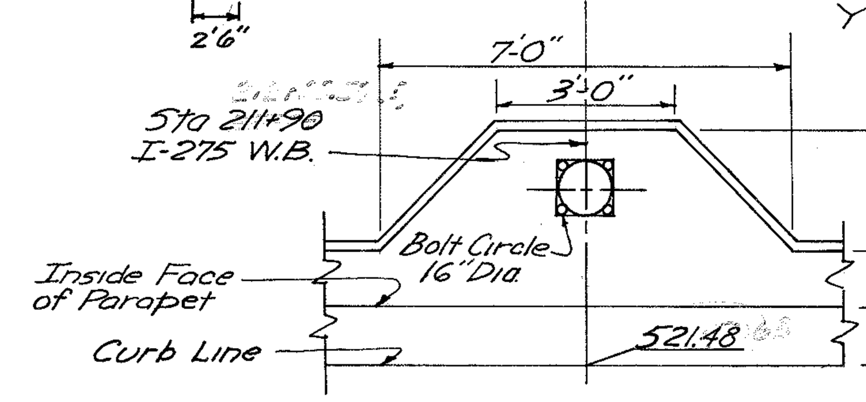
OVERHEAD SIGN SUPPORT No. 124
Sta. 378+00 I-74 ℄
816 No. 7.6 Design #3 (Modified)
Span length 79'0"
Y Brackets - Aluminum
ILLUMINATED



OVERHEAD SIGN SUPPORT No. 125
Sta. 398+52 I-74 ℄
816 No. 7.6 Design 4 (Modified)
Span length 83'0"
Y Brackets - Aluminum
ILLUMINATED

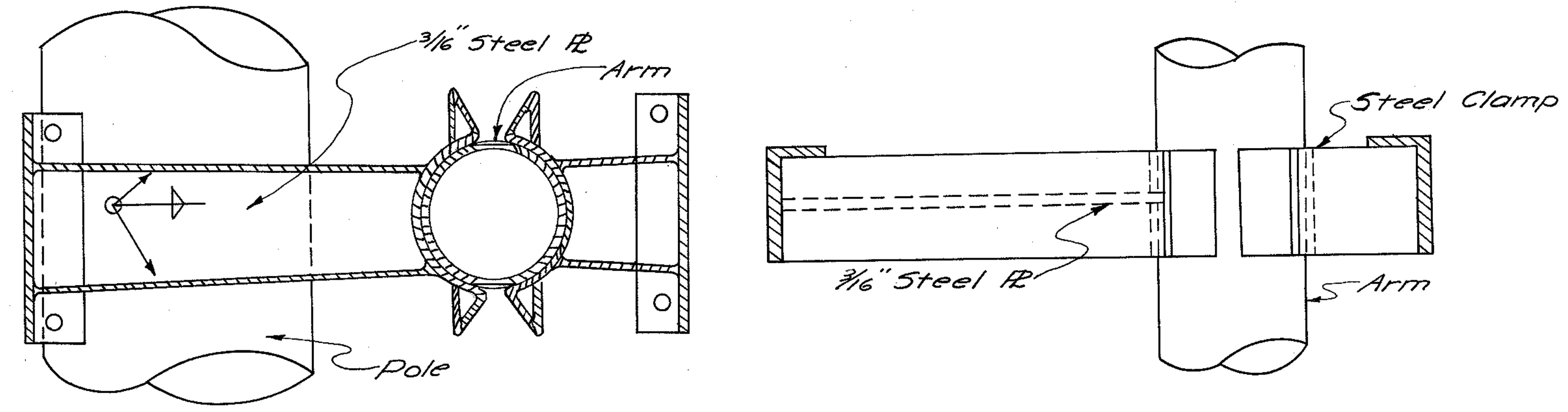


OVERHEAD SIGN SUPPORT No. 100
Sta 211+90 I-275 W.B.
816 No. 12.24 Design 3 (Modified)
Arm Length 18'0"
Y Brackets - Steel (Detail A. Std. Dwg EI-1)
Illuminated



PEDESTAL FOR SIGN No. 100

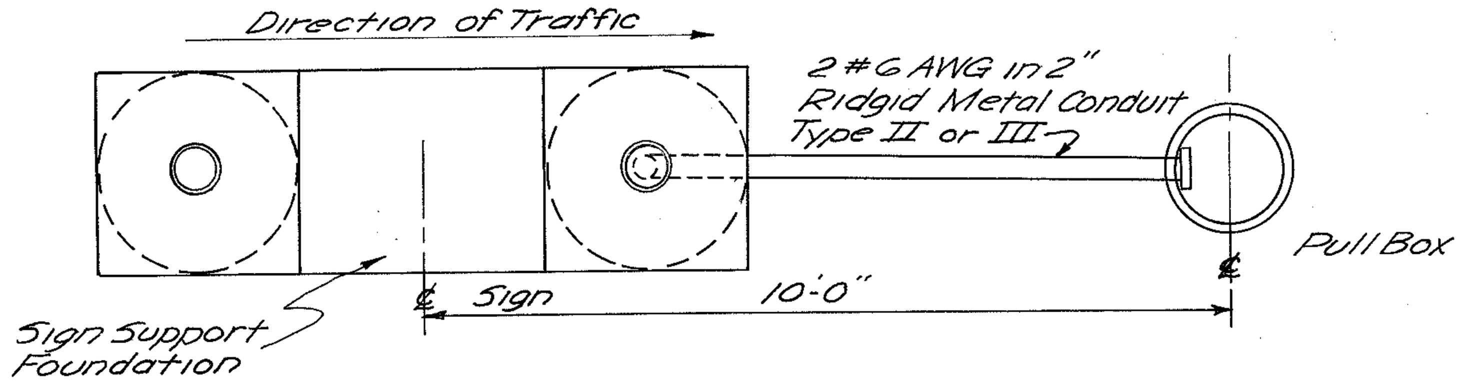
For additional Pedestal details see Sht. 1/12
Br. No. HAM-275-0399 L/R



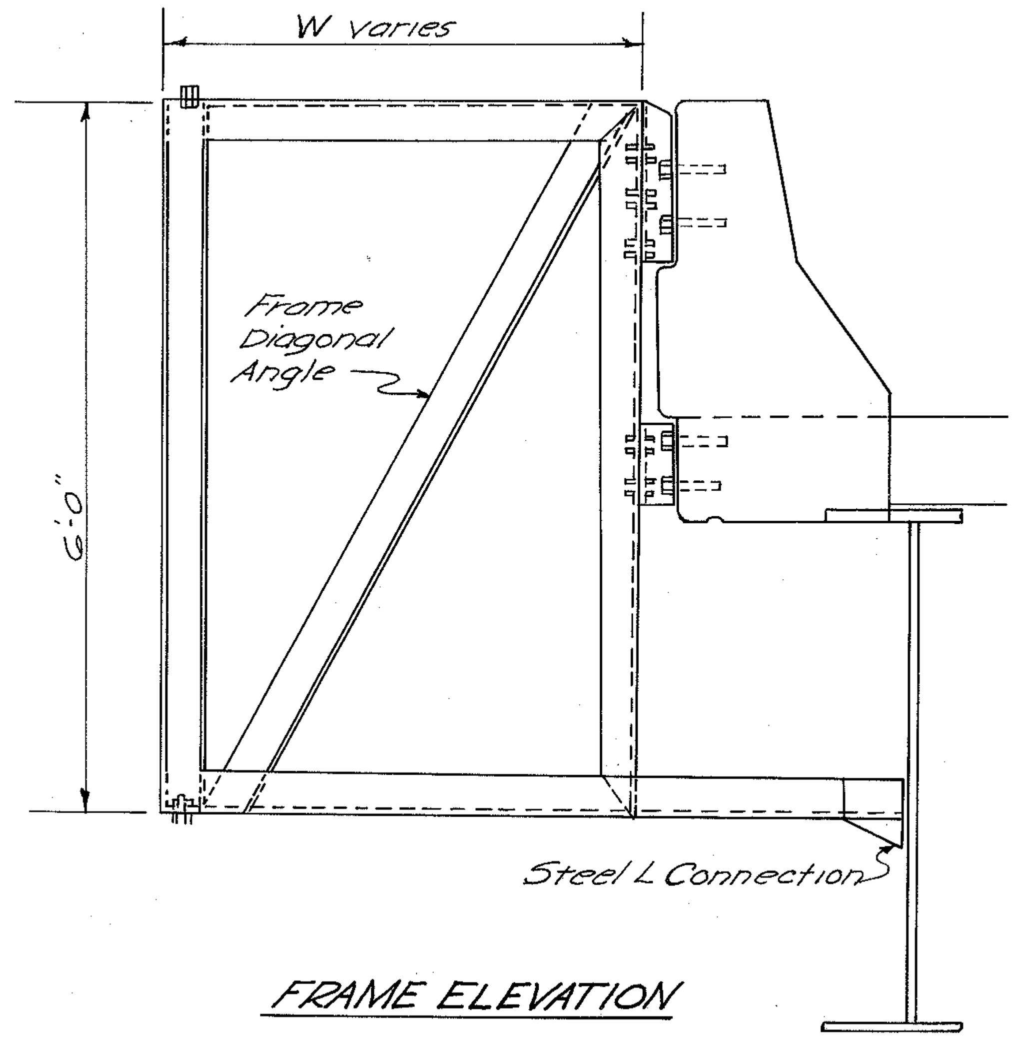
SIDE VIEW

TOP VIEW

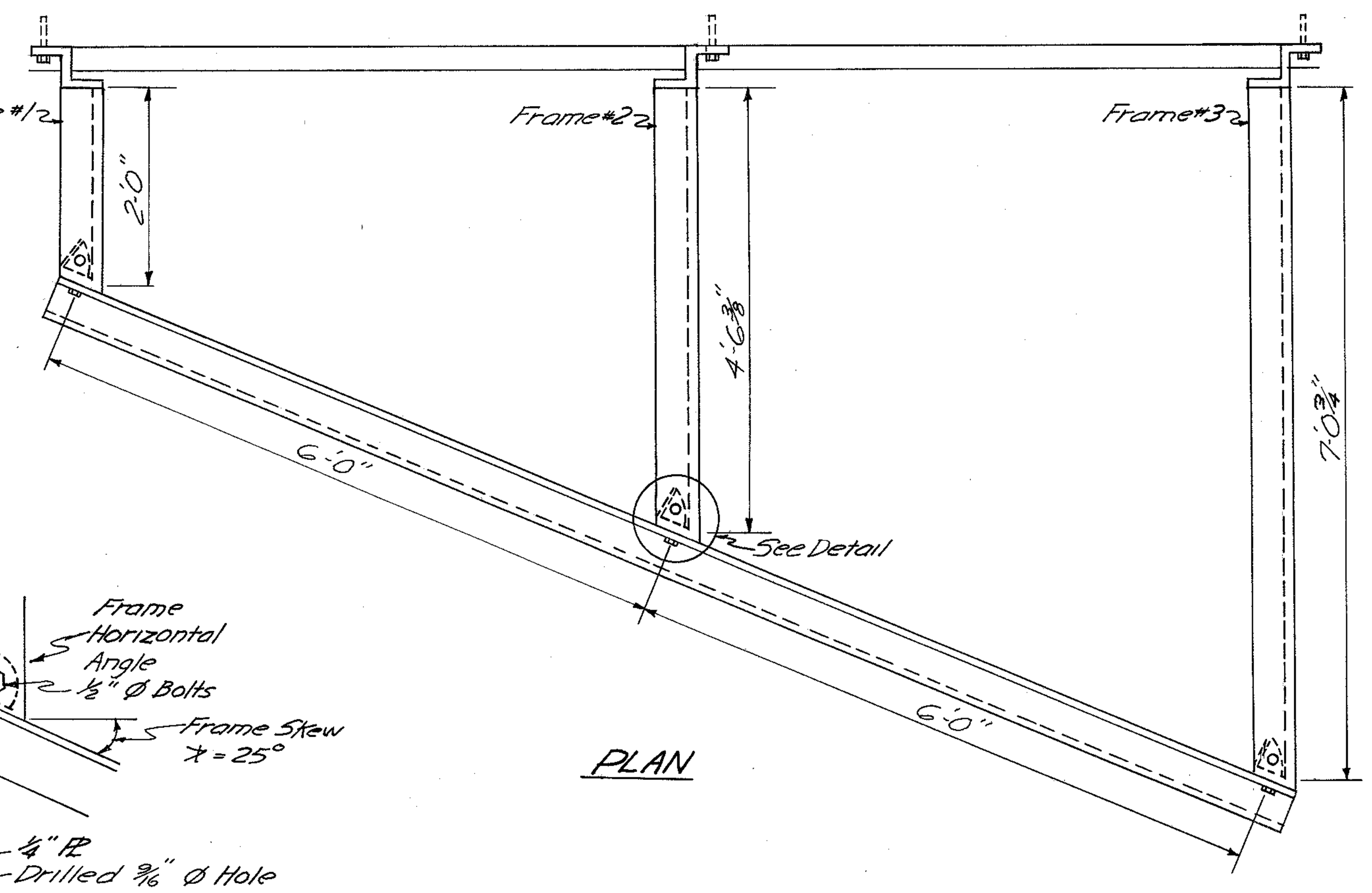
SIGN ATTACHMENT DETAIL



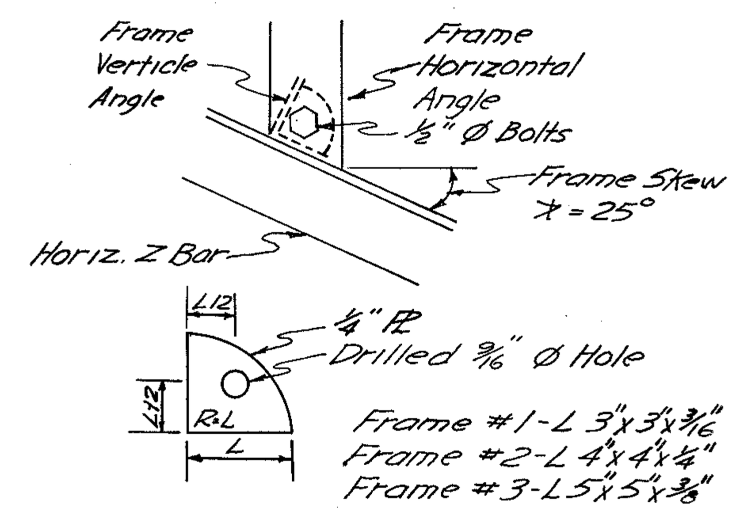
ILLUMINATED SIGN DETAIL SERVICE



FRAME ELEVATION



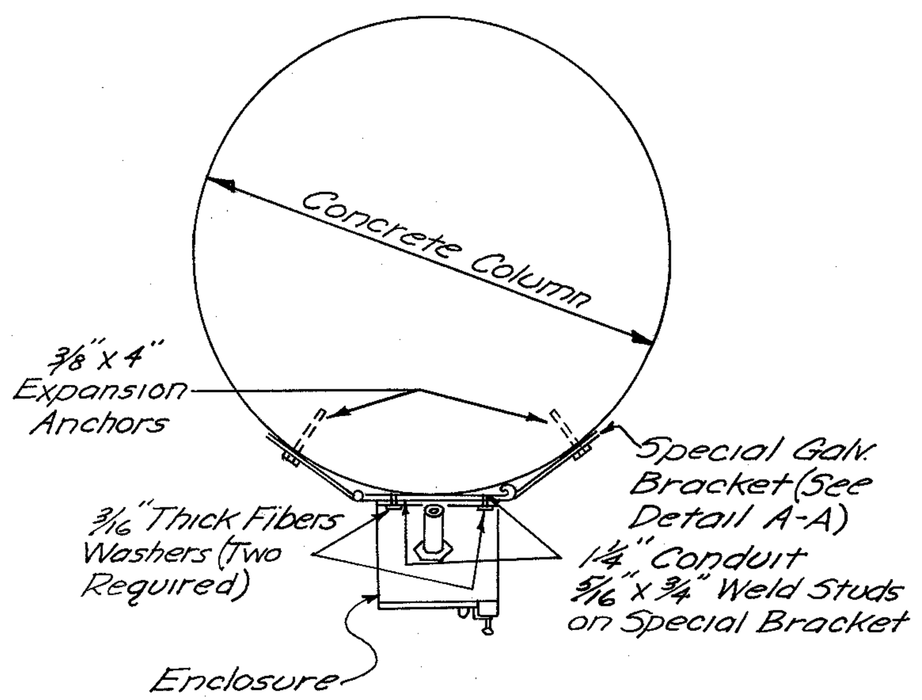
PLAN



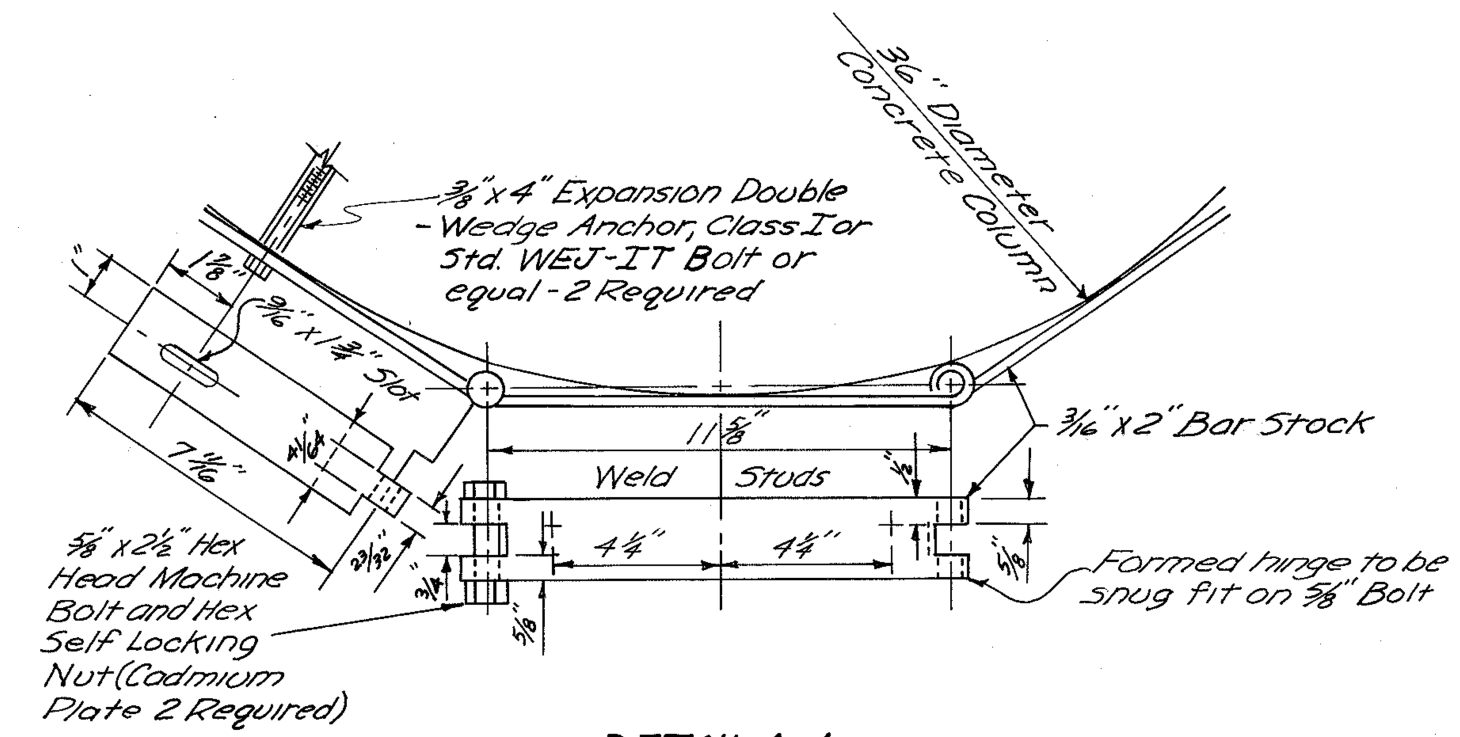
DETAIL A

O.S.M.-1-5 OVERPASS STRUCTURE MOUNTED SIGN SUPPORT DETAILS NO: 104 (Modified)

See Other Details, Sheets 5 & 11

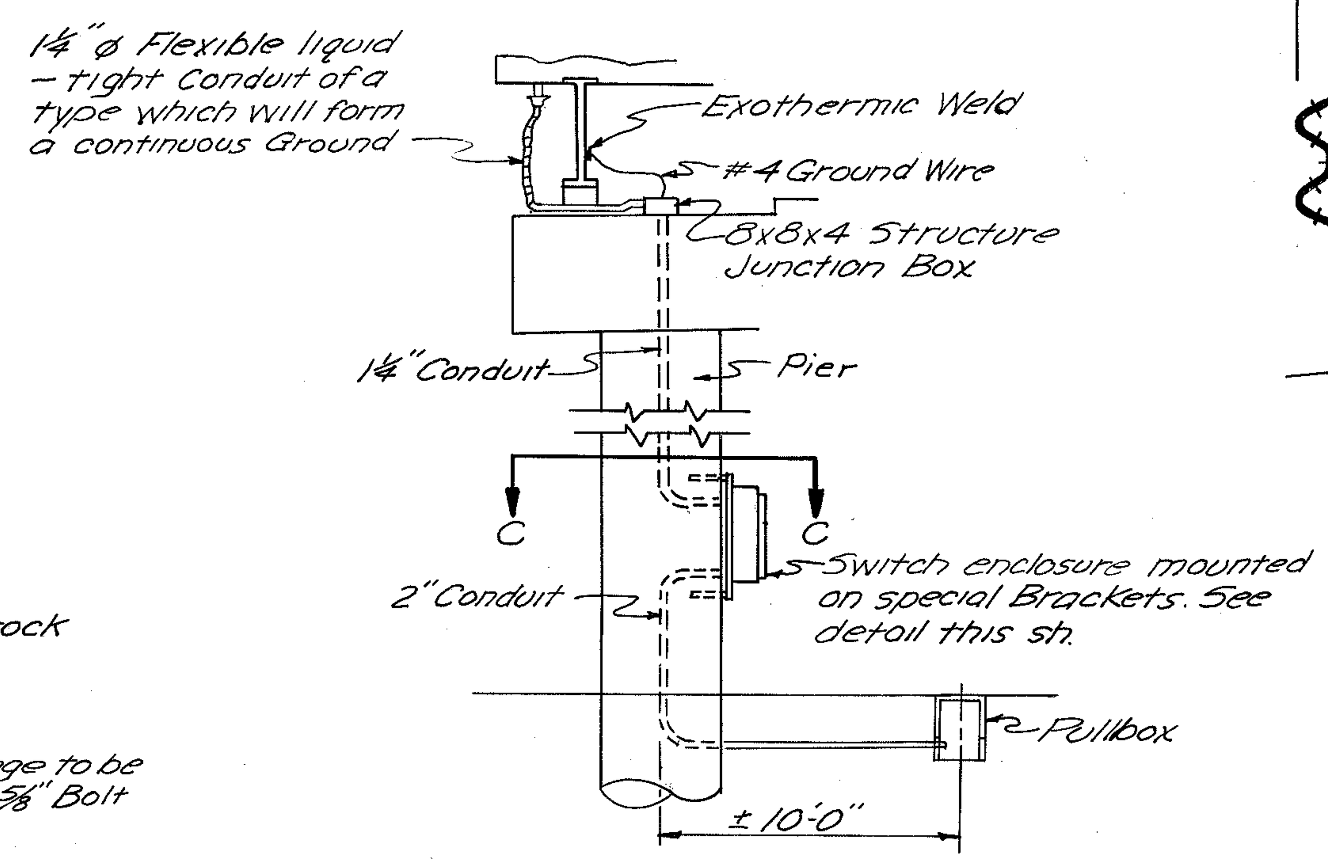


SECTION C-C



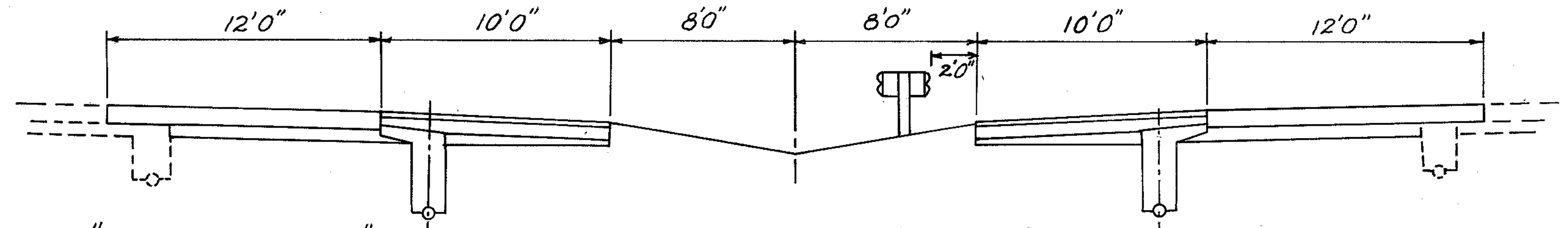
DETAIL A-A

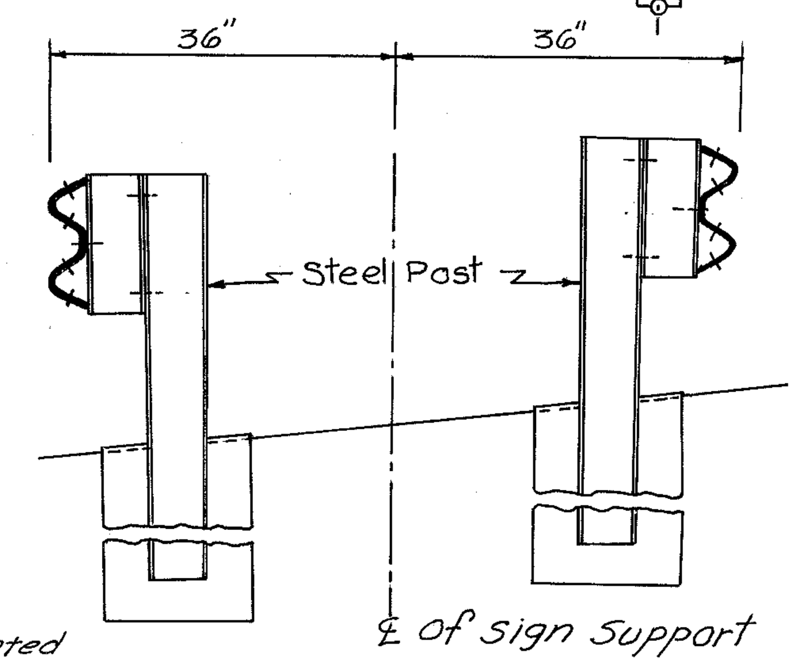
ENCLOSURE MOUNTING BRACKET



SECTION B-B

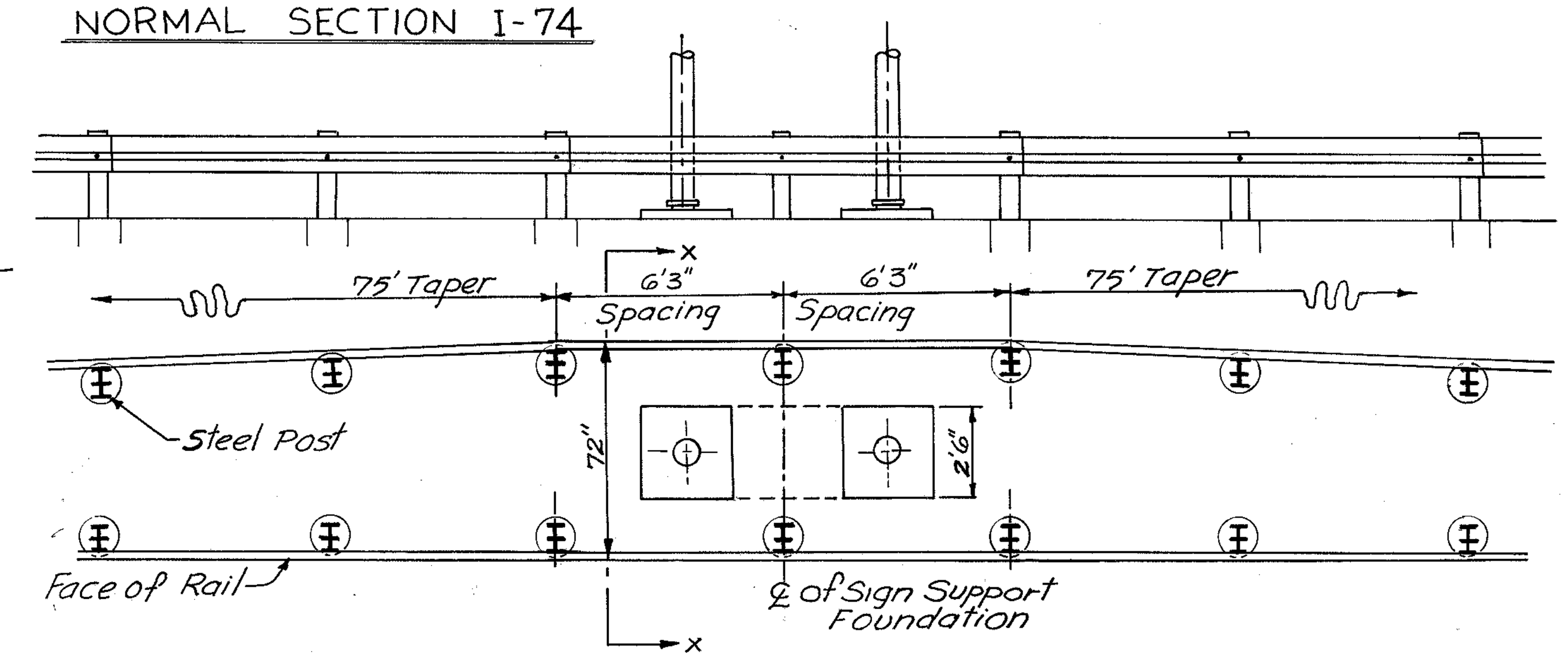
CONDUIT & SERVICE SWITCH DETAIL





SECTION "X-X"

NORMAL SECTION I-74



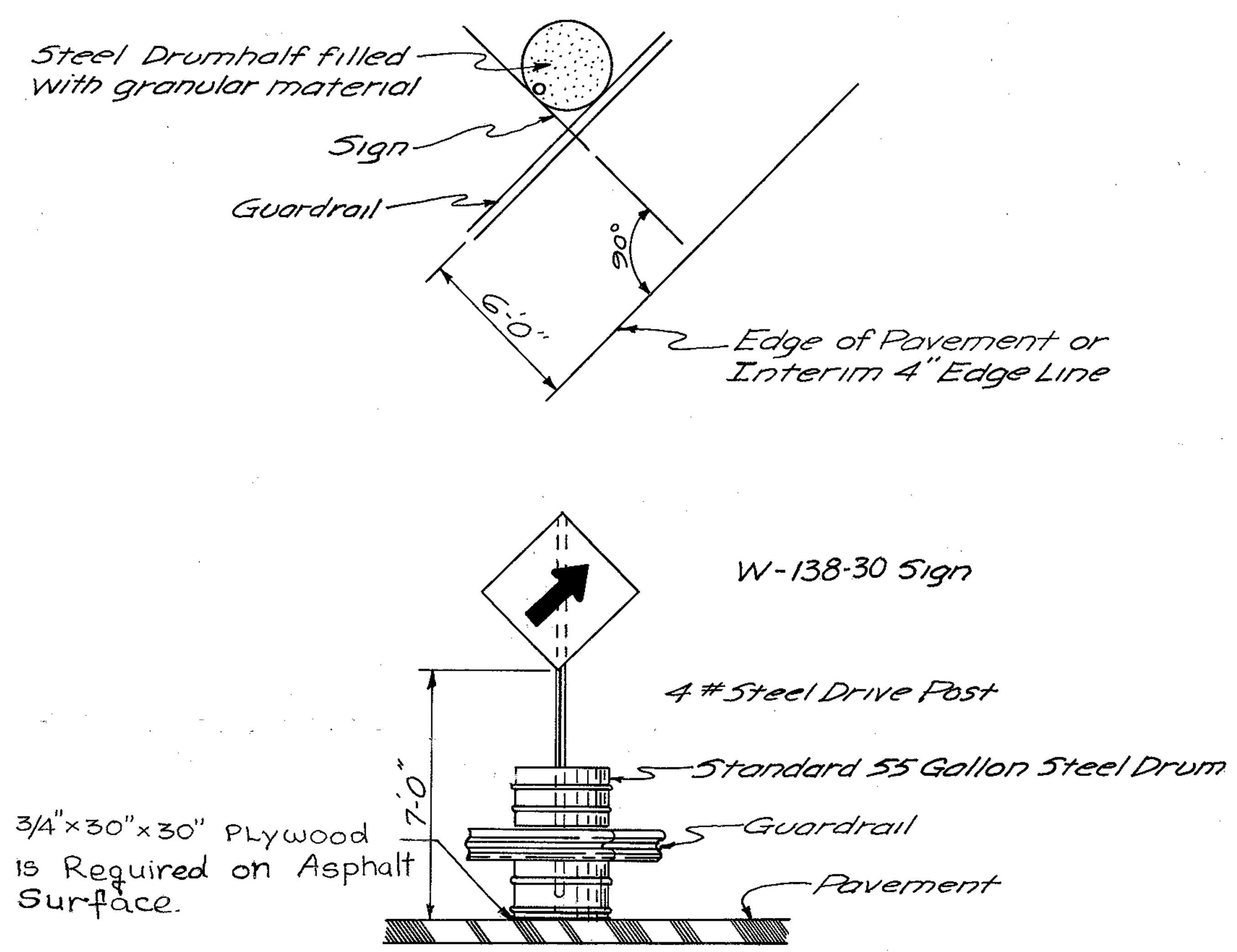
MEDIAN GUARDRAIL PROTECTION FOR OVERHEAD SIGN SUPPORT NO: 122

NO - SCALE

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

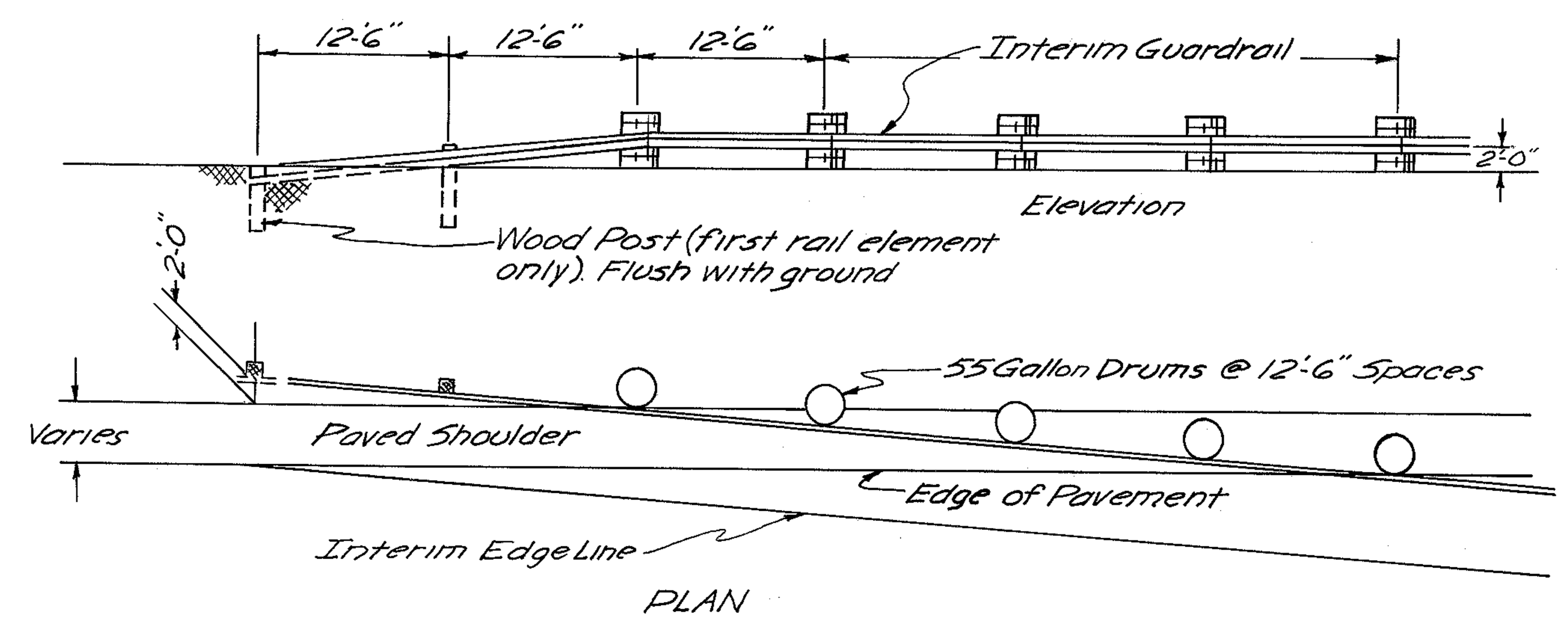
HAM-275-3.86
HAMILTON COUNTY

I-275 WEST BOUND - RAMP A



Note:
Erect W-52-48 Sign on first barrel, then,
Erect W-138-30 Sign at every 100' for 300' then every 200' thereafter. For further information see page 78, Article W5-4 of the "Ohio Manual of Uniform Traffic Control Devices."
Double amber delineators shall be erected approximately midway between signs on barrels.

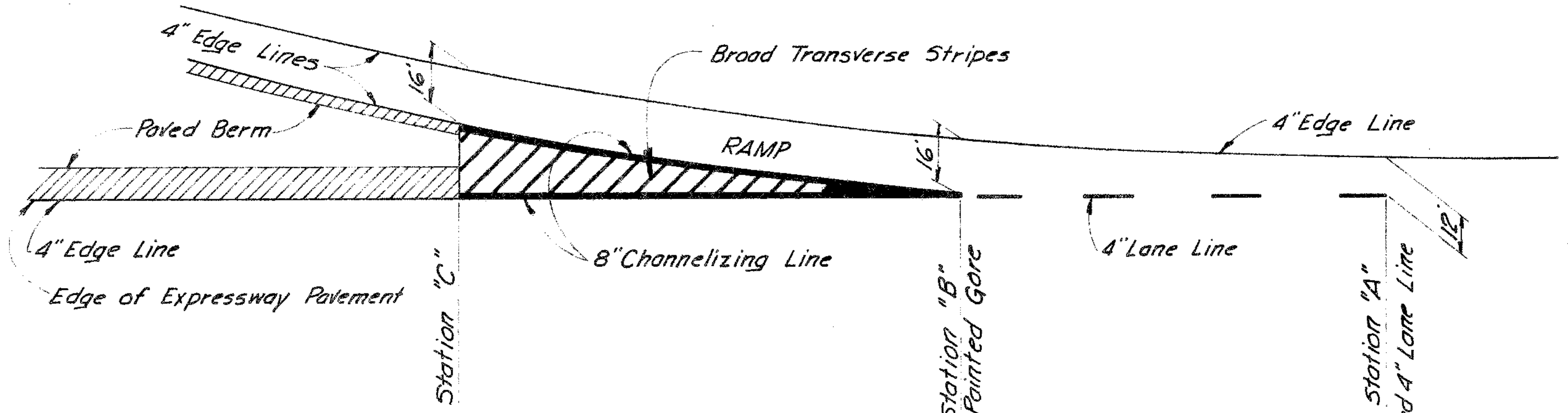
SIGN ATTACHMENT TO INTERIM GUARDRAIL

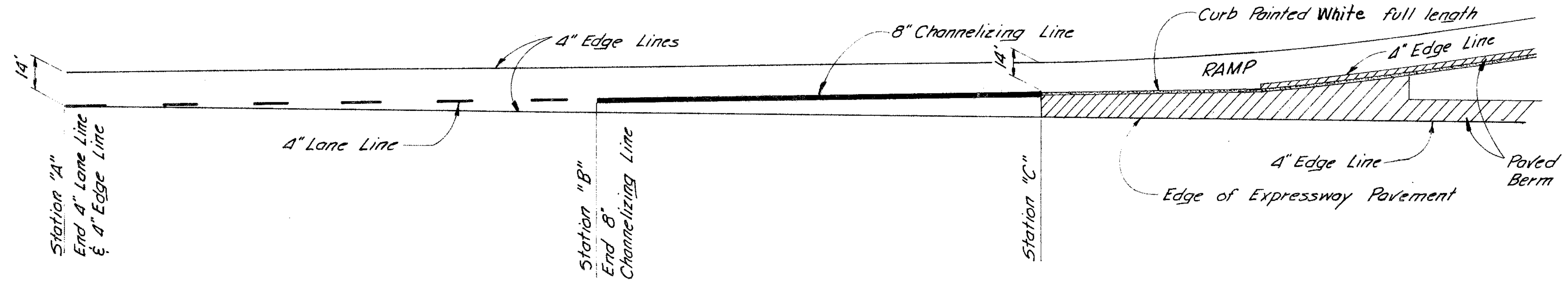


ANCHOR DETAIL FOR INTERIM GUARDRAIL

Rev. 5-10-73

INTERIM PAVEMENT MARKING & TRANSITION SIGNING



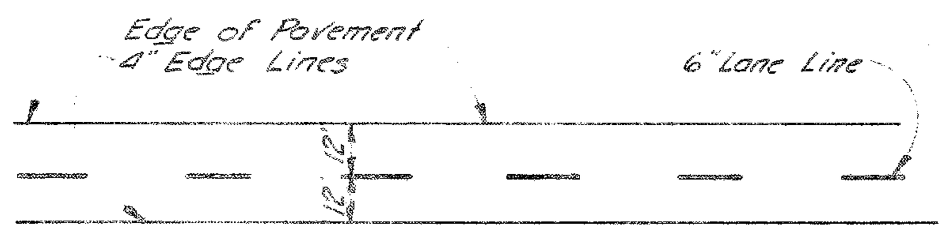


Exit Terminal	Station "A"	Station "B"	Station "C"
I 275 WB Ramp A	213+90 I-275	211+90 I-275	208+92 I-275
I 74 EB Ramp F	296+96 I-74	298+96 I-74	301+80 I-74

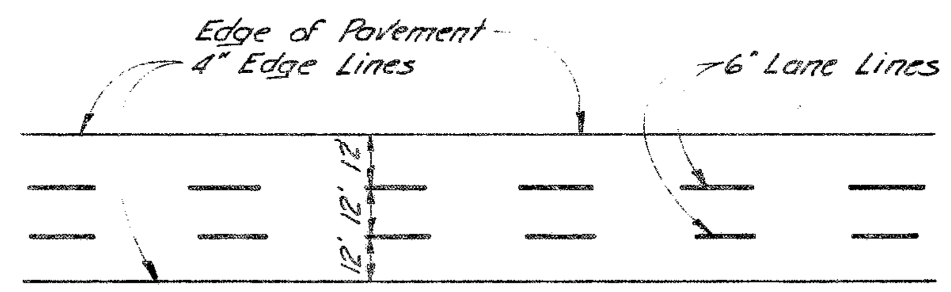
Entrance Terminal	Station "A"	Station "B"	Station "C"
Ramp B I 275 E.B.	219+63 I-275	216+75 I-275	214+35 I-275
Ramp E I 74 W.B.	323+87 I-74	326+75 I-74	329+15 I-74
Ramp F I 275 W.B.	357+77 I-275	360+65 I-275	363+05 I-275

TYPICAL EXIT TERMINAL — EXPRESSWAY
DETAIL NO. 1

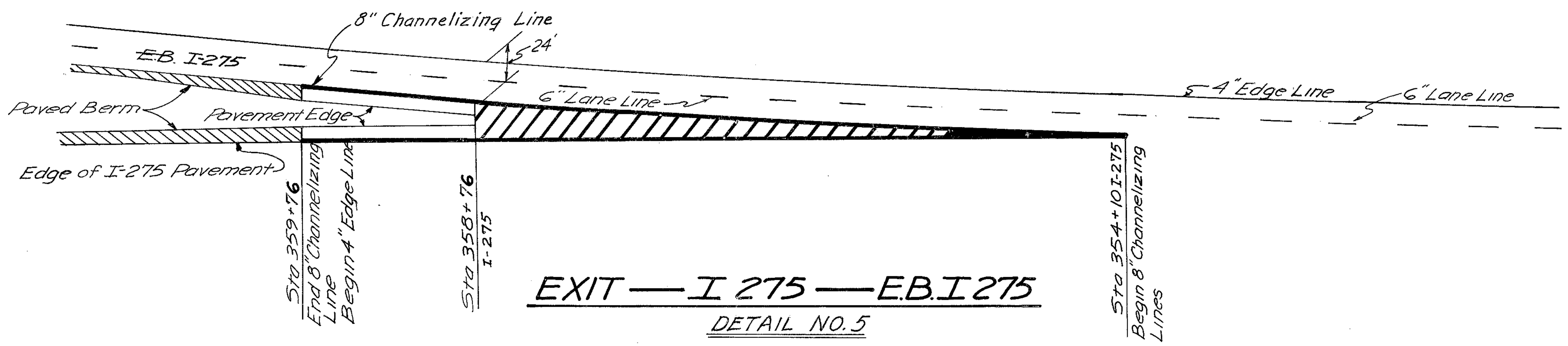
TYPICAL ENTRANCE TERMINAL — EXPRESSWAY
DETAIL NO. 2



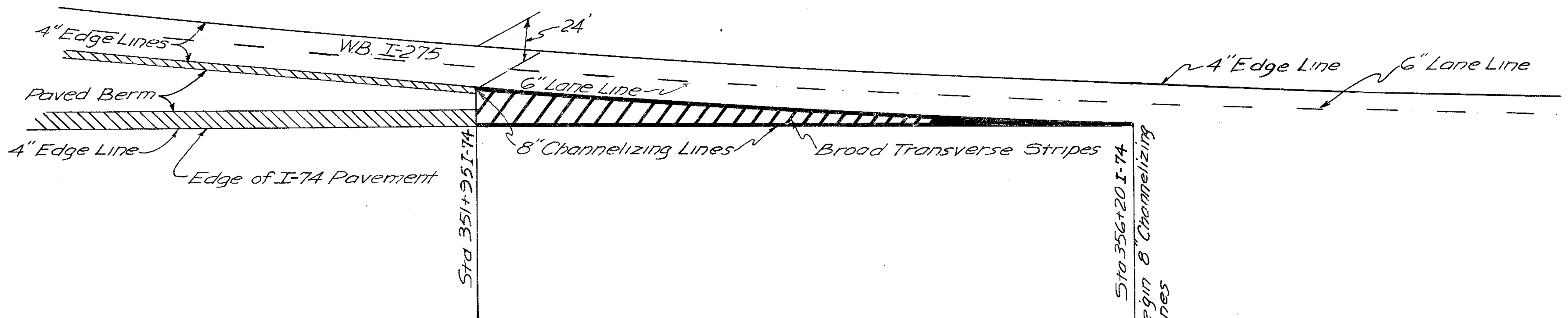
TYPICAL 2 LANE SECTION
DETAIL NO. 3



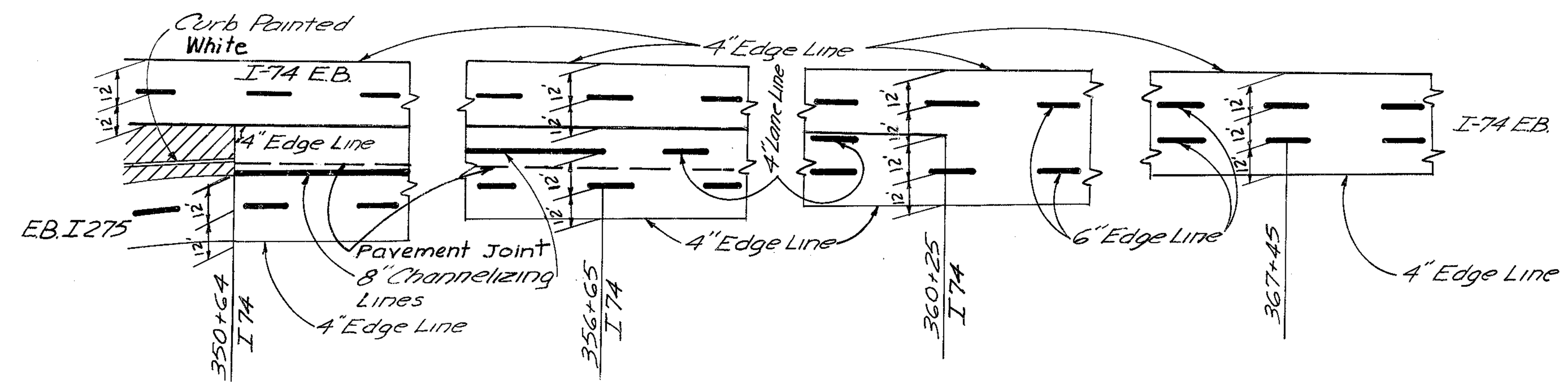
TYPICAL 3 LANE SECTION
DETAIL NO. 4



EXIT — I 275 — E.B. I 275
DETAIL NO. 5



EXIT — I 74 W.B. — W.B. I 275
DETAIL NO. 6

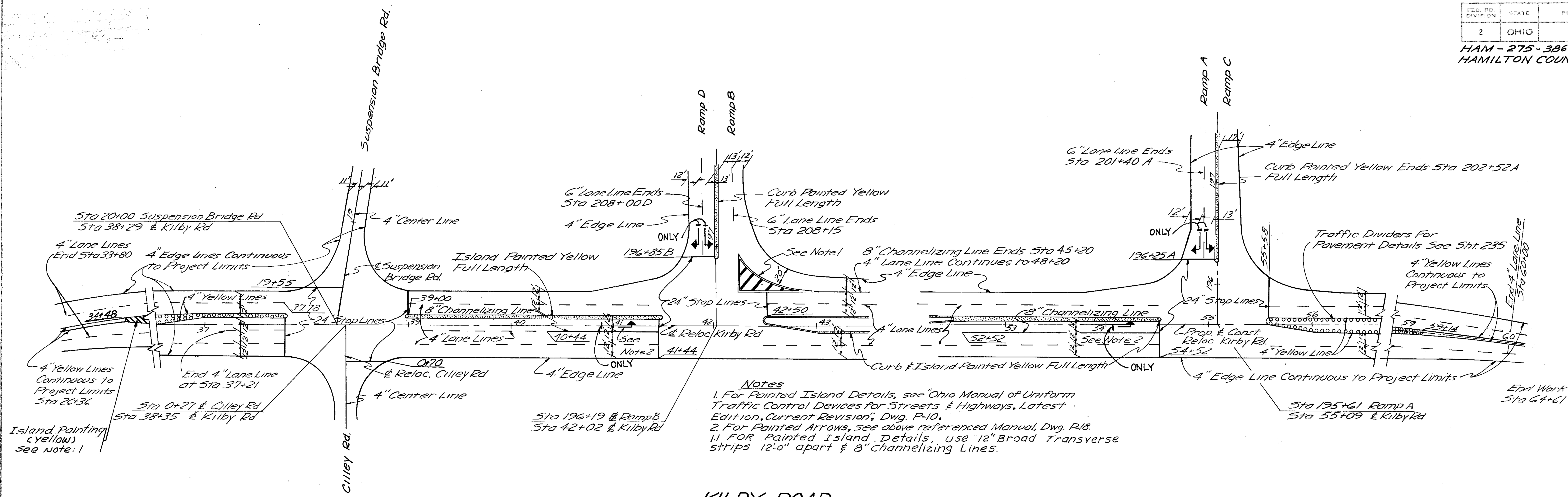


ENTRANCE — EB I-275 — I-74 EB.
DETAIL NO. 7

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

524
630

HAM - 275 - 386
HAMILTON COUNTY



Notes

1. For Painted Island Details, see "Ohio Manual of Uniform Traffic Control Devices for Streets & Highways, Latest Edition, Current Revision", Dwg. P-10.
2. For Painted Arrows, see above referenced Manual, Dwg. P-18.
1.1 FOR Painted Island Details, Use 12" Broad Transverse strips 12'-0" apart & 8" Channelizing Lines.

KILBY ROAD
DETAIL NO. 8

18
36

Rev. 5-10-73

PAVEMENT MARKING DETAILS

ITEM 621 PAVEMENT MARKING QUANTITIES

Detail No.	Location	Station	to Station	4" Edge Line	4" Lane Line	6" Lane Line	8" Channelizing Line	12" OR 24" Broad Transverse Stripes & White 12"	24"	Curb Painting (White)	Island Painting	24" Stop Lines		Arrows	8" Channelizing Line YELLOW
				Lin. Ft	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft. 12"	24"	LinFt	Sq Ft.	Lin. Ft.	Lin. Ft.	Each	Lin. Ft.
3	¢ I-275	205+00	214+35	1870		935 *									
2 & 3	East Bound	214+35	216+75	720		240 *	240 *								
2 & 3		216+75	219+63	864	288 *	288 *									
3		219+63	286+00	13,274		6637 *									
3		286+00	354+10	13,620		13620 *									
3 & 5		354+10	358+76	932		932 *	932 *		746 *						
3 & 5		358+76	359+76	200		200 *	200 *								
3	I-275	359+76	377+84	3616		1808 *									
2	Ramp E	377+84	383+44 ¢	1120											
	East Bound														
3 & 5	I275	359+76 B	401+40 B	8328		4164 *									
3 & 7		401+40 B	405+92 B	904		452 *				452					
3	¢ I-275	205+00	208+92	784		392 *									
1 & 3	West Bound	208+92	211+90	596		298 *	596 *		447 *						
1 & 3		211+90	213+90	400	200 *	200 *									
3		213+90	357+77	28,774		14387 *									
2 & 3		357+77	360+65	864	288 *	288 *									
2 & 3		360+65	363+05	720		240 *	240 *								
3		363+05	383+44 ¢	4,078		2039 *									
	West Bound I275														
3 & 6	Along B	383+44 B	420+30 B	7372		3686 *									
3	East Bound	293+80 ¢	296+96	632		316 *									
1 & 3	I-74	296+96	298+96	400	200 *	200 *									
1 & 3	Along ¢	298+96	301+80	568		284 *	568 *		426 *						
3		301+80	350+64	9,768		4884 *									
3 & 7		350+64	356+65	1,803		1202 *	601 *								
3 & 7		356+65	360+25	1,080	360 *	720 *									
4 & 7		360+25	367+45 ¢	1,440		1440 *									
4 & 6	West Bound	361+51 ¢	356+20	1,062		1593 *									
4 & 6	I-74	356+20	351+95	850		1275 *	850 *		638 *						
4 & 6	Along ¢	351+95	329+15	4,560		2280 *									
2 & 3		329+15	326+75	720		240 *	240 *								
2 & 3		326+75	323+87	864	288 *	288 *									
3		323+87	317+15 ¢	1,344		672 *									
	SUB - TOTAL #1			114,127	1624	66,200	4467	-	2257	452					

* 100% State Cost Items

ITEM 621 PAVEMENT MARKING QUANTITIES

Detail No.	Location	Station	to Station	4" Edge Line	4" Lane Line	4" Center Line Single Dash	6" Lane Line	8" Channelizing Line White	12" OR 24" Broad Transverse Stripes White 12"	24"	Curb Painting (Yellow)	Island Painting	24" Stop Lines	4" Center Line (Double Solid)	Curb Painting (White)	Arrows	Words (ONLY)	12" Broad Transverse Stripes (Yellow)
				Lin. Ft.	L.F.	L.F.	Lin. Ft.	Lin. Ft.	Lin. Ft. 12"	24"	LinFt	Sq Ft.	Lin. Ft.	Lin. Ft.	L.F.	Each	Each	
8	RAMP "A"	196+24 A	201+40 A	1032			516				1032		32					
8		201+40	202+52	224							224							
1		202+52 A	208+92 A	1280														
		196+75 A														2	2	
8	RAMP "B"	196+81 B	199+55 B	548			548				548		32					
8		199+55	206+90	1470			735				190							
8		206+90	208+15	250			125				125							
2		208+15	210+20	410							205							
2		210+20 B	214+35 B	415							415							
2	RAMP "C"	207+20	204+00	640							125							
1	RAMP "D"	209+39	204+91	896			139				227							
		211+70														2	2	
2	RAMP "E"	412+28 E	408+30 E	398											398			
2		408+30	407+30	200											100			
2		407+30 E	383+44 E	4772														
2	RAMP "F"	387+58 F	368+40 F	3836														
2		368+40	367+10	260											130			
2		367+10 F	363+05 F	405											405			
8	Relocated	0+60	10+00	1880									40	940				
	Cilley Rd.	10+00	27+50	3500		1750												
		27+50	29+50	400										200				
		29+50	30+50	200														
		30+50	32+50	400										200				
		32+50	41+50	1800		900												
		41+50	51+00	1900										950				
8	Kilby Rd.	26+36	33+80	1488										744				
8		33+80	37+21	682	682									1160				40
8		37+21	37+78	114	171								36	57				
8		37+78	39+00	60														
8		39+00	40+44	288	432							432						
8		40+44	41+44	200	200			100				200	36			1	1	
8		41+44	42+50	160				200	200									
8		42+50	45+20	540	540			270			540		24					
8		45+20	52+52	1464	1464						1464							
8		52+52	54+52	400	400			200				600	36			1	1	
8		54+52	55+58	166														
8		55+58	59+14	712	712									1424				
8		59+14	60+00	172	172									86				
8		60+00	64+61	922										461				
8	Suspension Bridge Rd.	19+65	16+50	630									40	315				
	SUB - TOTAL #2			35114	4773	2650	2063	770	200		5095	1232	276	6537	1033	6	6	40
	TOTAL		Lin. Ft.	149,241	6397	2650	68,263	5237	200	2257	5095	1232	276	6,537	1485	6	6	40
			Miles	28.27	1.21	0.50	12.93							1.24				
Interim Pavement Marking																		
Sh.16	I-275 WB	208+30 ¢	222+00 ¢	2620														

DEVELOPED		CHECKED	
ARS	3/72	REP	3/72

2 OHIO

526
630

HAM-275-3.86
HAMILTON COUNTY

REGULATORY & WARNING SIGNS

SHEET NO.	CODE NO.	LOCATION	SIDE	815 SIGN ERECTION FLAT SHEET SQ. FT.	816 SIGN SUPPORTS 6# BEAM (SOW) LIN. FT.	4# POST LIN. FT.	6# BEAM LIN. FT.	8# BEAM LIN. FT.	CONCRETE CU. YD.	PARTICIPATION
8	N-41-12	222+95 I-275	Lt. & Rt.	6.00		22.0				
9	N-41-12	275+75 I-275	Lt. & Rt.	6.00		22.0				
8	R-15B-30	197+65 Ramp 'B'	Rt.	6.25		15.0				
8	R-15B-30	197+00 Ramp 'A'	Rt.	6.25		15.0				
8	R-32R-30	47+00 Kilby Rd.	Lt.	6.25		15.0				
8	R-37-24	34+60 Kilby Rd.	Ctr.	5.00		14.0				
8	R-37-24	37+75 Kilby Rd.	Ctr.	5.00		14.0				
8	R-37-24	39+00 Kilby Rd.	Ctr.	5.00		14.0				
8	R-37-24	42+50 Kilby Rd.	Ctr.	5.00		14.0				
8	R-37-24	55+60 Kilby Rd.	Ctr.	5.00		14.0				
8	R-37-24	59+10 Kilby Rd.	Ctr.	5.00		14.0				
8	R-37-36	196+85 Ramp 'B'	Ctr.	9.00		15.0				
8	R-37-36	196+25 Ramp 'A'	Ctr.	9.00		15.0				
8	R-5pe-36	42+70 Kilby Rd.	Lt.	12.00			16.0			
8	R-41B-36 R-43R-36 R-43L-36	212+22E Ramp 'D'	Lt.	3.00 3.00 3.00	17.0					
8	R-1-48 R-41B-36 R-43R-36 R-43L-36	54+52 Ramp 'A'	Lt.	16.00 9.00 3.00 3.00	17.0					
8	W-1-36 W-143-24	199+00 Ramp 'B'	Rt.	9.00 4.00			18.0			
8	W-32-96	207+05 Ramp 'A'	Rt.	32.00			16.5 17.0			
8	W-47-48 WP-47-24	205+50 Ramp 'D'	Rt.	16.00 3.00			17.0			
8	R-41A-36	205+50 Ramp 'D'	Rt.	6.00						
8	W-49-48 WP-49-24	207+60 I-275	Rt.	16.00 2.00			17.0			
8	W-85-36 WP-85-24	28+50 Kilby Rd.	Rt.	9.00 3.00			16.0			
8	W-85-36 WP-85-24	65+00 Kilby Rd.	Lt.	9.00 3.00			16.0			
8	W-60D-36	35+80 Kilby Rd.	Lt.	9.00			16.0			
8	W-60D-36	57+50 Kilby Rd.	Rt.	9.00			16.0			
8	W-97-48	208+80 Ramp 'A'	Lt.	20.00			17.0			
9	N-41-12	328+55 I-275	Lt. & Rt.	6.00			22.0			
9	R-10-48 R-16-48	241+40 I-275	Rt.	20.00 16.00			20.5 21.0			
9	R-10-48 R-16-48	337+00 I-275	Lt.	20.00 16.00			20.5 21.0			
10	R-10-48 R-16-48	301+44 I-74	Lt.	20.00 16.00			20.5 21.0			
SUB-TOTAL #1				400.75	34.0	203	307.0			

REGULATORY & WARNING SIGNS

SHEET NO.	CODE NO.	LOCATION	SIDE	815 SIGN ERECTION FLAT SHEET SQ. FT.	816 SIGN SUPPORTS 6# BEAM (SOW) LIN. FT.	4# POST LIN. FT.	6# BEAM LIN. FT.	8# BEAM LIN. FT.	CONCRETE CU. YD.	PARTICIPATION
10	R-10-48 R-16-48	395+00 I-74	Lt.	20.00 16.00			20.5 21.0			
10	W-1-36 W-143-24	394+00 Ramp 'E'	Rt.	9.00 4.00			18.0			
10	W-49-48 WP-49-24	367+50 I-275	Lt.	16.00 2.00			17.0			
10	W-49-48 WP-49-24	334+00 I-74	Lt.	16.00 2.00			17.0			
10	WP-49-24 W-49-48	347+50 I-74	Rt.	2.00 16.00			17.0			
10	W-32-96	397+00 Ramp 'E'	Lt.	32.00			16.5 17.0			
8	R-41A-36	205+50 Ramp 'D'	Lt.	6.00		14.0				
8	R-41A-36	209+70 Ramp 'D'	Rt.	6.00		14.0				
8	R-41A-36	198+75 Ramp 'A'	Lt.	6.00		14.0				
8	R-41A-36	205+00 Ramp 'A'	Lt.	6.00		14.0				
8	R-41A-36	205+00 Ramp 'A'	Rt.	6.00		14.0				
10	N-41-12	381+35 I-275	Lt. & Rt.	6.00		22.0				
10	N-41-12	Various I-74	Lt. & Rt.	16.00		80.0				
SUB-TOTAL #2				187.00	-	172	144.0			
TOTAL				587.75	34.0	375	451.0			

INTERIM SIGNS

8	W-54-192	226+00 I-275	Ctr.	80.00			11.0 11.5 12.0			
8	W-54-192	226+00 I-275	Lt.	80.00			11.0 11.5 12.0			
8	W-54-192	239+50 I-275	Ctr.	80.00			11.0 11.5 12.0			
16	W-138-30	209+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	211+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	213+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	215+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	217+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	219+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	220+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	221+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
16	W-138-30	222+00 I-275	Ctr.	6.25		11.0	(On Barrel)			
TOTAL				296.25		99.0	103.5			

GROUND MOUNTED GUIDE SIGNS

SHEET NO.	CODE NO.	LOCATION	815 SIGN ERECTION EXTRU SHEET SQ. FT.	815 SIGN ERECTION FLAT SHEET SQ. FT.	816 SIGN SUPPORTS 6# BEAM LIN. FT.	8# BEAM LIN. FT.	10 WF 21 LIN. FT.	12 WF 31 LIN. FT.	CONCRETE CU. YD.	PARTICIPATION
8	IM-39-36 M-5-36-3	231+40 I-275		4.50 10.50	16.5					
9	IM-40-36 M-5-36-3	347+00 I-275		4.50 10.50	16.5					
10	IM-39-36 M-5-36-2	313+11 I-74		4.50 9.00	16.5					
10	IM-39-36 M-5-36-2	380+00		4.50 9.00	16.5					
	IM-39-36 M-5-36-3	I-74		4.50 10.50	16.5					
TOTAL				72.0	82.5					

REMOVAL OF EXIST. MAJOR SIGN INSTALLATIONS

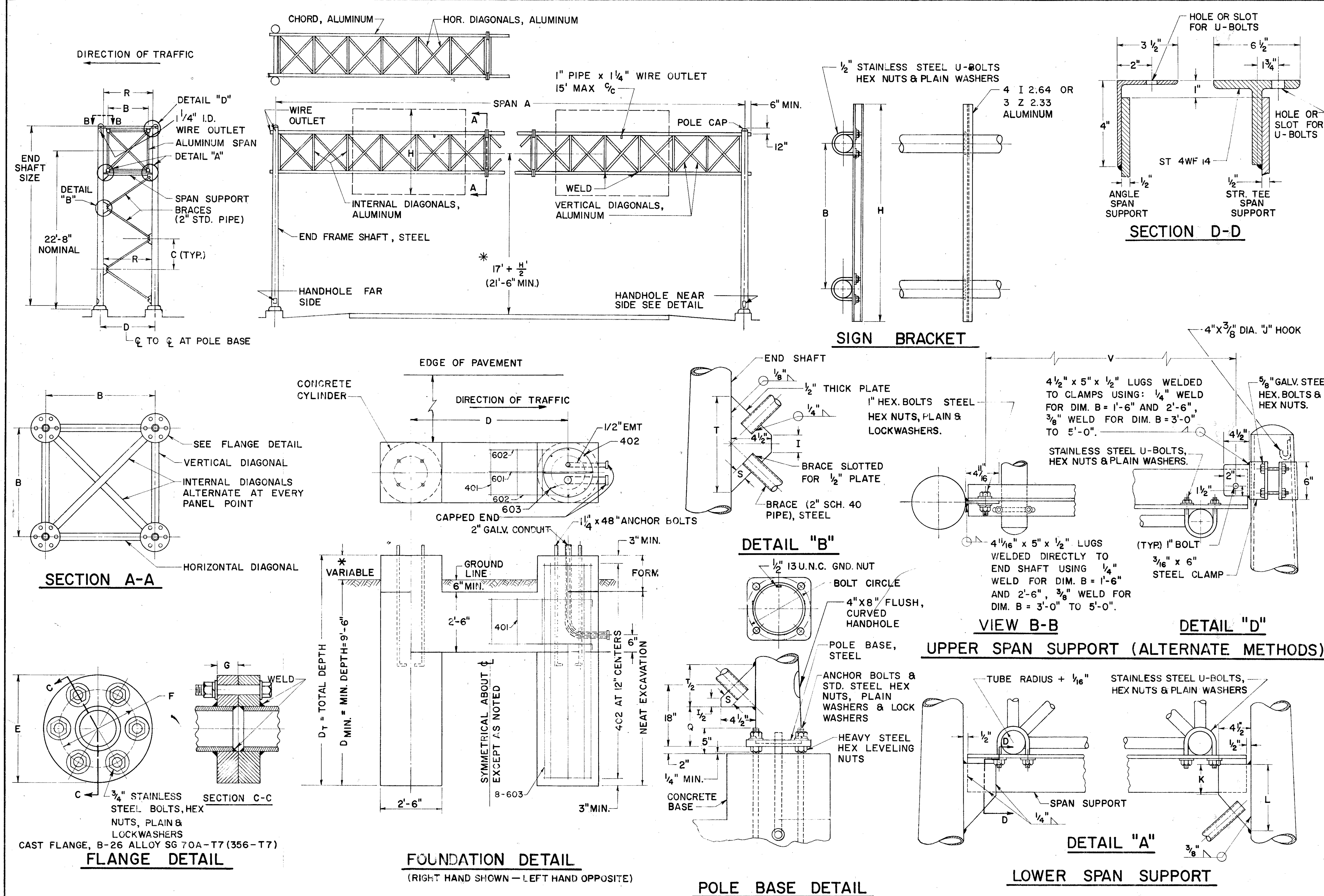
QUAN.	UNIT				Sht. No.
1	Each	347+00 I-74	Rt.	Guide Ground Mounted	7
1	Each	392+00 I-74	Rt.	Guide Ground Mounted	7
2	Each				

ITEM 620 DELINEATOR

REFERENCE	STATION	TO STATION	SIDE	INTERVAL	A POST	A BRACKET	D POST	D BRACKET	PARTICIPATION
I-275	205+20	207+20	Rt.	100'			3		
E.B.	208+15		Rt.				1		
	209+15	226+15	Rt.	100'			16	2	
	227+15	349+15	Rt.	200'	62				
	349+15	358+15	Rt.	100'			10		
	359+15	361+15	Rt.	100'			3		
I-275	363+15	381+15	Rt.	200'	10				
E.B.	382+15	383+15	Rt.	100'			3		
I-275	205+00	217+00	Lt.	100'			11	2	
W.B.	219+00	353+00	Lt.	200'	68				
	354+00	367+00	Lt.	100'			14		
	368+00	369+00	Lt.	100'			2		
I-275	371+00	381+00	Lt.	200'	6				
W.B.	382+00		Lt.	100'			1		
I-74	293+80	303+80	Rt.	100'			11		
E.B.	305+80	343+80	Rt.	200'	18	2			
	344+80	346+80	Rt.	100'			3		
	347+65		Rt.				1		
	348+65	366+65	Rt.	100'			19		
I-74	317+00	334+00	Rt.	100'			16	2	
W.B.	336+00	348+00	Rt.	200'	7				
	349+00	376+00	Rt.	100'			28		
I-275 E.B.	359+75	401+75	Lt.	100'			43		
Ramp	402+75		Lt. & Rt.	100'			2		
I-275 W.B.	383+15	397+85	Lt.	70'			22		
Ramp	398+25	407+45	Lt.	40'			24		
	407+85		Lt. & Rt.	40'			2		
Ramp 'A'	195+92A	201+92A	Lt.	100'			7		
	202+52A		Lt. & Rt.	60'			2		
	202+82A	208+22A	Rt.	30'			19		
	208+82A		Rt.	60'			1		
Ramp 'B'	196+95A	198+95B	Rt.	100'			3		
	199+55B		Rt. & Lt.	60'			2		
	201+15B	207+75B	Lt.	30'			24		
	208+05B		Lt. & Rt.	30'			2		
Ramp 'C'	204+80C	205+30C	Rt.	50'			2		
	206+10C		Rt.	80'			1		
	206+40C		Rt. & Lt.	30'			2		
	206+70C	209+10C	Lt.	30'			9		
	201+10A	198+70A	Rt.	30'			9		
	198+10A	196+30A	Rt.	60'			4		
Ramp 'D'	205+40		Lt.	100'			1		
	206+40D		Lt. & Rt.	70'			2		
	207+10D		Rt.	70'			1		
	207+50D	209+90D	Rt.	40'			7		
	210+60D		Rt.	70'			1		
	197+70B	197+00B	Rt.	70'			2		
Ramp 'E'	383+85E	397+85E	Lt.	70'			21		
	398+25E	407+05E	Lt.	40'			23		
	408+00E		Lt. & Rt.				2		
Ramp 'F'	367+00F	385+90F	Rt.	70'			28		
	386+60F		Rt. & Lt.	70'			2		
	387+60F		Lt.	100'			1		
TOTAL					171	2	413	6	

Interim Delineators:
AS PER PLAN SHEET #15, 18 DELINEATORS, TYPE D, POST MOUNTED ON BARRELS.

TRAFFIC CONTROL QUANTITY CALCULATIONS



NOTES

MATERIALS

THE OVERHEAD SPAN TRUSS SHALL BE ALUMINUM AND THE END FRAMES SHALL BE STEEL.

SPAN TRUSS AND END FRAMES, INCLUDING HARDWARE, SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 816 UNLESS OTHERWISE NOTED.

STEEL POLE BASES AND GUSSETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A-373.

AFTER FABRICATION THE TAPERED POLES SHALL HAVE A MINIMUM YIELD STRENGTH OF 48,000 PSI.

FABRICATION

THE ENTIRE STEEL END FRAME SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SEC. 711.02.

MAXIMUM LENGTH OF SPAN SECTIONS IS 30 FT.

ERECTION

USE A MINIMUM OF 1" CAMBER IN SPAN TRUSS MEMBER FOR A 50' SPAN; ADD ¼" OF CAMBER FOR EACH 5' OF INCREASE IN SPAN OVER 50'.

PAYMENT

PAYMENT FOR THE GALVANIZED CONDUIT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS.

SOILS

THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY).

FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY: 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

REINFORCING STEEL

COST OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.

*FOUNDATION ELEVATION

ELEVATION OF TOPS OF FOUNDATIONS SHALL BE BUILT UP SO THAT 17' CLEARANCE IS MAINTAINED OVER THE ENTIRE WIDTH OF THE PAVEMENT AND SHOULDERS.

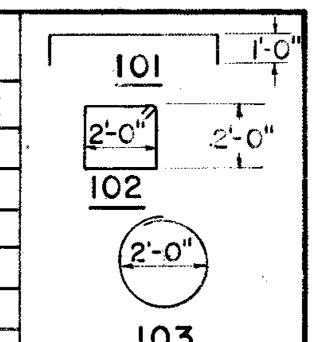
DESIGN

THE DESIGN OF OVERHEAD SUPPORTS IS IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 12, 1961.

DESIGN NO.	SPAN A	B	C	D	E	END SHAFT	BRACE LENGTH	F	G	I	K	L	P	Q	R	S	T	U BOLTS	V	BOLT CIRCLE	SPAN SUPPORT SECTION D-D	CHORDS	HORIZONTAL AND INTERNAL DIAGONAL	VERTICAL DIAGONAL
1	50' thru 75'	3'-0"	4'-11¾	4'-5"	9¼	8"x4.5"x25'-0", 3 GA.	5'-10 13/16	7 7/16	1⅜	3½	4¾	8"	12"	6⅝	3'-9"	1½	10"	⅝	3'-3⅝	11"	SPLIT TEE 3'-8"	4¾ x .188"	1.900" x .145"	1.660" x .140"
2	76' thru 85'	4'-0"	4'-10¼	5'-7"	9¼	8"X6.22"x25'-6" 3 GA.	6'-7⅛	7 7/16	1⅜	⅝	4⅜	7¾	12"	6¼	4'-10'	1½	9½	⅝	4'-4⅝	11"	SPLIT TEE 4'-10"	4¾ x .188"	2" x .188"	1.900" x .145"
3	86' thru 90'	4'-0"	4'-10¼	5'-7"	11"	8"X6.22"x25'-6" 3 GA.	6'-7⅛	8½	1½	⅝	4⅜	7¾	12"	6¼	4'-10'	1½	9½	⅝	4'-4⅝	11"	SPLIT TEE 4'-10"	5½ x .250"	2" x .188"	1.900" x .145"
4	91' thru 110'	5'-0"	4'-8½	6'-7"	11"	8"X6.18"x26'-0", 3 GA.	7'-3¼	8½	1½	—	3½	7¾	12"	7¼	5'-10'	1¾	11¼	¾	5'-4⅝	11"	SPLIT TEE 5'-10"	5½ x .250"	2½ x .188"	2½ x .188"

REINFORCEMENT SCHEDULE

MARK	NO.	LENGTH	TYPE
401	12"C/C	8'-6"	102
402	12"C/C	7'-6"	103
601	4	D+ 4'-0"	101
602	8	D+ 2'-0"	101
603	32	D_T - 6"	STR.



BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORTS

816 No. 7.4

DATE
5-2-62
7-25-62
5-6-64
6-20-66

APPROVED Robert E. Conner
ENGINEER OF TRAFFIC

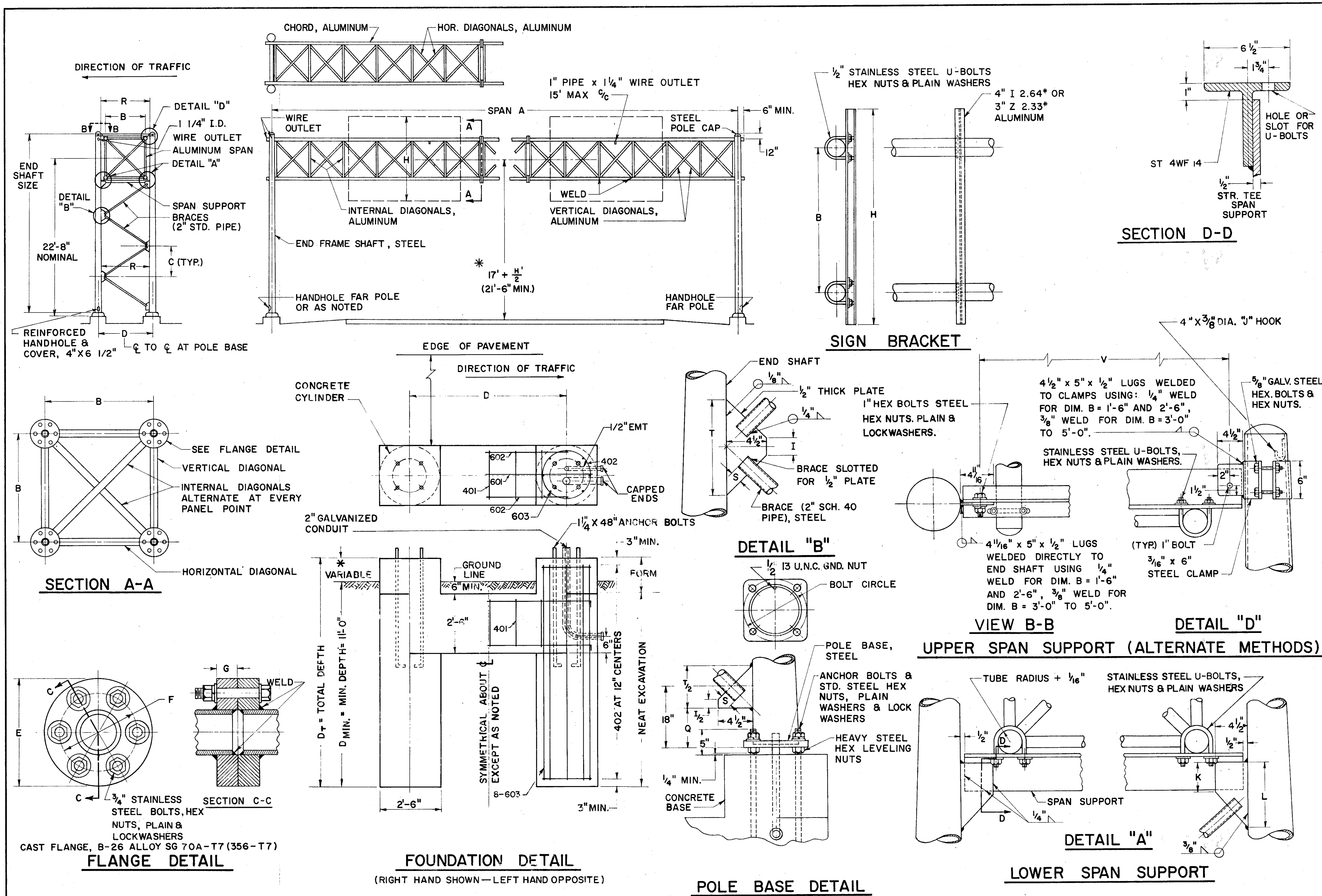
21/36

400 SQ. FT. SIGN AREA

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

528/630

HAM. 275-3.86
HAMILTON COUNTY



NOTES

MATERIALS

THE OVERHEAD SPAN TRUSS SHALL BE ALUMINUM AND THE END FRAMES SHALL BE STEEL.

SPAN TRUSS AND END FRAMES, INCLUDING HARDWARE, SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 816 UNLESS OTHERWISE NOTED.

STEEL POLE BASES AND GUSSETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A-373.

AFTER FABRICATION THE TAPERED POLES SHALL HAVE A MINIMUM YIELD STRENGTH OF 48,000 PSI.

FABRICATION

THE ENTIRE STEEL END FRAME SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SEC. 711.02. MAXIMUM LENGTH OF SPAN SECTIONS IS 30 FT.

ERECTION

USE A MINIMUM OF 1" CAMBER IN SPAN TRUSS MEMBER FOR A 50' SPAN; ADD 1/4" OF CAMBER FOR EACH 5' OF INCREASE IN SPAN OVER 50'.

PAYMENT

PAYMENT FOR THE GALVANIZED CONDUIT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS.

SOILS

THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY).

FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY: 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

REINFORCING STEEL

COST OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS.

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER.

***FOUNDATION ELEVATION**

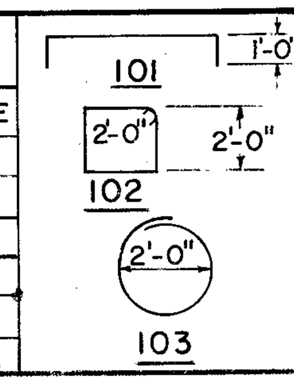
ELEVATION OF TOPS OF FOUNDATIONS SHALL BE BUILT UP SO THAT 17' CLEARANCE IS MAINTAINED OVER THE ENTIRE WIDTH OF THE PAVEMENT AND SHOULDERS.

DESIGN

THE DESIGN OF OVERHEAD SUPPORTS IS IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 12, 1961.

DESIGN NO.	SPAN A	B	C	D	E	END SHAFT	BRACE LENGTH	F	G	I	K	L	P	Q	R	S	T	U BOLTS	V	BOLT CIRCLE	SPAN SUPPORT SECTION D-D	CHORDS	HORIZONTAL AND INTERNAL DIAGONAL	VERTICAL DIAGONAL
1.	50' thru 65'	3'-0"	4'-11 3/4"	4'-5"	9 1/4"	8"X4.5X25'-0", 3GA	5'-10 13/16"	7 7/16"	1 3/8"	3 1/2"	4 3/4"	8"	12"	6 5/8"	3'-9"	1 1/2"	10"	5/8"	3'-3 5/8"	11"	Split Tee 3'-8"	4 3/4" X .188"	2" X .188"	1.660"X .140"
2.	70' thru 75'	4'-0"	4'-10 1/4"	5'-7"	9 1/4"	8"X6.22X25'-6", 3GA	6'-7 1/8"	7 7/16"	1 3/8"	5/8"	4 3/4"	7 3/4"	12"	6 1/4"	4'-11"	1 1/2"	9 1/2"	5/8"	4'-5 5/8"	11"	Split Tee 4'-10"	4 3/4"X .188"	2' X .188"	1.900"X .145"
3.	76' thru 80'	4'-0"	4'-10 1/4"	5'-7"	11"	8"X6.22X25'-6", 3GA	6'-7 1/8"	8 1/2"	1 1/2"	5/8"	4 3/8"	7 3/4"	12"	6 1/4"	4'-11"	1 1/2"	9 1/2"	5/8"	4'-5 5/8"	11"	Split Tee 4'-10"	5 1/2"X .250	2 1/2"X .188"	1.900"X .145"
4.	81' thru 110'	5'-0"	4'-8 1/2"	6'-7"	11"	8"X6.18X26'-0", 3GA	7'-3 1/4"	8 1/2"	1 1/2"	—	3 1/2"	7 3/4"	12"	7 1/4"	5'-11"	1 3/4"	11 1/4"	3/4"	5'-5 5/8"	11'	Split Tee 5'-10"	5 1/2"X .250	2 1/2"X .188	2 1/2" X .188

REINFORCEMENT SCHEDULE			
MARK	NO.	LENGTH	TYPE
401	12"C/C	8'-6"	102
402	12"C/C	7"-6"	103
601	4	D+4'-0"	101
602	8	D+2'-0"	101
603	32	D_T − 6"	STR.



BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORTS

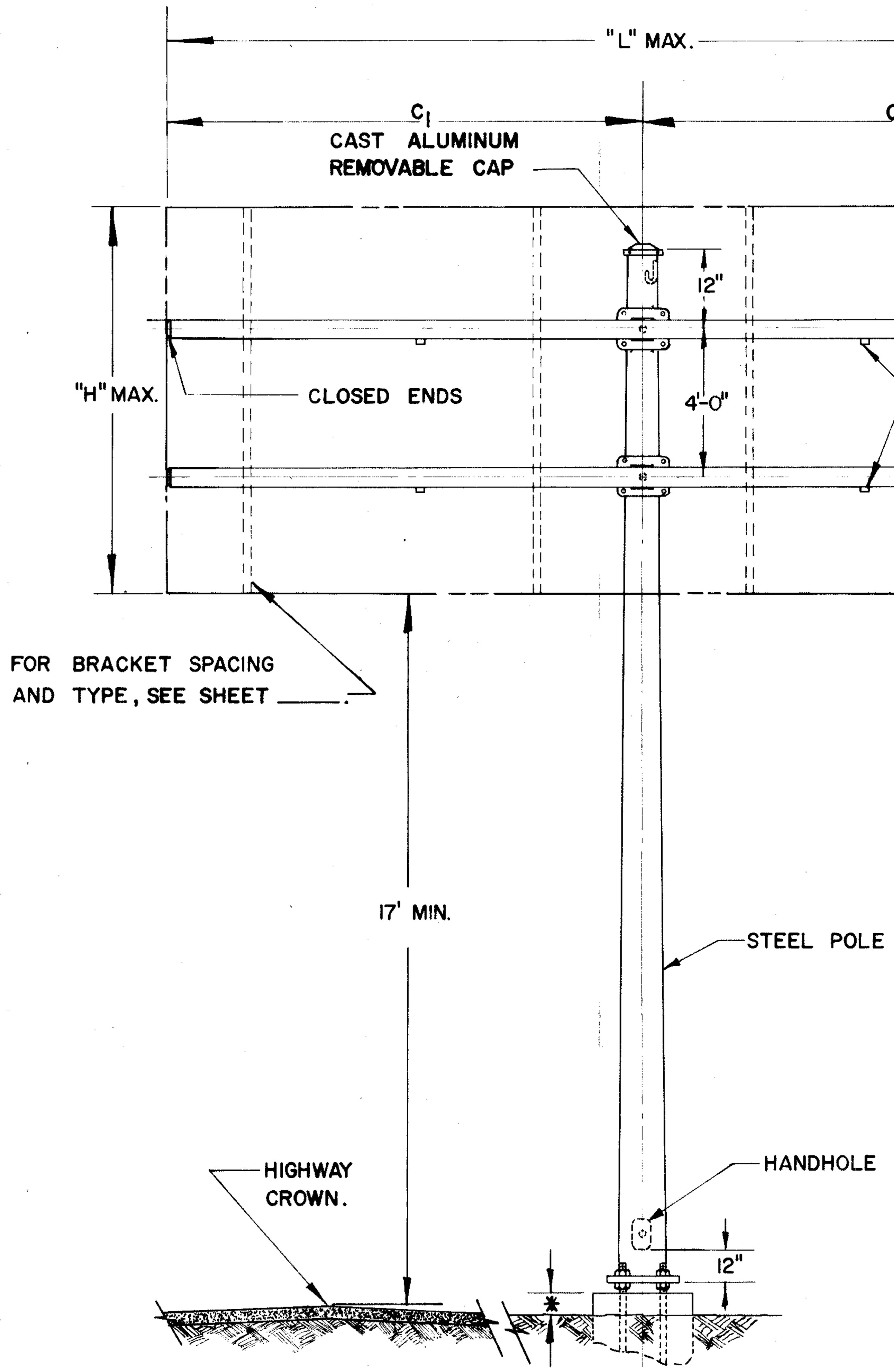
816 No.7.6

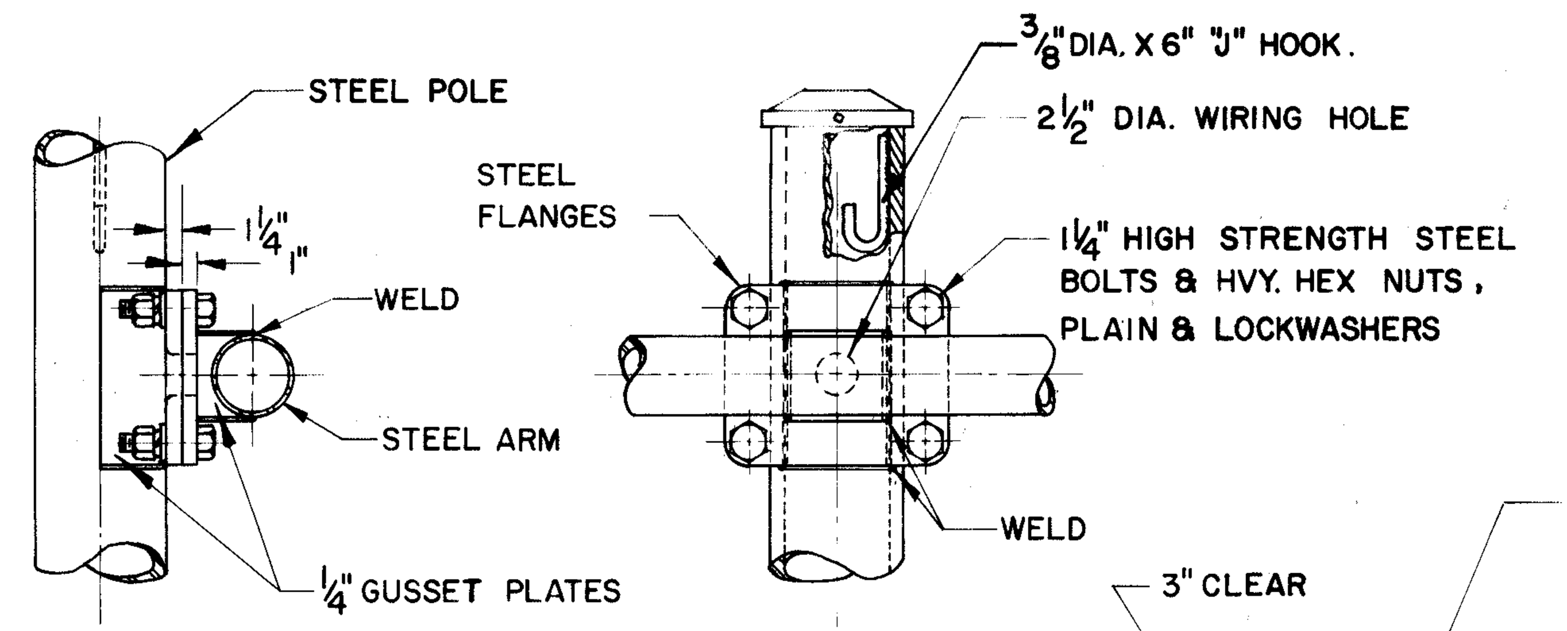
DATE 5-6-64 5-5-64 6-20-60

APPROVED ____________ ENGINEER OF TRAFFIC

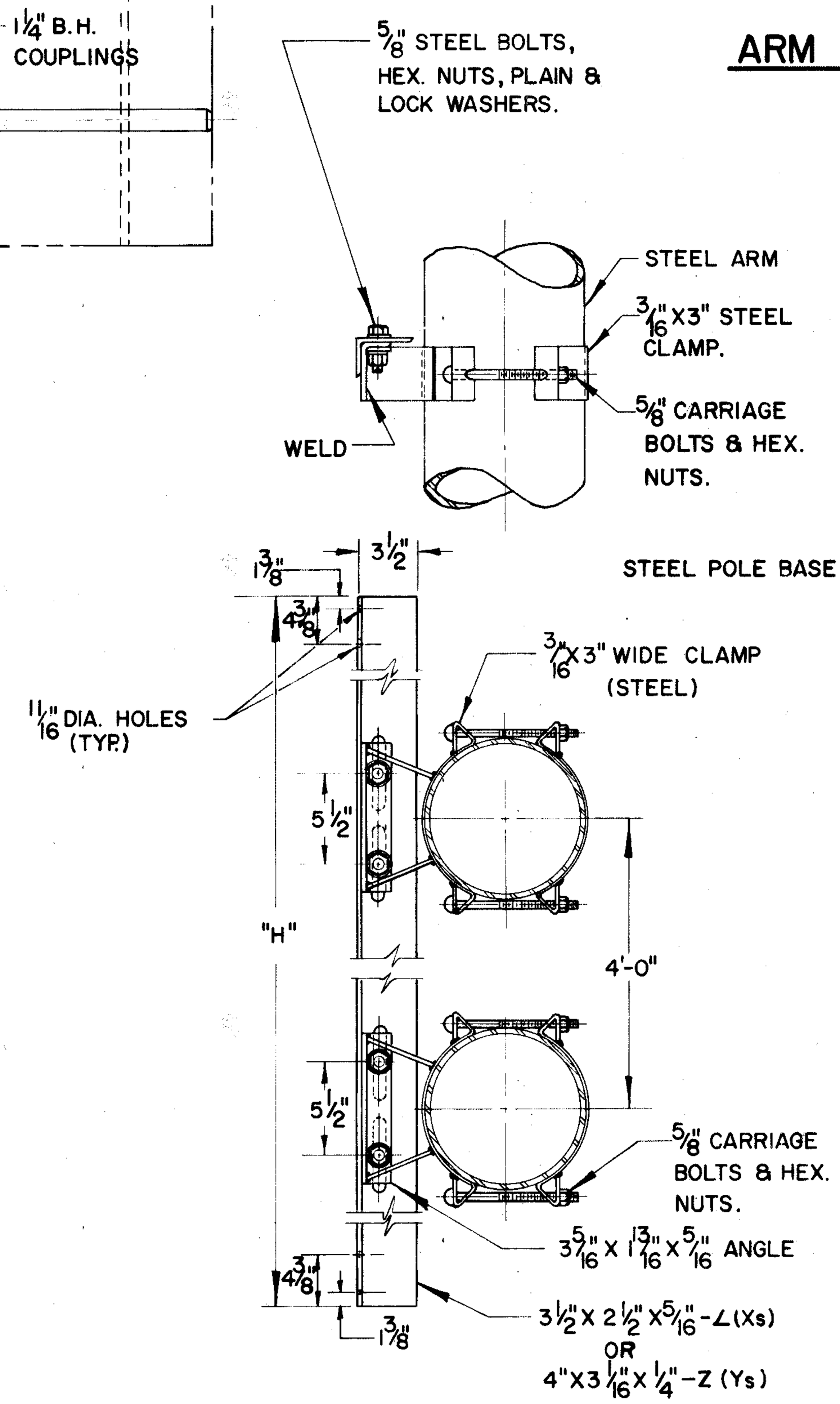
22/36

600 SQ. FT. SIGN AREA OVERHEAD SIGN SUPPORT, 816 NO.7.6

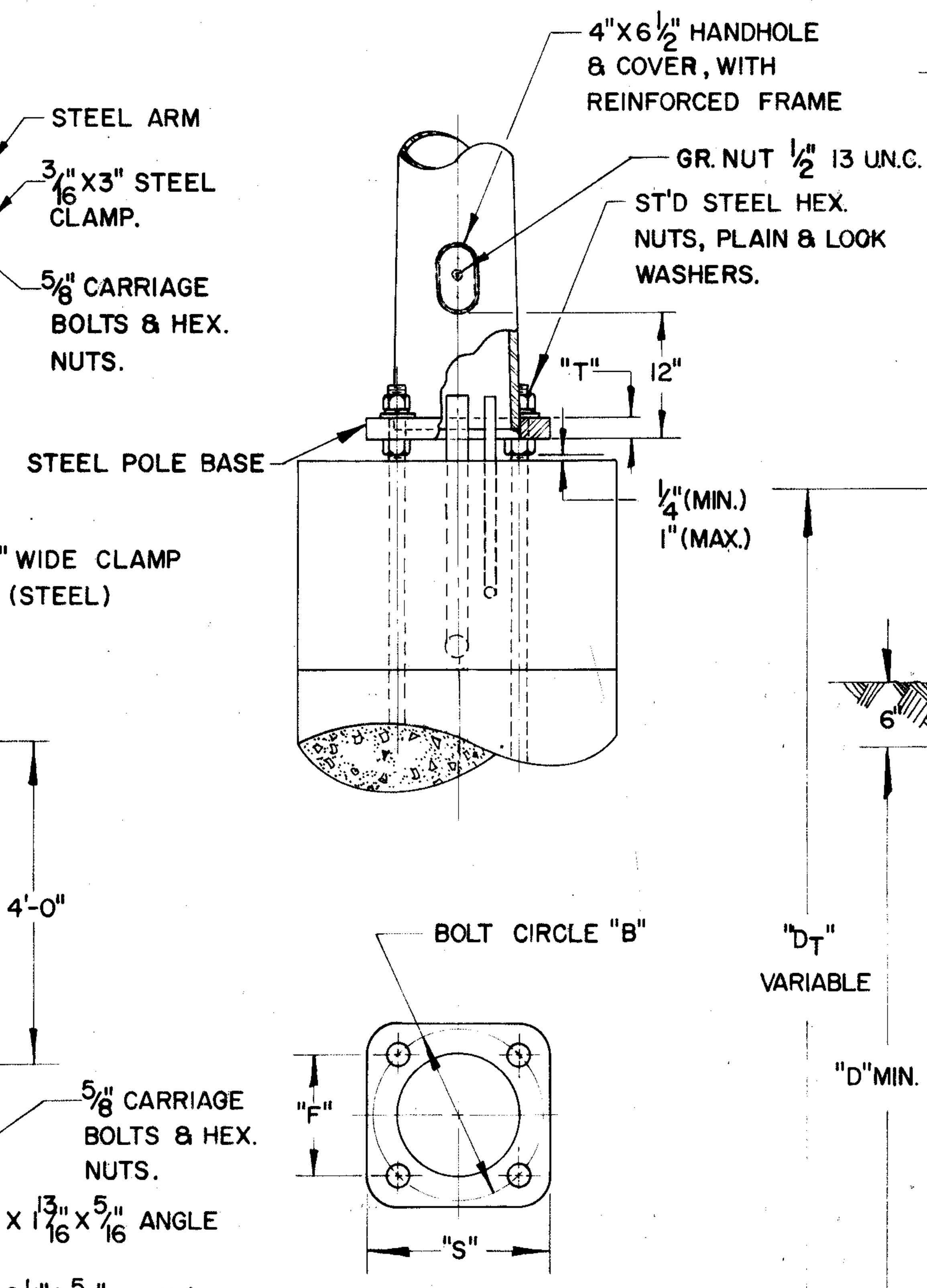




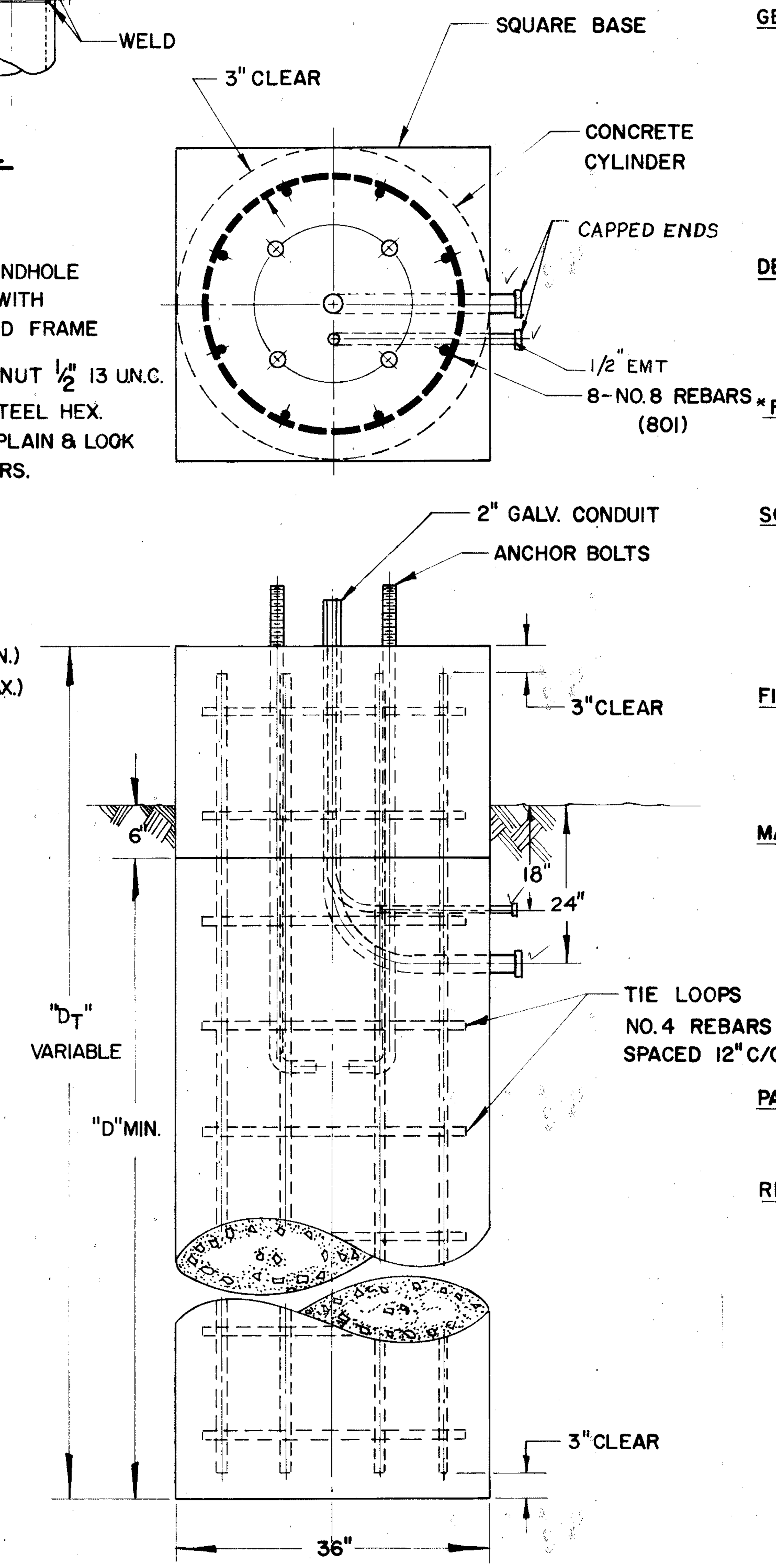
ARM ATTACHMENT DETAIL



SIGN ATTACHMENT DETAIL



POLE DETAIL

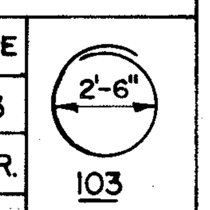


FOUNDATION DETAIL

DESIGN	POLE SIZE (STD.)	MAX. ARM SIZE	MAX. SIGN LENGTH "L"	MAX. SIGN AREA	B	F	P	S	T	ANCHOR BOLTS	"D" MIN.
1.	3GA. 14"X10.78"X23'	4" SCH.40 12'-0"	24'-0"	120 SQ FT	20"	14⅛"	7"	20½"	2"	1¾" X 90"	9'
2.	3GA. 16.5"X13"X 25'	4"SCH.40 9'-0"	18'-0"	180 SQ FT	23½"	16⅝"	8"	24½"	2"	2" X 96"	11'
3.	3GA. 16.5"X13.28"X23'	6"SCH.40 12'-0"	24'-0"	180 SQ FT	23½"	16⅝"	8"	24½"	2"	2" X 96"	11'
4.	0GA. 18"X 14.5"X25'	6"SCH.40 12'-0"	24'-0"	240 SQ FT	25½"	18"	9"	26½"	2½"	2¼"X96"	13'

REINFORCEMENT SCHEDULE

MARK	NO.	LEN.	TYPE
402	12"c/c	8'-6"	103
801	8	D_T-6"	STR.



NOTES

GENERAL

MAXIMUM SIGN AREAS AND ARM LENGTHS SHOWN IN TABLE, ARE FOR BALANCED DESIGN ($C_1 = C_2$).

FOR UNBALANCED DESIGN ($C_1 \gtrless C_2$), THE PRODUCT OF THE ACTUAL SIGN AREA (C_1 H OR C_2 H) TIMES 1/2 OF ACTUAL ARM (1/2 C_1 OR 1/2 C_2) SHALL BE LESS THAN THE PRODUCT OF 45% OF MAXIMUM SIGN AREA TIMES 1/2 MAX. ARM FOR BALANCED DESIGN. (0.45 H 2C_1 1/2C_1 OR 0.45 H 2C_2 1/2C_2).

DESIGN

THE DESIGN OF OVERHEAD SUPPORTS SHALL BE IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 13, 1961.

*** FOUNDATION**

THE TOP ELEVATION OF FOUNDATIONS SHALL BE VARIED SO AS TO MAINTAIN A MINIMUM CLEARANCE OF 17' BETWEEN THE BOTTOM OF THE SIGN AND THE HIGHWAY CROWN.

SOILS

THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY). FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY: 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

FINISH

ALL STRUCTURAL PORTIONS OF THE SIGN SUPPORTS, SIGN BRACKETS, HARDWARE AND CONDUIT SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH SEC. 711.02 (EXCEPT AS OTHERWISE SHOWN).

MATERIALS

ALL MATERIALS TO BE FURNISHED SHALL BE IN ACCORDANCE WITH SEC. 711.02 WITH THE FOLLOWING ADDITIONS:

TAPERED TUBES SHALL BE STEEL, SAE 1015 AND COLD ROLLED TO OBTAIN A MINIMUM YIELD STRENGTH OF 48,000 PSI.

STEEL PIPE: 4" DIAMETER AND UNDER SHALL BE STEEL ASTM-A 120, OVER 4" DIA. SHALL BE ASTM-A 53 GRADE B.

ANCHOR BOLTS SHALL BE HIGH STRENGTH STEEL ASTM-A107, GRADE C-1035.

HIGH STRENGTH CLAMPS SHALL BE STEEL ASTM-A242.

PAYMENT FOR CONDUIT

PAYMENT FOR THE GALVANIZED CONDUIT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS.

REINFORCING STEEL

COST OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS.

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.

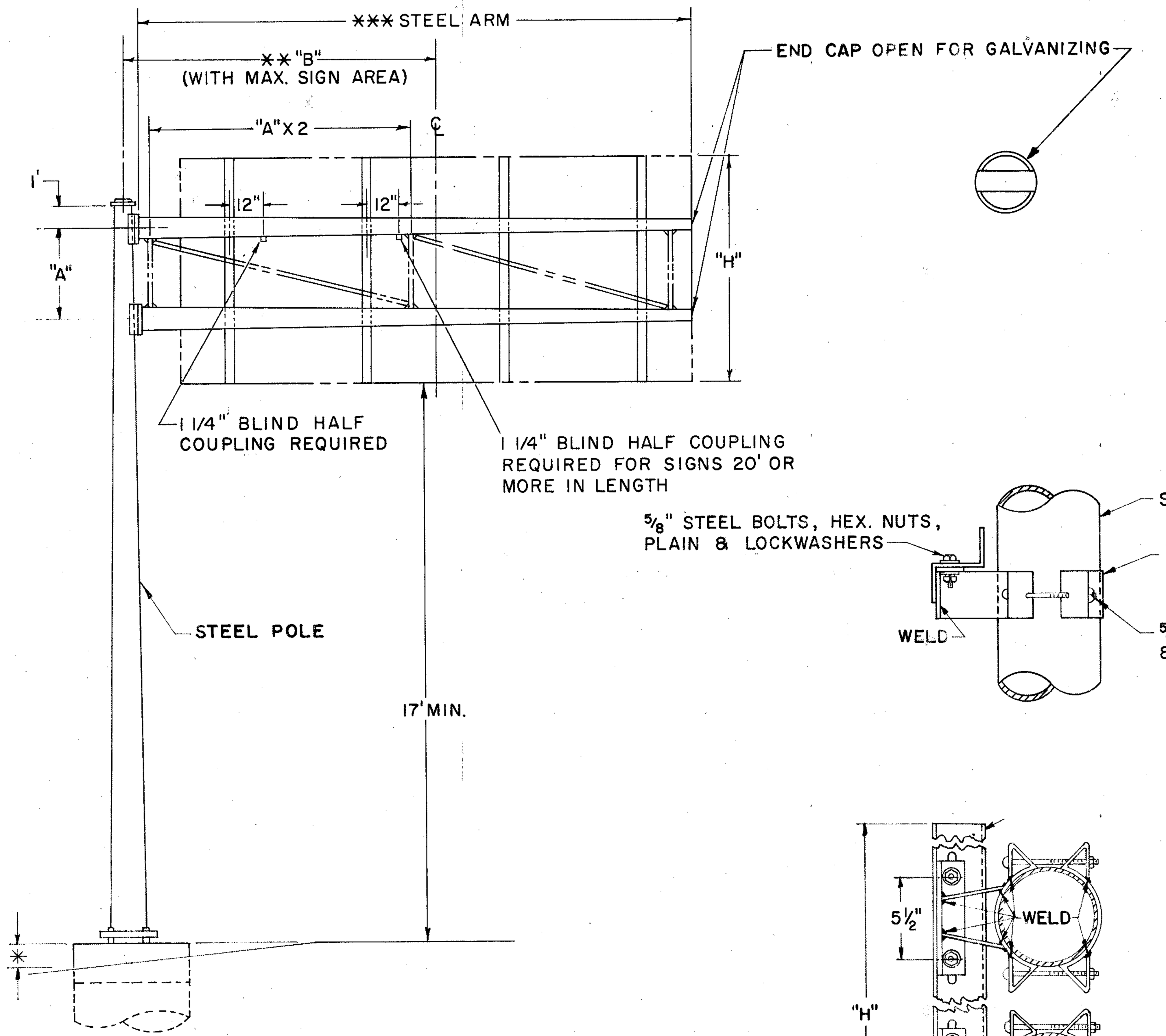
BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORT

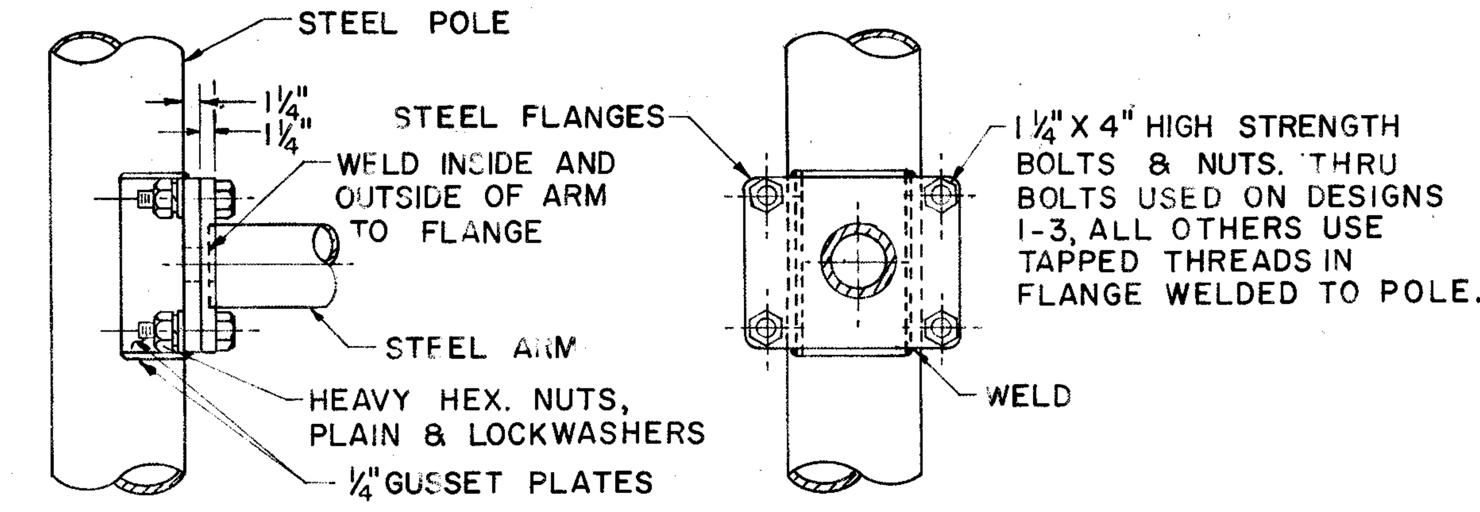
816 No. 9.24

DATE 6-17-64 7-8-66

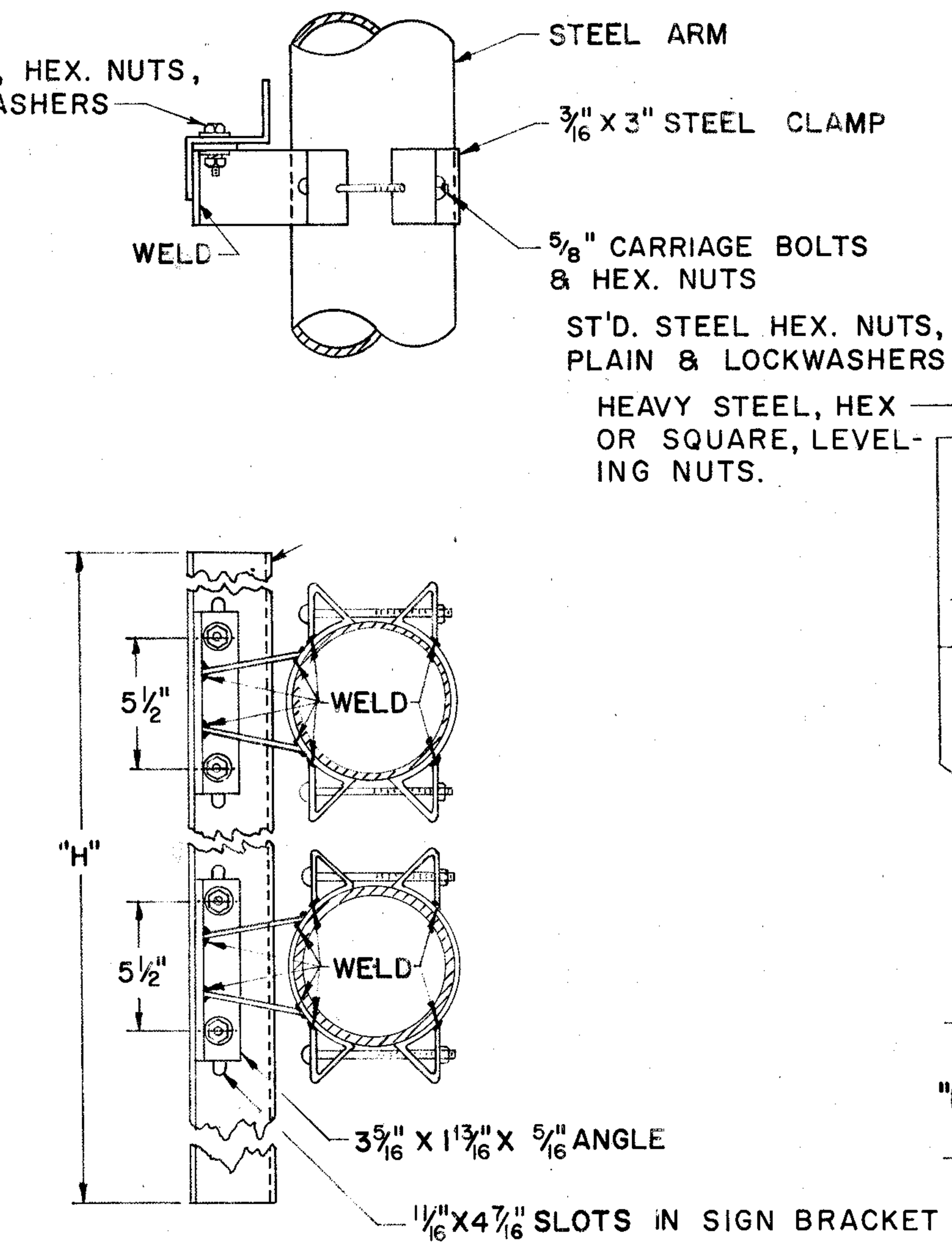
APPROVED ____________
ENGINEER OF TRAFFIC

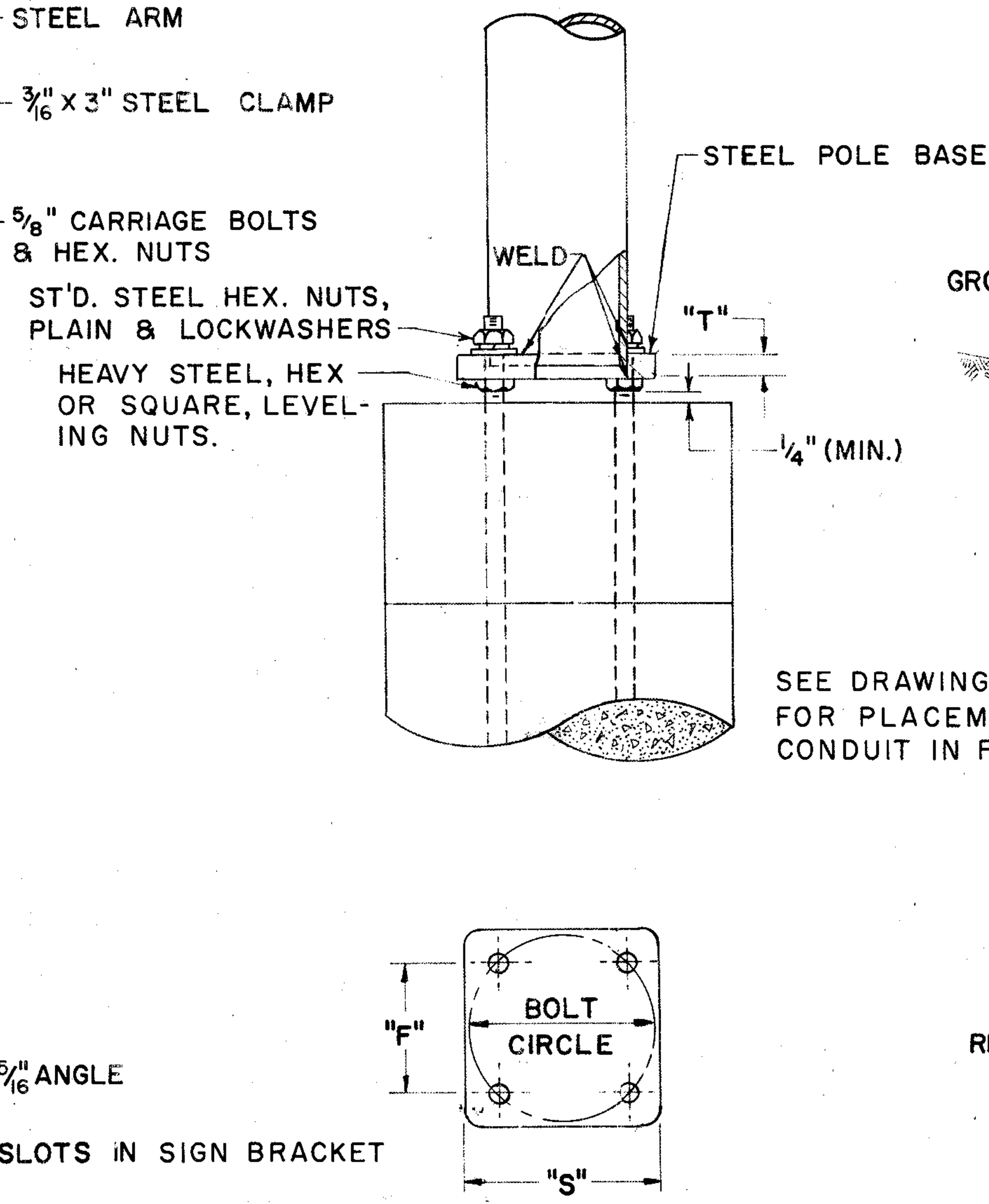


NOTE:
THE 12" DIMENSION SHOWN FOR BLIND HALF COUPLINGS MAY BE INCREASED OR DECREASED WHEN NECESSARY TO TO PREVENT INTERFERENCE WITH OTHER MEMBERS.



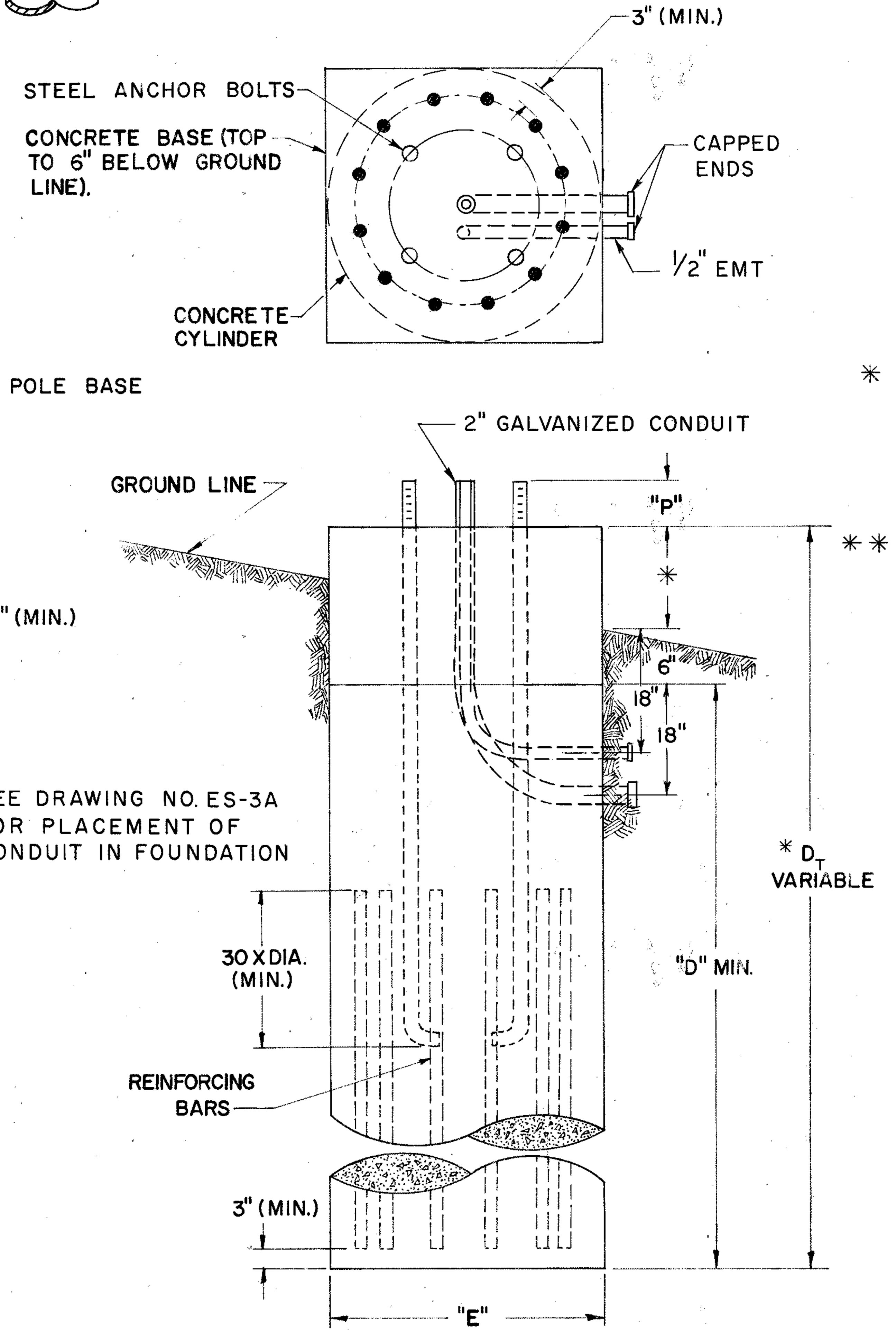
ARM ATTACHMENT





SEE DRAWING NO. ES-3A FOR PLACEMENT OF CONDUIT IN FOUNDATION

POLE BASE DETAIL



FOUNDATION DETAIL

NOTES

FABRICATION - ALL PORTIONS OF THE SIGN SUPPORT, INCLUDING SIGN ATTACHMENTS, SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF A.S.T.M. DESIGNATIONS A-123 AND A-153. THE CONDUIT SHALL BE GALVANIZED IN ACCORDANCE WITH SEC. 625.13 AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS FOR PAYMENT.

* FOUNDATION - THE TOP ELEVATION OF FOUNDATIONS SHALL BE VARIED SO AS TO MAINTAIN A MINIMUM CLEARANCE OF 17' BETWEEN THE BOTTOM OF THE SIGN AND THE HIGHWAY CROWN.

** ERECTION - VALUES OF "B" MAY BE EXCEEDED PROVIDED THE PRODUCT OF ACTUAL SIGN AREA TIMES THE DISTANCE FROM ℄ OF POLE TO ℄ OF SIGN DOES NOT EXCEED THE MAX. SIGN AREA TIMES "B".

*** ARMS 20' LONG OR LONGER ARE TO BE TRUSS TYPE WITH 3" X 3" X 3/8" ANGLES WELDED TO GUSSET PLATES.

MATERIAL - STEEL POLE BASES, FLANGES, AND END CAPS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 30 GRADE B.
HIGH STRENGTH STEEL BOLTS SHALL CONFORM TO ASTM SPECIFICATION A193 GRADE B7
AFTER FABRICATION TAPERED POLES AND ARMS SHALL HAVE A MINIMUM YIELD STRENGTH OF 48,000 PSI.

SOILS - THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY). FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

REINFORCING STEEL - REINFORCING STEEL AS SHOWN IN TABLE SHALL BE INSTALLED WHEN "D_T" EXCEEDS THE ANCHOR BOLT LENGTH BY MORE THAN 3 FT. THE COST AND PLACEMENT OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS.

DESIGN

THE DESIGN OF OVERHEAD SUPPORTS IS IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 12, 1961.

SIGN ATTACHMENT DETAIL

DESIGN NO.	POLE SIZE	*** ARM SIZE	DIM A	DIM ** B	DIM "D" MIN.	DIM E	DIM F	DIM P	DIM S	DIM T	BOLT CIRCLE	ANCHOR BOLT SIZE	MAX SIGN AREA	REINF. BARS SIZE	REINF. BARS # REQ'D
1	3 Ga, 12" X 8.78" X 23'-0"	7Ga, 6.9" X 4.66" X 16'-0"	4'	12'	9'	3'-0"	11 5/16"	7¾"	17"	2"	16"	1¾" X 90"	80	¾"	12
2	3 Ga, 12" X 8.78" X 23'-0"	7 Ga, 8" X 5.2" X 20'-0"	4'	16'	9'	3'-0"	11 5/16"	7¾"	17"	2"	16"	1¾" X 90"	80	¾"	12
3	3 Ga, 15" X 11.5" X 25'-0"	7 Ga, 8.3" X 6.06" X 16'-0"	4'	12'	11'	3'-0"	15½"	8⅜"	23"	2"	22"	2" X 96"	120	1"	12
4	3 Ga, 16" X 12.5" X 25'-0"	3 Ga, 9.2" X 6.40" X 20'-0"	4'	16'	11'	3'-0"	16⅝"	8⅜"	24½"	2"	23½"	2" X 96"	120	1"	12
5	0 Ga, 18" X 14.36" X 26'-0"	7 Ga, 11" X 7.92" X 22'-0"	6'	14'	13'	3'-0"	18"	9⅜"	26½"	2½"	25½"	2¼" X 120"	180	1⅛"	12
6	0 Ga, 18" X 14.36" X 26'-0"	7 Ga, 12.5" X 8.86" X 26'-0"	6'	18'	13'	3'-0"	18"	9⅜"	26½"	2½"	25½"	2¼" X 120"	180	1⅛"	12
7	2 PLY 7 Ga, 18" X 14.36" X 26'-0"	7 Ga, 12.5" X 9.14" X 24'-0"	6'	14'	15'	3'-0"	18"	9¾"	26½"	2½"	25½"	2½" X 144"	240	1¼"	12
8	2 PLY ¼", 18" X 14.36" X 26'-0"	3 Ga, 12.5" X 8.58" X 28'-0"	6'	18'	15'	3'-0"	18"	11¼"	26½"	3"	25½"	3" X 144"	240	1¼"	12

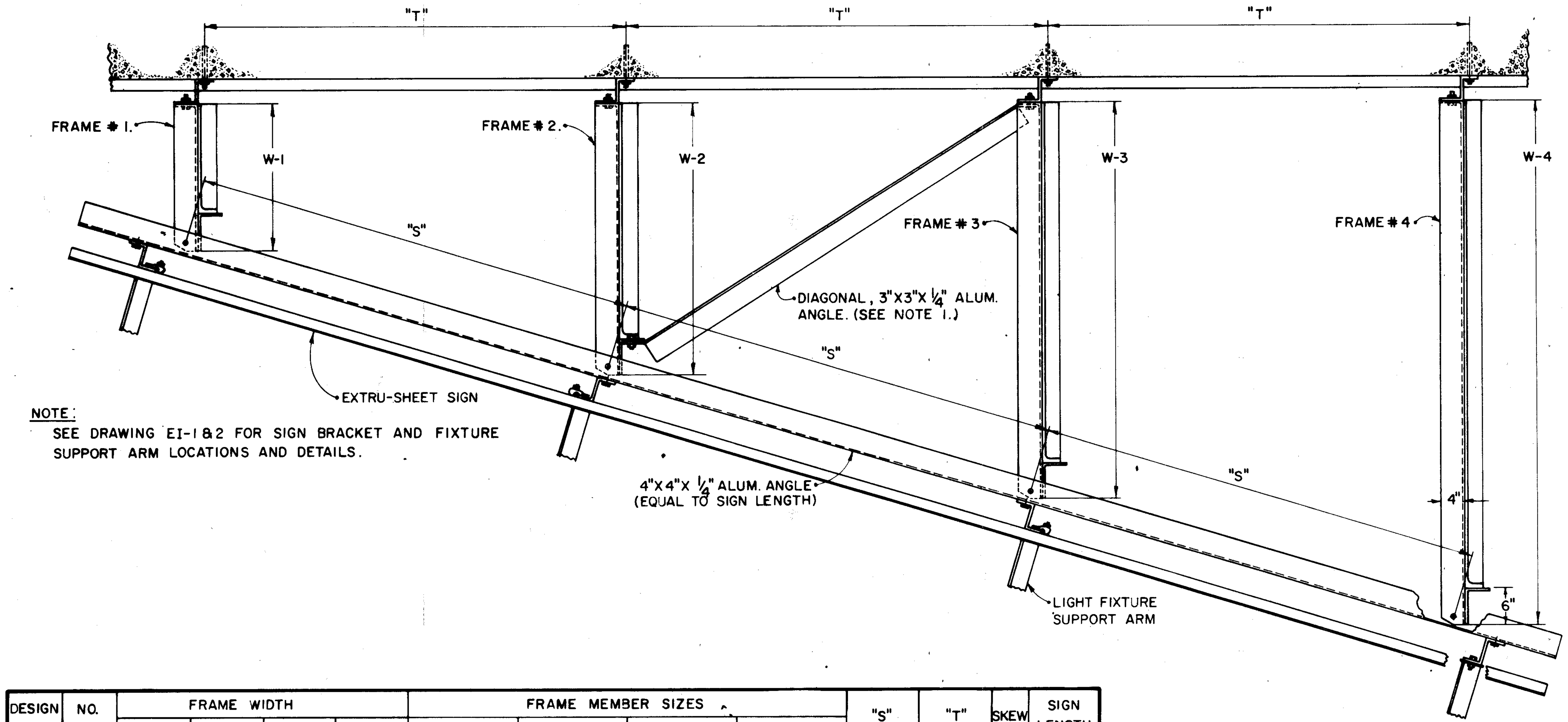
BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORT | 816 No. 12.24 | DATE 8-18-61, 4-11-62, 4-18-67

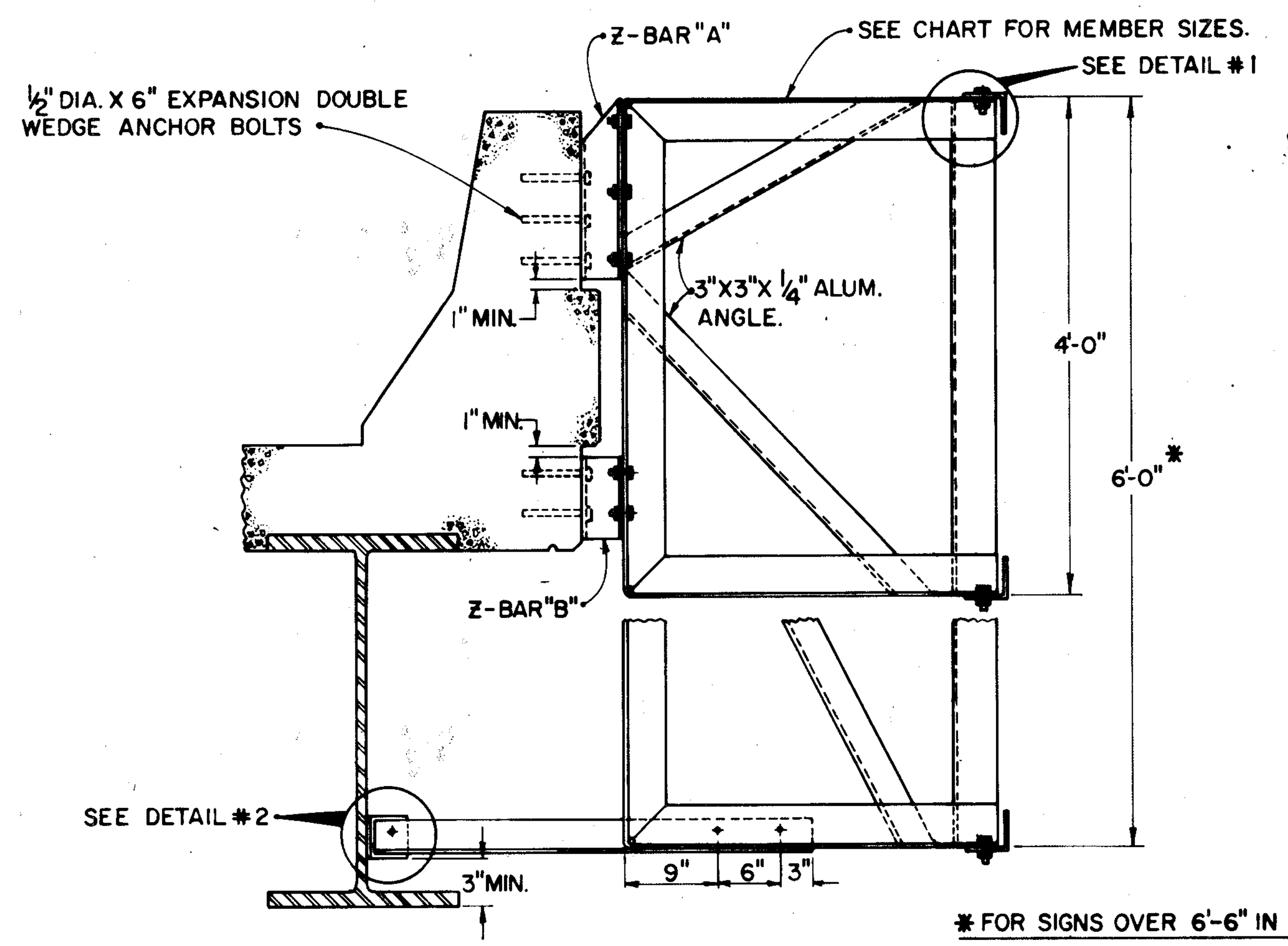
APPROVED Robert E. Conner
ENGINEER OF TRAFFIC

24/36

HAM. 275-3.86
HAMILTON COUNTY



NOTE:
SEE DRAWING EI-1 & 2 FOR SIGN BRACKET AND FIXTURE SUPPORT ARM LOCATIONS AND DETAILS.

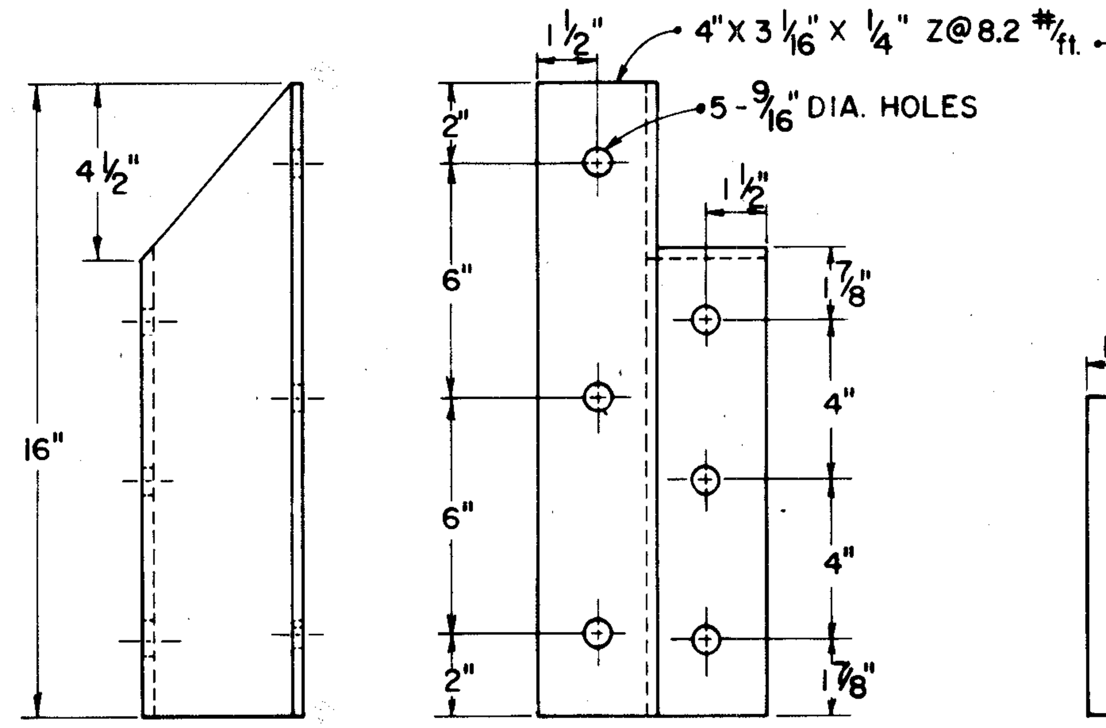


* FOR SIGNS OVER 6'-6" IN HEIGHT.

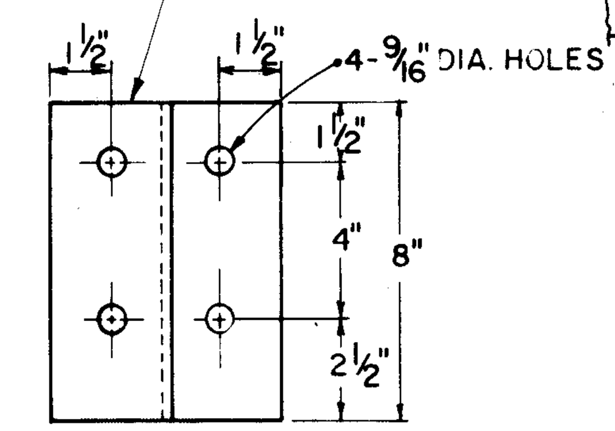
<table>
<tr><th rowspan="2">DESIGN NO.</th><th rowspan="2">NO. FRAMES</th><th colspan="4">FRAME WIDTH</th><th colspan="4">FRAME MEMBER SIZES</th><th rowspan="2">"S"</th><th rowspan="2">"T"</th><th rowspan="2">SKEW</th><th rowspan="2">SIGN LENGTH</th></tr>
<tr><th>W-1</th><th>W-2</th><th>W-3</th><th>W-4</th><th>#1</th><th>#2</th><th>#3</th><th>#4</th></tr>
<tr><td>1</td><td>2</td><td rowspan="10">2'-0"</td><td>3'-0 1/2"</td><td></td><td></td><td rowspan="10">3"X3"X 1/4"</td><td rowspan="3">3'X3'X 1/4"</td><td></td><td></td><td>4'-0"</td><td>3'-10 3/8"</td><td rowspan="4">15°</td><td>4' to 5'</td></tr>
<tr><td>2</td><td>2</td><td rowspan="3">3'-6 5/8"</td><td></td><td></td><td></td><td></td><td>6'-0"</td><td rowspan="3">5'-9 1/2"</td><td>6' to 11'</td></tr>
<tr><td>3</td><td>3</td><td rowspan="2">5'-1 1/4"</td><td></td><td>4"X4"X 1/4"</td><td></td><td>2@ 6'-0"</td><td>12' to 19'</td></tr>
<tr><td>4</td><td>4</td><td>6'-7 7/8"</td><td rowspan="5">4"X4"X 1/4"</td><td>6"X4"X 3/8"</td><td>6"X4"X 3/8"</td><td>3@ 6'-0"</td><td>20' to 25'</td></tr>
<tr><td>5</td><td>2</td><td>3'-7 7/8"</td><td></td><td></td><td></td><td></td><td>4'-0"</td><td>3'-7 7/8"</td><td rowspan="3">25°</td><td>4' to 5'</td></tr>
<tr><td>6</td><td>2</td><td rowspan="2">4'-5 1/4"</td><td></td><td></td><td></td><td></td><td>6'-0"</td><td rowspan="2">5'-5 3/4"</td><td>6' to 11'</td></tr>
<tr><td>7</td><td>3</td><td>6'-10 5/8"</td><td></td><td>6"X4"X 3/8"</td><td></td><td>2@ 6'-0"</td><td>12' to 15'</td></tr>
<tr><td>8</td><td>2</td><td>4'-3 1/2"</td><td></td><td></td><td></td><td></td><td>4'-0"</td><td>3'-3 7/8"</td><td rowspan="3">35°</td><td>4' to 5'</td></tr>
<tr><td>9</td><td>2</td><td>5'-5 3/8"</td><td></td><td></td><td rowspan="2">6"X 4"X 3/8"</td><td></td><td></td><td>6'-0"</td><td>4'-11"</td><td>6' to 11"</td></tr>
<tr><td>10</td><td>2</td><td>6'-7 1/8"</td><td></td><td></td><td></td><td></td><td>8'-0"</td><td>6'-6 5/8"</td><td>12' to 15'</td></tr>
</table>

NOTE:

1. ONLY 2-3"X3"X 1/4" (MIN. ANGLE SIZE) HORIZONTAL DIAGONAL BRACES ARE REQUIRED PER SIGN. BRACES SHALL BE ATTACHED TO THE CENTER BOLT ON Z-BAR "A" AND THE BOTTOM BOLT ON Z-BAR "B". THE OTHER ENDS OF THE BRACES SHALL BOLTED AT THE CORRESPONDING ELEVATION ON THE FRONT FRAME MEMBER AS INDICATED ABOVE.
2. ALL HARDWARE, EXCEPT EXPANSION BOLTS, SHALL BE STAINLESS STEEL.
3. DIAGONAL "K" BRACING SHALL BE 3"X3"X 1/4" MIN. ANGLE FOR ALL FRAMES.
4. ALL ALUMINUM PARTS SHALL BE INSULATED FROM GALVANIZED OR PAINTED STEEL PARTS BY NEOPRENE OR OTHER APPROVED INSULATOR MATERIAL.
5. ALL FRAMES SHALL BE INSTALLED AT THE SAME ELEVATION, BY ADJUSTING THEIR POSITION ON Z-BAR "A" & "B", REGARDLESS OF BRIDGE SLOPE.

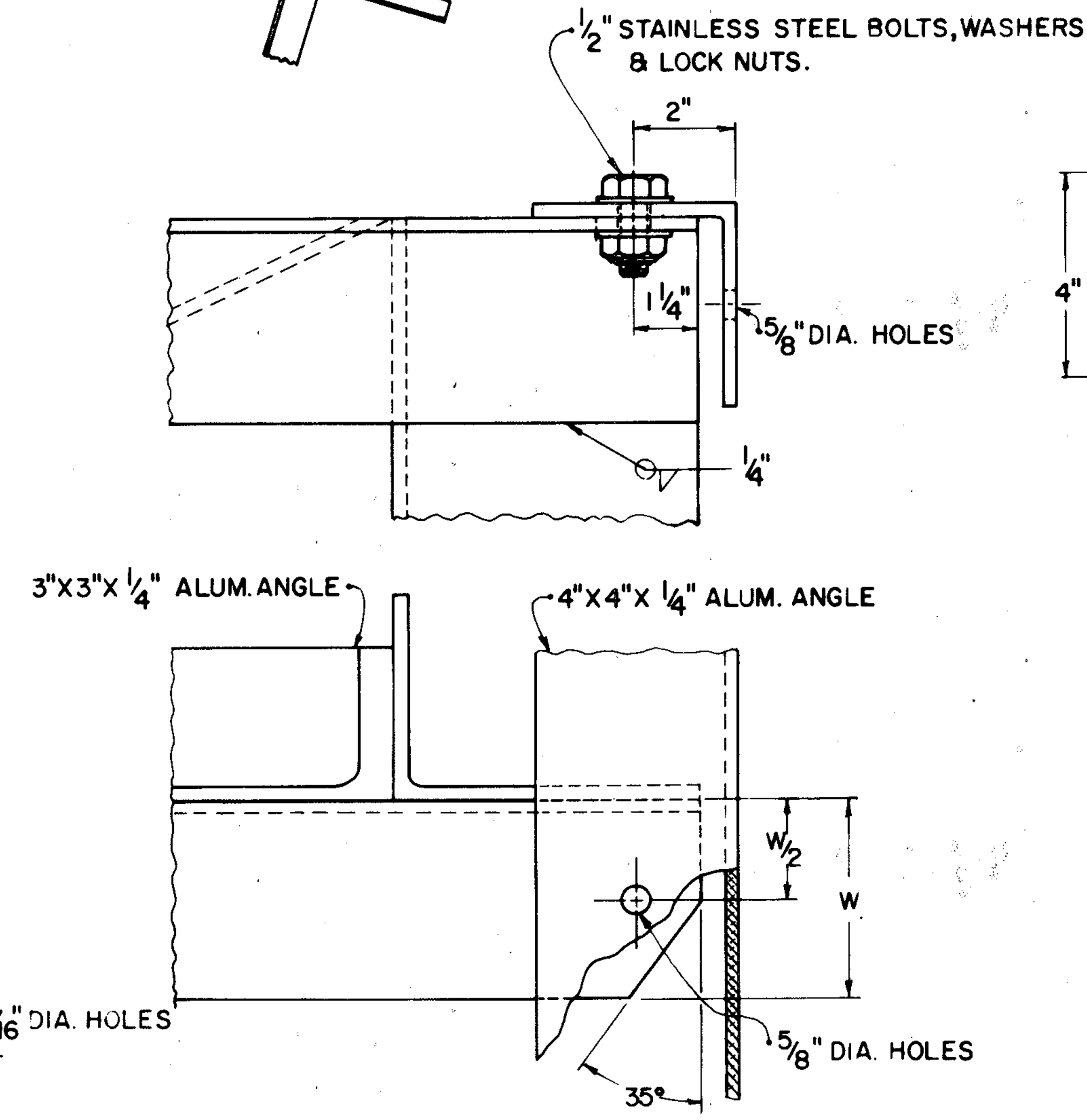


Z-BAR "A"

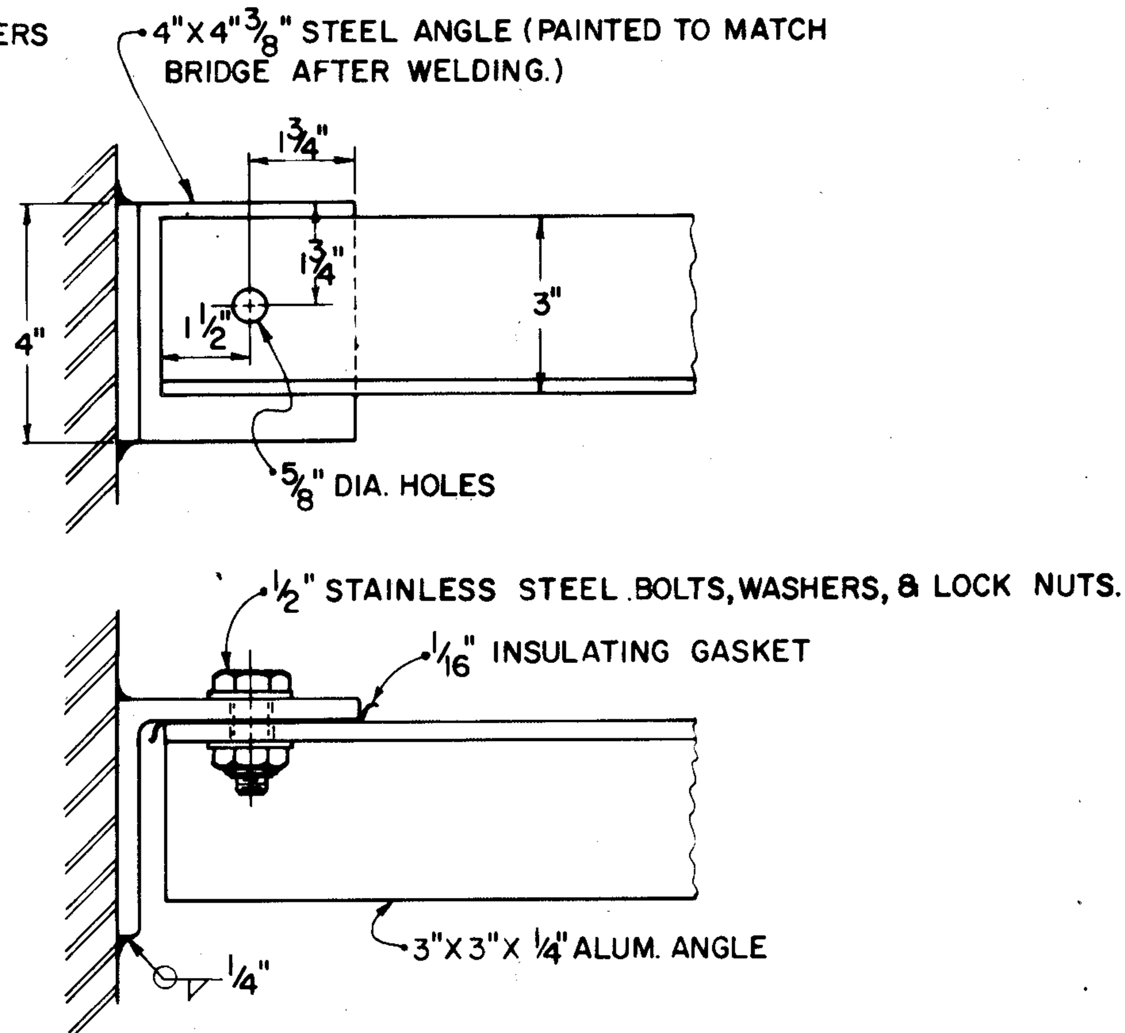


Z-BAR "B"

(Z-BAR "A" & "B" SHALL BE A36 STEEL, GALVANIZED PER ASTM A-123)



DETAIL # 1



DETAIL # 2

BUREAU OF DESIGN SERVICES OHIO DEPARTMENT OF HIGHWAYS	
SKEWED STRUCTURE MOUNTED SIGN SUPPORT	DATE 3-23-72
816-18.26	

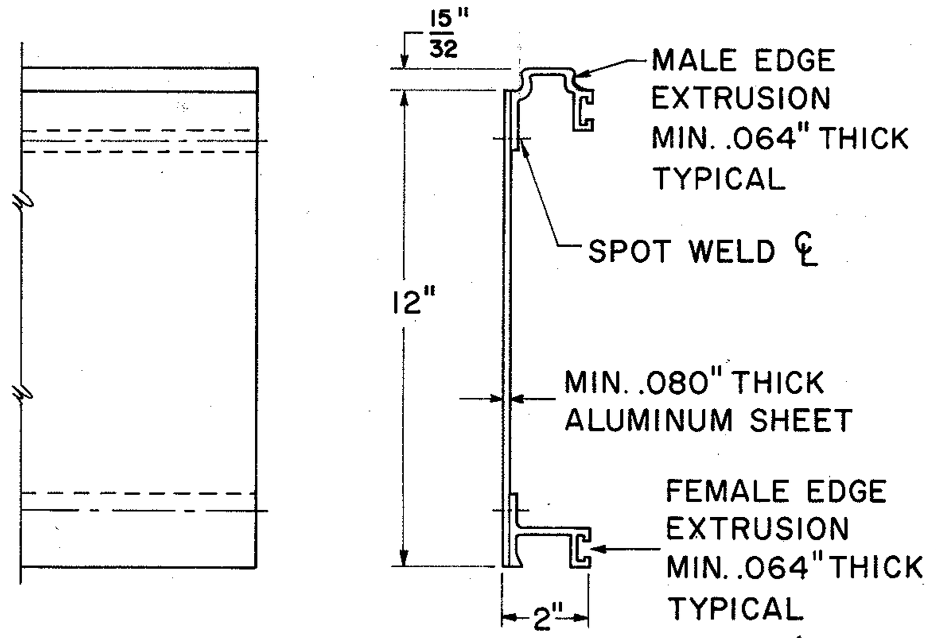
APPROVED [signature]
ENGINEER OF DESIGN SERVICES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

532/630

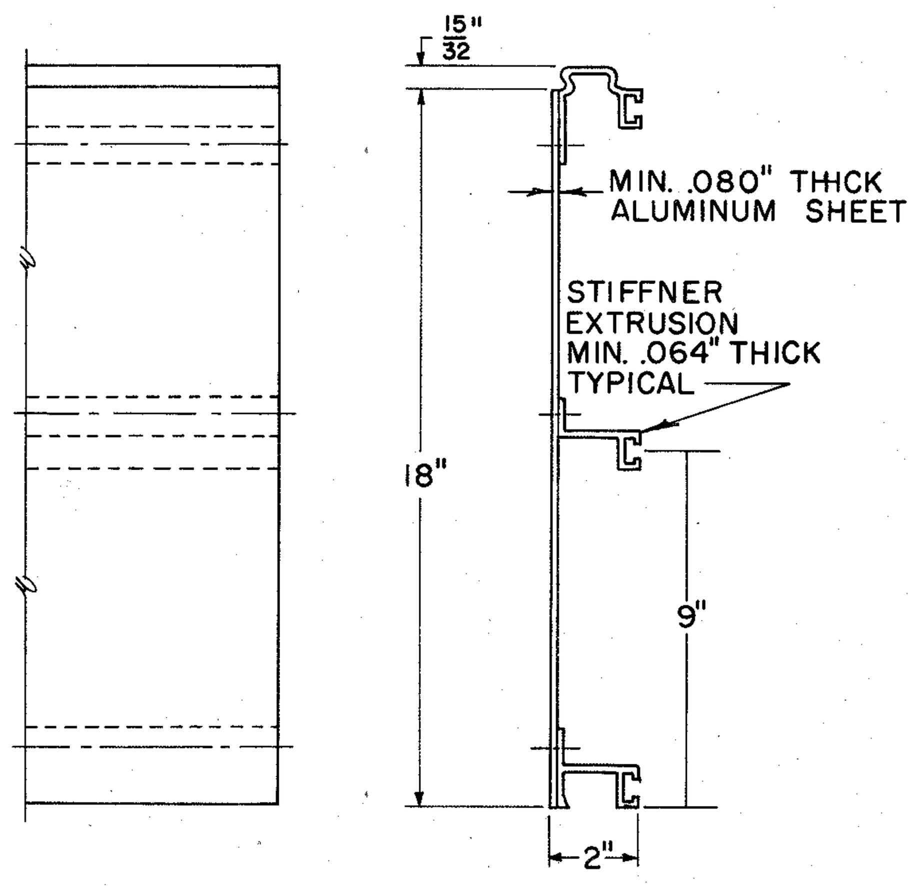
HAM 275-3.86
HAMILTON . COUNTY

12" EXTRUSHEET PANEL



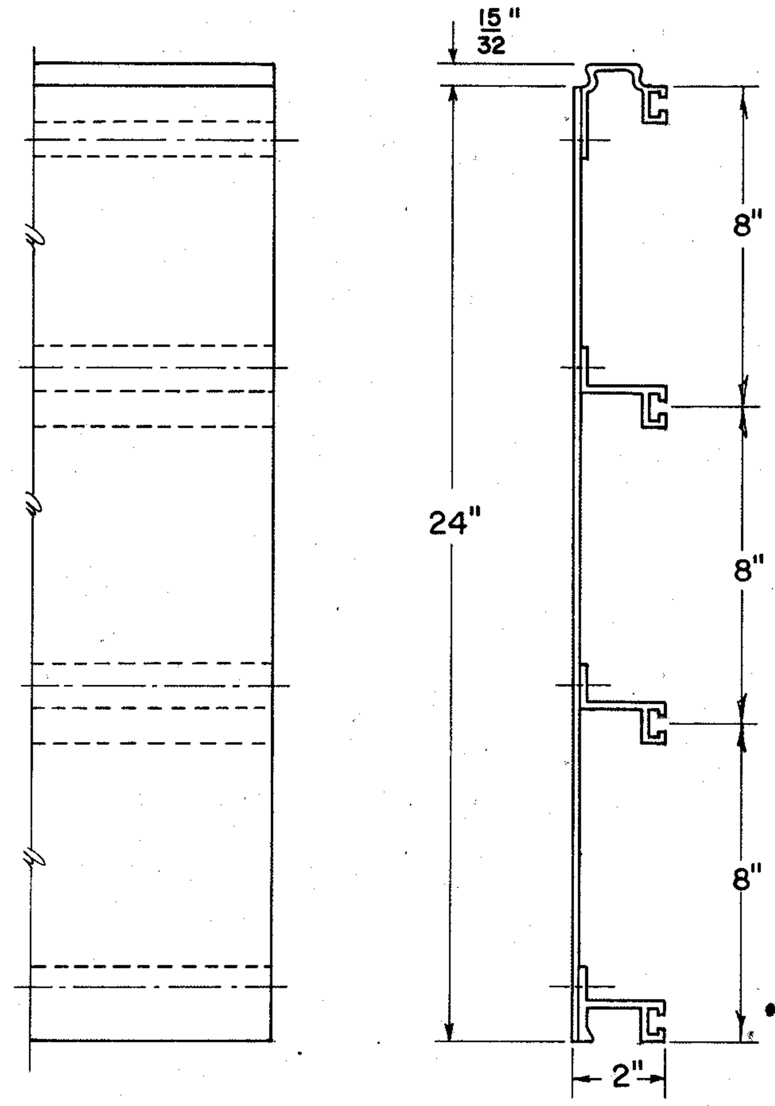
FRONT VIEW SIDE VIEW

18" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

24" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

NOTES:

EXTRUSHEET PANELS SHALL BE ALUMINUM; SPOT WELDING AND ALL MATERIALS SHALL CONFORM WITH SUPPLEMENTAL SPECIFICATION

COMBINATIONS OF 12", 18", AND 24" PANELS ARE USED TO ATTAIN REQUIRED SIGN HEIGHT.

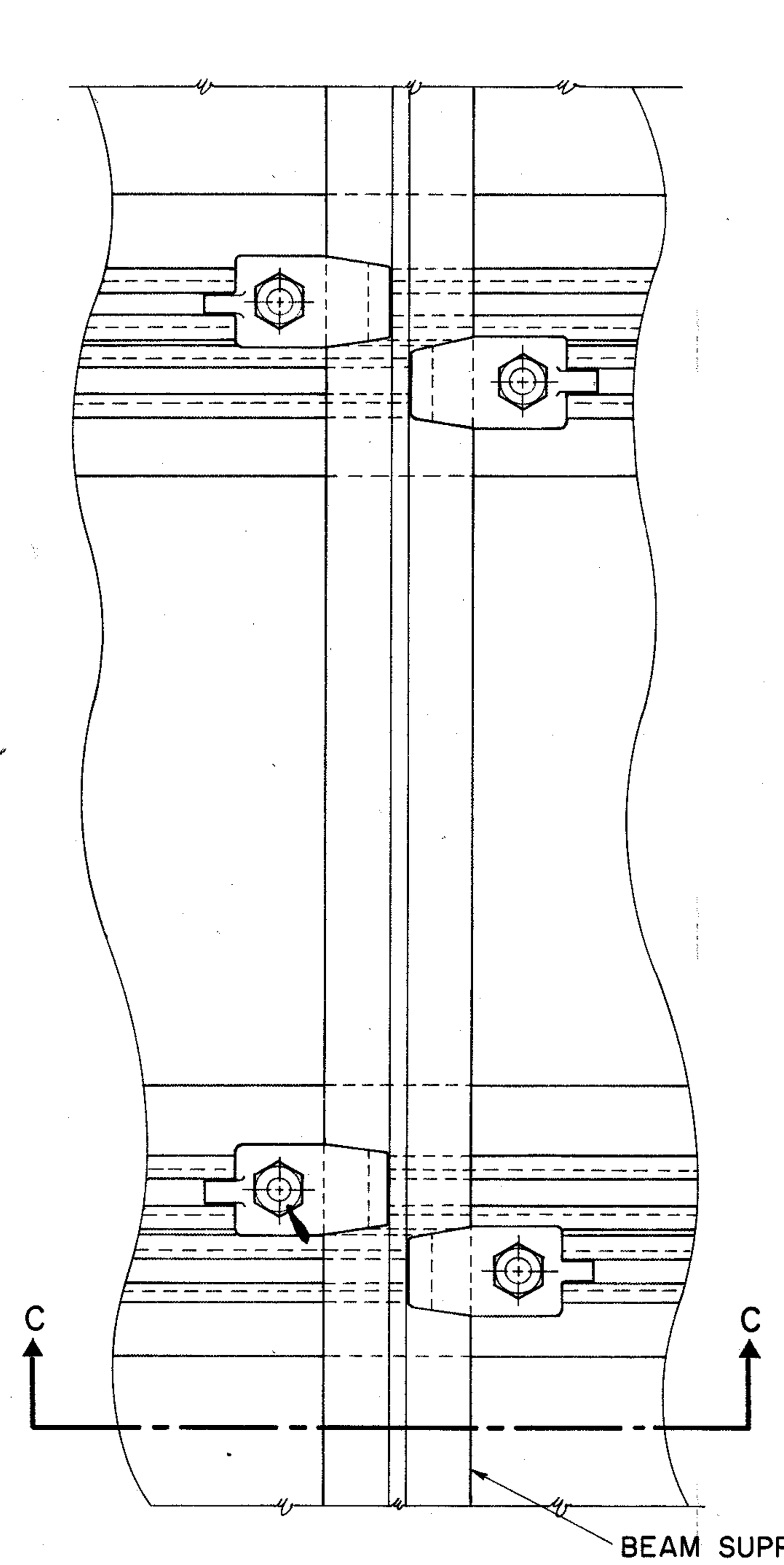
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN WITH NO SPLICES.

PANELS SHALL BE INTERLOCKED AND ERECTED WITH THE MALE EXTRUSION LOCATED AT THE TOP EDGE OF THE SIGN.

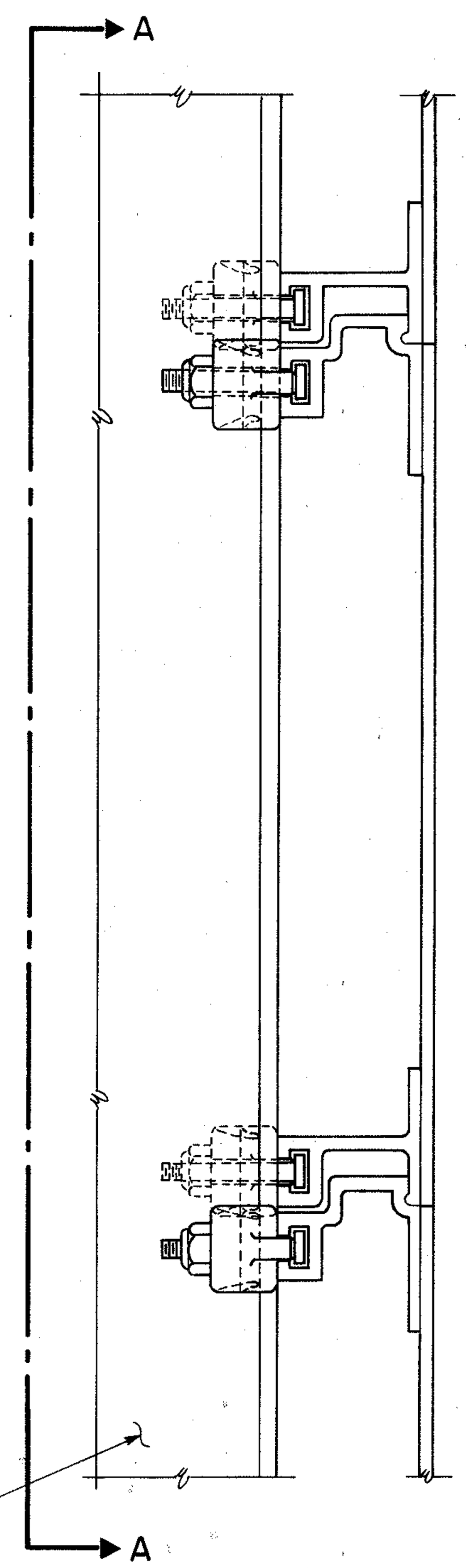
EXTRUSHEET PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND ON BOTH SIDES AT TOP AND BOTTOM EDGE OF SIGN.

THE PANELS SHALL BE DESIGNED TO WITHSTAND A WIND LOAD OF 35 POUNDS PER SQUARE FOOT, IN ACCORDANCE WITH THE A.A.S.H.O. SPECIFICATION FOR DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS.

THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0".
THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".

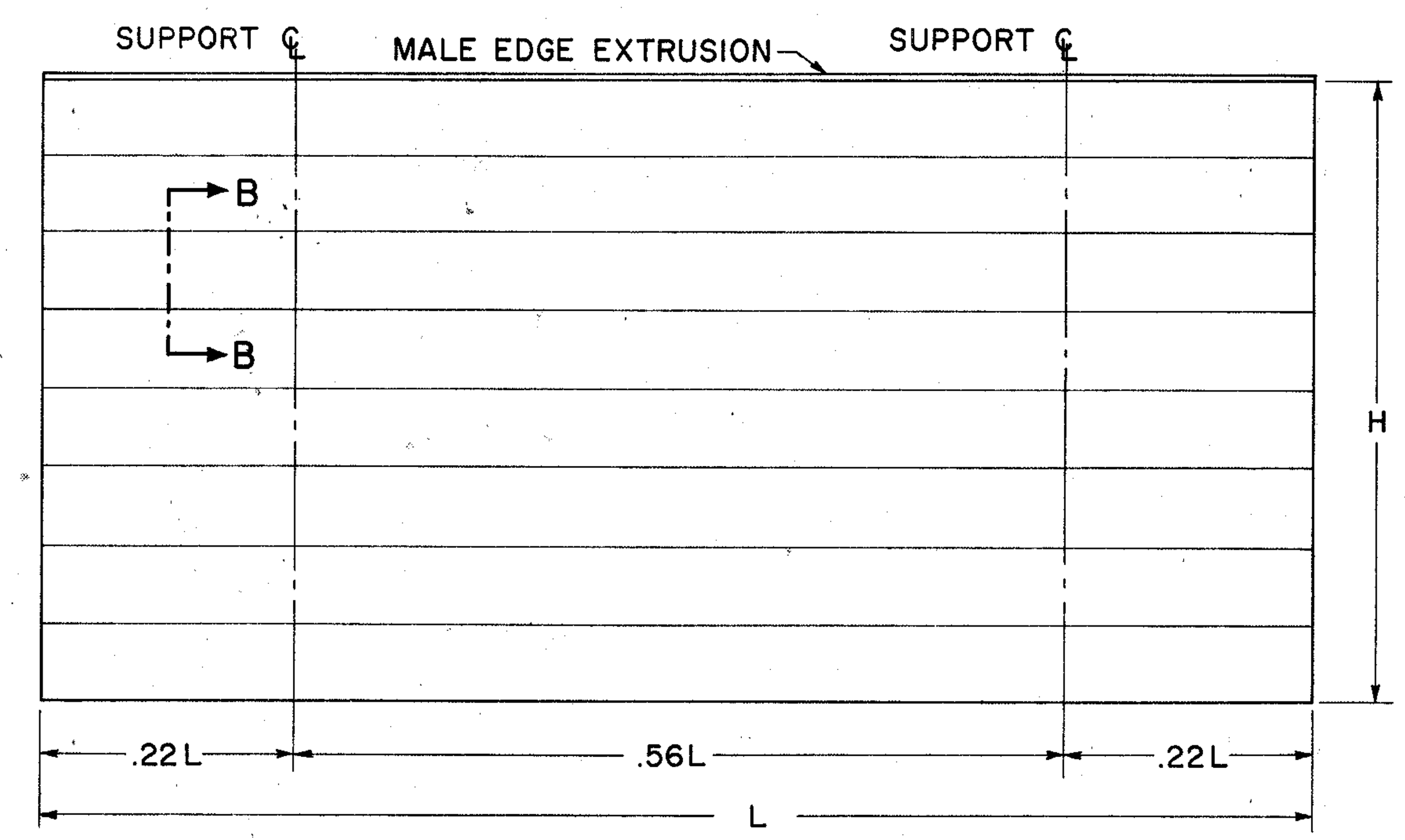


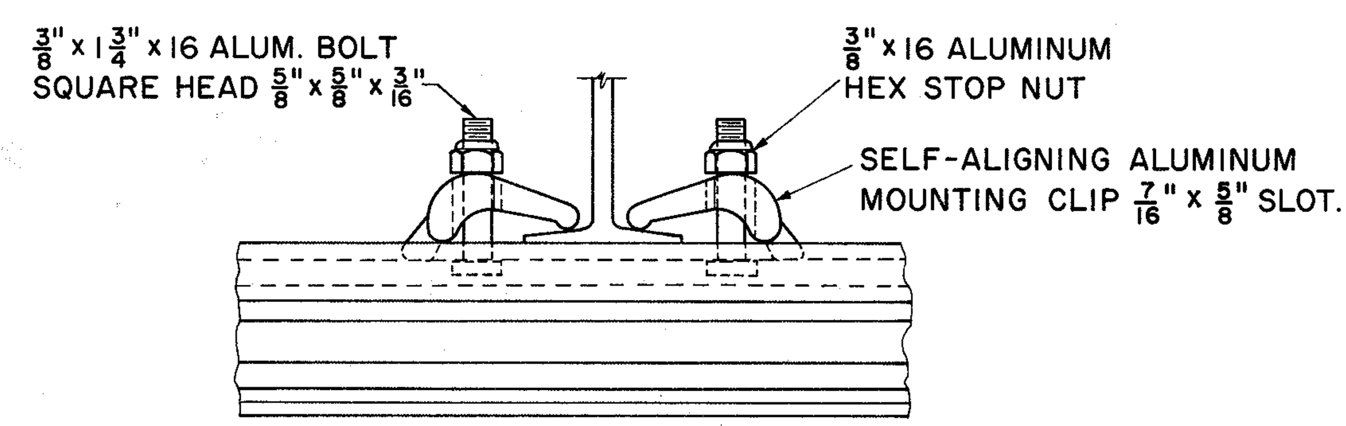
SECTION A-A



SECTION B-B

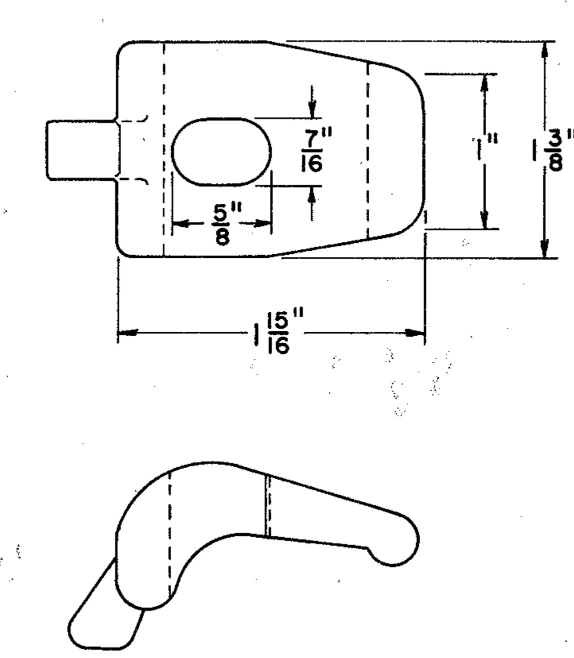
GENERAL ARRANGEMENT





SECTION C-C

CLIP DETAIL



SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING CENTER TO CENTER	MAXIMUM SPOT WELD SPACING BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM EXTRUSHEET PANEL SIGN

ECD 1

DATE
9-25-63
5-19-64
10-21-65
5-24-67

APPROVED Fred C. Jaeby
ENGINEER OF TRAFFIC

26/36

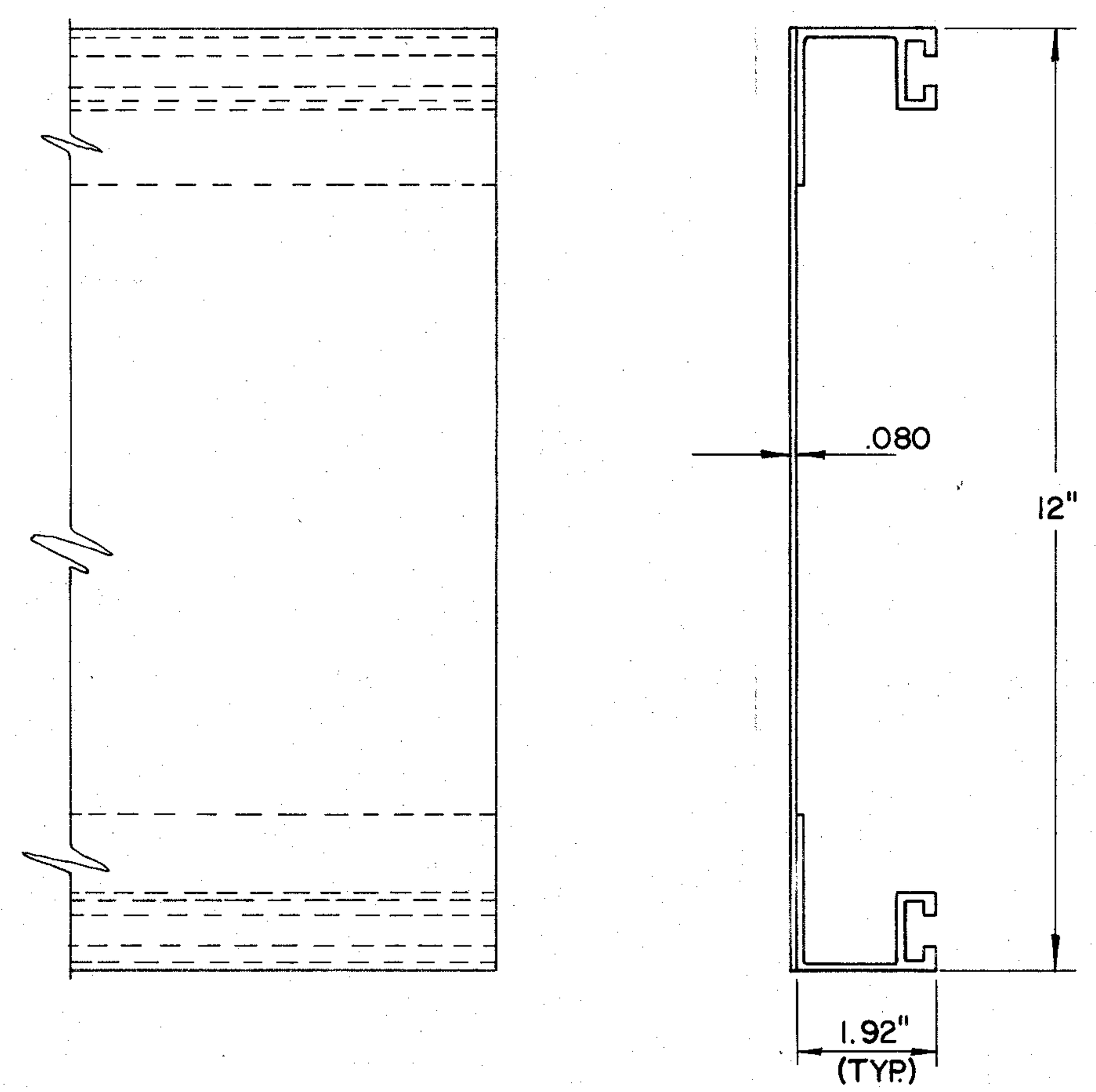
ALUMINUM EXTRUSHEET PANEL SIGN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

533
630

HAM 275-3.86
HAMILTON COUNTY

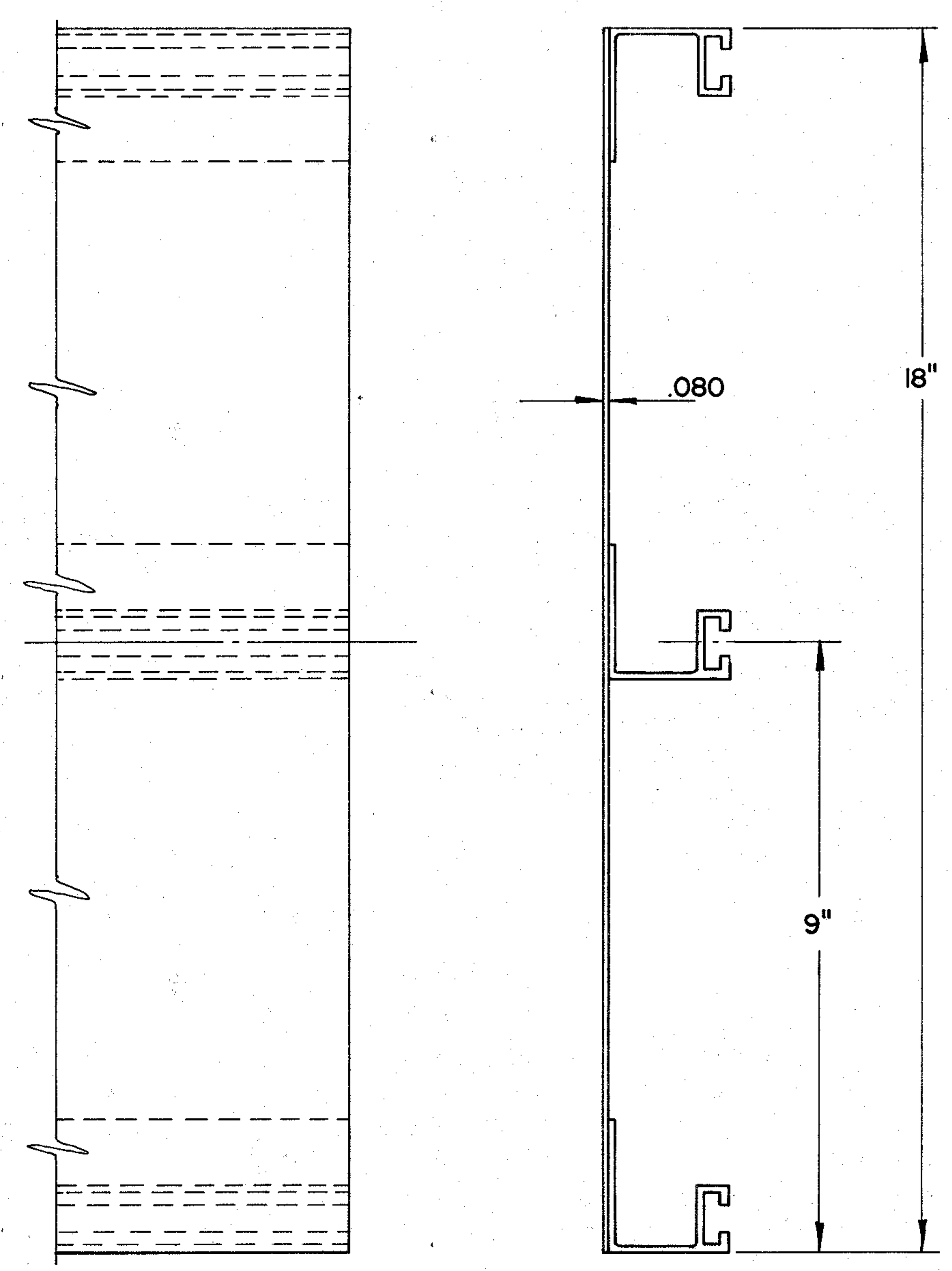
12" BOLTED-EXTRUSHEET PANEL



FRONT VIEW

SIDE VIEW

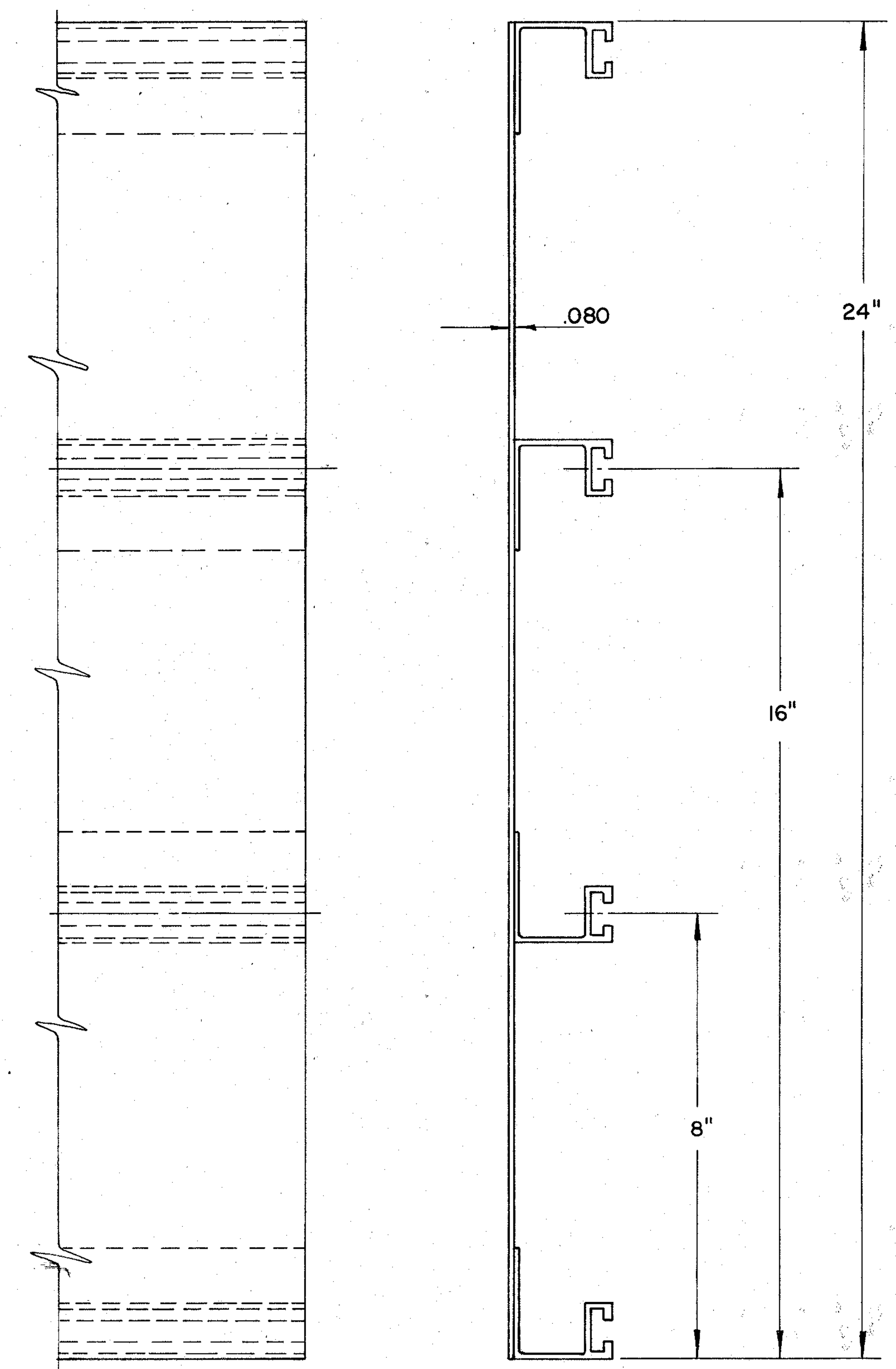
18" BOLTED-EXTRUSHEET PANEL



FRONT VIEW

SIDE VIEW

24" BOLTED-EXTRUSHEET PANEL



FRONT VIEW

SIDE VIEW

NOTES

EXTRU-SHEET PANELS SHALL BE ALUMINUM; SPOT WELDING, MATERIALS AND HARDWARE SHALL CONFORM WITH SPECIFICATION NO. 815

COMBINATIONS OF 12", 18" AND 24" PANELS ARE TO BE USED TO ATTAIN REQUIRED SIGN HEIGHT.

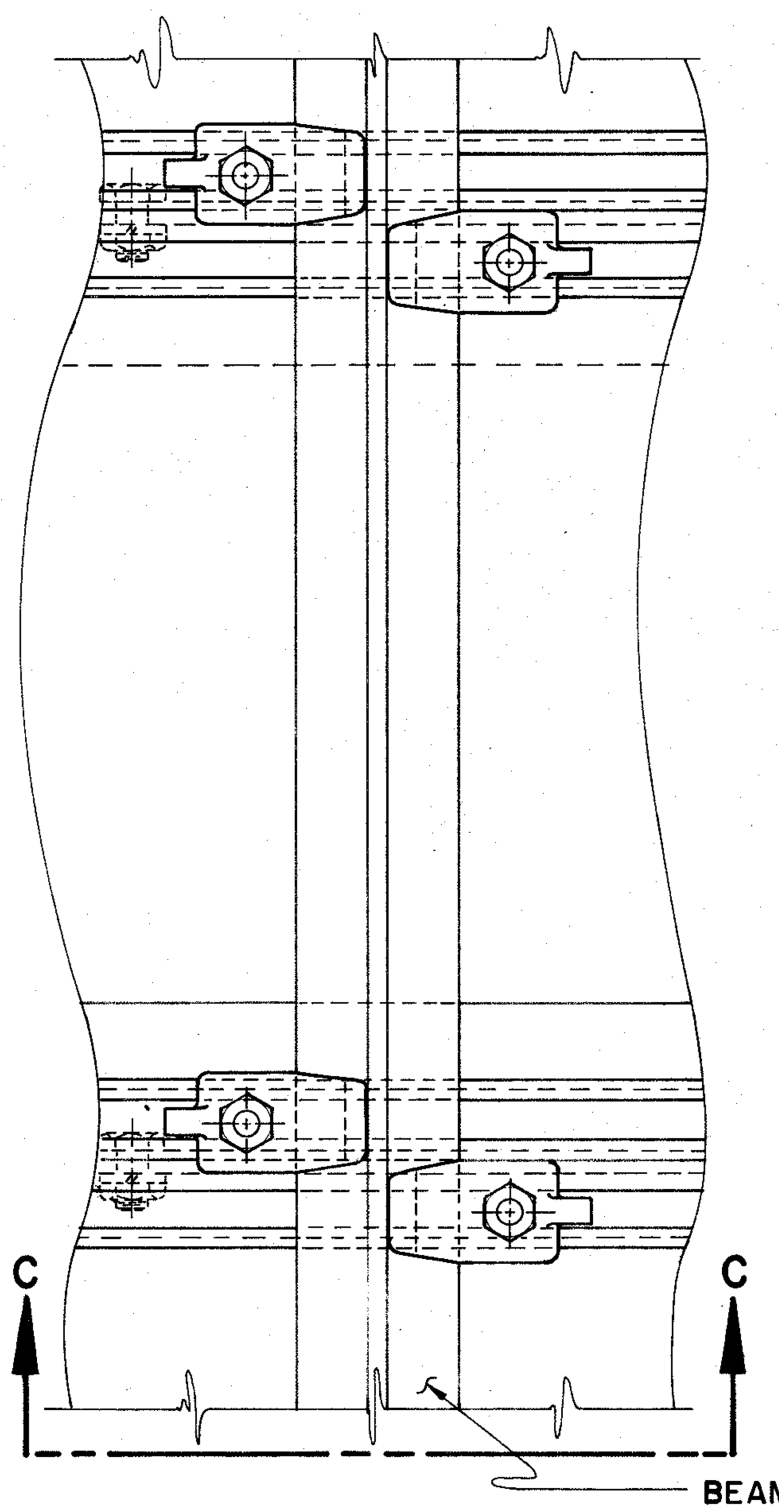
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN, WITH NO SPLICES.

THE PANELS SHALL BE ERECTED HORIZONTALLY AND BOLTED ON 24" CENTERS.

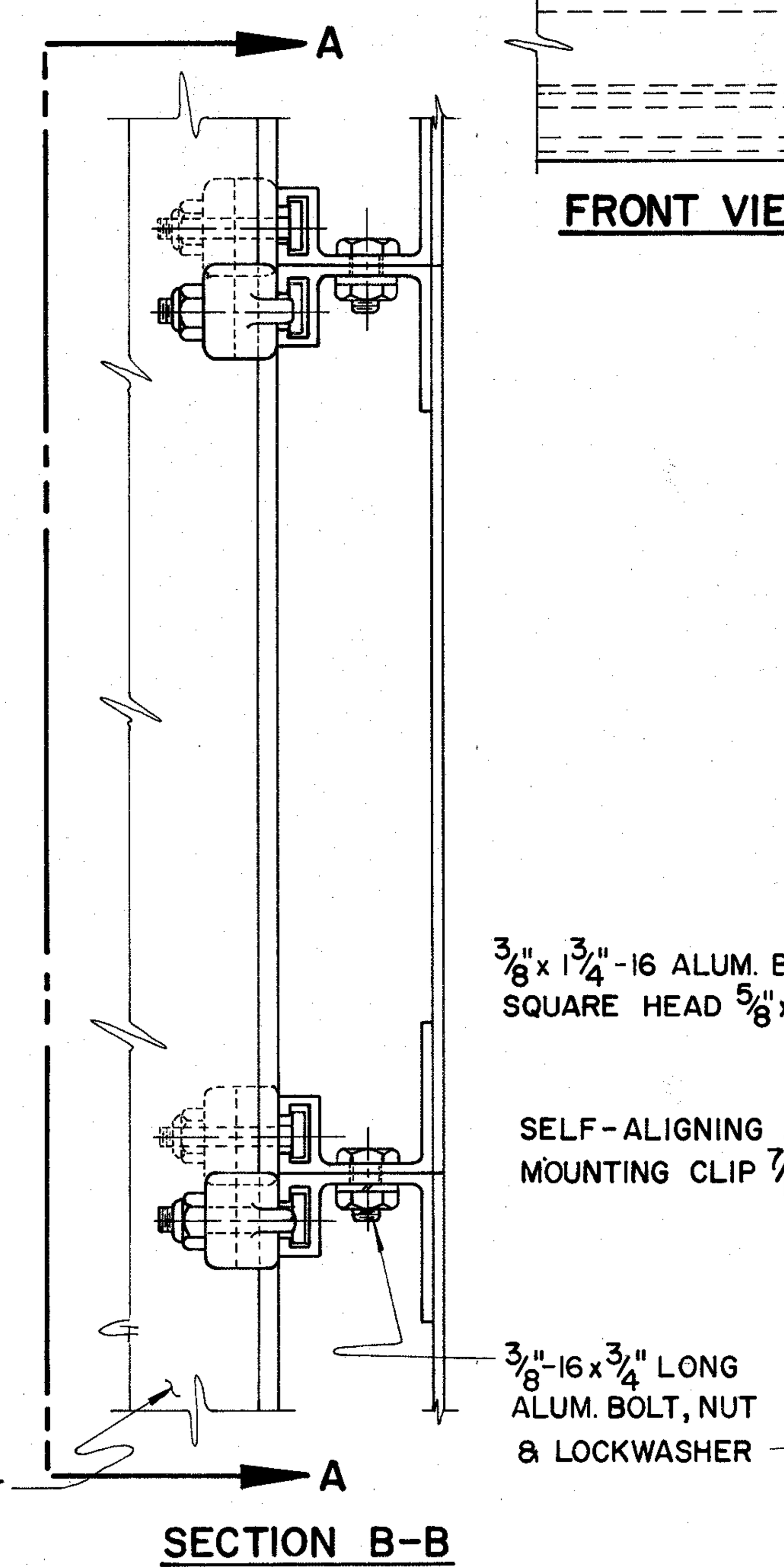
THE PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND BOTH SIDES AT TOP AND BOTTOM EDGES OF SIGN.

THE PANELS SHALL BE DESIGNED IN ACCORDANCE WITH THE A.A.S.H.O SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, BASE ON A WIND LOAD OF 35# / SQ. FT.

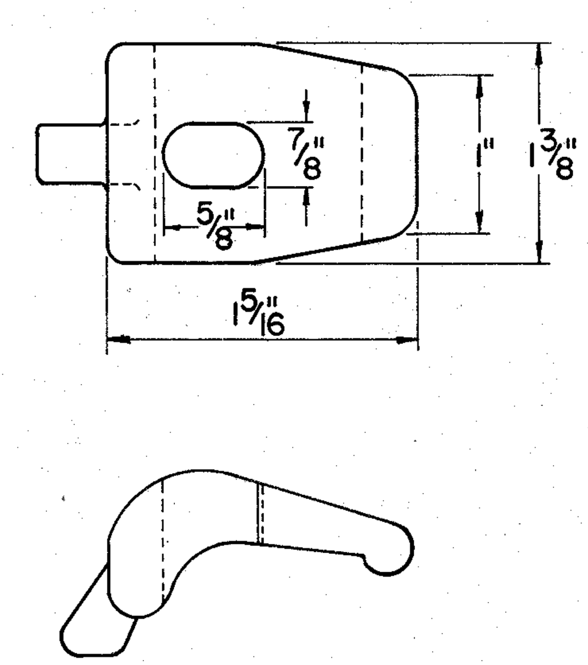
THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0". THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".



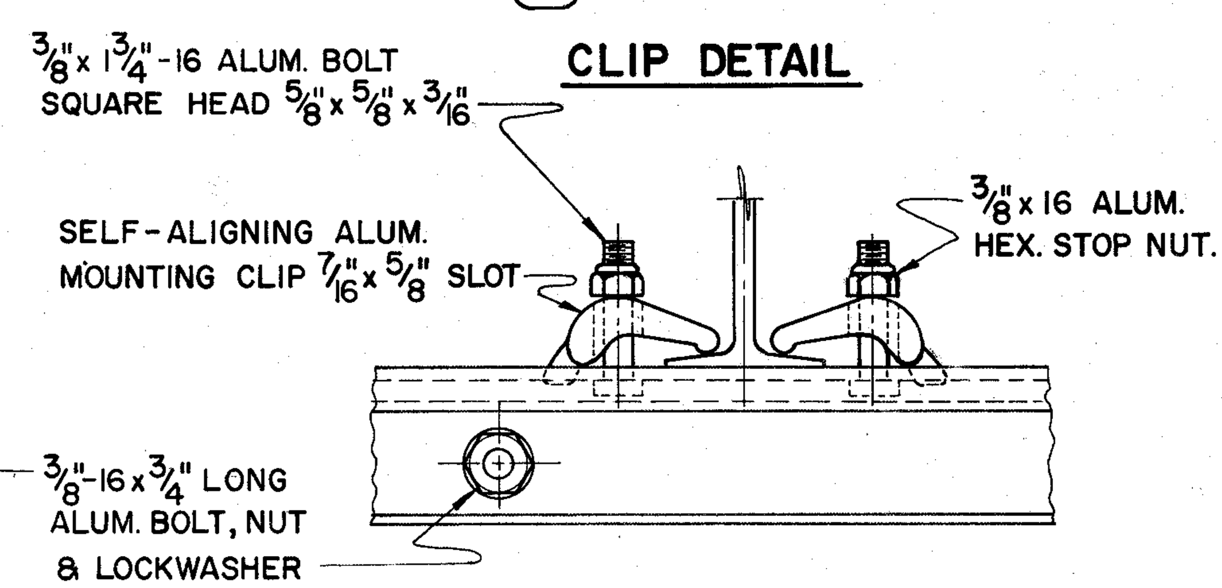
SECTION A-A



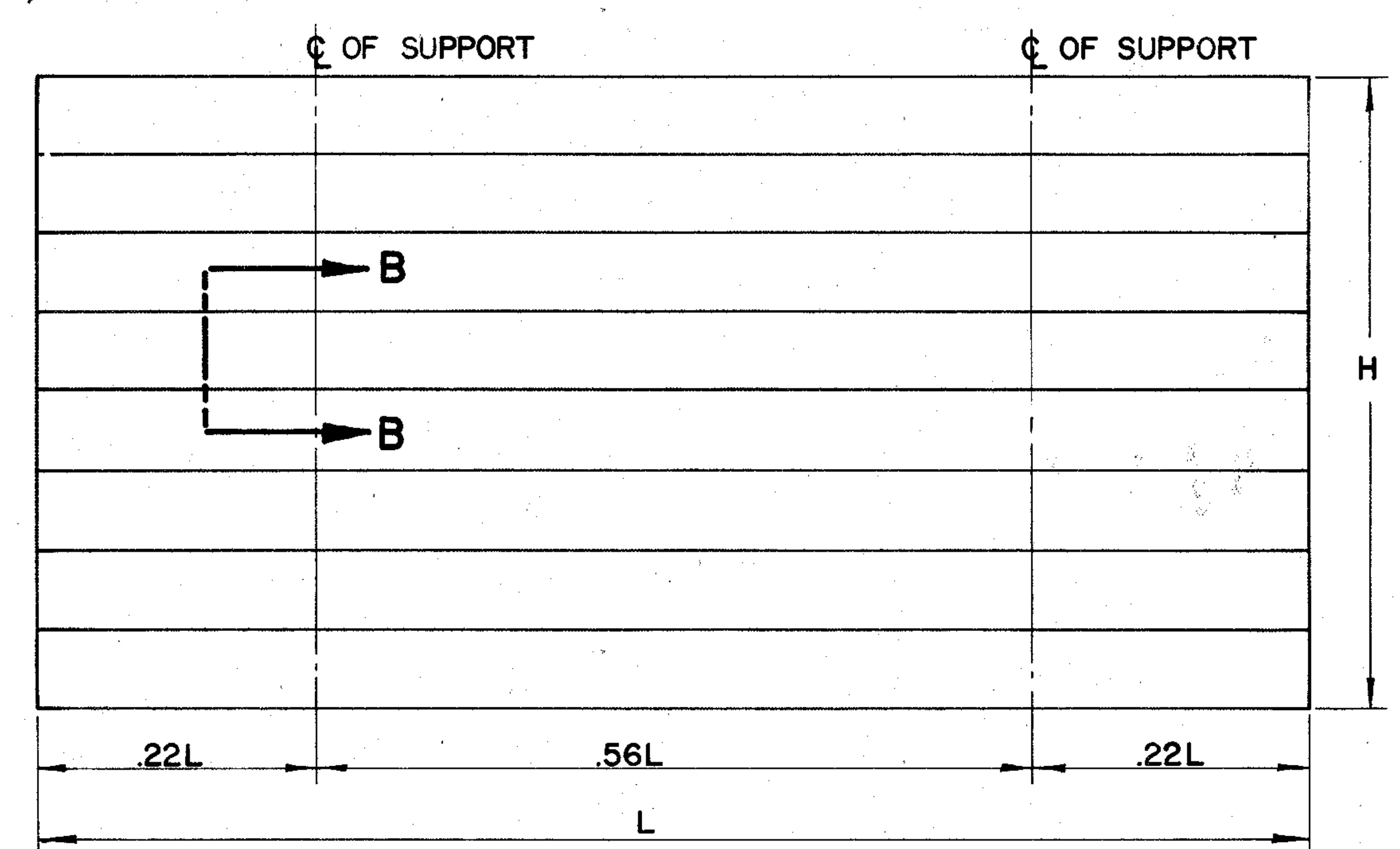
SECTION B-B



CLIP DETAIL



SECTION C-C



GENERAL ARRANGEMENT

SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM BOLTED EXTRUSHEET PANEL SIGN

ECD 2

DATE 10-14-65

APPROVED Fred C. Tarbox
ENGINEER OF TRAFFIC

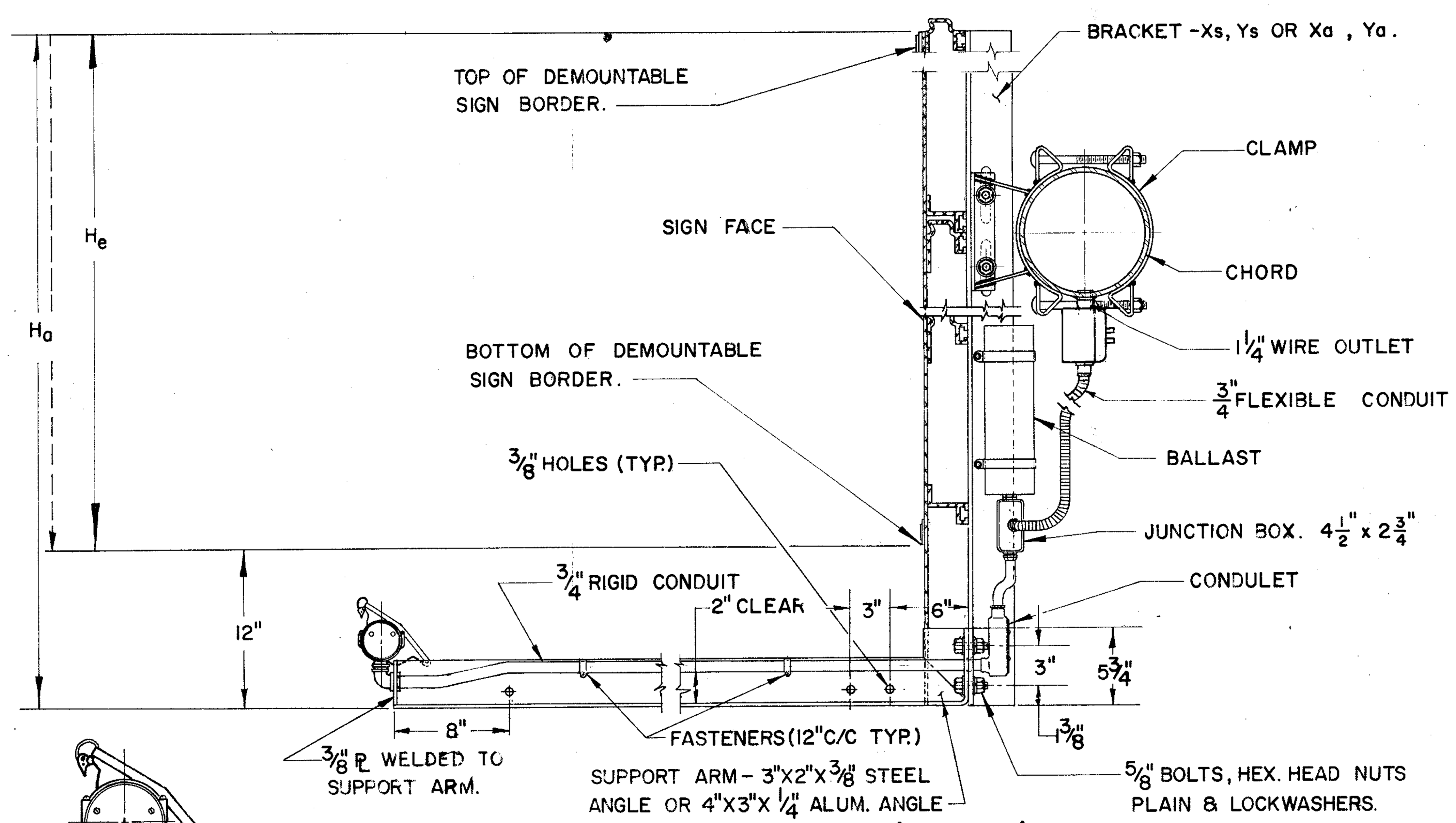
27
36

ALUMINUM BOLTED-EXTRUSHEET PANEL SIGN

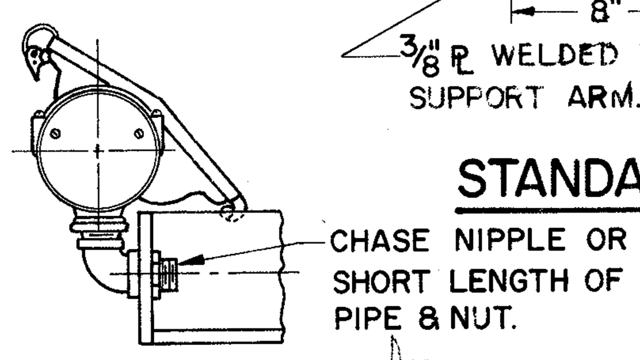
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

534/630

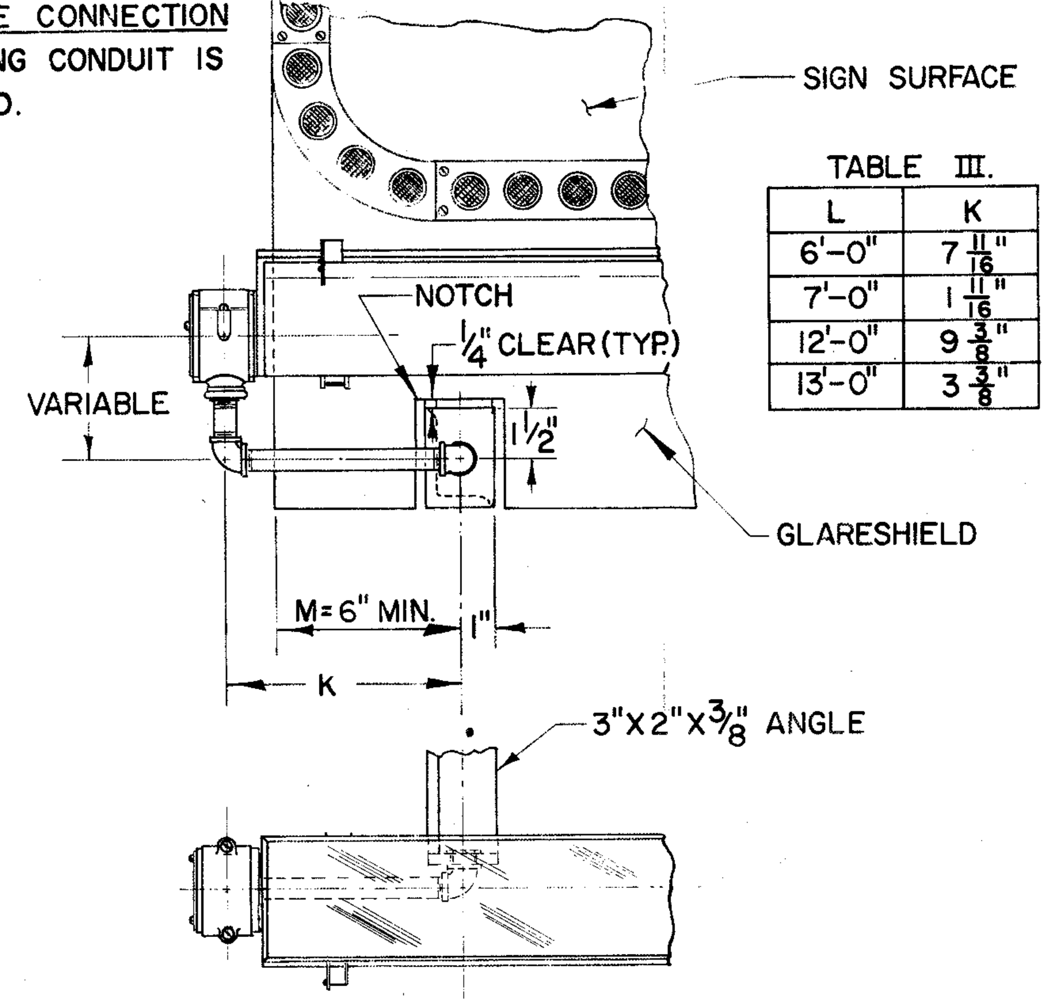
HAM 275-3.86
HAMILTON COUNTY



STANDARD FIXTURE LOCATION (BELOW)



FIXTURE CONNECTION
WHERE WIRING CONDUIT IS NOT NEEDED.

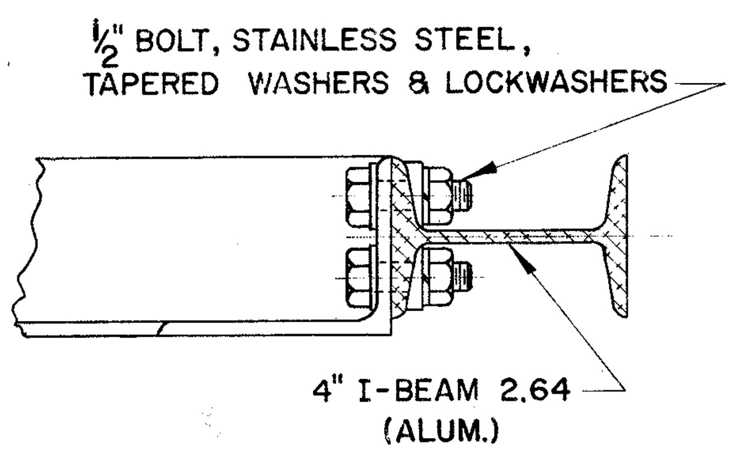


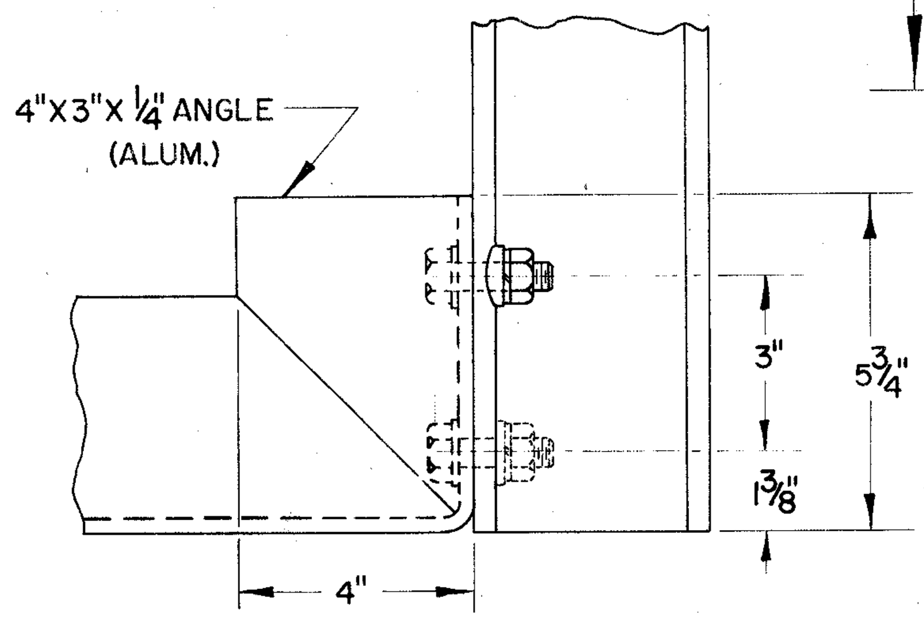
ALTERNATE FIXTURE CONNECTIONS FOR SIGN 6', 7', 12' & 13' IN LENGTH.

TABLE III.

L	K
6'-0"	$7\frac{11}{16}$"
7'-0"	$1\frac{11}{16}$"
12'-0"	$9\frac{3}{8}$"
13'-0"	$3\frac{3}{8}$"

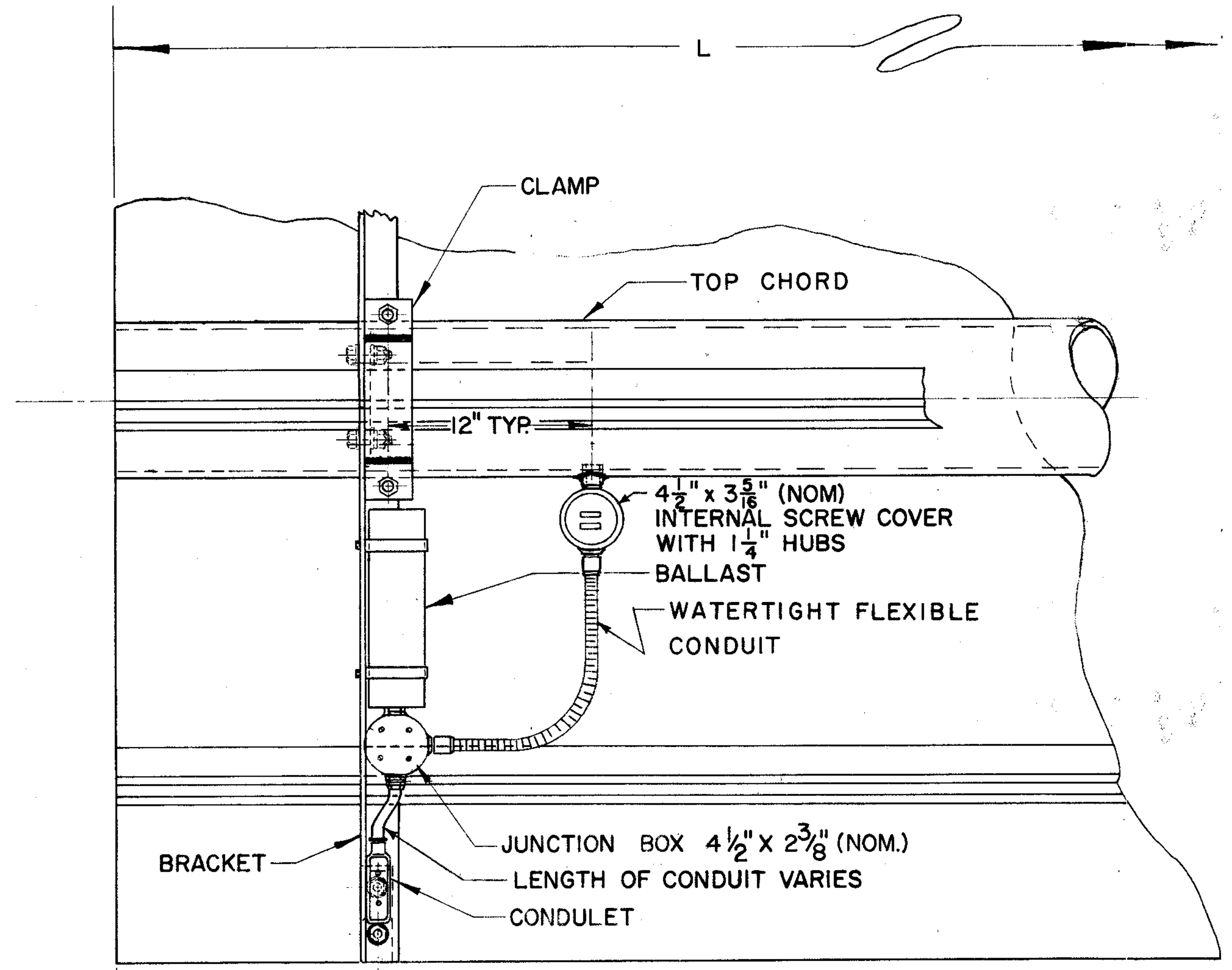
DETAIL A.



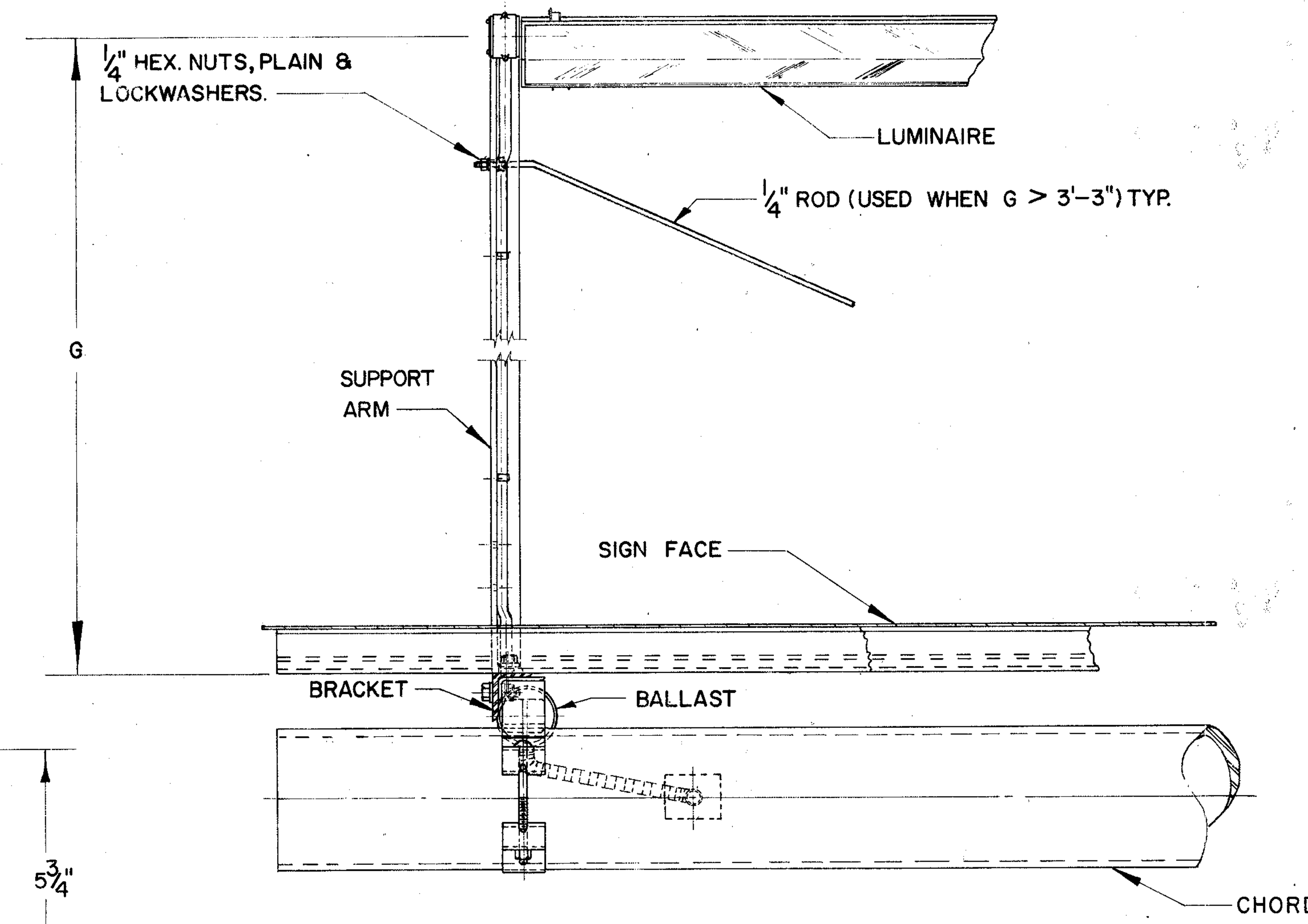


FOR SUPPORTS 7.2-7.6

DETAIL B.



REAR VIEW



TOP VIEW

FABRICATION — ALL STRUCTURAL COMPONENTS SHOWN ON THIS SHEET SHALL CONFORM TO SUPPLEMENT SPECIFICATIONS 816.

MATERIALS — THE MATERIALS USED IN THE COMPONENTS SHOWN ON THIS SHEET SHALL BE IN CONFORMANCE WITH THE MATERIALS USED IN THE SIGN SUPPORT

TABLE I.

"L" SIGN LENGTH A	"L" SIGN LENGTH B	NUMBER OF FIXTURES $75\frac{3}{8}$	NUMBER OF FIXTURES $99\frac{3}{8}$	"M" EDGE DISTANCE A LT.	A RT.	B LT.	B RT.	NO. BALLAST
6'-0"	7'-0"	1		6"	6"	6"	6"	1
8'-0"	9'-0"	1		$10\frac{3}{8}$	$10\frac{1}{4}$	$16\frac{3}{8}$	$16\frac{1}{4}$	1
10'-0"	11'-0"		1	$10\frac{3}{8}$	$10\frac{1}{4}$	$16\frac{3}{8}$	$16\frac{1}{4}$	1
12'-0"	13'-0"	2		6"	6	6	6	1
14'-0"	15'-0"	2		$8\frac{5}{8}$	$8\frac{5}{8}$	$14\frac{5}{8}$	$14\frac{5}{8}$	1
16'-0"	17'-0"	1	1	$8\frac{5}{8}$	$8\frac{5}{8}$	$14\frac{5}{8}$	$14\frac{5}{8}$	1
18'-0"	19'-0"		2	$8\frac{5}{8}$	$8\frac{5}{8}$	$14\frac{5}{8}$	$14\frac{5}{8}$	1
20'-0"	21'-0"	3		7"	$6\frac{7}{8}$	13	$12\frac{7}{8}$	2
22'-0"	23'-0"	2	1	7"	$6\frac{7}{8}$	13	$12\frac{7}{8}$	2
24'-0"	25'-0"	1	2	7"	$6\frac{7}{8}$	13	$12\frac{7}{8}$	2
26'-0"	27'-0"		3	7"	$6\frac{7}{8}$	13	$12\frac{7}{8}$	2

Sn= Nominal Fixture Length, 72" & 96" respectively.
Sa= Actual Fixture Length, for mounting purposes, $75\frac{3}{8}$" and $99\frac{3}{8}$" respectively. (Slight variation for different manufacturers.)
M= Distance from edge of sign to ℄ of notch, min. 6". When the length of the sign minus 1'-0" is less than the sum of the actual fixture lengths, an offset "K" is used. For additional details see detail A and table III.

TABLE II
MAX. BRACKET SPACING FOR EXTERNALLY ILLUMINATED SIGNS

ACTUAL SIGN HEIGHT "Ha"	SUPPORT TYPES 9.12, 11.08, 13.2, 7.2 — SINGLE TUBE, DOUBLE TUBE LESS 36" C/C	9.24, 10.48, 12.24, 14.5, 15.8, 7.2 to 7.6 — DOUBLE TUBE C/C 36"-42"	DOUBLE TUBE C/C 48"-54"	DOUBLE TUBE C/C 60"-72"
	MAXIMUM BRACKET SPACING			
to 5'-0"	6'-4" with X 8'-4" with Y	8'-4" with X	8'-4" with X	8'-4" with X
5'-6" to 8'-0"	6'-4" with Y	4'-2" with X 6'-4" with Y	6'-4" with X 8'-4" with Y	8'-4" with X
8'-6" to 10'-0"	3'-2" with X 4'-2" with Y	6'-4" with Y	6'-4" with Y	8'-4" with Y
10'-6" to 12'-0"	————	4'-2" with Y	6'-4" with Y	6'-4" with Y
12'-6" to 14'-0"	————	3'-2" with Y	3'-2" with Y	4'-2" with Y

Ha= ACTUAL SIGN HEIGHT
He= EFFECTIVE SIGN HEIGHT
BRACKET SIZE: Xs = $3\frac{1}{2}$" X $2\frac{1}{2}$" X $\frac{5}{16}$" — L @ 6.1 LB. STEEL; Ys = 4" X $3\frac{1}{16}$" X $\frac{1}{4}$" — Z @ 8.2 LB. STEEL } 9.12, 10.48, 11.08, 12.24, 14.5 & 15.8
Xa = 3" X $2\frac{11}{16}$ X $\frac{1}{4}$" — Z @ 2.33 LB. ALUM.; Ya = 4" X $2\frac{21}{32}$" X $\frac{3}{16}$" — I @ 2.64 LB. ALUM. } 7.2 Thru 7.6

WHEN MAX. ALLOWABLE SPACING IS LESS THAN ACTUAL FIXTURE LENGTHS, Sa, ADDITIONAL STANDARD BRACKETS MUST BE FURNISHED, EQUAL IN HEIGHT TO "Ha".

SUPPORTS 7.2 THROUGH 7.6 SHALL HAVE AN ALUMINUM FIXTURE ARM, 4"X3"X$\frac{1}{4}$" ANGLE. SEE DETAIL B. BOLTS AND ACCESSORIES SHALL BE STAINLESS STEEL.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

STRUCTURAL DETAILS FOR EXTERNALLY ILLUMINATED SIGNS | EI-1

APPROVED Fred C. [illegible] ENGINEER OF TRAFFIC

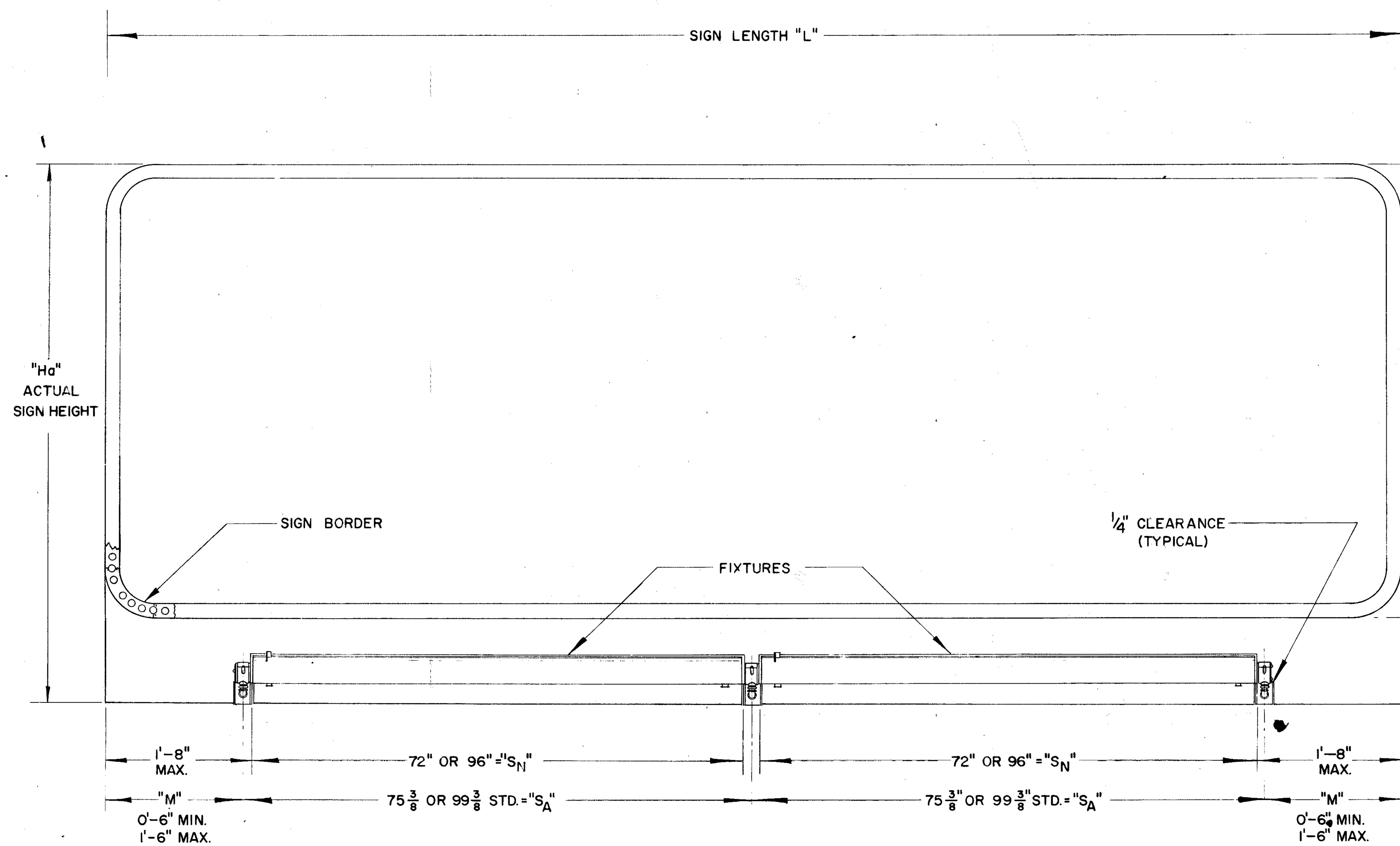
28/36

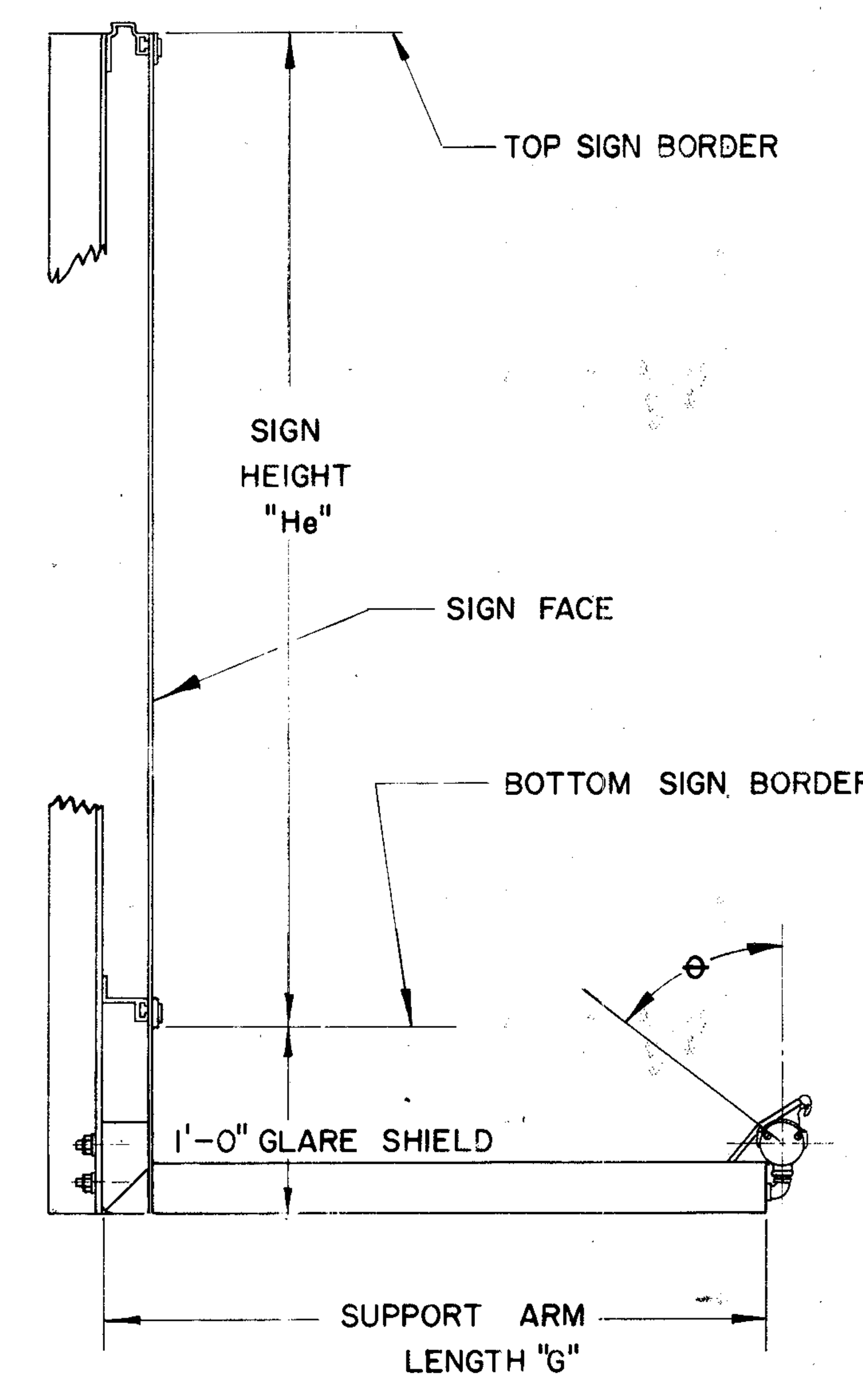
STRUCTURAL DETAILS FOR EXTERNALLY ILLUMINATED SIGNS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

535
630

HAM 275-3.86
HAMILTON COUNTY





SIGN LIGHTING NOTES

SIGN ILLUMINATION

SIGN ILLUMINATION SHALL BE BY ATTACHED FLUORESCENT FIXTURES AS SHOWN ON ILLUMINATED SIGN DETAIL SHEETS.

LAMPS

LAMPS SHALL BE TYPE F72 OR F96-T12/CW/HO AS MANUFACTURED BY WESTINGHOUSE, GENERAL ELECTRIC OR APPROVED EQUAL FOR SIGNS TO A MAXIMUM HEIGHT OF 6'-6". LAMP TYPE SHALL BE F72 OR F96-T12/CW/SHO AS MANUFACTURED BY WESTINGHOUSE, F72 OR F96-T12/CW/1500 AS MANUFACTURED BY GENERAL ELECTRIC OR APPROVED EQUAL FOR SIGNS THAT ARE 7'-0" OR GREATER IN HEIGHT.

LAMP FIXTURES

LIGHTING FIXTURES SHALL BE CONSTRUCTED OF CORROSION RESISTANT MATERIALS OR WITH HIGH QUALITY CORROSION RESISTANT FINISH. ALL FIXTURES SHALL BE SPECIFICALLY DESIGNED FOR OUTDOOR SIGN LIGHTING SERVICE. MAJOR COMPONENTS SHALL INCLUDE WEATHERPROOF CAST ALUMINUM MOUNTING HUBS DESIGNED TO SECURELY LOCK THE FIXTURES AT ANY ANGLE THROUGH 360 DEGREES. INDICATORS IN 10 DEGREE INCREMENTS SHALL BE STAMPED OR CAST INTO THE HUB TO FACILITATE PROPER AIMING OF THE FIXTURE. FINAL ADJUSTMENT OF FIXTURE SHALL BE DONE AT NIGHT UNDER THE PROJECT ENGINEER'S DIRECTION.

THE BODY DESIGN OF THE FIXTURE SHALL PROVIDE AN ASYMMETRIC SPECULAR ALZAK REFLECTOR TO GIVE A HIGH LEVEL OF UNIFORM ILLUMINATION AND SHALL PROVIDE A WIREWAY FROM END TO END. WHEN ADJACENT FIXTURES ARE WIRED TOGETHER THROUGH THE WIREWAY, WIRE BETWEEN FIXTURES SHALL BE ENTIRELY ENCLOSED.

EXTERIOR FINISH OF THE FIXTURE BODY SHALL BE INTERSTATE GREEN COLOR, HEAT RESISTANT BAKED ENAMEL AS #8950 UNIVERSAL PAINT AND VARNISH INC., OR MIDWESTERN COLOR WORKS, OR APPROVED EQUAL. REFLECTOR, LAMP AND SOCKETS SHALL BE PROTECTED BY A HINGED DOOR OF CLEAR ACRYLIC PLASTIC WITH ALUMINUM OR STAINLESS STEEL FRAME AND NEOPRENE GASKETING.

BALLASTS

BALLASTS FOR FIXTURES SHALL BE WEATHER-PROOF OUTDOOR TYPE FOR A 120 VOLT 60 CYCLE SYSTEM AND SHALL PROVIDE LAMP STARTING AT AN AMBIENT TEMPERATURE OF -20°F. BALLASTS SHALL BE MOUNTED ON SIGN BRACKET ONLY. WIRING SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT THE SIGN MAY BE REMOVED WITHOUT DISTURBING THE ELECTRICAL WIRING.

EFFECTIVE SIGN HEIGHT "H"	SUPPORT ARM LENGTH "G"	APPROX. AIMING ANGLE θ
3'-0" to 5'-0"	2'-9"	25°
5'-0" to 6'-6"	3'-3"	25°
7'-0" to 10'-0"	4'-3"	17°
10'-6" to 13'-0"	5'-9"	23°

"L" SIGN LENGTH	NO. OF FIXTURES			He=3'-0" to 6'-6" LAMP=T12/cw/ho			He=7'-0" to 13'-0" LAMP=T12/cw/sho		
		72	96	BALLAST NO.	BALLAST TYPE	WATTAGE PER SIGN	BALLAST NO.	BALLAST TYPE	WATTAGE PER SIGN
6'-0" to 7'-0"		1		1	A	190	1	C	250
8'-0" to 9'-0"		1		1	A	190	1	C	250
10'-0" to 11'-0"			1	1	A	190	1	C	250
12'-0" to 13'-0"		2		1	B	250	1	D	425
14'-0" to 15'-0"		2		1	B	250	1	D	425
16'-0" to 17'-0"		1	1	1	B	250	1	D	425
18'-0" to 19'-0"			2	1	B	250	1	D	425
20'-0" to 21'-0"		3		2	A&B	440	2	C&D	675
22'-0" to 23'-0"		2	1	2	A&B	440	2	C&D	675
24'-0" to 25'-0"		1	2	2	A&B	440	2	C&D	675
26'-0" to 27'-0"			3	2	A&B	440	2	C&D	675

BALLASTS

TYPE	MANUFACTURERS G.E.	MANUFACTURERS JEFFERSON	WATTAGE
A	GG 3583	257-321	190
B	GG 3535	257-331	250
C	GG 3585	257-361	250
D	GG 3588	257-371	425

BALLASTS SHALL BE GENERAL ELECTRIC, JEFFERSON AS SPECIFIED ABOVE OR EQUAL.

TRANSFORMERS

TYPE	MANUFACTURERS G.E.	MANUFACTURERS JEFFERSON	OUTPUT K.V.A.	SWITCH TRANSFORMER ENCLOSURE
I	9T51Y7	211-041	.25	Y
II	9T51Y8	211-051	.50	Y
III	9T51Y9	211-061	.75	Y
IV	9T51Y10	211-071	1.00	Z
V	9T51Y11	211-081	1.50	Z
VI	9T51Y12	211-091	2.00	Z
VII	9T51Y13	211-2102	3.00	Z

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OHIO DEPARTMENT OF HIGHWAYS

ELECTRICAL DETAILS FOR EXTERNALLY ILLUMINATED SIGNS

EI-2

DATE
10-31-63
5-6-64
10-29-64
03-29-67
1-4-72

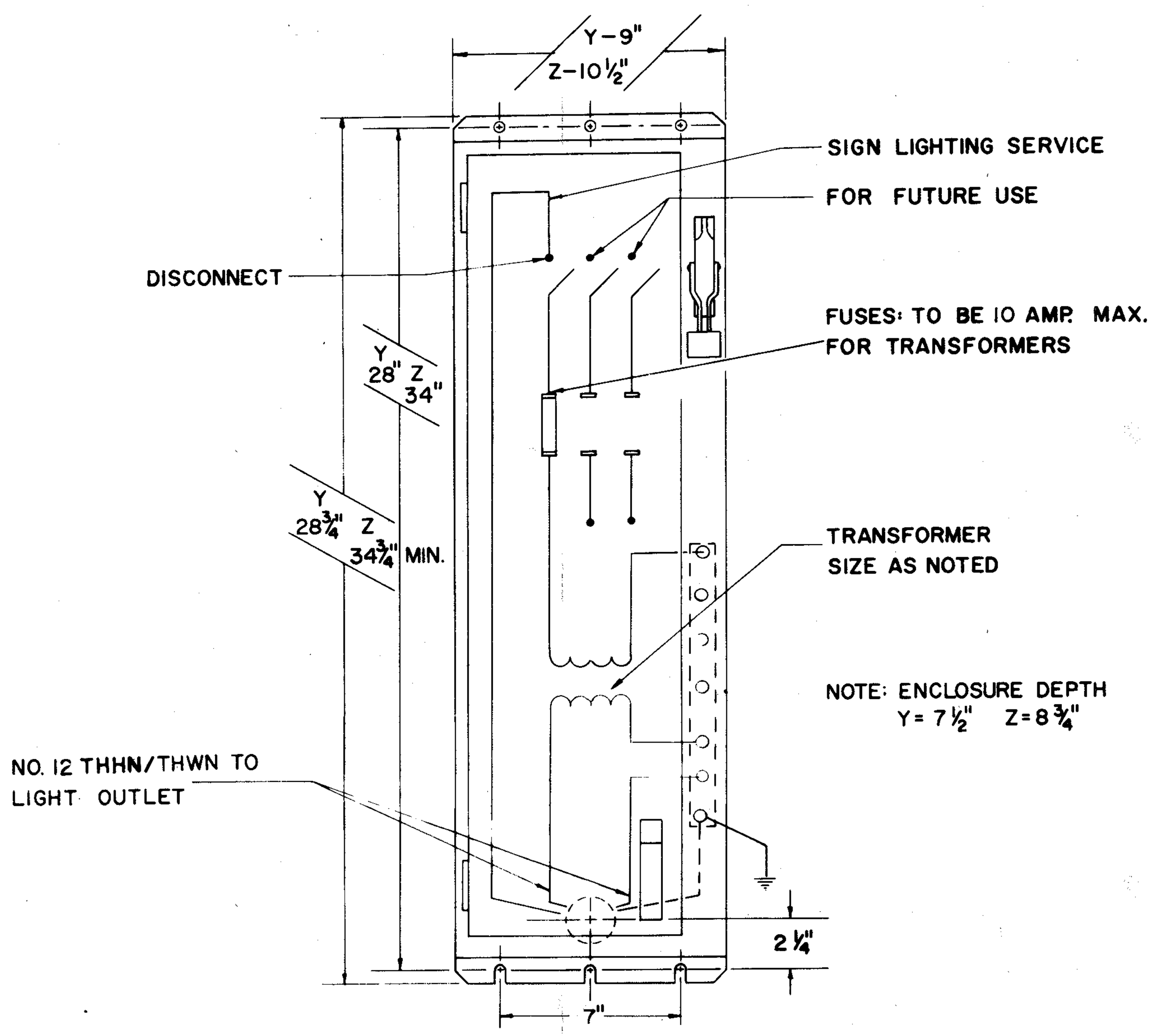
APPROVED Fred C. Talbot
ENGINEER OF TRAFFIC

29
36

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

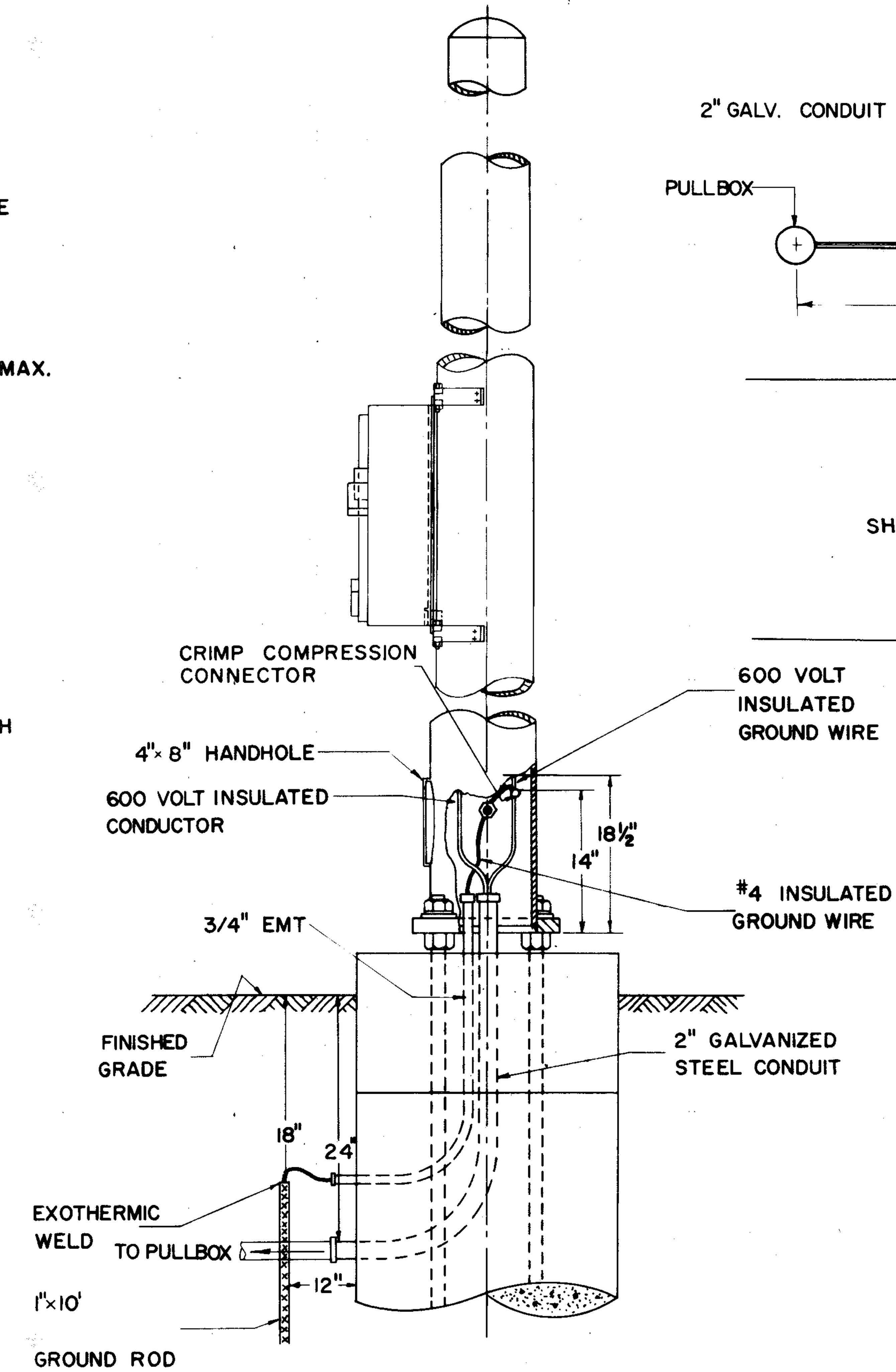
536/630

HAM. 275-3.86
HAMILTON COUNTY

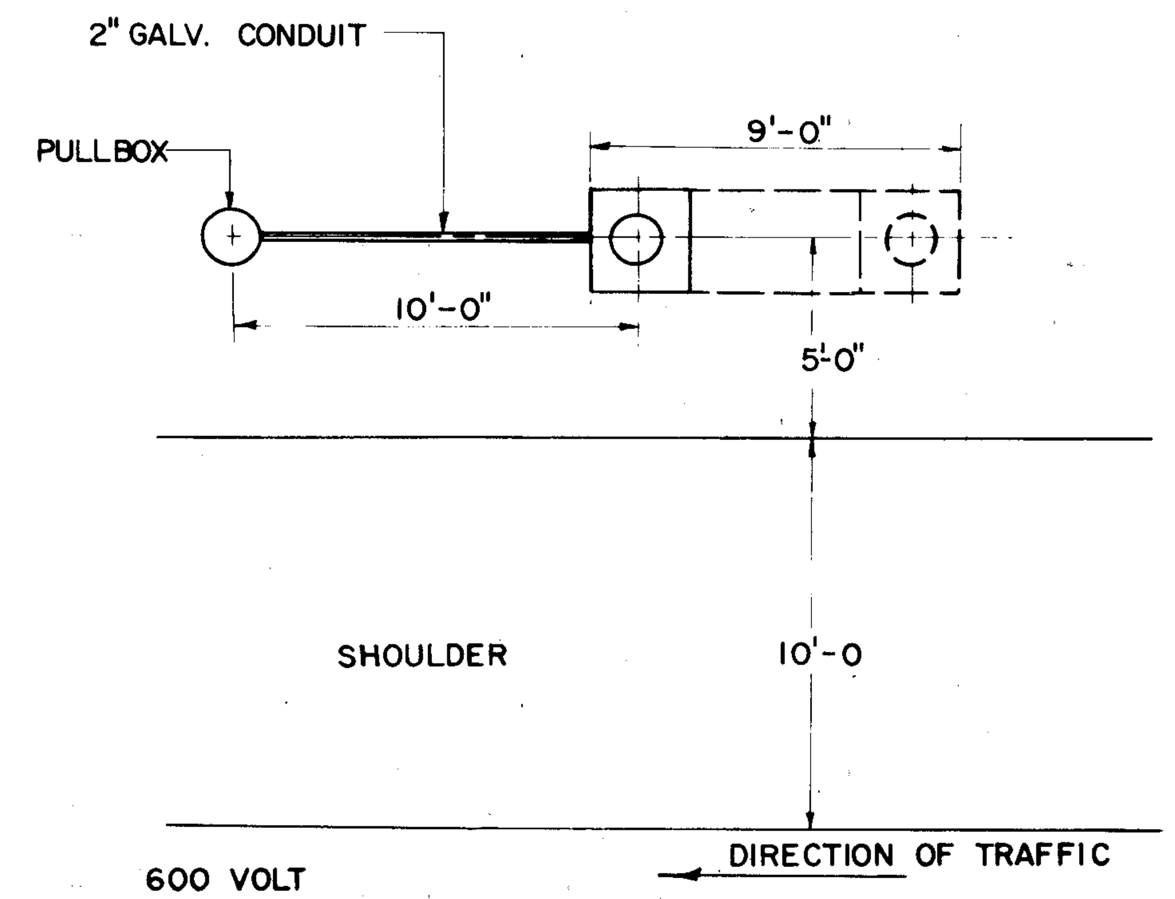


TYPICAL ENCLOSURE DETAIL

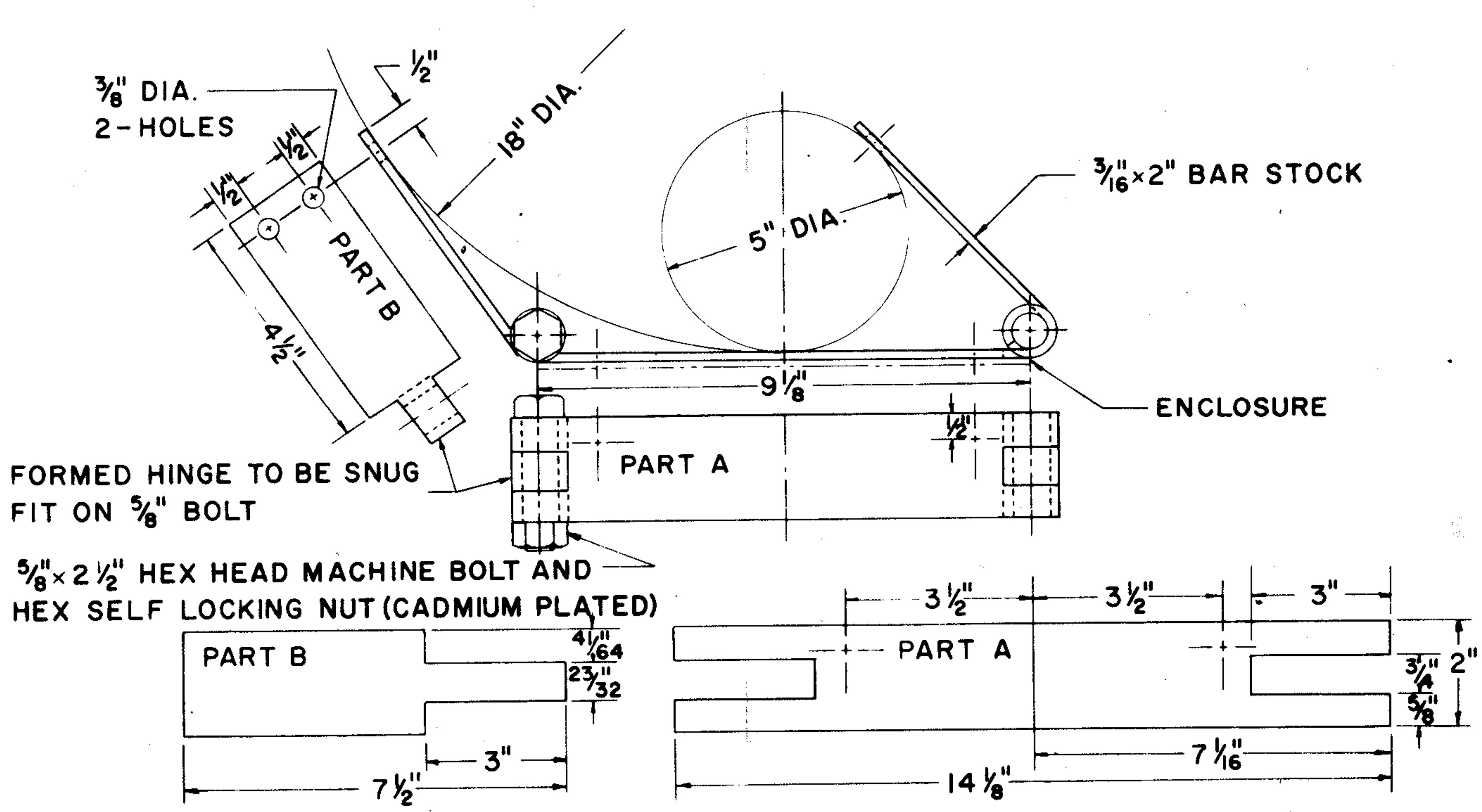
480 VOLT SIGN LIGHTING SERVICE



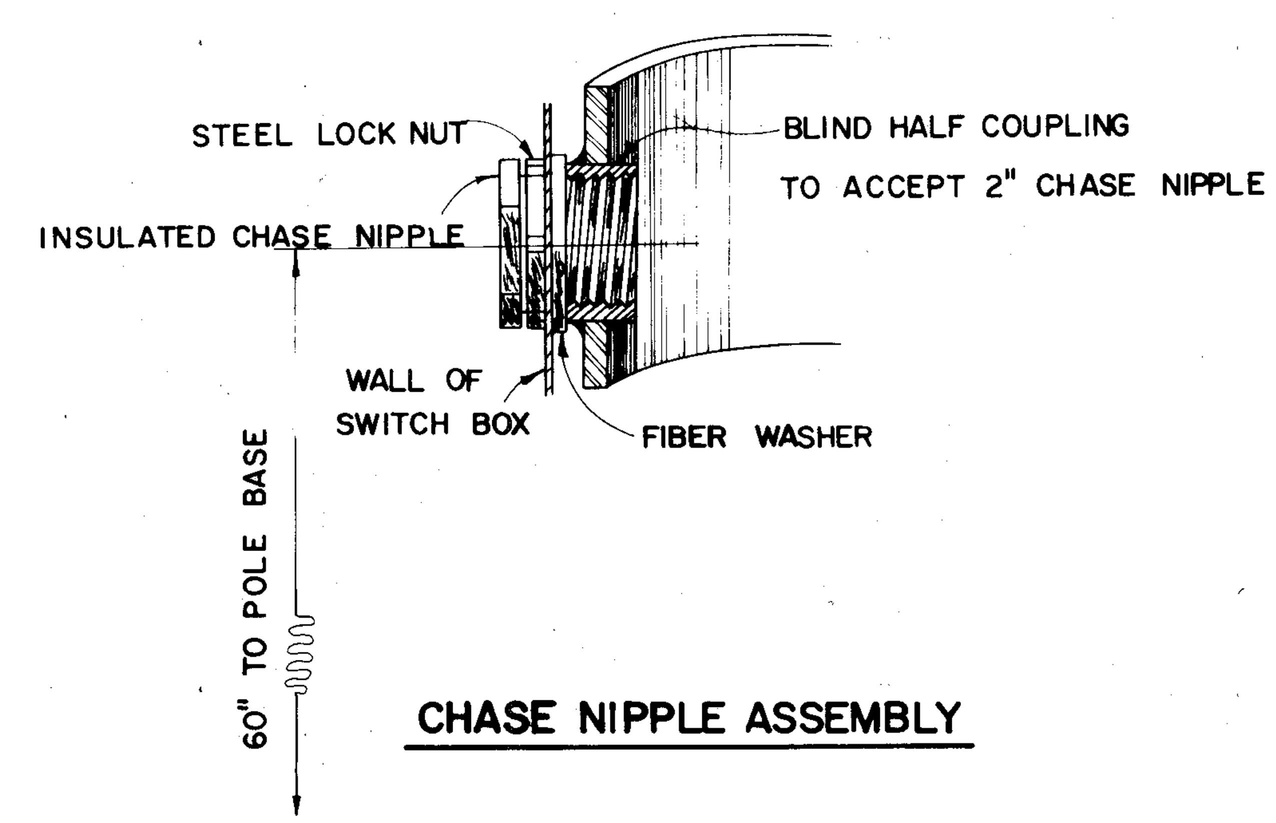
SIGN SUPPORT DETAIL FOR ILLUMINATED SIGNS



PULLBOX LOCATION



ENCLOSURE MOUNTING BRACKET



CHASE NIPPLE ASSEMBLY

NOTES

GENERAL

DETAILS OF THIS SHEET SHALL APPLY TO EACH OVERHEAD SIGN STRUCTURE TO SUPPORT EXTERNALLY ILLUMINATED SIGNS.

SERVICE

ELECTRIC SERVICE SHALL ENTER THROUGH A 2" GALVANIZED RIGID STEEL CONDUIT INSTALLED IN STRUCTURE FOUNDATION AS PER DETAIL. SIGN SERVICE OR CIRCUITRY SHALL BE CONTROLLED AS REQUIRED BY THE SYSTEM DESIGN AT THE PRIMARY SOURCE.

SERVICE CONDUCTORS SHALL BE THE SIZE AND TYPE AS SPECIFIED.

COMBINATION SWITCH AND TRANSFORMER

(TYPE Y OR Z ENCLOSURE REQUIRED AS PER SCHEDULE ON THIS SHEET)

THIS COMBINATION SHALL BE A 30 OR 60 AMPERE 600 VOLT SWITCH WITH A .25 TO 3.0 KVA TRANSFORMER. THE COMBINATION AND ENCLOSURE SHALL BE AS SQUARE D CLASS 9421, COLUMBUS ELECTRIC WORKS CLASS 101, PANALS INCORPORATED-CLASS 9400, OR APPROVED EQUAL.

TRANSFORMER

THE TRANSFORMER SHALL BE DRY TYPE SINGLE PHASE 240/480 VOLT PRIMARY 120/240 VOLT SECONDARY, THE TYPE AND CAPACITY AS SPECIFIED IN DETAILED SCHEDULE ON THIS SHEET.

ENCLOSURE

THE ENCLOSURE SHALL BE NEMA #4 WATER TIGHT .063 GAGE STAINLESS STEEL ASTA 302-303. A DISCONNECT HANDLE SHALL BE FLANGE MOUNTED AND CAPABLE OF BEING LOCKED IN EITHER POSITION. THE ENCLOSURE SHALL BE EQUIPPED WITH A DOOR LOCKING MECHANISM WITH A DEFEATER THAT NECESSITATES TWO HANDS TO OPERATE MECHANISM WITH THE SWITCH IN OFF POSITION. SPACE FOR A 2" INSULATED CHASE NIPPLE SHALL BE PROVIDED APPROXIMATELY 2¼" ABOVE THE CENTER LINE OF THE LOWER MOUNTING SLOT. THIS ENCLOSURE AND STRUCTURE SHALL BE FIELD DRILLED AND TAPPED FOR THE REQUIRED NIPPLE AS SHOWN ON THE DETAIL ON THIS SHEET.

THIS ENCLOSURE SHALL BE FLANGE MOUNTED ON BRACKETS WITH 5/16"-18×3/4" HEX HEAD CADMIUM PLATED MACHINE BOLTS. ENCLOSURES SHALL BE TYPE Y OR Z AS SPECIFIED AND DIMENSIONED ON THIS SHEET.

ENCLOSURE MOUNTING BRACKET

THE ENCLOSURE MOUNTING BRACKET SHALL BE FABRICATED THEN GALVANIZED BEFORE ASSEMBLY. THE BRACKET SHALL BE FIELD MOUNTED WITH 5/16" HEX HEAD SELF TAPPING CADMIUM PLATED SCREWS. THE SIGN SUPPORT SHALL BE FIELD DRILLED, AS PER DETAIL.

WIRE AND CABLE

ALL WIRE AND CABLE SHALL BE 600 VOLT AND CONFORM TO SECTION 713.02

GROUNDING

EACH SIGN SUPPORT OR STRUCTURE SHALL BE GROUNDED WITH A #4 INSULATED CONDUCTOR. THE GROUNDING CONDUCTOR SHALL BE CONNECTED TO THE SWITCH THEN TO THE COMPRESSION CONNECTOR IN THE SIGN SUPPORT THEN TO A 1"×10' GROUND ROD. GROUND CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO GROUND ROD AND THEN TAPED WITH PLASTIC ELECTRICAL TAPE AT EACH EXPOSED PORTION OF CONDUCTOR. THE WELDED CONNECTION AND TAPED PORTION SHALL BE PAINTED 2 COATS OF INSULATING ENAMEL.

TRANSFORMERS

TYPE	MANUFACTURERS		OUTPUT K.V.A.	SWITCH TRANSFORMER ENCLOSURE
	G.E.	JEFFERSON		
I	9T51Y7	211 - 041	.25	Y
II	9T51Y8	211 - 051	.50	Y
III	9T51Y9	211 - 061	.75	Y
IV	9T51Y10	211 - 071	1.00	Z
V	9T51Y11	211 - 081	1.50	Z
VI	9T51Y12	211 - 091	2.00	Z
VII	9T51Y13	211-2102	3.00	Z

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OHIO DEPARTMENT OF HIGHWAYS

ELECTRICAL SIGN SERVICE DETAILS 480 VOLT SYSTEM

ES-3A

DATE
6-18-64
9-15
7-31-70
2-03-72

APPROVED ____________
ENGINEER OF TRAFFIC

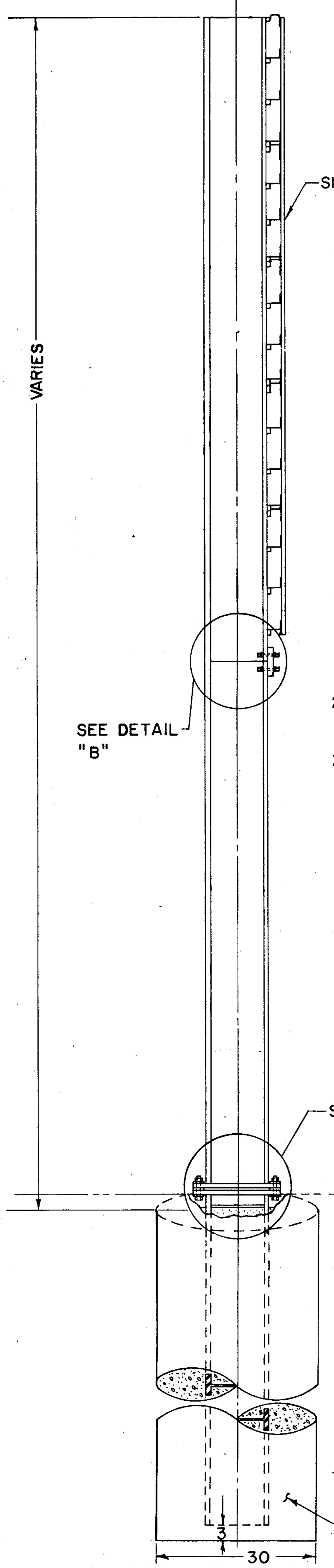
30/36

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

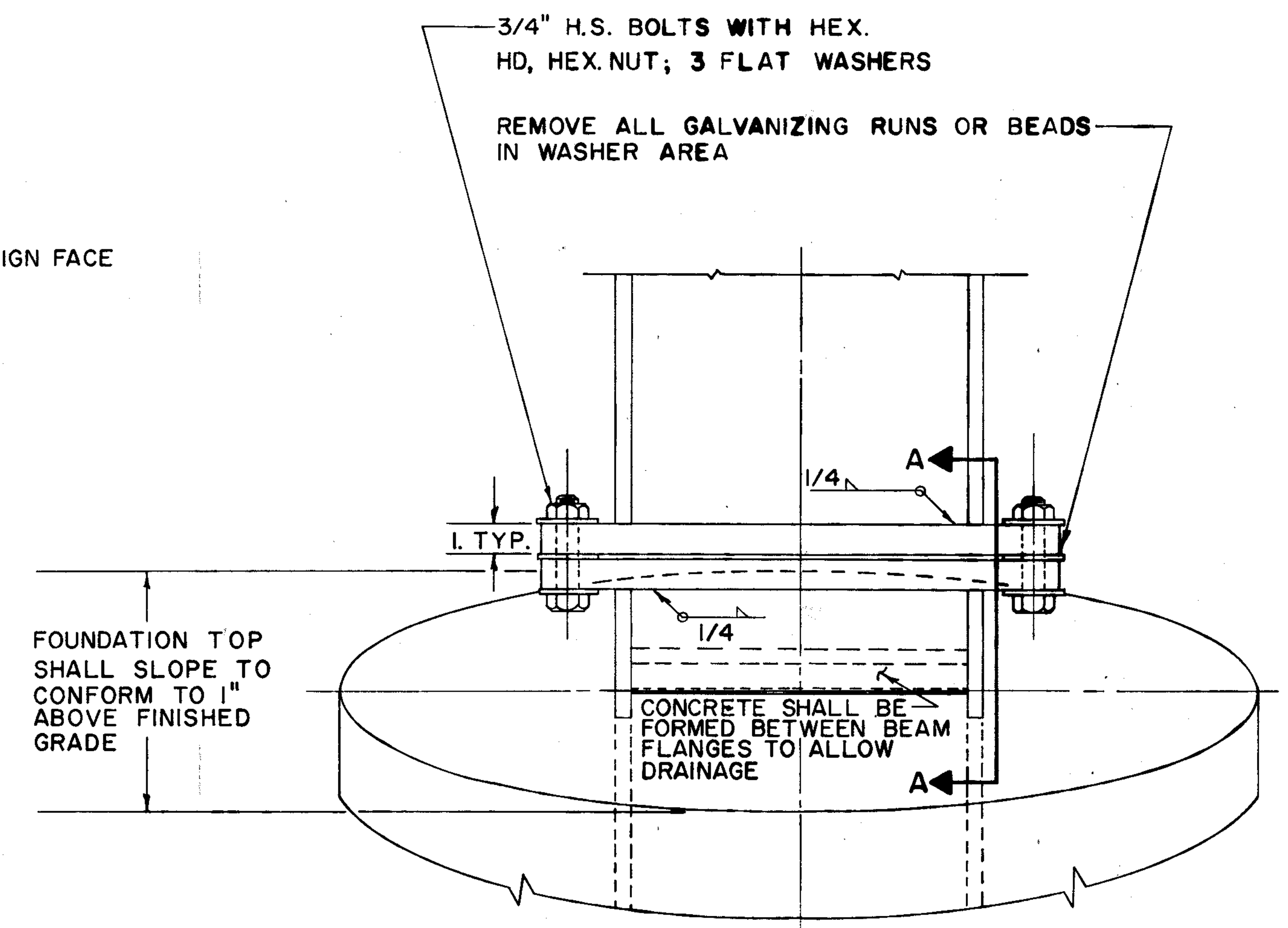
537/630

HAM 275-3.86
HAMILTON COUNTY

STRUCTURAL SUPPORTS



SIDE ELEVATION

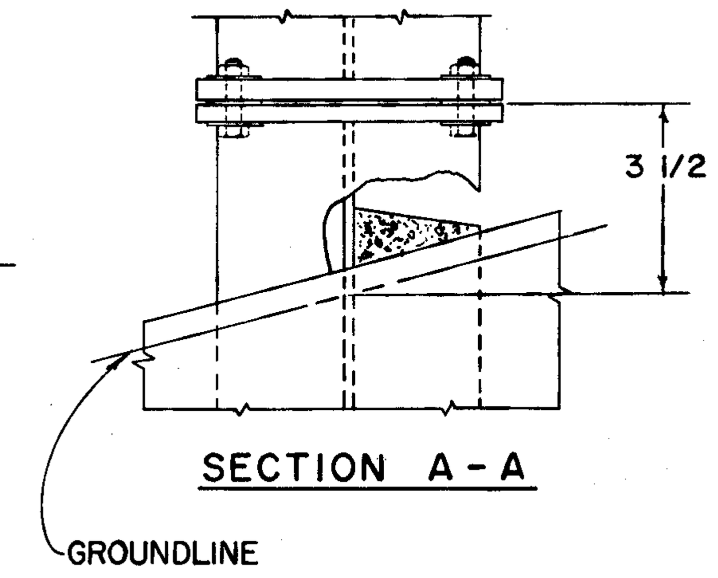


BOLTING PROCEDURE

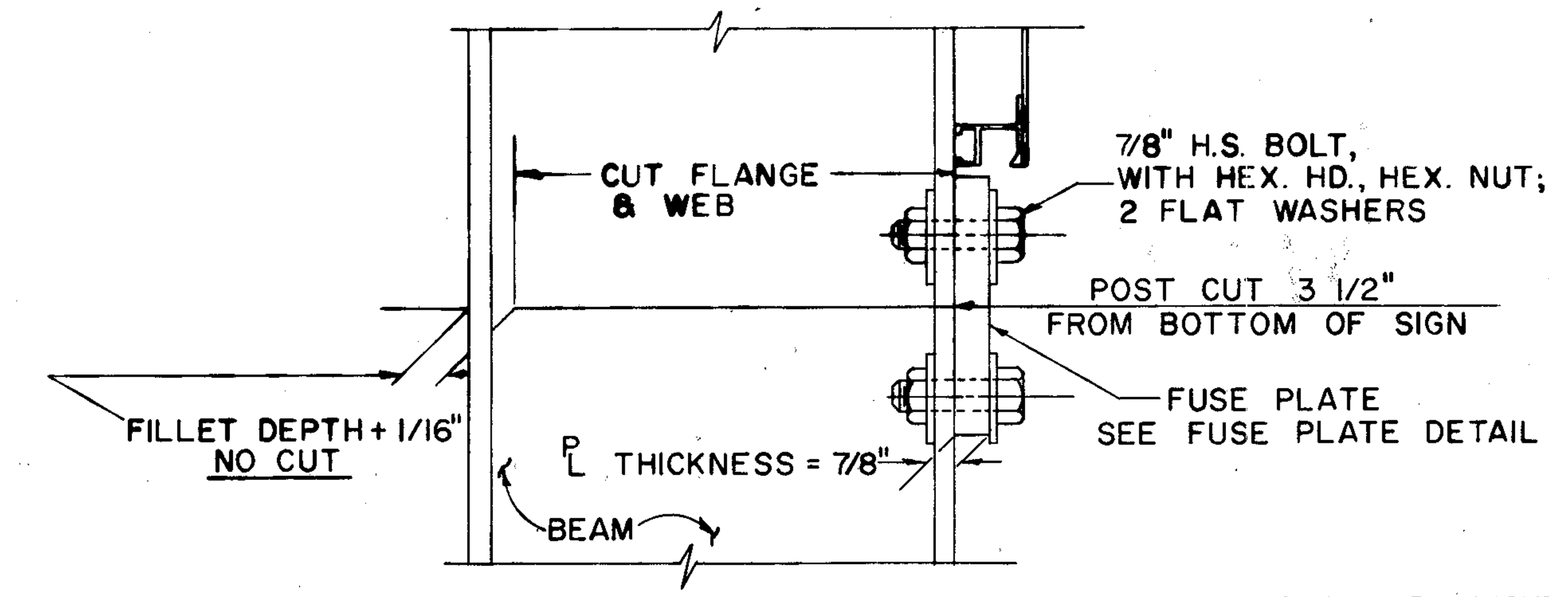
1. ASSEMBLE POST TO STUB W/BOLTS & ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES.
2. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE W/12" TO 15" WRENCH TO BED & TO CLEAN BOLT THREADS. LOOSEN EACH BOLT IN TURN & RETIGHTEN BOLTS IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE OF 750 IN. LBS.
3. BURR THREADS AT JUNCTION W/NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE: TIGHTEN THE H.S. BOLTS IN THE BASE CONNECTION ONLY TO GIVEN TORQUE DO NOT OVER TIGHTEN

VIEW "A" ROTATED 180°



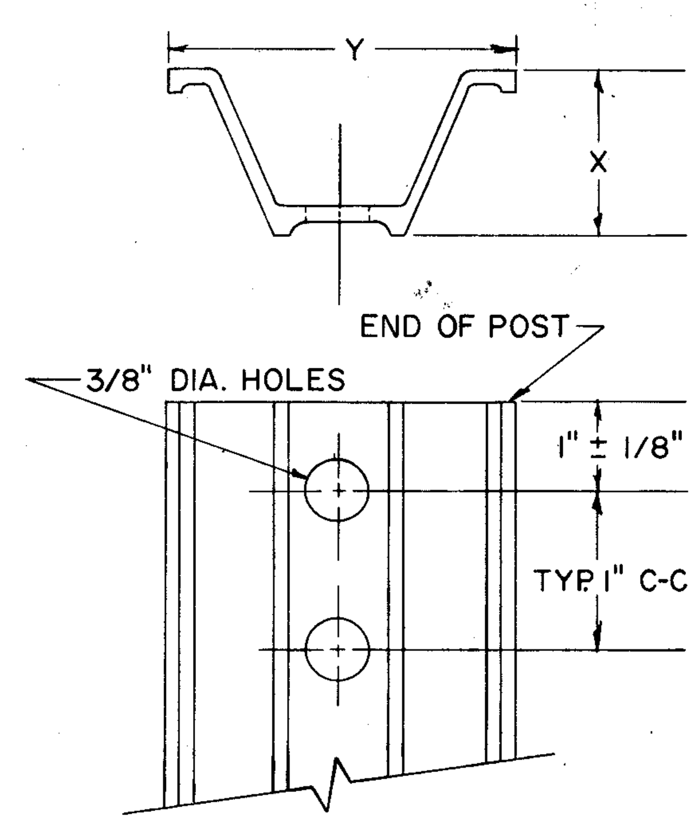
SECTION A-A



FABRICATOR NOTE: ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM RESIDUAL TENSION IN EACH BOLT OF 36,050 LBS.

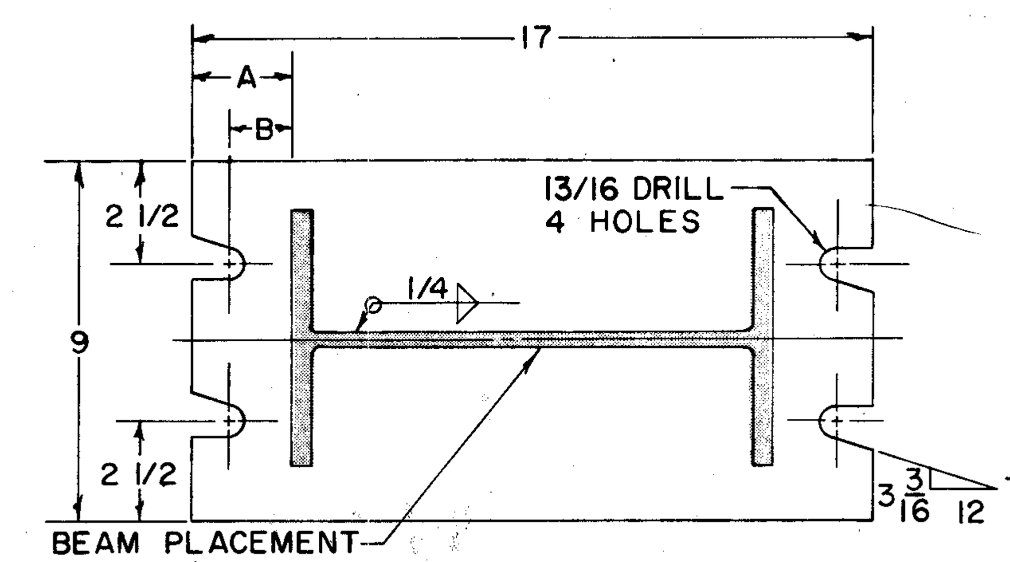
NOTE: INSTALL FUSE PLATE WITH NOTCHES TOWARD BASE

DETAIL "B"



WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 15/32"	3 1/16"
3.00 #	1 7/8"	3 1/2"
4.00 #	2"	3 5/8"

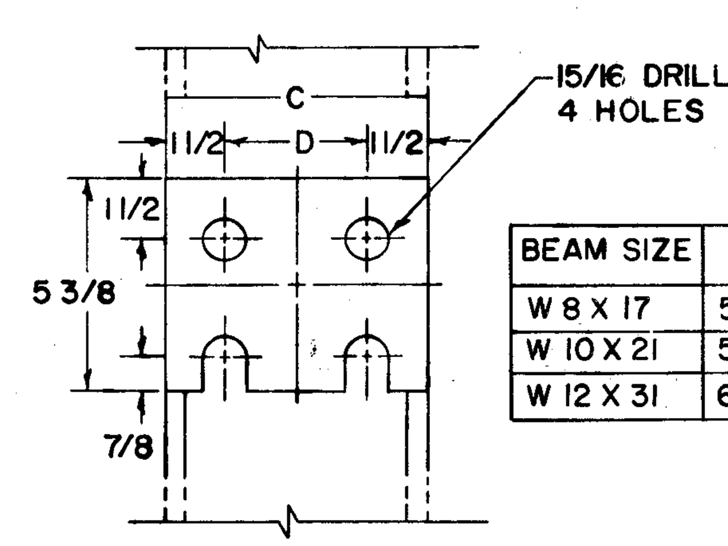
DRIVE POST DETAIL



BEAM SIZE	A	B
W 8 X 17	4 1/2"	3 5/8"
W 10 X 21	3 1/2"	2 5/8"
W 12 X 31	2 1/2"	1 5/8"

BASE PLATE DETAIL

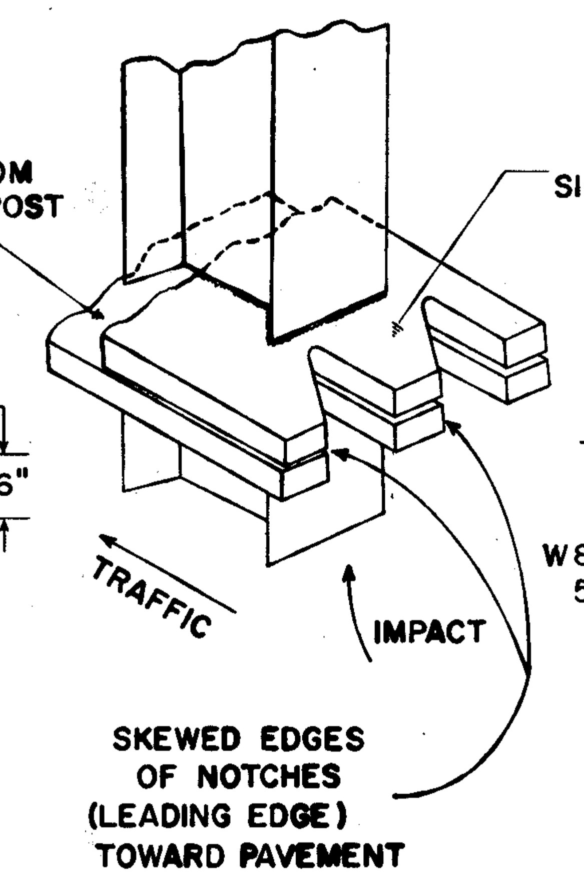
(TOP VIEW)

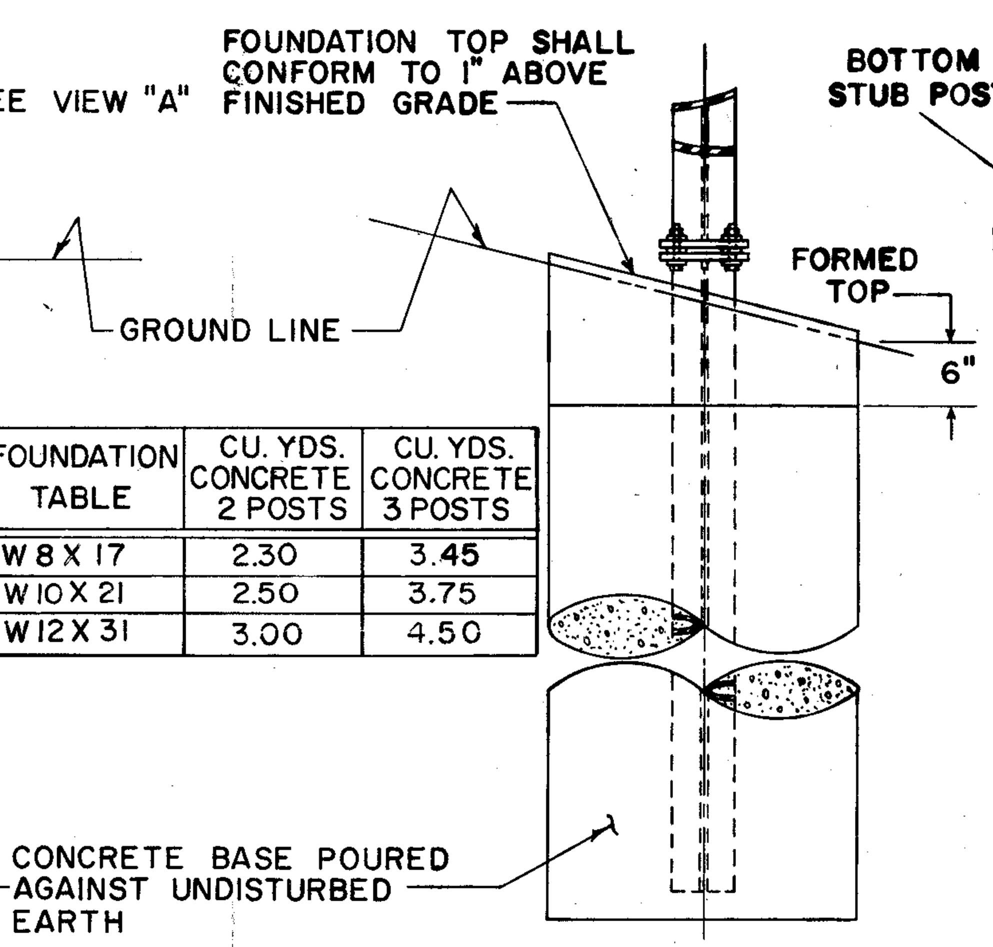


BEAM SIZE	C	D
W 8 X 17	5 1/4"	2 1/4"
W 10 X 21	5 3/4"	2 3/4"
W 12 X 31	6 1/2"	3 1/2"

FUSE PLATE DETAIL

BREAKAWAY SIGN SUPPORT BASE PLATE ORIENTATION

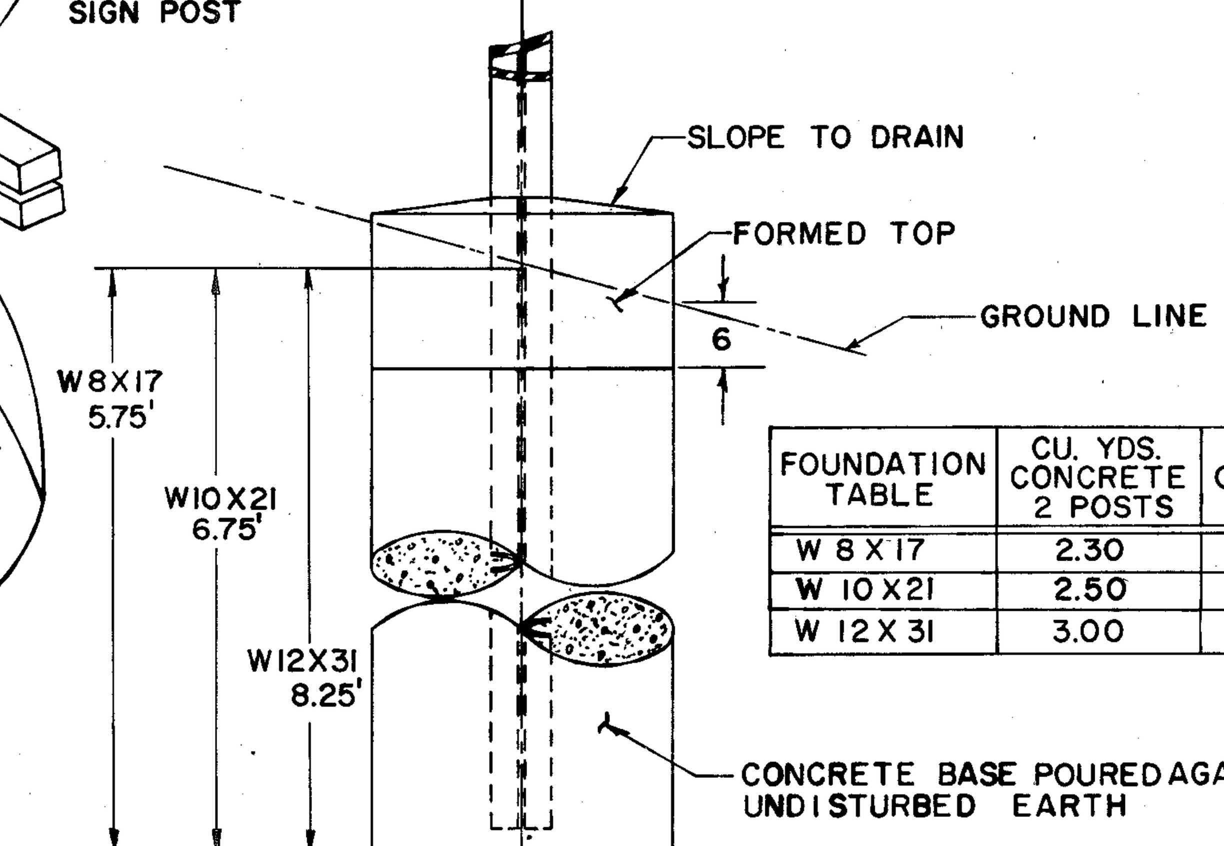




FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
W 8 X 17	2.30	3.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

FRONT ELEVATION

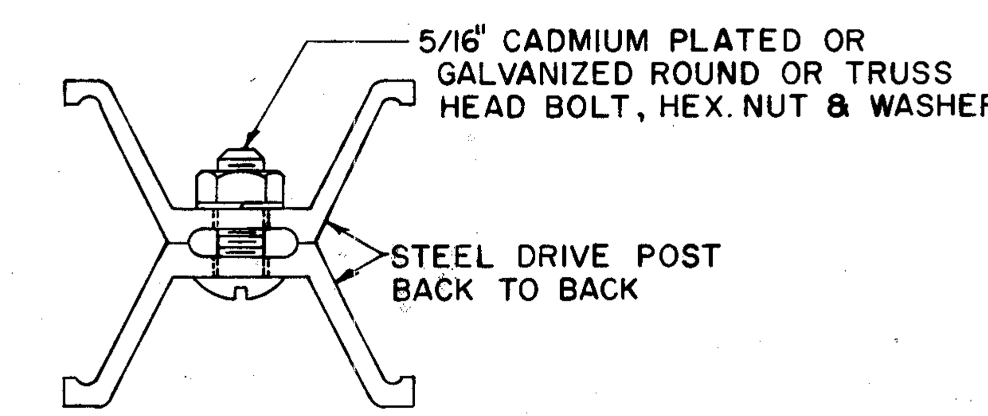
BREAK-AWAY SUPPORT

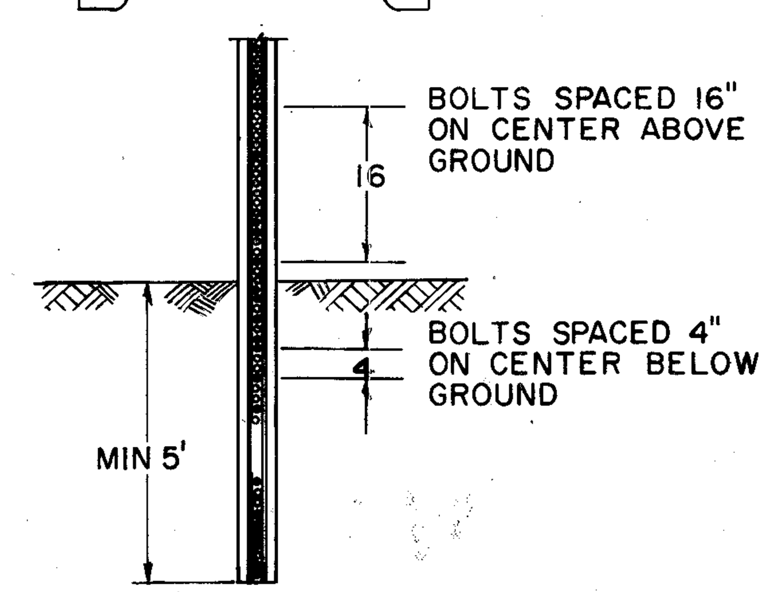


FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
W 8 X 17	2.30	3.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

FRONT ELEVATION

STANDARD SUPPORT





6# BEAM DETAIL

NOTES: ALL MATERIALS SHALL CONFORM TO THE STATE OF OHIO, CONSTRUCTION & MATERIALS SPECIFICATIONS OR AS OTHERWISE SPECIFIED

1.) 511 FOUNDATIONS
2.) 711.01 STRUCTURAL STEEL SHAPES & PLATES
3.) 711.09 H.S. STEEL BOLTS, NUTS & WASHERS

ALL DIMENSIONS IN INCHES UNLESS OTERWISE SHOWN

31/36

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OHIO DEPARTMENT OF HIGHWAYS

GROUND MOUNTED SIGN SUPPORTS

GMSS

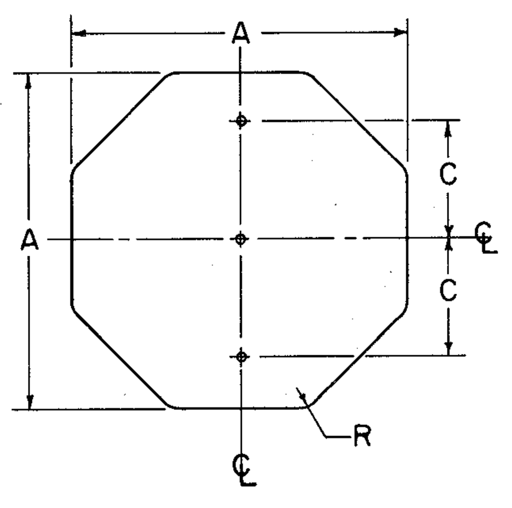
DATE
5-10-68
7-12-68
5-23-69
9-16-69
12-20-71

APPROVED ____________
ENGINEER OF TRAFFIC

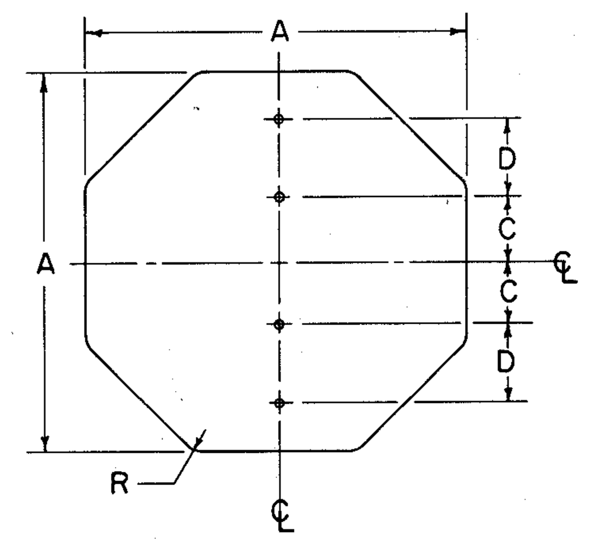
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

538
630

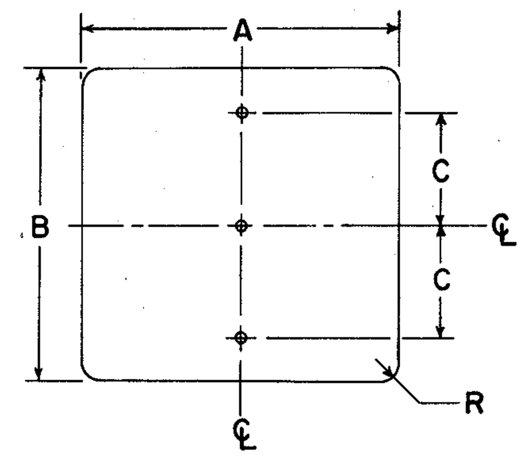
HAM 275-3.86
HAMILTON COUNTY



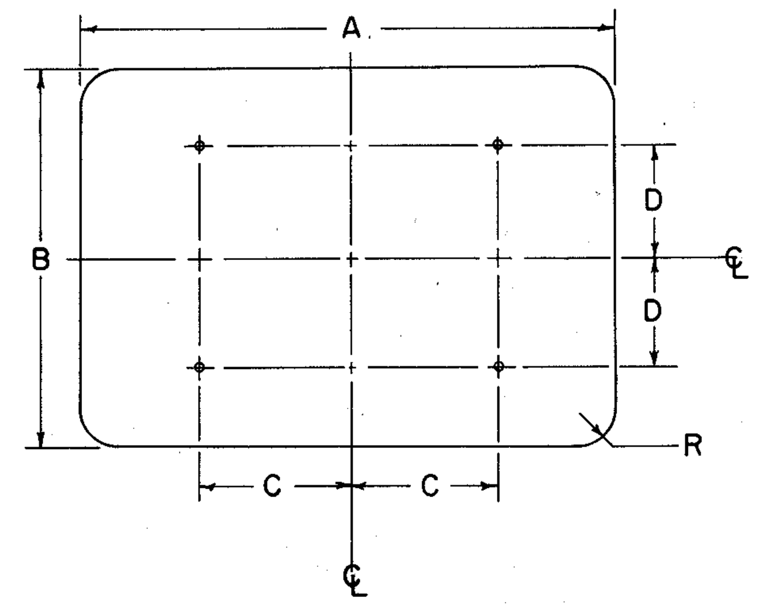
A	C	R	GAUGE
30	8	1 1/2	.080
36	8	1 1/2	.080



A	C	D	R	GAUGE
48	8	10	1 1/2	.100

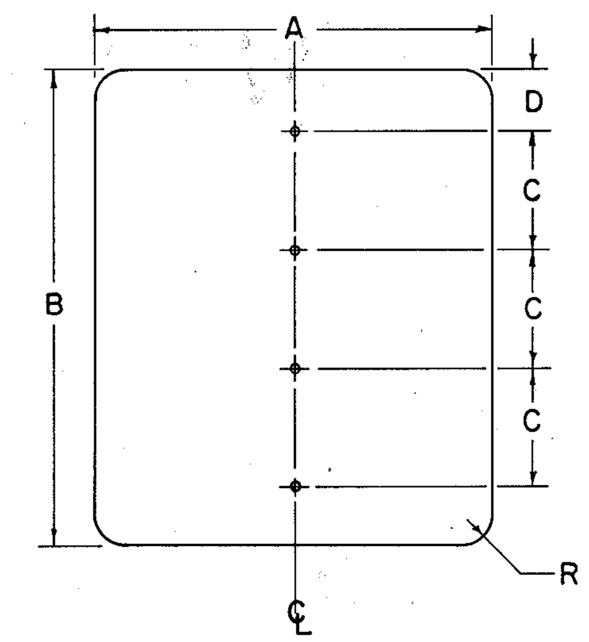


A	B	C	R	GAUGE
24	30	8	1 1/2	.063
24	48	15	1 1/2	.100
30	36	11	1 1/2	.080
30	42	12	1 1/2	.080
36	36	11	1 1/2	.080
36	42	15	1 1/2	.080
36	48	15	1 1/2	.080
48	24	10	3	.100
48	36	13	3	.100

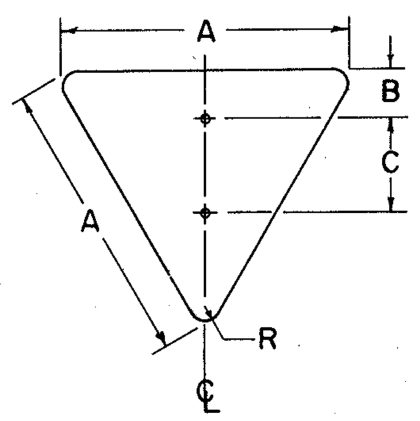


A	B	C	D	R	GAUGE
48	48	22	16	3	.100
48	60	22	22	3	.100

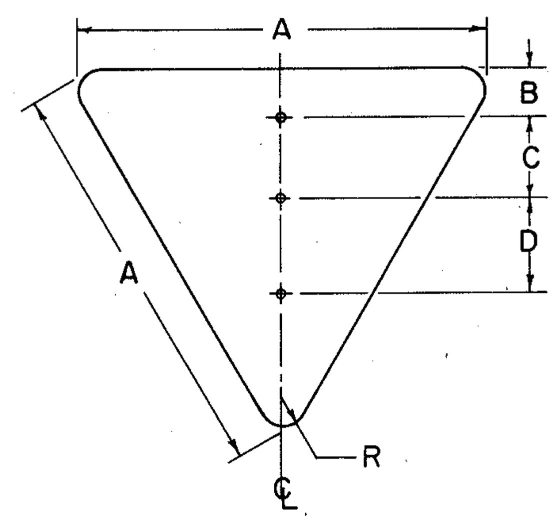
SPEED LIMIT SIGNS ON TWO SUPPORTS



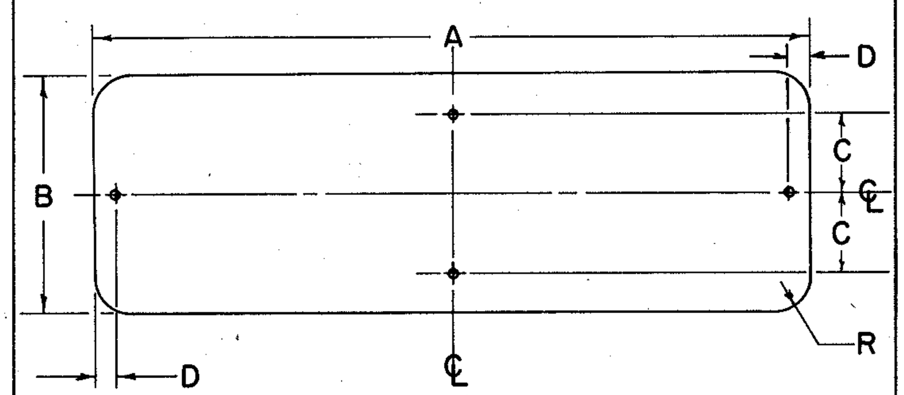
A	B	C	D	R	GAUGE
48	48	12	6	3	.100
48	60	15	7 1/2	3	.100



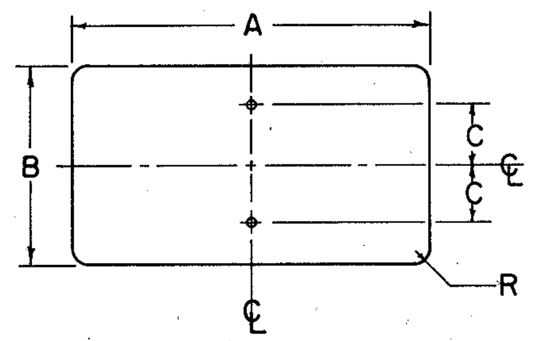
A	B	C	R	GAUGE
36	3	16	2 1/2	.080



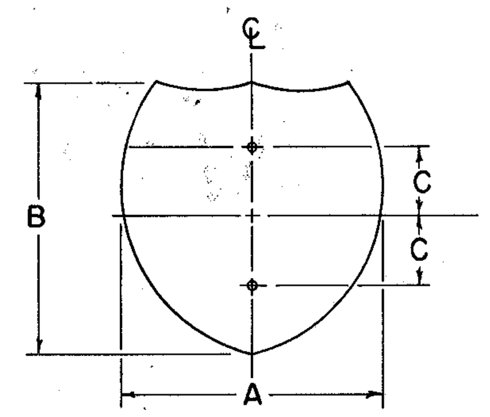
A	B	C	D	R	GAUGE
48	4	10	15	3	.100
60	5	10	15	4	.100



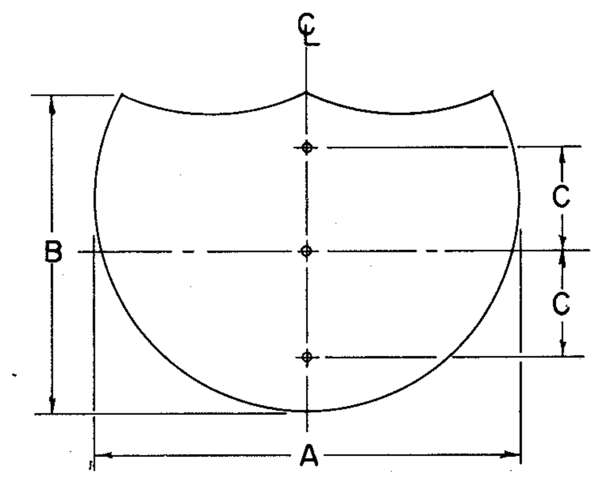
A	B	C	D	R	GAUGE
36	12	4	1	1 1/2	.080
72	12	—	16	1 1/2	.100
60	12	—	13	1 1/2	.100



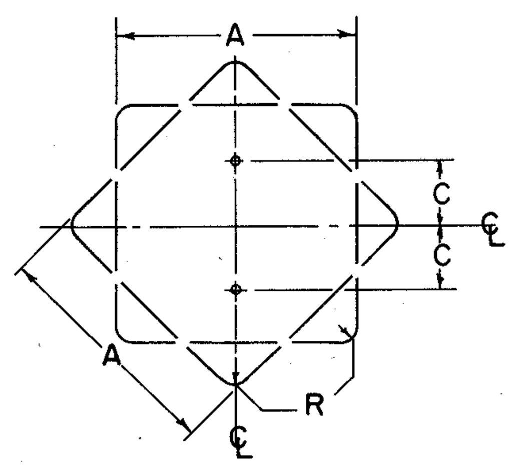
A	B	C	R	GAUGE
12	6	1 1/2	1 1/2	.063
20	15	6	1 1/2	.063
24	12	4 1/2	1 1/2	.063
24	18	7 1/2	1 1/2	.063
8	26	8	1	.063
36	18	7 1/2	1 1/2	.080



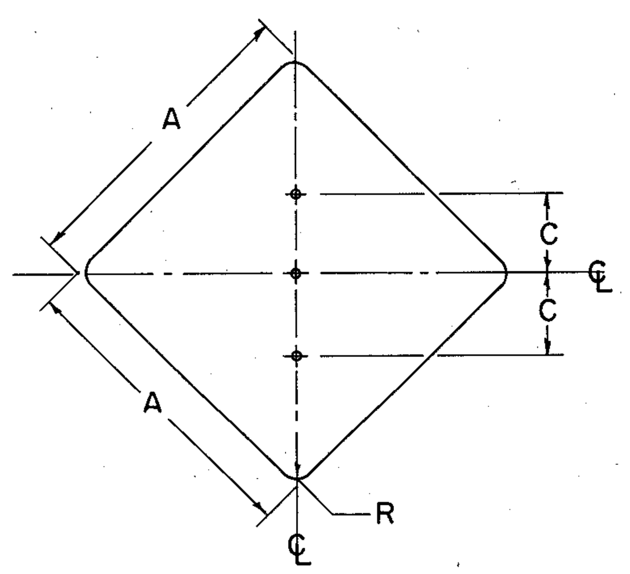
A	B	C	GAUGE
24	24	8	.063
30	24	8	.080



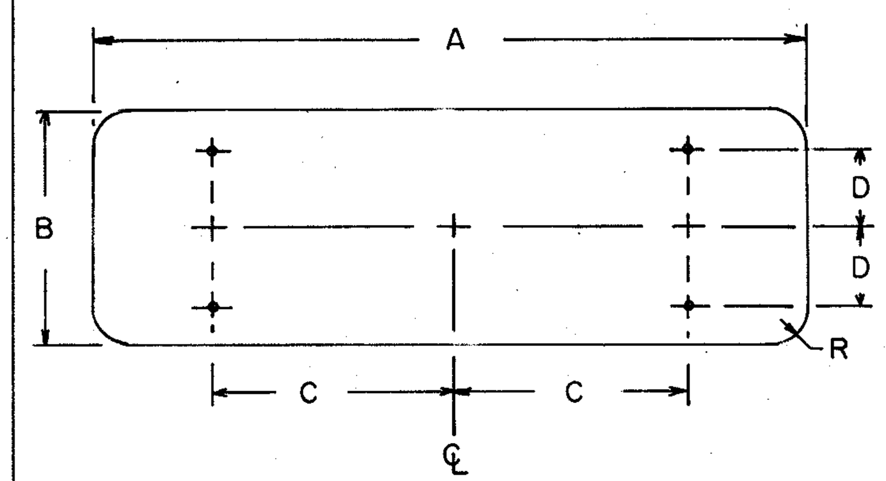
A	B	C	GAUGE
36	36	11	.080
48	36	11	.100



A	C	R	GAUGE
18	7 1/2	1 1/2	.063
24	8	1 1/2	.063
30	8	1 1/2	.080

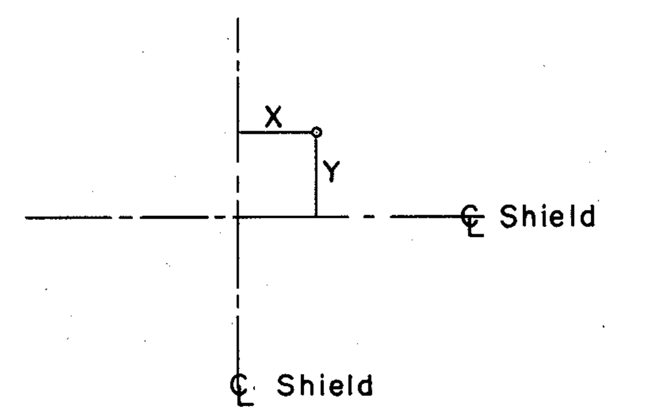


A	C	R	GAUGE
36	12	1 1/2	.080
48	14	3	.100



A	B	C	D	R	GAUGE
72	18	20	6	1 1/2	.100
72	24	20	8	1 1/2	.100
60	30	17	10	1 1/2	.100
96	18	27	6	1 1/2	.100

Location of holes on "Demountable Shields" (attached to guide signs)



SIZE	NO. HOLES	X	Y
(26) 24X24	4	7	7
30X24	4	8	8
(39) 36X36	4	10	10
		0	10
48X36	6	15	10

For notes on fastening see drawing for miscellaneous "Signing Items" sheet.

NOTES:

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

MATERIAL

FLAT SIGN BLANKS SHALL BE FURNISHED IN ALUMINUM ALLOY 6061-T6, (ASTM-B209, GS11A-T6) WITH MILL FINISH.

BOLT HOLES

THE BOLT HOLES SHALL BE 3/8" IN DIAMETER, AND MAY BE DRILLED, BLANKED OR PUNCHED TO FINISHED SIZE.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

SIGN BLANK DETAILS

SBD

DATE
4-14-67
5-10-68
10-1-68
5-27-69
6-18-69

APPROVED ____________
ENGINEER OF TRAFFIC

32
36

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

539
630

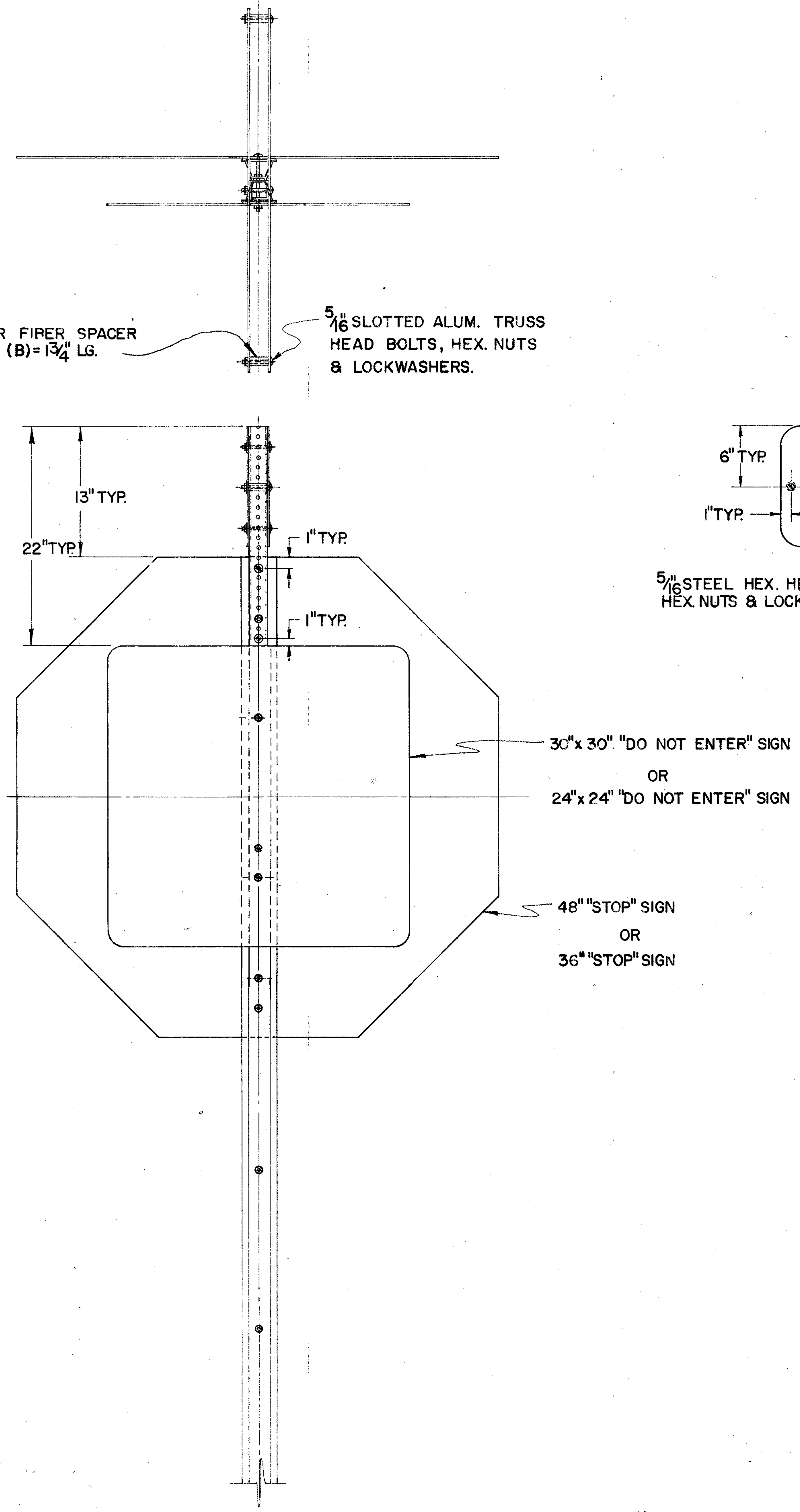
HAM. 275-3.86
HAMILTON COUNTY

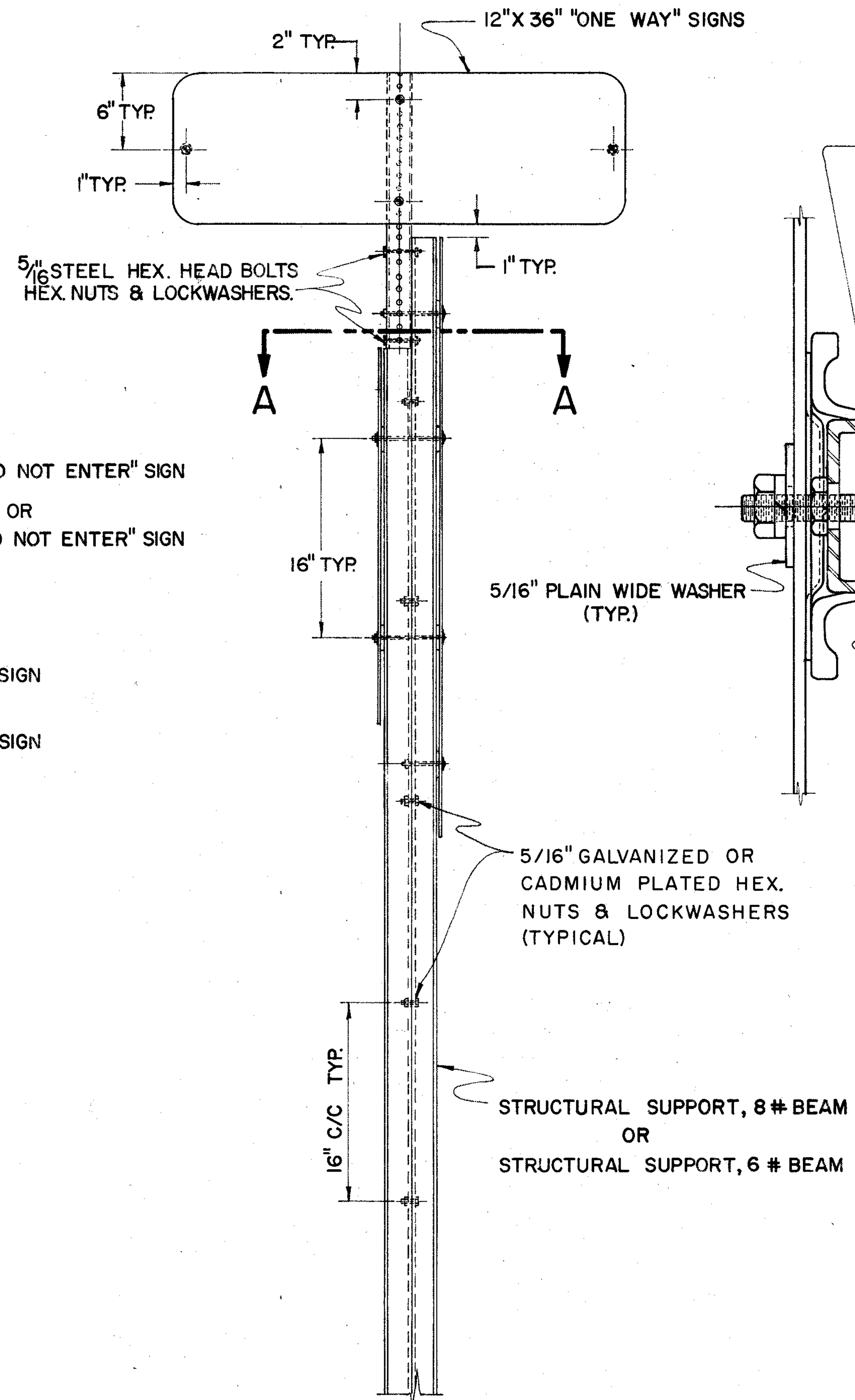
NOTES

MATERIALS
ALL SIGN MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 815.

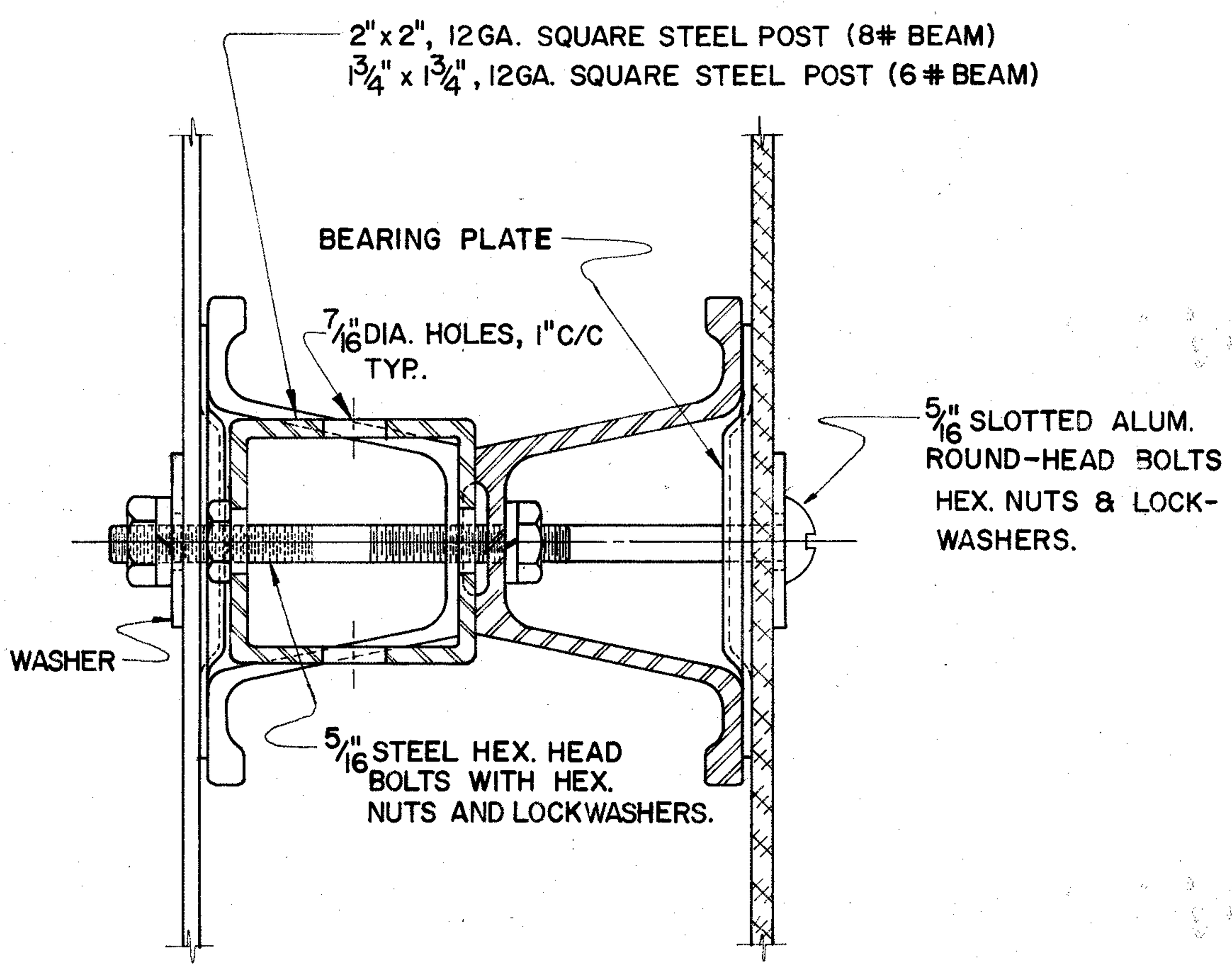
ALL STRUCTURAL MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 816.

FOR SPECIFICATIONS FOR THE 2" & 1¾" SQUARE STEEL POST SEE GENERAL NOTES, SHEET NO.____.

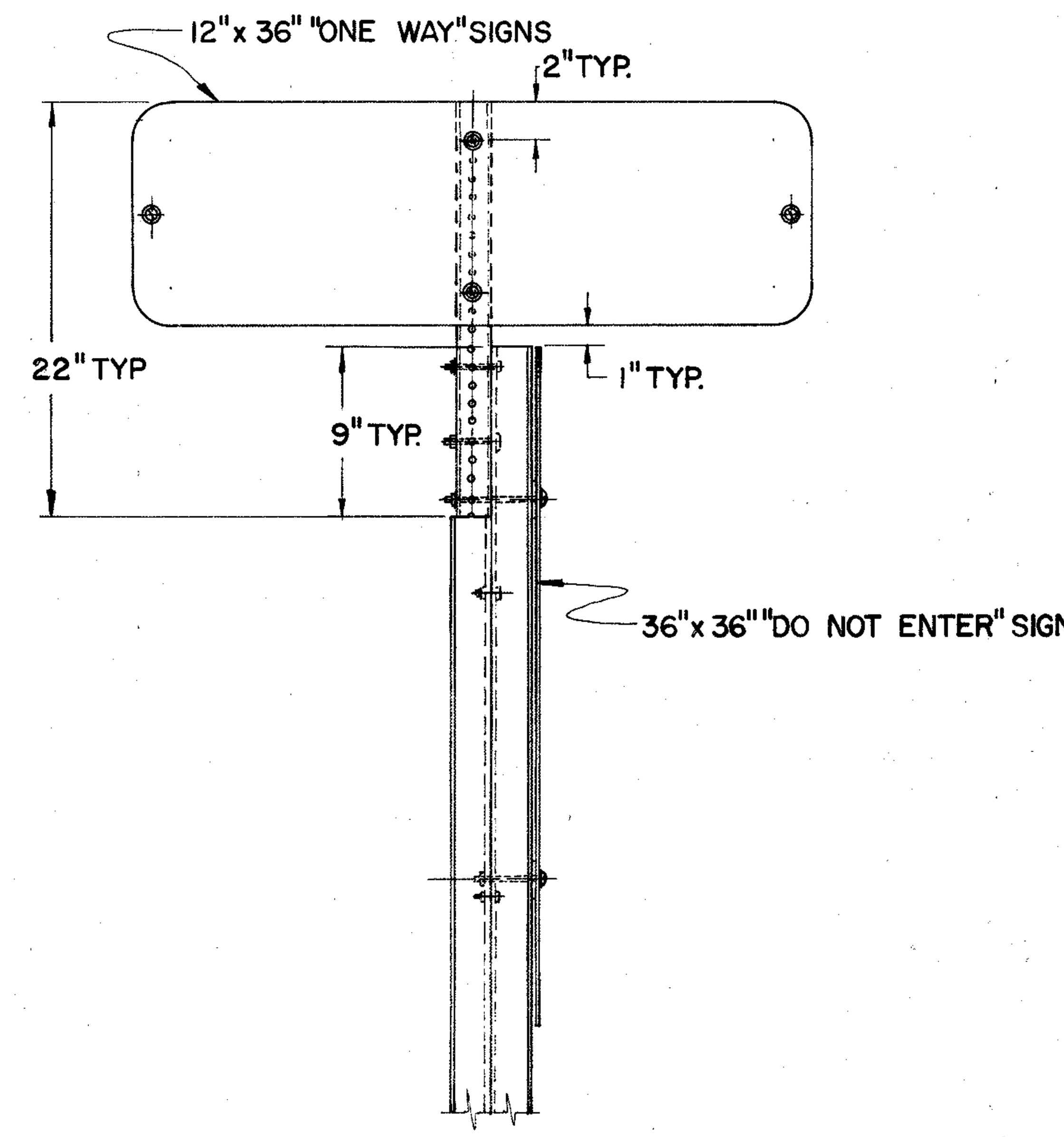




"ONE WAY", "STOP", "DO NOT ENTER", SIGN INSTALLATION.



SECTION A-A



"ONE WAY", "DO NOT ENTER" SIGN INSTALLATION

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

SPECIAL "ONE WAY" SIGN SUPPORT DETAILS	SOW	DATE 2-7-66 4-18-67

APPROVED________
ENGINEER OF TRAFFIC

33
36

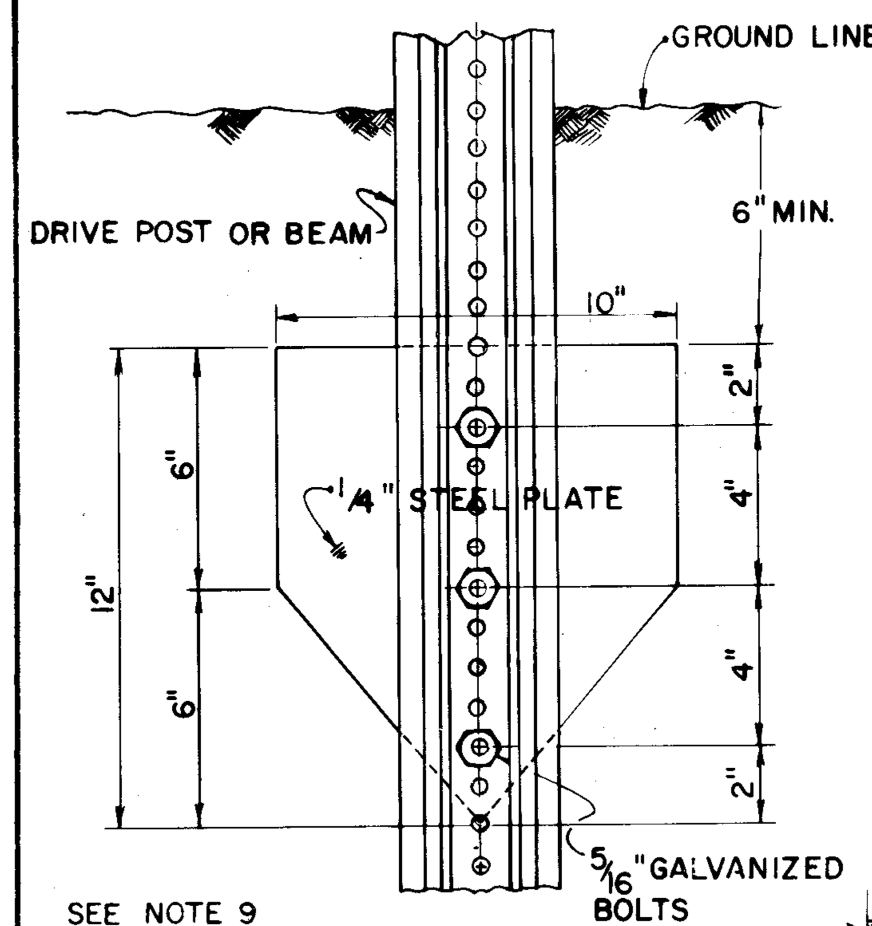
SPECIAL "ONE WAY" SIGN SUPPORT DETAILS

FED. RD. DIVISION	STATE	PROJ.	
2	OHIO		

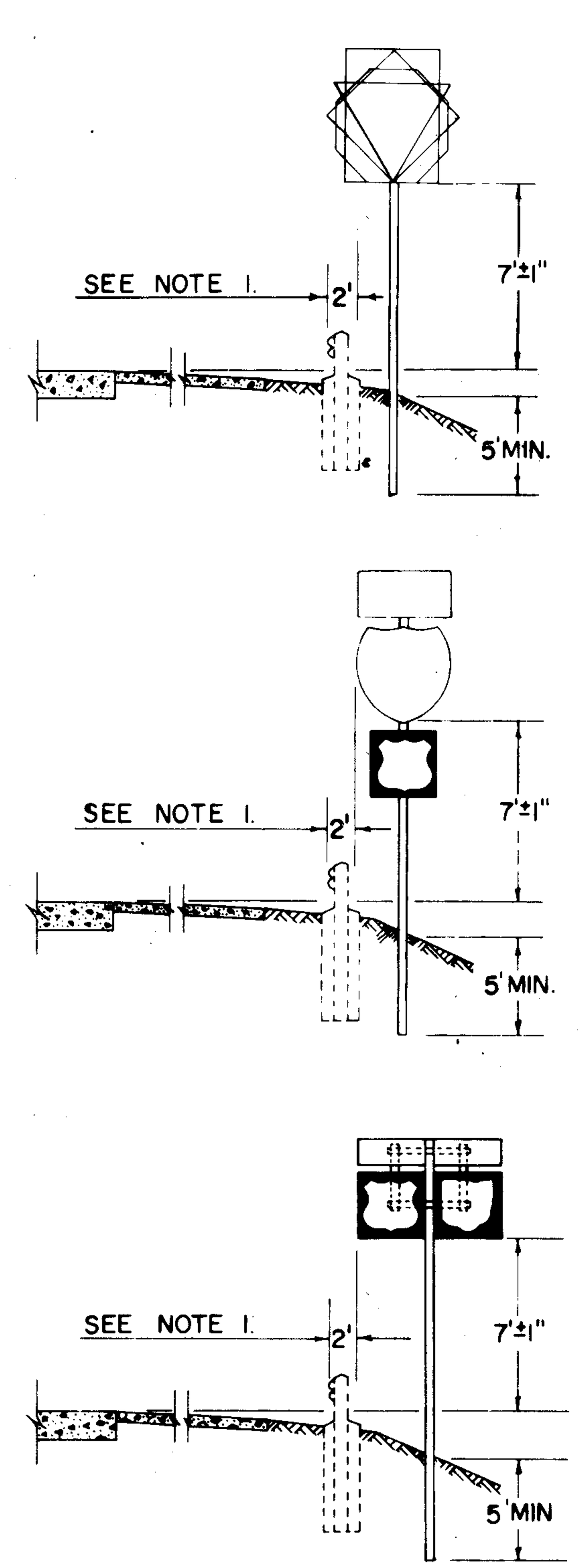
540
630

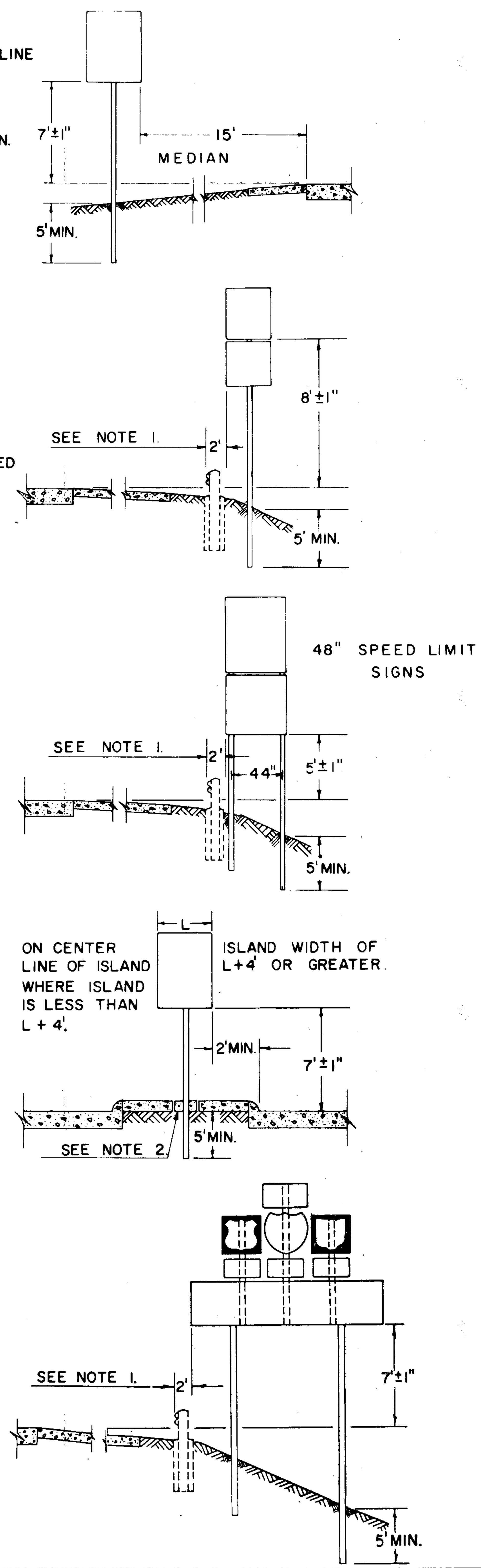
HAM 275-3.86
HAMILTON COUNTY

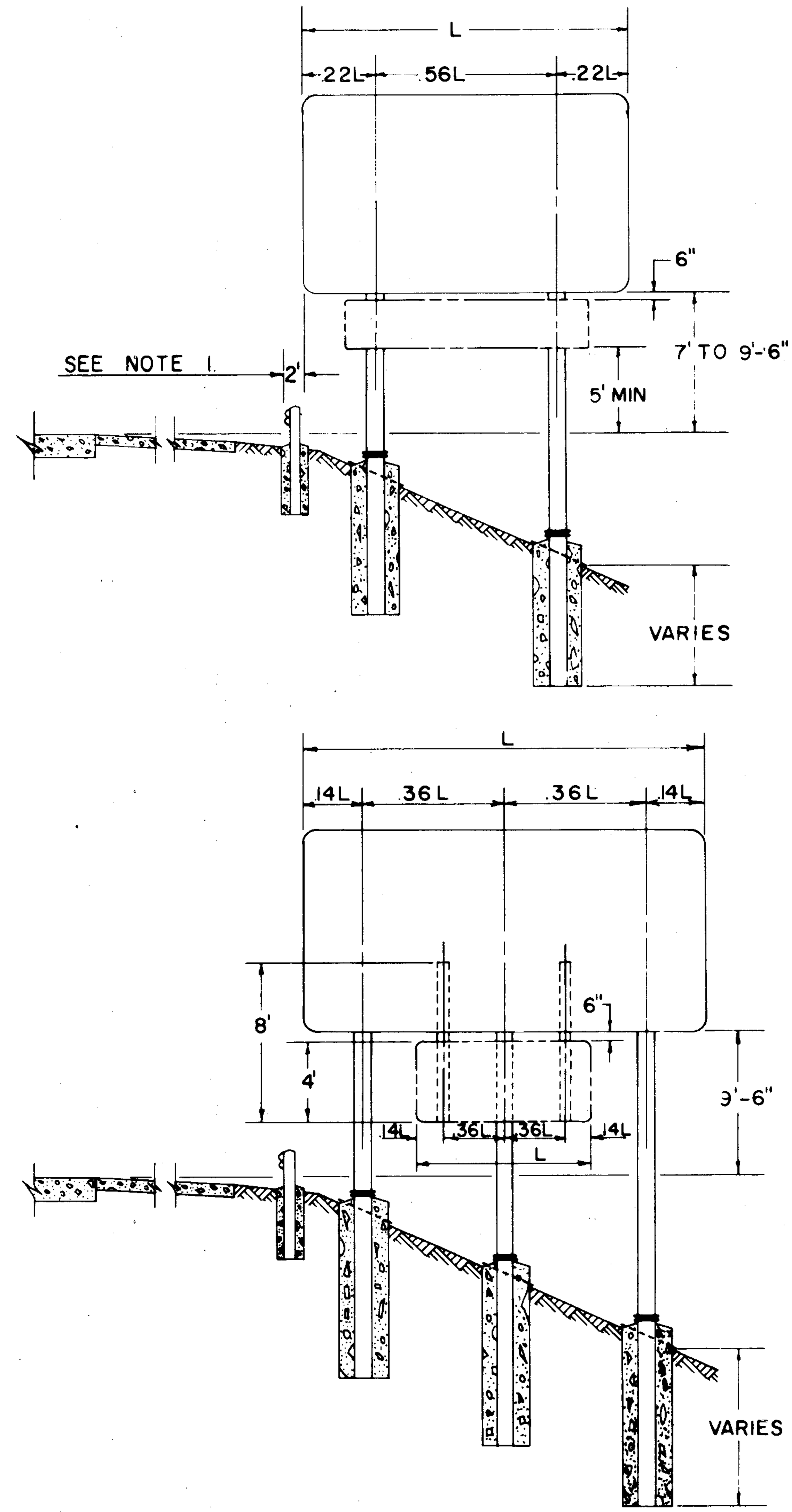
Red
540
40
607
40 6

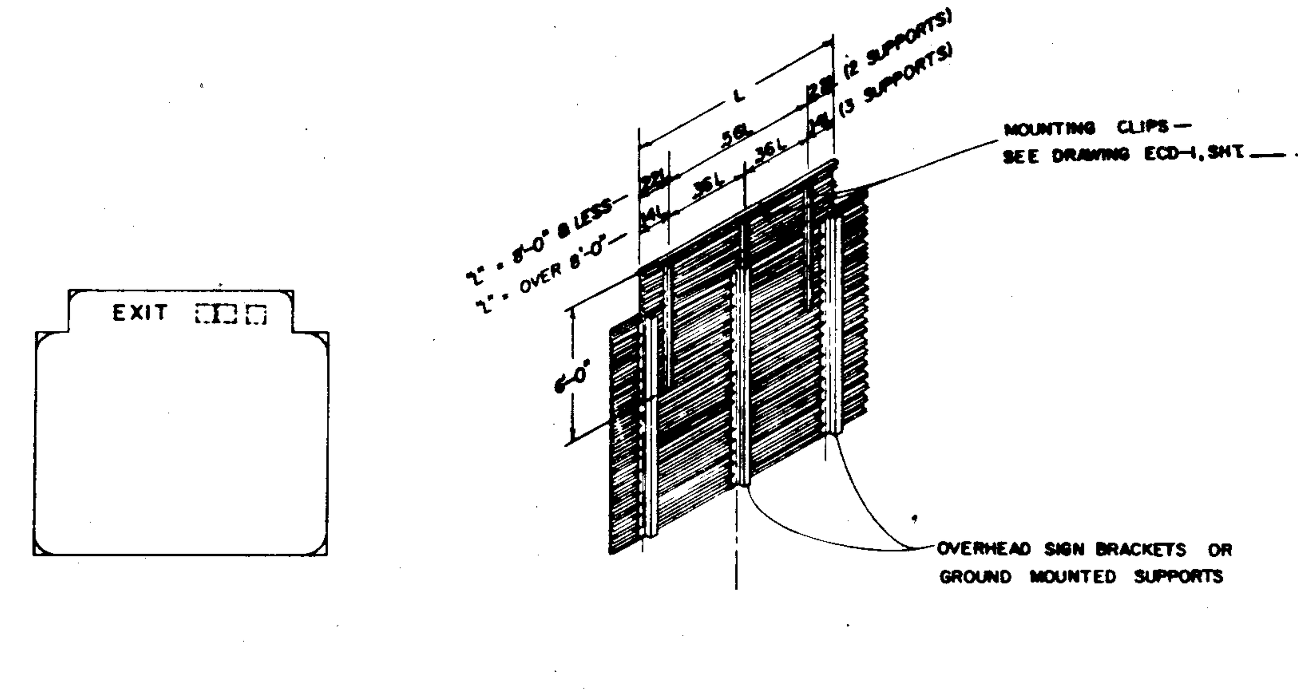


SOIL PLATE DETAIL

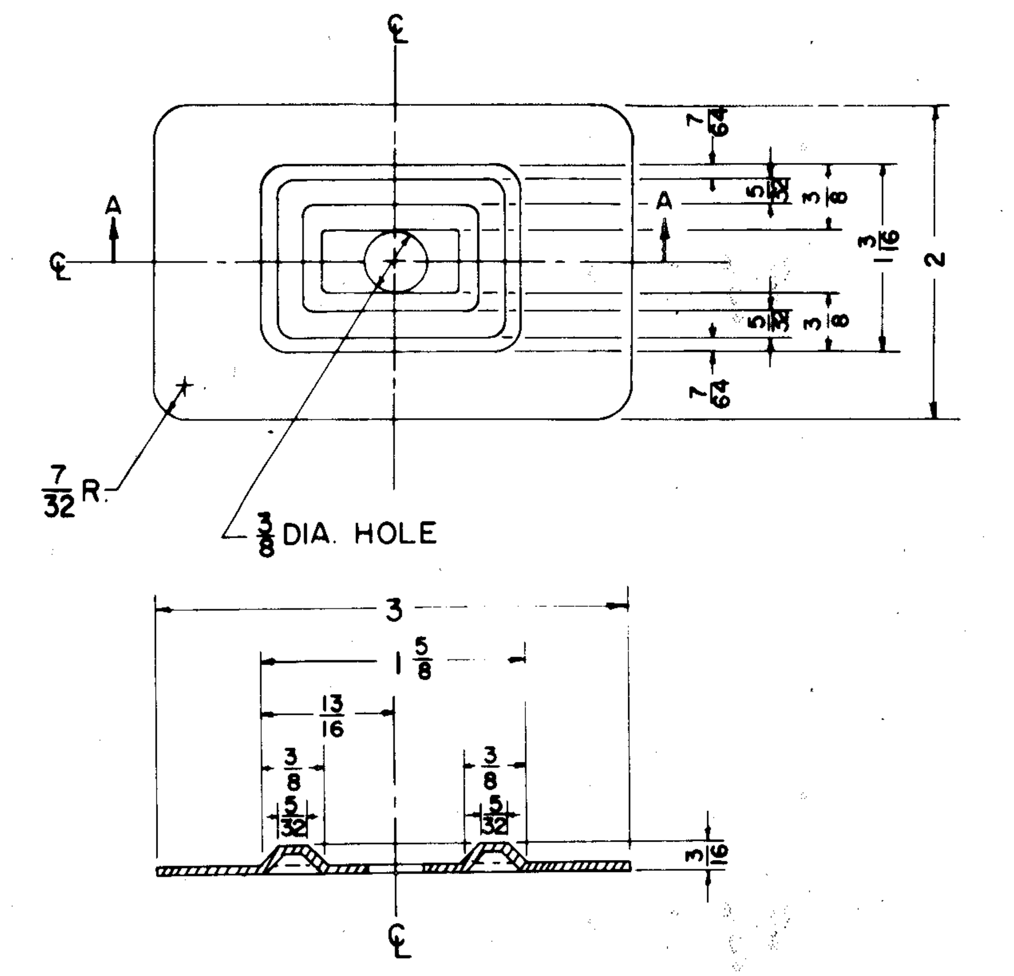








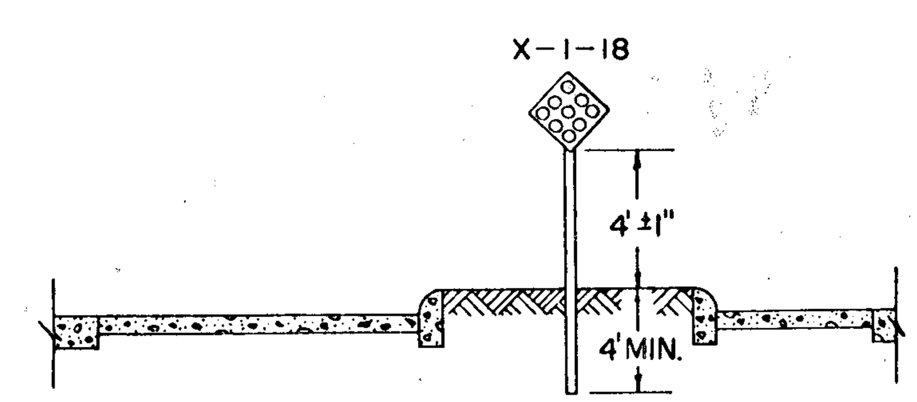
"EXIT" SIGN ATTACHMENT DETAIL



SECTION AA

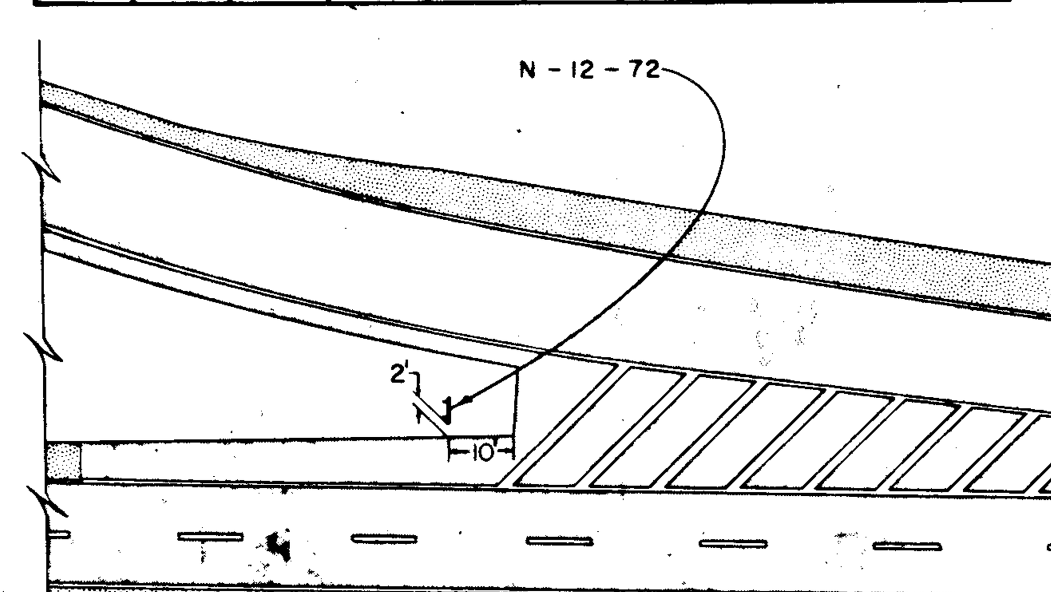
NOTE:
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.
METAL SHALL BE 16 GAUGE STEEL.
ALL DIMENSIONS ARE IN INCHES.

BEARING PLATE DETAIL



SIGN SUPPORT SPACING

L=FT	2 SUPPORTS		3 SUPPORTS		L=FT	2 SUPPORTS		3 SUPPORTS	
	.22	.56	.14	.36		.22	.56	.14	.36
5.0	1.10	2.80	0.70	1.80	17.0	3.74	9.52	2.38	6.12
6.0	1.32	3.36	0.84	2.16	18.0	3.96	10.08	2.52	6.48
7.0	1.54	3.92	0.98	2.52	19.0	4.18	10.64	2.66	6.84
8.0	1.76	4.48	1.12	2.88	20.0			2.80	7.20
9.0	1.98	5.04	1.26	3.24	21.0			2.94	7.56
10.0	2.20	5.60	1.40	3.60	22.0			3.08	7.92
11.0	2.42	6.16	1.54	3.96	23.0			3.22	8.28
12.0	2.64	6.72	1.68	4.32	24.0			3.36	8.64
13.0	2.86	7.28	1.82	4.68	25.0			3.50	9.00
14.0	3.08	7.84	1.96	5.04	26.0			3.64	9.36
15.0	3.30	8.40	2.10	5.40	27.0			3.78	9.72
16.0	3.52	8.96	2.24	5.76	28.0			3.92	10.08



DIRECTION OF TRAFFIC

NOTES

1. THE NEAR EDGE OF ALL MAIN LINE SIGNS, EXCEPT GORE INSTALLATIONS, SHALL BE LOCATED TWO FEET (2') BACK OF GUARD RAIL FACE. THIS DIMENSION SHALL BE DETERMINED BY ROADWAY TYPICAL SECTION & USED WHETHER OR NOT GUARD RAIL IS PRESENT.
ON RAMPS THE NEAR EDGE OF SIGNS SHALL BE LOCATED TWO FEET (2') BACK OF GUARD RAIL FACE. THIS DIMENSION WILL BE DETERMINED AND USED AS FOR MAIN LINE ABOVE.
ON APPROACHES THE NEAR EDGE OF SIGNS SHALL BE
(A) TWO FOOT (2') BEHIND EXISTING GUARD RAIL
(B) TWO FEET (2') FROM THE EDGE OF PAVED OR TRAVELED SHOULDER WITH A MINIMUM OF 6' FROM EDGE OF ROADWAY PAVEMENT.

2. POSTS PLACED IN CONCRETE MEDIANS SHALL BE INSTALLED BY DRIVING THROUGH A 6" SLEEVE OR CORE DRILLED HOLE. THE HOLE SHALL BE FILLED WITH ASPHALTIC CONCRETE AFTER THE POST IS IN THE PROPER POSITION.

3. HORIZONTAL BACK BRACING SHALL ALWAYS BE MOUNTED ON THE FRONT FLANGE OF THE SUPPORT EXCEPT WHERE SIGNS ARE MOUNTED BACK TO BACK. BACK BRACING SHALL NEVER EXTEND ABOVE TOP EDGE OF UPPERMOST SIGN PLATE AND SHALL BE ATTACHED TO SUPPORTS USING 5/16" GALVANIZED STEEL BOLTS.

4. SCREWS, NUTS, AND WASHERS FOR SIGN ERECTION SHALL BE ALUMINUM EXCEPT AS NOTED ABOVE. 5/16" TRUSS HEAD SLOTTED MACHINE SCREWS WITH HEX. NUTS PLAIN AND LOCKWASHERS SHALL BE USED. PLAIN WASHERS SHALL BE $\frac{5}{16}$" "WIDE", USED ON SIGN FACE ONLY.

5. SIGN INSTALLATIONS SHALL BE PLACED SO THAT SUPPORTS ARE NOT PLACED IN DRAINAGE DITCHES.

6. HORIZONTAL CLEARANCES SHOWN PERTAIN TO NON-CURBED SECTIONS. SECTIONS WITH UNMOUNTABLE CURB SHALL HAVE A HORIZONTAL CLEARANCE OF 2'-0" MINIMUM FROM THE CURB FACE TO THE SIGN EDGE.

7. VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SIGNS ON ONE ASSEMBLY SHALL BE A MAXIMUM OF 2" AND A MINIMUM OF 1".

8. GALVANIZED STEEL BEARING PLATES SHALL BE INCLUDED BETWEEN ALL SHEET ALUMINUM SIGNS ATTACHED TO VERTICAL SUPPORTS AT EACH SIGN BOLT LOCATION.

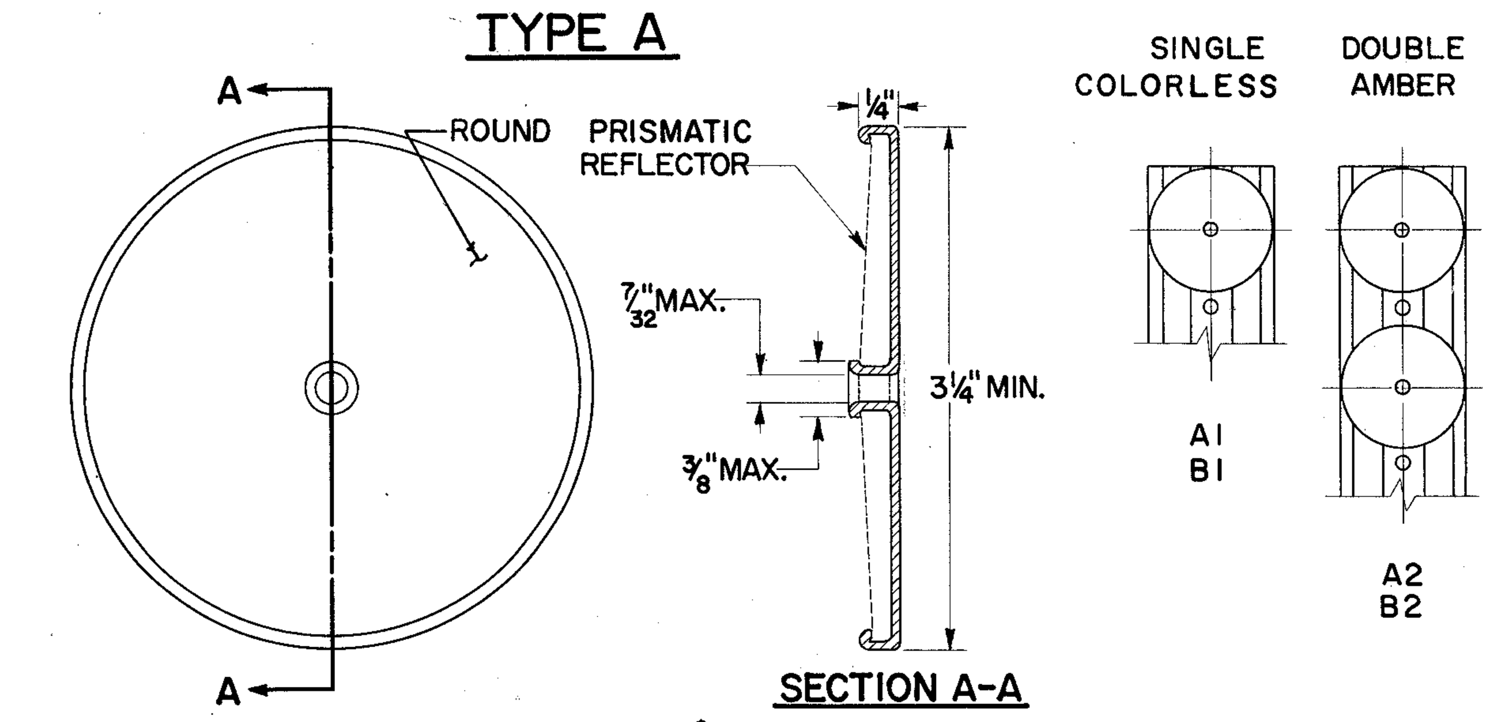
9. SOIL PLATES SHALL BE ATTACHED TO ALL 6 LB. BEAMS BETWEEN POSTS AS DETAILED ON THIS SHEET, EXCEPT WHERE BEAMS ARE PLACED IN CONCRETE MEDIANS AS COVERED IN NOTE 2.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

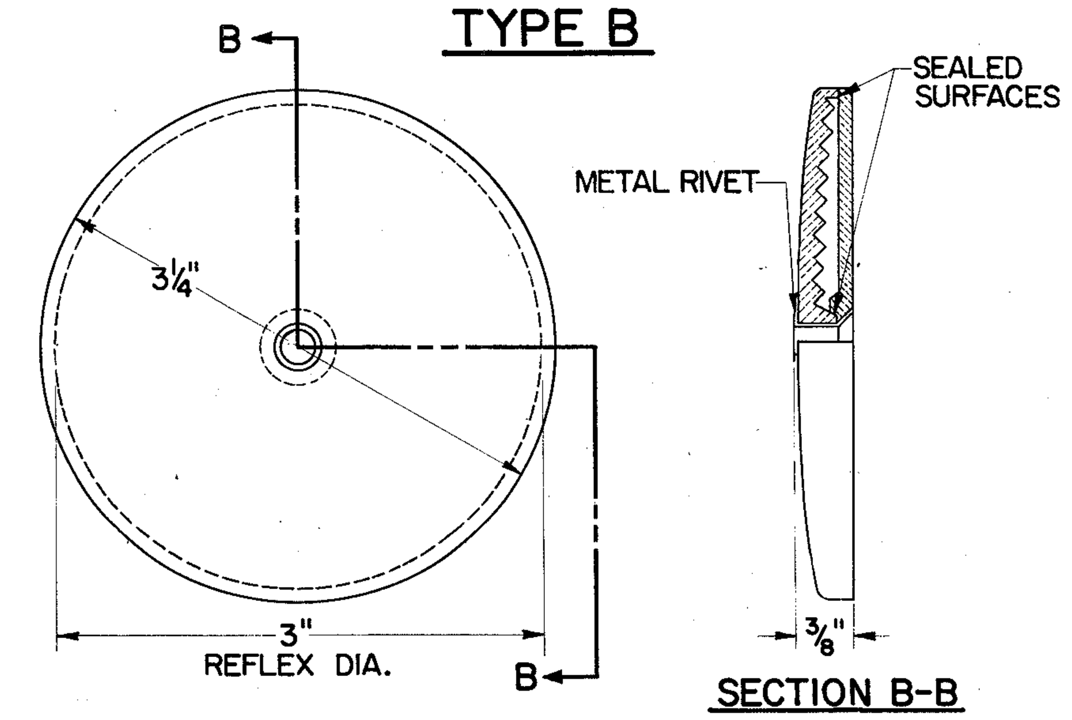
TYPICAL PLACEMENT OF SIGNS	TPS-1	DATE 9-27-67 7-12-68 5-13-69 3-5-71 12-21-71 3-7-72

APPROVED ______________
ENGINEER OF TRAFFIC

TYPE A



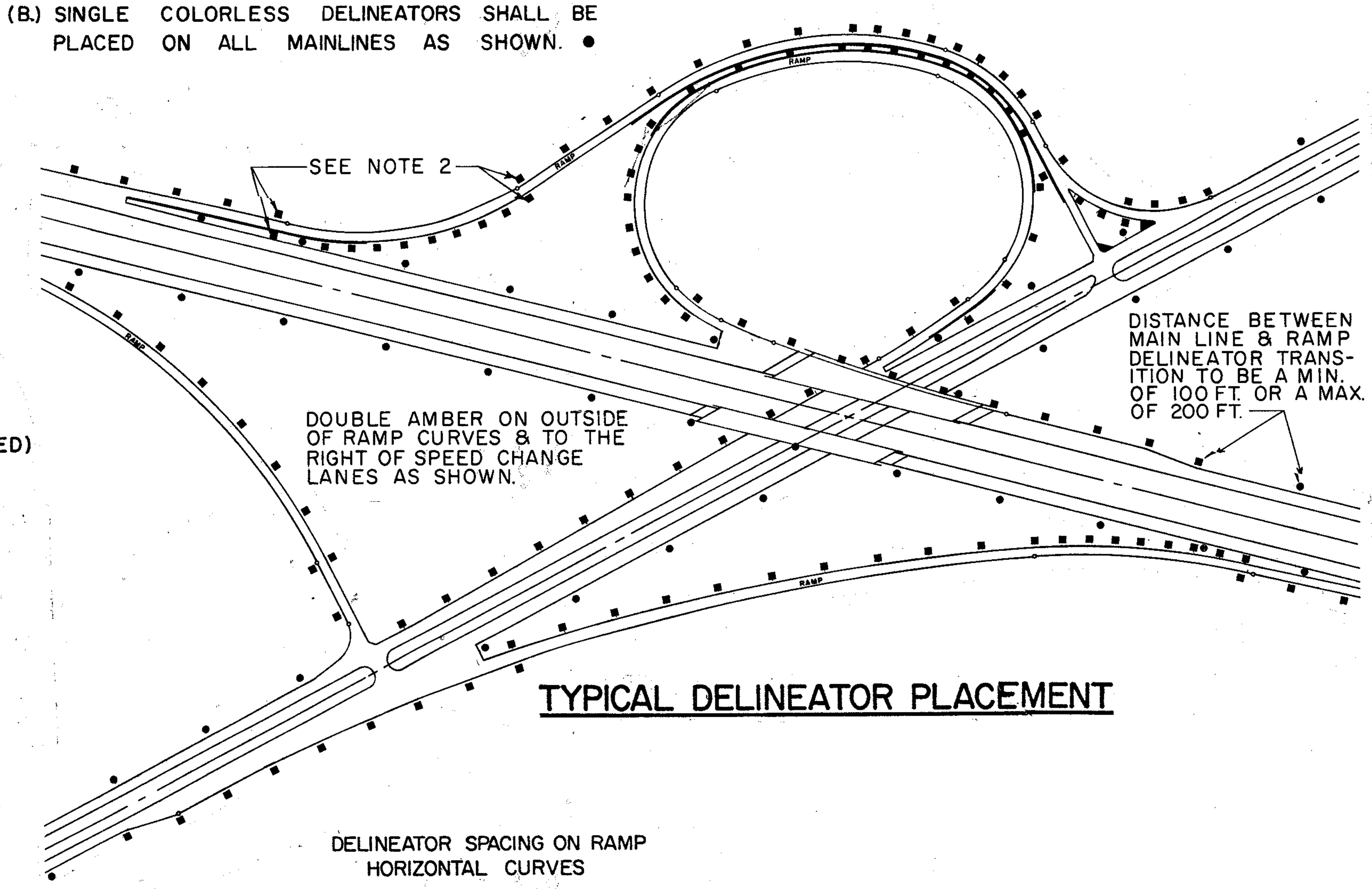
TYPE B



NOTE:

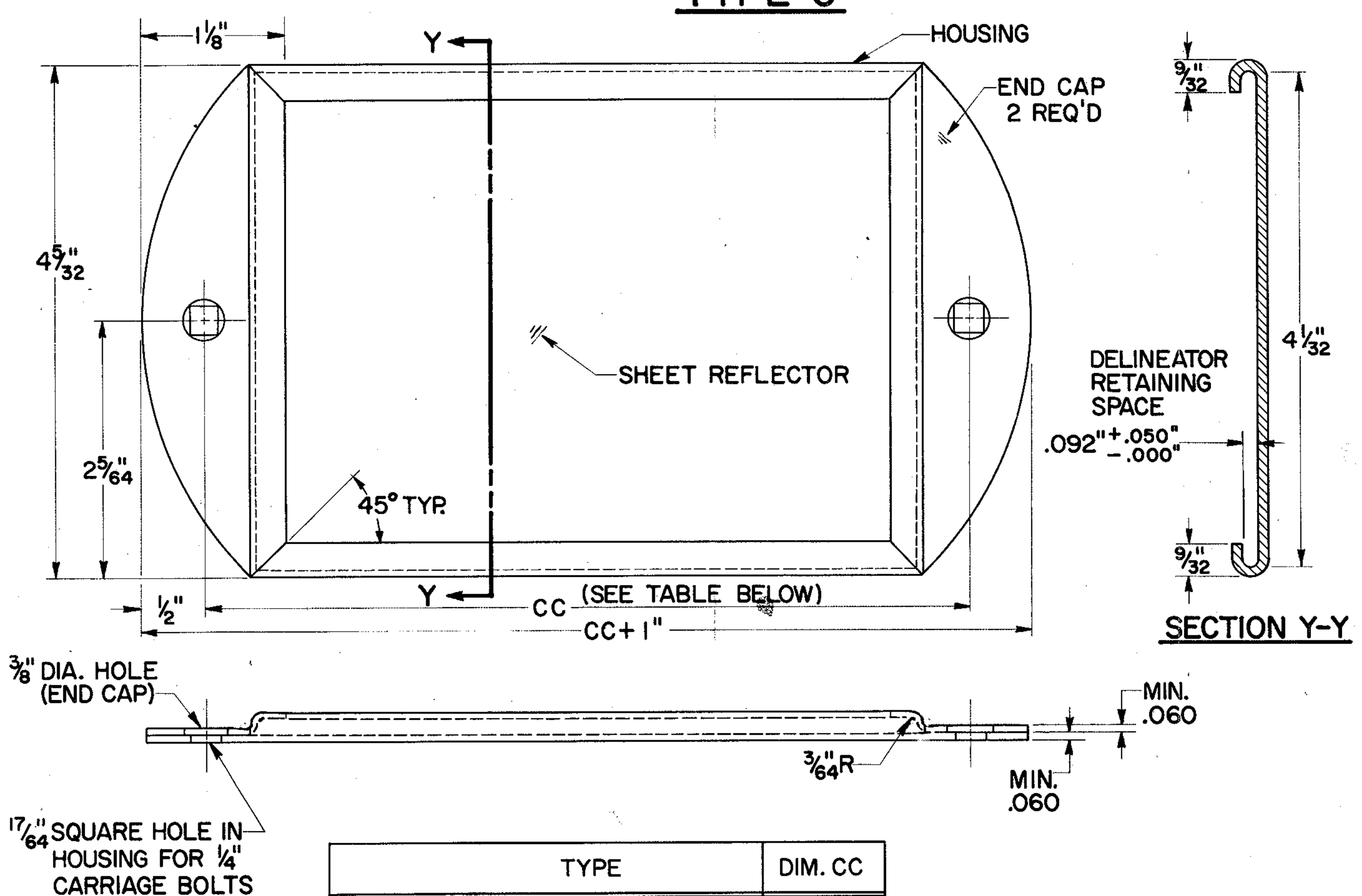
(A.) DOUBLE AMBER DELINEATORS SHALL BE PLACED ON ALL RAMPS AS SHOWN. ■

(B.) SINGLE COLORLESS DELINEATORS SHALL BE PLACED ON ALL MAINLINES AS SHOWN. ●

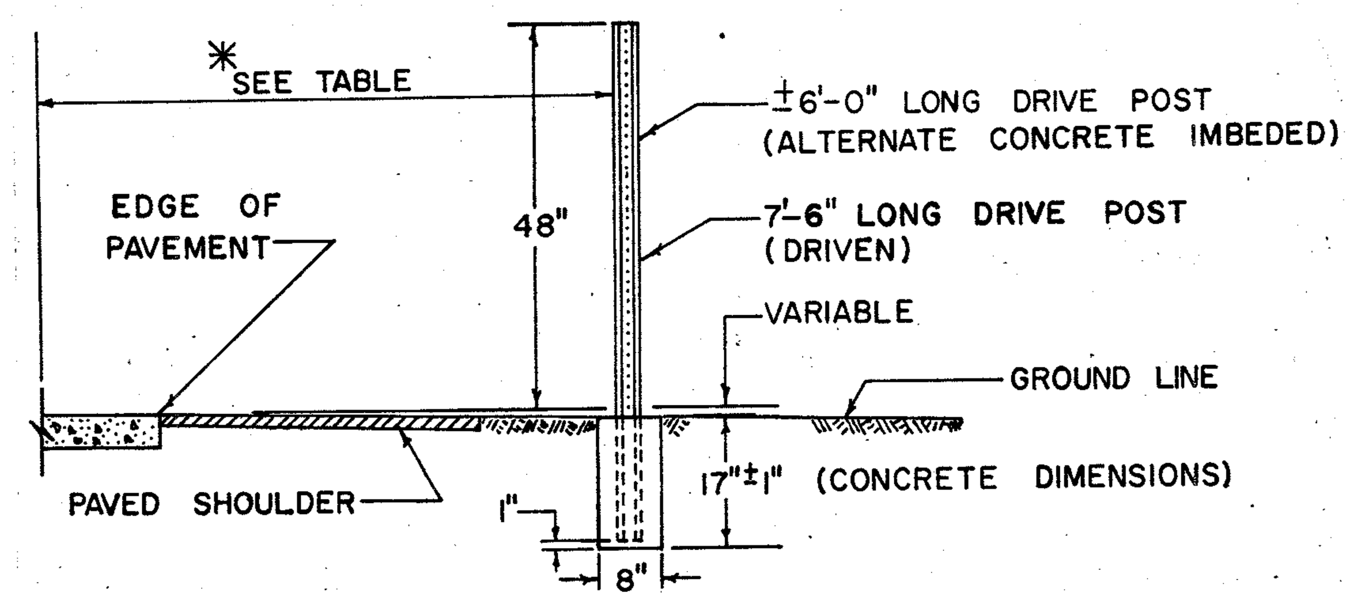


TYPICAL DELINEATOR PLACEMENT

TYPE C



TYPE	DIM. CC
C1-SINGLE COLORLESS	6"
C2-DOUBLE AMBER	11"



LATERAL PLACEMENT OF DELINEATORS

* TABLE

TYPE DELINEATOR	NO GUARDRAIL	GUARDRAIL
SINGLE COLORLESS	12'-6"	6" OUTSIDE
DOUBLE AMBER RIGHT SIDE	** 8'-6"	6" OUTSIDE
DOUBLE AMBER LEFT SIDE	4'-6"	6" OUTSIDE

** THIS DIMENSION SHALL VARY ON SPEED CHANGE LANES TO MAINTAIN MINIMUM DISTANCE OF 2'-6" FROM EDGE OF PAVED SHOULDER.

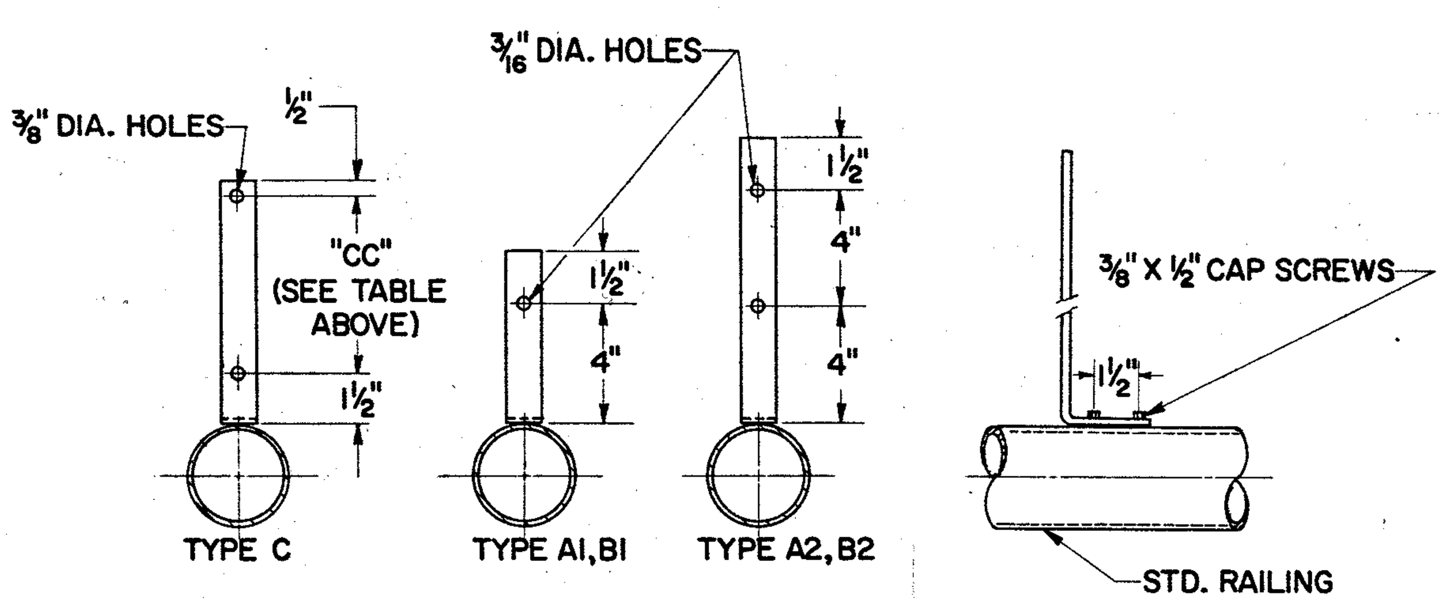
DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

RADII, FT. FROM	TO	SPACING ON CURVE	* TRANSITION SPACING	
TANGENT	1,801	100'	100'	100'
1,800	1,401	80'	100'	100'
1,400	1,001	70'	100'	100'
1,000	751	60'	100'	100'
750	551	50'	80'	100'
550	326	40'	70'	100'
325	——	30'	60'	100'

* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

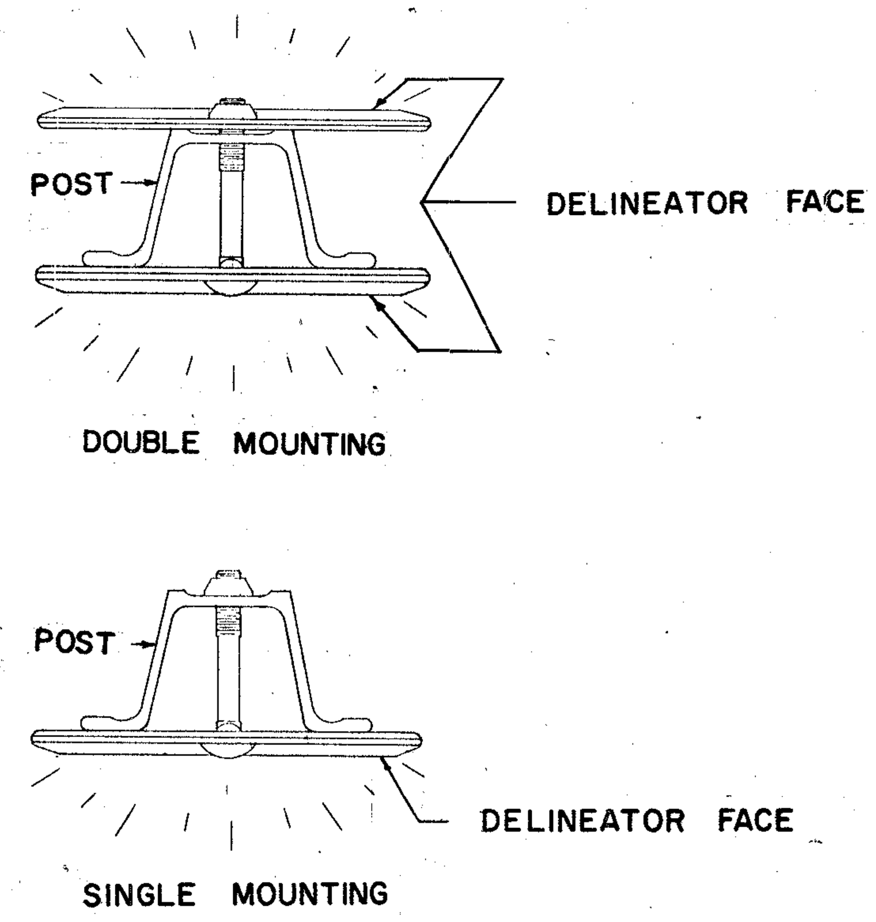
NOTES

1. TYPE A1 OR B1 DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES.
2. WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS, THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.
3. NO DELINEATORS ARE TO BE PLACED IN PAVED BERM
4. WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.

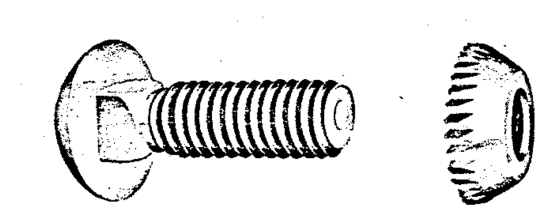


ALL BRACKETS 1/4" x 1 1/4" STAINLESS STEEL

BRIDGE RAIL BRACKET

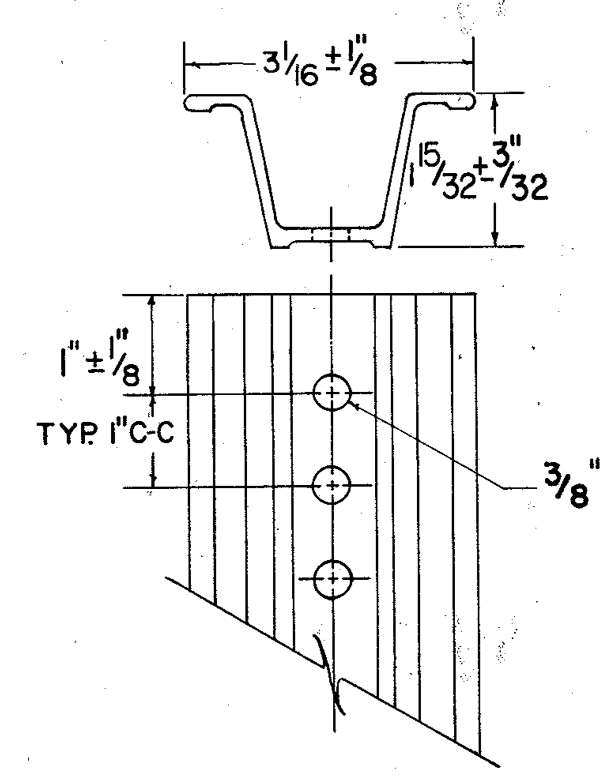


DELINEATOR MOUNTING



TAMPER RESISTANT FASTENERS SHALL BE USED TO FASTEN DELINEATORS TO POST AS/OR SIMILAR TO ONE SHOWN ABOVE.

TAMPER RESISTANT FASTENERS



2 LB./FT. DELINEATOR DRIVE POST

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

DELINEATOR DETAILS

620

DATE
9-25-62
5-24-65
9-12-67

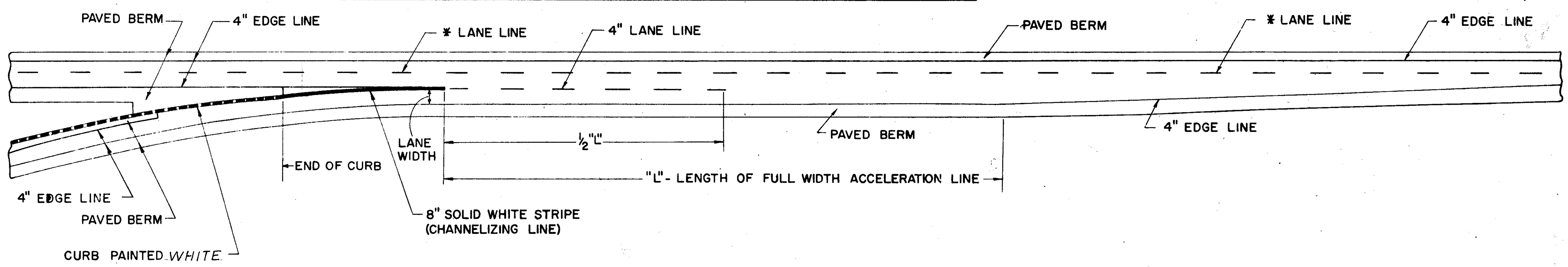
APPROVED Robert E. Lomer
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

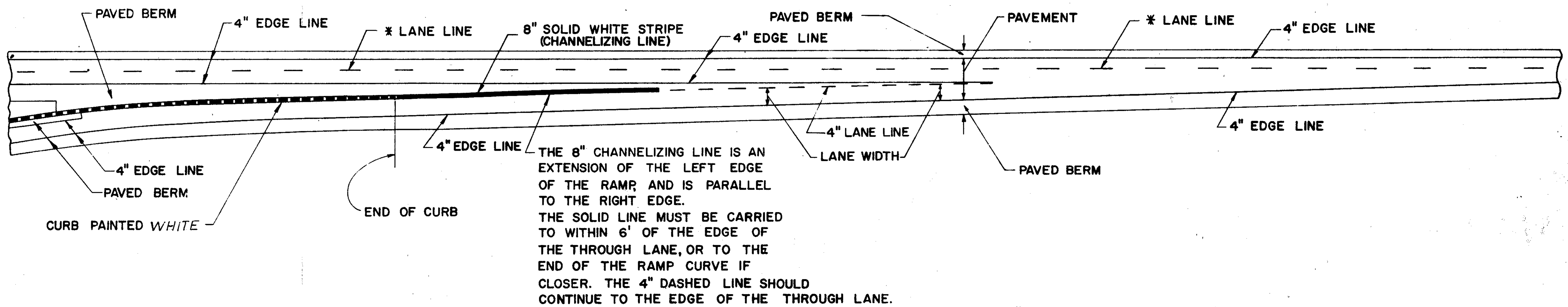
542/630

HAM 275-3.86
HAMILTON COUNTY

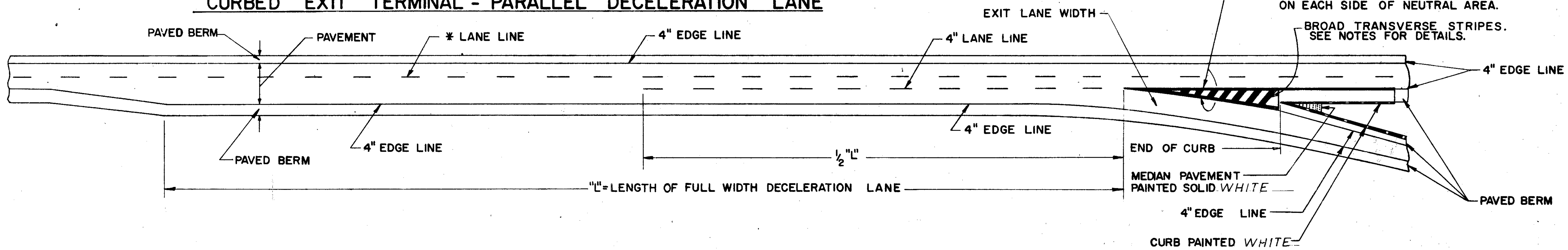
ENTRANCE TERMINAL - PARALLEL ACCELERATION LANE



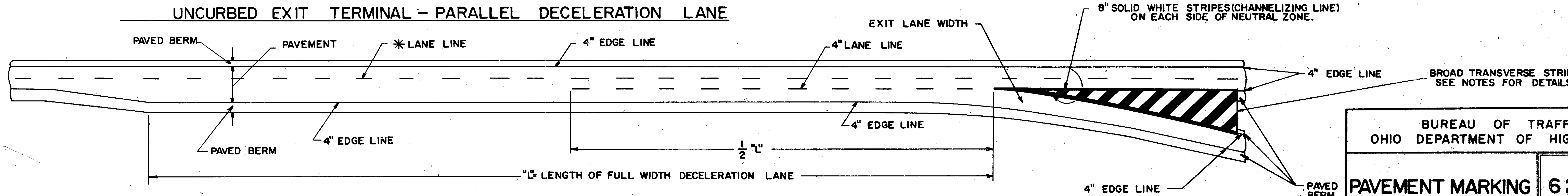
ENTRANCE TERMINAL - TAPERED ACCELERATION LANE



CURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



UNCURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



NOTES

DIAGONAL STRIPES AT EXIT RAMPS SHALL BE 24" BROAD TRANSVERSE STRIPES, 621.11, WITH A 6' SPACE BETWEEN STRIPES.

* 6" LANE LINE ON INTERSTATE HIGHWAYS ONLY.
4" LANE LINE ON ALL OTHER HIGHWAYS.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

PAVEMENT MARKING 621

DATE
7-17-61
4-6-62
5-24-65
9-2?-67
4-17-68
1-11-72

APPROVED Robert E. Lower
ENGINEER OF TRAFFIC

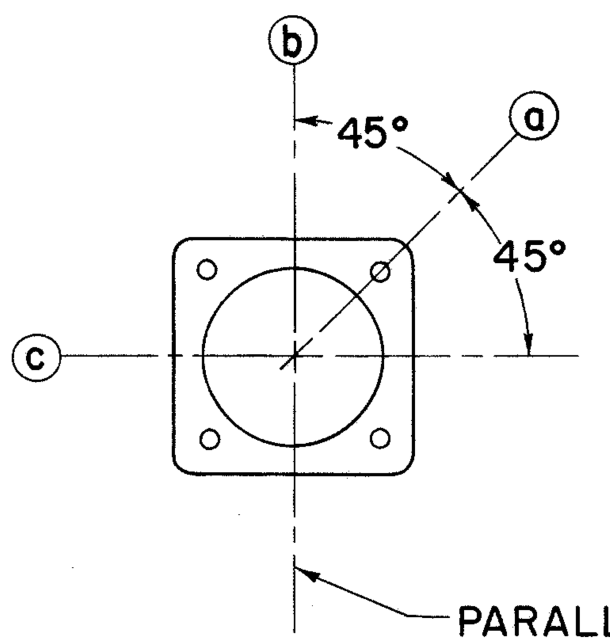
TRAFFIC SIGNAL PLAN

LEGEND

- VEHICLE SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- PERMANENT PROPOSED STEEL POLE
- C.G.&E. CO. OR C.&S., B.T. CO. EXISTING POLE
- PULL BOX
- LOOP DETECTOR
- CONTROLLER CABINET
- REFLECTOR SIGN
- ILLUMINATED SIGN
- PROPOSED CONDUIT, SIZE AS INDICATED ON PLANS
- MESSENGER WIRE & CONTROL CABLE

INDEX TO PLANS

STANDARD POLE ORIENTATION LEGEND



- a ANCHOR BOLT ORIENTATION
- b HAND HOLE
- c WEATHERHEAD (2½")
- m MAST ARM FOR LUMINAIRE

TRAFFIC SIGNAL GENERAL NOTES

TRAFFIC SIGNAL SPECIFICATIONS

1. General

A. Scope of Work

The contractor shall install traffic signals at the intersections shown in the plans.

The contractor shall furnish all labor, materials, and equipment necessary so that the traffic signals will be complete, accepted and ready for service.

B. General

Any items of labor, materials, and equipment required, but not shown as a separate pay item in the proposal shall be furnished and installed as incidental to the contract.

The reference to any name, make and model number is intended to be descriptive and not restrictive and is to indicate to bidders the design that will be acceptable. Bids on other names, makes and numbers will be considered. Before any equipment is ordered or installation of a traffic signal system is begun, a complete schedule of materials and equipment shall be submitted to and approved by the engineer. The schedule shall include eight (8) sets of catalog cuts, diagrams, drawings, brochures, data sheets, manufacturer's certificates of compliance or other descriptive data as may be required and shall include complete descriptive data on the signals, wiring diagrams, complete cable descriptions, test data, make and capacity of all apparatus. The contractor shall identify the item on each sheet and mark all prints "record drawing." One copy will be returned marked "Approved," if found satisfactory. In the event any items of material or equipment contained in the schedule fail to comply with the speciflciation requirements, such items will be rejected.

All materials and equipment furnished under these specifications shall be new, first quality, of the latest design, and free from defects and poor workmanship.

All major items of equipment such as controllers, signals, detectors, poles, specific types of cables, etc. shall be of the same manufacture and same type in order to assure uniformity, interchangeability of components, single responsibility and most satisfactory service.

SIGNAL SPECIFICATIONS

A. Installation

1. The contractor shall conform to the National Electric Code and the Ohio Manual of Uniform Traffic Control Devices for streets and highways in performing contract work. He shall observe the regulations of utilities in the area of their equipment and exercise due caution in construction work near their facilities.

2. Prior to beginning construction, the contractor shall contact all utilities having installations in the area to secure and affirm data on utility locations. These agencies and utilities shall be notified at least 24 hours prior to any excavation in areas containing their installations.

3. The contractor shall install the power to the controller cabinet and provide 120/240 volts, 30 amp. service as required. The contractor shall be responsible for arranging and providing the power in the manner shown in the plans through the Cincinnati Gas and Electric Co. The cost of obtaining the power shall be included in the bid price for "Power Cable with Accessories."

4. Traffic signal cable shall enter the controller cabinets and run continuously from signal head to signal head without splices. Pressure type connectors will be used to make connections inside the controller cabinet. Cable entrances shall be protected by a suitable weather head and drip loop when entering traffic fixtures.

5. All wires in the controller cabinet shall be labeled, neatly lashed and fastened to the cabinet with clamps. This shall include wires to the detectors, signal heads, pedestrian units, interconnect equipment and all miscellaneous equipment.

6. All splices in pull boxes shall be of the weatherproof poured type.

7. All current carrying wires shall be copper unless otherwise specified.

8. No splices shall be permitted in any electrical conductor with the exception of detector loop wire to detector lead-in cable splices in pull boxes.

B. Equipment

All equipment shall be furnished with two wiring diagrams, service manual and instructions on installation and maintenance.

METHOD OF MEASUREMENT

Supplementing Item 625.24, linear measurements for payment of various traffic signal bid items shall be made as follows:

1) Signal cable, power cable, interconnect cable, loop detector lead in cable, service cable.

The length measured horizontally from center to center of pull boxes, poles, foundations, or signal heads, plus the following:

1. Five feet per each pull box, pole, or termination at controller or signal head to allow for slack and splicing of leads.

2. The length measured vertically from trench bottom to pole outlet or mast arm attachment on vertical runs.

Multipliers as contained in 625.24, paragraphs (c) and (e), shall not be used for multi conductor cables covered in this note.

2) Loop Detector Wire

Measured horizontally from center line of pull box to pavement edge, to loop through loop saw slots for the number of turns required and thence returning to the pull box, plus five feet at each end to allow for slack and splices.

3) Loop Detector Pavement Cutting

Measured along the sawcut from outside edge of pavement or curb to loop, and around the loop using the rectangular perimeter dimensions shown on the plans or directed by the engineer, but not including chamfer cuts at loop corners.

4) Messenger Wire With Accessories

Measured horizontally from center to center of pole to pole; or bullring (aerial corner) to pole; or bullring to bullring; but not including any additional messenger required for attachment of messenger to poles, bullrings or strain insulators by wrapping or bending.

MARKING OF CABLE

All cables shall be marked or tagged at all pull boxes, signal supports, and controllers with tag, so as to be individually identified.

The tag shall be not less than 0.031" thick copper, brass or plastic, and shall be embossed or engraved with letters or numbers of not less than 1/4" high. It shall be securely attached with an AWG #14 copper wire. Markings shall consist of the following or variations thereof: Ground, Grd.; Phase A, Ø A; Common, Com; Phase A Detector, Det-A; power, ac or ac-; etc.

Payment for this work shall be incidental to the installation of the various cables.

CAPPING OF CONDUIT

All conduit in foundations which will not have wire or cable pulled into it during construction shall have the ends closed with capped bushings or otherwise sealed in an approved manner to completely keep all moisture and foreign matter out of the conduit.

TESTING OF TRAFFIC SIGNALS

The contractor shall furnish all personnel, equipment and appliances required to successfully test the completed installations.

The contractor shall test and demonstrate to the satisfaction of the engineer or his authorized representative that the circuits are properly connected, continuous and free from short circuits, crosses and unspecified grounds, and that they are connected in accordance with the wiring instructions and that each circuit is operable correctly and independently of any other circuit.

The contractor shall test each ungrounded circuit and spare wires terminating at the traffic controller cabinet for resistance to ground. This resistance to ground shall be not less than ten (10) megohms. The contractor shall furnish a complete report of all megohm readings of each circuit and spare conductors in cables appearing at the controller base. The ground rod at the traffic controller shall have a resistance of not more than 15 ohms to ground.

After all circuits and spare conductors have been tested the Contractor will install the traffic controller and connect the field wiring to the terminal contacts of the traffic controller. The completed installation shall operate continuously for a period of one week without interruption or failure attributable to poor workmanship or defective material prior to acceptance and after any defective parts have been replaced and all faults corrected.

The contractor shall have the responsibility of correcting malfunctions of the installation. Power for the test will be furnished from the service installed as a part of this contract. The cost of the power to conduct the test will be borne by the contractor. Costs of conducting tests by the contractor shall be included in the bid price for the item tested.

TRAFFIC SIGNAL HEADS, BY TYPE

This work shall consist of furnishing and installing vehicular traffic signal heads of the type and size shown on the plans and installing them as shown on the detail sheet no. 6-8 and as herein specified.

All traffic signals shall meet the latest ITE (Institute of Traffic Engineers) standards for "Adjustable Face Traffic Control Signal Head Standards." The traffic signals shall also meet the following requirements:

1. Twelve (12") inch Traffic signal sections shall be installed with a combination tunnel type hood twelve (12") inches long, with an open slot at the bottom of the hood.

2. Reflectors shall be highly specular finished aluminum.

3. All traffic signals shall be arranged for span wire mounting.

4. Glass lenses, number and size, shall be as indicated on the intersection drawing. These lenses shall meet the latest ITE standards for lenses.

5. All signal optical units shall produce standard (ITE definition) light distributions.

6. All traffic signals and signal service entrance fixtures shall be painted according to the following:

Finish on body of signal, outside of hood, doors and service entrance fixture - Federal Yellow.
Finish on inside of hood - Flat Black.

Paint requirements:

1st coat (all surfaces) - Epon oxide baking primer, Federal Spec. TT-P-636.
2nd coat (all surfaces)- Medium gray alkyd urea exterior baking enamel, Federal Spec. TT-E-480B.
3rd coat (yellow surface) - Federal Yellow alkyd urea exterior baking enamel, Federal Spec. TT-E-489B, color 13538.
3rd coat (Flat Black surfaces) - Alkyd urea black synthetic, heat-resisting glyceryl phthalate type 4, instrument black, military spec. E-5557.

7. Stainless steel latching devices and span wire hangers shall not be painted.

8. Balance adjustors shall be installed if necessary to maintain the traffic signals in a vertical position.

9. Traffic Signal Head, 3 Section 12" Lense, One Way - A completed one-way three-section traffic signal assembly shall consist of the following component parts for span wire mounting:

a. Galvanized span wire hanger for 3/8" messenger wire
b. Balance adjustor
c. 1-1/2" service entrance head with galvanized nipple
d. Twelve (12) terminal disconnect hanger
e. 1-1/2" galvanized lock nuts
f. 1-1/2" diameter top bracket assembly
g. One twelve inch, three-section traffic signal including red, yellow and green lenses with all required components to lock the signals in place and provide a water and dust tight installation
h. All other incidentals necessary to make the assembly complete

Traffic Signal Head, 3 Section 12" Lense, Two -Way - A completed two-way three-section, traffic signal assembly shall consist of the following component parts for span wire mounting:

a. Galvanized span wire hanger for messenger wire
b. Balance adjustor
c. Twelve (12) terminal disconnect hanger
d. 1-1/2" galvanized lock nuts
e. 1-1/2" diameter top bracket assembly
f. Bottom bracket assembly
g. Two twelve (12) inch, three-section traffic signals including red, yellow and green lenses with all required components to lock the signals in place and provide a water and dust tight installation
h. All other incidentals necessary to make the assembly complete

10. The contractor shall furnish and install a traffic signal lamp in each traffic signal section. Signal lamps shall conform to the requirements of "A Standard for Traffic Signal Lamps" as approved by the Institute of Traffic Engineers (ITE) Board of Direction on December 26, 1967 with the following exceptions and qualifications:

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

544A
630

TRAFFIC SIGNAL GENERAL NOTES

HAM-275-3.86
HAMILTON COUNTY

a. Brass screw bases shall be required.
b. Lamp sizes shall be as follows:

	watts	rated life hours	light center length
(1) 12" diameter red, green, green arrow	150	6000	3"
(2) 12" diameter yellow	69	6000	3"
(3) 8" diameter red, green, green arrow	121	6000	2-7/16"
(4) 8" diameter yellow	69	6000	2-7/16"

Lamps shall be installed with the open portion of the filament in the upward position.

Cost of furnishing and installing lamps shall be included in the bid price of each item requiring lamps.

11. Signals shall be installed such that the lowest point of the lowest signal is sixteen (16) to seventeen (17) feet above the pavement surface.

Payment for Item 625 "Traffic Signals" will be made at the contract unit price for each signal assembly by type, as listed in Traffic Signal Summary, mounted in place, tested and accepted.

SIGNAL CONTROLLER, BY TYPE, INSTALLATION ONLY

Signal control equipment of the type specified in the plans shall be furnished by the state, assembled and prewired in the signal control cabinet to be installed on the project by the contractor.

The contractor shall notify the project engineer by letter (in quadruplicate) 90 days prior to the desired delivery date of the prewired cabinet. The distribution of the four letter copies shall be: (1) Project Engineer, (2) District Traffic Engineer, (3) Bureau of Design Services, 25 South Front St., Columbus, Ohio, (4) Bureau of Traffic, Electrical Section, 450 East Town St., Columbus, Ohio. The notification shall contain the following: Location to which cabinet is to be delivered on project site, date of delivery (cabinet will be delivered between 8:00 AM and 5:00 PM of the day specified except Saturdays, Sundays and holidays). The cabinet supplied as a part of this contract shall be available for pick-up by the State at the same location and time. The contractor shall furnish all labor and equipment required to unload and load the cabinets.

The contractor shall mount the controller with cabinet on its foundation and make the necessary field wiring connections to provide a signal controller complete and operable in accordance with the signal operation shown in the plans.

The contractor shall be responsible for any damage to the controller and equipment from the time of delivery by the state for installation.

Payment for Item 625 "Signal Controller, by type, Installation Only" shall be made at the contract unit price for each signal controller installed, which price shall include all labor, materials, and equipment necessary for the complete item of work.

625 Signal Controller Cabinet (04.3 CF)

The cabinet shall be clean-cut in design and appearance and shall conform to the following:

It shall be made of die cast aluminum alloy with a wall thickness of approximately one-quarter inch and minimum of 18,000 psi yield strength.

The minimum usable inside dimensions shall be height 30", width 19" and depth 13".

It shall contain at least 4.3 cubic feet of usable volume.

Hinged door shall be provided on the front of the cabinet which shall include substantially the full area of the front of the cabinet.

All doors shall be fully gasketed with elastomeric gasketing material so that when closed they shall fit closely to the gasketing material, making the cabinet weather resistant and dust tight. One point latching shall be provided for this purpose.

The door shall be provided with lock covered by a weatherproof tab and two keys for both the door and the police panel door. There shall be at least one single position bar door stop at 120°.

The door pins shall be grease lubricated and fabricated of a non-corroding steel material.

The bottom intake ventilator shall be screened and mechanically baffled to protect the interior of cabinet against insects, rain and the insertion of foreign objects. Ventilator shall not present any objectionable protrusion to outer surface of cabinet.

The cabinet shall contain two cast metal or plywood (1/2") shelves for support of traffic signal control equipment. The shelves shall be adjustable on a minimum of 1-1/2" centers from a minimum of 10" from the top of the cabinet to the bottom of the cabinet.

Cabinet shall be equipped with top ventilating fan of 15 cfm capacity controlled by a thermostat starting at 120° F. and stopping at 100° F.

The cabinet shall be equipped with a police panel door and the following equipment:

1 each Thyrector (providing steady state input voltage of 150 RMS or 210 peak, and providing a maximum current of 3 amps at .001 sec. pulse at 60 Hz) for lightning protection of traffic control equipment for connecting across the line after the fuse and before flasher filters, mounted using 150 V minimum breakdown insulated hollow rivet using #8 32 screw.

10 each 12 wire terminal blocks (Penn Union #6012, Marathon #6012 or approved equal).

2 each 4 PDT 10 ampere 250 volt A. C. Switch (Cutler-Hammer #7693, Carling Electric IL 253 or approved equal).

1 each ground bus bar with 15 ground terminal points.

The outgoing traffic control signal circuits shall be of the same polarity as the line side of the power supply; the common return of the signal circuit shall be of the same polarity as the ground side of the power supply.

The grounded side of the power supply shall be grounded to the controller cabinet in an approved manner.

A flexible plastic or other insulating material is to be mounted with sheet metal screws to cover switch terminals on police panel.

Mounting facilities shall be : 2 each painted full circle mounting bands for wood or steel pole mounting. (Eagle Signal Co. UL 24, Crouse Hinds Co. HL8842, or equal) or a 4-inch nominal diameter (4-1/2" OD) slip fitter on the bottom surface, for mounting on standard 4-inch pipe pedestal, as required on the plans.

All cast pieces shall be clean, smooth and free from flaws, cracks, blow holes and other imperfections.

The cabinet and fan housing shall be prime coated and shall be finished with two coats of yellow enamel paint using Federal Standard 595, color #13655.

Payment for Item 625 "Signal Controller Cabinet (04.3 CF)" shall be at the unit price bid per each complete (in place) with all accessories and mounting facilities.

CONTROLLER CABINET 0.7.7

The cabinet shall be clean-cut in design and appearance and shall conform to the following:

It shall be made of die cast aluminum alloy with a wall thickness of approximately one-quarter inch and a minimum of 18,000 psi yield strength.

The minimum inside dimensions shall be: height 38", width 28" and depth 12-7/16".

The cabinet shall contain at least 7.7 cubic feet of usable volume.

Hinged door, with police panel, shall be provided on the front of the cabinet which shall include substantially the full area of the front of the cabinet.

All doors shall be fully gasketed with elastomeric gasketing material so that when closed they shall fit closely to the gasketing material, making the cabinet weather resistant and dust tight. Three point latching shall be provided for this purpose.

The door shall be provided with lock with permanent type lubrication and a weatherproof tab and furnished with two keys for both the door and the police panel.

An elbow vent shall be mounted on both sides of the cabinet base and shall be mechanically screened and baffled to protect against rain, dust and all types of foreign objects.

There shall be one bar door stop at approximately 135°.

The door pins, recessed to prevent break and entry, shall be grease-lubricated and fabricated of a non-corroding material.

Cabinet shall contain two cast metal or plywood (3/4") shelves for the support of traffic control equipment. The shelves shall be adjustable on a minimum of 1-1/2" centers from a minimum of 10" from the top of the cabinet to the bottom of the cabinet.

The cabinet shall be equipped with a police panel door and the following equipment:

1 each Thyrector (providing steady state input voltage of 150 RMS or 210 peak, and providing a maximum current of 3 amps at .001 sec. pulse at 60 Hz), for lighting protection of traffic control equipment for connection across the line after the fuses and before flasher filter mounted using 150 V minimum breakdown insulated hollow rivet using #8-32 screw.

10 each 12 wire terminal blocks (Penn Union #6012 Marathon #6012 or approved equal).

3 each 4 PDT 10 ampere 250 V. A. C. Switch (Cutler-Hammer #7693, Carling Electric IL 253 or approved equal).

1 each ground bus bar with 15 ground terminal points.

The outgoing traffic control signal circuits shall be of the same polarity as the line side of the power supply: the common return of the signal circuit shall be of the same polarity as the ground side of the power supply.

The grounded side of the power supply shall be grounded to the controller cabinet in an approved manner.

The cabinet shall be base mounted and furnished with two 3/4" x 16" anchor bolts for keying to a concrete foundation. A drawing showing proper construction of the cabinet foundation and method of mounting the cabinet shall be furnished with the cabinet base.

The cabinet shall be equipped with a top mounted ventilating fan 134 C.F.M. at 0.160" of water static pressure. Separate adjustable thermostat.

All cast pieces shall be clean, smooth, and free from flaws, cracks, blow holes, and other imperfections.

A flexible plastic or other insulating material is to be mounted with sheet metal screws to cover switch terminals on the police panel.

The cabinet and fan housing shall be prime coated and shall be finished with two coats of yellow enamel paint using Federal Standard 595 color #13655.

Payment for Item 625 Signal Controller Cabinet, 07.7 C.F. shall be at the unit price bid per each, complete (in place), with all accessories and anchor bolts furnished.

SIGNAL CABLE 5 CONDUCTOR, #14 AWG, BY TYPE

Traffic signal cable shall be weatherproof and shall consist of the number of conductors as specified on the plans. All conductors shall be AWG #14. Cables shall be insulated, jacketed, rated 600 volts for use in underground conduit or as aerial cable supported by a messenger. It shall be color coded and in every respect follow the International Municipal Signal Association specification number 19-1-1967. Wires may be solid or stranded.

Payment for Item 625 "Traffic Signal Cable 5 Conductor, #14 AWG" will be made at the contract unit price per lineal foot by type, in place, completed and accepted, including wiring, terminals, connections, testing, and all incidentals necessary.

Interconnect Cable, Stranded 12/C #14 AWG

Interconnect cable shall be weatherproof and shall consist of the number of conductors as specified on the plans. All conductors shall be A.W.G. #14. Cables shall be insulated, jacketed, rated at 600 volts for use in underground conduit or as aerial cable supported by a messenger. It shall be color coded and in every respect follow the International Municipal Signal Association specification number 19-1-67. Conductors may be solid or stranded.

Payment for Item 625 "Interconnect Cable, Stranded 12/C #14 AWG" will be made at the lineal price bid per lineal foot, in place, completed, and accepted including wiring, terminals, connections, splicing, testing and all incidentals necessary.

TRAFFIC SIGNAL GENERAL NOTES

POWER CABLE 3/c #8 AWG - RHW (OR RHW TYPE) STRANDED

Power cable shall be weatherproof and shall be 3 conductor AWG #8 RHW (or RHW Type) stranded copper. Power cable shall be installed from the controller cabinet through the appropriate conduit, signal pole, and weatherhead. It shall be attached by the Cincinnati Gas and Electric Co. to the service cable with pressure connectors covered with mastic insulation. Three single conductor #8 RHW wires may be substituted; however, payment will be based upon the equivalent length of 3 conductor cable.

Payment for Item 625 "Power Cable" will be made at the contract unit price per lineal foot, in place, complete and accepted, including wiring, terminals, connections, testing, and all incidentals necessary and shall also include any costs incurred to arrange the service installation by the Cincinnati Gas and Electric Co. in conformance with the plans.

SERVICE CABLE

Service cable will be provided to the top of the signal strain poles and by the Cincinnati Gas and Electric Company. The contractor shall contact the electric company to arrange the date of installation of service cable to these poles.

LOOP DETECTOR WIRE AND LEAD-IN CABLE

Loop detector wire shall consist of single conductor, insulated, No. 14 AWG RHW (or RHW type) 600 V. stranded copper wire, and be installed in accordance with the typical loop detector detail. Each wire loop shall consist of the number of turns as required by the manufacturer of the loop detector. The loop wire shall run continuously to the adjacent pull box where it shall be spliced to the loop detector lead-in cable.

Payment for Item 625 "Loop Detector Wire" will be made at the contract unit price per lineal foot in place for #14 Detector wire and shall include detector wire, installation, jacket, conduit from roadway edge to pull box splice and all incidentals necessary to complete the installation. The estimated quantities of loop detector wire shown on the plans is based on an anticipated required number of turns. Payment will be based on the actual lineal feet installed as this is controlled by the detector manufacturer's requirements for loops.

Payment for Item 625 "Loop Detector Lead-in Cable" will be made at the contract unit price per lineal foot in place for #14 AWG 2 cond. polyethylene insulated, twisted pair, shielded and jacketed cable, including soldered waterproof pured splice.

CABLE SUPPORT ASSEMBLY

A cable support assembly shall be installed for each group of cables passing through each wire outlet near the top of pole. It shall be attached to the "J" hook as shown in the plans and shall consist of the following major items.

1. One piece of three-strand copper-clad messenger, length as required.
2. Two hot-dipped galvanized thimbles.
3. Two #6 split bolt connectors.
4. One bronze or stainless steel cable grip with single "U" eye bale.
5. All other miscellaneous items that may be necessary to make the assembly complete.

The messenger shall be 0.164 inches in diameter consisting of three strands of 0.075 inch copper-covered steel wires twisted in the form of a cable. Guy thimbles shall be grooved to fit the guy strand and bent to the proper radius to prevent the strand from being sharply bent. The cable grip shall have a single "U" eye bale. The grips shall be of the proper size to fit the cable and shall have a minimum rated breaking strength of 250 lbs.

The grip shall be either the "closed" or "split with rod" type.

Payment for Item 625 Cable Support Assembly will be made at the contract unit price each, completely assembled in place and accepted.

LOOP DETECTOR PAVEMENT CUTTING

Loop detector pavement cutting shall consist of a 1-1/4 inch or 2 inch x 1/4 inch wide saw cut in accordance with typical loop detector installation detail. The saw cut shall be filled with a joint sealer after the wire has been installed. The joint sealer shall be as specified on sheet 11.

Payment for Item 625 "Loop Detector Pavement Cutting" will be made at the contract unit price per lineal foot for saw cutting and treatment including joint sealer.

GROUND RODS

This item of work shall consist of furnishing and installing ground rod and cable as detailed and specified on sheet 9 & 10.

The cable shall be exothermically welded to the top of the ground rod.

Basis of payment for this item shall be at contract unit price per each, which shall include all labor, materials and equipment required to complete this item of work.

SIGNAL STRAIN POLE (By Type)

This item of work shall consist of furnishing and erection of poles as shown and specified in the plans.

Shafts shall be tapered tubes.

Each pole shall be galvanized and include the furnishing of anchor bolts, Type III rigid ferrous metal 3" conduit ell and a 3/4" electrical metallic tubing ell for grounding lead for installation in foundations plus handhole with cover, "j" hook, pole clamp, and cable service entrance with blind half-coupling for each pole in accordance with details on sheet 10.

The poles shall be installed and adjusted to the proper rake so that the weight of the signal installation will not cause the poles to be off vertical alignment by more than 1%.

Basis of payment shall be at the contract bid price per each 816 Signal Strain Pole, by size, including all labor, material, equipment and incidentals related to this item of work.

MESSENGER WIRE, 3/8" NOMINAL SIZE, 7-STRAND WITH ACCESSORIES

Messenger wire shall be utility grade galvanized steel as per ASTM A-363-65. It shall consist of seven strand 3/8" nominal diameter with a breaking load of 11,500 lbs. Galvanized steel lashing rods shall be used to suspend the signal cable from the messenger wire, tightly secured. Wet-porcelain strain insulators (600 volt), guy clamps, and galvanized preformed guy grip dead ends, thimbles, and bull rings (when required) with a rated loading strength equal to, or greater than, the breaking load of the messenger wire shall be installed as shown on the plans and/or specified by the Engineer. The messenger wire shall be installed so that the entire load of the signal equipment will not cause sag to exceed a maximum of 5% or a minimum of 3% of the span.

Payment for Item 625 "Messenger Wire 3/8" Nominal Size, 7-Strand with Accessories" will be made at the contract unit price per lineal foot (measured to center of pole or aerial corners) completely assembled in accordance with the typical signal installation details and shall include messenger wire, lashing rods, strain insulators, preformed guy grips, thimbles, guy clamps, and aerial corner bull rings, as described above and shown on the details on sheet 9.

CONCRETE FOR SIGNAL SUPPORT FOUNDATIONS

Traffic signal pole foundations shall be constructed as shown in the plans. The contractor shall stake the longitudinal and lateral location and the elevation of the top of each foundation subject to the approval of the Engineer. The contractor shall be responsible for the proper elevation, offset and level of each foundation. Excavations shall be made to the dimensions shown on the plans and shall be performed by means of an earth auger of the specified diameter unless otherwise directed by the Engineer. Where sub-surface obstructions are encountered, the Engineer may require the contractor to remove the obstruction or to replace the excavated material and relocate the foundation. If caving of the foundation occurs, the contractor shall excavate to the specified depth, maintaining the side walls as nearly vertical as possible. No payment shall be made for any excavation, concrete or reinforcing steel used in excess of the planned quantities.

Portland cement concrete shall be used and shall conform with Class "C" of the current construction of material specifications by the Division of Highways of the State of Ohio.

The concrete shall be placed against undisturbed soil or compacted embankment. The foundation shall have anchor bolts and conduit accurately held in position with a templet when concrete is poured. Forms shall be used for the upper portion of all foundations and no backfilling shall be permitted from the bottom to within 6 inches below ground level. No grouting of concrete shall be permitted between the foundation and the steel pole.

Payment for Item 816 "Concrete for Signal Support Foundations" shall be made per cubic yard for each foundation constructed in accordance with the typical foundation details and shall include concrete, reinforcing steel, excavation and backfill.

CONCRETE FOR CONTROLLER AND PEDESTAL FOUNDATION

Controller and pedestal foundations shall be constructed as shown in the plan. The contractor shall stake the longitudinal and lateral location and elevation of the top of each foundation subject to the approval of the engineer. The contractor shall be responsible for the proper elevation, offset and leveled each foundation. Excavations shall be made to the dimensions shown on the plans. Where sub-surface obstructions are encountered, the engineer may require the contractor to remove the obstruction or to replace the excavated material and relocate the foundation. If caving of the excavation occurs, the contractor shall excavate to the specified depth, maintaining the sidewalls as nearly vertical as possible. No payment shall be made for any excavation or concrete used in excess of the planned quantities.

Portland cement concrete shall be used and shall conform with Class "C" of the current construction of material specifications prepared by the Division of Highways of the State of Ohio. The concrete shall be placed against undisturbed soil or compacted embankment. The foundation shall have anchor bolts and conduit accurately held in position with a templet when concrete is poured. Forms shall be used for the upper portion of all foundations and no backfilling shall be permitted from the bottom to within 6 inches below ground level.

Payment for Item 816 "Concrete for Controller and Pedestal Foundation" shall be made per cubic yard for each foundation constructed in accordance with the typical foundation details and shall include concrete, excavation and backfill.

625 POWER SERVICE

This item of work shall consist of furnishing and installing the items needed to complete the power service from the service drop provided by The Cincinnati Gas and Electric Company at the top of the pole to the controller.

The work shall include furnishing and installing the following equipment as detailed on Sheet 171 of the plans.

1) One inch weatherhead and conduit riser.
2) Thirty amp, two pole, solid neural circuit breaker or fused safety disconnect switch with a fully lockable Nema Type 4 enclosure.
3) No. 4 insulated, 7 strand copper ground wire to the ground lug on the pole.

Payment shall be made at the contract bid price per each Item 625 "Power Service" and shall be full compensation for all labor, material, equipment, and incidentals needed to complete this item of work.

625 COVERING OF TRAFFIC SIGNAL HEADS

All traffic signal heads, both vehicular and pedestrian, erected at locations where traffic will be maintained prior to energizing of the signal, shall be covered.

The covering shall be plastic coated burlap blankets as per Item 705.06. They shall be firmly attached and completely cover the signal head without damage to the head. The covering shall be maintained in place at all times while traffic is using the area and the signal is not in operation.

Payment shall be at the unit price bid per each for Item 625 COVERING OF TRAFFIC SIGNAL HEADS which shall be full compensation for all labor, materials and equipment required to erect, maintain and remove the covering.

TRAFFIC SIGNAL SUMMARY

REP 2-8-72 ARS 3-8-72

SUB-SUMMARY OF QUANTITIES

Line No.	Location from	to	Pull Box 18"	Pull Box 24"	Conduit 1/2"	Conduit 3"	Trench
1	44+00K	44+00K			10		10
2	44+00K		1				
3	44+00K	42+70K			130		130
4	42+70K		1				
5	42+70K	41+45K				126	126
6	41+45K			1			
7	41+45K	Controller					
8	197+83B	197+83B			10		10
9	197+83B		1				
10	197+83B	41+45K			117		117
11	39+94K	39+94K					
12	39+94K		1				
13	39+94K	40+84K				90	90
14	40+84K		1				
15	40+84K	40+84K					
16	40+84K	40+84K				37	37
17	40+84K			1			
18	40+84K	41+45K				63	63
19	40+84K	38+89K				195	195
20	38+89K			1			
21	18+655B	18+655B			10		10
22	18+655B		1				
23	18+655B	38+89K			98		98
24	1+60C	1+60C			10		10
25	1+60C		1				
26	1+60C	38+89K			108		108
27	38+89K		1				
28	38+89K	38+89K				88	88
29							
30							
	TOTAL		8	3	493	599	1092

TYPE CODE 7223

HAM-275-3.86
HAMILTON COUNTY

		KILBY RD. SUSPENSION BRIDGE RD. & CILLEY RD.		KILBY RD. & RAMPS B&D	PROJECT TOTALS ITEM	QUAN.	UNIT	DESCRIPTION
		2			816	2	Ea.	Signal Strain Pole 2 Ply # 3Ga. 14" X 32'
				2	816	2	Ea.	Signal Strain Pole 2 Ply #3Ga, 14" X 32' with 12' Mast Arm.
		133		153	816	286	L.F.	Messenger Wire, 7 Strand, 3/8", With Accessories
		5.6		5.6	816	11.2	C.Y.	Concrete For Signal Support Foundations
		.6		.9	816	1.5	C.Y.	Concrete For Controller and Pedestal Foundations.
		1		3	625	4	Ea.	Traffic Signal Head, 3 Section, 12" Lens, One Way.
		4		2	625	6	Ea.	Traffic Signal Head, 3 Section, 12" Lens, Two Way.
		1		—	625	1	Ea.	Signal Controller (2 phase, Semi Actuated) Installation only
		—		1	625	1	Ea.	Signal Controller (3 phases, Full Actuated) Installation only
		9		7	625	16	Ea.	Covering of Traffic Signal Head.
		627		713	625	1340	LF	Signal Cable 5/c No. 14 AWG IMSA 19-1-67
		50		50	625	100	LF	Power Cable 3/c No. 8 AWG Stranded RHW or RHW Type
		230		492	625	722	LF	Loop Detector Wire No. 14 AWG, RHW or RHW Type.
		369		815	625	1184	LF	Loop Detector Lead In Cable, No 14 AWG, 2/c Twisted Pair Shielded.
		1		1	625	2	Ea.	Cable Support Assembly
		67		216	625	283	LF	Loop Detector Pavement Cutting
		3		3	625	6	Ea.	Ground Rod
		3		5	625	8	Ea.	Pull Box, 18" Circular, 713.09
		1		2	625	3	Ea.	Pull Box, 24" Circular, 713.09
		226		267	625	493	LF.	Conduit, 1/2" Type III, 713.04
		88		511	625	599	LF.	Conduit, 3" Type III 713.04
		314		778	625	1092	LF.	Trench, 24" Deep
		1		1	625	2	Ea.	Power Service
		—		321	625	321	LF.	Interconnect Cable. 12/c No. 14 AWG IMSA 19-1-67
		1			625	1	Ea.	Signal Controller Cabinet (04.3 CF)
				1	625	1	Ea.	Signal Controller Cabinet (07.7 CF)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

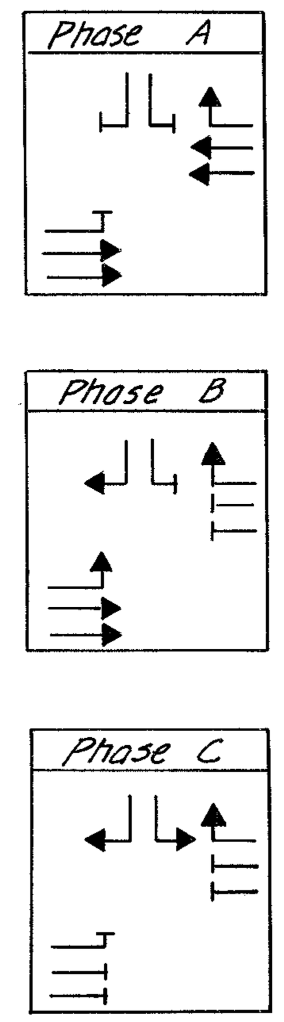
546
630

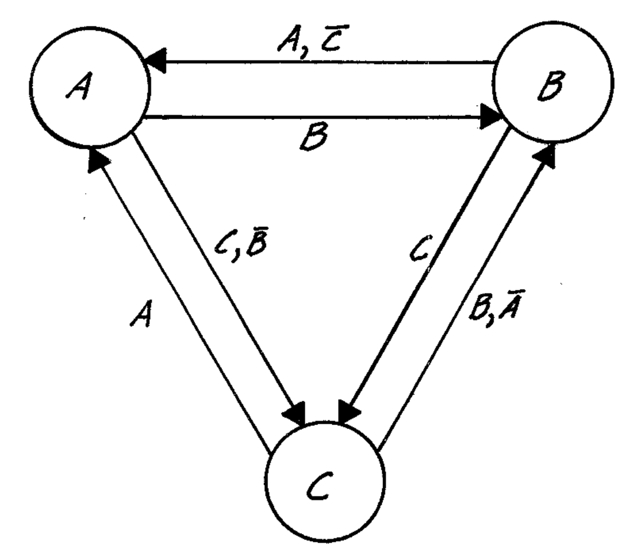
HAM-275-3.86
HAMILTON COUNTY

SIGNAL SUMMARY																
VEHICLE												DETECTOR LOOP				
1	2	3	4	5	6	7	8	9	10	11	12	D1	D2	D3	D4	D5
R	R	R	R	R	R	R						2 TURNS	2 TURNS	2 TURNS	3 TURNS	
Y	Y	Y	Y	Y	Y	Y										
G	G	→	←	G	G	←										

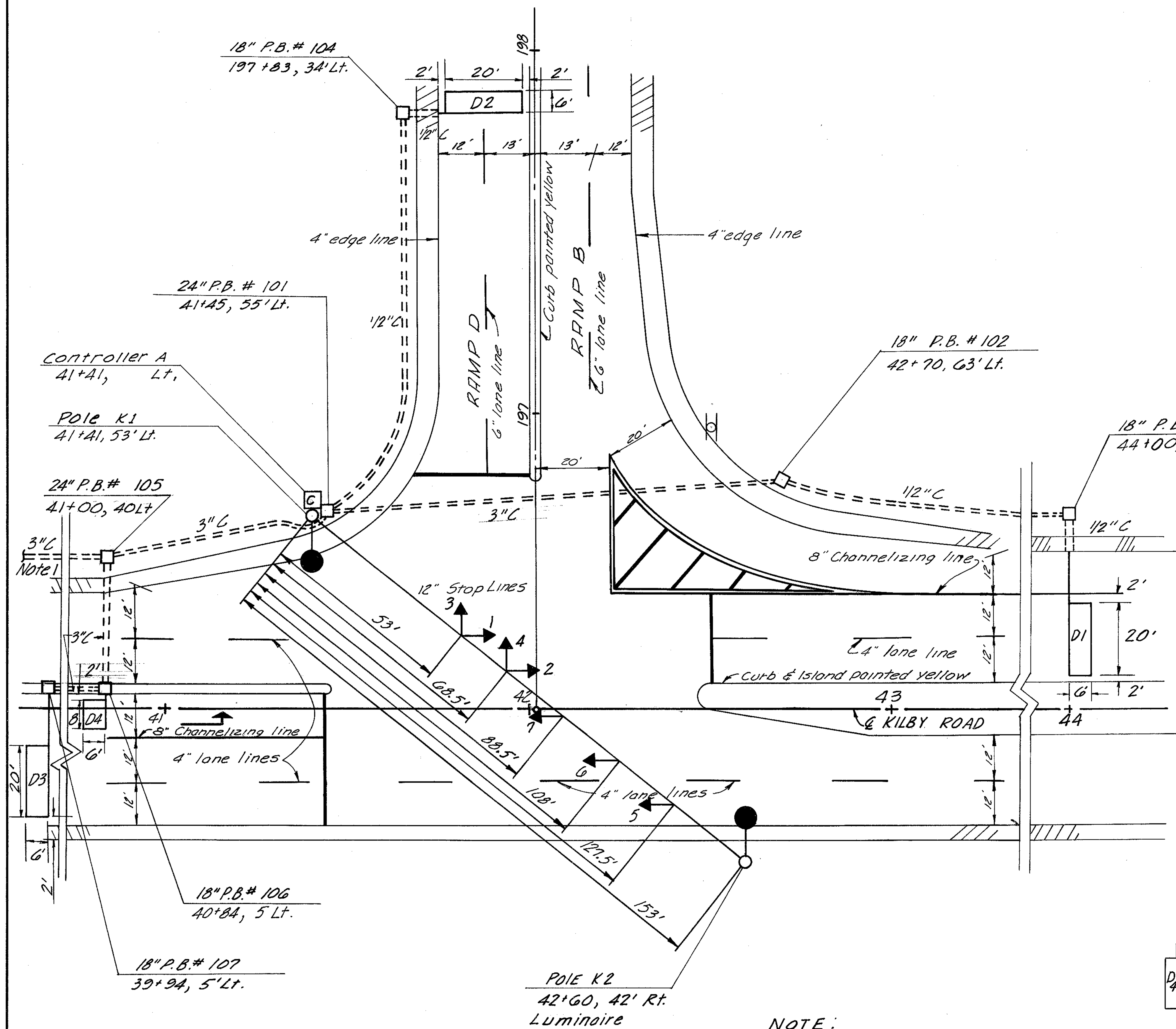
ALL SIGNAL HEAD SECTIONS
SHALL HAVE 12" NOMINAL
DIAMETER LENSES

CONTROLLER FULL-ACT	KILBY ROAD & RAMPS B&D										3 Ø
MASTER LOCATION KILBY RD & RAMP B&D			DIAL AND OFFSET CHANGES								
TIME		VEH. EXT.- sec									
DIAL 1 60 sec											
DIAL 2 90 sec											
STREET	DIRECTION	SIGNAL	SEQ CHNG	LENS	FLASH	1	2	3	4	5	6
KILBY ROAD	SB	1, 2		R				R	R	R	R
				Y	Y		Y				
				G		G					
	NB	5, 6		R						R	R
				Y	Y				Y		
				G		G	G	G			
	NB Lt.	7		R		R	R			R	R
				Y	Y				Y		
				←				←			
RAMP D	EB & Rt.	3		R	R	R	R				
				Y							Y
				→				→	→	→	
	EB Lt	4		R	R	R	R	R	R		
				Y							Y
				←						←	

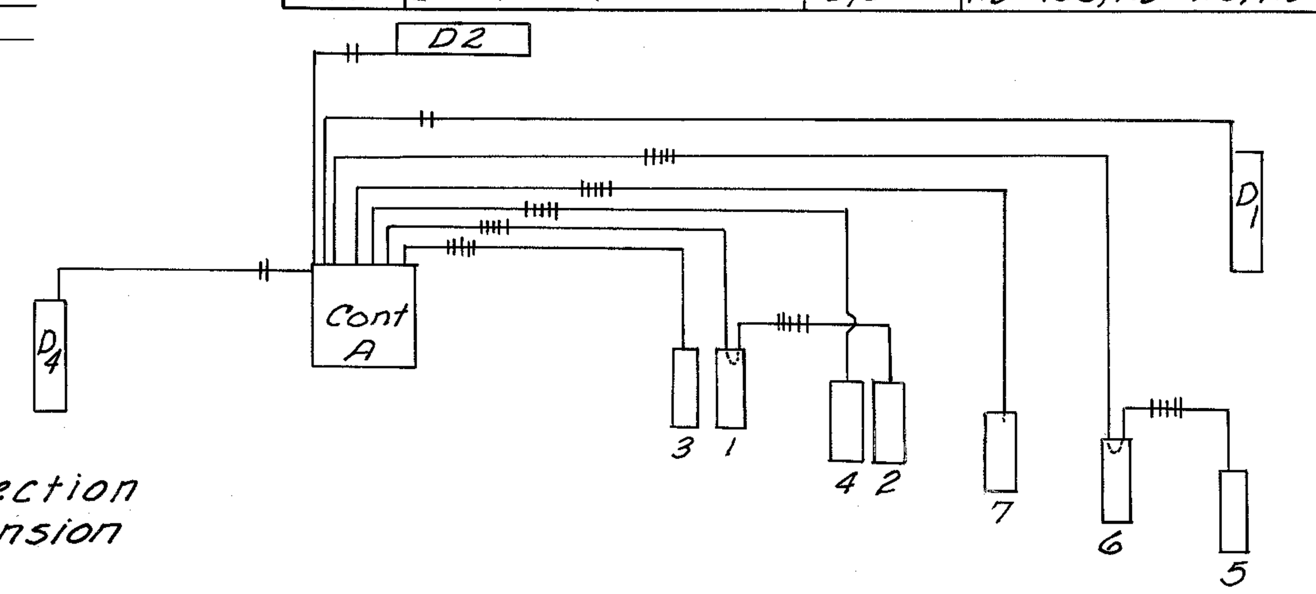




Three Phase Full Actuated
Sequence Diagram



CABLE SCHEDULE				
CABLE NO.	DEVICE OR FUNCTION	CABLE TYPE	CABLE ROUTING	LIN. FT.
1	SIGNAL 1, 2	5/C	SIGNAL 1, POLE K1, CONTROLLER A & Signal 2	136
2				
3	SIGNAL 3	5/C	SIGNAL 3, POLE K1, CONTROLLER A	110
4	SIGNAL 4	5/C	SIGNAL 4, POLE K1, CONTROLLER A	126
5				
6	SIGNAL 6, 5	5/C	SIGNAL 6, POLE K1, CONTROLLER A & Signal 5	195
7	SIGNAL 7	5/C	SIGNAL 7, POLE K1, CONTROLLER A	146
8	LOOP 1	2/C	P.B # 103, P.B # 102, P.B # 101, CONTROLLER A	294
9	LOOP 2	2/C	P.B # 104, P.B. # 101, CONTROLLER A	145
10	LOOP 3	2/C	P.B # 107, P.B # 106, P.B 105, P.B. # 101 CONTROLLER A	238
11	LOOP 4	2/C	P.B # 106, P.B # 105, P.B. # 105, PB # 101 CONTROLLER A	138



NOTE:
1. 3 Inch Conduit and Interconnection Cable to Kilby Road and Suspension Bridge Road.

PROPOSED TRAFFIC SIGNAL LOCATION
AT
KILBY ROAD & RAMPS B&D

6
11

Scale 1" = 20'

TRAFFIC SIGNAL PLAN

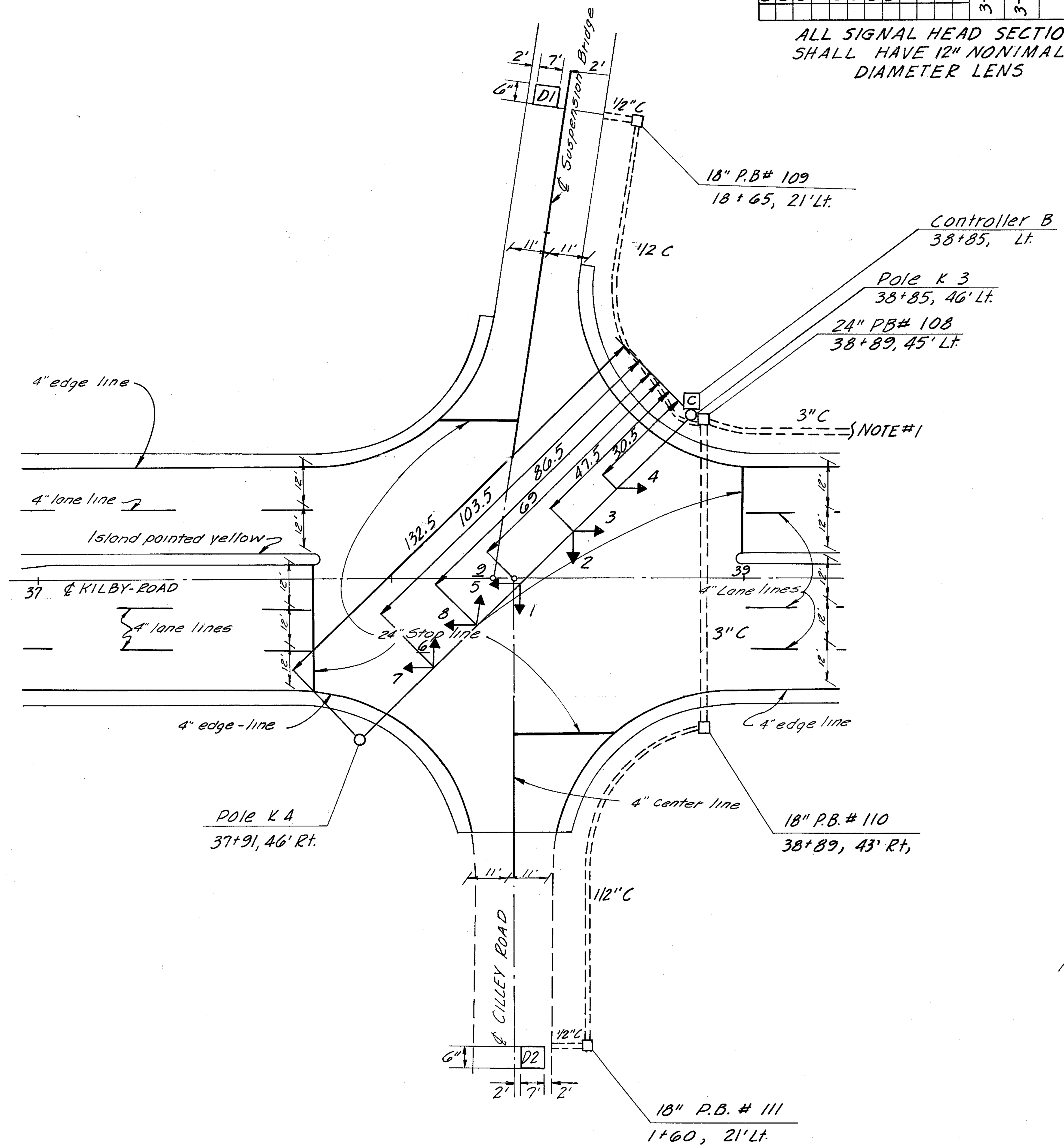
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

546A / 630

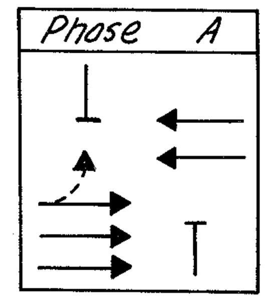
HAM-275-386
HAMILTON COUNTY

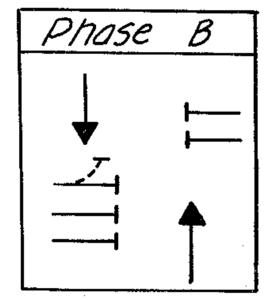
SIGNAL SUMMARY																
VEHICLE												DETECTOR LOOP				
1	2	3	4	5	6	7	8	9	10	11	12	D1	D2	D3	D4	D5
R	R	R	R	R	R	R	R	R				3-TURNS	3-TURNS			
Y	Y	Y	Y	Y	Y	Y	Y	Y								
G	G	G	G	G	G	G	G	G								

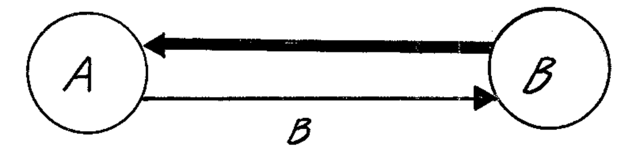
ALL SIGNAL HEAD SECTIONS SHALL HAVE 12" NONIMAL DIAMETER LENS



CONTROLLER SEMI-ACT	KILBY, CILLEY & SUSPENSION BRIDGE ROADS								2 Ø
MASTER LOCATION KILBY RD & RAMPS B&D	DIAL AND OFFSET CHANGES								
TIME		VEH. EXT- sec							
DIAL 1 60 sec									
DIAL 2 90 sec									
STREET	DIRECTION	SIGNAL	SEQ-CHNG	LENS	FLASH	1	2	3	4
KILBY ROAD	NB LT	7 8 9		R				R	R
				Y	Y		Y		
				G		G			
	SB	3 4		R				R	R
				Y	Y		Y		
				G		G			
SUSPENSION BRIDGE ROAD	EB LT SR	5 6		R	R	R	R		
				Y					Y
				G				G	
CILLEY ROAD	WB LT RT	1 2		R	R	R	R		
				Y					Y
				G				G	



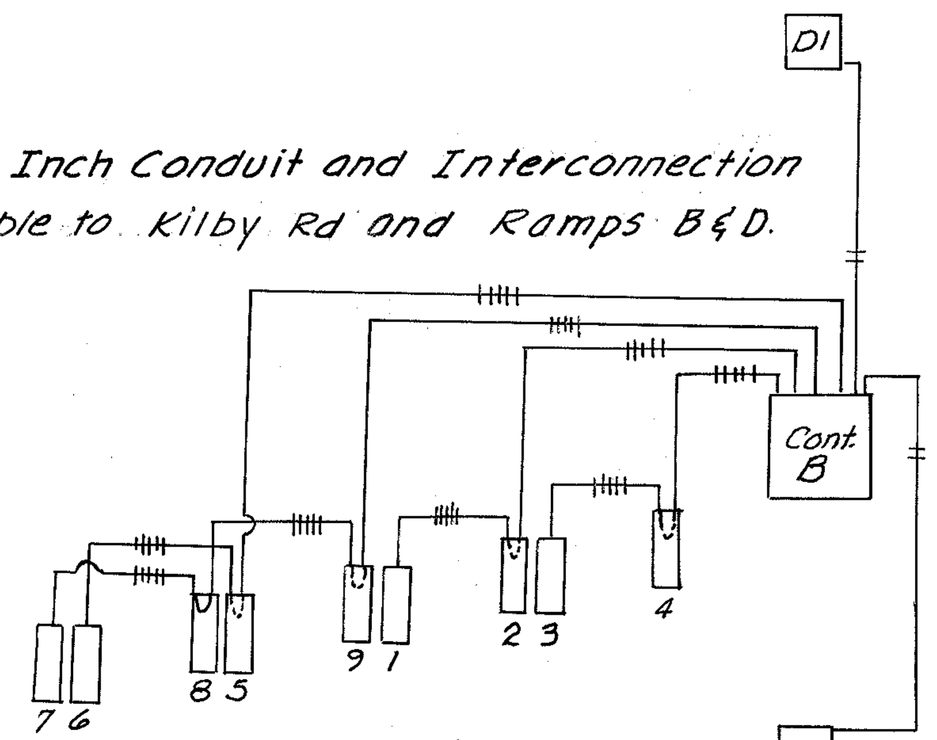




Phase Sequence Diagram

CABLE SCHEDULE				
CABLE NO.	DEVICE OR FUNCTION	CABLE TYPE	CABLE ROUTING	LIN. FT.
1	Signal 1 & 2	5/c	Signal 1, Pole K3, Controller B & Signal 2	142
2				
3				
4	Signal 4 & 3	5/c	Signal 4, Pole K3, Controller B & Signal 3	121
5	Signal 5 & 6	5/C	Signal 5, Pole K3, Controller B & Signal 6	177
6				
7				
8				
9	Signal 9, 8 & 7	5/c	Signal 9, Pole K3, Controller B & Signal 8, 7	187
10	Loop 1	2/c	P.B.# 109, P.B.# 108, Controller B	133
11	Loop 2	2/c	P.B.# 111, P.B.# 110, P.B.# 108, Controller B	236

NOTE:
1. 3 Inch Conduit and Interconnection Cable to Kilby Rd and Ramps B & D.

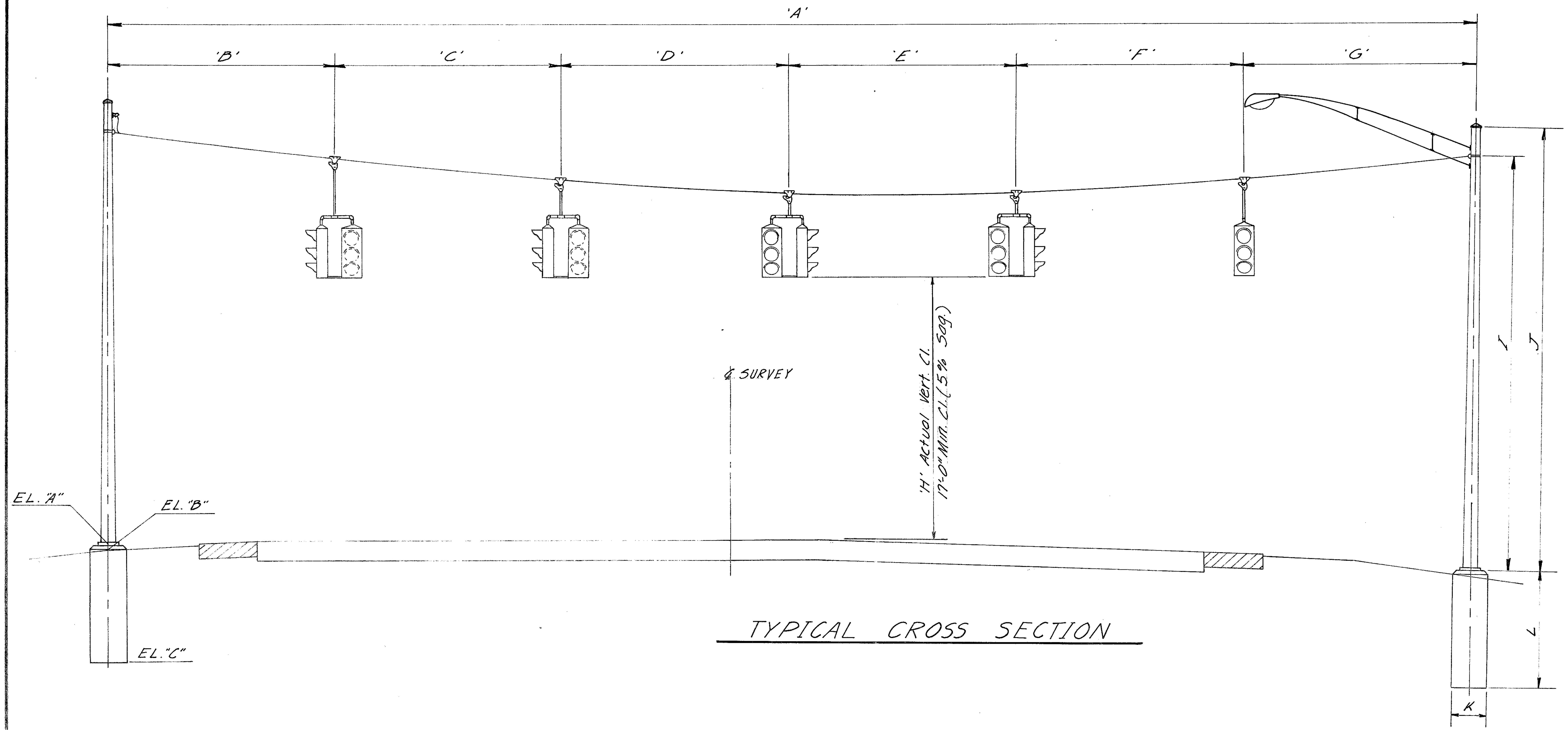


PROPOSED TRAFFIC SIGNAL LOCATION
AT
KILBY, CILLEY & SUSPENSION BRIDGE ROADS

Scale 1" = 20'

7 / 11

TRAFFIC SIGNAL PLAN



TYPICAL CROSS SECTION

Note:
See Standard Construction drawing HL-2 for mast arm attachment details were required.

ELEVATIONS			
POLE	ELEVATION 'A'	ELEVATION 'B'	ELEVATION 'C'
K1	496.9	496.6	486.1
K2	497.9	497.6	487.1
K3	493.9	493.6	483.1
K4	492.8	492.6	482.0

STRAIN POLES

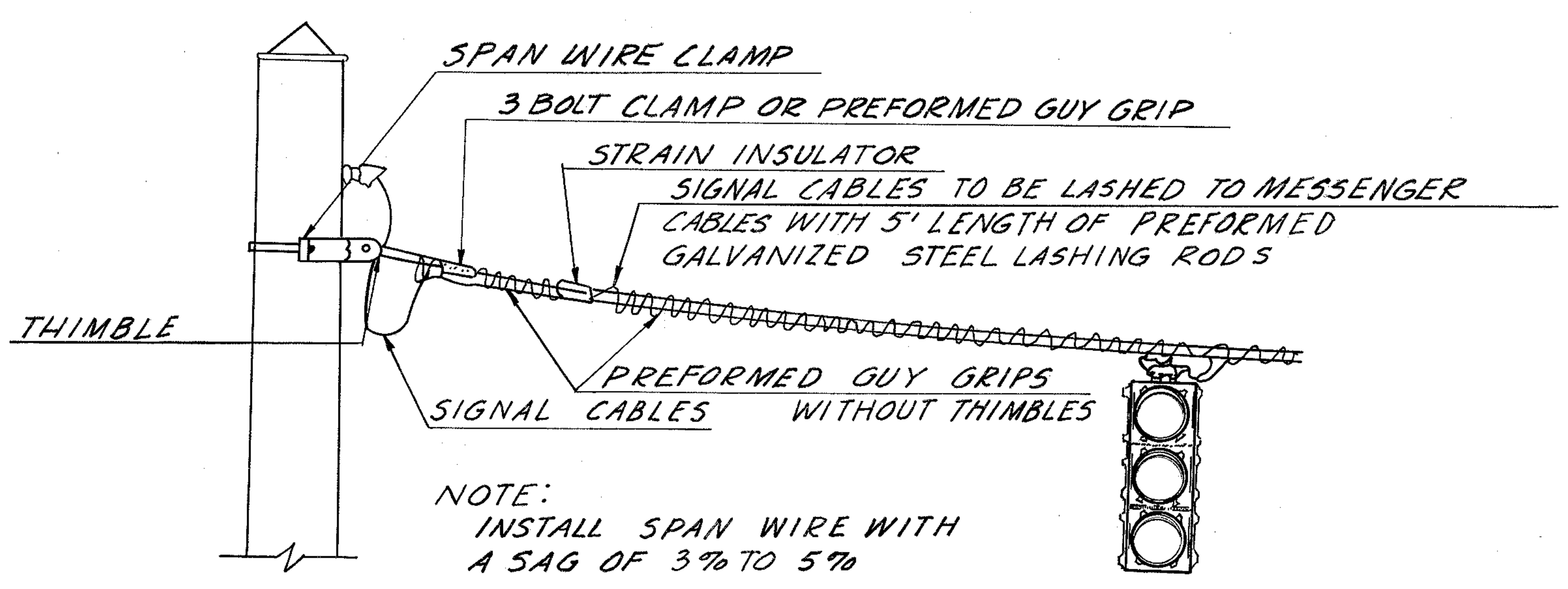
POLE	LOCATION	DESIGN NO.	DIMENSION			
			I	J	K	L
K1	41+41, 53' Lt. KILBY ROAD	2 PLY #3 Ga. 14" X 32'	31'	32'	3'	10'-9"
K2	42+60 42' Rt. KILBY ROAD	2 PLY #3 Ga. 14" X 32'	30'	32'	3'	10-9"
K3	38+89, 45' Lt. KILBY ROAD	2 PLY #3 Ga. 14" X 32'	30'	32'	3'	10-9"
K4	37+91, 46' Rt. KILBY ROAD	2 PLY #3 Ga. 14" X 32'	31'	32'	3'	10-9"

TRAFFIC SIGNAL SCHEDULE

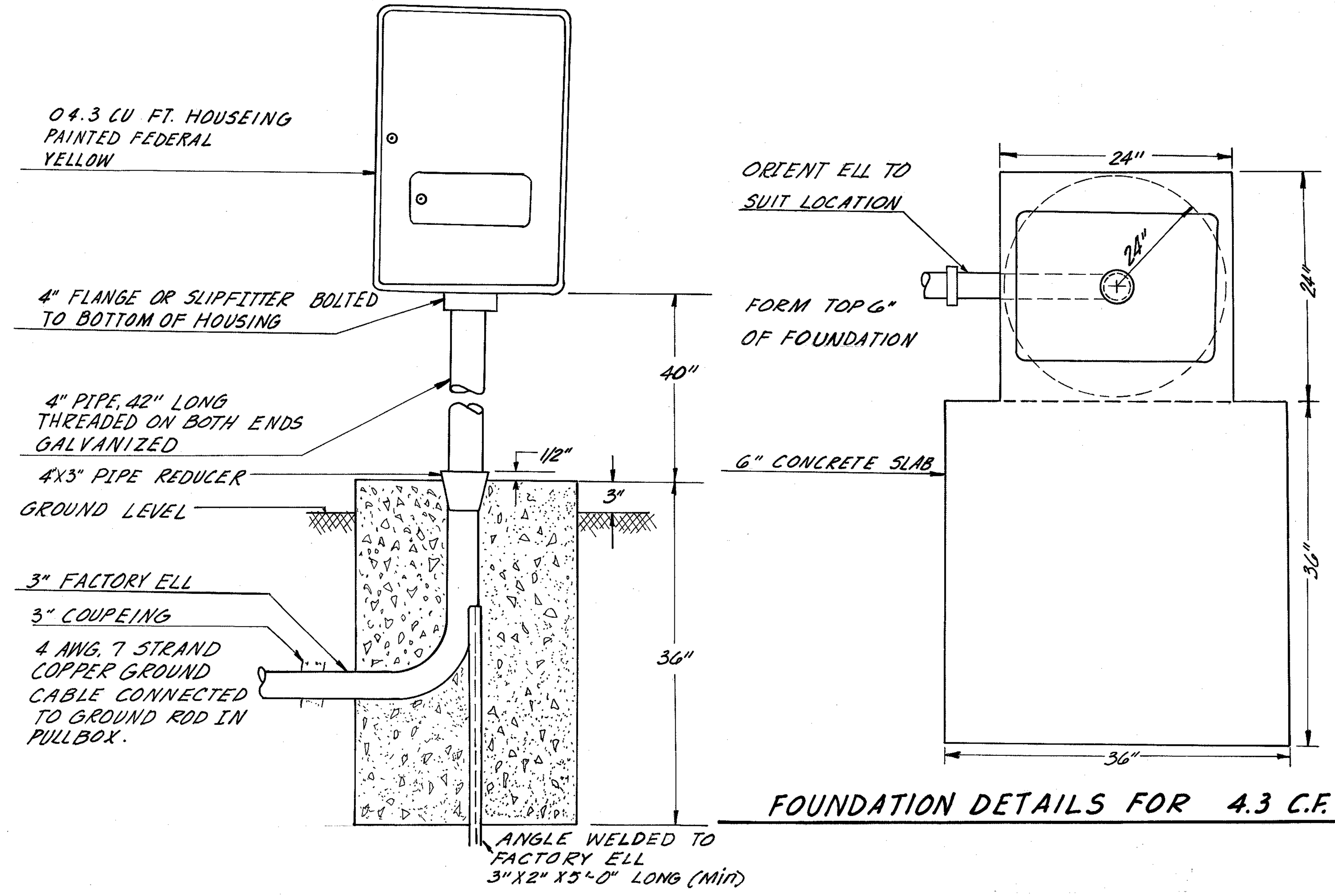
POLE TO POLE	DIMENSION							
	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'
K1 K2	153'	53'	15.5'	20.0'	19.5'	19.5'	25.5'	17'0"
K3 K4	132.5'	30.5'	17.0'	21.5'	17.5'	17.0'	29.0'	17'9"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

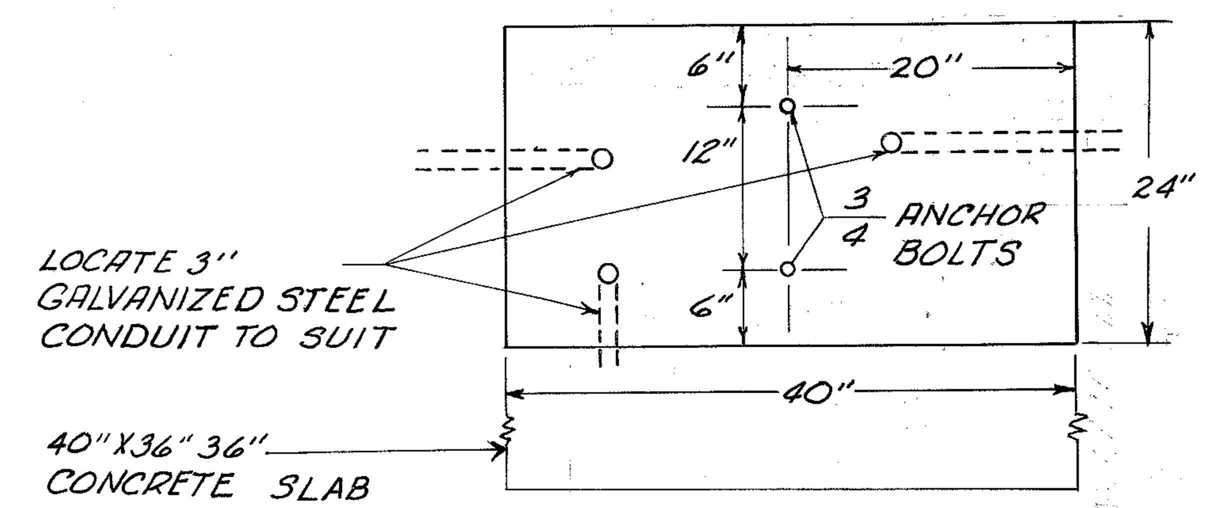
HAM-275-3.86
HAMILTON COUNTY



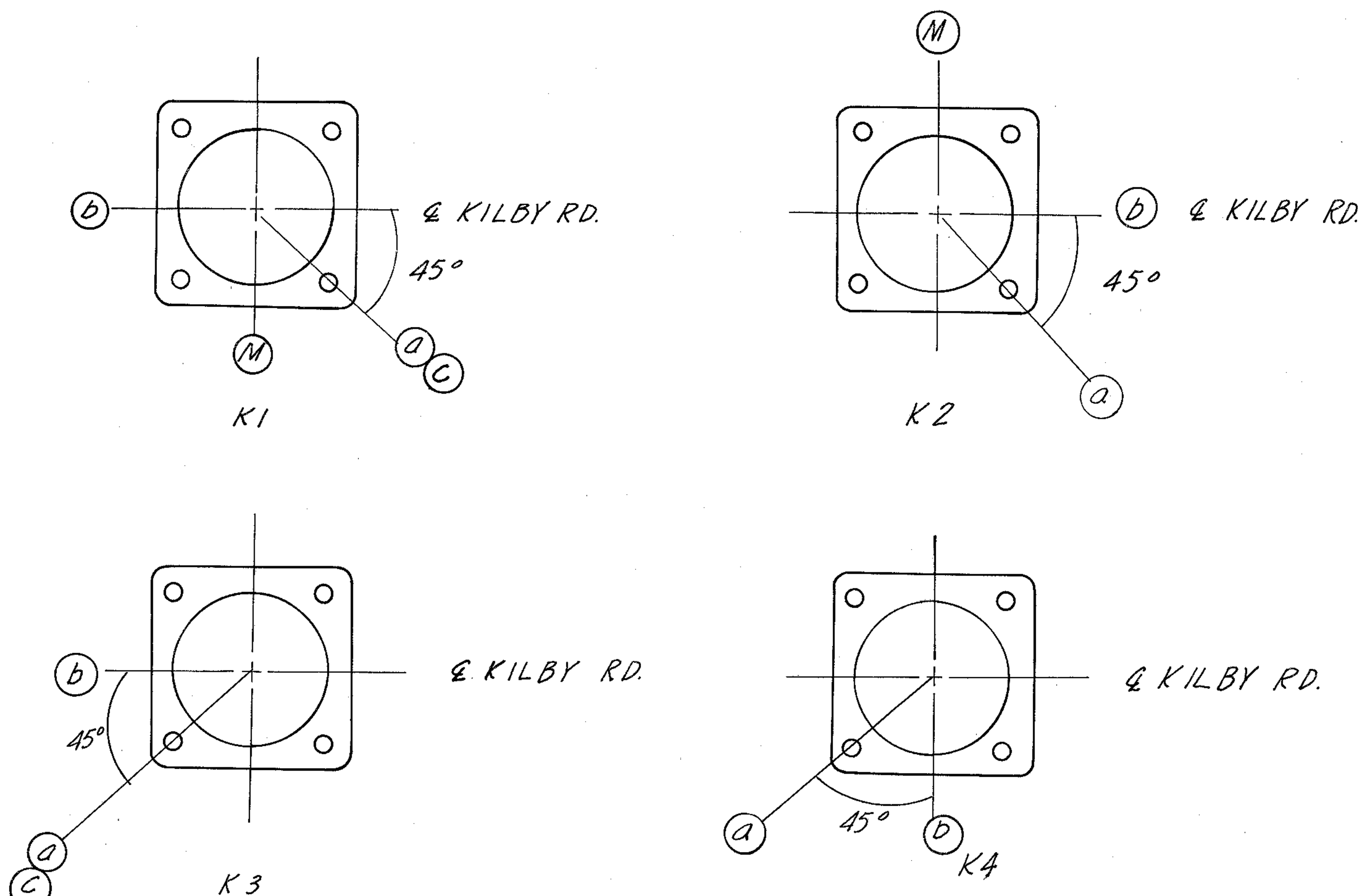
MESSENGER WIRE INSTALLATION DETAILS



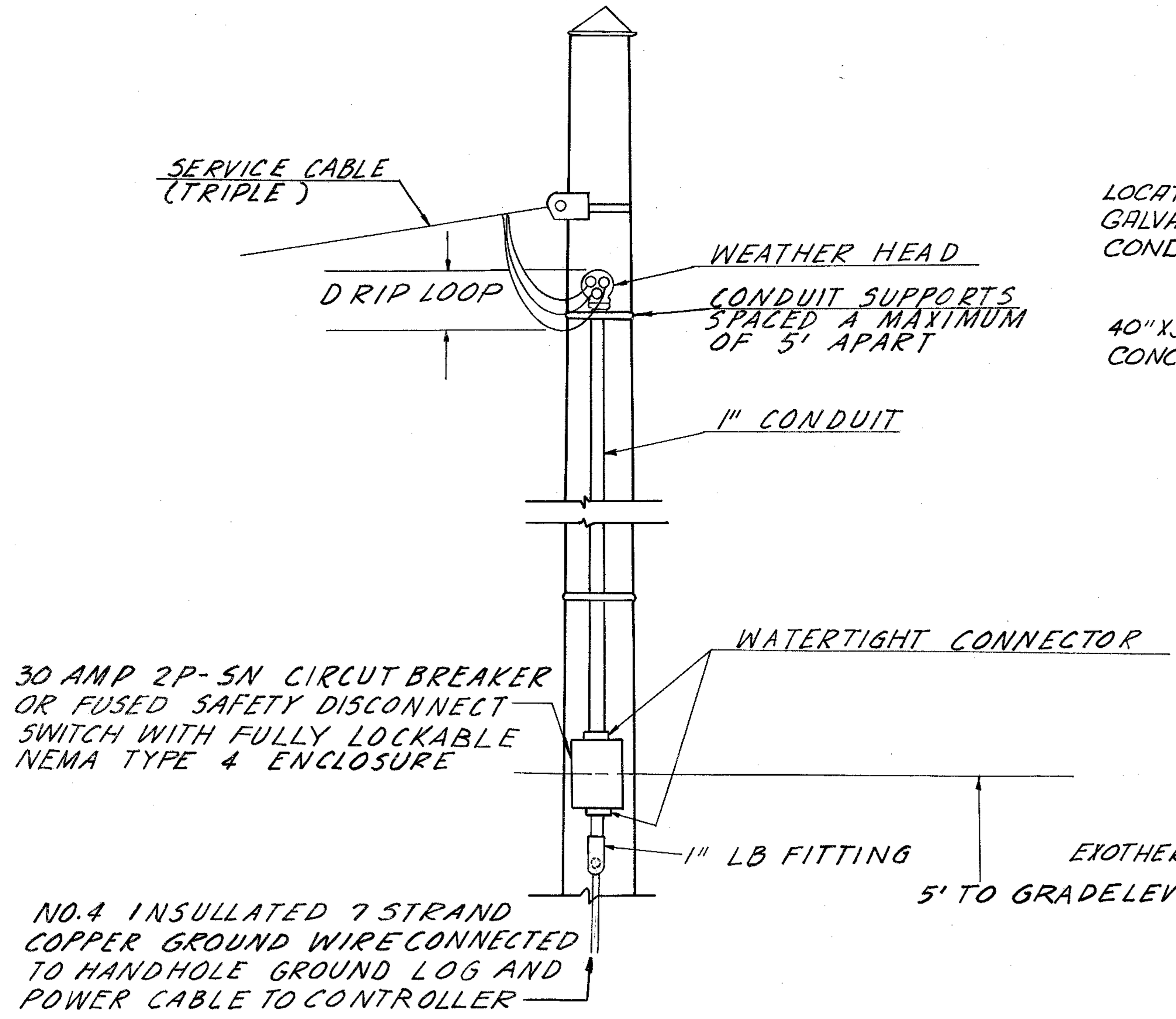
FOUNDATION DETAILS FOR 4.3 C.F. CONTROLLER CABINET



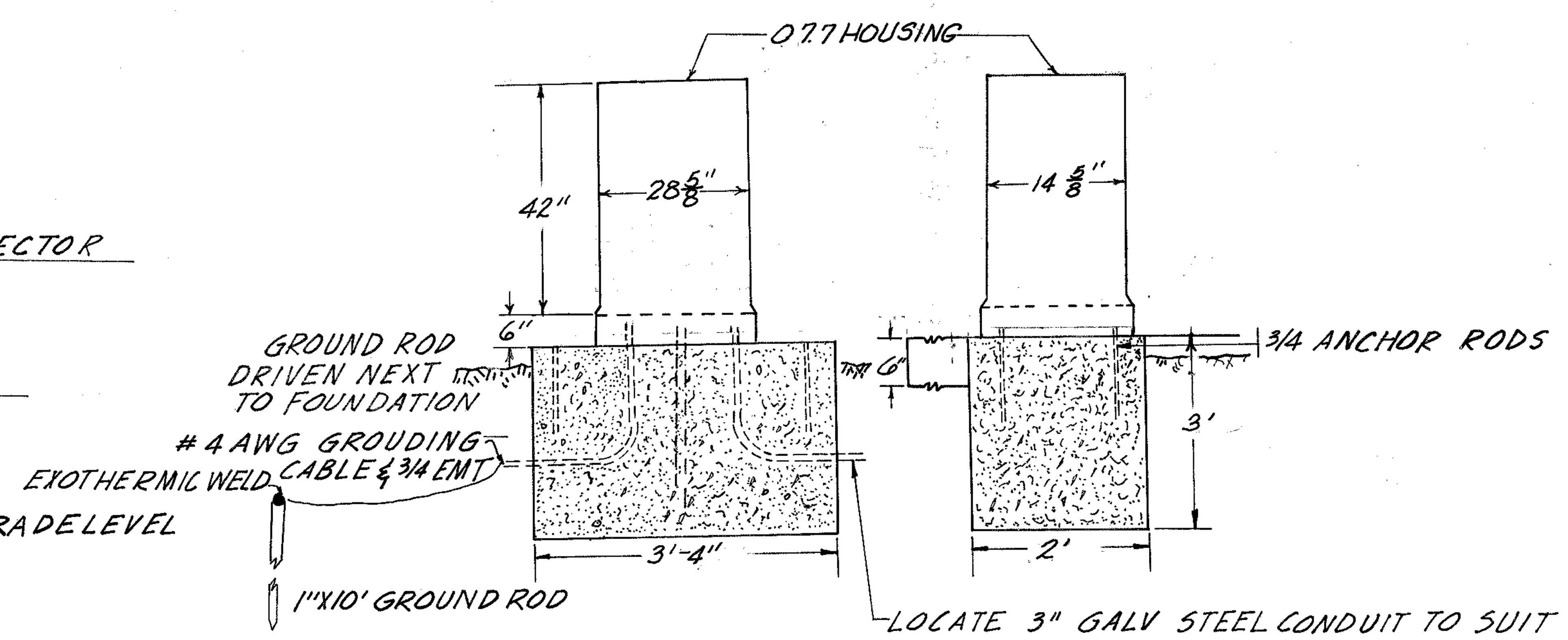
NOTE:
ALL CIRCUIT CABLES SHALL EXTEND A MINIMUM OF 8FT. BEYOND TOP OF CONCRETE FOUNDATION AND SUITABLE PROTECTED (FOR USE IN CONNECTING CONTROLLER BY OTHERS)



POLE ORIENTATION



POWER SERVICE DETAILS



FOUNDATION DETAILS FOR 07.7 C.F. CONTROLLER CABINET

TRAFFIC SIGNAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2			

547A
630

HAM-275-3.86
HAMILTON COUNTY

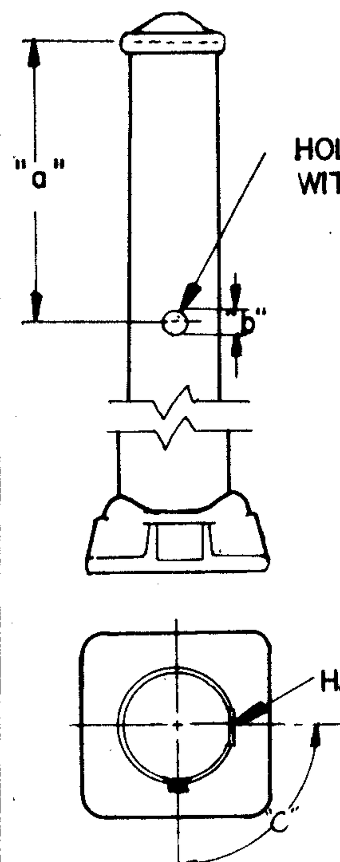
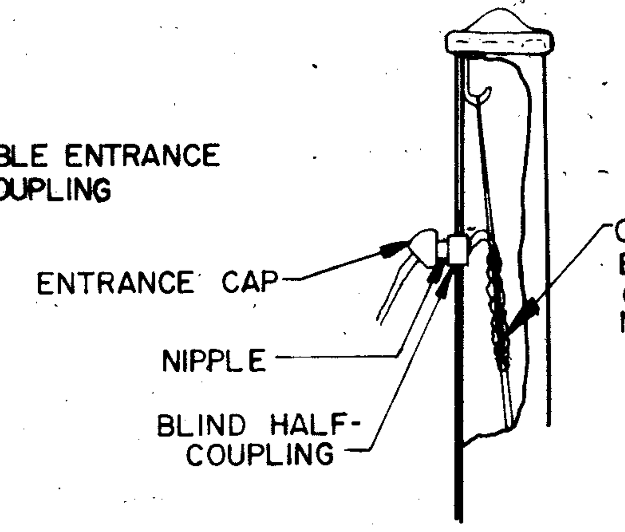


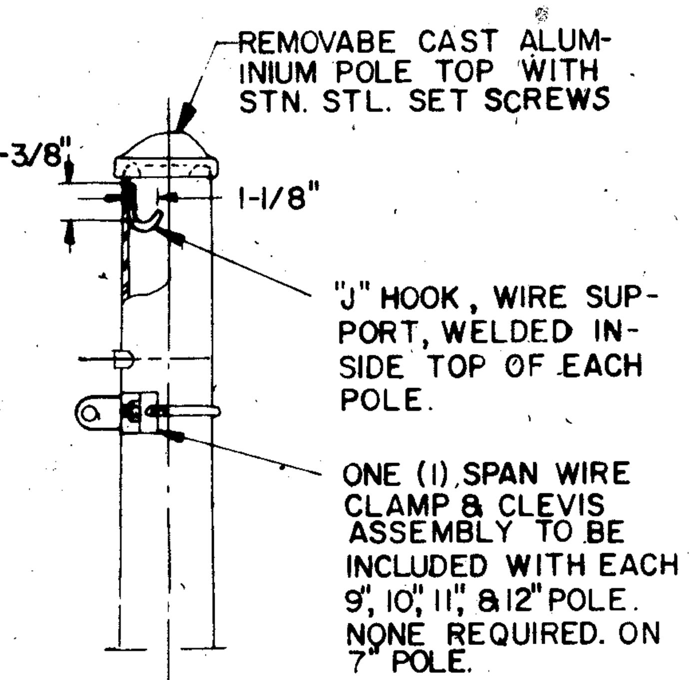
TABLE 2

CONFIG.	"a"	"b"	"c"
A	30"	2"	90°
B	30"	2"	180°
C	30"	2"	270°
D	48"	2"	90°
E	48"	2"	180°
F	48"	2"	270°
G	NO HOLE REQUIRED		

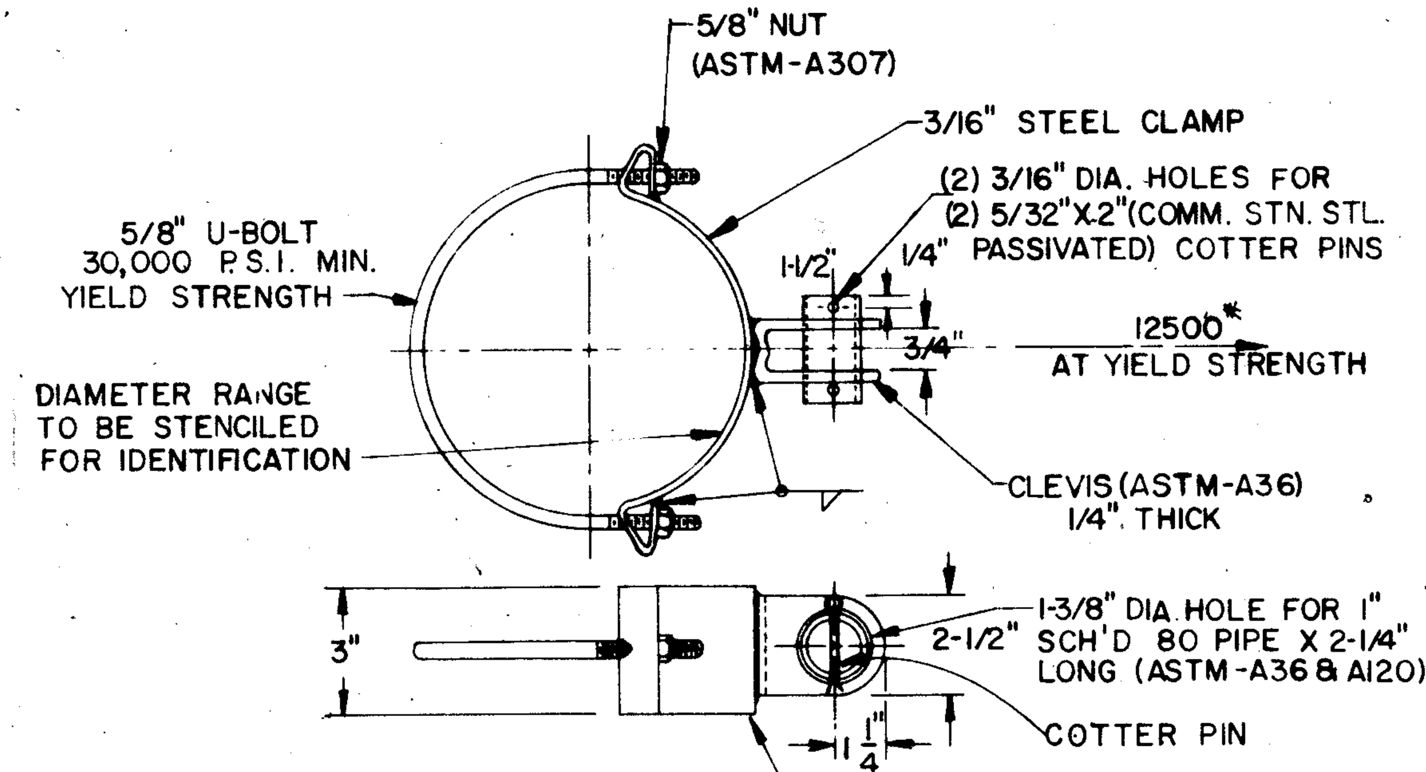
CABLE ENTRANCE LOCATION DETAIL



TYPICAL CABLE STRAIN RELIEF & ENTRANCE CAP DETAILS

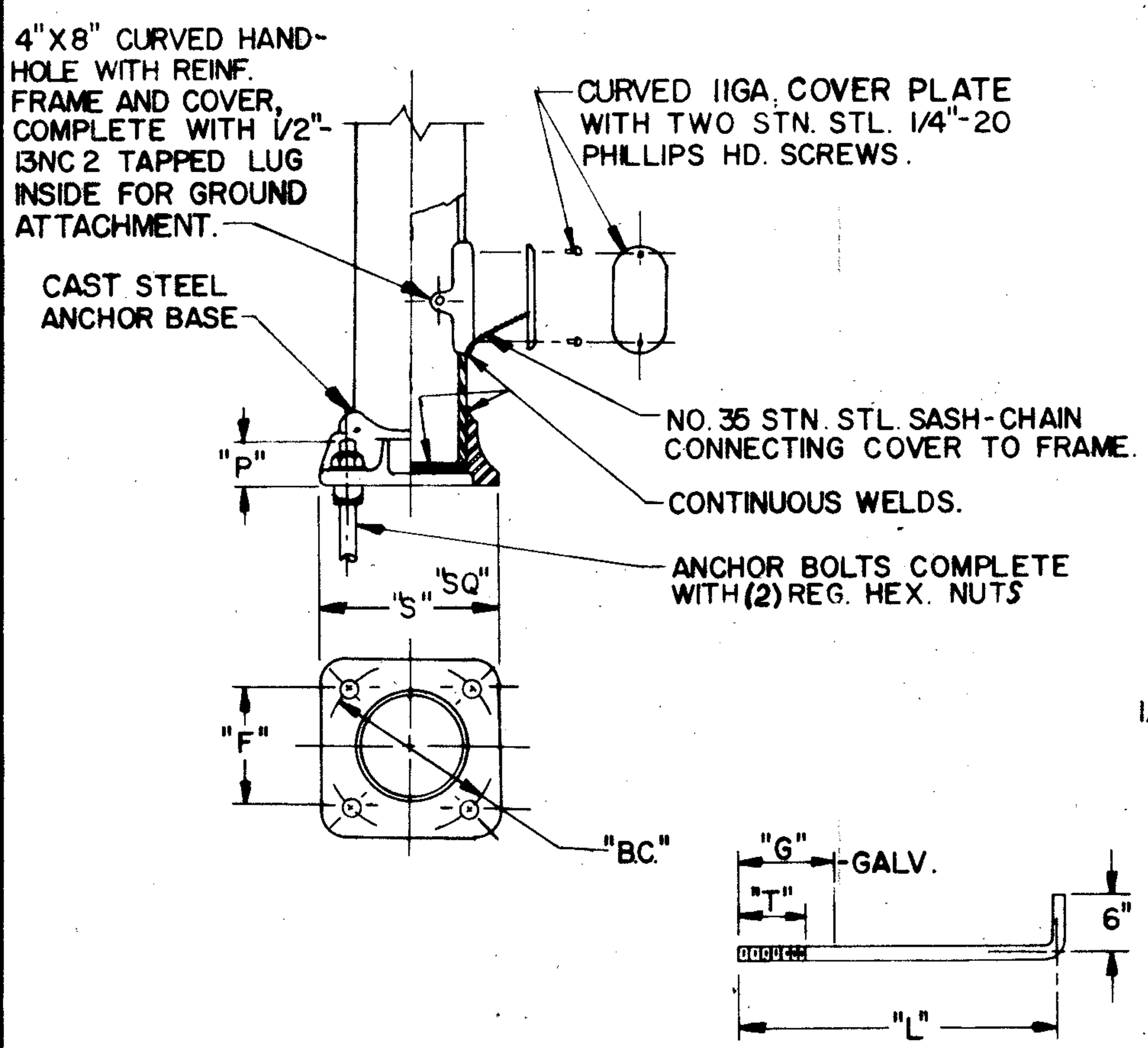


POLE TOP DETAILS



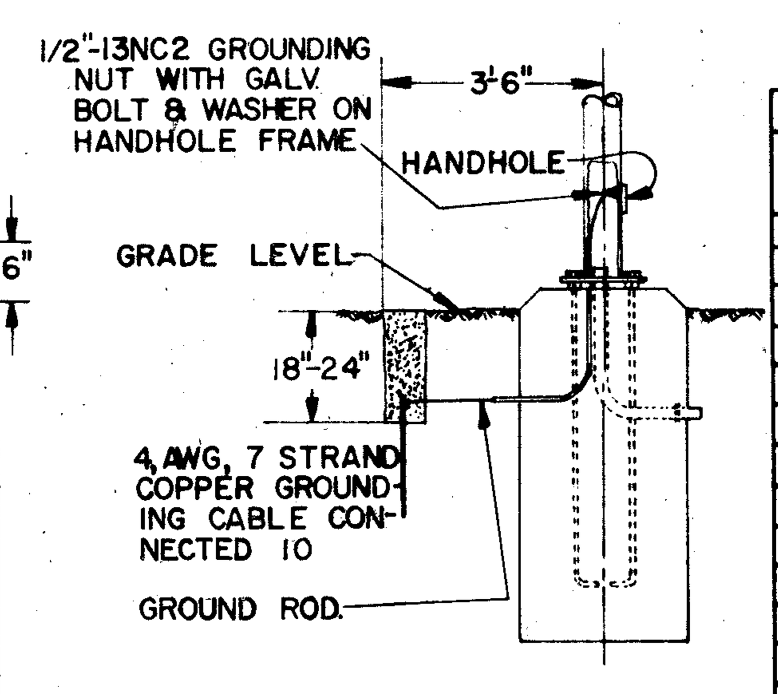
TYPE	CLAMP RANGE MIN.	MAX.
I	3.1"	3.6"
II	3.6"	4.4"
III	4.4"	5.2"
IV	5.2"	5.8"
V	5.8"	6.8"
VI	6.8"	7.9"
VII	7.9"	9.0"
VIII	9.0"	10.1"
IX	10.1"	11.3"
X	11.3"	12.1"
XI	12.1"	13.4"
XII	13.4"	14.5"
XIII	14.5"	15.5"
XIV	15.5"	16.5"

SPAN WIRE CLAMP DETAILS

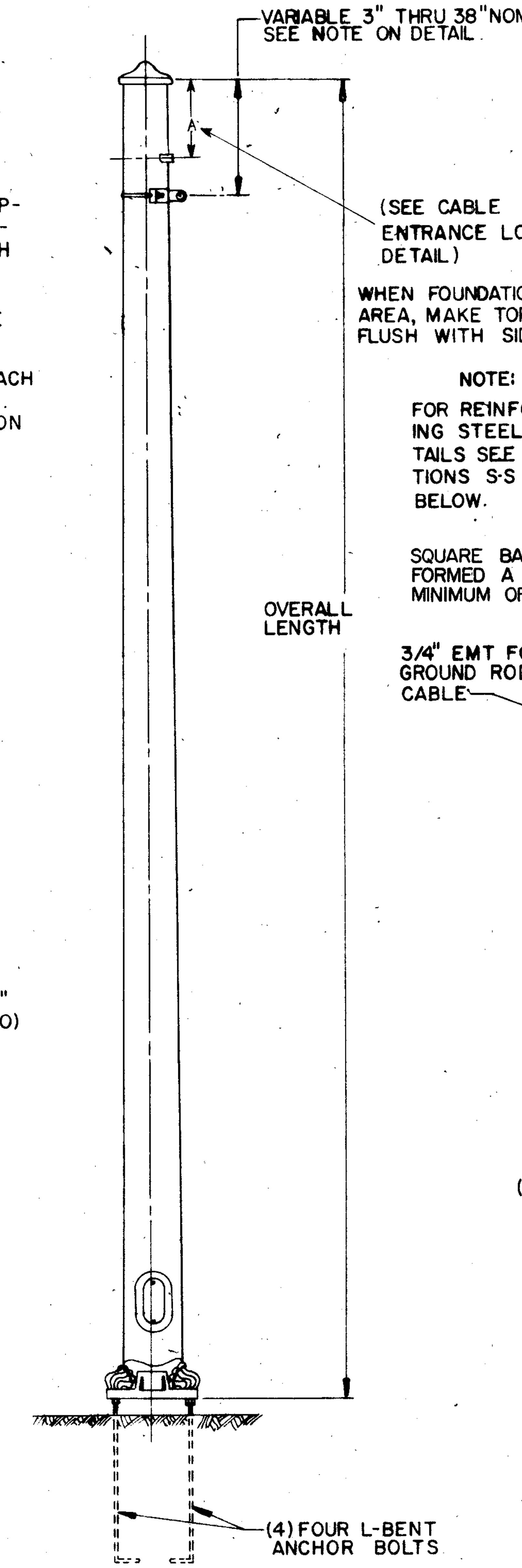


ANCHOR BASE DATA					ANCHOR BOLT DATA			
POLE DIA.	"B.C."	"F"	"S"	"P"	SIZE	"L"	"T"	"G"
7"	10"	7 1/16	10 1/2"	2 1/4"	1-1/4" X 48"	42"	8"	10"
9"	12-1/2"	8-7/8"	12-3/4"	3"	1-1/2" X 60"	54"	9"	11"
10"	13-1/2"	9-9/16"	14-1/8"	3-3/8"	1-1/2" X 60"	54"	9"	11"
11"	15"	10-5/8	15-5/8"	3-5/8"	1-3/4" X 90"	84"	9"	11"
12"	16"	11-5/16"	17"	4"	1-3/4" X 90"	84"	9"	11"
14"	22"	15 1/2"	23"	4 5/8"	2 1/4" X 96"	90"	11"	13"

TYPICAL HANDHOLE, ANCHOR BASE & ANCHOR BOLT DETAILS



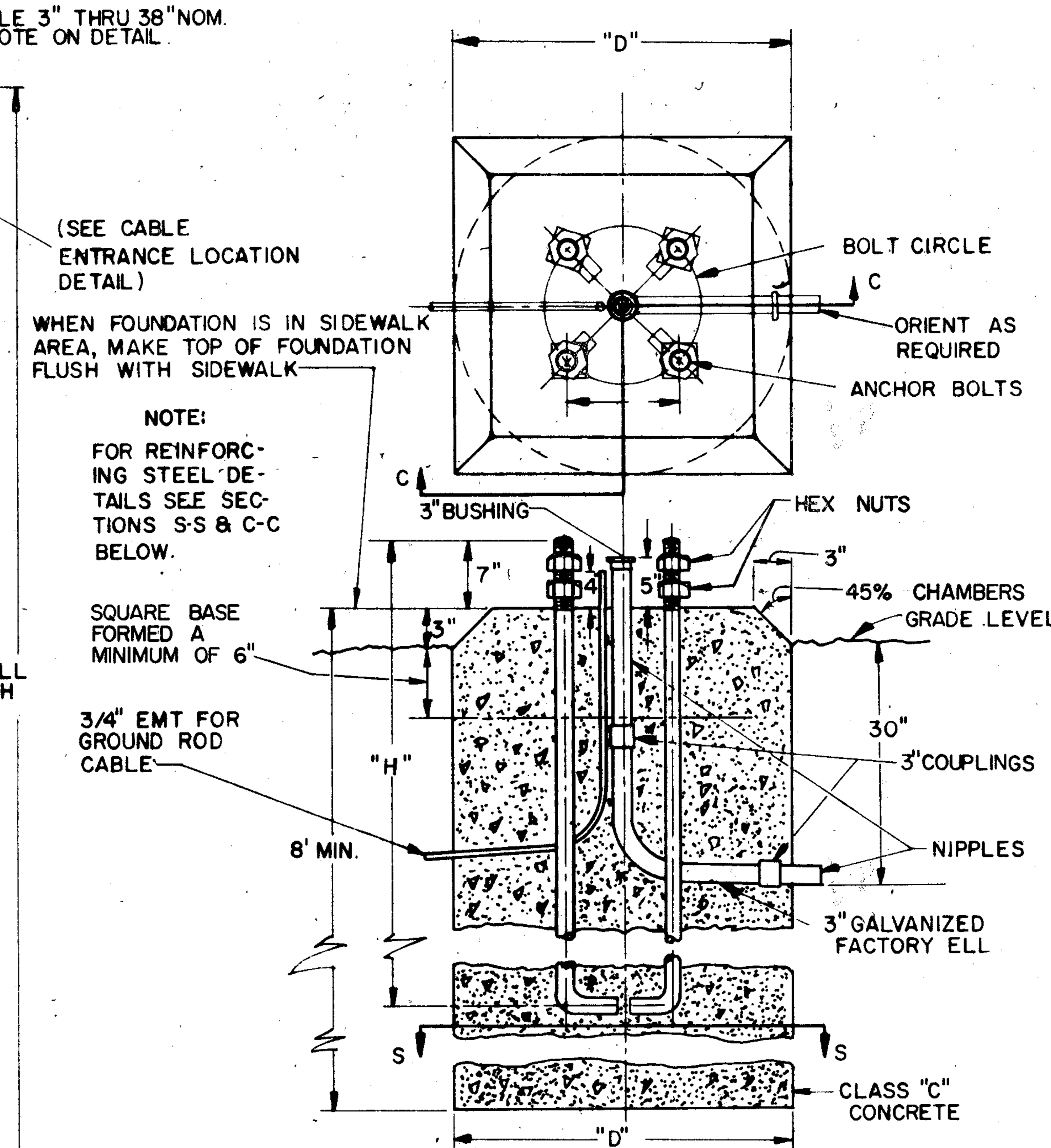
TYPICAL GROUND ROD DETAIL



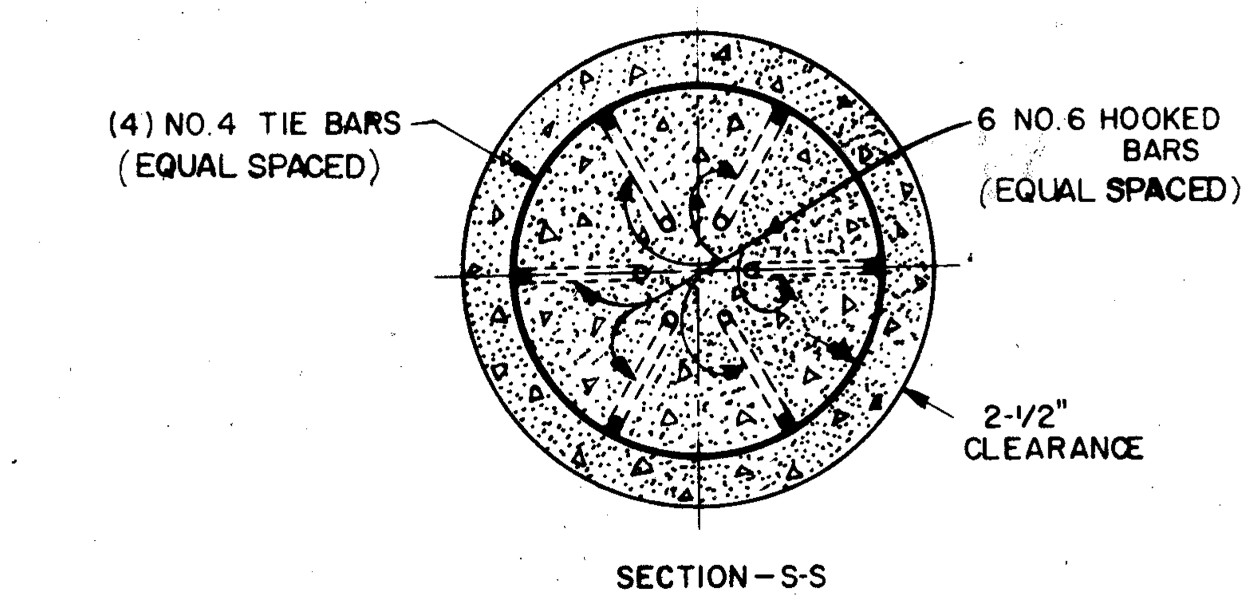
STEEL STRAIN POLE

TYPE	BASE DIA.	TOP DIA.	OVERALL LENGTH	WALL THICKNESS	DESIGN DATA FOR TRANSVERSE LOAD AT 18" DOWN FROM TOP: ELAST. DEFL. RATE	LD. AT YIELD STRENGTH	"H"	"D"
1	7.0"	4.20	20.0'	(3 GA.) .250"	.59"/100#	2135#	42"	24"
2	9.0"	5.36"	26.0'		.64"/100#	2730#	54"	24"
3	10.0"	6.36"			.44"/100#	3400#	54"	24"
4	11.0"	7.36"			.32"/100#	4140#	84"	30"
5	12.0"	8.36"			.24"/100#	4960#	84"	36"
6	9.0"	5.08"	28.0'		.84"/100#	2520#	54"	24"
7	10.0"	6.08"			.54"/100#	3140#	54"	24"
8	11.0"	7.08"			.41"/100#	3850#	84"	30"
9	12.0"	8.08"			.31"/100#	4590#	84"	36"
10	9.0"	4.80"	30.0'		1.10"/100#	2350#	54"	24"
11	10.0	5.80"			.74"/100#	2920#	54"	24"
12	11.0"	6.80"			.53"/100#	3560#	84"	30"
13	12.0"	7.80"			.39"/100#	4260#	84"	36"
SP	14.0"	9.52	32.0'	(2 PLY 3GA) .5000"	.15"/100#	9050#	90"	36"

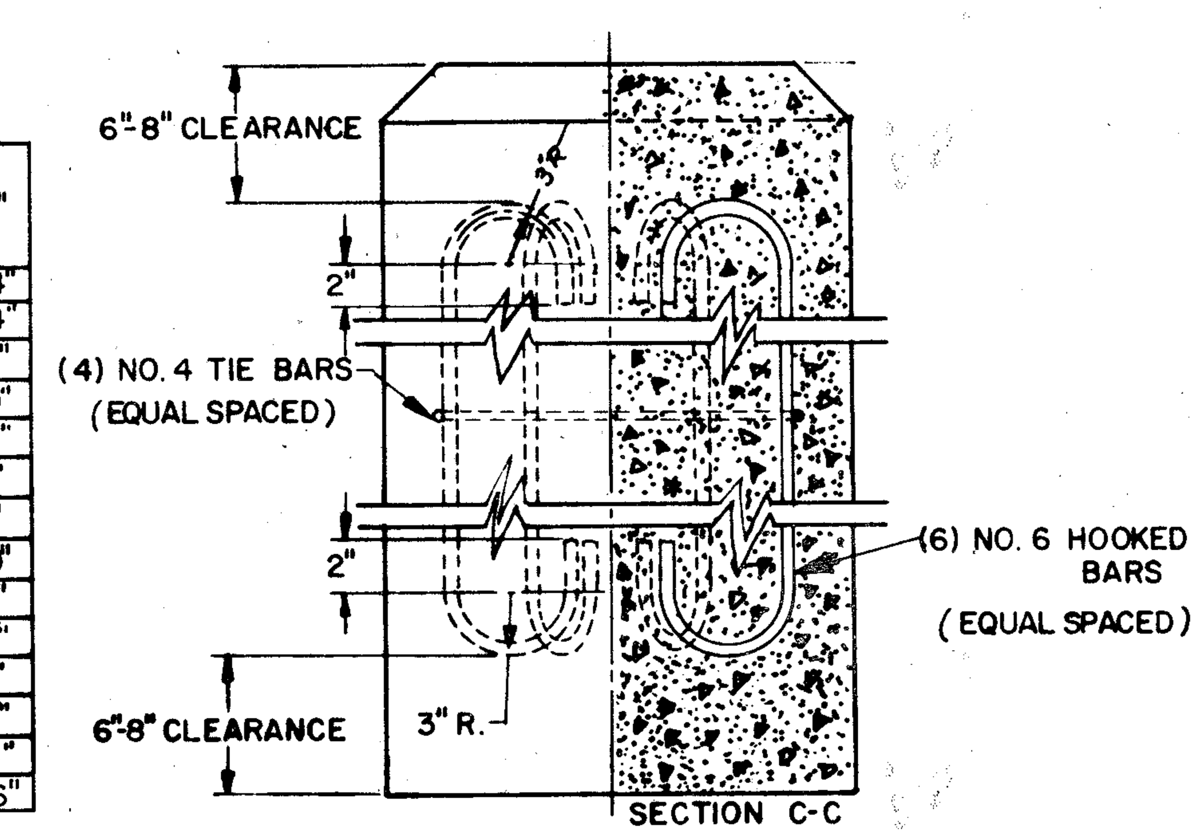
STRAIN POLE TYPES



TYPICAL STRAIN POLE FOUNDATION



SECTION-S-S



TYPICAL REINFORCING STEEL SECTIONS

NOTES

MATERIAL SPECIFICATIONS

1. TAPERED TUBES (S.A.E.-1020 STEEL PROCESSED TO MINIMUM YIELD STRESS OF 55,000 P.S.I.
2. CAST ANCHOR BASE & HANDHOLE FRAME - ASTM-A27-GRADE 65-35.
3. HANDHOLE COVER PLATE - 11 GA. STEEL SAE-1015
4. CAST ALUMINUM POLE TOP - ALUMINUM ALLOY 43
5. SPAN WIRE CLAMP - LOW ALLOY. HIGH STRENGTH STEEL ASTM-A242- OR 375, LOAD PRODUCING DISTORTION 12,500 LBS. DIRECT TENSION
6. ALL BOLTS & NUTS LESS THAN 5/8" DIA. PASSIVATED STAINLESS STEEL AISI-300 SERIES - COMMERCIAL GRADE.
7. ALL OTHER NUTS & BOLTS 5/8" DIA. & OVER - ASTM-A307 AND GALVANIZED IN ACCORDANCE WITH-ASTM-A153
8. ANCHOR BASE & U-BOLTS - HIGH STRENGTH STEEL - MINIMUM YIELD STRESS 55,000 LBS. SQ. IN.- MIN. ULTIMATE 90,000 P.S.I.
9. WELDING ROD-ASTM-A233 - CLASS E60XX OR 70XX.
10. GALVANIZING-WHEN SPECIFIED ASTM-A123.

TRAFFIC SIGNAL POLE FOUNDATIONS

THE CONTRACTOR SHALL STAKE THE LONGITUDINAL AND LATERAL LOCATION, AND THE ELEVATION OF THE TOP OF EACH FOUNDATION SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER ELEVATION, OFFSET, AND LEVEL OF EACH FOUNDATION. THE FOUNDATION LOCATIONS MAY BE CHANGED AS DIRECTED BY THE ENGINEER, IN CASE OF SLOPE OR SUBSURFACE DIFFICULTIES.

EXCAVATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 503. EXCAVATION SHALL BE TO THE DIMENSIONS SHOWN ON THE PLANS, AND SHALL BE PERFORMED BY MEANS OF AN EARTH AUGER OF THE SPECIFIED DIA. UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

WHERE SUBSURFACE OBSTRUCTIONS ARE ENCOUNTERED, THE ENGINEER MAY REQUIRE THE CONTRACTOR TO REMOVE THE OBSTRUCTION OR TO REPLACE THE EXCAVATED MATERIAL AND RELOCATE THE FOUNDATION.

IF CAVING OF THE EXCAVATION OCCURS, THE CONTRACTOR SHALL EXCAVATE THE SPECIFIED DEPTH MAINTAINING THE THE SIDES AS NEARLY VERTICAL AS POSSIBLE. NO PAYMENT SHALL BE MADE FOR ANY EXCAVTION, CONCRETE, OR REINFORCING STEEL USED IN EXCESS OF THE PLAN QUANTITES.

CONCRETE, CLASS C, SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 511, AND SHALL BE PLACED AGAINST UNDISTURBED SOIL OR COMPACTED EMBANKMENT. STEEL REINFORCEMENT BARS, WHERE REQUIRED, SHALL BE POSITIONED AS SHOWN ON THE PLANS AND PLACED IN ACCORDANCE WITH ITEM 509.

CYLINDRICAL ANCHOR BASE TYPE FOUNDATIONS FOR TRAFFIC SIGNAL POLES SHALL HAVE ANCHOR BOLTS AND CONDUIT ACCURATELY HELD IN POSITION WITH A TEMPLET WHILE CONCRETE IS PLACED. FORMS SHALL BE USED FOR THE UPPER PORTIONS OF ALL FOUNDATIONS AND NO BACKFILLING SHALL BE PERMITTED FROM THE BOTTOM TO SIX INCHES BELOW THE GRADE LEVEL. NO GROUTING OF CONCRETE SHALL BE PERMITTED BETWEEN THE FOUNDATION TOP AND THE POLE BASE.

TRAFFIC SIGNAL POLE

WHERE A WIRE ENTRANCE IS REQUIRED, THE SERVICE ENTRANCE HEAD SHALL BE LOCATED APPROXIMATELY 12" BELOW SPAN WIRE CLAMP.

GROUND ROD

GROUND ROD SHALL BE IN ACCORDANCE WITH TYPICAL GROUND ROD DETAIL AND TESTED IN ACCORDANCE WITH 625.22 "CONSTRUCTION AND MATERIAL SPECIFICATIONS."

BUREAU OF TRAFFIC

OHIO DEPARTMENT OF HIGHWAYS

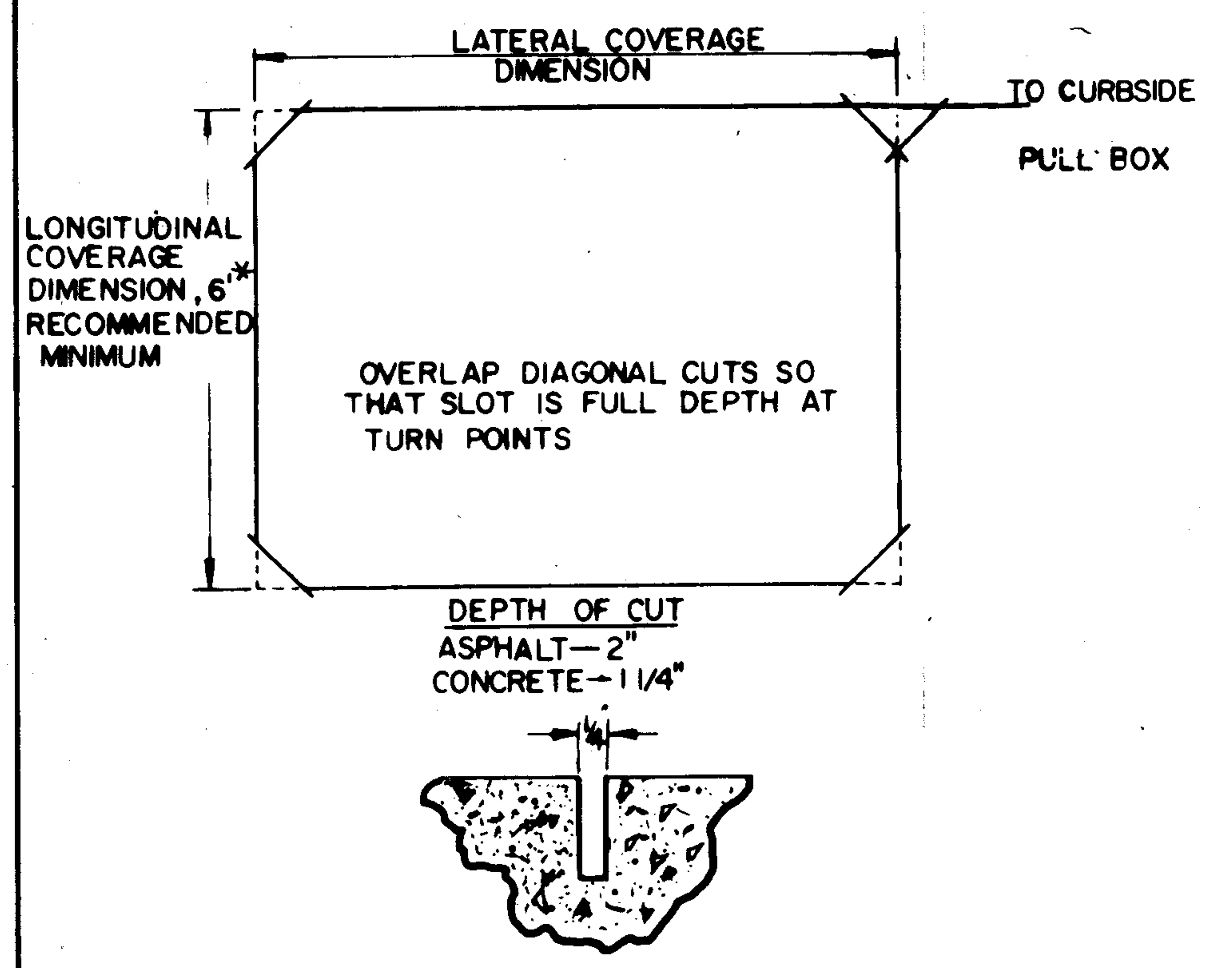
STEEL STRAIN POLE & FOUNDATION DETAILS

APPROVED ____________
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

5478
630

HAM-275-3.86
HAMILTON COUNTY



SOLID LINES SHOW SAW CUTS USED TO ACCOMODATE ROADWAY WIRE LOOP. DOTTED LINES SHOW UNUSED SAW CUTS.

FIGURE 1
TYPICAL LOOP SLOT CONSTRUCTION

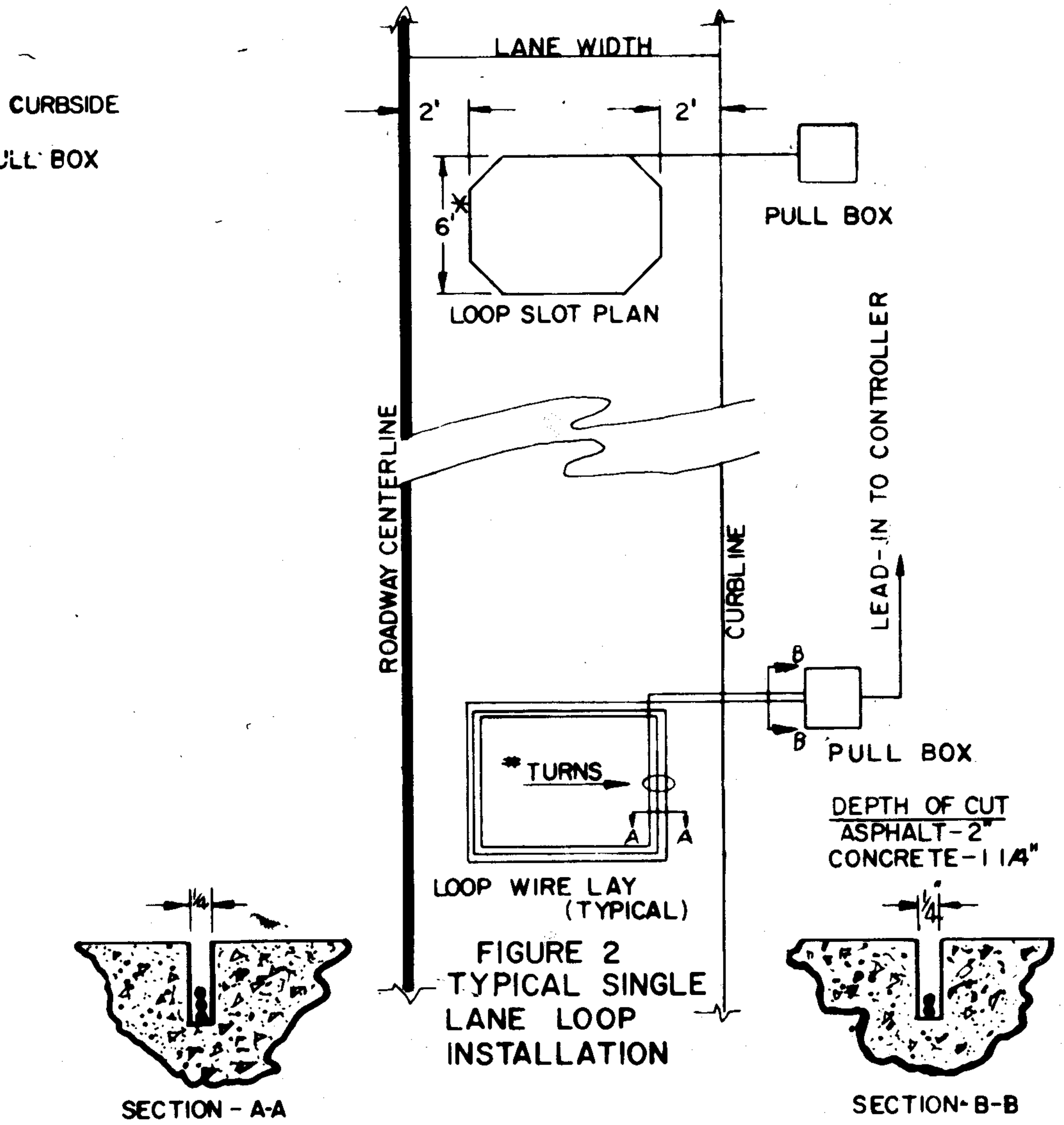


FIGURE 2
TYPICAL SINGLE LANE LOOP INSTALLATION

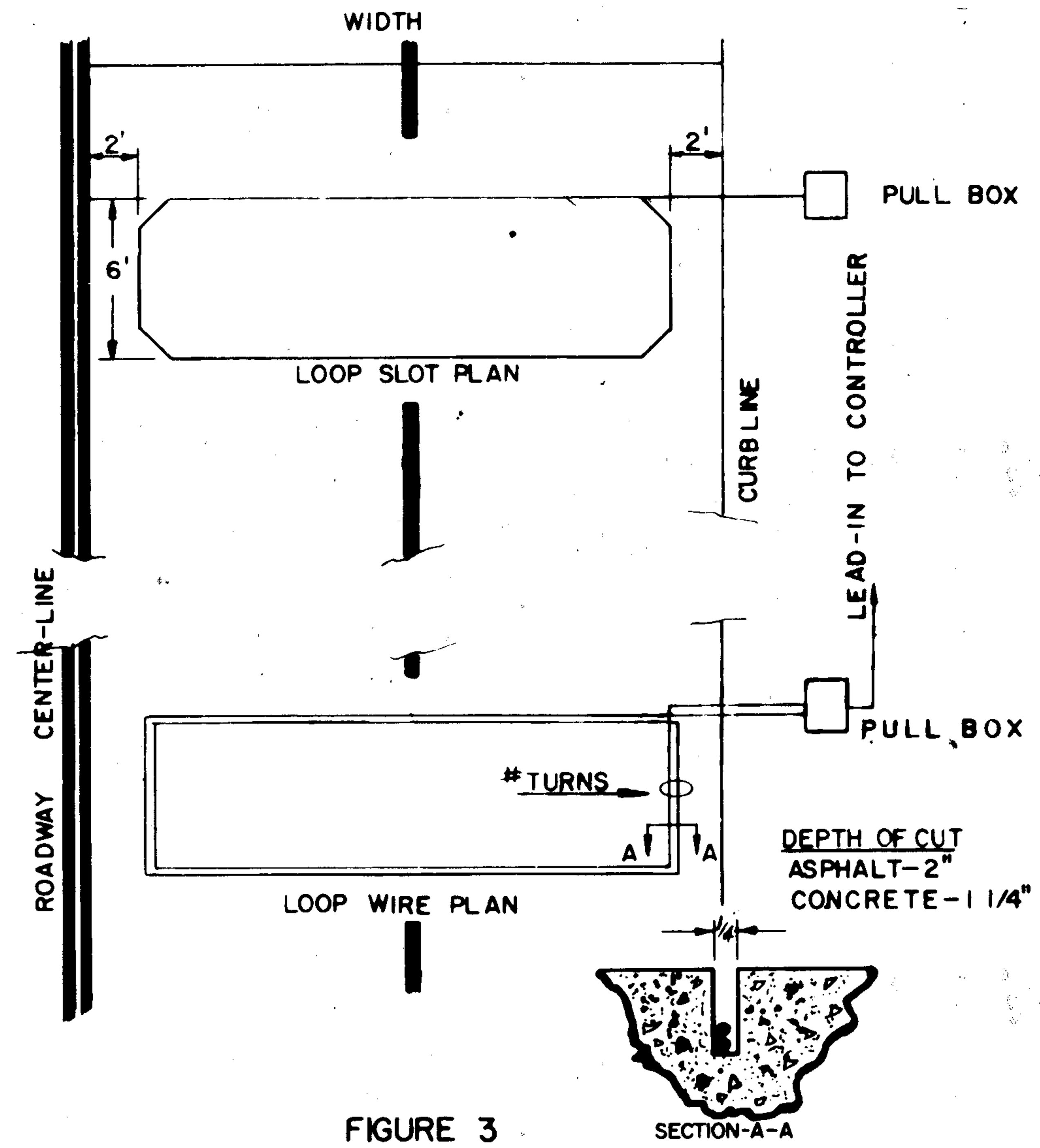


FIGURE 3
TYPICAL TWO LANE LOOP INSTALLATION

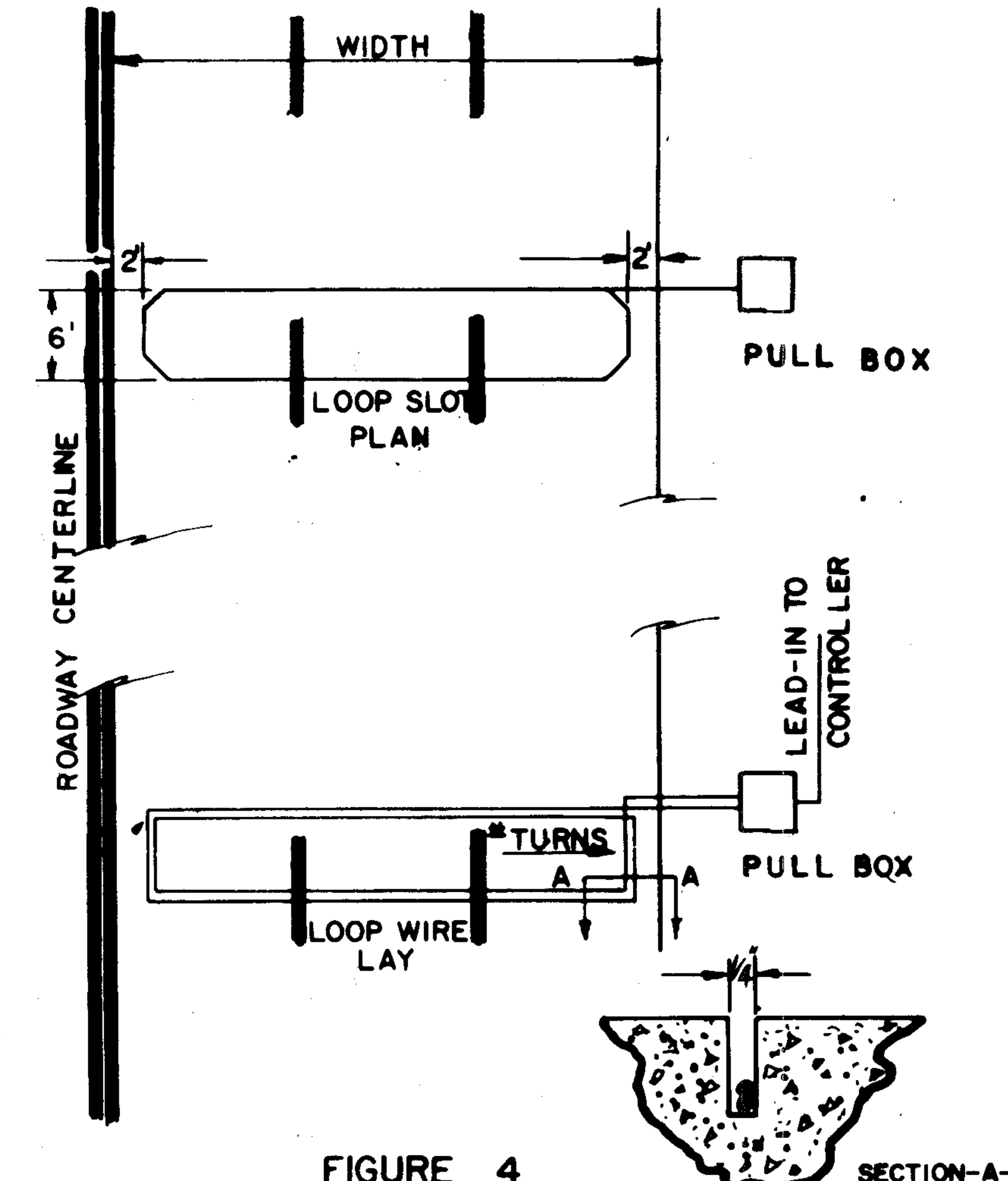
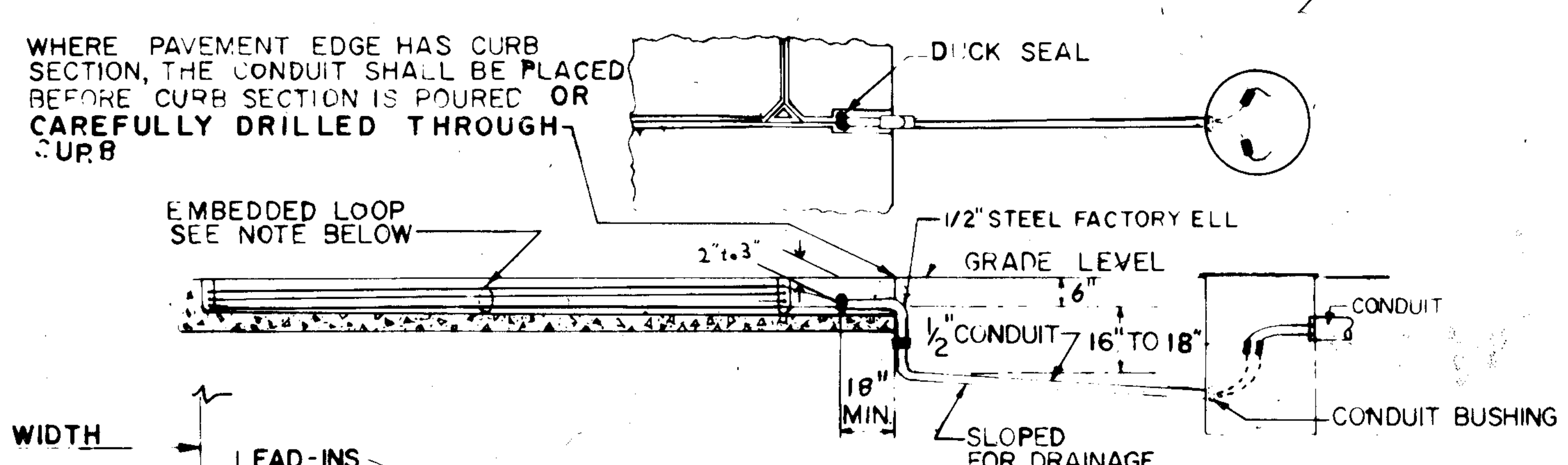


FIGURE 4
TYPICAL THREE LANE LOOP INSTALLATION

TABLE-1 ROADWAY LOOP CONSTRUCTION	
LOOP PERIMETER	NO. OF TURNS
UP TO 40 FEET	3
40 TO 160 FEET	2
160 AND UP	1

MAINTAIN 6' MINIMUM DIMENSION IN DIRECTION OF TRAVEL.



NOTE:
IT IS EXTREMELY IMPORTANT THAT THE SAWED SLOT BE THOROUGHLY CLEANED AND COMPLETELY DRY BEFORE APPLYING SLOT SEALER

SPLICE TO LEAD IN CABLE BY SOLDERING AND APPLYING WATERPROOF SPLICING KIT

FIGURE 8
INTERFACE BETWEEN EMBEDDED LOOP AND ROAD SIDE PULL BOX

ROADWAY LOOP INSTALLATION

THE ROADWAY WIRE LOOP IS POSITIONED IN THE PAVEMENT IN A SAWED SLOT THAT OUTLINES THE REQUIRED DETECTION AREA. THE SLOT SHALL BE 1/4" WIDE AND FROM 1 1/4" OR 2" DEEP. RIGHT ANGLE TURNS SHALL BE CHAMFERED TO PREVENT SHARP BENDS OF WIRE (SEE FIG. 1). THE SLOT MUST BE BRUSHED AND BLOWN CLEAN OF ALL LOOSE MATERIAL. THE LOOP WIRE MUST BE CAREFULLY PUSHED INTO THE SLOT WITH A BLUNT STICK TO AVOID DAMAGING ITS INSULATION. RESISTANCE OF THE WIRE LOOP TO GROUND SHOULD BE CHECKED AFTER THE WIRE IS PLACED IN THE SLOT, BOTH BEFORE AND AFTER THE SLOT IS SEALED. THIS IS ESPECIALLY IMPORTANT IF THE ROADWAY WIRE LOOP IS SPLICED TO LEAD-IN CABLE AT CURBSIDE JUNCTION BOX. A RESISTANCE OF LESS THAN 10 MEGOHMS INDICATES A FAULTY SPLICE OR WIRE INSTALLATION WHICH MUST BE CORRECTED BEFORE THE ROADWAY LOOP IS SEALED IN PLACE.

INSTALLATIONS IN NEW ASPHALT PAVEMENT SHALL BE MADE IN THE SUBBASE PRIOR TO PLACING THE TOP COURSE.

SEALING

A FLEXIBLE EMBEDDING SEALANT NO. 491-HP MANUFACTURED BY EUCLID CHEMICAL CO. OF CLEVELAND, OHIO OR E-707 MANUFACTURED BY THE BONDO CORP. OF NORTHFORD, CONNECTICUT OR EQUIVALENT. SHALL BE MIXED ACCORDING TO DIRECTIONS, POURED INTO THE SAW SLOTS AND LEFT UNDISTURBED UNTIL CURED INTO A SOLID MASS.

*DIMENSIONS
IN CASES WHERE THE LATERAL DIMENSION WOULD BE LESS THAN EIGHT (8) FEET, THE LONGITUDINAL DIMENSION SHALL BE INCREASED TO OBTAIN A MINIMUM AREA OF 48 S.F.

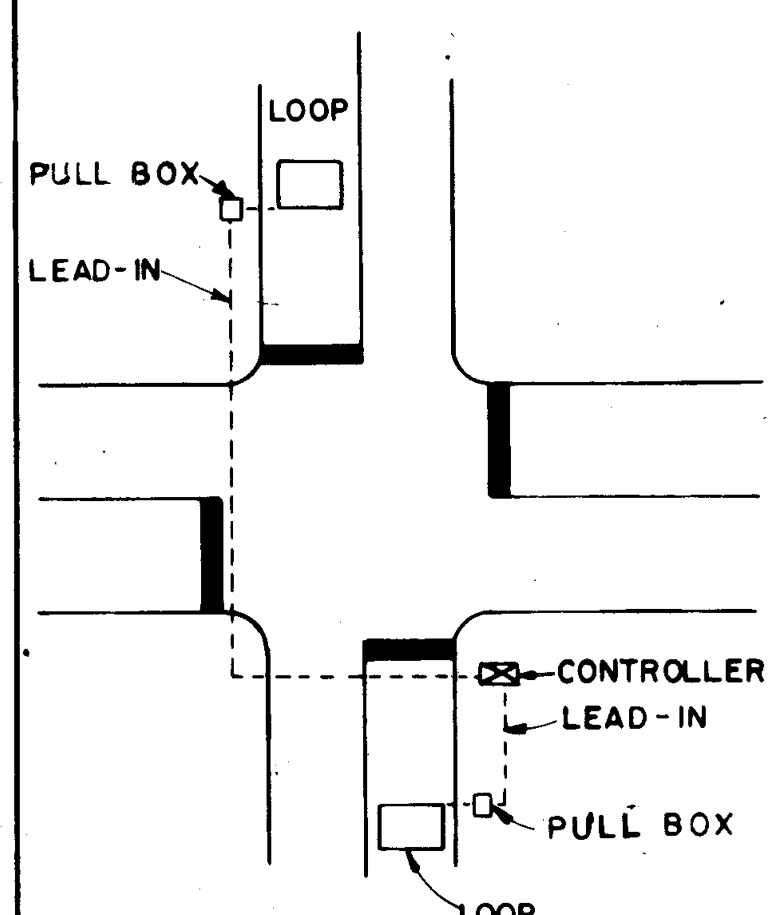


FIGURE 5
TYPICAL LEAD-IN DETAIL

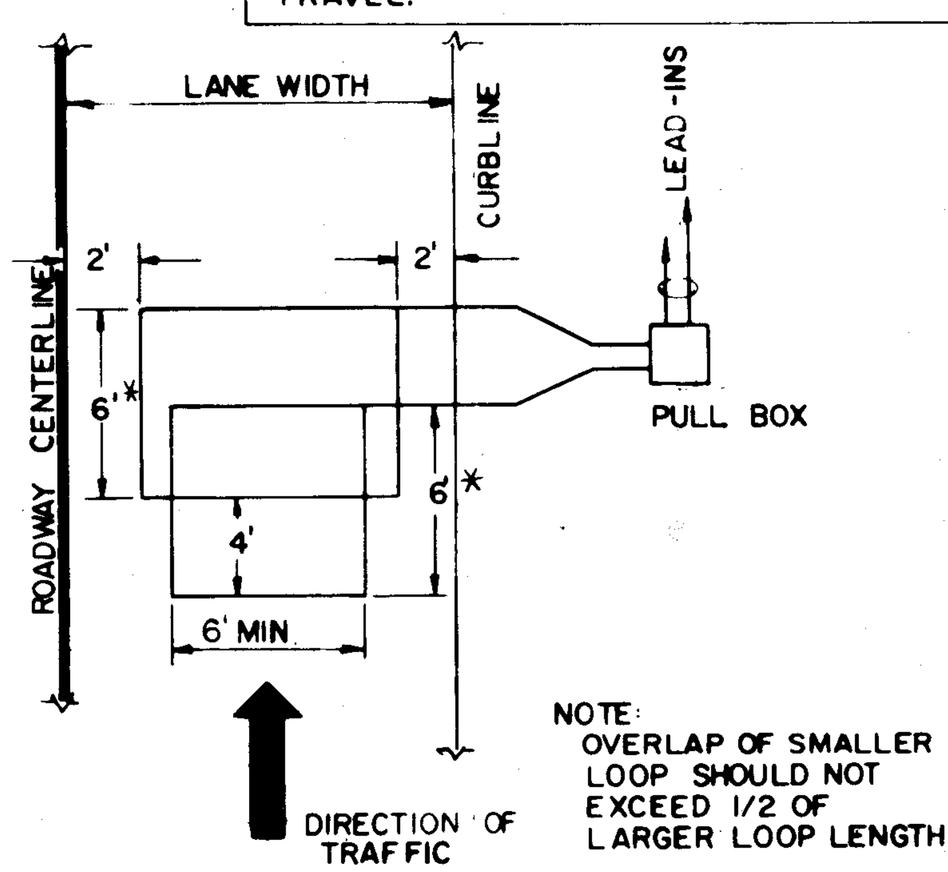


FIGURE 6
TYPICAL DIRECTIONAL DETECTION LOOP INSTALLATION (OVERLAPPED)

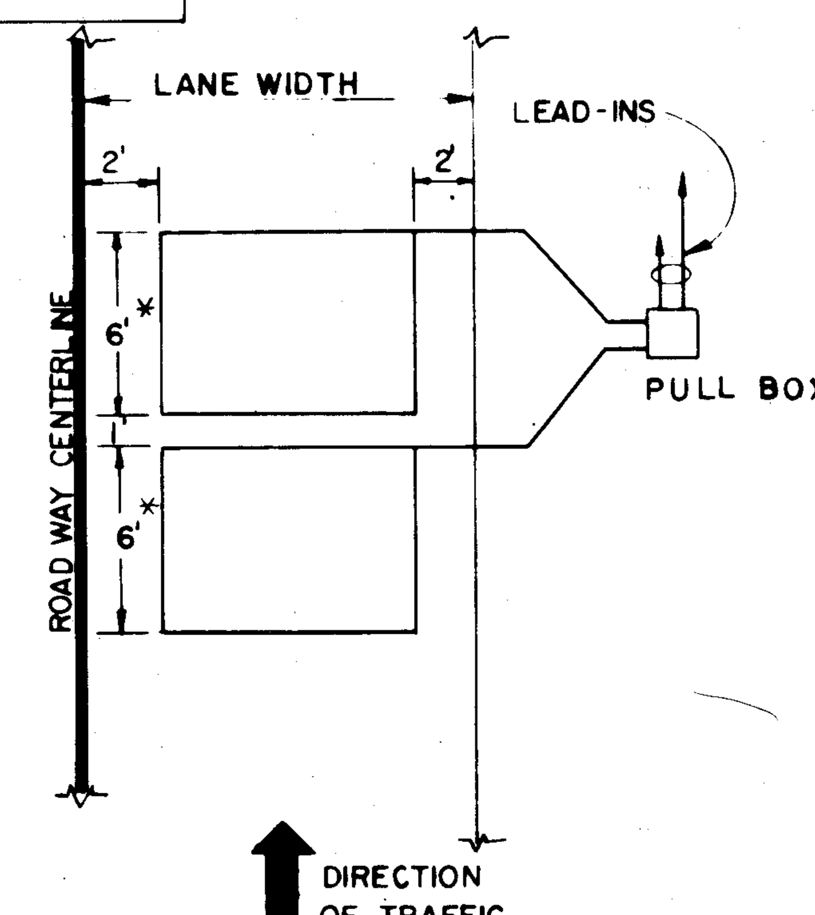


FIGURE 7
TYPICAL DIRECTIONAL DETECTION LOOP INSTALLATION (ADJACENT)

DEPTH OF CUT
ASPHALT — 2"
CONCRETE — 1 1/4"

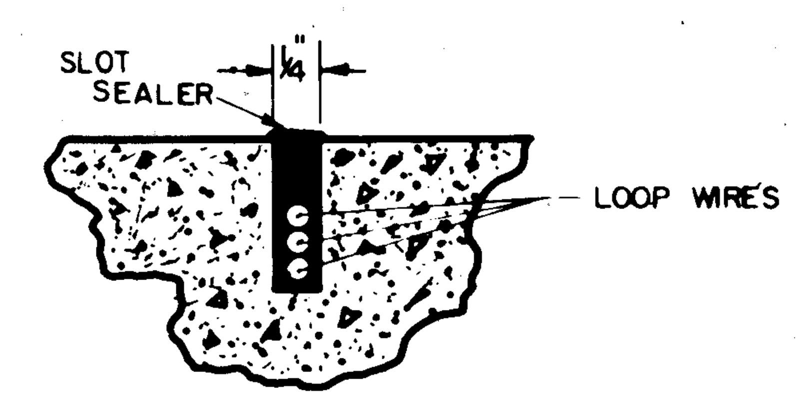


FIGURE 9
TYPICAL SLOT SEALING DETAIL

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

EMBEDDED VEHICLE DETECTOR LOOP DETAILS

Rev 11-3-67
Rev 6-1-71
Rev 2-3-72

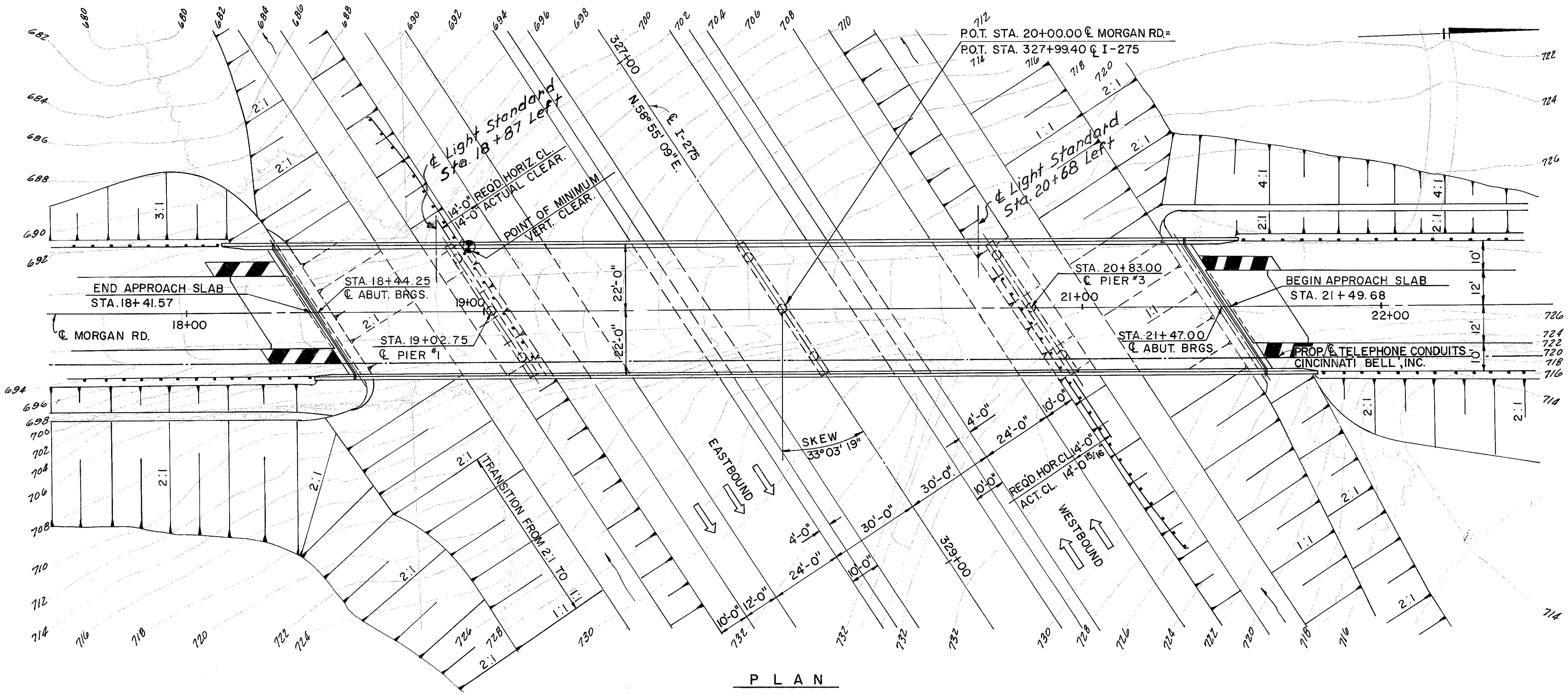
APPROVED ______________
ENGINEER OF TRAFFIC

11
11

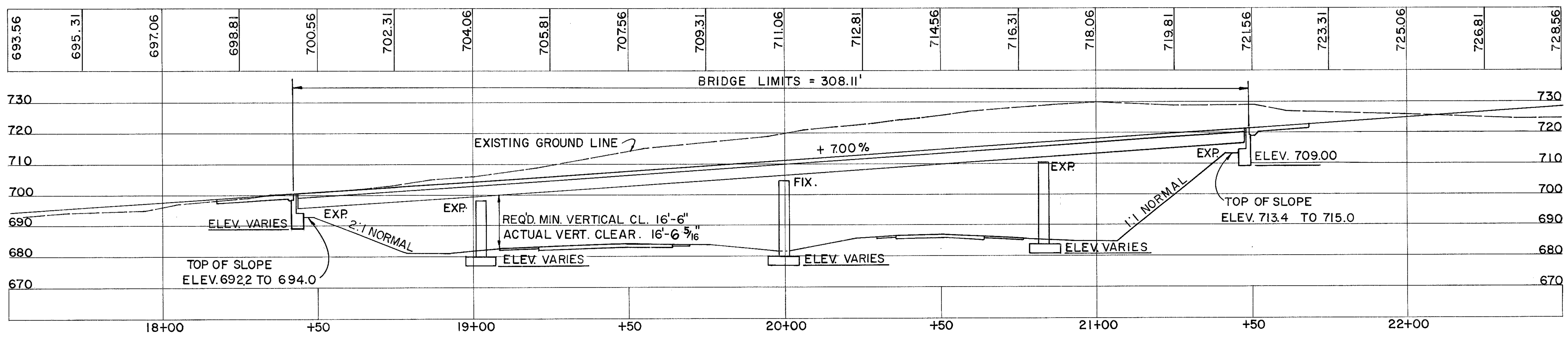
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

548/630

HAM - 275 - 03.86



PLAN



PROFILE

For Lighting Details see sheets 490-F, 501, 502 & 503. Structure shall be grounded at both ends of fixed Pier No. 2.

NOTE:
EARTHWORK LIMITS SHOWN ARE SCHEMATIC. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

PROPOSED STRUCTURE

TYPE: Continuous welded steel girder with reinforced concrete deck & substructures.

SPANS: 58'-6", 97'-3", 83'-0", 64'-0"

ROADWAY: 44'-0" face to face of parapets.

LOADING: HS 20-44

SKEW: 33°03' 19" R.F.

WEARING SURFACE: $1\frac{1}{2}$" Asphalt Concrete

APPROACH SLAB: AS-1-67 (20' long).

ALIGNMENT: Tangent.

SUPERELEVATION: None.

1/10

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-275-0620
I-275 under MORGAN ROAD

HAMILTON COUNTY STA. 327+99.40

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
	D·W·M	D·W·M			4.10.70	9-4-73

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

542/630

HAM-275-03.86

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS NO:

RB-1-55 REVISED 2-2-59
SD-1-69 SHEETS 1 THROUGH 4 DATED 6-12-69
BR-1-67 SHEET NO. 1 REVISED 10-15-71

AND TO SUPPLEMENTAL SPECIFICATIONS:

NO. 808 DATED 1-1-71

NO. 836 DATED 1-1-71

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, 1965, INCLUDING THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING	HS 20-44
CONCRETE CLASS C	UNIT STRESS 1,200 PSI FOR SUPERSTRUCTURE UNIT STRESS 1,333 PSI FOR SUBSTRUCTURES
STRUCTURAL STEEL	ASTM A36 - UNIT STRESS 20,000 PSI
REINFORCING STEEL	ASTM A615, A616‡, OR A617. UNIT STRESS 20,000 PSI.

ABUTMENT EXCAVATION QUANTITY:

IN ADDITION TO 503.11, INCLUDES THE REMOVAL OF MATERIAL BOUNDED BY THE PROPOSED BENCH, BY THE FRONT VERTICAL PLANE DESCRIBED IN 503.11 AND BY THE FINISHED SLOPE OF THE CUT.

FOUNDATION BEARING PRESSURE:

ABUTMENT FOOTINGS ARE DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 3.25 TONS PER SQ. FT. AND PIER FOOTINGS FOR A MAXIMUM BEARING PRESSURE OF 7.0 TONS PER SQ. FT.

FOOTINGS:

FOOTINGS SHALL EXTEND A MINIMUM OF 3 INCHES INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

WELDS:

WELDS ON NON-STRESS CARRYING MEMBERS ARE SHOWN THUS: N 1/4

‡ IF BARS IN ACCORDANCE WITH ASTM A616 ARE PROVIDED THEY SHALL BE SUBJECT TO BEND TESTS AS PER AASHO DESIGNATION M42-70. SPIRAL REINFORCEMENT MAY BE PLAIN BARS ASTM A82, A306, A499 OR A615.

DECK FINISHING TEXTURING OF THE DECK SURFACE AS PROVIDED IN 451.09 SHALL NOT SHALL BE DONE.

DECK REINFORCING BARS: AT THE CONTRACTOR'S OPTION, A PORTION (NOT TO EXCEED 25 %) OF THE UPPER LONGITUDINAL BARS (S401 AND S402) IN THE DECK SLAB MAY BE PLACED BENEATH THE UPPER TRANSVERSE BARS FOR SUPPORT OF THE TOP MAT.

SAND-ASPHALT

A LAYER OF SAND-ASPHALT SHALL BE USED TO PROTECT THE PROTECTIVE MEMBRANE. TRAFFIC WILL NOT BE PERMITTED ON THE MEMBRANE UNTIL A PROTECTIVE LAYER OF SAND-ASPHALT HAS BEEN PLACED AND COMPACTED. THE SAND-ASPHALT SHALL BE MIXED HOT USING NATURAL SAND, 703.05, AND ASPHALT CEMENT, 702.01 THE ASPHALT GRADE AND CONTENT SHALL BE ESTABLISHED BY THE CONTRACTOR WITHIN A RANGE OF 8.5 TO 10.5 PERCENT OF THE TOTAL MIX. THE SAND-ASPHALT SHALL BE PLACED ON THE MEMBRANE BY MEANS OF A PNEUMATIC TIRED MECHANICAL SPREADER AND COMPACTED BY ROLLING TO PRODUCE A REASONABLY SMOOTH SURFACE. THE QUANTITY PLACED SHALL BE AS NECESSARY TO LEVEL IRREGULARITIES AND COVER THE SURFACE WITH A COMPACTED LAYER 1/2" IN THICKNESS. TURNING MOVEMENTS OF EQUIPMENT USED TO PLACE THE SAND-ASPHALT SHALL NOT BE MADE ON THE MEMBRANE.

BASIS OF PAYMENT THE ACCEPTED QUANTITY OF SAND-ASPHALT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING ALL MATERIALS.

PAYMENT WILL BE MADE UNDER:

ITEM	UNIT	DESCRIPTION
SPECIAL	CU.YD.	SAND-ASPHALT

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT.	PIER	GEN.	AS BUILT	
503	158	Cu. Yds.	Rock excavation		84	74			
503	87	Cu. Yds.	Unclassified excavation		87				
404	40	Cu. Yds.	Asphalt concrete (35-50 or AC20)	40					
SPECIAL	20	Cu. Yds.	Sand-Asphalt	20					
SPECIAL	1,447	Sq. Yds.	Membrane Waterproofing (See proposal note)	1,447					
509	166,776	Lbs.	Reinforcing steel	120,151	11,798	34,827			
511	461	Cu. Yds.	Class C concrete, superstructure	461					
511	117	Cu. Yds.	Class C concrete, pier above footing			117			
511	191	Cu. Yds.	Class C concrete, abutments		191				
511	48	Cu. Yds.	Class C concrete, pier footings			48			
513	373,500*	Lbs.	Structural steel	373,500*					
514	373,500*	Lbs.	Field painting of structural steel	373,500*					
518	10	Each	Scuppers, including supports	10					
518	68	Cu. Yds.	Porous backfill		68				
518	94	Lin. ft.	6" perforated, helical corrugated metal pipe, 707.01		94				
518	75	Lin. ft.	6" non-perforated, helical CMP including specials, 707.01		75				
808	461	Units	Chemical admixtures for concrete, Type A, B or D	461					

Calculated by: JRP, Date 4/10, 1970
Checked by: [illegible], Date 4/10, 1970

*2000 Lb. to be paid by Cincinnati Bell, Inc.

2 / 10

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES & ESTIMATED QUANTITIES
BRIDGE NO. HAM-275-0620
I-275 UNDER MORGAN ROAD

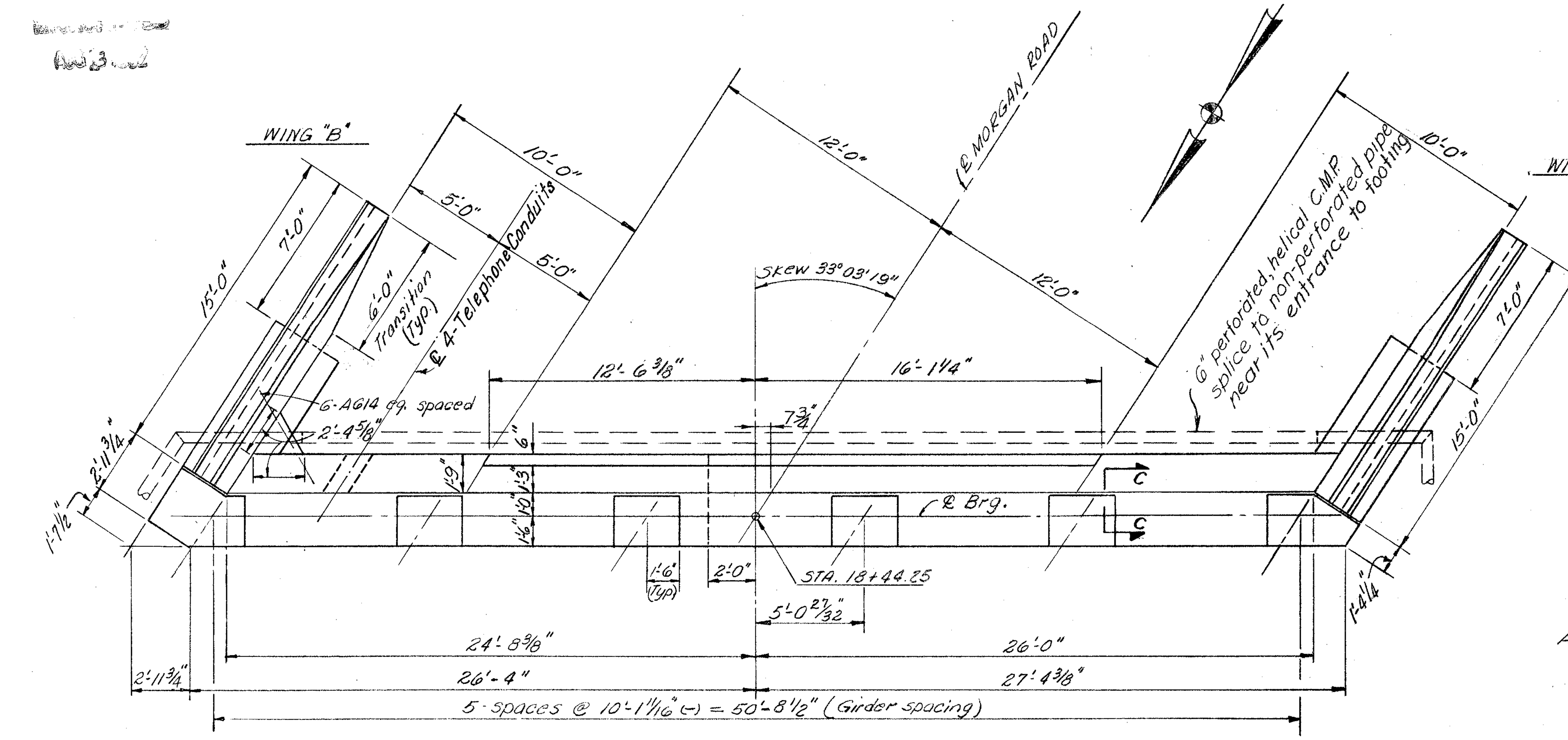
HAMILTON COUNTY — STA. 327+99.40

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
J.R.P.	E.D.A.		V.K.	[illegible]	4.10.70	

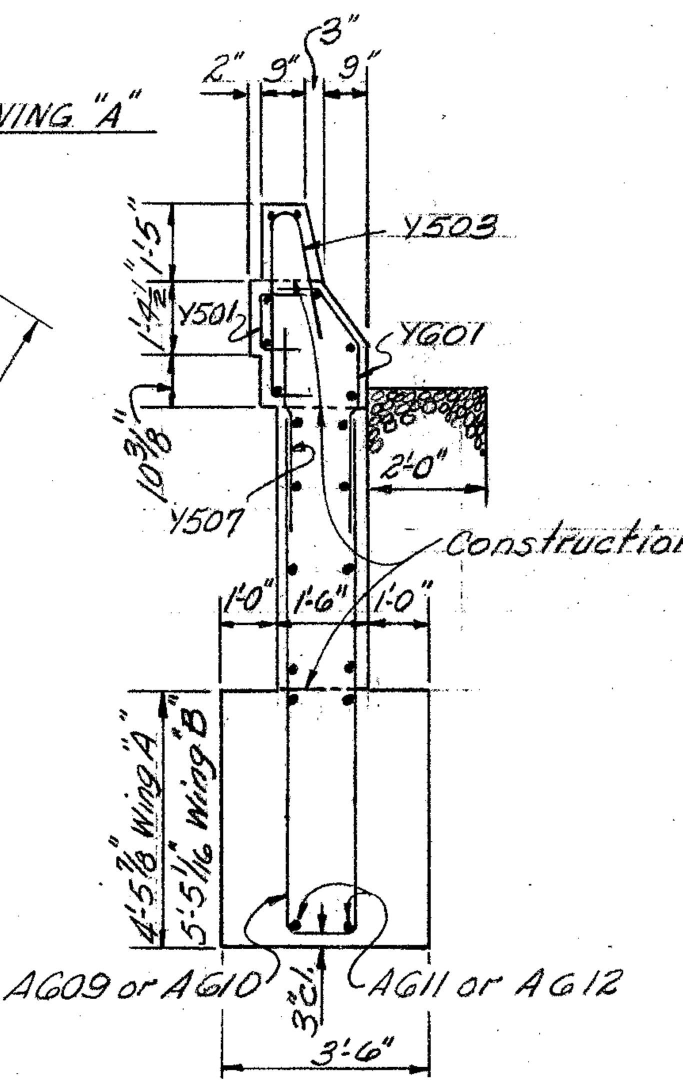
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

550/630

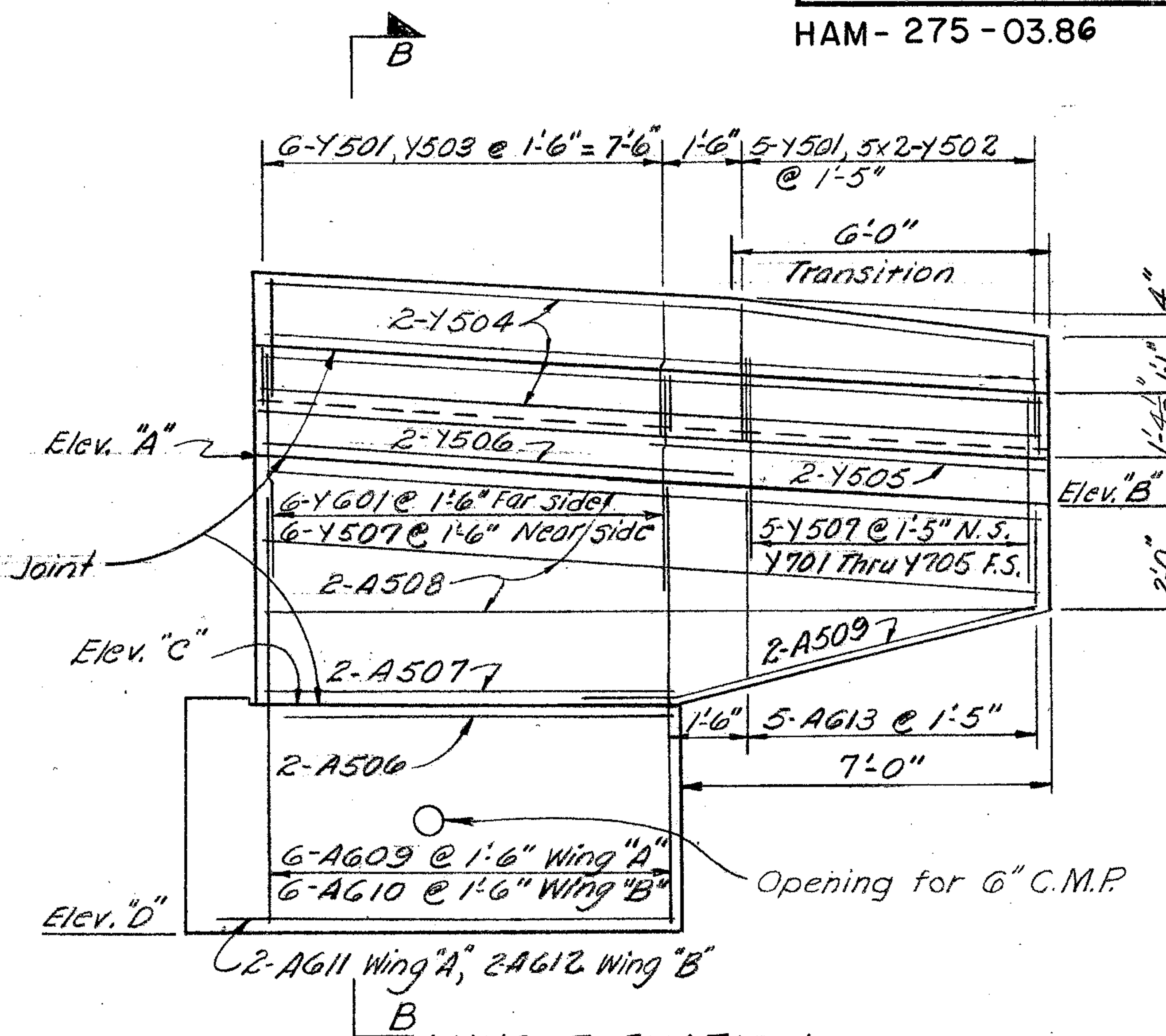
HAM- 275 - 03.86



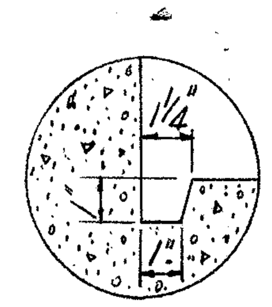
PLAN



SECTION B-B



WING ELEVATION



SECTION C-C

Wingwall Elevation

LOCATION	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"
Wing "A"	697.79	696.74	693.29	688.80
Wing "B"	699.73	698.68	695.22	689.80

NOTES:

Porous Backfill, thickness as shown, full length of abutment and wings, from top of the rock shall extend up to the subgrade or to the finished ground surface.

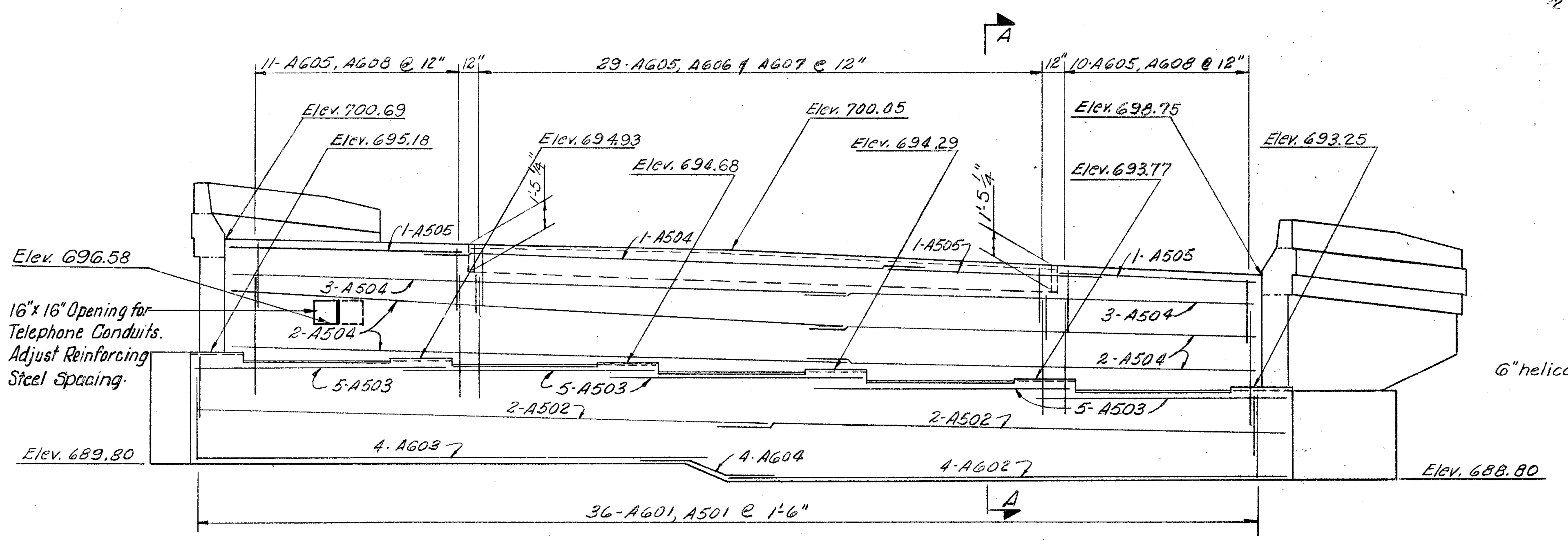
Footing concrete to be placed against solid rock. Extend the Footings a minimum of 1'-0" into solid rock.

ABBREVIATION:

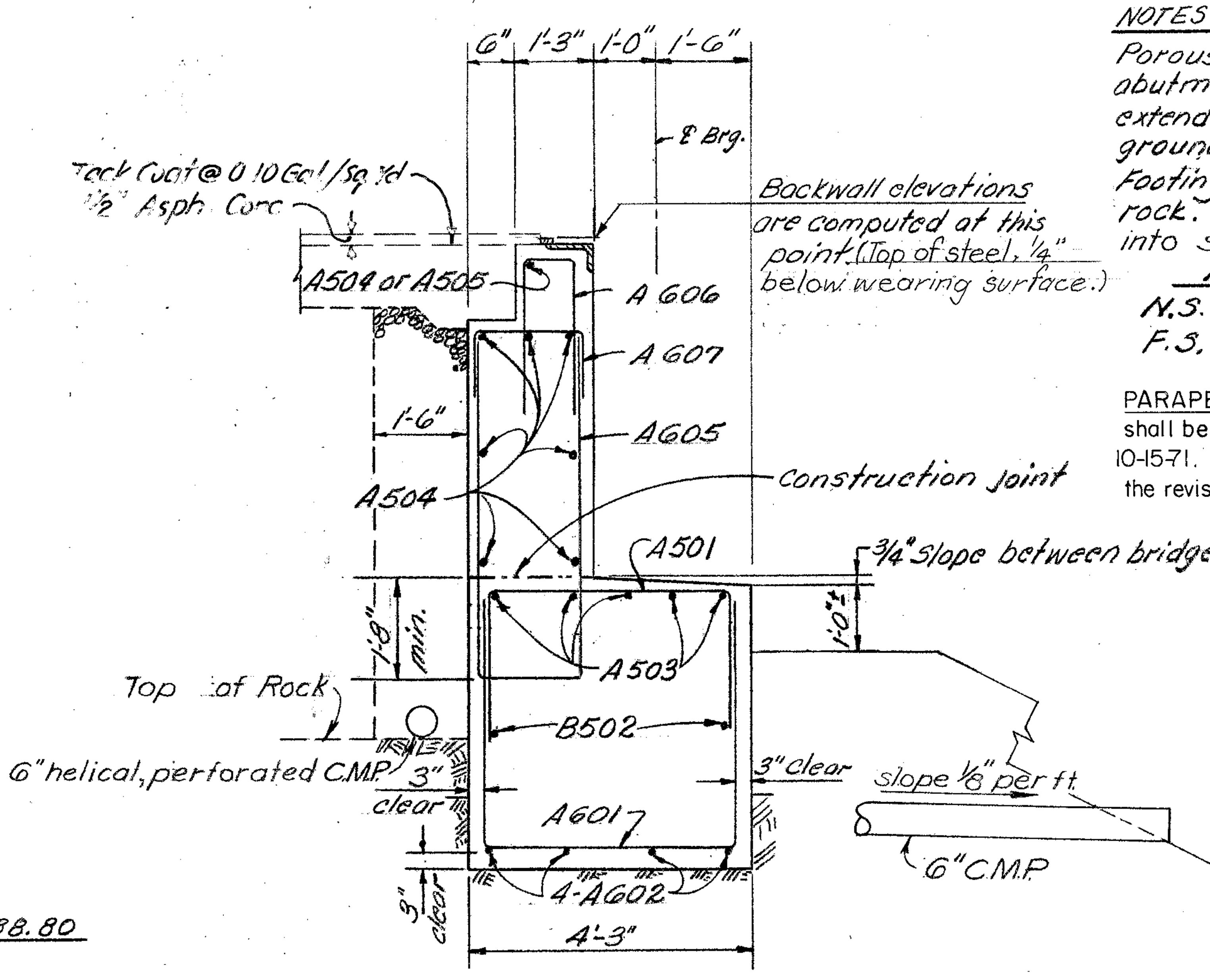
N.S. - Near side

F.S. - Far side

PARAPET TRANSITIONS AND WINGWALL ENDS shall be as shown on Standard Drawing BR-1-67 revised 10-15-71. Reinforcing steel shall be field bent or cut to fit the revised shape.



ELEVATION



SECTION A-A

3/10

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

ABUTMENT NO. 1 DETAILS
BRIDGE NO. HAM-275-0620
I - 275 UNDER MORGAN ROAD

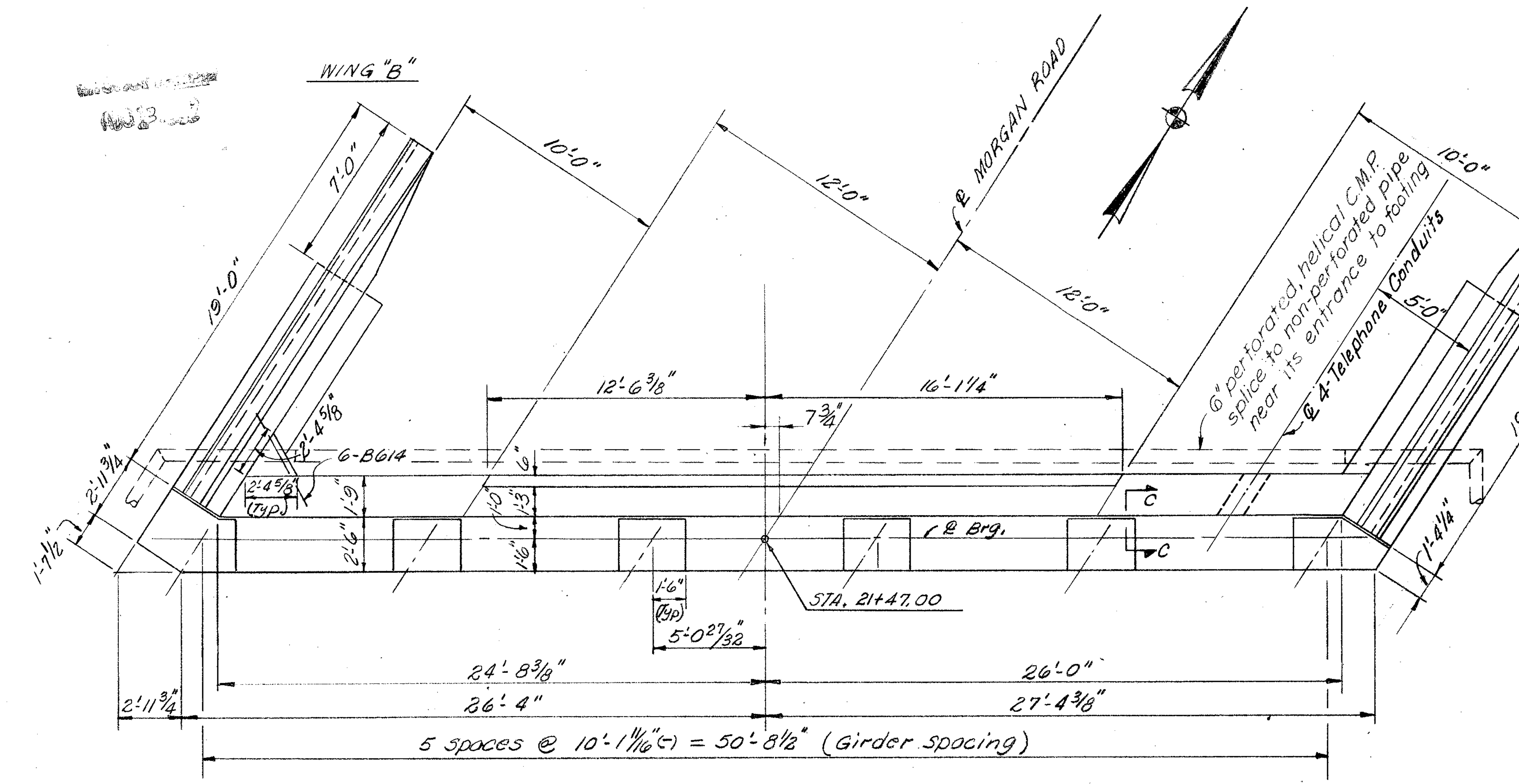
HAMILTON COUNTY STA. 327+ 99.40

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
J.R.P.	E.D.A.		V.K.	4.10.70	

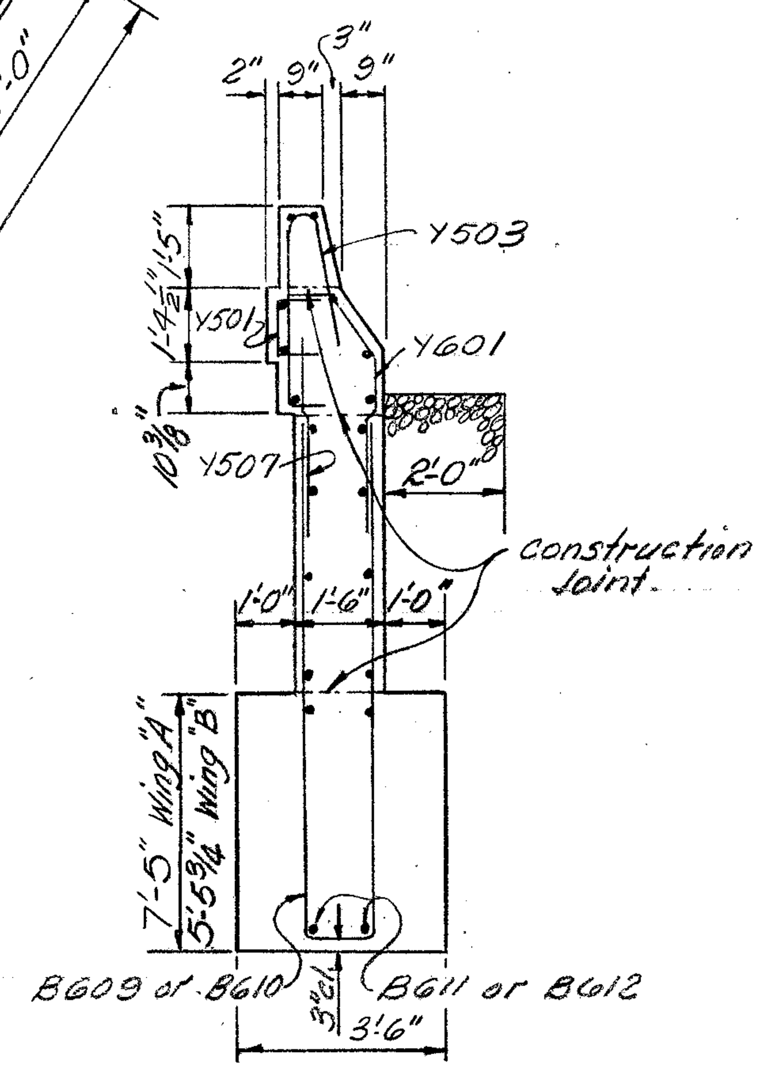
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

551/630

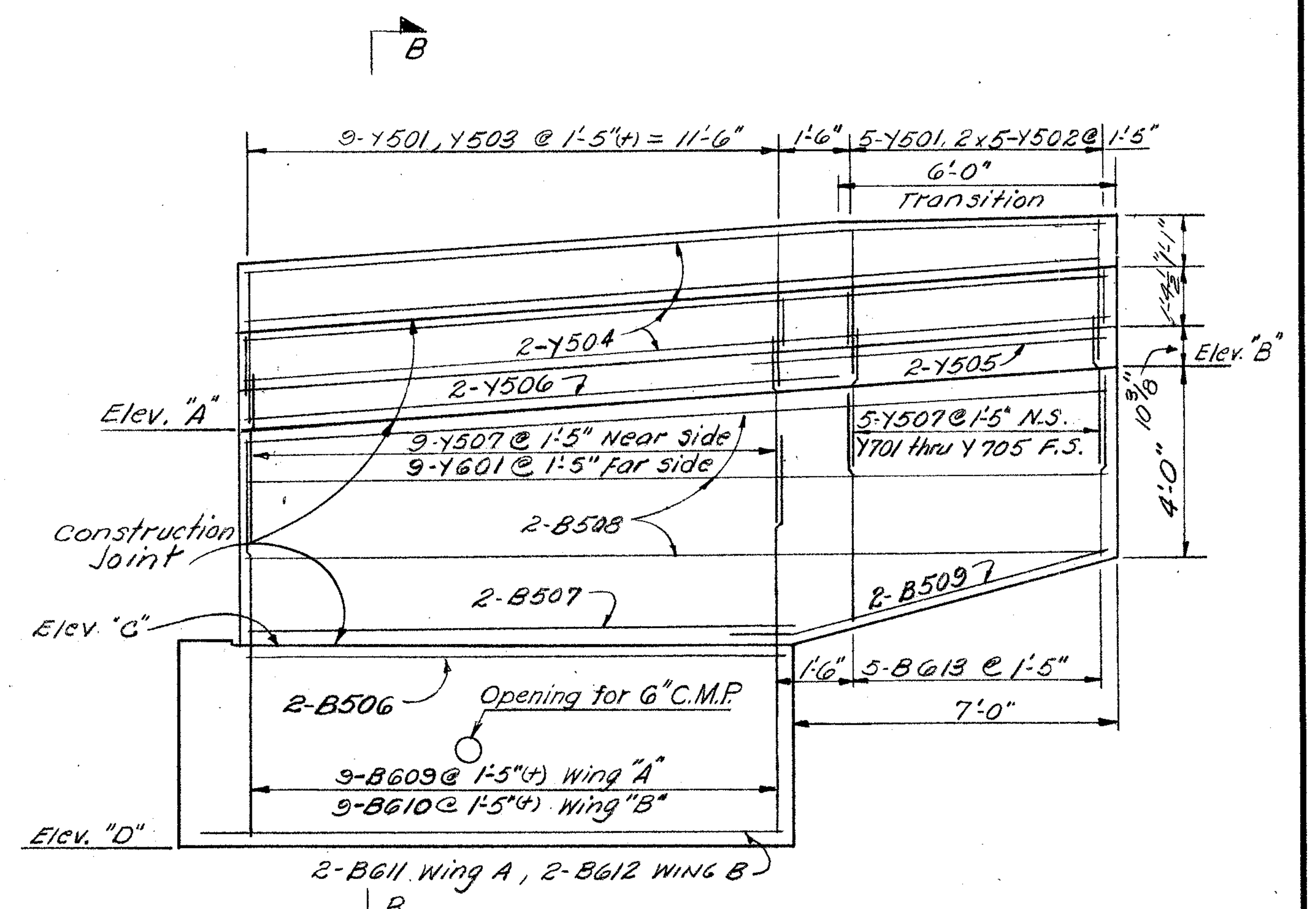
HAM-275-03.86



PLAN



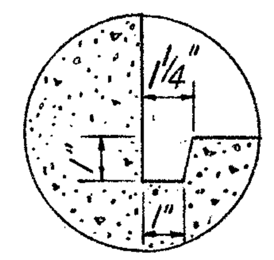
SECTION B-B



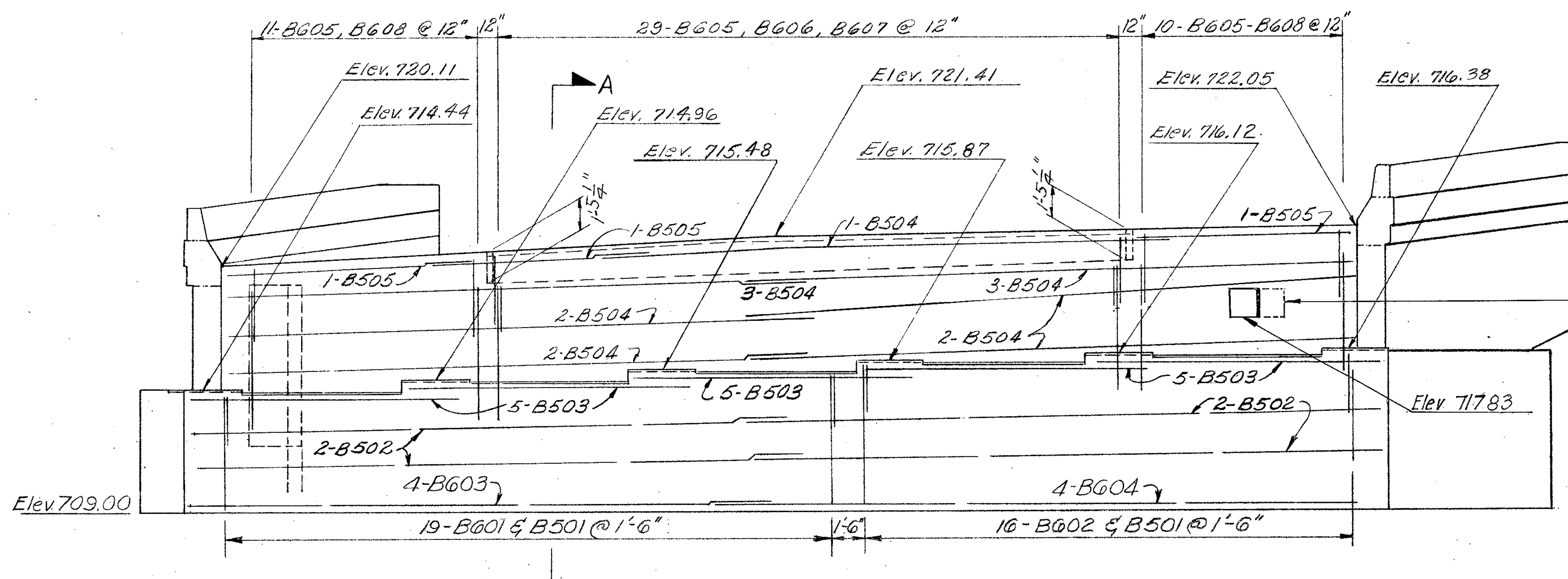
WING ELEVATION

WINGWALL ELEVATION

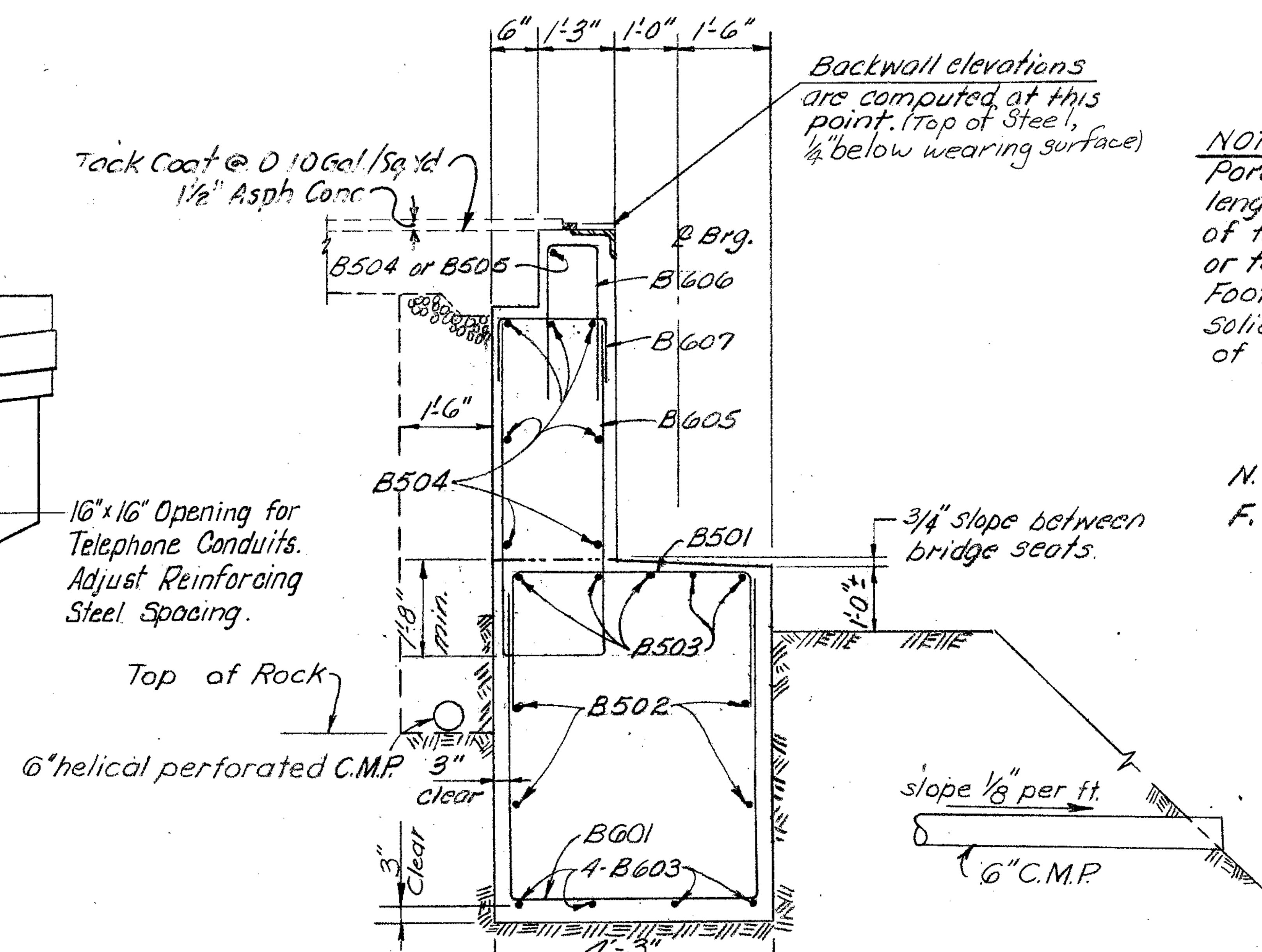
	EL."A"	EL."B"	EL."C"	EL."D"
WING "A"	721.08	722.41	716.42	709.00
WING "B"	719.15	720.48	714.48	709.00



SECTION C-C



ELEVATION



SECTION A-A

NOTES:
Porous Backfill, thickness as shown, full length of abutment and wings, from top of the rock shall extend up to the subgrade or to the finished ground surface.
Footing concrete to be placed against solid rock. Extend the Footing a minimum of 1'-0" into solid rock.

ABBREVIATION:
N.S. - Near side
F.S. - Far side

4/10

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

ABUTMENT NO.2 DETAILS
BRIDGE NO. HAM-275-0620
I-275 UNDER MORGAN ROAD

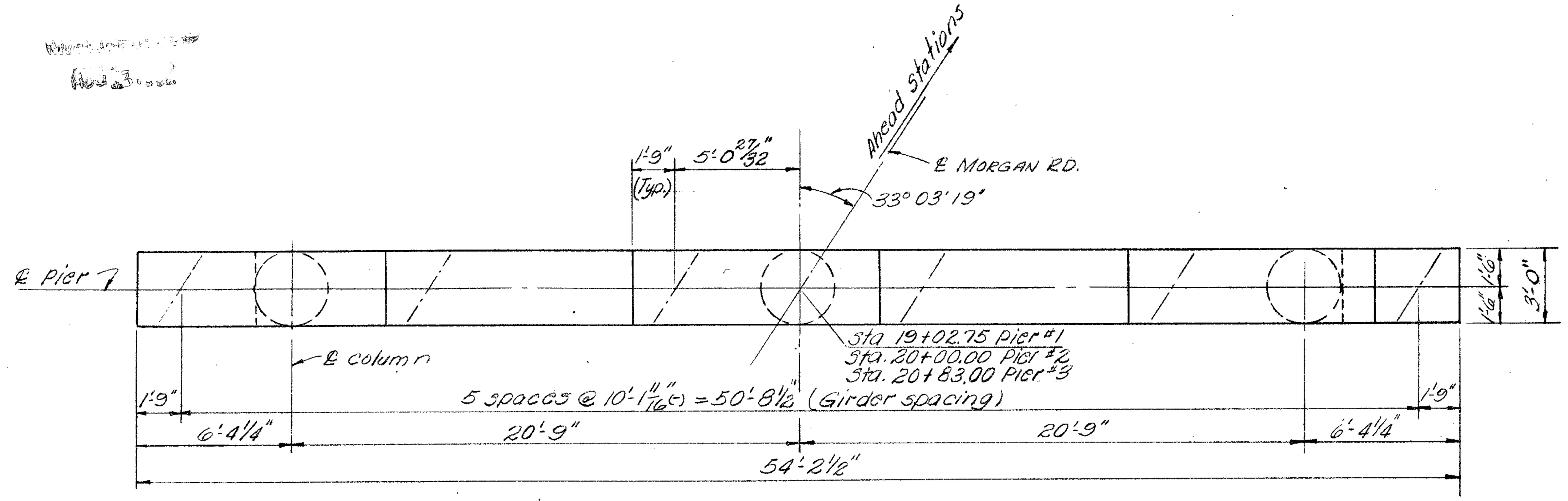
HAMILTON COUNTY STA. 327+99.40

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.P.	E.D.A.		V.K.	[illegible]	4, 10, 70	

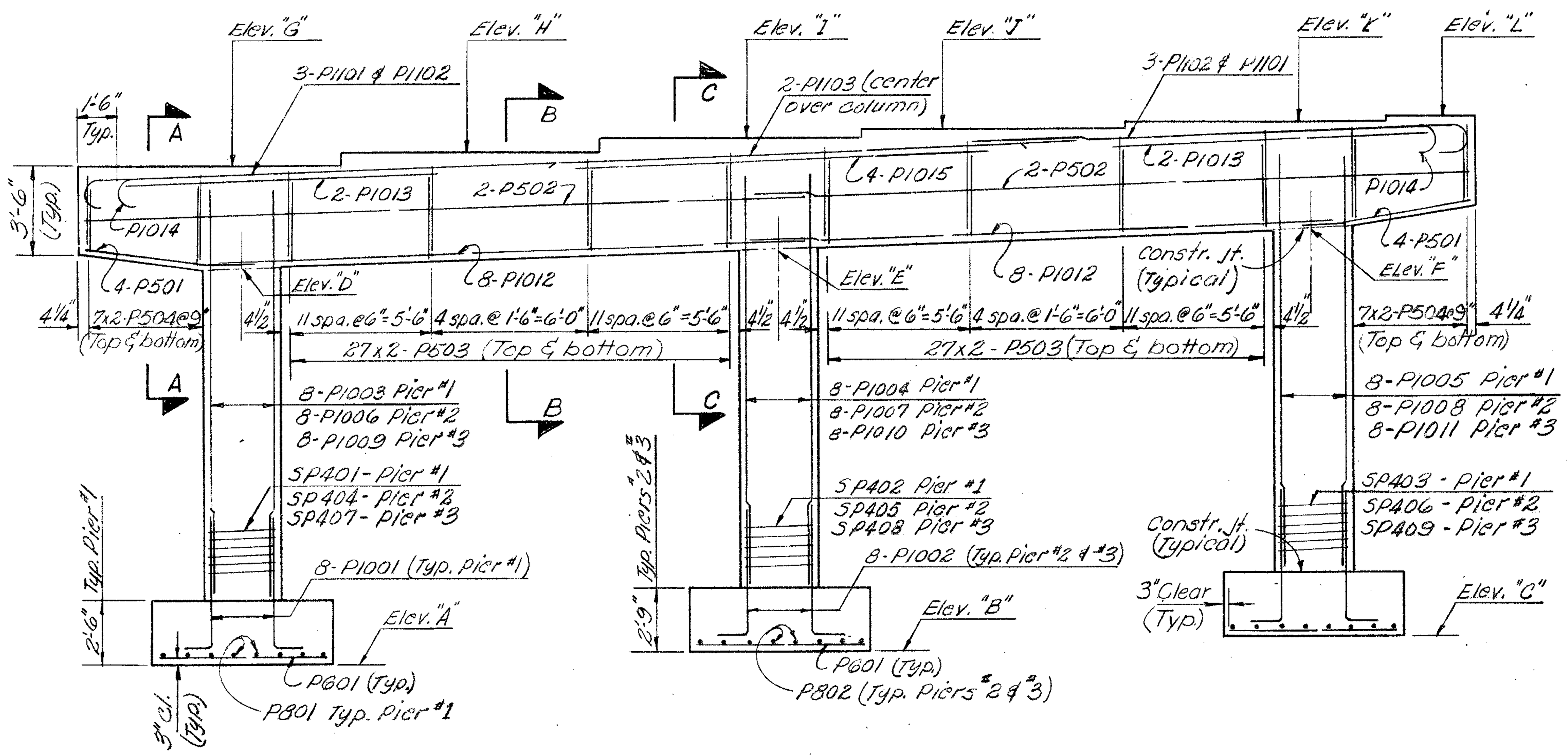
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

552/630

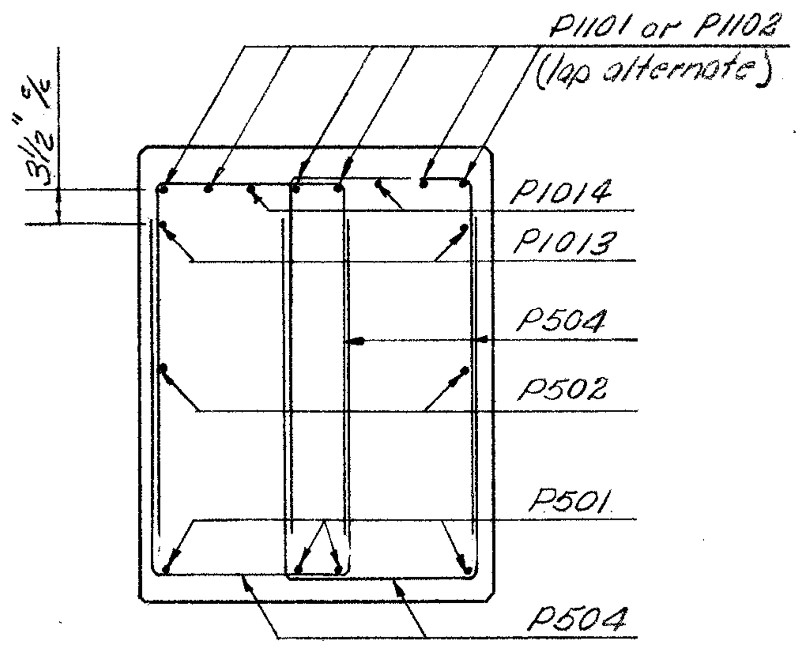
HAM-275-03.86



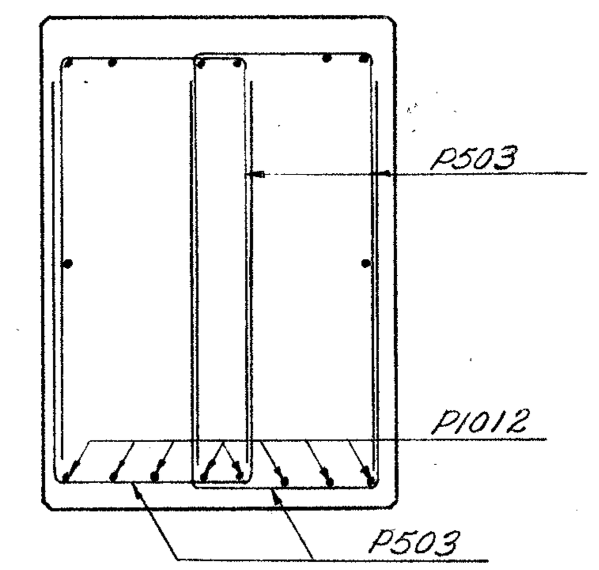
CAP PLAN



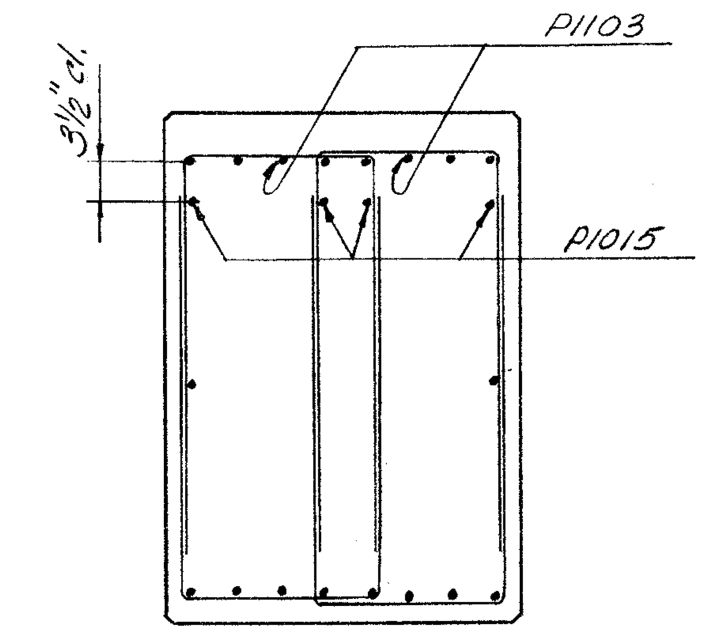
ELEVATION



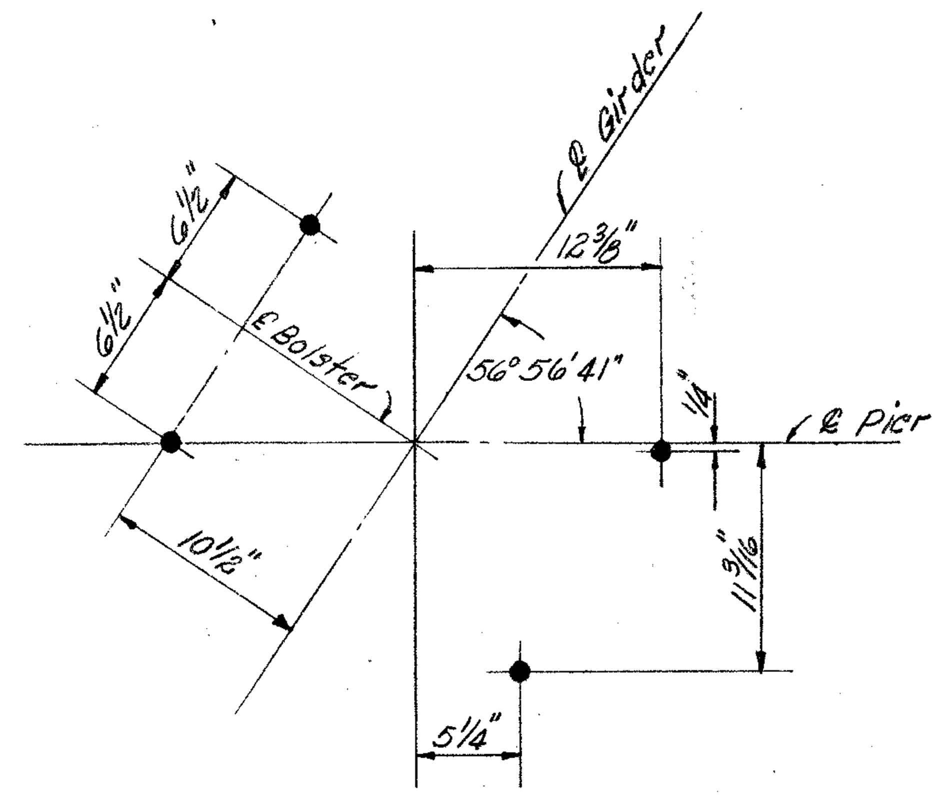
SECTION A-A



SECTION B-B

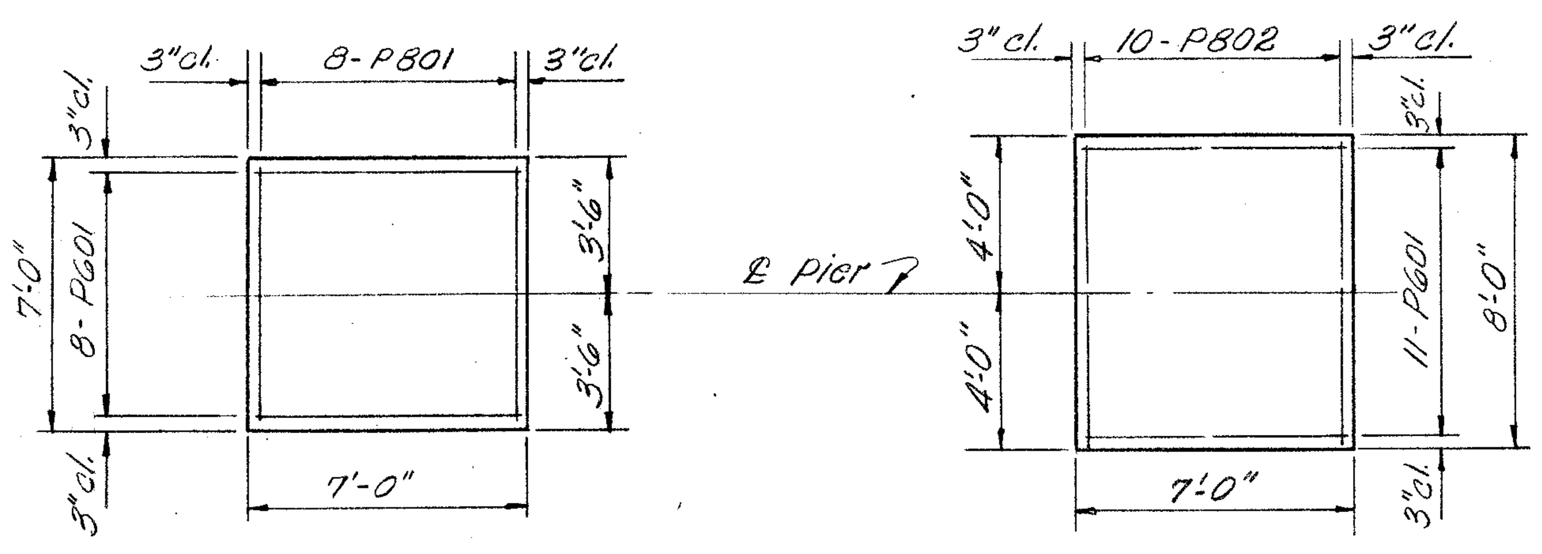


SECTION C-C



ANCHOR BOLT LAYOUT
(at Pier #2 only)

NOTE:
BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes. (Pier #2 only)



AT PIER #1

AT PIER #2 & #3

TYPICAL FOOTING PLANS

ELEVATIONS

LOCATION	A	B	C	D	E	F	G	H	I	J	K	L
PIER #1	677.38	677.88	678.38	692.78	693.60	694.42	696.75	697.27	697.79	698.18	698.43	698.69
PIER #2	677.38	677.88	678.38	699.58	700.40	701.22	703.54	704.06	704.58	704.96	705.22	705.47
PIER #3	680.88	681.38	681.88	705.58	706.40	707.22	709.44	709.96	710.48	710.87	711.12	711.38

5/10

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

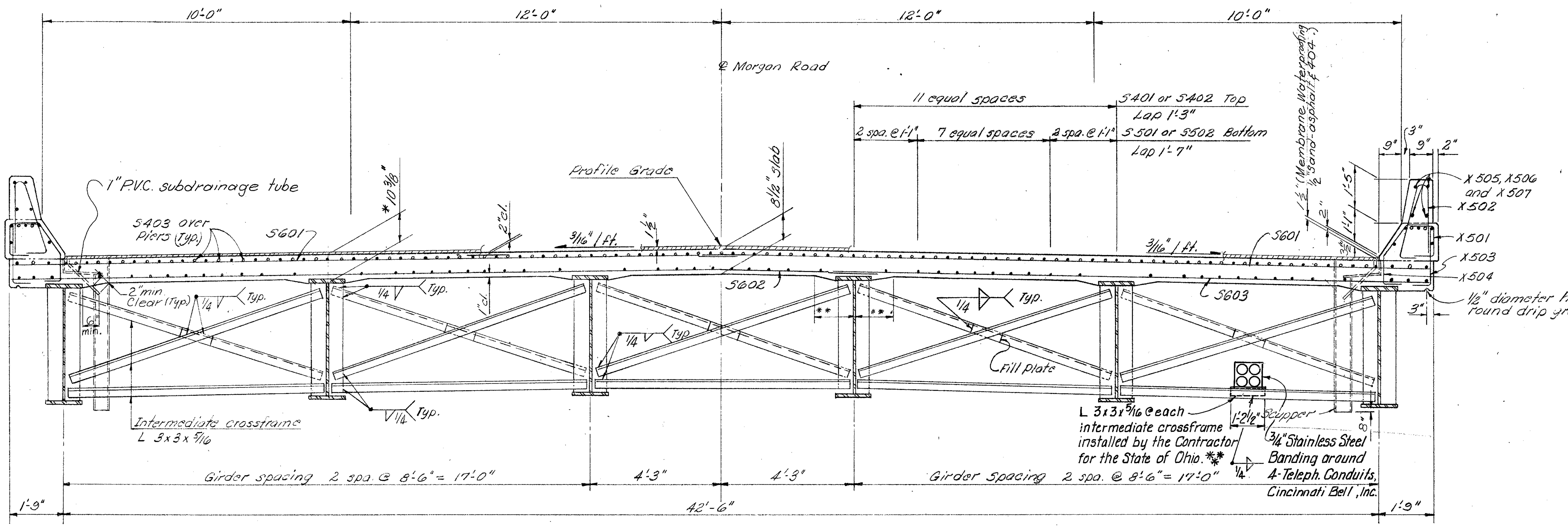
PIER DETAILS

BRIDGE NO. HAM-275-0620
I-275 UNDER MORGAN ROAD

HAMILTON COUNTY — STA. 327+99.40

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
V.K.	E.D.A.		J.R.P.	4.10.70	

FRAMING PLAN



** See sheet 8/10

TRANSVERSE SECTION

See Sheet 9/10 for additional subdrainage details.

NOTES:

* This is the design dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per 511.19.

** A HAUNCH WIDTH of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

SEE STANDARD DRAWINGS:
BR-1-67 for railing details
RB-1-56 for rockers & bolsters
SD-1-69 sheets 1, 2, & 3 for end dams, end crossframes, curb plates and scupper details.

ANCHOR BARS for the end dam shall be 3 3/8" clear from the top of slab.
SCUPPERS shall be in accordance with Standard Drawing SD-1-69 except that scupper pipes shall extend 8" below the bottom of the girder instead of 2", and the box depth dimensions shall be changed from 4 1/2" to 5 1/2" and from 7 1/2" to 8 1/2", to provide concrete cover over the support angles. Place the top of scupper 1/4" below the roadway surface.

6/10

VOGT, IVERS, & ASSOCIATES
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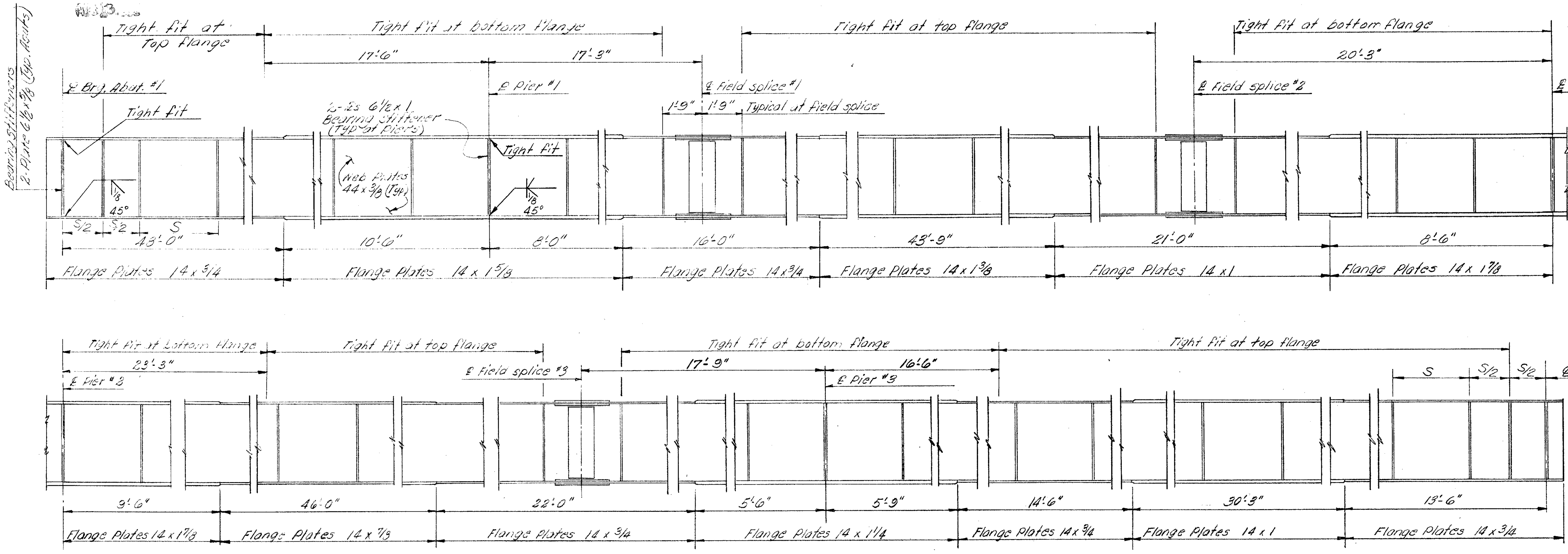
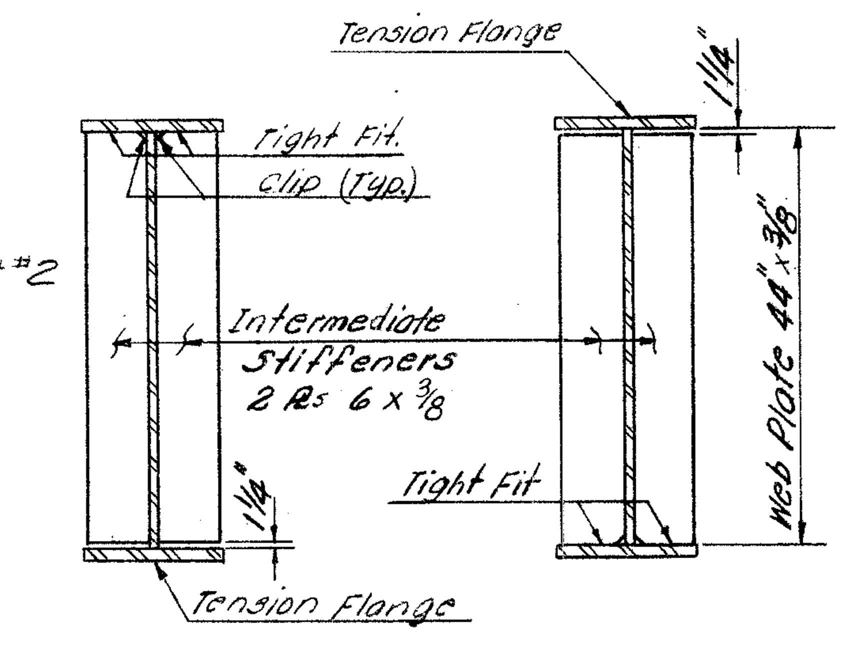
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM-275-0620
I-275 UNDER MORGAN ROAD

HAMILTON COUNTY STA. 327+99.40

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.P.	E.D.A.		V.K.		4,10,70	





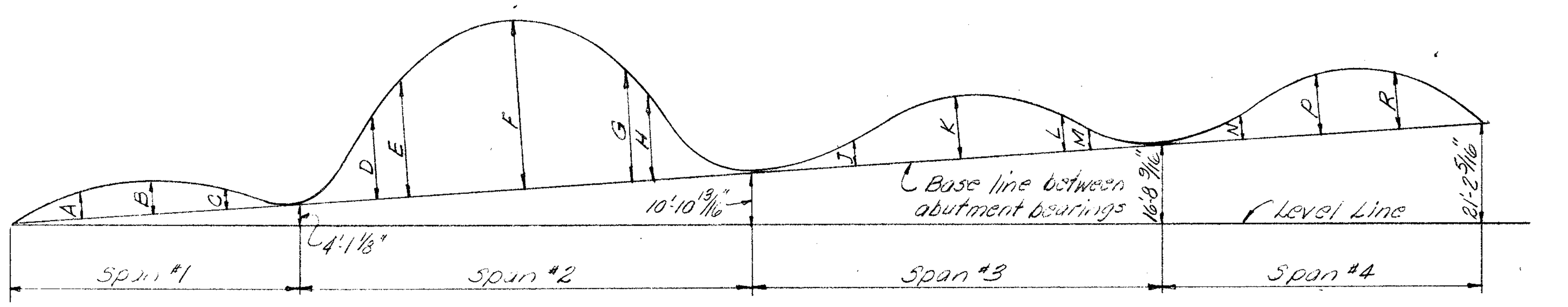
INTERMEDIATE STIFFENERS

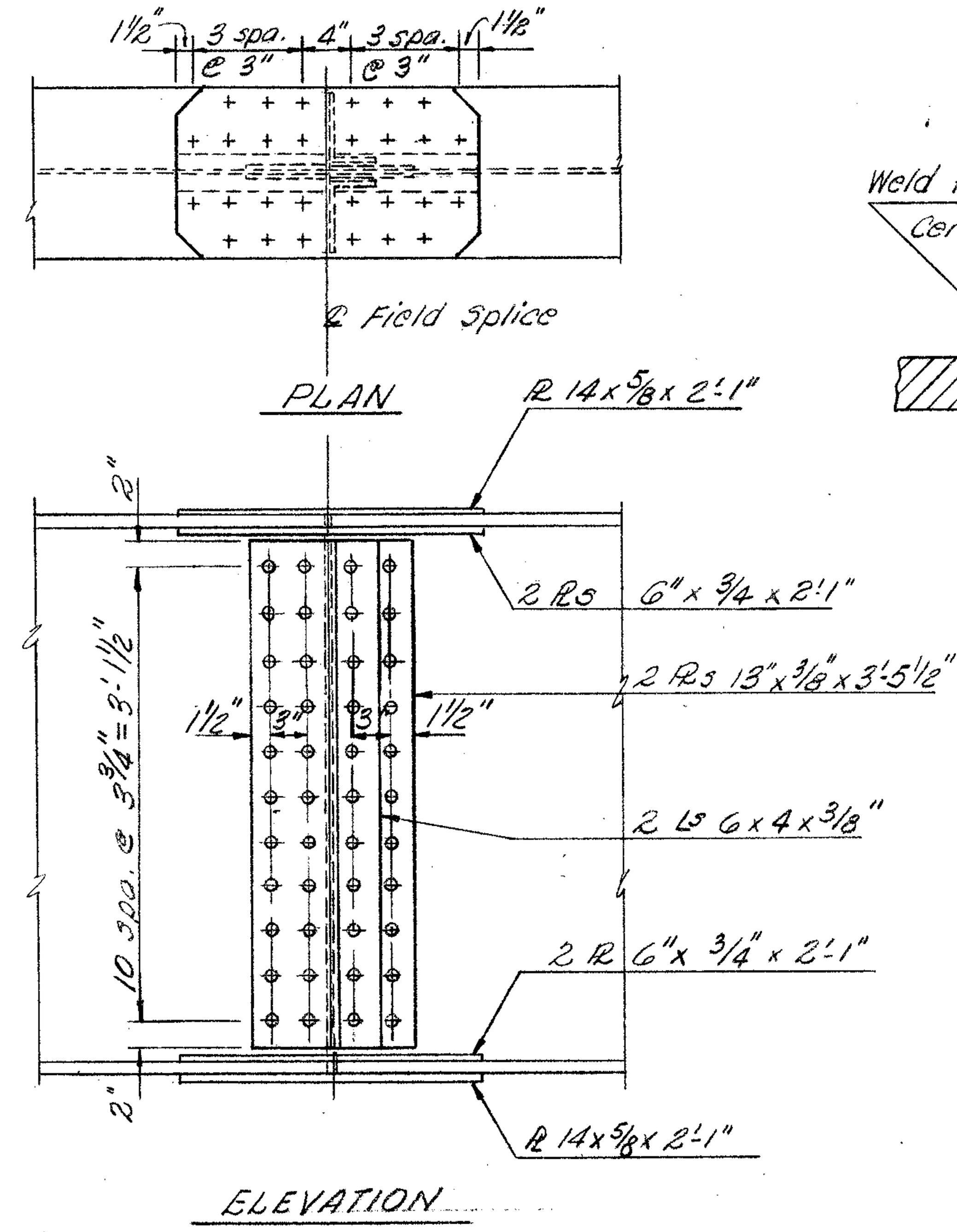
TYPICAL GIRDER ELEVATION

FILLET WELD

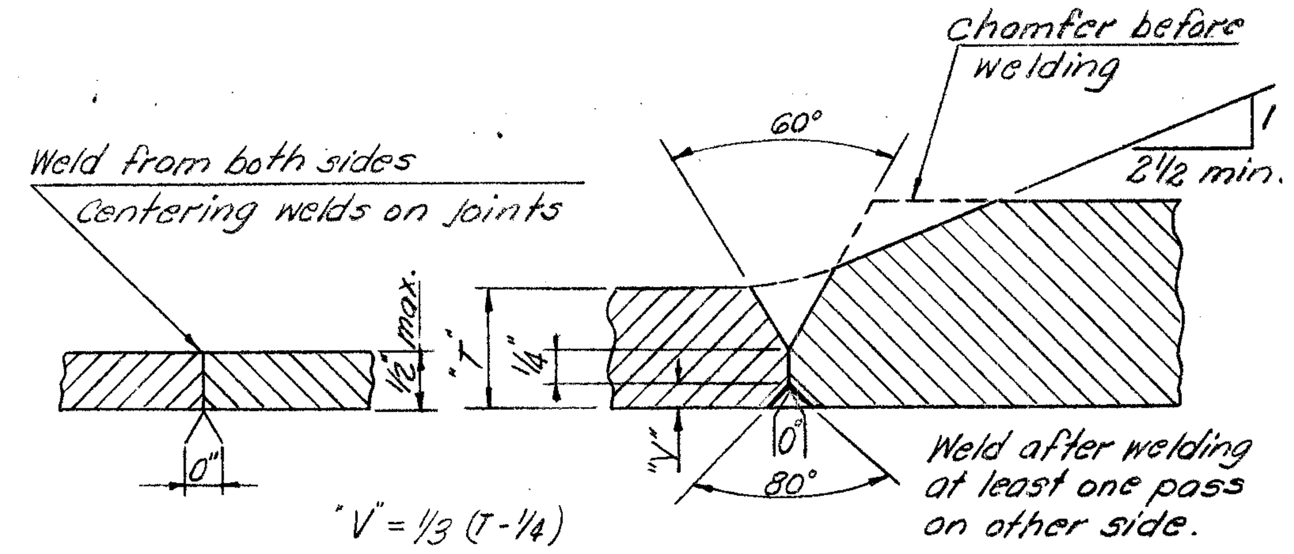
FLANGE PLATE	MIN. SIZE
¾" x 1½"	5/16"
1½" x 2¼"	⅜"

NOTE:
Intermediate stiffeners shall be spaced equally between intermediate crossframes, see sheet 6/10.





FIELD SPLICE DETAIL



WELDING DETAILS

DEFLECTION AND CAMBER

	SPAN #1			SPAN #2					SPAN #3				SPAN #4		
	¼ pt. "A"	½ pt. "B"	¾ pt. "C"	Splice plate "D"	¼ pt. "E"	½ pt. "F"	¾ pt. "G"	Splice plate "H"	¼ pt. "J"	½ pt. "K"	¾ pt. "L"	Splice plate "M"	¼ pt. "N"	½ pt. "P"	¾ pt. "R"
Deflection due to weight of steel	0	0	0	⅛"	3/16"	¼"	3/16	⅛"	0	1/16"	1/16"	0	0	1/16"	1/16"
Deflection due to remaining dead load	⅛"	⅛"	0	⅝"	13/16"	1 3/16"	¾"	⅝"	3/16"	⅜"	¼"	3/16	⅛"	5/16"	¼"
Required Shop camber	⅛"	⅛"	0	¾"	1"	1 7/16"	15/16"	¾	3/16"	7/16"	5/16"	3/16"	⅛"	⅜"	5/16"

VOGT, IVERS, & ASSOCIATES
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CINCINNATI CHICAGO

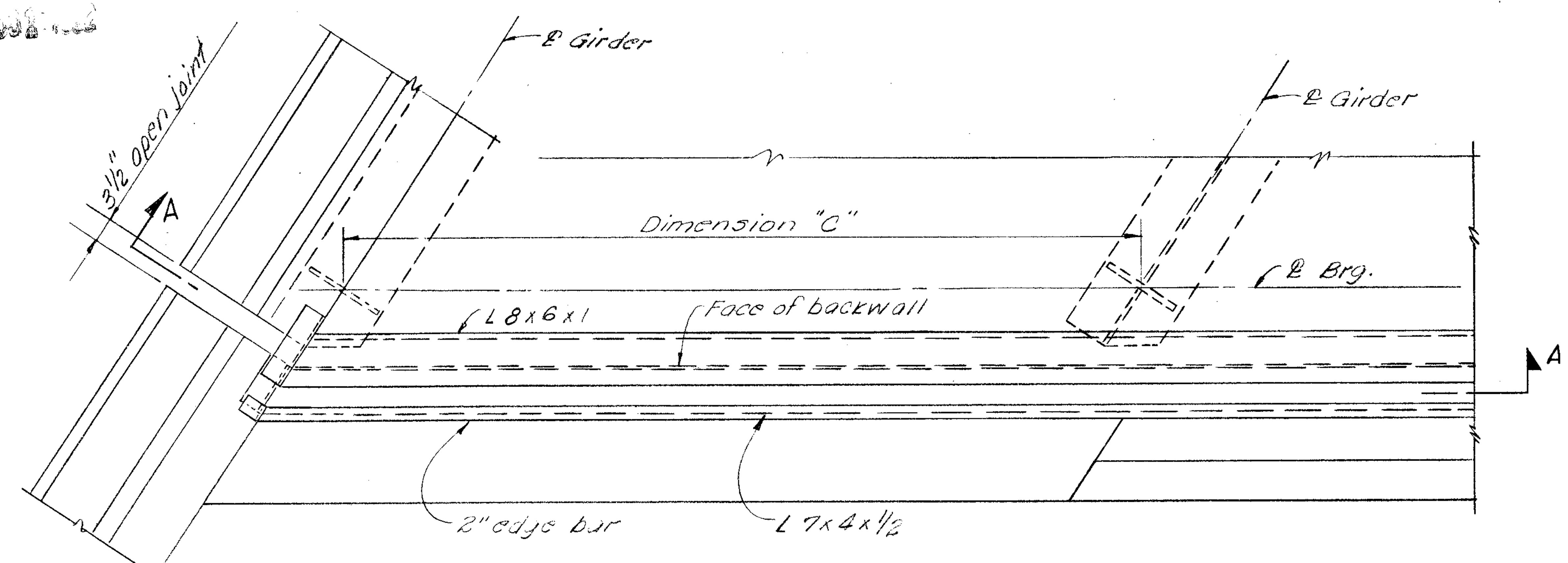
SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM - 275 - 0620

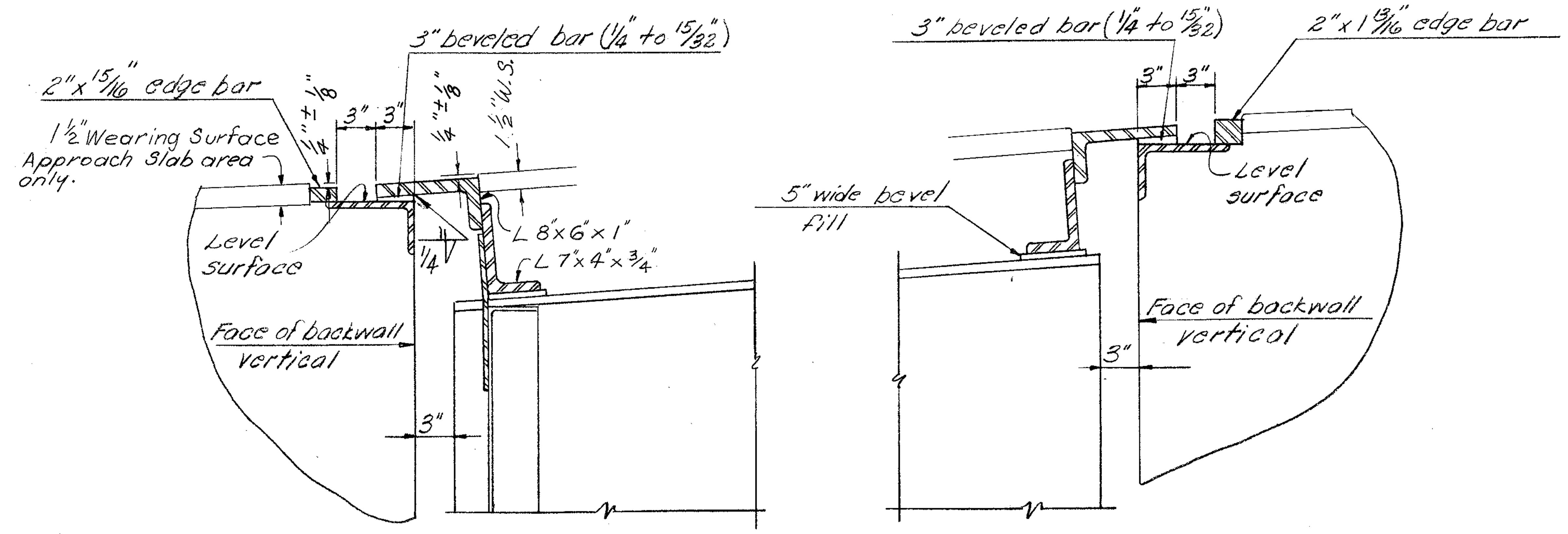
I-275 UNDER MORGAN ROAD

HAMILTON COUNTY STA. 327+99.40

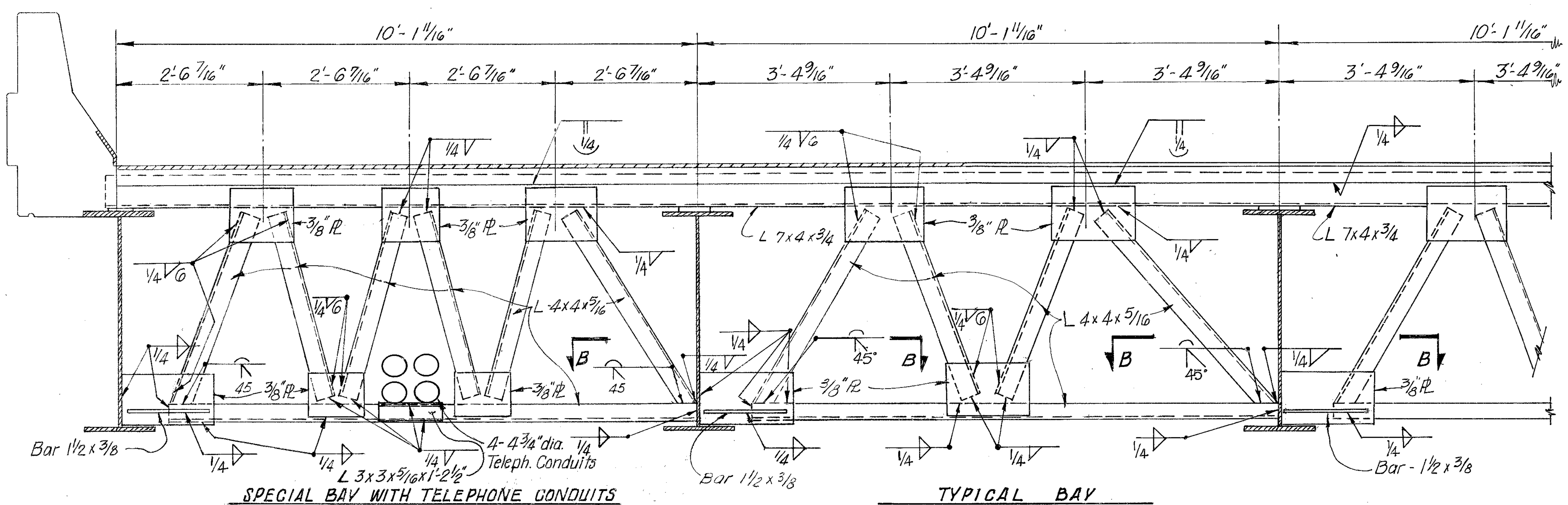
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
J.R.P.	E.D.A.		V.K.	4.10.70	



PART PLAN - END DAM



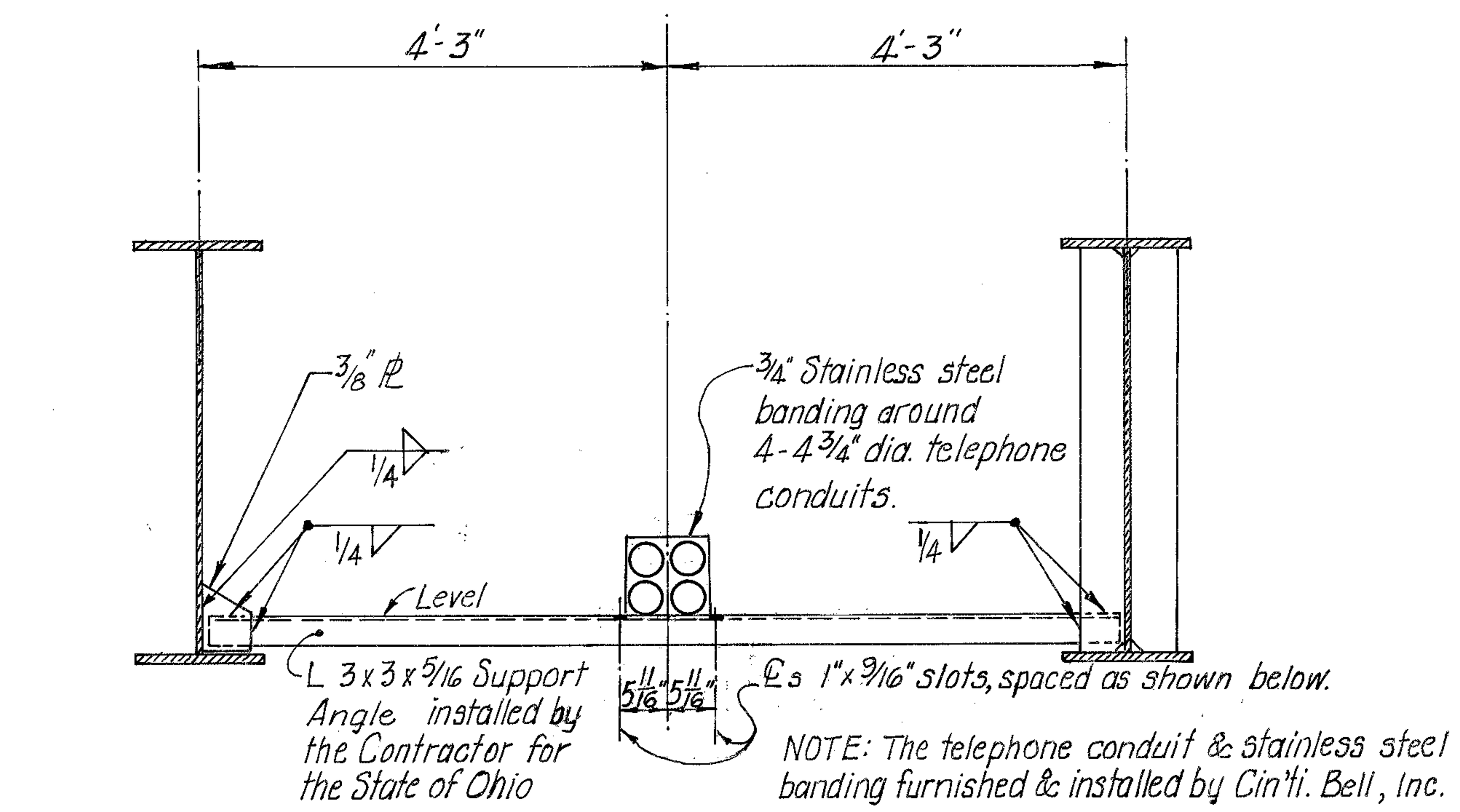
EXPANSION DAM DETAILS



SPECIAL BAY WITH TELEPHONE CONDUITS

TYPICAL BAY

SECTION A-A TYPICAL END CROSSFRAMES

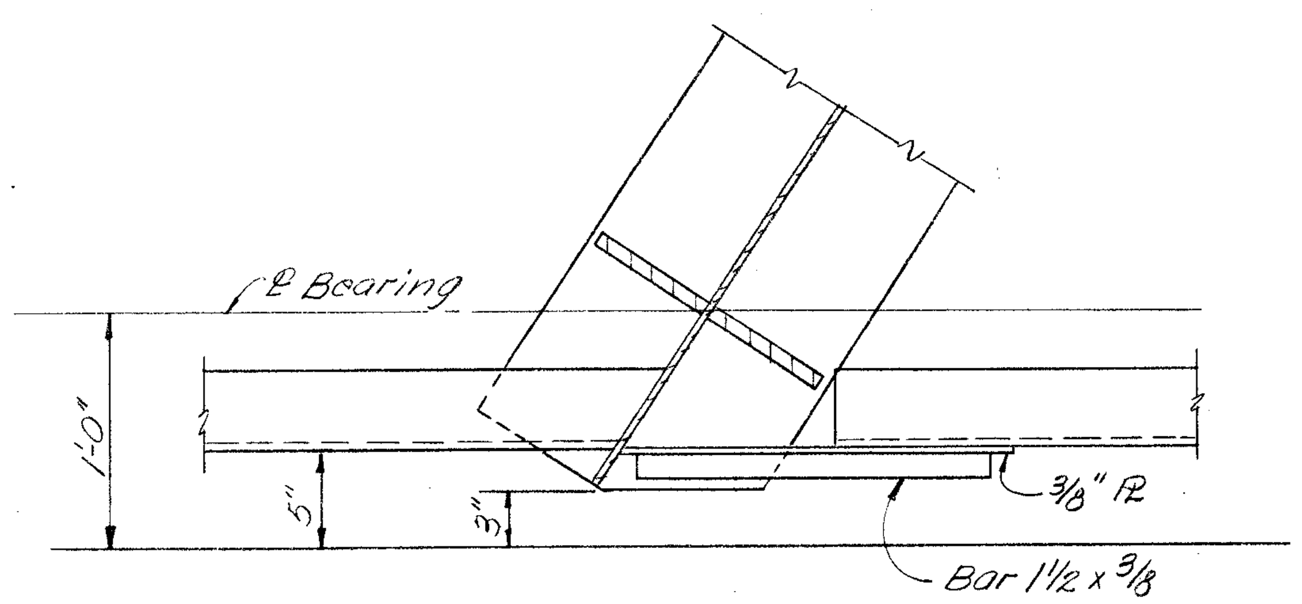


CONNECTION WITHOUT STIFFENER

CONNECTION WITH STIFFENER

TELEPHONE CONDUIT SUPPORT

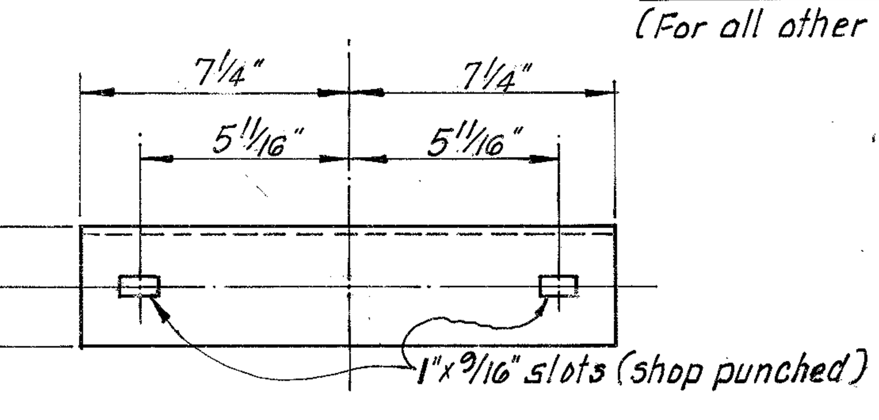
(For all other details, see "Transverse Section", sheet 6/10)



SECTION B-B

NOTE:

For notes and details not shown, see Standard Drawing SD-1-69



SUPPORT-ANGLE DETAIL

AT INTERMEDIATE CROSSFRAMES

8/10

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM-275-0620
I-275 UNDER MORGAN ROAD

HAMILTON COUNTY STA. 327+99.40

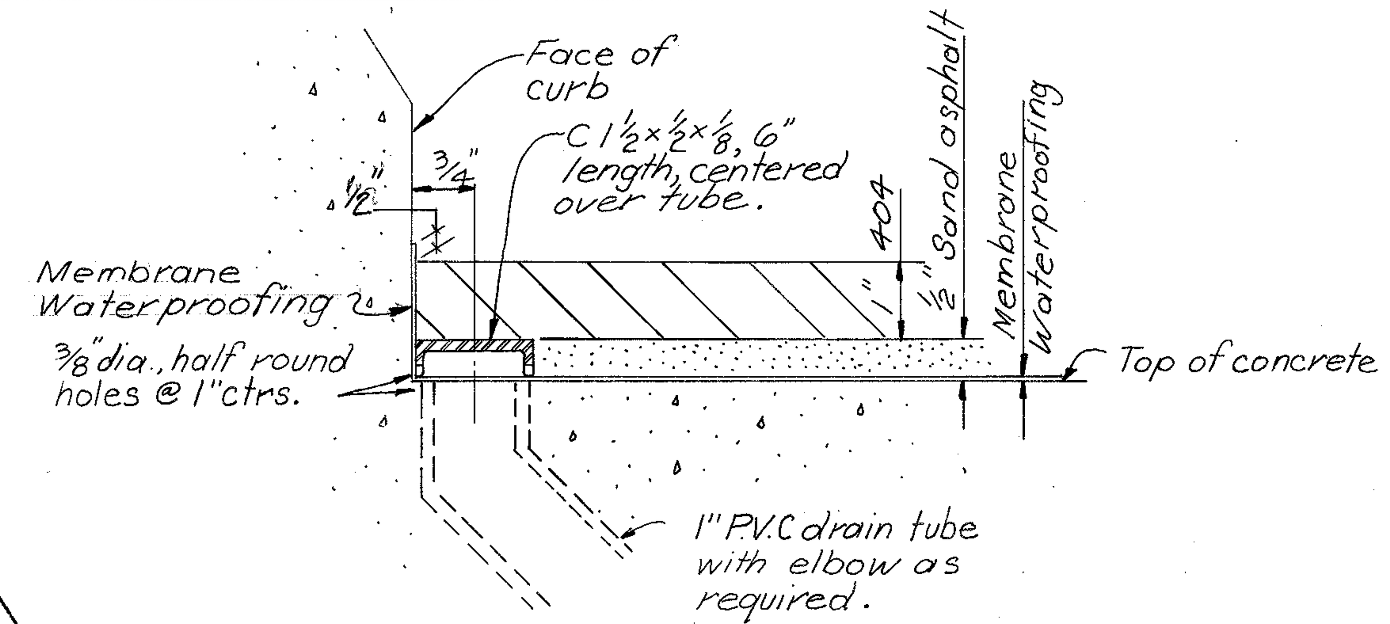
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
J.R.P.	E.D.A.		V.K.	4.10.70	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

556/630

HAM- 275 -03.86

DECK LONGITUDINAL REINFORCEMENT AND PARAPET DETAILS

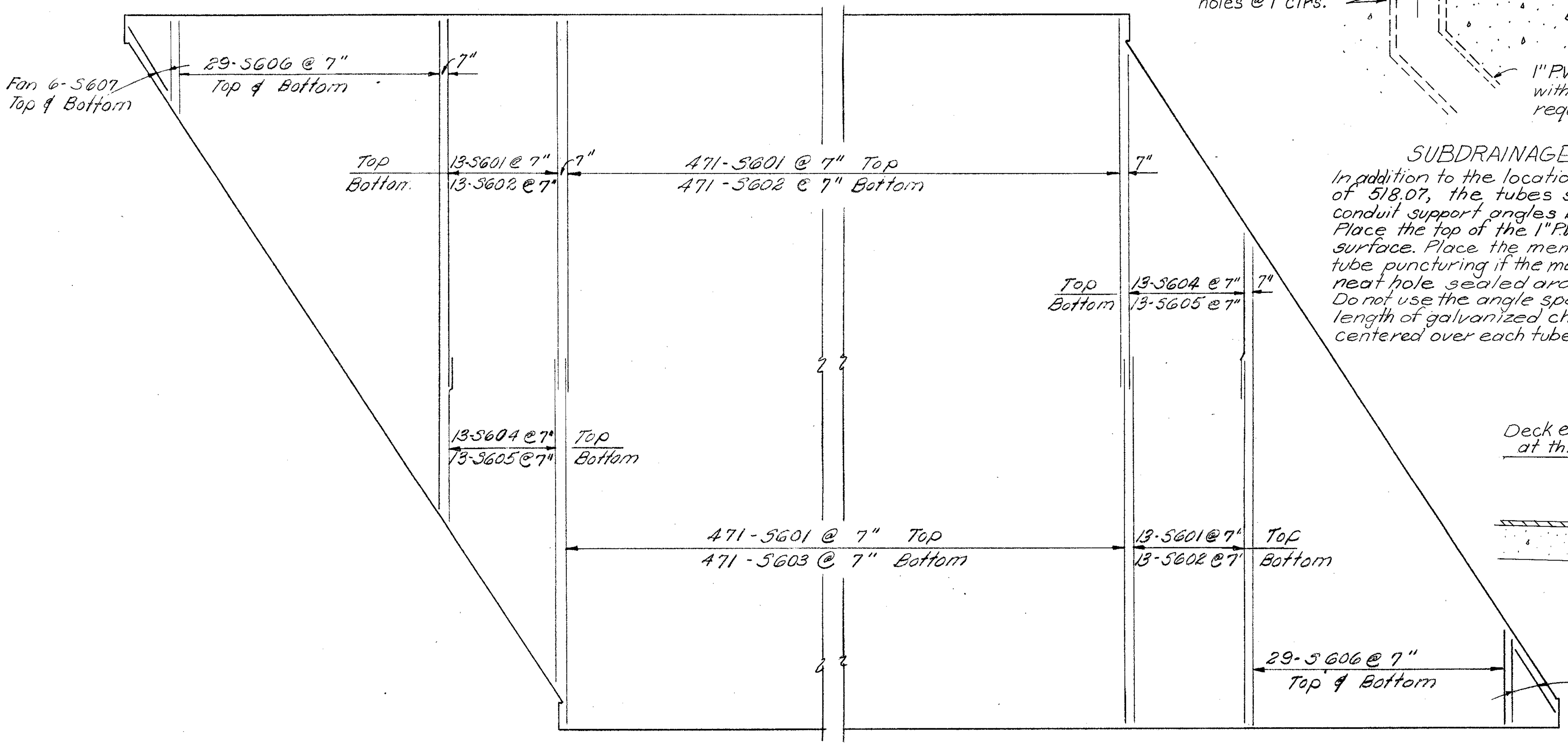


SUBDRAINAGE DETAILS

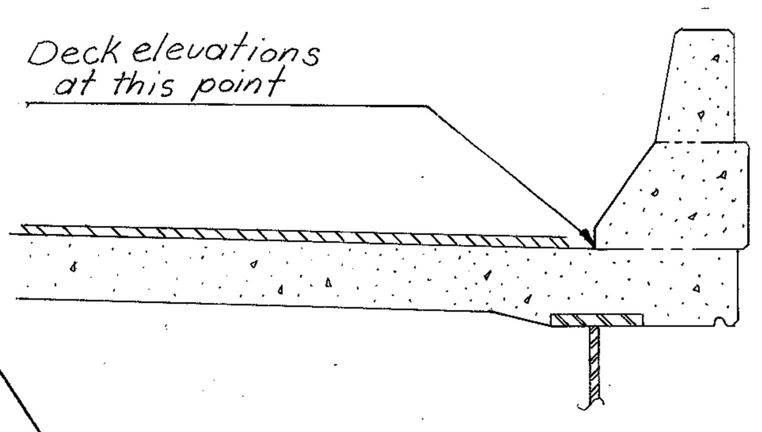
In addition to the location and spacing provisions of 518.07, the tubes shall clear cross bracing and conduit support angles by at least 6".
Place the top of the 1" P.V.C. pipes flush with the concrete surface. Place the membrane waterproofing over the tube puncturing if the membrane is a sheet type, with a neat hole sealed around the lip of the tube.
Do not use the angle specified in 518.07. Place a 6" length of galvanized channel 1 1/2" x 1/2" x 1/8" (need not be A36) centered over each tube. Include with Item 404 for payment.

DECK ELEVATIONS				
LOCATION	FACE OF LEFT CURB		FACE OF RIGHT CURB	
	STATION	ELEVATION	STATION	ELEVATION
℄ Brg. Abut. #1	18+30.42	698.74	18+58.08	700.67
1/4 Point	18+45.05	699.77	18+72.71	701.71
1/2 Point	18+59.67	700.80	18+87.33	702.73
3/4 Point	18+74.30	701.81	19+01.96	703.75
℄ Pier #1	18+88.92	702.83	19+16.58	704.77
1/4 Point	19+13.23	704.60	19+40.89	706.54
1/2 Point	19+37.55	706.34	19+65.21	708.27
3/4 Point	19+61.86	708.00	19+89.52	709.94
℄ Pier #2	19+86.17	709.64	20+13.83	711.58
1/4 Point	20+06.92	711.11	20+34.58	713.04
1/2 Point	20+27.67	712.58	20+55.33	714.51
3/4 Point	20+48.42	714.02	20+76.08	715.95
℄ Pier #3	20+69.17	715.45	20+96.83	717.39
1/4 Point	20+85.17	716.58	21+12.83	718.52
1/2 Point	21+01.17	717.72	21+28.83	719.65
3/4 Point	21+17.17	718.83	21+44.83	720.77
℄ Brg. Abut. #2	21+33.17	719.93	21+60.83	721.87

NOTE:
The Deck Elevations shown are the control elevations to which screeds must be set. The proper allowance for anticipated dead load deflection due to weight of deck concrete has been added.



DECK TRANSVERSE REINFORCEMENT



9/10

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-275-0620

I-275 UNDER MORGAN ROAD

HAMILTON COUNTY STA. 327+99.40

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
J.R.P.	E.D.A.		V.K.	4.10.70	

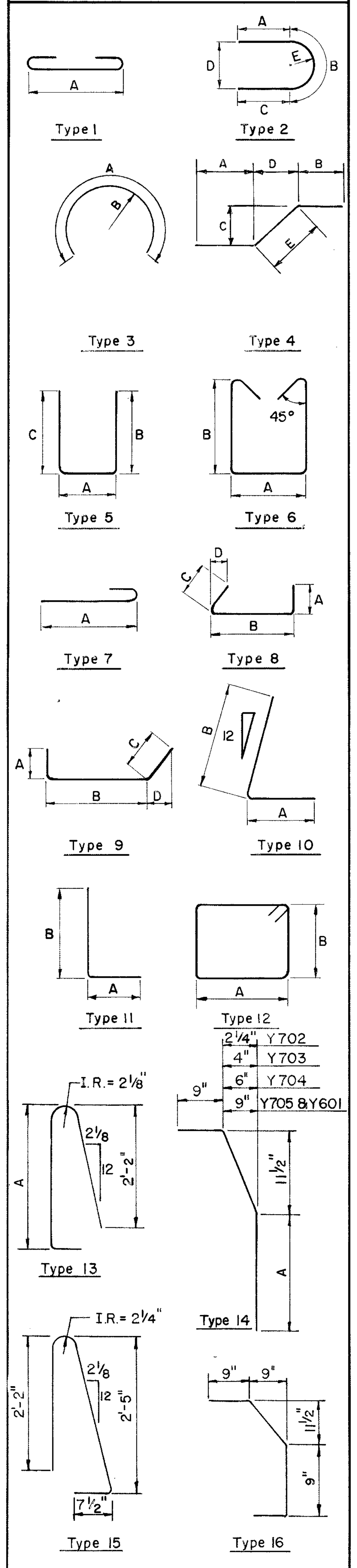
REINFORCING STEEL LIST

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

557/630

HAM-275-03.86

BENDING DIAGRAM



S IN THE COLUMN FOR "TYPE" INDICATES STRAIGHT BARS.

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
			ABUTMENT NO. 1						
A501	36	8-6	319	5	3-9	2-6	2-6		
A502	4	28-0	117	S					
A503	25	12-0	313	S					
A504	15	27-0	422	S					
A505	3	11-6	36	S					
A506	4	7-8	32	S					
A507	4	8-6	35	S					
A508	12	14-8	184	S					
A509	4	8-7	36	9	0	7-0	1-7	1-6	
A601	36	11-5	617	5	3-9	4-0	4-0		
A602	4	27-0	162	S					
A603	4	25-6	153	S					
A604	4	6-1	37	4	1-11	1-11	1-0	2-0	2-3
A605	50	12-4	926	5	1-4	5-8	5-8		
A606	29	6-9	294	5	0-11	3-1	3-1		
A607	29	5-0	218	5	1-4	2-0	2-0		
A608	21	7-2	226	5	1-4	3-1	3-1		
A609	6	17-0	153	5	1-2	8-1	8-1		
A610	6	19-0	171	5	1-2	9-1	9-1		
A611	2	9-4	28	S					
A612	2	10-6	32	S					
A613	10	4-5 TO 7-9	91	5	1-2	1-9 to 3-5	1-9 to 3-5	2 sets of 5 vary B & C by 5"	
A614	6	5-0	45	S					
Y501	22	2-0	46	5	1-0	0-7½	0-7½		
Y502	20	2-8	56	S					
Y503	12	6-5	80	13	3-2				
Y504	16	14-8	244	S					
Y505	4	7-3	30	S					
Y506	4	9-0	38	S					
Y507	22	3-10	88	S					
Y601	12	5-7	101	14	3-9				
Y701	2	4-4	18	S					
Y702	2	4-9	19	14	3-2				
Y703	2	4-10	20	14	3-2				
Y704	2	4-11	20	14	3-2				
Y705	2	5-0	20	14	3-2				
		TOTAL	5,427						
			ABUTMENT NO. 2						
B501	35	8-6	310	5	3-9	2-6	2-6		
B502	8	28-0	234	S					
B503	25	12-0	313	S					
B504	15	27-0	422	S					
B505	3	11-6	36	S					
B506	4	11-8	49	S					
B507	4	12-6	52	S					
B508	12	18-8	234	S					
B509	4	8-7	36	9	0	7-0	1-7	1-6	
B601	19	13-7	388	5	3-9	5-1	5-1		
B602	16	16-5	395	5	3-9	6-6	6-6		
B603	4	30-0	180	S					
B604	4	29-6	177	S					
B605	50	12-4	926	5	1-4	5-8	5-8		
B606	29	6-9	294	5	0-11	3-1	3-1		
B607	29	5-0	218	5	1-4	2-0	2-0		
B608	21	7-2	226	5	1-4	3-1	3-1		
B609	9	24-4	329	5	1-2	11-9	11-9		
B610	9	20-6	277	5	1-2	9-10	9-10		
B611	2	13-0	39	S					
B612	2	14-6	44	S					
B613	10	8-5 to 10-5	141	5	1-2	3-9 to 4-9	3-9 to 4-9	2 sets of 5 vary B & C by 3"	
B614	6	5-0	45	S					

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
Y501	28	2-0	58	5	1-0	0-7½	0-7½		
Y502	20	2-8	56	S					
Y503	18	6-5	120	13	3-2				
Y504	16	18-8	312	S					
Y505	4	7-3	30	S					
Y506	4	13-0	54	S					
Y507	28	4-0	117	S					
Y601	18	6-0	162	14	4-2				
Y701	2	4-4	18	S					
Y702	2	4-9	19	14	3-2				
Y703	2	4-10	20	14	3-2				
Y704	2	4-11	20	14	3-2				
Y705	2	5-0	20	14	3-2				
		TOTAL	6,371						
			PIERS						
P501	24	6-6	163	9	0	4-9	1-9	1-8	
P502	12	27-9	347	S					
P503	648	8-2	5,520	5	1-7½	3-5	3-5		
P504	168	7-0 to 8-0	1,314	5	1-7½	2-10 to 3-4	2-10 to 3-4	6 sets of 28 vary B & C by 1"	
P601	90	6-6	879	S					
P801	24	6-6	417	S					
P802	60	7-6	1202	S					
P1001	24	6-6	671	11	1-4½	5-5			
P1002	48	6-9	1394	11	1-4½	5-8			
P1003	8	16-0	551	S					
P1004	8	16-3	559	S					
P1005	8	16-6	568	S					
P1006	8	22-6	775	S					
P1007	8	22-9	783	S					
P1008	8	23-0	792	S					
P1009	8	25-0	861	S					
P1010	8	25-3	869	S					
P1011	8	25-6	878	S					
P1012	48	22-6	4,647	S					
P1013	12	12-0	620	S					
P1014	12	12-0	620	7	10-7				
P1015	12	16-0	826	S					
P1101	18	40-0	3,825	7	38-5				
P1102	18	21-3	2,032	7	19-8				
P1103	6	18-0	574	S					
		TOTAL	31,687						
			SUPERSTRUCTURE						
S401	700	30-0	14,028	S					
S402	70	16-4	764	S					
S403	183	39-0	4,768	S					
S501	560	30-0	17,522	S					
S502	56	19-8	1,149	S					
S601	968	23-10	34,652	S					
S602	497	28-0	20,902	S					
S603	471	19-7	13,854	S					
A604	26	11-0 to 21-6	635	S	2 sets of 13, vary each bar inset by 10½"				
A605	26	5-10 to 17-4	452	S	2 sets of 13, vary each bar inset by 10½"				
A606	116	7-1 to 31-7	3368	S	4 sets of 29, vary each bar inset by 10½"				
S607	24	6-2	222	S					

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
X501	410	2-0	855	5	1-0	0-7½	0-7½		
X502	410	5-4	2,281	13	2-5				
X503	410	2-1	891	11	7½	1-7			
X504	410	3-2	1354	16					
X505	56	14-8	857	S					
X506	160	7-2	1,196	S					
X507	32	12-0	401	S					
		TOTAL	120,151						
			REPLACEMENT BARS						
RE401	2	6-3	–	S					
RE501	2	6-7	–	S					
RE601	5	6-11	–	S					
RE701	1	7-2	–	S					
RE801	1	7-6	–	S					
RE1001	1	8-2	–	S					
RE1101	1	8-6	–	S					
RESP401	1	6-3	–	3					

NOTES

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size.

MARK	NO.	LENGTH (HEIGTH)	WEIGHT
SPIRALS - Core Diam. 32" c/c - Pitch 4½" o/o - Other details in accordance with C.R.S.I. standard practice.			
SP401	1	13-1	251
SP402	1	13-4	255
SP403	1	13-8	261
SP404	1	19-7	367
SP405	1	19-11	373
SP406	1	20-3	379
SP407	1	22-1	412
SP408	1	22-5	418
SP409	1	22-9	424
		TOTAL	3,140

10/10

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-275-0620
I-275 UNDER MORGAN ROAD

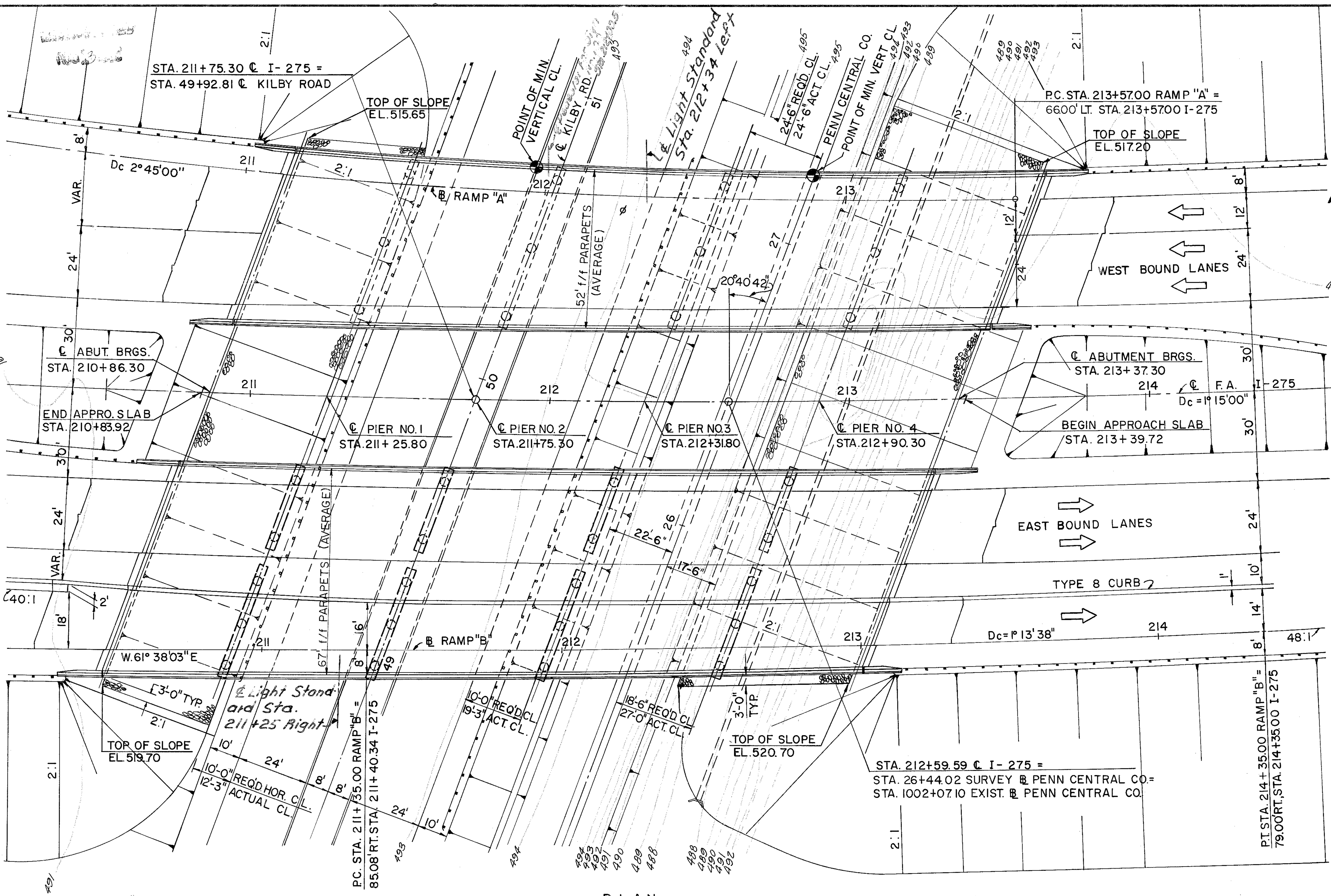
HAMILTON COUNTY — STA 327+99.40

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.P.P.	E.D.A.				4-10-70	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

558/630

HAM-275-03.86



PLAN

HORIZONTAL CURVE DATA RAMP "A"

P.I. STA. 211+29.79
Δ = 12°32'48" LT.
Dc = 2°45'00"
R = 2083.48'
T = 229.04'
L = 456.25'
E = 12.55'

HORIZONTAL CURVE DATA RAMP "B"

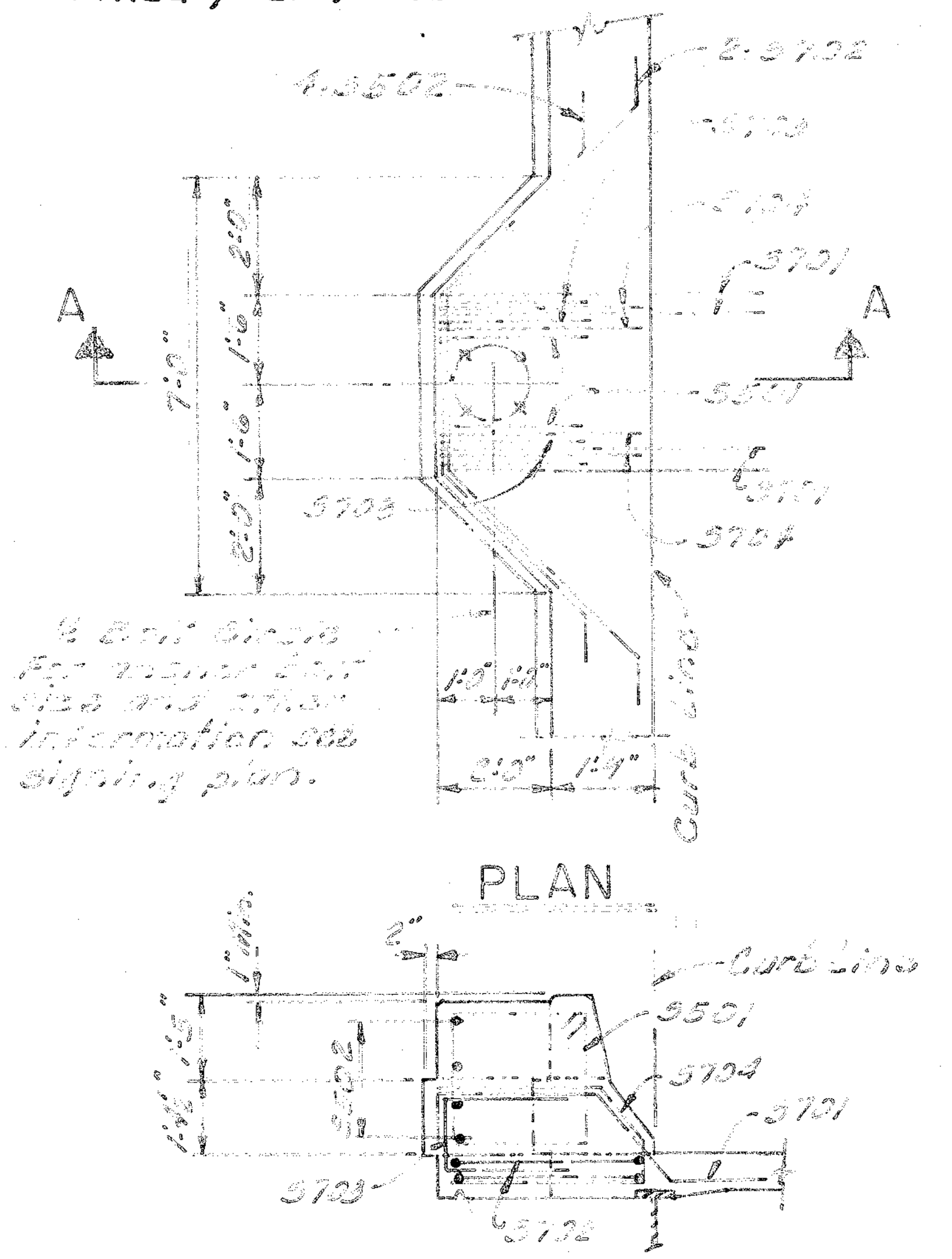
P.I. STA. 212+85.05
Δ = 3°40'45" LT.
Dc = 1°13'38"
R = 4668.74'
T = 150.05'
L = 300.00'
E = 2.41'

HORIZONTAL CURVE DATA F.A. I-275

P.I. STA. 222+69.74
Δ = 73°56'50" LT.
Dc = 1°15'00"
R = 4,583.65'
T = 3,450.73'
Lc = 5,915.78'

NOTE:
Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

For Lighting Details see sheets 490-B, 490-C, 501, 502 & 503. Structures shall be grounded at both ends of fixed pier No. 2.

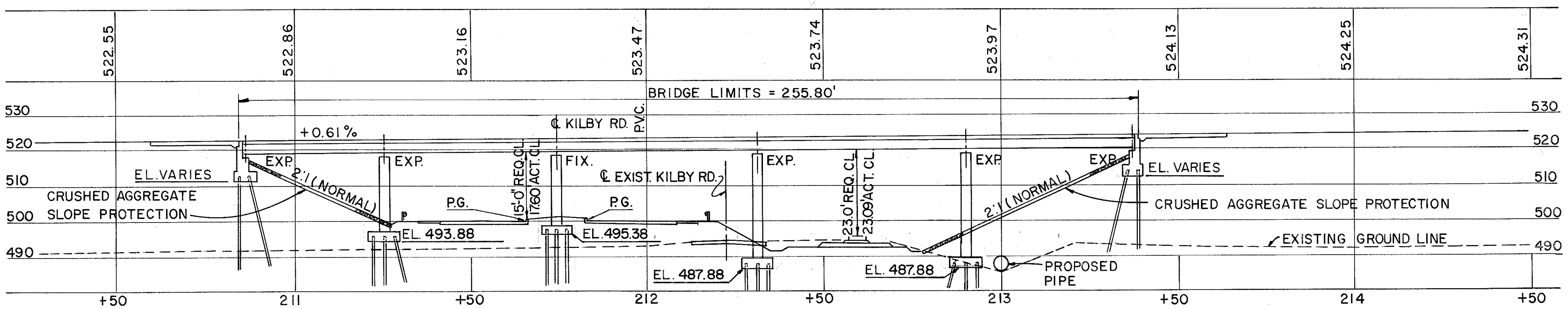


SECTION A-A
PEDESTAL FOR SIGN NO. 100
STA. 212+00.50 (±)

A.D.T. (1989)
F.A. I-275 = 30,860

PROPOSED STRUCTURES

TYPE: Five spans continuous steel beam with reinforced concrete deck and substructures.
SPANS: 39.5', 49.5', 56.5', 58.5' and 47.0'
ROADWAY: Varies: W.B. lanes average 52' and E.B. lanes average 67' f/f of parapets.
LOADING: HS 20-44 and Interstate Alternate Loading
SKEW: 20°40'42" L.F. Loc. tangent at R.R. ℄
WEARING SURFACE: 1½" Asphalt Concrete
APPROACH SLABS: AS-1-67 (25' long)
ALIGNMENT: 1°15'00" curve left
SUPERELEVATION: 0.04 ft. per ft.



PROFILE ALONG ℄ F.A.I-275

VERTICAL CURVE DATA

P.V.I. STA. 215+50.00
ELEV. 525.60
V.C. = 700.00'
G1 = +0.61%
G2 = −0.92%

All piles to be 12" ø cast-in-place reinforced concrete piles. The estimated average pay-lengths are:
Abutments – 45' per pile
Piers 1 & 2 – 45' per pile.
Piers 3 & 4 – 40' per pile

1/16

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN
BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 OVER
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
S.C.	G.M.	E.D.A.	J.R.P.		9-26-69	9-4-73

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

559 / 030

HAM - 275 - 03.86

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS NO:

RB-1-55 REVISED 2-2-59
SD-1-69 SHEETS 1, 2, 3 & 4 DATED 6-12-69
BR-1-67 SHEET NO. 1 REVISED 10-15-71

AND TO SUPPLEMENTAL SPECIFICATIONS:

NO. 808 DATED 1-1-71

NO. 836 DATED 1-1-71

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, 1965, INCLUDING THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING	HS 20-44 AND THE INTERSTATE ALTERNATE LOADING
CONCRETE CLASS C	UNIT STRESS 1,200 PSI FOR SUPERSTRUCTURE UNIT STRESS 1,333 PSI FOR SUBSTRUCTURES
STRUCTURAL STEEL	ASTM A36 - UNIT STRESS 20,000 PSI
REINFORCING STEEL	ASTM A615, A616‡ OR A617. UNIT STRESS 20,000 PSI.

EMBANKMENT CONSTRUCTION:

THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE LEVEL OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 200 FEET BACK OF THE ABUTMENTS. EXCAVATION SHALL THEN BE MADE FOR THE ABUTMENTS AND PIERS.

PILES:

PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 30 TONS PER PILE FOR THE ABUTMENTS AND 45 TONS PER PILE FOR THE PIERS.

RAILROAD AERIAL LINES:

RAILROAD AERIAL LINES WILL BE RELOCATED BY THE RAILROAD. THE CONTRACTOR SHALL USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION STAGE AND SHALL COOPERATE WITH THE RAILROAD IN THE RELOCATION OF THESE LINES. THE COST OF THE RELOCATION SHALL BE INCLUDED IN THE RAILROAD FORCE ACCOUNT WORK.

CONSTRUCTION CLEARANCE:

CONSTRUCTION CLEARANCE OF 20 FEET VERTICALLY ABOVE THE TOP OF THE RAILROAD RAILS AND 8 FEET HORIZONTALLY FROM THE CENTER OF TRACKS SHALL BE MAINTAINED AT ALL TIMES.

WELDS:

WELDS ON NON-STRESS CARRYING MEMBERS ARE SHOWN THUS: N 1/4

‡ IF BARS IN ACCORDANCE WITH ASTM A616 ARE PROVIDED THEY SHALL BE SUBJECT TO BEND TESTS AS PER AASHO DESIGNATION M42-70. SPIRAL REINFORCEMENT MAY BE PLAIN BARS ASTM A82, A306, A499 OR A615.

DECK FINISHING: TEXTURING OF THE DECK SURFACE AS PROVIDED IN 451.09 SHALL NOT BE DONE.

ESTIMATED QUANTITIES								AS BUILT
ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT.	PIER	GEN.	
503	Lump	Sum	Cofferdams, cribs, and sheeting				Lump	
503	1,620	Cu. Yds.	Unclassified excavation		730	890		
505	Lump	Sum	Test pile				Lump	
507	10,330	Lin. Ft.	12" cast-in-place reinforced concrete piles		3,020	7,310		
509	412,~~187~~	Lbs.	Reinforcing steel	272,405	34,967	104,815		
511	941	Cu. Yds.	Class C concrete, superstructure	941				
511	280	Cu. Yds.	Class C concrete, abutments above footings		280			
511	403	Cu. Yds.	Class C concrete, piers above footings			403		
511	498	Cu. Yds.	Class C concrete, footings		215	283		
513	673,000	Lbs.	Structural steel	673,000				
514	673,000	Lbs.	Field painting of structural steel	673,000				
518	165	Cu. Yds.	Porous backfill		165			
518	248	Lin. Ft.	6" perforated, helical, C. M. P., 707.01		248			
518	188	Lin. Ft.	6" non-perforated, helical, C.M.P., including specials, 707.01		188			
518	24	Each	Scuppers, including supports	24				
601	2,315	Sq. Yds.	Crushed aggregate slope protection				2,315	
404	93	Cu Yds.	Asphalt concrete (85-100 or AC20)	93				
Special	46	Cu. Yds.	Sand-asphalt	46				
Special	3360	Sq. Yds.	Waterproofing membrane (see Proposal Note)	3360				
808	941	Units	Chemical admixture for concrete, Type A, B or D	941				
Computed by:		,Date:	, 19					
Checked by:		,Date:	, 19					

ITEM SPECIAL - SAND-ASPHALT:

A layer of sand-Asphalt shall be used to protect the protective membrane. Traffic will not be permitted on the membrane until a protective layer of sand-asphalt has been placed and compacted. The sand-asphalt shall be mixed hot using natural sand, 703.05, and asphalt cement 702.01. The asphalt grade and content shall be established by the contractor within a range of 8.5 to 10.5 percent of the total mix. The sand-asphalt shall be placed on the membrane by means of a pneumatic tired mechanical spreader and compacted by rolling to produce a reasonably smooth surface. The quantity placed shall be as necessary to level irregularities and cover the surface with a compacted layer ½" in thickness. Turning movements of equipment used to place the sand-asphalt shall not be made on the membrane.

Basis of Payment. The accepted quantity of sand-asphalt will be paid for at the contract unit price per cubic Yard, which price and payment shall be full compensation for furnishing and placing all materials.

Payment will be made under

ITEM	UNIT	DESCRIPTION
Special	Cu Yd	Sand-Asphalt

2 / 16

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES
ESTIMATED QUANTITIES
BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
S.C.	D·W·M	—	J.R.P.		9·26·69	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

560/630

HAM - 275 - 03.86

NOTES

POROUS BACKFILL, as shown full length of abutment and wings, shall extend up to the subgrade or to the finished ground surface.

○ Indicates Vertical Pile.

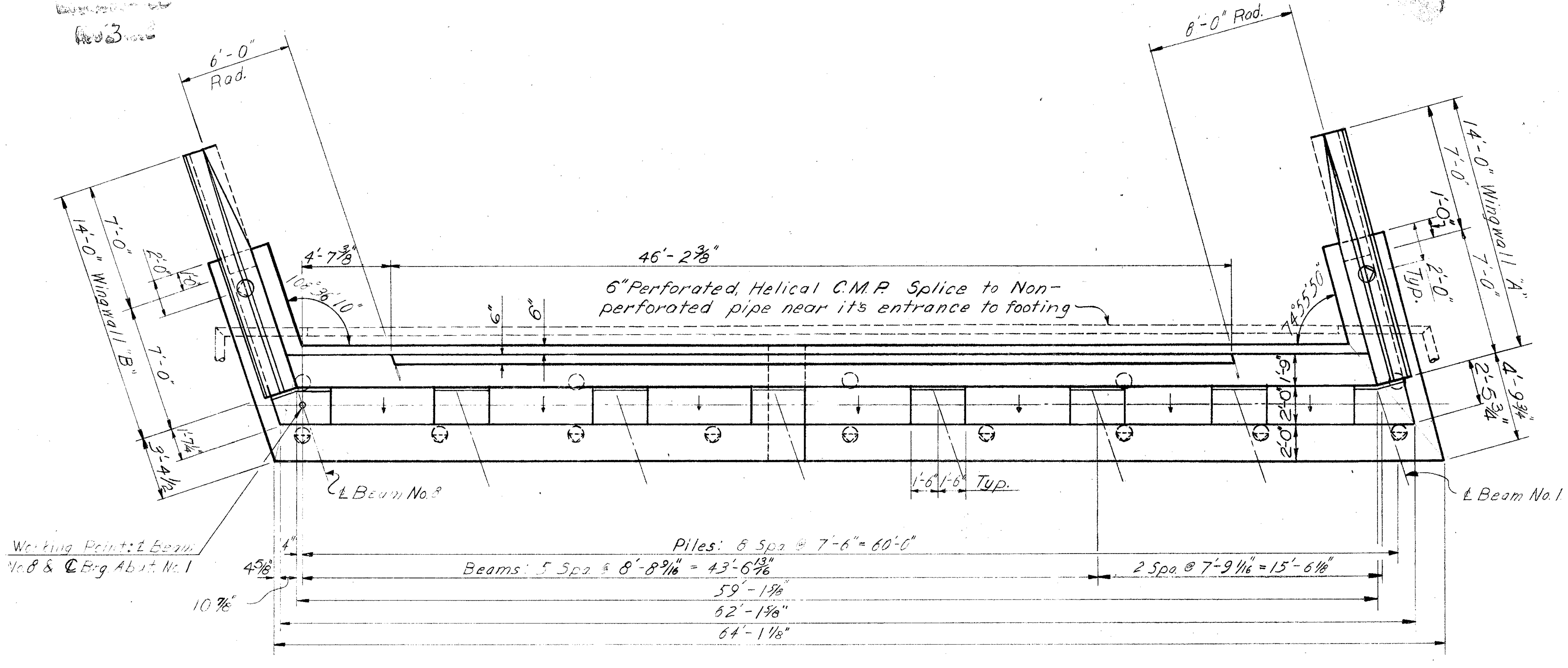
⊖ Indicated battered Pile at 1:4 in the direction of arrow. All piles are 12" diameter cast-in-place reinforced Concrete piles.

For Wingwall details, see sheet 7/16

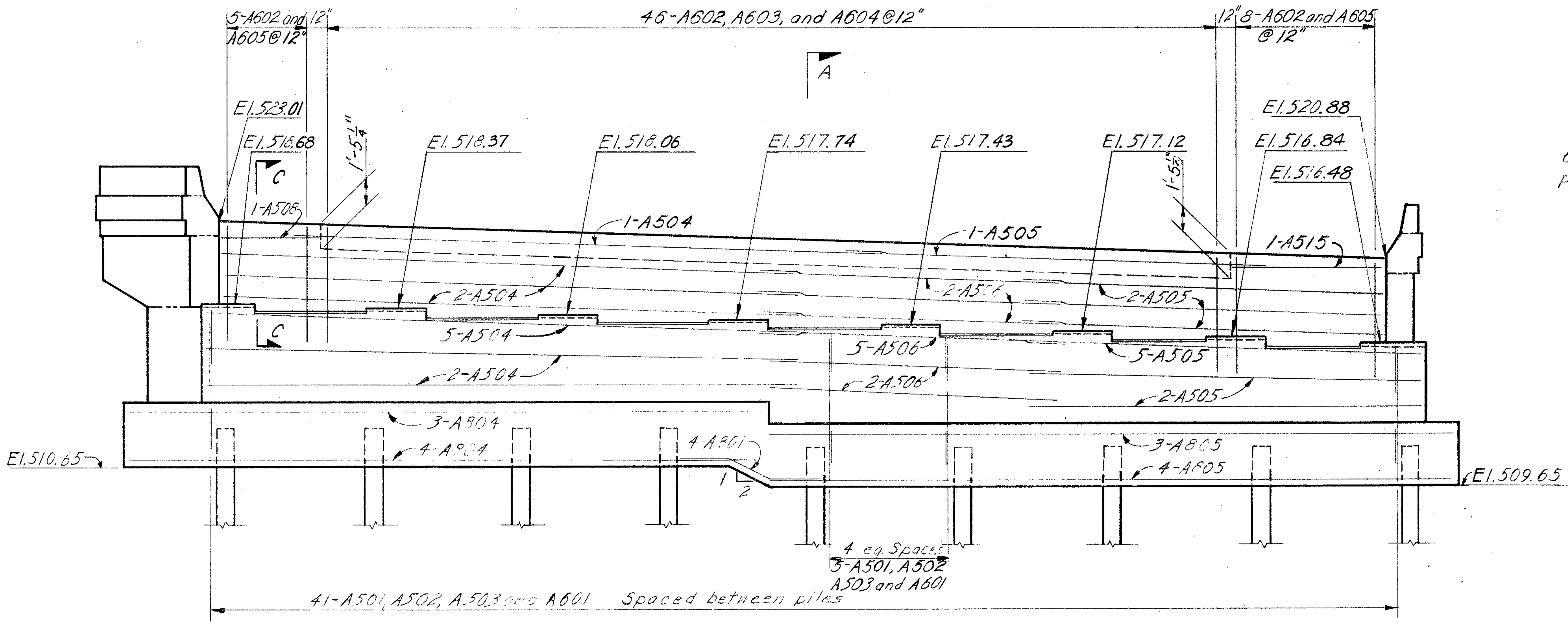
For Working Points, see Beam Layout sheet 12/16

For Section C-C, see sheet 4/16

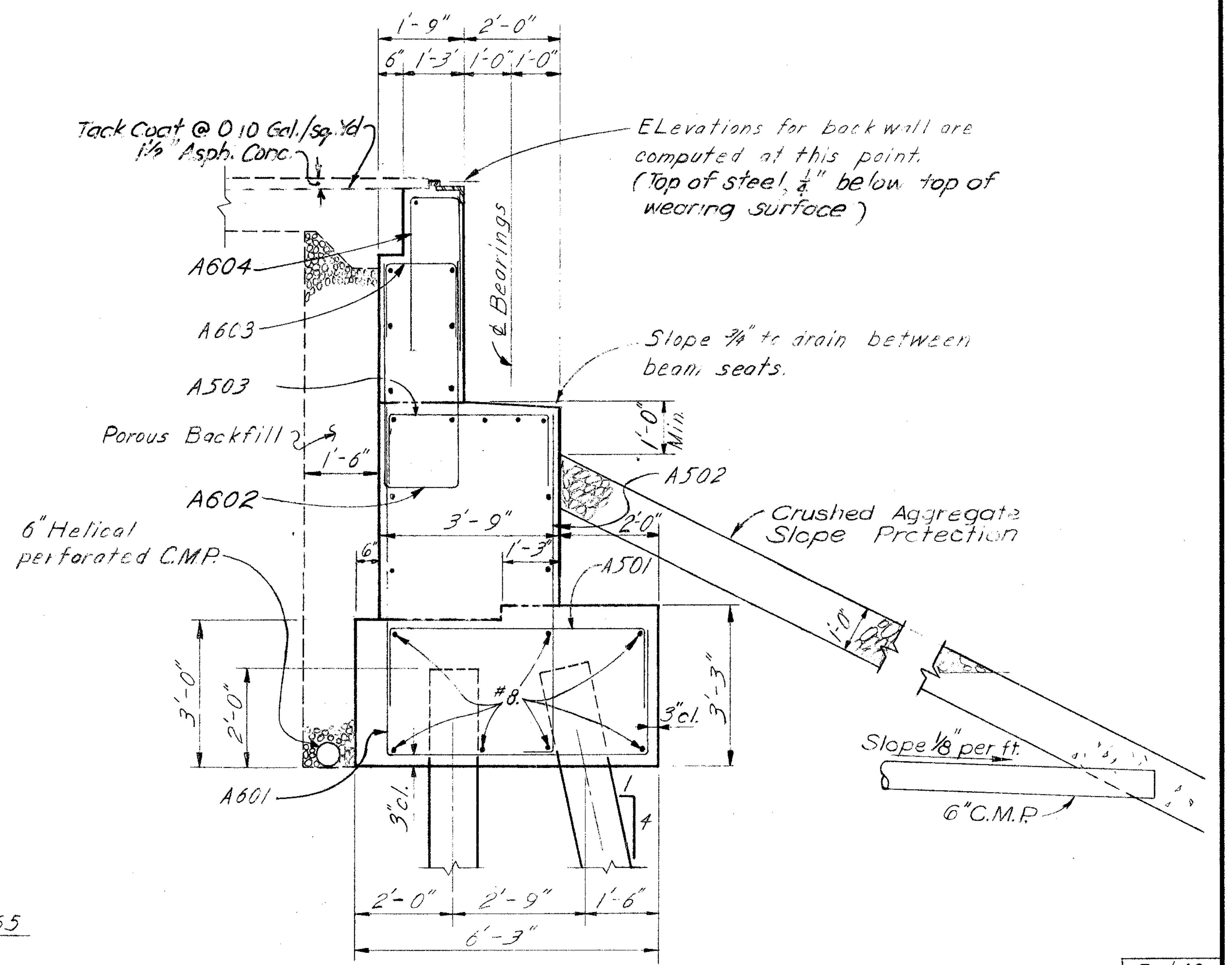
PARAPET TRANSITIONS AND WINGWALL ENDS SHALL BE AS SHOWN ON STANDARD DRAWING BR-1-67 REVISED 10-15-71. REINFORCING STEEL SHALL BE FIELD BENT OR CUT TO FIT THE REVISED SHAPE.



PLAN - ABUTMENT NO. 1 - LEFT BRIDGE



ELEVATION



SECTION A-A

3 / 16

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

ABUTMENT NO. 1 LEFT BRIDGE

BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.C.	S.C.	W. G.	J. R. P.		9-26-69	

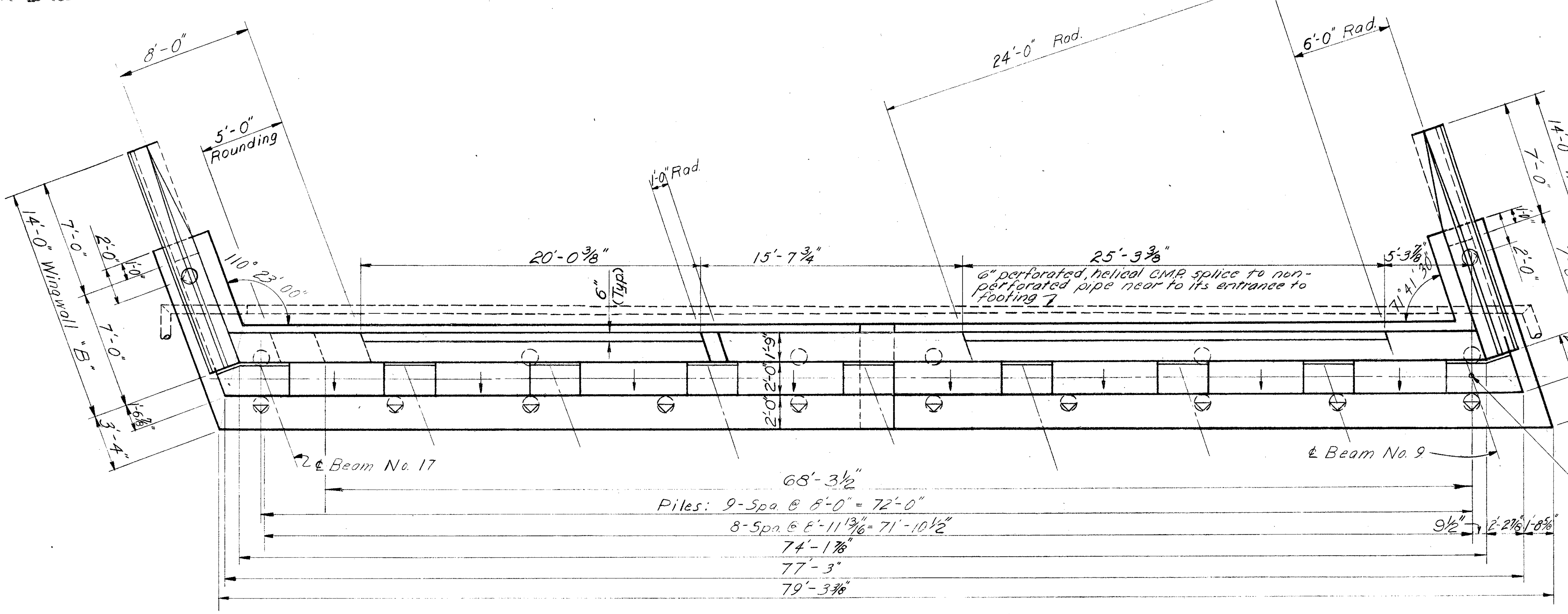
HAM-275-03.86

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

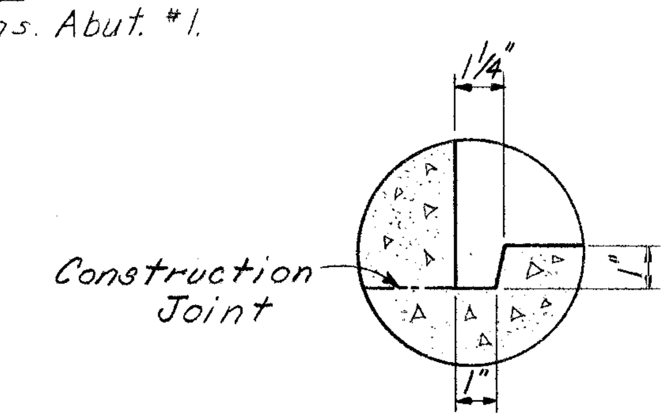
561/630

NOTES

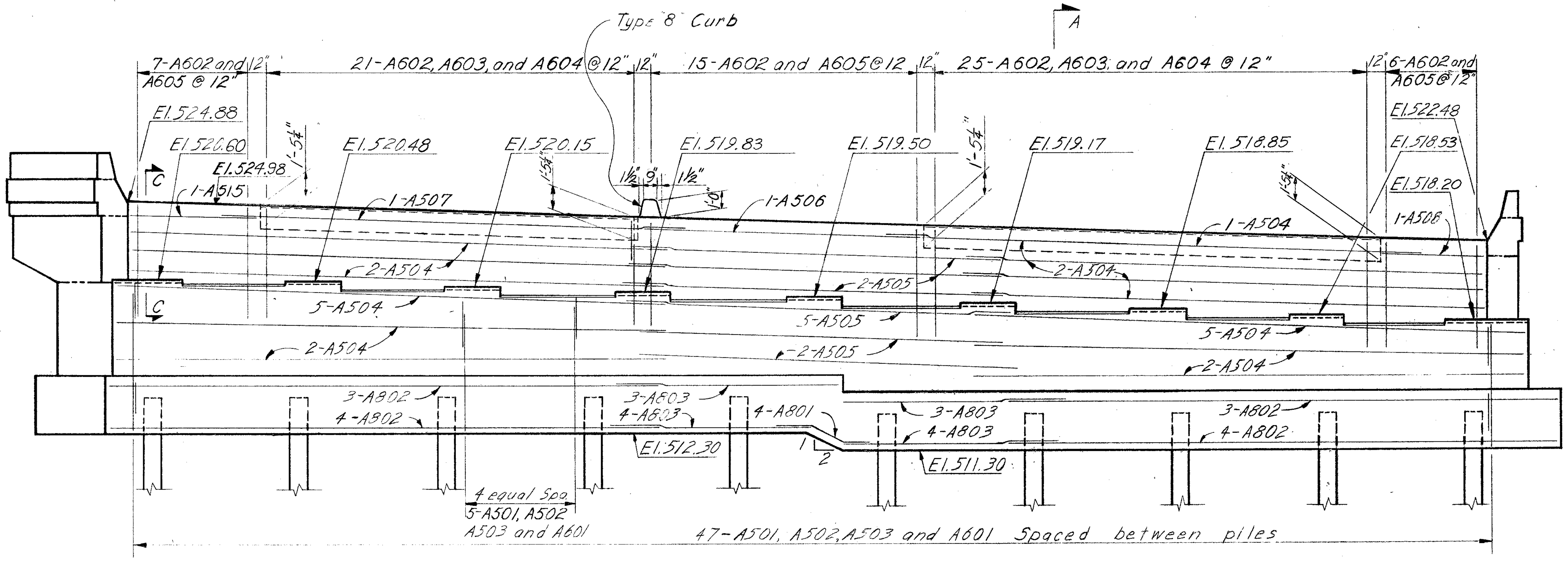
For Type "8" Curb, See Sheet 13/16.
For Section A-A & additional Notes, see sheet 3/16.
For Wingwall details, see sheet 7/16.



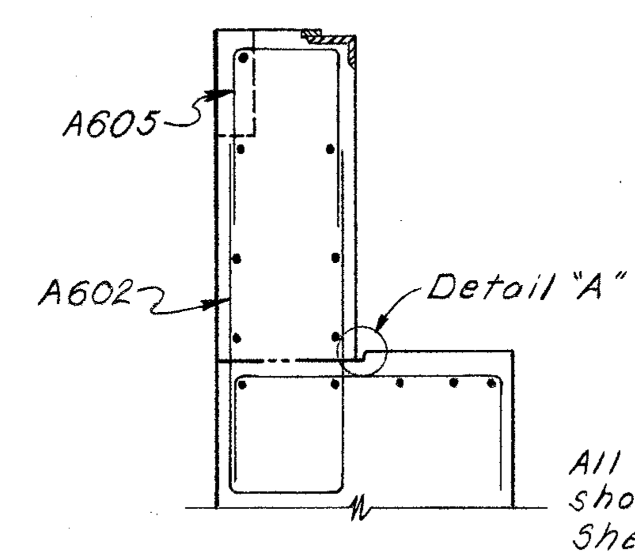
PLAN - ABUTMENT NO. 1 - RIGHT BRIDGE



DETAIL "A"



ELEVATION



All other details as shown in Section A-A Sheet 3/16

SECTION C-C

4/16

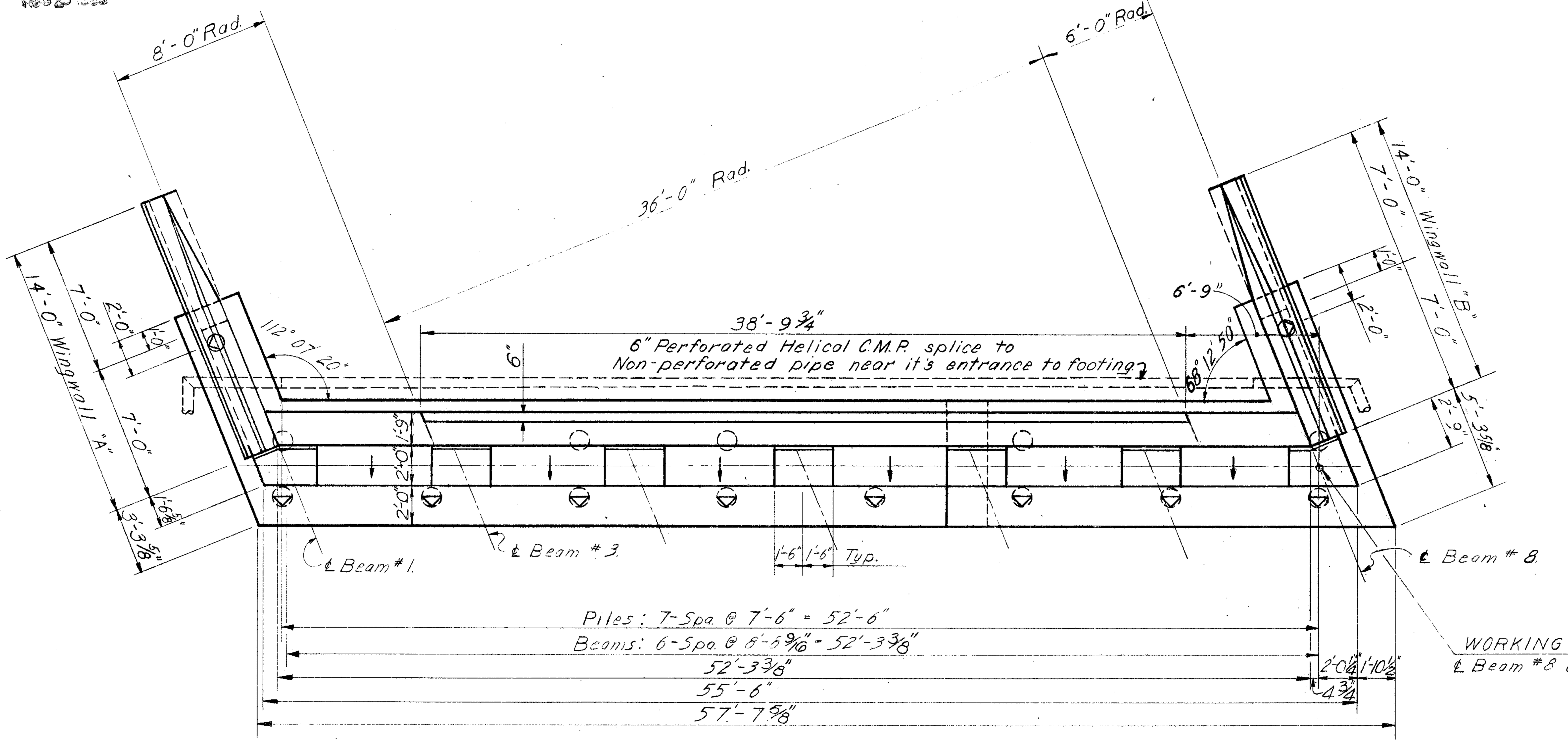
VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

ABUTMENT NO. 1 RIGHT BRIDGE

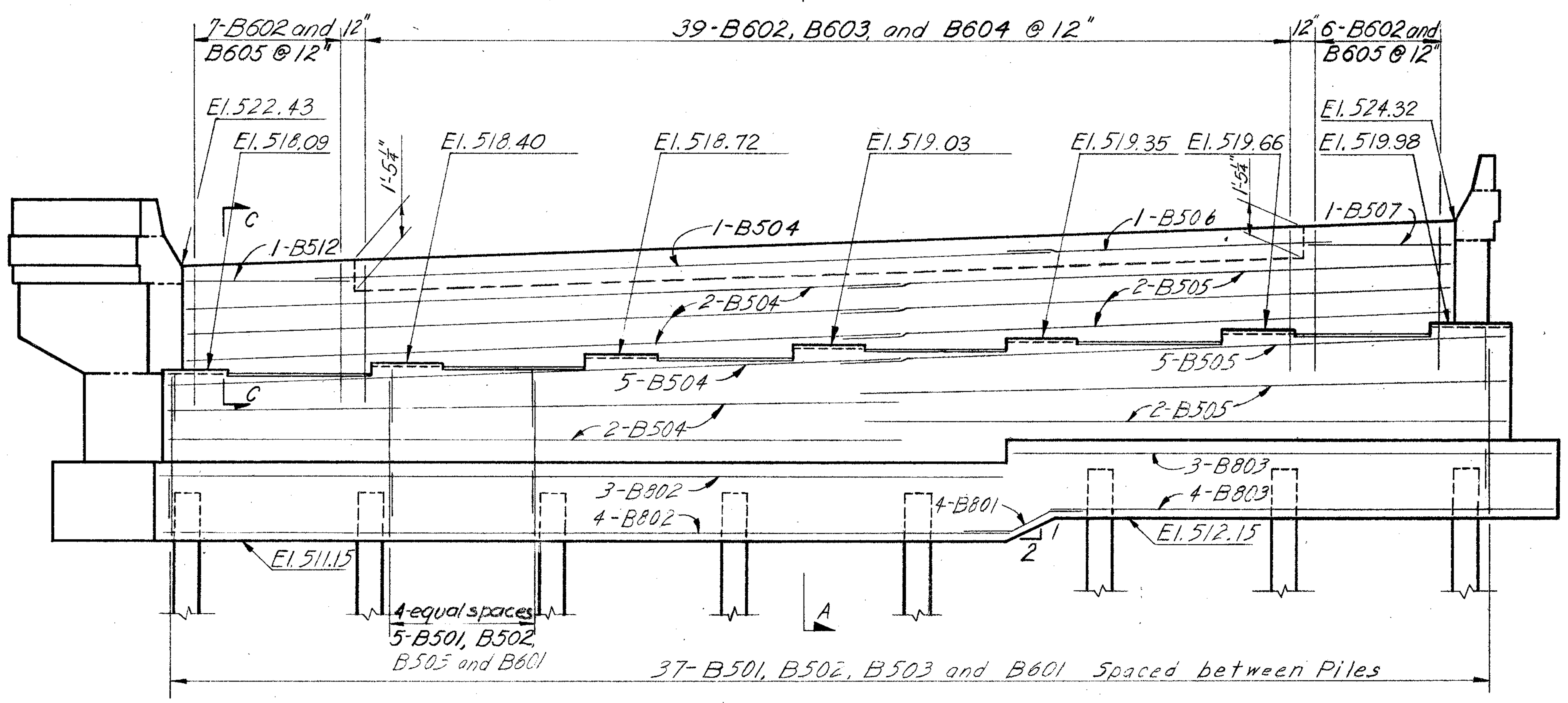
BRIDGE NO. HAM-275-0399L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.C.	S.C.	W.G.	J.R.P.		9-26-69	

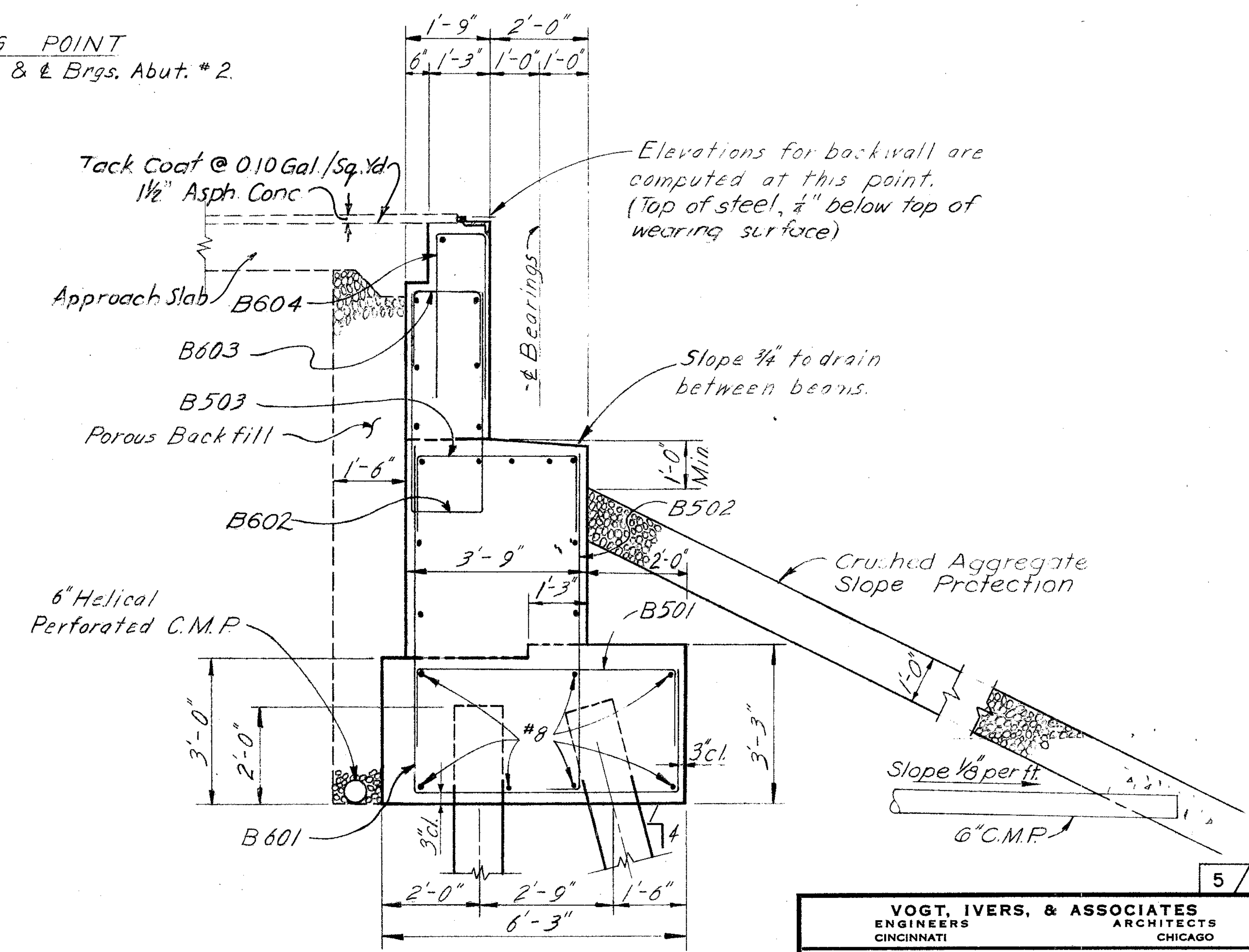
NOTE:
For all other notes, see sheet 3/16
For Wingwall details, see sheet 7/16
For Section C-C, see sheet 6/16



PLAN-ABUTMENT No. 2 - LEFT BRIDGE



ELEVATION



SECTION A-A

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

ABUTMENT NO. 2 LEFT BRIDGE

BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.C.	S.C.	W.G.	J.R.P.	[illegible]	9-26-69	

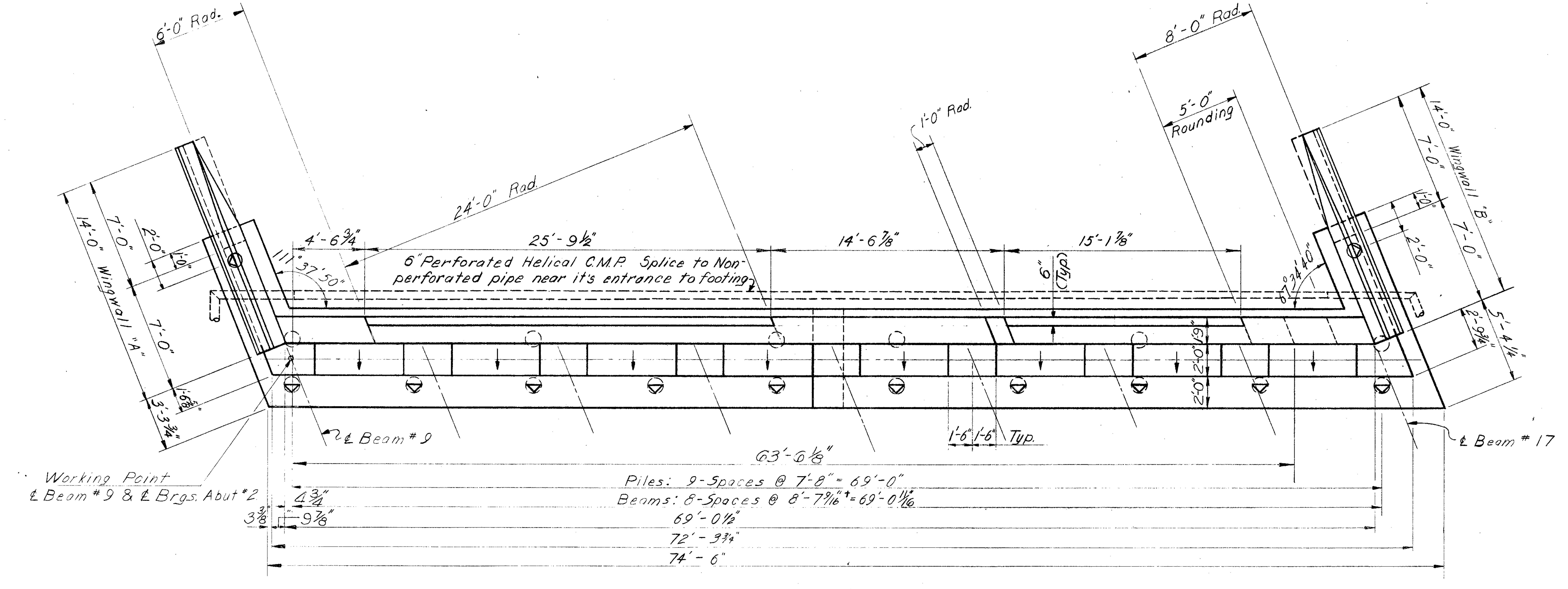
HAM-275-03.86

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

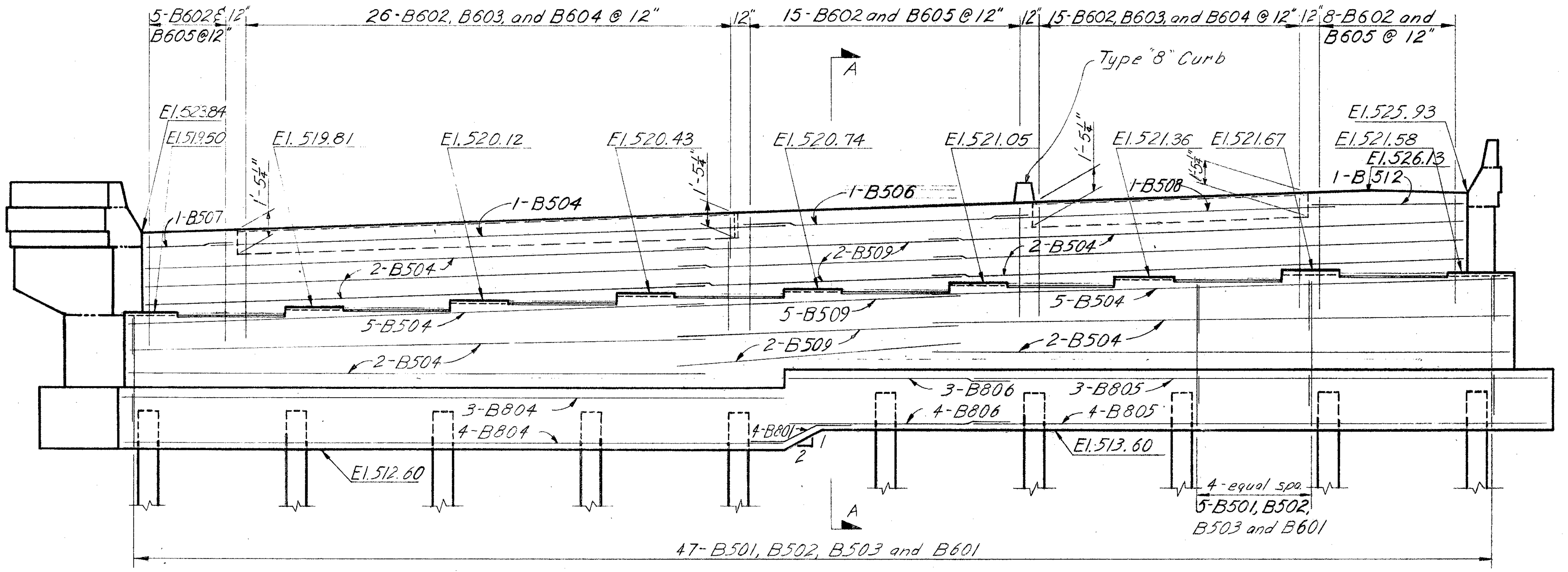
563/630

NOTES:

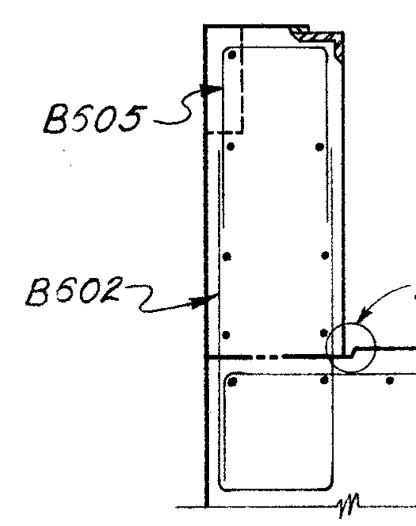
For Type "8" Curb, see sheet 13/16
For Section A-A, see sheet 5/16
For additional Notes see sheet 3/16
For Wingwall details, see sheet 7/16
For Detail "A", see sheet 4/16



PLAN-ABUTMENT NO. 2 - RIGHT BRIDGE



ELEVATION



All other details as shown in Section A-A, sheet 3/16

SECTION C-C

6/16

VOGT, IVERS, & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

ABUTMENT NO. 2 RIGHT BRIDGE

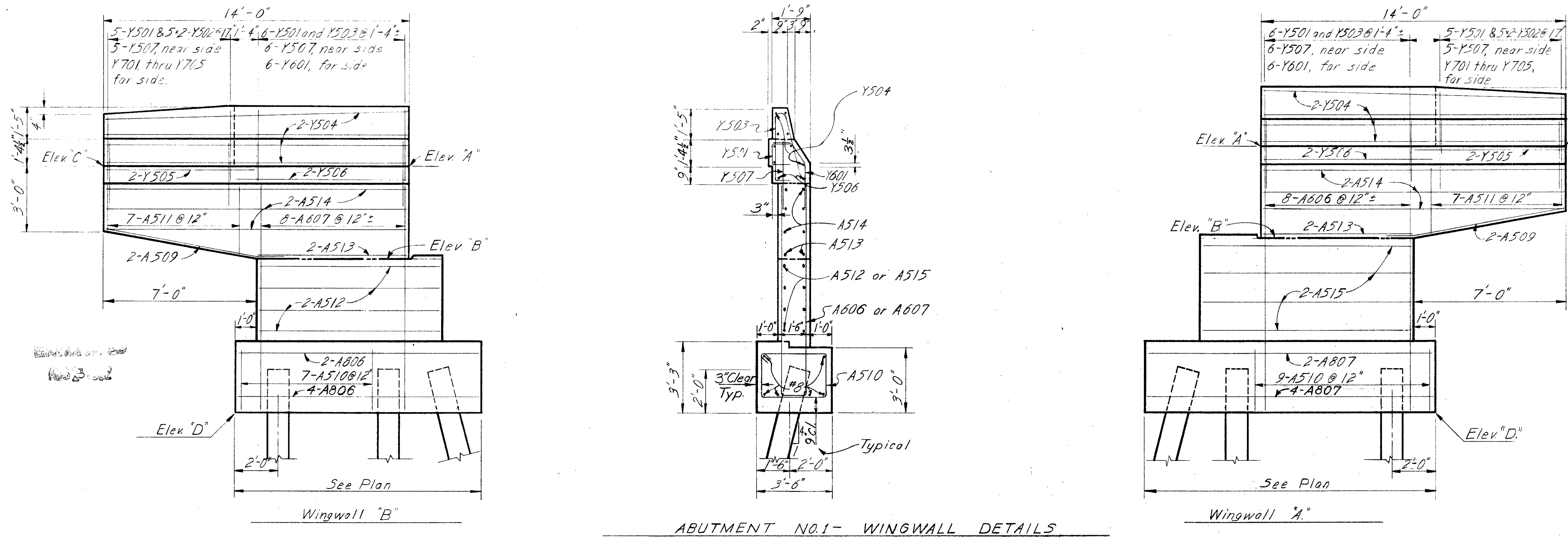
BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J.R.P.		9-26-69	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

564/630

HAM - 275 - 03.86



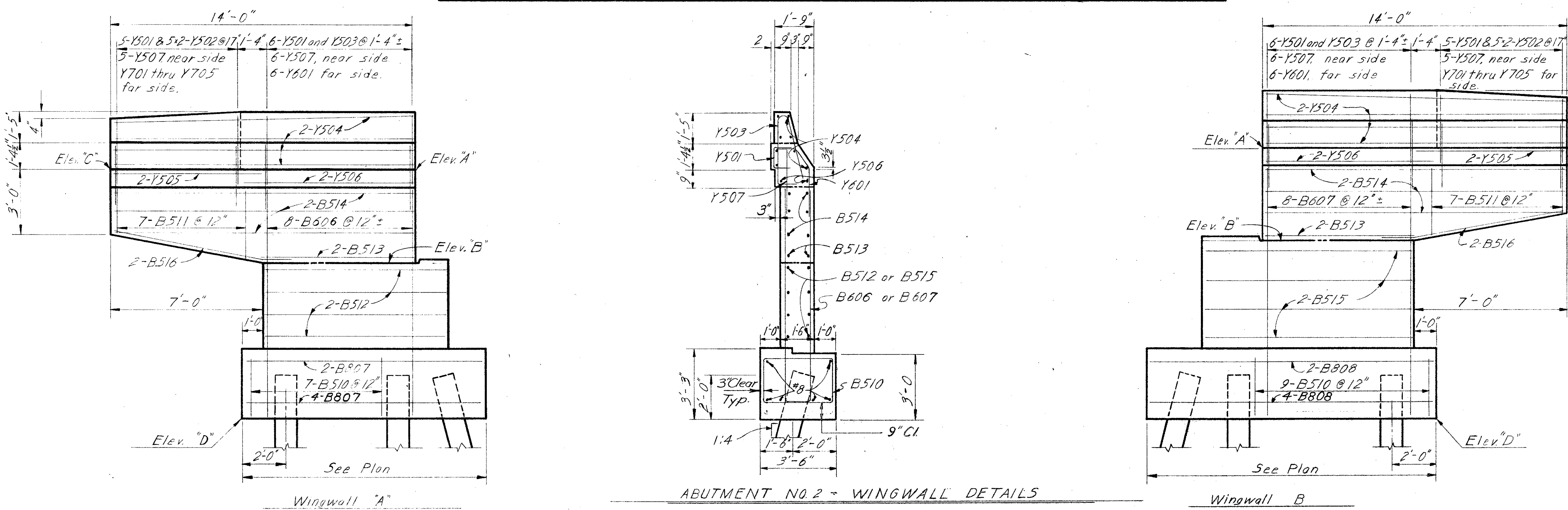
ABUTMENT NO. 1 - WINGWALL DETAILS

NOTE:

For Wingwall Plans, see sheets 3,4,5 & 6 /16

LOCATION	ABUTMENT NO. 1								ABUTMENT NO. 2							
	LEFT BRIDGE				RIGHT BRIDGE				LEFT BRIDGE				RIGHT BRIDGE			
	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
Wingwall "A"	520.78	516.48	520.70	509.65	522.38	518.12	522.30	511.30	522.33	518.01	522.37	511.15	523.74	519.42	523.78	512.60
Wingwall "B"	522.91	518.60	522.83	510.65	524.78	520.52	524.53	512.30	524.22	519.90	524.26	512.15	525.83	521.50	525.87	513.60

ELEVATIONS



ABUTMENT NO. 2 - WINGWALL DETAILS

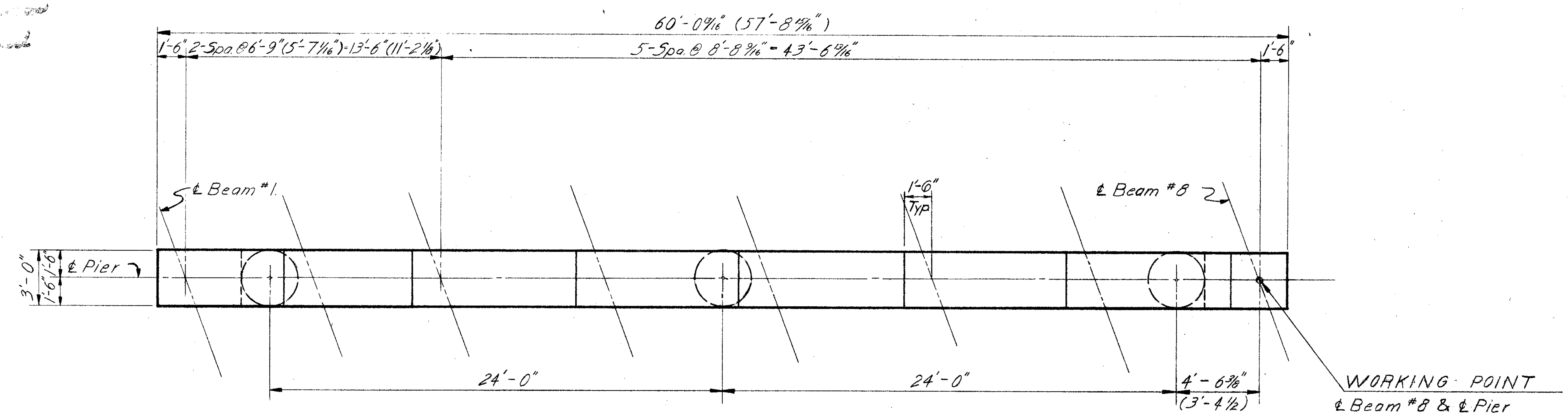
7 / 16

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

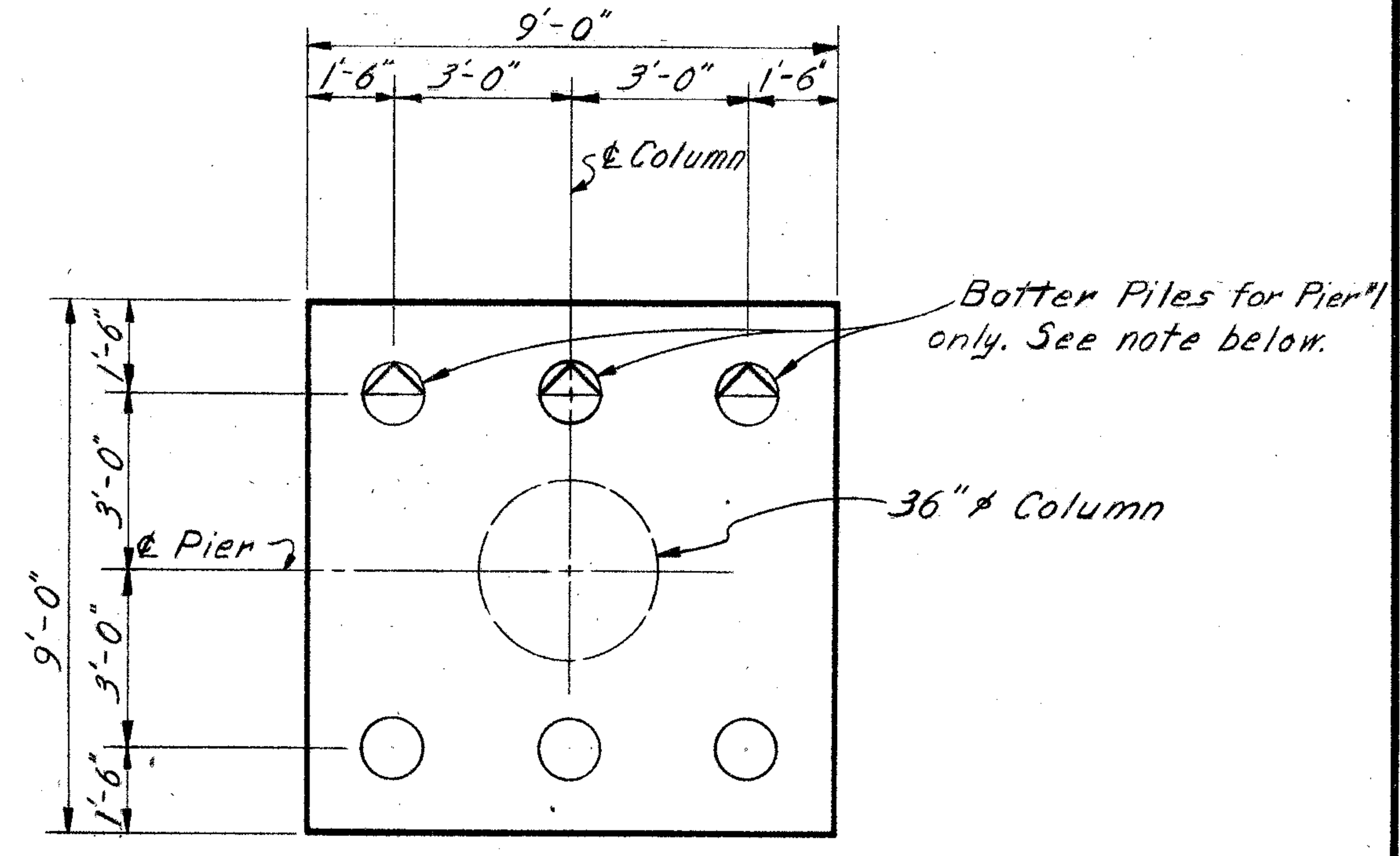
ABUTMENT DETAILS

BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

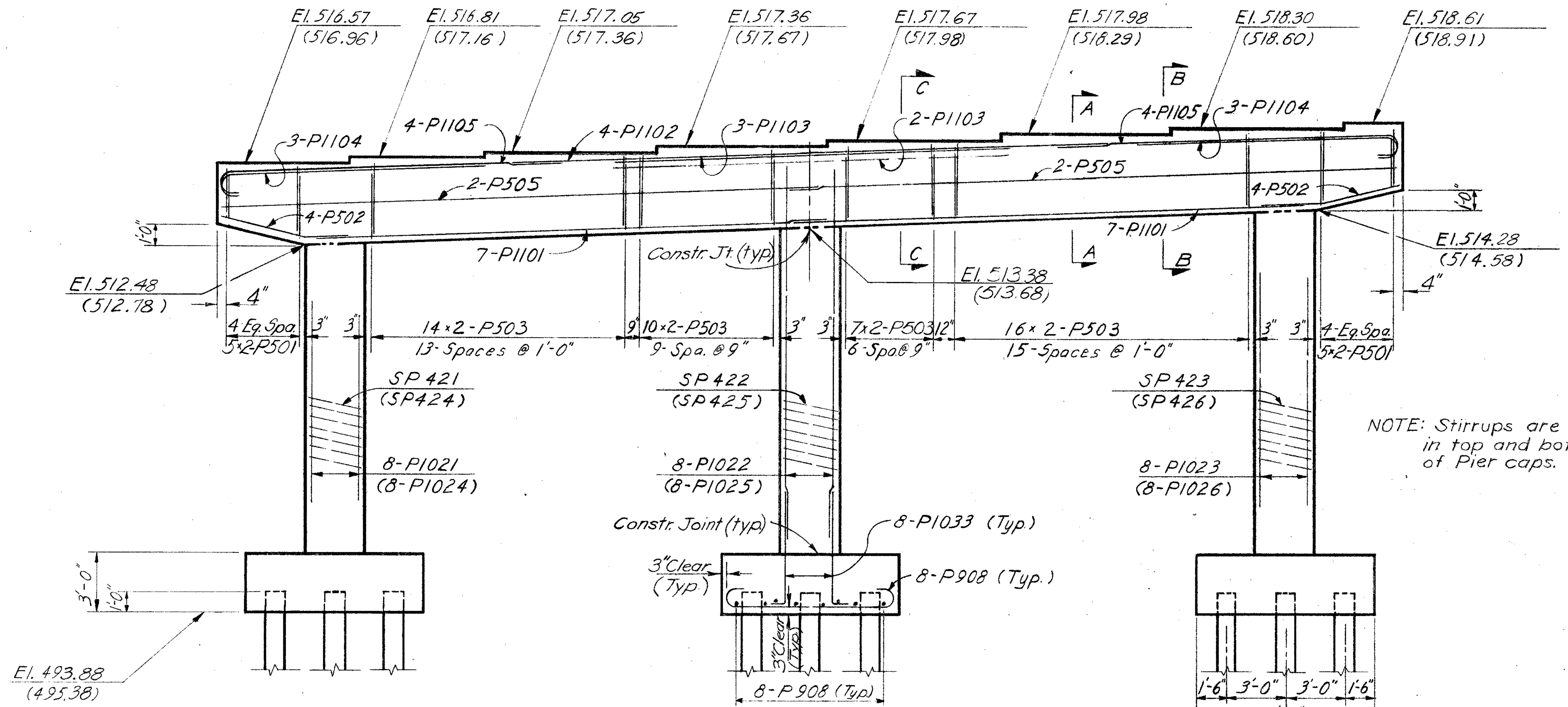
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J. R. P.		9-26-69	



CAP PLAN - PIER #1 & #2 - LEFT BRIDGE

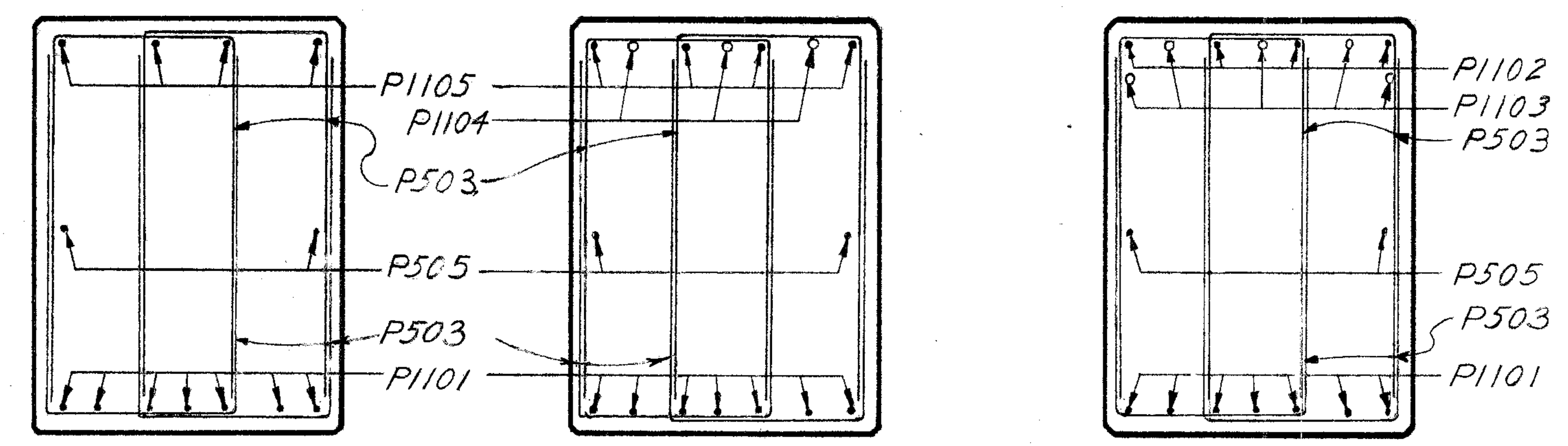


FOOTING PLAN - TYPICAL



ELEVATION

NOTE: Stirrups are same in top and bottom of Pier caps.



SECTION A-A SECTION B-B SECTION C-C

NOTES

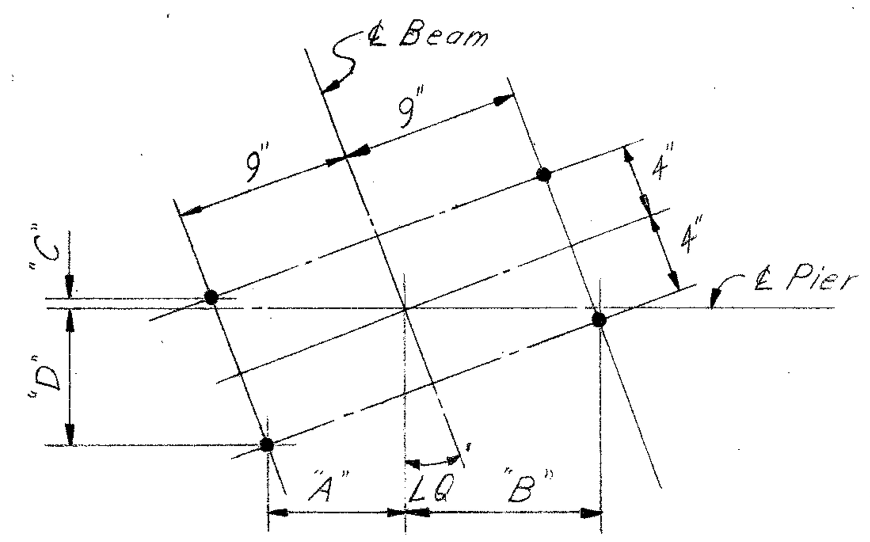
BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes. (Pier #2 only)

Pier #1 Piles of east row shall be battered at 1:4 towards east to oppose the sloped embankment.

All dimensions, bar-marks and elevations shown for both Piers except where shown in ( ) are for Pier #2 only.

For Working Points, see Beam Layout sheet 12/16

LOCATION	DIMENSIONS "A"	"B"	"C"	"D"	ANGLE ∠Q
Beam #1	7 5/16"	9 13/16"	1"	6 5/8"	18°08'11"
Beam #2	7 3/16"	9 13/16"	13/16"	6 3/4"	19°17'32"
Beam #3-#8	7 1/8"	9 13/16"	11/16"	6 13/16"	19°55'53"



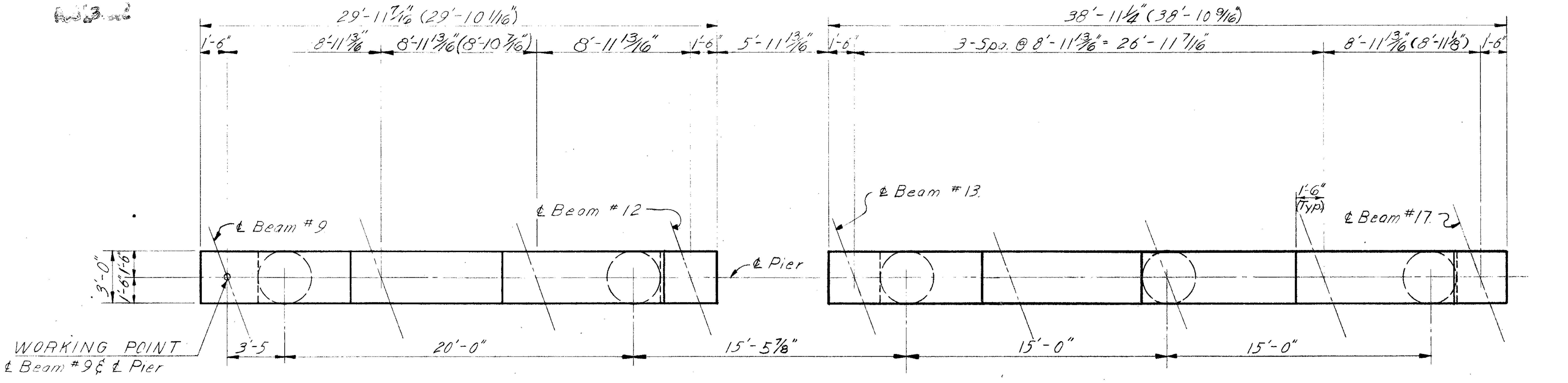
ANCHOR BOLT LAYOUT
PIER #2 ONLY

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

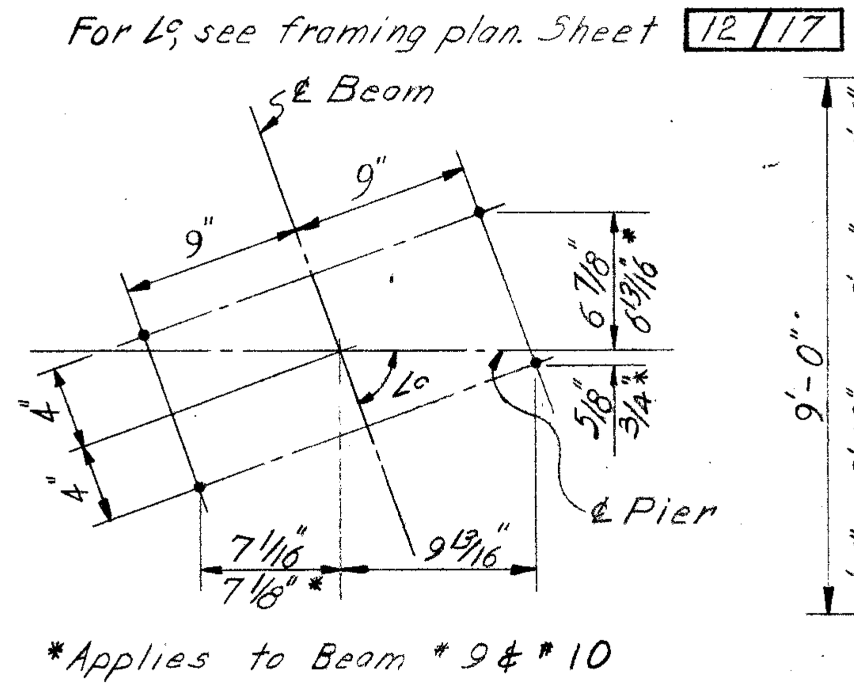
PIERS NO. 1 & 2 LEFT BRIDGE

BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J.R.P.	[signature]	9-26-69	



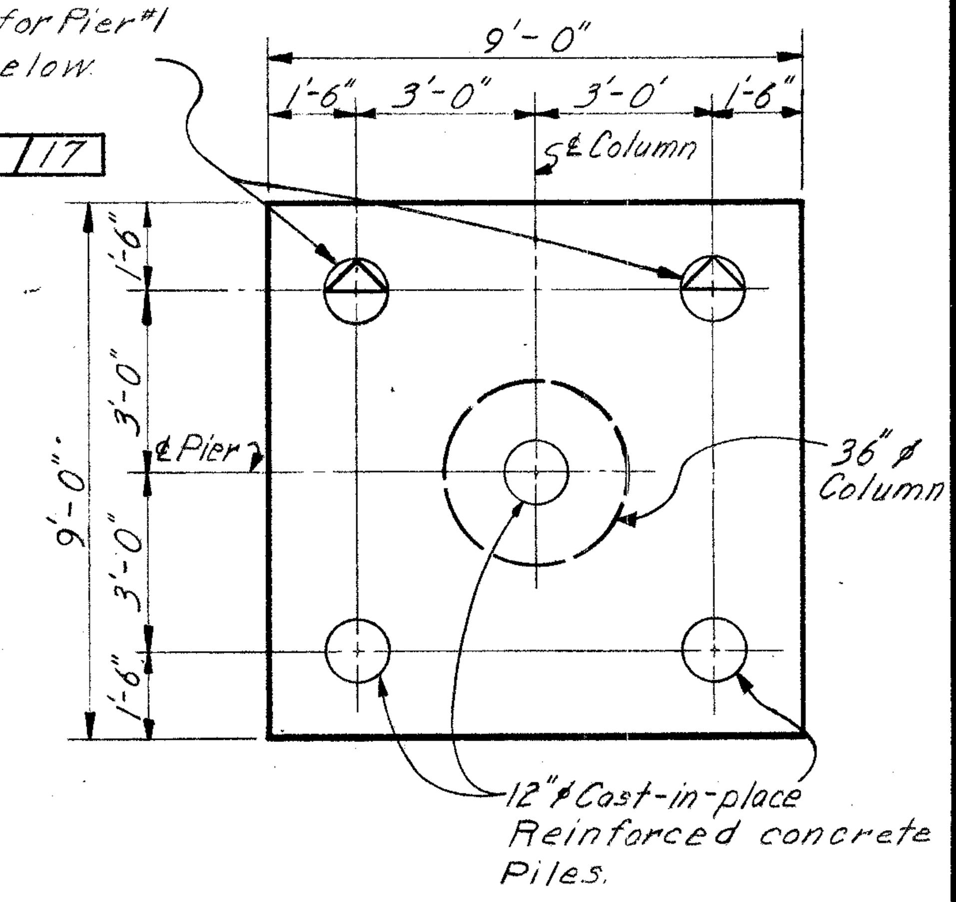
CAP PLAN - PIER #1 & #2 - RIGHT BRIDGE



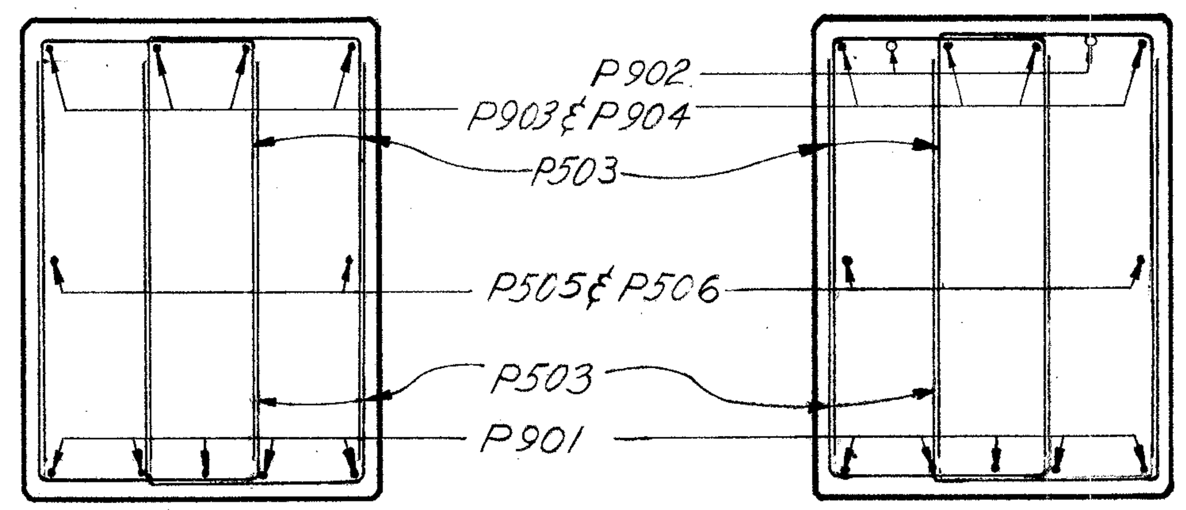
*Applies to Beam #9 & #10

ANCHOR BOLT LAYOUT

(Pier No. 2 Only)

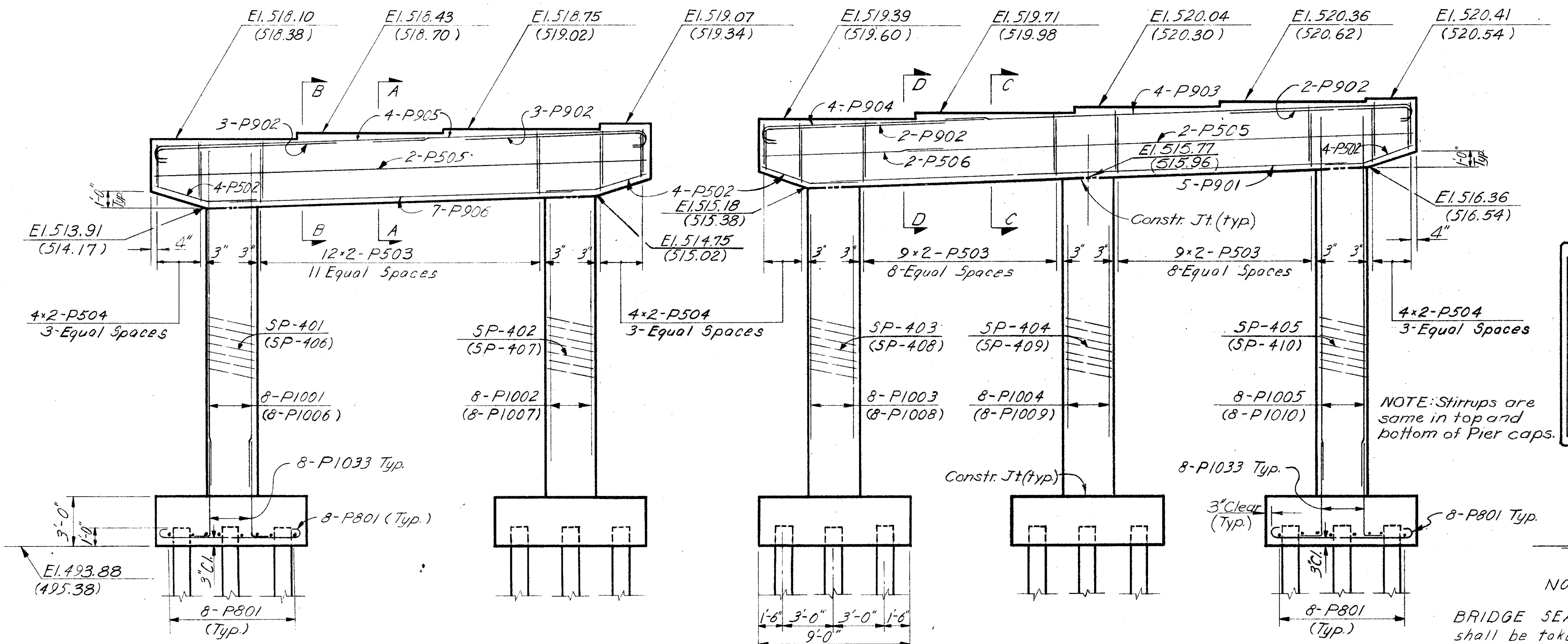


PLAN - FOOTING - TYPICAL

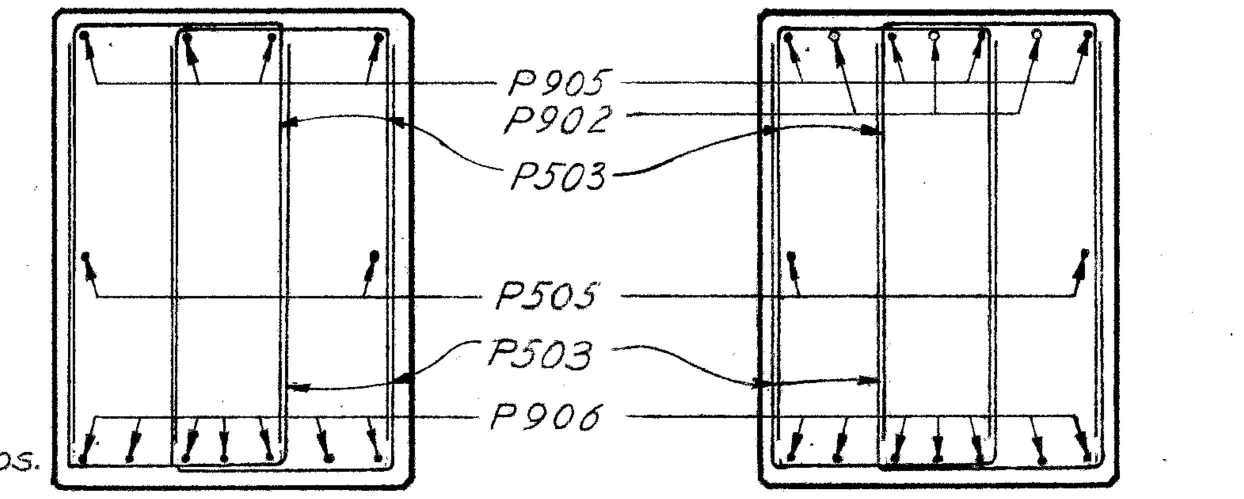


SECTION C-C

SECTION D-D



ELEVATION



SECTION A-A

SECTION B-B

NOTES:

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the Bridge Seat so as to avoid interference with the drilling of anchor bolt holes. (Pier #2 only)

Pier #1 Piles of east row shall be battered at 1:4 towards east to oppose the sloped embankment.

For Working Points, see Beam Layout sheet 12/16

9/16

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

PIERS NO. 1 & 2 RIGHT BRIDGE

BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J.R.P.	[signature]	9-26-69	

HAM - 275 - 03.86

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

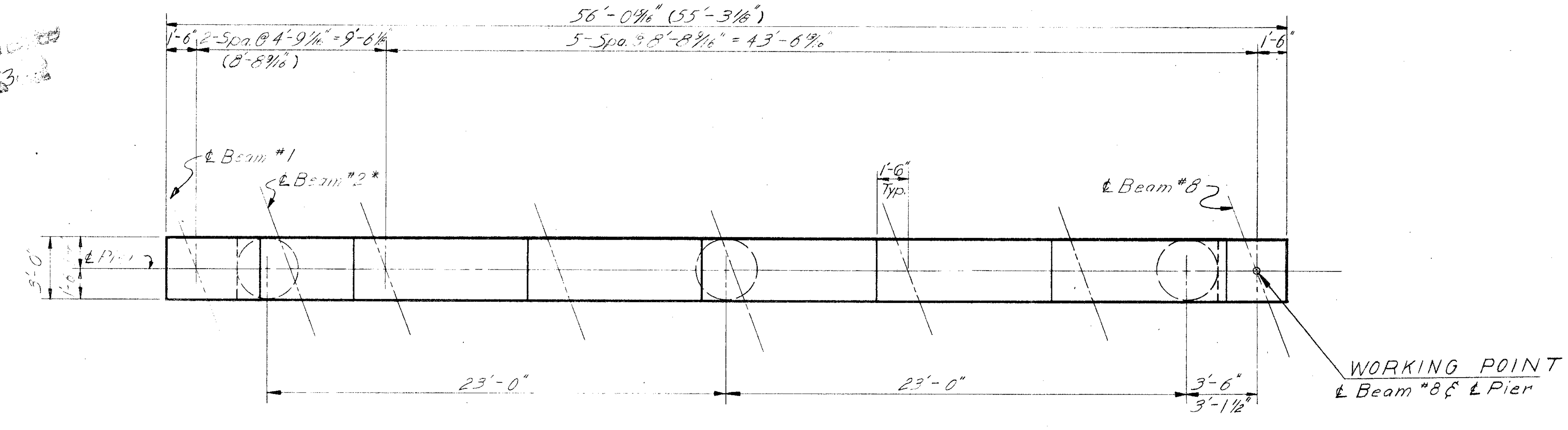
567/630

NOTES:

All dimensions, bar-marks and elevations shown are for both Piers except where shown in ( ) are for Pier #4 only.

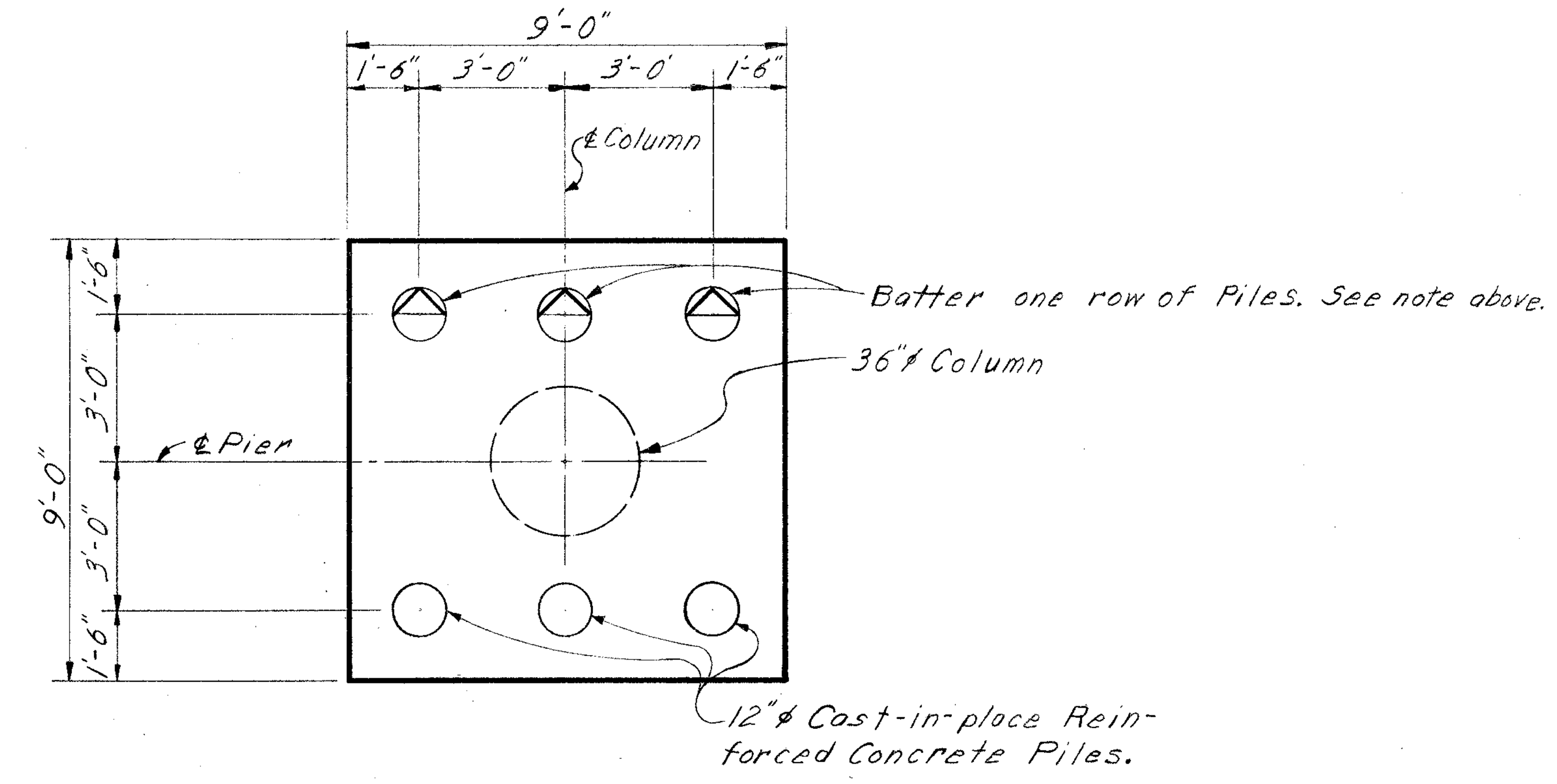
One row of Piles shall be battered at 1:4 to oppose the sloped embankment. Batter east row of Piles for Pier #3 and west row of Piles for Pier #4.

For Working Points, see Beam Layout sheet 12/16

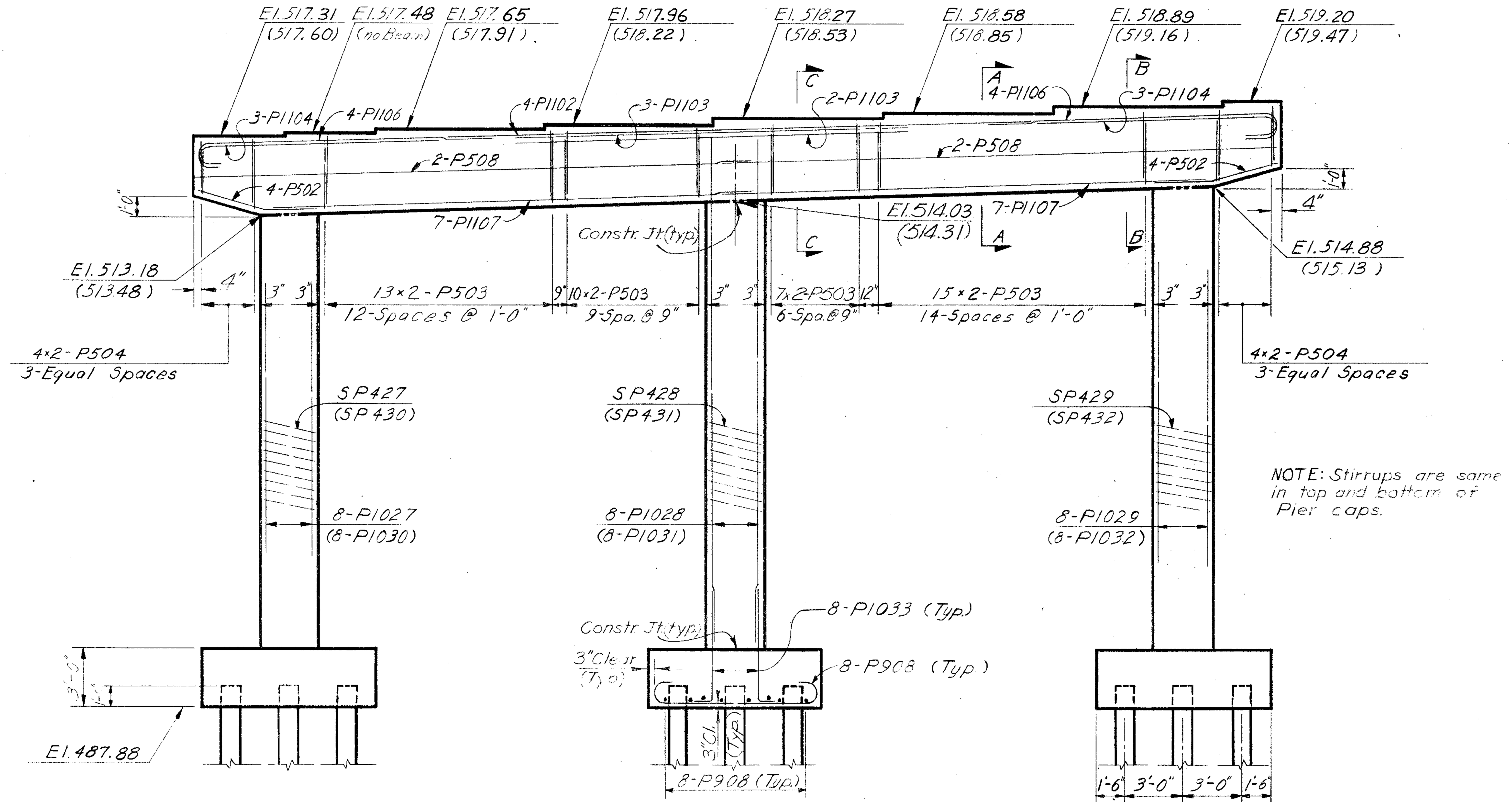


CAP PLAN - PIER #3 & #4 - LEFT BRIDGE

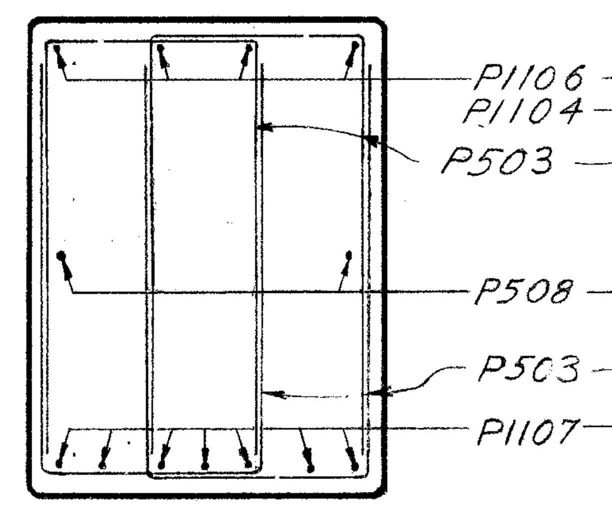
* There is no Beam #2 at Pier #4.



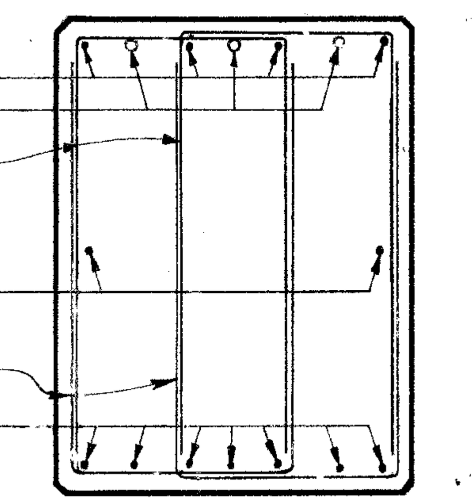
FOOTING PLAN - TYPICAL



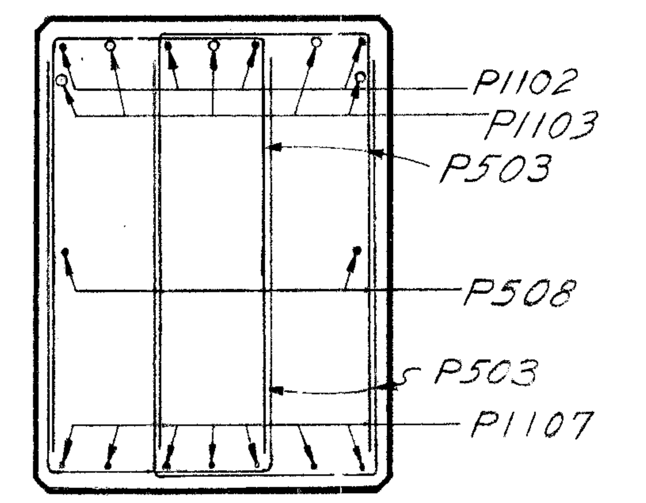
ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

10/16

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

PIERS NO. 3 & 4 LEFT BRIDGE

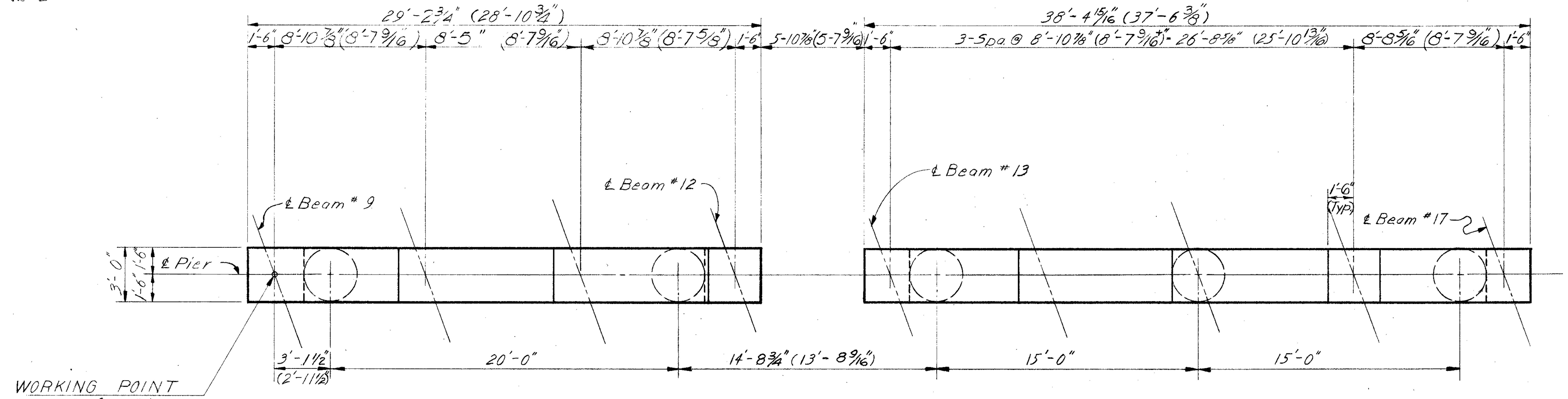
BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J.R.P.	[signature]	9-26-69	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

568/630

HAM-275-03.86



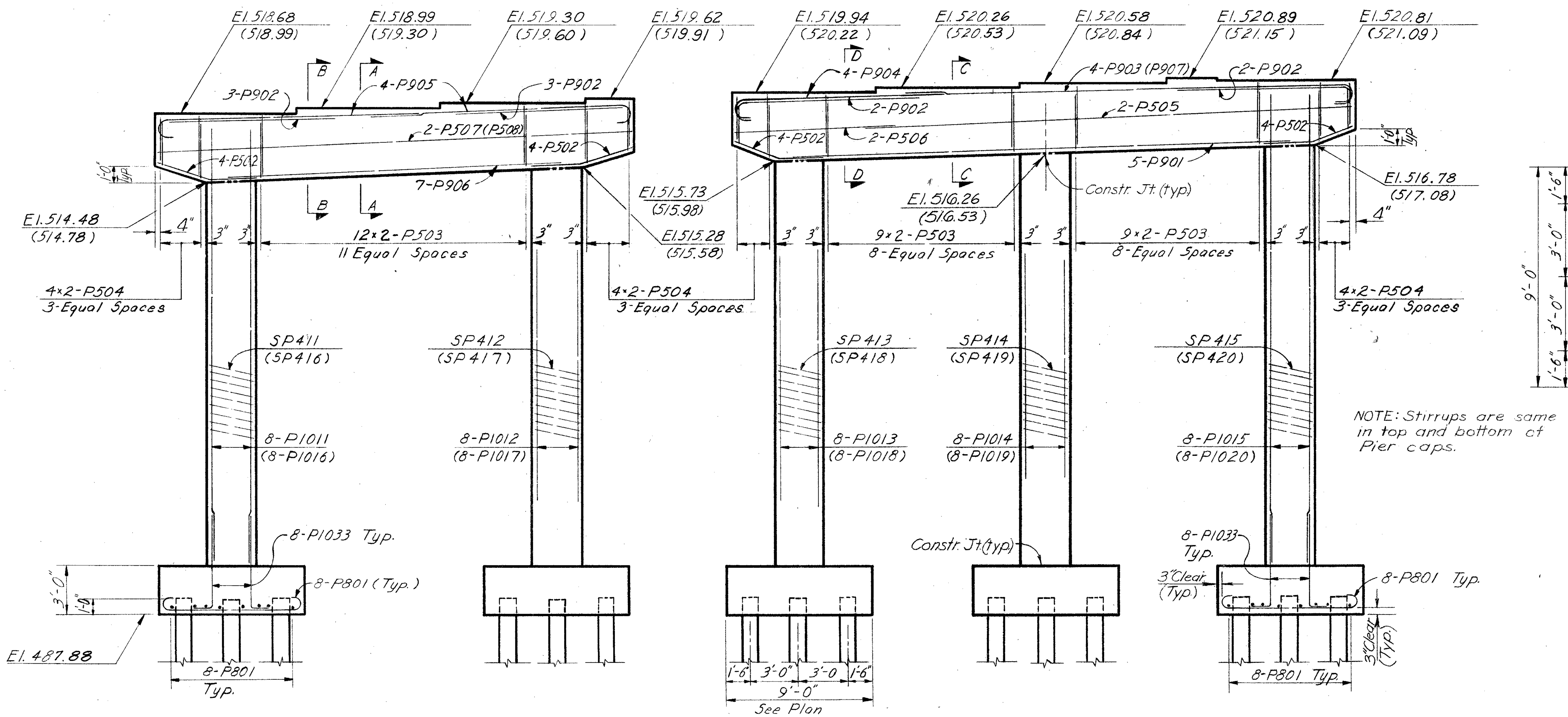
CAP PLAN - PIER #3 & #4 - RIGHT BRIDGE

NOTES:

One row of piles shall be battered at 1:4 to oppose the sloped embankment. Batter east row of piles for Pier #3 and west row of piles for Pier #4.

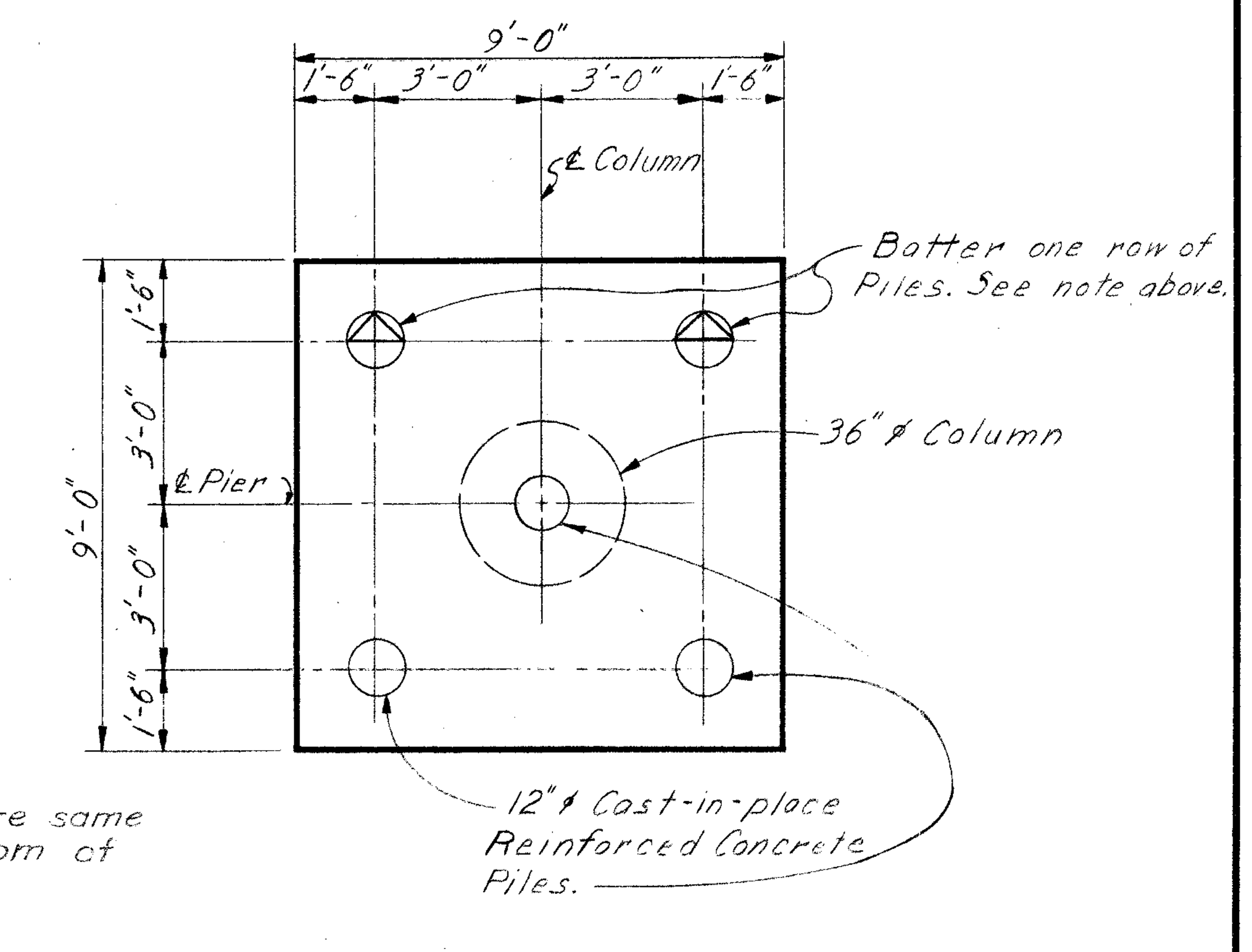
Sections A-A, B-B, C-C, and D-D are similar to those shown on sheet 9/16

All dimensions, bar marks and elevations shown are for both Piers except where shown in ( ) are for Pier #4 only. For Working Points, see Beam Layout sheet 12/16.



NOTE: Stirrups are same in top and bottom of Pier caps.

ELEVATION



FOOTING PLAN - TYPICAL

11/16

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

PIERS NO. 3 & 4 RIGHT BRIDGE

BRIDGE NO. HAM-275-0399 L/R
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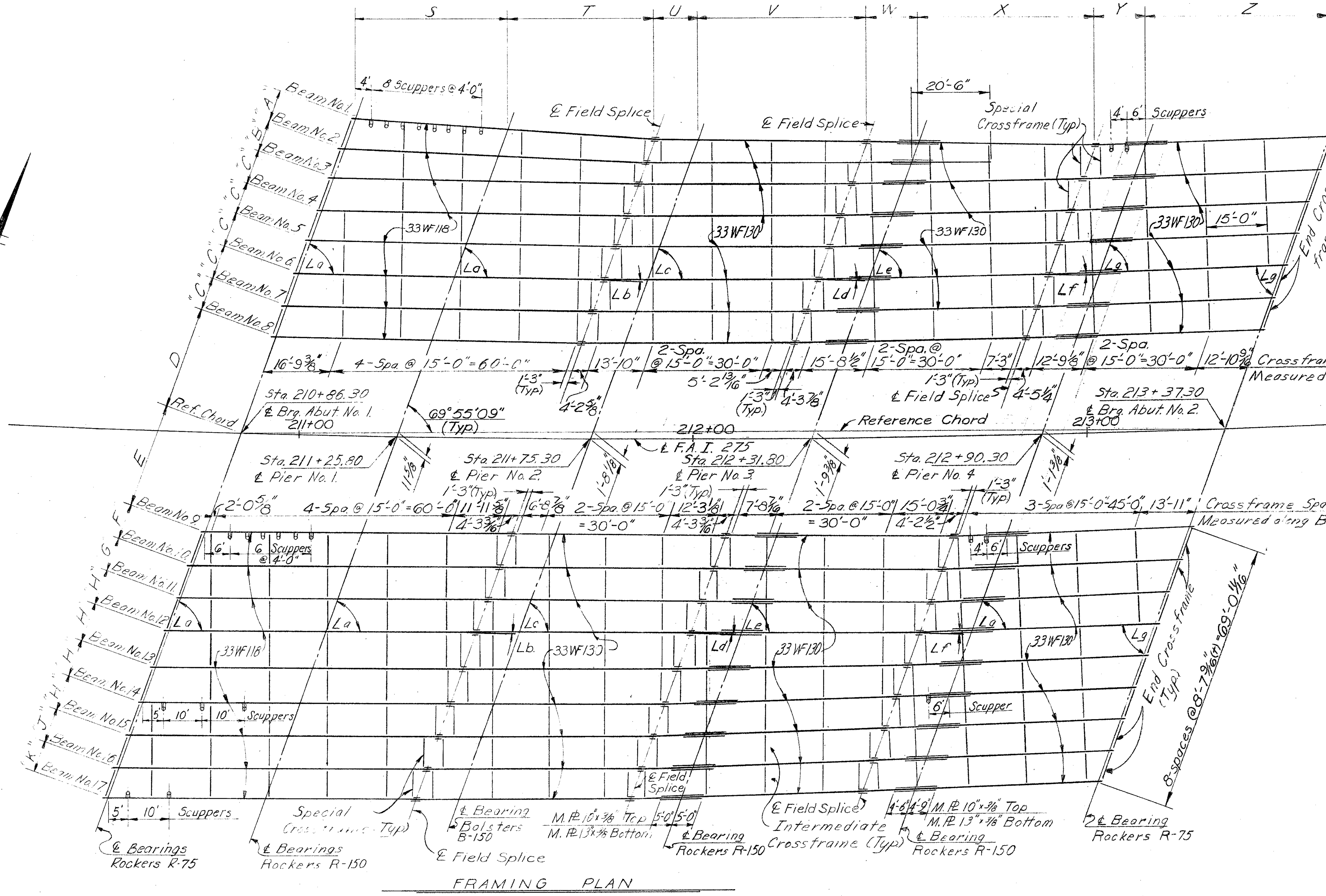
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J.R.P.		9-26-69	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

562/630

HAM-275-03.86



FRAMING PLAN

LOCATION	DIM. W
Beam No. 9	12'-10 11/16"
Beam No. 10	12'-11 1/16"
Beam No. 11	12'-10 13/16"
Beam No. 12	12'-11 1/8"
Beam No. 13	12'-11 7/16"
Beam No. 14	12'-11 3/4"
Beam No. 15	13'-0 1/8"
Beam No. 16	13'-0 7/16"
Beam No. 17	13'-0 7/8"

NOTES

HIGH STRENGTH BOLTS Shall be 1" diameter unless otherwise noted.

For End Dam, End Crossframe, Scuppers, and for welding of Moment Plates, see Std. Dwg SD-1-69.

For Rockers and Bolsters details, see Std. Dwg. RB-1-55

For Field Splice details, see sheet 14/16

For Intermediate and Special Crossframe details, see sheet 13/16

Dimensions D and E are measured along the ℄ of substructures between ℄ Beam and Reference Chord.

DIMENSIONS

LOCATION / DIMENSIONS	℄ Brg. Abut. #1	℄ Pier #1	℄ Pier #2	℄ Pier #3	℄ Pier #4	℄ Brg. Abut. #2
"A"	7'-9 1/16"	6'-9"	5'-7 1/16"	4'-9 1/16"	8'-5 5/16"	8'-8 9/16"
"B"	7'-9 1/16"	6'-9"	5'-7 1/16"	4'-9 1/16"		
"C"	8'-8 9/16"	8'-8 9/16"	8'-8 9/16"	8'-8 9/16"	8'-8 9/16"	8'-8 9/16"
"D"	26'-1 5/16"	25'-4 3/8"	24'-7 5/16"	24'-7 1/2"	25'-5"	26'-7 11/16"
"E"	27'-2 9/16"	27'-6 3/4"	28'-0"	23'-4 5/8"	28'-0 3/16"	26'-7 3/8"
"F"	8'-11 13/16"	8'-11 13/16"	8'-11 13/16"	8'-10 7/8"	8'-7 9/16"(+)	8'-7 9/16"(+)
"G"			8'-10 7/16"	8'-5" 5 5/8"		
"H"			8'-11 13/16"	8'-10 7/8"	8'-7 9/16"+	
"J"			8'-11 13/16"	8'-10 1/8"	8'-8 3/16"	
"K"	8'-11 13/16"	8'-11 13/16"	8'-11 1/8" 10 15/16"	8'-8 5/16" 11 1/16"	8'-7 9/16"(+)	8'-7 9/16"(+)

See other table, DIM. W

1°34'53"
1°14'10"

LOCATION	DIMENSIONS S	T	U	V	W	X	Y	Z	ANGLES La	Lb	Lc	Ld	Le	Lf	Lg
Beam No. 1	38'-11 9/16"	37'-10 3/8"	10'-10 7/8"	43'-0 1/2"	12'-11 7/16"	45'-2 5/8"	13'-0 9/16"	47'-0 9/16"	73°43'45"	1°51'56"	71°51'49"	1°30'39"	70°21'10"	1°51'11"	68°29'59"
Beam No. 2	39'-3"	38'-1 11/16"	10'-11 13/16"	56'-3 1/8"		—	—	—	72°21'19"	1°38'51"	70°42'28"	—	70°42'28"	—	—
Beam No. 3-No. 8	39'-6 7/8"	38'-5 1/2"	11'-0 5/16"	43'-6 1/8"	13'-0 3/8"	45'-6"	13'-0 1/2"	47'-0 7/16"	70°55'51"	0°51'44"	70°04'07"	0°41'33"	69°22'34"	0°51'13"	68°31'21"
Ref. Chord	39'-9 7/8"	49'-8 7/8"		5 15/16" 56'-6 7/16"		4" 58'-3 3/16"		46'-7 1/4"	69°55'09"	0	69°55'09"	0	69°55'09"	0	69°55'09"
Beam No. 9	39'-8 7/16"	38'-7"	11'-0 1/4"	43'-5 15/16"	~~12'-11 9/16"~~	45'-3 1/8"	13'-0 3/4"	47'-1 1/4"	70°23'32"	0	70°23'32"	0°27'07"	69°56'25"	1°37'11"	68°19'14"
Beam No. 10		0 1/4"	11'-0 1/2"	43'-6 7/8"	~~12'-11 9/16"~~	45'-3 1/8"	5 1/8"			0	70°23'32"	0°46'35"	69°36'57"	1°17'43"	
Beam No. 11			11'-0 3/4"	43'-7 3/4"	~~12'-11 15/16"~~	45'-4 1/2"				0°33'01"	69°50'31"	0°02'09"	69°48'22"	1°29'08"	
Beam No. 12					~~13'-0 1/4"~~	45'-5 5/8"					40'	0°21'33"	69°28'58"	1°09'44"	50'
Beam No. 13					~~13'-0 5/8"~~	45'-6 13/16"	10 1/8"					0°50'53"	69°09'38"	0°50'24"	0
Beam No. 14		1 1/16"		8 15/16" 7 3/4"	~~13'-1 5/16"~~	45'-8		10 13/16"	1"	53'44"	29'-48"	1°00'10"	68°56'21"	0°31'07"	11'
Beam No. 15			0 3/4"		~~13'-1 5/16"~~	45'-9 3/16"	13'-0 3/4"	47'-1 1/2"	1 1/2"			1°19'19"	68°31'12"	0°01'58"	68°19'14"
Beam No. 16			11'-0 1/2"	43'-6 7/8"	~~13'-1 5/8"~~	45'-10 3/8"	13'-0 13/16"	47'-1 1/2"		0°33'01"	69°50'31"	1°38'23"	68°12'08"	0°07'06"	68°15'38"
Beam No. 17	39'-8 7/16"	38'-7"	11'-0 3/4"	43'-7 1/4"	~~13'-1 7/8"~~	45'-10 5/8"	13'-0 3/4"	47'-1 1/4"	70°23'32"	0°49'21"	69°34'11"	1°26'08"	68°08'03"	0°11'11"	68°19'14"

15'38"

15'38"

12/16

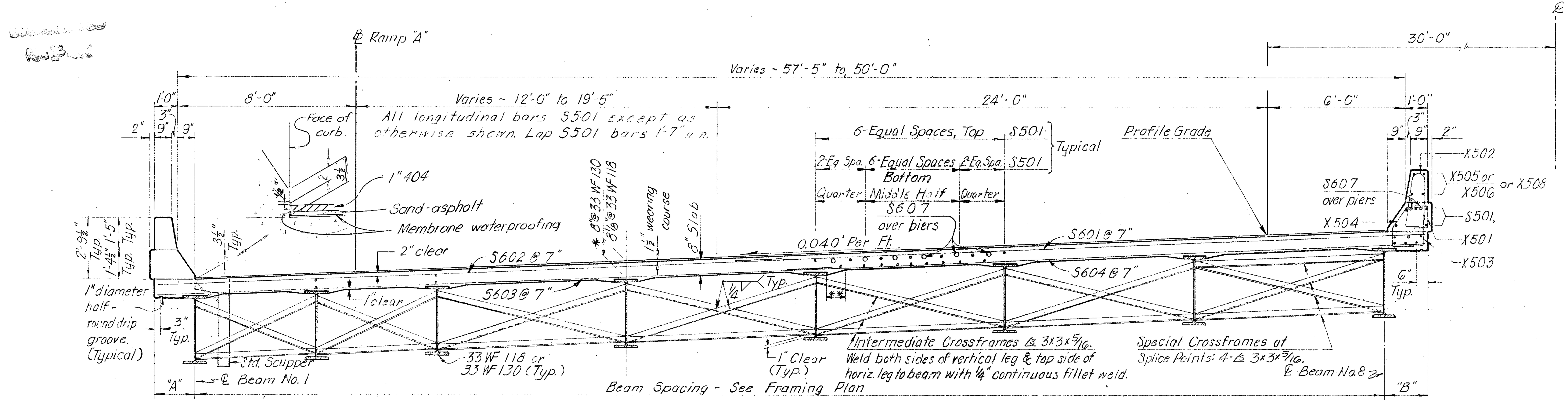
VOGT, IVERS, & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.
STA. 210+83.92
STA. 213+39.72
HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J.R.P.		9-26-69	6-26-74

HAM-275-03.86



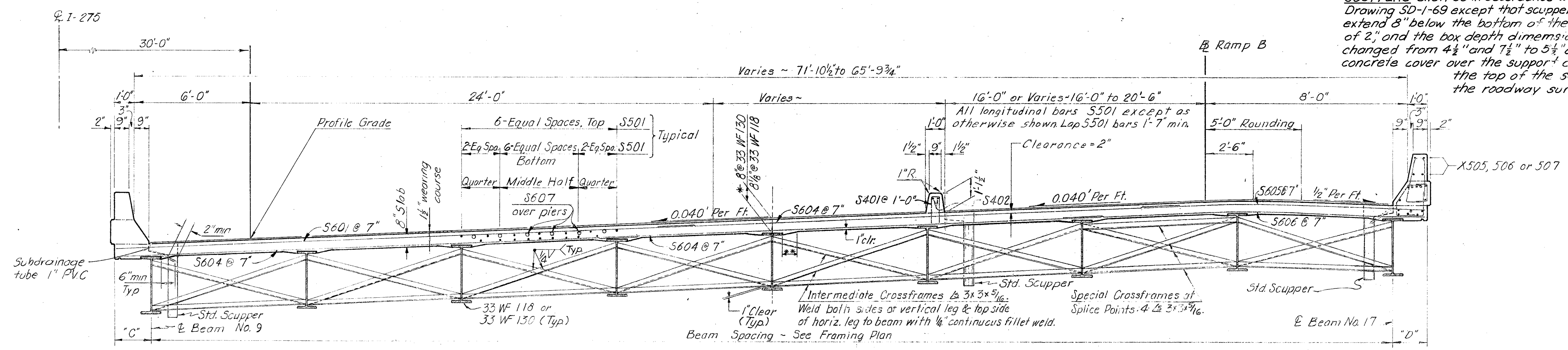
TRANSVERSE SECTION - LEFT BRIDGE

NOTES:

** A HAUNCH WIDTH of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

* DECK SLAB DEPTH: The distance shown from top of deck-slab to top of steel beam is the design dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

SCUPPERS shall be in accordance with Standard Drawing SD-1-69 except that scupper pipes shall extend 8" below the bottom of the beam instead of 2", and the box depth dimensions shall be changed from 4½" and 7½" to 5½" and 8½" to insure concrete cover over the support angles. Place the top of the scupper ½" below the roadway surface



TRANSVERSE SECTION - RIGHT BRIDGE

For large values of C and D, the subdrainage tube may discharge on the fascia side of the beam.
See Sheet 12/16 for additional subdrainage details

DIMENSIONS

Location / Dimensions	℄ Bearing Abut #1	℄ Pier #1	℄ Pier #2	℄ Pier #3	℄ Pier #4	℄ Bearing Abut #2
"A"	1'-9"	1'-5⅜"	1'-9"	1'-9"	1'-9"	1'-9"
"B"	1'-9"	1'-10¾"	1'-9"	1'-9"	1'-9"	1'-9"
"C"	2'-9¾"	2'-1¾"	1'-9⅝"	1'-11½"	2'-1⅜"	1'-9"
"D"	2'-9¾"	2'-3¼"	1'-9 9⅛"	1'-9 9⅜"	2'-1⅜ 0⅞"	1'-9"

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-275-0399 L/R
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KILBY ROAD & PENN CENTRAL CO.
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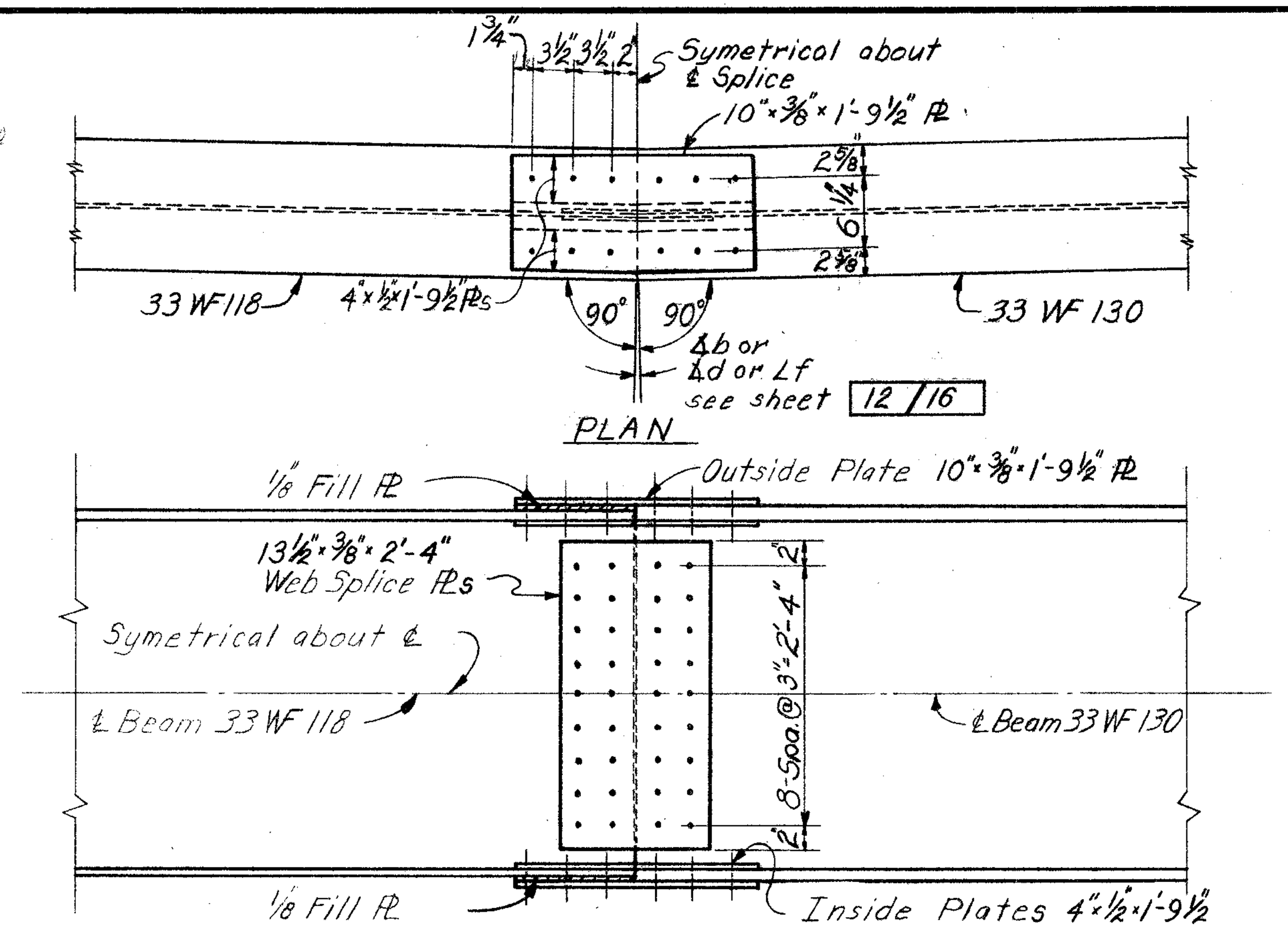
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	D.W.M.	-	J.R.P.	[signature]	9-26-69	6-26-74

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

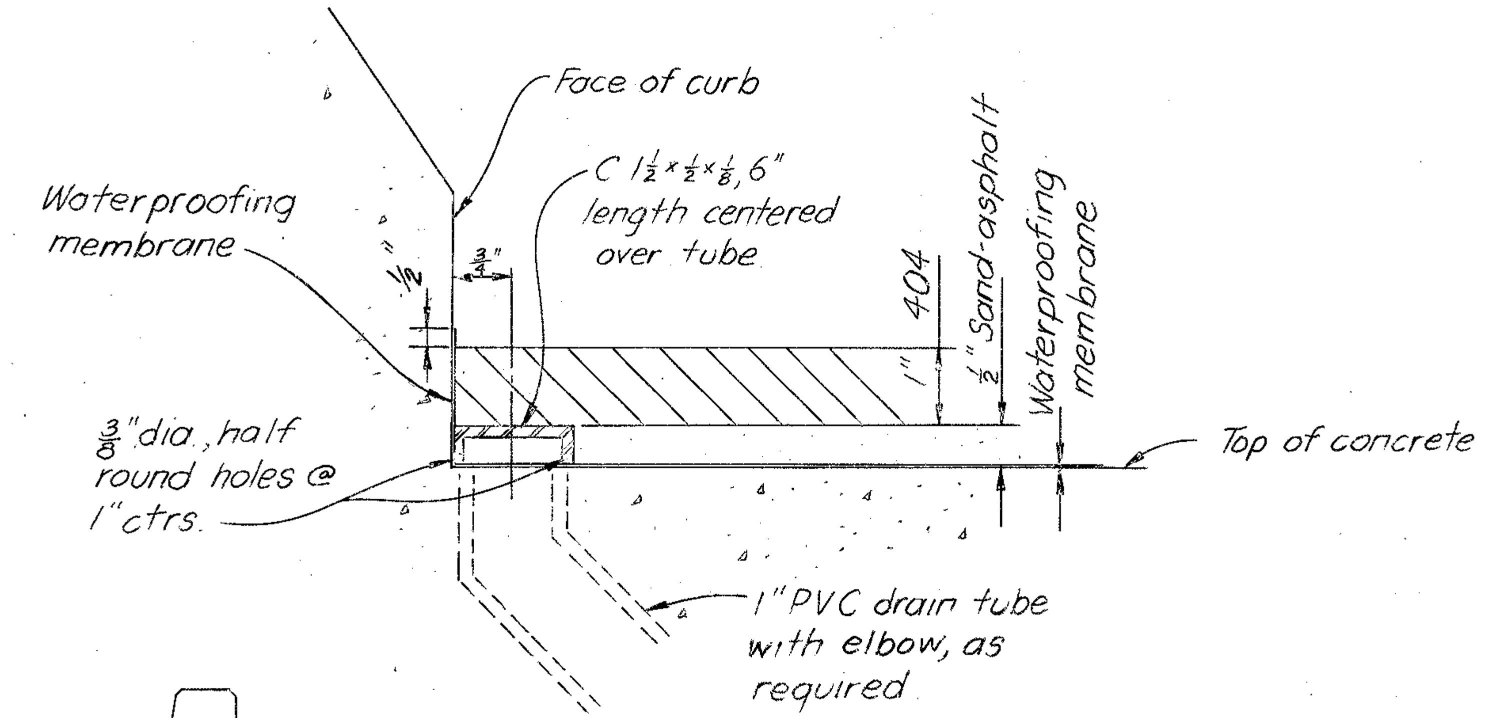
571/630

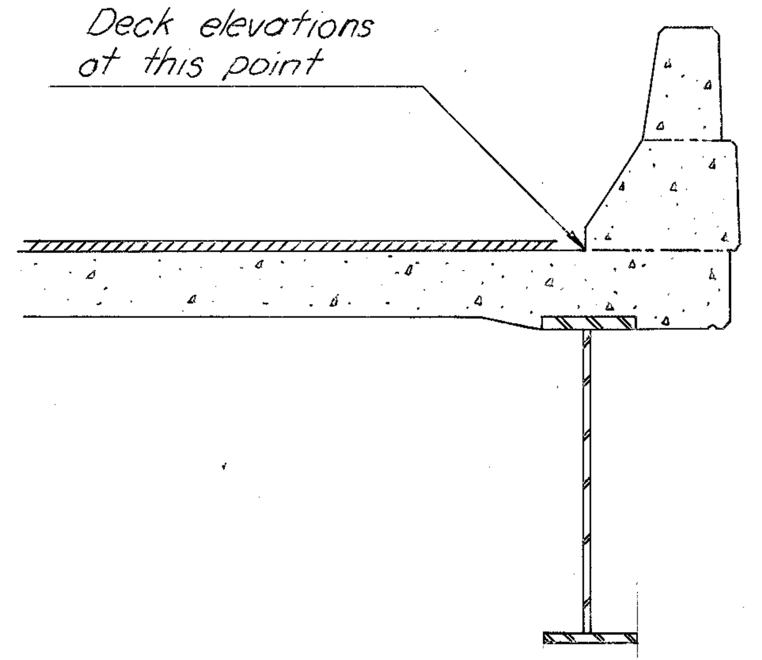
HAM-275-03.86



The Splice of 33 WF 130 with 33 WF 130, as shown on Std. Dwg. SD-1-69 and similar to this detail with offset Δd or Δf.

FIELD SPLICE DETAIL



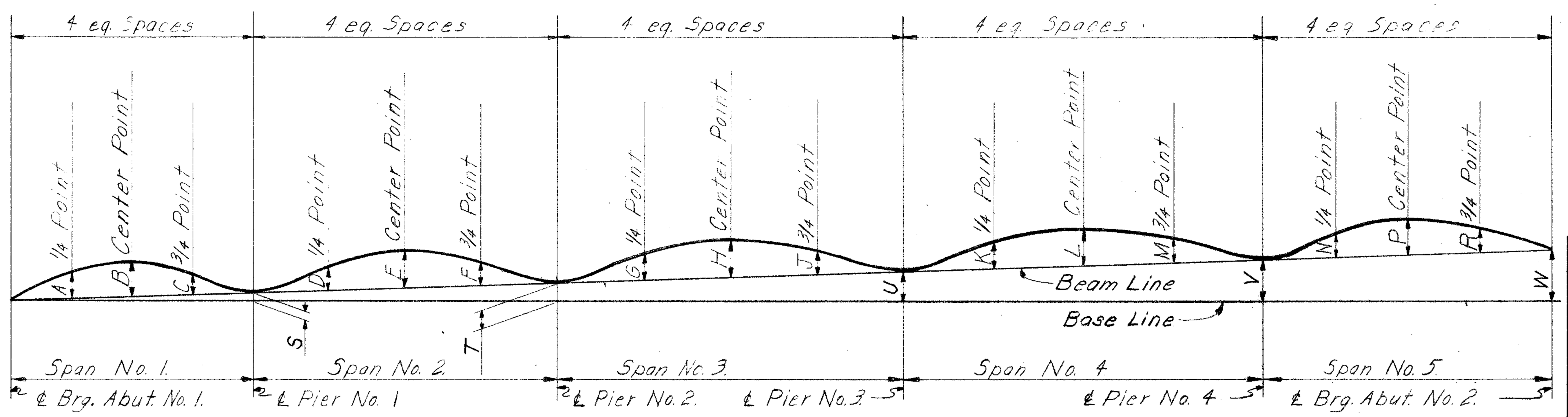


SUBDRAINAGE DETAILS

In addition to the location and spacing provisions of 518.07, the tubes shall clear cross bracing by at least 6". Place the top of the 1" PVC pipes flush with the concrete surface. Place the waterproofing membrane over the tube, puncturing if the membrane is a sheet type, with a neat hole sealed around the lip of the tube. Do not use the angle specified in 518.07. Place a 6" length of galvanized channel, 1½×½×⅛ (need not be A36) centered over each tube. Include with item 404 for payment.

DECK ELEVATION				
LOCATION	LEFT BRIDGE		RIGHT BRIDGE	
	Outside Curb	Median Curb	Median Curb	Outside Curb
℄ Brg. Abut. No. 1	520.78	522.91	522.39	524.79
¼ Point	520.87	522.98	522.46	524.83
Center of Span 1	520.96	523.04	522.52	524.87
¾ Point	521.03	523.09	522.58	524.90
℄ Pier No. 1	521.12	523.16	522.63	524.93
¼ Point	521.23	523.23	522.71	524.97
Center of Span 2	521.33	523.31	522.79	525.01
¾ Point	521.42	523.38	522.86	525.05
℄ Pier No. 2	521.51	523.46	522.93	525.10
¼ Point	521.63	523.56	523.03	525.18
Center of Span 3	521.74	523.65	523.12	525.26
¾ Point	521.82	523.72	523.20	525.32
℄ Pier No. 3	521.89	523.79	523.27	525.39
¼ Point	521.98	523.87	523.36	525.47
Center of Span 4	522.07	523.95	523.44	525.55
¾ Point	522.13	524.00	523.50	525.61
℄ Pier No. 4	522.18	524.06	523.56	525.66
¼ Point	522.23	524.11	523.61	525.71
Center of Span 5	522.28	524.16	523.67	525.77
¾ Point	522.31	524.20	523.71	525.80
℄ Brg. Abut. No. 2	522.33	524.22	523.74	525.82

The above deck elevations, are control elevations to which screeds must be set. The proper allowance has been made for the anticipated dead load deflection caused by the weight of the concrete.



CAMBER DIAGRAM

DIMENSIONS																	
Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12	Beam 13	Beam 14	Beam 15	Beam 16	Beam 17
S	0'-3 13/16"	0'-3 3/8"	0'-2 15/16"	0'-2 15/16"	0'-2 7/8"	0'-2 7/8"	0'-2 7/8"	0'-2 7/8"	0'-2 9/16"	0'-2 3/8"	0'-2 1/4"	0'-2 13/16"	0'-2 1/2"	0'-2 3/4"	0'-2 11/16"	0'-2 7/16"	0'-1 3/8"
T	0'-8 11/16"	0'-7 11/16"	0'-6 3/4"	0'-6 11/16"	0'-6 11/16"	0'-6 5/8"	0'-6 9/16"	0'-6 9/16"	0'-6"	0'-5 13/16"	0'-5 5/8"	0'-5 1/2"	0'-5 13/16"	0'-6 1/16"	0'-5 7/8"	0'-5 11/16"	0'-3 1/8"
U	1'-1 1/4"	0'-11 15/16"	0'-10 5/8"	0'-10 5/8"	0'-10 9/16"	0'-10 9/16"	0'-10 1/2"	0'-10 1/2"	0'-10 1/16"	0'-9 13/16"	0'-9 5/8"	0'-9 7/16"	0'-9 5/8"	0'-9 3/4"	0'-9 7/16"	0'-9 7/16"	0'-6 11/16"
V	1'-4 5/8"	–	1'-1 3/4"	1'-1 3/4"	1'-1 3/4"	1'-1 3/4"	1'-1 3/4"	1'-1 11/16"	1'-1 11/16"	1'-1 1/2"	1'-1 5/16"	1'-1 1/8"	1'-0 15/16"	1'-0 11/16"	1'-0 1/2"	1'-0 1/4"	0'-10 11/16"
W	1'-6 7/16"	–	1'-3 9/16"	1'-3 9/16"	1'-3 9/16"	1'-3 5/8"	1'-3 5/8"	1'-3 5/8"	1'-3 5/8"	1'-3 1/2"	1'-3 5/16"	1'-3 3/16"	1'-3"	1'-2 13/16"	1'-2 9/16"	1'-2 3/8"	0'-11 7/8"

DEFLECTION AND CAMBER															
LOCATION	SPAN NO. 1			SPAN NO. 2			SPAN NO. 3			SPAN NO. 4			SPAN NO. 5		
	¼ Point A	Ctr. Point B	¾ Point C	¼ Point D	Ctr. Point E	¾ Point F	¼ Point G	Ctr. Point H	¾ Point J	¼ Point K	Ctr. Point L	¾ Point M	¼ Point N	Ctr. Point P	¾ Point R
Deflection due to weight of steel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deflection due to remaining dead load	1/8	1/8	1/16	1/16	1/16	0	1/8	1/4	1/8	1/8	3/16	1/8	1/16	1/4	3/16
Adjustment required for Vertical Curve	0	0	0	0	0	0	0	1/16	0	1/16	1/8	1/16	1/16	1/16	1/16
Adjustment required for Horizontal Curve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Required Shop Camber	1/8	1/8	1/16	1/16	1/16	0	1/8	5/16	1/8	3/16	5/16	3/16	1/8	5/16	1/4

NOTE

Camber at Splice point and ¼ point is same.

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS

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DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J. R. P.		9-26-69	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

572/630

HAM - 275 - 03.86

15/16

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS

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DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S. C.	S. C.	W. G.	J.R.P.		9-26-69	

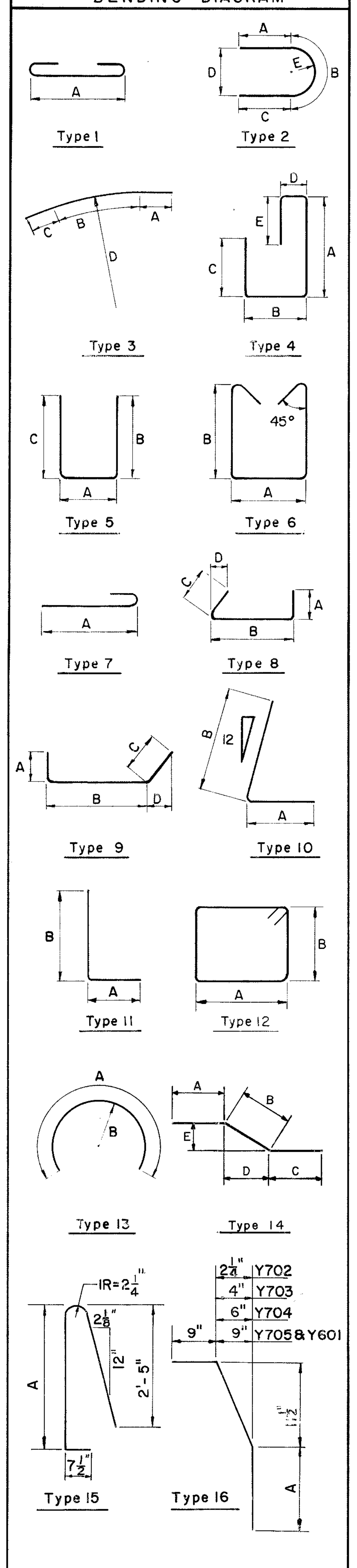
REINFORCING STEEL LIST

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

573/630

HAM - 275 - 03.86

BENDING DIAGRAM



S IN THE COLUMN FOR "TYPE" INDICATES STRAIGHT BARS.

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
		ABUTMENT NO. 1							
A501	88	8-3	757	5	5-4	1-7	1-7		
A502	88	7-0	642	11	0-7½	6-6			
A503	88	8-2	750	5	3-5	2-6	2-6		
A504	47	30-0	1471	S					
A505	31	20-0	647	S					
A506	16	15-0	250	S					
A507	1	23-6	25	S					
A508	2	6-6	14	S					
A509	8	8-6	71	9	0	6-11	1-7	1-3	
A510	32	10-6	350	12	3-0	2-0			
A511	28	4-11to6-11	173	5	1-2	2-0to3-0	2-0to3-0	4each, Vary B&C by 2"	
A512	16	8-2	136	S					
A513	8	7-0	58	S					
A514	24	13-8	342	S					
A515	18	9-0	169	S					
A601	88	14-2	1873	5	5-4	2-7	6-7		
A602	133	10-1	2014	5	1-5	4-6	4-6		
A603	92	5-1	702	5	1-5	2-0	2-0		
A604	92	7-3	1002	5	0-11	3-4	3-4		
A605	41	7-9	477	5	1-5	3-4	3-4		
A606	16	20-0	481	5	1-2	9-7	9-7		
A607	16	21-10	525	5	1-2	10-6	10-6		
A801	8	7-3	155	14	2-6	2-3	2-6	2-0	1-0
A802	14	30-0	1121	S					
A803	14	12-0	449	S					
A804	7	28-6to29-6	542	S	1each	Vary by 2"			
A805	7	33-0to34-0	626	S	1each	Vary by 2"			
A806	12	11-0	352	S					
A807	12	12-0	384	S					
Y501	44	2-0	92	5	1-0	0-7½	0-7½		
Y502	40	2-9	115	S					
Y503	24	6-0	150	15	3-0				
Y504	32	13-8	456	S					
Y505	8	7-3	60	S					
Y506	8	8-0	67	S					
Y507	44	2-10	130	S					
Y601	24	5-0	180	16	3-2				
Y701	4	4-4	35	S					
Y702	4	4-9	39	16	3-2				
Y703	4	4-10	40	16	3-2				
Y704	4	4-11	40	16	3-2				
Y705	4	5-0	41	16	3-2				
Sub Total Abutment No.1			18,003						
		ABUTMENT NO. 2							
B501	84	8-3	723	5	5-4	1-7	1-7		
B502	84	7-0	613	11	0-7½	6-6			
B503	84	8-2	716	5	3-5	2-6	2-6		
B504	47	30-0	1471	S					
B505	15	26-9	419	S					
B506	2	14-0	29	S					
B507	2	6-6	14	S					
B508	1	18-6	19	S					
B509	15	15-2	237	S					
B510	32	10-6	350	12	3-0	2-0			
B511	28	4-11to6-11	173	5	1-2	2-0 to 3-0	2-0 to 3-0	4each, Vary B&C by 2"	
B512	18	8-2	153	S					
B513	8	7-0	58	S					
B514	24	13-8	342	S					
B515	16	9-6	159	S					
B516	8	8-6	71	9	0	6-11	1-7	1-3	
B601	84	14-2	1787	5	5-4	2-7	6-7		
B602	121	10-1	1833	5	1-5	4-6	4-6		
B603	80	5-1	611	5	1-5	2-0	2-0		
B604	80	7-3	871	5	0-11	3-4	3-4		
B605	41	7-9	477	5	1-5	3-4	3-4		
B606	16	20-0	481	5	1-2	9-7	9-7		
B607	16	21-10	525	5	1-2	10-6	10-6		
B801	8	7-3	155	14	2-6	2-3	2-6	2-0	1-0

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
B802	7	34-6 to 35-6	654	S	1 each	Vary by 2"			
B803	7	21-0to22-0	402	S	1 each	Vary by 2"			
B804	7	34-0 to 35-0	645	S	1 each	Vary by 2"			
B805	7	30-0	561	S					
B806	7	12-6	234	S					
B807	12	11-0	352	S					
B808	12	12-0	384	S					
Y501	44	2-0	92	5	1-0	0-7½	0-7½		
Y502	40	2-9	115	S					
Y503	24	6-0	150	15	3-0				
Y504	32	13-8	456	S					
Y505	8	7-3	60	S					
Y506	8	8-0	67	S					
Y507	44	2-10	130	S					
Y601	24	5-0	180	16	3-2				
Y701	4	4-4	35	S					
Y702	4	4-9	39	16	3-2				
Y703	4	4-10	40	16	3-2				
Y704	4	4-11	40	16	3-2				
Y705	4	5-0	41	16	3-2				
Sub Total Abutment No2			16,964						
Total Abutments			34,967						
		PIERS							
P501	80	6-7 to 8-3	619	5	1-10	2-6 to 3-4	2-6 to 3-4	B&C	vary by 2½"
P502	96	6-0	601	9	0	3-0	3-0	2-6	
P503	1216	8-3	10463	5	1-10	3-4	3-4		
P504	320	6-7 to 8-1	2447	5	1-10	2-6 to 3-3	2-6 to 3-3	vary B&C	by 3"
P505	20	29-6	615	S					
P506	8	10-6	88	S					
P507	2	29-0	60	S					
P508	10	28-6	297	S					
P801	320	10-8	9114	1	8-6				
P901	20	30-0	2040	S					
P902	40	12-0	1632	7	10-9				
P903	12	28-0	1142	7	26-9				
P904	16	16-0	870	7	14-9				
P905	32	17-9	1931	7	16-3				
P906	28	20-0	1904	S					
P907	4	26-6	360	7	25-3				
P908	192	11-0	7180	1	8-6				
P1001	8	20-3	697	S					
P1002	8	21-1	726	S					
P1003	8	21-6	740	S					
P1004	8	22-2	763	S					
P1005	8	22-9	783	S					
P1006	8	19-0	654	S					
P1007	8	19-11	686	S					
P1008	8	20-3	697	S					
P1009	8	20-10	717	S					
P1010	8	21-5	737	S					
P1011	8	26-9	921	S					
P1012	8	27-7	950	S					
P1013	8	28-0	964	S					
P1014	8	28-6	981	S					
P1015	8	29-0	998	S					
P1016	8	27-0	929	S					
P1017	8	27-10	958	S					
P1018	8	28-3	972	S					
P1019	8	28-9	990	S					
P1020	8	29-3	1007	S					
P1021	8	18-9	645	S					
P1022	8	19-7	674	S					
P1023	8	20-6	706	S					
P1024	8	17-7	605	S					
P1025	8	18-5	634	S					
P1026	8	19-3	663	S					
P1027	8	25-5	875	S					

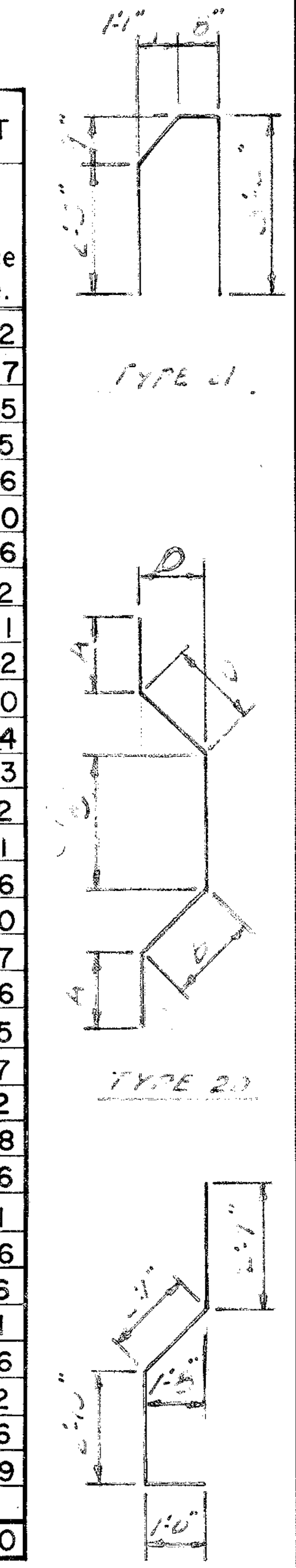
MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
P1028	8	26-3	904	S					
P1029	8	27-1	932	S					
P1030	8	25-9	886	S					
P1031	8	26-6	912	S					
P1032	8	27-3	938	S					
P1033	256	7-0	7711	11	1-4½	5-11			
P1101	28	25-0	3719	S					
P1102	16	30-0	2550	S					
P1103	20	20-0	2125	S					
P1104	24	15-0	1913	7	13-5				
P1105	16	20-0	1700	7	18-5				
P1106	16	18-0	1530	7	16-5				
P1107	28	24-0	3570	S					
		Sub Total	92,425						
		Spirals	12 390						
		Total Piers	104,815						
		SUPERSTRUCTURE							
X501	676	2-0	1410	5	1-0	0-7½	0-7½		
X502	676	5-4	3760	18					
X503	676	2-0	1410	11	1-6				
X504	676	3-3	2291	17	0-9				
X505	160	14-8	2448	S					
X506	112	7-0	818	S					
X507	56	7-1	414	S					
X508	56	6-10	399	S					
S501	2091	30-0	65427	S					
S502	111	24-6	2836	S					
S503	141	26-6	3897	S					
S601	930	32-0	44700	S					
S602	400	22-6to29-0	15471	S	10each	Vary by 2"			
S603	400	26-6to33-0	17874	S	10each	Vary by 2"			
S604	1600	28-0	67290	S					
S605	400	11-0to17-6	8561	S	10 each	Vary by 2"			
S606	400	15-0to21-6	10965	S	10 each	Vary by 2"			
S607	396	23-0	13680	S					
S608	22	5-0to19-2	399	S	2 each	Vary by 1'-5"			
S609	42	5-0to33-4	1209	S	2 each	Vary by 1'-5"			
S610	36	5-0to33-4	1036	S	2 each	Vary by 1'-8"			
S611	28	5-0to26-8	666	S	2 each	Vary by 1'-8"			
S612	80	5-0to33-6	2313	S	4 each	Vary by 1'-6"			
S613	34	5-0to33-0	970	S	2 each	Vary by 1'-9"			
S614	40	5-0to38-3	1299	S	2 each	Vary by 1'-9"			
S401	255	3-0	511	5	0-5	1-4	1-4		
S402	16	30-0	321	S					
S403	2	22-6	30	S					
Total		Superstructure	272405						
		REPLACEMENT BARS							
RE401	1	6-3	—	S					
RE501	6	6-7	—	S					
RE601	10	6-11	—	S					
RE701	1	7-2	—	S					
RE801	1	7-6	—	S					
RE901	1	7-10	—	S					
RE1001	2	8-2	—	S					
RE1101	1	8-6	—	S					
RESP401	1	6-3	—	13					
		[illegible] for Sign No. 100							
S501	2	10'-4"	22	12	2'-6"	2'-5"			
S502	4	12'-1"	54	20	1'-7"	3'-6"	2'-9"	2'-6"	
S701	4	8'-6"	69	19					
S702	2	16'-11"	69	20	2'-3"	4'-1"	2'-9"	3'-3"	
S703	4	6'-5"	52	5	1'-9	2'-6"	2'-6"		
S704	4	7'-4"	60	21					

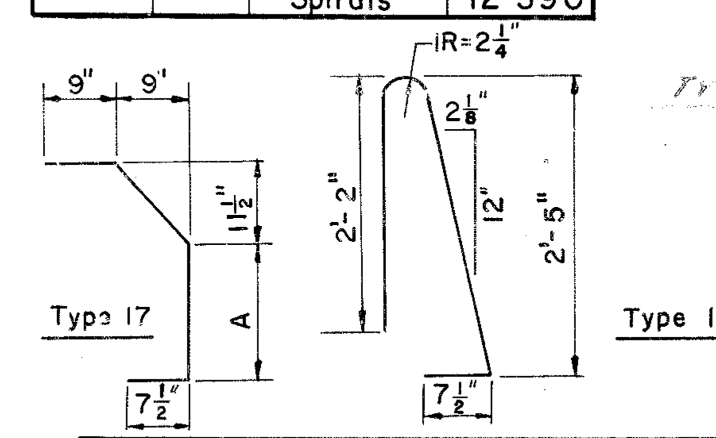
Revised [illegible]

NOTES

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size.

MARK	NO.	LENGTH (HEIGTH)	WEIGHT
SPIRALS - Core Diam. 32" c/c – Pitch 4½" o/o – Other details in accordance with C.R.S.I. standard practice.			
SP401	1	17-1	322
SP402	1	17-11	337
SP403	1	18-4	345
SP404	1	18-11	355
SP405	1	19-6	366
SP406	1	15-10	300
SP407	1	16-9	316
SP408	1	17-1	322
SP409	1	17-7	331
SP410	1	18-2	342
SP411	1	23-8	440
SP412	1	24-5	454
SP413	1	24-11	463
SP414	1	25-5	472
SP415	1	25-11	481
SP416	1	24-0	446
SP417	1	24-9	460
SP418	1	25-2	467
SP419	1	25-8	476
SP420	1	26-2	485
SP421	1	15-8	297
SP422	1	16-6	312
SP423	1	17-5	328
SP424	1	14-6	276
SP425	1	15-4	291
SP426	1	16-2	306
SP427	1	22-4	416
SP428	1	23-2	431
SP429	1	24-0	446
SP430	1	22-8	422
SP431	1	23-5	436
SP432	1	24-2	449
		Spirals	12 390





16 / 16

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-275-0399 L/R
F. A. I. ROUTE 275 over
KILBY ROAD & PENN CENTRAL CO.

HAMILTON COUNTY

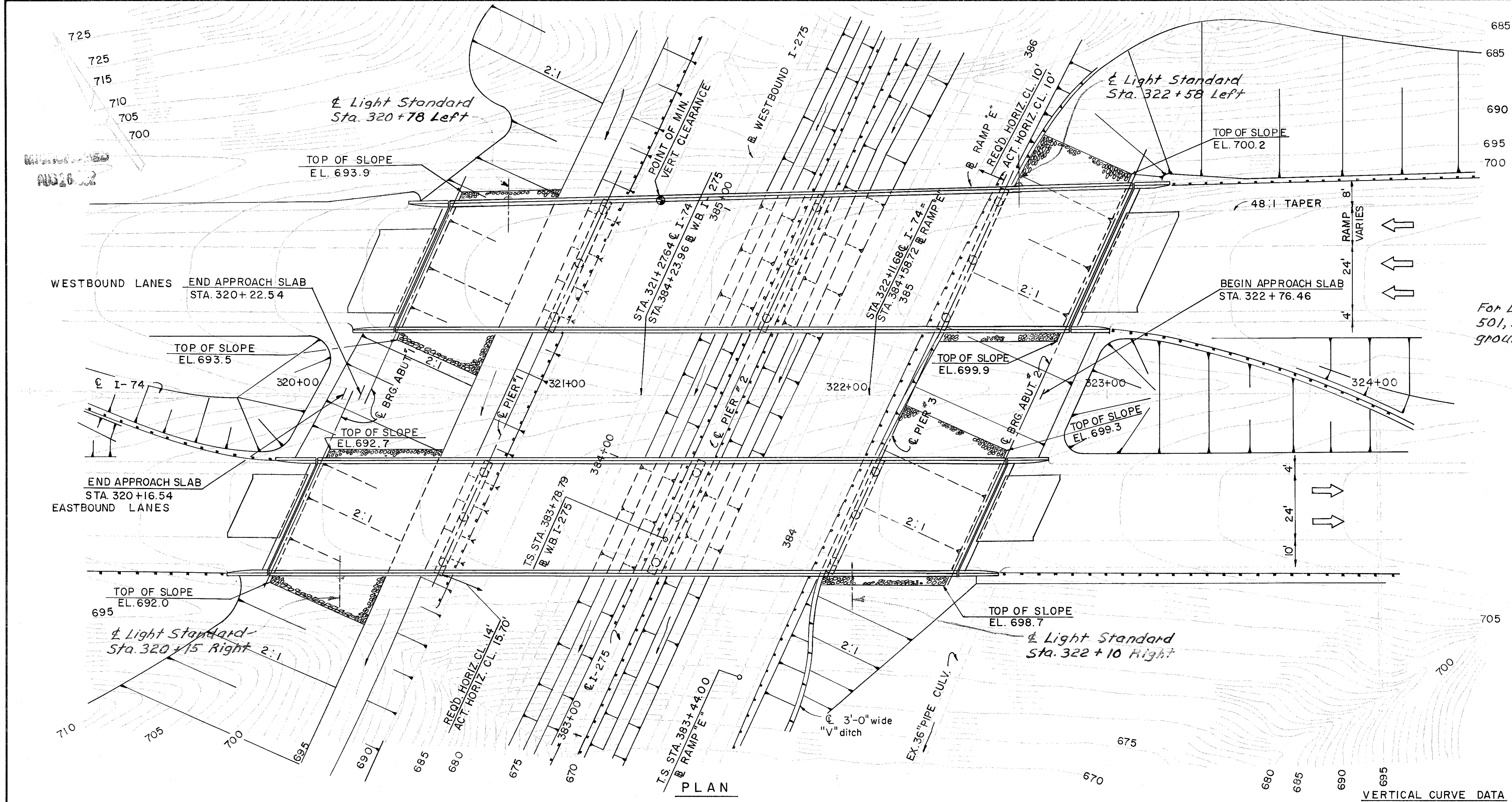
STA. 210+63.92
STA. 213+39.72

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.C.	S.C.	W.G.	J.R.P.	[illegible]	9-26-69	

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

574 / 630

HAM-275-03.86



EARTHWORK LIMITS SHOWN ARE SCHEMATIC. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

For Lighting Details see sheets 490-K, 501, 502 and 503. Structures shall be grounded at both ends of fixed pier No. 2.

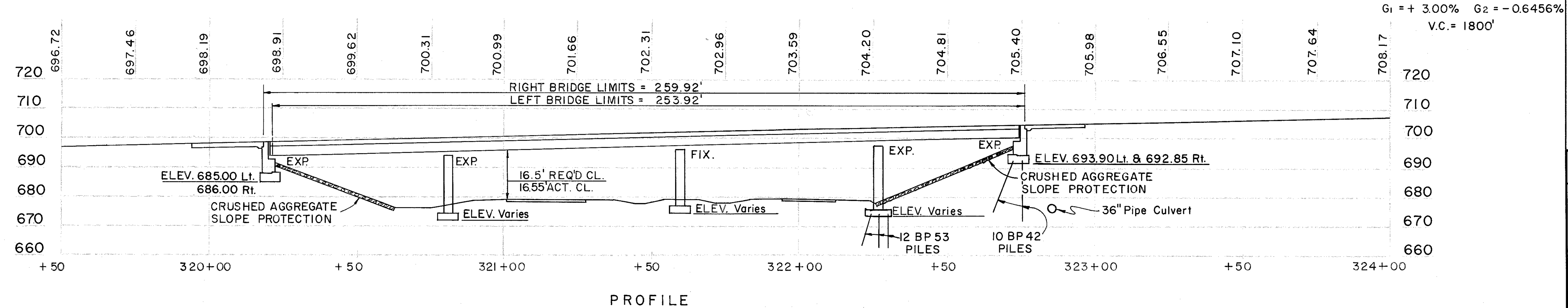
HORIZONTAL CURVE DATA

P.I. STA. 318+18.12
Δ = 3°02' 10" LT.
D = 0° 15' 00" LT.
R = 22,918.31'
L = 1214.44'
T = 607.36'
E = 8.05'

THE PILES ARE 10 BP 42 FOR ABUTMENTS AND 12 BP 53 FOR PIERS. THE ESTIMATED AVERAGE PAY LENGTHS ARE:
ABUTMENT NO. 2 (RT.) 40 FEET PER PILE
ABUTMENT NO. 2 (LT.) 20 FEET PER PILE
PIER NO. 3 (RT. & LT.) 15 FEET PER PILE

VERTICAL CURVE DATA

P.V.I. STA. 328+50
ELEV. 723.72
G_1 = + 3.00% G_2 = − 0.6456%
V.C. = 1800'



PROPOSED STRUCTURE

TYPE: Four span continuous steel beams with reinf. concrete deck and substructures.
SPANS: 58'-0", 78'-0", 66'-6" and 46'-6" Lt. Bridge
64'-0", 78'-0", 66'-6" and 46'-6" Rt. Bridge
ROADWAY: 47'-8" average left bridge f/f parapets
42'-0" right bridge f/f parapets
LOADING: HS 20-44 and the interstate alternate loading.
SKEW = 24° 21' 32" with reference chord.
WEARING SURFACE: 1½" Asphalt Concrete
APPROACH SLABS: AS-1-67 (20' long)
ALIGNMENT: 0° 15' 00" left curve
SUPERELEVATION: None

1 / 14

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
S.S.C.	E.D.A.		J.R.P.		5-5-70	9-4-73

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

575/630

HAM- 275-03.86

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

BR-1-67 SHEET 1 REVISED 10-15-71
RB-1-55 REVISED 2-2-59
SD-1-69 SHEETS 1, 2, 3 AND 4 DATED 6-12-69

AND TO SUPPLEMENTAL SPECIFICATIONS:

NO. 808 DATED 1-1-71

NO. 836 DATED 1-1-71

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, 1965, INCLUDING THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING - HS 20-44 AND THE INTERSTATE ALTERNATE LOADING.

CONCRETE CLASS C - UNIT STRESS 1200 P.S.I. FOR SUPERSTRUCTURE
UNIT STRESS 1333 P.S.I. FOR SUBSTRUCTURE

STRUCTURAL STEEL - ASTM A36 - UNIT STRESS 20,000 P.S.I.

REINFORCING STEEL - ASTM A615, A616‡ OR A617 - UNIT STRESS 20,000 P.S.I.

PILES SHALL BE DRIVEN TO FIRM CONTACT WITH BEDROCK. IF THE LENGTH OF PENETRATION IS APPROXIMATELY EQUAL TO THE DEPTH TO BEDROCK ACCORDING TO THE BRIDGE FOUNDATION INVESTIGATION REPORT, THE FIRM CONTACT SHALL BE CONSIDERED AS ATTAINED WHEN THE CAPACITY ACCORDING TO THE FORMULA IN 507.05 IS NOT LESS THAN THE FOLLOWING VALUE FOR A PILE HAMMER OF THE INDICATED ENERGY RATING:

FOR THE ABUTMENT PILES
40 TONS PER PILE USING A 7,000 FT. LB. HAMMER
32 TONS PER PILE USING AN 11,000 FT. LB. HAMMER
32 TONS PER PILE USING A 15,000 FT. LB. OR GREATER HAMMER

FOR THE PIER PILES

55 TONS PER PILE USING A 7,000 FT. LB. HAMMER
40 TONS PER PILE USING AN 11,000 FT. LB. HAMMER
37 TONS PER PILE USING A 15,000 FT. LB. OR GREATER HAMMER

IF THE ENERGY RATING OF THE HAMMER IS BETWEEN THE RATINGS AS SHOWN ABOVE, THE REQUIRED FORMULA CAPACITY SHALL BE DETERMINED BY INTERPOLATION. THE DESIGN LOAD IS 32 TONS PER PILE FOR THE ABUTMENT PILES AND 37 TONS PER PILE FOR THE PIER PILES.

FOUNDATION BEARING PRESSURE: THE FOOTINGS ARE DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 2 TONS PER SQ. FT. FOR ABUTMENT #1 AND 5 TONS PER SQ. FT. FOR PIER #1 AND #2.

FOOTINGS OF ABUTMENT #1, PIER #1 AND PIER #2 SHALL EXTEND A MINIMUM OF 3 INCHES INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

WELDS ON NON-STRESS-CARRYING MEMBERS ARE SHOWN THUS: N ¼

‡ IF BARS IN ACCORDANCE WITH ASTM A616 ARE PROVIDED THEY SHALL BE SUBJECT TO BEND TESTS AS PER AASHO DESIGNATION M42-70. SPRIAL REINFORCEMENT MAY BE PLAIN BARS ASTM A82, A306, A499 OR A615.

DECK FINISHING: TEXTURING OF THE DECK SURFACE AS PROVIDED IN 451.09 SHALL NOT BE DONE.

DECK REINFORCING BARS: AT THE CONTRACTOR'S OPTION A PORTION (NOT TO EXCEED 25 %) OF THE UPPER LONGITUDINAL BARS (S401,2,11,12) IN THE DECK SLAB MAY BE PLACED BENEATH THE UPPER TRANSVERSE BARS FOR SUPPORT OF THE TOP MAT.

✳ SAND-ASPHALT: A LAYER OF SAND-ASPHALT SHALL BE USED TO PROTECT THE PROTECTIVE MEMBRANE. TRAFFIC WILL NOT BE PERMITTED ON THE MEMBRANE UNTIL A PROTECTIVE LAYER OF SAND-ASPHALT HAS BEEN PLACED AND COMPACTED. THE SAND-ASPHALT SHALL BE MIXED HOT USING NATURAL SAND, 703.05, AND ASPHALT CEMENT, 702.01. THE ASPHALT GRADE AND CONTENT SHALL BE ESTABLISHED BY THE CONTRACTOR WITHIN A RANGE OF 8.5 TO 10.5 PERCENT OF THE TOTAL MIX. THE SAND-ASPHALT SHALL BE PLACED ON THE MEMBRANE BY MEANS OF PNEUMATIC TIRED MECHANICAL SPREADER AND COMPACTED BY ROLLING TO PRODUCE A REASONABLY SMOOTH SURFACE. THE QUANTITY PLACED SHALL BE AS NECESSARY TO LEVEL IRREGULARITIES AND COVER THE SURFACE WITH A COMPACTED LAYER 1/2" IN THICKNESS. TURNING MOVEMENTS OF EQUIPMENT USED TO PLACE THE SAND-ASPHALT SHALL NOT BE MADE ON THE MEMBRANE.

✳ BASIS OF PAYMENT FOR SAND ASPHALT. THE ACCEPTED QUANTITY OF SAND-ASPHALT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING ALL MATERIALS. PAYMENT WILL BE MADE UNDER:

ITEM	UNIT	DESCRIPTION
SPECIAL	CU YD	SAND-ASPHALT

ESTIMATED QUANTITIES (both structures)

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT.	PIER	GEN.	AS BUILT	
503	903	Cu. Yds.	Unclassified excavation including rock		618	285			
505	Lump	Sum	Test pile				Lump		
507	820	Lin. Ft.	Steel piles, HP 10x42		820				
507	810	Lin. Ft.	Steel piles, HP12 × 53			810			
509	289,269	Lbs.	Reinforcing steel	194,978	25,879	68,412			
511	770	Cu. Yds.	Class C concrete, superstructure	770					
511	263	Cu. Yds.	Class C concrete, abutments above footings		263				
511	215	Cu. Yds.	Class C concrete, piers above footings			215			
511	262	Cu. Yds.	Class C concrete, footings		146	116			
513	648,500	Lbs.	Structural steel	648,500					
514	648,500	Lbs.	Field painting of structural steel	648,500					
518	148	Cu. Yds.	Porous backfill		148				
518	174	Lin. Ft.	6" perforated, helical, C. M. P., including specials, 707.01		174				
518	190	Lin. Ft.	6" non-perforated, helical, C.M.P., 707.01		190				
518	22	Each	Scuppers, including supports	22					
601	1,279	Sq. Yds.	Crushed aggregate slope protection				1,279		
404	71	Cu Yd	Asphalt concrete (85-100 or AC20)	71					
SPECIAL	35	Cu Yd	Sand-Asphalt	35					
SPECIAL	2,560	Sq Yd	Membrane waterproofing per Proposal Note	2560					
808	770	Units	Chemical admixture for concrete, Type A, B, or D	770					

Computed by: JRP, Date: 5-5, 1970
Checked by: SSC, Date: 5.5, 1970

FIRST TEST PILE: Payment will be made for only one first pile. It may be driven for either the Right or Left bridge.

2 / 14

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES
ESTIMATED QUANTITIES
BRIDGE NO. HAM - 275-0726 L/R
I-74 OVER I-275

HAMILTON COUNTY — STA. 384+23.96

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
S.S.C.	E.D.A.		J.R.P.	[signature]	5.5.70	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

576/630

HAM-275-03.86

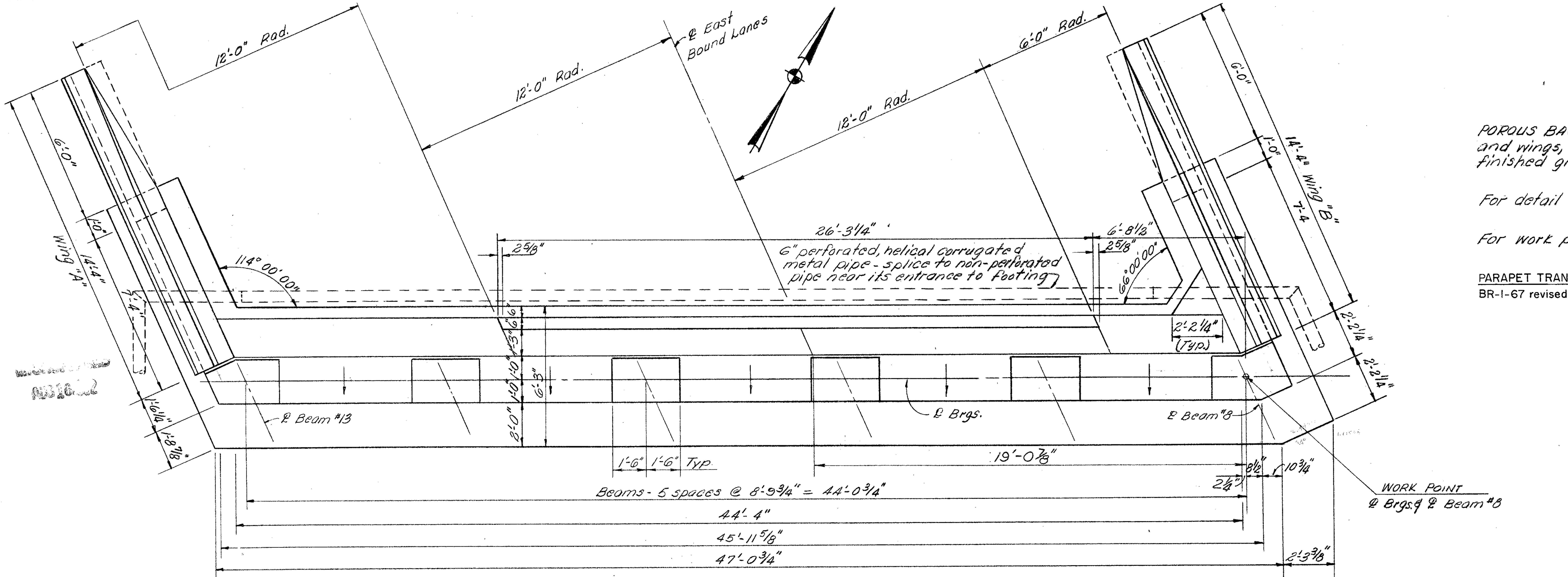
NOTES:

POROUS BACKFILL, as shown, full length of abutments and wings, shall extend up to the subgrade or to the finished grade surface.

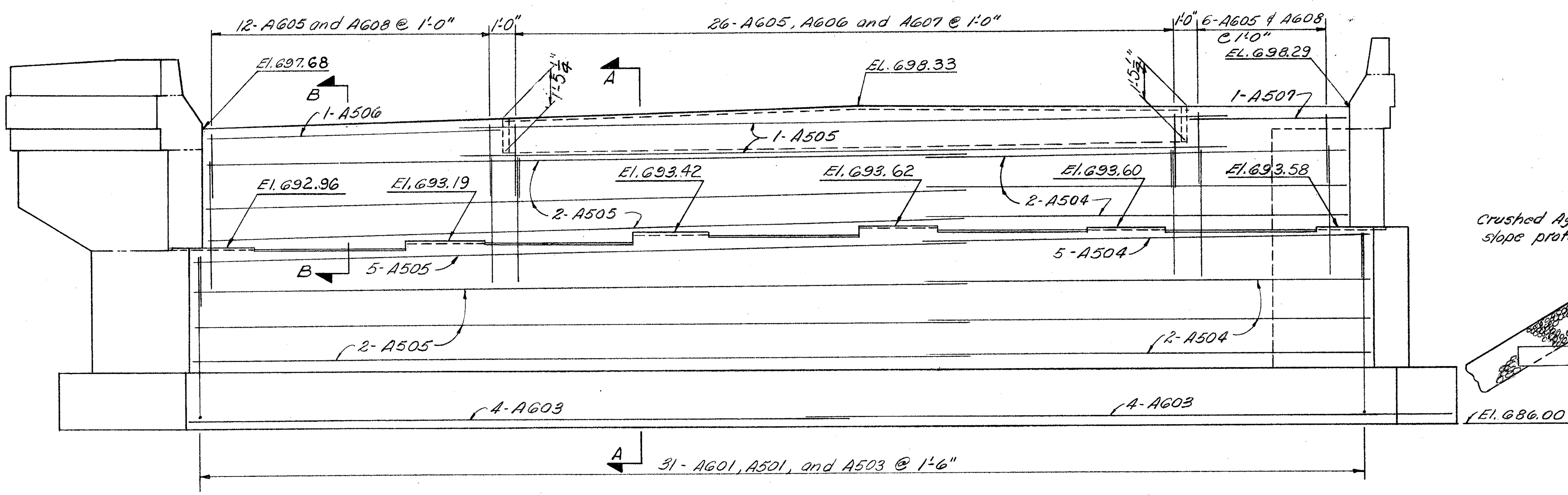
For detail "A" and section B-B, see sheet No. 4/14

For work point location, see sheet no. 10/14

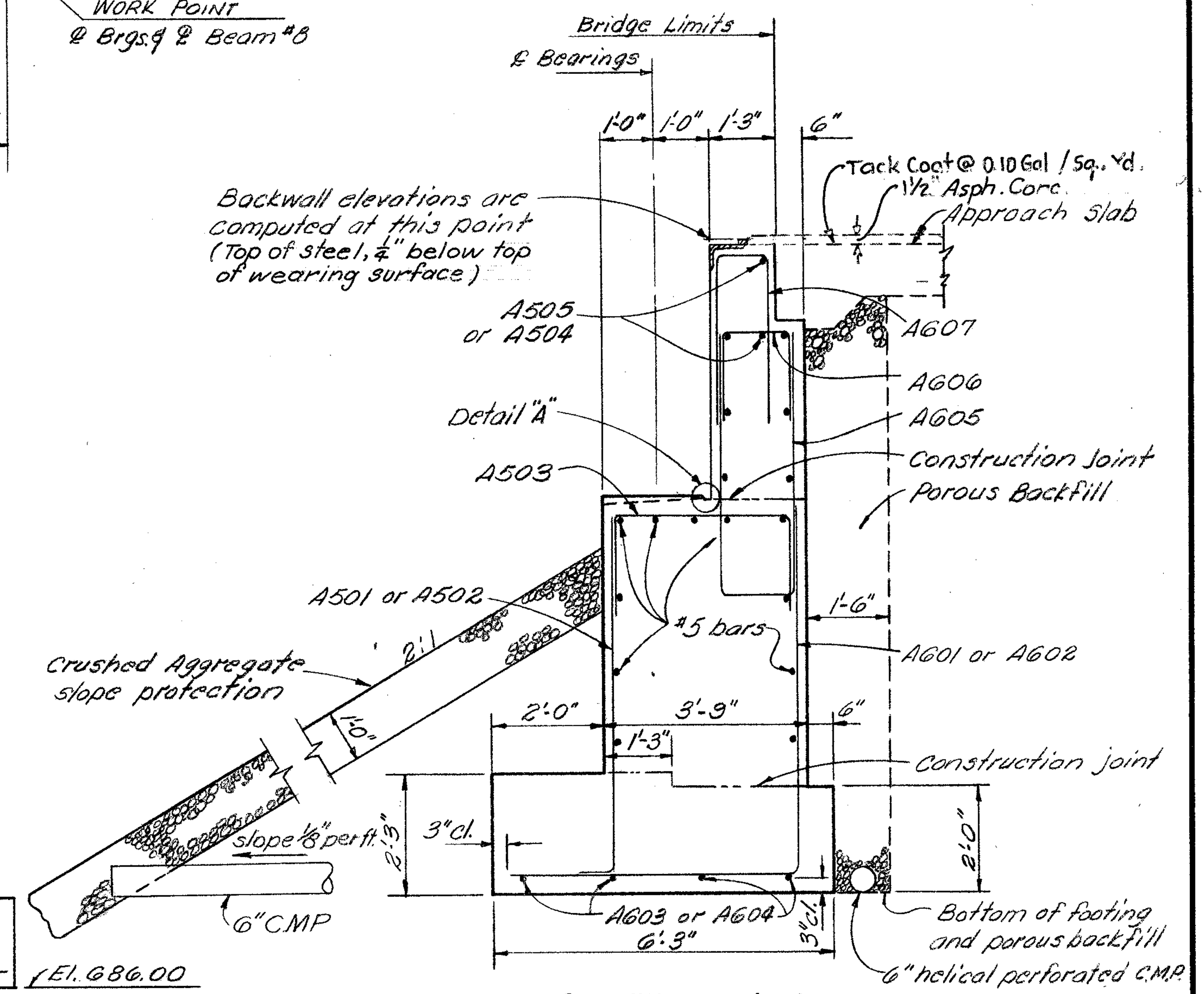
PARAPET TRANSITIONS AND WINGWALL ENDS shall be as shown on Stadard Drawing BR-1-67 revised 10-15-71. Reinforcing steel shall be field bent or cut to fit the revised shape.



PLAN - ABUTMENT NO. 1 - RIGHT BRIDGE



ELEVATION



SECTION A-A

3/14

VOGT, IVERS, & ASSOCIATES	
ENGINEERS CINCINNATI	ARCHITECTS CHICAGO

ABUTMENT NO. 1 - RIGHT BRIDGE
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	5.5.70	

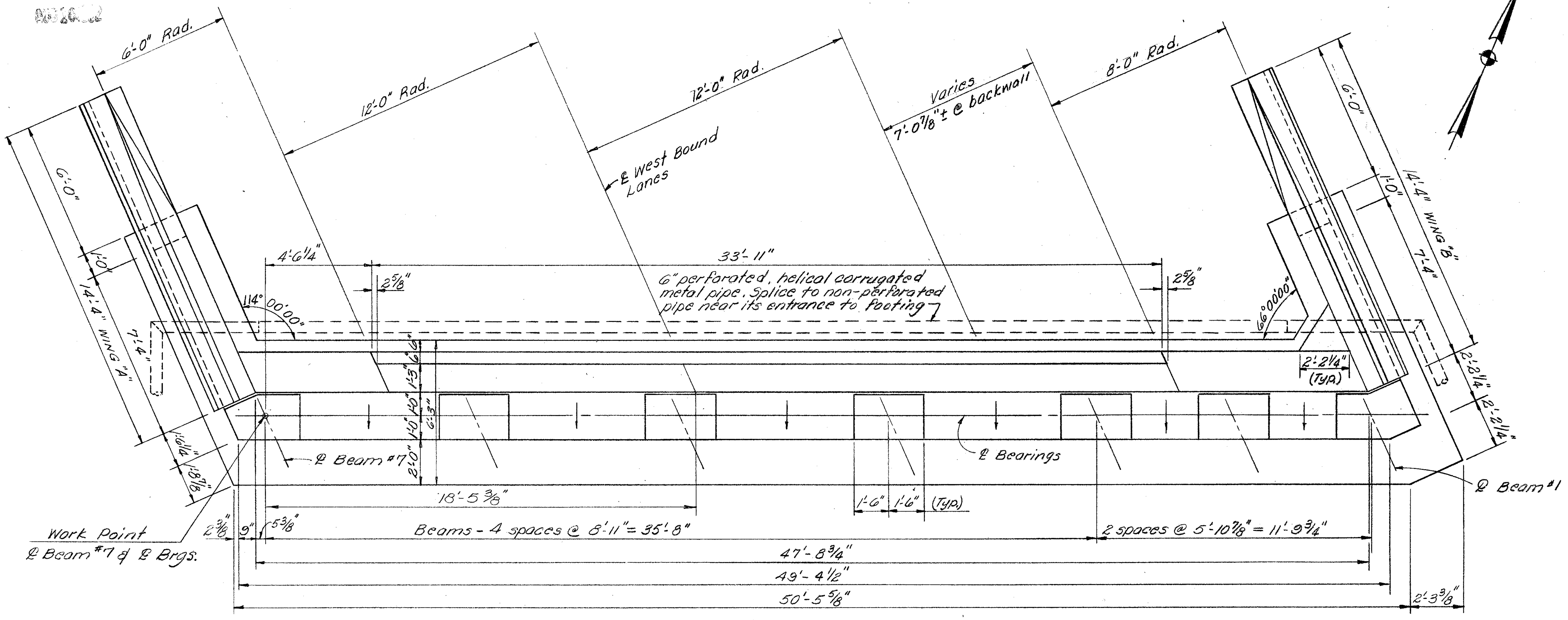
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

577/630

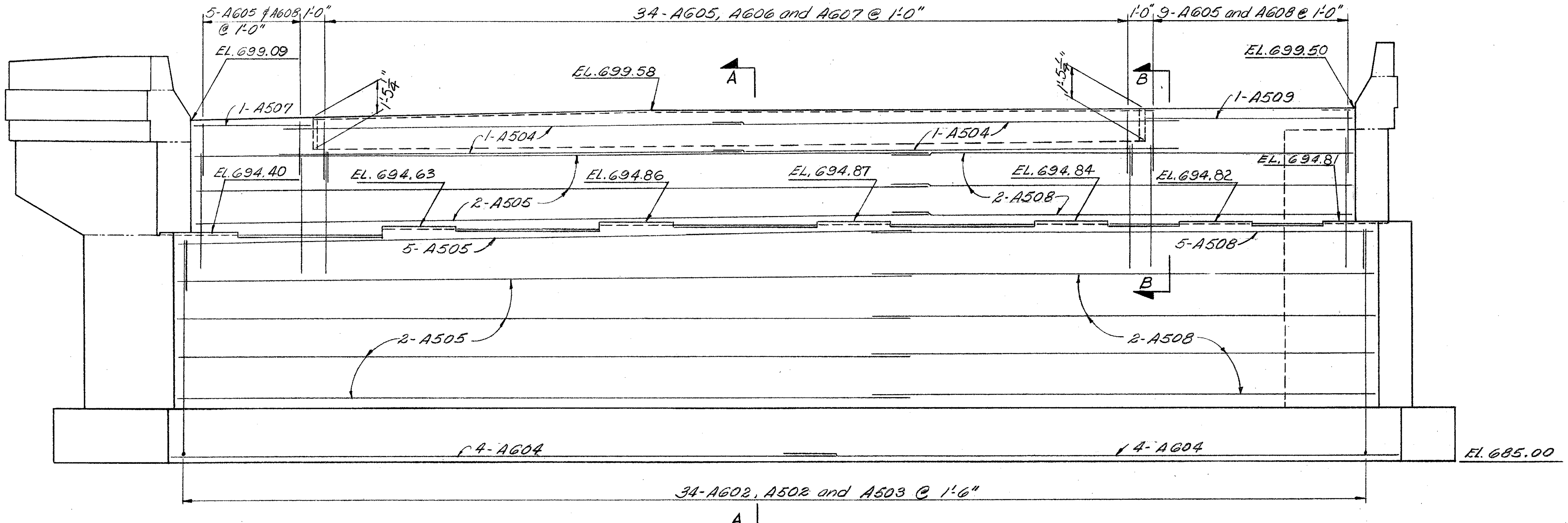
HAM-275-03.86

NOTES:

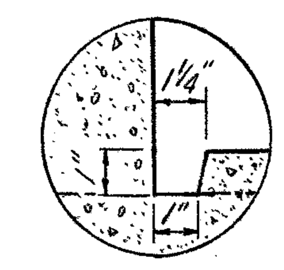
For all other notes and section A-A, see sheet No. 3/14



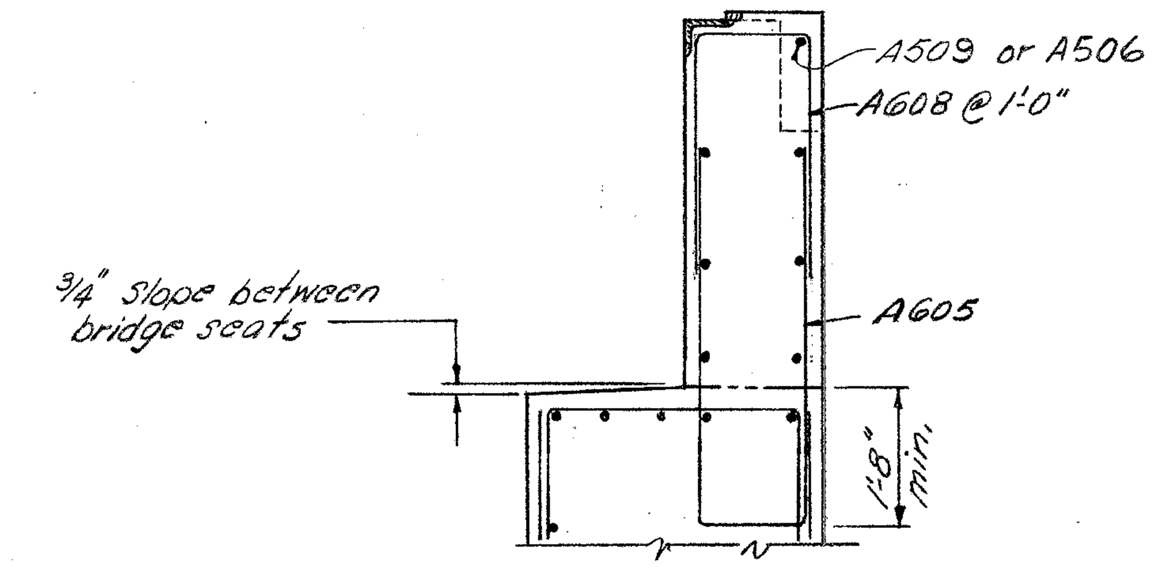
PLAN - ABUTMENT NO. 1 - LEFT BRIDGE



ELEVATION



DETAIL "A"



SECTION B-B

4/14

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

ABUTMENT NO. 1 - LEFT BRIDGE
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	5.5.70	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

578/630

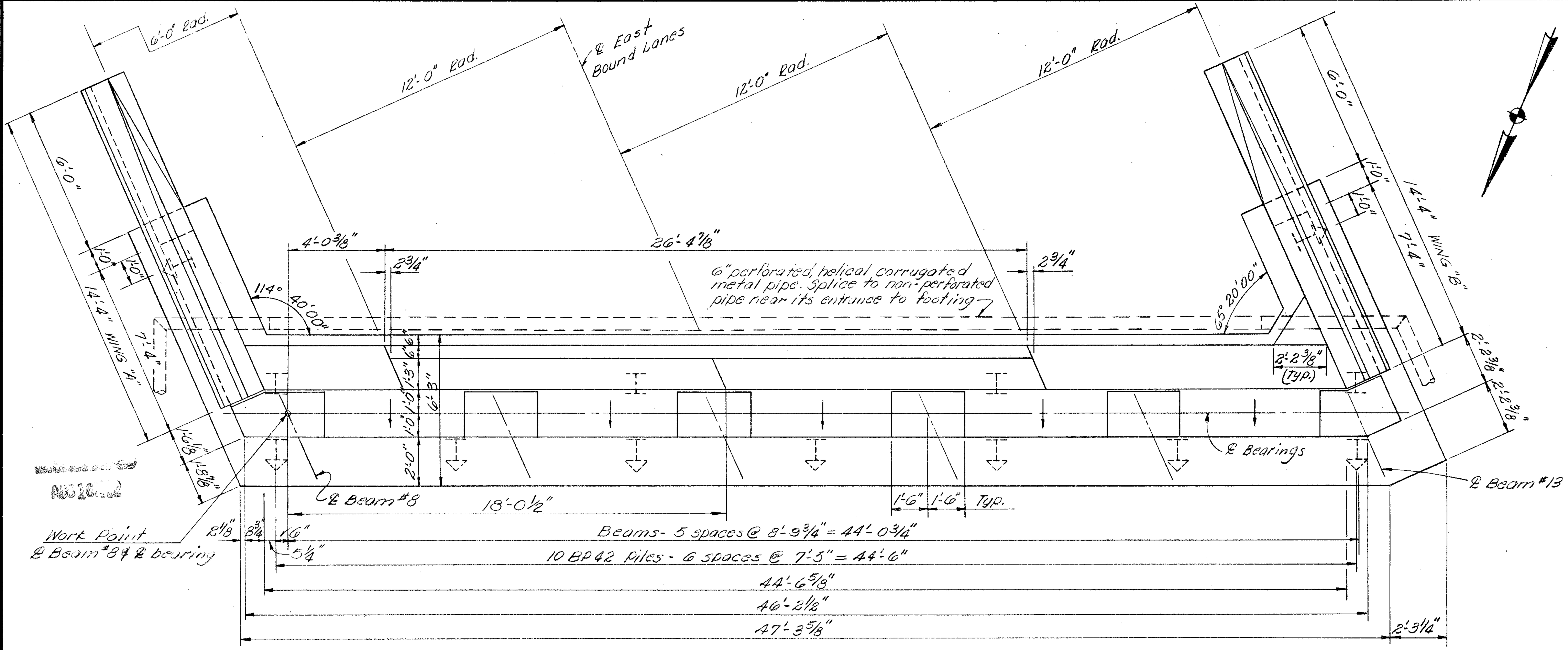
HAM-275-03.86

NOTES:

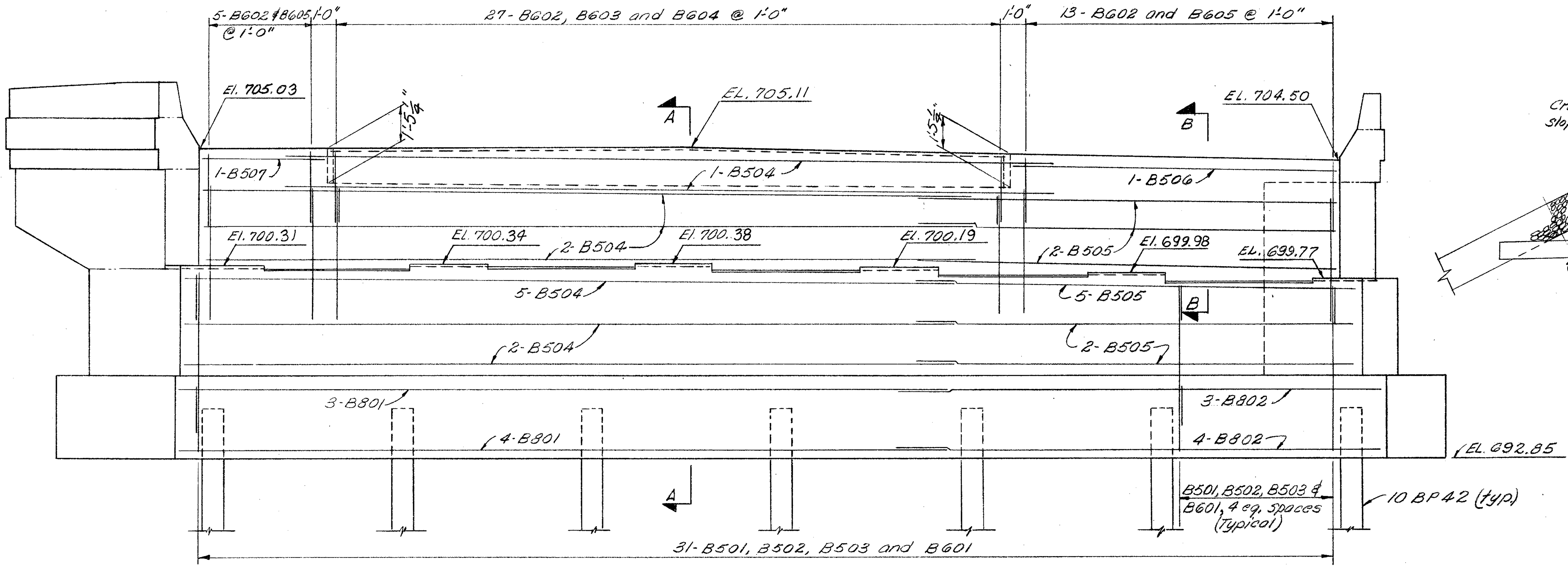
POROUS BACKFILL, as shown, full length of abutments and wings, shall extend up to the subgrade or to the finished ground surface.

For detail "A" and Section B-B, See sheet No. 6/14

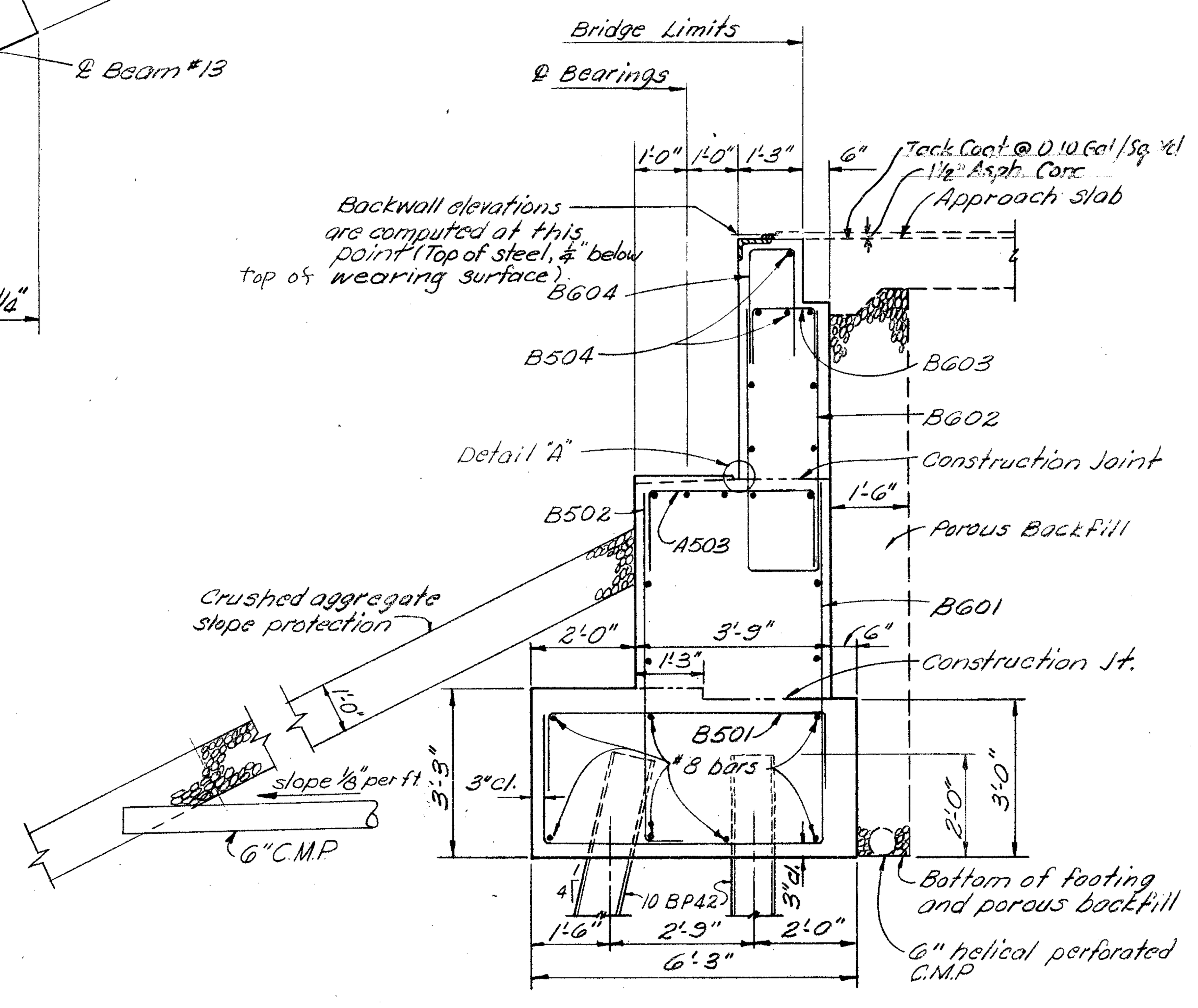
For work point location, See sheet No. 10/14



PLAN - ABUTMENT NO. 2 - RIGHT BRIDGE



ELEVATION



SECTION A-A

5/14

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT NO. 2 - RIGHT BRIDGE
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY — STA. 384+23.96

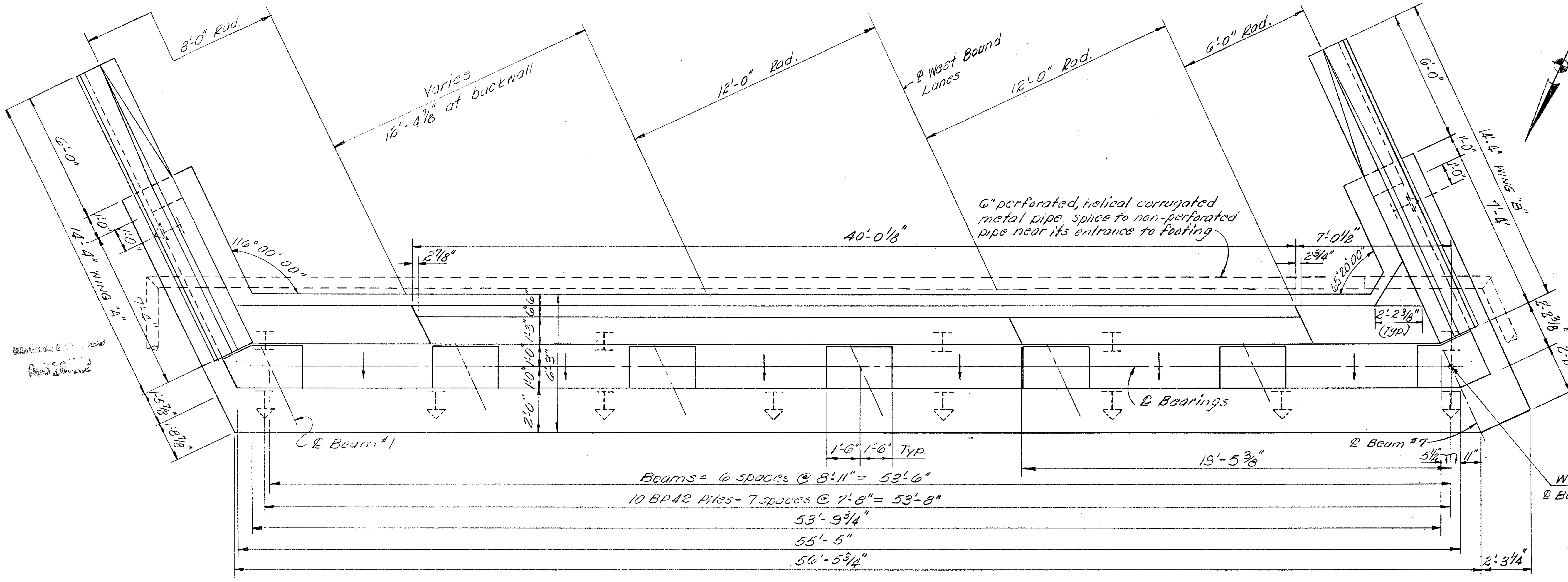
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	5,5,70	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

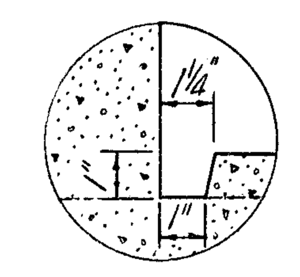
579/630

HAM-275-03.86

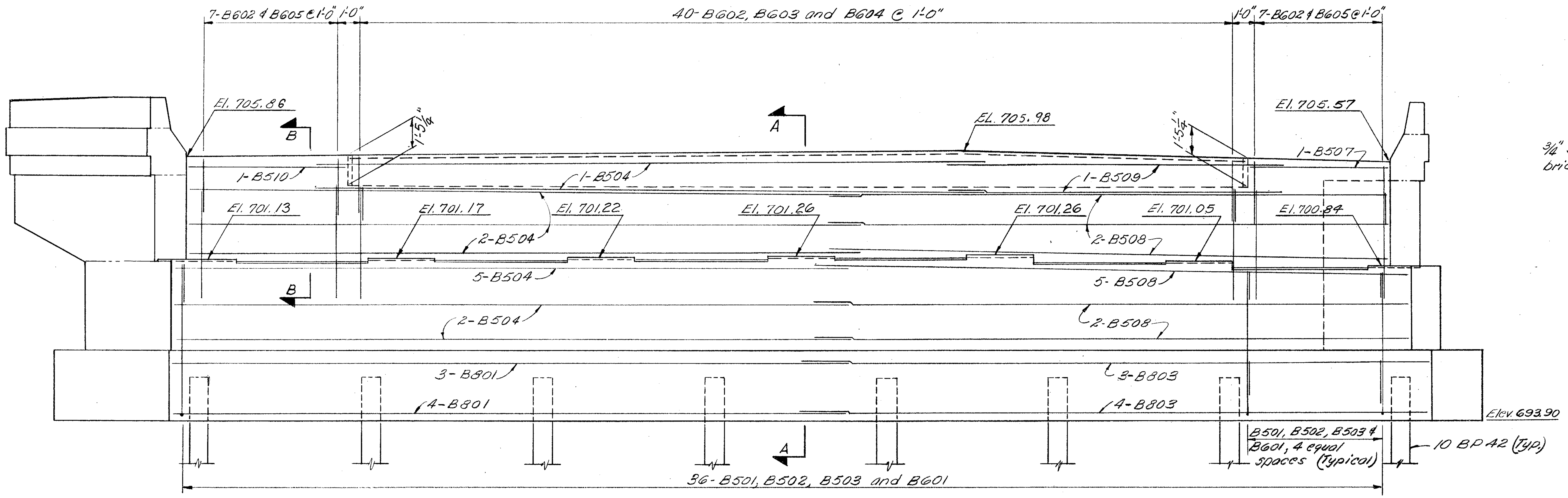
NOTE:
For all other notes and section A-A, see sheet no. 5/14



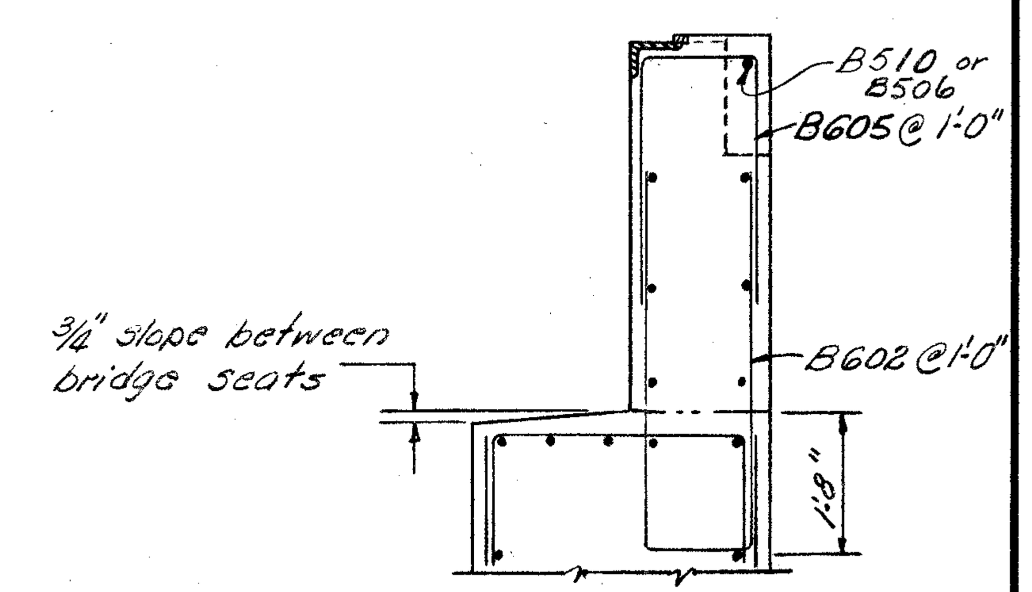
PLAN- ABUTMENT NO. 2 -LEFT BRIDGE



DETAIL "A"



ELEVATION



SECTION B-B

6/14

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

ABUTMENT NO. 2-LEFT BRIDGE
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

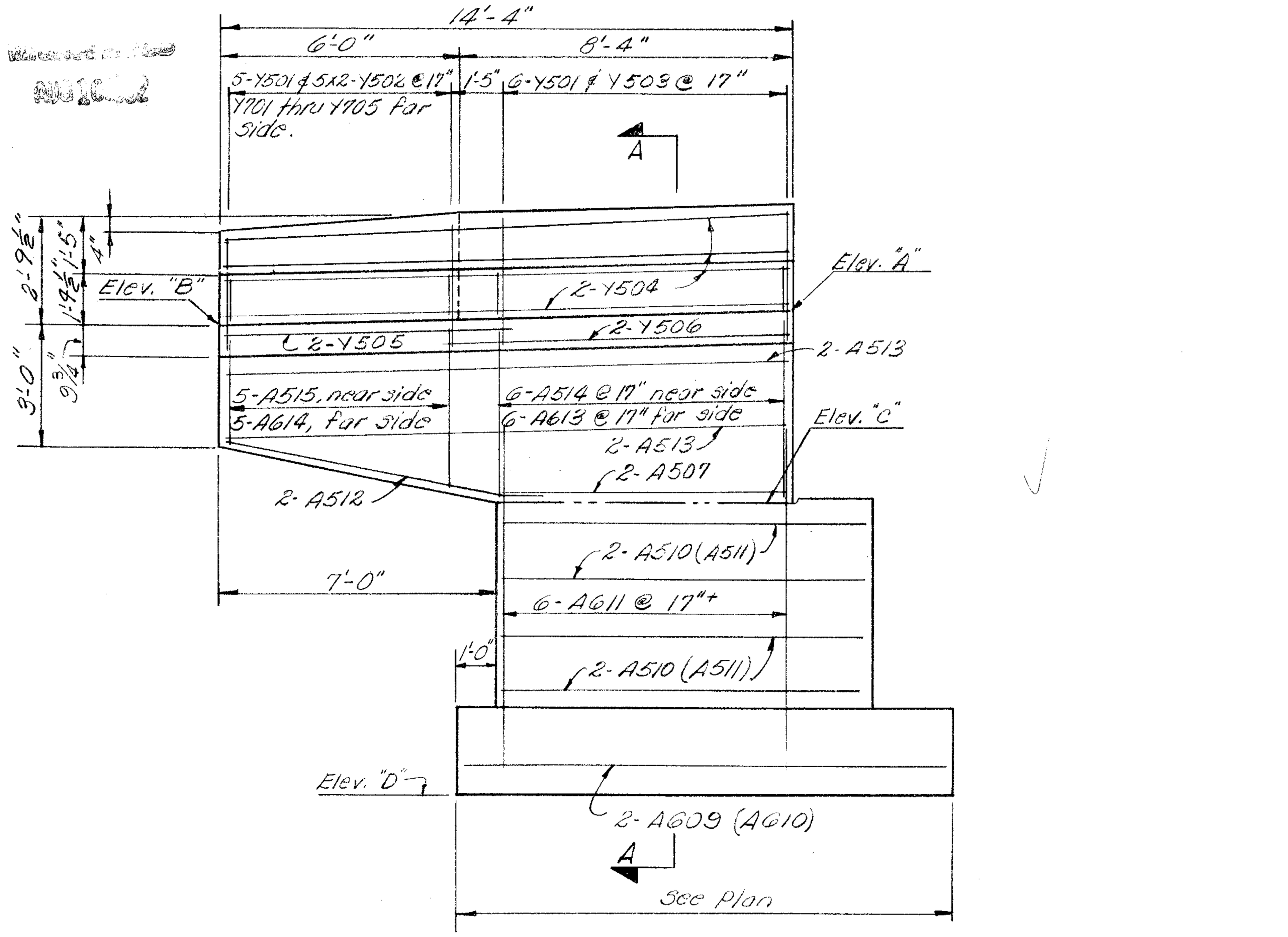
HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	[illegible]	5.5.70	

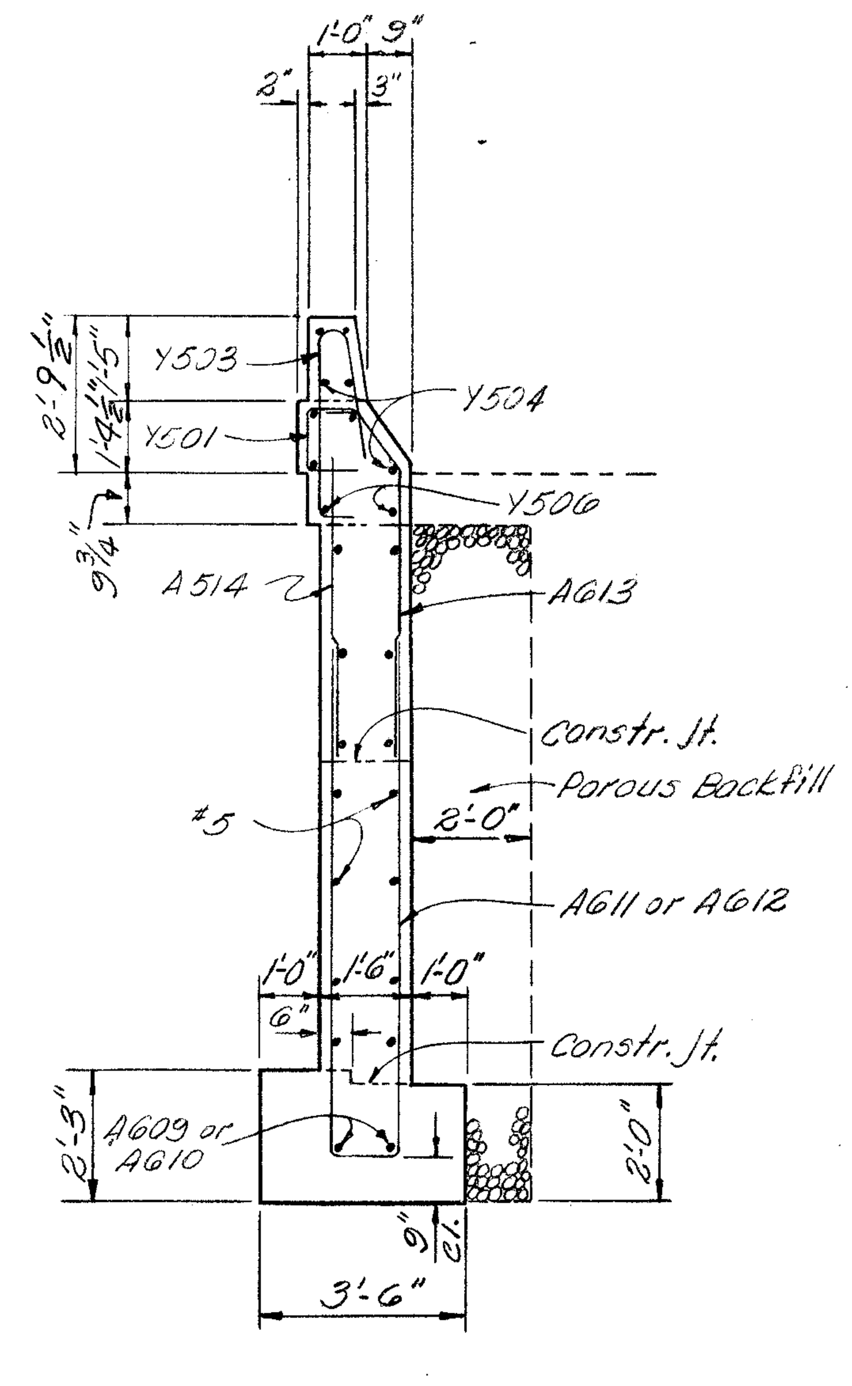
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

580/630

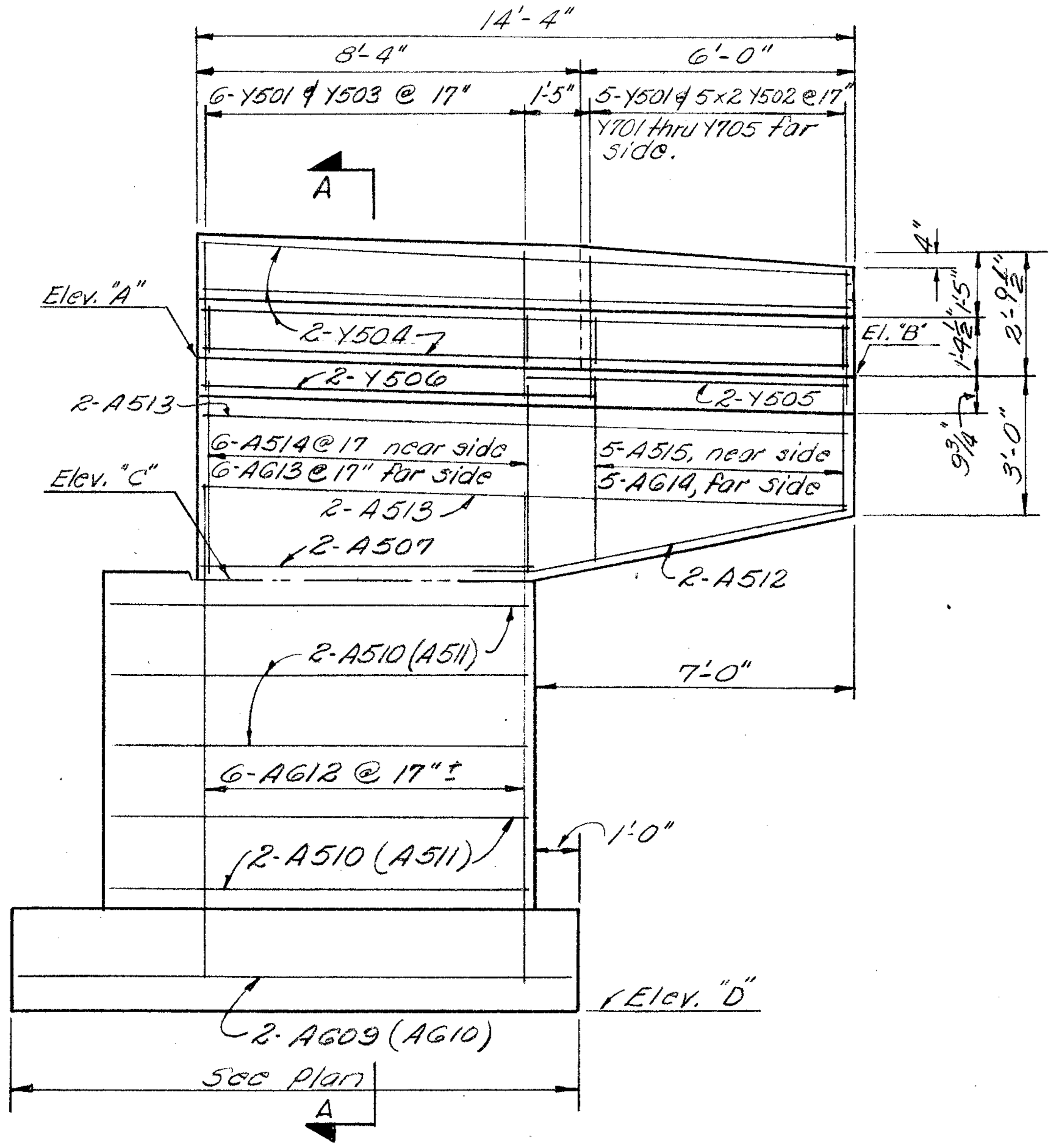
HAM-275-03.86



WINGWALL ELEVATION - ABUTMENT NO. 1 - RIGHT BRIDGE



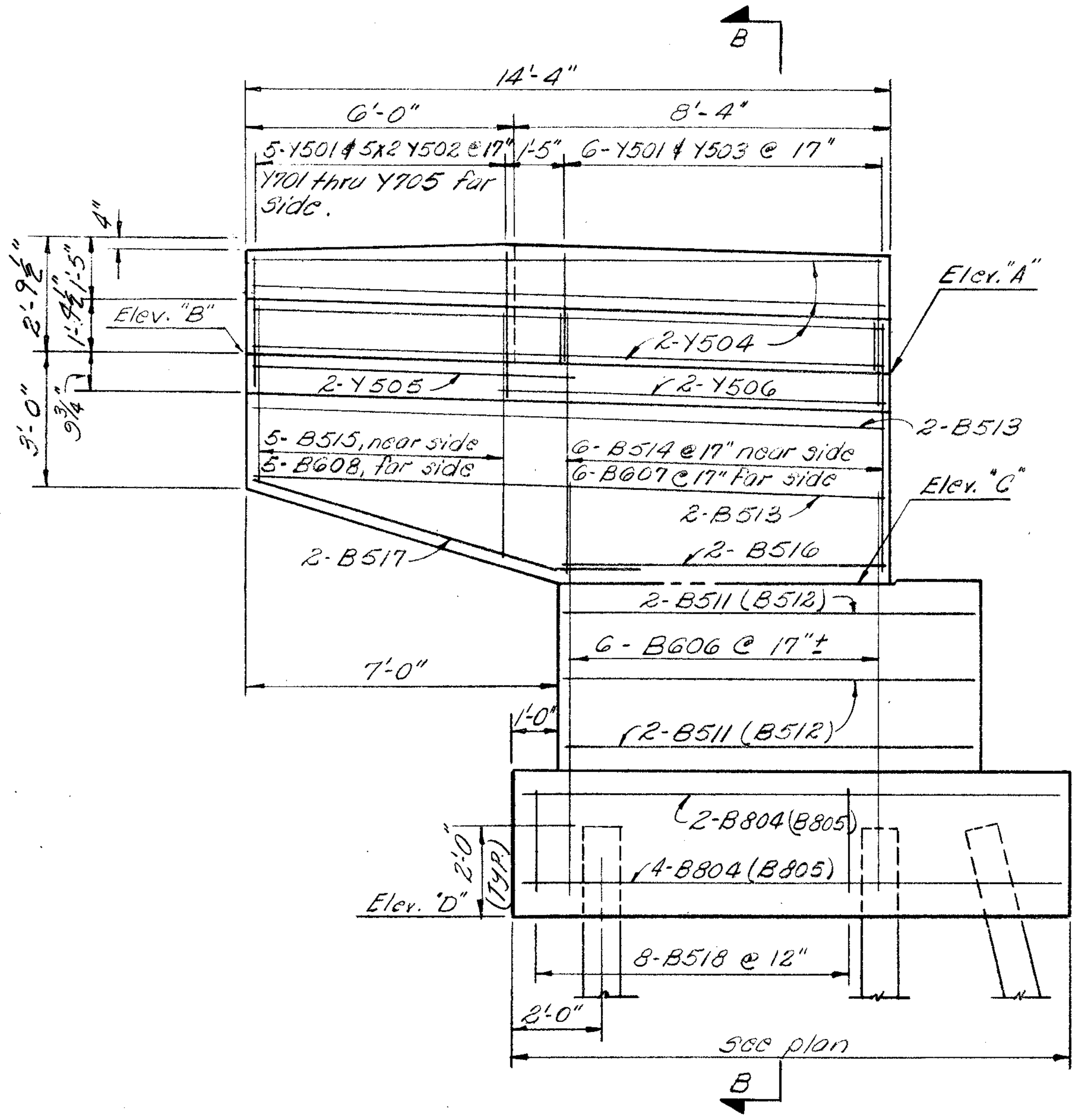
SECTION A-A



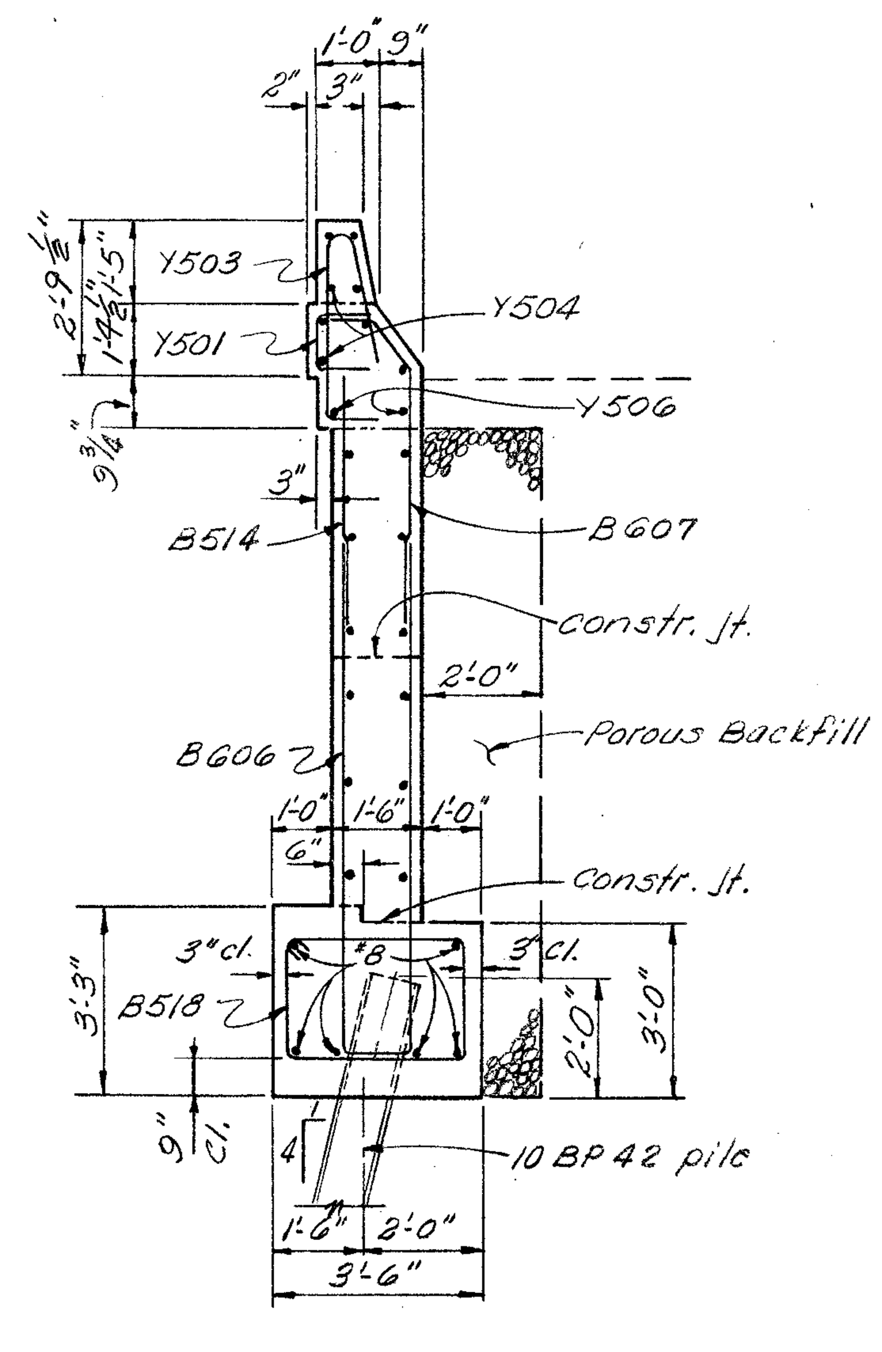
WINGWALL ELEVATION - ABUTMENT NO. 1 - LEFT BRIDGE

ELEVATIONS						
LOCATION			ELEV. "A"	ELEV. "B"	ELEV. "C"	ELEV. "D"
Abutment No. 1	LEFT BRIDGE	WING "A"	698.99	698.58	694.32	685.00
		WING "B"	699.40	698.99	694.73	685.00
	RIGHT BRIDGE	WING "A"	697.58	697.16	692.88	686.00
		WING "B"	698.19	697.77	693.50	686.00
Abutment No. 2	LEFT BRIDGE	WING "A"	705.76	706.10	701.05	693.90
		WING "B"	705.47	705.81	700.76	693.90
	RIGHT BRIDGE	WING "A"	704.93	705.26	700.23	692.85
		WING "B"	704.40	704.73	699.69	692.85

Note: All bars are for both wings except those marked ( ) are for wing "B" only.



WINGWALL ELEVATION - ABUTMENT NO. 2
LEFT AND RIGHT BRIDGE



SECTION B-B

7/14

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

ABUTMENT DETAILS
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

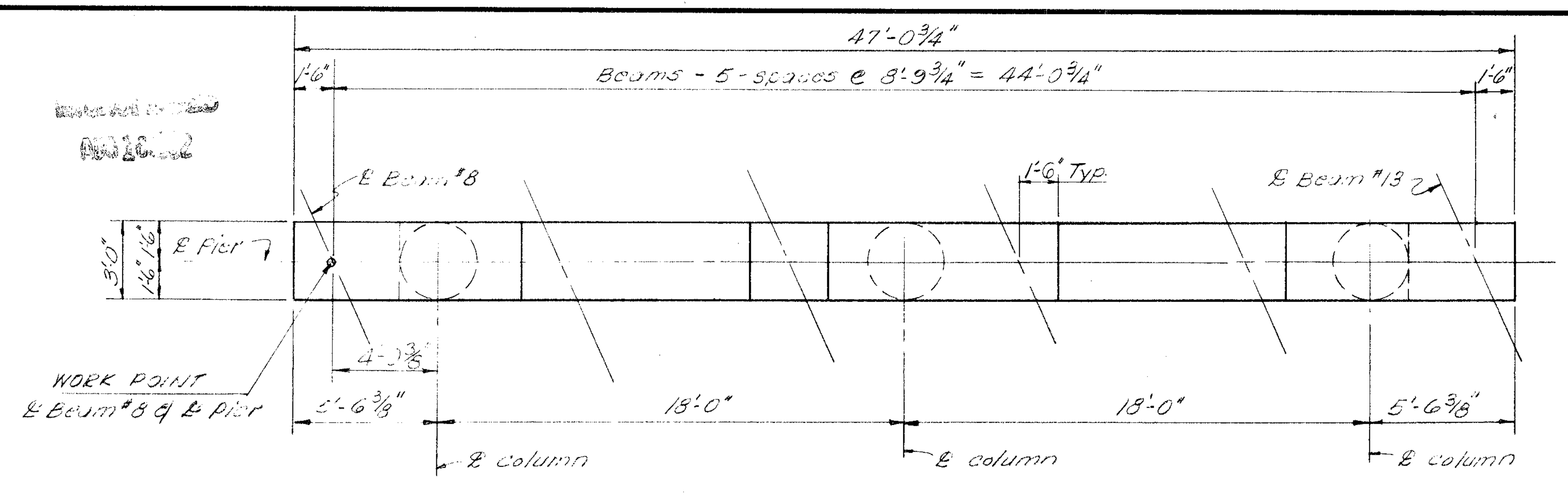
HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.S.C.	E.D.A.		J.R.P.		5.5.70	

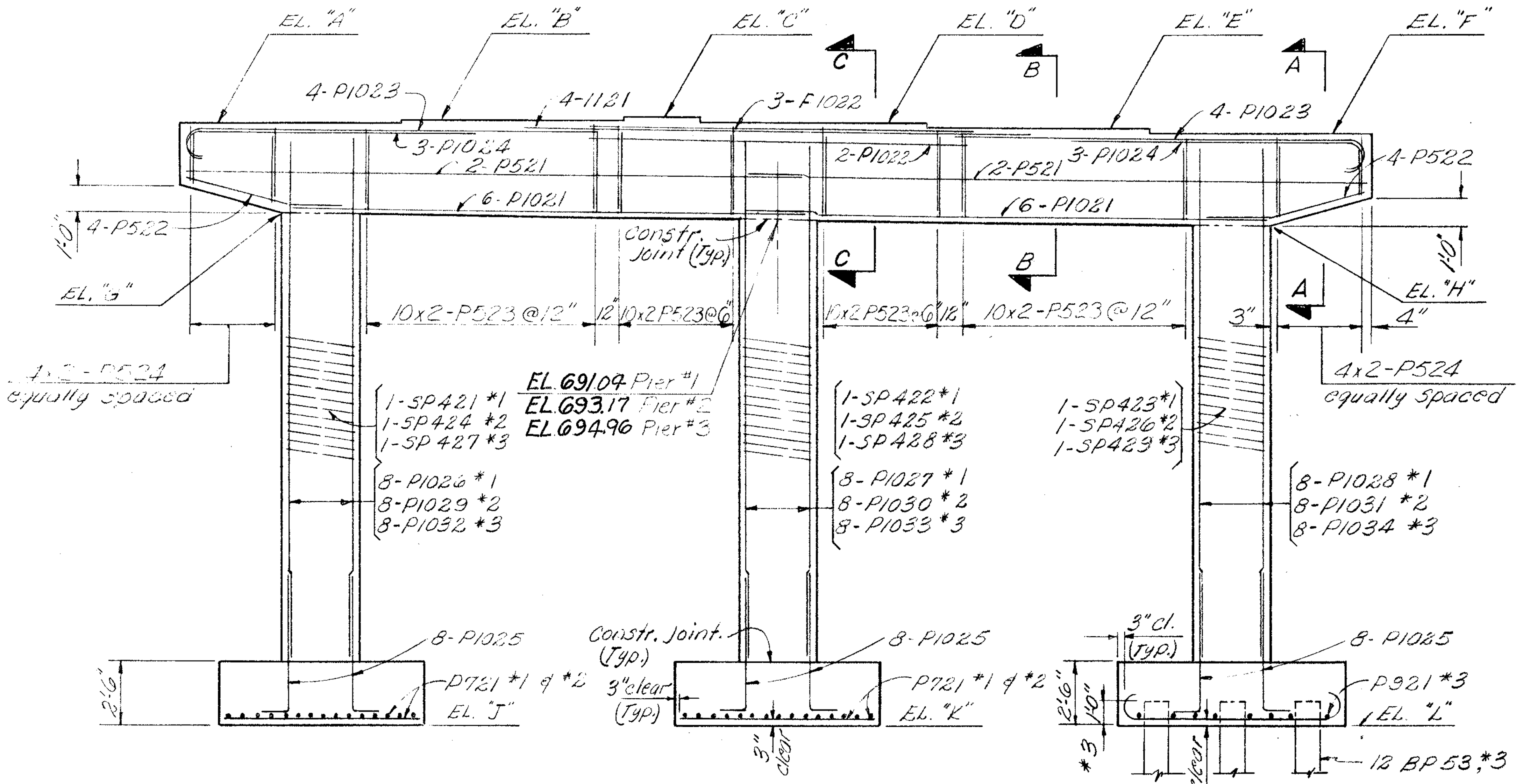
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

HAM-275-03.86

581/630

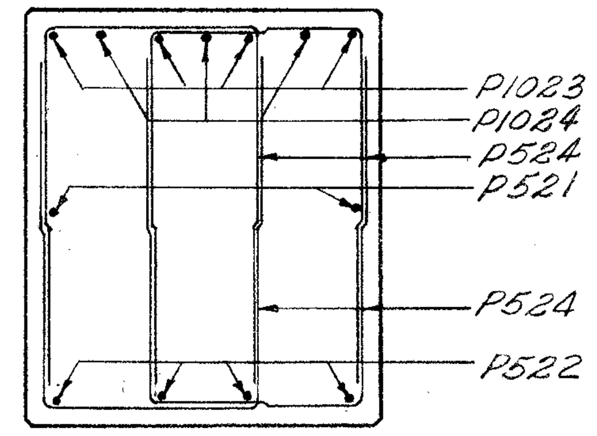


PLAN - PIER CAP - RIGHT BRIDGE

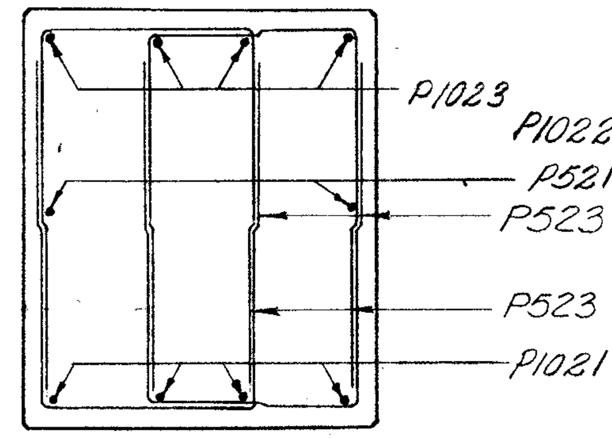


ELEVATION

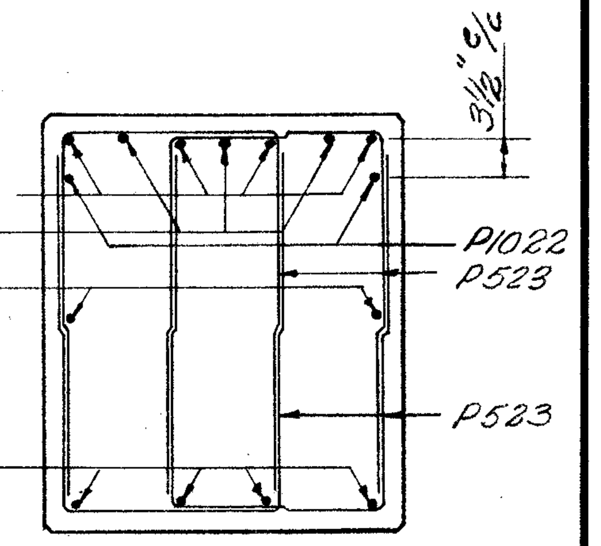
NOTE:
Stirrups in the Pier cap are same top and bottom.



SECTION A-A



SECTION B-B



SECTION C-C

NOTES

All details and dimensions apply to all piers unless otherwise noted.

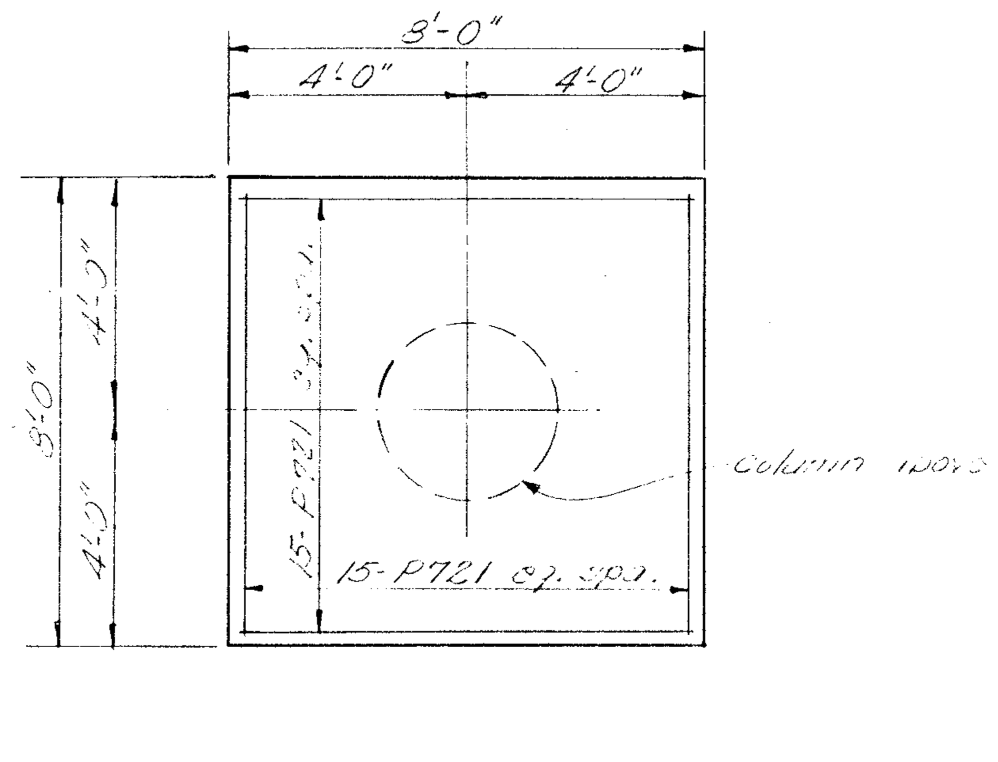
*1 Indicates for pier #1 only
*2 Indicates for pier #2 only
*3 Indicates for pier #3 only

Indicates 12 BP53 Vertical pile (for pier #3 only)

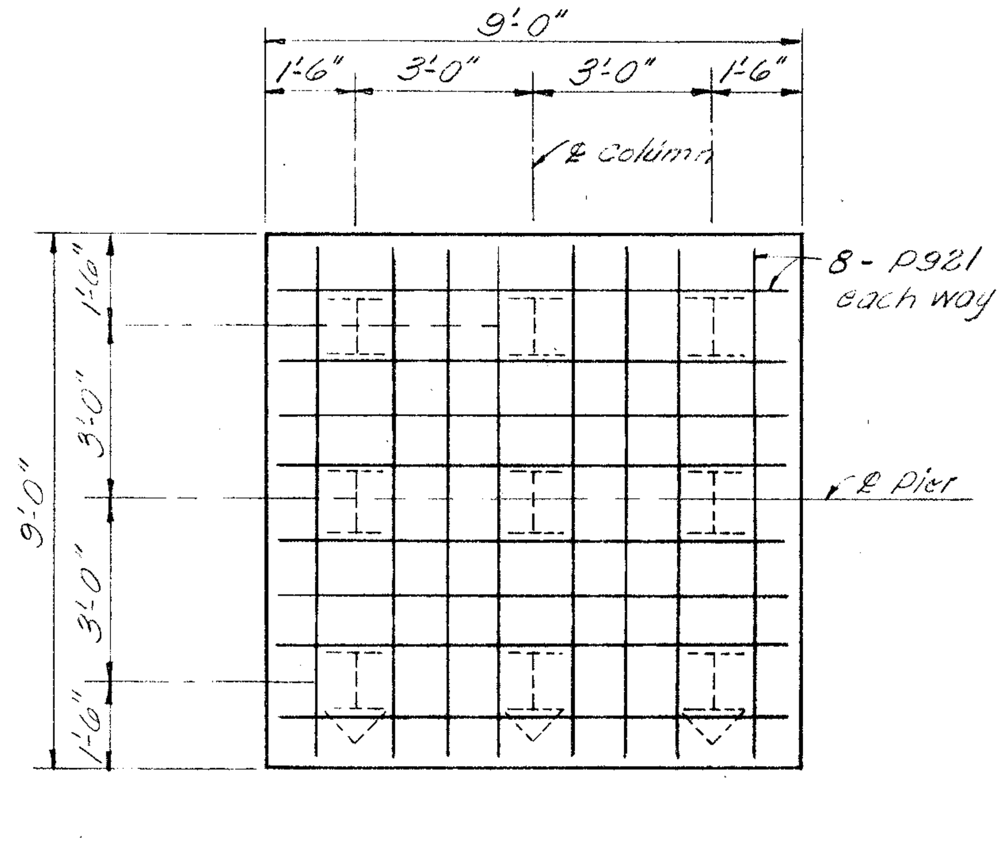
Indicates 12 BP53 Battered Pile, battered at 1:4 (for Pier #3) to oppose the sloped embankment.

For WORK POINT location, see sheet 10/14

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel for Pier #2 in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.

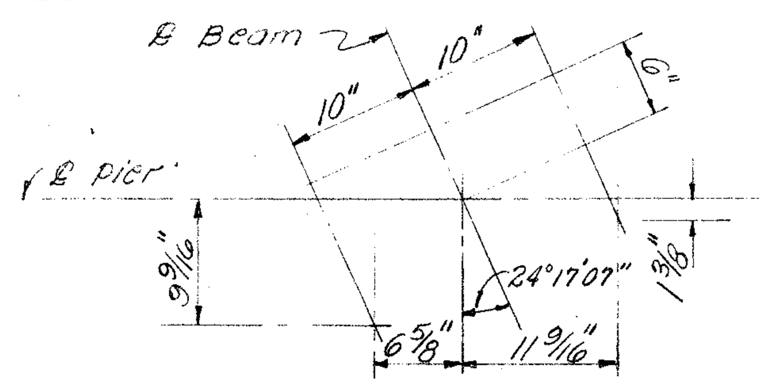


PLAN - FOOTING - PIER #1 & #2



PLAN - FOOTING - PIER #3

ELEVATIONS											
LOCATION	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"
PIER #1	694.86	694.89	694.91	694.72	694.50	694.27	691.38	690.71	671.50	670.75	670.00
PIER #2	696.97	697.00	697.03	696.85	696.63	696.41	693.46	692.88	672.50	671.75	671.00
PIER #3	698.77	698.80	698.84	698.65	698.44	698.22	695.21	694.71	673.50	672.75	672.00



ANCHOR BOLT LAYOUT

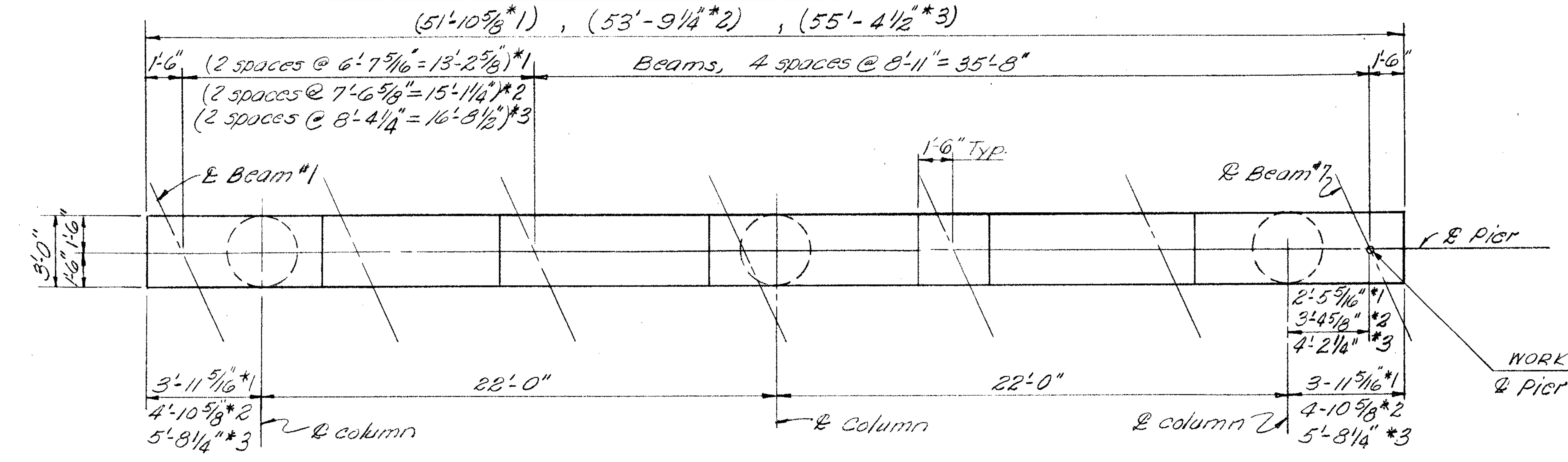
8/14

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

PIER DETAILS - RIGHT BRIDGE
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

Designed	Drawn	Checked	Reviewed	Date	Revised
S.S.C.	E.D.A.	J.R.P.		5.5.70	



PLAN - PIER CAP LEFT BRIDGE

NOTES:

All details and dimensions apply to all piers unless otherwise noted.

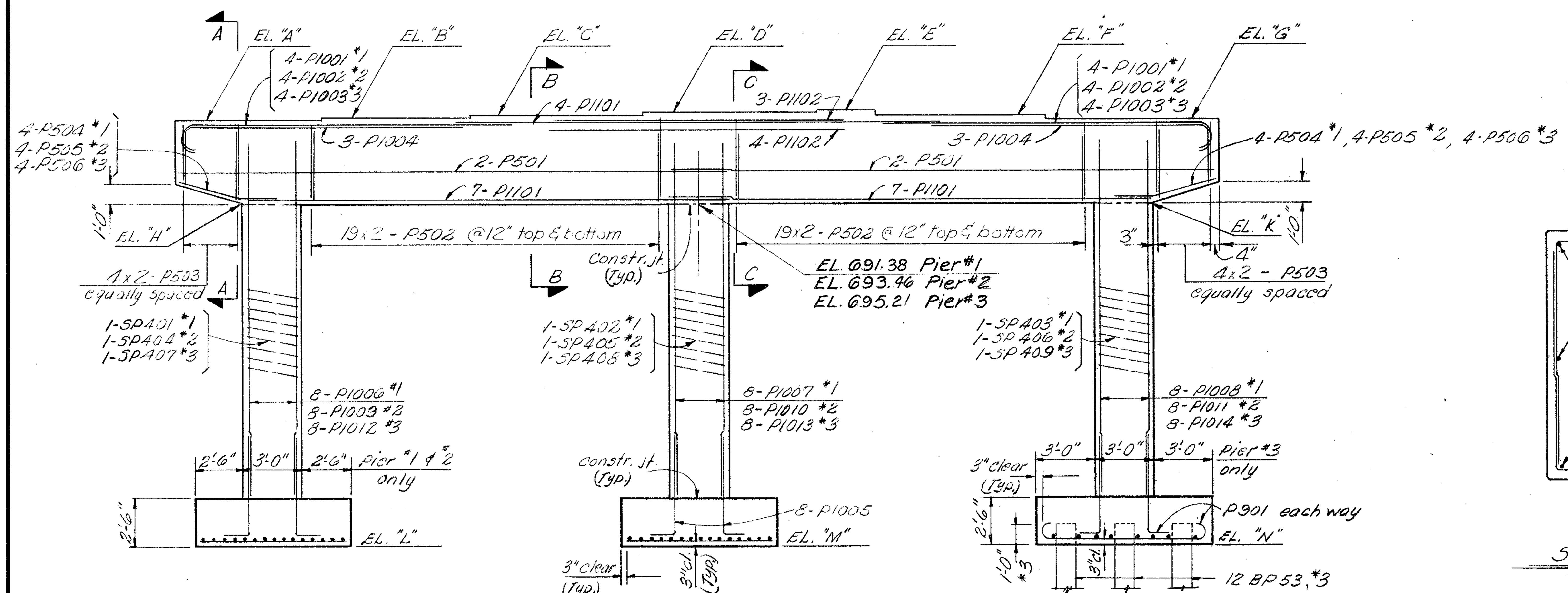
*1 Indicates for pier #1 only
*2 Indicates for pier #2 only
*3 Indicates for pier #3 only

Indicates 12 BP53 Vertical pile (for pier #3 only)
Indicates 12 BP53 Battered pile, battered at 1:4 (for pier #3) to oppose the sloped embankment.

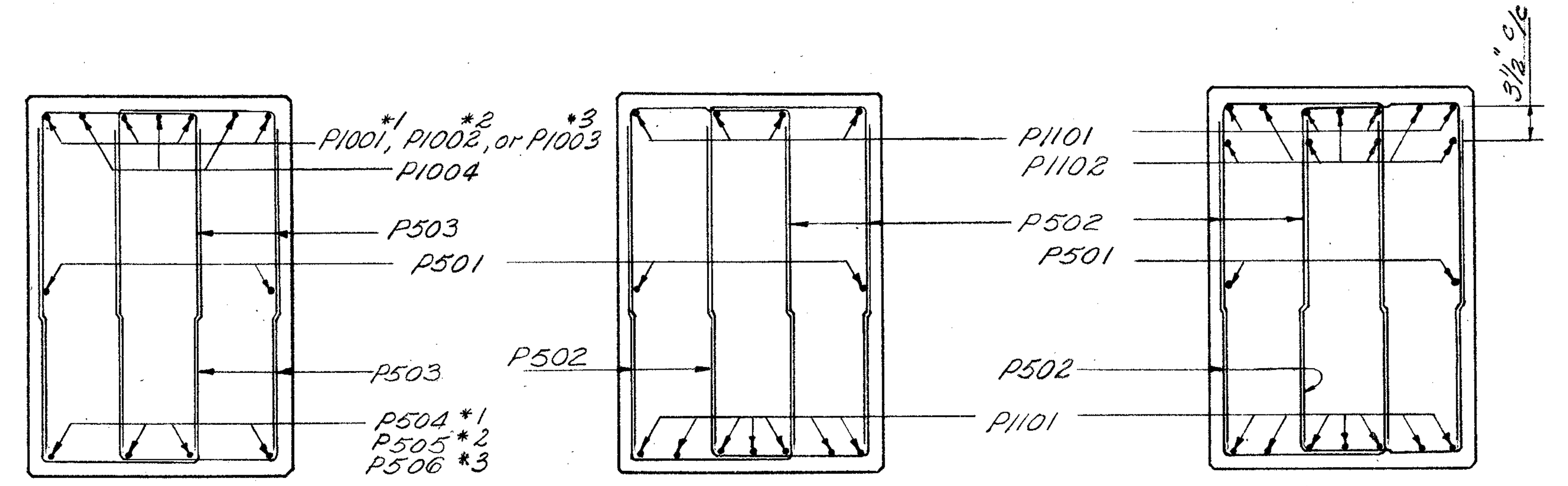
For WORK POINT location, see sheet 10/14

For L", see sheet 10/14

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel for Pier #2 in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.



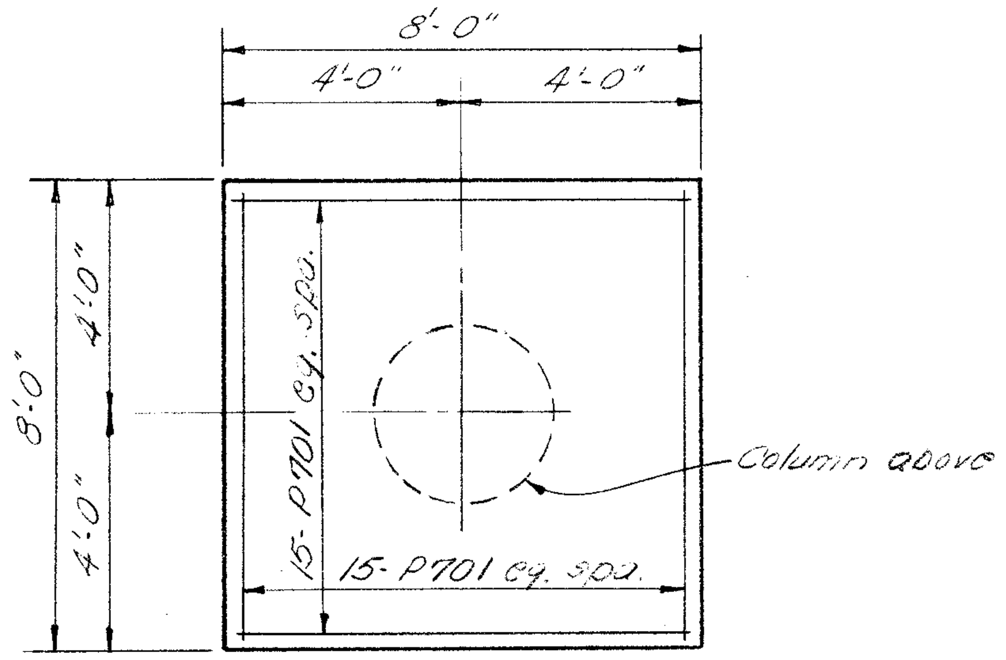
ELEVATION



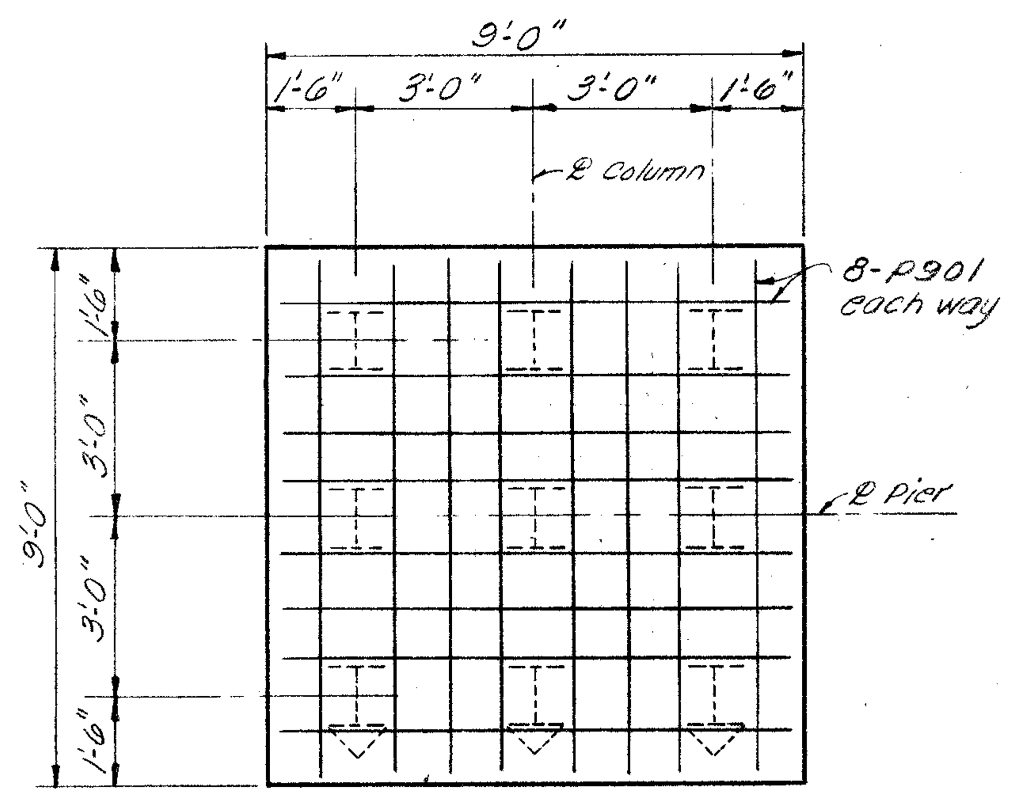
SECTION A-A

SECTION B-B

SECTION C-C

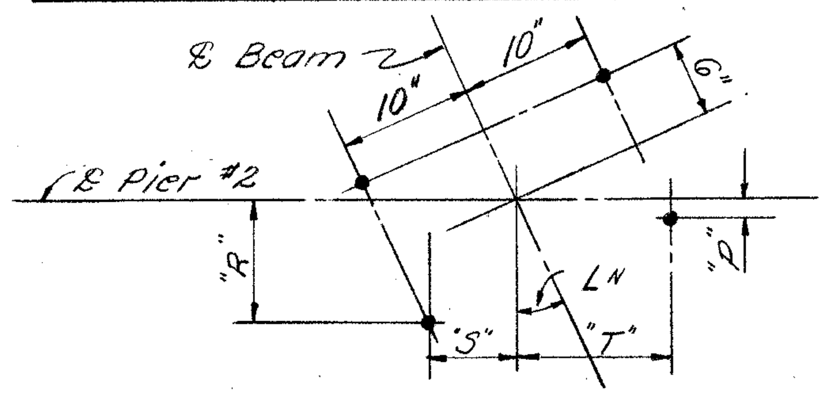


PLAN - FOOTING PIER #1 & #2



PLAN - FOOTING - PIER #3

ELEVATIONS												
LOCATION	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"K"	"L"	"M"	"N"
PIER #1	695.87	695.89	695.91	695.94	695.96	695.72	695.49	691.55	691.21	675.00	674.25	673.50
PIER #2	697.90	697.92	697.95	697.99	698.00	697.78	697.56	693.63	693.29	676.00	675.25	674.50
PIER #3	699.64	699.67	699.71	699.74	699.76	699.54	699.32	695.38	695.04	677.00	676.25	675.50



ANCHOR BOLT LAYOUT

DIMENSIONS				
LOCATION	"P"	"R"	"S"	"T"
Beam #1	1 1/16"	9 3/4"	6 7/16"	11 5/8"
Beam #2	1 3/16"	9 11/16"	6 1/2"	11 5/8"
Beam #3-#7	1 5/16"	9 5/8"	6 5/8"	11 9/16"

9/14

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

PIER DETAILS — LEFT BRIDGE
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	5,5,70	

HAM - 275 - 03.86

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

583/630

FRAMING - PLAN

DIMENSIONS													ANGLE
LOCATION	"A"*	"B"*	"C"	"D"	LOCATION	"E"	"F"	"G"	"H"	"K"	"L"	"M"	"N"
℄ Brg. Abut. #1	27'-4 5/16"	27'-0 7/8"	5'-10 7/8"	5'-10 7/8"	Beam #1	58'-8 5/8"	16'-0"	46'-10 5/16	16'-0"	53'-1 5/8"	14'-0"	46'-10 11/16"	64° 21' 22"
℄ Pier #1	27'-5 3/8"	27'-1 5/16"	6'-7 5/16"	6'-7 5/16"	Beam #2	58'-5"	16'-0"	46'-5 7/16	16'-0"	52'-9 1/2"	14'-0"	46'-7 13/16"	64° 58' 40"
℄ Pier #2	27'-6 11/16"	27'-1 15/16"	7'-6 5/8"	7'-6 5/8"	Beam #3 - #7	58'-1 7/16"	16'-0"	46'-0 11/16"	16'-0"	52'-5 1/2"	14'-0"	46'-5"	65° 36' 20"
℄ Pier #3	27'-7 13/16"	27'-2 1/2"	8'-4 1/2"	8'-4 1/4"	Beam #8 - #13	64'-1"	16'-0"	45'-11 15/16"	16'-0"	52'-4 3/4"	14'-0"	46'-4 1/2"	65° 42' 53"
℄ Brg. Abut. #2	27'-8 9/16"	27'-2 7/8"	8'-11"	8'-11"	Reference Chord	58'-1 1/4" / 64'-1 7/16"	78'-0 7/16			66'-5 1/4"		46'-4 7/8"	65° 38' 28"

*A and B are measured between ℄ beam and reference chord

NOTES

All Intermediate crossframes to be normal to Beam #7 and Beam #8 respectively.

For End Crossframe details and welding of moment plates, see Standard Drawing SD-1-69.

10 / 14

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM - 275 - 0726
I-74 OVER I-275

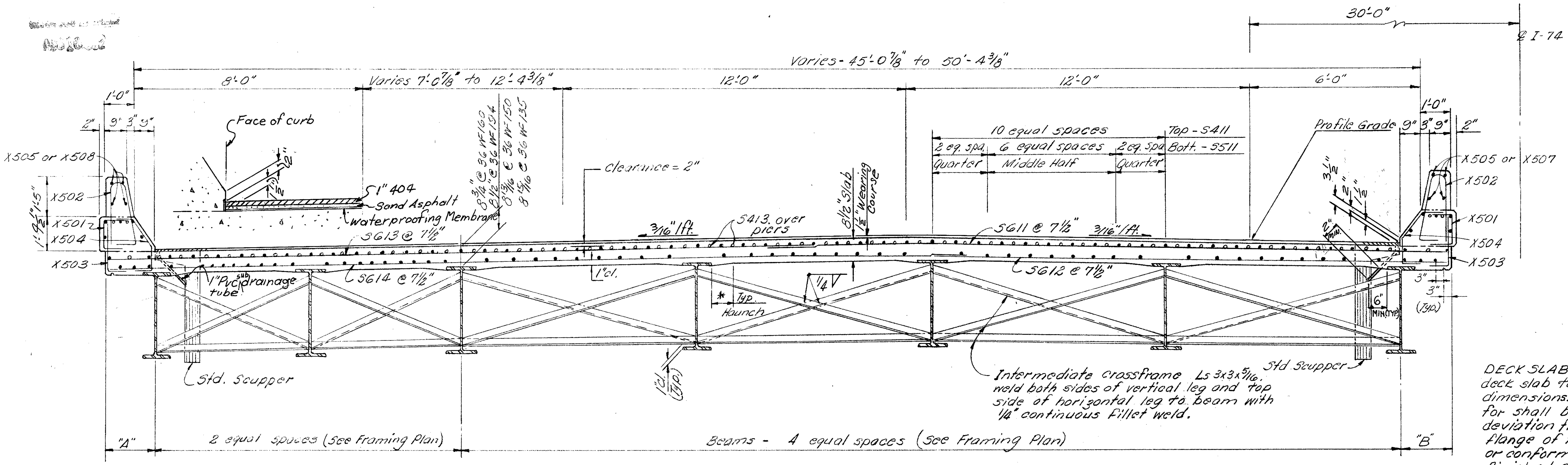
HAMILTON COUNTY STA. 384 + 23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.S.C.	E.D.A.		J.R.P.		5.5.70	

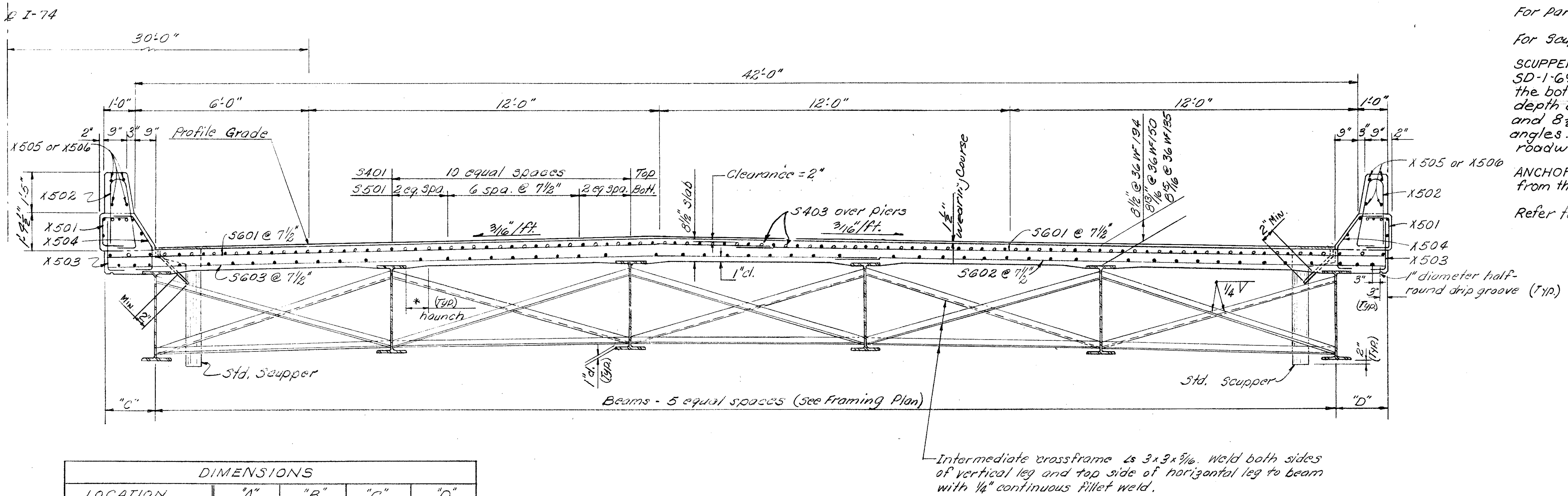
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

584/630

HAM-275-03.86



TRANSVERSE SECTION - LEFT BRIDGE



TRANSVERSE SECTION ~ RIGHT BRIDGE

NOTES

DECK SLAB DEPTH: The distances shown from top of deck slab to top of steel beams are the design dimensions. The quantity of deck concrete to be paid for shall be based on those dimensions, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

* A HAUNCH WIDTH of 9" shall be used for computing quantity of concrete. However, the haunch width may very between 6" and 12" provided that the slope shall not be more than 1:4 for a haunch less than 9" in width.

For Parapet Details, see Standard Drawing BR-1-67

For Scupper Details, see Standard Drawing SD-1-69

SCUPPERS shall be in accordance with Standard Drawing SD-1-69 except that scupper pipes shall extend 8" below the bottom of the beam instead of 2" and the box depth dimensions shall be changed to 5 1/2" and 8 1/2" to insure concrete cover over the support angles. Place the top of the scupper 1/4" below the roadway surface.

ANCHOR BARS for the end dam shall be 3 3/8" clear from the top of concrete.

Refer to Sheet 12/14 for additional subdrainage details

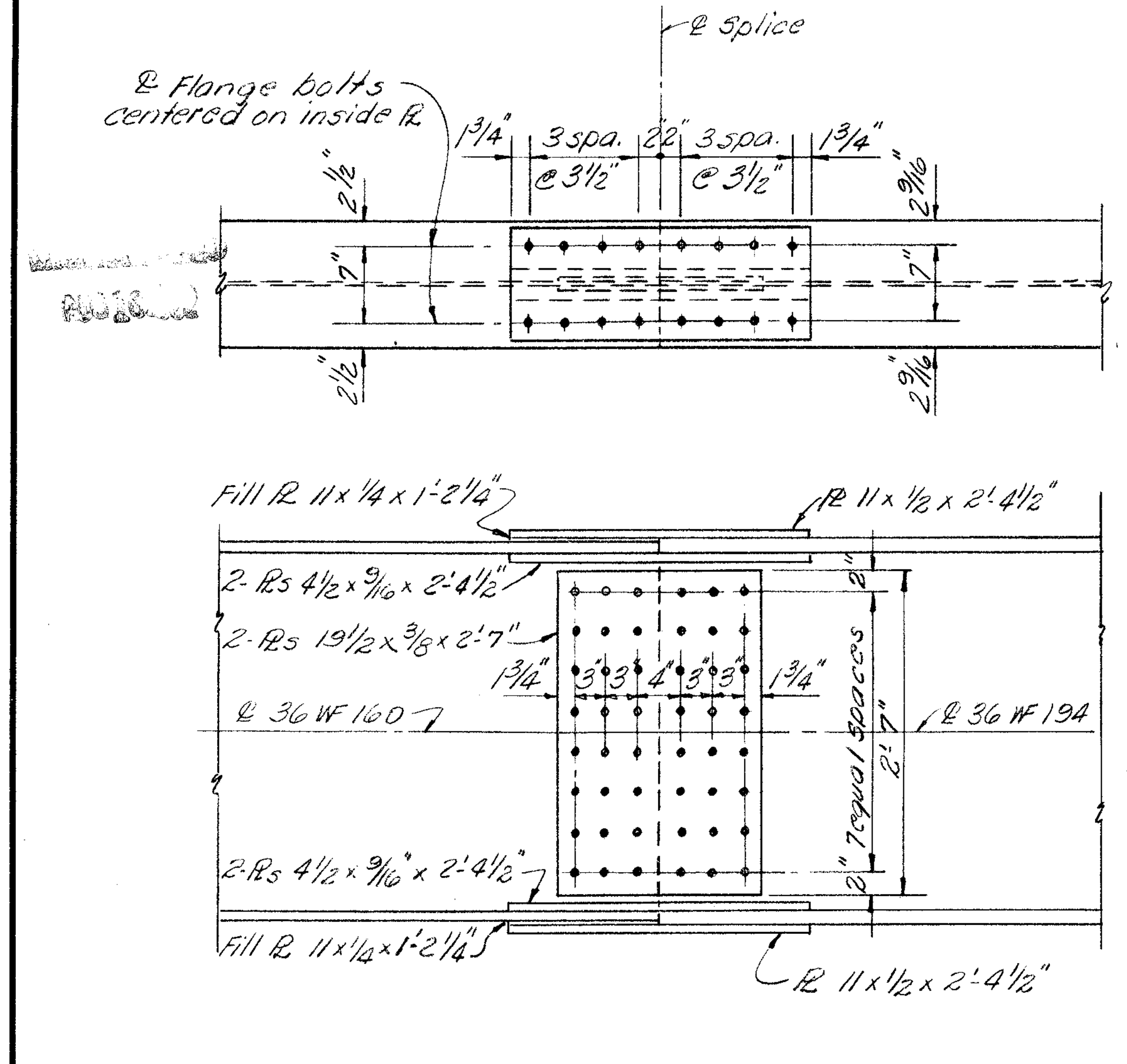
DIMENSIONS				
LOCATION	"A"	"B"	"C"	"D"
℄ Brg. Abutment #1	2'-0"	1'-9"	1'-11 7/8"	1'-9"
℄ Pier #1	1'-9"	1'-11 7/8"	1'-9 1/4"	2'-0 1/4"
℄ Pier #2	1'-7 7/8"	2'-1"	1'-9"	2'-1 1/8"
℄ Pier #3	1'-9 1/2"	1'-11 1/2"	1'-11 1/4"	1'-11 1/2"
℄ Brg. Abutment #2	2'-0"	1'-9"	2'-2 1/4"	1'-9"

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

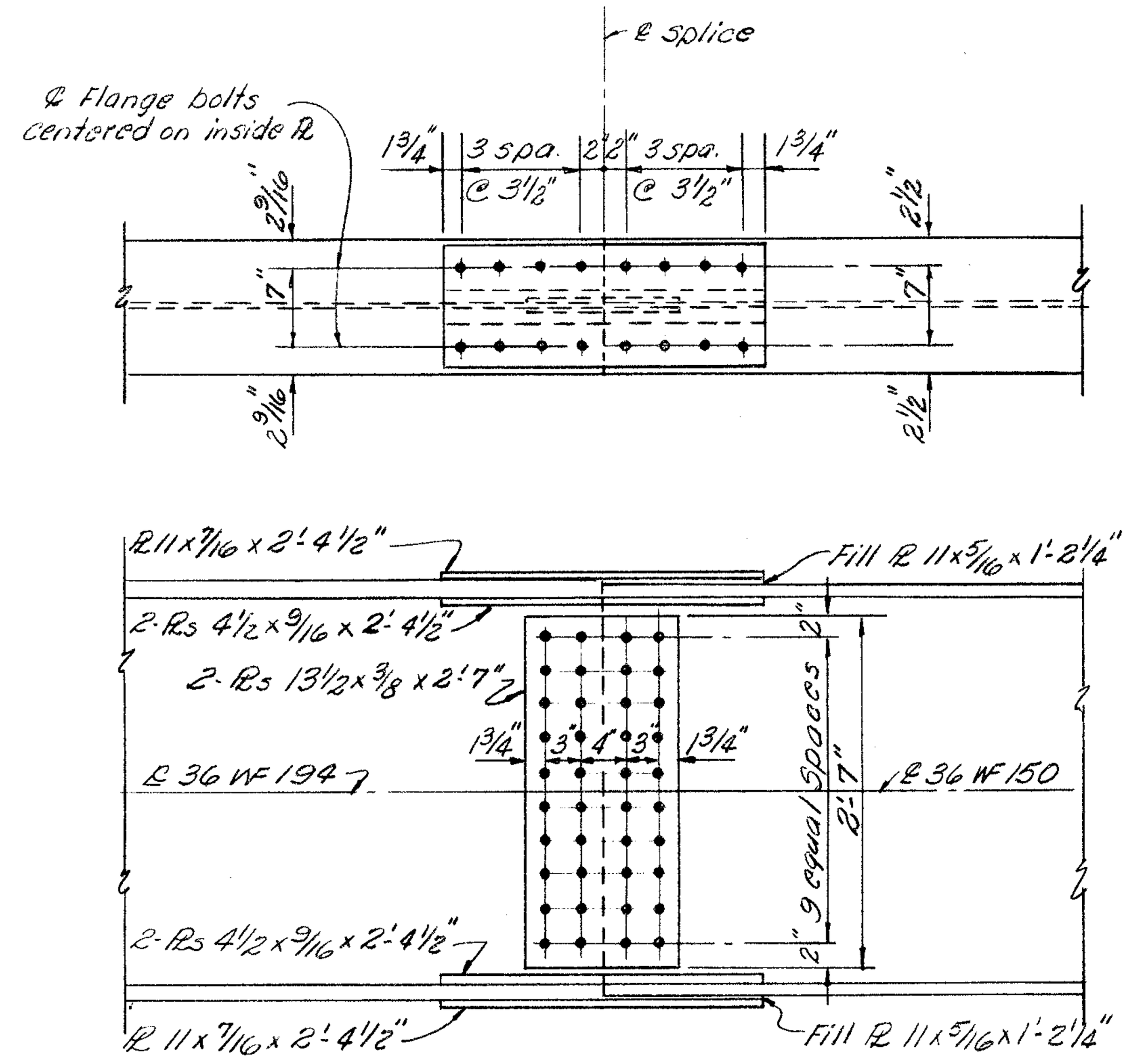
SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

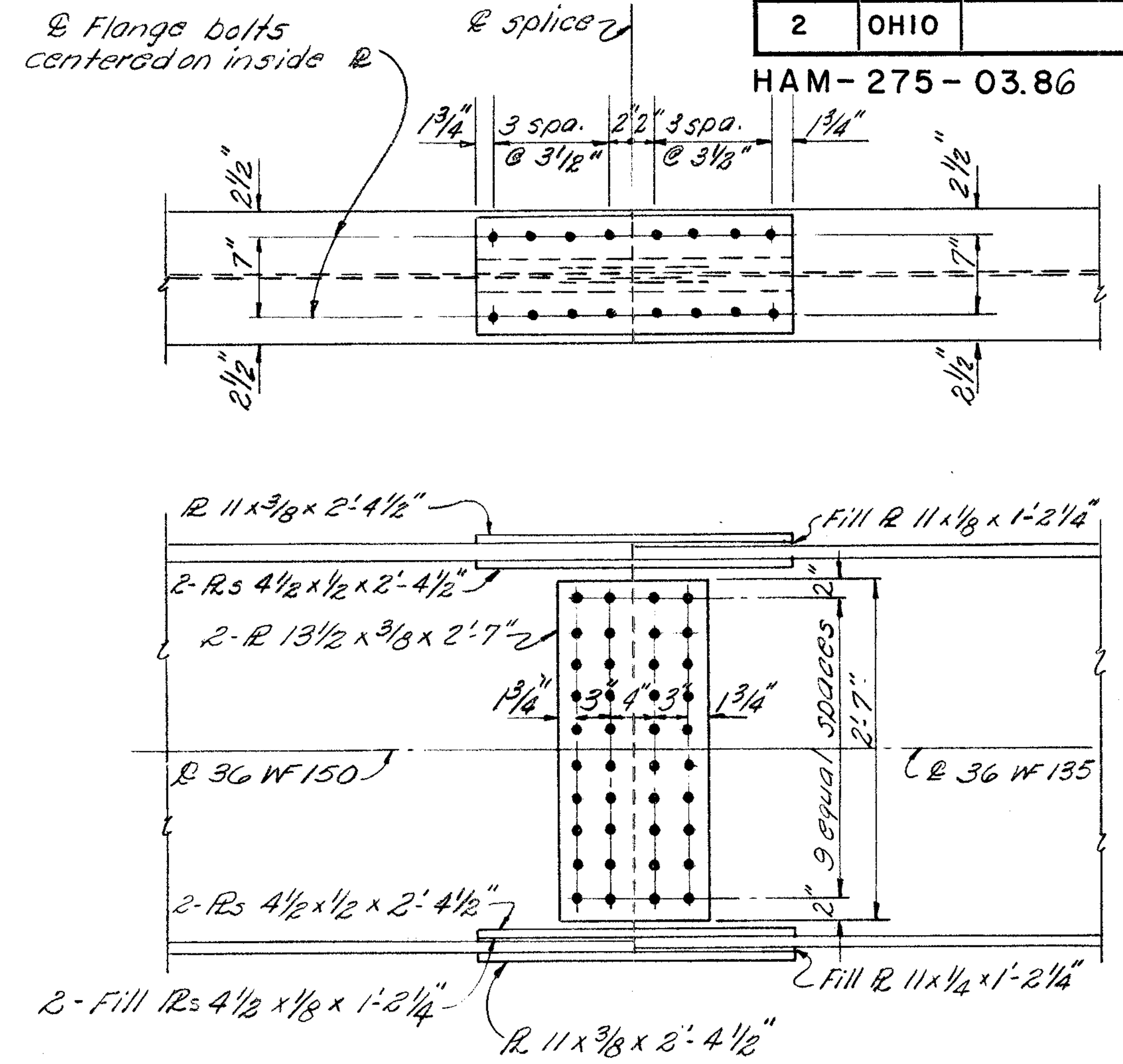
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	[illegible]	5.5.70	



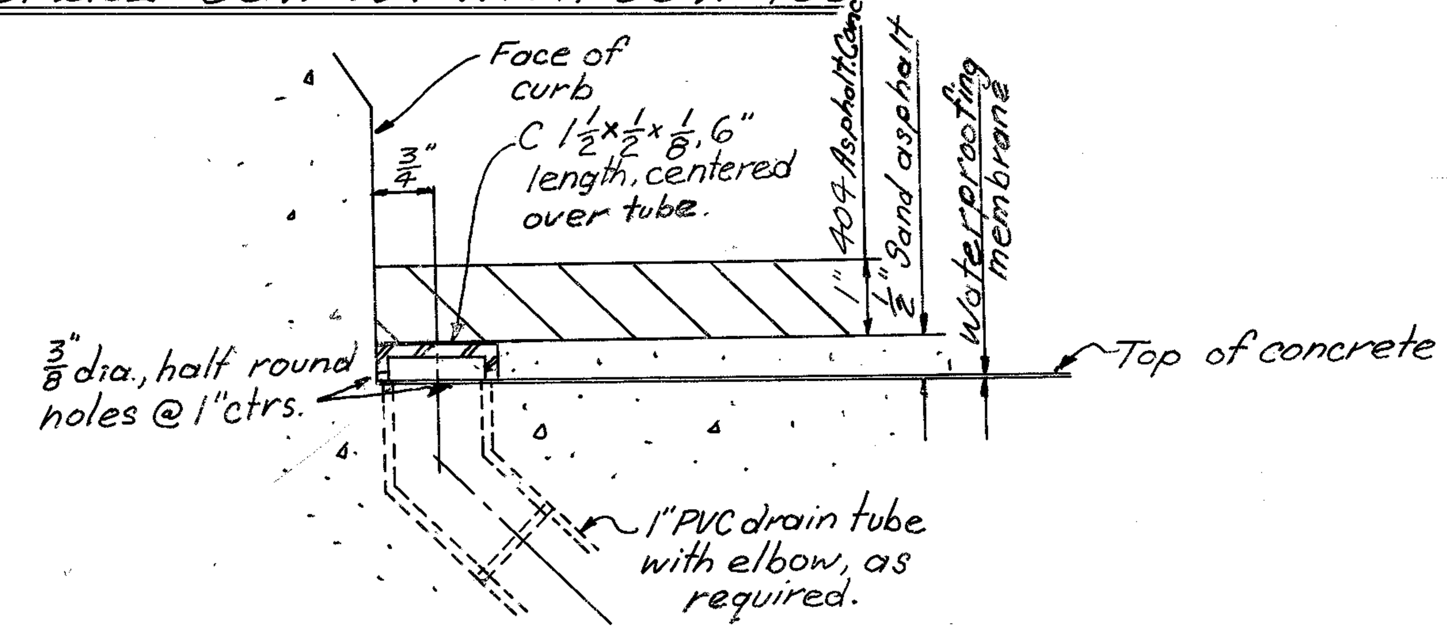
FIELD SPLICE - 36 WF 160 WITH 36 WF 194



FIELD SPLICE - 36 WF 194 WITH 36 WF 150



FIELD SPLICE - 36 WF 150 WITH 36 WF 135

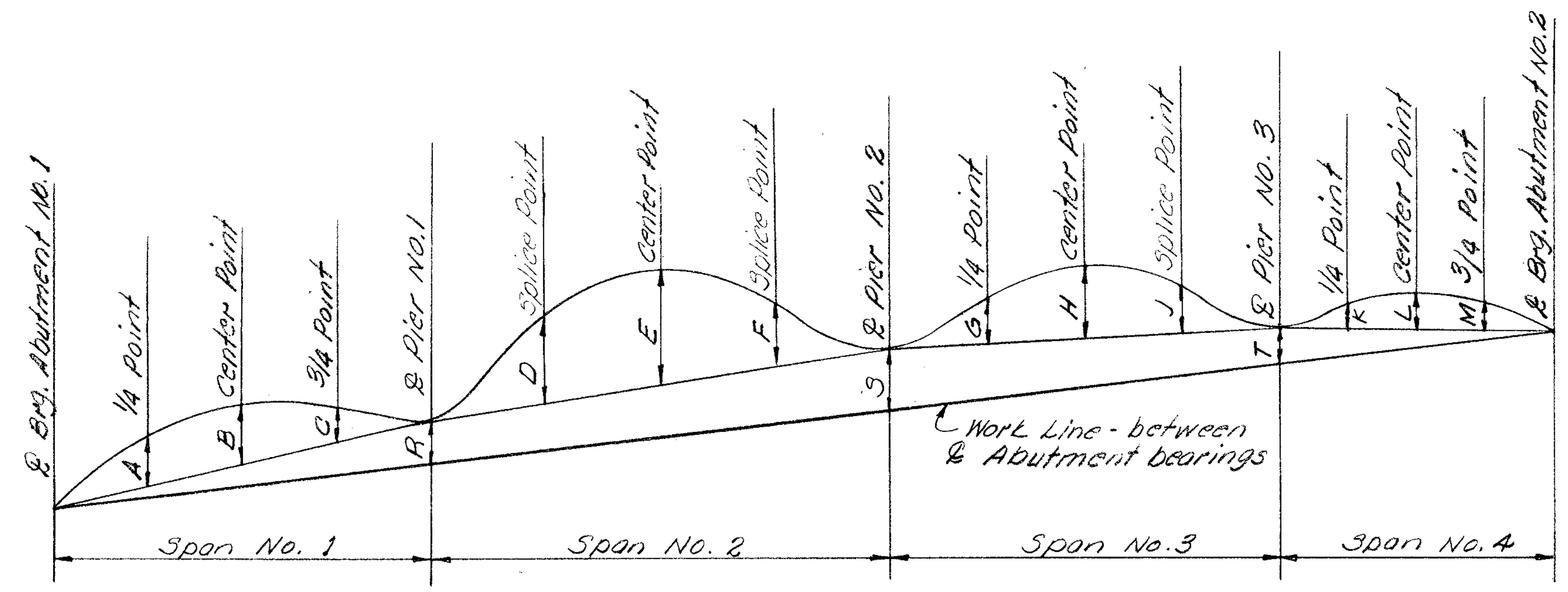


SUBDRAINAGE DETAILS

In addition to the location and spacing provisions of 518.07, the tubes shall clear cross bracing angles by at least 6". Place the top of the 1" P.V.C. pipes flush with the concrete surface. Place the waterproofing membrane over the tube, puncturing if the membrane is sheet type, with a neat hole sealed around the lip of the tube. Do not use the angle specified in 518.07. Place a 6" length of galvanized channel, 1½" x ½ x ⅛" (need not be A36) centered over each tube. Include with 404 Asphalt concrete for payment.

NOTES

For field splice 36 WF 194 with 36 WF 194, other details and dimensions not shown, See Standard Drawing SD-1-69



CAMBER DIAGRAM

DEFLECTION AND CAMBER

LEFT BRIDGE - BEAMS #1 thru #7

	SPAN NO. 1			SPAN NO. 2			SPAN. NO. 3			SPAN NO. 4		
	¼ Point A	Center Point B	¾ Point C	Spl. Point D	Center Point E	Spl. Point F	¼ Point G	Center Point H	Spl. Point J	¼ Point K	Center Point L	¾ Point M
Deflection due to weight of steel	1/16	1/16	0	1/16	1/8	1/16	0	1/16	0	0	0	0
Deflection due to remaining dead load	5/16	3/8	1/8	1/2	13/16	1/2	1/8	3/8	1/4	1/16	3/16	3/16
Adjustment required for vertical curve	1/16	1/8	1/16	1/8	3/16	1/8	1/8	1/8	1/8	1/16	1/16	1/16
Required Shop Camber	7/16	9/16	3/16	11/16	1 1/8	11/16	1/4	9/16	3/8	1/8	1/4	1/4

RIGHT BRIDGE - BEAMS #8 THRU #13

	SPAN NO. 1			SPAN NO. 2			SPAN. NO. 3			SPAN NO. 4		
	¼ Point A	Center Point B	¾ Point C	¼ Point D	Center Point E	¾ Point F	¼ Point G	Center Point H	¾ Point J	¼ Point K	Center Point L	¾ Point M
Deflection due to weight of steel	1/16	1/16	1/16	1/16	1/8	1/16	0	1/16	0	0	0	0
Deflection due to remaining dead load	7/16	9/16	1/4	7/16	3/4	7/16	1/8	3/8	1/4	1/16	3/16	3/16
Adjustment required for vertical curve	1/16	1/8	1/16	1/8	3/16	1/8	1/8	1/8	1/8	1/16	1/16	1/16
Required shop camber	9/16	3/4	3/8	5/8	1 1/16	5/8	1/4	9/16	3/8	1/8	1/4	1/4

OFFSETS

LOCATION	Beam #1	Beam #2	Beam #3	Beam #4	Beam #5	Beam #6	Beam #7	Beam #8	Beam #9	Beam #10	Beam #11	Beam #12	Beam #13
"R"	1 3/8	1 3/8	1 3/8	1 3/8	1 7/16	1 7/16	1 7/16	1 1/2	1 1/2	1 1/2	1 9/16	1 9/16	1 9/16
"S"	1 15/16	1 7/8	1 7/8	1 7/8	2	2	2	1 15/16	1 15/16	1 15/16	2 1/16	2 1/16	2 1/16
"T"	1 3/16	1 1/8	1 1/8	1 1/8	1 3/16	1 3/16	1 3/16	1 3/16	1 3/16	1 3/16	1 1/4	1 1/4	1 1/4

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM - 275-0726
I-74 OVER I-275

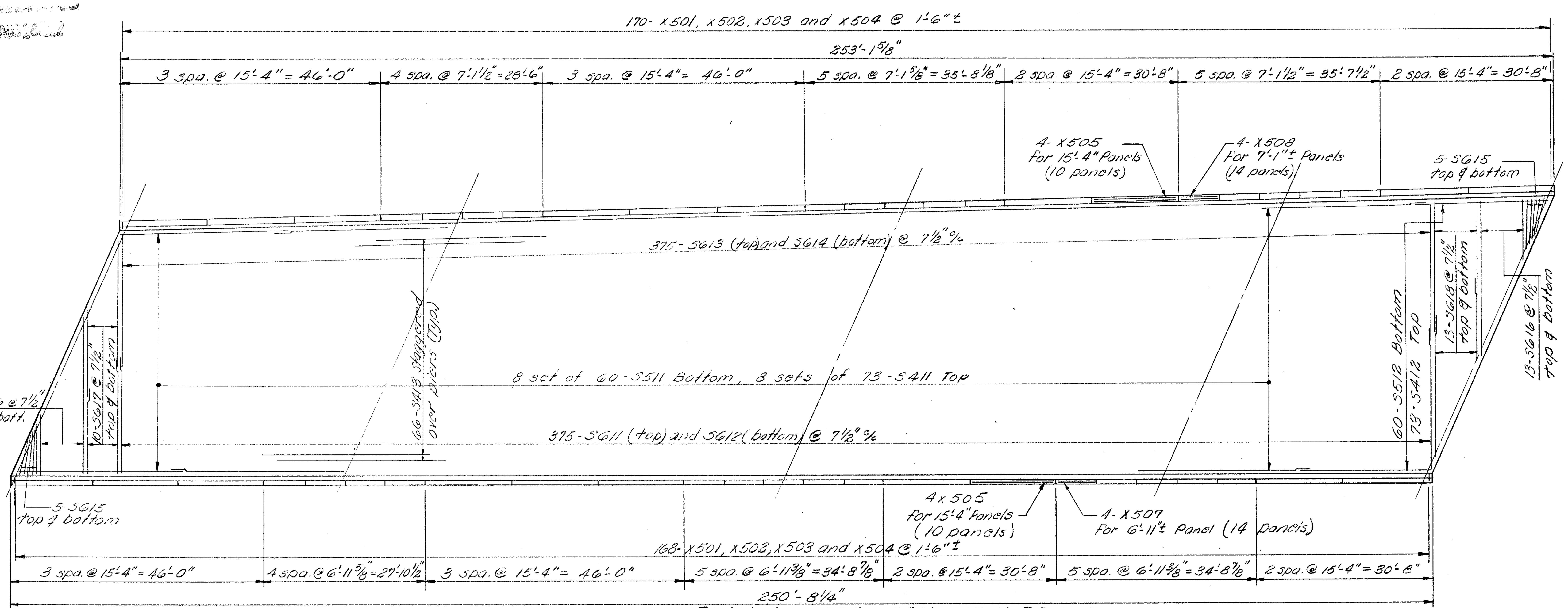
HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	5.5.70	

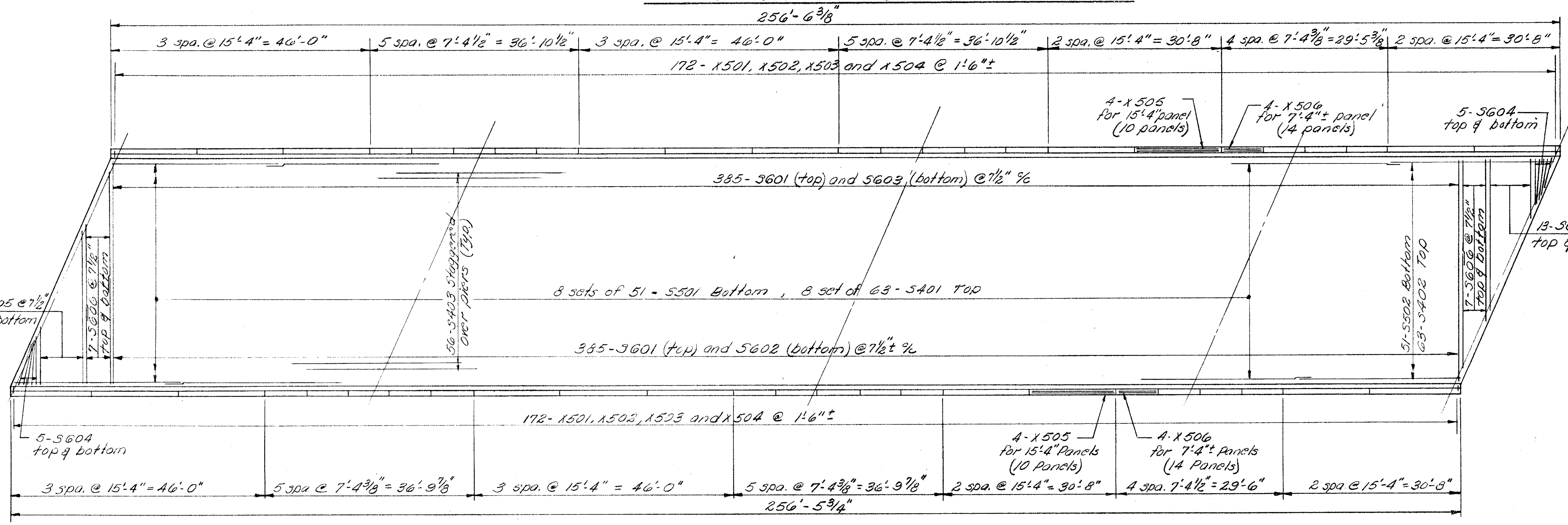
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

586/630

HAM-275-03.86



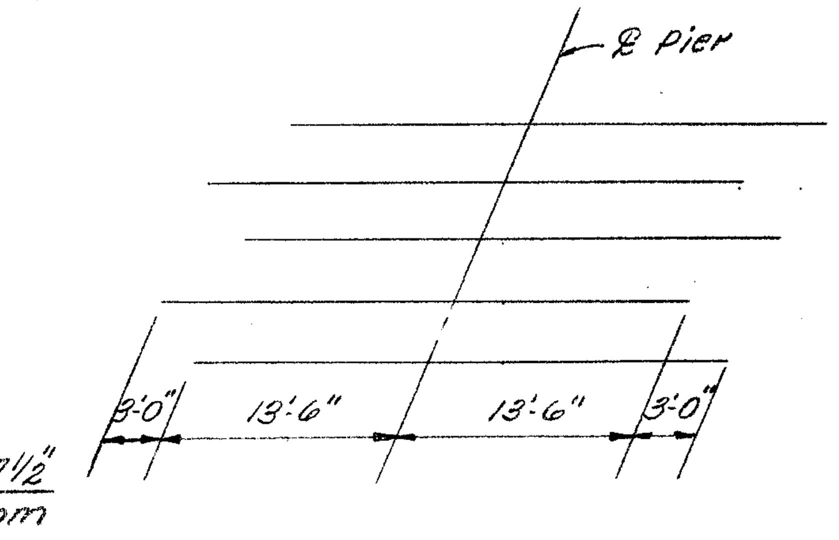
PLAN - CONCRETE DECK - LEFT BRIDGE



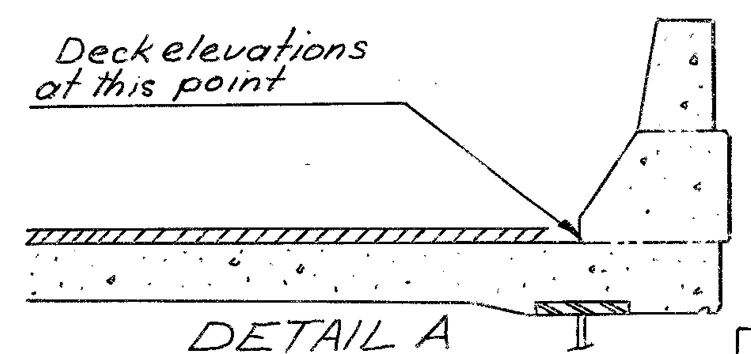
PLAN - CONCRETE DECK - RIGHT BRIDGE

DECK ELEVATIONS				
LOCATION	LEFT BRIDGE		RIGHT BRIDGE	
	LT. CURB	RT. CURB	LT. CURB	RT. CURB
℄ Brg. Abut. #1	699.43	699.02	698.22	697.61
1/4 Point	699.86	699.46	698.72	698.11
1/2 Point	700.26	699.87	699.18	698.57
3/4 Point	700.64	700.25	699.60	699.00
℄ Pier #1	701.01	700.63	700.02	699.43
1/4 Point	701.57	701.20	700.59	700.00
1/2 Point	702.11	701.74	701.14	700.56
3/4 Point	702.58	702.22	701.64	701.06
℄ Pier #2	703.03	702.68	702.11	701.54
1/4 Point	703.46	703.12	702.55	701.98
1/2 Point	703.88	703.55	702.99	702.43
3/4 Point	704.28	703.95	703.39	702.84
℄ Pier #3	704.66	704.34	703.79	703.24
1/4 Point	704.96	704.62	704.08	703.53
1/2 Point	705.22	705.91	709.37	703.83
3/4 Point	705.48	705.18	704.64	704.11
℄ Brg. Abut. #2	705.73	705.44	704.91	704.37

NOTE: The Deck Elevations shown are the control elevations to which screeds must be set. The proper allowance for anticipated dead load deflection due to weight of deck concrete has been added. See Detail A.



STAGGER DIAGRAM OF S401 AND S411 BARS



DETAIL A

13/14

VOGT, IVERS, & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM-275-0726
I-74 OVER I-275

HAMILTON COUNTY STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	5.5.70	

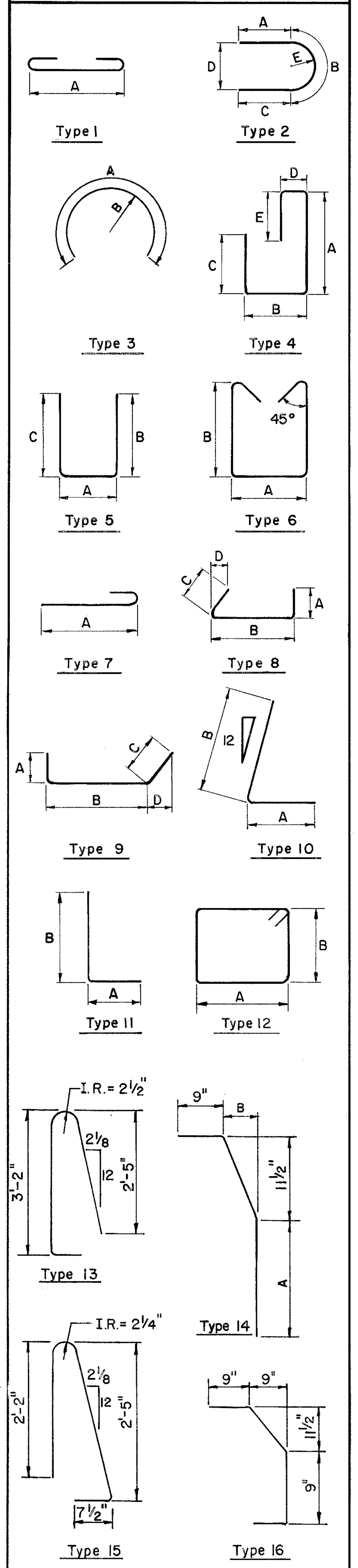
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

587/630

HAM-275-03.86

REINFORCING STEEL LIST

BENDING DIAGRAM



S IN THE COLUMN FOR "TYPE" INDICATES STRAIGHT BARS.

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
			ABUTMENT NO. 1						
A501	31	7-0	226	11	0-7½	6-6			
A502	34	9-6	337	11	0-7½	9-0			
A503	65	7-0	475	5	3-5	1-11	1-11		
A504	21	19-0	416	S					
A505	38	30-0	1189	S					
A506	1	13-6	14	S					
A507	10	7-0	73	S					
A508	19	22-6	446	S					
A509	1	9-6	10	S					
A510	36	8-6	319	S					
A511	36	9-2	344	S					
A512	8	8-6	71	9	0	7-0	1-6	1-2	
A513	16	14-0	234	S					
A514	24	4-6	113	S					
A515	20	3-6 to 4-10	87	S	4 sets of 5 each vary by 4"				
Y501	44	2-0	92	5	1-0	0-7½	0-7½		
Y502	40	3-0	125	S					
Y503	24	6-0	150	13					
Y504	32	14-0	467	S					
Y505	8	7-3	60	S					
Y506	8	8-0	67	S					
A601	31	11-8	543	11	5-4	6-6			
A602	34	14-2	723	11	5-4	9-0			
A603	8	25-6	306	S					
A604	8	27-3	327	S					
A605	92	11-1	1531	5	1-5	5-0	5-0		
A606	60	4-11	443	5	1-5	1-11	1-11		
A607	60	7-1	638	5	0-11	3-3	3-3		
A608	32	7-7	364	5	1-5	3-3	3-3		
A609	4	11-0	66	S					
A610	4	12-0	72	S					
A611	12	19-6	351	5	1-2	9-4	9-4		
A612	12	24-0	433	5	1-2	11-7	11-7		
A613	24	6-4	228	14	4-6	0-9			
A614	20	2-7 to 3-11	98	S	4 sets of 5 each vary by 4"				
Y701	4	4-0	33	S					
Y702	4	4-9	39	14	3-2	0-2¼			
Y703	4	4-10	40	14	3-2	0-4			
Y704	4	4-11	40	14	3-2	0-6			
Y705	4	5-0	41	14	3-2	0-9			
			ABUTMENT NO. 2						
B501	67	8-3	577	5	5-4	1-7	1-7		
B502	67	7-0	489	11	0-7½	6-6			
B503	67	7-0	489	5	3-5	1-11	1-11		
B504	34	30-0	1064	S					
B505	15	19-0	297	S					
B506	1	13-6	14	S					
B507	2	8-0	17	S					
B508	15	28-6	446	S					
B509	2	15-0	31	S					
B510	1	9-6	10	S					
B511	12	8-6	106	S					
B512	12	9-2	115	S					
B513	16	14-0	234	S					
B514	24	4-6	113	S					
B515	20	3-6 to 4-10	87	S	4 sets of 5 each vary by 4"				
B516	8	7-0	58	S					
B517	8	8-6	71	9	0	7-0	1-6	1-2	
B518	32	10-8	356	12	3-0	2-0			
Y501	44	2-0	92	5	1-0	0-7½	0-7½		
Y502	40	3-0	125	S					
Y503	24	6-0	150	13					
Y504	32	14-0	467	S					
Y505	8	7-3	60	S					
Y506	8	8-0	67	S					
B601	67	14-0	1409	5	5-4	2-6	6-6		
B602	99	11-1	1648	5	1-5	5-0	5-0		
B603	67	4-11	495	5	1-5	1-11	1-11		
B604	67	7-1	713	5	0-11	3-3	3-3		
B605	32	7-7	364	5	1-5	3-3	3-3		

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
B606	24	19-6	703	5	1-2	9-4	9-4		
B607	24	6-4	228	14	4-6	0-9			
B608	20	2-7 to 3-11	98	S	4 sets of 5 each vary by 4"				
Y701	4	4-0	33	S					
Y702	4	4-9	39	14	3-2	0-2¼			
Y703	4	4-10	40	14	3-2	0-4			
Y704	4	4-11	40	14	3-2	0-6			
Y705	4	5-0	41	14	3-2	0-9			
B801	14	30-0	1121	S					
B802	7	22-3	416	S					
B803	7	31-6	589	S					
B804	12	11-0	352	S					
B805	12	12-0	384	S					
	ABUTMENT TOTAL		25,879						
			PIERS (LEFT BRIDGE)						
P501	12	28-3	354	S					
P502	456	9-1	4320	5	1-10	3-9	3-9		
P503	96	7-1 to 8-7	784	5	1-10	2-9 to 3-6	2-9 to 3-6	24 sets of 4 vary B & C by 3"	
P504	8	4-0	33	9	0	2-6	1-7	1-6	
P505	8	4-10	40	9	0	3-4	1-7	1-6	
P506	8	5-8	47	9	0	4-2	1-7	1-6	
P701	180	7-6	2759	S					
P901	48	11-0	1795	1	8-6				
P1001	8	18-0	620	7	16-7				
P1002	8	19-0	654	7	17-7				
P1003	8	19-8	677	7	18-3				
P1004	18	15-0	1162	7	13-7				
P1005	72	6-6	2014	11	1-4½	5-5			
P1006	8	17-5	600	S					
P1007	8	18-0	620	S					
P1008	8	18-7	640	S					
P1009	8	18-6	637	S					
P1010	8	19-1	657	S					
P1011	8	19-8	677	S					
P1012	8	19-3	627	S					
P1013	8	19-10	683	S					
P1014	8	20-5	703	S					
P1101	54	25-0	7173	S					
P1102	21	15-0	1674	S					
			PIERS (RIGHT BRIDGE)						
P521	12	24-2	302	S					
P522	24	5-6	138	9	0	4-0	1-7	1-6	
P523	480	7-7	3796	5	1-10	3-0	3-0		
P524	96	5-7 to 7-1	634	5	1-10	2-0 to 2-9	2-0 to 2-9	24 sets of 4 vary B & C by 3"	
P721	180	7-6	2759	S					
P921	48	11-0	1795	1	8-6				
P1021	36	21-0	3253	S					
P1022	15	15-0	968	S					
P1023	24	17-6	1807	7	16-1				
P1024	18	12-6	968	7	11-1				
P1025	72	6-6	2014	11	1-4½	5-5			
P1026	8	20-9	714	S					
P1027	8	21-2	729	S					
P1028	8	21-7	743	S					
P1029	8	21-10	752	S					
P1030	8	22-3	766	S					
P1031	8	22-9	783	S					
P1032	8	22-7	777	S					
P1033	8	22-1	795	S					
P1034	8	23-7	812	S					
P1121	12	21-0	1339	S					
	PIERS TOTAL		62,530						

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
				SUPERSTRUCTURE (RIGHT BRIDGE)					
X501	344	2-0	718	5	1-0	0-7½	0-7½		
X502	344	5-4	1913	15					
X503	344	2-6	897	11	0-7½	2-0			
X504	344	3-4	1196	16					
X505	80	15-0	1252	S					
X506	112	7-0	818	S					
S401	504	30-0	10,100	S					
S402	63	26-0	1,094	S					
S403	168	30-0	3,367	S					
S501	408	30-0	12,766	S					
S502	51	29-0	1,543	S					
S601	770	22-10	26,407	S					
S602	385	19-0	10,987	S					
S603	385	26-8	15,421	S					
S604	20	10-0	300	S					
S605	52	11-10 to 29-10	1,627	S	4 each vary by 1'-6"				
S606	56	17-0 to 21-6	1,619	S	8 each vary by 9"				
				SUPERSTRUCTURE (LEFT BRIDGE)					
X501	338	2-0	705	5	1-0	0-7½	0-7½		
X502	338	5-4	1880	15					
X503	338	2-6	881	11	0-7½	2-0			
X504	338	3-4	1175	16					
X505	80	15-0	1252	S					
X507	56	6-7	384	S					
X508	56	6-9	394	S					
S411	584	30-0	11,703	S					
S412	73	23-0	1,122	S					
S413	198	30-0	3,968	S					
S511	480	30-0	15,019	S					
S512	60	26-0	1,627	S					
S611	375	24-0	13,518	S					
S612	375	27-0	15,208	S					
S613	375	25-0 to 30-0	15,489	S	75 each vary by 1'-3"				
S614	375	22-0 to 27-0	13,800	S	75 each vary by 1'-3"				
S615	20	10-0	300	S					
S616	52	12-0 to 30-0	1,640	S	4 each vary by 1'-6"				
S617	40	16-9 to 23-6	1,209	S	4 each vary by 9"				
S618	52	17-0 to 26-0	1,679	S	4 each vary by 9"				
	SUPERSTRUCTURE TOTAL		194,978						
		REPLACEMENT BARS							
RE401	2	6-3	—	S					
RE501	3	6-7	—	S					
RE601	7	6-11	—	S					
RE701	1	7-3	—	S					
RE801	1	7-6	—	S					
RE901	1	7-10	—	S					
RE1001	1	8-3	—	S					
RE1101	1	8-7	—	S					
RESP401	1	6-3	—	3					

NOTES

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size.

MARK	NO.	LENGTH (HEIGTH)	WEIGHT
SPIRALS – Core Diam. 32" c/c – Pitch 4½" c/c – Other details in accordance with C.R.S.I. standard practice.			
SP401	1	14-2	270
SP402	1	14-9	281
SP403	1	15-4	291
SP404	1	15-3	290
SP405	1	15-10	300
SP406	1	16-5	310
SP407	1	16-0	303
SP408	1	16-7	313
SP409	1	17-2	324
SP421	1	17-6	330
SP422	1	17-11	337
SP423	1	18-4	345
SP424	1	18-7	349
SP425	1	19-0	357
SP426	1	19-6	366
SP427	1	19-4	363
SP428	1	19-10	372
SP429	1	20-4	381
		TOTAL	5,882

14 / 14

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING BAR LIST

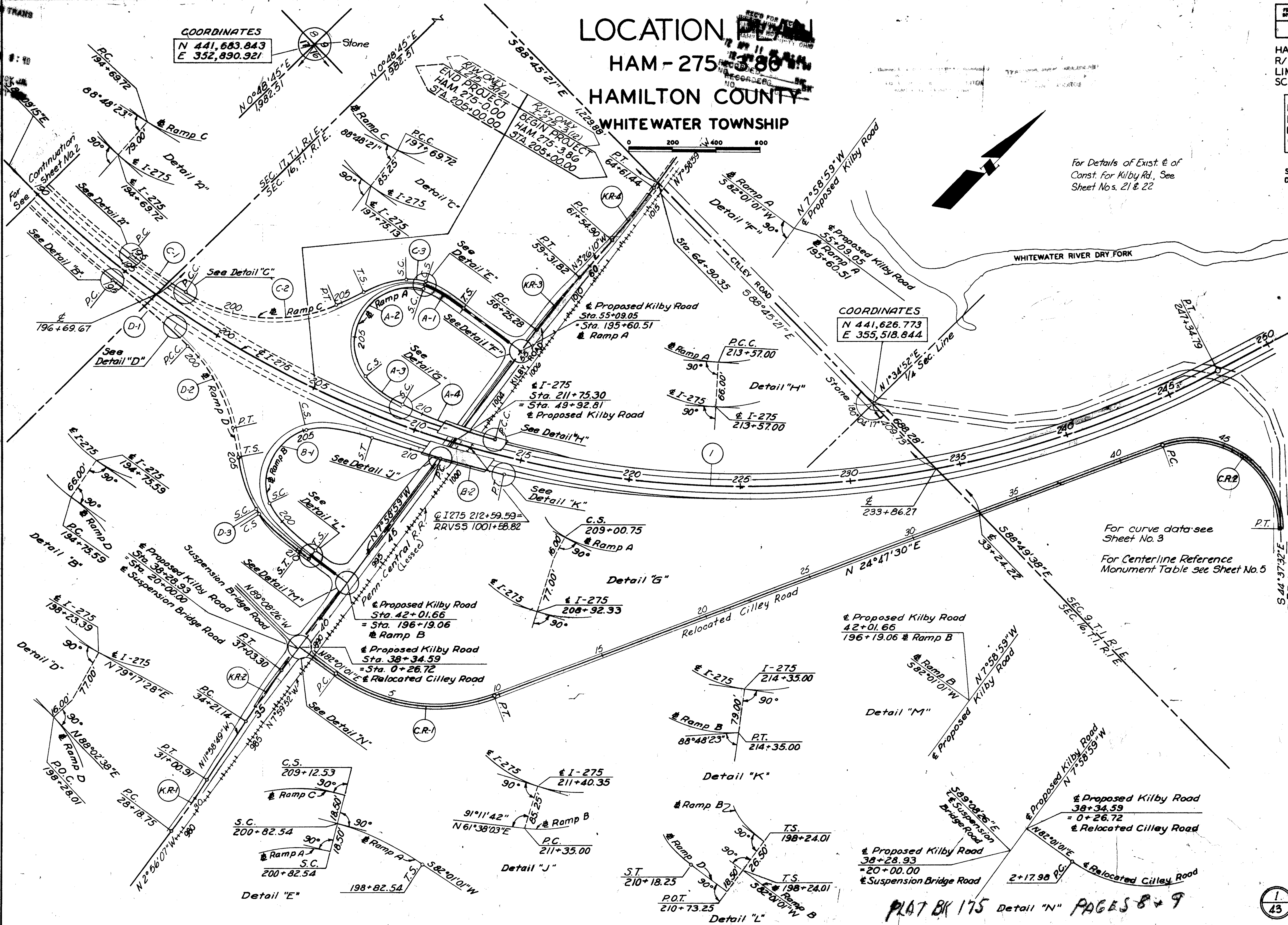
BRIDGE NO. HAM-275-0726

I-74 OVER I-275

HAMILTON COUNTY — STA. 384+23.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
S.S.C.	E.D.A.		J.R.P.	5.5.70	

LOCATION PLAN
HAM-275-3.86
HAMILTON COUNTY
WHITEWATER TOWNSHIP



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

588 / 630

HAM.-275-3.86
R/W PLAN
LIMITED ACCESS
SCALE 1" = 200'

G18961

1 / 43

RECEIVED ____________ 19 ______
RECORDED ____________ 19 ______
BOOK ____________ PAGE ______
COUNTY RECORDER ____________

SIGNED Robert F. Bevis
DATE 2/23/72 DIVISION DEPUTY DIRECTOR

SURVEYOR'S SEAL

THIS IMPROVMENT HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY FROM STATION ________ TO STATION ________ BY ACTION OF THE DIRECTOR OF HIGHWAYS AND RECORDED IN VOLUME ____ PAGE ____ OF DIRECTOR JOURNAL PURSUANT TO LAW.

THIS PLAN PREPARED FOR THE STATE OF OHIO DEPARTMENT OF HIGHWAYS.

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF HIGHWAYS IN ________ BY ________
DATE ________

CENTERLINE REFERENCE MONUMENT DETAIL

see standard const. drawing MC-1

6" Min.
1/2" Steel rod 6" long
2" below ground line
6"
36"
6"

Notes
1. Upper 6" to be formed.
2. Concrete to be class C.
3. Monuments to be placed by Contractor.

DATE	REVISED	BY

PLAT BK 175 PAGES 8 + 9

1 / 43

R/W PLAN - LOCATION PLAN

LOCATION PLAN
HAM - 275 - 3.86
HAMILTON COUNTY
WHITEWATER TOWNSHIP

0 200 400 600

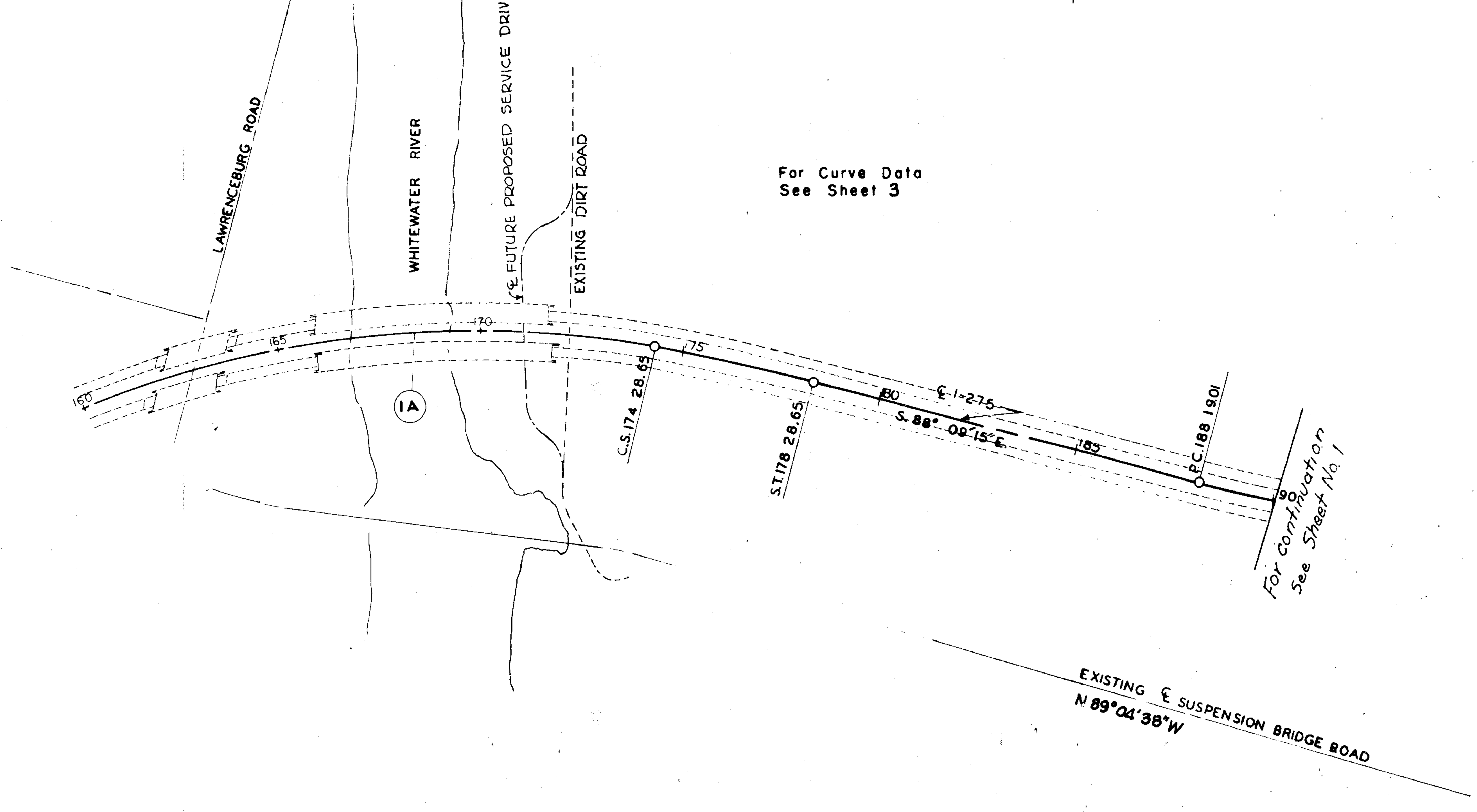
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3 (12)	

589/630

HAM. 275-3.86
R/W PLAN
LIMITED ACCESS
SCALE 1" = 200'

2/43

For Curve Data
See Sheet 3



PLAT 75 PAGES 10 + 11

DATE	REVISED	BY

2/43

R/W PLAN — LOCATION PLAN

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

590
630

HAM.-275-3.86
R/W PLAN
LIMITED ACCESS
SCALE 1"=200'

3
43

G18963

LOCATION PLAN

HAM.-275-3.86

HAMILTON COUNTY

WHITEWATER TOWNSHIP

CURVE	P.I. STA.	Δ	Dc	Rc	Lc	T1	T2	Ls-1	Ls-2	θs-1	θs-2	E	LOCATION	P.I. STA.	P.C. STA.	P.C.C. STA.	P.T. STA.	T.S. STA.	S.C. STA.	C.S. STA.	S.T. STA.	CURVE
1-A	162+77.88	72°15'55"	2°15'00"	2,546.48	2,811.79	2,061.02	2,061.02	400.00	400.00	4°30'00"	4°30'00"	609.69	I-275	162+77.88				142+16.86	146+16.86	174+28.65	174+28.65	1-A
1	222+69.74	73°56'50"	1°15'00"	4,583.66	5,915.78	3,450.73	3,450.73					1,153.71		222+69.74	188+19.01		247+34.79					1
2	263+46.51	12°12'12"	0°45'00"	7,639.44	1,627.11	816.65	816.65					43.53		243+46.51	255+29.86		271+56.97					2
3	310+67.26	28°49'02"	1°00'00"	5,729.58	2,881.72	1,472.02	1,472.02					186.07		310+67.26	295+95.24		324+76.96					3
A-1	200+16.86	21°24'36"				134.32	67.57	200.00		21°24'36"			KILBY ROAD INTERCHANGE	200+16.86				198+82.54	200+82.54			A-1
A-2	208+09.91	142°11'21"	23°00'00"	249.11	618.21	727.37	727.37					519.73		208+09.91					200+82.54	207+00.75		A-2
A-3	207+76.04	25°45'00"				75.28	128.15		200.00		25°45'00"			207+76.04					209+00.75	207+00.75		A-3
A-4	211+29.79	12°32'48"	2°45'00"	2,083.48	456.25	229.04	229.04					12.55		211+29.79		213+57.00			209+00.75			A-4
B-1	214+34.92	159°37'02"	23°05'39"	248.04	390.99	1,610.91	1,610.91	300.00	300.00	34°38'58"	34°38'58"	1,238.14		214+34.92				198+24.01	201+24.01	205+15.00	208+15.00	B-1
B-2	212+85.03	3°40'34"	1°13'38"	4,668.74	300.00	150.05	150.05					2.41		212+85.05	211+35.00		214+35.00					B-2
C-1	196+19.78	3°49'06"	1°16'22"	4,501.63	300.00	150.06	150.06					2.50		196+19.78	194+69.72	197+69.72						C-1
C-2	201+58.07	56°56'13"	8°00'00"	716.20	711.71	388.35	388.35					98.52		201+58.07		197+69.72	204+81.43					C-2
C-3	208+82.87	38°50'37"	20°01'32"	286.11	93.97	264.31	47.41	200.00		20°01'32"		49.06		208+82.87				206+18.56	208+18.56	209+12.53		C-3
D-1	197+01.98	5°39'19"	1°15'00"	4,583.66	452.43	226.40	226.40					5.59		197+01.98	194+75.58	199+28.01						D-1
D-2	201+49.37	34°21'03"	8°00'00"	716.20	429.38	221.36	221.36					33.43		201+49.37		199+28.01	203+57.40					D-2
D-3	207+63.07	41°37'40"	15°00'00"	381.97	27.52	272.34	272.34	250.00	250.00	18°45'00"	18°45'00"	33.93		207+63.07				204+90.73	207+40.73	207+68.25	210+18.25	D-3
KR-1	28+62.47	9°02'41"	2°00'00"	2,864.79	452.24	226.59	226.59					8.95	KILBY ROAD	29+62.47	26+35.88		30+88.12					KR-1
KR-2	35+62.28	3°59'50"	1°25'00"	4,044.41	282.16	141.14	141.14					2.46		35+62.28	34+21.14		37+03.30					KR-2
KR-3	57+78.63	4°32'49"	1°29'00"	3,862.64	306.54	153.35	153.35					3.04		57+78.63	56+25.28		59+31.82					KR-3
KR-4	63+08.25	4°32'49"	1°29'00"	3,862.64	306.54	153.35	153.35					3.04		63+08.25	61+54.90		64+61.44					KR-4
CR-1	6+34.71	57°13'31"	7°30'00"	763.94	763.00	416.73	416.73					106.27	RELOCATED CILLEY ROAD	6+34.71	2+17.98		9+80.98					CR-1
CR-2	47+82.60	110°34'58"	14°19'26"	400.00	772.02	577.49	577.49					302.49		47+82.60	42+05.11		49+77.13					CR-2
EB-1	353+72.98	5°00'51"	0°30'00"	11,459.16	1,002.83	501.75	501.75					10.98	I-275	353+72.98	348+71.23	358+74.06						EB-1
EB-2	384+66.08	[illegible]	1°15'00"	4,583.66	4,718.04	2,592.03	2,592.03					682.13		384+66.08		358+74.06	405+92.10					EB-2
F-1	380+33.30	[illegible]	5°00'00"	1,145.92	2,050.47	1,428.38	1,428.38					685.31	I-275 - I-74 INTERCHANGE	380+33.30	366+04.94	386+55.41						F-1
F-2	389+32.64	8°18'00"	1°30'00"	3,819.72	553.44	277.23	277.23					10.05		389+32.64		386+55.41	392+08.89					F-2
E-1	391+19.59	[illegible]	5°00'00"	1,145.92	873.94	775.59	587.27	400.00		10°00'00"		141.72		391+19.59				383+44.00	387+44.00	396+17.94		E-1
E-2	399+41.63	[illegible]				323.69	225.20	500.00		12°30'00"	46°15'00"			399+41.63					401+17.94	396+17.94		E-2
E-3	408+09.49	[illegible]	18°30'00"	309.71	609.75	691.33	[illegible]		200.00		18°30'00"	448.02		408+09.49					401+17.94	407+27.69	409+27.69	E-3
WB-1	399+70.00	[illegible]	5°00'00"	1,145.92	1,470.98	1,591.21	1,591.21	500.00	500.00	12°30'00"	12°30'00"	616.02	I-275	399+70.00				383+78.79	388+78.79	403+49.77	408+49.77	WB-1
WB-2	414+24.32	17°49'15"	5°00'00"	1,145.92	106.42	401.04	209.32	500.00		12°30'00"				414+24.32				410+23.28	415+23.28	416+29.70		WB-2
WB-3	417+75.69	11°00'09"				145.99	255.24	400.00		10°00'00"	1°00'00"			417+75.69					420+29.70	416+29.70		WB-3
WB-4	425+08.34	[illegible]	0°30'00"	11,459.16	956.72	478.64	478.64					9.99		425+08.34			429+86.42		420+29.70			WB-4
4	318+18.12	3°02'10"	0°15'00"	22,918.31	1,214.44	607.36	607.36					8.05	I-74	318+18.12	312+10.76AH.		324+25.20					4

PLAT BK 175
PAGES 12 & 13

DATE	REVISED	BY

3
43

LOCATION PLAN
HAM-275-3.86
HAMILTON COUNTY
WHITEWATER TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

HAM.-275-3.86
R/W PLAN
LIMITED ACCESS
SCALE 1"=200'

DATE	REVISED	BY

4/43

LOCATION PLAN

HAM - 275 - 3.86

HAMILTON COUNTY

WHITEWATER TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275 -3 (12)

592/630

HAM - 275 - 3.86
R/W PLAN
LIMITED ACCESS
SCALE 1" = 200'

5/43

℄ Reference Monument ① Monument Assembly ②			CENTERLINE REFERENCE MONUMENTS											
STATION	OFFSET	DESCR.	STATION	OFFSET	DESCR.	STATION	OFFSET	DESCR.	STATION	OFFSET	DESCR.	STATION	OFFSET	DESCR.
℄ I-275			℄ I-275 cont			℄ I-275 cont			Kilby Road cont			Cilley Road cont		
205+00 ①	℄	P.O.C.	271+56.97 ①	℄	P.T.	340+00 ①	℄	P.O.T.	35+00 ②	℄	P.O.C.	10+00 ②	℄	P.O.T.
210+00 ①	℄	P.O.C.	275+00 ①	℄	P.O.T.	345+00 ①	℄	P.O.T.	37+03.30 ②	℄	P.T.	15+00 ②	℄	P.O.T.
215+00 ①	℄	P.O.C.	280+00 ①	℄	P.O.T.	350+00 ①	℄	P.O.T.	40+00 ②	℄	P.O.T.	20+00 ②	℄	P.O.T.
220+00 ①	℄	P.O.C.	285+00 ①	℄	P.O.T.	355+00 ①	℄	P.O.T.	45+00 ②	℄	P.O.T.	25+00 ②	℄	P.O.T.
225+00 ①	℄	P.O.C.	290+00 ①	℄	P.O.T.	360+00 ①	℄	P.O.T.	50+00 ②	℄	P.O.T.	30+00 ②	℄	P.O.T.
230+00 ①	℄	P.O.C.	295+00 ①	℄	P.O.T.	365+00 ①	℄	P.O.T.	55+00 ②	℄	P.O.T.	35+00 ②	℄	P.O.T.
235+00 ①	℄	P.O.C.	295+95.24 ①	℄	P.C.	370+00 ①	℄	P.O.T.	56+25.28 ②	℄	P.C.	40+00 ②	℄	P.O.T.
240+00 ①	℄	P.O.C.	300+00 ①	℄	P.O.C.	375+00 ①	℄	P.O.T.	59+31.82 ②	℄	P.T.	42+05.11 ②	℄	P.C.
245+00 ①	℄	P.O.C.	305+00 ①	℄	P.O.C.	380+00 ①	℄	P.O.T.	60+00 ②	℄	P.O.T.	45+00 ②	℄	P.O.C.
247+34.79 ①	℄	P.T.	310+00 ①	℄	P.O.C.				61+54.90 ②	℄	P.C.	49+77.13 ②	℄	P.T.
250+00 ①	℄	P.O.T.	315+00 ①	℄	P.O.C.				64+61.66 ②	℄	P.T.			
255+00 ①	℄	P.O.T.	320+00 ①	℄	P.O.C.	Kilby Road						Morgan Road		
255+29.86 ①	℄	P.C.	324+76.96 ①	℄	P.T.	28+18.75 ②	℄	P.C.	Cilley Road			15+15.00 ②	℄	P.O.T.
260+00 ①	℄	P.O.C.	325+00 ①	℄	P.O.T.	30+00 ②	℄	P.O.C.	2+17.98 ②	℄	P.C.	18+00 ②	℄	P.O.T.
269+00 ①	℄	P.O.C.	330+00 ①	℄	P.O.T.	31+00.91 ②	℄	P.T.	5+00 ②	℄	P.O.C.	22+00 ②	℄	P.O.T.
270+00 ①	℄	P.O.C.	335+00 ①	℄	P.O.T.	34+21.14 ②	℄	P.C.	9+80.98 ②	℄	P.T.	25+00 ②	℄	P.O.T.

PLAT BK 175 PAGES 16 & 17

5/43

REC'D FOR RECORD
HAMILTON COUNTY RECORDER
'72 APR 11 AM 10:01

LOCATION PLAN

HAM - 275 - 3.86

HAMILTON COUNTY

WHITEWATER TOWNSHIP

0 200 400 600

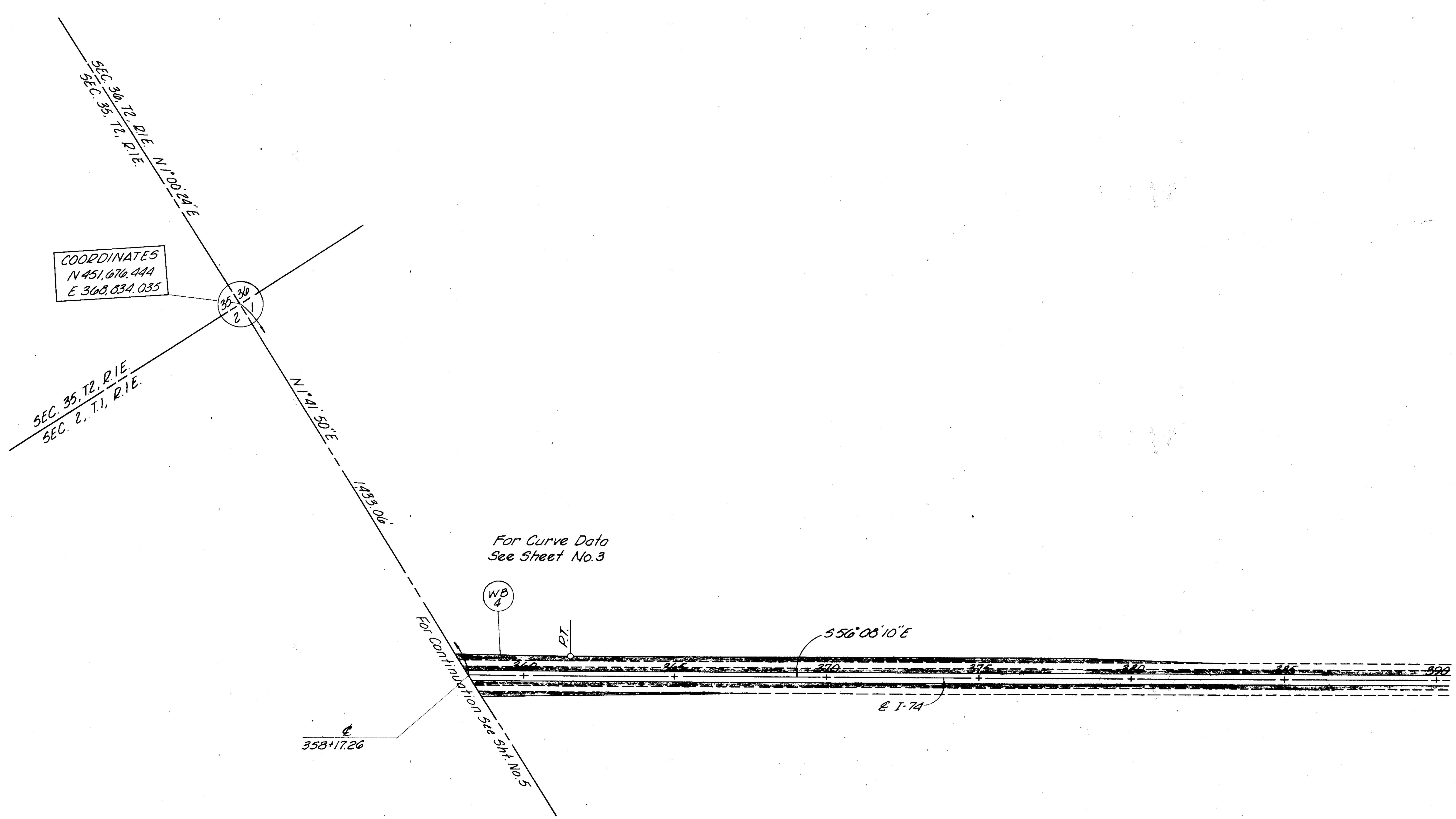
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275 -3(12)	

593/630

HAM - 275 - 3.86
R/W PLAN
LIMITED ACCESS
SCALE 1" = 200'

6/43

APR-11-72 97691



R/W Bk 3, 195 Pages 18+19

6/43

PROPERTY PLAN

HAM-275-3.86

HAMILTON COUNTY

WHITEWATER TOWNSHIP

0 200 400 600

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

594/630

HAM. 275-3.86
R/W PLAN
LIMITED ACCESS
SCALE 1" = 200'

7/43

LEGEND

TYPICAL PARCEL DESIGNATION

- 362 LA — LIMITED ACCESS
- 362 — RIGHT OF WAY EASEMENT
- 362 WL — WARRANTY DEED WITH LIMITATIONS OF ACCESS
- 362 X — CHANNEL EASEMENT
- 362 WD — WARRANTY DEED
- 362 T — TEMPORARY
- 362 WL (dashed) — WARRANTY DEED THAT HAS BEEN ACQUIRED UNDER ANOTHER CONTRACT
- 362 EL — EXCESS LAND
- 362 SL — SLOPE EASEMENT
- 362 AR — AERIAL EASEMENT

TYPICAL LINE DESIGNATION

- —LA-R/W— PROPOSED RIGHT OF WAY LIMITED ACCESS LINE
- —R/W— RIGHT OF WAY LINE
- PROPOSED CHAIN LINK R/W FENCE
- C.P.A. CORNER POST ASSEMBLY
- I.A.P.A. INTERMEDIATE ANCHOR POST ASSEMBLY
- A.C. ABUTMENT CONNECTION

Note: Under no circumstances are the Temporary Easements for purposes of removal of buildings to be used for storage of material and equipment. Upon the completion of work in this area, the Temporary Easements shall be immediately vacated.

UTILITY OWNERS

Owners	Address
Cincinnati Gas & Electric Co.	Cincinnati, Ohio
Cincinnati Bell Inc.	Cincinnati, Ohio
Texas Eastern Transmission Corporation	P.O. Box 426 Seymore, Indiana
Gulf Refining Company	501 Crestwood Bank Bldg. St. Louis, Missouri

Sheet No.	Parcel No.	Owners
8	129	Edward M. Pope
7	130 & 131	Albert J. Weisbrodt and Marie W. Blazer
	132	George William Sommer and Alice Barbara Sommer
	133	Penn-Central Transportation Co. (Lessee)
	134	George E. Hopping & Edith L. Matson
	136 & 137	Edith Pope
	138	Walter Lee Pope and Ruth Pope
	140	Edward M. Pope and Emilia Pope
	141	James A. Cornelius and Mary E. Cornelius
	142	James Cornelius
	143	Earl M. Pope and Dolores Pope
	145	David W. Lotton and Marjorie Ann Lotton
	146	Perle Lotton
	147	Roy Lee Henderson Sr.
9	145	David W. Lotton and Marjorie Ann Lotton
	146	Perle Lotton
	148	Victor J. Roell and Clara Roell
	150	Joseph A. Farwick and Hilda Farwick

Sheet No.	Parcel No.	Owners
10	148	Victor J. Roell and Clara Roell
	154	Edgar L. Skirvin and Mary O. Skirvin
	155	Frank Black, Martin Black,
	"	Ruby C. Etherington, Luke Black
	"	and Minnie Harrison
	156	Cora C. Schalk
	157	Irwin O. Schalk and Romilda M. Schalk
	158	Irwin O. Schalk
	161	The South Western Ohio Conservation Club, Inc
	162	Fred M. Sage
	163	Vera P. Brady
11	163	Vera P. Brady
	164	Charles W. Hine and Florence Hine
	165	James L. Lake and Carolyn Lake
	58	Edward Leisgang Feed and Seeds Co.
	60	Edward J. Niemeier
	61	Joseph W. Strassel
	62	Elizabeth F. Uhlhorn
	63	Westbrook Mobile Home Park (Partnership)
	64	Frances Schinner Weisbrodt
	65	Olga Reese
12	71	Malinda McDonald & John C. McDonald
	72	James Bunnell & Reda Bunnell
12	73	Miami View Golf Club, Inc.

DATE	REVISED	BY
10-13-71	Name Change Par. 63	WJL
6-20-72	Name Correction Par. 133	WJL
8-10-72	Name change Par. 156	
8-28-72	Name Change Par. 63	WJL

7/43

R/W PLAN PROPERTY PLAN

R/W PLAN PROPERTY PLAN

R/W PLAN PROPERTY PLAN


PROPERTY PLAN
HAM-275-3.86
HAMILTON COUNTY
WHITEWATER TOWNSHIP
0 200 400 600
FED. RD. DIVISION 2
STATE OHIO
PROJECT I-275-3 (12)
597/630
HAM. 275-3.86
R/W PLAN
LIMITED ACCESS
SCALE 1" = 200'
10/43
Detail showing entire property holding
Morgan Road
164
34/35, 3/2
Scale 1"=1000'
SEC. 34, T.2, R.1E.
SEC. 3, T.1, R.1E.
Edgar L. Skirvin and Mary O. Skirvin
George Cole and Frances M. Cole
Cora C. Schalk
Irwin Schalk, a.k.a. Irwin O. Schalk, and Romilda M. Schalk
Irwin O. Schalk
R.L. Douglas and A.V. Douglas
Charles W. Hine and Florence Hine
(See detail of entire holding on this Sheet)
Conc. Marker
Old Stone
Victor J. Roell and Clara M. Roell
(See detail of entire holding On this Sheet)
L.L. 0.16 Ac.
148 WL-2
148 WL-1
155 WL-2
157 WL-1
158 WL
157 WL-2
162 SL
162 WL
163 SL
163 WL
161 WL
161 X
155 SL
155 WL-1
LA-R/W
℄ I-275
Vera P. Brady
N 58°55'09" E
Fred M. Sage
For Continuation See Sheet No. 11
P.C. 348+71.23 ℄ E.B. I-275
SEC. 4, T.1, R.1E.
SEC. 3, T.1, R.1E.
Frank Black
Martin Black
Ruby C. Etherington
Luke Black
Minnie Harrison
L.L. 0.81 Ac.
For continuation see Sheet 9
N 30°06'07" E
P.C. 295+95.24
Victor J. Roell and Clara Roell
L.L. 14.91 Ac.
SEC. 3, T.1, R.1E.
SEC. 10, T.1, R.1E.
C.G.&E. Transmission Line
Gen. Ind. 8th Ser. Bk 10 P 10A 2517 121
Morgan Road
N 1°07'30" E
Conc. Mon.
Lake
161
The South Western Ohio Conservation Club, Inc.
Land Locked 26.94 Acres
Land Locked 15.36 Ac.
SEC. 3, T.1, R.1E.
SEC. 2, T.1, R.1E.
30
31
32
33
Match Line
East Line Sec. 3
Dry Fork Road
Dry Fork Creek
148
Scale 1"=1000'
4/3, 9/10
℄ I-275
Detail showing entire property holding
P/L
DATE | REVISED | BY
8-10-72 | Name change Par. 156 | E.H.
10/43

DATE	REVISED	BY
10-13-71	Name Change Par. 63	
8-28-72	Name Change Par. 63	

PROPERTY PLAN
HAM.- 275- 3.86
HAMILTON COUNTY
WHITEWATER TOWNSHIP

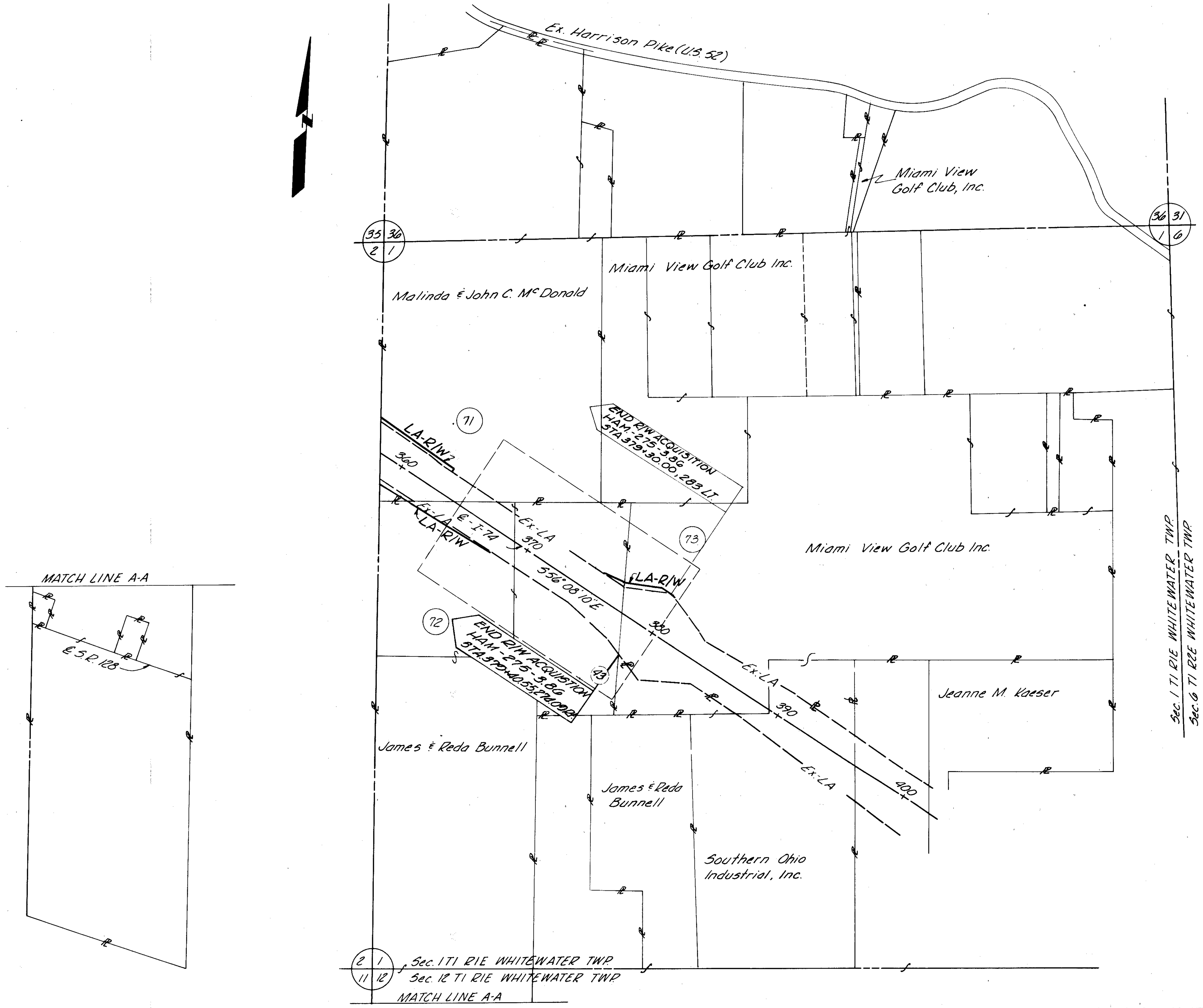
0 400 800 1200 1600

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

599/630

HAM.- 275- 3.86
R/W PLAN
LIMITED ACCESS
SCALE 1"=400'

12/43



12/43

DATE	REVISION	BY

R/W JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
08595(0)	2	OHIO	I275-3(12)	

600/630

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

TOTAL NUMBER OF---
38 Owners
2 Total Takes
8 Owner With Structures Involved

13/43

R/W ONLY I 275-3(12)

PARCEL NO.	OWNER	RECORDED BOOK	RECORDED PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O IN TAKE	NET TAKE LAND	NET TAKE BLDG.	NET RESIDUE LEFT	NET RESIDUE RIGHT	SHEET NO.	TYPE FUND	REMARKS
129 WL	Edward M. Pope	2485	532	187.40	2.08	19.64	0	19.64	Yes	129.05	23.00	15,16,17	I	
129 WD-1	" " "	2305	525			6.63	0	6.63	No			15,16,17		
129 WD-2	" " "	2305	486			7.00	0	7.00	No			15,16,17		
129 T-1	" " "	1183	577			0.61	0	0.61	No			15		Relocated Access Road
129 T-2	" " "	954	323			0.48	0	0.48	No			15		" " "
129 T-3	" " "					0.23	0	0.23	Yes			15		Structure Removal
130 WL-1	Albert J. Weisbrodt and Marie W. Blazer	3424	702	63.11	2.38	17.33	0	17.33	No		39.83	17,18,19		
130 WL-2	" " " " " "					0.59	0.21	0.38	No			19		
130 WD-1	" " " " " "					1.03	0.47	0.56	No			19		
130 WD-2	" " " " " "					2.46	0	2.46	No			17,18,19		
* 130 SL-1	" " " " " "					0.07	0.00	0.07	No			19		Suspension Bridge Rd. Slopes
130 SL-2	" " " " " "					0.10	0.00	0.10	No			19		" " " "
130 T	" " " " " "					0.24	0	0.24	No			19		Kilby Rd Temporary Runaround
131 WD	" " " " " "	3424	702	91.04	0	2.31	0	2.31	No	9.60	79.13	19, 23		
131 X-1	" " " " " "					1.07	0	1.07	No			19, 23		Channel Easement
131 X-2	" " " " " "					0.88	0	0.88	No			19, 23		" "
* 130 WD-3						0.36	0.36	0.00	No			19		P.R.O. ONLY
132 WL	George William Sommer and Alice Barbara Sommer	2979	269	1.17	0.14	1.17	0.14	1.03	Yes			18		Total Take
133 AR	Penn Central Transportation Company (Leasee)					18208	0	18 208 S.F.	No			22		Aerial Easement
133 A	Cleveland Cincinnati Chicago & St. Louis					14505 SF	0	14505 S.F.	No			21		Cilley Rd. Crossing
133 B	Railroad Company (Fee Owner)					462 SF	0	462 S.F.	No			22		Kilby Rd. Structure Pier Footers
133 C	" " " "					247 SF	0	247 S.F.	No			22		" " " " "
133 D	" " " "					822 S.F.	0	822 S.F.	No			22		" " " " "
133 E	" " " "					627 SF	0	627 S.F.	No			22		" " " " "
133 S-1	" " " "					3241 SF	0	3241 S.F.	No			21		Culvert Crossing
133 S-2	" " " "					8720 SF	0	8720 S.F.	No			22		" "
133 T-1	" " " "					12670 SF	0	12670 S.F.	No			21		Regrading for Channel
133 T-2	" " " "					50952 S.F.	0	50952 S.F.	No			21, 22		" " "
133 X-1	" " " "					12 213 SF	0	12 213 S.F.	No			21		Channel Easement
133 X-2	" " " "					1735 SF	0	1735 S.F.	No			22		" "
133 SL	" " " "					11871	0	11871 S.F.	No			22		Kilby Rd. Structure Slopes
134 WD	George E. Hopping and Edith L. Matson	2423	586,587	109.93	2.35	0.28	0.19	0.09	No	64.51	42.98	19		
134 T	" " " " " "					0.24	0	0.24	No			19		Kilby Rd. Temporary Runaround
135														Not Needed
136 WL	Edith Pope	3355	130	35.59	0.69	17.75	0.69	17.06	Yes	17.83		17,18,20		
136 T	" "					0.07	0	0.07	Yes			20		Structure Removal
137 WL	" "	3355	130	42.27	0	5.96	0	5.96	No	33.83	1.01 L.L.	20, 23, 24		
137 WD	" "	3355	114			1.47	0	1.47	No			23,24		
137 X-1	" "	2792	609			0.17	0	0.17	No			23,24		Channel Easement
137 X-2	" "					0.37	0	0.37	No			23, 24		" "
138 WL	Walter Lee Pope and Ruth Pope	2792	578	0.74	0.12	0.74	0.12	0.62	Yes			18		Total Take
139														Not Needed
140 WD	Edward M. Pope and Emilia M. Pope	2417	47	1.98±	0.17	0.16	0.15	0.01	No	1.80±		20		
140 T	" " " " " "					.009	0	.009	No			20		Kilby Rd Temporary Runaround
141 WD	James A. Cornelius and Mary E. Cornelius	2414	83	1.565±	0.12	0.18	0.12	0.06	No	1.385±		20		
141 T	" " " " " "					0.02	0	0.02	No			20		Kilby Rd Temporary Runaround
142 WL	James Cornelius	3517	586	2.00	0.15	0.34	0.15	0.19	No	1.52		20		
142 WD	" "					0.14	0	0.14	No			20		
142 T	" "					0.07	0	0.07	No			20		Driveway Reconstruction
143 WL	Earl M. Pope and Dolores Pope	1740	61	100.89	1.45	9.87	0	9.87	Yes	23.91	63.57	20,23,24,25		
143 WD-1	" " " " "	1746	365			2.02	0	2.02	No			24, 25		
143 WD-2	" " " " "					0.25	0.18	0.07	No			26		
143 X-1	" " " " "					0.95	0	0.95	No			24,25		Channel Easement
143 X-2	" " " " "					1.20	0	1.20	No			24, 25		" "
143 X-3	" " " " "					0.16	0	0.16	No			26		" "
143 T	" " " " "					0.04	0	0.04	Yes			25		Structure Removal
144														Not Needed
145 WL	David W. Lotton and Marjorie Ann Lotton	3737	540	144.701	0.88	22.18	0.00	22.18	No	54.41	67.231	27,28,29		
145 WD						0.07	0.07	0.00	No			26		P.R.O. ONLY
146 WL	Perle Lotton	3615	315	82.720	1.54	18.62	0.98	17.64	Yes	47.44	14.16	25, 26, 27		
146 WD	" "					2.22	0.28	1.94	No			25, 26		
146 X-1	" "					1.06	0	1.06	No			26		Channel Easement
146 X-2	" "					0.48	0	0.48	No			26	I	" "

13/43

REV.	DATE	DESCRIPTION
S.E.W.	10-19-72	REV. PAR. 136 WL AREA
WJL	7-25-72	Added Deed References Par. 129
WJL	6-20-72	Name Correction Par. 133
J.T.C.	2/14/72	REV. PAR. 130 WL-1 SL-1 & SL-2 ADDED 130 WD-3
G.H.	10/15/71	DELTO PAR. 129 X1, X2, 130 WD & 130 X ADDED PAR. 129 WD-1, WD-2, 130 WD-1 & 130 WD-2
JTC	9-20-71	REV. PAR. 140-T & 141-T

SUMMARY OF ADDITIONAL RIGHT OF WAY

R/W JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT
08595(0)	2	OHIO	I 275-3(12)

601/630

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

TOTAL NUMBER OF---
_____ Owners
_____ Total Takes
_____ Owner With Structures Involved

R/W ONLY | I275-3(12)

14/43

PARCEL NO.	OWNER	RECORDED BOOK	RECORDED PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O IN TAKE	NET TAKE LAND	NET TAKE BLDG.	NET RESIDUE LEFT	NET RESIDUE RIGHT	SHEET NO.	TYPE FUND	REMARKS
147 WL	Roy Lee Henderson Sr.	3013	368	12.59	0.32	3.96	0.22	3.74	Yes	0.58	7.07	25	I	
147 WD	" " " "					0.88	0	0.88	No			25		
147 X	" " " "					0.43	0	0.43	No			25		Channel Easement
148 WL-1	Victor J. Roell and Clara Roell	2489	565	292.39	3.46	27.03	0	27.03	No	244.48	15.83L.L.	29,30,31		Right Residue Equals Sum Of 14.91 Ac. and 0.81 Ac.
148 WL-2	aka. Clara M. Roell	1525	3			1.72	0.13	1.59	No			31,32		
		1798	140											
		3670	314											
149														Not Needed
150 WL	Joseph A. Farwick and Hilda Farwick	3570	290	76.82±	0.79	3.53	0	3.53	No	0	72.50	29		
151														Not Needed
152														Not Needed
153														Not Needed
154 X	Edgar L. Skirvin and Mary O. Skirvin	3101	415	0.94	0	0.048	0	0.048	No	0.892		32		Channel Easement
155 WL-1	Frank Black, Martin Black, Ruby C. Etherington,	3473	425	40.15		1.03	0	1.03	No	0.16L.L.	33.53	31		
155 WL-2	Luke Black, Minnie Harrison					5.34	0	5.34	No			31, 32		
155 SL	" " " " " " " "					0.09	0	0.09	No			32		Morgan Rd. Slopes
		3345	400											
156 X	Cora C. Schalk	3860	93-94	2.88	0.062	0.23	0.00	0.23	No	2.818		32		Channel Easement & to C.G.&E - B2517 P210
156 WD	" " "	3466	474			0.062	0.062	0.00	No			32		(P.R.O. ONLY)
		3313	371											
157 WL-1	Irwin O. Schalk a.k.a. Irwin Schalk and	3661	398	2.94	0.10	0.28	0.04	0.24	No	2.52		32		
157 WL-2	Romilda M. Schalk	3313	497			0.13	0.05	0.08	No			32		
157 X	" " " " " " " "					0.04	0.00	0.04	No			32		Channel Easement
157 WD						0.01	0.01	0.00	No			32		(P.R.O. ONLY)
158 WL	Irwin O. Schalk	3332	250	0.11	0.01	0.03	0.01	0.02	No	0.08		32		
159														Not Needed
161 WD						0.19	0.19	0.00	No					(P.R.O. ONLY)
161 WL	The SouthWestern Ohio Conservation Club, Inc.	2531	253	104.45	1.19	0.24	0.07	0.17	No		103.09	32		
161 X	" " " " " " "					0.21	0.00	0.21	No			32		Channel Easement
161 T	" " " " " " "					0.19	0	0.19	No			32		Morgan Rd. Temporary Runaround
162 WL	Fred M. Sage	3147	521	36.00	0.40	7.92	0.24	7.68	Yes	0.75	26.94L.L.	32		
162 SL	" " "					0.23	0.00	0.23	No			32		Morgan Rd. Slopes
162 T	" " "					0.17	0	0.17	No			32		Morgan Rd. Temporary Runaround
162 WD						0.16	0.16	0.00	No			32		(P.R.O. ONLY)
163 WL	Vera P. Brady	2374	10	82.00	0.93	20.26	0	20.26	No	45.35	15.36L.L.	32,33,34		
163 SL	" " "					0.09	0.00	0.09	No			32		Morgan Rd. Slopes
163 T	" " "					0.14	0.00	0.14	No			32		Morgan Rd. Temporary Runaround
163 WD						0.20	0.20	0.00	No			32		(P.R.O. ONLY)
164 WL	Charles W. Hine and Florence Hine	2975	579	36.00±	0.43	0.10	0	0.10	No	35.47		34		
		2945	679											
165 WL	James L. Lake and Carolyn H. Lake	3241	576	257±	4.69	34.81	0	34.81	No	3.56L.L.	213.94	34,35,36		
58 WL	Edw. Leisgang Feed and Seeds Co.	3572	389	85.47	15.09	5.02	0	5.02	No	43.32	22.04	36,37		
59														Not Needed
60 WL	Edward J. Niemeier	3749	657	128.0±	6.27	18.24	6.27	11.97	No	109.76		39,41,42		
		3751	95											
61 WL	Joseph W. Strassell	2914	684	57.0	5.58	28.45	5.44	23.01	No	23.97	4.44L.L.	35 thru 38		Land Locked By Previous Acquisition Of I-74
62 WL	Elizabeth F. Uhlhorn	2357	134	82.36	7.70	30.30	6.90	23.40	No	51.26		36,38,39,40		
		2369	51											
63 WL	Westbrook Mobile Home Park (Partnership)	3857	598	117.24	1.72	14.00	0.95	13.05	No		102.47	35,39,40		
64 WL	Frances Schinner Weisbrodt	1473	37	114.60	10.61	19.32	10.00	9.32	No		94.67	39,40,41		
		1953	39											
65 WL	Olga Reese	1744	110	138.0	6.49	5.66	4.84	0.82	No		130.69	41,42		
66														Not Needed
67 thru 70														Not Used
71 WL	Malinda McDonald and John C. McDonald	1963	562	103.13	4.73	5.01	4.62	0.39	No	97.56	(0.45L.L.)	42,43		
72 WL	James Bunnell Inc.	3378	120	171.07	11.04	9.73	9.57	0.16	No	5.47(L.L.)	154.40	42, 43		
73 WL	Miami View Golf Club, Inc.	3695	184	179.61	10.38	0.13	0	0.13	No	169.10		43	I	R.L. 8122 P43707
	R.L.	122	43707											

14/43

REV.	DATE	DESCRIPTION
WJL	8-28-72	Name Change Par. 63
JTC	8-4-72	Delete 61-WL-2 - Rev Area WL
E.H.	8-10-72	Name change Par #156
E.H.	7-14-72	Add 3.74 ac. to Lt. Res. @ Sta. 393+00
WJL	2-3-72	Rev. Take Area & RT. Res. Par. 58
E.H.	10-28-71	CHG. RECORD AREA & LT. RESIDUE
WJL	10-13-71	Name Change Parcel 63

SUMMARY OF ADDITIONAL RIGHT OF WAY

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

RIGHT OF WAY FENCE

CODE 7221

STATION FROM	TO		TYPE	LIN. FT.

DATE	REVISION	BY
10-15-71	DELTD PAR. 129 X-1 & X2 ADDED PAR. 129 WD-1 & WD-2	G.H.

R/W PLAN STA. 160+00 TO STA. 175+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

603/630

HAM. 275-3.86
R/W PLAN
LIMITED ACCESS
SCALE 1"=50'

16/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.

HAMILTON CO. WHITEWATER TWP.
SEC. 17, T-1 R.1 E

16/43

DATE	REVISION	BY
10-15-71	DEL'D PAR. 125 X-1 & X2 ADDED 125 WD-1 & WD2	G. H.

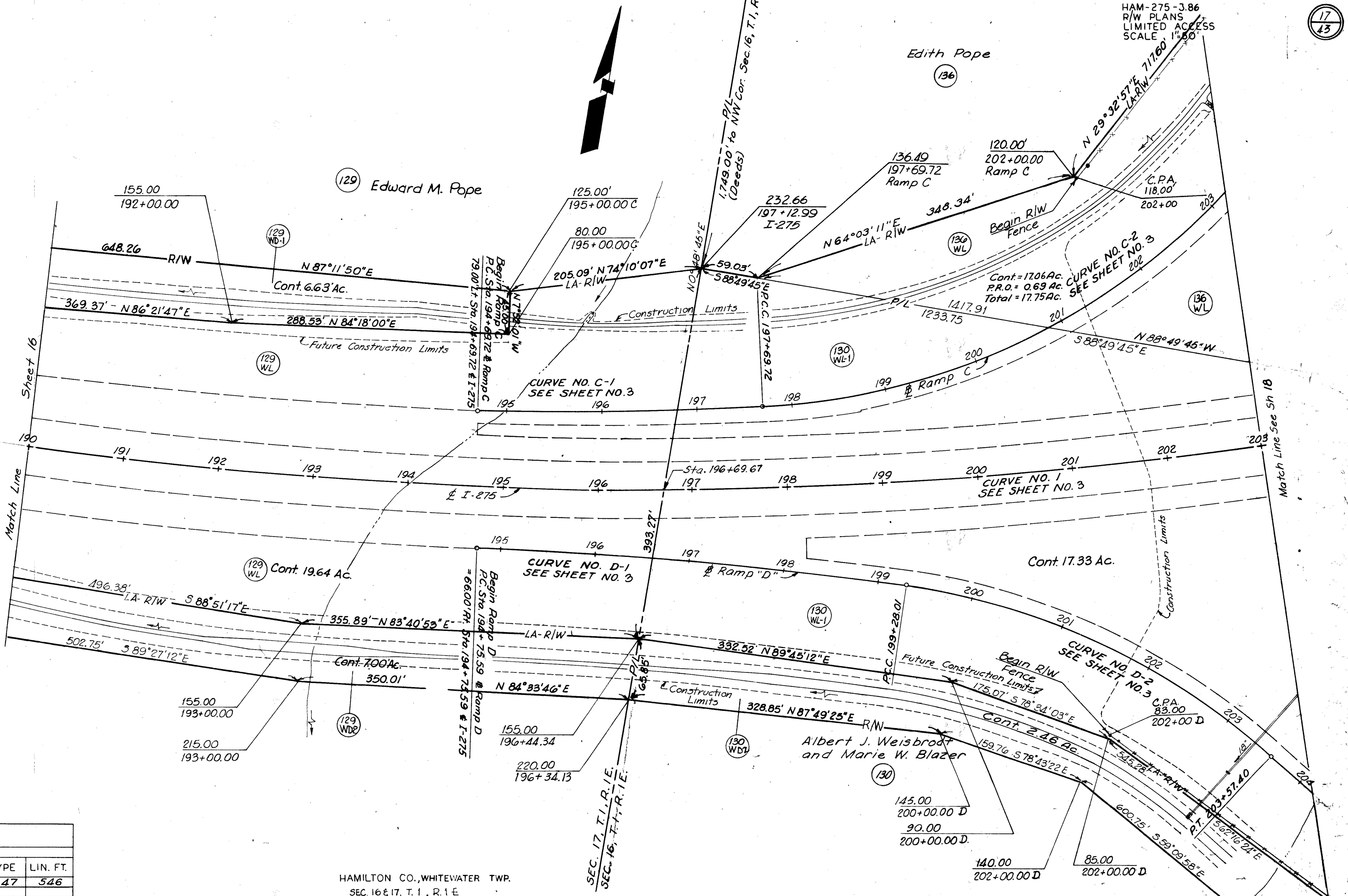
R/W PLAN STA. 175+00 TO STA. 190+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

604
630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

17
43



RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
202+00 ℄ Ramp D	207+40.73 ℄ Ramp D	Rt.	47	546

HAMILTON CO., WHITEWATER TWP.
SEC. 16 & 17, T. 1, R. 1 E.

DATE	REVISIONS	BY
10-15-71	DEL'T'D 129-X1, X2 & 130X ADDED	
	PAR. 129 WD-1, WD2 & 130 WD	G.H.
2/14/72	REV. PAR. 130 WL-1 SL-1 & SL-2 ADDED 130 WD-1	J.T.C.
10-19-72	REV. PAR 136 WL AREA	S.E.W.

17
43

R/W PLAN Sta. 190+00 to Sta. 203+00 I-275

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

605/630

18/43

RIGHT OF WAY FENCE

CODE 7221

STATION FROM	STATION TO		TYPE	LIN. FT.
202+00 ℄ Ramp C	208+90 ℄ Ramp C	Lt.	47	718
208+90 ℄ Ramp C	56+23 ℄ Kilby Rd.	Lt.	Chain Link	522
207+40.73 ℄ Ramp D	197+60 ℄ Ramp B	Rt.-Lt.	Chain Link	424

DATE	REVISIONS	BY
10-12-71	Add Curve Data Par. 136	WJL
10-15-71	DELTD PAR. 130X & ADDED 130WD2	G.H.
2/14/72	REV. PAR. 130 WL-1 SL-1 & SL-2 ADDED 130 WD-3	
10-19-72	REV. 136 WL AREA	S.E.W.

18/43

R/W PLAN Sta 203+00 to Sta. 213+00 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

606/630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

19/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	STATION TO		TYPE	LIN. FT.
36+00 ℄ Kilby Rd.	38+00 ℄ Kilby Rd.	Lt.	Chain Link	203
38+80 ℄ Kilby Rd.	40+79 ℄ Kilby Rd.	Lt.	Chain Link	199
40+93 ℄ Kilby Rd	197+60 ℄ Ramp B	Lt.	Chain Link	47

DATE	REVISIONS	BY
10-12-71	Rev. Met. & Bnds. Par. 131 & 134	WJL
10-15-71	CHANGED PAR 130 WD TO 130 WD1	G.H.
2/14/72	REV. PAR. 130 WL-1 SL-1 & SL-2 ADDED 130 WD-3	

19/43

R/W PLAN KILBY ROAD SOUTH

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

607/630

HAM.-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE: 1" = 50'

20/43

RIGHT OF WAY FENCE

CODE 7221

STATION FROM	STATION TO		TYPE	LIN. FT.
56+23 ℄ Kilby Rd.	58+71 ℄ Kilby Rd.	Lt.	Chain Link	252
58+71 ℄ Kilby Rd.	59+50 ℄ Kilby Rd.	Lt.	Chain Link	80
59+80 ℄ Kilby Rd.	60+76 ℄ Kilby Rd.	Lt.	Chain Link	96

HAMILTON CO., WHITEWATER TWP.
SEC. 16, T.1, R.1E.

DATE	REVISIONS	BY
10-19-72	REVISED PAR. 136WL&T	S.E.W.
9-20-71	REV. PAR. 140-T & 141-T	J.T.C.
10-12-71	Rev. Met. & Bnds. Par. 138	W.J.L.
18 July-72	Add Info. Par. 142	N.M.
10-10-72	CHANGED DIST. TO BLDG. PAR 136	S.E.W.

20/43

R/W PLAN KILBY ROAD NORTH

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

608/630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"= 50'

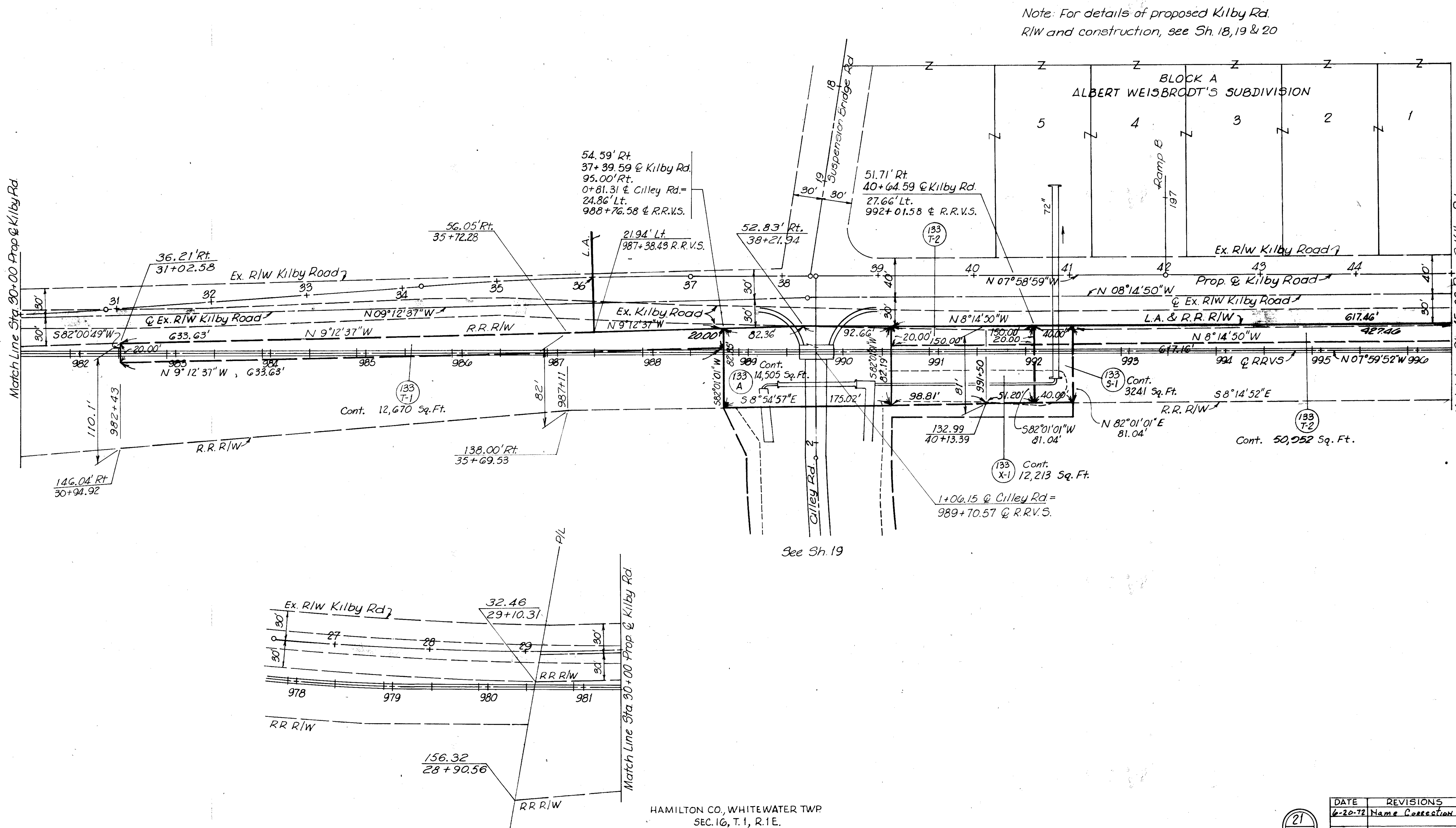
21/43

Red 407

608-630 Soil Profile

PENN CENTRAL TRANSPORTATION CO. (LESSEE)

CLEVELAND CINCINNATI CHICAGO & ST. LOUIS R.R. CO. (FEE OWNER)



HAMILTON CO., WHITEWATER TWP.
SEC. 16, T. 1, R. 1 E.

DATE	REVISIONS	BY
6-20-72	Name Correction Par. 133	W.E.

21/43

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

609/630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

22/43

PENN CENTRAL TRANSPORTATION CO. (LESSEE)

CLEVELAND CINCINNATI CHICAGO & ST. LOUIS R.R. CO. (FEE OWNER)

Note: For details of proposed Kilby Rd. R/W and construction, see Sh. 18, 19 & 20

PENN-CENTRAL TRANSPORTATION COMPANY (Lessee)

PARCEL NUMBER	EASEMENT REQUIRED	TOTAL AREA (Sq. Ft.)	AREA OF OVERLAP (Sq. Ft.)					
			AERIAL	HIGHWAY	DRAINAGE	SEWER	SLOPE	TEMPOR'Y
133 AR	Aerial	18,208		2,158		5,494	7,478	4,401
133 A	Highway	14,505						
133 B	Highway	462	462					462
133 C	Highway	247	247					247
133 D	Highway	822	822			822	822	
133 E	Highway	627	627			627	627	
133 S-1	Special	3,241						800
133 S-2	Special	8,720	5,494	1,449			5,494	
133 T-1	Temporary	12,670						
133 T-2	Temporary	50,952	4,401	709	3,000	800		
133 X-1	Drainage	12,213						
133 X-2	Drainage	1,735						
133 SL	Slope	11,871	7,477	1,449		5494		

DATE	REVISIONS	BY
6-20-72	Name Correction Par. 133	

22/43

R/W PLAN - PENN CENTRAL TRANSPORTATION CO. (Lessee)

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

610/630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

23/43

Note: For R/W details pertinent to Penn Central R.R. and for delineation of existing R/W for Kilby Rd. see Sh. 21 & 22

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO	TYPE		LIN. FT.
213+13	213+04	Rt.	47	120
213+15± Rt.	213+48± Lt.	Rt.-Lt.	47	50
213+67	213+87	Lt.	47	79
213+13	222+23	Rt.	47	949
213+87	223+00	Lt.	47	885

DATE	REVISIONS	BY
2/14/72	REV. PAR 130 WL-1 & CT 130 X-2 ADDED 130 WD-2	JTC.

23/43

R/W PLAN Sta. 213+00 to Sta. 222+00 South I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

611
630

HAM.-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

24
43

RIGHT OF WAY FENCE

CODE 7221

STATION FROM	TO		TYPE	LIN. FT.
222+23	234+78	Rt.	47	1,303
223+00	235+00	Lt.	47	1,164

DATE	REVISIONS	BY

24
43

R/W PLAN Sta. 222+00 to Sta. 231+00 I-275

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

612/630

HAM.-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

25/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	STATION TO		TYPE	LIN. FT.
234+78	235+11	Rt.	47	70
235+00	243+00	Lt.	47	761
235+11	244+45	Rt.	47	972

HAMILTON CO. WHITEWATER TWP.
SEC. 9 & 16, T.1, R.1 E.

25/43

DATE	REVISIONS	BY

R/W PLAN Sta. 231+00 to Sta. 240+00 I-275

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

613/630

HAM.-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

26/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
243+00	254+00	Lt.	47	1,086
244+45	245+00	Rt.	47	60
245+00	251+80	Rt.	47	691

DATE	REVISIONS	BY
10-12-71	Rev. Coll Pts. & Curve Data Par. 146	W.J.R.

26/43

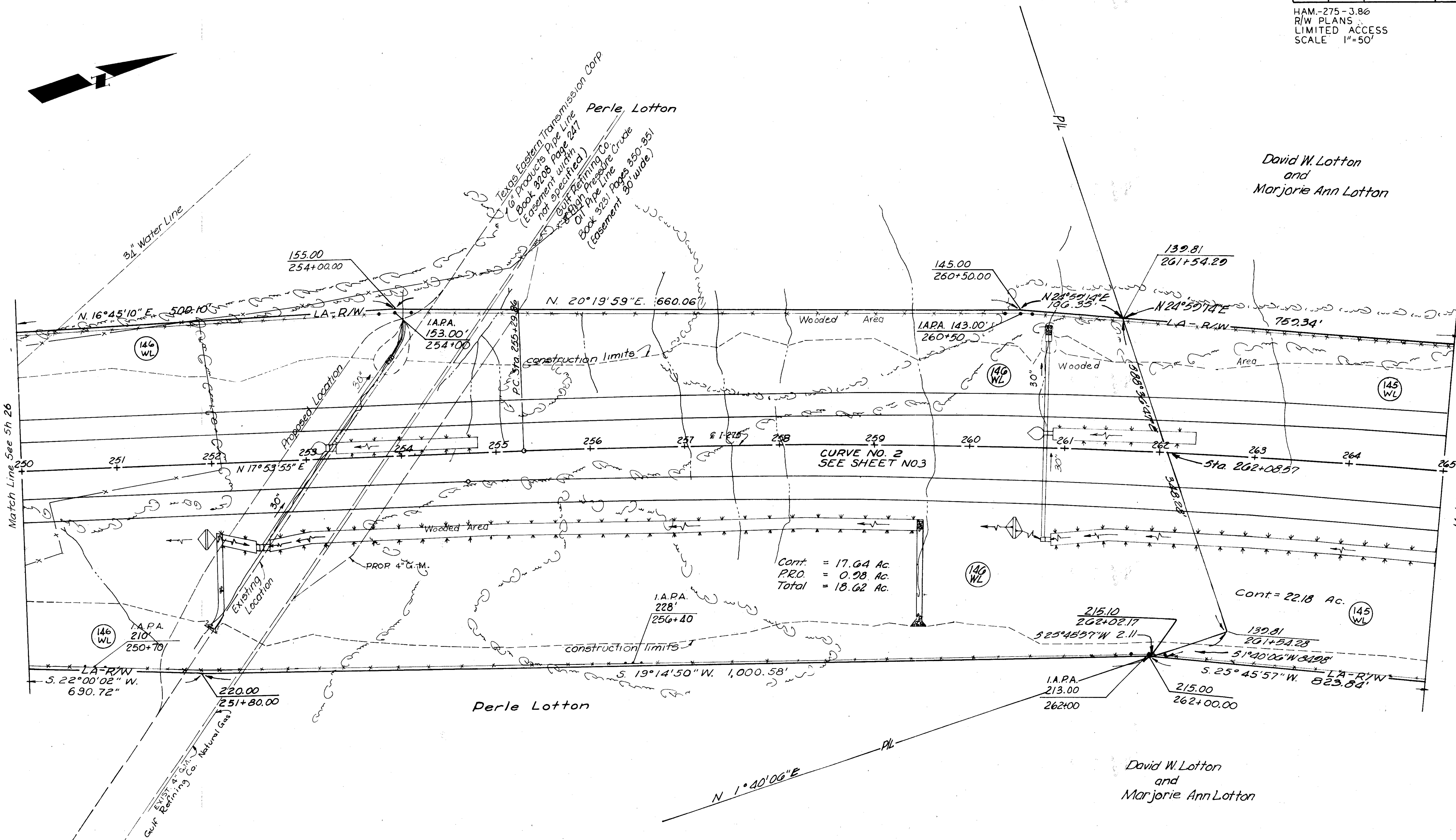
R/W PLAN Sta 240+00 to Sta. 250+00 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

6/4
630

HAM.-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

27
43



RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
251+80	262+00	Rt.	47	1,001
254+00	260+50	Lt.	47	660

HAMILTON CO., WHITEWATER TWP.
SEC. 9, T.1, R.1E.

27
43

DATE	REVISIONS	BY
12-22-71	ADDED EX. 4" GAS MAIN	J.T.C.

R/W PLAN Sta. 250+00 to Sta. 265+00 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

615/630

HAM - 275 - 3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

28/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	STATION TO		TYPE	LIN. FT.
260+50	286+85	Lt.	47	2658
262+00	281+20	Rt.	47	2,657

HAMILTON CO., WHITEWATER TWP.
SEC. 9, T.1, R.1E.

DATE	REVISIONS	BY

28/43

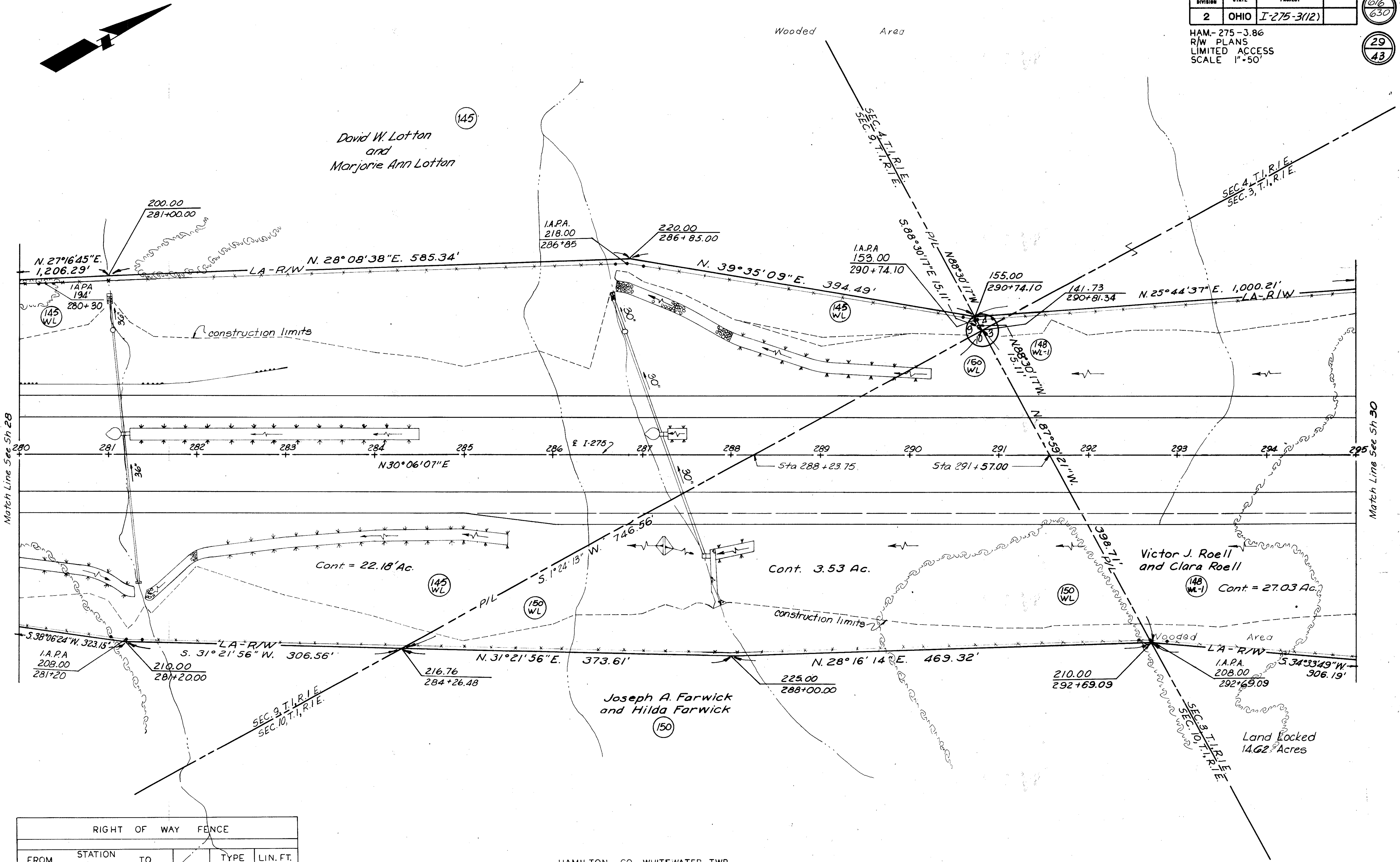
R/W PLAN Sta. 265+00 to Sta. 280+00 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

616
630

HAM.- 275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

29
43



RIGHT OF WAY FENCE

STATION FROM	STATION TO		TYPE	LIN. FT.
281+20	299+45	Rt	47	1,850
286+85	300+33	Lt	47	1,390

HAMILTON CO., WHITEWATER TWP.
SEC. 9 & 10, T. 1, R. 1 E

DATE	REVISIONS	BY

29
43

R/W PLAN Sta. 280+00 to Sta. 295+00 I-275

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
299+52	310+02.75	Rt.	47	1,030
300+41	314+60	Lt.	47	1,480

DATE	REVISIONS	BY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

618/630

HAM.-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

31/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
310+02.75	326+86±	Rt.	47	1,684
314+60	328+52±	Lt.	47	1,440

HAMILTON CO., WHITEWATER TWP.
SEC. 3, T.1, R.1E.

DATE	REVISIONS	BY

31/43

R/W PLAN Sta. 310+00 to Sta. 325+00 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	619/630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

32/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
327+40±	327+65	Rt.	47	68
327+65	340+00	Rt.	47	1,235
329+06±	330+25	Lt.	47	130
330+25	347+50	Lt.	47	1,726

PARCEL NO.	AREA - ACRES GROSS	P.R.O.	NET
148 WL-2	1.72	0.13	1.59
154 X	0.048	–	0.048
155 WL-2	5.34	0.00	5.34
155 SL	0.09	0.00	0.09
156 X	0.225	0.00	0.225
156 WD	0.06	0.00	0.06
157 WL-1	0.28	0.04	0.24
157 WL-2	0.13	0.05	0.08
157 X	0.04	0.00	0.04
157 WD	0.01	0.01	0.00
161 WD	0.19	0.19	0.00
158 WL	0.03	0.01	0.02
162 WD	0.16	0.16	0.00
161 WL	0.24	0.07	0.17
161 X	0.21	0.00	0.21
161 T	0.19	–	0.19
162 WL	7.92	0.24	7.68
162 SL	0.23	0.00	0.23
162 T	0.17	–	0.17
163 WL	20.26	–	20.26
163 SL	0.09	0.00	0.09
163 T	0.14	0.00	0.14
163 WD	0.20	0.20	0.00

DATE	REVISIONS	BY
7-18-72	ADDED LAKE	J.T.C.
8-10-72	Name change Par. 156	E.H.

32/43

R/W PLAN Sta. 325+00 to Sta. 340+00 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

620
630

HAM – 275 – 3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

33
43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
340+00	358+00	Rt.	47	1,800
347+50	355+00	Lt.	47	751

HAMILTON CO. WHITEWATER TWP.
SEC. 3, T.1, R.1E.

33
43

DATE	REVISIONS	BY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275 3(12)	

621/630

34/43

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	STATION TO		TYPE	LIN. FT.
355+00 ℄ I275	364+43 ℄ Ramp F	Lt.	47	977
358+00 ℄ I275	364+86 ℄ EB I275	Rt.	47	700
364+54 ℄ Ramp F	371+60 ℄ Ramp F	Lt.	47	685
364+96 ℄ EB I-275	371+74 ℄ EB I-275	Rt.	47	712

DATE	REVISIONS	BY

34/43

R/W PLAN Sta. 355+00 to Sta. 371+00 I-275

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

622/630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

35/43

RIGHT OF WAY FENCE

CODE 7221

STATION FROM	TO		TYPE	LIN. FT.
371+89 ℄ E.B. I-275	373+96 ℄ E.B. I-275	Rt.	47	267
374+04 ℄ E.B. I-275	384+50 ℄ E.B. I-275	Rt.	47	1,062

HAMILTON CO., WHITEWATER TWP.
SEC. 2, T. 1, R. 1 E.
SEC. 35, T. 2, R. 1 E.

DATE	REVISIONS	BY
10-13-71	Name Change Par. 63	W.J.K.
8-28-72	Name Change Par. 63	W.J.L.

35/43

R/W PLAN Sta. 371+00 to Sta. 381+00 E.B. I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

623
630

HAM.-275 - 3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

36
43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	STATION TO		TYPE	LIN. FT.
371+82 ℄ Ramp F	379+00 ℄ Ramp F	Lt.	47	636
317+00 ℄ I-74	320+37 ℄ I-74	Lt.	47	334

HAMILTON CO. WHITEWATER TWP.
SEC. 2, T. 1, R. 1 E.
SEC. 35, T. 2, R. 1 E.

See Sheet 35

DATE	REVISIONS	BY
8-4-72	Delete 61 WL-2, Rev. WL Area	J.T.C.

36
43

R/W PLAN Sta. 371+00 to Sta. 383+44 I-275

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

624/630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

37/43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
379+00 Lt. ℄ Ramp F	295+20 Rt. ℄ I-74	Lt.-Rt.	47	1,430

DATE	REVISIONS	BY
2-3-72	Rev. Take Area Par. 58	WJR
8-4-72	Delete 61WL-2, Rev. WL Area	J.T.S.

37/43

R/W PLAN Sta 293+80.11 to Sta 310+01.44 I-74

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

625 / 630

HAM - 275 - 3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50

38 / 43

RIGHT OF WAY FENCE

CODE 7221

STATION FROM	STATION TO		TYPE	LIN. FT.
320+37 ℄ I-275	395+00 ℄ W.B. I-275	Lt.	47	1,070

HAMILTON CO, WHITEWATER TWP.
SEC. 35, T.2, R.1E.

DATE	REVISIONS	BY
8-4-72	Delete 61WL2, Rev WL Area	J.T.G.

38 / 43

R/W PLANS Sta. 319+00 to Sta. 329+00 I-74

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-275-3(12)	

HAM - 275 - 3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

626/630

39/43

RIGHT OF WAY FENCE

CODE 7221

STATION FROM	STATION TO		TYPE	LIN. FT.
395+00 ℄ W.B. I-275	400+00 ℄ W.B. I-275	Lt.	47	462

DATE	REVISIONS	BY
10-13-71	Name Change Par. 63	WJL
8-28-72	Name Change Par. 63	WJL

39/43

R/W PLAN Sta. 329+00 to Sta 339+00 I-74

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
384+50 ℄E.B. I-275	395+50 ℄E.B. I-275	Rt.	47	1,075

DATE	REVISIONS	BY
10-13-71	Name Change Par. 63	WJK
8-28-72	Name Change Par. 63	WJK

40/43

R/W PLAN Sta 381+00 to Sta 394 E.B. I-275

HAM - 275 - 3.86
R/W PLANS
LIMITED ACCESS
SCALE 1" = 50'

NOTE
SUBSTITUTE CURVE DATA FOR R/W PURPOSES ONLY
P.I. = 417 + 75.69
Δ = 11°00'00"
Dc = 3°46'45"
Rc = 1,516.10
T = 145.98

NOTE
SUBSTITUTE CURVE DATA FOR R/W PURPOSES ONLY
P.I. = 413+57.19
Δ = 12°30'00"
Dc = 3°44'52"
Rc = 1,528.79
T = 167.43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
395+50 ℄ E.B. I-275	344+52 ℄ I-74	Rt.	47	450
344+69 ℄ E.B. I-275	348+50 ℄ I-74	Rt.	47	470
400+00 ℄ W.B. I-275	347+29 ℄ I-74	Lt.	47	1,540

NOTE
SUBSTITUTE CURVE DATA FOR R/W PURPOSES ONLY
P.I. = 405 + 17.20
Δ = 12°30'00"
Dc = 3°44'52"
Rc = 1,528.79
T = 167.43

DATE	REVISIONS	BY

R/W PLAN Sta 339+00 to Sta 349+00 I-74

NOTE
SUBSTITUTE CURVE DATA
FOR R/W PURPOSES ONLY

P.I. = 417+75.69
Δ = 11°00'00"
D_c = 3°46'45"
R_c = 1,516.10
T = 145.98

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	STATION TO		TYPE	LIN. FT.
347+43 ℄ I-74	363+00 ℄ I-74	Lt.	47	1,635
348+50 ℄ I-74	365+00 ℄ I-74	Rt.	47	1,649

HAMILTON CO., WHITEWATER TWP.
SEC. 1 & 2, T. 1, R. 1 E.

DATE	REVISIONS	BY
7/14/72	71WL ~ Rt ℄ Lt.	E.H.

R/W PLAN Sta 349+00 to Sta. 365+00 I-74

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-275-3(12)

630 / 630

HAM-275-3.86
R/W PLANS
LIMITED ACCESS
SCALE 1"=50'

43 / 43

RIGHT OF WAY FENCE				
CODE 7221				
STATION FROM	TO		TYPE	LIN. FT.
375+00 ℄ I-74	379+30 ℄ I-74	Lt.	47	458
365+00 ℄ I-74	368+00 ℄ I-74	Rt.	47	300

HAMILTON CO. WHITEWATER TWP.
SEC 1, T1, R1E

43 / 43

DATE	REVISIONS	BY

R/W PLAN Sta 365+00 to 380+00 I-74