



**INDEX OF SHEETS**

SITE PLAN	B1-B3
ESTIMATED QUANTITIES	B4
STRUCTURE GENERAL NOTES	B5-B8
CONSTRUCTION SEQUENCE	B9,B10
TIEBACK SHEETING	B10A,B10B
REMOVAL DETAILS	B11-B13
FOOTING/PILE LAYOUT	B14-B18
ABUMENT DETAILS	B19-B25
PIER DETAILS	B26-B46,B46A
BEARING DETAILS	B47,B48
DECK CROSS SECTIONS	B49
FRAMING PLAN	B50-B57
GIRDER DETAILS (UNIT 1)	B58
UNIT 2 P.T.TENDON PROFILE	B59
UNIT 2 SEG. AND BLOCK DETAILS	B60-B64
UNIT 2 GIRDER REIN. SCHED.	B65
UNIT 2 CONSTRUCTION SEQUENCE	B66-B68
GIRDER DETAILS (UNIT 3)	B69-B71
DEFLECTIONS	B72,B73
DIAPHRAGM DETAILS	B74-B79
FIBER OPTIC CABLE DETAILS	B80
DECK JOINT DETAILS	B81-B84
COVER PLATE DETAILS	B85
FINISHED DECK ELEVATIONS	B86-B92
DECK CROSS SECTION (UNIT 1)	B93
SLAB PLAN (UNIT 1)	B94
DECK CROSS SECTION (UNIT 2)	B95
SLAB PLAN (UNIT 2)	B96
DECK CROSS SECTION (UNIT 3)	B97,B98
SLAB PLAN (UNIT 3)	B99-B101
STAY-IN-PLACE DECK FORMS	B102
PARAPET DETAILS	B103-B105
APPROACH SLAB/MED. WALL	B106, B106A, B107
DRAINAGE DETAILS	B108,B109
REINFORCING SCHEDULES	B110-B127,B127A-B127J,B128,B129

# OHIO TURNPIKE COMMISSION

## THE JAMES W. SHOCKNESSY OHIO TURNPIKE

CONTRACT 43-99-01 PART B: CONCRETE BRIDGE ALTERNATE  
 RECONSTRUCTION OF CUYAHOGA RIVER BRIDGE  
 AND THIRD LANE CONSTRUCTION  
 M.P. 176.34 TO M.P. 178.01

STATION 223+71.60 TO STATION 317+32.00  
 SUMMIT COUNTY

**OHIO TURNPIKE COMMISSION STANDARD DRAWINGS**

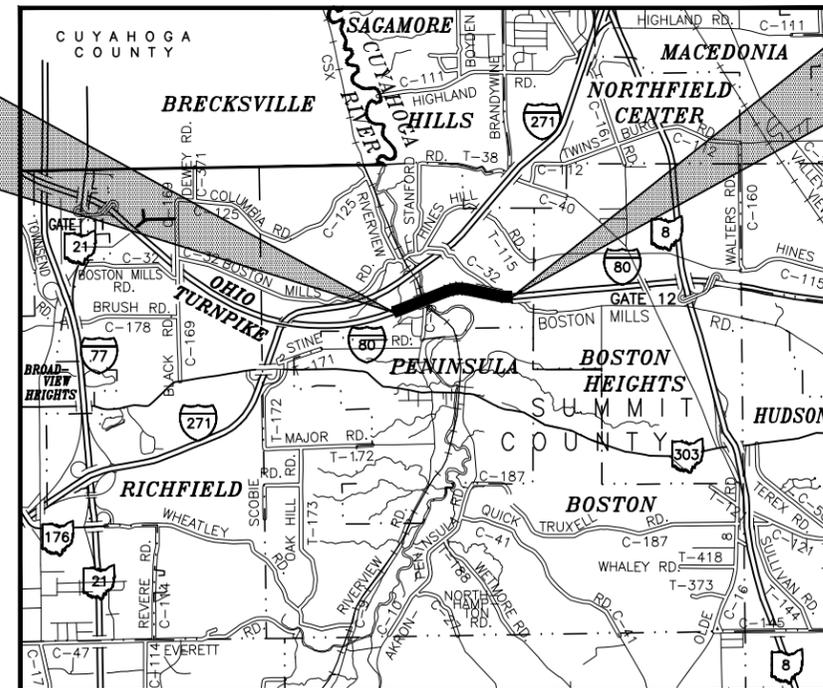
CBM-1	6/11/98	CBM-2	11/11/97	DJ-2	11/11/97
DJ-4	11/11/97				

**FIBER OPTIC CABLE AS-BUILT DRAWINGS**

**OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS**

AS-1-81	9/15/94	BR-1	12/15/94
PSID-1-95M	9/18/95	PCB-91	4/24/92

BEGIN PROJECT  
 STA. 223+71.60  
 M.P. 176.34



END PROJECT  
 STA. 317+32.00  
 M.P. 178.01

APPROVED FOR  
 THE OHIO TURNPIKE COMMISSION  
 BY

CHIEF ENGINEER

DATE

RECOMMENDED FOR APPROVAL  
 BY  
 URS GREINER, INC.

REVIEW CONSULTANT

DATE

PLANS PREPARED BY:



ARCHITECTS ENGINEERS PLANNERS  
 1375 EAST 9TH STREET  
 CLEVELAND, OHIO

GEORGE TOMICH, P.E.

DESIGN CONTRACT NO. 71-96-48

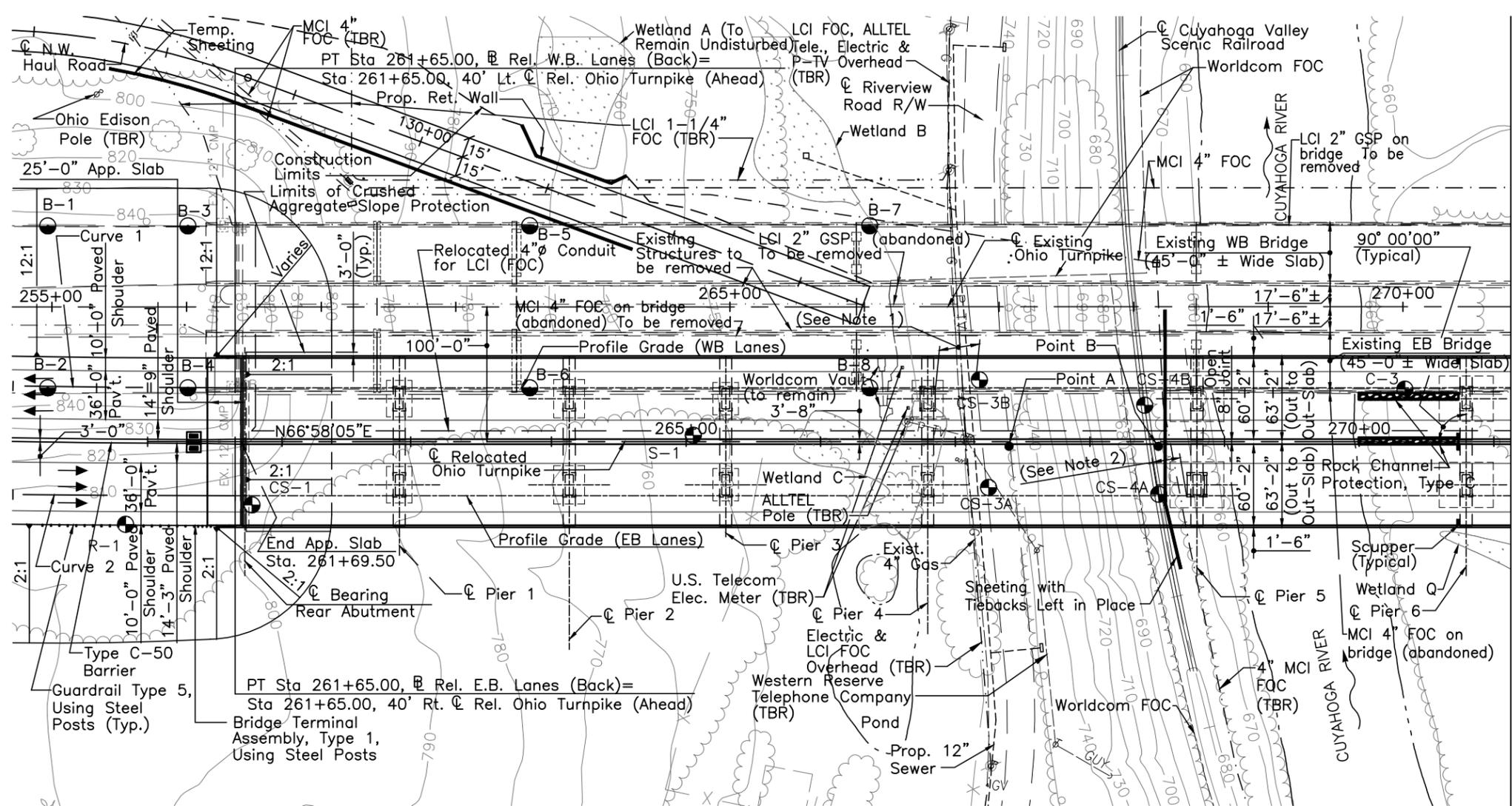
2 WORKING DAYS  
 BEFORE YOU DIG  
 CALL...800-362-2764 (TOLL FREE)  
 OHIO UTILITIES PROTECTION SERVICE  
 CALL JAYTEL -- (419) 884-0400  
 (LCI FIBER OPTIC CABLE)  
 OHIO TURNPIKE DIVISION SUPERINTENDENT  
 (419) 862-2922  
 (ROADWAY LIGHTING CABLE)

LOCATION MAP  
 0 6000

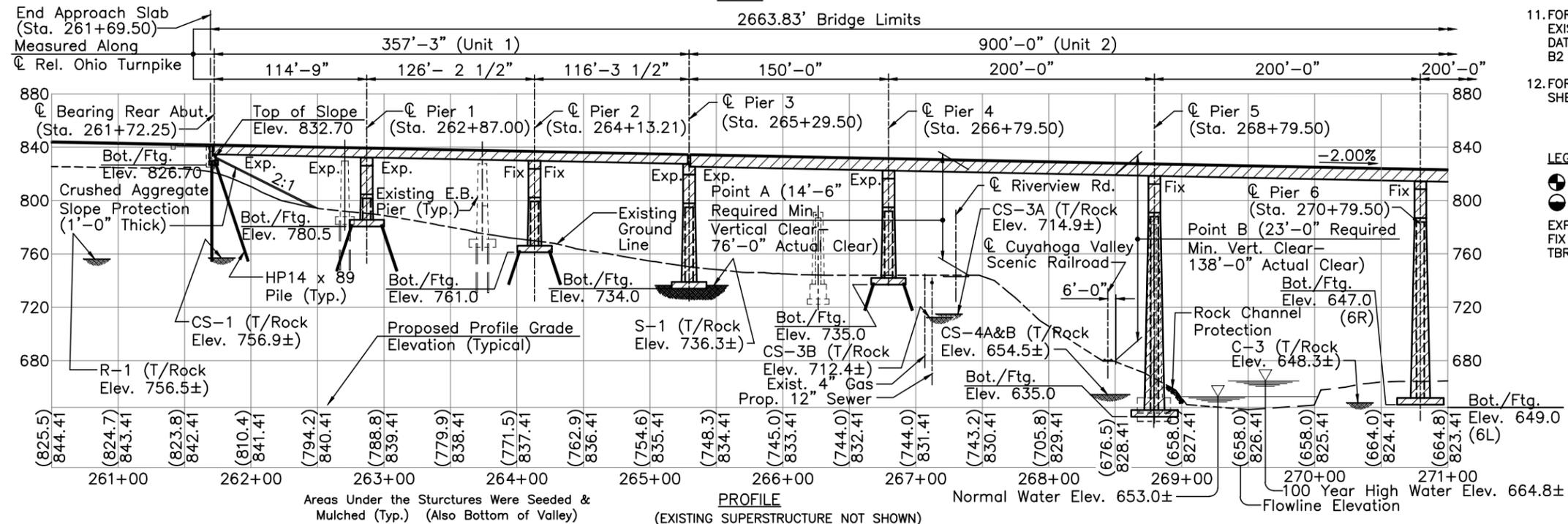
**SCALES**

PLAN	0 50
PROFILE	HORIZONTAL 0 50 VERTICAL 0 5
CROSS SECTIONS	HORIZONTAL 0 10 VERTICAL 0 10

DESIGNED BY: MAB CHECKED BY: M.J.L.  
 DATE: 5/97 DATE: 7/98  
 DRAWN BY: MAB REVISIONS BY:  
 DATE: 5/97 DATE:  
 CAD FILE NAME: 25725\Titlesst.DWG



PLAN



PROFILE

CURVE 1 DATA		CURVE 2 DATA	
RELOCATED OHIO TURNPIKE--	W.B. ROADWAY	RELOCATED OHIO TURNPIKE--	E.B. ROADWAY
P.I. Sta 250+94.25		P.I. Sta 245+44.91	
D = 00°34'18"		D = 00°22'40"	
Δ = 12°17'22" Lt.		Δ = 12°17'22" Lt.	
R = 10,022.59'		R = 15,164.65'	
L = 2,149.78'		L = 3,252.71'	
T = 1,079.03'		T = 1,632.62'	
E = 57.92'		E = 87.63'	

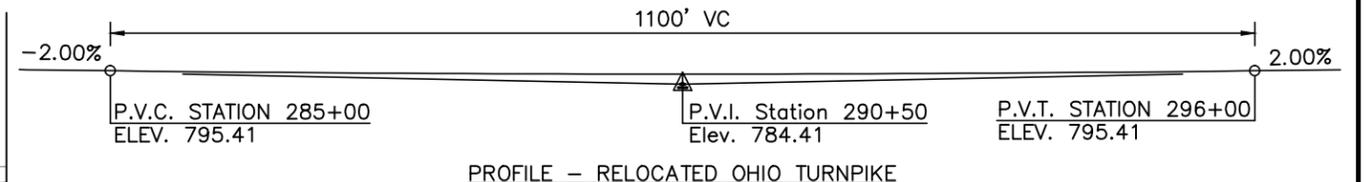
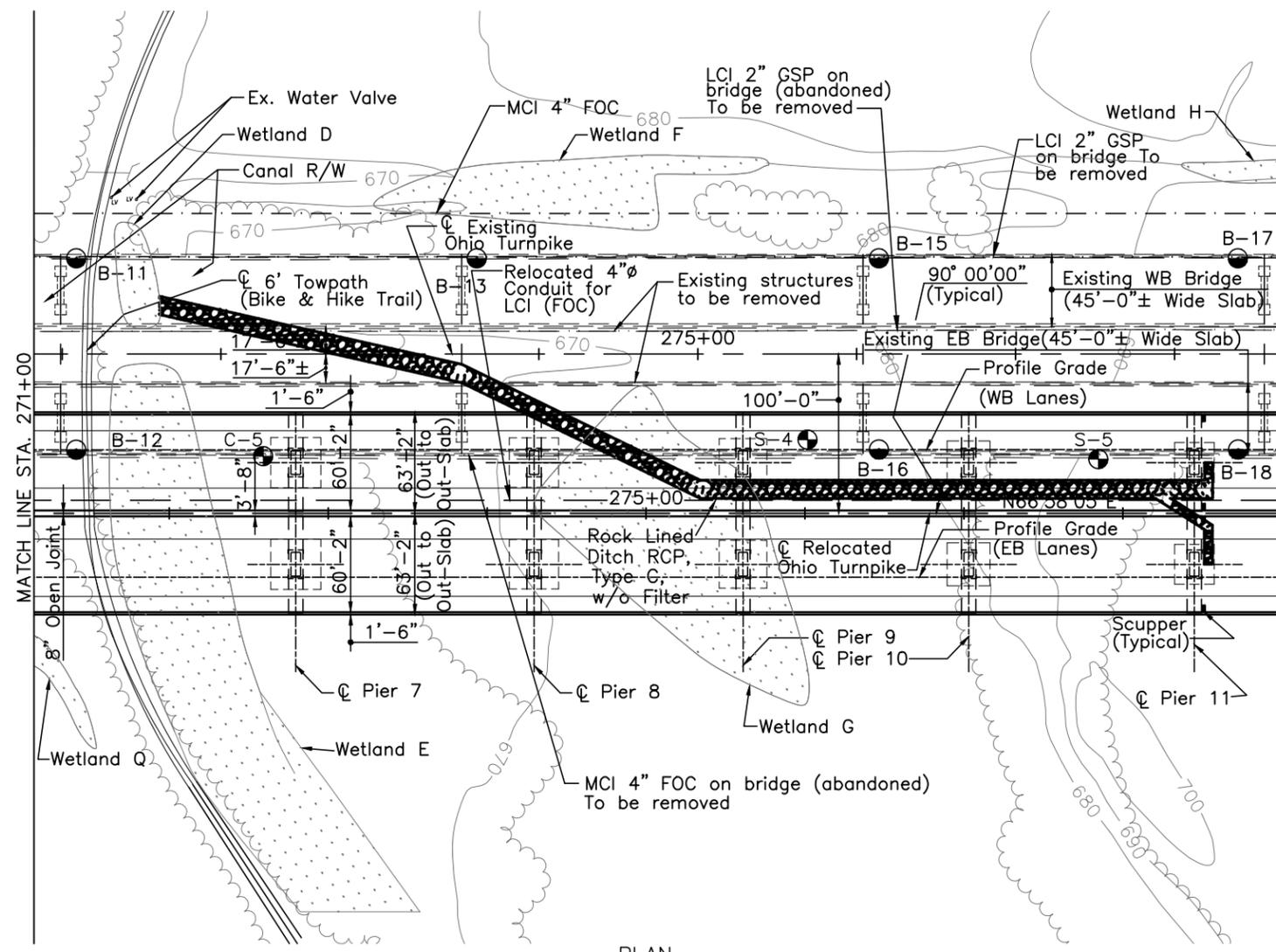
BENCHMARK #3		STATION OF FIRST ROADWAY	
FENO MONUMENT 121		GUARDRAIL POST ADJACENT	
SET 80' LEFT OF STA.		TO BRIDGE	
247+00.00 RE-ESTABLISHED		REL. OHIO TURNPIKE STATION	
OHIO TURNPIKE BASELINE		261+46.77 Rt.	
Elev. 859.60			
PROJECT DATUM IS NATIONAL			
AMERICAN DATUM OF 1929			

- NOTES:
1. THE REQUIRED MINIMUM HORIZONTAL CLEARANCE FROM PIER 4 TO THE EDGE OF RIVERVIEW ROAD IS 30'-0". THE ACTUAL CLEARANCE IS 30'-3".
  2. THE REQUIRED MINIMUM HORIZONTAL CLEARANCE FROM PIER 5 TO THE CENTERLINE OF THE CUYAHOGA VALLEY SCENIC RAILROAD IS 18'-0". THE ACTUAL CLEARANCE IS 20'-11".
  3. PROPOSED VERTICAL PIER PILES NOT SHOWN FOR CLARITY.
  4. EXISTING ABUTMENT PILES NOT SHOWN FOR CLARITY.
  5. CONTRACTOR SHALL ADHERE TO THE PROJECT ENVIRONMENTAL DOCUMENT REGARDING DESIGN RESTRAINTS FOR THE COFFERDAMS AND TEMPORARY BRIDGE REQUIRED FOR PIER 5 CONSTRUCTION AND GENERAL NOTE SHEET B OF B129.
  6. ALL EXISTING UTILITIES SHALL REMAIN UNLESS OTHERWISE NOTED.
  7. ALL WETLAND AREAS SHALL BE FILLED EXCEPT WETLAND A AND E REFER TO ROADWAY GENERAL NOTES FOR ADDITIONAL INFORMATION.
  8. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
  9. EXISTING OHIO TURNPIKE IS ALSO RE-ESTABLISHED SURVEY B.
  10. ELEVATIONS IN ( ) ARE EXISTING GROUND ELEVATIONS ALONG THE RELOCATED OHIO TURNPIKE.
  11. FOR OHIO TURNPIKE PROFILE, FOUNDATION INFORMATION, EXISTING AND PROPOSED STRUCTURE BLOCKS, TRAFFIC DATA, AND TABLE OF BORING LOCATIONS, SEE SHEET B2 OF B129.
  12. FOR N.W. HAUL ROAD RETAINING WALL AND TEMPORARY SHEETING DETAILS AND NOTES, SEE ROADWAY PLANS.

- LEGEND:
- DENOTES BORING LOCATION (1998)
  - DENOTES EXISTING BORING LOCATION (1952)
  - EXP DESIGNATES EXPANSION.
  - FIX DESIGNATES FIXED.
  - TBR DENOTES TO BE RELOCATED (BY OTHERS)

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
SITE PLAN		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: ADY	CHECKED: RER/MJL	DATE: 12/31/98
DRAWN: GLG/JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B1 OF B129		

DESIGNED BY: ADY CHECKED BY: MJL  
DATE: 10/27/97 DATE: 5/22/98  
DRAWN BY: JLV REVISIONS BY:  
DATE: 10/27/98 DATE:  
CAD FILE NAME: 25725 - SITE1C.DWG



MATTHEW J. LAWLER, P.E.  
 SHEETS B1-B10, B10A, B10B, B11-B18,  
 B26-B46, B46A, B80, B102, B106, B106A, B108,  
 B109, B111-B127, AND B127A-B127J OF B129.

BORING LOCATIONS		
BORING	$\bar{C}$ REL. OHIO TURNPIKE STATION	OFFSET TO $\bar{C}$
R-1	260+84	61' RT.
CS-1	261+78	47' RT.
S-1	265+05	5' LT.
CS-3B	267+18	46' LT.
CS-3A	267+25	34' RT.
CS-4B	268+41	27' LT.
CS-4A	268+51	39' RT.
C-3	270+34	39' LT.
C-5	272+59	36' LT.
S-4	276+02	46' LT.
S-5	277+85	34' LT.
S-6	279+67	36' LT.
CS-6B	280+78	0'
C-10	282+97	23' RT.
S-7	283+35	36' LT.
S-8	285+09	35' LT.
C-12	285+57	40' RT.
CS-7	286+93	35' LT.
CS-8	287+01	7' RT.
CS-9	288+15	90' RT.
R-2B	289+19	308' RT.
R-2A	289+53	2' LT.

**EXISTING STRUCTURES**

TYPE: TWIN SIMPLE SPANS. PAINTED A36 STEEL DECK TRUSS AND PAINTED A36 STEEL DECK GIRDER SPANS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURES.

SPANS: 2-100 FT. MULTIPLE GIRDER SPANS, 9-250 FT. TRUSS SPANS, 2-100 FT. MULTIPLE GIRDER SPANS.

ROADWAY: 43'-2" F/F OF CONCRETE PARAPETS (EACH STRUCTURE).

LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING.

SKEW: NONE.

WEARING SURFACE: MONOLITHIC CONCRETE.

APPROACH SLABS: AS-1-81 (15'-0" LONG).

ALIGNMENT: TANGENT TO SPIRAL TO 2'30" CURVE RIGHT.

SUPERELEVATION: VARIES.

YEAR BUILT: 1952, REHABILITATED: 1983

STRUCTURE FILE NUMBER: 7729634 (LEFT) AND 7729626 (RIGHT)

**PROPOSED STRUCTURES**

TYPE: TWIN CONTINUOUS COMPOSITE PRECAST PRESTRESSED (AND POST TENSIONED IN UNIT 2) CONCRETE GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURES.

SPANS: 114'-9", 126'-2 1/2", 116'-3 1/2" (UNIT 1), 150'-0", 3 @ 200'-0", 150'-0" (UNIT 2), 131'-6", 8 @ 142'-0", 131'-10" (UNIT 3) (C/C SUBSTRUCTURES) (MEASURED ALONG  $\bar{C}$  RELOCATED OHIO TURNPIKE)

ROADWAY: 60'-2" TOE TO TOE OF CONCRETE PARAPETS (EACH STRUCTURE).

LOADING: HS25 AND THE ALTERNATE MILITARY LOADING AND 30 LBS. PER SQ. FT. FUTURE WEARING SURFACE. THE STRUCTURE HAS ALSO BEEN DESIGNED TO RESIST MAXIMUM STRESSES INDUCED BY SEVEN LIVE LOAD AXLE CONFIGURATIONS.

SKEW: NONE.

WEARING SURFACE: MONOLITHIC CONCRETE.

APPROACH SLABS: AS-1-81 (25'-0" LONG), AS PER PLAN

ALIGNMENT: TANGENT TO SPIRAL TO 2'30" CURVE RIGHT.

SUPERELEVATION: SEE SHEET B86 OF B129.

STRUCTURE FILE NUMBER: 7729642 (LEFT) AND 7729618 (RIGHT)

**NOTES:**  
 FOR ADDITIONAL NOTES, SEE SHEET B1 OF B129.

**LEGEND:**

- ⊕ DENOTES BORING LOCATION (1998)
- ⊙ DENOTES EXISTING BORING LOCATION (1952)
- EXP DESIGNATES EXPANSION.
- FIX DESIGNATES FIXED.
- TBR DENOTES TO BE RELOCATED (BY OTHERS)

**TRAFFIC DATA**

CURRENT ADT (1998) = 47,268  
 DESIGN ADT (2018) = 81,210  
 DESIGN ADTT (2018) = 13,217

**FOUNDATION DATA**

THE REAR AND FORWARD ABUTMENTS AND PIERS 16, AND 17 SHALL BE SUPPORTED ON STEEL H-PILES (HP14 X 89)(FRICTION-TYPE PILES) WITH A MINIMUM BEARING CAPACITY OF 115 TONS PER PILE.

PIERS 1, 2, 4, 14, AND 15 (LEFT AND RIGHT) SHALL BE SUPPORTED ON STEEL H-PILES (HP14 X 89)(END-BEARING PILES WITH POINTS DRIVEN TO ROCK) WITH A MINIMUM BEARING CAPACITY OF 115 TONS PER PILE.

PIERS 3 AND 5 THROUGH 13 INCLUSIVE (LEFT AND RIGHT) SHALL BE SUPPORTED ON SPREAD FOOTINGS ON ROCK WITH A MINIMUM BEARING CAPACITY OF 12 TONS PER SQUARE FOOT.

FOR DESIGN BEARING PRESSURES AND PILE DESIGN LOADS, SEE SHEET B7 OF B129.

FOR ESTIMATED AVERAGE LENGTH OF PILES, SEE FOOTING AND PILE LAYOUT, SHEETS B14 THROUGH B18 OF B129.

**CONCRETE ALTERNATE**

RECORD DRAWING	11/3/04
NO.	REVISIONS BY DATE

**OHIO TURNPIKE COMMISSION**

**SITE PLAN**

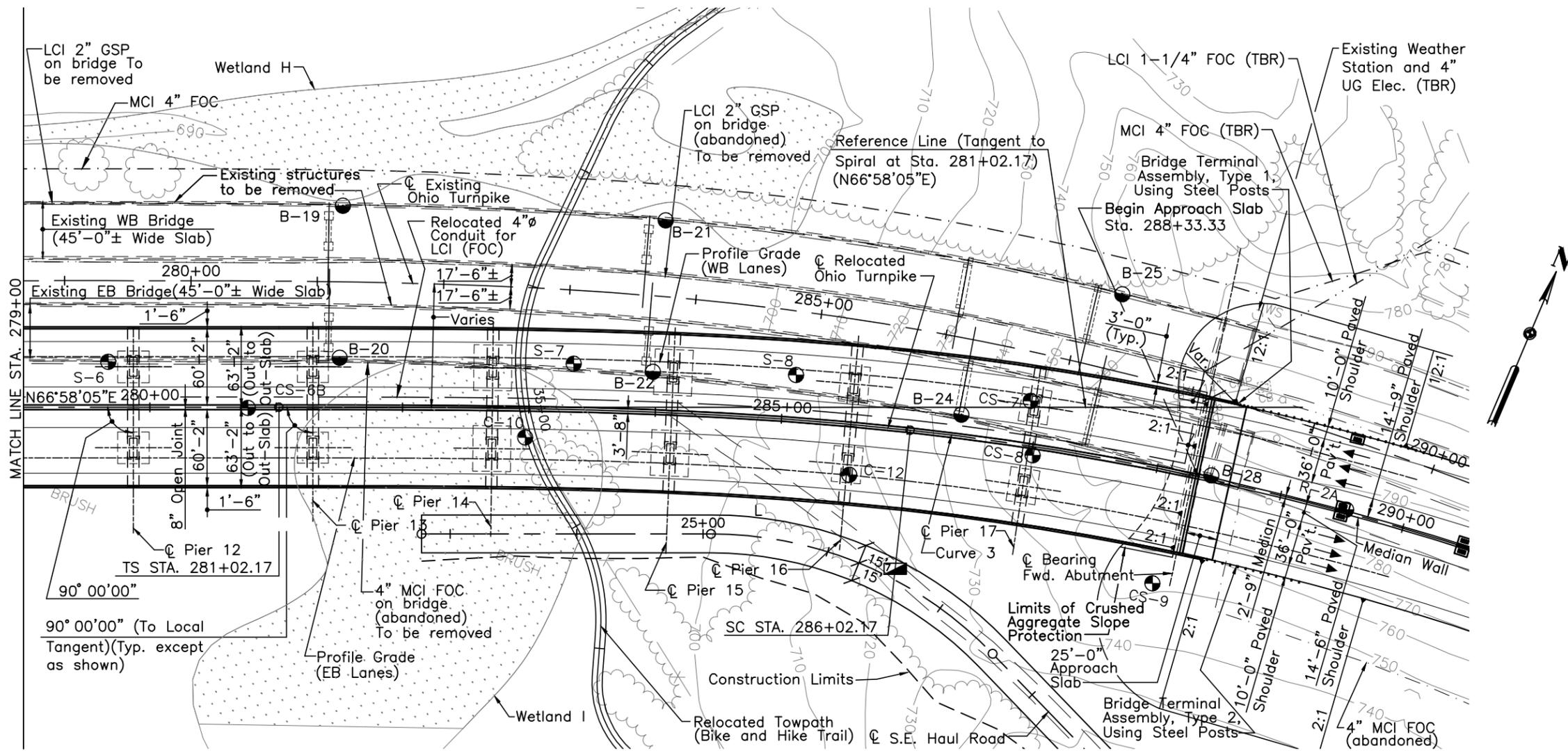
OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: ADY	CHECKED: RER/MJL	DATE: 12/31/98
DRAWN: GLG/JLV	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B2 OF B129

DESIGNED BY: ADY | CHECKED BY: MJL  
 DATE: 10/27/98 | DATE: 5/22/98  
 DRAWN BY: JLV | REVISED BY:  
 DATE: 10/27/98 | DATE:  
 CAD FILE NAME: 25725 - SITE2C.DWG

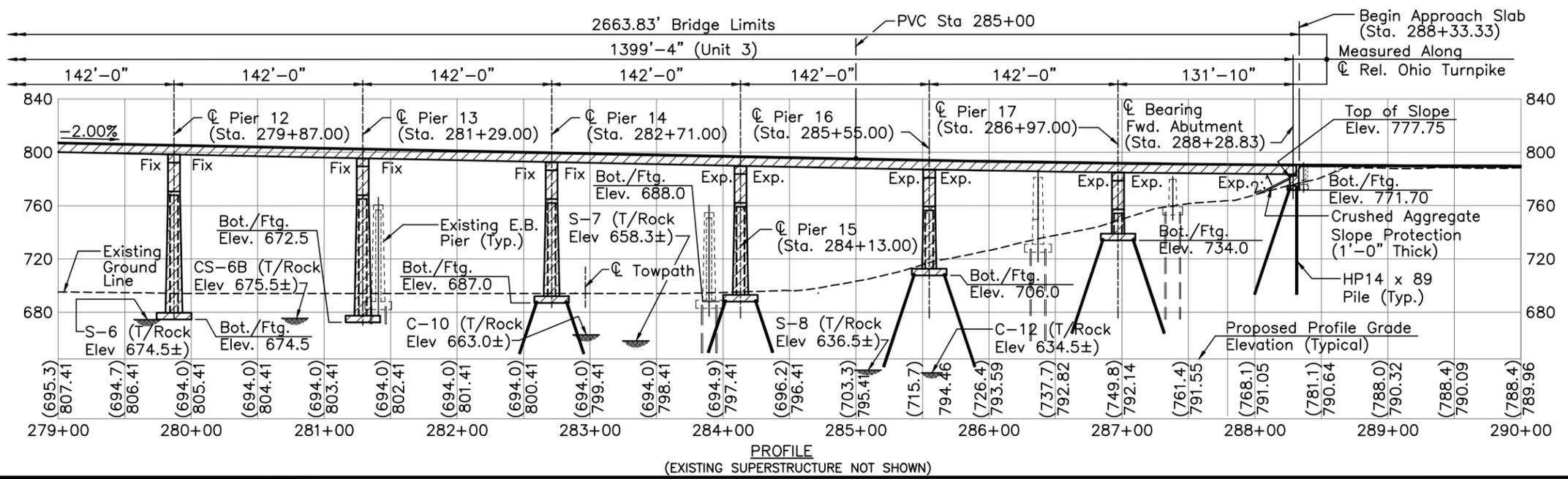


**CURVE 3 DATA**  
 CL RELOCATED OHIO TURNPIKE  
 P.I. Sta 290+99.22  
 $\Delta = 36^{\circ}02'45''$  Rt.  
 $\Delta c = 23'32'45''$  Rt.  
 $T_s = 997.05'$   
 $L_c = 941.83'$   
 $L_s = 500.00'$   
 $R = 2,291.83'$   
 $D_c = 02'30'00''$   
 $E_s = 123.03'$   
 $G_s = 06'15'00''$

**BENCHMARK 7**  
 TOP OF IRON PIN SET  
 110' RIGHT OF STA. 286+02.17  
 CL RELOCATED OHIO TURNPIKE  
 Elev. 715.46  
 PROJECT DATUM IS NATIONAL  
 AMERICAN DATUM OF 1929

STATION OF FIRST ROADWAY GUARDRAIL POST ADJACENT TO BRIDGE	
CL REL. OHIO TURNPIKE STATION	288+57.41 Rt. 288+62.59 Lt.

PLAN



**NOTE:**  
 SEE FOOTING AND PILE LAYOUT PLAN SHEETS B17 AND B18 OF B129 FOR REFERENCE.  
 FOR ADDITIONAL NOTES, SEE SHEET B1 AND B2 OF B129.

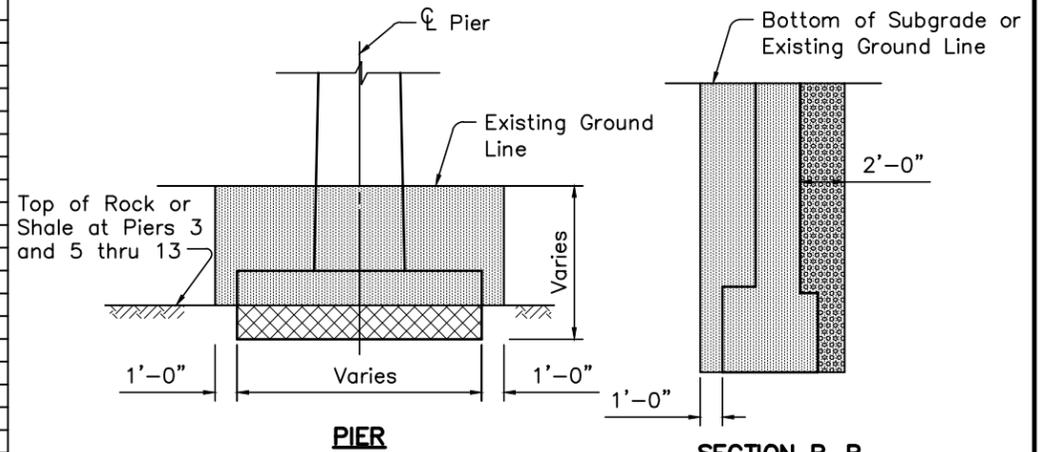
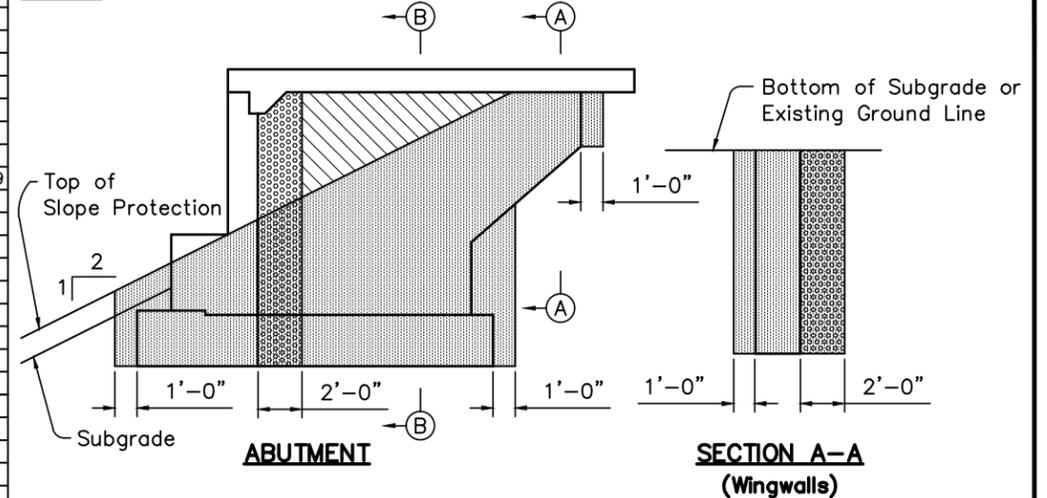
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
SITE PLAN		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: ADY	CHECKED: RER/MJL	DATE: 12/31/98
DRAWN: GLG/JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B3 OF B129		

DESIGNED BY: ADY CHECKED BY: MJL  
 DATE: 10/02/98 DATE: 5/22/98  
 DRAWN BY: GLG REVISED BY:  
 DATE: 10/02/97 DATE:  
 CAD FILE NAME: 25725 - SITE3C.DWG

Item	Total	Unit	Description	Abutments	Piers	Superstructure	General	As per Plan/ Special Sht. No.
202	Lump Sum		Structure Removed, As per plan				Lump Sum	B6 OF B129
Special	9	Each	Removal of Existing Piling ▲	0	9		0	B6 OF B129
203	30.45	Cu. Yd.	Embankment, As Per Plan B		30.45			B6 OF B129
503	13,351	Cu. Yd.	Unclassified Excavation		13,351			
503	500	Cu. Yd.	Unclassified Excavation, As Per Plan	730				B6 OF B129
503	5,165	Cu. Yd.	Rock and Shale Excavation, As Per Plan		5,165			B7 OF B129
503	Lump Sum		Cofferdams, Cribbs, and Sheeting				Lump Sum	
503	Lump Sum		Cofferdams, Cribbs, and Sheeting, As Per Plan B				Lump Sum	B6 OF B129
SP 504	6383	Sq. Ft.	Sheeting with Tiebacks, Left in Place				6,383	
504	800	Sq. Ft.	Sheeting, Left in Place (SM = 35.7 IN^3 /FT)	800				
505	Lump Sum		Pile Driving Equipment Mobilization				Lump Sum	
506	Lump Sum		Static Load Test, As Per Plan ▲				Lump Sum	B7 OF B129
506	1	Each	Subsequent Static Load Test, As Per Plan ▲				1	B7 OF B129
507	26,655	Lin. Ft.	Steel Piles HP 14 x 89, As Per Plan	6696	25112			B7 OF B129
507	336	Each	Steel Point (or Shoe), As Per Plan		336			B7 OF B129
509	663,377	Pound	Reinforcing Steel, Grade 60	11,077	652,300			
509	1,292	Each	Reinforcing Steel, Miscellaneous: Stainless Steel Bars, As Per Plan		1,292			B46A OF B129
SP 509	7,789,878	Pound	Epoxy Coated Reinforcing Steel, Grade 60	43,578	4,092,232	3,824,510		
SP 511	772	Cu. Yd.	Class C Concrete, Abutments	772				
SP 511	23,447	Cu. Yd.	Class C Concrete, Pier Above Footings		23,447			
SP 511	5,273	Cu. Yd.	Class C Concrete, Pier Footings		5,273			
SP 511D	1,325	Cu. Yd.	High Performance Concrete, Superstructure (Diaphragms)			1,325		
SP 511D	10,338	Cu. Yd.	High Performance Concrete Superstructure (Deck)			10,338		
SP 511D	1453	Cu. Yd.	High Performance Concrete Superstructure (Barriers)	12		1441		
SP 511D	Lump Sum		High Performance Concrete Testing				Lump Sum	
SP 511D	Lump Sum		High Performance Concrete, Trial Mix				Lump Sum	
SP 512	9	Sq. Yd.	Membrane Waterproofing ( Sheet Type 2 )	9				
513	7533	Pound	Structural Steel, AISC Category I			7533		
513	8942	Pound	Parapet Plate, As Per Plan			8942		B85 OF B129
SP 515A	4269	Lin Ft.	Precast Concrete Girders, 72" Deep			4269		
SP 515A	16,704	Lin Ft.	Precast Concrete Girders, 84" Deep			16,704		
SP 515A	12,468	Lin Ft.	Precast Concrete Girders, 102" Deep			12,468		
516	12	Each	Laminated Elastomeric Bearings, Complete, As Per Plan, Type E1		12			B47 OF B129
516	24	Each	Laminated Elastomeric Bearings, Complete, As Per Plan, Type E2		24			B47 OF B129
516	12	Each	Laminated Elastomeric Bearings, Complete, As Per Plan, Type E3		12			B47 OF B129
516	48	Each	Laminated Elastomeric Bearings, Complete, As Per Plan, Type E10		48			B47 OF B129
516	24	Each	Laminated Elastomeric Bearings, Complete, As Per Plan, Type F1		24			B48 OF B129
516	28	Each	Laminated Elastomeric Bearings, Complete, As Per Plan, Type F2		28			B48 OF B129
516	72	Each	Laminated Elastomeric Bearings, Complete, As Per Plan, Type F3		72			B48 OF B129
516	100	Sq. Ft.	1" Preformed Expansion Joint Filler	100				
SP 516E	14	Each	PTFE, Laminated Elastomeric Bearings, Complete, Type E4			14		
SP 516E	28	Each	PTFE, Laminated Elastomeric Bearings, Complete, Type E5			28		
SP 516E	14	Each	PTFE, Laminated Elastomeric Bearings, Complete, Type E6			14		
SP 516E	24	Each	PTFE, Laminated Elastomeric Bearings, Complete, Type E7			24		
SP 516E	48	Each	PTFE, Laminated Elastomeric Bearings, Complete, Type E8			48		
SP 516E	48	Each	PTFE, Laminated Elastomeric Bearings, Complete, Type E9			48		
SP 516B	14,683	Lin. Ft.	Sealing of Construction Joints	15		15,886	182	
518	324	Cu. Yd.	Porous Backfill with Filter Fabric	324				
518	285	Lin. Ft.	6" Perforated Corrugated Plastic Pipe, As Per Plan	285				B8 OF B129
518	102	Lin. Ft.	6" Non-Perforated Corrugated Plastic Pipe, Including Specials, As Per Plan	102				B8 OF B129
518	8	Each	Scuppers, Including Supports, As Per Plan			8		B108 OF B129
518	775	Lin. Ft.	10" Pipe Downspout, Including Specials				775	
SP 523A	7	Each	Dynamic Load Test ▲				7	
SP 525B	Lump Sum		Scrap Steel/ Paint/ Waste - Removal, Handling, Storage, Classification, Transportation, and Disposal				Lump Sum	
SP 525B	200	Each	Protective Clothing/Equipment Set				200	
SP 527A	Lump Sum		Falsework, Temporary Bracing, and Protective Structures				Lump Sum	
SP 533	125	Lin. Ft.	4 Inch Continuous Strip Seal in Structural Steel Joint			125		
SP 533M	126	Lin. Ft.	6.3 Inch Modular Expansion Joint			126		
SP 533M	126	Lin. Ft.	9.5 Inch Modular Expansion Joint			126		
SP 533M	126	Lin. Ft.	12.6 Inch Modular Expansion Joint			126		
SP 536	36,245	Sq. Yd.	Concrete Weatherproofing, Deck, Abutment Slabs and Approach Slabs	669		35,576		
SP 536	8669	Sq. Yd.	Concrete Weatherproofing, Barriers and Parapets	75		8954		
SP 536	346	Sq. Yd.	Concrete Weatherproofing, Substructure	346				
SP 536A	2851	Sq. Yd.	Masonry Coating		2851	0		
601	1630	Cu. Yd.	Rock Channel Protection, Type A Without Filter				1630	
601	1559	Sq. Yd.	Crushed Aggregate Slope Protection				1559	
601	12	Sq. Yd.	Riprap, grouted				12	
625	2643	Lin. Ft.	Conduit 4", 713.04, As Per Plan			2643		B80 OF B129
SP 711A	330,301	Pound	Post-Tensioning Strand Tendons			330,301		
SP 711A	66,131	Pound	Post-Tensioning Bar Tendons			66,131		
SP 623A	34	Each	Pre/Post Construction Survey				34	

### EXCAVATION DIAGRAMS

- Indicates Area Included with Various Items 503, Unclassified Excavation
- Indicates Area Included with Item 203, Embankment, As Per Plan A (Roadway Item)
- Indicates Area Included with Item 518, Porous Backfill with Filter Fabric
- Indicates Area Included with Item 503, Rock and Shale Excavation



#### NOTES:

1. ITEM 202, STRUCTURE REMOVED, AS PER PLAN INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
 

STRUCTURAL STEEL (GIRDER SPANS)	2,359,708 LBS.
STRUCTURAL STEEL (TRUSS SPANS)	16,733,814 LBS
SUPERSTRUCTURE CONCRETE	7915 C.Y.
CONCRETE PARAPETS	12,916 L.F.
ABUTMENT SLAB CONCRETE	176 C.Y.
SUBSTRUCTURE CONCRETE	14,043 C.Y.
SCUPPERS	70 EACH
EXPANSION JOINTS	1260 L.F.
2. ▲ - INDICATES TO BE USED AS DIRECTED BY THE ENGINEER.
3. ESTIMATED QUANTITIES CALC BY: MJL DATE: 12/11/98  
CHECKED BY: GLG DATE: 12/21/98
4. ITEM SP 623A - PRE/POST CONSTRUCTION SURVEY INCLUDES 41 EACH (ACTUAL) AND 10 EACH (CONTINGENCY).

#### NOTES:

THIS DRAWING WAS ELECTRONICALLY UPDATED TO REFLECT CONSTRUCTION PLAN REVISIONS THRU DEC. 31, 2001

FOR ESTIMATED QUANTITY REVISIONS NOT SHOWN, SEE SHEET B4A OF B129.

### CONCRETE ALTERNATE

RECORD DRAWING	11/3/04
NO. REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>	
<b>ESTIMATED QUANTITIES</b>	
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9	
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724	
DESIGNED: GLG	CHECKED: MJL DATE: 12/31/98
DRAWN: GLG	IN CHARGE: GT SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B4 OF B129	

DESIGNED BY: GLG CHECKED BY: MJL  
 DATE: 02/12/98 DATE: 8/6/98  
 DRAWN BY: GLG REVISIONS BY:  
 DATE: 02/12/98 DATE:  
 CAD FILE NAME: 25725 - EQ.DWG

# STRUCTURE GENERAL NOTES

## DESIGN SPECIFICATIONS

"STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 AND THE ODOT BRIDGE DESIGN MANUAL.

ANSI/AASHTO/AWS D1.5-95 BRIDGE WELDING CODE, 1995.

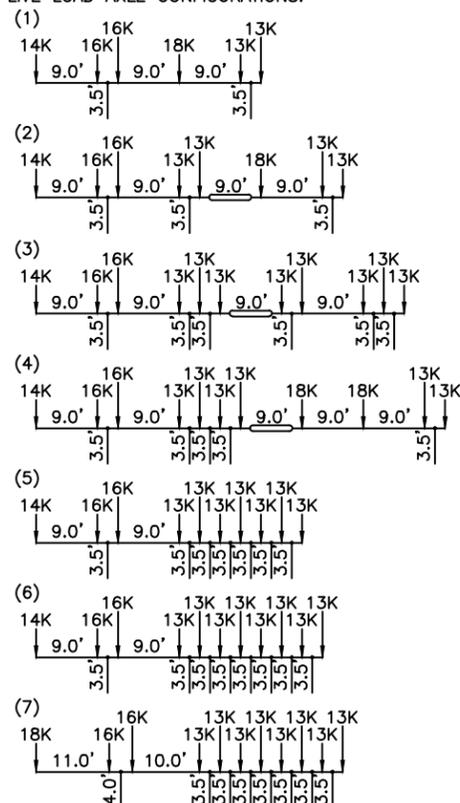
AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES, 1989 EDITION, INCLUDING INTERIM SPECIFICATIONS-BRIDGES-THROUGH 1995.

AASHTO GUIDE SPECIFICATIONS FOR THERMAL EFFECTS IN CONCRETE BRIDGE SUPERSTRUCTURES, 1989 EDITION.

CEB/FIP MODEL CODE FOR CONCRETE STRUCTURES, 3RD EDITION, 1978 INCLUDING APPENDIX E: TYPE DEPENDENT BEHAVIOR OF CONCRETE, CREEP AND SHRINKAGE.

## DESIGN LOADING

HS-25-44, THE ALTERNATE MILITARY LOADING, AND A 30 P.S.F. FUTURE WEARING SURFACE. AN INCREASE IN DEAD LOAD OF 15 P.S.F. OF DECK AREA BETWEEN GIRDERS HAS BEEN ACCOUNTED FOR IN THE SUPERSTRUCTURE DESIGN FOR THE WEIGHT OF STAY-IN-PLACE FORMS AND SUBSEQUENT ADDITIONAL CONCRETE IN THE VALLEYS OF THE FORMS. THE STRUCTURE HAS ALSO BEEN CHECKED FOR MAXIMUM STRESSES DUE TO THE FOLLOWING SEVEN LIVE LOAD AXLE CONFIGURATIONS:



## MATERIALS

SUBSTRUCTURE (CLASS C) . . . . .	F'C = 4000 PSI
SUPERSTRUCTURE DECK SLAB (CLASS S) . . . . .	F'C = 4500 PSI
SUPERSTRUCTURE BARRIERS (CLASS S USING TYPE I CEMENT) . . . . .	F'C = 4500 PSI
SUPERSTRUCTURE DIAPHRAGMS (CLASS S) . . . . .	F'C = 4500 PSI
SUPERSTRUCTURE PRESTRESSED CONCRETE GIRDERS (CLASS S, MODIFIED) . . . . .	F'C = 7500 PSI
PRE-TENSIONED . . . . .	F'CI = 6500 PSI
POST-TENSIONED . . . . .	F'CI = 7500 PSI
SUPERSTRUCTURE DECK SLAB (HIGH PERFORMANCE) * . . . . .	F'C = 4500 PSI
SUPERSTRUCTURE DIAPHRAGMS & PARAPETS (HIGH PERFORMANCE) * . . . . .	F'C = 4500 PSI
* ALTERNATE BID ITEM	

REINFORCING STEEL, ASTM A615, A616 OR A617, GRADE 60 . . . . .	FY = 60,000 PSI
SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615 . . . . .	FY = 60,000 PSI
PRESTRESSING STRAND, AASHTO M203, GRADE 270, LOW RELAXATION . . . . .	FY = 243,000 PSI
F'S = 270,000 PSI	
POST-TENSIONING STRAND, AASHTO M203, GRADE 270, LOW RELAXATION . . . . .	FY = 243,000 PSI
F'S = 270,000 PSI	
POST-TENSIONING BARS, AASHTO M275, GRADE 150, TYPE II . . . . .	FY = 120,000 PSI
F'S = 150,000 PSI	
STRUCTURAL STEEL, ASTM A36, GRADE 36 . . . . .	FY = 36,000 PSI
(FOR UTILITY & DRAINAGE SUPPRORTS)	

## ALLOWABLE STRESSES

PRESTRESSED CONCRETE:	
TEMPORARY STRESSES BEFORE LOSSES DUE TO CREEP AND SHRINKAGE:	
COMPRESSION, PRE-TENSIONED MEMBERS . . . . .	0.6F'CI = 3900 PSI
COMPRESSION, POST-TENSIONED MEMBERS . . . . .	0.55F'CI = 4125 PSI
TENSION (WITH BONDED REINFORCEMENT) . . . . .	6(F'CI)^1/2 = 484 PSI
STRESSES AT SERVICE LOAD AFTER ALL LOSSES:	
COMPRESSION DUE TO PERMANENT LOADS . . . . .	0.4F'C = 3000 PSI
COMPRESSION DUE TO PERMANENT AND TRANSIENT LOADS . . . . .	0.6F'C = 4500 PSI
TENSION (USING HS-25-44) . . . . .	3(F'C)^1/2 = 260 PSI
TENSION (USING THE 7 ADDITIONAL AXLE CONFIGURATIONS . . . . .	6(F'C)^1/2 = 520 PSI
AS SHOWN IN "DESIGN LOADING")	

PRESTRESSING STEEL:	
PRE-TENSIONING STEEL	
PRIOR TO TRANSFER: . . . . .	0.75FS = 202,500 PSI
STRESS AT SERVICE LOAD AFTER LOSSES . . . . .	0.80FY = 194,500 PSI
POST-TENSIONING STEEL:	
DUE TO TENDON JACKING FORCE . . . . .	0.80FS
AT ANCHORAGE AFTER SEATING . . . . .	0.70FS
AT INTERNAL TENDON LOCATIONS AFTER SEATING . . . . .	0.83FY
STRESS AT SERVICE LOAD AFTER LOSSES . . . . .	0.80FY

## ODOT STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFERENCE SHALL BE MADE TO THE FOLLOWING OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS:

AS-1-81	REVISED 09-15-94
BR-1	REVISED 12-15-94
PCB-91	DATED 4-24-92
PSID-1-95M	DATED 9-18-95

REFERENCE SHALL BE MADE TO THE FOLLOWING OHIO DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATIONS:

944	DATED 12-07-95
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## UTILITIES LINES

THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PROTECT THE EXISTING UTILITY LINES IN THE VICINITY OF THE STRUCTURE WHILE PERFORMING ANY WORK. THE CONTRACTOR AND UTILITY COMPANY(IES) ARE REQUESTED TO COOPERATE BY ARRANGING WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER BE HELD TO A MINIMUM. ALL EXPENSE INVOLVED IN THE PERMANENT AND TEMPORARY RELOCATION (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE IN ACCORDANCE WITH SP 117.

REFER TO SHEETS B1 THROUGH B3 AND B8Q OF B129 FOR FURTHER INFORMATION.

## FIBER OPTIC CABLE

EXTREME CARE MUST BE TAKEN BY THE CONTRACTOR TO PRESERVE AND PROTECT THE FIBER OPTIC CABLE DURING ALL PHASES OF CONSTRUCTION. SPECIAL CARE SHALL BE EXERCISED DURING EXCAVATION AND CONSTRUCTION. THE LCI CABLE IS LOCATED IN THE RIGHT-OF-WAY NORTH OF THE TURNPIKE NEAR THE RIGHT-OF-WAY FENCE AS INDICATED ON THE PLANS AND AS-BUILT DRAWINGS.

ANY EXCAVATION IN THESE AREAS FOR ANY REASON SHALL NOT BE PERFORMED WITHOUT THE OWNER FIRST LOCATING THE CABLE. AFTER THE CABLE HAS BEEN LOCATED BY THE OWNER, THE CONTRACTOR SHALL EXCAVATE TO WITHIN 12" OF THE CABLE DEPTH PROVIDED. CABLE COMPANY REPRESENTATIVES WILL THEN HAND DIG TO EXPOSE THE CABLE.

AN ABANDONED UNDERGROUND FIBER OPTIC CABLE IS BURIED IN THE MEDIAN. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY PORTION OF THE ABANDONED FIBER OPTIC CABLES AND CONDUITS INCLUDING CONDUITS ON THE EXISTING BRIDGES THAT MUST BE REMOVED TO COMPLETE THE WORK AS PER PLAN, WITH PAYMENT INCLUDED IN ITEM 202 - STRUCTURE REMOVED, AS PER PLAN.

## EXISTING STRUCTURE PLANS

THE ORIGINAL CONSTRUCTION PLANS OR THE DECK WIDENING DESIGN PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OFFICES OF URS GREINER, 564-A WHITE POND DRIVE, AKRON, OHIO 44320. TELEPHONE: (330) 836-9111.

## EXISTING STRUCTURE VERIFICATION

DETAILS, DIMENSIONS, AND ELEVATIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTION 513.02 OF THE SPECIFICATIONS AND O.T.C. GENERAL CONDITIONS G-2.04 AND G-5.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES WHICH HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR. THE PRECAST GIRDERS AND STRUCTURAL STEEL DECK JOINTS SHALL NOT BE FABRICATED UNTIL THE ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR.

ANY ADDITIONAL COST RESULTING FROM VARIATIONS FROM PLAN DIMENSIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL PAYMENT OVER THE UNIT PRICE BID WILL BE AWARDED BY THE COMMISSION.

## DIMENSIONS

DIMENSIONS GIVEN ARE MEASURED HORIZONTALLY AND AT SIXTY (60) DEGREES FARENHEIT, UNLESS OTHERWISE NOTED.

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DATE: 05/04/98 DATE:  
CAD FILE NAME: 25725-GENNOTES.dwg

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
OHIO TURNPIKE COMMISSION		
STRUCTURE		
GENERAL NOTES-1		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
HNTB ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/M.J.L.	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B5 OF B129		

# STRUCTURE GENERAL NOTES

## MAINTAINING TRAFFIC

FOR DETAILS OF PHASE CONSTRUCTION, SEE SHEETS B9 AND B10 OF B129. FOR ADDITIONAL INFORMATION, SEE THE MAINTENANCE OF TRAFFIC PLANS.

## DECK PROTECTIVE METHOD

THE DECK PROTECTIVE METHODS FOR THE SUPERSTRUCTURE DECK ARE EPOXY COATED REINFORCING STEEL IN THE TOP AND BOTTOM MATS, 2 1/2 INCHES CONCRETE COVER AND CONCRETE WEATHERPROOFING SEALER ON THE TOP SURFACE.

## MONOLITHIC WEARING SURFACE

THE THICKNESS OF THE MONOLITHIC WEARING SURFACE IS ASSUMED FOR DESIGN PURPOSES TO BE ONE HALF (1/2) INCH.

## ABBREVIATIONS (UNLESS OTHERWISE NOTED IN THE PLANS)

ABUT. - ABUTMENT	F.S. - FIELD SPLICE
APP. - APPROACH	FWD. - FORWARD
B, BOTT- BOTTOM	H.S. - HIGH STRENGTH
BRG. - BEARING	L.A. - LIMITED ACCESS
C. - CENTERLINE	N.F. - NEAR FACE
C.P.P. - CORRUGATED PLASTIC PIPE	PL. - PLATE
Ø - DIAMETER	O.C. - ON CENTER
E.B. - EASTBOUND	R/W - RIGHT OF WAY
E.F. - EACH FACE	SPA. - SPACES
ELEV. - ELEVATION	T - TOP
EX. - EXISTING	TYP. - TYPICAL
F.F. - FAR FACE	U.N. - UNLESS NOTED
F.O.C. - FIBER OPTIC CABLE	W.B. - WESTBOUND

## ITEM 202 - STRUCTURE REMOVED, AS PER PLAN

THE EXISTING EASTBOUND AND WESTBOUND STRUCTURES SHALL BE REMOVED IN ACCORDANCE WITH ITEM 202 AND AS SHOWN IN THE PLANS. ALL DEMOLITION OPERATIONS PERFORMED UNDER ITEM 202 SHALL COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE SPECIAL PROVISION SP 525B - DEMOLITION OF BRIDGES WITH STEEL COATED WITH LEAD PAINT - WORKER/ENVIRONMENTAL PROTECTION/DISPOSAL. ALL REMOVAL WORK SHALL BE PERFORMED IN SUCH A MANNER SO AS TO ACCOMMODATE ALL THE MAINTENANCE OF TRAFFIC REQUIREMENTS. DEMOLITION WITH EXPLOSIVES MAY BE PERMITTED FOR REMOVING THE PORTIONS OF THE STRUCTURE WHICH ARE NOT IN THE VICINITY OF RIVERVIEW ROAD, CVNRA RAILROAD, CANAL, TOW PATH AND OTHER ENVIRONMENTALLY SENSITIVE AREAS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. REFER TO "STRUCTURE DEMOLITION OVER STREAM/RIVER AREAS", "EXCAVATION IN STREAM/RIVERS" AND "CONSTRUCTION WORK AND SITE ACCESS" NOTES FOR ENVIRONMENTAL CONSTRAINTS.

## STRUCTURE DEMOLITION OVER STREAM/RIVER AREAS

REASONABLE CARE SHALL BE USED BY THE CONTRACTOR TO PREVENT REMOVED MATERIALS FROM FALLING INTO THE CUYAHOGA RIVER, OHIO CANAL, OR WET LANDS AREAS. ANY DROPPED MATERIALS SHALL BE IMMEDIATELY RECOVERED AND DISPOSED OF AS PER SP 108, EXCEPT FOR APPROVED MASONRY MATERIAL WHICH MAY BE USED AS A BANK PROTECTION AS DIRECTED BY THE ENGINEER. REFER TO 104.06 OF THE ODOT CMS FOR ADDITIONAL REQUIREMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 202 - STRUCTURE REMOVED, AS PER PLAN.

## EXCAVATION IN STREAM/RIVER AREAS

ANY MATERIAL THAT IS EXCAVATED FROM THE STREAM/RIVER AREA TO INSTALL THE NEW SUBSTRUCTURE AND FOUNDATIONS, AND IS NOT USED FOR BACKFILLING THE FOUNDATION EXCAVATION SHALL NOT BE DUMPED INTO THE STREAM/RIVER. EXCESS MATERIAL SHALL BE REMOVED FROM THE PROJECT AREA AS PER SP108.

## PERMIT AT RIVER CROSSINGS

THE PROPOSED WORK IS AUTHORIZED BY THE CORPS OF ENGINEERS AND OHIO EPA. ALL WORK MUST CONFORM TO THE GENERAL AND SPECIFIC CONDITIONS OUTLINED BY THE U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT AND OHIO EPA SECTION 401 - WATER QUALITY CERTIFICATION. THIS INFORMATION IS AVAILABLE FOR REVIEW AT THE OFFICE OF URS GREINER, INC.; 564 WHITEPOND DRIVE; AKRON, OHIO 44320. TELEPHONE: (330) 836-9111.

ANY ADDITIONAL WORK SUCH AS, BUT NOT LIMITED TO, PLACEMENT OF TEMPORARY FILL OR WORK EQUIPMENT WITHIN THE RIVER CHANNEL BELOW THE NORMAL WATER ELEVATION AS SHOWN ON THE PLANS AND PROJECT ENVIRONMENTAL DOCUMENTS, SHALL REQUIRE PRIOR AUTHORIZATION FROM THE CHIEF ENGINEER AND MAY REQUIRE THE INVOLVEMENT OF THE U.S. ARMY CORPS OF ENGINEERS AND/OR OTHER REGULATORY AGENCIES.

## RAILROAD CONSTRUCTION CLEARANCE

CONSTRUCTION CLEARANCE OF 10 FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 23 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6 FEET FROM THE CENTER OF TRACKS, SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS REQUIRED AT PIER 5.

## WORK OVER RAILROADS

REFER TO SP 827F AND THE CROSS ROADS MAINTENANCE OF TRAFFIC PLANS FOR RESTRICTIONS ON WORK OVER THE RAILROAD RIGHT OF WAY.

## ITEM 203 - EMBANKMENT, AS PER PLAN B

ALL FILL MATERIAL FOR CONSTRUCTION OF THE APPROACH EMBANKMENT AND FOR FILLING THE EXCAVATION VOID CREATED BY REMOVAL OF THE EXISTING FORWARD AND REAR ABUTMENTS SHALL BE INCLUDED FOR PAYMENT WITH ITEM 203 - EMBANKMENT, AS PER PLAN A IN THE ROADWAY PLANS. ALL FILL MATERIAL FOR FILLING OF THE VOID CREATED BY REMOVAL OF THE EXISTING PIER FOOTING AT PIER 15L, SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED IN ACCORDANCE WITH 304.04.

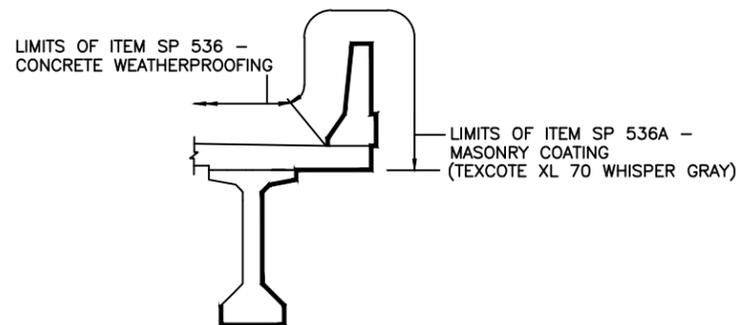
## CONCRETE WEATHERPROOFING

ITEM SP 536-CONCRETE WEATHERPROOFING SHALL BE APPLIED TO THE FOLLOWING NEW EXPOSED CONCRETE SURFACES OF THE BRIDGE:

- THE TOPS OF NEW SUPERSTRUCTURE SLABS.
- NEW EXPOSED CONCRETE SURFACES OF ALL ABUTMENTS.

ITEM SP 536A-MASONRY COATING SHALL BE APPLIED TO THE FOLLOWING NEW EXPOSED CONCRETE SURFACES AND SHALL BE COLORED WITH TEXCOTE XL-70 WHISPER GRAY:

- NEW APPROACH SLAB AND MEDIAN BARRIERS ON THE APPROACH SLABS.
- ALL NEW PARAPET EXTERIOR SURFACES AND SLAB SIDE EDGES.



## EXTERIOR FASCIAS

(WESTBOUND NORTH FASCIA AND EASTBOUND SOUTH FASCIA)

CARE SHALL BE TAKEN NOT TO APPLY WEATHERPROOFING ON CONSTRUCTION JOINT SURFACES, OR SURFACES TO RECEIVE JOINT SEALER.

## ITEM SPECIAL - REMOVAL OF EXISTING PILING

THE WORK OF THIS ITEM SHALL CONSIST OF THE COMPLETE REMOVAL OF EXISTING PILES WHERE NECESSARY TO ACCOMMODATE THE INSTALLATION OF NEW PILES FOR CONSTRUCTION OF ABUTMENTS AND PIERS AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER. THE WORK SHALL BE DONE AS PER ITEM 202 OF THE STANDARD SPECIFICATIONS.

THE EXISTING PILES ARE 14 INCH STEEL H PILES AT THE PIERS AND ABUTMENTS. THEY ARE APPROXIMATELY 70 FEET LONG AT THE ABUTMENTS AS SHOWN IN THE EXISTING STRUCTURE PLANS.

THE LOCATION OF EACH PILE TO BE REMOVED SHALL BE DETERMINED BY THE ENGINEER. A CONTINGENCY QUANTITY OF 10 PILES IS INCLUDED IN THE ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER.

THE REMOVAL OF THE EXISTING FOOTINGS FOR PILE REMOVAL SHALL BE INCLUDED IN ITEM 202 - STRUCTURE REMOVED, AS PER PLAN.

THE PLACEMENT OF EMBANKMENT IN ACCORDANCE WITH ITEM 203 TO FILL VOIDS UNDER NEW PILE FOOTINGS WHERE EXISTING PILES HAVE BEEN REMOVED SHALL BE CONSIDERED INCIDENTAL TO ITEM SPECIAL-REMOVAL OF EXISTING PILES.

PAYMENT FOR EACH PILE REMOVED WILL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL - REMOVAL OF EXISTING PILING.

## ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH SECTION 503 OF THE SPECIFICATIONS EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE GRANULAR MATERIAL AS PER SECTION 203.02 OF THE SPECIFICATIONS AND PLACED IN LIFTS NOT TO EXCEED A THICKNESS OF SIX (6) INCHES.

## ITEM 503 - COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN B

IN ADDITION TO THE REQUIREMENTS OF 503.03, THE CONTRACTOR SHALL DESIGN AND CONSTRUCT TEMPORARY COFFERDAMS OR BRACED SHEETING AND A TEMPORARY BRIDGE OR BRIDGES FOR CONSTRUCTION OF PIER 5.

A COFFERDAM SYSTEM OR BRACED SHEETING SYSTEM MAY BE USED FOR SHORING AND TEMPORARY WEST ABUTMENT USE EAST OF THE PROPOSED PIERS. IT SHALL NOT PROJECT INTO THE RIVER MORE THAN 41.5 FEET EAST OF THE CENTERLINE OF PIER 5.

ONE OR MORE TEMPORARY BRIDGES WILL BE REQUIRED FOR THE CONSTRUCTION OF PIER 5 AND DEMOLITION OF THE EXISTING PIERS. IT SHALL HAVE NO MORE THAN TWO (2) RIVER PIERS EQUALLY SPACED. THE PIER WIDTH SHALL NOT EXCEED 6.0 FEET MEASURED PERPENDICULAR TO RIVER FLOW. ITS WEST ABUTMENT SHALL BE FOUNDED ON THE TEMPORARY COFFERDAM SYSTEM. ITS EAST ABUTMENT SHALL BE FOUNDED ON THE EAST RIVER BANK AND NOT RESTRICT NORMAL RIVER FLOW. THE MAXIMUM OUT-TO-OUT DIMENSION OF ALL STRUCTURES SHALL NOT EXCEED 160 FEET MEASURED FROM THE UPSTREAM FACE OF THE FIRST BRIDGE TO THE DOWNSTREAM FACE OF THE LAST BRIDGE. THE STRUCTURE DEPTH SHALL NOT EXCEED 5.0 FEET MEASURED FROM THE BOTTOM OF BEAM TO THE TOP OF DECK. THE MINIMUM CHORD ELEVATION IS 665.00.

TEMPORARY COFFERDAMS OR BRACED SHEETING AND A TEMPORARY BRIDGE OR BRIDGES SHALL BE DESIGNED BY A STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER HIRED BY THE CONTRACTOR AND SUBMITTED, INCLUDING BUT NOT LIMITED TO DESIGN CALCULATIONS, DETAILS, CONSTRUCTION AND REMOVAL SEQUENCE, ETC., TO THE ENGINEER FOR APPROVAL, AND SHALL BE INCLUDED FOR PAYMENT WITH ITEM 503 - COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN B. WHICH LUMP SUM PRICE SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS INCLUDING DESIGN AND DESIGN REVIEWS AND OTHER INCIDENTALS. FOR ADDITIONAL DETAILS OF THE TEMPORARY COFFERDAMS OR BRACED SHEETING AND A TEMPORARY BRIDGE OR BRIDGES AT THE RIVER, REFER TO THE PROJECT CATEGORICAL EXCLUSION ENVIRONMENTAL DOCUMENTS PART 2, SECTION A, AND ATTACHMENT D. THIS ITEM DOES NOT INCLUDE THE PAYMENT FOR THE SHEETING WITH TIEBACKS, LEFT IN PLACE BETWEEN PIER 5 AND THE RAILROAD EMBANKMENT.

REFER TO ROADWAY PLANS FOR N.W. HAUL ROAD TEMPORARY SHEETING NOTE AND PAYMENT ITEM.

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 DATE: 05/01/98 DATE: 05/18/98  
 DRAWN BY: DS REVISIONS BY: DATE  
 DATE: 05/04/98  
 CAD FILE NAME: 25725-GENNOTES.dwg

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
STRUCTURE GENERAL NOTES-2		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
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CONTRACT 43-99-01 SHEET B6 OF B129		

# STRUCTURE GENERAL NOTES

## ITEM 503 -- ROCK AND SHALE EXCAVATION, AS PER PLAN

THE ROCK AND SHALE SURFACES UNCOVERED BY THE EXCAVATION AND EXPOSED TO THE WEATHER AND OTHER ELEMENTS MAY DETERIORATE. ANY CONSTRUCTION WORK RELATED TO THESE EXCAVATED AREAS SHALL BE COMPLETED AND THE AREAS BACKFILLED AS SOON AS POSSIBLE. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT THE EXCAVATED SURFACES FROM DETERIORATING AS APPROVED BY THE ENGINEER, AS A PART OF THE WORK OF THIS ITEM.

## FOUNDATION BEARING PRESSURE

THE FOLLOWING PIER FOOTINGS PRODUCE THE MAXIMUM BEARING PRESSURES SHOWN IN TONS PER SQUARE FOOT (T.S.F.). THE ALLOWABLE BEARING PRESSURE IS 12 TONS PER SQUARE FOOT.

	WESTBOUND	EASTBOUND
PIER 3	9.1 T.S.F.	9.1 T.S.F.
PIER 5	9.4 T.S.F.	9.4 T.S.F.
PIER 6	8.2 T.S.F.	8.2 T.S.F.
PIER 7	7.3 T.S.F.	7.3 T.S.F.
PIER 8	5.3 T.S.F.	5.3 T.S.F.
PIER 9	7.7 T.S.F.	7.7 T.S.F.
PIER 10	7.7 T.S.F.	7.7 T.S.F.
PIER 11	10.5 T.S.F.	10.5 T.S.F.
PIER 12	10.1 T.S.F.	10.1 T.S.F.
PIER 13	8.6 T.S.F.	8.6 T.S.F.

FOOTINGS SHALL EXTEND A MINIMUM OF 12 INCHES INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

## PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING PILES, THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL 2 MONTHS AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

ALSO REFER TO ROADWAY GENERAL NOTES FOR ITEM 203 -- EMBANKMENT, AS PER PLAN NOTE.

## PILE DRIVING

IF EQUIPMENT FOR PILE DRIVING OPERATIONS OCCUPIES ANY PORTION OF THE EXISTING STRUCTURE, STRESS CALCULATIONS BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO SHALL BE SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH SECTION 501.09 OF THE SPECIFICATIONS.

## PILES DRIVEN TO BEDROCK

PILES AT PIERS 1, 2, 4, 14 AND 15 SHALL BE DRIVEN TO REFUSAL ON BEDROCK. PILE DRIVING CRITERIA:

PILE HAMMER = APE D30-32  
 THE FUEL PUMP SHOULD BE SET AT 3 TO PROVIDE A HAMMER ENERGY OF 62,950 LB-FT.  
 BLOWS PER FOOT = 156  
 BLOWS PER INCH = 20 BLOWS PER INCH FOR FOUR CONSECUTIVE INCHES  
 20 BLOWS WITH NO PENETRATION  
 MAXIMUM STRESS = 32.4KSI  
 MINIMUM PILE LENGTH = 64FT

IF THE MINIMUM PILE LENGTH OF 64 FEET IS NOT ACHIEVED WITH THE ABOVE CRITERIA, THEN THE FUEL PUMP SHALL BE SET TO PROVIDE THE MAXIMUM RATED ENERGY OF THE HAMMER (73,660 LB-FT.) AND THE FOLLOWING CRITERIA SHALL BE USED:

BLOWS PER INCH = 9 BLOWS PER INCH FOR SIX CONSECUTIVE INCHES  
 20 BLOWS WITH NO PENETRATION

## PILE DESIGN LOADS (SAFE BEARING CAPACITY)

THE DESIGN LOAD FOR THE ABUTMENT PILES AND THE PIER PILES IS AS FOLLOWS:

	WESTBOUND	EASTBOUND
REAR ABUTMENT	110 TONS	110 TONS
PIER 1	113 TONS	113 TONS
PIER 2	109 TONS	109 TONS
PIER 4	115 TONS	115 TONS
PIER 14	110 TONS	110 TONS
PIER 15	113 TONS	113 TONS
PIER 16	114 TONS	114 TONS
PIER 17	112 TONS	112 TONS
FORWARD ABUTMENT	70 TONS	70 TONS

## ITEM 507 -- STEEL POINT (OR SHOE), AS PER PLAN

STEEL PILE POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED STEEL "H" PILING WHERE NOTED IN THE PLANS. THE STEEL POINTS SHALL BE FURNISHED BY ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BOULEVARD, CLIFTON, NEW JERSEY 07014; DOUGHERTY FOUNDATION PRODUCTS, INC., P.O. BOX 688, FRANKLIN LAKES, NEW JERSEY 07417; VERSA STEEL, INC., 3061 NW YEON AVENUE, P.O. BOX 10559, PORTLAND, OREGON 97210; PILING ACCESSORIES, INC., 3467 GRIBBLES POND, MATTHEWS, NORTH CAROLINA 28105; OR BY A MANUFACTURER THAT CAN FURNISH A STEEL POINT THAT IS ACCEPTABLE TO THE ENGINEER. THE MATERIAL USED FOR THE MANUFACTURING OF PILE POINTS SHALL CONFORM TO ASTM A27 65/35 -- CLASS 2, HEAT TREATED OR AASHTO M103 65/35, HEAT TREATED. A NOTARIZED COPY OF THE MILL TEST REPORT SHALL BE SUBMITTED TO THE ENGINEER.

## ITEM 507 HP 14 X 89 PILES, AS PER PLAN

PILE HAMMER: THE PILE HAMMER USED TO INSTALL THE HP 14 X 89 PILES SHALL HAVE A STATE'S ENERGY RATING OF NOT LESS THAN 20,000 FOOT-POUNDS. THIS REQUIREMENT DOES NOT RELIEVE THE CONTRACTOR FROM 108.05 WHICH STATES THAT THE CONTRACTOR IS TO PROVIDE SUFFICIENT EQUIPMENT FOR PROSECUTING THE REQUIRED WORK. REFER TO "ODOT'S MANUAL OF PROCEDURES FOR STRUCTURES" TO OBTAIN THE STATE'S ENERGY RATING. REFER TO SP 522 -- DYNAMIC LOAD TEST AND PLAN NOTE FOR SP 522 FOR ADDITIONAL INFORMATION.

## SP 523A -- DYNAMIC LOAD TEST

DYNAMIC LOAD TESTS SHALL BE PERFORMED AT THE FOLLOWING PILE LOCATIONS IN ACCORDANCE WITH SP 523A (REFER TO FOOTING AND PILE LAYOUT PLAN SHEETS B14 THRU B18 OR AS DIRECTED BY THE ENGINEER):

LOCATION	PILE NUMBER
REAR ABUT.	32
PIER 1R	14
PIER 4L	13
PIER 4R	28
PIER 14R	13
PIER 15R	27
PIER 16L	30
PIER 17L	30
FORWARD ABUT.	19

## ITEM 506 -- STATIC LOAD TEST, AS PER PLAN AND ITEM 506 -- SUBSEQUENT STATIC LOAD TEST, AS PER PLAN

FOR STATIC LOAD TESTS PERFORMED ON SERVICE PILES AS DIRECTED BY THE ENGINEER, THE APPLICATION OF LOAD SHALL BE IN ACCORDANCE WITH SECTION 506.03 OF THE CMS EXCEPT THAT THE MAXIMUM APPLIED TEST LOAD SHALL BE LIMITED TO TWO (2) TIMES THE PLAN DESIGN LOAD.

## EPOXY COATED REINFORCING STEEL SUPPORT

IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

## CUTTING OR BENDING OF REINFORCING BARS

ANY CUTTING OR BENDING OF BARS NECESSARY TO ACCOMMODATE ANY ESSENTIAL ELEMENT OF WORK RELATED TO THE PROJECT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 509 REINFORCING STEEL, GRADE 60 AND/OR ITEM SP 509 EPOXY COATED REINFORCING STEEL, GRADE 60 UNLESS OTHERWISE NOTED.

## MECHANICAL CONNECTORS

THE MECHANICAL SPLICE SYSTEM SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED. THE SPLICE SHALL BE A THREADED SYSTEM WITH OR WITHOUT A SEPARATE COUPLER. MECHANICAL SPLICES CONNECTING EPOXY COATED BARS SHALL BE COATED IN ACCORDANCE WITH SP 509. THREADS THAT REMAIN EXPOSED AFTER THE ROD AND COUPLER ARE SCREWED TOGETHER SHALL BE CLEANED, COATED WITH AN APPROVED EPOXY PATCHING MATERIAL ALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONNECTORS AND DOWEL BARS SHALL CONFORM WITH ITEM SP 509 AND ITEM 509 AND, SHALL BE INCLUDED IN THE BID PRICES PER POUND FOR ITEM SP 509 AND ITEM 509.

## CONSTRUCTION JOINTS

CONSTRUCTION JOINT SURFACES SHALL BE FREE FROM OIL, LAITANCE, FORM RELEASE AGENT, OR ANY OTHER MATERIAL THAT WOULD PREVENT BONDING TO THE CONCRETE SURFACE. ALL LAITANCE AND OTHER CONTAMINANTS SHALL BE REMOVED BY HIGH PRESSURE WATER BLASTING WITH A MINIMUM PRESSURE OF 5,000 P.S.I. SURFACES SHALL BE THOROUGHLY DRENCHED WITH CLEAN WATER AND ALLOWED TO DRY TO A DAMP CONDITION FREE OF STANDING WATER BEFORE PLACING CONCRETE. PREPARATION OF CONSTRUCTION JOINT SURFACES SHALL NOT BE MEASURED FOR PAYMENT. THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT PRICE OF THE PERTINENT CONCRETE ITEMS.

## SURFACE UNDER BEARINGS

SPECIAL CARE SHALL BE TAKEN TO FINISH THE CONCRETE UNDER BEARINGS TO A FLAT, LEVEL SURFACE. THE CONCRETE SURFACE SHALL BE STEEL TROWEL FINISHED WITHOUT BRUSHING AND THE FLATNESS OF THE FINISHED SURFACE SHALL NOT VARY FROM A STRAIGHT EDGE LAID ON THE SURFACE IN ANY DIRECTION WITHIN THE LIMITS OF THE BEARING FOOTPRINT BY MORE THAN 1/16 INCH. SURFACES WHICH FAIL TO CONFORM TO THE REQUIRED FLATNESS SHALL BE GROUND UNTIL ACCEPTABLE.

## PARAPET FORMS

FORMS FOR THE BRIDGE PARAPETS AND SLAB SIDE EDGES SHALL BE IN ACCORDANCE WITH SECTION 508.02 OF THE SPECIFICATIONS AND THE FOLLOWING:

WHEN WOOD FORMS ARE USED THEY SHALL PRODUCE A SMOOTH SURFACE OF UNIFORM TEXTURE AND COLOR SUBSTANTIALLY EQUAL TO THAT WHICH WOULD BE OBTAINED WITH THE USE OF NEW PLYWOOD CONFORMING TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY PRODUCT STANDARD PSI FOR EXTERIOR B-B CLASS I PLYWOOD.

FORMS SHALL BE OF A CONSTRUCTION WHICH WOULD ALLOW FOR THEIR REMOVAL WITHIN 24 HOURS OF THE CONCRETE PLACEMENT WITHOUT CAUSING DAMAGE TO THE CONCRETE.

## BRIDGE DECK ELEVATIONS, SLAB THICKNESS, AND APPROACH PROFILES

IN ORDER TO MEET ROADWAY GRADES, TO ASSURE THE CONSTRUCTION OF THE REQUIRED THICKNESS OF DECK SLABS, AND TO ASSURE THE PROPER LOCATION OF THE REINFORCING STEEL IN THE DECK SLABS, THE CONTRACTOR SHALL OBTAIN THE ELEVATIONS OF THE TOP OF THE NEW GIRDERS DELINEATED IN THE PLANS AT THE LOCATIONS SHOWN IN THE TABLE ON SHEET B86 THROUGH B92 OF B129 FOR THE FINAL PAVEMENT ELEVATIONS. THE CONTRACTOR SHALL COMPUTE THE DECK SCREED ELEVATIONS UTILIZING THE REMAINING DEAD LOAD DEFLECTIONS ON SHEETS B72 AND B73 OF B129. THE CONTRACTOR SHALL THEN CALCULATE THE DECK THICKNESS OVER THE GIRDERS USING THE DECK SCREED ELEVATIONS AND THE TOP OF GIRDER ELEVATIONS. THE CONTRACTOR SHALL FURNISH THE ELEVATIONS TO THE ENGINEER FOR FINAL CHECKING. IF THE COMPUTED DECK THICKNESS IS FOUND TO BE LESS THAN THE MINIMUM THICKNESS REQUIRED, THE FINAL PAVEMENT ELEVATIONS SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER. FORM WORK SHALL NOT PROCEED UNTIL A CHECK OF THE FINAL ELEVATIONS HAS BEEN PERFORMED BY THE ENGINEER.

THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED UPON 9" THICK (UNITS 1 & 3) OR 8 1/2" THICK (UNIT 2) CONCRETE PLACED ABOVE THE RIBS OF THE PERMANENT STEEL DECK FORMS, AND AN AVERAGE THICKNESS OF CONCRETE PLACED OVER THE PROPOSED GIRDERS.

PLACEMENT OF THE APPROACH SLAB PRIOR TO THE DECK SLAB SHALL NOT BE PERMITTED. UPON COMPLETION OF THE POUR AND PRIOR TO POURING APPROACH SLABS, THE ENGINEER SHALL PROVIDE THE CONTRACTOR WITH FINISH GRADES AND ELEVATIONS REQUIRED TO PROVIDE A SMOOTH TRANSITION FROM THE ROADWAY PAVEMENT AND APPROACH SLABS TO THE CONCRETE DECK SLAB.

PRIOR TO PLACING THE APPROACH SLABS, THE CONTRACTOR SHALL PROVIDE THE ENGINEER THE EDGE OF NEW AND EXISTING PAVEMENT ELEVATIONS AND EDGE OF SHOULDER ELEVATIONS AT 25 FOOT INTERVALS FOR A DISTANCE OF 200 FEET BEYOND THE END OF THE APPROACH SLAB, AND AS BUILT ELEVATIONS OF THE ABUTMENT AND DECK SLABS. AFTER RECEIPT OF THESE ELEVATIONS, THE ENGINEER SHALL CALCULATE AND PROVIDE TO THE CONTRACTOR FINAL ELEVATIONS FOR THE APPROACH SLABS AND APPROACH PAVEMENT. NO APPROACH SLABS SHALL BE POURED, NOR SHALL PAVING COMMENCE UNTIL RECEIPT OF THESE FINAL ELEVATIONS.

PAYMENT FOR THE ABOVE MENTIONED WORK SHALL BE INCLUDED WITH THE LUMP SUM PRICE BID FOR ITEM SP 623 -- CONSTRUCTION LAYOUT SURVEY.

DESIGNED BY: LMH  
 DATE: 05/01/98  
 DRAWN BY: DS  
 DATE: 05/04/98  
 CHECKED BY: M.J.L.  
 DATE: 05/18/98  
 REVISIONS BY: DS  
 DATE: 05/04/98  
 CAD FILE NAME: 25725--GENNOTES.dwg

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
OHIO TURNPIKE COMMISSION		
STRUCTURE		
GENERAL NOTES--3		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
HNTB ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/M.J.L.	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B7 OF B129		

# STRUCTURE GENERAL NOTES

## GALVANIZED STEEL STAY-IN-PLACE DECK FORMS

GALVANIZED STEEL, STAY-IN-PLACE (SIP) DECK FORMS SHALL BE USED BY THE CONTRACTOR FOR THE CONSTRUCTION OF THE PORTIONS OF THE DECK SLAB BETWEEN GIRDERS ONLY. SLAB OVERHANGS SHALL USE REMOVEABLE FORMS.

ALL THE STRUCTURAL STEEL WORK REQUIRED TO FURNISH AND ERECT THE SIP AND REMOVEABLE FORMS SHALL BE IN ACCORDANCE WITH ITEM 513 OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIALS SPECIFICATIONS. SHOP DRAWINGS AS DESCRIBED IN 513.02 WILL BE REQUIRED. THE SIP AND REMOVEABLE FORMS SHALL BE IN ACCORDANCE WITH THE DESIGN AND DETAILS SHOWN ON PLAN SHEET **B102** OF **B129**.

THE VALLEYS OF SIP FORMS SHALL BE FILLED WITH CONCRETE AND MAY NOT BE FILLED WITH STYROFOAM. THE CONTRACTOR SHALL FURNISH THE CALCULATIONS SHOWING THE INCREASE IN DEAD LOAD DUE TO THE USE OF HIS PROPOSED SIP FORMS. THE SUPERSTRUCTURE IS DESIGNED ASSUMING THE SIP FORMS WILL BE USED. NO REDESIGN OF THE PRECAST GIRDERS WILL BE REQUIRED FOR AN INCREASE IN DEAD LOAD UP TO FIFTEEN (15) POUNDS PER SQUARE FOOT OF THE DECK AREA BETWEEN GIRDERS. IF THE DEAD LOAD INCREASE IS MORE THAN 15 P.S.F., THE CONTRACTOR SHALL FURNISH THE CALCULATIONS AND DRAWINGS SHOWING THE REQUIRED CHANGES. IF THE CONTRACTOR DECIDES TO USE FORM WORK OTHER THAN SIP FORMS BETWEEN GIRDERS AS DETAILED IN THE PLANS, IT MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL WITH THE REVISED SUPERSTRUCTURE DESIGN CALCULATIONS AND ALL REQUIRED DETAILS. IN ALL CASES THE CONTRACTOR SHALL FURNISH REVISED CAMBER AND DEFLECTION CALCULATIONS AND DETAILS DUE TO ANY CHANGE IN THE DEAD LOAD.

NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE SIP AND REMOVEABLE FORMS, ADDITIONAL CONCRETE, STRUCTURAL STEEL AND ALL INCIDENTALS, FURNISHING ALL REQUIRED CALCULATIONS AND DRAWINGS, AND ANY TIME DELAYS ASSOCIATED WITH THE USE OF SIP FORMS BUT THE COST THEREOF SHALL BE INCLUDED IN THE COST OF THE DECK CONCRETE. NO EXTENSION OF TIME WILL BE ALLOWED DUE TO ANY TIME DELAYS DUE TO THE SIP FORMS.

## GROUT CLEANING

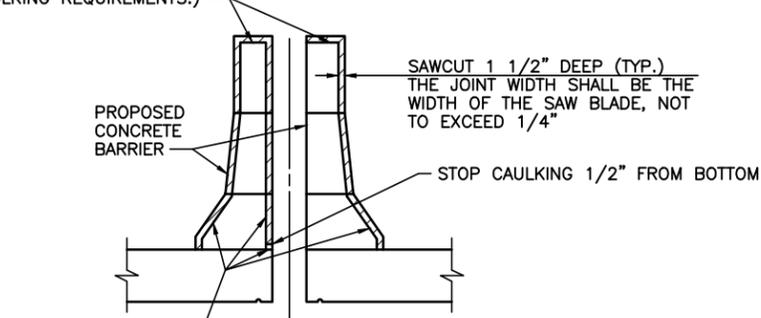
ALL BARRIER SURFACES AND DECK EDGES SHALL BE GROUT CLEANED IN ACCORDANCE WITH SECTION 511.15 OF THE SPECIFICATIONS USING WHITE PORTLAND CEMENT.

## CONCRETE PARAPETS

DEFLECTION JOINTS SHALL BE CONSTRUCTED BY SAWING THE CONCRETE AFTER IT HAS TAKEN ITS INITIAL SET AND BEFORE ANY CRACKS DEVELOP. THE USE OF AN EDGE GUIDE, FENCE OR JIG SHALL BE USED TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE AND ALIGNED ON BOTH FACES OF THE PARAPET. THE JOINT SHALL BE THE WIDTH OF THE SAW BLADE, NOT TO EXCEED ONE QUARTER (0.25) INCH, AND SHALL BE ONE AND ONE-HALF (1.5) INCHES DEEP. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK, EXCEPT AS NOTED ON THE PLANS AND SHALL BE CAULKED WITH A ONE (1) INCH THICKNESS OF MATERIAL CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E. THE BOTTOM ONE HALF (0.5) INCH OF THE SAWED JOINT AT THE OUTSIDE FACE OF THE PARAPET SHALL BE LEFT UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

SAWCUT HORIZONTAL REINFORCING BARS PRIOR TO SLIP FORMING.

LIMITS OF CAULKING (SEE CONCRETE PARAPETS STRUCTURE GENERAL NOTE FOR CAULKING REQUIREMENTS.)



**MEDIAN BARRIER SAWCUT JOINT DETAIL**  
(OUTSIDE PARAPETS ARE SIMILAR)

## ITEM SPECIAL - CLASS S CONCRETE, SUPERSTRUCTURE DIAPHRAGMS, AND ITEM SPECIAL - CLASS S MODIFIED CONCRETE, SUPERSTRUCTURE, CLOSURE DIAPHRAGMS

SUPERSTRUCTURE DIAPHRAGMS AND CLOSURE DIAPHRAGMS SHALL BE IN ACCORDANCE WITH THE PLANS AND AS PER SP 511A.

## CONTINGENCY QUANTITIES

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

## FALSEWORK AND FORMS

THE CONTRACTOR'S ATTENTION IS CALLED TO SP 508 FALSEWORK AND FORMS, WHICH AMENDS SECTION 508 OF THE SPECIFICATIONS.

## ITEM 518 - 10" DOWNSPOUT, INCLUDING SPECIALS

THIS WORK SHALL CONSIST OF PROVIDING AND INSTALLING DRAINAGE DOWN SPOUTS AND ALL ASSOCIATED SUPPORTS, AND INCIDENTALS AS SHOWN IN THE PLANS.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT OF PIPE, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

## ITEM 518 - 6" PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE SIX (6) INCH DIAMETER. PLASTIC CORRUGATED PIPE AS PER ODOT SUPPLEMENTAL SPECIFICATION 944, AASHTO M294, TYPE SP.

## ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE SIX (6) INCH DIAMETER. PLASTIC CORRUGATED PIPE AS PER ODOT SUPPLEMENTAL SPECIFICATION 944, AASHTO M294, TYPE S. THIS ITEM SHALL INCLUDE ALL ELBOWS, TEES, AND END CAPS REQUIRED TO COMPLETE THE ABUTMENT DRAINAGE SYSTEM.

## CONSTRUCTION WORK AND SITE ACCESS

THE PROJECT CONSTRUCTION WORK WILL REQUIRE THE CONTRACTOR TO PERFORM CERTAIN TASKS BY OBTAINING ACCESS TO THE SITE FROM UNDER THE BRIDGE AREA. THE PROJECT CONSTRUCTION WORK INCLUDES BUT IS NOT LIMITED TO CONSTRUCTING NEW PIERS AND ABUTMENTS, ERECTING PRECAST GIRDERS IN UNITS 1 AND 3, POST-TENSIONED GIRDERS IN UNIT 2, CONSTRUCTING CAST-IN-PLACE DIAPHRAGMS AND END BLOCKS, AND CONSTRUCTING NEW REINFORCED CONCRETE DECK SLABS AND BARRIERS WHICH WILL REQUIRE THE CONTRACTOR TO USE SPECIAL EQUIPMENT, TO OBTAIN THE ACCESS AND TO PERFORM THE WORK. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE MAINTENANCE OF TRAFFIC DETAILS AND, ROADWAY AND BRIDGE CONSTRUCTION PHASING DETAILS WHICH SHOW THE TRAFFIC PATTERNS AND THE SPACE AVAILABLE FOR THE CONTRACTOR AS HIS WORK AREA. REFER TO THE HAUL ROAD NOTES AND DETAILS IN THE ROADWAY PLANS FOR DETAILS OF THE NW AND SE HAUL ROADS TO BE UTILIZED FOR CONTRACTOR ACCESS.

FOR DESCRIPTION OF PHASED CONSTRUCTION AND DEMOLITION, SEE PHASE CONSTRUCTION SHEET **B9** AND **B10** OF **B129**.

THE EXISTING OHIO TURNPIKE RIGHT OF WAY AS SHOWN ON THE ORIGINAL (1953) CONSTRUCTION PLANS IS SHOWN ON THE PLAN AND PROFILE DRAWINGS, AND MEETS THE RIVER BANKS ON EACH SIDE. THE LAND UNDER THE WATER IS OWNED BY THE STATE OF OHIO, AND NO NEW RIGHT OF WAY IS REQUIRED TO BE OBTAINED BY THE CONTRACTOR IF ACCESS IS REQUIRED FROM THE WATERWAY AREA. TEMPORARY WORK EASEMENTS HAVE BEEN OBTAINED BY THE OHIO TURNPIKE COMMISSION FOR WORK OVER RIVERVIEW ROAD, CVSR, OHIO CANAL, TOWPATH AND OTHER NATIONAL PARK SERVICE PROPERTY. REFER TO SP 527A FOR ADDITIONAL WORK PRECAUTIONS OVER THESE AREAS. WORK OVER THE CVSR SHALL BE IN ACCORDANCE WITH SP 827F.

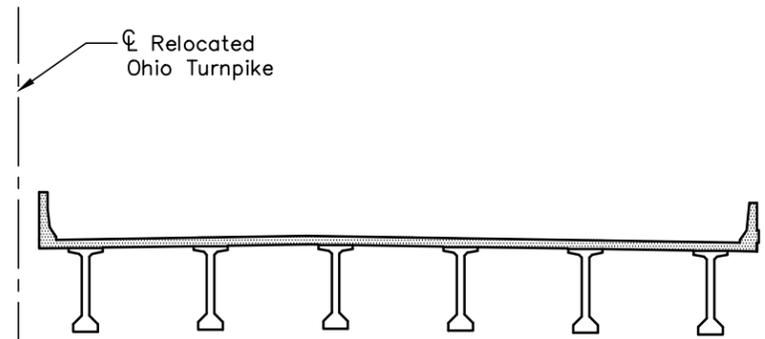
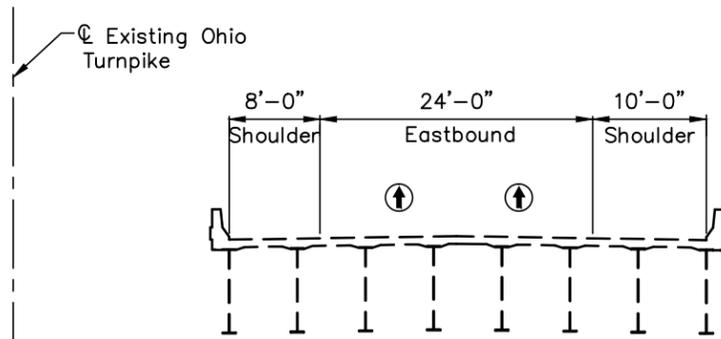
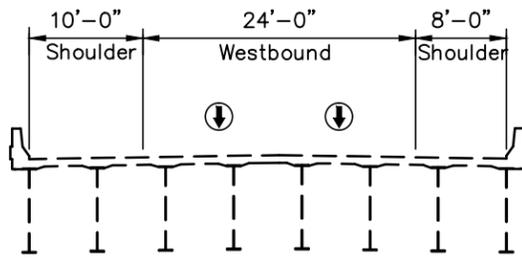
NO SEPARATE PAYMENT WILL BE MADE TO COMPENSATE FOR ANY AND ALL COST INCURRED TO OBTAIN ACCESS, PERMITS, AND ANY OTHER RELATED INCIDENTALS BUT THE COST THEREOF SHALL BE INCLUDED IN THE COSTS OF THE VARIOUS ITEMS OF WORK FOR THE PROJECT. ADDITIONALLY, NO TIME EXTENSION WILL BE GRANTED DUE TO ANY DELAYS IN OBTAINING ACCESS, PERMITS, ETC.

## MATERIAL STORAGE AREAS AND CONSTRUCTION STAGING AREAS

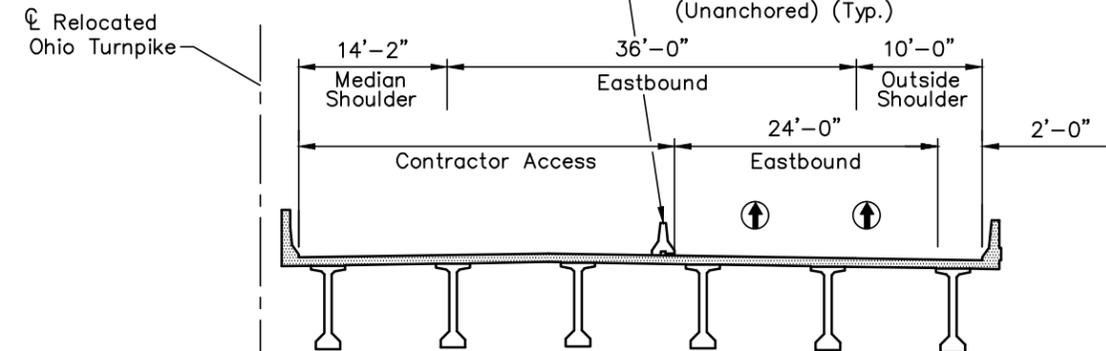
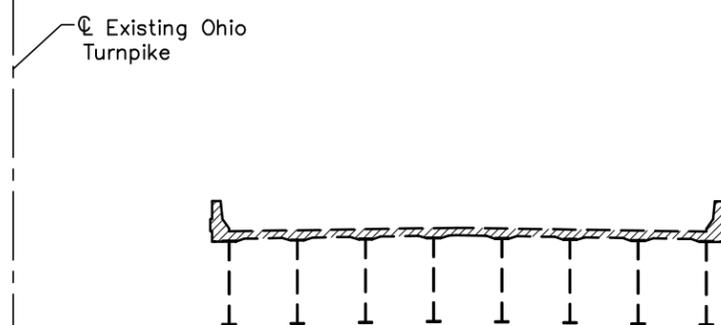
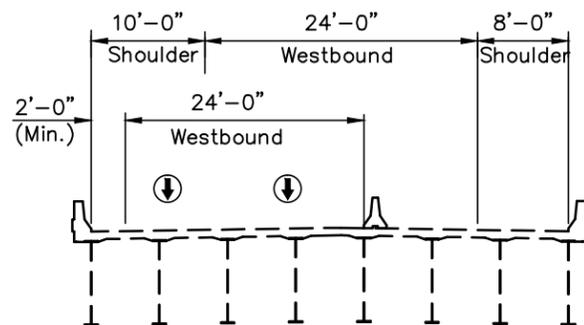
IN GENERAL, THE CONTRACTOR MAY UTILIZE AREAS WITHIN THE CONSTRUCTION EASEMENT FOR MATERIAL STORAGE AND CONSTRUCTION STAGING. WETLAND AREAS A, E, R, & S TO REMAIN PROTECTED SHALL NOT BE USED FOR THIS PURPOSE. REFER TO ENVIRONMENTAL DOCUMENTS AND THE ROADWAY GENERAL NOTES.

DESIGNED BY: LMH  
DATE: 05/01/98  
DRAWN BY: DS  
DATE: 05/04/98  
CHECKED BY: M.J.L.  
DATE: 05/18/98  
REVISED BY:  
DATE:  
CAD FILE NAME: 25725-GENNOTES.dwg

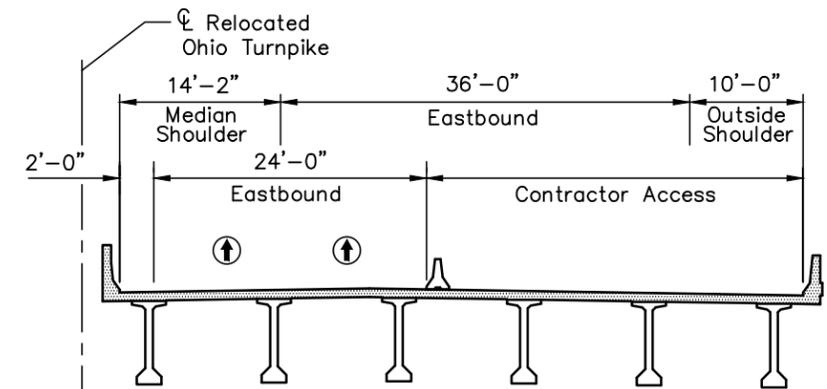
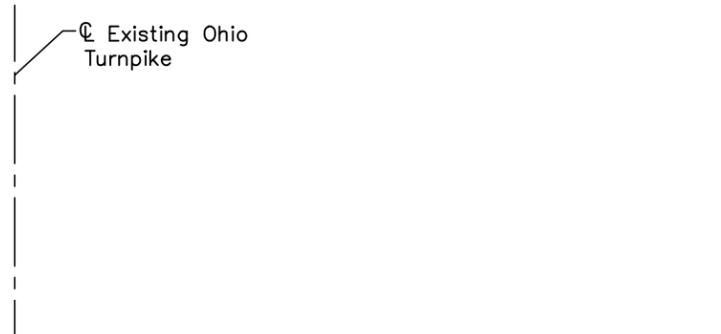
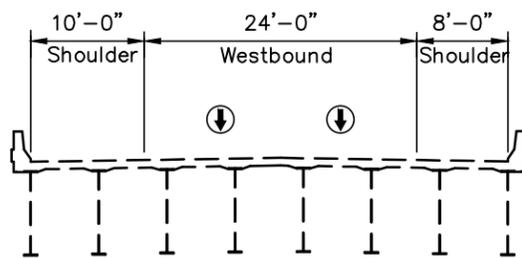
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
STRUCTURE GENERAL NOTES-4 OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/M.J.L.	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B8 OF B129		



TRAFFIC PATTERN ACROSS BRIDGE - PHASE 3



TRAFFIC PATTERN ACROSS BRIDGE - PHASE 5



TRAFFIC PATTERN ACROSS BRIDGE - PHASE 6

**PHASE 1** (Required for roadway work only.)  
Maintain one lane of traffic in each direction by using the passing lane.

Upgrade outside shoulders for subsequent maintenance of traffic. Additionally construct haul roads from eastbound forward abutment, and westbound rear abutment.

**PHASE 2** (Required for roadway work only.)  
Double lane shift eastbound traffic toward outside shoulder.

Upgrade eastbound median shoulder for subsequent maintenance of traffic operations.

**PHASE 3**  
Maintain normal traffic operations.

Construct new eastbound bridge, including: all roadway embankment outside existing guardrail; all approach slab paving except forward abutment median shoulder; center lane, driving lane, and outside shoulder, station 246+00± to station 254+00; eastbound median barrier wall, three lanes and outside shoulder pavement station 254+00 to station 261+44.50 (west approach slab); three lanes and outside shoulder station 288+58.33 (east approach slab) to station 290+00±.

New westbound pier footings which do not conflict with existing piers may be constructed, but should be protected during existing Eastbound bridge demolition in Phase 5.

**PHASE 4** (Required for roadway work only.)  
Single lane eastbound and westbound traffic maintained in passing lane.

Construct eastbound center lane, driving lane, and outside shoulder, station 240+00± to station 246+00± and station 290+00± to station 294+00±.

Construct temporary pavement for eastbound driving lane shoulder and transition to existing eastbound two lane pavement at station 240+00± and station 294+00±.

**PHASE 5**  
Maintain two lanes of traffic in each direction. Eastbound traffic to use new bridge with double lane shift toward outside shoulder. Westbound traffic to have double lane shift toward existing outside shoulder.

Demolish old eastbound bridge deck and eastbound abutments (coordinate abutment removal with deck removal).

Complete forward approach median wall and shoulder at the approach slab station 288+33.33 to station 288+58.33. Additionally complete eastbound median barrier and pavement from station 240+00 to station 254+00.

Construct eastbound median shoulder and third lane from station 221+71.60 to station 240+00.

Construct eastbound median wall/barrier and complete paving shoulder and third lane from station 288+58.33 (east approach slab) to end of project.

Construct westbound abutments.

Construct westbound pavement from station 241+00 to station 261+44.50 (westbound approach slab).

Construct westbound third lane and median shoulder from station 221+71.50 to station 241+00 and station 288+58.33 (east approach slab) to end of project.

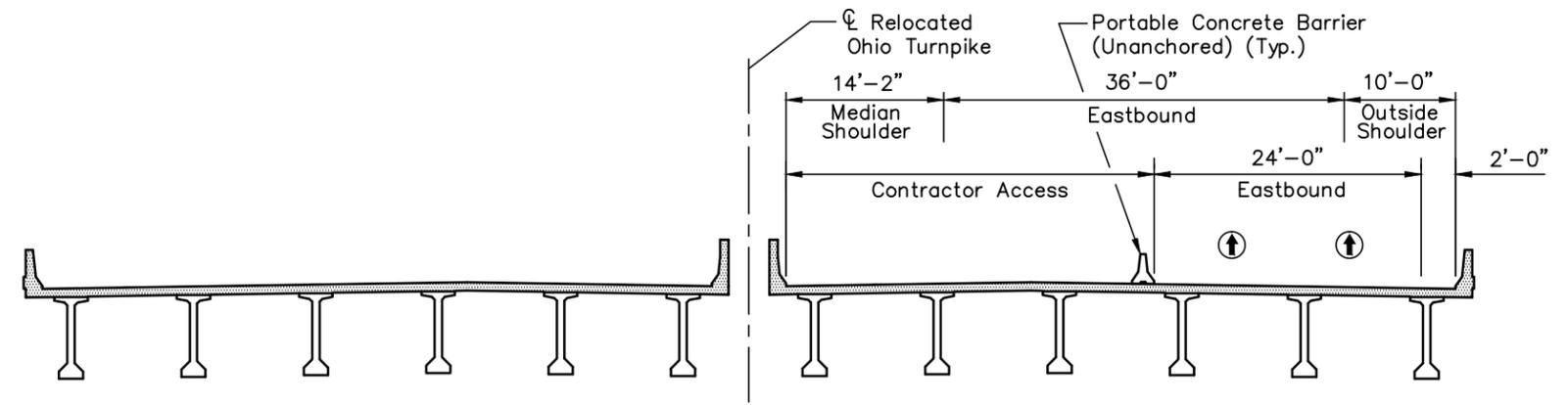
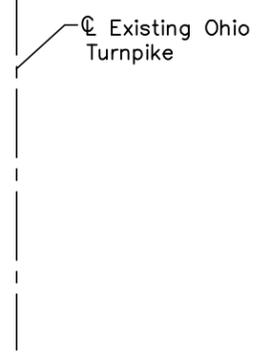
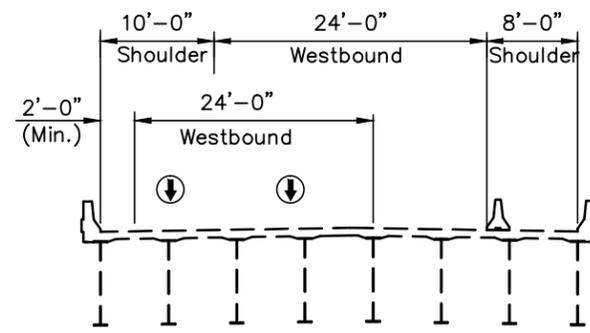
**PHASE 6**  
Double lane shift eastbound traffic toward inside shoulder. Maintain normal operation in westbound lanes.

**LEGEND:**

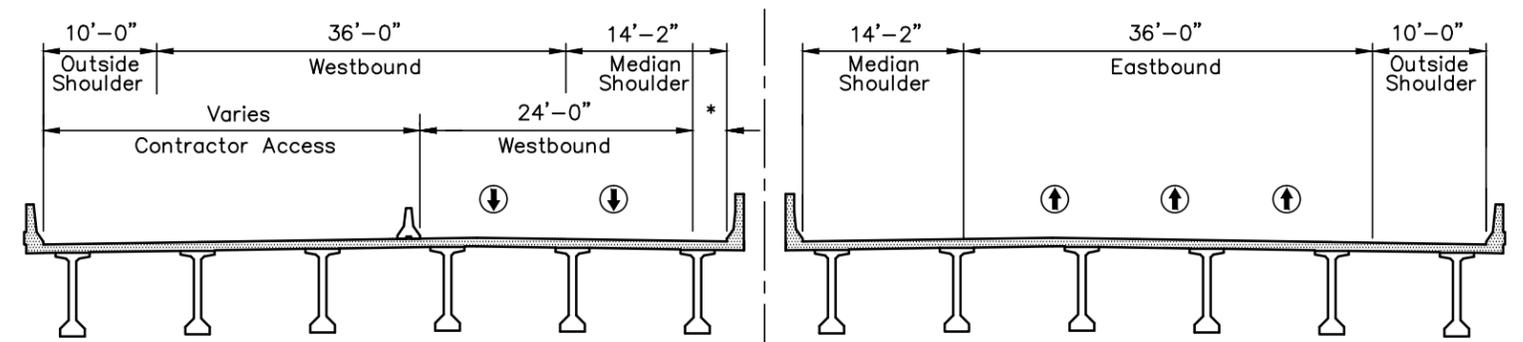
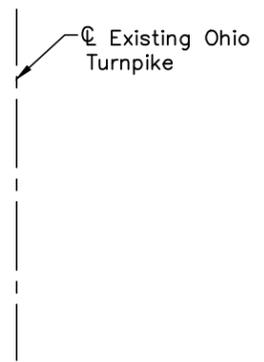
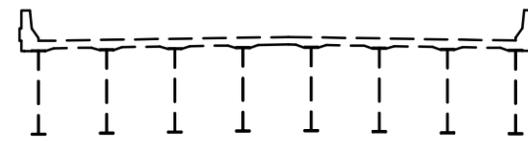
- Demolition, per Item 202
- New Structure

DESIGNED BY: GLG CHECKED BY: MJL  
DATE: 05/04/98 DATE: 11/06/98  
DRAWN BY: GLG REVISIONS BY: DATE:  
DATE: 05/04/98 DATE:  
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<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING		11/3/04	
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>PHASE 1 - 6 CONSTRUCTION</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: GLG	CHECKED: MJL	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
<b>CONTRACT 43-99-01 SHEET B9 OF B129</b>			

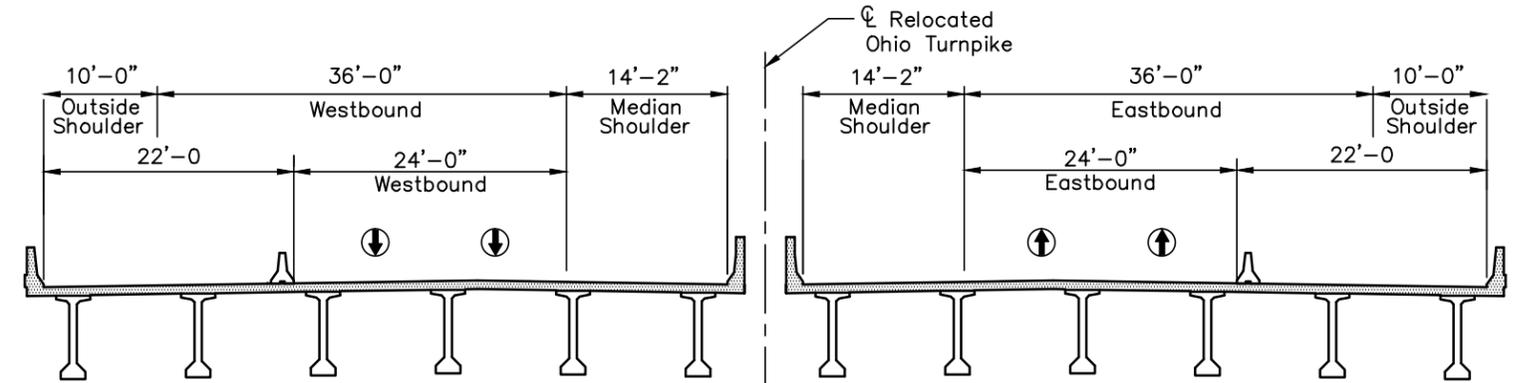
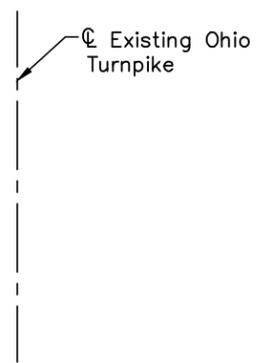
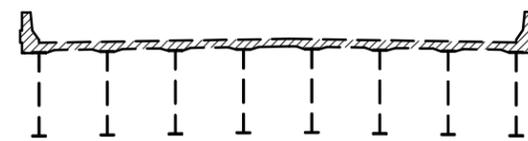


TRAFFIC PATTERN ACROSS BRIDGE - PHASE 7



\* 0' at forward abutment with 300" taper to 3'-0" on bridge

TRAFFIC PATTERN ACROSS BRIDGE - PHASE 8



TRAFFIC PATTERN ACROSS BRIDGE - PHASE 9

**PHASE 7**  
 Double lane shift westbound traffic toward outside shoulder. Double lane shift eastbound traffic toward outside shoulder across new bridge. Maintain normal operation in lanes two and three at haul road area.  
 Complete demolition of existing eastbound bridge.  
 Construct new westbound bridge and approach slabs.

**PHASE 8**  
 Maintain all traffic on new structures. Double lane shift westbound traffic toward the new inside lane and shoulder. Maintain normal three lane operation on eastbound bridge.  
 Complete westbound roadway construction.

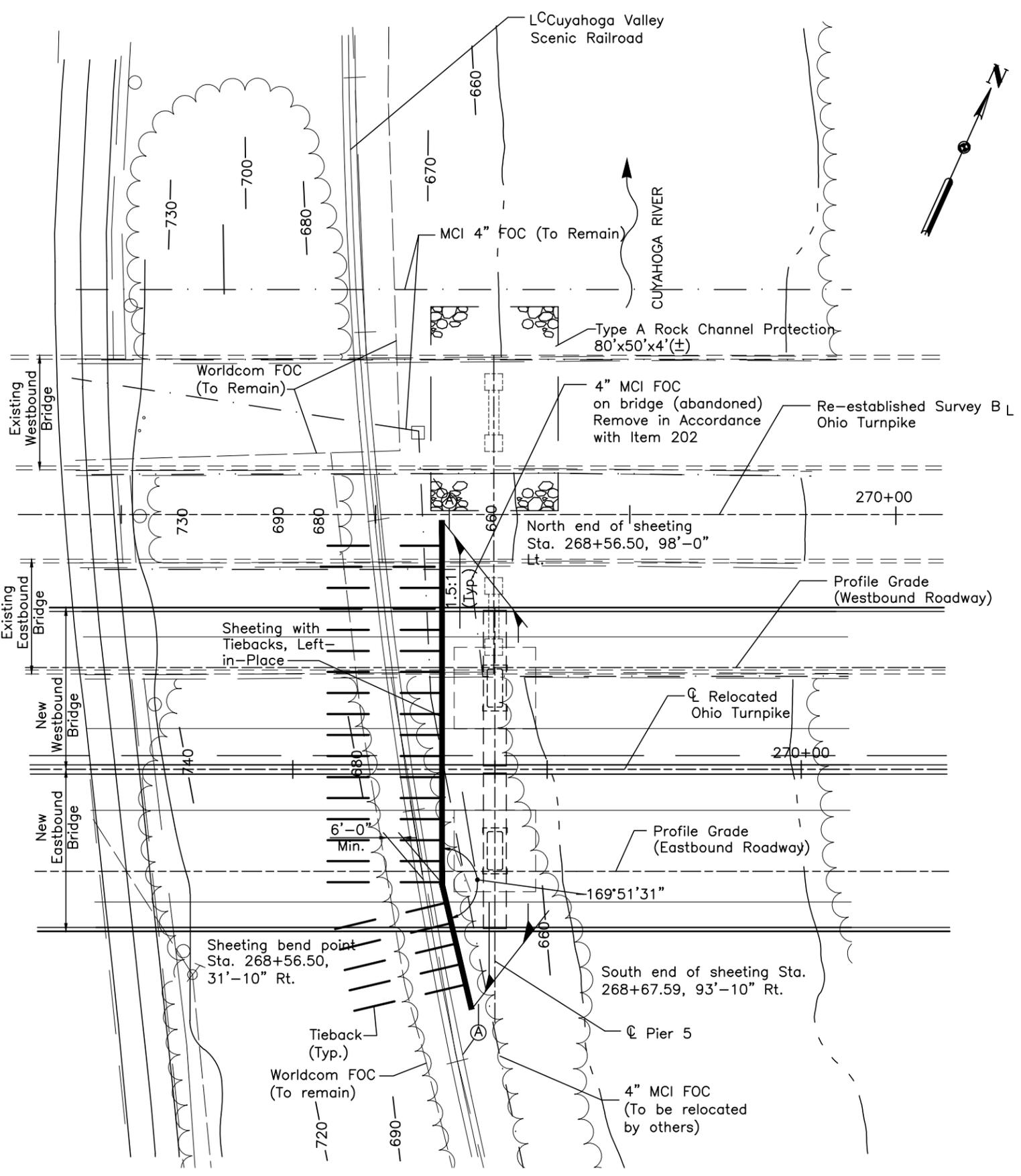
**PHASE 9**  
 Maintain normal operation in two new inside lanes across each new bridge. Outside lane and shoulder closed on each new bridge.  
 Demolish existing westbound bridge.  
 Complete pavement removal and grading.  
 Perform project clean up and restoration.

**LEGEND:**  
 [Hatched Box] Demolition per Item 202  
 [Solid Box] New Structure

DESIGNED BY: GLG CHECKED BY: MJL  
 DATE: 05/04/98 DATE: 11/06/98  
 DRAWN BY: GLG REVISIONS BY: DATE:  
 DATE: 05/04/98 DATE:  
 CAD FILE NAME: 25725 - CONST2.DWG

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>PHASE 7 - 9 CONSTRUCTION</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: GLG	CHECKED: MJL	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B10 OF B129			

DESIGNED BY: DHS | CHECKED BY: MJL  
 DATE: 8/5/98 | DATE: 8/11/98  
 DRAWN BY: JMG | REVISED BY:  
 DATE: 8/10/98 | DATE:  
 CAD FILE NAME: 25725-TEMP1C.DWG



**SHEETING WITH TIEBACKS AT PIER 5**

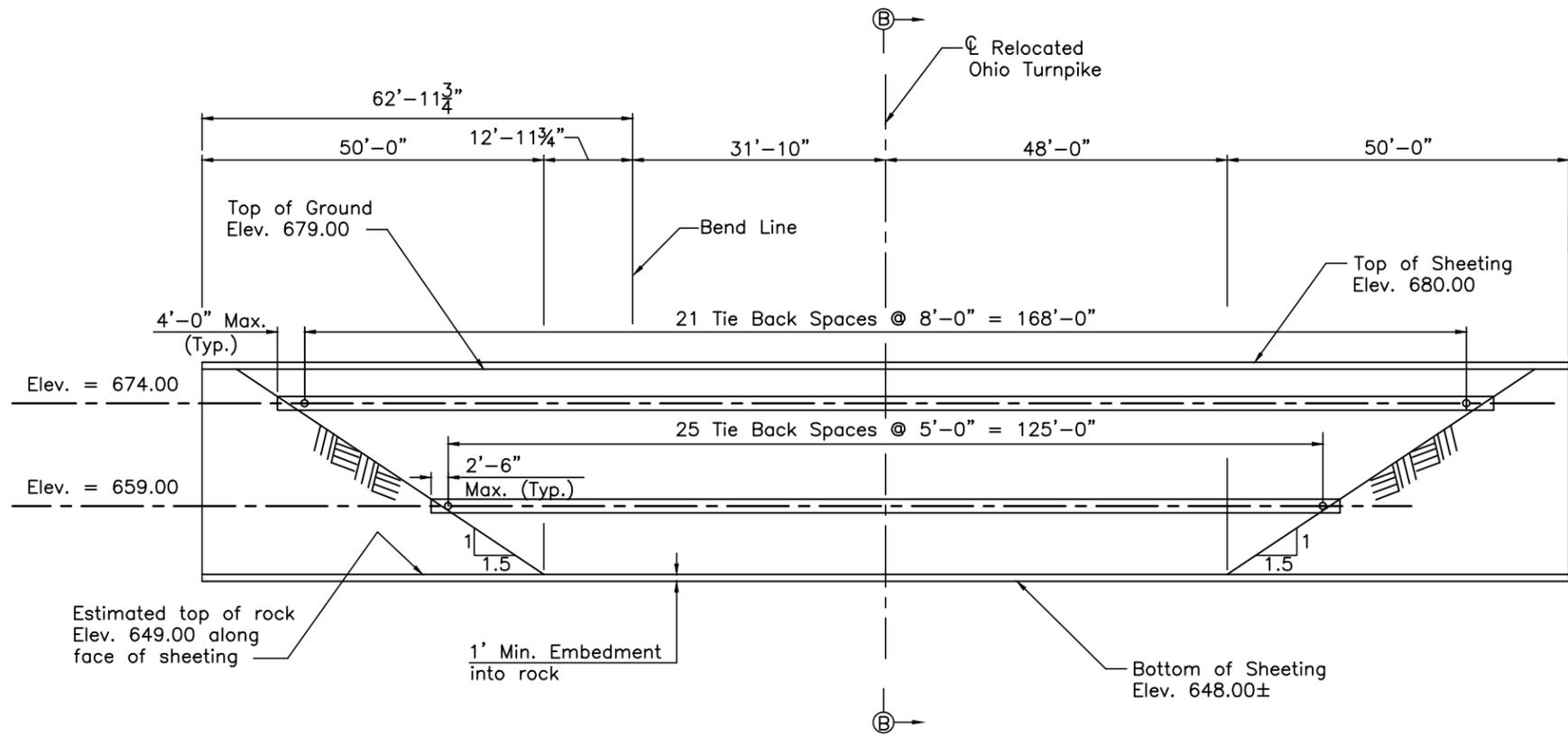
SUGGESTED CONSTRUCTION SEQUENCE

- STAGE 1:**  
 DRIVE SHEETING TO THE ELEVATION SHOWN OR TO 1' BELOW ROCK LINE, WHICHEVER IS LOWER.  
 EXCAVATE IN FRONT OF THE SHEETING TO ELEVATION 673.00.  
 INSTALL TIE BACK ANCHORS AND WALES. TEST LOAD THE ANCHORS, IN ACCORDANCE WITH SP 504.
- STAGE 2:**  
 EXCAVATE IN FRONT OF THE SHEETING TO ELEVATION 658.00.  
 INSTALL TIE BACK ANCHORS AND WALES. TEST LOAD THE ANCHORS, IN ACCORDANCE WITH SP 504.  
 EXCAVATE TO ROCK LINE.
- STAGE 3:**  
 AFTER NEW PIER 5 IS CONSTRUCTED, BACK FILL TO THE ORIGINAL GROUND.  
 SHEETING SYSTEM IS TO BE LEFT IN PLACE.  
 CUT TOP OF SHEETING TO 1' BELOW FINAL GROUND.

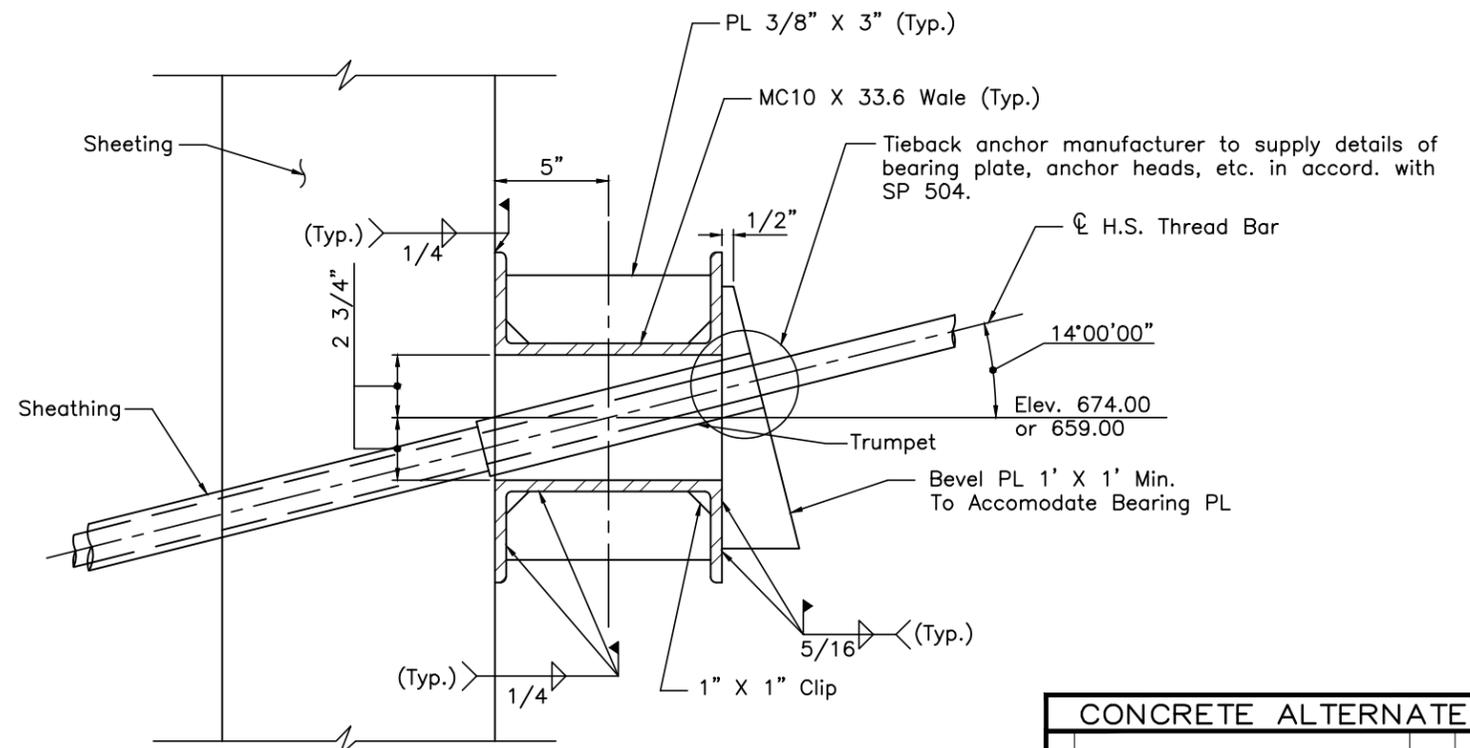
NOTES:

1. STEEL SHEET PILING LEFT-IN-PLACE SHALL BE ASTM A328 WITH A MINIMUM S.M. OF 37.4 IN<sup>3</sup>/FT.
2. ALL STRUCTURAL STEEL SHALL BE ASTM A36.
3. THE TIEBACKS SHALL BE AS FOLLOWS:  
 BAR MAY BE 150 OR 160 KSI STEEL (ULTIMATE STRENGTH) CONFORMING TO ASTM A722.  
 BAR STRESS SHALL NOT BE GREATER THAN 60 PERCENT OF THE ULTIMATE CAPACITY AT THE DESIGN LOAD.  
 STRANDS MAY BE USED IN PLACE OF THE BARS, REFER TO SP 504.
4. CONTRACTOR SHALL PROVIDE HIS PROPOSED TIE BACK AND ANCHORAGE DETAILS TO THE ENGINEER FOR APPROVAL PRIOR TO THE INSTALLATION OF SHEETING.
5. TIE BACK DESIGN LOAD AT EACH LOCATION IS:  
 TOP TIE BACK = 110K  
 BOTTOM TIE BACK = 150K  
 LOCK-OFF ALL TIE BACKS AT 0.75 TIMES THE DESIGN LOAD.
6. CONTRACTOR SHALL EXPLORE AND LOCATE ROCK LINES ALONG THE LENGTH OF SHEETING AND ANCHORS PRIOR TO THE CONSTRUCTION OPERATION. THE COST FOR THIS EXPLORATION SHALL BE INCLUDED IN THE PRICE BID FOR ITEM SP504. IF ROCK LINE DEVIATES MORE THAN 3'± AS SHOWN ALONG SHEETING, THE SYSTEM, AS DESIGNED, SHALL BE REEVALUATED BY THE ENGINEER. ANY REVISIONS TO SHEETING, WALES, AND/OR QUANTITY AND LENGTH OF TIEBACKS REQUIRED DUE TO ROCK LINE DEVIATIONS WILL BE PAID AT THE SQUARE FOOT UNIT PRICE OF ITEM SP504.
7. CONTRACTOR SHALL OBTAIN PERMISSION FROM CUYAHOGA VALLEY SCENIC RAILROAD FOR OCCUPYING RAILROAD TRACK DURING SHEETING CONSTRUCTION, AND FOR COMING WITHIN REQUIRED CONSTRUCTION CLEARANCES DUE TO SHEETING DRIVING OPERATION. REFER TO SP 827F.
8. SPLICES IN MC10 X 33.6 WALES SHALL BE BUTT WELDED IN ACCORDANCE WITH ITEM 513.
9. REFER TO SP 504 - SHEETING WITH TIEBACKS, LEFT-IN-PLACE, FOR ADDITIONAL INFORMATION.
10. FOR PIER 5 FOOTING LAYOUT PLAN, SEE SHEET B15 OF B129.
11. FOR PIER 5 FOOTING DETAIL, SEE SHEET B28 OF B129.
12. THE FOLLOWING ABBREVIATIONS ARE USED:  
 Rt. = RIGHT  
 Lt. = LEFT

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING	NO.	BY DATE
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>SHEETING WITH TIEBACKS AT PIER 5</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: MJL/DHS	DATE: 12/31/98
DRAWN: JMG	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B10AOFB129		

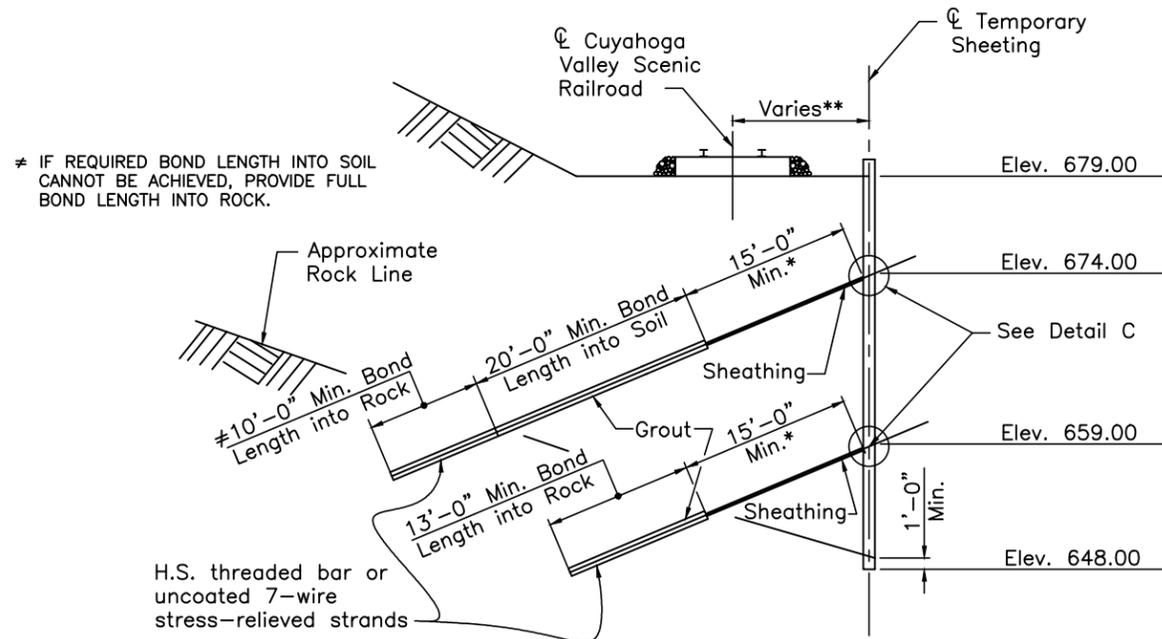


**SECTION A-A**



**DETAIL C**

(Detail shown for H.S. threaded bar, strands may be used in lieu of bars, refer to SP 504)



**SECTION B-B**

\* UNBONDED LENGTH

\*\* 6' MIN. AT SOUTH EDGE OF FOOTING OF NEW EASTBOUND BRIDGE  
18' MAX. AT NORTH EDGE OF FOOTING OF NEW WESTBOUND BRIDGE

Note: Ultimate anchor capacity and required bond diameter and length shall be the responsibility of the contractor.

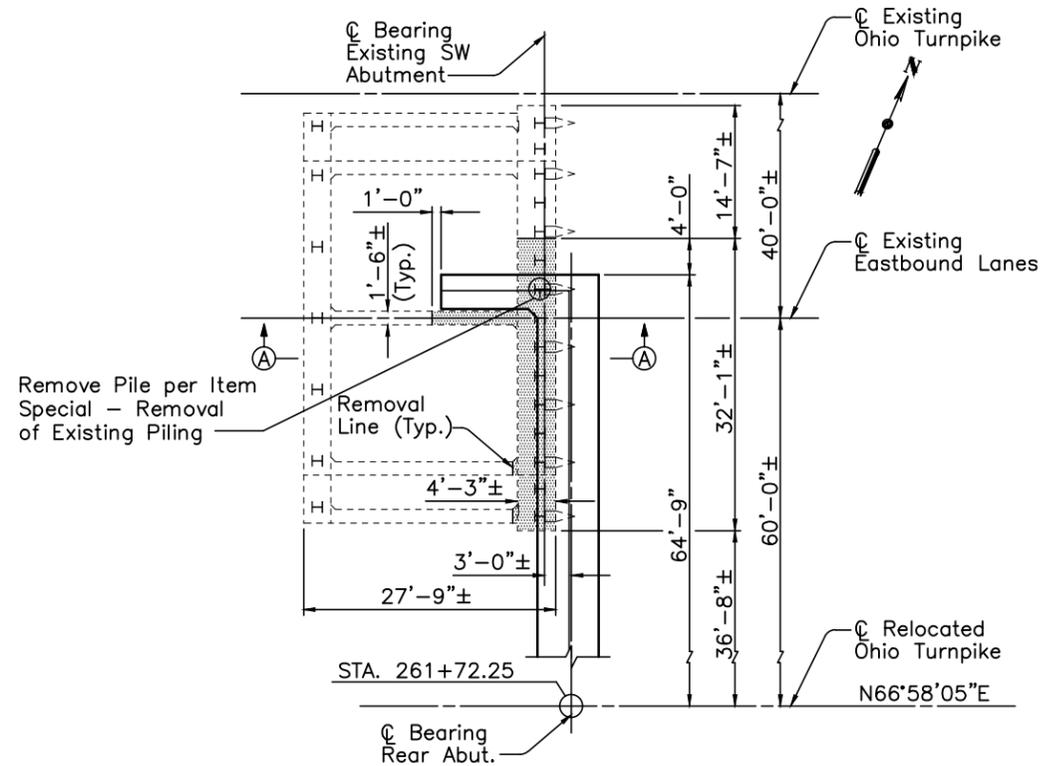
≠ IF REQUIRED BOND LENGTH INTO SOIL CANNOT BE ACHIEVED, PROVIDE FULL BOND LENGTH INTO ROCK.

DESIGNED BY: DHS  
DATE: 8/5/98  
DRAWN BY: JMG  
DATE: 8/10/98  
CHECKED BY: MIL  
DATE: 8/11/98  
REVISIONS BY: JMG  
DATE: 8/10/98  
CAD FILE NAME: 25725-TEMP2C.DWG

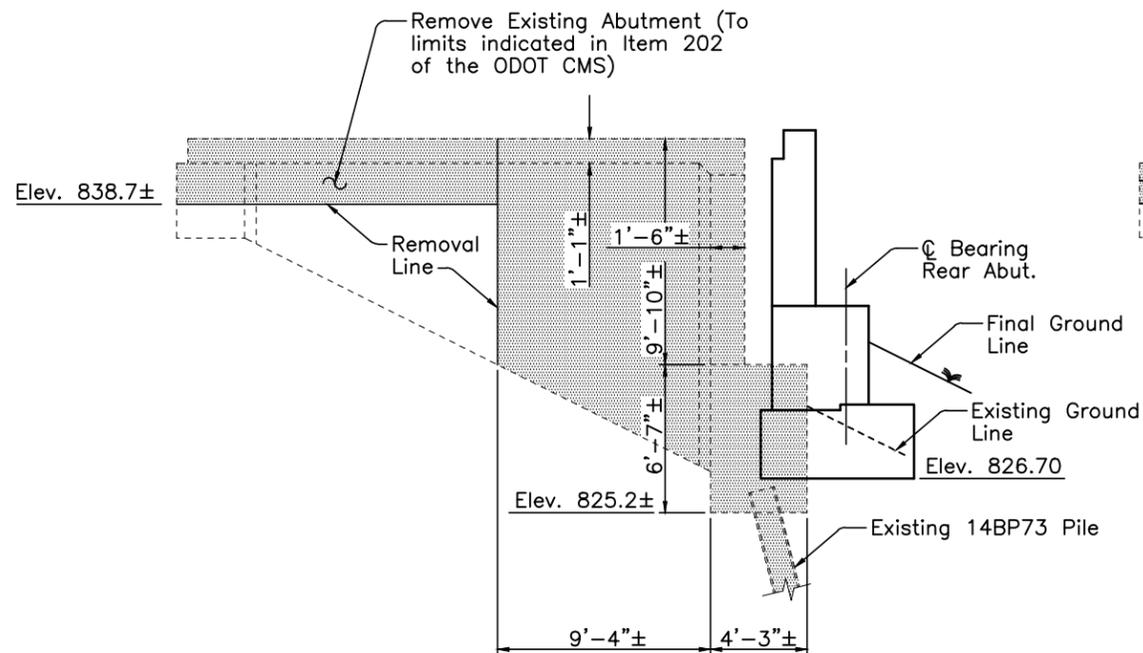
NOTE:

FOR NOTES, SEE SHEET B10A OF B129.

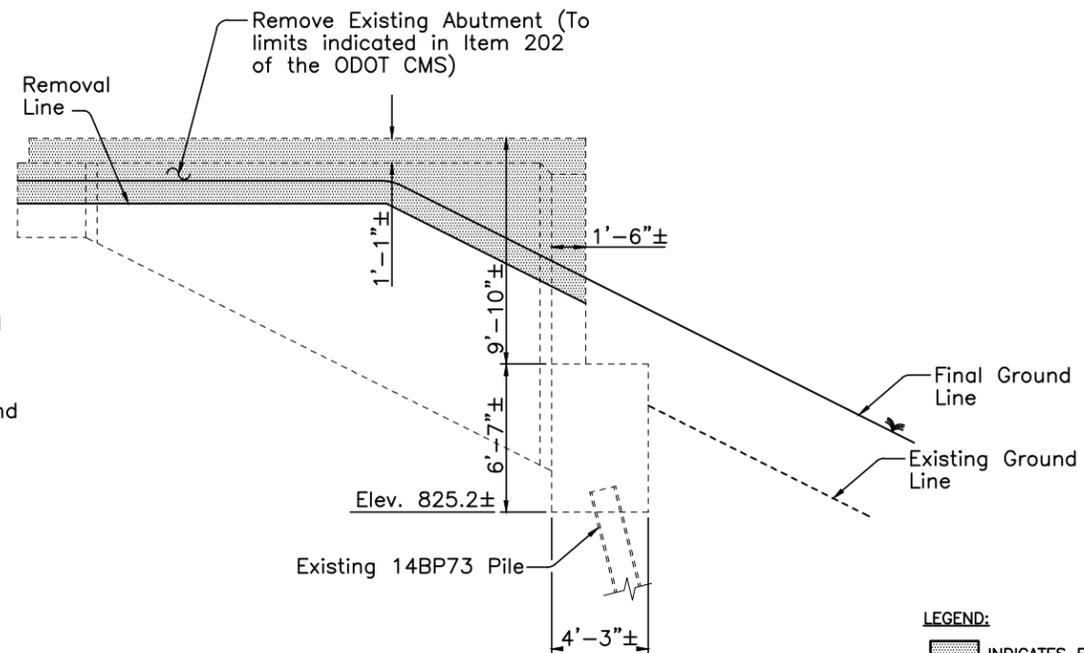
CONCRETE ALTERNATE		
RECORD DRAWING		11/5/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
SHEETING WITH TIEBACKS		
AT PIER 5		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: MJL/DHS	DATE: 12/31/98
DRAWN: JMG	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B10B OF B129		



**PART FOOTING PLAN - REAR WESTBOUND ABUTMENT**  
 (New Piles not shown)  
 (Removal in Phase 5)



**SECTION A-A**  
 (New Piles not shown)



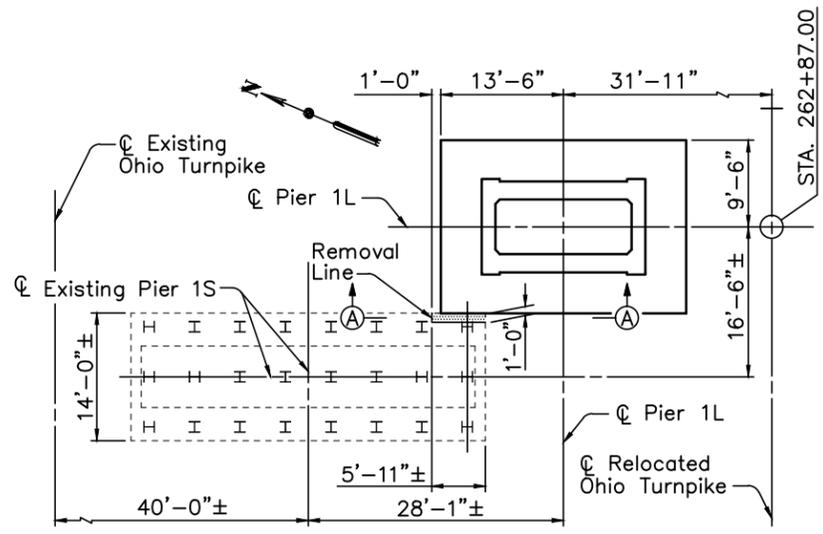
**SECTION B-B**

**LEGEND:**  
 INDICATES REMOVAL PER ITEM 202

- NOTES:**
1. FOR REAR ABUTMENT DETAILS, SEE SHEET B19 THRU B21 OF B129.
  2. FOR FORWARD ABUTMENT DETAILS, SEE SHEET B22 THRU B25 OF B129.
  3. FOR FOOTING AND PILE LAYOUT PLAN, SEE SHEET B14 THRU B18 OF B129.
  4. FOR EXISTING STRUCTURE PLAN NOTE, SEE GENERAL NOTES, SHEET B5 OF B129.

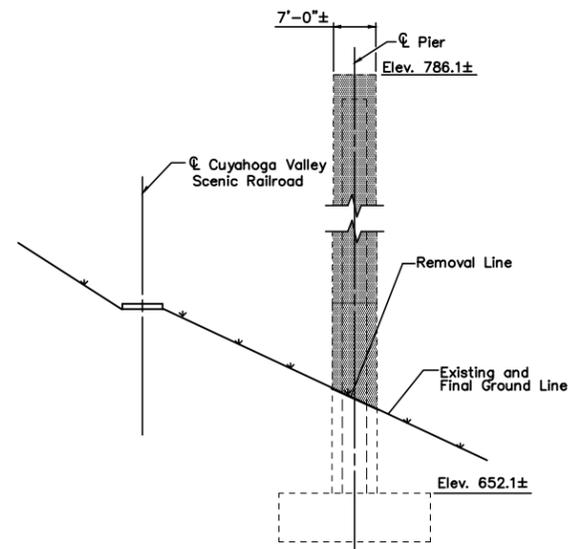
CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>ABUTMENT REMOVAL DETAILS</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: MJL	CHECKED: GLG	DATE: 12/31/98	
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B11 OF B129			

DESIGNED BY: MJL CHECKED BY: GLG  
 DATE: 05/05/98 DATE: 05/08/98  
 DRAWN BY: JLV REVISIONS BY:  
 DATE: 05/06/98 DATE:  
 CAD FILE NAME: 25725 - ABREM1.DWG

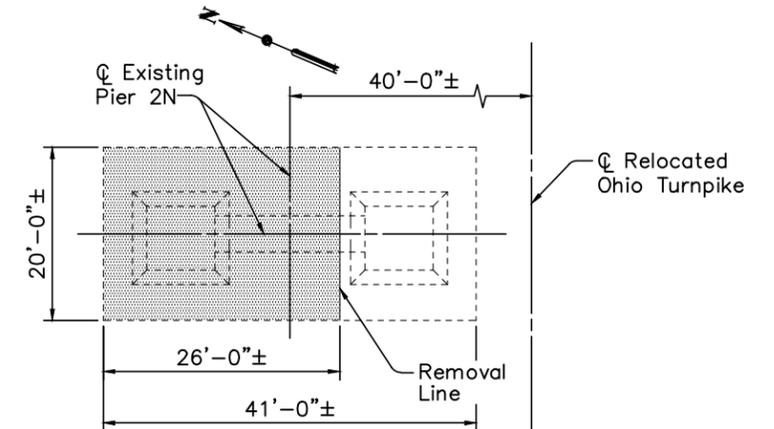


FOOTING PLAN - PIER 1L

(New Piles not shown)  
(Removal in Phase 7)

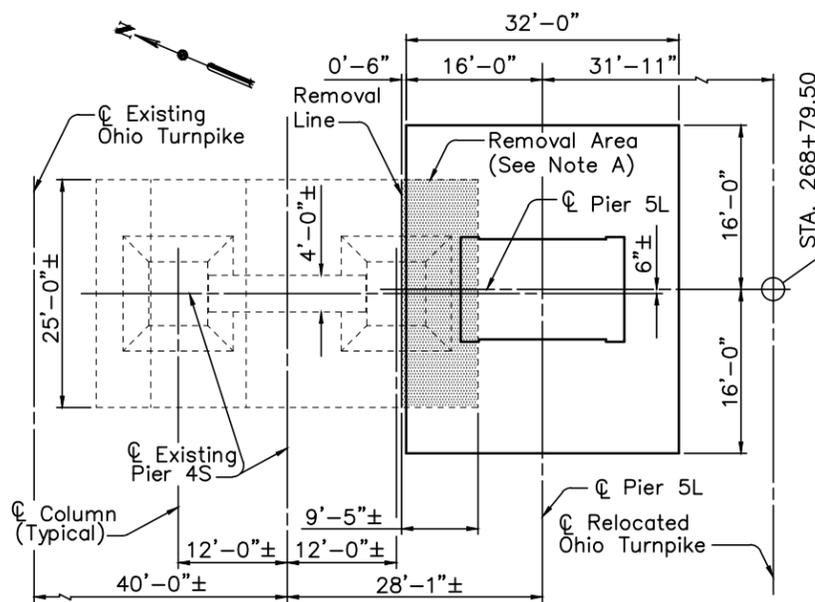


SIDE ELEVATION - EXISTING PIER 4N AND 4S  
(Pier 4N shown - Phase 9 Removal, Pier 4S similar - Phase 7 Removal)  
(Looking North)



PLAN - EXISTING PIER 2N

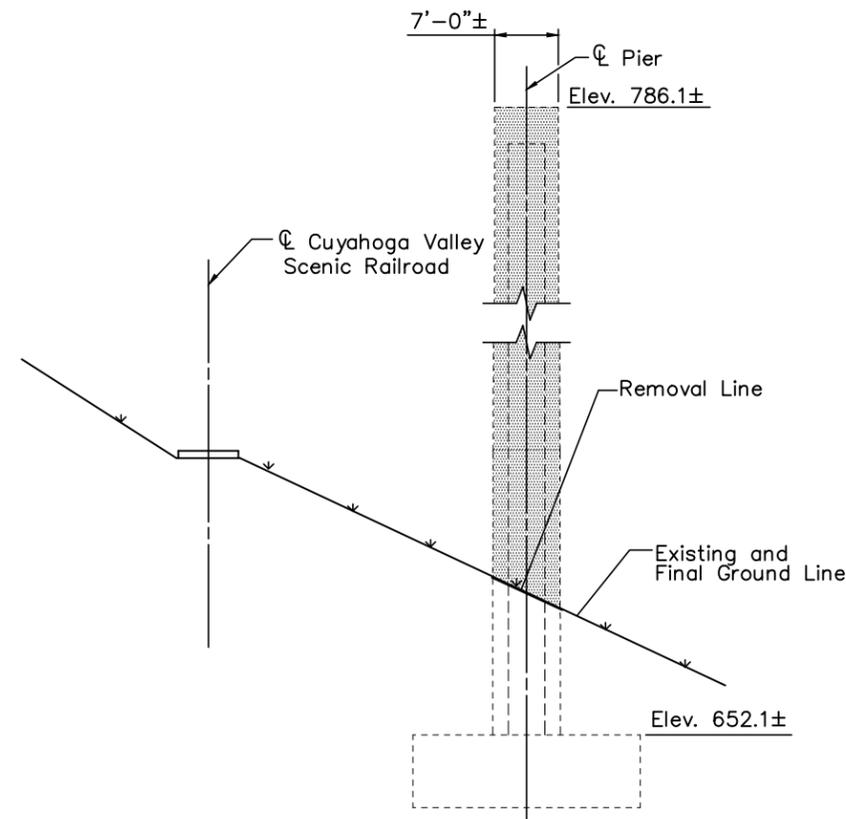
(Removal Required for Final Slope Recontouring  
at the N.W. Haul Road)  
(Removal in Phase 9)



FOOTING PLAN - PIER 5L

(Removal in Phase 7)

NOTE A:  
REMOVE HATCHED AREA TO BOTTOM OF EXISTING FOOTING.  
REMAINING AREA TO BE REMOVED AS SHOWN IN SIDE  
ELEVATION - EXISTING PIER 4N AND 4S.



SIDE ELEVATION - EXISTING PIER 4N AND 4S  
(Pier 4N shown - Phase 9 Removal, Pier 4S similar - Phase 7 Removal)  
(Looking North)

NOTES:

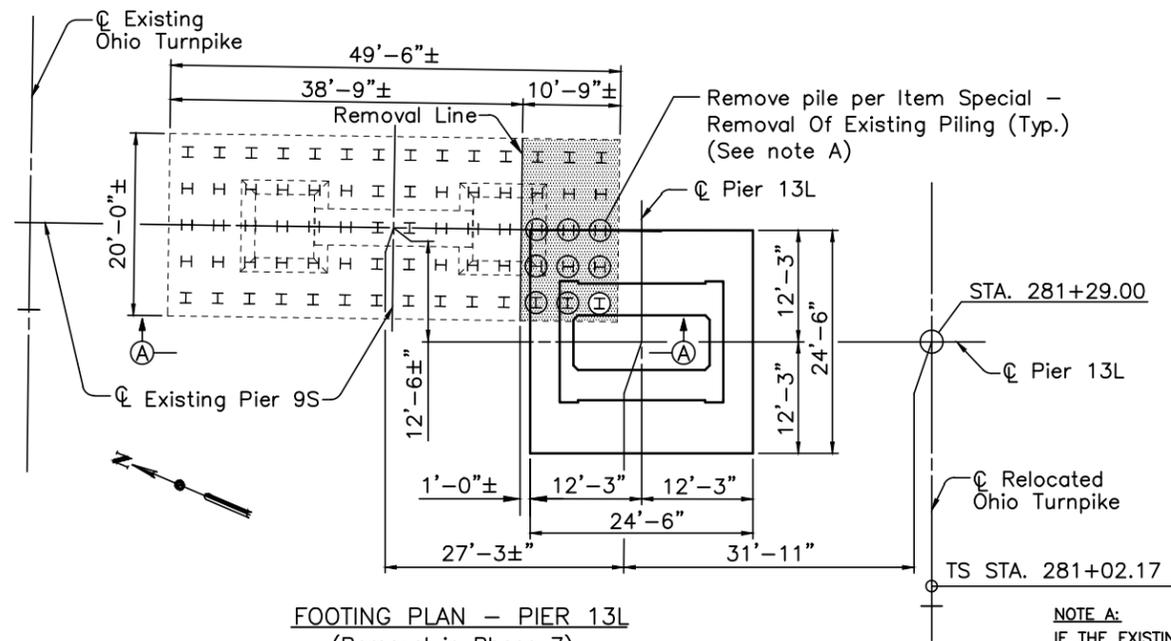
1. FOR PIER FOOTING DETAILS, SEE SHEET B27 AND B28 OF B129.
2. FOR FOOTING AND PILE LAYOUT PLAN, SEE SHEET B14 THRU B18 OF B129.
3. FOR EXISTING STRUCTURE PLAN NOTE, SEE GENERAL NOTES, SHEET B5 OF B129.

LEGEND:

INDICATES REMOVAL PER ITEM 202

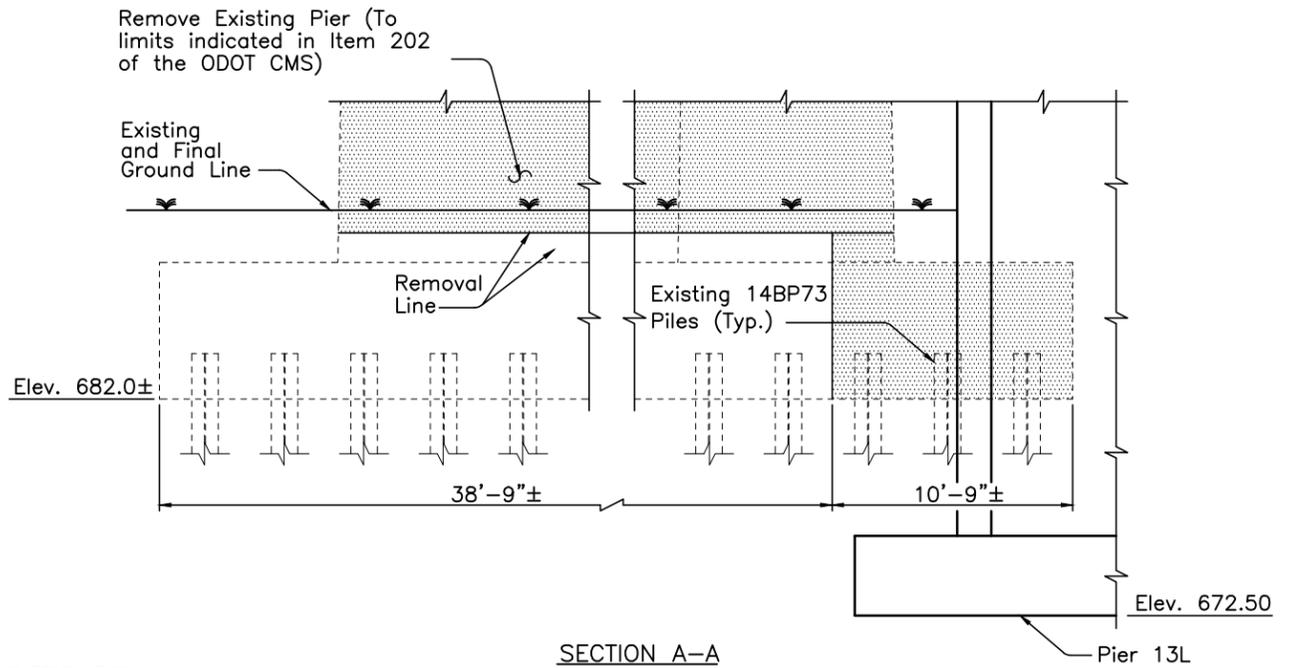
DESIGNED BY: MJL CHECKED BY: GLG  
DATE: 05/05/98 DATE: 05/26/98  
DRAWN BY: JLV REVISIONS BY: DATE:  
DATE: 05/06/98 DATE:  
CAD FILE NAME: 25725-PIERREM1.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PIER REMOVAL DETAILS</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: MJL	CHECKED: GLG	DATE: 12/31/98
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B12 OF B129		

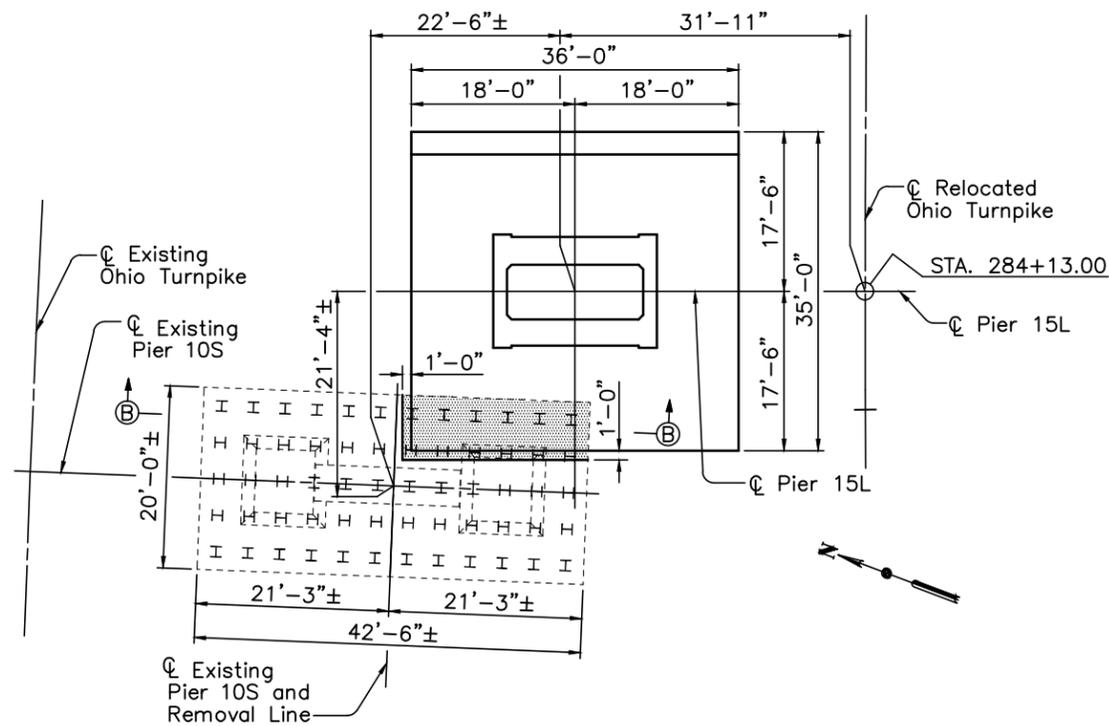


FOOTING PLAN - PIER 13L  
(Removal in Phase 7)

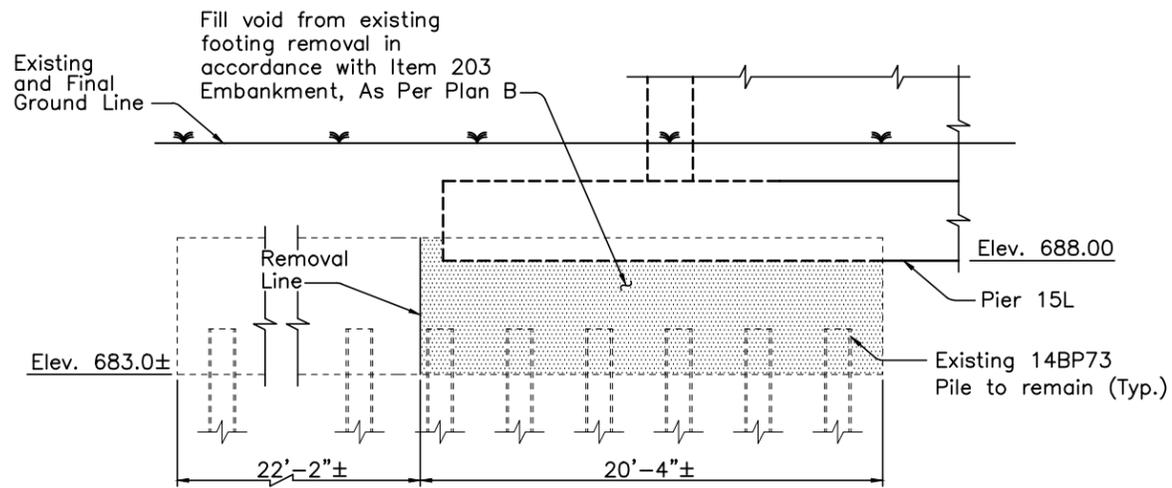
NOTE A:  
IF THE EXISTING PILES EXTEND BELOW THE BOTTOM OF THE NEW FOOTING, THEY MAY BE CUT FLUSH WITH THE BOTTOM OF THE NEW FOOTING, RATHER THAN BE ENTIRELY REMOVED (AT THE DISCRETION OF THE ENGINEER).



SECTION A-A



FOOTING PLAN - PIER 15L  
(New Piles not shown)  
(Removal in Phase 7)



SECTION B-B  
(New Piles not shown)

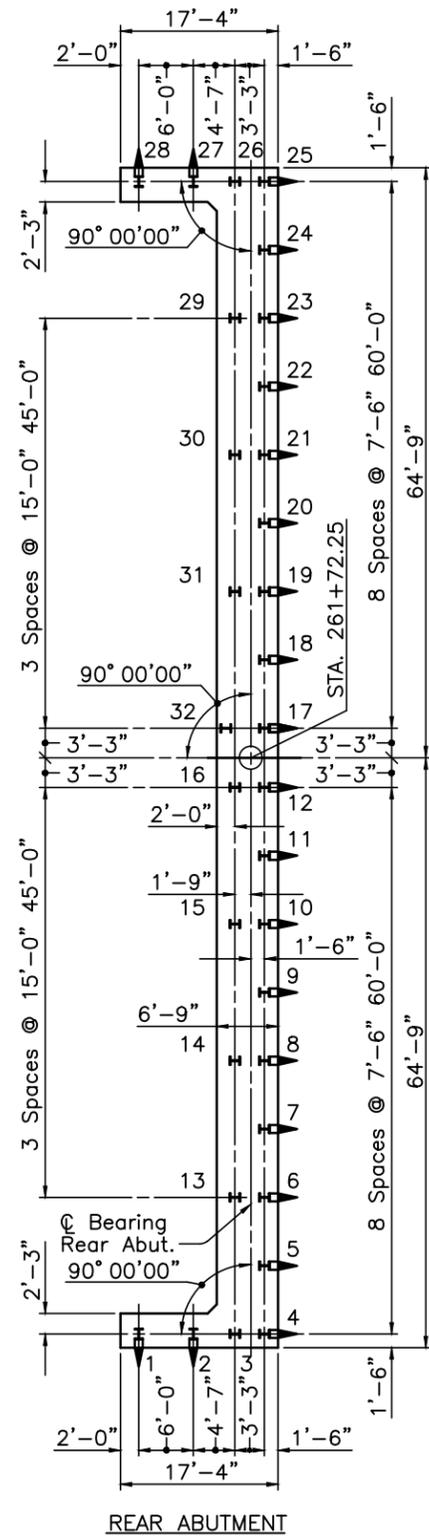
NOTES:  
FOR NOTES SEE SHEET B12 OF B129.

LEGEND:  
[Hatched Area] INDICATES REMOVAL PER ITEM 202.

DESIGNED BY: MJL CHECKED BY: GLG  
DATE: 05/05/98 DATE: 05/26/98  
DRAWN BY: JLV REVISIONS BY: DATE:  
DATE: 05/06/98 DATE:  
CAD FILE NAME: 25725-PIERREM2.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PIER REMOVAL DETAILS</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: MJL	CHECKED: GLG	DATE: 12/31/98
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B13 OF B129		

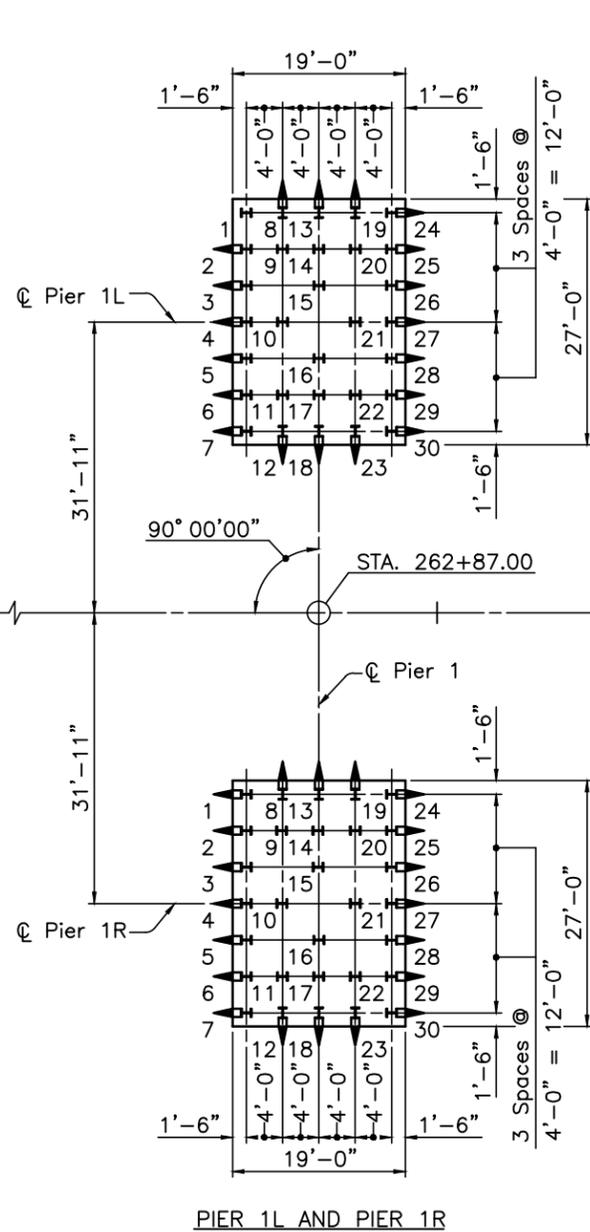
DESIGNED BY: DHS | CHECKED BY: MJL  
 DATE: 02/24/98 | DATE: 08/14/98  
 DRAWN BY: JLV | REVISED BY:  
 DATE: 04/07/98 | DATE:  
 CAD FILE NAME: 25725 - FTGLAYOUT1



REAR ABUTMENT

PILING PREFIX TABLE	
SUBSTRUCTURE UNIT	PREFIX
REAR ABUT.	RA
PIER 1L	P1L
PIER 1R	P1R
PIER 2L	P2L
PIER 2R	P2R

PILING DATA			
SUBSTRUCTURE UNIT	PILE CUTOFF ELEVATION	** ESTIMATED DEPTH PER PILE	
REAR ABUT.	828.7	79 FT.	
PIER 1L	781.5	51 FT.	
PIER 1R	781.5	51 FT.	
PIER 2L	762.0	26 FT.	
PIER 2R	762.0	26 FT.	



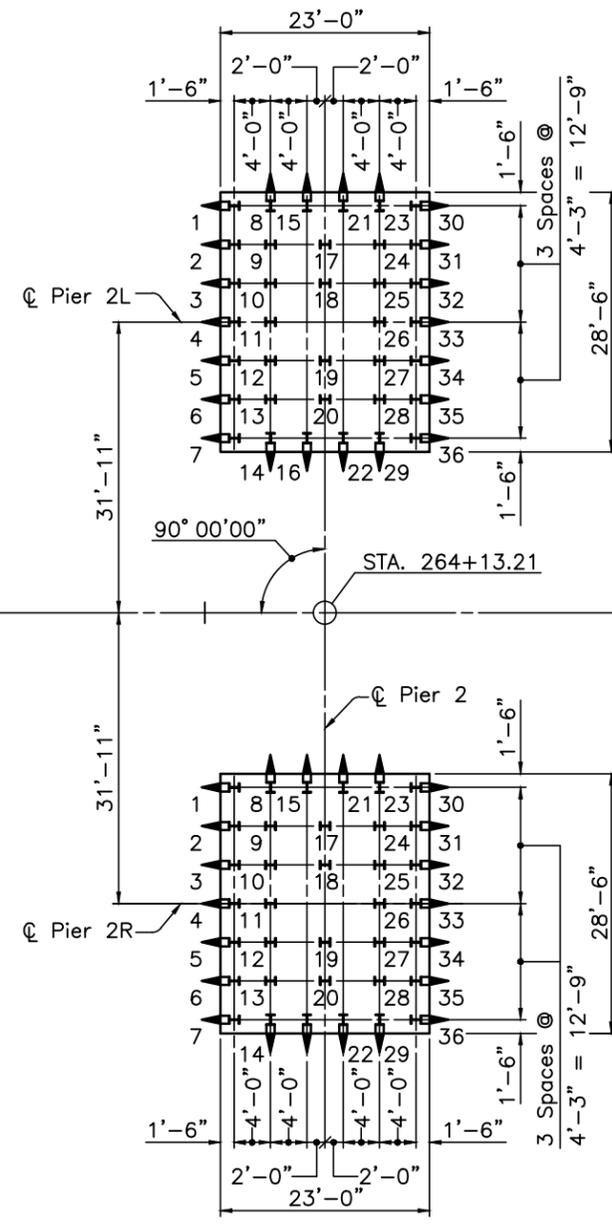
FOOTING PLAN

\*NOTES:

PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 2'-0" AT THE ABUTMENTS.  
 PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 1'-0" AT THE PIERS.

\*\*NOTE:

PILES SHOWN WITH ESTIMATED DEPTHS LESS THAN 50 FEET SHALL BE DRIVEN TO ROCK AND BE FITTED WITH STEEL PILE POINTS.



PIER 2L AND PIER 2R

PILE DESIGNATION NOTE:

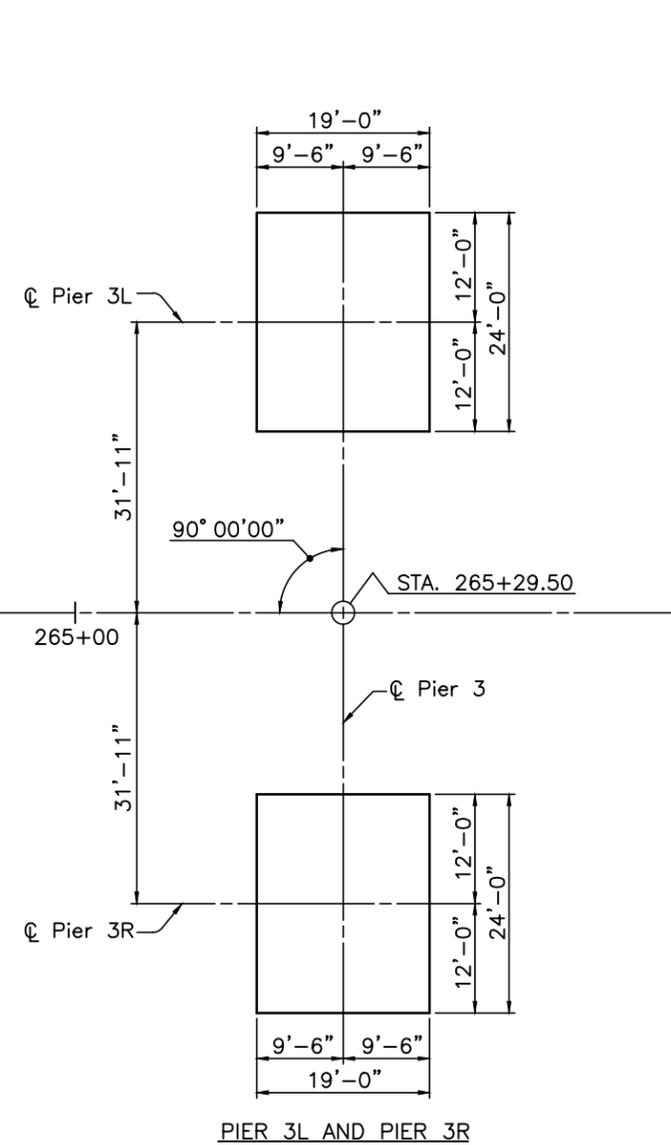
PILES SHALL BE DESIGNATED BY THE PREFIX (AS SHOWN IN THE PILING PREFIX TABLE), FOLLOWED BY THE PILING NUMBER (AS SHOWN IN THE FOOTING PLAN).

LEGEND:

INDICATES PILE BATTERED 1 IN 4 IN THE DIRECTION SHOWN

NOTES:

- ALL PILES SHALL BE HP14 X 89 STEEL PILES.
- PILE LAYOUT DIMENSIONS ARE MEASURED ALONG THE BOTTOM OF FOOTING.
- FOR FOUNDATION DATA, SEE SHEET B2 OF B129.
- FOR ABUTMENT FOOTING DETAILS, SEE SHEET B19 THRU B25 OF B129.
- FOR PIER FOOTING DETAILS, SEE SHEET B27 AND B28 OF B129.
- FOR ADDITIONAL PILING NOTES, SEE GENERAL NOTES, SHEET B6 AND B7 OF B129.
- FOR ADDITIONAL SPREAD FOOTING NOTES, SEE GENERAL NOTES, SHEET B7 OF B129.



PIER 3L AND PIER 3R

CONCRETE ALTERNATE

RECORD DRAWING	11/3/04
NO.	REVISIONS BY DATE

OHIO TURNPIKE COMMISSION

FOOTING AND PILE LAYOUT PLAN

OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB** ARCHITECTS ENGINEERS PLANNERS  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B14 OF B129

DESIGNED BY: DHS CHECKED BY: MJL  
 DATE: 02/24/98 DATE: 08/14/98  
 DRAWN BY: JLV REVISIONS BY:  
 DATE: 04/07/98 DATE:  
 CAD FILE NAME: 25725 - FTGLAYOUT2

PILING PREFIX TABLE	
SUBSTRUCTURE UNIT	PREFIX
PIER 4L	P4L
PIER 4R	P4R

PILING DATA		
SUBSTRUCTURE UNIT	*PILE CUTOFF ELEVATION	** ESTIMATED DEPTH PER PILE
PIER 4L	737.0	23 FT.
PIER 4R	737.0	23 FT.

**\*NOTE:**  
 PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 1'-0" AT THE PIERS.

**\*\*NOTE:**  
 PILES SHOWN WITH ESTIMATED DEPTHS LESS THAN 50 FEET SHALL BE DRIVEN TO ROCK AND BE FITTED WITH STEEL PILE POINTS.

**PILE DESIGNATION NOTE:**

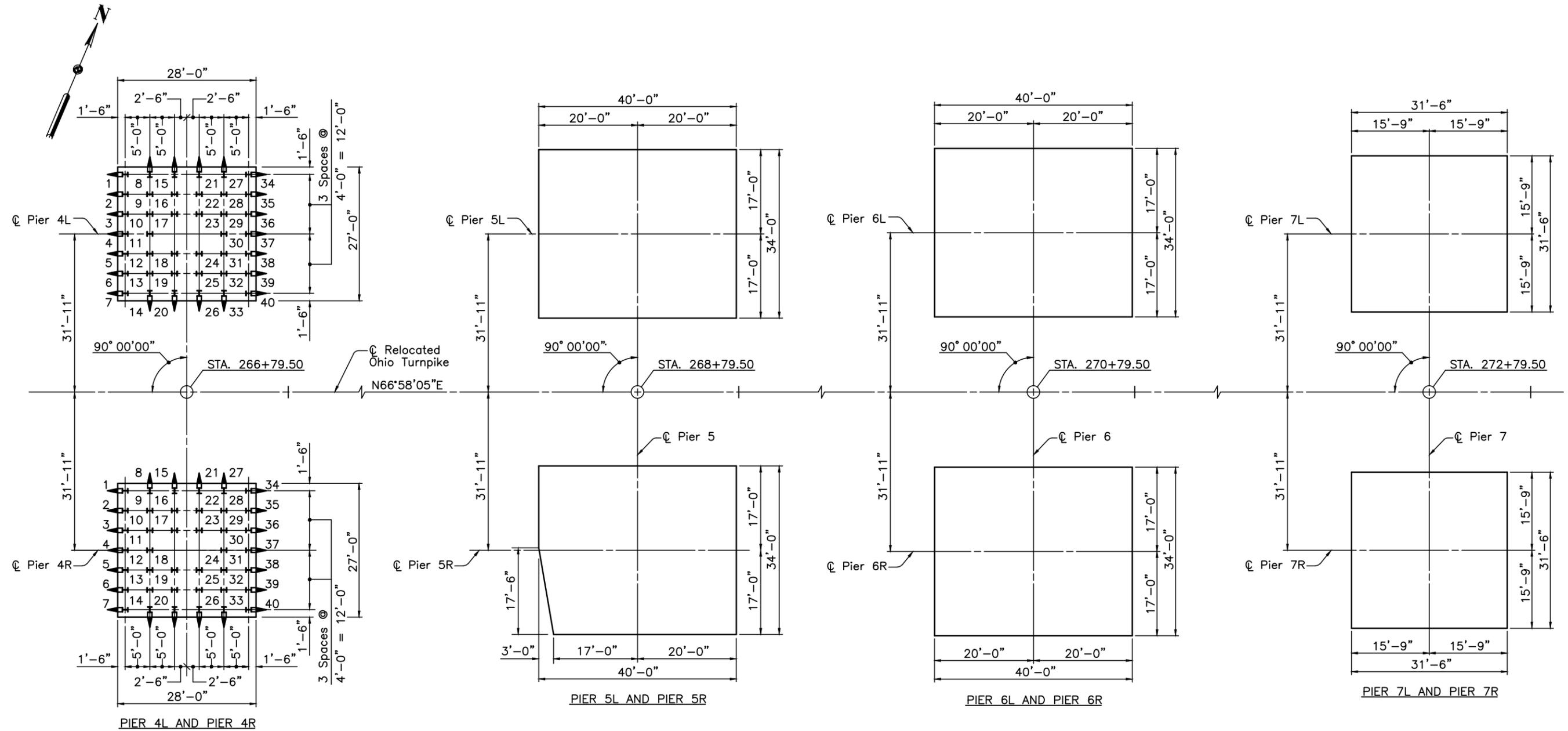
PILES SHALL BE DESIGNATED BY THE PREFIX (AS SHOWN IN THE PILING PREFIX TABLE), FOLLOWED BY THE PILING NUMBER (AS SHOWN IN THE FOOTING PLAN).

**LEGEND:**

▶ INDICATES PILE BATTERED 1 IN 4 IN THE DIRECTION SHOWN

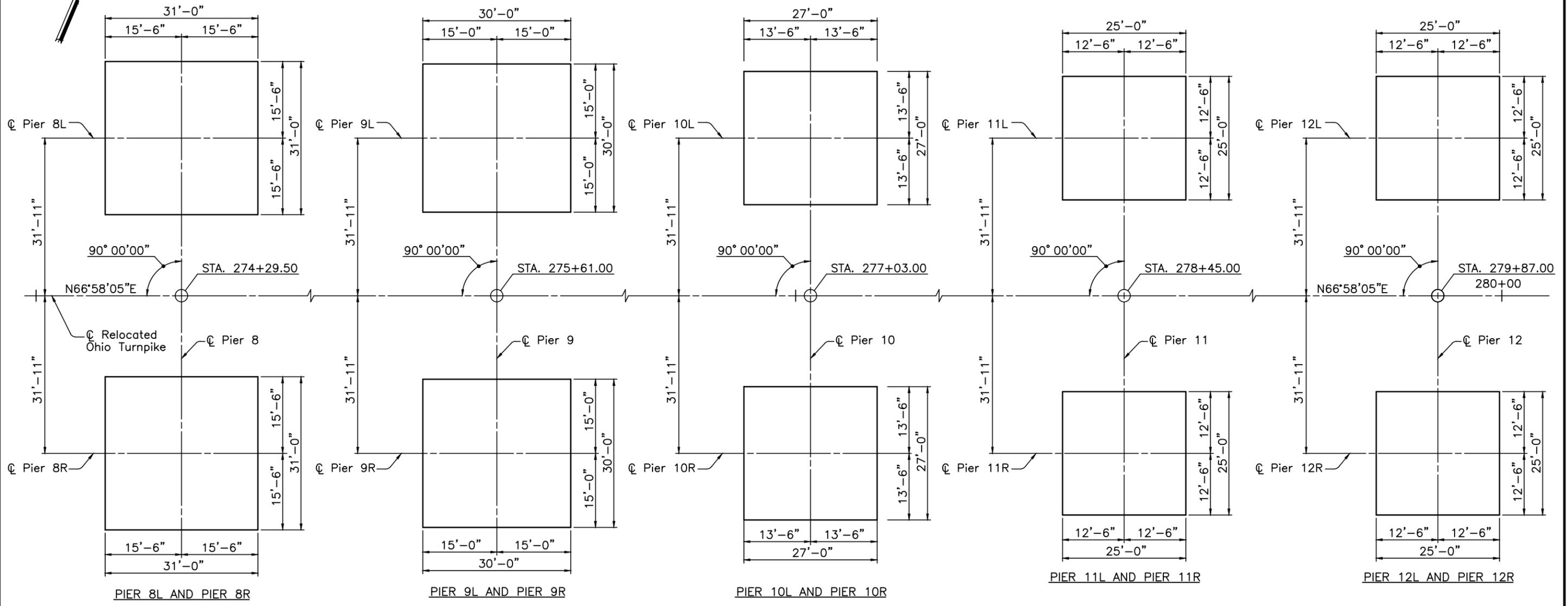
**NOTES:**

- ALL PILES SHALL BE HP14 X 89 STEEL PILES.
- PILE LAYOUT DIMENSIONS ARE MEASURED ALONG THE BOTTOM OF FOOTING.
- FOR ADDITIONAL NOTES, SEE SHEET B14 OF B129



FOOTING PLAN

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
FOOTING AND PILE LAYOUT PLAN		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B15 OF B129		



FOOTING PLAN

DESIGNED BY: DHS  
 DATE: 02/24/98  
 DRAWN BY: JLV  
 DATE: 04/07/98  
 CAD FILE NAME: 25725 - FTGLAYOUT3

NOTES:  
 FOR ADDITIONAL NOTES, SEE SHEET B14 OF B129

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
OHIO TURNPIKE COMMISSION		
FOOTING AND PILE LAYOUT PLAN		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS/GLG	CHECKED: MJL	DATE: 12/31/98
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B16 OF B129		

DESIGNED BY: DHS  
 DATE: 02/24/98  
 DRAWN BY: JLV  
 DATE: 04/07/98  
 CAD FILE NAME: 25725 - FTGLAYOUT14

PILING PREFIX TABLE	
SUBSTRUCTURE UNIT	PREFIX
PIER 14L	P14L
PIER 14R	P14R
PIER 15L	P15L
PIER 15R	P15R

PILING DATA		
SUBSTRUCTURE UNIT	*PILE CUTOFF ELEVATION	** ESTIMATED DEPTH PER PILE
PIER 14L	688.0	32 FT.
PIER 14R	688.0	32 FT.
PIER 15L	689.0	33 FT.
PIER 15R	689.0	33 FT.

\*NOTE:  
 PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 1'-0" AT THE PIERS.

\*\*NOTE:  
 PILES SHOWN WITH ESTIMATED DEPTHS LESS THAN 50 FEET SHALL BE DRIVEN TO ROCK AND BE FITTED WITH STEEL PILE POINTS.

**PILE DESIGNATION NOTE:**

PILES SHALL BE DESIGNATED BY THE PREFIX (AS SHOWN IN THE PILING PREFIX TABLE), FOLLOWED BY THE PILING NUMBER (AS SHOWN IN THE FOOTING PLAN).

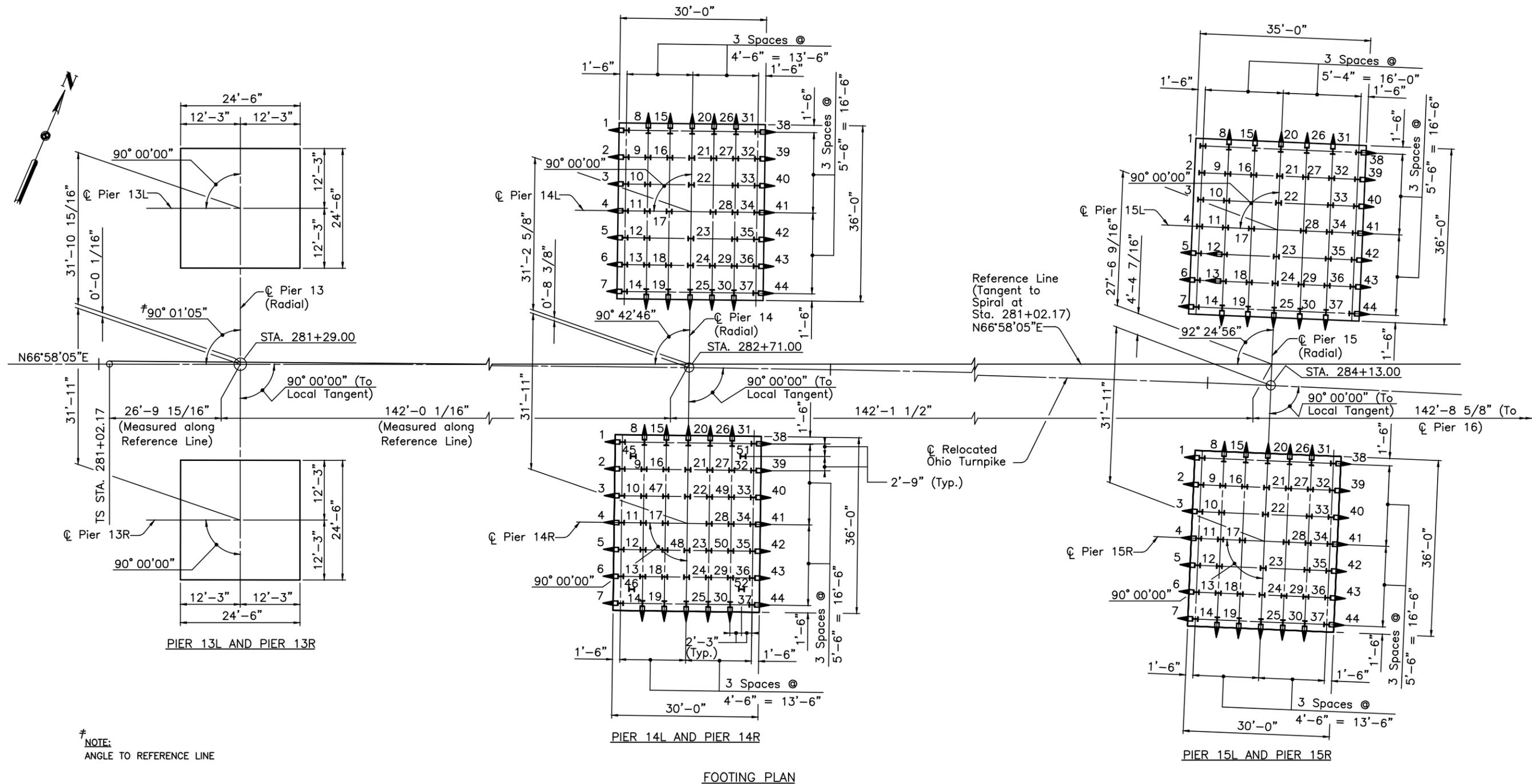
**LEGEND:**

INDICATES PILE BATTERED 1 IN 4 IN THE DIRECTION SHOWN

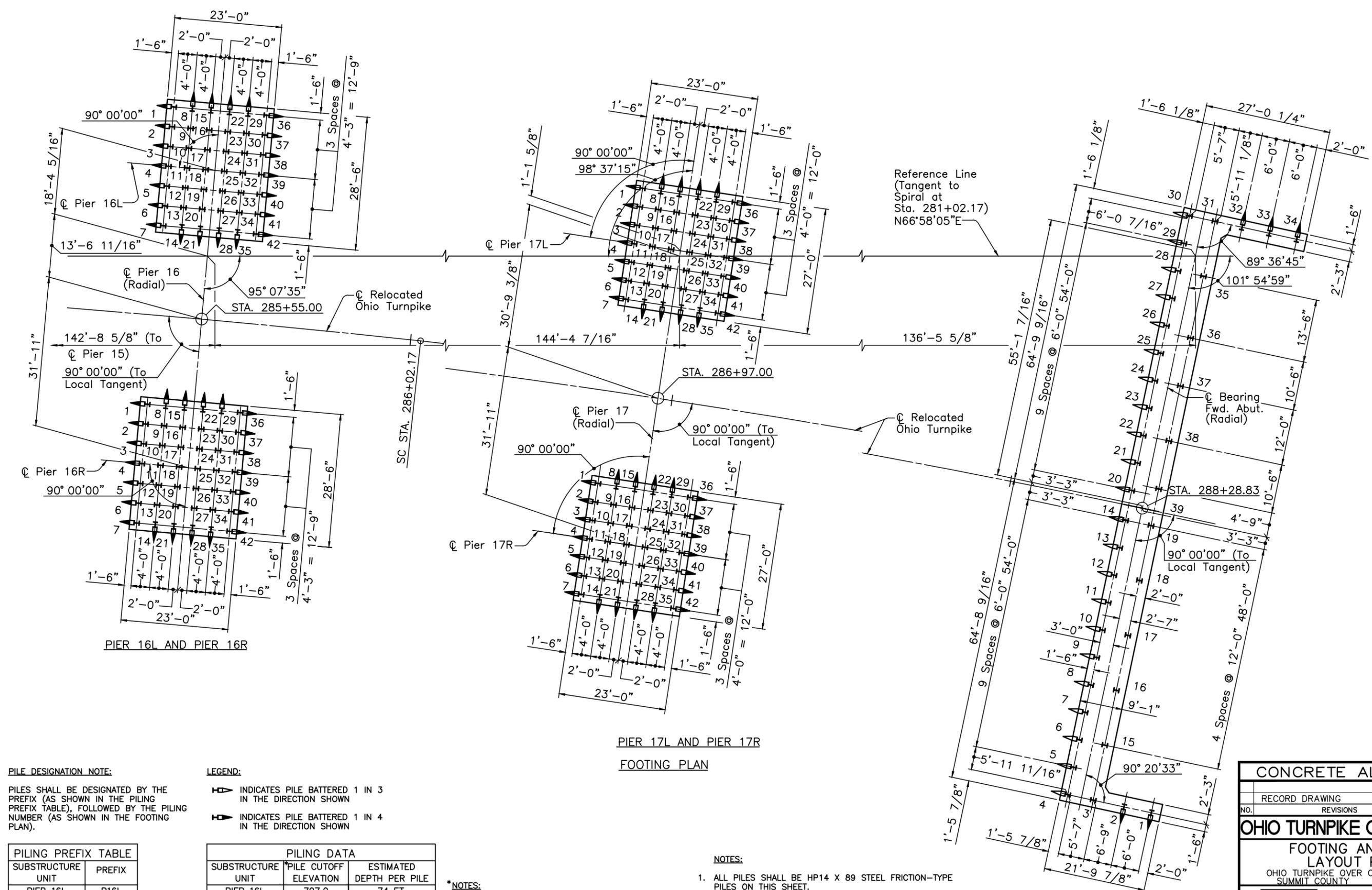
**NOTES:**

- ALL PILES SHALL BE HP14 X 89 STEEL PILES.
- PILE LAYOUT DIMENSIONS ARE MEASURED ALONG THE BOTTOM OF FOOTING.
- FOR ADDITIONAL NOTES, SEE SHEET B14 OF B129

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
FOOTING AND PILE LAYOUT PLAN		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS/AEH	CHECKED: MJL	DATE: 12/31/98
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B17 OF B129		



FOOTING PLAN



PIER 17L AND PIER 17R

FOOTING PLAN

FORWARD ABUTMENT

**PILE DESIGNATION NOTE:**

PILES SHALL BE DESIGNATED BY THE PREFIX (AS SHOWN IN THE PILING PREFIX TABLE), FOLLOWED BY THE PILING NUMBER (AS SHOWN IN THE FOOTING PLAN).

**LEGEND:**

- INDICATES PILE BATTERED 1 IN 3 IN THE DIRECTION SHOWN
- INDICATES PILE BATTERED 1 IN 4 IN THE DIRECTION SHOWN

PILING PREFIX TABLE	
SUBSTRUCTURE UNIT	PREFIX
PIER 16L	P16L
PIER 16R	P16R
PIER 17L	P17L
PIER 17R	P17R
FORWARD ABUT.	FA

PILING DATA		
SUBSTRUCTURE UNIT	PILE CUTOFF ELEVATION	ESTIMATED DEPTH PER PILE
PIER 16L	707.0	74 FT.
PIER 16R	707.0	74 FT.
PIER 17L	735.0	71 FT.
PIER 17R	735.0	71 FT.
FORWARD ABUT.	773.7	64 FT.

**\*NOTES:**

- PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 2'-0" AT THE ABUTMENTS.
- PILE CUTOFF ELEVATION EQUALS BOTTOM OF FOOTING ELEVATION + 1'-0" AT THE PIERS.

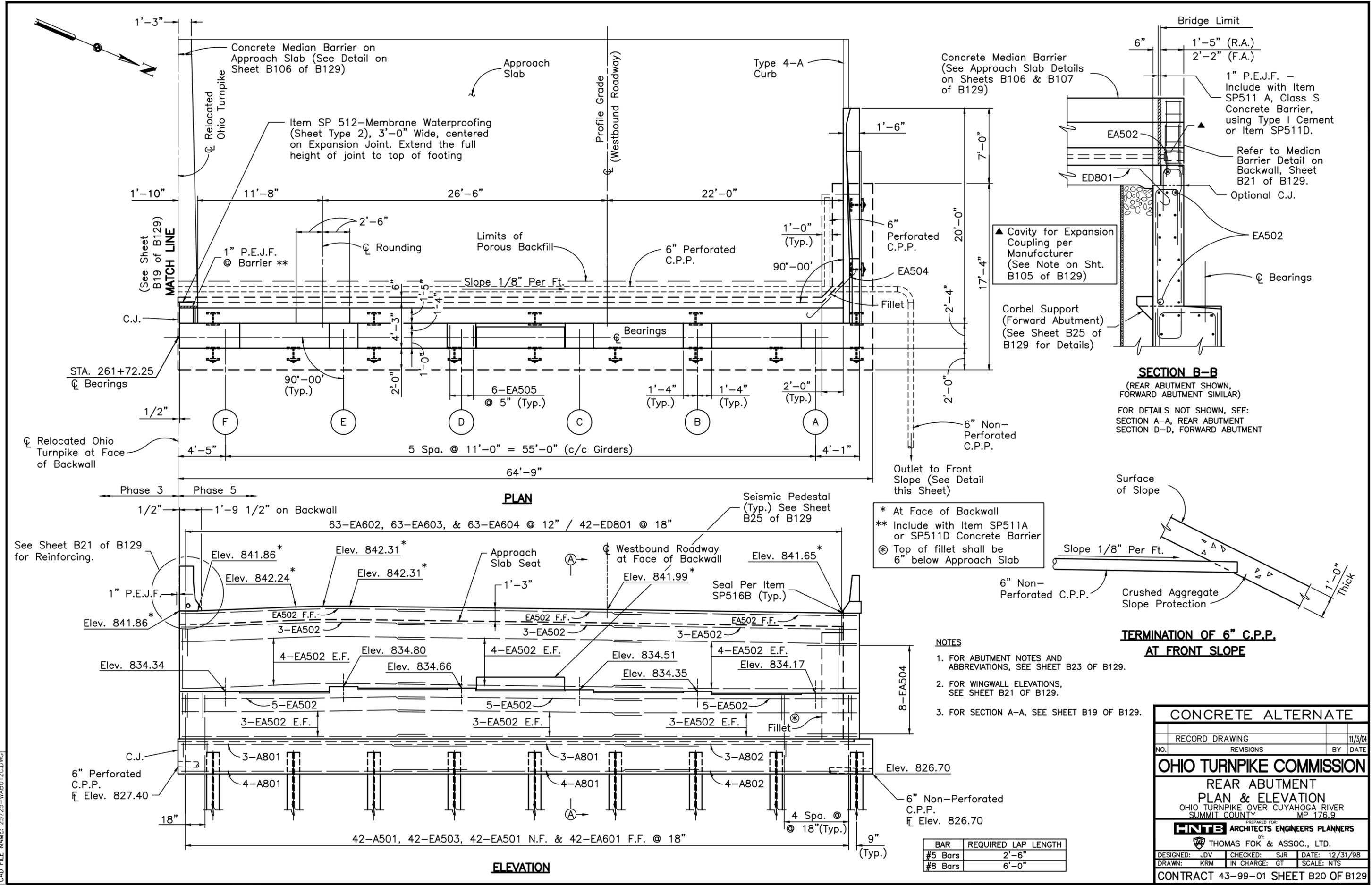
**NOTES:**

1. ALL PILES SHALL BE HP14 X 89 STEEL FRICTION-TYPE PILES ON THIS SHEET.
2. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG THE BOTTOM OF FOOTING.
3. FOR ADDITIONAL NOTES, SEE SHEET B14 OF B129

DESIGNED BY: DHS CHECKED BY: MJL  
 DATE: 02/24/98 DATE: 08/14/98  
 DRAWN BY: JLV REVISIONS BY: DATE  
 DATE: 04/07/98 DATE:  
 CAD FILE NAME: 25725 - FTGLAYOUT5

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
FOOTING AND PILE LAYOUT PLAN		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: JLV	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B18 OF B129		





DESIGNED BY: JDV | CHECKED BY: SJR  
 DATE: 2-4-98 | DATE: 3-12-99  
 DRAWN BY: KRM | REVISED BY:  
 DATE: 2-26-98 | DATE:  
 CAD FILE NAME: 25725-WABUT2C.DWG

\* At Face of Backwall  
 \*\* Include with Item SP511A or SP511D Concrete Barrier  
 ⊕ Top of fillet shall be 6" below Approach Slab

- NOTES**
- FOR ABUTMENT NOTES AND ABBREVIATIONS, SEE SHEET B23 OF B129.
  - FOR WINGWALL ELEVATIONS, SEE SHEET B21 OF B129.
  - FOR SECTION A-A, SEE SHEET B19 OF B129.

BAR	REQUIRED LAP LENGTH
#5 Bars	2'-6"
#8 Bars	6'-0"

**CONCRETE ALTERNATE**

RECORD DRAWING	NO.	REVISIONS	BY	DATE
				11/3/04

**OHIO TURNPIKE COMMISSION**

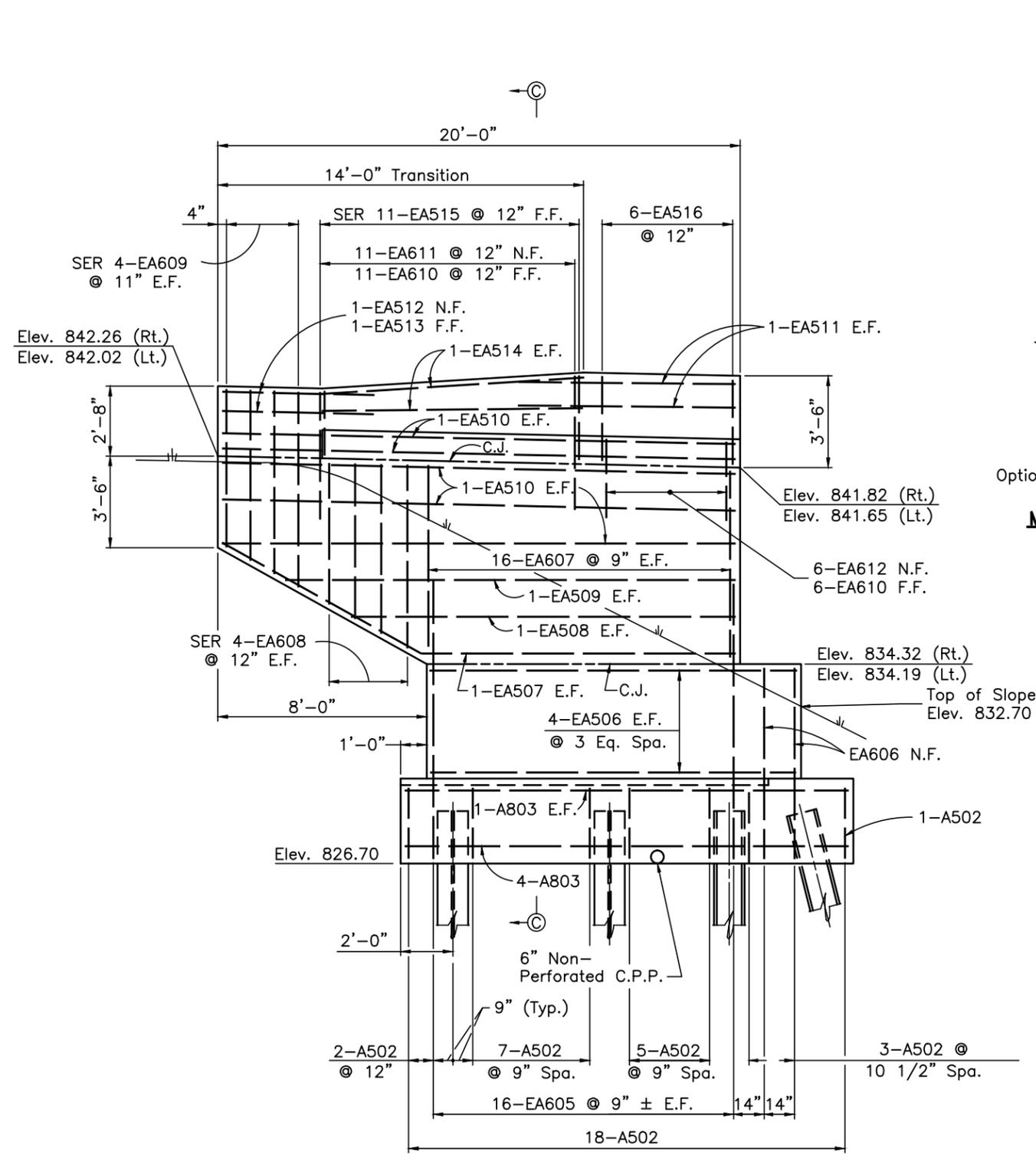
**REAR ABUTMENT PLAN & ELEVATION**  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

PREPARED FOR:  
**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 BY: THOMAS FOK & ASSOC., LTD.

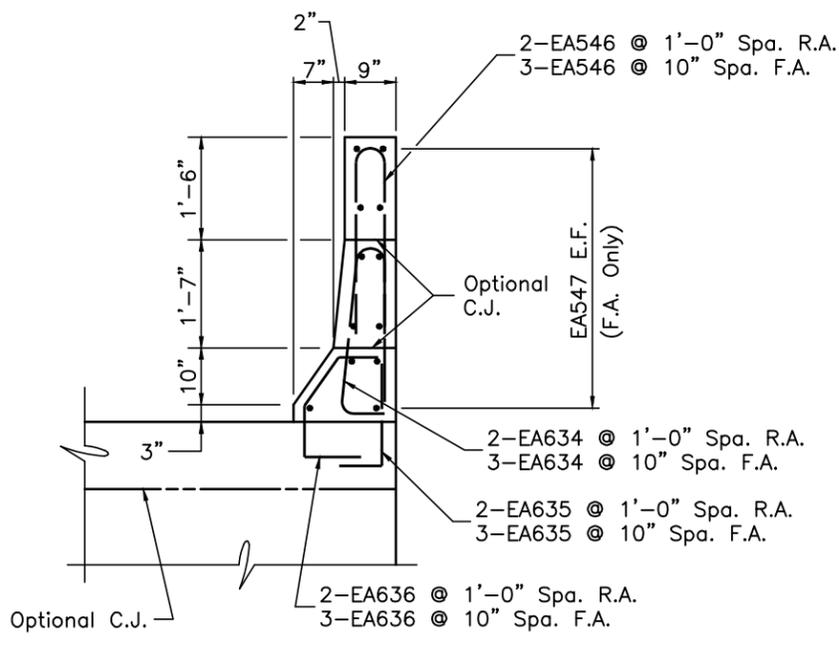
DESIGNED: JDV	CHECKED: SJR	DATE: 12/31/98
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B20 OF B129

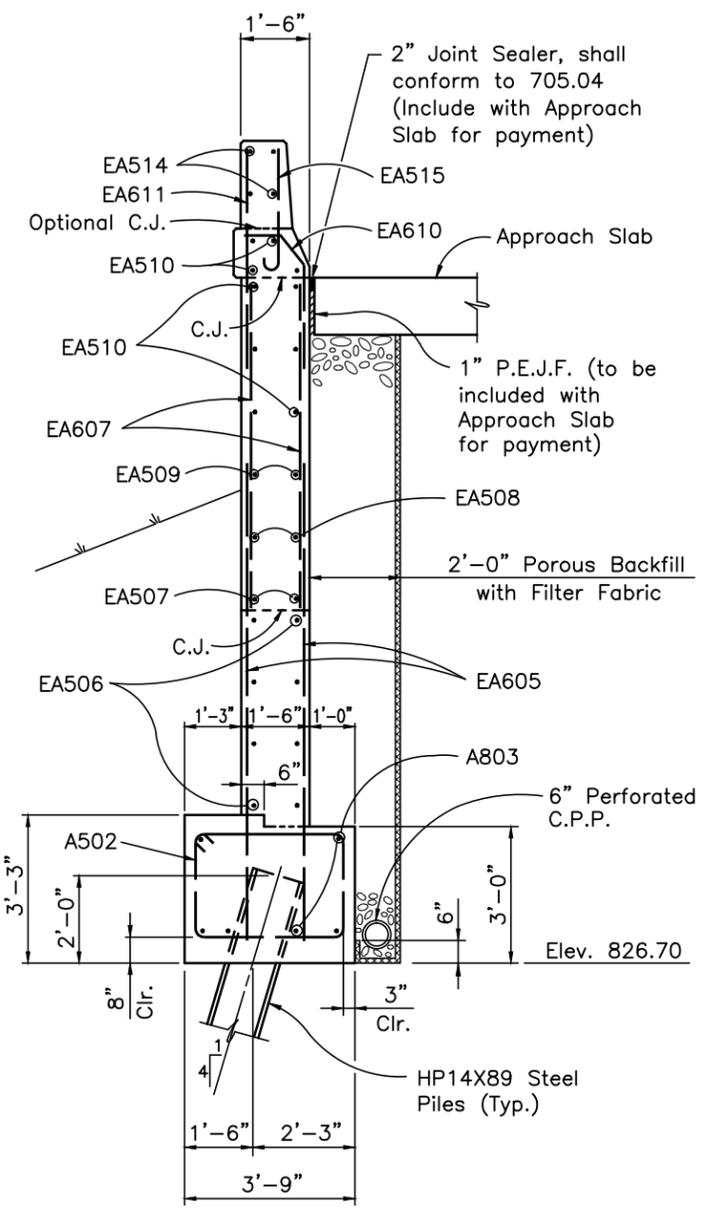
DESIGNED BY: JDV | CHECKED BY: SJR  
 DATE: 2-4-98 | DATE: 3-12-99  
 DRAWN BY: KRM | REVISED BY:  
 DATE: 2-26-98 | DATE:  
 CAD FILE NAME: 25725-WABUT3C.DWG



**ELEVATION - RIGHT REAR WINGWALL** (As Shown)  
**ELEVATION - LEFT REAR WINGWALL** (Opposite Hand)



**MEDIAN BARRIER ON BACKWALL DETAIL**  
 (SP625 Conduit not Shown)



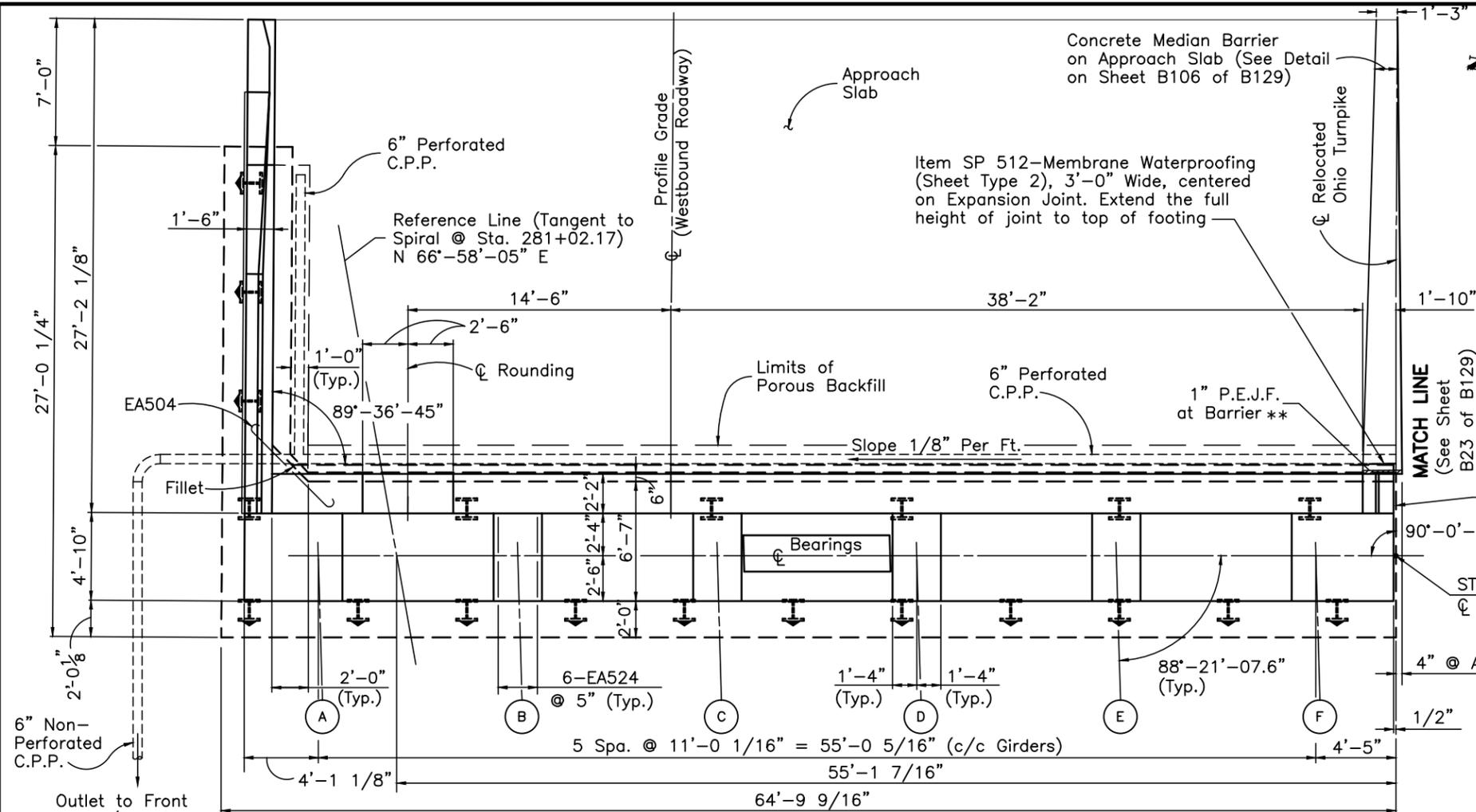
**SECTION C-C**

THOMAS D. Y. FOK, P.E., P.S., PHD  
 SHEETS B19-B25, B107, AND B110 OF B129

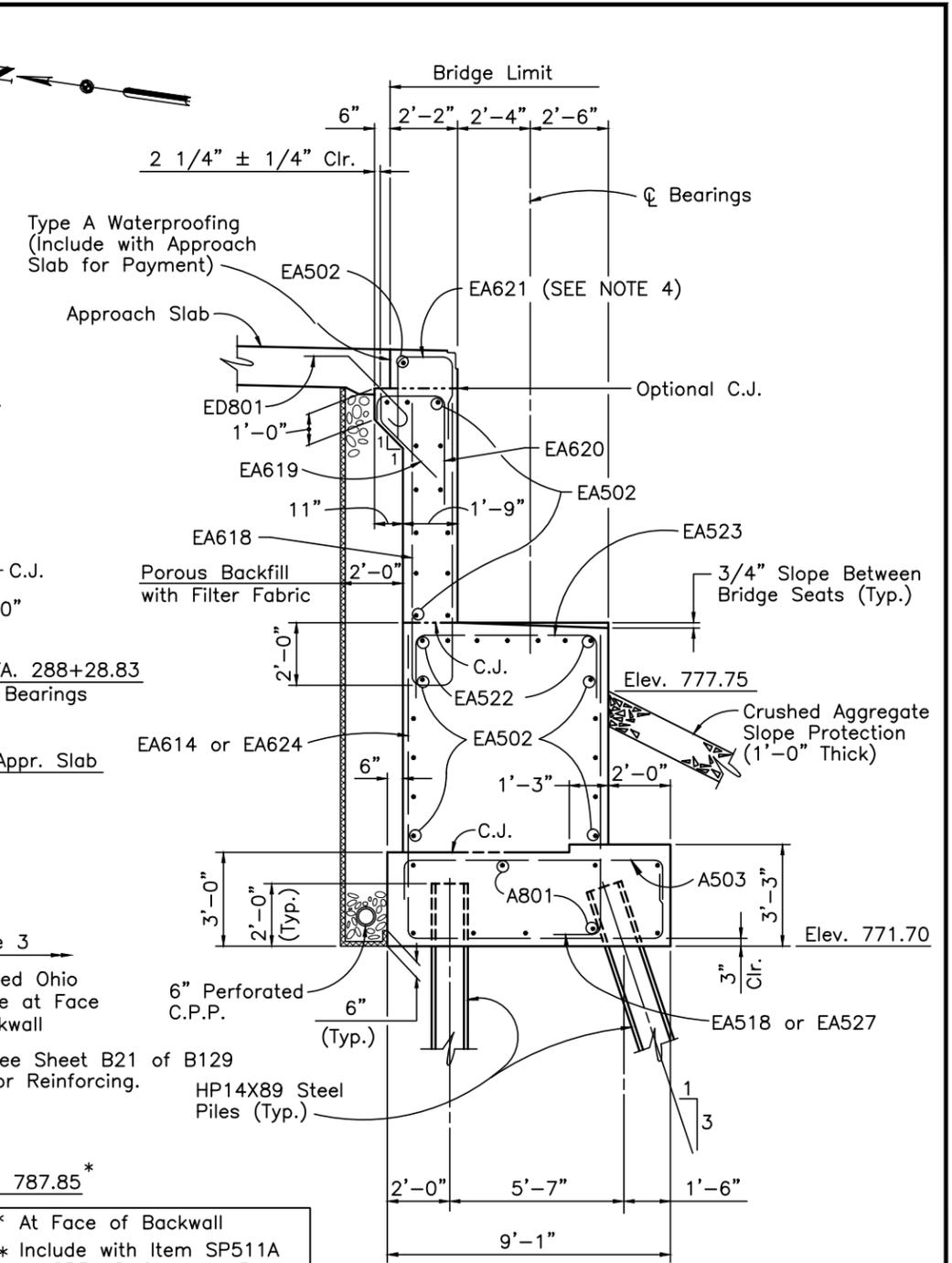
BAR	REQUIRED LAP LENGTH
#5 Bars	2'-6"
#6 Bars	3'-0"

- NOTES**
- FOR ABUTMENT NOTES AND ABBREVIATIONS, SEE SHEET B23 OF B129.
  - FOR ADDITIONAL BRIDGE PARAPET DETAILS, SEE STANDARD BRIDGE DRAWING BR-1, SHEET 2 OF 2.

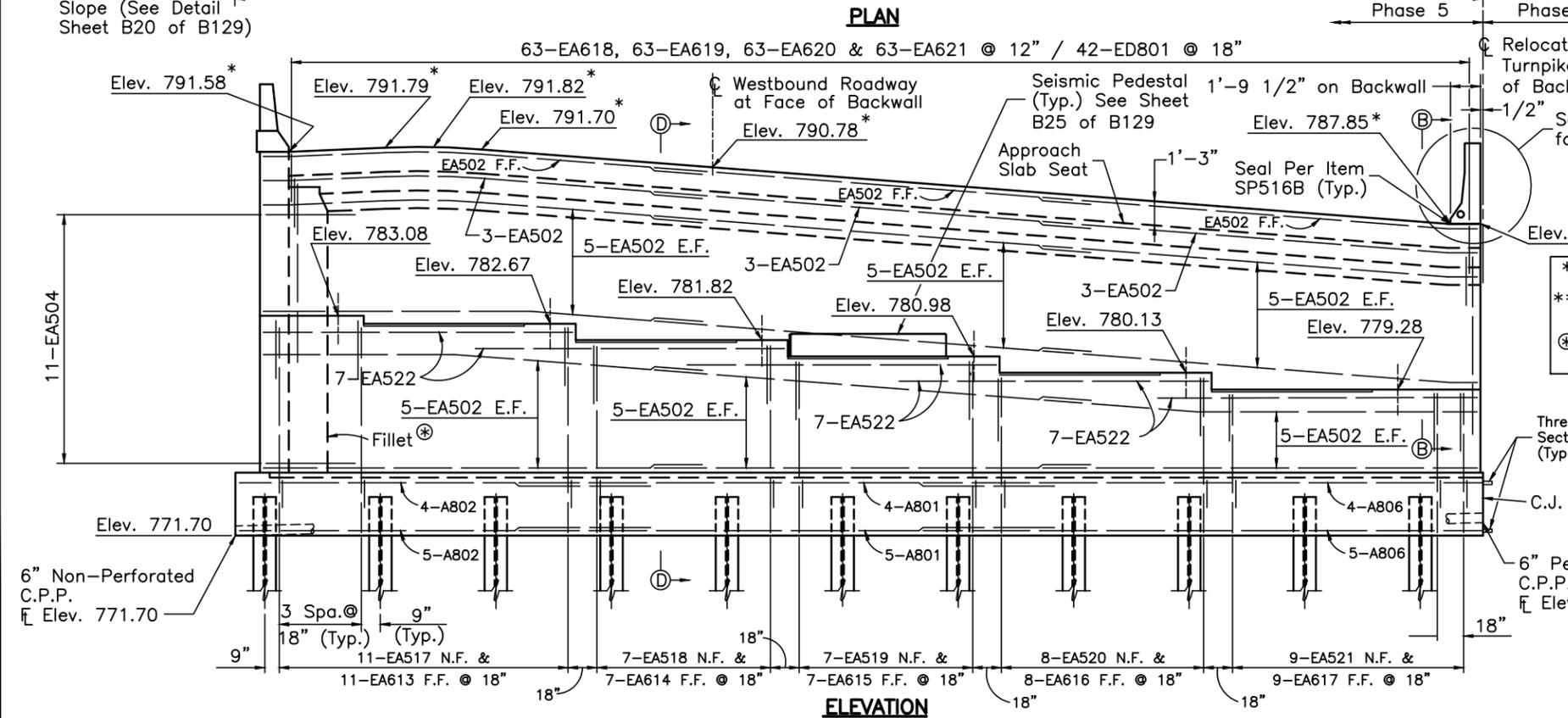
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
REAR ABUTMENT WINGWALL ELEVATION		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
PREPARED FOR: <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
BY: THOMAS FOK & ASSOC., LTD.		
DESIGNED: JDV	CHECKED: SJR	DATE: 12/31/98
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B21 OF B129		



**PLAN**



**SECTION D-D**



**ELEVATION**

\* At Face of Backwall  
 \*\* Include with Item SP511A or SP511D Concrete Barrier  
 ⊕ Top of fillet shall be 6" below Approach Slab

BAR	REQUIRED LAP LENGTH
#5 Bars	2'-6"
#8 Bars	6'-0"

**NOTES**

- FOR ABUTMENT NOTES AND ABBREVIATIONS, SEE SHEET B23 OF B129.
- FOR WINGWALL ELEVATIONS, SEE SHEET B24 OF B129.
- FOR SECTION B-B, SEE SHEET B20 OF B129.
- EA621 BARS SHALL BE FIELD CUT AS DIRECTED BY THE ENGINEER TO AVOID INTERFERENCE WITH MODULAR JOINT. FOR MODULAR JOINT DETAILS SEE SHEET B84 OF B129.

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>FORWARD ABUTMENT PLAN &amp; ELEVATION</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
PREPARED FOR: <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
BY: <b>THOMAS FOK &amp; ASSOC., LTD.</b>		
DESIGNED: JKV	CHECKED: SJR	DATE: 12/31/98
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS
<b>CONTRACT 43-99-01 SHEET B22 OF B129</b>		

DESIGNED BY: JKV CHECKED BY: SJR  
 DATE: 2-4-98 DATE: 3-12-99  
 DRAWN BY: KRM REVISED BY:  
 DATE: 2-26-98 DATE:  
 CAD FILE NAME: 25725-EABUT1.C.DWG

**NOTES**

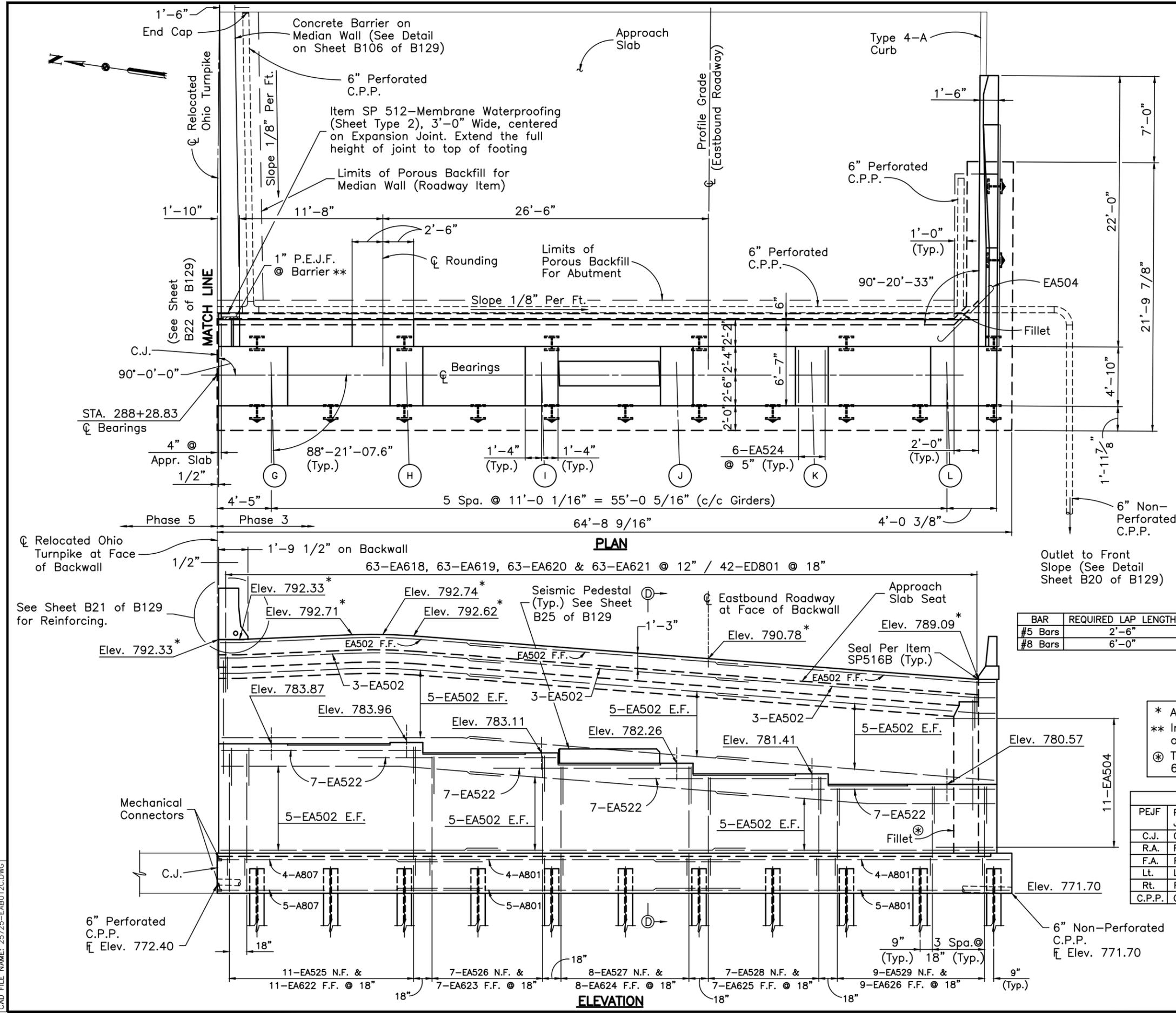
1. ABUTMENT CONCRETE SHALL BE PAID FOR UNDER ITEM SP 511, CLASS C CONCRETE, ABUTMENT. THE ABUTMENT BARRIERS SHALL BE PAID FOR UNDER ITEM SP 511A, CLASS S CONCRETE, WINGWALL BARRIERS, USING TYPE I CEMENT, OR ITEM SP511D, HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE BARRIERS.
2. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO ONE FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.
3. PRIOR TO DRIVING PILES, THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL 2 MONTHS AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.
4. FOR PILING PLAN SEE SHEET B14 AND B18 OF B129.
5. FOR FORWARD APPROACH SLAB DETAIL, SEE SHEET B107 OF B129.
6. SURFACE UNDER BEARINGS: SPECIAL CARE SHALL BE TAKEN TO FINISH THE CONCRETE UNDER BEARINGS TO A FLAT, LEVEL SURFACE. THE CONCRETE SURFACE SHALL BE STEEL TROWEL FINISHED WITHOUT BRUSHING AND THE FLATNESS OF THE FINISHED SURFACE SHALL NOT VARY FROM A STRAIGHT EDGE LAID ON THE SURFACE IN ANY DIRECTION WITHIN THE LIMITS OF THE BEARING FOOTPRINT BY MORE THAN 1/16 INCH. SURFACES WHICH FAIL TO CONFORM TO THE REQUIRED FLATNESS SHALL BE GROUND UNTIL ACCEPTABLE.
7. BACKWALL CONCRETE: IN ADDITION TO THE PROVISIONS OF 511.08, BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT SHALL NOT BE PLACED UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
8. FOR DETAILS OF 4" STRIP SEAL EXPANSION JOINT AT REAR ABUTMENT, SEE SHEET B81 OF B129, AND OTC STANDARD DRAWING DJ-2 AND DJ-4.
9. FOR DETAILS OF MODULAR EXPANSION JOINT AT FORWARD ABUTMENT, SEE MODULAR JOINT DETAILS, SHEET B84 AND B85 OF B129.
10. ALL REINFORCEMENT IN THE ABUTMENTS SHALL BE PREFIXED "A". THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL. FOR ABUTMENT REINFORCING SCHEDULE, SEE SHEET B110 OF B129.
11. FOR WINGWALL ELEVATIONS, SEE SHEET B24 OF B129.
12. FOR SECTION D-D, SEE SHEET B22 OF B129.
13. FOR ABUTMENT BEARING DETAILS, SEE SHEET B47 OF B129.

BAR	REQUIRED LAP LENGTH
#5 Bars	2'-6"
#8 Bars	6'-0"

\* At Face of Backwall  
 \*\* Include with Item SP511A or SP511D Concrete Barrier  
 ⊕ Top of fillet shall be 6" below Approach Slab

ABBREVIATIONS	
PEJF	PREFORMED EXPANSION JOINT FILLER
C.J.	CONSTRUCTION JOINT
R.A.	REAR ABUTMENT
F.A.	FORWARD ABUTMENT
Lt.	LEFT
Rt.	RIGHT
C.P.P.	CORRUGATED PLASTIC PIPE

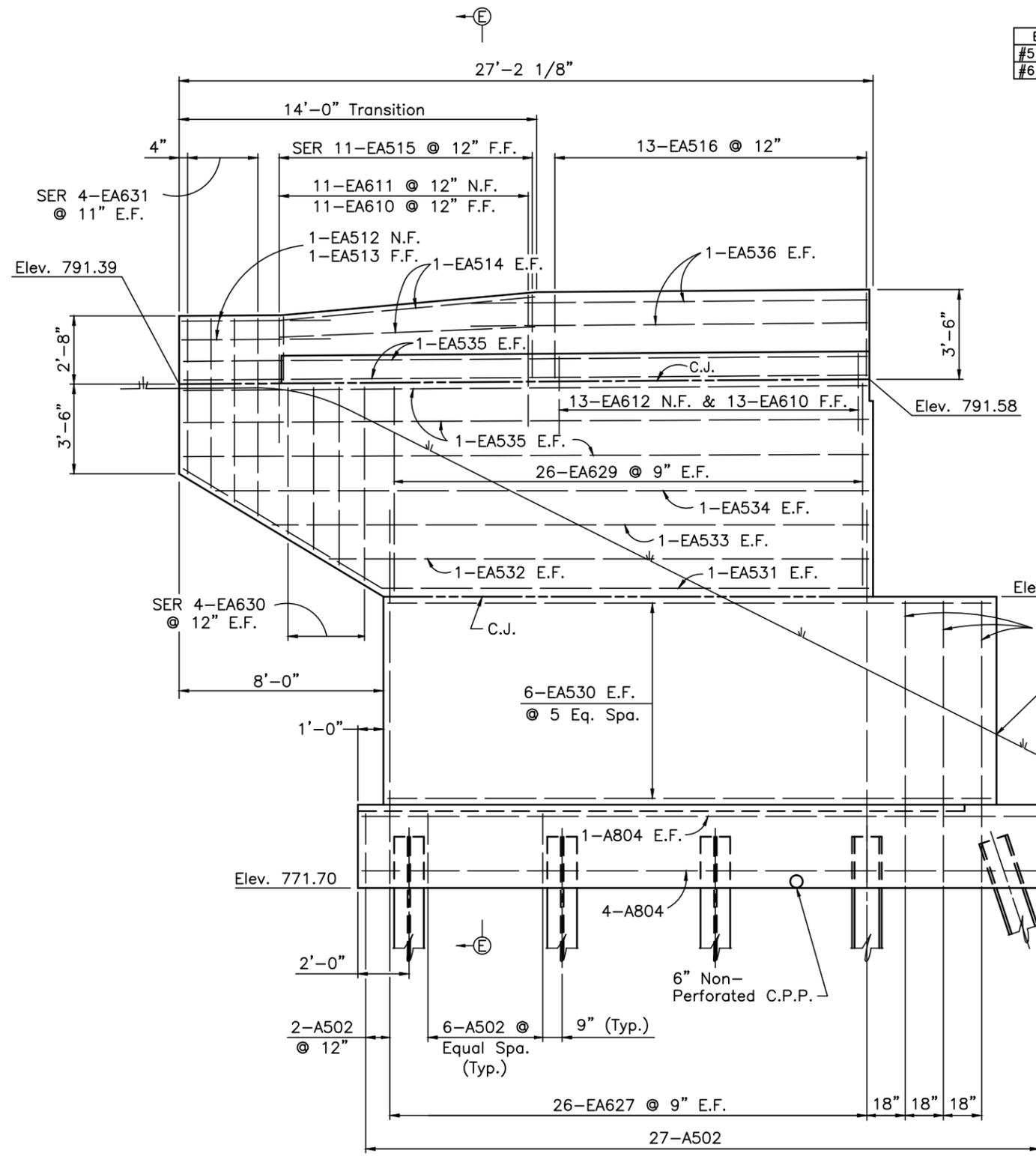
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
FORWARD ABUTMENT PLAN & ELEVATION		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
PREPARED FOR: <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
BY: <b>THOMAS FOK &amp; ASSOC., LTD.</b>		
DESIGNED: JDV	CHECKED: SJR	DATE: 12/31/98
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B23 OF B129		



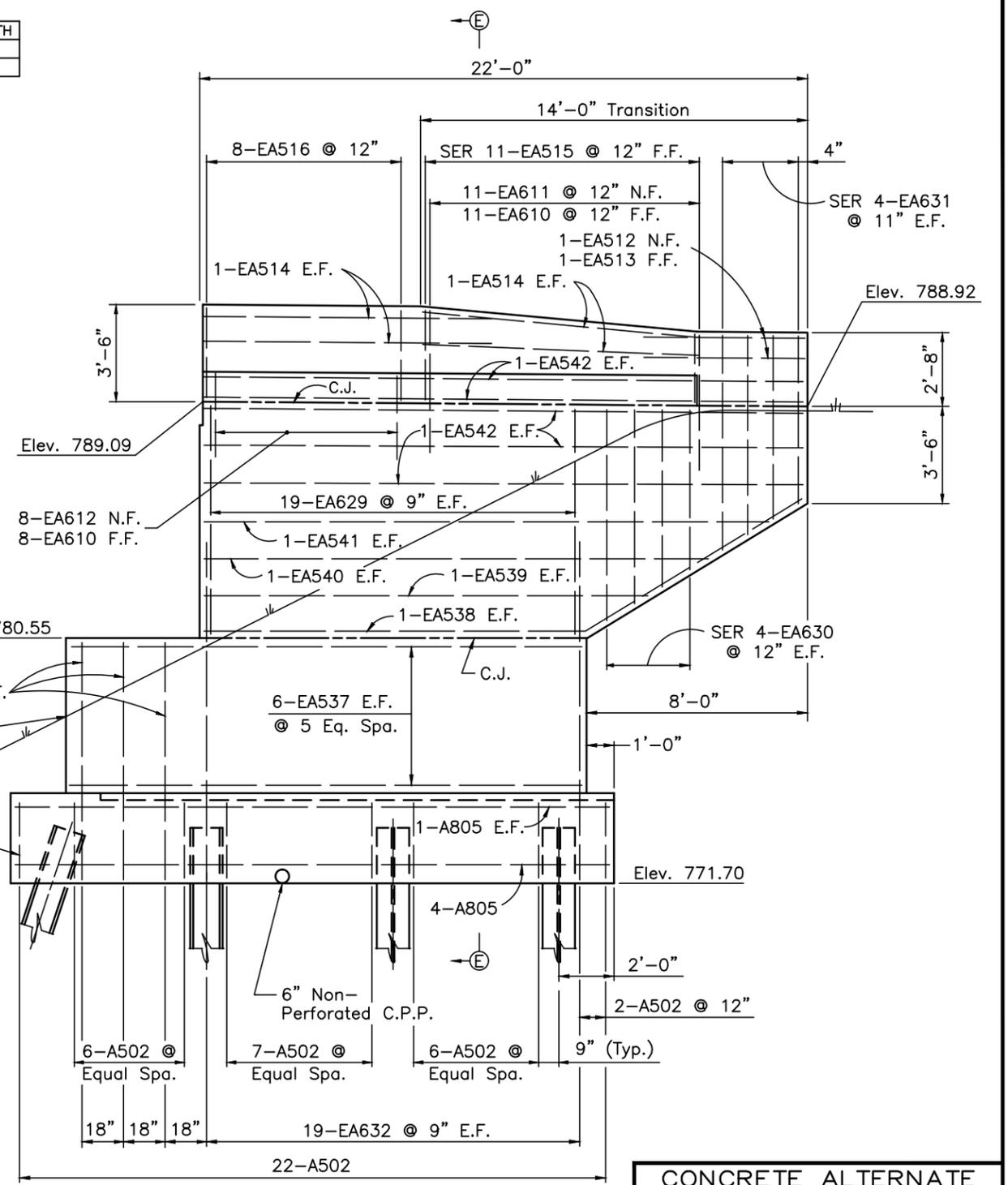
DESIGNED BY: JDV | CHECKED BY: SJR  
 DATE: 2-4-98 | DATE: 3-12-99  
 DRAWN BY: KRM | REVISED BY:  
 DATE: 2-26-98 | DATE:  
 CAD FILE NAME: 25725-EABUT2C.DWG

DESIGNED BY: JDV | CHECKED BY: SJR  
 DATE: 2-4-98 | DATE: 3-12-99  
 DRAWN BY: KRM | REVISED BY:  
 DATE: 2-26-98 | DATE:  
 CAD FILE NAME: 25725-EABU13C.DWG

BAR	REQUIRED LAP LENGTH
#5 Bars	2'-6"
#6 Bars	3'-0"



**ELEVATION - LEFT FORWARD WINGWALL**



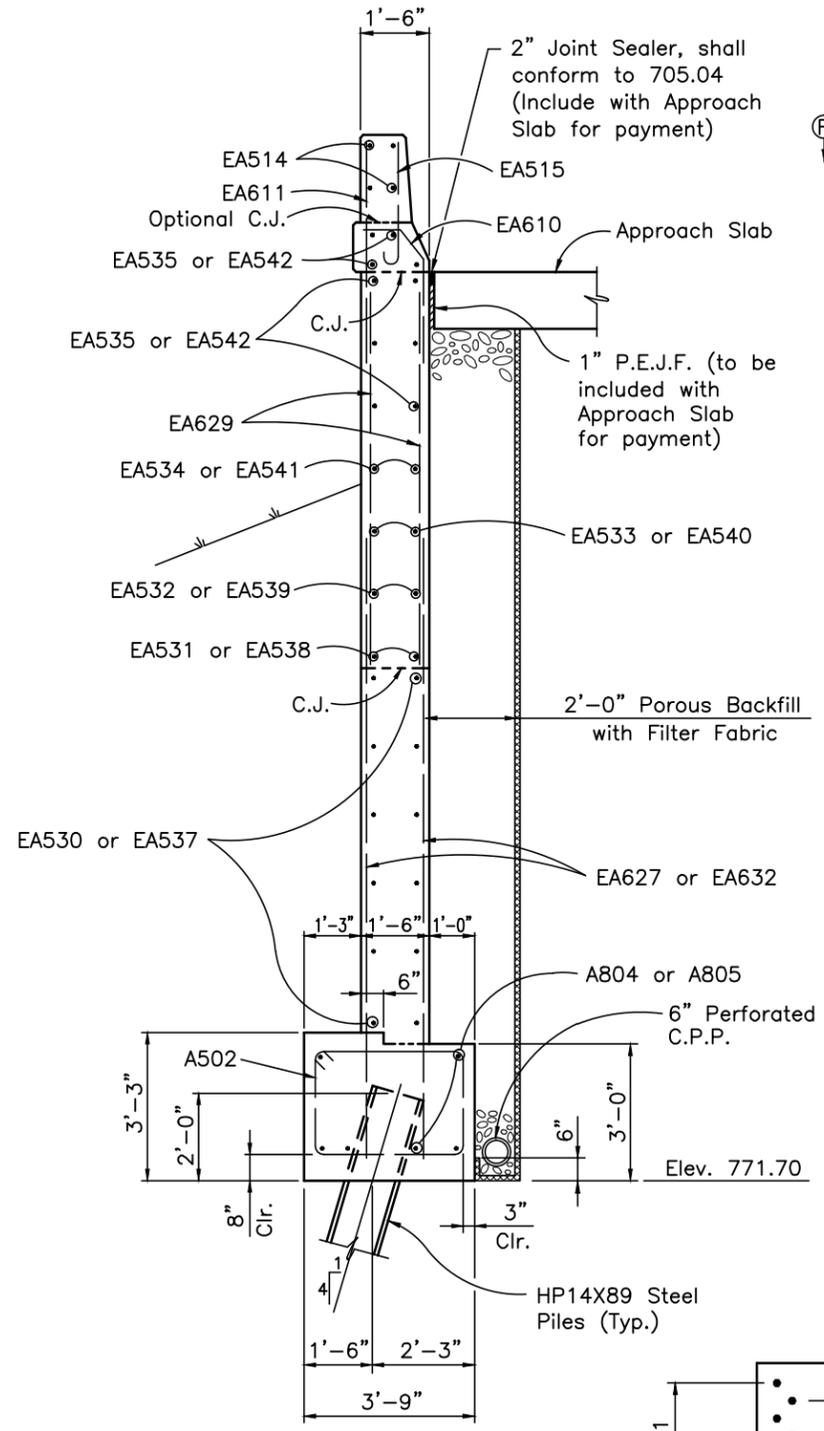
**ELEVATION - RIGHT FORWARD WINGWALL**

**NOTES**

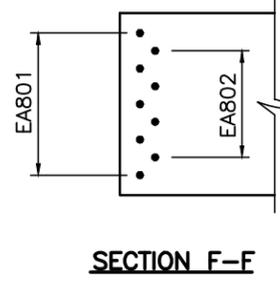
- FOR ABUTMENT NOTES AND ABBREVIATIONS, SEE SHEET B23 OF B129.
- FOR SECTION E-E, SEE SHEET B25 OF B129.
- FOR ADDITIONAL BRIDGE PARAPET DETAILS, SEE STANDARD BRIDGE DRAWING BR-1, SHEET 2 OF 2.

<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
FORWARD ABUTMENT WINGWALL ELEVATIONS			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
PREPARED FOR: <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>			
BY: <b>THOMAS FOK &amp; ASSOC., LTD.</b>			
DESIGNED: JDV	CHECKED: SJR	DATE: 12/31/98	
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS	
<b>CONTRACT 43-99-01 SHEET B24 OF B129</b>			

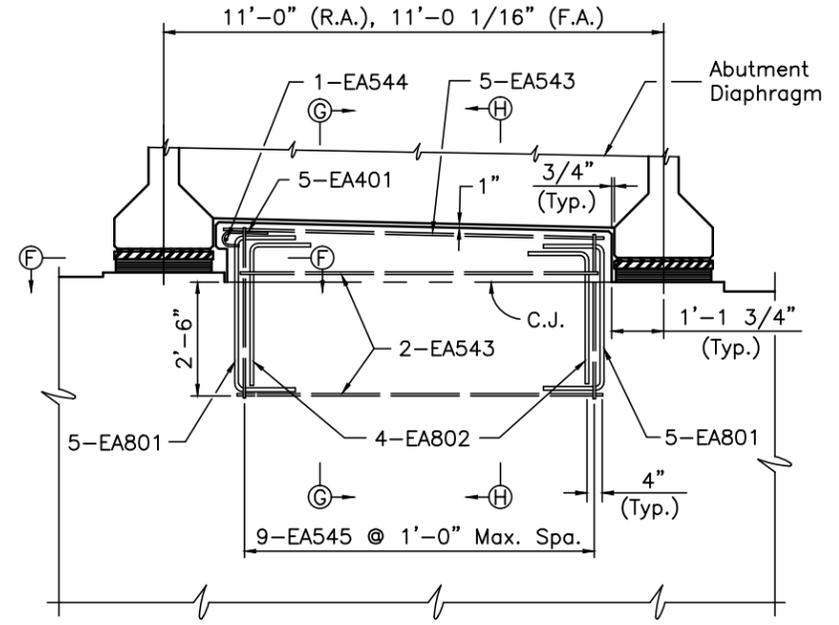
DESIGNED BY: JDV | CHECKED BY: SJR  
 DATE: 2-4-98 | DATE: 3-12-99  
 DRAWN BY: KRM | REVISED BY:  
 DATE: 2-26-98 | DATE:  
 CAD FILE NAME: 25725-EABUT14C.DWG



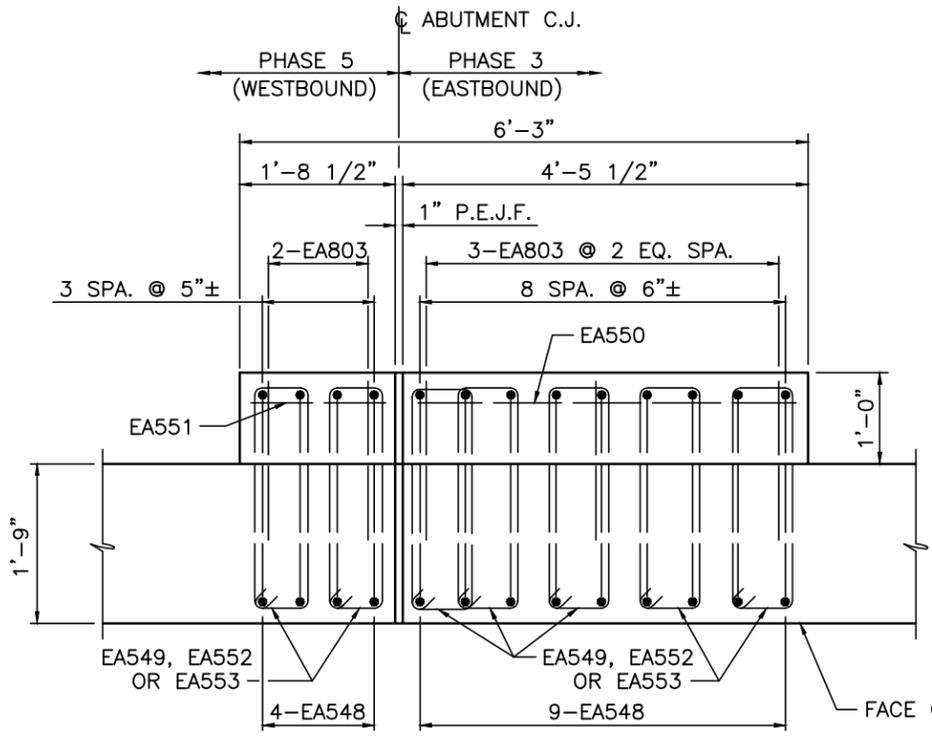
**SECTION E-E**  
(FORWARD ABUTMENT)



**SECTION F-F**

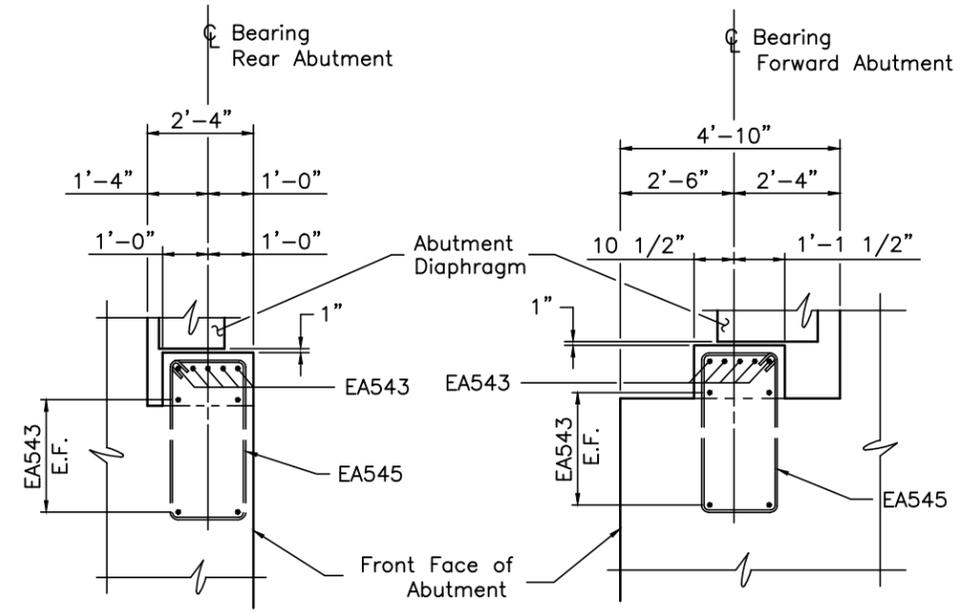


**SEISMIC PEDESTAL DETAIL**  
(SEE NOTE 2)



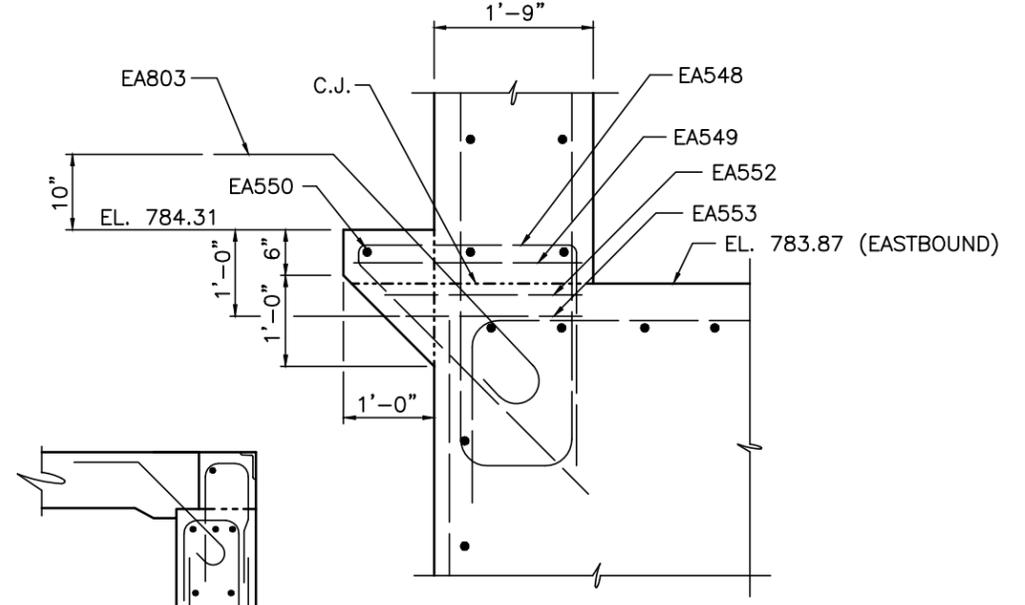
**PLAN @ CORBEL SUPPORT**  
FORWARD ABUTMENT

- NOTES:**
- FOR ABUTMENT NOTES AND ABBREVIATIONS, SEE SHEET B23 OF B129.
  - FOR LOCATIONS OF SEISMIC PEDESTALS, SEE SHEETS B19, B20, B22, OR B23 OF B129.

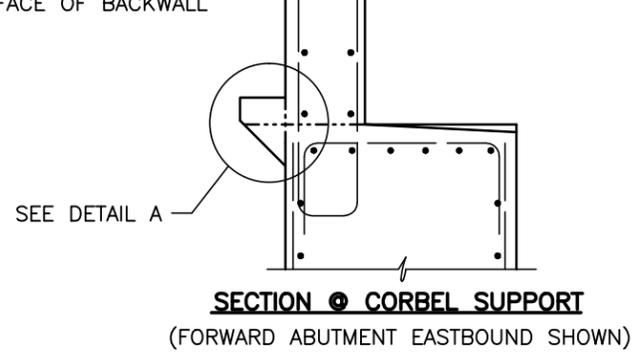


**SECTION G-G**

**SECTION H-H**

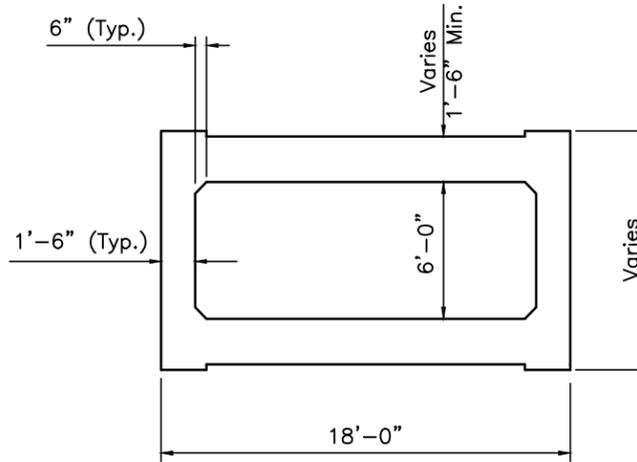
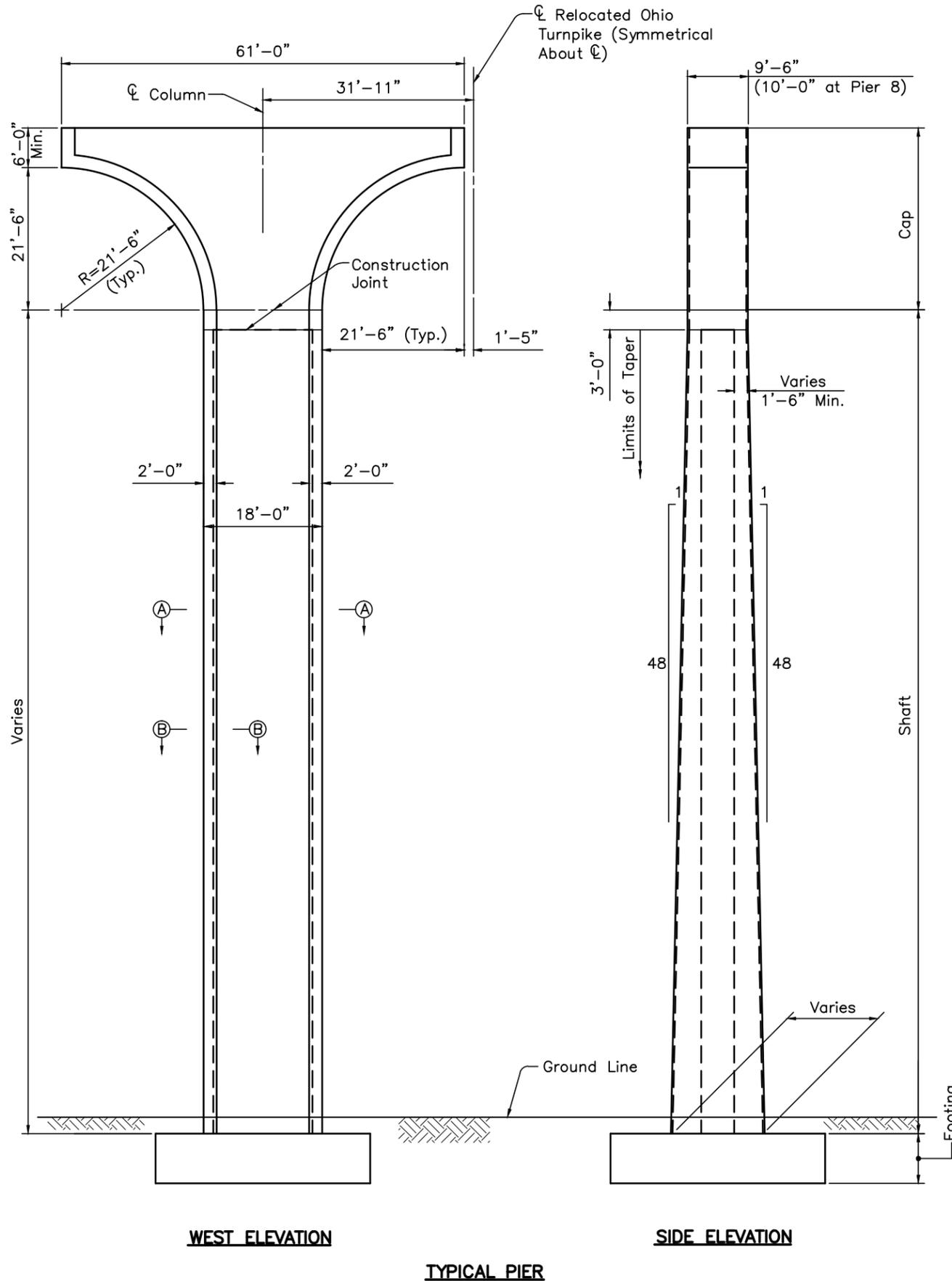


**DETAIL A**

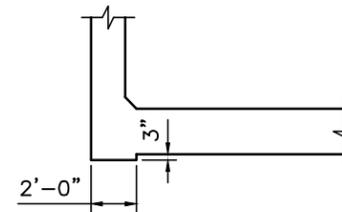


**SECTION @ CORBEL SUPPORT**  
(FORWARD ABUTMENT EASTBOUND SHOWN)

<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>ABUTMENT DETAILS</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
PREPARED FOR: <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>			
BY: <b>THOMAS FOK &amp; ASSOC., LTD.</b>			
DESIGNED: JDV	CHECKED: SJR	DATE: 12/31/98	
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B25 OF B129			



SECTION A-A



SECTION B-B

PIER REINFORCEMENT PREFIX TABLE

PIER	PREFIX
1R	P1R OR EP1R
1L	P1L OR EP1L
2R	P2R OR EP2R
2L	P2L OR EP2L
3R	P3R OR EP3R
3L	P3L OR EP3L
4R	P4R OR EP4R
4L	P4L OR EP4L
5R	P5R OR EP5R
5L	P5L OR EP5L
6R	P6R OR EP6R
6L	P6L OR EP6L
7R	P7R OR EP7R
7L	P7L OR EP7L
8R	P8R OR EP8R
8L	P8L OR EP8L
9R	P9R OR EP9R
9L	P9L OR EP9L
10R	P10R OR EP10R
10L	P10L OR EP10L
11R	P11R OR EP11R
11L	P11L OR EP11L
12R	P12R OR EP12R
12L	P12L OR EP12L
13R	P13R OR EP13R
13L	P13L OR EP13L
14R	P14R OR EP14R
14L	P14L OR EP14L
15R	P15R OR EP15R
15L	P15L OR EP15L
16R	P16R OR EP16R
16L	P16L OR EP16L
17R	P17R OR EP17R
17L	P17L OR EP17L

EXISTING AND PROPOSED GROUND ELEVATIONS \*

PIER	ELEVATION
1	791.0
2	770.0
3	751.0
4	742.79
5	667.0
6	664.0
7	669.6
8	669.3
9	669.3
10	678.36
11	694.6
12	694.3
13	692.5
14	693.1
15	699.0
16	716.0
17	750.0

\* ELEVATIONS ARE  $\pm$  AND ARE TAKEN AT  $\phi$  PIER AND  $\phi$  RELOCATED OHIO TURNPIKE.

NOTES:

- REQUIRED LAP LENGTHS FOR EPOXY COATED BARS IN THE PIERS SHALL BE AS SHOWN IN THE TABLE BELOW, UNLESS NOTED OTHERWISE.

REQUIRED LAP LENGTHS	
NO. 4 BAR (HORIZ.)	= 1'-10" MINIMUM
NO. 5 BAR (HORIZ.)	= 2'-10" MINIMUM
NO. 5 BAR (VERTICAL)	= 2'-6" MINIMUM
NO. 6 BAR (HORIZ.)	= 3'-4" MINIMUM
NO. 7 BAR (VERTICAL)	= 4'-11" MINIMUM
NO. 8 BAR (HORIZ.)	= 4'-3" MINIMUM
NO. 8 BAR (VERTICAL)	= 5'-2" MINIMUM
NO. 10 BAR (VERTICAL)	= 6'-1" MINIMUM

- SURFACE UNDER BEARINGS: SPECIAL CARE SHALL BE TAKEN TO FINISH THE CONCRETE UNDER BEARINGS TO A FLAT, LEVEL SURFACE. THE CONCRETE SURFACE SHALL BE STEEL TROWEL FINISHED WITHOUT BRUSHING AND THE FLATNESS OF THE FINISHED SURFACE SHALL NOT VARY FROM A STRAIGHT EDGE LAID ON THE SURFACE IN ANY DIRECTION WITHIN THE LIMITS OF THE BEARING FOOTPRINT BY MORE THAN 1/16 INCH. SURFACES WHICH FAIL TO CONFORM TO THE REQUIRED FLATNESS SHALL BE GROUND UNTIL ACCEPTABLE.

- REINFORCEMENT WITH MECHANICAL CONNECTORS IN THE PIERS SHALL BE PLACED SO CONNECTORS ARE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.

- ALL REINFORCEMENT IN THE PIERS IS PREFIXED ACCORDING TO THE PIER REINFORCEMENT PREFIX TABLE.

- THE PREFIX "E" SHALL DENOTE EPOXY COATED BARS.

- CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES, EQUAL IN QUALITY AND DURABILITY TO THE COLUMN CONCRETE, SHALL BE USED NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 10' TO ENSURE A MINIMUM 2" CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE COLUMN DESIGN DIMENSION.

- FOR BEARING DETAILS, SEE SHEETS B47 AND B48 OF B129.

- FOR FOOTING AND PILE LAYOUT PLAN, SEE SHEETS B14 THROUGH B18 OF B129.

CONCRETE ALTERNATE

RECORD DRAWING	11/3/04
NO.	REVISIONS BY DATE

OHIO TURNPIKE COMMISSION

COMMON PIER DETAILS

OHIO TURNPIKE OVER CUYAHOGA RIVER  
SUMMIT COUNTY MP 176.9

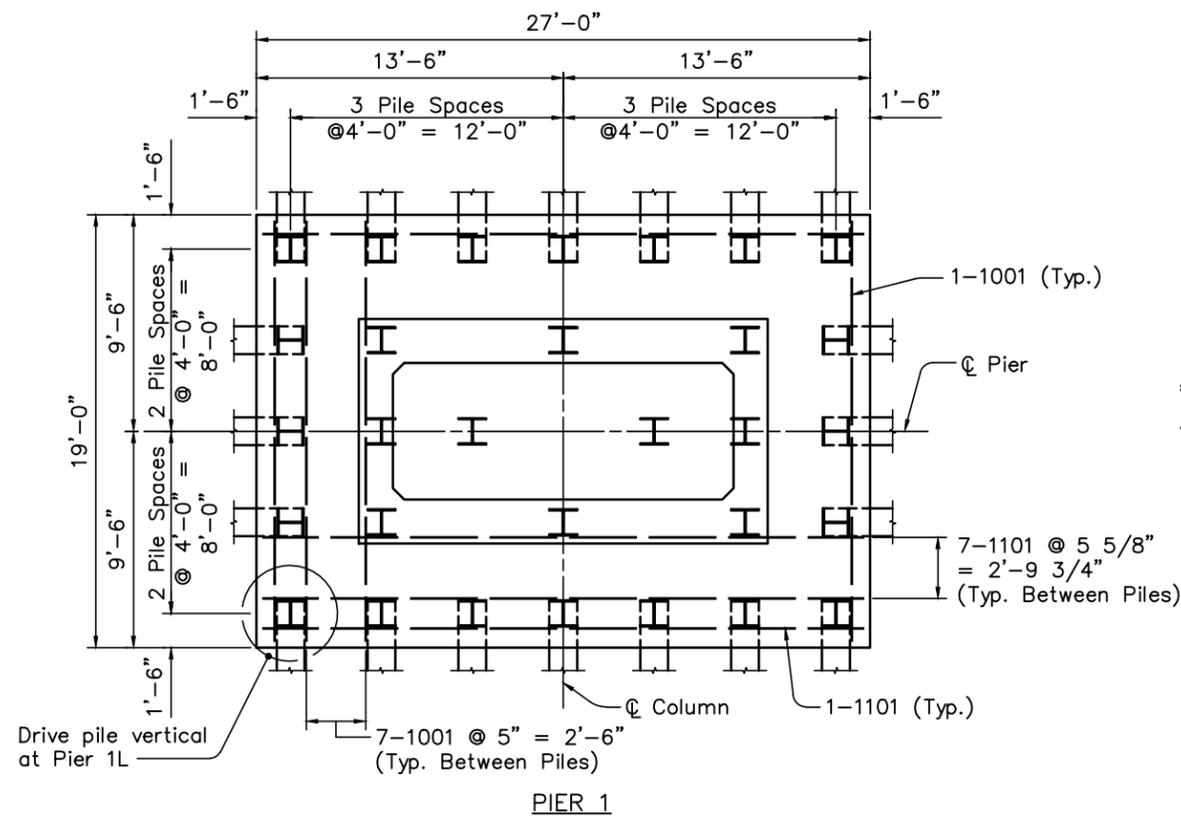
**HNTB** ARCHITECTS ENGINEERS PLANNERS  
1375 EAST 9th STREET  
CLEVELAND, OHIO 44114-1724

DESIGNED: MJL	CHECKED: GLG	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: N.T.S.

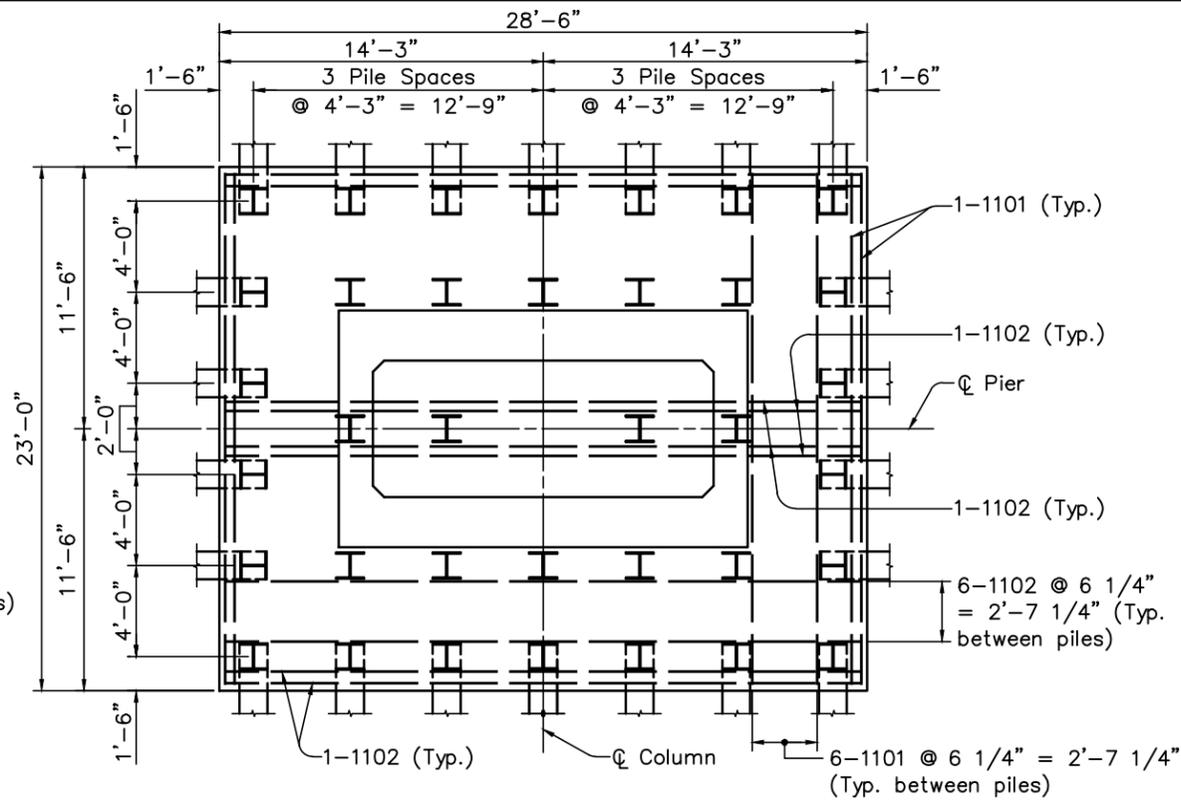
CONTRACT 43-99-01 SHEET B26 OF B129

DESIGNED BY: MJL CHECKED BY: GLG  
DATE: 1/29/98 DATE: 5/5/98  
DRAWN BY: CMB REVISIONS BY:  
DATE: 4/17/98 DATE:  
CAD FILE NAME: 25725 - PIERCOM1

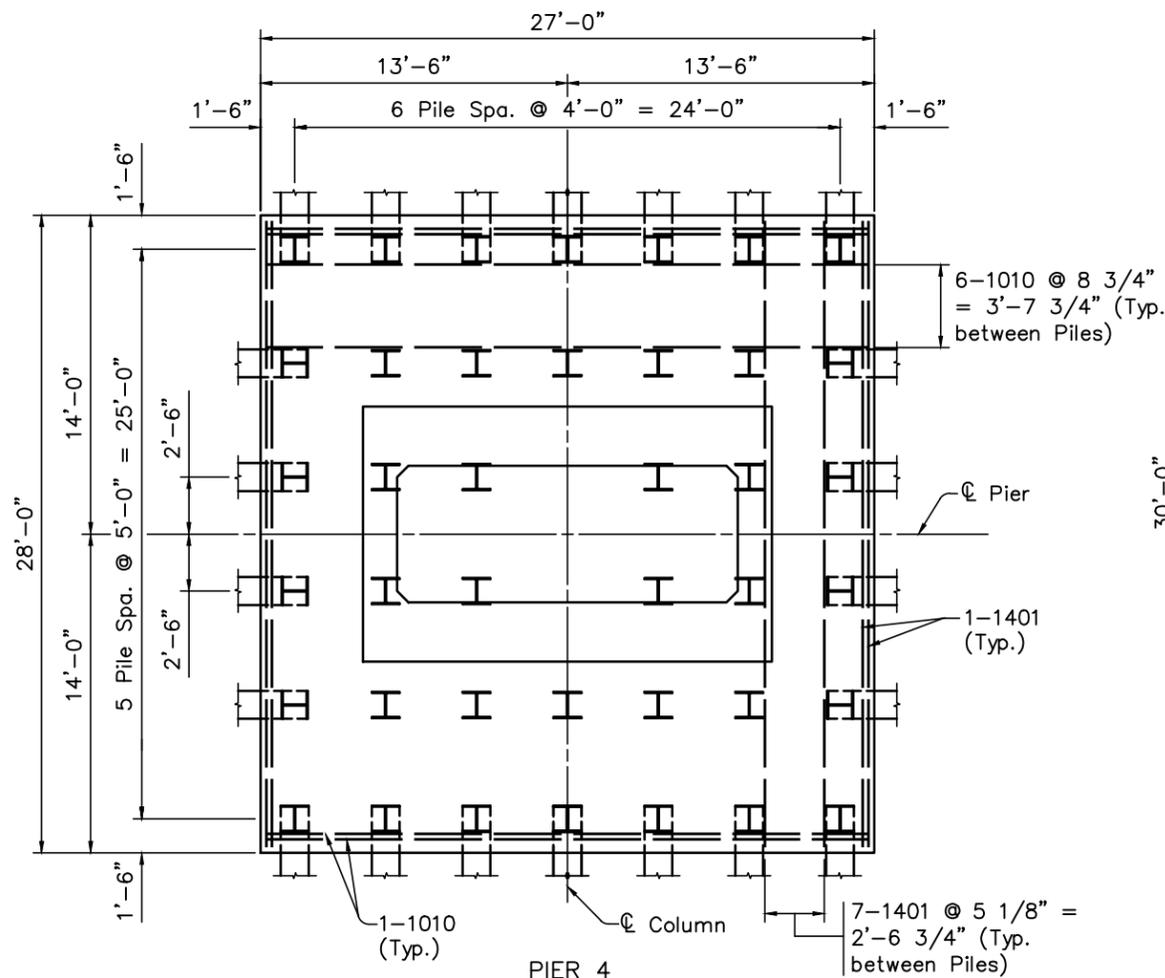
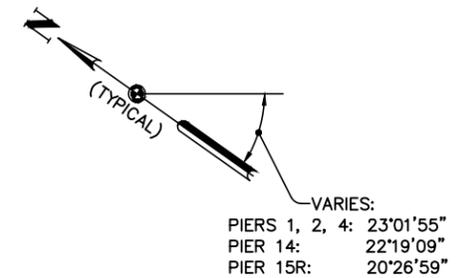
"R" SUFFIX DESIGNATES RIGHT (EASTBOUND) PIER  
"L" SUFFIX DESIGNATES LEFT (WESTBOUND) PIER



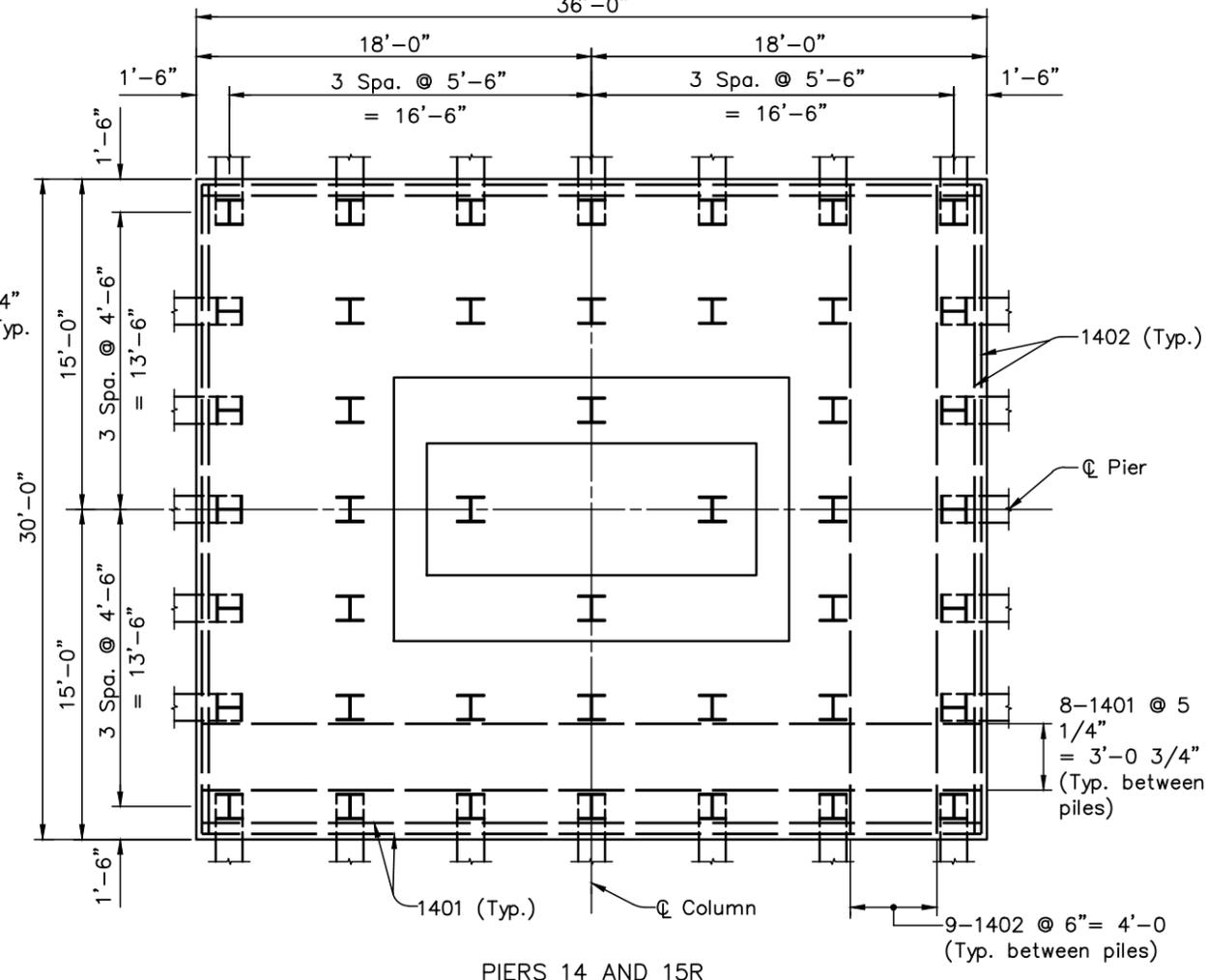
PIER 1



PIER 2



PIER 4



PIERS 14 AND 15R

- NOTES:
- ALL REINFORCING BARS IN PIER FOOTINGS SHALL BE UNCOATED BARS.
  - FOR COMMON PIER DETAILS AND PIER REINF. PREFIX TABLE, SEE SHEET B26 OF B129.
  - FOR FOOTING LAYOUT AND PILING DETAILS, SEE SHEETS B14 THRU B18 OF B129.
  - THE FOLLOWING ABBREVIATIONS ARE USED:  
obt. = ABOUT
  - FOR FOOTING SECTIONS AND PLACEMENT OF FOOTING BARS INCLUDING BARS INTO STEMS, SEE TYPICAL PIER DETAILS, SHEET B29 THRU B37 OF B129.

CONCRETE ALTERNATE

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PIER 1, 2, 4, 14 AND 15R

FOOTING PLAN

OHIO TURNPIKE OVER CUYAHOGA RIVER  
SUMMIT COUNTY MP 176.9

**HNTB** ARCHITECTS ENGINEERS PLANNERS  
1375 EAST 9th STREET  
CLEVELAND, OHIO 44114-1724

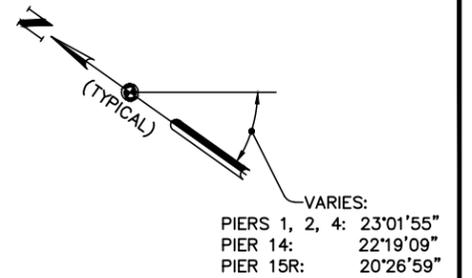
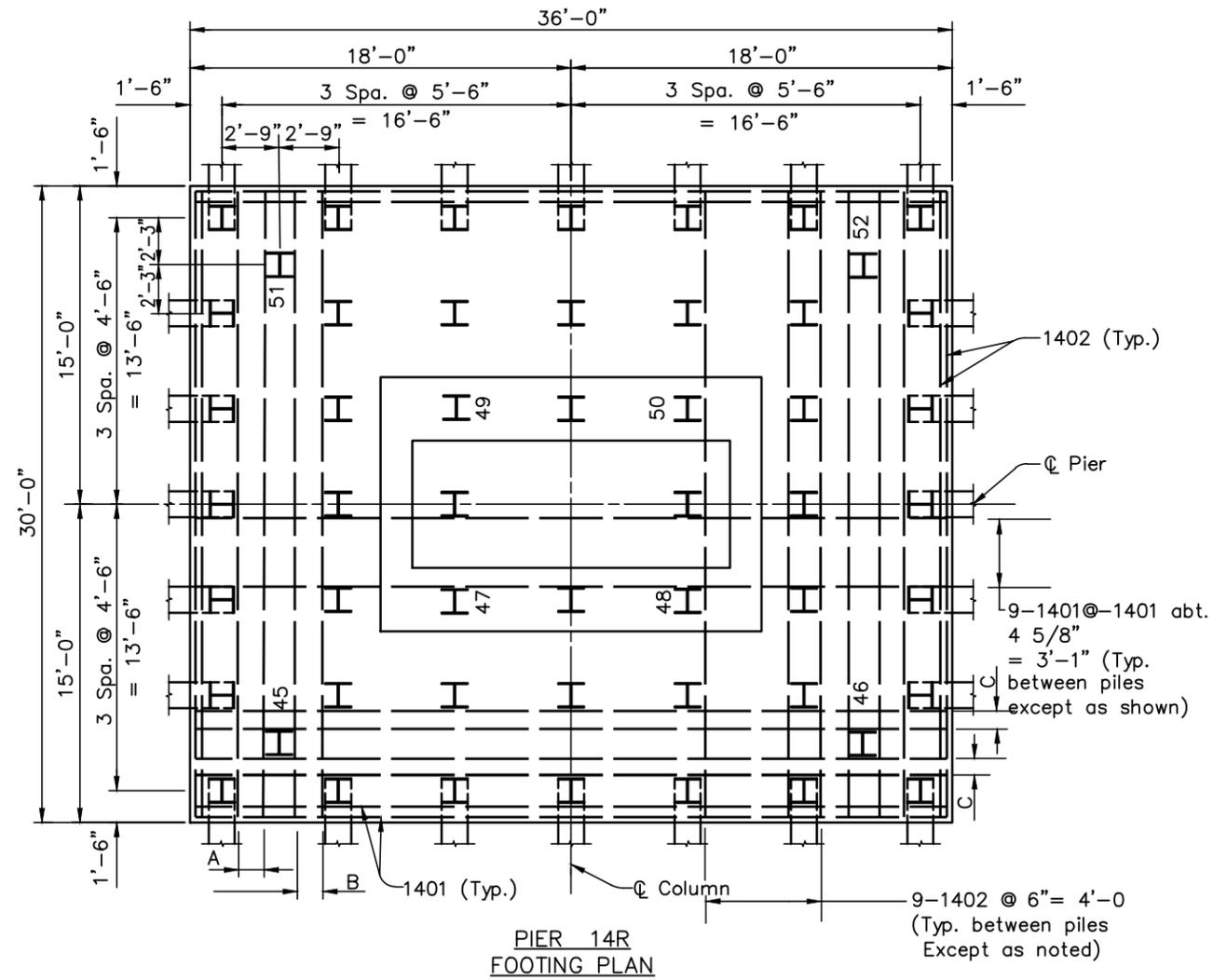
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B27 OF B129

DESIGNED BY: DHS  
DATE: 3/19/98  
DRAWN BY: CMB  
DATE: 4/9/98  
CAD FILE NAME: 25725-FigPlan1.DWG

CHECKED BY: MJL  
DATE: 8/3/98  
REVISOR: MJL  
DATE: 8/3/98

DESIGNED BY: DHS CHECKED BY: MJL  
 DATE: 3/19/98 DATE: 8/3/98  
 DRAWN BY: CMB REVISED BY:  
 DATE: 4/9/98 DATE:  
 CAD FILE NAME: 25725- F14Plan1.DWG



**NOTES:**

1. ALL REINFORCING BARS IN PIER FOOTINGS SHALL BE UNCOATED BARS.
2. FOR COMMON PIER DETAILS AND PIER REINF. PREFIX TABLE, SEE SHEET B26 OF B129.
3. FOR FOOTING LAYOUT AND PILING DETAILS, SEE SHEETS B14 THRU B18 OF B129.
4. THE FOLLOWING ABBREVIATIONS ARE USED:  
 abt. = ABOUT
5. FOR FOOTING SECTIONS AND PLACEMENT OF FOOTING BARS INCLUDING BARS INTO STEMS, SEE TYPICAL PIER DETAILS, SHEET B29 THRU B37 OF B129.

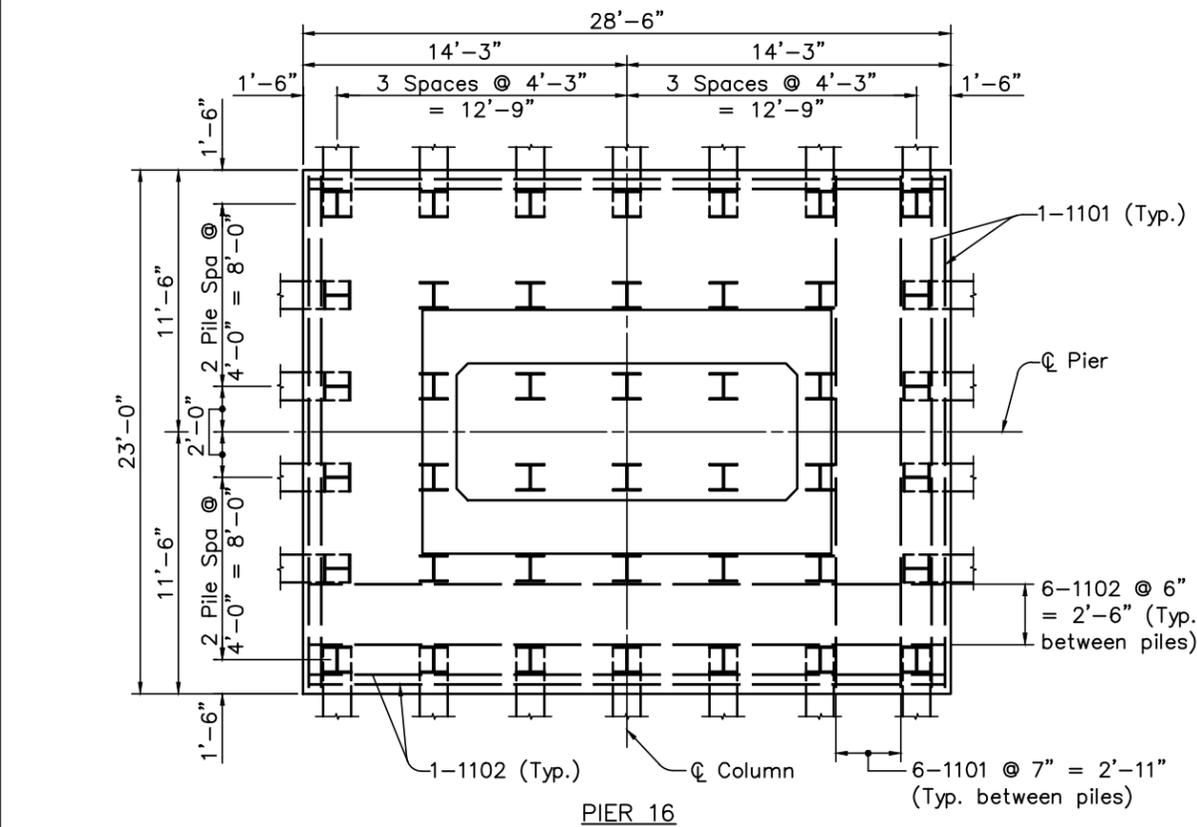
"A" DENOTES 5-1402  
 @ 4 1/4" = 1'-5"  
 "B" DENOTES 5-1402  
 @ 5 1/2" = 1'-4 1/2"  
 "C" DENOTES 5-1402  
 @ 5 1/2" = 0'-11"

PROVIDE 8 ADDITIONAL  
 HP 14 X 89 PILES  
 SPACED AS SHOWN.

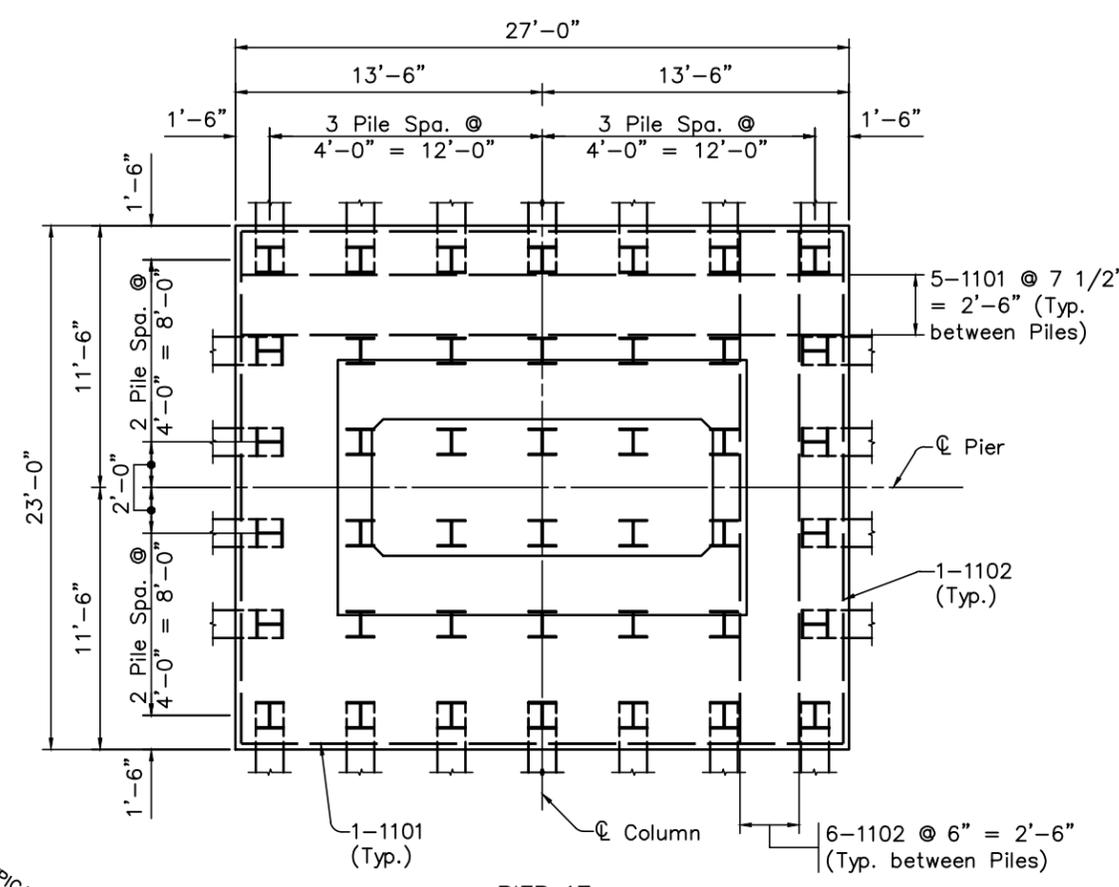
ADJUST REINFORCING  
 AS SHOWN  
 SPACED AS SHOWN.  
 SEE SHEET B17 OF  
 B129 FOR ADDITIONAL  
 NOTES.

<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING			
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>PIER 14R</b>			
<b>FOOTING PLAN</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98	
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B27A OF B129			

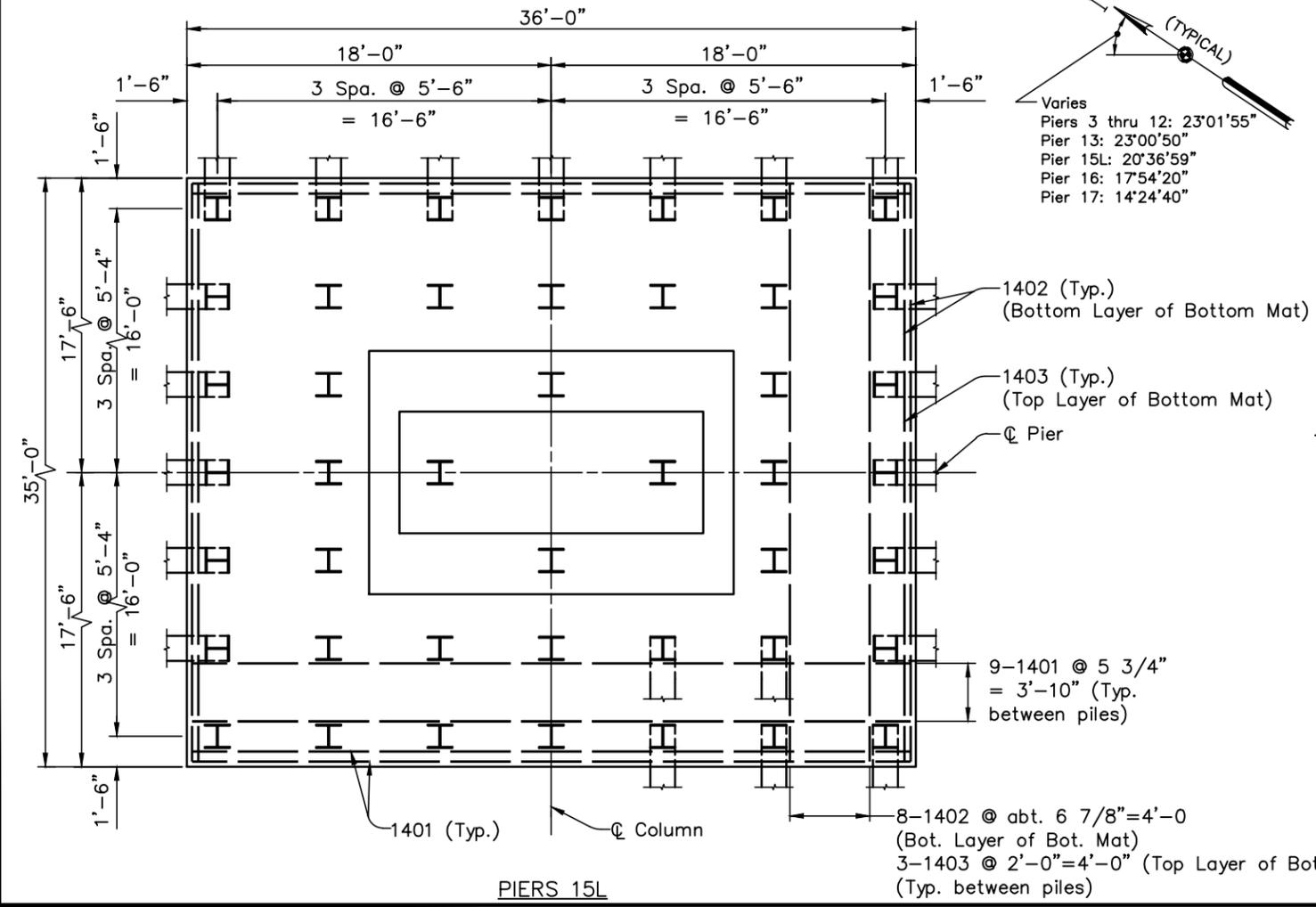
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 DATE: 3/10/98  
 DRAWN BY: CMB  
 DATE: 7/30/98  
 CAD FILE NAME: 25725 - FtpPlan2.DWG



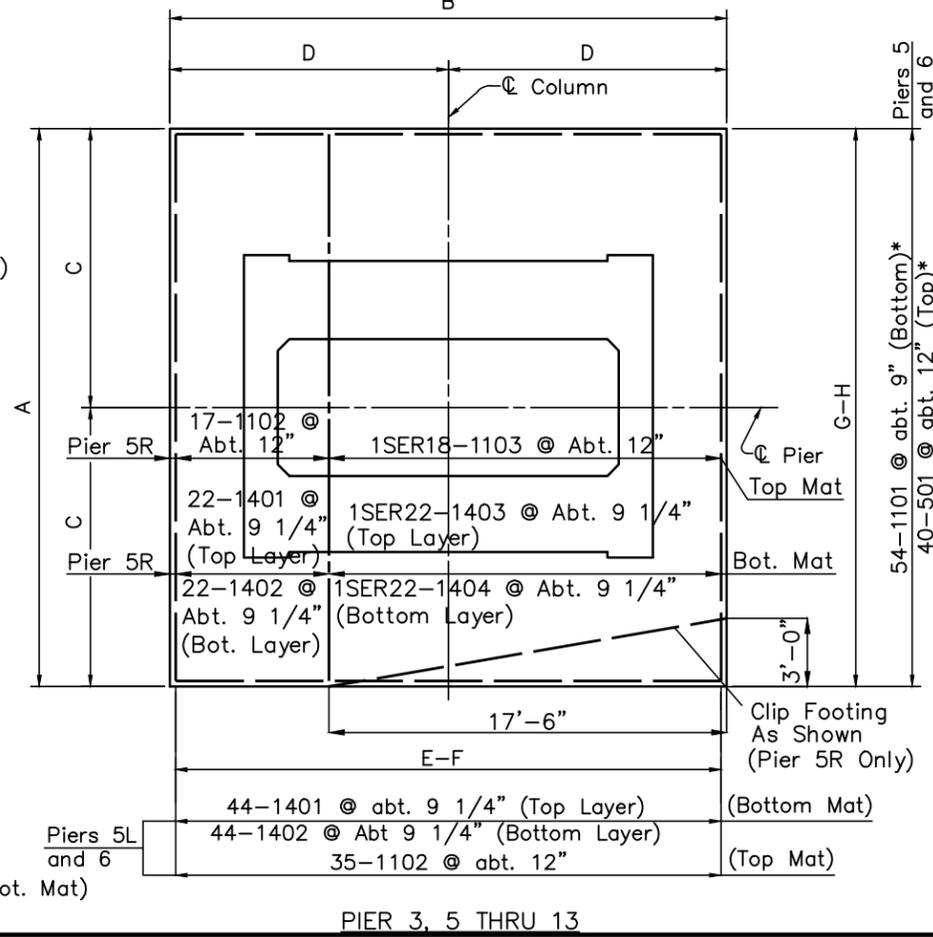
PIER 16



PIER 17



PIERS 15L



PIER 3, 5 THRU 13

SPREAD FOOTING DIMENSION AND REINFORCEMENT TABLE									
PIER	A	B	C	D	E	F	G	H	
3R & 3L	19'-0"	24'-0"	9'-6"	12'-0"	33	901 @ abt. 8 3/4"	26	902 @ abt. 9"	
5R & 5L	40'-0"	34'-0"	20'-0"	17'-0"		See Detail			
6R & 6L	40'-0"	34'-0"	20'-0"	17'-0"		See Detail			
7R & 7L	31'-6"	31'-6"	15'-9"	15'-9"	55	1401 @ abt. 7"	31	1401 @ 12"	
8R & 8L	31'-0"	31'-0"	15'-6"	15'-6"	65	1101 @ abt. 5 3/4"	62	1010 @ 6"	
9R & 9L	30'-0"	30'-0"	15'-0"	15'-0"	64	1101 @ abt. 5 1/2"	58	901 @ abt. 6 1/4"	
10R & 10L	27'-0"	27'-0"	13'-6"	13'-6"	54	1101 @ 6"	38	901 @ abt. 8 1/2"	
11R & 11L	25'-0"	25'-0"	12'-6"	12'-6"	50	1101 @ 6"	34	901 @ abt. 9"	
12R & 12L	25'-0"	25'-0"	12'-6"	12'-6"	50	1101 @ 6"	34	901 @ abt. 9"	
13R & 13L	24'-6"	24'-6"	12'-3"	12'-3"	49	1001 @ 6"	33	901 @ abt. 9"	

\*FAN BARS IN CLIP  
 (PIER 5R ONLY)  
 FOR NOTES SEE SHEET B27 OF B129.

**CONCRETE ALTERNATE**

RECORD DRAWING		
NO.	REVISIONS	BY DATE

**OHIO TURNPIKE COMMISSION**

PIER 3, 5 THRU 13, AND 15L  
 THRU 17 FOOTING PLAN  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

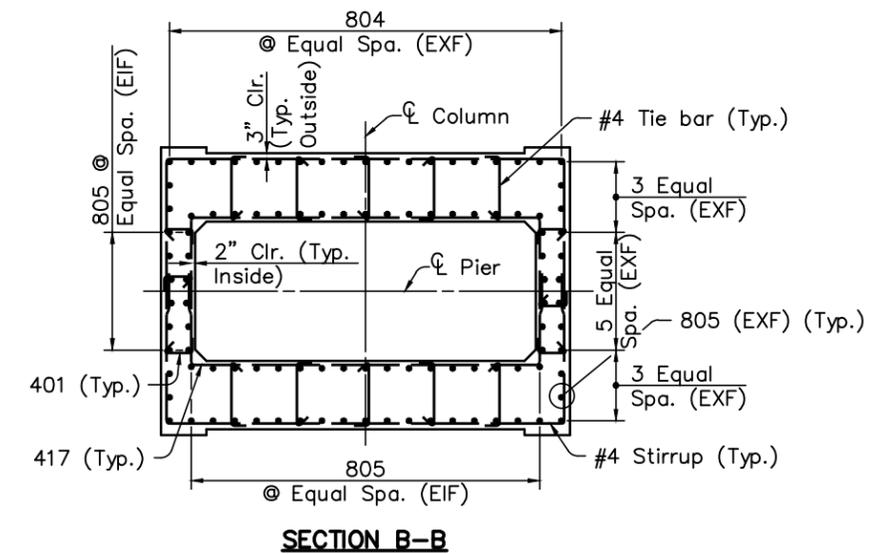
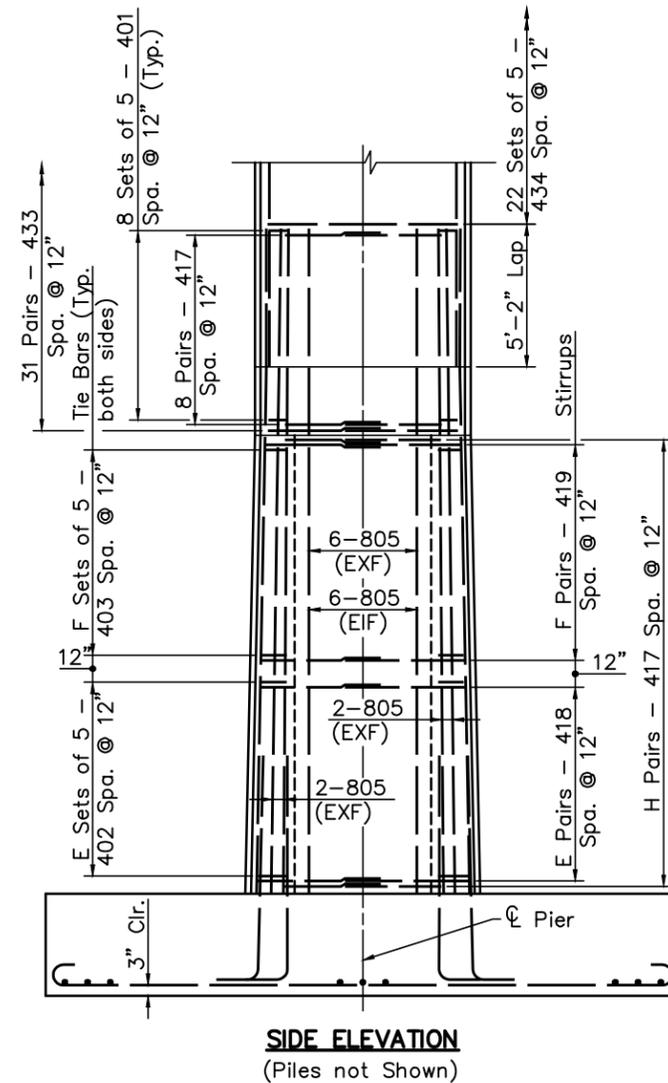
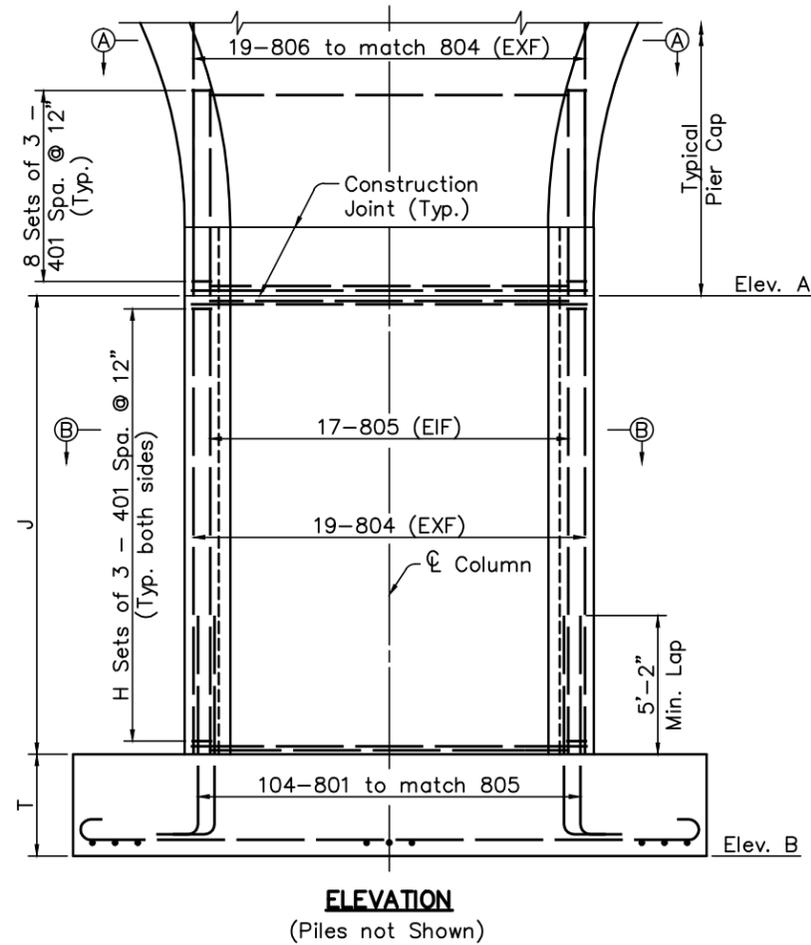
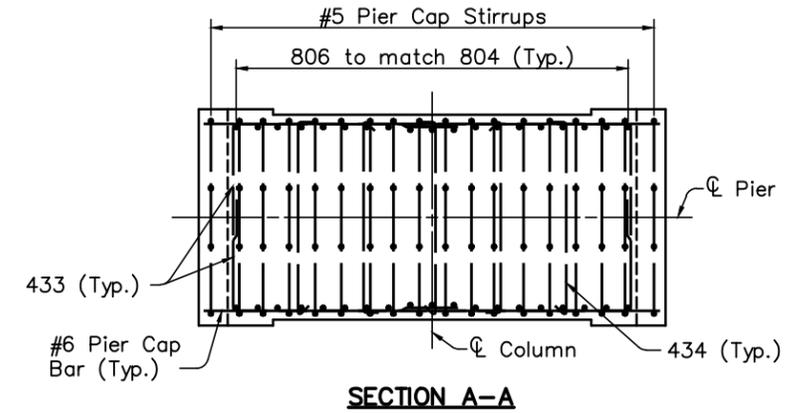
**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B28 OF B129

PIER ELEVATION TABLE		
PIER	ELEV. A	ELEV. B
1R	801.17	780.50
1L	801.23	780.50
17R	749.92	734.00
17L	749.92	734.00

REINFORCEMENT AND DIMENSIONS TABLE					
PIER	E	F	H	T	J
1R	8	10	18	3'-6"	17'-2"
1L	8	10	18	3'-6"	17'-2 3/4"
17R	2	10	12	4'-6"	11'-5"
17L	2	10	12	4'-6"	11'-5"



**LEGEND:**

EXF - EACH EXTERIOR FACE  
EIF - EACH INTERIOR FACE

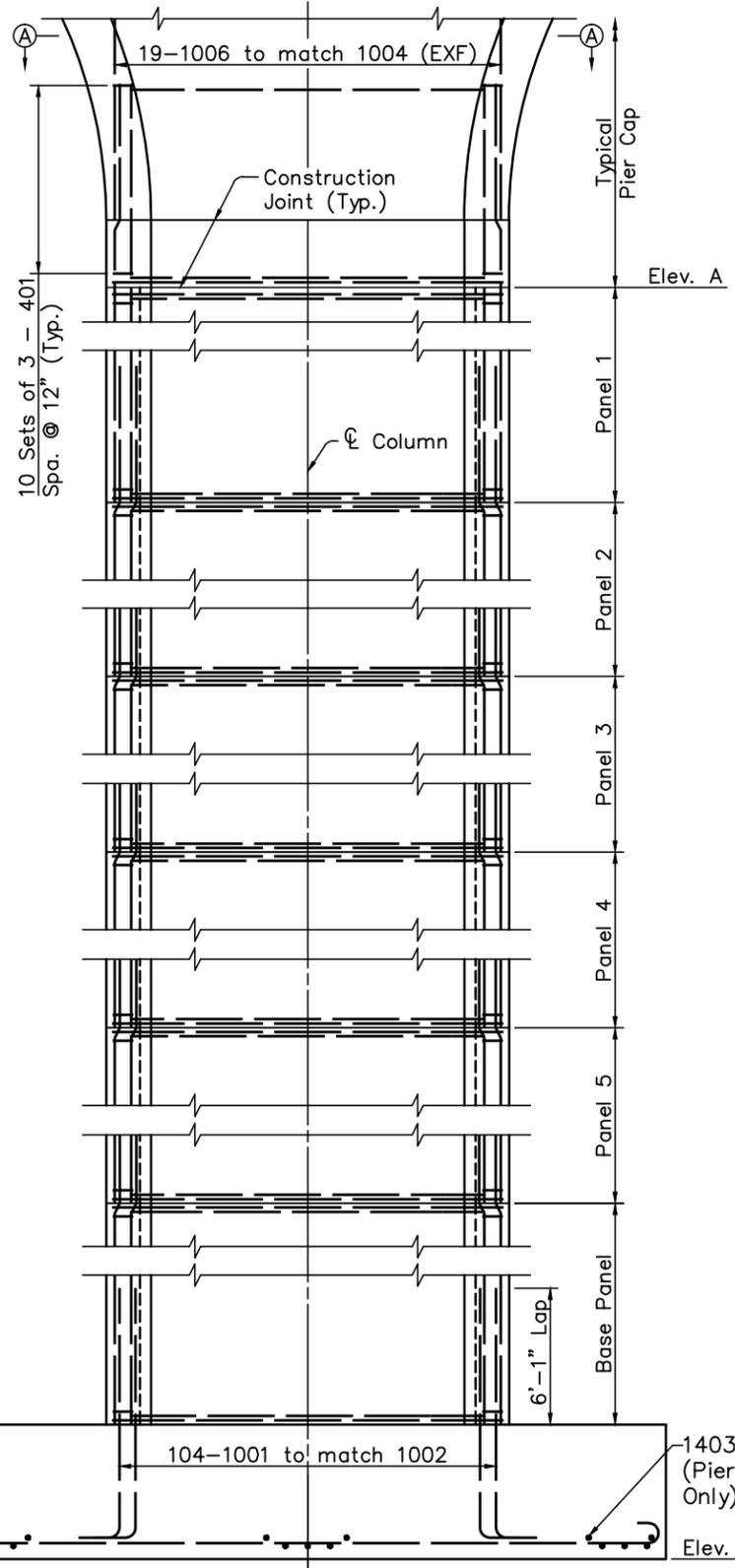
**NOTES:**

- ALL REINFORCING BARS ABOVE FOOTINGS SHALL BE EPOXY COATED.
- ALL PIER REINFORCING BAR MARKS SHALL BE PREFIXED ACCORDING TO THE PIER REINFORCEMENT PREFIX TABLE ON SHEET B26 OF B129.
- FOR ADDITIONAL DETAILS AND NOTES SEE SHEET B26 OF B129.
- FOR FOOTING PLAN, SEE SHEETS B27 AND B28 OF B129.
- FOR TYPICAL PIER CAP DETAILS, SEE SHEETS B38 AND B42 OF B129.

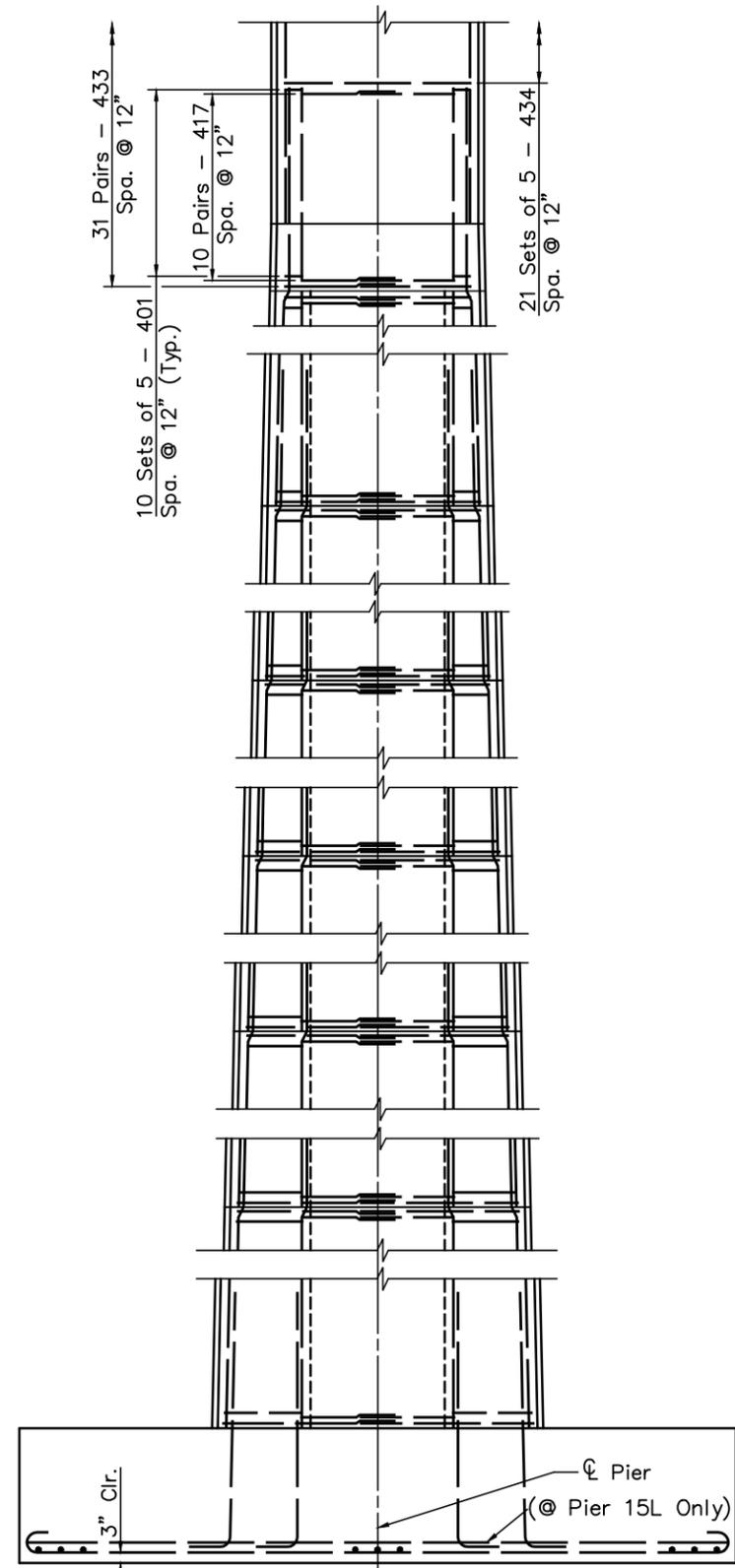
DESIGNED BY: DHS CHECKED BY: MJL  
DATE: 03/19/98 DATE: 06/04/98  
DRAWN BY: GLG REVISED BY:  
DATE: 04/15/98 DATE:  
CAD FILE NAME: 25725-PIERSH1.DWG

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
TYPICAL PIER DETAILS			
PIERS 1 AND 17			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B29 OF B129			

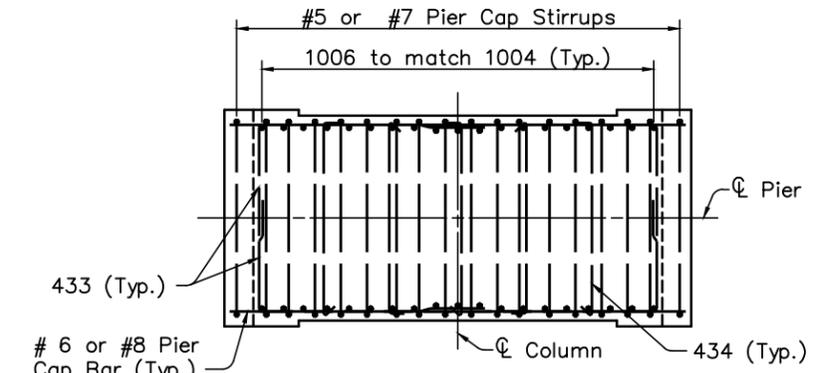
DESIGNED BY: DHS  
 DATE: 03/25/98  
 DRAWN BY: GLG  
 DATE: 04/15/98  
 CAD FILE NAME: 25725-PIERSH2.DWG



**ELEVATION**



**SIDE ELEVATION**



**SECTION A-A**

PIER TABLE				
PIER	PANELS	ELEV. A	ELEV. B	T
2R	1, BASE	798.67	761.00	4'-6"
2L	1, BASE	798.65	761.00	4'-6"
3R	1, 2, BASE	793.65	734.00	4'-0"
3L	1, 2, BASE	793.65	734.00	4'-0"
8R	1, 2, 3, 4, 5, BASE	775.72	654.00	4'-0"
8L	1, 2, 3, 4, 5, BASE	775.72	647.00	4'-0"
9R	1, 2, 3, 4, 5, BASE	774.49	655.50	4'-6"
9L	1, 2, 3, 4, 5, BASE	774.49	655.50	4'-6"
10R	1, 2, 3, 4, BASE	771.65	664.00	4'-6"
10L	1, 2, 3, 4, BASE	771.65	664.00	4'-6"
11R	1, 2, 3, 4, BASE	768.86	671.50	4'-0"
11L	1, 2, 3, 4, BASE	768.86	675.00	4'-0"
12R	1, 2, 3, BASE	766.11	674.50	4'-0"
12L	1, 2, 3, BASE	766.21	674.50	4'-0"
13R	1, 2, 3, BASE	763.60	672.50	4'-0"
13L	1, 2, 3, BASE	763.42	672.50	4'-0"
14R	1, 2, BASE	760.07	687.00	5'-0"
14L	1, 2, BASE	760.07	687.00	5'-0"
15R	1, 2, BASE	756.20	688.00	5'-0"
15L	1, 2, BASE	756.20	688.00	5'-0"
16R	1, BASE	752.32	706.00	4'-6"
16L	1, BASE	752.32	706.00	4'-6"

**LEGEND:**

EXF - EACH EXTERIOR FACE  
 EIF - EACH INTERIOR FACE

**NOTES:**

- ALL REINFORCING BARS ABOVE FOOTINGS SHALL BE EPOXY COATED.
- PILES ARE NOT SHOWN FOR PIERS 2 AND 14 THROUGH 16.
- ALL PIER REINFORCING BAR MARKS SHALL BE PREFIXED ACCORDING TO THE PIER REINFORCEMENT PREFIX TABLE ON SHEET B26 OF B129.
- SPREAD FOOTINGS AT PIERS 3 AND 8 THROUGH 13 SHALL EXTEND A MINIMUM OF 12" INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.
- FOR ADDITIONAL DETAILS AND NOTES SEE SHEET B26 OF B129.
- FOR FOOTING PLAN, SEE SHEETS B27 AND B28 OF B129.
- FOR PIER CAP DETAILS, SEE SHEETS B38 THROUGH B42 OF B129.
- FOR TYPICAL PANEL DETAILS, SEE SHEET B32 OF B129.

**CONCRETE ALTERNATE**

RECORD DRAWING	NO.	REVISIONS	BY	DATE
				11/3/04

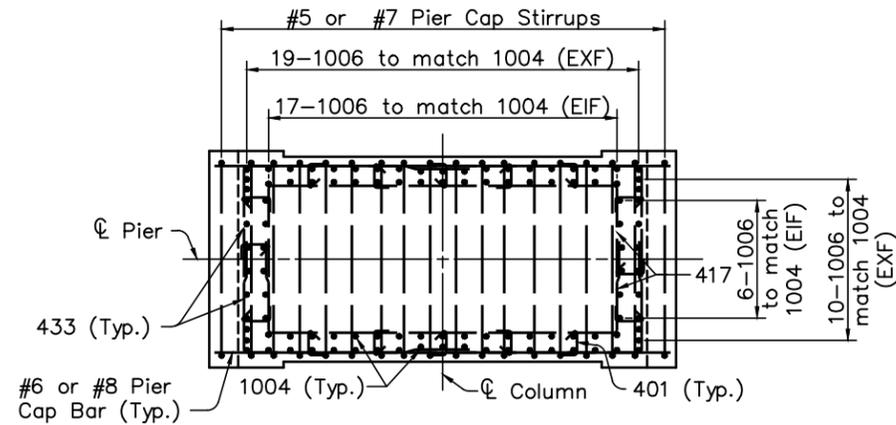
**OHIO TURNPIKE COMMISSION**

**TYPICAL PIER DETAILS**  
**PIERS 2 AND 3, 8 THRU 16**  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

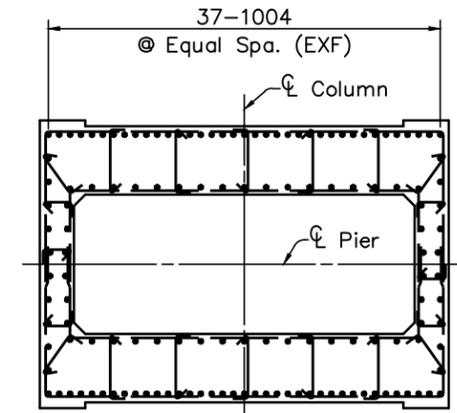
**HNTB** ARCHITECTS ENGINEERS PLANNERS  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.

**CONTRACT 43-99-01 SHEET B30 OF B129**

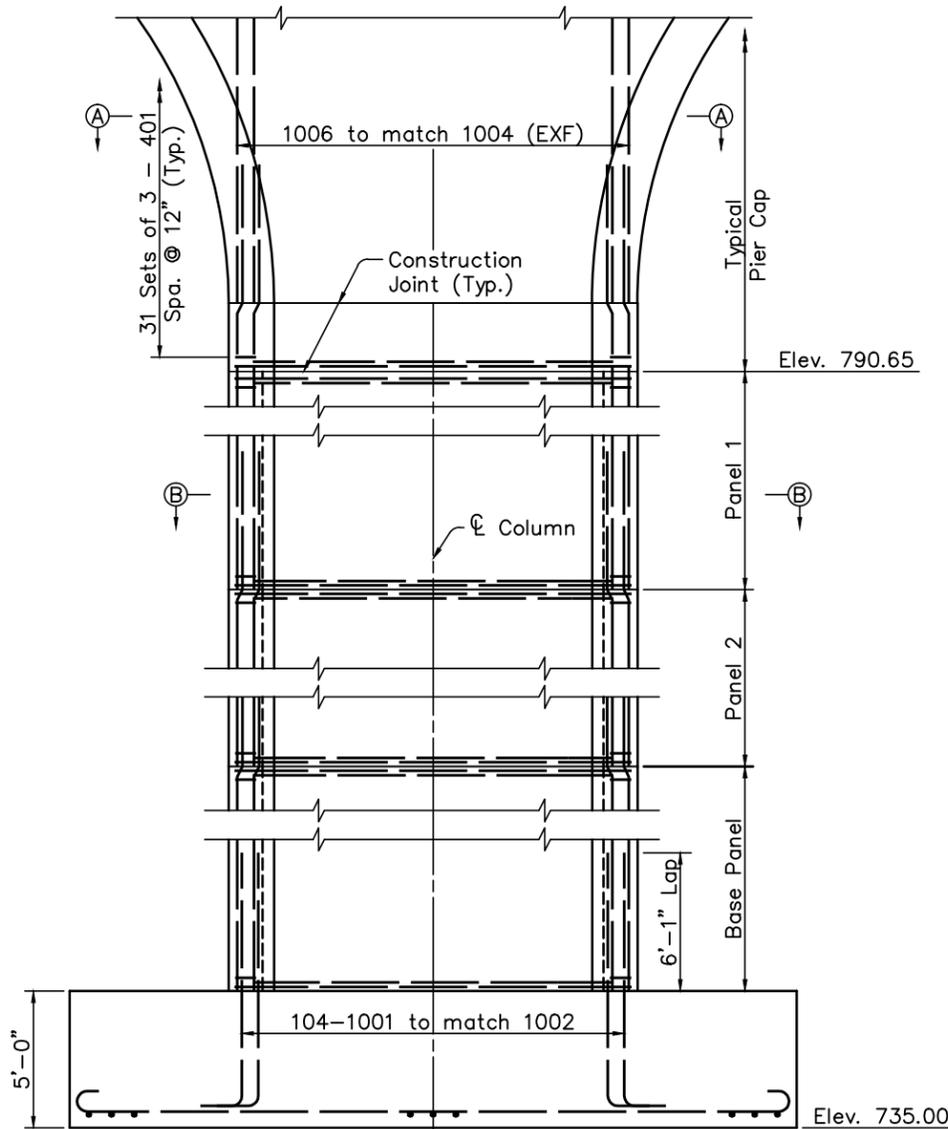


**SECTION A-A**

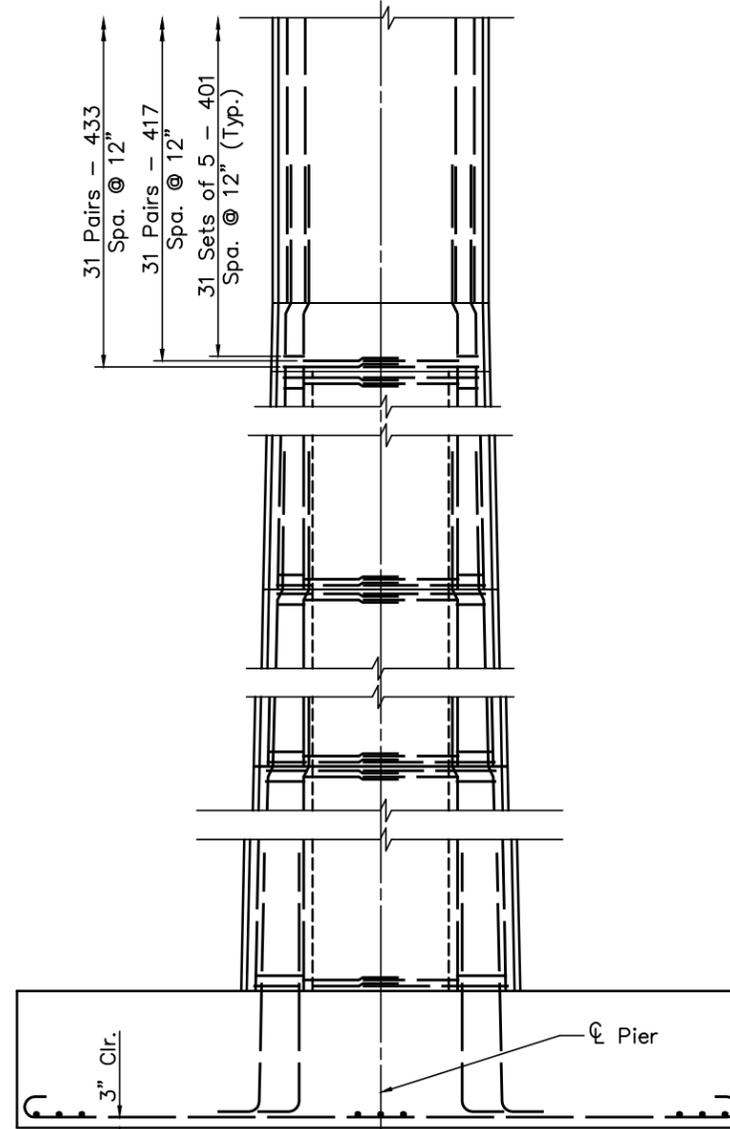


**SECTION B-B**

(For additional details see Section C-C)



**ELEVATION  
(PILES NOT SHOWN)**



**SIDE ELEVATION  
(PILES NOT SHOWN)**

**LEGEND:**

EXF - EACH EXTERIOR FACE  
EIF - EACH INTERIOR FACE

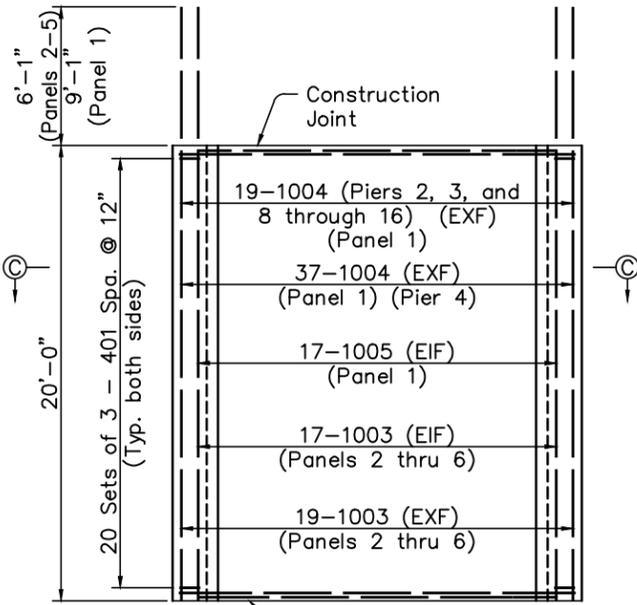
**NOTES:**

1. ALL REINFORCING BARS ABOVE FOOTINGS SHALL BE EPOXY COATED.
2. ALL PIER REINFORCING BAR MARKS SHALL BE PREFIXED ACCORDING TO THE PIER REINFORCEMENT PREFIX TABLE ON SHEET B26 OF B129.
3. FOR ADDITIONAL DETAILS AND NOTES SEE SHEET B26 OF B129.
4. FOR FOOTING PLAN, SEE SHEET B27 OF B129.
5. FOR PIER CAP DETAILS, SEE SHEET B40 OF B129.
6. FOR TYPICAL PANEL DETAILS AND SECTION C-C, SEE SHEET B32 OF B129.

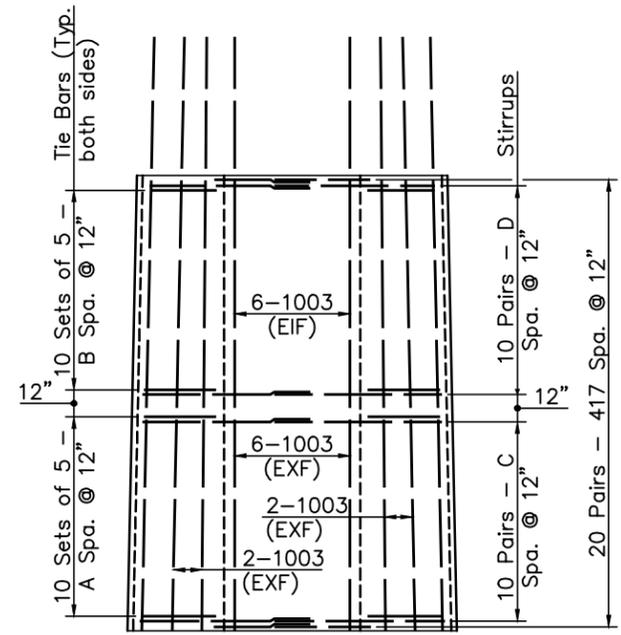
DESIGNED BY: DHS | CHECKED BY: MJL  
DATE: 03/25/98 | DATE: 08/04/98  
DRAWN BY: GLG | REVISED BY:  
DATE: 04/15/98 | DATE:  
CAD FILE NAME: 25725-PIERSH2A.DWG

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
PIER 4 DETAILS			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B31 OF B129			

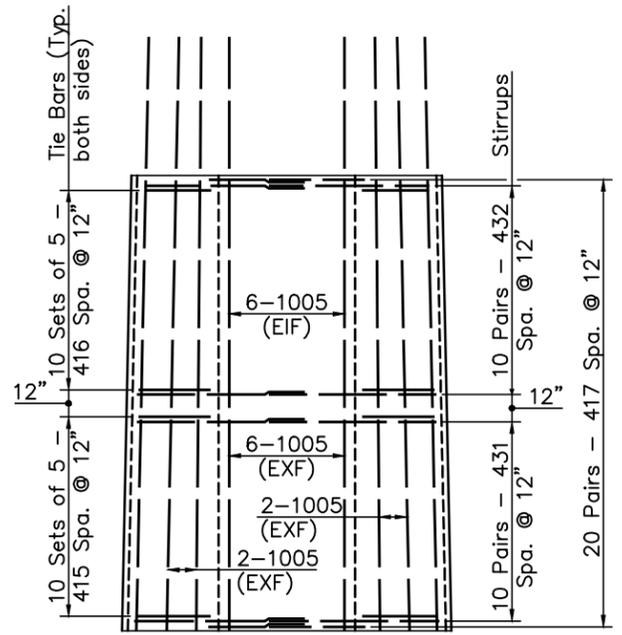
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 DATE: 03/25/98 DATE: 06/04/98  
 DRAWN BY: GLG REVISED BY:  
 DATE: 04/15/98 DATE:  
 CAD FILE NAME: 25725-PIERSH3.DWG



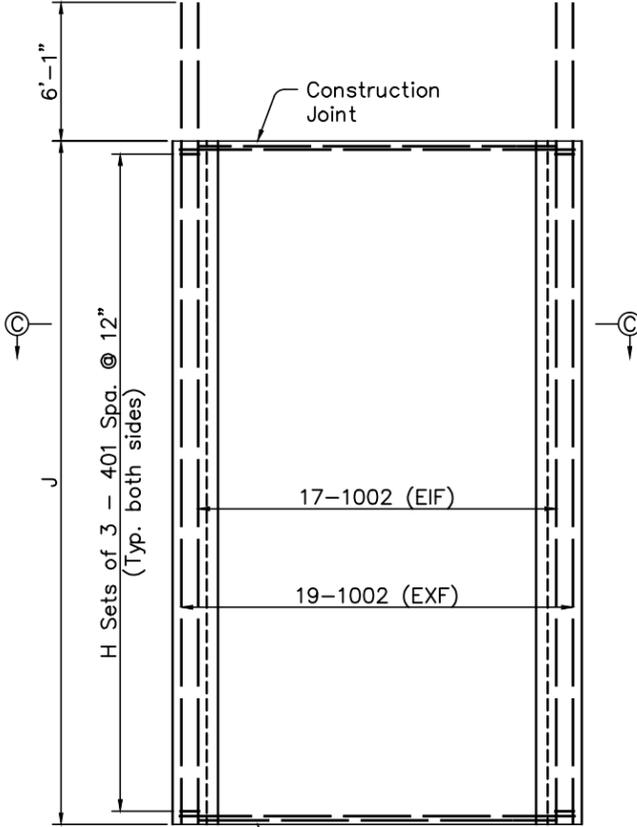
**TYPICAL PANEL ELEVATION (PANELS 1 THRU 5)**



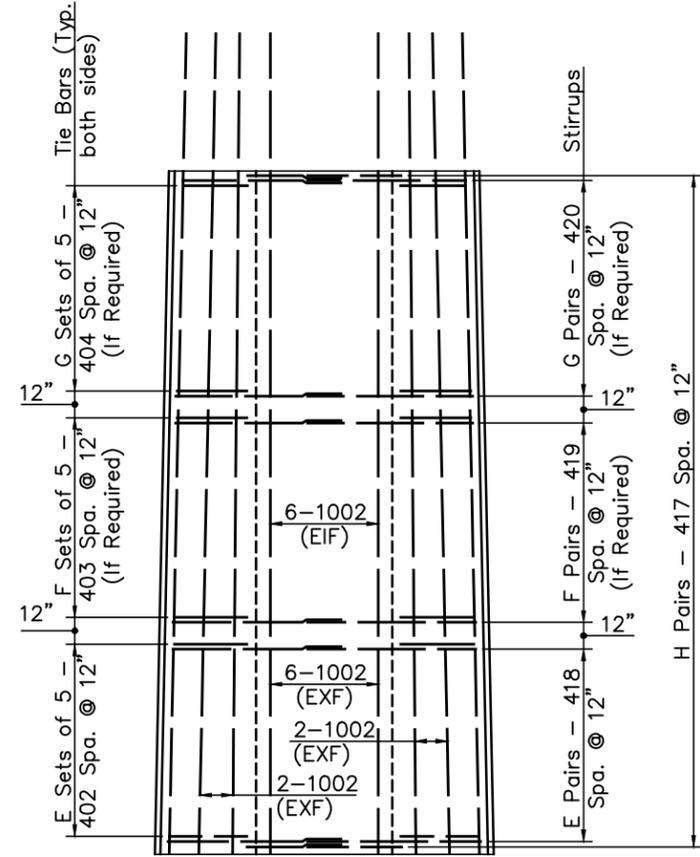
**TYPICAL PANEL SIDE ELEVATION (PANELS 2 THRU 5)**



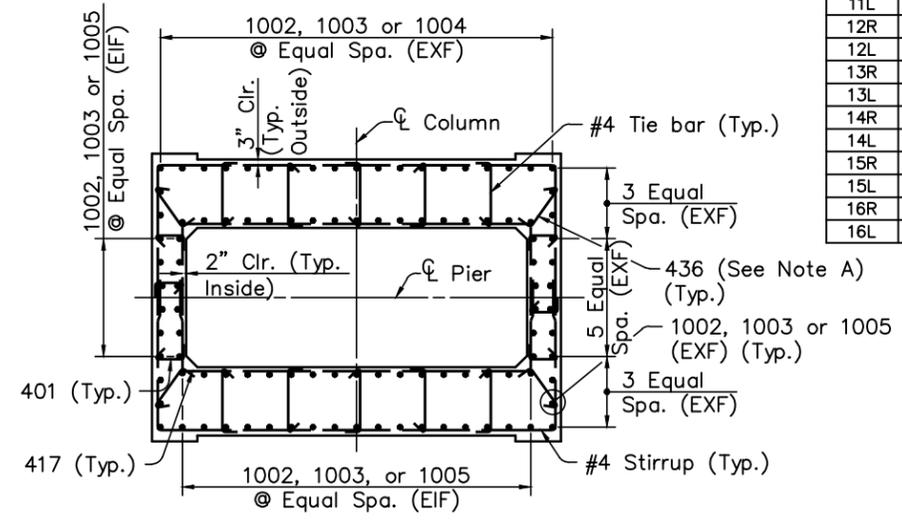
**TYPICAL PANEL SIDE ELEVATION (PANEL 1)**



**TYPICAL BASE PANEL ELEVATION**



**TYPICAL BASE PANEL SIDE ELEVATION**



**SECTION C-C**

**NOTE A:**  
 NO. 436 BAR SHALL BE USED ONLY FOR BASE AND PANELS 4 AND 5 WHERE THEY OCCUR, IN PIERS 8 THRU 13 ONLY. THE BARS SHALL BE FIELD BENT AS SHOWN IN SECTION B-B AND C-C. NO. 436 BARS SHALL BE SPACED AT 12". THEY ARE INCLUDED IN THE REINFORCING SCHEDULE AS SINGLE ENDED HOOK BARS WITH SUFFICIENT LENGTH ALLOTTED FOR THE FIELD BEND. BENDING OF BARS SHALL BE INCLUDED WITH ITEM SP 509, EPOXY COATED REINFORCING STEEL, GRADE 60, FOR PAYMENT.

**NOTES:**  
 FOR NOTES SEE SHEETS B30 AND B31 OF B129.

**TYPICAL PANEL REINFORCEMENT TABLE**

PANEL	A	B	C	D
2	413	414	429	430
3	411	412	427	428
4	409	410	425	426
5	407	408	423	424

**TYPICAL BASE PANEL REINFORCEMENT AND DIMENSIONS TABLE**

PIER	E	F	G	H	J
2R	4	10	-	14	13'-2"
2L	4	10	-	14	13'-1 3/4"
3R	6	10	-	16	15'-7 3/4"
3L	6	10	-	16	15'-7 3/4"
4R	1	10	-	11	10'-7 13/16"
4L	1	10	-	11	10'-7 13/16"
8R	8	10	-	18	17'-8 5/8"
8L	5	10	10	25	24'-8 5/8"
9R	5	10	-	15	14'-5 7/8"
9L	5	10	-	15	14'-5 7/8"
10R	4	10	10	24	23'-1 3/4"
10L	4	10	10	24	23'-1 3/4"
11R	4	10	-	14	13'-4 5/16"
11L	10	-	-	10	9'-10 5/16"
12R	8	10	10	28	27'-7 1/4"
12L	8	10	10	28	27'-8 1/2"
13R	8	10	10	28	27'-1 3/16"
13L	8	10	10	28	26'-11"
14R	9	10	10	29	28'-0 13/16"
14L	9	10	10	29	28'-0 13/16"
15R	4	10	10	24	23'-2 3/8"
15L	4	10	10	24	23'-2 3/8"
16R	2	10	10	22	21'-9 13/16"
16L	2	10	10	22	21'-9 13/16"

**CONCRETE ALTERNATE**

RECORD DRAWING	11/3/04
NO.	REVISIONS BY DATE

**OHIO TURNPIKE COMMISSION**

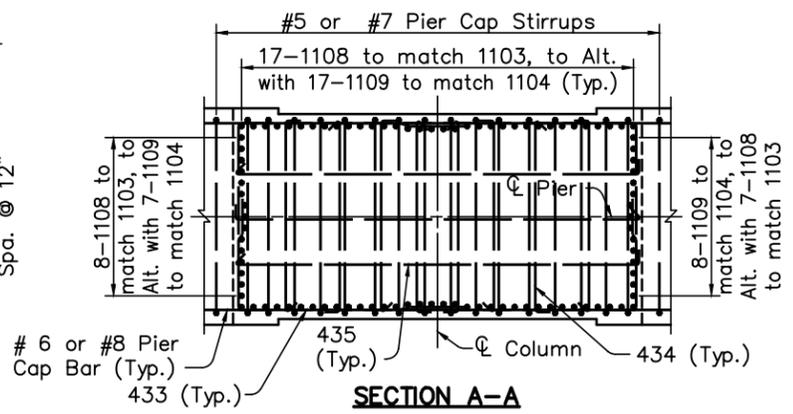
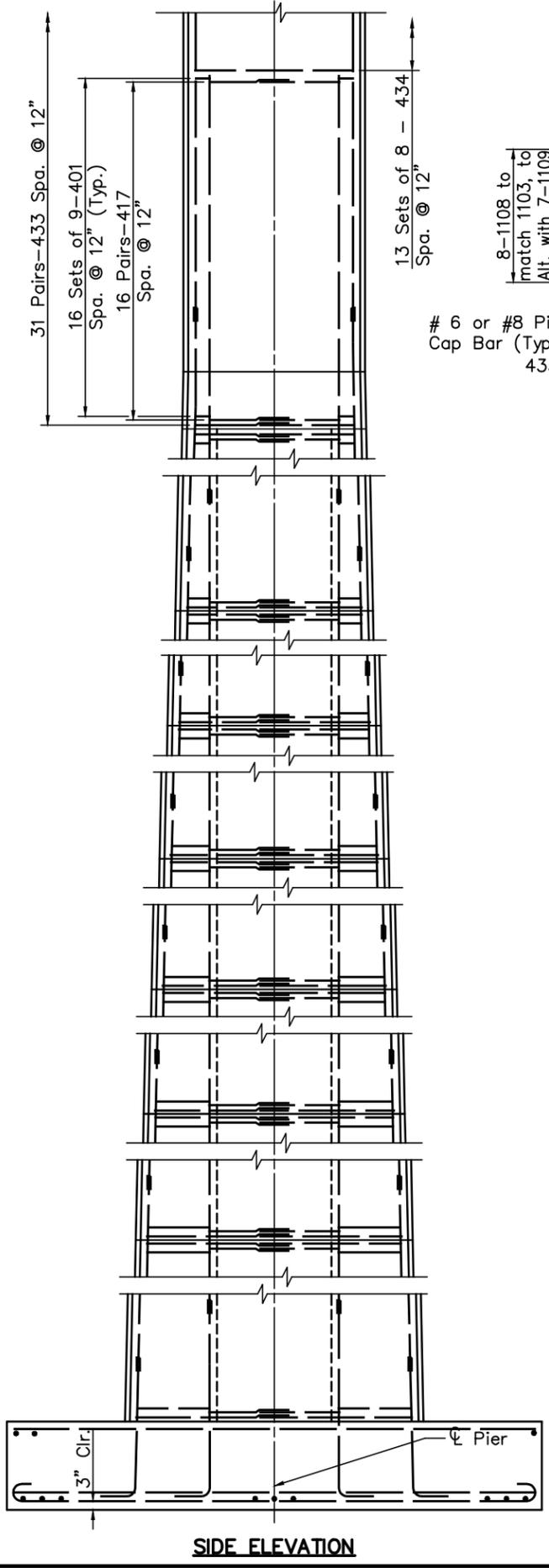
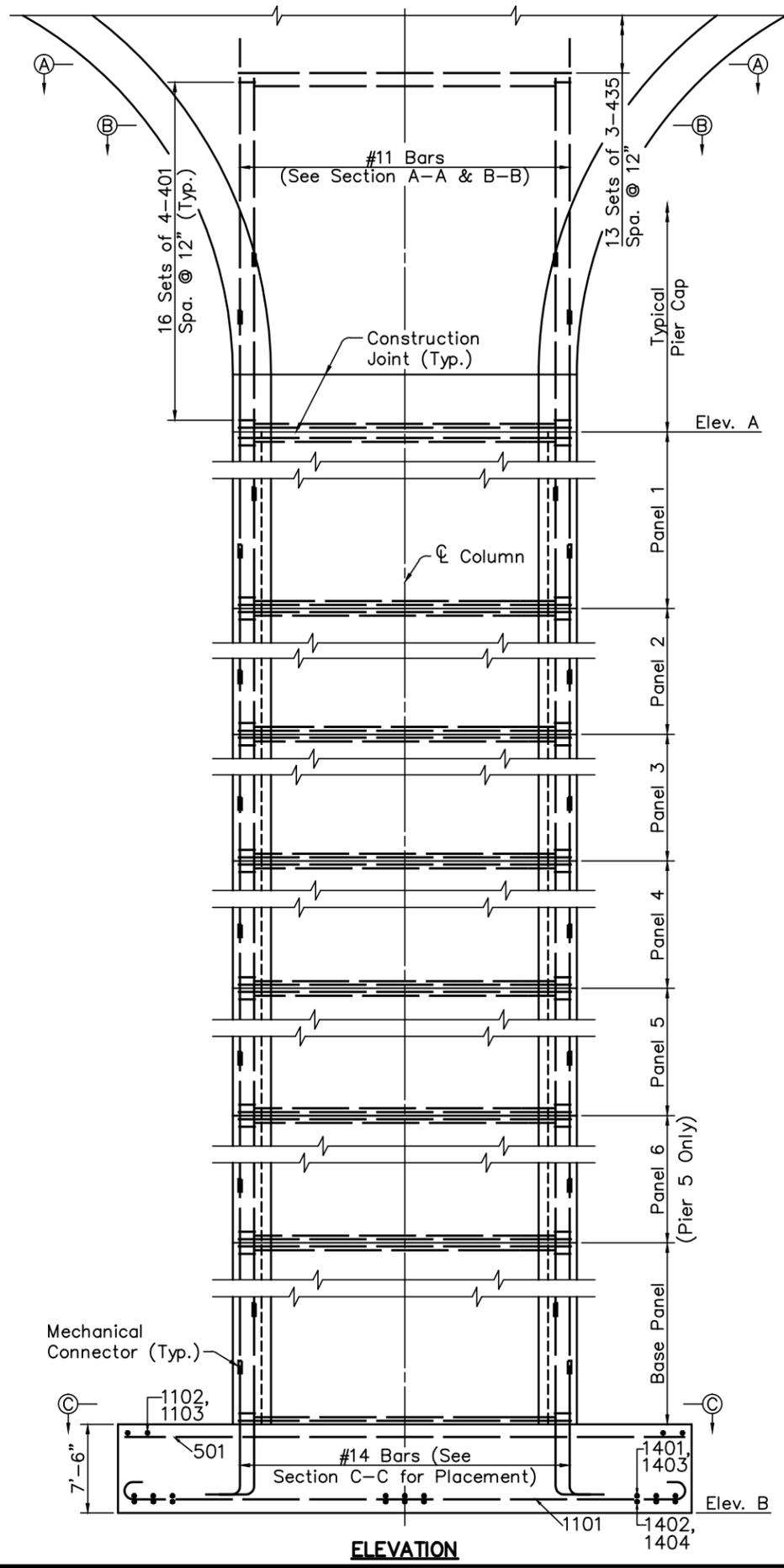
**TYPICAL PIER DETAILS**  
 PIERS 2 THRU 4, 8 THRU 16  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

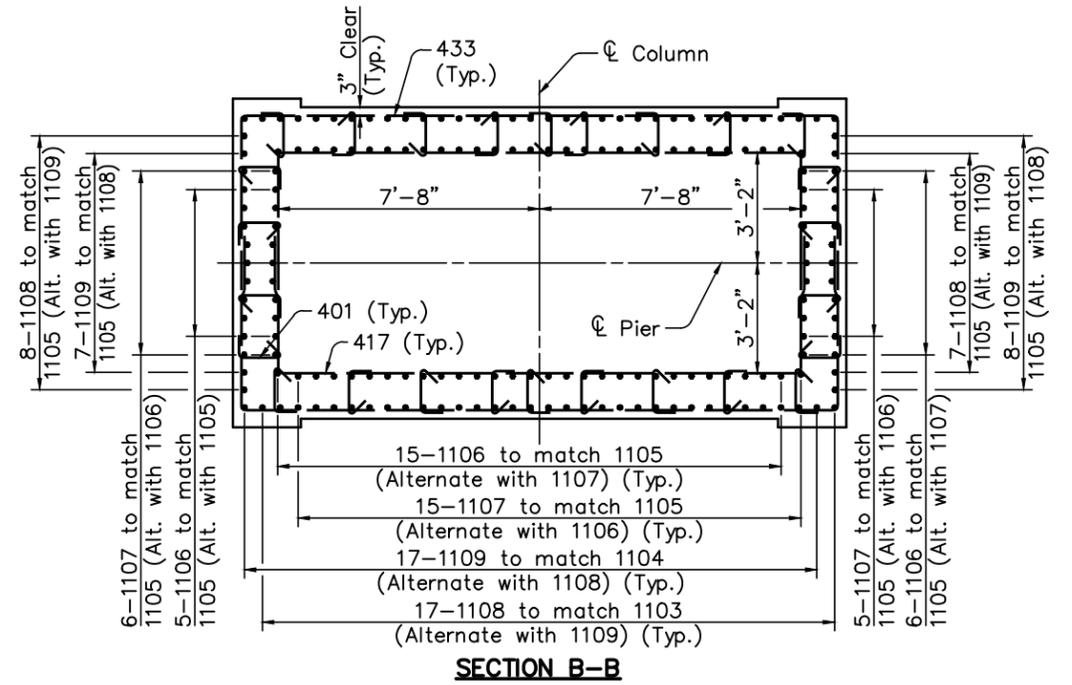
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.

**CONTRACT 43-99-01 SHEET B32 OF B129**

DESIGNED BY: DHS | CHECKED BY: M.J.L.  
 DATE: 03/25/98 | DATE: 08/04/98  
 DRAWN BY: GLG | REVISED BY:  
 DATE: 04/15/98 | DATE:  
 CAD FILE NAME: 25725-PIERSH6.DWG



PIER TABLE			
PIER	PANELS	ELEV. A	ELEV. B
5R	1, 2, 3, 4, 5, 6, BASE	786.88	635.00
5L	1, 2, 3, 4, 5, 6, BASE	786.88	635.00
6R	1, 2, 3, 4, 5, BASE	782.88	647.00
6L	1, 2, 3, 4, 5, BASE	782.88	649.00



**LEGEND:**

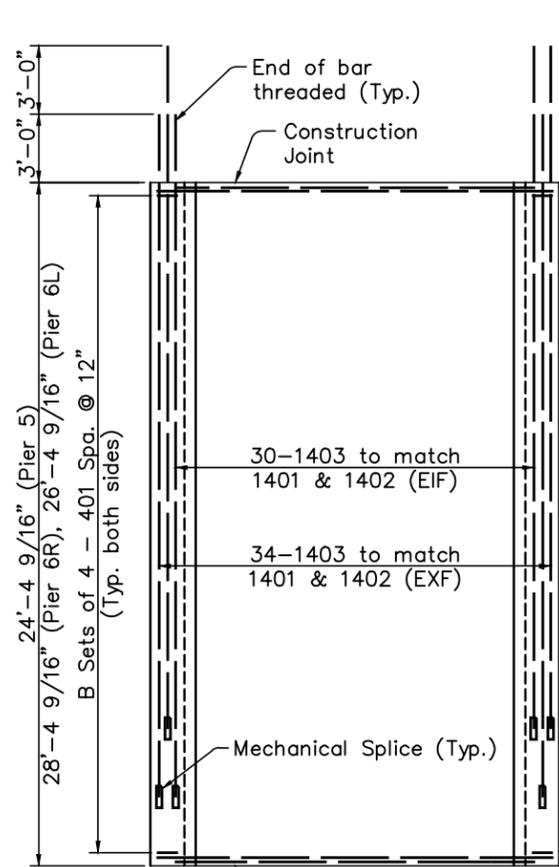
EXF - EACH EXTERNAL FACE  
 EIF - EACH INTERNAL FACE  
 ALT. - ALTERNATE

**NOTES:**

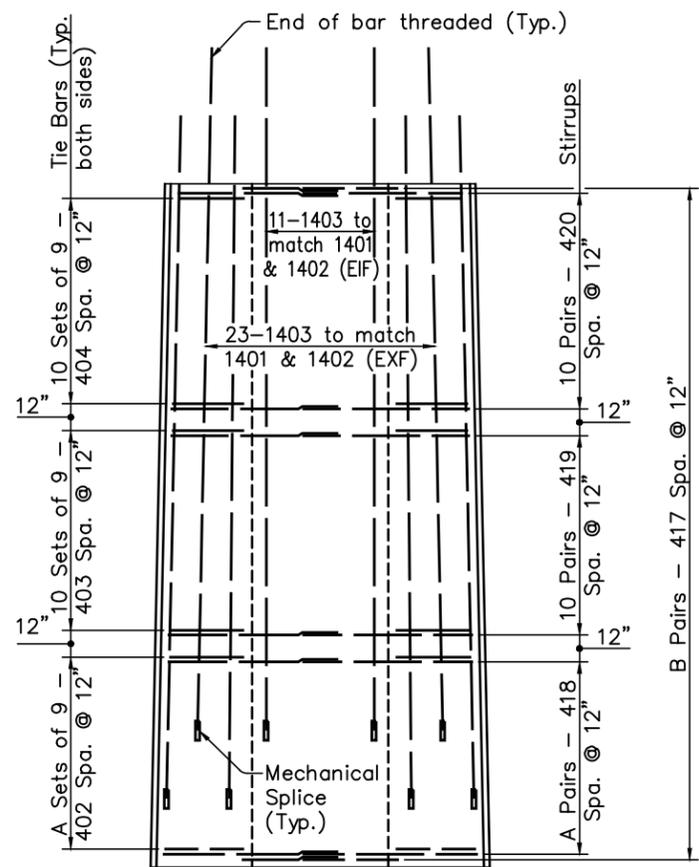
- ALL REINFORCING BARS ABOVE FOOTINGS SHALL BE EPOXY COATED.
- PIER 5 SHALL BE HOLLOW FOR PANELS 1 THRU 4 ONLY.
- ALL PIER REINFORCING BAR MARKS SHALL BE PREFIXED ACCORDING TO THE PIER REINFORCEMENT PREFIX TABLE ON SHEET B26 OF B129.
- SPREAD FOOTINGS SHALL EXTEND A MINIMUM OF 12" INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.
- FOR SECTION C-C SEE SHEET B34 OF B129.
- FOR ADDITIONAL DETAILS AND NOTES SEE SHEET B26 OF B129.
- FOR FOOTING PLAN, SEE SHEET B28 OF B129.
- FOR PIER CAP DETAILS, SEE SHEET B40 OF B129.
- FOR TYPICAL PANEL DETAILS, SEE SHEETS B34 AND B35 OF B129.
- FOR DETAILS OF ROCK CHANNEL PROTECTION AT PIER 5, SEE SHEET B34 OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
PIER 5 & 6 DETAILS			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B33 OF B129			

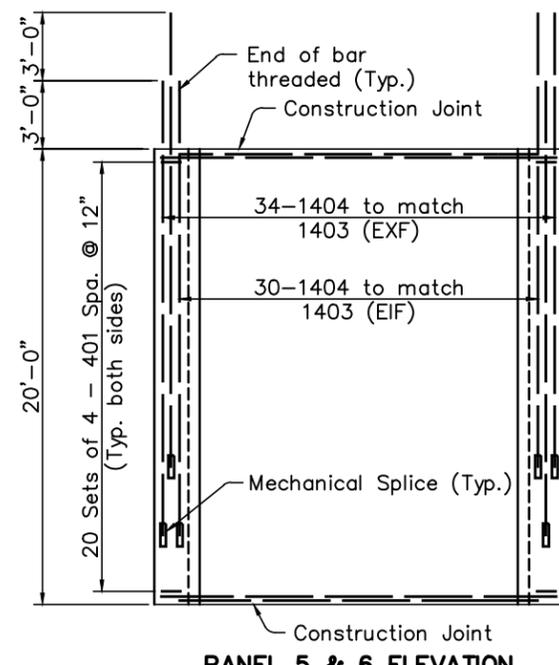
DESIGNED BY: DHS | CHECKED BY: M.J.L.  
 DATE: 03/25/98 | DATE: 08/04/98  
 DRAWN BY: GLG | REVISED BY:  
 DATE: 04/15/98 | DATE:  
 CAD FILE NAME: 25725-PIERSH7.DWG



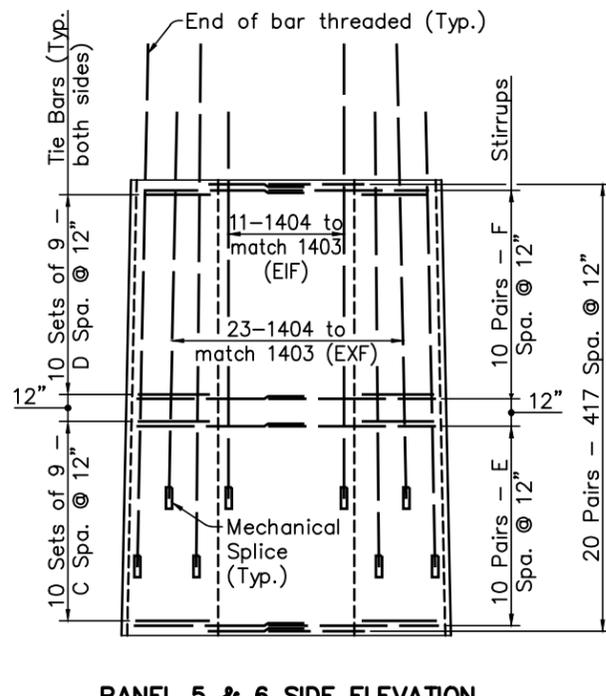
**BASE PANEL ELEVATION**



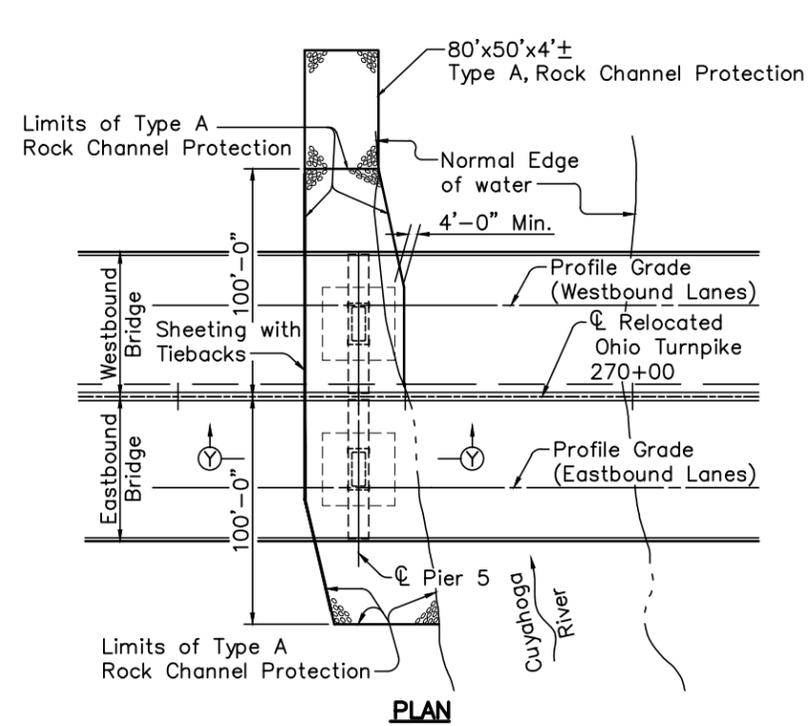
**BASE PANEL SIDE ELEVATION**



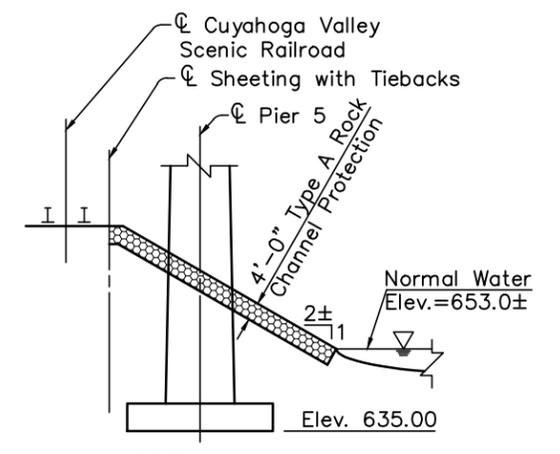
**PANEL 5 & 6 ELEVATION**



**PANEL 5 & 6 SIDE ELEVATION**

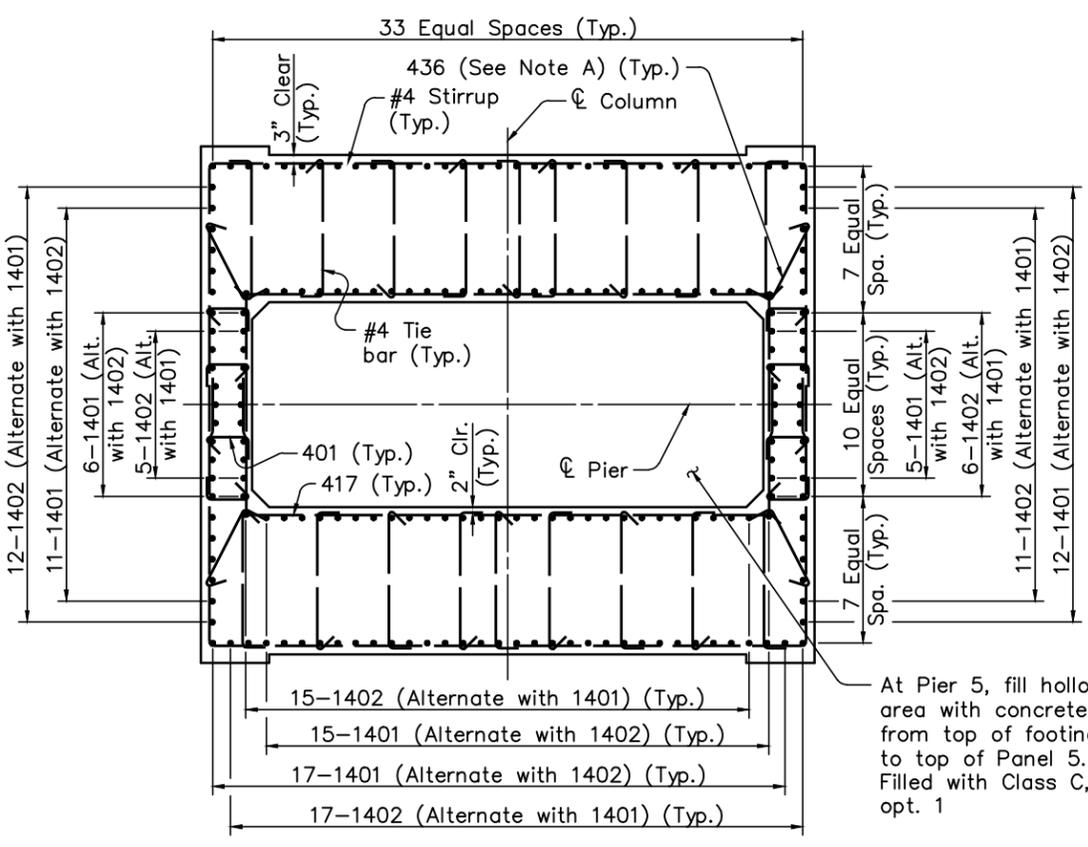


**PLAN**



**SECTION Y-Y**

**DETAILS OF ROCK CHANNEL PROTECTION  
(EXISTING BRIDGE NOT SHOWN FOR CLARITY)**



**SECTION C-C**

At Pier 5, fill hollow area with concrete from top of footing to top of Panel 5. Filled with Class C, opt. 1

PIER TABLE		
PIER	A	B
5L & 5R	5	25
6R	9	29
6L	7	27

PANEL REINFORCEMENT TABLE					
PANEL	C	D	E	F	
5	407	408	423	424	
6	405	406	421	422	

**NOTE A:**  
 NO. 436 BAR SHALL BE USED ONLY FOR BASE AND PANELS 4 THRU 6 WHERE THEY OCCUR, IN PIERS 5 AND 6. THE BARS SHALL BE FIELD BENT AS SHOWN IN SECTION C-C AND D-D. NO. 436 BARS SHALL BE SPACED AT 12". THEY ARE INCLUDED IN THE REINFORCING SCHEDULE AS SINGLE ENDED HOOK BARS WITH SUFFICIENT LENGTH ALLOTTED FOR THE FIELD BEND. BENDING OF BARS SHALL BE INCLUDED WITH ITEM SP 509, EPOXY COATED REINFORCING STEEL, GRADE 60, FOR PAYMENT.

**NOTES:**

FOR NOTES SEE SHEET B33 OF B129.

CONCRETE ALTERNATE		
NO.	REVISIONS	BY DATE
		11/3/04

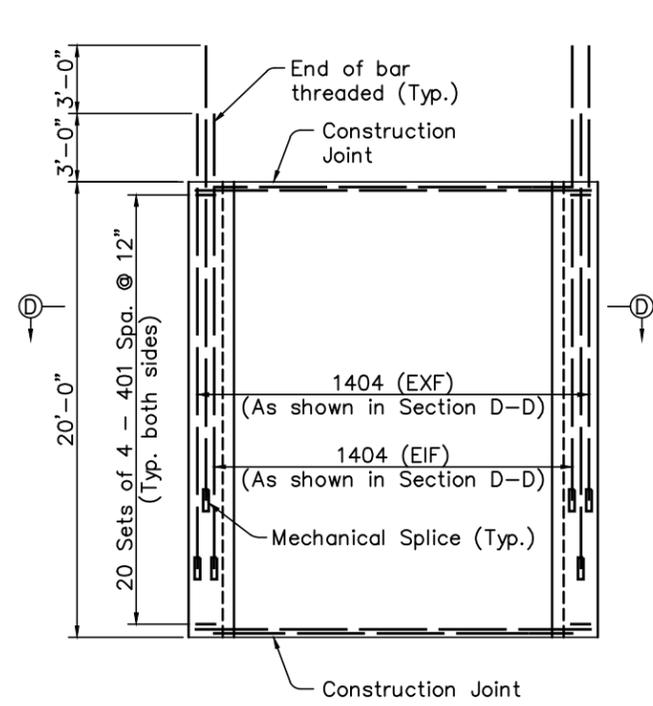
**OHIO TURNPIKE COMMISSION**  
**PIER 5 & 6 DETAILS**  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

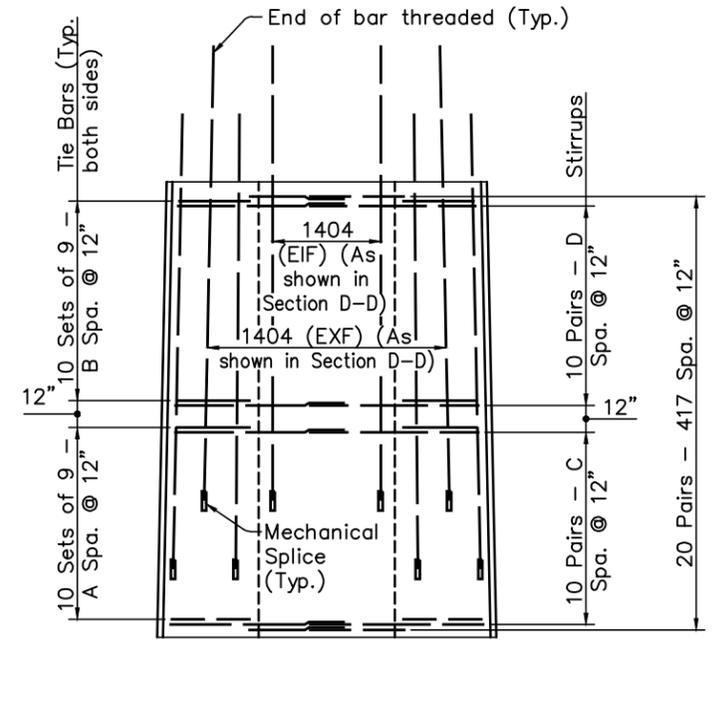
DESIGNED: DHS	CHECKED: M.J.L.	DATE: 12/31/98
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.

CONTRACT 43-99-01 SHEET B34 OF B129

DESIGNED BY: DHS  
 DATE: 03/25/98  
 DRAWN BY: GLG  
 DATE: 04/15/98  
 CAD FILE NAME: 25725-PIERSH.DWG

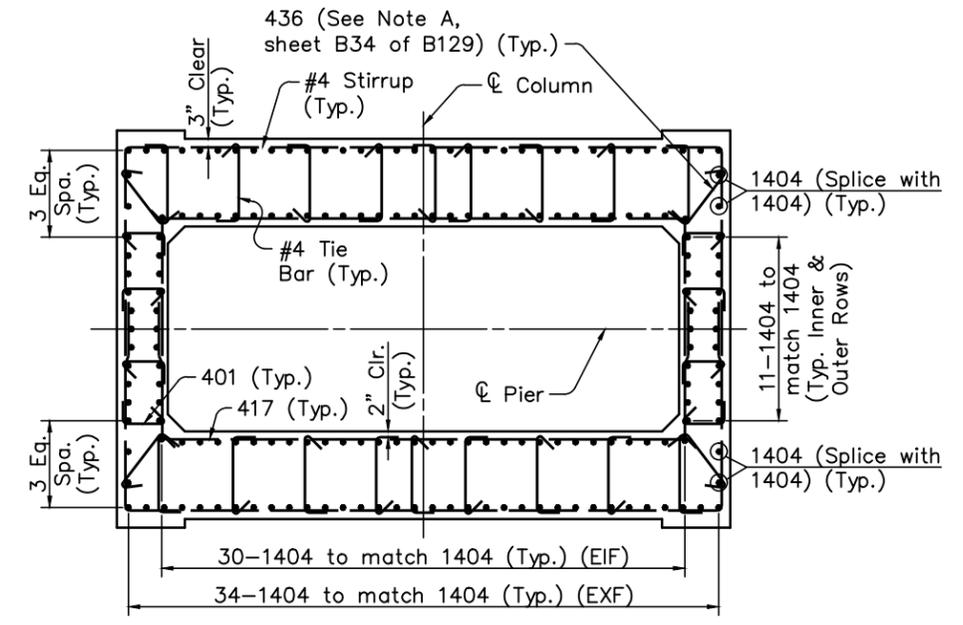


**TYPICAL PANEL ELEVATION  
(PANELS 2 THRU 4)**

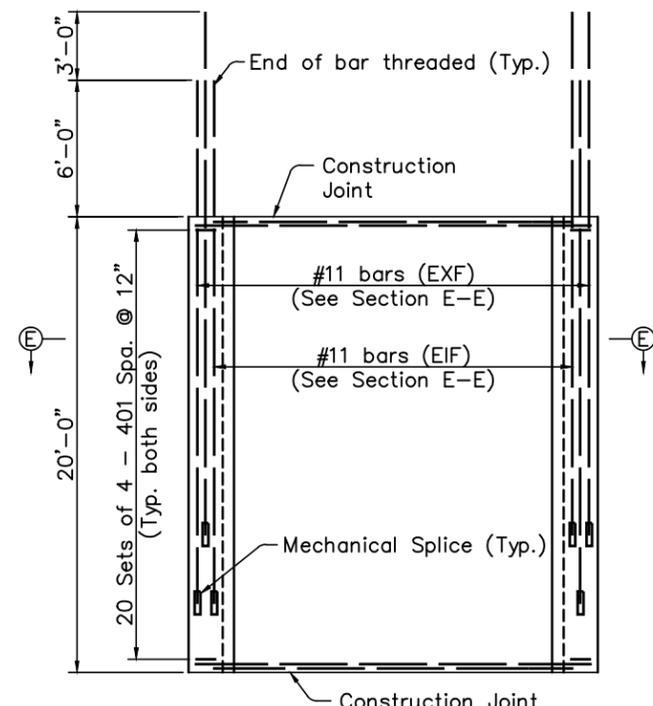


**TYPICAL PANEL SIDE ELEVATION  
(PANELS 2 THRU 4)**

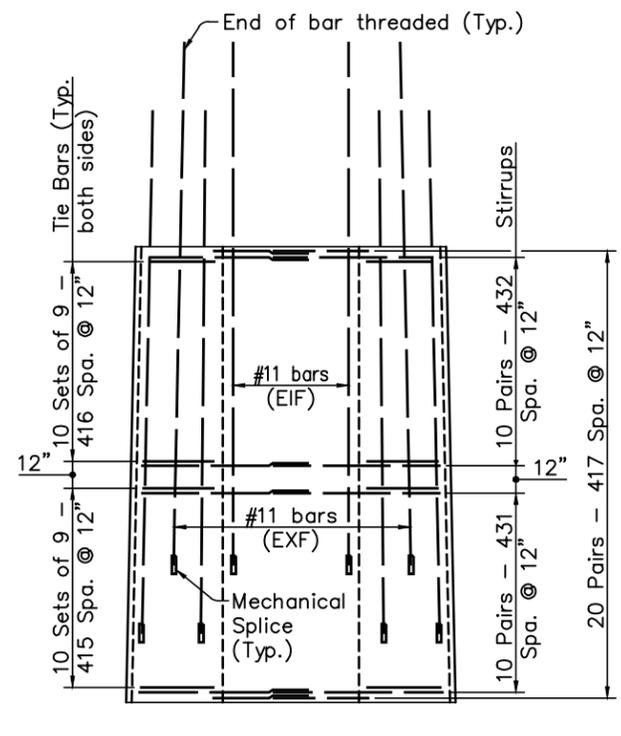
PANEL REINFORCEMENT TABLE				
PANEL	A	B	C	D
2	413	414	429	430
3	411	412	427	428
4	409	410	425	426



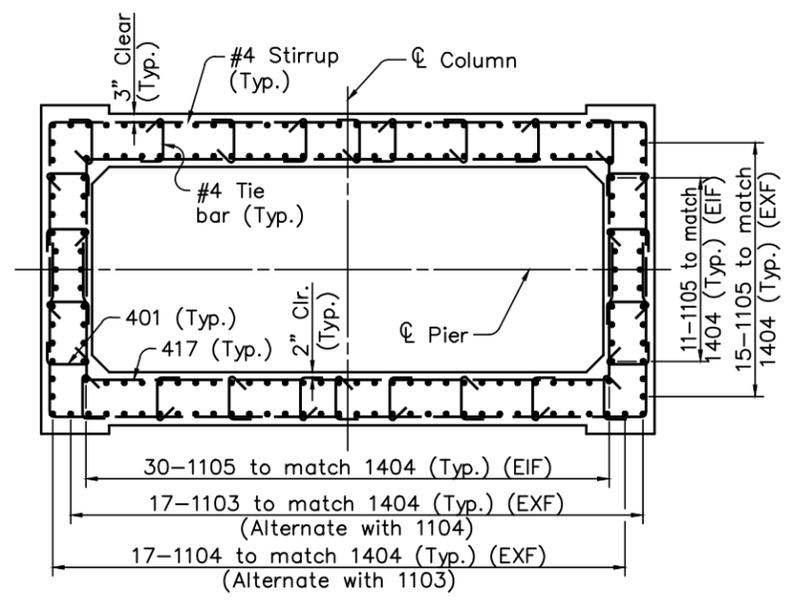
**SECTION D-D**



**PANEL 1 ELEVATION**



**PANEL 1 SIDE ELEVATION**

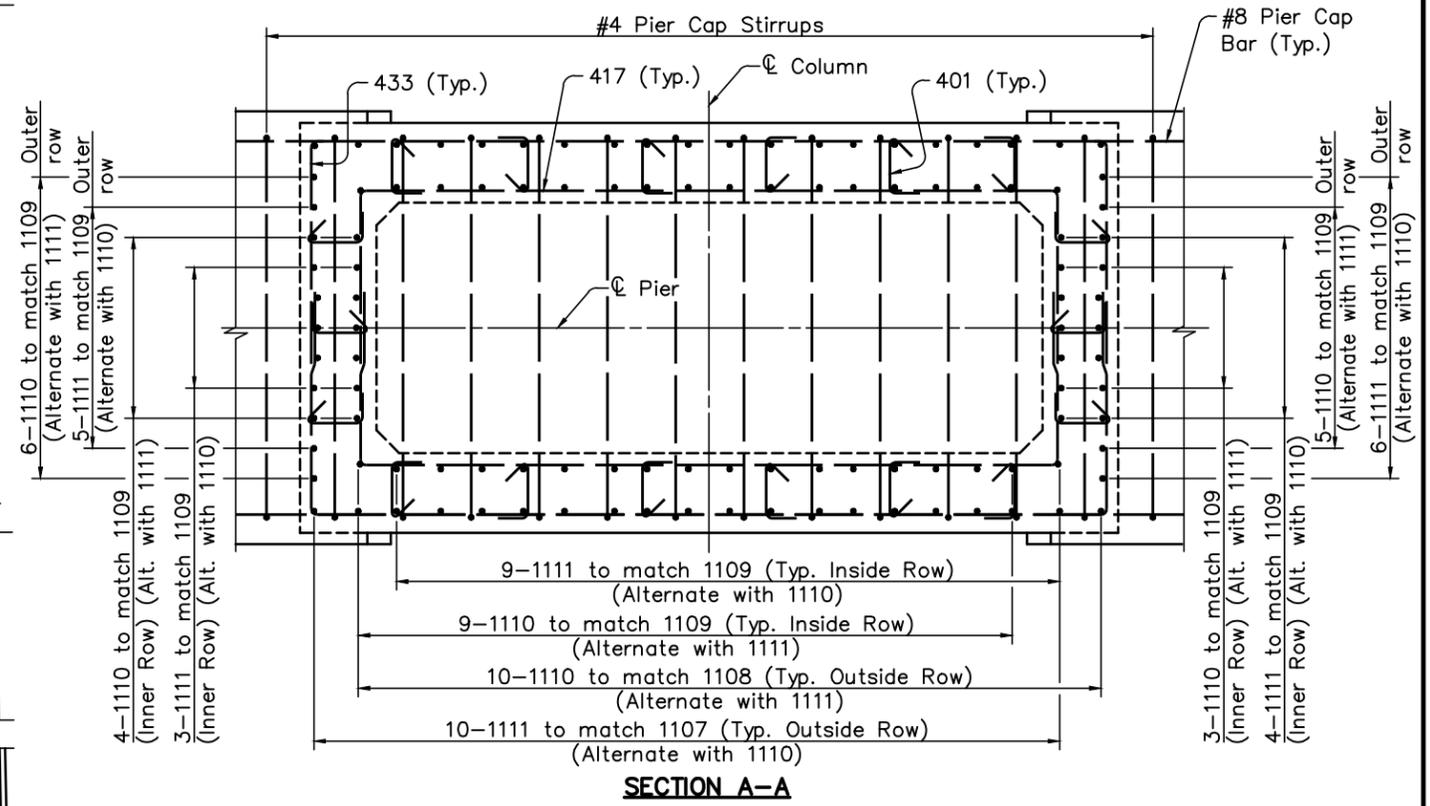
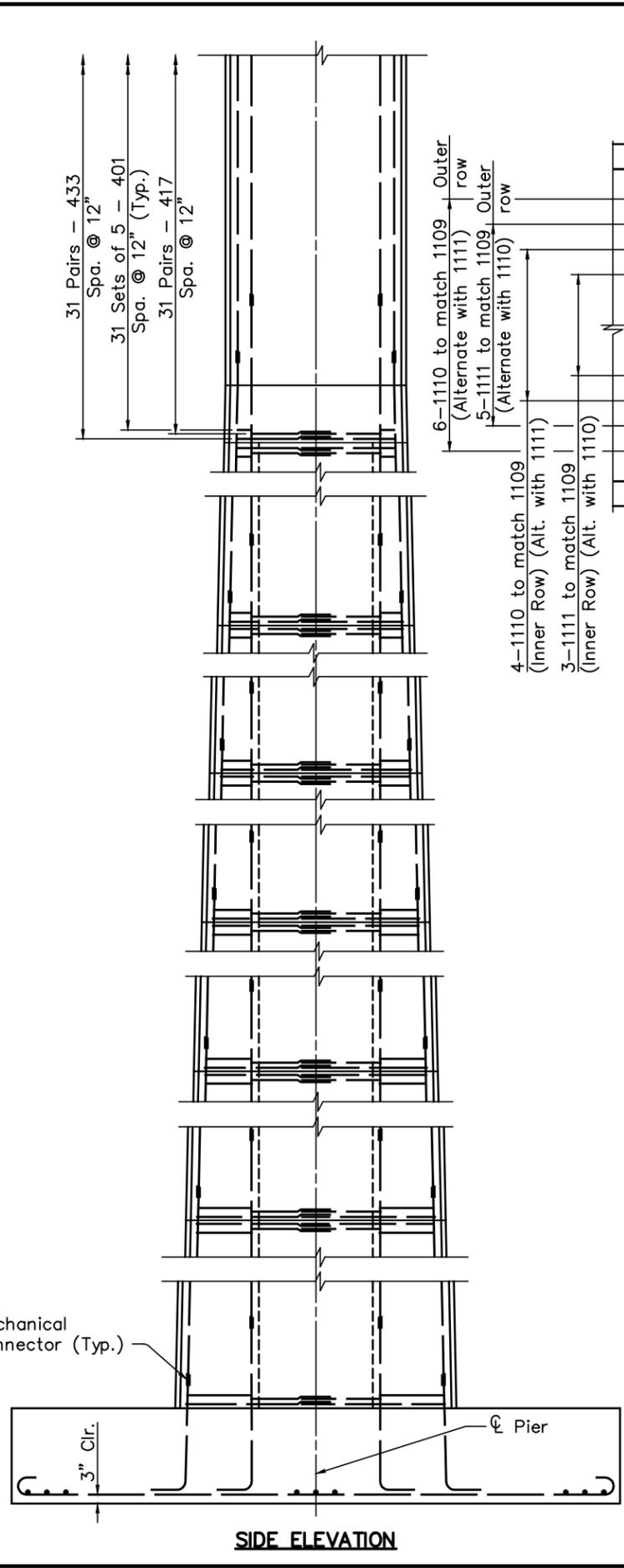
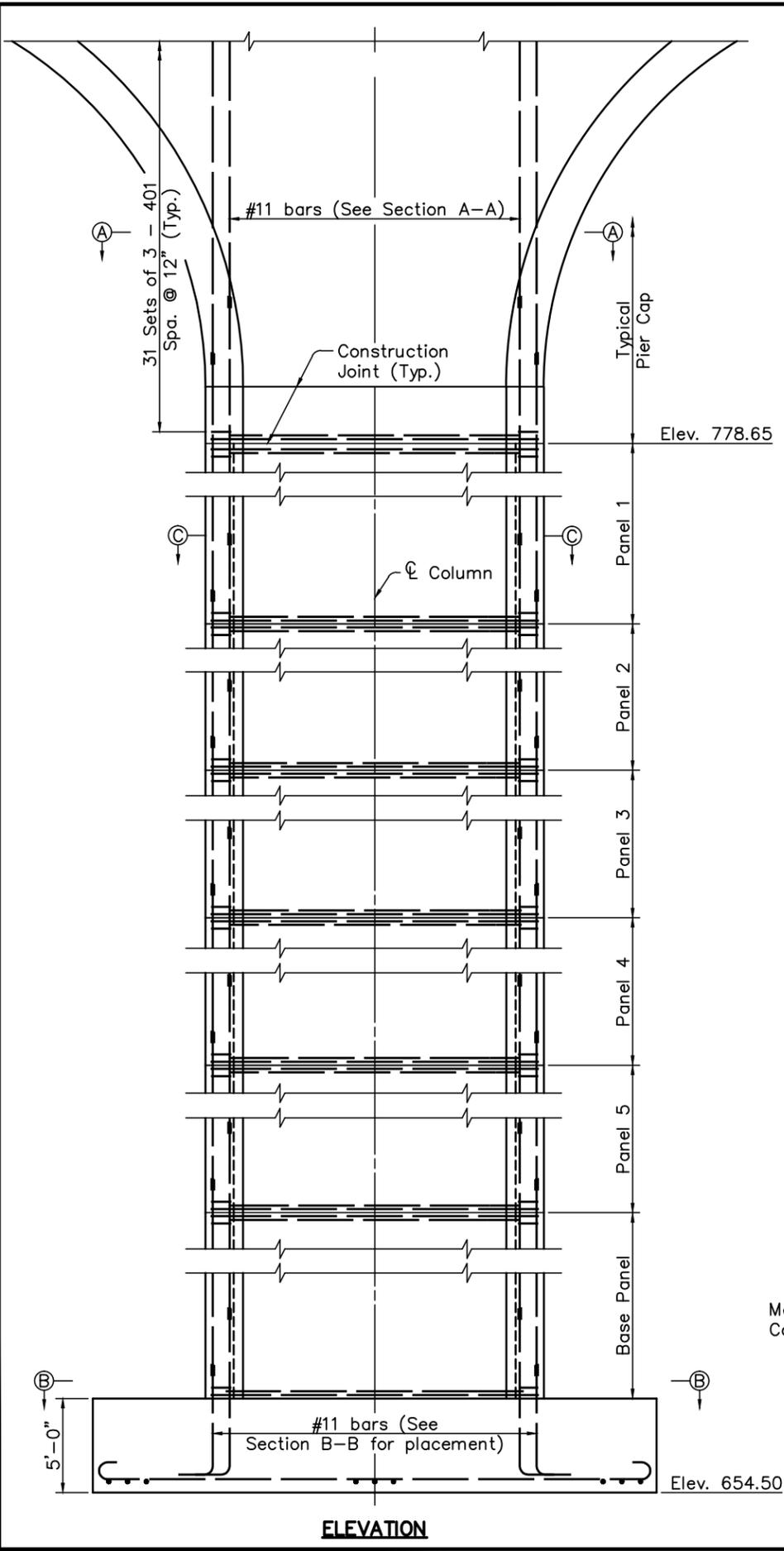


**SECTION E-E**

NOTES:  
 FOR NOTES SEE SHEET B33 OF B129.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER 5 & 6 DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B35 OF B129		

DESIGNED BY: DHS | CHECKED BY: M.J.L.  
 DATE: 03/25/98 | DATE: 08/04/98  
 DRAWN BY: GLG | REVISED BY:  
 DATE: 04/15/98 | DATE:  
 CAD FILE NAME: 25725-PIERSH4.DWG



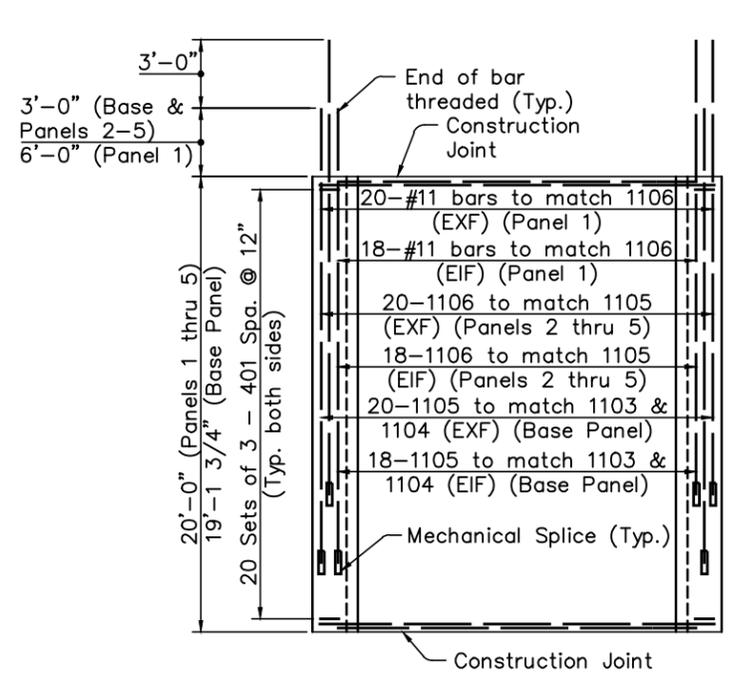
**LEGEND:**

EXF - EACH EXTERIOR FACE  
 EIF - EACH INTERIOR FACE  
 ALT. - ALTERNATE

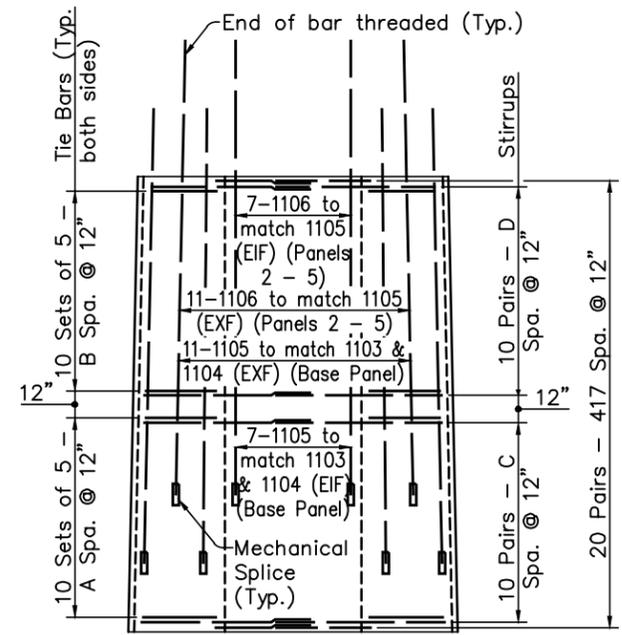
**NOTES:**

- ALL REINFORCING BARS ABOVE FOOTINGS SHALL BE EPOXY COATED.
- ALL PIER REINFORCING BAR MARKS SHALL BE PREFIXED ACCORDING TO THE PIER REINFORCEMENT PREFIX TABLE ON SHEET B26 OF B129.
- SPREAD FOOTINGS SHALL EXTEND A MINIMUM OF 12" INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.
- FOR ADDITIONAL DETAILS AND NOTES SEE SHEET B26 OF B129.
- FOR SECTION B-B AND C-C, SEE SHEET B37 OF B129.
- FOR FOOTING PLAN, SEE SHEET B28 OF B129.
- FOR PIER CAP DETAILS, SEE SHEET B40 OF B129.
- FOR TYPICAL PANEL DETAILS, SEE SHEET B37 OF B129.

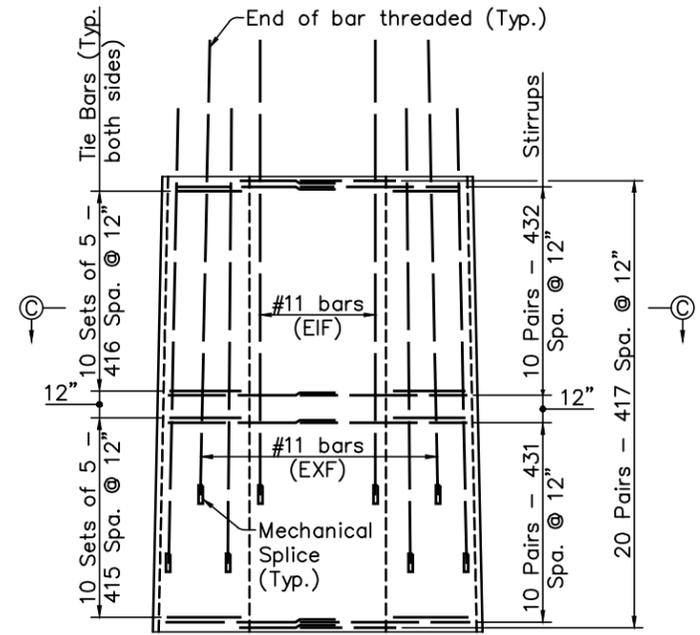
<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>PIER 7 DETAILS</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: M.J.L.	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B36 OF B129			



**TYPICAL PANEL ELEVATION  
(BASE PANEL, PANELS 1 THRU 5)**



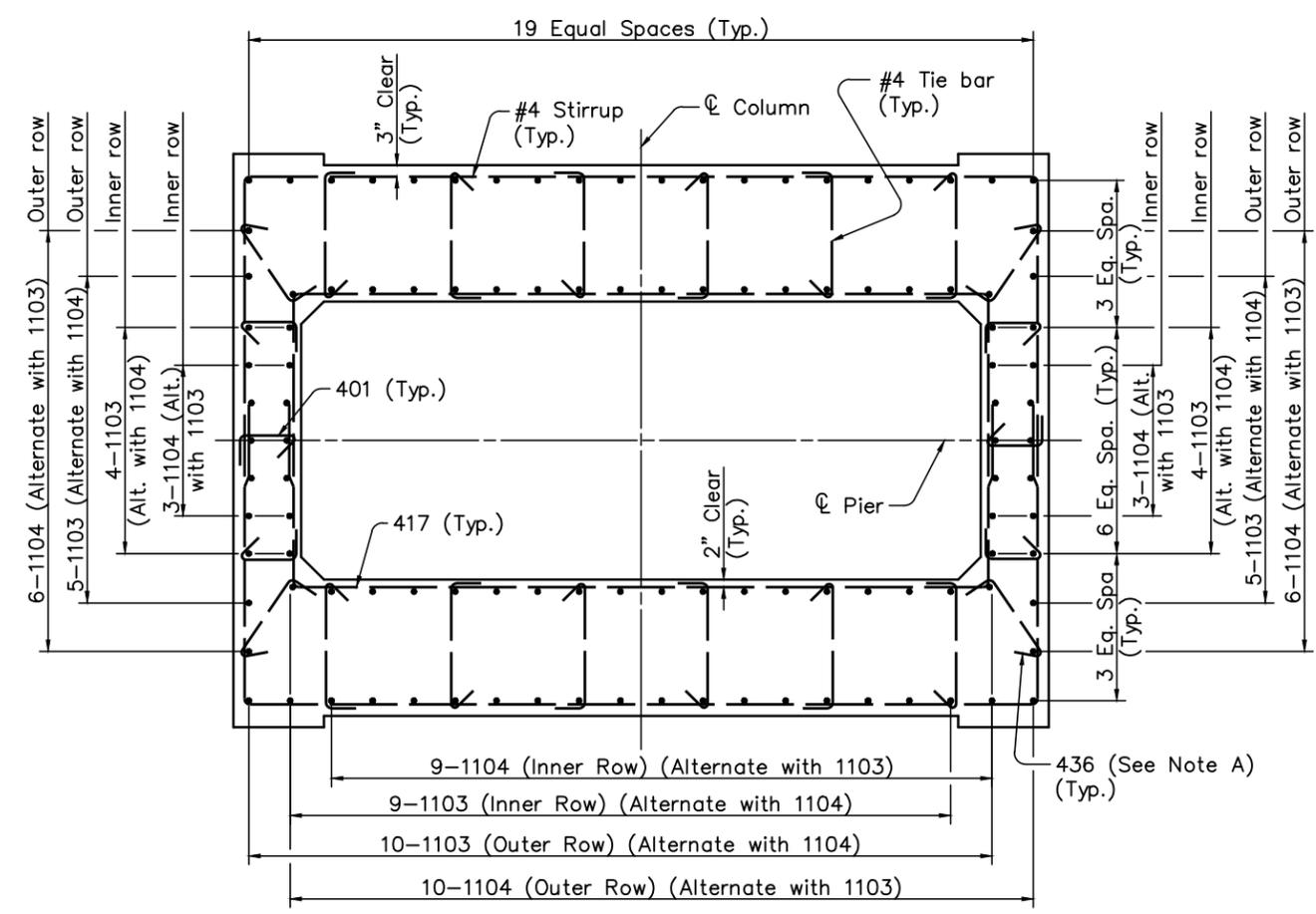
**TYPICAL PANEL SIDE ELEVATION  
(BASE PANEL, PANELS 2 THRU 5)**



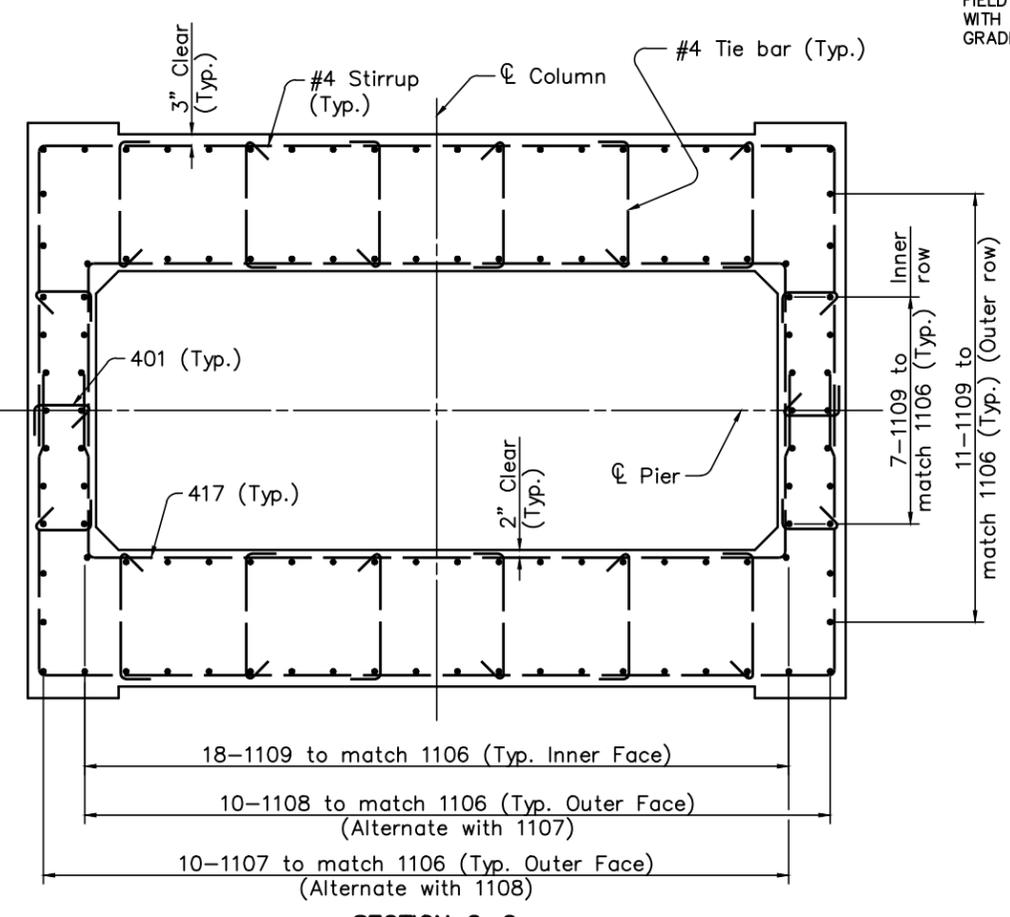
**TYPICAL PANEL SIDE ELEVATION  
(PANEL 1)**

TYPICAL PANEL REINFORCEMENT TABLE				
PANEL	A	B	C	D
2	413	414	429	430
3	411	412	427	428
4	409	410	425	426
5	407	408	423	424
BASE	402	403	418	419

**NOTE A:**  
NO. 436 BAR SHALL BE USED FOR PANELS 4, 5, AND THE BASE PANEL. THE BARS SHALL BE FIELD BENT AS SHOWN IN SECTION B-B. NO. 436 BARS SHALL BE SPACED AT 12". THEY ARE INCLUDED IN THE REINFORCING SCHEDULE AS SINGLE ENDED HOOK BARS WITH SUFFICIENT LENGTH ALLOTTED FOR THE FIELD BEND. BENDING OF BARS SHALL BE INCLUDED WITH ITEM SP 509, EPOXY COATED REINFORCING STEEL, GRADE 60, FOR PAYMENT.



**SECTION B-B**



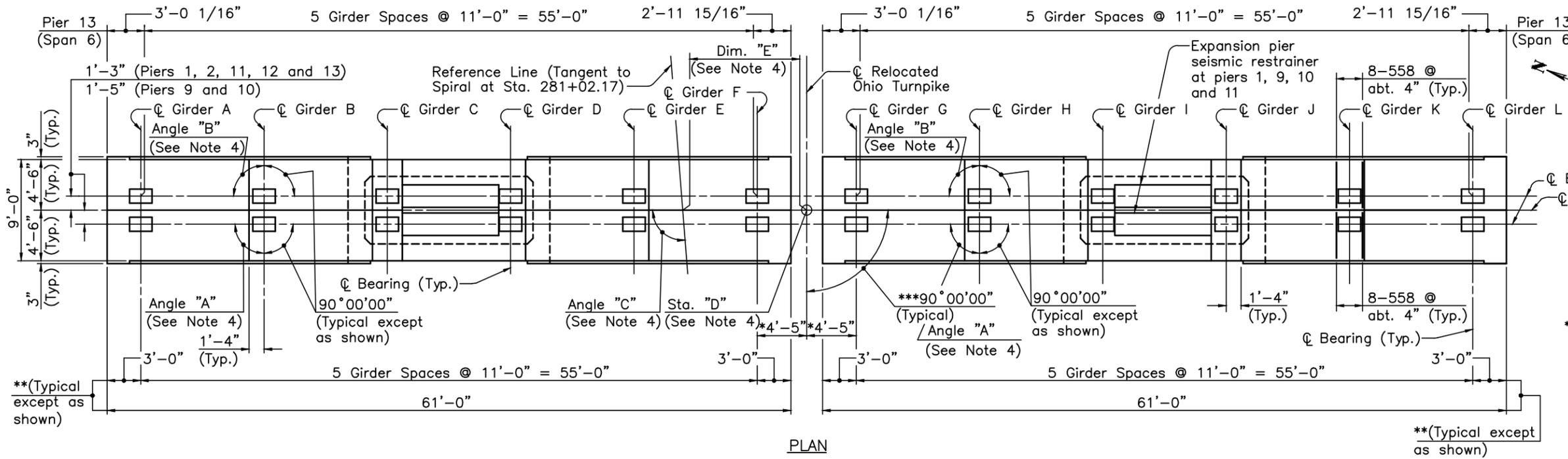
**SECTION C-C**

**NOTES:**  
FOR NOTES SEE SHEET B36 OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
PIER 7 DETAILS			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: MJL	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B37 OF B129			

DESIGNED BY: DHS  
DATE: 03/25/98  
DRAWN BY: GLG  
DATE: 04/15/98  
CAD FILE NAME: 25725-PERSHS.DWG

CHECKED BY: MJL  
DATE: 06/04/98  
REVISOR: GLG  
DATE: 04/15/98



**NOTE A:**  
 804, 805 AND 806 BARS (PIER 1),  
 1004, 1005 AND 1006 BARS (PIERS 2  
 AND 9 THRU 13), 401, 417, 433, AND  
 434 BARS NOT SHOWN. FOR  
 PLACEMENT AND SPACING OF THESE  
 BARS SEE SHEET B29, B30 AND B32  
 OF B129.

**NOTE B:**  
 REINFORCEMENT FOR PIERS 1L, 2L,  
 AND 9L THRU 13L SHOWN.  
 REINFORCEMENT FOR PIERS 1R, 2R,  
 AND 9R THRU 13R SYMMETRICAL  
 ABOUT  $\phi$  RELOCATED OHIO TURNPIKE.

**LEGEND**

\* MEASURED ALONG  $\phi$  PIER AT PIER 12 AND 13.

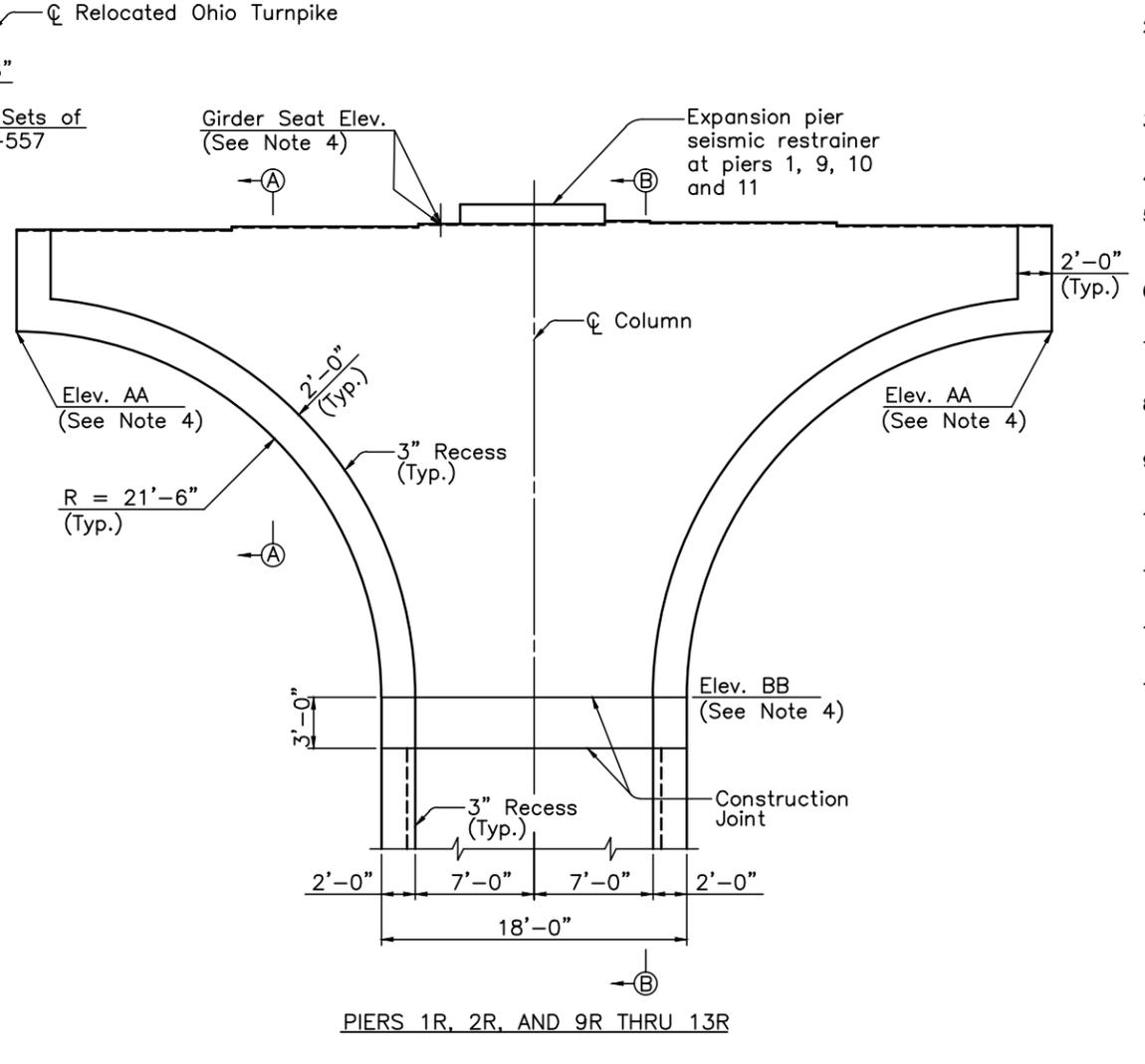
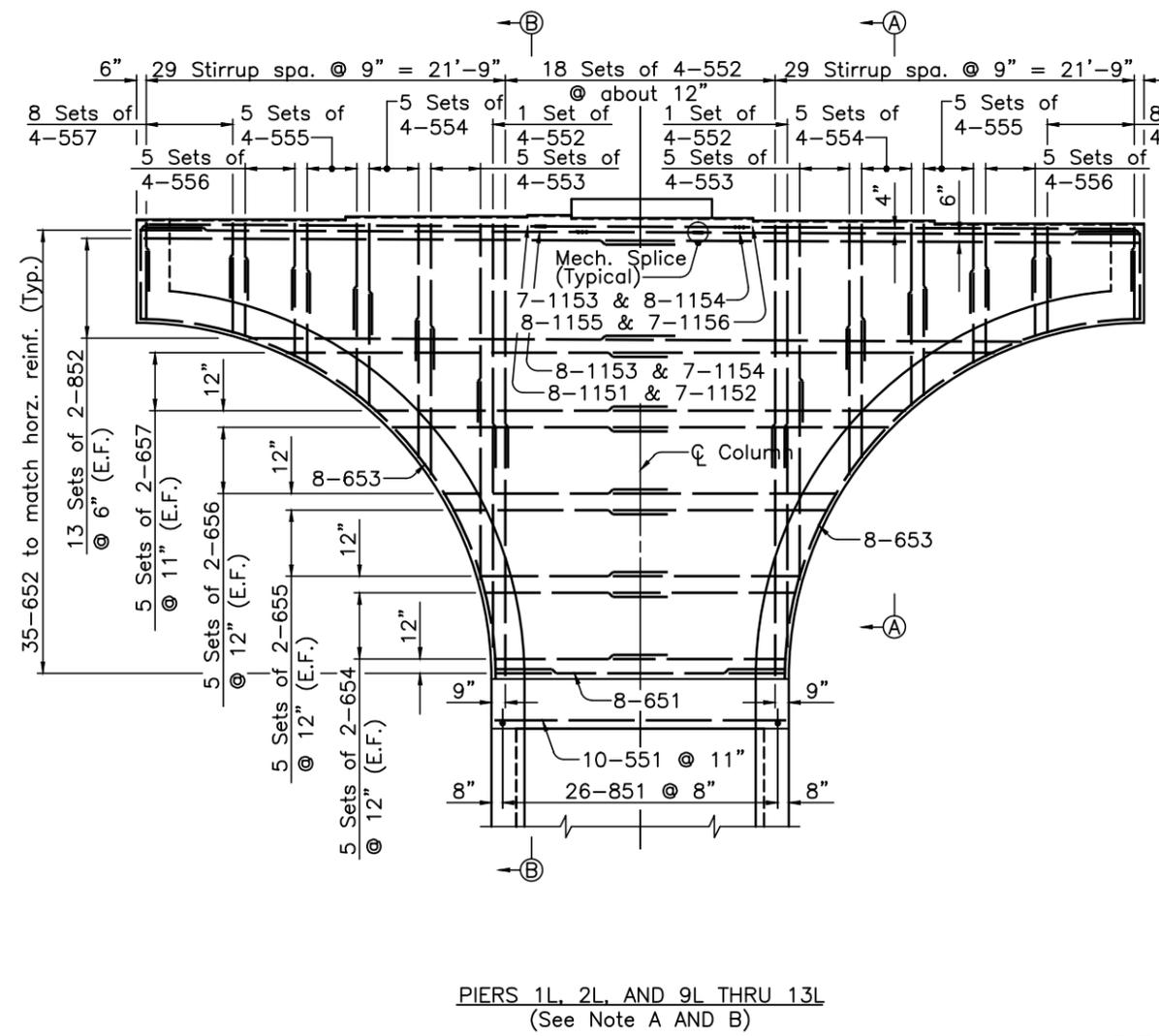
\*\* MEASURED ALONG  $\phi$  BEARING AT PIER 12 (SPAN 5) AND AT PIER 13 (SPAN 5).

\*\*\* 90°00'00" (TO LOCAL TANGENT) AT PIER 13.

**MECHANICAL SPLICE SYSTEM**

THE MECHANICAL SPLICE SYSTEM SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED. FOR ADDITIONAL SPECIFICATIONS, SEE GENERAL NOTES, SHEET B7 OF B129.

**NOTES:**



- ALL REINFORCEMENT IN THE PIER CAPS SHALL BE EPOXY COATED.
- THE DIMENSIONS OF THE 1151 THRU 1156 BARS SHALL BE VERIFIED AFTER A MECHANICAL SPLICE SYSTEM HAS BEEN SELECTED TO INSURE PROPER BAR CLEARANCES.
- FOR SECTIONS A-A AND B-B, SEE SHEET B44 OF B129.
- FOR TABLES, SEE SHEET B46 OF B129.
- FOR COMMON PIER DETAILS, PIER REINF. PREFIX TABLE AND REQUIRED LAP LENGTHS, SEE SHEET B26 OF B129.
- FOR PIER SHAFT DETAILS, SEE SHEET B29, B30 AND B32 OF B129.
- FOR FOOTING DETAILS, SEE SHEET B27 AND B28 OF B129.
- FOR FOOTING LAYOUT AND PILING DETAILS, SEE SHEET B14, B16 AND B17 OF B129.
- FOR ELASTOMERIC BEARING DETAILS, SEE SHEET B47 AND B48 OF B129.
- FOR REINFORCING SCHEDULE, SEE SHEET B111, B112, B124 THRU B127D OF B129.
- FOR SEISMIC RESTRAINER DETAILS AT EXPANSION AND FIXED PIERS, SEE SHEET B46A OF B129.
- FOR LIST OF ABBREVIATIONS USED, SEE GENERAL NOTES, SHEET B6 OF B129.
- FOR SURFACE UNDER BEARINGS NOTE, SEE SHEET B7 OF B129.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER CAP PLAN AND ELEVATION PIERS 1, 2, AND 9 THRU 13 OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: JLV	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B38 OF B129		

DESIGNED BY: DHS  
 CHECKED BY: JLV  
 DATE: 3/9/98  
 DATE: 5/28/98  
 DRAWN BY: CMB  
 REVISIONS BY:  
 DATE: 4/1/98  
 DATE:  
 CAD FILE NAME: 25725 - PierCap1.DWG



**NOTE A:**

1004, 1005, AND 1006 BARS (PIER 4), NO. 11 VERTICAL COLUMN BARS (PIERS 5, 6 AND 7) 401, 417, 433, 434 AND 435 BARS NOT SHOWN. FOR PLACEMENT AND SPACING OF THESE BARS SEE SHEET B31 THRU B37 OF B129.

**NOTE B:**

REINFORCEMENT FOR PIERS 4L THRU 7L SHOWN. REINFORCEMENT FOR PIERS 4R THRU 7R SYMMETRICAL ABOUT  $\bar{C}$  RELOCATED OHIO TURNPIKE.

**NOTE C:**

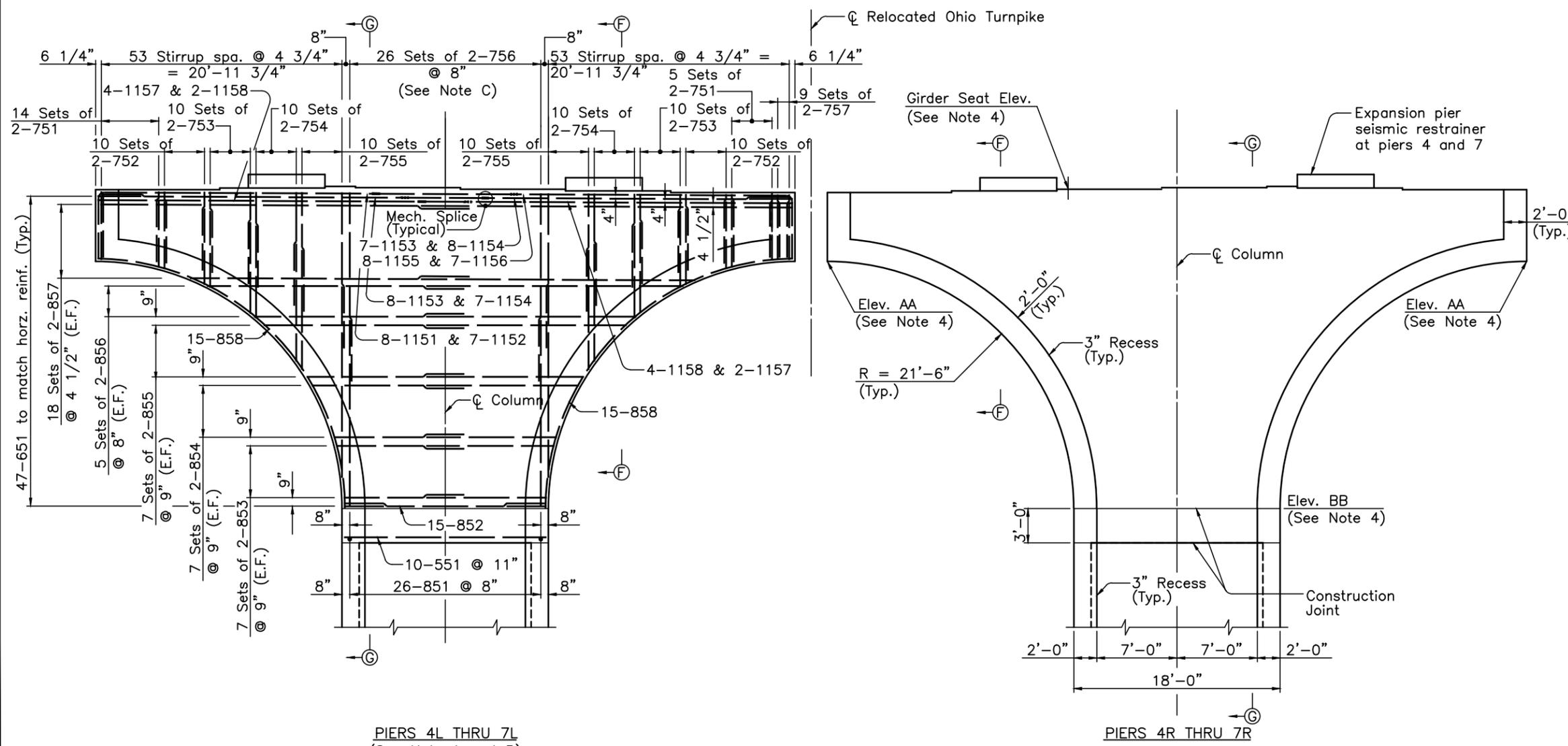
THE SPACING OF THE 756 BARS SHALL BE ADJUSTED AS REQUIRED TO MAINTAIN 2" CLEARANCE FROM THE #10 AND #11 VERTICAL COLUMN BARS.

**MECHANICAL SPLICE SYSTEM**

THE MECHANICAL SPLICE SYSTEM SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED. FOR ADDITIONAL SPECIFICATIONS SEE GENERAL NOTES, SHEET B7 OF B129.

**NOTES:**

- ALL REINFORCEMENT IN THE PIER CAPS SHALL BE EPOXY COATED.
- THE DIMENSIONS OF THE 1151 THROUGH 1158 BARS SHALL BE VERIFIED AFTER A MECHANICAL SPLICE SYSTEM HAS BEEN SELECTED TO INSURE PROPER BAR CLEARANCES.
- FOR SECTIONS F-F AND G-G, SEE SHEET B44 OF B129.
- FOR TABLES, SEE SHEET B46 OF B129.
- FOR COMMON PIER DETAILS, PIER REINF. PREFIX TABLE AND REQUIRED LAP LENGTHS, SEE SHEET B26 OF B129.
- FOR PIER SHAFT DETAILS, SEE SHEET B31 THROUGH B37 OF B129.
- FOR FOOTING DETAILS, SEE SHEET B27 AND B28 OF B129.
- FOR FOOTING LAYOUT AND PILING DETAILS, SEE SHEET B15 OF B129.
- FOR ELASTOMERIC BEARING DETAILS, SEE SHEET B47 AND B48 OF B129.
- FOR REINFORCING SCHEDULE, SEE SHEET B115 THROUGH B121 OF B129.
- FOR SEISMIC RESTRAINER DETAILS AT EXPANSION AND FIXED PIERS, SEE SHEET B46A OF B129.
- FOR LIST OF ABBREVIATIONS SEE GENERAL NOTES, SHEETS B6 OF B129.
- FOR "SURFACE UNDER BEARINGS" NOTE, SEE SHEET B7 OF B129.



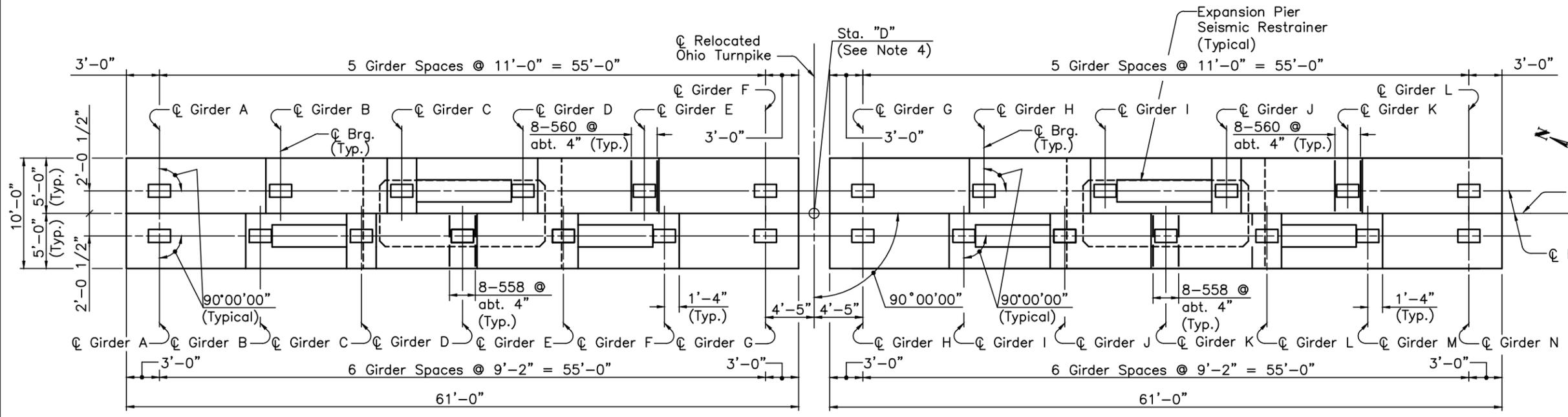
PIERS 4L THRU 7L  
(See Note A and B)

PIERS 4R THRU 7R

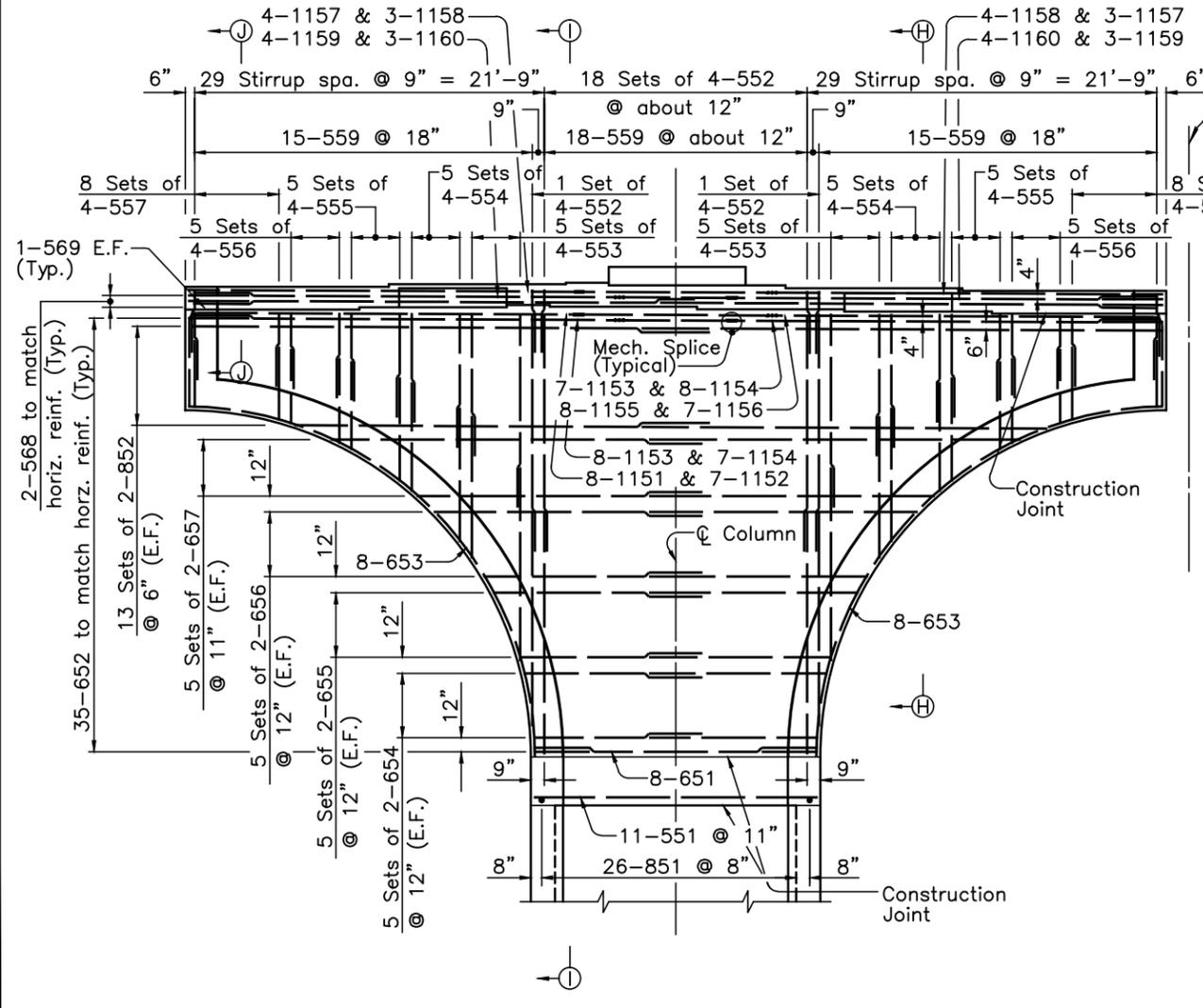
ELEVATION

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER CAP PLAN AND ELEVATION PIERS 4 THRU 7 OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: JLV	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B40 OF B129		

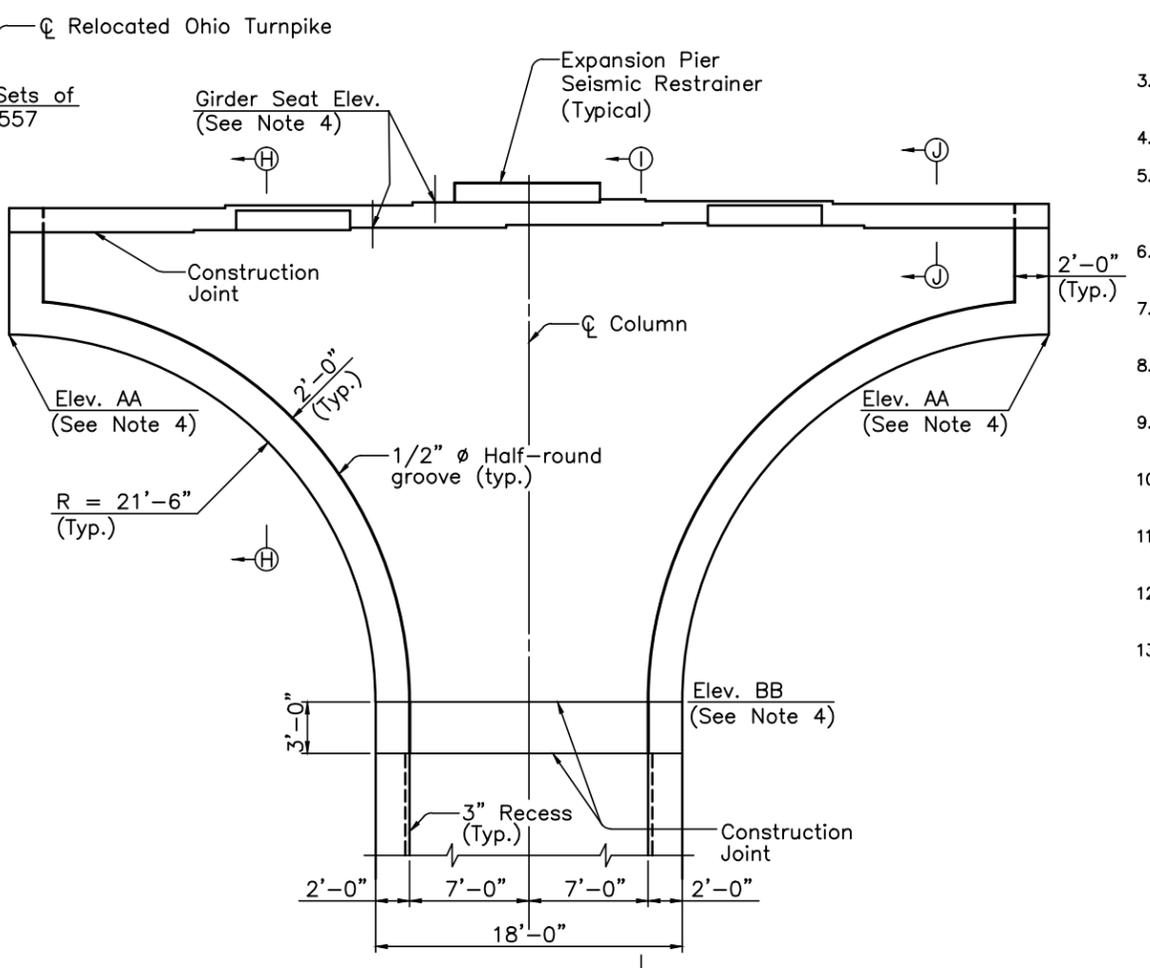
DESIGNED BY: DHS CHECKED BY: JLV  
DATE: 3/6/98 DATE: 5/28/98  
DRAWN BY: CMB REVISIONS BY:  
DATE: 4/15/98 DATE:  
CAD FILE NAME: 25725 - PierCap3.dwg



PLAN



PIER 8L  
(See Note A and B)



ELEVATION

**NOTE A:**  
1004, 1005, 1006, 401, 417, 433, AND 434 BARS NOT SHOWN. FOR PLACEMENT AND SPACING OF THESE BARS SEE SHEET B30 AND B32 OF B129.

**NOTE B:**  
REINFORCEMENT FOR PIER 8L SHOWN, REINFORCEMENT FOR PIER 8R SYMMETRICAL ABOUT CL RELOCATED OHIO TURNPIKE.

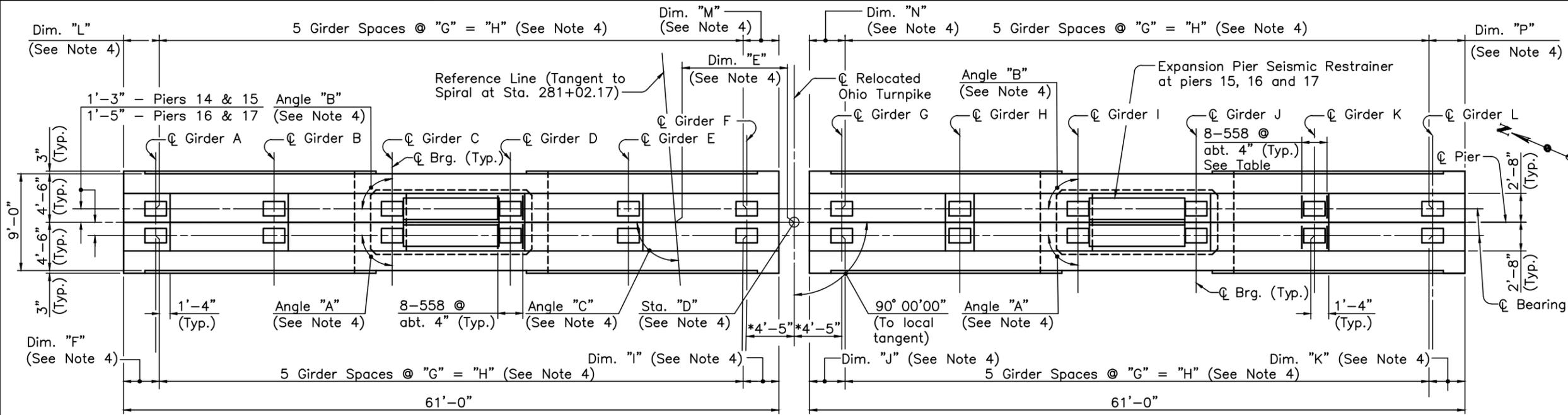
**MECHANICAL SPLICE SYSTEM**  
THE MECHANICAL SPLICE SYSTEM SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED. FOR ADDITIONAL SPECIFICATIONS, SEE GENERAL NOTES, SHEET B7 OF B129.

- NOTES:**
- ALL REINFORCEMENT IN THE PIER CAPS SHALL BE EPOXY COATED.
  - THE DIMENSIONS OF THE 1151 THRU 1160 BARS SHALL BE VERIFIED AFTER A MECHANICAL SPLICE SYSTEM HAS BEEN SELECTED TO INSURE PROPER BAR CLEARANCES.
  - FOR SECTIONS H-H THRU J-J, SEE SHEET B45 OF B129.
  - FOR TABLES, SEE SHEET B46 OF B129.
  - FOR COMMON PIER DETAILS, PIER REINF. PREFIX TABLE AND REQUIRED LAP LENGTHS, SEE SHEET B26 OF B129.
  - FOR PIER SHAFT DETAILS, SEE SHEET B30 AND B32 OF B129.
  - FOR FOOTING DETAILS, SEE SHEET B28 OF B129.
  - FOR FOOTING LAYOUT AND PILING DETAILS, SEE SHEET B16 OF B129.
  - FOR ELASTOMERIC BEARING DETAILS, SEE SHEET B47 OF B129.
  - FOR REINFORCING SCHEDULE, SEE SHEET B122 AND B123 OF B129.
  - FOR SEISMIC RESTRAINER DETAILS AT EXPANSION PIER, SEE SHEET B46A OF B129.
  - FOR LIST OF ABBREVIATIONS SEE GENERAL NOTES, SHEET B6 OF B129.
  - FOR "SURFACE UNDER BEARINGS" NOTE, SEE SHEET B7 OF B129.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PIER CAP PLAN AND ELEVATION</b>		
<b>PIER 8</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: JLV	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B41 OF B129		

DESIGNED BY: DHS  
DATE: 3/6/98  
DRAWN BY: CMB  
DATE: 4/15/98  
CAD FILE NAME: 25725 - PierCap4.dwg

CHECKED BY: JLV  
DATE: 5/28/98  
REVISOR: JLV  
DATE: 12/31/98



**LEGEND**  
 \*MEASURED ALONG  $\phi$  PIER.

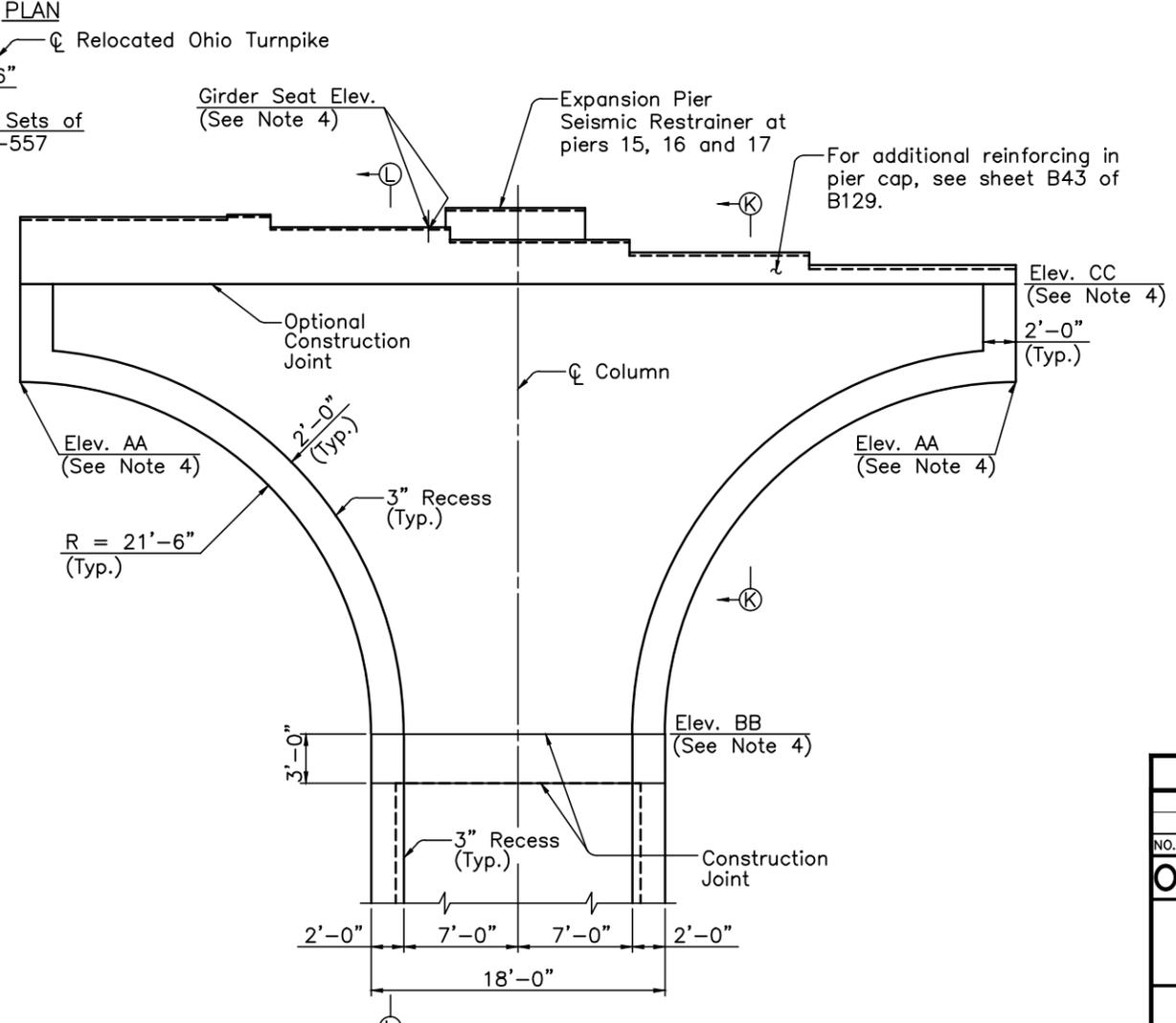
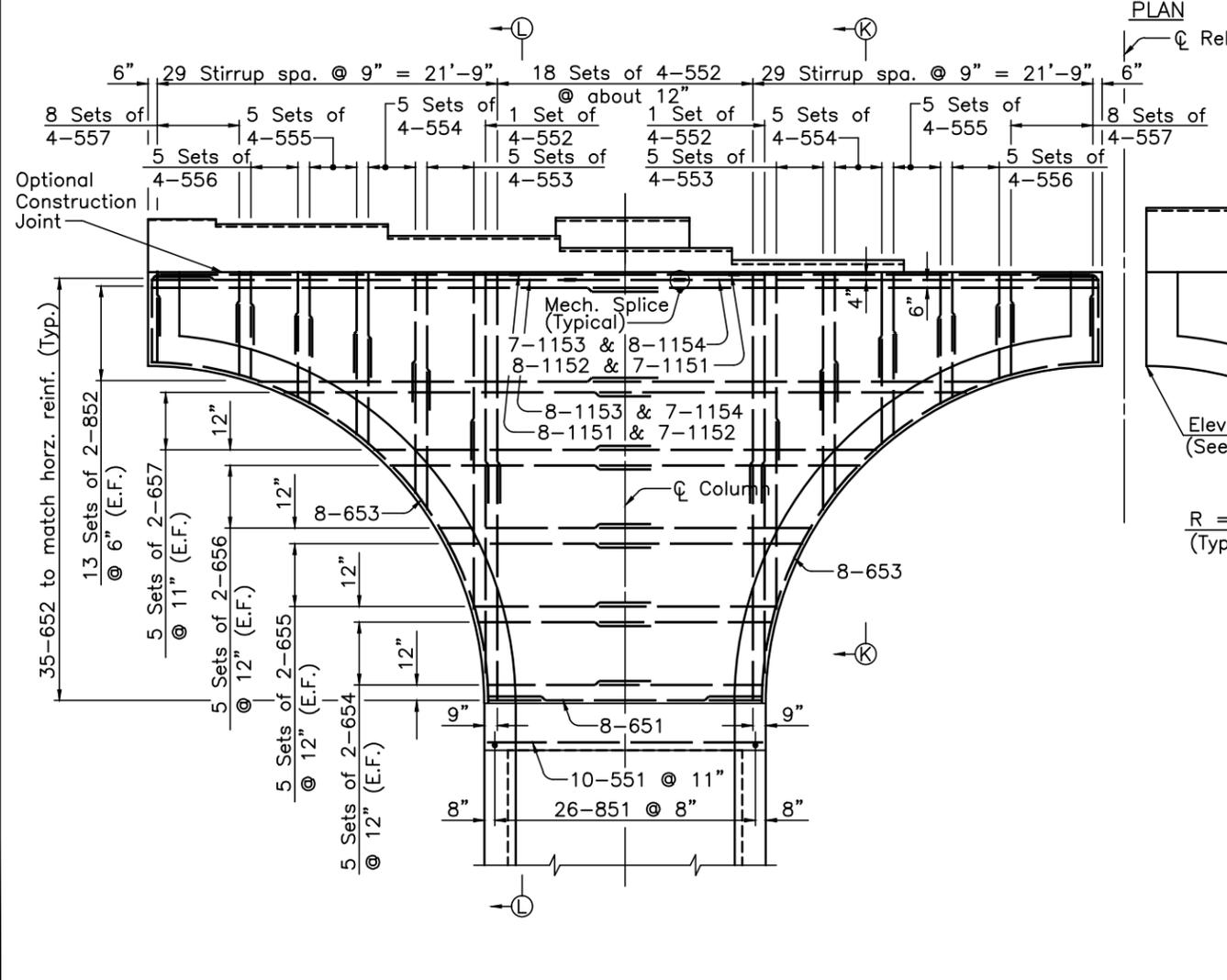
**NOTE A:**  
 804, 805 AND 806 BARS (PIER 17), 1004, 1005 AND 1006 BARS (PIERS 14, 15 AND 16), 401, 417, 433 AND 434 BARS NOT SHOWN. FOR PLACEMENT AND SPACING OF THESE BARS SEE SHEET B30 AND B32 OF B129.

**NOTE B:**  
 REINFORCEMENT FOR PIERS 14L THRU 17L SHOWN. REINFORCEMENT FOR PIERS 14R THRU 17R IDENTICAL EXCEPT AS SHOWN ON SHEET B43 OF B129.

**MECHANICAL SPICE SYSTEM**  
 THE MECHANICAL SPICE SYSTEM SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED. FOR ADDITIONAL SPECIFICATIONS, SEE GENERAL NOTES, SHEET B7 OF B129.

**NOTES:**

1. ALL REINFORCEMENT IN THE PIER CAPS SHALL BE EPOXY COATED.
2. THE DIMENSIONS OF THE 1151 THROUGH 1156 BARS SHALL BE VERIFIED AFTER A MECHANICAL SPICE SYSTEM HAS BEEN SELECTED TO INSURE PROPER BAR CLEARANCES.
3. FOR SECTIONS K-K AND L-L, SEE SHEET B45 OF B129.
4. FOR TABLES, SEE SHEET B46 OF B129.
5. FOR COMMON PIER DETAILS, PIER REINF. PREFIX TABLE, AND REQUIRED LAP LENGTHS, SEE SHEET B26 OF B129.
6. FOR PIER SHAFT DETAILS, SEE SHEET B29, B30 AND B32 OF B129.
7. FOR FOOTING DETAILS, SEE SHEET B27 AND B28 OF B129.
8. FOR FOOTING LAYOUT AND PILING DETAILS, SEE SHEET B17 AND B18 OF B129.
9. FOR ELASTOMERIC BEARING DETAILS, SEE SHEET B47 AND B48 OF B129.
10. FOR REINFORCING SCHEDULE, SEE SHEET B127E THROUGH B127J OF B129.
11. FOR SEISMIC RESTRAINER DETAILS AT EXPANSION AND FIXED PIERS, SEE SHEET B46A OF B129.
12. FOR LIST OF ABBREVIATIONS SEE GENERAL NOTES, SHEET B6 OF B129.
13. FOR "SURFACE UNDER BEARINGS" NOTE, SEE SHEET B7 OF B129.



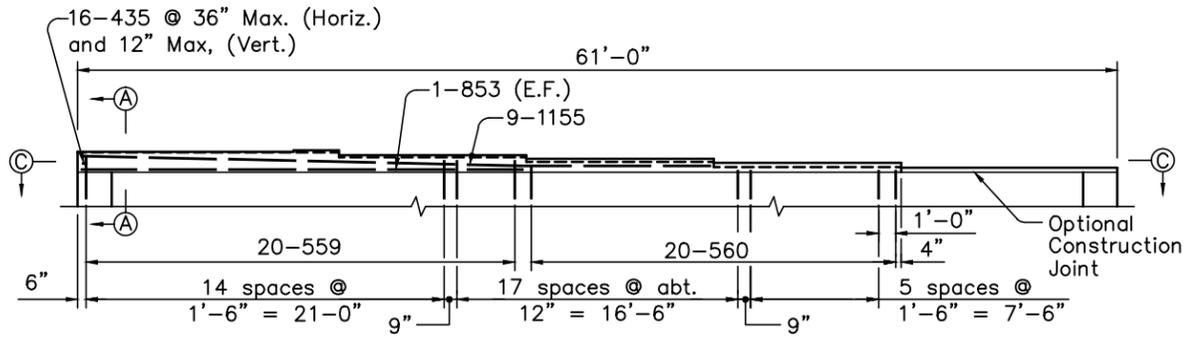
PIERS 14L THRU 17L  
 (See Note A and B)

ELEVATION

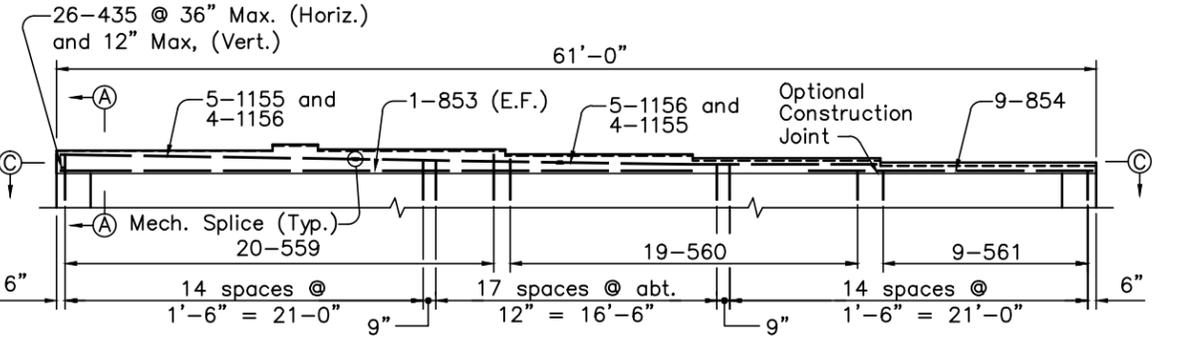
PIERS 14R THRU 17R

DESIGNED BY: DHS  
 DATE: 3/6/98  
 DRAWN BY: CMB  
 DATE: 4/21/98  
 CHECKED BY: JLV  
 DATE: 5/28/98  
 REVISED BY:  
 DATE:  
 CAD FILE NAME: 25725 - PierCap5.dwg

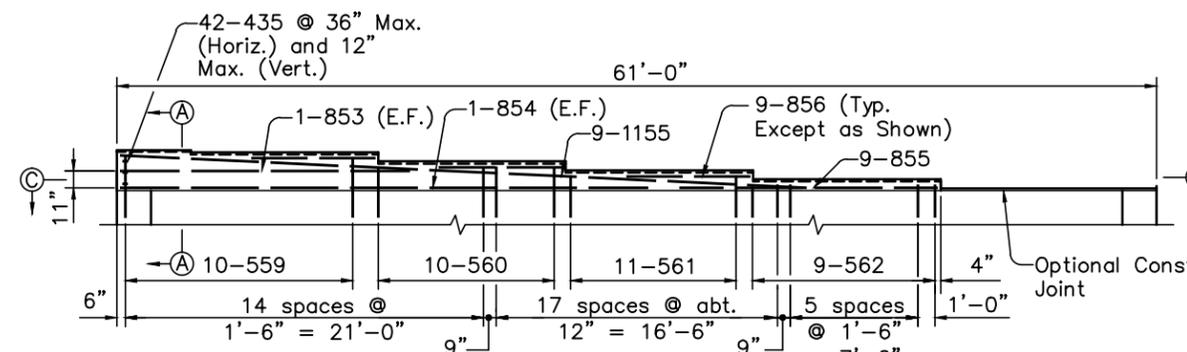
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RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER CAP PLAN & ELEVATION PIERS 14-17		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: JLV	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B42 OF B129		



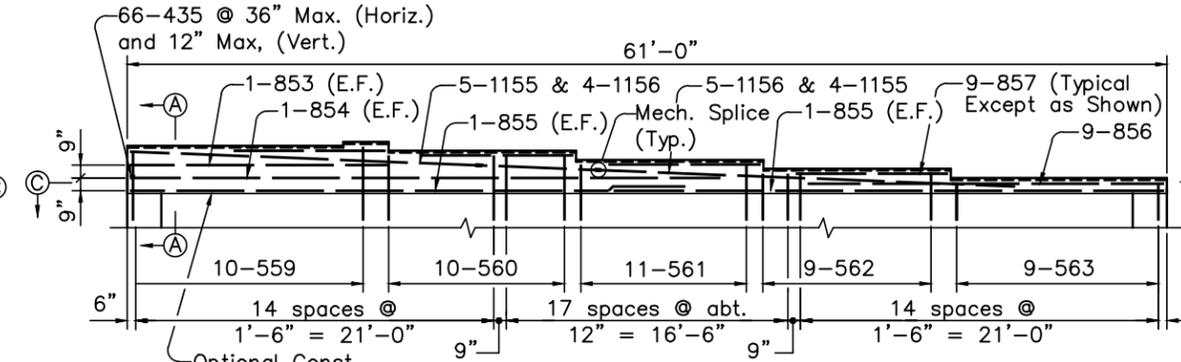
\*PART ELEVATION - PIER 14L (FIXED)



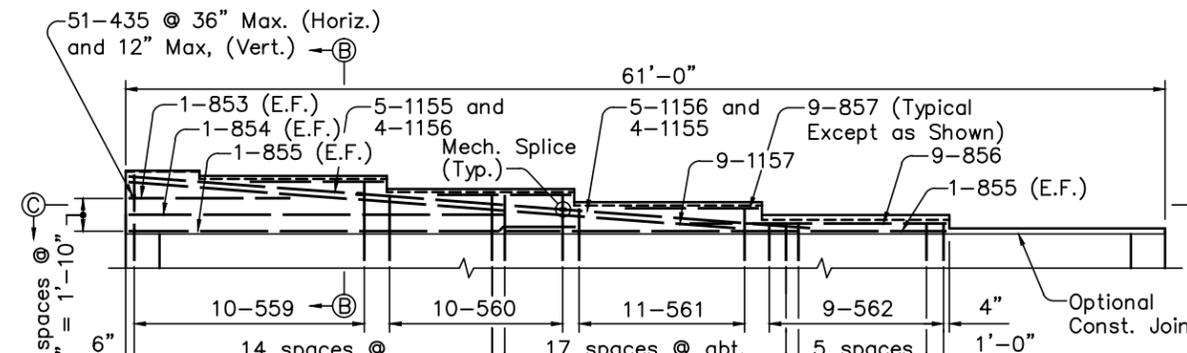
\*PART ELEVATION - PIER 14R (FIXED)



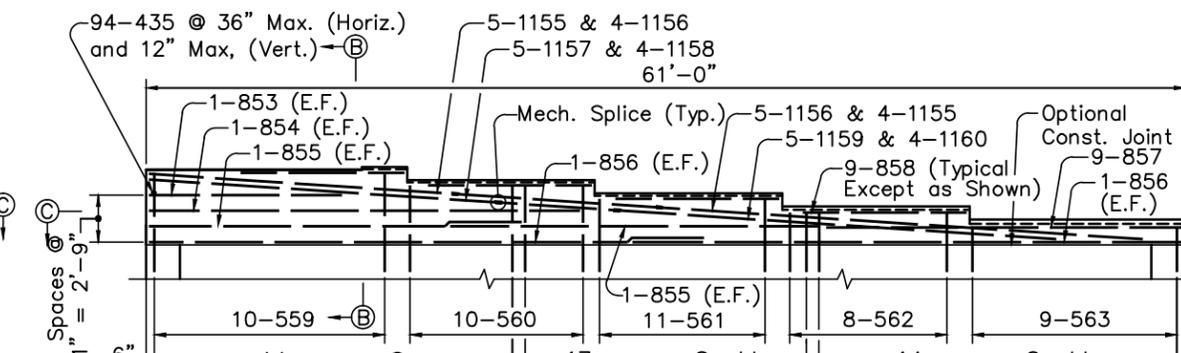
\*PART ELEVATION - PIER 15L (EXPANSION)



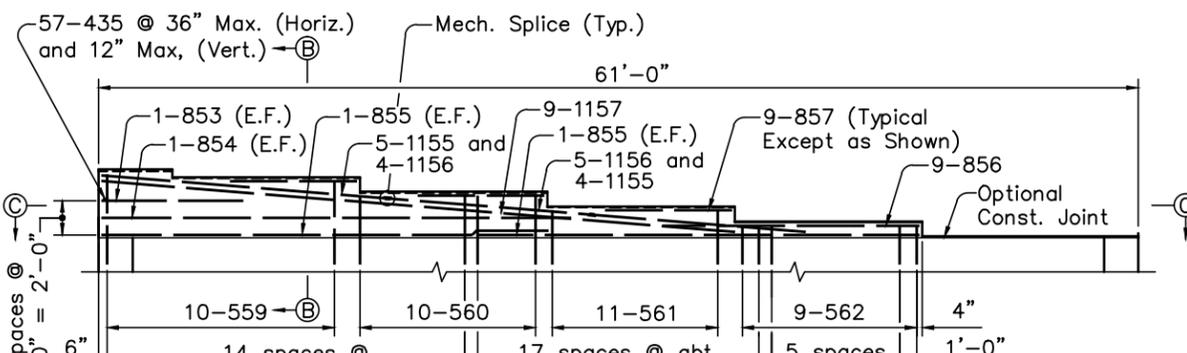
\*PART ELEVATION - PIER 15R (EXPANSION)



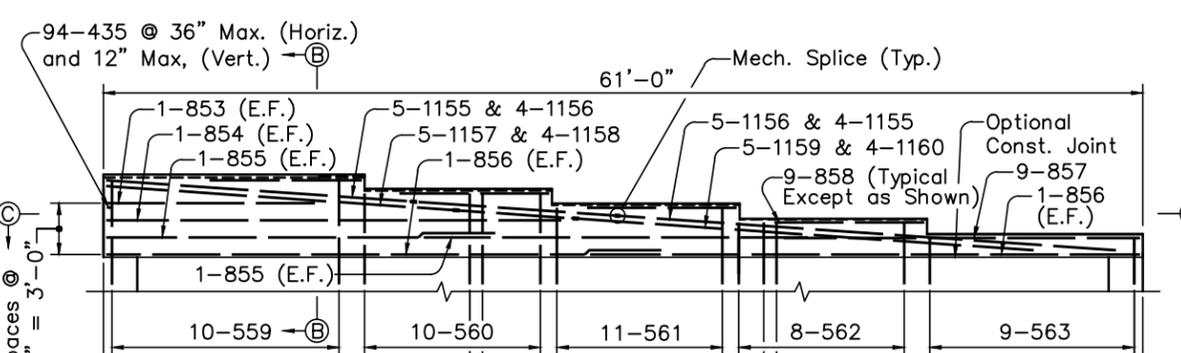
\*PART ELEVATION - PIER 16L (EXPANSION)



\*PART ELEVATION - PIER 16R (EXPANSION)



\*PART ELEVATION - PIER 17L (EXPANSION)



\*PART ELEVATION - PIER 17R (EXPANSION)

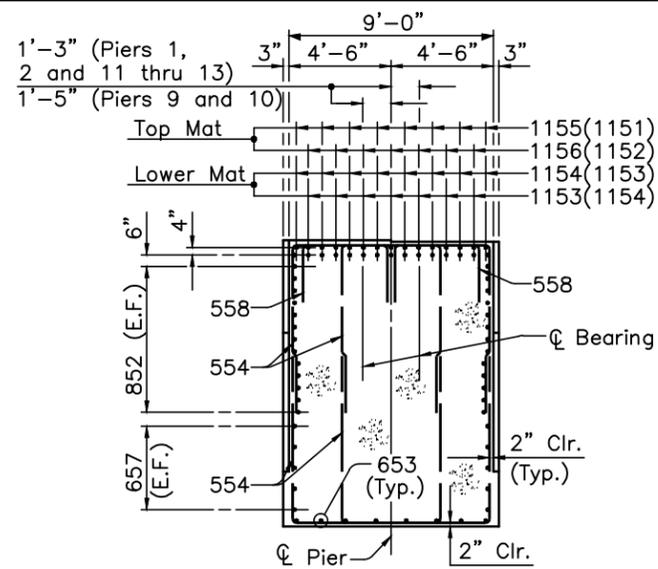
- NOTE:
- FOR LOCATION OF SECTIONS A-A THRU C-C SEE SHEET B45 OF B129.
  - FOR ADDITIONAL PIER DETAILS SEE SHEETS B29, B30 AND B42 OF B129.
  - FOR LIST OF ABBREVIATIONS, SEE GENERAL NOTES, SHEET B6 OF B129.
  - ALL REINFORCING IN PIER CAPS SHALL BE EPOXY COATED.
  - FOR TABLES, SEE SHEET B46 OF B129.
  - FOR REINFORCING SCHEDULE, SEE SHEET B127E THRU B127J OF B129.
  - FOR COMMON PIER DETAILS, PIER REINFORCING PREFIX TABLE AND REQUIRED LAP LENGTHS, SEE SHEET B26 OF B129.
  - THE DIMENSIONS OF BARS 1155 THRU 1160 SHALL BE VERIFIED AFTER A MECHANICAL SPlice SYSTEM HAS BEEN SELECTED TO INSURE PROPER BAR CLEARANCES.

**MECHANICAL SPlice SYSTEM**  
 THE MECHANICAL SPlice SYSTEM SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED. FOR ADDITIONAL SPECIFICATIONS SEE GENERAL NOTES, SHEET B7 OF B129.

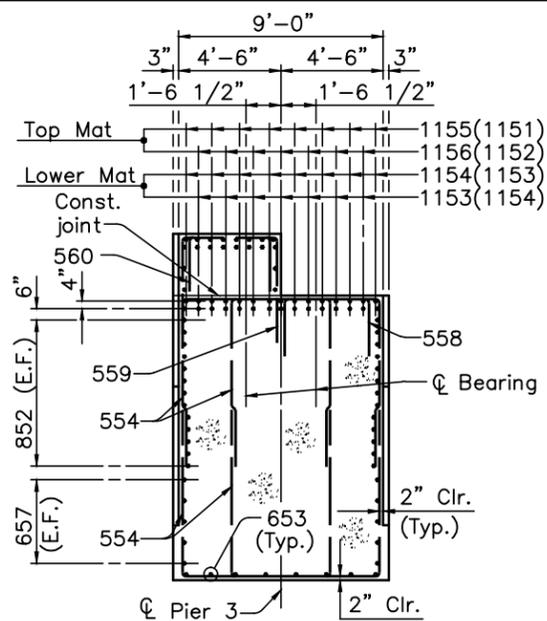
**LEGEND**  
 \* SEISMIC RESTRAINERS NOT SHOWN. FOR LOCATION ON EXPANSION PIER CAPS, SEE SHEET B42 OF B129. FOR DETAILS AT EXPANSION AND FIXED PIERS SEE SHEET B46A.

DESIGNED BY: MJL  
 DATE: 5/12/98  
 DRAWN BY: CMB  
 DATE: 5/18/98  
 CAD FILE NAME: 25725 - Piercap9.DWG

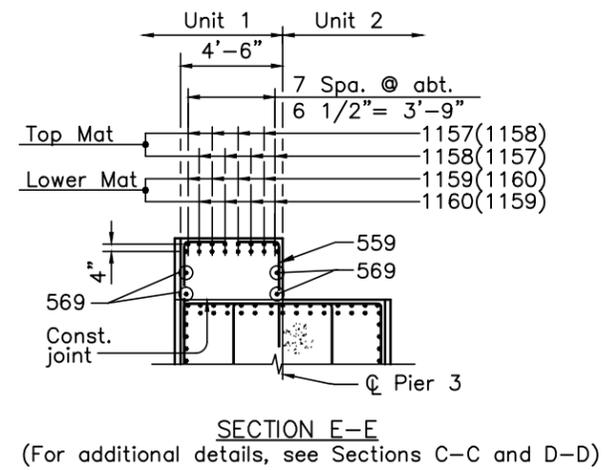
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RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIERS 14 THRU 17 CAP DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: MJL	CHECKED: JLV	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B43 OF B129		



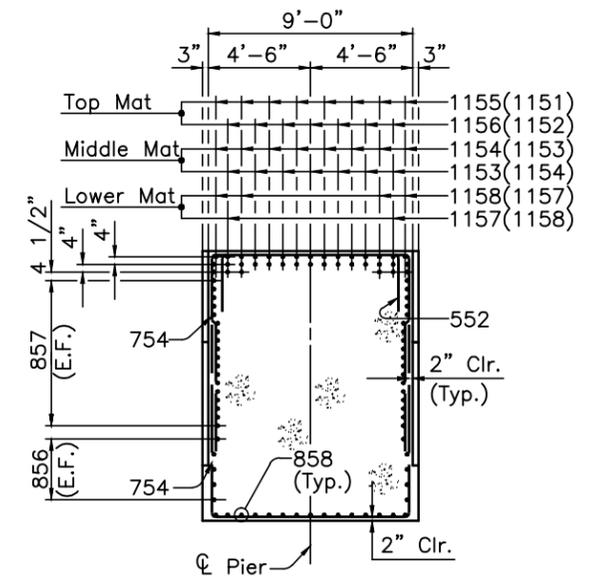
**SECTION A-A**  
(For additional details, see Section B-B)



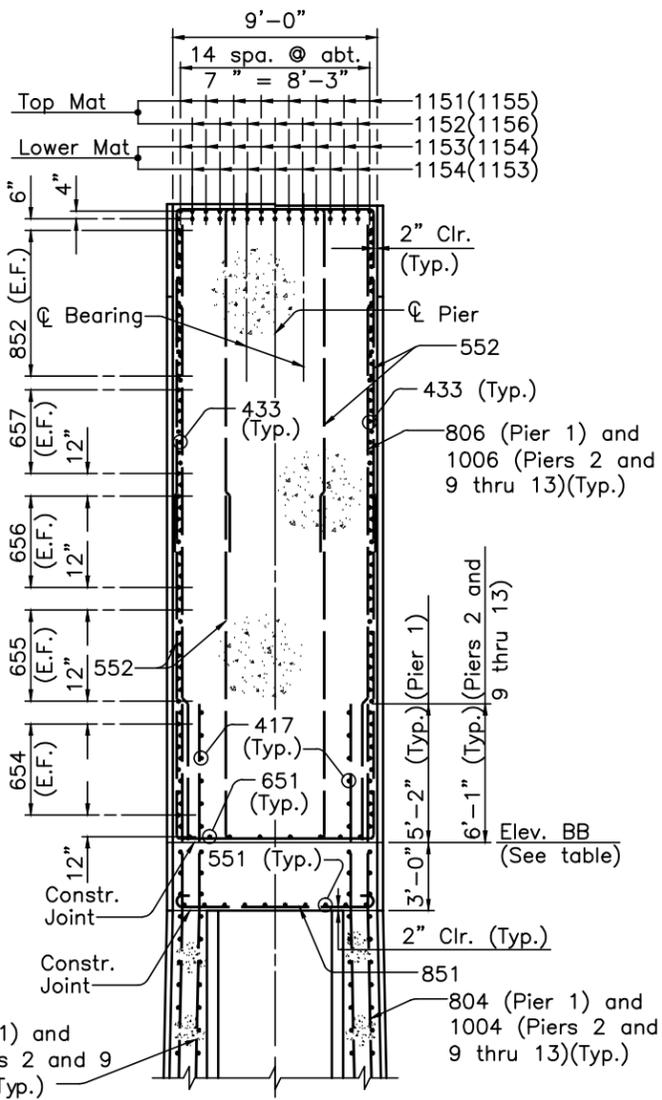
**SECTION C-C**  
(For additional details, see Section D-D and E-E)



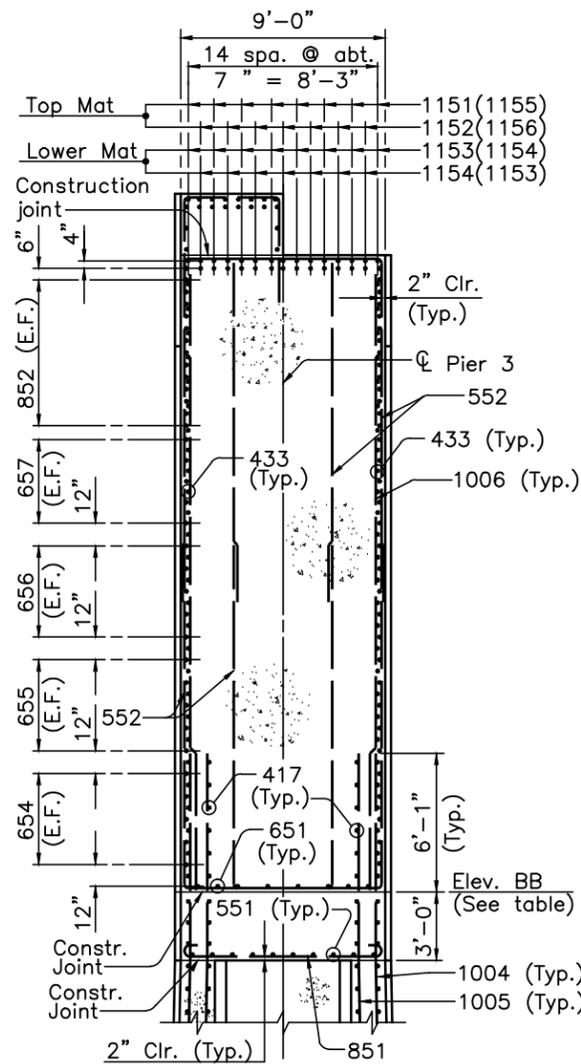
**SECTION E-E**  
(For additional details, see Sections C-C and D-D)



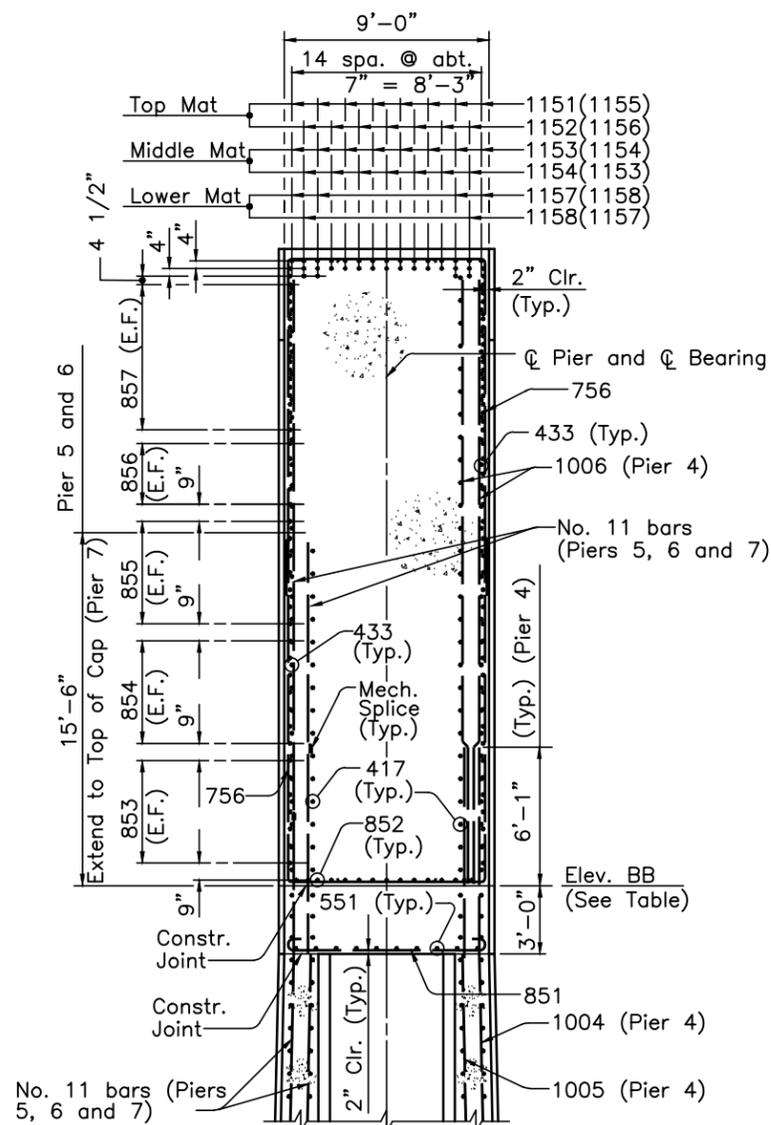
**SECTION F-F**  
(For additional details, see Section G-G)



**SECTION B-B**  
(401 and 434 bars not shown)  
(For additional details, see Section A-A)



**SECTION D-D**  
(401 and 434 bars not shown)  
(For additional details, see Section C-C and E-E)

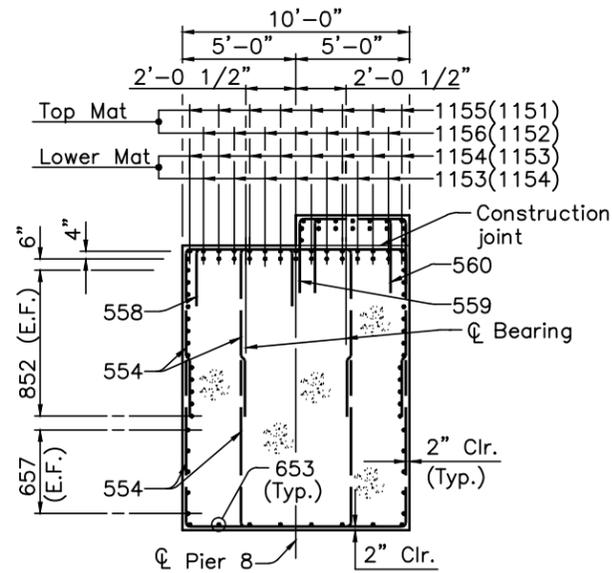


**SECTION G-G**  
(401, 434 and 435 bars not shown)  
(For additional details, see Section F-F)

- NOTES:**
1. FOR LOCATION OF SECTIONS A-A AND B-B, SEE SHEET B38 OF B129.
  2. FOR LOCATION OF SECTIONS C-C, D-D AND E-E, SEE SHEET B39 OF B129.
  3. FOR LOCATION OF SECTIONS F-F AND G-G, SEE SHEET B40 OF B129.
  4. FOR MECHANICAL SPLICE SYSTEM NOTE, SEE SHEET B38 OF B129.
  5. FOR TABLES, SEE SHEET B46 OF B129.
  6. FOR REINFORCEMENT SCHEDULE, SEE SHEETS B111 THRU B127, B127A THRU B127J OF B129.

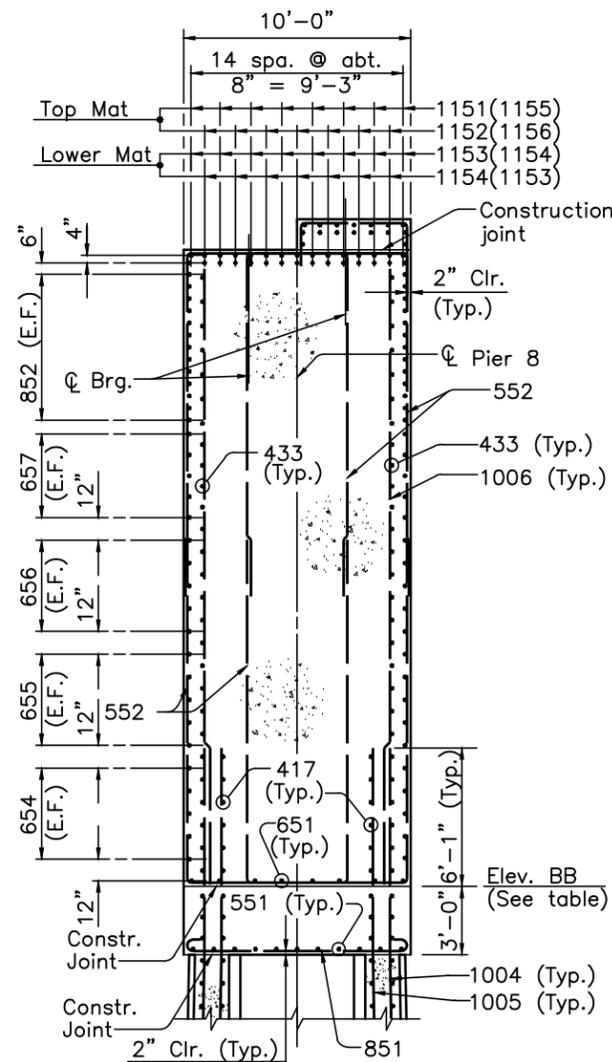
DESIGNED BY: DHS  
 DATE: 3/6/98  
 DRAWN BY: CMB  
 DATE: 4/13/98  
 CHECKED BY: JLV  
 DATE: 5/29/98  
 REVISIONS BY: JLV  
 DATE: 12/31/98  
 CAD FILE NAME: 25725 - PierCap6.DWG

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PIER CAP DETAILS</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: DHS	CHECKED: JLV	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS
<b>CONTRACT 43-99-01 SHEET B44 OF B129</b>		



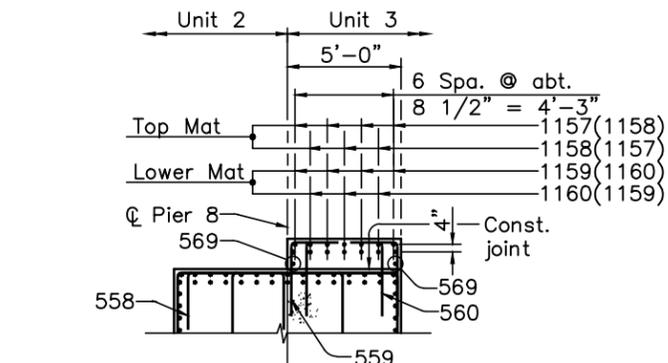
SECTION H-H

(For additional details, see Section I-I and J-J)



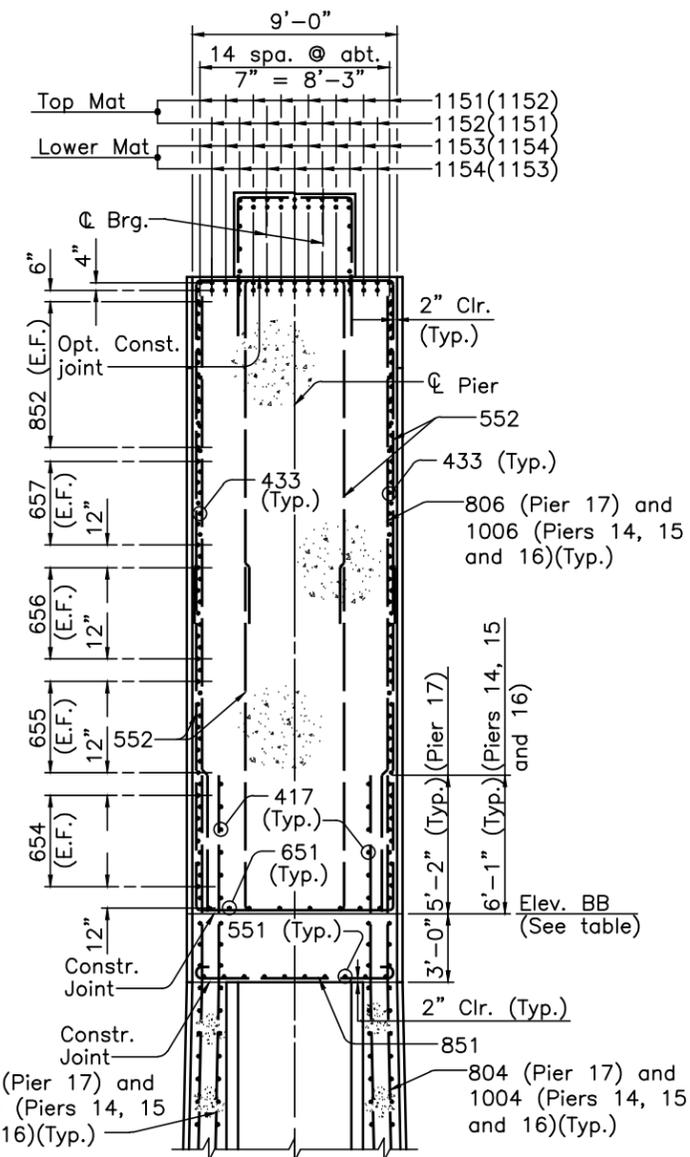
SECTION I-I

(401 and 434 bars not shown)  
(For additional details, see Section H-H and J-J)



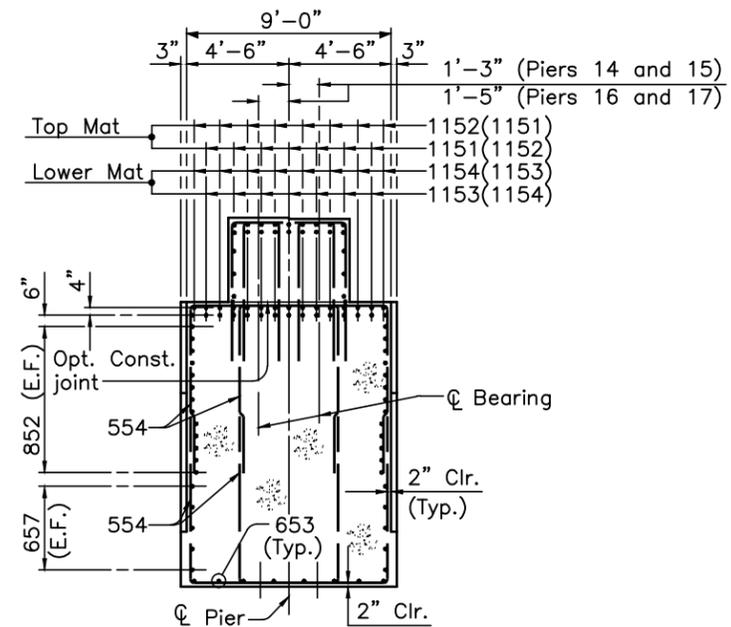
SECTION J-J

(For additional details, see Sections H-H and I-I)



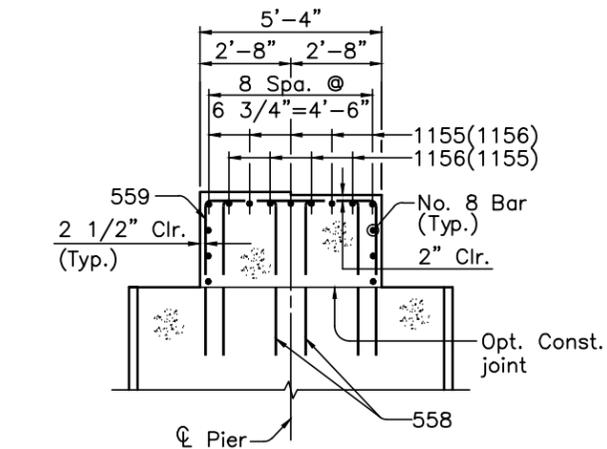
SECTION L-L

(401 and 434 bars not shown)  
(For additional details, see Section K-K)



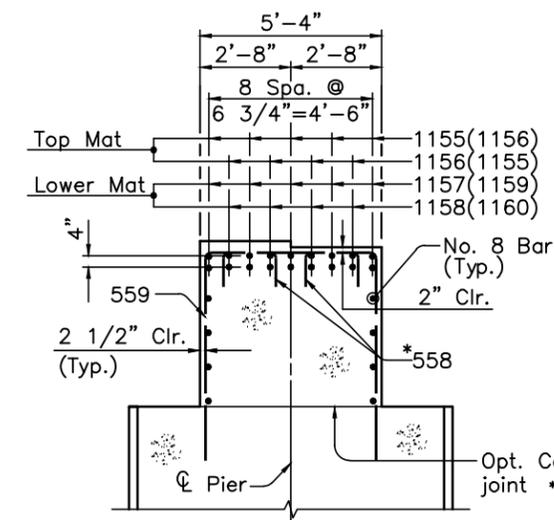
SECTION K-K

(For additional details, see Section L-L)



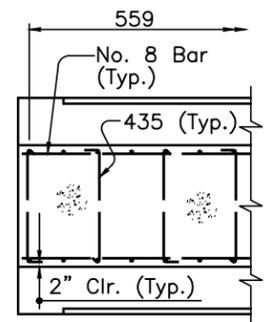
SECTION A-A

(Pier 15R shown, all others similar)



SECTION B-B

(Pier 16R and 17R shown,  
Pier 16L and 17L similar)



SECTION C-C

NOTES:

1. FOR LOCATION OF SECTIONS A-A THRU C-C, SEE SHEET B43 OF B129.
2. FOR LOCATION OF SECTIONS H-H, I-I AND J-J, SEE SHEET B41 OF B129.
3. FOR LOCATION OF SECTIONS K-K AND L-L, SEE SHEET B42 OF B129.
4. FOR MECHANICAL SPLICE SYSTEM NOTE, SEE SHEET B42 OF B129.
5. FOR TABLES, SEE SHEET B46 OF B129.
6. FOR REINFORCEMENT SCHEDULE, SEE SHEETS B122, B123 AND B127E THRU B127J OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>PIER CAP DETAILS</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: JLV	DATE: 12/31/98	
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B45 OF B129			

DESIGNED BY: DHS  
DATE: 3/6/98  
DRAWN BY: CMB  
DATE: 4/15/98  
CHECKED BY: JLV  
DATE: 5/29/98  
REVISIONS BY: JLV  
DATE: 12/31/98  
SCALE: NTS  
CAD FILE NAME: 25725 - PierCap7.dwg

\*NOTE:  
558 BARS EXTEND BELOW  
THE OPTIONAL CONSTRUCTION  
JOINT AT PIERS 16L AND 17L.

GIRDER SEAT ELEVATION TABLE - UNIT 1												
GIRDER	A	B	C	D	E	F	G	H	I	J	K	L
PIER	Westbound (Left Pier)						Eastbound (Right Pier)					
BACK ABUT.	834.17	834.35	834.51	834.66	834.80	834.34	833.92	834.09	834.26	834.44	834.55	834.30
1 (SPAN 1)	831.97	832.14	832.26	832.20	832.13	831.73	831.72	831.89	832.06	832.23	832.21	831.92
1 (SPAN 2)	831.88	832.07	832.19	832.06	831.95	831.69	831.63	831.82	831.99	832.16	832.10	831.91
2 (SPAN 2)	829.41	829.60	829.69	829.48	829.24	829.11	829.15	829.35	829.52	829.69	839.56	829.39
2 (SPAN 3)	829.40	829.57	829.66	829.48	829.32	829.15	829.15	829.32	829.49	829.66	829.57	829.40
3 (SPAN 3)	827.13	827.30	827.39	827.22	827.05	826.88	826.88	827.05	827.22	827.39	827.30	827.13

GIRDER SEAT ELEVATION TABLE - UNIT 2														
GIRDER	A	B	C	D	E	F	G	H	I	J	K	L	M	N
PIER	Westbound (Left Pier)							Eastbound (Right Pier)						
3 (SPAN 4)	824.49	824.63	824.77	824.66	824.52	824.38	824.23	824.23	824.38	824.52	824.66	824.77	824.63	824.49
4	821.47	821.61	821.75	821.64	821.50	821.36	821.22	821.22	821.36	821.50	821.64	821.75	821.61	821.47
5	817.75	817.89	818.03	817.92	817.78	817.64	817.50	817.50	817.64	817.78	817.92	818.03	817.89	817.75
6	813.75	813.89	814.03	813.92	813.78	813.64	813.50	813.50	813.64	813.78	813.92	814.03	813.89	813.75
7	809.50	809.64	809.78	809.67	809.53	809.39	809.25	809.25	809.39	809.53	809.67	809.78	809.64	809.50
8 (SPAN 8)	806.54	806.68	806.82	806.72	806.57	806.43	806.29	806.29	806.43	806.57	806.72	806.82	806.68	806.54

GIRDER SEAT ELEVATION TABLE - UNIT 3												
GIRDER	A	B	C	D	E	F	G	H	I	J	K	L
PIER	Westbound (Left Pier)						Eastbound (Right Pier)					
8 (SPAN 1)	807.95	808.15	808.24	808.07	807.90	807.72	807.61	807.78	807.95	808.12	808.03	807.86
9 (SPAN 1)	805.32	805.53	805.62	805.45	805.28	805.10	805.00	805.17	805.34	805.51	805.42	805.25
9 (SPAN 2)	805.25	805.48	805.55	805.38	805.19	805.04	804.95	805.12	805.30	805.47	805.38	805.20
10 (SPAN 2)	802.51	802.68	802.77	802.60	802.43	802.25	802.17	802.34	802.51	802.68	802.59	802.42
10 (SPAN 3)	802.45	802.62	802.71	802.54	802.37	802.20	802.10	802.27	802.45	802.62	802.53	802.35
11 (SPAN 3)	799.70	799.87	799.97	799.79	799.62	799.45	799.36	799.53	799.70	799.87	799.78	799.61
11 (SPAN 4)	799.65	799.82	799.92	799.74	799.57	799.40	799.31	799.48	799.65	799.82	799.73	799.56
12 (SPAN 4)	797.06	797.23	797.33	797.15	796.98	796.81	796.71	796.88	797.05	797.23	797.13	796.96
12 (SPAN 5)	796.97	797.18	797.28	797.10	796.93	796.76	796.66	796.81	796.98	797.15	797.06	796.91
13 (SPAN 5)	794.34	794.56	794.49	794.31	794.14	793.97	794.05	794.50	794.46	794.41	794.27	794.12
13 (SPAN 6)	794.30	794.51	794.45	794.33	794.22	794.06	794.09	794.48	794.43	794.39	794.29	794.16
14 (SPAN 6)	791.82	791.90	791.63	791.40	791.18	790.93	791.88	792.23	791.95	791.66	791.42	791.18
14 (SPAN 7)	791.78	791.78	791.52	791.22	790.94	790.60	791.86	792.15	791.86	791.57	791.28	790.97
15 (SPAN 7)	789.08	788.97	788.47	787.94	797.42	786.85	789.43	789.67	789.15	788.62	788.10	787.56
15 (SPAN 8)	789.04	788.79	788.29	797.76	787.23	786.68	789.35	789.57	789.04	788.51	787.98	787.43
16 (SPAN 8)	786.57	786.18	785.45	784.69	783.93	783.14	797.12	787.30	786.53	785.77	785.00	784.22
16 (SPAN 9)	786.49	785.99	785.23	784.42	783.61	782.81	787.16	787.17	786.40	785.61	784.80	783.97
17 (SPAN 9)	784.45	783.90	783.06	782.18	781.29	780.41	785.19	785.19	784.34	783.48	782.59	781.68
17 (SPAN 10)	784.35	783.84	783.03	782.18	781.33	780.46	785.01	785.05	784.20	783.36	782.51	781.70
FWD. ABUT.	783.05	782.55	781.73	780.88	780.04	779.17	783.87	783.96	783.11	782.26	781.41	780.57

TABLE OF ELEVATIONS							
WESTBOUND (LEFT) PIERS	ELEVATION	ELEVATION	ELEVATION	EASTBOUND (RIGHT) PIERS	ELEVATION	ELEVATION	ELEVATION
PIERS	AA	BB	CC	PIERS	AA	BB	CC
PIER 1L	825.73	804.23	-----	PIER 1R	825.67	804.17	-----
PIER 2L	823.15	801.65	-----	PIER 2R	823.17	801.67	-----
PIER 3L	818.15	796.65	-----	PIER 3R	818.15	796.65	-----
PIER 4L	815.15	793.65	-----	PIER 4R	815.15	793.65	-----
PIER 5L	811.38	789.88	-----	PIER 5R	811.38	789.88	-----
PIER 6L	807.38	785.88	-----	PIER 6R	807.38	785.88	-----
PIER 7L	803.15	781.65	-----	PIER 7R	803.15	781.65	-----
PIER 8L	800.22	778.72	-----	PIER 8R	800.22	778.72	-----
PIER 9L	798.99	777.49	-----	PIER 9R	798.99	777.49	-----
PIER 10L	796.15	774.65	-----	PIER 10R	796.15	774.65	-----
PIER 11L	793.36	771.86	-----	PIER 11R	793.36	771.86	-----
PIER 12L	790.71	769.21	-----	PIER 12R	790.61	769.11	-----
PIER 13L	787.92	766.42	-----	PIER 13R	788.10	766.60	-----
PIER 14L	784.57	763.07	790.57	PIER 14R	784.57	763.07	790.57
PIER 15L	780.70	759.20	786.70	PIER 15R	780.70	759.20	786.70
PIER 16L	776.82	755.32	782.82	PIER 16R	776.82	755.32	782.82
PIER 17L	774.42	752.92	780.42	PIER 17R	774.42	752.92	780.42

STATION "D"	
PIER 1	262+87.00
PIER 2	264+13.21
PIER 3	265+29.50
PIER 4	266+79.50
PIER 5	268+79.50
PIER 6	270+79.50
PIER 7	272+79.50
PIER 8	274+29.50
PIER 9	275+61.00
PIER 10	277+03.00
PIER 11	278+45.00
PIER 12	279+87.00
PIER 13	281+29.00
PIER 14	282+71.00
PIER 15	284+13.00
PIER 16	285+55.00
PIER 17	286+97.00

ANGLE "A"	
PIER 12	90°00'00"
PIER 13	90°01'01"
PIER 14	90°25'53"
PIER 15	90°56'07"
PIER 16	91°26'22"
PIER 17	91°46'08"

ANGLE "B"	
PIER 12	90°00'04"
PIER 13	90°15'48"
PIER 14	90°46'03"
PIER 15	91°16'18"
PIER 16	91°43'31"
PIER 17	91°38'52"

ANGLE "C"	
PIER 12	-----
PIER 13	90°01'05"
PIER 14	90°42'46"
PIER 15	92°24'56"
PIER 16	95°07'35"
PIER 17	98°37'15"

DIMENSION "E"	
PIER 12	-----
PIER 13	0'-0 1/16"
PIER 14	0'-8 3/8"
PIER 15	4'-4 7/16"
PIER 16	13'-6 11/16"
PIER 17	30'-9 3/8"

DIMENSION "F"	
PIER 14	3'-0 1/8"
PIER 15	3'-0 1/4"
PIER 16	3'-0 1/8"
PIER 17	3'-0 3/16"

DIMENSION "J"	
PIER 14	3'-0 1/8"
PIER 15	3'-0 1/4"
PIER 16	3'-0 7/16"
PIER 17	3'-0 1/2"

DIMENSION "N"	
PIER 14	3'-0 3/16"
PIER 15	3'-0 5/16"
PIER 16	3'-0 1/2"
PIER 17	3'-0 1/2"

DIMENSION "G" AND "H"		
	G	H
PIER 14	11'-0"	55'-0"
PIER 15	11'-0"	55'-0"
PIER 16	11'-0 1/16"	55'-0 5/16"
PIER 17	11'-0 1/16"	55'-0 5/16"

DIMENSION "K"	
PIER 14	2'-11 7/8"
PIER 15	2'-11 3/4"
PIER 16	2'-11 1/4"
PIER 17	2'-11 3/16"

DIMENSION "P"	
PIER 14	2'-11 13/16"
PIER 15	2'-11 11/16"
PIER 16	2'-11 3/16"
PIER 17	2'-11 3/16"

DIMENSION "L"	
PIER 14	3'-0 3/16"
PIER 15	3'-0 5/16"
PIER 16	3'-0 3/16"
PIER 17	3'-0 3/16"

DIMENSION "I"	
PIER 14	2'-11 7/8"
PIER 15	2'-11 3/4"
PIER 16	2'-11 9/16"
PIER 17	2'-11 1/2"

DIMENSION "M"	
PIER 14	2'-11 13/16"
PIER 15	2'-11 11/16"
PIER 16	2'-11 1/2"
PIER 17	2'-11 1/2"

	INCREASE DUE TO COLUMN SHRINKAGE (FT)	DECREASE DUE TO CAMBER (FT)	INCREASE DUE TO BEARING DEF. (FT)
PIER 3	0.0000	0.1080	0.01
PIER 4	0.0400	0.0000	0.02
PIER 5	0.0814	0.0000	0.03
PIER 6	0.0828	0.0000	0.03
PIER 7	0.0692	0.0000	0.02
PIER 8	0.0000	0.1250	0.01

PIER	3 & 8	4 & 7	5 & 6
Height of Beam	102.00	102.00	102.00
Haunch	2.00	2.00	2.00
Deck	8.50	8.50	8.50
Bearing	3.75	6.26	4.29
Load Plate	1.50	1.50	1.50
SS. Plate	0.25	0.25	-
PTFE	0.09	0.09	-
1/2" Steel Plate	0.50	0.50	-
Cross-Slope	0.25	0.25	0.25
TOTAL	118.84	121.35	118.54

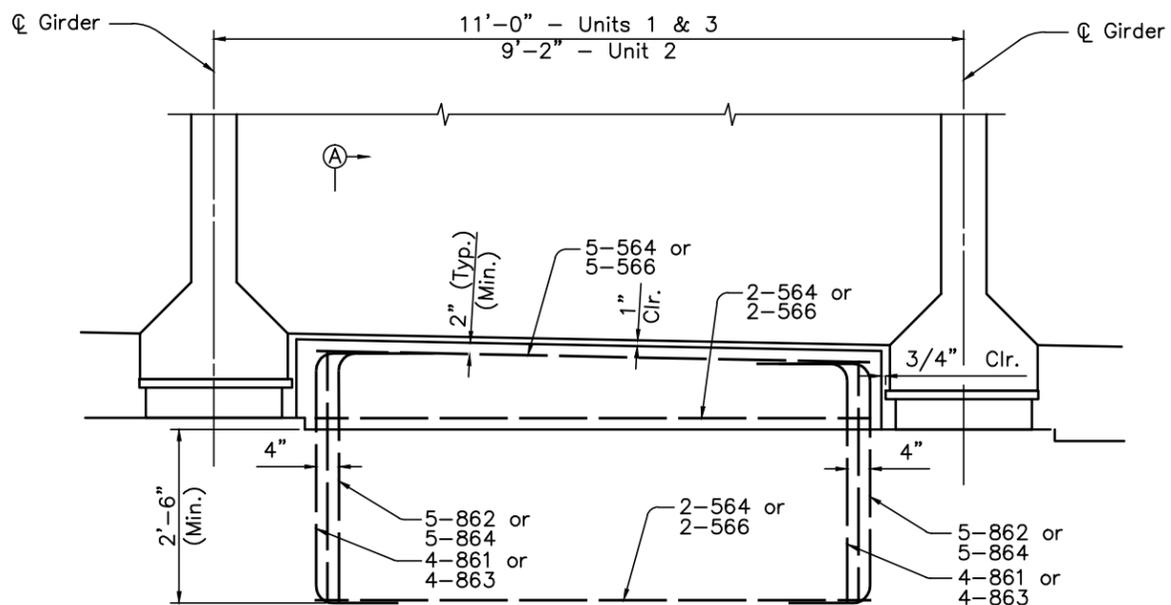
NOTES:

- FOR PIER CAP PLAN AND ELEVATION PIERS 1, 2 AND 9-13, SEE SHEET B38 OF B129.
- FOR PIER CAP PLAN AND ELEVATION PIER 3, SEE SHEET B39 OF B129.
- FOR PIER CAP PLAN AND ELEVATION PIERS 4 THRU 7, SEE SHEET B40 OF B129.
- FOR PIER CAP PLAN AND ELEVATION PIER 8, SEE SHEET B41 OF B129.
- FOR PIER CAP PLAN AND ELEVATION PIERS 14 THRU 17, SEE SHEET B42 AND B43 OF B129.
- FOR PIER CAP DETAILS, SEE SHEET B44 AND B45 OF B129.
- BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED AT THE FOLLOWING SPECIFIED PIERS TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.

PIERS	ADJUSTMENT
4 AND 7	0.25"
5 AND 6	0.18"
9, 10, 16, 17, 11 AND 15	0.15"

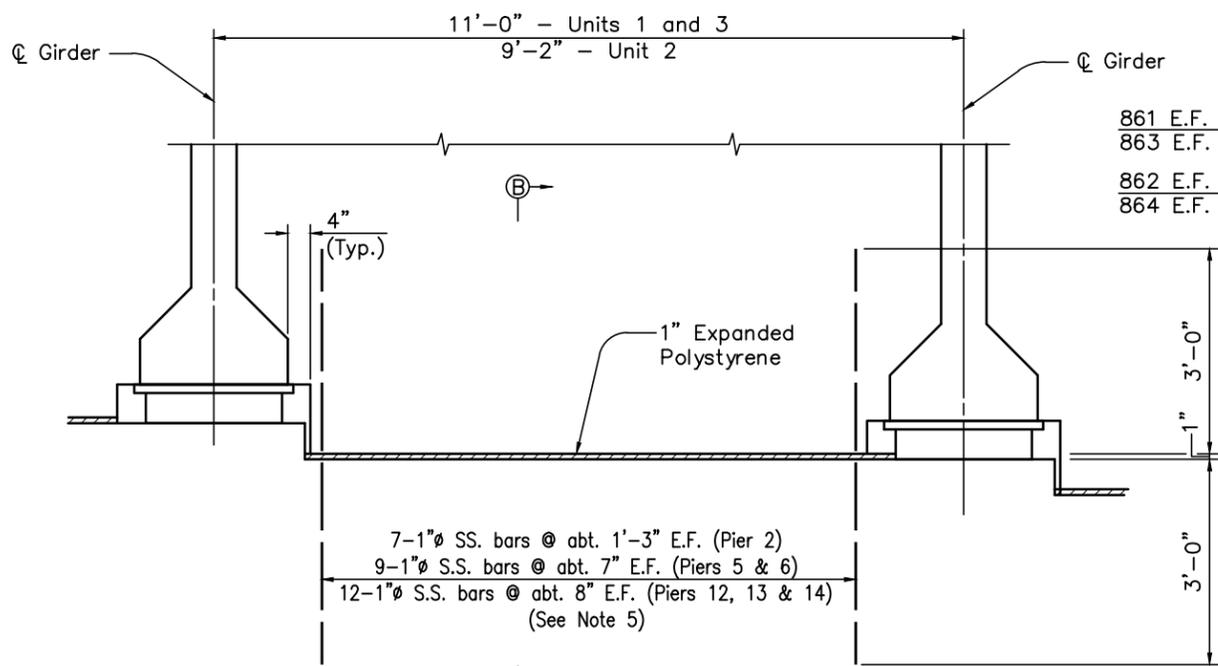
CONCRETE ALTERNATE

RECORD DRAWING	11/3/04
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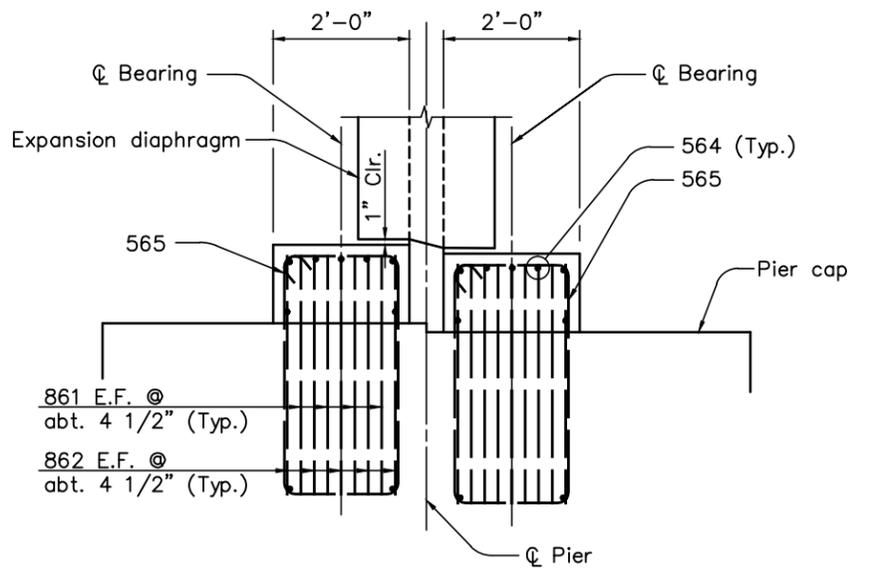
9-565 @ 12" (Unit 1 - Piers 1 & 3, Unit 3 - Piers 8 thru 11 & 15 thru 17)  
 13-565 @ 6" (Unit 2 - Piers 4 & 7)  
 13-567 @ 6" (Unit 2 - Piers 3 & 8)

SEISMIC RESTRAINT - EXPANSION PIERS

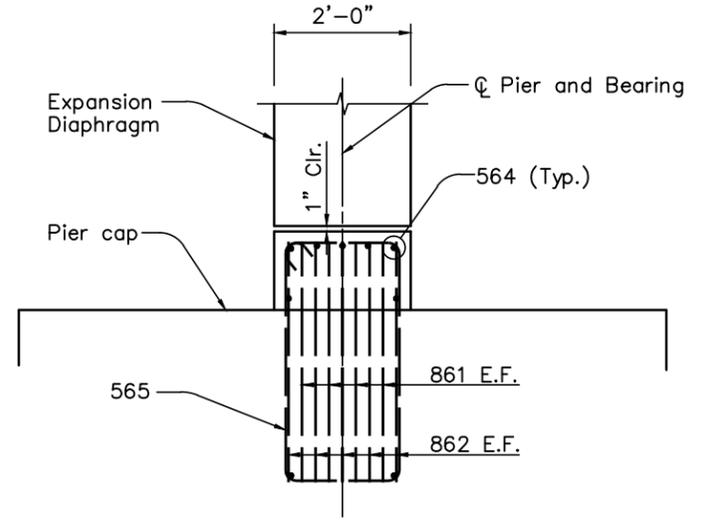


7-1" S.S. bars @ abt. 1'-3" E.F. (Pier 2)  
 9-1" S.S. bars @ abt. 7" E.F. (Piers 5 & 6)  
 12-1" S.S. bars @ abt. 8" E.F. (Piers 12, 13 & 14)  
 (See Note 5)

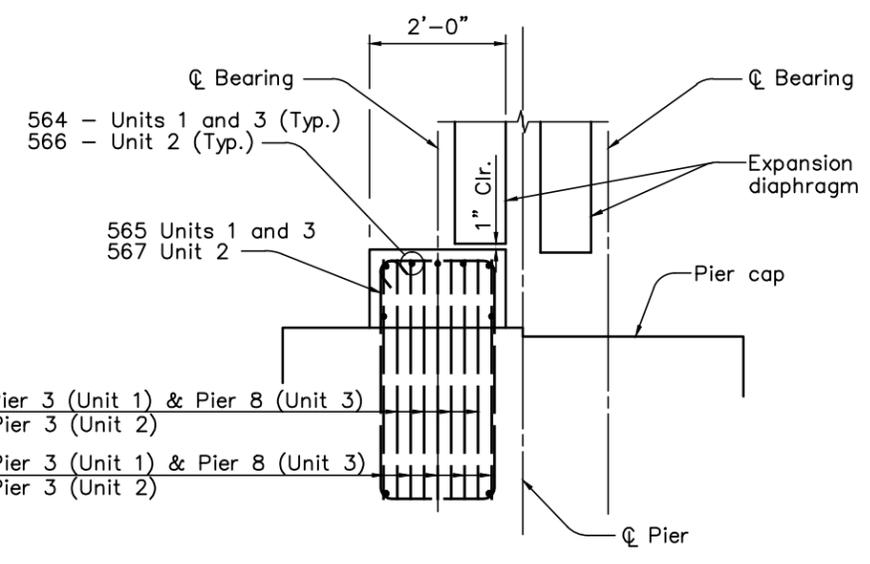
SEISMIC RESTRAINT - FIXED PIERS  
 (Typical between girders)



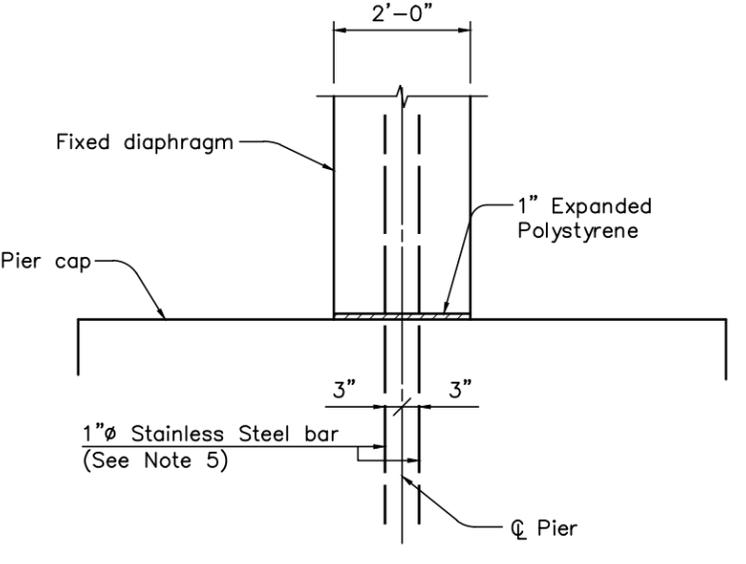
SECTION A-A  
 (Piers 1, 9, 10, 11, 15, 16 and 17)



SECTION A-A  
 (Piers 4 and 7)



SECTION A-A  
 (Piers 3 and 8)

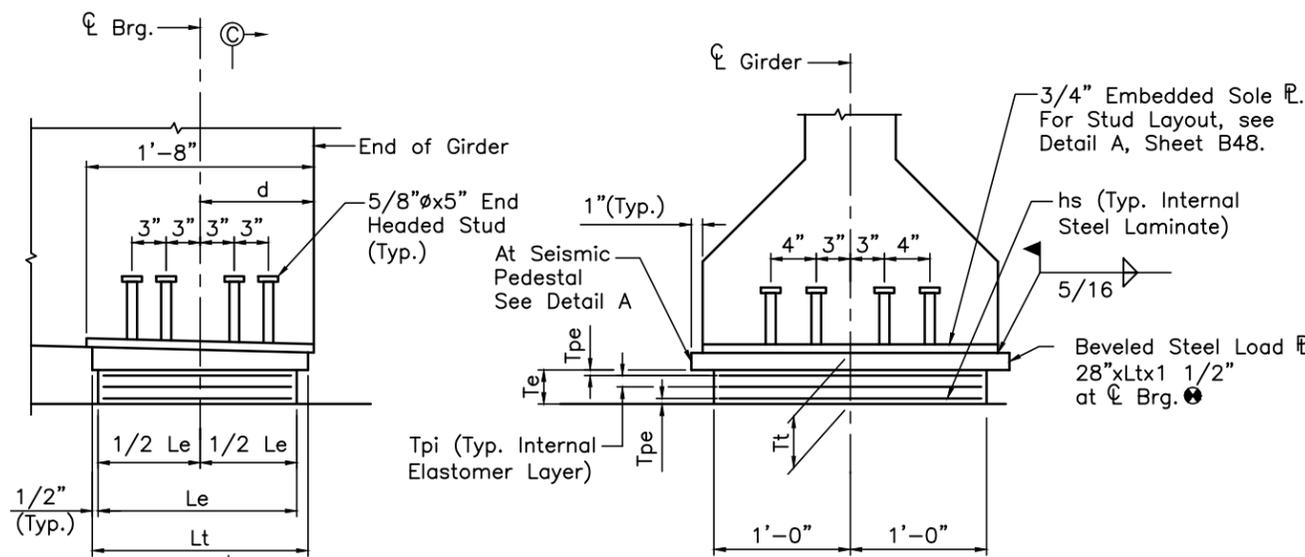


SECTION B-B  
 (Piers 2, 5, 6, and 12 thru 14)

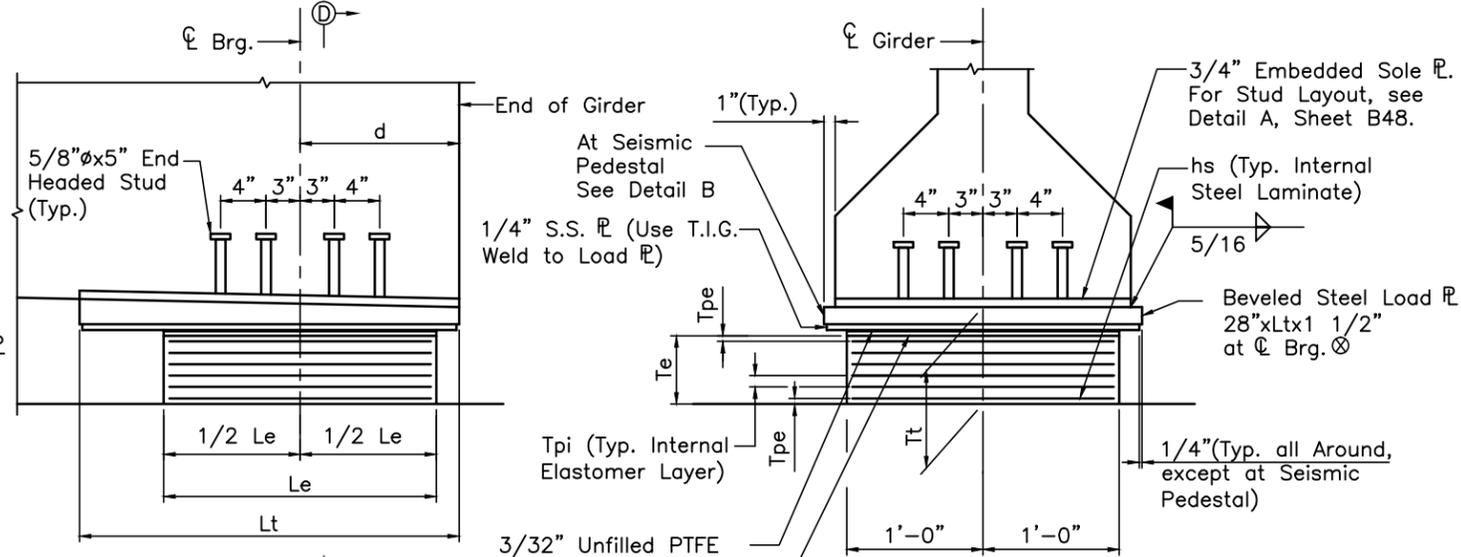
- NOTE:
- FOR LOCATION OF SEISMIC RESTRAINTS ON EXPANSION PIER CAP, SEE SHEETS B38 THROUGH B42 OF B129.
  - SURFACE OF PIER CAPS AT INTERFACE WITH SEISMIC RESTRAINT SHALL BE CLEAN AND FREE OF LAITANCE, AND SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4".
  - PIER CAP, DIAPHRAGM AND GIRDER REINFORCING NOT SHOWN.
  - FOR EXPANSION AND FIXED DIAPHRAGM DETAILS SEE SHEETS B75 AND B76 OF B129.
  - ITEM 509 - REINFORCING STEEL MISC.: STAINLESS STEEL BARS, AS PER PLAN. 1" S.S. STEEL BARS SHALL BE 6'-1" LONG PLAIN ASTM 304 STAINLESS STEEL, CORROSION RESISTANT, GRADE 420 (Fy=60,000 PSI), AND IN ACCORDANCE WITH ASTM A-955M.
  - THE FOLLOWING ABBREVIATION IS USED:  
 S.S. = STAINLESS STEEL

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
No.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
SEISMIC RESTRAINTS			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: DHS	CHECKED: GLG	DATE: 12/31/98	
DRAWN: CMB	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B46A OF B129			

DESIGNED BY: DHS  
 CHECKED BY: GLG  
 DATE: 4/15/98  
 DRAWN BY: CMB  
 REVISIONS: 5/12/98  
 DATE: 5/1/98  
 CAD FILE NAME: 25725 - Seismic.dwg



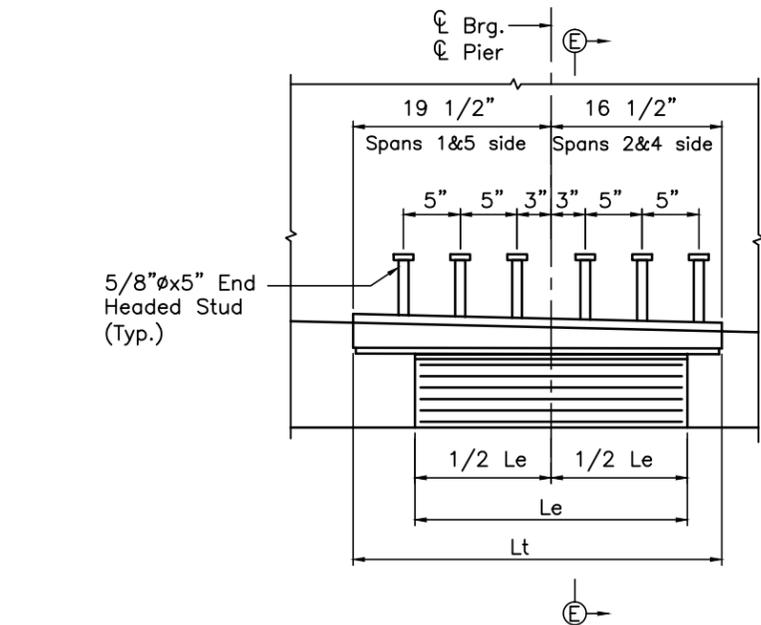
**ELEVATION SECTION C-C**  
**LAMINATED ELASTOMERIC EXPANSION BEARING - TYPES E1, E2, E3 AND E10**  
 (SEE NOTE 1)



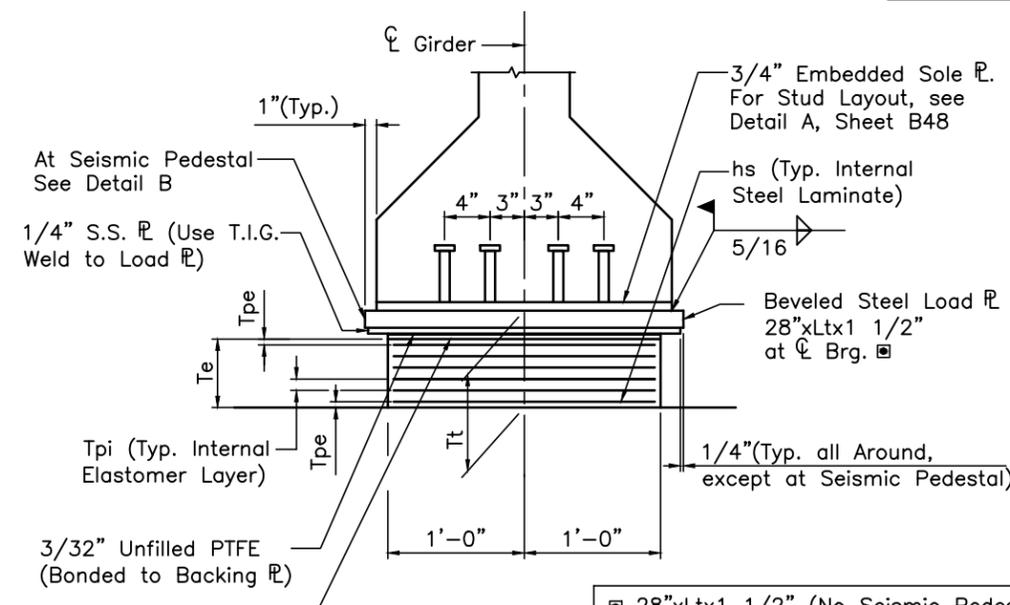
**ELEVATION SECTION D-D**  
**PTFE LAMINATED ELASTOMERIC EXPANSION BEARING - TYPES E4, E6, E7, E8 AND E9**  
 (SEE NOTE 2)

28"xLtx1 1/2" (No Seismic Pedestal).  
 26 1/2"xLtx1 1/2" (Seismic Pedestal on one side of Brg.).

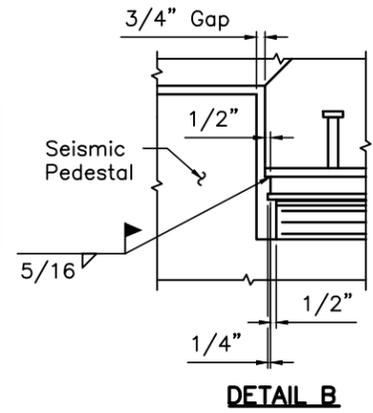
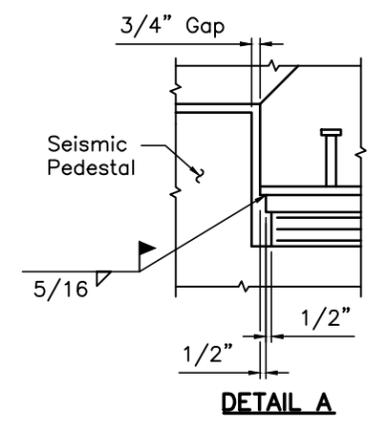
28"xLtx1 1/2" (No Seismic Pedestal).  
 26 1/2"xLtx1 1/2" (Seismic Pedestal on one side of Brg.).  
 25"xLtx1 1/2" (Seismic Pedestal on both sides of Brg.).



**ELEVATION SECTION E-E**  
**PTFE LAMINATED ELASTOMERIC EXPANSION BEARING - TYPES E5**  
 (SEE NOTE 2)



28"xLtx1 1/2" (No Seismic Pedestal).  
 26 1/2"xLtx1 1/2" (Seismic Pedestal on one side of Brg.).  
 25"xLtx1 1/2" (Seismic Pedestal on both sides of Brg.).



- NOTES:**
- LAMINATED ELASTOMERIC BEARINGS WITHOUT SLIDING SURFACES SHALL BE PAID FOR PER ITEM 516 - LAMINATED ELASTOMERIC BEARINGS, COMPLETE, AS PER PLAN, OF THE TYPES SPECIFIED.
  - LAMINATED ELASTOMERIC BEARINGS WITH SLIDING SURFACES SHALL BE PAID FOR PER ITEM SP516E - PTFE LAMINATED ELASTOMERIC BEARINGS, COMPLETE OF THE TYPES SPECIFIED. SEE OTC SPECIAL PROVISION SP516E FOR ADDITIONAL INFORMATION.
  - FOR LAMINATED ELASTOMERIC BEARING NOTES, SEE SHEET B48 OF B129.
  - FOR BEARING ORIENTATION PLAN SEE SHEET B48 OF B129.
  - FOR BEARING LOCATIONS, SEE SHEETS B50 THRU B57 OF B129.
  - FOR SEISMIC PEDESTAL LOCATIONS, SEE SHEETS B19, B20, B22, B23 AND B38 THRU B42 OF B129.

UNIT	BEARING LOCATION	BEARING TYPE	NO. REQ'D.	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	Le (IN)	Tpi (IN)	NO. OF Tpi'S	Tpe (2 EA.) (IN)	hs (IN)	NUMBER OF INTERNAL LAMINATES	Te (IN)	Lt (IN)	Tt** (IN)	d (IN)
1	Rear Abutment	E1	12	180	118	298	15	0.6875	4	0.5000	0.0747	5	4.12	16	5.62	10
	Pier 1	E2	24	199	130	329	15	0.6250	2	0.4375	0.0747	3	2.35	16	3.85	10
	Pier 3	E3	12	180	118	298	14	0.6250	2	0.4375	0.0747	3	2.35	15	3.85	10
2	Pier 3	E4	14	203	106	309	14	0.6250	4	0.4375	0.0747	5	3.75	23	6.09	13
	Piers 4,7	E5	28	566	168	734	31	0.8750	5	0.6250	0.1046	6	6.26	36	8.60	-
	Pier 8	E6	14	203	106	309	14	0.6250	4	0.4375	0.0747	5	3.75	22.5	6.09	12.5
3	Pier 8, Forward Abutment	E7	24	214	120	334	15	0.6250	4	0.4375	0.0747	5	3.75	23.5	6.09	13.5
	Piers 9, 10, 16, 17	E8	48	233	133	366	16	0.6250	5	0.4375	0.0747	6	4.45	24	6.79	11
	Piers 9, 10, 16, 17	E9	48	233	133	366	16	0.6250	5	0.4375	0.0747	6	4.45	24	6.79	13
	Piers 11, 15	E10	48	232	133	365	17	0.6875	5	0.4375	0.0747	6	4.76	18	6.26	10

\*\* Tt is measured at C Bearing.

**BEVELED PLATE NOTE:**  
 THE TOP SURFACE OF THE BEVELED STEEL LOAD PLATE SHALL BE FABRICATED PARALLEL TO THE INSTANTANEOUS SLOPE OF THE GIRDER UNDER DEAD LOAD. THE CONTRACTOR SHALL DETERMINE THE SLOPE OF THE PLATE AT EACH BEARING AND PROVIDE ALL BEVELED PLATE DIMENSIONS IN THE SHOP DRAWINGS. HE IS REMINDED THAT THE SLOPE OF THE BEVELED PLATE MAY OR MAY NOT EQUAL THE SLAB LOCAL GRADE AT THE CENTERLINE BEARING.

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 2-13-98 DATE: 4-24-98  
 DRAWN BY: DS REVISIONS BY: DS  
 DATE: 3-14-98 DATE: 11/3/04  
 CAD FILE NAME: 25725-BRG01.DWG

**CONCRETE ALTERNATE**

RECORD DRAWING 11/3/04

**OHIO TURNPIKE COMMISSION**

**EXPANSION BEARING DETAILS**

OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

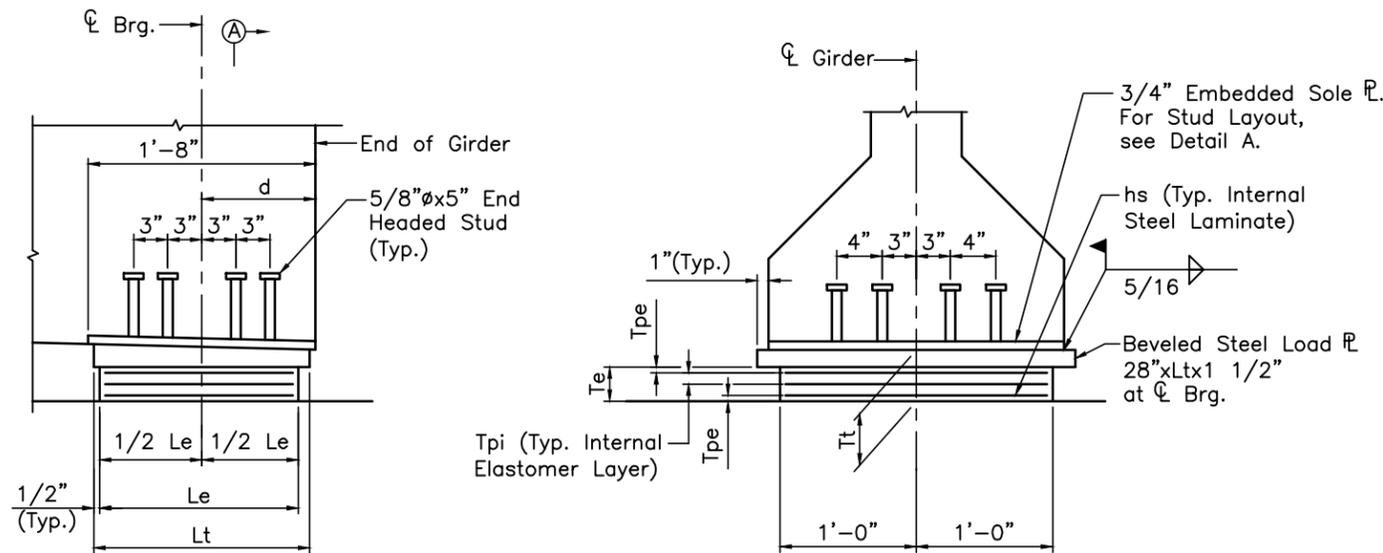
**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: LMH CHECKED: HW/LMH DATE: 12/31/98  
 DRAWN: DS IN CHARGE: GT SCALE: NTS

CONTRACT 43-99-01 SHEET B47 OF B129

**LAMINATED ELASTOMERIC BEARING NOTES:**

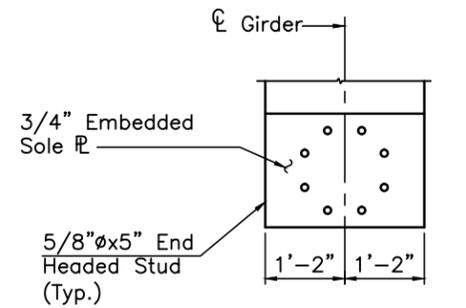
- ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 OR SP516E AS APPLICABLE AND ARTICLES 18.2.5 THROUGH 18.2.8 OF SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION OF THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", SIXTEENTH EDITION, 1996. BEARINGS SHALL BE GRADE 3, 60 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD "A". THE LAMINATED ELASTOMERIC BEARING MANUFACTURER SHALL PROOF LOAD EACH LAMINATED ELASTOMERIC BEARING WITH A COMPRESSIVE LOAD EQUAL TO 1.5 TIMES THE MAXIMUM DESIGN LOAD AS PER ARTICLE 18.2.7.6. SHORT DURATION COMPRESSION TESTS ON BEARINGS, DIVISION II, CONSTRUCTION OF THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", SIXTEENTH EDITION, 1996. THE PTFE LAMINATED ELASTOMERIC BEARINGS SHALL BE TESTED IN ACCORDANCE WITH AASHTO SECTION 18.8.3. THE TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS. ACCEPTANCE OF THE BEARING SHALL BE ACCORDING TO ARTICLE 18.2.7.6. AND 711.23 OF THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE MANUFACTURER SHALL FURNISH CERTIFIED TEST DATA. THE MANUFACTURER SHALL SUPPLY A SAMPLE BEARING OF EACH DESIGN, AS SHOWN ON THE PLANS, FOR DESTRUCTIVE TESTING AND APPROVAL PURPOSES. SAMPLE BEARINGS WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.
- WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300° F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- BEARING REPOSITIONING FOR EXPANSION BEARINGS WITHOUT PTFE: IF THE GIRDER IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40° F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60° F (± 10° F), THE GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F (± 10° F).
- STEEL FOR SOLE PLATES AND LOAD PLATES SHALL BE ASTM A572 GRADE 50.
- THE BEVELED STEEL LOAD PLATE OR 1/2" STEEL BACKING PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
- TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE.
- ELASTOMER SHALL BE 60 DUROMETER HARDNESS POLYCHLOROPRENE.
- WELDED STUD SHEAR CONNECTORS SHALL CONFORM TO AASHTO M-169 AND ITEM 513.
- ALL STEEL SURFACES TO BE EXPOSED TO THE ATMOSPHERE SHALL BE METALIZED. THE THICKNESS OF THE COATING SHALL BE 6-8 MILS. THE WIRE USED FOR METALIZING SHALL CONSIST OF 85% ZINC AND 15% ALUMINUM. SURFACE PREPARATION AND APPLICATION SHALL CONFORM TO SSPC COATING SYSTEM GUIDE NO. 2300, "GUIDE FOR THERMAL SPRAY METALIC COATING SYSTEMS." REPAIRS TO DAMAGED COATING SHALL BE IN ACCORDANCE WITH SP516E, SECTION E.
- UNFILLED PTFE SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION SP516E.
- BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL ITEM 516 - LAMINATED ELASTOMERIC BEARINGS, COMPLETE, AS PER PLAN, OF THE TYPES SPECIFIED AND ITEM SP516E - PTFE LAMINATED ELASTOMERIC BEARINGS, COMPLETE OF THE TYPES SPECIFIED. SAMPLE BEARINGS SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EMBEDDED SOLE PLATE AND STUDS SHALL BE INCLUDED IN THE PRICE BID FOR THWLDLDE ITEMS SP515A PRECAST CONCRETE GIRDERS 72" DEEP, SP515A PRECAST CONCRETE GIRDERS 84" DEEP AND SP515A PRECAST CONCRETE GIRDERS 102" DEEP.



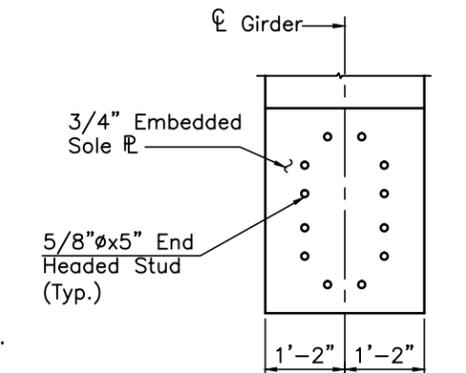
**ELEVATION**

**SECTION A-A**

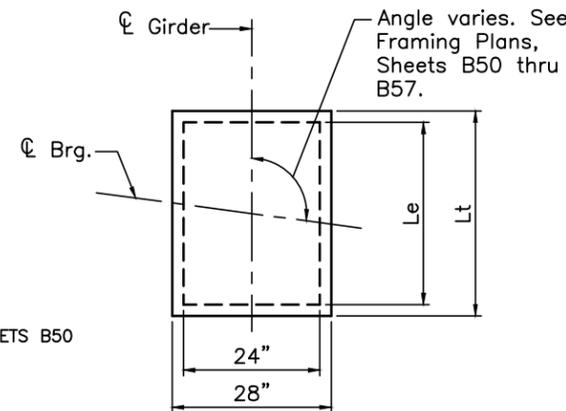
**LAMINATED ELASTOMERIC FIXED BEARING - TYPES F1 AND F3**



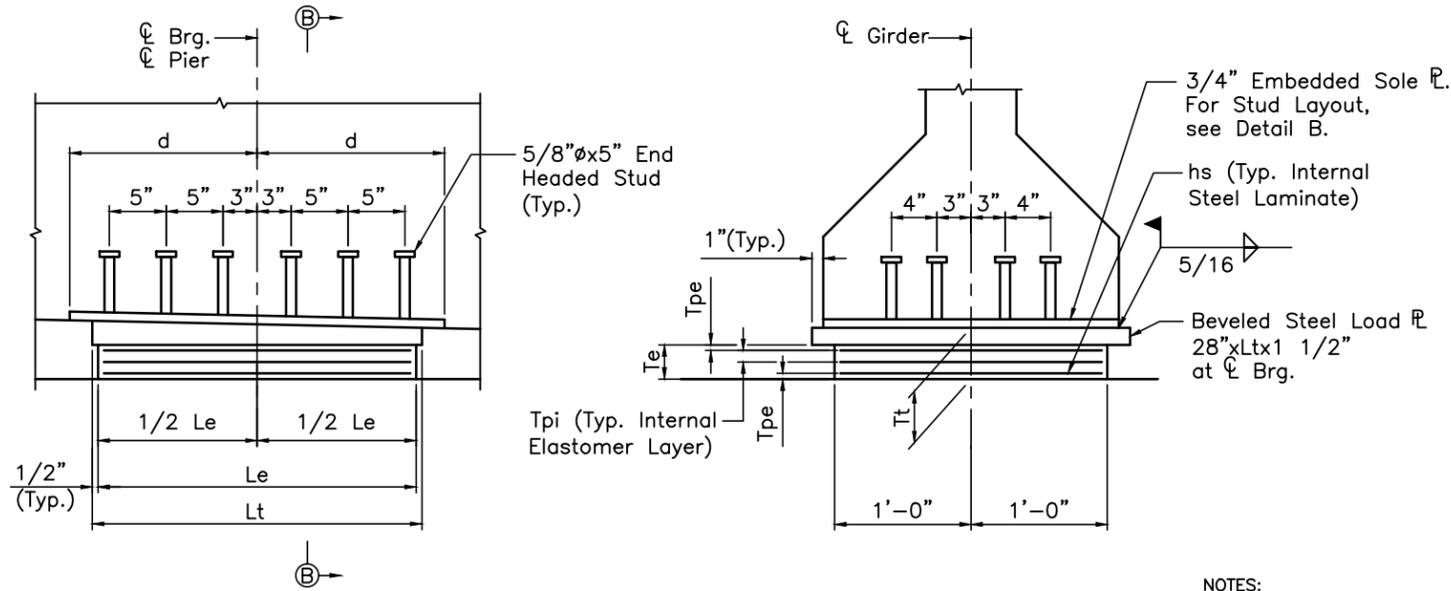
**DETAIL A STUD LAYOUT-1**



**DETAIL B STUD LAYOUT-2**



**BEARING ORIENTATION PLAN**



**ELEVATION**

**SECTION B-B**

**LAMINATED ELASTOMERIC FIXED BEARING - TYPE F2**

**NOTES:**

- FOR BEARING LOCATIONS, SEE SHEETS B50 THRU B57 OF B129.

**BEVELED PLATE NOTE:**

THE TOP SURFACE OF THE BEVELED STEEL LOAD PLATE SHALL BE FABRICATED PARALLEL TO THE INSTANTANEOUS SLOPE OF THE GIRDER UNDER DEAD LOAD. THE CONTRACTOR SHALL DETERMINE THE SLOPE OF THE PLATE AT EACH BEARING AND PROVIDE ALL BEVELED PLATE DIMENSIONS IN THE SHOP DRAWINGS. HE IS REMINDED THAT THE SLOPE OF THE BEVELED PLATE MAY OR MAY NOT EQUAL THE SLAB LOCAL GRADE AT THE CENTERLINE BEARING.

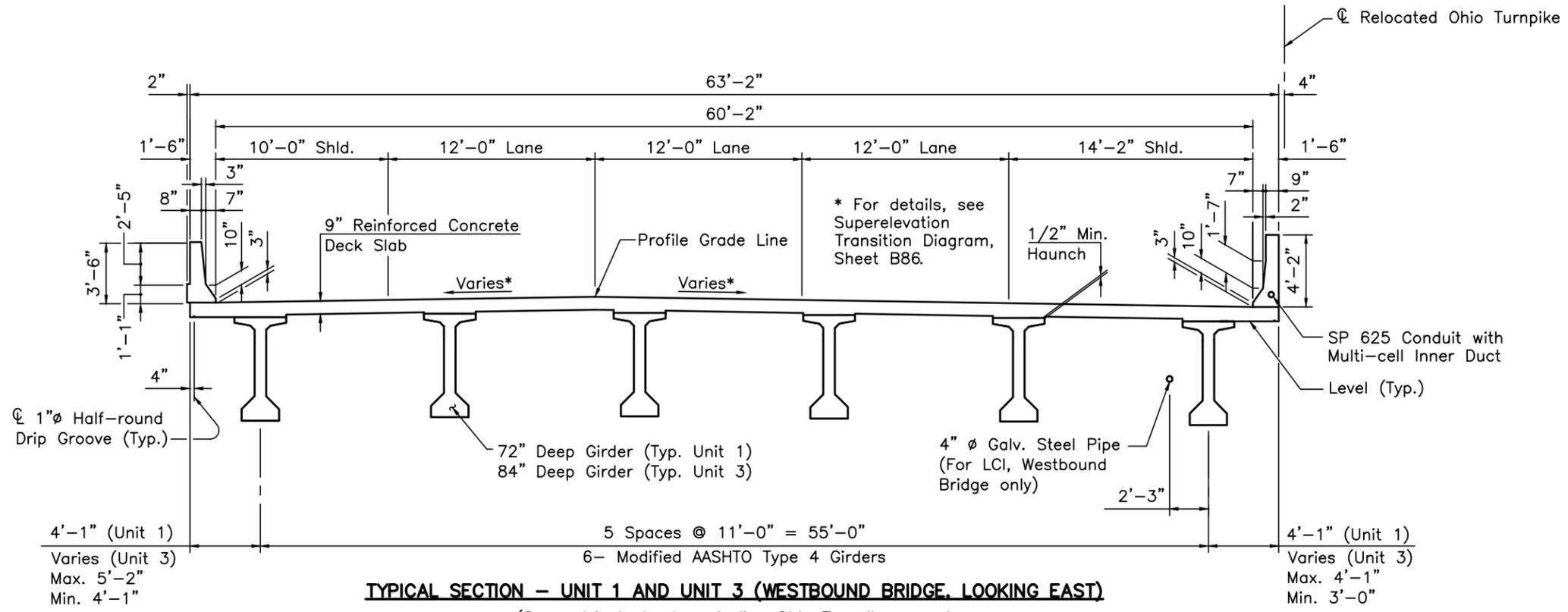
\*\* Tt is measured at C Bearing.

BEARING LOCATION	BEARING TYPE	NO. REQ'D.	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	Le (IN)	Tpi (IN)	NO. OF Tpi'S	Tpe (2 EA.) (IN)	hs (IN)	NUMBER OF INTERNAL LAMINATES	Te (IN)	Lt (IN)	Tt** (IN)	d (IN)
Pier 2	F1	24	201	130	331	15	0.6250	2	0.4375	0.0747	3	2.35	16	3.85	10
Piers 5, 6	F2	28	633	179	812	34	0.8750	3	0.6250	0.1046	4	4.29	35	5.79	18
Piers 12, 13, 14	F3	72	234	133	367	16	0.6250	2	0.4375	0.0747	3	2.35	17	3.85	10

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 2-13-98 DATE: 4-24-98  
 DRAWN BY: DS REVISIONS BY: DATE  
 DATE: 3-14-98 DATE:  
 CAD FILE NAME: 25725-BRG02.DWG

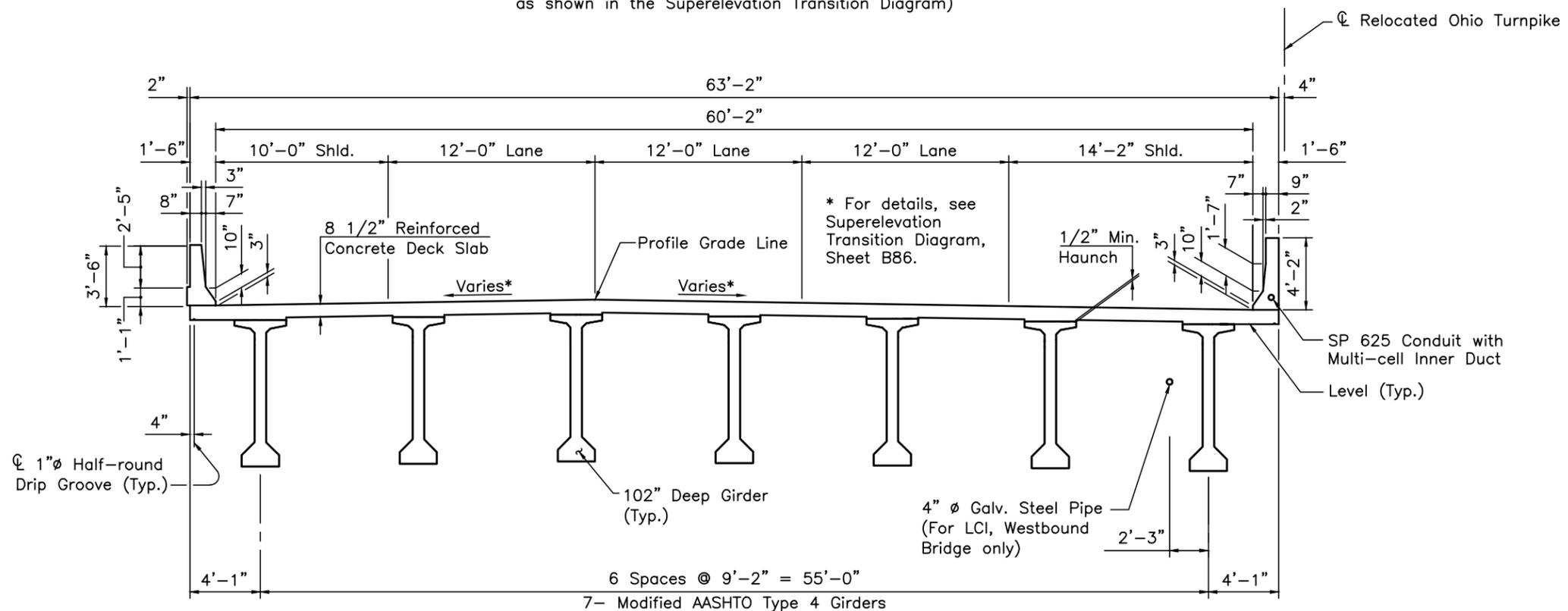
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RECORD DRAWING		11/5/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
FIXED BEARING DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B48 OF B129		

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 4-25-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 4-7-98 DATE:  
 CAD FILE NAME: 25725 - typsect.dwg



**TYPICAL SECTION - UNIT 1 AND UNIT 3 (WESTBOUND BRIDGE, LOOKING EAST)**

(Symmetrical about centerline Ohio Turnpike except as shown in the Superelevation Transition Diagram)



**TYPICAL SECTION - UNIT 2 (WESTBOUND BRIDGE, LOOKING EAST)**

(Symmetrical about centerline Ohio Turnpike except as shown in the Superelevation Transition Diagram)

THOMAS F. POTTS, P.E.  
 SHEETS B47-B79, B81-B101, B103-B105, B128, AND B129 OF B129

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE

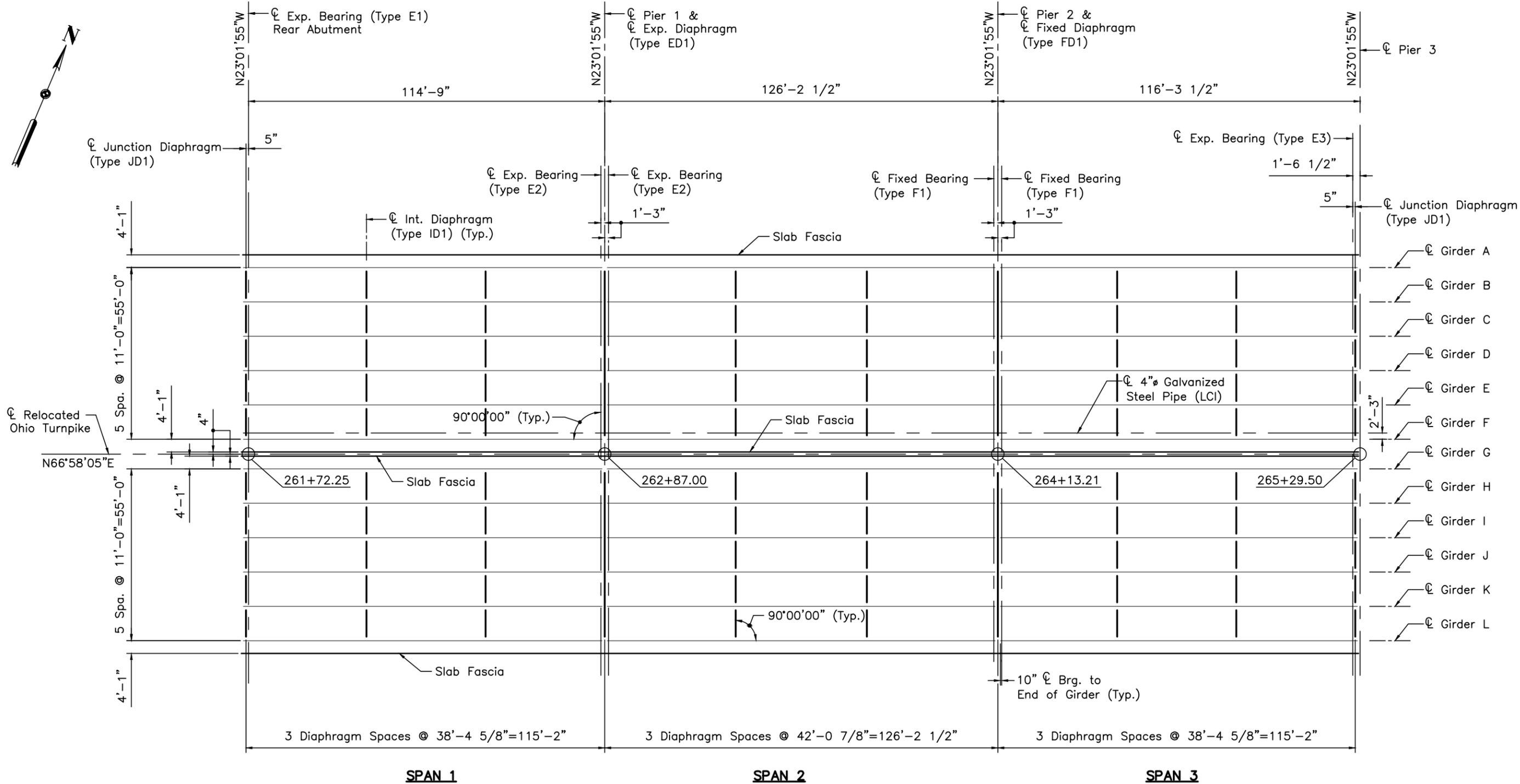
**OHIO TURNPIKE COMMISSION**

**DECK CROSS SECTIONS**  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B49 OF B129



**UNIT 1 FRAMING PLAN**

**NOTES:**

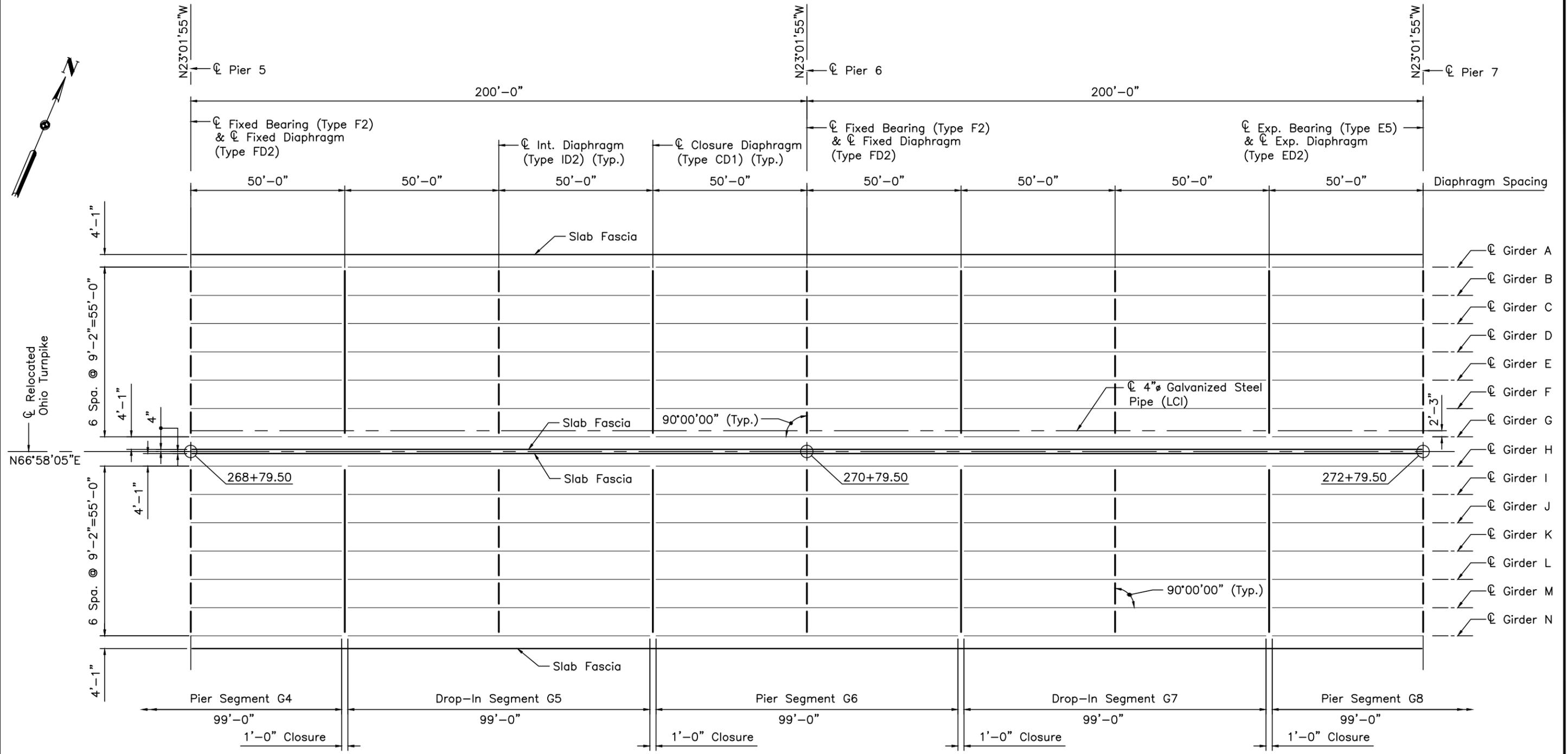
1. ALL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
2. FOR ADDITIONAL FRAMING SEE SHEETS B51 THRU B57 OF B129.
3. FOR GIRDER DETAILS, SEE SHEET B58 OF B129.
4. FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
5. FOR BEARING DETAILS, SEE SHEETS B47 AND B48 OF B129.
6. FOR EXPANSION JOINT DETAILS, SEE SHEETS B81 AND B82 OF B129.
7. FOR DETAILS OF LCI PIPE SUPPORTS, SEE SHEET B80 OF B129.

DESIGNED BY: LMH	CHECKED BY: HW
DATE: 1-22-98	DATE: 3-27-98
DRAWN BY: HW	REVISED BY:
DATE: 2-14-98	DATE:
CAD FILE NAME: 25725-U1FRM01.DWG	

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/98
NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION			
UNIT 1 FRAMING PLAN OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B50 OF B129			



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 DATE: 1-22-98  
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 DATE: 2-14-98  
 CHECKED BY: HW  
 DATE: 3-27-98  
 REVISIONS:  
 DATE:  
 CAD FILE NAME: 25725-U2FRM02.DWG



**SPAN 3**

**SPAN 4**

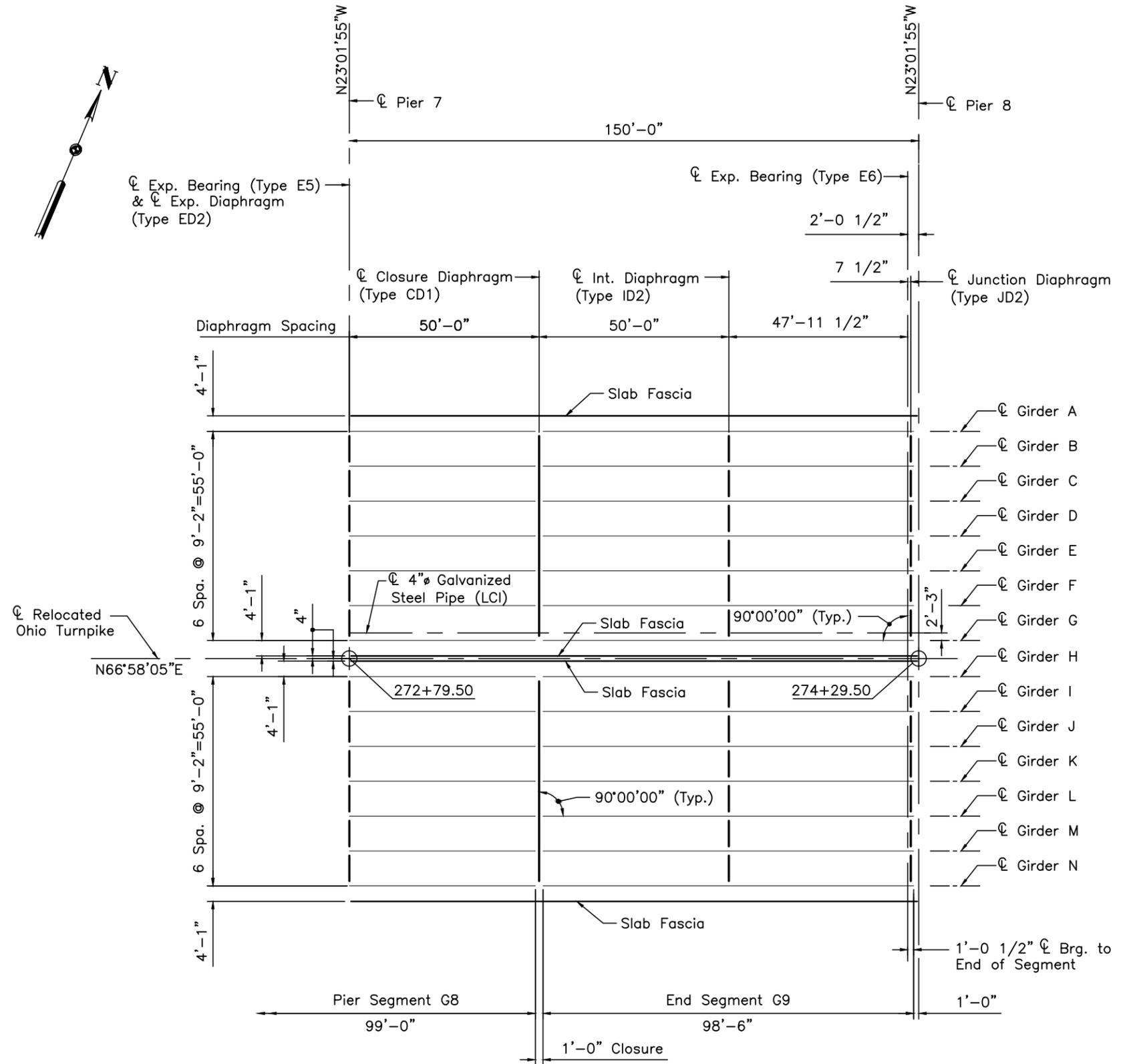
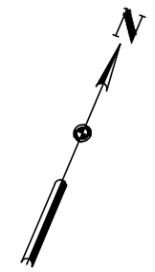
**UNIT 2 FRAMING PLAN - 2**

**NOTES:**

1. ALL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
2. FOR ADDITIONAL FRAMING SEE SHEETS B50, B51 AND B53 THRU B57 OF B129.
3. FOR GIRDER DETAILS, SEE SHEETS B59 THRU B65 OF B129.
4. FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
5. FOR BEARING DETAILS, SEE SHEETS B47 AND B48 OF B129.
6. FOR DETAILS OF LCI PIPE SUPPORTS, SEE SHEET B80 OF B129.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/98
NO.	REVISIONS	BY DATE
OHIO TURNPIKE COMMISSION		
UNIT 2 FRAMING PLAN - 2 OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
HNTB ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B52 OF B129		

DESIGNED BY: LMH  
 DATE: 1-22-98  
 DRAWN BY: HW  
 DATE: 2-14-98  
 CHECKED BY: HW  
 DATE: 3-27-98  
 REVISED BY:  
 DATE:  
 CAD FILE NAME: 25725-U2FRM03.DWG



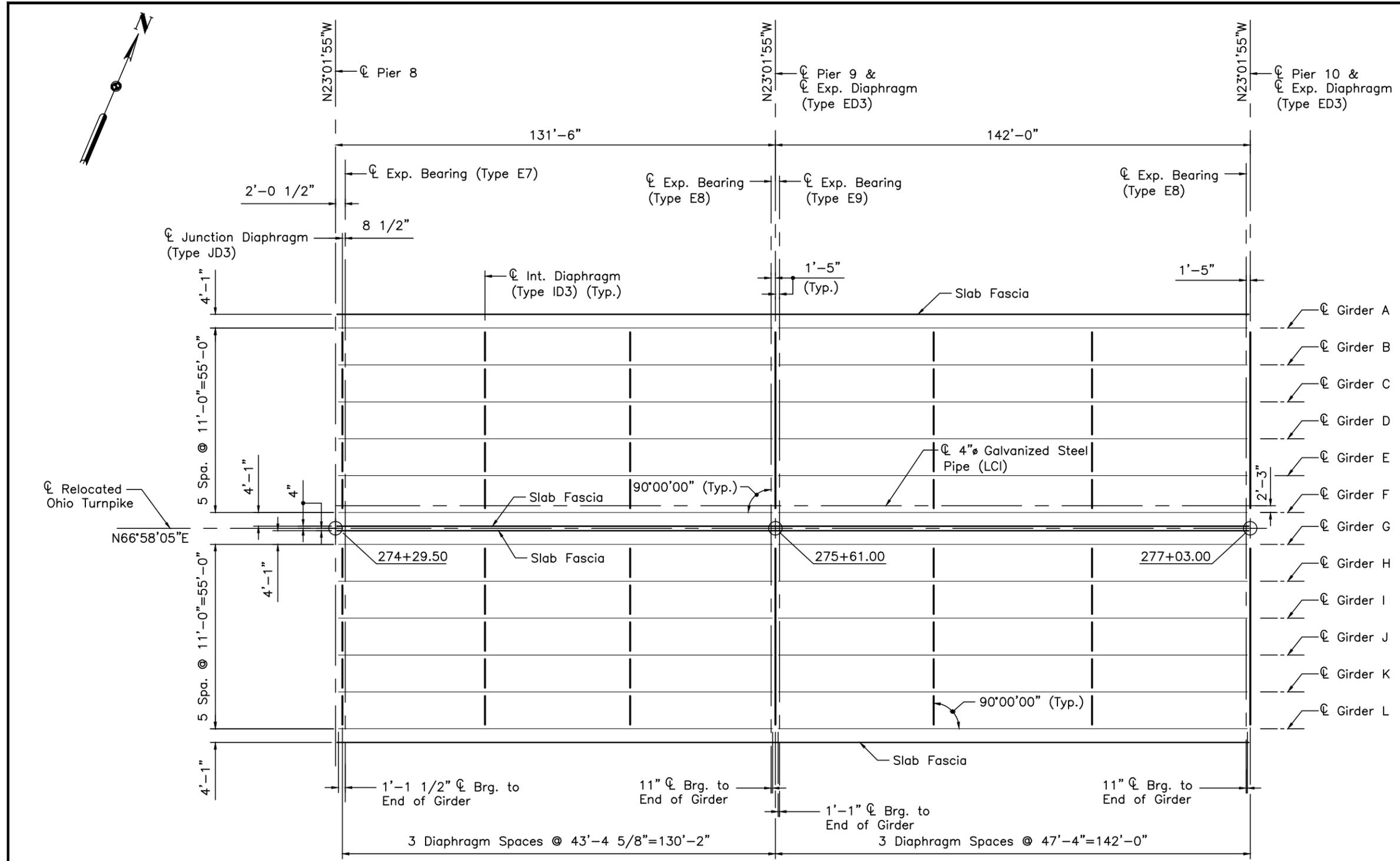
**NOTES:**

1. ALL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
2. FOR ADDITIONAL FRAMING SEE SHEETS B50 THRU B52 AND B54 THRU B57 OF B129.
3. FOR GIRDER DETAILS, SEE SHEETS B59 THRU B65 OF B129.
4. FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
5. FOR BEARING DETAILS, SEE SHEETS B47 AND B48 OF B129.
6. FOR EXPANSION JOINT DETAILS, SEE SHEET B83 OF B129.
7. FOR DETAILS OF LCI PIPE SUPPORTS, SEE SHEET B80 OF B129.

**SPAN 5**  
**UNIT 2 FRAMING PLAN - 3**

CONCRETE ALTERNATE			
RECORD DRAWING		1/3M	
NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION			
UNIT 2			
FRAMING PLAN - 3			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
HNTB ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B53 OF B129			

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 3-27-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-14-98 DATE:  
 CAD FILE NAME: 25725-U3FRM01.DWG



SPAN 1

UNIT 3 FRAMING PLAN - 1

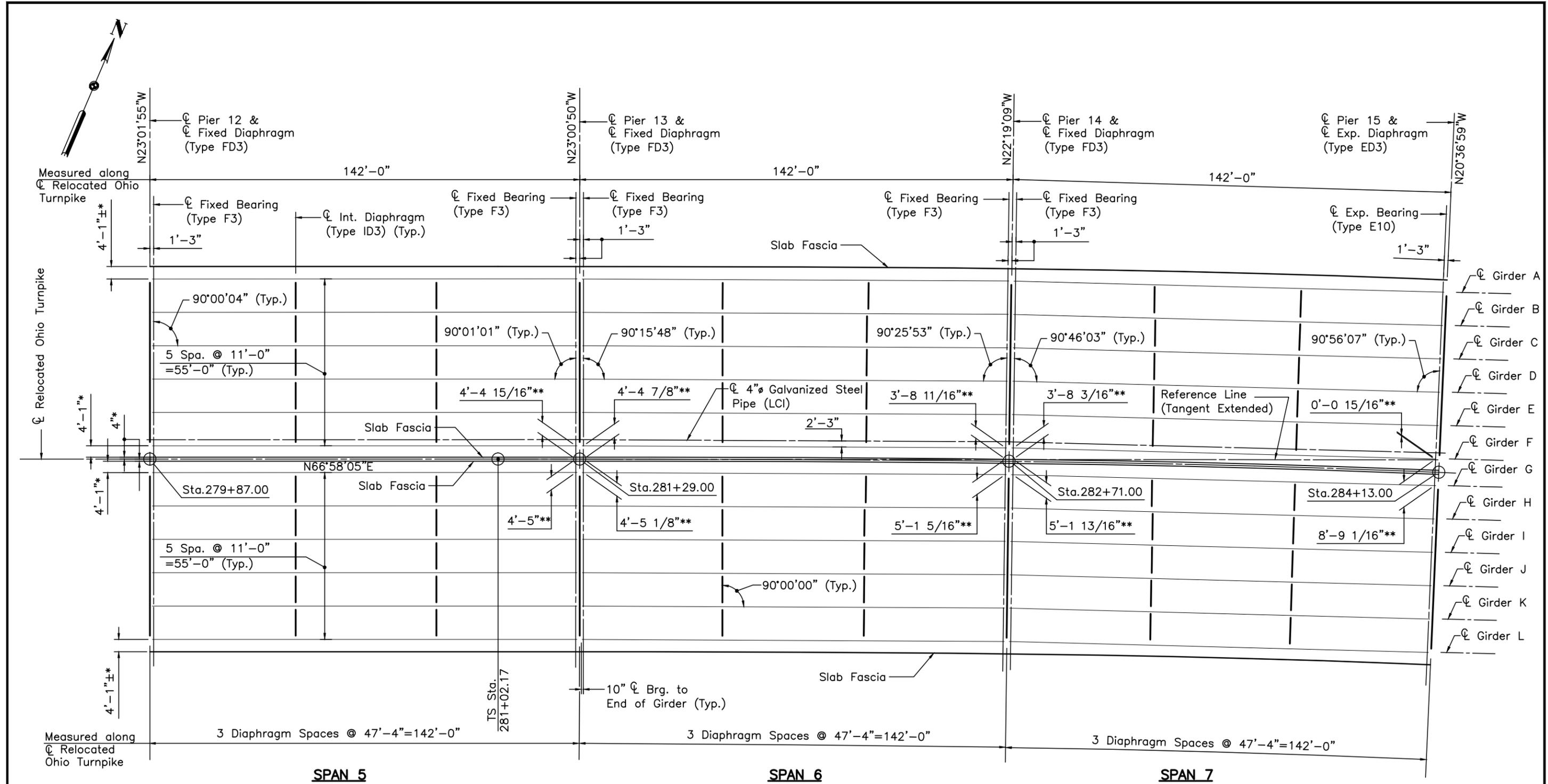
SPAN 2

NOTES:

1. ALL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
2. FOR ADDITIONAL FRAMING SEE SHEETS B50 THRU B53 AND B55 THRU B57 OF B129.
3. FOR GIRDER DETAILS, SEE SHEETS B69 THRU B71 OF B129.
4. FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
5. FOR BEARING DETAILS, SEE SHEETS B47 AND B48 OF B129.
6. FOR EXPANSION JOINT DETAILS, SEE SHEET B83 OF B129.
7. FOR DETAILS OF LCI PIPE SUPPORTS, SEE SHEET B80 OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING		11/3/98	
NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION			
UNIT 3 FRAMING PLAN - 1			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B54 OF B129			





SPAN 5

SPAN 6

SPAN 7

**UNIT 3 FRAMING PLAN - 3**

TABLE OF SLAB OFFSETS			
SPAN	GIRDER	MINIMUM OFFSET	MAXIMUM OFFSET
SPAN 5	A, F, G & L	4'-1"	4'-1"
SPAN 6	A & G	4'-1" @ PIER 13 & 14	4'-3 5/8" @ PIER 13 & 14
	F & L	3'-10 3/8" @ PIER 13 & 14	4'-1" @ PIER 13 & 14
SPAN 7	A & G	4'-1" @ PIER 14 & 15	4'-7 3/8" @ PIER 14 & 15
	F & L	3'-6 5/8" @ PIER 14 & 15	4'-1" @ PIER 14 & 15

\* DIMENSION IS MEASURED ALONG THE CL OF EACH PIER.  
 \*\* DISTANCE BETWEEN THE MEDIAN FASCIA GIRDER AND THE REFERENCE LINE IS MEASURED ALONG THE CL BEARING.

- NOTES:**
- ALL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
  - FOR ADDITIONAL FRAMING SEE SHEETS B50 THRU B55 AND B57 OF B129.
  - FOR GIRDER DETAILS, SEE SHEETS B69 THRU B71 OF B129.
  - FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
  - FOR BEARING DETAILS, SEE SHEETS B47 AND B48 OF B129.
  - FOR DETAILS OF LCI PIPE SUPPORTS, SEE SHEET B80 OF B129.

NOTE: THE SLAB OFFSET IS THE DISTANCE FROM THE CL GIRDER TO THE EDGE OF SLAB MEASURED PERPENDICULAR TO THE CL GIRDER.

DESIGNED BY: LMH  
 DATE: 1-22-98  
 DRAWN BY: HW  
 DATE: 2-14-98  
 CHECKED BY: HW  
 DATE: 3-27-98  
 REVISIONS: 1  
 CAD FILE NAME: 25725-U3FRW03.DWG

**CONCRETE ALTERNATE**

RECORD DRAWING	NO.	REVISIONS	BY	DATE
				11/3/04

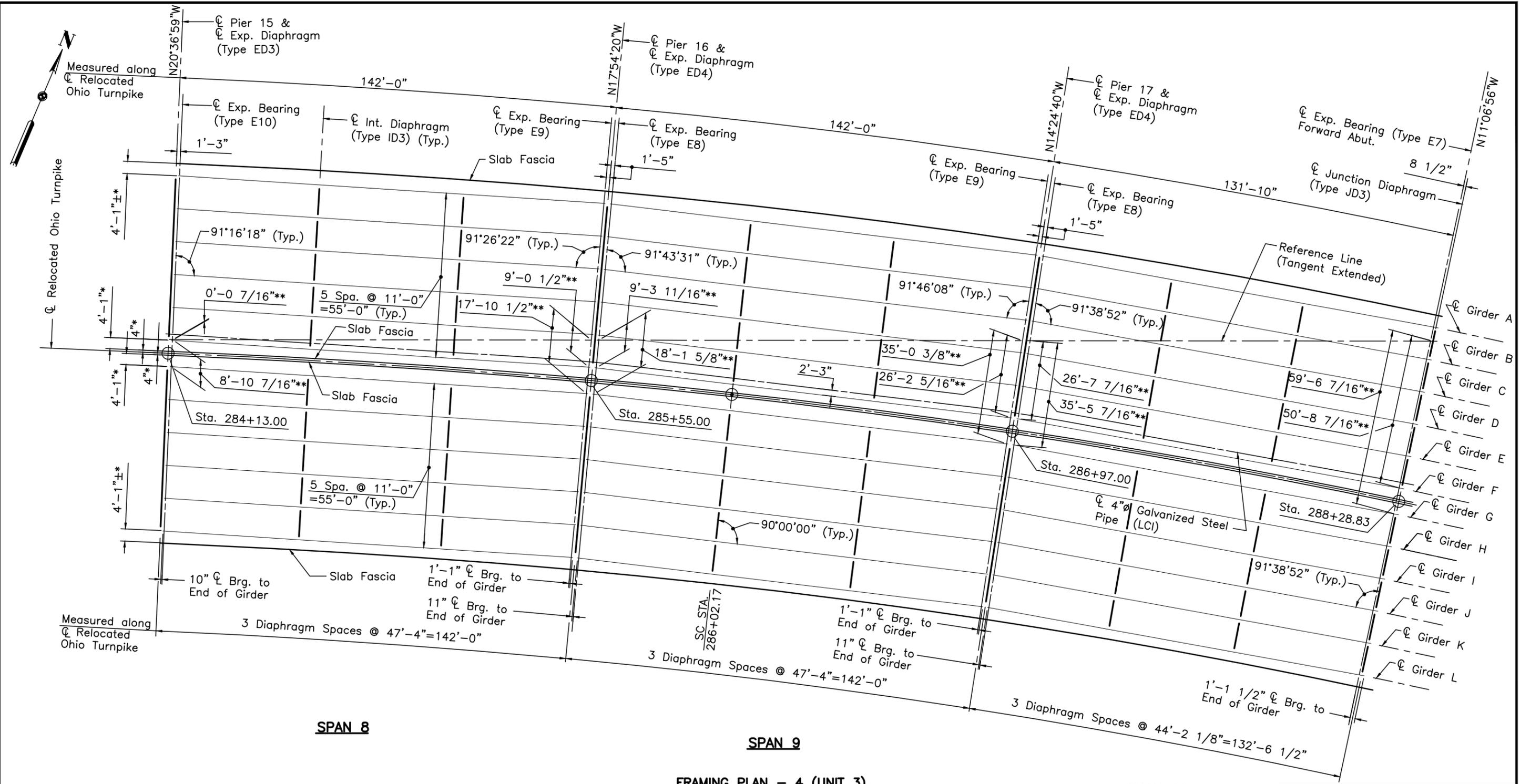
**OHIO TURNPIKE COMMISSION**

UNIT 3  
 FRAMING PLAN - 3  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B56 OF B129



**SPAN 8**

**SPAN 9**

**SPAN 10**

**FRAMING PLAN - 4 (UNIT 3)**

DESIGNED BY: LMH  
 DATE: 1-22-98  
 DRAWN BY: HW  
 DATE: 2-14-98  
 CAD FILE NAME: 25725-U3FRM04.DWG

TABLE OF SLAB OFFSETS			
SPAN	GIRDER	MINIMUM OFFSET	MAXIMUM OFFSET
SPAN 8	A & G	4'-1" @ C PIER 15 & 16	4'-11 1/8" @ C SPAN
	F & L	3'-2 7/8" @ C SPAN	4'-1" @ C PIER 15 & 16
SPAN 9	A & G	4'-1" @ C PIER 16 & 17	5'-2 1/8" @ C SPAN
	F & L	2'-11 7/8" @ C SPAN	4'-1" @ C PIER 16 & 17
SPAN 10	A & G	4'-1" @ C PIER 17 & C BRG. F. ABUT.	5'-0 3/8" @ C SPAN
	F & L	3'-1 5/8" @ C SPAN	4'-1" @ C PIER 17 & C BRG. F. ABUT.

NOTE: THE SLAB OFFSET IS THE DISTANCE FROM THE C GIRDER TO THE EDGE OF SLAB MEASURED PERPENDICULAR TO THE C GIRDER.

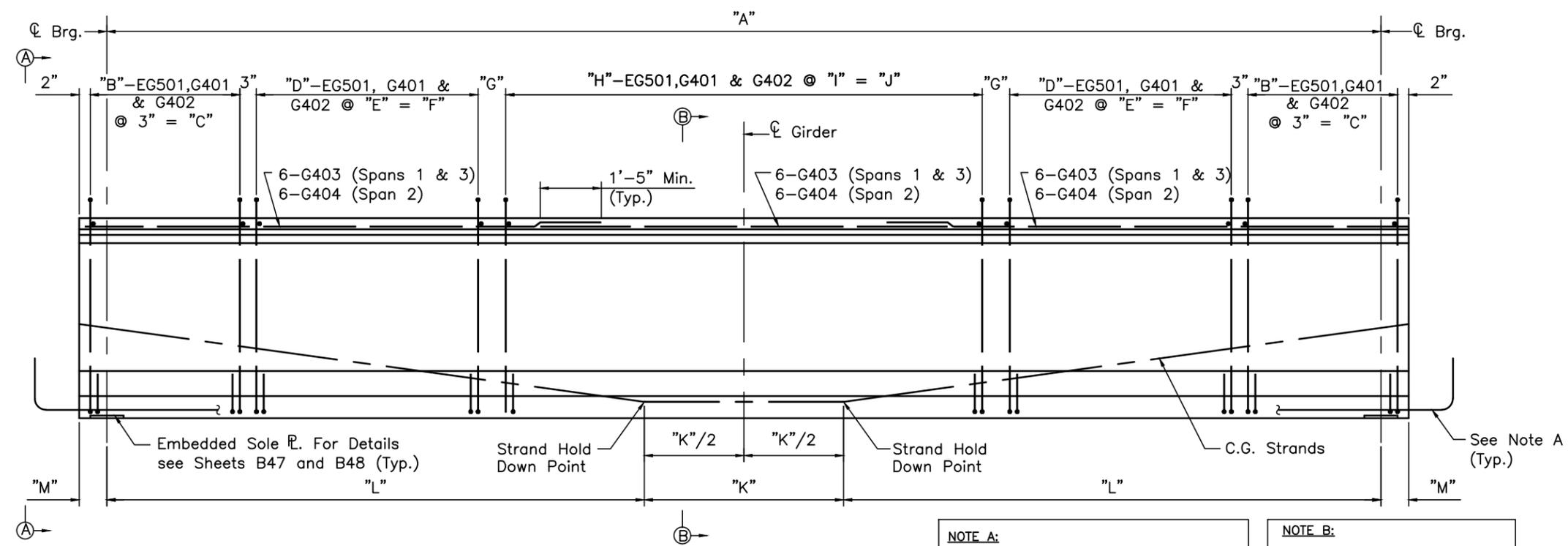
\* DIMENSION IS MEASURED ALONG THE C OF EACH PIER AND C BRG. OF THE FORWARD ABUTMENT.  
 \*\* DISTANCE BETWEEN THE MEDIAN FASCIA GIRDER AND THE REFERENCE LINE IS MEASURED ALONG THE C BEARING.

**NOTES:**

- ALL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
- FOR ADDITIONAL FRAMING SEE SHEETS B50 THRU B56 OF B129.
- FOR GIRDER DETAILS, SEE SHEETS B69 THRU B71 OF B129.
- FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
- FOR BEARING DETAILS, SEE SHEETS B47 AND B48 OF B129.
- FOR EXPANSION JOINT DETAILS, SEE SHEET B84 OF B129.
- FOR DETAILS OF LCI PIPE SUPPORTS, SEE SHEET B80 OF B129.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 3		
FRAMING PLAN - 4		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B57 OF B129		

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 4-13-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-20-98 DATE:  
 CAD FILE NAME: 25725-U1PC01.DWG



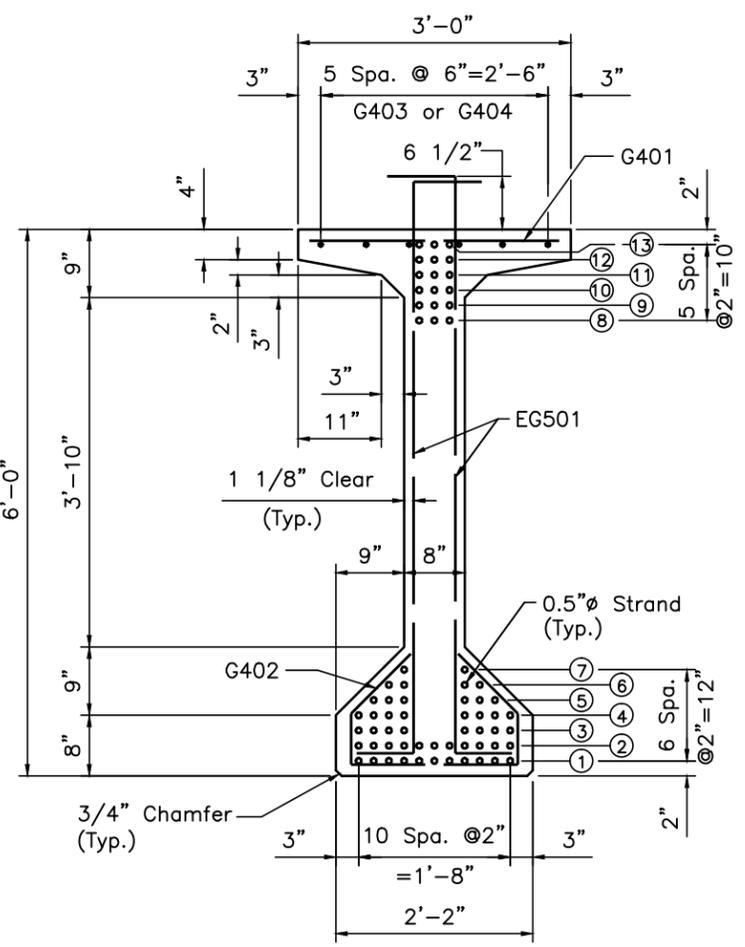
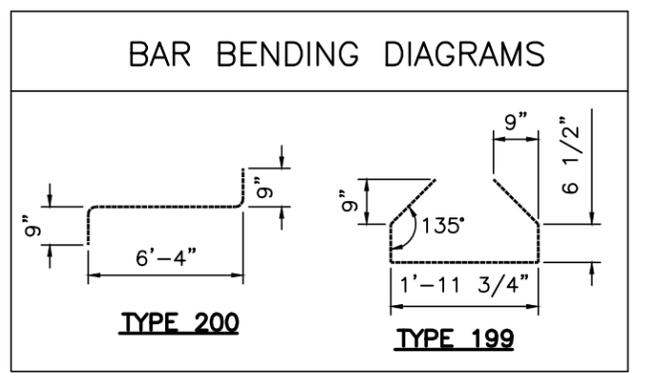
**GIRDER ELEVATION**

**NOTE A:**  
 AT PIERS 1 AND 2, ROW 1 STRANDS SHALL BE EXTENDED & BENT AS SHOWN IN "EXTENDED STRAND DETAIL", SHEET B69.

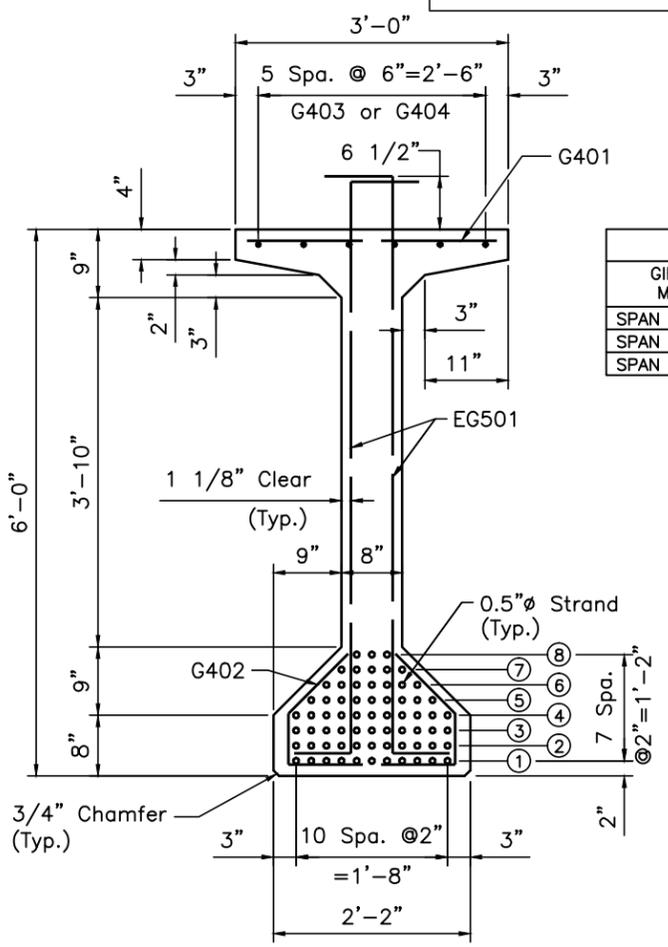
**NOTE B:**  
 THREADED INSERTS AND RODS FOR DIAPHRAGMS NOT SHOWN, SEE SHEET B80 FOR THREADED INSERTS AT GIRDER 'F' FOR FOC CONDUIT SUPPORT.

### BAR SCHEDULE

UNIT 1 GIRDER REINFORCEMENT						
MARK	NO. (PER GIRDER)		UNIT 1 TOTAL NO.	LENGTH		WEIGHT (LBS.)
	SPAN 1,3	SPAN 2		FT.	IN.	
G401	116	119	4212	2	8	STR 7,504
G402	116	119	4212	5	0	199 14,068
G403	18	-	432	39	3	STR 11,327
G404	-	18	216	42	8	STR 6,156
EG501	232	238	8424	7	7	200 66,626
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =						39,055
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =						66,626



**VIEW A-A**



**SECTION B-B**

### GIRDER DIMENSIONS

GIRDER MARK	NUMBER REQ'D	A	B	C	D	E	F	G	H	I	J	K	L	M	APPROX. WEIGHT (KIPS)
SPAN 1, A-L	12	113'-6"	6	1'-3"	26	8"	16'-8"	12"	52	1'-6"	76'-6"	22'-10"	45'-4"	10"	114.71
SPAN 2, A-L	12	123'-8 1/2"	6	1'-3"	15	8"	9'-4"	12 1/4"	77	1'-4"	101'-4"	24'-8 1/2"	49'-6"	10"	124.87
SPAN 3, A-L	12	113'-6"	6	1'-3"	26	8"	16'-8"	12"	52	1'-6"	76'-6"	22'-10"	45'-4"	10"	114.71

### NUMBER OF STRANDS PER ROW

GIRDER MARK	SECTION A-A (END SECTION)													SECTION B-B (MID SECTION)								TOTAL NUMBER STRANDS	CONCRETE STRENGTH	
	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8		f'ci	f'c
SPAN 1, A-L	11	8	8	8	6	4	0	3	3	3	3	3	3	11	11	11	11	9	7	3	0	63	6500	7500
SPAN 2, A-L	11	11	8	8	6	4	2	3	3	3	3	3	3	11	11	11	11	9	7	5	3	68	6500	7500
SPAN 3, A-L	11	8	8	8	6	4	0	3	3	3	3	3	3	11	11	11	11	9	7	3	0	63	6500	7500

- NOTES:**
- FOR PRECAST GIRDER NOTES, SEE SHEET B69 OF B129.
  - FOR GIRDER DEFLECTIONS, SEE SHEET B72 OF B129.
  - THE PREFIX "E" DENOTES EPOXY COATED REINFORCING.
  - FOR BAR SCHEDULE NOTES, SEE SHEET B65 OF B129.
  - UNIT 1 GIRDER REINFORCEMENT SHALL BE PAID UNDER THE ITEM SP515A-PRECAST CONCRETE GIRDERS, 72" DEEP.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

### CONCRETE ALTERNATE

RECORD DRAWING	11/3/04
NO. REVISIONS	BY DATE

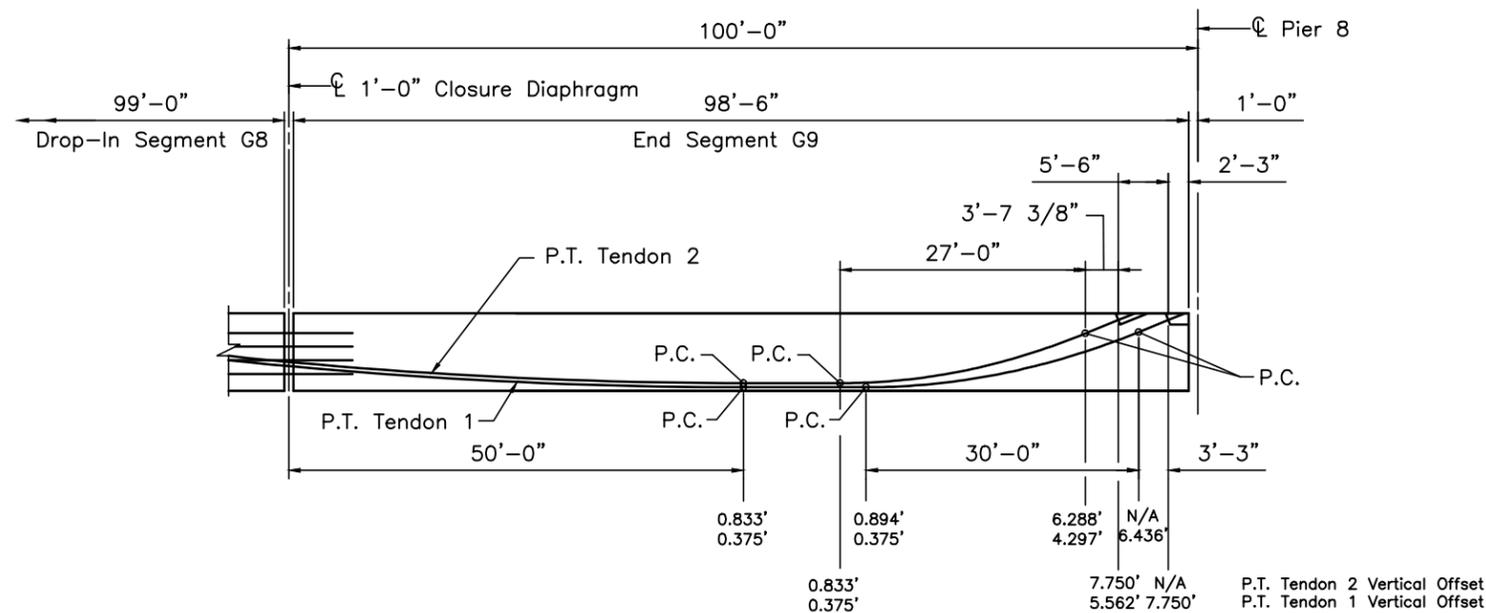
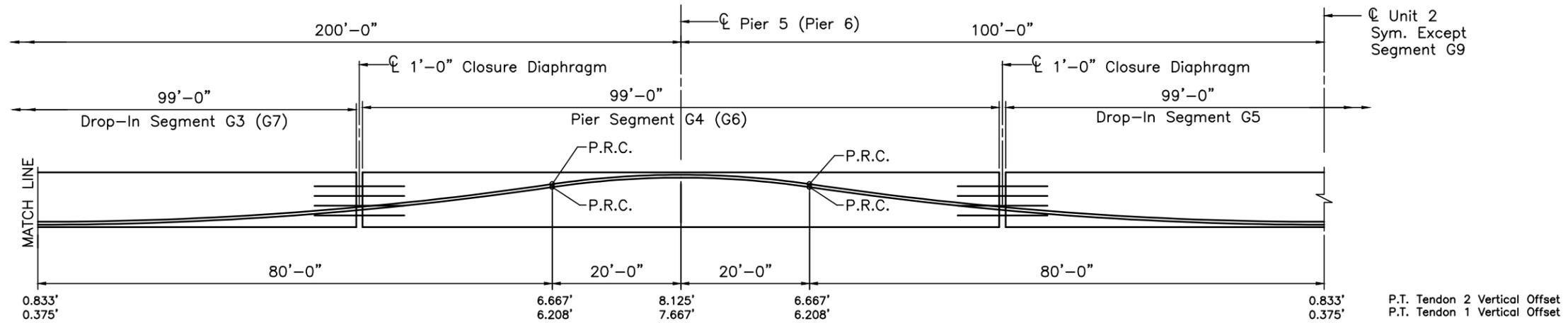
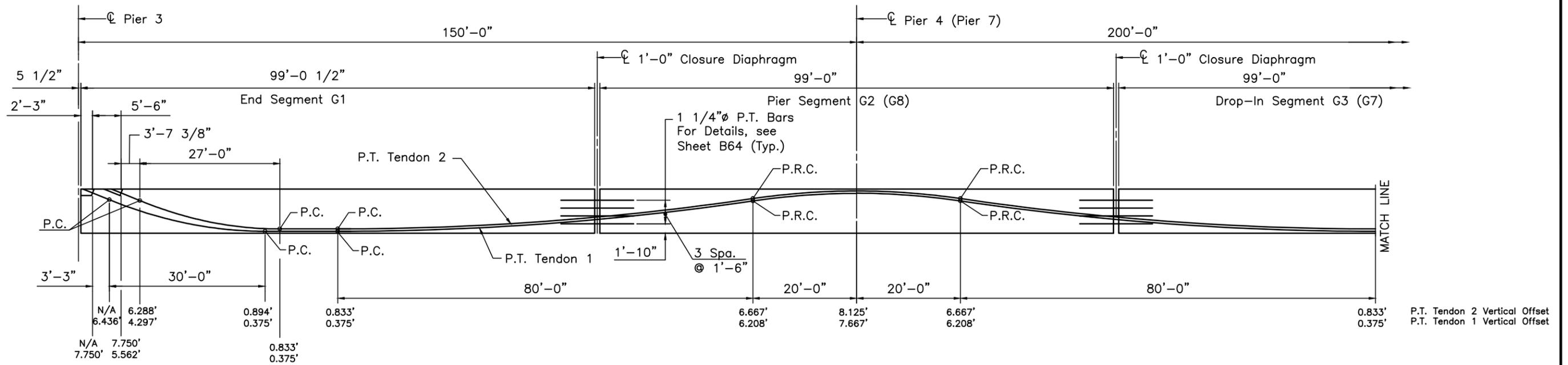
### OHIO TURNPIKE COMMISSION

**UNIT 1  
 PRECAST GIRDER DETAILS**  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
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CONTRACT 43-99-01 SHEET B58 OF B129



**POST-TENSIONING TENDON PROFILE**

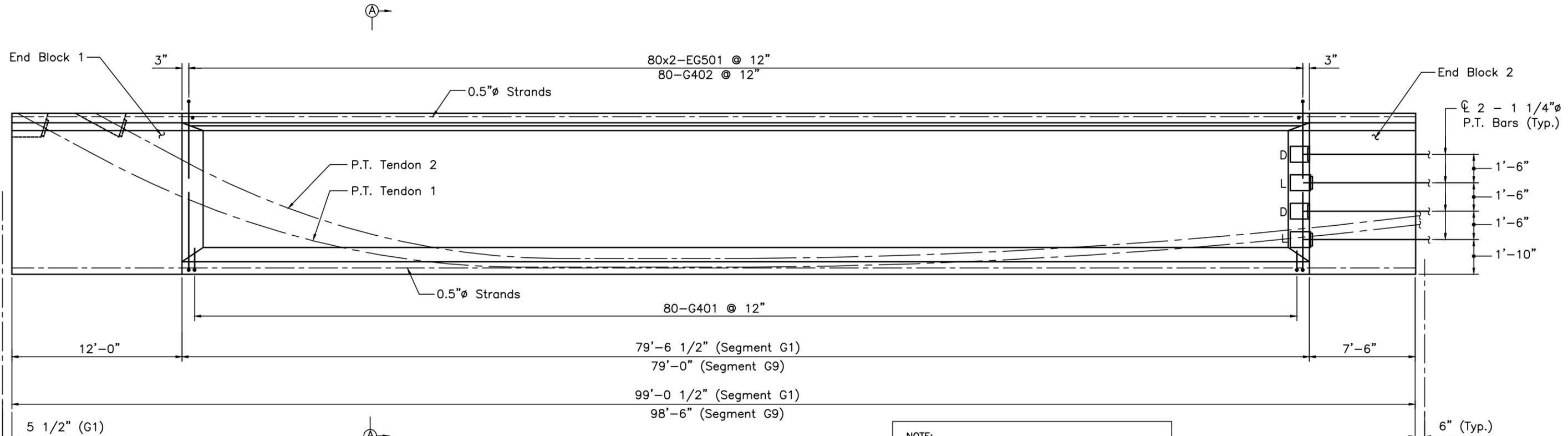
**NOTES:**

1. POST-TENSIONING TENDON PROFILE VERTICAL OFFSETS SHOWN ARE MEASURED FROM BOTTOM OF GIRDER TO CENTER OF GRAVITY OF TENDONS. THE POST-TENSIONING TENDON PATH IS PARABOLIC BETWEEN POINTS INDICATED.
2. POST-TENSIONING TENDONS ARE 18-0.6" SEVEN-WIRE LOW RELAXATION STRANDS CONFORMING TO THE REQUIREMENTS OF AASHTO M203, GRADE 270.
3. FOR DESIGN, THE WOBBLE COEFFICIENT IS ASSUMED TO BE 0.0002 K/FT AND THE FRICTION COEFFICIENT 0.25. ASSUMED ANCHOR SET IS 3/8".
4. POST-TENSIONING TENDONS ARE TO BE STRESSED FROM BOTH ENDS. JACKING FORCE OF 18-0.6" STRAND TENDON TO BE 791 KIPS.
5. CLEARANCE BETWEEN POST-TENSIONING DUCTS SHALL BE A MINIMUM OF 1 1/2".
6. THE ALLOWABLE CONSTRUCTION TOLERANCE FOR ALIGNMENT OF THE SEGMENT ENDS AT THE CLOSURE DIAPHRAGMS SHALL BE 1/4".
7. FOR CLOSURE DIAPHRAGM DETAILS, SEE SHEET B79 OF B129.
8. FOR GIRDER DEFLECTIONS SEE SHEET B73 OF B129.
9. FOR ADDITIONAL UNIT 2 DETAILS SEE SHEETS B60 TO B68.

DESIGNED BY: MPL  
 DATE: 3-1-98  
 DRAWN BY: HW  
 DATE: 8-3-98  
 CHECKED BY: LMH  
 DATE: 8-3-98  
 REVISIONS BY: DATE:  
 CAD FILE NAME: 25725 - U2IND1.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 2		
P.T. TENDON PROFILE		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: LMH/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B59 OF B129		

DESIGNED BY: MPL  
 DATE: 3-1-98  
 DRAWN BY: DS  
 DATE: 4-1-98  
 CHECKED BY: LMH  
 DATE: 4-24-98  
 REVISED BY:  
 DATE:  
 CAD FILE NAME: 25725-U2PCE01.DWG

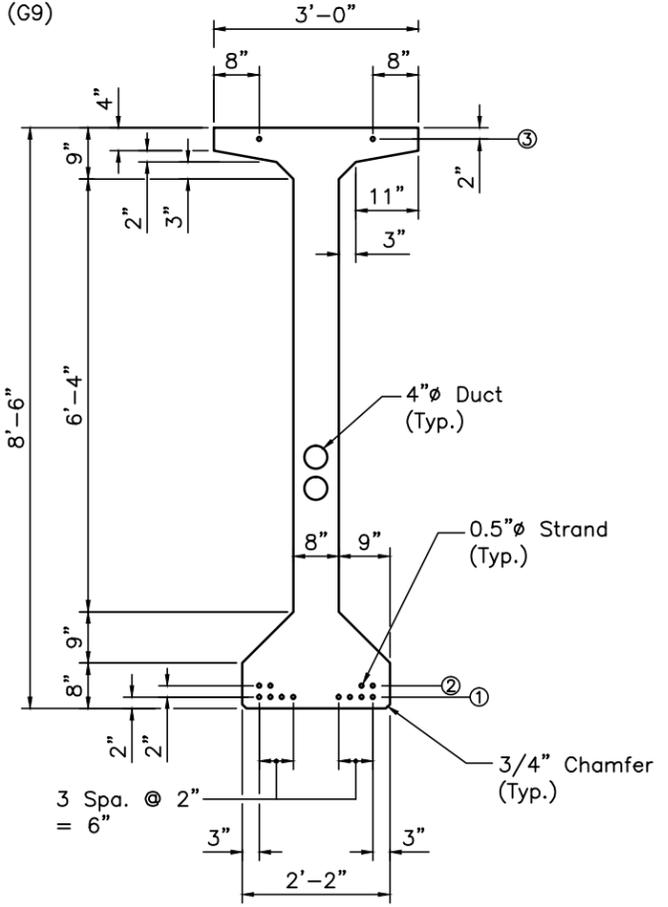


**NOTE:**  
 THREADED INSERTS AND RODS FOR DIAPHRAGMS NOT SHOWN, SEE SHEETS B74 THRU B78. ALSO SEE SHEET B80 FOR THREADED INSERTS AT GIRDER 'G' FOR FOC CONDUIT SUPPORTS.

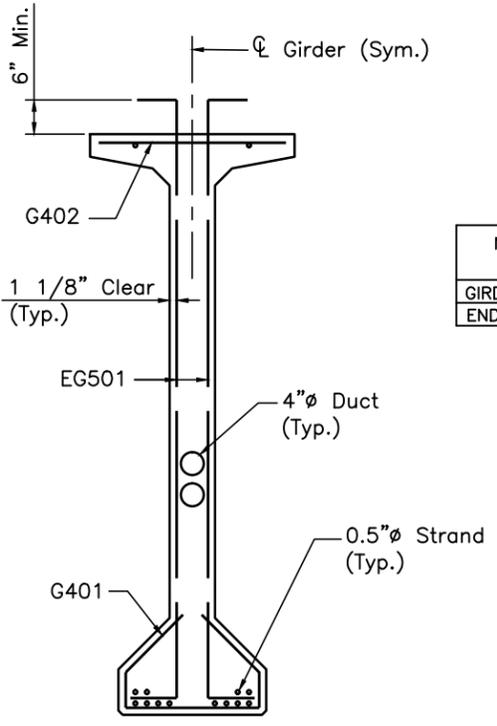
**ELEVATION - SEGMENTS G1 AND G9**

- NOTES:**
1. SEGMENTS MAY BE LIFTED USING SUPPORTS LOCATED AT 15' FROM EACH END. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING DETAILED CALCULATIONS OF THE STRESSES INDUCED DURING HANDLING AND LIFTING. AT NO TIME SHALL THE STRESSES INDUCED BY HANDLING AND LIFTING EXCEED THE ALLOWABLE STRESSES SHOWN IN THE GENERAL NOTES. AT ALL TIMES THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFE HANDLING OF THE BEAMS.
  2. THE PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT.
  3. FOR POST-TENSIONING TENDON PROFILE, SEE SHEET B59 OF B129.
  4. FOR PRECAST GIRDER NOTES, SEE SHEET B69 OF B129.
  5. FOR END BLOCK 1 DETAILS, SEE SHEET B63 OF B129.
  6. FOR END BLOCK 2 DETAILS, SEE SHEET B64 OF B129.
  7. FOR REINFORCEMENT SCHEDULE, SEE SHEET B65 OF B129.

GIRDER MARK	NUMBER OF STRANDS PER ROW			TOTAL NUMBER STRANDS	CONCRETE STRENGTH	
	1	2	3		f'ci	f'c
END SEGMENT	8	4	2	14	6500	7500



**STRAND PATTERN**

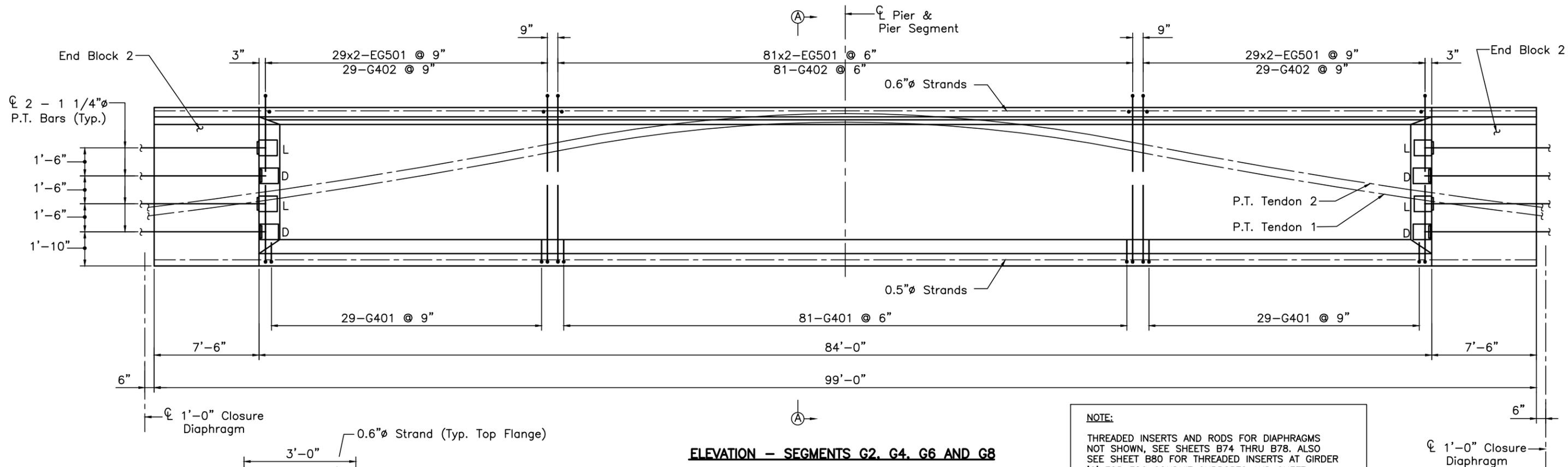


**SECTION A-A**

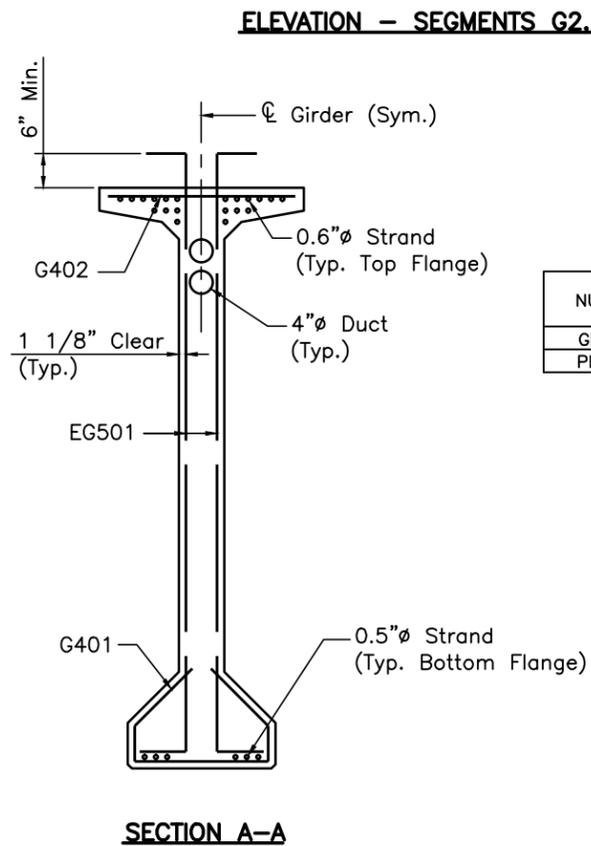
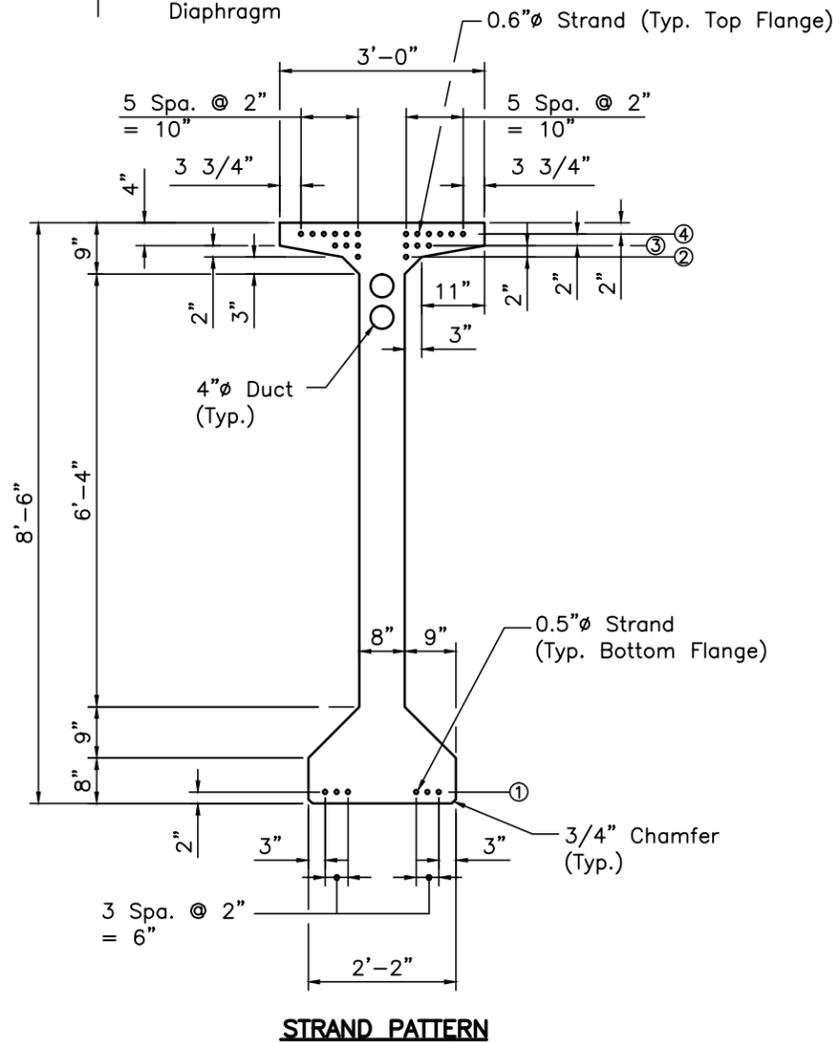
- LEGEND:**
- D INDICATES BAR TENDON STRESSING FROM OPPOSITE END.
- L INDICATES BAR TENDON STRESSING FROM THIS END.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/98
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 2		
END SEGMENT DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: LMH/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B60 OF B129		

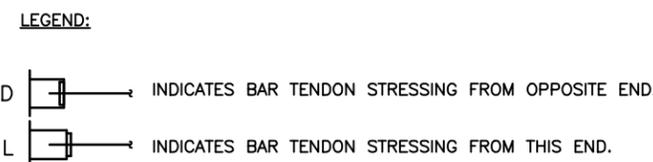


**NOTE:**  
 THREADED INSERTS AND RODS FOR DIAPHRAGMS NOT SHOWN, SEE SHEETS B74 THRU B78. ALSO SEE SHEET B80 FOR THREADED INSERTS AT GIRDER 'G' FOR FOC CONDUIT SUPPORTS AND SHEET B108 FOR THREADED INSERTS AT GIRDERS A, B, G, H, M & N AT PIER 6 FOR DRAIN PIPE SUPPORTS.



GIRDER MARK	NUMBER OF STRANDS PER ROW				TOTAL NUMBER STRANDS	CONCRETE STRENGTH	
	1	2	3	4		f'ci	f'c
PIER SEGMENT	6	2	6	12	26	6500	7500

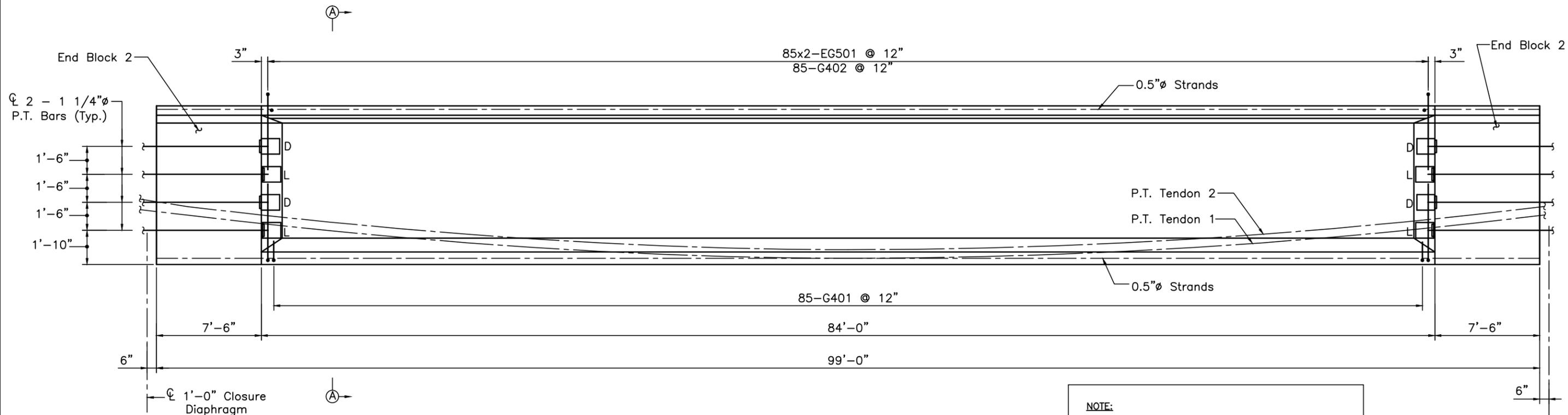
- NOTES:**
1. SEGMENTS MAY BE LIFTED USING SUPPORTS LOCATED AT 35' FROM EACH END. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING DETAILED CALCULATIONS OF THE STRESSES INDUCED DURING HANDLING AND LIFTING. AT NO TIME SHALL THE STRESSES INDUCED BY HANDLING AND LIFTING EXCEED THE ALLOWABLE STRESSES SHOWN IN THE GENERAL NOTES. AT ALL TIMES THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFE HANDLING OF THE BEAMS.
  2. THE PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT.
  3. FOR POST-TENSIONING TENDON PROFILE, SEE SHEET B59 OF B129.
  4. FOR PRECAST GIRDER NOTES, SEE SHEET B69 OF B129.
  5. FOR END BLOCK 2 DETAILS, SEE SHEET B64 OF B129.
  6. FOR REINFORCEMENT SCHEDULE, SEE SHEET B65 OF B129.



SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

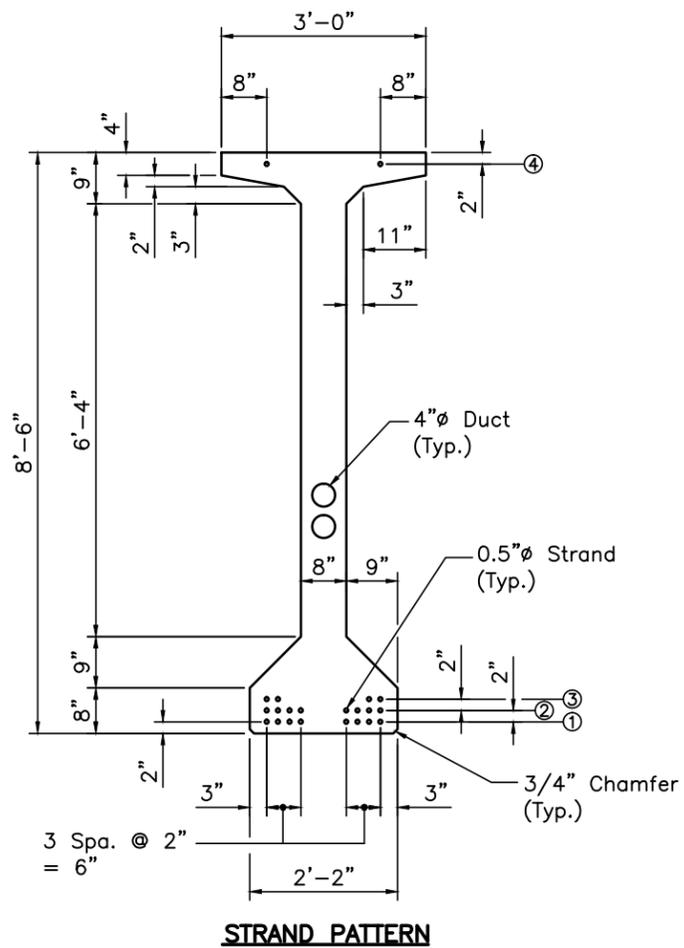
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 DATE: 4-24-98  
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 DATE:  
 CAD FILE NAME: 25725-U2PCP01.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/98
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 2		
PIER SEGMENT DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: LMH/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B61 OF B129		

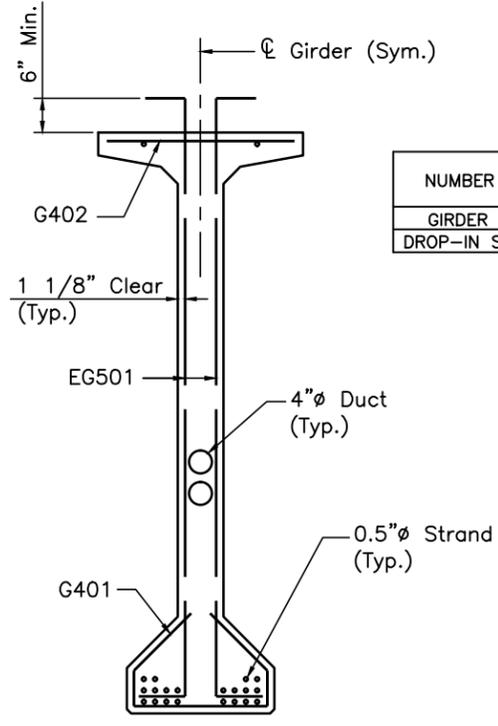


**ELEVATION - SEGMENTS G3, G5 AND G7**

**NOTE:**  
 THREADED INSERTS AND RODS FOR DIAPHRAGMS NOT SHOWN, SEE SHEETS B74 THRU B78. ALSO SEE SHEET B80 FOR THREADED INSERTS AT GIRDER 'G' FOR FOC CONDUIT SUPPORTS.



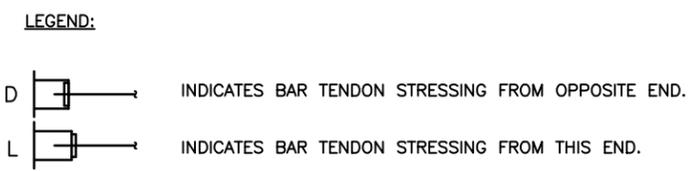
**STRAND PATTERN**



**SECTION A-A**

GIRDER MARK	NUMBER OF STRANDS PER ROW				TOTAL NUMBER STRANDS	CONCRETE STRENGTH	
	1	2	3	4		f'ci	f'c
DROP-IN SEGMENT	8	8	4	2	22	6500	7500

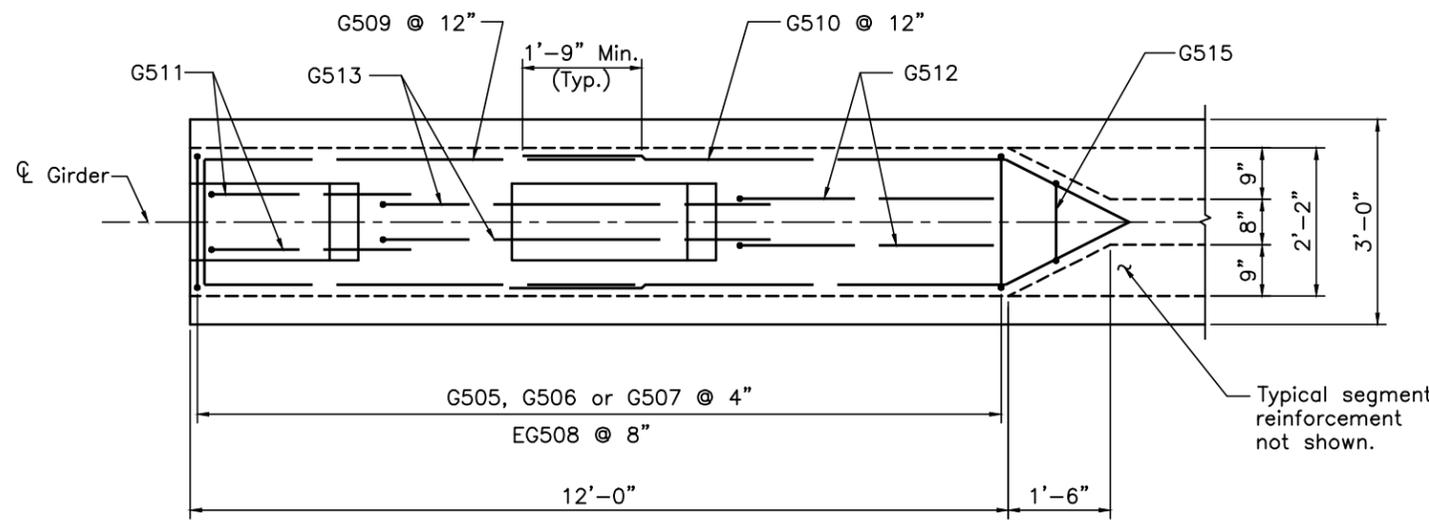
- NOTES:**
1. SEGMENTS MAY BE LIFTED USING SUPPORTS LOCATED AT 15' FROM EACH END. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING DETAILED CALCULATIONS OF THE STRESSES INDUCED DURING HANDLING AND LIFTING. AT NO TIME SHALL THE STRESSES INDUCED BY HANDLING AND LIFTING EXCEED THE ALLOWABLE STRESSES SHOWN IN THE GENERAL NOTES. AT ALL TIMES THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFE HANDLING OF THE BEAMS.
  2. THE PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT.
  3. FOR POST-TENSIONING TENDON PROFILE, SEE SHEET B59 OF B129.
  4. FOR PRECAST GIRDER NOTES, SEE SHEET B69 OF B129.
  5. FOR END BLOCK 2 DETAILS, SEE SHEET B64 OF B129.
  6. FOR REINFORCEMENT SCHEDULE, SEE SHEET B65 OF B129.



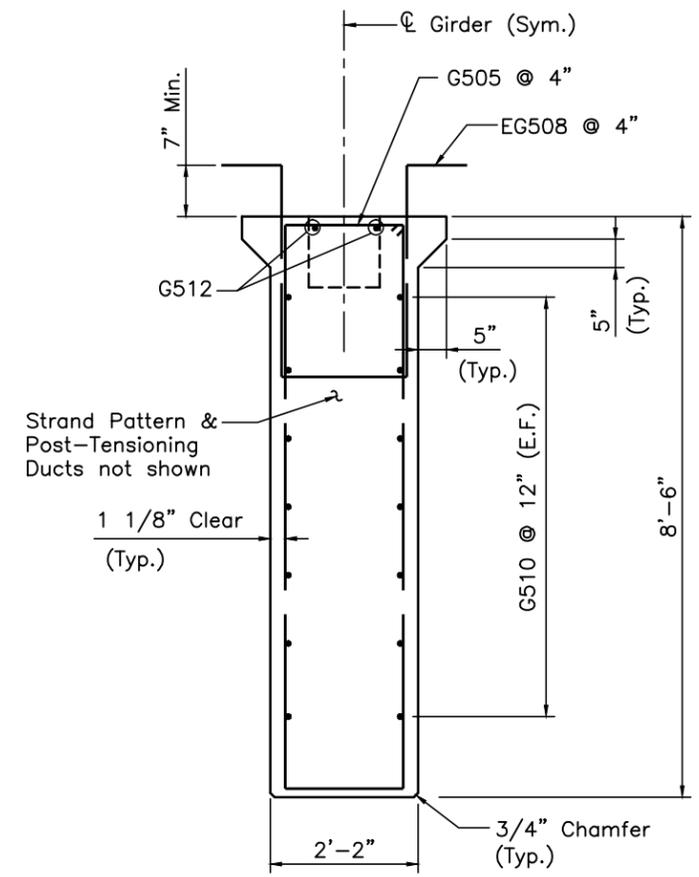
SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

DESIGNED BY: MPL CHECKED BY: LMH  
 DATE: 3-1-98 DATE: 4-24-98  
 DRAWN BY: DS REVISIONS BY:  
 DATE: 4-1-98 DATE:  
 CAD FILE NAME: 25725-U2PCD01.DWG

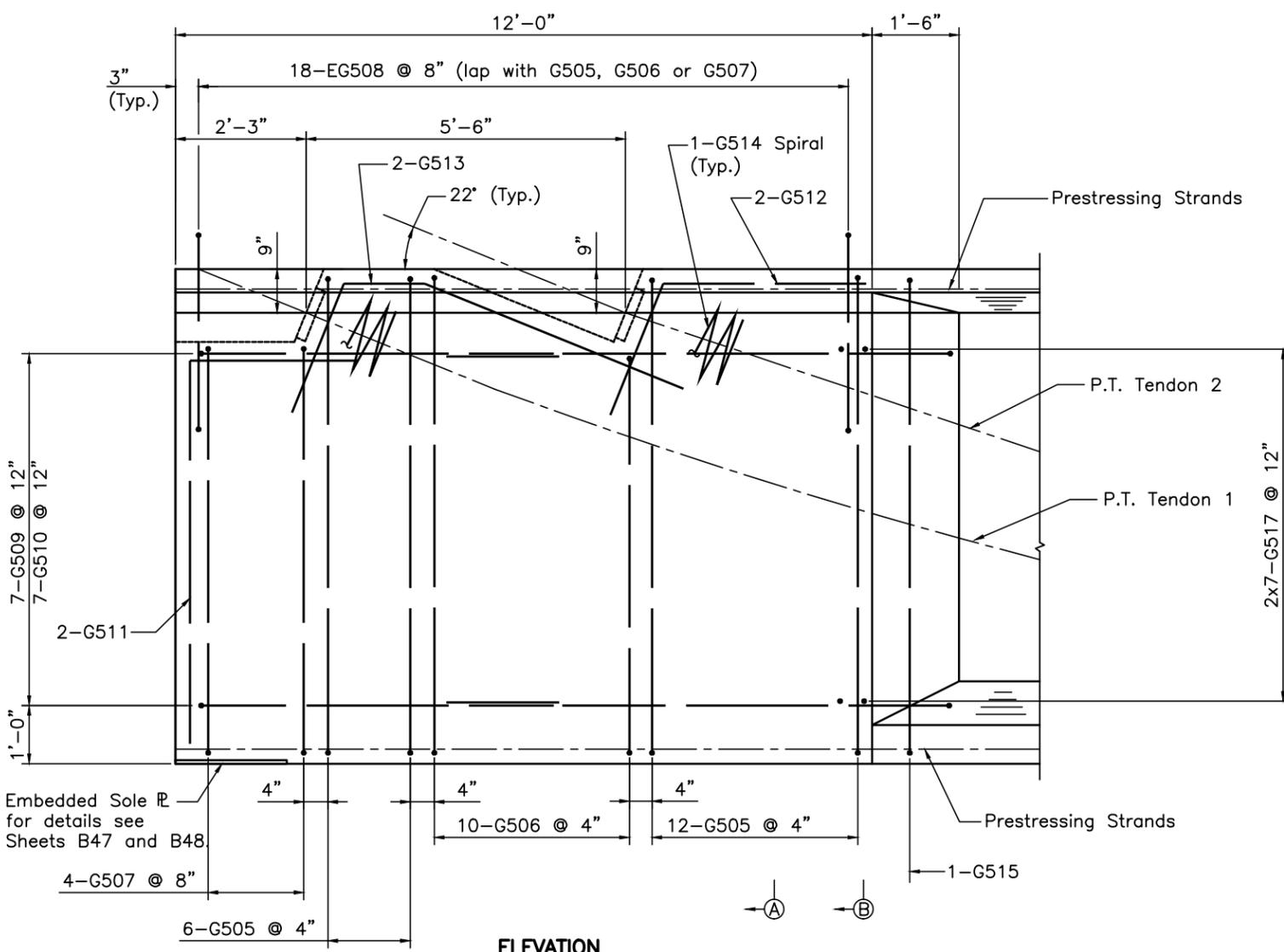
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RECORD DRAWING		11/3/98
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 2		
DROP-IN SEGMENT DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: LMH/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B62 OF B129		



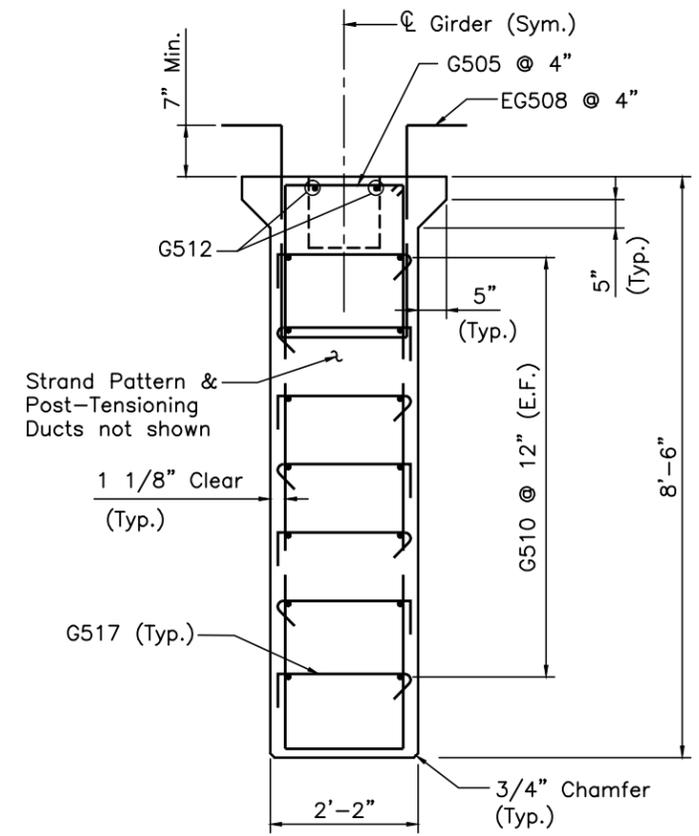
**PLAN**



**SECTION A-A**



**ELEVATION**



**SECTION B-B**

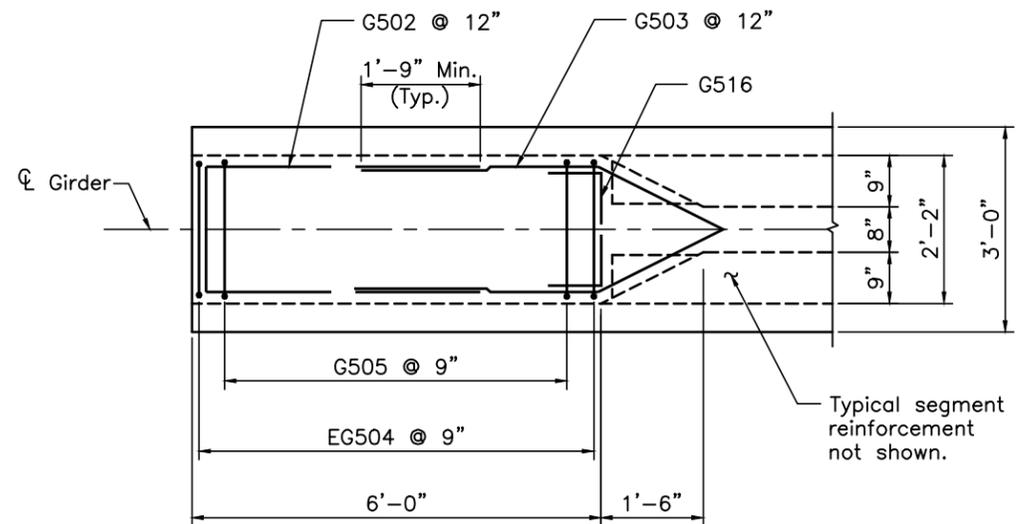
**NOTES:**

1. AFTER STRESSING AND GROUTING OPERATIONS ARE COMPLETED, THE TENDON BLOCKOUTS SHALL BE FILLED WITH NON-SHRINK CEMENT GROUT OF F<sub>c</sub> = 5,000 PSI. REFER TO OTC SPECIAL PROVISION SP711A FOR ADDITIONAL REQUIREMENTS.
2. THE PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT.
3. FOR POST-TENSIONING TENDON PROFILE, SEE SHEET B59 OF B129.
4. FOR STRAND PATTERNS, SEE SHEET B60 OF B129.
5. FOR REINFORCEMENT SCHEDULE, SEE SHEET B65 OF B129.

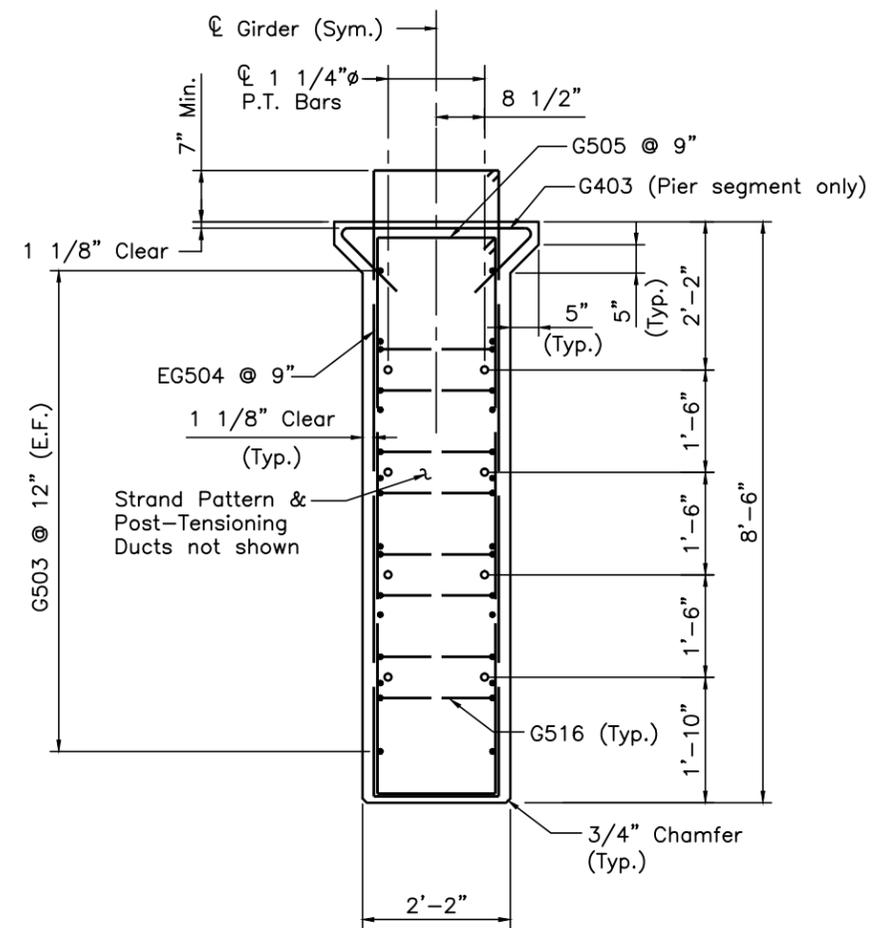
SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

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 DATE: 3-1-98 DATE: 4-24-98  
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 DATE: 4-1-98 DATE: 11/3/98  
 CAD FILE NAME: 25725-U2ENDB01.DWG

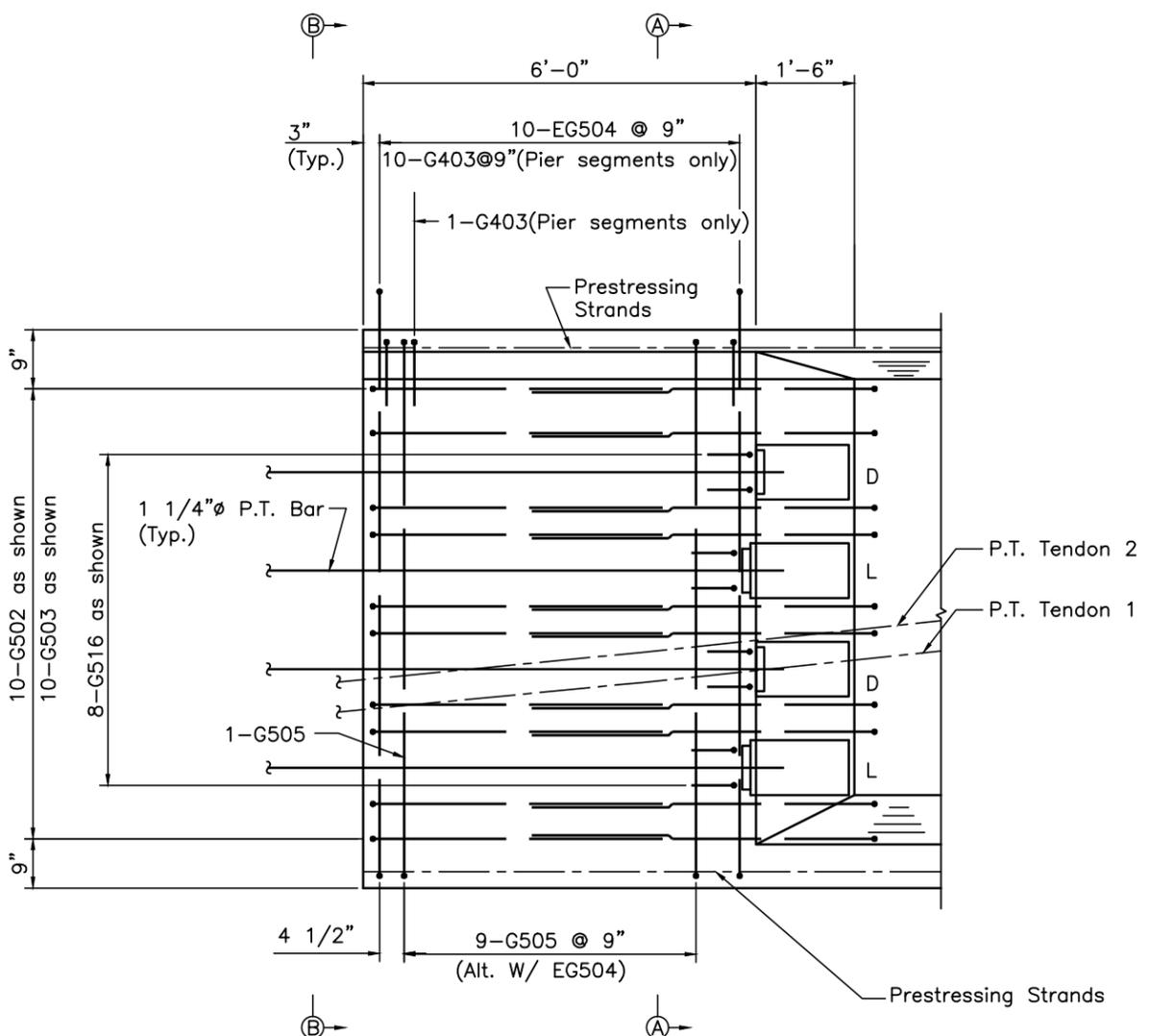
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NO.	REVISIONS	BY DATE
OHIO TURNPIKE COMMISSION		
UNIT 2		
END BLOCK 1 DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
HNTB ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: LMH/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B63 OF B129		



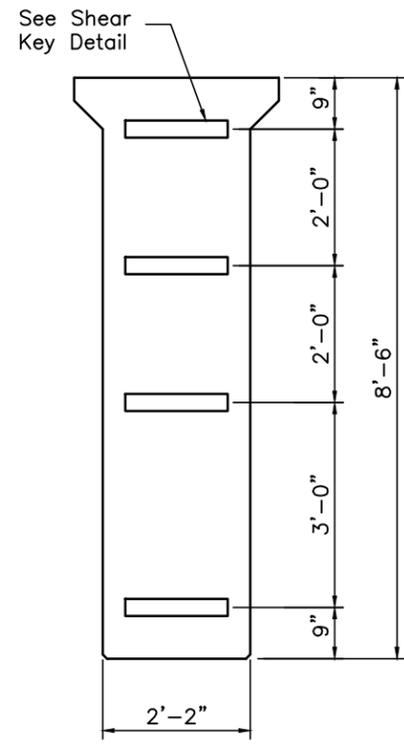
**PLAN**



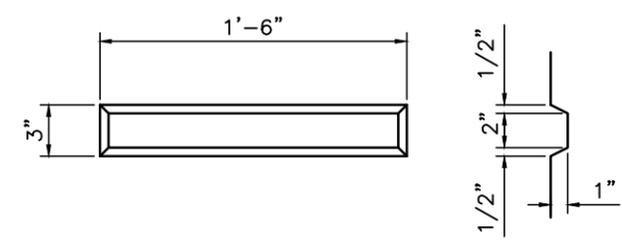
**SECTION A-A**



**ELEVATION**



**VIEW B-B**



**SHEAR KEY DETAIL**

**NOTES:**

1. POST-TENSIONING BAR TENDONS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M275, GRADE 150, TYPE II.
2. JACKING FORCE OF 1 1/4" DIA. BAR TENDONS TO BE 135 KIPS.
3. STRESSING END OF BAR TENDONS SHALL ALTERNATE.
4. AFTER STRESSING AND GROUTING OPERATIONS ARE COMPLETED, THE TENDON BLOCKOUTS SHALL BE FILLED WITH NON-SHRINK CEMENT GROUT OF F'c = 5,000 PSI. REFER TO OTC SPECIAL PROVISION SP711A FOR ADDITIONAL REQUIREMENTS.
5. THE PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT.
6. FOR POST-TENSIONING TENDON PROFILE, SEE SHEET B59 OF B129.
7. FOR STRAND PATTERNS, SEE SHEETS B60 THRU B62 OF B129.
8. FOR REINFORCEMENT SCHEDULE, SEE SHEET B65 OF B129.

**LEGEND:**

- D INDICATES BAR TENDON STRESSING FROM OPPOSITE END.
- L INDICATES BAR TENDON STRESSING FROM THIS END.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

DESIGNED BY: MPL CHECKED BY: LMH  
 DATE: 3-1-98 DATE: 4-24-98  
 DRAWN BY: DS REVISIONS BY: 11/3/04  
 DATE: 4-1-98 DATE:  
 CAD FILE NAME: 25725-U2ENDB02.DWG

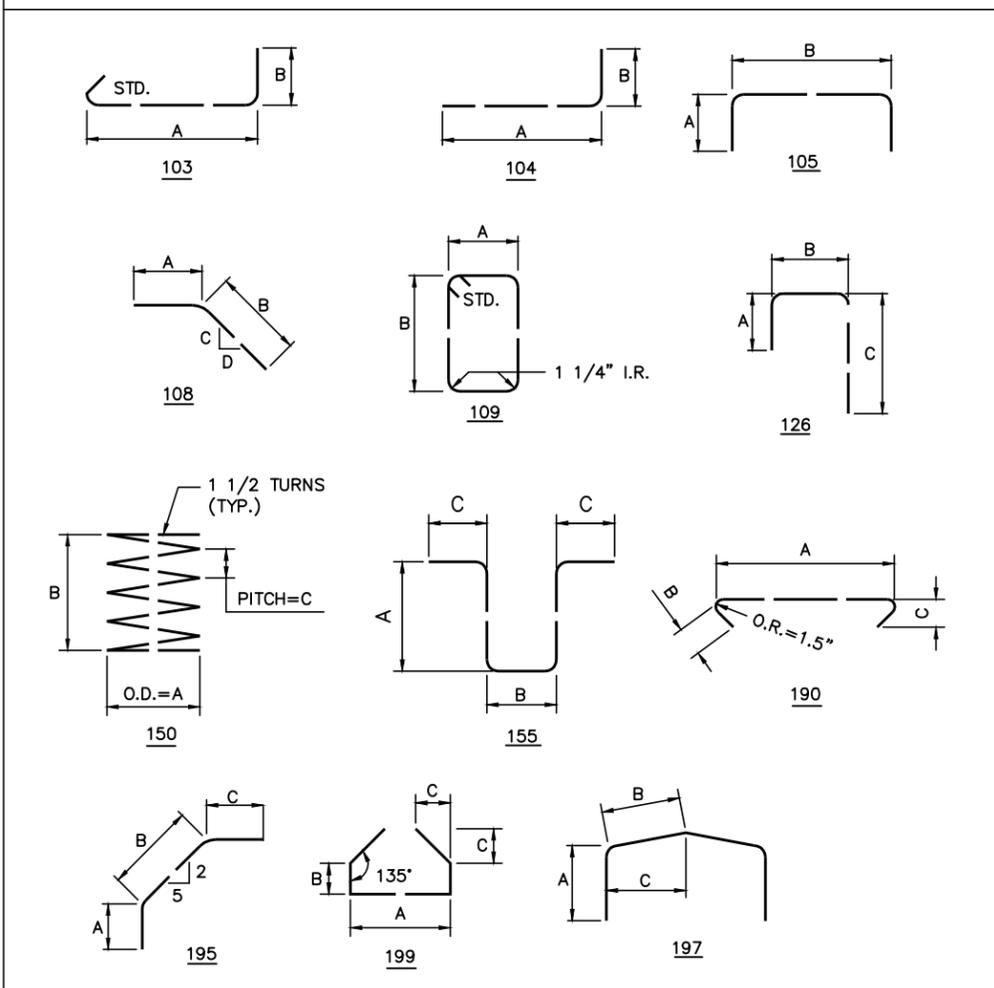
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NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 2		
END BLOCK 2 DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: LMH/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B64 OF B129		

# BAR SCHEDULE

## UNIT 2 GIRDER REINFORCEMENT

MARK	NUMBER REQ'D	LENGTH		TYPE	A		B		C		D		E		SER. INCR.	WEIGHT (LBS.)
		FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
G401	13594	5	0	199	1	11 3/4	0	6 1/2	0	9						45,404
G402	13594	2	8	STR												24,215
G403	1232	4	6	190	2	8	1	0	0	10						3,703
EG501	27,188	10	2	126	0	9	8	9 1/2	0	10						288,299
G502	2240	10	5	105	4	5	1	10								24,337
G503	2240	10	1	197	3	1	2	1	0	11						23,558
EG504	2240	22	3	109	1	11 3/4	9	0								51,983
G505	2520	20	11	109	1	11 3/4	8	3 3/4								54,977
G506	1 Ser 280	20	11	109	1	11 3/4	8	3 3/4	28 Subseries of 10 Bars			0	3 1/4		5,756	
		18	6				7	1 1/4								
G507	112	18	9	109	1	11 3/4	7	3								2,190
EG508	504	10	2	155	3	6	1	11 3/4	0	10						5,344
G509	196	15	1	105	6	9	1	10								3,083
G510	196	17	5	197	6	9	2	1	0	11						3,560
G511	56	10	0	104	3	0	7	1								584
G512	56	5	7	108	3	5	2	3	2	1	0	10				326
G513	56	8	5	195	2	3	1	9	4	6						492
G514	56	40	0	150	1	2 1/2	1	3	0	1 1/8						2,336
G515	28	19	3	109	1	2	8	3 3/4	0	5 1/2						562
G516	1792	3	7	105	0	10	1	10 1/4								6,697
G517	392	2	8	103	1	11 3/4	0	6								1,090
TOTAL NON- EPOXY COATED REINFORCING BAR WEIGHT =															202,870	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =															345,626	

# BAR BENDING DIAGRAMS



**NOTE:**  
 1. UNIT 2 GIRDER REINFORCEMENT SHALL BE PAID UNDER THE ITEM SP515A-PRECAST CONCRETE GIRDERS, 102" DEEP.

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:** IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

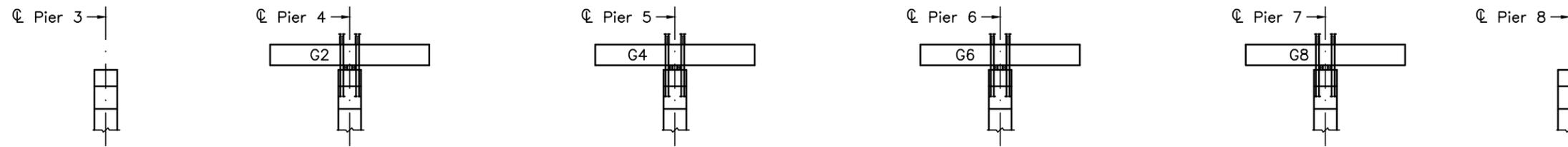
THE PREFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
 REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

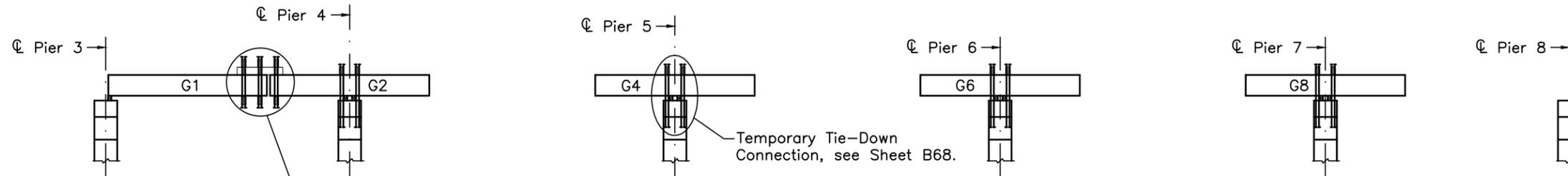
SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
No.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 2 GIRDER REINFORCEMENT SCHEDULE		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: LMH/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B65 OF B129		

DESIGNED BY: MPL CHECKED BY: LMH  
 DATE: 3-1-98 DATE: 4-24-98  
 DRAWN BY: DS REVISIONS BY:  
 DATE: 4-1-98 DATE:  
 CAD FILE NAME: 25725-u2p2rbar.dwg

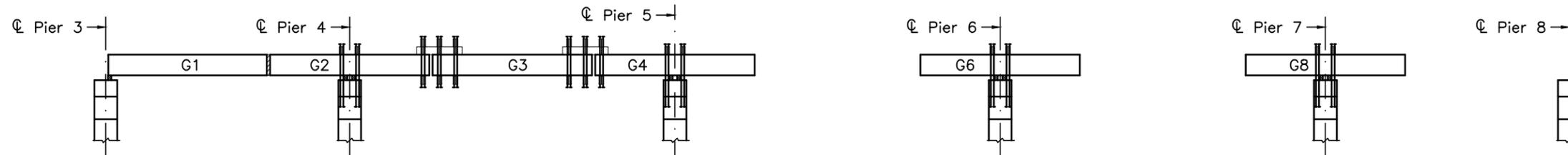


STEP 1 - ERECT PIER GIRDER SEGMENTS G2, G4, G6 AND G8 AND SECURE TO TEMPORARY SUPPORTS.

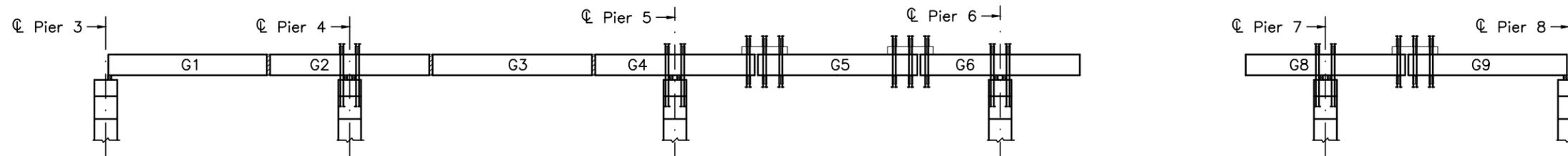


Temporary Strong Back Connection, see Sheet B68.

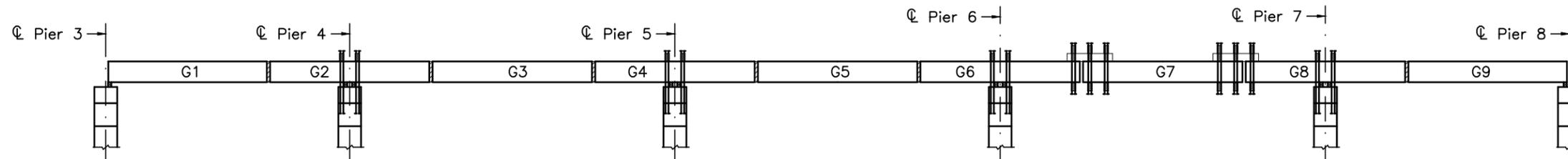
STEP 2 - ERECT DROP-IN GIRDER SEGMENTS G1. CAST AND POST-TENSION CLOSURE G1-G2.



STEP 3 - ERECT DROP-IN GIRDER SEGMENTS G3. CAST AND POST-TENSION CLOSURE G2-G3 AND G4-G3.



STEP 4 - ERECT DROP-IN GIRDER SEGMENTS G5 AND G9. CAST AND POST-TENSION CLOSURE G4-G5, G6-G5 AND G8-G9.



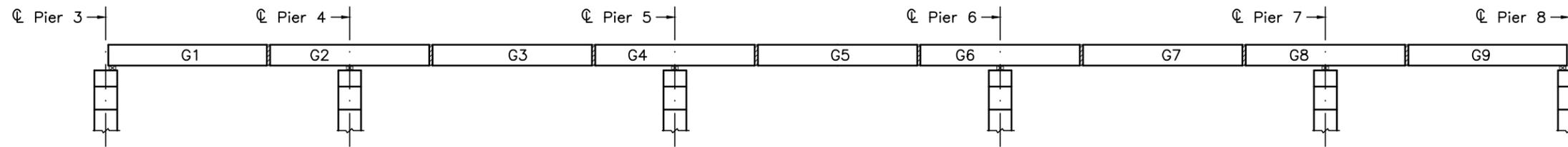
STEP 5 - ERECT DROP-IN GIRDER SEGMENTS G7. CAST AND POST-TENSION CLOSURE G6-G7 AND G8-G9. CAST PIER DIAPHRAGMS.

**NOTE**  
 THE CONSTRUCTION SEQUENCE AS WELL AS ANY CONSTRUCTION EQUIPMENT INDICATED ARE ONLY CONCEPTUAL AND NOT MANDATORY. THEY ARE PRESENTED FOR INFORMATION ONLY AND ARE NOT TO BE CONSIDERED AS PART OF THE BID DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING THE DETAILS OF ALL ERECTION STAGES, ERECTION EQUIPMENT AND LOADS AND DEVELOPING ALL NECESSARY CALCULATIONS FOR CAMBER AND STRESS CONTROL NECESSARY FOR THE SAFE CONSTRUCTION OF THE BRIDGE.

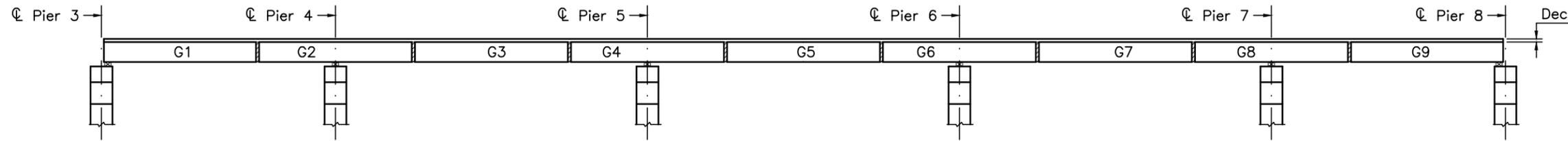
SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

DESIGNED BY: MPL CHECKED BY: LMH  
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 DRAWN BY: HW REVISIONS BY:  
 DATE: 3-18-98 DATE:  
 CAD FILE NAME: 25725-U2CSTR01.DWG

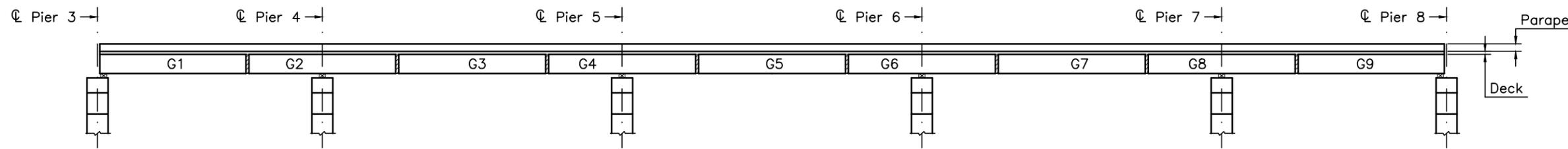
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RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 2			
CONSTRUCTION SEQUENCE-1			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: MPL	CHECKED: LMH/MPL	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B66 OF B129			



STEP 6 - INSTALL PERMANENT BEARINGS. REMOVE TIE-DOWN CONNECTIONS. STRESS CONTINUITY P.T. TENDONS FROM BOTH ENDS.



STEP 7 - POUR DIAPHRAGMS & DECK SLAB.



STEP 8 - COMPLETE MISCELLANEOUS WORK.

**NOTES:**

1. MAXIMUM REACTIONS ON TIE-DOWN CONNECTION PER SEGMENT (EXCLUDING CONSTRUCTION LOADS) ARE P=232 K (DOWN) AND M=3,860 K-FT.
2. MAXIMUM REACTION ON STRONG BACK PER SEGMENT (EXCLUDING CONSTRUCTION LOADS) IS P=77K (UP)
3. REACTIONS SHOWN SHALL BE ADJUSTED FOR ANY CONSTRUCTION LOADS PROPOSED BY THE CONTRACTOR, INCLUDING THE WEIGHT OF TIE-DOWN AND STRONG BACK CONNECTIONS.
4. THE CONTRACTOR SHALL DESIGN ALL THE TEMPORARY SUPPORTS, INCLUDING THE DEVICES TO SECURE THE SEGMENTS TRANSVERSELY. THE DESIGNS SHALL BE DONE BY A PROFESSIONAL ENGINEER REGISTERED IN OHIO. THE CONTRACTOR SHALL SUBMIT AT LEAST 60 DAYS BEFORE THE ACTUAL ERECTION SIGNED AND SEALED SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL SHOWING THE DETAILS AND BACK-UP CALCULATIONS FOR THE AFOREMENTIONED DESIGNS, INCLUDING A THOROUGH LIST OF THE ANTICIPATED CONSTRUCTION LOADS DURING EACH STEP OF HIS PROPOSED ERECTION SEQUENCE. ERECTION SHALL NOT BEGIN UNTIL THE ERECTION PROCEDURE HAS BEEN APPROVED.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF A LIFTING SYSTEM FOR HANDLING GIRDERS AT THE PLANT, DURING TRANSPORTATION AND AT THE SITE.
6. THE CONTRACTOR'S ERECTION PROCEDURE SHALL INCLUDE ANY ADDITIONAL TEMPORARY DIAPHRAGMS OR SUPPORTS NEEDED TO ASSURE THE GIRDERS WILL REMAIN STABLE BEFORE, DURING AND THROUGH COMPLETION OF THE PLACEMENT OF THE CONCRETE DECK.

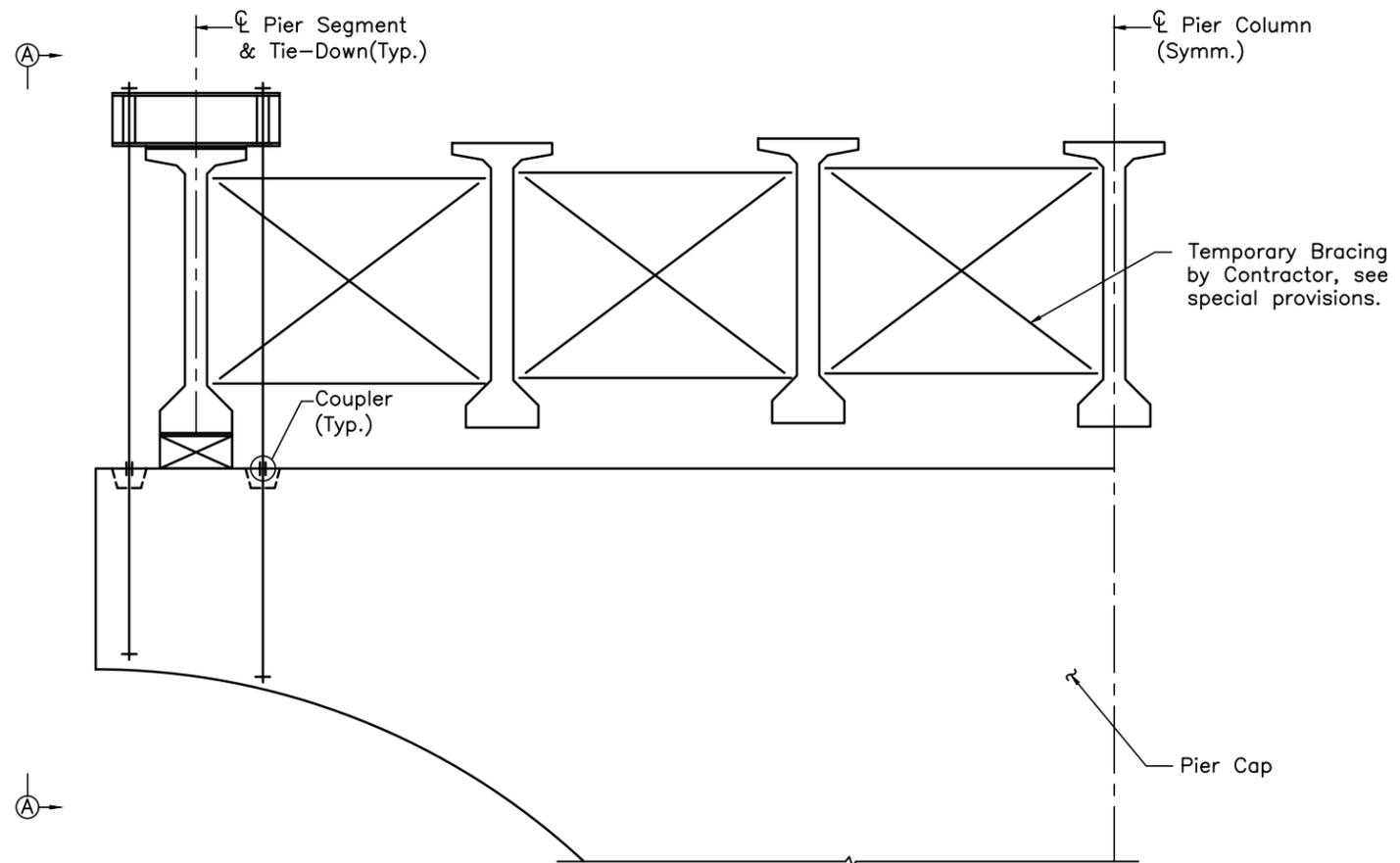
**NOTE**

THE CONSTRUCTION SEQUENCE AS WELL AS ANY CONSTRUCTION EQUIPMENT INDICATED ARE ONLY CONCEPTUAL AND NOT MANDATORY. THEY ARE PRESENTED FOR INFORMATION ONLY AND ARE NOT TO BE CONSIDERED AS PART OF THE BID DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING THE DETAILS OF ALL ERECTION STAGES, ERECTION EQUIPMENT AND LOADS AND DEVELOPING ALL NECESSARY CALCULATIONS FOR CAMBER AND STRESS CONTROL NECESSARY FOR THE SAFE CONSTRUCTION OF THE BRIDGE.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

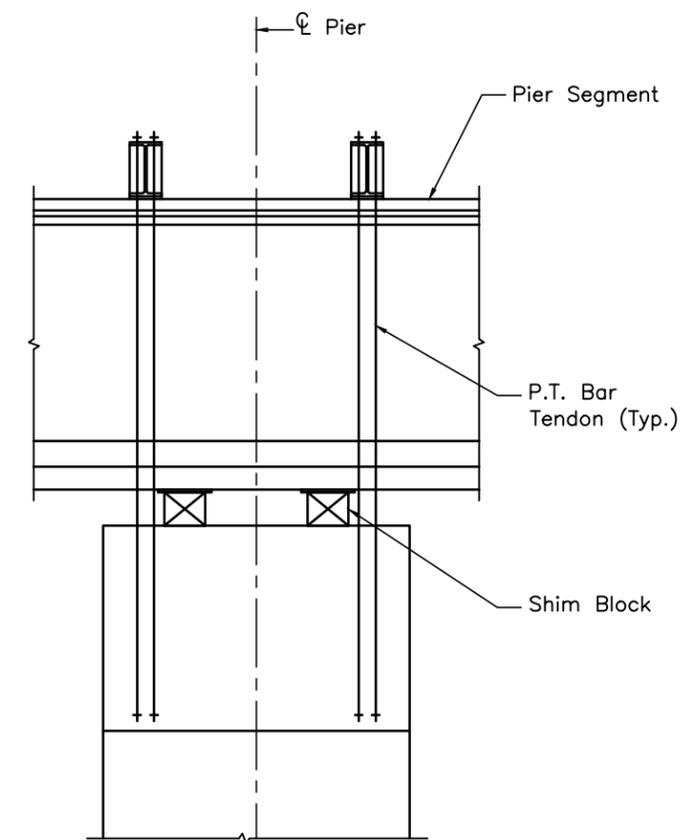
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<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING		11/3/04	
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 2			
<b>CONSTRUCTION SEQUENCE-2</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: MPL	CHECKED: LMH/MPL	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B67 OF B129			

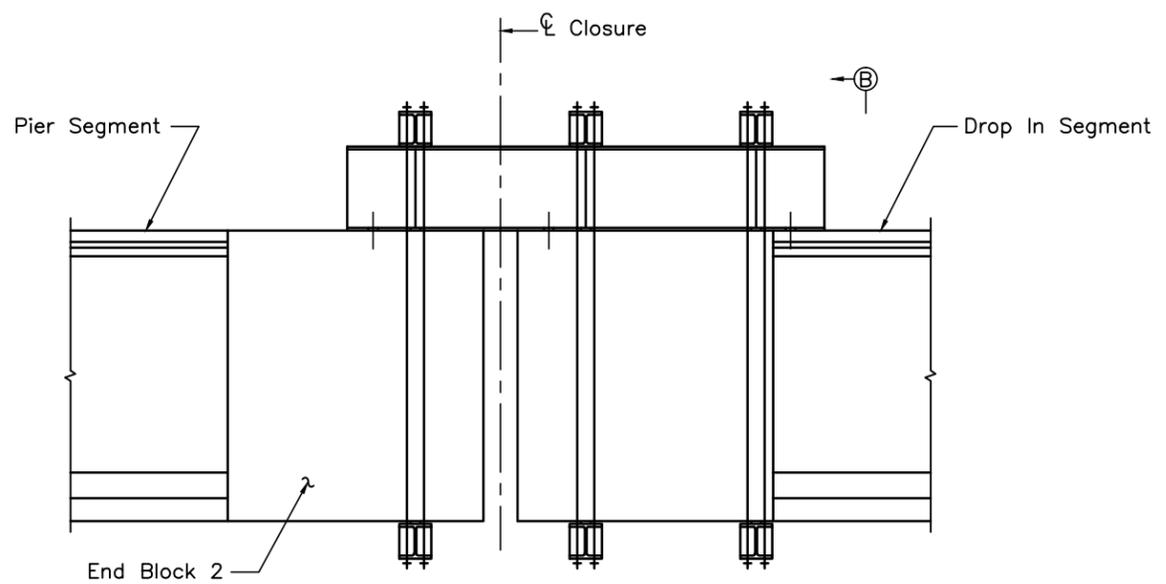


**ELEVATION**

**TIE-DOWN CONNECTION**

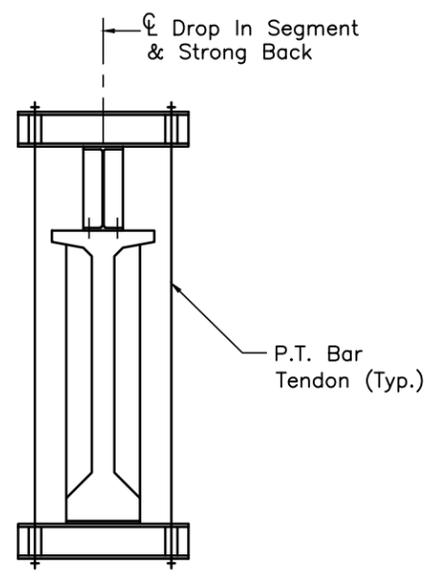


**SECTION A-A**



**ELEVATION**

**STRONG BACK CONNECTION**



**SECTION B-B**

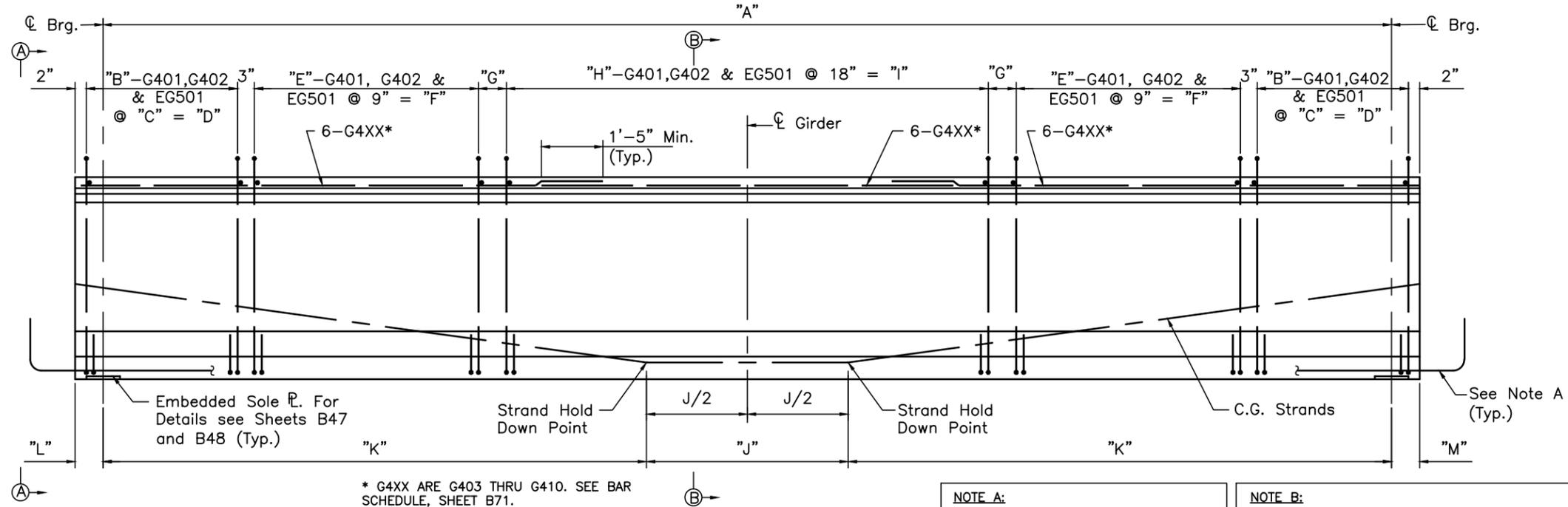
**NOTE**  
 THE CONSTRUCTION SEQUENCE AS WELL AS ANY CONSTRUCTION EQUIPMENT INDICATED ARE ONLY CONCEPTUAL AND NOT MANDATORY. THEY ARE PRESENTED FOR INFORMATION ONLY AND ARE NOT TO BE CONSIDERED AS PART OF THE BID DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING THE DETAILS OF ALL ERECTION STAGES, ERECTION EQUIPMENT AND LOADS AND DEVELOPING ALL NECESSARY CALCULATIONS FOR CAMBER AND STRESS CONTROL NECESSARY FOR THE SAFE CONSTRUCTION OF THE BRIDGE.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

DESIGNED BY: MPL CHECKED BY: LMH  
 DATE: 3-1-98 DATE: 3-24-98  
 DRAWN BY: DS REVISIONS BY:  
 DATE: 3-18-98 DATE:  
 CAD FILE NAME: 25725-u2cstr03.dwg

<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 2 CONCEPTUAL CONSTRUCTION DETAILS			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: MPL	CHECKED: LMH/MPL	DATE: 12/31/98	
DRAWN: DS	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B68 OF B129			

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 2-5-98 DATE: 4-13-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 3-1-98 DATE:  
 CAD FILE NAME: 25725-U3PC101.DWG

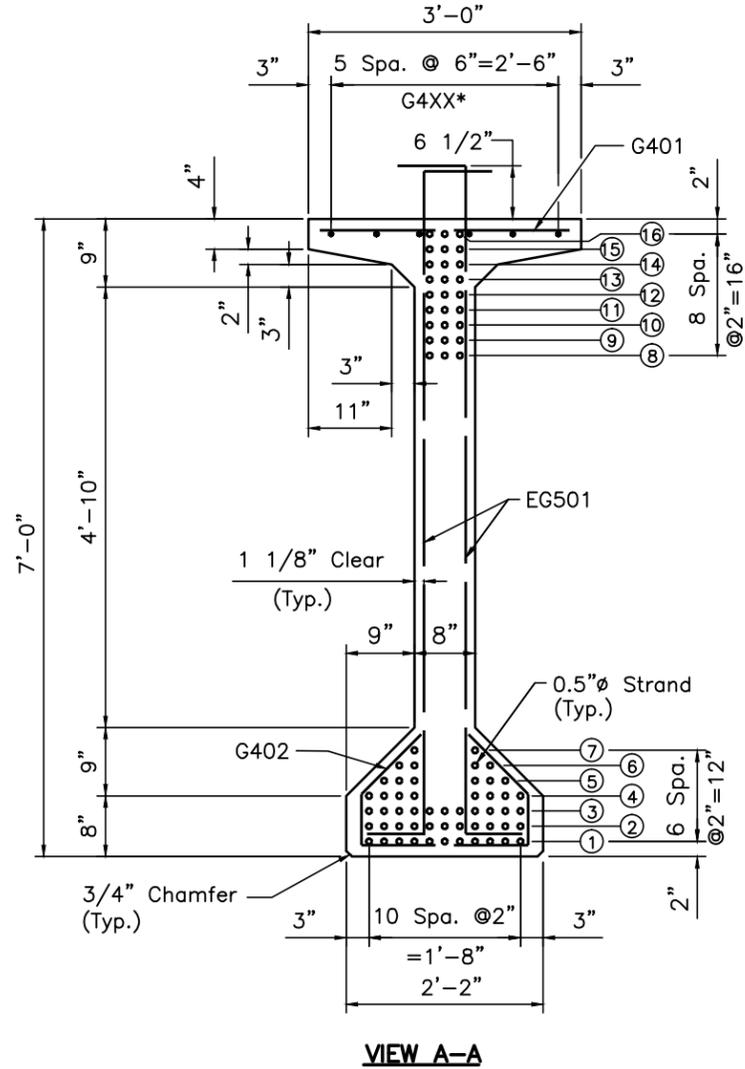


\* G4XX ARE G403 THRU G410. SEE BAR SCHEDULE, SHEET B71.

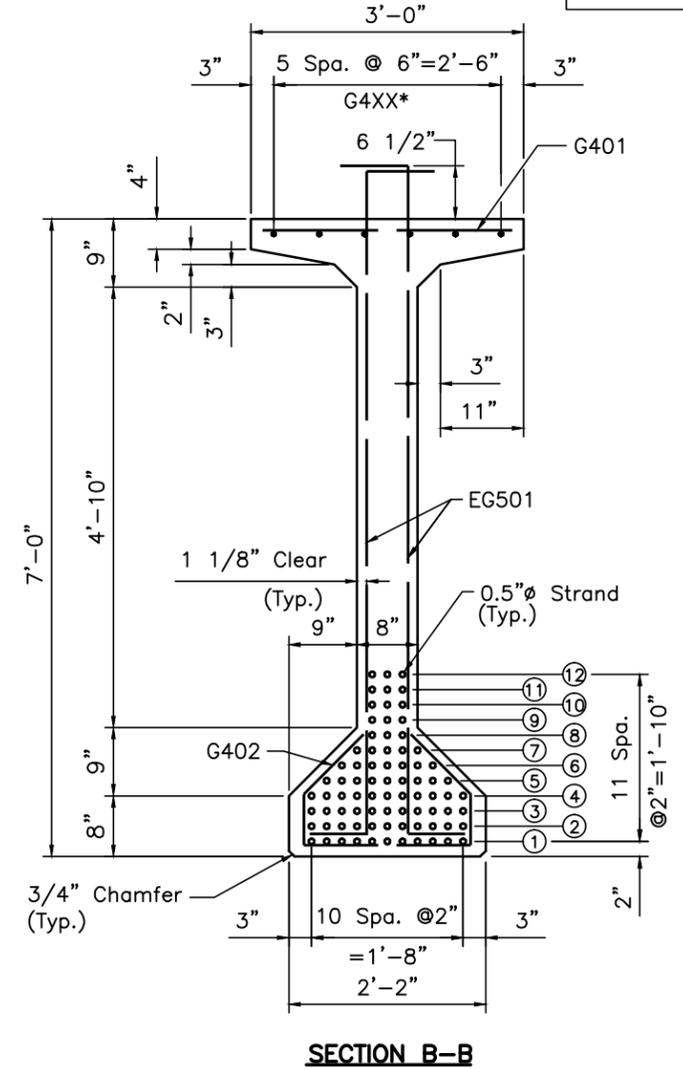
**NOTE A:**  
 AT PIERS 9 THRU 15, ROW 1 STRANDS SHALL BE EXTENDED & BENT AS SHOWN IN "EXTENDED STRAND DETAIL".

**NOTE B:**  
 THREADED INSERTS AND RODS FOR DIAPHRAGMS NOT SHOWN. SEE SHEETS B74 THRU B78. ALSO SEE SHEET B80 FOR FOC CONDUIT SUPPORT INSERTS AT GIRDER F AND SHEET B108 FOR INSERTS AT GIRDERS A, B, F, G, K & L AT PIER 11 FOR DRAIN PIPE SUPPORTS.

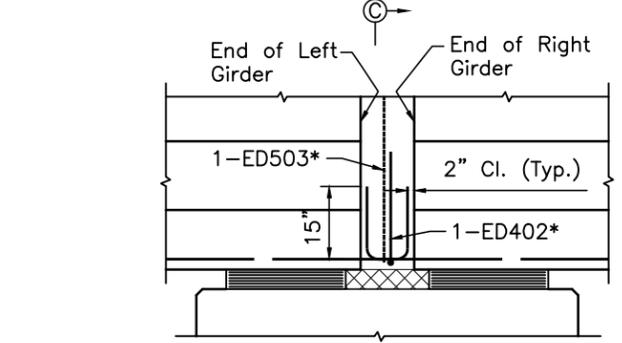
**GIRDER ELEVATION-SPANS 1-7**



**VIEW A-A**

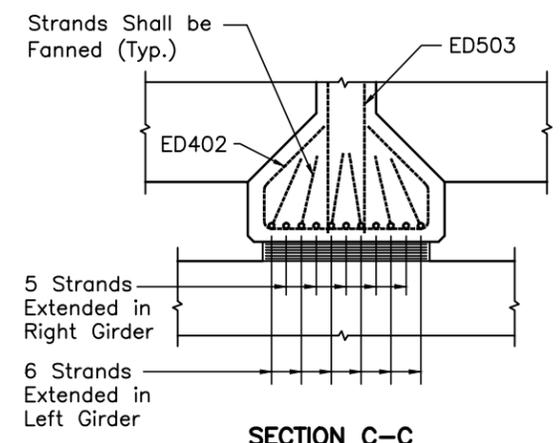


**SECTION B-B**



\*FOR BAR SCHEDULE, SEE "DIAPHRAGM BAR SCHEDULE" SHEET B79.

**EXTENDED STRAND DETAIL**



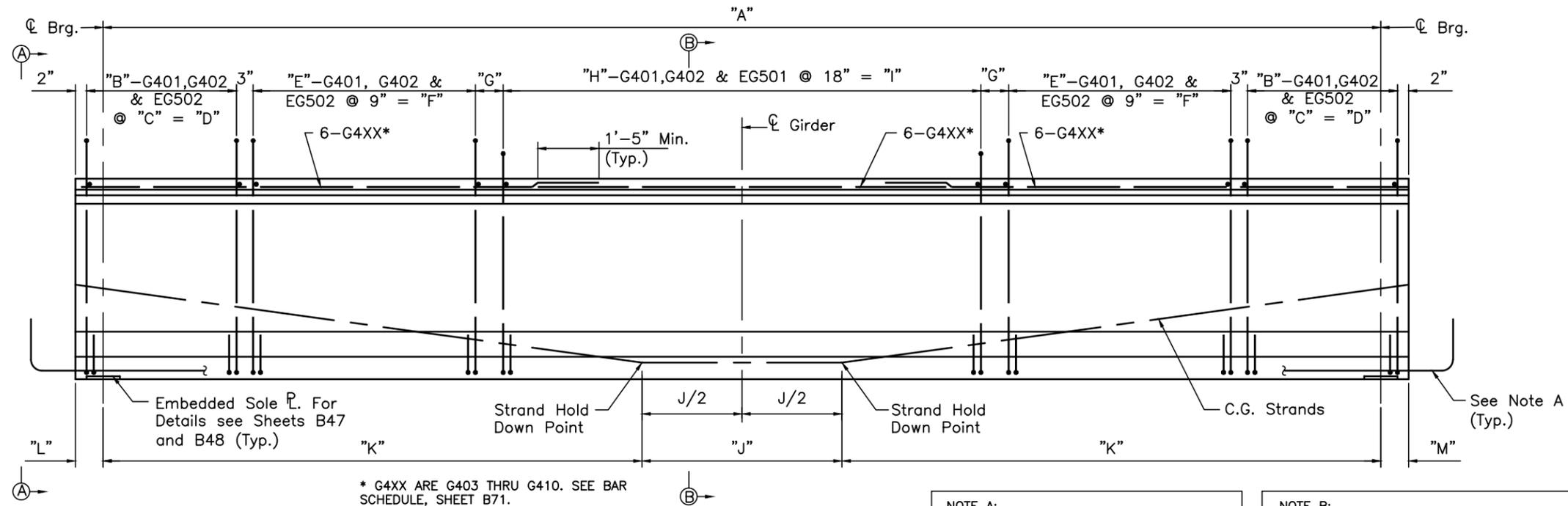
**SECTION C-C**

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

- PRECAST GIRDER NOTES:**
- MINIMUM REQUIRED CONCRETE STRENGTH (28 DAYS) FOR PRECAST GIRDERS IS 7,500 PSI. MINIMUM REQUIRED STRENGTH AT RELEASE OF PRESTRESSING STRANDS IS 6500 PSI. MINIMUM REQUIRED STRENGTH AT POST-TENSIONING IS 7500 PSI.
  - PRESTRESSING STRANDS ARE 0.5" OR 0.6" DIAMETER SEVEN-WIRE LOW RELAXATION STRANDS CONFORMING TO THE REQUIREMENTS OF AASHTO M203, GRADE 270.
  - EACH 0.5" DIAMETER PRESTRESSING STRAND SHALL BE GIVEN AN INITIAL TENSION OF 30,980 LBS. EACH 0.6" DIAMETER PRESTRESSING STRAND SHALL BE GIVEN AN INITIAL TENSION OF 43,940 LBS.
  - THE DIMENSIONS SHOWN ON THE PLANS ARE FINAL, IN PLACE DIMENSIONS. ADJUSTMENTS FOR GRADE AND CONSTRUCTION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SUCH ADJUSTMENTS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
  - GIRDERS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES.
  - TOP SURFACE OF GIRDERS SHALL BE CLEANED AND ROUGHENED TO AN AMPLITUDE OF 1/4".
  - GIRDER ENDS SHALL BE VERTICAL AFTER FULL APPLICATION OF DEAD LOAD.
  - GIRDER LIFTING DETAILS SHALL BE DESIGNED BY THE CONTRACTOR AND INCLUDED IN THE SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER.
  - DEFORMED WIRE FABRIC MAY BE USED IN THE PRECAST GIRDERS IN LIEU OF REINFORCING BARS, PROVIDED AN EQUIVALENT AREA OF STEEL IS FURNISHED. WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M221 AND IS TO BE MADE OF DEFORMED WIRE CONFORMING AASHTO M225.
  - 0.5" DIAMETER PRESTRESSING STRANDS EXTENDING FROM GIRDER ENDS MAY BE REPLACED WITH REINFORCING BARS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
  - ALL STUDS, INSERTS, THREADED RODS AND EMBEDDED SOLE PLATES SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111.
  - FOR UNITS 1 AND 3, GIRDERS SHALL NOT BE MADE CONTINUOUS UNTIL ALL APPLICABLE GIRDERS ARE 100 DAYS OLD.
  - REFER TO SHEET B102 OF B129 FOR REQUIRED DECK FORM ANCHORS CAST INTO GIRDERS.
  - LOCATIONS OF ALL INSERTS AND ANCHORS EMBEDDED INTO GIRDERS SHALL BE INCLUDED IN PRECAST GIRDER SHOP DRAWINGS.

- NOTES:**
- FOR GIRDER DIMENSIONS, NUMBER OF STRANDS AND REINFORCEMENT SCHEDULE, SEE SHEET B71 OF B129.
  - FOR GIRDER DEFLECTIONS, SEE SHEET B72.
  - THE PREFIX "E" DENOTES EPOXY COATED REINFORCING.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 3			
PRECAST GIRDER DETAILS - 1			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B69 OF B129			

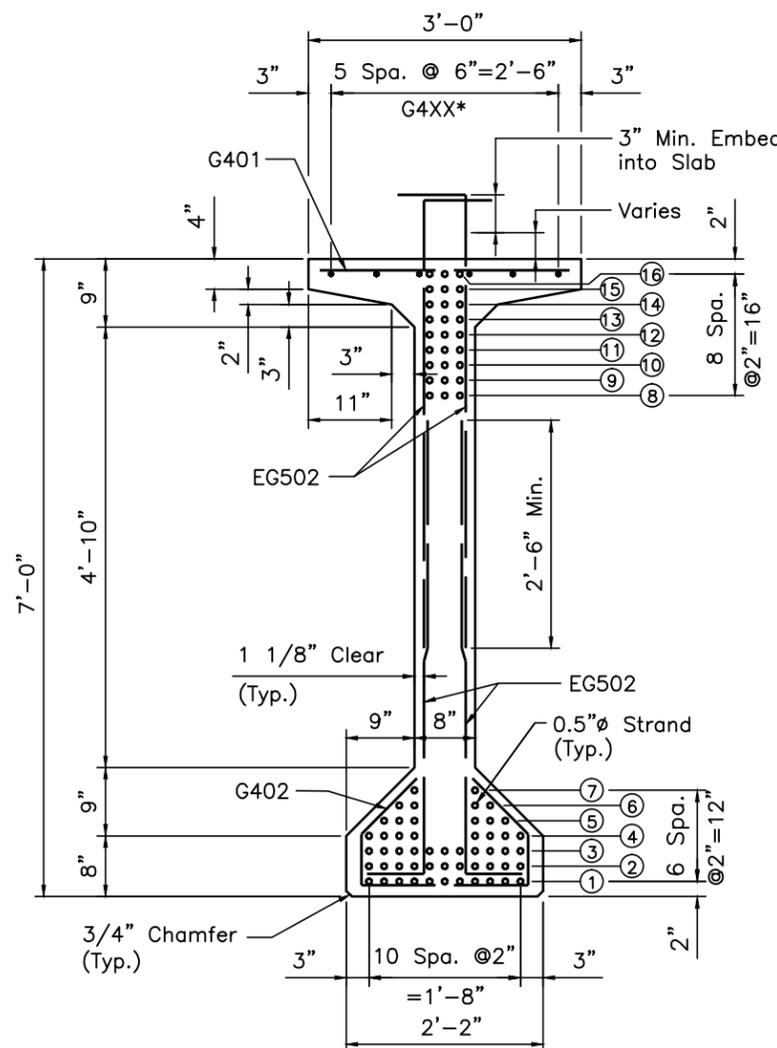


\* G4XX ARE G403 THRU G410. SEE BAR SCHEDULE, SHEET B71.

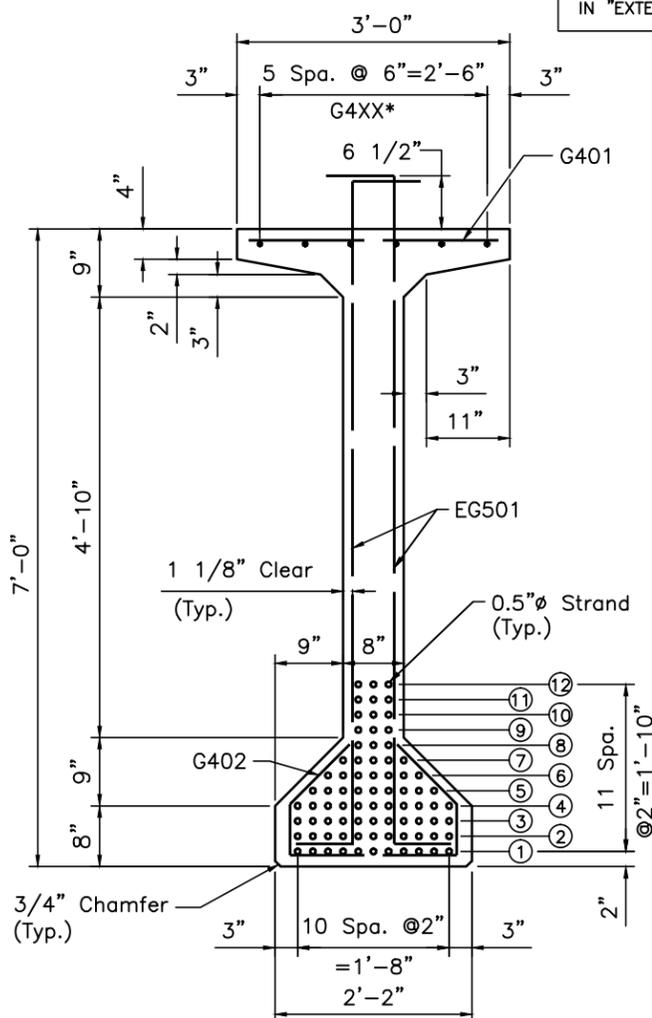
**NOTE A:**  
AT PIERS 15 THRU 17, ROW 1 STRANDS SHALL BE EXTENDED & BENT AS SHOWN IN "EXTENDED STRAND DETAIL", SHEET B69.

**NOTE B:**  
THREADED INSERTS AND RODS FOR DIAPHRAGMS NOT SHOWN. SEE SHEETS B74 THRU B78. ALSO SEE SHEET B80 FOR INSERTS AT GIRDER 'F' FOR FOC CONDUIT SUPPORTS.

**GIRDER ELEVATION—SPANS 8-10**



**VIEW A-A**



**SECTION B-B**

**NOTES:**  
1. FOR NOTES, SEE SHEET B69 OF B129.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

DESIGNED BY: LMH | CHECKED BY: HW  
DATE: 2-5-98 | DATE: 4-13-98  
DRAWN BY: HW | REVISED BY:  
DATE: 3-1-98 | DATE:  
CAD FILE NAME: 25725-U3PCI03.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 3		
PRECAST GIRDER DETAILS - 2		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B70 OF B129		

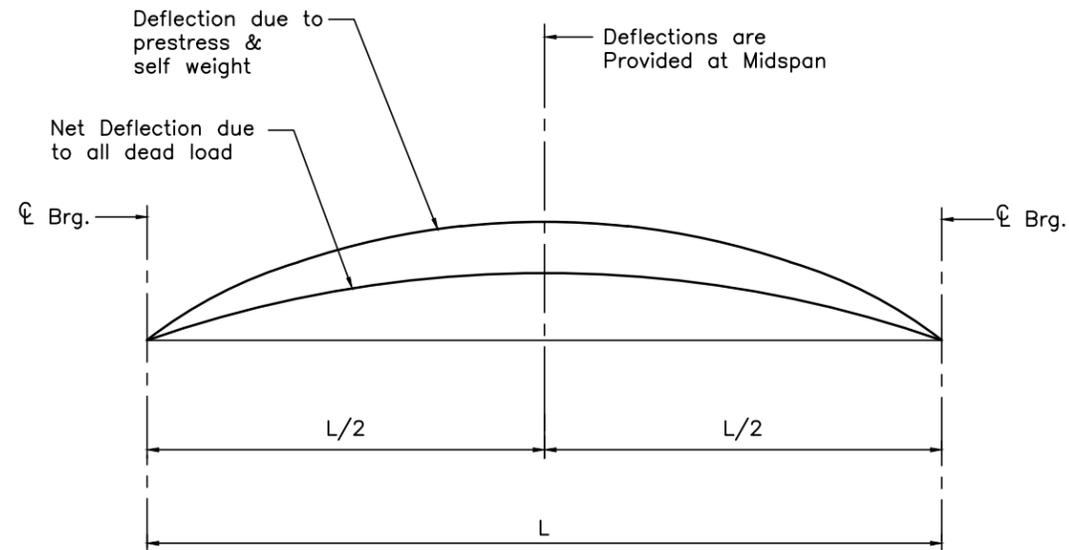
DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 2-5-98 DATE: 4-13-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 3-1-98 DATE:  
 CAD FILE NAME: 25725-U3PC102.DWG

GIRDER MARK	NO. REQ'D	GIRDER DIMENSIONS													APPROX. WEIGHT (KIPS)
		DIMENSIONS													
		A	B	C	D	E	F	G	H	I	J	K	L	M	
Span 1, A-L	12	128'-0 1/2"	7	3"	1'-6"	15	10'-6"	10 1/2"	70	103'-6"	25'-6 1/2"	51'-3"	13.5"	11"	142.57
Span 2, A-L	12	139'-2"	8	2 1/2"	1'-5 1/2"	13	9'-0"	14 1/2"	79	117'-0"	27'-10"	55'-8"	13"	11"	154.72
Span 3, A-L	12	139'-4"	8	2 1/2"	1'-5 1/2"	13	9'-0"	15"	79	117'-0"	27'-10"	55'-9"	13"	10"	154.81
Span 4, A-L	12	139'-6"	8	2 1/2"	1'-5 1/2"	13	9'-0"	14 1/2"	79	117'-0"	27'-10"	55'-10"	10"	10"	154.72
Span 5, A-L	12	139'-6"	8	2 1/2"	1'-5 1/2"	13	9'-0"	14 1/2"	79	117'-0"	27'-10"	55'-10"	10"	10"	154.72
Span 6, A	1	140'-2 5/8"	8	2 1/2"	1'-5 1/2"	14	9'-9"	9 3/4"	79	117'-0"	28'-0 5/8"	56'-1"	10"	10"	155.51
Span 6, B	1	140'-1"	8	2 1/2"	1'-5 1/2"	14	9'-9"	18"	78	115'-6"	28'-1"	56'-0"	10"	10"	155.36
Span 6, C	1	139'-11 3/8"	8	2 1/2"	1'-5 1/2"	14	9'-9"	17 1/8"	78	115'-6"	27'-11 3/8"	56'-0"	10"	10"	155.21
Span 6, D	1	139'-9 7/8"	8	2 1/2"	1'-5 1/2"	14	9'-9"	16 3/8"	78	115'-6"	27'-11 7/8"	55'-11"	10"	10"	155.07
Span 6, E	1	139'-8 1/4"	8	2 1/2"	1'-5 1/2"	14	9'-9"	15 5/8"	78	115'-6"	28'-0 1/4"	55'-10"	10"	10"	154.92
Span 6, F	1	139'-6 5/8"	8	2 1/2"	1'-5 1/2"	14	9'-9"	14 3/4"	78	115'-6"	27'-10 5/8"	55'-10"	10"	10"	154.78
Span 6, G	1	139'-5 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	14 1/8"	79	117'-0"	27'-11 3/8"	55'-9"	10"	10"	154.66
Span 6, H	1	139'-3 3/4"	8	2 1/2"	1'-5 1/2"	13	9'-0"	13 3/8"	79	117'-0"	27'-9 3/4"	55'-9"	10"	10"	154.51
Span 6, I	1	139'-2 1/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	12 1/2"	79	117'-0"	27'-10 1/8"	55'-8"	10"	10"	154.36
Span 6, J	1	139'-0 1/2"	8	2 1/2"	1'-5 1/2"	13	9'-0"	11 3/4"	79	117'-0"	27'-10 1/2"	55'-7"	10"	10"	154.22
Span 6, K	1	138'-11"	8	2 1/2"	1'-5 1/2"	13	9'-0"	11"	79	117'-0"	27'-9"	55'-7"	10"	10"	154.08
Span 6, L	1	138'-9 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	10 1/8"	79	117'-0"	27'-9 3/8"	55'-6"	10"	10"	153.93
Span 7, A	1	141'-3 1/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	16"	80	118'-6"	28'-3 1/8"	56'-6"	10"	10"	156.65
Span 7, B	1	140'-11 1/4"	8	2 1/2"	1'-5 1/2"	13	9'-0"	14 1/8"	80	118'-6"	28'-3 3/8"	56'-4"	10"	10"	156.29
Span 7, C	1	140'-7 1/4"	8	2 1/2"	1'-5 1/2"	13	9'-0"	12 1/8"	80	118'-6"	28'-1 1/4"	56'-3"	10"	10"	155.93
Span 7, D	1	140'-3 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	10 1/8"	80	118'-6"	28'-1 3/8"	56'-1"	10"	10"	155.57
Span 7, E	1	139'-11 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	17 1/8"	79	117'-0"	27'-11 3/8"	56'-0"	10"	10"	155.21
Span 7, F	1	139'-7 1/2"	8	2 1/2"	1'-5 1/2"	13	9'-0"	15 1/4"	79	117'-0"	27'-11 1/2"	55'-10"	10"	10"	154.86
Span 7, G	1	139'-4 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	13 5/8"	79	117'-0"	27'-10 3/8"	55'-9"	10"	10"	154.57
Span 7, H	1	139'-0 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	11 5/8"	79	117'-0"	27'-10 3/8"	55'-7"	10"	10"	154.20
Span 7, I	1	138'-8 1/2"	8	2 1/2"	1'-5 1/2"	13	9'-0"	9 3/4"	79	117'-0"	27'-8 1/2"	55'-6"	10"	10"	153.85
Span 7, J	1	138'-4 5/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	16 3/4"	78	115'-6"	27'-8 5/8"	55'-4"	10"	10"	153.50
Span 7, K	1	138'-0 5/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	14 3/4"	78	115'-6"	27'-6 5/8"	55'-3"	10"	10"	153.13
Span 7, L	1	137'-8 3/4"	8	2 1/2"	1'-5 1/2"	13	9'-0"	12 7/8"	78	115'-6"	27'-6 3/4"	55'-1"	10"	10"	152.78
Span 8, A	1	142'-1 5/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	13 3/4"	81	120'-0"	28'-5 5/8"	56'-10"	10"	13"	157.88
Span 8, B	1	141'-7 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	10 5/8"	81	120'-0"	28'-3 3/8"	56'-8"	10"	13"	157.31
Span 8, C	1	141'-1 1/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	16 1/2"	80	118'-6"	28'-3 1/8"	56'-5"	10"	13"	156.74
Span 8, D	1	140'-6 7/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	13 3/8"	80	118'-6"	28'-0 7/8"	56'-3"	10"	13"	156.17
Span 8, E	1	140'-0 5/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	10 1/4"	80	118'-6"	28'-0 5/8"	56'-0"	10"	13"	155.60
Span 8, F	1	139'-6 3/8"	8	2 1/2"	1'-5 1/2"	13	9'-0"	16 1/8"	79	117'-0"	27'-10 3/8"	55'-10"	10"	13"	155.03
Span 8, G	1	139'-1 3/8"	7	3"	1'-6"	13	9'-0"	13 1/8"	79	117'-0"	27'-9 1/4"	55'-8"	10"	13"	154.57
Span 8, H	1	138'-7 1/8"	7	3"	1'-6"	13	9'-0"	10"	79	117'-0"	27'-9 1/8"	55'-5"	10"	13"	154.00
Span 8, I	1	138'-0 7/8"	7	3"	1'-6"	13	9'-0"	15 7/8"	78	115'-6"	27'-6 7/8"	55'-3"	10"	13"	153.43
Span 8, J	1	137'-6 5/8"	7	3"	1'-6"	13	9'-0"	12 3/4"	78	115'-6"	27'-6 5/8"	55'-0"	10"	13"	152.86
Span 8, K	1	137'-0 3/8"	7	3"	1'-6"	13	9'-0"	9 5/8"	78	115'-6"	27'-4 3/8"	54'-10"	10"	13"	152.29
Span 8, L	1	136'-6 1/8"	7	3"	1'-6"	13	9'-0"	15 1/2"	77	114'-0"	27'-4 1/8"	54'-7"	10"	13"	151.72
Span 9, A	1	142'-9 1/4"	8	2 1/2"	1'-5 1/2"	14	9'-9"	9 1/8"	81	120'-0"	28'-7 1/4"	57'-1"	11"	13"	158.67
Span 9, B	1	142'-1 1/8"	8	2 1/2"	1'-5 1/2"	14	9'-9"	14"	80	118'-6"	28'-5 1/8"	56'-10"	11"	13"	157.93
Span 9, C	1	141'-5 1/8"	8	2 1/2"	1'-5 1/2"	14	9'-9"	10"	80	118'-6"	28'-3 1/8"	56'-7"	11"	13"	157.20
Span 9, D	1	140'-9"	8	2 1/2"	1'-5 1/2"	14	9'-9"	15"	79	117'-0"	28'-1"	56'-4"	11"	13"	156.45
Span 9, E	1	140'-1"	8	2 1/2"	1'-5 1/2"	14	9'-9"	11"	79	117'-0"	28'-1"	56'-0"	11"	13"	155.72
Span 9, F	1	139'-5"	8	2 1/2"	1'-5 1/2"	14	9'-9"	16"	78	115'-6"	27'-11"	55'-9"	11"	13"	154.99
Span 9, G	1	138'-10 1/2"	7	3"	1'-6"	14	9'-9"	12 1/4"	78	115'-6"	27'-8 1/2"	55'-7"	11"	13"	154.40
Span 9, H	1	138'-2 3/8"	7	3"	1'-6"	14	9'-9"	17 1/8"	77	114'-0"	27'-8 3/8"	55'-3"	11"	13"	153.66
Span 9, I	1	137'-6 3/8"	7	3"	1'-6"	14	9'-9"	13 1/8"	77	114'-0"	27'-6 3/8"	55'-0"	11"	13"	152.93
Span 9, J	1	136'-10 3/8"	7	3"	1'-6"	14	9'-9"	9 1/8"	77	114'-0"	27'-4 3/8"	54'-9"	11"	13"	152.20
Span 9, K	1	136'-2 1/4"	7	3"	1'-6"	14	9'-9"	14 1/8"	76	112'-6"	27'-2 1/4"	54'-6"	11"	13"	151.45
Span 9, L	1	135'-6 1/4"	7	3"	1'-6"	14	9'-9"	10 1/8"	76	112'-6"	27'-0 1/4"	54'-3"	11"	13"	150.72
Span 10, A	1	133'-9 3/4"	8	2 1/2"	1'-5 1/2"	15	10'-6"	9 5/8"	74	109'-6"	26'-9 3/4"	53'-6"	11"	13.5"	148.90
Span 10, B	1	133'-2 1/8"	8	2 1/2"	1'-5 1/2"	15	10'-6"	14 3/4"	73	108'-0"	26'-8 1/8"	53'-3"	11"	13.5"	148.20
Span 10, C	1	132'-6 5/8"	8	2 1/2"	1'-5 1/2"	15	10'-6"	11"	73	108'-0"	26'-6 5/8"	53'-0"	11"	13.5"	147.51
Span 10, D	1	131'-11"	8	2 1/2"	1'-5 1/2"	15	10'-6"	16 1/4"	72	106'-6"	26'-5"	52'-9"	11"	13.5"	146.82
Span 10, E	1	131'-3 3/8"	8	2 1/2"	1'-5 1/2"	15	10'-6"	12 3/8"	72	106'-6"	26'-3 3/8"	52'-6"	11"	13.5"	146.12
Span 10, F	1	130'-7 3/4"	8	2 1/2"	1'-5 1/2"	15	10'-6"	17 5/8"	71	105'-0"	26'-1 3/4"	52'-3"	11"	13.5"	145.43
Span 10, G	1	130'-1 3/4"	7	3"	1'-6"	15	10'-6"	14 1/8"	71	105'-0"	25'-11 3/4"	52'-1"	11"	13.5"	144.88
Span 10, H	1	129'-6 1/8"	7	3"	1'-6"	15	10'-6"	10 1/4"	71	105'-0"	25'-10 1/8"	51'-10"	11"	13.5"	144.18
Span 10, I	1	128'-10 1/2"	7	3"	1'-6"	15	10'-6"	15 1/2"	70	103'-6"	25'-8 1/2"	51'-7"	11"	13.5"	143.48
Span 10, J	1	128'-2 7/8"	7	3"	1'-6"	15	10'-6"	11 5/8"	70	103'-6"	25'-6 7/8"	51'-4"	11"	13.5"	142.79
Span 10, K	1	127'-7 1/4"	7	3"	1'-6"	15	10'-6"	16 7/8"	69	102'-0"	25'-7 1/4"	51'-0"	11"	13.5"	142.09
Span 10, L	1	126'-11 3/4"	7	3"	1'-6"	15	10'-6"	13 1/8"	69	102'-0"	25'-5 3/4"	50'-9"	11"	13.5"	141.41

GIRDER MARK	NUMBER OF STRANDS PER ROW																								TOTAL # STRANDS	CONCRETE STRENGTH					
	SECTION A-A (END SECTION)												SECTION B-B (MID SECTION)													f'c	fcs				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6	7	8				9	10	11	12
Span 1, A-L	11	8	8	8	6	4	2	0	0	3	3	3	3	3	3	1	11	11	11	11	9	7	5	1	0	0	0	0	66	6500	7500
Span 2, A-L	11	11	8	8	6	4	2	0	3	3	3	3	3	3	3	2	11	11	11	11	9	7	5	3	3	2	0	0	73	6500	7500
Span 3, A-L	11	11	8	8	6	4	2	0	3	3	3	3	3	3	3	2	11	11	11	11	9	7	5	3	3	2	0	0	73	6500	7500
Span 4, A-L	11	11	8	8	6	4	2	0	3	3	3	3	3	3	3	2	11	11	11	11	9	7	5	3	3	2	0	0	73	6500	7500
Span 5, A-L	11	11	8	8	6	4	2	0	3	3	3	3	3	3	3	2	11	11	11	11	9	7	5	3	3	2	0	0	73	6500	7500
Span 6, A-F	11	11	8	8	6	4	2	0	3	3	3	3	3	3	3	3	11	11	11	11	9	7	5	3	3	3	0	0	74	6500	7500
Span 6, G-L	11	11	8	8	6	4	2	0	3	3	3	3	3	3	3	1	11	11	11	11	9	7	5	3	3	1	0	0	72	6500	7500
Span 7, A-F	11	11	8	8	6	4	2	3	3	3	3	3	3	3	3	1	11	11	11	11	9	7	5	3	3	3	1	0	75	6500	7500
Span 7, G-L	11	8	8	8	6	4	2	0	3	3	3	3	3	3	3	3	11	11	11	11	9	7	5	3	3	0	0	0	71	6500	7500

UNIT 1					
	GIRDER	PRESTRESS & SELF WEIGHT	SLAB & DIAPH. DEAD LOAD	SUPERIMPOSED DEAD LOAD	NET DEFLECTION
SPAN 1 & 3	A	3.99	-1.65	-0.05	2.29
	B-E	3.99	-1.82	-0.05	2.12
	F	3.99	-1.65	-0.05	2.29
	G	3.99	-1.65	-0.05	2.29
	H-K	3.99	-1.82	-0.05	2.12
SPAN 2	L	3.99	-1.65	-0.05	2.29
	A	4.67	-2.32	-0.02	2.33
	B-E	4.67	-2.55	-0.02	2.10
	F	4.67	-2.32	-0.02	2.33
	G	4.67	-2.32	-0.02	2.33
SPAN 2	H-K	4.67	-2.55	-0.02	2.10
	L	4.67	-2.32	-0.02	2.33

UNIT 3					
	GIRDER	PRESTRESS & SELF WEIGHT	SLAB & DIAPH. DEAD LOAD	SUPERIMPOSED DEAD LOAD	NET DEFLECTION
SPAN 1	A	3.97	-1.81	-0.05	2.11
	B-E	3.98	-1.99	-0.05	1.94
	F	3.97	-1.81	-0.05	2.11
	G	3.97	-1.81	-0.05	2.11
	H-K	3.98	-1.99	-0.05	1.94
SPAN 2	L	3.97	-1.81	-0.05	2.11
	A	4.53	-2.51	-0.03	1.99
	B-E	4.53	-2.76	-0.03	1.74
	F	4.53	-2.51	-0.03	1.99
	G	4.53	-2.51	-0.03	1.99
SPAN 2	H-K	4.53	-2.76	-0.03	1.74
	L	4.53	-2.51	-0.03	1.99
	A	4.53	-2.52	-0.03	1.97
	B-E	4.53	-2.77	-0.03	1.72
	F	4.53	-2.52	-0.03	1.97
SPAN 3-5	G	4.53	-2.52	-0.03	1.97
	H-K	4.53	-2.77	-0.03	1.72
	L	4.53	-2.52	-0.03	1.97
	A	4.57	-2.56	-0.03	1.98
	B-E	4.57	-2.82	-0.03	1.72
SPAN 6	F	4.57	-2.56	-0.03	1.98
	G	4.39	-2.50	-0.03	1.86
	H-K	4.39	-2.74	-0.03	1.62
	L	4.39	-2.50	-0.03	1.86
	A	4.62	-2.63	-0.03	1.96
SPAN 7	B-E	4.62	-2.89	-0.03	1.70
	F	4.62	-2.58	-0.03	2.00
	G	4.26	-2.50	-0.03	1.73
	H, I	4.26	-2.74	-0.03	1.49
	J, K	4.26	-2.69	-0.03	1.53
SPAN 7	L	4.26	-2.45	-0.03	1.78
	A	4.80	-2.69	-0.03	2.08
	B, C	4.80	-2.96	-0.03	1.81
	D, E	4.62	-2.86	-0.03	1.73
	F	4.62	-2.60	-0.03	1.99
SPAN 8	G	4.23	-2.47	-0.03	1.73
	H, I	4.23	-2.71	-0.03	1.49
	J, K	4.13	-2.61	-0.03	1.49
	L	4.13	-2.38	-0.03	1.73
	A	4.89	-2.72	-0.03	2.14
SPAN 9	B, C	4.89	-2.99	-0.03	1.87
	D, E	4.62	-2.88	-0.03	1.71
	F	4.62	-2.62	-0.03	1.97
	G	4.20	-2.44	-0.02	1.73
	H, I	4.20	-2.68	-0.02	1.49
SPAN 9	J, K	4.09	-2.58	-0.02	1.48
	L	4.09	-2.35	-0.02	1.71
	A	4.93	-2.11	-0.06	2.77
	B, C	4.93	-2.32	-0.06	2.56
	D, E	4.68	-2.23	-0.06	2.39
SPAN 10	F	4.68	-2.03	-0.06	2.59
	G	4.12	-1.89	-0.05	2.18
	H, I	4.12	-2.08	-0.05	1.99
	J, K	4.01	-2.00	-0.05	1.96
	L	4.01	-1.82	-0.05	2.14



DEFLECTION CURVE - UNITS 1 & 3

NOTES:

- DEFLECTIONS ARE IN INCHES. NEGATIVE VALUES DENOTE DOWNWARD DEFLECTIONS.
- "PRESTRESS & SELF WEIGHT" IS THE DEFLECTION DUE TO THE DEAD LOAD OF THE GIRDER AND THE EFFECTS OF PRESTRESSING. "SLAB & DIAPH. DEAD LOAD" IS THE DEFLECTION DUE TO THE DEAD LOAD OF THE DECK SLAB, HAUNCH, DIAPHRAGMS AND STAY-IN-PLACE FORMS. "SUPERIMPOSED DEAD LOAD" IS THE DEFLECTION DUE TO THE BARRIER AND PARAPET.
- DEFLECTIONS SHOWN ARE ESTIMATED BASED ON ASSUMED DESIGN PARAMETERS. THE CONTRACTOR SHALL VERIFY GIRDER CAMBERS IN THE FIELD AND REPORT RESULTS TO THE ENGINEER PRIOR TO PROCEEDING WITH ANY DECK POUR. SEE STRUCTURE GENERAL NOTE ON SHEET B7 OF B129.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 3-23-98 DATE: 4-12-98  
 DRAWN BY: DS REVISED BY:  
 DATE: 4-18-98 DATE:  
 CAD FILE NAME: 25725-comber01.dwg

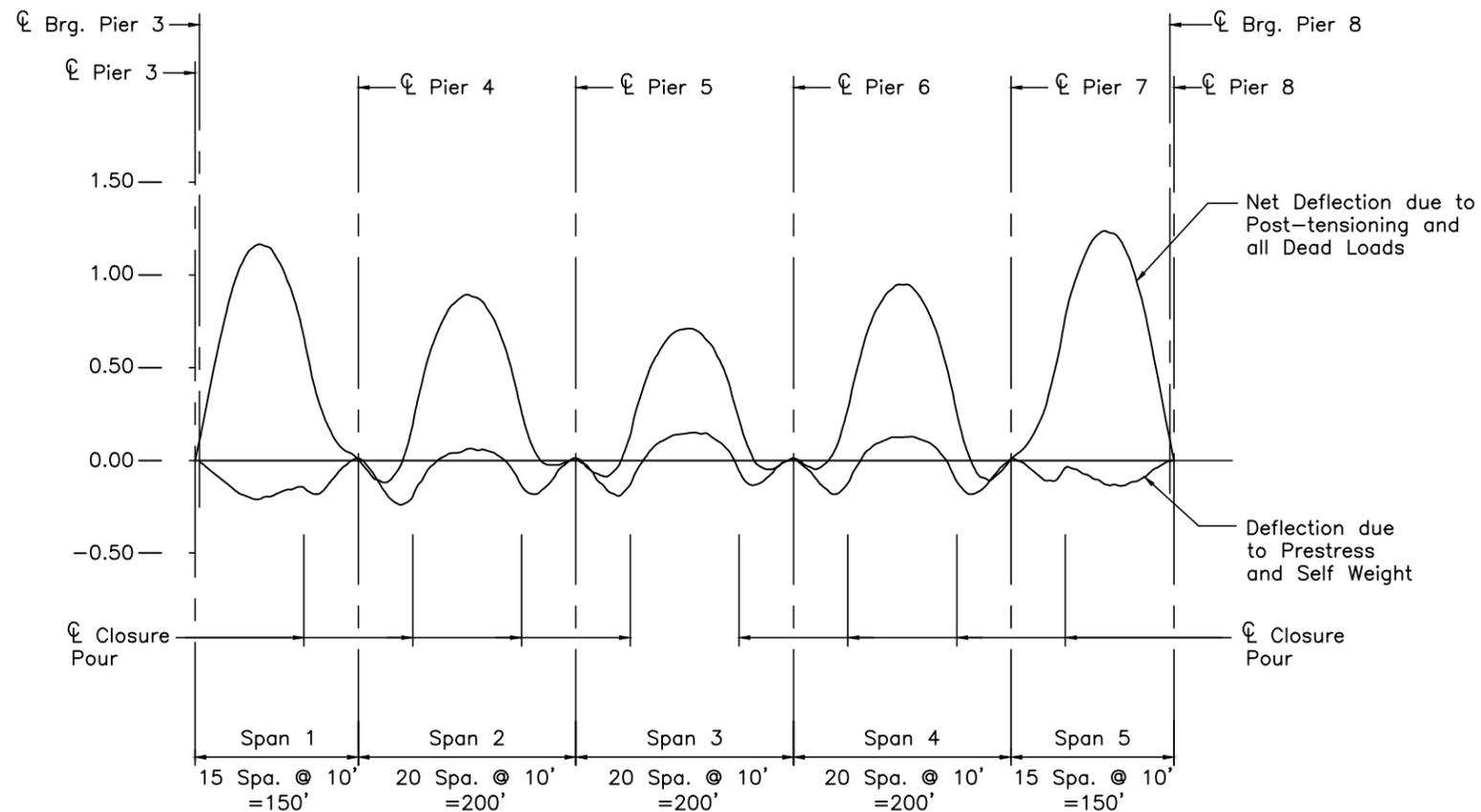
CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
GIRDER DEFLECTIONS-1			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: DS	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B72 OF B129			

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 6-29-98 DATE: 8-4-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 8-4-98 DATE:  
 CAD FILE NAME: 25725-comber02.dwg

UNIT 2					
LOCATION (FEET)	PRESTRESS & SELF WEIGHT	POST-TENSIONING	SLAB & DIAPH. DEAD LOAD	SUPERIMPOSED DEAD LOAD	NET DEFLECTION
SPAN 1					
0	0.00	0.00	0.00	0.00	0.00
10	-0.03	0.40	-0.09	0.00	0.28
20	-0.08	0.81	-0.16	0.00	0.57
30	-0.13	1.17	-0.22	0.00	0.82
40	-0.18	1.44	-0.27	0.02	1.02
50	-0.20	1.61	-0.31	0.02	1.13
60	-0.21	1.68	-0.32	0.02	1.17
70	-0.20	1.64	-0.32	0.02	1.14
80	-0.17	1.50	-0.29	0.01	1.05
90	-0.16	1.31	-0.25	0.01	0.91
*100	-0.14	1.03	-0.19	0.00	0.70
110	-0.18	0.73	-0.13	0.00	0.42
120	-0.16	0.46	-0.07	0.00	0.23
130	-0.08	0.20	-0.01	0.00	0.11
140	-0.02	0.06	0.01	0.00	0.05
150, 0	0.01	0.00	0.00	0.00	0.01
SPAN 2					
10	-0.04	0.07	-0.08	-0.01	-0.06
20	-0.12	0.25	-0.20	-0.04	-0.11
30	-0.20	0.50	-0.34	-0.07	-0.11
40	-0.24	0.80	-0.49	-0.10	-0.02
*50	-0.20	1.12	-0.64	-0.11	0.17
60	-0.10	1.41	-0.75	-0.12	0.44
70	-0.02	1.65	-0.86	-0.13	0.64
80	0.02	1.84	-0.94	-0.14	0.77
90	0.04	1.96	-0.99	-0.16	0.85
100	0.06	1.98	-1.00	-0.14	0.89
110	0.06	1.94	-0.98	-0.14	0.88
120	0.05	1.82	-0.93	-0.13	0.81
130	0.02	1.62	-0.83	-0.12	0.70
140	-0.03	1.37	-0.71	-0.11	0.52
*150	-0.13	1.08	-0.58	-0.10	0.28
160	-0.18	0.78	-0.43	-0.08	0.08
170	-0.16	0.49	-0.29	-0.06	-0.01
180	-0.10	0.25	-0.16	-0.02	-0.02
190	-0.02	0.07	-0.05	-0.01	-0.01
200, 0	0.01	0.00	0.00	0.00	0.01
SPAN 3					
10	-0.04	0.04	-0.02	0.00	-0.02
20	-0.11	0.16	-0.11	-0.01	-0.07
30	-0.17	0.35	-0.22	-0.05	-0.08
40	-0.19	0.58	-0.34	-0.07	-0.02
*50	-0.13	0.82	-0.47	-0.08	0.13
60	-0.02	1.05	-0.59	-0.09	0.36
70	0.06	1.25	-0.68	-0.11	0.52
80	0.11	1.40	-0.77	-0.12	0.62
90	0.14	1.50	-0.82	-0.13	0.69
100	0.14	1.53	-0.83	-0.14	0.71
110	0.15	1.49	-0.82	-0.12	0.70
120	0.15	1.40	-0.77	-0.12	0.65
130	0.11	1.25	-0.68	-0.11	0.56
140	0.05	1.05	-0.59	-0.09	0.42
*150	-0.06	0.82	-0.47	-0.07	0.22
160	-0.13	0.59	-0.35	-0.06	0.05
170	-0.12	0.35	-0.23	-0.04	-0.04
180	-0.07	0.16	-0.11	-0.02	-0.05
190	-0.01	0.02	-0.02	0.00	-0.01
200, 0	0.01	0.00	0.00	0.00	0.01
SPAN 4					
10	-0.04	0.07	-0.05	-0.01	-0.02
20	-0.10	0.24	-0.16	-0.04	-0.05
30	-0.16	0.49	-0.30	-0.05	-0.01
40	-0.18	0.79	-0.44	-0.08	0.08
*50	-0.12	1.09	-0.58	-0.11	0.29

UNIT 2 (CONTINUED)					
LOCATION (FEET)	PRESTRESS & SELF WEIGHT	POST-TENSIONING	SLAB & DIAPH. DEAD LOAD	SUPERIMPOSED DEAD LOAD	NET DEFLECTION
SPAN 4					
60	-0.01	1.39	-0.72	-0.12	0.54
70	0.06	1.63	-0.83	-0.13	0.73
80	0.10	1.82	-0.91	-0.16	0.85
90	0.12	1.93	-0.97	-0.17	0.92
100	0.13	1.98	-0.99	-0.17	0.95
110	0.13	1.94	-0.99	-0.16	0.92
120	0.10	1.83	-0.94	-0.16	0.84
130	0.07	1.64	-0.85	-0.14	0.71
140	0.00	1.38	-0.75	-0.13	0.50
*150	-0.12	1.10	-0.62	-0.12	0.24
160	-0.18	0.80	-0.49	-0.10	0.04
170	-0.17	0.50	-0.35	-0.07	-0.08
180	-0.11	0.25	-0.20	-0.05	-0.11
190	-0.04	0.07	-0.08	-0.01	-0.06
200, 0	0.01	0.00	0.00	0.00	0.01
SPAN 5					
10	-0.01	0.05	0.01	0.01	0.06
20	-0.06	0.20	-0.01	0.01	0.14
30	-0.11	0.46	-0.07	0.00	0.28
40	-0.11	0.74	-0.13	0.00	0.50
*50	-0.04	1.03	-0.19	0.00	0.80
60	-0.05	1.29	-0.25	0.01	1.00
70	-0.08	1.51	-0.30	0.01	1.14
80	-0.11	1.63	-0.31	0.01	1.22
90	-0.13	1.68	-0.32	0.01	1.23
100	-0.14	1.61	-0.31	0.02	1.19
110	-0.12	1.44	-0.28	0.02	1.06
120	-0.10	1.18	-0.22	0.00	0.87
130	-0.05	0.81	-0.16	0.00	0.60
140	-0.02	0.40	-0.09	0.00	0.29
150	0.00	0.00	0.00	0.00	0.00

\* INDICATES CLOSURE



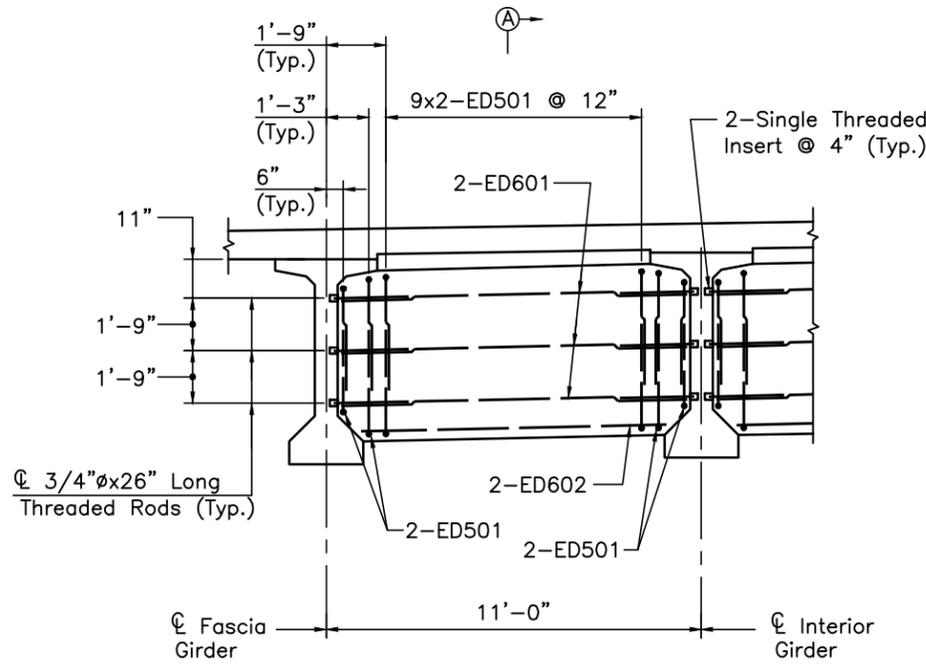
DEFLECTION CURVE - UNIT 2

NOTES:

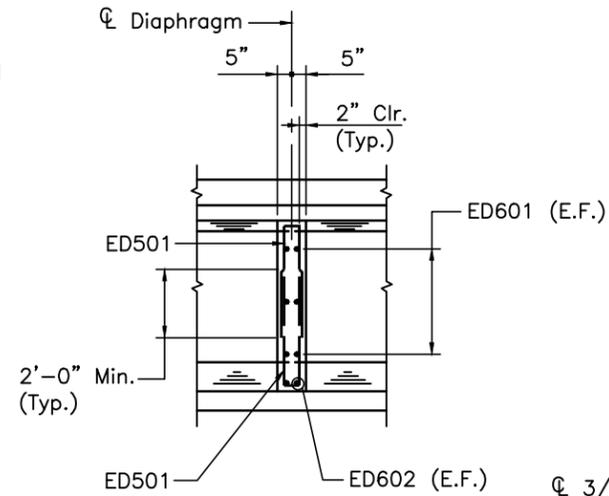
- DEFLECTIONS ARE IN INCHES. NEGATIVE VALUES DENOTE DOWNWARD DEFLECTIONS.
- "PRESTRESS & SELF WEIGHT" IS THE DEFLECTION DUE TO THE DEAD LOAD OF THE GIRDER AND THE EFFECTS OF PRESTRESSING. "SLAB & DIAPH. DEAD LOAD" IS THE DEFLECTION DUE TO THE DEAD LOAD OF THE DECK SLAB, HAUNCH, DIAPHRAGMS AND STAY-IN-PLACE FORMS. "SUPERIMPOSED DEAD LOAD" IS THE DEFLECTION DUE TO THE BARRIER AND PARAPET.
- DEFLECTIONS SHOWN ARE ESTIMATED BASED ON ASSUMED DESIGN PARAMETERS. THE CONTRACTOR SHALL VERIFY GIRDER CAMBERS IN THE FIELD AND REPORT RESULTS TO THE ENGINEER PRIOR TO PROCEEDING WITH ANY DECK POUR. SEE STRUCTURE GENERAL NOTE ON SHEET B7 OF B129.

SEE SHOP DRAWING MICROFILM FOR REVISIONS TO GIRDERS.

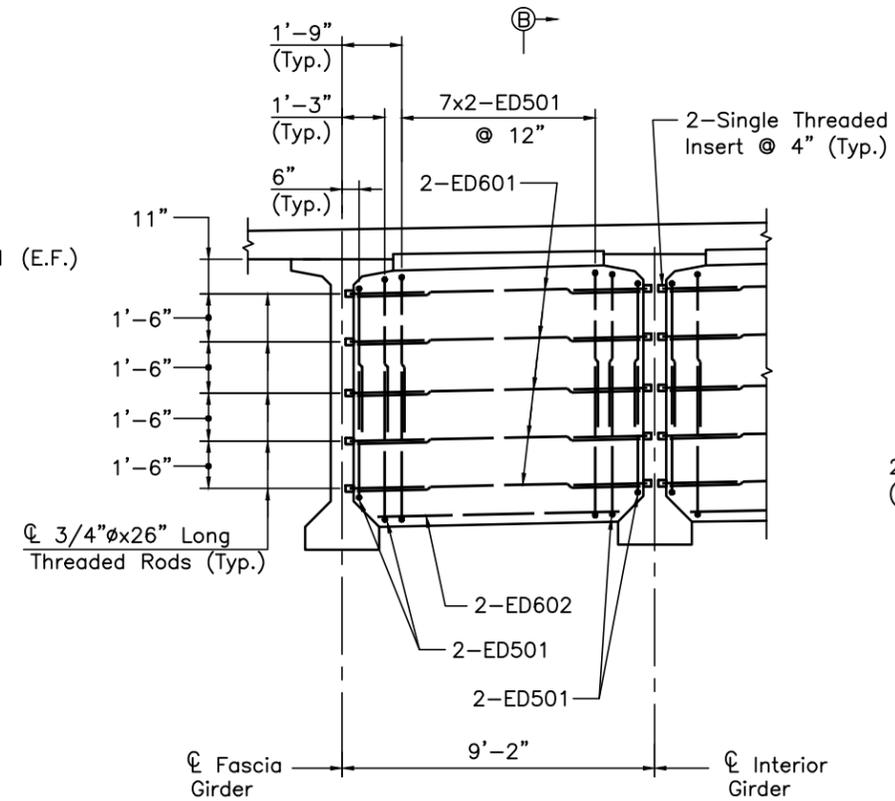
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
OHIO TURNPIKE COMMISSION		
GIRDER DEFLECTIONS-2		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
HNTB ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B73 OF B129		



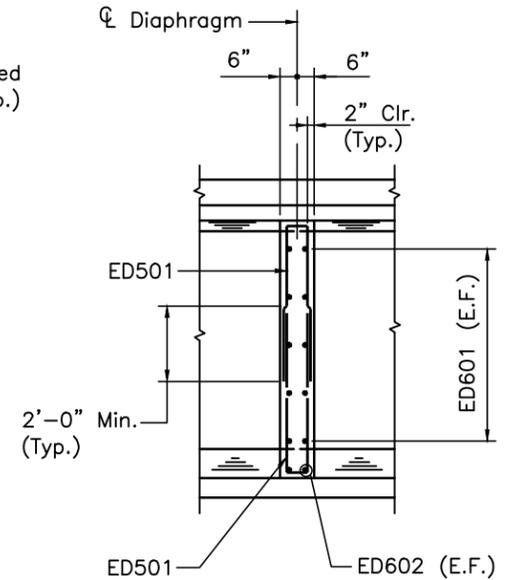
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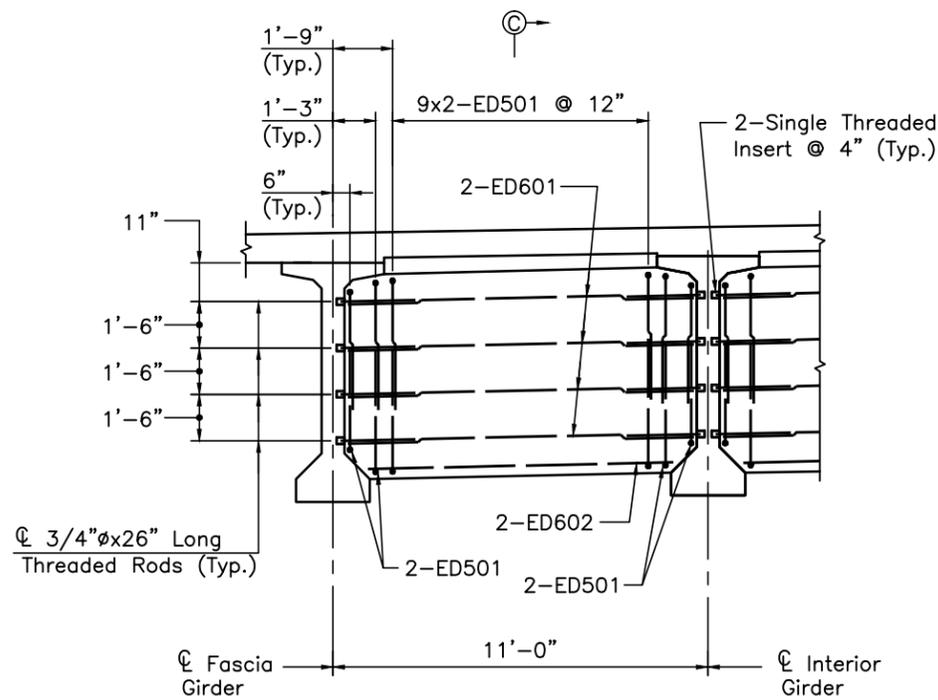
**SECTION A-A**



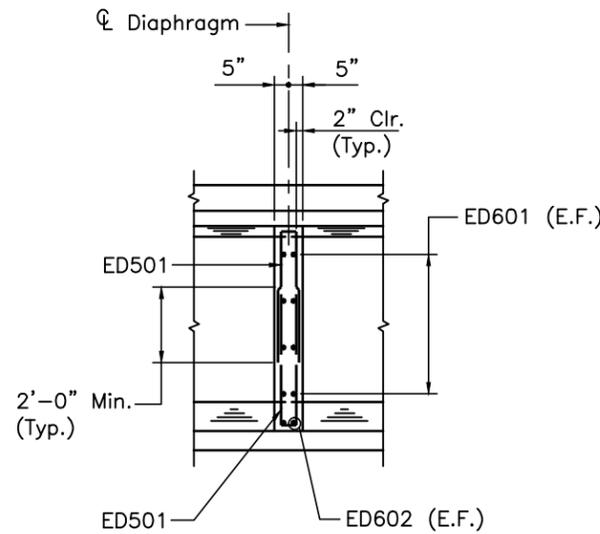
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**SECTION B-B**



**ELEVATION - TYPE ID3**



**SECTION C-C**

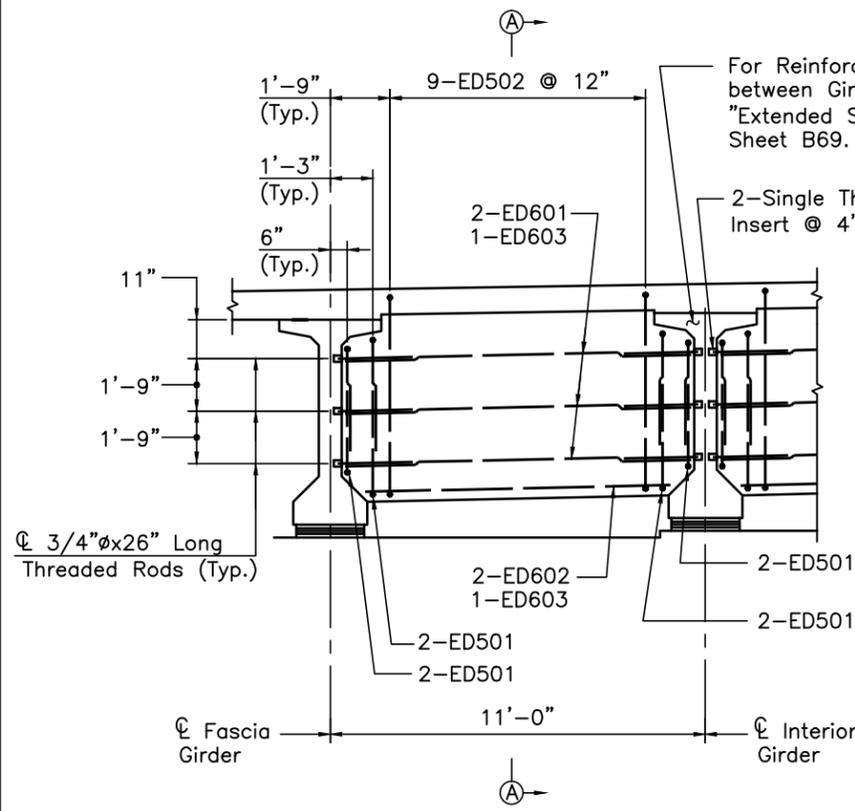
**NOTES:**

1. AT INTERIOR GIRDERS, THREADED INSERTS AND RODS MAY BE ELIMINATED AND REPLACED WITH 1 1/2" HOLES THROUGH THE GIRDER WEBS AND #6 BARS MADE CONTINUOUS.
2. DOUBLE THREADED INSERTS MAY BE USED IN LIEU OF TWO SINGLE INSERTS SPACED @ 4".
3. INTERMEDIATE DIAPHRAGMS SHALL BE POURED AND CURED AT LEAST 48 HOURS PRIOR TO DECK POUR.
4. ALL REINFORCING BARS SHALL BE EPOXY COATED.
5. FOR REINFORCEMENT SCHEDULE, SEE SHEET B79 OF B129.
6. THE COST OF THE THREADED INSERTS AND RODS SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEMS SP515A "PRECAST CONCRETE GIRDERS 72" DEEP", "PRECAST CONCRETE GIRDERS 84" DEEP" AND "PRECAST CONCRETE GIRDERS 102" DEEP".
7. 4" GALVANIZED STEEL PIPE FOR F.O.C. ON SOUTH SIDE OF WESTBOUND BRIDGE NOT SHOWN. FOR DETAILS, SEE SHEET B80 OF B129.

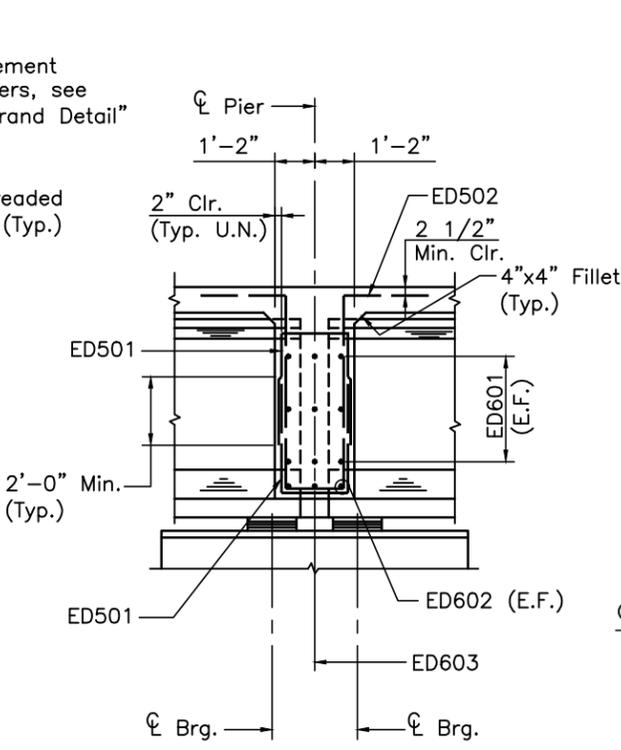
INTERMEDIATE CONCRETE DIAPHRAGMS WERE REVISED TO STEEL X-FRAMES. SEE SHOP DRAWING MICROFILM FOR STEEL X-FRAME DETAILS.

DESIGNED BY: LMH	CHECKED BY: MPL
DATE: 2-20-98	DATE: 3-16-98
DRAWN BY: DS	REVISIONS BY:
DATE: 3-5-98	DATE:
CAD FILE NAME: 25725-diaphid1.dwg	

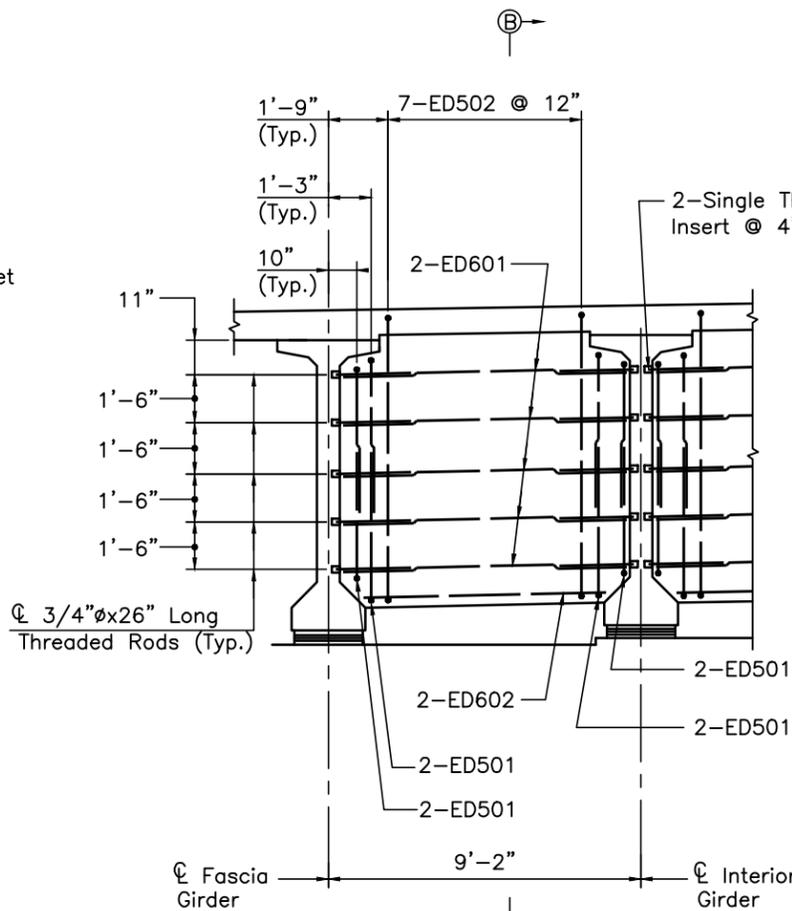
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
INTERMEDIATE DIAPHRAGM DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: MPL/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B74 OF B129		



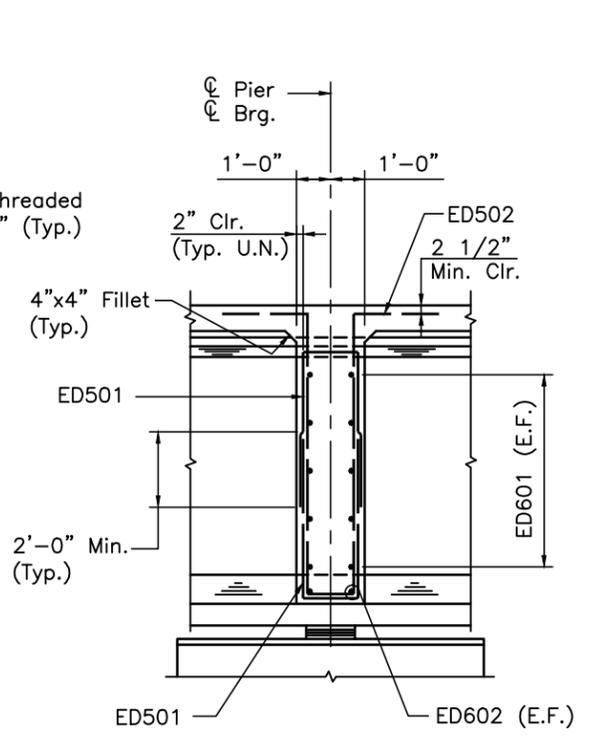
**ELEVATION - TYPE ED1**



**SECTION A-A**

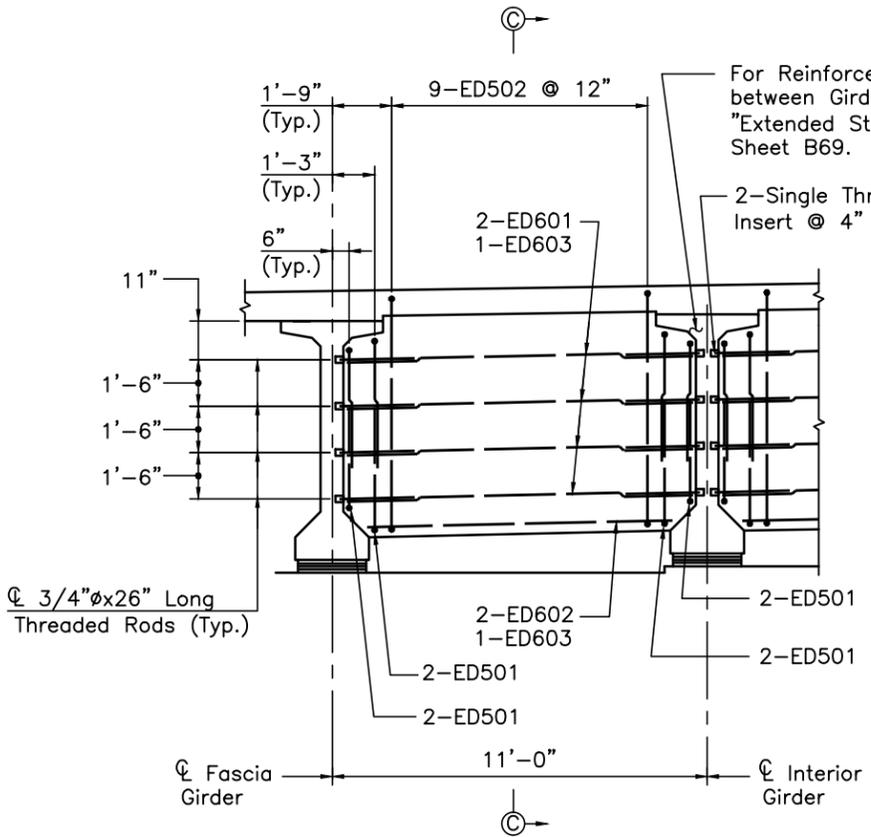


**ELEVATION - TYPE ED2**

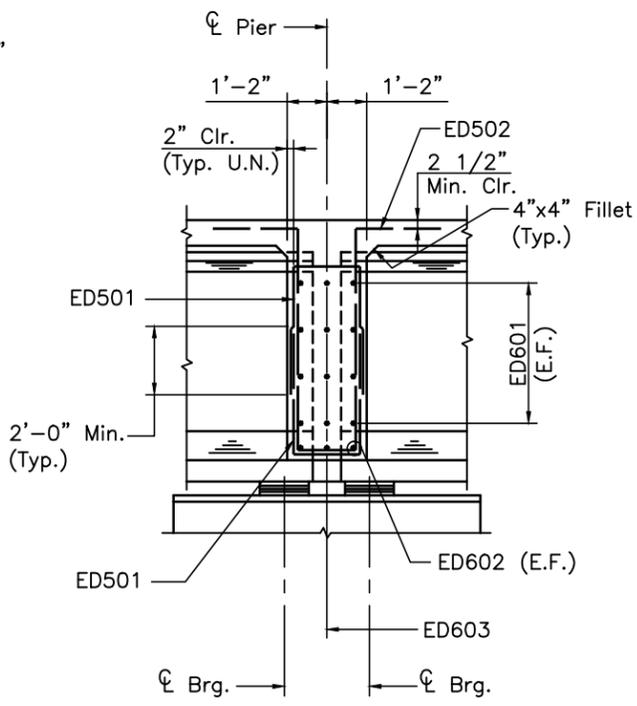


**SECTION B-B**

- NOTES:**
1. SEISMIC PEDESTALS AT EXPANSION PIERS NOT SHOWN. FOR LOCATIONS, SEE SHEETS B38 THRU B42 OF B129. FOR DETAILS, SEE SHEET B46A OF B129.
  2. AT INTERIOR GIRDERS, THREADED INSERTS AND RODS MAY BE ELIMINATED AND REPLACED WITH 1 1/2"Ø HOLES THROUGH THE GIRDER WEBS AND #6 BARS MADE CONTINUOUS.
  3. ALL REINFORCING BARS SHALL BE EPOXY COATED.
  4. FOR REINFORCEMENT SCHEDULE, SEE SHEET B79 OF B129.
  5. A MINIMUM LAP SPLICE OF 2'-5" SHALL BE USED FOR THE CONTINUOUS #6 BARS BETWEEN THE GIRDERS.
  6. THE COST OF THE THREADED INSERTS AND RODS SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEMS SP515A "PRECAST CONCRETE GIRDERS 72" DEEP", "PRECAST CONCRETE GIRDERS 84" DEEP" AND "PRECAST CONCRETE GIRDERS 102" DEEP".
  7. 4"Ø GALVANIZED STEEL PIPE FOR F.O.C. ON SOUTH SIDE OF WESTBOUND BRIDGE NOT SHOWN. FOR DETAILS, SEE SHEET B80 OF B129.



**ELEVATION - TYPE ED3, ED4**

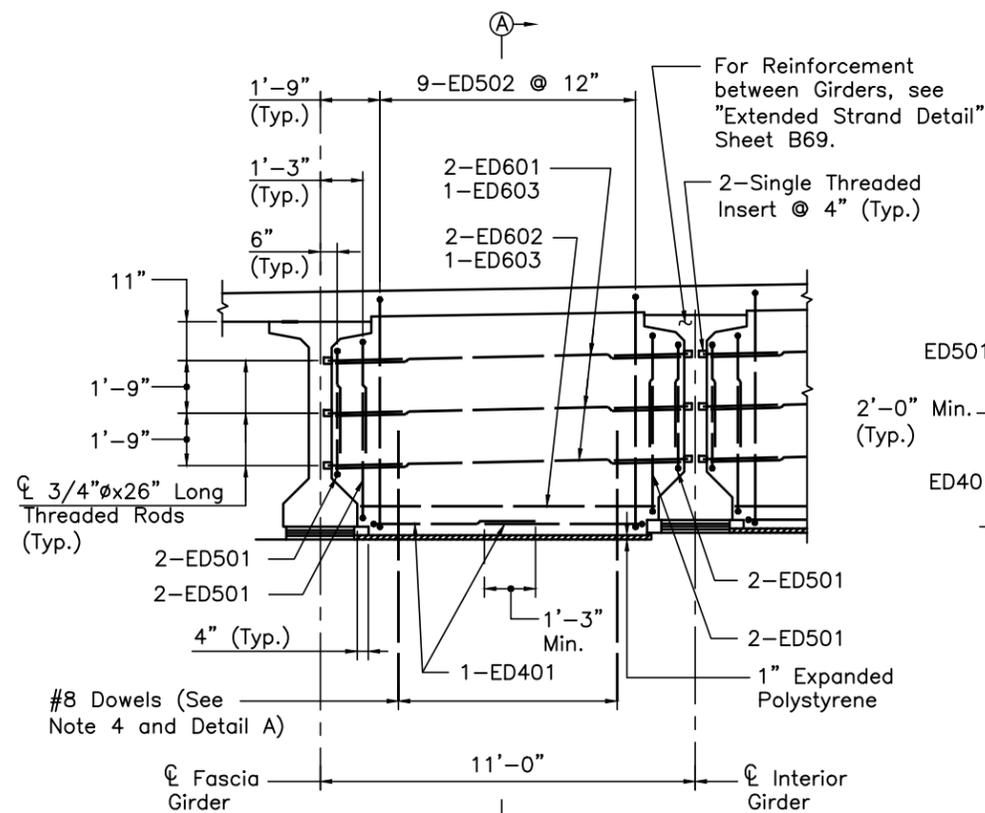


**SECTION C-C**

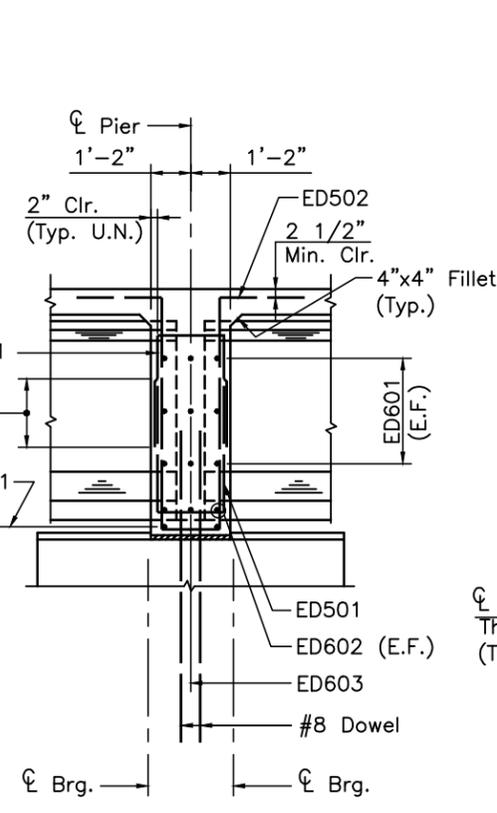
INTERMEDIATE CONCRETE DIAPHRAGM WERE REVISED TO STEEL X-FRAMES. SEE MICROFILM FOR STEEL X-FRAME DETAILS.

DESIGNED BY: LMH CHECKED BY: MPL  
 DATE: 2-20-98 DATE: 3-16-98  
 DRAWN BY: DS REVISIONS BY: DATE  
 DATE: 3-5-98 DATE:  
 CAD FILE NAME: 25725-diaphed1.dwg

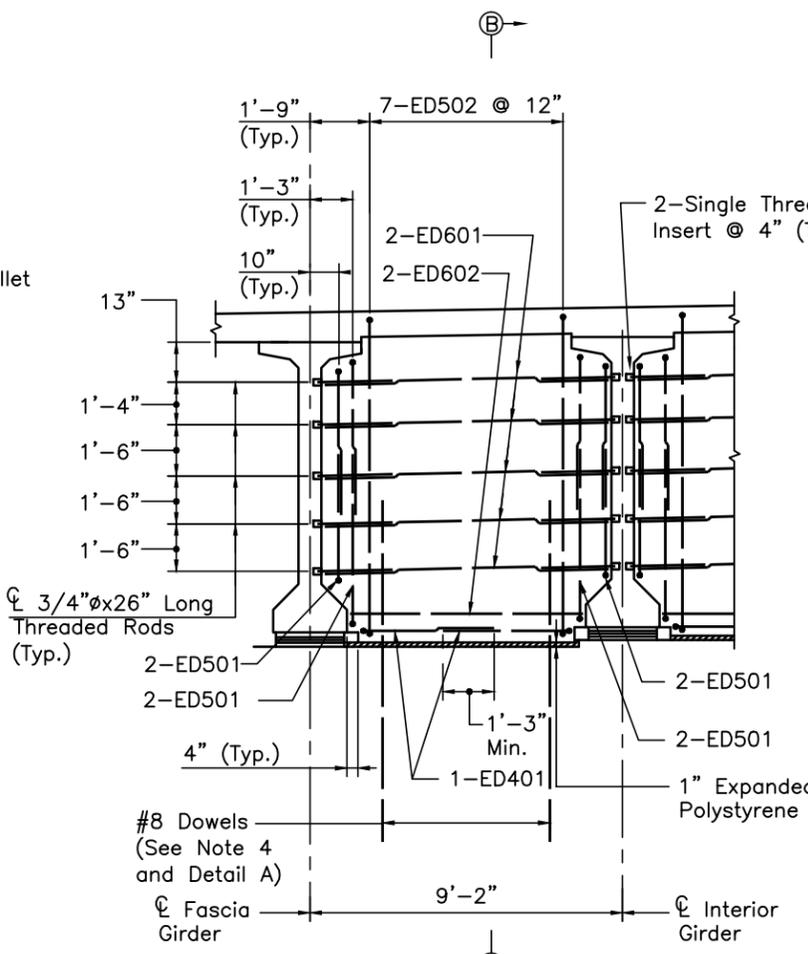
CONCRETE ALTERNATE		
RECORD DRAWING	NO.	DATE
		11/3/04
OHIO TURNPIKE COMMISSION		
EXPANSION DIAPHRAGM DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: MPL/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B75 OF B129		



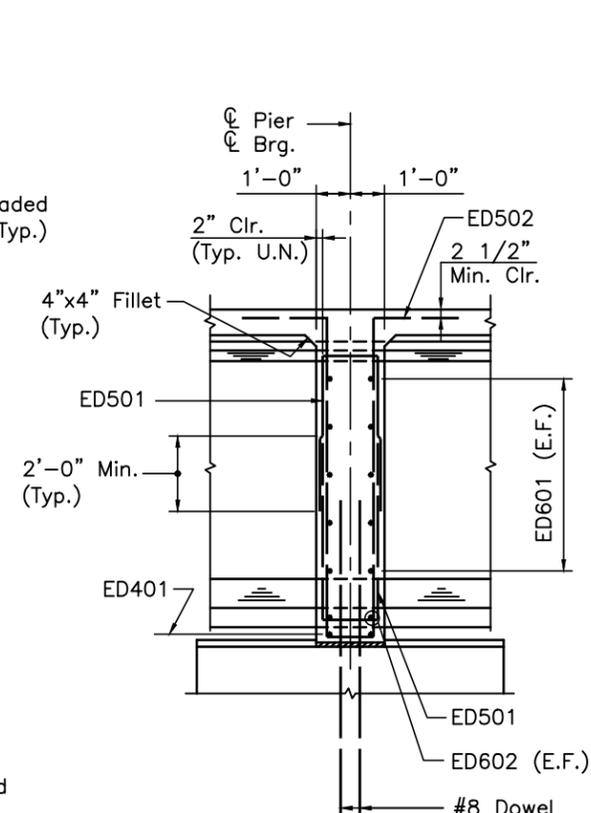
**ELEVATION - TYPE FD1**



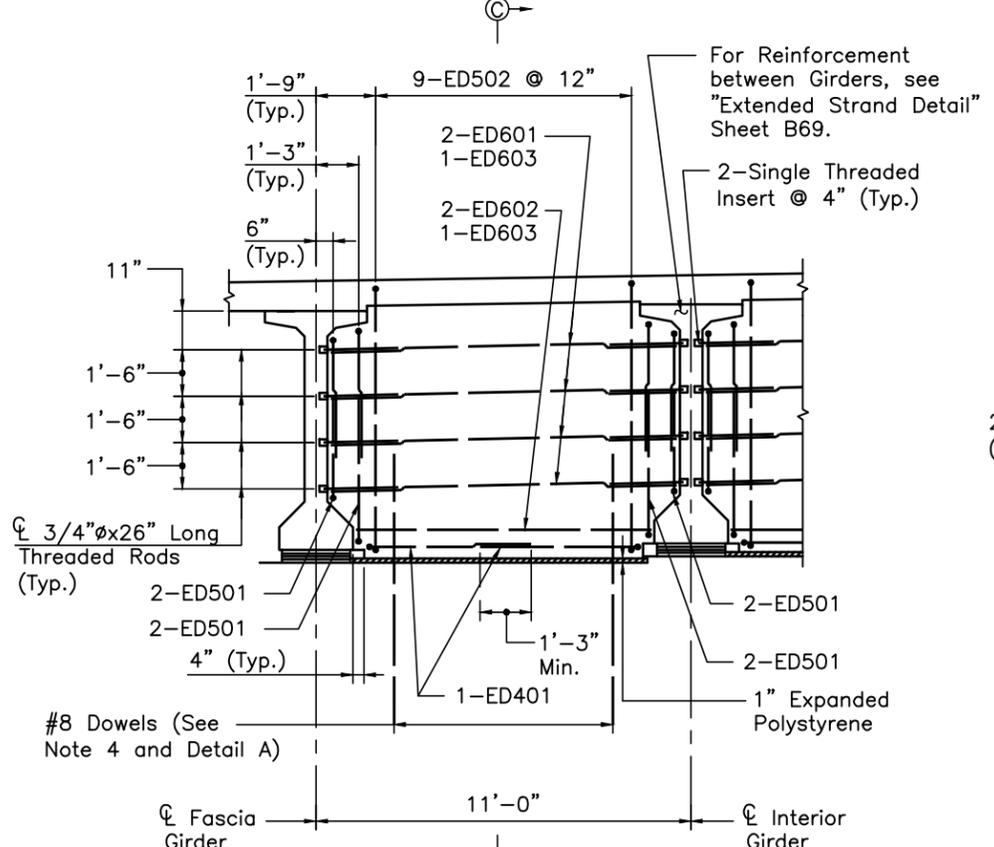
**SECTION A-A**



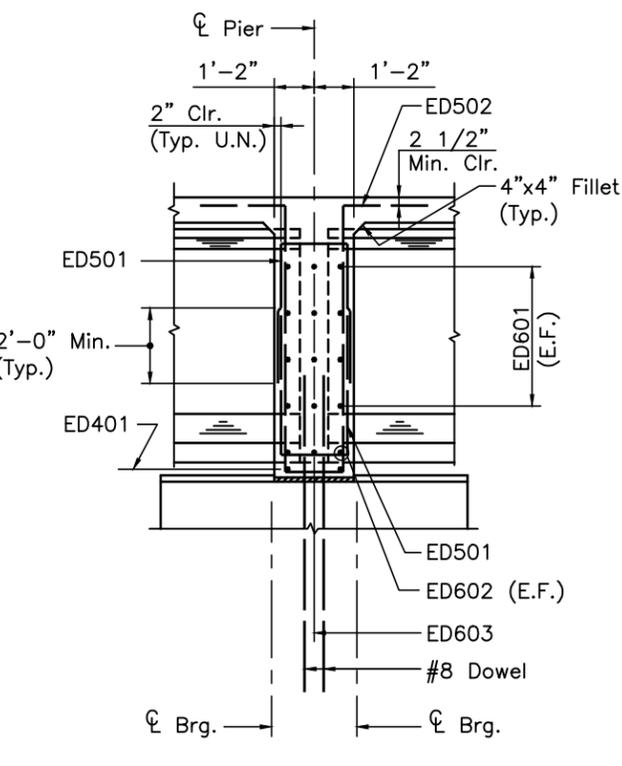
**ELEVATION - TYPE FD2**



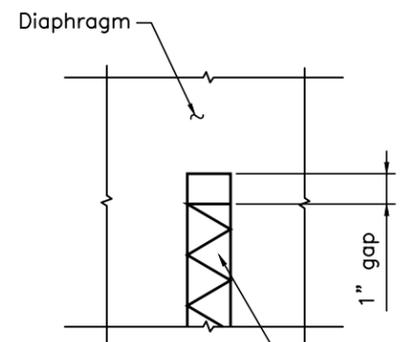
**SECTION B-B**



**ELEVATION - TYPE FD3**



**SECTION C-C**

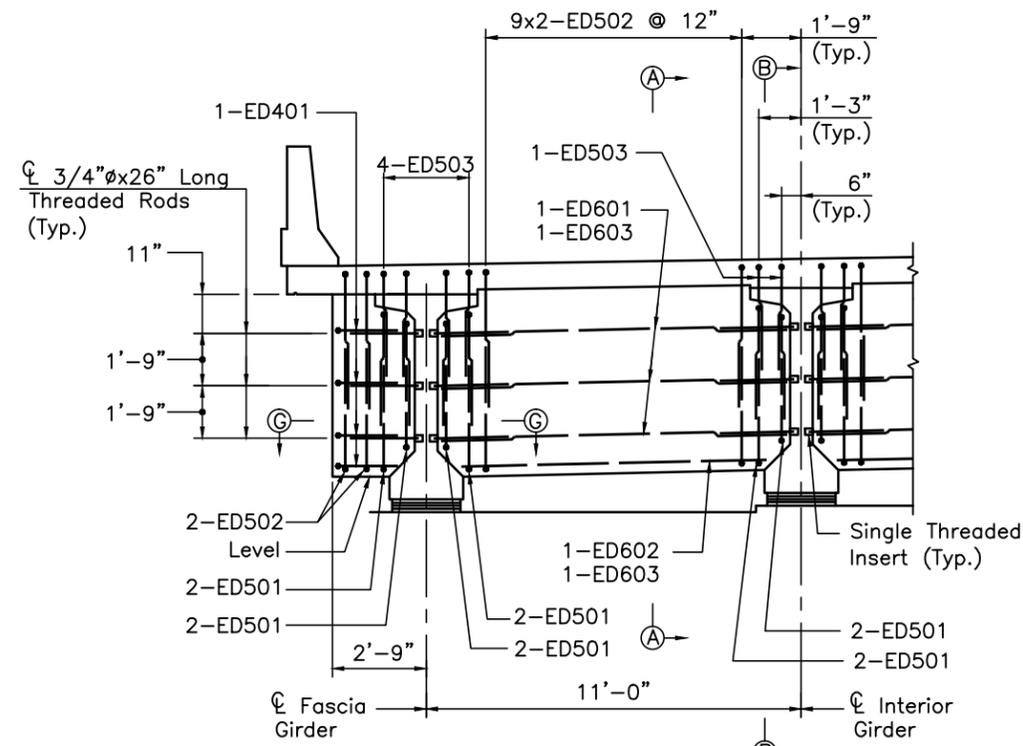


**DETAIL A**

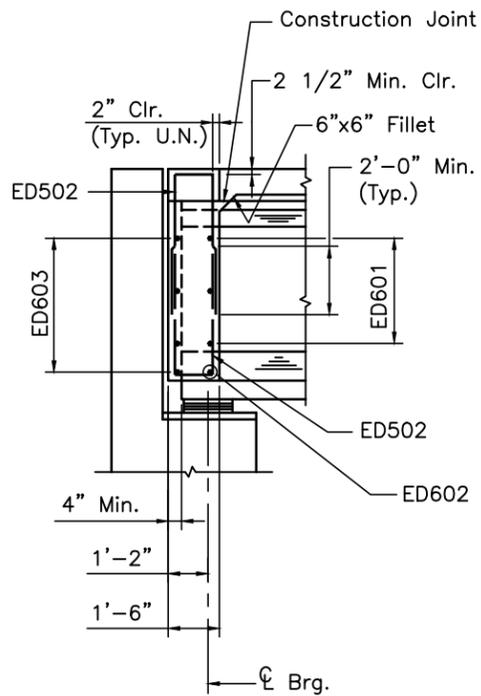
- NOTES:**
1. AT INTERIOR GIRDERS, THREADED INSERTS AND RODS MAY BE ELIMINATED AND REPLACED WITH 1 1/2" HOLES THROUGH THE GIRDER WEBS AND #6 BARS MADE CONTINUOUS.
  2. ALL REINFORCING BARS SHALL BE EPOXY COATED.
  3. FOR REINFORCEMENT SCHEDULE, SEE SHEET B79 OF B129.
  4. FOR PIER CAP REINFORCEMENT DETAILS, SEE SHEETS B43 THRU B46 OF B129. FOR SEISMIC RESTRAINT DETAILS AT FIXED PIERS, SEE SHEET B46A OF B129.
  5. A MINIMUM LAP SPLICE OF 2'-5" SHALL BE USED FOR THE CONTINUOUS #6 BARS BETWEEN THE GIRDERS.
  6. THE COST OF THE THREADED INSERTS AND RODS SP515A SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEMS SP515A "PRECAST CONCRETE GIRDERS 72" DEEP", "PRECAST CONCRETE GIRDERS 84" DEEP" AND "PRECAST CONCRETE GIRDERS 102" DEEP".
  7. 4" GALVANIZED STEEL PIPE FOR F.O.C. ON SOUTH SIDE OF WESTBOUND BRIDGE NOT SHOWN. FOR DETAILS, SEE SHEET B80 OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING	NO.	REVISIONS	BY DATE
			11/3/04
<b>OHIO TURNPIKE COMMISSION</b>			
<b>FIXED DIAPHRAGM DETAILS</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: MPL/LMH	DATE: 12/31/98	
DRAWN: DS	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B76 OF B129			

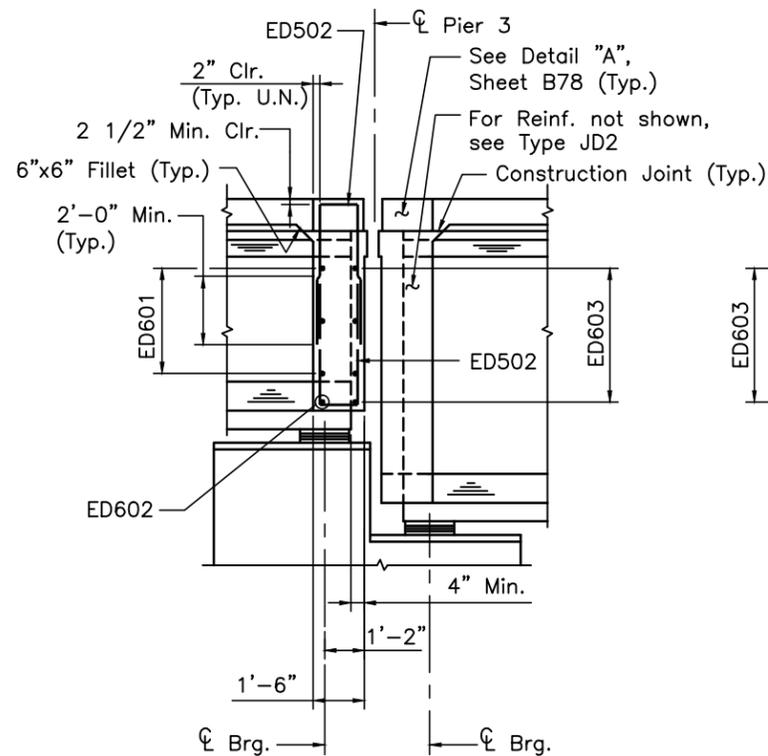
DESIGNED BY: LMH CHECKED BY: MPL  
DATE: 2-20-98 DATE: 3-16-98  
DRAWN BY: DS REVISIONS BY: DATE:  
DATE: 3-5-98 DATE:  
CAD FILE NAME: 25725-diaphd1.dwg



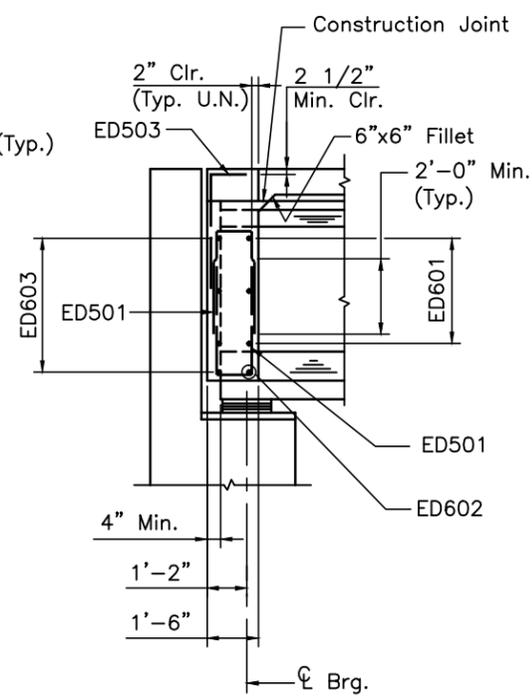
**ELEVATION - TYPE JD1**



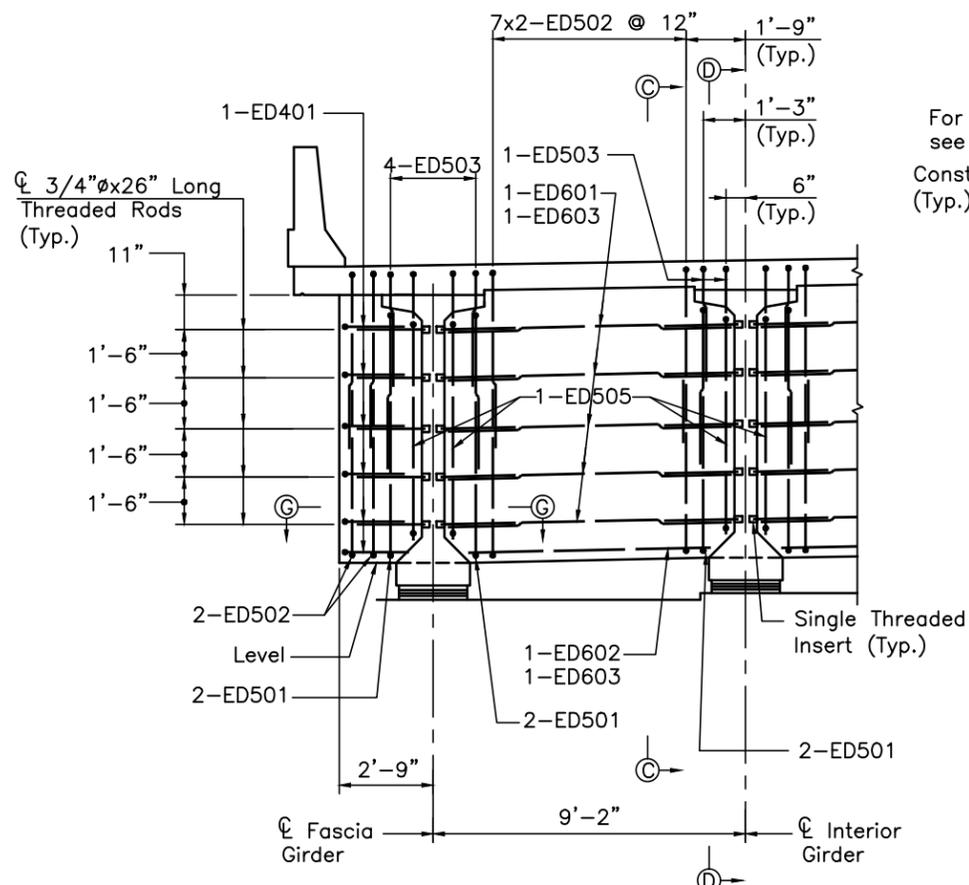
**SECTION A-A**  
(REAR ABUT. SHOWN)



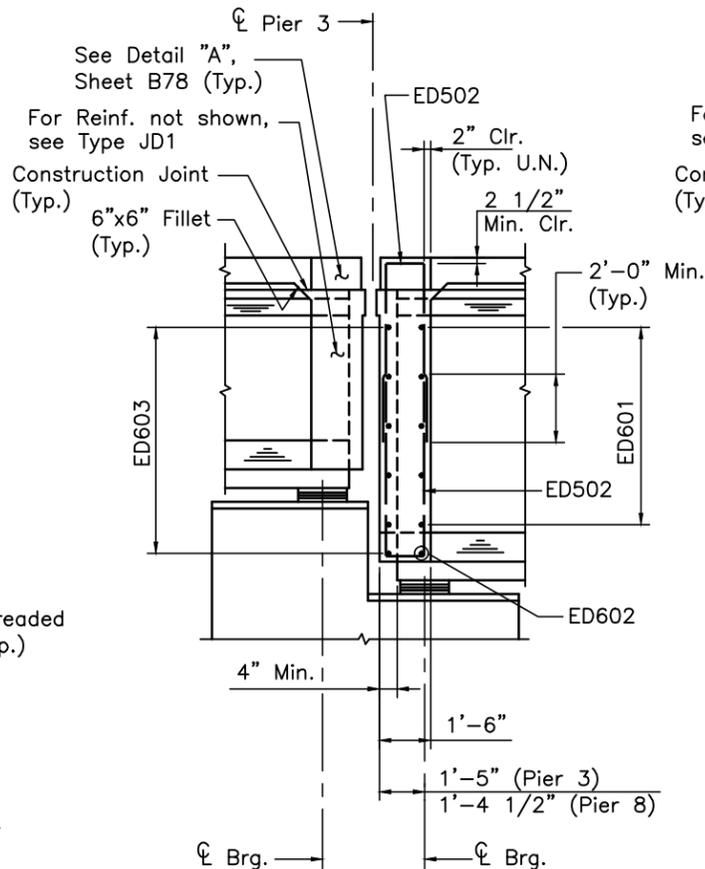
**SECTION A-A**  
(PIER 3 SHOWN)



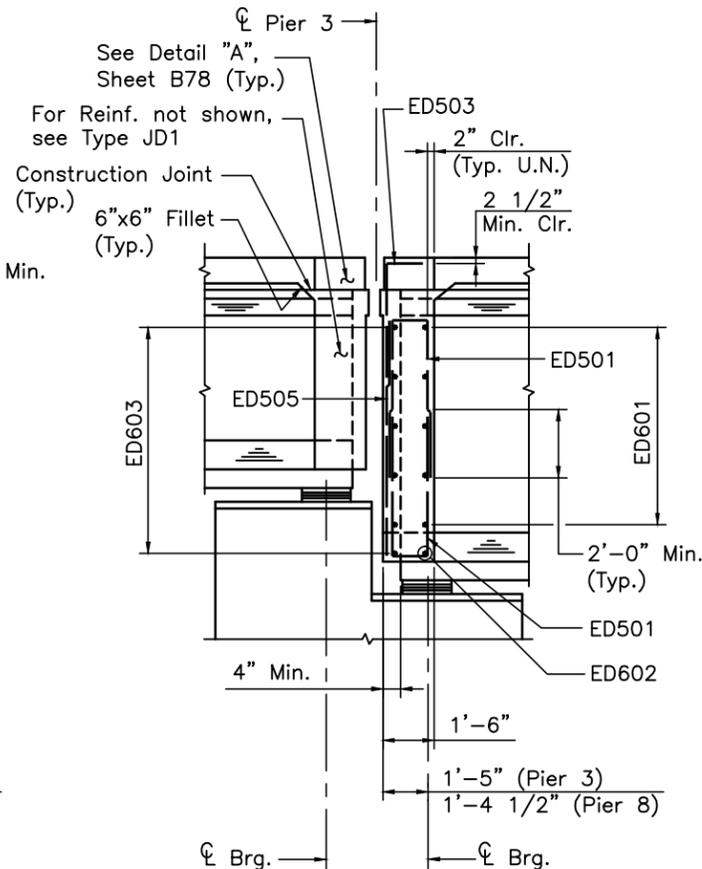
**SECTION B-B**  
(REAR ABUT. SHOWN, PIER 3 SIMILAR)



**ELEVATION - TYPE JD2**



**SECTION C-C**  
(PIER 3 SHOWN, PIER 8 SIMILAR)

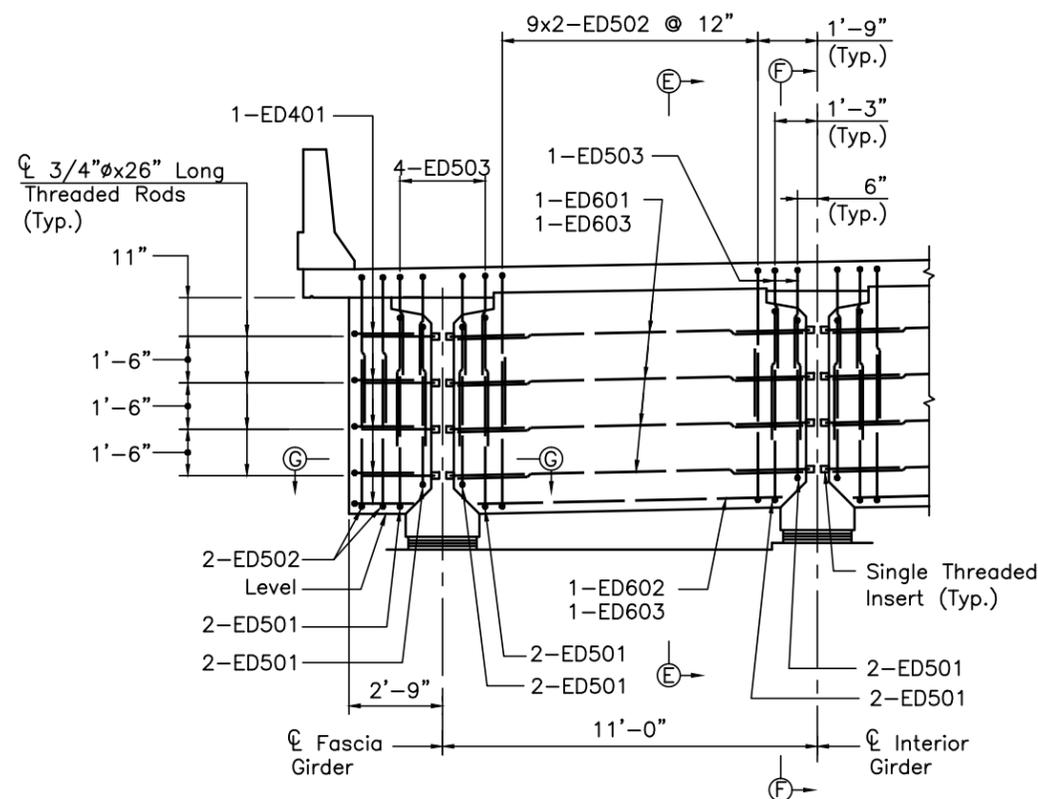


**SECTION D-D**  
(PIER 3 SHOWN, PIER 8 SIMILAR)

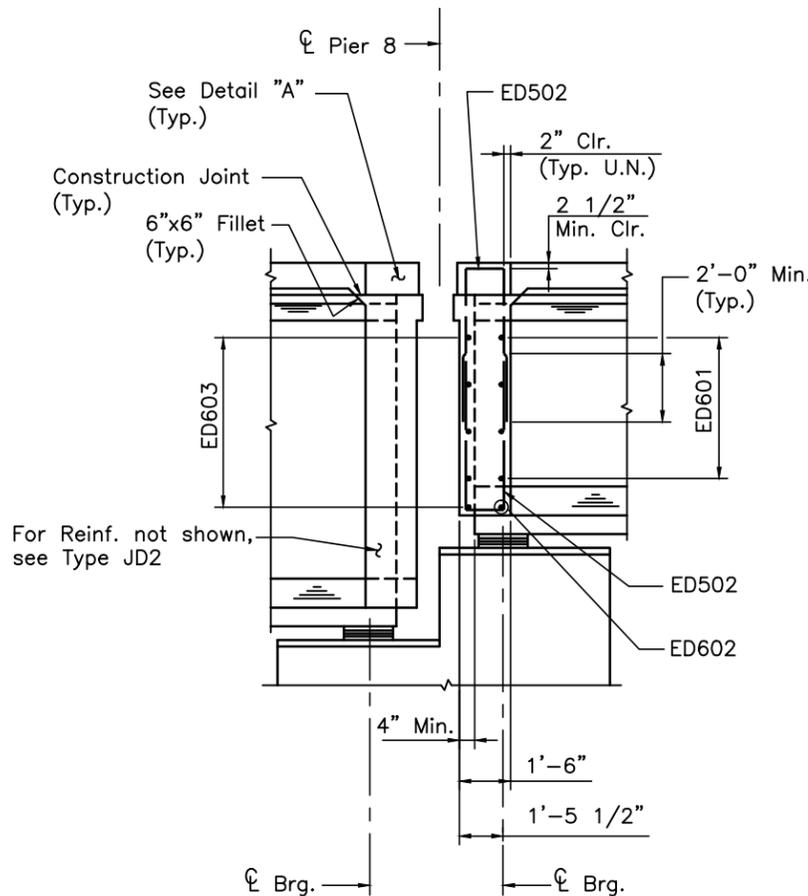
- NOTES:**
1. FOR SECTION G-G, SEE SHEET B78 OF B129.
  2. FOR NOTES, SEE SHEET B78 OF B129.

DESIGNED BY: LMH	CHECKED BY: MPL
DATE: 2-20-98	DATE: 3-16-98
DRAWN BY: DS	REVISIONS BY:
DATE: 3-5-98	DATE:
CAD FILE NAME: 25725-diaiphjd1.dwg	

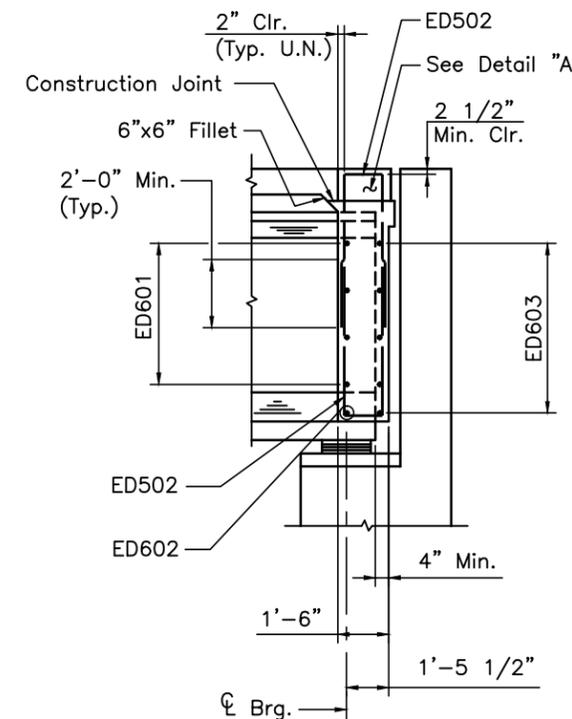
<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>JUNCTION DIAPHRAGM</b>		
<b>DETAILS - 1</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: MPL/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B77 OF B129		



**ELEVATION - TYPE JD3**



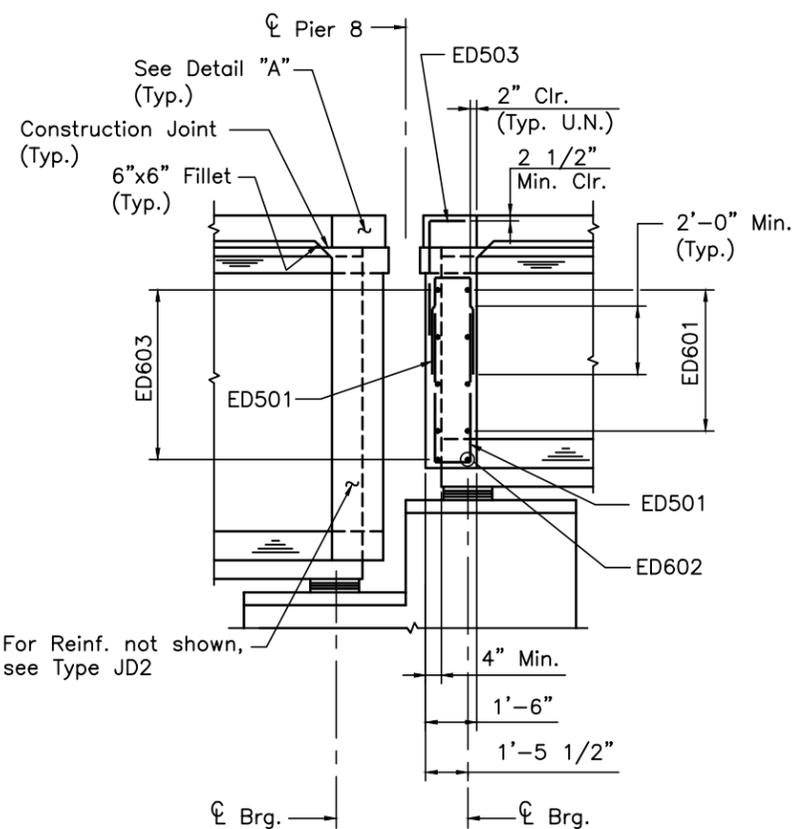
**SECTION E-E**  
(PIER 8 SHOWN)



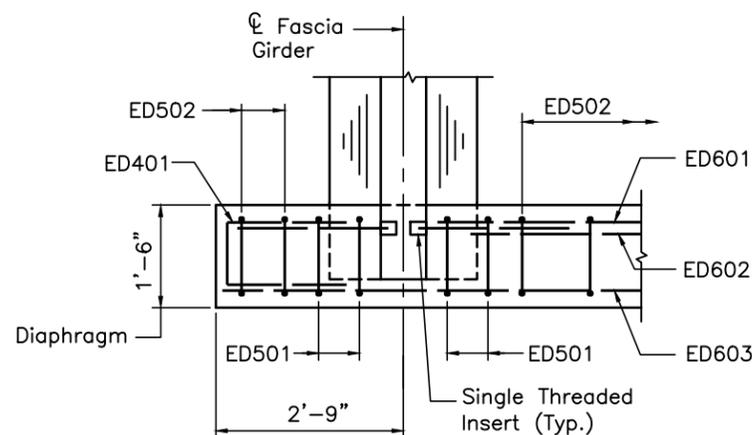
**SECTION E-E**  
(FORWARD ABUT. SHOWN)

**NOTES:**

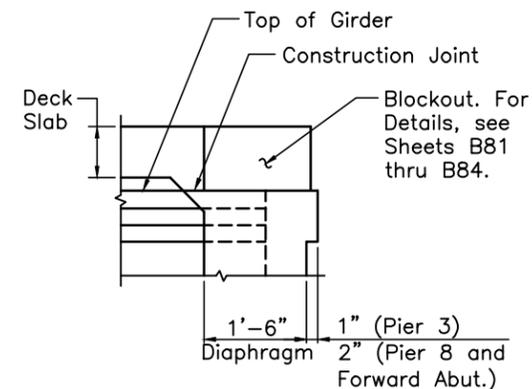
- SEISMIC PEDESTALS NOT SHOWN. FOR LOCATIONS, SEE SHEETS B19, B20, B22, B23 AND B38 THRU B42 OF B129. FOR DETAILS, SEE SHEET B46A OF B129.
- THREADED INSERTS AND RODS MAY BE ELIMINATED AND REPLACED WITH 1 1/2" HOLES THROUGH THE GIRDER WEBS AND #6 BARS MADE CONTINUOUS.
- JUNCTION DIAPHRAGMS SHALL BE PLACED AND CURED AT LEAST 48 HOURS PRIOR TO DECK POUR.
- ALL REINFORCING BARS SHALL BE EPOXY COATED.
- FOR REINFORCEMENT SCHEDULE, SEE SHEET B79 OF B129.
- A MINIMUM LAP SPLICE OF 2'-5" SHALL BE USED FOR THE CONTINUOUS #6 BARS BEHIND THE GIRDERS.
- THE COST OF THE THREADED INSERTS AND RODS SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEMS SP515A "PRECAST CONCRETE GIRDERS 72" DEEP", "PRECAST CONCRETE GIRDERS 84" DEEP" AND "PRECAST CONCRETE GIRDERS 102" DEEP".
- 4" GALVANIZED STEEL PIPE FOR F.O.C. ON SOUTH SIDE OF WESTBOUND BRIDGE NOT SHOWN. FOR DETAILS, SEE SHEET B80 OF B129.



**SECTION F-F**  
(PIER 8 SHOWN, FORWARD ABUT. SIMILAR)



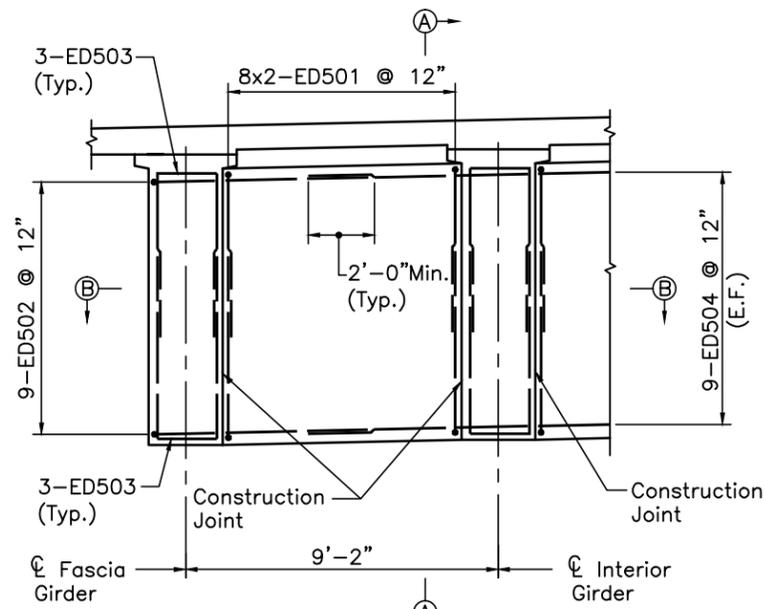
**SECTION G-G**



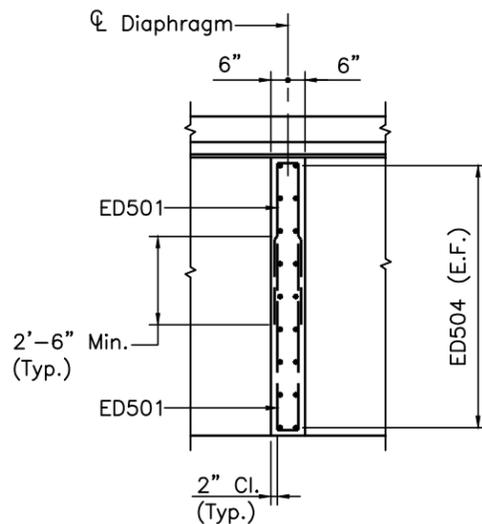
**DETAIL "A"**

DESIGNED BY: LMH	CHECKED BY: MPL
DATE: 2-20-98	DATE: 3-16-98
DRAWN BY: DS	REVISED BY:
DATE: 3-5-98	DATE:
CAD FILE NAME: 25725-diaph#2.dwg	

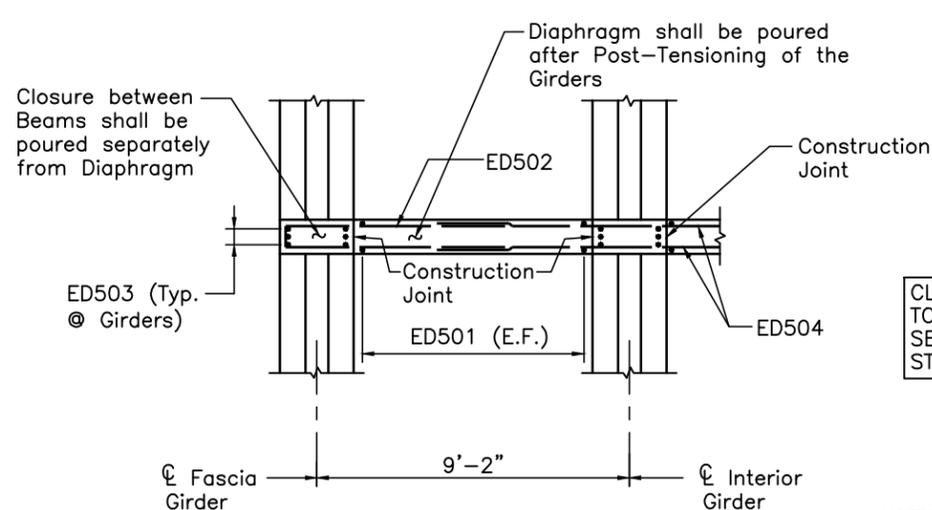
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
JUNCTION DIAPHRAGM DETAILS - 2		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: MPL/LMH	DATE: 12/31/98
DRAWN: DS	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B78 OF B129		



**ELEVATION**



**SECTION A-A**



**SECTION B-B**

CLOSURE DIAPHRAGMS WERE REVISED TO STEEL X-FRAMES. SEE SHOP DRAWING MICROFILM FOR STEEL X-FRAME DETAILS.

**NOTES:**

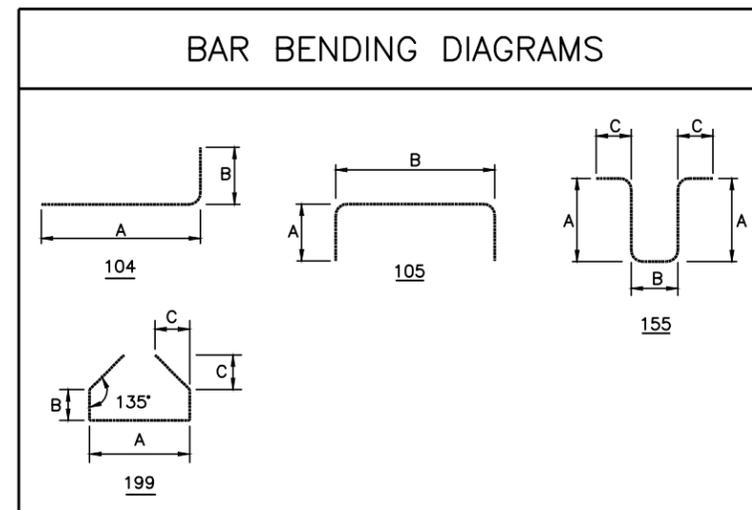
1. ALL REINFORCING BARS SHALL BE EPOXY COATED.
2. FOR BAR SCHEDULE NOTES, SEE SHEET B65 OF B129.
3. MINIMUM REQUIRED CONCRETE STRENGTH OF BEAM CLOSURE AT TIME OF POST-TENSIONING IS 4,000 PSI. MINIMUM REQUIRED 28 DAY STRENGTH IS 4,500 PSI.
4. 4" GALVANIZED STEEL PIPE FOR F.O.C. ON SOUTH SIDE OF WESTBOUND BRIDGE NOT SHOWN. FOR DETAILS, SEE SHEET B80 OF B129. BARS ED501 MAY BE MOVED TO CLEAR PIPE.
5. DIAPHRAGM REINFORCEMENT SHALL BE PAID UNDER THE ITEMS 509 - REINFORCING STEEL, GRADE 60 AND SP509 - EPOXY COATED REINFORCING STEEL, GRADE 60.
6. CLOSURE DIAPHRAGMS SHALL BE PLACED AND CURED AT LEAST 48 HOURS PRIOR TO DECK POUR.

DIAPHRAGM BAR SCHEDULE																
MARK	DIAPH. TYPE	NUMBER REQ'D	LENGTH		TYPE	A			B			C			SER. INCR.	WEIGHT (LBS.)
			FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.			
ED401	FD1	20	11	4	105	4	9	2	0							151
	FD2	48	9	2	105	3	10	1	8							294
	FD3	60	11	4	105	4	9	2	0							454
	JD1	32	4	6	105	1	9	1	2							96
	JD2	48	4	6	105	1	9	1	2							144
ED402	JD3	40	4	6	105	1	9	1	2							120
	FD1	12	4	10	199	1	11	0	7	0	9					39
	FD3	36	4	10	199	1	11	0	7	0	9					116
	ED1	12	4	10	199	1	11	0	7	0	9					39
	ED3	48	4	10	199	1	11	0	7	0	9					155
ED501	ED4	24	4	10	199	1	11	0	7	0	9					77
	FD1	80	9	10	105	4	0	2	0							820
	FD2	192	12	0	105	5	3	1	8							2,403
	FD3	240	10	10	105	4	6	2	0							2,712
	ED1	80	8	5	105	3	4	2	0							702
	ED2	192	10	7	105	4	7	1	8							2,119
	ED3	320	9	5	105	3	10	2	0							3,143
	ED4	160	9	5	105	3	10	2	0							1,571
	JD1	192	7	7	105	3	4	1	2							1,519
	JD2	112	10	1	105	4	7	1	2							1,178
	JD3	192	8	7	105	3	10	1	2							1,719
	ID1	1560	6	11	105	3	4	0	6							11,254
	ID2	1320	9	7	105	4	7	0	8							13,194
	ID3	5200	7	11	105	3	10	0	6							42,937
	CD1	1536	10	9	105	5	2	0	8							17,222
ED502	FD1	90	17	8	155	6	10	2	0	1	3					1,658
	FD2	168	22	4	155	9	4	1	8	1	3					3,913
	FD3	270	19	4	155	7	8	2	0	1	3					5,444
	ED1	90	15	10	155	5	11	2	0	1	3					1,486
	ED2	168	20	6	155	8	5	1	8	1	3					3,592
	ED3	360	17	10	155	6	11	2	0	1	3					6,696
	ED4	180	18	0	155	7	0	2	0	1	3					3,379
	JD1	392	9	1	105	4	1	1	2							3,714
	JD2	368	11	5	105	5	3	1	2							4,382
	JD3	392	10	3	105	4	8	1	2							4,191
CD1	288	13	7	105	6	7	0	8							4,080	
ED503	FD1	24	8	0	105	0	10	6	6							200
	FD3	72	9	0	105	0	10	7	6							676
	ED1	24	8	0	105	0	10	6	6							200
	ED3	96	9	0	105	0	10	7	6							901
ED4	48	9	0	105	0	10	7	6							451	

**CLOSURE DIAPHRAGM TYPE CD1**

DIAPHRAGM BAR SCHEDULE																
MARK	DIAPH. TYPE	NUMBER REQ'D	LENGTH		TYPE	A			B			C			SER. INCR.	WEIGHT (LBS.)
			FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.			
ED503	JD1	96	4	9	104	3	8	1	2							476
	JD2	112	4	9	104	3	8	1	2							555
	JD3	96	4	11	104	3	10	1	2							492
	CD1	672	11	11	105	5	2	1	10							8,352
ED504	CD1	576	25	0	STR											15,019
ED601	FD1	60	10	2	STR											916
	FD2	240	7	8	STR											2,764
	FD3	240	10	2	STR											3,665
	ED1	60	10	2	STR											916
	ED2	240	7	8	STR											2,764
	ED3	320	10	2	STR											4,887
	ED4	160	10	2	STR											2,443
	JD1	60	10	2	STR											916
	JD2	120	6	10	STR											1,232
	JD3	80	10	2	STR											1,222
	ID1	360	10	2	STR											5,497
	ID2	600	8	4	STR											7,510
	ID3	1600	10	2	STR											24,433
ED602	FD1	20	8	6	STR											255
	FD2	48	6	8	STR											481
	FD3	60	8	6	STR											766
	ED1	20	8	10	STR											265
	ED2	48	7	0	STR											505
	ED3	80	8	10	STR											1,061
	ED4	40	8	10	STR											531
	JD1	20	8	10	STR											265
	JD2	24	6	8	STR											240
	JD3	20	8	10	STR											265
ED603	ID1	120	8	10	STR											1,592
	ID2	120	7	0	STR											1,262
	ID3	400	8	10	STR											5,307
	FD1	16	28	10	STR											693
	FD3	60	28	10	STR											2,598
	ED1	16	28	10	STR											693
	ED3	80	28	10	STR											3,465
ED505	ED4	40	28	10	STR											1,732
	JD1	32	31	4	STR											1,506
	JD2	48	31	4	STR											2,259
JD3	40	31	4	STR											1,883	
ED505	JD2	56	7	0	STR											409

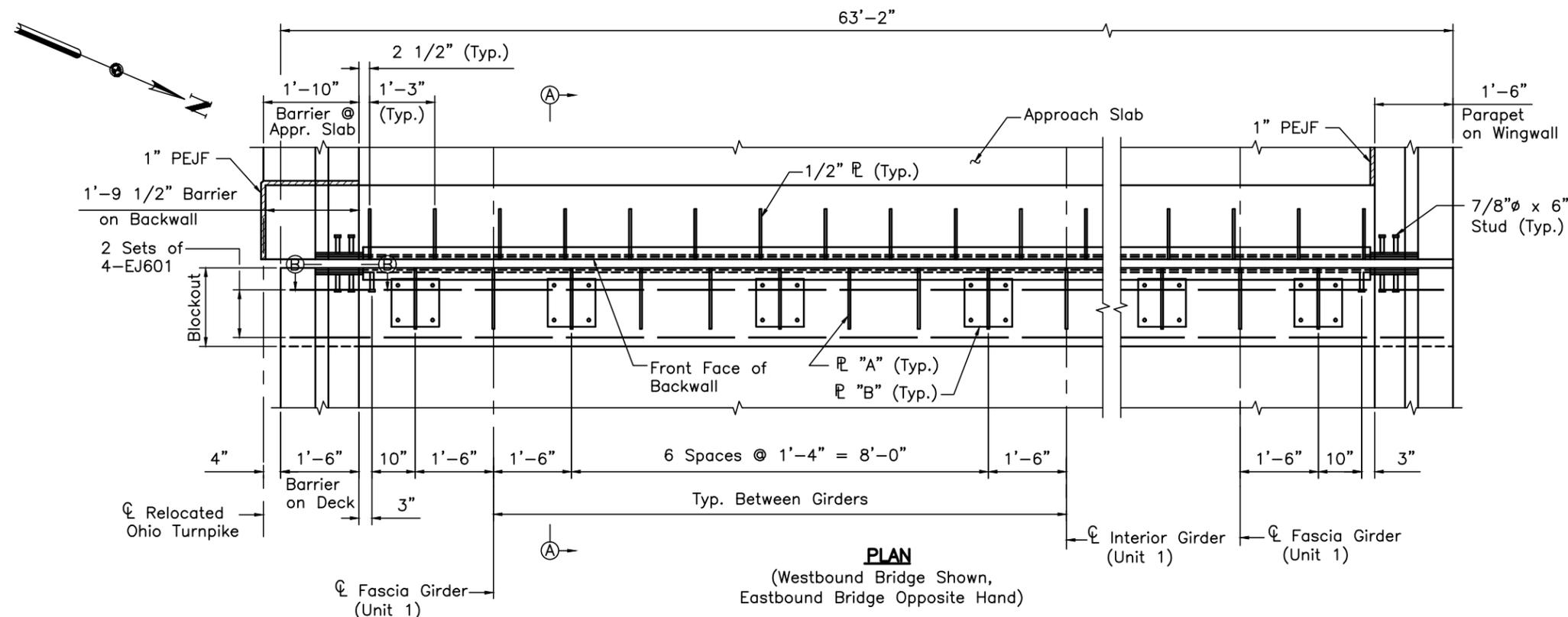
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 261,233



CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
CLOSURE DIAPHRAGM DETAILS			
DIAPHRAGM REINF. SCHEDULE			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: MPL/LMH	DATE: 12/31/98	
DRAWN: DS	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B79 OF B129			

DESIGNED BY: LMH CHECKED BY: MPL  
 DATE: 2-20-98 DATE: 3-16-98  
 DRAWN BY: DS REVISIONS BY:  
 DATE: 3-5-98 DATE:  
 CAD FILE NAME: 25725-diaphdet.dwg





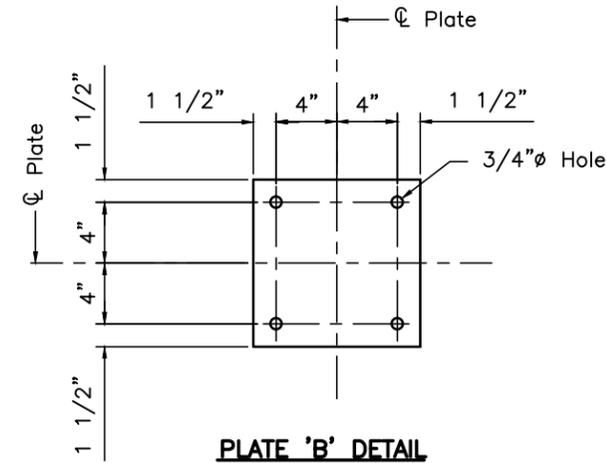
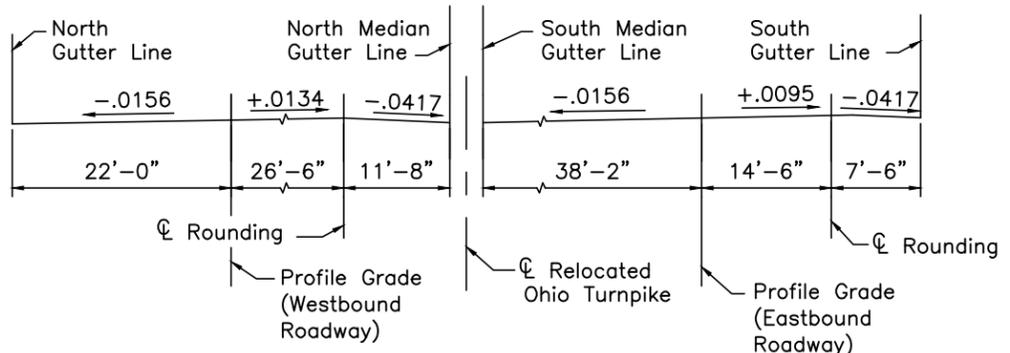
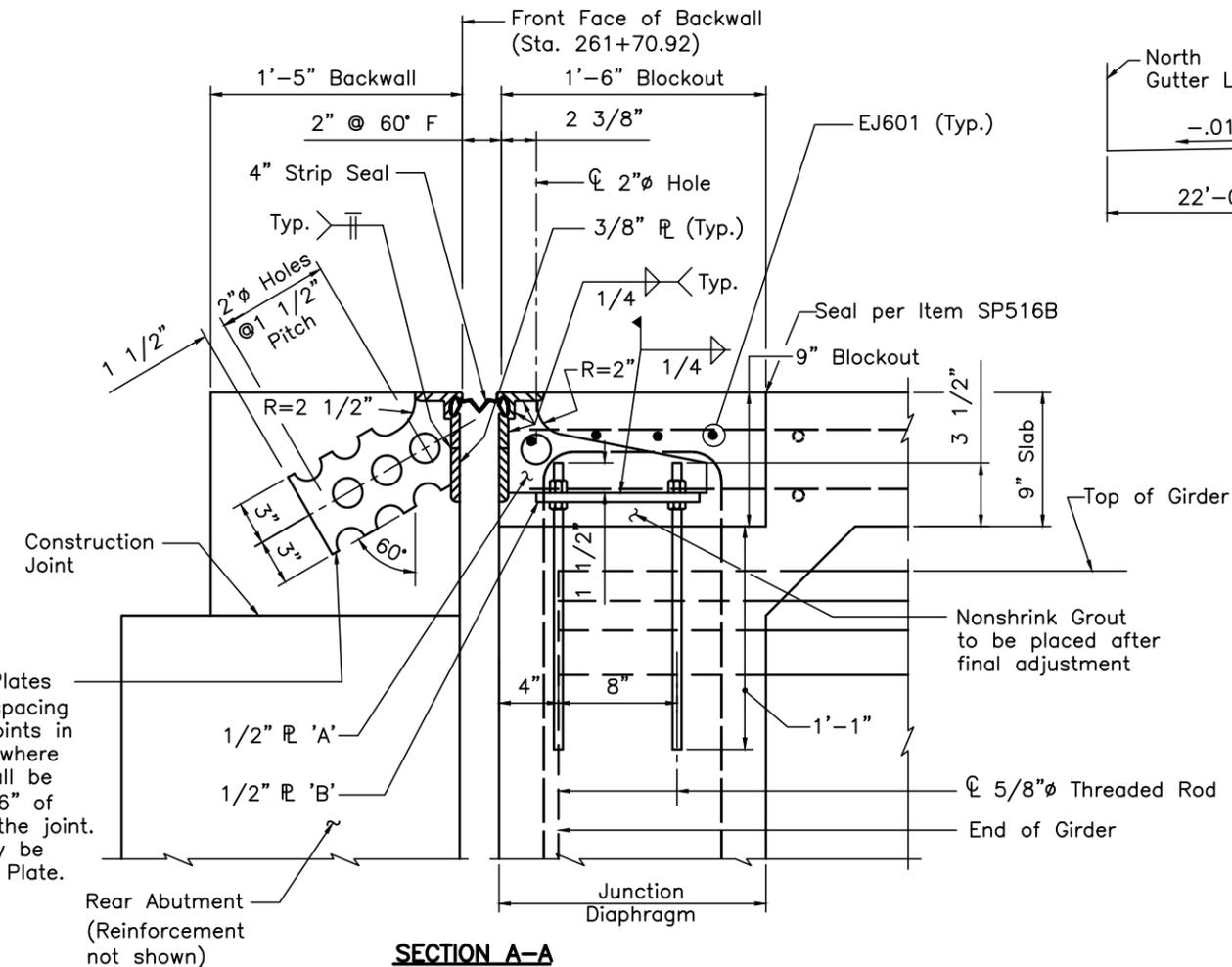
- STRIP SEAL JOINT NOTES:**
- JOINTS IN EXTRUSIONS SHALL HAVE WATERTIGHT, PARTIAL PENETRATION BUTT WELDS COMPLETELY AROUND THE OUTER PERIPHERY OF THE ABUTTING SURFACES. WELDS WHICH WILL BE IN CONTACT WITH THE SEAL AND/OR ANCHOR PLATES SHALL BE GROUND SMOOTH.
  - CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
  - THE 4" NEOPRENE SEAL SHALL BE ONE CONTINUOUS PIECE AS MANUFACTURED BY WATSON-BOWMAN ACME, D.S. BROWN OR APPROVED EQUAL. NO SPLICES ARE PERMITTED. INSTALL SEAL AFTER DECK AND BACKWALL CONCRETE HAS BEEN PLACED.
  - ALL STEEL SHALL BE IN ACCORDANCE WITH ASTM A36 OR ASTM A588. 5/8" Ø THREADED RODS SHALL BE IN ACCORDANCE WITH ASTM A307. STUD ANCHORS SHALL CONFORM TO AASHTO M-169 AND ITEM 513.
  - FOR SECTION B-B, SEE O.T.C. STANDARD DRAWING DJ-2, SECTION B-B.
  - FOR ADDITIONAL NOTES, SEE O.T.C. STANDARD DRAWING DJ-4, GENERAL NOTES, AND OTC SPECIAL PROVISION SP533.

STRIP SEAL EXPANSION JOINT OPENINGS							
LOCATION	30°F	40°F	50°F	60°F	70°F	80°F	90°F
REAR ABUTMENT	2.52"	2.35"	2.17"	2"	1.83"	1.65"	1.48"

STRIP SEAL EXPANSION JOINT MOVEMENTS		
LOCATION	MAXIMUM EXPANSION	MAXIMUM CONTRACTION
REAR ABUTMENT	5/8"	1 13/16"

**NOTE:**  
EXPANSION AND CONTRACTION MOVEMENTS ARE CALCULATED FROM A REFERENCE OF 60°F. THE TEMPERATURE RANGE USED IS -15°F TO 95°F. CREEP AND SHRINKAGE ARE ALSO INCLUDED.

- NOTES:**
- CONCRETE SURFACE SHALL BE FINISHED EITHER FLUSH WITH OR A MAX. 1/4" ABOVE STEEL EXTRUSION.
  - BEFORE PLACING BLOCKOUT CONCRETE, AN APPROVED BONDING AGENT SHALL BE APPLIED TO HORIZONTAL & VERTICAL DECK SURFACES.
  - ALL REINFORCING BARS SHALL BE EPOXY COATED.
  - ALL STRUCTURAL STEEL ASSOCIATED WITH THE 4" STRIP SEAL AND ALL REINFORCING BARS PREFIXED WITH "EJ" SHALL BE INCLUDED WITH THE ITEM SP533, 4" CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINT.
  - FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.
  - A MINIMUM LAP SPLICE OF 1'-10" SHALL BE USED FOR THE TRANSVERSE #6 BARS.



CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
DECK JOINT DETAILS		
REAR ABUTMENT		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B81 OF B129		

DESIGNED BY: LMH  
 CHECKED BY: HW  
 DATE: 1-12-98  
 DATE: 4-9-98  
 DRAWN BY: HW  
 REVISIONS BY:  
 DATE: 3-27-98  
 DATE:  
 CAD FILE NAME: 25725-RABUTJT.DWG

**MODULAR EXPANSION JOINT NOTES:**

1. THE MODULAR EXPANSION JOINT SYSTEM SHALL BE DESIGNED ACCORDING TO AASHTO HS25 WITH 100% IMPACT AND THE LIVE LOADINGS, AS SHOWN IN THE STRUCTURE GENERAL NOTES, SHEET B5 OF B129.
2. THE MODULAR EXPANSION JOINT SYSTEM SHALL BE INSTALLED AS DIRECTED BY THE MANUFACTURER (REFER TO THE MANUFACTURER'S RECOMMENDATION FOR THE TEMPORARY SUPPORT OF THE MODULAR EXPANSION JOINT).
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
4. WELDING SHALL COMPLY WITH THE BRIDGE WELDING CODE AWS D1.5-88, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
5. THE EXPANSION DAM ASSEMBLIES SHALL BE FACTORY ASSEMBLED AND PRESET TO SYSTEM MIDRANGE.
6. THE NEOPRENE SEALS SHALL BE SHOP INSTALLED IN ONE CONTINUOUS PIECE. NO SPLICES ARE PERMITTED.
7. ALL STEEL SHALL BE IN ACCORDANCE WITH ASTM A588, GRADE 50.
8. FASTENING HARDWARE SHALL CONFORM TO ASTM A325. STUD ANCHORS SHALL CONFORM TO AASHTO M 169 AND ITEM 513.
9. DETAILED SHOP DRAWINGS OF THE MODULAR EXPANSION JOINT ASSEMBLY AND SHIPPING DEVICE SHALL BE SUBMITTED, FOR APPROVAL, BY THE ENGINEER.
10. THE MODULAR EXPANSION JOINT SHALL BE MANUFACTURED TO FIT THE ROADWAY CROSS SLOPES AND GRADES, AS INDICATED IN THE PLANS AND TO RUN CONTINUOUSLY BETWEEN LIMITS, AS SHOWN. ALL SHOP SPLICES TO BE WELDED AND ALL SURFACES IN CONTACT WITH ROADWAY TRAFFIC OR END CHANNELS SHALL BE GROUND SMOOTH.
11. THE MODULAR EXPANSION JOINT ASSEMBLY SHALL BE PROPERLY FITTED IN THE SHOP TO THE PROPER OPENING AND SHIPPED WITH DEVICES FOR MAINTAINING PROPER SPACING AND FIT. THE SHIPPING DEVICES SHALL BE SPACED BETWEEN SUPPORT BOXES.
12. FOR ADDITIONAL NOTES, SEE OTC SPECIAL PROVISION SP533M - MODULAR EXPANSION JOINT.

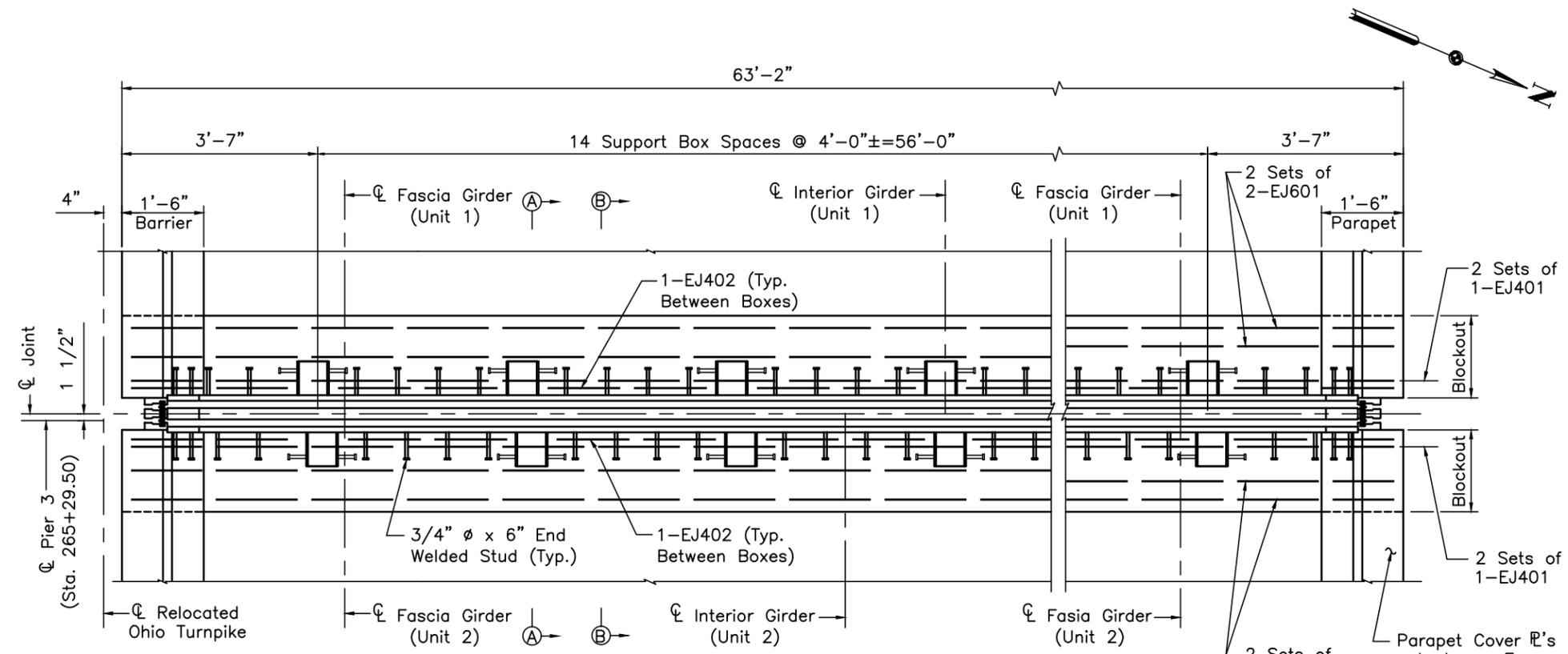
MODULAR EXPANSION JOINT OPENINGS							
LOCATION	30°F	40°F	50°F	60°F	70°F	80°F	90°F
PIER 3	7.97"	7.56"	7.16"	6.75"	6.34"	5.94"	5.53"
PIER 8	15.98"	15.15"	14.33"	13.50"	12.67"	11.85"	11.02"
FORWARD ABUTMENT	12.01"	11.51"	11.00"	10.50"	10.00"	9.49"	8.99"

MODULAR EXPANSION JOINT MOVEMENTS		
LOCATION	MAX. EXPANSION	MAX. CONTRACTION
PIER 3 (UNIT 1)	0 5/16"	0 7/8"
PIER 3 (UNIT 2)	1 1/8"	3 3/8"
TOTAL PIER 3	1 7/16"	4 1/4"
PIER 8 (UNIT 2)	1 1/8"	3 3/8"
PIER 8 (UNIT 3)	1 3/4"	5 1/4"
TOTAL PIER 8	2 7/8"	8 11/16"
FORWARD ABUTMENT	1 3/4"	5 5/16"

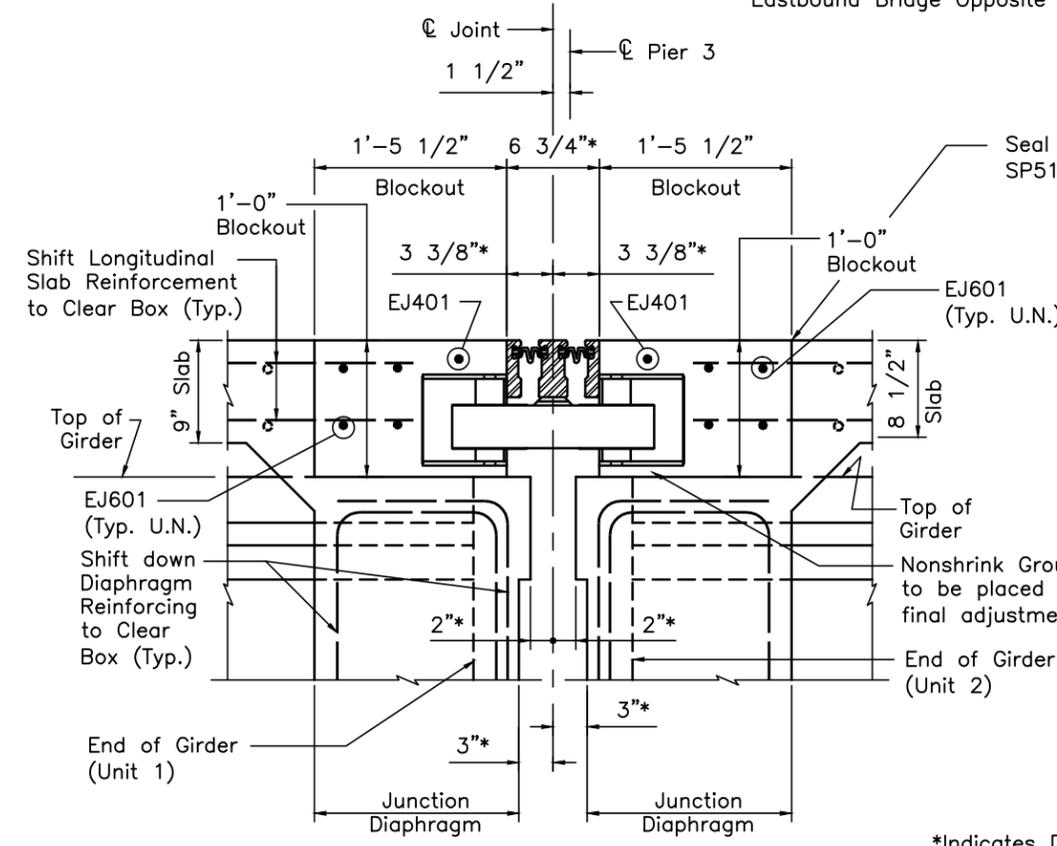
**NOTE:**  
EXPANSION AND CONTRACTION MOVEMENTS ARE CALCULATED FROM A REFERENCE OF 60°F. THE TEMPERATURE RANGE USED IS -15°F TO 95°F. CREEP AND SHRINKAGE ARE ALSO INCLUDED.

**NOTES**

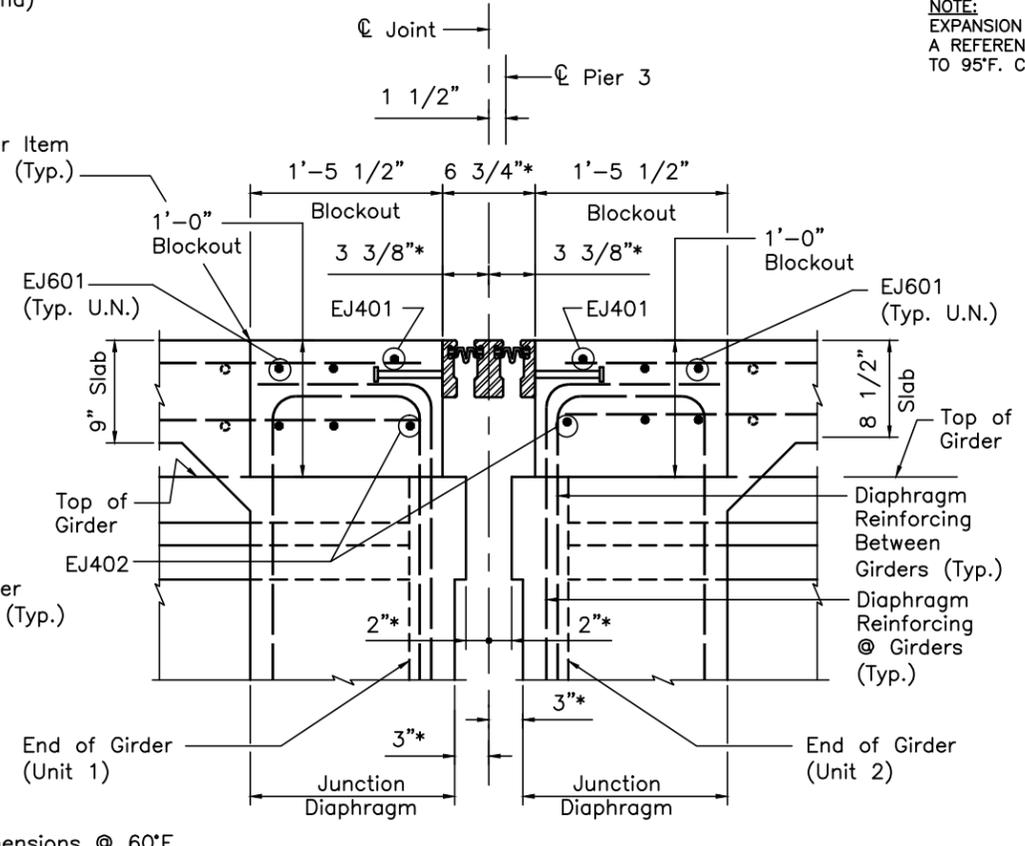
1. DECK JOINT DIMENSIONS AND REINFORCEMENT ARE DETAILED IN ACCORDANCE WITH THE STEELFLEX MODULAR EXPANSION JOINT, MODEL NUMBER D-160 BY D.S. BROWN. SUBSTITUTION OF AN EQUIVALENT JOINT WILL BE PERMITTED SUBJECT TO APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING DIMENSIONS AND REINFORCEMENT AS NECESSARY TO ACCOMMODATE A DIFFERENT JOINT.
2. FOR DECK CROSS-SLOPES AT PIER 3, SEE SHEET B86.
3. CONCRETE SURFACE TO BE FINISHED EITHER FLUSH WITH OR A MAX. 1/4" ABOVE STEEL EXTRUSION.
4. BEFORE PLACING BLOCKOUT CONCRETE, AN APPROVED BONDING AGENT SHALL BE APPLIED TO HORIZONTAL & VERTICAL DECK SURFACES.
5. ALL REINFORCING BARS SHALL BE EPOXY COATED.
6. ALL STRUCTURAL STEEL ASSOCIATED WITH THE 6.3" MOVEMENT RATED MODULAR EXPANSION JOINT AND ALL REINFORCING BARS PREFIXED WITH "EJ" SHALL BE INCLUDED WITH THE ITEM SP533M, 6.3" MODULAR EXPANSION JOINT.
7. FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.
8. MINIMUM LAP SPLICES OF 1'-3" AND 1'-10" SHALL BE USED FOR THE TRANSVERSE #4 AND #6 BARS, RESPECTIVELY.



**PLAN**  
(Westbound Bridge Shown,  
Eastbound Bridge Opposite Hand)



**SECTION A-A**

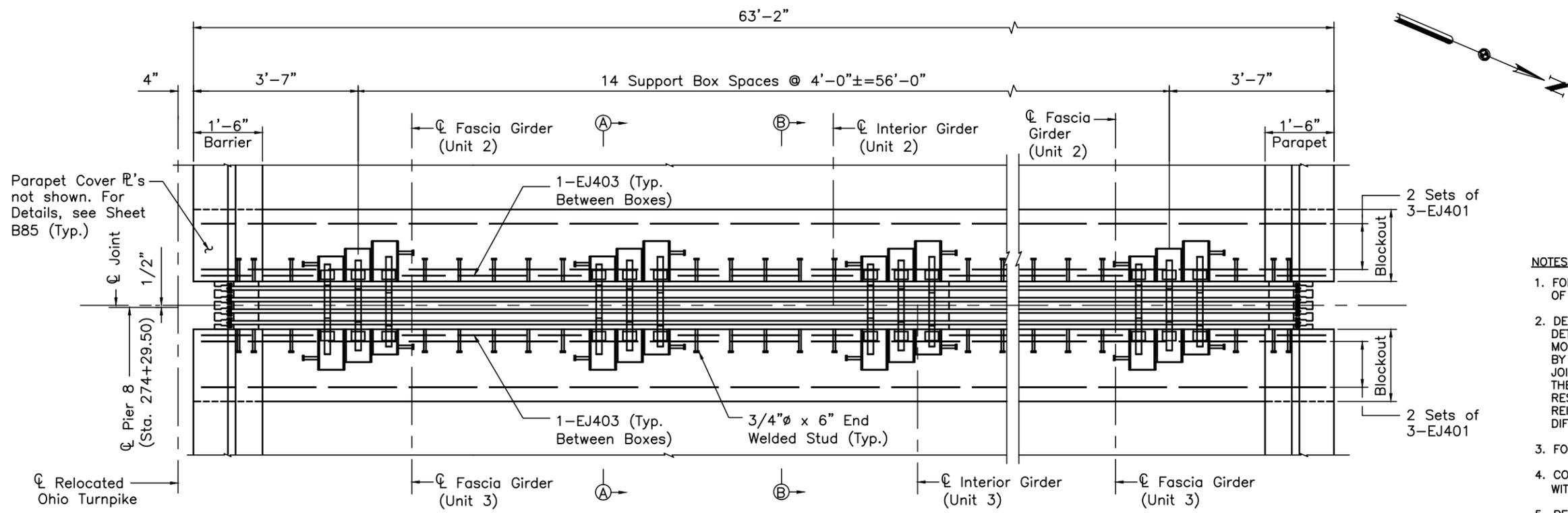


**SECTION B-B**

\*Indicates Dimensions @ 60°F.

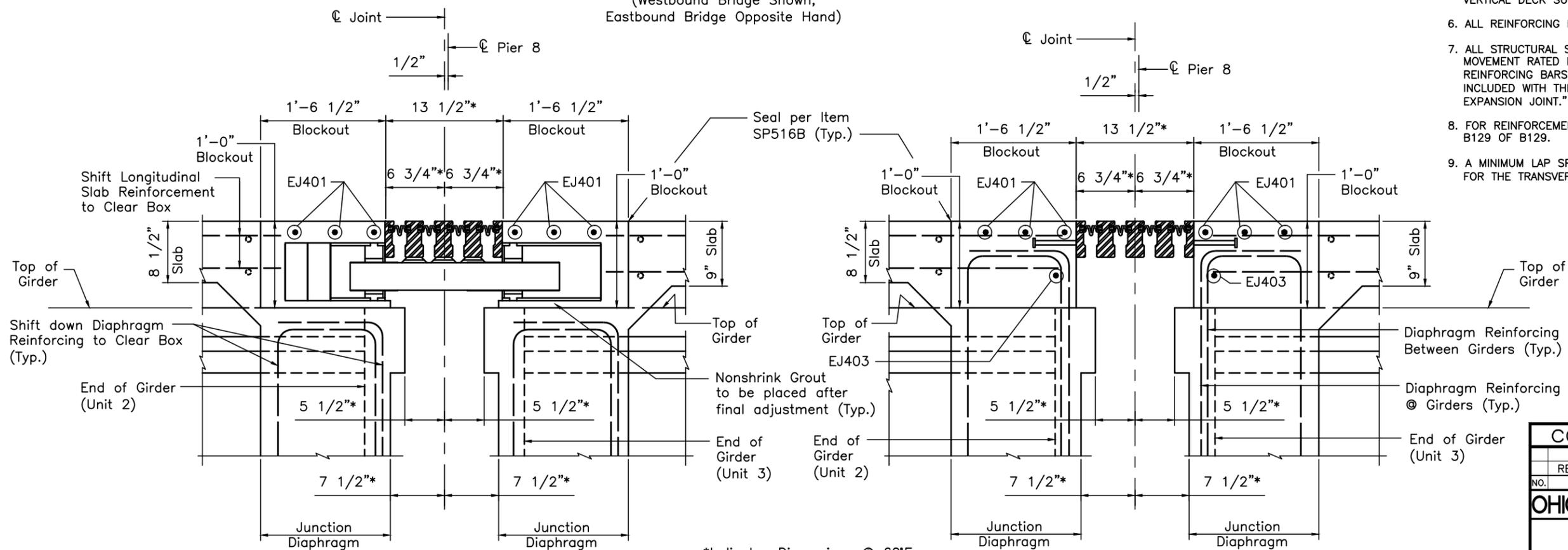
DESIGNED BY: LMH  
DATE: 1-12-98  
DRAWN BY: HW  
DATE: 3-27-98  
CAD FILE NAME: 25725 - PIER3JT.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
DECK JOINT DETAILS		
PIER 3		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B82 OF B129		



- NOTES:**
- FOR MODULAR EXPANSION JOINT NOTES AND TABLE OF OPENINGS, SEE SHEET B82 OF B129.
  - DECK JOINT DIMENSIONS AND REINFORCEMENT ARE DETAILED IN ACCORDANCE WITH THE STEELFLEX MODULAR EXPANSION JOINT, MODEL NUMBER D-320 BY D.S. BROWN. SUBSTITUTION OF AN EQUIVALENT JOINT WILL BE PERMITTED SUBJECT TO APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING DIMENSIONS AND REINFORCEMENT AS NECESSARY TO ACCOMMODATE A DIFFERENT JOINT.
  - FOR DECK CROSS-SLOPES AT PIER 8, SEE SHEET B86.
  - CONCRETE SURFACE TO BE FINISHED EITHER FLUSH WITH OR A MAX. 1/4" ABOVE STEEL EXTRUSION.
  - BEFORE PLACING BLOCKOUT CONCRETE, AN APPROVED BONDING AGENT SHALL BE APPLIED TO HORIZONTAL & VERTICAL DECK SURFACES.
  - ALL REINFORCING BARS SHALL BE EPOXY COATED.
  - ALL STRUCTURAL STEEL ASSOCIATED WITH THE 12.6" MOVEMENT RATED MODULAR EXPANSION JOINT AND ALL REINFORCING BARS PREFIXED WITH "EJ" SHALL BE INCLUDED WITH THE ITEM SP533M, 12.6" MODULAR EXPANSION JOINT."
  - FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.
  - A MINIMUM LAP SPLICE OF 1'-3" SHALL BE USED FOR THE TRANSVERSE #4 BARS.

**PLAN**  
(Westbound Bridge Shown,  
Eastbound Bridge Opposite Hand)



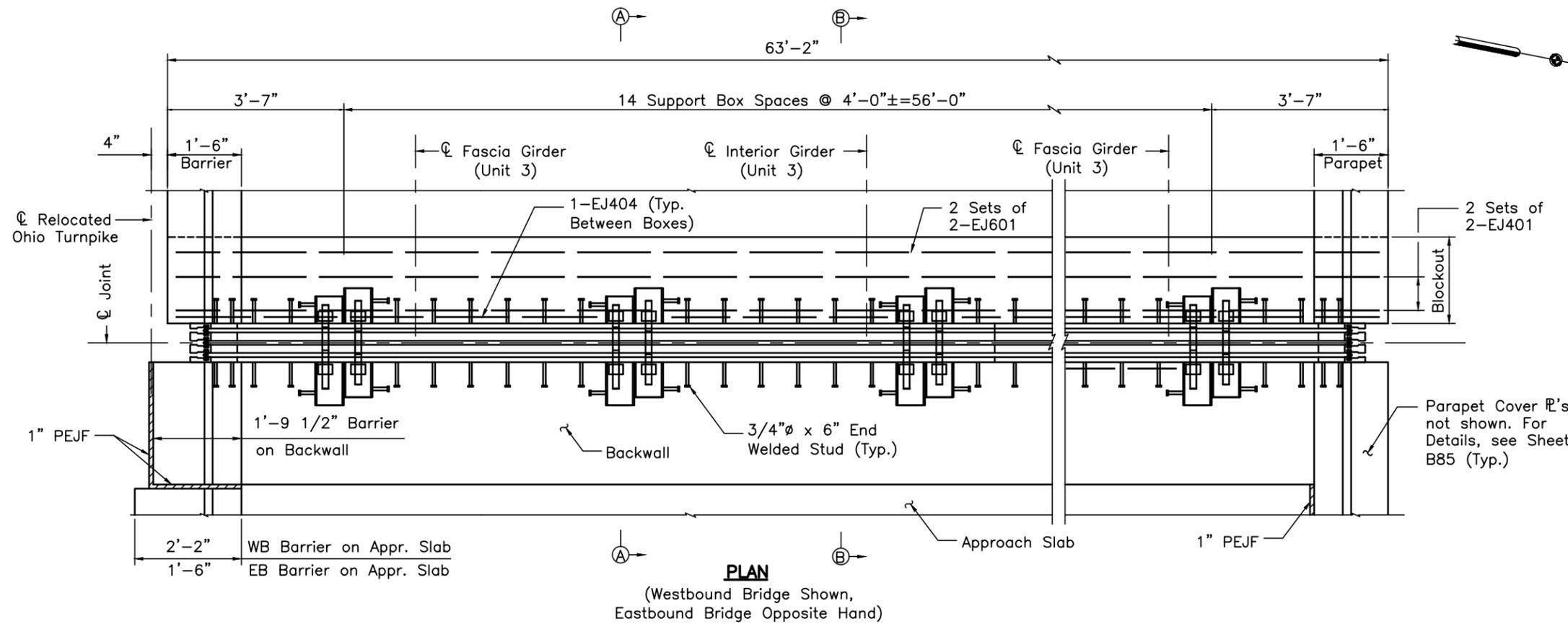
**SECTION A-A**

**SECTION B-B**

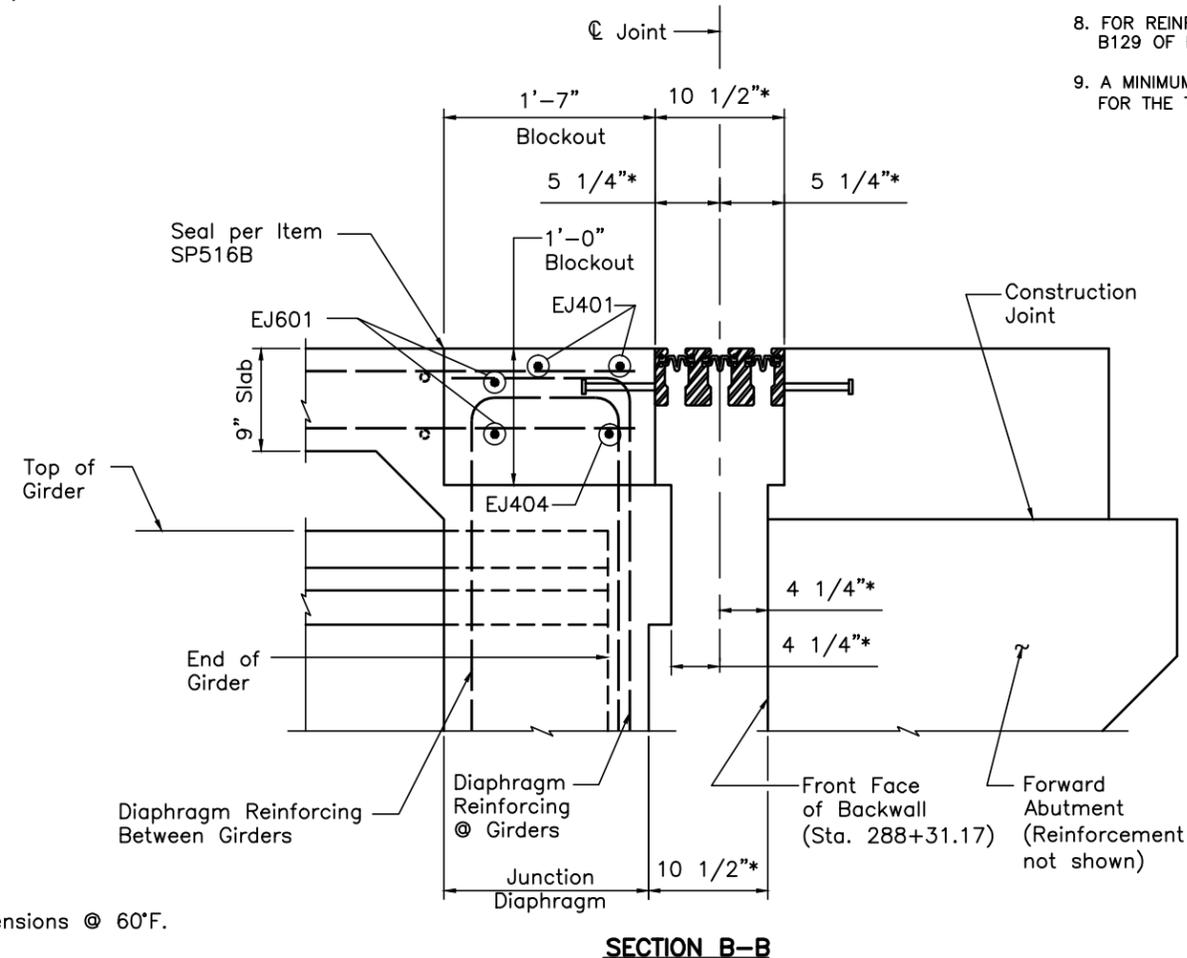
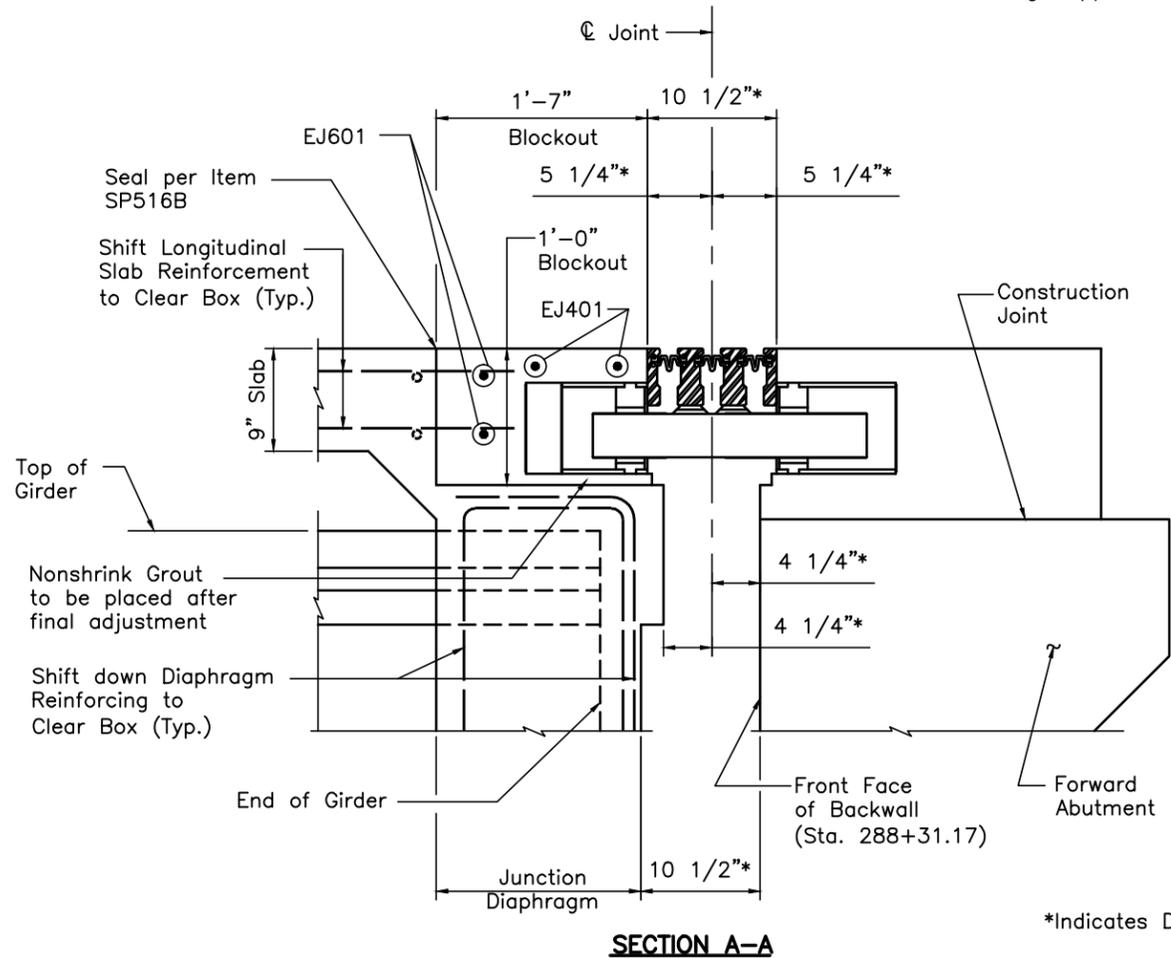
\*Indicates Dimensions @ 60°F.

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>DECK JOINT DETAILS</b>		
<b>PIER 8</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
<b>CONTRACT 43-99-01 SHEET B83 OF B129</b>		

DESIGNED BY: LMH CHECKED BY: HW  
DATE: 1-12-98 DATE: 4-9-98  
DRAWN BY: HW REVISED BY:  
DATE: 3-27-98 DATE:  
CAD FILE NAME: 25725 - PIER8JT.DWG



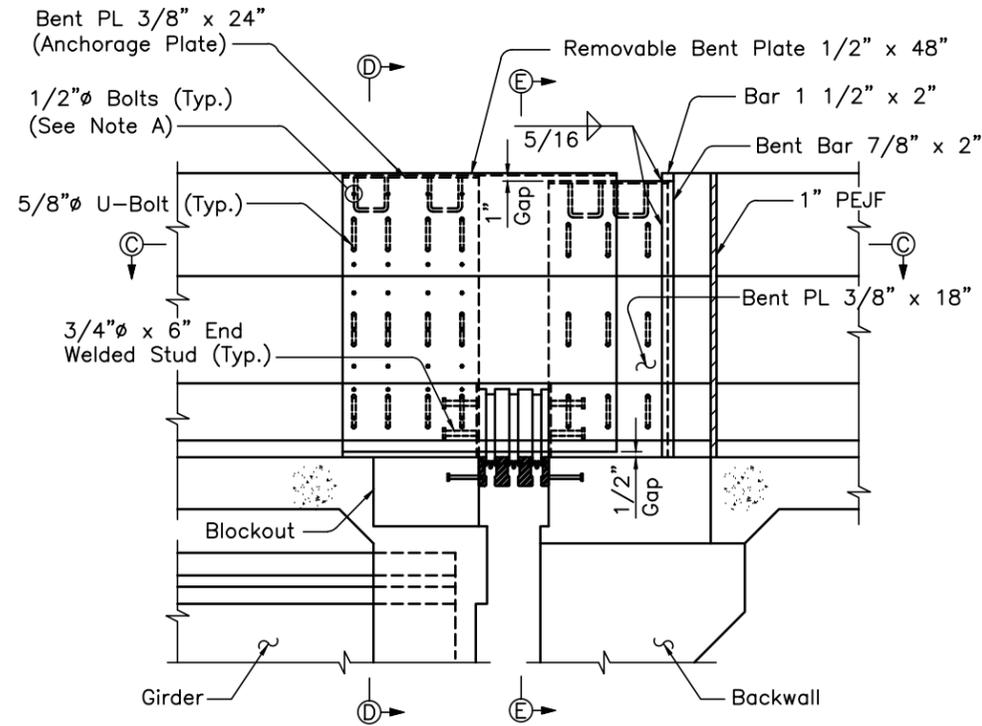
- NOTES:**
- FOR MODULAR EXPANSION JOINT NOTES AND TABLE OF OPENINGS, SEE SHEET B82 OF B129.
  - DECK JOINT DIMENSIONS AND REINFORCEMENT ARE DETAILED IN ACCORDANCE WITH THE STEELFLEX MODULAR EXPANSION JOINT, MODEL NUMBER D-320 BY D.S. BROWN. SUBSTITUTION OF AN EQUIVALENT JOINT WILL BE PERMITTED SUBJECT TO APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING DIMENSIONS AND REINFORCEMENT AS NECESSARY TO ACCOMMODATE A DIFFERENT JOINT.
  - FOR DECK CROSS-SLOPES AT FORWARD ABUTMENT, SEE SHEET B86.
  - CONCRETE SURFACE TO BE FINISHED EITHER FLUSH WITH OR A MAX. 1/4" ABOVE STEEL EXTRUSION.
  - BEFORE PLACING BLOCKOUT CONCRETE, AN APPROVED BONDING AGENT SHALL BE APPLIED TO HORIZONTAL & VERTICAL DECK SURFACES.
  - ALL REINFORCING BARS SHALL BE EPOXY COATED.
  - ALL STRUCTURAL STEEL ASSOCIATED WITH THE 9.5" MOVEMENT RATED MODULAR EXPANSION JOINT AND ALL REINFORCING BARS PREFIXED WITH "EJ" SHALL BE INCLUDED WITH THE ITEM SP533M, 9.5" MODULAR EXPANSION JOINT.
  - FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.
  - A MINIMUM LAP SPLICE OF 1'-3" SHALL BE USED FOR THE TRANSVERSE #4 BARS.



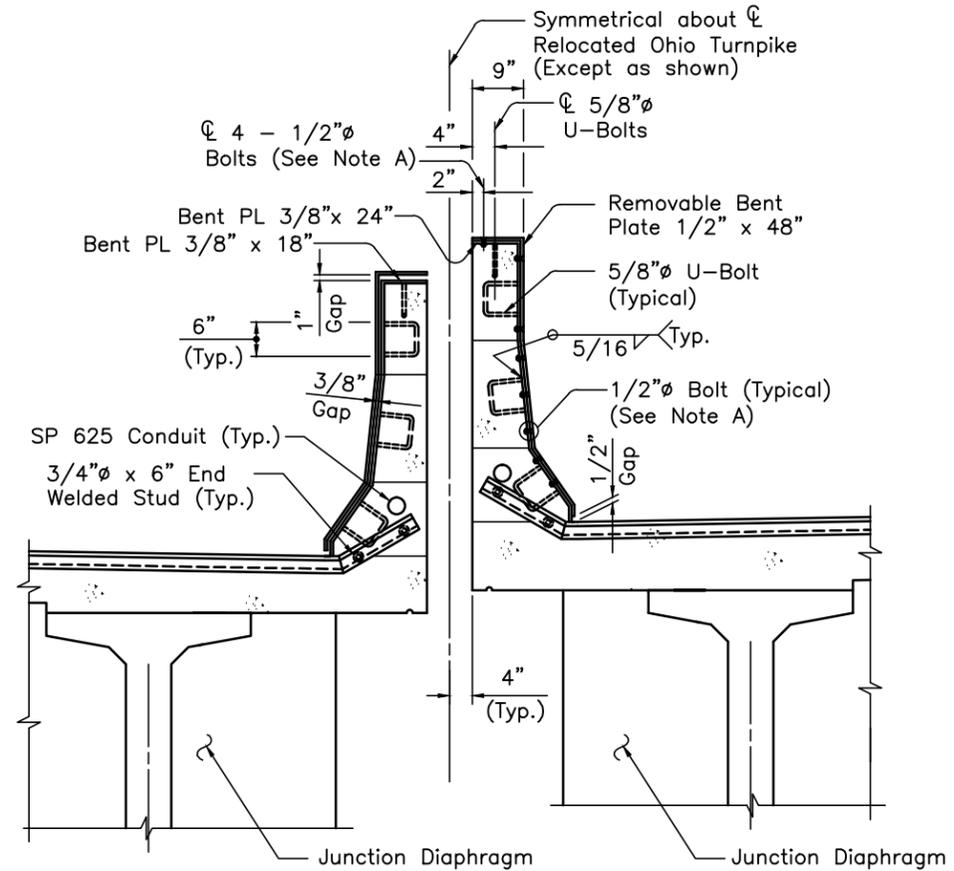
\*Indicates Dimensions @ 60°F.

DESIGNED BY: LMH  
DATE: 1-12-98  
DRAWN BY: HW  
DATE: 3-27-98  
CHECKED BY: HW  
DATE: 4-9-98  
REVISIONS BY: HW  
DATE: 11/3/04  
CAD FILE NAME: 25725 - fabulr.dwg

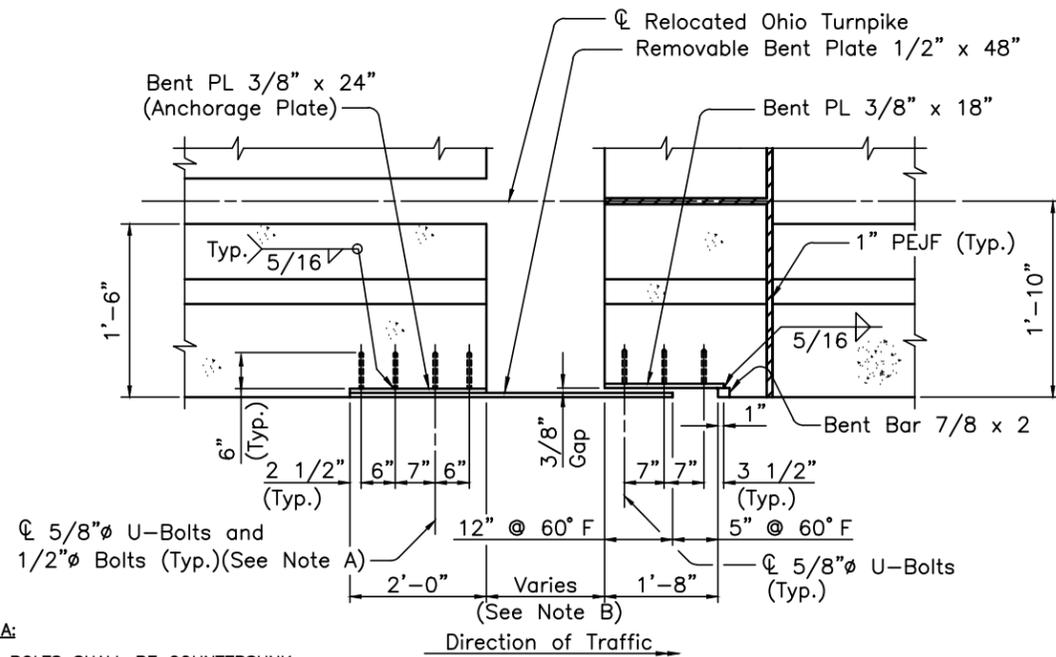
CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>DECK JOINT DETAILS</b>		
<b>FORWARD ABUTMENT</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B84 OF B129		



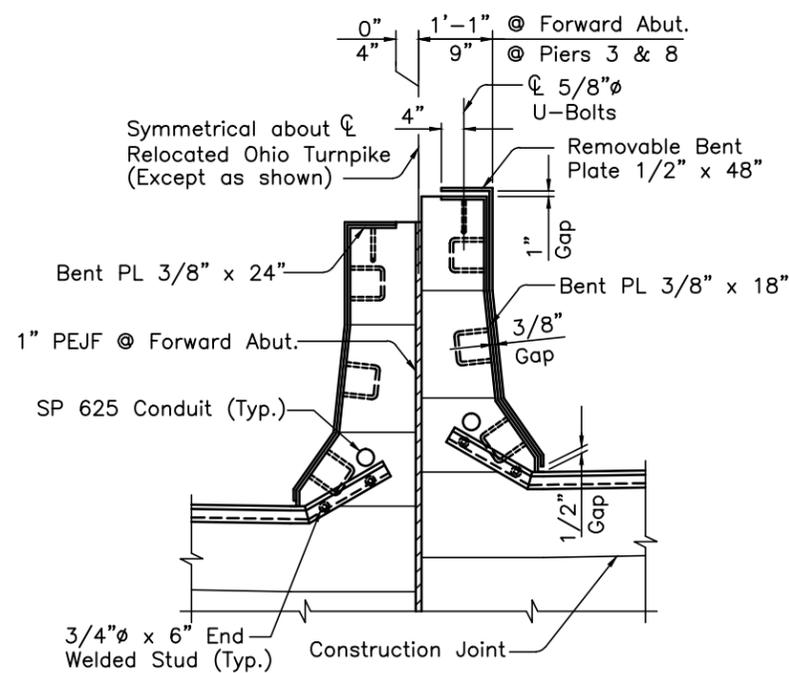
**SECTION AT MEDIAN GUTTER LINE**  
(Median Barrier at Forward Abutment shown,  
Median Barrier at Pier 3 and Pier 8 similar)



**SECTION D-D**  
(Median Barrier at Forward Abutment Shown,  
Media Barrier at Pier 3 & Pier 8 Similar)



**SECTION C-C**  
(Median Barrier at Forward Abutment Shown,  
Media Barrier at Pier 3 & Pier 8 Similar)  
(Modular Exp. Jt. not shown)



**SECTION E-E**  
(Median Barrier at Forward Abutment Shown,  
Media Barrier at Pier 3 & Pier 8 Similar)  
(For additional Details, see Section D-D)

**NOTE A:**

1/2" BOLTS SHALL BE COUNTERSUNK SOCKET HEAD STAINLESS STEEL WITH NUTS WELDED TO THE BACK OF THE 3/8" ANCHORAGE PLATE.

**NOTE B:**

DIMENSION SHALL BE DETERMINED BY THE MODULAR EXPANSION JOINT MANUFACTURER.

**NOTES:**

1. DETAILS SHOWN ARE FOR THE MEDIAN BARRIERS. DETAILS FOR THE OUTER PARAPETS ARE SIMILAR.
2. FOR ADDITIONAL DETAILS AND DIMENSIONS OF THE MEDIAN BARRIERS AND OUTER PARAPETS, SEE SHEETS B103 THRU B105 OF B129.
3. FOR MODULAR JOINT DETAILS, SEE SHEETS B82 THRU B84 OF B129.
4. FOR ADDITIONAL DETAILS AND NOTES, SEE OHIO TURNPIKE STANDARD DRAWING DJ-2, AND OTC SPECIAL PROVISION SP533M - MODULAR EXPANSION JOINT.

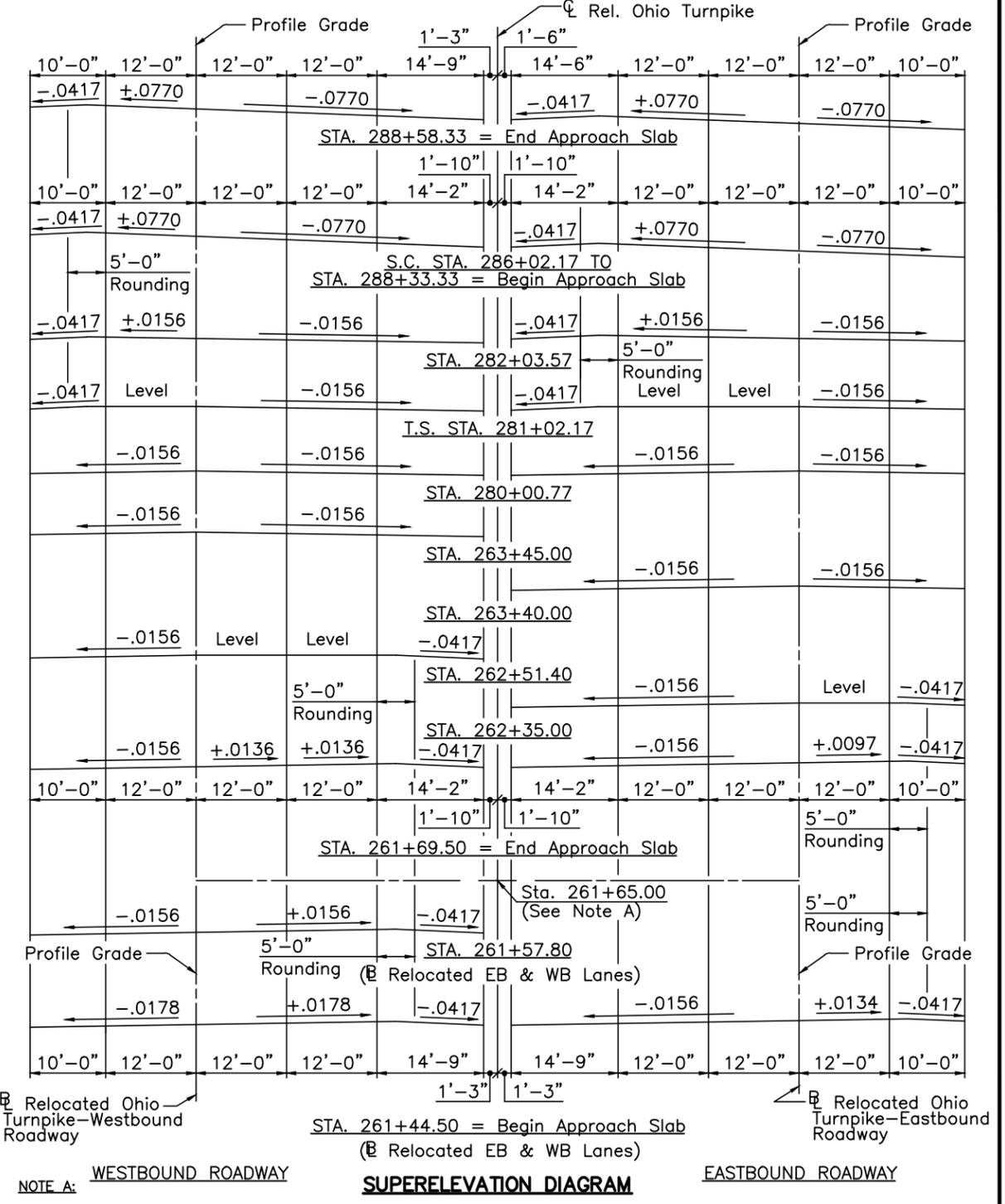
DESIGNED BY: LMH  
DATE: 4-19-98  
DRAWN BY: HW  
DATE: 4-20-98  
CHECKED BY: MPL  
DATE: 4-24-98  
REVISOR: HW  
DATE: 4-20-98  
CAD FILE NAME: 25725 - MODJ.DWG

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PARAPET COVER PLATE DETAILS</b>		
<b>AT MODULAR JOINTS</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: MPL/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B85 OF B129		

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 3-27-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-19-98 DATE:  
 CAD FILE NAME: 25725-UITOPE1.DWG

FINISHED DECK ELEVATIONS (UNIT 1 - WESTBOUND)										
LOCATION	LEFT GUTTERLINE	GIRDER A	GIRDER B	WESTBOUND PROFILE LINE	GIRDER C	GIRDER D	GIRDER E	CENTERLINE OF ROUNDING	GIRDER F	RIGHT GUTTERLINE
CENTERLINE BRG. R.A.	841.62	841.66	841.83	841.97	842.00	842.14	842.29	842.31	841.94	841.83
0.1	841.40	841.44	841.61	841.74	841.77	841.89	842.02	842.04	841.66	841.55
0.2	841.17	841.21	841.38	841.51	841.54	841.64	841.74	841.76	841.38	841.27
0.3	840.94	840.98	841.15	841.28	841.30	841.39	841.47	841.48	841.10	841.00
0.4	840.71	840.75	840.93	841.06	841.07	841.13	841.20	841.21	840.83	840.72
0.5	840.49	840.53	840.70	840.83	840.84	840.88	840.92	840.93	840.55	840.44
0.6	840.26	840.30	840.47	840.60	840.61	840.63	840.65	840.65	840.27	840.17
0.7	840.03	840.07	840.25	840.38	840.38	840.38	840.38	840.38	840.00	839.89
0.8	839.81	839.85	840.02	840.15	840.14	840.12	840.10		839.75	839.65
0.9	839.58	839.62	839.79	839.92	839.91	839.87	839.83		839.50	839.41
CENTERLINE BRG. PIER 1	839.35	839.39	839.56	839.70	839.68	839.62	839.55		839.25	839.17
CENTERLINE BRG. PIER 1	839.30	839.34	839.51	839.65	839.63	839.56	839.49		839.20	839.12
0.1	839.05	839.10	839.27	839.40	839.38	839.29	839.20		838.93	838.85
0.2	838.81	838.85	839.02	839.15	839.12	839.01	838.90		838.66	838.59
0.3	838.56	838.60	838.77	838.90	838.87	838.74	838.60		838.39	838.33
0.4	838.31	838.35	838.52	838.66	838.62	838.46	838.30		838.11	838.07
0.5	838.07	838.11	838.28	838.41	838.37	838.20	838.02		837.85	837.81
0.6	837.82	837.86	838.03	838.16	838.12	837.95	837.78		837.61	837.57
0.7	837.57	837.61	837.78	837.91	837.87	837.70	837.53		837.36	837.32
0.8	837.32	837.36	837.53	837.67	837.63	837.45	837.28		837.11	837.07
0.9	837.08	837.12	837.29	837.42	837.38	837.21	837.04		836.86	836.82
CENTERLINE BRG. PIER 2	836.83	836.87	837.04	837.17	837.13	836.96	836.79		836.62	836.58
CENTERLINE BRG. PIER 2	836.78	836.82	836.99	837.12	837.08	836.91	836.74		836.57	836.53
0.1	836.55	836.59	836.76	836.89	836.85	836.68	836.51		836.34	836.30
0.2	836.32	836.36	836.54	836.67	836.63	836.46	836.28		836.11	836.07
0.3	836.10	836.14	836.31	836.44	836.40	836.23	836.06		835.89	835.84
0.4	835.87	835.91	836.08	836.21	836.17	836.00	835.83		835.66	835.62
0.5	835.64	835.68	835.86	835.99	835.95	835.77	835.60		835.43	835.39
0.6	835.42	835.46	835.63	835.76	835.72	835.55	835.38		835.20	835.16
0.7	835.19	835.23	835.40	835.53	835.49	835.32	835.15		834.98	834.94
0.8	834.96	835.00	835.17	835.31	835.27	835.09	834.92		834.75	834.71
0.9	834.74	834.78	834.95	835.08	835.04	834.87	834.69		834.52	834.48
CENTERLINE BRG. PIER 3	834.51	834.55	834.72	834.85	834.81	834.64	834.47		834.30	834.26

FINISHED DECK ELEVATIONS (UNIT 1 - EASTBOUND)										
LOCATION	LEFT GUTTERLINE	GIRDER G	GIRDER H	GIRDER I	GIRDER J	EASTBOUND PROFILE LINE	GIRDER K	CENTERLINE OF ROUNDING	GIRDER L	RIGHT GUTTERLINE
CENTERLINE BRG. R.A.	841.37	841.41	841.58	841.75	841.93	841.97	842.04	842.10	841.90	841.79
0.1	841.14	841.18	841.35	841.53	841.70	841.74	841.80	841.85	841.64	841.54
0.2	840.92	840.96	841.13	841.30	841.47	841.51	841.56	841.60	841.39	841.28
0.3	840.69	840.73	840.90	841.07	841.24	841.28	841.32	841.35	841.14	841.03
0.4	840.46	840.50	840.67	840.85	841.02	841.06	841.08	841.09	840.89	840.78
0.5	840.24	840.28	840.45	840.62	840.79	840.83	840.84	840.84	840.64	840.53
0.6	840.01	840.05	840.22	840.39	840.56	840.60	840.60	840.59	840.39	840.29
0.7	839.78	839.82	839.99	840.16	840.34	840.38	840.36		840.16	840.06
0.8	839.55	839.59	839.77	839.94	840.11	840.15	840.11		839.92	839.83
0.9	839.33	839.37	839.54	839.71	839.88	839.92	839.87		839.68	839.60
CENTERLINE BRG. PIER 1	839.10	839.14	839.31	839.48	839.66	839.70	839.63		839.44	839.37
CENTERLINE BRG. PIER 1	839.05	839.09	839.26	839.43	839.61	839.65	839.58		839.39	839.32
0.1	838.80	838.84	839.01	839.19	839.36	839.40	839.32		839.13	839.07
0.2	838.56	838.60	838.77	838.94	839.11	839.15	839.05		838.87	838.82
0.3	838.31	838.35	838.52	838.69	838.86	838.90	838.79		838.61	838.56
0.4	838.06	838.10	838.27	838.44	838.62	838.66	838.53		838.36	838.31
0.5	837.81	837.85	838.02	838.20	838.37	838.41	838.28		838.11	838.07
0.6	837.57	837.61	837.78	837.95	838.12	838.16	838.03		837.86	837.82
0.7	837.32	837.36	837.53	837.70	837.87	837.91	837.78		837.61	837.57
0.8	837.07	837.11	837.28	837.45	837.63	837.67	837.53		837.36	837.32
0.9	836.82	836.86	837.04	837.21	837.38	837.42	837.29		837.12	837.08
CENTERLINE BRG. PIER 2	836.58	836.62	836.79	836.96	837.13	837.17	837.04		836.87	836.83
CENTERLINE BRG. PIER 2	836.53	836.57	836.74	836.91	837.08	837.12	836.99		836.82	836.78
0.1	836.30	836.34	836.51	836.68	836.85	836.89	836.76		836.59	836.55
0.2	836.07	836.11	836.28	836.46	836.63	836.67	836.54		836.36	836.32
0.3	835.84	835.89	836.06	836.23	836.40	836.44	836.31		836.14	836.10
0.4	835.62	835.66	835.83	836.00	836.17	836.21	836.08		835.91	835.87
0.5	835.39	835.43	835.60	835.77	835.95	835.99	835.86		835.68	835.64
0.6	835.16	835.20	835.38	835.55	835.72	835.76	835.63		835.46	835.42
0.7	834.94	834.98	835.15	835.32	835.49	835.53	835.40		835.23	835.19
0.8	834.71	834.75	834.92	835.09	835.27	835.31	835.17		835.00	834.96
0.9	834.48	834.52	834.69	834.87	835.04	835.08	834.95		834.78	834.74
CENTERLINE BRG. PIER 3	834.26	834.30	834.47	834.64	834.81	834.85	834.72		834.55	834.51



NOTE A: WESTBOUND ROADWAY SUPERELEVATION DIAGRAM EASTBOUND ROADWAY

PT STA. 261+65.00, 40 FT. LT. REL. EASTBOUND ROADWAY (BACK) = STA. 261+65.00, REL. OHIO TURNPIKE (AHEAD)

PT STA. 261+65.00, 40 FT. RT. REL. WESTBOUND ROADWAY (BACK) = STA. 261+65.00, REL. OHIO TURNPIKE (AHEAD)

- NOTES:
1. THE FINISHED DECK ELEVATIONS SHOWN FOR THE CENTERLINE OF ROUNDING AND GIRDERS LOCATED WITHIN 2.5' OF THE CENTERLINE OF ROUNDING HAVE NOT BEEN ADJUSTED FOR ROUNDING. THE CONTRACTOR SHALL ADJUST THE ELEVATIONS AS REQUIRED WITHIN THE ROUNDING. PROPER ALLOWANCE FOR THE ROUNDING HAS BEEN MADE IN THE SEAT ELEVATIONS.
  2. FINISHED PAVEMENT ELEVATIONS: THE ELEVATIONS SHOWN ARE FINISHED DECK ELEVATIONS. PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE DECK CONCRETE. REFER TO GENERAL NOTES SHEET B7 OF B129 FOR ADDITIONAL INFORMATION.
  3. FOR DEAD LOAD DEFLECTIONS, SEE SHEET B72 OF B129.
  4. THE FOLLOWING ABBREVIATIONS ARE USED: R.A. = REAR ABUTMENT

CONCRETE ALTERNATE

RECORD DRAWING	11/3/04
NO.	REVISIONS BY DATE

**OHIO TURNPIKE COMMISSION**

UNIT 1  
 FINISHED DECK ELEVATIONS  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.

CONTRACT 43-99-01 SHEET B86 OF B129

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 3-27-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-19-98 DATE:  
 CAD FILE NAME: 25725-U2TOPE1.DWG

FINISHED DECK ELEVATIONS (UNIT 2 - WESTBOUND)											
	LOCATION	LEFT GUTTERLINE	GIRDER A	GIRDER B	GIRDER C	WESTBOUND PROFILE LINE	GIRDER D	GIRDER E	GIRDER F	GIRDER G	RIGHT GUTTERLINE
SPAN 1	CENTERLINE BRG. PIER 3	834.45	834.49	834.63	834.77	834.79	834.66	834.52	834.38	834.23	834.19
	0.1	834.15	834.19	834.33	834.48	834.49	834.37	834.22	834.08	833.94	833.90
	0.2	833.85	833.89	834.04	834.18	834.20	834.07	833.93	833.78	833.64	833.60
	0.3	833.56	833.60	833.74	833.88	833.90	833.77	833.63	833.49	833.34	833.30
	0.4	833.26	833.30	833.44	833.59	833.60	833.48	833.33	833.19	833.05	833.01
	0.5	832.96	833.00	833.15	833.29	833.31	833.18	833.04	832.89	832.75	832.71
	0.6	832.66	832.71	832.85	832.99	833.01	832.88	832.74	832.60	832.45	832.41
	0.7	832.37	832.41	832.55	832.69	832.71	832.59	832.44	832.30	832.16	832.12
	0.8	832.07	832.11	832.25	832.40	832.41	832.29	832.15	832.00	831.86	831.82
	0.9	831.77	831.81	831.96	832.10	832.12	831.99	831.85	831.71	831.56	831.52
SPAN 2	CENTERLINE BRG. PIER 4	831.48	831.52	831.66	831.80	831.82	831.69	831.55	831.41	831.27	831.23
	0.1	831.08	831.12	831.26	831.40	831.42	831.29	831.15	831.01	830.87	830.83
	0.2	830.68	830.72	830.86	831.00	831.02	830.89	830.75	830.61	830.47	830.43
	0.3	830.28	830.32	830.46	830.60	830.62	830.49	830.35	830.21	830.07	830.03
	0.4	829.88	829.92	830.06	830.20	830.22	830.09	829.95	829.81	829.67	829.63
	0.5	829.48	829.52	829.66	829.80	829.82	829.69	829.55	829.41	829.27	829.23
	0.6	829.08	829.12	829.26	829.40	829.42	829.29	829.15	829.01	828.87	828.83
	0.7	828.68	828.72	828.86	829.00	829.02	828.89	828.75	828.61	828.47	828.43
	0.8	828.28	828.32	828.46	828.60	828.62	828.49	828.35	828.21	828.07	828.03
	0.9	827.88	827.92	828.06	828.20	828.22	828.09	827.95	827.81	827.67	827.63
SPAN 3	CENTERLINE BRG. PIER 5	827.48	827.52	827.66	827.80	827.82	827.69	827.55	827.41	827.27	827.23
	0.1	827.08	827.12	827.26	827.40	827.42	827.29	827.15	827.01	826.87	826.83
	0.2	826.68	826.72	826.86	827.00	827.02	826.89	826.75	826.61	826.47	826.43
	0.3	826.28	826.32	826.46	826.60	826.62	826.49	826.35	826.21	826.07	826.03
	0.4	825.88	825.92	826.06	826.20	826.22	826.09	825.95	825.81	825.67	825.63
	0.5	825.48	825.52	825.66	825.80	825.82	825.69	825.55	825.41	825.27	825.23
	0.6	825.08	825.12	825.26	825.40	825.42	825.29	825.15	825.01	824.87	824.83
	0.7	824.68	824.72	824.86	825.00	825.02	824.89	824.75	824.61	824.47	824.43
	0.8	824.28	824.32	824.46	824.60	824.62	824.49	824.35	824.21	824.07	824.03
	0.9	823.88	823.92	824.06	824.20	824.22	824.09	823.95	823.81	823.67	823.63
SPAN 4	CENTERLINE BRG. PIER 6	823.48	823.52	823.66	823.80	823.82	823.69	823.55	823.41	823.27	823.23
	0.1	823.08	823.12	823.26	823.40	823.42	823.29	823.15	823.01	822.87	822.83
	0.2	822.68	822.72	822.86	823.00	823.02	822.89	822.75	822.61	822.47	822.43
	0.3	822.28	822.32	822.46	822.60	822.62	822.49	822.35	822.21	822.07	822.03
	0.4	821.88	821.92	822.06	822.20	822.22	822.09	821.95	821.81	821.67	821.63
	0.5	821.48	821.52	821.66	821.80	821.82	821.69	821.55	821.41	821.27	821.23
	0.6	821.08	821.12	821.26	821.40	821.42	821.29	821.15	821.01	820.87	820.83
	0.7	820.68	820.72	820.86	821.00	821.02	820.89	820.75	820.61	820.47	820.43
	0.8	820.28	820.32	820.46	820.60	820.62	820.49	820.35	820.21	820.07	820.03
	0.9	819.88	819.92	820.06	820.20	820.22	820.09	819.95	819.81	819.67	819.63
SPAN 5	CENTERLINE BRG. PIER 7	819.48	819.52	819.66	819.80	819.82	819.69	819.55	819.41	819.27	819.23
	0.1	819.18	819.22	819.36	819.51	819.52	819.40	819.26	819.11	818.97	818.93
	0.2	818.89	818.93	819.07	819.21	819.23	819.10	818.96	818.82	818.67	818.63
	0.3	818.59	818.63	818.77	818.92	818.93	818.81	818.66	818.52	818.38	818.34
	0.4	818.29	818.33	818.48	818.62	818.64	818.51	818.37	818.22	818.08	818.04
	0.5	818.00	818.04	818.18	818.32	818.34	818.21	818.07	817.93	817.79	817.75
	0.6	817.70	817.74	817.89	818.03	818.04	817.92	817.78	817.63	817.49	817.45
	0.7	817.41	817.45	817.59	817.73	817.75	817.62	817.48	817.34	817.19	817.15
	0.8	817.11	817.15	817.29	817.44	817.45	817.33	817.18	817.04	816.90	816.86
	0.9	816.81	816.85	817.00	817.14	817.16	817.03	816.89	816.75	816.60	816.56
	CENTERLINE BRG. PIER 8	816.52	816.56	816.70	816.84	816.86	816.74	816.59	816.45	816.31	816.27

NOTES:  
 1. FINISHED PAVEMENT ELEVATIONS: THE ELEVATIONS SHOWN ARE FINISHED DECK ELEVATIONS. PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE DECK CONCRETE. REFER TO GENERAL NOTES SHEET B7 OF B129 FOR ADDITIONAL INFORMATION.  
 2. FOR DEAD LOAD DEFLECTIONS, SEE SHEET B73 OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION			
UNIT 2 - WESTBOUND			
FINISHED DECK ELEVATIONS			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B87 OF B129			

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 3-27-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-19-98 DATE:  
 CAD FILE NAME: 25725-U2TOPEZ.DWG

FINISHED DECK ELEVATIONS (UNIT 2 - EASTBOUND)											
LOCATION	LEFT GUTTERLINE	GIRDER H	GIRDER I	GIRDER J	GIRDER K	EASTBOUND PROFILE LINE	GIRDER L	GIRDER M	GIRDER N	RIGHT GUTTERLINE	
SPAN 1	CENTERLINE BRG. PIER 3	834.19	834.23	834.38	834.52	834.66	834.79	834.77	834.63	834.49	834.45
	0.1	833.90	833.94	834.08	834.22	834.37	834.49	834.48	834.33	834.19	834.15
	0.2	833.60	833.64	833.78	833.93	834.07	834.20	834.18	834.04	833.89	833.85
	0.3	833.30	833.34	833.49	833.63	833.77	833.90	833.88	833.74	833.60	833.56
	0.4	833.01	833.05	833.19	833.33	833.48	833.60	833.59	833.44	833.30	833.26
	0.5	832.71	832.75	832.89	833.04	833.18	833.31	833.29	833.15	833.00	832.96
	0.6	832.41	832.45	832.60	832.74	832.88	833.01	832.99	832.85	832.71	832.66
	0.7	832.12	832.16	832.30	832.44	832.59	832.71	832.69	832.55	832.41	832.37
	0.8	831.82	831.86	832.00	832.15	832.29	832.41	832.40	832.25	832.11	832.07
	0.9	831.52	831.56	831.71	831.85	831.99	832.12	832.10	831.96	831.81	831.77
SPAN 2	CENTERLINE BRG. PIER 4	831.23	831.27	831.41	831.55	831.69	831.82	831.80	831.66	831.52	831.48
	0.1	830.83	830.87	831.01	831.15	831.29	831.42	831.40	831.26	831.12	831.08
	0.2	830.43	830.47	830.61	830.75	830.89	831.02	831.00	830.86	830.72	830.68
	0.3	830.03	830.07	830.21	830.35	830.49	830.62	830.60	830.46	830.32	830.28
	0.4	829.63	829.67	829.81	829.95	830.09	830.22	830.20	830.06	829.92	829.88
	0.5	829.23	829.27	829.41	829.55	829.69	829.82	829.80	829.66	829.52	829.48
	0.6	828.83	828.87	829.01	829.15	829.29	829.42	829.40	829.26	829.12	829.08
	0.7	828.43	828.47	828.61	828.75	828.89	829.02	829.00	828.86	828.72	828.68
	0.8	828.03	828.07	828.21	828.35	828.49	828.62	828.60	828.46	828.32	828.28
	0.9	827.63	827.67	827.81	827.95	828.09	828.22	828.20	828.06	827.92	827.88
SPAN 3	CENTERLINE BRG. PIER 5	827.23	827.27	827.41	827.55	827.69	827.82	827.80	827.66	827.52	827.48
	0.1	826.83	826.87	827.01	827.15	827.29	827.42	827.40	827.26	827.12	827.08
	0.2	826.43	826.47	826.61	826.75	826.89	827.02	827.00	826.86	826.72	826.68
	0.3	826.03	826.07	826.21	826.35	826.49	826.62	826.60	826.46	826.32	826.28
	0.4	825.63	825.67	825.81	825.95	826.09	826.22	826.20	826.06	825.92	825.88
	0.5	825.23	825.27	825.41	825.55	825.69	825.82	825.80	825.66	825.52	825.48
	0.6	824.83	824.87	825.01	825.15	825.29	825.42	825.40	825.26	825.12	825.08
	0.7	824.43	824.47	824.61	824.75	824.89	825.02	825.00	824.86	824.72	824.68
	0.8	824.03	824.07	824.21	824.35	824.49	824.62	824.60	824.46	824.32	824.28
	0.9	823.63	823.67	823.81	823.95	824.09	824.22	824.20	824.06	823.92	823.88
SPAN 4	CENTERLINE BRG. PIER 6	823.23	823.27	823.41	823.55	823.69	823.82	823.80	823.66	823.52	823.48
	0.1	822.83	822.87	823.01	823.15	823.29	823.42	823.40	823.26	823.12	823.08
	0.2	822.43	822.47	822.61	822.75	822.89	823.02	823.00	822.86	822.72	822.68
	0.3	822.03	822.07	822.21	822.35	822.49	822.62	822.60	822.46	822.32	822.28
	0.4	821.63	821.67	821.81	821.95	822.09	822.22	822.20	822.06	821.92	821.88
	0.5	821.23	821.27	821.41	821.55	821.69	821.82	821.80	821.66	821.52	821.48
	0.6	820.83	820.87	821.01	821.15	821.29	821.42	821.40	821.26	821.12	821.08
	0.7	820.43	820.47	820.61	820.75	820.89	821.02	821.00	820.86	820.72	820.68
	0.8	820.03	820.07	820.21	820.35	820.49	820.62	820.60	820.46	820.32	820.28
	0.9	819.63	819.67	819.81	819.95	820.09	820.22	820.20	820.06	819.92	819.88
SPAN 5	CENTERLINE BRG. PIER 7	819.23	819.27	819.41	819.55	819.69	819.82	819.80	819.66	819.52	819.48
	0.1	818.83	818.87	819.01	819.15	819.29	819.42	819.40	819.26	819.12	819.08
	0.2	818.43	818.47	818.61	818.75	818.89	819.02	819.00	818.86	818.72	818.68
	0.3	818.03	818.07	818.21	818.35	818.49	818.62	818.60	818.46	818.32	818.28
	0.4	817.63	817.67	817.81	817.95	818.09	818.22	818.20	818.06	817.92	817.88
	0.5	817.23	817.27	817.41	817.55	817.69	817.82	817.80	817.66	817.52	817.48
	0.6	816.83	816.87	817.01	817.15	817.29	817.42	817.40	817.26	817.12	817.08
	0.7	816.43	816.47	816.61	816.75	816.89	817.02	817.00	816.86	816.72	816.68
	0.8	816.03	816.07	816.21	816.35	816.49	816.62	816.60	816.46	816.32	816.28
	0.9	815.63	815.67	815.81	815.95	816.09	816.22	816.20	816.06	815.92	815.88
SPAN 5	CENTERLINE BRG. PIER 8	816.27	816.31	816.45	816.59	816.74	816.86	816.84	816.70	816.56	816.52

NOTES:

1. FINISHED PAVEMENT ELEVATIONS: THE ELEVATIONS SHOWN ARE FINISHED DECK ELEVATIONS. PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE DECK CONCRETE. REFER TO GENERAL NOTES SHEET B7 OF B129 FOR ADDITIONAL INFORMATION.
2. FOR DEAD LOAD DEFLECTIONS, SEE SHEET B73 OF B129.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
OHIO TURNPIKE COMMISSION		
UNIT 2 - EASTBOUND		
FINISHED DECK ELEVATIONS		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
 <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B88 OF B129		

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 3-27-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-19-98 DATE:  
 CAD FILE NAME: 25725-U3TOPF1.DWG

FINISHED DECK ELEVATIONS (UNIT 3 - WESTBOUND, SPANS 1-5)											
	LOCATION	LEFT GUTTERLINE	GIRDER A	CENTERLINE OF ROUNDING	GIRDER B	WESTBOUND PROFILE LINE	GIRDER C	GIRDER D	GIRDER E	GIRDER F	RIGHT GUTTERLINE
SPAN 1	CENTERLINE BRG. PIER 8	816.44	816.48		816.65	816.78	816.74	816.57	816.40	816.22	816.18
	0.1	816.18	816.22		816.39	816.52	816.48	816.31	816.14	815.97	815.93
	0.2	815.92	815.96		816.14	816.27	816.23	816.06	815.88	815.71	815.67
	0.3	815.67	815.71		815.88	816.01	815.97	815.80	815.63	815.46	815.42
	0.4	815.41	815.45		815.62	815.76	815.72	815.54	815.37	815.20	815.16
	0.5	815.16	815.20		815.37	815.50	815.46	815.29	815.12	814.94	814.90
	0.6	814.90	814.94		815.11	815.24	815.20	815.03	814.86	814.69	814.65
	0.7	814.64	814.68		814.86	814.99	814.95	814.78	814.60	814.43	814.39
	0.8	814.39	814.43		814.60	814.73	814.69	814.52	814.35	814.18	814.14
	0.9	814.13	814.17		814.34	814.47	814.43	814.26	814.09	813.92	813.88
SPAN 2	CENTERLINE BRG. PIER 9	813.88	813.92		814.09	814.22	814.18	814.01	813.84	813.66	813.62
	CENTERLINE BRG. PIER 9	813.82	813.86		814.03	814.16	814.12	813.95	813.78	813.61	813.57
	0.1	813.54	813.58		813.75	813.88	813.84	813.67	813.50	813.33	813.29
	0.2	813.26	813.30		813.47	813.61	813.57	813.39	813.22	813.05	813.01
	0.3	812.98	813.02		813.20	813.33	813.29	813.12	812.94	812.77	812.73
	0.4	812.71	812.75		812.92	813.05	813.01	812.84	812.67	812.49	812.45
	0.5	812.43	812.47		812.64	812.77	812.73	812.56	812.39	812.22	812.18
	0.6	812.15	812.19		812.36	812.49	812.45	812.28	812.11	811.94	811.90
	0.7	811.87	811.91		812.08	812.21	812.17	812.00	811.83	811.66	811.62
	0.8	811.59	811.63		811.80	811.94	811.90	811.72	811.55	811.38	811.34
SPAN 3	CENTERLINE BRG. PIER 10	811.31	811.35		811.53	811.66	811.62	811.45	811.27	811.10	811.06
	CENTERLINE BRG. PIER 10	811.04	811.08		811.25	811.38	811.34	811.17	811.00	810.82	810.78
	CENTERLINE BRG. PIER 10	810.98	811.02		811.19	811.32	811.28	811.11	810.94	810.77	810.73
	0.1	810.70	810.74		810.91	811.04	811.00	810.83	810.66	810.49	810.45
	0.2	810.42	810.46		810.63	810.76	810.72	810.55	810.38	810.21	810.17
	0.3	810.14	810.18		810.35	810.49	810.45	810.27	810.10	809.93	809.89
	0.4	809.86	809.90		810.08	810.21	810.17	810.00	809.82	809.65	809.61
	0.5	809.59	809.63		809.80	809.93	809.89	809.72	809.55	809.37	809.33
	0.6	809.31	809.35		809.52	809.65	809.61	809.44	809.27	809.10	809.05
	0.7	809.03	809.07		809.24	809.37	809.33	809.16	808.99	808.82	808.78
SPAN 4	0.8	808.75	808.79		808.96	809.09	809.05	808.88	808.71	808.54	808.50
	0.9	808.47	808.51		808.68	808.81	808.77	808.60	808.43	808.26	808.22
	CENTERLINE BRG. PIER 11	808.19	808.23		808.40	808.54	808.50	808.32	808.15	807.98	807.94
	CENTERLINE BRG. PIER 11	808.14	808.18		808.35	808.49	808.45	808.27	808.10	807.93	807.89
	0.1	807.86	807.90		808.08	808.21	808.17	807.99	807.82	807.65	807.61
	0.2	807.58	807.62		807.80	807.93	807.89	807.72	807.54	807.37	807.33
	0.3	807.31	807.35		807.52	807.65	807.61	807.44	807.27	807.09	807.05
	0.4	807.03	807.07		807.24	807.37	807.33	807.16	806.99	806.81	806.77
	0.5	806.75	806.79		806.96	807.09	807.05	806.88	806.71	806.54	806.50
	0.6	806.47	806.51		806.68	806.81	806.77	806.60	806.43	806.26	806.22
SPAN 5	0.7	806.19	806.23		806.40	806.53	806.49	806.32	806.15	805.98	805.94
	0.8	805.91	805.95		806.12	806.25	806.21	806.04	805.87	805.70	805.66
	0.9	805.63	805.67		805.84	805.97	805.93	805.76	805.59	805.42	805.38
	CENTERLINE BRG. PIER 12	805.35	805.39		805.56	805.70	805.66	805.48	805.31	805.14	805.10
	CENTERLINE BRG. PIER 12	805.30	805.34		805.51	805.65	805.61	805.43	805.26	805.09	805.05
	0.1	805.02	805.06		805.24	805.37	805.33	805.15	804.98	804.81	804.77
	0.2	804.75	804.80		804.98	805.09	805.05	804.88	804.70	804.53	804.49
	0.3	804.47	804.53		804.72	804.81	804.77	804.60	804.42	804.25	804.21
	0.4	804.20	804.27		804.45	804.53	804.49	804.32	804.15	803.97	803.93
	0.5	803.92	804.00		804.19	804.25	804.21	804.04	803.87	803.70	803.66
SPAN 5	0.6	803.65	803.74		803.93	803.97	803.93	803.76	803.59	803.42	803.38
	0.7	803.37	803.47		803.67	803.69	803.65	803.48	803.31	803.14	803.10
	0.8	803.10	803.21	803.41	803.41	803.41	803.37	803.20	803.03	802.86	802.82
	0.9	802.85	802.96	803.16	803.15	803.13	803.09	802.92	802.75	802.58	802.54
	CENTERLINE BRG. PIER 13	802.60	802.71	802.91	802.89	802.86	802.82	802.64	802.47	802.30	802.26

**NOTES:**

1. THE FINISHED DECK ELEVATIONS SHOWN FOR THE CENTERLINE OF ROUNDING AND GIRDERS LOCATED WITHIN 2.5' OF THE CENTERLINE OF ROUNDING HAVE NOT BEEN ADJUSTED FOR ROUNDING. THE CONTRACTOR SHALL ADJUST THE ELEVATIONS AS REQUIRED WITHIN THE ROUNDING. PROPER ALLOWANCE FOR THE ROUNDING HAS BEEN MADE IN THE SEAT ELEVATIONS.
2. FINISHED PAVEMENT ELEVATIONS: THE ELEVATIONS SHOWN ARE FINISHED DECK ELEVATIONS. PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE DECK CONCRETE. REFER TO GENERAL NOTES SHEET B7 OF B129 FOR ADDITIONAL INFORMATION.
3. FOR DEAD LOAD DEFLECTIONS, SEE SHEET B72 OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 3 - WESTBOUND			
FINISHED DECK ELEVATIONS-1			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B89 OF B129			

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 3-27-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-19-98 DATE:  
 CAD FILE NAME: 25725-U3TOPEZ.DWG

FINISHED DECK ELEVATIONS (UNIT 3 - WESTBOUND, SPANS 6-10)											
	LOCATION	LEFT GUTTERLINE	GIRDER A	CENTERLINE OF ROUNDING	GIRDER B	WESTBOUND PROFILE LINE	GIRDER C	GIRDER D	GIRDER E	GIRDER F	RIGHT GUTTERLINE
SPAN 6	CENTERLINE BRG. PIER 13	802.56	802.66	802.87	802.84	802.81	802.77	802.59	802.42	802.25	802.21
	0.1	802.31	802.42	802.62	802.58	802.53	802.48	802.31	802.14	801.97	801.93
	0.2	802.06	802.17	802.37	802.32	802.25	802.20	802.03	801.86	801.69	801.65
	0.3	801.81	801.92	802.12	802.06	801.97	801.92	801.75	801.58	801.41	801.37
	0.4	801.56	801.68	801.88	801.79	801.69	801.64	801.47	801.30	801.13	801.09
	0.5	801.32	801.43	801.63	801.53	801.41	801.37	801.19	801.02	800.85	800.82
	0.6	801.07	801.18	801.38	801.27	801.13	801.08	800.89	800.70	800.52	800.48
	0.7	800.82	800.93	801.13	801.01	800.85	800.80	800.58	800.37	800.16	800.11
	0.8	800.57	800.69	800.89	800.75	800.57	800.51	800.28	800.04	799.80	799.75
	0.9	800.32	800.44	800.64	800.49	800.29	800.23	799.97	799.71	799.45	799.39
SPAN 7	CENTERLINE BRG. PIER 14	800.08	800.18	800.39	800.23	800.02	799.95	799.66	799.38	799.10	799.03
	CENTERLINE BRG. PIER 14	800.03	800.14	800.35	800.19	799.97	799.90	799.61	799.32	799.03	798.97
	0.1	799.78	799.90	800.10	799.92	799.69	799.61	799.30	798.98	798.67	798.61
	0.2	799.54	799.66	799.85	799.65	799.41	799.32	798.98	798.65	798.31	798.24
	0.3	799.29	799.41	799.60	799.39	799.13	799.03	798.67	798.31	797.95	797.88
	0.4	799.04	799.17	799.35	799.12	798.85	798.74	798.36	797.98	797.59	797.52
	0.5	798.79	798.92	799.11	798.86	798.57	798.45	798.05	797.64	797.24	797.16
	0.6	798.55	798.67	798.86	798.60	798.29	798.17	797.74	797.31	796.88	796.80
	0.7	798.30	798.42	798.61	798.34	798.01	797.89	797.43	796.98	796.53	796.44
	0.8	798.05	798.17	798.36	798.08	797.73	797.60	797.13	796.65	796.17	796.08
SPAN 8	CENTERLINE BRG. PIER 15	797.80	797.92	798.11	797.83	797.45	797.33	796.83	796.33	795.82	795.72
	CENTERLINE BRG. PIER 15	797.55	797.66	797.87	797.58	797.18	797.05	796.53	796.00	795.48	795.36
	0.1	797.26	797.38	797.57	797.25	796.85	796.70	796.15	795.60	795.05	794.93
	0.2	797.01	797.14	797.33	796.98	796.57	796.40	795.83	795.25	794.68	794.57
	0.3	796.77	796.90	797.08	796.71	796.29	796.11	795.51	794.91	794.31	794.21
	0.4	796.52	796.66	796.83	796.44	796.01	795.82	795.20	794.57	793.95	793.85
	0.5	796.27	796.41	796.58	796.18	795.73	795.53	794.88	794.24	793.59	793.49
	0.6	796.02	796.16	796.34	795.91	795.45	795.24	794.57	793.90	793.24	793.13
	0.7	795.78	795.92	796.09	795.66	795.18	794.97	794.27	793.58	792.89	792.77
	0.8	795.54	795.67	795.85	795.42	794.91	794.70	793.98	793.27	792.55	792.42
SPAN 9	CENTERLINE BRG. PIER 16	795.09	795.19	795.40	794.97	794.39	794.21	793.44	792.68	791.91	791.74
	CENTERLINE BRG. PIER 16	795.04	795.15	795.35	794.93	794.34	794.16	793.39	792.62	791.85	791.67
	0.1	794.83	794.95	795.14	794.67	794.09	793.88	793.09	792.29	791.50	791.34
	0.2	794.62	794.76	794.93	794.43	793.85	793.61	792.79	791.98	791.16	791.02
	0.3	794.42	794.56	794.73	794.19	793.62	793.35	792.51	791.67	790.83	790.71
	0.4	794.20	794.35	794.51	793.96	793.40	793.12	792.27	791.42	790.58	790.46
	0.5	793.98	794.14	794.30	793.74	793.18	792.90	792.05	791.20	790.35	790.24
	0.6	793.77	793.92	794.08	793.53	792.97	792.69	791.84	790.99	790.15	790.03
	0.7	793.57	793.71	793.88	793.34	792.76	792.49	791.65	790.80	789.95	789.83
	0.8	793.37	793.51	793.68	793.16	792.57	792.31	791.47	790.62	789.77	789.63
SPAN 10	CENTERLINE BRG. PIER 17	793.18	793.31	793.49	792.99	792.38	792.15	791.30	790.45	789.60	789.44
	CENTERLINE BRG. PIER 17	793.00	793.11	793.31	792.84	792.19	791.99	791.15	790.30	789.45	789.26
	0.1	792.80	792.92	793.11	792.62	791.99	791.77	790.92	790.07	789.23	789.06
	0.2	792.64	792.77	792.95	792.44	791.84	791.59	790.74	789.90	789.05	788.90
	0.3	792.49	792.63	792.80	792.27	791.69	791.42	790.58	789.73	788.88	788.75
	0.4	792.34	792.49	792.66	792.12	791.54	791.27	790.42	789.58	788.73	788.60
	0.5	792.21	792.35	792.52	791.98	791.40	791.13	790.28	789.44	788.59	788.46
	0.6	792.07	792.22	792.39	791.85	791.27	791.00	790.15	789.31	788.46	788.33
	0.7	791.95	792.09	792.26	791.73	791.14	790.88	790.04	789.19	788.34	788.20
	0.8	791.83	791.96	792.14	791.62	791.02	790.78	789.93	789.08	788.24	788.08
SPAN 10	0.9	791.71	791.83	792.02	791.53	790.91	790.68	789.84	788.99	788.14	787.97
	CENTERLINE BRG. F.A.	791.60	791.71	791.92	791.45	790.80	790.60	789.75	788.91	788.06	787.86

**NOTES:**

1. THE FINISHED DECK ELEVATIONS SHOWN FOR THE CENTERLINE OF ROUNDING AND GIRDERS LOCATED WITHIN 2.5' OF THE CENTERLINE OF ROUNDING HAVE NOT BEEN ADJUSTED FOR ROUNDING. THE CONTRACTOR SHALL ADJUST THE ELEVATIONS AS REQUIRED WITHIN THE ROUNDING. PROPER ALLOWANCE FOR THE ROUNDING HAS BEEN MADE IN THE SEAT ELEVATIONS.
2. FINISHED PAVEMENT ELEVATIONS: THE ELEVATIONS SHOWN ARE FINISHED DECK ELEVATIONS. PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE DECK CONCRETE. REFER TO GENERAL NOTES SHEET B7 OF B129 FOR ADDITIONAL INFORMATION.
3. FOR DEAD LOAD DEFLECTIONS, SEE SHEET B72 OF B129.
4. THE FOLLOWING ABBREVIATIONS ARE USED:  
F.A. = FORWARD ABUTMENT

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 3 - WESTBOUND			
FINISHED DECK ELEVATIONS-2			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B90 OF B129			

FINISHED DECK ELEVATIONS (UNIT 3 - EASTBOUND, SPANS 1-5)											
	LOCATION	LEFT GUTTERLINE	GIRDER G	CENTERLINE OF ROUNDING	GIRDER H	GIRDER I	GIRDER J	EASTBOUND PROFILE LINE	GIRDER K	GIRDER L	RIGHT GUTTERLINE
SPAN 1	CENTERLINE BRG. PIER 8	816.18	816.22		816.40	816.57	816.74	816.78	816.65	816.48	816.44
	0.1	815.93	815.97		816.14	816.31	816.48	816.52	816.39	816.22	816.18
	0.2	815.67	815.71		815.88	816.06	816.23	816.27	816.14	815.96	815.92
	0.3	815.42	815.46		815.63	815.80	815.97	816.01	815.88	815.71	815.67
	0.4	815.16	815.20		815.37	815.54	815.72	815.76	815.62	815.45	815.41
	0.5	814.90	814.94		815.12	815.29	815.46	815.50	815.37	815.20	815.16
	0.6	814.65	814.69		814.86	815.03	815.20	815.24	815.11	814.94	814.90
	0.7	814.39	814.43		814.60	814.78	814.95	814.99	814.86	814.68	814.64
	0.8	814.14	814.18		814.35	814.52	814.69	814.73	814.60	814.43	814.39
	0.9	813.88	813.92		814.09	814.26	814.43	814.47	814.34	814.17	814.13
	CENTERLINE BRG. PIER 9	813.62	813.66		813.84	814.01	814.18	814.22	814.09	813.92	813.88
	CENTERLINE BRG. PIER 9	813.57	813.61		813.78	813.95	814.12	814.16	814.03	813.86	813.82
SPAN 2	0.1	813.29	813.33		813.50	813.67	813.84	813.88	813.75	813.58	813.54
	0.2	813.01	813.05		813.22	813.39	813.57	813.61	813.47	813.30	813.26
	0.3	812.73	812.77		812.94	813.12	813.29	813.33	813.20	813.02	812.98
	0.4	812.45	812.49		812.67	812.84	813.01	813.05	812.92	812.75	812.71
	0.5	812.18	812.22		812.39	812.56	812.73	812.77	812.64	812.47	812.43
	0.6	811.90	811.94		812.11	812.28	812.45	812.49	812.36	812.19	812.15
	0.7	811.62	811.66		811.83	812.00	812.17	812.21	812.08	811.91	811.87
	0.8	811.34	811.38		811.55	811.72	811.90	811.94	811.80	811.63	811.59
	0.9	811.06	811.10		811.27	811.45	811.62	811.66	811.53	811.35	811.31
		CENTERLINE BRG. PIER 10	810.78	810.82		811.00	811.17	811.34	811.38	811.25	811.08
	CENTERLINE BRG. PIER 10	810.73	810.77		810.94	811.11	811.28	811.32	811.19	811.02	810.98
SPAN 3	0.1	810.45	810.49		810.66	810.83	811.00	811.04	810.91	810.74	810.70
	0.2	810.17	810.21		810.38	810.55	810.72	810.76	810.63	810.46	810.42
	0.3	809.89	809.93		810.10	810.27	810.45	810.49	810.35	810.18	810.14
	0.4	809.61	809.65		809.82	810.00	810.17	810.21	810.08	809.90	809.86
	0.5	809.33	809.37		809.55	809.72	809.89	809.93	809.80	809.63	809.59
	0.6	809.05	809.10		809.27	809.44	809.61	809.65	809.52	809.35	809.31
	0.7	808.78	808.82		808.99	809.16	809.33	809.37	809.24	809.07	809.03
	0.8	808.50	808.54		808.71	808.88	809.05	809.09	808.96	808.79	808.75
	0.9	808.22	808.26		808.43	808.60	808.77	808.81	808.68	808.51	808.47
		CENTERLINE BRG. PIER 11	807.94	807.98		808.15	808.32	808.50	808.54	808.40	808.23
	CENTERLINE BRG. PIER 11	807.89	807.93		808.10	808.27	808.45	808.49	808.35	808.18	808.14
SPAN 4	0.1	807.61	807.65		807.82	807.99	808.17	808.21	808.08	807.90	807.86
	0.2	807.33	807.37		807.54	807.72	807.89	807.93	807.80	807.62	807.58
	0.3	807.05	807.09		807.26	807.44	807.61	807.65	807.52	807.35	807.31
	0.4	806.77	806.81		806.99	807.16	807.33	807.37	807.24	807.07	807.03
	0.5	806.50	806.54		806.71	806.88	807.05	807.09	806.96	806.79	806.75
	0.6	806.22	806.26		806.43	806.60	806.77	806.81	806.68	806.51	806.47
	0.7	805.94	805.98		806.15	806.32	806.49	806.53	806.40	806.23	806.19
	0.8	805.66	805.70		805.87	806.04	806.21	806.25	806.12	805.95	805.91
	0.9	805.38	805.42		805.59	805.76	805.93	805.97	805.84	805.67	805.63
		CENTERLINE BRG. PIER 12	805.10	805.14		805.31	805.48	805.66	805.70	805.56	805.39
	CENTERLINE BRG. PIER 12	805.05	805.09		805.26	805.43	805.61	805.65	805.51	805.34	805.30
SPAN 5	0.1	804.77	804.81		804.99	805.16	805.33	805.37	805.24	805.06	805.02
	0.2	804.51	804.56		804.76	804.91	805.05	805.09	804.96	804.78	804.74
	0.3	804.24	804.30		804.54	804.66	804.78	804.81	804.68	804.51	804.47
	0.4	803.98	804.05		804.31	804.41	804.51	804.53	804.40	804.23	804.19
	0.5	803.72	803.79		804.08	804.16	804.23	804.25	804.12	803.95	803.91
	0.6	803.45	803.54		803.86	803.91	803.96	803.97	803.84	803.67	803.63
	0.7	803.19	803.29		803.63	803.66	803.69	803.69	803.56	803.39	803.35
	0.8	802.92	803.03	803.40	803.40	803.41	803.41	803.41	803.28	803.11	803.07
	0.9	802.70	802.80	803.18	803.18	803.16	803.14	803.13	803.00	802.83	802.79
		CENTERLINE BRG. PIER 13	802.47	802.58	802.96	802.95	802.91	802.87	802.86	802.72	802.55

**NOTES:**

1. THE FINISHED DECK ELEVATIONS SHOWN FOR THE CENTERLINE OF ROUNDING AND GIRDERS LOCATED WITHIN 2.5' OF THE CENTERLINE OF ROUNDING HAVE NOT BEEN ADJUSTED FOR ROUNDING. THE CONTRACTOR SHALL ADJUST THE ELEVATIONS AS REQUIRED WITHIN THE ROUNDING. PROPER ALLOWANCE FOR THE ROUNDING HAS BEEN MADE IN THE SEAT ELEVATIONS.
2. FINISHED PAVEMENT ELEVATIONS: THE ELEVATIONS SHOWN ARE FINISHED DECK ELEVATIONS. PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE DECK CONCRETE. REFER TO GENERAL NOTES SHEET B7 OF B129 FOR ADDITIONAL INFORMATION. ADDITIONAL INFORMATION.
3. FOR DEAD LOAD DEFLECTIONS, SEE SHEET B72 OF B129.

DESIGNED BY: LMH | CHECKED BY: HW  
 DATE: 1-22-98 | DATE: 3-27-98  
 DRAWN BY: HW | REVISIONS BY:  
 DATE: 2-19-98 | DATE:  
 CAD FILE NAME: 25725-U3TOPE3.DWG

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 3 - EASTBOUND			
FINISHED DECK ELEVATIONS-1			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B91 OF B129			

DESIGNED BY: LMH CHECKED BY: HW  
 DATE: 1-22-98 DATE: 3-27-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 2-19-98 DATE:  
 CAD FILE NAME: 25725-U3TOPE4.DWG

FINISHED DECK ELEVATIONS (UNIT 3 - EASTBOUND, SPANS 6-10)											
	LOCATION	LEFT GUTTERLINE	GIRDER G	CENTERLINE OF ROUNDING	GIRDER H	GIRDER I	GIRDER J	EASTBOUND PROFILE LINE	GIRDER K	GIRDER L	RIGHT GUTTERLINE
SPAN 6	CENTERLINE BRG. PIER 13	802.43	802.54	802.92	802.91	802.86	802.82	802.81	802.67	802.50	802.46
	0.1	802.21	802.32	802.70	802.69	802.61	802.54	802.53	802.39	802.22	802.18
	0.2	801.99	802.10	802.48	802.46	802.36	802.27	802.25	802.12	801.94	801.90
	0.3	801.77	801.88	802.25	802.23	802.11	802.00	801.97	801.84	801.67	801.63
	0.4	801.54	801.66	802.03	802.00	801.86	801.72	801.69	801.56	801.39	801.35
	0.5	801.32	801.44	801.81	801.78	801.61	801.45	801.41	801.28	801.11	801.07
	0.6	801.10	801.22	801.59	801.55	801.36	801.17	801.13	800.99	800.80	800.75
	0.7	800.88	800.99	801.37	801.32	801.11	800.90	800.85	800.69	800.48	800.43
	0.8	800.66	800.77	801.14	801.10	800.86	800.63	800.57	800.39	800.15	800.10
	0.9	800.43	800.55	800.92	800.87	800.61	800.35	800.29	800.09	799.83	799.77
CENTERLINE BRG. PIER 14	800.21	800.32	800.70	800.65	800.37	800.08	800.02	799.80	799.80	799.51	799.45
CENTERLINE BRG. PIER 14	800.17	800.28	800.66	800.61	800.32	800.03	799.97	799.74	799.74	799.46	799.39
0.1	799.95	800.07	800.44	800.38	800.07	799.75	799.69	799.44	799.13	799.06	799.06
0.2	799.73	799.85	800.22	800.15	799.81	799.48	799.41	799.14	798.81	798.74	798.74
0.3	799.51	799.63	799.99	799.92	799.56	799.20	799.13	798.84	798.48	798.41	798.41
0.4	799.28	799.41	799.77	799.69	799.31	798.92	798.85	798.54	798.16	798.08	798.08
0.5	799.06	799.19	799.55	799.46	799.05	798.65	798.57	798.24	797.84	797.76	797.76
0.6	798.84	798.97	799.33	799.23	798.80	798.37	798.29	797.94	797.52	797.43	797.43
0.7	798.62	798.75	799.10	799.01	798.55	798.10	798.01	797.65	797.20	797.11	797.11
0.8	798.40	798.52	798.88	798.78	798.31	797.83	797.73	797.35	796.88	796.78	796.78
0.9	798.17	798.29	798.66	798.56	798.06	797.56	797.45	797.06	796.56	796.45	796.45
CENTERLINE BRG. PIER 15	797.95	798.06	798.44	798.35	797.82	797.30	797.18	796.77	796.25	796.13	796.13
CENTERLINE BRG. PIER 15	797.91	798.02	798.40	798.31	797.78	797.25	797.13	796.72	796.19	796.07	796.07
0.1	797.69	797.81	798.18	798.07	797.51	796.96	796.85	796.41	795.86	795.74	795.74
0.2	797.47	797.60	797.96	797.83	797.25	796.68	796.57	796.10	795.53	795.42	795.42
0.3	797.25	797.38	797.73	797.59	796.99	796.39	796.29	795.80	795.20	795.09	795.09
0.4	797.03	797.17	797.51	797.36	796.74	796.11	796.01	795.49	794.87	794.76	794.76
0.5	796.80	796.95	797.29	797.13	796.48	795.84	795.73	795.19	794.54	794.44	794.44
0.6	796.58	796.72	797.07	796.90	796.23	795.56	795.45	794.89	794.22	794.11	794.11
0.7	796.36	796.50	796.85	796.68	795.99	795.30	795.18	794.60	793.91	793.79	793.79
0.8	796.15	796.28	796.64	796.47	795.76	795.04	794.91	794.32	793.61	793.47	793.47
0.9	795.94	796.07	796.43	796.28	795.54	794.80	794.65	794.06	793.32	793.16	793.16
CENTERLINE BRG. PIER 16	795.75	795.86	796.23	796.10	795.33	794.57	794.39	793.80	793.04	792.86	792.86
CENTERLINE BRG. PIER 16	795.71	795.82	796.19	796.06	795.29	794.52	794.34	793.75	792.98	792.80	792.80
0.1	795.52	795.64	796.00	795.84	795.04	794.25	794.09	793.46	792.66	792.51	792.51
0.2	795.34	795.47	795.82	795.63	794.81	793.99	793.85	793.18	792.36	792.22	792.22
0.3	795.16	795.31	795.65	795.43	794.59	793.75	793.62	792.91	792.07	791.94	791.94
0.4	794.95	795.10	795.44	795.21	794.36	793.52	793.40	792.67	791.82	791.70	791.70
0.5	794.73	794.89	795.22	794.99	794.14	793.29	793.18	792.45	791.60	791.49	791.49
0.6	794.52	794.67	795.01	794.78	793.93	793.09	792.97	792.24	791.39	791.27	791.27
0.7	794.32	794.46	794.80	794.59	793.74	792.89	792.76	792.04	791.20	791.07	791.07
0.8	794.12	794.26	794.61	794.40	793.56	792.71	792.57	791.86	791.02	790.87	790.87
0.9	793.93	794.06	794.42	794.24	793.39	792.54	792.38	791.70	790.85	790.68	790.68
CENTERLINE BRG. PIER 17	793.75	793.86	794.23	794.08	793.24	792.39	792.19	791.54	790.69	790.50	790.50
CENTERLINE BRG. PIER 17	793.71	793.82	794.20	794.05	793.20	792.35	792.16	791.50	790.66	790.46	790.46
0.1	793.55	793.67	794.03	793.86	793.01	792.16	791.99	791.32	790.47	790.30	790.30
0.2	793.39	793.52	793.88	793.68	792.83	791.99	791.84	791.14	790.29	790.14	790.14
0.3	793.24	793.38	793.73	793.52	792.67	791.82	791.69	790.98	790.13	789.99	789.99
0.4	793.09	793.24	793.58	793.36	792.52	791.67	791.54	790.82	789.97	789.85	789.85
0.5	792.96	793.10	793.44	793.22	792.37	791.53	791.40	790.68	789.83	789.71	789.71
0.6	792.82	792.97	793.31	793.09	792.25	791.40	791.27	790.55	789.70	789.57	789.57
0.7	792.70	792.84	793.18	792.97	792.13	791.28	791.14	790.43	789.59	789.45	789.45
0.8	792.58	792.71	793.06	792.87	792.02	791.17	791.02	790.33	789.48	789.33	789.33
0.9	792.46	792.58	792.95	792.77	791.93	791.08	790.91	790.23	789.39	789.21	789.21
CENTERLINE BRG. F.A.	792.35	792.46	792.84	792.69	791.85	791.00	790.80	790.15	789.30	789.11	789.11

NOTES:

1. THE FINISHED DECK ELEVATIONS SHOWN FOR THE CENTERLINE OF ROUNDING AND GIRDERS LOCATED WITHIN 2.5' OF THE CENTERLINE OF ROUNDING HAVE NOT BEEN ADJUSTED FOR ROUNDING. THE CONTRACTOR SHALL ADJUST THE ELEVATIONS AS REQUIRED WITHIN THE ROUNDING. PROPER ALLOWANCE FOR THE ROUNDING HAS BEEN MADE IN THE SEAT ELEVATIONS.
2. FINISHED PAVEMENT ELEVATIONS: THE ELEVATIONS SHOWN ARE FINISHED DECK ELEVATIONS. PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE DECK CONCRETE. REFER TO GENERAL NOTES SHEET B7 OF B129 FOR ADDITIONAL INFORMATION.
3. FOR DEAD LOAD DEFLECTIONS, SEE SHEET B72 OF B129.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 3 - EASTBOUND			
FINISHED DECK ELEVATIONS-2			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: LMH	CHECKED: HW/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B92 OF B129			

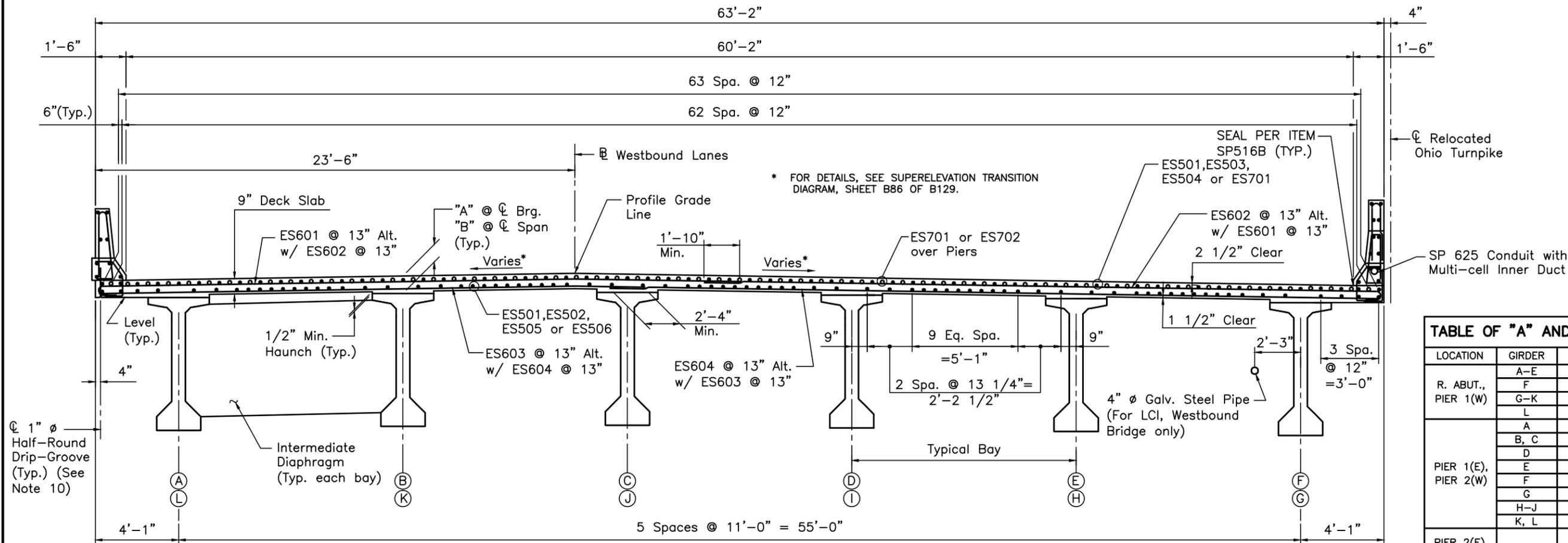


TABLE OF "A" AND "B" DIMENSIONS			
LOCATION	GIRDER	"A"	"B"
R. ABUT., PIER 1(W)	A-E	13"	9 3/4"
	F	14 1/4"	10 1/4"
	G-K	13"	9 3/4"
	L	14 1/4"	10 1/4"
PIER 1(E), PIER 2(W)	A	13 1/4"	9 3/4"
	B, C	13"	9 3/4"
	D	13 3/4"	9 3/4"
	E	14 1/4"	9 3/4"
	F	13 3/4"	9 3/4"
	G	13 1/4"	9 3/4"
	H-J	13"	9 3/4"
PIER 2(E), PIER 3(W)	K, L	13 1/2"	9 3/4"
	A-L	13"	9 3/4"

**TYPICAL DECK SECTION (WESTBOUND BRIDGE, LOOKING EAST)**

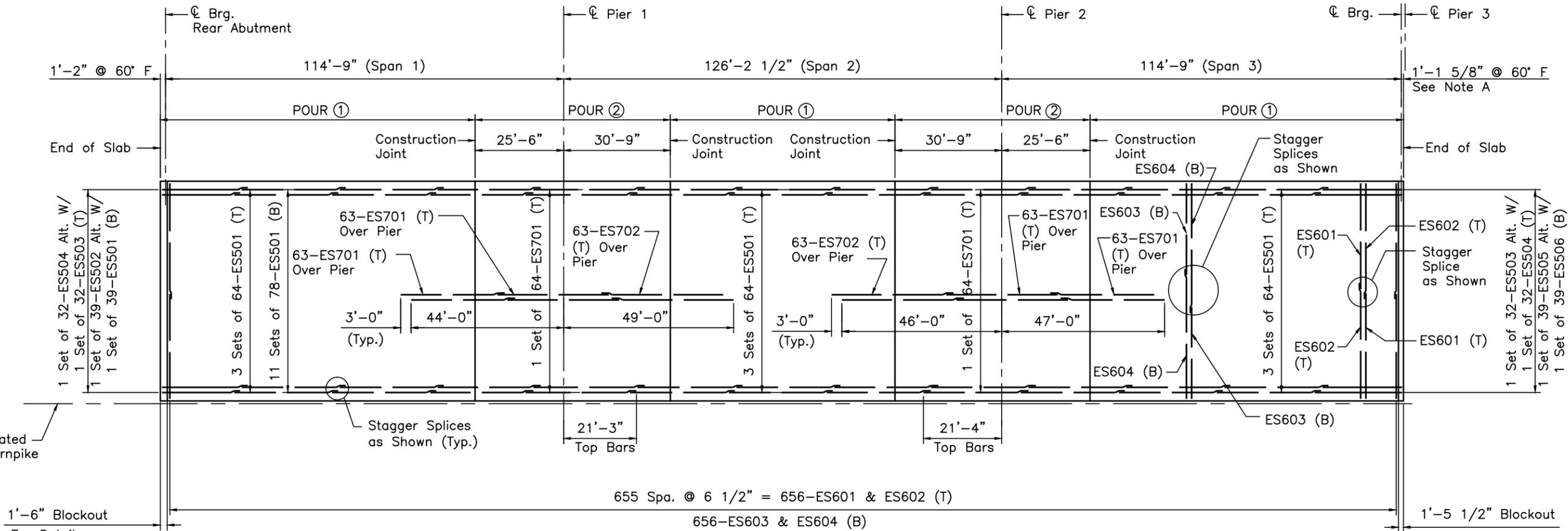
(Symmetrical about centerline Ohio Turnpike except as shown in the Superelevation Transition Diagram)

**NOTES:**

1. THE SLAB DEPTH (MEASURED FROM THE TOP OF SLAB TO THE TOP OF GIRDER) AT THE CENTERLINE GIRDER WILL VARY BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION, GIRDER CAMBER AND VERTICAL CURVE. DIMENSION "A" IS THE REQUIRED SLAB DEPTH AT THE CENTERLINE GIRDER AT THE CENTERLINE BEARING. DIMENSION "B" IS THE MINIMUM REQUIRED SLAB DEPTH AT THE CENTERLINE GIRDER AT THE CENTERLINE SPAN. DEVIATION FROM DIMENSION "B" MAY OCCUR BECAUSE THE TOP OF THE BEAM MAY NOT HAVE THE CAMBER ANTICIPATED IN THE DESIGN. FOR ANTICIPATED CAMBER, SEE SHEET B72.
2. ALL REINFORCING BARS ARE EPOXY COATED.
3. FOR PARAPET REINFORCING SEE SHEET B103 OF B129.
4. FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.
5. FOR DECK ELEVATIONS, SEE SHEET B86 OF B129.
6. FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
7. FOR STAY-IN PLACE DECK FORMS, SEE SHEET B102 OF B129.
8. FOR ADDITIONAL NOTES, SEE THE STRUCTURE GENERAL NOTES, SHEETS B5 THRU B8 OF B129.
9. FOR DETAILS OF THE LCI CONDUIT SUPPORT, SEE SHEET B80 OF B129.
10. TERMINATE DRIP GROOVE AT 2'-0" FROM FACE OF ABUTMENT AND PIER 3.

DESIGNED BY: HW CHECKED BY: MPL  
 DATE: 11-5-97 DATE: 3-23-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 3-1-98 DATE:  
 CAD FILE NAME: 25725-U1SECT01.DWG

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 1 DECK SECTION			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: NTS	
CONTRACT 43-99-01 SHEET B93 OF B129			



**DECK SLAB PLAN**  
(Westbound Bridge Shown, Eastbound Bridge Opposite Hand)

**NOTE A:**  
DIMENSION TO BE ADJUSTED TO ALLOW FOR MODULAR EXPANSION JOINT AS RECOMMENDED BY MANUFACTURER.

**NOTES:**

- LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN THE DECK SLAB, EXCEPT AS SHOWN IN THE PLANS.
- SEAL ALL TRANSVERSE CONSTRUCTION JOINTS AND GUTTER LINES AS PER SP 516B.
- ALL TRANSVERSE REINFORCEMENT SHALL BE MEASURED AND PLACED PERPENDICULAR TO THE L RELOCATED OHIO TURNPIKE.
- ALL LONGITUDINAL REINFORCEMENT SHALL BE MEASURED AND PLACED PARALLEL TO THE L RELOCATED OHIO TURNPIKE.
- FOR DECK SECTION AND ADDITIONAL NOTES, SEE SHEET B93 OF B129.
- FOR STRIP SEAL EXPANSION JOINT DETAILS AT THE REAR ABUTMENT, SEE SHEET B81 OF B129.
- FOR MODULAR EXPANSION JOINT DETAILS AT PIER 3, SEE SHEET B82 OF B129.

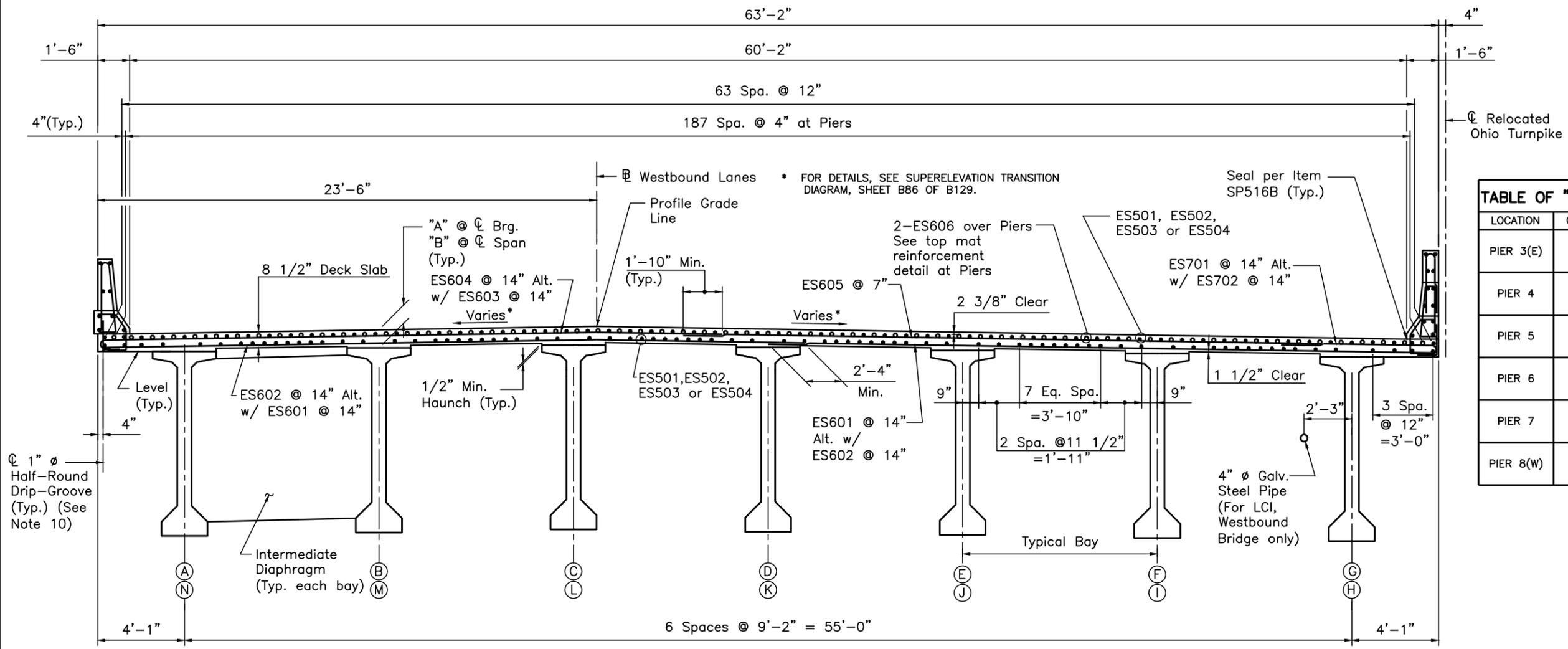
**SLAB POUR NOTES:**

- THE ENCIRCLED NUMBERS FOR SLAB PLACEMENT INDICATE THE SEQUENCE FOR POURING THE SLAB SECTION. IDENTICALLY NUMBERED POURS MAY BE MADE SIMULTANEOUSLY OR SEPARATELY.
- THE PLACEMENT OF SLAB SECTIONS LABELED POUR ② SHALL NOT COMMENCE UNTIL THE ADJACENT SLAB SECTIONS LABELED POUR ① HAVE OBTAINED A MINIMUM STRENGTH OF 3000 PSI.
- A SLAB SECTION LABELED POUR ② MAY BE Poured PRIOR TO THE COMPLETION OF ALL SECTIONS LABELED POUR ① AS LONG AS THE REQUIREMENTS OF NOTE 2 ARE SATISFIED.
- AT THE OPTION OF THE CONTRACTOR, AN ALTERNATE POUR SEQUENCE WHICH MINIMIZES CRACKING MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING THE POUR.
- PARAPETS SHALL NOT BE CAST UNTIL A MINIMUM OF 5 DAYS AFTER PLACING THE SLAB AND THE SLAB CONCRETE HAS REACHED A MINIMUM STRENGTH OF 3000 PSI.

BAR	MINIMUM SPLICE LENGTH
#5	1'-7"
Bottom Transverse #6	2'-4"
Top Transverse #6	1'-10"
#7	3'-0"
#6 to #7	1'-7"
TOP LONGITUDAL #6	2'-11"

DESIGNED BY: HW  
DATE: 11-5-97  
DRAWN BY: HW  
DATE: 3-1-98  
CHECKED BY: MPL  
DATE: 3-23-98  
REVISOR: HW  
DATE:  
CAD FILE NAME: 25725-UIDECK01.DWG

<b>CONCRETE ALTERNATE</b>		
<b>RECORD DRAWING</b>		
NO.	REVISIONS	BY DATE
		HBM
<b>OHIO TURNPIKE COMMISSION</b>		
<b>UNIT 1 DECK SLAB PLAN</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
<b>CONTRACT 43-99-01 SHEET B94 OF B129</b>		

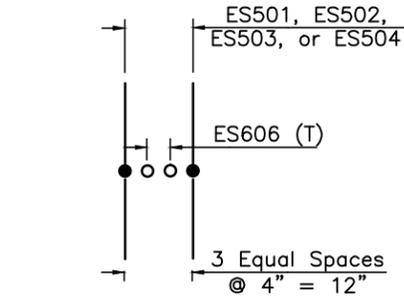


LOCATION	GIRDER	"A"	"B"
PIER 3(E)	A-N	12"	9 1/4"
PIER 4	A-N	11"	9 1/4"
PIER 5	A-N	11"	9 1/4"
PIER 6	A-N	11"	9 1/4"
PIER 7	A-N	11"	9 1/4"
PIER 8(W)	A-N	12"	9 1/4"

**TYPICAL DECK SECTION (WESTBOUND BRIDGE, LOOKING EAST)**

(Symmetrical about centerline Ohio Turnpike except as shown in the Superelevation Transition Diagram)

AS BUILT PLAN SET BY DICK CORP. DID NOT INCLUDE THE REVISIONS TO THIS DRAWING DATED 1/18/01.



**TOP MAT REINFORCEMENT  
DETAIL AT PIERS**

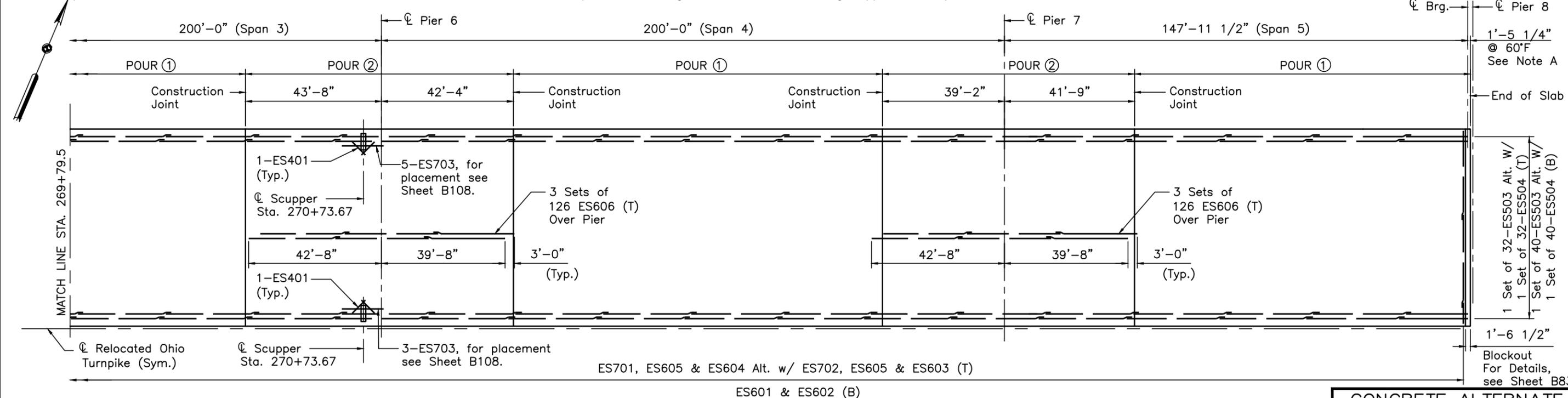
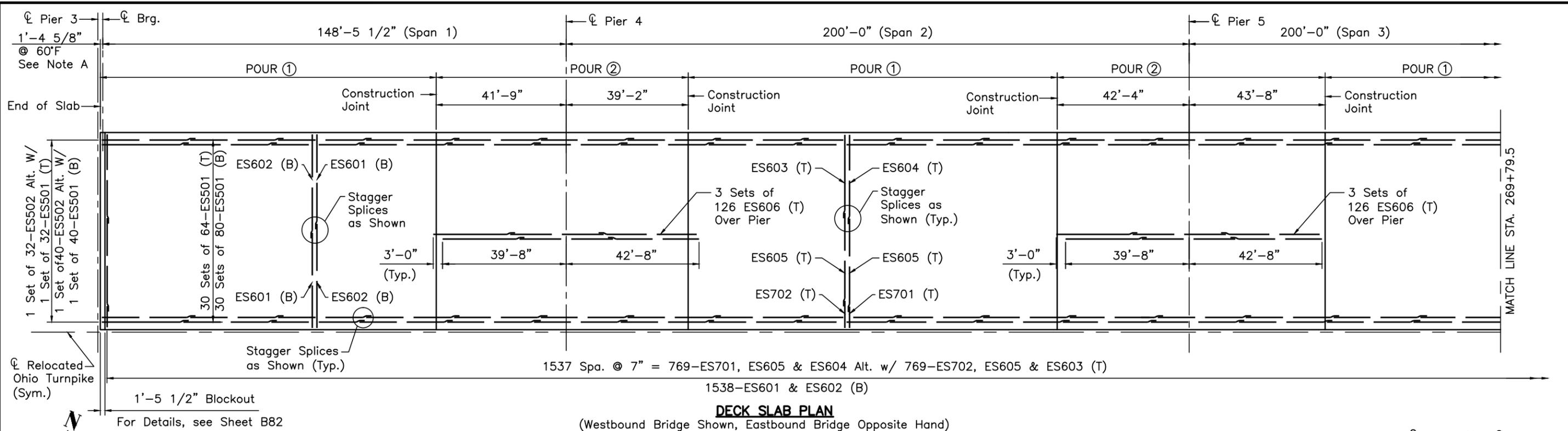
**NOTES:**

1. THE SLAB DEPTH (MEASURED FROM THE TOP OF SLAB TO THE TOP OF GIRDER) AT THE CENTERLINE GIRDER WILL VARY BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION, GIRDER CAMBER AND VERTICAL CURVE. DIMENSION "A" IS THE REQUIRED SLAB DEPTH AT THE CENTERLINE GIRDER AT THE CENTERLINE BEARING. DIMENSION "B" IS THE MINIMUM REQUIRED SLAB DEPTH AT THE CENTERLINE GIRDER AT THE CENTERLINE SPAN. DEVIATION FROM DIMENSION "B" MAY OCCUR BECAUSE THE TOP OF THE BEAM MAY NOT HAVE THE CAMBER ANTICIPATED IN THE DESIGN. FOR ANTICIPATED CAMBER, SEE SHEET B73.
2. ALL REINFORCING BARS ARE EPOXY COATED.
3. FOR PARAPET REINFORCING SEE SHEET B104 OF B129.
4. FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.
5. FOR DECK ELEVATIONS, SEE SHEETS B87 AND B88 OF B129.
6. FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
7. FOR STAY-IN PLACE DECK FORMS, SEE SHEET B102 OF B129.
8. FOR ADDITIONAL NOTES, SEE THE STRUCTURE GENERAL NOTES, SHEETS B5 THRU B8 OF B129.
9. FOR DETAILS OF THE LCI CONDUIT SUPPORT, SEE SHEET B80 OF B129.
10. TERMINATE DRIP GROOVE AT 2'-0" FROM FACE OF PIER 3 AND PIER 8.

DESIGNED BY: MPL  
DATE: 12-1-97  
DRAWN BY: HW  
DATE: 3-1-98  
CAD FILE NAME: 25725-U2SECT01.DWG

CHECKED BY: HW  
DATE: 4-3-98  
REVISED BY:  
DATE:

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 2 DECK SECTION		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: MPL	CHECKED: HW/DS	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B95 OF B129		



**NOTE A:**  
DIMENSION TO BE ADJUSTED TO ALLOW FOR MODULAR EXPANSION JOINT AS RECOMMENDED BY MANUFACTURER.

BAR	MINIMUM SPLICE LENGTH
#5	1'-7"
Bottom Transverse #6	2'-4"
Top Transverse #6	1'-10"
#6 to #7	1'-10"
Top Longitudinal #6	2'-11"

- NOTES:**
- LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN THE DECK SLAB, EXCEPT AS SHOWN IN THE PLANS.
  - SEAL ALL TRANSVERSE CONSTRUCTION JOINTS AND GUTTER LINES AS PER SP 516B.
  - ALL TRANSVERSE REINFORCEMENT SHALL BE MEASURED AND PLACED PERPENDICULAR TO THE  $\text{\textcircled{C}}$  RELOCATED OHIO TURNPIKE.
  - ALL LONGITUDINAL REINFORCEMENT SHALL BE MEASURED AND PLACED PARALLEL TO THE  $\text{\textcircled{C}}$  RELOCATED OHIO TURNPIKE.
  - THE ENCIRCLED NUMBERS FOR SLAB PLACEMENT INDICATE THE SEQUENCE FOR POURING THE SLAB SECTION. FOR SLAB POUR NOTES, SEE SHEET B94 OF B129.
  - FOR DECK SECTION AND ADDITIONAL NOTES, SEE SHEET B95 OF B129.
  - REINFORCING STEEL MAY BE FIELD CUT AS NECESSARY AT SCUPPERS. FOR SCUPPER DETAILS, SEE SHEETS B108 AND B109 OF B129.
  - FOR MODULAR EXPANSION JOINT DETAILS AT PIER 3, SEE SHEET B82 OF B129.
  - FOR MODULAR EXPANSION JOINT DETAILS AT PIER 8, SEE SHEET B83 OF B129.

AS BUILT PLAN SET BY DICK CORP. DID NOT INCLUDE THE REVISIONS TO THIS DRAWING DATED 1/18/01.

DESIGNED BY: MPL  
DATE: 12-1-97  
DRAWN BY: HW  
DATE: 3-1-98  
CAD FILE NAME: 25725-U2DECK01.DWG

**CONCRETE ALTERNATE**

RECORD DRAWING	BY: <i>HJM</i>
NO. _____	REVISIONS _____

**OHIO TURNPIKE COMMISSION**

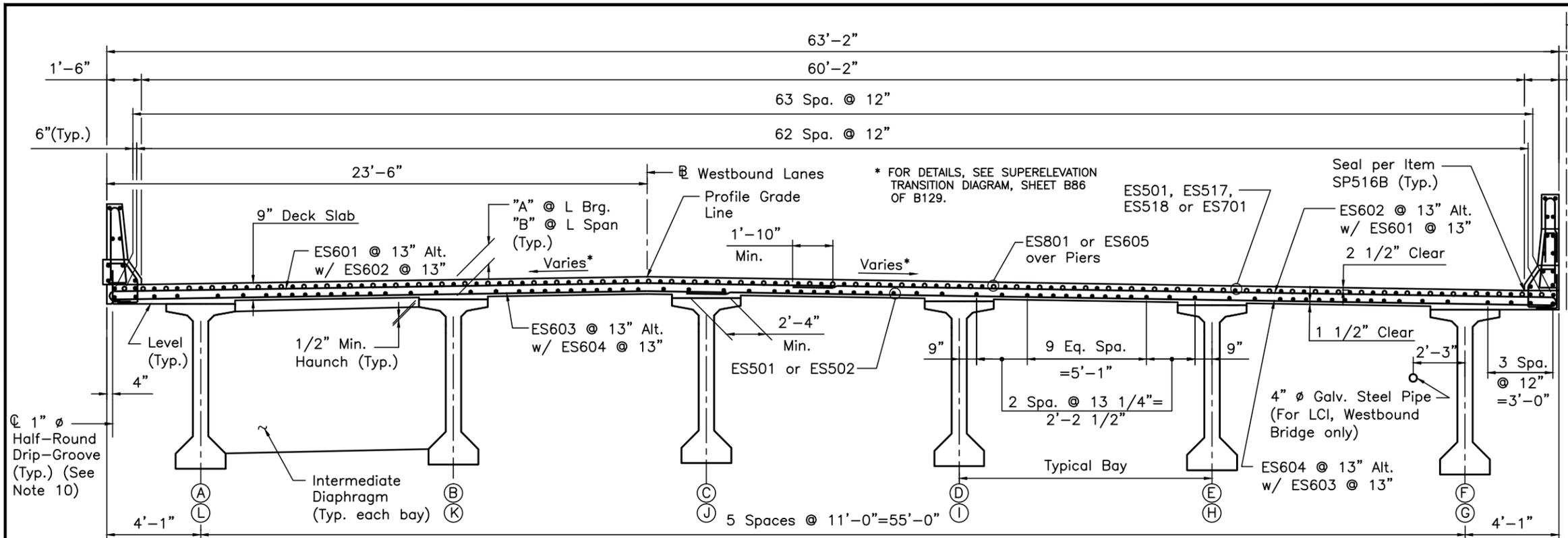
**UNIT 2 DECK SLAB PLAN**

OHIO TURNPIKE OVER CUYAHOGA RIVER  
SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
1375 EAST 9th STREET  
CLEVELAND, OHIO 44114-1724

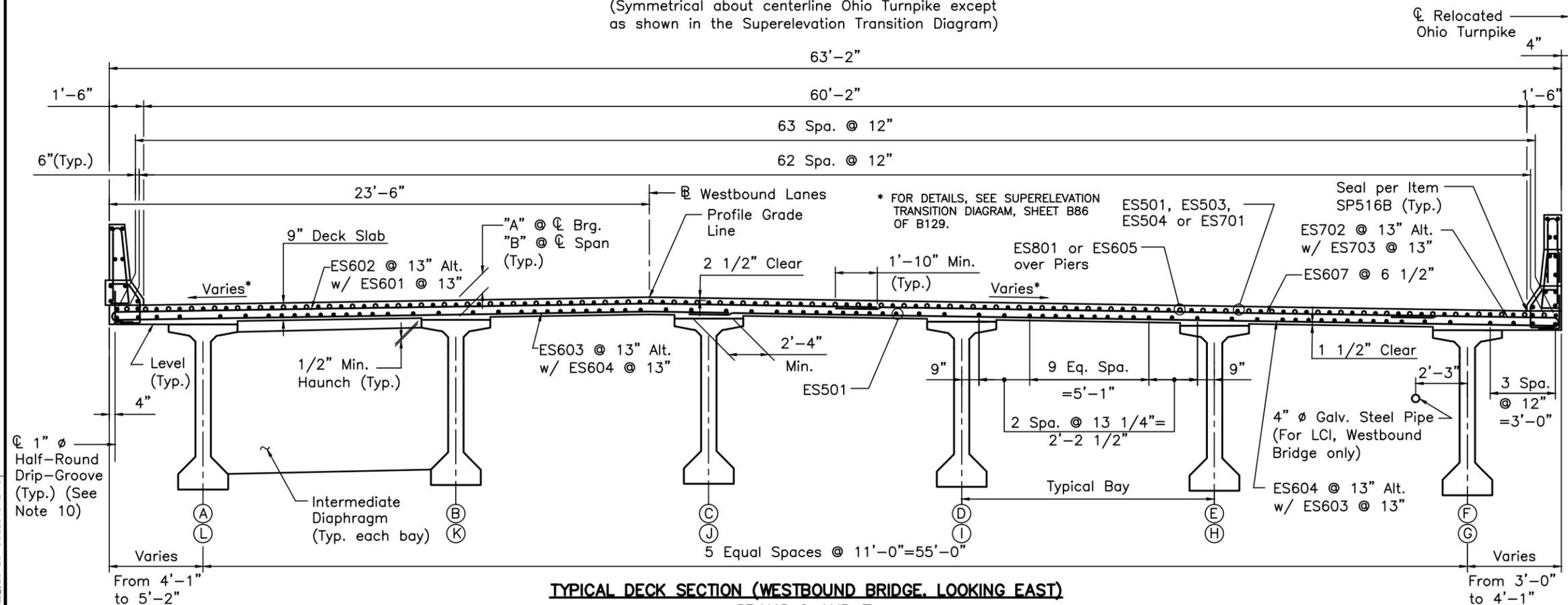
DESIGNED: MPL	CHECKED: HW/DS	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B96 OF B129



**TYPICAL DECK SECTION (WESTBOUND BRIDGE, LOOKING EAST)  
SPANS 1 THRU 5**

(Symmetrical about centerline Ohio Turnpike except as shown in the Superlevation Transition Diagram)



**TYPICAL DECK SECTION (WESTBOUND BRIDGE, LOOKING EAST)  
SPANS 6 AND 7**

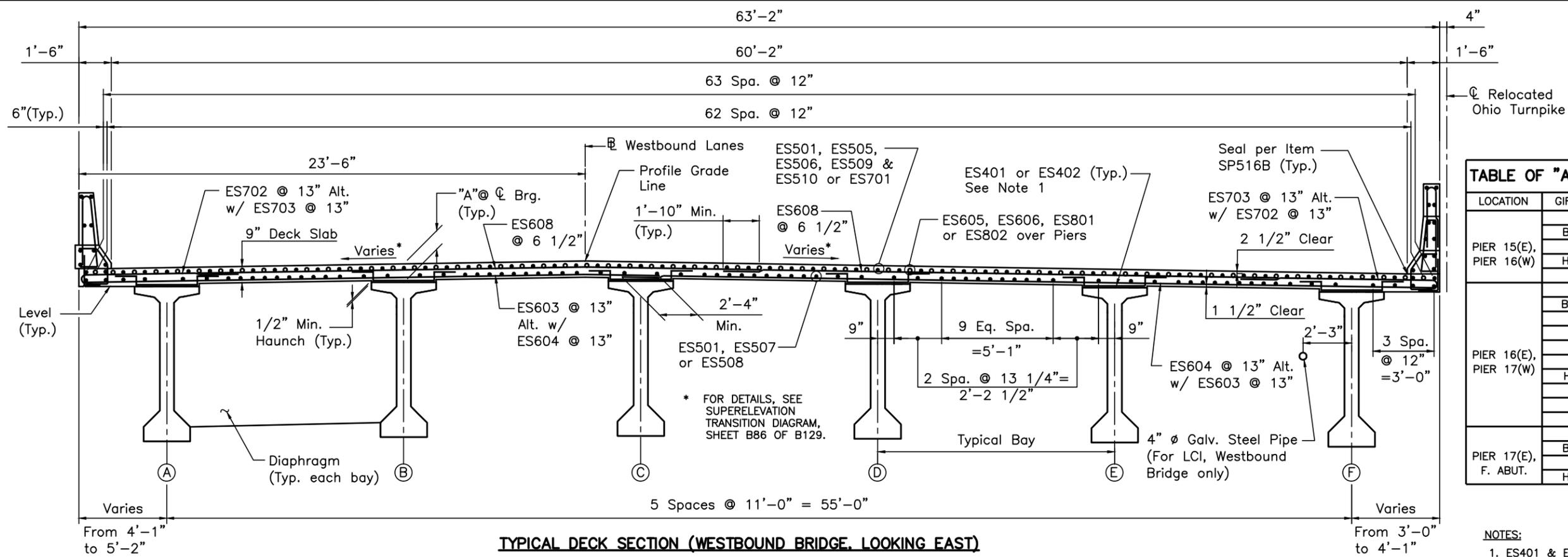
(Symmetrical about centerline Ohio Turnpike except as shown in the Superlevation Transition Diagram and Framing Plans)

TABLE OF "A" AND "B" DIMENSIONS			
LOCATION	GIRDER	"A"	"B"
PIER 8(E), PIER 9(W)	A-L	13"	9 3/4"
PIER 9(E), PIER 10(W)	A-L	12 3/4"	9 3/4"
PIER 10(E), PIER 11(W)	A-L	12 3/4"	9 3/4"
PIER 11(E), PIER 12(W)	A-L	12 3/4"	9 3/4"
PIER 12(E), PIER 13(W)	A	13 3/4"	10 1/4"
	B-F	12 3/4"	9 3/4"
	G	14"	10 1/4"
	H-K	13"	9 3/4"
	L	12 3/4"	9 3/4"
PIER 13(E), PIER 14(W)	A	13 1/4"	10 1/4"
	B, C	12 3/4"	10"
	D	12"	10"
	E, F	11 1/4"	10"
	G	13"	10 1/4"
PIER 14(E), PIER 15(W)	H-J	12 3/4"	10"
	K	12 1/4"	10"
	L	11 3/4"	10"
	A	13"	10 1/4"
	B-E	13 1/2"	10 1/2"
F	13 3/4"	10 1/2"	
G	12 3/4"	10 1/4"	
H-K	13 1/4"	10 1/2"	
L	13 1/2"	10 1/2"	

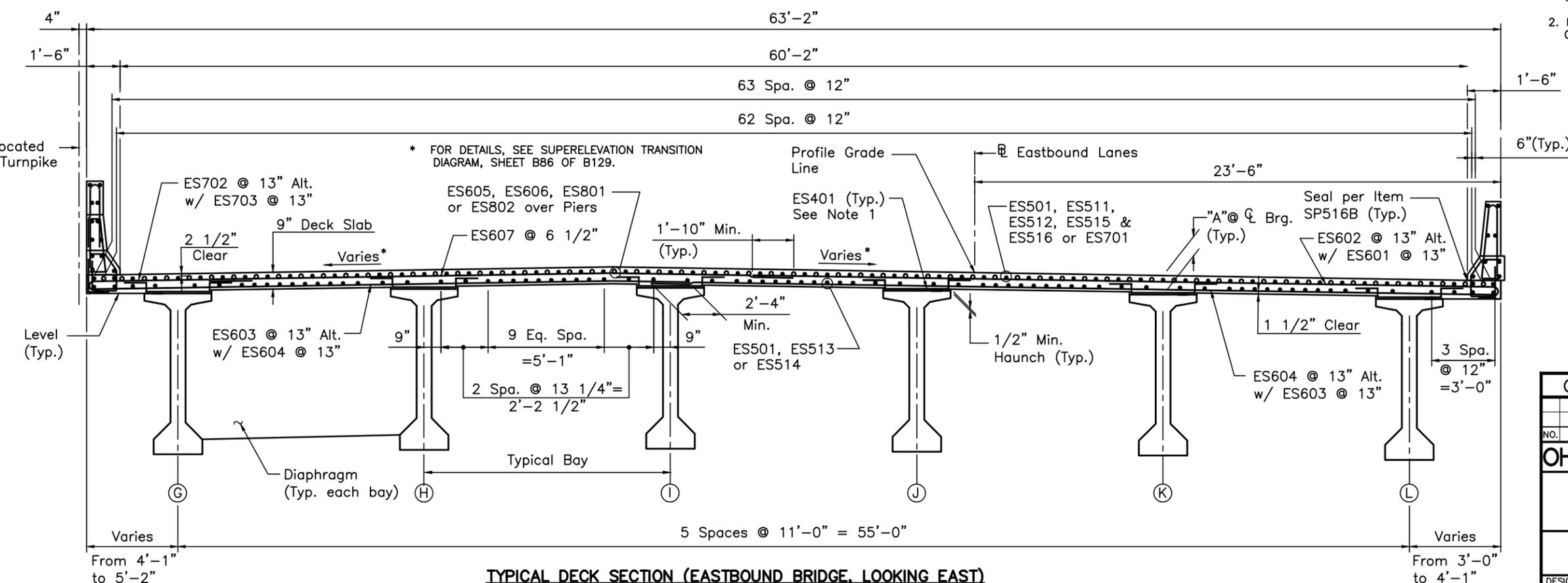
- NOTES:**
1. THE SLAB DEPTH (MEASURED FROM THE TOP OF SLAB TO THE TOP OF GIRDER) AT THE CENTERLINE GIRDER WILL VARY BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION, GIRDER CAMBER AND VERTICAL CURVE. DIMENSION "A" IS THE REQUIRED SLAB DEPTH AT THE CENTERLINE GIRDER AT THE CENTERLINE BEARING. DIMENSION "B" IS THE MINIMUM REQUIRED SLAB DEPTH AT THE CENTERLINE GIRDER AT THE CENTERLINE SPAN. DEVIATION FROM DIMENSION "B" MAY OCCUR BECAUSE THE TOP OF THE BEAM MAY NOT HAVE THE CAMBER ANTICIPATED IN THE DESIGN. FOR ANTICIPATED CAMBER, SEE SHEET B72.
  2. ALL REINFORCING BARS ARE EPOXY COATED.
  3. FOR PARAPET REINFORCING SEE SHEET B105 OF B129.
  4. FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.
  5. FOR DECK ELEVATIONS, SEE SHEET B89 THRU B92 OF B129.
  6. FOR DIAPHRAGM DETAILS, SEE SHEETS B74 THRU B79 OF B129.
  7. FOR STAY-IN PLACE DECK FORMS, SEE SHEET B102 OF B129.
  8. FOR ADDITIONAL NOTES, SEE THE STRUCTURE GENERAL NOTES, SHEETS B5 THRU B8 OF B129.
  9. FOR DETAILS OF THE LCI CONDUIT SUPPORT, SEE SHEET B80 OF B129.
  10. TERMINATE DRIP GROOVE AT 2'-0" FROM PIER 8 AND FACE OF ABUTMENT.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 3 DECK SECTION-1		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B97 OF B129		

DESIGNED BY: HW  
DATE: 11-11-97  
DRAWN BY: HW  
DATE: 3-1-98  
CHECKED BY: MPL  
DATE: 3-26-98  
REVISOR: DS  
DATE: 12-31-98  
CAD FILE NAME: 25725-U3SECT01.DWG



**TYPICAL DECK SECTION (WESTBOUND BRIDGE, LOOKING EAST)**  
**SPANS 8, 9 AND 10**



**TYPICAL DECK SECTION (EASTBOUND BRIDGE, LOOKING EAST)**  
**SPANS 8, 9 AND 10**

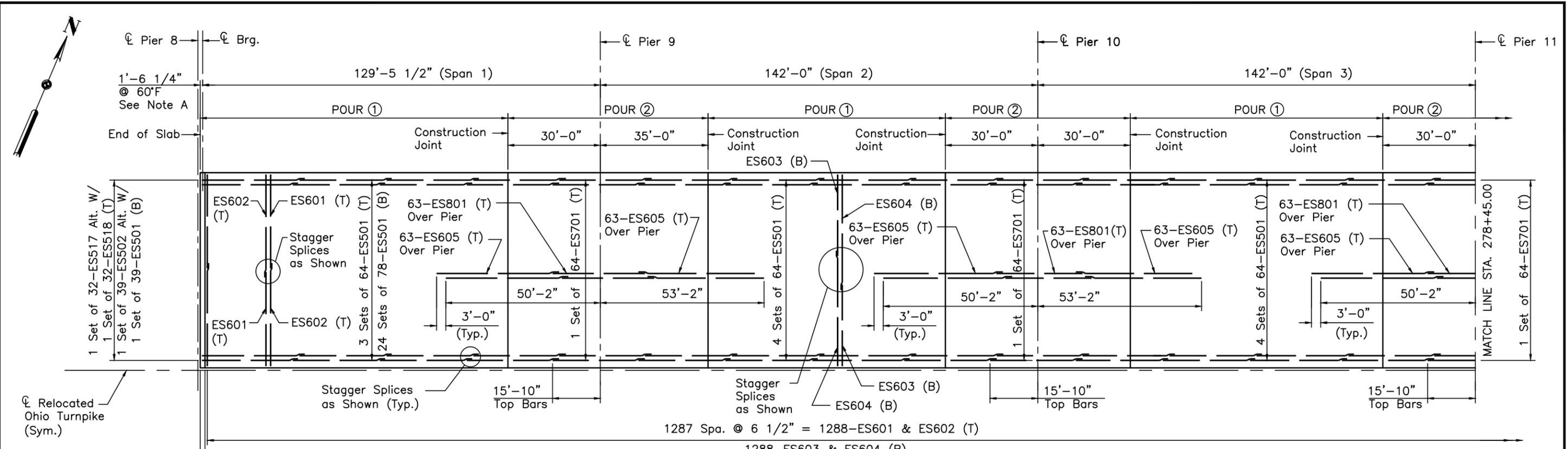
TABLE OF "A" AND "B" DIMENSIONS			
LOCATION	GIRDER	"A"	"B"
PIER 15(E), PIER 16(W)	A	13 1/2"	10 1/4"
	B-F	14 1/2"	10 3/4"
	G	13 1/4"	10 1/4"
	H-K	14"	10 3/4"
	L	14 1/4"	10 3/4"
PIER 16(E), PIER 17(W)	A	13 1/2"	10 1/4"
	B, C	16"	11"
	D	16 1/4"	11"
	E	17"	11"
	F	17 3/4"	11"
	G	12 1/4"	10 1/4"
	H, I	15"	11"
	J	15 1/4"	11"
PIER 17(E), F. ABUT.	A	14 1/2"	10 1/4"
	B-F	16 1/4"	11"
	G	14"	10 1/4"
	H-L	15 3/4"	11"

- NOTES:**
- ES401 & ES402 SHALL BE PLACED AT A SPACING OF 13" AT ALL LOCATIONS WHERE THE EXPOSED HAUNCH EXCEEDS 5".
  - FOR ADDITIONAL NOTES, SEE SHEET B97 OF B129.

DESIGNED BY: HW  
 DATE: 11-11-97  
 DRAWN BY: HW  
 DATE: 3-1-98  
 CHECKED BY: MPL  
 DATE: 3-26-98  
 REVISIONS:  
 DATE:  
 CAD FILE NAME: 25725-U3SECT02.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 3 DECK SECTION-2		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B98 OF B129		

DESIGNED BY: HW  
 DATE: 11-11-97  
 DRAWN BY: HW  
 DATE: 3-1-98  
 CHECKED BY: MPL  
 DATE: 3-26-98  
 REVISED BY:  
 DATE:  
 CAD FILE NAME: 25725-U30DECK01.DWG



**PARTIAL DECK SLAB PLAN**

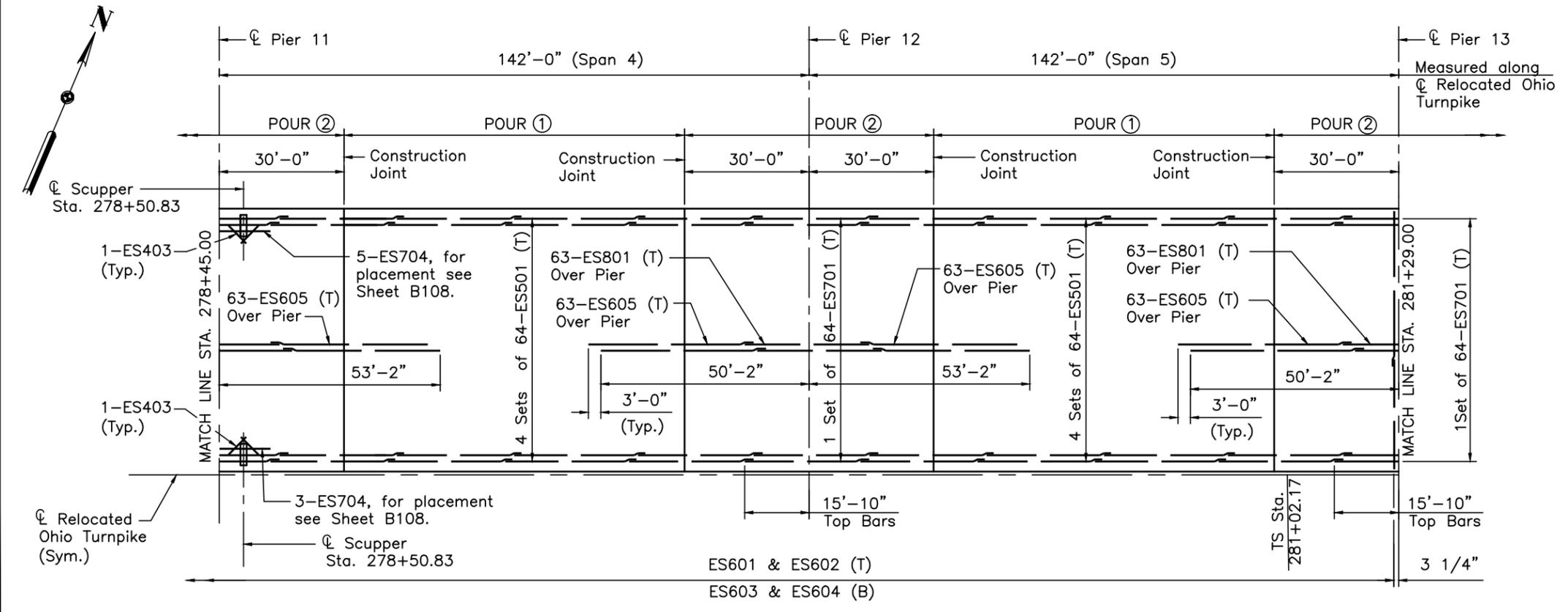
(Westbound Bridge Shown, Eastbound Bridge Opposite Hand)

**NOTE A:**  
 DIMENSION TO BE ADJUSTED TO ALLOW FOR MODULAR EXPANSION JOINT AS RECOMMENDED BY MANUFACTURER.

BAR	MINIMUM SPLICE LENGTH
#5	1'-7"
Bottom Transverse #6	2'-4"
Top Transverse #6	1'-10"
#5 to #7	1'-7"
#6 to #7	1'-10"
#8 to #6	3'-0"

**NOTES:**

- LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN THE DECK SLAB, EXCEPT AS SHOWN IN THE PLANS.
- SEAL ALL TRANSVERSE CONSTRUCTION JOINTS AND GUTTER LINES AS PER SP 516B.
- ALL TRANSVERSE REINFORCEMENT SHALL BE MEASURED AND PLACED PERPENDICULAR TO THE  $\phi$  RELOCATED OHIO TURNPIKE.
- ALL LONGITUDINAL REINFORCEMENT SHALL BE MEASURED AND PLACED PARALLEL TO THE  $\phi$  RELOCATED OHIO TURNPIKE.
- THE ENCIRCLED NUMBERS FOR SLAB PLACEMENT INDICATE THE SEQUENCE FOR POURING THE SLAB SECTION. FOR SLAB POUR NOTES, SEE SHEET B94 OF B129.
- FOR DECK SECTIONS AND ADDITIONAL NOTES, SEE SHEETS B97 AND B98 OF B129.
- REINFORCING STEEL MAY BE FIELD CUT AS NECESSARY AT SCUPPERS. FOR SCUPPER DETAILS, SEE SHEETS B108 AND B109 OF B129.
- FOR MODULAR EXPANSION JOINT DETAILS AT PIER 8, SEE SHEET B83 OF B129.



**PARTIAL DECK SLAB PLAN**

(Westbound Bridge Shown, Eastbound Bridge Opposite Hand)

**CONCRETE ALTERNATE**

RECORD DRAWING	BY: H/M
NO. REVISIONS	DATE

**OHIO TURNPIKE COMMISSION**

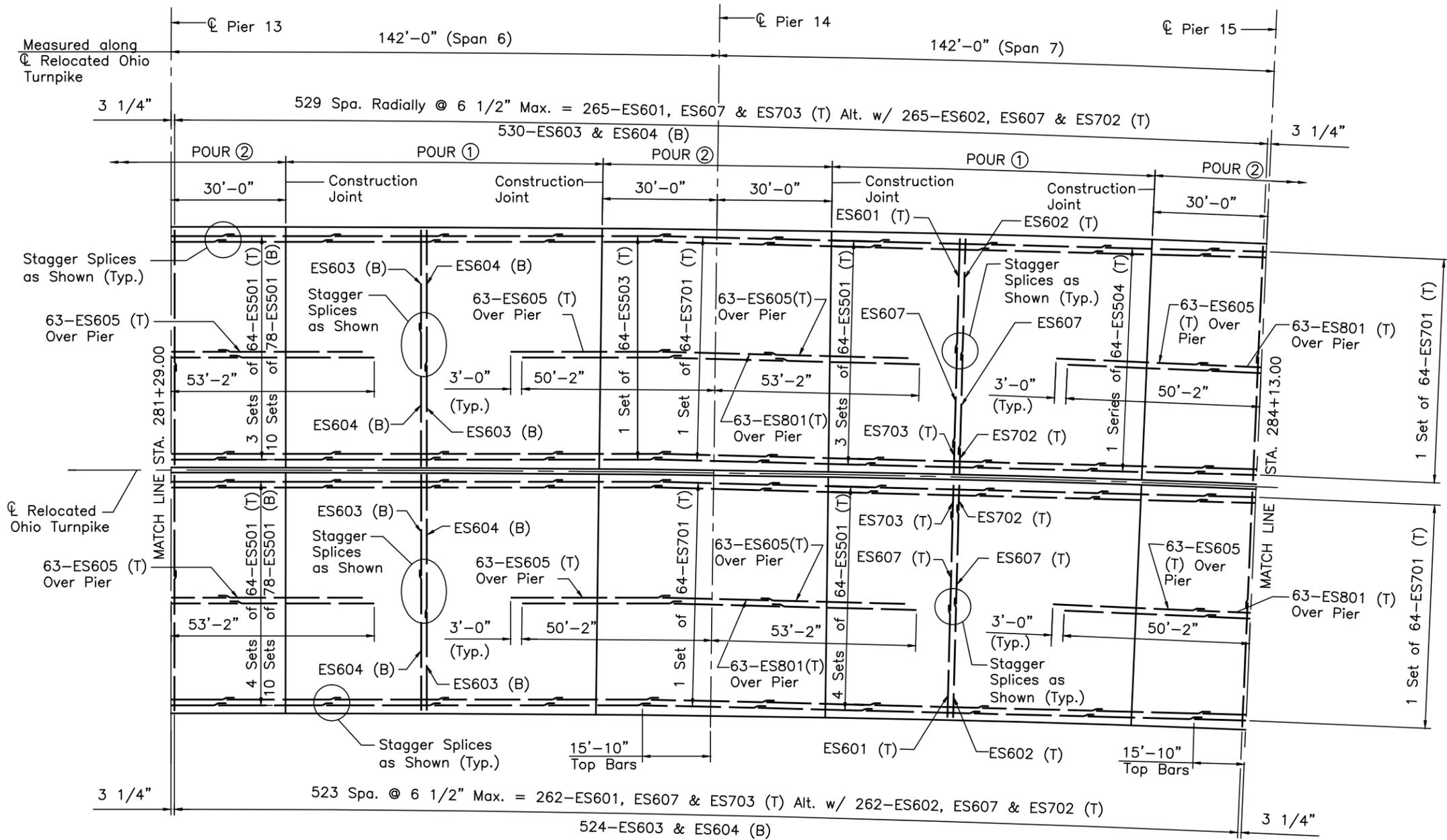
**UNIT 3 DECK SLAB PLAN-1**

OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS

CONTRACT 43-99-01 SHEET B99 OF B129



**PARTIAL DECK SLAB PLAN**

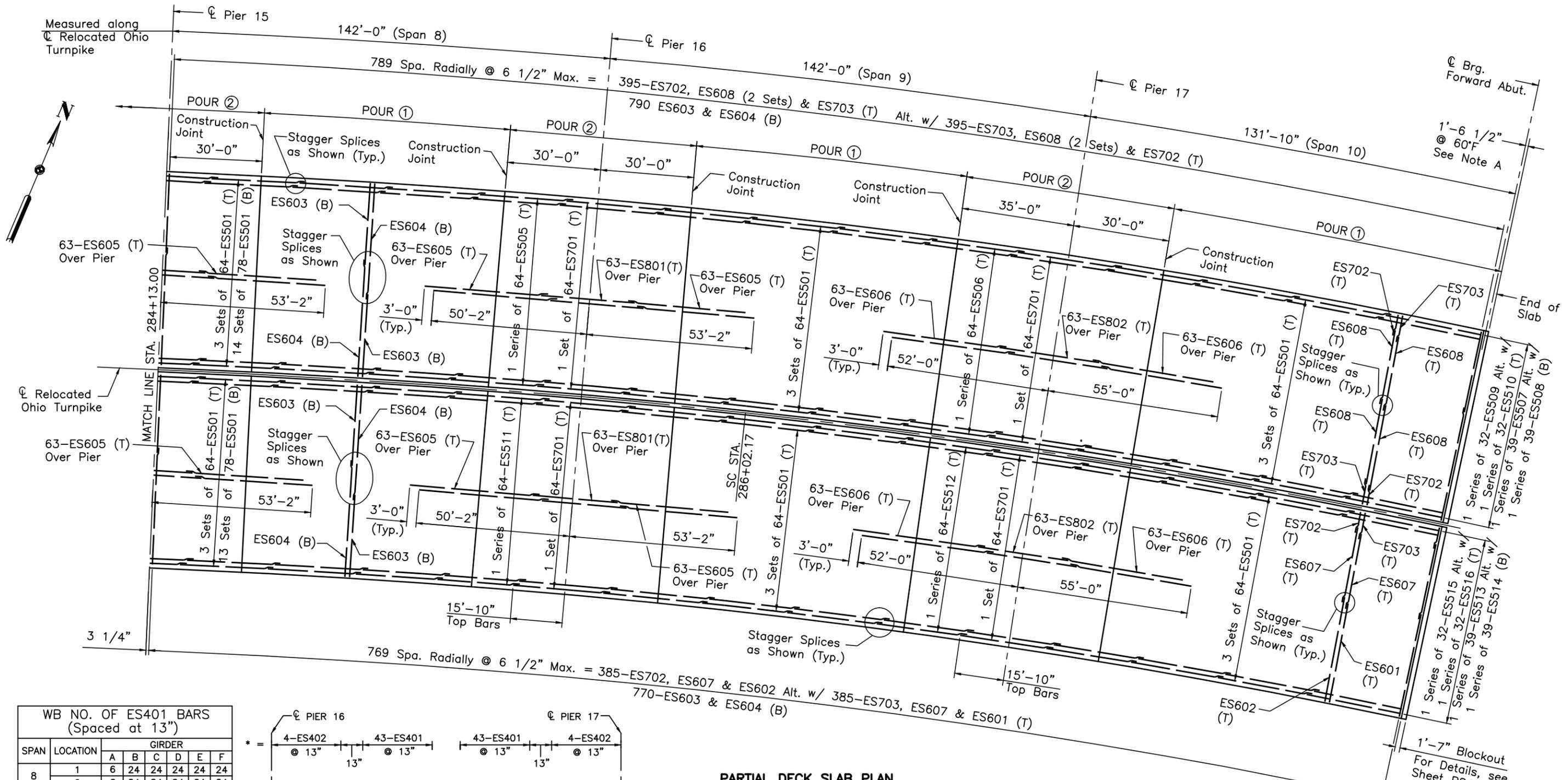
BAR	MINIMUM SPLICE LENGTH
#5	1'-7"
Bottom Transverse #6	2'-4"
Top Transverse #6	1'-10"
#5 to #7	1'-7"
#6 to #7	1'-10"
#8 to #6	3'-0"

**NOTES:**

1. ALL TRANSVERSE REINFORCEMENT SHALL BE MEASURED AND PLACED RADIALLY ALONG THE NORTH EDGE OF THE SLAB.
2. ALL LONGITUDINAL REINFORCEMENT SHALL BE MEASURED AND PLACED CONCENTRIC WITH THE  $\phi$  RELOCATED OHIO TURNPIKE.
3. FOR ADDITIONAL NOTES, SEE SHEET B99 OF B129.

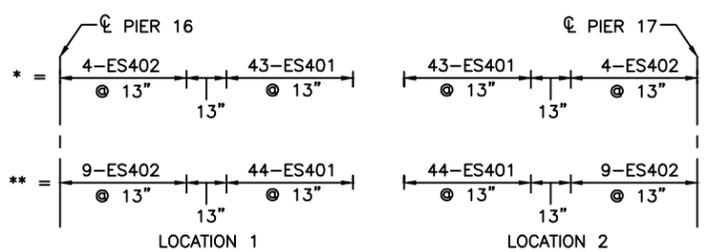
DESIGNED BY: HW CHECKED BY: MPL  
 DATE: 11-11-97 DATE: 3-26-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 3-1-98 DATE:  
 CAD FILE NAME: 25725-U3DECK02.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 3 DECK SLAB PLAN-2		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B100 OF B129		



WB NO. OF ES401 BARS (Spaced at 13")

SPAN	LOCATION	GIRDER					
		A	B	C	D	E	F
8	1	6	24	24	24	24	24
	2	6	24	24	24	24	24
9	1	7	41	41	41	*	**
	2	7	41	41	41	*	**
10	1	16	38	38	38	38	38
	2	16	38	38	38	38	38



LOCATION 1: EXTENDING EASTWARD FROM WEST PIER.  
 LOCATION 2: EXTENDING WESTWARD FROM EAST PIER OR ABUT.

BAR	MINIMUM SPLICE LENGTH
#5	1'-7"
Bottom Transverse #6	2'-4"
Top Transverse #6	1'-10"
#5 to #7	1'-7"
#6 to #7	1'-10"
#8 to #6	3'-0"

NOTES:

- ALL TRANSVERSE REINFORCEMENT SHALL BE MEASURED AND PLACED RADIALLY ALONG THE NORTH EDGE OF THE SLAB.
- ALL LONGITUDINAL REINFORCEMENT SHALL BE MEASURED AND PLACED CONCENTRIC WITH THE L RELOCATED OHIO TURNPIKE.
- FOR MODULAR EXPANSION JOINT DETAILS AT THE FORWARD ABUTMENT, SEE SHEET B84 OF B129.
- FOR ADDITIONAL NOTES, SEE SHEET B99 OF B129.

PARTIAL DECK SLAB PLAN

NOTE A:  
 DIMENSION TO BE ADJUSTED TO ALLOW FOR MODULAR EXPANSION JOINT AS RECOMMENDED BY MANUFACTURER.

EB NO. OF ES401 BARS (Spaced at 13")

SPAN	LOCATION	GIRDER					
		G	H	I	J	K	L
8	1	-	18	18	18	18	21
	2	-	18	18	18	18	21
9	1	-	36	36	36	38	40
	2	-	36	36	36	38	40
10	1	11	37	37	37	37	37
	2	11	37	37	37	37	37

CONCRETE ALTERNATE

RECORD DRAWING	11/3/04
NO. REVISIONS	BY DATE

**OHIO TURNPIKE COMMISSION**

UNIT 3 DECK SLAB PLAN-3

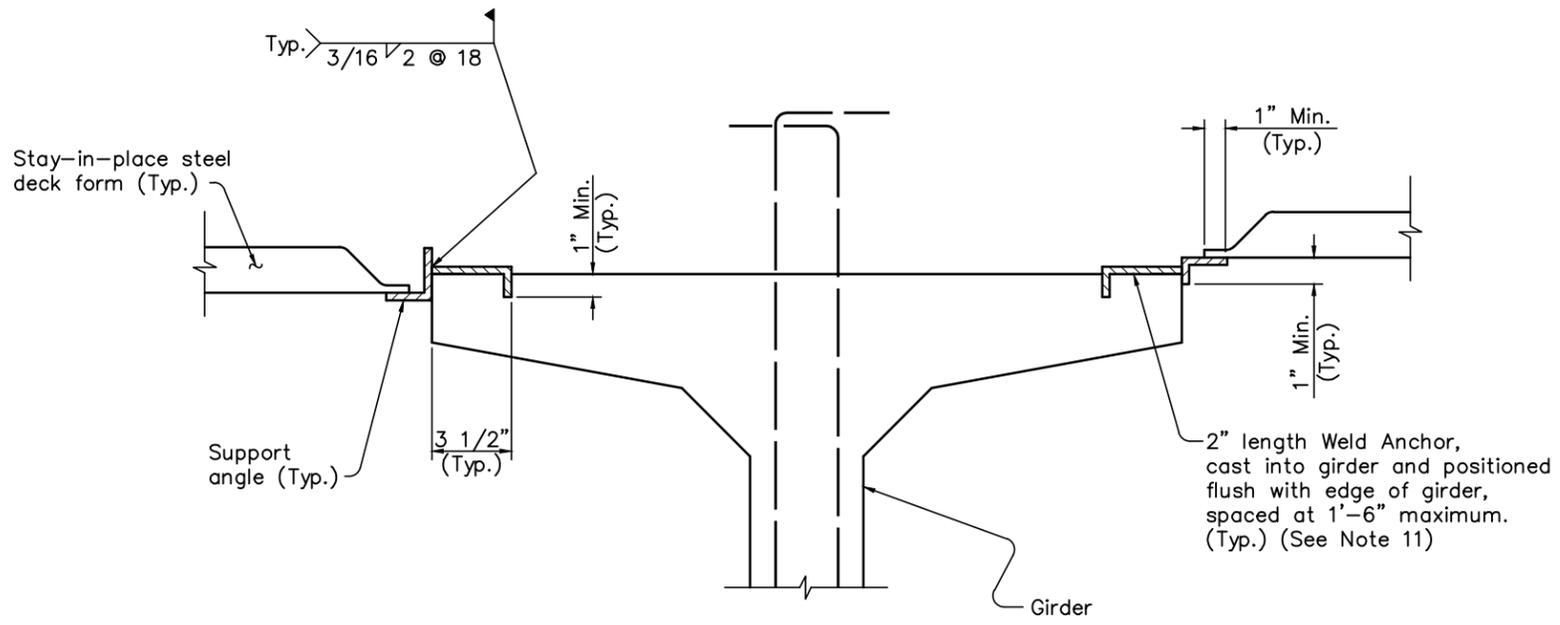
OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

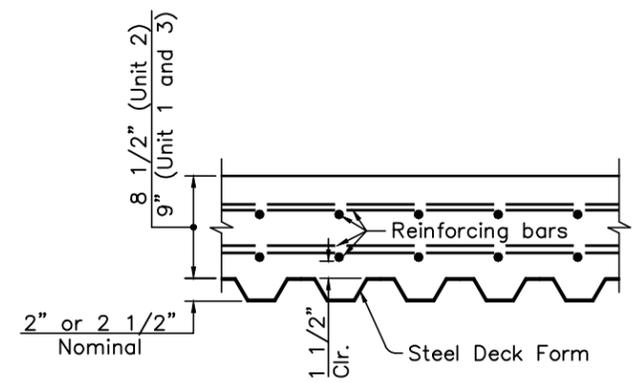
DESIGNED: HW CHECKED: MPL/DS DATE: 12/31/98  
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CONTRACT 43-99-01 SHEET B101 OF B129

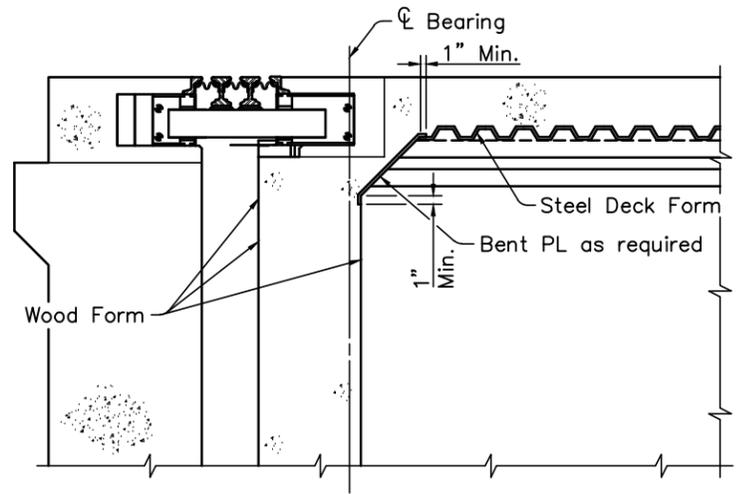
DESIGNED BY: HW CHECKED BY: MPL  
 DATE: 11-11-97 DATE: 3-26-98  
 DRAWN BY: HW REVISIONS BY:  
 DATE: 3-1-98 DATE:  
 CAD FILE NAME: 25725-U30DECK03.DWG



**DECK FORM SUPPORTS**



**LONGITUDINAL SECTION THROUGH DECK SLAB**



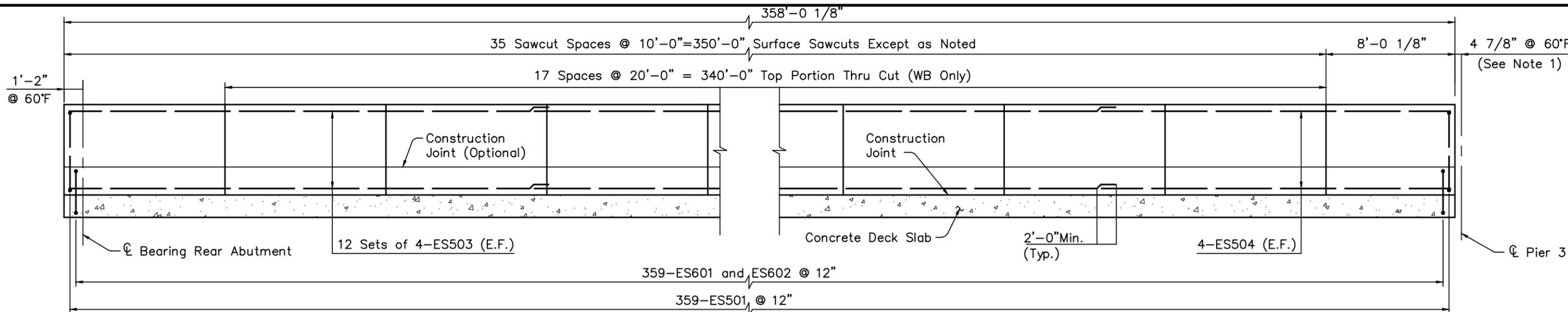
**SECTION AT DECK JOINT  
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT AND PIERS SIMILAR)**

**NOTES:**

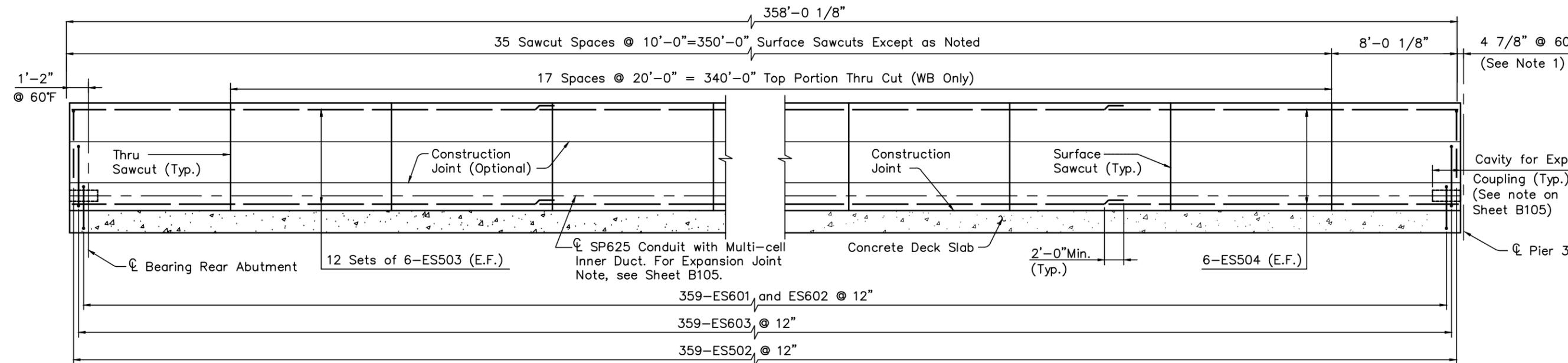
1. PERMANENT STEEL BRIDGE DECK FORMS AND SUPPORTS SHALL BE FABRICATED FROM STEEL CONFORMING TO ASTM A446 (GRADE C). ALL BRIDGE FORM PANELS AND ACCESSORIES SHALL HAVE A GALVANIZED COATING CLASS OF G165 ACCORDING TO ASTM A525.
2. METAL DECK FORMS SHALL HAVE A MINIMUM MOMENT OF INERTIA OF 0.7352 IN.<sup>4</sup>/FT. THE MINIMUM SECTION MODULUS SHALL BE 0.5643 IN.<sup>3</sup>/FT. METAL DECK FORMS SHALL HAVE A YIELD STRENGTH OF 40,000 PSI AND ALLOWABLE STRESS OF 29,000 PSI.
3. WELD ANCHORS AND SUPPORT ANGLE SHALL HAVE A MINIMUM GAGE OF 8.
4. SUPPORT ANGLE SHALL HAVE A MINIMUM SIZE OF L 2" x 2" x 8 GAGE FOR 2" DEPTH OF CORRUGATION, AND L 2" x 2 1/2" x 8 GAGE FOR 2 1/2" DEPTH OF CORRUGATION.
5. FLANGE OF SUPPORT ANGLE TO BE ADJUSTED TO SATISFY THE DEPTH OF THE SLAB OVER THE GIRDER.
6. TIMBER FORMS SHALL BE USED TO FORM THE OVERHANG AT THE EXTERIOR GIRDERS. SUBMIT OVERHANG FORMWORK DETAILS WITH THE PRESTRESSED GIRDER SHOP DRAWINGS.
7. EACH SHEET OF STEEL DECK FORM SHALL BE SCREWED DOWN IMMEDIATELY UPON PLACEMENT.
8. WELDS SHOWN SHALL BE IN ACCORDANCE WITH SECTION 513.17 OF THE CMS.
9. CONSTRUCTION, PLACING OF CONCRETE, AND INSPECTION OPERATIONS SHALL BE ACCORDING TO FEDERAL HIGHWAY ADMINISTRATION IM 40-3-72 DATED MAY 11, 1973, FOR PERMANENT STEEL DECK FORMS.
10. LOCATE TRANSVERSE DECK CONSTRUCTION JOINTS AT THE BOTTOM OF A FLUTE, AND FIELD DRILL 1/4" Ø WEEP HOLES AT NO LESS THAN 12" ON CENTER ALONG LINE OF THE JOINT.
11. WELD ANCHORS ARE INCLUDED WITH PRECAST CONCRETE GIRDER ITEM SP515A FOR PAYMENT, AND THEIR LOCATIONS AND DETAILS SHALL BE INCLUDED IN PRECAST GIRDER SHOP DRAWINGS.
12. FOR ADDITIONAL NOTES, SEE STRUCTURE GENERAL NOTES SHEET B8 OF B129.

DESIGNED BY: GLG CHECKED BY: MJL  
 DATE: 1/14/98 DATE: 1/28/98  
 DRAWN BY: GLG REVISIONS BY:  
 DATE: 1/15/98 DATE:  
 CAD FILE NAME: 25725-SIFFORM.DWG

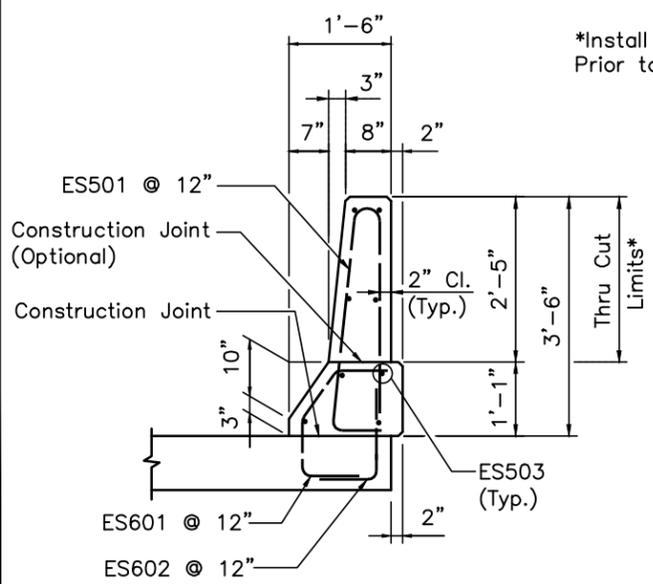
<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>STAY-IN-PLACE DECK FORMS</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG	CHECKED: MJL	DATE: 12/31/98
DRAWN: GLG	IN CHARGE: GT	SCALE: NTS
<b>CONTRACT 43-99-01 SHEET B102 OF B129</b>		



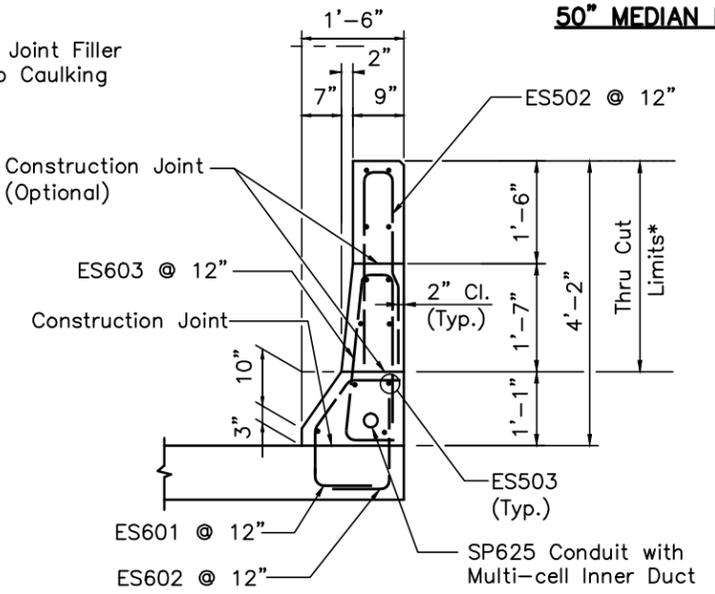
**42" PARAPET ELEVATION**



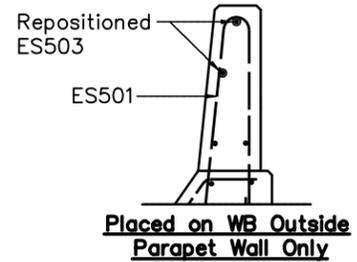
**50" MEDIAN BARRIER ELEVATION**



**42" PARAPET SECTION**



**50" MEDIAN BARRIER SECTION**



**NOTES:**

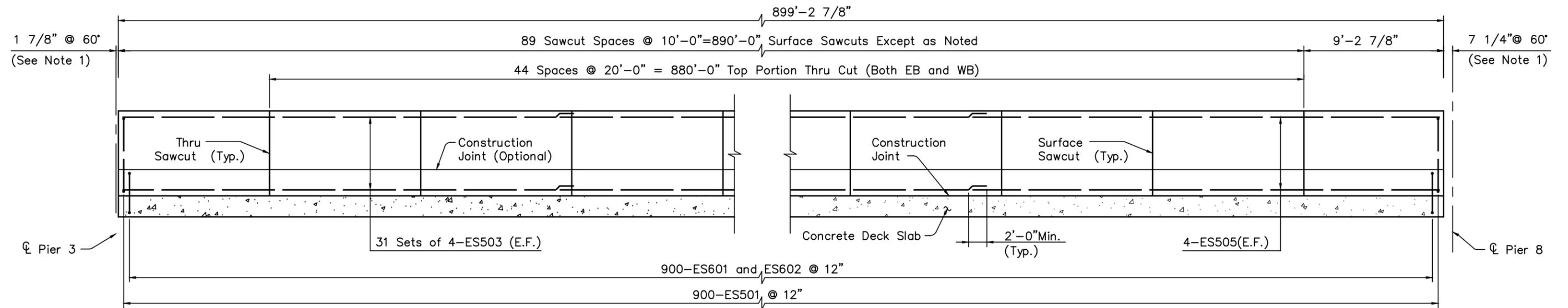
1. DIMENSION TO BE ADJUSTED TO ALLOW FOR MODULAR EXPANSION JOINT OPENING.
2. THE PREFIX 'ES' DENOTES EPOXY COATED SUPERSTRUCTURE REINFORCING.
3. TWO JUNCTION BOXES FOR CONDUIT WITH MULTI-CELL INNER DUCTS LOCATED IN EACH MEDIAN BARRIER SHALL BE SPACED AT A MINIMUM OF 1000' ON CENTER, AND AT A MAXIMUM OF 1200' ON CENTER. FOR JUNCTION BOX DETAILS, REFER TO OTC STANDARD DRAWING MCC-1. SEE ROADWAY GENERAL SUMMARY.
4. FOR SAWCUT DETAILS REFER TO THE STRUCTURE GENERAL NOTES, SHEET B8 OF B129.
5. FOR REINFORCEMENT SCHEDULE, SEE SHEETS B128 AND B129 OF B129.

**WB INSIDE AND OUTSIDE PARAPET WALL**

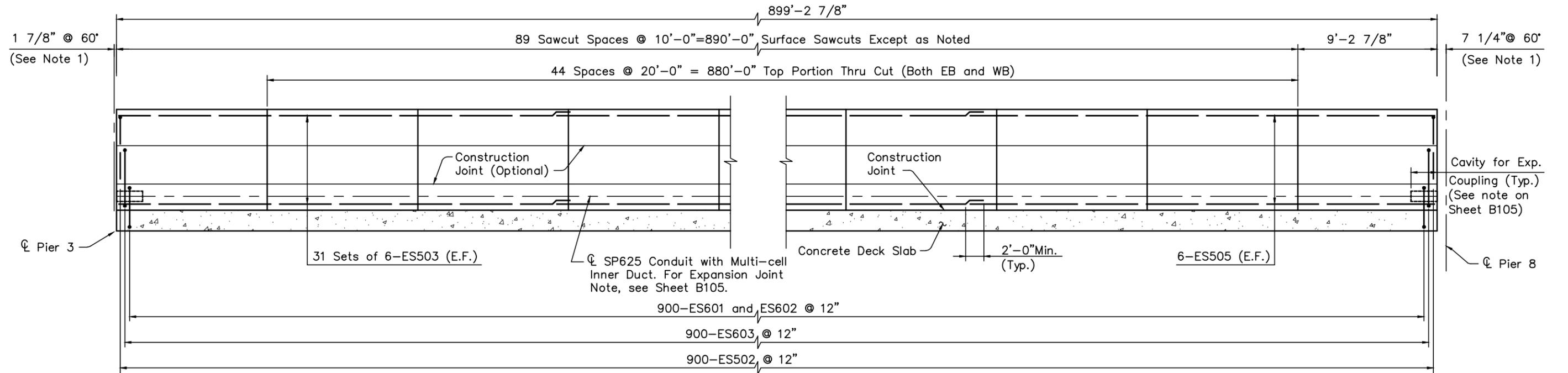
- \* MAKE 1/4" WIDE THRU-SAWCUTS IN THE TOP PORTION BETWEEN VERTICAL REINFORCING BARS. CUT OFF HORIZONTAL REINFORCING BARS AT THRU-SAWCUTS PRIOR TO SLIPFORMING TO PROVIDE 2" MINIMUM COVER.
- 6" IN HORIZONTAL REINFORCING STEEL WAS PLACED AT 20' CENTERS.
- TOP PORTIONS OF PARAPET WAS SAWCUT FULL DEPTH AT LOCATIONS WHERE 6" GAP WAS PROVIDED.
- SAWCUTS WERE FILLED WITH JOINT FILLER AND CAULKED.

DESIGNED BY: HW | CHECKED BY: MPL  
 DATE: 11-11-97 | DATE: 4-6-98  
 DRAWN BY: HW | REVISED BY:  
 DATE: 1-20-98 | DATE:  
 CAD FILE NAME: 25725-UJPP1.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 1 PARAPET DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: HW	CHECKED: MPL/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B103 OF B129		



**42" PARAPET ELEVATION**



**50" MEDIAN BARRIER ELEVATION**

**EB AND WB INSIDE AND OUTSIDE PARAPET WALL**

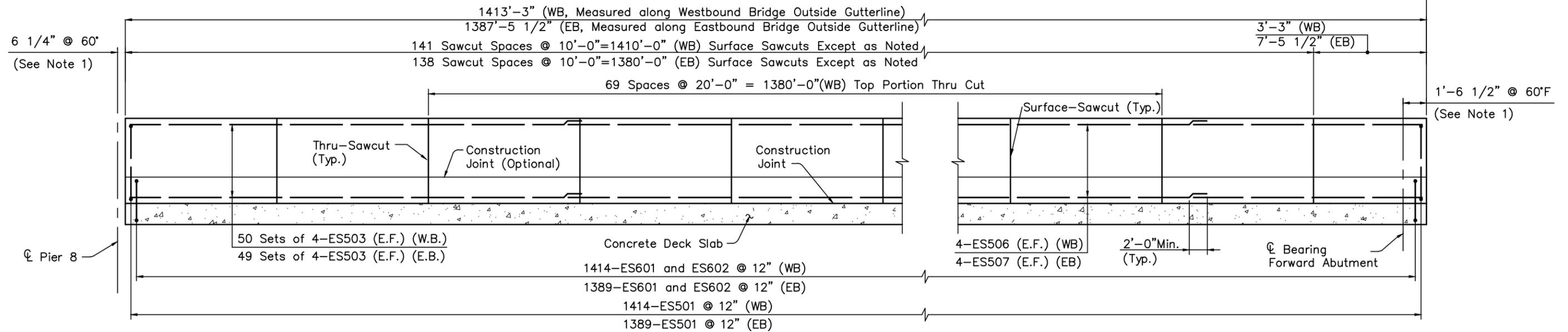
- 6" IN HORIZONTAL REINFORCING STEEL WAS PLACED AT 20' CENTERS.
- TOP PORTIONS OF PARAPET WAS SAWCUT FULL DEPTH AT LOCATIONS WHERE 6" GAP WAS PROVIDED.
- SAWCUTS WERE FILLED WITH JOINT FILLER AND CAULKED.
- FOR THRU-CUT NOTE, DETAILS, AND REPOSITIONED ES503 BARS IN THE TOP PORTION OF WB OUTSIDE PARAPET, SEE SHEET B03 OF B129.

**NOTES**

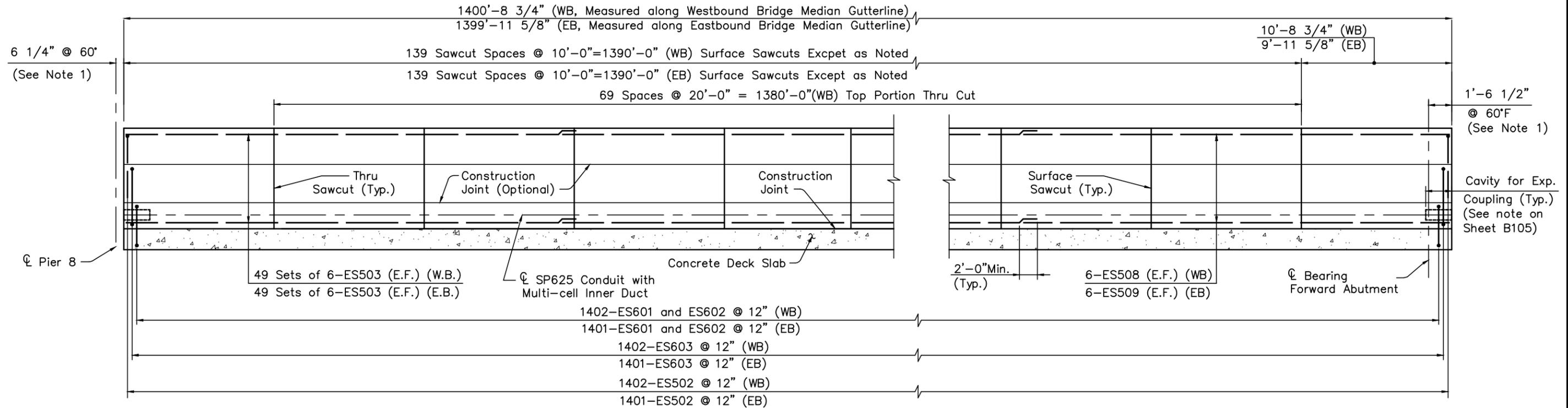
1. DIMENSION TO BE ADJUSTED TO ALLOW FOR MODULAR EXPANSION JOINT OPENING.
2. FOR BARRIER AND PARAPET SECTIONS, SEE SHEET B103 OF B129.
3. FOR ADDITIONAL NOTES, SEE SHEET B103 OF B129.

DESIGNED BY: HW  
 DATE: 11-11-97  
 DRAWN BY: HW  
 DATE: 1-20-98  
 CHECKED BY: MPL  
 DATE: 4-6-98  
 REVISIONS BY: DATE:  
 CAD FILE NAME: 25725-U2PPT.DWG

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
UNIT 2 PARAPET DETAILS			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: HW	CHECKED: MPL/LMH	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B104 OF B129			



**42" PARAPET ELEVATION**



**50" MEDIAN BARRIER ELEVATION**

**EXPANSION JOINTS FOR CONDUITS WITH MULTI-CELL INNERDUCT**

EXPANSION JOINTS FOR THE 4" DIAMETER CONDUITS WITH MULTI-CELL INNERDUCT SHALL BE DESIGNED TO BE COMPATIBLE WITH THE BRIDGE MOVEMENT AS FOLLOWS:

LOCATION	LONGITUDINAL	TRANSVERSE
REAR ABUTMENT	2.4"	0"
PIER 3	6.3"	0"
PIER 8	12.6"	0"
FORWARD ABUT.	7.1"	0.6"

THE EXPANSION JOINTS SHALL BE COMPATIBLE WITH THE CONDUITS USED AND SHALL BE MANUFACTURED BY THE MANUFACTURER OF THE CONDUITS. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND A CERTIFICATION FROM THE EXPANSION JOINT MANUFACTURER REGARDING THE ABILITY OF THE JOINTS TO PROVIDE THE REQUIRED MOVEMENTS.

NO SEPARATE PAYMENT WILL BE MADE FOR THE EXPANSION JOINTS FOR THE CONDUITS WITH MULTI-CELL INNERDUCT BUT, COST THEREOF, SHALL BE INCLUDED IN THE LINEAR FOOT PRICE BID FOR THE APPROPRIATE SP 625 ITEMS. SEE ROADWAY GENERAL SUMMARY.

**NOTES**

- DIMENSION TO BE ADJUSTED TO ALLOW FOR MODULAR EXPANSION JOINT OPENING.
- FOR BARRIER AND PARAPET SECTIONS, SEE SHEET B103 OF B129.
- FOR ADDITIONAL NOTES, SEE SHEET B103 OF B129.
- THE FOLLOWING ABBREVIATIONS ARE USED:  
WB = WESTBOUND BRIDGE  
EB = EASTBOUND BRIDGE

**WB INSIDE AND OUTSIDE PARAPET WALL**

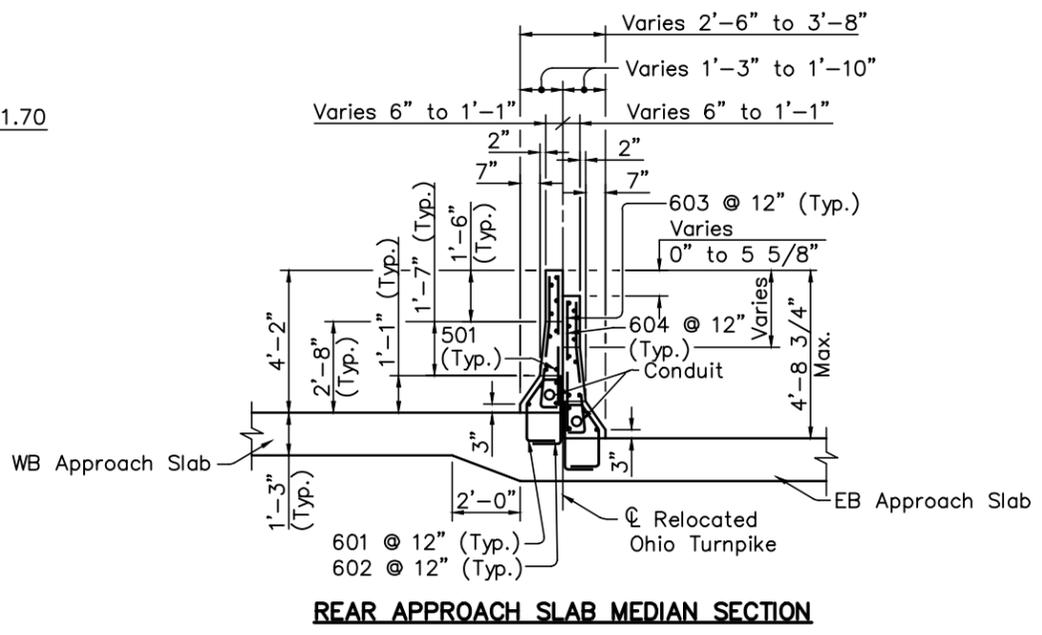
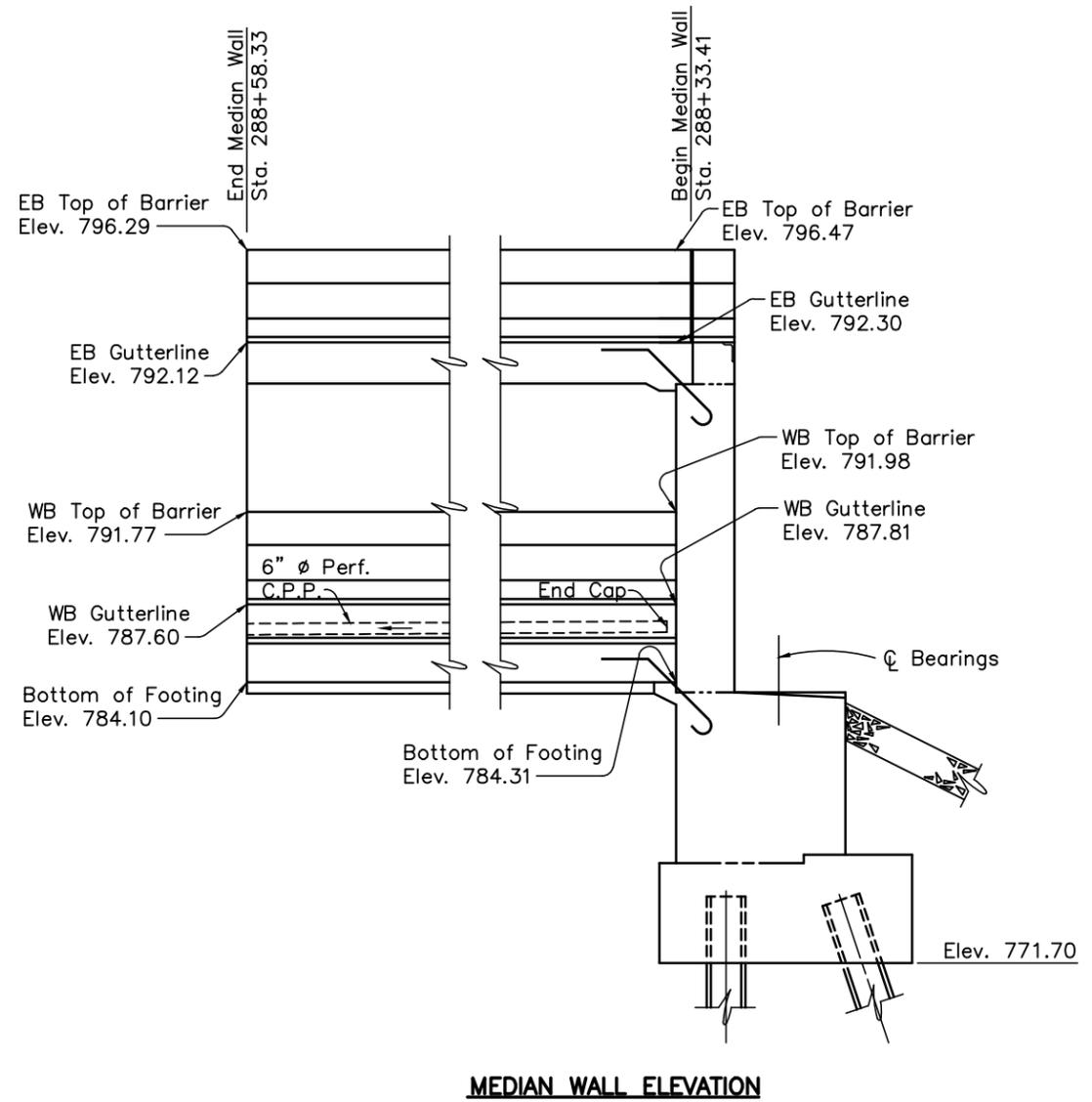
- 6" IN HORIZONTAL REINFORCING STEEL WAS PLACED AT 20' CENTERS.
- TOP PORTIONS OF PARAPET WAS SAWCUT FULL DEPTH AT LOCATIONS WHERE 6" GAP WAS PROVIDED.
- SAWCUTS WERE FILLED WITH JOINT FILLER AND CAULKED.
- FOR THRU-CUT NOTE, DETAILS, AND REPOSITIONED ES503 BARS IN THE TOP PORTION OF WB OUTSIDE PARAPET, SEE SHEET B03 OF B129.

DESIGNED BY: HW  
CHECKED BY: MPL  
DATE: 11-11-97  
DATE: 4-6-98  
DRAWN BY: HW  
REVISED BY:  
DATE: 1-20-98  
DATE:  
CAD FILE NAME: 25725-U3PPT.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
UNIT 3 PARAPET DETAILS		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b> 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: HW	CHECKED: MPL/LMH	DATE: 12/31/98
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B105 OF B129		

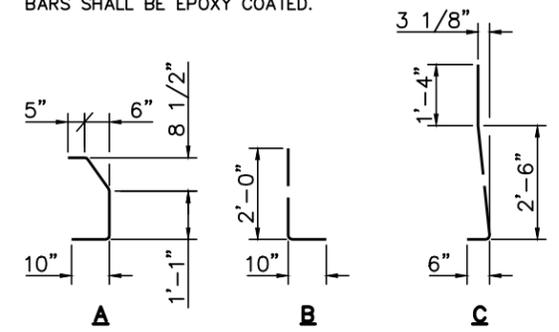


DESIGNED BY: GLG CHECKED BY: CMB  
 DATE: 02/17/98 DATE: 03/03/98  
 DRAWN BY: GLG REVISED BY:  
 DATE: 02/17/98 DATE:  
 CAD FILE NAME: 25725-MEDIAN2.DWG



BAR TABLE						
MARK	BAR TYPE	LENGTH	FWD. NO.	REAR NO.	REAR NO.	TOTAL NO.
EB 501	STR	24'-8"	12	12	12	36
EB 601	A	3'-0"	26	26	26	78
EB 602	B	2'-8"	26	26	26	78
EB 603	C	4'-3"	26	26	26	78
EB 604	STR	3'-10"	26	26	26	78

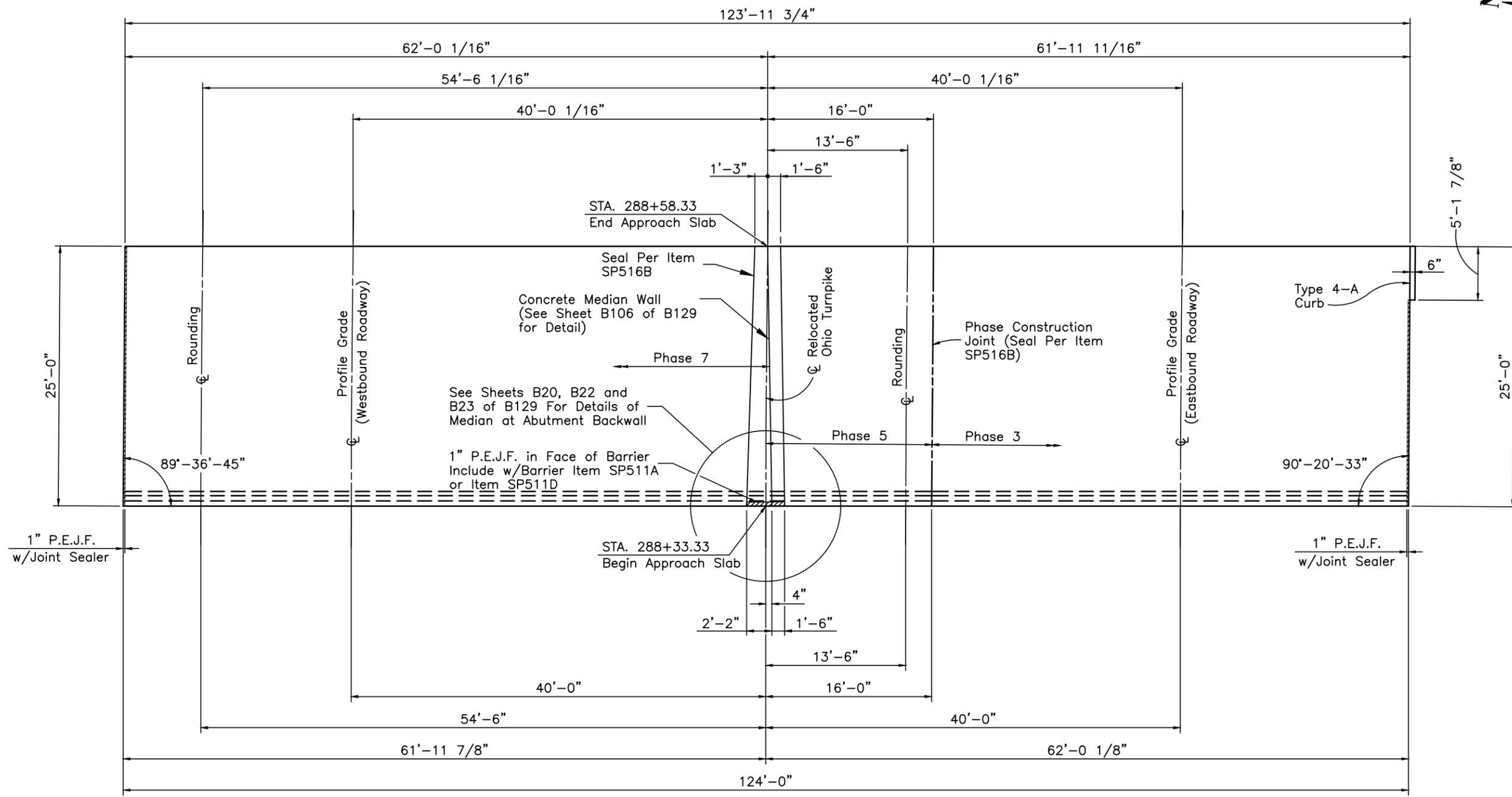
NOTE:  
 BARS SHALL BE EPOXY COATED.



**BAR BENDING DIAGRAMS**

- NOTES:
- FOR FORWARD APPROACH SLAB MEDIAN WALL DETAILS SEE SHEET B106 OF B129.
  - FOR NOTES SEE SHEET B106 OF B129.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
APPROACH SLAB AND MEDIAN WALL DETAILS OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG	CHECKED: CMB/MJL	DATE: 12/31/98
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B106A OF B129		



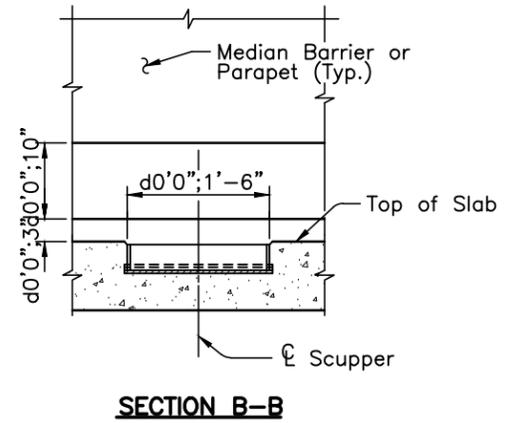
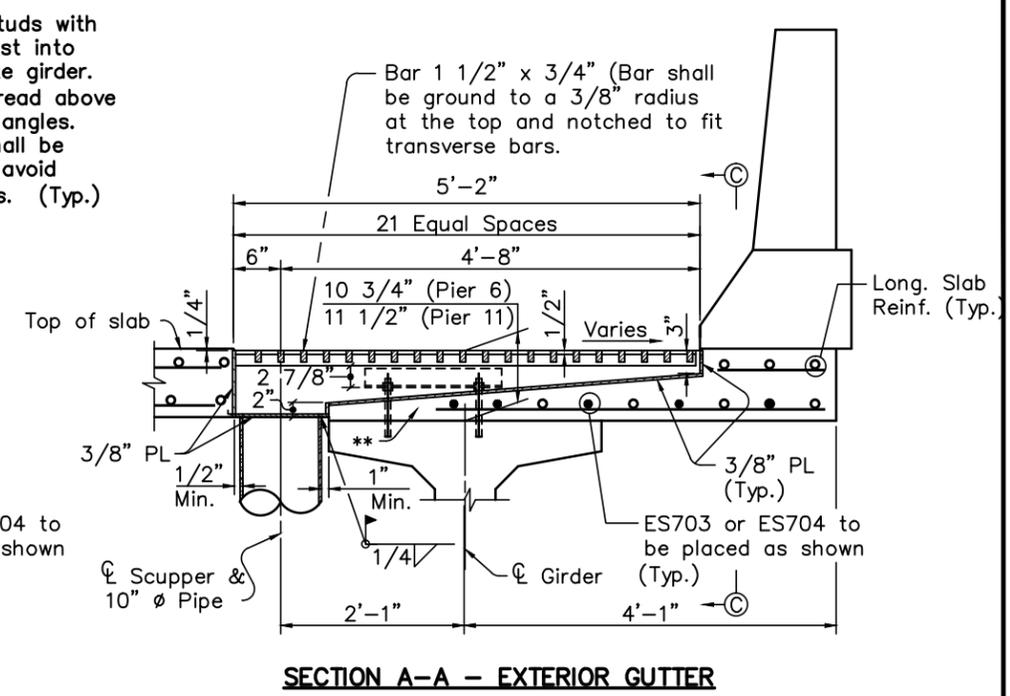
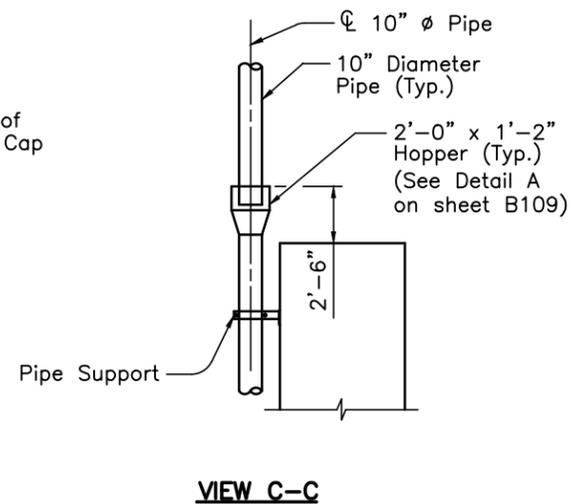
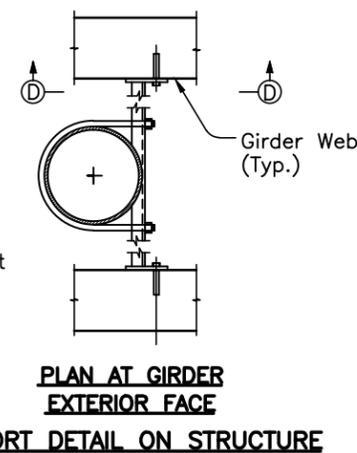
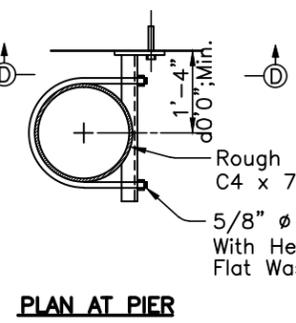
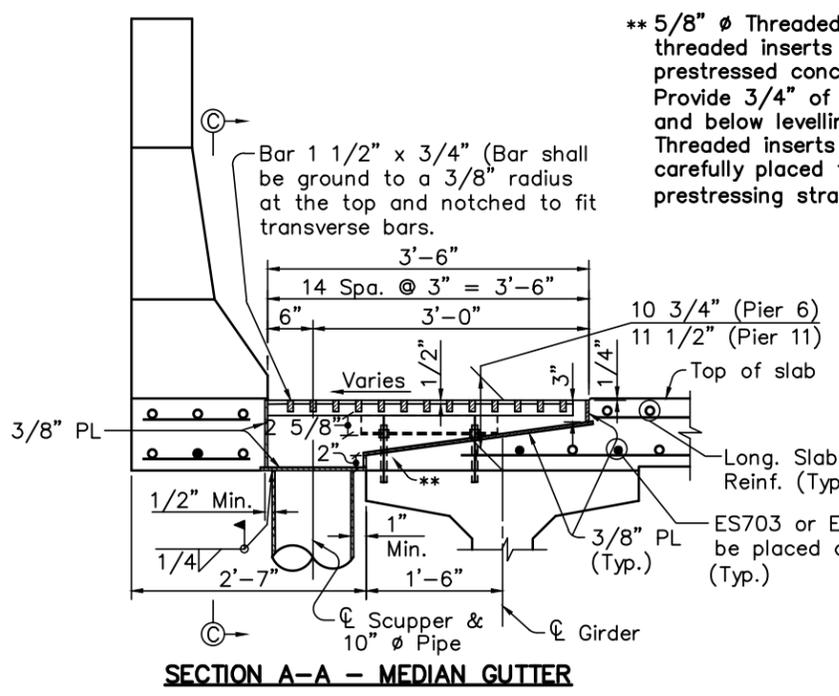
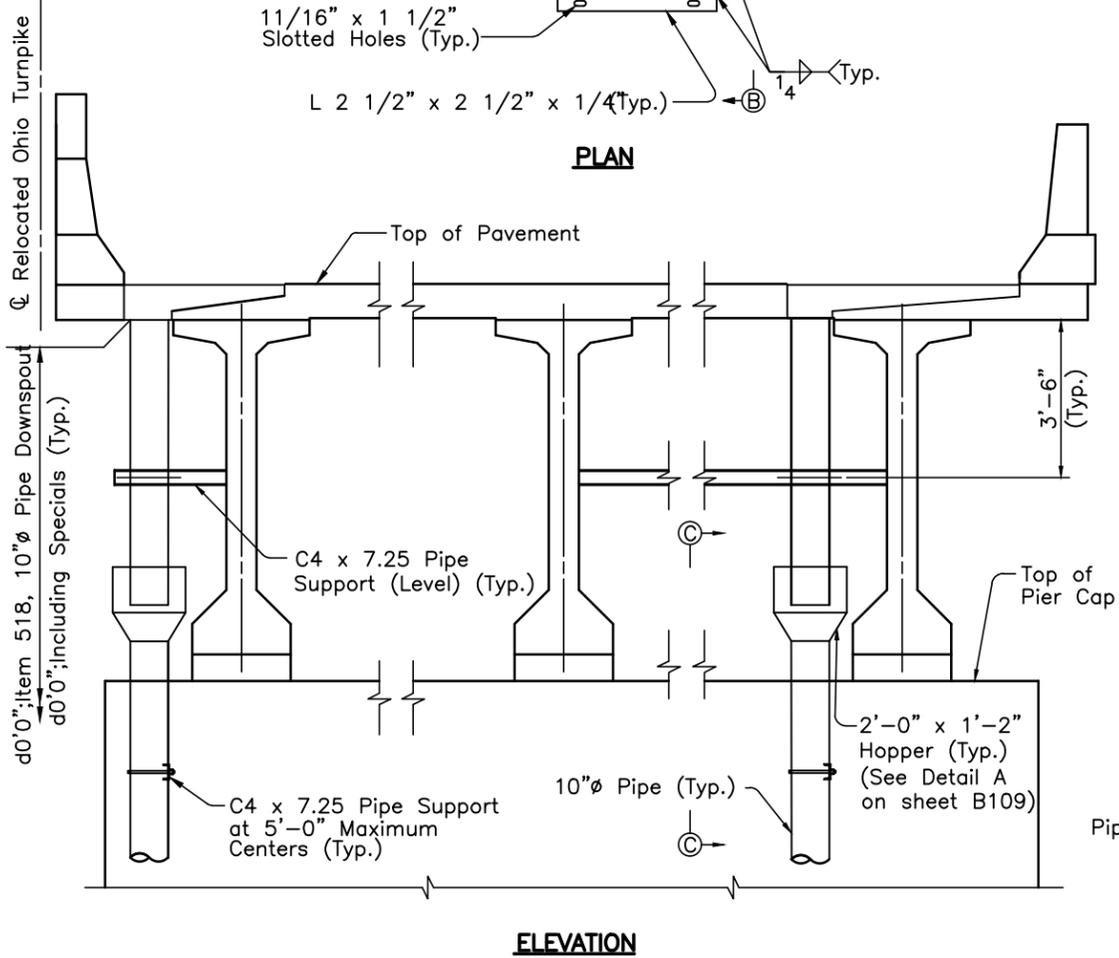
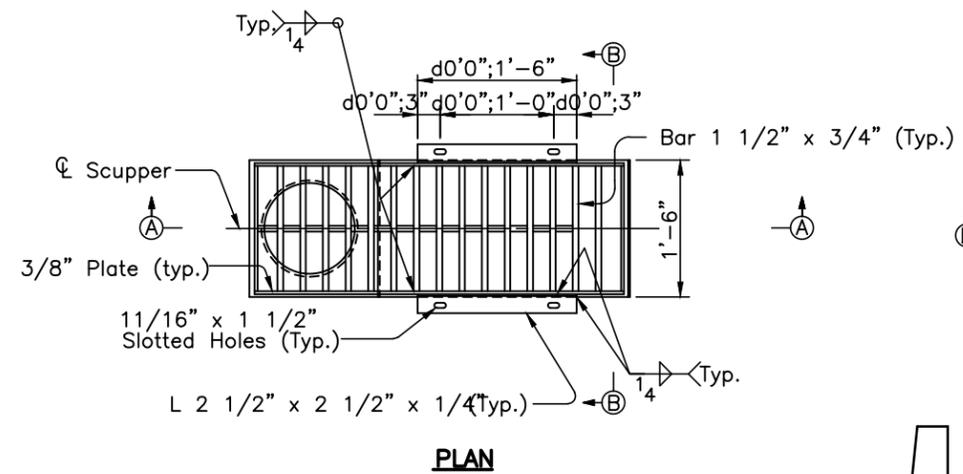
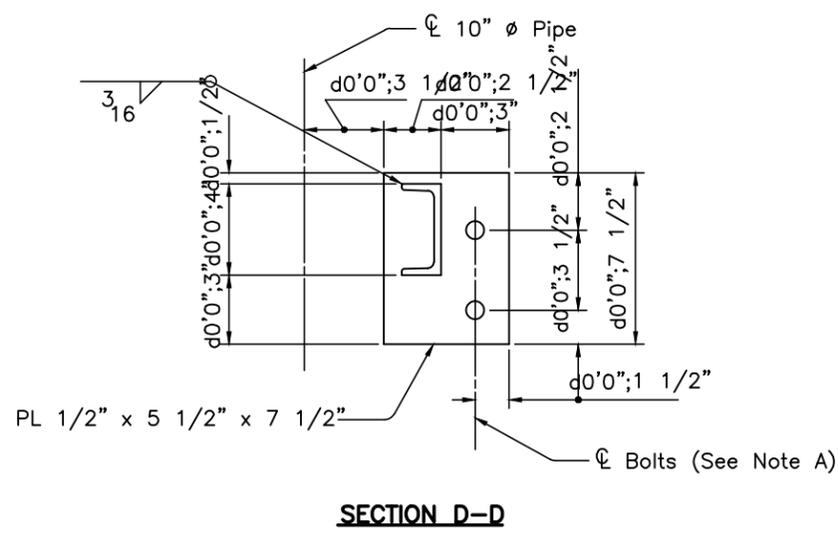
**PLAN**

**NOTE**  
 1. FOR ADDITIONAL APPROACH SLAB DETAILS, REFER TO ODOT STANDARD DRAWING AS-1-81.

DESIGNED BY: JDV | CHECKED BY: SJR  
 DATE: 2-4-98 | DATE: 3-12-99  
 DRAWN BY: KRM | REVISED BY:  
 DATE: 2-26-98 | DATE:  
 CAD FILE NAME: 25725-APSLABC.DWG

<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>FORWARD APPROACH</b>			
<b>SLAB DETAIL</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
PREPARED FOR: <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>			
BY: <b>THOMAS FOK &amp; ASSOC., LTD.</b>			
DESIGNED: JDV	CHECKED: SJR	DATE: 12/31/98	
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS	
<b>CONTRACT 43-99-01 SHEET B107 OF B129</b>			

DESIGNED BY: AEH CHECKED BY: M.J.L.  
 DATE: 11/05/97 DATE: 04/15/98  
 DRAWN BY: AEH REVISIONS BY:  
 DATE: 12/22/97 DATE:  
 CAD FILE NAME: 25725 - DRAIN.DWG



**\*\* 5/8" Ø Threaded studs with threaded inserts cast into prestressed concrete girder. Provide 3/4" of thread above and below levelling angles. Threaded inserts shall be carefully placed to avoid prestressing strands. (Typ.)**

Bar 1 1/2" x 3/4" (Bar shall be ground to a 3/8" radius at the top and notched to fit transverse bars.)

- NOTES:**
1. THE SCUPPERS AND SCUPPER SUPPORTS SHALL BE HOT-DIPPED GALVANIZED PER CMS 711.02 LOW OR MILD CARBON STEEL AVAILABLE COMMERCIALY.
  2. ALL PIPES SHALL BE 10" DIAMETER STANDARD HOT-DIPPED GALVANIZED STEEL PIPE PER CMS 707.08. JOINTS SHALL BE MADE BY WELDING OR BY USE OF CLAMP-TYPE COUPLINGS HAVING A RING GASKET. ALL WELDING SHALL BE DONE BEFORE GALVANIZING. SUPPORT MATERIAL FOR ATTACHING PIPES SHALL BE ASTM A36 AND SHALL BE GALVANIZED PER CMS 711.02 AFTER FABRICATION. THE BOLTS SHALL BE GALVANIZED AS SPECIFIED IN SP 711.
  3. THE SCUPPER SUPPORT ANGLES AND ACCESSORIES ARE INCLUDED WITH ITEM 518, SCUPPER, INCLUDING SUPPORTS, AS PER PLAN, FOR PAYMENT.
  4. THREADED INSERTS ARE INCLUDED WITH PRECAST CONCRETE GIRDER ITEMS SP515A FOR PAYMENT.
  5. THE 10" DIAMETER PIPE INCLUDING FITTINGS, SUPPORTS AND ACCESSORIES SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 518, 10 INCH PIPE DOWNSPOUT, INCLUDING SPECIALS.
  6. FOR ADDITIONAL DRAINAGE DETAILS, SEE SHEET B109 OF B129.

**NOTE A:**  
 BOLTS SHALL BE CAPABLE OF DEVELOPING A PULLOUT RESISTANCE OF NOT LESS THAN 12,000 POUNDS. FOR CONNECTING TO PRESTRESSED GIRDERS, BOLTS SHALL BE 3/4" DIAMETER GALVANIZED WITH THREADED GALVANIZED INSERT CAST INTO THE GIRDERS. FOR CONNECTING TO PIERS, BOLTS SHALL BE 3/4" DIAMETER EXPANSION GALVANIZED BOLT ANCHORS DRILLED IN-PLACE.

TABLE OF SCUPPER LOCATIONS			
STATION	PIER	BRIDGE	GUTTER
270+73.67	6L	WESTBOUND	LEFT
270+73.67	6L	WESTBOUND	RIGHT
270+73.67	6R	EASTBOUND	LEFT
270+73.67	6R	EASTBOUND	RIGHT
278+50.83	11L	WESTBOUND	LEFT
278+50.83	11L	WESTBOUND	RIGHT
278+50.83	11R	EASTBOUND	LEFT
278+50.83	11R	EASTBOUND	RIGHT

**CONCRETE ALTERNATE**

RECORD DRAWING	11/3/04
NO. REVISIONS	BY DATE

**OHIO TURNPIKE COMMISSION**

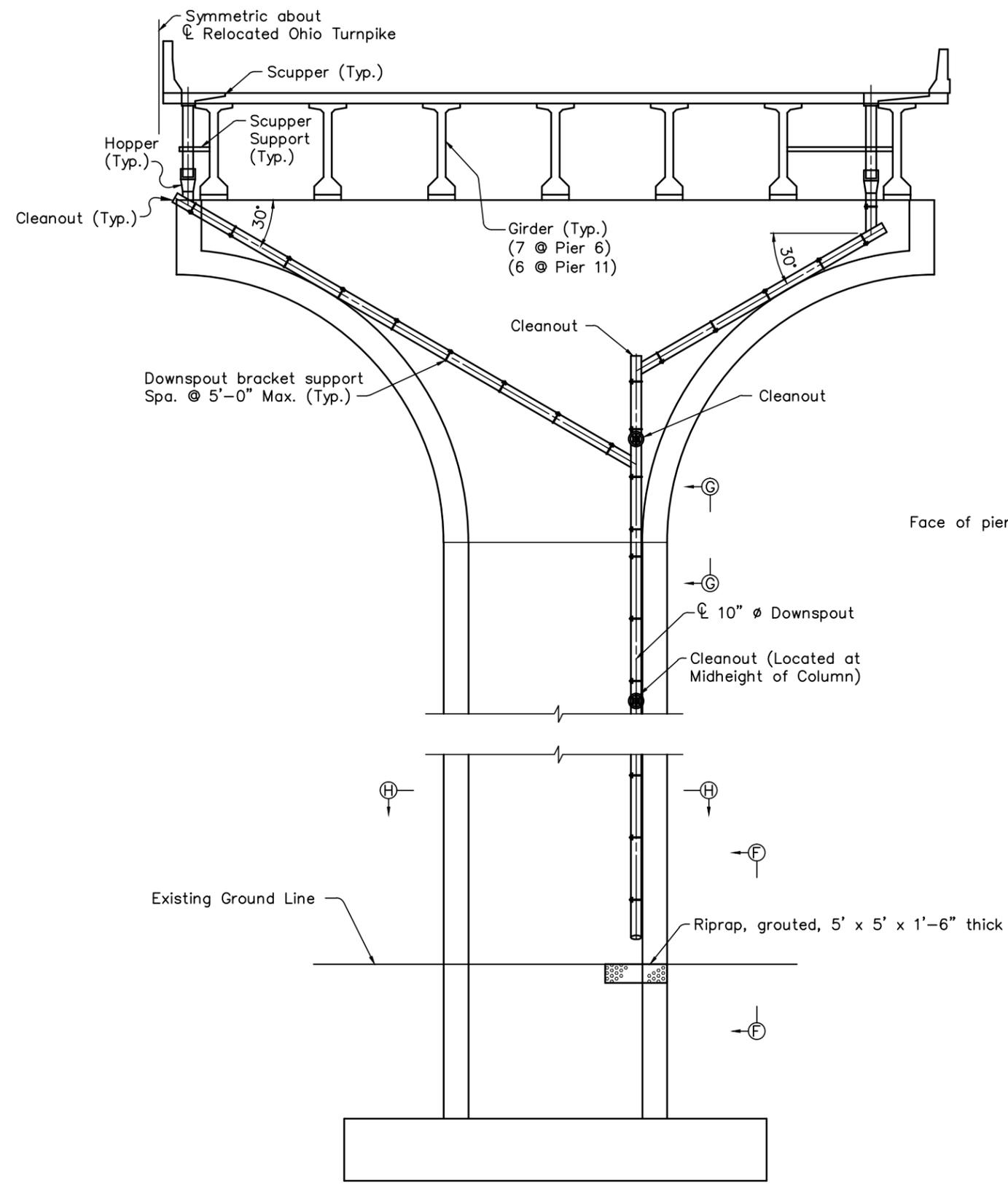
**DRAINAGE DETAILS**  
 OHIO TURNPIKE OVER CUYAHOGA RIVER  
 SUMMIT COUNTY MP 176.9

**HNTB ARCHITECTS ENGINEERS PLANNERS**  
 1375 EAST 9th STREET  
 CLEVELAND, OHIO 44114-1724

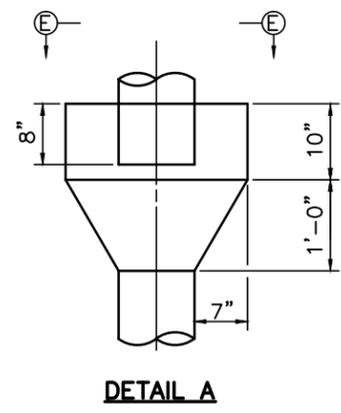
DESIGNED: AEH/GLG	CHECKED: M.J.L.	DATE: 12/31/98
DRAWN: AEH/GLG	IN CHARGE: GT	SCALE: N.T.S.

**CONTRACT 43-99-01 SHEET B108 OF B129**

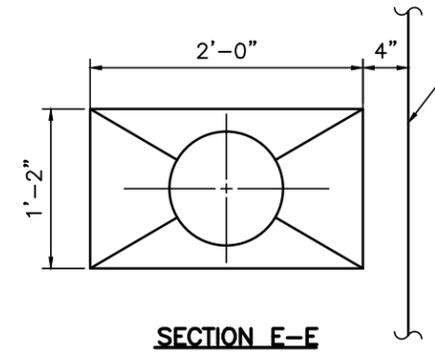
DESIGNED BY: GLG CHECKED BY: MJL  
 DATE: 04/13/98 DATE: 04/15/98  
 DRAWN BY: GLG REVISIONS BY: DATE:  
 DATE: 04/13/98 DATE:  
 CAD FILE NAME: 25725-DRAIN2.DWG



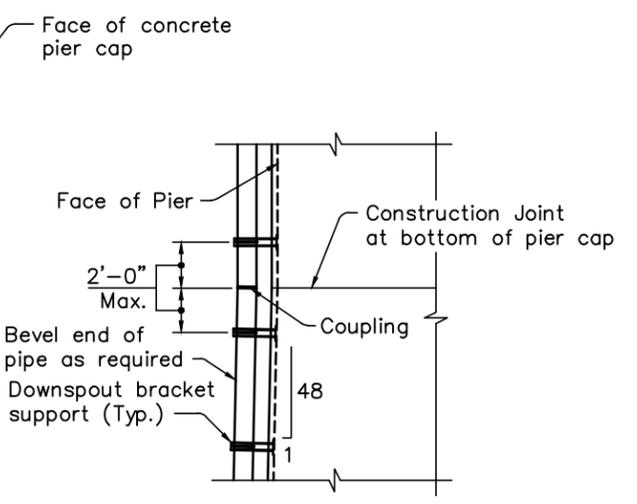
**PIER ELEVATION - PIER 6R SHOWN LOOKING EAST AND PIER 11L LOOKING WEST**  
 (Pier 6L and 11R Symmetrical about C Relocated Ohio Turnpike)



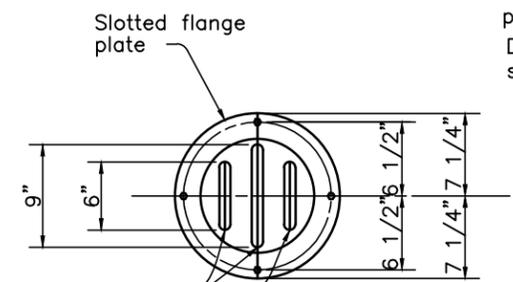
**DETAIL A**



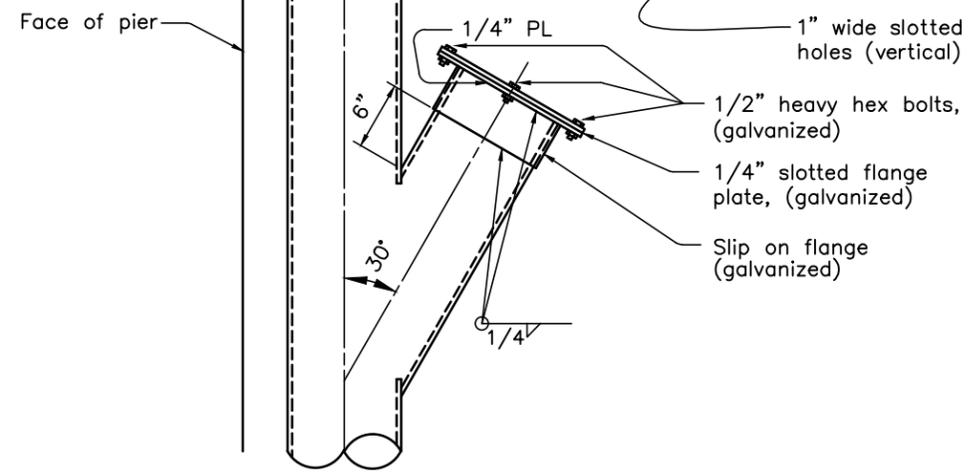
**SECTION E-E**



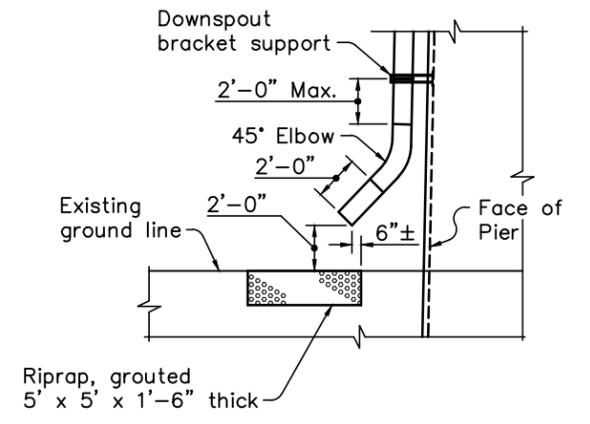
**VIEW G-G**



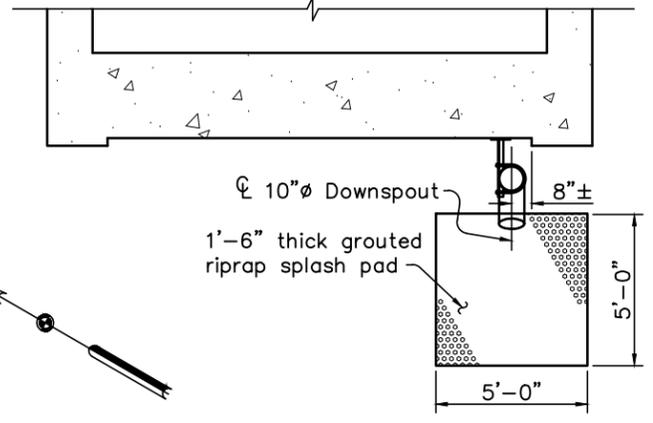
Slotted flange plate



**CLEANOUT DETAIL**



**VIEW F-F**



**SECTION H-H - PIER 6R SHOWN**  
 (PIERS 6L, 11R AND 11L SIMILAR)

**NOTES:**

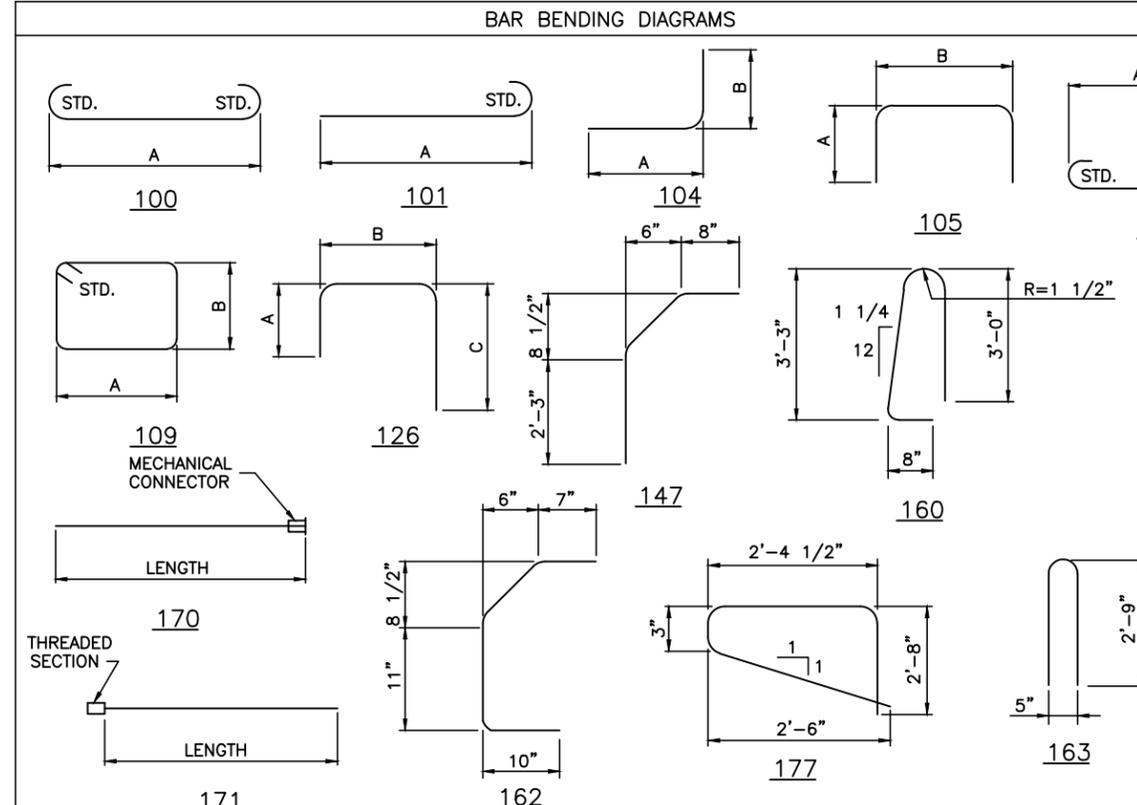
FOR ADDITIONAL DRAINAGE NOTES AND DETAILS SEE SHEET B108 OF B129.

<b>CONCRETE ALTERNATE</b>			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
<b>DRAINAGE DETAILS</b>			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: GLG	CHECKED: MJL	DATE: 12/31/98	
DRAWN: GLG	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B109 OF B129			

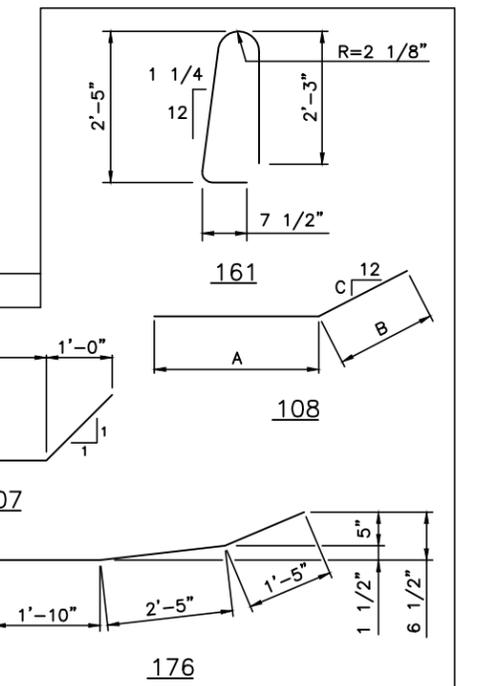
MARK	NUMBER			LENGTH	WEIGHT LBS.	TYPE	DIMENSIONS				INC.
	REAR	FWD	TOTAL				A	B	C	D	
ABUTMENTS (EPOXY COATED)											
EA401	10	10	20	1'-7"	21	101	1'-3"				
EA501	84		84	8'-2"	716	104	1'-6"	6'-9"			
EA502	138	144	282	23'-0"	6765	STR.					
EA503	84		84	9'-8"	847	105	3'-0"	3'-11"			
EA504	16	22	38	7'-2"	284	100	6'-0"				
EA505	72		72	3'-9"	282	105	1'-0"	2'-0"			
EA506	16		16	14'-0"	234	STR.					
EA507	4		4	20'-8"	86	108	12'-0"	8'-8"	6 1/2"		
EA508	4		4	14'-8"	61	STR.					
EA509	4		4	17'-3"	72	STR.					
EA510	20		20	19'-8"	410	STR.					
EA511	8		8	7'-8"	64	STR.					
EA512	4	4	8	5'-8"	47	STR.					
EA513	4	4	8	5'-8"	47	176					
EA514	8	12	20	10'-0"	209	STR.					
EA515	2 SER OF 11	2 SER OF 11	4 SER OF 11	3'-0" to 3'-10"	157	101	2'-5" to 3'-3"				1"
EA516	12	21	33	7'-1"	244	160					
EA517		11	11	11'-11"	137	104	1'-6"	10'-6"			
EA518		7	7	11'-0"	80	104	1'-6"	9'-7"			
EA519		7	7	10'-2"	74	104	1'-6"	8'-9"			
EA520		8	8	9'-4"	78	104	1'-6"	7'-11"			
EA521		9	9	8'-5"	79	104	1'-6"	7'-0"			
EA522		70	70	16'-1"	1174	STR.					
EA523		84	84	12'-0"	1051	105	3'-0"	6'-3"			
EA524		72	72	6'-3"	469	105	1'-0"	4'-6"			
EA525		11	11	13'-0"	149	104	1'-6"	11'-7"			
EA526		7	7	12'-4"	90	104	1'-6"	10'-11"			
EA527		8	8	11'-5"	95	104	1'-6"	10'-0"			
EA528		7	7	10'-7"	77	104	1'-6"	9'-2"			
EA529		9	9	9'-9"	92	104	1'-6"	8'-4"			
EA530		12	12	23'-8"	296	STR.					
EA531		2	2	28'-0"	58	108	19'-0"	9'-0"	7 1/4"		
EA532		2	2	21'-0"	44	STR.					
EA533		2	2	23'-4"	49	STR.					
EA534		2	2	25'-6"	53	STR.					
EA535		10	10	26'-10"	280	STR.					
EA536		4	4	14'-10"	62	STR.					
EA537		12	12	18'-6"	232	STR.					
EA538		2	2	22'-11"	48	108	13'-9"	9'-2"	7 1/4"		
EA539		2	2	16'-0"	33	STR.					
EA540		2	2	18'-0"	38	STR.					
EA541		2	2	20'-4"	42	STR.					
EA542		10	10	21'-8"	226	STR.					
EA543	18	18	36	8'-1"	304	STR.					
EA544	2	2	4	1'-8"	7	STR.					
EA545	18	18	36	11'-3"	422	109	1'-8"	3'-8"			
EA546	4	6	10	5'-3"	55	163					
EA547	24	24	48	1'-10"	46	STR.					
EA548	13	13	26	8'-5 1/2"	115	177					
EA549	7	7	14	6'-10 1/2"	50	109	2'-6"	8"			
EA550	1	1	2	4'-1"	4	STR.					
EA551	1	1	2	1'-4"	1	STR.					
EA552	7	7	14	6'-4 1/2"	47	109	2'-3"	8"			
EA553	7	7	14	6'-0 1/2"	44	109	2'-1"	8"			
EA601	84		84	14'-10"	1871	126	6'-9"	5'-10"	2'-7"		
EA602	126		126	17'-3"	3265	105	8'-0"	1'-7"			
EA603	126		126	7'-3"	1372	105	3'-0"	1'-7"			
EA604	126		126	6'-9"	1277	105	3'-0"	1'-1"			
EA605	64		64	11'-0"	1057	STR.					
EA606	4		4	6'-7"	40	STR.					
EA607	64		64	7'-3"	697	STR.					
EA608	4 SER OF 4		4 SER OF 4	5'-4" to 7'-0"	148	STR.					6 5/8"
EA609	4 SER OF 4		4 SER OF 4	5'-11" to 7'-5"	160	STR.					6"
EA610	34	43	77	3'-8"	424	147					
EA611	22	22	44	4'-6"	297	STR.					
EA612	12	21	33	2'-10"	140	STR.					
EA613	11	11	22	20'-11"	346	126	10'-6"	8'-2"	2'-7"		
EA614	7	7	14	20'-0"	210	126	9'-7"	8'-2"	2'-7"		
EA615	7	7	14	19'-2"	202	126	8'-9"	8'-2"	2'-7"		
EA616	8	8	16	18'-4"	220	126	7'-11"	8'-2"	2'-7"		
EA617	9	9	18	17'-5"	235	126	7'-0"	8'-2"	2'-7"		
EA618	126	126	252	19'-1"	3611	105	9'-0"	1'-5"			

MARK	NUMBER			LENGTH	WEIGHT LBS.	TYPE	DIMENSIONS				INC.
	REAR	FWD	TOTAL				A	B	C	D	
ABUTMENTS (EPOXY COATED) (CONT'D)											
EA619		126	126	3'-9"	710	108	0'-9"	3'-0"	12"		
EA620		126	126	5'-9"	1088	126	0'-9"	2'-4"	3'-0"		
EA621		126	126	6'-6"	1230	105	2'-6"	1'-10"			
EA622		11	11	22'-0"	363	126	11'-7"	8'-2"	2'-7"		
EA623		7	7	21'-4"	224	126	10'-11"	8'-2"	2'-7"		
EA624		8	8	20'-5"	245	126	10'-0"	8'-2"	2'-7"		
EA625		7	7	19'-7"	206	126	9'-2"	8'-2"	2'-7"		
EA626		9	9	18'-9"	253	126	8'-4"	8'-2"	2'-7"		
EA627		52	52	14'-6"	1133	STR.					
EA628		3	3	10'-6"	47	STR.					
EA629		90	90	8'-0"	1081	STR.					
EA630		4 SER OF 4	4 SER OF 4	5'-8" to 7'-6"	158	STR.					7 3/8"
EA631		4 SER OF 4	4 SER OF 4	6'-0" to 7'-8"	164	STR.					6 5/8"
EA632		38	38	12'-0"	685	STR.					
EA633		3	3	8'-0"	36	STR.					
EA634	4	6	10	5'-5"	81	161					
EA635	4	6	10	2'-0"	30	104	7 1/2"	1'-6"			
EA636	4	6	10	2'-11"	44	162					
EA801	20	20	40	7'-9"	828	105	1'-4"	3'-5"			
EA802	16	16	32	4'-4"	370	104	1'-4"	3'-2"			
EA803	5	5	10	5'-10"	78	107	3'-6"				
ED801	84	84	168	4'-11"	2205	107	2'-7"				
TOTAL = 43,578											

ABUTMENTS (UNCOATED)											
A501	84		84	10'-7"	927	105	2'-6"	5'-10"			
A502	36	49	85	11'-4"	1004	109	3'-3"	2'-2"			
A503		84	84	12'-11"	1132	105	2'-6"	8'-2"			
A801	35	27	62	28'-0"	4635	STR.					
A802	7	9	16	21'-0"	897	STR.					
A803	12		12	16'-10"	539	STR.					
A804	6	6	12	26'-6"	425	STR.					
A805	6	6	12	21'-3"	340	STR.					
A806	9	9	18	28'-0"	673	171					
A807	9	9	18	21'-0"	505	170					
TOTAL = 11,077											



- NOTES:**
- THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
  - STR. = STRAIGHT
  - A BAR MARK WITH THE PREFIX "E" INDICATES THAT REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL MEET ALL REQUIREMENTS OF SP 509.
  - EPOXY COATED REINFORCING STEEL SUPPORT: IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND 509.09, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING 3'-0" CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC., SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.
  - REINFORCING STEEL SAMPLES: REFER TO O.T.C. GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05, AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING FOR EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.



CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>ABUTMENT</b>		
<b>REINFORCING SCHEDULE</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
PREPARED FOR: <b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
BY: <b>THOMAS FOK &amp; ASSOC., LTD.</b>		
DESIGNED: JCV	CHECKED: SJR	DATE: 12/31/98
DRAWN: KRM	IN CHARGE: GT	SCALE: NTS
CONTRACT 43-99-01 SHEET B110 OF B129		

DESIGNED BY: JCV CHECKED BY: SJR  
DATE: 2-4-98 DATE: 3-12-99  
DRAWN BY: KRM REVISED BY:  
DATE: 2-26-98 DATE:  
CAD FILE NAME: 25725-REBAR1.C.DWG

### BAR SCHEDULE

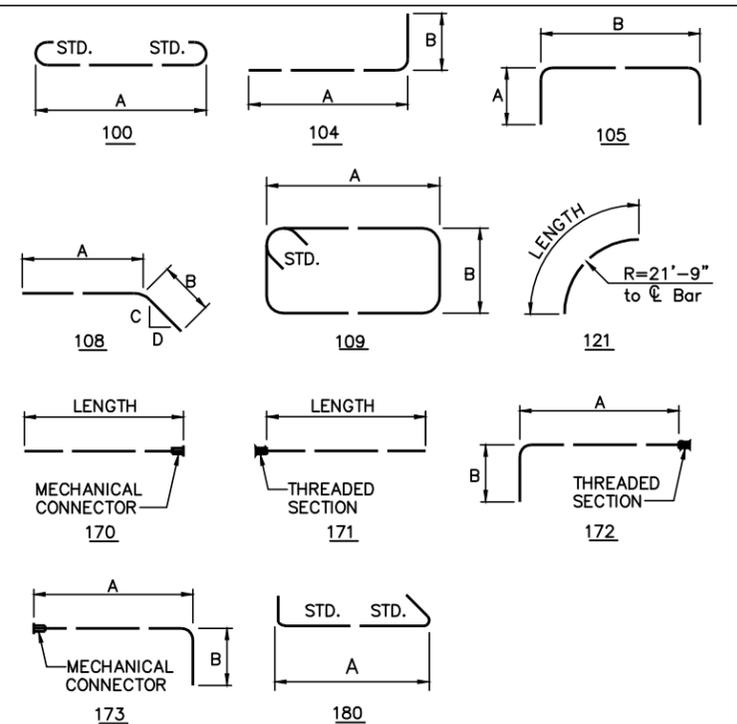
MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 1L REINFORCEMENT																	
EP1L 401	236	2	1	328	180	1	1										
EP1L 402	80	2	5	129	180	1	5 1/2										
EP1L 403	100	2	3	150	180	1	3 1/2										
EP1L 404 THRU 416 NOT USED																	
EP1L 417	52	23	3	808	105	4	0	15	5								
EP1L 418	16	28	2	301	105	5	5	17	6								
EP1L 419	20	27	10	372	105	5	3	17	6								
EP1L 420 THRU 432 NOT USED																	
EP1L 433	62	27	6	1139	105	5	1	17	6								
EP1L 434	110	9	6	701	180	8	7										
EP1L 501 THRU 550 NOT USED																	
EP1L 551	10	17	8	184	STR												
EP1L 552	80	36	9	3066	105	15	3	6	6								
EP1L 553	40	31	3	1304	105	12	6	6	6								
EP1L 554	40	23	9	991	105	8	9	6	6								
EP1L 555	40	19	9	824	105	6	9	6	6								
EP1L 556	40	17	5	726	105	5	7	6	6								
EP1L 557	64	15	11	1062	105	4	10	6	6								
EP1L 558	96	8	4	834	105	2	6	3	7								
EP1L 559 THRU 563 NOT USED																	
EP1L 564	18	8	2	153	STR												
EP1L 565	18	10	9	201	109	1	8	3	5								
EP1L 601 THRU 650 NOT USED																	
EP1L 651	8	17	8	212	STR												
EP1L 652	70	15	10	1665	105	3	10	8	6								
EP1L 653	16	33	10	813	121												
EP1L 654	20	11	6	345	STR												
EP1L 655	20	13	6	406	STR												
EP1L 656	20	17	3	518	STR												
EP1L 657	20	24	3	728	STR												
EP1L 801 THRU 850 NOT USED																	
EP1L 801	104	9	5	2603	104	8	3	1	4								
EP1L 802 THRU 803 NOT USED																	
EP1L 804	38	25	5	2579	108	17	3	8	2		1/4	12					
EP1L 805	66	25	5	4479	STR												
EP1L 806	38	27	0	2739	STR												
EP1L 807 THRU 850 NOT USED																	
EP1L 851	26	10	6	729	100	8	8										
EP1L 852	52	32	9	4547	STR												
EP1L 853 THRU 860 NOT USED																	
EP1L 861	16	4	6	190	104	3	4	1	4								
EP1L 862	20	5	6	294	105	1	4	3	3								
P1L 1001 THRU 1100 NOT USED																	
P1L 1001	44	21	4	4039	100	18	6										
P1L 1101 THRU 1150 NOT USED																	
EP1L 1101	30	29	8	4729	100	26	6										
EP1L 1151 THRU 1156 NOT USED																	
EP1L 1151	8	29	7	1257	172	24	1	5	10								
EP1L 1152	7	41	11	1559	173	36	5	5	10								
EP1L 1153	15	33	7	2676	170												
EP1L 1154	15	26	3	2092	171												
EP1L 1155	8	41	8	1771	173	36	5	5	7								
EP1L 1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 8768																	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 46,566																	

DESIGNED BY: GLG CHECKED BY: JLV  
 DATE: 04/08/98 DATE: 08/04/98  
 DRAWN BY: CMB REVISED BY:  
 DATE: 04/08/98 DATE:  
 CAD FILE NAME: 25725-REBARP1.DWG

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 1R REINFORCEMENT																	
EP1R 401	236	2	1	328	180	1	1										
EP1R 402	80	2	5	129	180	1	5 1/2										
EP1R 403	100	2	3	150	180	1	3 1/2										
EP1R 404 THRU 416 NOT USED																	
EP1R 417	52	23	3	808	105	4	0	15	5								
EP1R 418	16	28	2	301	105	5	5	17	6								
EP1R 419	20	27	10	372	105	5	3	17	6								
EP1R 420 THRU 432 NOT USED																	
EP1R 433	62	27	6	1139	105	5	1	17	6								
EP1R 434	110	9	6	701	180	8	7										
EP1R 501 THRU 550 NOT USED																	
EP1R 551	10	17	8	184	STR												
EP1R 552	80	36	9	3066	105	15	3	6	6								
EP1R 553	40	31	3	1304	105	12	6	6	6								
EP1R 554	40	23	9	991	105	8	9	6	6								
EP1R 555	40	19	9	824	105	6	9	6	6								
EP1R 556	40	17	5	726	105	5	7	6	6								
EP1R 557	64	15	11	1062	105	4	10	6	6								
EP1R 558	96	8	4	834	105	2	6	3	7								
EP1R 559 THRU 563 NOT USED																	
EP1R 564	18	8	2	153	STR	8	2										
EP1R 565	18	10	9	201	109	1	8	3	5								
EP1R 601 THRU 650 NOT USED																	
EP1R 651	8	17	8	212	STR												
EP1R 652	70	15	10	1665	105	3	10	8	6								
EP1R 653	16	33	10	813	121												
EP1R 654	20	11	6	345	STR												
EP1R 655	20	13	6	406	STR												
EP1R 656	20	17	3	518	STR												
EP1R 657	20	24	3	728	STR												
EP1R 801 THRU 850 NOT USED																	
EP1R 801	104	9	5	2603	104	8	3	1	4								
EP1R 802 THRU 803 NOT USED																	
EP1R 804	38	25	5	2579	108	17	3	8	2		1/4	12					
EP1R 805	66	25	5	4479	STR												
EP1R 806	38	27	0	2739	STR												
EP1R 807 THRU 850 NOT USED																	
EP1R 851	26	10	6	729	100	8	8										
EP1R 852	52	32	9	4547	STR												
EP1R 853 THRU 860 NOT USED																	
EP1R 861	16	4	6	190	104	3	4	1	4								
EP1R 862	20	5	6	294	105	1	4	3	3								
P1R 1001 THRU 1100 NOT USED																	
P1R 1001	44	21	4	4039	100	18	6										
P1R 1101 THRU 1150 NOT USED																	
EP1R 1101	30	29	8	4729	100	26	6										
EP1R 1151 THRU 1156 NOT USED																	
EP1R 1151	8	29	7	1257	172	24	1	5	10								
EP1R 1152	7	41	11	1559	173	36	5	5	10								
EP1R 1153	15	33	7	2676	170												
EP1R 1154	15	26	3	2092	171												
EP1R 1155	8	41	8	1771	173	36	5	5	7								
EP1R 1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 8768																	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 46,566																	

### BAR BENDING DIAGRAMS



### BAR SCHEDULE

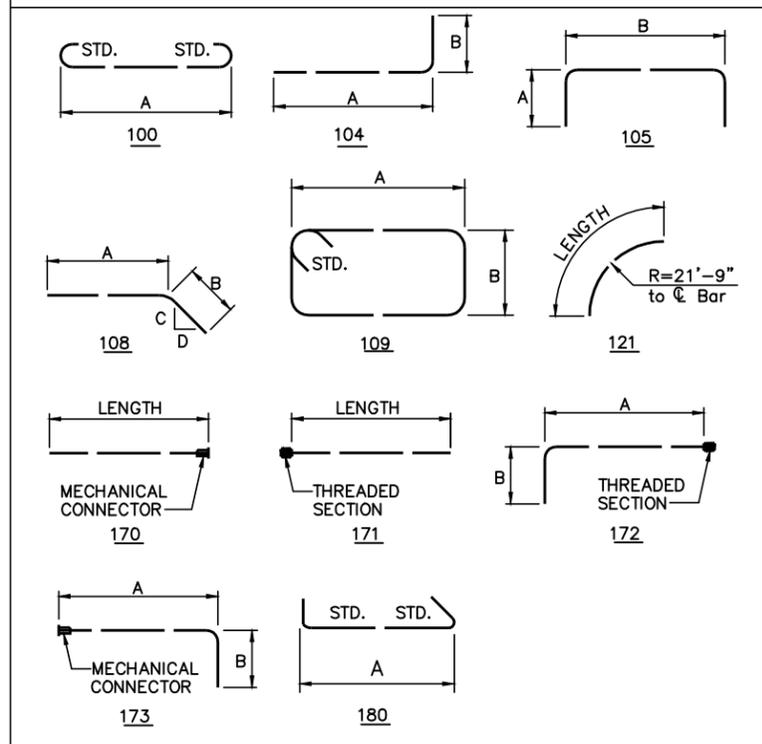
MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 2L REINFORCEMENT																	
EP2L 401	364	2	1	507	180	1	1										
EP2L 402	40	2	9	73	180	1	9 1/2										
EP2L 403	100	2	8	178	180	1	8 1/2										
EP2L 404 THRU 414 NOT USED																	
EP2L 415	100	2	6	167	180	1	6										
EP2L 416	100	2	3	150	180	1	3 1/2										
EP2L 417	88	23	3	1367	105	4	0	15	5								
EP2L 418	8	28	10	154	105	5	9	17	6								
EP2L 419	20	28	8	383	105	5	8	17	6								
EP2L 420 THRU 430 NOT USED																	
EP2L 431	20	28	3	377	105	5	5 1/2	17	6								
EP2L 432	20	27	10	372	105	5	3	17	6								
EP2L 433	62	27	6	1139	105	5	1	17	6								
EP2L 434	105	9	6	669	180	8	7										
EP2L 501 THRU 550 NOT USED																	
EP2L 551	10	17	8	184	STR												
EP2L 552	80	36	9	3066	105	15	3	6	6								
EP2L 553	40	31	3	1304	105	12	6	6	6								
EP2L 554	40	23	9	991	105	8	9	6	6								
EP2L 555	40	19	9	824	105	6	9	6	6								
EP2L 556	40	17	5	726	105	5	7	6	6								
EP2L 557	64	15	11	1062	105	4	10	6	6								
EP2L 558	96	8	4	834	105	2	6	3	7								
EP2L 601 THRU 650 NOT USED																	
EP2L 651	8	17	8	212	STR												
EP2L 652	70	15	10	1665	105	3	10	8	6								
EP2L 653	16	33	10	813	121												
EP2L 654	20	11	6	345	STR												
EP2L 655	20	13	6	406	STR												
EP2L 656	20	17	3	518	STR												
EP2L 657	20	24	3	728	STR												
EP2L 801 THRU 850 NOT USED																	
EP2L 851	26	10	6	729	100	8	8										
EP2L 852	52	32	9	4547	STR												
EP2L 1001 THRU 1050 NOT USED																	
EP2L 1001	104	11	8	5221	104	10	2	1	10								
EP2L 1002	104	19	4	8652	STR												
EP2L 1003 NOT USED																	
EP2L 1004	38	29	1	4756	108	20	0	9	1	1/4	12						
EP2L 1005	66	29	1	8260	STR												
EP2L 1006	38	27	0	4415	STR												
EP2L 1101 THRU 1150 NOT USED																	
EP2L 1101	40	25	8	5455	100	22	6										
EP2L 1102	32	31	2	5299	100	28	0										
EP2L 1151 THRU 1156 NOT USED																	
EP2L 1151	8	29	7	1257	172	24	1	5	10								
EP2L 1152	7	41	11	1559	173	36	5	5	10								
EP2L 1153	15	33	7	2676	170												
EP2L 1154	15	26	3	2092	171												
EP2L 1155	8	41	8	1771	173	36	5	5	7								
EP2L 1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				10,754													
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				66,240													

DESIGNED BY: M.J.L.  
 DATE: 04/08/98  
 CHECKED BY: M.J.L.  
 DATE: 06/04/98  
 DRAWN BY: C.M.B.  
 DATE: 04/08/98  
 REVISIONS: 1  
 DATE: 04/08/98  
 CAD FILE NAME: 25725-REBARP2.DWG

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
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PIER 2R REINFORCEMENT																	
EP2R 401	364	2	1	507	180	1	1										
EP2R 402	40	2	9	73	180	1	9 1/2										
EP2R 403	100	2	8	178	180	1	8 1/2										
EP2R 404 THRU 414 NOT USED																	
EP2R 415	100	2	6	167	180	1	6										
EP2R 416	100	2	3	150	180	1	3 1/2										
EP2R 417	88	23	3	1367	105	4	0	15	5								
EP2R 418	8	28	10	154	105	5	9	17	6								
EP2R 419	20	28	8	383	105	5	8	17	6								
EP2R 420 THRU 430 NOT USED																	
EP2R 431	20	28	3	377	105	5	5 1/2	17	6								
EP2R 432	20	27	10	372	105	5	3	17	6								
EP2R 433	62	27	6	1139	105	5	1	17	6								
EP2R 434	105	9	6	669	180	8	7										
EP2R 501 THRU 550 NOT USED																	
EP2R 551	10	17	8	184	STR												
EP2R 552	80	36	9	3066	105	15	3	6	6								
EP2R 553	40	31	3	1304	105	12	6	6	6								
EP2R 554	40	23	9	991	105	8	9	6	6								
EP2R 555	40	19	9	824	105	6	9	6	6								
EP2R 556	40	17	5	726	105	5	7	6	6								
EP2R 557	64	15	11	1062	105	4	10	6	6								
EP2R 558	96	8	4	834	105	2	6	3	7								
EP2R 601 THRU 650 NOT USED																	
EP2R 651	8	17	8	212	STR												
EP2R 652	70	15	10	1665	105	3	10	8	6								
EP2R 653	16	33	10	813	121												
EP2R 654	20	11	6	345	STR												
EP2R 655	20	13	6	406	STR												
EP2R 656	20	17	3	518	STR												
EP2R 657	20	24	3	728	STR												
EP1R 801 THRU 850 NOT USED																	
EP2R 851	26	10	6	729	100	8	8										
EP2R 852	52	32	9	4547	STR												
EP2R 1001 THRU 1050 NOT USED																	
EP2R 1001	104	11	8	5221	104	10	2	1	10								
EP2R 1002	104	19	4	8652	STR												
EP2R 1003 NOT USED																	
EP2R 1004	38	29	1	4756	108	20	0	9	1	1/4	12						
EP2R 1005	66	29	1	8260	STR												
EP2R 1006	38	27	0	4415	STR												
EP2R 1101 THRU 1150 NOT USED																	
EP2R 1101	40	25	8	5455	100	22	6										
EP2R 1102	32	31	2	5299	100	28	0										
EP2R 1151 THRU 1156 NOT USED																	
EP2R 1151	8	29	7	1257	172	24	1	5	10								
EP2R 1152	7	41	11	1559	173	36	5	5	10								
EP2R 1153	15	33	7	2676	170												
EP2R 1154	15	26	3	2092	171												
EP2R 1155	8	41	8	1771	173	36	5	5	7								
EP2R 1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				10,754													
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				66,240													

### BAR BENDING DIAGRAMS



### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 3L REINFORCEMENT																	
EP3L 401	496	2	1	690	180	1	1										
EP3L 402	60	3	3	130	180	2	3										
EP3L 403	100	3	1	206	180	2	1 1/2										
EP3L 404 THRU 412 NOT USED																	
EP3L 413	100	2	11	195	180	1	11										
EP3L 414	100	2	8	178	180	1	8 1/2										
EP3L 415	100	2	6	167	180	1	6										
EP3L 416	100	2	3	150	180	1	3 1/2										
EP3L 417	132	23	3	2050	105	4	0	15	5								
EP3L 418	12	29	8	238	105	6	2 1/2	17	6								
EP3L 419	20	29	6	394	105	6	1	17	6								
EP3L 420 THRU 428 NOT USED																	
EP3L 429	20	29	1	389	105	5	10 1/2	17	6								
EP3L 430	20	28	8	383	105	5	8	17	6								
EP3L 431	20	28	3	377	105	5	5 1/2	17	6								
EP3L 432	20	27	10	372	105	5	3	17	6								
EP3L 433	62	27	6	1139	105	5	1	17	6								
EP3L 434	105	9	6	669	180	8	7										
EP3L 501 THRU 550 NOT USED																	
EP3L 551	10	17	8	184	STR												
EP3L 552	80	36	9	3066	105	15	3	6	6								
EP3L 553	40	31	3	1304	105	12	6	6	6								
EP3L 554	40	23	9	991	105	8	9	6	6								
EP3L 555	40	19	9	824	105	6	9	6	6								
EP3L 556	40	17	5	726	105	5	7	6	6								
EP3L 557	64	15	11	1062	105	4	10	6	6								
EP3L 558	56	8	4	487	105	2	6	3	7								
EP3L 559	48	13	3	663	105	4	8	4	2								
EP3L 560	48	7	5	371	105	2	3	3	2								
EP3L 561 THRU 563 NOT USED																	
EP3L 564	9	8	2	77	STR												
EP3L 565	9	10	9	101	109	1	8	3	5								
EP3L 566	18	6	3	117	STR												
EP3L 567	26	11	0	298	109	1	8	3	7								
EP3L 568	6	9	9	61	105	3	0	4	0								
EP3L 569	8	31	9	265	STR												
EP3L 601 THRU 650 NOT USED																	
EP3L 651	8	17	8	212	STR												
EP3L 652	70	15	10	1665	105	3	10	8	6								
EP3L 653	16	33	10	813	121												
EP3L 654	20	11	6	345	STR												
EP3L 655	20	13	6	406	STR												
EP3L 656	20	17	3	518	STR												
EP3L 657	20	24	3	728	STR												
EP3L 801 THRU 850 NOT USED																	
EP3L 851	26	10	6	729	100	8	8										
EP3L 852	52	32	9	4547	STR												
EP3L 853 THRU 860 NOT USED																	
EP3L 861	8	4	6	95	104	3	4	1	4								
EP3L 862	10	5	6	147	105	1	4	3	3								
EP3L 863	16	4	8	199	104	3	6	1	4								
EP3L 864	20	5	8	302	105	1	4	3	5								
P3L 901	33	21	0	2356	100	18	6										
P3L 902	26	26	0	2298	100	23	6										
EP3L 1001																	
EP3L 1001	104	11	2	4997	104	9	8	1	10								
EP3L 1002	104	21	10	9771	STR												
EP3L 1003																	
EP3L 1003	0	26	1	0	STR												
EP3L 1004	38	49	1	8026	108	40	0	9	1	1/4	12						
EP3L 1005	66	49	1	13,940	STR												
EP3L 1006	38	27	0	4415	STR												

PIER 3L REINFORCEMENT SCHEDULE CONTINUED ON SHEET B114 OF B129

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 3R REINFORCEMENT																	
EP3R 401	496	2	1	690	180	1	1										
EP3R 402	60	3	2	130	180	2	3										
EP3R 403	100	3	3	206	180	2	1 1/2										
EP3R 404 THRU 412 NOT USED																	
EP3R 413	100	2	11	195	180	1	11										
EP3R 414	100	2	8	178	180	1	8 1/2										
EP3R 415	100	2	6	167	180	1	6										
EP3R 416	100	2	3	150	180	1	3 1/2										
EP3R 417	132	23	3	2050	105	4	0	15	5								
EP3R 418	12	29	8	238	105	6	2 1/2	17	6								
EP3R 419	20	29	6	394	105	6	1	17	6								
EP3R 420 THRU 428 NOT USED																	
EP3R 429	20	29	1	389	105	5	10 1/2	17	6								
EP3R 430	20	28	8	383	105	5	8	17	6								
EP3R 431	20	28	3	377	105	5	5 1/2	17	6								
EP3R 432	20	27	10	372	105	5	3	17	6								
EP3R 433	62	27	6	1139	105	5	1	17	6								
EP3R 434	105	9	6	669	180	8	7										
EP3R 501 THRU 550 NOT USED																	
EP3R 551	10	17	8	184	STR												
EP3R 552	80	36	9	3066	105	15	3	6	6								
EP3R 553	40	31	3	1304	105	12	6	6	6								
EP3R 554	40	23	9	991	105	8	9	6	6								
EP3R 555	40	19	9	824	105	6	9	6	6								
EP3R 556	40	17	5	726	105	5	7	6	6								
EP3R 557	64	15	11	1062	105	4	10	6	6								
EP3R 558	56	8	4	487	105	2	6	3	7								
EP3R 559	48	13	3	663	105	4	8	4	2								
EP3R 560	48	7	5	371	105	2	3	3	2								
EP3R 561 THRU 563 NOT USED																	
EP3R 564	9	8	2	77	STR												
EP3R 565	9	10	9	101	109	1	8	3	5								
EP3R 566	18	6	3	117	STR												
EP3R 567	26	11	0	298	109	1	8	3	7								
EP3R 568	6	9	9	61	105	3	0	4	0								
EP3R 569	8	31	9	265	STR												
EP3R 601 THRU 650 NOT USED																	
EP3R 651	8	17	8	212	STR												
EP3R 652	70	15	10	1665	105	3	10	8	6								
EP3R 653	16	33	10	813	121												
EP3R 654	20	11	6	345	STR												
EP3R 655	20	13	6	406	STR												
EP3R 656	20	17	3	518	STR												
EP3R 657	20	24	3	728	STR												
EP3R 801 THRU 850 NOT USED																	
EP3R 851	26	10	6	729	100	8	8										
EP3R 852	52	32	9	4547	STR												
EP3R 853 THRU 860 NOT USED																	
EP3R 861	8	4	6	95	104	3	4	1	4								
EP3R 862	10	5	6	147	105	1	4	3	3								
EP3R 863	16	4	8	199	104	3	6	1	4								
EP3R 864	20	5	8	302	105	1	4	3	5								
P3R 901	33	21	0	2356	100	18	6										
P3R 902	26	26	0	2298	100	23	6										
EP3R 1001																	
EP3R 1001	104	11	2	4997	104	9	8	1	10								
EP3R 1002	104	21	10	9771	STR												
EP3R 1003																	
EP3R 1003	0	26	1	0	STR												
EP3R 1004	38	49	1	8026	108	40	0	9	1	1/4	12						
EP3R 1005	66	49	1	13,940	STR												

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								

#### PIER 3L REINFORCEMENT (CONTINUED)

EP3L 1101 THRU 1150 NOT USED																	
EP3L 1151	8	29	7	1257	172	24	1	5	10								
EP3L 1152	7	41	11	1559	173	36	5	5	10								
EP3L 1153	15	33	7	2676	170												
EP3L 1154	15	26	3	2092	171												
EP3L 1155	8	41	8	1771	173	36	5	5	7								
EP3L 1156	7	29	4	1091	172	24	1	5	7								
EP3L 1157	8	24	2	1027	171												
EP3L 1158	8	36	6	1551	170												
EP3L 1159	8	34	0	1445	170												
EP3L 1160	8	26	8	1133	171												

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 4654

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 85,783

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								

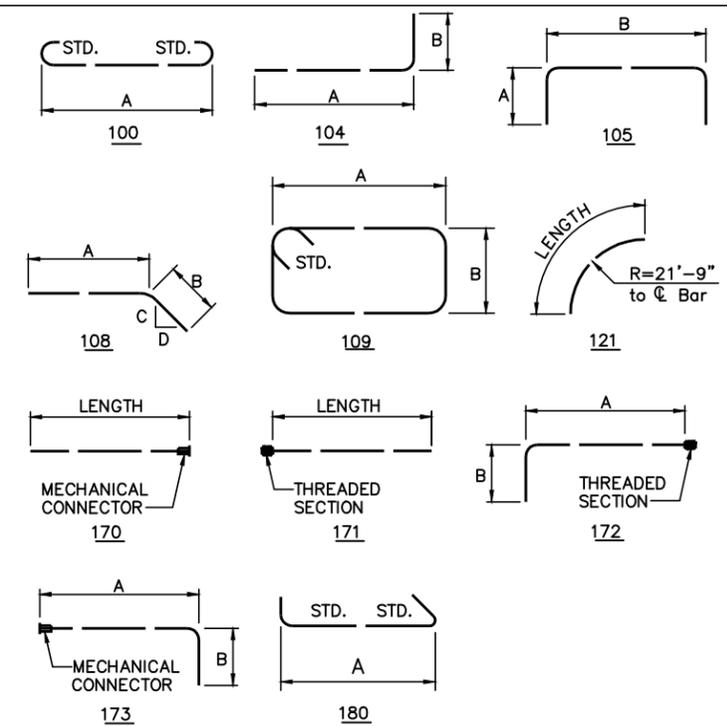
#### PIER 3R REINFORCEMENT (CONTINUED)

EP3R 1101 THRU 1150 NOT USED																	
EP3R 1151	8	29	7	1257	172	24	1	5	10								
EP3R 1152	7	41	11	1559	173	36	5	5	10								
EP3R 1153	15	33	7	2676	170												
EP3R 1154	15	26	3	2092	171												
EP3R 1155	8	41	8	1771	173	36	5	5	7								
EP3R 1156	7	29	4	1091	172	24	1	5	7								
EP3R 1157	8	24	2	1027	171												
EP3R 1158	8	36	6	1551	170												
EP3R 1159	8	34	0	1445	170												
EP3R 1160	8	26	8	1133	171												

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 4654

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 85,783

### BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: CMB / CHECKED BY: JLV  
 DATE: 04/08/98 / DATE: 08/04/98  
 DRAWN BY: CMB / REVISED BY:  
 DATE: 04/08/98 / DATE:  
 CAD FILE NAME: 25725-REBARP3.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER 3		
REINFORCEMENT SCHEDULE		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG/CMB	CHECKED: JLV/MJL	DATE: 12/31/98
DRAWN: GLG/CMB	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B114 OF B129		

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 4L REINFORCEMENT																	
EP4L 401	802	2	1	1116	180	1	1										
EP4L 402	10	3	1	21	180	2	1 1/2										
EP4L 403	100	3	1	206	180	2	1 1/4										
EP4L 404 THRU 412 NOT USED																	
EP4L 413	100	2	11	195	180	1	11										
EP4L 414	100	2	8	178	180	1	8 1/2										
EP4L 415	100	2	6	167	180	1	6										
EP4L 416	100	2	3	150	180	1	3 1/2										
EP4L 417	164	23	3	2547	105	4	0	15	5								
EP4L 418	2	29	6	39	105	6	3/4	17	6								
EP4L 419	20	29	6	394	105	6	1	17	6								
EP4L 420 THRU 428 NOT USED																	
EP4L 429	20	29	1	389	105	5	10 1/2	17	6								
EP4L 430	20	28	8	383	105	5	8	17	6								
EP4L 431	20	28	3	377	105	5	5 1/2	17	6								
EP4L 432	20	27	10	372	105	5	3	17	6								
EP4L 433	62	27	6	1139	105	5	1	17	6								
EP4L 501 THRU 550 NOT USED																	
EP4L 551	10	17	8	184	STR												
EP4L 552	56	12	3	715	105	2	6	7	6								
EP4L 553 THRU 563 NOT USED																	
EP4L 564	18	6	3	117	STR												
EP4L 565	26	11	7	314	109	1	8	3	10								
EP4L 601 THRU 650 NOT USED																	
EP4L 651	94	15	10	2235	105	3	10	8	6								
EP4L 701 THRU 750 NOT USED																	
EP4L 751	38	20	0	1554	105	5	10	8	8								
EP4L 752	40	21	6	1758	105	6	7	8	8								
EP4L 753	40	24	2	1976	105	7	11	8	8								
EP4L 754	40	28	4	2317	105	10	0	8	8								
EP4L 755	40	38	6	3148	105	15	1	8	8								
EP4L 756	52	41	0	4358	105	16	4	8	8								
EP4L 757	18	19	2	705	105	5	5	8	8								
EP4L 801 THRU 850 NOT USED																	
EP4L 851	26	10	6	729	100	8	8										
EP4L 852	15	17	8	708	STR												
EP4L 853	28	11	9	878	STR												
EP4L 854	28	14	0	1047	STR												
EP4L 855	28	18	3	1364	STR												
EP4L 856	20	24	0	1282	STR												
EP4L 857	72	32	6	6248	STR												
EP4L 858	30	33	10	2710	121												
EP4L 859 THRU 860 NOT USED																	
EP4L 861	16	4	11	210	104	3	9	1	4								
EP4L 862	20	5	11	316	105	1	4	3	8								
EP4L 1001	104	12	2	5444	104	10	8	1	10								
EP4L 1002	104	16	9	7496	STR												
EP4L 1004																	
EP4L 1004	36	29	1	4505	108	20	0	9	1	1/4	12						
EP4L 1005	66	49	1	13,940	STR												
EP4L 1006	104	27	0	12083	STR												
P4L 1001 THRU 1009 NOT USED																	
P4L 1010	34	29	4	4291	100	26	6										
EP4L 1101 THRU 1150 NOT USED																	
EP4L 1151	8	29	7	1257	172	24	1	5	10								
EP4L 1152	7	41	11	1559	173	36	5	5	10								
EP4L 1153	15	33	7	2676	170												
EP4L 1154	15	26	3	2092	171												
EP4L 1155	8	41	8	1771	173	36	5	5	7								
EP4L 1156	7	29	4	1091	172	24	1	5	7								
EP4L 1157	6	27	9	885	171												
EP4L 1158	6	32	1	1023	170												
P4L 1401	46	32	0	11261	100	27	6										
P4L 1004A	38	49	1	8026	108	40	0	9	1	1/4	12						
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 15,552																	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 106,394																	

DESIGNED BY: GLG CHECKED BY: M.J.L.  
 DATE: 04/08/98 DATE: 08/04/98  
 DRAWN BY: GLG REVISIONS BY: \_\_\_\_\_  
 DATE: 04/08/98 DATE: \_\_\_\_\_  
 CAD FILE NAME: 25725-REBARP4.DWG

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 4R REINFORCEMENT																	
EP4R 401	802	2	1	1116	180	1	1										
EP4R 402	10	3	1	21	180	2	1 1/2										
EP4R 403	100	3	1	206	180	2	1 1/4										
EP4R 404 THRU 412 NOT USED																	
EP4R 413	100	2	11	195	180	1	11										
EP4R 414	100	2	8	178	180	1	8 1/2										
EP4R 415	100	2	6	167	180	1	6										
EP4R 416	100	2	3	150	180	1	3 1/2										
EP4R 417	164	23	3	2547	105	4	0	15	5								
EP4R 418	2	29	6	39	105	6	3/4	17	6								
EP4R 419	20	29	6	394	105	6	1	17	6								
EP4R 420 THRU 428 NOT USED																	
EP4R 429	20	29	1	389	105	5	10 1/2	17	6								
EP4R 430	20	28	8	383	105	5	8	17	6								
EP4R 431	20	28	3	377	105	5	5 1/2	17	6								
EP4R 432	20	27	10	372	105	5	3	17	6								
EP4R 433	62	27	6	1139	105	5	1	17	6								
EP4R 501 THRU 550 NOT USED																	
EP4R 551	10	17	8	184	STR												
EP4R 552	56	12	3	715	105	2	6	7	6								
EP4R 553 THRU 563 NOT USED																	
EP4R 564	18	6	3	117	STR												
EP4R 565	26	11	7	314	109	1	8	3	10								
EP4R 601 THRU 650 NOT USED																	
EP4R 651	94	15	10	2235	105	3	10	8	6								
EP4R 701 THRU 750 NOT USED																	
EP4R 751	38	20	0	1554	105	5	10	8	8								
EP4R 752	40	21	6	1758	105	6	7	8	8								
EP4R 753	40	24	2	1976	105	7	11	8	8								
EP4R 754	40	28	4	2317	105	10	0	8	8								
EP4R 755	40	38	6	3148	105	15	1	8	8								
EP4R 756	52	41	0	4358	105	16	4	8	8								
EP4R 757	18	19	2	705	105	5	5	8	8								
EP4R 801 THRU 850 NOT USED																	
EP4R 851	26	10	6	729	100	8	8										
EP4R 852	15	17	8	708	STR												
EP4R 853	28	11	9	878	STR												
EP4R 854	28	14	0	1047	STR												
EP4R 855	28	18	3	1364	STR												
EP4R 856	20	24	0	1282	STR												

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 5L REINFORCEMENT																	
EP5L 401	1576	2	1	2193	180	1	1										
EP5L 402	90	5	1	306	180	4	1										
EP5L 403	180	5	0	601	180	3	11 3/4										
EP5L 404	180	4	9	571	180	3	9 1/4										
EP5L 405	180	4	7	551	180	3	7										
EP5L 406	180	4	4	521	180	3	4 1/2										
EP5L 407	180	4	2	501	180	3	2										
EP5L 408	180	3	11	471	180	2	11 1/2										
EP5L 409	180	3	9	451	180	2	9										
EP5L 410	180	3	6	421	180	2	6 1/2										
EP5L 411	180	3	4	401	180	2	4										
EP5L 412	180	3	1	371	180	2	1 1/2										
EP5L 413	180	2	11	351	180	1	11										
EP5L 414	180	2	8	321	180	1	8 1/2										
EP5L 415	180	2	6	301	180	1	6										
EP5L 416	180	2	3	271	180	1	3 1/2										
EP5L 417	322	23	3	5001	105	4	0	15	5								
EP5L 418	10	33	5	223	105	8	1/2	17	6								
EP5L 419	20	33	3	444	105	7	11 1/4	17	6								
EP5L 420	20	32	10	439	105	7	8 3/4	17	6								
EP5L 421	20	32	5	433	105	7	6 1/2	17	6								
EP5L 422	20	32	0	428	105	7	4	17	6								
EP5L 423	20	31	7	422	105	7	1 1/2	17	6								
EP5L 424	20	31	2	416	105	6	11	17	6								
EP5L 425	20	30	9	411	105	6	8 1/2	17	6								
EP5L 426	20	30	4	405	105	6	6	17	6								
EP5L 427	20	29	11	400	105	6	3 1/2	17	6								
EP5L 428	20	29	6	394	105	6	1	17	6								
EP5L 429	20	29	1	389	105	5	10 1/2	17	6								
EP5L 430	20	28	8	383	105	5	8	17	6								
EP5L 431	20	28	3	377	105	5	5 1/2	17	6								
EP5L 432	20	27	10	372	105	5	3	17	6								
EP5L 433	62	27	6	1139	105	5	1	17	6								
EP5L 434	104	9	6	669	180	8	7										
EP5L 435	39	18	7	484	180	17	7										
EP5L 436	340	3	8	833	104	3	1	0	8								
P5L 501	40	33	6	1400	STR												
EP5L 501 THRU 550 NOT USED																	
EP5L 551	10	17	8	184	STR												
EP5L 552	56	12	3	715	105	2	6	7	6								
EP5L 601 THRU 650 NOT USED																	
EP5L 651	94	15	10	2235	105	3	10	8	6								
EP5L 701 THRU 750 NOT USED																	
EP5L 751	38	20	0	1554	105	5	10	8	8								
EP5L 752	40	21	6	1758	105	6	7	8	8								
EP5L 753	40	24	2	1976	105	7	11	8	8								
EP5L 754	40	28	4	2317	105	10	0	8	8								
EP5L 755	40	38	6	3148	105	15	1	8	8								
EP5L 756	52	41	0	4358	105	16	4	8	8								
EP5L 757	18	19	2	705	105	5	5	8	8								
EP5L 801 THRU 850 NOT USED																	
EP5L 851	26	10	6	729	100	8	8										
EP5L 852	15	17	8	708	STR												
EP5L 853	28	11	9	878	STR												
EP5L 854	28	14	0	1047	STR												
EP5L 855	28	18	3	1364	STR												
EP5L 856	20	24	0	1282	STR												
EP5L 857	72	32	6	6248	STR												
EP5L 858	30	33	10	2710	121												

PIER 5L REINFORCEMENT SCHEDULE CONTINUED ON SHEET B117 OF B129

DESIGNED BY: GLG CHECKED BY: M.J.L.  
 DATE: 04/08/98 DATE: 08/04/98  
 DRAWN BY: GLG REVISIONS BY:  
 DATE: 04/08/98 DATE:  
 CAD FILE NAME: 25725-REBARP5.DWG

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 5R REINFORCEMENT																	
EP5R 401	1576	2	1	2193	180	1	1										
EP5R 402	90	5	1	306	180	4	1										
EP5R 403	180	5	0	601	180	3	11 3/4										
EP5R 404	180	4	9	571	180	3	9 1/4										
EP5R 405	180	4	7	551	180	3	7										
EP5R 406	180	4	4	521	180	3	4 1/2										
EP5R 407	180	4	2	501	180	3	2										
EP5R 408	180	3	11	471	180	2	11 1/2										
EP5R 409	180	3	9	451	180	2	9										
EP5R 410	180	3	6	421	180	2	6 1/2										
EP5R 411	180	3	4	401	180	2	4										
EP5R 412	180	3	1	371	180	2	1 1/2										
EP5R 413	180	2	11	351	180	1	11										
EP5R 414	180	2	8	321	180	1	8 1/2										
EP5R 415	180	2	6	301	180	1	6										
EP5R 416	180	2	3	271	180	1	3 1/2										
EP5R 417	322	23	3	5001	105	4	0	15	5								
EP5R 418	10	33	5	223	105	8	1/2	17	6								
EP5R 419	20	33	3	444	105	7	11 1/4	17	6								
EP5R 420	20	32	10	439	105	7	8 3/4	17	6								
EP5R 421	20	32	5	433	105	7	6 1/2	17	6								
EP5R 422	20	32	0	428	105	7	4	17	6								
EP5R 423	20	31	7	422	105	7	1 1/2	17	6								
EP5R 424	20	31	2	416	105	6	11	17	6								
EP5R 425	20	30	9	411	105	6	8 1/2	17	6								
EP5R 426	20	30	4	405	105	6	6	17	6								
EP5R 427	20	29	11	400	105	6	3 1/2	17	6								
EP5R 428	20	29	6	394	105	6	1	17	6								
EP5R 429	20	29	1	389	105	5	10 1/2	17	6								
EP5R 430	20	28	8	383	105	5	8	17	6								
EP5R 431	20	28	3	377	105	5	5 1/2	17	6								
EP5R 432	20	27	10	372	105	5	3	17	6								
EP5R 433	62	27	6	1139	105	5	1	17	6								
EP5R 434	104	9	6	669	180	8	7										
EP5R 435	39	18	7	484	180	17	7										
EP5R 436	340	3	8	833	104	3	1	0	8								
P5R 501	40	33	6	1400	STR												
EP5R 501 THRU 550 NOT USED																	
EP5R 551	10	17	8	184	STR												
EP5R 552	56	12	3	715	105	2	6	7	6								
EP5R 601 THRU 650 NOT USED																	
EP5R 651	94	15	10	2235	105	3	10	8	6								
EP5R 701 THRU 750 NOT USED																	
EP5R 751	38	20	0	1554	105	5	10	8	8								
EP5R 752	40	21	6	1758	105	6	7	8	8								
EP5R 753	40	24	2	1976	105	7	11	8	8								
EP5R 754	40	28	4	2317	105	10	0	8	8								
EP5R 755	40	38	6	3148	105	15	1	8	8								
EP5R 756	52	41	0	4358	105	16	4	8	8								
EP5R 757	18	19	2	705	105	5	5	8	8								
EP5R 801 THRU 850 NOT USED																	
EP5R 851	26	10	6	729	100	8	8										
EP5R 852	15	17	8	708	STR												

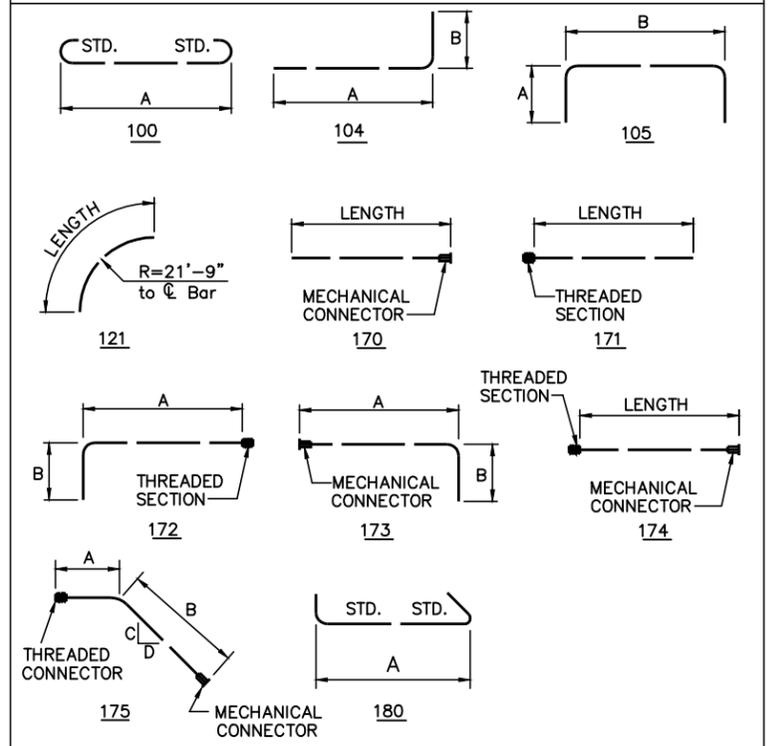
BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.		
		FT.	IN.			FT.	IN.	FT.	IN.									
PIER 5L REINFORCEMENT (CONTINUED)																		
P5L 1101	54	36	8	10520	100	33	6											
P5L 1102	35	39	6	7345	STR													
EP5L 1101 THRU 1102 NOT USED																		
EP5L 1103	34	23	0	4155	175	9	0	14	0	1/4	12							
EP5L 1104	34	23	0	4155	175	6	0	17	0	1/4	12							
EP5L 1105	112	23	0	13686	174													
EP5L 1106	41	9	6	2069	170													
EP5L 1107	41	12	6	2723	170													
EP5L 1108	49	21	0	5467	170													
EP5L 1109	49	24	0	6248	170													
EP5L 1110 THRU 1150 NOT USED																		
EP5L 1151	8	29	7	1257	172	24	1	5	10									
EP5L 1152	7	41	11	1559	173	36	5	5	10									
EP5L 1153	15	33	7	2676	170													
EP5L 1154	15	26	3	2092	171													
EP5L 1155	8	41	8	1771	173	36	5	5	7									
EP5L 1156	7	29	4	1091	172	24	1	5	7									
EP5L 1157	6	27	9	885	171													
EP5L 1158	6	32	1	1023	170													
P5L 1401	98	16	4	12,245	STR													
P5L 1402	98	19	4	14,494	100	39	6											
EP5L 1401	98	11	11	8934	172	9	10	2	7									
EP5L 1402	98	14	11	11183	172	12	10	2	7									
EP5L 1403	196	20	0	29,988	174													
EP5L 1404	180	20	0	27,540	174													
EP5L1404A	376	40	0	115,056	174													
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				47,371														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				306,761														

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.		
		FT.	IN.			FT.	IN.	FT.	IN.									
PIER 5R REINFORCEMENT (CONTINUED)																		
P5R 1101	54	36	8	10520	100	33	6											
P5R 1102	17	39	6	3568	STR													
EP5R 1101 THRU 1102 NOT USED																		
EP5R 1103	34	23	0	4155	175	9	0	14	0	1/4	12							
EP5R 1104	34	23	0	4155	175	6	0	17	0	1/4	12							
EP5R 1105	112	23	0	13686	174													
EP5R 1106	41	9	6	2069	170													
EP5R 1107	41	12	6	2723	170													
EP5R 1108	49	21	0	5467	170													
EP5R 1109	49	24	0	6248	170													
EP5R 1110 THRU 1150 NOT USED																		
EP5R 1151	8	29	7	1257	172	24	1	5	10									
EP5R 1152	7	41	11	1559	173	36	5	5	10									
EP5R 1153	15	33	7	2676	170													
EP5R 1154	15	26	3	2092	171													
EP5R 1155	8	41	8	1771	173	36	5	5	7									
EP5R 1156	7	29	4	1091	172	24	1	5	7									
EP5R 1157	6	27	9	885	171													
EP5R 1158	6	32	1	1023	170													
P5R 1401	22	39	6	6648	STR													
P5R 1402	22	44	0	7405	100	39	6											
EP5R 1401	98	16	4	12,245	172	14	3	2	7									
EP5R 1402	98	19	4	14,494	172	17	3	2	7									
EP5R 1403	196	20	0	29,988	174													
EP5R 1404	180	20	0	27,540	174													
EP5R1404A	376	40	0	115,056	174													
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				46,678														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				306,761														
P5R 1103	1 SER 18	36	6	3631	STR											0	2	
		39	5															
P5R 1403	1 SER 22	36	5	6374	STR											0	1 5/8	
		39	4															
P5R 1404	1 SER 22	40	11	7132	100	36	5									0	1 5/8	
		43	10			39	4											

BAR BENDING DIAGRAM



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: GLG CHECKED BY: M.J.L.  
DATE: 04/08/98 DATE: 08/04/98  
DRAWN BY: GLG REVISIONS BY:  
DATE: 04/08/98 DATE:  
CAD FILE NAME: 25725-REBARP5.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER 5		
REINFORCEMENT SCHEDULE		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG/CMB	CHECKED: M.J.L./J.L.V.	DATE: 12/31/98
DRAWN: GLG/J.L.V.	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B117 OF B129		



BAR SCHEDULE

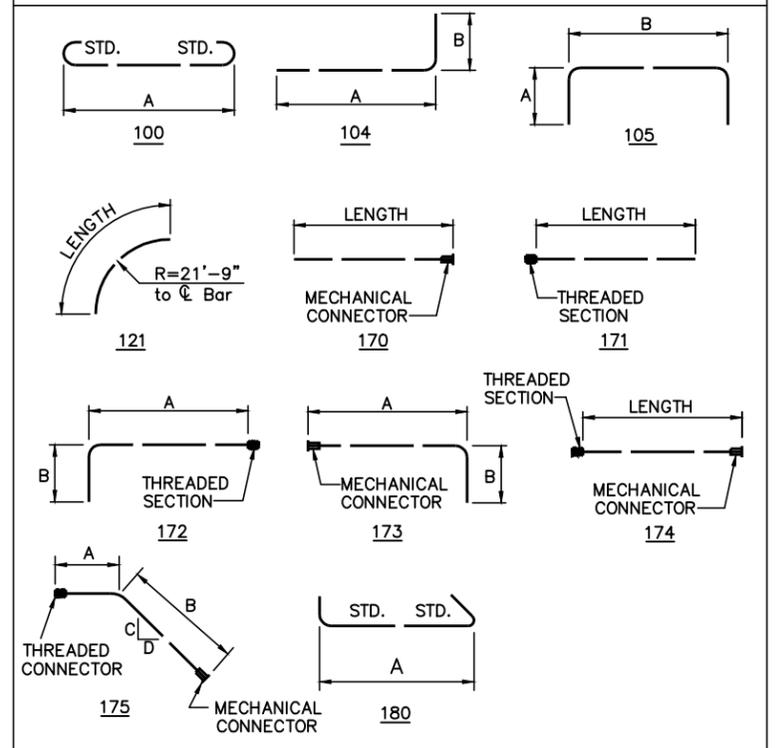
MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.		
		FT.	IN.			FT.	IN.	FT.	IN.									
PIER 6L REINFORCEMENT (CONTINUED)																		
P6L 1101	54	38	0	10902	100	33	6											
EP6L 1101 AND 1102 NOT USED																		
EP6L 1103	34	23	0	4155	175	9	0	14	0	1/4		12						
EP6L 1104	34	23	0	4155	175	12	0	11	0	1/4		12						
EP6L 1105	112	23	0	13686	174													
EP6L 1106	41	9	6	2069	170													
EP6L 1107	41	12	6	2723	170													
EP6L 1108	49	21	0	5467	170													
EP6L 1109	49	24	0	6248	170													
EP6L 1110 THRU 1150 NOT USED																		
EP6L 1151	8	29	7	1257	172	24	1	5	10									
EP6L 1152	7	41	11	1559	173	36	5	5	10									
EP6L 1153	15	33	7	2676	170													
EP6L 1154	15	26	3	2092	171													
EP6L 1155	8	41	8	1771	173	36	5	5	7									
EP6L 1156	7	29	4	1091	172	24	1	5	7									
EP6L 1157	6	27	9	885	171													
EP6L 1158	6	32	1	1023	170													
P6L 1401	44	39	6	13296	STR													
P6L 1402	44	44	0	14810	100	39	6											
EP6L 1401	98	20	4	15,244	172	18	3	2	7									
EP6L 1402	98	23	4	17,493	172	21	3	2	7									
EP6L 1403	196	38	5	56,977	174													
EP6L 1404	180	20	0	27,540	174													
EP6L1404A	180	40	0	55,080	174													
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				47,753														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				276,829														
P6L 1102	35	39	6	7345	STR													

DESIGNED BY: GLG CHECKED BY: M.J.L.  
 DATE: 04/08/98 DATE: 08/04/98  
 DRAWN BY: GLG REVISIONS BY: DATE:  
 DATE: 04/08/98 DATE:  
 CAD FILE NAME: 25725-REBARP6.DWG

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.		
		FT.	IN.			FT.	IN.	FT.	IN.									
PIER 6R REINFORCEMENT (CONTINUED)																		
P6R 1101	54	38	0	10902	100	33	6											
EP6R 1101 AND 1102 NOT USED																		
EP6R 1103	34	23	0	4155	175	9	0	14	0	1/4		12						
EP6R 1104	34	23	0	4155	175	12	0	11	0	1/4		12						
EP6R 1105	112	23	0	13686	174													
EP6R 1106	41	9	6	2069	170													
EP6R 1107	41	12	6	2723	170													
EP6R 1108	49	21	0	5467	170													
EP6R 1109	49	24	0	6248	170													
EP6R 1110 THRU 1150 NOT USED																		
EP6R 1151	8	29	7	1257	172	24	1	5	10									
EP6R 1152	7	41	11	1559	173	36	5	5	10									
EP6R 1153	15	33	7	2676	170													
EP6R 1154	15	26	3	2092	171													
EP6R 1155	8	41	8	1771	173	36	5	5	7									
EP6R 1156	7	29	4	1091	172	24	1	5	7									
EP6R 1157	6	27	9	885	171													
EP6R 1158	6	32	1	1023	170													
P6R 1401	44	39	6	13296	STR													
P6R 1402	44	44	0	14810	100	39	6											
EP6R 1401	98	20	4	15,244	172	18	3	2	7									
EP6R 1402	98	23	4	17,493	172	21	3	2	7									
EP6R 1403	196	40	0	59,976	174													
EP6R 1404	180	20	0	27,540	174													
EP6R1404A	180	40	0	55,080	174													
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				47,753														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				280,220														
P6R 1102	35	39	6	7345	STR													

BAR BENDING DIAGRAM



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
 IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
 REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER 6		
REINFORCEMENT SCHEDULE		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG/CMB	CHECKED: M.J.L./J.L.V.	DATE: 12/31/98
DRAWN: GLG/J.L.V.	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B119 OF B129		

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 7L REINFORCEMENT																	
EP7L 401	1216	2	1	1692	180	1	1										
EP7L 402	100	4	7	306	180	3	6 3/4										
EP7L 403	100	4	4	289	180	3	4 1/4										
EP7L 404 THRU 406 NOT USED																	
EP7L 407	100	4	2	278	180	3	2										
EP7L 408	100	3	11	262	180	2	11 1/2										
EP7L 409	100	3	9	251	180	2	9										
EP7L 410	100	3	6	234	180	2	6 1/2										
EP7L 411	100	3	4	223	180	2	4										
EP7L 412	100	3	1	206	180	2	1 1/2										
EP7L 413	100	2	11	195	180	1	11										
EP7L 414	100	2	8	178	180	1	8 1/2										
EP7L 415	100	2	6	167	180	1	6										
EP7L 416	100	2	3	150	180	1	3 1/2										
EP7L 417	302	23	3	4690	105	4	0	15	5								
EP7L 418	20	32	5	433	105	7	6 1/4	17	6								
EP7L 419	20	32	0	428	105	7	3 3/4	17	6								
EP7L 420 THRU 422 NOT USED																	
EP7L 423	20	31	7	422	105	7	1 1/2	17	6								
EP7L 424	20	31	2	416	105	6	11	17	6								
EP7L 425	20	30	9	411	105	6	8 1/2	17	6								
EP7L 426	20	30	4	405	105	6	6	17	6								
EP7L 427	20	29	11	400	105	6	3 1/2	17	6								
EP7L 428	20	29	6	394	105	6	1	17	6								
EP7L 429	20	29	1	389	105	5	10 1/2	17	6								
EP7L 430	20	28	8	383	105	5	8	17	6								
EP7L 431	20	28	3	377	105	5	5 1/2	17	6								
EP7L 432	20	27	10	372	105	5	3	17	6								
EP7L 433	62	27	6	1139	105	5	1	17	6								
EP7L 434	60	9	6	382	180	8	7										
EP7L 435	36	18	7	446	180	17	7										
EP7L 436	240	3	4	534	104	2	9	0	8								
EP7L 501 THRU 550 NOT USED																	
EP7L 551	10	17	8	184	STR												
EP7L 552	56	12	3	715	105	2	6	7	6								
EP7L 553 THRU 563 NOT USED																	
EP7L 564	18	6	3	117	STR												
EP7L 565	26	11	7	314	109	1	8	3	10								
EP7L 601 THRU 650 NOT USED																	
EP7L 651	94	15	10	2235	105	3	10	8	6								
EP7L 701 THRU 750 NOT USED																	
EP7L 751	38	20	0	1554	105	5	10	8	8								
EP7L 752	40	21	6	1758	105	6	7	8	8								
EP7L 753	40	24	2	1976	105	7	11	8	8								
EP7L 754	40	28	4	2317	105	10	0	8	8								
EP7L 755	40	38	6	3148	105	15	1	8	8								
EP7L 756	52	41	0	4358	105	16	4	8	8								
EP7L 757	18	19	2	705	105	5	5	8	8								
EP7L 801 THRU 850 NOT USED																	
EP7L 851	26	10	6	729	100	8	8										
EP7L 852	15	17	8	708	STR												
EP7L 853	28	11	9	878	STR												
EP7L 854	28	14	0	1047	STR												
EP7L 855	28	18	3	1364	STR												
EP7L 856	20	24	0	1282	STR												
EP7L 857	72	32	6	6248	STR												
EP7L 858	30	33	10	2710	121												
EP7L 859 THRU 860 NOT USED																	
EP7L 861	16	4	11	210	104	3	9	1	4								
EP7L 862	20	5	11	316	105	1	4	3	8								

PIER 7L REINFORCEMENT SCHEDULE CONTINUED ON SHEET B121 OF B129.

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 7R REINFORCEMENT																	
EP7R 401	1216	2	1	1692	180	1	1										
EP7R 402	100	4	7	306	180	3	6 3/4										
EP7R 403	100	4	4	289	180	3	4 1/4										
EP7R 404 THRU 406 NOT USED																	
EP7R 407	100	4	2	278	180	3	2										
EP7R 408	100	3	11	262	180	2	11 1/2										
EP7R 409	100	3	9	251	180	2	9										
EP7R 410	100	3	6	234	180	2	6 1/2										
EP7R 411	100	3	4	223	180	2	4										
EP7R 412	100	3	1	206	180	2	1 1/2										
EP7R 413	100	2	11	195	180	1	11										
EP7R 414	100	2	8	178	180	1	8 1/2										
EP7R 415	100	2	6	167	180	1	6										
EP7R 416	100	2	3	150	180	1	3 1/2										
EP7R 417	302	23	3	4690	105	4	0	15	5								
EP7R 418	20	32	5	433	105	7	6 1/4	17	6								
EP7R 419	20	32	0	428	105	7	3 3/4	17	6								
EP7R 420 THRU 422 NOT USED																	
EP7R 423	20	31	7	422	105	7	1 1/2	17	6								
EP7R 424	20	31	2	416	105	6	11	17	6								
EP7R 425	20	30	9	411	105	6	8 1/2	17	6								
EP7R 426	20	30	4	405	105	6	6	17	6								
EP7R 427	20	29	11	400	105	6	3 1/2	17	6								
EP7R 428	20	29	6	394	105	6	1	17	6								
EP7R 429	20	29	1	389	105	5	10 1/2	17	6								
EP7R 430	20	28	8	383	105	5	8	17	6								
EP7R 431	20	28	3	377	105	5	5 1/2	17	6								
EP7R 432	20	27	10	372	105	5	3	17	6								
EP7R 433	62	27	6	1139	105	5	1	17	6								
EP7R 434	60	9	6	382	180	8	7										
EP7R 435	36	18	7	446	180	17	7										
EP7R 436	240	3	4	534	104	2	9	0	8								
EP7R 501 THRU 550 NOT USED																	
EP7R 551	10	17	8	184	STR												
EP7R 552	56	12	3	715	105	2	6	7	6								
EP7R 553 THRU 563 NOT USED																	
EP7R 564	18	6	3	117	STR												
EP7R 565	26	11	7	314	109	1	8	3	10								
EP7R 601 THRU 650 NOT USED																	
EP7R 651	94	15	10	2235	105	3	10	8	6								
EP7R 701 THRU 750 NOT USED																	
EP7R 751</																	

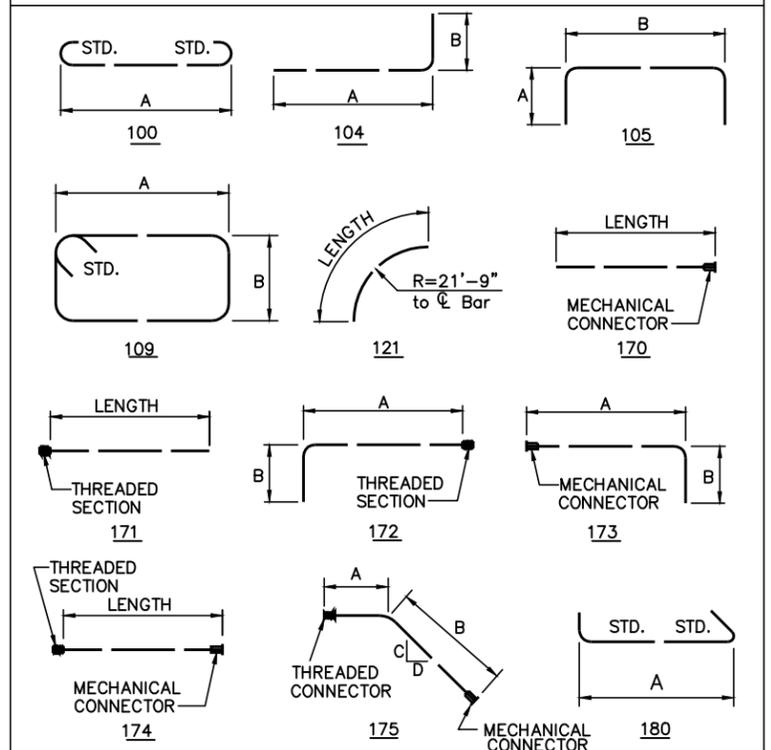
### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.		
		FT.	IN.			FT.	IN.	FT.	IN.									
PIER 7L REINFORCEMENT (CONTINUED)																		
EP7R 1101 THRU 1102 NOT USED																		
EP7L 1103	56	9	2	2727	172	7	6	2	0									
EP7L 1104	56	12	2	3620	172	10	6	2	0									
EP7L 1105	112	19	2	11405	174													
EP7L 1106	112	20	0	11,901	174													
EP7L 1107	20	43	0	4569	175	6	0	17	0	1/4		12						
EP7L 1108	20	43	0	4569	175	9	0	14	0	1/4		12						
EP7L 1109	72	43	0	16,449	174													
EP7L 1110	56	21	0	6248	170													
EP7L 1111	56	24	0	7141	170													
EP7L 1112 THRU 1150 NOT USED																		
EP7L 1151	8	29	7	1257	172	24	1	5	10									
EP7L 1152	7	41	11	1559	173	36	5	5	10									
EP7L 1153	15	33	7	2676	170													
EP7L 1154	15	26	3	2092	171													
EP7L 1155	8	41	8	1771	173	36	5	5	7									
EP7L 1156	7	29	4	1091	172	24	1	5	7									
EP7L 1157	6	27	9	885	171													
EP7L 1158	6	32	1	1023	170													
EP7L1106A	112	40	0	23,802														
P7L 1401	86	35	6	23355	100	31	0											
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				23,355														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				156,110														

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.		
		FT.	IN.			FT.	IN.											
PIER 7R REINFORCEMENT (CONTINUED)																		
EP7R 1101 THRU 1102 NOT USED																		
EP7R 1103	56	9	2	2727	172	7	6	2	0									
EP7R 1104	56	12	2	3620	172	10	6	2	0									
EP7R 1105	112	19	2	11405	174													
EP7R 1106	112	20	0	11,901	174													
EP7R 1107	20	43	0	4569	175	6	0	17	0	1/4		12						
EP7R 1108	20	43	0	4569	175	9	0	14	0	1/4		12						
EP7R 1109	72	43	0	16,449	174													
EP7R 1110	56	21	0	6248	170													
EP7R 1111	56	24	0	7141	170													
EP7R 1112 THRU 1150 NOT USED																		
EP7R 1151	8	29	7	1257	172	24	1	5	10									
EP7R 1152	7	41	11	1559	173	36	5	5	10									
EP7R 1153	15	33	7	2676	170													
EP7R 1154	15	26	3	2092	171													
EP7R 1155	8	41	8	1771	173	36	5	5	7									
EP7R 1156	7	29	4	1091	172	24	1	5	7									
EP7R 1157	6	27	9	885	171													
EP7R 1158	6	32	1	1023	170													
EP7R1106A	112	40	0	23,802														
P7R 1401	86	35	6	23355	100	31	0											
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				23,355														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				156,110														

### BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: GLG CHECKED BY: M.J.L.  
DATE: 04/08/98 DATE: 08/04/98  
DRAWN BY: GLG REVISIONS BY: DATE:  
DATE: 04/08/98 DATE:  
CAD FILE NAME: 25725-REBARP7.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER 7		
REINFORCEMENT SCHEDULE		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG/CMB	CHECKED: M.J.L./J.L.V.	DATE: 12/31/98
DRAWN: GLG/J.L.V.	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B121 OF B129		



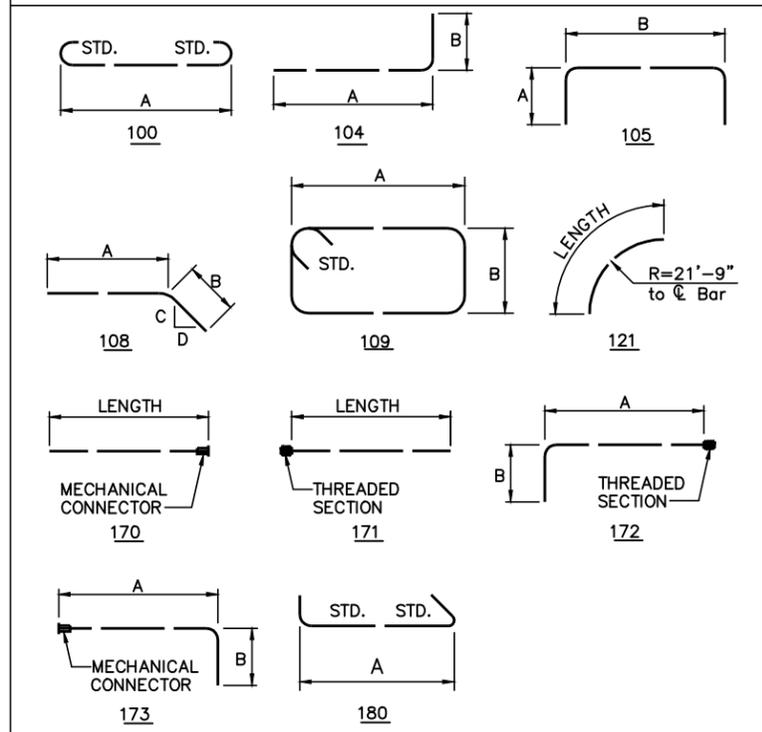
### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								
PIER 8L REINFORCEMENT (CONTINUED)																	
P8L 1001 THRU 1009 NOT USED																	
P8L 1010	62	33	4	11627	100	30	6										
EP8L 1001	104	11	2	4997	104	9	8	1	10								
EP8L 1002	104	31	0	13873	STR												
EP8L 1003	104	26	1	11673	STR												
EP8L 1004	38	49	1	8026	108	20	0	9	1	1/4	12						
EP8L 1005	66	49	1	13,940	STR												
EP8L 1006	38	27	0	4415	STR												
EP8L1003A	104	46	1	20623	STR												
P8L 1101	65	33	8	8893	100	30	6										
EP8L 1101 THRU 1150 NOT USED																	
EP8L 1151	8	29	7	1257	172	24	1	5	10								
EP8L 1152	7	41	11	1559	173	36	5	5	10								
EP8L 1153	15	33	7	2676	170												
EP8L 1154	15	26	3	2092	171												
EP8L 1155	8	41	8	1771	173	36	5	5	7								
EP8L 1156	7	29	4	1091	172	24	1	5	7								
EP8L 1157	7	24	2	899	171												
EP8L 1158	7	36	6	1357	170												
EP8L 1159	7	34	0	1264	170												
EP8L 1160	7	26	8	992	171												
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				20,520													
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				129,921													

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.										
PIER 8R REINFORCEMENT (CONTINUED)																	
EP8R 1001 THRU 1009 NOT USED																	
P8R 1010	62	33	4	11627	100	30	6										
EP8R 1001	104	11	2	4997	104	9	8	1	10								
EP8R 1002	104	23	11	10703	STR												
EP8R 1003	104	26	1	11,673	STR												
EP8R 1004	38	49	1	8026	108	20	0	9	1	1/4	12						
EP8R 1005	66	49	1	13,940	STR												
EP8R 1006	38	27	0	4415	STR												
EP8R1003A	104	46	1	20,623	STR												
P8R 1101	65	33	8	8893	100	30	6										
EP8R 1101 THRU 1150 NOT USED																	
EP8R 1151	8	29	7	1257	172	24	1	5	10								
EP8R 1152	7	41	11	1559	173	36	5	5	10								
EP8R 1153	15	33	7	2676	170												
EP8R 1154	15	26	3	2092	171												
EP8R 1155	8	41	8	1771	173	36	5	5	7								
EP8R 1156	7	29	4	1091	172	24	1	5	7								
EP8R 1157	7	24	2	899	171												
EP8R 1158	7	36	6	1357	170												
EP8R 1159	7	34	0	1264	170												
EP8R 1160	7	26	8	992	171												
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				20,520													
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				125,875													

### BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: CMB / CHECKED BY: JLV  
 DATE: 04/08/98 / DATE: 08/04/98  
 DRAWN BY: CMB / REVISED BY:  
 DATE: 04/08/98 / DATE:  
 CAD FILE NAME: 25725-REBARP8.DWG

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PIER 8</b> <b>REINFORCEMENT SCHEDULE</b> OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG/CMB	CHECKED: JLV/MJL	DATE: 12/31/98
DRAWN: GLG/CMB	IN CHARGE: GT	SCALE: N.T.S.
<b>CONTRACT 43-99-01 SHEET B123 OF B129</b>		

DESIGNED BY: GLG CHECKED BY: M.J.L.  
 DATE: 04/08/98 DATE: 08/04/98  
 DRAWN BY: GLG REVISIONS BY:  
 DATE: 04/08/98 DATE:  
 CAD FILE NAME: 25725-REBARPS.DWG

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 9L REINFORCEMENT																	
EP9L 401	850	2	1	1183	180	1	1										
EP9L 402	50	4	5	148	180	3	5 3/4										
EP9L 403	100	4	4	289	180	3	4 1/2										
EP9L 404 THRU 406 NOT USED																	
EP9L 407	100	4	2	278	180	3	2										
EP9L 408	100	3	11	262	180	2	11 1/2										
EP9L 409	100	3	9	251	180	2	9										
EP9L 410	100	3	6	234	180	2	6 1/2										
EP9L 411	100	3	4	223	180	2	4										
EP9L 412	100	3	1	206	180	2	1 1/2										
EP9L 413	100	2	11	195	180	1	11										
EP9L 414	100	2	8	178	180	1	8 1/2										
EP9L 415	100	2	6	167	180	1	6										
EP9L 416	100	2	3	150	180	1	3 1/2										
EP9L 417	250	23	3	3883	105	4	0	15	5								
EP9L 418	10	32	3	215	105	7	5 1/4	17	6								
EP9L 419	20	32	0	428	105	7	4	17	6								
EP9L 420 THRU 422 NOT USED																	
EP9L 423	20	31	7	422	105	7	11 1/2	17	6								
EP9L 424	20	31	2	416	105	6	11	17	6								
EP9L 425	20	30	9	411	105	6	8 1/2	17	6								
EP9L 426	20	30	4	405	105	6	6	17	6								
EP9L 427	20	29	11	400	105	6	3 1/2	17	6								
EP9L 428	20	29	6	394	105	6	1	17	6								
EP9L 429	20	29	1	389	105	5	10 1/2	17	6								
EP9L 430	20	28	8	383	105	5	8	17	6								
EP9L 431	20	28	3	377	105	5	5 1/2	17	6								
EP9L 432	20	27	10	372	105	5	3	17	6								
EP9L 433	62	27	6	1139	105	5	1	17	6								
EP9L 434	105	9	6	669	180	8	7										
EP9L 435 NOT USED																	
*EP9L 436	220	3	4	490	104	2	9	0	8								
EP9L 501 THRU 550 NOT USED																	
EP9L 551	10	17	8	184	STR												
EP9L 552	80	36	9	3066	105	15	3	6	6								
EP9L 553	40	31	3	1304	105	12	6	6	6								
EP9L 554	40	23	9	991	105	8	9	6	6								
EP9L 555	40	19	9	824	105	6	9	6	6								
EP9L 556	40	17	5	726	105	5	7	6	6								
EP9L 557	64	15	11	1062	105	4	10	6	6								
EP9L 558	96	8	4	834	105	2	6	3	7								
EP9L 559 THRU 563 NOT USED																	
EP9L 564	18	8	2	153	STR												
EP9L 565	18	11	3	210	109	1	8	3	8								
EP9L 601 THRU 650 NOT USED																	
EP9L 651	8	17	8	212	STR												
EP9L 652	70	15	10	1665	105	3	10	8	6								
EP9L 653	16	33	10	813	121												
EP9L 654	20	11	6	345	STR												
EP9L 655	20	13	6	406	STR												
EP9L 656	20	17	3	518	STR												
EP9L 657	20	24	3	728	STR												
EP9L 801 THRU 850 NOT USED																	
EP9L 851	26	10	6	729	100	8	8										
EP9L 852	52	32	9	4547	STR												
EP9L 853 THRU 860 NOT USED																	
EP9L 861	16	4	9	201	104	3	7	1	4								
EP9L 862	20	5	9	307	105	1	4	3	6								
P9L 901	58	32	0	6310	100	29	6										
EP9L 1001	104	11	8	5221	104	10	2	1	10								
EP9L 1002	104	20	8	9249	STR												
EP9L 1003	104	26	1	11,673	STR												
EP9L 1004	38	49	1	8026	108	20	0	9	1	1/4	12						
EP9L 1005	66	49	1	13,940	STR												
EP9L 1006	38	27	0	4415	STR												
EP9L1003A	104	46	1	20,623	STR												
PIER 9L REINFORCEMENT SCHEDULE CONTINUED ON SHEET B125 OF B129																	

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 9R REINFORCEMENT																	
EP9R 401	850	2	1	1183	180	1	1										
EP9R 402	50	4	5	148	180	3	5 3/4										
EP9R 403	100	4	4	289	180	3	4 1/2										
EP9R 404 THRU 406 NOT USED																	
EP9R 407	100	4	2	278	180	3	2										
EP9R 408	100	3	11	262	180	2	11 1/2										
EP9R 409	100	3	9	251	180	2	9										
EP9R 410	100	3	6	234	180	2	6 1/2										
EP9R 411	100	3	4	223	180	2	4										
EP9R 412	100	3	1	206	180	2	1 1/2										
EP9R 413	100	2	11	195	180	1	11										
EP9R 414	100	2	8	178	180	1	8 1/2										
EP9R 415	100	2	6	167	180	1	6										
EP9R 416	100	2	3	150	180	1	3 1/2										
EP9R 417	250	23	3	3883	105	4	0	15	5								
EP9R 418	10	32	3	215	105	7	5 1/4	17	6								
EP9R 419	20	32	0	428	105	7	4	17	6								
EP9R 420 THRU 422 NOT USED																	
EP9R 423	20	31	7	422	105	7	11 1/2	17	6								
EP9R 424	20	31	2	416	105	6	11	17	6								
EP9R 425	20	30	9	411	105	6	8 1/2	17	6								
EP9R 426	20	30	4	405	105	6	6	17	6								
EP9R 427	20	29	11	400	105	6	3 1/2	17	6								
EP9R 428	20	29	6	394	105	6	1	17	6								
EP9R 429	20	29	1	389	105	5	10 1/2	17	6								
EP9R 430	20	28	8	383	105	5	8	17	6								
EP9R 431	20	28	3	377	105	5	5 1/2	17	6								
EP9R 432	20	27	10	372	105	5	3	17	6								
EP9R 433	62	27	6	1139	105	5	1	17	6								
EP9R 434	105	9	6	669	180	8	7										
EP9R 435 NOT USED																	
*EP9R 436	220	3	4	490	104	2	8	0	9								
EP9R 501 THRU 550 NOT USED																	

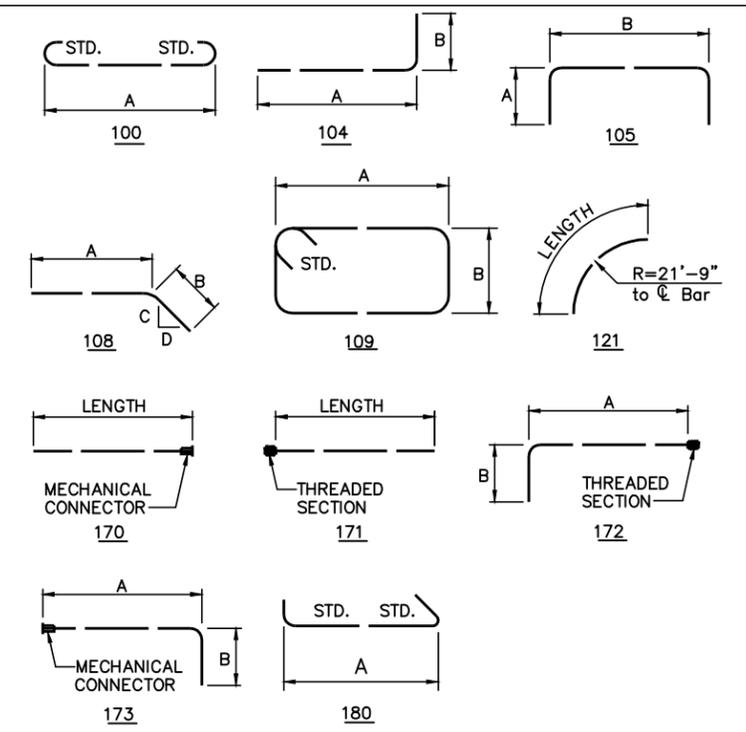
### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	T P E	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								
PIER 9L REINFORCEMENT (CONTINUED)																	
P9L 1101	64	32	8	11108	100	29	6										
EP9L 1101 THRU 1150 NOT USED																	
EP9L 1151	8	29	7	1257	172	24	1	5	10								
EP9L 1152	7	41	11	1559	173	36	5	5	10								
EP9L 1153	15	33	7	2676	170												
EP9L 1154	15	26	3	2092	171												
EP9L 1155	8	41	8	1771	173	36	5	5	7								
EP9L 1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				17,418													
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				117,975													

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	T P E	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.										
PIER 9R REINFORCEMENT (CONTINUED)																	
P9R 1101	64	32	8	11108	100	29	6										
EP9R 1101 THRU 1150 NOT USED																	
EP9R 1151	8	29	7	1257	172	24	1	5	10								
EP9R 1152	7	41	11	1559	173	36	5	5	10								
EP9R 1153	15	33	7	2676	170												
EP9R 1154	15	26	3	2092	171												
EP9R 1155	8	41	8	1771	173	36	5	5	7								
EP9R 1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				17,418													
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				117,975													

### BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: CMB / CHECKED BY: JLV  
 DATE: 04/08/98 / DATE: 08/04/98  
 DRAWN BY: CMB / REVISED BY:  
 DATE: 04/08/98 / DATE:  
 CAD FILE NAME: 25725-REBARPS.DWG

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER 9		
<b>REINFORCEMENT SCHEDULE</b>		
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG/CMB	CHECKED: JLV/MJL	DATE: 12/31/98
DRAWN: GLG/CMB	IN CHARGE: GT	SCALE: N.T.S.
<b>CONTRACT 43-99-01 SHEET B125 OF B129</b>		

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 10L REINFORCEMENT																	
EP10L 401	784	2	1	1091	180	1	1										
EP10L 402	40	4	3	114	180	3	2 3/4										
EP10L 403	100	4	1	278	180	3	1 3/4										
EP10L 404	100	3	11	262	180	2	11 1/4										
EP10L 405 THRU 408 NOT USED																	
EP10L 409	100	3	9	251	180	2	9										
EP10L 410	100	3	6	234	180	2	6 1/2										
EP10L 411	100	3	4	223	180	2	4										
EP10L 412	100	3	1	206	180	2	1 1/2										
EP10L 413	100	2	11	195	180	1	11										
EP10L 414	100	2	8	178	180	1	8 1/2										
EP10L 415	100	2	6	167	180	1	6										
EP10L 416	100	2	3	150	180	1	3 1/2										
EP10L 417	228	23	3	3541	105	4	0	15	5								
EP10L 418	8	31	9	170	105	7	2 1/4	17	6								
EP10L 419	20	31	6	421	105	7	1 1/4	17	6								
EP10L 420	20	31	2	416	105	6	11	17	6								
EP10L 421 THRU 424 NOT USED																	
EP10L 425	20	30	9	411	105	6	8 1/2	17	6								
EP10L 426	20	30	4	405	105	6	6	17	6								
EP10L 427	20	29	11	400	105	6	3 1/2	17	6								
EP10L 428	20	29	6	394	105	6	1	17	6								
EP10L 429	20	29	1	389	105	5	10 1/2	17	6								
EP10L 430	20	28	8	383	105	5	8	17	6								
EP10L 431	20	28	3	377	105	5	5 1/2	17	6								
EP10L 432	20	27	10	372	105	5	3	17	6								
EP10L 433	62	27	6	1139	105	5	1	17	6								
EP10L 434	105	9	6	669	180	8	7										
EP10L 435 NOT USED																	
EP10L 436	176	3	2	372	104	2	7	0	8								
EP10L 501 THRU 550 NOT USED																	
EP10L 551	10	17	8	184	STR												
EP10L 552	80	36	9	3066	105	15	3	6	6								
EP10L 553	40	31	3	1304	105	12	6	6	6								
EP10L 554	40	23	9	991	105	8	9	6	6								
EP10L 555	40	19	9	824	105	6	9	6	6								
EP10L 556	40	17	5	726	105	5	7	6	6								
EP10L 557	64	15	11	1062	105	4	10	6	6								
EP10L 558	96	8	4	834	105	2	6	3	7								
EP10L 559 THRU 563 NOT USED																	
EP10L 564	18	8	2	153	STR												
EP10L 565	18	11	3	210	109	1	8	3	8								
EP10L 601 THRU 650 NOT USED																	
EP10L 651	8	17	8	212	STR												
EP10L 652	70	15	10	1665	105	3	10	8	6								
EP10L 653	16	33	10	813	121												
EP10L 654	20	11	6	345	STR												
EP10L 655	20	13	6	406	STR												
EP10L 656	20	17	3	518	STR												
EP10L 657	20	24	3	728	STR												
EP10L 801 THRU 850 NOT USED																	
EP10L 851	26	10	6	729	100	8	8										
EP10L 852	52	32	9	4547	STR												
EP10L 853 THRU 860 NOT USED																	
EP10L 861	16	4	9	201	104	3	7	1	4								
EP10L 862	20	5	9	307	105	1	4	3	6								
P10L 901																	
P10L 901	38	29	0	3747	100	26	6										
EP10L 1001																	
EP10L 1001	104	11	8	5221	104	10	2	1	10								
EP10L 1002	104	29	3	13090	STR												
EP10L 1003	104	46	1	20,623	STR												
EP10L 1004	38	49	1	8026	108	40	0	9	1	1/4							
EP10L 1005	66	49	1	13,940	STR												
EP10L 1006	38	27	0	4415	STR												

PIER 10L REINFORCEMENT SCHEDULE CONTINUED ON SHEET B127 OF B129

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 10R REINFORCEMENT																	
EP10R 401	784	2	1	1091	180	1	1										
EP10R 402	40	4	3	114	180	3	2 3/4										
EP10R 403	100	4	1	278	180	3	1 3/4										
EP10R 404	100	3	11	262	180	2	11 1/4										
EP10R 405 THRU 408 NOT USED																	
EP10R 409	100	3	9	251	180	2	9										
EP10R 410	100	3	6	234	180	2	6 1/2										
EP10R 411	100	3	4	223	180	2	4										
EP10R 412	100	3	1	206	180	2	1 1/2										
EP10R 413	100	2	11	195	180	1	11										
EP10R 414	100	2	8	178	180	1	8 1/2										
EP10R 415	100	2	6	167	180	1	6										
EP10R 416	100	2	3	150	180	1	3 1/2										
EP10R 417	228	23	3	3541	105	4	0	15	5								
EP10R 418	8	31	9	170	105	7	2 1/4	17	6								
EP10R 419	20	31	6	421	105	7	1 1/4	17	6								
EP10R 420	20	31	2	416	105	6	11	17	6								
EP10R 421 THRU 424 NOT USED																	
EP10R 425	20	30	9	411	105	6	8 1/2	17	6								
EP10R 426	20	30	4	405	105	6	6	17	6								
EP10R 427	20	29	11	400	105	6	3 1/2	17	6								
EP10R 428	20	29	6	394	105	6	1	17	6								
EP10R 429	20	29	1	389	105	5	10 1/2	17	6								
EP10R 430	20	28	8	383	105	5	8	17	6								
EP10R 431	20	28	3	377	105	5	5 1/2	17	6								
EP10R 432	20	27	10	372	105	5	3	17	6								
EP10R 433	62	27	6	1139	105	5	1	17	6								
EP10R 434	105	9	6	669	180	8	7										
EP10R 435 NOT USED																	
EP10R 436	176	3	2	372	104	2	7	0	8								
EP10R 501 THRU 550 NOT USED																	
EP10R 551	10	17	8	184	STR												
EP10R 552	80	36	9	3066	105	15	3	6	6								
EP10R 553	40	31	3	1304	105	12	6	6	6								
EP10R 554	40	23	9	991	105	8	9	6	6								
EP10R 555	40	19	9	824	105	6	9	6									

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								

#### PIER 10L REINFORCEMENT (CONTINUED)

P10L 1101	54	29	8	8511	100	26	6										
EP10L 1101 THRU 1150 NOT USED																	
EP10L 1151	8	29	7	1257	172	24	1	5	10								
EP10L 1152	7	41	11	1559	173	36	5	5	10								
EP10L 1153	15	33	7	2676	170												
EP10L 1154	15	26	3	2092	171												
EP10L 1155	8	41	8	1771	173	36	5	5	7								
EP10L 1156	7	29	4	1091	172	24	1	5	7								

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 12,258

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 108,794

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.										

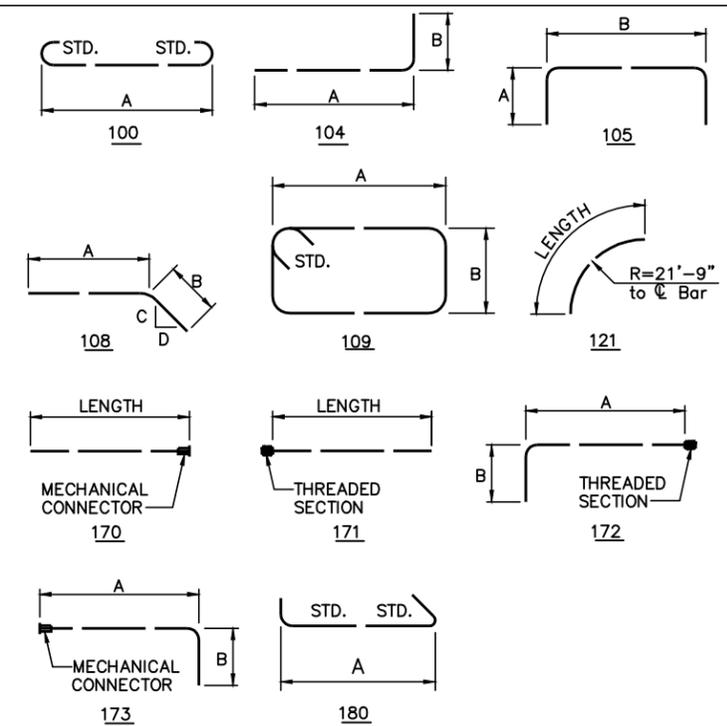
#### PIER 10R REINFORCEMENT (CONTINUED)

P10R 1101	54	29	8	8511	100	26	6										
EP10R 1101 THRU 1150 NOT USED																	
EP10R 1151	8	29	7	1257	172	24	1	5	10								
EP10R 1152	7	41	11	1559	173	36	5	5	10								
EP10R 1153	15	33	7	2676	170												
EP10R 1154	15	26	3	2092	171												
EP10R 1155	8	41	8	1771	173	36	5	5	7								
EP10R 1156	7	29	4	1091	172	24	1	5	7								

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 12,258

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 108,794

### BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: CMB/JL  
DATE: 04/08/98  
DRAWN BY: CMB/MSJ  
DATE: 04/08/98  
CHECKED BY: JLV  
DATE: 08/04/98  
REVISOR: JLV  
DATE: 11/3/04

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
PIER 10			
REINFORCEMENT SCHEDULE			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS			
1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: GLG/CMB	CHECKED: JLV/MJL	DATE: 12/31/98	
DRAWN: GLG/CMB	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B127 OF B129			



BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								

PIER 11L REINFORCEMENT (CONTINUED)

P11L 1101	50	27	8	7350	100	24	6										
EP11L 1101 THRU 1150 NOT USED																	
EP11L1151	8	29	7	1257	172	24	1	5	10								
EP11L1152	7	41	11	1559	173	36	5	5	10								
EP11L1153	15	33	7	2676	170												
EP11L1154	15	26	3	2092	171												
EP11L1155	8	41	8	1771	173	36	5	5	7								
EP11L1156	7	29	4	1091	172	24	1	5	7								

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 10,471

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 101,097

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.										

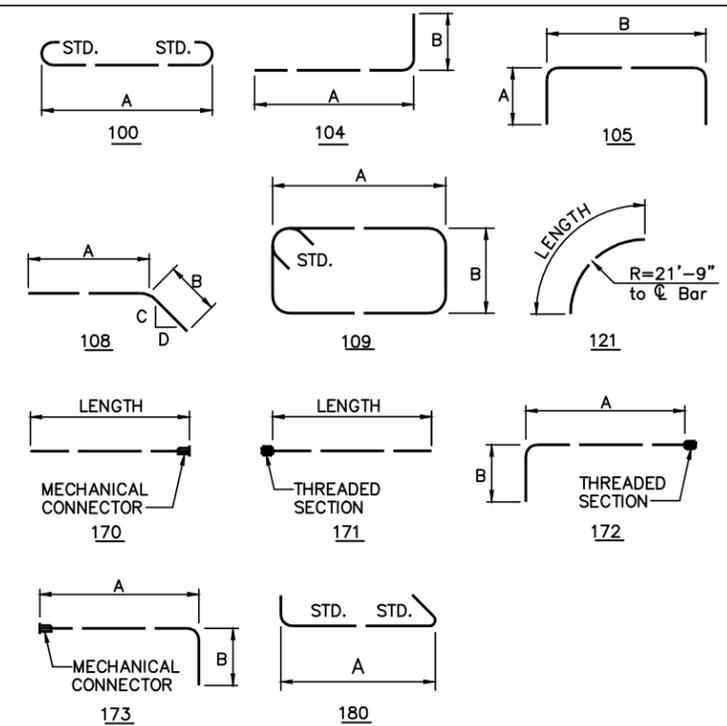
PIER 11R REINFORCEMENT (CONTINUED)

P11R 1101	50	27	8	7350	100	24	6										
EP11R 1101 THRU 1150 NOT USED																	
EP11R1151	8	29	7	1257	172	24	1	5	10								
EP11R1152	7	41	11	1559	173	36	5	5	10								
EP11R1153	15	33	7	2676	170												
EP11R1154	15	26	3	2092	171												
EP11R1155	8	41	8	1771	173	36	5	5	7								
EP11R1156	7	29	4	1091	172	24	1	5	7								

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 10,471

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 103,011

BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
 IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
 REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: CMB CHECKED BY: JLV  
 DATE: 5/21/98 DATE: 08/04/98  
 DRAWN BY: CMB REVISED BY:  
 DATE: 5/21/98 DATE:  
 CAD FILE NAME: 25725-REBARP11.DWG

CONCRETE ALTERNATE		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
PIER 11		
REINFORCEMENT SCHEDULE		
OHIO TURNPIKE OVER CUYAHOGA RIVER		
SUMMIT COUNTY MP 176.9		
<b>HNTB ARCHITECTS ENGINEERS PLANNERS</b>		
1375 EAST 9th STREET		
CLEVELAND, OHIO 44114-1724		
DESIGNED: CMB	CHECKED: JLV/MJL	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: N.T.S.
CONTRACT 43-99-01 SHEET B1278 OF B129		

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 12L REINFORCEMENT																	
EP12L 401	688	2	1	957	180	1	1										
EP12L 402	80	3	11	209	180	2	11										
EP12L 403	100	3	9	251	180	2	9										
EP12L 404	100	3	6	234	180	2	6 1/2										
EP12L 405 THRU 410 NOT USED																	
EP12L 411	100	3	4	223	180	2	4										
EP12L 412	100	3	1	206	180	2	1 1/2										
EP12L 413	100	2	11	195	180	1	11										
EP12L 414	100	2	8	178	180	1	8 1/2										
EP12L 415	100	2	6	167	180	1	6										
EP12L 416	100	2	3	150	180	1	3 1/2										
EP12L 417	196	23	3	3044	105	4	0	15	5								
EP12L 418	16	31	2	333	105	6	10 1/2	17	6								
EP12L 419	20	30	9	411	105	6	8 1/2	17	6								
EP12L 420	20	30	4	405	105	6	6	17	6								
EP12L 421 THRU 426 NOT USED																	
EP12L 427	20	29	11	400	105	6	3 1/2	17	6								
EP12L 428	20	29	6	394	105	6	1	17	6								
EP12L 429	20	29	1	389	105	5	10 1/2	17	6								
EP12L 430	20	28	8	383	105	5	8	17	6								
EP12L 431	20	28	3	377	105	5	5 1/2	17	6								
EP12L 432	20	27	10	372	105	5	3	17	6								
EP12L 433	62	27	6	1139	105	5	1	17	6								
EP12L 434	105	9	6	669	180	8	7										
EP12L 435 NOT USED																	
*EP12L 436	112	3	0	224	104	2	5	0	8								
EP12L 501 THRU 550 NOT USED																	
EP12L 551	10	17	8	184	STR												
EP12L 552	80	36	9	3066	105	15	3	6	6								
EP12L 553	40	31	3	1304	105	12	6	6	6								
EP12L 554	40	23	9	991	105	8	9	6	6								
EP12L 555	40	19	9	824	105	6	9	6	6								
EP12L 556	40	17	5	726	105	5	7	6	6								
EP12L 557	64	15	11	1062	105	4	10	6	6								
EP12L 558	96	8	4	834	105	2	6	3	7								
EP12L 601 THRU 650 NOT USED																	
EP12L 651	8	17	8	212	STR												
EP12L 652	70	15	10	1665	105	3	10	8	6								
EP12L 653	16	33	10	813	121												
EP12L 654	20	11	6	345	STR												
EP12L 655	20	13	6	406	STR												
EP12L 656	20	17	3	518	STR												
EP12L 657	20	24	3	728	STR												
EP12L 801 THRU 850 NOT USED																	
EP12L 851	26	10	6	729	100	8	8										
EP12L 852	52	32	9	4547	STR												
P12L 901 THRU 1150 NOT USED																	
EP12L 1151	8	29	7	1257	172	24	1	5	10								
EP12L 1152	7	41	11	1559	173	36	5	5	10								
EP12L 1153	15	33	7	2676	170												
EP12L 1154	15	26	3	2092	171												
EP12L 1155	8	41	8	1771	173	36	5	5	7								
EP12L 1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 10,471																	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 98,938																	

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 12R REINFORCEMENT																	
EP12R 401	688	2	1	957	180	1	1										
EP12R 402	80	3	11	209	180	2	11										
EP12R 403	100	3	9	251	180	2	9										
EP12R 404	100	3	6	234	180	2	6 1/2										
EP12R 405 THRU 410 NOT USED																	
EP12R 411	100	3	4	223	180	2	4										
EP12R 412	100	3	1	206	180	2	1 1/2										
EP12R 413	100	2	11	195	180	1	11										
EP12R 414	100	2	8	178	180	1	8 1/2										
EP12R 415	100	2	6	167	180	1	6										
EP12R 416	100	2	3	150	180	1	3 1/2										
EP12R 417	196	23	3	3044	105	4	0	15	5								
EP12R 418	16	31	2	333	105	6	10 1/2	17	6								
EP12R 419	20	30	9	411	105	6	8 1/2	17	6								
EP12R 420	20	30	4	405	105	6	6	17	6								
EP12R 421 THRU 426 NOT USED																	
EP12R 427	20	29	11	400	105	6	3 1/2	17	6								
EP12R 428	20	29	6	394	105	6	1	17	6								
EP12R 429	20	29	1	389	105	5	10 1/2	17	6								
EP12R 430	20	28	8	383	105	5	8	17	6								
EP12R 431	20	28	3	377	105	5	5 1/2	17	6								
EP12R 432	20	27	10	372	105	5	3	17	6								
EP12R 433	62	27	6	1139	105	5	1	17	6								
EP12R 434	105	9	6	669	180	8	7										
EP12R 435 NOT USED																	
*EP12R 436	112	3	0	224	104	2	5	0	8								
EP12R 501 THRU 550 NOT USED																	
EP12R 551	10	17	8	184	STR												
EP12R 552	80	36	9	3066	105	15	3	6	6								
EP12R 553	40	31	3	1304	105	12	6	6	6								
EP12R 554	40	23	9	991	105	8	9	6	6								
EP12R 555	40	19	9	824	105	6	9	6	6								
EP12R 556	40	17	5	726	105	5	7	6	6								
EP12R 557	64	15	11	1062	105	4	10	6	6								
EP12R 558	96	8	4	834	105	2	6	3	7								
EP12R 601 THRU 650 NOT USED																	
EP12R 651	8	17	8	212	STR												
EP12R 652	70	15	10	1665	105	3	10	8	6								
EP12R 653	16	33	10	813	121												
EP12R 654	20	11	6	345	STR												
EP12R 655	20	13	6	406	STR												
EP12R 656	20	17	3	518	STR												
EP12R 657	20	24	3	728	STR												
EP12R 801 THRU 850 NOT USED																	
EP12R 851	26	10	6	729	100	8	8										
EP12R 852	52	32	9	4547	STR												
P12R 901 THRU 1150 NOT USED																	
EP12R 1151	8	29	7	1264	172	24	1	6	0								

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 13L REINFORCEMENT																	
EP13L 401	688	2	1	957	180	1	1										
EP13L 402	80	3	11	209	180	2	10 3/4										
EP13L 403	100	3	9	251	180	2	8 3/4										
EP13L 404	100	3	6	234	180	2	6 1/4										
EP13L 405 THRU 410 NOT USED																	
EP13L 411	100	3	4	223	180	2	4										
EP13L 412	100	3	1	206	180	2	1 1/2										
EP13L 413	100	2	11	195	180	1	11										
EP13L 414	100	2	8	178	180	1	8 1/2										
EP13L 415	100	2	6	167	180	1	6										
EP13L 416	100	2	3	150	180	1	3 1/2										
EP13L 417	196	23	3	3044	105	4	0	15	5								
EP13L 418	16	31	1	332	105	6	10 1/4	17	6								
EP13L 419	20	30	9	411	105	6	8 1/4	17	6								
EP13L 420	20	30	3	404	105	6	5 3/4	17	6								
EP13L 421 THRU 426 NOT USED																	
EP13L 427	20	29	11	400	105	6	3 1/2	17	6								
EP13L 428	20	29	6	394	105	6	1	17	6								
EP13L 429	20	29	1	389	105	5	10 1/2	17	6								
EP13L 430	20	28	8	383	105	5	8	17	6								
EP13L 431	20	28	3	377	105	5	5 1/2	17	6								
EP13L 432	20	27	10	372	105	5	3	17	6								
EP13L 433	62	27	6	1139	105	5	1	17	6								
EP13L 434	105	9	6	669	180	8	7										
EP13L 435 NOT USED																	
EP13L 436	112	3	0	224	104	2	5	0	8								
EP13L 501 THRU 550 NOT USED																	
EP13L 551	10	17	8	184	STR												
EP13L 552	80	36	9	3066	105	15	3	6	6								
EP13L 553	40	31	3	1304	105	12	6	6	6								
EP13L 554	40	23	9	991	105	8	9	6	6								
EP13L 555	40	19	9	824	105	6	9	6	6								
EP13L 556	40	17	5	726	105	5	7	6	6								
EP13L 557	64	15	11	1062	105	4	10	6	6								
EP13L 558	96	8	4	834	105	2	6	3	7								
EP13L 601 THRU 650 NOT USED																	
EP13L 651	8	17	8	212	STR												
EP13L 652	70	15	10	1665	105	3	10	8	6								
EP13L 653	16	33	10	813	121												
EP13L 654	20	11	6	345	STR												
EP13L 655	20	13	6	406	STR												
EP13L 656	20	17	3	518	STR												
EP13L 657	20	24	3	728	STR												
EP13L 801 THRU 850 NOT USED																	
EP13L 851	26	10	6	729	100	8	8										
EP13L 852	52	32	9	4547	STR												
P13L 901 THRU 1150 NOT USED																	
P13L 901	33	26	6	2973	100	24	0										
P13L 1001	49	26	10	5658	100	24	0										
EP13L1001	104	11	2	4997	104	9	8	1	10								
EP13L1002	104	13	3	5930	STR												
EP13L1003	104	46	1	20,623	STR												
EP13L1004	38	49	1	8026	108	40	0	9	1	1/4	12						
EP13L1005	66	49	1	13,940	STR												
EP13L1006	38	27	0	4415	STR												
EP13L 1101 THRU 1150 NOT USED																	
EP13L1151	8	29	8	1261	172	24	1	5	11								
EP13L1152	7	42	0	1562	173	36	5	5	11								
EP13L1153	15	33	7	2676	170												
EP13L1154	15	26	3	2092	171												
EP13L1155	8	41	8	1771	173	36	5	5	7								
EP13L1156	7	29	4	1091	172	24	1	5	7								
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 8631																	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 98,517																	

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 13R REINFORCEMENT																	
EP13R 401	688	2	1	957	180	1	1										
EP13R 402	80	3	11	209	180	2	10 3/4										
EP13R 403	100	3	9	251	180	2	8 3/4										
EP13R 404	100	3	6	234	180	2	6 1/4										
EP13R 405 THRU 410 NOT USED																	
EP13R 411	100	3	4	223	180	2	4										
EP13R 412	100	3	1	206	180	2	1 1/2										
EP13R 413	100	2	11	195	180	1	11										
EP13R 414	100	2	8	178	180	1	8 1/2										
EP13R 415	100	2	6	167	180	1	6										
EP13R 416	100	2	3	150	180	1	3 1/2										
EP13R 417	196	23	3	3044	105	4	0	15	5								
EP13R 418	16	31	1	332	105	6	10 1/4	17	6								
EP13R 419	20	30	9	411	105	6	8 1/4	17	6								
EP13R 420	20	30	3	404	105	6	5 3/4	17	6								
EP13R 421 THRU 426 NOT USED																	
EP13R 427	20	29	11	400	105	6	3 1/2	17	6								
EP13R 428	20	29	6	394	105	6	1	17	6								
EP13R 429	20	29	1	389	105	5	10 1/2	17	6								
EP13R 430	20	28	8	383	105	5	8	17	6								
EP13R 431	20	28	3	377	105	5	5 1/2	17	6								
EP13R 432	20	27	10	372	105	5	3	17	6								
EP13R 433	62	27	6	1139	105	5	1	17	6								
EP13R 434	105	9	6	669	180	8	7										
EP13R 435 NOT USED																	
EP13R 436	112	3	0	224	104	2	5	0	8								
EP13R 501 THRU 550 NOT USED																	
EP13R 551	10	17	8	184	STR												
EP13R 552	80	36	9	3066	105	15	3	6	6								
EP13R 553	40	31	3	1304	105	12	6	6	6								
EP13R 554	40	23	9	991	105	8	9	6	6								
EP13R 555	40	19	9	824	105	6	9	6	6								
EP13R 556	40	17	5	726	105	5	7	6	6								
EP13R 557	64	15	11	1062	105	4	10	6	6								
EP13R 558	96	8	4	834	105	2	6	3	7								
EP13R 601 THRU 650 NOT USED																	
EP13R 651	8	17	8	212	STR												
EP13R 652	70	15	10	1665	105	3	10	8	6								

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 14L REINFORCEMENT																	
EP14L 401	574	2	1	799	180	1	1										
EP14L 402	90	3	6	210	180	2	6 1/4										
EP14L 403	100	3	4	223	180	2	4										
EP14L 404	100	3	1	206	180	2	1 1/2										
EP14L 405 THRU 412 NOT USED																	
EP14L 413	100	2	11	195	180	1	11										
EP14L 414	100	2	8	178	180	1	8 1/2										
EP14L 415	100	2	6	167	180	1	6										
EP14L 416	100	2	3	150	180	1	3 1/2										
EP14L 417	158	23	3	2454	105	4	0	15	5								
EP14L 418	18	30	4	364	105	6	5 3/4	17	6								
EP14L 419	20	29	11	400	105	6	3 1/2	17	6								
EP14L 420	20	29	6	394	105	6	1	17	6								
EP14L 421 THRU 428 NOT USED																	
EP14L 429	20	29	1	389	105	5	10 1/2	17	6								
EP14L 430	20	28	8	383	105	5	8	17	6								
EP14L 431	20	28	3	377	105	5	5 1/2	17	6								
EP14L 432	20	27	10	372	105	5	3	17	6								
EP14L 433	62	27	6	1139	105	5	1	17	6								
EP14L 434	105	9	6	669	180	8	7										
EP14L 435	16	6	0	64	163	0	8	5	0								
EP14L 501 THRU 550 NOT USED																	
EP14L 551	10	17	8	184	STR												
EP14L 552	80	36	3	3025	105	15	0	6	6								
EP14L 553	40	30	9	1283	105	12	3	6	6								
EP14L 554	40	23	3	970	105	8	6	6	6								
EP14L 555	40	19	3	803	105	6	6	6	6								
EP14L 556	40	16	11	706	105	5	4	6	6								
EP14L 557	64	15	5	1029	105	4	7	6	6								
EP14L 558	96	8	1	809	105	3	4	1	8								
EP14L 559	20	10	8	223	105	3	0	4	11								
EP14L 560	20	9	8	202	105	2	6	4	11								
EP14L 601 THRU 650 NOT USED																	
EP14L 651	8	17	8	212	STR												
EP14L 652	70	15	10	1665	105	3	10	8	6								
EP14L 653	16	33	10	813	121												
EP14L 654	20	11	6	345	STR												
EP14L 655	20	13	6	406	STR												
EP14L 656	20	17	3	518	STR												
EP14L 657	20	24	3	728	STR												
EP14L 801 THRU 850 NOT USED																	
EP14L 851	26	10	6	729	100	8	8										
EP14L 852	52	32	9	4547	STR												
EP14L 853	6	37	2	595	STR												
EP14L 1001 THRU 1006																	
EP14L1001	104	12	2	5445	104	10	8	1	10								
EP14L1002	104	14	2	6340	STR												
EP14L1003	104	26	1	11673	STR												
EP14L1004	38	49	1	8026	108	40	0	9	1	1/4	12						
EP14L1005	66	49	1	13,940	STR												
EP14L1006	38	27	0	4415	STR												
EP14L 1101 THRU 1150 NOT USED																	
EP14L1151	15	29	4	2338	172	24	1	5	7								
EP14L1152	15	41	8	3321	173	36	5	5	7								
EP14L1153	15	33	7	2676	170												
EP14L1154	15	26	3	2092	171												
EP14L1155	9	37	0	1769	STR												
P14L 1401	52	40	0	15912	100	35	6										
P14L 1402	58	34	0	15086	100	29	6										
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				30,998													
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				90,960													

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 14R REINFORCEMENT																	
EP14R 401	574	2	1	799	180	1	1										
EP14R 402	90	3	6	210	180	2	6 1/4										
EP14R 403	100	3	4	223	180	2	4										
EP14R 404	100	3	1	206	180	2	1 1/2										
EP14R 405 THRU 412 NOT USED																	
EP14R 413	100	2	11	195	180	1	11										
EP14R 414	100	2	8	178	180	1	8 1/2										
EP14R 415	100	2	6	167	180	1	6										
EP14R 416	100	2	3	150	180	1	3 1/2										
EP14R 417	158	23	3	2454	105	4	0	15	5								
EP14R 418	18	30	4	364	105	6	5 3/4	17	6								
EP14R 419	20	29	11	400	105	6	3 1/2	17	6								
EP14R 420	20	29	6	394	105	6	1	17	6								
EP14R 421 THRU 428 NOT USED																	
EP14R 429	20	29	1	389	105	5	10 1/2	17	6								
EP14R 430	20	28	8	383	105	5	8	17	6								
EP14R 431	20	28	3	377	105	5	5 1/2	17	6								
EP14R 432	20	27	10	372	105	5	3	17	6								
EP14R 433	62	27	6	1139	105	5	1	17	6								
EP14R 434	105	9	6	669	180	8	7										
EP14R 435	26	6	0	104	163	0	8	5	0								
EP14R 501 THRU 550 NOT USED																	
EP14R 551	10	17	8	184	STR												
EP14R 552	80	36	3	3025	105	15	0	6	6								
EP14R 553	40	30	9	1283	105	12	3	6	6								
EP14R 554	40	23	3	970	105	8	6	6	6								
EP14R 555	40	19	3	803	105	6	6	6	6								
EP14R 556	40	16	11	706	105	5	4	6	6								
EP14R 557	64	15	5	1029	105	4	7	6	6								
EP14R 558	96	8	5	843	105	3	6	1	8								
EP14R 559	20	11	8	243	105	3	6	4	11								
EP14R 560	19	10	6	208	105	2	11	4	11								
EP14R 561	9	9	4	88	105	2	4	4	11								
EP14R 601 THRU 650 NOT USED																	
EP14R 651	8	17	8	212	STR												
EP14R 652	70	15	10	1665	105	3	10	8	6								
EP14R 653	16	33	10	813	121												
EP14R 654	20	11	6	345	STR												
EP14R 655	20	13	6	406	STR												
EP14R 656	20	17	3	518	STR												

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 15L REINFORCEMENT																	
EP15L 401	544	2	1	757	180	1	1										
EP15L 402	40	3	5	91	180	2	5										
EP15L 403	100	3	4	223	180	2	4										
EP15L 404	100	3	1	206	180	2	1 1/2										
EP15L 405 THRU 412 NOT USED																	
EP15L 413	100	2	11	195	180	1	11										
EP15L 414	100	2	8	178	180	1	8 1/2										
EP15L 415	100	2	6	167	180	1	6										
EP15L 416	100	2	3	150	180	1	3 1/2										
EP15L 417	148	23	3	2299	105	4	0	15	5								
EP15L 418	8	30	1	161	105	6	4 1/2	17	6								
EP15L 419	20	29	11	400	105	6	3 1/2	17	6								
EP15L 420	20	29	6	394	105	6	1	17	6								
EP15L 421 THRU 428 NOT USED																	
EP15L 429	20	29	1	389	105	5	10 1/2	17	6								
EP15L 430	20	28	8	383	105	5	8	17	6								
EP15L 431	20	28	3	377	105	5	5 1/2	17	6								
EP15L 432	20	27	10	372	105	5	3	17	6								
EP15L 433	62	27	6	1139	105	5	1	17	6								
EP15L 434	105	9	6	669	180	8	7										
EP15L 435	42	6	0	168	163	0	8	5	0								
EP15L 501 THRU 550 NOT USED																	
EP15L 551	10	17	8	184	STR												
EP15L 552	80	36	3	3025	105	15	0	6	6								
EP15L 553	40	30	9	1283	105	12	3	6	6								
EP15L 554	40	23	3	970	105	8	6	6	6								
EP15L 555	40	19	3	803	105	6	6	6	6								
EP15L 556	40	16	11	706	105	5	4	6	6								
EP15L 557	64	15	5	1029	105	4	7	6	6								
EP15L 558	96	9	7	960	105	4	1	1	8								
EP15L 559	10	13	0	136	105	4	2	4	11								
EP15L 560	10	11	8	122	105	3	6	4	11								
EP15L 561	11	10	8	122	105	3	0	4	11								
EP15L 562	9	9	8	91	105	2	6	4	11								
EP15L 563 NOT USED																	
EP15L 564	18	8	2	153	STR												
EP15L 565	18	11	11	223	109	1	8	4	0								
EP15L 601 THRU 650 NOT USED																	
EP15L 651	8	17	8	212	STR												
EP15L 652	70	15	10	1665	105	3	10	8	6								
EP15L 653	16	33	10	813	121												
EP15L 654	20	11	6	345	STR												
EP15L 655	20	13	6	406	STR												
EP15L 656	20	17	3	518	STR												
EP15L 657	20	24	3	728	STR												
EP15L 801 THRU 850 NOT USED																	
EP15L 851	26	10	6	729	100	8	8										
EP15L 852	52	32	9	4547	STR												
EP15L 853	2	17	3	92	STR												
EP15L 854	2	37	0	198	STR												
EP15L 855	9	15	3	366	STR												
EP15L 856	27	8	9	631	STR												
EP15L 857 THRU 860 NOT USED																	
EP15L 861	16	5	1	215	104	3	11	1	4								
EP15L 862	20	6	1	325	105	1	4	3	10								
EP15L1001																	
EP15L1001	104	12	2	5445	104	10	8	1	10								
EP15L1002	104	29	5	13164	STR												
EP15L1004																	
EP15L1004	38	49	1	8026	108	40	0	9	1	1/4	12						
EP15L1005	66	49	1	13,940	STR												
EP15L1006	38	27	0	4415	STR												

PIER 15L REINFORCEMENT SCHEDULE CONTINUED ON SHEET B127G OF B129

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 15R REINFORCEMENT																	
EP15R 401	544	2	1	757	180	1	1										
EP15R 402	40	3	5	91	180	2	5										
EP15R 403	100	3	4	223	180	2	4										
EP15R 404	100	3	1	206	180	2	1 1/2										
EP15R 405 THRU 412 NOT USED																	
EP15R 413	100	2	11	195	180	1	11										
EP15R 414	100	2	8	178	180	1	8 1/2										
EP15R 415	100	2	6	167	180	1	6										
EP15R 416	100	2	3	150	180	1	3 1/2										
EP15R 417	148	23	3	2299	105	4	0	15	5								
EP15R 418	8	30	1	161	105	6	4 1/2	17	6								
EP15R 419	20	29	11	400	105	6	3 1/2	17	6								
EP15R 420	20	29	6	394	105	6	1	17	6								
EP15R 421 THRU 428 NOT USED																	
EP15R 429	20	29	1	389	105	5	10 1/2	17	6								
EP15R 430	20	28	8	383	105	5	8	17	6								
EP15R 431	20	28	3	377	105	5	5 1/2	17	6								
EP15R 432	20	27	10	372	105	5	3	17	6								
EP15R 433	62	27	6	1139	105	5	1	17	6								
EP15R 434	105	9	6	669	180	8	7										
EP15R 435	66	6	0	265	163	0	8	5	0								
EP15R 501 THRU 550 NOT USED																	
EP15R 551	10	17	8	184	STR												
EP15R 552	80	36	3	3025	105	15	0	6	6								
EP15R 553	40	30	9	1283	105	12	3	6	6								
EP15R 554	40	23	3	970	105	8	6	6	6								
EP15R 555	40	19	3	803	105	6	6	6	6								
EP15R 556	40	16	11	706	105	5	4	6	6								
EP15R 557	64	15	5	1029	105	4	7	6	6								
EP15R 558	96	11	1	1110	105	4	10	1	8								
EP15R 559	10	14	2	148	105	4	9	4	11								
EP15R 560	10	13	2	137	105	4	3	4	11								
EP15R 561	11	12	2	140	105	3	9	4	11								
EP15R 562	8	10	10	90	105	3	1	4	11								
EP15R 563	9	10	0	94	105	2	8	4	11								
EP15R 564	18	8	2	153	STR												
EP15R 565	18	11	11	223	109	1	8	4	0								
EP15R 601 THRU 650 NOT USED																	
EP15R 651	8	17	8	21													

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								

#### PIER 15L REINFORCEMENT (CONTINUED)

EP15L 1101 THRU 1150 NOT USED																	
EP15L1151	15	29	4	2338	172	24	1	5	7								
EP15L1152	15	41	8	3321	173	36	5	5	7								
EP15L1153	15	33	7	2676	170												
EP15L1154	15	26	3	2092	171												
EP15L1155	9	36	0	1721	STR												

P15L 1401	58	40	0	17748	100	35	6										
P15L 1402	52	39	0	15514	100	34	6										
P15L 1403	20	34	6	5279	STR												

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				38,541														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				87,453														

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.										

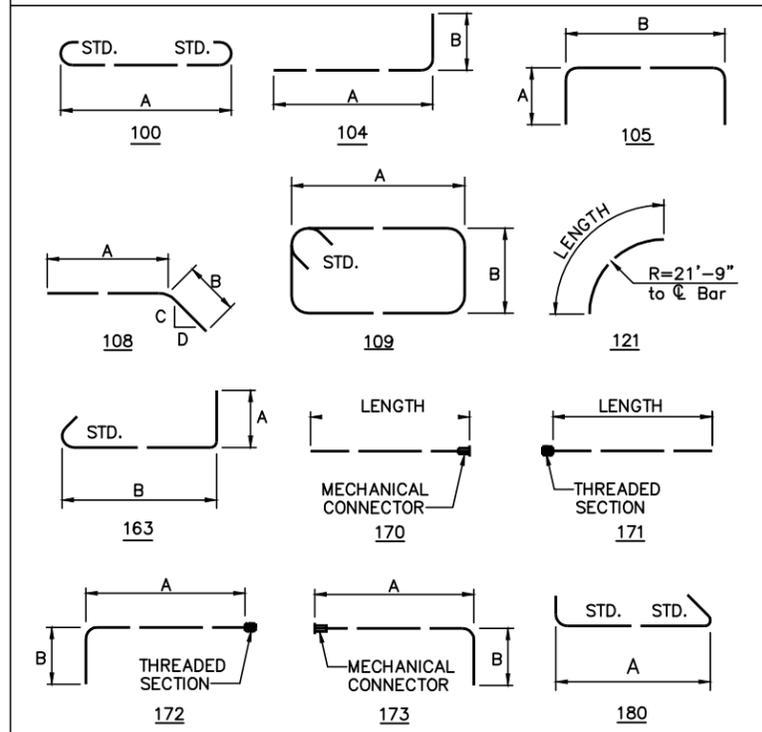
#### PIER 15R REINFORCEMENT (CONTINUED)

EP15R 1101 THRU 1150 NOT USED																	
EP15R1151	15	29	4	2338	172	24	1	5	7								
EP15R1152	15	41	8	3321	173	36	5	5	7								
EP15R1153	15	33	7	2676	170												
EP15R1154	15	26	3	2092	171												
EP15R1155	9	20	3	968	171												
EP15R1156	9	32	9	1566	170												

P15R 1401	52	40	0	15912	100	35	6										
P15R 1402	58	34	0	15086	100	29	6										

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT =				30,998														
TOTAL EPOXY COATED REINFORCING BAR WEIGHT =				89,286														

### BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

DESIGNED BY: CMB CHECKED BY: M.J.L.  
 DATE: 5/21/98 DATE: 08/04/98  
 DRAWN BY: CMB REVISED BY:  
 DATE: 5/21/98 DATE:  
 CAD FILE NAME: 25725-REBARP15.DWG

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PIER 15</b> <b>REINFORCEMENT SCHEDULE</b> OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: CMB	CHECKED: M.J.L./J.L.V.	DATE: 12/31/98
DRAWN: CMB	IN CHARGE: GT	SCALE: N.T.S.
<b>CONTRACT 43-99-01 SHEET B127G OF B129</b>		



### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.								

PIER 16L REINFORCEMENT (CONTINUED)

EP16L 1103 THRU 1150 NOT USED																	
EP16L1151	15	29	4	2338	172	24	1	5	7								
EP16L1152	15	41	8	2321	173	36	5	5	7								
EP16L1153	15	33	7	2676	170												
EP16L1154	15	26	3	2092	171												
EP16L1155	9	14	4	685	171												
EP16L1156	9	26	10	1283	170												
EP16L1157	9	36	10	1761	STR												

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 11,085

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 74,202

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.										

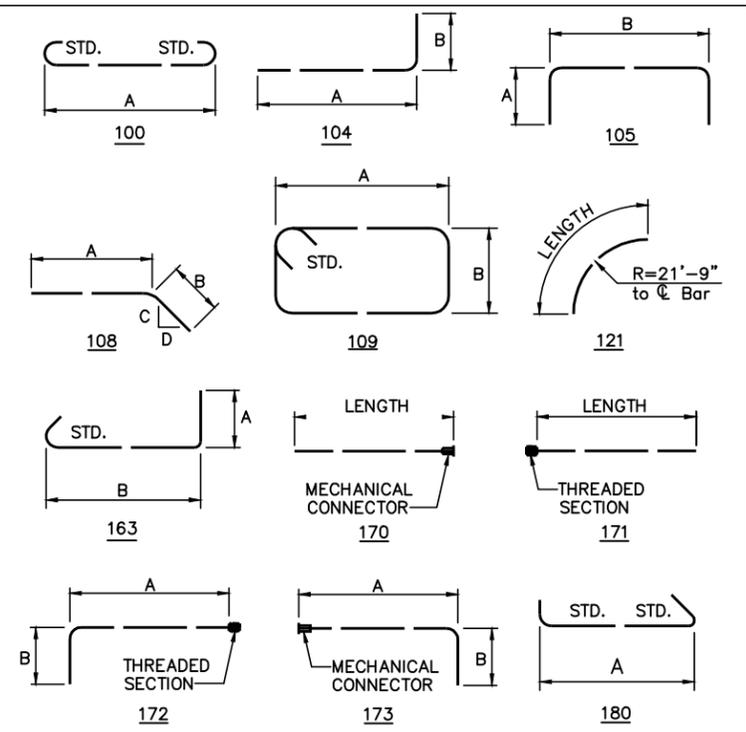
PIER 16R REINFORCEMENT (CONTINUED)

EP16R 1103 THRU 1150 NOT USED																	
EP16R1151	15	29	4	2338	172	24	1	5	7								
EP16R1152	15	41	8	3321	173	36	5	5	7								
EP16R1153	15	33	7	2676	170												
EP16R1154	15	26	3	2092	171												
EP16R1155	9	23	0	1100	171												
EP16R1156	9	35	4	1690	170												
EP16R1157	5	32	11	874	170												
EP16R1158	4	25	6	542	171												
EP16R1159	5	21	0	558	171												
EP16R1160	4	28	5	604	170												

TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 11,085

TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 77,062

### BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

**EPOXY COATED REINFORCING STEEL SUPPORT:**  
IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

**REINFORCING STEEL SAMPLES**  
REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

THE PREFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.

DESIGNED BY: GLG CHECKED BY: M.J.L.  
 DATE: 04/08/98 DATE: 08/04/98  
 DRAWN BY: GLG REVISIONS BY: DATE:  
 DATE: 04/08/98 DATE:  
 CAD FILE NAME: 25725-REBARP16.DWG

<b>CONCRETE ALTERNATE</b>		
RECORD DRAWING		11/3/04
NO.	REVISIONS	BY DATE
<b>OHIO TURNPIKE COMMISSION</b>		
<b>PIER 16</b> <b>REINFORCEMENT SCHEDULE</b> OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9		
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724		
DESIGNED: GLG	CHECKED: M.J.L./J.L.V.	DATE: 12/31/98
DRAWN: GLG/CMB	IN CHARGE: GT	SCALE: N.T.S.
<b>CONTRACT 43-99-01 SHEET B1271 OF B129</b>		

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
PIER 17L REINFORCEMENT																	
EP17L 401	200	2	1	278	180	1	1										
EP17L 402	20	2	4	31	180	1	4										
EP17L 403	100	2	3	150	180	1	3 1/2										
EP17L 404 THRU 416 NOT USED																	
EP17L 417	40	23	3	621	105	4	0	15	5								
EP17L 418	4	28	0	75	105	5	3 1/2	17	6								
EP17L 419	20	27	10	372	105	5	3	17	6								
EP17L 420 THRU 432 NOT USED																	
EP17L 433	62	27	6	1139	105	5	1	17	6								
EP17L 434	110	9	6	701	180	8	7										
EP17L 435	57	6	0	228	163	0	8	5	0								
EP17L 501 THRU 550 NOT USED																	
EP17L 551	10	17	8	184	STR												
EP17L 552	80	36	3	3025	105	15	0	6	6								
EP17L 553	40	30	9	1283	105	12	3	6	6								
EP17L 554	40	23	3	970	105	8	6	6	6								
EP17L 555	40	19	3	803	105	6	6	6	6								
EP17L 556	40	16	11	706	105	5	4	6	6								
EP17L 557	64	15	5	1029	105	4	7	6	6								
EP17L 558	96	12	3	1227	105	5	5	1	8								
EP17L 559	10	16	2	169	105	5	9	4	11								
EP17L 560	10	13	8	143	105	4	6	4	11								
EP17L 561	11	12	0	138	105	3	8	4	11								
EP17L 562	9	10	2	95	105	2	9	4	11								
EP17L 563 NOT USED																	
EP17L 564	18	8	2	153	STR												
EP17L 565	18	12	9	239	109	1	8	4	5								
EP17L 601 THRU 650 NOT USED																	
EP17L 651	8	17	8	212	STR												
EP17L 652	70	15	10	1665	105	3	10	8	6								
EP17L 653	16	33	10	813	121												
EP17L 654	20	11	6	345	STR												
EP17L 655	20	13	6	406	STR												
EP17L 656	20	17	3	518	STR												
EP17L 657	20	24	3	728	STR												
EP17L 801 THRU 803 NOT USED																	
EP17L 804	38	19	8	1995	108	11	6	8	2	1/4	12						
EP17L 805	66	19	8	3466	STR												
EP17L 806	38	27	0	2739	STR												
EP17L 807 THRU 850 NOT USED																	
EP17L 851	26	10	6	729	100	8	8										
EP17L 852	52	32	9	4547	STR												
EP17L 853	2	11	8	62	STR												
EP17L 854	2	24	7	131	STR												
EP17L 855	4	26	3	280	STR												
EP17L 856	9	15	3	366	STR												
EP17L 857	27	9	6	684	STR												
EP17L 858 THRU 860 NOT USED																	
EP17L 861	16	5	6	233	104	4	4	1	4								
EP17L 862	20	6	6	347	105	1	4	4	3								
P17L 1101 THRU 1102 NOT USED																	
P17L 1101	27	29	8	4256	100	26	6										
P17L 1102	38	25	8	5182	100	22	6										
EP17L 1103 THRU 1150 NOT USED																	
EP17L1151	15	29	4	2338	172	24	1	5	7								
EP17L1152	15	41	8	3321	173	36	5	5	7								
EP17L1153	15	33	7	2676	170												
EP17L1154	15	26	3	2092	171												
EP17L1155	9	14	8	701	171												
EP17L1156	9	27	2	1299	170												
EP17L1157	9	37	8	1801	STR												
TOTAL NON-EPOXY COATED REINFORCING BAR WEIGHT = 9438																	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 51,146																	

DESIGNED BY: GLG CHECKED BY: M.J.L.  
 DATE: 04/08/98 DATE: 08/04/98  
 DRAWN BY: GLG REVISIONS BY: DATE:  
 DATE: 04/08/98 DATE:  
 CAD FILE NAME: 25725-REBARP17.DWG

### BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		WEIGHT (LBS.)	TYPE	A		B		C		D		E		SER. INCR.	
		FT.	IN.			FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PIER 17R REINFORCEMENT																	
EP17R 401	200	2	1	278	180	1	1										
EP17R 402	20	2	4	31	180	1	4										
EP17R 403	100	2	3	150	180	1	3 1/2										
EP17R 404 THRU 416 NOT USED																	
EP17R 417	40	23	3	621	105	4	0	15	5								
EP17R 418	4	28	0	75	105	5	3 1/2	17	6								
EP17R 419	20	27	10	372	105	5	3	17	6								
EP17R 420 THRU 432 NOT USED																	
EP17R 433	62	27	6	1139	105	5	1	17	6								
EP17R 434	110	9	6	701	180	8	7										
EP17R 435	94	6	0	277	163	0	8	5	0								
EP17R 501 THRU 550 NOT USED																	
EP17R 551	10	17	8	184	STR												
EP17R 552	80	36	3	3025	105	15	0	6	6								
EP17R 553	40	30	9	1283	105	12	3	6	6								
EP17R 554	40	23	3	970	105	8	6	6	6								
EP17R 555	40	19	3	803	105	6	6	6	6								
EP17R 556	40	16	11	706	105	5	4	6	6								
EP17R 557	64	15	5	1029	105	4	7	6	6								
EP17R 558	96	12	3	1227	105	5	5	1	8								
EP17R 559	10	16	2	169	105	5	9	4	11								
EP17R 560	10	13	8	143	105	4	6	4	11								
EP17R 561	11	14	6	166	105	4	11	4	11								
EP17R 562	8	12	10	107	105	4	1	4	11								
EP17R 563	9	11	2	105	105	3	3	4	11								
EP17R 564	18	8	2	153	STR												
EP17R 565	18	12	9	239	109	1	8	4	5								
EP17R 601 THRU 650 NOT USED																	
EP17R 651	8	17	8	212	STR												
EP17R 652	70	15	10	1665	105	3	10	8	6								
EP17R 653	16	33	10	813	121												
EP17R 654	20	11	6	345	STR												
EP17R 655	20	13	6	406	STR												
EP17R 656	20	17	3	518	STR												
EP17R 657	20	24	3	728	STR												
EP17R 801	104	10	5	2893	104	9	3	1	4								
EP17R 802 THRU 803 NOT USED																	
EP17R 804	38	19	8	1995	108	11	6	8	2	1/4	12						
EP17R 805	66	19	8	3466	STR												
EP17R 806	38	27	0	2739	STR												
EP17R 807 THRU 850 NOT USED																	
EP17R 851	26	10	6	729	100												

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		TYP E	A		B		C		D		E		SER. INCR.	WEIGHT (LBS.)	
		FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.			
DECK SLAB (UNIT 1, WB) - EPOXY COATED REINFORCEMENT																	
ES501	1473	30	0	STR												46,090	
ES502	39	28	5	STR												1,156	
ES503	64	24	11	STR												1,663	
ES504	64	23	4	STR												1,558	
ES505	39	18	4	STR												746	
ES506	39	16	9	STR												681	
ES601	656	32	1	101	31	5										31,612	
ES602	656	33	11	101	33	3										33,418	
ES603	656	27	1	STR												26,686	
ES604	656	38	1	STR												37,524	
ES701	380	30	5	STR												23,625	
ES702	126	37	9	STR												9,722	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 214,482																	
DECK SLAB (UNIT 2, WB) - EPOXY COATED REINFORCEMENT																	
ES401	4	6	0	STR												16	
ES501	4392	30	0	STR												137,426	
ES502	72	28	5	STR												2,134	
ES503	72	19	11	STR												1,496	
ES504	72	18	4	STR												1,377	
ES601	1538	31	5	STR												72,575	
ES602	1538	33	9	STR												77,965	
ES603	769	28	1	101	27	5										32,437	
ES604	769	29	11	101	29	3										34,555	
ES605	1538	30	0	STR												69,302	
ES606	1512	29	5	STR												66,806	
ES701	769	8	1	101	7	3										12,706	
ES702	769	9	11	101	9	1										15,587	
ES703	8	4	6	STR												74	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 481,305																	
DECK SLAB (UNIT 3, WB) - EPOXY COATED REINFORCEMENT																	
ES401	1098	5	7	202	1	0	0	6 1/2	2	8	0	9				4,095	
ES402	26	6	4	202	1	0	0	10 1/2	2	8	1	1				110	
ES403	4	6	0	STR												16	
ES501	5959	30	0	STR												186,457	
ES502	39	28	5	STR												1,156	
ES503	64	30	9	STR												2,053	
ES504	1 Ser 64	30	6	STR	16 Subseries of 4 bars											6	2,086
ES505	1 Ser 64	30	8	STR	8 Subseries of 8 bars											4	2,125
ES506	1 Ser 64	30	6	STR	8 Subseries of 8 bars											6	2,153
ES507	1 Ser 39	8	8	STR												4	610
ES508	1 Ser 39	10	3	STR												4	675
ES509	1 Ser 32	35	8	STR	4 Subseries of 8 bars											6	1,249
ES510	1 Ser 32	34	1	STR	4 Subseries of 8 bars											6	1,196
ES517	32	31	4	STR												1,046	
ES518	32	32	11	STR												1,099	
ES601	1553	32	1	101	31	5										74,838	
ES602	1553	33	11	101	33	3										79,114	
ES603	2608	27	1	STR												106,091	
ES604	2608	38	1	STR												149,181	
ES605	1008	39	8	STR												60,056	
ES606	126	40	0	STR												7,570	
ES607	530	24	9	STR												19,702	
ES608	1580	24	8	STR												58,538	
ES701	576	30	0	STR												35,320	
ES702	1055	9	5	101	8	7										20,306	
ES703	1055	11	3	101	10	5										24,260	
ES704	8	4	6	STR												74	
ES801	504	30	0	STR												40,370	
ES802	63	32	6	STR												5,467	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 887,012																	

DESIGNED BY: HW | CHECKED BY: MPL | DATE: 11-11-97 | DATE: 3-26-98  
 DRAWN BY: HW | REVISIONS: | DATE: 3-1-98  
 CAD FILE NAME: 25725-deckbar2.dwg

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		TYP E	A		B		C		D		E		SER. INCR.	WEIGHT (LBS.)
		FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PARAPETS (WB) - EPOXY COATED REINFORCEMENT																
ES501	2673	7	1	160	3	2	3	2	0	8	0	1 1/4	0	2		19,748
ES502	2661	5	10	144	2	7	0	7 7/8	2	7	0	2 1/2				16,190
ES503	1848	30	0	STR												57,824
ES504	20	21	9	STR												454
ES505	20	30	11	STR												645
ES506	8	12	11	STR												108
ES508	12	28	5	STR												356
ES601	5334	3	3	142	1	2	0	9 1/2	0	8 1/2	0	6	0	8		26,038
ES602	5334	2	6	104	1	6	1	2								20,029
ES603	2661	5	6	160	2	4	2	4	0	8	0	1 1/4	0	2 1/2		21,983
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 163,375																
*DECK JOINTS (WB) - EPOXY COATED REINFORCEMENT																
EJ401	20	32	1	STR												429
EJ402	32	3	1	STR												66
EJ403	32	1	11	STR												41
EJ404	32	2	6	STR												53
EJ601	28	32	4	STR												1,360
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 1,949																

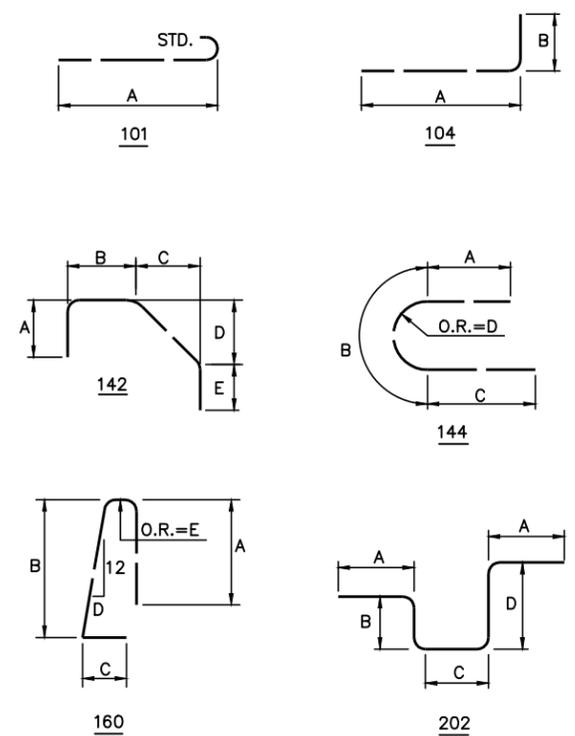
\* REINFORCING BARS WITH MARKS PREFIXED "EJ" SHALL BE INCLUDED WITH THE EXPANSION JOINTS FOR PAYMENT. THE BARS LISTED ASSUME THE USE OF D.S. BROWN JOINTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE BAR LENGTHS AND DIMENSIONS AS NECESSARY TO ACCOMMODATE A DIFFERENT JOINT.

NOTE:

FOR ADDITIONAL REINFORCING SCHEDULES FOR SUPERSTRUCTURE, SEE THE FOLLOWING SHEETS:

SHEET	DESCRIPTION
B58	UNIT 1 GIRDERS (REINFORCEMENT TO BE PAID UNDER THE ITEM SP515A - PRECAST CONCRETE GIRDERS, 72" DEEP)
B65	UNIT 2 GIRDERS (REINFORCEMENT TO BE PAID UNDER THE ITEM SP515A - PRECAST CONCRETE GIRDERS, 102" DEEP)
B71	UNIT 3 GIRDERS (REINFORCEMENT TO BE PAID UNDER THE ITEM SP515A - PRECAST CONCRETE GIRDERS, 84" DEEP)
B79	DIAPHRAGMS (REINFORCEMENT TO BE PAID UNDER THE ITEMS SP509, REINFORCING STEEL, GRADE 60 AND SP509A, EPOXY COATED REINFORCING STEEL, GRADE 60)

BAR BENDING DIAGRAMS



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

EPOXY COATED REINFORCING STEEL SUPPORT: IN ACCORDANCE WITH THE REQUIREMENTS OF SP 509 AND SECTION 509.09 OF THE SPECIFICATIONS, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING THREE (3) FOOT CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF REINFORCING STEEL.

THE PREFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

REINFORCING STEEL SAMPLES REFER TO OTC GENERAL CONDITIONS G-6.02 AND CMS SECTION 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING EACH BRIDGE. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL SPLICED IN ACCORDANCE WITH 509.08.

CONCRETE ALTERNATE			
RECORD DRAWING			11/3/04
No.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
WESTBOUND DECK SLAB REINFORCEMENT SCHEDULE			
OHIO TURNPIKE OVER CUYAHOGA RIVER SUMMIT COUNTY MP 176.9			
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS 1375 EAST 9th STREET CLEVELAND, OHIO 44114-1724			
DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B128 OF B129			

BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		TYPE	A		B		C		D		E		SER. INCR.	WEIGHT (LBS.)	
		FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.			
DECK SLAB (UNIT 1, EB) - EPOXY COATED REINFORCEMENT																	
ES501	1473	30	0	STR												46,090	
ES502	39	28	5	STR												1,156	
ES503	64	24	11	STR												1,663	
ES504	64	23	4	STR												1,558	
ES505	39	18	4	STR												746	
ES506	39	16	9	STR												681	
ES601	656	32	1	101	31	5										31,612	
ES602	656	33	11	101	33	3										33,418	
ES603	656	27	1	STR												26,686	
ES604	656	38	1	STR												37,524	
ES701	380	30	5	STR												23,625	
ES702	126	37	9	STR												9,722	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 214,482																	
DECK SLAB (UNIT 2, EB) - EPOXY COATED REINFORCEMENT																	
ES401	4	6	0	STR												16	
ES501	4392	30	0	STR												137,426	
ES502	72	28	5	STR												2,134	
ES503	72	19	11	STR												1,496	
ES504	72	18	4	STR												1,377	
ES601	1538	31	5	STR												72,575	
ES602	1538	33	9	STR												77,965	
ES603	769	28	1	101	27	5										32,437	
ES604	769	29	11	101	29	3										34,555	
ES605	1538	29	11	STR												69,302	
ES606	1512	29	5	STR												66,806	
ES701	769	8	1	101	7	3										12,706	
ES702	769	9	11	101	9	1										15,587	
ES703	8	4	6	STR												74	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 524,456																	
DECK SLAB (UNIT 3, EB) - EPOXY COATED REINFORCEMENT																	
ES401	950	5	7	202	1	0	0	6 1/2	2	8	0	9				3,543	
ES403	4	6	0	STR												16	
ES501	6009	30	0	STR												188,022	
ES502	39	28	5	STR												1,156	
ES511	1 Ser 64	27	8	STR	8 Subseries of 8 bars											4	1,925
		30	0														
ES512	1 Ser 64	26	6	STR	8 Subseries of 8 bars											6	1,886
		30	0														
ES513	1 Ser 39	26	1	STR												4	1,319
		38	9														
ES514	1 Ser 39	24	6	STR												4	1,254
		37	2														
ES515	1 Ser 32	32	0	STR	4 Subseries of 8 bars											6	1,126
		35	6														
ES516	1 Ser 32	30	5	STR	4 Subseries of 8 bars											6	1,074
		33	11														
ES517	32	31	4	STR												1,046	
ES518	32	32	11	STR												1,099	
ES601	1935	32	1	101	31	5										93,246	
ES602	1935	33	11	101	33	3										98,574	
ES603	2582	27	1	STR												105,034	
ES604	2582	38	1	STR												147,693	
ES605	1008	39	8	STR												60,056	
ES606	126	40	0	STR												7,570	
ES607	1294	24	9	STR												48,104	
ES701	576	30	0	STR												35,320	
ES702	647	9	5	101	8	7										12,453	
ES703	647	11	3	101	10	5										14,878	
ES704	8	4	6	STR												74	
ES801	504	30	0	STR												40,370	
ES802	63	32	6	STR												5,467	
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 872,304																	

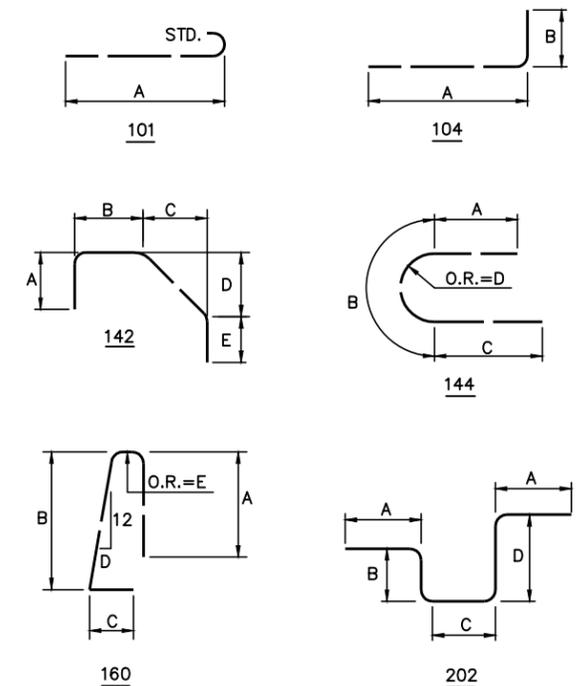
BAR SCHEDULE

MARK	NUMBER REQ'D	LENGTH		TYPE	A		B		C		D		E		SER. INCR.	WEIGHT (LBS.)
		FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.		
PARAPETS (EB) - EPOXY COATED REINFORCEMENT																
ES501	2648	7	1	160	3	2	3	2	0	8	0	1 1/4	0	2		19,563
ES502	2660	5	10	144	2	7	0	7 7/8	2	7	0	2 1/2				16,184
ES503	1840	30	0	STR												57,574
ES504	20	21	9	STR												454
ES505	20	30	11	STR												645
ES507	8	15	2	STR												127
ES509	12	27	8	STR												346
ES601	5308	3	3	142	1	2	0	9 1/2	0	8 1/2	0	6	0	8		25,911
ES602	5308	2	6	104	1	6	1	2								19,932
ES603	2660	5	6	160	2	4	2	4	0	8	0	1 1/4	0	2 1/2		21,974
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 162,710																
*DECK JOINTS (EB) - EPOXY COATED REINFORCEMENT																
EJ401	20	32	1	STR												429
EJ402	32	3	1	STR												66
EJ403	32	1	11	STR												41
EJ404	32	2	6	STR												53
EJ601	28	32	4	STR												1,360
TOTAL EPOXY COATED REINFORCING BAR WEIGHT = 1,949																

\* REINFORCING BARS WITH MARKS PREFIXED "EJ" SHALL BE INCLUDED WITH THE EXPANSION JOINTS FOR PAYMENT. THE BARS LISTED ASSUME THE USE OF D.S. BROWN JOINTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE BAR LENGTHS AND DIMENSIONS AS NECESSARY TO ACCOMMODATE A DIFFERENT JOINT.

- NOTE:  
FOR ADDITIONAL REINFORCING SCHEDULES FOR SUPERSTRUCTURE, SEE THE FOLLOWING SHEETS:
- | SHEET | DESCRIPTION   |
|-------|---|
| B58   | UNIT 1 GIRDERS (REINFORCEMENT TO BE PAID UNDER THE ITEM SP515A - PRECAST CONCRETE GIRDERS, 72" DEEP)  |
| B65   | UNIT 2 GIRDERS (REINFORCEMENT TO BE PAID UNDER THE ITEM SP515A - PRECAST CONCRETE GIRDERS, 102" DEEP)   |
| B71   | UNIT 3 GIRDERS (REINFORCEMENT TO BE PAID UNDER THE ITEM SP515A - PRECAST CONCRETE GIRDERS, 84" DEEP)  |
| B79   | DIAPHRAGMS (REINFORCEMENT TO BE PAID UNDER THE ITEMS SP509, REINFORCING STEEL, GRADE 60 AND SP509A, EPOXY COATED REINFORCING STEEL, GRADE 60) |

BAR BENDING DIAGRAMS



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No.	REVISIONS	BY	DATE
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EASTBOUND DECK SLAB REINFORCEMENT SCHEDULE			
OHIO TURNPIKE OVER CUYAHOGA RIVER			
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1375 EAST 9th STREET			
CLEVELAND, OHIO 44114-1724			
DESIGNED: HW	CHECKED: MPL/DS	DATE: 12/31/98	
DRAWN: HW	IN CHARGE: GT	SCALE: N.T.S.	
CONTRACT 43-99-01 SHEET B129 OF B129			

DESIGNED BY: HW CHECKED BY: MPL  
DATE: 11-11-97 DATE: 3-26-98  
DRAWN BY: HW REVISIONS BY:  
DATE: 3-1-98 DATE:  
CAD FILE NAME: 25725-deckbar1.dwg