

I:\ProjectData\MUS\93006\400-Engineering\Drainage\Sheets\93006_DS002.dgn Sheet 3/22/2021 11:22:58 AM hglibert

REF NO.	STATION TO STATION				601			605	605	605	611	611	611											
		TO			TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT			6" SHALLOW PIPE UNDERDRAIN, 30"	6" UNCLASSIFIED PIPE UNDERDRAIN	6" BASE PIPE UNDERDRAIN, 18"	6" CONDUIT, TYPE B	6" CONDUIT, TYPE F	PRECAST REINFORCED CONCRETE OUTLET			6" TEE (INFORMATION ONLY)	6" WYE (INFORMATION ONLY)	6" CROSS (INFORMATION ONLY)	6" X 90° BEND (INFORMATION ONLY)	6" X 45° BEND (INFORMATION ONLY)	6" CAP (INFORMATION ONLY)			
					SY		FT	FY	FY	FY	FY	FY	EACH			EACH	EACH	EACH	EACH	EAC	EACH			
51-UD	566+97	569+60					264					4									1	1		
52-UD	569+72	573+38			0.2				415			17	1			1				1	1			
53-UD	569+68	576+99					731					15				1				1	1			
54-UD	569+72	577+43					771					9									1	1		
55-UD	569+69	577+46					777					8									1	1		
56-UD	569+69	576+00					631					14								1	1			
57-UD	569+69	576+99					730					11				1						1	1	
58-UD	569+69	577+03			0.2				731			17	1			1					1	1		
187-UD	573+57	577+03							347			8								1	1			
188-UD	573+57	577+00					345				37						1					1	1	
59-UD	577+04	581+99			0.2				495			16	1			1					1	1		
60-UD	577+00	582+75					575				24									1	1			
61-UD	577+44	580+43					299				24									1	1			
62-UD	577+47	580+46					299					8									1	1		
63-UD	577+00	581+99					499					15								1	1			
64-UD	577+04	582+03			0.2				500			13	1			1					1	1		
65-UD	580+44	582+44					200					4									1	1		
66-UD	580+47	582+47					200					8									1	1		
67-UD	593+40	587+35			0.2				539			9	1							1	1			
68-UD	582+00	587+31					522					15									1	1		
69-UD	582+04	587+31			0.2		526					27	1			1					1	1		
70-UD	582+46	584+94					248					4									1	1		
71-UD	582+48	584+97					249					9									1	1		
72-UD	584+95	587+33					238					4									1	1		
73-UD	584+98	587+32					234					9									1	1		
74-UD	597+33	601+10 RAMP K			0.2		376	10				18	1					1				2		
75-UD	597+24	601+35					412					13										1	1	
76-UD	597+12	599+14					202					7									1	1		
77-UD	597+07	599+16					209					3									1	1		
78-UD	597+01	601+47					399	48			12					1						2		
79-UD	596+80	598+00					116															1	1	
80-UD	598+35	601+26					276	13			17									1	1		2	
81-UD	597+72	601+56			0.2				386			8	1								1	1		
82-UD	599+14	600+94					176					7										1	1	
83-UD	599+18	601+44					182	45				3						1				2		
84-UD	600+43	601+32						90				24										2	1	
85-UD	601+07	601+41						36				7									1	1		
86-UD	603+09	604+94			0.2				183			13				1					1	1		
87-UD	603+07	604+95					187				15									1	1		1	
88-UD	603+12	604+98					132	55				5				1						2		
89-UD	603+14	604+98					134	53				2				1						2		
90-UD	603+18	605+02					187				23									1	1		1	
91-UD	603+47	605+04					160										1						1	
92-UD	603+22	605+06					191				22					1							1	
93-UD	603+29	605+07			0.2		186					18	1			1						1	1	
94-UD	607+04	608+58			0.2				153			15	1			1						1	1	
95-UD	607+00	608+58					157					15									1	1		
96-UD	607+01	607+19						18				7										1	1	
97-UD	607+01	608+58					133	24				2				1						2		
98-UD	607+02	608+58					157					15								1	1		1	
99-UD	607+06	608+58			0.2				154			16	1									1	1	
100-UD	607+32	608+58					127					7					1					1	1	
TOTALS CARRIED TO SHEET 893					2.4		12437	392	3903		174	449	11			8	9	4	13	28		57		

CALCULATED	RJG
	CHECKED
HAG	
UNDERDRAIN SUB-SUMMARY 51-UD TO 100-UD	
MUS-70-10.49	
889 2231	

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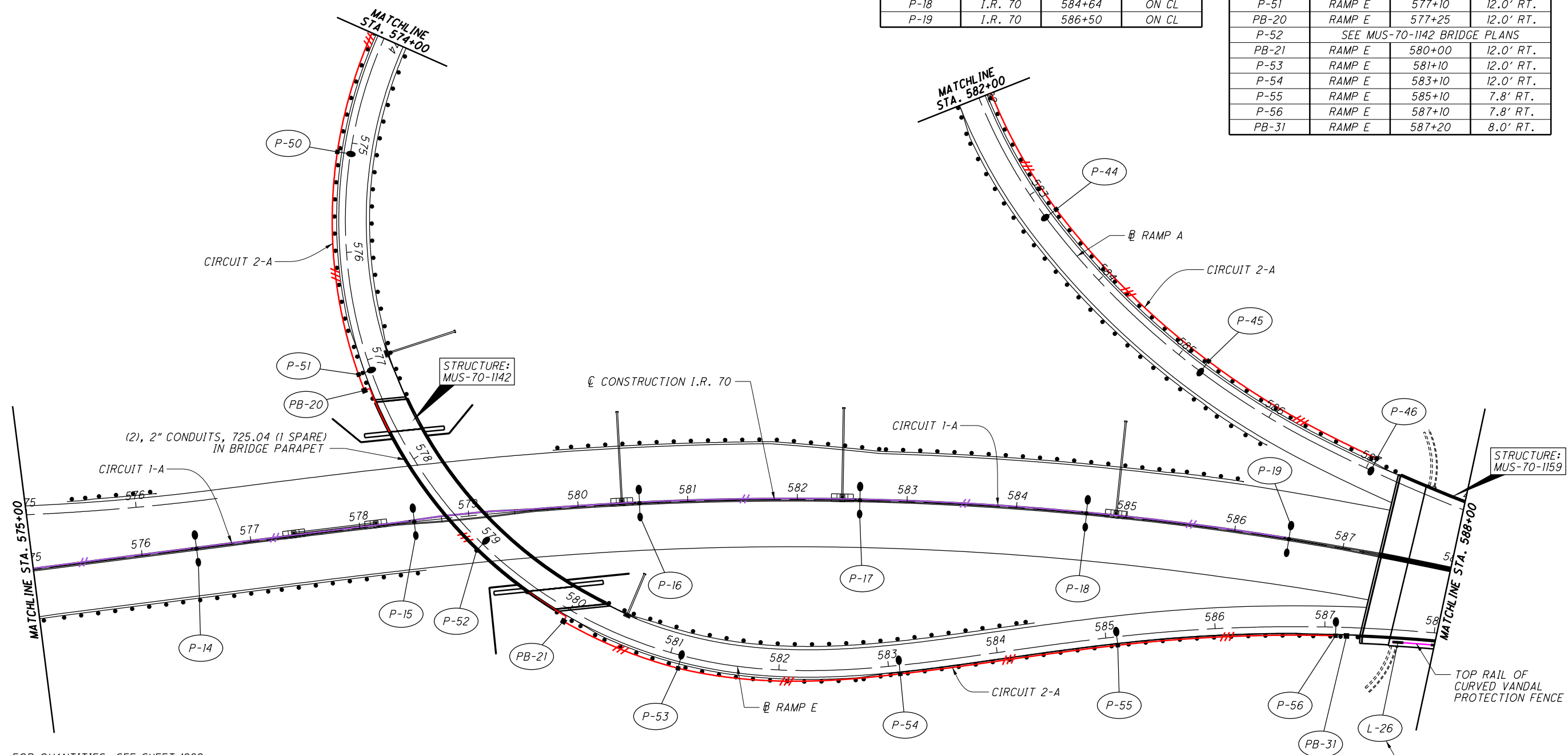
REF NO.	STATION TO STATION			601	605	605	605	605	611	611	611										
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				SY	FT	FT	FT	FT	FT	FT	EACH			EACH	EACH	EACH	EACH	EACH	EACH	EACH	
		RAMP J																			
226-UD		598+00	602+23		411					10											
227-UD		597+76	602+86.5		512					11								1		1	
		RAMP K																			
228-UD		602+80	604+96		213					22										1	1
229-UD		602+81	604+65		170					10											1
230-UD		604+67	605+12							10		32									1
231-UD		NOT USED																			
232-UD		605+14	605+46					31		10											1
		RAMP L																			
233-UD		607+17	609+17		70		128			27				1				1			1
234-UD		607+18	608+48		128					9								1			1
218-UD		584+50	586+00																		
		RAMP N																			
236-UD		618+26	622+13		372					10											1
237-UD		616+75	622+12							10		524									1
238-UD		622+14	623+14		87					10											1
239-UD		623+15	625+35		206					10											1
		RAMP O																			
240-UD		617+08	618+75				165			10											1
241-UD		618+90	621+38		235					10											1
TOTALS	THIS	SHEET			2404		324	556		169				1	0	0	3	1		13	
TOTALS	FROM	SHEET	888	2	12083	53	6856		350	305	10			14	11	0	19	17		50	
TOTALS	FROM	SHEET	889	2.4	12437	392	3903		174	449	11			8	9	4	13	28		57	
TOTALS	FROM	SHEET	890	0.6	13831	75	8414		276	394	2			13	6	1	12	28		55	
TOTALS	FROM	SHEET	891	1.2	12961	0	8717		97	444	5			10	11	0	11	29		41	
TOTALS	FROM	SHEET	892	1.8	9811	343	733		195	338	9			9	2	4	11	7		43	
TOTALS CARRIED TO GENERAL SUMMARY				8.0	63527.0	863.0	28947.0	556	1092	2099	37			54.0	39.0	9.0	69.0	110.0		259.0	

MUS-70-10.49	CALCULATED	RUG
	CHECKED	HAG

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CIRCUIT 1-A			
REFERENCE	ALIGNMENT	STATION	OFFSET
P-14	I.R. 70	576+50	ON CL
P-15	I.R. 70	578+50	ON CL
P-16	I.R. 70	580+56	ON CL
P-17	I.R. 70	582+57	ON CL
P-18	I.R. 70	584+64	ON CL
P-19	I.R. 70	586+50	ON CL

CIRCUIT 2-A			
REFERENCE	ALIGNMENT	STATION	OFFSET
P-44	RAMP A	583+25	12.0' LT.
P-45	RAMP A	585+25	12.0' LT.
P-46	RAMP A	587+05	12.0' LT.
P-50	RAMP E	575+10	12.0' RT.
P-51	RAMP E	577+10	12.0' RT.
PB-20	RAMP E	577+25	12.0' RT.
P-52	SEE MUS-70-1142 BRIDGE PLANS		
PB-21	RAMP E	580+00	12.0' RT.
P-53	RAMP E	581+10	12.0' RT.
P-54	RAMP E	583+10	12.0' RT.
P-55	RAMP E	585+10	7.8' RT.
P-56	RAMP E	587+10	7.8' RT.
PB-31	RAMP E	587+20	8.0' RT.



FOR QUANTITIES, SEE SHEET 1262

LEGEND	
	CIRCUIT 1-A
	CIRCUIT 2-A
	PROPOSED PULL BOX
	DUAL ARM LIGHT POLE, MEDIAN MOUNTED
	SINGLE ARM LIGHT POLE, GROUND MOUNTED
	SINGLE ARM LIGHT POLE, BRIDGE MOUNTED
	MUSKINGUM RIVER BRIDGE WALK LUMINAIRE

LIGHTING PLAN
STA. 575+00 TO STA. 588+00

MUS-70-10.49

1273
2231

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ABUT.	PIERS	SUPER.	GENERAL	PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				01/IMS/PV	02/IMS/BR	03/IMS/CV	04/S<2/OT	05/SAE/O T						
			LS		LS				202	11203	LS	STRUCTURE OVER 20 FOOT SPAN (MUS-70-1089)		
			506		506				202	22900	506	SY	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	3
			LS		LS				503	11100	LS	COFFERDAMS AND EXCAVATION BRACING		
			LS		LS				503	21301	LS	UNCLASSIFIED EXCAVATION, AS PER PLAN		3
15,211	6,979	340,129			362,317				509	10000	362,317	LB	EPOXY COATED REINFORCING STEEL	
978	752				1,730				510	10000	1,730	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
		1,071			1,071				511	21522	1,071	CY	CLASS OC2 CONCRETE WITH QC/OA, SUPERSTRUCTURE	
		336			336				511	34450	336	CY	CLASS OC2 CONCRETE WITH QC/OA, BRIDGE DECK (PARAPET)	
	49				49				511	43212	49	CY	CLASS OC1 CONCRETE WITH QC/OA, PIER	
104					104				511	45712	104	CY	CLASS OC1 CONCRETE WITH QC/OA, ABUTMENT	
30		1,663			1,693				512	10050	1,693	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
	76				76				512	33000	76	SY	TYPE 2 WATERPROOFING	
					LS				513	10060	LS	STRUCTURAL STEEL MEMBERS, LEVEL 3		
		18,984			18,984				513	20000	18,984	EACH	WELDED STUD SHEAR CONNECTORS	
			LUMP		LS				513	95020	LS	STRUCTURAL STEEL, MISC.:EXTERNAL POST TENSIONING		3
		3,674			3,674				514	00060	3,674	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
		3,674			3,674				514	00066	3,674	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
		2			2				514	10000	2	EACH	FINAL INSPECTION REPAIR	
		186			186				516	11210	186	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	
			6		6				516	13600	6	SF	1" PREFORMED EXPANSION JOINT FILLER	
			95		95				516	14600	95	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: HOT APPLIED JOINT SEALER WITH SLEEPER SLAB	52
			190		190				516	31011	190	FT	2" DEEP JOINT SEALER, AS PER PLAN	3
		28			28				516	44200	28	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (10"x12"x3.0473")	
		42			42				516	44200	42	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"x16"x3.6967")	
		14			14				516	44200	14	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"x16"x3.6967")	
			LS		LS				516	47001	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN		3
		12			12				518	12201	12	EACH	SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN	44
52					52				518	21200	52	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
198					198				518	40000	198	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
120					120				518	40010	120	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
			530		530				526	25010	530	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/OA (T=15")	

ALL QUANTITIES SHOWN BELOW HAVE BEEN CARRIED TO SHEET 1908.

ABUT.	PIERS	SUPER.	GENERAL	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			530	204	10000	530	SY	ROADWAY SUBGRADE COMPACTION	
			2	601	20010	2	CY	EROSION CONTROL CRUSHED AGGREGATE SLOPE PROTECTION	
			52	601	21001	52	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN	3
			89	304	20000	89	CY	PAVEMENT AGGREGATE BASE	

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION DISTRICT 5

REVIEWED DATE
JPH 12/2/2020
STRUCTURE FILE NUMBER
6002706

DRAWN
JPH

DESIGNED
MJB
CHECKED
TAG

BRIDGE SUMMARY
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

4/52

1398
2231

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-15	DATED/REVISED: 7/17/2015
AS-2-15	DATED/REVISED: 1/18/2019
CPA-1-08	DATED/REVISED: 7/18/2008
CPP-1-08	DATED/REVISED: 7/21/2017
CS-1-08	DATED/REVISED: 1/19/2018
GSD-1-19	DATED/REVISED: 1/18/2019
PCB-91	DATED/REVISED: 1/18/2013
SBR-1-13	DATED/REVISED: 7/20/2018
SBR-2-13	DATED/REVISED: 7/20/2018

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN DATA

ITEM 511 CLASS OC1 CONCRETE, SUBSTRUCTURE (ABUTMENT AND FOOTING)
 COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
 ITEM 511 CLASS OC2 CONCRETE, SUPERSTRUCTURE (DECK)
 COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996, GRADE 60
 MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING

DESIGN LOADING: HL-93.
FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND 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 CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.

CONSTRUCTION SEQUENCE

SEE GENERAL NOTES FOR MAINTENANCE OF TRAFFIC NOTES AND MAINTENANCE OF TRAFFIC DETAIL SHEETS TO PLAN SEQUENCE OF OPERATIONS.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE DISTRICT 5 SMOOTHNESS CORDINATOR.

PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM GROOVING OF THE BRIDGE DECK.

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS OR NESTING BIRDS. IF ANY BATS OR BIRD NESTS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

ELASTOMERIC BEARING PADS

THE ELASTOMERIC BEARING PAD SHALL BE PLACED AT THE REAR AND FORWARD ABUMENTS AS DETAILED IN THE PLAN. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING WAS DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONGTERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED. THE DIMENSION PROVIDED FOR THE ELASTOMERIC BEARING PAD MAY NOT REQUIRE THE CONTRACTOR TO TRIM THE ENDS OF THE BEARING PAD TO PROPERLY FIT THE SKEWED ANGLES OF THE DIAPHRAGM. HOWEVER, IF TRIMMING IS REQUIRED, THE CONTRACTOR SHALL TRIM EACH ITEM 516 ELASTOMERIC BEARING PAD, MISC., BY MECHANICAL MEANS AS APPROVED BY THE ENGINEER. MITER CUT THE ENDS SO THAT THE BEARING PADS FIT FLUSH BETWEEN ADJOINING PHASES/VERTICAL WINGWALL SURFACES. OTHERWISE, PROVIDE SHORTER BEARING PADS AND PLACE A PROPER AMOUNT OF P.E.J.F. BETWEEN ADJOINING PHASES. ALL ASSOCIATED TIME LABOR AND MATERIALS TO PERFORM THIS FIELD WORK WILL BE INCIDENTAL TO ITEM 516 ELASTOMERIC BEARING PAD, MISC.

CUT LINE CONSTRUCTION JOINT PREPARATION

THE INTENT OF THIS PLAN IS TO ALLOW THE CONTRACTOR TO PERFORM FULL DEPTH SAW CUTS AT THE REMOVAL LINES FOLLOWED BY 1/4" SCARIFICATION TO THE REMAINING CUT LINE SURFACES. HOWEVER, AT THE CONTRACTOR'S OPTION FOR THE SUBSTRUCTURE REMOVALS, SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE. RE-STEEL NOT TO BE INCORPORATED IN THE PROPOSED CONCRETE SHALL BE MECHANICALLY CUT AT THE REMOVAL LINE.

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, INCLUDING THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, EXPANSION JOINTS, STEEL BULB ANGLE GUTTERS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUBSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING SUBSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR ABUTMENT REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR ABUTMENT REMOVAL. RETAIN EXISTING PILES AT ABUTMENTS TO ELEVATIONS AS INDICATED IN PLANS.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR PIER REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR PIER REMOVAL. RETAIN EXISTING REINFORCING STEEL AT PIERS SUFFICIENT TO PROVIDE PROPER LAPPING WITH PROPOSED REINFORCEMENT.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE.

ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL INCLUDE THE REMOVAL OF ALL EXISTING APPROACH SLABS, ADJACENT CONCRETE CURB, AND CONCRETE MEDIAN BARRIER.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A SQ. YD. BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, APPROACH SLAB REMOVED, AS PER PLAN.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE TEMPORARY SHEET PILING USED FOR PHASE CONSTRUCTION SHALL HAVE A MINIMUM SECTION MODULOUS OF 27 IN³ /FT OF WALL.

PAYMENT TO PERFORM THE TEMPORARY SHEET PILING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP OF PIER FOOTINGS AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 507 - 12" CAST-IN-PLACE REINFORCED CONCRETE PILES FURNISHED, AS PER PLAN

THE MINIMUM STEEL PILE WALL THICKNESS FOR THE ABUTMENT AND PIER PILES SHALL BE 0.344 INCH.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 60 KIPS/PILE FOR THE REAR AND FORWARD ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 100 KIPS/PILE FOR PIER 1 AND PIER 2 PILES.

ABUTMENT PILES: 4 - 12" CAST-IN-PLACE PILES 49 FEET LONG, ORDER LENGTH 54 FEET
PIER PILES: 5 - 12" CAST-IN-PLACE PILES 55 FEET LONG, ORDER LENGTH 60 FEET

2 - DYNAMIC LOAD TESTING ITEMS

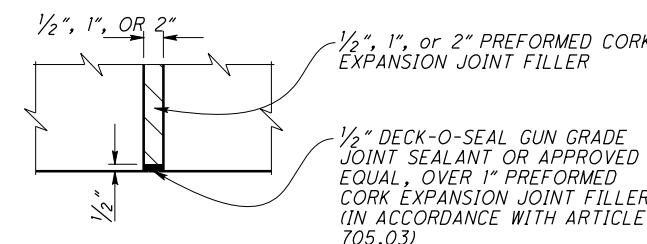
ITEM 509 - REINFORCING STEEL, MISC.: GALVANIZED

ALL REINFORCING STEEL SHALL BE GALVANIZED STEEL CONFORMING TO ASTM A767, CLASS 1. THE GALVANIZED COATED REINFORCING STEEL WILL MEET ALL OTHER REQUIREMENTS OF 509. THE GALVANIZED COATING WILL BE APPLIED AFTER REINFORCING HAS BEEN FABRICATED. IF THE GALVANIZED SURFACE BECOMES DAMAGED DURING HANDLING IN THE FIELD, REPAIRS WILL CONFORM TO ASTM A780. USE BAR SUPPORTS AND TIE WIRES WHICH ARE PLASTIC COATED OR EPOXY COATED. ONLY SUPPLIERS CERTIFIED UNDER S1068 MAY PROVIDE THIS REINFORCING.

ITEM 516 - 1/2", 1", OR 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" P.E.J.F., 1" P.E.J.F., AND 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

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P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" PEJF, A.P.P., SQ. FT. AND 1" PEJF, A.P.P., SQ. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

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DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	REVIEWED DATE	11/23/2020
	TAG	6002889
DESIGNED TDF	DRAWN	TDF
	CHECKED	CPS
BRIDGE NOTES		
BRIDGE NO. MUS-70-11.86 OVER N. 5TH STREET		
MUS-70-10.49		
PID No. 93006		
3 / 81		
1609 2231		

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SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.			
													02/IMS/B R		EXT	TOTAL						
													PHASE 1	PHASE 2	PHASE 3							
													0.34 LS	0.33 LS	0.33 LS	LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUPERSTRUCTURE)	3
													0.34 LS	0.33 LS	0.33 LS	LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURE)	3
													144	203	150	497	202	22901	497	SY	APPROACH SLAB REMOVED, AS PER PLAN	3
													LS			LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	3
													0.34 LS	0.33 LS	0.33 LS	LS	503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	3
														0.5 LS	0.5 LS	LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
														422	49	471	507	00500	471	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	3
														462	54	516	507	00550	516	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	3
													65,743	90,316	59,044	215,103	509	10000	215,103	LB	EPOXY COATED REINFORCING STEEL	
														9,985		9,985	509	40000	9,985	LB	REINFORCING STEEL, MISC.: GALVANIZED	3
													89	42	58	189	510	10000	189	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
													268	345	228	841	511	32212	841	CY	CLASS OC2 CONCRETE WITH OC/OA, SUPERSTRUCTURE	
														26	26	52	511	34461	52	CY	CLASS OC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	64-66
														26		26	511	41012	26	CY	CLASS OC1 CONCRETE WITH OC/OA, PIER ABOVE FOOTINGS	
													72	134	69	275	511	43512	275	CY	CLASS OC1 CONCRETE WITH OC/OA, ABUTMENT INCLUDING FOOTING	
														13		13	511	46512	13	CY	CLASS OC1 CONCRETE WITH OC/OA, FOOTING	
													55			55	511	53012	55	CY	CLASS OC2 CONCRETE, MISC.: MEDIAN BARRIER	62
													322	360	273	955	512	10050	955	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
													61	62	61	184	512	10100	184	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
													116	149	98	363	516	13201	363	SF	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
													169	183	140	492	516	13601	492	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
														18	17	35	516	13901	35	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
													69	94	63	226	516	14020	226	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
													69	89	57	215	516	14600	215	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	81
													69	89	57	215	516	31011	215	FT	2" DEEP JOINT SEALER, AS PER PLAN	4
													1			1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (34'-9" x 8" x 1-1/2")	3
													1			1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (34'-6" x 8" x 1-1/2")	3
														1		1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (47'-10" x 8" x 1-1/2")	3
														1		1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (41'-9" x 8" x 1-1/2")	3
															1	1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (29'-6" x 8" x 1-1/2")	3
															1	1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (29'-4" x 8" x 1-1/2")	3
													5	4	5	14	518	12000	14	EACH	SCUPPERS, INCLUDING SUPPORTS	
													23	38	15	76	518	21200	76	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
													69	89	63	221	518	40000	221	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
													29	43	31	103	518	40010	103	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
													553	562	548	1,663	SPECIAL	51900100	1,663	SF	COMPOSITE FIBER WRAP SYSTEM	4
														1	1	2	523	20000	2	EACH	DYNAMIC LOAD TESTING	3
													188	245	160	593	526	25001	593	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	4
														LS		LS	SPECIAL	53000200	LS		STRUCTURES (PRECONSTRUCTION CONDITION SURVEY)	4
														0.9 LS	0.1 LS	LS	SPECIAL	53000200	LS		STRUCTURES (VIBRATION MONITORING)	4
														464	460	924	SPECIAL	53000600	924	SF	STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN)	4

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	11/23/2020
REVIEWED TAG	6002889
DRAWN TDF	
DESIGNED TDF	
CHECKED CPS	
BRIDGE SUMMARY	
BRIDGE NO. MUS-70-11.86	
OVER N. 5TH STREET	
MUS-70-10.49	
PID No. 93006	
5	81
1611	2231

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-15	DATED/REVISED: 7/17/2015
AS-2-15	DATED/REVISED: 1/18/2019
CPA-1-08	DATED/REVISED: 7/18/2008
CPP-1-08	DATED/REVISED: 7/21/2017
CS-1-08	DATED/REVISED: 1/19/2018
GSD-1-19	DATED/REVISED: 1/18/2019
PCB-91	DATED/REVISED: 1/18/2013
SBR-1-13	DATED/REVISED: 7/20/2018
SBR-2-13	DATED/REVISED: 7/20/2018

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN DATA

- ITEM 511 CLASS OC1 CONCRETE, SUBSTRUCTURE (ABUTMENT AND FOOTING) COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
- ITEM 511 CLASS OC2 CONCRETE, SUPERSTRUCTURE (DECK) COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
- REINFORCING STEEL - ASTM A615 OR A996, GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING

DESIGN LOADING: HL-93.
FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND 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 CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINWALLS.

CONSTRUCTION SEQUENCE

SEE GENERAL NOTES FOR MAINTENANCE OF TRAFFIC NOTES AND MAINTENANCE OF TRAFFIC DETAIL SHEETS TO PLAN SEQUENCE OF OPERATIONS.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE DISTRICT 5 SMOOTHNESS CORDINATOR.

PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

- CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
- MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
- PERFORM GROOVING OF THE BRIDGE DECK.

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS OR NESTING BIRDS. IF ANY BATS OR BIRD NESTS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

ELASTOMERIC BEARING PADS

THE ELASTOMERIC BEARING PAD SHALL BE PLACED AT THE REAR AND FORWARD ABUMENTS AS DETAILED IN THE PLAN. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING WAS DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONGTERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED. THE DIMENSION PROVIDED FOR THE ELASTOMERIC BEARING PAD MAY NOT REQUIRE THE CONTRACTOR TO TRIM THE ENDS OF THE BEARING PAD TO PROPERLY FIT THE SKEWED ANGLES OF THE DIAPHRAGM. HOWEVER, IF TRIMMING IS REQUIRED, THE CONTRACTOR SHALL TRIM EACH ITEM 516 ELASTOMERIC BEARING PAD, MISC., BY MECHANICAL MEANS AS APPROVED BY THE ENGINEER. MITER CUT THE ENDS SO THAT THE BEARING PADS FIT FLUSH BETWEEN ADJOINING PHASES/VERTICAL WINGWALL SURFACES. OTHERWISE, PROVIDE SHORTER BEARING PADS AND PLACE A PROPER AMOUNT OF P.E.J.F. BETWEEN ADJOINING PHASES. ALL ASSOCIATED TIME LABOR AND MATERIALS TO PERFORM THIS FIELD WORK WILL BE INCIDENTAL TO ITEM 516 ELASTOMERIC BEARING PAD, MISC.

CUT LINE CONSTRUCTION JOINT PREPARATION

THE INTENT OF THIS PLAN IS TO ALLOW THE CONTRACTOR TO PERFORM FULL DEPTH SAW CUTS AT THE REMOVAL LINES FOLLOWED BY 1/4" SCARIFICATION TO THE REMAINING CUT LINE SURFACES. HOWEVER, AT THE CONTRACTOR'S OPTION FOR THE SUBSTRUCTURE REMOVALS, SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE. RE-STEEL NOT TO BE INCORPORATED IN THE PROPOSED CONCRETE SHALL BE MECHANICALLY CUT AT THE REMOVAL LINE.

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, INCLUDING THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, EXPANSION JOINTS, STEEL BULB ANGLE GUTTERS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUBSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING SUBSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR ABUTMENT REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR ABUTMENT REMOVAL. RETAIN EXISTING PILES AT ABUTMENTS TO ELEVATIONS AS INDICATED IN PLANS.

EXISTING PIERS SHALL REMAIN IN PLACE AND UNDAMAGED DURING ADJACENT STRUCTURE REMOVALS.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE.

ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK SHALL INCLUDE THE REMOVAL OF ALL EXISTING APPROACH SLABS, ADJACENT CONCRETE CURB, AND CONCRETE MEDIAN BARRIER.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A SQ. YD. BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, APPROACH SLAB REMOVED, AS PER PLAN.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE TEMPORARY SHEET PILING USED FOR PHASE CONSTRUCTION SHALL HAVE A MINIMUM SECTION MODULOUS OF 27 IN³ /FT OF WALL.

PAYMENT TO PERFORM THE TEMPORARY SHEET PILING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP OF PIER FOOTINGS AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

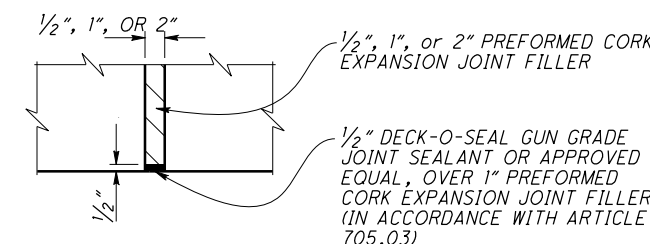
THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 516 - 1/2", 1", or 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" P.E.J.F., 1" P.E.J.F, AND 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" PEJF, A.P.P., SQ. FT. AND 1" PEJF, A.P.P., SQ. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 519 - COMPOSITE FIBER WRAP SYSTEM

REFER TO PROPOSAL NOTE 519 FOR ITEM SPECIFICATIONS NOT GIVEN HEREIN. THE REQUIRED CONFINING STRESS DUE TO FRP JACKET (F) WILL BE 0.150 FOR THE HEIGHT SHOWN ON SHEET 29/72 THRU 35/72. THE FINAL URETHANE (OR SYSTEM SPECIFIED) COATING SYSTEM APPLICATION COLOR SHALL BE FEDERAL COLOR FS-595C-16440: LIGHT GULL GRAY.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, P.E.J.F., A.P.P., WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED IN THE PLAN. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAILS SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

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DESIGNED TDF CHECKED CPS	DRAIN TDF REVISED	REVIEWED	DATE	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
		TAG	FILE NUMBER	
BRIDGE NOTES		6002919		
BRIDGE NO. MUS-70-11-92				
OVER N. 6TH STREET				
MUS-70-10-49				
PID No. 93006				
3 / 72				
1690				
2231				

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SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.			
													02/IMS/B R	EXT	TOTAL							
													PHASE 1	PHASE 2	PHASE 3							
													STRUCTURE OVER 20 FOOT SPAN (MUS-70-1192)									
													0.34 LS	0.33 LS	0.33 LS	LS	202	11201	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUPERSTRUCTURE)	3	
													0.34 LS	0.33 LS	0.33 LS	LS	202	11201	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURE)	3	
													144	146	147	437	202	22901	437	SY	APPROACH SLAB REMOVED, AS PER PLAN	3
													LS			LS	503	11101	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	3	
													0.34 LS	0.33 LS	0.33 LS	LS	503	21301	LS	UNCLASSIFIED EXCAVATION, AS PER PLAN	3	
													96,464	87,089	87,162	270,715	509	10000	270,715	LB	EPOXY COATED REINFORCING STEEL	
													107	56	58	221	510	10000	221	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
													418	354	356	1,128	511	32212	1,128	CY	CLASS OC2 CONCRETE WITH OC/OA, SUPERSTRUCTURE	
														29	31	60	511	34461	60	CY	CLASS OC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	58-60
													57	74	59	190	511	43512	190	CY	CLASS OC1 CONCRETE WITH OC/OA, ABUTMENT INCLUDING FOOTING	
													66			66	511	53012	66	CY	CLASS OC2 CONCRETE, MISC.: MEDIAN BARRIER	56
													361	334	322	1,017	512	10050	1,017	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
													56	62	50	168	512	10100	168	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
													113	96	96	305	516	13201	305	SF	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
													162	117	118	397	516	13601	397	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
														46	19	65	516	13901	65	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
													68	61	61	190	516	14020	190	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
													68	55	55	178	516	14600	178	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	72
													68	55	55	178	516	31011	178	FT	2" DEEP JOINT SEALER, AS PER PLAN	4
													2			2	516	42000	2	EACH	ELASTOMERIC BEARING PAD, MISC.: (34'-0" x 8" x 1-1/2")	3
														2	2	4	516	42000	4	EACH	ELASTOMERIC BEARING PAD, MISC.: (28'-11" x 8" x 1-1/2")	3
													7		7	14	518	12000	14	EACH	SCUPPERS, INCLUDING SUPPORTS	
													23	25	14	62	518	21200	62	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
													68	58	58	184	518	40000	184	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
													29	31	34	94	518	40010	94	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
													504	561	447	1,512	SPECIAL	51900100	1,512	SF	COMPOSITE FIBER WRAP SYSTEM	3
													188	156	160	504	526	25001	504	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	3
														512	557	1,069	SPECIAL	53000600	1,069	SF	STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN)	4

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
DATE	11/24/2020
REVIEWED TAG	11/24/2020
DRAWN TDF	STRUCTURE FILE NUMBER
DESIGNED TDF	6002919
CHECKED CPS	
BRIDGE SUMMARY	
BRIDGE NO. MUS-70-11.92	
OVER N. 6TH STREET	
MUS-70-10.49	
PID No. 93006	
5 / 72	
1692	
2231	

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-15	DATED/REVISED: 7/17/2015
AS-2-15	DATED/REVISED: 1/18/2019
CPA-1-08	DATED/REVISED: 7/18/2008
CPP-1-08	DATED/REVISED: 7/21/2017
CS-1-08	DATED/REVISED: 1/19/2018
GSD-1-19	DATED/REVISED: 1/18/2019
PCB-91	DATED/REVISED: 1/18/2013
SBR-1-13	DATED/REVISED: 7/20/2018
SBR-2-13	DATED/REVISED: 7/20/2018

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN DATA

ITEM 511 CLASS OC1 CONCRETE, SUBSTRUCTURE (ABUTMENT AND FOOTING)
 COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
 ITEM 511 CLASS OC2 CONCRETE, SUPERSTRUCTURE (DECK)
 COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996, GRADE 60
 MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN LOADING

DESIGN LOADING: HL-93.
 FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

REFERENCE

EXISTING BRIDGE PLANS MAY BE INSPECTED AND ARE PROVIDED WITH THIS PROJECT'S BIDDING DOCUMENTS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND 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 CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
 2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAILS SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE DISTRICT 5 SMOOTHNESS COORDINATOR.

PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM GROOVING OF THE BRIDGE DECK.

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS OR NESTING BIRDS. IF ANY BATS OR BIRD NESTS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

ELASTOMERIC BEARING PADS

ELASTOMERIC BEARING PAD: THE ELASTOMERIC BEARING PAD SHALL BE PLACED AT THE REAR AND FORWARD ABUMENTS AS DETAILED IN THE PLAN. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARING WAS DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONGTERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED. THE DIMENSION PROVIDED FOR THE ELASTOMERIC BEARING PAD WILL ALLOW THE CONTRACTOR TO TRIM THE ENDS OF THE BEARING PAD TO PROPERLY FIT THE SKEWED ANGLES OF THE DIAPHRAGM. THE CONTRACTOR SHALL TRIM EACH ITEM 516 ELASTOMERIC BEARING PAD, MISC., BY MECHANICAL MEANS AS APPROVED BY THE ENGINEER. MITER CUT THE ENDS SO THAT THE BEARING PADS FIT FLUSH BETWEEN ADJOINING PHASES/VERTICAL WINGWALL SURFACES. ALL ASSOCIATED TIME LABOR AND MATERIALS TO PERFORM THIS FIELD WORK WILL BE INCIDENTAL TO ITEM 516 ELASTOMERIC BEARING PAD, MISC.

CUT LINE CONSTRUCTION JOINT PREPARATION

THE INTENT OF THIS PLAN IS TO ALLOW THE CONTRACTOR TO PERFORM FULL DEPTH SAW CUTS AT THE REMOVAL LINES FOLLOWED BY 1/4" SCARIFICATION TO THE REMAINING CUT LINE SURFACES. HOWEVER, AT THE CONTRACTOR'S OPTION FOR THE SUBSTRUCTURE REMOVALS, SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE. RE-STEEL NOT TO BE INCORPORATED IN THE PROPOSED CONCRETE SHALL BE MECHANICALLY CUT AT THE REMOVAL LINE.

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, INCLUDING THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, EXPANSION JOINTS, STEEL BULB ANGLE GUTTERS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

REMOVAL OF THE EXISTING CONCRETE PIER SHEAR KEY SHALL BE PERFORMED BY GRINDING AND SHALL BE INCLUDED IN FOR PAYMENT UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF MATERIALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, (SUPERSTRUCTURE).

ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN, (SUBSTRUCTURE)

THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING SUBSTRUCTURE AS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER FOR ABUTMENT REMOVAL SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMS WILL NOT BE PERMITTED FOR ABUTMENT REMOVAL. RETAIN EXISTING PILES AT ABUTMENTS TO ELEVATIONS AS INDICATED IN PLANS.

EXISTING PIERS SHALL REMAIN IN PLACE AND UNDAMAGED DURING ADJACENT STRUCTURE REMOVALS.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE.

ITEM 202 - APPROACH SLAB REMOVED, AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF ALL EXISTING APPROACH SLABS AND CONCRETE MEDIAN BARRIER.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A SQ. YD. BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, APPROACH SLABS REMOVED, AS PER PLAN.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP PIER FOOTING AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

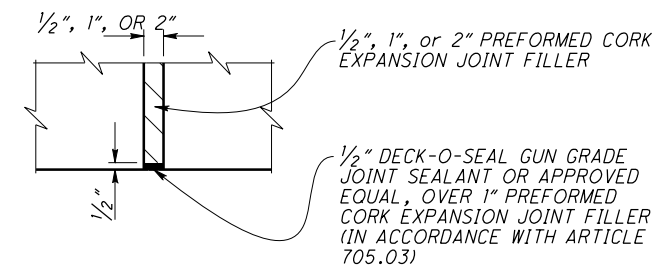
THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE I SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED ALSO BE ABLE TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE I BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 516 - 1/2" OR 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" P.E.J.F., 1" P.E.J.F., AND 2" P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
 P.O. BOX 397
 HAMPSHIRE, IL 60140
 PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" PEJF, A.P.P., SQ. FT. AND 1" PEJF, A.P.P., SQ. FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED IN THE PLAN. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

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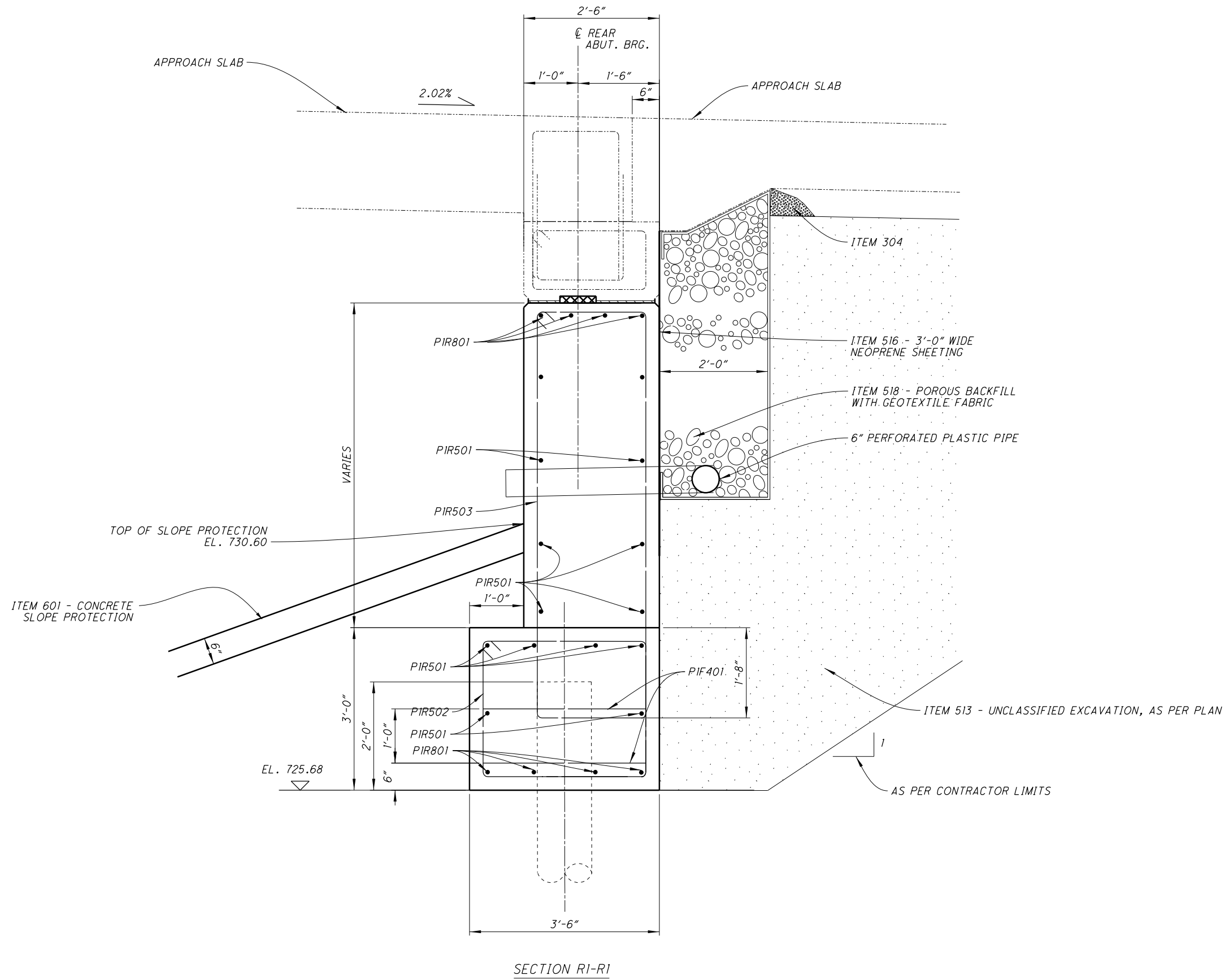
BRIDGE NOTES 1	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
BRIDGE NO.: MUS-70-1199 OVER 7TH STREET	DATE 11/24/2020 TAG 6002943 STRUCTURE FILE NUMBER
MUS-70-10.49 PID No. 93006	DRAWN YEL REVIEWED CPS DESIGNED YEL CHECKED CPS
3 / 73	(1762) (2231)

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SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.							
										02/IMS/B R		EXT	TOTAL										
										PHASE 1	PHASE 2	PHASE 3											
										0.34 LS	0.33 LS	0.33 LS					LS	202	11201	LS	STRUCTURE OVER 20 FOOT SPAN (MUS-70-1199)		
										0.34 LS	0.33 LS	0.33 LS					LS	202	11201	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUPERSTRUCTURE)		
										188	147	199					534	202	22900	534	SY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURE)	
																					APPROACH SLAB REMOVED		
										LS							LS	503	11101	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN		
										0.34 LS	0.33 LS	0.33 LS					LS	503	21301	LS	UNCLASSIFIED EXCAVATION, AS PER PLAN		
										62,675	57,831	74,097					194,603	509	10000	194,603	LB	EPOXY COATED REINFORCING STEEL	
										44	36	48					128	510	10000	128	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
										275	233	305					813	511	32212	813	CY	CLASS QC2 CONCRETE WITH QC/OA, SUPERSTRUCTURE	
										55							55	511	34450	55	CY	CLASS QC2 CONCRETE WITH QC/OA, BRIDGE DECK (PARAPET) (MEDIAN BARRIER)	
											24	24					48	511	34461	48	CY	CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	
										64	76	86					226	511	43512	226	CY	CLASS QC1 CONCRETE WITH QC/OA, ABUTMENT INCLUDING FOOTING	
										328	273	299					900	512	10050	900	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
										57	57	85					199	512	10100	199	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
										23	22	20					65	512	33000	65	SY	TYPE 2 WATERPROOFING	
										113	96	126					335	516	13201	335	SF	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	
										154	119	155					428	516	13601	428	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	
											41	38					79	516	13901	79	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	
										68	67	77					212	516	14020	212	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
										68	58	76					202	516	14600	202	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	
										68	58	76					202	516	31011	202	FT	2" DEEP JOINT SEALER, AS PER PLAN	
										2							2	516	42000	2	EACH	ELASTOMERIC BEARING PAD, MISC.: (33'-10" x 8" x 1-1/2")	
											2						2	516	42000	2	EACH	ELASTOMERIC BEARING PAD, MISC.: (28'-9" x 8" x 1 1/2")	
												1					1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (34'-2" x 8" x 1 1/2")	
												1					1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (42'-7" x 8" x 1 1/2")	
										6	2	11					19	518	12000	19	EACH	SCUPPERS, INCLUDING SUPPORTS	
										28	34	41					103	518	21200	103	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
										68	58	76					202	518	40000	202	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
										29	41	49					119	518	40010	119	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
										507	507	761					1,775	SPECIAL	51900100	1,775	SF	COMPOSITE FIBER WRAP SYSTEM	
										188	160	211					559	526	25001	559	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	
											461	460					921	SPECIAL	53000600	921	SF	STRUCTURES AESTHETIC TREATMENT (CONCRETE FORMLINER/STAIN)	

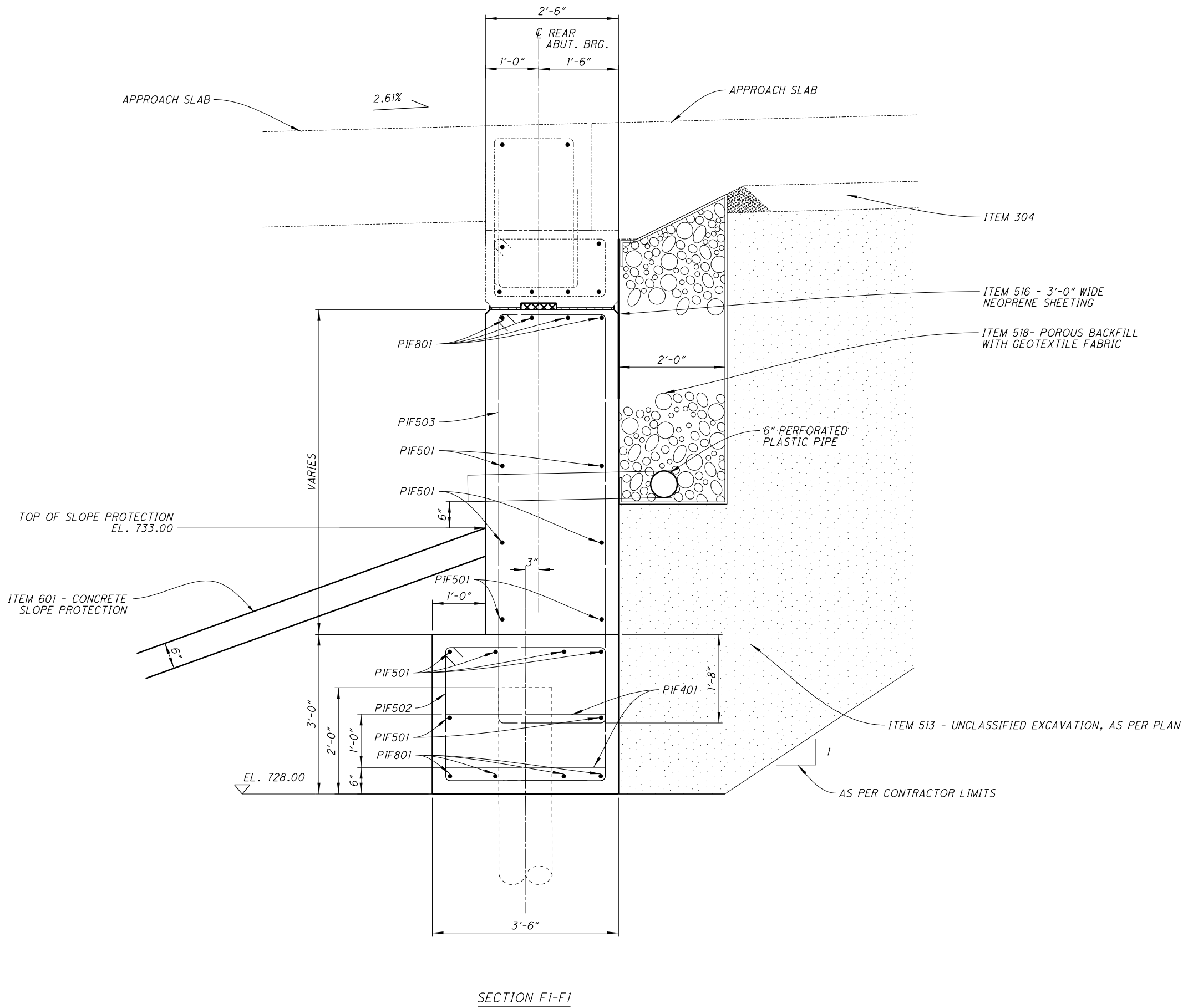
DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	DATE 11/20/2020	REVIEWED TAG	STRUCTURE FILE NUMBER 6002743
		57-59	
DRAWN YEL	CHECKED YEL	DESIGNED	CPS
BRIDGE SUMMARY			
BRIDGE NO.: MUS-70-1199			
OVER 7TH STREET			
MUS-70-10.49			
PID No. 93006			
6/69			
1764			
2231			

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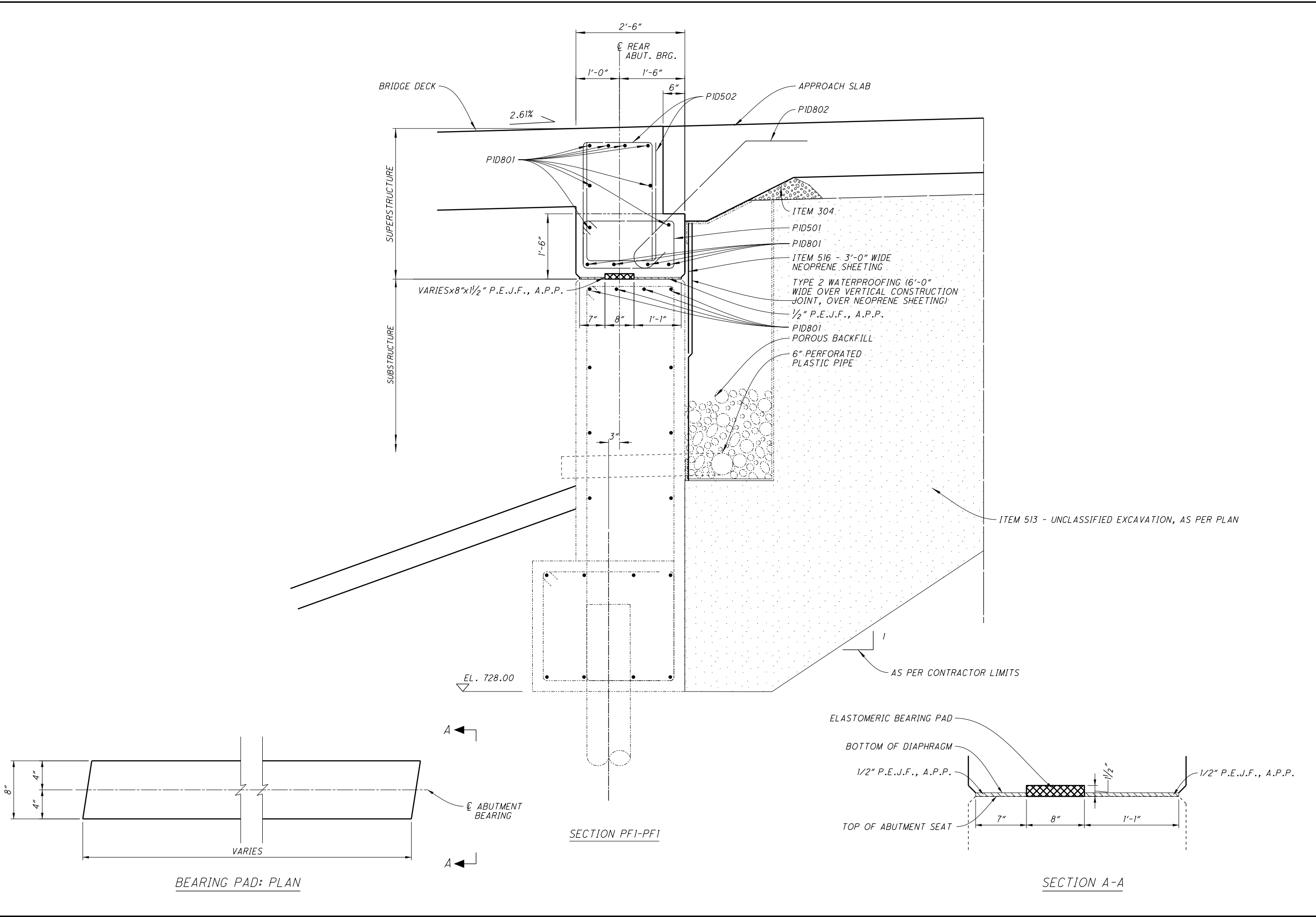
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STRUCTURE FILE NUMBER 6002943		STRUCTURE FILE NUMBER 6002943		STRUCTURE FILE NUMBER 6002943		STRUCTURE FILE NUMBER 6002943		STRUCTURE FILE NUMBER 6002943		STRUCTURE FILE NUMBER 6002943	
PROPOSED REAR ABUTMENT DETAILS (PHASE 1 BACKWALL)						BRIDGE NO. MUS-70-1199 OVER 7TH STREET					
MUS-70-10.49						PID No. 93006					
16 / 73						1775 2231					

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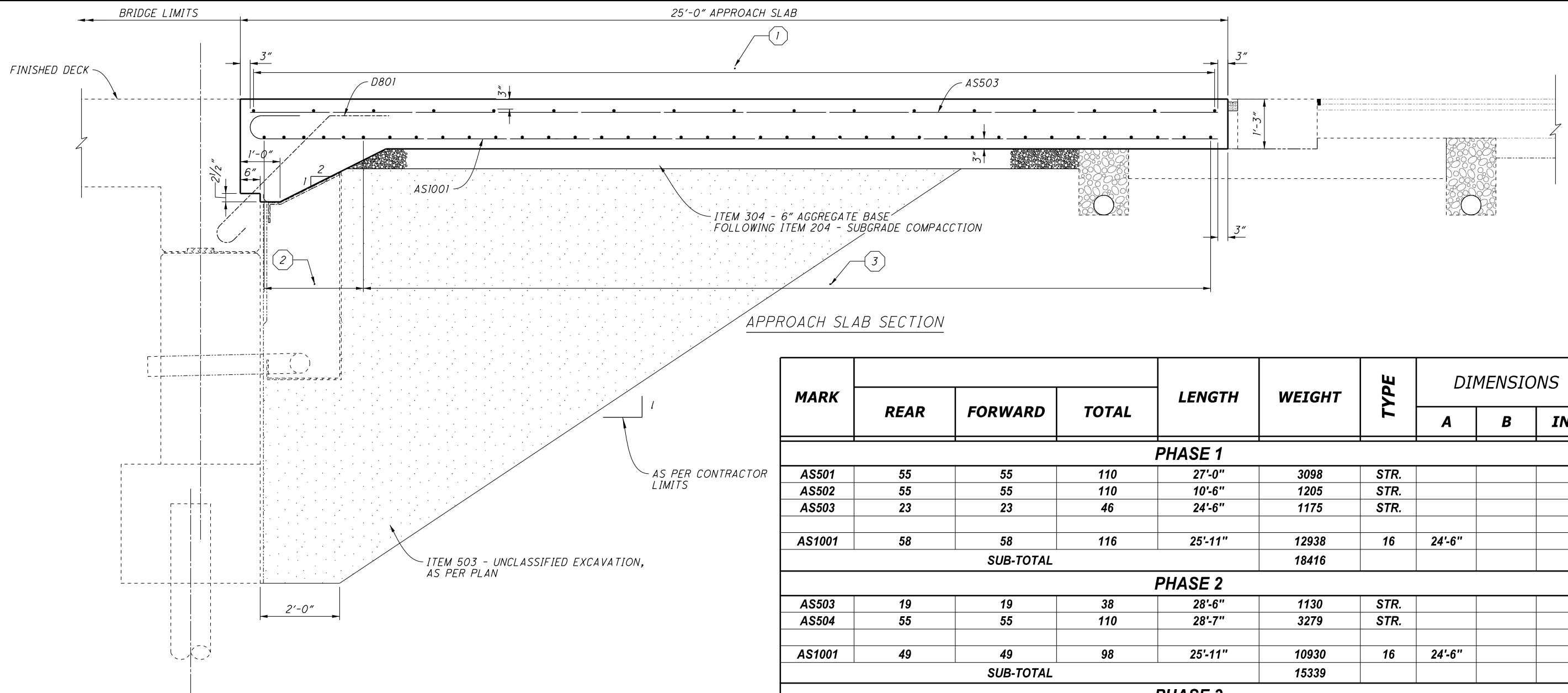
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CHECKED CPS		REVISED .		STRUCTURE FILE NUMBER 6002943					
PROPOSED FORWARD ABUTMENT DETAILS (PHASE 1 SECTION)									
BRIDGE NO.: MUS-70-1199 OVER 7TH STREET									
MUS-70-10.49									
PID No. 93006									
23/73									
1782 2231									

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DESIGNED		YEL	CPS
DRAWN		YEL	.
REVIEWED	DATE	TAG	STRUCTURE FILE NUMBER
YEL	11/24/2020		6002943
DESIGN AGENCY			
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5			
PROJECT TITLE			
PROPOSED FORWARD END DIAPHRAGM DETAILS			
BRIDGE NO.: MUS-70-1199			
OVER 7TH STREET			
PROJECT NUMBER		MUS-70-10.49	
PID NO.		93006	
SHEET NUMBER		46 / 73	
DRAWING NUMBER		1805	
DRAWING NUMBER		2231	

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NOTES:

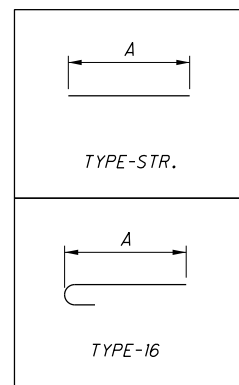
1. ALL LONGITUDINAL CONSTRUCTION JOINTS SHALL BE SEALED 2'-0" IN WIDTH WITH HMM RESIN. APPROACH SLAB SEALING TO BE INCLUDING FOR PAYMENT OF ITEM 526 - REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN.

2. FOR ADDITIONAL DETAILS SEE STANDARD DRAWING AS-1-15.

- ① PHASE 1: REAR-AS501 & AS502 SPA. @ 1'-6", FWD-AS501 & AS502 SPA. @ 1'-6"
- ① PHASE 2: REAR-AS504 SPA. @ 1'-6", FWD-AS504 SPA. @ 1'-6"
- ① PHASE 3: REAR-AS505 SERIES SPA. @ 1'-6", FWD-AS508 SERIES SPA. @ 1'-6"

- ② PHASE 1: REAR-AS501 & AS502 SPA. @ 6", FWD-AS501 & AS502 SPA. @ 6"
- ② PHASE 2: REAR-AS504 SPA. @ 6", FWD - AS504 SPA. @ 6"
- ② PHASE 3: REAR-AS506 SPA. @ 6", FWD - AS509 SPA. @ 6"

- ③ PHASE 1: REAR- AS501 @ AS502 SPA. @ 8", FWD- AS501 & AS502 SPA. @ 8"
- ③ PHASE 2: REAR- AS504 SPA. @ 8", FWD- AS504 SPA. @ 8"
- ③ PHASE 3: REAR- AS507 SERIES SPA. @ 8", FWD- AS510 SERIES SPA. @ 8"



BENDING DIAGRAMS

MARK				LENGTH	WEIGHT	TYPE	DIMENSIONS		
	REAR	FORWARD	TOTAL				A	B	INC
PHASE 1									
AS501	55	55	110	27'-0"	3098	STR.			
AS502	55	55	110	10'-6"	1205	STR.			
AS503	23	23	46	24'-6"	1175	STR.			
AS1001	58	58	116	25'-11"	12938	16	24'-6"		
SUB-TOTAL					18416				
PHASE 2									
AS503	19	19	38	28'-6"	1130	STR.			
AS504	55	55	110	28'-7"	3279	STR.			
AS1001	49	49	98	25'-11"	10930	16	24'-6"		
SUB-TOTAL					15339				
PHASE 3									
AS505	1			565'-0"	589	STR.	32'-8"		0'-0.8"
	SERIES OF						TO		
							33'-9"		
AS506	6		6	33'-9"	211	STR.	33'-9"		
AS507	1			1063'-0"	1109	STR.	32'-8"		0'-0.4"
	SERIES OF						TO		
							33'-9"		
AS508		1		698'-0"	728	STR.	41'-1"		0'-1.6"
	SERIES OF						TO		
							40'-11.4"		
AS509		6	6	43'-3"	271	STR.	43'-3"		
AS510		1		1314'-0"	1371	STR.	41'-1"		0'-0.8"
	SERIES OF						TO		
							41'-0.2"		
AS511		1	1	10'-6"	11	STR.	10'-6"		
AS512		1	1	23'-9"	25	STR.	23'-9"		
AS1001	58	69	127	25'-11"	14165	16	24'-6"		
AS1002		1	1	23'-9"	102	16	23'-9"		
AS1003		1	1	20'-9"	89	16	20'-9"		
AS1004		1	1	14'-0"	60	16	14'-0"		
AS1005		1	1	8'-0"	34	16	8'-0"		
AS1006		1	1	1'-9"	8	16	1'-9"		
SUB-TOTAL					18773				

DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
 REVIEWED DATE: 11/24/2020
 TAG: 6002943
 STRUCTURE FILE NUMBER: 6002943
 DRAWN BY: YEL
 CHECKED BY: CPS
 DESIGNED BY: YEL
 REVISIONS: .

APPROACH SLAB DETAILS
 BRIDGE NO.: MUS-70-1199
 OVER 7TH STREET

MUS-70-10.49
 PID No. 93006

72 / 73

1831
2231

CALCULATIONS

ITEM 202 - CONCRETE SLOPE PROTECTION REMOVED

REAR ABUTMENT SLOPE ON BRIDGE NO. MUS-70-1212:
 - STA 615+70.45 TO STA 616+10.33
 QUANTITY = $(39.88' \times 97.34' \times \text{SLOPE } 1.08) / 9 = 465.8 \text{ S.Y.}$
 - STA 615+14.33 TO STA 616+18.53
 QUANTITY = $(3.81' \times 97.34') / 9 = 41.2 \text{ S.Y.}$

FORWARD ABUTMENT SLOPE ON BRIDGE NO. MUS-70-1212:
 - STA 616+78.06 TO STA 616+82.83
 QUANTITY = $(4.23' \times 97.34') / 9 = 45.7 \text{ S.Y.}$
 - STA 616+82.83 TO STA 617+26.70
 QUANTITY = $(43.87' \times 97.34' \times \text{SLOPE } 1.08) / 9 = 512.4 \text{ S.Y.}$

GRAND TOTAL
 465.8 S.Y. + 41.2 S.Y. + 45.7 + 512.4 = 1,065 S.Y.

ITEM 601 - CONCRETE SLOPE PROTECTION

REAR ABUTMENT SLOPE ON BRIDGE NO. MUS-70-1212:
 - STA 615+70.45 TO STA 616+10.33
 QUANTITY = $(39.88' \times 97.34' \times \text{SLOPE } 1.08) / 9 = 465.8 \text{ S.Y.}$
 - STA 615+14.33 TO STA 616+18.53
 QUANTITY = $(3.81' \times 97.34') / 9 = 41.2 \text{ S.Y.}$

FORWARD ABUTMENT SLOPE ON BRIDGE NO. MUS-70-1212:
 - STA 616+78.06 TO STA 616+82.83
 QUANTITY = $(4.23' \times 97.34') / 9 = 45.7 \text{ S.Y.}$
 - STA 616+82.83 TO STA 617+26.70
 QUANTITY = $(43.87' \times 97.34' \times \text{SLOPE } 1.08) / 9 = 512.4 \text{ S.Y.}$

GRAND TOTAL
 465.8 S.Y. + 41.2 S.Y. + 45.7 + 512.4 = 1,065 S.Y.

ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION

REAR ABUTMENT DRAINS BRIDGE NO. MUS-70-1212:
 - SOUTH DRAIN
 QUANTITY = $(4.0' \times 3.14 \times 1.0') / 27 = 0.47 \text{ C.Y.}$
 - NORTH DRAIN
 QUANTITY = $(4.0' \times 3.14 \times 1.0') / 27 = 0.47 \text{ C.Y.}$

FORWARD ABUTMENT DRAINS BRIDGE NO. MUS-70-1212:
 - SOUTH DRAIN
 QUANTITY = $(4.0' \times 3.14 \times 1.0') / 27 = 0.47 \text{ C.Y.}$
 - NORTH DRAIN
 QUANTITY = $(4.0' \times 3.14 \times 1.0') / 27 = 0.47 \text{ C.Y.}$

GRAND TOTAL
 0.47 C.Y. + 0.47 C.Y. + 0.47 C.Y. + 0.47 C.Y. = 1.88 C.Y.

ALL QUANTITIES SHOWN BELOW CARRIED TO SHEET 1908.

APPROACH	BRIDGE	ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
ROADWAY							
	1,065	202	32800	1,065	SO.YD.	CONCRETE SLOPE PROTECTION REMOVED	1
367		204	10000	367	SO.YD.	SUBGRADE COMPACTION	70-73
EROSION CONTROL							
	2	601	20010	2	CU.YD.	CRUSHED AGGREGATE SLOPE PROTECTION	14-15
	1,065	601	21000	1,065	SO.YD.	CONCRETE SLOPE PROTECTION	1
PAVEMENT							
82		304	20000	82	CU.YD.	AGGREGATE BASE	70-73

ITEM 613 - LOW STRENGTH MORTAR BACKFILL, AS PER PLAN

LOW STRENGTH MORTAR (LSM) USED AS BACKFILL BEHIND SEMI-INTEGRAL ABUTMENT DIAPHRAGMS SHALL HAVE A LONG TERM COMPRESSIVE STRENGTH BETWEEN 150 AND 200 PSI. THE TOP ELEVATION SHALL BE AT LEAST 6" BELOW THE PROPOSED BOTTOM OF APPROACH SLAB AND ANY FORMWORK BETWEEN THE LSM BACKFILL AND SEMI-INTEGRAL DIAPHRAGM SHALL BE COMPLETELY REMOVED.

THE QUANTITY IN THE PLANS ASSUMES A 1.5:1 SLOPE OF BOTTOM OF LSM ELEVATION UP TO 2' BELOW THE PROPOSED TOP OF LSM ELEVATION (WHERE A VERTICAL END OF THE ITEM 613 IS ASSUMED). ADDITIONAL LSM BEYOND THESE LIMITS IS INCLUDED WITH ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

ITEM 204 - SUBGRADE COMPACTION

REAR APPROACH SLAB ON BRIDGE NO. MUS-70-1212:
 - STA 615+47.70 TO STA 615+55.83
 QUANTITY = $(8.13' \times 94.34') / 9 = 85.2 \text{ S.Y.}$
 - STA 615+55.83 TO STA. 615+65.45
 QUANTITY = $(9.63' \times 91.67') / 9 = 98.1 \text{ S.Y.}$

FORWARD APPROACH SLAB ON BRIDGE NO. MUS-70-1212:
 - STA 617+31.70 TO STA 617+41.33
 QUANTITY = $(9.63' \times 91.67') / 9 = 98.1 \text{ S.Y.}$
 - STA 617+41.33 TO STA 617+49.45
 QUANTITY = $(8.13' \times 94.34') / 9 = 85.2 \text{ S.Y.}$

GRAND TOTAL
 85.2 S.Y. + 98.1 S.Y. + 98.1 S.Y. + 85.2 S.Y. = 367 S.Y.

ITEM 304 - AGGREGATE BASE

REAR APPROACH SLAB ON BRIDGE NO. MUS-70-1212:
 - STA 615+47.70 TO STA 615+55.83
 QUANTITY = $((8.13' \times 94.34') \times (8''/12')) / 27 = 18.9 \text{ C.Y.}$
 - STA 615+55.83 TO STA. 615+65.45
 QUANTITY = $((9.63' \times 91.67') \times (8''/12')) / 27 = 21.8 \text{ C.Y.}$

FORWARD APPROACH SLAB ON BRIDGE NO. MUS-70-1212:
 - STA 617+31.70 TO STA 617+41.33
 QUANTITY = $((9.63' \times 91.67') \times (8''/12')) / 27 = 21.8 \text{ C.Y.}$
 - STA 617+41.33 TO STA 617+49.45
 QUANTITY = $((8.13' \times 94.34') \times (8''/12')) / 27 = 18.9 \text{ C.Y.}$

GRAND TOTAL
 18.9 C.Y. + 21.8 C.Y. + 21.8 C.Y. + 18.9 C.Y. = 82 C.Y.

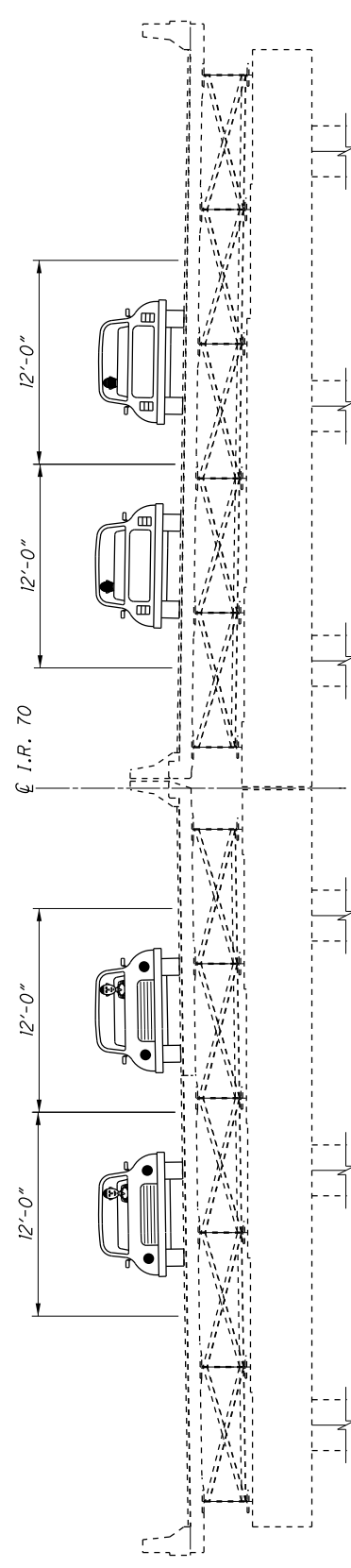
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DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
REVIEWED	DATE CPS 12/4/2020 STRUCTURE FILE NUMBER 6002978
DRAIN	CPS REVISED
DESIGNED	CPS CHECKED TAG
BRIDGE NOTES	BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.
MUS-70-10.49	PID No. 93006
5 / 74	1837 2231

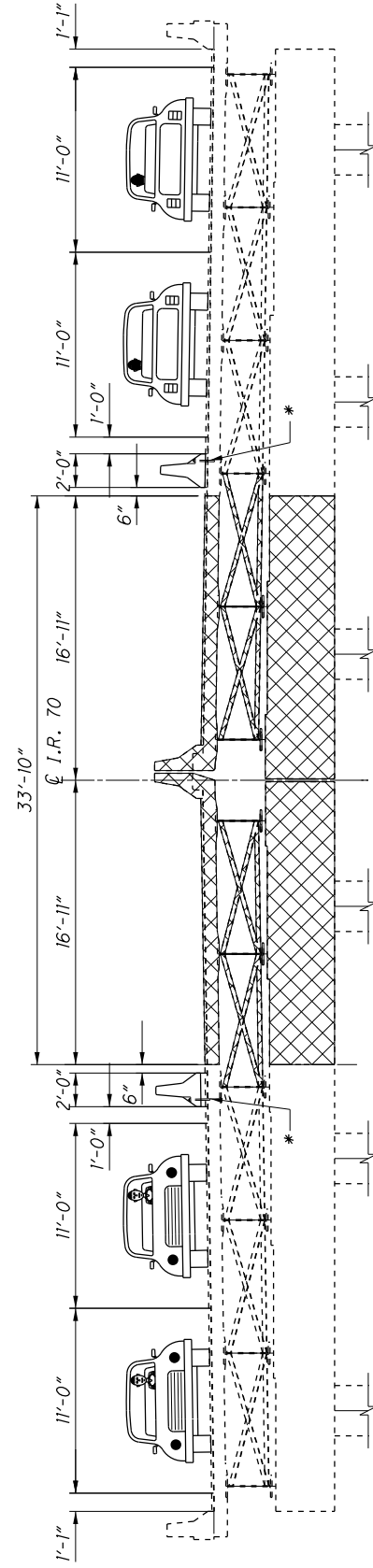
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PHASE 1	PHASE 2	PHASE 3	PART. 02/IMS/B R	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
STRUCTURE REPAIR (MUS-70-1212)									
LS	LS	LS	LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (SUPERSTRUCTURE)	3
127	120	120	367	202	11301	367	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURE)	3
188	148	148	484	202	22901	484	SY	APPROACH SLAB REMOVED, AS PER PLAN	3
LS	LS	LS	LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	4
LS	LS	LS	LS	503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	4
50,139	52,085	52,085	154,309	509	10000	154,309	LB	EPOXY COATED REINFORCING STEEL	
5,843	4,263	4,263	14,369	509	40000	14,369	LB	REINFORCING STEEL, MISC.: GALVANIZED	4
	36		36	510	10000	36	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
166	153	153	472	511	21523	472	CY	CLASS OC2 CONCRETE WITH OC/OA, SUPERSTRUCTURE, AS PER PLAN	3
4			4	511	33500	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
72			72	511	34450	72	CY	CLASS OC2 CONCRETE WITH OC/OA, BRIDGE DECK (PARAPET) (MEDIAN BARRIER)	
	35	35	70	511	34461	70	CY	CLASS OC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	64-65
35	27	27	89	511	41012	89	CY	CLASS OC1 CONCRETE WITH OC/OA, PIER ABOVE FOOTINGS	
74	85	85	244	511	43512	244	CY	CLASS OC1 CONCRETE WITH OC/OA, ABUTMENT INCLUDING FOOTING	
389	337	337	1,063	512	10050	1,063	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
57	57	57	171	512	10100	171	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
44	41	41	126	512	33000	126	SY	TYPE 2 WATERPROOFING	
LS	LS	LS	LS	513	10040	LS		STRUCTURAL STEEL MEMBERS, LEVEL 2	
3,030	2,424	2,424	7,878	513	20000	7,878	EACH	WELDED STUD SHEAR CONNECTORS	
7,147	5,893	5,893	18,933	514	00060	18,933	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
7,147	5,893	5,893	18,933	514	00066	18,933	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	3
8	7	7	22	514	10000	22	EACH	FINAL INSPECTION REPAIR	
18	9	9	36	516	13601	36	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	4
	27	27	54	516	13901	54	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	4
66	65	65	196	516	14020	196	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
66	59	59	184	516	14600	184	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	73
66	59	59	184	516	31011	184	FT	2" DEEP JOINT SEALER, AS PER PLAN	4
10	8	8	26	516	44300	26	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-3" x 1'-1" x 4.1479")	3
10	8	8	26	516	44300	26	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-6" x 1'-2" x 4.1479")	3
18	17	17	52	518	21200	52	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
66	68	68	202	518	40000	202	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
	24	28	52	518	40010	52	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
1,271	1,017	1,017	3,305	SPECIAL	51900100	3,305	SF	COMPOSITE FIBER WRAP SYSTEM	4
182	163	163	508	526	25011	508	SY	REINFORCED CONCRETE APPROACH SLABS WITH OC/OA (T=15"), AS PER PLAN	4
	605	605	1,210	SPECIAL	53000600	1,210	SF	STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN)	4
78	70	70	218	613	41201	218	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	5

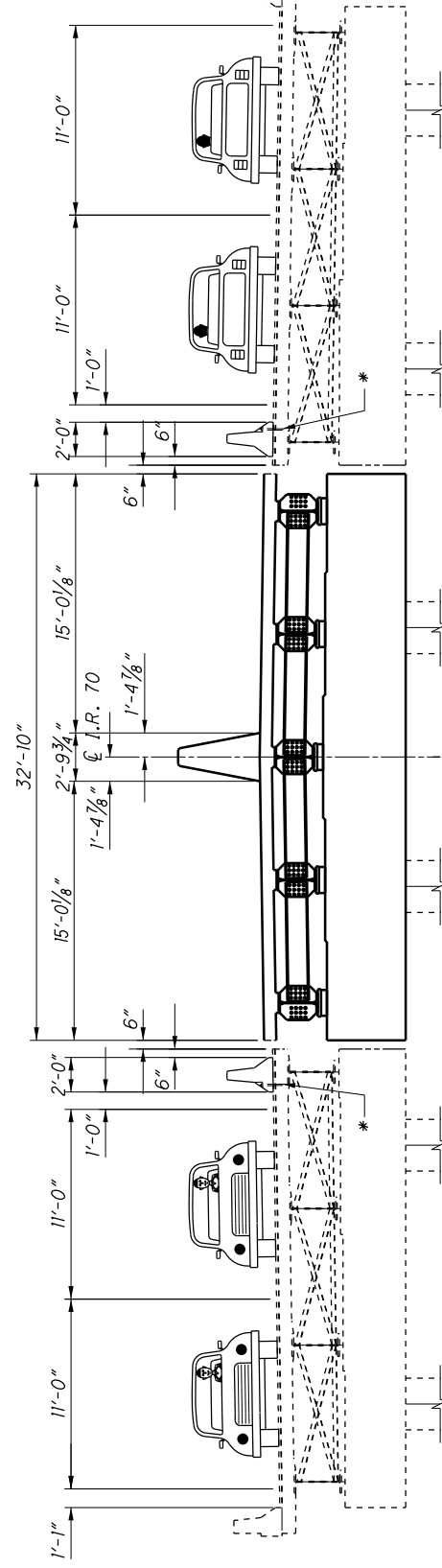
DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
REVIEWED DATE CPS 12/4/2020 STRUCTURE FILE NUMBER 6002978
DRAIN CPS CPS REVISED
DESIGNED CPS CPS CHECKED TAG
BRIDGE SUMMARY BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.
MUS-70-10.49 PID No. 93006
6 / 74
1838 2231



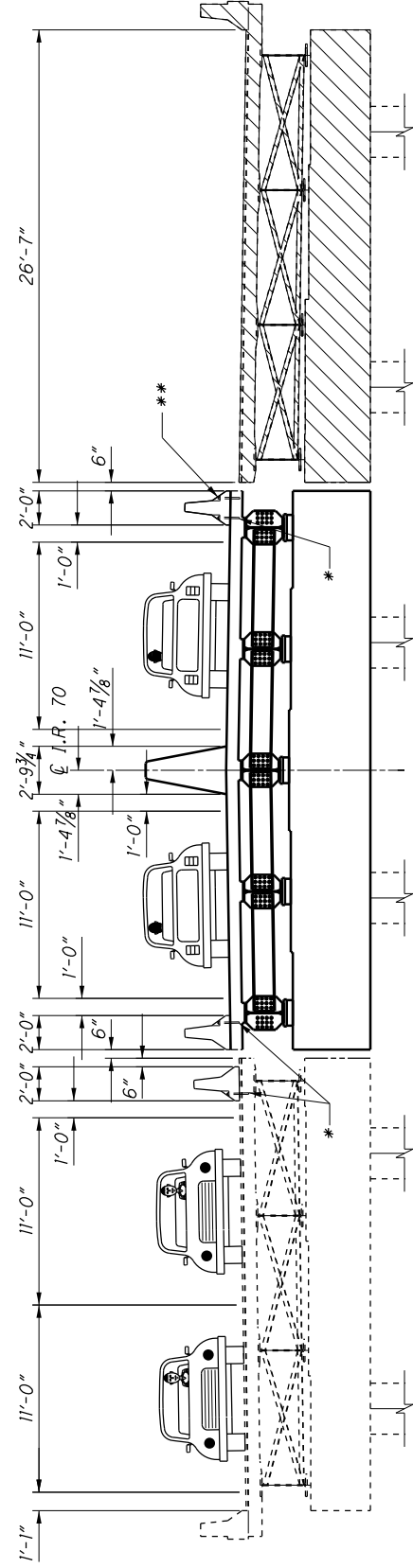
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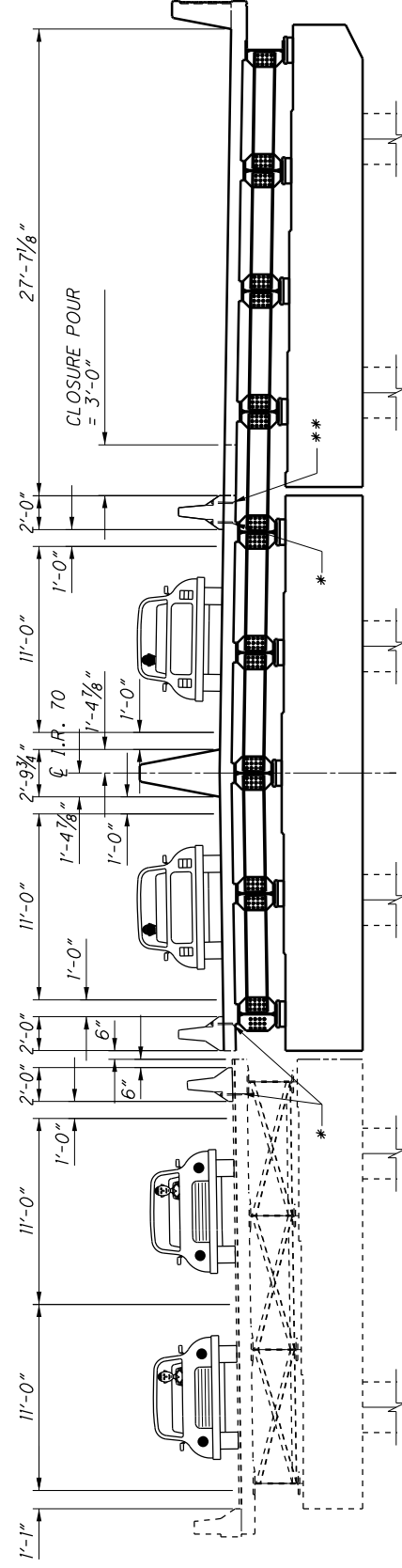
PHASE 1 REMOVAL



PHASE 1 REPLACEMENT



PHASE 2 REMOVAL

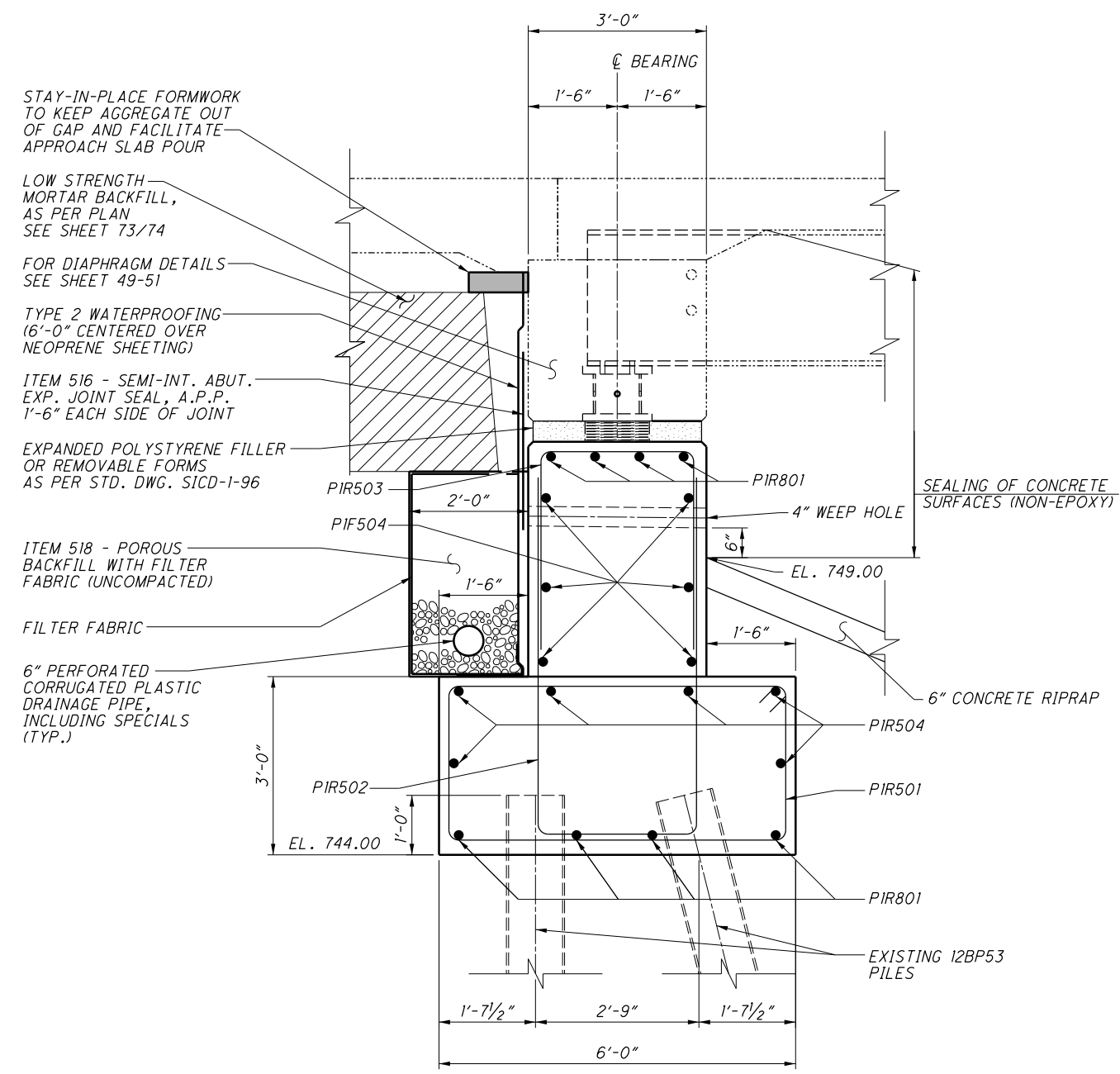


PHASE 2 REPLACEMENT

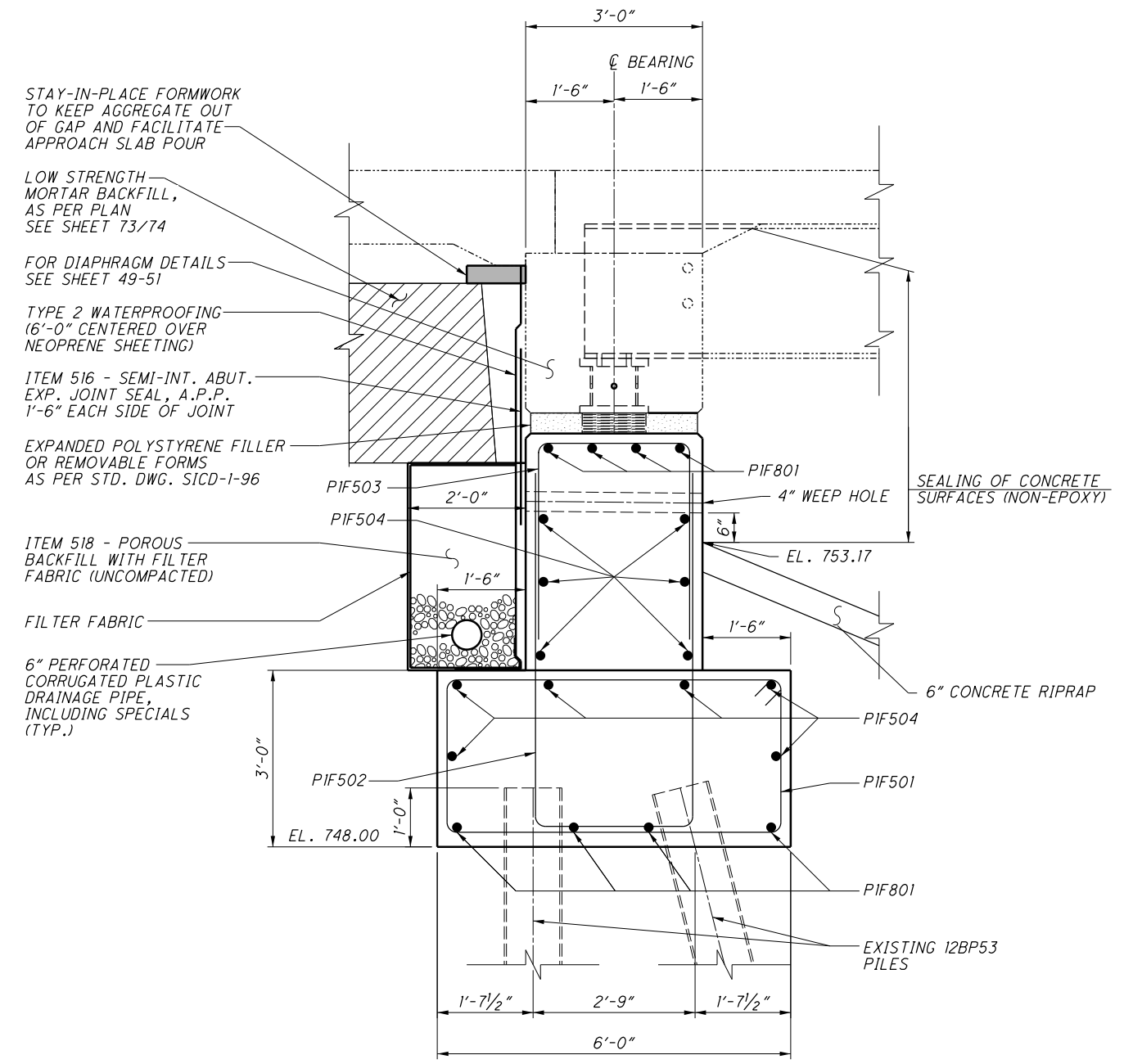
* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

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SECTION R-1
16
(REAR ABUTMENT BREASTWALL DETAIL)

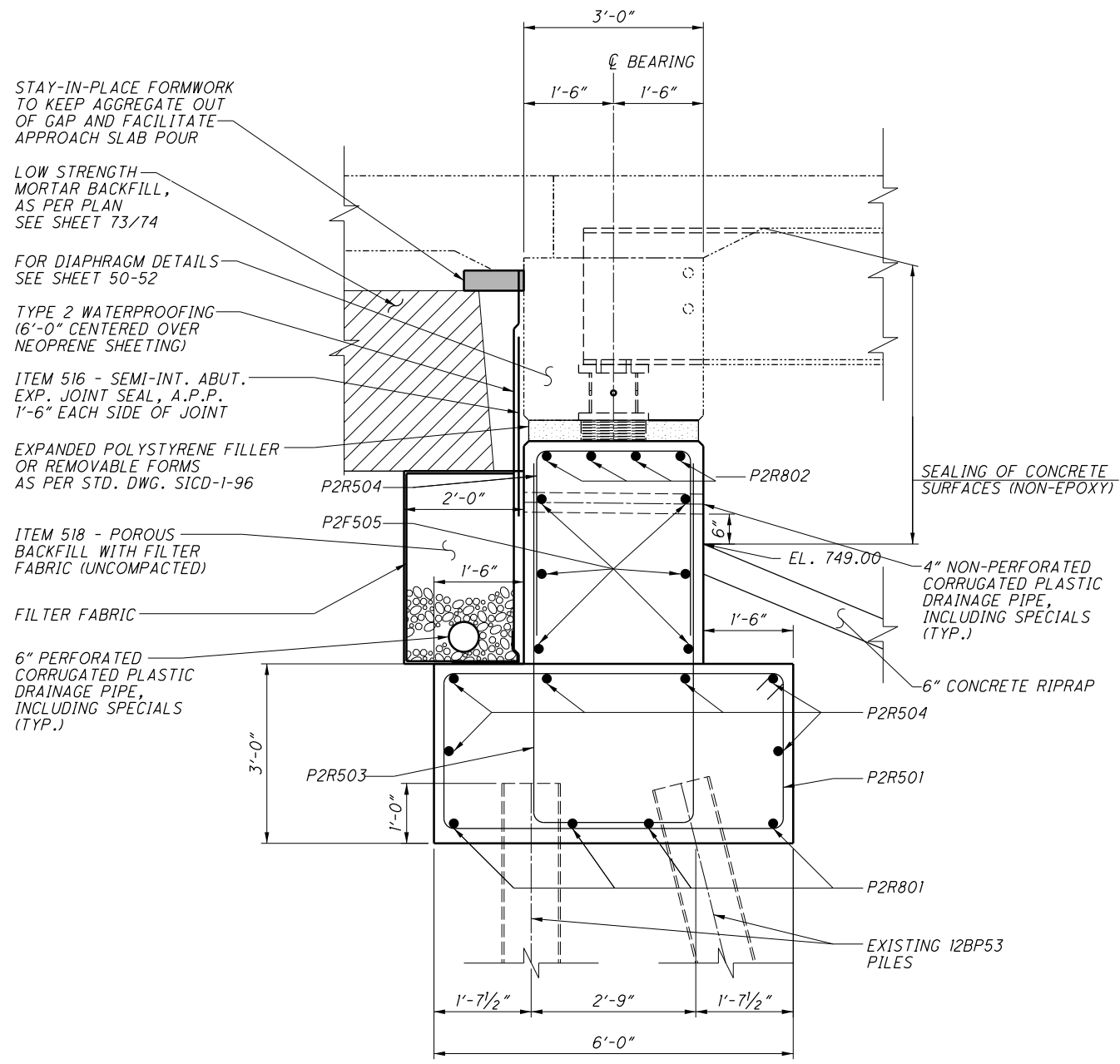


SECTION F-1
17
(FORWARD ABUTMENT BREASTWALL DETAIL)

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	REVIEWED DATE CPS 12/4/2020 STRUCTURE FILE NUMBER 6002978	DRAWN CPS REVISED	DESIGNED CPS CHECKED TAG	PROPOSED REAR AND FORWARD ABUTMENT DETAILS (PHASE I) BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.
MUS-70-10.49 PID No. 93006	18 / 74	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 1850 2231 </div>		

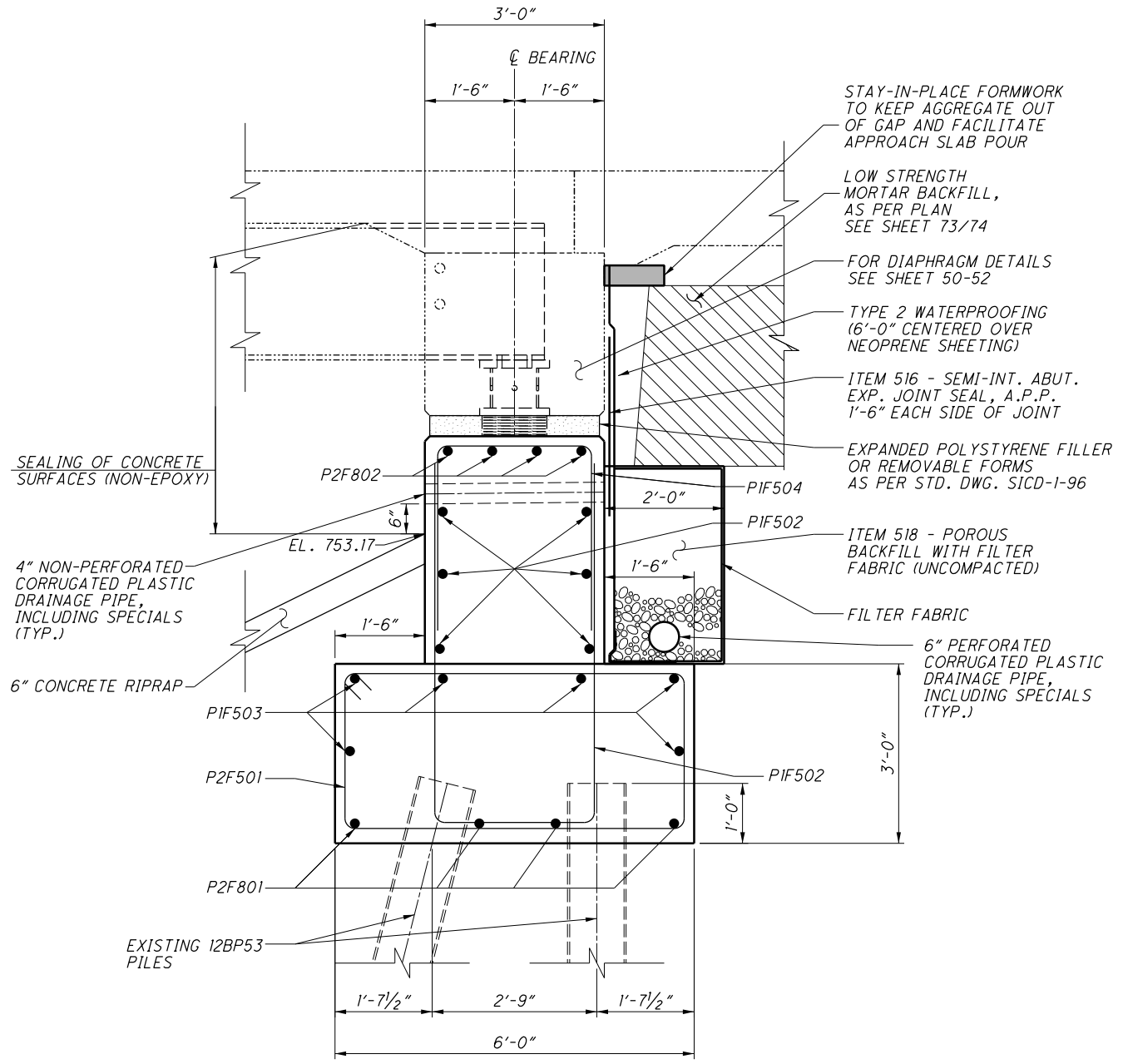
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DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
REVIEWED	DATE	STRUCTURE FILE NUMBER	
CPS	12/4/2020	6002978	
DRAIN	CPS	REVISED	
CPS		TAG	
DESIGNED	CPS	CHECKED	
		TAG	
PROPOSED REAR AND FORWARD ABUTMENT DETAILS (PHASE 2)			
BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.			
MUS-70-10.49		PID No. 93006	
21 / 74		1853 2231	



SECTION R-2
19

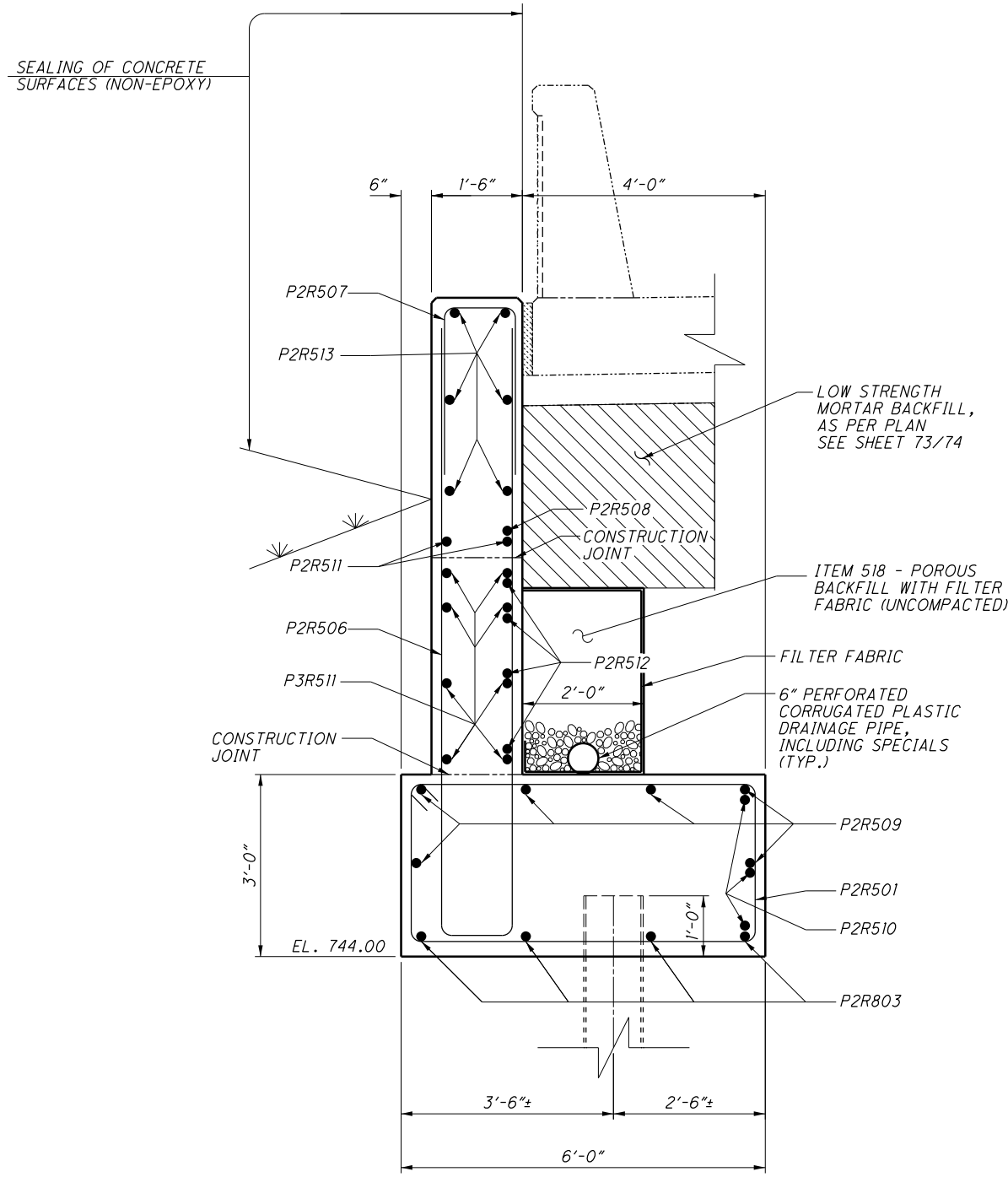
(REAR ABUTMENT BREASTWALL DETAIL)



SECTION F-2
20

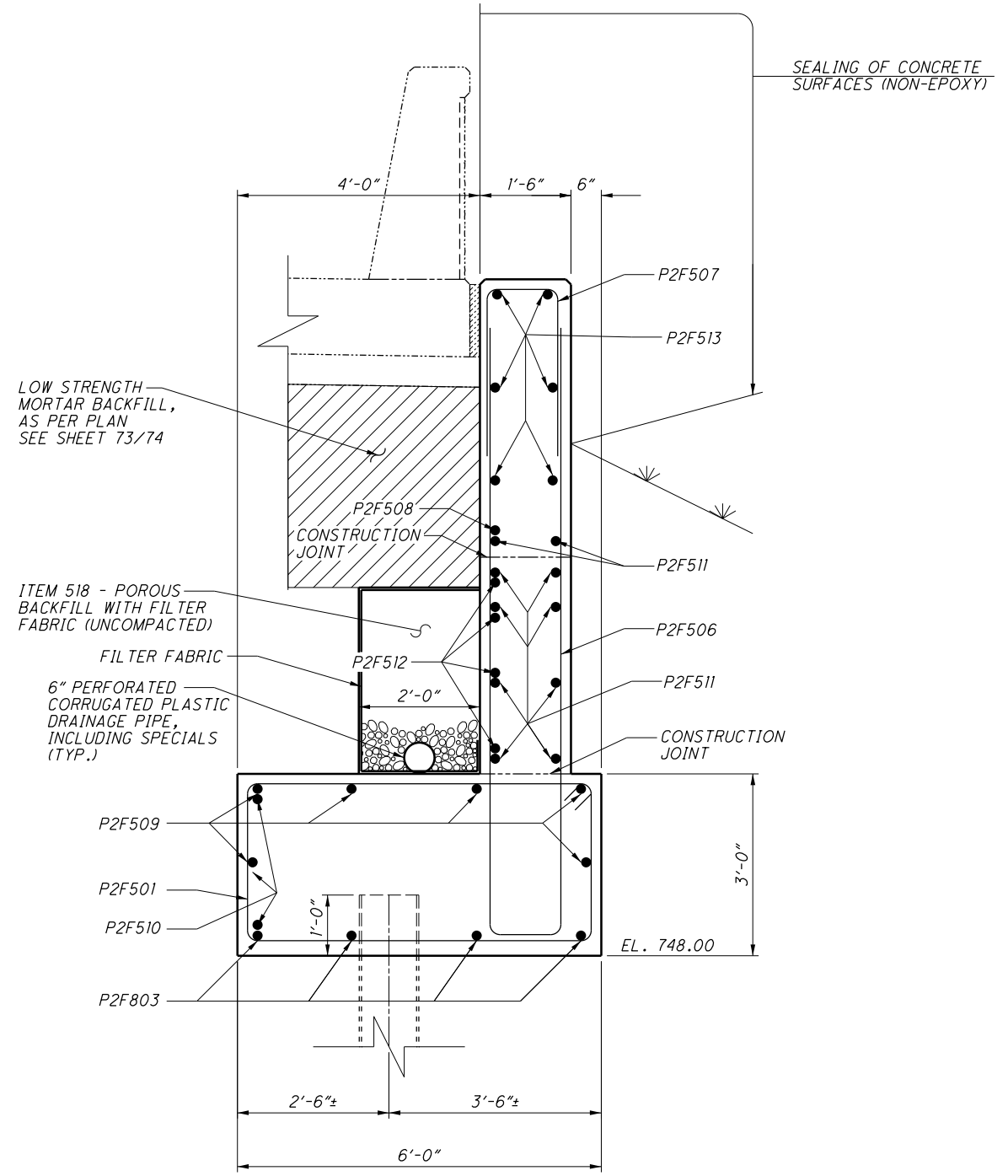
(FORWARD ABUTMENT BREASTWALL DETAIL)

I:\ProjectData\MUS\93006\400-Engineering\Structures\070_1212_SR002.dgn Phase 2 Rear and Fwd. TB Section Details 3/24/2021 3:14:44 PM cshonk



SECTION R-4
22

(REAR ABUTMENT SOUTH TURNBACK WALL DETAIL)

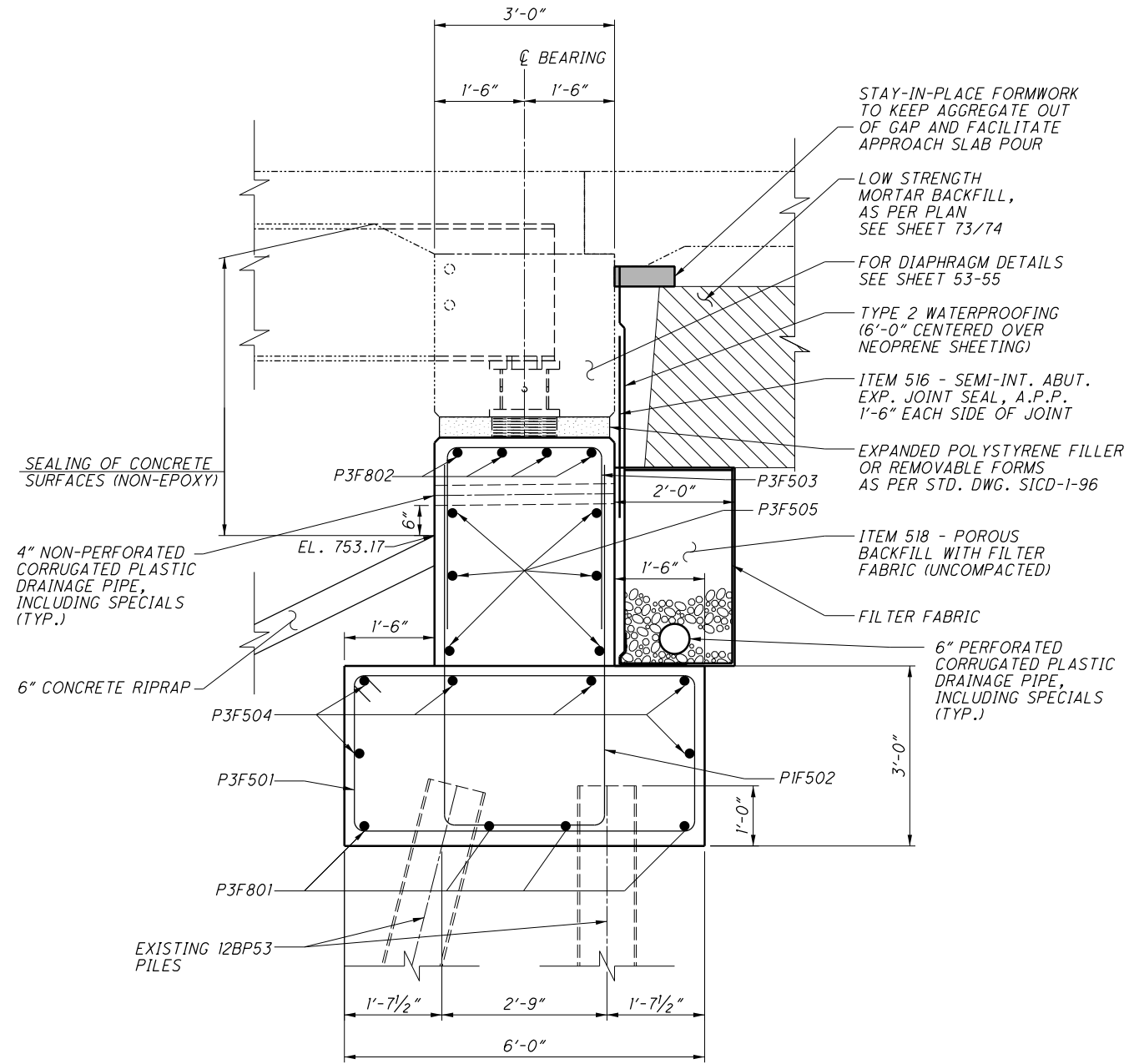
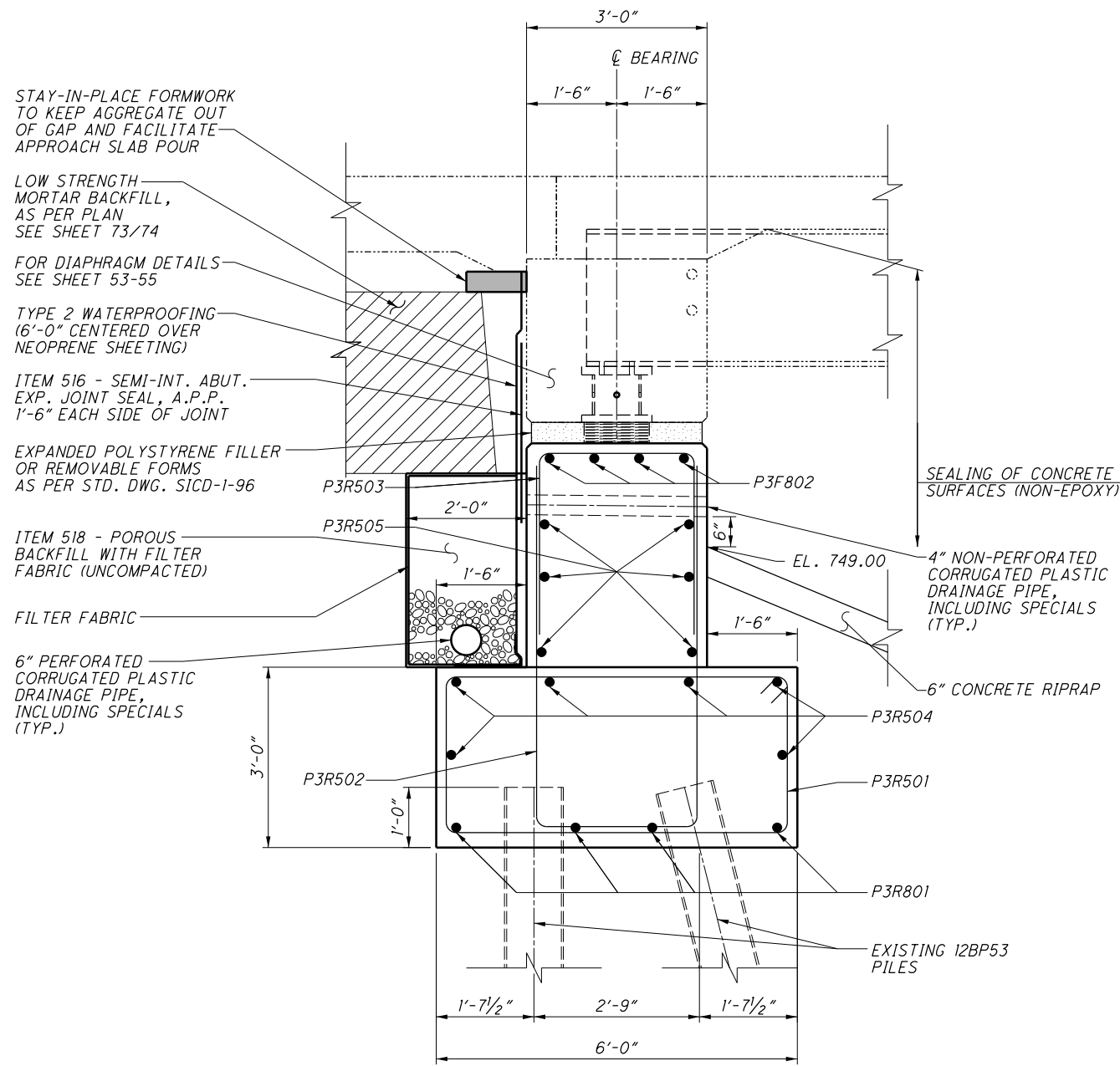


SECTION F-4
22

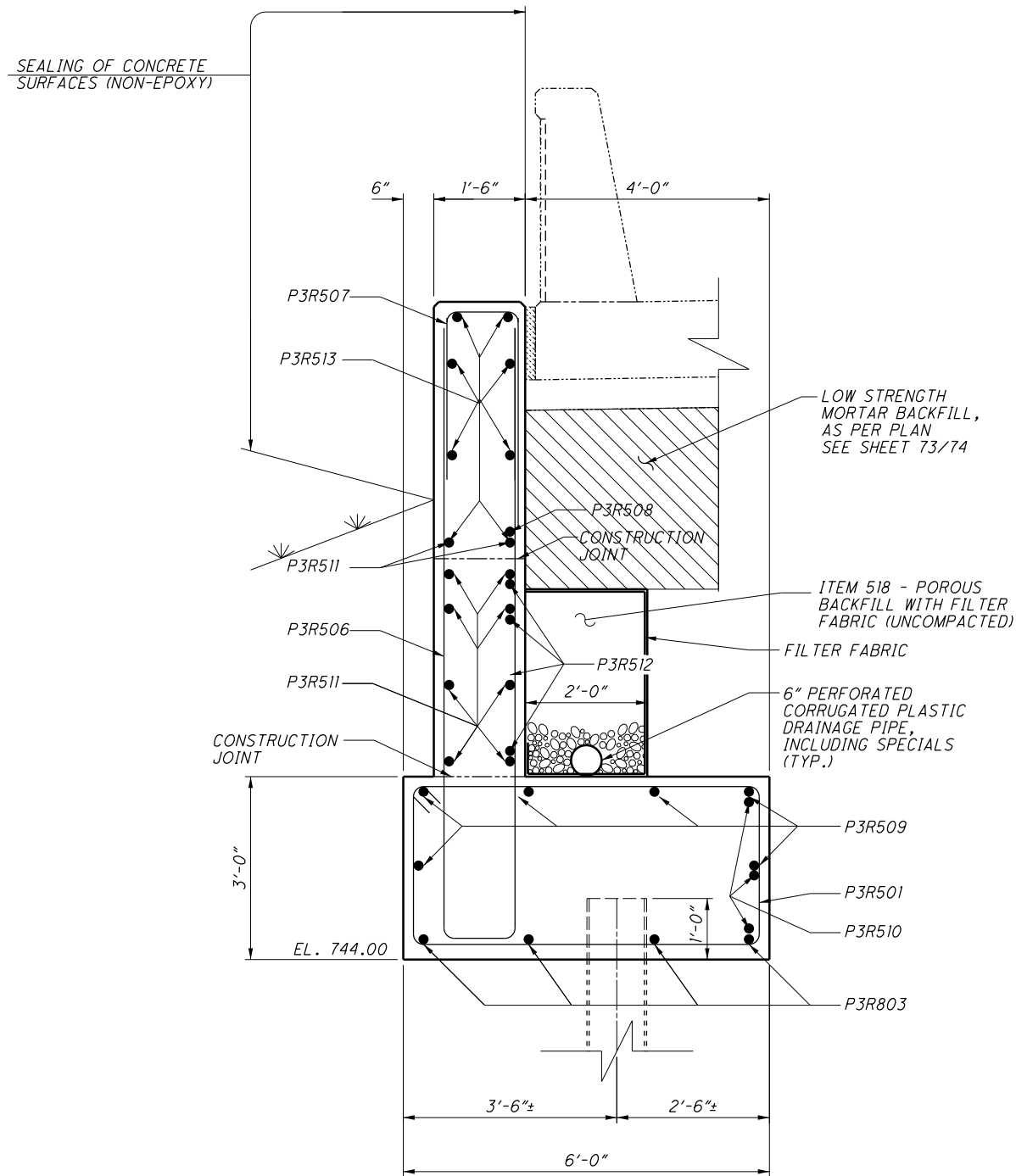
(FORWARD ABUTMENT SOUTH TURNBACK WALL DETAIL)

I:\ProjectData\MUS-93006-400-Engineering\Structures\SFN_6002978\Sheets\070-1212C-SR002.dgn Phase 3 Rear and Fwd. Abut. Section Details 3/24/2021 3:13:07 PM cshonk

DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
REVIEWED	DATE	STRUCTURE FILE NUMBER	6002978
CPS	12/4/2020		
DRAWN	CPS	CHECKED	TAG
DESIGNED	CPS		
PROPOSED REAR AND FORWARD ABUTMENT DETAILS (PHASE 3)			
BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.			
MUS-70-10.49		PID No. 93006	
26/74		1858 2231	

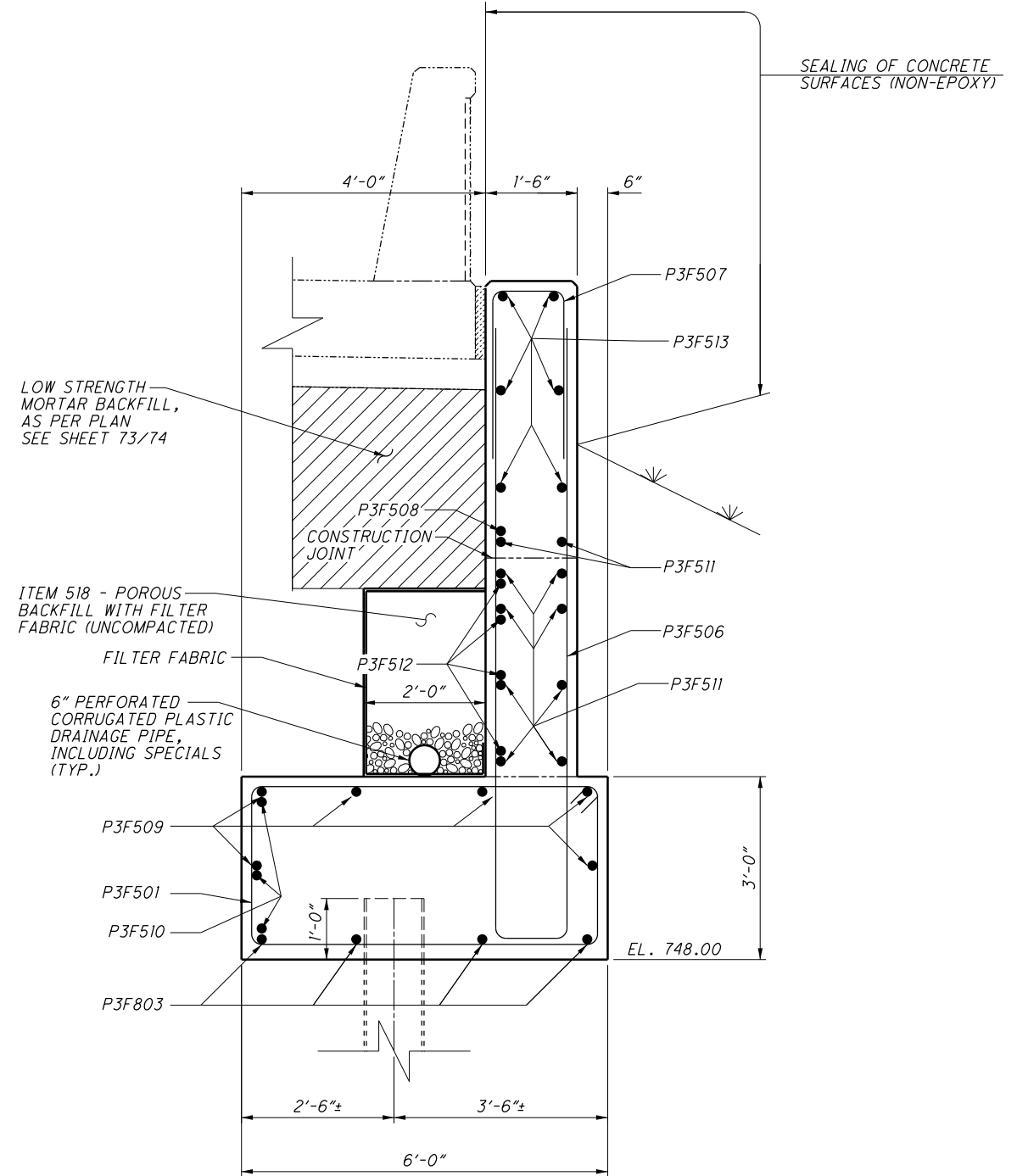


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SECTION R-5
27

(REAR ABUTMENT SOUTH TURNBACK WALL DETAIL)

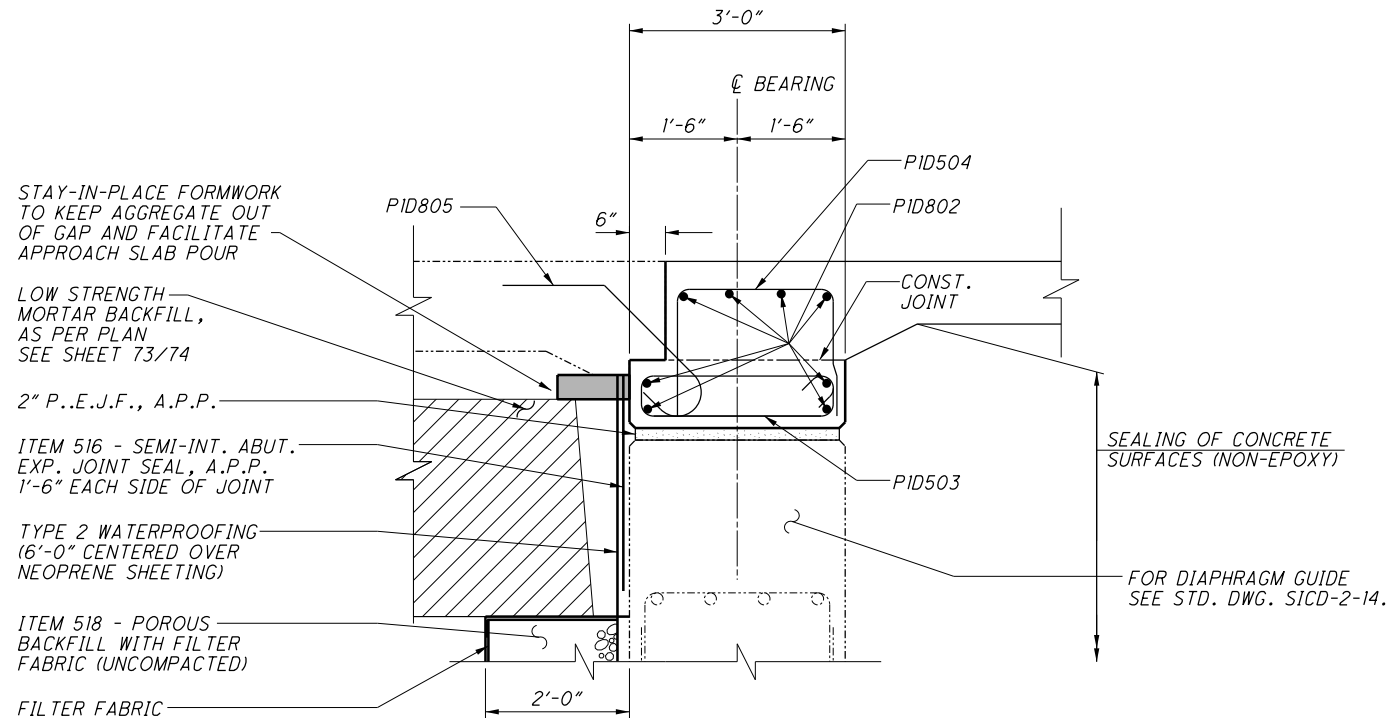


SECTION F-5
27

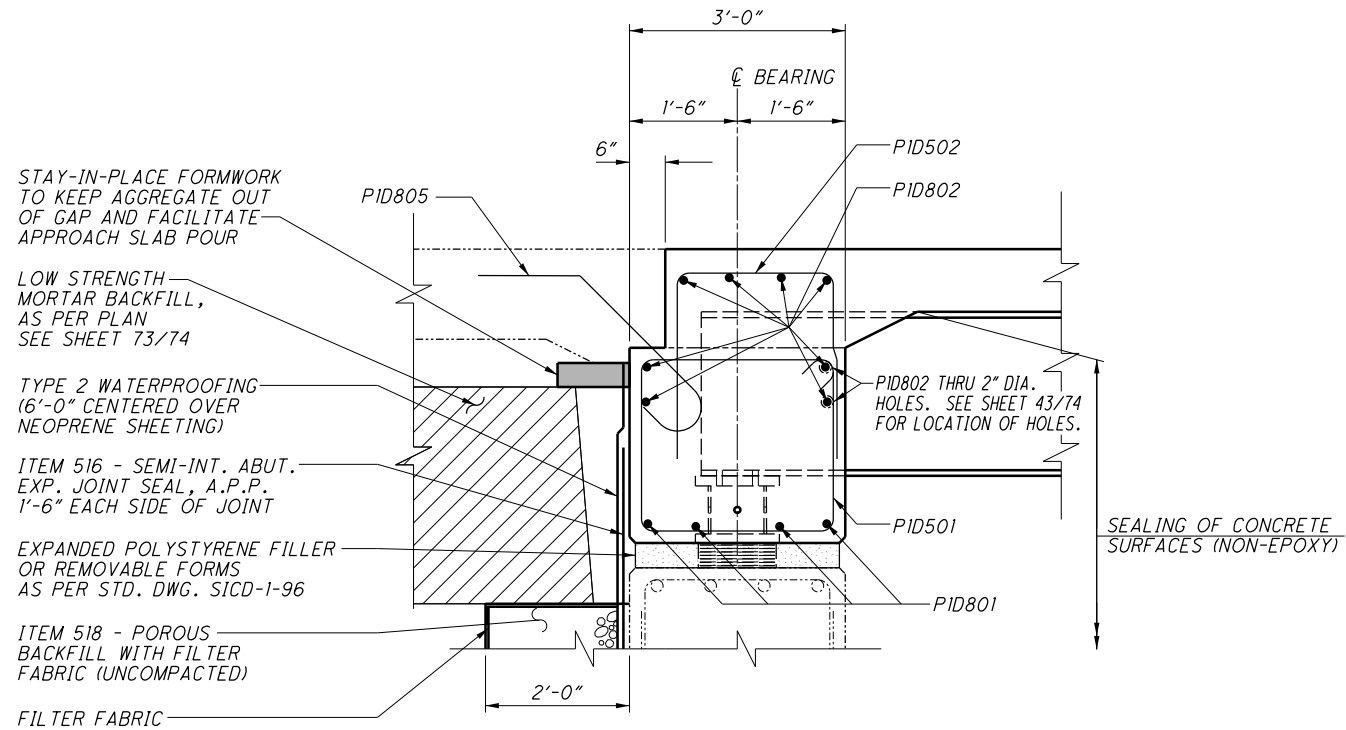
(FORWARD ABUTMENT SOUTH TURNBACK WALL DETAIL)

DESIGNED CPS	CHECKED TAG	DRAWN CPS	REVIEWED CPS	DATE 12/4/2020
				STRUCTURE FILE NUMBER 6002978
DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5				
BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.				
PROPOSED REAR AND FORWARD ABUTMENT DETAILS (PHASE 3)				
MUS-70-10.49 PID No. 93006				
28 / 74				
1860 2231				

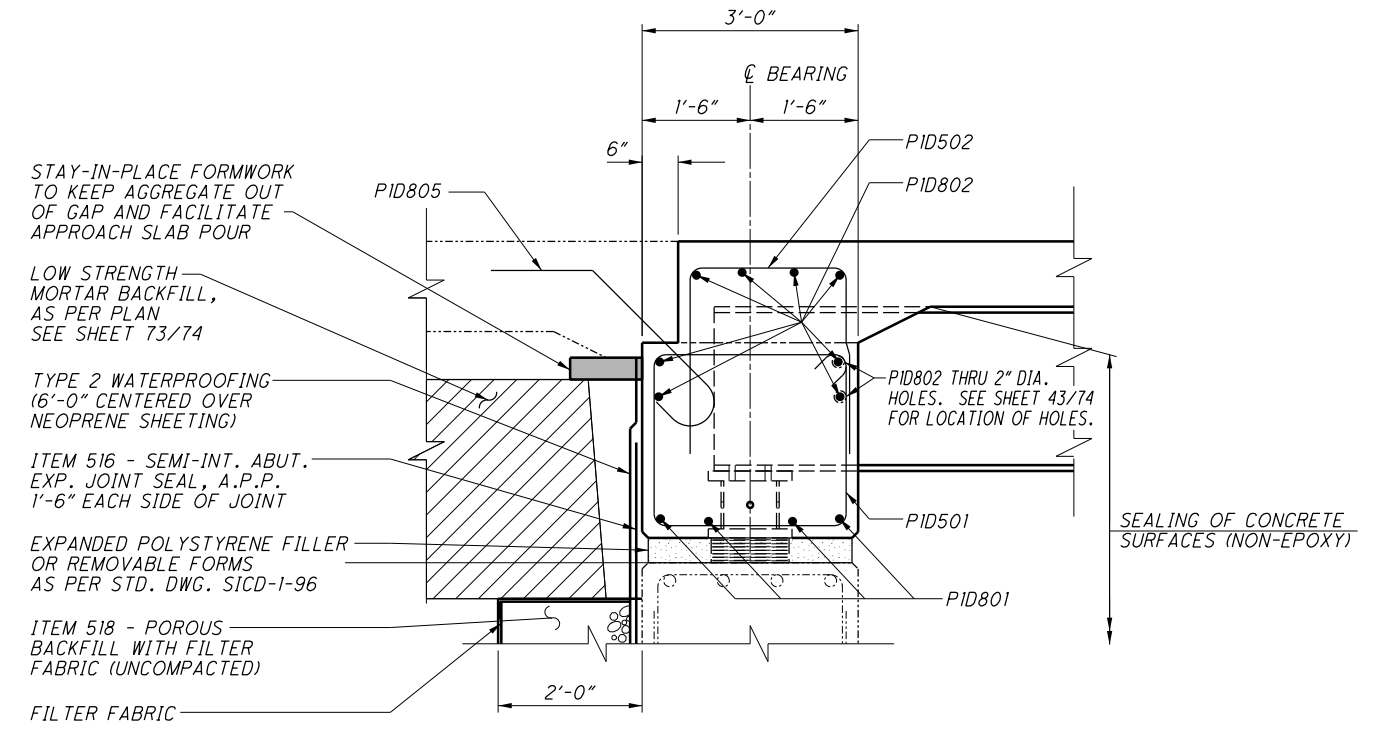
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SECTION R-2 F-2
49 50
(REAR & FWD. ABUTMENT DIAPHRAGM DETAIL)



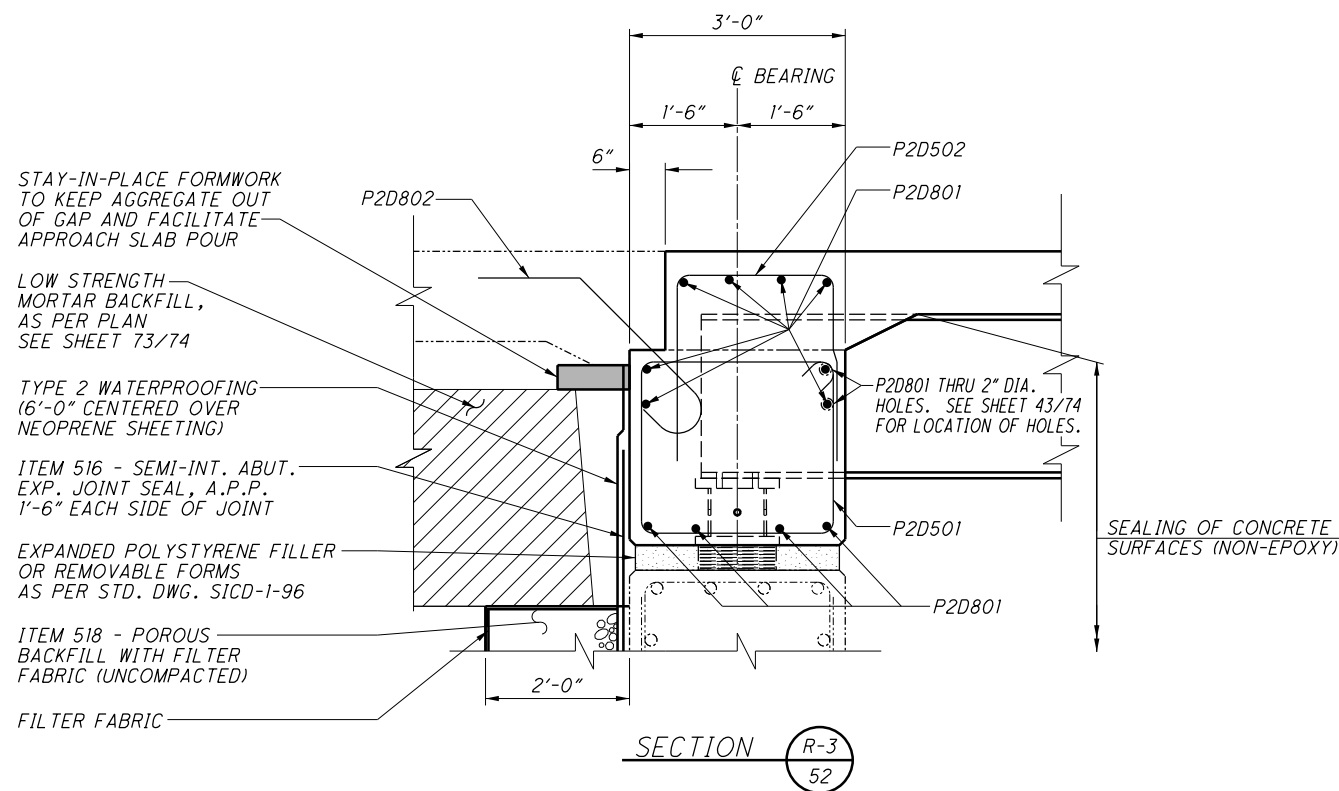
SECTION R-1
49
(REAR ABUTMENT DIAPHRAGM DETAIL)



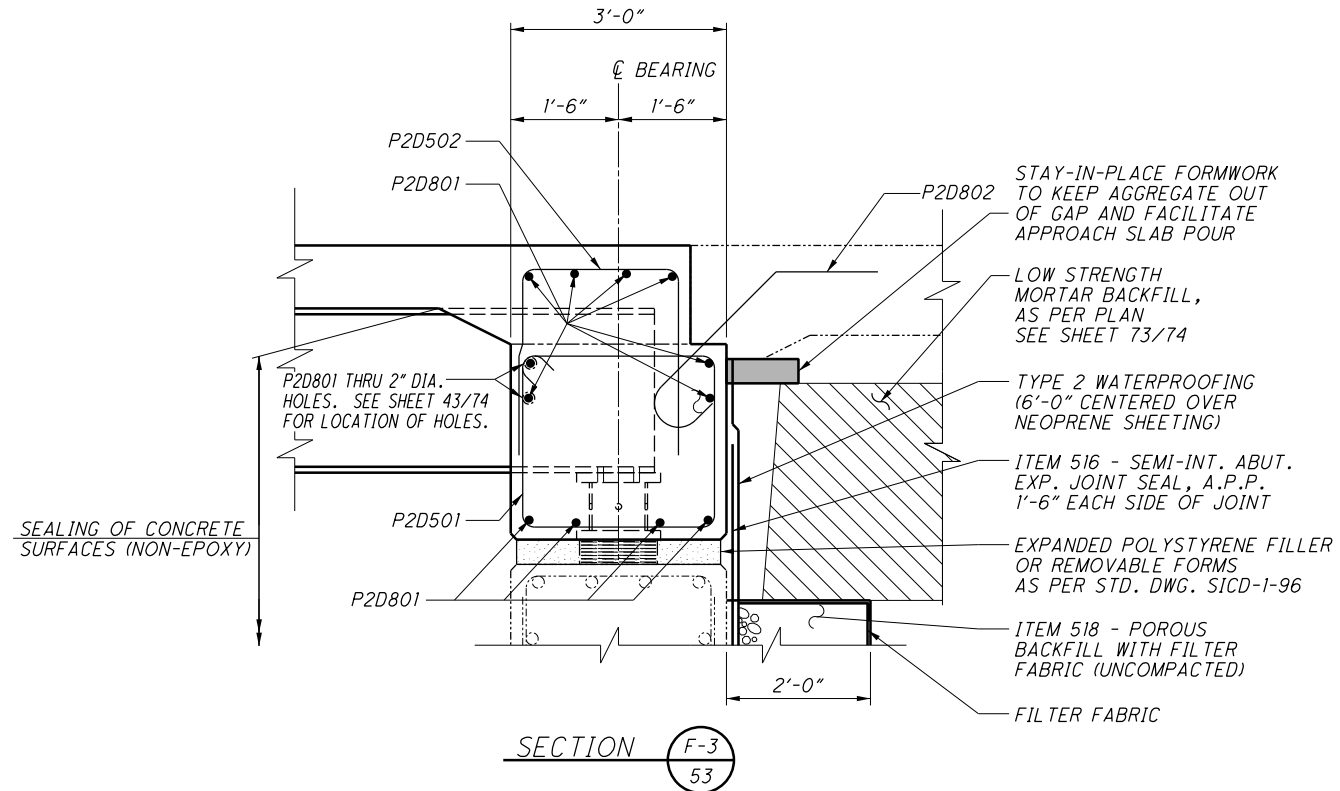
SECTION F-1
50
(FORWARD ABUTMENT DIAPHRAGM DETAIL)

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	DATE 12/4/2020	REVIEWED CPS	DRAWN CPS	DESIGNED CPS
	STRUCTURE FILE NUMBER 6002978	REVISOR CPS	CHECKED TAG	TAG
PROPOSED REAR AND FWD. ABUTMENT DIAPHRAGM DETAILS (PHASE I)				
BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.				
MUS-70-10-49	PID No. 93006			
51 / 74				
1883 2231				

I:\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002978\Sheets\070_1212_SS005.dgn Phase 2 Rear and Fwd. Abut. Section Details 3/24/2021 3:16:31PM cshonk



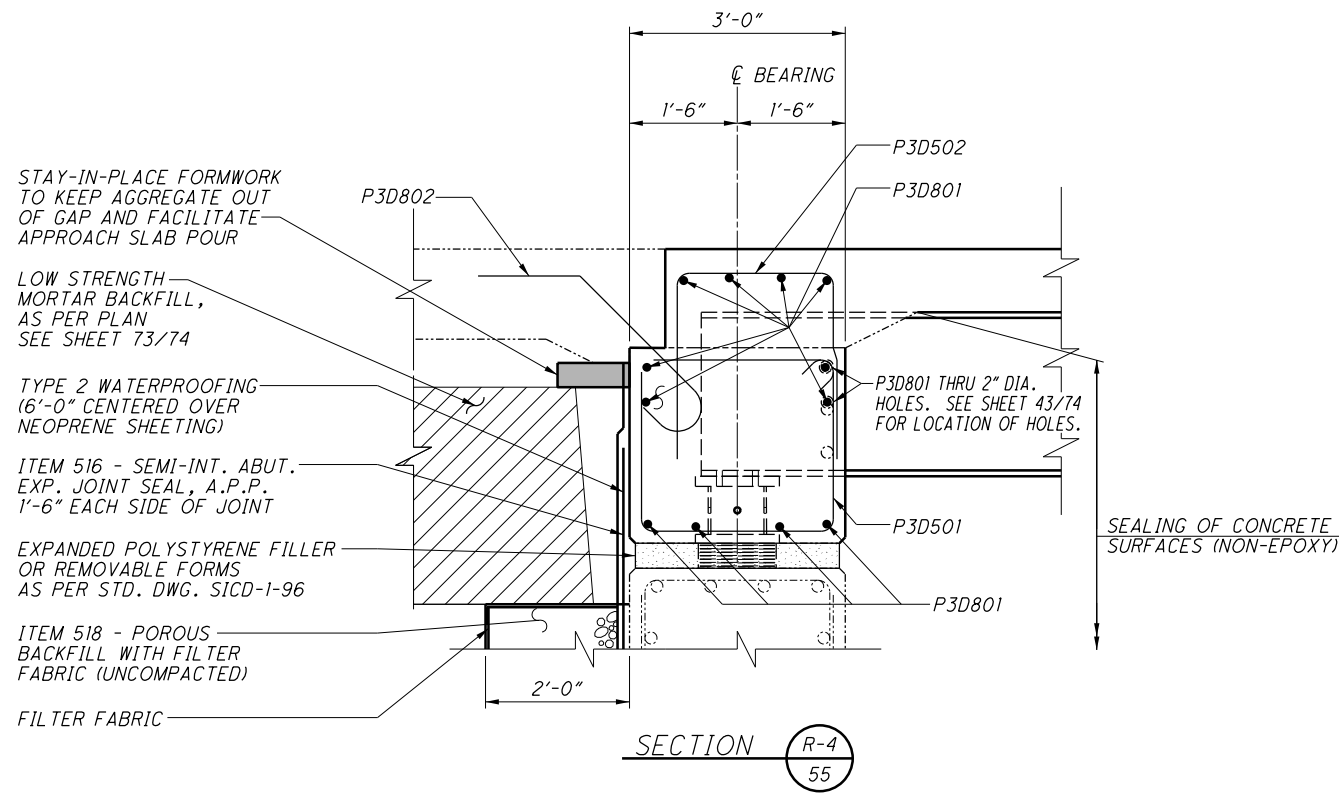
SECTION R-3
52
(REAR ABUTMENT DIAPHRAGM DETAIL)



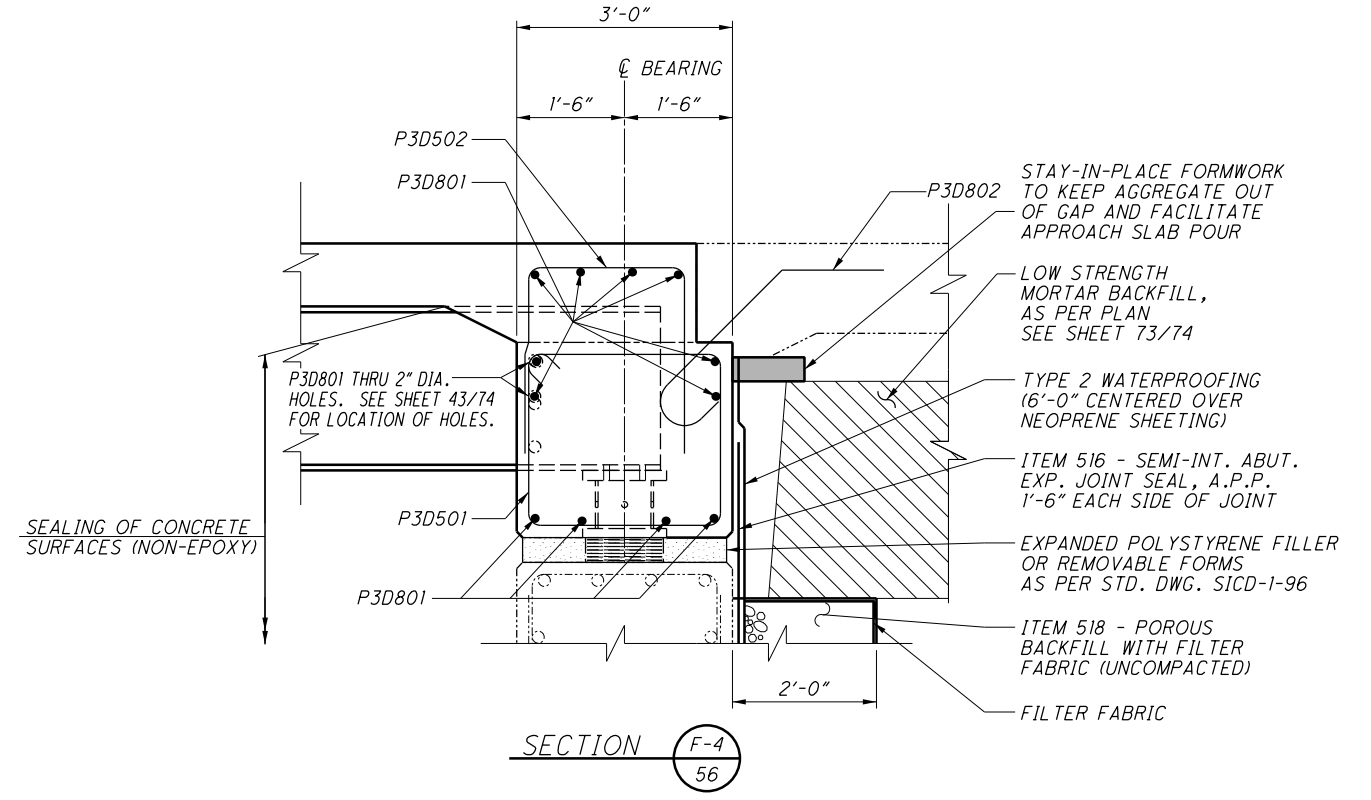
SECTION F-3
53
(FORWARD ABUTMENT DIAPHRAGM DETAIL)

DESIGNED CPS	CHECKED TAG	DRAWN CPS	REVIEWED CPS	DATE 12/4/2020	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
		REVIS	FILE NUMBER 6002978	STRUCTURE FILE NUMBER 6002978	
PROPOSED REAR AND FWD. ABUTMENT DIAPHRAGM DETAILS (PHASE 2)					
BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.					
MUS-70-10.49 PID No. 93006					
54/74					
1886 2231					

I:\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002978\Sheets\070_1212_SS005.dgn Phase 3 Rear and Fwd. Abut. Section Details 3/24/2021 3:19:59 PM cshonk



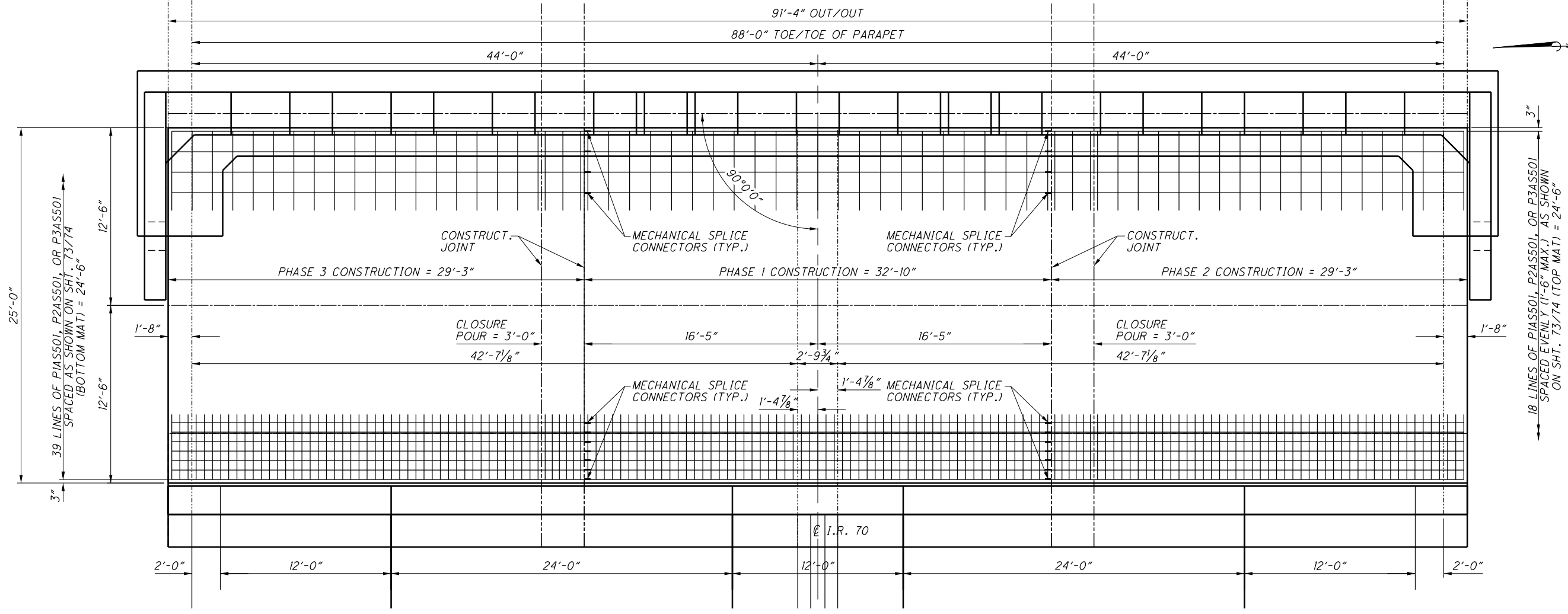
(REAR ABUTMENT DIAPHRAGM DETAIL)



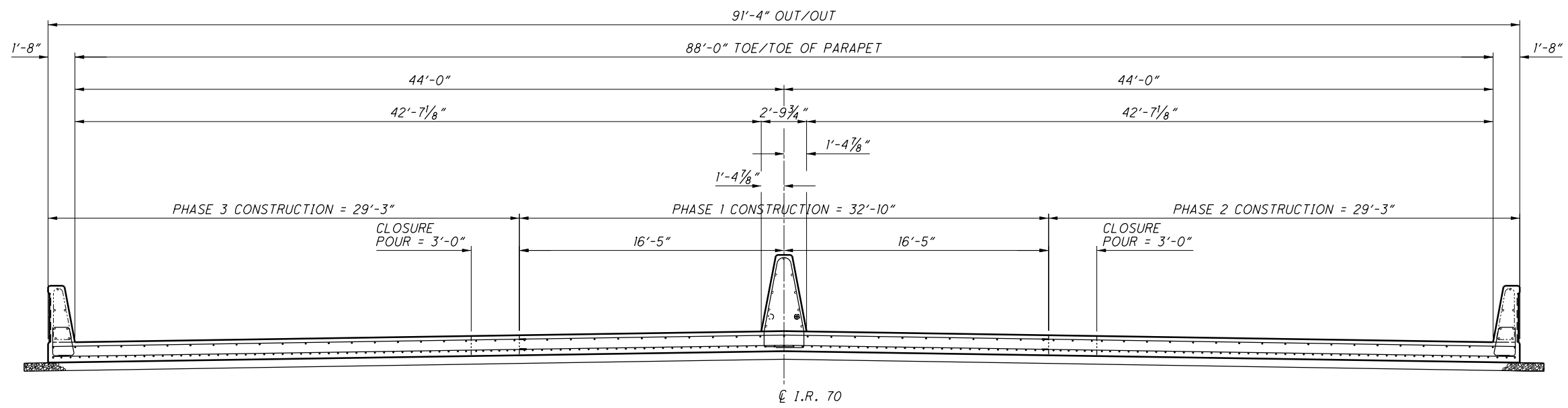
(FORWARD ABUTMENT DIAPHRAGM DETAIL)

DESIGNED CPS	CHECKED TAG	DESIGN AGENCY	DATE 12/4/2020	STRUCTURE FILE NUMBER 6002978
		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5		
DRAIN CPS	REVISED	PROPOSED REAR AND FWD. ABUTMENT DIAPHRAGM DETAILS (PHASE 3)		
BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.				
MUS-70-10.49 PID No. 93006				
57/74				
1889 2231				

I:\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002978\Sheets\070_1212C_SM001.dgn Approach Slab Detail (Main) 3/22/2021 4:26:45 PM cshonk



PROPOSED APPROACH SLABS (PLAN VIEW)



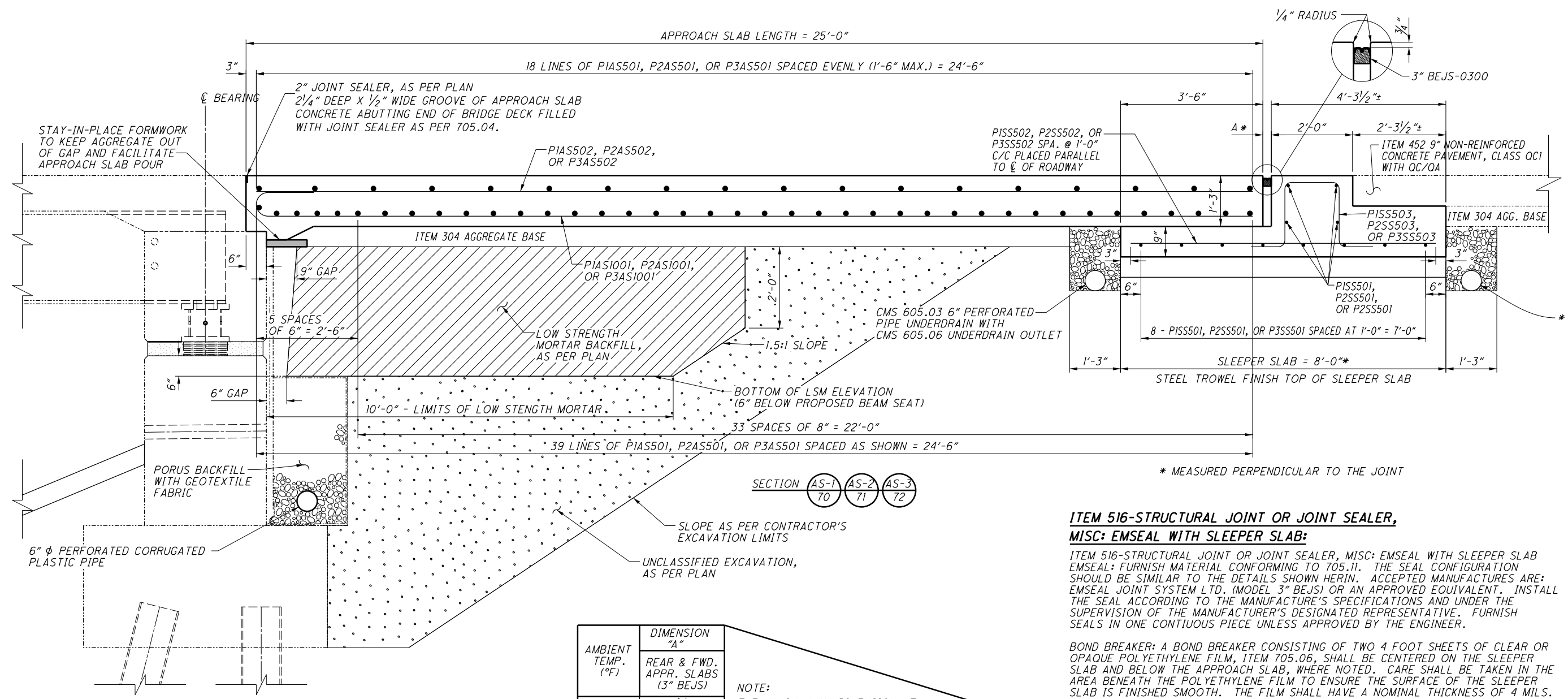
PROPOSED APPROACH SLABS (TYPICAL)

REAR APPROACH SLAB: STA. 615+42.95 TO STA. 615+67.95 = 25.00'
FORWARD APPROACH SLAB: STA. 617+29.20 TO STA. 617+54.20 = 25.00'
50.00'



DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
REVIEWED CPS	DATE 12/4/2020
DRAWN CPS	STRUCTURE FILE NUMBER 6002978
DESIGNED CPS	CHECKED TAG
PROPOSED APPROACH SLAB DETAILS BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.	
MUS-70-10.49 PID No. 93006	
69 / 74	

I:\ProjectData\MUS-93006\400-Engineering\Structures\070-122C-SM001.dgn Approach Slab Section Details 3/24/2021 3:21:53 PM cshonk



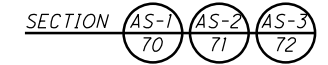
* MEASURED PERPENDICULAR TO THE JOINT

ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB:

ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB EMSEAL: FURNISH MATERIAL CONFORMING TO 705.11. THE SEAL CONFIGURATION SHOULD BE SIMILAR TO THE DETAILS SHOWN HERIN. ACCEPTED MANUFACTURES ARE: EMSEAL JOINT SYSTEM LTD. (MODEL 3" BEJS) OR AN APPROVED EQUIVALENT. INSTALL THE SEAL ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURER'S DESIGNATED REPRESENTATIVE. FURNISH SEALS IN ONE CONTINUOUS PIECE UNLESS APPROVED BY THE ENGINEER.

BOND BREAKER: A BOND BREAKER CONSISTING OF TWO 4 FOOT SHEETS OF CLEAR OR OPAQUE POLYETHYLENE FILM, ITEM 705.06, SHALL BE CENTERED ON THE SLEEPER SLAB AND BELOW THE APPROACH SLAB, WHERE NOTED. CARE SHALL BE TAKEN IN THE AREA BENEATH THE POLYETHYLENE FILM TO ENSURE THE SURFACE OF THE SLEEPER SLAB IS FINISHED SMOOTH. THE FILM SHALL HAVE A NOMINAL THICKNESS OF 4 MILS.

PAYMENT: MEASUREMENT OF THE EXPANSION JOINT FOR PAYMENT PURPOSES SHALL BE ALONG THE CENTERLINE OF THE SLEEPER SLAB AND BETWEEN THE BACKS OF CURB. PAYMENT SHALL BE PER FOOT OF ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB AND SHALL INCLUDE 3" BEJS SEAL AS PROVIDED BY EMSEAL JOINT SYSTEM LTD. AT 25 BRIDLE LANE, WESTBOROUGH, MA 01581 (800) 526-8365 OR AN APPROVED EQUAL, CONCRETE SLEEPER SLAB, RESTEEL, PIPE UNDERDRAINS AND OUTLETS AND ALL LABOR, MATERIALS AND INCIDENTALS NEEDED TO CONSTRUCT THE JOINT AS SHOWN, INCLUDING THE PIPE UNDERDRAINS. THE UNDERDRAINS SHALL BE INSTALLED AS PER CMS 605.03 - 6" PIPE UNDERDRAIN (707.31) AND WILL INCLUDE THE NECESSARY GRANULAR MATERIAL.



AMBIENT TEMP. (°F)	DIMENSION "A"	
	REAR & FWD. APPR. SLABS (3" BEJS)	
90°	2 1/16"	
80°	2 1/8"	
70°	2 1/4"	
60°	2 3/8"	
50°	2 1/2"	
40°	2 9/16"	

NOTE: THE MAXIMUM "A" DIMENSION AT TIME OF INSTALLATION IS 2.5"

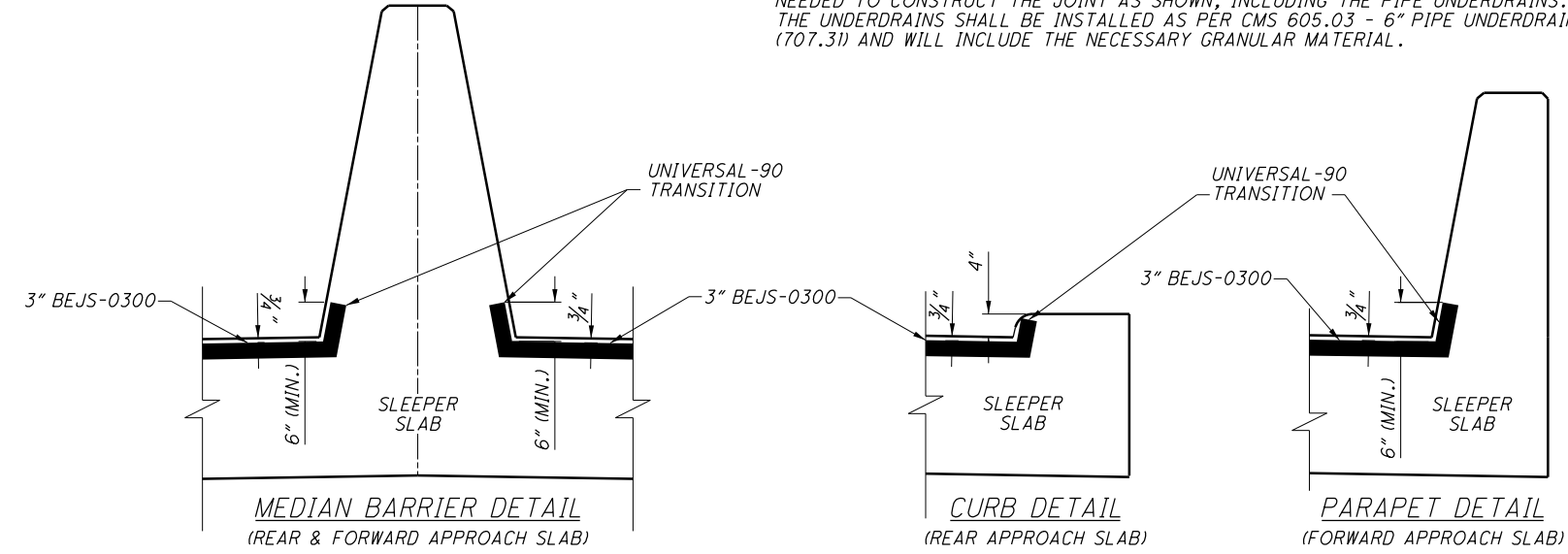
NOTE: TYPE "A" WATERPROOFING SHALL NOT EXTEND ABOVE THE BOTTOM OF THE CUT GROOVE IN WHICH THE HOT APPLIED JOINT SEALER IS TO BE PLACED. IT SHALL BE APPLIED TO THE ENTIRE AREA OF THE ABUTMENT OR SUPERSTRUCTURE WHICH COMES INTO CONTACT WITH THE APPROACH SLAB.

NOTE: FOR ADDITIONAL DETAILS SEE STANDARD DRAWING AS-1-15 & AS-2-15.
NOTE: FOR APPROACH SLAB FINISH ELEVATIONS, SEE SHEET 61/74.

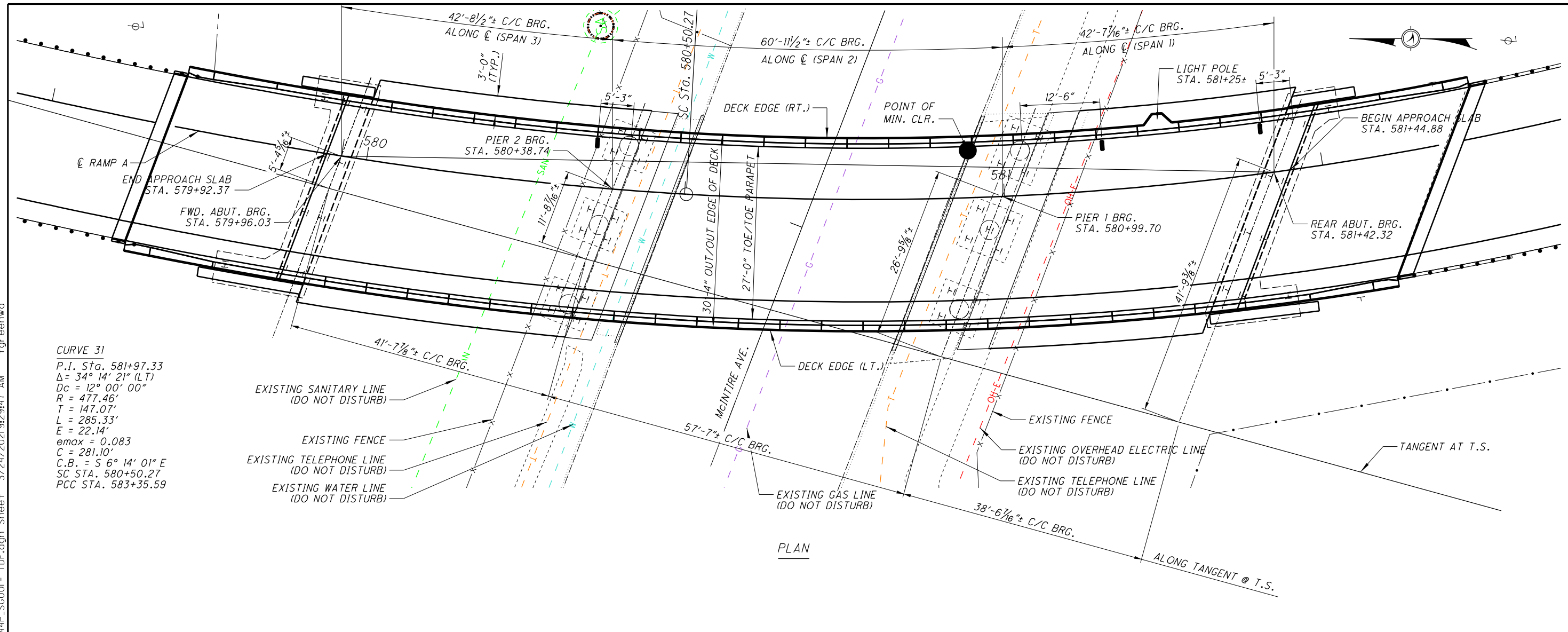
ITEM	DESCRIPTION	QUANT'Y	UNIT
204	** SUBGRADE COMPACTION	367	SQ. YD.
304	** AGGREGATE BASE	82	CU. YD.
516	* STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB	184	FT.
526	* REINFORCED CONCRETE APPROACH SLABS WITH OC/OA (T=15"), AS PER PLAN	509	SQ. YD.

CARRIED TO (*) BRIDGE SUMMARY or (**) SHEET 5/74

NOTE: ALL QUANTITIES SHOWN ARE FOR REAR AND FORWARD APPROACH SLABS.

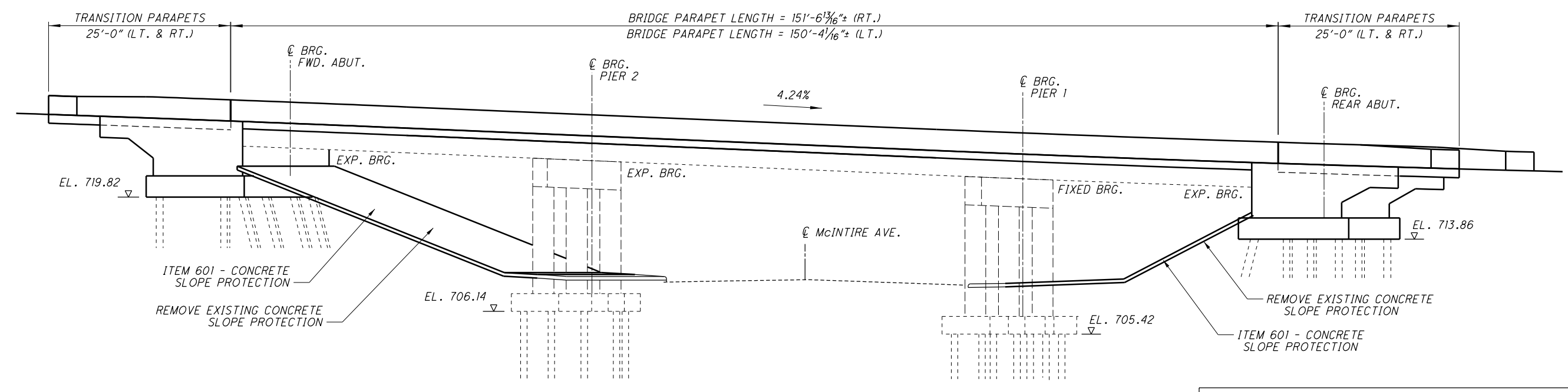


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CURVE 31
 P.I. Sta. 581+97.33
 $\Delta = 34^\circ 14' 21''$ (LT)
 $D_c = 12^\circ 00' 00''$
 $R = 477.46'$
 $T = 147.07'$
 $L = 285.33'$
 $E = 22.14'$
 $e_{max} = 0.083$
 $C = 281.10'$
 $C.B. = S 6^\circ 14' 01'' E$
 $SC STA. 580+50.27$
 $PCC STA. 583+35.59$

PLAN

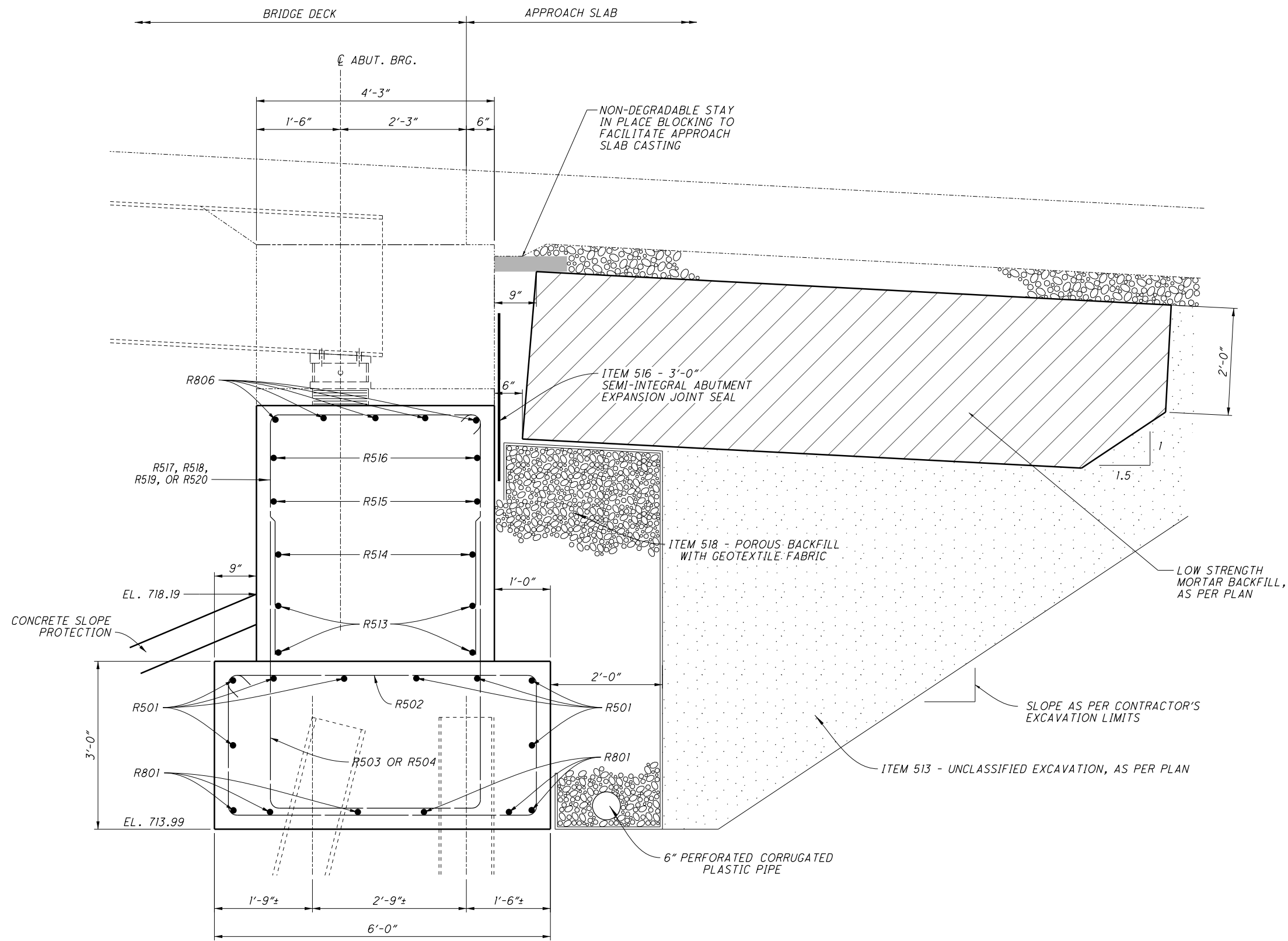


ELEVATION

NOTE THAT THE PROPOSED ROADWAY CENTERLINE STATIONING IS REVERSE FROM THAT OF THE EXISTING. AS A RESULT, THE NOMENCLATURE OF THE SUBSTRUCTURE UNITS IS OPPOSITE THAN THAT WHICH IS CONVENTIONALLY APPLIED. I.E. THE REAR ABUTMENT IS UPSTATION AND THE FORWARD ABUTMENT IS DOWNSTATION.

DESIGNED		YEL	CHECKED	TAG
DRAWN		YEL	REVISED	
REVIEWED	TAG	MM/DD/YY	STRUCTURE FILE NUMBER	6001920
DATE				
DESIGN AGENCY				
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5				
GENERAL PLAN AND ELEVATION				
BRIDGE NO. MUS-70-1144A				
RAMP 'A' OVER MCINTIRE AVE				
MUS-70-10.49				
PID No. 93006				
2 / 45				
1920				
2231				

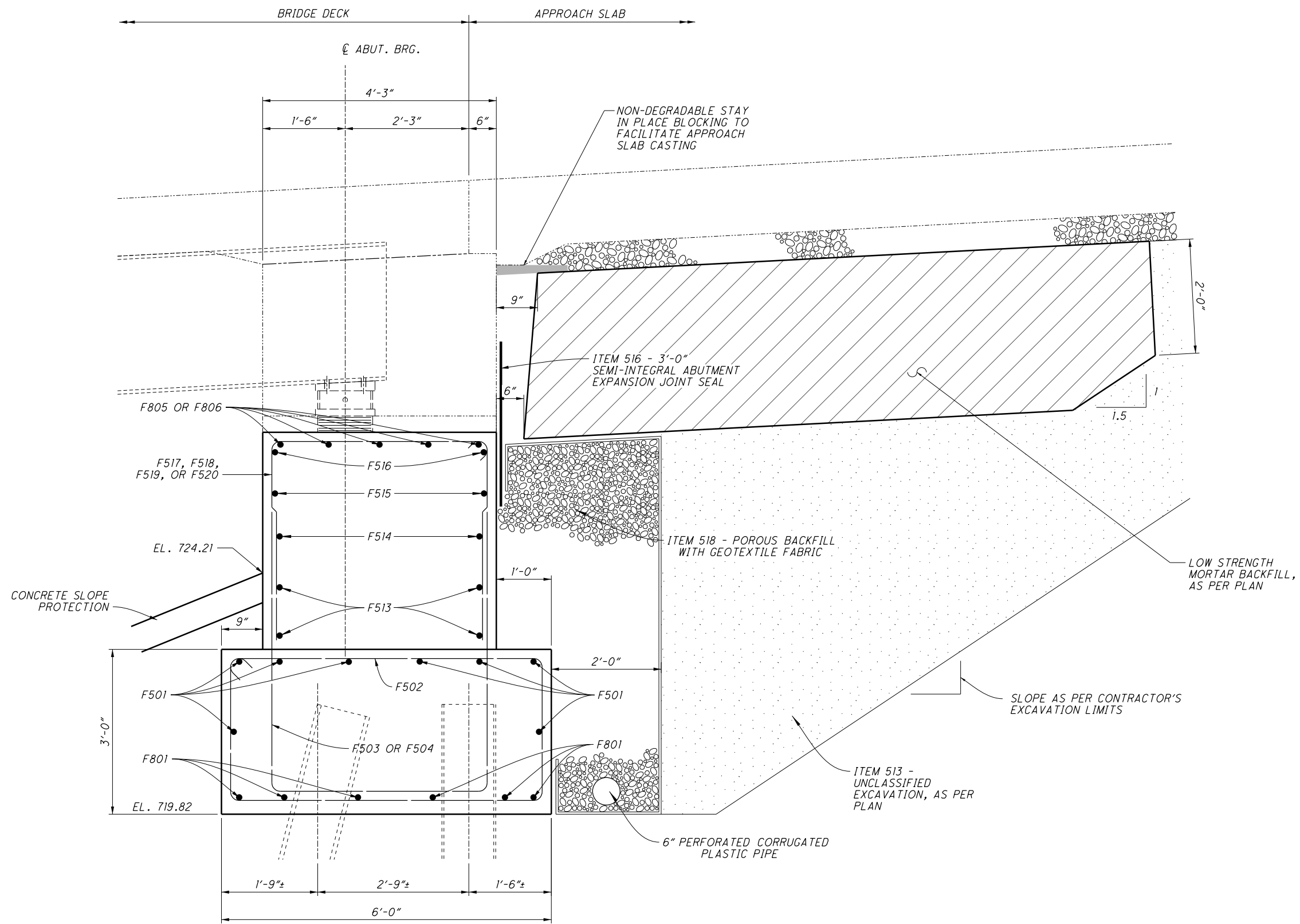
I:\ProjectData\MUS-93006\400-Engineering\Structures\070-1144P_SR004 - TDF.dgn Sheet 3/23/2021 11:45:21 AM tgreenwa



SECTIONS R1 & R2
10, 11

DESIGNED		DRAWN		REVIEWED		DATE		DESIGN AGENCY	
YEL		YEL		YEL		12/01/20		OHIO DEPARTMENT OF	
CHECKED		REVISED		TAG		STRUCTURE FILE NUMBER		TRANSPORTATION, DISTRICT 5	
CPS				6001920		6001920			
<p>PROPOSED REAR ABUTMENT DETAILS</p> <p>BRIDGE NO. MUS-70-1144A</p> <p>RAMP 'A' OVER MCINTIRE AVE.</p>									
MUS-70-10.49									
PID No. 93006									
12/45									
1930									
2231									

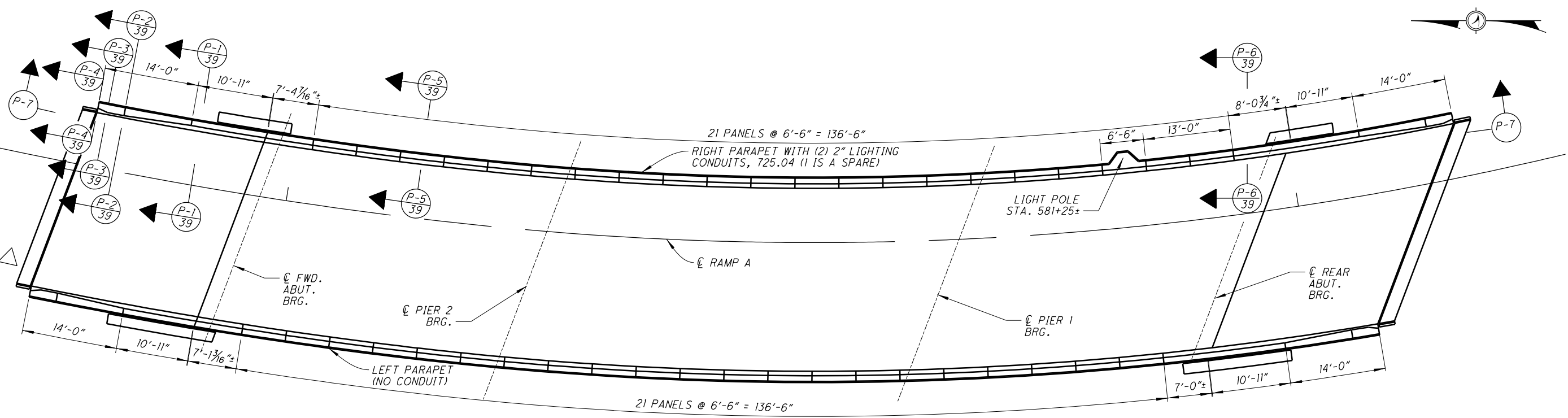
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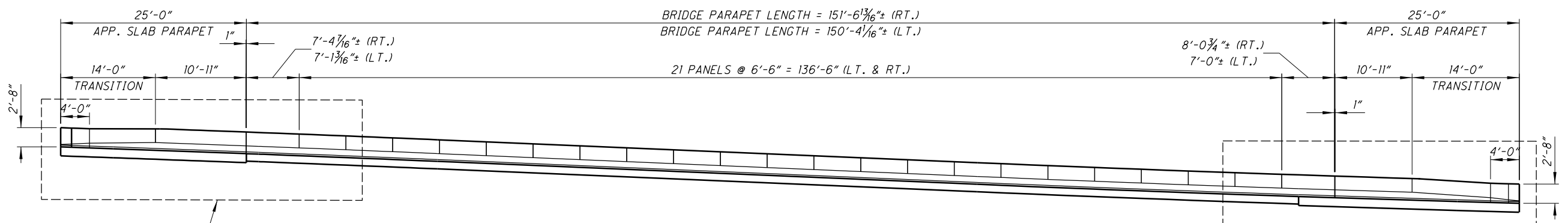
SECTIONS $\frac{F1 \& F2}{15,16}$

DESIGNED YEL		CHECKED CPS		DRAWN YEL/TDF	REVIEWED TAG	DATE 12/1/2020	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
STRUCTURE FILE NUMBER 6001920		REVISED .		STRUCTURE FILE NUMBER 6001920			
PROPOSED FORWARD ABUTMENT DETAILS				BRIDGE NO. MUS-70-1144A RAMP 'A' OVER MCINTIRE AVE.			
MUS-70-10.49		PID No. 93006					
17 / 45							
1935		2231					

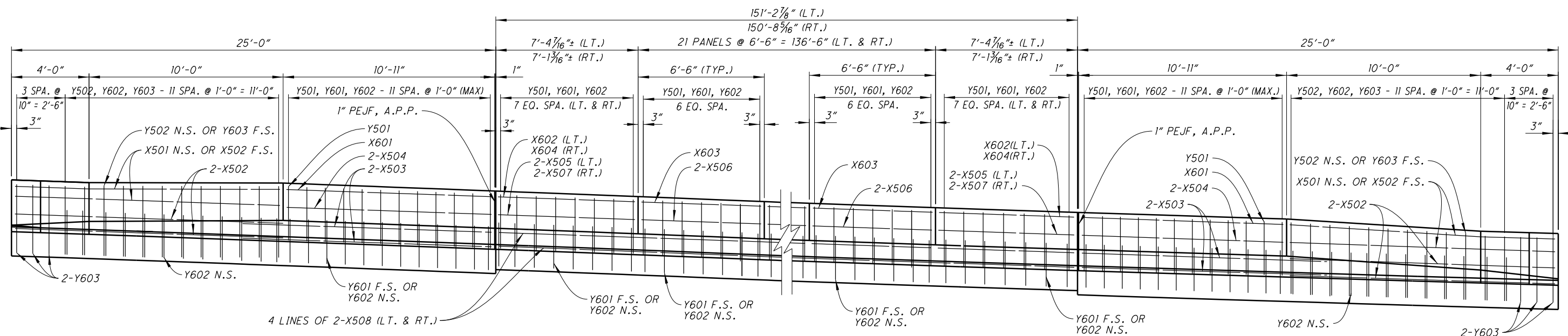
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PLAN VIEW



ELEVATION VIEW : LEFT PARAPET
RIGHT PARAPET SIMILAR

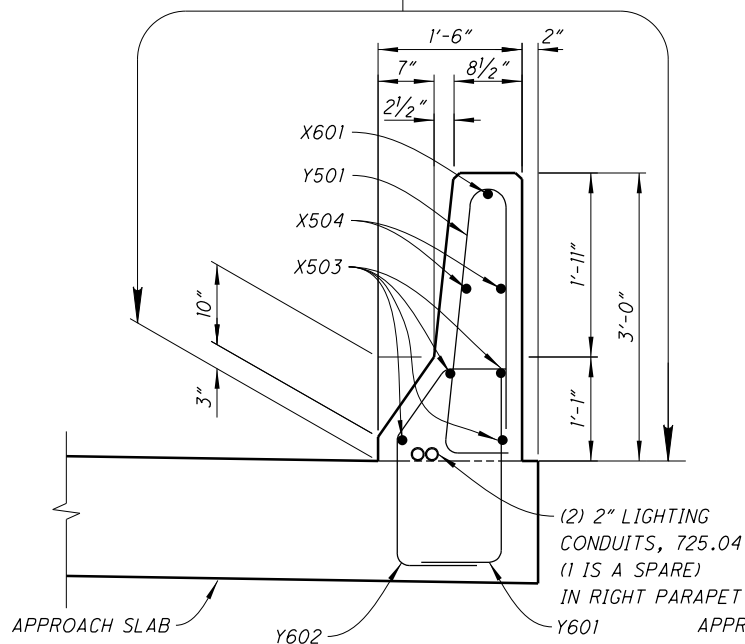


SECTION P-7

DESIGNED	YEL	CPS	DRAWN	YEL/TDF	REVIEWED	DATE	DESIGN AGENCY
CHECKED						12/1/2020	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
REVISIONS						6001920	
PARAPET DETAILS							
BRIDGE NO. MUS-70-1144A							
RAMP 'A' OVER MCINTIRE AVE.							
MUS-70-10.49							
PID No. 93006							
38 / 45							
1956							
2231							

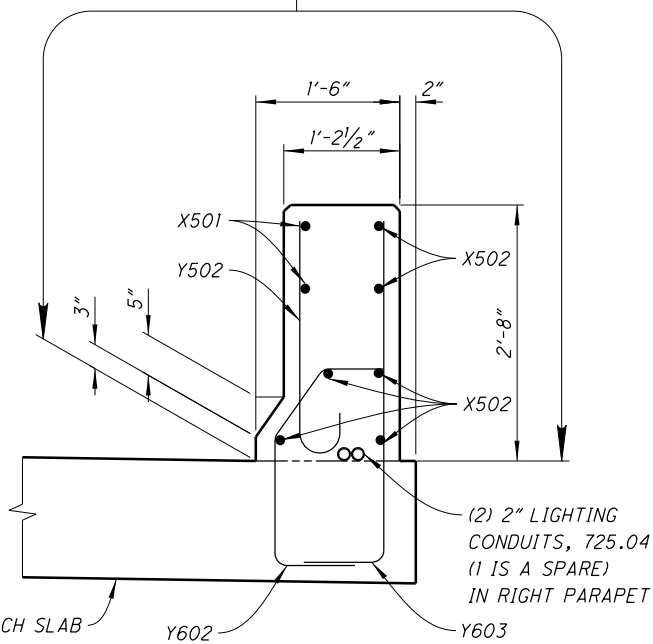
I:\ProjectData\MUS-70-10-49-Engineering\Structures\070_1144P_SA002.dgn Sheet 3/24/2021 10:56:33 AM tgreenwa

ITEM 512 SEALING OF CONCRETE SURFACES (NON-EPOXY) LIMITS



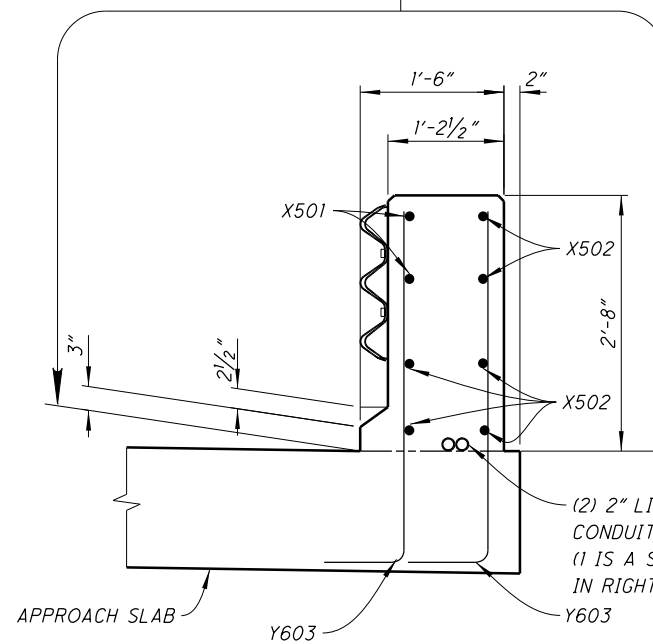
SECTION P-1
38

ITEM 512 SEALING OF CONCRETE SURFACES (NON-EPOXY) LIMITS



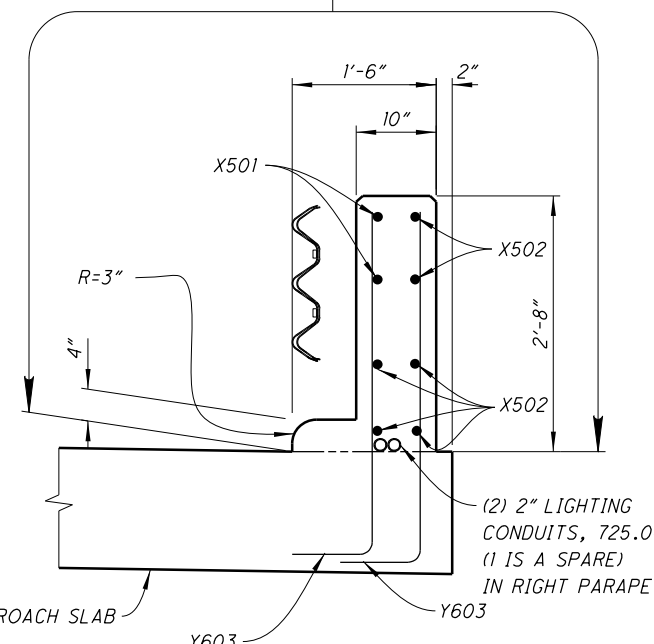
SECTION P-2
38

ITEM 512 SEALING OF CONCRETE SURFACES (NON-EPOXY) LIMITS



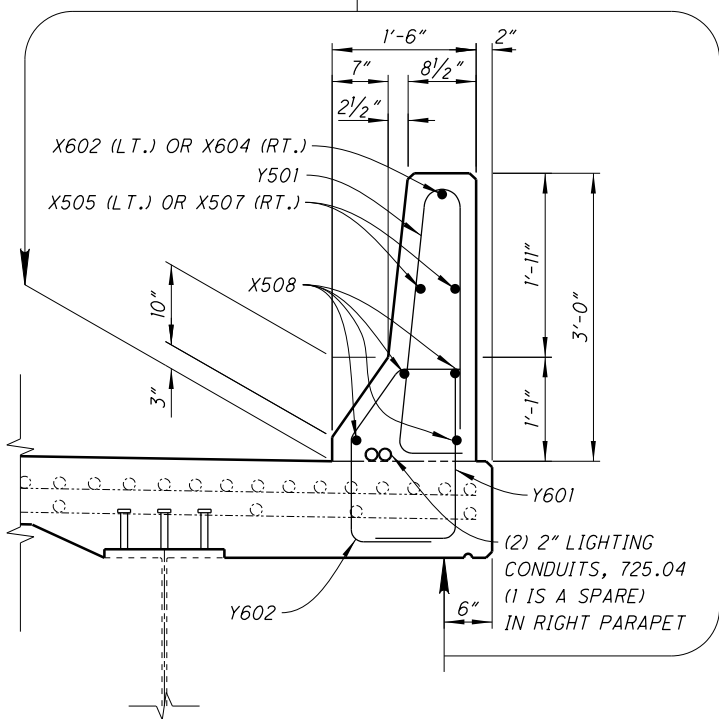
SECTION P-3
38

ITEM 512 SEALING OF CONCRETE SURFACES (NON-EPOXY) LIMITS



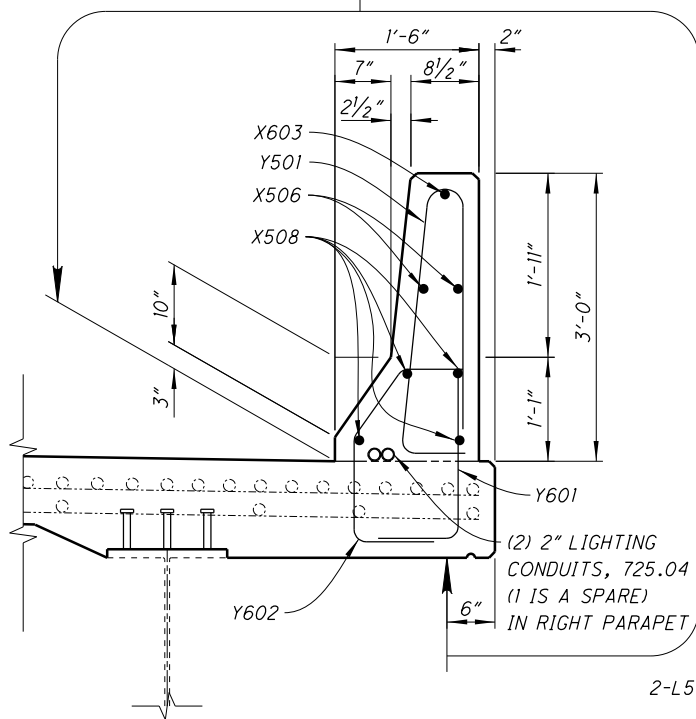
SECTION P-4
38

ITEM 512 SEALING OF CONCRETE SURFACES (NON-EPOXY) LIMITS

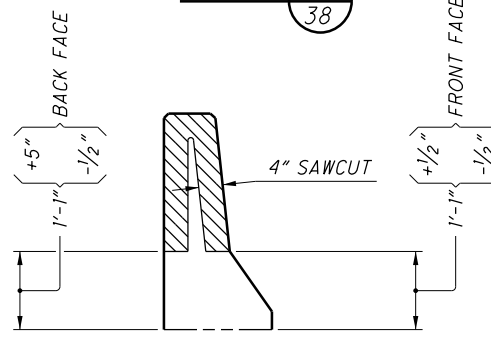


SECTION P-5
38

ITEM 512 SEALING OF CONCRETE SURFACES (NON-EPOXY) LIMITS



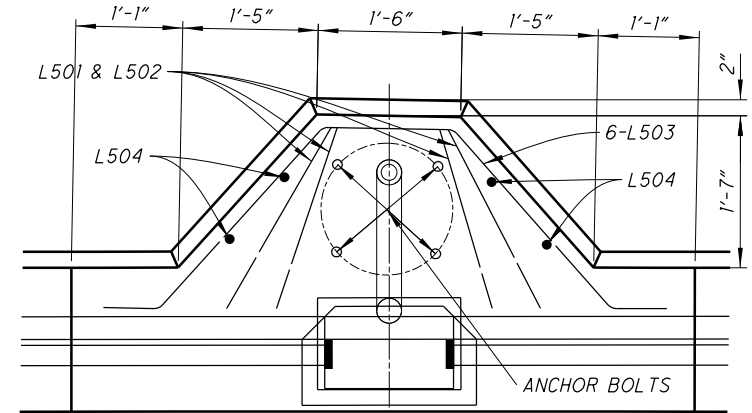
SECTION P-6
38



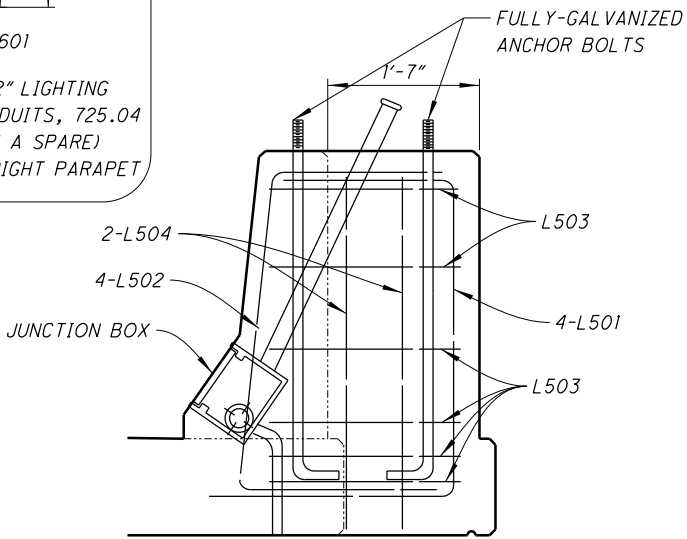
DETAIL A

SECTION THROUGH SAWCUT
SAWCUT PERIMETER = 4'-7"

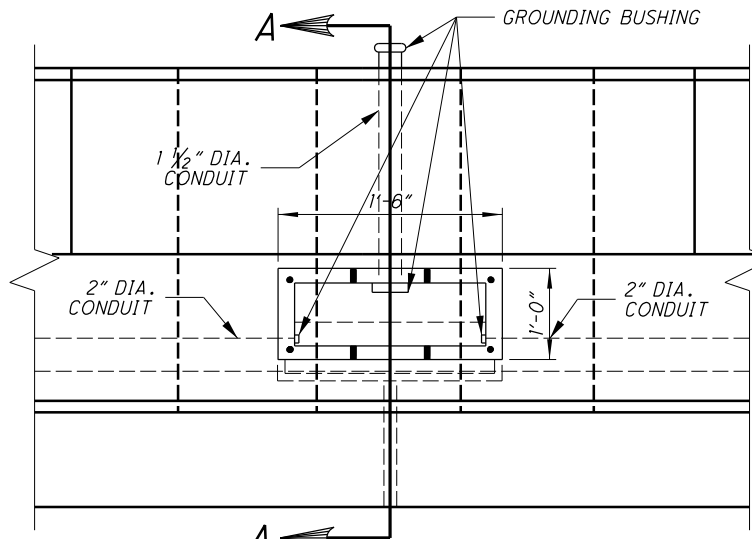
- NOTE:
- 1-ALL REINFORCING STEEL TO BE EPOXY COATED.
 - 2-FIELD BEND BARS WHERE NECESSARY
 - 3-FOR ADDITIONAL DETAILS SEE STD. DWG. BR-1-13



PILASTER JOINT PLAN



SECTION A-A



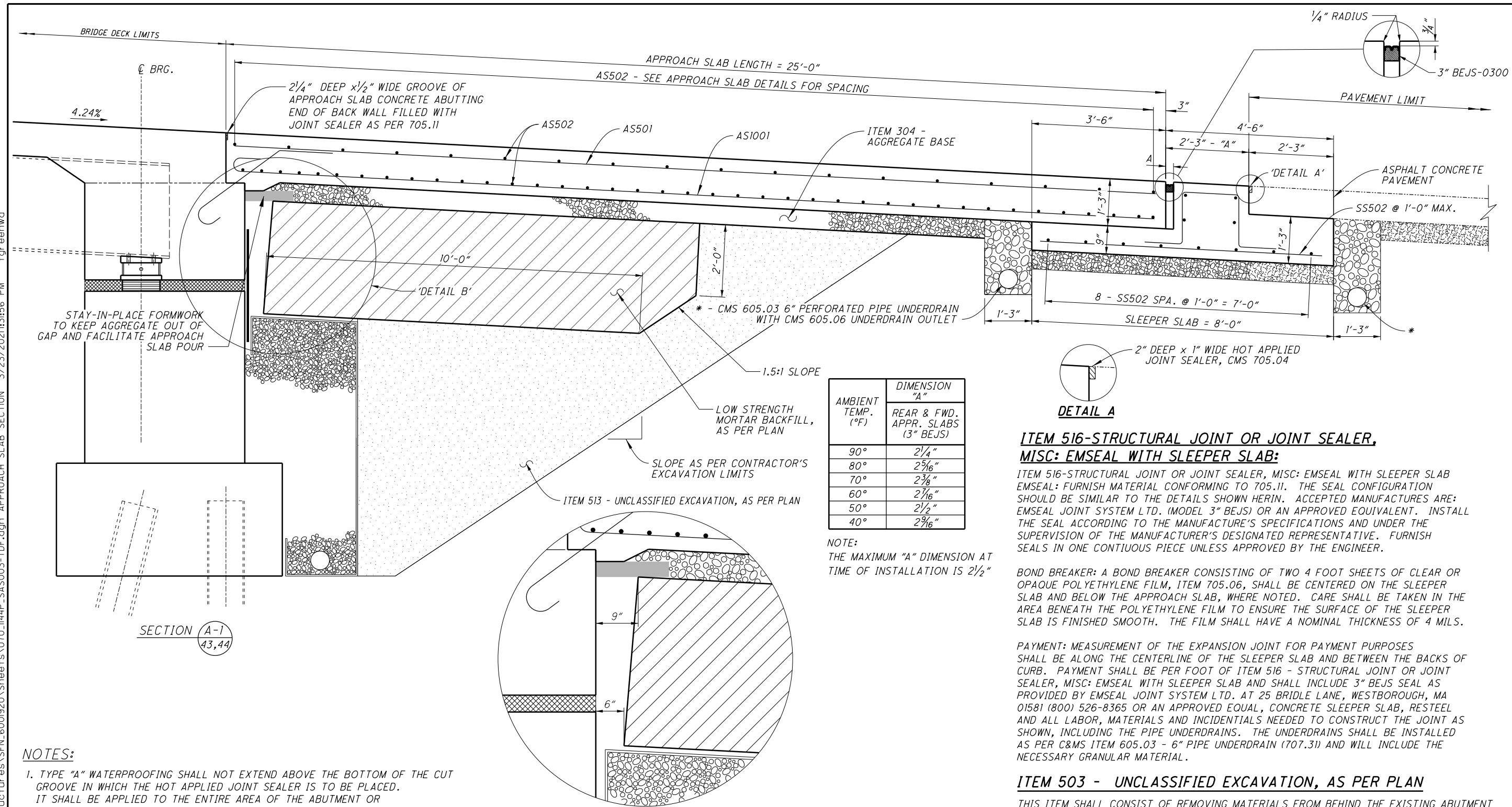
ELEVATION

LEGEND
* ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY) = CLEAR COATING.

PARAPET LAP LENGTH	
No. 5	= 2'-5"
No. 6	= 2'-11"

I:\ProjectData\MUS_93006\400-Engineering\Structures\070_1144P_SAS003-TDF.dgn APPROACH SLAB SECTION 3/23/2021 11:31:56 PM tgreenwa

DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
 DATE: 12/1/2020
 TAG: 6001920
 STRUCTURE FILE NUMBER: 6001920
 DRAWN: YEL/TDF
 CHECKED: CPS
 REAR AND FORWARD APPROACH SLAB DETAILS
 BRIDGE NO. MUS-70-1144A
 RAMP 'A' OVER-MCINTIRE AVE.
 MUS-70-10-49
 PID No. 93006
 45/45
 1963
 2231



AMBIENT TEMP. (°F)	DIMENSION "A"
	REAR & FWD. APPR. SLABS (3" BEJS)
90°	2 1/4"
80°	2 5/16"
70°	2 3/8"
60°	2 1/16"
50°	2 1/2"
40°	2 9/16"

NOTE: THE MAXIMUM "A" DIMENSION AT TIME OF INSTALLATION IS 2 1/2"

ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB:

ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB EMSEAL: FURNISH MATERIAL CONFORMING TO 705.11. THE SEAL CONFIGURATION SHOULD BE SIMILAR TO THE DETAILS SHOWN HERIN. ACCEPTED MANUFACTURES ARE: EMSEAL JOINT SYSTEM LTD. (MODEL 3" BEJS) OR AN APPROVED EQUIVALENT. INSTALL THE SEAL ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURER'S DESIGNATED REPRESENTATIVE. FURNISH SEALS IN ONE CONTINUOUS PIECE UNLESS APPROVED BY THE ENGINEER.

BOND BREAKER: A BOND BREAKER CONSISTING OF TWO 4 FOOT SHEETS OF CLEAR OR OPAQUE POLYETHYLENE FILM, ITEM 705.06, SHALL BE CENTERED ON THE SLEEPER SLAB AND BELOW THE APPROACH SLAB, WHERE NOTED. CARE SHALL BE TAKEN IN THE AREA BENEATH THE POLYETHYLENE FILM TO ENSURE THE SURFACE OF THE SLEEPER SLAB IS FINISHED SMOOTH. THE FILM SHALL HAVE A NOMINAL THICKNESS OF 4 MILS.

PAYMENT: MEASUREMENT OF THE EXPANSION JOINT FOR PAYMENT PURPOSES SHALL BE ALONG THE CENTERLINE OF THE SLEEPER SLAB AND BETWEEN THE BACKS OF CURB. PAYMENT SHALL BE PER FOOT OF ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB AND SHALL INCLUDE 3" BEJS SEAL AS PROVIDED BY EMSEAL JOINT SYSTEM LTD. AT 25 BRIDLE LANE, WESTBOROUGH, MA 01581 (800) 526-8365 OR AN APPROVED EQUAL, CONCRETE SLEEPER SLAB, RESTEEL AND ALL LABOR, MATERIALS AND INCIDENTALS NEEDED TO CONSTRUCT THE JOINT AS SHOWN, INCLUDING THE PIPE UNDERDRAINS. THE UNDERDRAINS SHALL BE INSTALLED AS PER C&MS ITEM 605.03 - 6" PIPE UNDERDRAIN (707.31) AND WILL INCLUDE THE NECESSARY GRANULAR MATERIAL.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING ABUTMENT IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ADDITIONAL WORK PROPOSED HEREIN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE EXISTING WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP PIER FOOTING AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

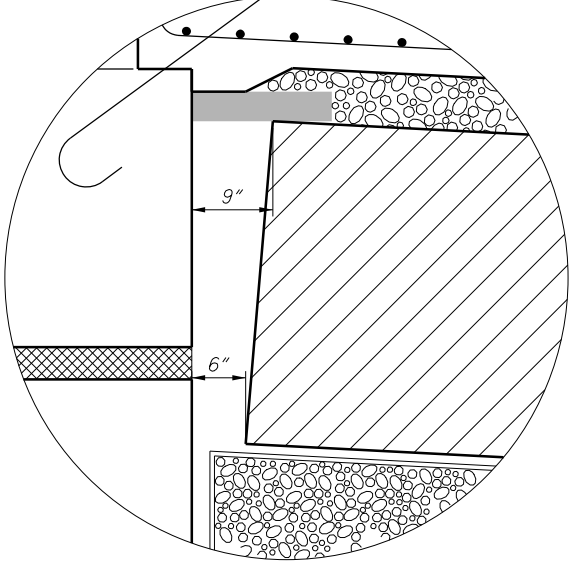
THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PREFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPERATELY ITEMIZED IN THE PLANS.

SECTION A-1
43,44

NOTES:

- TYPE "A" WATERPROOFING SHALL NOT EXTEND ABOVE THE BOTTOM OF THE CUT GROOVE IN WHICH THE HOT APPLIED JOINT SEALER IS TO BE PLACED. IT SHALL BE APPLIED TO THE ENTIRE AREA OF THE ABUTMENT OR SUPERSTRUCTURE WHICH COMES INTO CONTACT WITH THE APPROACH SLAB.
- FOR ADDITIONAL DETAILS SEE STANDARD DRAWING AS-I-15



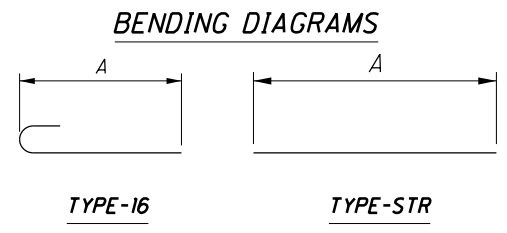
DETAIL B

NOTES

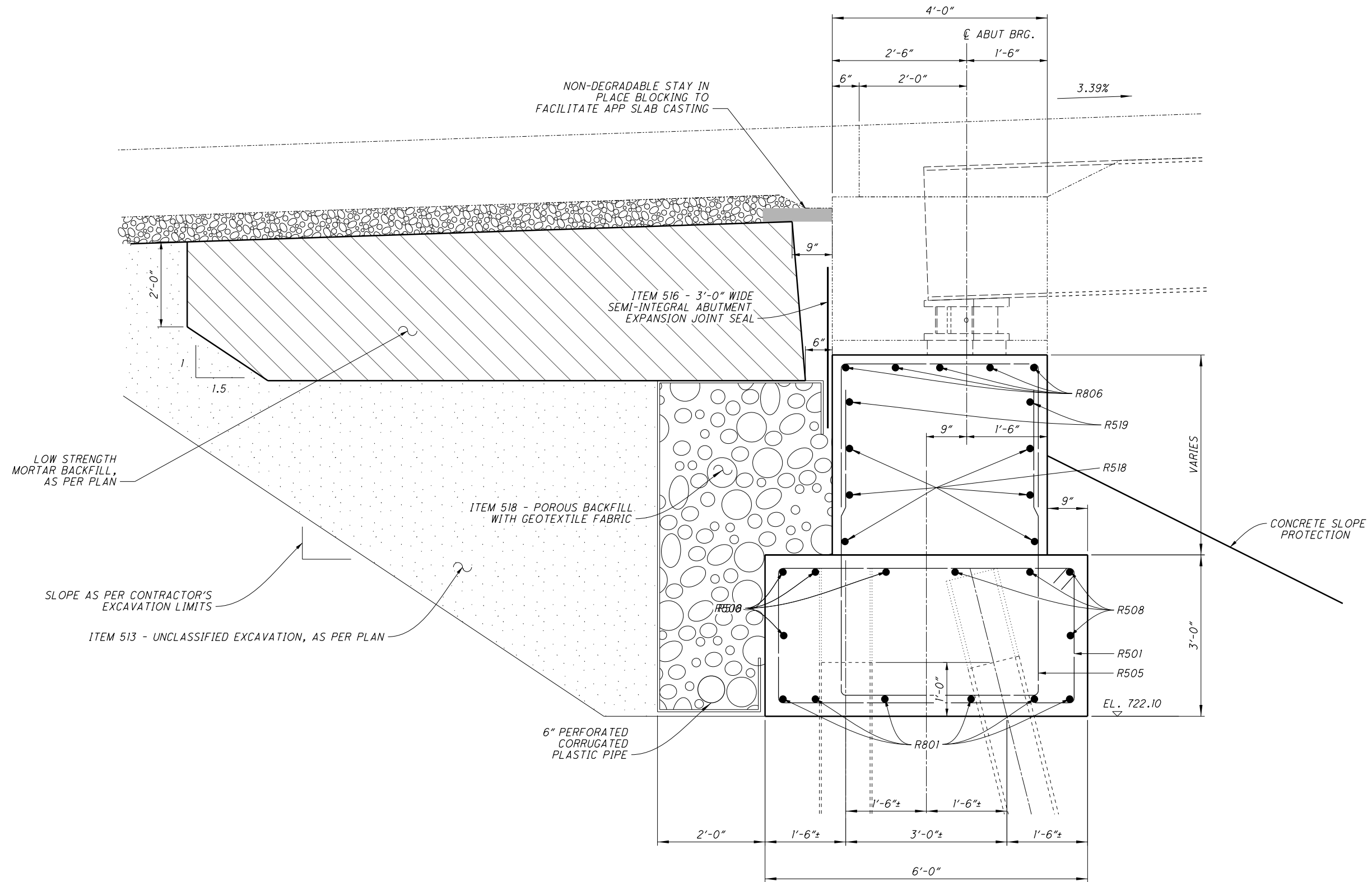
- ONCE CONSTRUCTED, ANY FORMWORK OR SOIL MUST BE REMOVED FROM THE 6" GAP BETWEEN THE DIAPHRAGM AND LOW STRENGTH MORTAR MASS.

MARK	REAR	FORWARD	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS		
							A	B	INC
AS501	21	21	42	24'-6"	1073	STR.	24'-6"		
AS502	57	57	114	33'-9"	4013	STR.	33'-9"		
AS1001	52	52	104	26'-1"	11673	16	24'-6"		
SUB-TOTAL					16759				

RE-STEEL TO BE INCLUDED FOR PAYMENT IN ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN



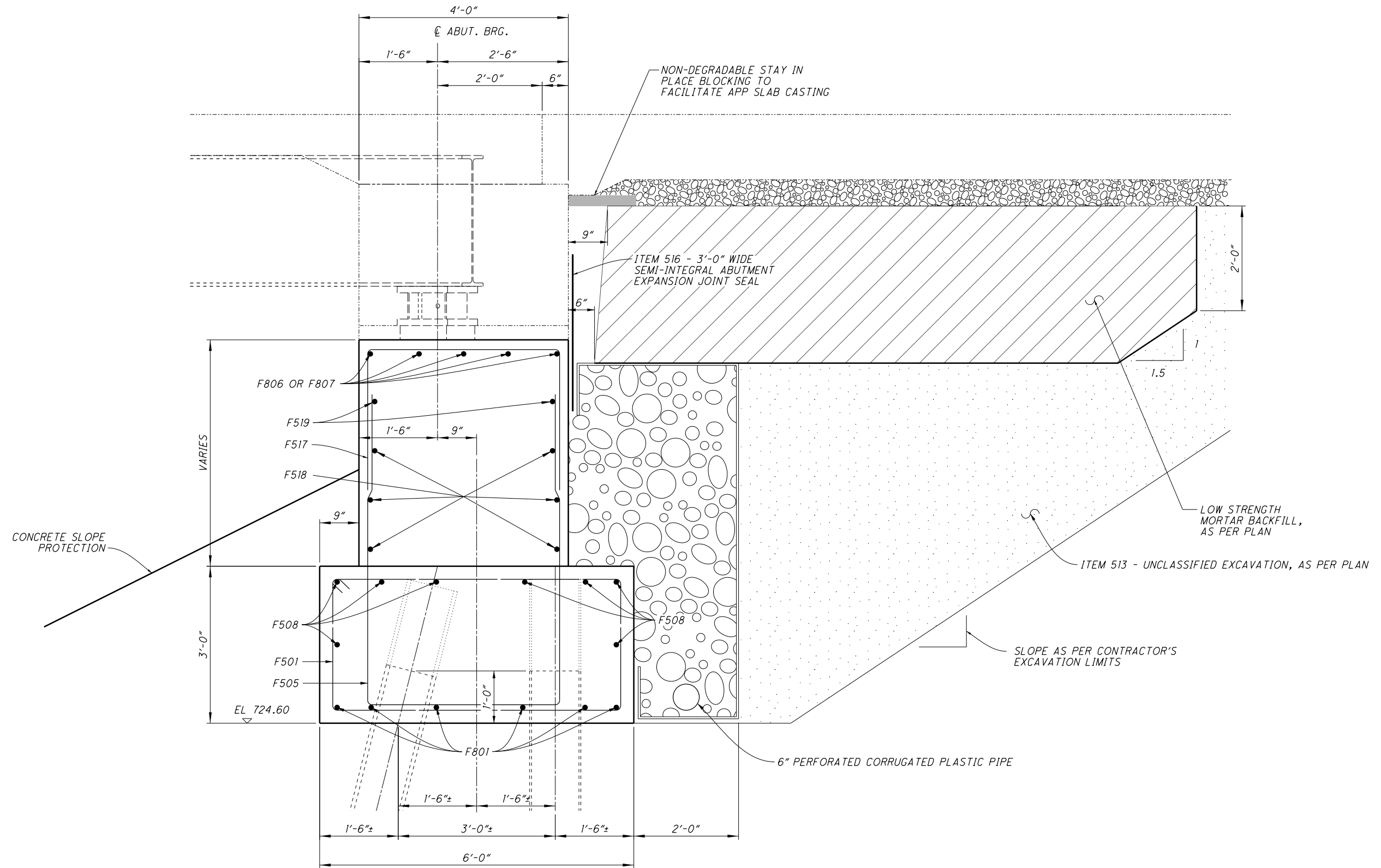
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SECTION (R-1)
10,11

DESIGNED		CHECKED		TAG	
DRAWN		YEL		REVISED	
REVIEWED	DATE	TAG	11/27/2020	STRUCTURE FILE NUMBER	600890
DESIGN AGENCY					
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5					
PROPOSED REAR ABUTMENT DETAILS					
BRIDGE NO.: MUS-70-1142E					
RAMP 'E' OVER MCINTIRE AVE.					
MUS-70-10.49					
PID No. 93006					
12 / 44					
19.75					
2231					

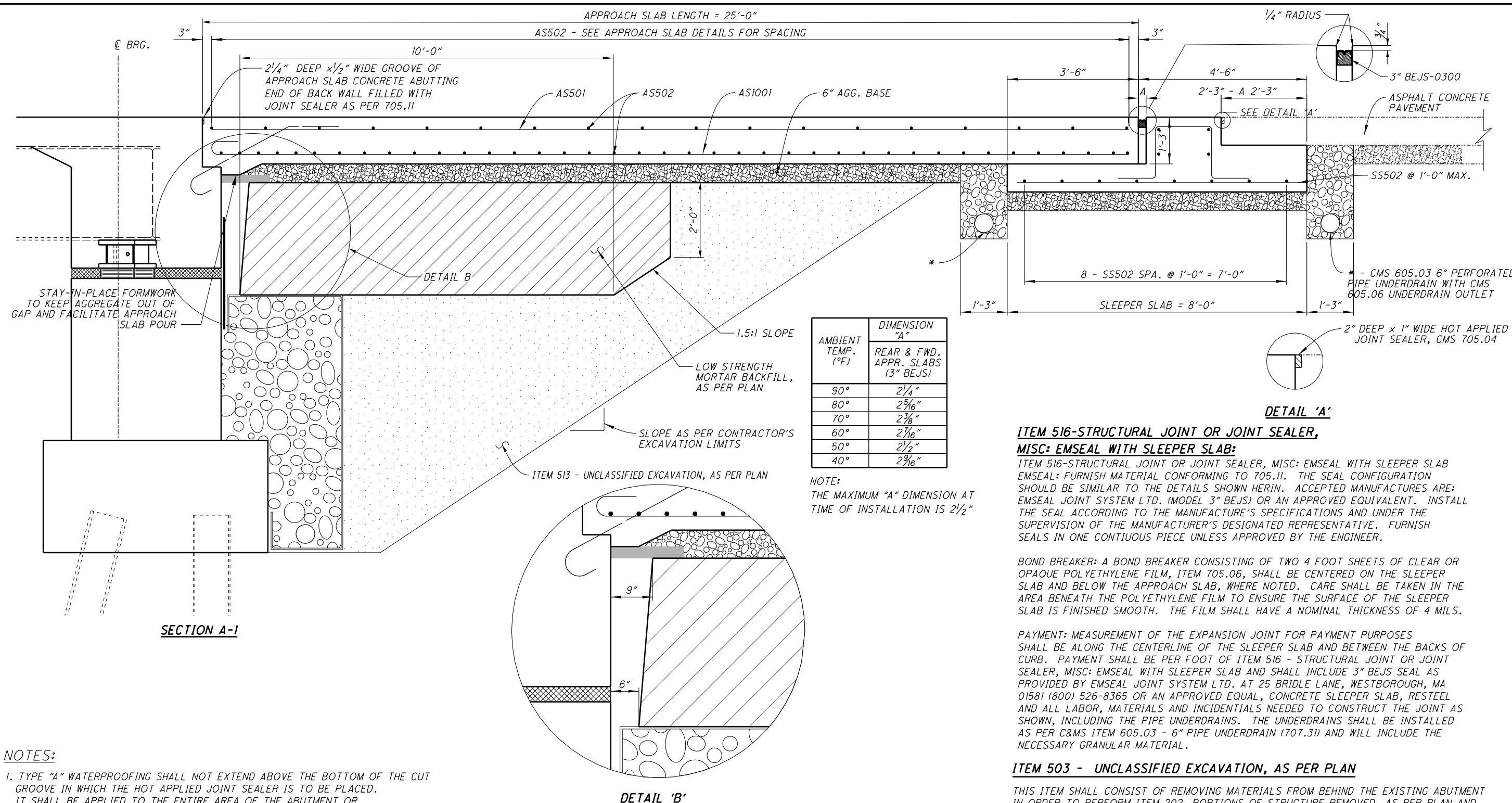
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SECTION (F-1)
15,16

DESIGNED YEL		DRAWN YEL		REVIEWED TAG	DATE 11/27/2020	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
CHECKED TAG		REVISED		STRUCTURE FILE NUMBER 600890		
MUS-70-10.49 BRIDGE NO.: MUS-70-1142E RAMP 'E' OVER MCINTIRE AVE.				PROPOSED FORWARD ABUTMENT DETAILS		
PID No. 93006				17 / 44		
1980 2231						

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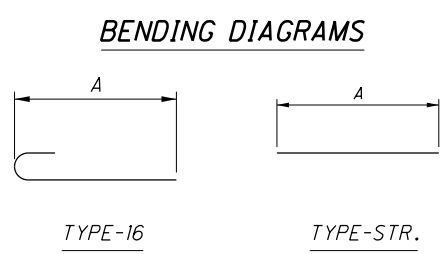


- NOTES:**
- TYPE "A" WATERPROOFING SHALL NOT EXTEND ABOVE THE BOTTOM OF THE CUT GROOVE IN WHICH THE HOT APPLIED JOINT SEALER IS TO BE PLACED. IT SHALL BE APPLIED TO THE ENTIRE AREA OF THE ABUTMENT OR SUPERSTRUCTURE WHICH COMES INTO CONTACT WITH THE APPROACH SLAB.
 - FOR ADDITIONAL DETAILS SEE STANDARD DRAWING AS-1-15

MARK	REAR	FORWARD	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS		
							A	B	INC
AS501	22	22	44	24'-6"	1124	STR.	24'-6"		
AS502	52	56	118	33'-9"	4154	STR.	33'-9"		
ASI001	53	53	106	26'-1"	11897	16	24'-6"		
SUB-TOTAL					17175				

RE-STEEL TO BE INCLUDED FOR PAYMENT IN ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN

- NOTES**
- ONCE CONSTRUCTED, ANY FORMWORK OR SOIL MUST BE REMOVED FROM THE 6" GAP BETWEEN THE DIAPHRAGM AND LOW STRENGTH MORTAR MASS.



ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB:
 ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB EMSEAL: FURNISH MATERIAL CONFORMING TO 705.11. THE SEAL CONFIGURATION SHOULD BE SIMILAR TO THE DETAILS SHOWN HERIN. ACCEPTED MANUFACTURERS ARE: EMSEAL JOINT SYSTEM LTD. (MODEL 3" BEJS) OR AN APPROVED EQUIVALENT. INSTALL THE SEAL ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURE'S DESIGNATED REPRESENTATIVE. FURNISH SEALS IN ONE CONTIUOUS PIECE UNLESS APPROVED BY THE ENGINEER.

BOND BREAKER: A BOND BREAKER CONSISTING OF TWO 4 FOOT SHEETS OF CLEAR OR OPAQUE POLYETHYLENE FILM, ITEM 705.06, SHALL BE CENTERED ON THE SLEEPER SLAB AND BELOW THE APPROACH SLAB, WHERE NOTED. CARE SHALL BE TAKEN IN THE AREA BENEATH THE POLYETHYLENE FILM TO ENSURE THE SURFACE OF THE SLEEPER SLAB IS FINISHED SMOOTH. THE FILM SHALL HAVE A NOMINAL THICKNESS OF 4 MILS.

PAYMENT: MEASUREMENT OF THE EXPANSION JOINT FOR PAYMENT PURPOSES SHALL BE ALONG THE CENTERLINE OF THE SLEEPER SLAB AND BETWEEN THE BACKS OF CURB. PAYMENT SHALL BE PER FOOT OF ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC: EMSEAL WITH SLEEPER SLAB AND SHALL INCLUDE 3" BEJS SEAL AS PROVIDED BY EMSEAL JOINT SYSTEM LTD. AT 25 BRIDLE LANE, WESTBOROUGH, MA 01581 (800) 526-8365 OR AN APPROVED EQUAL, CONCRETE SLEEPER SLAB, RESTEEL AND ALL LABOR, MATERIALS AND INCIDENTALS NEEDED TO CONSTRUCT THE JOINT AS SHOWN, INCLUDING THE PIPE UNDERDRAINS. THE UNDERDRAINS SHALL BE INSTALLED AS PER C&MS ITEM 605.03 - 6" PIPE UNDERDRAIN (707.31) AND WILL INCLUDE THE NECESSARY GRANULAR MATERIAL.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN
 THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING ABUTMENT IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ADDITIONAL WORK PROPOSED HEREIN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE EXISTING WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED. EXCAVATION AROUND PIER COLUMNS SHALL BE TO THE DEPTH OF THE TOP PIER FOOTING AND PROVIDE ADEQUATE AREA TO PERFORM THE WORK SHOWN IN THESE PLANS.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE I SHALL CONFROM TO C&MS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE I BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PREFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPERATELY ITEMIZED IN THE PLANS.

**ITEM SPECIAL - 530 - STRUCTURE: AESTHETIC TREATMENT
(CONCRETE FORMLINER/STAIN)**

THE SURFACE FINISH SHALL BE ONE OF THE PATTERNS DESCRIBED BELOW IN THE ARCHITECTURAL SURFACE ELEVATION AND TABLE FROM AN APPROVED COMPANY MEETING THE DETAILS SHOWN ON THIS PAGE.

THE STAINING OF THE PATTERNED CONCRETE SURFACES SHALL BE DONE PRIOR TO APPLICATION OF ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY). THE STAIN COLORED CONCRETE, USING LITHOCHROME TINTURA STAIN, SHALL BE LAYERED TO ACHIEVE A VARIEGATED AFFECT USING COLORS AS PROVIDED BY L.M. SCOFIELD COMPANY, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. A VARYING COMBINATION OF COLORS SHALL BE UTILIZED IN ORDER TO BEST DUPLICATE THE APPEARANCE OF INDIGENOUS SANDSTONE. THE STAIN SHALL BE APPLIED BY AN AIR APPLIED, EVEN AND CONTROLLED, METHOD AS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER. THE CONTRACTOR WILL NOT ALLOW OVERSPRAY OR RUNS TO RUIN THE APPEARANCE OF THE ADJACENT CONCRETE, WHICH SHALL REMAIN UNSTAINED. SEE AESTHETIC DETAIL SHEETS FOR THE LOCATION OF THE SURFACES TO BE STAINED.

THE CONTRACTOR OR AN APPROVED SUB-CONTRACTOR MUST SUPPLY DOCUMENTATION STATING THAT THEY HAVE AT LEAST 5 YEARS EXPERIENCE IN CONCRETE STAINING WITH PAST WORK REFERENCES CITED.

GENERAL PARAMETERS OF THE PATTERNED SURFACE TEXTURE AND COLOR ARE GIVEN HEREIN; HOWEVER, FINAL BASIS FOR APPROVAL WILL BE PROVIDED BY A EXISTING BRIDGE EXAMPLE. THE PHYSICAL LOCATION OF THIS EXAMPLE IS:

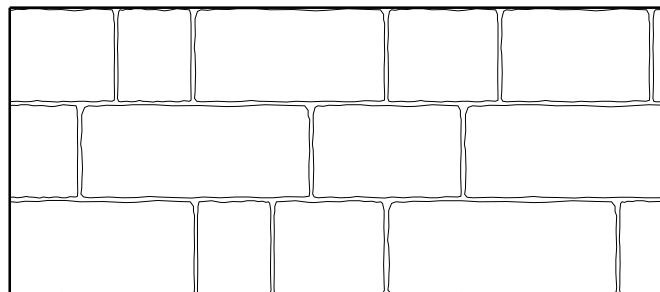
BRIDGE NO. COS-541-19.18
SFN: 1602404
COSHOCTON, OH 43812
COORDINATES = 40.2751760, -81.8763820

ALL CONCRETE WORK MUST BE COMPLETED AND CURED FOR A MINIMUM OF 28 DAYS BEFORE THE STAIN IS APPLIED. SURFACE PREPARATION SHALL BE AS PER CMS 512.03 F

TWO FULL SCALE, DIFFERENTLY PATTERNED, STAINED AND SEALED, PRECONSTRUCTION TEST PANELS SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST PANELS DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE TEST PANELS WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. FIVE FEET BY FIVE FEET TEST PANELS SHALL BE PROVIDED. THE MOCK-UPS SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN, AND COLOR/SEALANT INTENDED TO BE USED ON THE PROJECT. THE PANELS SHALL BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND CONCRETE SEALANT THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE TEST PANELS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

MEASUREMENT: ITEM SPECIAL 530 STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN) SHALL BE MEASURED IN SQ. FT. AND SHALL BE DEFINED BY THE AREAS THAT ARE DETAILED FOR THE APPROVED PATTERNED AREA.

ALL WORK INCLUDING SURFACE PREPARATION, STAINING AND OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEM SPECIAL 530 STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN).



ARCHITECTURAL SURFACE - ELEVATION

THE FOLLOWING SHALL BE USED:
THE PATTERN AND TEXTURE SHALL DUPLICATE THE APPEARANCE OF RECTANGULAR CUT AND HAND HEWN SANDSTONE THAT IS DRY LAID (WITH NO MORTAR JOINTS). THE BRIDGE RAILING SHALL HAVE 3 COURSES WITH A TOTAL HEIGHT EQUALING 3 FT. TYPICAL STONE/COURSING HEIGHTS AT THE ABUTMENTS SHALL VARY (SEE PLAN DETAILS PERTAINING TO THESE). THE PATTERN SHALL BE RANDOMIZED WITHIN THE WORK AREA.

**ITEM SPECIAL - 530 - STRUCTURE: AESTHETIC TREATMENT
(CONCRETE FORMLINER/STAIN) (CONTINUED)**

THE FOLLOWING FORMLINER SHALL BE USED:

COMPANY NAME:	PANEL SURFACE TREATMENT:	SPECIFICATIONS:
SPEC FORMLINERS, INC.	RECTANGULAR CUT, HAND HEWN, & DRY LAID SANDSTONE (CUSTOM)	MAX RELIEF 1/2" AVERAGE RELIEF 1" STONE LENGTHS 1' TO 3'
CUSTOM ROCK INTERNATIONAL	RECTANGULAR CUT, HAND HEWN, & DRY LAID SANDSTONE (CUSTOM)	MAX RELIEF 1/2" AVERAGE RELIEF 1" STONE LENGTHS 1' TO 3'
APPROVED EQUAL	APPROVED EQUAL	APPROVED EQUAL

AESTHETIC WORK ON BR. NO. MUS-60G-0033 AND ALL OTHER BRIDGES WITH AESTHETIC RAILING AS DETAILED IN THESE PLANS SHALL MATCH IDENTICALLY.

ITEM 519 - COMPOSITE FIBER WRAP SYSTEM

REFER TO PROPOSAL NOTE 519 FOR ITEM SPECIFICATIONS NOT GIVEN HEREIN. THE REQUIRED CONFINING STRESS DUE TO FRP JACKET (F) WILL BE 0.150 FOR THE HEIGHT SHOWN ON SHEET 22/69 THRU 27/69. THE FINAL URETHANE (OR SYSTEM SPECIFIED) COATING SYSTEM APPLICATION COLOR SHALL BE FEDERAL COLOR FS-595C-16440: LIGHT GULL GRAY.

ITEM 613 - LOW STRENGTH MORTAR BACKFILL, AS PER PLAN

LOW STRENGTH MORTAR (LSM) USED AS BACKFILL BEHIND SEMI-INTEGRAL DIAPHRAGMS SHALL HAVE LONG TERM COMPRESSIVE STRENGTH BETWEEN 150 AND 200 PSI. THE TOP ELEVATION SHALL BE AT LEAST 6" BELOW THE PROPOSED BOTTOM OF APPROACH SLAB AND ANY FORMWORK BETWEEN THE LSM BACKFILL AND SEMI-INTEGRAL DIAPHRAGM SHALL BE COMPLETELY REMOVED.

THE QUANTITY IN THE PLANS ASSUMES A 1.5:1 SLOPE OF BOTTOM OF THE LSM EXTENDING UP TO 2' BELOW THE PROPOSED TOP OF LSM ELEVATION (WHERE A VERTICAL END OF THE ITEM 613 IS ASSUMED). ADDITIONAL LSM BEYOND THESE LIMITS IS INCLUDED WITH ITEM 503 UNCLASSIFIED EXCAVATION, AS PER PLAN.

PERFORMING THE LIMITS REQUIRED FOR BACKFILL BEHIND THE SEMI-INTEGRAL DIAPHRAGMS SHALL BE INCLUDED FOR PAYMENT WITH THIS ITEM. PAYMENT FOR ITEM 613 LOW STRENGTH MORTAR BACKFILL, AS PER PLAN SHALL BE CONSIDERED FULL PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO PERFORM THE WORK.

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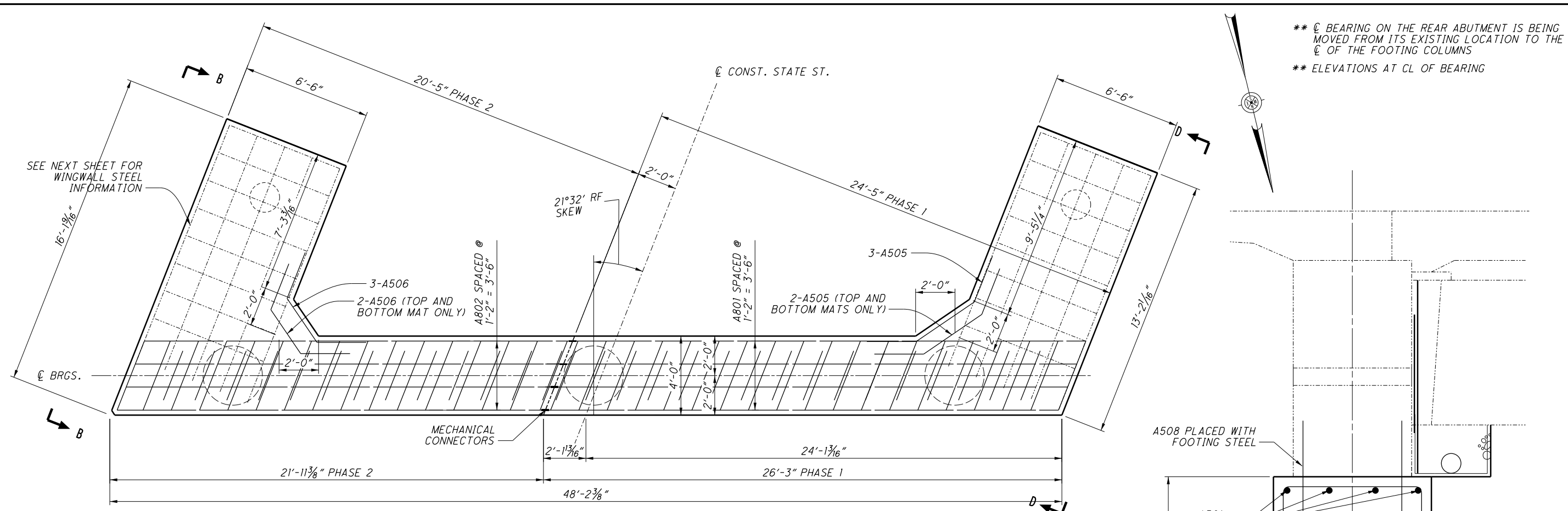
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REVIEWED TAG DATE 11/20/2020	STRUCTURE FILE NUMBER 6002730
DRAWN JKS	REVISOR CPS
DESIGNED JKS	CHECKED CPS
BRIDGE NOTES BRIDGE NO.: MUS-60G-0033 STATE STREET OVER I.R. 70	
MUS-70-10-49 PID No. 93006	
4 / 69	
2131 2231	

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SHEET NUM.				PART.	ALT (X)	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
SUPER.	ABUT.	PIER	GEN.	02/IMS/B R							
STRUCTURE OVER 20 FOOT SPAN (SFN6002730)											
LS				LS		202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUPERSTRUCTURE	3
	138			138		202	11301	138	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE	3
			156	156		202	22900	156	SY	APPROACH SLAB REMOVED	
516				516		202	75260	516	FT	VANDAL PROTECTION FENCE REMOVED	
			LS	LS		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	3
			LS	LS		503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	3
106570	9287			115857		509	10000	115,857	LB	EPOXY COATED REINFORCING STEEL	
		7336		7336		509	40000	7,336	LB	REINFORCING STEEL, MISC.: GALVANIZED	3
		162		162		510	10000	162	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
	2			2		511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
346				346		511	34447	346	CY	CLASS OC2 CONCRETE WITH OC/OA, BRIDGE DECK, AS PER PLAN	5
78				78		511	34463	78	CY	CLASS OC SCC CONCRETE WITH OC/OA, BRIDGE DECK (PARAPET), AS PER PLAN	47-52
		28		28		511	43210	28	CY	CLASS OC1 CONCRETE, PIER	
	58			58		511	45722	58	CY	CLASS OC SCC CONCRETE WITH OC/OA, ABUTMENT	
	85			85		511	46512	85	CY	CLASS OC1 CONCRETE WITH OC/OA, FOOTING	
990	112			1102		512	10050	1,102	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
		171		171		512	10100	171	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	72			72		512	33000	72	SY	TYPE 2 WATERPROOFING	
LS				LS		513	10040	LS		STRUCTURAL STEEL MEMBERS, LEVEL 2	
4725				4725		513	20000	4,725	EACH	WELDED STUD SHEAR CONNECTORS	
11289				11289		514	00060	11,289	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
11289				11289		514	00066	11,289	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	3
11				11		514	10000	11	EACH	FINAL INSPECTION REPAIR	
36				36		516	13601	36	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
	128			128		516	13901	128	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
	104			104		516	14020	104	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
			91	91		516	14600	91	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	67-69
			87	87		516	31011	87	FT	2" DEEP JOINT SEALER, AS PER PLAN	3
		15		15		516	44300	15	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) 1'-2"x1'-8"x4.1479"	33-36
	10			10		516	44400	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) 1'-4"x1'-4"x5.2973"	33-36
6				6		518	12200	6	EACH	SCUPPERS, INCLUDING SUPPORTS	
	21			21		518	21200	21	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
	116			116		518	40000	116	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
	48			48		518	40010	48	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
			1538	1538		SPECIAL	51900100	1,538	SF	COMPOSITE FIBER WRAP SYSTEM	4, 25-27
			50	50		519	11100	50	SF	PATCHING CONCRETE STRUCTURE	4, 25-27
			223	223		526	25011	223	SY	REINFORCED CONCRETE APPROACH SLABS WITH OC/OA (T=15"), AS PER PLAN	5, 67-69
3048	789		120	3957		SPECIAL	53000600	3,957	SF	STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER/STAIN)	4
			524	524		607	39992	524	FT	TEMPORARY VANDAL FENCE, TYPE A	3
459				459		SPECIAL	60740000	459	FT	VANDAL PROTECTION FENCE (DECORATIVE)	56-64
	122			122		613	41201	122	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	4

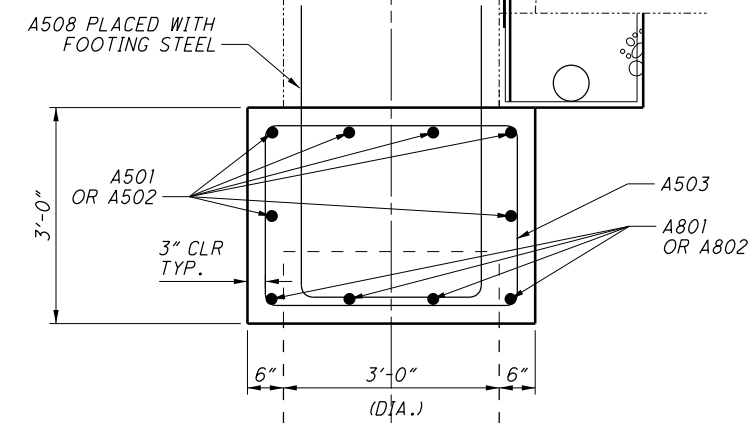
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DESIGNED JKS CHECKED CPS	REVIEWED TAG STRUCTURE FILE NUMBER 6002730
DRAIN JKS REVISED	DATE 11/20/2020
MUS-70-10.49 PID No. 93006	6 / 69

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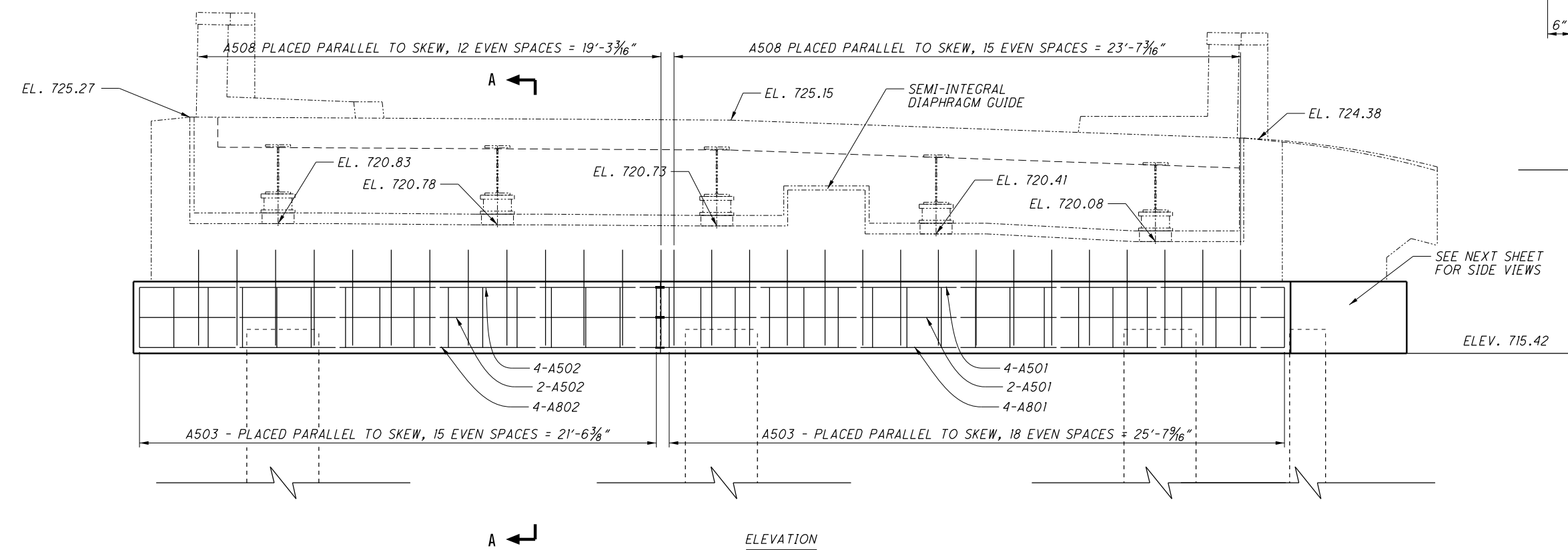


** CL BEARING ON THE REAR ABUTMENT IS BEING MOVED FROM ITS EXISTING LOCATION TO THE CL OF THE FOOTING COLUMNS
 ** ELEVATIONS AT CL OF BEARING

PLAN
 ONLY FOOTING SHOWN FOR CLARITY



SECTION A-A
 NOT TO SCALE

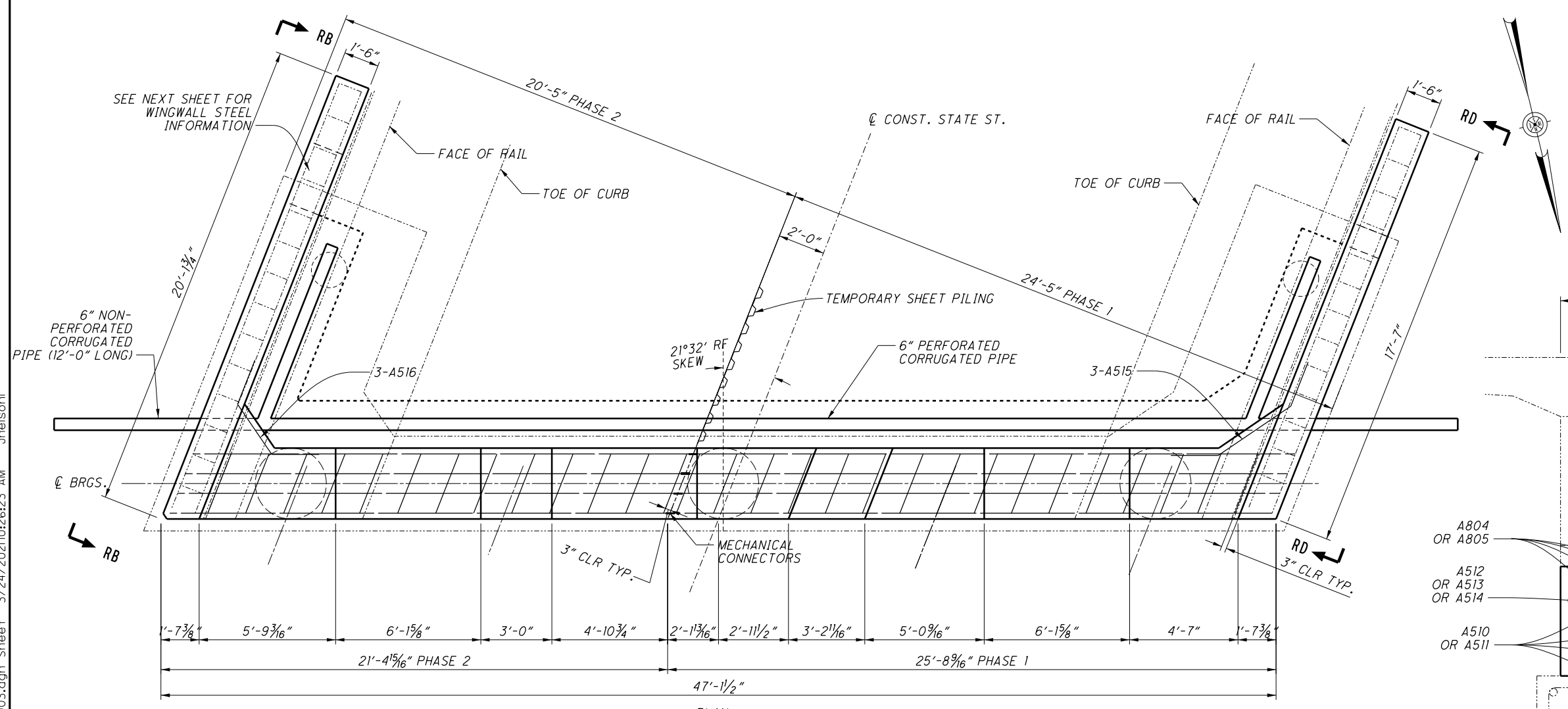


ELEVATION

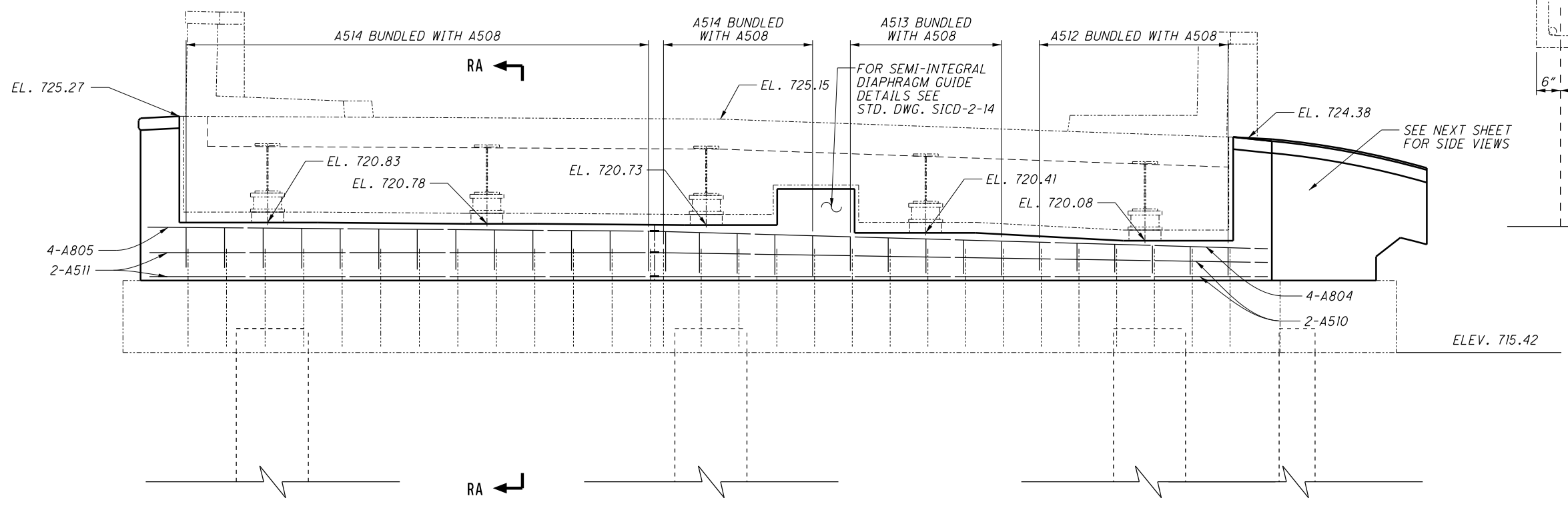
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							STRUCTURE FILE NUMBER			
PROPOSED REAR ABUTMENT BRIDGE NO.: MUS-606-0033 STATE STREET OVER I.R. 70										
MUS-70-10.49 PID No.										
12 / 69										
2139 2231										

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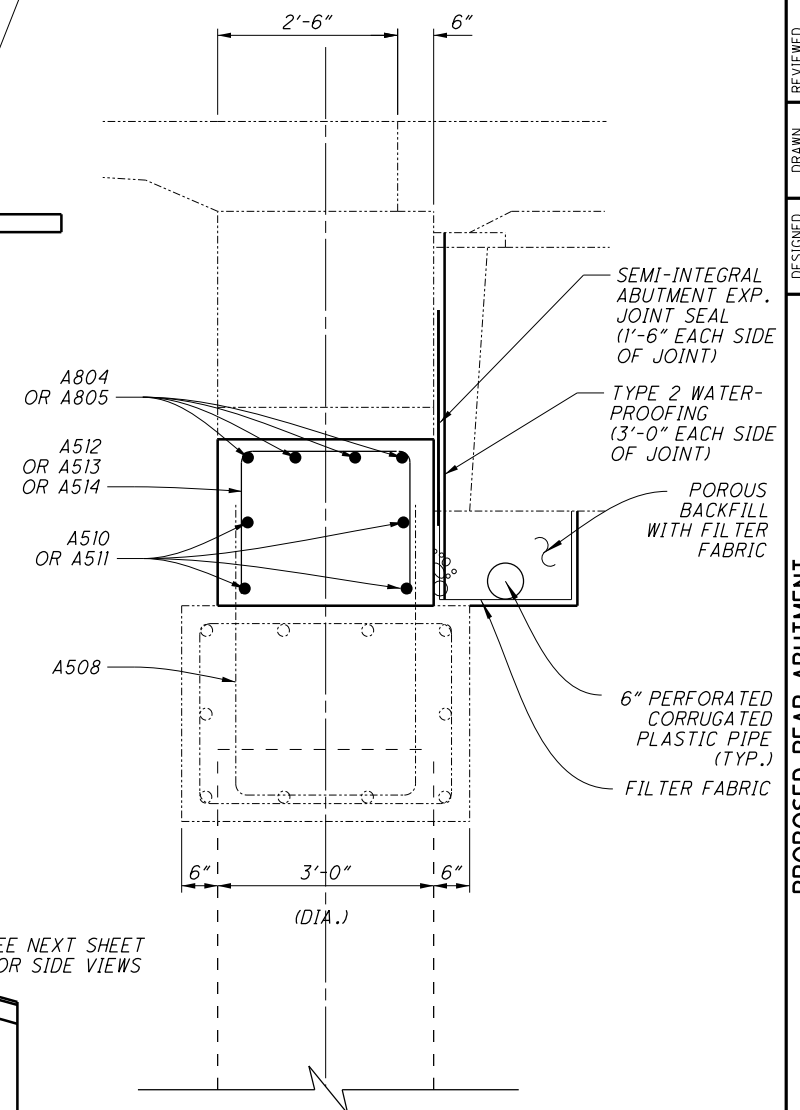
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 ** ELEVATIONS AT CL OF BEARING



PLAN
 FOOTING STEEL NOT SHOWN



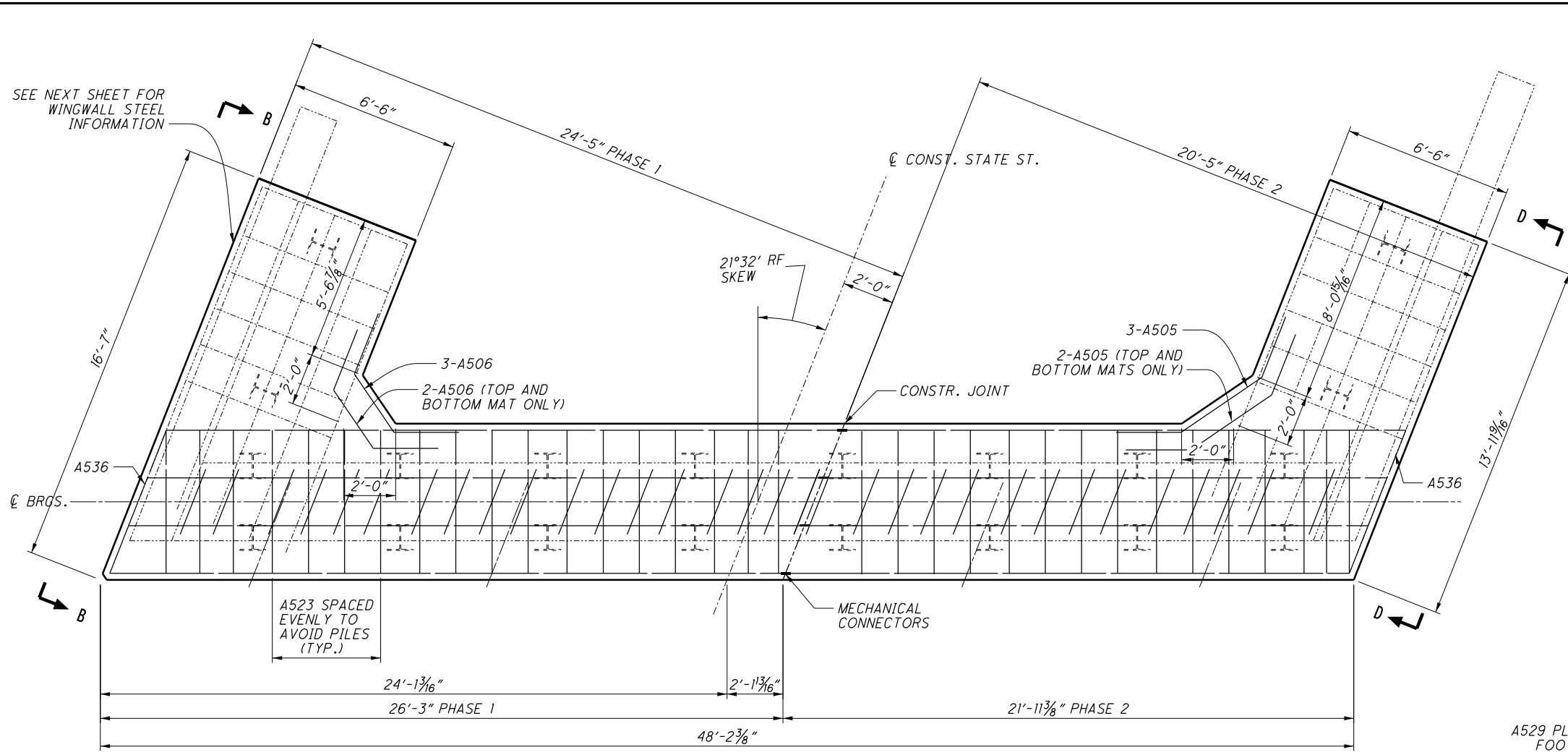
ELEVATION



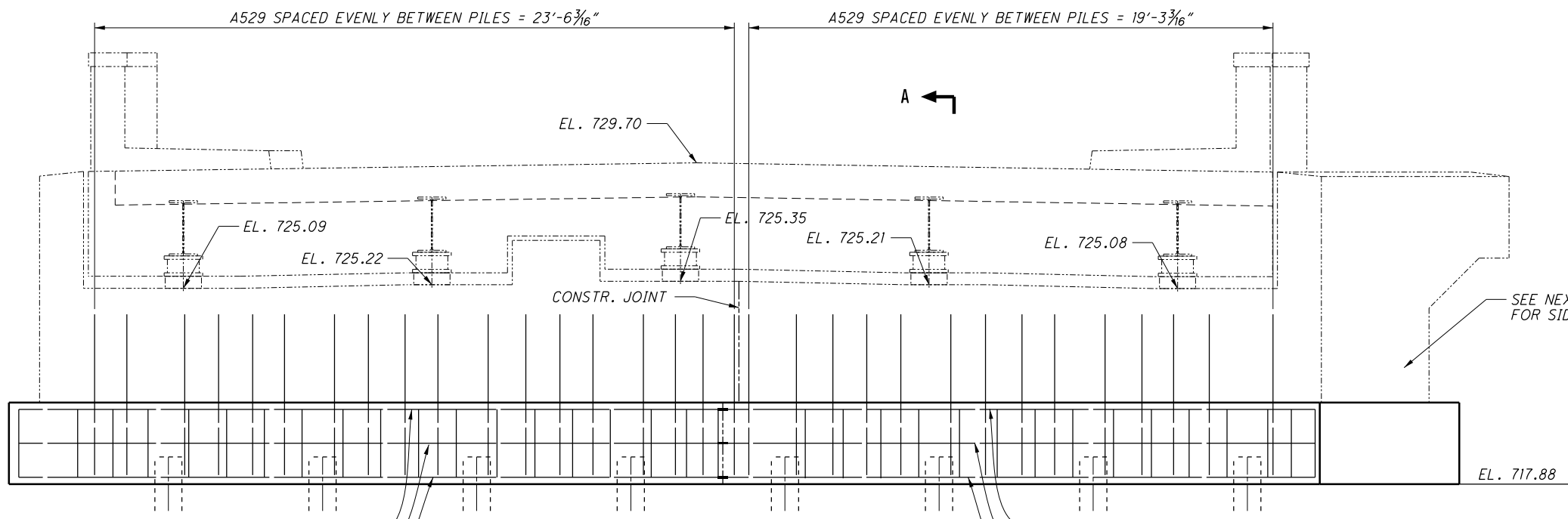
SECTION RA-RA
 NOT TO SCALE

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	11/20/2020
REVIEWED TAG	STRUCTURE FILE NUMBER 6002730
DRAWN	JKS
CHECKED	CPS
DESIGNED	JKS
BRIDGE NO.:	MUS-606-0033
PID No.	MUS-70-10.49
STATE STREET OVER I.R.	70
14	69
2141	2231

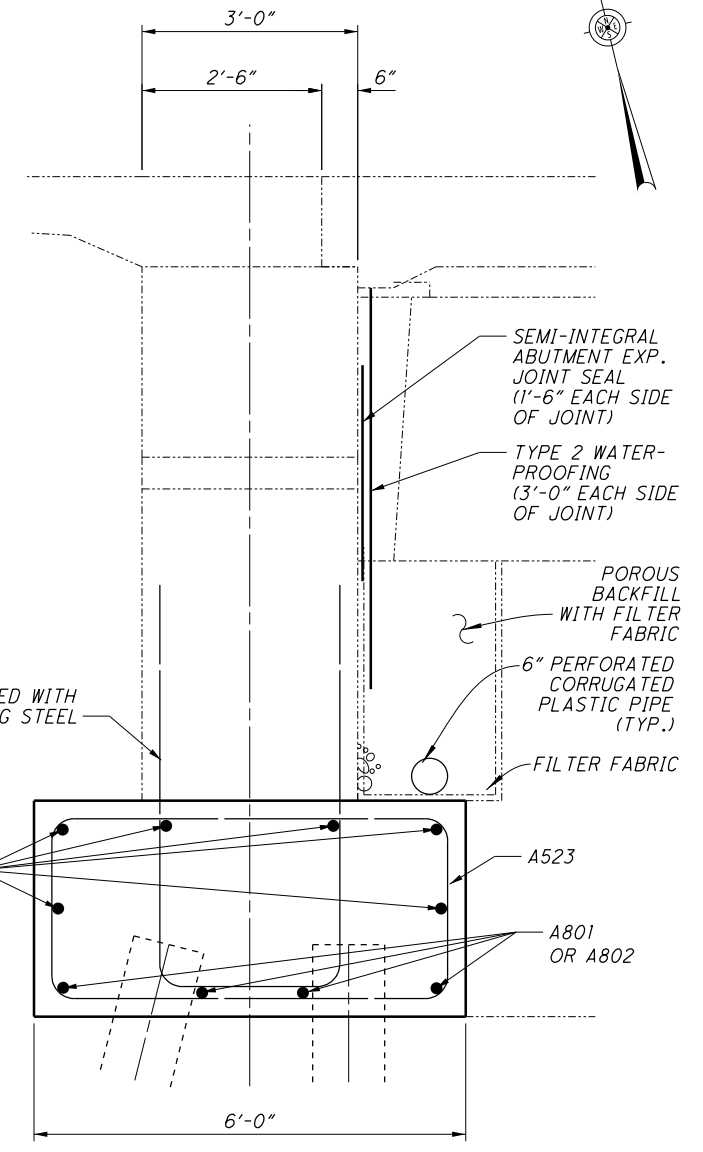
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PLAN
ONLY FOOTING STEEL SHOWN FOR CLARITY

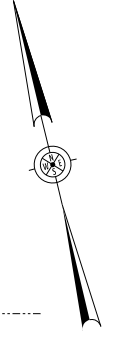


ELEVATION



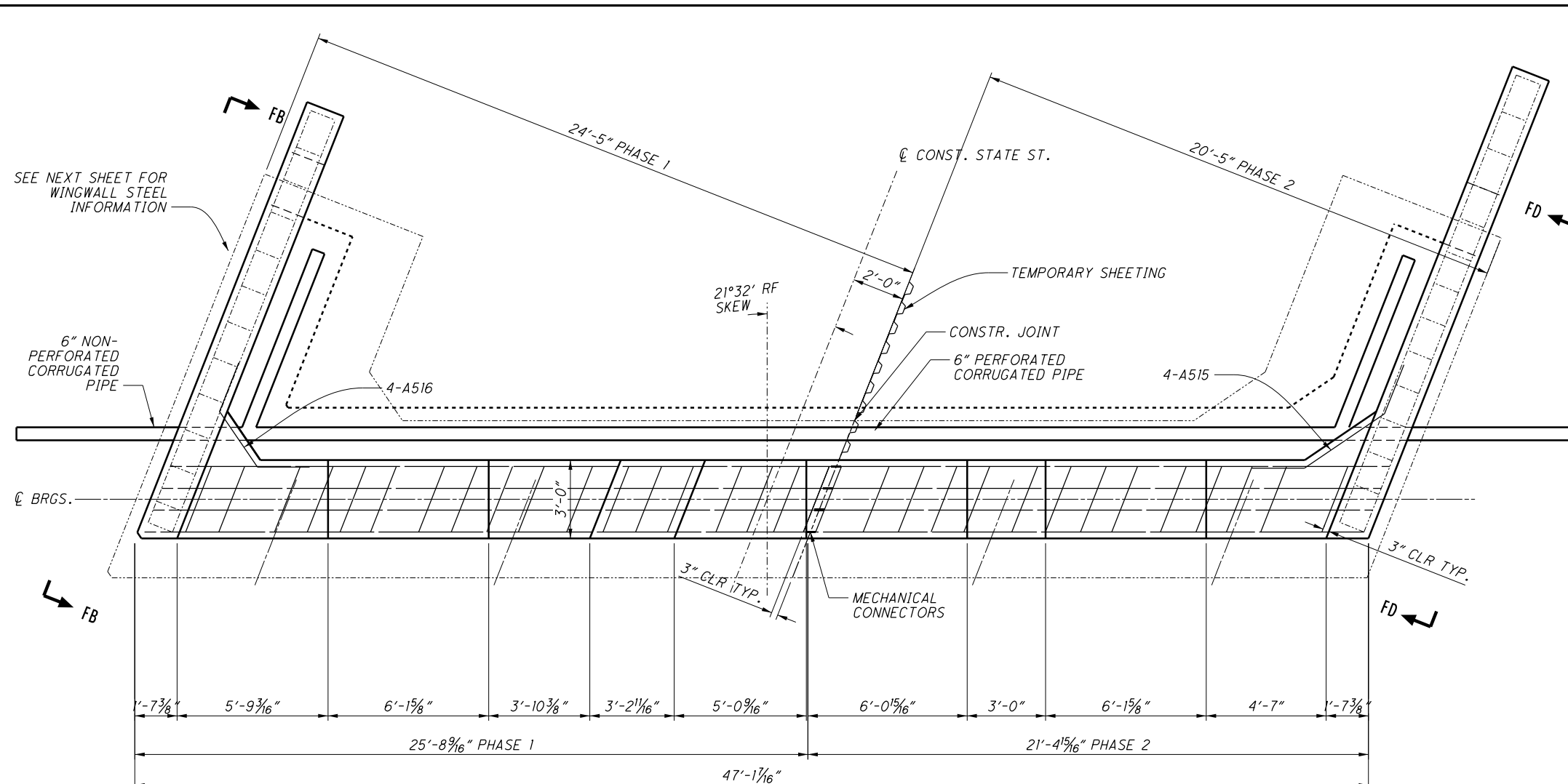
SECTION A-A

** CL BEARING ON THE FORWARD ABUTMENT IS BEING MOVED FROM ITS EXISTING LOCATION TO THE CL OF THE FOOTING PILES
** ELEVATIONS AT CL OF BEARING

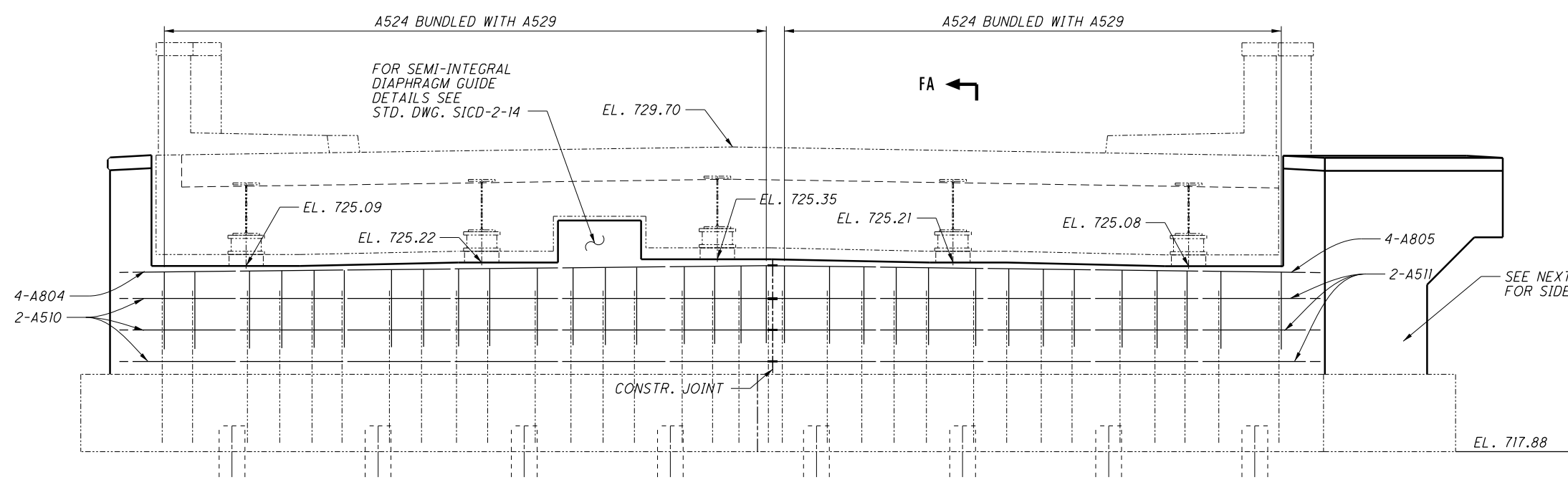


DESIGNED	JKS	CPS	PROPOSED FORWARD ABUTMENT
DRAWN	JKS	REVISED	BRIDGE NO.: MUS-606-0033
REVIEWED	TAG	STRUCTURE FILE NUMBER	STATE STREET OVER I.R. 70
DATE	11/20/2020	6002730	MUS-70-10.49
DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5		PID No. 93006
			16 / 69
			2143 2231

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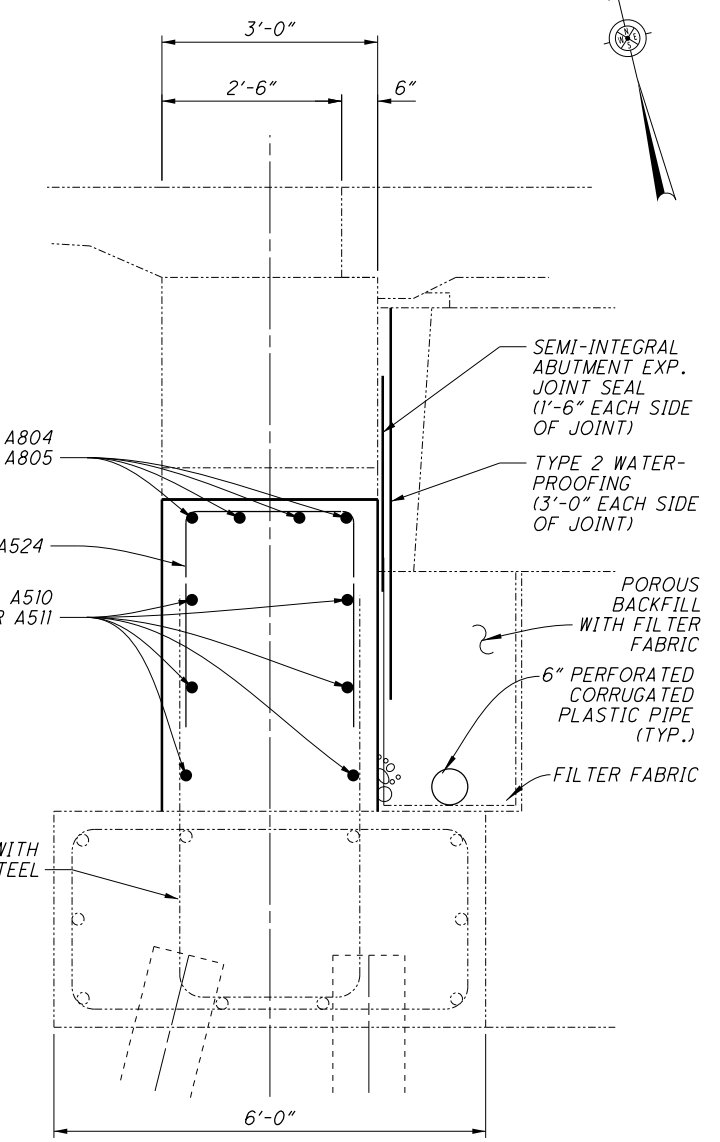


PLAN
FOOTING STEEL NOT SHOWN

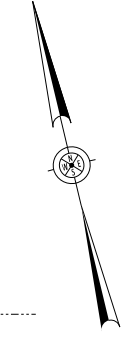


ELEVATION

** CL BEARING ON THE FORWARD ABUTMENT IS BEING MOVED FROM ITS EXISTING LOCATION TO THE CL OF THE FOOTING PILES
** ELEVATIONS AT CL OF BEARING

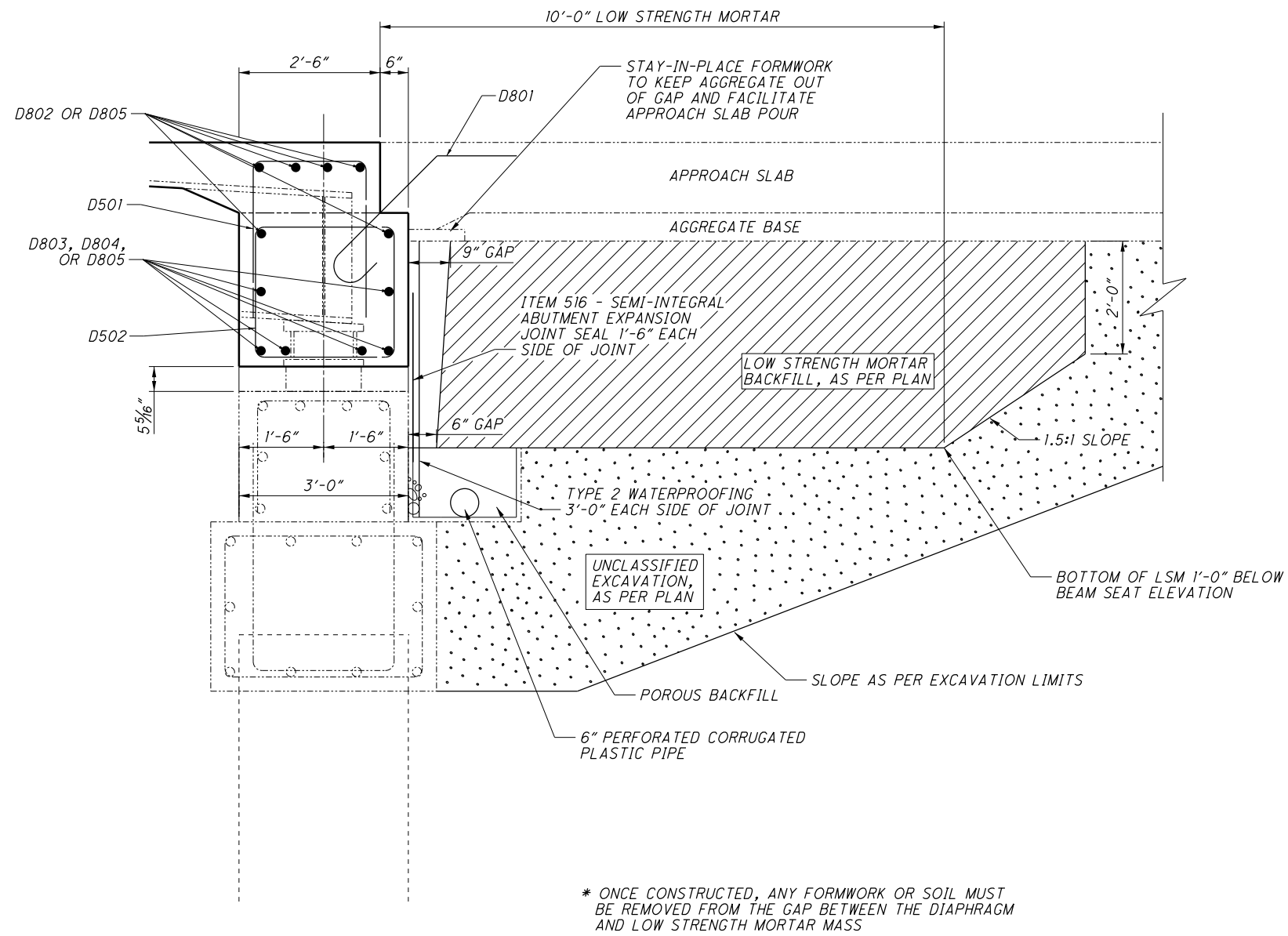


SECTION FA-FA

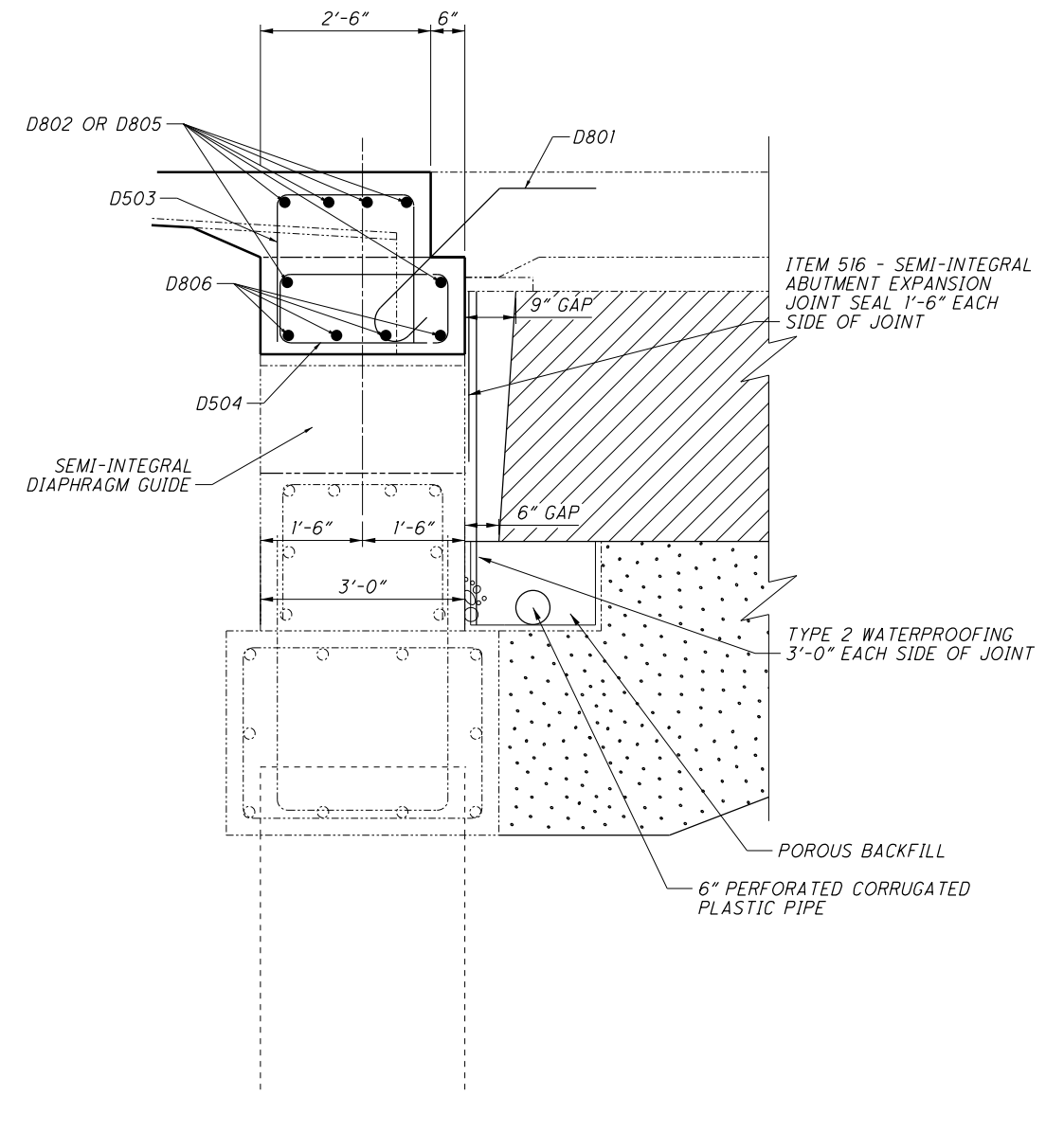


DESIGNED	JKS	CPS	DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DRAWN	JKS	REVIS	DATE	11/20/2020
CHECKED	JKS	REVIS	TAG	6002730
REVIEWED	JKS	REVIS	STRUCTURE FILE NUMBER	6002730
PROPOSED FORWARD ABUTMENT				
BRIDGE NO.: MUS-606-0033				
STATE STREET OVER I.R. 70				
MUS-70-10.49				
PID No. 93006				
18 / 69				
2145 2231				

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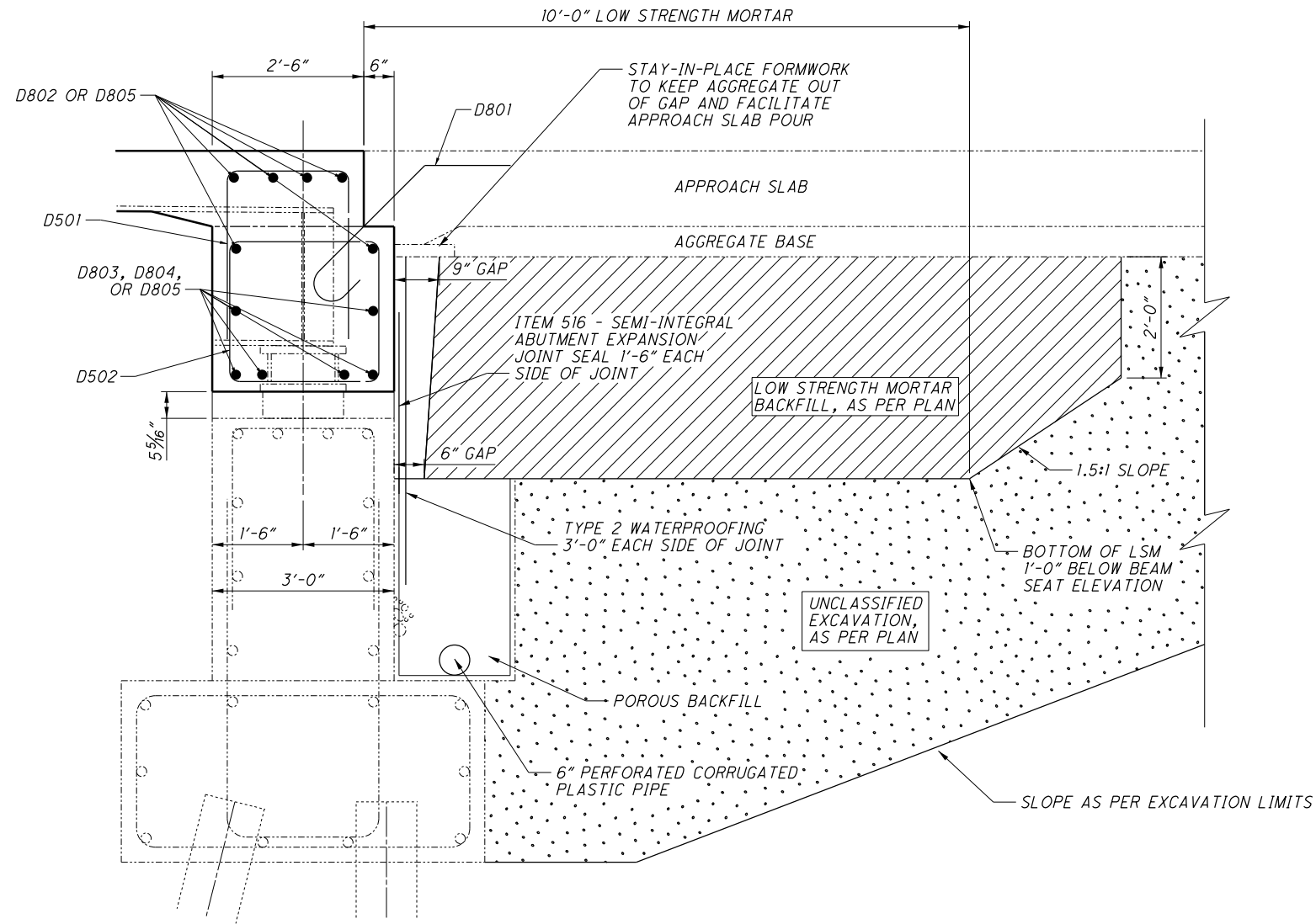


SECTION A-A

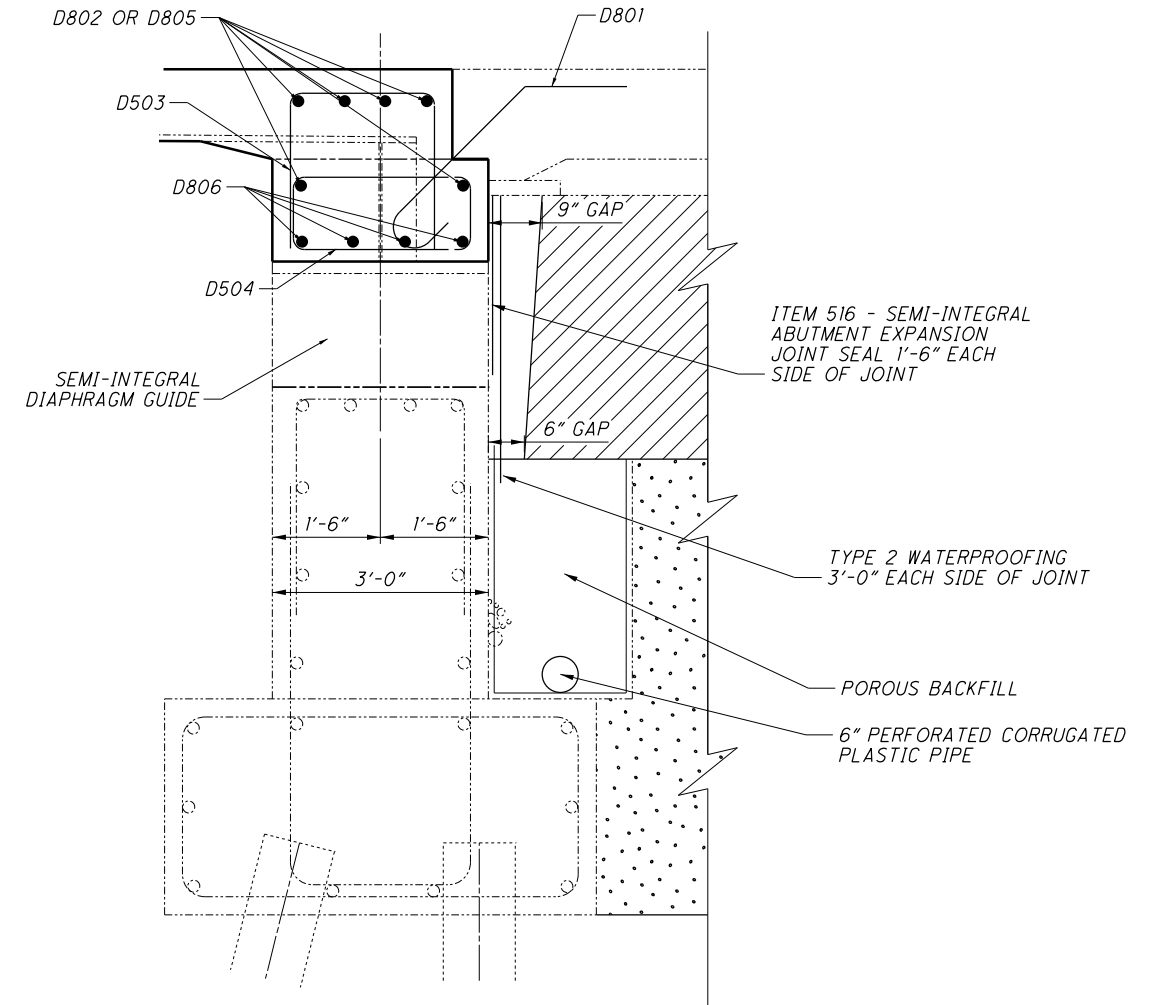


SECTION B-B

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SECTION A-A



SECTION B-B