MOT SEQUENCE OF OPERATIONS

PRE-PHASE 1 (SHEETS 103-139)

REMOVE AND REERECT EXISTING LIGHT POLES THAT CONFLICT WITH THE PROPOSED TEMPORARY PAVEMENT.

CONSTRUCT TEMPORARY PAVEMENT ON THE OUTSIDE SHOULDERS OF I.R. 70 AS SHOWN IN THE PLANS UTILIZING SHOULDER CLOSURES AS PER SCD MT-95.45. PORTABLE BARRIER QUANTITIES ITEMIZED IN THE PLANS.

REMOVE ALL OVERHEAD SIGNS AND SUPPORTS ALONG I.R. 70 AS SHOWN IN THE PLANS. INSTALL WORK ZONE GROUND MOUNTED MAJOR SIGNS ON TEMPORARY SUPPORTS IN ACCORDANCE WITH SCD MT-105.10. SEE SHEETS 93-95 FOR DETAILS OF THESE SIGNS.

MILL AND FILL EXISTING RUMBLE STRIPS ALONG THE INSIDE AND OUTSIDE SHOULDERS OF I.R. 70 AS DETAILED ON SHEET 63.

INSTALL ALL PROPOSED RADAR DETECTORS AT THE VARIOUS INTERSECTIONS IN THE CITY OF ZANESVILLE AS SHOWN ON SHEETS 1221-1228.

ALL CONFLICTING PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE REMOVED OR COVERED.

PHASE 1 (SHEETS 140-189)

MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION ON I.R. 70 AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

MOVE TRAFFIC TO THE OUTSIDE OF THE EASTBOUND AND WESTBOUND LANES AND CONSTRUCT THE MEDIAN SECTION OF I.R. 70.

CONSTRUCT THE I.R. 70 MAINLINE PAVEMENT AS PER THE PROPOSED TYPICAL SECTIONS EXCEPT THAT THE 1.50" SURFACE COURSE SHALL BE REPLACED WITH A TEMPORARY 1.50" SURFACE COMPRISED OF ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN (PG64-22/PG64-28).

CONSTRUCT RAMP E, RAMP F, RAMP H AND RAMP O DURING PHASE 1. (RAMP N MAY BE CONSTRUCTED THIS PHASE ALSO.)

BEFORE RAMP O CAN BE CLOSED, TEMPORARY SIGNALS MUST BE IN PLACE AT THE RAMP INTERSECTIONS OF THE I.R. 70/ S.R. 93 INTERCHANGE AS SHOWN ON SHEETS 87-89. THESE SIGNALS ARE TO REMAIN IN PLACE UNTIL THE PROJECT IS COMPLETED.

BEFORE RAMP E CAN BE CLOSED, THE NECESSARY RE-STRIPING OF MAPLE AVE. AT ADAIR AVE. AND SUBSEQUENT SIGNAL WORK MUST BE IN PLACE. SEE SHEETS 90-92 FOR DETAILS.

CLOSURE RESTRICTIONS:

- RAMP E AND RAMP O SHALL NOT BE CLOSED AT THE SAME TIME.
- 5TH STREET, 6TH STREET, AND 7TH STREET SHALL BE CLOSED DURING BRIDGE DEMOLITION AND WHILE THE FALSEWORK IS IN PLACE. 5TH STREET AND 7TH STREET SHALL NOT BE CLOSED AT THE SAME TIME.

PRE-PHASE 2 (SHEETS 190-196)

CONSTRUCT CROSSOVER 1, CROSSOVER 2, AND OTHER NECESSARY TEMPORARY PAVEMENT NEEDED TO MAINTAIN PHASE 2 TRAFFIC AS DETAILED IN THE PLANS.

ALL CONFLICTING PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE REMOVED OR COVERED.

PHASE 2 (SHEETS 197-239)

MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION ON I.R. 70 AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE PASSING LANE OF I.R. 70 EASTBOUND WILL CROSSOVER TO THE WESTBOUND SIDE OF THE ROADWAY, AND THE DRIVING LANE WILL TAPER OVER TO THE PASSING LANE TO ALLOW FOR THE CONSTRUCTION AREA OF THE EASTBOUND LANES.

CONSTRUCT THE I.R. 70 MAINLINE PAVEMENT AS PER THE PROPOSED TYPICAL SECTIONS EXCEPT THAT THE 1.50" SURFACE COURSE SHALL BE REPLACED WITH A TEMPORARY 1.50" SURFACE COMPRISED OF ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN (PG64-22/PG64-28).

CONSTUCT RAMP T, RAMP U, RAMP J, AND RAMP L DURING PHASE 2.

CLOSURE RESTRICTIONS:

- RAMP T, RAMP J, AND RAMP L SHALL NOT BE CLOSED AT THE SAME TIME. A MINIMUM OF TWO EASTBOUND OFF-RAMPS SHALL BE OPEN AT ALL TIMES.
- RAMP U AND RAMP O SHALL NOT BE CLOSED AT THE SAME TIME.
- RAMP E, RAMP H, AND RAMP J SHALL BE CLOSED WHILE WORK IS IN PROGRESS ON THE MUS-70-1159 STRUCTURE. RAMP E AND RAMP H MAY BE REOPENED TO FIRE/EMS VEHICLES WHILE WORK ON THE MUS-70-1159 STRUCTURE IS ONGOING ONCE THE REAR APPROACH SLAB IS COMPLETE.
- 5TH STREET, 6TH STREET, AND 7TH STREET SHALL BE CLOSED DURING BRIDGE DEMOLITION AND WHILE THE FALSEWORK IS IN PLACE. 5TH STREET AND 7TH STREET SHALL NOT BE CLOSED AT THE SAME TIME.

PRE-PHASE 3 (SHEETS 240-248)

CONSTRUCT CROSSOVER 3, CROSSOVER 4, AND OTHER NECESSARY TEMPORARY PAVEMENT NEEDED TO MAINTAIN PHASE 3 TRAFFIC AS DETAILED IN THE PLANS.

ALL CONFLICTING PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE REMOVED OR COVERED.

PHASE 3 (SHEETS 249-292)

MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION ON I.R. 70 AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE PASSING LANE OF I.R. 70 WESTBOUND WILL CROSSOVER TO THE EASTBOUND SIDE OF THE ROADWAY, AND THE DRIVING LANE WILL TAPER OVER TO THE PASSING LANE TO ALLOW FOR THE CONSTRUCTION AREA OF THE WESTBOUND LANES.

CONSTRUCT THE I.R. 70 MAINLINE PAVEMENT AS PER THE PROPOSED TYPICAL SECTIONS EXCEPT THAT THE 1.50" SURFACE COURSE SHALL BE REPLACED WITH A TEMPORARY 1.50" SURFACE COMPRISED OF ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN (PG64-22/PG64-28).

CONSTRUCT RAMP V, RAMP W, RAMP A, RAMP K, AND STATE STREET DURING PHASE 3. CONSTRUCT RAMP N IN PHASE 3 (IF NOT CONSTRUCTED IN PHASE 1).

CLOSURE RESTRICTIONS:

- RAMP W, RAMP A, AND RAMP N SHALL NOT BE CLOSED AT THE SAME TIME. A MINIMUM OF TWO WESTBOUND OFF-RAMPS SHALL BE OPEN AT ALL TIMES.
- RAMP V AND RAMP K SHALL NOT BE CLOSED AT THE SAME TIME.
- RAMP A AND RAMP K SHALL BE CLOSED WHILE WORK IS IN PROGRESS ON THE MUS-70-1159 STRUCTURE. RAMP A AND RAMP K MAY BE REOPENED TO FIRE/EMS VEHICLES WHILE WORK ON THE MUS-70-1159 STRUCTURE IS ONGOING ONCE THE APPROACH SLABS ARE COMPLETE.
- 5TH STREET, 6TH STREET, AND 7TH STREET SHALL BE CLOSED DURING BRIDGE DEMOLITION AND WHILE THE FALSEWORK IS IN PLACE. 5TH STREET AND 7TH STREET SHALL NOT BE CLOSED AT THE SAME TIME.
- STATE STREET SHALL BE CLOSED AS PER THE A+B DETAILS ON THIS SHEET.

BEFORE FINAL RESURFACING, CONSTRUCT THE REMAINING SECTIONS OF MEDIAN BARRIER UTILIZING SHOULDER CLOSURES PER SCD MT-95.45.

PHASE 4

THE ASPHALT CONCRETE PAVEMENT ALONG I.R. 70 WITHIN THE FULL DEPTH PROJECT LIMITS SHALL BE PLANED OFF AT A DEPTH OF 1.50".

PLACE ASPHALT CONRETE SURFACE COURSE AS SHOWN ON THE PROPOSED TYPICAL SECTIONS.

WORK DURING THIS PHASE SHALL BE PERFORMED AT NIGHT WITH ONE LANE CLOSED DURING THE PERMITTED CLOSURE TIMES.

PAINTING OF ALL STRUCTURES AS SHOWN IN THE PLANS SHALL ALSO BE PERFORMED DURING PHASE 4. INTERMITTENT CLOSURES OF MCINTIRE AVENUE, LINDEN AVENUE, AND UNDERWOOD STREET WILL BE PERMITTED.

A+B BIDDING CONTRACT TABLE

USE THE FOLLOWING INFORMATION WITH THE PROPOSAL NOTE 124 A+B BIDDING. THE CONTRACTOR WILL BID THE NUMBER OF CALENDAR DAYS TO COMPLETE THE PROJECT AS LISTED IN THE PROPOSAL.

A+B BIDDING CONTRACT TABLE

CONTRACT SEGMENT/ LOCATION OF CRITICAL WORK	MIN. DAYS	MAX. DAYS	INCENTIVE/ DISINCENTIVE $ PER DAY	MAXIMUM INCENTIVE $
STATE STREET BRIDGE & RELATED ROADWAY WORK	115*	125	$8,000	$80,000

*CLOSURE WILL ONLY BE PERMITTED DURING THE SUMMER MONTHS. ANY CLOSURE TIME THAT WILL OCCUR WHILE SCHOOL IS IN SESSION MUST BE COORDINATED WITH ZANESVILLE CITY SCHOOLS A MINIMUM OF 1 (ONE) YEAR PRIOR TO THE CLOSURE BEING PUT INTO PLACE.

LANE VALUE- I.R. 70

LANE CLOSURES WILL ONLY BE IMPLEMENTED AT THE TIMES LISTED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S WEBSITE, "PERMITTED LANE CLOSURE TIMES" SECTION, LOCATED AT THE ADDRESS BELOW:

http://plcm.dot.state.oh.us/

THE PERMITTED LANE CLOSURE TIMES LISTED ON THE WEBSITE, 14 CALENDAR DAYS PRIOR TO THE BID LETTING DATE, WILL BE IN EFFECT FOR THIS PROJECT. NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES. WHEN NECESSARY, LANE CLOSURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS.

SHOULD THE CONTRACTOR CLOSE A LANE BEFORE THE ALLOWABLE TIME AND/OR FAIL TO RE-OPEN ALL LANES TO TRAFFIC, BY THE ALLOWABLE TIME, A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE AND PROPOSAL NOTE 127 WILL BE ASSESSED.

LANE VALUE CONTRACT TABLE - I.R. 70

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
1 LANE OF I.R. 70 MM 10.00 TO MM 14.00	ODOT WEBSITE: PERMITTED LANE CLOSURE TIMES	15 MIN.	$2,500

ALTERNATE METHODS

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

CALCULATED BRH CHECKED HAG

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAINTENANCE

MUS-70-10.49

MUS-70-1066L BRIDGE SUMMARY - 02/IMS/BR

CALC: MMZ | CHECK: CTM

ITEM	ITEM EXT.	TOTAL QUANTITY	TOTAL PER PHASE PH 1	TOTAL PER PHASE PH 3	TOTAL PER PHASE GEN	UNIT	DESCRIPTION	PHASE 1 ABUT.	PHASE 1 PIERS	PHASE 1 SUPER	PHASE 3 ABUT.	PHASE 3 PIERS	PHASE 3 SUPER	GENERAL	APP/REF SHEET NO.
202	11003	LS			LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN							LS	4
202	22900	228	78	150		SY	APPROACH SLAB REMOVED	78			150				
503	11101	LS			LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN							LS	5
503	21301	LS	LS	LS			UNCLASSIFIED EXCAVATION, AS PER PLAN	LS			LS				5
505	11100	LS			LS		PILE DRIVING EQUIPMENT MOBILIZATION							LS	
507	00600	1,050	550	500		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	550			500				
507	00650	1,190	620	570		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	620			570				
509	10001	180,372	72,730	107,642		LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	7,635		65,095	10,538		97,104		5
509	20001	300			300	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN							300	5
510	10001	118	38	80		EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	38			80				5
511	33500	2	2			EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2							
511	34447	566	213	353		CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			213			353		5
511	34451	120	60	60		CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			60			60		5
511	44112	185	73	113		CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	73			113				
511	46512	62	31	31		CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	31			31				
512	10050	911	445	466		SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	52		393	74		392		
512	10300	75		75		SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN						75		
512	10601	50			50	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN							50	5
512	33000	66	26	40		SY	TYPE 2 WATERPROOFING	26			40				
513	10260	517,113	210,852	306,261		LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			210,852			306,261		
513	20000	7,077	3,033	4,044		EACH	WELDED STUD SHEAR CONNECTORS			3,033			4,044		
514	00061	26,218	10,786	15,432		SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			10,786			15,432		5
514	00067	26,218	10,786	15,432		SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			10,786			15,432		5
514	10000	22	9	13		EACH	FINAL INSPECTION REPAIR			9			13		
516	13901	79	39	39		SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN			39			39		5
516	14020	182	72	111		FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			72			111		
516	14600	142	51	91		FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	51			91				50
516	44101	28	12	16		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN , DIMENSIONS VARY	6	6		8	8			30
516	46900	7	3	4		EACH	BEARING DEVICE, MISC.: SEISMIC ISOLATION BEARING		3			4			31
518	12200	7	5	2		EACH	SCUPPERS, INCLUDING SUPPORTS	5			2				
518	21200	134	53	81		CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	53			81				
518	40000	217	88	129		FT	6" PERFORATED CORRUGATED PLASTIC PIPE	88			129				
518	40010	60	30	30		FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	30			30				
519	11101	70			70	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN							70	5
523	20001	8	4	4		EACH	DYNAMIC LOAD TESTING, AS PER PLAN	4			4				5
523	20501	8	4	4		EACH	RESTRIKE, AS PER PLAN	4			4				5
526	30010	316	114	201		SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	114			201				
SPECIAL	53000200	LS			LS		STRUCTURES - MEASUREMENTS FOR PROPOSED BEARINGS							LS	6
601	20000	1,044			1,044	SY	CRUSHED AGGREGATE SLOPE PROTECTION							1,044	
607	39900	350	175	175		FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			175			175		
613	41201	287	99	188		CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	99			188				5

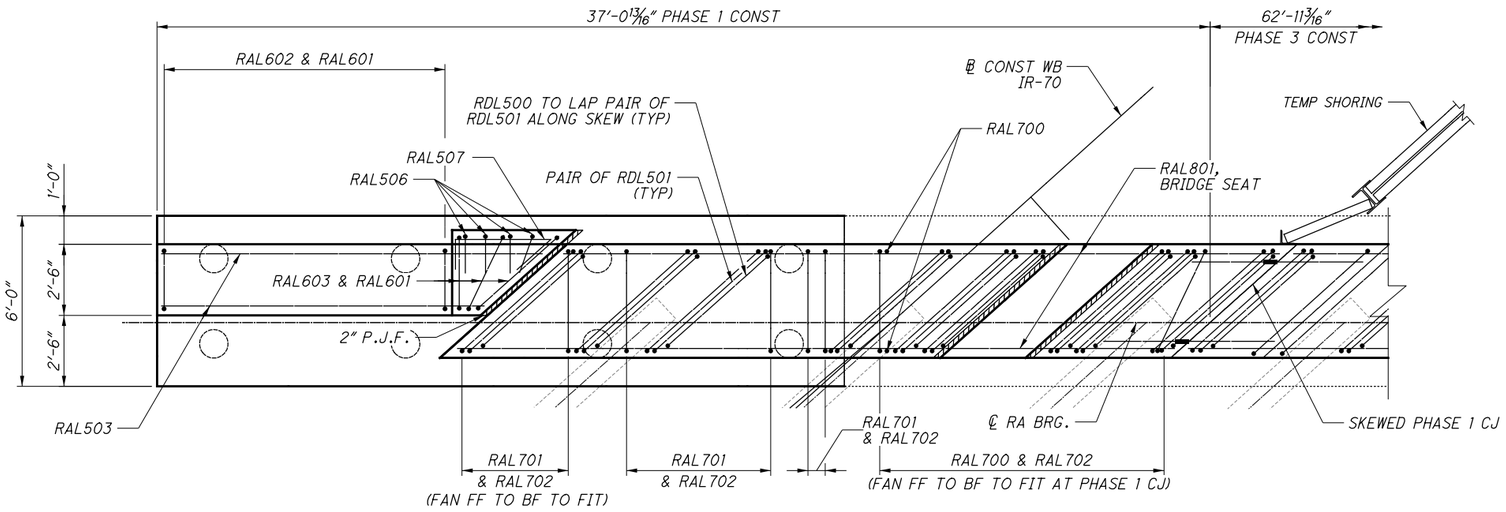
DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED MZ | DRAWN LAM | REVIEWED CTM | DATE 12/2020
CHECKED DF | REVISED | STRUCTURE FILE NUMBER 6002641

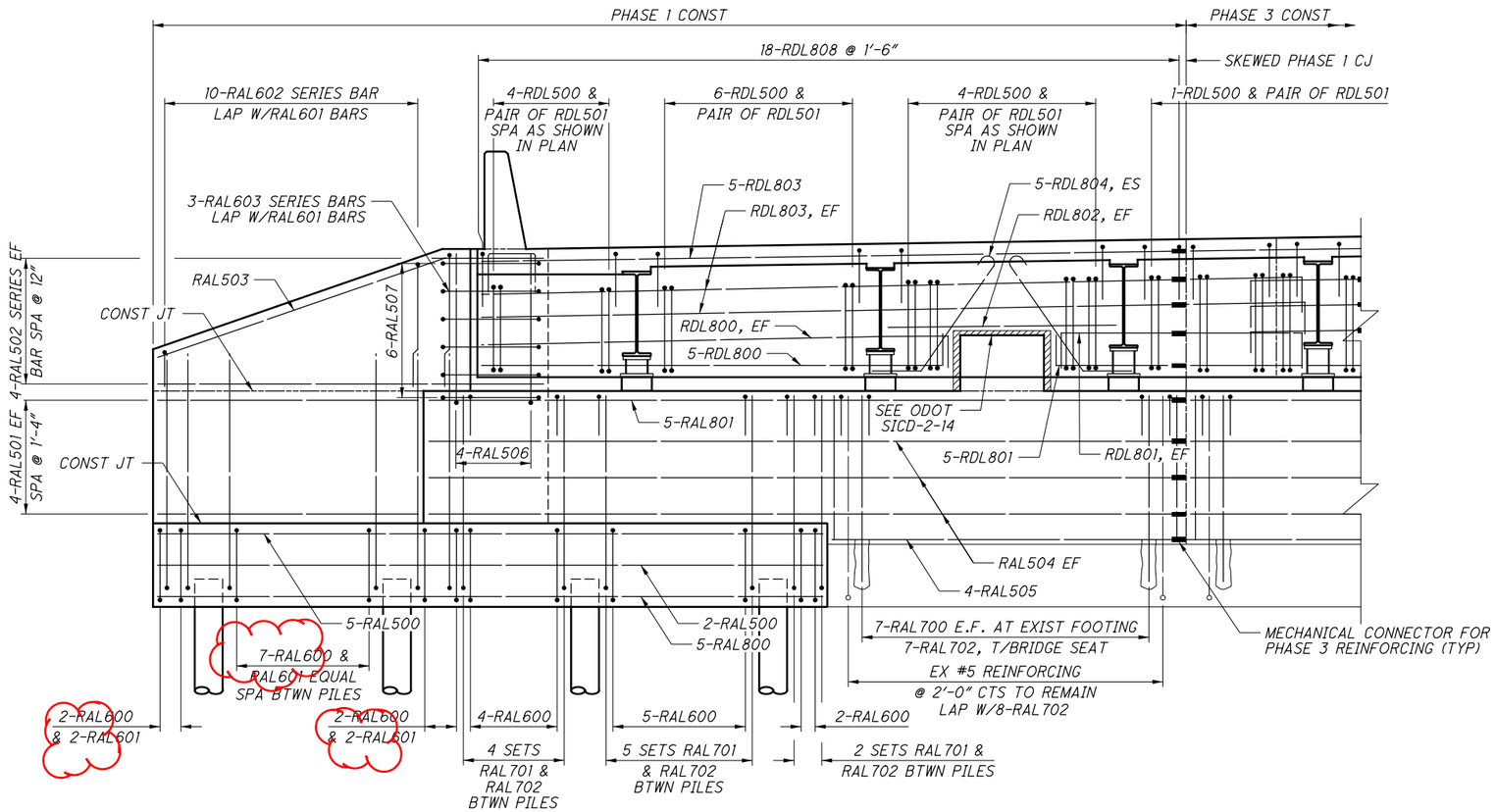
BRIDGE SUMMARY
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1294
2231



REAR ABUTMENT PHASE 1 PLAN



REAR ABUTMENT PHASE 1 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 18|54 FOR ABUTMENT DETAILS AND SECTIONS.
2. SEE SHEET 12|54 FOR FOUNDATION PLAN.
3. SEE SHEET 38|54 FOR TRANSVERSE SECTION.
4. 2" CLEAR COVER UNLESS NOTED OTHERWISE.
5. 12" MAX SPACING UNLESS NOTED OTHERWISE.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

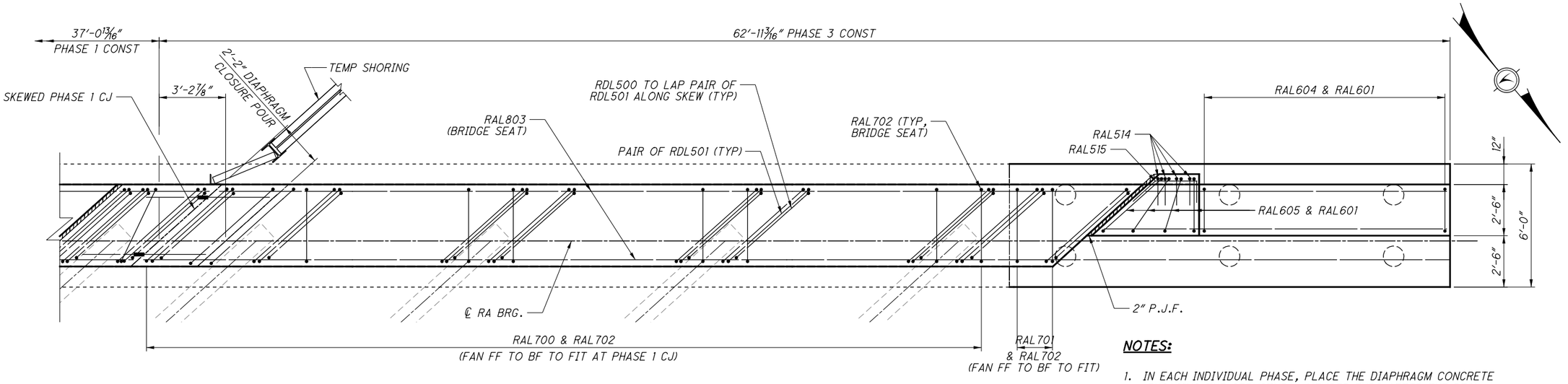
DESIGNED JGC | CHECKED DF
DRAWN LAM | REVISED
REVIEWED CTM | DATE 12/2020
STRUCTURE FILE NUMBER 6002641

REAR ABUTMENT PHASE 1
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

16 / 54

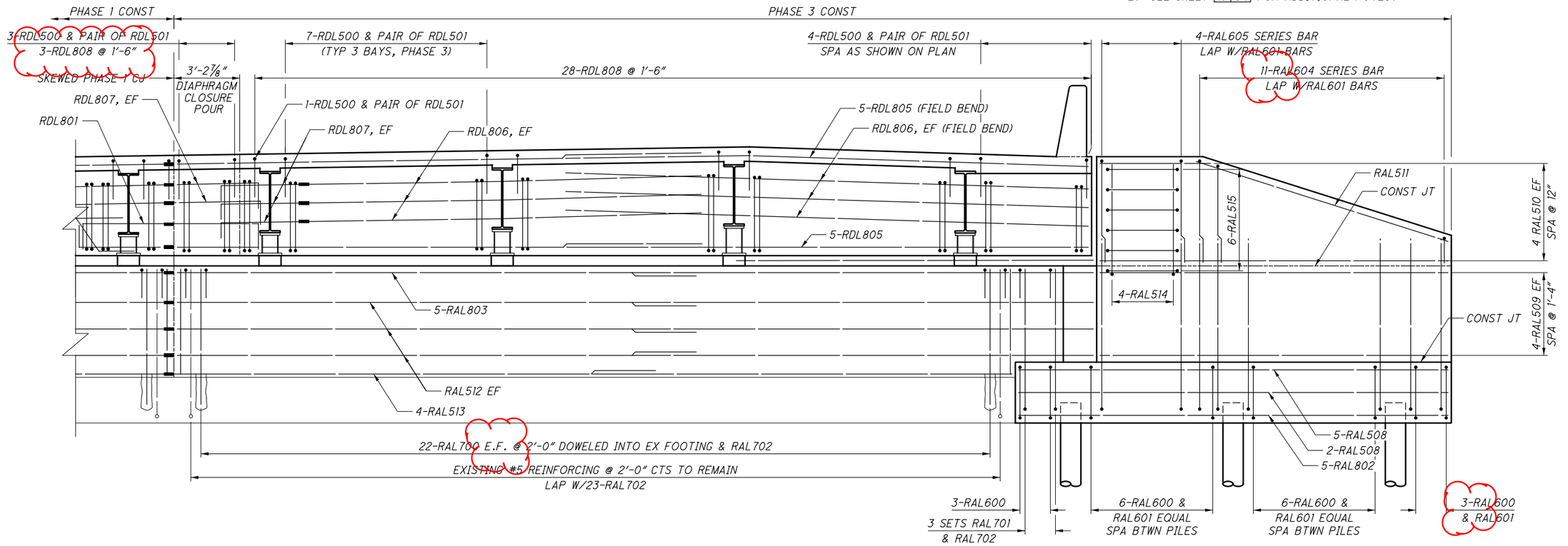
1303
2231



REAR ABUTMENT PHASE 3 PLAN

NOTES:

1. IN EACH INDIVIDUAL PHASE, PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET. PLACE CLOSURE POUR IN THE DIAPHRAGM AND DECK CONCURRENTLY.
2. SEE SHEET 16|54 FOR ADDITIONAL NOTES.



REAR ABUTMENT PHASE 3 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

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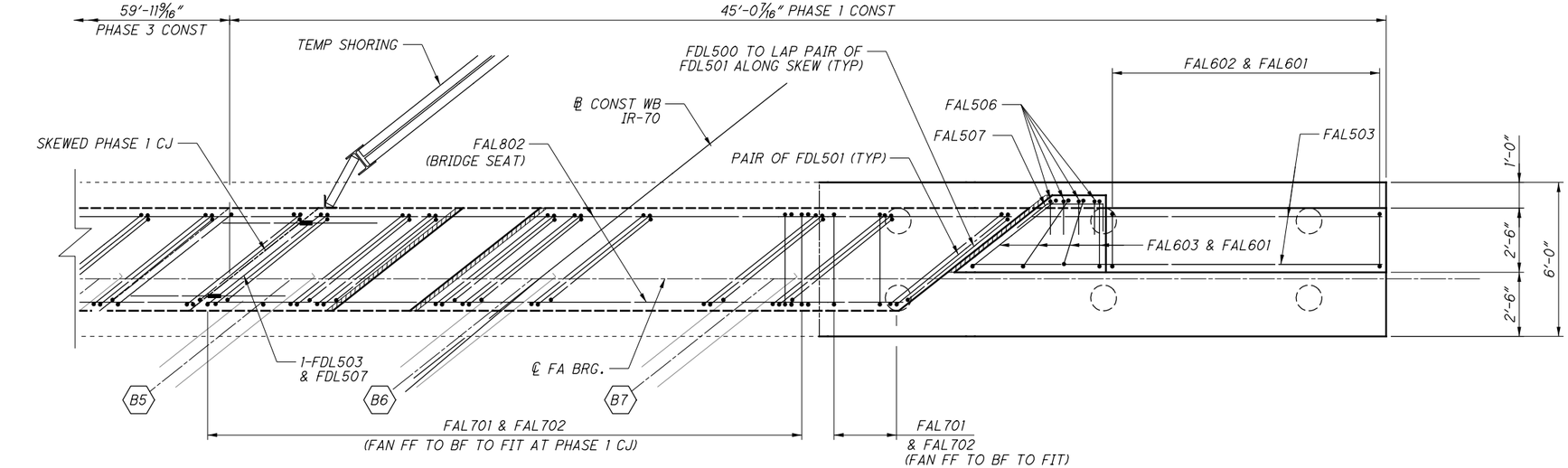
DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

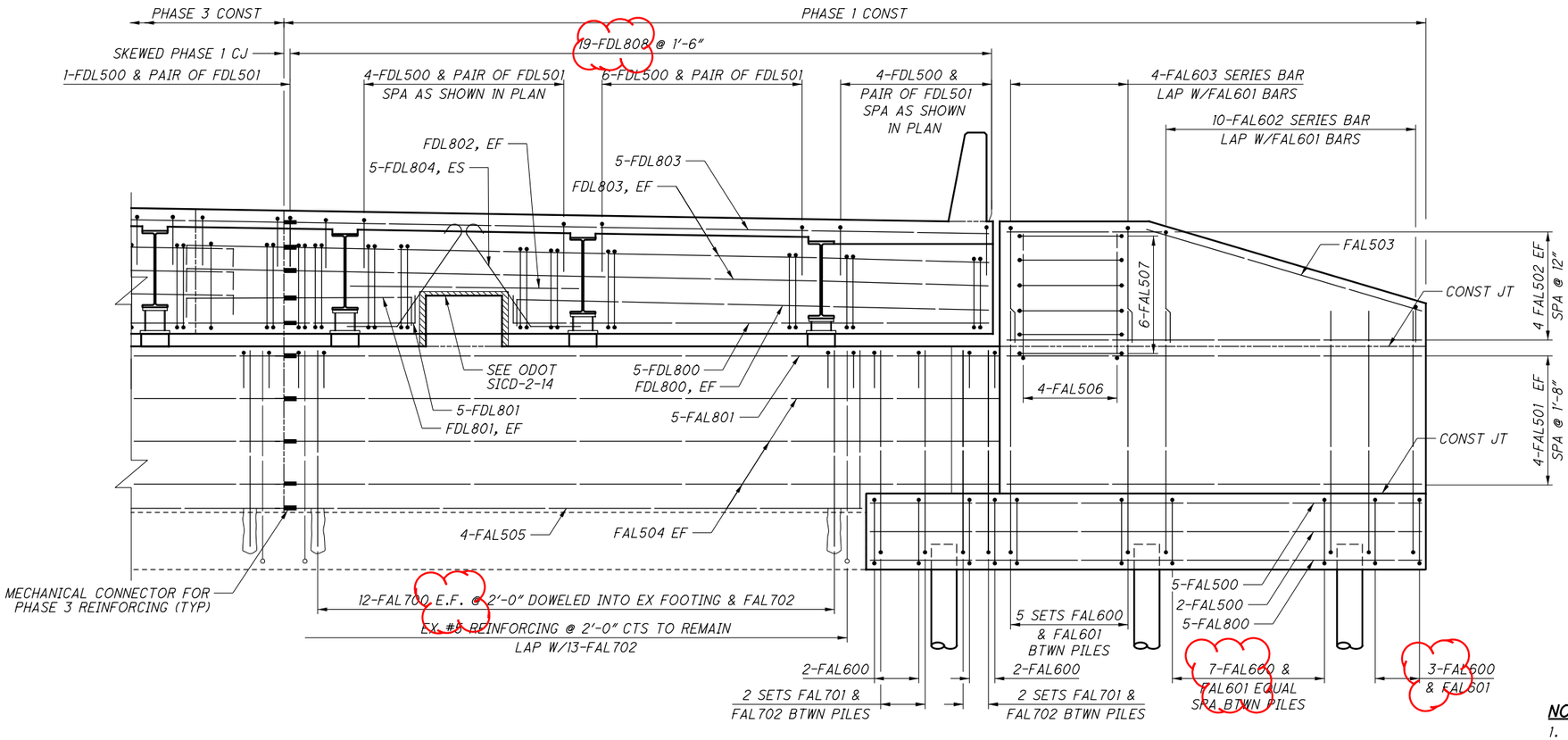
DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

REAR ABUTMENT PHASE 3
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006



FORWARD ABUTMENT PHASE 1 PLAN



FORWARD ABUTMENT PHASE 1 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 24/54 FOR ABUTMENT DETAILS AND SECTIONS.
2. SEE SHEET 13/54 FOR FOUNDATION PLAN.
3. SEE SHEET 38/54 FOR TRANSVERSE SECTION.
4. 2" CLEAR COVER UNLESS NOTED OTHERWISE.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

FORWARD ABUTMENT PHASE 1
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

22 / 54

1309
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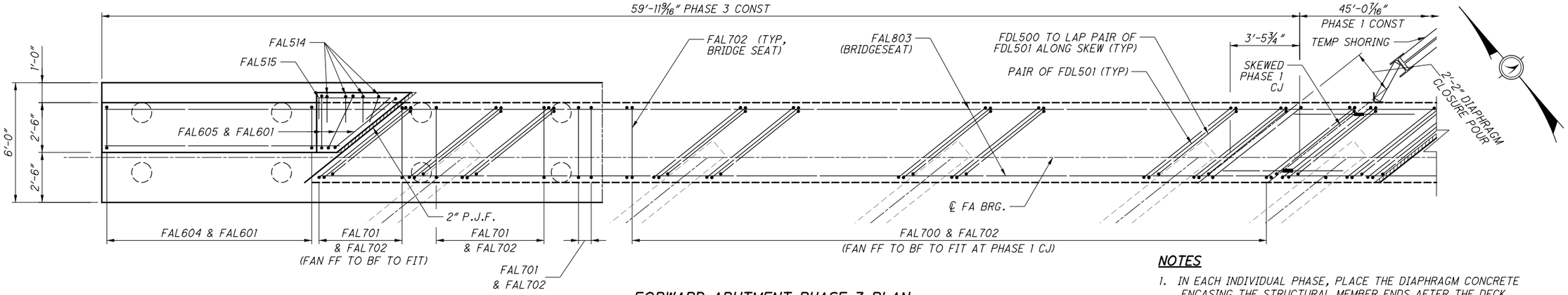
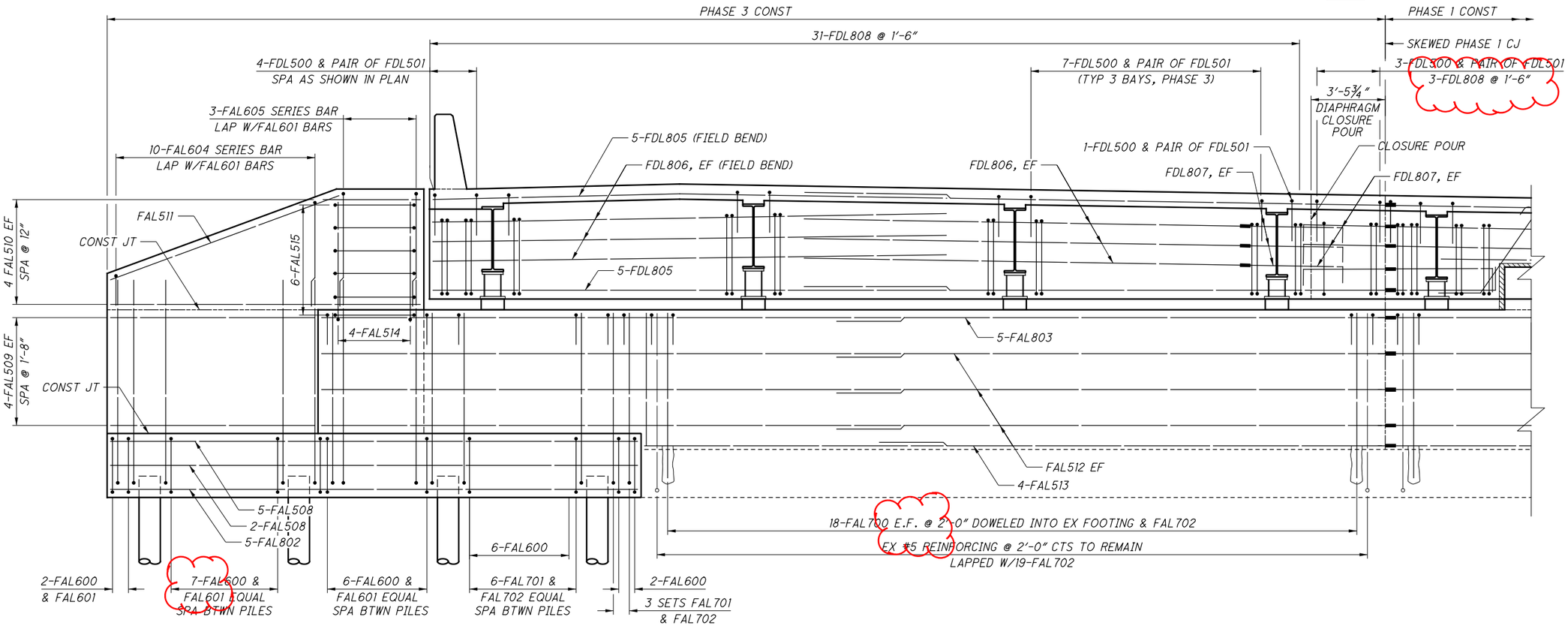


FORWARD ABUTMENT PHASE 3 PLAN

NOTES

1. IN EACH INDIVIDUAL PHASE, PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET. PLACE CLOSURE POUR IN THE DIAPHRAGM AND DECK CONCURRENTLY.
2. SEE SHEET 22/54 FOR ADDITIONAL NOTES.



FORWARD ABUTMENT PHASE 3 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

FORWARD ABUTMENT PHASE 3
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

23 / 54

1310
2231

SUBMITTAL: Stage 3
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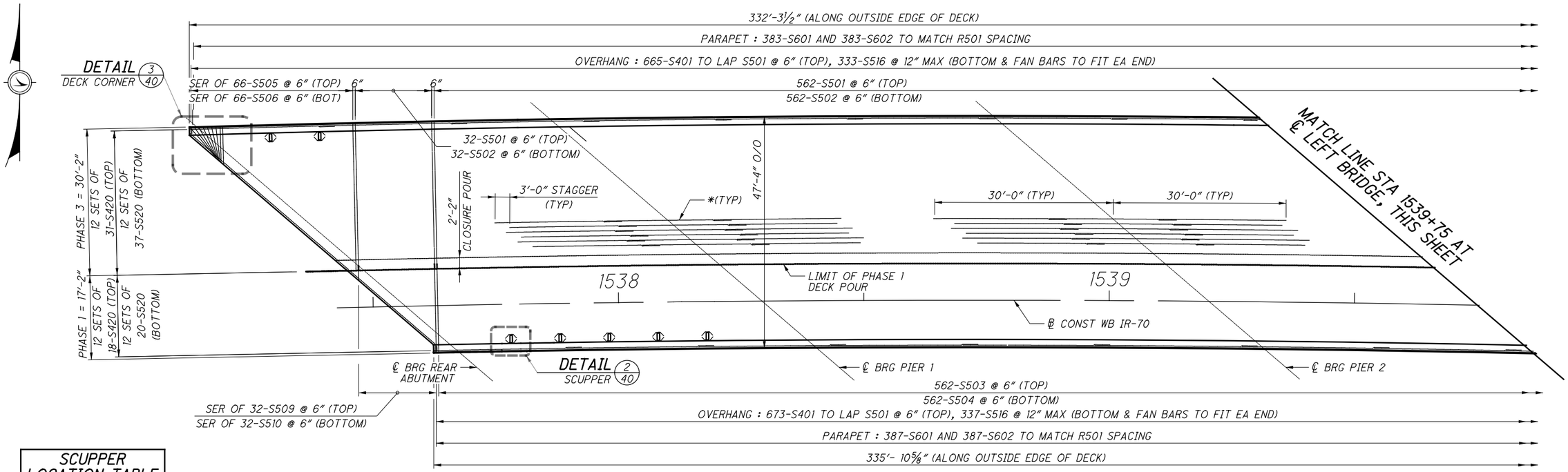
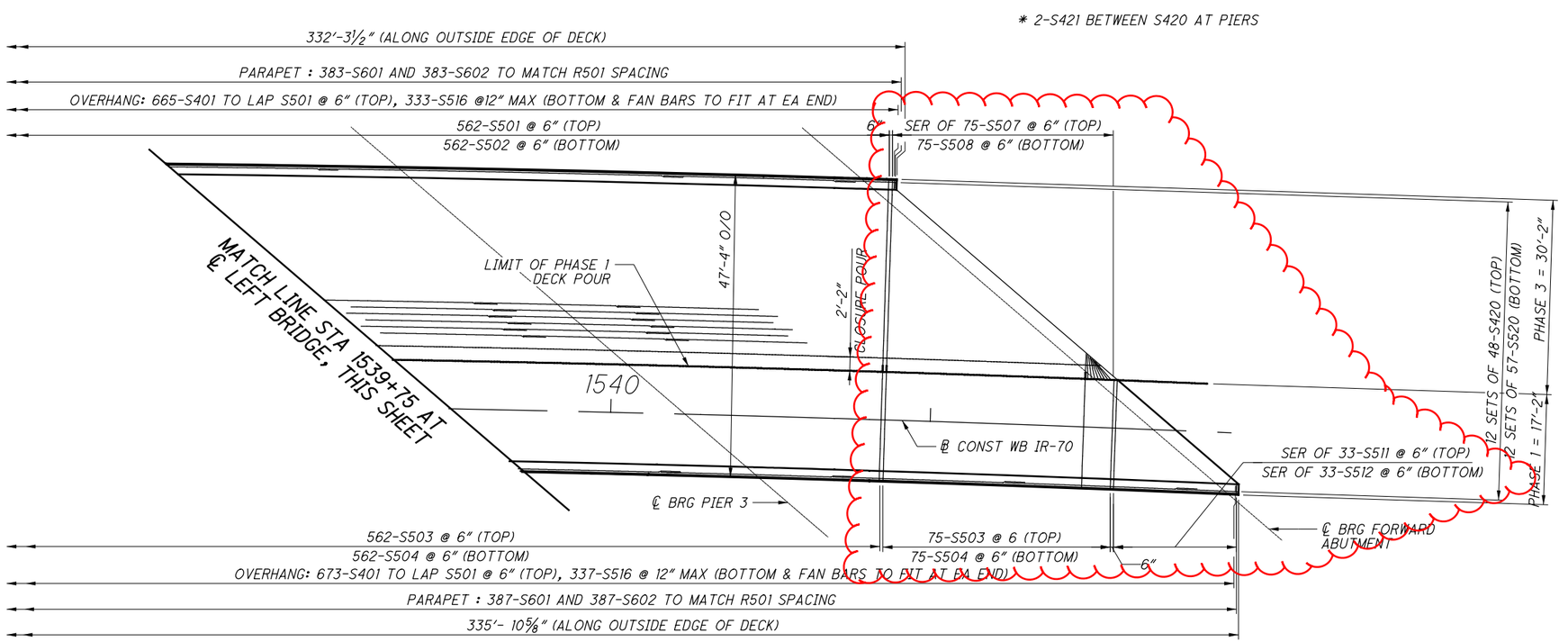


DECK REINFORCING PLAN

SCUPPER LOCATION TABLE	
STATION	OFFSET
1537+30	36.00′ LT
1537+40	36.00′ LT
1537+78	8.00′ RT
1537+88	8.00′ RT
1537+98	8.00′ RT
1538+08	8.00′ RT
1538+18	8.00′ RT

OFFSET MEASURED FROM ℄ TO GUTTER LINE



DECK REINFORCING PLAN (CONTINUATION)

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2560 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
MMZ	EBP	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

39 / 54

1326
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-GannettFleming\Structures\MUS070_1066L\Sheets\039 sd001 4/8/2021 2:13:16 PM cmarburger

	Mark	NUMBER			LENGTH	WEIGHT			TYPE	DIMENSIONS					
		Phase 1	Phase 3	TOTAL		Phase 1	Phase 3	TOTAL		A	B	C	D	R	INC
	DECK														
	S401	673	665	1,338	7'-5"	3,334	3,295	6,629	16	6'-11"					
	S420	216	372	588	30'-3"	4,365	7,517	11,882	STR.						
	S421	324	540	864	21'-4"	4,617	7,696	12,313	STR.						
	S501		594	594	30'-6"		18,897	18,897	16	29'-11"					
	S502		594	594	29'-11"		18,535	18,535	STR.						
#	S503	637		637	17'-9"	11,793		11,793	16	17'-2"					
#	S504	637		637	17'-2"	11,406		11,406	STR.						
			1	1	1'-7"					1'-0"					
	S505		SER OF	SER OF	to		1,105	1,105	16	to					5 1/4"
			66	66	30'-6"					29'-11"					
			1	1	1'-0"										
	S506		SER OF	SER OF	to		1,065	1,065	STR.						5 1/4"
			66	66	29'-11"										
			1	1	1'-7"					1'-0"					
	S507		SER OF	SER OF	to		203	203	16	to					1/4"
			75	75	3'-7"					3'-0"					
			1	1	1'-0"										
	S508		SER OF	SER OF	to		1,210	1,210	STR.						4 1/2"
			75	75	29'-11"										
		1		1	1'-7"					1'-0"					
	S509	SER OF		SER OF	to	323		323	16	to					6 1/4"
		32		32	17'-9"					17'-2"					
		1		1	1'-0"										
	S510	SER OF		SER OF	to	304		304	STR.						6 1/4"
		32		32	17'-2"										
		1		1	1'-7"					1'-0"					
	S511	SER OF		SER OF	to	333		333	16	to					6"
		33		33	17'-9"					17'-2"					
		1		1	1'-0"										
	S512	SER OF		SER OF	to	313		313	STR.						6"
		33		33	17'-2"										
	S516	337	333	670	7'-9"	2,724	2,692	5,416	2	3'-9"	6"	3'-9"			
	S520	240	444	684	30'-3"	7,572	14,009	21,581	STR.						
	S521	10	4	14	5'-10"	61	25	86	13	2'-0"	1'-4"	1'-4"	2'-0"		
	S601	420	417	837	5'-4"	3,365	3,340	6,705	1	2'-5"	3'-1"				
	S602	420	417	837	5'-3"	3,312	3,289	6,601	28	3'-1"	1'-2"				
		2	4	6	4'-0"						3'-2"				
	S603	SER OF	SER OF	SER OF	to	159	319	478	1	1'-0"	to				3/4"
		12	12	12	4'-10"						4'-0"				
	S604	6	12	18	4'-0"	36	73	109	1	1'-0"	3'-2"				
		1		1	10'-4"								3'-4"		
	S620	SER OF		SER OF	to	296		296	35	7 1/2"	1'-4"	1'-0"	to	3"	1 3/4"
		17		17	12'-10"								4'-7"		
					SUB-TOTAL	54,313	83,270	137,583							
	PARAPET														
	R501	420	417	837	7'-5"	3,249	3,226	6,475	23	11"	3'-3"	3'-0"		2 3/4"	
	R510	30	34	64	9'-8"	303	343	646	STR.						
	R511	68	62	130	4'-8"	331	302	633	STR.						
	R512		4	4	3'-5"		15	15	STR.						
	R513	2		2	6'-9"	15		15	STR.						
	R514	2		2	8'-5"	18		18	STR.						
	R515	48	48	96	30'-3"	1,514	1,514	3,028	STR.						
	R520	2	4	6	15'-9"	33	66	99	STR.						
	R521	8	16	24	16'-1"	134	269	403	STR.						
	R522	4	8	12	10'-0"	42	84	126	STR.						
	R523	4	8	12	5'-11"	25	50	75	STR.						
	R524	4	8	12	5'-11"	25	50	75	STR.						
	R530	6		6	14'-9"	93		93	STR.						
	R531	8		8	16'-1"	135		135	STR.						
	R532	2		2	8'-11"	19		19	STR.						
	R533	2		2	14'-9"	31		31	STR.						
	R610	15	17	32	9'-8"	218	247	465	STR.						
	R611	34	31	65	4'-8"	239	217	456	STR.						
	R612		2	2	3'-4"		11	11	STR.						
	R613	1		1	6'-9"	11		11	STR.						
	R614	1		1	8'-5"	13		13	STR.						
	R620	1	2	3	15'-9"	24	47	71	STR.						
	R630	1		1	14'-9"	23		23	STR.						
					SUB-TOTAL	6,495	6,441	12,936							

\# = BAR WITH MECHANICAL CONNECTOR

MINIMUM LAP LENGTH

#4 BARS = 1'-11"
#5 BARS (DECK) = 2'-5"
#5 BARS (OTHERS) = 3'-1"
#6 BARS = 3'-7"
#7 BARS = 4'-8"
#8 BARS = 5'-4"

NOTES:

1. ALL REINFORCEMENT BARS SHALL BE EPOXY COATED. PAYMENT FOR REINFORCING, INCLUDING MECHANICAL CONNECTORS, SHALL BE MADE WITH ITEM 509 - EPOXY COATED REINFORCING STEEL
2. "STR." IN THE TYPE COLUMN INDICATES STRAIGHT BARS.
3. "SER OF" DENOTES SERIES OF BARS, E.G "X" SER OF "Y" = "X" SERIES OF "Y" BARS/SERIES.
4. REFER TO C.M.S SECTION 509.05 FOR STANDARD BEND DIMENSIONS.
5. MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED IN ACCORDANCE WITH C.M.S. SECTION 509.07. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER RECOMMENDED PROCEDURES.

   CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS THAT HAVE BEEN DAMAGED OR THAT OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY, MAY BE REPAIRED AS DIRECTED BY THE ENGINEER, OR THEY SHALL BE REPLACED WITH MATERIAL WITH MEETS THE SPECIFICATIONS. FOR BARS UTILIZING A MECHANICAL CONNECTOR, THE BAR LENGTH FOR PAYMENT IS MEASURED TO THE CENTER OF THE PLANNED MECHANICAL CONNECTION. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED AND THOSE COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 509. CONNECTORS AND DOWEL BAR EXTENSIONS SHALL CONFORM TO AND BE INCLUDED IN THE BID PRICE FOR ITEM 509.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
MZ	MZ	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JC		6002641	

REINFORCING LIST 01
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1339
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-Gannett Fleming\Structures\MUS070_1066L\Sheets\061s001 4/8/2021 2:16:30 PM cmarburger

	Mark	NUMBER Phase 1	NUMBER Phase 3	NUMBER TOTAL	LENGTH	WEIGHT Phase 1	WEIGHT Phase 3	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
	REAR ABUTMENT													
	RAL500	7		7	23'-10"	175		175	STR.					
	RAL501	8		8	13'-10"	116		116	STR.					
		2		2	4'-3"									
	RAL502	SER OF		SER OF	to	76		76	STR.					3'-2 1/4"
		4		4	13'-10"									
	RAL503	2		2	11'-0"	23		23	STR.					
#	RAL504	6		6	25'-6"	160		160	STR.					
		1		1	12'-0"									
#	RAL505	SER OF		SER OF	to	60		60	STR.					1'-6"
		4		4	16'-6"									
	RAL506	4		4	10'-0"	42		42	19	5'-10"	2'-11"	2'-11"		
	RAL507	6		6	7'-7"	48		48	9	1'-0"	1'-0"	3'-9"	2'-8"	
	RAL508		7	7	21'-2"		155	155	STR.					
	RAL509		8	8	17'-1"		143	143	STR.					
			2	2	5'-6"									
	RAL510		SER OF	SER OF	to		95	95	STR.					3'-10 1/4"
			4	4	17'-1"									
	RAL511		2	2	13'-0"		28	28	STR.					
	RAL512		12	12	24'-0"		301	301	STR.					
	RAL513		8	8	23'-0"		192	192	STR.					
	RAL514		4	4	10'-2"		43	43	19	6'-0"	2'-11"	2'-11"		
	RAL515		6	6	5'-6"		35	35	9	1'-0"	1'-0"	1'-8"	2'-8"	
	RAL600	22	18	40	17'-0"	562	460	1,022	3	5'-8"	2'-7"			
	RAL601	11	15	26	20'-0"	331	451	782	2	9'-1"	2'-2"	9'-1"		
		1		1	4'-4"					1'-3"		1'-3"		
	RAL602	SER OF		SER OF	to	116		116	2	to	2'-2"	to		8 3/4"
		10		10	11'-0"					4'-7"		4'-7"		
		1		1	11'-0"						2'-2"			
	RAL603	SER OF		SER OF	to	53		53	2	4'-7"	to	4'-7"		8"
		3		3	12'-4"						3'-6"			
			1	1	4'-4"					1'-3"		1'-3"		
	RAL604		SER OF	SER OF	to		127	127	2	to	2'-2"	to		8"
			11	11	11'-0"					4'-7"		4'-7"		
			1	1	11'-0"						2'-2"			
	RAL605		SER OF	SER OF	to		71	71	2	4'-7"	to	4'-7"		5 1/4"
			4	4	12'-4"						3'-6"			
	RAL700	14	44	58	7'-0"	200	630	830	STR.					
	RAL701	11	3	14	19'-0"	427	117	544	2	7'-10"	3'-8"	7'-10"		
	RAL702	26	48	74	12'-8"	673	1,243	1,916	2	4'-8"	3'-8"	4'-8"		
	RAL800	5		5	23'-10"	319		319	STR.					
#	RAL801	5		5	25'-6"	341		341	STR.					
	RAL802		5	5	21'-2"		283	283	STR.					
	RAL803		10	10	25'-3"		675	675	STR.					
					SUB-TOTAL	3,722	5,049	8,771						
	REAR DIAPHRAGM													
	RDL500	15	28	43	9'-9"	153	285	438	2	2'-6"	4'-11"	2'-6"		
	RDL501	30	56	86	11'-2"	350	652	1,002	2	2'-11 1/2"	5'-6"	2'-11 1/2"		
	RDL800	7		7	18'-4"	343		343	1	1'-6"	17'-0"			
#	RDL801	7		7	6'-1"	114		114	1	1'-6"	4'-9"			
	RDL802	2		2	8'-6"	46		46	STR.					
#	RDL803	9		9	25'-5"	611		611	STR.					
	RDL804	10		10	8'-6"	227		227	18	5'-0"	1'-11"	1'-9"		
	RDL805		20	20	25'-10"		1,380	1,380	STR.					
	RDL806		12	12	22'-11"		735	735	STR.					
	RDL807		12	12	5'-0"		161	161	1	1'-0"	4'-2"			
	RDL808	18	31	49	5'-2"	248	428	676	18	2'-3"	1'-4 3/4"	1'-4 3/4"		
					SUB-TOTAL	2,092	3,641	5,733						

= BAR WITH MECHANICAL CONNECTOR

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

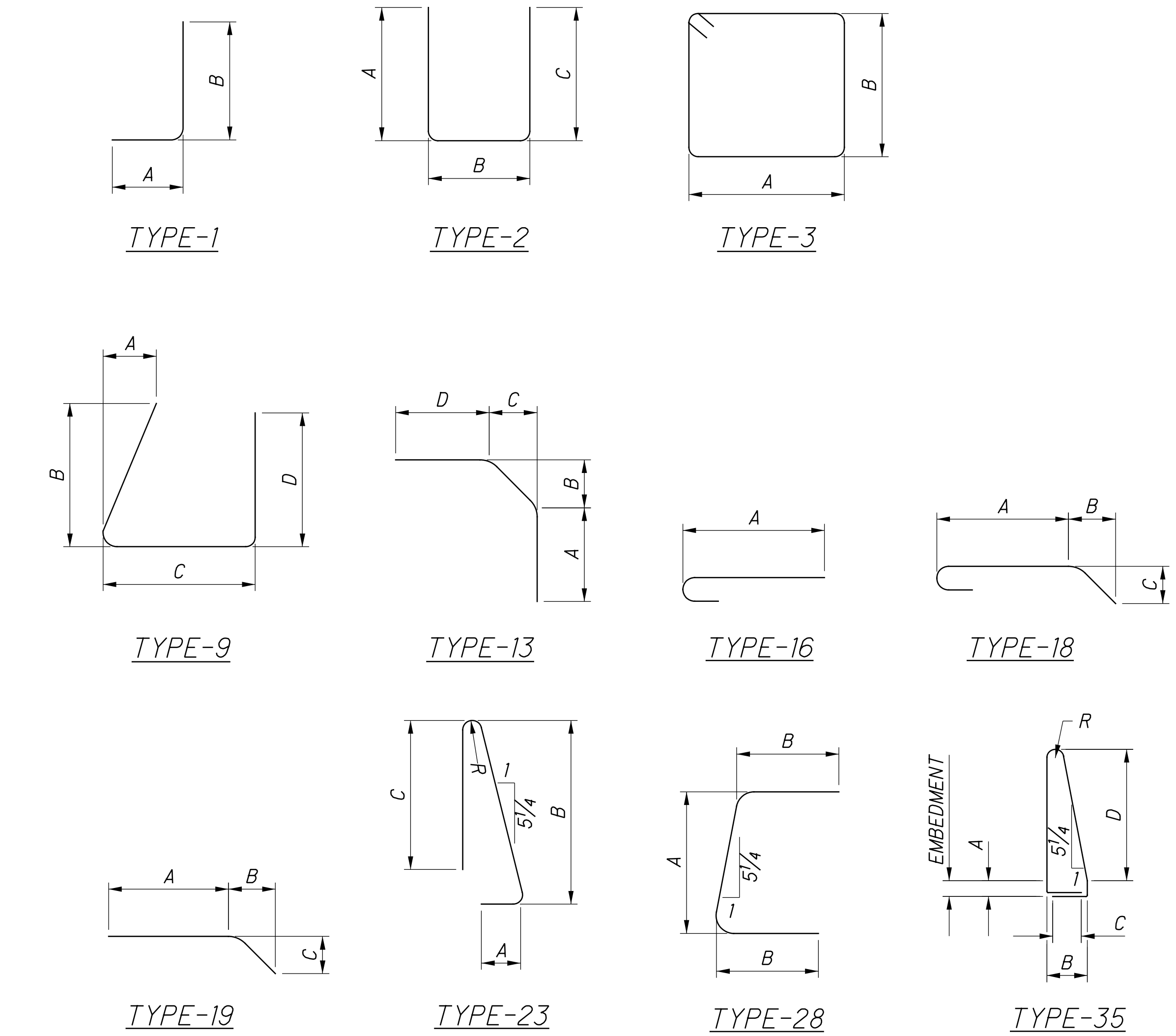
DESIGNED	DRAWN	REVIEWED	DATE
MZ	MZ	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JC		6002641	

REINFORCING LIST 02
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1340
2231

	Mark	NUMBER			LENGTH	WEIGHT			TYPE	DIMENSIONS				
		Phase 1	Phase 3	TOTAL		Phase 1	Phase 3	TOTAL		A	B	C	D	INC
	FORWARD ABUTMENT													
	FAL500	7		7	21'-9"	159		159	STR.					
	FAL501	8		8	16'-6"	138		138	STR.					
		2		2	5'-10"									
	FAL502	SER OF		SER OF	to	94		94	STR.					3'-6 1/2"
		4		4	16'-6"									
	FAL503	2		2	11'-4"	24		24	STR.					
#	FAL504	6		6	27'-6"	173		173	STR.					
		1		1	19'-3"									
#	FAL505	SER OF		SER OF	to	91		91	STR.					1'-8"
		4		4	24'-3"									
	FAL506	4		4	9'-9"	41		41	19	5'-7"	2'-11"	2'-11"		
	FAL507	6		6	5'-10"	37		37	9	1'-0"	1'-0"	2'-0"	2'-8"	
	FAL508		7	7	24'-10"		182	182	STR.					
	FAL509		8	8	14'-10"		124	124	STR.					
			2	2	4'-1"									
	FAL510		SER OF	SER OF	to		58	58	STR.					1'-10"
			4	4	9'-7"									
	FAL511		2	2	14'-10"		31	31	STR.					
	FAL512		12	12	26'-6"		332	332	STR.					
	FAL513		8	8	19'-0"		159	159	STR.					
	FAL514		4	4	10'-6"		44	44	19	6'-4"	2'-11"	2'-11"		
	FAL515		6	6	7'-8"		48	48	9	1'-0"	1'-0"	3'-10"	2'-8"	
	FAL600	18	23	41	17'-0"	460	587	1,047	3	5'-8"	2'-7"			
	FAL601	14	15	29	22'-6"	474	507	981	2	10'-4"	2'-2"	10'-4"		
		1		1	4'-4"					1'-3"		1'-3"		
	FAL602	SER OF		SER OF	to	116		116	2	to	2'-2"	to		8 3/4"
		10		10	11'-0"					4'-7"		4'-7"		
		1		1	11'-0"						2'-2"			
	FAL603	SER OF		SER OF	to	71		71	2	4'-7"	to	4'-7"		5 1/4"
		4		4	12'-4"						3'-6"			
			1	1	3'-0"					7"		7"		
	FAL604		SER OF	SER OF	to		112	112	2	to	2'-2"	to		11 3/4"
			10	10	11'-10"					5'-0"		5'-0"		
			1	1	11'-10"						2'-2"			
	FAL605		SER OF	SER OF	to		57	57	2	5'-0"	to	5'-0"		8"
			3	3	13'-2"						3'-6"			
	FAL700	24	36	60	7'-7"	372	559	931	STR.					
	FAL701	4	9	13	19'-4"	158	356	514	2	8'-0"	3'-8"	8'-0"		
	FAL702	29	46	75	14'-2"	840	1,332	2,172	2	5'-5"	3'-8"	5'-5"		
	FAL800	5		5	21'-9"	291		291	STR.					
#	FAL801	5		5	28'-0"	374		374	STR.					
	FAL802		5	5	24'-9"		331	331	STR.					
	FAL803		10	10	25'-1"		670	670	STR.					
					SUB-TOTAL	3,913	5,489	9,402						
	FORWARD DIAPHRAGM													
	FDL500	15	29	44	9'-9"	153	295	448	2	2'-6"	4'-11"	2'-6"		
	FDL501	30	58	88	11'-2"	349	676	1,025	2	2'-11 1/2"	5'-6"	2'-11 1/2"		
	FDL800	7		7	20'-0"	374		374	1	1'-6"	18'-8"			
#	FDL801	7		7	6'-7"	124		124	1	1'-6"	5'-3"			
	FDL802	2		2	9'-0"	49		49	STR.					
#	FDL803	9		9	27'-4"	657		657	STR.					
	FDL804	10		10	8'-6"	227		227	18	5'-0"	1'-11"	1'-9"		
	FDL805		20	20	26'-9"		1,429	1,429	STR.					
	FDL806		12	12	22'-6"		721	721	STR.					
	FDL807		12	12	5'-0"		161	161	1	1'-0"	4'-2"			
	FDL808	19	34	53	5'-2"	262	470	732	18	2'-3"	1'-4 3/4"	1'-4 3/4"		
					SUB-TOTAL	2,195	3,752	5,947						
					TOTAL ALL REINFORCING	72,730	107,642	180,372						



= BAR WITH MECHANICAL CONNECTOR

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
MZ	MZ	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JC		6002641	

REINFORCING LIST 03
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

MUS-70-1066R BRIDGE SUMMARY - 02/IMS/BR

CALC: MMZ | CHECK: CTM

ITEM	ITEM EXT.	TOTAL QUANTITY	TOTAL PER PHASE			UNIT	DESCRIPTION	PHASE 1			PHASE 2			GENERAL	APP/REF SHEET NO.
			PH 1	PH 2	GEN			ABUT.	PIERS	SUPER	ABUT.	PIERS	SUPER		
202	11003	LS			LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN							LS	4
202	22900	228	78	150		SY	APPROACH SLAB REMOVED	78			150				
503	11101	LS			LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN							LS	5
503	21301	LS	LS	LS			UNCLASSIFIED EXCAVATION, AS PER PLAN	LS			LS				5
505	11100	LS			LS		PILE DRIVING EQUIPMENT MOBILIZATION							LS	
507	00600	1,050	500	550		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	500			550				
507	00650	1,190	570	620		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	570			620				
509	10001	178,208	71,416	106,792		LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	7,612		63,804	10,181		96,611		5
509	20001	300			300	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN							300	5
510	10001	108	34	74		EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	34			74				5
511	33500	2	2			EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2							
511	34447	553	206	346		CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			206			346		5
511	34451	117	58	58		CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			58			58		5
511	44112	168	70	99		CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	70			99				
511	46512	61	31	29		CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	31			29				
512	10050	909	444	465		SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	62		382	82		383		
512	10300	73		73		SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN						73		
512	10601	50			50	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN							50	5
512	33000	64	26	38		SY	TYPE 2 WATERPROOFING	26			38				
513	10260	512,447	212,046	300,401		LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			212,046			300,401		
513	20000	6,951	2,979	3,972		EACH	WELDED STUD SHEAR CONNECTORS			2,979			3,972		
514	00061	26,269	11,173	15,096		SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			11,173			15,096		5
514	00067	26,269	11,173	15,096		SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			11,173			15,096		5
514	10000	22	9	13		EACH	FINAL INSPECTION REPAIR			9			13		
516	13901	79	40	39		SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN			40			39		5
516	14020	180	71	109		FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			71			109		
516	14600	142	51	91		FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	51			91				50
516	44101	28	12	16		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN , DIMENSIONS VARY	6	6		8	8			30
516	46900	7	3	4		EACH	BEARING DEVICE, MISC.: SEISMIC ISOLATION BEARING		3			4			31
518	12200	7	2	5		EACH	SCUPPERS, INCLUDING SUPPORTS	2			5				
518	21200	128	52	76		CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	52			76				
518	40000	194	88	105		FT	6" PERFORATED CORRUGATED PLASTIC PIPE	88			105				
518	40010	60	30	30		FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	30			30				
519	11101	70			70	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN							70	5
523	20001	8	4	4		EACH	DYNAMIC LOAD TESTING, AS PER PLAN	4			4				5
523	20501	8	4	4		EACH	RESTRIKE, AS PER PLAN	4			4				5
526	30010	316	114	201		SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	114			201				
SPECIAL	53000200	LS			LS		STRUCTURES - MEASUREMENTS FOR PROPOSED BEARINGS							LS	6
601	20000	1,022			1,022	SY	CRUSHED AGGREGATE SLOPE PROTECTION							1,022	
607	39900	340	170	170		FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			170			170		
613	41201	333	128	205		CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	128			205				5

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED MMZ | DRAWN LAM | REVIEWED CTM | DATE 12/2020 | STRUCTURE FILE NUMBER 6002676 | CHECKED DF | REVISED

BRIDGE SUMMARY
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1348
2231

SUBMITTAL: Stage 3
PID: 93006
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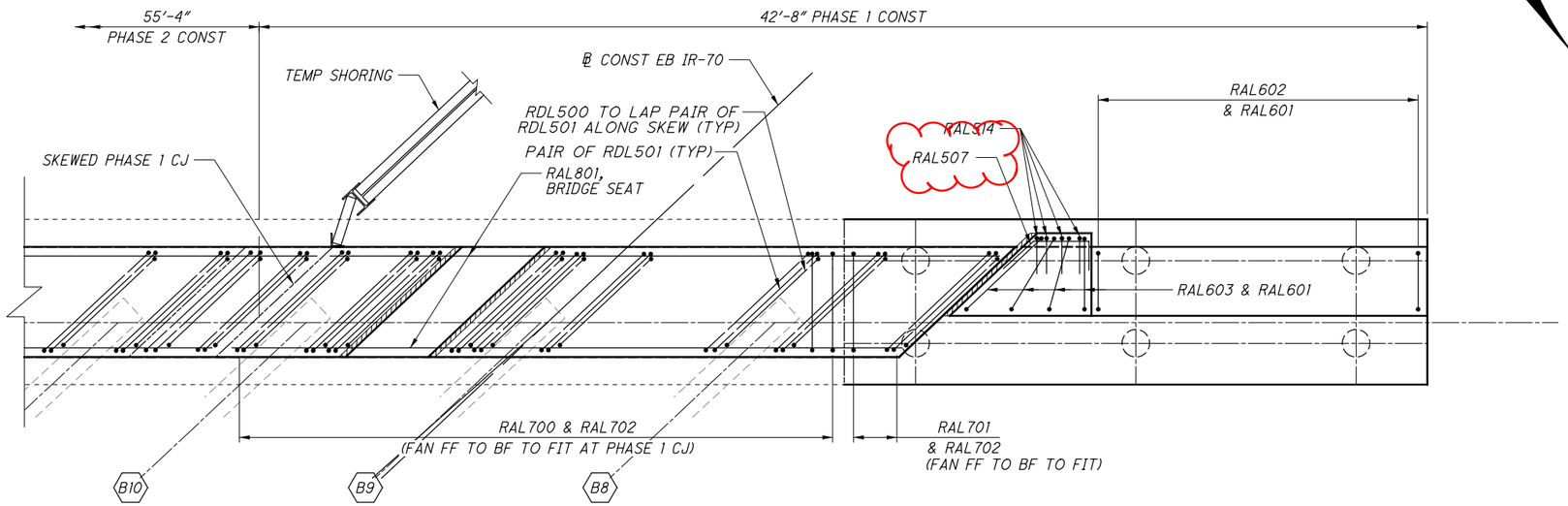
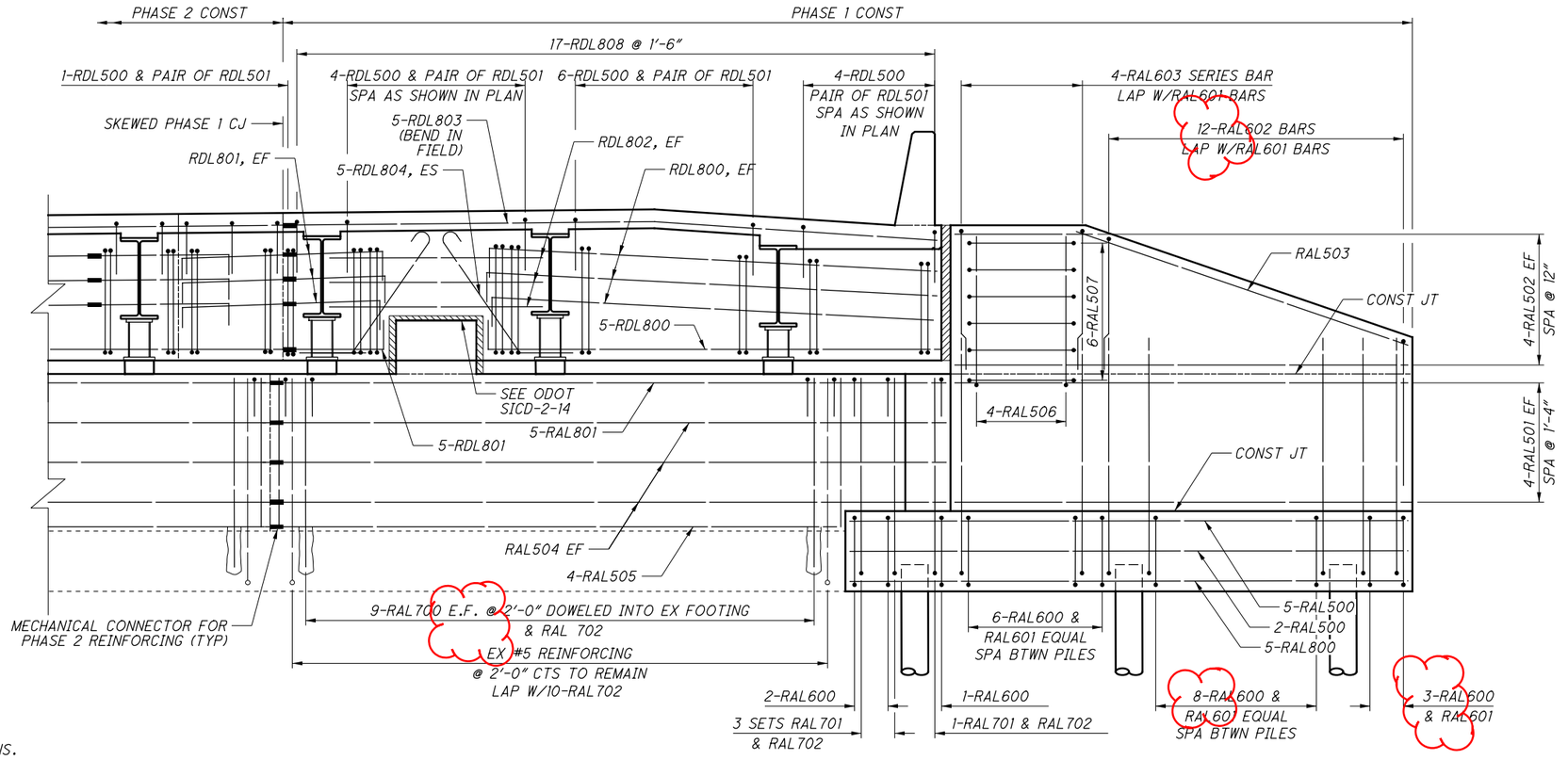
PENTABLE: 93006_ODOTV8L_Pen.tbl
DW:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-Gannett Fleming\Structures\MUS070_1066R\Sheets\006 sq001 4/9/2021 9:52:29 AM modonnell



REAR ABUTMENT PHASE 1 PLAN



REAR ABUTMENT PHASE 1 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 18 53 FOR ABUTMENT DETAILS AND SECTIONS.
2. SEE SHEET 12 53 FOR FOUNDATION PLAN.
3. SEE SHEET 38 53 FOR TRANSVERSE SECTION.
4. ASSUME 2" CLEAR COVER UNLESS NOTED OTHERWISE.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

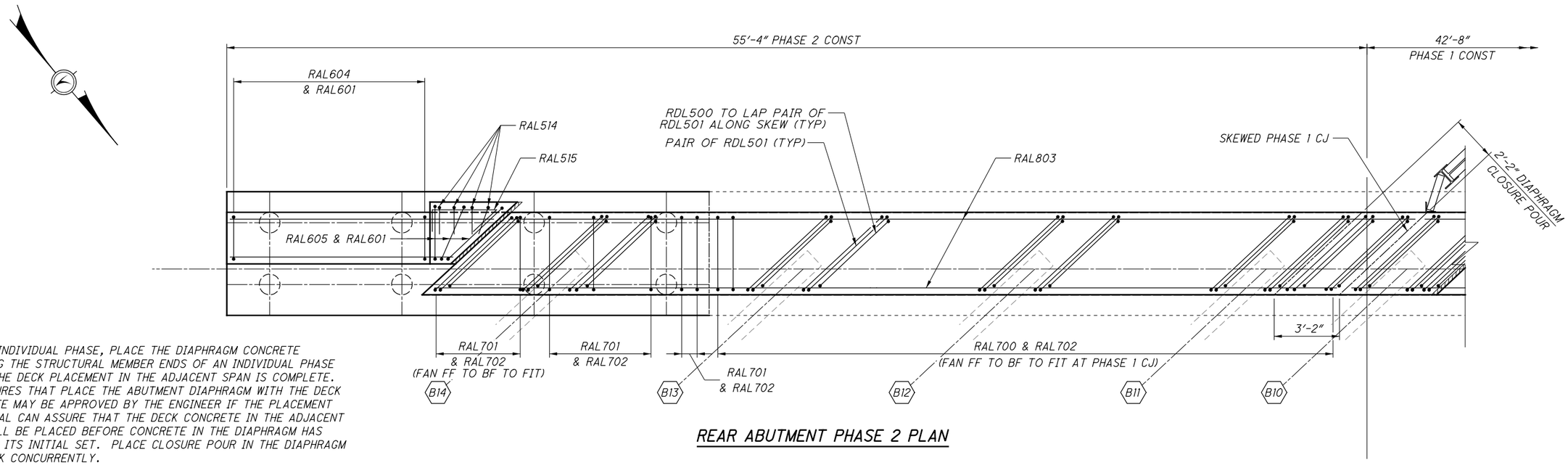
DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

REAR ABUTMENT PHASE 1
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

16 / 53

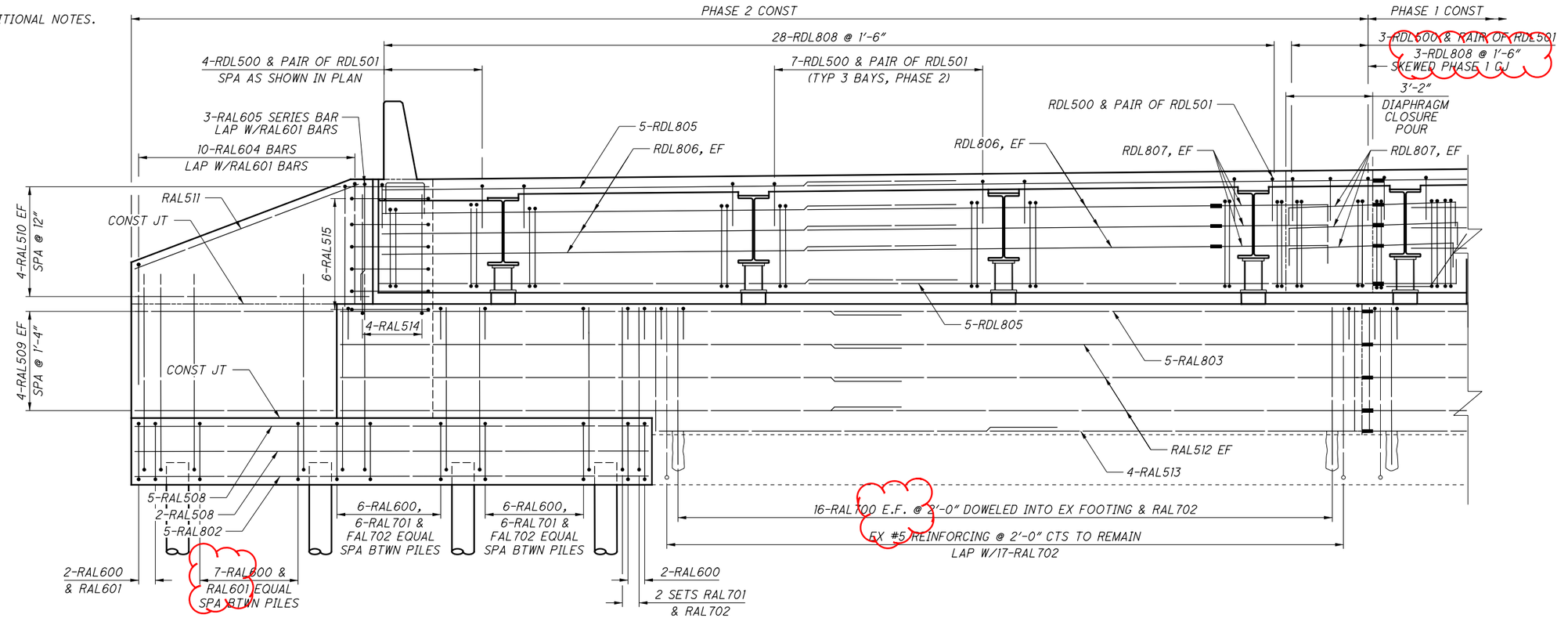
1357
2231



REAR ABUTMENT PHASE 2 PLAN

NOTES:

1. IN EACH INDIVIDUAL PHASE, PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET. PLACE CLOSURE POUR IN THE DIAPHRAGM AND DECK CONCURRENTLY.
2. SEE SHEET 22/53 FOR ADDITIONAL NOTES.



REAR ABUTMENT PHASE 2 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

SUBMITTAL: Stage 3
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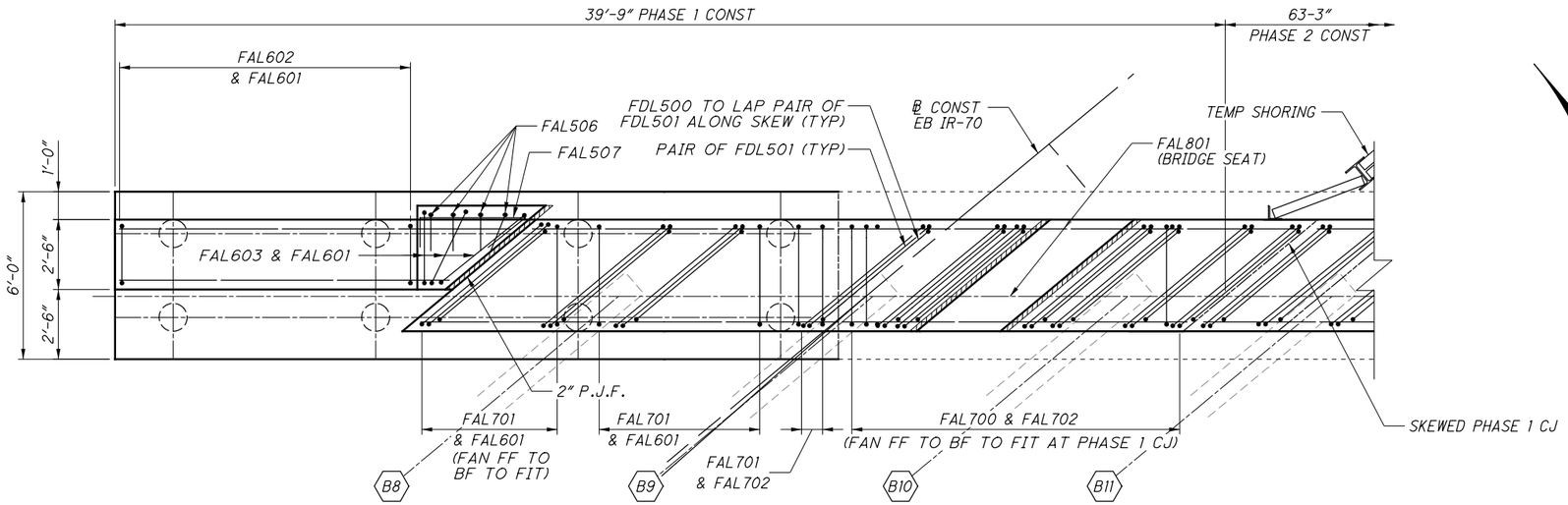
DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

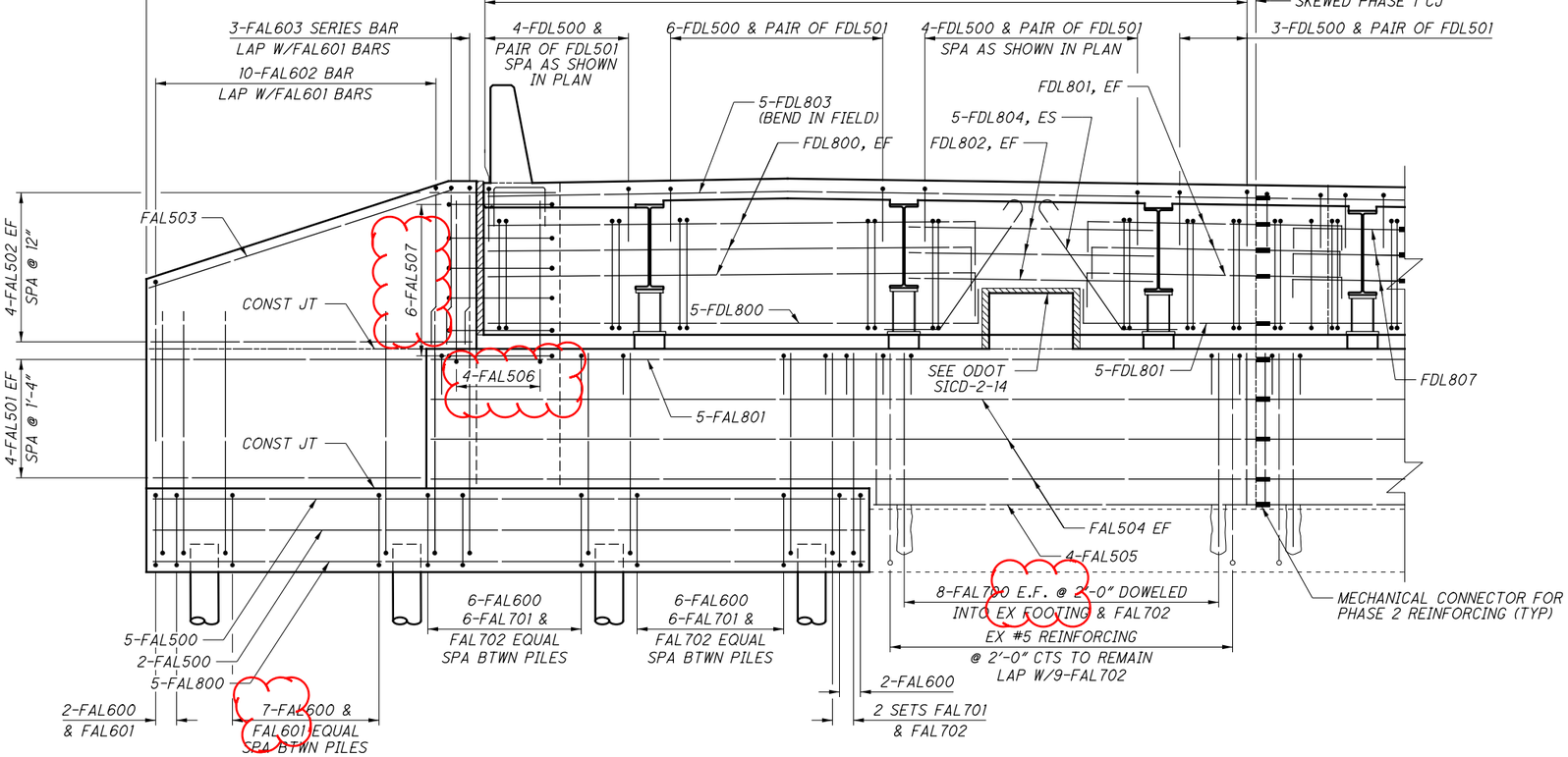
DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

REAR ABUTMENT PHASE 2
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006



FORWARD ABUTMENT PHASE 1 PLAN



FORWARD ABUTMENT PHASE 1 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 24/53 FOR ABUTMENT DETAILS AND SECTIONS.
2. SEE SHEET 13/53 FOR FOUNDATION PLAN.
3. SEE SHEET 38/53 FOR TRANSVERSE SECTION.
4. ASSUME 2" CLEAR COVER UNLESS NOTED OTHERWISE.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

FORWARD ABUTMENT PHASE 1
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

22 / 53

1363
2231

SUBMITTAL: Stage 3
PID: 93006
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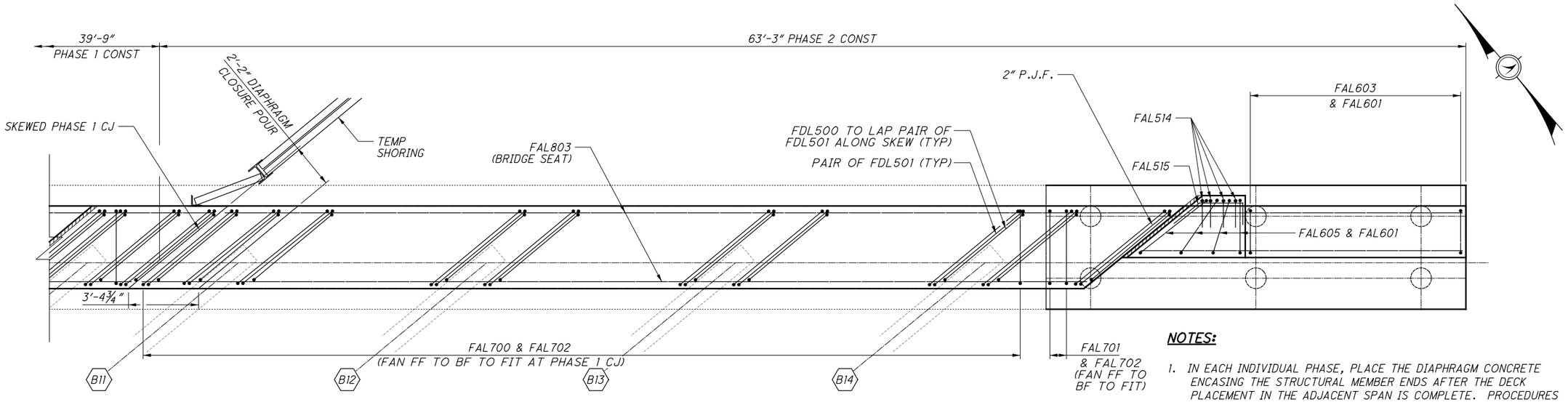
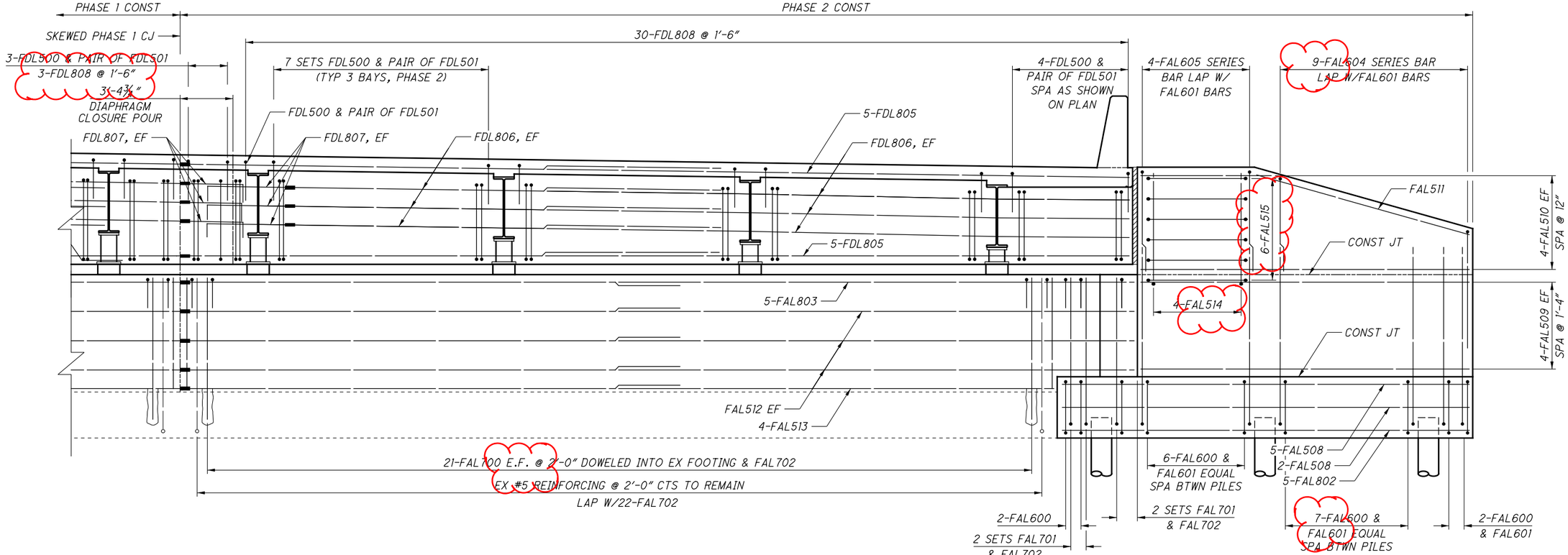


FORWARD ABUTMENT PHASE 2 PLAN

NOTES:

1. IN EACH INDIVIDUAL PHASE, PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET. PLACE CLOSURE POUR IN THE DIAPHRAGM AND DECK CONCRETE CONCURRENTLY.
2. SEE SHEET 22/53 FOR ADDITIONAL NOTES.



FORWARD ABUTMENT PHASE 2 ELEVATION

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED JGC | CHECKED DF
DRAWN LAM | REVISED
REVIEWED CTM | DATE 12/2020
STRUCTURE FILE NUMBER 6002676

FORWARD ABUTMENT PHASE 2
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1364
2231

SUBMITTAL: Stage 3
PID: 93006
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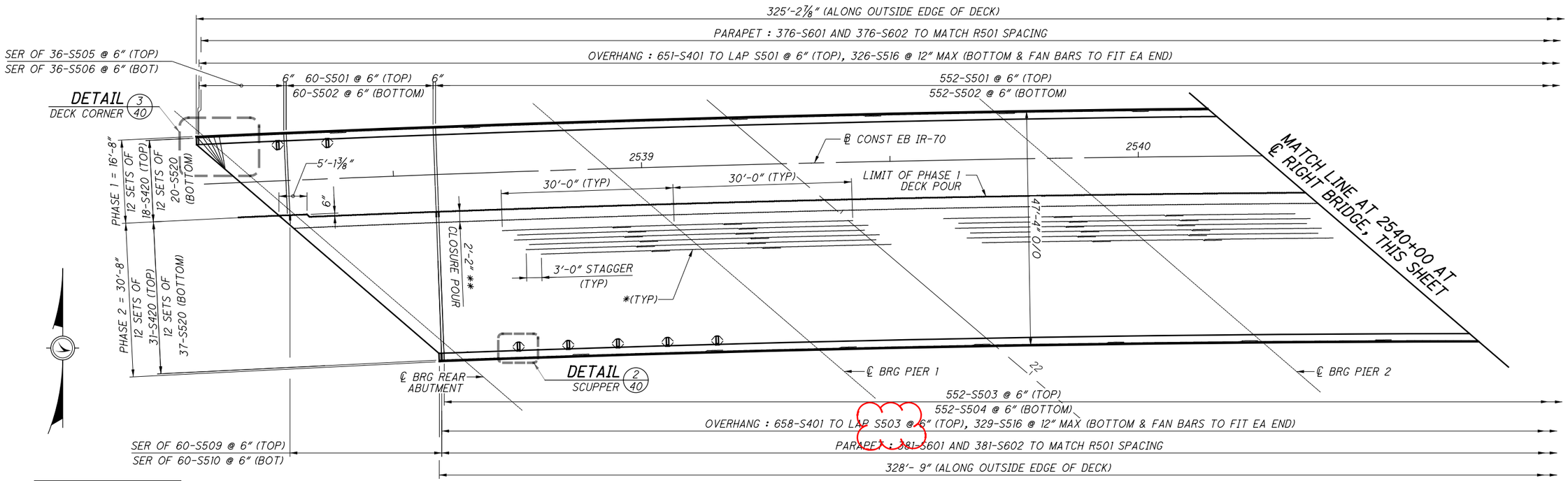
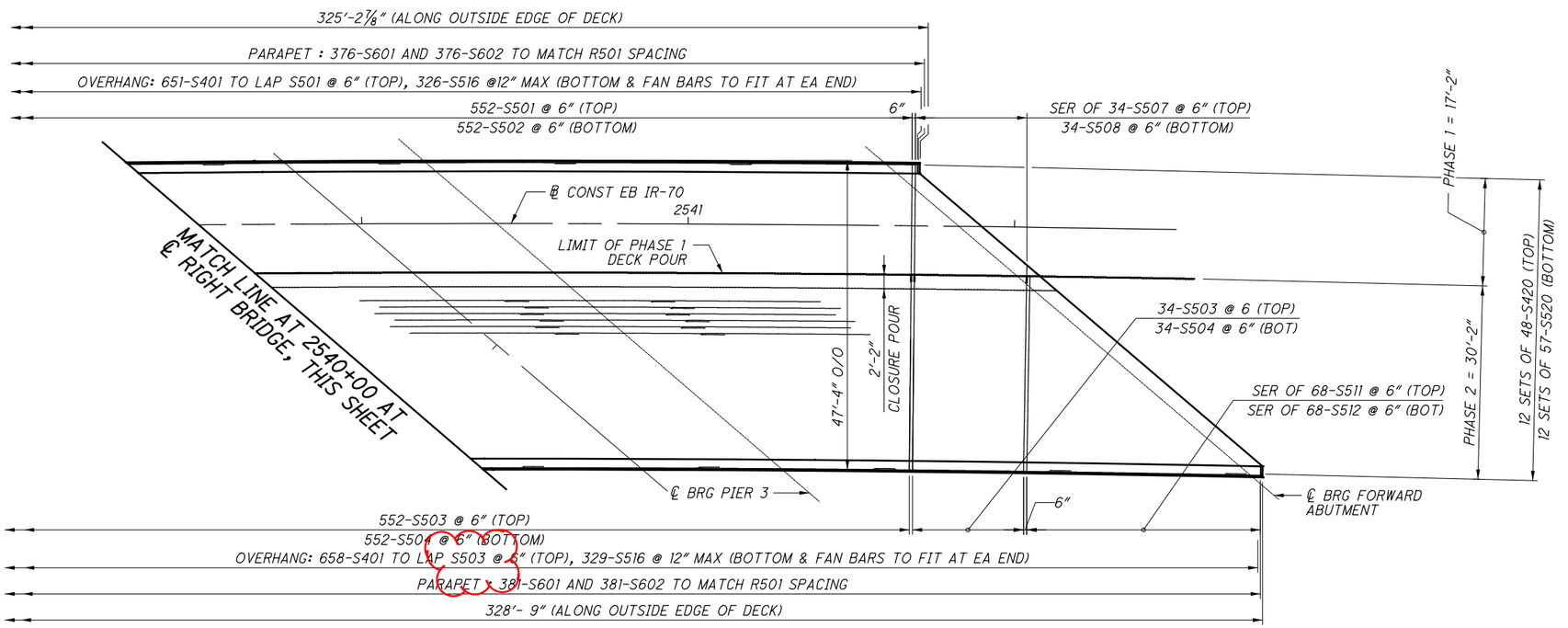


DECK REINFORCING PLAN

SCUPPER LOCATION TABLE	
STATION	OFFSET
2538+27	8.00' LT
2538+37	8.00' LT
2538+74	36.00' RT
2538+84	36.00' RT
2538+94	36.00' RT
2539+04	36.00' RT
2539+14	36.00' RT

OFFSET MEASURED FROM ℄ TO GUTTER LINE

* 2-S421 BETWEEN S420 AT PIERS
** SEE DIMENSIONS FOR CLOSURE POUR AT REAR ABUTMENT



DECK REINFORCING PLAN

DECK REINFORCING PLAN

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
MMZ	EBP	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1380
2231

SUBMITTAL: Stage 3
PID: 93006
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Mark	NUMBER Phase 1	NUMBER Phase 2	NUMBER TOTAL	LENGTH	WEIGHT Phase 1	WEIGHT Phase 2	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	R	INC
DECK														
S401	651	658	1,309	7'-5"	3,226	3,260	6,486	16	6'-11"					
S420	216	372	588	30'-3"	4,365	7,517	11,882	STR.						
S421	324	540	864	21'-4"	4,617	7,696	12,313	STR.						
# S501	612		612	17'-9"	11,331		11,331	16	17'-2"					
# S502	612		612	17'-2"	10,958		10,958	STR.						
S503		586	586	30'-6"		18,642	18,642	16	29'-11"					
S504		586	586	29'-11"		18,286	18,286	STR.						
	1		1	1'-7"					1'-0"					
S505	SER OF		SER OF	to	363		363	16	to					5 1/2"
	36		36	17'-9"					17'-2"					
	1		1	1'-0"										
S506	SER OF		SER OF	to	342		342	STR.						5 1/2"
	36		36	17'-2"										
	1		1	1'-7"					1'-0"					
S507	SER OF		SER OF	to	343		343	16	to					5 3/4"
	34		34	17'-9"					17'-2"					
	1		1	1'-0"										
S508	SER OF		SER OF	to	323		323	STR.						5 3/4"
	34		34	17'-2"										
		1	1	1'-7"					1'-0"					
S509		SER OF	SER OF	to		1,004	1,004	16	to					5 3/4"
		60	60	30'-6"					29'-11"					
		1	1	1'-0"										
S510		SER OF	SER OF	to		968	968	STR.						5 3/4"
		60	60	29'-11"										
		1	1	1'-7"					1'-0"					
S511		SER OF	SER OF	to		1,138	1,138	16	to					5"
		68	68	30'-6"					29'-11"					
		1	1	1'-0"										
S512		SER OF	SER OF	to		1,097	1,097	STR.						5"
		68	68	29'-11"										
S516	326	329	655	7'-9"	2,635	2,660	5,295	2	3'-9"	6"	3'-9"			
S520	240	444	684	30'-3"	7,572	14,009	21,581	STR.						
S521	4	10	14	5'-10"	25	61	86	13	2'-0"	1'-4"	1'-4"	2'-0"		
S601	410	415	825	5'-4"	3,284	3,325	6,609	1	2'-5"	3'-1"				
S602	410	415	825	5'-3"	3,233	3,273	6,506	28	3'-1"	1'-2"				
	4	4	8	4'-0"						3'-2"				
S603	SER OF	SER OF	SER OF	to	318	318	636	1	1'-0"	to				3/4"
	12	12	12	4'-10"						4'-0"				
S604	12	12	24	3'-10"	70	70	140	1	1'-0"	3'-0"				
				SUB-TOTAL	53,005	83,324	136,329							
PARAPET														
R501	410	415	825	7'-5"	3,172	3,210	6,382	23	11"	3'-3"	3'-0"		2 3/4"	
R510	30	28	58	9'-8"	303	282	585	STR.						
R511	66	74	140	4'-8"	322	360	682	STR.						
R512	2	2	4	3'-5"	8	8	16	STR.						
R513	2		2	6'-9"	15		15	STR.						
R514	48		48	29'-4"	1,469		1,469	STR.						
R515		48	48	29'-7"		1,482	1,482	STR.						
R520	4	4	8	15'-11"	66	66	132	STR.						
R521	16	16	32	16'-2"	270	270	540	STR.						
R522	8	8	16	10'-0"	84	84	168	STR.						
R523	8	8	16	5'-11"	50	50	100	STR.						
R524	8	8	16	5'-11"	50	50	100	STR.						
R610	15	14	29	9'-8"	218	204	422	STR.						
R611	33	37	70	4'-8"	231	260	491	STR.						
R612	1	1	2	3'-4"	6	6	12	STR.						
R613	1		1	6'-9"	11		11	STR.						
R620	2	2	4	15'-11"	48	48	96	STR.						
				SUB-TOTAL	6,323	6,380	12,703							

= BAR WITH MECHANICAL CONNECTOR

MINIMUM LAP LENGTH

#4 BARS = 1'-11"
#5 BARS (DECK) = 2'-5"
#5 BARS (OTHERS) = 3'-1"
#6 BARS = 3'-7"
#7 BARS = 4'-8"
#8 BARS = 5'-4"

NOTES:

1. ALL REINFORCEMENT BARS SHALL BE EPOXY COATED. PAYMENT FOR REINFORCING, INCLUDING MECHANICAL CONNECTORS, SHALL BE MADE WITH ITEM 509 - EPOXY COATED REINFORCING STEEL
2. "STR." IN THE TYPE COLUMN INDICATES STRAIGHT BARS.
3. "SER OF" DENOTES SERIES OF BARS, E.G "X" SER OF "Y" = "X" SERIES OF "Y" BARS/SERIES.
4. REFER TO C.M.S SECTION 509.05 FOR STANDARD BEND DIMENSIONS.
5. MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED IN ACCORDANCE WITH C.M.S. SECTION 509.07. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER RECOMMENDED PROCEDURES.

   CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS THAT HAVE BEEN DAMAGED OR THAT OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY, MAY BE REPAIRED AS DIRECTED BY THE ENGINEER, OR THEY SHALL BE REPLACED WITH MATERIAL WITH MEETS THE SPECIFICATIONS. FOR BARS UTILIZING A MECHANICAL CONNECTOR, THE BAR LENGTH FOR PAYMENT IS MEASURED TO THE CENTER OF THE PLANNED MECHANICAL CONNECTION. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED AND THOSE COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 509. CONNECTORS AND DOWEL BAR EXTENSIONS SHALL CONFORM TO AND BE INCLUDED IN THE BID PRICE FOR ITEM 509.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBUS, OHIO 43231
DESIGNED MZ | CHECKED JC | DRAWN MZ | REVISED - | REVIEWED CTM | DATE 12/2020 | STRUCTURE FILE NUMBER 6002676

REINFORCING LIST 01
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

Mark	NUMBER Phase 1	NUMBER Phase 2	NUMBER TOTAL	LENGTH	WEIGHT Phase 1	WEIGHT Phase 2	WEIGHT TOTAL	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	DIMENSIONS INC
REAR ABUTMENT													
RAL500	7		7	20'-10"	153		153	STR.					
RAL501	8		8	16'-11"	142		142	STR.					
	2		2	4'-8"									
RAL502	SER OF		SER OF	to	91		91	STR.					4'-1"
	4		4	16'-11"									
RAL503	2		2	12'-10"	27		27	STR.					
# RAL504	6		6	24'-5"	153		153	STR.					
	1		1	18'-2"									
# RAL505	SER OF		SER OF	to	85		85	STR.					1'-5 1/4"
	4		4	22'-6"									
RAL506	4		4	9'-7"	40		40	19	6'-2"	2'-5"	2'-5"		
RAL507	6		6	5'-6"	35		35	9	1'-0"	1'-0"	1'-8"	2'-8"	
RAL508		7	7	23'-1"		169	169	STR.					
RAL509		8	8	13'-2"		110	110	STR.					
		2	2	3'-6"									
RAL510		SER OF	SER OF	to		70	70	STR.					3'-2 1/2"
		4	4	13'-2"									
RAL511		2	2	10'-6"		22	22	STR.					
RAL512		12	12	24'-2"		303	303	STR.					
RAL513		8	8	17'-1"		143	143	STR.					
RAL514		4	4	9'-8"		41	41	19	6'-3"	2'-5"	2'-5"		
RAL515		6	6	7'-6"		47	47	9	1'-0"	1'-0"	3'-8"	2'-8"	
RAL600	20	23	43	17'-0"	511	587	1,098	3	5'-8"	2'-7"			
RAL601	17	12	29	20'-6"	523	370	893	2	9'-4"	2'-2"	9'-4"		
	1		1	4'-4"					1'-3"		1'-3"		
RAL602	SER OF		SER OF	to	146		146	2	to	2'-2"	to		8"
	12		12	11'-10"					5'-0"		5'-0"		
	1		1	11'-10"						2'-2"			
RAL603	SER OF		SER OF	to	76		76	2	5'-0"	to	5'-0"		5 1/4"
	4		4	13'-2"						3'-6"			
		1	1	4'-4"					1'-3"		1'-3"		
RAL604		SER OF	SER OF	to		116	116	2	to	2'-2"	to		8 3/4"
		10	10	11'-0"					4'-7"		4'-7"		
		1	1	11'-0"						2'-2"			
RAL605		SER OF	SER OF	to		53	53	2	4'-7"	to	4'-7"		8"
		3	3	12'-4"						3'-6"			
RAL700	18	32	50	7'-0"	258	458	716	STR.					
RAL701	4	14	18	18'-10"	154	539	693	2	7'-9"	3'-8"	7'-9"		
RAL702	23	47	70	12'-8"	596	1,217	1,813	2	4'-8"	3'-8"	4'-8"		
RAL800	5		5	20'-10"	279		279	STR.					
# RAL801	5		5	24'-7"	329		329	STR.					
RAL802		5	5	23'-1"		309	309	STR.					
RAL803		10	10	24'-2"		646	646	STR.					
				SUB-TOTAL	3,598	5,200	8,798						
REAR DIAPHRAGM													
RDL500	15	29	44	9'-6"	149	287	436	2	2'-6"	4'-9"	2'-6"		
RDL501	30	58	88	11'-0"	344	666	1,010	2	2'-11 1/2"	5'-3"	2'-11 1/2"		
RDL800	11		11	18'-1"	532		532	1	1'-6"	16'-9"			
# RDL801	11		11	5'-10"	172		172	1	1'-6"	4'-6"			
RDL802	6		6	8'-2"	131		131	STR.					
# RDL803	5		5	24'-7"	329		329	STR.					
RDL804	10		10	8'-6"	227		227	18	5'-0"	1'-11"	1'-9"		
RDL805		20	20	25'-7"		1,367	1,367	STR.					
RDL806		12	12	22'-4"		716	716	STR.					
RDL807		12	12	5'-0"		161	161	1	1'-0"	4'-2"			
RDL808	17	31	48	5'-2"	235	428	663	18	2'-3"	1'-4 3/4"	1'-4 3/4"		
				SUB-TOTAL	2,119	3,625	5,744						

= BAR WITH MECHANICAL CONNECTOR

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

REVIEWED CTM | DATE 12/2020
STRUCTURE FILE NUMBER 6002676
DESIGNED MZ | CHECKED JC | DRAWN MZ | REVISED -

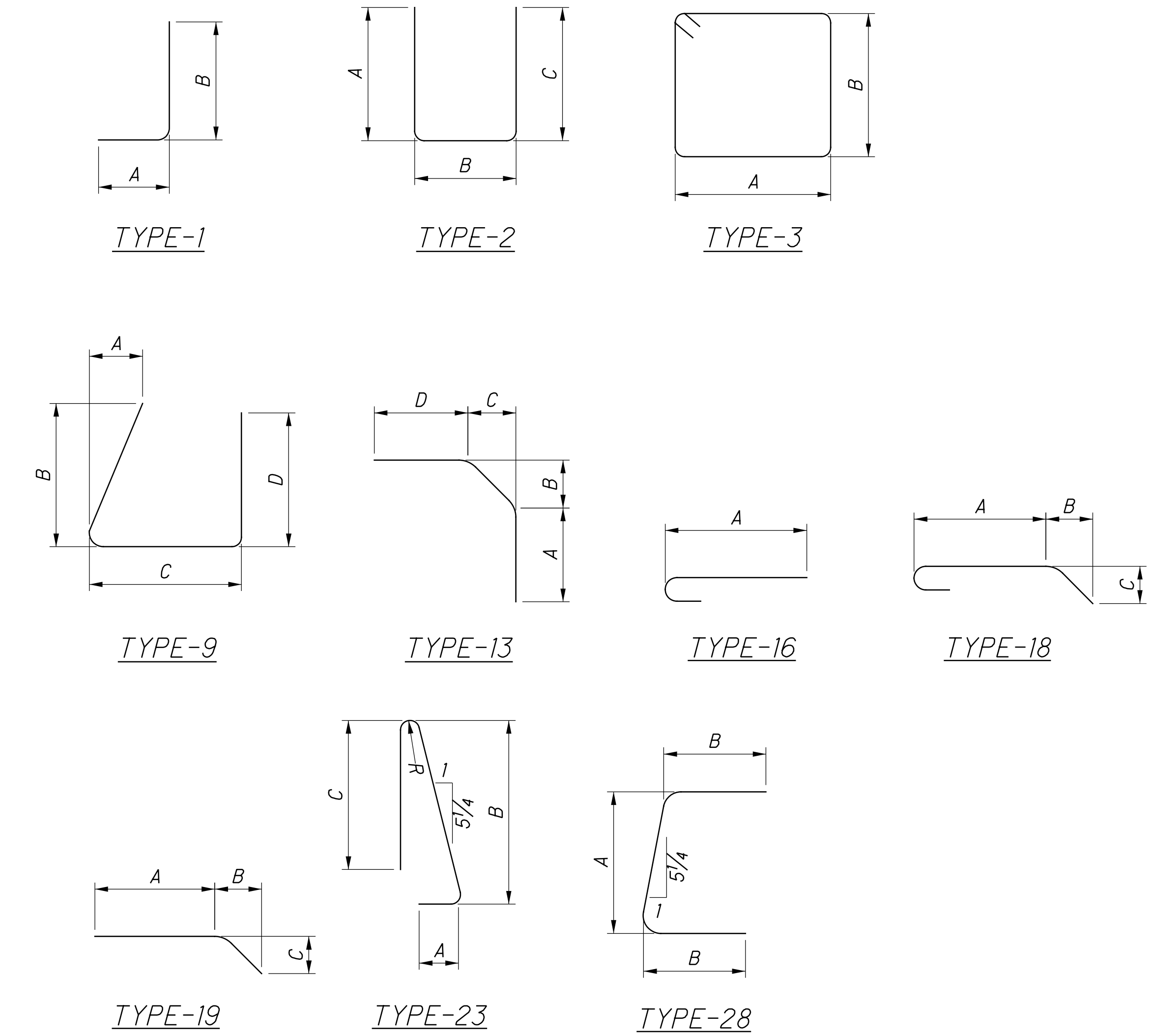
REINFORCING LIST 02
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

52 / 53

1393 / 2231

Mark	NUMBER			LENGTH	WEIGHT			TYPE	DIMENSIONS				
	Phase 1	Phase 2	TOTAL		Phase 1	Phase 2	TOTAL		A	B	C	D	INC
FORWARD ABUTMENT													
FAL500	7		7	25'-6"	187		187	STR.					
FAL501	8		8	13'-10"	116		116	STR.					
	2		2	3'-6"									
FAL502	SER OF		SER OF	to	73		73	STR.					3'-5 1/4"
	4		4	13'-10"									
FAL503	2		2	11'-0"	23		23	STR.					
# FAL504	6		6	27'-9"	174		174	STR.					
	1		1	12'-0"									
# FAL505	SER OF		SER OF	to	61		61	STR.					1'-7 1/4"
	4		4	16'-10"									
FAL506	4		4	9'-1"	38		38	19	5'-8"	2'-5"	2'-5"		
FAL507	6		6	7'-8"	48		48	9	1'-0"	1'-0"	3'-10"	2'-8"	
FAL508		7	7	20'-0"		147	147	STR.					
FAL509		8	8	16'-4"		137	137	STR.					
		2	2	4'-11"									
FAL510		SER OF	SER OF	to		89	89	STR.					3'-9 1/2"
		4	4	16'-4"									
FAL511		2	2	11'-0"		23	23	STR.					
FAL512		12	12	24'-6"		307	307	STR.					
FAL513		8	8	23'-6"		197	197	STR.					
FAL514		4	4	9'-4"		39	39	19	5'-11"	2'-5"	2'-5"		
FAL515		6	6	5'-8"		36	36	9	1'-0"	1'-0"	1'-10"	2'-8"	
FAL600	23	18	41	17'-0"	587	460	1,047	3	5'-8"	2'-7"			
FAL601	8	14	22	22'-4"	268	470	738	2	10'-3"	2'-2"	10'-3"		
	1		1	4'-4"					1'-3"		1'-3"		
FAL602	SER OF		SER OF	to	127		127	2	to	2'-2"	to		10 3/4"
	10		10	12'-6"					5'-4"		5'-4"		
	1		1	12'-6"						2'-2"			
FAL603	SER OF		SER OF	to	60		60	2	5'-4"	to	5'-4"		8"
	3		3	13'-10"						3'-6"			
		1	1	3'-0"					7"		7"		
FAL604		SER OF	SER OF	to		95	95	2	to	2'-2"	to		1'-0"
		9	9	11'-0"					4'-7"		4'-7"		
		1	1	11'-0"						2'-2"			
FAL605		SER OF	SER OF	to		71	71	2	4'-7"	to	4'-7"		5 1/4"
		4	4	12'-4"						3'-6"			
FAL700	16	42	58	7'-0"	229	601	830	STR.					
FAL701	14	4	18	18'-4"	525	150	675	2	7'-6"	3'-8"	7'-6"		
FAL702	31	47	78	12'-8"	803	1,217	2,020	2	4'-8"	3'-8"	4'-8"		
FAL800	5		5	25'-6"	341		341	STR.					
# FAL801	5		5	26'-6"	354		354	STR.					
FAL802		5	5	20'-0"		267	267	STR.					
FAL803		10	10	25'-3"		675	675	STR.					
				SUB-TOTAL	4,014	4,981	8,995						
FORWARD DIAPHRAGM													
FDL500	17	29	46	9'-9"	173	295	468	2	2'-6"	5'-0"	2'-6"		
FDL501	34	58	92	11'-3"	399	681	1,080	2	2'-11 1/2"	5'-7"	2'-11 1/2"		
FDL800	11		11	19'-4"	568		568	1	1'-6"	18'-0"			
# FDL801	11		11	7'-4"	216		216	1	1'-6"	6'-0"			
FDL802	6		6	8'-9"	141		141	STR.					
# FDL803	5		5	27'-9"	371		371	STR.					
FDL804	10		10	8'-6"	227		227	18	5'-0"	1'-11"	1'-9"		
FDL805		20	20	26'-6"		1,416	1,416	STR.					
FDL806		12	12	8'-6"		273	273	18	5'-0"	1'-11"	1'-9"		
FDL807		12	12	5'-0"		161	161	1	1'-0"	4'-2"			
FDL808	19	33	52	5'-2"	262	456	718	18	2'-3"	1'-4 3/4"	1'-4 3/4"		
				SUB-TOTAL	2,357	3,282	5,639						
				TOTAL ALL REINFORCING	71,416	106,792	178,208						



= BAR WITH MECHANICAL CONNECTOR

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED MZ | CHECKED JC | DRAWN MZ | REVISED - | REVIEWED CTM | DATE 12/2020 | STRUCTURE FILE NUMBER 6002676

REINFORCING LIST 03
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

A-1-20	DATED/REVISED	07/17/20
AS-1-15	DATED/REVISED	07/17/15
AS-2-15	DATED/REVISED	01/18/19
EXJ-4-87	DATED/REVISED	01/19/18
GSD-1-19	DATED/REVISED	01/18/19
PCB-91	DATED/REVISED	7/17/20
SBR-2-13	DATED/REVISED	07/20/18
SBR-1-13	DATED/REVISED	07/20/18

AND TO THE FOLLWING SUPPLEMENTAL SPECIFICATION(S):

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO 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, 2020.

SPECIAL DESIGN SPECIFICATIONS

THIS BRIDGE REQUIRED THE USE OF A TWO-DIMENSIONAL MODEL USING GRILLAGE DESIGN METHOD TO ANALYZE THE STRUCTURE. THE COMPUTER PROGRAM USED FOR STRUCTURAL ANALYSIS WAS BENTLEY LEAP STEEL V19.

DEAD LOAD DISTRIBUTION: DC1 LOADING WAS DISTRIBUTED TO BEAMS BASED ON TRIBUTARY AREA. BARRIER LOADS DC2 WERE APPLIED TO THE TWO EXTERIOR BEAMS (FOR DESIGN) AND EQUALLY TO ALL BEAMS FOR CAMBER/DEFLECTION DESIGN.

LIVE LOAD DISTRIBUTION: HL-93 TRUCK AND LANE LOADS WERE APPLIED BY 1, 2, & 3 LANE FLOAT METHOD ACROSS THE BRIDGE DECK DIRECTLY TO THE GRILLAGE MODEL.

LRFD OPERATIONAL IMPORATANCE

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5, AND THE ODOT BRIDGE DESIGN MANUAL, 2020

DESIGN LOADING

HL-93
FUTURE WEARING SURFACE (FWS) OF 0.60 KSF

DESIGN DATA

CONCRETE CLASS, QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS, QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI

MONOLITHIC WEARING SURFACE

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

MONOLITHIC WEARING SURFACE

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

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.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM INCLUDES THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS MUST NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS MUST NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

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 C&MS 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.

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

IN ORDER TO MAINTAIN STABILITY OF PIER 4 DURING TRAFFIC SHIFT, INSTALL TEMPORARY SUPPORTS FOR BEAMS 1 & 14 AT PIER 4 PRIOR TO REMOVING THE DECK IN PHASE 1. AFTER THE COMPLETETION OF PHASE 1 AND PRIOR TO THE DECK REMOVAL IN PHASE 2, MOVE THE TEMPORARY SUPPORTS TO BEAMS 7 AND 8 AT PIER 4. THE SUPPORTS ARE TO REMAIN UNTIL THE COMPLETION OF PHASE 3. DESIGN JACKS AND TEMPOARY SUPPORTS TO PROVIDE A MINIMUM OF 250 KIPS RESISTANCE PER BEAM.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING JACKING OPERATIONS, CRACKING OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTSTO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL.

DECK PLACEMENT DESIGN ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR THE SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.2 KIPS

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFTEY HANDRAIL OF 65".

DECK SLAB CONCRETE QUANTITY

THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

ITEM 513 STRUCTURAL STEEL, MISC: EXTERNAL POST TENSIONING

THIS ITEM CONSIST OF FURNISHING ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL EXTERNAL POST TENSIONING ASSEMBLIES TO TEMPORARILY ATTACH PIER THREE STRUCTURES.

THE 1 INCH DIAMETER (NOMINAL) ALL-THREAD BARS WITH A CROSS SECTIONAL AREA OF 0.85 SQUARE INCHES AND A MODULUS OF ELASTICITY OF 29,700 KSI SHALL BE ASTM A722 (TYPE II) GRADE 150 MANUFACTURED IN THE UNITED STATES. THE ANCHOR (SPHERICAL HEX) NUTS MUST BE ASTM A536. ANCHOR (DISHED) PLATES SHALL BE A572 GRADE 50.

GALVANIZED DISHED ANCHOR PLATES AND GALVANIZED SPHERICAL HEX NUTS SHALL BE COMPATIBLE WITH THE GALVANIZED ALL-THREAD BARS AND SHALL MEET THE REQUIREMENTS OF THE ALL-THREAD BAR MANUFACTURER'S POST TENSIONING SYSTEM. DISHED ANCHOR PLATES, SPHERICAL HEX NUTS AND ALL-THREAD BARS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH C&MS 711.02. ALL -THREAD BARS SHALL BE MECHANICALLY CLEANED (NOT ACID WASHED) TO AVOID PROBLEMS ASSOCIATED WITH HYDROGEN EMBRITTLEMENT.

END PLATE ASSEMBLIES SHALL BE HOT DIP GALVANIZED ACCORDING TO C&MS 711.02.

FABRIC PADS SHALL BEET THE REQUIREMENTS OF C&MS 711.21, PREFORMED BEARING PADS.

BAR CLAMPS SHALL BE 1⅛ INCH INSIDE DIAMETER VIBRATION-DAMPING ROUTING CLAMPS.

ALL-THREAD BARS SHALL BE TENSIONED BY HYDRAULIC JACKS SO AS TO PRODUCE THE INDICATED FORCES.

EACH JACK USED TO TENSION THE BARS SHALL BE EQUIPPED WITH A PRESSURE GAUGE HAVING AN ACCURATE READING DIAL AT LEAST SIX INCHES IN DIAMETER FOR DETERMINING JACK PRESSURE. WITHIN 30 DAYS PRIOR TO USE FOR TENSIONING ON THE PROJECT, EACH JACK AND ITS GAUGE SHALL BE CALIBRATED AS A UNIT BY A TESTING LABORATORY APPROVED BY THE ENGINEER. CALIBRATION SHALL BE DONE WITH CYLINDER EXTENSION APPROXIMATELY IN THE POSITION THAT IT WILL BE WHEN APPLYING THE FINAL JACKING FORCE AND WITH THE JACK ASSEMBLY IN AN IDENTICAL CONFIGURATION TO THAT WHICH WILL BE USED AT THE JOB SITE (I.E. SAME LENGTH HYDRAULIC LINES). PERFORM THE CALIBRATION WITH THE JACK APPLYING LOAD TO THE TESTING MACHINE. FURNISH CERTIFIED CALIBRATION CALCULATIONS AND CALIBRATION CHART, BOTH IN ENGLISH UNITS OF MEASURE, TO THE ENGINEER FOR EACH JACK. THESE CERTIFICATIONS SHALL STATE THAT THE CALIBRATION TESTING WAS PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE PROJECT. PRESSURE GAUGE READINGS ARE TO BE WITHIN THREE PERCENT OF THE ACTUAL APPLIED FORCE DURING CALIBRATION. IF PRESSURE GAUGE READINGS ARE NOT WITHIN THREE PERCENT OF THE APPLIED FORCE, THE SOURCE OF ERROR IS TO BE DETERMINED AND CORRECTED AND THE GAUGE RE CALIBRATED.

RE CALIBRATION OF EACH JACK SHALL BE DONE AS REQUESTED BY THE ENGINEER (SIX MONTH MINIMUM INTERVAL). AT THE OPTION OF THE CONTRACTOR, CALIBRATIONS SUBSEQUENT TO THE INITIAL LABORATORY CALIBRATION MAY BE ACCOMPLISHED BY USE OF A MASTER GAUGE. THE MASTER GAUGE SHALL BE SUPPLIED BY THE CONTRACTOR IN A PROTECTIVE WATERPROOF CONTAINER CAPABLE OF PROTECTING THE CALIBRATION OF THE MASTER GAUGE DURING SHIPMENT TO A LABORATORY. THE CONTRACTOR SHALL PROVIDE A QUICK-ATTACH COUPLER NEXT TO THE PERMANENT GAUGE IN THE HYDRAULIC LINES, WHICH ENABLES THE QUICK AND EASY INSTALLATION OF THE MASTER GAUGE TO VERIFY THE PERMANENT GAUGE READINGS. THE MASTER GAUGE SHALL REMAIN IN THE POSSESSION OF AND BE CALIBRATED BY THE ENGINEER FOR THE DURATION OF THE PROJECT. IF ANY REPAIR TO OR MODIFICATION OF A JACK IS ACCOMPLISHED, SUCH AS REPLACING THE SEALS OR CHANGING THE LENGTH OF HYDRAULIC LINES, THE JACK SHALL BE RE CALIBRATED BY THE APPROVED TESTING LABORATORY. JACKS AND GAUGES SHALL NOT BE INTERCHANGED WITHOUT RE CALIBRATION OR PROOF LOADING USING LOAD CELLS, MAST GAUGES OR OTHER METHODS APPROVED BY THE ENGINEER. NO EXTRA COMPENSATION WILL BE ALLOWED FOR THE INITIAL OR SUBSEQUENT JACK CALIBRATIONS OR FOR USE AND REQUIRED CALIBRATION OF A MASTER GAUGE.

THE FOLLOWING VALUES WERE CALCULATED

FINAL JACKING TENSION = 35 KIPS
ELONGATION = 1.56 INCHES

A RECORD OF GAUGE PRESSURES AND BAR ELONGATIONS FOR EACH BAR SHALL BE PROVIDED BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE ENGINEER. ELONGATIONS SHALL BE MEASURED TO AN ACCURACY OF +/- 1/16 INCH.

BASIS OF PAYMENT: THE WORK SHALL BE PAID FOR BY LUMP SUM FOR STRUCTURAL STEEL, MISC.: EXTERNAL POST TENSIONING. THE LUMP SUM UNIT SHALL INCLUDE ALL WORK NECESSARY TO TEMPORARILY SUPPORT THE PIERS BY EXTERNAL POST TENSIONING, INCLUDING BUT NOT LIMITED TO: ALL-THREAD BARS, DISHED ANCHOR PLATES, SPHERICAL HEX NUTS, END PLATE ASSEMBLIES, GALVANIZING, CLAMPS, EXPANSION ANCHORS, JACKING EQUIPMENT, CALIBRATING AND CERTIFYING JACKS, TEMPORARY QC1 CONCRETE BETWEEN PIERS.

ITEM 601 CONCRETE SLOPE PROTECTION, AS PER PLAN

THIS ITEM INCLUDES REMOVAL AND REPLACEMENT OF EXISTING DETERIORATED CONCRETE SLOPE PROTECTION LOCATED AT THE FORWARD ABUTMENT.

REMOVE ALL CONCRETE PANELS WHERE FILL HAS WASHED OUT OR LOOSENED BELOW THE PANEL. BACKFILL AND COMPACT CAVITIES WITH 703.16 TYPE B MATERIAL AND PROVIDE 712.09 GEOTEXTILE FABRIC BELOW BETWEEN THE TYPE B AND EXISTING SOIL. SEE GENERAL PLAN FOR APPROXIMATE LOCATION.

CONSTRUCT NEW PANELS IN ACCORDANCE WITH ITEM 601.

THIS WORK WILL BE PAID FOR BY SQUARE FOOT BASIS FOR ITEM 601 CONCRETE SLOPE PROTECTION, AS PER PLAN AND INCLUDES ALL WORK NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 503 UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM INCLUDES REMOVING MATERIALS FROM BEHIND THE EXISTING BACK BALL IN ORDER TO PERFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF EXCAVATION SHALL BE LIMITED BETWEEN THE PROPOSED WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED.

BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND APPROACH SLABS AND BELOW APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM TYPE 1 SHALL CONFORM 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 THE AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

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

ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN

A 2" DEEP X 1" WIDE STRIP SHALL BE SAWCUT OUT OF THE APPROACH SLAB CONCRETE ABUTTING THE BRIDGE AFTER THE FINAL SURFACE HAS BEEN CONSTRUCTED. JOINT SEALER AS PER 705.04 SHALL BE USED TO SEAL THE JOINT CREATED.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
MJB	JPH	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJB		6002706	

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

MUS-70-10.49
PID No. 93006

1397
2231

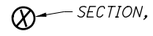
MUS-70-1159 BRIDGE PLAN SUMMARY

STANDARD PLAN DETAILING NOMENCLATURE

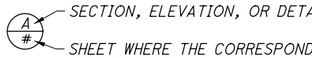
THROUGHOUT THE PLANS, SECTIONS AND DETAILS ARE REFERENCED TO THEIR CORRESPONDING VIEWS THROUGH THE USE OF STANDARD CALLOUTS. THE VIEWS OF SECTIONS, ELEVATIONS, AND DETAILS WILL HAVE UNIQUE NUMBERS ON THE PAGES ON WHICH THEY ARE SHOWN.

LETTERS WILL BE UTILIZED FOR SECTION AND ELEVATION CALLOUTS.
NUMBERS WILL BE UTILIZED FOR DETAIL CALLOUTS.

IF A SECTION, ELEVATION, OR DETAIL VIEW IS ON THE SAME SHEET FROM WHICH IT IS CUT, THE CALLOUT WILL APPEAR AS FOLLOWS:



IF A SECTION, ELEVATION, OR DETAIL VIEW IS ON A DIFFERENT SHEET FROM WHICH IT IS CUT, THE CALLOUT WILL APPEAR AS FOLLOWS:



MEMBERS WILL BE IDENTIFIED AS FOLLOWS: ⟨X#⟩

STRUCTURE DESIGNATION
"G" FOR EXISTING PLATE GIRDER
"B" FOR PROPOSED BEAM

IDENTIFICATION NUMBER

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL 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.

RAILROAD CONSTRUCTION CLEARANCES

MAINTAIN A CONSTRUCTION CLEARANCE OF 13.00' HORIZONTALLY FROM THE CENTER OF TRACKS, AND 22.00' VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL AND 6.00' FROM THE CENTER OF TRACKS, AT ALL TIMES.

STANDARD PLAN ABBREVIATIONS AND SYMBOLS

ABUT = ABUT
APP = APPROACH
AVE = AVENUE
⟨B#⟩ = BEAM NUMBER
BF = BOTTOM FLANGE
BM = BENCHMARK
BOT = BOTTOM
BRG = BEARING
BTWN = BETWEEN
C.B. = CHORD BEARING
C/C = CENTER TO CENTER
CB = CATCH BASIN
CCTV = CLOSED CIRCUIT TELEVISION
CIP = CAST IN PLACE
CJ = CONSTRUCTION JOINT
CJ-O = OPTIONAL CONSTRUCTION JOINT
CLR = CLEAR
CMP = CORRUGATED METAL PIPE
CMS = CONSTRUCTION MATERIAL SPECIFICATIONS
CONST = CONSTRUCTION
CP = COVER PLATE
CSP/N = CORRUGATED STEEL PIPE (NON-PERFORATED)
CSP/P = PERFORATED CORRUGATED STEEL PIPE
DIA = DIAMETER
DND = DO NOT DISTURB
DPRM = DIAPHRAGM
E/P = EDGE OF PAVEMENT
E/S = EDGE OF SHOULDER
EB = EASTBOUND
EF = EACH FACE
ELEC = ELECTRIC
ELEV or EL = ELEVATION
EX = EXISTING
EXP = EXPANSION
F/F = FACE TO FACE
FA = FORWARD ABUTMENT
FF = FAR FACE/FILL FACE
FO = FIBER OPTIC
FTG = FOOTING
⟨G#⟩ = GIRDER NUMBER
GR = GUARDRAIL
H.C. = HORIZONTAL CURVE
HORZ = HORIZONTAL
I/I = INSIDE TO INSIDE
IR = INTERSTATE ROUTE
JT = JOINT
LT = LEFT
MAX = MAXIMUM
MH = MANHOLE
MHC = MINIMUM HORIZONTAL CLEARANCE
MIN = MINIMUM
MISC = MISCELLANEOUS
MSE = MECHANICALLY STABILIZED EARTH
MVC = MINIMUM VERTICAL CLEARANCE
NB = NORTHBOUND
NE = NORTHEAST
NF = NEAR FACE
NO = NUMBER
NW = NORTHWEST
O/O = OUT TO OUT
OD = OUTSIDE DIAMETER
OH = OVERHANG
OVHD = OVERHEAD
ODOT = OHIO DEPARTMENT OF TRANSPORTATION
P.V.I. = POINT OF VERTICAL INTERSECTION
PC = POINT OF CURVE
PCB = PORTABLE CONCRETE BARRIER
PEJF = PREFORMED EXPANSION JOINT FILLER
PGL = PROFILE GRADE LINE
PI = POINT OF INTERSECTION
PMVC = POINT OF MINIMUM VERTICAL CLEARANCE
POT = POINT ON TANGENT
PROP = PROPOSED
PT = POINT OF TANGENT
PVMT = PAVEMENT
RA = REAR ABUTMENT
RCP = REINFORCED CONCRETE PIPE
RD = ROAD
REF = REFERENCE
REINF. = REINFORCING OR REBAR
REQ'D = REQUIRED
RT = RIGHT
R/W = RIGHT OF WAY
S/O = SERIES OF
SR = STATE ROUTE
SB = SOUTHBOUND
SCD = STANDARD CONSTRUCTION DRAWING
SE = SOUTHEAST
SER = SERIES
SF = SQUARE FEET
SHLDR = SHOULDER
SPA = SPACES
ST = STREET OR SPAN TOTAL
STA = STATION
STD = STANDARD
STG = STAGE
STM = STORM
SW = SOUTHWEST
T/ = TOP OF
T/B = TOP AND BOTTOM
T/T = TOE TO TOE
TBR = TO BE REMOVED
TEMP = TEMPORARY
TYP = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE
VC = VERTICAL CURVE
VERT = VERTICAL
WB = WEST BOUND
WW = WINGWALL

ITEM 530 - STRUCTURES: MEASUREMENTS FOR PROPOSED BEARINGS

THIS WORK CONSISTS OF VERIFYING THE EXISTING SUBSTRUCTURE DIMENSIONS, SEAT ELEVATIONS, AND EXISTING BEARING LOCATIONS AND HEIGHTS BEFORE FABRICATING THE PROPOSED BEARINGS. AT EACH LOCATION WHERE NEW BEARINGS WILL SIT ATOP EXISTING BEARING SEATS, THE CONTRACTOR SHALL VERIFY THAT THE PLAN DIMENSIONS AND ELEVATIONS MATCH THE EXISTING CONDITIONS USED IN THESE PLANS. A REPORT DETAILING EXISTING HORIZONTAL CLEARANCES AND SEAT ELEVATIONS COMPARED TO THOSE IN THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO BEARING FABRICATION. ANY PROPOSED HEIGHT ADJUSTMENTS SHALL BE SUBMITTED ALONG WITH THE REPORT. ADDITIONALLY, AT LOCATIONS WHERE THE PROPOSED BEARINGS REQUIRE ANCHORAGE, CONTRACTOR SHALL VERIFY LOCATIONS OF THE EXISTING BEAM SEAT REINFORCING, ADJUST THE ANCHOR HOLE LOCATIONS TO CLEAR THE REINFORCING AS NECESSARY, AND INCORPORATE THE ADJUSTED ANCHOR HOLE LOCATIONS INTO THE BEARING SHOP DRAWINGS AND FABRICATION.

ITEM 530 - STRUCTURES: MEASUREMENTS FOR PROPOSED BEARINGS (CONT'D)

THE DEPARTMENT WILL MEASURE THE WORK ON A LUMP SUM BASIS AND PAY FOR ACCEPTED QUANTITIES AT THE LUMP SUM CONTRACT PRICE. PAYMENT IS FULL COMPENSATION FOR THE ACCESS, MEASUREMENT, DOCUMENTATION, AND REPORTING OF REQUIRED DATA, INCLUDING MARKUPS OF REQUIRED ADJUSTMENTS TO BEARING HEIGHTS AND ANCHOR HOLE LOCATIONS. FABRICATED BEARING HEIGHTS SHALL BE ADJUSTED TO MATCH CONTRACTOR BEARING MEASUREMENTS. BEARING HEIGHT ADJUSTMENTS OF 3" OR LESS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE BEARINGS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
MTO	MTO	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTM		6002854	

BRIDGE GENERAL NOTES 1 OF 3
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

12/160

1458/2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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MUS-70-1159 BRIDGE SUMMARY - 02/IMS/BR

CALC: ST/RSN | CHECK: CTM

ITEM	ITEM EXT.	TOTAL QUANTITY	TOTAL PER PHASE PH 1	PH 2	PH 3	GEN	UNIT	DESCRIPTION	PHASE 1 ABUT.	PIERS	SUPER	PHASE 2 ABUT.	PIERS	SUPER	PHASE 3 ABUT.	PIERS	SUPER	GENERAL	APP/REF SHEET NO.
202	11203	LS				LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN										LS	13
202	22900	768	228	286	254		SY	APPROACH SLAB REMOVED	228			286			254				
503	11100	LS				LS		COFFERDAMS AND EXCAVATION BRACING										LS	
503	21301	LS	LS	LS	LS			UNCLASSIFIED EXCAVATION, AS PER PLAN	LS			LS			LS				14
509	10001	1,134,875	382,879	396,441	355,555		LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	3,504	3,406	375,969	3,467	3,733	389,241	2,995	4,140	348,420		13
509	20001	300				300	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN										300	13
510	10001	788	209	321	258		EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	59	150		129	192		114	144			13
511	33500	4	4				EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	4										
511	34447	3,279	1,065	1,205	1,009		CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			1,065			1,205			1,009		14
511	34451	433	433				CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			433								14
511	34463	298		147	151		CY	CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN						147			151		14
511	42512	131	46	43	42		CY	CLASS QC1 CONCRETE WITH QC/QA, PIER CAP		46			43			42			
511	45712	80	20	32	28		CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT	20			32			28				
512	10050	8,985	3,419	2,867	2,699		SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	208	667	2,544	550	715	1,602	543	806	1,350		
512	10300	1,016		603	413		SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN						603			413		
512	10601	100				100	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN										100	14
512	33000	131	31	49	51		SY	TYPE 2 WATERPROOFING	31			49			51				
513	10260	1,211,292	372,132	436,885	402,275		LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			372,132			436,885			402,275		
513	20000	39,148	14,355	12,276	12,567		EACH	WELDED STUD SHEAR CONNECTORS			14,355			12,276			12,567		
514	00050	193,100	76,700	57,400	59,000		SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			76,700			57,400			59,000		
514	00056	193,100	76,700	57,400	59,000		SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			76,700			57,400			59,000		
514	00061	262,000	97,000	84,300	80,700		SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			97,000			84,300			80,700		14
514	00067	262,000	97,000	84,300	80,700		SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			97,000			84,300			80,700		14
514	00504	108	43	33	32		MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			43			33			32		
514	10000	104	37	41	26		EACH	FINAL INSPECTION REPAIR			37			41			26		
516	11211	248	75	98	75		FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN		75			98			75			146
516	13601	60	40	10	10		SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	40			10			10				14
516	13901	287	175	54	58		SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	175			54			58				14
516	14020	298	77	124	97		FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	77			124			97				
516	14600	330	95	128	107		FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	95			128			107				151
516	44101	90	32	28	30		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN , DIMENSIONS VARY	12	20		11	17		12	18			69
516	46900	20	8	6	6		EACH	BEARING DEVICE, MISC.: ELASTOMERIC BEARING WITH INTERNAL LAMINATES, LOAD PLATE, AND PTFE SURFACE		8			6			6			71
516	46900	55	20	17	18		EACH	BEARING DEVICE, MISC.: SEISMIC ISOLATION BEARING		20			17			18			73
516	47001	LS				LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN										LS	14
518	12201	52	17	13	22		EACH	SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN			17			13			22		14
518	21200	35	11	14	10		CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	11			14			10				
518	63300	LS				LS		STRUCTURE DRAINAGE, MISC.: BRIDGE DRAINAGE SYSTEM, AS PER PLAN										LS	14
519	11101	1,000				1,000	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN										1,000	14
526	25010	798	194	334	270		SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")			194			334			270		
SPECIAL	53000200	LS	LS	LS	LS			STRUCTURES - MEASUREMENTS FOR PROPOSED BEARINGS			LS			LS			LS		12
SPECIAL	53000600	5,766		2,811	2,955		SF	STRUCTURES - AESTHETIC TREATMENT (CONCRETE FORMLINER/STAIN)						2,811			2,955		14
607	39900	1,883		916	967		FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC						916			967		
607	39930	886		886			FT	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC						886					
613	41201	646	166	250	230		CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	166			250			230				14

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED RSN | DRAWN RSN | CHECKED CTM | REVIEWED MTO | DATE 12/2020 | REVISED | STRUCTURE FILE NUMBER 6002854

BRIDGE SUMMARY
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

15 / 160

1461
2231

SUBMITTAL: Stage 3
PID: 93006
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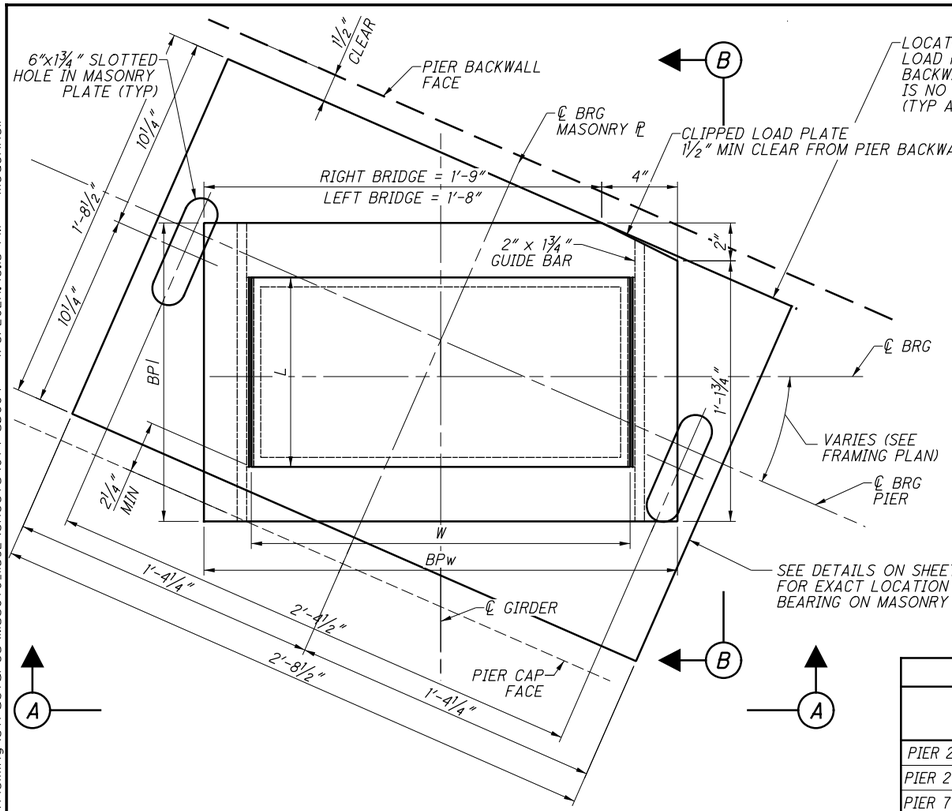
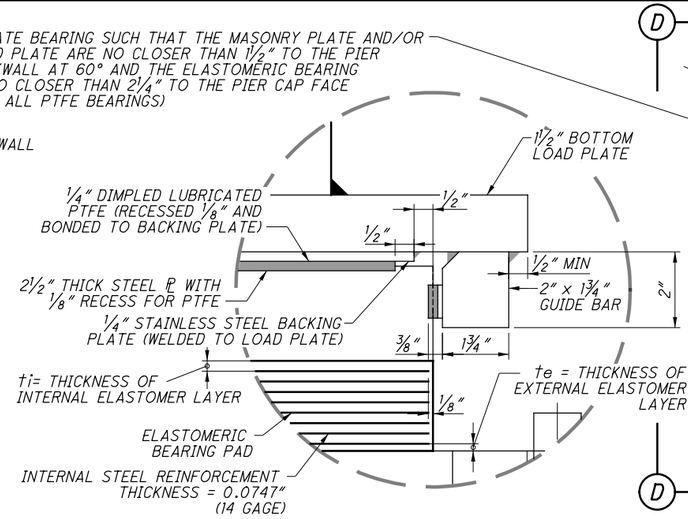


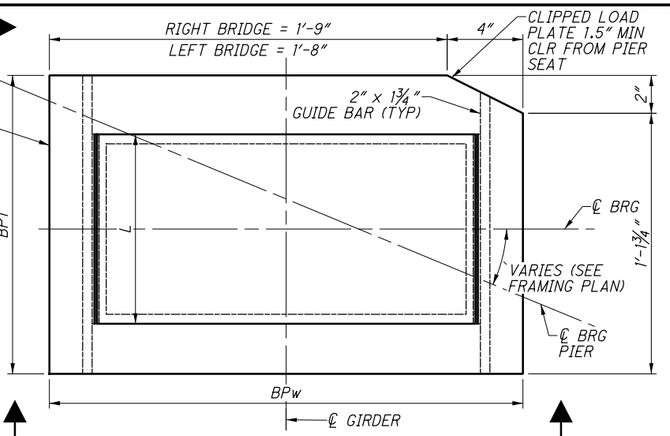
EXPANSION BEARING WITH MASONRY PLATE

PIER 2 (FWD) SHOWN, PIER 7 (REAR) SIMILAR. TYP AT GIRDERS 3 & 8



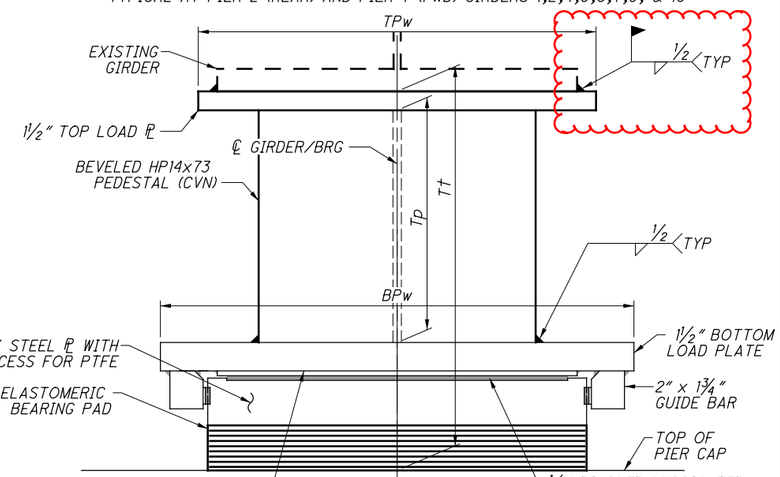
E DETAIL

MAX REACTION TABLE FOR PTFE BEARINGS				
SUPPORT	BEARING TYPE	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)
PIER 2 (FWD)-LEFT BRIDGE	EXP	91.23	128.88	220.11
PIER 2 (FWD)-RIGHT BRIDGE	EXP	128.99	115.41	244.4
PIER 7 (REAR)-LEFT BRIDGE	EXP	91.3	123.5	214.8
PIER 7 (REAR)-RIGHT BRIDGE	EXP	110.71	98.5	209.21

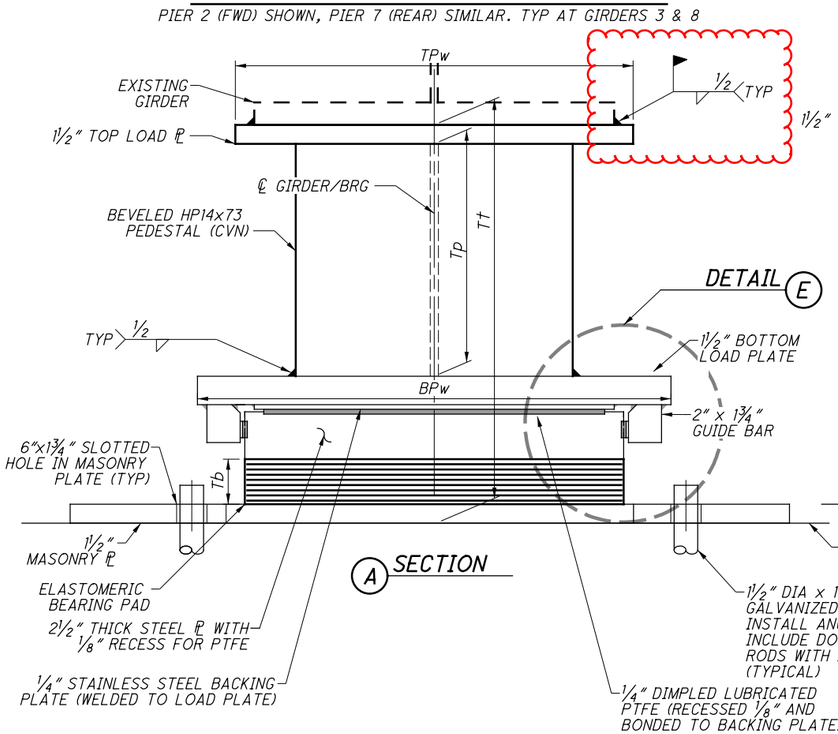


EXPANSION BEARING WITHOUT MASONRY PLATE

TYPICAL AT PIER 2 (REAR) AND PIER 7 (FWD) GIRDERS 1,2,4,5,6,7,9, & 10



C SECTION



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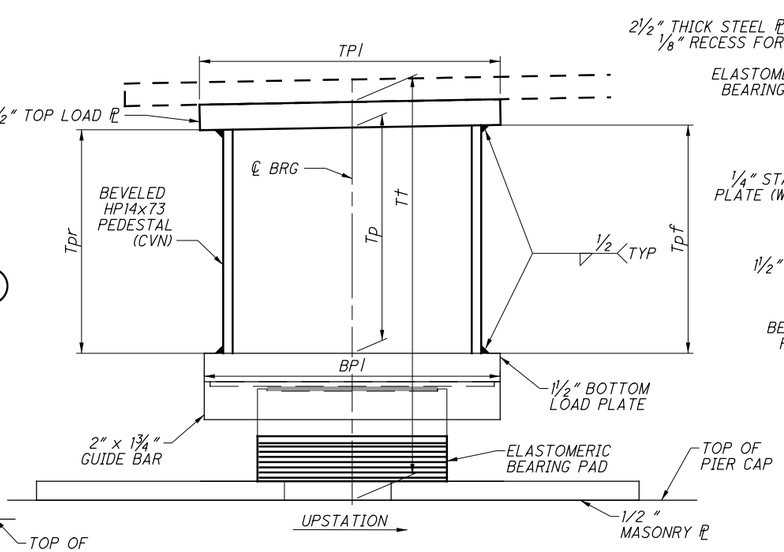
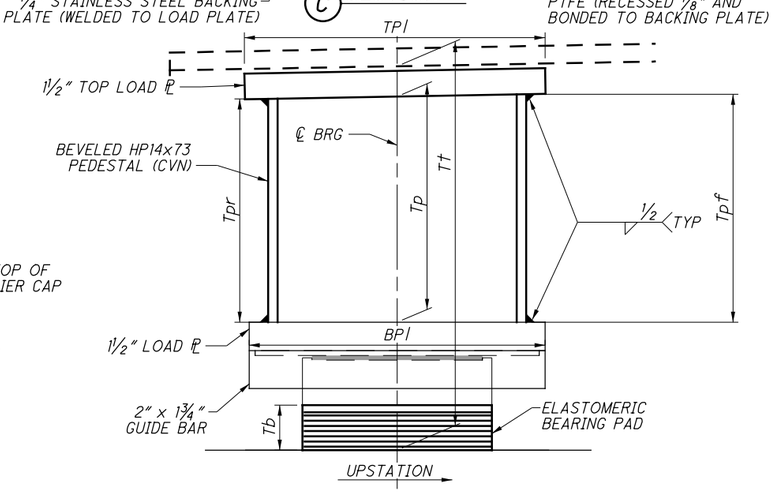


B SECTION

ANCHOR ROD NOT SHOWN FOR CLARITY

C SECTION



D SECTION

NOTES:

FOR BEARING NOTES SEE SHEET 75|160.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
RSN	RSN	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DSF		6002854	

ELASTOMERIC BEARINGS WITH PTFE SURFACE

BRIDGE NO. MUS-70-1159

OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49

PID No. 93006

71 / 160

1517
2231

SUBMITTAL: Stage 3
PID: 93006
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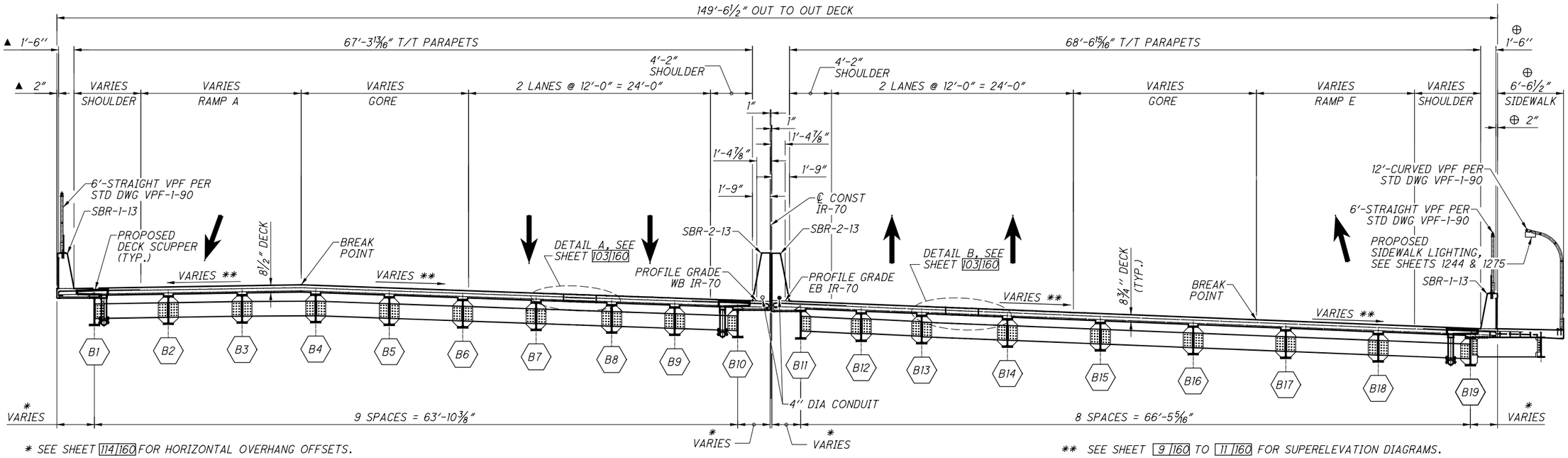
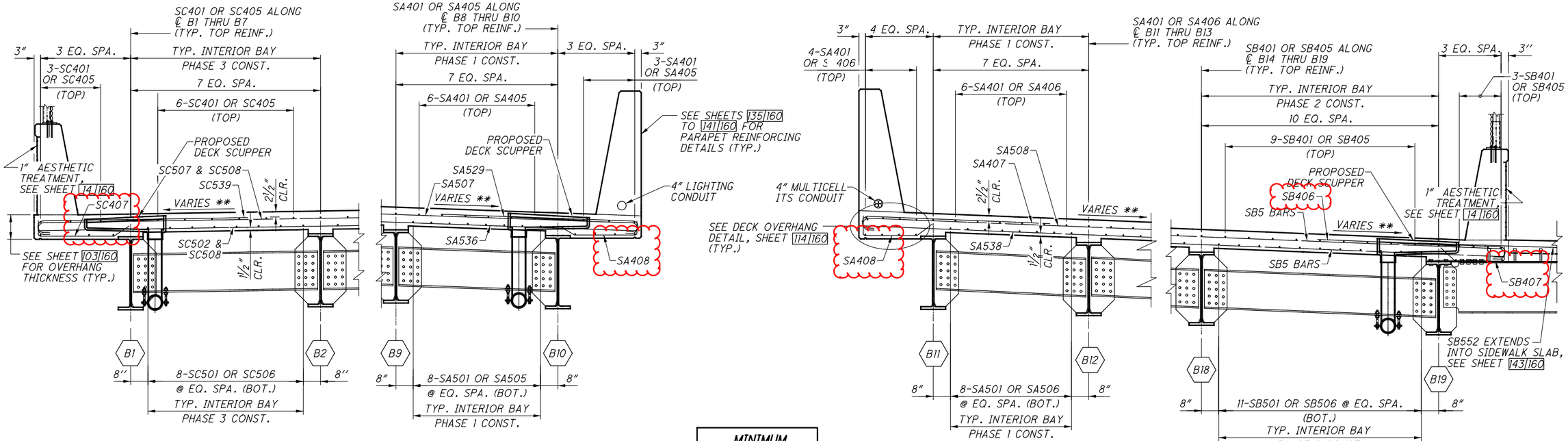


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

TRANSVERSE SECTION AT REAR ABUTMENT

LOOKING UPSTATION



REINFORCING DETAILS-WEST BOUND STRUCTURE

REINFORCING DETAILS-EAST BOUND STRUCTURE

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP A.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP E.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2560 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

TRANSVERSE SECTION AT REAR ABUTMENT
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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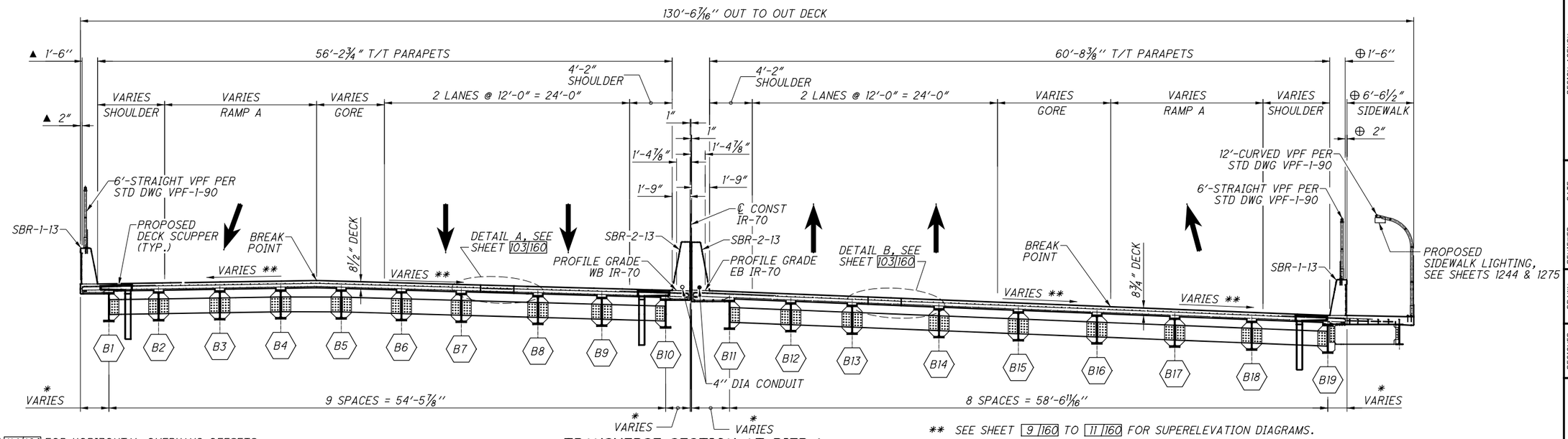
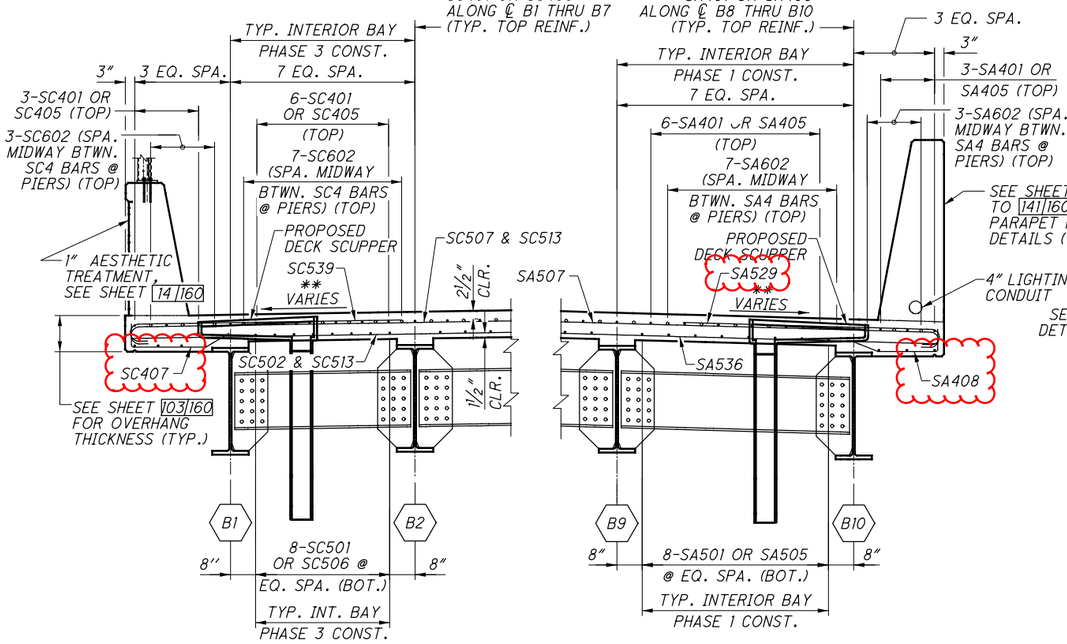


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

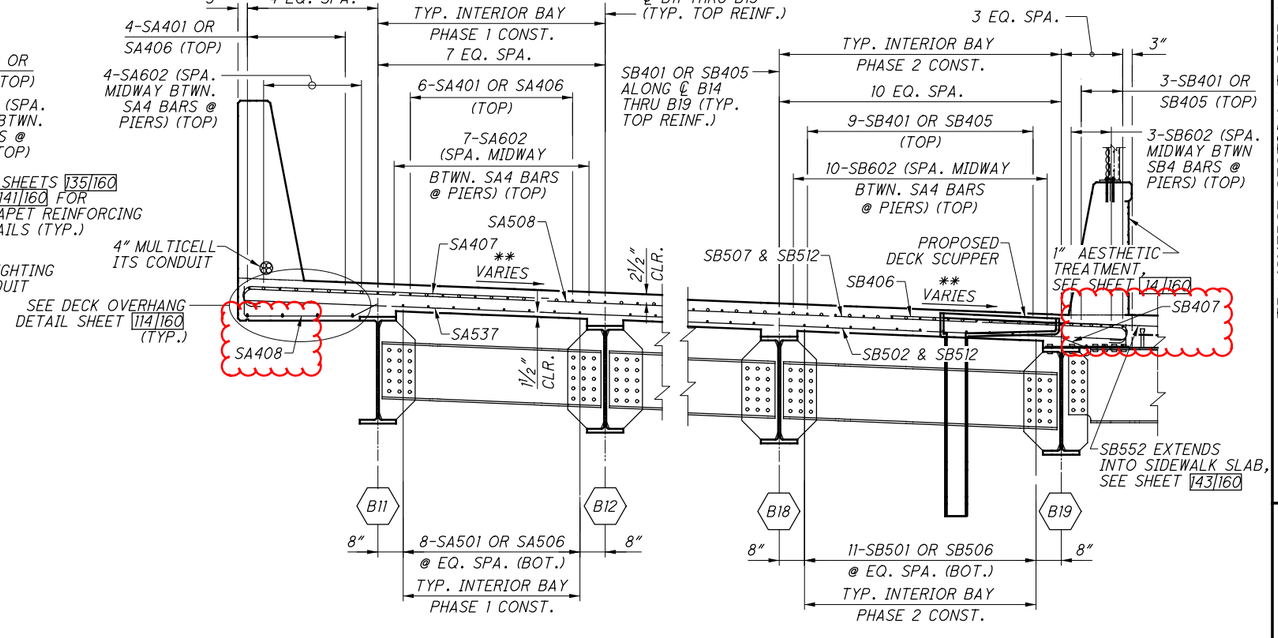
** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

TRANSVERSE SECTION AT PIER 1

LOOKING UPSTATION



REINFORCING DETAILS-WEST BOUND STRUCTURE



REINFORCING DETAILS-EAST BOUND STRUCTURE

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP A.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP E.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

TRANSVERSE SECTION AT PIER 1
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

99 | 160

1545
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
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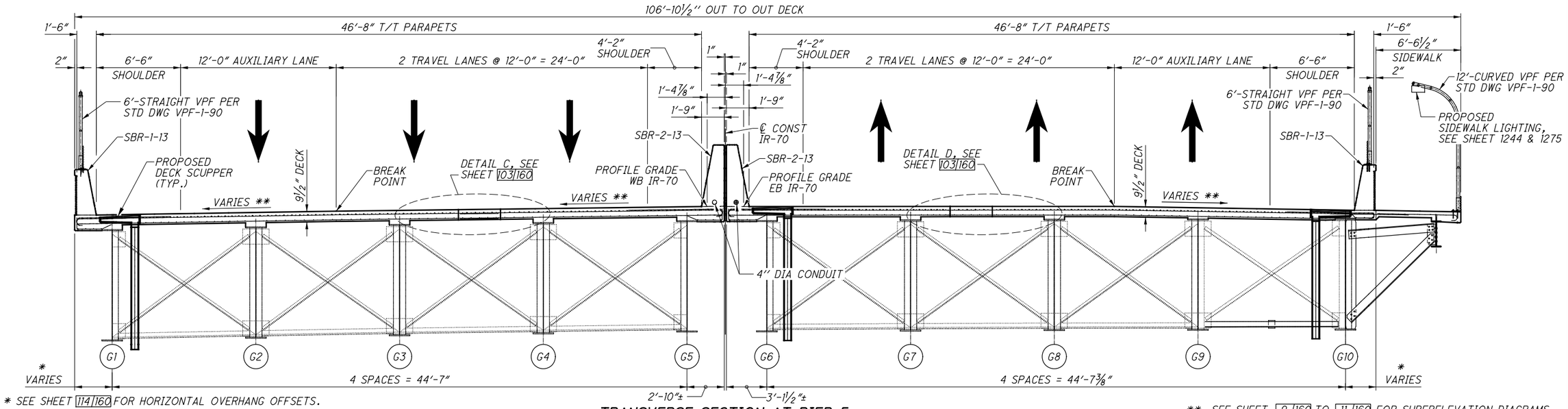
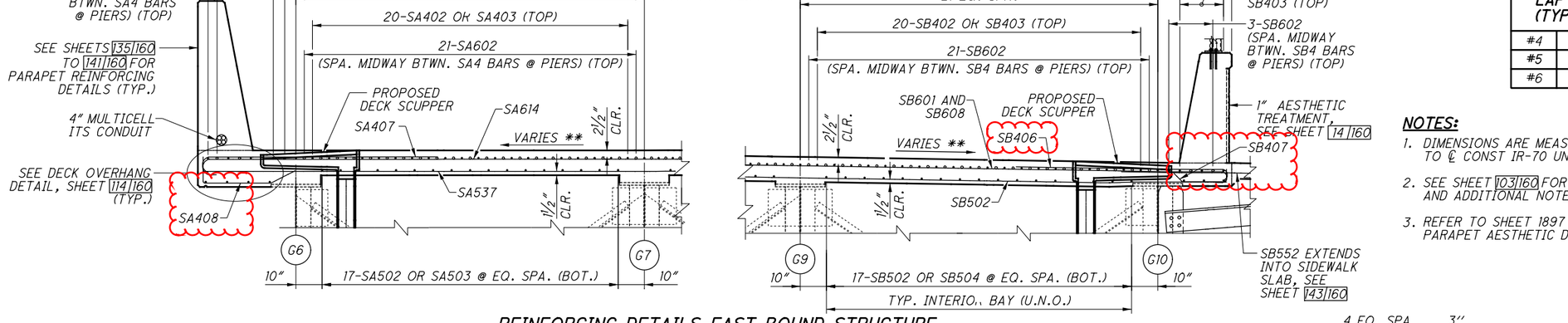


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

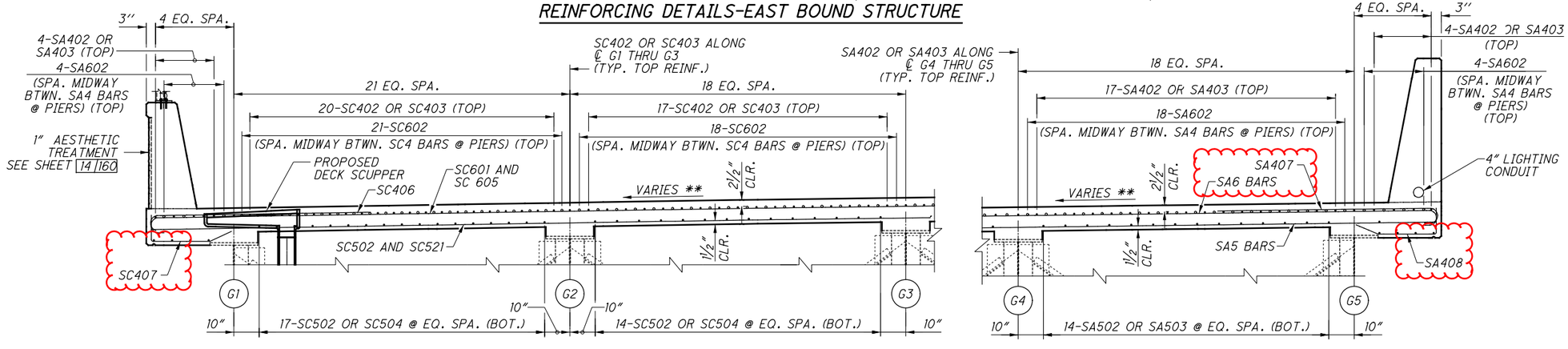
TRANSVERSE SECTION AT PIER 5

LOOKING UPSTATION

** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.



REINFORCING DETAILS-EAST BOUND STRUCTURE



REINFORCING DETAILS-WEST BOUND STRUCTURE

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

TRANSVERSE SECTION AT PIER 5
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

100|160

1546
2231

SUBMITTAL: Stage 3
PID: 93006
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PLOT DRIVER: ODOTcadd_PDF.pltcfg
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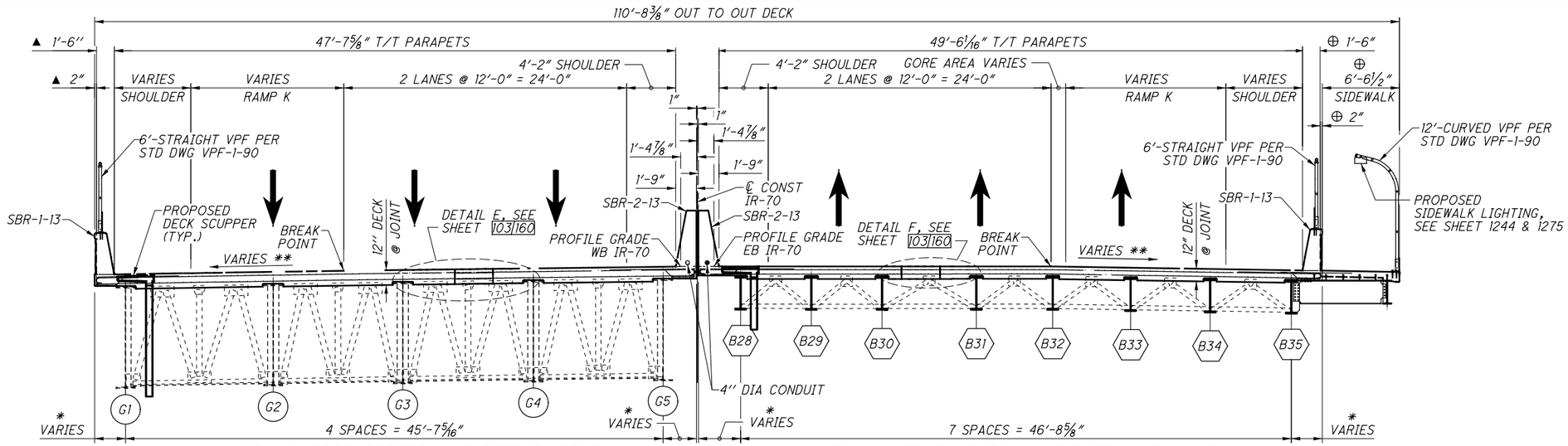


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

TRANSVERSE SECTION AT PIER 7 (REAR)

LOOKING UPSTATION

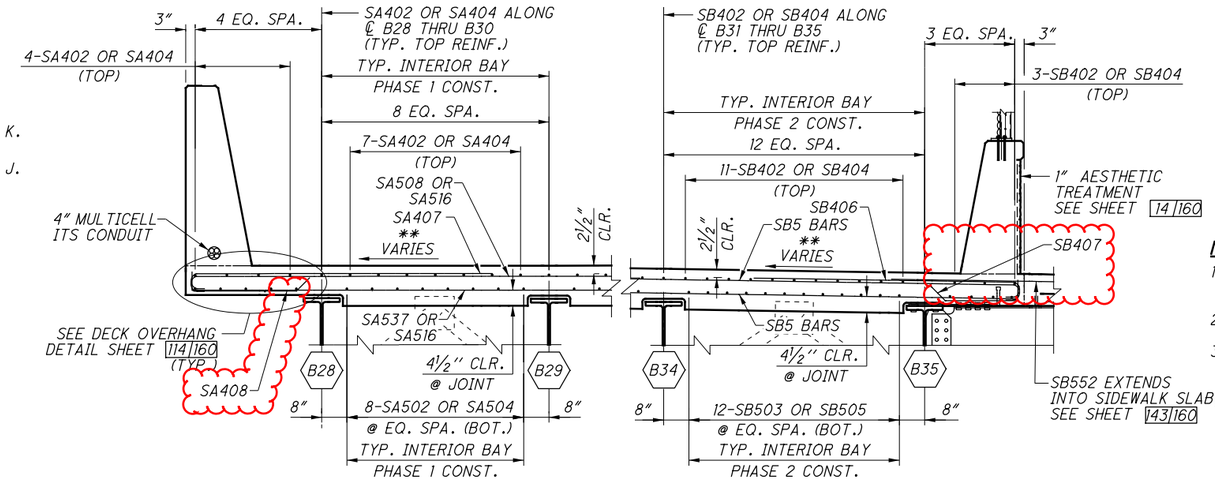
TRANSVERSE SECTION AT PIER 7 (FORWARD)

LOOKING UPSTATION

** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP K.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP J.

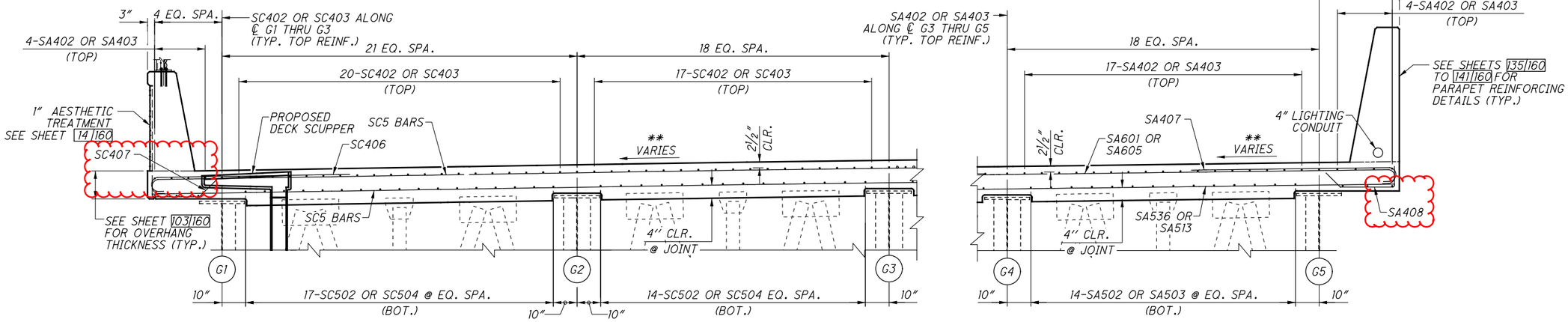


MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

REINFORCING DETAILS-EAST BOUND STRUCTURE



REINFORCING DETAILS-WEST BOUND STRUCTURE

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

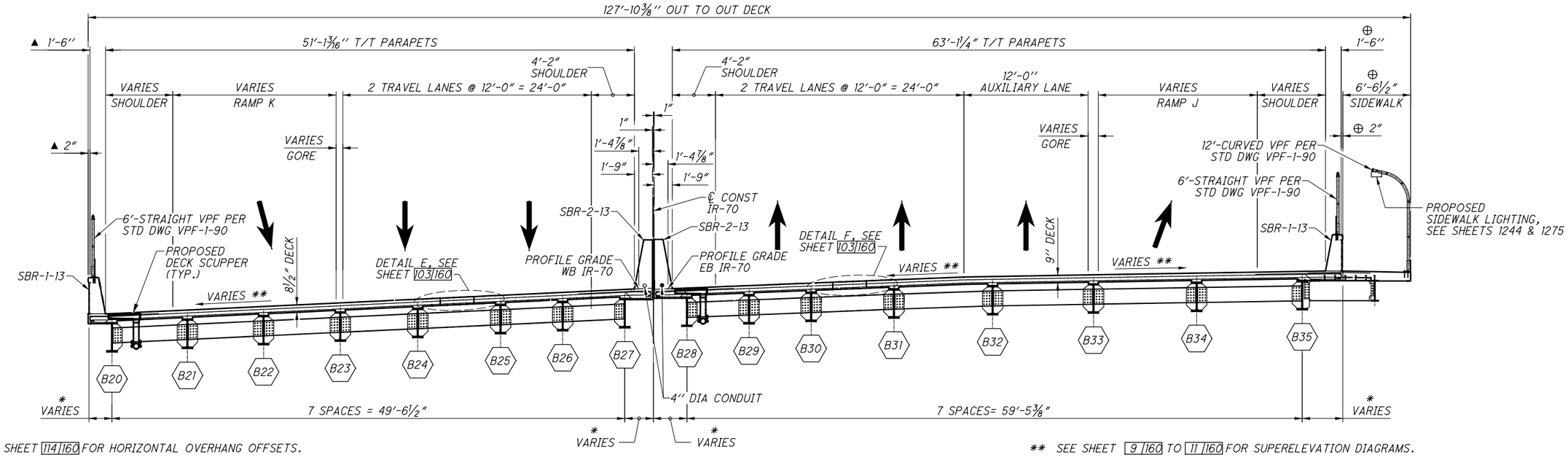
TRANSVERSE SECTION AT PIER 7

BRIDGE NO. MUS-70-1159

OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49

PID No. 93006

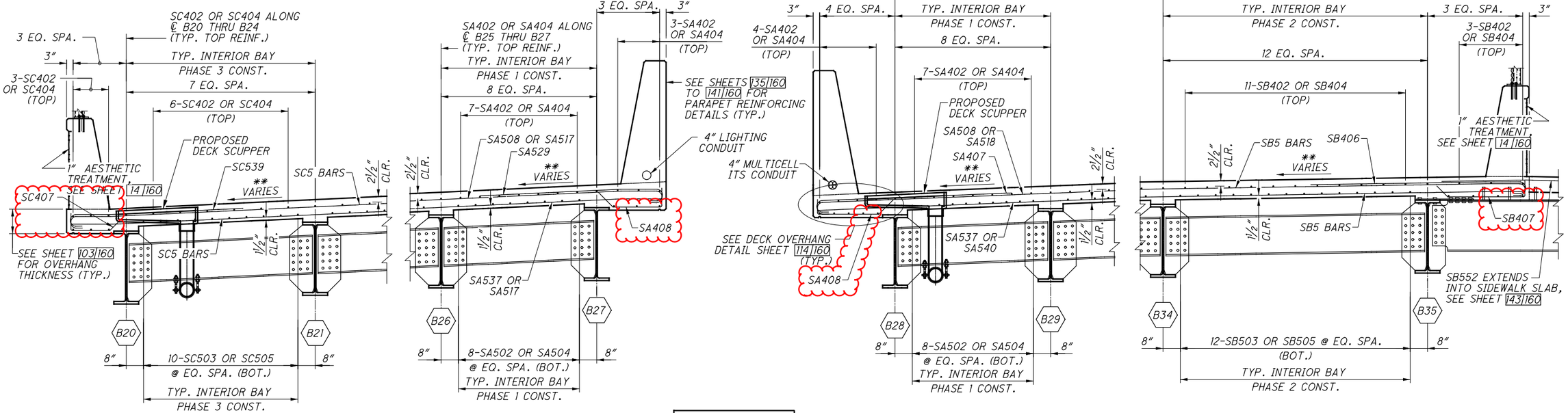


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

TRANSVERSE SECTION AT FORWARD ABUTMENT

LOOKING UPSTATION



REINFORCING DETAILS-WEST BOUND STRUCTURE

REINFORCING DETAILS-EAST BOUND STRUCTURE

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP K.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP J.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

TRANSVERSE SECTION AT FORWARD ABUTMENT
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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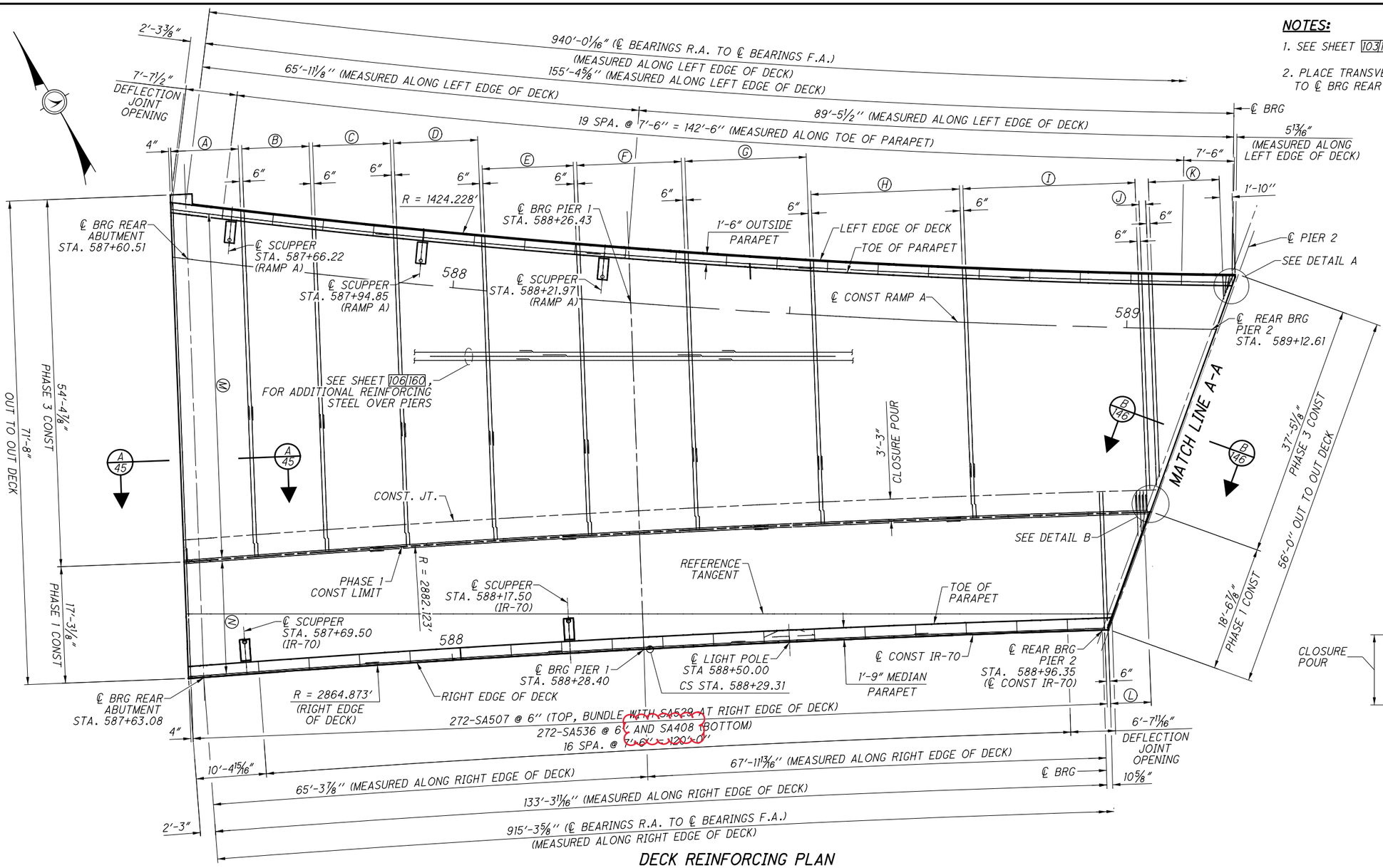


DECK REINFORCING PLAN

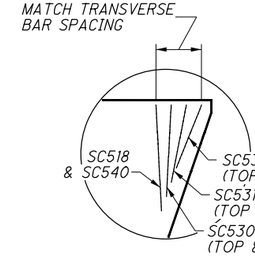
LEFT SPAN 1 AND SPAN 2

NOTES:

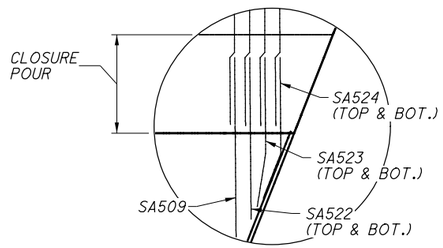
1. SEE SHEET 103/160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PARALLEL TO ℄ BRG REAR ABUTMENT.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)

#4	2'-0"
#5	2'-5"
#6	3'-0"



DETAIL A



DETAIL B

Ⓐ = 21-SC507 AND SC508 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
21-SC502, SC508 @ 6" AND SC407 (BOTTOM)

Ⓑ = 21-SC507 AND SC509 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
21-SC502, SC509 @ 6" AND SC407 (BOTTOM)

Ⓒ = 24-SC507 AND SC510 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
24-SC502, SC510 @ 6" AND SC407 (BOTTOM)

Ⓓ = 26-SC507 AND SC511 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
26-SC502, SC511 @ 6" AND SC407 (BOTTOM)

Ⓔ = 28-SC507 AND SC512 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
28-SC502, SC512 @ 6" AND SC407 (BOTTOM)

Ⓕ = 32-SC507 AND SC513 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
32-SC502, SC513 @ 6" AND SC407 (BOTTOM)

Ⓖ = 37-SC507 AND SC514 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
37-SC502, SC514 @ 6" AND SC407 (BOTTOM)

Ⓗ = 45-SC507 AND SC515 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
45-SC502, SC515 @ 6" AND SC407 (BOTTOM)

Ⓘ = 52-SC507 AND SC516 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
52-SC502, SC516 @ 6" AND SC407 (BOTTOM)

Ⓙ = 4-SC507 AND SC517 @ 6" (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
4-SC502, SC517 @ 6" AND SC407 (BOTTOM)

Ⓚ = 1 S.O. 21-SC518 @ 6" (TOP, BUNDLE WITH SC539 AT LEFT EDGE OF DECK)
1 S.O. 21-SC540 @ 6" AND SC407 (BOTTOM)

Ⓛ = 1 S.O. 11-SA509 @ 6" (TOP)
1 S.O. 11-SA509 @ 6" (BOTTOM)

Ⓜ = 53-SC401 (5 LENGTHS) LAPPED WITH 1 S.O. 53-SC405 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
60-SC501 (5 LENGTHS) LAPPED WITH 1 S.O. 60-SC506 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

Ⓝ = 19-SA401 (5 LENGTHS) LAPPED WITH 1 S.O. 19-SA405 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
22-SA501 (5 LENGTHS) LAPPED WITH 1 S.O. 22-SA505 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED JAY | DRAWN JM | CHECKED RDF | REVIEWED MTO | DATE 12/2020 | REVISED | STRUCTURE FILE NUMBER 6002854

LEFT SPAN 1 AND 2 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

1550
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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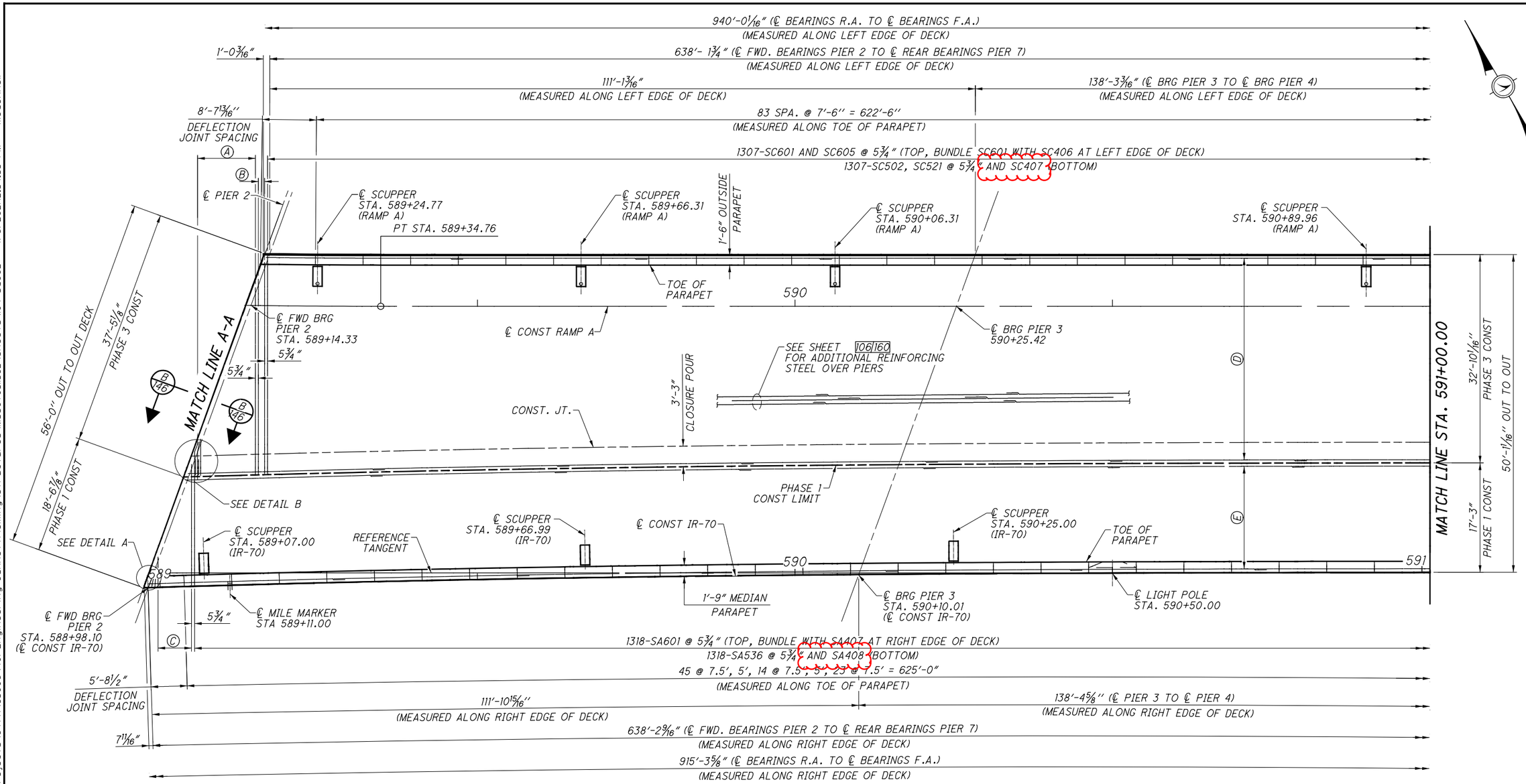
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-Gannett Fleming\Structures\MUS070_1159L\Sheets\103 sd001 4/6/2021 2:52:38 PM mdonnell



DECK REINFORCING PLAN

LEFT SPAN 3 AND 4

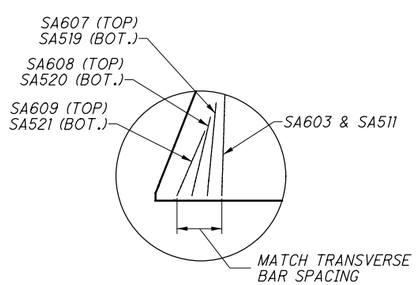
Ⓐ = 1 S.O. 19-SC603 @ 5 3/4" (TOP)
1 S.O. 19-SC519 @ 5 3/4" (BOTTOM)

Ⓑ = 3-SC613 AND 3-SC604 @ 5 3/4" (TOP)
3-SC502 AND 3-SC520 @ 5 3/4" (BOTTOM)

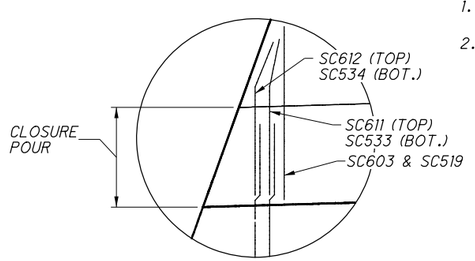
Ⓒ = 1 S.O. 12-SA603 @ 5 3/4" (TOP, BUNDLE WITH SA407 AT RIGHT EDGE OF DECK)
1 S.O. 12-SA511 @ 5 3/4" AND SA408 (BOTTOM)

Ⓓ = 56-SC402 (23 LENGTHS) LAPPED WITH 56-SC403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
46-SC502 (23 LENGTHS) LAPPED WITH 46-SC504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

Ⓔ = 27-SA402 (23 LENGTHS) LAPPED WITH 27-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
22-SA502 (23 LENGTHS) LAPPED WITH 22-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)



DETAIL A



DETAIL B

NOTES:

1. SEE SHEET 103/160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

LEFT SPAN 3 AND 4 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

105/160

1551
2231

SUBMITTAL: Stage 3
PID: 93006
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PLOT DRIVER: ODOTcadd_PDF.pltcfg
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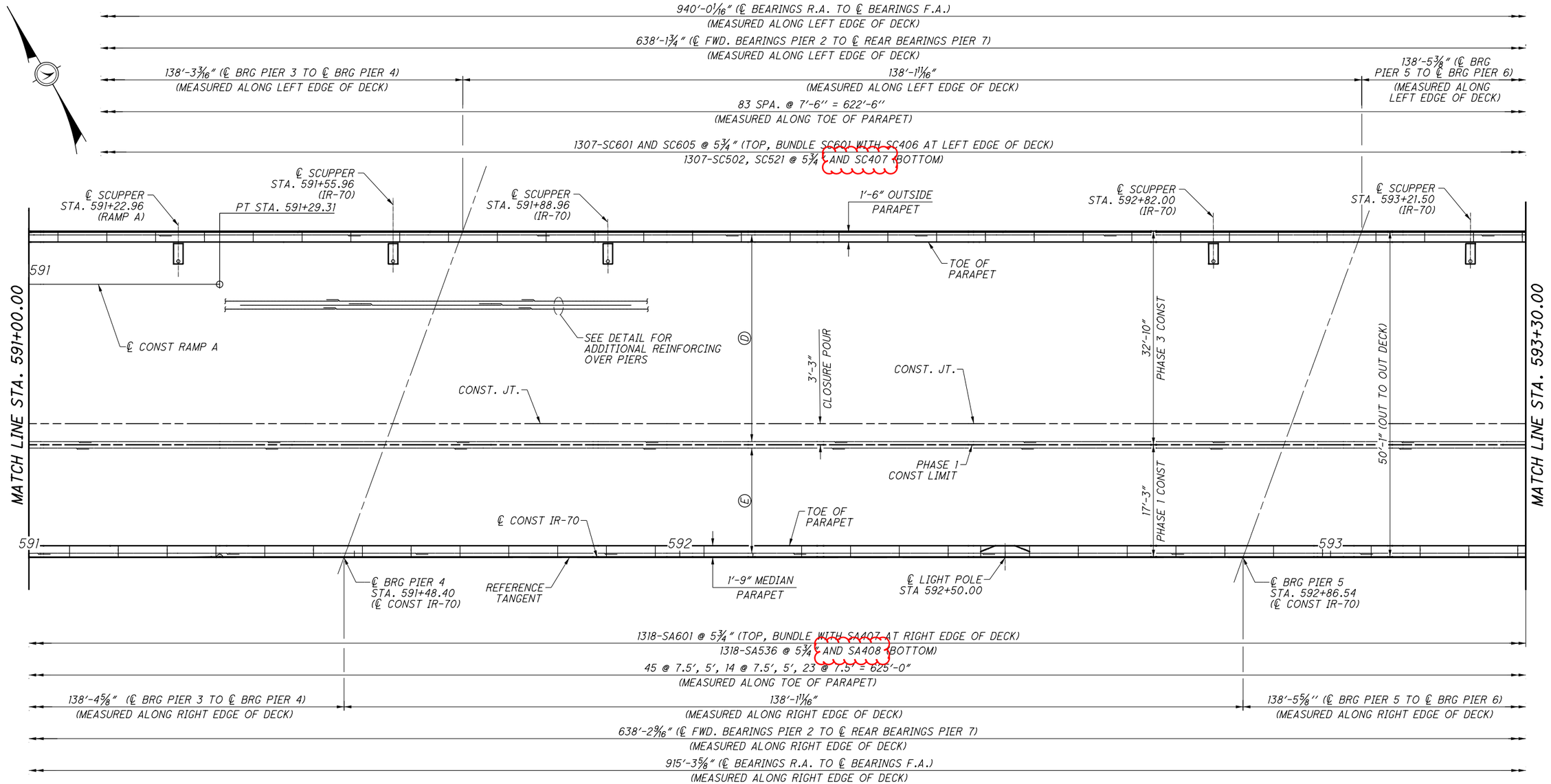
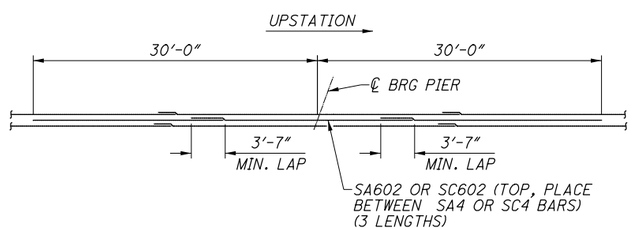


DECK REINFORCING PLAN

LEFT SPAN 4, 5 AND 6

Ⓓ = 56-SC402 (23 LENGTHS) LAPPED WITH 56-SC403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
46-SC502 (23 LENGTHS) LAPPED WITH 46-SC504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

Ⓔ = 27-SA402 (23 LENGTHS) LAPPED WITH 27-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
22-SA502 (23 LENGTHS) LAPPED WITH 22-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)



ADDITIONAL REINFORCEMENT OVER PIERS

NOTES:

1. SEE SHEET 103/160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

LEFT SPAN 4, 5 AND 6 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

106/160

1552
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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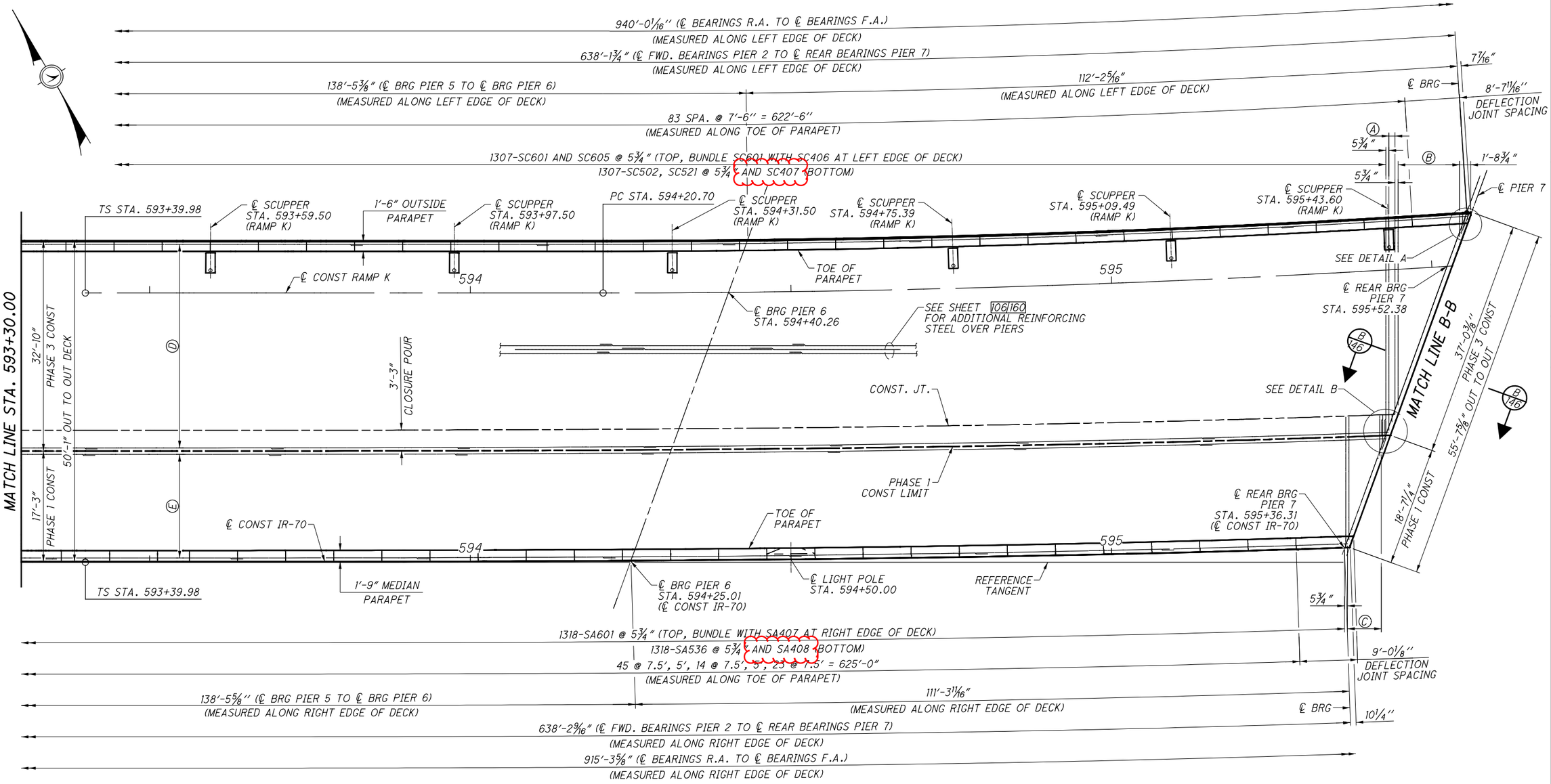


DECK REINFORCING PLAN

LEFT SPAN 6 AND 7

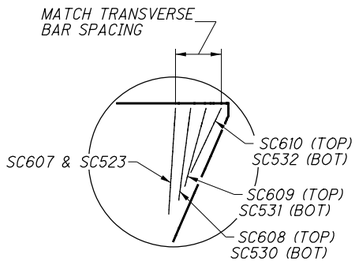
Ⓐ = 3-SC601 AND 1 S.O. 3-SC606 @ 5 3/4" (TOP, BUNDLE SC601 WITH SC406 AT LEFT EDGE OF DECK)
3-SC502 AND 1 S.O. 3-SC522 @ 5 3/4" AND SC407 (BOTTOM)

Ⓑ = 1 S.O. 21-SC607 @ 5 3/4" (TOP, BUNDLE WITH SC406 AT LEFT EDGE OF DECK)
1 S.O. 21-SC523 @ 5 3/4" AND SC407 (BOTTOM)

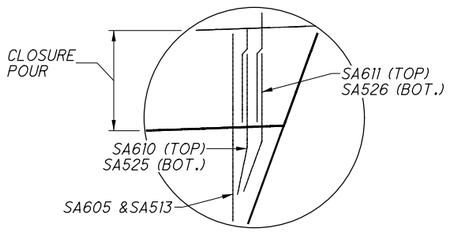
Ⓒ = 1 S.O. 11-SA605 @ 5 3/4" (TOP)
1 S.O. 11-SA513 @ 5 3/4" (BOTTOM)

Ⓓ = 56-SC402 (23 LENGTHS) LAPPED WITH 56-SC403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
46-SC502 (23 LENGTHS) LAPPED WITH 46-SC504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

Ⓔ = 27-SA402 (23 LENGTHS) LAPPED WITH 27-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
22-SA502 (23 LENGTHS) LAPPED WITH 22-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)



DETAIL A



DETAIL B

NOTES:

1. SEE SHEET 103/160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)

#4	2'-0"
#5	2'-5"
#6	3'-0"

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

LEFT SPAN 6 AND 7 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

107/160

1553
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT_DRIVER: ODOTcadd_PDF.pltcfg
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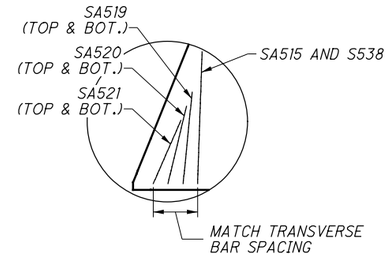
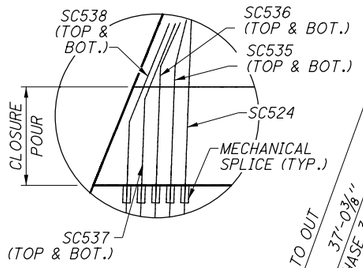
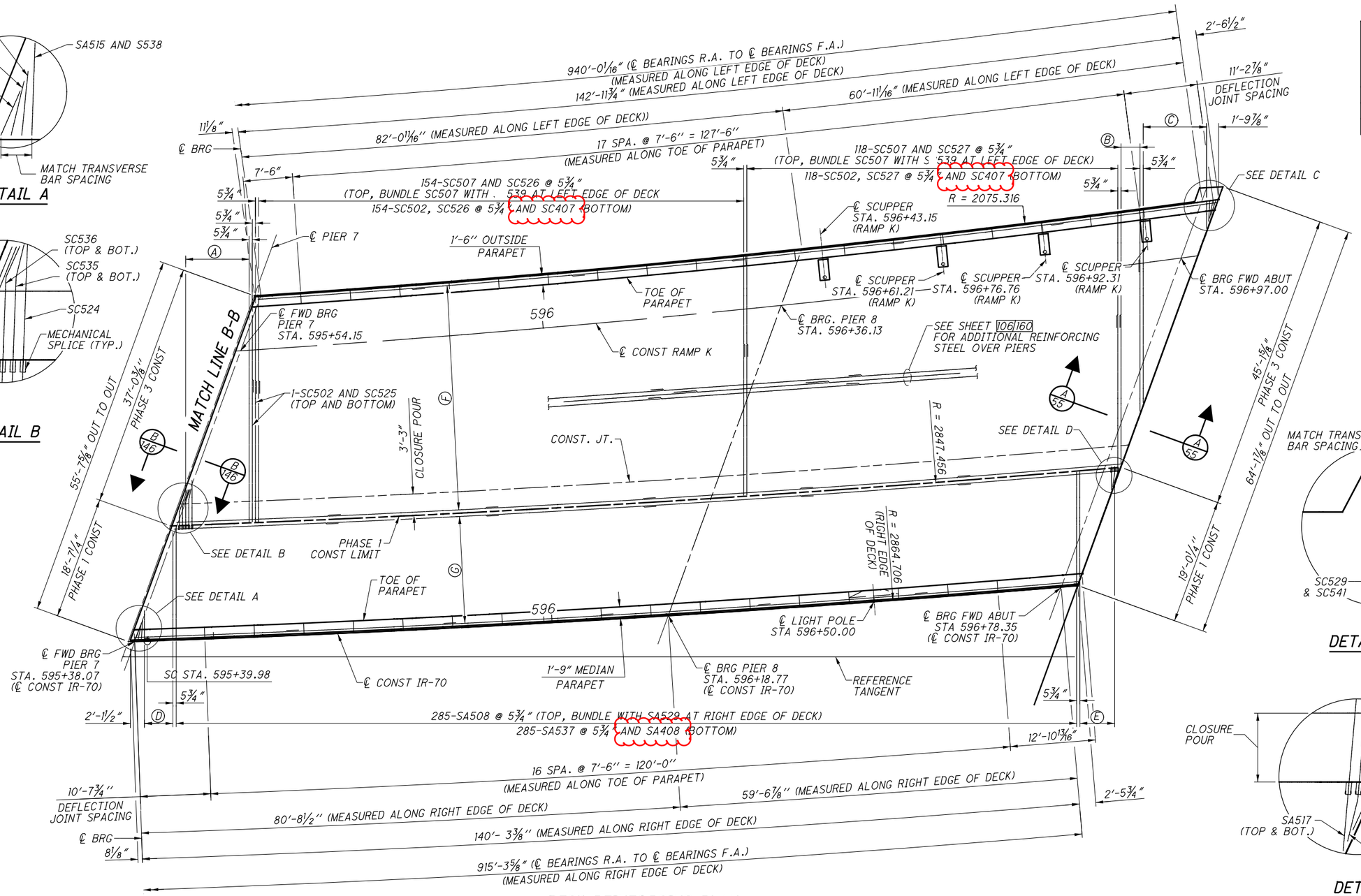


DETAIL A



DETAIL B

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2′-0″
#5	2′-5″
#6	3′-0″



DECK REINFORCING PLAN

LEFT SPAN 8 AND 9

Ⓐ = 1 S.O. 19-SC524 @ 5 3/4″ (TOP)
1 S.O. 19-SC524 @ 5 3/4″ (BOTTOM)

Ⓑ = 7-SC507 AND 1 S.O. 7-SC528 @ 5 3/4″ (TOP, BUNDLE SC507 WITH SC539 AT LEFT EDGE OF DECK)
7-SC502 AND 1 S.O. 7-SC528 @ 5 3/4″ AND SC407 (BOTTOM)

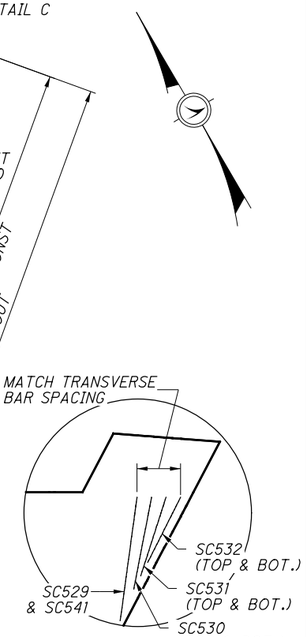
Ⓒ = 1 S.O. 21-SC529 @ 5 3/4″ (TOP, BUNDLE WITH SC539 AT LEFT EDGE OF DECK)
1 S.O. 21-SC541 @ 5 3/4″ AND SC407 (BOTTOM)

Ⓓ = 1 S.O. 10-SA515 @ 5 3/4″ (TOP, BUNDLE WITH SA529 AT RIGHT EDGE OF DECK)
1 S.O. 10-SA538 @ 5 3/4″ AND SA408 (BOTTOM)

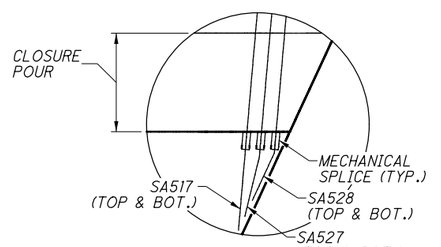
Ⓔ = 1 S.O. 11-SA517 @ 5 3/4″ (TOP)
1 S.O. 11-SA517 @ 5 3/4″ (BOTTOM)

Ⓕ = 39-SC402 (5 LENGTHS) LAPPED WITH 39-SC404 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
52-SC503 (5 LENGTHS) LAPPED WITH 52-SC505 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

Ⓖ = 22-SA402 (5 LENGTHS) LAPPED WITH 22-SA404 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
23-SA502 (5 LENGTHS) LAPPED WITH 23-SA504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)



DETAIL C



DETAIL D

NOTES:

1. SEE SHEET 103/160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.
3. MECHANICAL SPLICES ARE REQUIRED FOR THE TRANSVERSE BARS BETWEEN PHASE 1 AND PHASE 3 CONSTRUCTION.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

LEFT SPAN 8 AND 9 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

108/160

1554
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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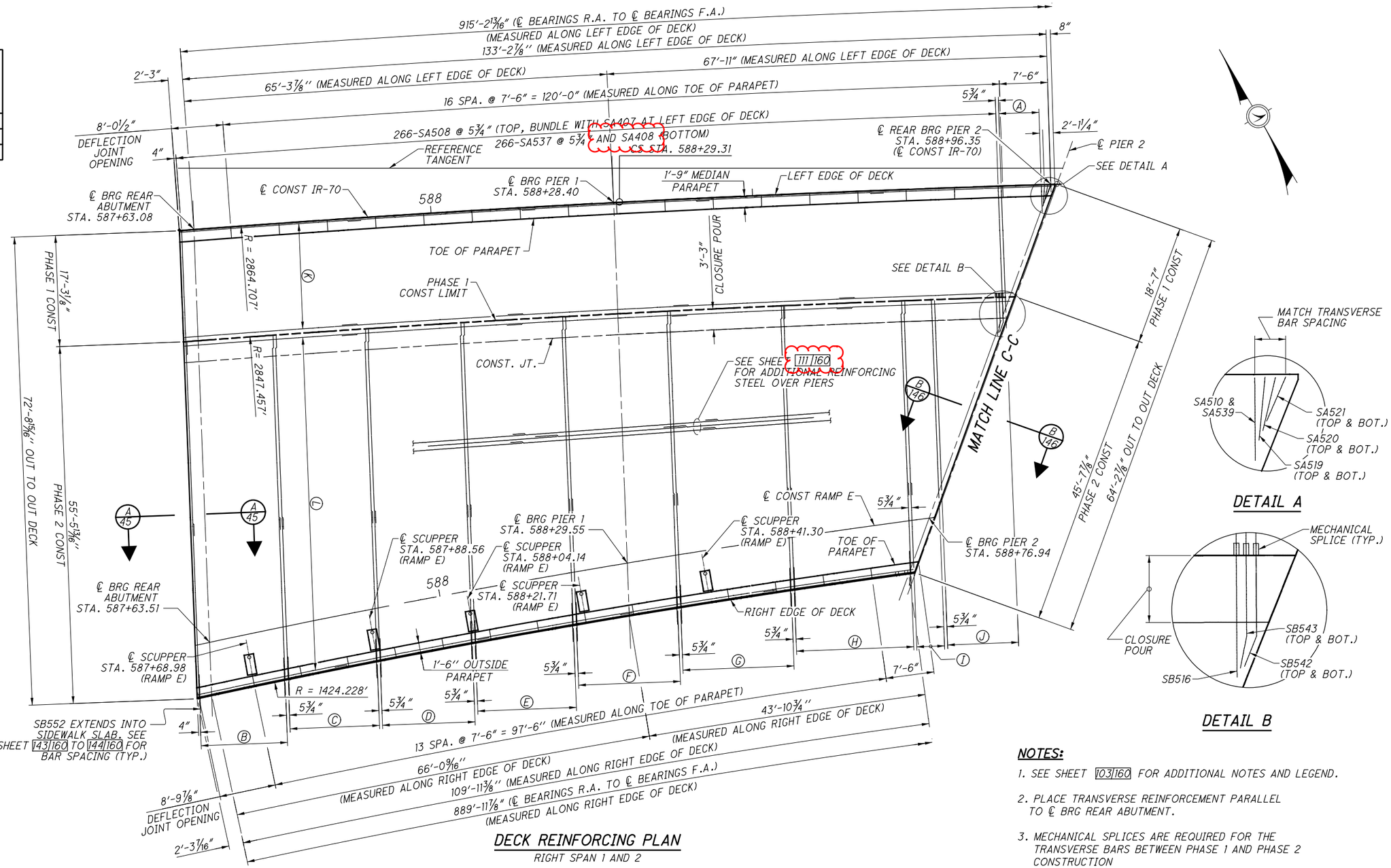
MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2′-0″
#5	2′-5″
#6	3′-0″



DECK REINFORCING PLAN

RIGHT SPAN 1 AND 2

DETAIL A

DETAIL B

NOTES:

1. SEE SHEET 103 160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PARALLEL TO ℄ BRG REAR ABUTMENT.
3. MECHANICAL SPLICES ARE REQUIRED FOR THE TRANSVERSE BARS BETWEEN PHASE 1 AND PHASE 2 CONSTRUCTION

Ⓐ = 1 S.O. 14-SA510 @ 5 3/4″ (TOP, BUNDLE WITH SA407 AT LEFT EDGE OF DECK)
1 S.O. 14-SA539 @ 5 3/4″ AND SA408 (BOTTOM)

Ⓑ = 29-SB507 AND SB508 @ 5 3/4″ (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
29-SB502, SB508 @ 5 3/4″ AND SB407 (BOTTOM)

Ⓒ = 30-SB507 AND SB509 @ 5 3/4″ (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
30-SB502, SB509 @ 5 3/4″ AND SB407 (BOTTOM)

Ⓓ = 31-SB507 AND SB510 @ 5 3/4″ (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
31-SB502, SB510 @ 5 3/4″ AND SB407 (BOTTOM)

Ⓔ = 33-SB507 AND SB511 @ 5 3/4″ (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
33-SB502, SB511 @ 5 3/4″ AND SB407 (BOTTOM)

Ⓕ = 34-SB507 AND SB512 @ 5 3/4″ (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
34-SB502, SB512 @ 5 3/4″ AND SB407 (BOTTOM)

Ⓖ = 37-SB507 AND SB513 @ 5 3/4″ (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
37-SB502, SB513 @ 5 3/4″ AND SB407 (BOTTOM)

Ⓗ = 39-SB507 AND SB514 @ 5 3/4″ (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
39-SB502, SB514 @ 5 3/4″ AND SB407 (BOTTOM)

Ⓘ = 10-SB502 AND 1 S.O. 10-SB515 @ 5 3/4″ (TOP)
10-SB502 AND 1 S.O. 10-SB515 @ 5 3/4″ (BOTTOM)

Ⓙ = 1 S.O. 21-SB516 @ 5 3/4″ (TOP)
1 S.O. 21-SB516 @ 5 3/4″ (BOTTOM)

Ⓚ = 21-SA401 (5 LENGTHS) LAPPED WITH 1 S.O. 21-SA406 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION)
24-SA501 (5 LENGTHS) LAPPED WITH 1 S.O. 24-SA506 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION)

Ⓛ = 62-SB401 (5 LENGTHS) LAPPED WITH 1 S.O. 62-SB405 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
67-SB501 (5 LENGTHS) LAPPED WITH 1 S.O. 67-SB506 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

RIGHT SPAN 1 AND 2 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

109 | 160

1555
2231

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

915'-2 13/16" (℄ BEARINGS R.A. TO ℄ BEARINGS F.A.)
(MEASURED ALONG LEFT EDGE OF DECK)
638'-2 9/16" (℄ FWD. BEARINGS PIER 2 TO ℄ REAR BEARINGS PIER 7)
(MEASURED ALONG LEFT EDGE OF DECK)
111'-10 15/16" (MEASURED ALONG LEFT EDGE OF DECK)
138'-4 5/8" (℄ BRG PIER 3 TO ℄ BRG PIER 4) (MEASURED ALONG LEFT EDGE OF DECK)
83 SPA. @ 7'-6" = 622'-6" (MEASURED ALONG TOE OF PARAPET)
10 5/16"
8'-7 13/16" DEFLECTION JOINT SPACING
1318-SA614 @ 5 3/4" (TOP, BUNDLE WITH SA407 AT LEFT EDGE OF DECK)
1318-SA537 @ 5 3/4" AND SA408 (BOTTOM)
5 3/4"
℄ FWD BRG PIER 2 STA. 588+98.10 (℄ CONST IR-70)
℄ MILE MARKER STA. 589+11.00
℄ CONST IR-70
REFERENCE TANGENT
℄ BRG PIER 3 STA. 590+10.01 (℄ CONST IR-70)
589
590
SEE DETAIL B
B 14/6
B 15/6
▲ SA409 (5 LENGTHS) (TOP) SA530 (5 LENGTHS) (BOT.)
▲ SA410 (4 LENGTHS) (TOP) SA531 (4 LENGTHS) (BOT.)
▲ SA411 (4 LENGTHS) (TOP) SA532 (4 LENGTHS) (BOT.)
▲ SA412 (3 LENGTHS) (TOP) SA533 (3 LENGTHS) (BOT.)
▲ SA413 (2 LENGTHS) (TOP) SA534 (2 LENGTHS) (BOT.)
▲ SA414 (TOP) SA535 (BOT.)
℄ G7
3'-3" CLOSURE POUR
TOE OF PARAPET
PHASE 1 CONST. LIMIT
1'-9" MEDIAN PARAPET
G
H
17'-3" PHASE 1 CONST
18'-7" PHASE 1 CONST
64'-2 7/8" OUT TO OUT DECK
45'-7 7/8" PHASE 2 CONST
MATCH LINE C-C
CONST. JT.
℄ G8
SB413 (4 LENGTHS) (TOP) SB549 (4 LENGTHS) (BOT.)
SB412 (4 LENGTHS) (TOP) SB548 (4 LENGTHS) (BOT.)
SB408 (TOP) SB544 (BOT.)
SB409 (2 LENGTHS) (TOP) SB545 (2 LENGTHS) (BOT.)
SB410 (3 LENGTHS) (TOP) SB546 (3 LENGTHS) (BOT.)
SB411 (3 LENGTHS) (TOP) SB547 (3 LENGTHS) (BOT.)
SEE SHEET 111/160 FOR ADDITIONAL REINFORCING STEEL OVER PIERS
I
℄ BRG PIER 3 STA. 589+94.18
℄ SCUPPER STA. 590+80.26 (RAMP E)
32'-10" PHASE 2 CONST
50'-1" OUT TO OUT
℄ CONST RAMP E
℄ FWD BRG PIER 2 STA. 588+78.78
1'-6" OUTSIDE PARAPET
TOE OF PARAPET
℄ SCUPPER STA. 589+23.40 (RAMP E)
℄ SCUPPER STA. 589+64.59 (RAMP E)
SB552 EXTENDS INTO SIDEWALK SLAB. SEE SHEET 143/160 TO 144/160 FOR BAR SPACING (TYP.)
℄ SCUPPER STA. 590+05.02 (RAMP E)
℄ SCUPPER STA. 590+42.19 (RAMP E)
SEE DETAIL A ℄ PIER 2
Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
5 3/4"
℄ SCUPPER STA. 588+87.24 (RAMP E)
1125-SB601 AND SB608 @ 5 3/4" (TOP, BUNDLE SB601 WITH SB406 AT RIGHT EDGE OF DECK)
1125-SB502, SB522 @ 5 3/4" AND SB407 (BOTTOM)
84 SPA. @ 7'-6" = 630'-0" (MEASURED ALONG TOE OF PARAPET)
139'-0" (℄ BRG PIER 3 TO ℄ BRG PIER 4) (MEASURED ALONG RIGHT EDGE OF DECK)
115'-6 9/16" (MEASURED ALONG RIGHT EDGE OF DECK)
641'-6 7/8" (℄ FWD. BEARINGS PIER 2 TO ℄ REAR BEARINGS PIER 7) (MEASURED ALONG RIGHT EDGE OF DECK)
889'-11 7/8" (℄ BEARINGS R.A. TO ℄ BEARINGS F.A.) (MEASURED ALONG RIGHT EDGE OF DECK)
6'-5 5/16" DEFLECTION JOINT SPACING
8 5/8"
MATCH LINE STA. 591+00.00

SA613 (TOP) SA528 (BOT.)
SA612 (TOP) SA527 (BOT.)
SA604 & SA512
CLOSURE POUR
MECHANICAL SPLICE (TYP.)

DETAIL B

✱ SB611 (TOP) SB536 (BOT.)
✱ B612 (TOP) SB537 (BOT.)
✱ SB613 (TOP) SB538 (BOT.)
SB603 & SB517
MATCH TRANSVERSE BAR SPACING

✱ EXTEND BAR 2'-6" INTO SIDEWALK SLAB

DETAIL A

DECK REINFORCING PLAN

RIGHT SPAN 3 AND 4

▲ MATCH BAR SPACING WITH LONGITUDINAL BARS IN SPAN 4.

NOTES:

1. SEE SHEET 103/160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.
3. MECHANICAL SPLICES ARE REQUIRED FOR THE TRANSVERSE BARS BETWEEN PHASE 1 AND PHASE 2 CONSTRUCTION.

Ⓐ = 1 S.O. 12-SA604 @ 5 3/4" (TOP)
1 S.O. 12-SA512 @ 5 3/4" (BOTTOM)

Ⓑ = 21-SB603 @ 5 3/4" (TOP, BUNDLE WITH SB406 AT RIGHT EDGE OF DECK)
21-SB517 @ 5 3/4" AND SB407 (BOTTOM)

Ⓒ = 9-SB601 AND SB604 @ 5 3/4" (TOP, BUNDLE SB601 WITH SB406 AT RIGHT EDGE OF DECK)
9-SB502, SB518 @ 5 3/4" AND SB407 (BOTTOM)

Ⓓ = 50-SB601 AND SB605 @ 5 3/4" (TOP, BUNDLE SB601 WITH SB406 AT RIGHT EDGE OF DECK)
50-SB502, SB519 @ 5 3/4" AND SB407 (BOTTOM)

Ⓔ = 58-SB601 AND SB606 @ 5 3/4" (TOP, BUNDLE SB601 WITH SB406 AT RIGHT EDGE OF DECK)
58-SB502, SB520 @ 5 3/4" AND SB407 (BOTTOM)

Ⓕ = 74-SB601 AND SB607 @ 5 3/4" (TOP, BUNDLE SB601 WITH SB406 AT RIGHT EDGE OF DECK)
74-SB502, SB521 @ 5 3/4" AND SB407 (BOTTOM)

Ⓖ = 27-SA402 (23 LENGTHS) LAPPED WITH 27-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
21-SA502 (23 LENGTHS) LAPPED WITH 21-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

Ⓗ = 6-SA402 (20 LENGTHS) LAPPED WITH 6-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION)
5-SA502 (20 LENGTHS) LAPPED WITH 5-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION)

Ⓘ = 5-SB402 (23 LENGTHS) LAPPED WITH 5-SB403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION)
5-SB502 (23 LENGTHS) LAPPED WITH 5-SB504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION)

Ⓙ = 54-SB402 (23 LENGTHS) LAPPED WITH 54-SB403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
44-SB502 (23 LENGTHS) LAPPED WITH 44-SB504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

RIGHT SPAN 3 AND 4 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

1556/2231

SUBMITTAL: Stage 3
PID: 93006
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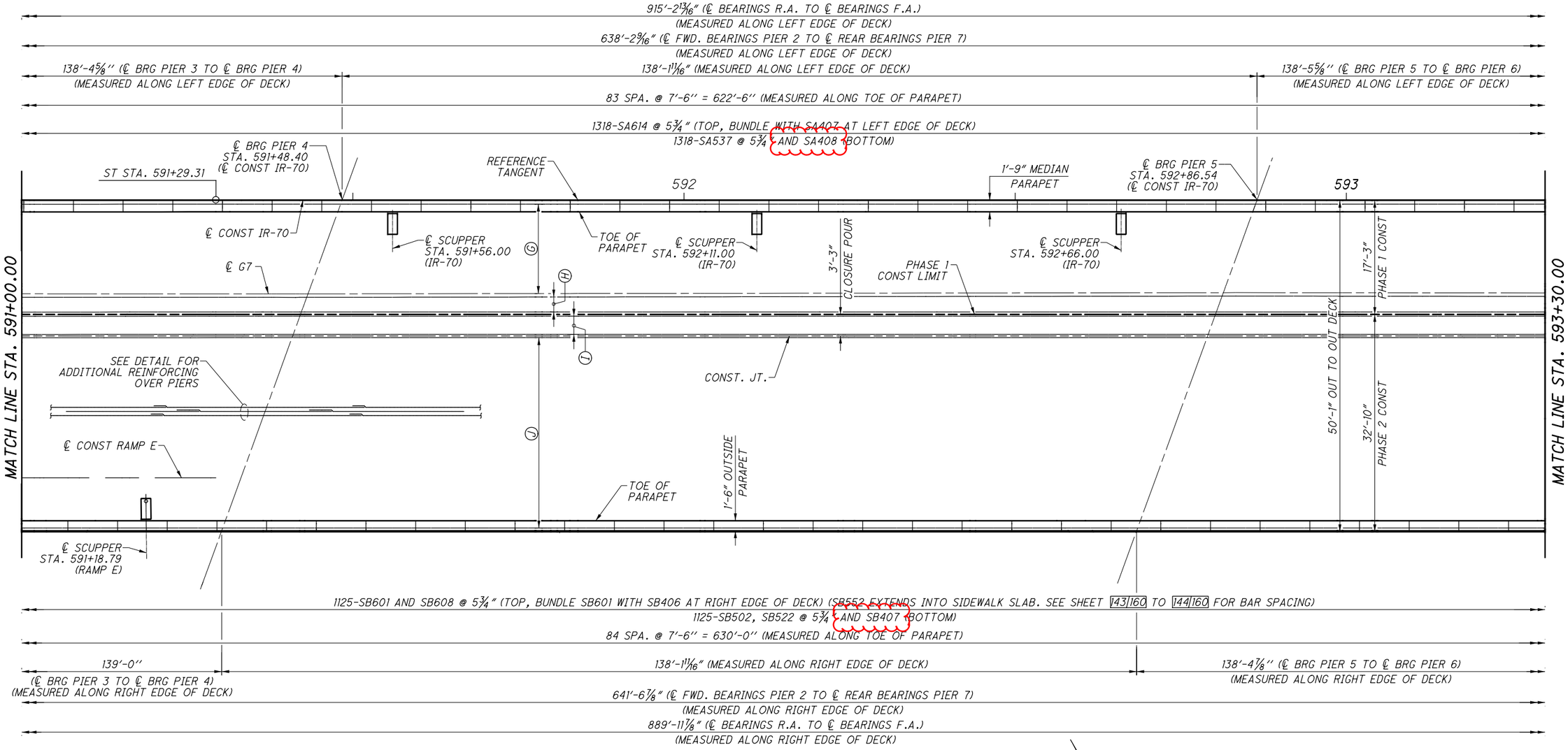


DECK REINFORCING PLAN

RIGHT SPAN 4, 5 AND 6

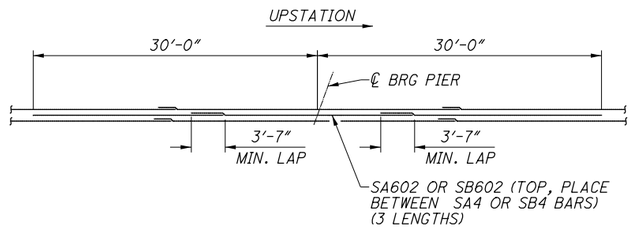
MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

Ⓖ = 27-SA402 (23 LENGTHS) LAPPED WITH 27-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
21-SA502 (23 LENGTHS) LAPPED WITH 21-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

Ⓗ = 6-SA402 (20 LENGTHS) LAPPED WITH 6-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION)
5-SA502 (20 LENGTHS) LAPPED WITH 5-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION)

Ⓘ = 5-SB402 (23 LENGTHS) LAPPED WITH 5-SB403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION)
5-SB502 (23 LENGTHS) LAPPED WITH 5-SB504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION)

Ⓙ = 54-SB402 (23 LENGTHS) LAPPED WITH 54-SB403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
44-SB502 (23 LENGTHS) LAPPED WITH 44-SB504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)



ADDITIONAL REINFORCEMENT OVER PIERS

NOTES:

1. SEE SHEET 103|160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.
3. MECHANICAL SPLICES ARE REQUIRED FOR THE TRANSVERSE BARS BETWEEN PHASE 1 AND PHASE 2 CONSTRUCTION.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

RIGHT SPAN 4, 5 AND 6 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

111 / 160

1557
2231

SUBMITTAL: Stage 3
PID: 93006
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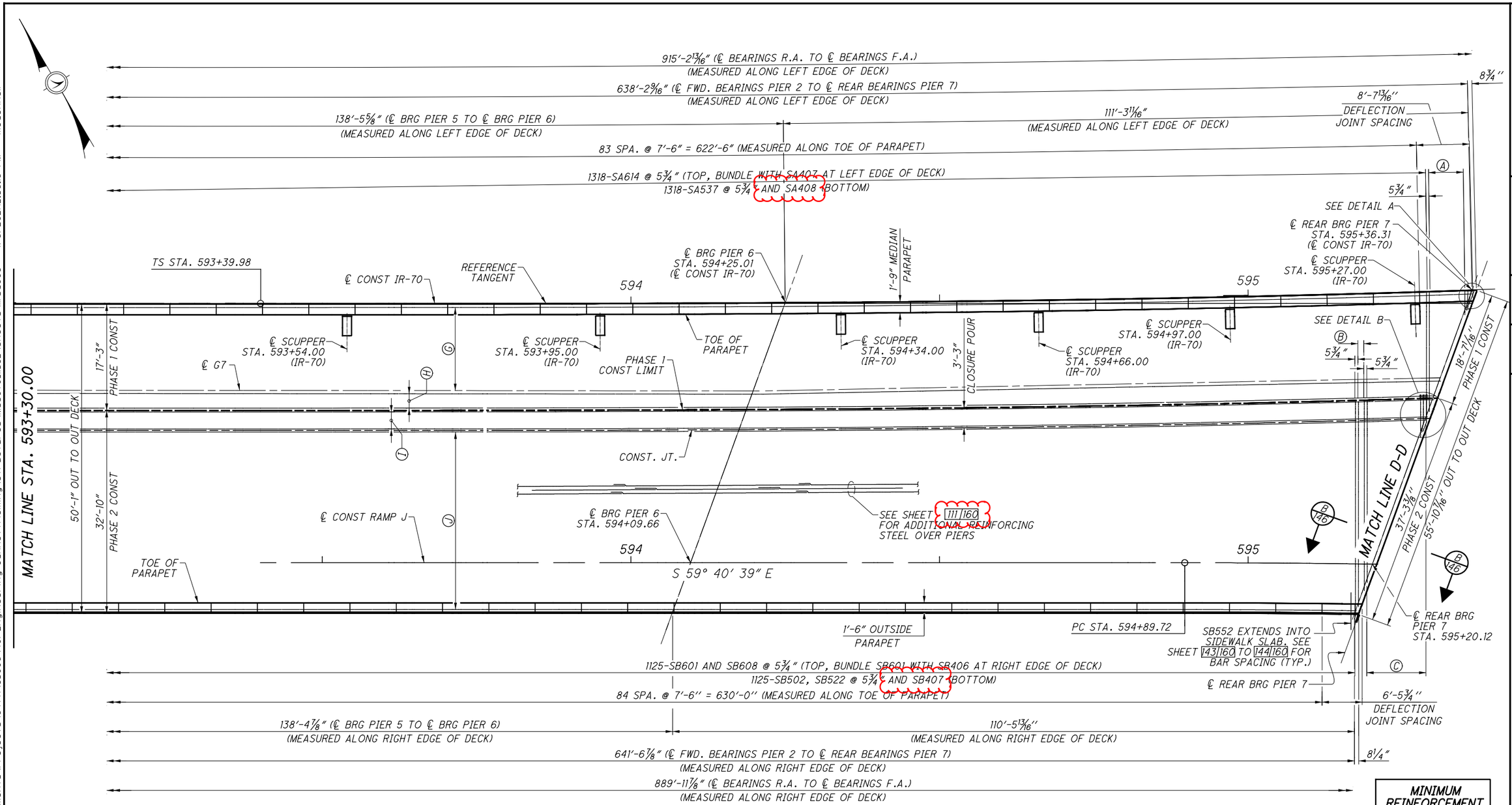


DECK REINFORCNG PLAN

RIGHT SPAN 6 AND 7

Ⓐ = 1 S.O. 13-SA606 @ 5 3/4" (TOP, BUNDLE WITH SA407 AT LEFT EDGE OF DECK)
1 S.O. 13-SA514 @ 5 3/4" AND SA408 (BOTTOM)

Ⓑ = 3-SB616 AND 1 S.O. 3-SB609 @ 5 3/4" (TOP)
3-SB502 AND 1 S.O. 3-SB523 @ 5 3/4" (BOTTOM)

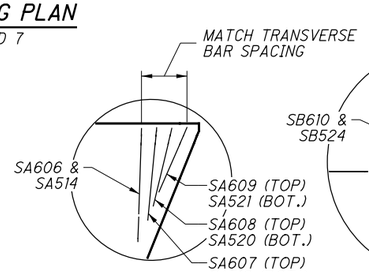
Ⓒ = 1 S.O. 19-SB610 @ 5 3/4" (TOP)
1 S.O. 19-SB524 @ 5 3/4" (BOTTOM)

Ⓖ = 27-SA402 (23 LENGTHS) LAPPED WITH 27-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
21-SA502 (23 LENGTHS) LAPPED WITH 21-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

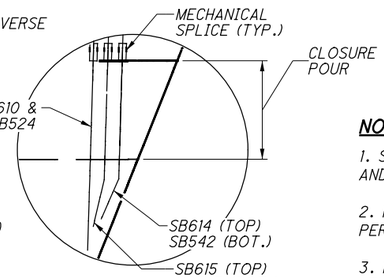
Ⓗ = 6-SA402 (20 LENGTHS) LAPPED WITH 6-SA403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION)
5-SA502 (20 LENGTHS) LAPPED WITH 5-SA503 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION)

Ⓘ = 5-SB402 (23 LENGTHS) LAPPED WITH 5-SB403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION)
5-SB502 (23 LENGTHS) LAPPED WITH 5-SB504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION)

Ⓙ = 54-SB402 (23 LENGTHS) LAPPED WITH 54-SB403 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
44-SB502 (23 LENGTHS) LAPPED WITH 44-SB504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)



DETAIL A



DETAIL B

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)

#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. SEE SHEET 103|160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.
3. MECHANICAL SPLICES ARE REQUIRED FOR THE TRANSVERSE BARS BETWEEN PHASE 1 AND PHASE 2 CONSTRUCTION.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
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COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

RIGHT SPAN 6 AND 7 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

112 / 160

1558
2231

SUBMITTAL: Stage 3
PID: 93006
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PLOT DRIVER: ODOTcadd_PDF.pltcfg
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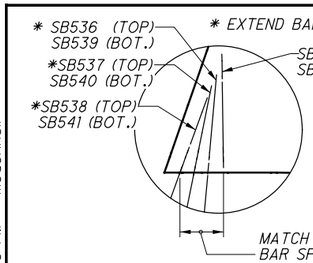
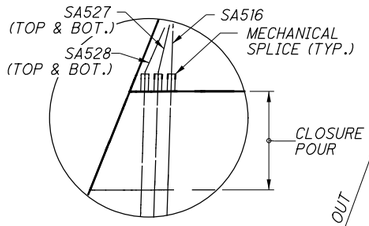
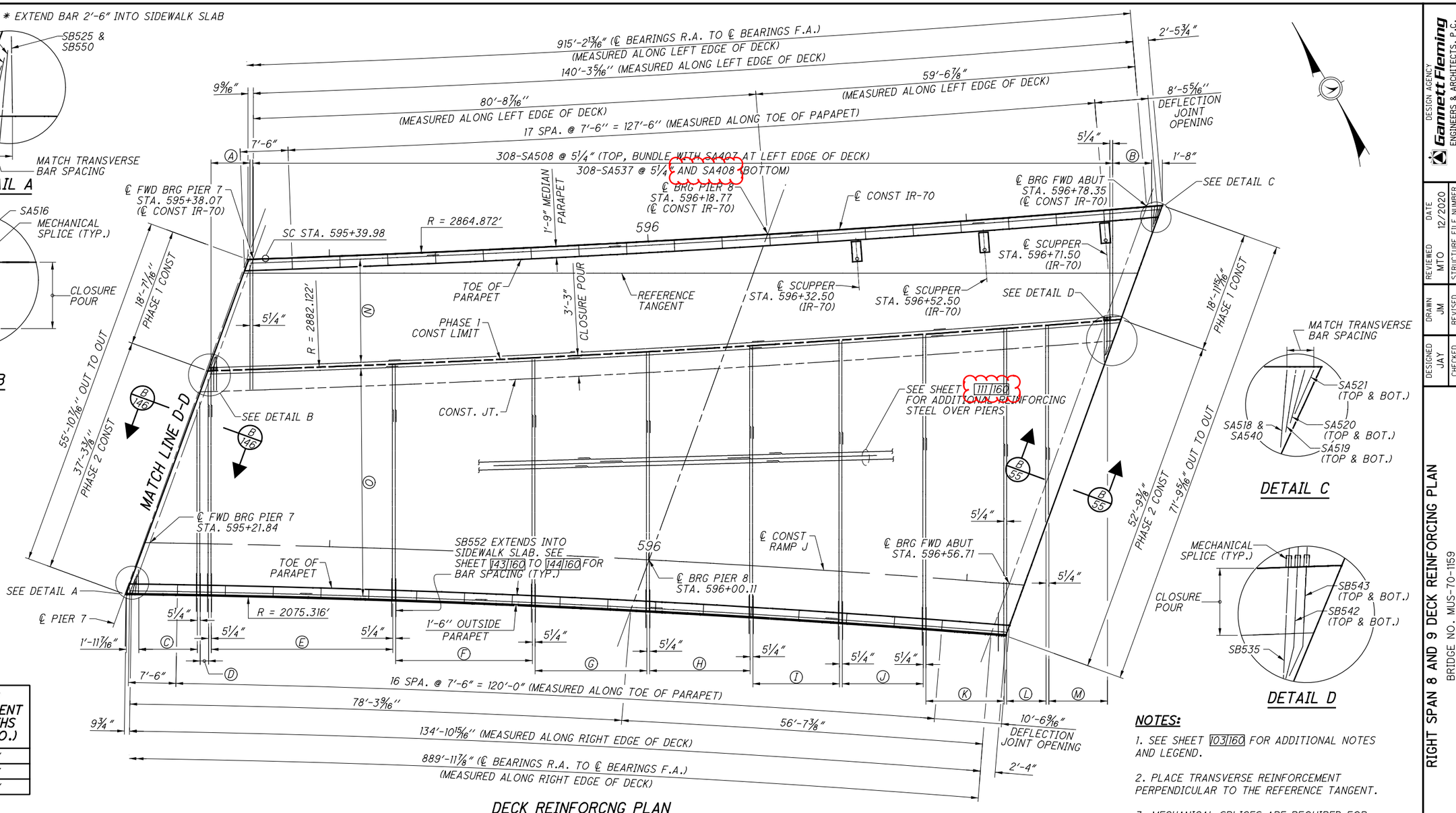


DETAIL A



DETAIL B



DECK REINFORCNG PLAN

RIGHT SPAN 8 AND 9

DETAIL C

DETAIL D

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. SEE SHEET 103/160 FOR ADDITIONAL NOTES AND LEGEND.
2. PLACE TRANSVERSE REINFORCEMENT PERPENDICULAR TO THE REFERENCE TANGENT.
3. MECHANICAL SPLICES ARE REQUIRED FOR THE TRANSVERSE BARS BETWEEN PHASE 1 AND PHASE 2 CONSTRUCTION.

(A) =1 S.O. 13-SA516 @ 5 1/4" (TOP AND BOTTOM)

(B) =1 S.O. 15-SA518 @ 5 1/4" (TOP, BUNDLE WITH SA407 AT LEFT EDGE OF DECK)
1 S.O. 15-SA540 @ 5 1/4" AND SA408 (BOTTOM)

(C) =1 S.O. 22-SB525 @ 5 1/4" (TOP, BUNDLE WITH SB406 AT RIGHT EDGE OF DECK)
1 S.O. 22-SB550 @ 5 1/4" AND SB407 (BOTTOM)

(D) =4-SB507 AND 1 S.O. 4-SB526 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
4-SB502 AND 1 S.O. 4-SB526 @ 5 1/4" AND SB407 (BOTTOM)

(E) =66-SB507 AND SB527 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
66-SB502 AND SB527 @ 5 1/4" AND SB407 (BOTTOM)

(F) =50-SB507 AND SB528 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
50-SB502 AND SB528 @ 5 1/4" AND SB407 (BOTTOM)

(G) =41-SB507 AND SB529 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
41-SB502, SB529 @ 5 1/4" AND SB407 (BOTTOM)

(H) =37-SB507 AND SB530 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
37-SB502, SB530 @ 5 1/4" AND SB407 (BOTTOM)

(I) =32-SB507 AND SB531 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
32-SB502, SB531 @ 5 1/4" AND SB407 (BOTTOM)

(J) =30-SB507 AND SB532 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
30-SB502, SB532 @ 5 1/4" AND SB407 (BOTTOM)

(K) =29-SB507 AND SB533 @ 5 1/4" (TOP, BUNDLE SB507 WITH SB406 AT RIGHT EDGE OF DECK)
29-SB502, SB533 @ 5 1/4" AND SB407 (BOTTOM)

(L) =15-SB502 AND 1 S.O. 15-SB534 @ 5 1/4" (TOP AND BOTTOM)

(M) = 1 S.O. 21-SB535 @ 5 1/4" (TOP AND BOTTOM)

(N) = 23-SA402 (5 LENGTHS) LAPPED WITH 23-SA404 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
24-SA502 (5 LENGTHS) LAPPED WITH 24-SA504 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

(O) = 60-SB402 (6 LENGTHS) LAPPED WITH 60-SB404 (TOP, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)
61-SB503 (5 LENGTHS) LAPPED WITH 1 S.O. 61-SB505 (BOTTOM, SPACED AS SHOWN ON TRANSVERSE SECTION) (FAN BARS AS NECESSARY)

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

RIGHT SPAN 8 AND 9 DECK REINFORCING PLAN
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

113/160

1559
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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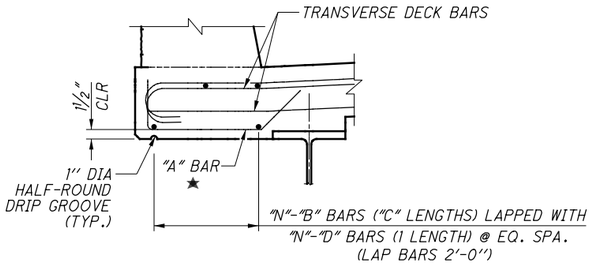
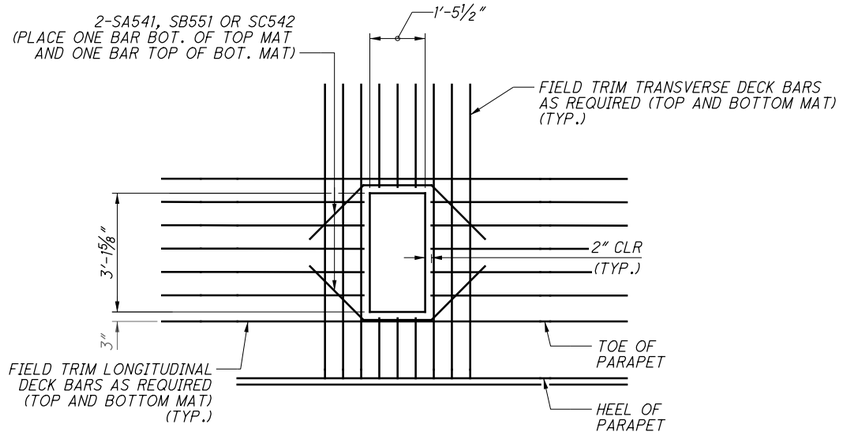
HORIZONTAL OFFSETS TO EDGE OF DECK								
SPAN NO.	LOCATION	LEFT BRIDGE				RIGHT BRIDGE			
		LEFT OVERHANG		RIGHT OVERHANG		LEFT OVERHANG		RIGHT OVERHANG	
		STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET
SPAN 1	R.A.	587+65.65	3.54	587+63.08	3.22	587+63.08	2.87	587+60.29	2.79
	1/4 L	587+81.50	3.06	587+79.41	2.87	587+79.41	3.21	587+77.12	2.27
	1/2 L	587+97.38	2.77	587+95.74	2.62	587+95.74	3.47	587+93.92	1.94
	3/4 L	588+13.30	2.67	588+12.07	2.45	588+12.07	3.63	588+10.69	1.80
SPAN 2	PIER 1	588+29.26	2.76	588+28.40	2.38	588+28.40	3.70	588+27.44	1.85
	1/4 L	588+50.84	3.04	588+47.76	2.43	588+45.44	3.67	588+39.21	2.00
	1/2 L	588+72.57	2.95	588+67.12	2.59	588+62.46	3.55	588+50.71	2.24
	3/4 L	588+94.55	3.21	588+86.47	2.86	588+79.43	3.33	588+62.21	2.57
	P2 (REAR)	589+16.93	3.84	588+96.38	3.05	588+96.32	3.04	588+71.99	2.92
SPAN 3	P2 (FWD)	589+18.62	2.79	588+98.13	3.11	588+98.07	2.88	588+73.85	2.87
	1/6 L	589+36.88	2.71	589+16.86	2.89	589+16.79	3.04	588+93.68	2.19
	1/3 L	589+55.20	2.75	589+35.55	2.76	589+35.49	3.11	589+13.35	1.78
	1/2 L	589+73.54	2.78	589+54.21	2.71	589+54.15	3.10	589+32.87	1.64
	2/3 L	589+91.90	2.82	589+72.85	2.73	589+72.78	3.02	589+52.24	1.76
	5/6 L	590+10.28	2.85	589+91.45	2.82	589+91.39	2.88	589+71.48	2.13
SPAN 4	PIER 3	590+28.69	2.88	590+10.04	2.95	590+09.98	2.73	589+90.60	2.76
	1/6 L	590+51.61	2.86	590+33.15	2.85	590+33.08	2.89	590+14.20	1.98
	1/3 L	590+74.57	2.84	590+56.22	2.81	590+56.16	3.00	590+37.62	1.61
	1/2 L	590+97.55	2.83	590+79.29	2.81	590+79.23	3.06	590+60.87	1.62
	2/3 L	591+20.57	2.81	591+02.34	2.92	591+02.28	3.09	590+83.99	1.87
	5/6 L	591+43.61	2.79	591+25.38	2.89	591+25.32	3.10	591+07.08	2.13
SPAN 5	PIER 4	591+66.66	2.76	591+48.43	3.03	591+48.37	3.19	591+30.14	2.39
	1/6 L	591+89.68	2.67	591+71.45	2.91	591+71.39	3.11	591+53.16	2.38
	1/3 L	592+12.70	2.58	591+94.48	2.88	591+94.41	3.12	591+76.19	2.36
	1/2 L	592+35.73	2.48	592+17.50	2.85	592+17.44	3.12	591+99.21	2.35
	2/3 L	592+58.75	2.39	592+40.52	2.82	592+40.46	3.13	592+22.23	2.34
	5/6 L	592+81.77	2.30	592+63.54	2.79	592+63.48	3.13	592+45.25	2.33
SPAN 6	PIER 5	593+04.13	2.21	592+86.57	2.75	592+86.51	3.13	592+68.28	2.31
	1/6 L	593+27.86	2.28	593+09.63	2.77	593+09.57	3.12	592+91.35	2.37
	1/3 L	593+50.93	2.35	593+32.70	2.80	593+32.64	3.11	593+14.41	2.44
	1/2 L	593+74.05	2.43	593+55.77	2.82	593+55.71	3.10	593+37.48	2.51
	2/3 L	593+97.21	2.50	593+78.84	2.83	593+78.78	3.11	593+60.59	2.58
	5/6 L	594+20.42	2.57	594+01.93	2.80	594+01.87	3.15	593+83.53	2.65
SPAN 7	PIER 6	594+43.72	2.77	594+25.04	2.72	594+24.98	3.25	594+06.49	2.72
	1/6 L	594+62.43	2.44	594+43.52	2.88	594+43.45	3.03	594+24.79	2.71
	1/3 L	594+81.24	2.24	594+62.02	3.04	594+61.95	2.86	594+43.07	2.68
	1/2 L	595+00.15	2.20	594+80.55	3.13	594+80.48	2.76	594+61.31	2.66
	2/3 L	595+17.71	2.34	594+99.11	3.13	594+99.04	2.75	594+79.52	2.63
	5/6 L	595+38.29	2.65	595+17.71	3.03	595+17.64	2.83	594+97.69	2.62
	P7 (REAR)	595+57.49	3.13	595+36.35	2.83	595+36.28	3.02	595+15.78	2.76
SPAN 8	P7 (FWD)	595+59.30	3.08	595+38.10	2.27	595+38.03	3.57	595+17.47	3.10
	1/4 L	595+80.05	2.54	595+58.19	2.69	595+58.12	3.15	595+36.78	2.61
	1/2 L	596+00.89	2.21	595+78.33	2.97	595+78.26	2.86	595+55.98	2.32
	3/4 L	596+21.82	2.07	595+98.54	3.11	595+98.47	2.72	595+75.10	2.20
SPAN 9	PIER 8	596+42.86	2.13	596+18.81	3.11	596+18.74	2.73	595+94.11	2.27
	1/4 L	596+58.29	2.30	596+33.65	3.01	596+33.58	2.82	596+07.94	2.44
	1/2 L	596+73.78	2.59	596+48.53	2.84	596+48.45	2.99	596+21.71	2.70
	3/4 L	596+89.33	2.98	596+63.44	2.59	596+63.36	3.24	596+35.42	3.06
	F.A.	597+04.93	3.49	596+78.38	2.26	596+78.31	3.57	596+49.08	3.52



DECK OVERHANG DETAIL

DECK OVERHANG REINFORCING STEEL					
		LEFT BRIDGE		RIGHT BRIDGE	
		LEFT OVERHANG	RIGHT OVERHANG	LEFT OVERHANG	RIGHT OVERHANG
SPANS 1 AND 2	"N"	4	4	5	3
	"A" BAR	SC407	SA408	SA408	SB407
	"B" BAR	SC501	SA501	SA501	SB501
	"C"	5	5	5	5
	"D" BAR	SC506	SA505	SA506	SB506
SPANS 3 THRU 7	"N"	4	4	4	3
	"A" BAR	SC407	SA408	SA408	SB407
	"B" BAR	SC502	SA502	SB502	SB502
	"C"	23	23	23	23
	"D" BAR	SC504	SA503	SA503	SB504
SPANS 8 ANFD 9	"N"	4	4	5	4
	"A" BAR	SC407	SA408	SA408	SB407
	"B" BAR	SC503	SA502	SA502	SB503
	"C"	5	5	5	5
	"D" BAR	SC505	SA504	SA504	SB505



SCUPPER REINFORCING DETAIL

NOTES:

1. OFFSETS ARE MEASURED NORMAL TO THE FASCIA BEAMS/GIRDERS. DIMENSIONS ARE IN FEET.
2. SEE SHEETS 115|160, 120|160, 125|160 AND 130|160 FOR LAYOUT OF SCREED CONTROL POINTS.

SUBMITTAL: Stage 3
PID: 93006
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PENTABLE: 93006_ODOTV8i_Pen.tbl
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DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	BAW	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

MISCELLANEOUS DECK REINFORCING DETAILS
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

Mark	NUMBER TOTAL	LENGTH	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
PHASE 1 DECK SLAB									
SA401	200	26′-0″	3,474	STR.					
SA402	1,587	29′-0″	30,744	STR.					
SA403	60	18′-6″	742	STR.					
SA404	45	8′-5″	254	STR.					
	1	16′-1″							
SA405	SER OF	to	249	STR.					4 1/2″
	19	23′-0″							
	1	10′-8″							
SA406	SER OF	to	199	STR.					4″
	21	17′-8″							
SA407	3,264	8′-9″	19,079	16	8′-3″				
SA408	1916	2′-10″	3627	10	6″	6″	1′-7″	7″	
SA409	5	24′-6″	82	STR.					
SA410	4	29′-0″	78	STR.					
SA411	4	27′-3″	73	STR.					
SA412	3	24′-9″	50	STR.					
SA413	2	24′-9″	34	STR.					
SA414	1	28′-8″	20	STR.					
SA501	230	26′-0″	6,238	STR.					
SA502	1,324	30′-0″	41,428	STR.					
SA503	48	5′-8″	284	STR.					
SA504	47	5′-6″	270	STR.					
	1	18′-2″							
SA505	SER OF	to	497	STR.					3 3/4″
	22	25′-1″							
	1	13′-7″							
SA506	SER OF	to	428	STR.					3 1/2″
	24	20′-7″							
SA507	272	20′-9″	5,887	16	20′-2″				
# SA508	859	17′-7″	15,754	16	17′-0″				
	2	6′-2″							
SA509	SER OF	to	289	STR.					1′-3 1/4″
	11	19′-0″							
	1	4′-7″			4′-0″				
SA510	SER OF	to	179	16	to				1′-2″
	14	19′-11″			19′-4″				
	1	4′-8″							
SA511	SER OF	to	149	STR.					1′-3 1/2″
	12	19′-1″							
	1	4′-11″							
SA512	SER OF	to	143	STR.					1′-2″
	12	17′-11″							
	1	5′-8″							
SA513	SER OF	to	140	STR.					1′-3 1/2″
	11	18′-7″							
	1	3′-9″							
SA514	SER OF	to	156	STR.					1′-3 1/2″
	13	19′-3″							
	1	5′-0″			4′-5″				
SA515	SER OF	to	113	16	to				1′-3 1/2″
	10	16′-8″			16′-1″				
	2	2′-3″							
# SA516	SER OF	to	254	STR.					1′-2″
	13	16′-5″							

MARK	NUMBER TOTAL	LENGTH	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
PHASE 1 DECK SLAB CONTINUED									
	2	3′-3″							
# SA517	SER OF	to	221	STR.					1′-3 1/4″
	11	16′-0″							
	1	4′-4″			3′-9″				
SA518	SER OF	to	196	16	to				1′-2″
	15	20′-8″			20′-1″				
SA519	8	3′-1″	26	STR.					
SA520	8	2′-8″	23	STR.					
SA521	8	2′-4″	20	STR.					
SA522	2	5′-1″	11	19	3′-3″	1′-9″	3″		
SA523	2	4′-11″	11	19	3′-3″	1′-7 1/2″	4 1/2″		
SA524	2	5′-0″	11	19	3′-3″	1′-7 1/2″	8″		
SA525	1	4′-11″	6	19	3′-3″	1′-7 1/2″	4 1/2″		
SA526	1	5′-0″	6	19	3′-3″	1′-7 1/2″	8″		
# SA527	5	2′-5″	13	19	8″	1′-8″	4 1/2″		
# SA528	5	2′-5″	13	19	8″	1′-7 1/2″	8″		
SA529	567	8′-4″	4,929	16	7′-9″				
SA530	5	24′-9″	130	STR.					
SA531	4	29′-3″	123	STR.					
SA532	4	27′-6″	115	STR.					
SA533	3	25′-0″	79	STR.					
SA534	2	25′-0″	53	STR.					
SA535	1	28′-8″	30	STR.					
SA536	1,590	20′-0″	33,168	STR.					
# SA537	2,177	17′-0″	38,601	STR.					
	1	4′-5″							
SA538	SER OF	to	107	STR.					1′-3 1/2″
	10	16′-1″							
	1	4′-0″							
SA539	SER OF	to	171	STR.					1′-2″
	14	19′-4″							
	1	3′-9″							
SA540	SER OF	to	187	STR.					1′-2″
	15	20′-1″							
SA541	68	5′-10″	414	13	2′-0″	1′-4″	1′-4″	2′-0″	
SA601	1,318	20′-10″	41,243	16	20′-2″				
SA602	963	22′-5″	32,424	STR.					
	1	4′-8″							
SA603	SER OF	to	215	STR.					1′-3 1/2″
	12	19′-1″							
	1	4′-11″							
SA604	SER OF	to	206	STR.					1′-2″
	12	17′-11″							
	1	5′-8″							
SA605	SER OF	to	201	STR.					1′-3 1/2″
	11	18′-7″							
	1	3′-9″							
SA606	SER OF	to	225	STR.					1′-3 1/2″
	13	19′-3″							
SA607	2	3′-1″	10	STR.					
SA608	2	2′-8″	9	STR.					
SA609	2	2′-4″	8	STR.					
SA610	1	5′-7″	9	19	3′-10″	1′-8″	4 1/2″		
SA611	1	5′-7″	9	19	3′-10″	1′-7 1/2″	8″		
# SA612	1	2′-5″	4	19	8″	1′-8″	4 1/2″		
# SA613	1	2′-5″	4	19	8″	1′-7 1/2″	8″		
# SA614	1,318	17′-8″	34,974	16	17′-0″				
SUB-TOTAL			319,118						

MINIMUM LAP SPLICE LENGTH

#4 BAR (DECK) = 2′-0″
#5 BAR (PIERS) = 2′-5″
#5 BAR (DECK) = 2′-5″
#5 BAR (ABUTMENTS) = 3′-1″
#6 BAR (DECK) = 3′-0″
#6 BAR (DECK OVER PIERS) = 3′-7″
#6 BAR (ALL OTHERS) = 4′-0″
#8 BAR (ALL) = 5′-4″
#9 BAR (ALL) = 6′-7″
#10 BAR (PIERS) = 6′-3″

= BAR WITH MECHANICAL CONNECTOR

NOTES:

1. ALL REINFORCING BARS SHALL BE EPOXY COATED. PAYMENT FOR REINFORCING, INCLUDING MECHANICAL CONNECTORS, SHALL BE MADE WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.
2. "STR." IN THE TYPE COLUMN INDICATES STRAIGHT BARS.
3. "SER OF" DENOTES SERIES OF BARS, E.G "X" SER OF "Y" = "X" SERIES OF "Y" BARS/SERIES.
4. REFER TO CMS SECTION 509.05 FOR STANDARD BEND DIMENSIONS.
5. FOR BENDING DIAGRAMS, SEE SHEET 153/160.
6. MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED IN ACCORDANCE WITH CMS SECTION 509.07. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER RECOMMENDED PROCEDURES.
7. MECHANICAL CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS THAT HAVE BEEN DAMAGED OR THAT OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY, MAY BE REPAIRED AS DIRECTED BY THE ENGINEER, OR THEY SHALL BE REPLACED WITH MATERIAL WITH MEETS THE SPECIFICATIONS. FOR BARS UTILIZING A MECHANICAL CONNECTOR, THE BAR LENGTH FOR PAYMENT IS MEASURED TO THE CENTER OF THE PLANNED MECHANICAL CONNECTION. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED AND THOSE COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN. MECHANICAL CONNECTORS AND DOWEL BAR EXTENSIONS SHALL CONFORM TO AND BE INCLUDED IN THE BID PRICE FOR ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED JAY | DRAWN JAY | REVIEWED MTO | DATE 12/2020
CHECKED RDF | REVISED | STRUCTURE FILE NUMBER 6002854

REINFORCING STEEL - PHASE 1 DECK
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

1598
2231

Mark	NUMBER TOTAL	LENGTH	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
PHASE 2 DECK SLAB									
SB401	310	23′-0″	4,763	STR.					
SB402	1,717	30′-0″	54,409	STR.					
SB403	59	7′-8″	303	STR.					
SB404	60	19′-2″	769	STR.					
	1	9′-6″							
SB405	SER OF	to	729	STR.					3″
	62	25′-8″							
SB406	1,881	8′-9″	10,995	16	8′-3″				
SB407	941	1′-11″	1,205	10	6″	6″	8″	7″	
SB408	1	19′-6″	14	STR.					
SB409	2	22′-9″	31	STR.					
SB410	3	22′-0″	45	STR.					
SB411	3	27′-3″	55	STR.					
SB412	4	24′-6″	66	STR.					
SB413	4	28′-0″	75	STR.					
SB414	7	28′-10″	135	STR.					
SB415	7	26′-9″	126	STR.					
SB416	7	25′-9″	121	STR.					
SB501	335	23′-0″	8,037	STR.					
SB502	2,993	30′-0″	93,651	STR.					
SB503	383	26′-0″	10,371	STR.					
SB504	49	21′-0″	1,073	STR.					
	1	22′-5″							
SB505	SER OF	to	1,594	STR.					1″
	61	27′-8″							
	1	12′-5″							
SB506	SER OF	to	1,433	STR.					2 3/4″
	67	28′-7″							
SB507	522	30′-0″	16,334	16	29′-5″				
# SB508	58	27′-9″	1,679	STR.					
# SB509	60	25′-10″	1,617	STR.					
# SB510	62	24′-0″	1,552	STR.					
# SB511	66	22′-1″	1,521	STR.					
# SB512	68	20′-3″	1,437	STR.					
# SB513	74	18′-5″	1,422	STR.					
# SB514	78	16′-6″	1,343	STR.					
	2	3′-0″							
# SB515	SER OF	to	174	STR.					1′-2″
	10	13′-8″							
	2	4′-0″							
# SB516	SER OF	to	512	STR.					9″
	21	19′-4″							
	1	4′-6″							
SB517	SER OF	to	360	STR.					1′-2 1/4″
	21	28′-4″							
	1	2′-5″							
SB518	SER OF	to	69	STR.					1′-2 1/2″
	9	12′-2″							
# SB519	50	13′-1″	683	STR.					
# SB520	58	11′-1″	671	STR.					
# SB521	74	9′-1″	702	STR.					
# SB522	1,125	7′-1″	8,312	STR.					

Mark	NUMBER TOTAL	LENGTH	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
PHASE 2 DECK SLAB CONTINUED									
	1	3′-1″							
# SB523	SER OF	to	14	STR.					1′-3 1/2″
	3	5′-8″							
	1	6′-1″							
# SB524	SER OF	to	351	STR.					1′-3 1/2″
	19	29′-4″							
	1	4′-4″			3′-9″				
SB525	SER OF	to	389	16	to				1′-2 1/4″
	22	29′-6″			28′-11″				
	2	2′-7″							
SB526	SER OF	to	37	STR.					1′-2 1/4″
	4	6′-2″							
# SB527	132	9′-5″	1,297	STR.					
# SB528	100	11′-3″	1,174	STR.					
# SB529	82	13′-0″	1,112	STR.					
# SB530	74	14′-11″	1,152	STR.					
# SB531	64	16′-8″	1,113	STR.					
# SB532	60	18′-6″	1,158	STR.					
# SB533	58	20′-5″	1,236	STR.					
	2	3′-5″							
# SB534	SER OF	to	364	STR.					1′-2″
	15	19′-10″							
	2	6′-6″							
# SB535	SER OF	to	796	STR.					1′-2″
	21	29′-10″							
SB536	2	5′-9″	12	STR.					
SB537	2	5′-6″	12	STR.					
SB538	2	5′-2″	11	STR.					
# SB539	1	5′-6″	6	19	3′-11″	1′-5 1/2″	7″		
# SB540	1	5′-6″	6	19	3′-11″	1′-6 1/2″	3 3/4″		
SB541	1	2′-4″	3	STR.					
# SB542	5	5′-8″	30	19	3′-11″	1′-8″	4 1/2″		
# SB543	5	5′-8″	30	19	3′-11″	1′-7 1/2″	8″		
SB544	1	19′-5″	21	STR.					
SB545	2	23′-0″	48	STR.					
SB546	3	22′-3″	70	STR.					
SB547	3	27′-6″	87	STR.					
SB548	4	24′-9″	104	STR.					
SB549	4	28′-3″	118	STR.					
	1	3′-9″							
SB550	SER OF	to	375	STR.					1′-2 1/4″
	22	28′-11″							
SB551	48	5′-10″	293	13	2′-0″	1′-4″	1′-4″	2′-0″	
SB552	1,846	6′-0″	11,553	STR.					
SB553	1,854	6′-4″	12,247	STR.					
SB554	2	2′-11″	7	STR.					
	1	7′-7″							
SB555	SER OF	to	49	STR.					1″
	6	8′-0″							
	1	2′-11″							
SB556	SER OF	to	13	STR.					1′-1 1/2″
	3	5′-2″							
	1	2′-11″							
SB557	SER OF	to	14	STR.					1′-3″
	3	5′-5″							
SB558	2	2′-5″	6	STR.					
SB559	2	1′-10″	4	STR.					
	1	3′-3″							
SB560	SER OF	to	15	STR.					1′-4″
	3	5′-11″							

Mark	NUMBER TOTAL	LENGTH	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
PHASE 2 DECK SLAB CONTINUED									
	1	3′-3″							
SB560	SER OF	to	15	STR.					1′-4″
	3	5′-11″							
	1	2′-8″							
SB561	SER OF	to	13	STR.					1′-2 1/2″
	3	5′-1″							
SB562	1	2′-7″	3	STR.					
SB563	1	2′-0″	3	STR.					
SB564	1	2′-2″	3	STR.					
SB565	1	1′-7″	2	STR.					
	1	6′-9″							
SB566	SER OF	to	32	STR.					6 1/2″
	4	8′-5″							
	1	8′-6″							
SB567	SER OF	to	64	STR.					1/2″
	7	8′-10″							
	1	4′-0″							
SB568	SER OF	to	25	STR.					1′-2 1/2″
	4	7′-8″							
SB569	1	3′-2″	4	STR.					
SB570	1	2′-4″	3	STR.					
SB571	1	1′-7″	2	STR.					
SB572	1	4′-10″	6	STR.					
SB573	1	3′-11″	5	STR.					
SB574	1	2′-11″	4	STR.					
SB601	1,316	30′-0″	59,299	16	29′-4″				
SB602	1,062	22′-5″	35,758	STR.					
	1	4′-6″							
SB603	SER OF	to	518	STR.					1′-2 1/4″
	21	28′-4″							
	1	2′-7″							
SB604	SER OF	to	104	STR.					1′-3 1/4″
	9	12′-9″							
# SB605	50	13′-8″	1,027	STR.					
# SB606	58	11′-8″	1,017	STR.					
# SB607	74	9′-8″	1,075	STR.					
# SB608	1,125	8′-4″	14,082	STR.					
	1	3′-9″							
# SB609	SER OF	to	23	STR.					3 3/4″
	3	6′-3″							
	1	6′-1″							
# SB610	SER OF	to	506	STR.					1′-3 1/2″
	19	29′-4″							
SB611	1	3′-1″	5	STR.					
SB612	1	2′-8″	5	STR.					
SB613	1	2′-4″	4	STR.					
# SB614	1	5′-8″	9	19	3′-11″	1′-8″	4 1/2″		
# SB615	1	5′-8″	9	19	3′-11″	1′-7 1/2″	8″		
SB616	3	30′-0″	136	STR.					
SUB-TOTAL			355,361						

= BAR WITH MECHANICAL CONNECTOR

NOTES:

1. FOR MINIMUM LAP SPLICE LENGTHS AND ADDITIONAL NOTES, SEE SHEET 152/160 .
2. FOR BENDING DIAGRAMS, SEE SHEET 153/160 .

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2560 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED JAY | DRAWN JAY | CHECKED RDF | REVISED | REVIEWED MTO | DATE 12/2020 | STRUCTURE FILE NUMBER 6002854

REINFORCING STEEL - PHASE 2 DECK
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

154/160

1600/2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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Mark	NUMBER TOTAL	LENGTH	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
PHASE 3 DECK SLAB									
SC401	265	28′-0″	4,957	STR.					
SC402	1,483	29′-0″	28,729	STR.					
SC403	56	18′-6″	693	STR.					
SC404	39	11′-2″	291	STR.					
	1	13′-0″							
SC405	SER OF	to	723	STR.					3 1/4″
	53	27′-10″							
SC406	1,331	8′-9″	7,780	16	8′-3″				
SC407	971	2′-6″	1,622	10	6″	6″	1′-3″	7″	
SC501	300	29′-0″	9,075	STR.					
SC502	2,940	30′-0″	91,993	STR.					
SC503	260	27′-0″	7,322	STR.					
SC504	46	5′-1″	244	STR.					
SC505	52	23′-3″	1,261	STR.					
	1	10′-1″							
SC506	SER OF	to	1,096	STR.					3″
	60	24′-11″							
SC507	569	30′-0″	17,805	16	29′-5″				
SC508	42	26′-0″	1,139	STR.					
SC509	42	24′-0″	1,052	STR.					
SC510	48	22′-0″	1,102	STR.					
SC511	52	20′-0″	1,085	STR.					
SC512	56	17′-11″	1,047	STR.					
SC513	64	15′-11″	1,063	STR.					
SC514	74	13′-10″	1,068	STR.					
SC515	90	11′-9″	1,103	STR.					
SC516	104	9′-9″	1,058	STR.					
SC517	8	6′-9″	57	STR.					
	1	4′-1″			3′-6″				
SC518	SER OF	to	367	16	to				1′-3″
	21	29′-5″			28′-10″				
	1	5′-10″							
SC519	SER OF	to	351	STR.					1′-3 3/4″
	19	29′-6″							
SC520	3	5′-10″	19	STR.					
SC521	1,307	7′-0″	9,543	STR.					
	1	2′-11″							
SC522	SER OF	to	14	STR.					1′-3 1/2″
	3	5′-6″							
	1	3′-6″							
SC523	SER OF	to	358	STR.					1′-3 1/4″
	21	29′-2″							
	2	6′-9″							
# SC524	SER OF	to	729	STR.					1′-3 1/2″
	19	30′-0″							
# SC525	4	5′-1″	22	STR.					
# SC526	308	9′-2″	2,945	STR.					
# SC527	236	11′-4″	2,790	STR.					
	2	3′-3″							
SC528	SER OF	to	103	STR.					1′-3″
	7	10′-10″							
	1	4′-9″			4′-2″				
SC529	SER OF	to	378	16	to				1′-3″
	21	29′-9″			29′-2″				

Mark	NUMBER TOTAL	LENGTH	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	INC
PHASE 3 DECK SLAB									
SC530	5	3′-1″	17	STR.					
SC531	5	2′-8″	14	STR.					
SC532	5	2′-4″	13	STR.					
SC533	1	5′-7″	6	19	3′-10″	1′-8″	4 1/2″		
SC534	1	5′-7″	6	19	3′-10″	1′-7 1/2″	8″		
# SC535	2	5′-8″	12	19	3′-11″	1′-8″	4 1/2″		
# SC536	2	5′-8″	12	19	3′-11″	1′-7 1/2″	8″		
# SC537	2	5′-6″	12	19	2′-10″	2′-6″	9″		
# SC538	2	5′-8″	12	19	3′-6″	2′-0 1/2″	9″		
SC539	611	8′-10″	5,630	16	8′-3″				
	1	3′-6″							
SC540	SER OF	to	355	STR.					1′-3″
	21	28′-10″							
	1	4′-2″							
SC541	SER OF	to	366	STR.					1′-3″
	21	29′-2″							
SC542	88	5′-10″	536	13	2′-0″	1′-4″	1′-4″	2′-0″	
SC601	1,310	30′-0″	59,029	16	29′-4″				
SC602	930	22′-5″	31,313	STR.					
		5′-10″							
SC603	SER OF	to	505	STR.					1′-3 3/4″
	19	29′-6″							
SC604	3	5′-10″	27	STR.					
SC605	1,307	8′-2″	16,033	STR.					
	1	4′-10″			4′-2″				
SC606	SER OF	to	28	16	to				1′-3 1/2″
	3	7′-5″			6′-9″				
	1	4′-2″			3′-6″				
SC607	SER OF	to	537	16	to				1′-3 1/4″
	21	29′-10″			29′-2″				
SC608	1	3′-1″	5	STR.					
SC609	1	2′-8″	5	STR.					
SC610	1	2′-4″	4	STR.					
SC611	1	5′-7″	9	19	3′-10″	1′-8″	4 1/2″		
SC612	1	5′-7″	9	19	3′-10″	1′-7 1/2″	8″		
SC613	3	30′-0″	136	STR.					
SUB-TOTAL			315,615						

= BAR WITH MECHANICAL CONNECTOR

NOTES:

1. FOR MINIMUM LAP SPLICE LENGTHS AND ADDITIONAL NOTES, SEE SHEET 152/160 .
2. FOR BENDING DIAGRAMS, SEE SHEET 153/160 .

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\6477\93006\401-Engineering-Gannett+Fleming\Structures\MUS070_II59L\Sheets\155 sl004 4/7/2021 11:01:23 AM mdonnell

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JAY	JAY	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RDF		6002854	

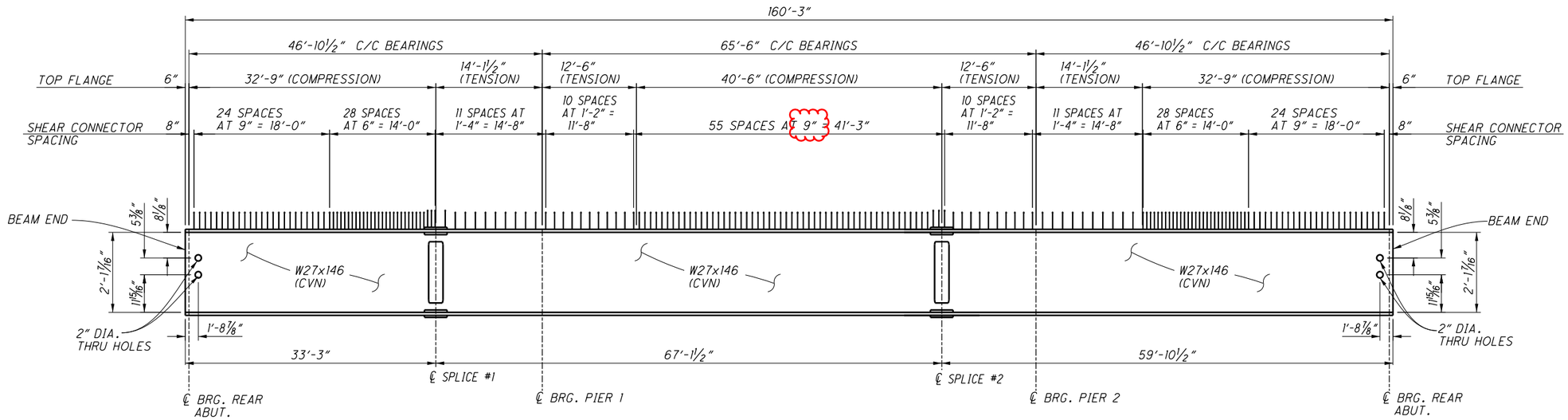
REINFORCING STEEL - PHASE 3 DECK

BRIDGE NO. MUS-70-1159

OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

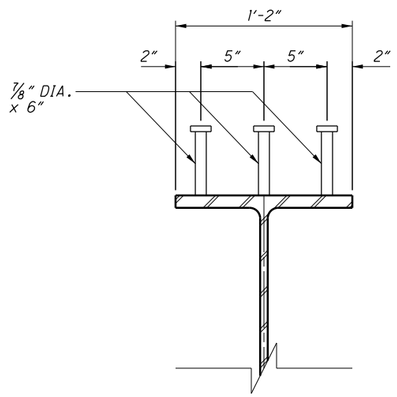
MUS-70-10.49

PID No. 93006



BEAM ELEVATION / SHEAR CONNECTOR SPACING

(NO CAMBER SHOWN & N.T.S.)



SHEAR CONNECTOR DETAILS

(W27x146)

(N.T.S.)

NOTES:
WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE AT LEAST 2" LONG AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.

ALL SPLICE PLATES EXCEPT FILL PLATES SHALL BE CVN.

FOR INTERMEDIATE DIAPHRAGM LOCATIONS, SEE SHEET 46.

FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING GSD-1-19.

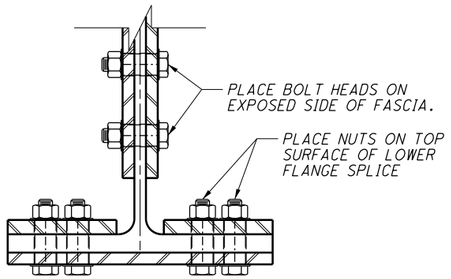
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
CPS	CPS	CPS	12/4/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAG		6002978	

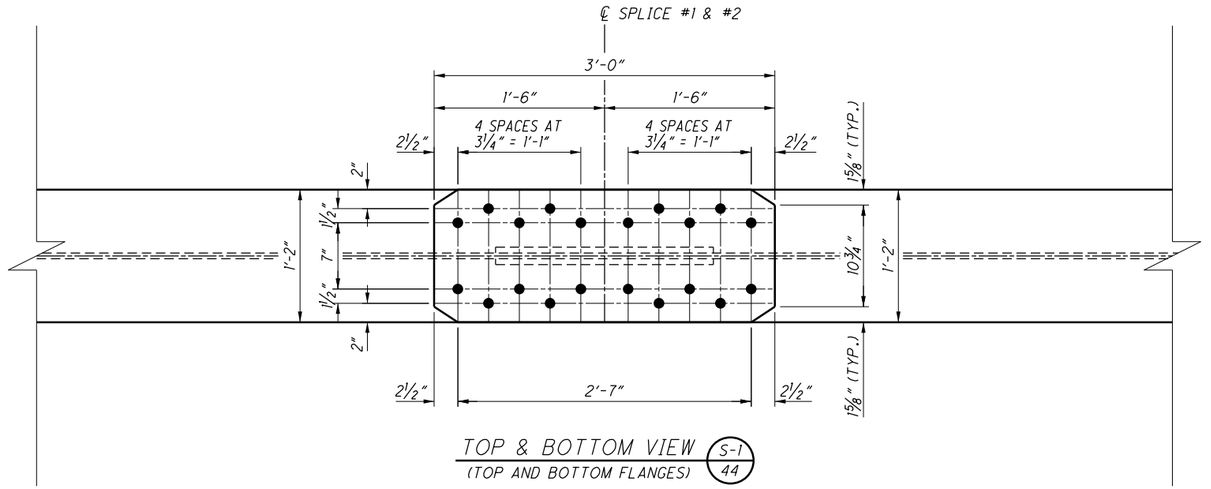
BEAM DETAILS
BRIDGE NO. MUS-70-1212
OVER UNDERWOOD ST.

MUS-70-10.49
PID No. 93006

1875
2231



PARTIAL SECTION
(AT ℄ OF SPLICE #1 & #2)
(NOT TO SCALE)



TOP & BOTTOM VIEW (S-1 44)
(TOP AND BOTTOM FLANGES)

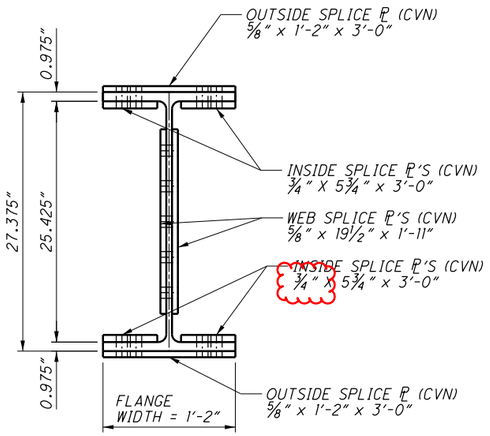
NOTE:
EXCLUDE THE BOLT THREADS FROM THE SHEAR PLANES. (THE BOLT SHEAR STRENGTH FOR THE FLANGE AND WEB SPLICES HAS BEEN DESIGNED ASSUMING THAT THE THREADS ARE EXCLUDED FROM THE SHEAR PLANES.)

ALL BOLTS USED SHALL BE 1⅛" DIAMETER.

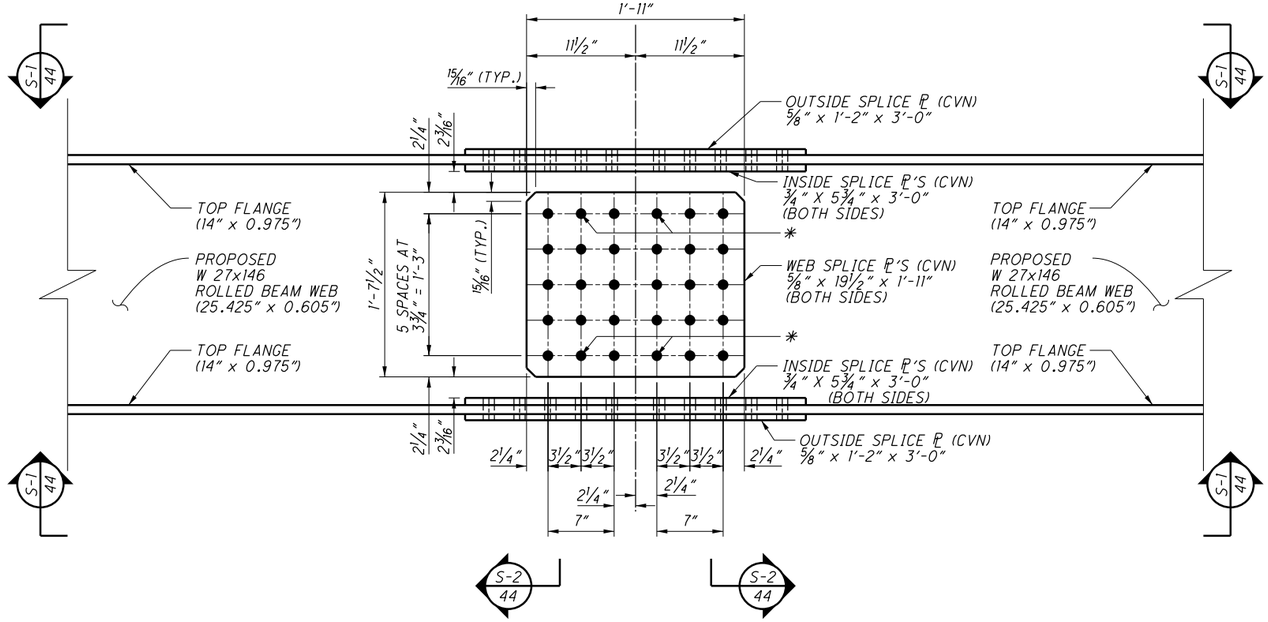
ALL BOLT HOLES SHALL BE 1 3⁄16" DIAMETER.

BOLT SPECIFICATIONS SHALL CONFORM TO A325, TYPE I.

(SEE FRAMING PLAN FOR LOCATION IN SPAN 1 AND 2)
(SPLICE #1 SHOWN, SPLICE #2 MIRRORED)



BEAM SECTION (S-2 44)
(REAR & FWD. OF ℄ SPLICE)
(W 27x146)



BOLTED SPLICE DETAIL
(SEE FRAMING PLAN FOR LOCATION IN SPAN 1 AND 2)

* - BOLT AND NUT LOCATIONS TO BE PLACED AND TIGHTENED LAST

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
CPS	CPS	CPS	12/4/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAG		6002978	

BOLTED BEAM SPLICE #1 & #2 DETAILS

BRIDGE NO. MUS-70-1212
OVER UNDERWOOD ST.

MUS-70-10.49
PID No. 93006

44 / 74

1876
2231

i:\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002978\Sheets\070_1212C_SS002.dgn Bolted Splice Details 4/12/2021 10:17:59 AM cshonk

SHEET NUM.									PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				27	28				02/IMS/BR								
																STRUCTURE OVER 20 FOOT SPAN (MUS-70-1144A or SFN6001920)	
									LS			202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (SUPERSTRUCTURE)	3
									128			202	11301	128	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURES)	3
									169			202	22900	169	SY	APPROACH SLAB REMOVED	
									LS			503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	45
									65,308			509	10000	65,308	LB	EPOXY COATED REINFORCING STEEL	
									177			511	21520	177	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
									2			511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	20
									38			511	34448	38	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)	
									122			511	43510	122	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	
									496			512	10050	496	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
									77			512	10100	77	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE): PIERS	
				2,172					2,172			513	10200	2,172	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF	
					1,952				1,952			513	20000	1,952	EACH	WELDED STUD SHEAR CONNECTORS	
									6,343			514	00050	6,343	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
									6,343			514	00056	6,343	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
									6,343			514	00060	6,343	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
									6,343			514	00066	6,343	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
									7			514	10000	7	EACH	FINAL INSPECTION REPAIR	
									12			516	13601	12	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
									190			516	13901	190	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
									90			516	14020	90	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
									66			516	14600	66	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.:EMSEAL WITH SLEEPER SLAB	45
									66			516	31011	66	FT	2" DEEP JOINT SEALER, AS PER PLAN	4
									8			516	44300	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 1'-0" x 3.2729")	25
									4			516	44300	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-7" x 1'-3" x 3.7226")	25
									4			516	44300	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2'-0" x 1'-3" x 3.7226") WITH ANCHOR RODS	25
									LS			516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	4
									3			518	12000	3	EACH	SCUPPERS, INCLUDING SUPPORTS	
									60			518	21200	60	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
									66			518	40000	66	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
									64			518	40010	64	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
									801			SPECIAL	51900100	801	SF	COMPOSITE FIBER WRAP SYSTEM	4
									169			526	25001	169	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	3
									78			613	41201	78	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	4

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED YEL | CHECKED CPS
DRAWN YEL/TDF | REVISED .
REVIEWED TAG | DATE 12/1/2020
STRUCTURE FILE NUMBER 6001920

GENERAL SUMMARY
BRIDGE NO. MUS-70-1144A
RAMP 'A' OVER-McINTIRE AVE.

MUS-70-10.49
PID No. 93006

5 / 45

1923
2231

SECTION A-A

PIER 1 ELEVATION

* ALL EXISTING DIMENSIONS SHOULD BE CONSIDERED ±

DESIGN AGENCY
OHIO DEPSRTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
YEL	YEL	TAG	12/04/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CPS	.	6009920	

EXISTING PIERS 1
BRIDGE NO. MUS-70-1144
RAMP 'A' OVER MCINTIRE AVE

MUS-70-10.49
PID No. 93006

21 / 45

1939
2231

PIER 2 ELEVATION

SECTION A-A

* ALL EXISTING DIMENSIONS SHOULD BE CONSIDERED ±

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
YEL	YEL	TAG	12/01/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CPS	.	6004920	

EXISTING PIER 2

BRIDGE NO. MUS-70-1144
RAMP 'A' OVER MCINTIRE AVE

MUS-70-10.49
PID No. 93006

22 / 45

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2231

i:\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6001920\Sheets\070_1144P_SI002.dgn Sheet 4/2/2021 10:29:24 AM tgreenwa

BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS (INCLUDING LOAD PLATES, HP SHAPES AND ANCHOR RODS, DOWEL HOLES, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, EITHER FIXED OR EXPANSION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) AS PER PLAN.

REAR ABUTMENT BEARING PADS: 1'-0" x 1'-4" x 3.5732" (50 DUROMETER)
TOP STEEL LOAD PLATE: 1'-1" x 1'-2" x 1.50" BEVELED TO 2.125"
BOTTOM STEEL LOAD PLATE: 1'-1" x 1'-5" x 1.50"

PIER 1 BEARING PADS: 1'-3" x 1'-6" x 3.7226" (50 DUROMETER)
TOP STEEL LOAD PLATE: 1'-10" x 2'-1" x 3.8125" BEVELED TO 4.9375"

PIER 2 BEARING PADS: 1'-3" x 1'-6" x 3.7226" (50 DUROMETER)
TOP STEEL LOAD PLATE: 1'-4" x 1'-7" x 3.8125" BEVELED TO 4.8125"

FORWARD ABUTMENT BEARING PADS:
1'-0" x 1'-4" x 3.5732" (50 DUROMETER)
TOP STEEL LOAD PLATE: 1'-1" x 1'-2" x 1.50" BEVELED TO 2.125"
BOTTOM STEEL LOAD PLATE: 1'-1" x 1'-5" x 1.50"

ALL H-PILES: HP12x53

ELASTOMERIC BEARING PAD DESIGN DATA			
LOCATION	DL (K)	LL (K)	DL & LL (K)
REAR ABUTMENT	62	57	119
PIER 1	112	92	204
PIER 2	112	92	204
FWD. ABUTMENT	62	57	119

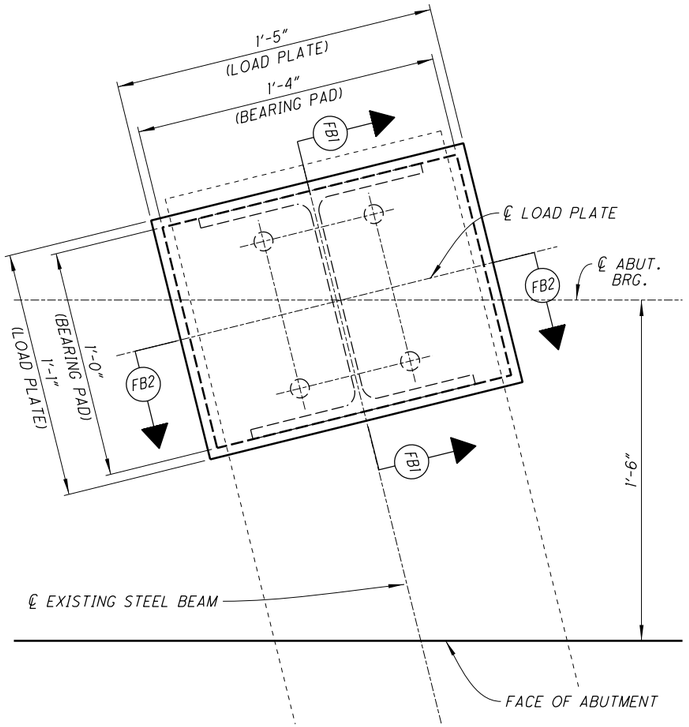
LOAD PLATE:
THE STEEL LOAD PLATES SHALL BE MADE OF A709 STEEL. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. ADDITIONAL UPPER LOAD PLATES AT THE ABUTMENTS AND ALL HP STEEL SHAPES SHALL BE INCLUDED WITH ITEM 516 FOR PAYMENT. FOR ADDITIONAL DETAILS, SEE STD DWG SICD-1-96.

WELDING:
CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300 DEGREES F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

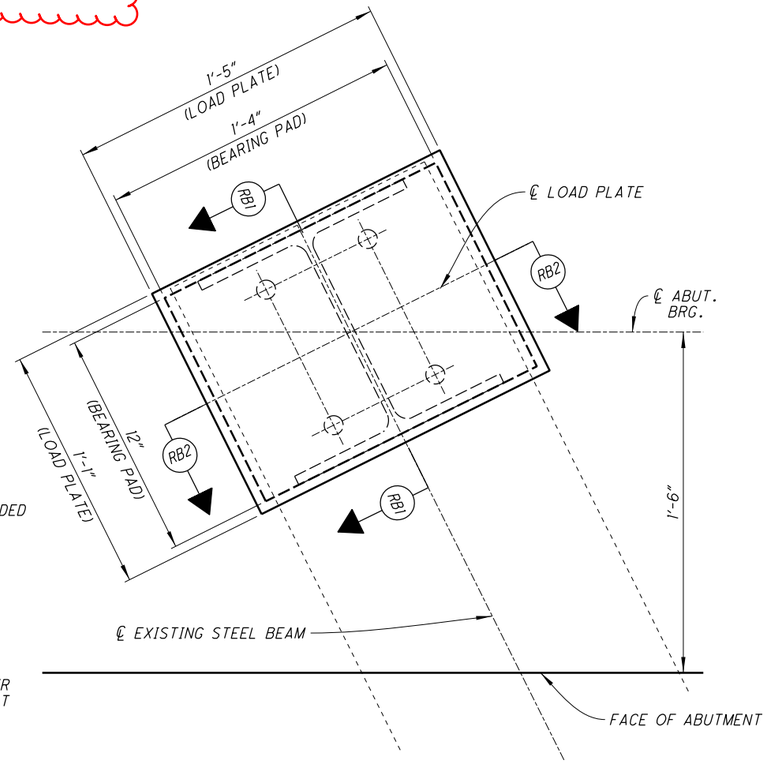
BEARING REPOSITIONING:
IF THE GIRDERS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80 DEGREES F OR LOWER THAN 40 DEGREES F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60 DEGREES F (+/-) 10 DEGREES F, RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60 DEGREES F (+/-) 10 DEGREES F.

ELASTOMERIC BEARINGS:
THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.5 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. PERFORM THE LONG-TERM COMPRESSION PROOF LOAD TEST IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6 AND 18.7.4.5.

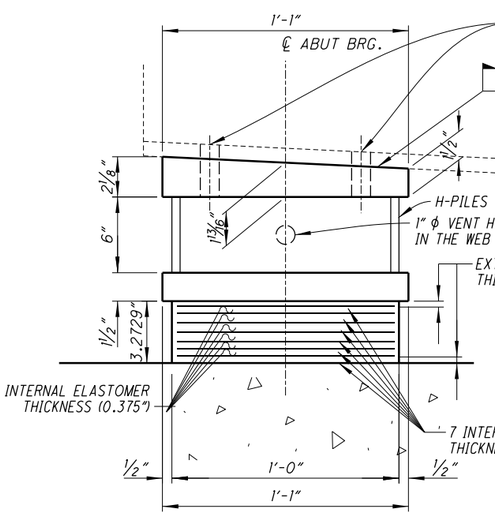
MARKINGS:
ALL BEARINGS AND LOAD PLATES SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS, AND IS LABELED, UP-STATION. ALL MARKS SHALL BE PERMANENT AND VISIBLE AFTER THE BEARING IS INSTALLED.



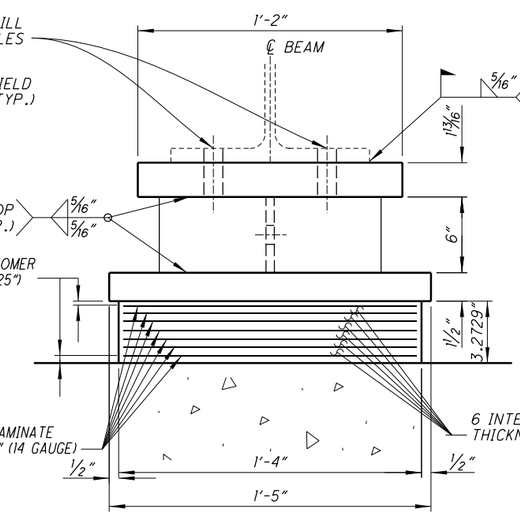
FORWARD ABUTMENT PLAN



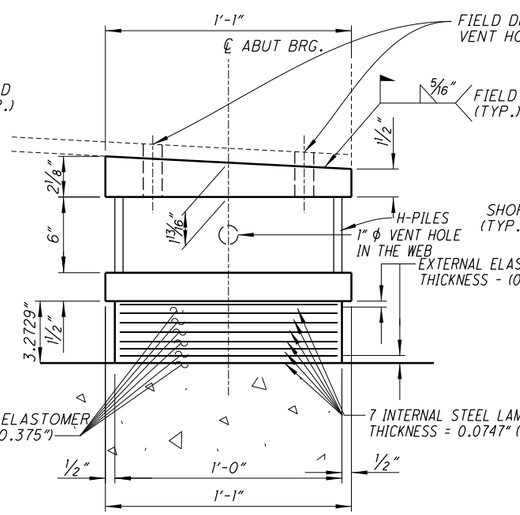
REAR ABUTMENT PLAN



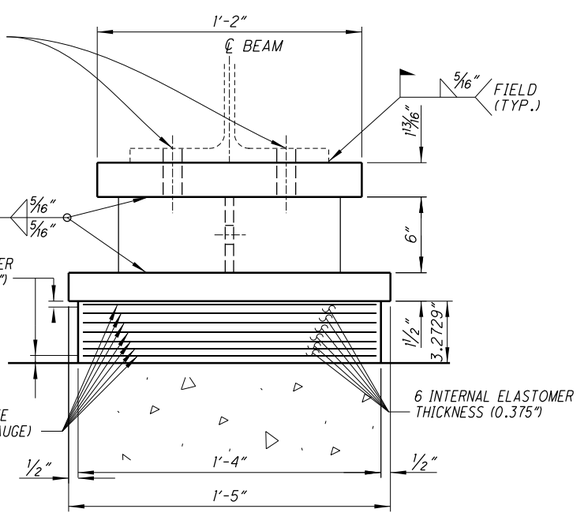
SECTION FB1-FB1



SECTION FB2-FB2



SECTION RB1-RB1



SECTION RB2-RB2

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED YEL | DRAWN YEL/TDF | REVIEWED TAG | DATE 12/1/2020
CHECKED CPS | REVISED . | STRUCTURE FILE NUMBER 6004920

BEARING PAD DETAILS
BRIDGE NO. MUS-70-1144A
RAMP 'A' OVER-McINTIRE AVE.

MUS-70-10.49
PID No. 93006

25 / 45

19.43
2231

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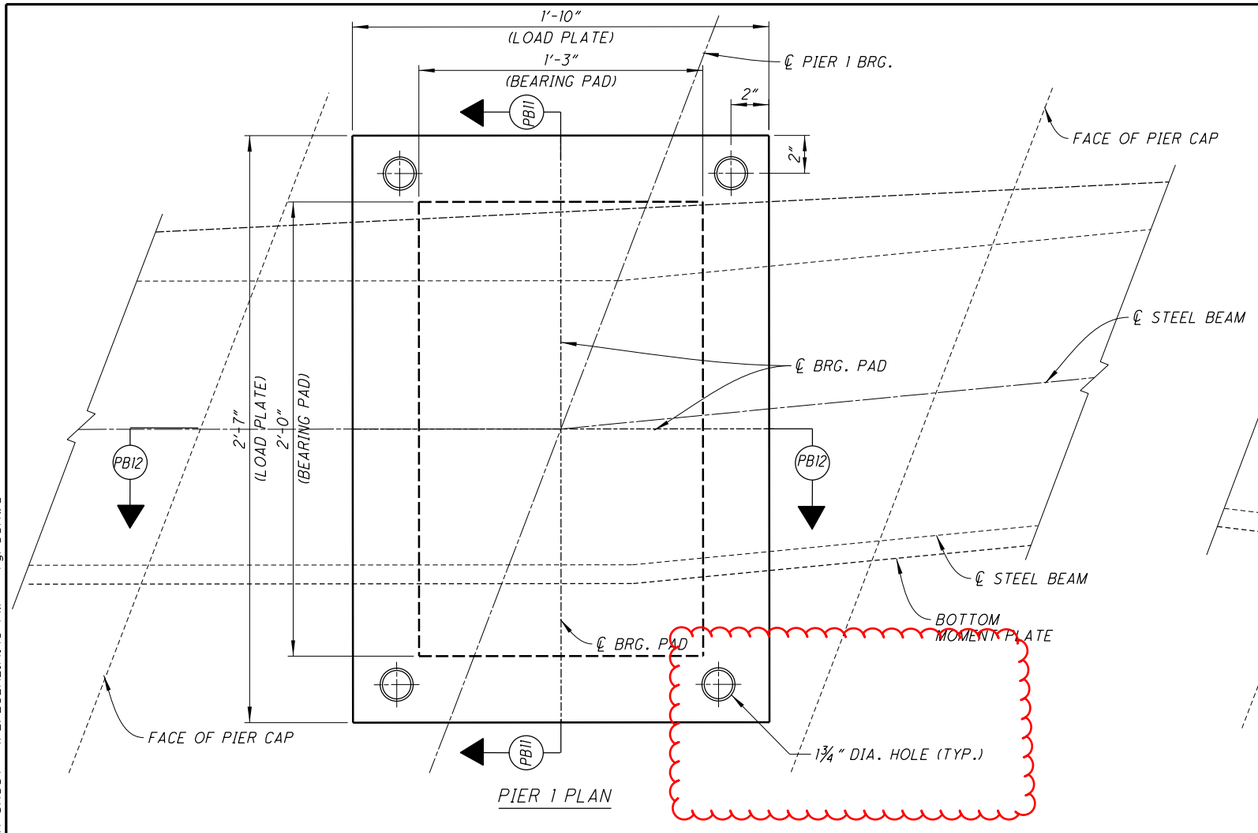
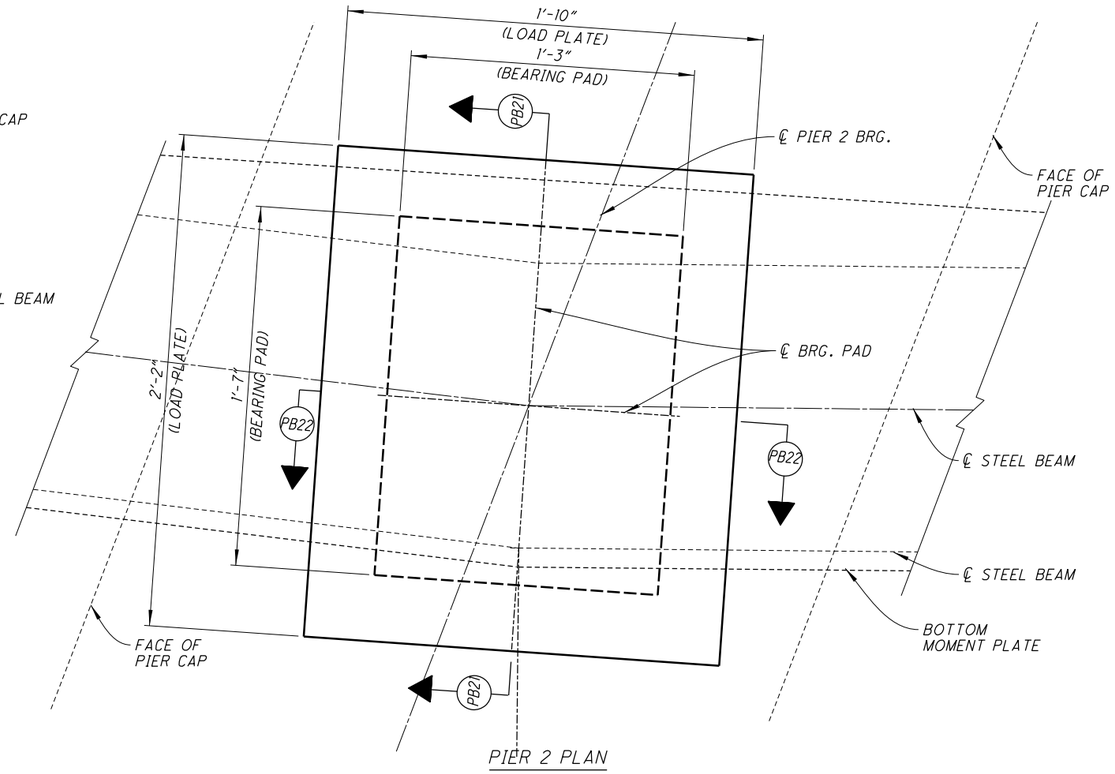
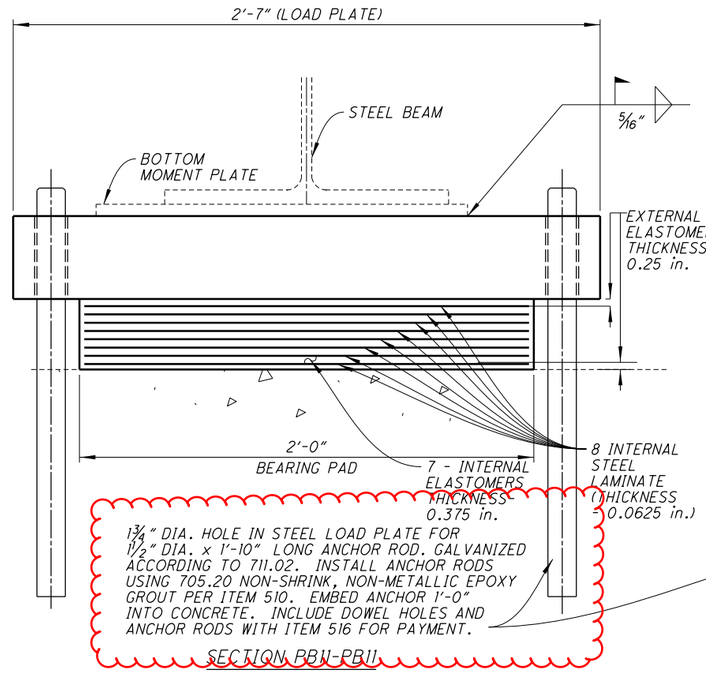


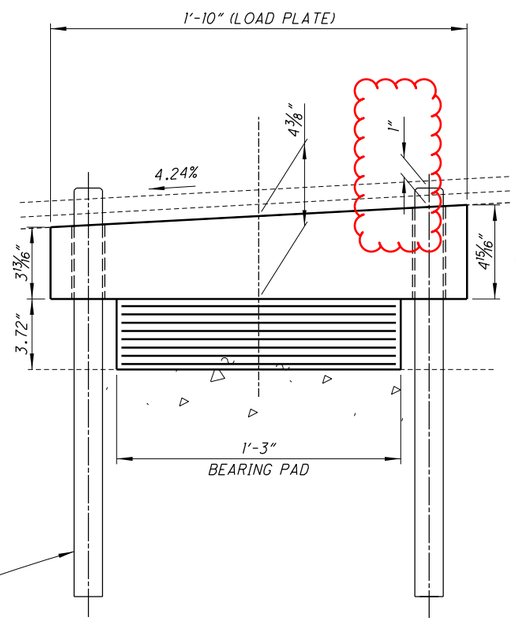
PIER 1 PLAN



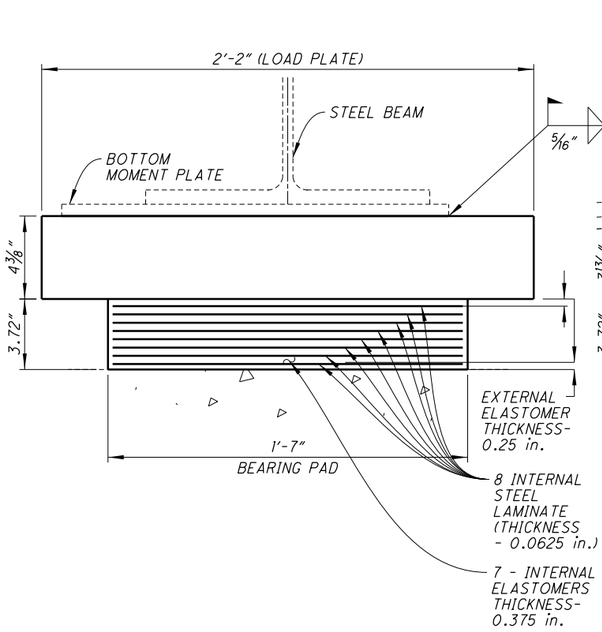
PIER 2 PLAN



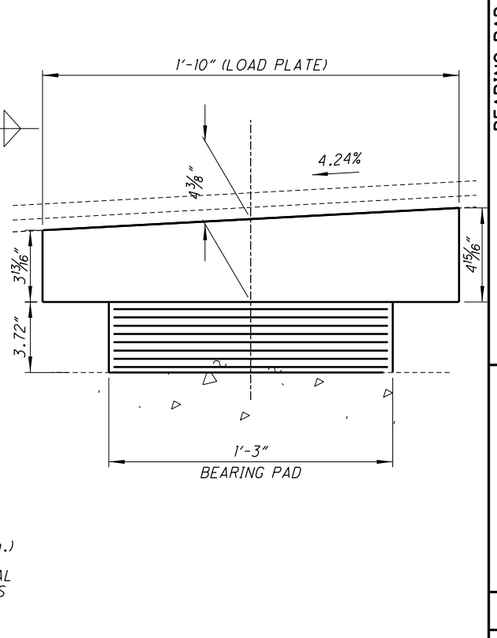
SECTION PB11-PB11



SECTION PB12-PB12



SECTION PB21-PB21



SECTION PB22-PB22

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
YEL	YEL/TDF	TAG	12/1/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CPS	.	6001920	

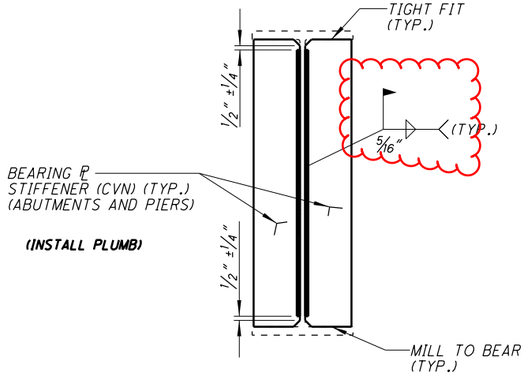
BEARING PAD DETAILS

BRIDGE NO. MUS-70-1144A
RAMP 'A' OVER-McINTIRE AVE.

MUS-70-10.49
PID No. 93006

26 / 45

1944
2231



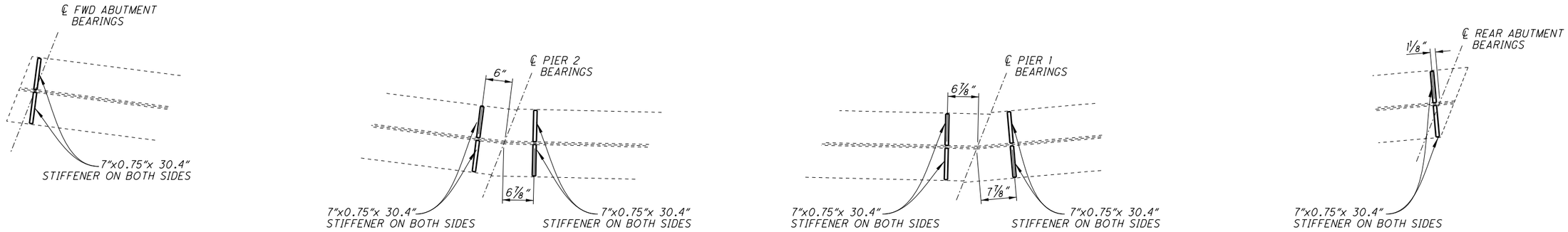
NOTE:
FOR NOTES AND ADDITIONAL DETAILS INCLUDING WELDING DETAILS SEE STD. DWG. GSD-1-96.

ALL PROPOSED BEARING STIFFENER HEIGHTS SHALL BE FIELD MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION (TYPICAL)

BEARING STIFFENERS DETAILS

ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN		
STIFFENER ℄	NUMBER	POUNDS
7" x 0.75" x 30.4"	48	2172
TOTAL		2172

FINAL QUANTITIES FOR ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN SHALL BE DETERMINED IN THE FIELD.



PROPOSED BEARING STIFFENERS LOCATIONS

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
YEL	YEL	TAG	12/04/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CPS	.	6001920	

PROPOSED BEARING STIFFENERS DETAILS

BRIDGE NO. MUS-70-1144A
RAMP 'A' OVER McINTIRE AVE.

MUS-70-10.49
PID No. 93006

27 / 45

19.45
22.31

SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
					24	31				02/IMS/BR								
																	STRUCTURE OVER 20 FOOT SPAN (MUS-70-1142E or SFN6001890)	
										LS			202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (SUPERSTRUCTURE)	3
										105			202	11301	105	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURES)	3
										103			202	22900	103	SY	APPROACH SLAB REMOVED	
										LS			503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	44
										61,871			509	10000	61,871	LB	EPOXY COATED REINFORCING STEEL	
										197			511	21520	197	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
										2			511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
										40			511	34448	40	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)	
										116			511	43510	116	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	
										451			512	10050	451	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
										71			512	10100	71	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
					951	2,878				3,829			513	10201	3,829	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	3
										2,010			513	20000	2,010	EACH	WELDED STUD SHEAR CONNECTORS	
										6,911			514	00050	6,911	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
										6,911			514	00056	6,911	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
										6,911			514	00060	6,911	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
										6,911			514	00066	6,911	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
										9			514	10000	9	EACH	FINAL INSPECTION REPAIR	
										12			516	13601	12	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
										180			516	13901	180	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
										95			516	14020	95	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
										71			516	14600	71	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	44
										71			516	31011	71	FT	2" DEEP JOINT SEALER, AS PER PLAN	4
										10			516	44300	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (10" x 1'-2" x 3.2729")	29
										5			516	44300	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-3" x 1'-6" x 3.7226")	29
										5			516	44300	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-3" x 1'-6" x 3.7226") WITH ANCHOR RODS	29
										LS			516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	4
										6			518	12000	6	EACH	SCUPPERS, INCLUDING SUPPORTS	
										41			518	21200	41	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
										72			518	40000	72	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
										72			518	40010	72	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
										741			SPECIAL	51900100	741	SF	COMPOSITE FIBER WRAP SYSTEM	4
										171			526	25001	171	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	3
										79			613	41201	79	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	4

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

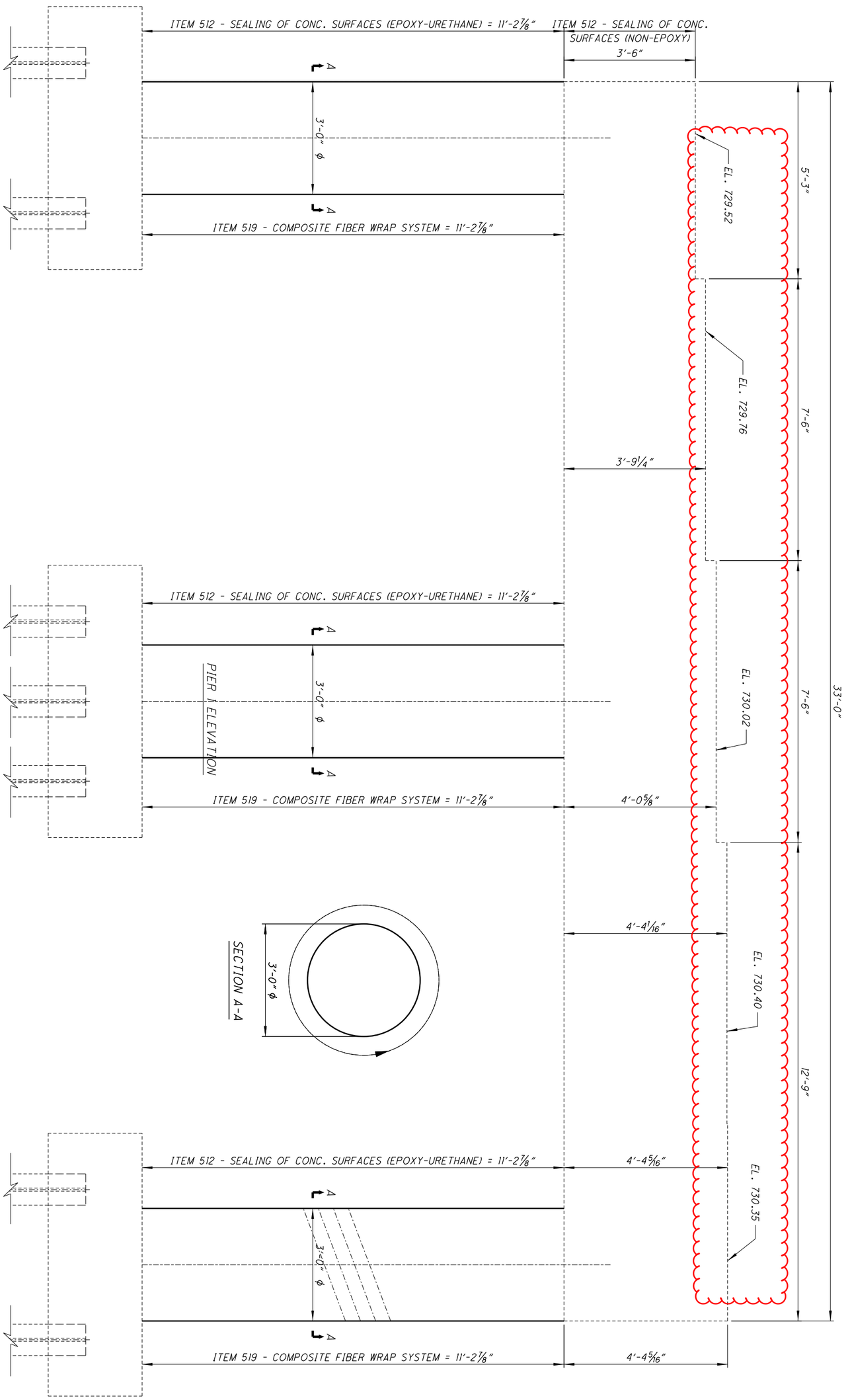
DESIGNED YEL | DRAWN YEL | REVIEWED TAG | DATE 11/27/2020
CHECKED TAG | REVISED . | STRUCTURE FILE NUMBER 6001890

PARAPET DETAILS
BRIDGE NO.: MUS-70-1142E
RAMP "E" OVER MCINTIRE AVE.

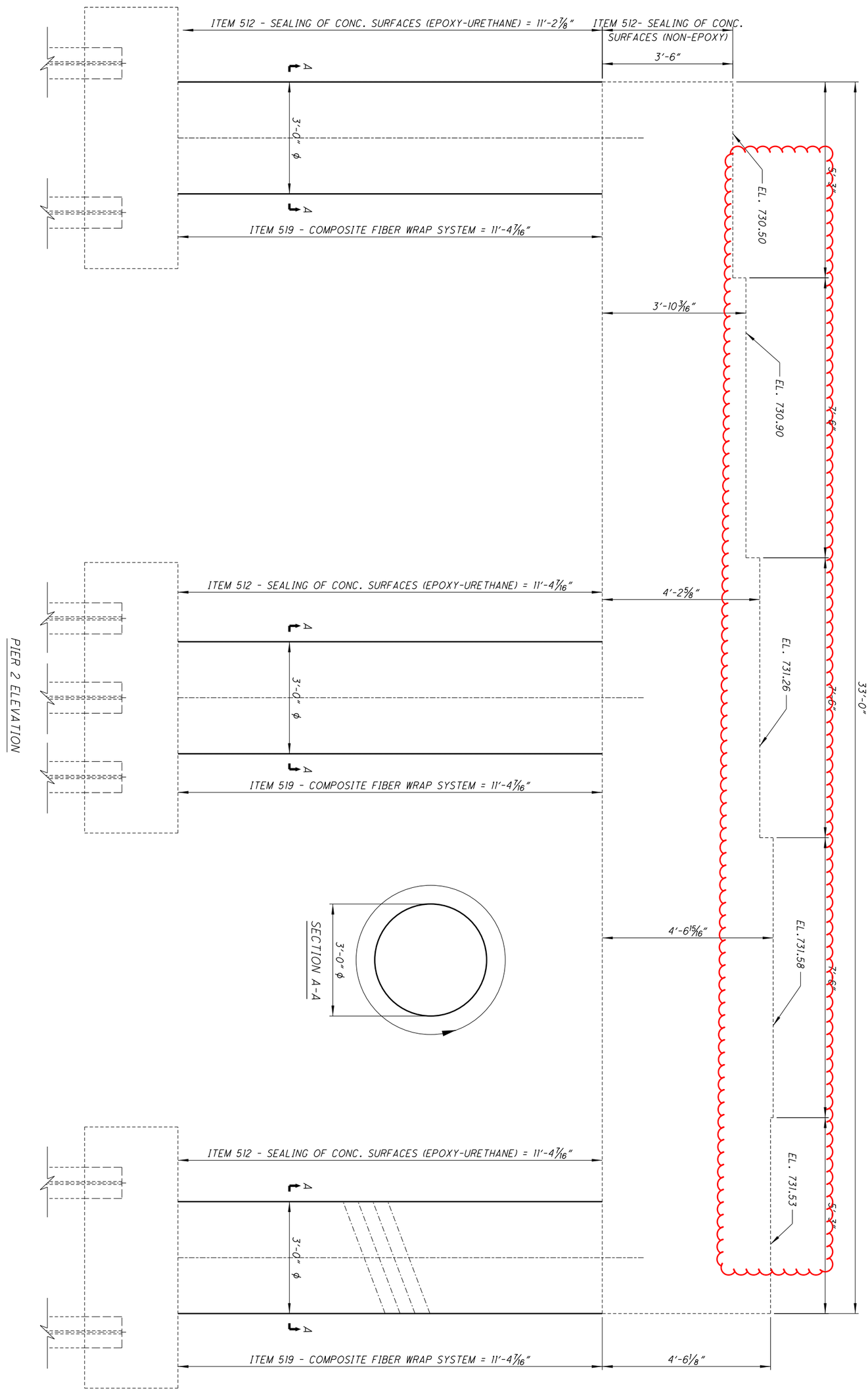
MUS-70-10.49
PID No. 93006

5 / 44

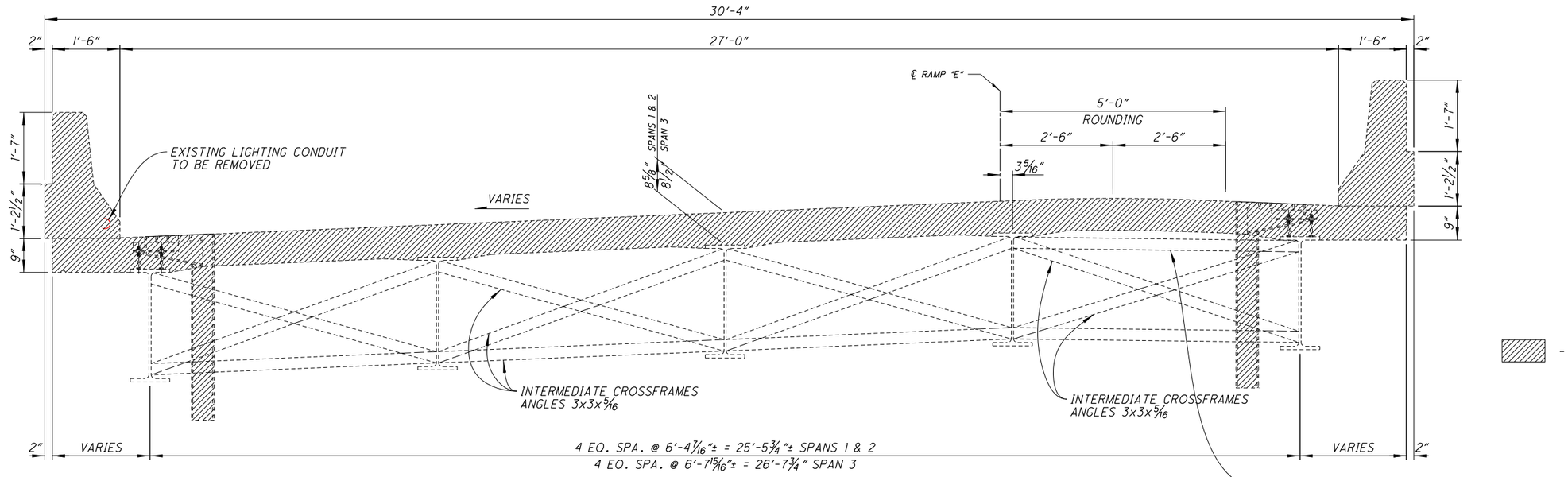
1968
2231



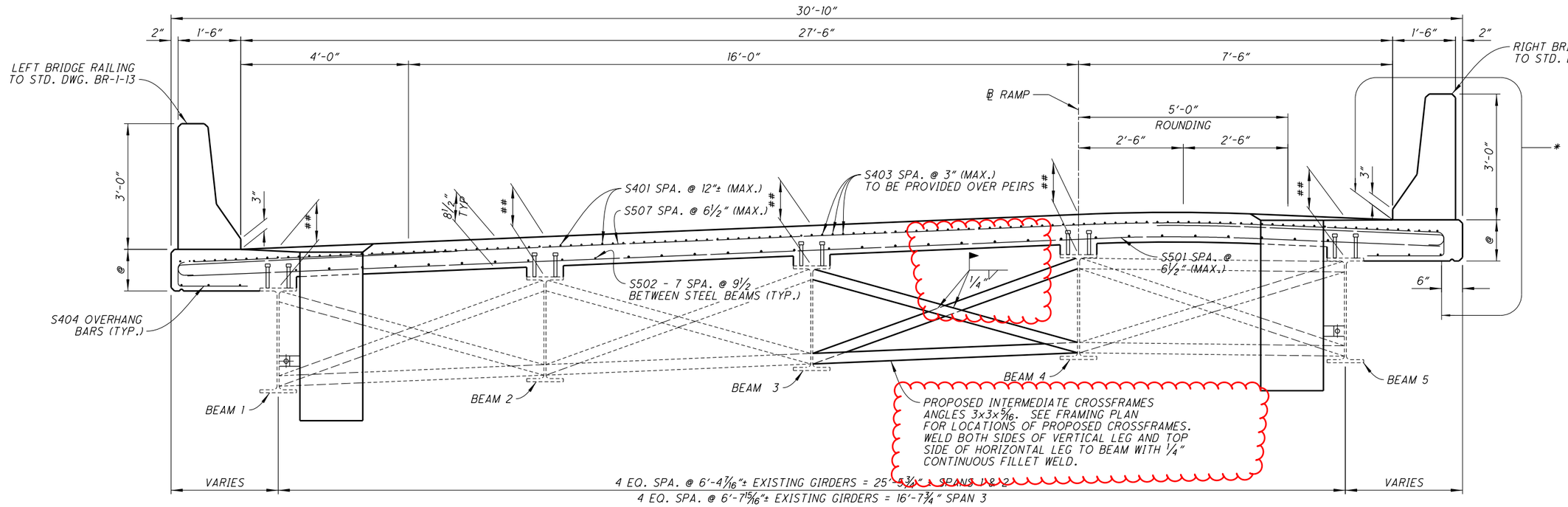
1984 / 2231	21 / 44	MUS-70-10.49 PID No. 93006	EXISTING PIER 1 DETAILS BRIDGE NO.: MUS-70-1142E RAMP 'E' OVER MCINTIRE AVE.	DESIGNED YEL CHECKED TAG	DRAWN YEL REVISED ·	REVIEWED TAG DATE 11/27/2020 STRUCTURE FILE NUMBER 6001890	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	



1985 / 2231	22 / 44	**MUS-70-10.49** **PID No. 93006**	EXISTING PIER 2 DETAILS BRIDGE NO.: MUS-70-1142E RAMP 'E' OVER MCINTIRE AVE.	DESIGNED YEL CHECKED TAG	DRAWN YEL REVISED	REVIEWED TAG DATE 11/27/2020 STRUCTURE FILE NUMBER 6001890	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5



EXISTING TRANSVERSE SECTION



PRPOSED TRANSVERSE SECTION

##	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5
REAR ABUTMENT	10 1/2"	10 1/2"	10 1/2"	10 1/2"	10 1/2"
PIER 1	11 1/8"	11 1/8"	11 5/8"	10 3/16"	10 11/16"
PIER 2	14 3/8"	13 3/16"	12 9/16"	12 7/16"	11 3/4"
FWD. ABUTMENT	10 1/2"	10 1/2"	10 1/2"	10 1/2"	10 1/2"

@	LT. DECK EDGE	RT. DECK EDGE
REAR ABUTMENT	10 1/2"	10 1/2"
PIER 1	11 1/2"	10 1/2"
PIER 2	13 3/4"	11 5/8"
FWD. ABUTMENT	10 1/2"	10 1/2"

* - SEALING OF CONCRETE SURFACES WITH HMWM AS PER C.M.S. 511.22

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED YEL | DRAWN YEL | REVIEWED TAG | DATE 11/27/2020 | CHECKED TAG | REVISED . | STRUCTURE FILE NUMBER 6000890

TRANSVERSE SECTIONS
BRIDGE NO.: MUS-70-1142E
RAMP 'E' OVER MCINTIRE AVE.

MUS-70-10.49
PID No. 93006

23 / 44

1986
2231

BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS (INCLUDING LOAD PLATES, HP SHAPES AND ANCHOR RODS, DOWEL HOLES), LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, EITHER FIXED OR EXPANSION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) AS PER PLAN.

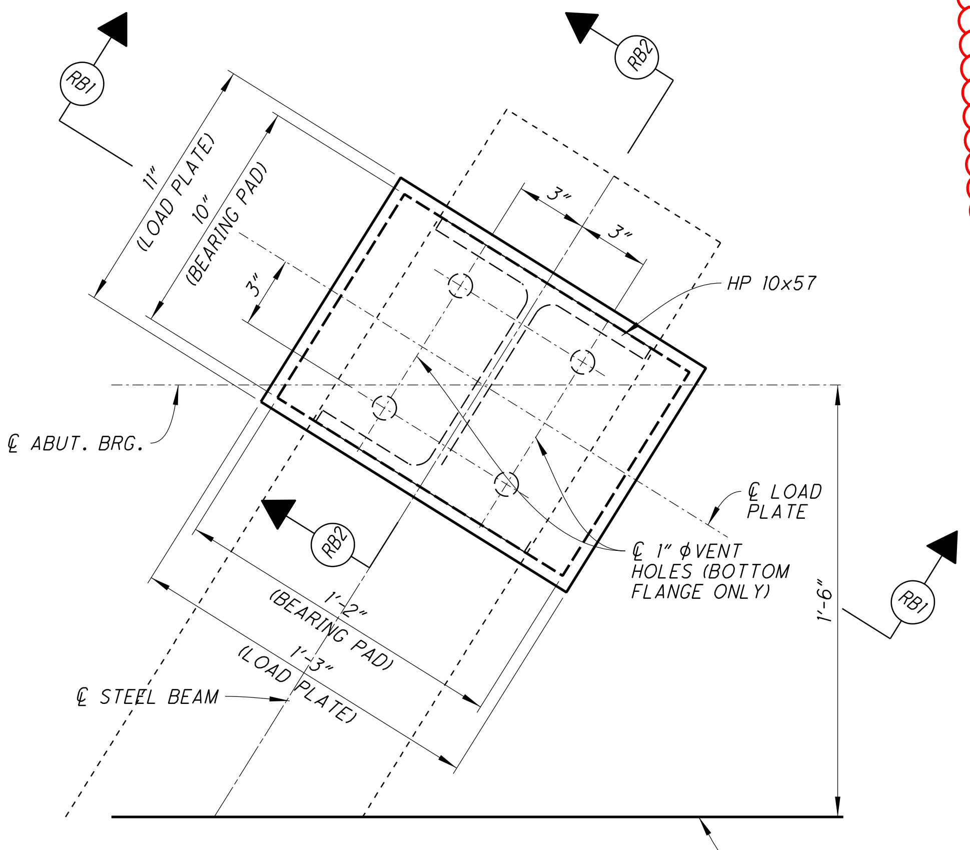
REAR ABUTMENT BEARING PADS: 10" x 1'-2" x 3.2729" (50 DUROMETER)
TOP STEEL LOAD PLATE: 11" x 1'-3" x 1.50" BEVELED TO 1.875"
BOTTOM STEEL LOAD PLATE: 11" x 1'-3" x 1.50"

PIER 1 BEARING PADS: 1'-3" x 1'-6" x 3.7226" (50 DUROMETER)
TOP STEEL LOAD PLATE: 1'-10" x 2'-1" x 2.625" BEVELED TO 2.9375"

PIER 2 BEARING PADS: 1'-3" x 1'-6" x 3.7226" (50 DUROMETER)
TOP STEEL LOAD PLATE: 1'-4" x 1'-7" x 3.625"

FORWARD ABUTMENT BEARING PADS: 10" x 1'-2" x 3.2729" (50 DUROMETER)
TOP STEEL LOAD PLATE: 11" x 1'-3" x 1.50"
BOTTOM STEEL LOAD PLATE: 1'-1" x 1'-5" x 1.50"

ALL H-PILES: HP10x57



REAR ABUTMENT PLAN

ELASTOMERIC BEARING PAD DESIGN DATA			
LOCATION	DL (K)	LL (K)	DL & LL (K)
REAR ABUTMENT	53	47	100
PIER 1	100	94	194
PIER 2	100	94	194
FWD. ABUTMENT	52	48	100

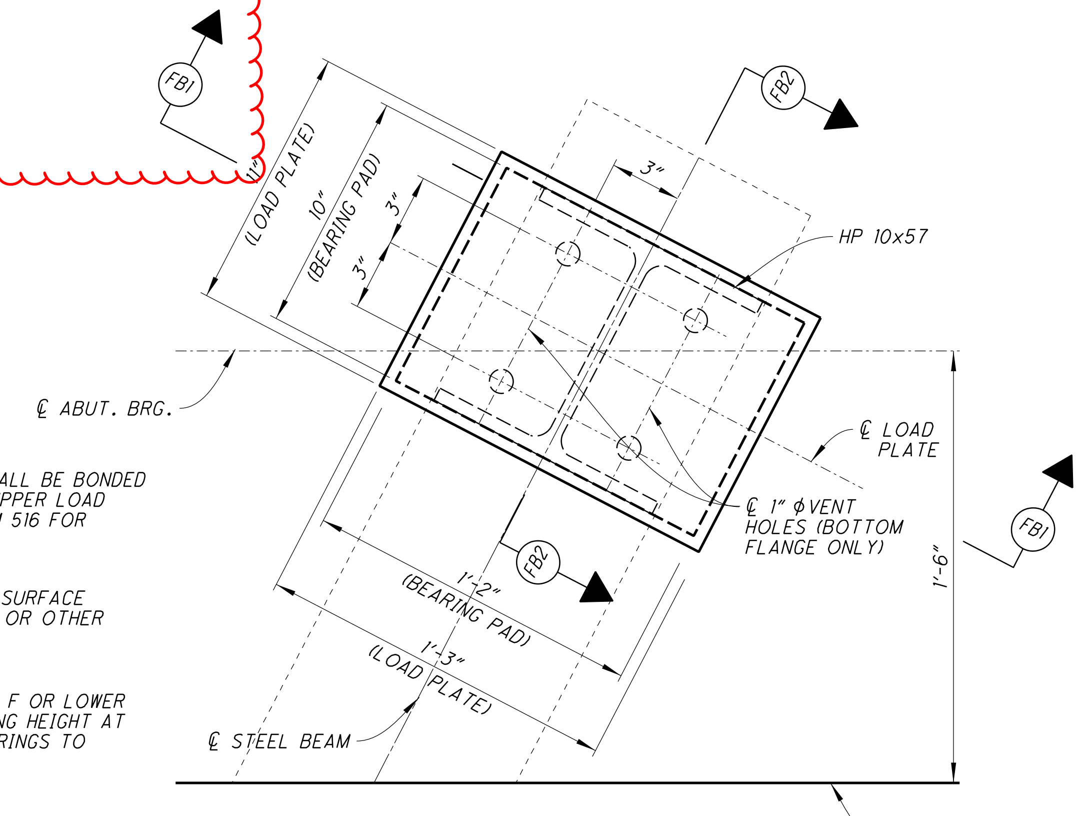
LOAD PLATE:
THE STEEL LOAD PLATES SHALL BE MADE OF A709 STEEL. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. ADDITIONAL UPPER LOAD PLATES AT THE ABUTMENTS AND ALL HP STEEL SHAPES SHALL BE INCLUDED WITH ITEM 516 FOR PAYMENT. FOR ADDITIONAL DETAILS, SEE STD DWG SICD-1-96.

WELDING:
CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300 DEGREES F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

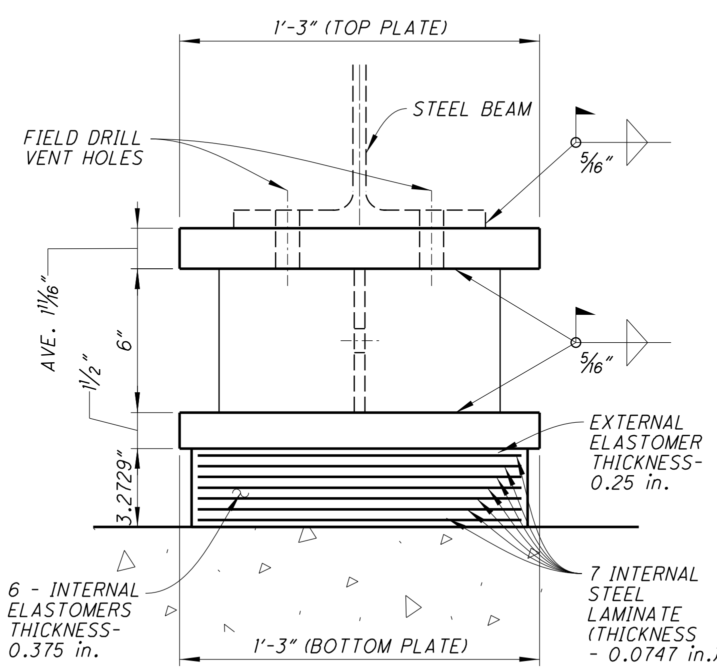
BEARING REPOSITIONING:
IF THE GIRDERS ARE ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80 DEGREES F OR LOWER THAN 40 DEGREES F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60 DEGREES F (+/-) 10 DEGREES F, RAISE THE BEAMS OR GIRDERS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60 DEGREES F (+/-) 10 DEGREES F.

ELASTOMERIC BEARINGS:
THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.5 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. PERFORM THE LONG-TERM COMPRESSION PROOF LOAD TEST IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6 AND 18.7.4.5.

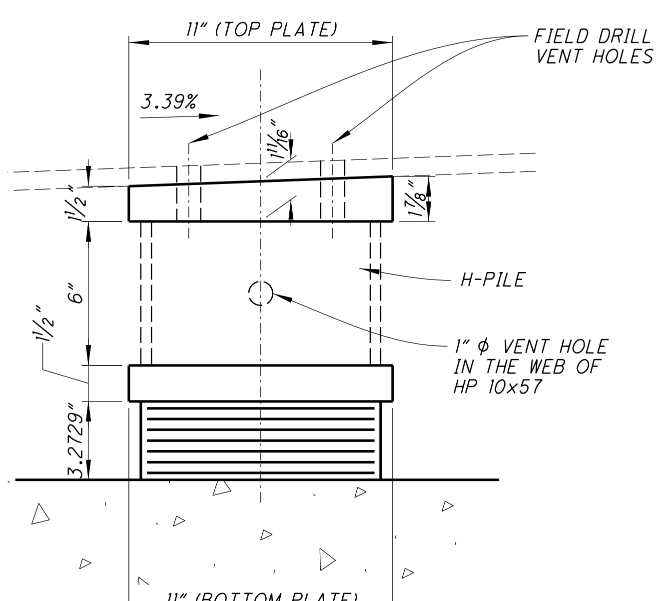
MARKINGS:
ALL BEARINGS AND LOAD PLATES SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS, AND IS LABELED UP-STATION. ALL MARKS SHALL BE PERMANENT AND VISIBLE AFTER THE BEARING IS INSTALLED.



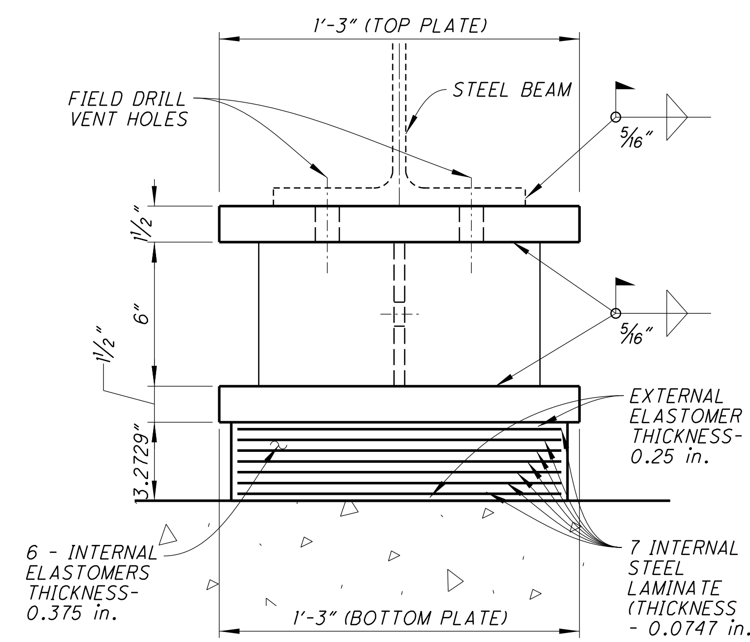
FORWARD BAUTMENT PLAN



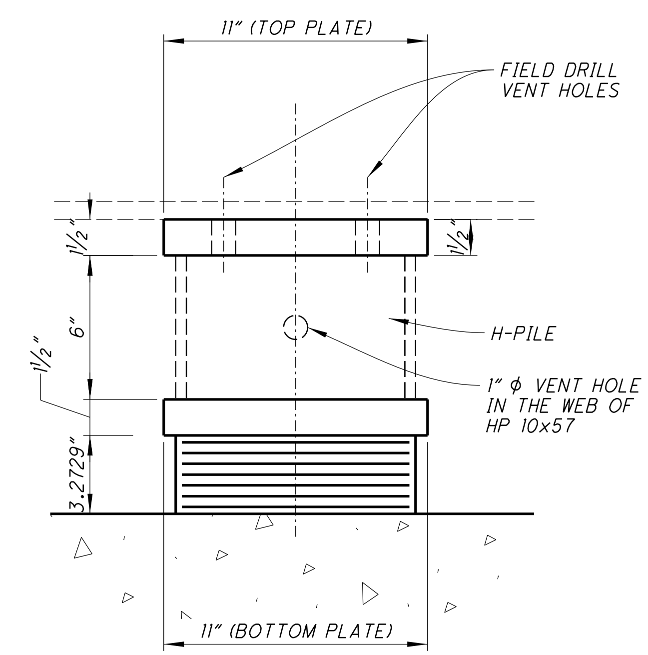
SECTION RB1-RB1



SECTION RB2-RB2



SECTION FB1-FB1



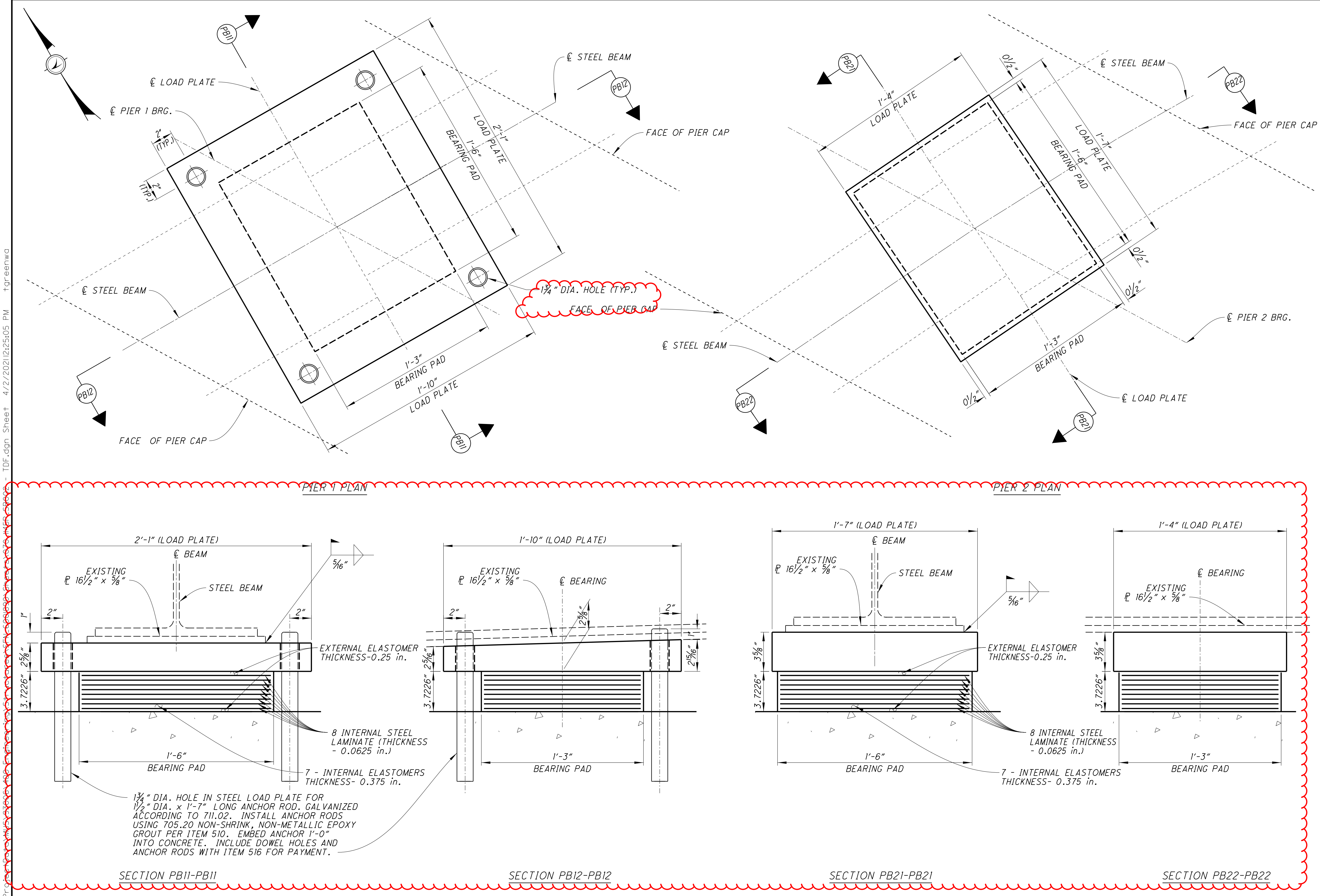
SECTION FB2-FB2

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
YEL	TAG	YEL	-	TAG	11/27/2020	6004890

BEARING PAD DETAILS
BRIDGE NO.: MUS-70-1142E
RAMP 'E' OVER MCINTIRE AVE.

MUS-70-10.49
PID No. 93006



DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

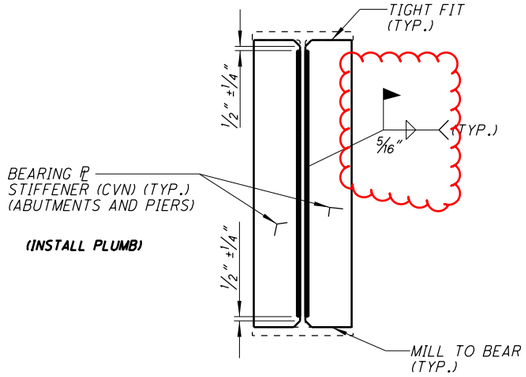
DESIGNED	DRAWN	REVIEWED	DATE
YEL	YEL	TAG	11/27/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAG	-	6004890	

BEARING PAD DETAILS

BRIDGE NO.: MUS-70-1142E
RAMP 'E' OVER MCINTIRE AVE.

MUS-70-10.49
PID No. 93006

1993
2231



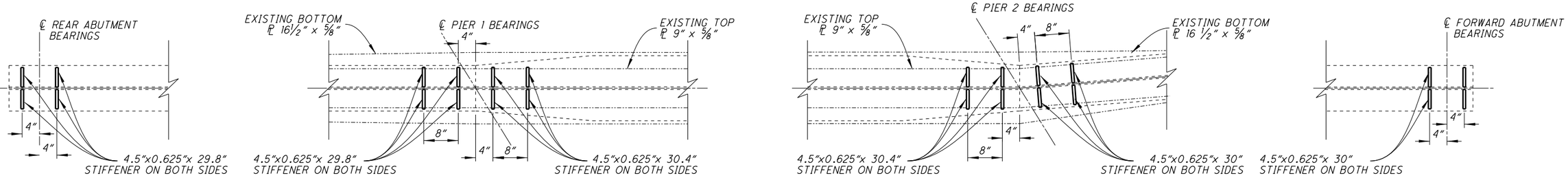
NOTE:
FOR NOTES AND ADDITIONAL DETAILS INCLUDING WELDING DETAILS SEE STD. DWG. GSD-1-96.

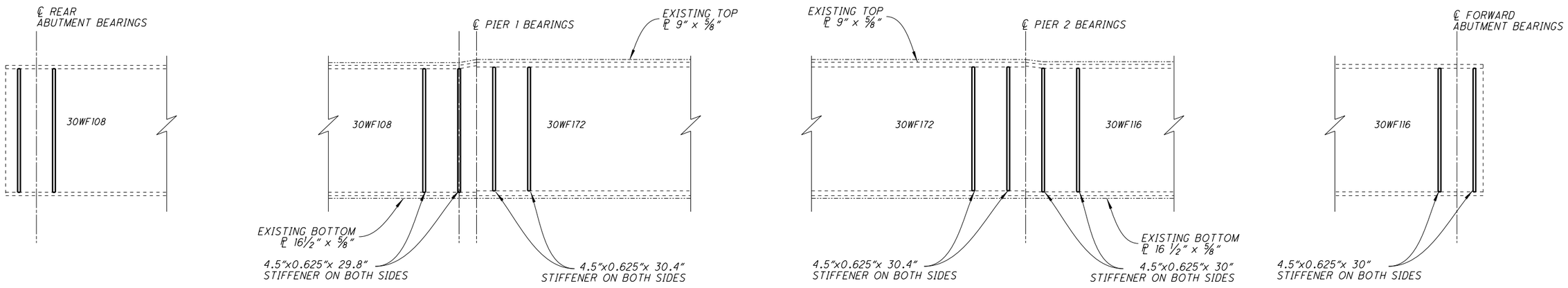
ALL PROPOSED BEARING STIFFENER HEIGHTS SHALL BE FIELD MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION (TYPICAL)

ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN		
STIFFENER ℄	NUMBER	POUNDS
4.5" x 0.625" x 29.8"	40	951
4.5" x 0.625" x 30"	40	957
4.5" x 0.625" x 30.4"	40	970
TOTAL		2878

FINAL QUANTITIES FOR ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN SHALL BE DETERMINED IN THE FIELD.

BEARING STIFFENERS DETAILS





PROPOSED BEARING STIFFENERS LOCATIONS

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
YEL	YEL	TAG	11/27/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAG	.	600890	

PROPOSED BEARING STIFFENERS DETAILS
BRIDGE NO.: MUS-70-1142E
RAMP 'E' OVER-MCINTIRE AVE.

MUS-70-10.49
PID No. 93006

31 / 44

1994
2231