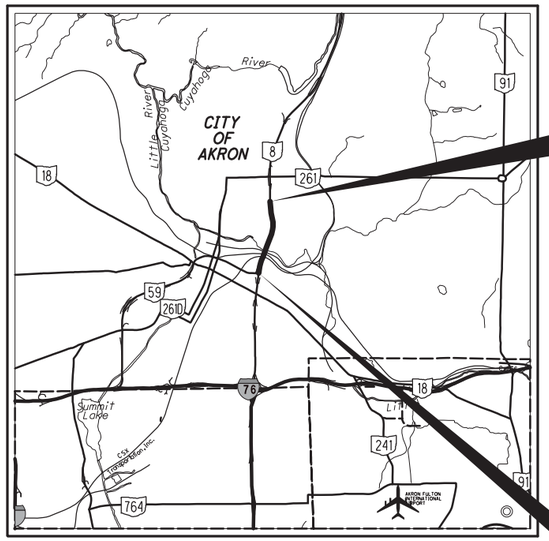

LOCATION MAP

LATITUDE: 41°05'05" N LONGITUDE: 81°30'05" W

SCALE IN MILES
0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

END PROJECT
SR-8 NB
STA. 558+50.00
SR-8 SB
STA. 258+37.87

BEGIN PROJECT
SR-8 NB
STA. 514+65.00
SR-8 SB
STA. 214+65.00

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

SUM-8-1.75

RECONSTRUCTION OF EXISTING SEPARATED CROSSING WITH THE AKRON METRO RTA, CSX RAILROAD & WHEELING & LAKE ERIE RAILROAD,

CITY OF AKRON
SUMMIT COUNTY

DESIGN DESIGNATION

	SR-8	RAMP J	RAMP I
CURRENT ADT (2020)	121740	9930	10150
DESIGN YEAR ADT (2040)	132880	10640	13120
DESIGN HOURLY VOLUME (2040)	12240	1670	1670
DIRECTIONAL DISTRIBUTION	0.57	1.00	1.00
TRUCKS (24 HOUR B&C)	9%	2%	4%
DESIGN SPEED	60 MPH		
LEGAL SPEED	55 MPH		
DESIGN FUNCTIONAL CLASSIFICATION:			
URBAN FREEWAY			
NHS PROJECT	YES		

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NUMBERS
SHOULDER WIDTH	5/13/2020	5-8
SUPERELEVATION	6/17/2021	175-180, 296

ADA DESIGN WAIVERS: NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
ms consultants, inc.
engineers, architects & planners
2221 Schrock Road
Columbus, Ohio 43229-1547
Tel 614.898.7100 Fax 614.898.7570
www.msconsultants.com

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RECONSTRUCTION OF 0.8 MILES OF SR-8, INCLUDING SR-8 NB AND SR-8 SB AND THREE RAMPS AT PERKINS ST. WORK ALSO INCLUDES DEMOLITION OF THE EXISTING SUM-8-0195 BRIDGE OVER THE LITTLE CUYAHOGA RIVER AND VARIOUS RAILROADS, WHICH WILL BE REPLACED BY SEPARATE NB AND SB BRIDGE STRUCTURES. PROJECT CONSTRUCTION WILL ALSO INCLUDE NOISE WALLS, LIGHTING, TRAFFIC SIGNAL, ITS, AND DRAINAGE ITEMS.

PROJECT EARTH DISTURBED AREA: 23.03 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 2.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 25.03 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

ENGINEERS SEAL:
ENTIRE PLAN SET EXCEPT SHEETS OTHERWISE NOTED
STATE OF OHIO — GARY L. GARDNER, JR. — E-66193 — REGISTERED PROFESSIONAL ENGINEER
SIGNED: Gary L Gardner
DATE: 12/02/2022

ENGINEERS SEAL:
SHEETS 18-152
STATE OF OHIO — MATTHEW T. REGAN — E - 73031 — REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 12/02/2022

ENGINEERS SEAL:
SHEETS 439-460, 537-544, & 721-724
STATE OF OHIO — ERIC F DUES — E-75309 — REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 12/02/2022

ENGINEERS SEAL:
SHEETS 461-468
STATE OF OHIO — CHUNMEI HE — E-79190 — REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 12/02/2022

ENGINEERS SEAL:
SHEETS 690-702
STATE OF OHIO — LAWRENCE EDWARD ROLWES, JR. — E - 76513 — REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 12/02/2022

ENGINEERS SEAL:
SOIL PROFILE SHEETS
STATE OF OHIO — THOMAS LOUIS MONACO — E-70348 — REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 12/02/2022

STANDARD CONSTRUCTION DRAWINGS

												SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-1.1	7/28/00	F-1.1	7/19/13	RM-4.2	4/17/20	HL-60.12	7/16/21	MT-99.20	4/19/19	TC-41.20	10/18/13	800	ALC
BP-2.1	1/21/22	F-3.1	7/19/13	RM-4.3	1/21/22	HL-60.31	1/17/20	MT-99.30	1/17/20	TC-41.30	10/18/13	See Proposal	ALL
BP-2.2	1/15/21	F-3.3	7/19/13	RM-4.4	7/19/19	ITS-10.10	7/15/22	MT-99.50	1/17/20	TC-41.40	10/18/13	804 7/15/22	AT
BP-2.5	1/21/22	F-3.4	7/19/13	RM-4.5	7/21/17	ITS-10.11	7/15/22	MT-100.00	7/16/21	TC-41.50	10/18/13	807 1/21/22	ESI
BP-3.1	1/21/22			RM-4.6	7/19/13	ITS-12.10	7/15/22	MT-101.60	1/17/20	TC-42.10	10/18/13	809 7/15/22	LP
BP-4.1	7/19/13	MGS-1.1	7/16/21	AS-1-15	7/17/15	ITS-14.10	7/15/22	MT-101.70	1/17/20	TC-42.20	10/18/13	813 10/19/18	SSE
BP-5.1	7/15/22	MGS-2.1	1/19/18	AS-2-15	1/18/19	ITS-14.11	1/21/22	MT-101.75	1/17/20	TC-51.11	1/15/16	816 10/18/19	SM
BP-6.1	7/19/13	MGS-3.1	1/19/18	SBR-1-20	7/17/20	ITS-15.10	7/15/22	MT-101.80	1/17/20	TC-51.12	1/15/16	821 4/20/12	WPC
BP-7.1	1/21/22	MGS-3.2	1/18/13	VPF-1-90	7/20/18	ITS-15.11	7/15/22	MT-101.90	7/17/20	TC-52.10	10/18/13	825 1/17/20	
BP-9.1	1/18/19	MGS-4.2	7/19/13	HL-10.11	7/15/22	ITS-50.10	7/15/22	MT-102.10	1/17/20	TC-52.20	1/15/21	832 7/15/22	ASBESTOS
CB-3	7/16/21	MGS-4.3	1/18/13	HL-10.12	1/20/17	ITS-50.12	7/15/22	MT-102.20	4/19/19	TC-61.10	1/17/20	838 1/15/21	REPORT
CB-3A	7/16/21	MGS-5.2	7/15/16	HL-10.13	4/17/20	MT-95.30	7/19/19	MT-102.30	10/16/15	TC-61.30	7/19/19	850 4/15/22	8/3/2015
CB-8	7/16/21	MGS-5.3	7/15/16	HL-20.11	1/15/21	MT-95.31	7/19/19	MT-103.10	1/21/22	TC-65.10	1/17/14	867 4/15/22	
		MGS-6.1	1/19/18	HL-20.13	7/15/22	MT-95.32	4/19/19	MT-104.10	10/16/15	TC-65.11	7/15/22	869 10/17/14	
DM-1.1	7/17/20			HL-20.14	4/17/20	MT-95.45	1/17/20	MT-105.10	1/17/20	TC-71.10	7/15/22	870 4/16/21	
DM-1.2	7/16/21	HW-2.1	7/20/18	HL-30.11	1/15/21	MT-95.70	1/17/20	MT-110.10	7/19/13	TC-72.20	7/20/18	878 1/21/22	
DM-1.3	7/18/14	HW-2.2	7/20/18	HL-30.21	4/17/20	MT-95.72	1/17/20	TC-12.31	4/15/22	TC-73.20	1/17/20	894 4/16/21	
DM-4.2	7/20/12	I-3C	7/15/22	HL-30.22	1/15/21	MT-97.10	4/19/19	TC-15.116	7/16/21	TC-81.22	7/15/22	904 7/15/22	
DM-4.3	1/15/16	I-3D	7/15/22	HL-30.31	4/17/20	MT-98.10	1/17/20	TC-21.11	7/16/21	TC-83.10	1/17/20	905 4/17/20	
DM-4.4	1/15/16			HL-30.41	1/21/22	MT-98.20	4/19/19	TC-21.21	7/15/22	TC-83.20	7/15/22	907 10/18/19	
		LA-1.2	1/16/09	HL-40.10	7/17/20	MT-98.21	1/17/20	TC-21.50	4/17/20	TC-84.20	10/18/13	909 7/15/22	
		MH-3	7/16/21	HL-50.11	1/16/15	MT-98.28	1/17/20	TC-22.10	4/17/20	TC-84.21	10/18/13	913 4/16/21	
		RM-1.1	1/15/21	HL-50.21	7/15/22	MT-98.29	1/17/20	TC-22.20	1/17/14	TC-85.10	4/17/20	916 7/15/22	
		RM-4.1	1/17/20	HL-60.11	7/21/17	MT-98.30	7/16/21	TC-41.10	7/19/13	TC-85.20	7/20/18	921 4/20/12	

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED
DATE 12/6/2022 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E150(816)
PID NO. 91710
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT
CSX, W&LE, METRO RTA
SUM-8-1.75
1 / 801

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Ohio DOT Workspace
SUM-8

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SHEET NUM.														PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
13	14	15	161	162	163	164	165	166	330	335	335A	519	OFFICE CALCUL	01/BRO/11	04/NHS/04	05/S>2/04	06/NHS/04	07/S>2/04						
																							DRAINAGE CONTINUED	
						334	355								475		214		611	06100	689	FT	15" CONDUIT, TYPE C	
						98									56	42			611	06700	98	FT	15" CONDUIT, TYPE F	
						67												67	611	07400	67	FT	18" CONDUIT, TYPE B	
						807	224								831	200			611	07600	1,031	FT	18" CONDUIT, TYPE C	
						241									202	39			611	09100	241	FT	21" CONDUIT, TYPE C	
						295									29		266		611	10400	295	FT	24" CONDUIT, TYPE B	
						428									190		238		611	10600	428	FT	24" CONDUIT, TYPE C	
						53											53		611	11200	53	FT	24" CONDUIT, TYPE F	
						814											814		611	16400	814	FT	36" CONDUIT, TYPE B	
						76	164								208		32		611	16600	240	FT	36" CONDUIT, TYPE C	
							240								240				611	19600	240	FT	42" CONDUIT, TYPE C	
							206										206		611	96600	206	FT	CONDUIT, BORED OR JACKED, 15"	
							131										131		611	96600	131	FT	CONDUIT, BORED OR JACKED, 18"	
							142								142				611	96600	142	FT	CONDUIT, BORED OR JACKED, 36"	15
											16				16				611	97400	16	FT	CONDUIT, MISC.: 4-INCH STORM LATERAL, CITY OF AKRON	340
						63									63				611	97400	63	FT	CONDUIT, MISC.: 36" CONDUIT UNDER RAILROAD	15
						1	2									1	2		611	98150	3	EACH	CATCH BASIN, NO. 3	
						3	2								3		2		611	98151	5	EACH	CATCH BASIN, NO. 3, AS PER PLAN	14
						4											4		611	98181	4	EACH	CATCH BASIN, NO. 3A, AS PER PLAN	14
						13	3								9	2	4	1	611	98410	16	EACH	CATCH BASIN, NO. 8	
							1								1				611	98434	1	EACH	CATCH BASIN, NO. 8A	
							2								2				611	98470	2	EACH	CATCH BASIN, NO. 2-2B	
							5								1		4		611	99110	5	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	
						2											2		611	99114	2	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
						1											1		611	99115	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN	323, 324
						12	15								23		4		611	99574	27	EACH	MANHOLE, NO. 3	
							4								4				611	99660	4	EACH	MANHOLE RECONSTRUCTED TO GRADE	
																							PAVEMENT	
			1,177	1,673											2,763	87			252	01500	2,850	FT	FULL DEPTH PAVEMENT SAWING	
685			44						600	377	236			600	1,342				253	01000	1,942	SY	PAVEMENT REPAIR	
		20,534											2,895		23,429				254	01000	23,429	SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIAELE DEPTH (3.25" MAX.)	
	19												9,694		9,713				301	56000	9,713	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
												260	9,371	260	9,051	320			304	20000	9,631	CY	AGGREGATE BASE	
								13					8,610		8,623				407	20000	8,623	GAL	NON-TRACKING TACK COAT	
		713											34		747				441	50000	747	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
													359		359				441	70000	359	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
								6							6				441	70500	6	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
								8							8				441	70600	8	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (DRIVEWAYS)	
													159		159				441	70801	159	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN	13
													1,837		1,837				442	10301	1,837	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN	14
		143											2,199		2,342				442	20200	2,342	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	
													7,303		5,461	1,842			452	16010	7,303	SY	13" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
					799										799				609	24510	799	FT	CURB, TYPE 4-C	
					1,487										1,447	40			609	26000	1,487	FT	CURB, TYPE 6	
					218										218				609	50000	218	SY	4" CONCRETE TRAFFIC ISLAND	
													9,985		9,985				618	40100	9,985	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
																							WATER WORK	
											36				36				SPECIAL	63820088	36	FT	8" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON	340
											324				324				SPECIAL	63820176	324	FT	12" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON	340
											1				1				SPECIAL	63820554	1	EACH	8" GATE VALVE WITH VALVE BOX, CITY OF AKRON	340
											358				358				SPECIAL	63820770	358	FT	1" COPPER WATER SERVICE LINE, CITY OF AKRON	340
											3				3				638	98000	3	EACH	WATER WORK, MISC.: FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY, COMPLETE, CITY OF AKRON	340
											1				1				638	98000	1	EACH	WATER WORK, MISC.: TYING INTO 6-INCH MAIN, CITY OF AKRON	340
											2				2				638	98000	2	EACH	WATER WORK, MISC.: TYING INTO 10-INCH MAIN, CITY OF AKRON	340
											LUMP				LUMP				638	98100	LS		WATER WORK, MISC.: DRINKING FOUNTAIN, COMPLETE, CITY OF AKRON	340
											LUMP				LUMP				638	98100	LS		WATER WORK, MISC.: HOT BOX ENCLOSURE ASSEMBLY, COMPLETE, CITY OF AKRON	340
																							SANITARY SEWER	
										466					466				611	97400	466	FT	CONDUIT, MISC.: 8-INCH SANITARY SEWER, CITY OF AKRON	336-338
										275					275				611	97400	275	FT	CONDUIT, MISC.: RECONNECT LATERAL, CITY OF AKRON	336-338
										2					2				611	99690	2	EACH	MANHOLE, MISC.: MANHOLE-2A ON 8" SANITARY SEWER, CITY OF AKRON	336-338

CALCULATED DNO
CHECKED HRB

GENERAL SUMMARY

SUM-8-1.75

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Ohio DOT Workspace
SUM-8

1" 0.5" 0

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SHEET NUM.														PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
388	389	391	392	395	396	397	398	399	400	401	401A	403	520	01/BRO/11	04/NHS/04	05/S>2/04						
																					LIGHTING	
				28	24	28	28	32							130	10	625	00450	140	EACH	CONNECTION, FUSED PULL APART	
				10											10		625	00460	10	EACH	CONNECTION, UNFUSED PULL APART	
				10	6	3	3	15	27	15	6			48	34	3	625	00480	85	EACH	CONNECTION, UNFUSED PERMANENT	
				3											3		625	10490	3	EACH	LIGHT POLE, CONVENTIONAL, AT12B40	
				2											2		625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, AT15B40	
					2	14	6								22		625	10491	22	EACH	LIGHT POLE, CONVENTIONAL, AS PER PLAN, A10B40	391
				2	3			8							13		625	10491	13	EACH	LIGHT POLE, CONVENTIONAL, AS PER PLAN, A10BB40	391
				7	7		8	8							25	5	625	10491	30	EACH	LIGHT POLE, CONVENTIONAL, AS PER PLAN, AT10B40	391
				2											2		625	10503	2	EACH	LIGHT POLE (INSTALLATION ONLY), AS PER PLAN	391
					8	56	24								88		625	10614	88	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE	
				12	7		8	8							30	5	625	14100	35	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
				4	3			5							12		625	14306	12	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP	
								3							3		625	14307	3	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN	391
				2,163	2,883	6,546	3,360	4,878	2,682	4,296	4,452			11,430	19,830		625	23200	31,260	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
									4,575	822				5,397			625	23300	5,397	FT	NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE	
									3,633		1,962			5,595			625	23302	5,595	FT	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	
				2,262	2,034	2,100	2,100	3,024							10,770	750	625	23400	11,520	FT	NO. 10 AWG POLE AND BRACKET CABLE	
				726											726		625	24100	726	FT	1-1/2" DUCT CABLE WITH TWO NO. 4 AWG 2400 VOLT CABLES	
				942	990	40	1,055	985	520					520	3,369	643	625	24320	4,532	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
									520					520			625	24330	520	FT	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VOLT CABLES	
					732	4,379	1,758		2,850	2,782	1,412			7,044	6,869		625	25400	13,913	FT	CONDUIT, 2", 725.04	
				26	131			26	435		124			559	183		625	25500	742	FT	CONDUIT, 3", 725.04	
				42				189							231		625	25902	231	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
				222											222		625	25910	222	FT	CONDUIT CLEANED AND CABLES REMOVED	
				2											2		625	26253	2	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN,	391
																					IES 2-M, 13,500-15,000 LUMENS	
				3											3		625	26253	3	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN,	391
																					IES 3-M, 13,500-15,000 LUMENS	
				11	15	14	14	24							73	5	625	26253	78	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN,	391
																					IES 3-M, 13,500-15,000 LUMENS, DARK BRONZE	
				2											2		625	27561	2	EACH	LUMINAIRE, INSTALLATION ONLY, AS PER PLAN	390
				1,569	1,092	97	1,219	911	819		223			1,042	4,273	615	625	29002	5,930	FT	TRENCH, 24" DEEP	
					4	20	8		14	20	7			41	32		625	29900	73	EACH	JUNCTION BOX	
					1			2							3		625	29930	3	EACH	MEDIAN JUNCTION BOX	
				2	3	2	4	3	4		4			8	13	1	625	30700	22	EACH	PULL BOX, 725.08, 18"	
				1					4					4	1		625	30706	5	EACH	PULL BOX, 725.08, 24"	
				16	10		8	16							45	5	625	32000	50	EACH	GROUND ROD	
							2								2		625	33000	2	EACH	STRUCTURE GROUNDING SYSTEM	
				1	1			1							2	1	625	34001	3	EACH	POWER SERVICE, AS PER PLAN	390
				1,569	1,092	97	1,219	911	819		223			1,042	4,273	615	625	36011	5,930	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	390
		LUMP													LUMP		SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	391
		5													5		SPECIAL	62540010	5	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	391
												57			57		625	75400	57	EACH	LIGHT POLE REMOVED	
												2			2		625	75410	2	EACH	LIGHT POLE REMOVED FOR REUSE	
												57			57		625	75506	57	EACH	LUMINAIRE REMOVED	
												2			2		625	75508	2	EACH	LUMINAIRE REMOVED FOR REUSE	
					2										2		625	75510	2	EACH	POWER SERVICE REMOVED	
												38			38		625	75522	38	EACH	LUMINAIRE SUPPORT FOUNDATION REMOVED	
				4											4		625	75800	4	EACH	DISCONNECT CIRCUIT	
		1													1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-'BW')	
		1													1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-'BE')	
		1													1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-'SB')	
			1												1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-'X')	
			1												1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-'Y')	
			1												1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-'Z')	
									2		1			3			625	98000	3	EACH	LIGHTING, MISC.:POWER SERVICE, 240 VOLT	392
									5	5	2			12			625	98000	12	EACH	LIGHTING, MISC.:SERVICE TO AESTHETIC LIGHTING	392
									548					548			632	68300	548	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
																					TRAFFIC SURVEILLANCE	
LUMP															LUMP		202	98000	LS		REMOVAL MISC.: ITS CABINET AND CCTV CAMERA SYSTEM	378
1															1		202	98100	1	EACH	REMOVAL MISC.: CCTV CONCRETE POLE, 70 FEET	378
1															1		202	98100	1	EACH	REMOVAL MISC.: LOWERING UNIT	378
487	86														573		625	25408	573	FT	CONDUIT, 2", 725.051	
	92														92		625	25902	92	FT	CONDUIT, JACKED OR DRILLED, 725.04, 2"	
	13														13		625	25910	13	FT	CONDUIT CLEANED AND CABLES REMOVED	

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GENERAL SUMMARY

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SHEET NUM.					PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
353	386	387			01/BRO/11	02/NHS/31	03/NHS/20	04/NHS/04						
													TRAFFIC SIGNALS	
	2							2	625	18201	2	EACH	BRACKET ARM, 15', AS PER PLAN	371
	1							1	625	18401	1	EACH	BRACKET ARM, 20', AS PER PLAN	371
	310							310	625	23304	310	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE	
	123							123	625	23400	123	FT	NO. 10 AWG POLE AND BRACKET CABLE	
	48	1,364						1,412	625	25802	1,412	FT	CONDUIT, CONCRETE ENCASED, (1)-3"	
	112							112	625	25802	112	FT	CONDUIT, CONCRETE ENCASED, (2)-3"	
	135							135	625	25802	135	FT	CONDUIT, CONCRETE ENCASED, (3)-3"	
	2							2	625	26253	2	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-3-M, 13,700-15,000 LUMENS	371
	235							235	625	29000	235	FT	TRENCH	
	60							60	625	29400	60	FT	TRENCH IN PAVED AREA	
		1,364						1,364	625	29700	1,364	FT	TRENCH, MISC.: TRENCH FOR FIBER OPTIC CABLE	376
		4						4	625	30710	4	EACH	PULL BOX, 725.08, 32"	
	4							4	625	31600	4	EACH	PULL BOX, MISC.: PULL BOX, 24" X 36" X 24" REINFORCED POLYMER CONCRETE	373
	4	2						6	625	31600	6	EACH	PULL BOX, MISC.: PULL BOX, 30" X 48" X 24" REINFORCED POLYMER CONCRETE	373
	5							5	625	32000	5	EACH	GROUND ROD	
	295							295	625	36011	295	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	373
	5							5	630	79201	5	EACH	SIGN ATTACHMENT ASSEMBLY, MAST ARM, AS PER PLAN	373
	1							1	630	79501	1	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN	373
	15.8							15.8	630	80100	15.8	SF	SIGN, FLAT SHEET	
	3							3	630	80510	3	EACH	SIGN, STREET NAME	
	7							7	632	05007	7	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	373
	1							1	632	05087	1	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	373
	2							2	632	20731	2	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	373
	8							8	632	25000	8	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
	2							2	632	25010	2	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
	143							143	632	30200	143	FT	MESSENGER WIRE, 7 STRAND, 3/8" DIAMETER WITH ACCESSORIES	
	1,164							1,164	632	40500	1,164	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
	595							595	632	40700	595	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
		102						102	632	62820	102	EACH	INTERCONNECT, MISC.: FIBER OPTIC PATCH CORD, 4-FIBER	376
		8						8	632	62820	8	EACH	INTERCONNECT, MISC.: FUSION SPLICE	376
		2						2	632	62820	2	EACH	INTERCONNECT, MISC.:FIBER OPTIC CONNECTOR	376
		5						5	632	62820	5	EACH	INTERCONNECT, MISC.: FAN-OUT KIT, 6-FIBER	377
									632	62820		EACH	INTERCONNECT, MISC.: FIBER OPTIC CABLE TESTING GENERAL	377
									632	62820		EACH	INTERCONNECT, MISC.: SLACK INSTALLATION	377
	2							2	632	64010	2	EACH	SIGNAL SUPPORT FOUNDATION	
	2							2	632	64020	2	EACH	PEDESTAL FOUNDATION	
	41							41	632	68200	41	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
	237							237	632	68300	237	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
	1							1	632	70001	1	EACH	POWER SERVICE, AS PER PLAN	374
	1							1	632	78349	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 10 POLE, WITH MAST ARMS TC-81.22 DESIGN 12 AND DESIGN 12, AS PER PLAN	373
	1							1	632	79141	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13, AS PER PLAN	373
	2							2	632	89701	2	EACH	PEDESTAL, 11', AS PER PLAN	373
	1							1	632	90101	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	374
	1							1	632	90400	1	EACH	SIGNALIZATION, MISC.: SIGNAL PERFORMANCE TEST AND SYSTEM CHECKS	372
	2							2	632	90400	2	EACH	SIGNALIZATION, MISC.: TEST HOLE PERFORMED	374
	1							1	633	67100	1	EACH	CABINET FOUNDATION	
	1							1	633	67200	1	EACH	CONTROLLER WORK PAD	
		1						1	633	99000	1	EACH	CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER	372
		364						364	804	98000	364	FT	FIBER OPTIC CABLE, MISC.: TRUNK CABLE, 48-FIBER	376
		1,539						1,539	804	98000	1,539	FT	FIBER OPTIC CABLE, MISC.: DROP CABLE, 6-FIBER	376
													TRAFFIC SIGNALS ALTERNATES (PEDESTRIAN PUSHBUTTON)	
	2							2	632	26001	2	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN (GENERIC) (ALTERNATE 1)	373
	2							2	632	26001	2	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN (POLERA) (ALTERNATE 2)	373
													TRAFFIC SIGNALS ALTERNATES (INTERCONNECT SPLICE ENCLOSURE)	
		1						1	632	62820	1	EACH	INTERCONNECT, MISC.: SPLICE ENCLOSURE (AERIAL OR UNDER GRADE) (GENERIC) (ALTERNATE 1)	376, 377
		1						1	632	62820	1	EACH	INTERCONNECT, MISC.: SPLICE ENCLOSURE (AERIAL OR UNDER GRADE) (SEICOR) (ALTERNATE 2)	376, 377

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GENERAL SUMMARY

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Ohio DOT Workspace
SUM-8

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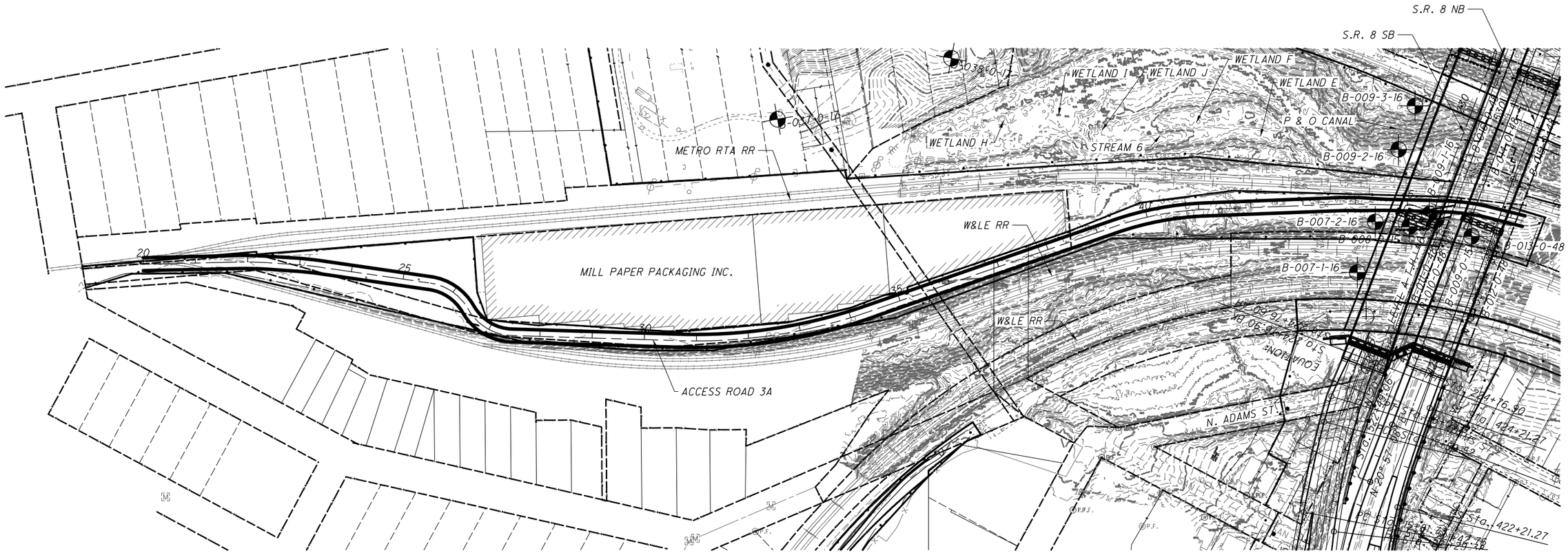

NOTES:

1.) CONTRACTOR TO COORDINATE REQUIRED ACCESS WITH PROPERTY OWNER.
2.) LIMIT THE MOVEMENT OF EQUIPMENT AND MATERIALS TO HOURS WHEN THE RECYCLING FACILITY IS CLOSED. DO NOT MOVE EQUIPMENT OR MATERIALS BETWEEN 6:00 AM AND 4:00 PM MONDAY THRU FRIDAY OR BETWEEN 7:00 AM AND 11:00 AM ON SATURDAYS.
3.) CONTRACTOR SHALL NOT STAGE EQUIPMENT OR STORE MATERIALS WITHIN THE LIMITS OF THE RECLYCLING FACILITY PROPERTY.
4.) USE OF ACCESS ROAD ON PRIVATE PROPERTY SHALL BE LIMITED TO HIGHWAY LEGAL LOADS AND PERMITTED LOADS.
5.) RECORD VIDEO INSPECTION OR DRIVEWAY PRIOR TO BEGINNING CONSTRUCTION.
6.) REPAIR ANY DAMAGE TO DRIVEWAY AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ANY REQUIRED PAVEMENT REPAIRS:

ITEM 253 - PAVEMENT REPAIR 600 SY

= BUILDING LIMITS

RIVER VALLEY PAPER MILL
JEFF ROBINSON
120 E MILL ST., SUITE #337
AKRON, OH 44308
330-535-1001

WHEELING AND LAKE ERIE RAILWAY COMPANY
CONTACT PERSON:

JEFFERY A DAVIS, JR.
DIRECTOR OF TRANSPORTATION
100 EAST FIRST STREET
BREWSTER, OHIO 44613
OFFICE PHONE: 330-767-7215
24 HOUR WORK DEST: 800-837-5622
330-767-7211

0 50 100 200
HORIZONTAL SCALE IN FEET

SCHEMATIC PLAN ACCESS ROAD 3A

SUM-8-1.75

330
801

ms consultants, inc.

WATER WORK NOTES

1. ALL WATERLINE WORK ITEMS SHALL CONFORM TO THE MOST CURRENT EDITION OF THE CITY OF AKRON (COA) CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) AND THESE NOTES HEREIN.

2. THE CONTRACTOR SHALL SUPPLY ALL OF THE WATER MAIN MATERIALS, INCLUDING THE DUCTILE IRON PIPE, FITTINGS AND FITTING RESTRAINTS, HYDRANTS AND VALVES, POLYETHYLENE ENCASEMENT, ALL OTHER APPURTENANCES AND ANY ITEMS SPECIFICALLY ITEMIZED AS REQUIRED FOR THE WATER MAIN INSTALLATION. ALL WATER MAIN MATERIALS SHALL COMPLY WITH THE CITY OF AKRON, AKRON ENGINEERING BUREAU, CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION) ITEM 715, WATER MAIN MATERIALS. INSTALLATION OF ALL WATER MAIN MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 250, WATER MAINS. SUBMITTALS OF MATERIAL SPECIFICATIONS ARE TO BE MADE TO THE UTILITIES ENGINEER PRIOR TO PURCHASING MATERIAL.

3. THE CONTRACTOR MUST MAINTAIN A TEN-FOOT MINIMUM HORIZONTAL CLEARANCE FROM THE EDGE OF ALL WATER MAIN PIPE TO THE EDGE OF ALL SANITARY AND STORM SEWER PIPES AND/OR FORCE MAIN PIPES.

4. THE CONTRACTOR MUST MAINTAIN AN 18-INCH MINIMUM VERTICAL CLEARANCE FROM THE EDGE OF ALL WATER MAIN PIPE AND/OR SERVICE LINES TO THE EDGE OF ALL SANITARY SEWER AND STORM PIPES WHERE THEY CROSS.

5. THE CONTRACTOR MUST MAINTAIN AN 18-INCH MINIMUM VERTICAL CLEARANCE FROM THE EDGE OF ALL WATER MAIN PIPE TO THE EDGE OF ALL GAS LINES, DIRECT BURIAL CONDUITS, CONCRETE ENCASED ELECTRICAL CONDUITS, LIGHT POLE BASES, AND HAND HOLE PULL BOXES.

6. THE CONTRACTOR MUST MAINTAIN A FIVE-FOOT MINIMUM HORIZONTAL CLEARANCE FROM THE EDGE OF ALL WATER MAIN PIPE TO THE EDGE OF ALL GAS LINES, DIRECT BURIAL CONDUITS, CONCRETE ENCASED ELECTRICAL CONDUITS, LIGHT POLE BASES, AND HAND HOLE PULL BOXES.

7. WHERE WATER MAINS CROSS SEWER TRENCHES, THE TRENCH IS TO BE BACKFILLED WITH APPROVED GRANULAR MATERIAL.

8. APPROVED PIPE FITTINGS, BOLTS, ETC., FOR AKRON SYSTEM WATER MAIN INSTALLATION

PIPE: CLASS 53 DUCTILE IRON PER AWWA C151 SPECIFICATIONS, WITH CEMENT LINING PER AWWA C104. LABELED POLYETHYLENE ENCASEMENT PER AWWA C105 15 REQUIRED.

PIPE JOINTS: PUSH-ON JOINTS (TYTON, BELL-TITE, ETC.), PER AWWA C151 SPECIFICATIONS WITH PLAIN OR RESTRAINING RUBBER GASKETS PER AWWA C111 SPECIFICATIONS.

FITTINGS: CLASS 350 DUCTILE IRON COMPACT FITTINGS PER AWWA C153 OR FULL THICKNESS CASTINGS PER AWWA C110 ARE ACCEPTABLE, WITH MECHNICAL JOINT ENDS AND DUCTILE IRON FOLLOWER GLANDS. ANCHOR PIPE IS REQUIRED ON ALL HYDRANT RUNS BETWEEN THE TEE AND HYDRANT RUN VALVE.

RESTRAINED PIPE SYSTEMS: PUSH-ON JOINT WITH FIELD LOCK (4 THROUGH 12-INCH ONLY) OR FAST GRIP GASKETS (4 THROUGH 12-INCH ONLY), OR MECHNICAL JOINT WITH RESTRAINED FOLLOWER GLANDS, AND 6-OUNCE ZINC ANODE CAPS ON EVERY BOLD THREAD. TR FLEX OR FLEX-RING REQUIRED ON ALL 16-INCH OR LARGER PIPE DIAMETERS.

RESTRAINED FITTING DEVICES: ALL VALVES, BENDS, OFFSETS, HYDRANT INLETS, CAPS, PLUGS, AND BRANCHES OF TEES AND WYES MUST BE RESTRAINED USING MECHNICAL JOINT WITH RESTRAINED FOLLOWER GLANDS OR RESTRAINING GASKETS. ALL THREADS WITH DUCTILE IRON LUGS ARE REQUIRED ON ALL VERTICAL BENDS AND/OR AS REQUIRED BY THE ENGINEER. HARDWOOD BLOCKING IS REQUIRED FOR ALL DIAMETERS 4 THROUGH 8-INCH, CONCRETE

BLOCKING AND STRAPPING FOR ALL DIAMETERS 12-INCH AND LARGER. CONCRETE BLOCKING IS REQUIRED ON ALL FIRE LINES AND ON ALL DIAMETERS IN AREAS OVER 100 PSI. RESTRAINED JOINTS FOR DIAMETERS 12-INCH AND UNDER SHALL USE FIELD-LOCK OR FAST GRIP RESTRAINING GASKETS OR MECHNICAL JOINT WITH RESTRAINED FOLLOWER GLANDS. ALL DUCTILE IRON WATER MAINS SHALL BE RESTRAINED FOR A LENGTH OF 30 FEET ON EACH SIDE OF A VALVE, BEND OR OFFSET USING MECHNICAL JOINT WITH RESTRAINED FOLLOWER GLANDS.

MECHNICAL JOINT T-HEAD BOLTS: ALL MECHNICAL JOINTS SHALL BE MADE WITH COR-TEN OR CONSTRUCITON-GRADE ALLOYED DUCTILE IRON T-HEAD BOLTS. T-HEAD BOLTS SHALL BE 1/2 INCH LONGER THAN STANDARD LENGTH AND MUST INCLUDE A 6 OZ. ZINC ANODE CAP ON EVERY BOLT THREAD.

HYDRANTS: AKRON-STYLE MUELLER "CENTURIAN" MODEL A423, KENNEDY "GUARDIAN" MODEL K-81A, EAST JORDAN CD250, AMERICAN FLOW CONTROL MODEL B62B WITH 6 INCH INLET OR AMERICAN FLOW CONTROL MODEL B84B WITH 8 INCH INLET. THREADS SHALL BE AKRON STYLE AS SHOWN ON AKRON WATER WORKS STANDARD CONSTRUCTION DRAWINGS F-3258 AND F-3440. HYDRANTS MUST BE LEAD FREE PER NSF 61-G.

GATE VALVES: RESILIENT-SEAT WEDGE (RSW) VALVES WITH RESTRAINED MECHNICAL JOINTS. VALVES SHALL HAVE NON-RISING STEMS AND SHALL OPEN TO THE RIGHT (CLOCKWISE).

BUTTERFLY VALVES, 16-INCH AND UP: RESTRAINED MECHNICAL JOINT RUBBER SEALS IN THE VALVE MUST BE REPLACEABLE. FLANGED END OR WAFER-STYLE VALVES ARE NOT ACCEPTABLE.

VALVE BOXES: ONLY BIBBY OR EAST JORDAN, OR STAR HEAVY DUTY BRANDS ARE ACCEPTABLE FOR COMPATIBILITY

CURB BOXES: RISER PIPE MUST BE OF YOLOY CORROSION RESISTANT MATERIAL. PLUG MUST BE CAST IRON AND THREAD INTO A BRASS RING.

9. COMPACTED PREMIUM BACKFILL IS REQUIRED FOR UNDERGROUND CONSTRUCTION UNDER OR WITHIN THREE FEET OF ANY PROPOSED OR EXISTING SIDWALK OR PAVEMENT. THE BACKFILLING SHALL CONFORM TO SECTION 551.09 OF THE CITY OF AKRON CONSTRUCTION AND MATERIALS SPECIFICATIONS, LATEST EDITION.
10. ANY EXISTING WATER MAINS, HYDRANTS, VALVES, VALVE BOXES, METER VAULTS, SERVICE LINES, OR CURB BOXES THAT ARE DAMAGED OR MUST BE ADJUSTED AND/OR MOVED MUST BE REPAIRED, ADJUSTED, MOVED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTACT DOUG ZWAHLEN, WATER DISTRIBUTION SUPERVISOR, AT (330) 375-2420 TO SCHEDULE THIS WORK.
11. NO TAPS FOR WATER SERVICES SHALL BE MADE UNTIL AFTER THE MAINLINE HAS BEEN TESTED AND STERILIZED. ALL TAPS 2-INCH AND SMALLER SHALL BE MADE BY THE CITY OF AKRON. ALL BRASS FITTINGS USED SHALL BE LEAD-FREE PER NSF 61-G.
12. ALL WATER MAIN CONSTRUCTION SHALL BE INSPECTED BY THE CITY OF AKRON. NOTIFY THE CITY OF AKRON (TONY PUGLIA OR DOUG ZWAHLEN) AT (330) 375-2420 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND FOR ALL PRECONSTRUCTION MEETINGS.
13. PRIOR TO ACCEPTANCE, THE WATER LINE SHALL BE PRESSURE TESTED, AS SPECIFIED IN AWWA C600, AND DISINFECTED AS SPECIFIED IN AWWA C651 LATEST REVISIONS, BY THE CONTRACTOR.
14. CONTRACTOR SHALL USE EXTREME CAUTION WHEN EXCAVATING IN THE AREA OF EXISTING WATER MAIN PIPES, VALVES, HYDRANTS AND THRUST BLOCKS.
15. THE CONTRACTOR SHALL SUPPLY A TEMPORARY SAFE WATER SERVICE TO ALL HOMES THAT WILL HAVE THEIR WATER SERVICE INTERRUPTED BY THIS CONSTRUCTION.
16. THE PROPOSED FACILITIES MUST MAINTAIN A MINIMUM OF 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
17. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
18. ANY CONNECTION TO EXISTING DUCTILE IRON WATER MAIN SHALL BE MADE WITH A DUCTILE IRON SOLID SLEEVE WITH A RESTRAINING GLAND. ANY CONNECTION TO EXISTING CAST IRON WATER MAIN MAY BE MADE WITH A CAST COUPLING OR DUCTILE IRON SOLID SLEEVE WITH RESTRAINING GLAND.
19. CONTACT TOMMY BARNETT FOR A MANDATORY INSPECITON OF THE HOUSELINE AND ALL UNDERGROUND INSTALLATIONS OF WATER LINE AND APPURTENANCES PRIOR TO BACKFILLING THE TRENCH AT 330-812-7822.
20. CONTACT MELISSA LONGFELLOW TO SCHEDULE A MANDATORY INSPECTION UPON INSTALLATION OF WATER METER AND BACKFLOW PREVENTION ASSEMBLIES AT 330-375-2690. FOR REQUIREMENTS SEE SHEET 349.
21. CONTACT VICTORIA HITE TO SCHEDULEA MANDATORY INSPECTION OF THE SCREW IN VACUUM BREAKER ON THE WATER FOUNTAIN AT 330-375-2690 X5.
22. WATER SERVICES TO BE DISCONNECTED SHALL HAVE ALL SERVICE LINES, FITTINGS, VALVES, BOXES, ETC. BE REMOVED TO THE MAIN.
23. ALL UNDERGROUND PIPE 2 INCHES AND SMALLER SHALL BE TYPE "K" SOFT COPPER WITH FLARED FITTINGS UNLESS OTHERWISE NOTED, COMPRESSION FITTINGS MAY BE USED ON 1-1/2 INCH AND 2 INCH PIPE, ALL BRASS FITTINGS USED SHALL BE LEAD FREE PER NSF61-G, PIPE SHALL BE INSTALLED WITH 4 FEET 6 INCHES OF COVER MINIMUM.
24. ALL UNDERGROUND STRAIGHT LENGTHS OF PIPE LARGER THAN 2 INCHES SHALL BE CLASS 53 CEMENT LINED DUCTILE IRON WITH PUSH-ON JOINTS, PIPE SHALL BE INSTALLED WITH 4 FEET 6 INCHES OF COVER, SEE DETAILED SPECIFICATIONS FOR APPROVED PIPE, FITTINGS, BOLTS, ETC., FOR WATER LINE INSTALLATION.
25. ALL HYDRANTS AND VALVES SHOWN TO BE REMOVED BY THE CONTRACTOR SHALL BE SALVAGED AND DELIVERED TO THE AKRON WATER DEPARTMENT STORE YARD AT 1460 TRIPLETT BOULEVARD.

ITEM 202 - REMOVAL MISC.: 8-INCH WATERLINE AND GATE VALVE REMOVED, COMPLETE, CITY OF AKRON

ALL WORK ASSOCIATED WITH THIS ITEM SHALL INCLUDE THE CUTTING AND REMOVAL OF THE EXISTING 8-INCH WATERLINE AMD GATE VALVE AND SHALL CONFORM TO AKRON CMS ITEM 202 AND ALL OTHER APPLICABLE SECTIONS. PAYMENT FOR THIS ITEM SHALL BE BY LUMP SUM.

ITEM 202 - REMOVAL MISC.: PIPE ABANDONED - 6-INCH, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 202.

ITEM 202 - REMOVAL MISC.: FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY REMOVED, COMPLETE, CITY OF AKRON

ALL WORK ASSOCIATED WITH THIS ITEM SHALL INCLUDE THE CUTTING, CAPPING, AND REMOVAL OF THE FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY, INCLUDING HYDRANT RUN, VALVE BOX, AND ALL OTHER APPURTENANCES RELATED TO THE FIRE HYDRANT AND 6-INCH GATE ASSEMBLY, AND SHALL CONFORM TO AKRON CMS ITEM 202, AND ALL OTHER APPLICABLE SECTIONS. PAYMENT FOR THIS ITEM SHALL BE BY EACH.

ITEM 202 - REMOVAL MISC.: PIPE REMOVED - 6- INCH, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 202.

ITEM 611 - CONDUIT MISC.: 4-INCH STORM LATERAL, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 560.

ITEM 638 - WATER WORK MISC.: FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY, COMPLETE, CITY OF AKRON

ALL WORK ASSOCIATED WITH THIS ITEM SHALL INCLUDE THE INSTALLATION OF ALL ITEMS INCLUDED WITHIN THE HYDRANT AND RUN INSTALLATION DETAIL ON SHEET 347, AND SHALL CONFORM TO AKRON CMS ITEMS 250, 258, 260, AND ALL OTHER APPLICABLE SECTIONS. CONTRACTOR TO FURNISH TAPPING SLEEVE ALD VALVE MATERIALS. TAP WILL BE PERFORMED BY THE CITY IN ACCORDANCE WITH AKRON CMS ITEM 250. PAYMENT FOR THIS ITEM SHALL BE FOR EACH FIRE HYDRANT AND GATE VALVE ASSEMBLY, COMPLETE.

ITEM 638 - WATER WORK MISC.: TYING INTO 6-INCH MAIN, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 263.

ITEM 638 - WATER WORK MISC.: TYING INTO 10-INCH MAIN, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 263.

ITEM 638 - WATER WORK MISC.: DRINKING FOUNTAIN, COMPLETE, CITY OF AKRON

THE WORK ASSOCIATED WITH THIS ITEM INCLUDES THE INSTALLATION AND OF ALL ITEMS AS SHOWN ON SHEET 345 AND IN THE DRINKING FOUNTAIN DETAIL ON SHEET 349, INCLUDING THE INSTALLATION OF SHUT OFF CURB VALVE, CONNECTION OF DRINKING FOUNTAIN TO 1-INCH TYPE K COPPER SERVICE LINE, DRAIN TRAP, AND TRANSITION TO 4" FOUNTAIN DRAIN LINE. PAYMENT FOR THIS ITEM SHALL BE LUMP SUM.

SEE SHEET 345 FOR DRINKING FOUNTAIN PLAN AND PROFILE

ITEM 638 - WATER WORK MISC.: HOT BOX ENCLOSURE ASSEMBLY, COMPLETE, CITY OF AKRON

ALL WORK ASSOCIATED WITH THIS ITEM SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE AKRON CMS AND INCLUDES THE INSTALLATION OF THE BACKFLOW PREVENTER, WATER METER, HOT BOX ENCLOSURE, CONCRETE SLAB, ELECTRICAL SERVICE, MISCELLANEOUS APPURTENANCES AS SHOWN ON AKRON STANDARD DETAILS 2017-009-05 AND 2017-009-15 ON SHEET 349, AND COSTS ASSOCIATED WITH THE PURCHASE OF THE WATER METER FROM THE COA. THE COST FOR A STANDARD 5/8" WATER METER IS $280.00. PAYMENT FOR THIS ITEM SHALL BE BY LUMP SUM.

ITEM SPECIAL - 8" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 254.

ITEM SPECIAL - 12" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 254.

ITEM SPECIAL - 8" GATE VALVE WITH VALVE BOX, CITY OF AKRON

ALL WORK AND PAYMENT ASSOCIATED WITH THIS ITEM SHALL CONFORM TO AKRON CMS ITEM 258.

ITEM SPECIAL - 1" COPPER WATER SERVICE CONNECTION, CITY OF AKRON

THE WORK INCLUDED WITH THIS ITEM SHALL INCLUDE THE CONNECTION TO THE EXISTING 1" SERVICE (BOX #5826) AND CURB METER PIT CURRENTLY ADDRESSED AS 365 N. ADAM ST., INSTALLATION OF SERVICE, TRENCHING AND INSTALLATION OF 1" COPPER SERVICE BRANCH AND SHALL CONFORM TO ITEMS 252 AND 266 AND ALL OTHER APPLICABLE SECTIONS OF THE AKRON CMS. THE INSTALLED WATERLINE UNIT COST SHALL INCLUDE FLUSHING, TESTING, AND ANY/ALL OTHER NECESSARY WORK REQUIRED TO COMPLETE INSTALLATION. THE COST FOR WATER LINE INSPECTION IS $740.00. IN ADDITION TO THE WATER METER PAID FOR UNDER ITEM 638 - WATER WORK MISC.: HOT BOX ENCLOSURE ASSEMBLY, COMPLETE, CITY OF AKRON, THE TOTAL FEE OF $1020.00 WILL BE PAID FOR UNDER FUND 04/NHS/PV. PAYMENT FOR THIS ITEM SHALL BE BY LINEAL FOOT OF 1" COPPER SERVICE INSTALLED.

CALCULATED EMB
CHECKED TRT

WATERLINE GENERAL NOTES 1 OF 1

SUM-8-1.75

340
801

PLOT.CEL

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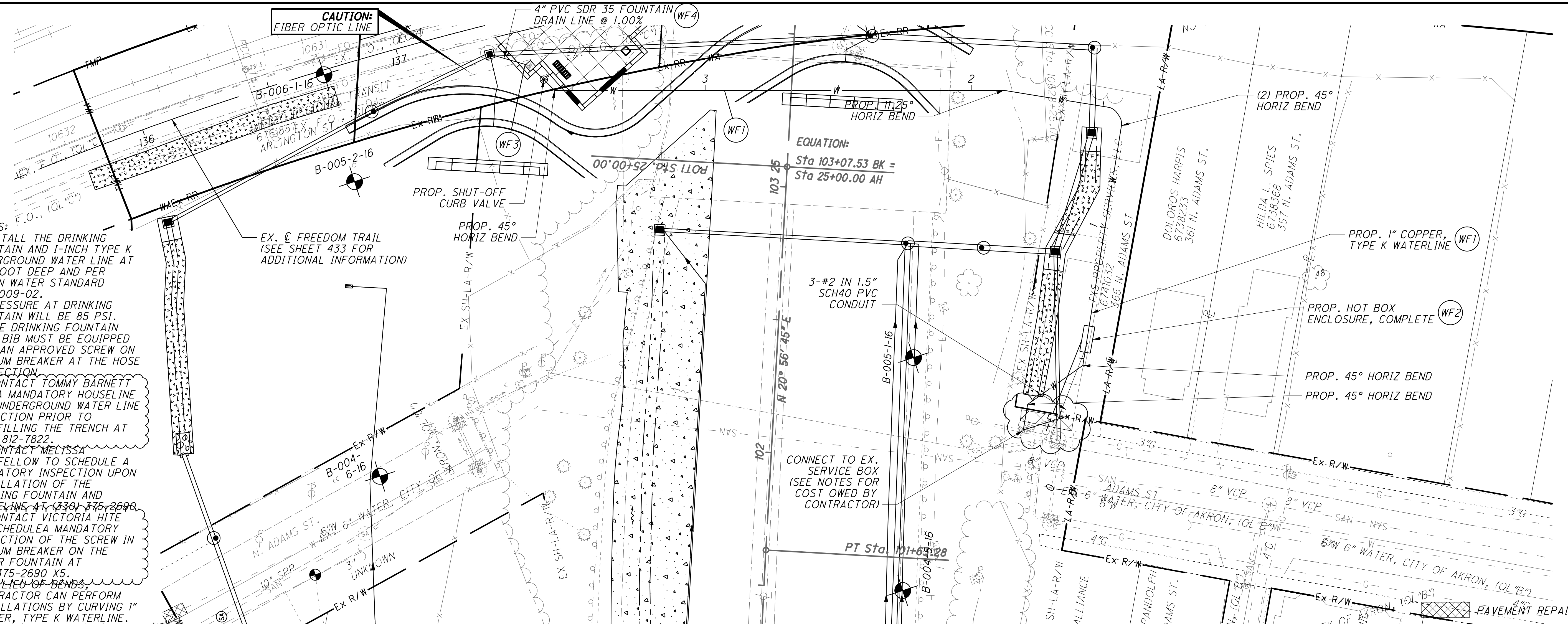
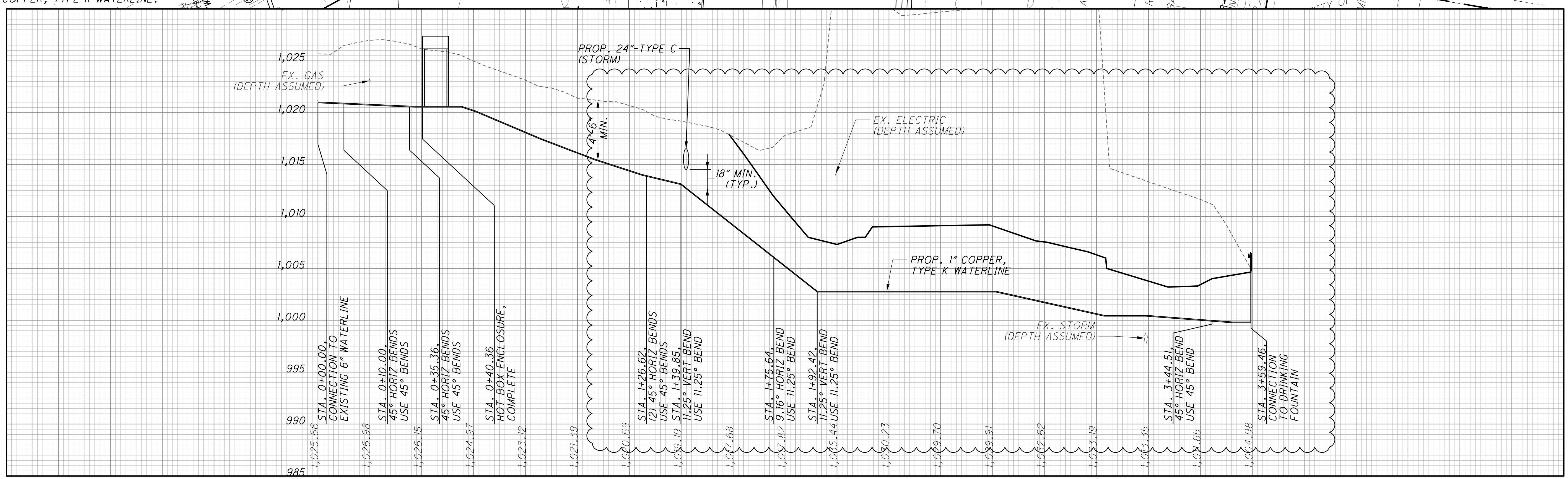
Ohio DOT Workspace
SUM-8



NOTES:
1. INSTALL THE DRINKING FOUNTAIN AND 1-INCH TYPE K UNDERGROUND WATER LINE AT 4.5 FOOT DEEP AND PER AKRON WATER STANDARD 2017-009-02.
2. PRESSURE AT DRINKING FOUNTAIN WILL BE 85 PSI.
3. THE DRINKING FOUNTAIN HOSE BIB MUST BE EQUIPPED WITH AN APPROVED SCREW ON VACUUM BREAKER AT THE HOSE CONNECTION.
4. CONTACT TOMMY BARNETT FOR A MANDATORY HOUSELINE AND UNDERGROUND WATER LINE INSPECTION PRIOR TO BACKFILLING THE TRENCH AT (330) 812-7822.
5. CONTACT MELISSA LONGFELLOW TO SCHEDULE A MANDATORY INSPECTION UPON INSTALLATION OF THE DRINKING FOUNTAIN AND HOUSELINE AT (330) 375-2690.
6. CONTACT VICTORIA HITE TO SCHEDULEA MANDATORY INSPECTION OF THE SCREW IN VACUUM BREAKER ON THE WATER FOUNTAIN AT 330-375-2690 X5.
7. IN LIEU OF BENDS, CONTRACTOR CAN PERFORM INSTALLATIONS BY CURVING 1" COPPER, TYPE K WATERLINE.



WATER FOUNTAIN PLAN AND PROFILE

CALCULATED	CHECKED
EMB	TRT

HORIZONTAL SCALE IN FEET (0 10 20 40)

SUM-8-1.75

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ITEM 804 - FIBER OPTIC CABLE, MISC.: TRUNK CABLE, 48-FIBER

(BY TYPE REFERS TO : SINGLE MODE, MULTI-MODE OR HYBRID; ARMORED IF REQUIRED; INTEGRAL MESSENGER WIRE IF REQUIRED)

1. THE FIBER OPTIC CABLE SUPPLIED SHALL BE A 48 FIBER SINGLE MODE (SM), AS SPECIFIED, SINGLE-MODE CABLE SHALL HAVE AN 8.3 µM NOMINAL CORE DIAMETER.

2. ALL FIBER OPTIC CABLE SUPPLIED SHALL BE AN ACCEPTED CABLE WITH RURAL UTILITY SERVICE (RUS). A LIST OF ACCEPTABLE CABLE CAN BE FOUND ON THE RUS WEB SITE: (HTTP://WWW.USDA.GOV/RUS/TELECOM/MATERIALS /SEC-1_LOMA.HTM)

3. ALL FIBER OPTIC CABLE GLASS SHALL BE SUPPLIED BY THE SAME MANUFACTURER AND SHALL BE PART OF A FIBER OPTIC CABLE UTILIZING LOOSE TUBE CONSTRUCTION WITH THE FOLLOWING PROPERTIES:

SINGLE MODE

CLADDING DIA. 125+/- 1.0 µM
COATING DIA. 245+/- 10 µM
NUMERICAL APERTURE 0.275+/-0.015 N/A
MAX. ATTENUATION 0.4/0.3 DB/KM@1310/1550NM
PROOF TENSILE TEST 0.7 GPA

4. WHERE ARMORED CABLE IS SPECIFIED, IT SHALL BE ON THE RUS ACCEPTABLE MATERIAL LIST.

5. WHERE SELF SUPPORTING CABLE IS SPECIFIED, THE MESSENGER CABLE SHALL BE 0.25 INCH (6 MM) AND SHALL BE ON THE RUS ACCEPTABLE MATERIAL LIST.

6. DOCUMENTATION SHALL BE PROVIDED SHOWING RUS ACCEPTANCE.

7. CABLES SHALL BE PACKAGED WOUND ON NON-RETURNABLE WOOD SPOOLS OR REELS. THE DIAMETER OF THE DRUM SHALL BE A MINIMUM OF 20 TIMES THE DIAMETER OF THE CABLE. EACH REEL SHALL CONTAIN ONLY ONE CONTINUOUS LENGTH OF CABLE. LABELS SHALL BE ATTACHED TO THE REEL SHOWING LENGTH, CABLE IDENTIFICATION NAME AND NUMBER, AND DATE OF MANUFACTURE. THE OUTER ENDS OF THE CABLE SHALL BE SECURELY FASTENED TO THE REEL HEAD SO AS TO PREVENT THE CABLE FROM BECOMING LOOSE DURING TRANSIT. BOTH ENDS OF THE CABLE SHALL EXTEND A MINIMUM OF 10 FEET (3 M) INTO THE INSIDE OF THE CABLE REEL TO PROVIDE ACCESS FOR TESTING. TEST TAILS SHALL BE SECURED TO THE INSIDE OF THE REEL IN SUCH A MANNER THAT THEY WILL NOT BECOME LOOSE DURING TRANSPORTATION. END SEALS SHALL BE APPLIED TO EACH END OF THE CABLE TO PREVENT THE INTRUSION OF MOISTURE INTO THE CABLE. DOCUMENTATION SHALL ACCOMPANY EACH REEL DOCUMENTING THE ATTENUATION OF EACH CABLE FIBER IN DB/KM.

8. ALL FIBER OPTIC CABLE TO BE USED AS PART OF THE TRAFFIC SIGNAL SYSTEM SHALL BE RATED FOR OUTDOOR USE UNLESS SPECIFICALLY NOTED IN THE PLANS.

9. FIBER OPTIC CABLE RIP CORDS SHALL BE PROVIDED AND MAKE FROM EITHER STANDARD TELCO NYLON MATERIAL OR FROM BRAIDED KEVLAR. NO UN-BRAIDED KEVLAR WILL BE ACCEPTED.

ITEM 804 - FIBER OPTIC CABLE, MISC.: TRUNK CABLE, 24-FIBER (CONT'D)

10. CABLE JACKETING SHALL BE PERMANENTLY LABELED APPROXIMATELY EVERY TWO FEET WITH THE CABLE MANUFACTURER'S NAME, CABLE TYPE, FIBER COUNT, MANUFACTURING DATE, AND INCREMENTAL CABLE LENGTH. CABLE LENGTH SHALL REFER TO THE CABLE SHEATH LENGTH.

ALL COSTS TO INSTALL FIBER OPTIC CABLE, EITHER AERIALLY OR UNDERGROUND, SHALL INCLUDE THE COSTS FOR EQUIPMENT, LABOR, AND MISCELLANEOUS MATERIALS AT THE BID PRICE OF ITEM 804 - FIBER OPTIC CABLE, MISC.: TRUNK CABLE, 24-FIBER UNLESS ITEMIZED SEPARATELY.

ITEM 625 - TRENCH, MISC.: TRENCH FOR FIBER OPTIC CABLE

IN ADDITION TO ITEM 625.12, THE CONTRACTOR SHALL PLACE WARNING TAPE DIRECTLY ABOVE ALL NEW CONDUIT CONTAINING FIBER OPTIC CABLE. THE WARNING TAPE SHALL BE PLACED BETWEEN 6" (150 MM) AND 12" (300 MM) BELOW THE FINISHED GRADE WITH A TAPE LENGTH EQUAL TO THE LENGTH OF THE CONDUIT OR CABLE. THE TAPE SHALL BE DIELECTRIC POLYOLEFIN FILM TAPE, 0.1 MM THICK, 3" (76 MM) WIDE, ORANGE IN COLOR. MATERIALS AND INK COLORS SHALL BE USED THAT WILL NOT CHANGE WHEN EXPOSED TO ACIDS AND OTHER DESTRUCTIVE SUBSTANCES COMMONLY FOUND IN SOIL.

PAYMENT SHALL BE MADE AT THE PRICE BID OF ITEM 625 - TRENCH, MISC.: TRENCH FOR FIBER OPTIC CABLE, AS PER PLAN AND SHALL INCLUDE ALL COSTS FOR TRENCHING, THE WARNING TAPE, BACKFILLING, AND RESTORATION.

ITEM 632 - INTERCONNECT MISC.: FIBER OPTIC PATCH CORD, 4-FIBER

A FOUR FIBER PATCH CORD SHALL BE PROVIDED BETWEEN EACH FIBER OPTIC TRANSCEIVER AND EACH TERMINATION PANEL. THE FIBERS SHALL BE EITHER MULTI-MODE OR SINGLE MODE AS REQUIRED TO MATCH THE TRUNK CABLE AND TRANSCEIVER. PATCH CORDS SHALL BE FITTED WITH SC/PC TYPE CONNECTORS UNLESS THE PROPOSED/EXISTING EQUIPMENT REQUIRES A DIFFERENT CONNECTOR. CONNECTORS SHALL BE ATTACHED TO THE PATH CORDS USING AN EPOXY CRIMPED METHODOLOGY WHERE THE KEVLAR IS CRIMPED TO THE CONNECTOR. COST FOR SUPPLYING AND INSTALLING CONNECTORS ON ALL ENDS OF THE PATCH CORD SHALL BE INCIDENTAL TO THE BID ITEM PRICE OF THE PATCH CORD. THE CONTRACTOR AT HIS OPTION MAY SUPPLY FOUR SEPARATE ONE FIBER PATCH CORDS, HOWEVER, ONLY ONE 4 FIBER PATCH CORD QUANTITY WILL BE PROVIDED AT EACH CONTROLLER. COST FOR THE PATCH CORD SHALL BE PAID AT THE BID ITEM PRICE OF ITEM 632 - INTERCONNECT, MISC.: FIBER OPTIC PATCH CORD, 4-FIBER.

ITEM 632 - INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET

THE NEMA CABINET TERMINATION PANEL SHALL BE ATTACHED TO THE SIDE OF THE CABINET IN A PLACE THAT PROVIDES MOST ROOM FOR MAKING CONNECTIONS. AFTER ATTACHING THE TERMINATION PANEL ON THE WALL OF THE CABINET OR SUPPORT MEMBER, NO SHARP OBJECTS SUCH AS SCREWS SHALL PROTRUDE OUTSIDE OF THE CABINET THAT MIGHT CAUSE INJURY TO PEDESTRIANS. TERMINATION PANELS USING IN 170/ITS CABINETS SHALL BE MOUNTED WITHIN THE 19" (483 MM) CAGE. ALL COSTS INCLUDING MATERIALS, TOOLS, AND LABOR TO PROVIDE AND INSTALL A TERMINATION PANEL SHALL BE INCLUDED IN THE BID ITEM PRICE OF ITEM 632 INTERCONNECT, MISC.: TERMINATION PANEL.

ITEM 632 - INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET - ALTERNATE BID

IN ADDITION TO MEETING THE REQUIREMENT OF THE BASE BID ITEM, THE TERMINAL PANEL, CONTROLLER CABINET SHALL BE A SEICOR MODEL WCH-02P. THIS PAY ITEM SHALL COVER ALL COSTS INCLUDING MATERIALS, TOOLS AND LABOR TO PROVIDE AND INSTALL A TERMINAL PANEL, CONTROLLER CABINET.

ITEM 632 - INTERCONNECT, MISC.: FUSION SPLICE

TYPICALLY THE ONLY PLACE SPLICES WILL BE PERMITTED IS TO CONNECT THE LOOSE TUBE DROP CABLE TO THE LOOSE TUB TRUNK CABLE UNLESS NOTED IN THE PLAN.
FUSION SPLICE SHALL CONFORM TO THE FOLLOWING:

A. SPLICE LOSS (FUSION SPLICING). THE AVERAGE SPLICE LOSS OF EACH MULTI-MODE FIBER SHALL NOT EXCEED 0.05 DB (PER EIA-568-A) FOR BOTH SINGLE AND MULTI-MODE FIBERS. THE AVERAGE SPLICE LOSS IS DEFINED AS THE SUMMATIONS OF THE LOSS AS MEASURED IN BOTH DIRECTIONS USING AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR) THROUGH THE FUSION SPLICE, DIVIDED BY TWO. ONLY SPLICE BETWEEN FIBERS OF IDENTICAL COLORS CONTAINED IN FIBER BUFFER TUBES OF IDENTICAL COLORS.

B. SPLICE PROTECTION. FUSION SPLICES REQUIRE ADEQUATE SPLICE PROTECTION. WHEN SPLICING OUTDOORS, THE SPLICED AND STRIPPED CABLE SHALL BE PROTECTED BY A SPLICE CLOSURE. ALL FIBER SPLICES ARE HOUSED IN SPLICE TRAYS OR ORGANIZERS INSIDE A CLOSURE. THE PROPER SPLICE TRAY SHALL BE SELECTED BASED ON THE TYPE OF PROTECTION REQUIRED BY THE SPLICE. FUSION SPLICES, REQUIRE ADDITIONAL PROTECTION AND STRAIN RELIEF WHICH CAN BE PROVIDED BY GLASS CAPILLARIES, HEAT SHRINK TUBING, OR SILICONE SEALANT (COMMONLY REFERRED TO AS RTV).

C. UPON COMPLETION OF THE SPLICING OPERATION, ALL WASTE MATERIAL SHALL BE DEPOSITED IN SUITABLE CONTAINERS, REMOVED FROM THE JOB SITE, AND DISPOSED OF IN AN ENVIRONMENTALLY FRIENDLY MANNER.

FUSION SPLICES SHALL BE PAID AT THE BID PRICE OF ITEM 632 - INTERCONNECT, MISC.: FUSION SPLICE AND SHALL INCLUDE ALL COSTS FOR EQUIPMENT, MATERIAL AND LABOR TO PROVIDE A PERMANENT FUSED SPLICE INCLUDING SPLICE PROTECTION. A QUANTITY OF ONE SPLICE WILL BE PROVIDED FOR EACH PAIR OF FIBERS THAT REQUIRE SPLICING.

ITEM 804 - FIBER OPTIC CABLE, MISC.: DROP CABLE, 6-FIBER

DROP CABLES FOR LOOSE TUBE FIBER OPTIC CABLES SHALL BE PAID ON A LINEAR MEASUREMENT BASIS AND SHALL BE MADE FROM THE SAME GLASS AND CABLE MANUFACTURER THAT PROVIDES THE TRUNK CABLE. SINCE ONLY 4 FIBERS ARE REQUIRED FOR DAISY CHAIN COMMUNICATION, UNUSED DROP CABLE FIBERS (2 FIBERS) SHALL BE LEFT FOR FUTURE USE. SPARE DROP CABLE FIBERS AT THE SPLICE ENCLOSURE END SHALL BE PLACED INSIDE OF THE ENCLOSURE WITH SUFFICIENT EXCESS TO PROVIDE 2 SERVICE LOOKS. SPARE DROP CABLE FIBERS AT THE CONTROLLER END SHALL BE INSERTED INTO THE FAN-OUT KIT, CONNECTORIZED AND TERMINATED IN THE CABINET TERMINATION PANEL. NOTE: DROP CABLES ROUTED DOWN THROUGH A POLE FROM, AERIAL INTERCONNECT SHALL BE PROVIDED WITH STRAIN RELIEF (CABLE SUPPORT ASSEMBLY) PER THE INSTALLATION DETAILS.

ITEM 804 - FIBER OPTIC CABLE, MISC.: DROP CABLE, 6-FIBER (CONT'D)

COST OF THE CABLE SUPPORT ASSEMBLY SHALL BE INCIDENTAL TO THE BID ITEM PRICE OF THE DROP CABLE. A MINIMUM OF 15 FEET (5 METERS) SLACK DROP CABLE SHALL BE PROVIDED IN EACH CONTROLLER CABINET. SLACK DROP CABLE SHALL BE COILED AND BOUND TO THE CABINET OR WALL VIA TIE WRAP OR OTHER APPROVED MEANS. ANY MEANS OF SECURING THE SLACK CABLE SHALL NOT APPLY STRESS TO THE DROP CABLE. TIE WRAPS SHALL BE LOOSELY WRAPPED AROUND THE CABLE. COST FOR FIBER OPTIC DROP CABLES SHALL BE PAID AT THE BID ITEM PRICE OF ITEM 804 - FIBER OPTIC CABLE, MISC.: DROP CABLE, 6-FIBER AND SHALL INCLUDE ALL COSTS FOR MATERIAL, EQUIPMENT, TOOLS AND LABOR TO PROVIDE AND INSTALL THE DROP CABLE.

ITEM 632 - INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR

UNLESS A DIFFERENT CONNECT IS REQUIRED FOR COMPATIBILITY WITH EXISTING OR PROPOSED ACTIVE COMPONENTS, FIBER OPTIC CONNECTORS SHALL BE FIELD INSTALLABLE SC/PC COMPATIBLE, CERAMIC FERRULE, WITH THE FIBER PERMANENTLY SECURED WITHIN THE FERRULE BY EPOXY (HEAT SET), CHEMICALLY CURED OR A HOT MELT ADHESIVE IN ACCORDANCE WITH THE CONNECTOR AND/OR THE EPOXY MANUFACTURER. WHEN CONNECTORS ARE INSTALLED OUTSIDE OF A CONTROLLED ENVIRONMENTAL LOCATION, THE CONNECTOR OPERATING TEMPERATURE SHALL BE MINIMUM -40°C TO + 70°C. FOR THOSE APPLICATIONS WITHIN A CONTROLLED ENVIRONMENTAL LOCATION, THE OPERATING TEMPERATURE SHALL BE MINIMUM -20°C TO + 60°C.

THE PROCEDURE FOR THE TERMINATION OF CONNECTORS USED ON THIS PROJECT SHALL MEET THAT PROCESS SET OUT IN THE CONNECT MANUFACTURER'S STANDARD OPERATION PROCEDURE (SOP) FOR FIELD INSTALLATION. THIS SOP SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER. UNLESS RECOMMENDED OTHERWISE BY THE CONNECTOR MANUFACTURER, EACH FIBER SHALL BE CLEAVED, CLEANED AND RECEIVE MULTIPLE POLISHINGS WITH INCREASINGLY FINE GRIT POLISHING PADS. THE APPROVED SOP WILL BE THE BASIS FOR INSPECTION.

THE AVERAGE LOSS FOR MATED PAIRS OF CONNECTORS SHALL NOT EXCEED 0.4 DB FOR BOTH SINGLE AND MULTI-MODE FIBERS.

PAYMENT SHALL BE MADE AT THE PRICE BID OF ITEM 632 - INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR.

ITEM 632 - INTERCONNECT, MISC.: SPLICE ENCLOSURE (AERIAL OR UNDER GRADE)

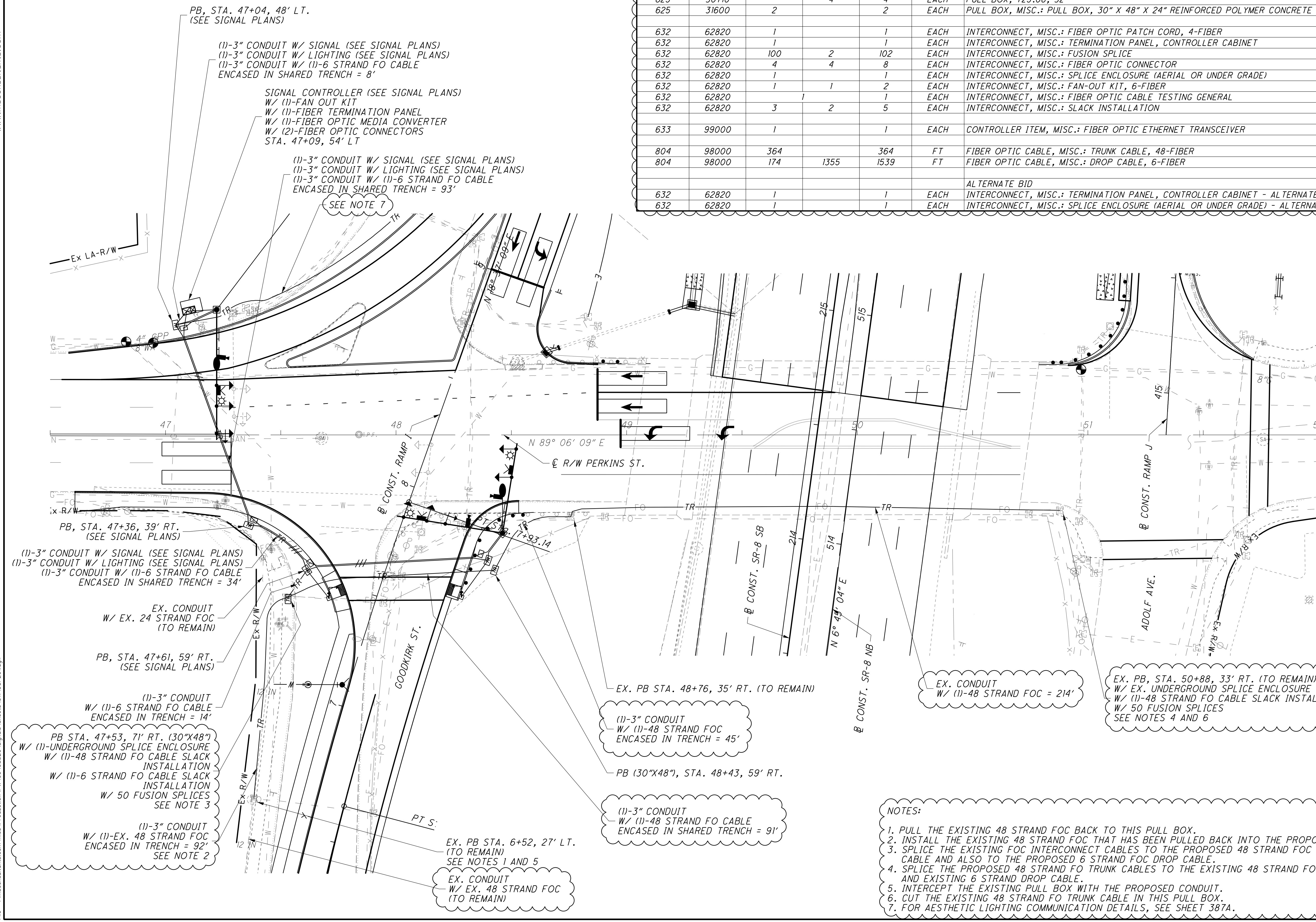
INCLUDED WITH EACH ENCLOSURE SHALL BE AERIAL OR PULL BOX WALL MOUNTING BRACKETS AS REQUIRED BY THE PARTICULAR SPLICE LOCATION. WHERE ARMORED CABLE IS SPECIFIED, THE ARMOR SHALL BE GROUNDED IN THE GROUNDING SYSTEM PROVIDED WITH THE ENCLOSURE. AS A MINIMUM, A 12 FIBER SPLICE TRAY SHALL BE PROVIDED WITH THE ENCLOSURE. WHERE MORE THAN 12 FIBERS ARE SPECIFIED, ADDITIONAL SPLICE TRAYS SHALL BE INCLUDED AS NECESSARY TO ACCOMMODATE THE FIBER COUNT. THE SPLICE ENCLOSURE SHALL FEATURE A MOISTURE TIGHT SEALING ARRANGEMENT WHICH IS RE-ENTERABLE FOR SYSTEM EXPANSION AND REPAIR. NO STRESS SHALL BE PLACED ON FINISHED SPLICES WITHIN THE SPLICE ENCLOSURE.

CALCULATED MJP
CHECKED JAR

TRAFFIC SIGNAL NOTES

SUM-8-1.75

ITEM	EXTENSION	SHEET 387	SHEET 387A	TOTAL	UNIT	DESCRIPTION	SEE SHEET
625	25802	150	1214	1364	FT	CONDUIT, CONCRETE ENCASED, (1)-3"	
625	29700	150	1214	1364	FT	TRENCH, MISC.: TRENCH FOR FIBER OPTIC CABLE	376
625	30710		4	4	EACH	PULL BOX, 725.08, 32"	
625	31600	2		2	EACH	PULL BOX, MISC.: PULL BOX, 30" X 48" X 24" REINFORCED POLYMER CONCRETE	373
632	62820	1		1	EACH	INTERCONNECT, MISC.: FIBER OPTIC PATCH CORD, 4-FIBER	376
632	62820	1		1	EACH	INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET	376
632	62820	100	2	102	EACH	INTERCONNECT, MISC.: FUSION SPLICE	376
632	62820	4	4	8	EACH	INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR	376
632	62820	1		1	EACH	INTERCONNECT, MISC.: SPLICE ENCLOSURE (AERIAL OR UNDER GRADE)	376
632	62820	1	1	2	EACH	INTERCONNECT, MISC.: FAN-OUT KIT, 6-FIBER	377
632	62820	1		1	EACH	INTERCONNECT, MISC.: FIBER OPTIC CABLE TESTING GENERAL	377
632	62820	3	2	5	EACH	INTERCONNECT, MISC.: SLACK INSTALLATION	377
633	99000	1		1	EACH	CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER	372
804	98000	364		364	FT	FIBER OPTIC CABLE, MISC.: TRUNK CABLE, 48-FIBER	376
804	98000	174	1355	1539	FT	FIBER OPTIC CABLE, MISC.: DROP CABLE, 6-FIBER	376
						ALTERNATE BID	
632	62820	1		1	EACH	INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET - ALTERNATE BID	376
632	62820	1		1	EACH	INTERCONNECT, MISC.: SPLICE ENCLOSURE (AERIAL OR UNDER GRADE) - ALTERNATE BID	377



PB, STA. 47+04, 48' LT. (SEE SIGNAL PLANS)
(1)-3" CONDUIT W/ SIGNAL (SEE SIGNAL PLANS) (1)-3" CONDUIT W/ LIGHTING (SEE SIGNAL PLANS) (1)-3" CONDUIT W/ (1)-6 STRAND FO CABLE ENCASED IN SHARED TRENCH = 8'
SIGNAL CONTROLLER (SEE SIGNAL PLANS) W/ (1)-FAN OUT KIT W/ (1)-FIBER TERMINATION PANEL W/ (1)-FIBER OPTIC MEDIA CONVERTER W/ (2)-FIBER OPTIC CONNECTORS STA. 47+09, 54' LT
(1)-3" CONDUIT W/ SIGNAL (SEE SIGNAL PLANS) (1)-3" CONDUIT W/ LIGHTING (SEE SIGNAL PLANS) (1)-3" CONDUIT W/ (1)-6 STRAND FO CABLE ENCASED IN SHARED TRENCH = 93'
SEE NOTE 7
Ex LA-R/W
N 89° 06' 09" E
℄ R/W PERKINS ST.
℄ CONST. RAMP I
℄ CONST. SR-8 SB
N 6° 49' 04" E
℄ CONST. SR-8 NB
℄ CONST. RAMP J
ADOLF AVE.
GOODKIRK ST.
PB, STA. 47+36, 39' RT. (SEE SIGNAL PLANS)
(1)-3" CONDUIT W/ SIGNAL (SEE SIGNAL PLANS) (1)-3" CONDUIT W/ LIGHTING (SEE SIGNAL PLANS) (1)-3" CONDUIT W/ (1)-6 STRAND FO CABLE ENCASED IN SHARED TRENCH = 34'
EX. CONDUIT W/ EX. 24 STRAND FOC (TO REMAIN)
PB, STA. 47+61, 59' RT. (SEE SIGNAL PLANS)
(1)-3" CONDUIT W/ (1)-6 STRAND FO CABLE ENCASED IN TRENCH = 14'
PB STA. 47+53, 71' RT. (30"X48") W/ (1)-UNDERGROUND SPLICE ENCLOSURE W/ (1)-48 STRAND FO CABLE SLACK INSTALLATION W/ (1)-6 STRAND FO CABLE SLACK INSTALLATION W/ 50 FUSION SPLICES SEE NOTE 3
(1)-3" CONDUIT W/ (1)-EX. 48 STRAND FOC ENCASED IN TRENCH = 92' SEE NOTE 2
EX. PB STA. 6+52, 27' LT. (TO REMAIN) SEE NOTES 1 AND 5
EX. CONDUIT W/ EX. 48 STRAND FOC (TO REMAIN)
EX. PB STA. 48+76, 35' RT. (TO REMAIN)
(1)-3" CONDUIT W/ (1)-48 STRAND FOC ENCASED IN TRENCH = 45'
PB (30"X48"), STA. 48+43, 59' RT.
(1)-3" CONDUIT W/ (1)-48 STRAND FO CABLE ENCASED IN SHARED TRENCH = 91'
EX. CONDUIT W/ (1)-48 STRAND FOC = 214'
EX. PB, STA. 50+88, 33' RT. (TO REMAIN) W/ EX. UNDERGROUND SPLICE ENCLOSURE (TO REMAIN) W/ (1)-48 STRAND FO CABLE SLACK INSTALLATION W/ 50 FUSION SPLICES SEE NOTES 4 AND 6
HORIZONTAL SCALE IN FEET

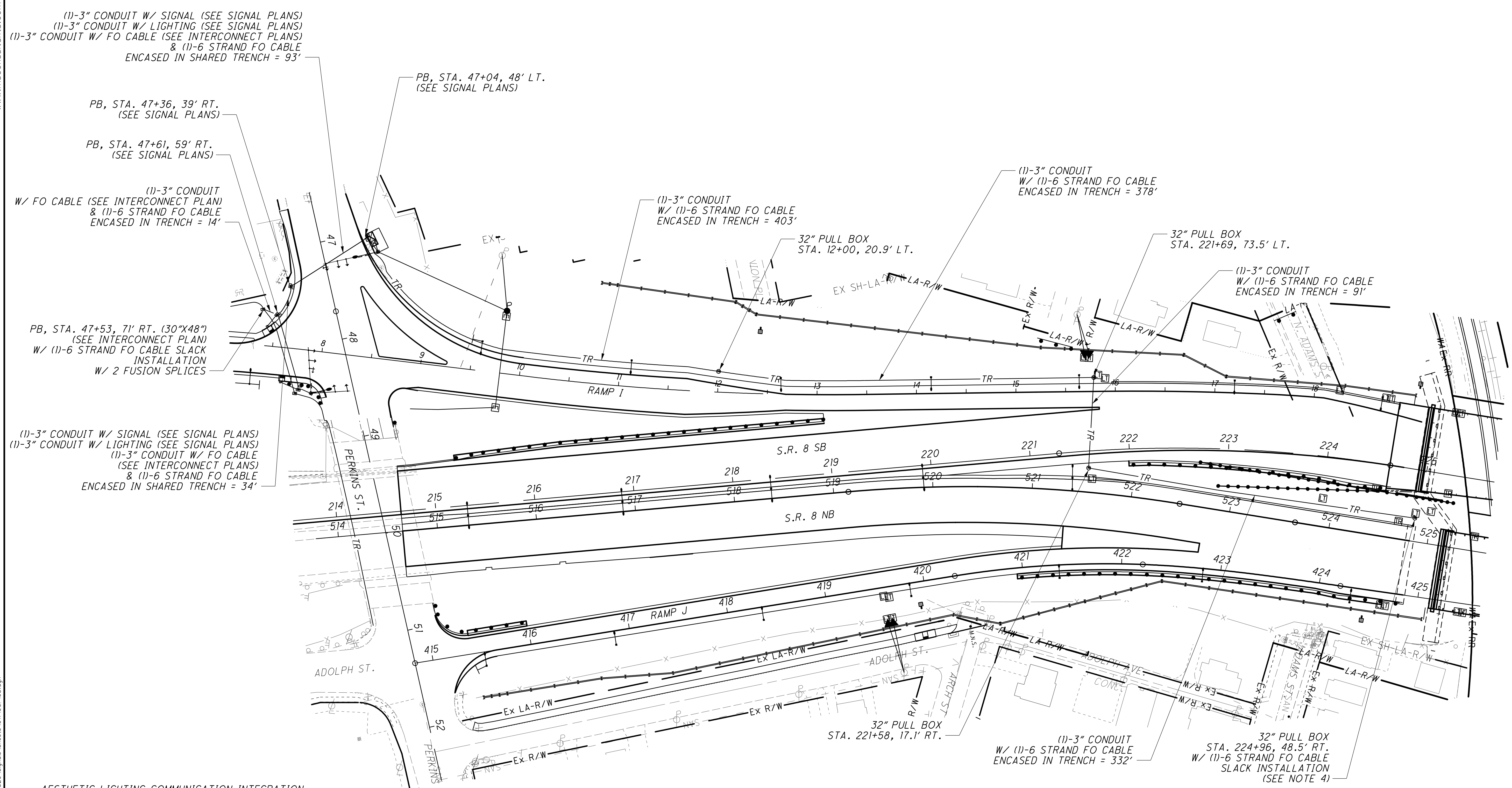
NOTES:

1. PULL THE EXISTING 48 STRAND FOC BACK TO THIS PULL BOX.
2. INSTALL THE EXISTING 48 STRAND FOC THAT HAS BEEN PULLED BACK INTO THE PROPOSED CONDUIT.
3. SPLICE THE EXISTING FOC INTERCONNECT CABLES TO THE PROPOSED 48 STRAND FOC INTERCONNECT CABLE AND ALSO TO THE PROPOSED 6 STRAND FOC DROP CABLE.
4. SPLICE THE PROPOSED 48 STRAND FO TRUNK CABLES TO THE EXISTING 48 STRAND FO TRUNK CABLES AND EXISTING 6 STRAND DROP CABLE.
5. INTERCEPT THE EXISTING PULL BOX WITH THE PROPOSED CONDUIT.
6. CUT THE EXISTING 48 STRAND FO TRUNK CABLE IN THIS PULL BOX.
7. FOR AESTHETIC LIGHTING COMMUNICATION DETAILS, SEE SHEET 387A.

TRAFFIC SIGNAL INTERCONNECT PLAN
PERKINS AVE. STA. 46+50 TO STA. 50+00

CALCULATED MJP
CHECKED JAR

SUM-8-1.75


(1)-3" CONDUIT W/ SIGNAL (SEE SIGNAL PLANS)
(1)-3" CONDUIT W/ LIGHTING (SEE SIGNAL PLANS)
(1)-3" CONDUIT W/ FO CABLE (SEE INTERCONNECT PLANS)
& (1)-6 STRAND FO CABLE
ENCASED IN SHARED TRENCH = 93'
PB, STA. 47+04, 48' LT.
(SEE SIGNAL PLANS)
PB, STA. 47+36, 39' RT.
(SEE SIGNAL PLANS)
PB, STA. 47+61, 59' RT.
(SEE SIGNAL PLANS)
(1)-3" CONDUIT
W/ FO CABLE (SEE INTERCONNECT PLAN)
& (1)-6 STRAND FO CABLE
ENCASED IN TRENCH = 14'
(1)-3" CONDUIT
W/ (1)-6 STRAND FO CABLE
ENCASED IN TRENCH = 403'
32" PULL BOX
STA. 12+00, 20.9' LT.
(1)-3" CONDUIT
W/ (1)-6 STRAND FO CABLE
ENCASED IN TRENCH = 378'
32" PULL BOX
STA. 221+69, 73.5' LT.
(1)-3" CONDUIT
W/ (1)-6 STRAND FO CABLE
ENCASED IN TRENCH = 91'
PB, STA. 47+53, 71' RT. (30"X48")
(SEE INTERCONNECT PLAN)
W/ (1)-6 STRAND FO CABLE SLACK
INSTALLATION
W/ 2 FUSION SPLICES
RAMP I
S.R. 8 SB
S.R. 8 NB
RAMP J
PERKINS ST.
ADOLPH ST.
ADOLPH AVE.
ARCH ST.
N. ADAMS ST.
(1)-3" CONDUIT W/ SIGNAL (SEE SIGNAL PLANS)
(1)-3" CONDUIT W/ LIGHTING (SEE SIGNAL PLANS)
(1)-3" CONDUIT W/ FO CABLE
(SEE INTERCONNECT PLANS)
& (1)-6 STRAND FO CABLE
ENCASED IN SHARED TRENCH = 34'
32" PULL BOX
STA. 221+58, 17.1' RT.
(1)-3" CONDUIT
W/ (1)-6 STRAND FO CABLE
ENCASED IN TRENCH = 332'
32" PULL BOX
STA. 224+96, 48.5' RT.
W/ (1)-6 STRAND FO CABLE
SLACK INSTALLATION
(SEE NOTE 4)

AESTHETIC LIGHTING COMMUNICATION INTEGRATION

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF AKRON REGARDING FIBER SPLICING DETAILS PRIOR TO INSTALLING THE FIBER OPTIC CABLE. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE CITY OF AKRON REGARDING COMMUNICATION INTEGRATION REQUIREMENTS TO MAKE COMMUNICATION BETWEEN THE CITY OF AKRON CENTRAL NETWORK AND THE AESTHETIC LIGHTING CONTROLLER FULLY OPERATIONAL. ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR THIS COORDINATION SHALL BE INCIDENTAL TO THE COMPONENT ITEMS FOR AESTHETIC LIGHTING COMMUNICATION.

NOTES:

1. SEE SHEET 387 FOR TRAFFIC SIGNAL INTERCONNECT DETAILS ON PERKINS ST.

2. ESTIMATED QUANTITIES ASSOCIATED WITH THIS SHEET ARE TABULATED ON SHEET 387.

3. FOR LIGHTING ENCLOSURE POWER SERVICE SEE SHEET 406.

4. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO FIELD LOCATE THE AESTHETIC LIGHTING ENCLOSURE AND PROVIDE FINAL CONNECTION OF THE FIBER OPTIC CABLE TO THE ENCLOSURE. AN ADDITIONAL QUANTITY OF 10 FEET OF 6 STRAND FO CABLE, TRENCH, AND ENCASED 3" CONDUIT HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES TO ACCOUNT FOR THIS FINAL CONNECTION.

HORIZONTAL SCALE IN FEET: 0 25 50 100

CALCULATED KWR
CHECKED JML

AESTHETIC LIGHTING COMMUNICATION PLAN PERKINS ST TO LIGHTING CONTROL RACK

SUM-8-1.75

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Ohio DOT Workspace
SUM-8

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SHEET NO.	STATION FROM	STATION TO	SIDE	POLE/PULL BOX NO.	625 CONNECTION, UNFUSED PERMANENT	625 NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	625 NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	625 NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 3", 725.04	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	625 1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VOLT CABLES	625 TRENCH, 24" DEEP	625 UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	625 JUNCTION BOX	625 PULL BOX, 725.08, 18"	625 PULL BOX, 725.08, 24"	625 LIGHTING, MISC.: POWER SERVICE, 240 VOLT	625 LIGHTING, MISC.: SERVICE TO AESTHETIC LIGHTING	632 POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
					EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	FT
	CC 'X'																			
406	15+74 (RAMP I)		LT	CC 'X'														1		
	15+74	15+74	LT	CC 'X' - PB		114	57	57		8			4	4						19
	15+74	15+90	LT	PB - PB-2		216	108	108		52			26	26						36
	15+90		LT	PB-2													1			
	15+90	224+05 SB	LT	PB-2 - PB-3		1482	741	741		237			237	237						247
	224+05		LT	PB-3													1			
	224+05	223+99	L/R	PB-3 - PB-6		360	360			110			110	110						120
	223+99		RT	PB-6												1				
	223+99	224+95	RT	PB-6 - PB-9		318	318		96				96	96						106
	224+95		RT	PB-9	3				10				10	10		1			1	20
	224+95	225+11	RT	PB-9 - PB-10			78		18				18	18						
	225+11		RT	PB-10	3											1			1	
	224+05	224+54	LT	PB-3 - PB-5		189		189	106				53	53						
	224+54		LT	PB-5												1				
	224+54	225+25	LT	PB-5 - JB-2		255		255	150				53	53						
	225+25		LT	JB-2											1					
	225+25	227+48	LT	JB-2 - JB-3		699		699	446											
	227+48		LT	JB-3	3										1				1	
	227+48	227+58	LT	JB-3 - JB-3A				60	20											
	227+58		LT	JB-3A											1					
	227+58	227+68	LT	JB-3A - JB-3B				60	20											
	227+68		LT	JB-3B											1					
	227+68	227+78	LT	JB-3B - JB-3C				60	20											
	227+78		LT	JB-3C											1					
	227+78	228+12	LT	JB-3C - ML				111	32											
	CC 'Y'																			
	419+58 RAMP J		RT	CC 'Y'														1		
	419+58	419+58	RT	CC 'Y' - PB			60	60		5			5	5						
	419+58	419+58	RT	PB - PB-12			99	99		23			23	23						
	419+58		RT	PB-12	6												1			
	419+58	424+68	RT	PB-12 - PB-14							520	520	122	122						
	424+68		RT	PB-14	6												1			
	424+68	525+46 NB	RT	PB-14 - JB-7			342	342	208				64	64						
	525+46		RT	JB-7											1					
	525+46	527+69	RT	JB-7 - JB-8			699	699	446											
	527+69		RT	JB-8	3										1				1	
	527+69	527+79	RT	JB-8 - JB-8A				60	20											
	527+79		RT	JB-8A											1					
	527+79	527+89	RT	JB-8A - JB-8B				60	20											
	527+89		RT	JB-8B											1					
	527+89	527+99	RT	JB-8B - JB-8C				60	20											
	527+99		RT	JB-8C											1					
	527+99	528+00	RT	JB-8C - ML				18	2											
407	228+12 SB	230+81	LT	ML - JB-9				837	538											
	230+81		LT	JB-9	3										1				1	
	230+81	230+91	LT	JB-9 - JB-9A					20											
	230+91		LT	JB-9A											1					
	230+91	231+01	LT	JB-9A - JB-9B					20											
	231+01		LT	JB-9B											1					
	231+01	231+11	LT	JB-9B - JB9C					20											
	231+11		LT	JB-9C											1					
	231+11	234+21	LT	JB-9C - JB-10					620											
	TOTALS CARRIED TO GENERAL SUMMARY				27	3633	2862	4575	2850	435	520	520	819	819	14	4	4	2	5	548

CALCULATED JRH
CHECKED KWR

AESTHETIC LIGHTING SUBSUMMARY

SUM-8-1.75

400
801

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SUM-8

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CALCULATED JRH
CHECKED KWR

AESTHETIC LIGHTING SUBSUMMARY

SUM-8-1.75

401
801

SHEET NO.	STATION FROM	STATION TO	SIDE	POLE/PULL BOX NO.	625 CONNECTION, UNFUSED PERMANENT EACH	625 NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 CONDUIT, 2", 725.04 FT	625 CONDUIT, 3", 725.04 FT	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES FT	625 1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VOLT CABLES FT	625 TRENCH, 24" DEEP FT	625 UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN FT	625 JUNCTION BOX EACH	625 PULL BOX, 725.08, 18" EACH	625 PULL BOX, 725.08, 24" EACH	625 LIGHTING, MISC.: POWER SERVICE, 240 VOLT EACH	625 LIGHTING, MISC.: SERVICE TO AESTHETIC LIGHTING EACH	632 POWER CABLE, 3 CONDUCTOR, NO. 6 AWG FT
	CC - 'Z'																			
	234+21		LT	JB-10											1					
	234+21	234+31	LT	JB-10 - JB-10A					20											
	234+31		LT	JB-10A											1					
	234+31	234+41	LT	JB-10A - JB-10B					20											
	234+41		LT	JB-10B	3										1				1	
	234+41	234+51	LT	JB-10B - JB-10C			120		20											
	234+51		LT	JB-10C											1					
	234+51	236+61	LT	JB-10C - JB-11			1320		420											
	236+61		LT	JB-11	3										1				1	
	236+61	236+71	LT	JB-11 - JB-11A			60		20											
	236+71		LT	JB-11A											1					
	236+71	236+81	LT	JB-11A - JB-11B			60		20											
	236+81		LT	JB-11B											1					
	236+81	236+91	LT	JB-11B - JB-11C			60		20											
	236+91		LT	JB-11C											1					
	236+91	238+12	LT	JB-11C - ML			378		242											
	CC - 'Y'																			
	528+00 NB	530+69	RT	ML - JB-16				822	538											
	530+69		RT	JB-16	3										1				1	
	530+69	530+79	RT	JB-16 - JB-16A					20											
	530+79		RT	JB-16A											1					
	530+79	530+89	RT	JB-16A - JB-16B					20											
	530+89		RT	JB-16B											1					
	530+89	530+99	RT	JB-16B - JB-16C					20											
	530+99		RT	JB-16C											1					
	530+99	533+34	RT	JB-16C - JB-17					470											
	533+34		RT	JB-17											1					
	533+34	533+44	RT	JB-17 - JB-17A					20											
	533+44		RT	JB-17A											1					
	533+44	533+64	RT	JB-17A - JB-17B					40											
	CC - 'Z'																			
	533+64		RT	JB-17B	3										1				1	
	533+64	533+74	RT	JB-17B - JB-17C			120		20											
	533+74		RT	JB-17C											1					
	533+74	536+19	RT	JB-17C - JB-18			1530		490											
	536+19		RT	JB-18	3										1				1	
	536+19	536+29	RT	JB-18 - JB-18A			60		20											
	536+29		RT	JB-18A											1					
	536+29	536+39	RT	JB-18A - JB-18B			60		20											
	536+39		RT	JB-18B											1					
	536+39	536+49	RT	JB-18B - JB-18C			60		20											
	536+49		RT	JB-18C											1					
	536+49	538+00	RT	JB-18C - ML			468		302											
	TOTALS CARRIED TO GENERAL SUMMARY				15		4296	822	2782						20				5	

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34" x 22"

SHEET NO.	STATION FROM	STATION TO	SIDE	POLE/PULL BOX NO.	625 CONNECTION, UNFUSED PERMANENT EACH	625 NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 CONDUIT, 2", 725.04 FT	625 CONDUIT, 3", 725.04 FT	625 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES FT	625 1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VOLT CABLES FT	625 TRENCH, 24" DEEP FT	625 UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN FT	625 JUNCTION BOX EACH	625 PULL BOX, 725.08, 18" EACH	625 PULL BOX, 725.08, 24" EACH	625 LIGHTING, MISC.; POWER SERVICE, 240 VOLT EACH	625 LIGHTING, MISC.; SERVICE TO AESTHETIC LIGHTING EACH	632 POWER CABLE, 3 CONDUCTOR, NO. 6 AWG FT
	CC - 'Z'																			
407	234+ 07 SB		LT	CC - 'Z'														1		
	234+07	234+19	LT	CC-'Z' - PB		162	324			24			12	12						
	234+19	234+32	LT	PB - PB-16		60	120			10			10	10						
	234+32		LT	PB-16												1				
	234+32	234+41	LT	PB-16 - JB-10B		720	1440													
	234+19	533+60 NB	L/R	PB - PB-15		300	600			90			90	90						
	533+60		RT	PB-15												1				
	533+60	533+64	RT	PB-15 - JB-17B		720	1440													
408	238+12 SB	238+91	LT	ML - JB-19			231		144											
	238+91		LT	JB-19	3										1				1	
	238+91	239+01	LT	JB-19 - JB-19A					20											
	239+01		LT	JB-19A											1					
	239+01	239+11	LT	JB-19A - JB-19B					20											
	239+11		LT	JB-19B											1					
	239+11	239+21	LT	JB-19B - JB-19C					20											
	239+21		LT	JB-19C											1					
	239+21	240+80	LT	JB-19 - JB-20					318											
	240+80		LT	JB-20											1					
	240+80	241+51	LT	JB-20 - PB-17					160				47	47						
	241+51		LT	PB-17												1				
	538+00 NB	538+94	RT	ML - JB-23			297		188											
	538+94		RT	JB-23	3										1				1	
	538+94	540+68	RT	JB-23 - JB-24					348											
	540+68		RT	JB-24											1					
	540+68	541+54	RT	JB-24 - PB-21					194				64	64						
	541+54		RT	PB-21												1				
	TOTALS CARRIED TO GENERAL SUMMARY				6	1962	4452		1412	124			223	223	7	4		1	2	

CALCULATED JRH
CHECKED KWR

AESTHETIC LIGHTING SUBSUMMARY

SUM-8-1.75

401A
801

PROPOSED POLE MOUNTED
POWER SERVICE & CC 'BW'
STA. 15+69, 38.5' LT
(240/480V, 3-WIRE, 1ϕ, GND. NEUTRAL
W/ 2 CIRCUITS (BW1 & BW2)

AERIAL POWER DROP

FIRST ENERGY POLE

PROPOSED POLE MOUNTED
POWER SERVICE & AESTHETIC LIGHTING CC 'X'
STA. 15+74, 38.3' LT
(120/240V, 3-WIRE, 1ϕ, GND. NEUTRAL
W/ 4 CIRCUITS (D, M, S1 & S2)
& POWER TO AESTHETIC LIGHTING
ENCLOSURE IN MEDIAN

BW1-1 STA. 15+64, 16.5' LT
AT10B40

MJ-1 STA. 521+59, 10.0' LT
(NO SPLICES)

BW1-3 STA. 12+63, 15.7' LT
AT10B40

BW1-6 STA. 521+39, 10.0' LT
A10BB40
(W/MJ @ STA. 521+43)

BW1-2 STA. 14+15, 16.5' LT
AT10B40

BW1-8 STA. 518+38, 10.0' LT
A10BB40
(W/MJ @ STA. 518+42)

BW1-7 STA. 519+92, 10.0' LT
A10BB40
(W/MJ @ STA. 519+96)

STA. 15+69, 34.2' LT
24" (INCIDENTAL TO
POWER SERVICE)
(NO SPLICES) PB

STA. 15+74, 33.9' LT
W/ 2-3" CONDUITS TO CC 'X'
24" (INCIDENTAL TO
POWER SERVICE)
(NO SPLICES) PB

2-3" CONDUITS

STA. 15+82, 16.5' LT
24" (6 SPLICES) PB-1

STA. 15+90, 13.0' LT
24" (AESTHETIC)
(NO SPLICES) PB-2

3" CONDUIT W/CKTS X-M,
X-D, X-S1, X-S2 & POWER

CKTS X-M, X-D & POWER

CKTS BW1 & BW2

STA. 17+20, 12.0' LT
AT10B40 BW2-1

STA. 224+05, 67.5' LT
24" (AESTHETIC) (NO SPLICES) PB-3

STA. 224+46, 14.0' LT
AT10B40 BW2-2

STA. 224+49, 66.5' LT
18" (3 SPLICES) PB-4

STA. 224+54, 66.5' LT
18" (AESTHETIC)
(NO SPLICES) PB-5

STA. 225+20, 62.7' LT
LIGHTING (NO SPLICES) JB-1

STA. 225+25, 62.7' LT
(AESTHETIC) (NO SPLICES) JB-2

STA. 225+93, 15.8' LT
A10B40 W/ JB BW2-3

STA. 227+41, 15.8' LT
A10B40 W/ JB BW2-4

STA. 227+48, 62.7' LT
(W/ SERVICE TO
AESTHETIC LIGHTING)
(3 SPLICES CKT X-S1) JB-3

STA. 227+58, 62.7' LT
(AESTHETIC) JB-3A

STA. 227+68, 62.7' LT
(AESTHETIC) JB-3B

STA. 227+78, 62.7' LT
(AESTHETIC) JB-3C

(3)-2" CONDUITS

CKTS BW2, X-S1 & X-S2

℄ PIER I

SEE DETAIL B
ON SHEET 411

SUM-8-0199R

SUM-8-0199L

MATCH LINE STA. 528+00, SEE SHEET 407

MATCH LINE STA. 518+00, SEE SHEET 405

UNION PL.

RAMP I

RAMP J

S.R. 8 SB

S.R. 8 NB

N. ADOLPH AVE.

N. ADAMS ST.

ARCH ST.

CKT BW1

CKT BW2

CKT BE1

CKT Y-N1 & Y-N2

CKTS BE1, Y-N1 & Y-N2

04/NHS/PV
05/NHS/PV

BE1-6 STA. 422+82, 13.0' RT
AT10B40
(CKTS Y-N1 & Y-N2
BYPASS LIGHT POLE)

SEE NOTE 7

SEE DETAIL A

STA. 418+35, 13.0' RT BE1-3
AT10B40

BE1-5 STA. 421+37, 13.0' RT
AT10B40
(CKTS Y-N1 & Y-N2
BYPASS LIGHT POLE)

PB-12 STA. 419+58, 8.7' RT
(AESTHETIC) 24" (6 SPLICES)

PB STA. 419+58, 32.0' RT
18" (INCIDENTAL TO
POWER SERVICE)
(NO SPLICES)

PROPOSED POLE MOUNTED
POWER SERVICE & AESTHETIC LIGHTING CC 'Y'
STA. 419+58±, 37.3'± RT
(120/240V, 3-WIRE, 1ϕ, GND. NEUTRAL
W/ 2 CIRCUITS (N1 & N2)

DETAIL A

STA. 419+85, 13.0' RT BE1-4
AT10B40

STA. 419+63, 10.8' RT PB-11
LIGHTING 18" (3 SPLICES)

STA. 419+63, 31.8' RT PB
18" (INCIDENTAL TO
POWER SERVICE) (NO SPLICES)

PROPOSED POLE MOUNTED
POWER SERVICE & CC 'BE'
STA. 419+63±, 37.1'± RT
(240/480V, 3-WIRE, 1ϕ, GND. NEUTRAL
W/ 1 CIRCUIT (BE1)

AERIAL POWER DROP

FIRST ENERGY POLE

STA. 424+68, 13.5' RT
24" (AESTHETIC) (6 SPLICES) PB-14

STA. 424+63, 13.5' RT
18" (3 SPLICES) PB-13

STA. 424+33, 15.0' RT BE1-7
AT10B40
(CKTS Y-N1 & Y-N2
BYPASS LIGHT POLE)

STA. 525+81, 10.7' RT BE1-8
A10B40 W/ JB

STA. 525+46, 62.7' RT JB-7
(AESTHETIC)

STA. 525+41, 62.7' RT JB-6
LIGHTING (NO SPLICES)

STA. 527+99, 62.7' RT JB-8C
(AESTHETIC)

STA. 527+89, 62.7' RT JB-8B
(AESTHETIC)

STA. 527+79, 62.7' RT JB-8A
(AESTHETIC)

STA. 527+69, 62.7' RT JB-8
(W/ SERVICE TO
AESTHETIC LIGHTING)
(3 SPLICES CKT Y-N1)

STA. 527+30, 13.2' RT BE1-9
A10B40 W/ JB

NOTES:

1. ALL LIGHTING MEDIAN JUNCTION BOX COVERS SHALL BE ON THE WEST SIDE OF THE SR-8 MAINLINE MEDIAN BARRIER UNLESS NOTED OTHERWISE.

2. OFFSETS TO LIGHT POLES ARE FROM NEAREST EOP.

3. OFFSETS TO PULL BOXES ARE FROM ℄.

4. SEE SHEET 404 FOR PLAN LEGEND.

5. AESTHETIC LIGHTING AND INTERIOR PIER LIGHTING CONDUIT IN THE BRIDGE PARAPET SHALL ONLY ENTER THE AESTHETIC JUNCTION BOXES.

6. ROADWAY LIGHTING CONDUIT IN THE BRIDGE PARAPET SHALL ONLY ENTER LIGHTING JUNCTION BOXES.

7. EXISTING POWER SERVICE AND CC 'AE' AT STA. 423+51±, 35.3'± RT (480V, 2-WIRE) TO BE REMOVED.

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED KWR
CHECKED DRB

LIGHTING PLAN
STA. 518+00 TO STA. 528+00

SUM-8-1.75

406
801

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SUM-8

0 0.5" 1"

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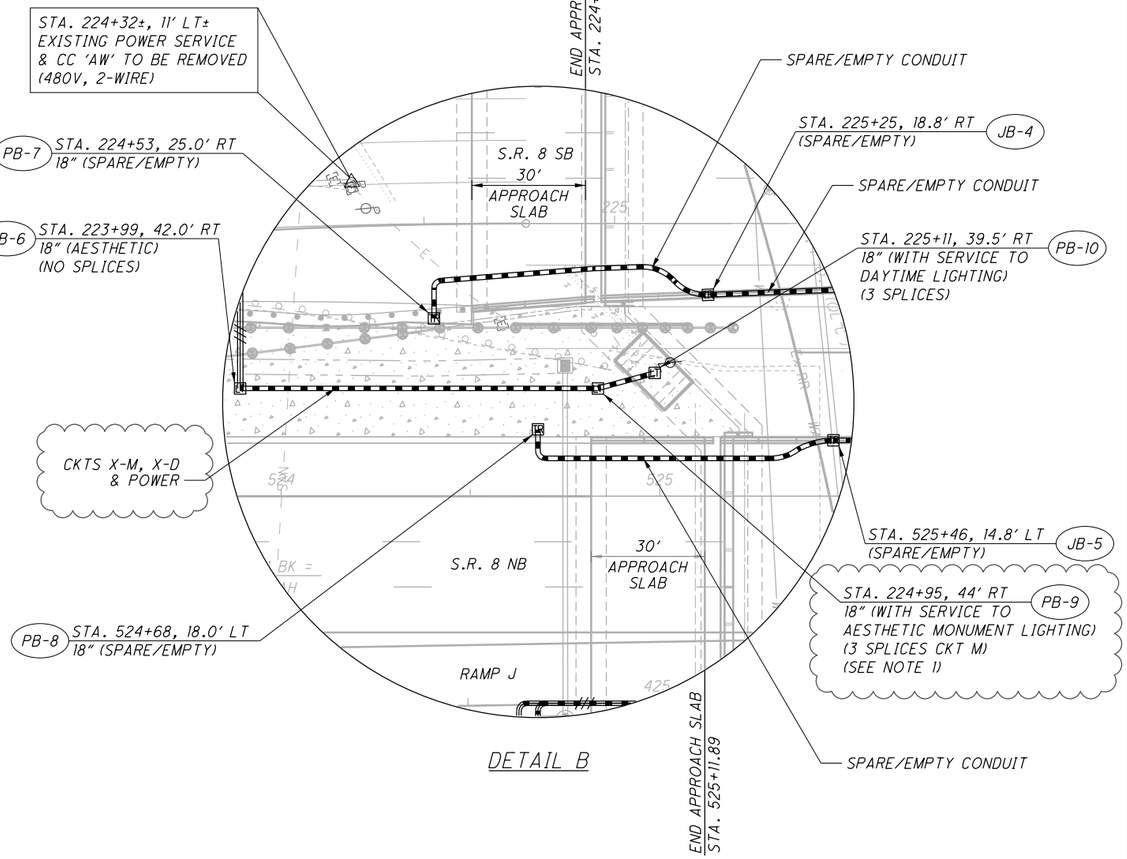
View: FENCE_VIEW1
By: kryan

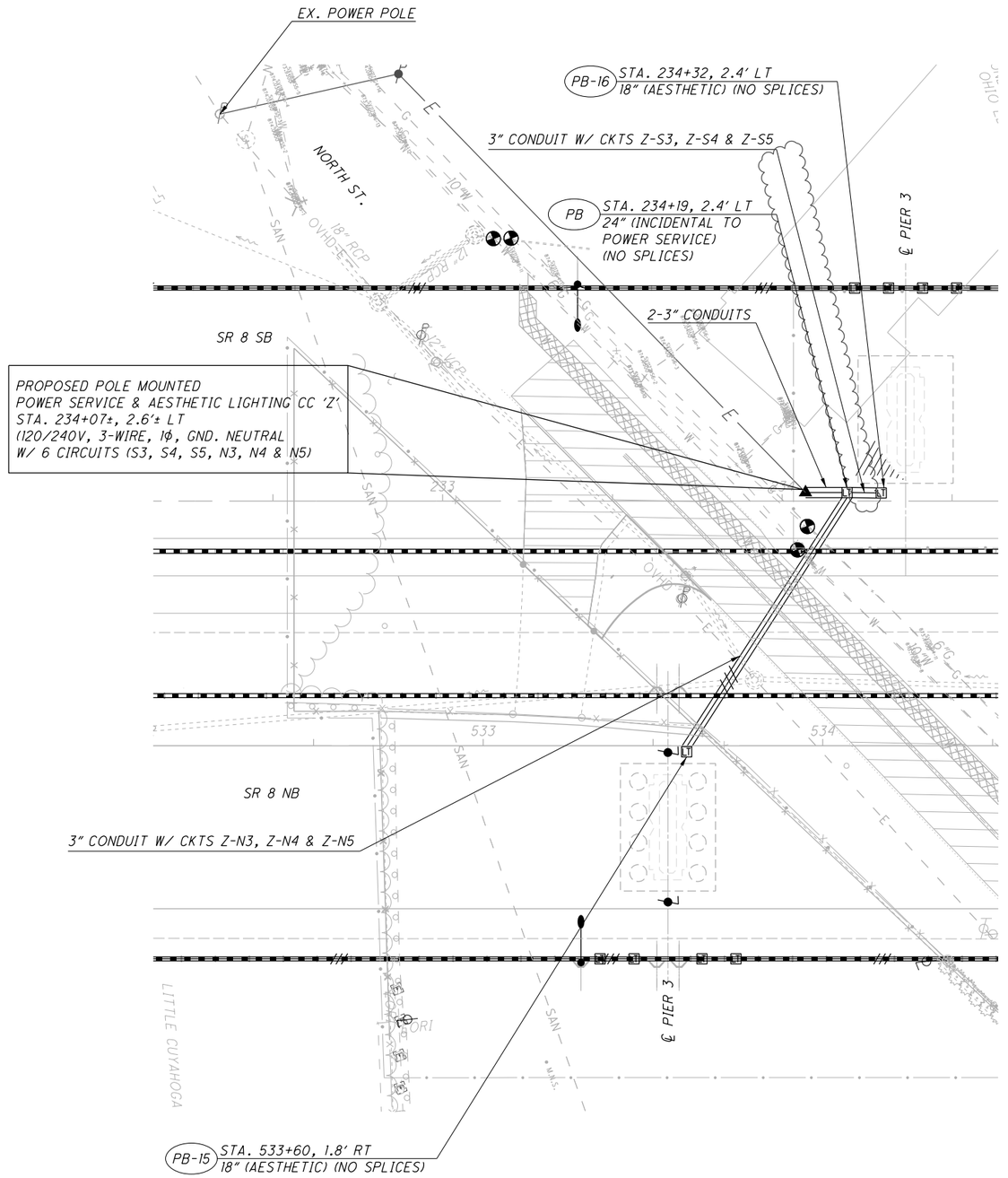
34" x 22"



DETAIL B

NOTES:

1. AN ADDITIONAL QUANTITY OF 20 FEET POWER CABLE, 10 FEET OF TRENCH, AND 10 FEET OF 2" CONDUIT HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES TO ACCOUNT FOR THE FINAL CONNECTION TO THE AESTHETIC LIGHTING ENCLOSURE.



POWER SERVICE (CC-'Z')

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KWR
CHECKED DRB

LIGHTING PLAN DETAIL B
AESTHETIC LIGHTING POWER SERVICE 'Z'

SUM-8-1.75

411
801

ms consultants, inc.

PS 'X'- AESTHETIC CKTS M, D, S1 & S2

JB-3 SERVICE TO AESTHETIC LIGHTING (CKT X-S1)

JB-9 SERVICE TO AESTHETIC LIGHTING (CKT X-S2)

JB-10B SERVICE TO AESTHETIC LIGHTING (CKT Z-S3)

JB-11 SERVICE TO AESTHETIC LIGHTING (CKT Z-S4)

JB-19 SERVICE TO AESTHETIC LIGHTING (CKT Z-S5)

CKT X-S1 (NO. 6 AWG)
CKT X-S2 (NO. 2 AWG)

CKT X-S2 (NO. 2 AWG)

CKT Z-S4 (NO. 4 AWG)
CKT Z-S5 (NO. 4 AWG)

CKT Z-S5 (NO. 4 AWG)

PB-9 SERVICE TO AESTHETIC LIGHTING (MONUMENT) & POWER TO AESTHETIC LIGHTING ENCLOSURE

PIER 1

S.R. 8 SB

PIER 2

CKT Z-S3 (NO. 6 AWG)
CKT Z-S4 (NO. 4 AWG)
CKT Z-S5 (NO. 4 AWG)
CKT Z-N3 (NO. 6 AWG)
CKT Z-N4 (NO. 4 AWG)
CKT Z-N5 (NO. 4 AWG)

PIER 3

PIER 4

PIER 5

PB-16

PS 'Z' - AESTHETIC CKTS S3, S4, S5, N3, N4 & N5

CKT X-M (NO. 6 AWG)
CKT X-D (NO. 4 AWG)
POWER (NO. 6 AWG)

PB-10 SERVICE TO AESTHETIC LIGHTING (DAYTIME)

CKT Z-N3 (NO. 6 AWG)
CKT Z-N4 (NO. 4 AWG)
CKT Z-N5 (NO. 4 AWG)

PB-15

S.R. 8 NB

CKT Y-N1 (NO. 4 AWG)
CKT Y-N2 (NO. 2 AWG)

CKT Y-N2 (NO. 2 AWG)

JB-17 SERVICE TO AESTHETIC LIGHTING (CKT Z-N3)

CKT Z-N4 (NO. 4 AWG)
CKT Z-N5 (NO. 4 AWG)

CKT Z-N5 (NO. 4 AWG)

PS 'Y'- AESTHETIC CKTS N1 & N2

JB-8 SERVICE TO AESTHETIC LIGHTING (CKT Y-N1)

JB-16 SERVICE TO AESTHETIC LIGHTING (CKT Y-N2)

JB-18 SERVICE TO AESTHETIC LIGHTING (CKT Z-N4)

JB-23 SERVICE TO AESTHETIC LIGHTING (CKT Z-N5)

PLAN VIEW
(NOT TO SCALE)

CKTS Y-N1 & Y-N2 (NB)
CKTS X-S1 & X-S2 (SB)

CKT Y-N2 (NB)
CKT X-S2 (SB)

CKTS Z-N4 & Z-N5 (NB)
CKTS Z-S4 & Z-S5 (SB)

CKT Z-N5 (NB)
CKT Z-S5 (SB)

PIER 1

2" CONDUIT TO SOUTH FACE OF PIER (CKT Y-N1 OR X-S1)

2" CONDUIT TO BOTTOM OF PIER (CKT Y-N1 OR X-S1)

2" CONDUIT TO NORTH FACE OF PIER (CKT Y-N1 OR X-S1)

PIER 2

2" CONDUIT TO NORTH FACE OF PIER (CKT Y-N2 OR X-S2)

2" CONDUIT TO SOUTH FACE OF PIER (CKT Y-N2 OR X-S2)

2" CONDUIT TO BOTTOM OF PIER (CKT Y-N2 OR X-S2)

PIER 3

2" CONDUIT TO NORTH FACE OF PIER (CKT Z-N3 OR Z-S3)

2" CONDUIT TO SOUTH FACE OF PIER (CKT Z-N3 OR Z-S3)

3" CONDUIT TO BOTTOM OF PIER (CKTS Z-N3, Z-N4 & Z-N5) OR (CKTS Z-S3, Z-S4 & Z-S5)

PIER 4

2" CONDUIT TO NORTH FACE OF PIER (CKT Z-N4 OR Z-S4)

2" CONDUIT TO SOUTH FACE OF PIER (CKT Z-N4 OR Z-S4)

2" CONDUIT TO BOTTOM OF PIER (CKT Z-N4 OR Z-S4)

PIER 5

2" CONDUIT TO NORTH FACE OF PIER (CKT Z-N5 OR Z-S5)

2" CONDUIT TO SOUTH FACE OF PIER (CKT Z-N5 OR Z-S5)

2" CONDUIT TO BOTTOM OF PIER (CKT Z-N5 OR Z-S5)

ELEVATION VIEW
TYPICAL FOR BOTH BRIDGES
(NOT TO SCALE)

POWER SERVICE/ CONTROL CENTER — X
CIRCUIT — S1
PIER NO.

S = SOUTHBOUND BRIDGE
N = NORTHBOUND BRIDGE
M = MONUMENT
D = DAYTIME

NOTES:

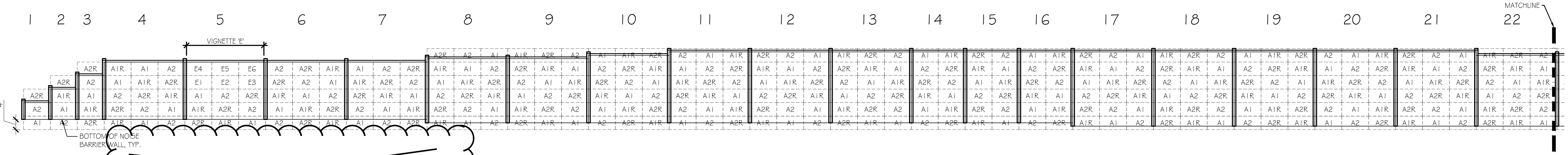
1. SEE AESTHETIC LIGHTING PLANS FOR ADDITIONAL INFORMATION.

2. SEE SHEET 412 FOR AESTHETIC LIGHTING CONTROL CENTER DATA.

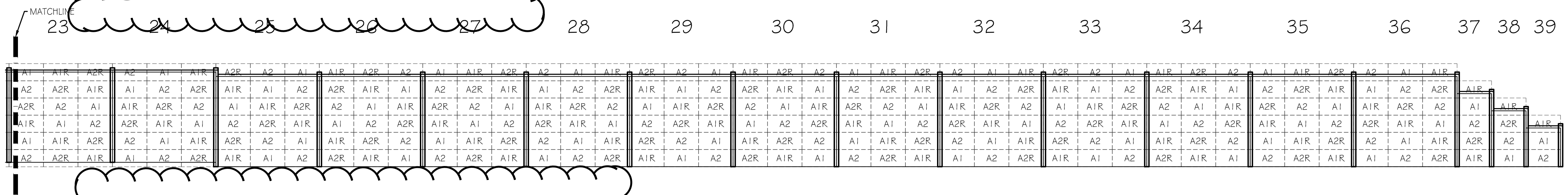
CALCULATED KWR
CHECKED DRB

AESTHETIC LIGHTING CIRCUIT SCHEMATIC

SUM-8-1.75

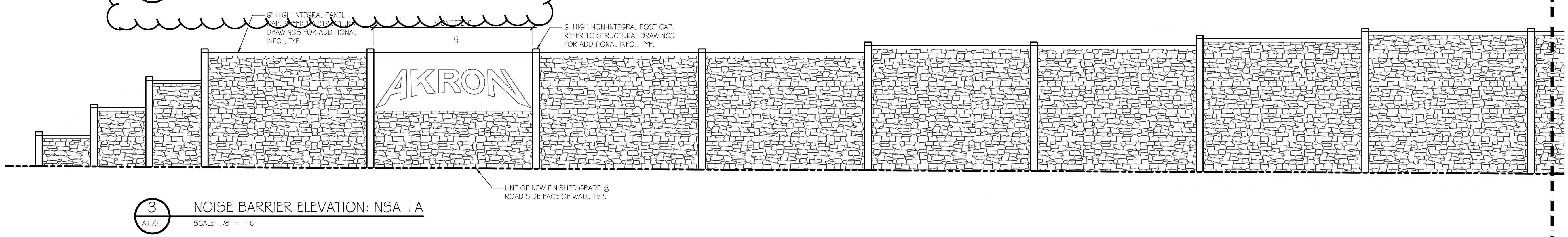


~~1 A1.01 NOISE BARRIER KEY ELEVATION: NSA 1A~~
~~SCALE: 1/16" = 1'-0"~~

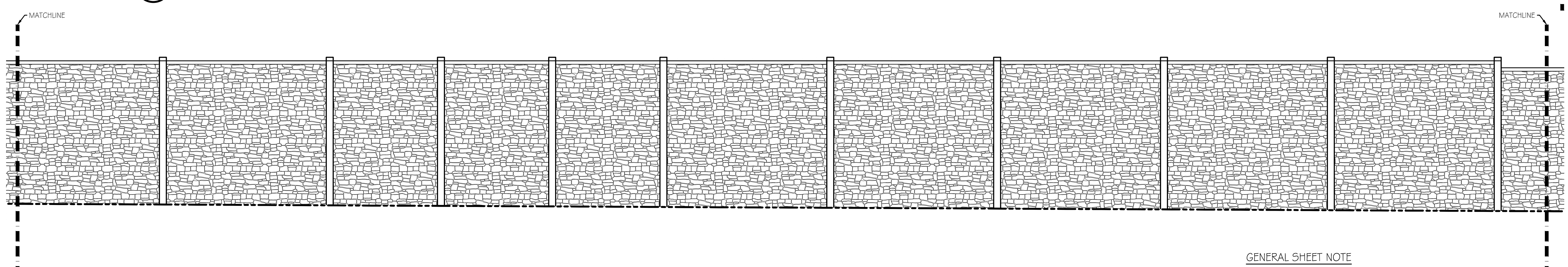


THE AESTHETIC FORMLINER PATTERNS SHOWN IN THE KEY ELEVATIONS ON THIS SHEET SHALL NOT APPLY. STANDARD PANELS AND SHOP DRAWINGS SHALL BE PROVIDED PER SCD NBS-1-09.

~~2 A1.01 NOISE BARRIER KEY ELEVATION: NSA 1A CONTINUES~~
~~SCALE: 1/16" = 1'-0"~~



3 A1.01 NOISE BARRIER ELEVATION: NSA 1A
SCALE: 1/8" = 1'-0"



4 A1.01 NOISE BARRIER ELEVATION: NSA 1A CONTINUES
SCALE: 1/8" = 1'-0"

6. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION:

7. WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.

8. THE COLOR OF ALL ROADWAY-FACING SIDES OF THE NOISE WALL PANELS SHALL BE WF-3, GENERAL/TAN, FEDERAL COLOR NUMBER 23448.

GENERAL SHEET NOTE

1. DO NOT SCALE OFF DRAWING.

2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.

3. CONTRACTOR TO SEE SHEET A2.01, A2.02, & A2.03 FOR AESTHETIC CONCRETE PATTERN INFORMATION & DETAILS.

4. ALL BLANK AREAS WITHOUT NOMENCLATURE SHALL NOT HAVE ANY CONCRETE ~~PATTERNS, UNLESS OTHERWISE NOTED.~~

5. ~~ALL AESTHETIC CONCRETE PATTERNS WITH NOMENCLATURE "R" SHALL BE FABRICATED WITH THE CORRESPONDING FORM LINERS ROTATED 180°~~

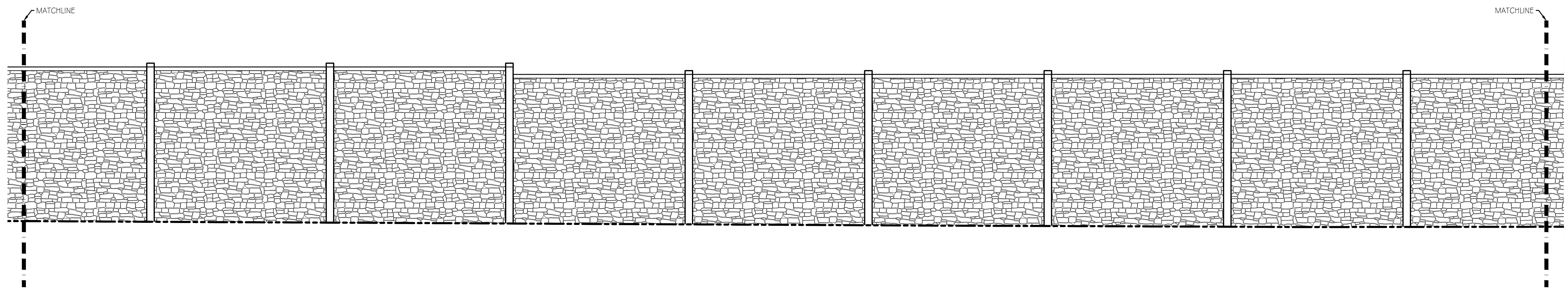
DESIGN AGENCY
CDR

REVIEWED JH	DATE 12/18/2020
	STRUCTURE FILE NUMBER 7700370/7700371
DRAWN BT	REVISED
DESIGNED SW	CHECKED JH

AESTHETIC ELEVATIONS: NOISE BARRIER NO. 1A
STA. 0+74 TO STA. 9+02

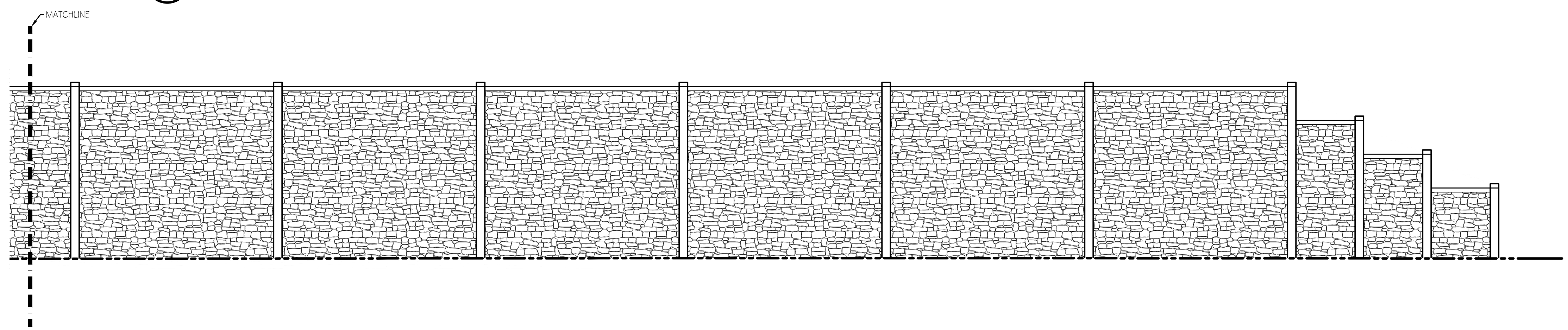
SUM-8-1.75
PID No. 91710

A1.01



1 A1.02 NOISE BARRIER ELEVATION: NSA 1A CONTINUES

SCALE: 1/8" = 1'-0"



2 A1.02 NOISE BARRIER ELEVATION: NSA 1A CONTINUES

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.
3. CONTRACTOR TO SEE SHEET A2.01, A2.02, & A2.03 FOR AESTHETIC CONCRETE PATTERN INFORMATION & DETAILS.
4. ALL BLANK AREAS WITHOUT NOMENCLATURE SHALL NOT HAVE ANY CONCRETE PATTERNS, UNLESS OTHERWISE NOTED.
5. ~~ALL AESTHETIC CONCRETE PATTERNS WITH NOMENCLATURE "R" SHALL BE FABRICATED WITH THE CORRESPONDING FORM LINERS ROTATED 180°~~
6. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION:
7. WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.
8. THE COLOR OF ALL ROADWAY-FACING SIDES OF THE NOISE WALL PANELS SHALL BE WF-3, GENERAL/TAN, FEDERAL COLOR NUMBER 23448.

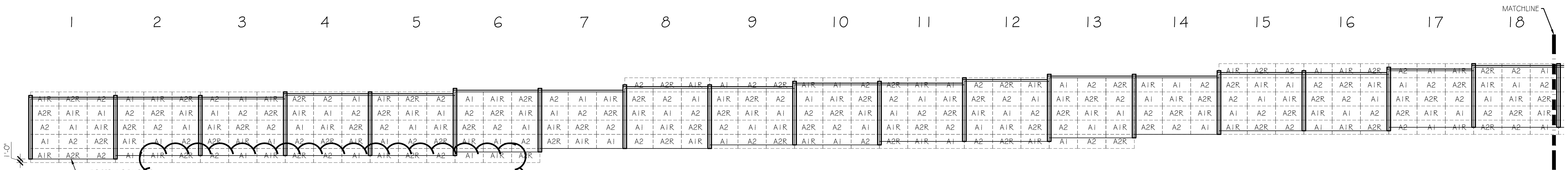
DESIGN AGENCY CDR

DESIGNED	DRAWN	REVIEWED	DATE
SW	BT	JH	12/18/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JH		7700370/7700371	

AESTHETIC ELEVATIONS: NOISE BARRIER NO. 1A
STA. 0+74 TO STA. 9+02

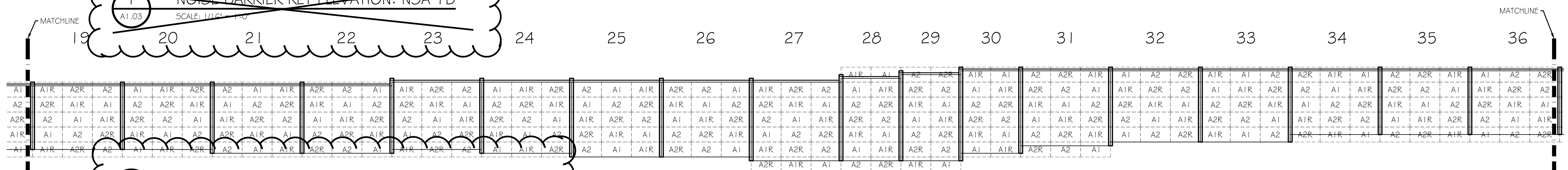
SUM-8-1.75
PID No. 91710

A1.02



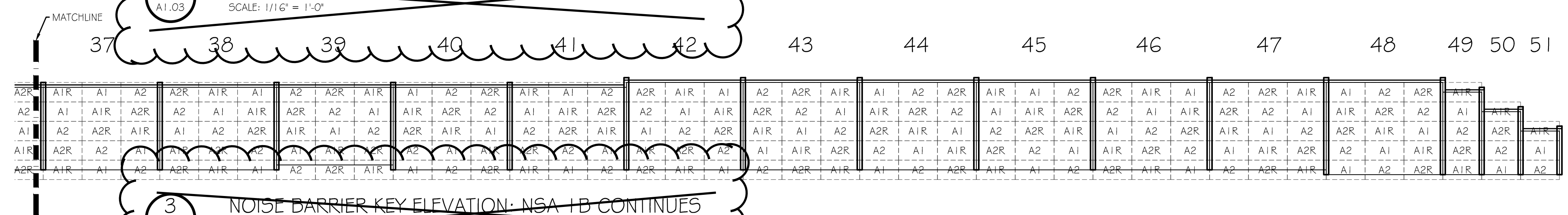
~~NOISE BARRIER KEY ELEVATION: NSA 1B~~ (1, A1.03)

~~SCALE: 1/16" = 1'-0"~~



~~NOISE BARRIER KEY ELEVATION: NSA 1B CONTINUES~~ (2, A1.03)

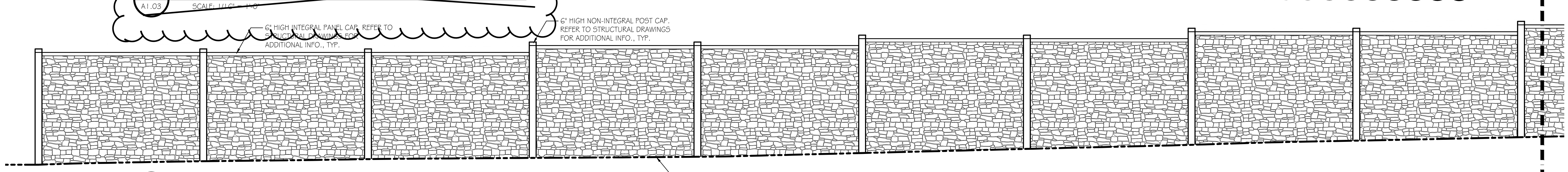
~~SCALE: 1/16" = 1'-0"~~



~~NOISE BARRIER KEY ELEVATION: NSA 1B CONTINUES~~ (3, A1.03)

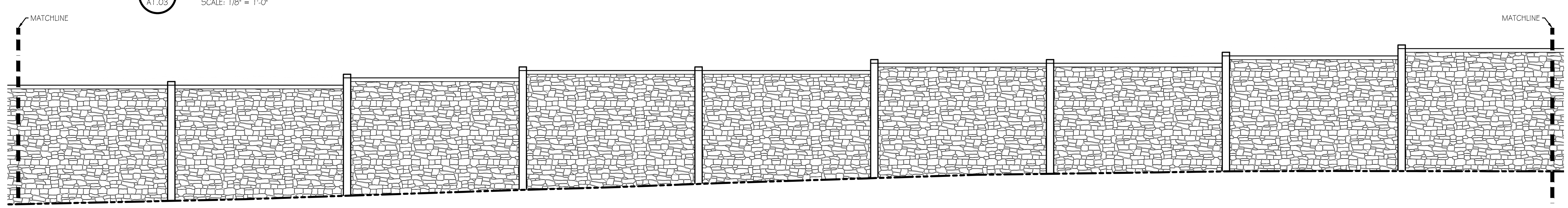
~~SCALE: 1/16" = 1'-0"~~

THE AESTHETIC FORMLINER PATTERNS SHOWN IN THE KEY ELEVATIONS ON THIS SHEET SHALL NOT APPLY. STANDARD PANELS AND SHOP DRAWINGS SHALL BE PROVIDED PER SCD NBS-1-09.



NOISE BARRIER ELEVATION: NSA 1B (4, A1.03)

SCALE: 1/8" = 1'-0"



NOISE BARRIER ELEVATION: NSA 1B CONTINUES (5, A1.03)

SCALE: 1/8" = 1'-0"

6. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION:

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8. THE COLOR OF ALL ROADWAY-FACING SIDES OF THE NOISE WALL PANELS SHALL BE WF-3, GENERAL/TAN, FEDERAL COLOR NUMBER 23448.

GENERAL SHEET NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.
3. CONTRACTOR TO SEE SHEET A2.01, A2.02, & A2.03 FOR AESTHETIC CONCRETE PATTERN INFORMATION & DETAILS.
4. ALL BLANK AREAS WITHOUT NOMENCLATURE SHALL NOT HAVE ANY CONCRETE PATTERNS, UNLESS OTHERWISE NOTED.
5. ~~ALL AESTHETIC CONCRETE PATTERNS WITH NOMENCLATURE "R" SHALL BE FABRICATED WITH THE CORRESPONDING FORM LINERS ROTATED 180°.~~

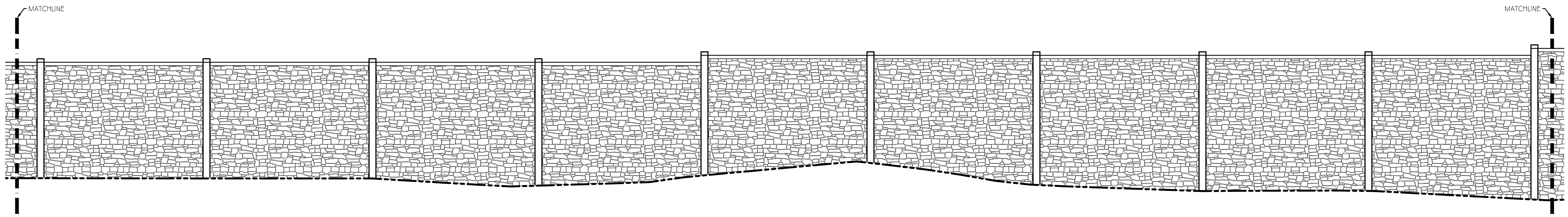
DESIGN AGENCY
CDR
www.creativedesignresolutions.com
3413 Windom Road
Brentwood, MD 20722
phone: 301-699-0581

DESIGNED	DRAWN	REVIEWED	DATE
SW	BT	JH	12/18/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JH		7700370/7700371	

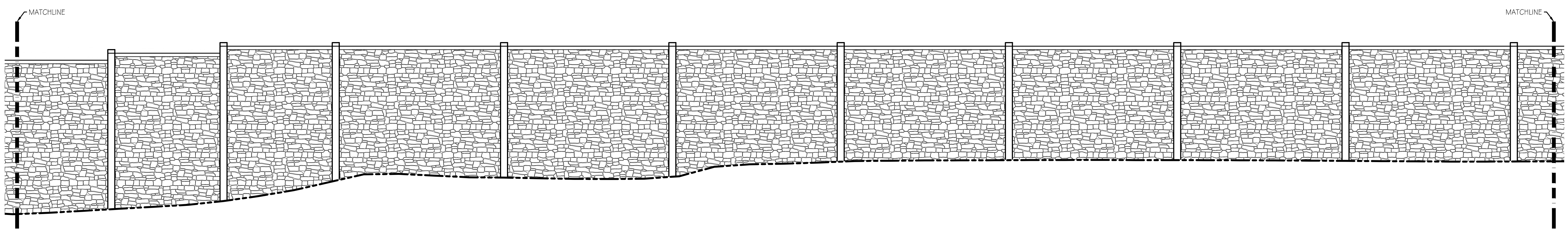
AESTHETIC ELEVATIONS: NOISE BARRIER NO. 1B
STA. 15+00 TO STA. 21+60

SUM-8-1.75
PID No. 91710

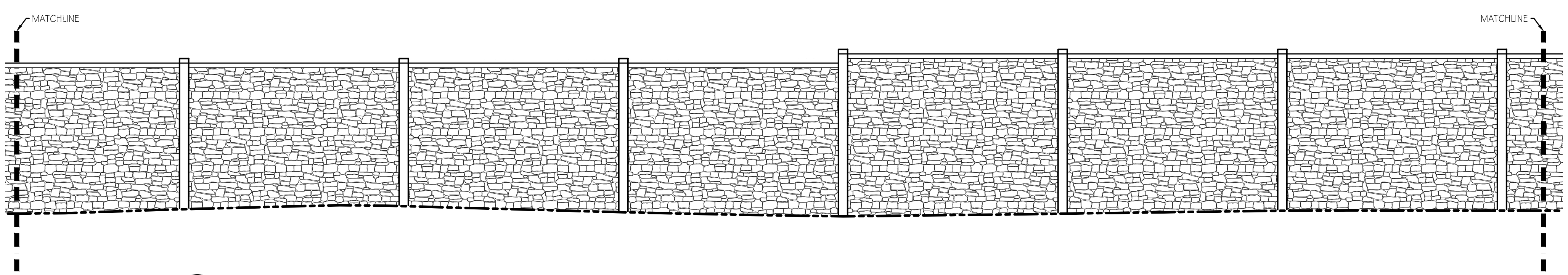
A1.03



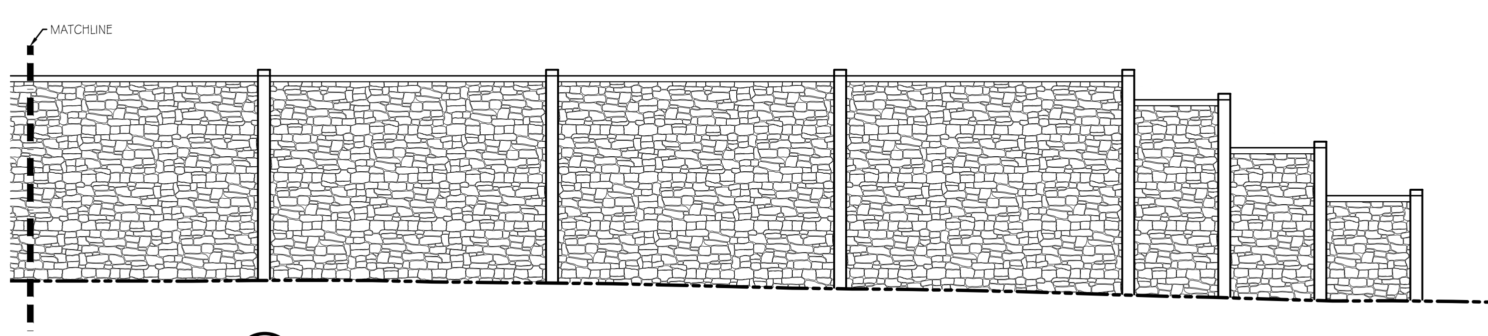
1 A1.04 NOISE BARRIER ELEVATION: NSA 1B CONTINUES
SCALE: 1/8" = 1'-0"



2 A1.04 NOISE BARRIER ELEVATION: NSA 1B CONTINUES
SCALE: 1/8" = 1'-0"



3 A1.04 NOISE BARRIER ELEVATION: NSA 1B CONTINUES
SCALE: 1/8" = 1'-0"



4 A1.04 NOISE BARRIER ELEVATION: NSA 1B CONTINUES
SCALE: 1/8" = 1'-0"

6. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION.

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8. THE COLOR OF ALL ROADWAY-FACING SIDES OF THE NOISE WALL PANELS SHALL BE WF-3, GENERAL/TAN, FEDERAL COLOR NUMBER 23448.

GENERAL SHEET NOTE

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3. CONTRACTOR TO SEE SHEET A2.01, A2.02, & A2.03 FOR AESTHETIC CONCRETE PATTERN INFORMATION & DETAILS.

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www.creativedesignresolutions.com
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Brentwood, MD 20722
phone: 301-699-0581

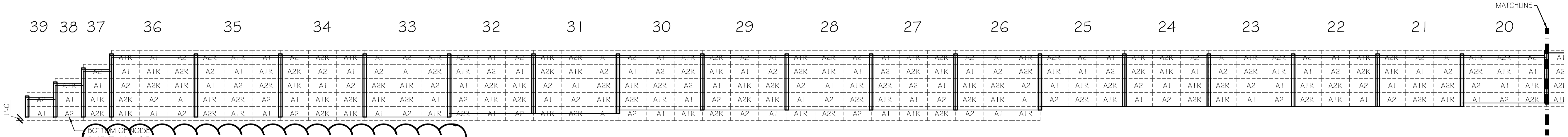
DESIGNED SW	DRAWN BT	REVIEWED JH / DATE 12/18/2020
CHECKED JH	REVISED	STRUCTURE FILE NUMBER 7700370/7700371

AESTHETIC ELEVATIONS: NOISE BARRIER NO. 1B
STA. 15+00 TO STA. 21+60

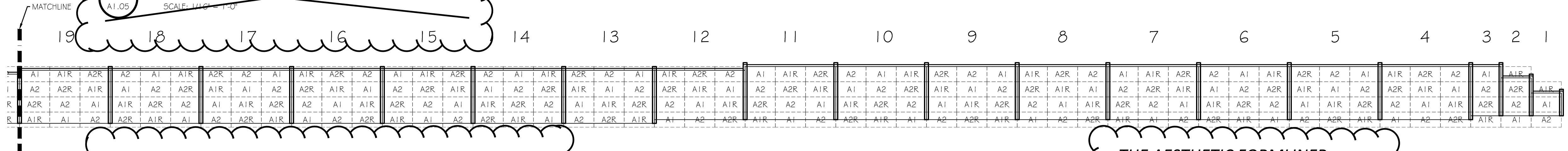
SUM-8-1.75
PID No. 91710

A1.04

485
801

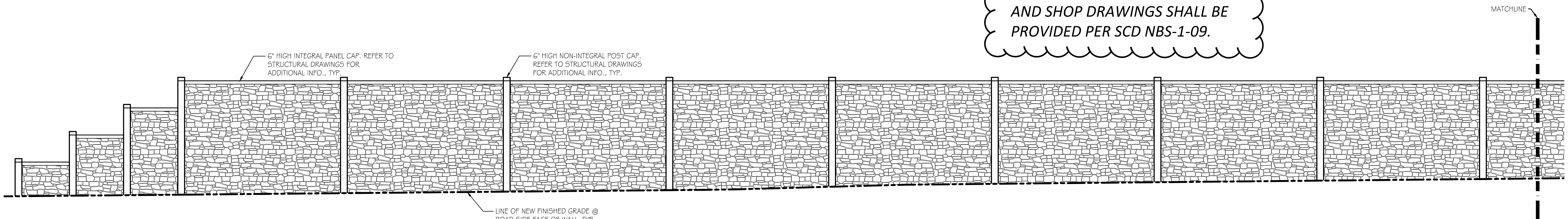


~~1 NOISE BARRIER KEY ELEVATIONS: NSA 2A~~
A1.05 SCALE: 1/16" = 1'-0"

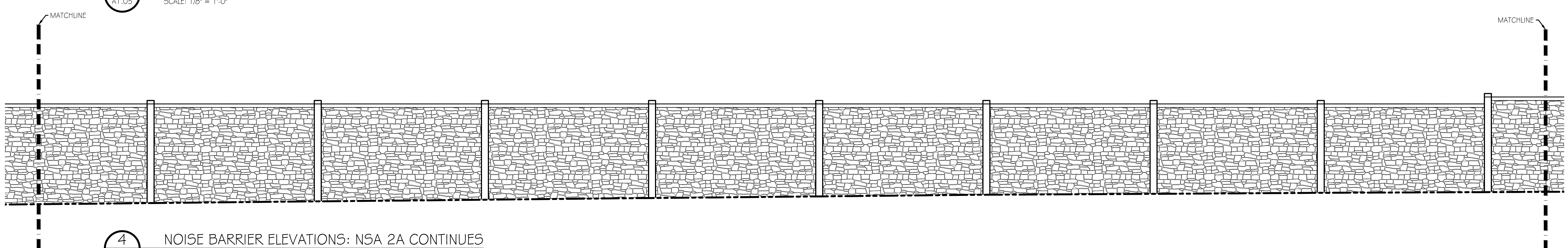


~~2 NOISE BARRIER KEY ELEVATIONS: NSA 2A CONTINUES~~
A1.05 SCALE: 1/16" = 1'-0"

THE AESTHETIC FORMLINER PATTERNS SHOWN IN THE KEY ELEVATIONS ON THIS SHEET SHALL NOT APPLY. STANDARD PANELS AND SHOP DRAWINGS SHALL BE PROVIDED PER SCD NBS-1-09.



3 NOISE BARRIER ELEVATIONS: NSA 2A
A1.05 SCALE: 1/8" = 1'-0"



4 NOISE BARRIER ELEVATIONS: NSA 2A CONTINUES
A1.05 SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.
3. CONTRACTOR TO SEE SHEET A2.01, A2.02, & A2.03 FOR AESTHETIC CONCRETE PATTERN INFORMATION & DETAILS.
4. ALL BLANK AREAS WITHOUT NOMENCLATURE SHALL NOT HAVE ANY CONCRETE PATTERNS, UNLESS OTHERWISE NOTED.
5. ~~ALL AESTHETIC CONCRETE PATTERNS WITH NOMENCLATURE "R" SHALL BE FABRICATED WITH THE CORRESPONDING FORM LINERS ROTATED 180°.~~
6. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION:
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8. THE COLOR OF ALL ROADWAY-FACING SIDES OF THE NOISE WALL PANELS SHALL BE WF-3, GENERAL/TAN, FEDERAL COLOR NUMBER 23448.

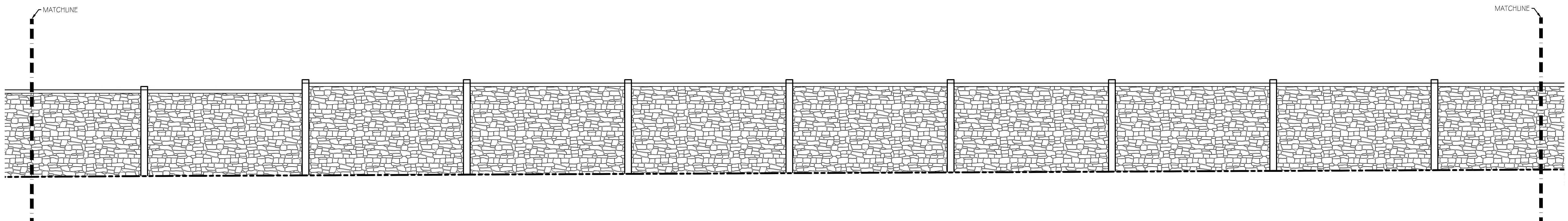
DESIGN AGENCY: CDR

DESIGNED	DRAWN	REVIEWED	DATE
SW	BT	JH	12/18/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JH		7700370/7700371	

AESTHETIC ELEVATIONS: NOISE BARRIER NO. 2A
STA. 30+96 TO STA. 39+44

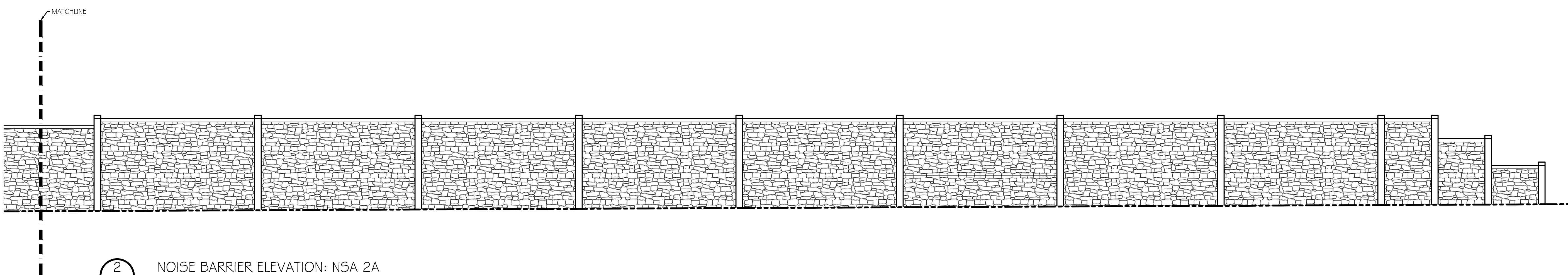
SUM-8-1.75
PID No. 91710

A1.05



1 / A1.06 — NOISE BARRIER ELEVATION: NSA 2A CONTINUES

SCALE: 1/8" = 1'-0"



2 / A1.06 — NOISE BARRIER ELEVATION: NSA 2A

SCALE: 1/8" = 1'-0"

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8. THE COLOR OF ALL ROADWAY-FACING SIDES OF THE NOISE WALL PANELS SHALL BE WF-3, GENERAL/TAN, FEDERAL COLOR NUMBER 23448.

GENERAL SHEET NOTE

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5. ~~ALL AESTHETIC CONCRETE PATTERNS WITH NOMENCLATURE "R" SHALL BE FABRICATED WITH THE CORRESPONDING FORM LINERS ROTATED 180°.~~

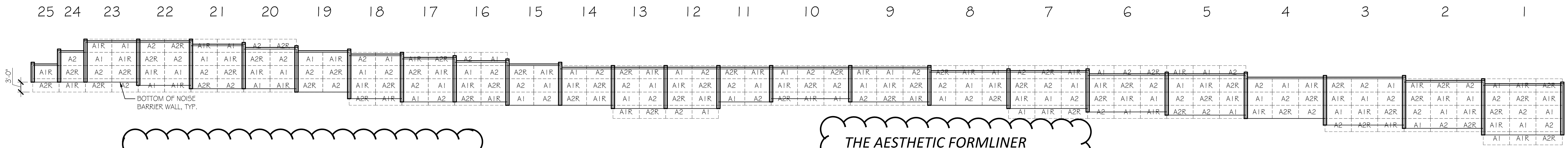
DESIGN AGENCY
CDR

DESIGNED	DRAWN	REVIEWED	DATE
SW	BT	JH	12/18/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JH		7700370/7700371	

AESTHETIC ELEVATIONS: NOISE BARRIER NO. 2A
STA. 30+96 TO STA. 39+44

SUM-8-1.75
PID No. 91710

A1.06



~~① A1.07 NOISE BARRIER KEY ELEVATION: NSA 2B~~

~~SCALE: 1/16" = 1'-0"~~

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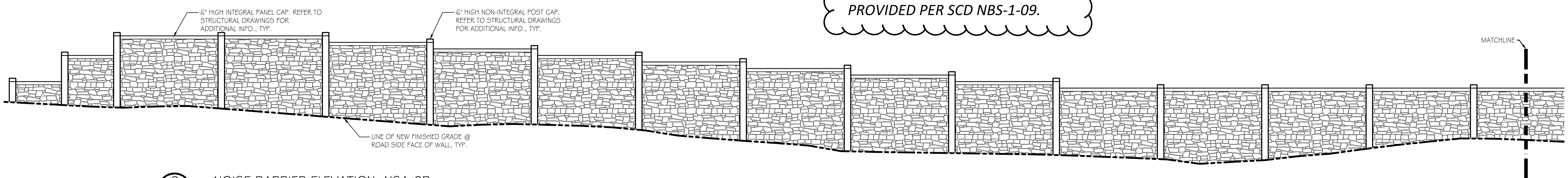
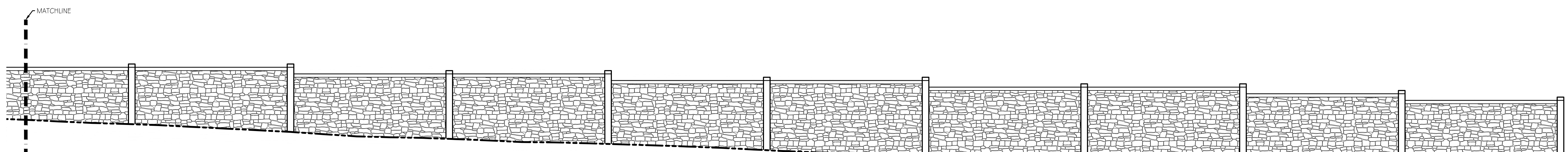


② A1.07 NOISE BARRIER ELEVATION: NSA 2B

SCALE: 1/8" = 1'-0"



③ A1.07 NOISE BARRIER ELEVATION: NSB 2A CONTINUES

SCALE: 1/8" = 1'-0"

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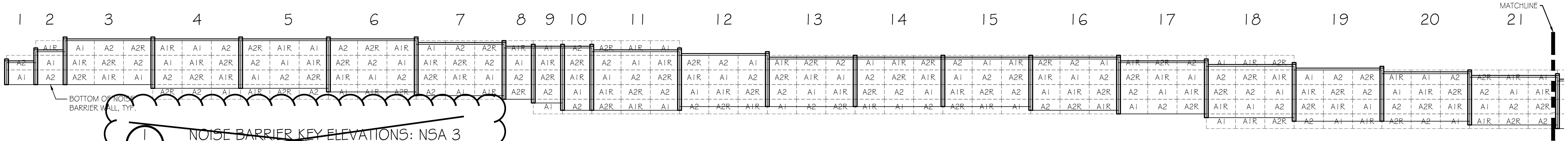
DESIGNED SW	DRAWN BT	REVIEWED JH	DATE 12/18/2020
CHECKED JH	REVISED	STRUCTURE FILE NUMBER 7700370/7700371	

AESTHETIC ELEVATIONS: NOISE BARRIER NO. 2B
STA. 40+48 TO STA. 45+08

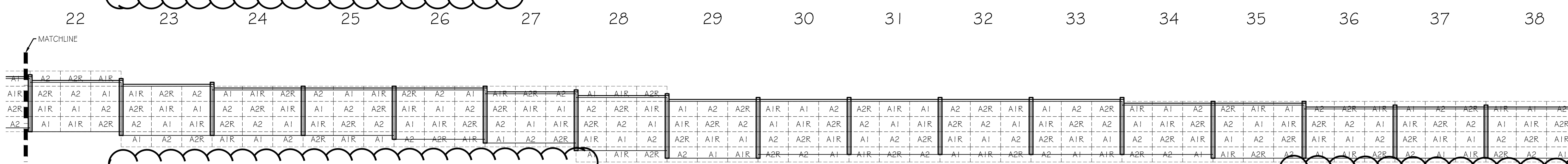
SUM-8-1.75
PID No. 91710

A1.07



~~NOISE BARRIER KEY ELEVATIONS: NSA 3~~ (1 / A1.08)

~~SCALE: 1/16" = 1'-0"~~



~~NOISE BARRIER KEY ELEVATIONS: NSA 3 CONTINUES~~ (2 / A1.08)

~~SCALE: 1/16" = 1'-0"~~

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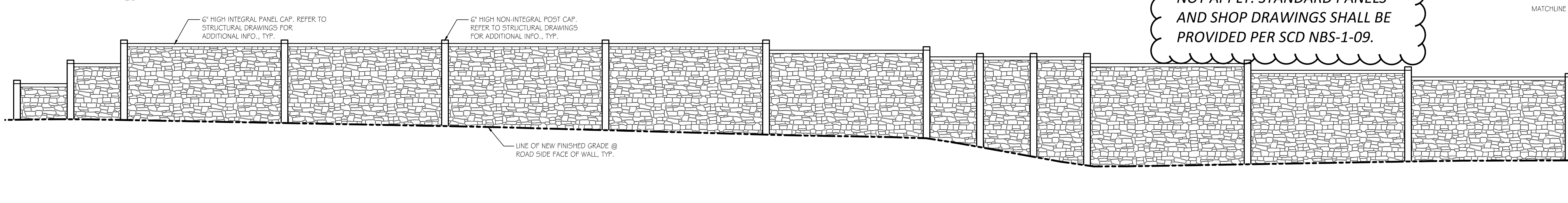
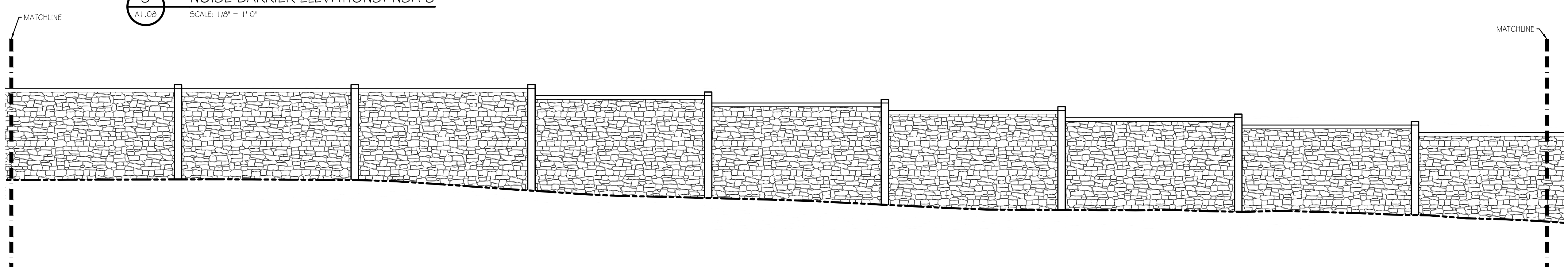


NOISE BARRIER ELEVATIONS: NSA 3 (3 / A1.08)

SCALE: 1/8" = 1'-0"



NOISE BARRIER ELEVATIONS: NSA 3 CONTINUES (4 / A1.08)

SCALE: 1/8" = 1'-0"

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5. ~~ALL AESTHETIC CONCRETE PATTERNS WITH NOMENCLATURE "R" SHALL BE FABRICATED WITH THE CORRESPONDING FORM LINERS ROTATED 180°.~~
6. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION:
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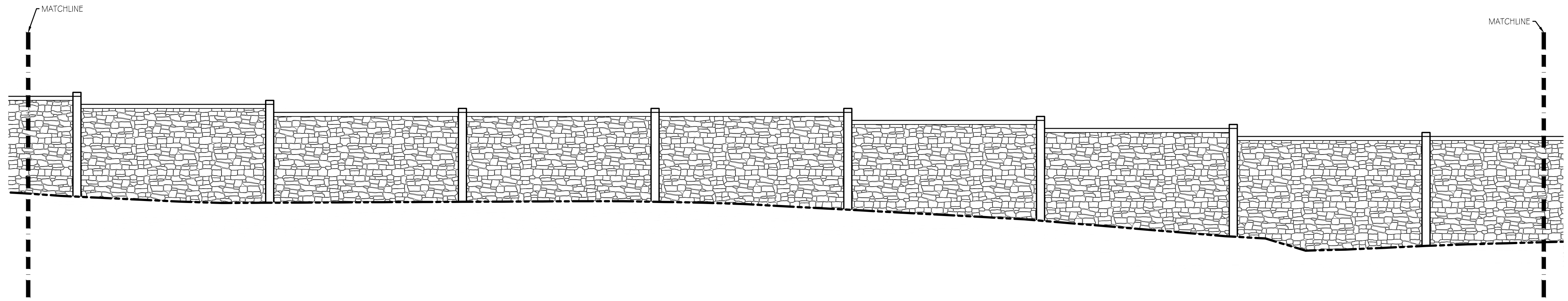
DESIGN AGENCY: CDR

REVIEWED: JH	DATE: 12/18/2020
STRUCTURE FILE NUMBER	7700370/7700371
DRAWN: BT	REVISED
DESIGNED: SW	CHECKED: JH

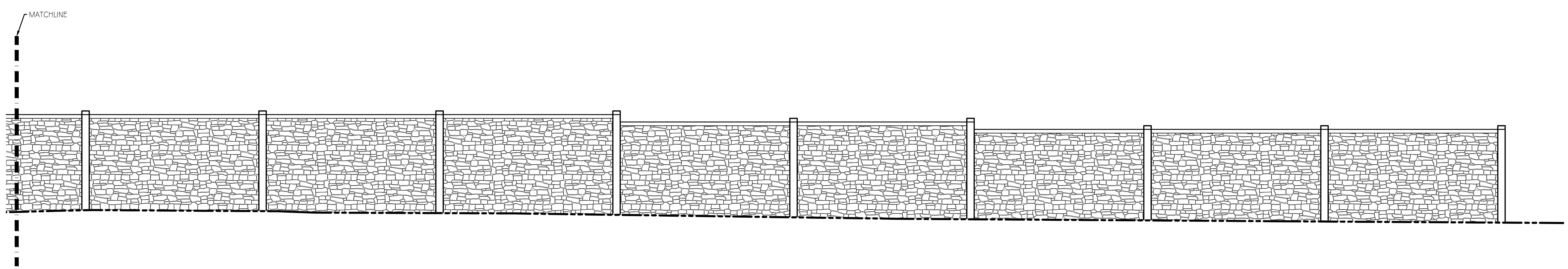
AESTHETIC ELEVATIONS: NOISE BARRIER NO. 3
STA. 51+04 TO STA. 59+36

SUM-8-1.75
PID No. 91710

A1.08



1 / A1.09 NOISE BARRIER ELEVATIONS: NSA 3 CONTINUES
SCALE: 1/8" = 1'-0"



2 / A1.09 NOISE BARRIER ELEVATIONS: NSA 3 CONTINUES
SCALE: 1/8" = 1'-0"

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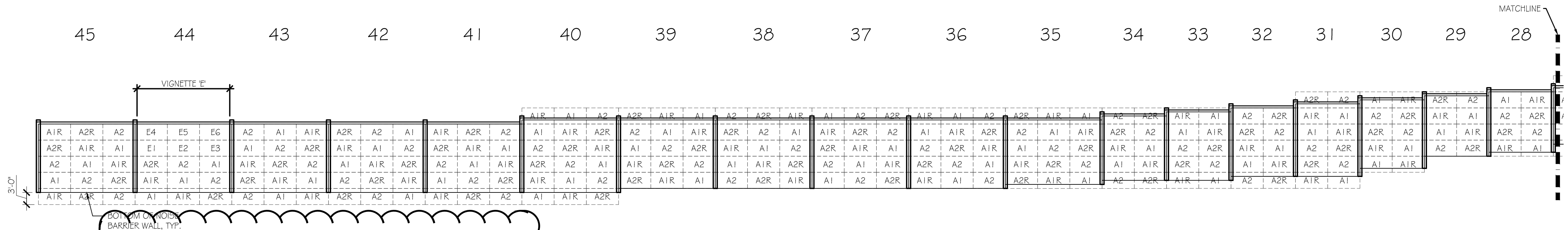
AESTHETIC ELEVATIONS: NOISE BARRIER NO. 3
STA. 51+04 TO STA. 59+36

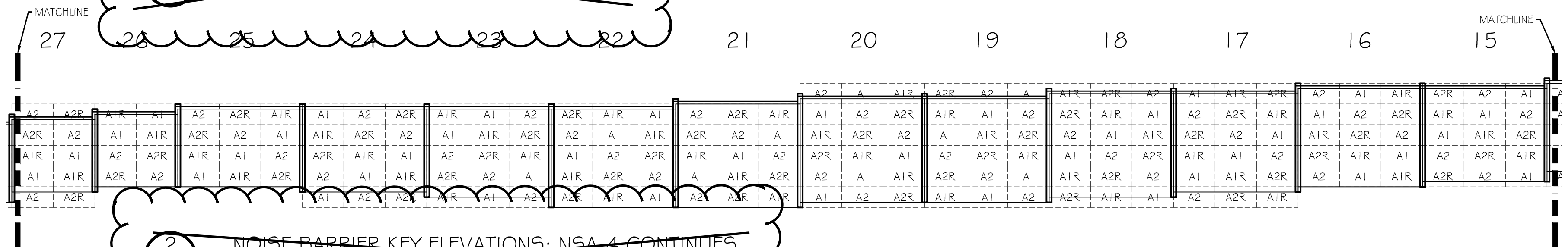
SUM-8-1.75
PID No. 91710

A1.09

490 / 801



1 NOISE BARRIER KEY ELEVATIONS: NSA 4
A1.10 SCALE: 1/16" = 1'-0"



2 NOISE BARRIER KEY ELEVATIONS: NSA 4 CONTINUES
A1.10 SCALE: 1/16" = 1'-0"

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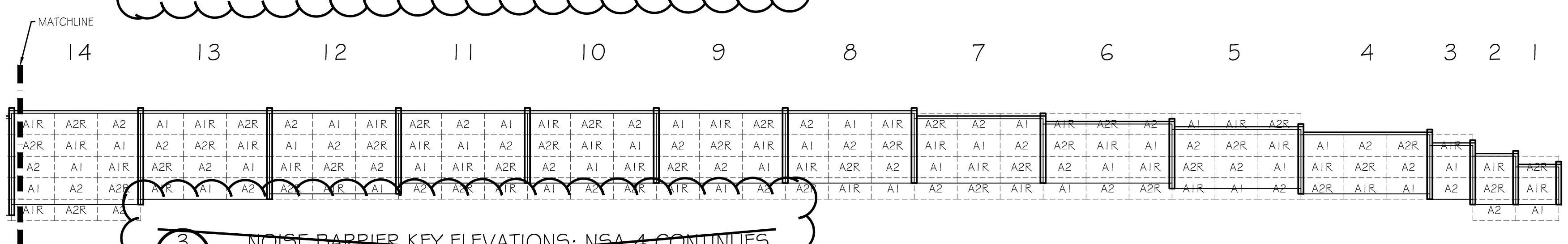
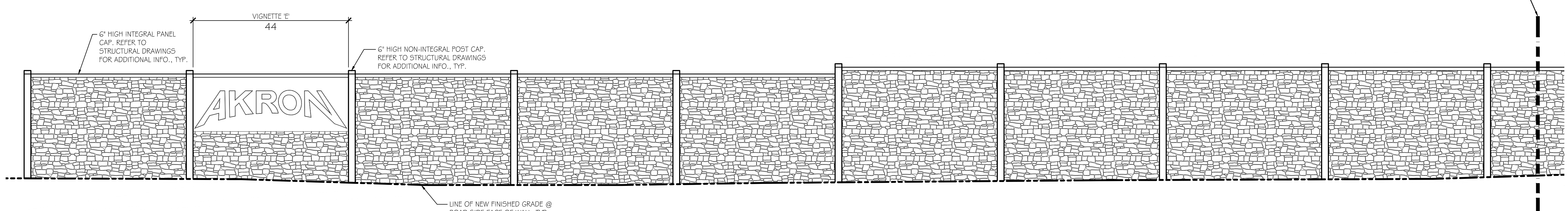


3 NOISE BARRIER KEY ELEVATIONS: NSA 4 CONTINUES
A1.10 SCALE: 1/16" = 1'-0"



4 NOISE BARRIER ELEVATIONS: NSA 4
A1.10 SCALE: 1/8" = 1'-0"

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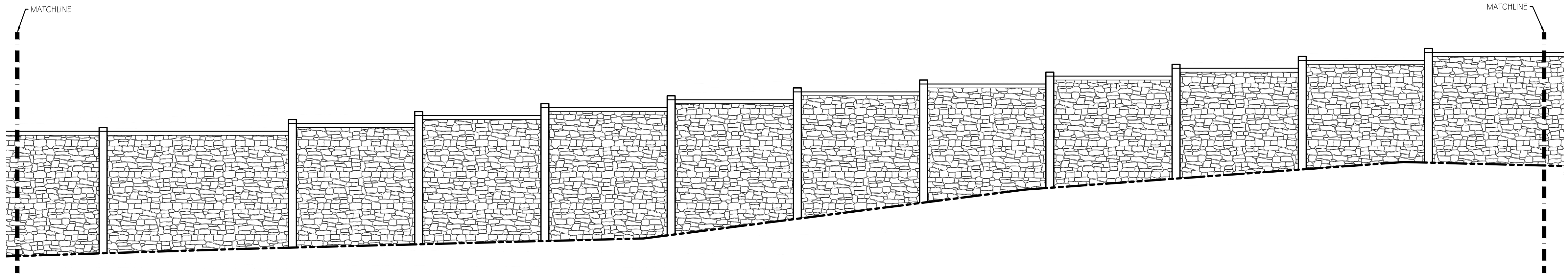
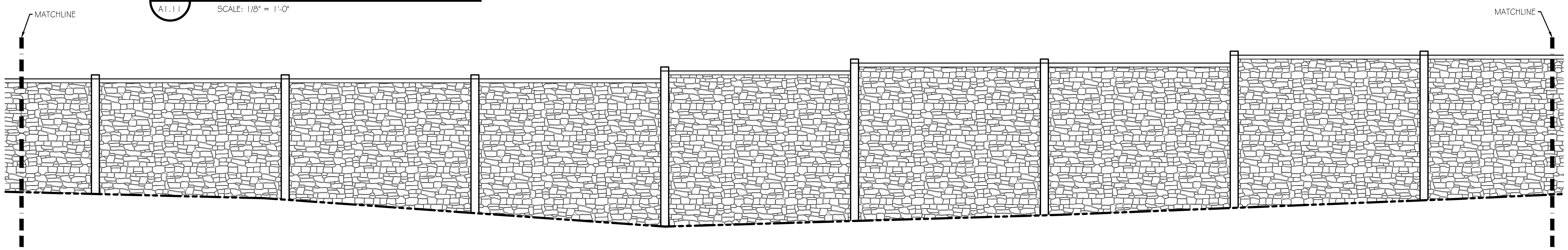
AESTHETIC ELEVATIONS: NOISE BARRIER NO. 4
STA. 70+00 TO STA. 79+60

SUM-8-1.75
PID No. 91710

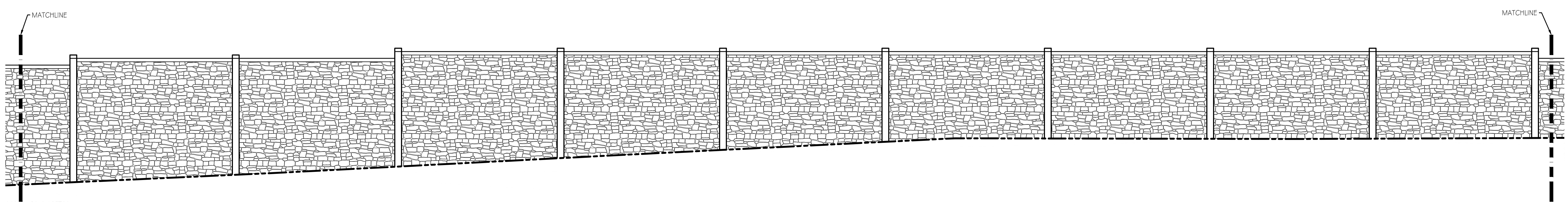
A1.10



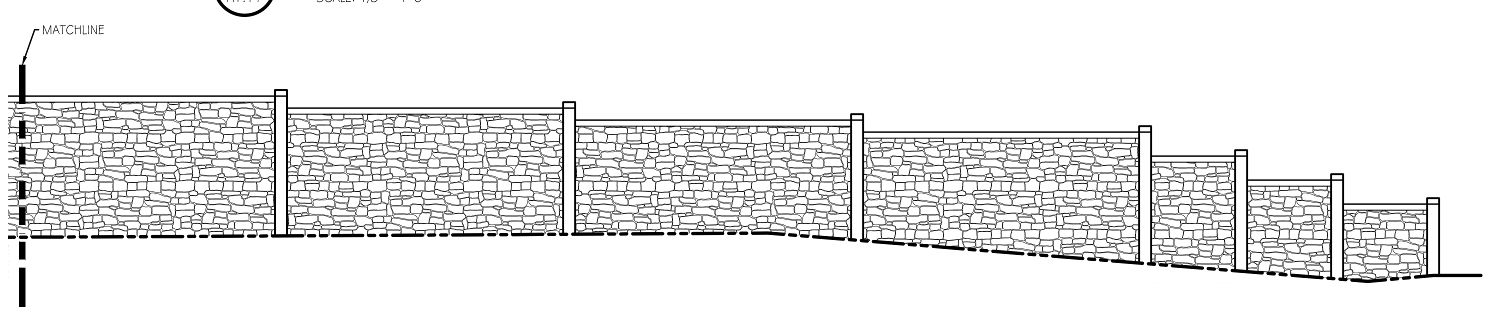
① A1.11 NOISE BARRIER ELEVATIONS: NSA 4
SCALE: 1/8" = 1'-0"



② A1.11 NOISE BARRIER ELEVATIONS: NSA 4 CONTINUES
SCALE: 1/8" = 1'-0"



③ A1.11 NOISE BARRIER ELEVATIONS: NSA 4 CONTINUES
SCALE: 1/8" = 1'-0"



④ A1.11 NOISE BARRIER ELEVATIONS: NSA 4 CONTINUES
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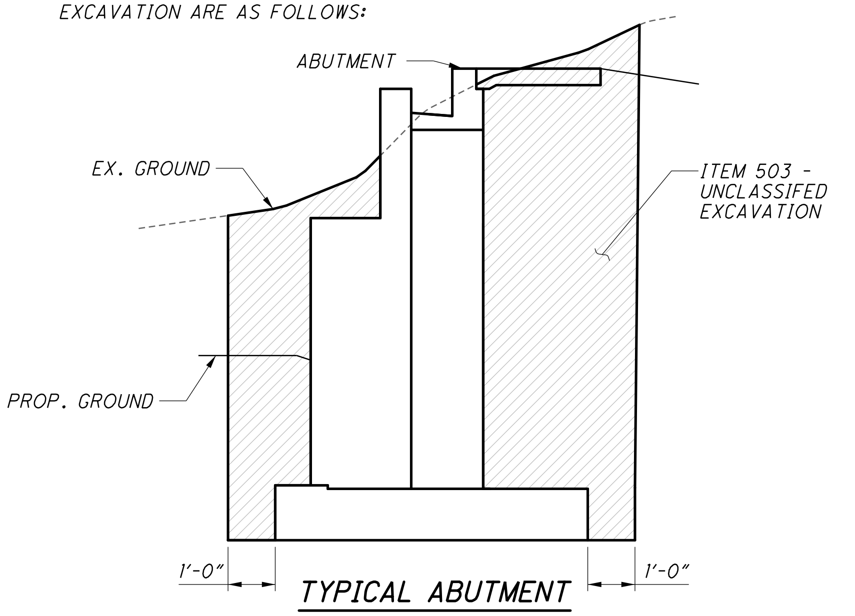
AESTHETIC ELEVATIONS: NOISE BARRIER NO. 4
STA. 70+00 TO STA. 79+60

SUM-8-1.75
PID No. 91710

A1.11

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THE BACKFILL MATERIAL BEHIND ABUTMENTS SHALL BE PLACED AND COMPACTED IN 6" MAXIMUM LIFTS. THE LIMITS OF UNCLASSIFIED EXCAVATION ARE AS FOLLOWS:



TYPICAL ABUTMENT

PIER 5L CONTAMINATED SOIL

THIS WORK SHALL CONSIST OF EXCAVATION FOR THE SUM-8-0199L (SOUTHBOUND) PIER 5 FOOTING. CONTAMINATED SOILS ARE ANTICIPATED TO EXIST AT THE FORMER ABC DEMOLITION/HARRIS STREET LANDFILL. LIMITS OF THE CONTAMINATED SOILS AS ENCOUNTERED IN BORING B-015-1-16 ARE SHOWN ON SHEET 541 OF 801. ALL REASONABLE AND FEASIBLE EXCAVATION OPTIONS SHALL BE UTILIZED BY THE CONTRACTOR TO MINIMIZE GRADING, EXCAVATION, AND SHORING TO THIS AREA. ANY HAZARDOUS/CONTAMINATED EXCAVATION MATERIAL ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE CONTAMINATED SOIL NOTE ON PAGE 16/801 OF THE ROADWAY PLAN NOTES. FOLLOW ROADWAY PLAN NOTES FOR PAYMENT.

ITEM 503 - STRUCTURAL EXCAVATION, MISC.: LAUNCHING PIT

THIS WORK SHALL CONSIST OF ALL LABOR, MATERIAL AND EQUIPMENT TO CONSTRUCT THE TEMPORARY WALLS AND LAUNCHING PIT IN ACCORDANCE WITH THE PLANS AND DESIGN REQUIREMENTS SPECIFIED IN THE CONTRACT PLANS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR ITEM 503 - STRUCTURAL EXCAVATION, MISC.: LAUNCHING PIT REFER TO THE STRUCTURAL STEEL ERECTION SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. ANY FILL MATERIAL PLACED SHALL BE COMPACTED IN 6" LIFTS.

ITEM 503 - STRUCTURAL EXCAVATION, MISC.: RECEIVING PIT

THIS WORK SHALL CONSIST OF ALL LABOR, MATERIAL AND EQUIPMENT TO CONSTRUCT THE TEMPORARY WALLS AND RECEIVING PIT IN ACCORDANCE WITH THE PLANS AND DESIGN REQUIREMENTS SPECIFIED IN THE CONTRACT PLANS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR ITEM 503 - STRUCTURAL EXCAVATION, MISC.: RECEIVING PIT REFER TO THE STRUCTURAL STEEL ERECTION SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. ANY FILL MATERIAL PLACED SHALL BE COMPACTED IN 6" LIFTS.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH CMS 501.05 EXCEPT AS REQUIRED FOR SHORING ADJACENT TO RAILROADS AS OUTLINED IN THE NOTE, STRUCTURE EXCAVATION AND SHORING ADJACENT TO RAILROADS, ON SHEET 20/226. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

ITEM 511 - CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA, AS PER PLAN

CONCRETE SHALL CONFORM TO CMS 511 WITH THE EXCEPTION THAT THE CONCRETE SHALL BE 5 KSI FOR PIER CAPS AS DETAILED IN THE PLANS.

ITEM 511 - CLASS QC1 CONCRETE, MISC.: FOOTING APRON

THIS ITEM SHALL CONSIST OF ALL THE LABOR, MATERIAL, AND EQUIPMENT FOR THE CONCRETE APRON TO BE INSTALLED AT PIER 5 FOR BOTH NORTHBOUND AND SOUTHBOUND BRIDGES IN ACCORDANCE WITH THE PLANS AND DESIGN REQUIREMENTS SPECIFIED IN THE CONTRACT PLANS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR ITEM 511 - CLASS QC1 CONCRETE, MISC.: FOOTING APRON.

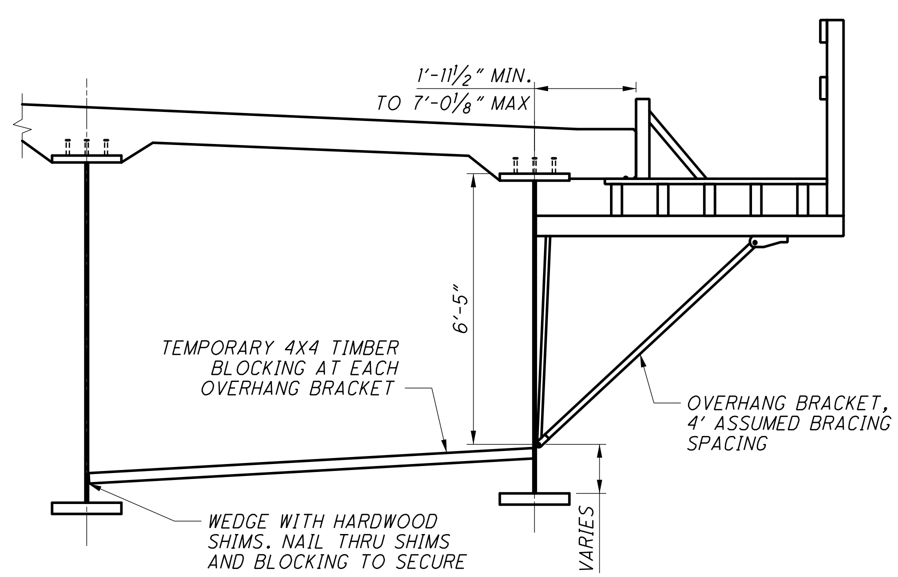
ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN

LOCATE THE LOWER CONTACT POINT OF THE OVERHANG FALSEWORK AT LEAST 42 INCHES ±2 IN. ABOVE THE TOP OF THE GIRDER'S BOTTOM FLANGE. THE BRACKET CONTACT POINT LOCATION REQUIREMENTS OF CMS 508 DO NOT APPLY. IN ADDITION TO THE WORK REQUIREMENTS OF 511, THE CONTRACTOR MAY EITHER PROVIDE TRADITIONAL BRIDGE FORMS, CONFORMING TO CMS 508 OR DESIGN, BUILD, PROVIDE, AND CONSTRUCT GALVANIZED STEEL STAY-IN-PLACE (SIP) FABRICATED METAL FORMS CONFORMING TO CMS 508. THE SIP FORM DEFLECTION SHALL NOT EXCEED 1/240 OF THE FORM SPAN OR 3/4", WHICHEVER IS LESS. SUBMIT 501.06 TEST REPORTS AND WRITTEN ACCEPTANCE LETTERS TO THE ENGINEER. MATERIALS INSPECTION AND ACCEPTANCE IS PERFORMED BY THE ENGINEER AT THE PROJECT SITE. FURNISH FORM, SUPPORT MATERIALS AND HARDWARE CONFORMING TO THE FOLLOWING:

A. FORM AND SUPPORT MATERIAL, ASTM A653 HAVING A COATING DESIGNATION OF G235, AND CONFORMING TO THE MECHANICAL PROPERTIES THE DESIGN REQUIRES.
B. PROVIDE DECK FORMS WITH A 2-INCH MINIMUM FORM DEPTH.
C. PROVIDE MINIMUM MATERIAL THICKNESS AS FOLLOWS: SIP FORMS (20 GAGE), SUPPORT ANGLES (20 GAGE) AND SUPPORT BARS (12 GAGE).
D. SUPPLY ZINC COATED DECK, SELF DRILLING FASTENERS. THE HEADS OF THESE FASTENERS WILL BE A HIGHLY VISIBLE COLOR, RED OR OTHER, TO AID THE INSPECTION.

THE DEPARTMENT WILL NOT SEPARATELY PAY FOR SIP FORMS. THE COST OF THIS WORK IF CHOSEN BY THE CONTRACTOR SHALL BE INCLUDED FOR PAYMENT IN THE PRICE BID FOR ITEM 511. THE DEPARTMENT WILL NOT PAY FOR ANY ADDITIONAL CONCRETE, REINFORCING STEEL, OR STRUCTURAL STEEL THAT MAY BE REQUIRED WHEN USING SIP FORMS. ANY ADDITIONAL COST AND/OR DESIGN ASSOCIATED WITH THE USE OF SIP FORMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ADDITIONAL DEAD LOAD OF THE SIP FORM PLUS THE WEIGHT OF THE ADDITIONAL CONCRETE WAS CALCULATED AS SPECIFIED IN THE DESIGN LOADS AND WAS INCLUDED IN THE DESIGN OF THE THE BRIDGE BEAMS OR GIRDERS, CAMBER DIAGRAMS, DECK SCREED TABLES, BRIDGE BEARINGS AND SUBSTRUCTURES. SHOULD THE CONTRACTOR CHANGE ANY LOAD SPECIFIED IN THE DESIGN LOADS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DESIGN, FABRICATION, AND INSTALLATION MODIFICATIONS TO THE BRIDGE COMPONENTS INCLUDING THE BRIDGE BEAMS OR GIRDERS, CAMBER DIAGRAMS, DECK SCREED TABLES, BRIDGE BEARINGS, AND SUBSTRUCTURES. ALL PLAN MODIFICATIONS SHALL BE PREPARED AS PER 501.

PROVIDE TEMPORARY BLOCKING TO SUPPORT LOWER CONTACT POINT. SUGGESTED DETAIL SHOWN BELOW.

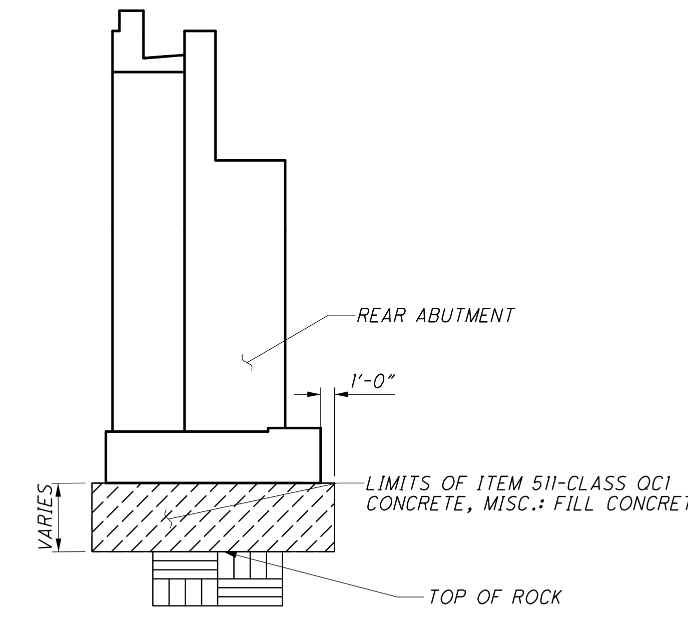


ITEM 511 - CLASS QC1 CONCRETE, MISC: FILL CONCRETE

PLACE CLASS QC1 CONCRETE, MISC.: FILL CONCRETE FROM A DISTANCE OF THE BOTTOM OF REAR ABUTMENT FOOTING TO THE TOP OF BEDROCK, AS DETERMINED BY THE ENGINEER. CLASS QC1 CONCRETE, MISC.: FILL CONCRETE SHALL BE PLACED NEAT AGAINST NATIVE ROCK.

THIS ITEM CONSISTS OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR EXCAVATION TO THE TOP OF BEDROCK AS WELL AS DEWATERING AND CONCRETE PLACEMENT. NO PAYMENT WILL BE MADE FOR OVER-EXCAVATION AND PLACEMENT IN EXCESS OF THE LATERAL LIMITS LOCATED ONE FOOT BEYOND THE LIMIT OF THE PROPOSED FOOTING OR AS INDICATED ON THE PLANS. ADDITIONAL EXCAVATION AND PLACEMENT OF AREAS TO ACCOMMODATE THE CONTRACTOR'S MEANS AND METHODS WILL BE CONSIDERED INCIDENTAL TO THIS WORK.

ITEM 511 - CLASS QC1 CONCRETE, MISC: FILL CONCRETE (CONTINUED)



REAR ABUTMENT SECTION

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN

APPLY A PERMANENT ANTI-GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. APPLY THE ANTI-GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN

SEALING AND COLOR STAINING OF REAR ABUTMENT, PIERS AND PARAPETS SHALL BE IN ACCORDANCE WITH THE PIER AND AESTHETIC DETAIL SHEETS.

ITEM 513 - STRUCTURAL STEEL, MISC.: MONUMENT

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT THE STEEL MONUMENT. ALL PROVISIONS OF 513 SHALL APPLY.

ITEM 513 - STRUCTURAL STEEL, MISC.: STRUCTURAL STEEL ERECTION EQUIPMENT

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT THE LAUNCHING NOSE, LAUNCHING TAIL, KINGPOST, TEMPORARY BRACING, ROLLERS, AND ALL OTHER TEMPORARY DETAILS NECESSARY. REFER TO THE STRUCTURAL STEEL ERECTION SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

ITEM 513 - STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN

A. DESCRIPTION

1. THIS WORK CONSISTS OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT STRUCTURAL STEEL MEMBERS UTILIZING THE LAUNCHING METHODS SHOWN IN THESE PLANS AND AS PER SPECIAL PROVISIONS PROVIDED IN THE FINAL BID DOCUMENTS.

2. ALL STEEL MEMBERS SHALL BE DESIGNATED AS LEVEL 6 FABRICATION.

3. THIS WORK SHALL BE PERFORMED PER ITEM 513 STRUCTURAL STEEL MEMBER, LEVEL SIX EXCEPT AS MODIFIED BY THE STEEL BRIDGE FABRICATION GUIDE SPECIFICATIONS (AASHTO/NSBA STEEL BRIDGE COLLABORATION 2018), AND AS MODIFIED IN THESE PLAN NOTES.

B. MATERIALS

1. STEEL FOR GIRDER WEBS AND FLANGES SHALL BE A COMBINATION OF ASTM A709 GRADE HPS70W MANUFACTURED BY THE THERMO-MECHANICAL CONTROLLED PROCESSING (TMCP) OR QUENCHED AND TEMPERED HEAT TREATMENT PROCESSING ALONG WITH ASTM A588/709 GRADE 50W. ALL OTHER STEEL SHALL BE ASTM A709 GRADE 50W.

2. STEEL DESIGNATED CVN SHALL BE IMPACT TESTED TO EXCEED THE TEST VALUES OF ASTM A709 TABLE S1.2 NON-FRACTURE CRITICAL IMPACT TEST REQUIREMENTS FOR ZONE 2, TEMPERATURE RANGE.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
ABD	ABD	GLG	20-APR
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ELP		7700370/7700371	

GENERAL NOTES (3 OF 7)

BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS (CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

ITEM 517 - RAILING, MISC: DECORATIVE RAILING WITH CHAIN LINK FENCE, AS PER PLAN

DESCRIPTION:

THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FABRICATE, GALVANIZE, CLEAN, APPLYING A TWO COAT SHOP PAINT SYSTEM (EPOXY/URETHANE) AND INSTALLING THE DECORATIVE RAILING WITH INTERCRIMP WOVEN WIRE MESH FABRIC FENCE AS DETAILED IN THESE PLANS AND NOTES. UNLESS OTHERWISE SPECIFIED IN THE PLANS, INSTALL POSTS AND POST SLEEVES PLUMB. FOR ADDITIONAL DETAILS, SEE AESTHETIC PLANS.

SHOP DRAWINGS DETAILING FENCE FABRICATION:

SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH 501.04 AND INCLUDE DETAILS THAT CLEARLY IDENTIFY ALL OF THE REQUIREMENTS LISTED HEREIN. PROVIDE CONNECTIONS CONSISTENT WITH CONCEPTS SHOWN ON THE DRAWING. INDICATE WELDS BY STANDARD AWS SYMBOLS, DISTINGUISHING BETWEEN SHOP AND FIELD WELDS, AND SHOW SIZE, LENGTH AND TYPE OF EACH WELD. IDENTIFY GRINDING FINISH AND PROFILE OF WELDS AS DEFINED HEREIN. INDICATE TYPE, SIZE, FINISH AND LENGTH OF BOLTS, DISTINGUISHING BETWEEN SHOP AND FIELD BOLTS. IDENTIFY HIGH STRENGTH BOLTED SLIP-CRITICAL DIRECT-TENSIONED SHEAR/BEARING CONNECTIONS. CLEARLY INDICATE WHICH SURFACES OR EDGES ARE EXPOSED AND WHAT CLASS OF SURFACE PREPARATION IS BEING USED. INDICATE SPECIAL TOLERANCES AND ERECTION REQUIREMENT AS NOTED ON THE DRAWINGS OR DEFINED HEREIN.

SUBMIT MANUFACTURER'S COLOR CHARTS:

SUBMIT SAMPLES OF EACH COLOR AND MATERIAL TO BE APPLIED, WITH TEXTURE TO SIMULATE ACTUAL CONDITIONS, ON REPRESENTATIVE SAMPLE, OF THE ACTUAL SUBSTRATE. PROVIDE STEPPED SAMPLES, DEFINING EACH SEPARATE COAT, INCLUDING BLOCK FILLERS AND PRIMERS. USE REPRESENTATIVE COLORS WHEN PREPARING SAMPLES FOR REVIEW. RESUBMIT UNTIL REQUIRED SHEEN, COLOR, AND TEXTURE ARE ACHIEVED. PROVIDE A LIST OF MATERIAL AND APPLICATION FOR EACH COAT OF EACH SAMPLE; LABEL EACH SAMPLE AS TO LOCATION AND APPLICATION. SUBMIT SAMPLES ON THE FOLLOWING SUBSTRATES FOR THE FIELD ENGINEER'S REVIEW OF COLOR AND TEXTURE ONLY: FERROUS METAL: TWO 8 INCH LONG SAMPLE OF SOLID METAL FOR EACH COLOR AND FINISH.

FABRIC:

FABRIC SHALL CONSIST OF A 1 INCH INTERCRIMP WOVEN WIRE MESH FABRIC USING 0.12 INCH DIA. (11 GAGE) CRIMPED WIRE CONFORMING TO ASTM E2016 EXCEPT AS NOTED. COATING OF THE MESH SHALL BE IN ACCORDANCE WITH THE FOLLOWING "FABRICATION" SECTION OF THIS NOTE. HANDLE ALL COATED FABRIC WITH CARE. IF THE COATING IS DAMAGED, REPLACE THE DAMAGED PORTION OF THE FABRIC AT NO COST TO THE DEPARTMENT. THE INSTALLATION SHOULD BE AS PER 710.

FABRICATION:

FABRICATION OF THE RAILING SHALL BE IN ACCORDANCE WITH CMS 513, UF LEVEL. COATING OF THE RAILING SHALL BE IN ACCORDANCE WITH CMS 514, EXCEPT AS NOTED BELOW.

THE GALVANIZED COATING SYSTEM MAY BE APPLIED BY A GALVANIZER NOT PRE-QUALIFIED AS A FABRICATION SHOP UNDER SUPPLEMENT 1078, BUT THE PRE-QUALIFIED FABRICATOR OF THE STRUCTURAL STEEL SHALL BE RESPONSIBLE FOR THE QUALITY OF THE APPLIED GALVANIZED COATING SYSTEM AND ANY REPAIRS, RE-FABRICATION AND ADDITIONAL ASSEMBLIES REQUIRED TO ASSURE THE FABRICATED STEEL MEETS THE PLAN REQUIREMENTS.

THE TWO SHOP COATS SHALL BE APPLIED IN A STRUCTURAL STEEL FABRICATION SHOP HAVING PERMANENT BUILDINGS PER 513.04 AND PRE-QUALIFIED AT THE UF LEVEL. THE PAINT QUALITY CONTROL SPECIALIST (QCS) SHALL BE QUALIFIED AS SPECIFIED IN 514.04.

PRIOR TO GALVANIZING, ALL CORNERS OF THERMALLY CUT OR SHEARED EDGES SHALL HAVE A 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE.

GALVANIZE THE FABRICATED RAILING AND HARDWARE ACCORDING TO CMS 711.02, EXCEPT THAT FABRICATED RAILING ELEMENTS SHALL NOT BE POST TREATED WITH WATER QUENCHING OR CHROMATE CONVERSION COATED.

AFTER GALVANIZATION, REMOVE ZINC HIGH SPOTS SUCH AS METAL DRIP LINE AND OTHERS THAT WOULD DETRACT FROM THE PAINT APPEARANCE BY SSPC SP2 OR SP3. TAKE CARE THAT THE BASE GALVANIZED COATING IS NOT REMOVED. CHECK REPAIRED AREAS FOR REQUIRED COATING THICKNESS.

REPAIR GALVANIZED COATINGS DAMAGED IN THE SHOP ACCORDING TO ASTM A780 METHOD A3. REPAIR GALVANIZED COATINGS DAMAGED IN THE FIELD ACCORDING TO ASTM A780 METHOD A1.

AFTER REMOVING HIGH SPOTS, CLEAN THE GALVANIZED COATING ACCORDING TO SSPC SP-1. THE CLEANING SOLUTION SHALL BE AN ALKALINE SOLUTION WITH A PH RANGING FROM A MINIMUM OF 11 TO A MAXIMUM OF 12. THIS SOLUTION CAN BE APPLIED BY IMMERSION, SPRAY OR SOFT NYLON BRUSH. FOLLOW CLEANING WITH A HOT WATER OR HOT PRESSURE WASHER RINSE. SEPARATE INDIVIDUAL PIECES AND POSITION TO FACILITATE DRAINAGE AND DRYING. THE PIECES SHALL BE COMPLETELY DRY BEFORE PROCEEDING.

AFTER CLEANING, ABRASIVE BLAST THE PIECES ACCORDING TO SSPC-SP7 BRUSH-OFF BLAST CLEANING. THE BLASTING OPERATION SHALL ROUGHEN THE GALVANIZED SURFACE TO AN ANGULAR SURFACE PROFILE OF 0.75 TO 1.00 MILLS. SELECT THE BLASTING EQUIPMENT, TECHNIQUE AND ABRASIVE MATERIAL TO PROVIDE FOR THE SPECIFIED SURFACE PROFILE WITHOUT REMOVAL OF EXCESSIVE ZINC LAYERS. THE FINAL ZINC MILAGE SHALL NOT BE LESS THAN 4.0 MILS. REMOVE ALL ABRASIVE RESIDUES WITH CLEAN COMPRESSED AIR OR OTHER METHODS ACCEPTABLE TO THE DEPARTMENT.

AFTER OBTAINING SURFACE PROFILE, SHOP APPLIES A TWO COAT PAINT SYSTEM ACCORDING TO 514 CONSISTING OF EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT MEETING THE REQUIREMENTS OF CMS 708.02. THE FINISH COAT SHALL MATCH FEDERAL COLOR STANDARD NO. 20059. APPLY THE EPOXY COATING WITHIN 24 HOURS OF THE BRUSH-OFF BLASTING.

FENCE POST:

FENCE POST, TOP AND BOTTOM RAILS SHALL BE 2.5 INCH BY 2.5 INCH (OUTSIDE DIMENSION) SQUARE TUBING OR SQUARE CHANNEL CMS 707.10, GRADE 36 OR 50 STEEL TUBE GALVANIZED ACCORDING TO 711.02 WITH A WALL THICKNESS OF 0.25 INCH.

FENCE MIDDLE RAILS:

FENCE MIDDLE RAILS SHALL BE 1.5 INCH BY 1.5 INCH (OUTSIDE DIMENSION) SQUARE CMS 707.10, GRADE 36 OR 50 STEEL TUBE GALVANIZED ACCORDING TO 711.02 WITH A WALL THICKNESS OF 0.125 INCH.

POST SLEEVES:

POST SLEEVES SHALL BE 2.75 INCH BY 2.75 INCH (OUTSIDE DIMENSION) STEEL CMS 707.10, 25,000 PSI MINIMUM YIELD STRENGTH, AND 4.75 LB/FT, GALVANIZED ACCORDING TO 711.02. HEXAGON SOCKET SET SCREW SHALL BE SAE 4140 ALLOY STEEL, HEAT TREATED, WITH FLAT OR OVAL POINT.

BASE PLATE:

BASE PLATES SHALL BE ASTM A709 GRADE 36 OR 50 GALVANIZED ACCORDING TO 711.02.

FASTENERS:

THE 3/8 INCH DIA. STAINLESS STEEL BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH C&MS 730.10.

THE 1/2 INCH DIA. THREADED ROD FOR ADHESIVE ANCHORS SHALL BE ASTM A193, GRADE B7, WITH ASTM A 563 NUTS AND ASTM F 436 WASHERS. MECHANICALLY GALVANIZE ALL ANCHOR HARDWARE ACCORDING TO ASTM B 695, CLASS 65.

USE AN ANCHOR ADHESIVE EVALUATED ACCORDING TO ICCES REPORT AC308, "ACCEPTANCE CRITERIA FOR POST INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS", FOR CRACKED AND UNCRACKED CONCRETE APPLICATIONS. PUBLISHED ICCES REPORTS FOR ACCEPTABLE PRODUCT ARE AVAILABLE AT: WWW.ICC-ES.ORG/EVALUATION_REPORTS/INDEX_SHTML

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

POWERS PE1000+ EPOXY ADHESIVE ANCHOR SYSTEM
(ICCES REPORT ESR-2583)

CHEMFAST C-RE 385 EPOXY ADHESIVE ANCHOR SYSTEM
(ICCES REPORT ESR-2538)

SIMPSON STRONG- TIE SET -XP ADHESIVE ANCHORS
(ICCES REPORT ESR-2508)

WURTH WIT-PE500 EPOXY ADHESIVE ANCHORS
(ICCES REPORT ESR-3051)

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN SECTION 4.3 OF THE ICCES REPORT LISTED ABOVE. THE MINIMUM EMBEDMENT DEPTH FOR ANCHORS SHALL BE 7 INCHES.

FABRIC TIES AND HOG RINGS:

FABRIC TIES AND HOG RINGS SHALL BE 0.148 INCH CORE DIAMETER GALVANIZED PVC COATED STEEL WIRE AND 0.120 INCH ANNEALED STAINLESS STEEL WIRE CONFORMING TO ASTM A478 RESPECTIVELY. TO CONNECT THE FABRIC TO THE LINE POSTS, SUPPLY ONE FABRIC TIE FOR EACH ONE FOOT OF FABRIC HEIGHT. CONNECT THE FABRIC TO THE TENSION WIRE USING HOG RINGS 2-3 INCHES ON EACH SIDE OF THE POSTS AND AT SPACINGS NOT TO EXCEED 12 INCHES BETWEEN POSTS. THE PVC COATING SHALL BE THE SAME AS THAT FOR THE STEEL FABRIC.

FILLET WELDS:

FILLET WELDS SHALL CONFORM TO ODOT 513.

SHIM PLATES:

SHIP PLATES SHALL BE MADE FROM ANY MULTI-POLYMER PLASTIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI IN ORDER TO INSTALL POSTS PLUMB, ENDS OF POSTS AND SLEEVES MAY BE CUT ON A BIAS.

CAULKING COMPOUND:

CAULKING COMPOUND SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-00230 TYPE II, CLASS A, ALUMINUM GRAY. WHEN APPLYING CAULK TO THE BASE PLATE, PROVIDE A 1 INCH OPENING THROUGH THE CAULKING ON LOW SIDE OF BASE PLATE.

SILICONE CAULK:

SILICONE CAULK SHALL CONFORM TO ASTM C-920, TYPE -S, GRADE-NS, CLASS 25, USE NT TEST REQUIREMENTS. COLOR: CLEAR.

CONSTRUCTION PROCEDURE:

1. FIELD VERIFY THE PLAN LOCATIONS OF ALL BASE PLATES AND MARK PARAPET ACCORDINGLY.
2. MARK AND DRILL HOLES FOR THE INCH HIGH STRENGTH THREADED ANCHORS OR 1/2 INCH BOLTS USING A BASE PLATE OR TEMPLATE.
3. INSTALL 1/2 IN DIAMETER HIGH STRENGTH THREADED ANCHORS OR 1/2 INCH BOLTS.
4. INSTALL POSTS AND BASE PLATES AND SHIMS WHERE REQUIRED.
5. CAULK EDGES OF BASE PLATES, SHIMS AND SLEEVES.
6. COMPLETE INSTALLATION OF THE RAIL.

INSTALL FENCING FOR EACH CONSTRUCTION PHASE PRIOR TO OPENING THAT PHASE TO VEHICULAR AND/OR PEDESTRIAN TRAFFIC.

METHOD OF MEASUREMENT:

THE DEPARTMENT WILL MEASURE THE QUANTITY BY THE FOOT. THE DEPARTMENT WILL MEASURE ALONG THE BOTTOM OF THE RAIL INCLUDING END POST.

BASIS OF PAYMENT:

THE DEPARTMENT WILL MAKE PAYMENT FOR THE COMPLETED AND ACCEPTED QUANTITIES AT CONTRACT PRICE AS FOLLOWS:

ITEM	EXT	UNIT	DESCRIPTION
517	75301	FOOT	RAILING, MISC: DECORATIVE RAILING WITH MESH FABRIC FENCE, AS PER PLAN

ESTIMATED QUANTITIES

CALC.	DATE	CHK'D	DATE
ATM	2019 SEP	ELP	2019 SEP

ITEM	ITEM EXT.	TOTAL SOUTHBOUND	TOTAL NORTHBOUND	PART. 01/BRO/11	PART. 02/NHS/31**	PART. 03/NHS/20	PART. 04/NHS/04	UNIT	DESCRIPTION	SOUTHBOUND ABUT.	SOUTHBOUND PIERS	SOUTHBOUND SUPER.	SOUTHBOUND GEN.	NORTHBOUND ABUT.	NORTHBOUND PIERS	NORTHBOUND SUPER.	NORTHBOUND GEN.	SHEET REF.
517	75000	107	109	216				FT	RAILING, ALUMINUM		107				109			
517	76300	3,218	3,155	6,373				FT	RAILING, MISC.: DECORATIVE RAILING WITH MESH FABRIC FENCE, AS PER PLAN			3,218				3,155		19/226
518	12200	21		21				EACH	SCUPPERS, INCLUDING SUPPORTS				21					
518	21200	949	1,096	2,045				CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	949				1,096				
518	42000	241	319	560				FT	8" PERFORATED CORRUGATED PLASTIC PIPE	241				319				
518	42010	202	317	519				FT	8" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	202				317				
518	51101	988		988				FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN				988					18/226
518	62200	3	3	6				EACH	STRUCTURE DRAINAGE, MISC.: PIER DRAINAGE AND VENTILATION		3				3			
523	20000	2	1	3				EACH	DYNAMIC LOAD TESTING	1	1				1			
524	94904	304	328	632				FT	DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK		304				328			
524	94906	841	516	1,357				FT	DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK		841				516			
524	95200	LUMP	LUMP	LUMP					DRILLED SHAFTS, MISC.: SHAFT INSPECTION DEVICE									18/226
526	30010	548	530	1,078				SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")				548				530	
526	90010	167	159	326				FT	TYPE A INSTALLATION				167				159	
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: ACCESS DOORS - PIERS									18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: LADDERS AND PLATFORMS - PIERS									18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: LADDER SAFETY DEVICE - PIERS									18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: BRIDGE CONSTRUCTION MONITORING									18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: INTERIOR LIGHTING - PIERS									18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: LIGHTING - BRIDGES, ABUTMENTS, PIERS									18/226
SPECIAL	530E00200		LUMP		LUMP				STRUCTURE, MISC.: AESTHETIC LIGHTING - MONUMENT									18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: STRUCTURAL SURVEY AND MONITORING OF VIBRATION									18/226
SPECIAL	530E13000	24,875	25,456	50,331				SF	SPECIAL - FORM LINER	1,815	16,460	6,600		3,213	16,443	5,800		18/226
601	20010	385	490	875				CY	CRUSHED AGGREGATE SLOPE *PROTECTION				385				490	
613	41200	400	300	700				CY	LOW STRENGTH MORTAR BACKFILL		400				300			
867	00100	LUMP	LUMP	LUMP					TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL									
869	00101	42	42	84				EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARING, AS PER PLAN	12	30			12	30			18/226
894	10000	32	32	64				EACH	THERMAL INTEGRITY PROFILER (T.I.P.) TEST		32				32			18/226

LEGEND:

* QUANTITY CARRIED TO GENERAL SUMMARY
** QUANTITY APPLIES TO THE REAR ABUTMENT MONUMENT

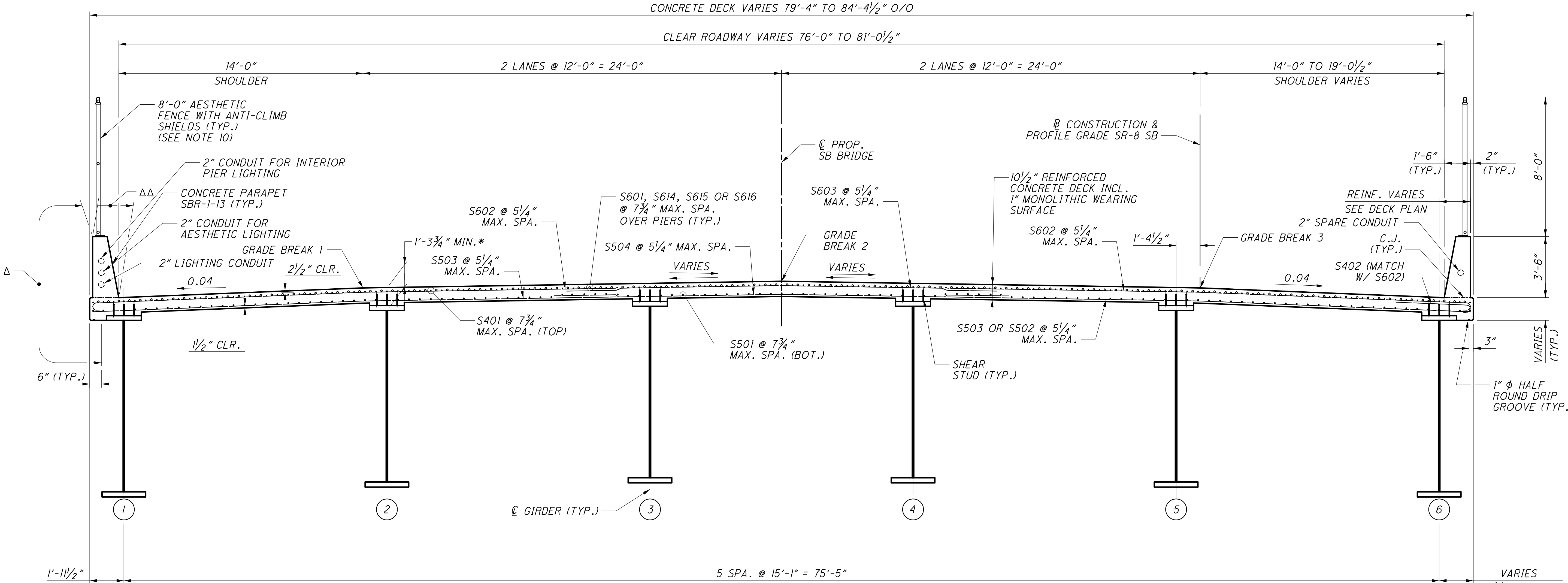
CALCULATED BY: ATM DATE: 2019 SEPT.
CHECKED BY: ELP DATE: 2019 SEPT.

ESTIMATED QUANTITIES (2 OF 2)
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

DESIGN AGENCY ms consultants, inc. 2221 Schrock Road Columbus, Ohio 43229

DESIGNED ATM | CHECKED ELP | DRAWN ATM | REVISED | REVIEWED GLG | DATE 20-APR | STRUCTURE FILE NUMBER 7700370/7700371

SUM-8-1.75
PID No. 91710



SOUTHBOUND TRANSVERSE SECTION

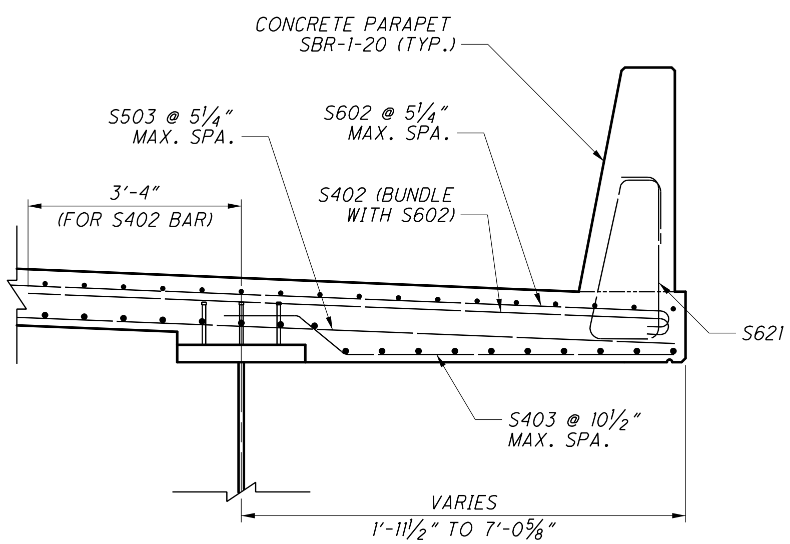
(CROSSFRAMES NOT SHOWN FOR CLARITY)

LEGEND:

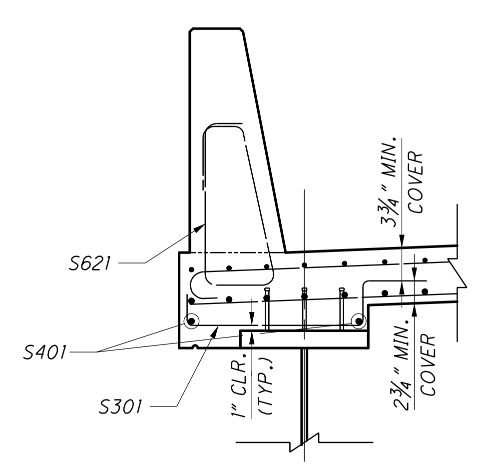
- Δ LIMITS OF SEALING CONCRETE SURFACES (NON-EPOXY), AS PER PLAN (TYP.)
- ΔΔ LIMITS OF SEALING CONCRETE SURFACES (NON-EPOXY) (TYP.)
- (#) PROPOSED GIRDER NUMBER
- * VARIES, REFER TO SOUTHBOUND BRIDGE VARIABLE SUPERSTRUCTURE

NOTES:

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. IF THE CONTRACTOR ELECTS TO USE SIP FORMS, THE COST OF THE CONCRETE IN VALLEYS IS INCIDENTAL TO THE COST OF ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN
2. THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN IN ACCORDANCE WITH 511.24.
3. FOR SOUTHBOUND BRIDGE DECK PLAN, SEE SHEETS 148/226 AND 149/226.
4. CROSS SLOPE VARIES. FOR CROSS SLOPE TRANSITION DIAGRAMS, SEE SHEET 145/226.
5. FOR VARIABLE HAUNCH INFORMATION, SEE SHEET 143/226.
6. FOR TAPERED DECK REINFORCING, SEE DETAILS ON SHEET 150/226.
7. DECK FORMWORK SHALL BE PAID FOR UNDER ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN
8. FOR BARRIER REINFORCING DETAILS, SEE SHEETS 174/226 THROUGH 176/226.
9. FOR SUPERSTRUCTURE BAR LAP LENGTHS, SHEET 148/226.
10. INSTALL ITEM 517 - RAILING, MISC.: DECORATIVE RAILING WITH MESH FABRIC FENCE PRIOR TO SOUTHBOUND BRIDGE OPENING TO TRAFFIC. FOR FENCE POST SPACING, SEE SHEET 174/226.

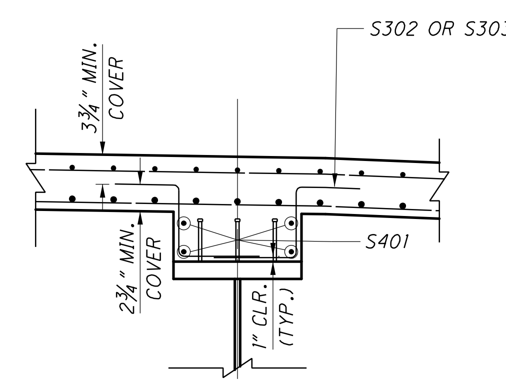


VARIABLE WIDTH OVERHANG @ TAPER



EXTERIOR HAUNCH REINFORCING DETAIL

(N.B. ONLY, SEE PLAN VIEW FOR BAR COUNT)



INTERIOR HAUNCH REINFORCING DETAIL

SOUTHBOUND BRIDGE TRANSVERSE SECTION

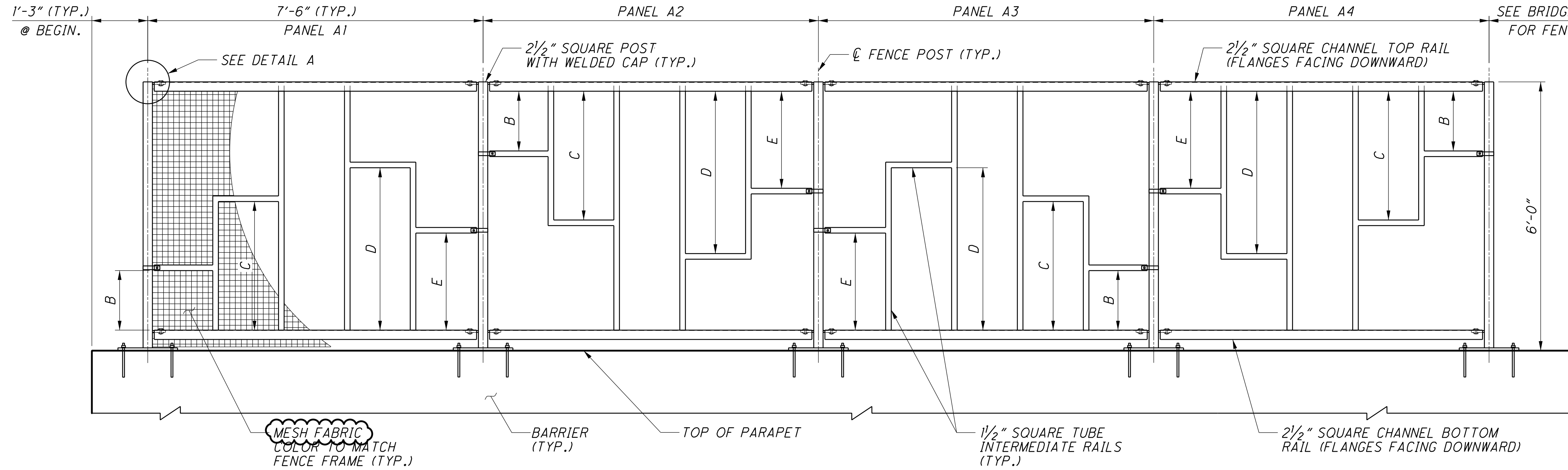
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS (CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
TVB	TVB	GLG	20-APR
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ELP		7700370/7700371	

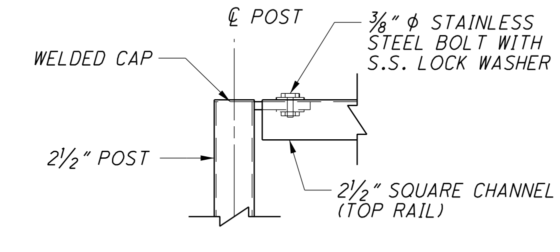
SUM-8-1.75

PID No. 91710



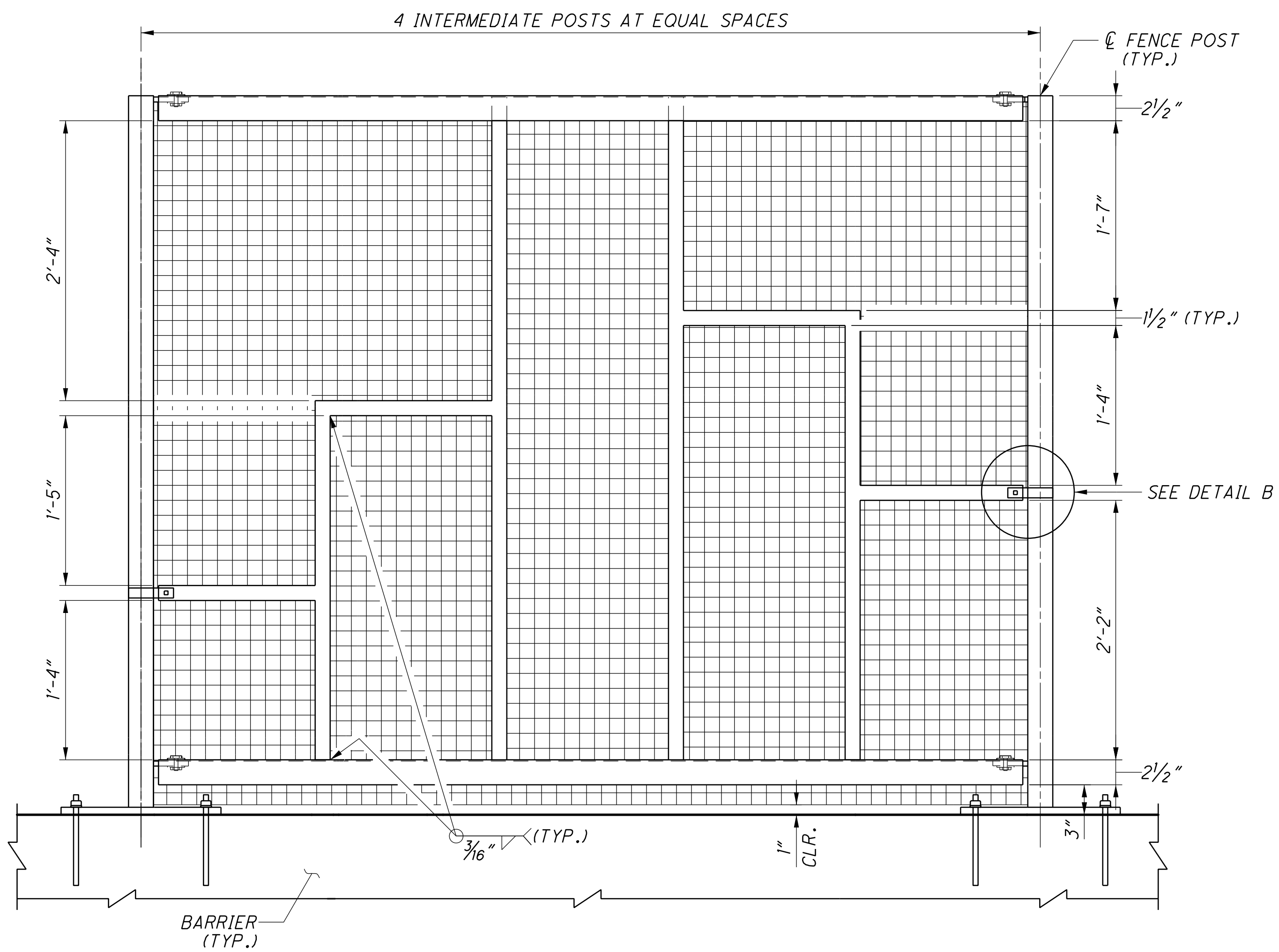
FENCE ELEVATION

(USE PATTERN ABOVE FROM BEGINNING OF BARRIER TO SB/NB END PANELS)

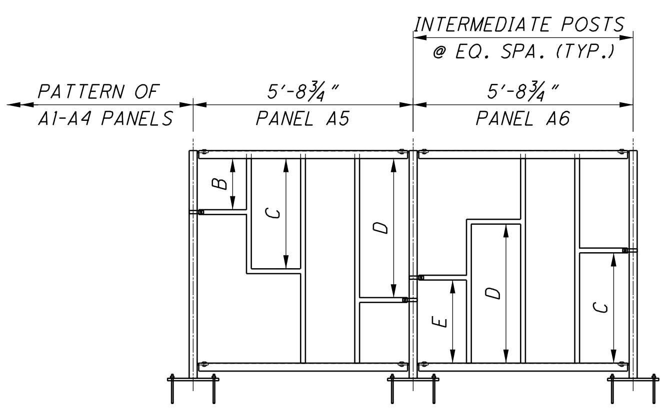


DETAIL A

	LENGTH
B	1'-4"
C	2'-10½"
D	3'-7½"
E	2'-2"

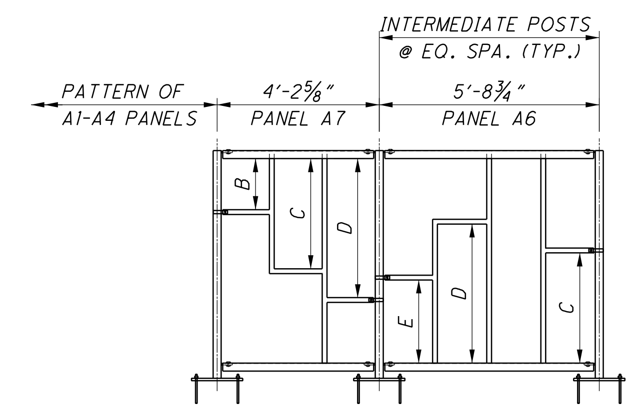


FENCE PANEL A1-A4 DETAIL



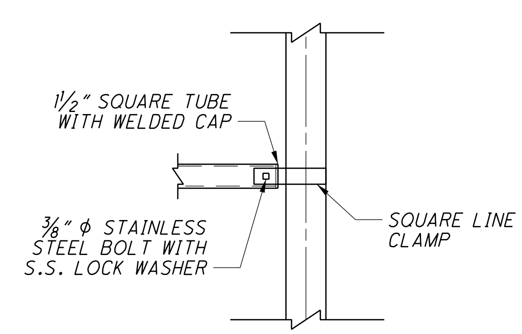
SOUTHBOUND END PANELS

(F.A. END OF LEFT AND RIGHT BARRIER)



NORTHBOUND END PANELS

(F.A END OF LEFT AND RIGHT BARRIER)



DETAIL B

NOTES:

1. FOR AESTHETIC FENCE POST SPACING, SEE SHEETS 174/226 THROUGH 176/226.
2. AESTHETIC FENCING IS PAID FOR UNDER ITEM 517 - RAILING, MISC.: DECORATIVE RAILING WITH MESH FABRIC FENCE, AS PER PLAN.
3. ALL AESTHETIC FENCE MEMBER, FABRIC AND HARDWARE SHALL BE GALVANIZED AND POWDER COATED.
4. HORIZONTAL CHANNELS SHALL BE ORIENTED DOWNWARD TO NOT COLLECT WATER.
5. HORIZONTAL CHANNELS SHALL BE ORIENTED DOWNWARD TO NOT COLLECT WATER.
6. FOR AESTHETIC FENCE MATERIAL SPECIFICATIONS SEE ITEM - 517 - RAILING, MISC.: DECORATIVE RAILING WITH CHAIN LINK FENCE, AS PER PLAN ON SHEET 19/226.

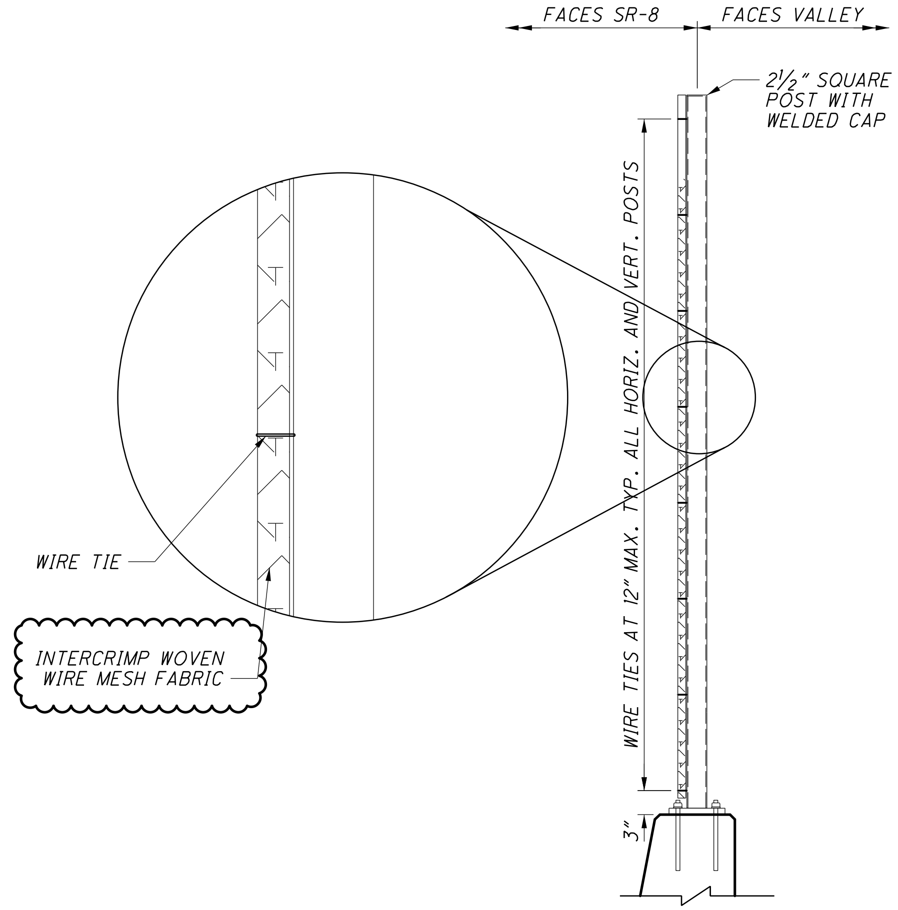
TYPICAL AESTHETIC FENCE DETAILS (1 OF 2)

BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

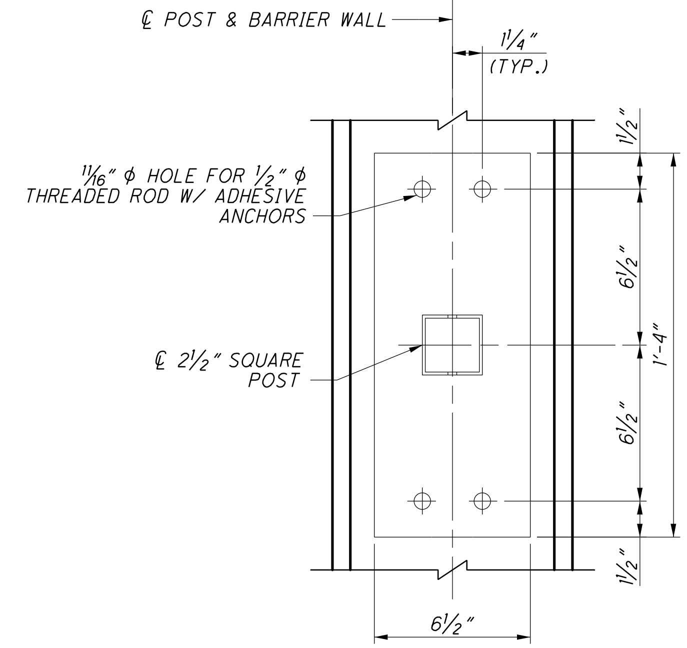
DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

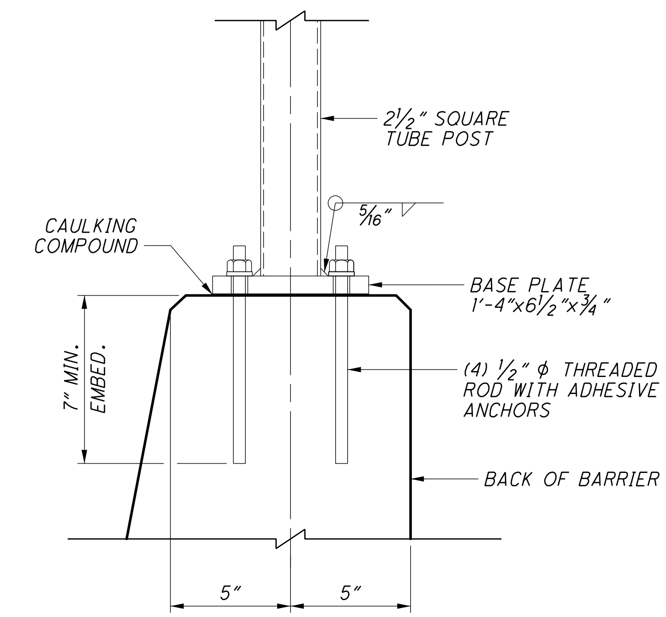
DESIGNED	DRAWN	REVIEWED	DATE
DEA	DBL	GLG	20-APR
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ELP		7700370/7700371	

SUM-8-1.75
PID No. 91710

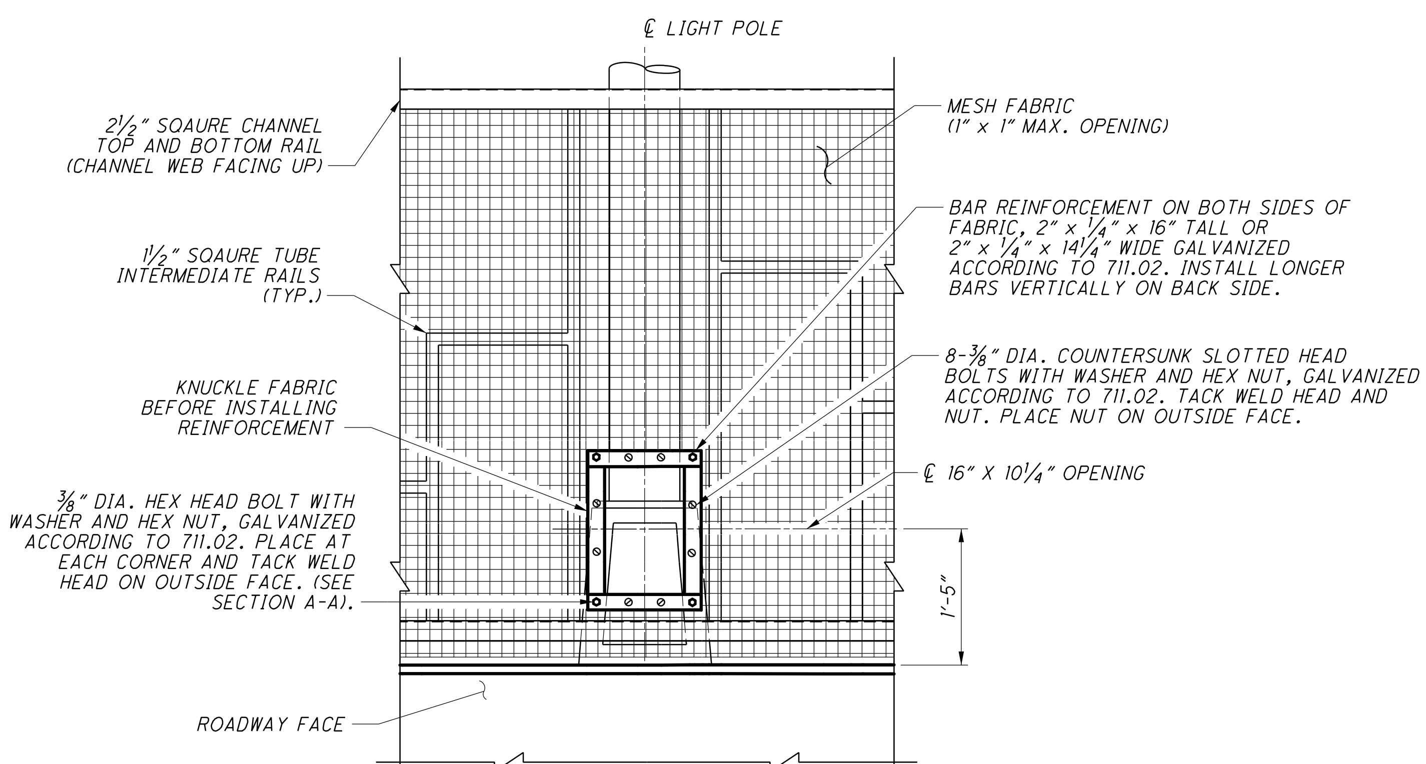


MESH FABRIC MOUNTING DETAIL



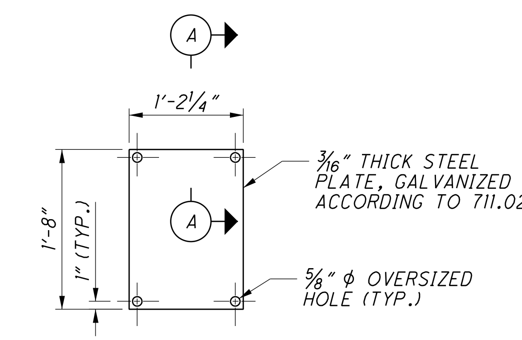


FENCE POST CONNECTION AT BARRIER

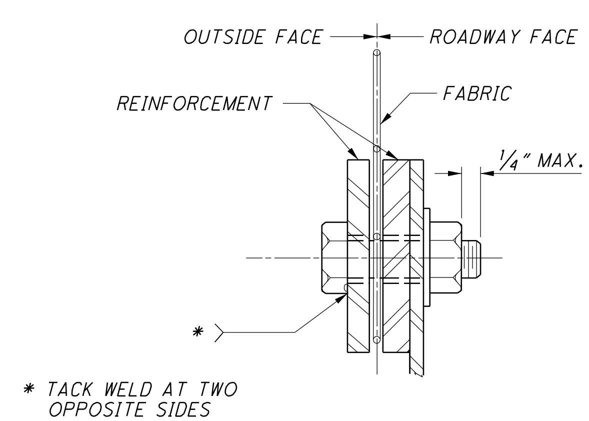


ACCESS OPENING AT LIGHT POLE

(COVER NOT SHOWN)



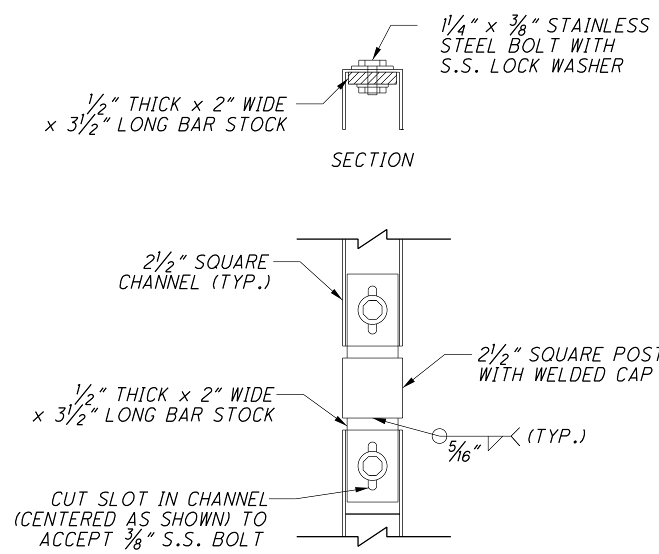
ACCESS COVER



* TACK WELD AT TWO OPPOSITE SIDES

SECTION A-A

(SHOWING CORNER BOLT)



SLIP JOINT AT FENCE POST

(FOR USE WITH 2½" SQUARE CHANNEL TOP AND BOTTOM BARS)

NOTES:

1. FOR AESTHETIC FENCE NOTES, SEE SHEET 181/226.

TYPICAL AESTHETIC FENCE DETAILS (2 OF 2)

BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS (CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75

PID No. 91710

DESIGN AGENCY ms consultants, inc. 2221 Schrock Road Columbus, Ohio 43229

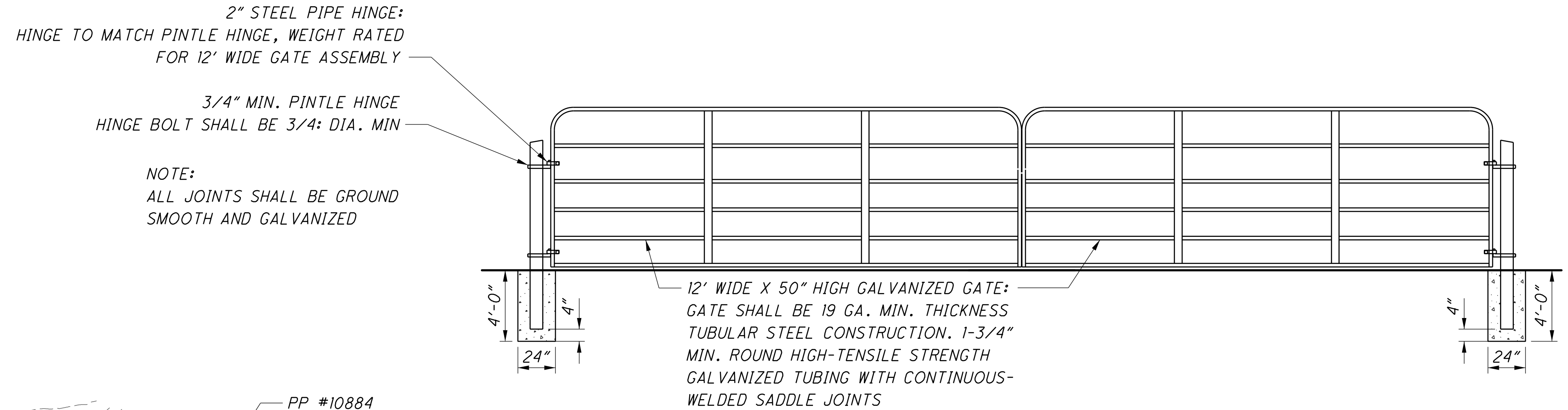
DESIGNED DEA | DRAWN CDH | REVIEWED GLG | DATE 20-APR | CHECKED ELP | REVISED | STRUCTURE FILE NUMBER 7700370/7700371

NOTES:

1.) MAINTAIN EXISTING P & O CANAL AND DRAINAGE STRUCTURES AT ALL TIMES.

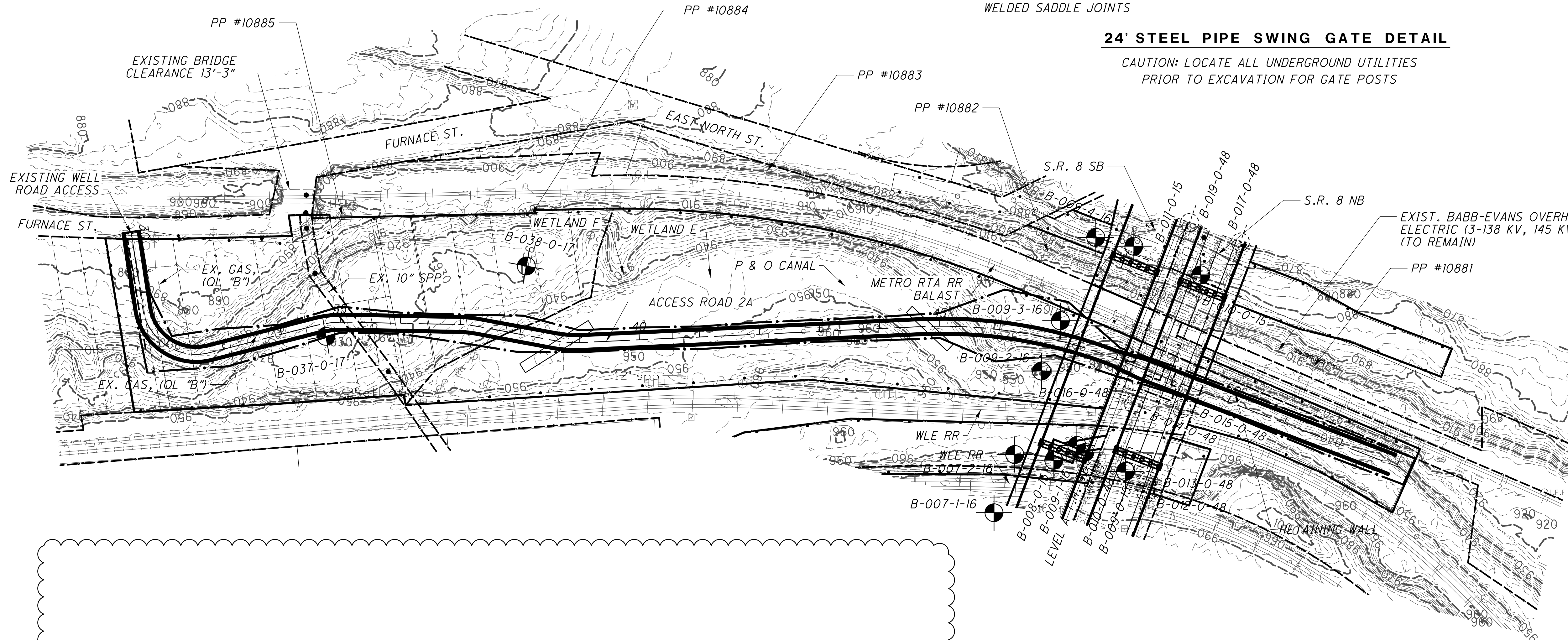
2.) CONTRACTOR TO UTILIZE EXISTING WELL ROAD TO THE GREATEST EXTENT POSSIBLE.

3.) CONTRACTOR TO DESIGN ALL RETAINING WALLS NECESSARY TO CONTAIN PROPOSED ACCESS ROAD AND TO AVOID IMPACTS TO ADJACENT RAILWAYS.



24' STEEL PIPE SWING GATE DETAIL

CAUTION: LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION FOR GATE POSTS



WHEELING AND LAKE ERIE RAILWAY COMPANY
CONTACT PERSON:

JEFFERY A DAVIS, JR.
DIRECTOR OF TRANSPORTATION
100 EAST FIRST STREET
BREWSTER, OHIO 44613
OFFICE PHONE: 330-767-7215
24 HOUR WORK DEST: 800-837-5622
330-767-7211

HORIZONTAL SCALE IN FEET 0 50 100 200

SCHEMATIC PLAN ACCESS ROAD 2A

SUM-8-1.75