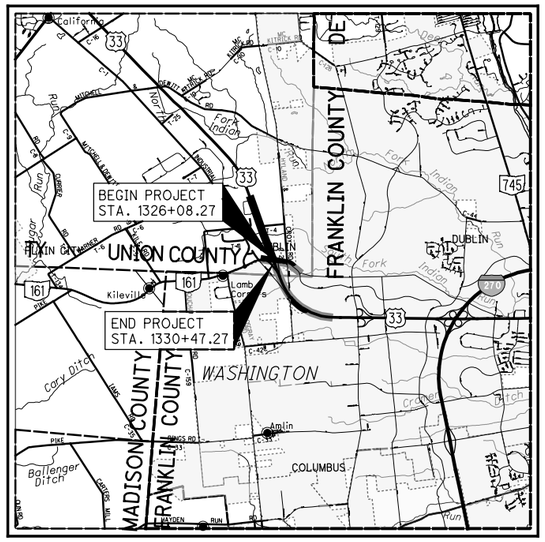


LOCATION MAP

LATITUDE: 40°6'30" LONGITUDE: 83°10'48"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE & DIVIDED HIGHWAY

UNDIVIDED STATE & FEDERAL ROUTES

OTHER ROADS

FOR DESIGN DESIGNATION DATA
SEE SCHEMATIC PLAN, SHEET 3

FOR ENGINEERS SEALS & ADDITIONAL SIGNATURES,
SEE SHEET 2

DESIGN EXCEPTIONS

NONE REQUIRED

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

UNI-33-24.87

CITY OF DUBLIN

JEROME TOWNSHIP / WASHINGTON TOWNSHIP

FRANKLIN / UNION COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

REALIGNMENT OF U.S. 33 & S.R. 161 INTERCHANGE RAMPS AND CONSTRUCTION OF NEW U.S. 33 STRUCTURE OVER S.R. 161. RECONSTRUCTION AND WIDENING OF S.R. 161 WITHIN INTERCHANGE LIMITS. RECONSTRUCTION OF ONE SIGNALIZED INTERSECTION AND MODIFICATION OF ONE MODERN ROUNDABOUT.

PROJECT EARTH DISTURBED AREA:	68.7 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	1.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	69.7 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.

ADA DESIGN WAIVER: NONE REQUIRED

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.

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

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 Lori Kisner Digitally signed by Lori Kisner
DATE 10/19/2021 DISTRICT DEPUTY DIRECTOR

APPROVED Jack Marchbanks Digitally signed by Jack Marchbanks
DATE 1-3-2022 DIRECTOR, DEPARTMENT OF TRANSPORTATION

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED SCD DATE	ENR	3-3-2022

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:

BURGESS & NIPLE INC.
5085 REED ROAD
COLUMBUS, OH 43220

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	7/17/15	DM-4.1	7/17/20	BP-9.1	1/18/19	MGS-5.3	7/15/16	MT-95.40	1/17/20	MT-102.10	1/17/20	TC-42.20	10/18/13	ITS-10.10	1/15/21	L-1003	1/26/18	800-2020	1/21/22	WATERWAY PERMIT
BP-2.2	1/15/21	DM-4.2	7/20/12			MGS-6.1	1/19/18	MT-95.41	1/17/20	MT-102.30	10/16/15	TC-51.11	1/15/16	ITS-10.11	1/15/21	L-6309A	1/26/18	804	1/15/21	RGP A 2/19/21
BP-3.1	1/17/20	DM-4.3	1/15/16	F-1.1	7/19/13			MT-95.45	1/17/20	MT-103.10	1/19/18	TC-51.12	1/15/16	ITS-12.10	7/19/19	L-6309B	1/26/18	807	7/17/20	FLOOD PLAIN
BP-6.1	7/19/13	DM-4.4	1/15/16	F-3.3	7/19/13	RM-1.1	1/15/21	MT-95.50	7/21/17	MT-104.10	10/16/15	TC-52.10	10/18/13	ITS-14.10	1/15/21	L-6310	1/26/18	808	1/18/19	PERMIT 5/7/21
BP-7.1	7/19/13			F-3.4	7/19/13	RM-4.1	1/17/20	MT-97.10	4/19/19	MT-105.10	1/17/20	TC-52.20	1/15/21	ITS-14.11	1/15/21	L-6311	1/26/18	809	4/16/21	
CB-1.1	7/19/19	I-1.1	7/20/18			RM-4.2	4/17/20	MT-97.11	1/20/17			TC-61.10	1/17/20	ITS-14.20	1/15/21	L-6312	1/26/18	821	4/20/12	
CB-1.3	1/15/16			LA-1.1	10/15/10	RM-4.4	7/19/19	MT-97.12	1/20/17	TC-12.31	1/21/22	TC-64.10	1/17/20	ITS-14.50	1/15/21	L-6316A	1/26/18	832	10/19/18	
CB-2.1	1/15/21	MH-1.1	1/15/16	LA-1.2	1/16/09	AS-1-15	7/17/15	MT-98.29	1/17/20	TC-15.116	1/15/21	TC-65.10	1/17/14	ITS-15.10	1/15/21	L-6316B	1/26/18	847	1/15/21	
CB-2.2	1/15/21	MH-1.2	1/15/16			AS-2-15	1/18/19	MT-99.20	4/19/19	TC-21.11	4/17/20	TC-65.11	7/21/17	ITS-15.11	1/15/21	L-6409A	1/26/18	850	4/16/21	
CB-2.3	1/15/16			MGS-1.1	1/19/18	GSD-1-19	1/15/21	MT-99.30	1/17/20	TC-21.21	1/15/21	TC-71.10	1/19/18	ITS-18.00	1/15/21	L-6473A	1/26/18	872	4/17/20	
CB-3.1	1/15/16	WQ-1.1	1/18/13	MGS-2.1	1/19/18	PCB-91	7/17/20	MT-99.60	7/15/16	TC-22.20	1/17/14	TC-72.20	7/20/18	ITS-50.10	1/15/21	L-6637A	1/26/18	878	4/16/21	
CB-3.3	1/15/16	WQ-1.2	1/15/16	MGS-3.1	1/19/18	SB-1-03	4/18/03	MT-101.60	1/17/20	TC-41.10	7/19/13	TC-73.20	1/17/20			L-6640	1/26/18	904	1/15/21	
CB-3.4	1/15/16			MGS-3.2	1/18/13	SBR-1-20	7/17/20	MT-101.70	1/17/20	TC-41.20	10/18/13	TC-81.22	7/17/20			L-7401	11/14/18	905	4/17/20	
		BP-4.1	7/19/13	MGS-4.2	7/19/13	SICD-2-14	7/18/14	MT-101.75	1/17/20	TC-41.30	10/18/13	TC-83.20	7/21/17			L-7601	1/26/18	908	10/20/17	
DM-1.1	7/17/20	BP-5.1	1/18/19	MGS-4.3	1/18/13			MT-101.80	1/17/20	TC-41.50	10/18/13	TC-85.10	4/17/20			L-8502	1/26/18	909	4/16/21	
DM-1.2	1/18/13	BP-7.1	7/17/20	MGS-5.2	7/15/16	MT-95.32	4/19/19	MT-101.90	7/17/20	TC-42.10	10/18/13	TC-85.20	7/20/18					921	4/20/12	

DOW#20-114

FEDERAL PROJECT NO. E200 (605)

PID NO. 80748

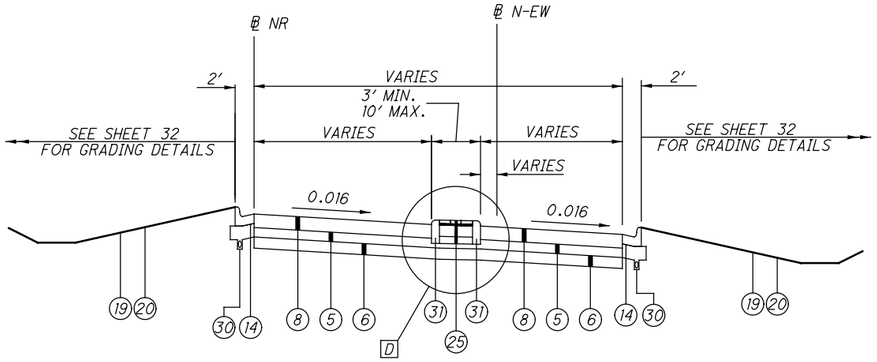
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

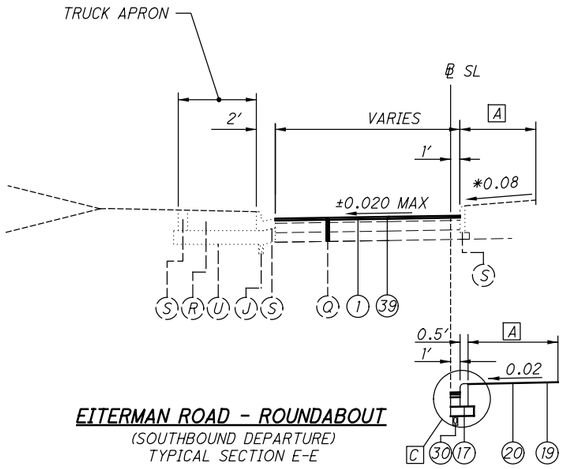
UNI-33-24.87

1 / 923

P:\PR41806\fra\80748\roadway\sheets\80748GT001.dgn

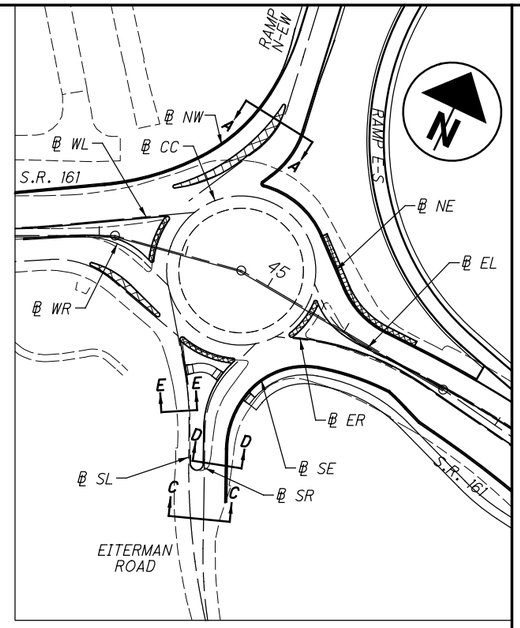


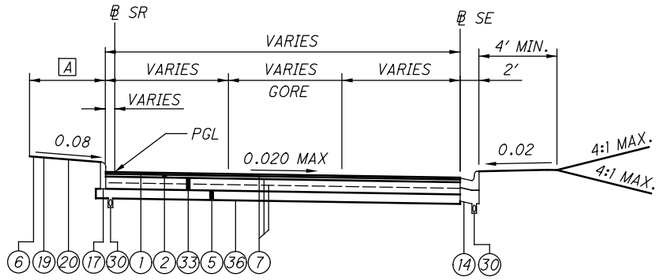
RAMP N-EW - ROUNDABOUT APPROACH
(SOUTHBOUND APPROACH)
TYPICAL SECTION A-A



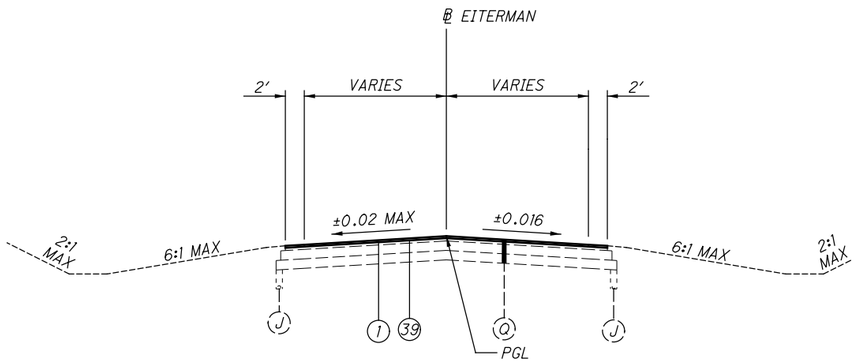
EITERMAN ROAD - ROUNDABOUT
(SOUTHBOUND DEPARTURE)
TYPICAL SECTION E-E

SEE PLAN SHEETS FOR
PROPOSED CURB LIMITS

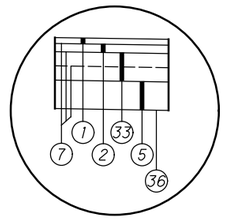




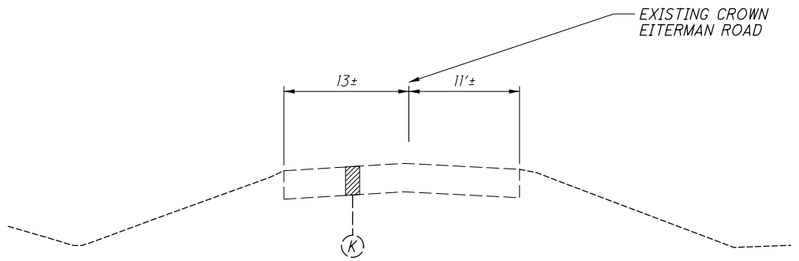
EITERMAN ROAD - ROUNDABOUT
(NORTHTBOUND APPROACH)
TYPICAL SECTION D-D



EITERMAN ROAD - ROUNDABOUT APPROACH
(NORTHBOUND APPROACH)
TYPICAL SECTION C-C



C **FULL DEPTH PAVEMENT AT SAWCUT**



EXISTING NORMAL SECTION - EITERMAN ROAD

A SEE ROUNDABOUT PLAN DETAILS FOR WIDTHS

B 0.08 SLOPE

D SEE BANANA ISLAND DETAIL, SHEET 34

FOR LEGEND, SEE SHEET 9

NO.	DESCRIPTION	REV. BY	DATE
C	TYPICAL SECTION REVISION	ENR	3-3-2022

TYPICAL SECTIONS - S.R. 161/EITERMAN ROAD ROUNDABOUT

UNI-33-24.87

SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
48	109	110	111	108	122	585	601	37		01/NHS/PV	02/S>2/PV						
					1						1	611	99851	1	EACH	WATER QUALITY BASIN, RETENTION, AS PER PLAN	582
																PAVEMENT	
	4,635										4,635	254	01000	4,635	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	
	47,759									46,451	1,308	254	01000	47,759	SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIABLE DEPTH	
	697										697	301	46000	697	CY	ASPHALT CONCRETE BASE, PG64-22	
	19,404									12,226	7,178	302	46000	19,404	CY	ASPHALT CONCRETE BASE, PG64-22	
	12,869	3,539	1,584	692						12,626	6,058	304	20000	18,684	CY	AGGREGATE BASE	
			238							238		305	16010	238	SY	12" CONCRETE BASE, CLASS QC 1P	
	16,436									12,693	3,743	407	20000	16,436	GAL	NON-TRACKING TACK COAT	
	155										155	441	50101	155	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN	9
	9,333									6,606	2,727	442	00100	9,333	CY	ANTI-SEGREGATION EQUIPMENT	
	5,056									3,550	1,506	442	10001	5,056	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG 70-22M	37
	3,224									1,756	1,468	442	10100	3,224	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
	2,258									2,258		442	10100	2,258	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), 1.75	
		19,498	7,785							27,283		452	14020	27,283	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
				6,216							6,216	609	12001	6,216	FT	COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN	33
				169							169	609	18001	169	FT	COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN	33
				926						392	534	609	24510	926	FT	CURB, TYPE 4-C	
				209							209	609	26000	209	FT	CURB, TYPE 6	
				5,310							5,310	609	26001	5,310	FT	CURB, TYPE 6, AS PER PLAN	33
				1,506							1,506	609	71000	1,506	SF	CONCRETE MEDIAN	
				342							342	609	98000	342	FT	CURB, MISC.: 18" HEIGHT	33
								35,000		35,000		872	10000	35,000	FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)	37
																WATER WORK	
						9					9	202	75610	9	EACH	VALVE BOX REMOVED	
						32					32	613	41201	32	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	586
						769					769	638	02401	769	FT	12" WATERMAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN, (COC 801)*	586
						160					160	638	03001	160	FT	16" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN, (COC 801)	593
						60					60	638	06705	60	FT	20" STEEL PIPE ENCASEMENT, OPEN CUT, AS PER PLAN*	586
						320					320	638	07305	320	FT	20" STEEL PIPE ENCASEMENT, BORED OR JACKED, AS PER PLAN*	586
						4					4	638	07501	4	EACH	12" GATE VALVE, AS PER PLAN, (COC 802)*	586
						1					1	638	10201	1	EACH	6" FIRE HYDRANT, AS PER PLAN, (COC 809)*	595
						1					1	638	10600	1	EACH	FIRE HYDRANT AND GATE VALVE REMOVED AND RESET, (COC 809)	
						9					9	638	10800	9	EACH	VALVE BOX ADJUSTED TO GRADE, (COC 807)	
						1					1	638	11300	1	EACH	1" AIR RELEASE VALVE, (COC 812)	
							2,350				2,350	SPECIAL	6382041 4	2,350	FT	2" WATER MAIN POLYVINYL CHORIDE PIPE AND FITTINGS (WSP 6768)	601
						1					1	SPECIAL	63820752	1	EACH	FIRE HYDRANT REMOVED FOR STORAGE, (COC 809)*	586
							114				114	638	20774	114	FT	1-1/2" WATER TUBING, TYPE K SOFT COPPER (COLS. CMS ITEM 805.03), A.P.P. (WSP 6768)	601
							1				1	SPECIAL	63898000	1	EACH	1-1/2" WATER SERVICE TAP, COMPLETE (COLS. CMS ITEM 805) (WSP 6768)	601
							8				8	SPECIAL	63898000	8	EACH	QUICK COUPLER VALVE, 1" BRASS, 2 PIECE, WITH BOX (10" ROUND) (WSP 6768)	601
							1				1	SPECIAL	63898100	1	LUMP	1 1/2" METER SETTING WITH BACK FLOW PREVENTER IN HEATED ENCLOSURE (WSP 6768)	601
																*INDICATES CITY OF MARYSVILLE SYSTEM ONLY	

NO.	DESCRIPTION	REV. BY	DATE
A	QUANTITY REVISIONS	ENR	2-3-2022
B	ADDED ITEM	ENR	2-28-2022
C	REMOVED ITEM	ENR	3-3-2022

CALCULATED NJL
CHECKED KOD

GENERAL SUMMARY

UNI-33-24.87

SHEET NUM.												PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
602	603	707	717	719	720	721	722	723	724	725	726	01/NHS/PV	02/S>2/PV	03/NHS/BR	06/S>2/OT /AEP	07/S>2/OT /SPEC	08/S>2/OT /DLNK						
																						LIGHTING	
				20		36		24		12			92					625	00450	92	EACH	CONNECTION, FUSED PULL APART (LIGHTING)	
				10		18		12		6			46					625	00460	46	EACH	CONNECTION, UNFUSED PULL APART	
								12					12					625	00480	12	EACH	CONNECTION, UNFUSED PERMANENT (LIGHTING)	
				8		18		12		6			44					625	10491	44	EACH	LIGHT POLE, CONVENTIONAL, AS PER PLAN, 35'	716
				5		18		12		5			40					625	14501	40	EACH	LIGHT POLE FOUNDATION, AS PER PLAN	716
				4,890		10,440		8,580		3,150			26,745	315				625	23000	27,060	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE (LIGHTING)	
								90					90					625	23100	90	FT	NO. 2 AWG 600 VOLT DISTRIBUTION CABLE	
				1,200		2,700		1,800		900			6,600					625	23400	6,600	FT	NO. 10 AWG POLE AND BRACKET CABLE	
				1,630		2,695		2,700		1,135			8,055	105				625	25408	8,160	FT	CONDUIT, 2", 725.051, SCHEDULE 40 PVC	
				70		180		400		95			745					625	25505	745	FT	CONDUIT, 3", 725.051, AS PER PLAN, SCHEDULE 80 PVC	716
				2		8		3		1			14					625	26253	14	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE II (LIGHTING)	746
				1		7		6		4			18					625	26253	18	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III (LIGHTING)	746
				5		3		3		1			12					625	26253	12	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE IV (LIGHTING)	746
										16				16				625	27503	16	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN (LIGHTING)	716
				1,630		2,695		2,660		845			7,765	65				625	29010	7,830	FT	TRENCH, 30" DEEP	
					2		7		6		3		18					625	30500	18	EACH	PULL BOX, 725.06, SIZE 1.5	
									2				2					625	30510	2	EACH	PULL BOX, 725.06, SIZE 4	
					8		18		12		6		44					625	32000	44	EACH	GROUND ROD (LIGHTING)	
			4											4				625	33001	4	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN	717
									1				1					625	34001	1	EACH	POWER SERVICE, AS PER PLAN (LIGHTING)	717
									1				1					625	34451	1	EACH	CONTROL CENTER CABINET, COMPLETE, AS PER PLAN	717
					1,630		2,695		2,645		845		7,750	65				625	36010	7,815	FT	UNDERGROUND WARNING/MARKING TAPE (LIGHTING)	
			LS											LS				625	37001	LS		SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	717
			LS										LS					625	38000	LS		HIGH VOLTAGE TEST	717
					25		1						26					625	75401	26	EACH	LIGHT POLE REMOVED, AS PER PLAN	716
					21		1						22					625	75501	22	EACH	LIGHT POLE FOUNDATION REMOVED, AS PER PLAN	716
					25		1						26					625	75507	26	EACH	LUMINAIRE REMOVED, AS PER PLAN	716
					25		1						26					625	75801	26	EACH	DISCONNECT CIRCUIT, AS PER PLAN	716
																						ELECTRICAL UTILITY DUCT	
189	76														265			625	29700	265	FT	TRENCH, MISC.: UTILITY TRENCH "A", TYPE A TRENCH, AS PER PLAN	606
	340														292	48		625	29700	340	FT	TRENCH, MISC.: UTILITY TRENCH "B", TYPE A TRENCH, AS PER PLAN	606
	679															679		625	29700	679	FT	TRENCH, MISC.: UTILITY TRENCH "D", TYPE A TRENCH, AS PER PLAN	606
187	444														429	63	139	625	29700	631	FT	TRENCH, MISC.: UTILITY TRENCH "E", TYPE A TRENCH, AS PER PLAN	606
	41														31		10	625	29700	41	FT	TRENCH, MISC.: UTILITY TRENCH "F", TYPE A TRENCH, AS PER PLAN	606
	214																214	625	29700	214	FT	TRENCH, MISC.: UTILITY TRENCH "G", TYPE A TRENCH, AS PER PLAN	606
	33															10	23	625	29700	33	FT	TRENCH, MISC.: UTILITY TRENCH "H", TYPE A TRENCH, AS PER PLAN	606
43																43		625	29700	43	FT	TRENCH, MISC.: UTILITY TRENCH "L", TYPE A TRENCH, AS PER PLAN	606
	344														296	48		625	29700	344	FT	TRENCH, MISC.: UTILITY TRENCH "B", TYPE B TRENCH, AS PER PLAN	606
44	13														57			625	29700	57	FT	TRENCH, MISC.: UTILITY TRENCH "C", TYPE B TRENCH, AS PER PLAN	606
144																144		625	29700	144	FT	TRENCH, MISC.: UTILITY TRENCH "D", TYPE B TRENCH, AS PER PLAN	606
1,131	114														846	125	274	625	29700	1,245	FT	TRENCH, MISC.: UTILITY TRENCH "E", TYPE B TRENCH, AS PER PLAN	606
191																	191	625	29700	191	FT	TRENCH, MISC.: UTILITY TRENCH "G", TYPE B TRENCH, AS PER PLAN	606
88	27															36	79	625	29700	115	FT	TRENCH, MISC.: UTILITY TRENCH "H", TYPE B TRENCH, AS PER PLAN	606
9																9		625	29700	9	FT	TRENCH, MISC.: UTILITY TRENCH "J", TYPE B TRENCH, AS PER PLAN	606
20															15	5		625	29700	20	FT	TRENCH, MISC.: UTILITY TRENCH "K", TYPE B TRENCH, AS PER PLAN	606
5	2															7		690	98000	7	EACH	SPECIAL -CHANNEL VAULT (INSTALLATION ONLY)	605
2	1														3			690	98000	3	EACH	SPECIAL -FIBERGLASS SWITCH PAD (COORDINATION ONLY)	605
3	1														4			690	98000	4	EACH	SPECIAL -PRECAST CONCRETE ELECTRIC MANHOLE	604
5	2																7	690	98000	7	EACH	SPECIAL -PRECAST DUBLINK CONCRETE MANHOLE	604
																						TRAFFIC SURVEILLANCE	
		32										32						625	25408	32	FT	CONDUIT, 2", 725.051	
		45										45						625	25604	45	FT	CONDUIT, 4", 725.051	
		15										15						809	25000	15	FT	CONDUIT, MULTICELL, MISC.: PARAPET ATTACHED	706
		2,268										2,268						809	24500	2,268	FT	CONDUIT, 4", MULTICELL, HDPE WITH 4-1" INNERDUCTS	
		235										235						809	24000	235	FT	CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	
		28										28						625	25802	28	FT	CONDUIT, CONCRETE ENCASED, 4", 725.051	
		2,314										2,314						625	29000	2,314	FT	TRENCH	
		1										1						625	30700	1	EACH	PULL BOX, 725.08, 18"	
		10										10						625	30711	10	EACH	PULL BOX, 725.08, 32", AS PER PLAN	706
		11										11						625	31511	11	EACH	PULL BOX REMOVED, AS PER PLAN	706

NO.	DESCRIPTION	REV. BY	DATE
A	UPDATE ITEM DESCRIPTION	ENR	2-3-2022
C	ITEM UPDATES	ENR	3-3-2022

CALCULATED NJL
CHECKED KOD

GENERAL SUMMARY

UNI-33-24.87

P:\PR41806aa\fra\80748\roadway\sheets\GG004.dgn

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
646	666	667	671	707								01/NHS/PV	02/S>2/PV						
				6									6	625	31600	6	EACH	PULL BOX, MISC.: PULL BOX ADJUSTED TO GRADE	706
				2								2		625	32000	2	EACH	GROUND ROD (TRAFFIC SURVEILLANCE)	
				1								1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN (TRAFFIC SURVEILLANCE)	706
				33								33		632	68300	33	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
				1								1		633	67100	1	EACH	CABINET FOUNDATION	
				1								1		633	67200	1	EACH	CONTROLLER WORK PAD	
				2,307								2,307		804	98000	2,307	FT	FIBER OPTIC CABLE, MISC.: FIBER OPTIC CABLE REMOVED AND RE-PULLED	706
				1								1		809	61002	1	EACH	CCTV CONCRETE POLE, 70 FEET	
				1								1		809	65001	1	EACH	ITS CABINET - GROUND MOUNTED, AS PER PLAN	706
				1								1		809	65990	1	EACH	ITS DEVICE, MISC.: CCTV POLE REMOVED AND DELIVERED	706
				1								1		809	65990	1	EACH	ITS DEVICE, MISC.: CCTV POLE REMOVED AND REERRECTED	706
																		TRAFFIC CONTROL	
	8,163											8,163		618	40800	8,163	FT	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
	97											97		620	00500	97	EACH	DELINEATOR, POST GROUND MOUNTED, TYPE C, WHITE	
	55											55		620	00500	55	EACH	DELINEATOR, POST GROUND MOUNTED, TYPE D, YELLOW	
	115											115		621	00100	115	EACH	RPM, 1-WAY (WHITE)	
	209											209		621	00100	209	EACH	RPM, 2-WAY (WHITE/RED)	
	49											49		621	00100	49	EACH	RPM, 2-WAY (YELLOW/RED)	
			8									6	2	625	32000	8	EACH	GROUND ROD (TRAFFIC CONTROL)	
			150									78	72	630	02100	150	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
			362									127	235	630	03100	362	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
			300									300		630	03101	300	FT	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	655
			212									153	59	630	04100	212	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
			122									122		630	06500	122	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
			45									45		630	07000	45	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	
			135									97	38	630	07600	135	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	
			186									186		630	08000	186	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30	
			12									6	6	630	08600	12	EACH	SIGN POST REFLECTOR	
			20									18	2	630	09000	20	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
			2									2		630	66500	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
			2									2		630	72340	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	
			1										1	630	72430	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	
			543									418	125	630	80100	543	SF	SIGN, FLAT SHEET (TRAFFIC CONTROL)	
			4									2	2	630	80101	4	SF	SIGN, FLAT SHEET, AS PER PLAN	653
			119									104	15	630	80200	119	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
			2,763									1,910	853	630	80224	2,763	SF	SIGN, OVERHEAD EXTRUSHEET	
			18									18		630	84500	18	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
			8									8		630	84510	8	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
			81									27	54	630	84900	81	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
			27									3	24	630	85100	27	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
			24									19	5	630	85400	24	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
			5									5		630	85600	5	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
			77									29	48	630	86002	77	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			34									28	6	630	86102	34	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
			3										3	630	87400	3	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
			3										3	630	87500	3	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
			40									2	38	630	97700	40	EACH	SIGNING, MISC.: 2-1/4" SQUARE ANCHOR POST	655
			2										2	632	64021	2	EACH	PEDESTAL FOUNDATION, AS PER PLAN	654
			2										2	632	90010	2	EACH	PEDESTAL, MISC.: PEDESTAL REMOVE AND REERECT	654
		1.22										0.65	0.57	644	00100	1.22	MILE	EDGE LINE, 4", WHITE	
		0.94											0.94	644	00100	0.94	MILE	EDGE LINE, 4", YELLOW	
		1.36											1.36	644	00200	1.36	MILE	LANE LINE, 4"	
		0.23											0.23	644	00300	0.23	MILE	CENTER LINE, DOUBLE YELLOW	
		7,499										498	7,001	644	00400	7,499	FT	CHANNELIZING LINE, 8"	
	181											100	81	644	00500	181	FT	STOP LINE	
	1,004											167	837	644	00620	1,004	FT	CROSSWALK LINE, 12"	
	130												130	644	00700	130	FT	TRANSVERSE/DIAGONAL LINE	
	115												115	644	00720	115	FT	CHEVRON MARKING	
	71											4	67	644	01300	71	EACH	LANE ARROW	
	4												4	644	01400	4	EACH	WORD ON PAVEMENT, 72"	
	185												185	644	50300	185	FT	PAVEMENT MARKING, MISC.:, 24" DOTTED LINE, WHITE, 24" LONG, 12" GAP	655

NO.	DESCRIPTION	REV. BY	DATE
C	ITEM UPDATES	ENR	3-3-2022

CALCULATED NJL
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GENERAL SUMMARY

UNI-33-24.87

SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
646	601	753	843							01/NHS/PV	02/S>2/PV	04/S>2/BR						
1											1		633	75001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	642
2											2		633	99000	2	EACH	CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2 WITH CABINET, TYPE TS1	642
4											4		809	69001	4	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	643
3											3		809	69101	3	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	643
																	LANDSCAPING	
		116,612									116,612		659	00500	116,612	SY	SEEDING AND MULCHING, CLASS 1, Lawn seeding & mulching as per plan	
		481									481		661	00500	481	CY	MULCH, Bark mulch for planting beds (2" depth)	
		498									498		661	14000	498	EACH	PERENNIALS Autumn Joy Stonecrop	
		178									178		661	14000	178	EACH	PERENNIALS Bowles Golden Sedge	
		144									144		661	14000	144	EACH	PERENNIALS Dwarf Maiden Grass	
		108									108		661	14000	108	EACH	PERENNIALS Happy Returns Daylily	
		191									191		661	14000	191	EACH	PERENNIALS Karley Rose Grass	
		643									643		661	14000	643	EACH	PERENNIALS Stella de Oro Daylily	
		461									461		661	14000	461	EACH	PERENNIALS Variegated Lilyturf	
		26									26		661	20040	26	EACH	DECIDUOUS SHRUB, 2' HEIGHT Compact Cranberrybush	
		14									14		661	20061	14	EACH	DECIDUOUS SHRUB, 3' HEIGHT, AS PER PLAN Dwarf Korean Lilac	
		118									118		661	20070	118	EACH	DECIDUOUS SHRUB, 30" HEIGHT Gro-Low Fragrant Sumac	
		173									173		661	20070	173	EACH	DECIDUOUS SHRUB, 30" HEIGHT Limelight Hardy Hydrangea	
		134									134		661	30060	134	EACH	EVERGREEN SHRUB, 2' HEIGHT Autumn Fire Willowleaf Cotoneaster	
		52									52		661	30070	52	EACH	EVERGREEN SHRUB, 2.5' HEIGHT Gold Lace Pfitzer Juniper	
		162									162		661	30070	162	EACH	EVERGREEN SHRUB, 2.5' HEIGHT Japanese Garden Juniper 'Green Mound'	
		19									19		661	40120	19	EACH	DECIDUOUS TREE, 3" CALIPER Accolade Elm	
		4									4		661	40120	4	EACH	DECIDUOUS TREE, 3" CALIPER Blood Good London Tree	
		10									10		661	40120	10	EACH	DECIDUOUS TREE, 3" CALIPER Moraine Sweetgum	
		28									28		661	40120	28	EACH	DECIDUOUS TREE, 3" CALIPER Northern Red Oak	
		16									16		661	40120	16	EACH	DECIDUOUS TREE, 3" CALIPER October Glory Red Maple	
		21									21		661	40120	21	EACH	DECIDUOUS TREE, 3" CALIPER Princeton Elm	
		15									15		661	40120	15	EACH	DECIDUOUS TREE, 3" CALIPER Pyramidal European Hornbeam	
		7									7		661	40120	7	EACH	DECIDUOUS TREE, 3" CALIPER Shingle Oak	
		1									1		661	40120	1	EACH	DECIDUOUS TREE, 3" CALIPER Skyline Honeylocust	
		8									8		661	40120	8	EACH	DECIDUOUS TREE, 3" CALIPER Tulip Tree	
		118									118		661	50160	118	EACH	EVERGREEN TREE, 8' HEIGHT Norway Spruce	
		75									75		661	50160	75	EACH	EVERGREEN TREE, 8' HEIGHT Serbian Spruce	
		23									23		661	50160	23	EACH	EVERGREEN TREE, 8' HEIGHT White Fir	
		420									420		SPECIAL	69098200	420	SF	LANDSCAPING, 6"-8" river/beach stone on weed mat with edging as per plan	
		883									883		SPECIAL	69098700	883	CY	LANDSCAPING, Plant soil for perennial & shrub beds (8" depth)	
		66,831									66,831		SPECIAL	69098300	66,831	SY	LANDSCAPING, Scottish links blend seeding & mulching as per plan	
		8,552									8,552		SPECIAL	69098200	8,552	SF	LANDSCAPING, Unilock Courtstone drainage channel on concrete base as per plan	
		LS									LS		SPECIAL	66199940	LS		PLANTING MISC.: WATERING, WEEDING, WEED CONTROL, AND (1) FERTILIZATIONS OF TREES AND SHRUBS (ALTERNATE 1)	
		LS									LS		SPECIAL	66199940	LS		PLANTING MISC.: WATERING, WEED CONTROL, AND (1) FERTILIZATIONS OF SCOTTISH LINKS GRASS (ALTERNATE 2)	
		LS									LS		SPECIAL	66199940	LS		PLANTING MISC.: WEED CONTROL, AND (1) FERTILIZATION OF SCOTTISH LINKS GRASS (ALTERNATE 3)	
																	FRA-33-00.14 L / SFN 2500965 L	
			LS									LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (FRA-33-00.14 L)	843
			LS									LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING (FRA-33-00.14 L)	
			LS									LS	503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN (FRA-33-00.14 L)	843
			20,007									20,007	509	10001	20,007	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN (FRA-33-00.14 L)	843
			542									542	509	20001	542	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN (FRA-33-00.14 L)	843
			402.5									402.5	509	30020	402.5	FT	NO. 4 GFRP DEFORMED BARS (FRA-33-00.14 L)	
			64									64	510	10001	64	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN (FRA-33-00.14 L)	843
			49									49	511	33412	49	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, (FRA-33-00.14 L)	843
			5									5	511	34448	5	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET) (FRA-33-00.14 L)	
			87									87	511	44112	87	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING (FRA-33-00.14 L)	
			171									171	511	46512	171	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING (FRA-33-00.14 L)	
			203									203	SPECIAL	51275500	203	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE (FRA-33-00.14 L)	843
			19									19	512	10300	19	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN (FRA-33-00.14 L)	
			46									46	512	33000	46	SY	TYPE 2 WATERPROOFING (FRA-33-00.14 L)	
			8									8	516	13200	8	SF	1/2" PREFORMED EXPANSION JOINT FILLER (FRA-33-00.14 L)	

CALCULATED NJL
CHECKED KOD

GENERAL SUMMARY

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NO.	DESCRIPTION	REV. BY	DATE
C	ITEM UPDATES	ENR	3-3-2022

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923

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SHEET NUM.							PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
843	777						03/NHS/BR	04/S>2/BR	05/S>2/OT /Dub						
35								35		516	13600	35	SF	1" PREFORMED EXPANSION JOINT FILLER (FRA-33-00.14 L)	
94								94		518	21200	94	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC (FRA-33-00.14 L)	
60								60		518	40000	60	FT	6" PERFORATED CORRUGATED PLASTIC PIPE (FRA-33-00.14 L)	
4								4		518	40010	4	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS (FRA-33-00.14 L)	
189								189		526	25001	189	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN (FRA-33-00.14 L)	843
49								49		847	10201	49	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (3" THICK) (FRA-33-00.14 L)	843
141								141		847	10201	141	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN(2 3/4" THICK) (FRA-33-00.14 L)	843
1								1		847	20201	1	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN (FRA-33-00.14 L)	843
LS								LS		847	30000	LS		TEST SLAB (FRA-33-00.14 L)	
209								209		847	30300	209	SY	WEARING COURSE REMOVED, ASPHALT (FRA-33-00.14 L)	
50								50		847	30400	50	SY	EXISTING CONCRETE OVERLAY REMOVED (FRA-33-00.14 L)	
														FRA-33-00.14 R / SFN 2501023 R	
LS								LS		202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (FRA-33-00.14 R)	843
LS								LS		503	11100	LS		COFFERDAMS AND EXCAVATION BRACING (FRA-33-00.14 R)	
LS								LS		503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN (FRA-33-00.14 R)	843
13,527								13,527		509	10001	13,527	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN (FRA-33-00.14 R)	843
308								308		509	20001	308	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN (FRA-33-00.14 R)	843
397.5								397.5		509	30020	397.5	FT	NO. 4 GFRP DEFORMED BARS (FRA-33-00.14 R)	
72								72		510	10001	72	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN (FRA-33-00.14 R)	843
26								26		511	33412	26	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, (FRA-33-00.14 R)	843
5								5		511	34448	5	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET) (FRA-33-00.14 R)	
85								85		511	44112	85	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING (FRA-33-00.14 R)	
87								87		511	46512	87	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING (FRA-33-00.14 R)	
201								201		SPECIAL	51275500	201	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE (FRA-33-00.14 R)	843
19								19		512	10300	19	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN (FRA-33-00.14 R)	
48								48		512	33000	48	SY	TYPE 2 WATERPROOFING (FRA-33-00.14 R)	
8								8		516	13200	8	SF	1/2" PREFORMED EXPANSION JOINT FILLER (FRA-33-00.14 R)	
59								59		516	13600	59	SF	1" PREFORMED EXPANSION JOINT FILLER (FRA-33-00.14 R)	
96								96		518	21200	96	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC (FRA-33-00.14 R)	
51								51		518	40000	51	FT	6" PERFORATED CORRUGATED PLASTIC PIPE (FRA-33-00.14 R)	
33								33		518	40010	33	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS (FRA-33-00.14 R)	
385								385		526	25001	385	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN (FRA-33-00.14 R)	843
48								48		847	10201	48	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (3" THICK) (FRA-33-00.14 R)	843
146								146		847	10201	146	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN(2 3/4" THICK) (FRA-33-00.14 R)	843
1								1		847	20201	1	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN (FRA-33-00.14 R)	843
LS								LS		847	30000	LS		TEST SLAB (FRA-33-00.14 R)	
213								213		847	30300	213	SY	WEARING COURSE REMOVED, ASPHALT (FRA-33-00.14 R)	
48								48		847	30400	48	SY	EXISTING CONCRETE OVERLAY REMOVED (FRA-33-00.14 R)	
														UNI-33-24.89 L / SFN 8001588	
	LS						LS			202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (UNI-33-24.89 L)	777
	134						134			202	22900	134	SY	APPROACH SLAB REMOVED (UNI-33-24.89 L)	
	134						134			202	23500	134	SY	WEARING COURSE REMOVED (UNI-33-24.89 L)	
	LS						LS			503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (UNI-33-24.89 L)	777
	LS						LS			503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN (UNI-33-24.89 L)	777
	2,073						2,073			504	11101	2,073	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (UNI-33-24.89 L)	777
	331,183						291,537		39,646	509	10000	331,183	LB	EPOXY COATED REINFORCING STEEL (UNI-33-24.89 L)	
	9,429						9,429			509	30020	9,429	FT	NO. 4 GFRP DEFORMED BARS (UNI-33-24.89 L)	
	492						492			511	34447	492	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN (UNI-33-24.89 L)	777
	2						2			511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE (UNI-33-24.89 L)	
	91						91			511	34451	91	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN (UNI-33-24.89 L)	777
	159						159			511	41013	159	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN (UNI-33-24.89 L)	777
	395						395			511	44113	395	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN (UNI-33-24.89 L)	777
	451						290		161	511	46013	451	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN (UNI-33-24.89 L)	777
	1,003						744		259	511	46513	1,003	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN (UNI-33-24.89 L)	777
	61						61			511	53014	61	CY	CLASS QC3 CONCRETE, MISC.: MUDMAT (UNI-33-24.89 L)	777
	10								10	511	53014	10	CY	CLASS QC3 CONCRETE, MISC.: PRECAST CONCRETE ARCH PANELS (UNI-33-24.89 L)	777
	1,529						1,400		129	SPECIAL	51275500	1,529	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE (UNI-33-24.89 L)	777
	71						71			512	33000	71	SY	TYPE 2 WATERPROOFING (UNI-33-24.89 L)	
	354,300						351,700		2,600	513	10281	354,300	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN (UNI-33-24.89 L)	777

NO.	DESCRIPTION	REV. BY	DATE
C	ITEM UPDATES	ENR	3-3-2022

CALCULATED NJL
CHECKED KOD

GENERAL SUMMARY

UNI-33-24.87

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SHEET NUM.					PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
766	777				03/NHS/BR	04/S>2/BR	05/S>2/OT /Dub						
	5,460				5,460			513	20000	5,460	EACH	WELDED STUD SHEAR CONNECTORS (UNI-33-24.89 L)	
	2,023						2,023	514	00060	2,023	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT (UNI-33-24.89 L)	
	2,023						2,023	514	00067	2,023	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN (UNI-33-24.89 L)	777
	182				182			516	10010	182	FT	ARMORLESS PREFORMED JOINT SEAL (UNI-33-24.89 L)	
	416				416			516	13600	416	SF	1" PREFORMED EXPANSION JOINT FILLER (UNI-33-24.89 L)	
	222				222			516	13900	222	SF	2" PREFORMED EXPANSION JOINT FILLER (UNI-33-24.89 L)	
	190				190			516	14020	190	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL (UNI-33-24.89 L)	
	10				10			516	44101	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-5" x 1'-3" x 2.649" BEARING) (UNI-33-24.89 L)	777
	20				20			516	44201	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-3" x 1'-0" x 3.224" BEARING) (UNI-33-24.89 L)	777
	194						194	517	76300	194	FT	RAILING, MISC.: GALVANIZED AND PAINTED STEEL RAILING, TEXAS TYPE T8OHT WITH PAINTED ALUMINUM POST ORNAMENTS (UNI-33-24.89 L)	777
	603				458		145	518	21200	603	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC (UNI-33-24.89 L)	
	672				672			518	40000	672	FT	6" PERFORATED CORRUGATED PLASTIC PIPE (UNI-33-24.89 L)	
	235				235			518	40010	235	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS (UNI-33-24.89 L)	
	530				530			526	30011	530	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN (UNI-33-24.89 L)	777
	182				182			526	90030	182	FT	TYPE C INSTALLATION (UNI-33-24.89 L)	
	4,738						4,738	602	97000	4,738	SF	MASONRY, MISC.: STONE FACING (UNI-33-24.89 L)	777
												UNI-33-24.89 R / SFN 8001618	
	LS				LS			202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (UNI-33-24.89 R)	777
	134				134			202	22900	134	SY	APPROACH SLAB REMOVED (UNI-33-24.89 R)	
	936				936			202	23500	936	SY	WEARING COURSE REMOVED (UNI-33-24.89 R)	
	LS				LS			503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (UNI-33-24.89 R)	777
	LS				LS			503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN (UNI-33-24.89 R)	777
	2,073				2,073			504	11101	2,073	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (UNI-33-24.89 R)	777
	331,183				291,537		39,646	509	10000	331,183	LB	EPOXY COATED REINFORCING STEEL (UNI-33-24.89 R)	
	9,429				9,429			509	30020	9,429	FT	NO. 4 GFRP DEFORMED BARS	
	492				492			511	34447	492	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN (UNI-33-24.89 R)	777
	2				2			511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE (UNI-33-24.89 R)	
	91				91			511	34451	91	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN (UNI-33-24.89 R)	777
	159				159			511	41013	159	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN (UNI-33-24.89 R)	777
	395				395			511	44113	395	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN (UNI-33-24.89 R)	777
	451				290		161	511	46013	451	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN (UNI-33-24.89 R)	777
	1,003				744		259	511	46513	1,003	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN (UNI-33-24.89 R)	777
	61				61			511	53014	61	CY	CLASS QC3 CONCRETE, MISC.: MUDMAT (UNI-33-24.89 R)	777
	10						10	511	53014	10	CY	CLASS QC3 CONCRETE, MISC.: PRECAST CONCRETE ARCH PANELS (UNI-33-24.89 R)	777
	1,531				1,402		129	SPECIAL	51275500	1,531	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE (UNI-33-24.89 R)	777
	71				71			512	33000	71	SY	TYPE 2 WATERPROOFING (UNI-33-24.89 R)	
	354,300				351,700		2,600	513	10281	354,300	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN (UNI-33-24.89 R)	777
	5,460				5,460			513	20000	5,460	EACH	WELDED STUD SHEAR CONNECTORS (UNI-33-24.89 R)	
	2,023						2,023	514	00060	2,023	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT (UNI-33-24.89 R)	
	2,023						2,023	514	00067	2,023	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN (UNI-33-24.89 R)	777
	182				182			516	10010	182	FT	ARMORLESS PREFORMED JOINT SEAL (UNI-33-24.89 R)	
	416				416			516	13600	416	SF	1" PREFORMED EXPANSION JOINT FILLER (UNI-33-24.89 R)	
	222				222			516	13900	222	SF	2" PREFORMED EXPANSION JOINT FILLER (UNI-33-24.89 R)	
	190				190			516	14020	190	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL (UNI-33-24.89 R)	
	10				10			516	44101	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-5" x 1'-3" x 2.649" BEARING) (UNI-33-24.89 R)	777
	20				20			516	44201	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-3" x 1'-0" x 3.224" BEARING) (UNI-33-24.89 R)	777
	194						194	517	76300	194	FT	RAILING, MISC.: GALVANIZED AND PAINTED STEEL RAILING, TEXAS TYPE T8OHT WITH PAINTED ALUMINUM POST ORNAMENTS (UNI-33-24.89 R)	777
	604				459		145	518	21200	604	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC (UNI-33-24.89 R)	
	672				672			518	40000	672	FT	6" PERFORATED CORRUGATED PLASTIC PIPE (UNI-33-24.89 R)	
	249				249			518	40010	249	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS (UNI-33-24.89 R)	
	530				530			526	30011	530	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN (UNI-33-24.89 R)	777
	182				182			526	90030	182	FT	TYPE C INSTALLATION (UNI-33-24.89 R)	
	4,845						4,845	602	97000	4,845	SF	MASONRY, MISC.: STONE FACING (UNI-33-24.89 R)	777
												UNI-33-24.50 / SFN 8001553	
LS						LS		202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (UNI-33-24.50)	766
LS						LS		503	11100	LS		COFFERDAMS AND EXCAVATION BRACING (UNI-33-24.50)	
LS						LS		503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN (UNI-33-24.50)	766
2,880						2,880		509	10001	2,880	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN (UNI-33-24.50)	766

NO.	DESCRIPTION	REV. BY	DATE
C	ITEM UPDATES	ENR	3-3-2022

CALCULATED NJL
CHECKED KOD

GENERAL SUMMARY

UNI-33-24.87

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SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE	41	48	666	667	766						01/NHS/PV	02/S>2/PV	04/S>2/BR						
					170								170	509	20001	170	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN (UNI-33-24.50)	766
					22								22	510	10000	22	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT (UNI-33-24.50)	
					7								7	511	33414	7	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE (UNI-33-24.50)	
					12								12	511	44112	12	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING (UNI-33-24.50)	
					9								9	511	46512	9	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING (UNI-33-24.50)	
					34								34	SPECIAL	51275500	34	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE (UNI-33-24.50)	766
					7								7	512	33000	7	SY	TYPE 2 WATERPROOFING (UNI-33-24.50)	
					18								18	516	13600	18	SF	1" PREFORMED EXPANSION JOINT FILLER (UNI-33-24.50)	
					21								21	518	21200	21	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC (UNI-33-24.50)	
					27								27	518	40000	27	FT	6" PERFORATED CORRUGATED PLASTIC PIPE (UNI-33-24.50)	
					20								20	518	40011	20	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN (UNI-33-24.50)	766
																		MAINTENANCE OF TRAFFIC	
		8,511									8,511			254	01000	8,511	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 12.5 MM	
		2,841									2,841			411	10000	2,841	CY	STABILIZED CRUSHED AGGREGATE	
		1,047									1,047			442	10001	1,047	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG 70-22M	9
	500										350	150		614	11110	500	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		4,203									2,988	1,215		614	11630	4,203	FT	INCREASED BARRIER DELINEATION	
		83									56	27		614	12380	83	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
	LS										LS	LS		614	12420	LS		DETOUR SIGNING	
	10										6	4		614	12484	10	EACH	WORK ZONE INCREASED PENALTIES SIGN	
	50										30	20		614	12500	50	EACH	REPLACEMENT SIGN	
	100										60	40		614	12600	100	EACH	REPLACEMENT DRUM	
		375									375			614	12801	375	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	46
		854									551	303		614	13310	854	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
	14										14			614	13312	14	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
	14	854									565	303		614	13350	868	EACH	OBJECT MARKER, ONE WAY	45
	50,000										50,000			614	18000	50,000	EACH	MAINTAINING TRAFFIC, MISC.: BRIDGE DECK AND PAVEMENT PATCHING	45
	31										18	13		614	18601	31	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	44
		0.53										0.53		614	21100	0.53	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
		3.64										3.64		614	22100	3.64	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	
		1,833										1,833		614	23200	1,833	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
		3,711										3,711		614	24200	3,711	FT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	
		22										22		614	30200	22	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
		10,288									5,602	4,686		615	20001	10,288	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	44
	100										60	40		615	25001	100	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	46
	50										30	20		615	25001	50	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	46
	20										12	8		615	25001	20	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	46
	20										12	8		615	25001	20	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	46
	970										582	388		616	10000	970	MGAL	WATER	
		4									4			622	41050	4	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
		37,430									25,800	11,630		622	41100	37,430	FT	PORTABLE BARRIER, UNANCHORED	
		4,395									970	3,425		622	41110	4,395	FT	PORTABLE BARRIER, ANCHORED	
		13.44									13.44			807	13010	13.44	MILE	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
		4.09									4.09			807	13110	4.09	MILE	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
		14,251									14,251			807	13310	14,251	FT	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
		4,826									4,826			807	13410	4,826	FT	WET REFLECTIVE SPRAY THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
	360										216	144		808	18700	360	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																		INCIDENTALS	
	LS										LS	LS		614	11000	LS		MAINTAINING TRAFFIC	
30											30			619	16020	30	MNTH	FIELD OFFICE, TYPE C	
LS											LS			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
LS											LS			624	10000	LS		MOBILIZATION	
LS																			
LS											LS			108	10000	LS		CPM PROGRESS SCHEDULE	
LS																			

NO.	DESCRIPTION	REV. BY	DATE
B	ITEM UPDATES	ENR	2-28-2022
C	ITEM UPDATES	ENR	3-3-2022

CALCULATED NJL
CHECKED KOD

GENERAL SUMMARY

UNI-33-24.87

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923

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GUARDRAIL STATIONING		ITEM
A	STA. 2030+23.05 LT	MGS BARRIER GUARDRAIL
B	STA. 2031+41.42 LT	
C	STA. 2032+03.92 LT	MGS BTA TYPE 1
D	STA. 2032+30.82 LT	
E	STA. 2029+07.20 RT	MGS TYPE B AA
F	STA. 2029+44.70 RT	
G	STA. 2030+57.29 RT	MGS BTA TYPE 1
H	STA. 2030+84.19 RT	
I	STA. 2034+69.85 RT	MGS BTA TYPE 2
J	STA. 2034+71.85 RT	

BM #1159
REBAR IN CONC. R/W MONUMENT FOUND, IN THE EXISTING CENTERLINE OF U.S. ROUTE 33.
STA. 1320+00.08, 0.23' RT ELEV. = 942.99

BM #1160
REBAR IN CONC. R/W MONUMENT FOUND, IN THE EXISTING CENTERLINE OF U.S. ROUTE 33.
STA. 1327+20.15, 0.16' RT ELEV. = 954.38

BM #1069
BOLT ON "W" SIDE OF GUARDRAIL, 142' SOUTHWESTERLY OF THE U.S. 33., 4' SOUTH OF PROPOSED ℄ OF S.R. 161
STA. 52+38.33, 3.90' RT. ELEV. = 938.56

** - LOCATE EX. SMC FO AND ADJUST MGS POST INSTALLATION TO AVOID RELOCATION

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- DITCH EROSION PROTECTION
- PAVEMENT RESURFACING LIMITS
* - SAW CUT

BEGIN PROJECT STA. 1326+08.27 S.L.M. 24.87
END PROJECT STA. 1330+47.27 S.L.M. 25.09
STA. 1327+48.81 EX. STRUCTURE NO. UNI-33-2489 L&R PROPOSED STRUCTURE NO. UNI-33-2489 L&R
STA. 2032+97.77 U.S. 33 EB = STA. 53+37.54 S.R. 161
STA. 1328+27.99 EX. U.S. 33 = STA. 53+99.80 S.R. 161
BEGIN APPROACH SLAB STA. 2033+77.57
END APPROACH SLAB STA. 2034+07.57
END FULL-DEPTH PAVING
BEGIN PAVEMENT RESURFACING STA. 2034+47.00
E200 (605)
BM #1160 (TBR)
CURB, TYPE 4-C
GUARDRAIL, TYPE MGS
END APPROACH SLAB, STA. 2032+17.96
BEGIN APPROACH SLAB, STA. 2031+87.96
END PAVEMENT RESURFACING, BEGIN FULL-DEPTH PAVING STA. 2031+09.00
IMPACT ATTENUATOR, TYPE I (BIDIRECTIONAL)
EX. GUARDRAIL, (TBR)
S 20° 50' 09" E
SAW CUT
15:1 FLARE
50:1 TAPER
EX. CABLE BARRIER (DND)
EX. GUARDRAIL, (TBR)
EX. ℄ R/W & CONST. U.S. 33
MATCH LINE 2024+50 US 33 EB SEE SHEET 133
MATCH LINE 2037+00 US 33 EB SEE SHEET 137
℄ CONST. RAMP E-S
℄ CONST. RAMP W-S
℄ CONST. S.R. 161
PROPOSED WATERLINE
PROPOSED UTILITY DUCT
EX. OVERHEAD ELECTRIC
EX. TELEPHONE
EX. 12" WATER W/ 24" CASING
EX. 24" RCP (TBR)
EX. 12" W (CITY OF MARYSVILLE)
EX. 12" W (ABD)
EX. 16" W (07-097-149)
EX. 16" WATER (CITY OF DUBLIN)
EX. FENCE (TBR)
PROP. FENCE
CONST. LIMITS
EX LA-R/W
Ex CH
Ex U
CMP
RCP
PT Sta. 807+63.62
PCO Sta. 808+03.75
+100.67 BEGIN TAPER
ST Sta. 714+00.01, RAMP E-S = U.S. 33 EB STA. 2027+86.76, 25' RT
Ex CH Sta. 712+00.01

NO.	DESCRIPTION	REV. BY	DATE
B	REMOVED & ADDED BALLOON	ENR	2-28-2022
C	ADDITIONAL AEP POLES	ENR	3-3-2022

CALCULATED KOD CHECKED MAH

HORIZONTAL SCALE IN FEET 0 25 50 100

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
584	DRAINAGE DETAILS
555 & 556	RAMP E-S TERMINAL DETAILS
771 & 839	STRUCTURE PLANS
793 & 798	RETAINING WALL PLANS
123 - 128	UNDERDRAIN INFORMATION
585 - 591	WATER WORK PLANS
706 - 715	TRAFFIC SURVEILLANCE PLANS
873 - 881	FENCE PLANS

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.

Prop. Profile Grade: 945.53 946.54 947.54 948.02 948.49 948.94 949.38 949.80 950.20 950.59 950.96 951.32 951.66 951.98 952.29 952.59 952.86 953.12 953.37 953.60 953.82 954.01 954.20 954.36 954.51 954.65 954.77 954.87 954.96 955.03 955.09 955.13 955.16 955.16 955.16 955.14 955.10 955.04 954.97 954.89 954.79 954.67 954.54 954.39 954.22 954.04 953.85 953.63 953.41

Ex. Profile Grade: 945.34 946.36 947.28 948.25 949.12 949.91 950.69 951.35 951.98 952.54 953.08 953.52 953.92 954.21 954.51 954.60 936.98 938.03 935.93 954.87 954.54 954.52 954.23 953.88 953.62 953.19

+2.01 % -2.03 %
BRIDGE LENGTH 159'-8"
PROPOSED PROFILE GRADE
EXISTING GROUND
6" U.D.
EX. FO
EX. ELEC.
MIN. VERTICAL CLEARANCE PROVIDED = 16'-6" PREFERRED = 16'-6"
℄ CONSTRUCTION S.R. 161
EX. SIGNAL LOOP WIRE
P.V.I. STA 2033+30.80 ELEV = 963.25'
PROPOSED 12" CONDUIT, TYPE B
1,600.00' VC K = 395.8
PROPOSED 12" WATER IN CASING
PROPOSED AEP CONDUIT
EX. 12" ENCASED WATER (TO BE ABANDONED)
EX. 16" ENCASED WATER MAIN PREVIOUSLY ABNDONED PER 07-097-149 (TO BE REMOVED)
EXISTING 16" WATER IN CASING (DND)
960 955 950 945 940 935 930
2025+00 2026+00 2027+00 2028+00 2029+00 2030+00 2031+00 2032+00 2033+00 2034+00 2035+00 2036+00 2037+00

PLAN AND PROFILE - US 33 EB
STA. 2024+50.00 TO STA. 2037+00.00 EB

UNI-33-24.87

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923

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BM #1159
REBAR IN CONC. R/W MONUMENT FOUND, IN THE EXISTING CENTERLINE OF U.S. ROUTE 33.
STA. 1320+00.08, 0.23' RT ELEV. = 942.99

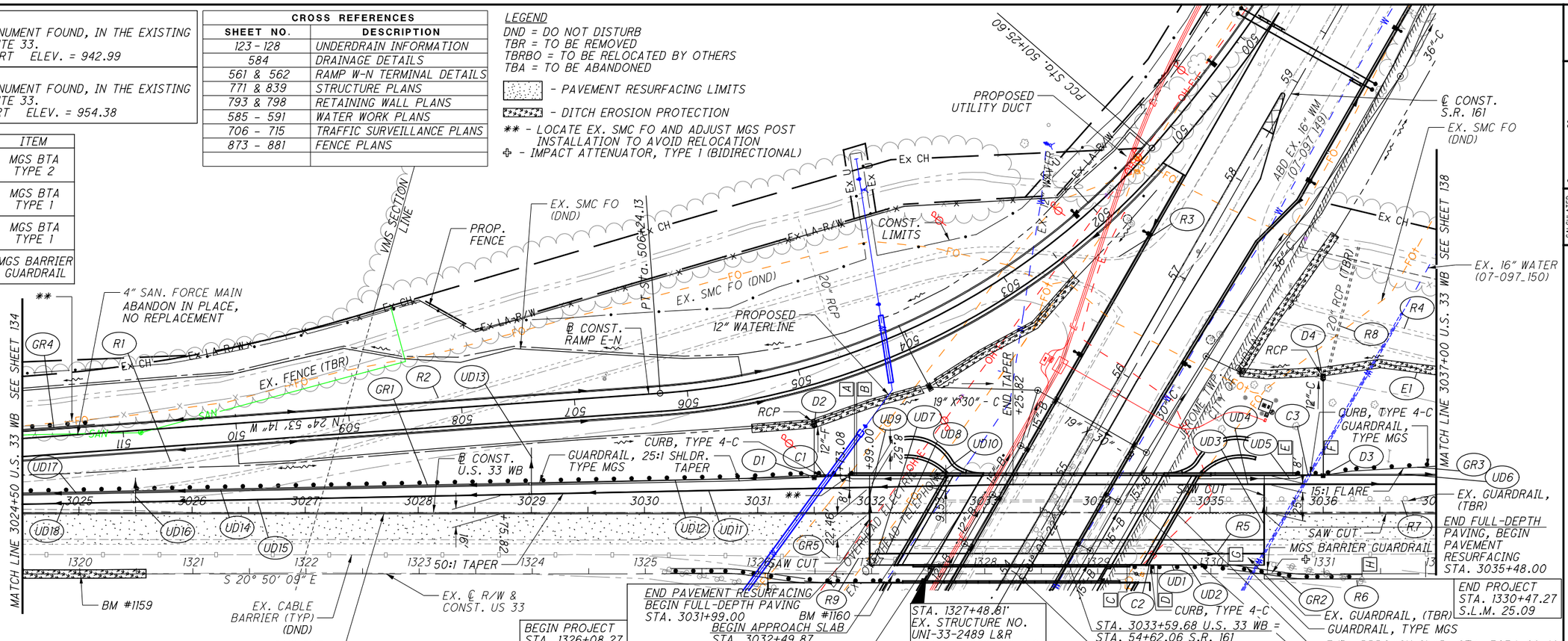
BM #1160
REBAR IN CONC. R/W MONUMENT FOUND, IN THE EXISTING CENTERLINE OF U.S. ROUTE 33.
STA. 1327+20.00, 0.16' RT ELEV. = 954.38

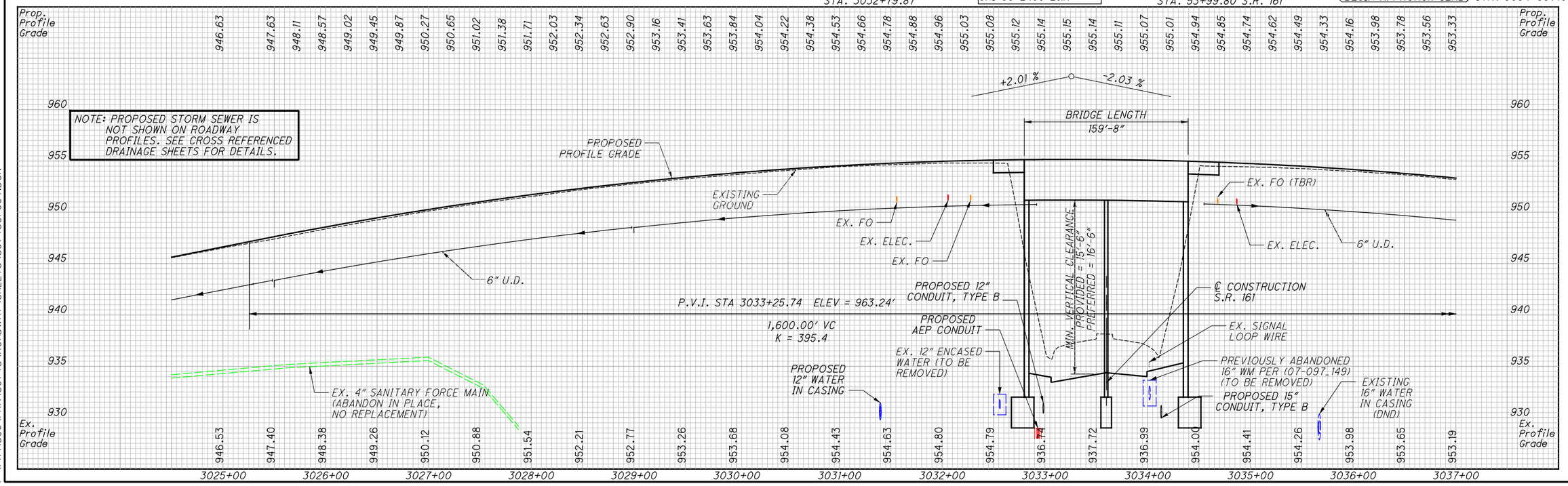
GUARDRAIL STATIONING	ITEM
A STA. 3031+85.62 LT	MGS BTA TYPE 2
B STA. 3031+87.62 LT	
C STA. 3034+26.63 RT	MGS BTA TYPE 1
D STA. 3034+53.53 RT	
E STA. 3035+73.25 LT	MGS BTA TYPE 1
F STA. 3036+00.15 LT	
G STA. 3035+16.03 RT	MGS BARRIER GUARDRAIL
H STA. 3036+34.40 RT	

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
123 - 128	UNDERDRAIN INFORMATION
584	DRAINAGE DETAILS
561 & 562	RAMP W-N TERMINAL DETAILS
771 & 839	STRUCTURE PLANS
793 & 798	RETAINING WALL PLANS
585 - 591	WATER WORK PLANS
706 - 715	TRAFFIC SURVEILLANCE PLANS
873 - 881	FENCE PLANS

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION
** - LOCATE EX. SMC FO AND ADJUST MGS POST INSTALLATION TO AVOID RELOCATION
- IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)





HORIZONTAL SCALE IN FEET
CALCULATED KOD CHECKED MAH

PLAN AND PROFILE - US 33 WB
STA. 3024+50.00 TO STA. 3037+00.00 WB

UNI-33-24.87

136
923

P:\PR41806\FRA\80748\ROADWAY\SHEETS\80748GP004.DGN

P.I. STA. 2048+73.24
Ls = 200.00'
θ s = 1° 26' 48"
LT = 133.34'
ST = 66.67'
x = 199.99'
y = 1.68'
k = 100.00'
p = 0.42'

P.I. STA. 2055+66.78
Δ = 17° 59' 16" (LT)
Dc = 1° 26' 48"
R = 3,960.62'
T = 626.87'
L = 1243.43'
E = 49.30'
S.E. = MATCH EX.

P.I. STA. 2079+69.87
Δ = 48° 54' 56" (LT)
Dc = 1° 27' 38"
R = 3,922.80'
T = 1,784.23'
L = 3,349.04'
E = 386.71'
S.E. = MATCH EXISTING

P.I. STA. 1350+55.19
Δ = 18° 00' 00" (LT)
Dc = 1° 28' 00"
R = 3,906.62'
T = 618.75'
L = 1,227.30'
E = 48.70'

END FULL DEPTH PAVEMENT LT. / BEGIN APP. SLAB STA. 2050+94.96

BEGIN FULL DEPTH PAVEMENT LT. STA. 2050+19.96

END APP. SLAB STA. 2051+19.90

STA. 2051+27.26 STRUCTURE NUMBER FRA-33-0014 R

BEGIN APP. SLAB STA. 2051+34.50

BEGIN FULL DEPTH PAVEMENT LT. / END APP. SLAB STA. 2051+59.48

END FULL DEPTH PAVEMENT LT. STA. 2052+59.46

PT Sta. 1356+63.74
EQUATION: Sta 1356+63.74 BK = Sta 17+95.55 AH

PC Sta. 17+97.86

BM #1173

MATCH LINE 2049+50 US 33 EB SEE SHEET 137

MATCH LINE 2062+00.00 US 33 EB SEE SHEET 141

U.S. 33 EB RAMP W-S ST STA. 820+82.84

SAW CUT

℄ CONST. RAMP W-S

℄ CONST. U.S. 33 EB

CURB, TYPE 4-C 18" CMP

MANHOLE ADJUSTED TO GRADE

EITERMAN ROAD

BM #1076

EX. 16" WATER (DUO190_004)

EX. 24" CMP

EX. 36" RCP

EX. 15" RCP

EX. 15" SAN

EX. 4" HP GAS

EX. 16" WATER (DUO190_004)

EX. CABLE BARRIER (TYP) (DND)

EX. ℄ R/W & CONST. U.S. 33

EX. GUARDRAIL, (TBR)

EX. SMC FO (DND)

EX. FENCE (TBR)

GUARDRAIL, TYPE MGS

50:1 TAPER

PROP. FENCE

CONST. LIMITS

15:1 FLARE GUARDRAIL, TYPE MGS

EX. CHANGABLE MESSAGE SIGN & SUPPORT (DND)

VMS SECTION

DUBLIN CORP. WASHINGTON TWP.

ITEM 601 - 12" OF RCP, TYPE D ENERGY PROTECTION AREA#

\# DO NOT EXTEND RCP INTO BED AND BANKS OF THE MAIN CHANNEL OR PLACE RCP IN A MANNER THAT IT WILL BLOCK THE FLOW

** - LOCATE EX. SMC FO AND ADJUST MGS POST, STORM SEWER, OR UD INSTALLATION TO AVOID RELOCATION

BM #1076
BRASS PLAQUE IN THE NORTHWEST WINGWALL OF CULVERT (WAS-41-0.75) FOR THE SOUTH FORK OF INDIAN RUN, 148' SOUTHWESTERLY OF THE PROPOSED BASELINE OF CONST. U.S. 33 EB.
STA. 2051+51.71, 148.26' RT. ELEV. = 936.33

BM #1173
REBAR IN CONC. R/W MONUMENT FOUND, IN THE EXISTING CENTERLINE OF U.S. ROUTE 33.
STA. 17+99.45, 0' ELEV. = 936.44

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
123 - 128	UNDERDRAIN INFORMATION
558 & 559	RAMP W-S TERMINAL DETAILS
583	DRAINAGE DETAILS
706 - 715	TRAFFIC SURVEILLANCE PLANS
841 - 872	STRUCTURE PLANS
873 - 881	FENCE PLANS

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- DITCH EROSION PROTECTION
- PAVEMENT RESURFACING LIMITS

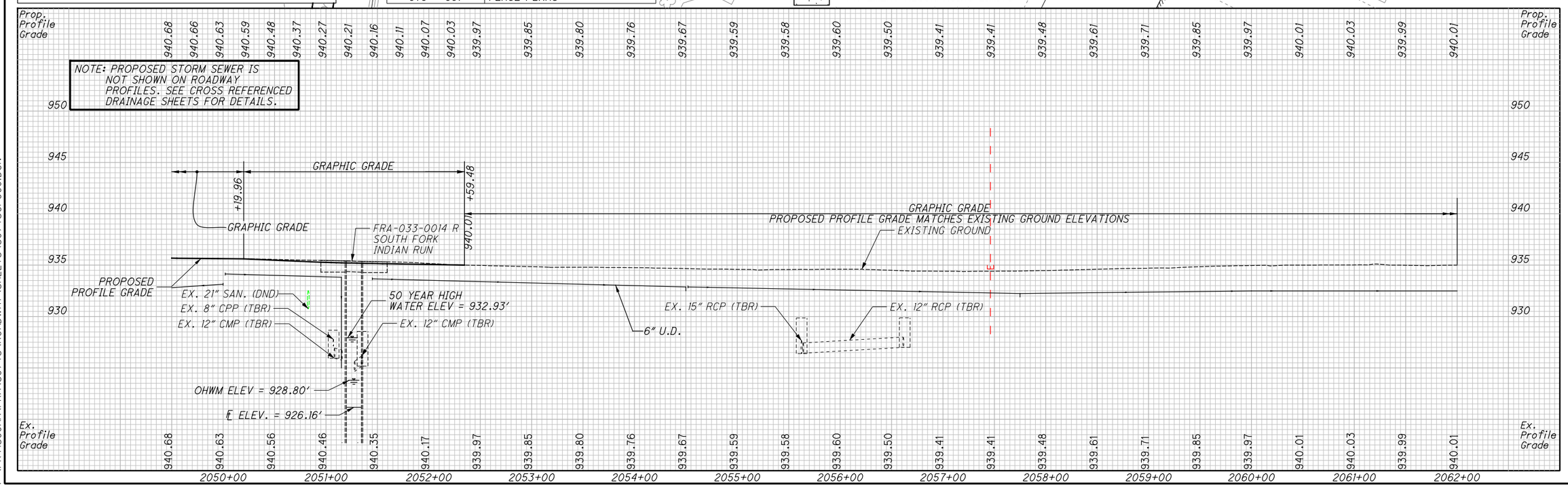
GUARDRAIL STATIONING		ITEM
A	STA. 2049+55.44 RT	MGS TYPE E AA
B	STA. 2050+83.49 RT	MGS BTA TYPE 1
C	STA. 2051+10.16 RT	
D	STA. 2051+52.38 RT	MGS BTA TYPE 2
E	STA. 2051+54.37 RT	
F	STA. 2053+99.56 RT	MGS TYPE T AA
G	STA. 2054+12.06 RT	
H	STA. 2060+11.35 RT	MGS TYPE B AA
I	STA. 2060+48.85 RT	
J	STA. 2061+48.85 RT	MGS TYPE T AA
K	STA. 2061+61.35 RT	
L	STA. 2050+89.26 LT	MGS BTA TYPE 1
M	STA. 2051+16.37 RT	

NO.	DESCRIPTION	REV. BY	DATE
B	ADDED BALLOON	ENR	2-28-2022
C	MOVED CONDUIT	EMW	3-3-2022

CALCULATED KOD
CHECKED MAH

HORIZONTAL SCALE IN FEET
0 25 50 100

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.



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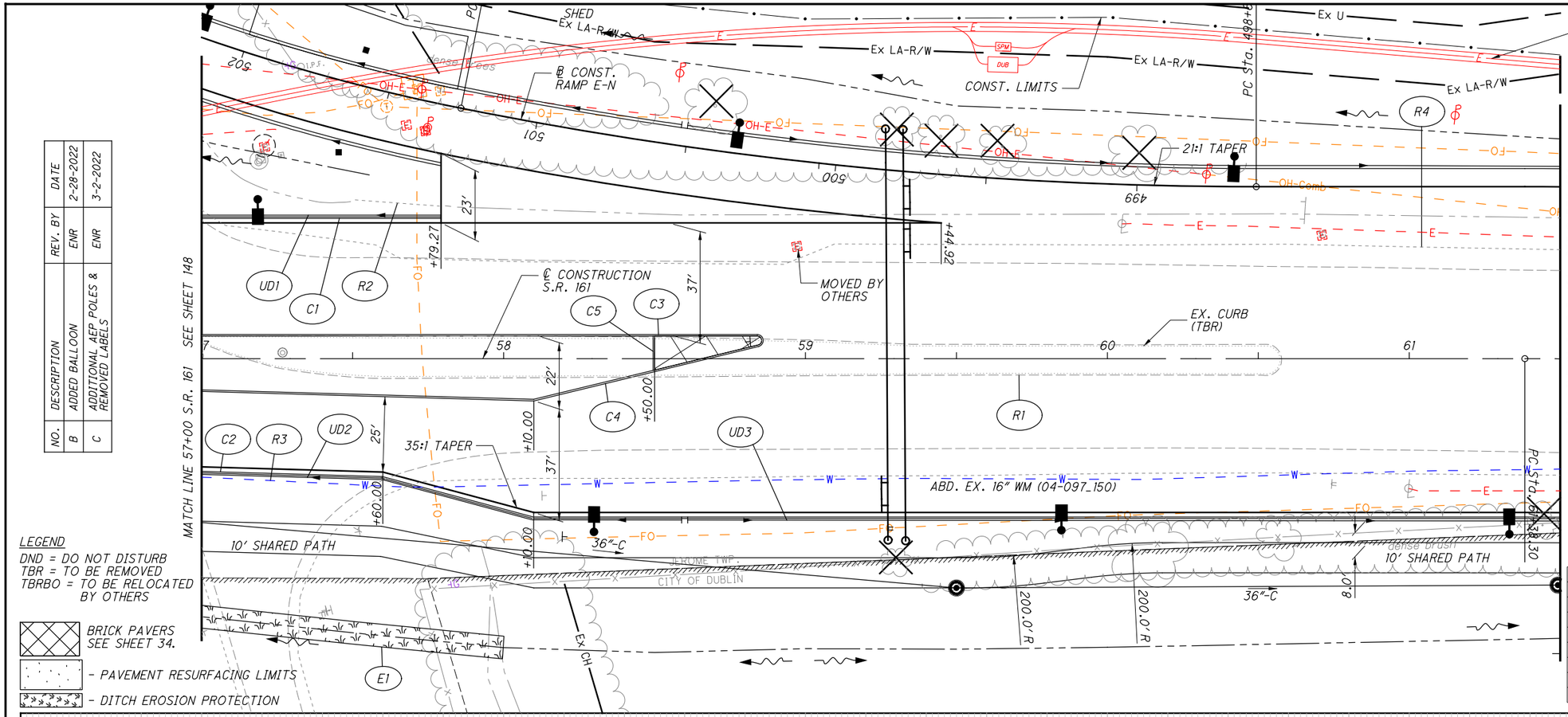
PROFILE - US 33 EB
STA. 2049+50.00 EB TO STA. 2062+00.00 EB

UNI-33-24.87

NO.	DESCRIPTION	REV. BY	DATE
B	ADDED BALLOON	ENR	2-28-2022
C	ADDITIONAL AEP POLES & REMOVED LABELS	ENR	3-2-2022



LEGEND

DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS

BRICK PAVERS SEE SHEET 34.

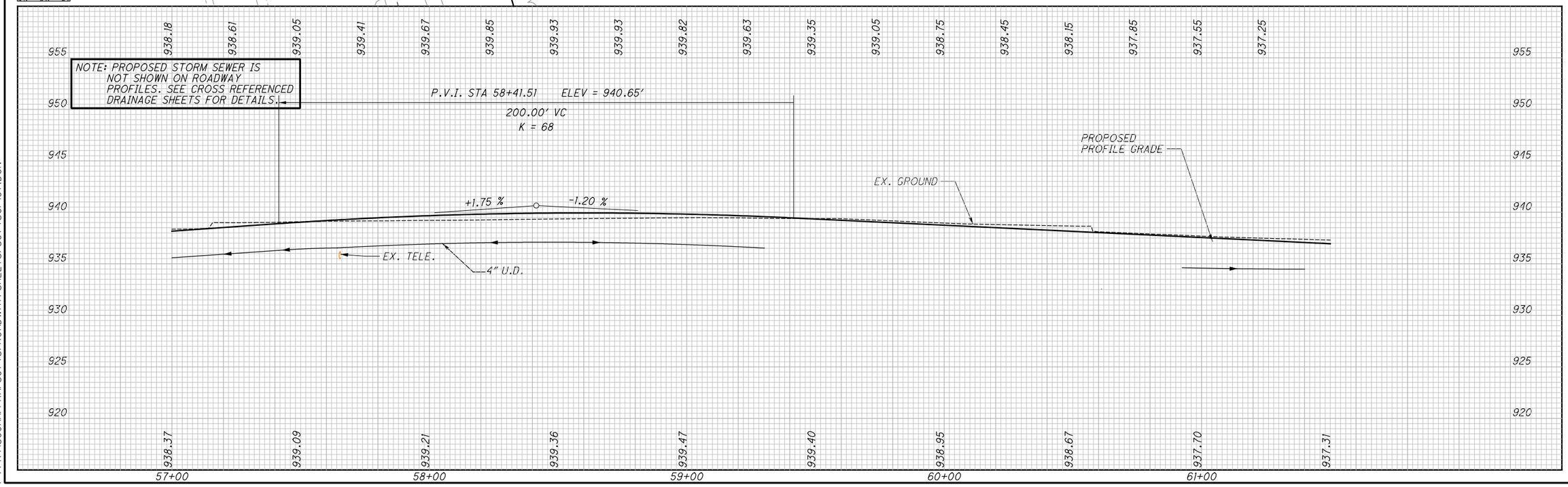
- PAVEMENT RESURFACING LIMITS

- DITCH EROSION PROTECTION

CURVE DATA

P.I. Sta. 64+26.76
Δ = 28° 15′ 32″ (RT)
Dc = 5° 00′ 00″
R = 1,145.92′
T = 288.46′
L = 565.18′
E = 35.75′
C = 559.47′
C.B. = S 66° 53′ 36″ E
S.E. = MATCH EXISTING

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
568 - 573, 583 - 584	DRAINAGE DETAILS
550	RAMP E-N TERMINAL DETAILS
560	RAMP W-N TERMINAL DETAILS
	UNDERDRAIN INFORMATION
	UTILITY DUCT PLANS



PLAN AND PROFILE - S.R. 161
STA. 57+00.00 TO STA. 61+50.00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MRT
CHECKED MAH

UNI-33-24.87

149
923

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BM #162
REBAR IN CONC. R/W MONUMENT FOUND, IN THE EXISTING CENTERLINE OF U.S. ROUTE 33.
STA. 1344+36.44, 0' ELEV. = 939.13

BM #1001
BRASS PLAQUE. FRANKLIN COUNTY ENGINEER'S BENCHMARK N32, WEST OF THE EXISTING CENTERLINE OF LIGGETT RD. STATION 13+61.72, 12.97' WEST, ELEV. = 934.12

RP# 1068
SOUTHEAST BOLT OF LIGHT POLE BASE (#CC-2/C-9), NORTH OF THE EXISTING CENTERLINE OF POST ROAD.
STA. 243+27.68, 38.89' NORTH, ELEV. 937.29

IPS# 100
IRON PIN SET, EAST OF THE EXISTING CENTERLINE OF LIGGETT ROAD.
STA. 1+78.79, 35.84' EAST, ELEV. = 936.46

NO.	DESCRIPTION	REV. BY	DATE
B	ADDED BALLOON	ENR	2-28-2022
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-2-2022

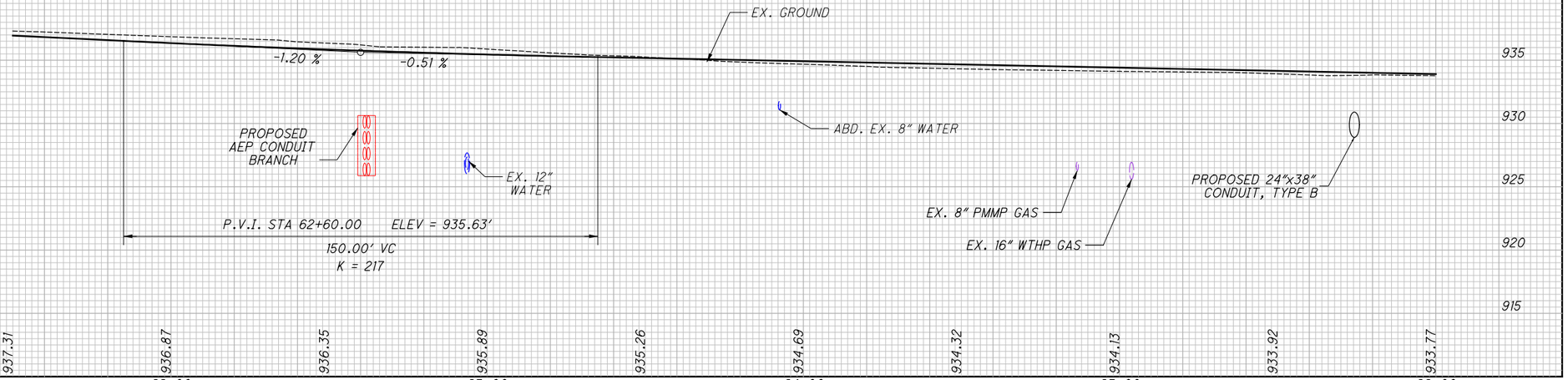
LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
571-573, 583-584	DRAINAGE DETAILS
	UNDERDRAIN INFORMATION
	INTERSECTION DETAILS
587-590	WATER WORK
609-615	UTILITY DUCT PLAN

PROPOSED UTILITY DUCT
CONST. LIMITS
MATCH LINE S.R. 161 STA. 61+50.00
SEE SHEET 149
REMOVED BY OTHERS
℄ CONSTRUCTION S.R. 161
STA. 63+89.47 S.R. 161 = STA. 925+17.53 RAMP S-EW
JEROME TWP. DUBLIN CORP.
10' SHARED PATH
MOVED BY OTHERS
EX. CONCRETE PAD
EX. 8" PMMP GAS
RESIDENTIAL 2-STY FRAME
℄ CONSTRUCTION POST ROAD (CR 24)
EX. ℄ POST. ROAD
TIME WARNER FIBER OPTIC
AT&T FIBER OPTIC (DND)
EX. AT&T MH (ATO BY OTHERS)
EX. WV (ABD)
ABD. EX. 16" WM (04-097_151)
ABD. EX. 6" GAS (TBR)
3" STEEL CONDUIT ELEC.
EX. 16" WM (07-097_151) (DND)
EX. 8" WM (07-097_151) (TBR)
16" HP GAS (ABD)
STA. 64+05.40, 31.12' RT BEGIN BIKE PATH REMOVAL
EX. WV (ABD)
FRONTIER-BY OTHERS
EX. 16" WTHP GAS
EX. 8" PMMP GAS
EX. SMC FO (DND)
EX. 16" WATER (07-097_151)
A -STA. 64+02.02 S.R. 161 = STA. 64+02.02 POST RD. (CR 24) = STA. 400+00.00 HYLAND - CROY RD.
MATCH LINE POST ROAD (CR 24) STA. 66+00.00 SEE SHEET 151
≠ SEE SHEET 564 FOR WALKWAY DIMENSIONS
BRICK PAVERS SEE SHEET 34.

CURVE DATA
P.I. Sta. 64+26.76
Δ = 28° 15' 32" (RT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 288.46'
L = 565.18'
E = 35.75'
C = 559.47'
C.B. = S 66° 53' 36" E
S.E. = MATCH EXISTING

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MRT
CHECKED JED

PLAN AND PROFILE - S.R. 161/ POST RD.
STA. 61+50.00 TO STA. 66+00.00

UNI-33-24.87

150
923

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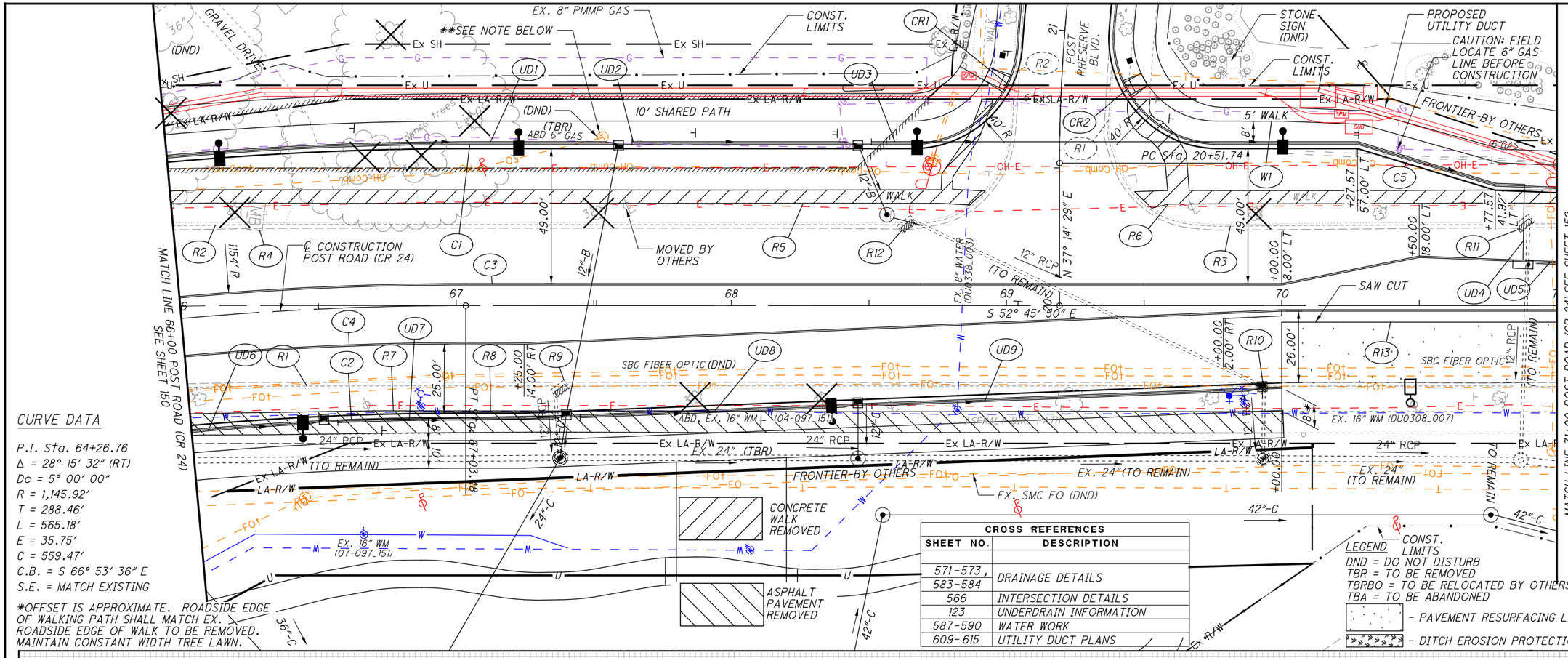


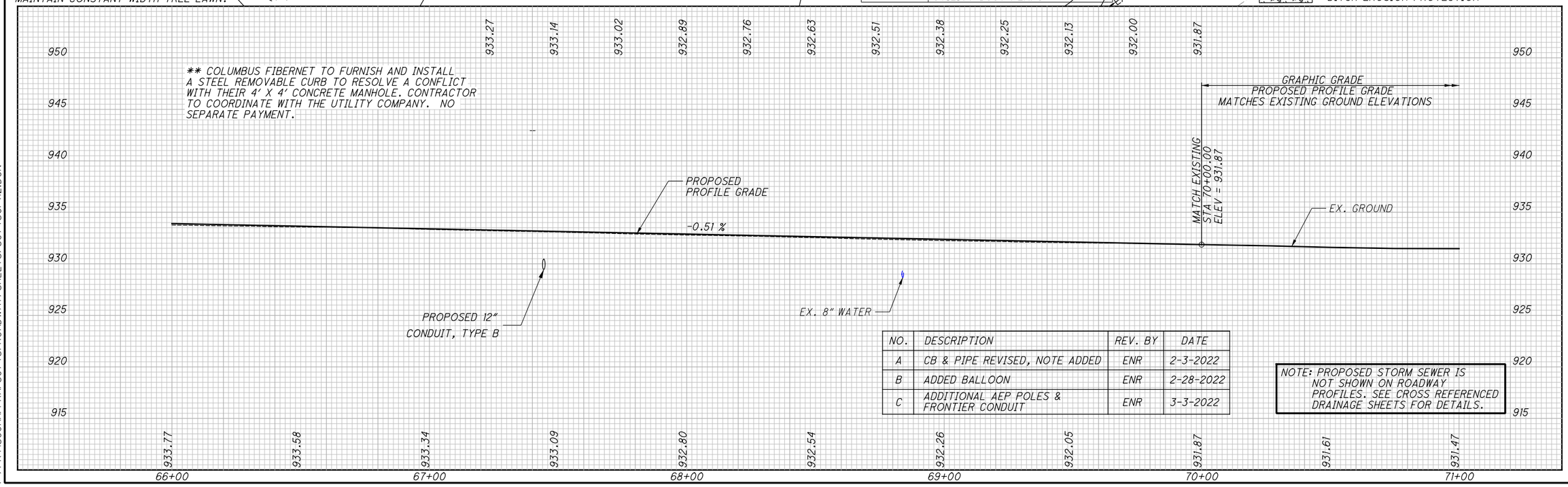
CURVE DATA

P.I. Sta. 64+26.76
Δ = 28° 15′ 32″ (RT)
Dc = 5° 00′ 00″
R = 1,145.92′
T = 288.46′
L = 565.18′
E = 35.75′
C = 559.47′
C.B. = S 66° 53′ 36″ E
S.E. = MATCH EXISTING

*OFFSET IS APPROXIMATE. ROADSIDE EDGE OF WALKING PATH SHALL MATCH EX. ROADSIDE EDGE OF WALK TO BE REMOVED. MAINTAIN CONSTANT WIDTH TREE LAWN.

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
571-573, 583-584	DRAINAGE DETAILS
566	INTERSECTION DETAILS
123	UNDERDRAIN INFORMATION
587-590	WATER WORK
609-615	UTILITY DUCT PLANS

LEGEND
CONST. LIMITS
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION



NO.	DESCRIPTION	REV. BY	DATE
A	CB & PIPE REVISED, NOTE ADDED	ENR	2-3-2022
B	ADDED BALLOON	ENR	2-28-2022
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MRT
CHECKED MAH

PLAN AND PROFILE - POST ROAD (CR 24)
STA. 66+00.00 TO STA. 71+00.00

UNI-33-24.87

151
923

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CONCRETE WALK REMOVED

*OFFSET IS APPROXIMATE. ROADSIDE EDGE OF WALKING PATH SHALL MATCH EX. ROADSIDE EDGE OF WALK TO BE REMOVED. MAINTAIN CONSTANT WIDTH TREE LAWN.

BRICK PAVERS SEE SHEET 34.

P.I. STA. 74+03.09
Δ = 48° 00' 10" (RT)
Dc = 8° 48' 53"
R = 650.00'
T = 289.42'
L = 544.57'
E = 61.52'
S.E. = MATCH EXISTING

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
571-574,	DRAINAGE DETAILS
	MEDIAN DETAILS
	UTILITY DUCT PLANS
	INTERSECTION DETAILS

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION

UNLESS OTHERWISE LABELED, ALL STORM SEWER IS TO REMIAN

NO.	DESCRIPTION	REV. BY	DATE
B	ADDED BALLOON	ENR	2-28-2022
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED MRT CHECKED MAH

PLAN - POST ROAD (CR 24)/ PERIMETER DRIVE STA 71+00.00 TO END WORK

UNI-33-24.87

152
923

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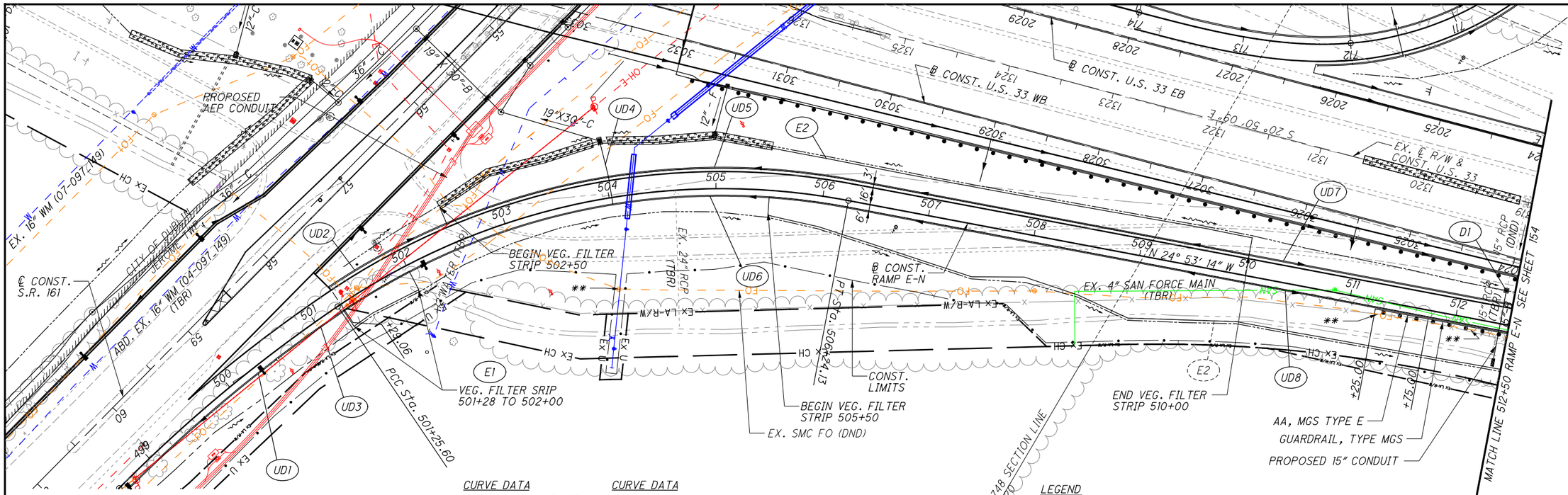


CURVE DATA
P.I. STA. 500+74.69
Δ = 11° 54′ 28″ (RT)
Dc = 8° 00′ 00″
R = 716.20′
T = 74.69′
L = 148.85′
E = 3.88′
S.E. = 0.060 (45 MPH)

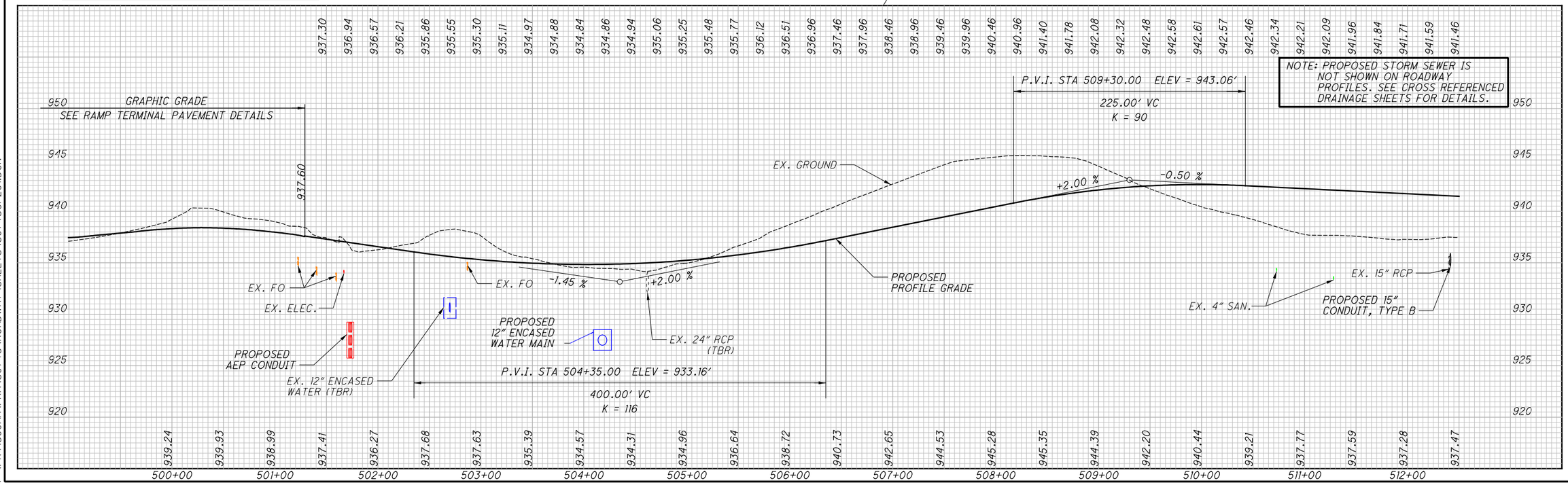
CURVE DATA
P.I. STA. 503+89.91
Δ = 41° 28′ 47″ (RT)
Dc = 9° 00′ 00″
R = 636.62′
T = 241.07′
L = 460.89′
E = 44.11′
S.E. = 0.060 (45 MPH)

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION
** - LOCATE EX. SMC FO AND ADJUST MGS POST, STORM SEWER, OR UD INSTALLATION TO AVOID RELOCATION

CROSS REFERENCES

SHEET NO.	DESCRIPTION
583	DRAINAGE DETAILS
550	RAMP E-N EXIT TERMINAL DETAILS
123-128	UNDERDRAIN INFORMATION
873-881	FENCE PLANS
589	WATER WORK

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022



HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MRT
CHECKED MAH

PLAN AND PROFILE - RAMP E-N
STA. 501+29.06 TO STA. 512+50.00

UNI-33-24.87

153
923

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LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION

EXISTING 16" WATER
EXISTING AEP CONDUIT BRANCH
EX. MANUFACTURED WATER QUALITY SYSTEM (TO REMAIN)
℄ CONST. RAMP W-S
ABD. EX. 16" WM (04-097_147)
PROPOSED AEP CONDUIT
EX. 12" WATER WITH 24" CASING (TBR)
℄ CONSTRUCTION S.R. 161
EX. ℄ R/W & CONST. U.S. 33
EX. 12" WATER W/ 24" CASING (TO BE REMOVED)
℄ CONST. RAMP E-N
℄ CONST. U.S. 33 WB
℄ CONST. U.S. 33 EB
PROPOSED 12" WATER
REMOVED BY OTHERS
EX. 12" WATER (DND)
℄ CONST. RAMP E-S
ABD. EX. 12" WATER
MOVED BY OTHERS
EX. MANUFACTURED WATER QUALITY SYSTEM (TO REMAIN)
CONST. LIMITS
ASPHALT
℄ CONST. RAMP N-EW
ABD. 12" WATER
12" WATER
4" HP GAS
LEACH FIELD
UD1 UD2 UD3 UD4 UD5 UD6 UD7 UD8

PC Sta. 697+39.50
PI Sta. 700+65.18
PT Sta. 703+95.68
PC Sta. 701+05.85
PI Sta. 705+18.54
PT Sta. 707+44.50
PC Sta. 711+79.36
PI Sta. 712+80.59
PT Sta. 713+81.82
PC Sta. 714+00.01
PI Sta. 717+35.61
PT Sta. 719+14.95

CURVE DATA
P.I. STA. 700+65.18
Δ = 10° 24' 00" (RT)
Dc = 8° 00' 00"
R = 716.20'
T = 65.18'
L = 130.00'
E = 2.96'
S.E. = 0.06 (45 MPH)

CURVE DATA
P.I. STA. 712+80.59
Δ = 208° 39' 03" (RT)
Dc = 19° 30' 00"
R = 293.82'
T = 1,150.59'
L = 1,070.00'
E = 1,481.34'
S.E. = 0.058 (30 MPH)

MATCH LINE 705+50.00 RAMP E-S
SEE SHEET 158

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022

CROSS REFERENCES

SHEET NO.	DESCRIPTION
554	RAMP E-S EXIT TERMINAL DETAILS
583	DRAINAGE DETAILS
123 - 128	UNDERDRAIN INFORMATION
587 - 590	WATER WORK

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MRT
CHECKED MAH

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.

+39.50
+73.21
GRAPHIC GRADE
SEE RAMP TERMINAL PAVEMENT DETAILS
937.93
940.06
PROPOSED PROFILE GRADE
EX. GROUND
EX. FO (TBRBO)
EXISTING UTILITY CONDUIT
EXISTING UTILITY CONDUIT BRANCH
EX. FO (TBRBO)
EX. 12" WATER IN CASING
P.V.I. STA 706+45.00
ELEV = 937.49'
300.00' VC
K = 136

940.05 939.94 939.82 939.71 939.60 939.49 939.37 939.26 939.15 939.04 938.93 938.81 938.70 938.59 938.48 938.36 938.25 938.14 938.06 938.03
938.55 938.77 939.19 939.50 939.80 940.00 939.80 937.78 933.53 934.07 936.70 938.82 939.89 937.70 936.86 936.48 936.50
955 950 945 940 935 930 925
697+00 698+00 699+00 700+00 701+00 702+00 703+00 704+00 705+00

PLAN AND PROFILE - RAMP E-S
STA. 700+00.00 TO STA. 705+50.00

UNI-33-24.87

157
923

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LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION
** - LOCATE EX. SMC FO (OR OTHER EX. UTILITY) AND ADJUST MGS POST, STORM SEWER, UD, DUCT BANK, OR DITCH INSTALLATION TO AVOID RELOCATION

PROPOSED AEP CONDUIT
℄ CONSTRUCTION SR 161
℄ CONST. RAMP E-N
ABD. EX. 16" WM (04-097_149)
EXISTING 12" WATER
℄ CONST. U.S. 33 EB
VAF
EX. SMC FO (DND)
EX. 16" WATER (07-097_149) (DND)
EX. ℄ SURVEY, R/W & CONST. U.S. 33
℄ CONST. U.S. 33 WB
ST Sta. 1012+85.68
PT Sta. 807+65.62
PC Sta. 1000+00.00 = S.R. 161 STA. 61+92.92, 51.00' RT
SC Sta. 61+38.30
CS Sta. 1001+66.21
PT Sta. 922+97.12
SC Sta. 1003+46.21
TRANSITION MEDIAN HEIGHT OVER 10' PER ODOT SCD RM-3.1
℄ CONST. RAMP W-N
MATCH LINE 1006+50 RAMP W-N SEE SHEET 162
℄ CONST. RAMP S-EW
PROPOSED UTILITY CONDUIT BRANCH
℄ CONSTRUCTION POST RD. (CR 24)
A S.R. 161 PI STA. 63+53.67 = POST ROAD (CR 24) PI STA. 63+53.67
CONST. LIMITS
LIGGETT RD.
16" WTHP GAS
8" PMMP GAS
FRONTIER-BY OTHERS
HOUSE 2-STY
SHED
GRAVEL

CURVE DATA
P.I. STA. 1000+75.28
= 12Δ 00' 00" (RT)
Dc = 8° 00' 00"
R = 716.20'
T = 75.28'
L = 150.00'
E = 3.95'
S.E. = 0.060 (45 MPH)

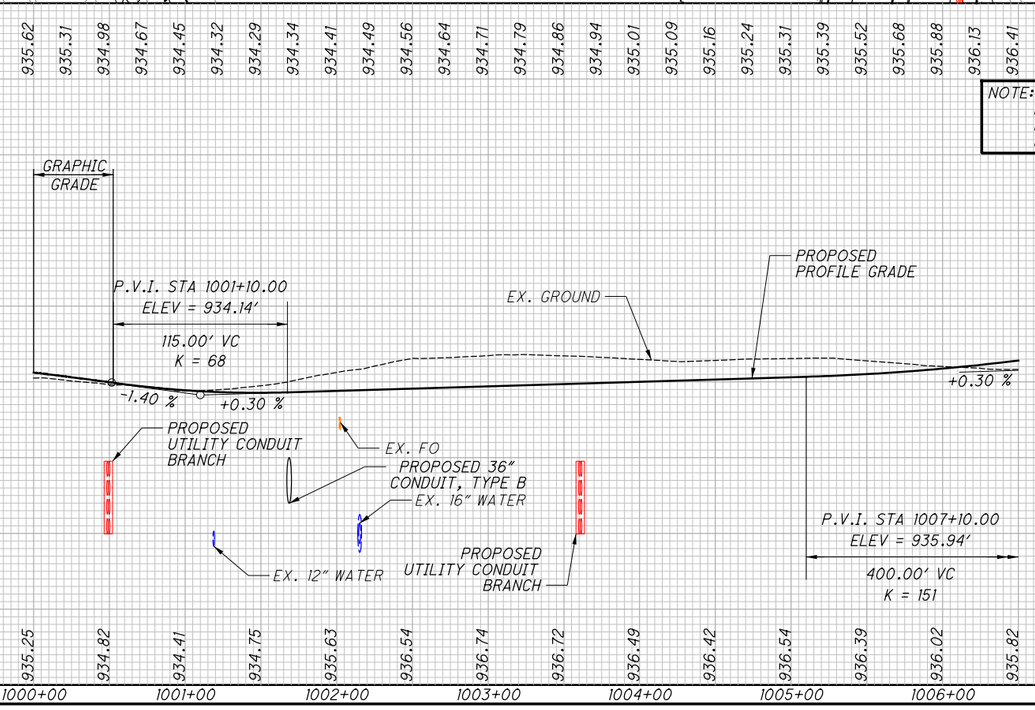
CURVE DATA
P.I. STA. 1013+58.20
Δ = 206° 03' 00" (RT)
Dc = 20° 30' 00"
R = 279.49'
T = 1,208.20'
L = 1,005.12'
E = 1,519.60'
S.E. = 0.058 (30 MPH)

CROSS REFERENCES

SHEET NO.	DESCRIPTION
580	CULVERT DETAILS
560	RAMP W-N EXIT TERMINAL DETAILS
583	DRAINAGE DETAILS
125	UNDERDRAIN INFORMATION

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.



HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED MRT
CHECKED MAH

PLAN AND PROFILE - RAMP W-N
STA. 1000+00.00 TO STA. 1006+50.00

UNI-33-24.87

161
923

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CROSS REFERENCES	
SHEET NO.	DESCRIPTION
564	INTERSECTION DETAILS
563	RAMP S-EW EXIT TERMINAL DETAIL
579	CULVERT DETAILS
571-573,583	DRAINAGE DETAILS
563	SHLDR. TRANSITION AT TERMINAL
123 - 128	UNDERDRAIN INFORMATION
647 - 650	TRAFFIC SIGNAL PLANS
873 - 881	FENCE PLANS

* TRANSITION MEDIAN HEIGHT OVER 10' PER ODOT SCD RM-3.1

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION

CURVE DATA
P.I. STA. 914+57.58
Δ = 44° 46' 07" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 262.29'
L = 497.43'
E = 51.88'
S.E. = 0.060 (45 MPH)

CURVE DATA
P.I. STA. 921+50.57
Δ = 23° 53' 50" (LT)
Dc = 8° 00' 00"
R = 716.20'
T = 151.56'
L = 298.71'
E = 15.86'
S.E. = 0.060 (45 MPH)

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

P.V.I. STA 913+50.00
ELEV = 933.49'
175.00' VC
K = 144

P.V.I. STA 922+30.00
ELEV = 937.89'
200.00' VC
K = 62

P.V.I. STA 924+05.00
ELEV = 933.08'
150.00' VC
K = 34

-0.72 %
+0.50 %
+0.50 %
-2.75 %
-2.75 %
+1.69 %

PROPOSED PROFILE GRADE
EX. GROUND
PROPOSED 2 - 29" X 44" CONDUITS, TYPE A, 706.04
EX. FO (DND)
PROPOSED UTILITY CONDUIT BRANCH
PROPOSED 36" CONDUIT, TYPE B
EXISTING 16" WATER (DND)
℄ CONST. RAMP S-EW STA 925+17.53 = ℄ CONST. SR 161 STA 63+89.47

912+00 913+00 914+00 915+00 916+00 917+00 918+00 919+00 920+00 921+00 922+00

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MRT
CHECKED MAH

PLAN AND PROFILE - RAMP S-EW
STA. 911+50.00 TO STA. 924+87.41

UNI-33-24.87

164
923

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℄ CONST. S.R. 161

℄ CONST. POST ROAD (CR 24)

℄ CONST. HYLAND-CROY ROAD

EXISTING 12" WATER TIE-IN(DND)

PROP. UTILITY CONDUIT

EX. CURB (TBR)

EX. ELEC. (TBRBO)

ABD 6" GAS (TBR)

ABD 16" GAS (TBR)

GAS (ABND)

8" PMMP GAS

16" WTHP GAS ((DND)

8" PMMP GAS ((DND)

SHED

SAVE

CONST. LIMITS

MATCH LINE STA. 405+00.00 SEE SHEET 167

A ℄ CONST. HYLAND-CROY ROAD STA. 400+00.00 = ℄ CONST. POST ROAD (CR24) STA. 64+02.02

NO.	DESCRIPTION	REV. BY	DATE
B	ADDED BALLOON	ENR	2-28-2022
C	ADDITIONAL AEP POLES	ENR	3-3-2022

CALCULATED MRT CHECKED JED

HORIZONTAL SCALE IN FEET 0 10 20 40

CURVE DATA
P.I. STA. 402+52.05
Δ = 19° 05′ 29″ (LT)
DC = 5° 36′ 00″
R = 1,023.14′
T = 172.05′
L = 340.92′
E = 14.37′
S.E. = N.C.

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION

** - LOCATE EX. SMC FO (OR OTHER EX. UTILITY) AND ADJUST MGS POST, STORM SEWER, UD, DUCT BANK, OR DITCH INSTALLATION TO AVOID RELOCATION

CROSS REFERENCES

SHEET NO.	DESCRIPTION
575-576	DRAINAGE DETAILS
583-584	
616-617	INTERSECTION DETAILS
609-615	UTILITY CONDUIT PLANS
127	UNDERDRAIN INFORMATION
647-650	TRAFFIC SIGNAL PLANS

NOTE: PROPOSED STORM SEWER IS NOT SHOWN ON ROADWAY PROFILES. SEE CROSS REFERENCED DRAINAGE SHEETS FOR DETAILS.

PROPOSED PROFILE GRADE

EX. GROUND

PROPOSED UTILITY CONDUIT

PROPOSED 12" CONDUIT, TYPE B

PROPOSED 18" CONDUIT, TYPE B

P.V.I. STA 401+00.00 ELEV = 934.07′

135.00′ VC
K = 86

-0.92 %

+0.65 %

934.96

934.76 934.55 934.41 934.34 934.34 934.41 934.56 934.72 934.88 935.05 935.21 935.37 935.53 935.70 935.86 936.02 936.18 936.35 936.51 936.67

934.67 936.06 934.66 934.55 934.25 934.42 934.55 935.09 935.47 935.34 935.39

950 945 940 935 930 925 920 915

400+00 401+00 402+00 403+00 404+00 405+00

PLAN AND PROFILE - HYLAND-CROY ROAD STA. 400+00.00 TO STA. 405+00.00

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166
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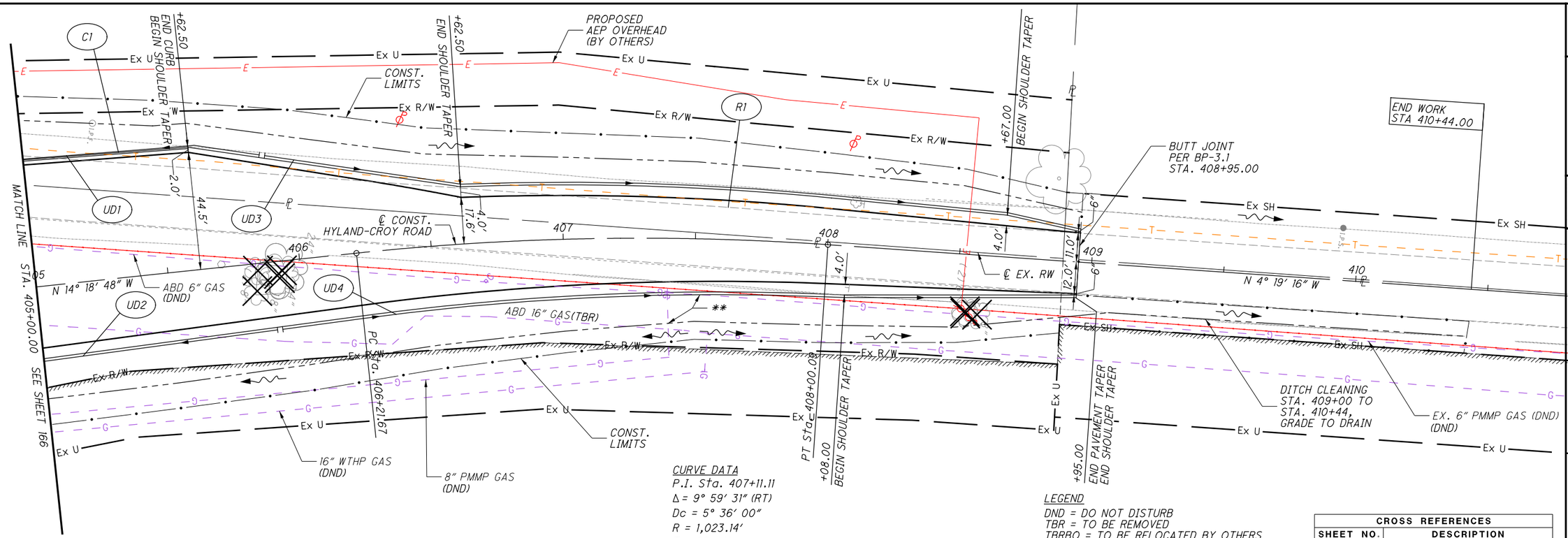


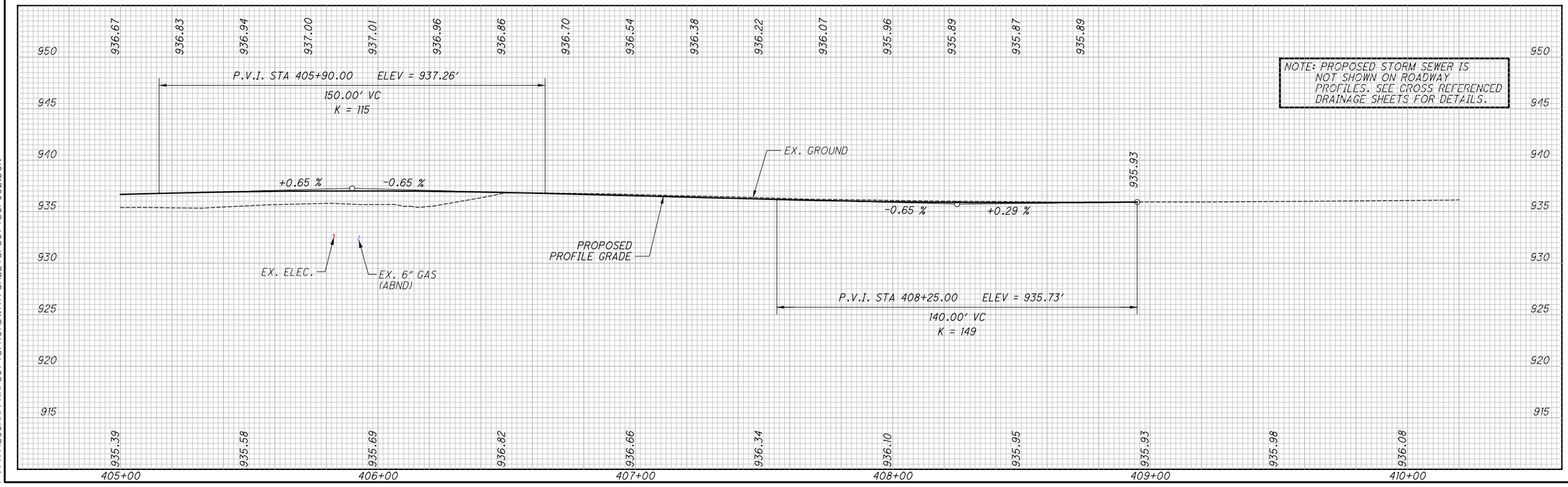
** - LOCATE EX. SMC FO (OR OTHER EX. UTILITY) AND ADJUST MGS POST, STORM SEWER, UD, DUCT BANK, OR DITCH INSTALLATION TO AVOID RELOCATION

CURVE DATA
P.I. Sta. 407+11.11
Δ = 9° 59' 31" (RT)
Dc = 5° 36' 00"
R = 1,023.14'
T = 89.44'
L = 178.43'
E = 3.90'
S.E. = N.C.

NO.	DESCRIPTION	REV. BY	DATE
B	ADDED BALLOON	ENR	2-28-2022
C	ADDITIONAL AEP POLES	ENR	3-3-2022

LEGEND
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRBO = TO BE RELOCATED BY OTHERS
TBA = TO BE ABANDONED
- PAVEMENT RESURFACING LIMITS
- DITCH EROSION PROTECTION

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
583	DRAINAGE DETAILS
127	UNDERDRAIN INFORMATION



HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED MRT
CHECKED JED

PLAN AND PROFILE - HYLAND-CROY ROAD
STA. 405+00.00 TO 410+00.00

UNI-33-24.87

167
923

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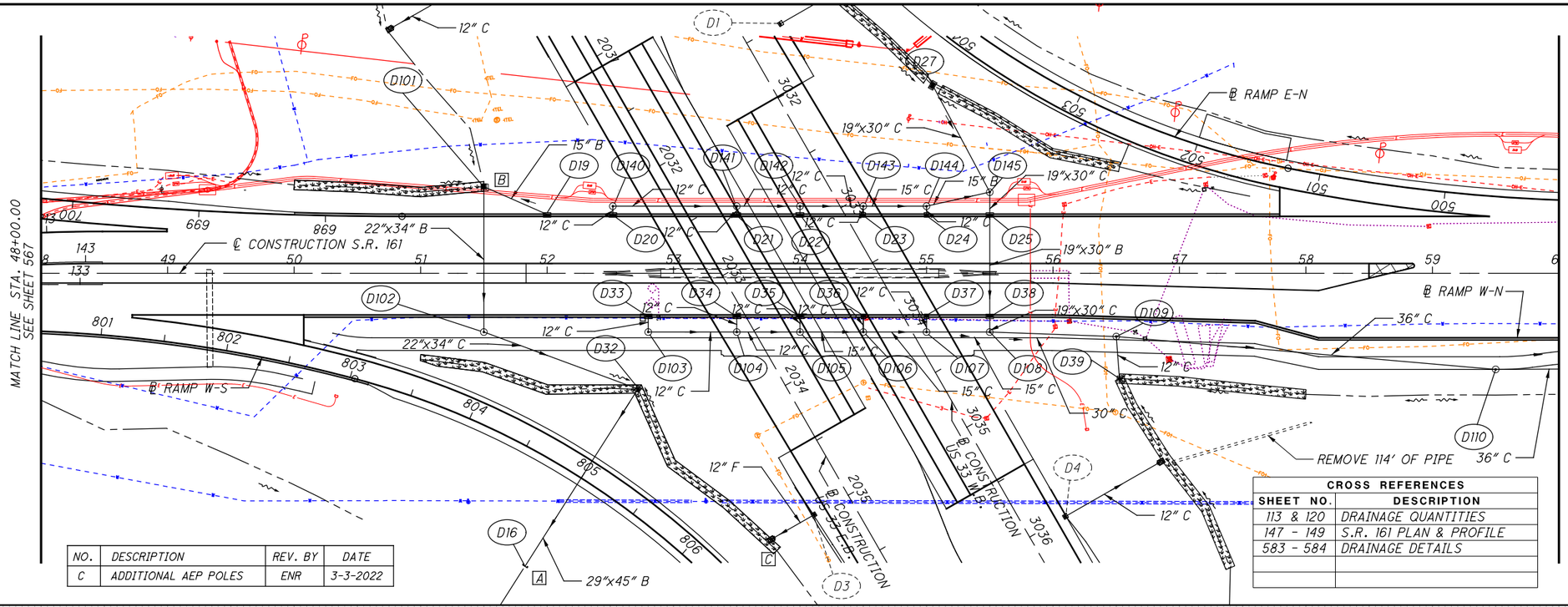


A OUTLET:
DRAINAGE AREA = 6.83 AC
Q_{10} = 4.24 CFS
Q_{25} = 5.46 CFS
HGL_{50} = 933.72

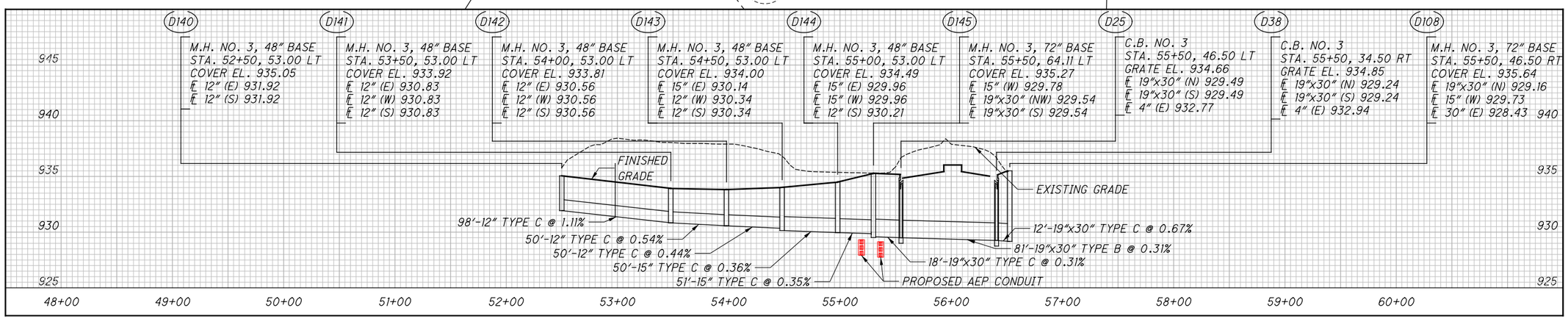
B OUTLET:
DRAINAGE AREA = 0.21 AC
Q_{10} = 1.0 CFS
Q_{25} = 1.3 CFS
HGL_{50} = 937.73

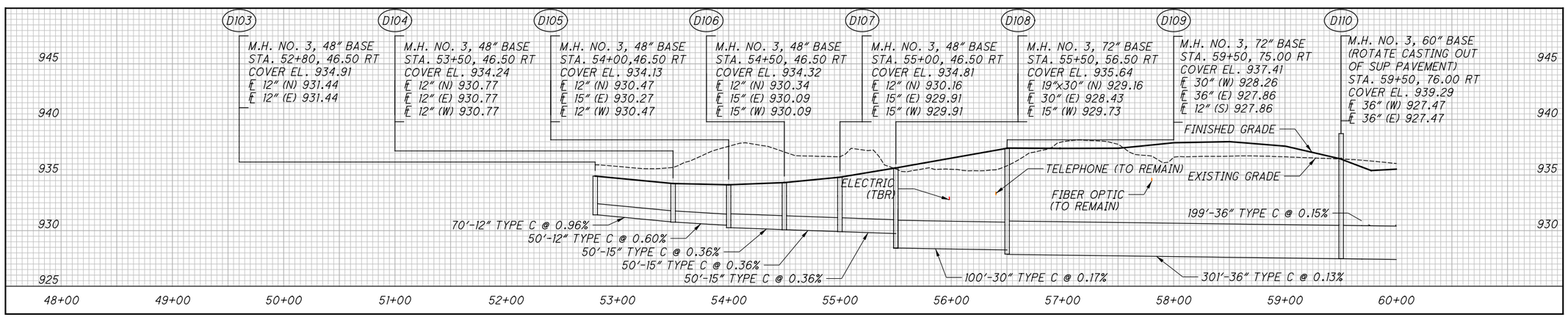
C OUTLET:
DRAINAGE AREA = 0.09 AC
Q_{10} = 0.4 CFS
Q_{25} = 0.6 CFS
HGL_{50} = 938.17

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022

CROSS REFERENCES

SHEET NO.	DESCRIPTION
113 & 120	DRAINAGE QUANTITIES
147 - 149	S.R. 161 PLAN & PROFILE
583 - 584	DRAINAGE DETAILS





HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED WDG
CHECKED KEH

S.R. 161 DRAINAGE PLAN AND PROFILE
S.R. 161 STA. 48+00.00 TO STA. 60+00.00

UNI-33-24.87

568
923

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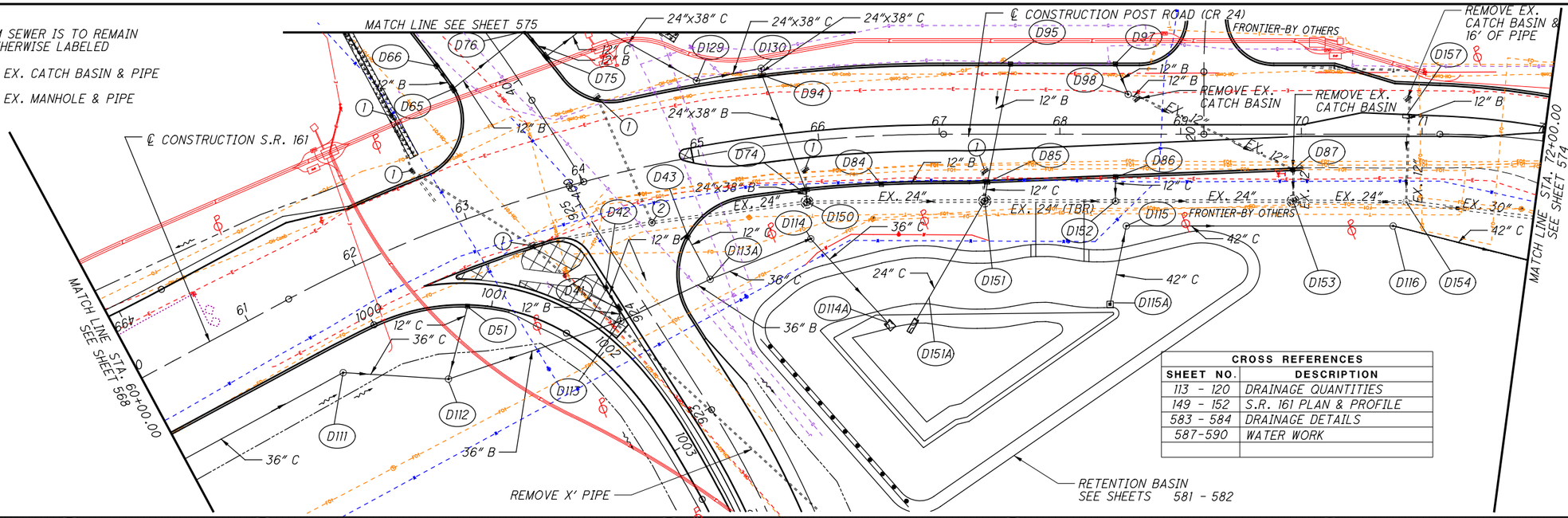
NOTE:
ALL STORM SEWER IS TO REMAIN UNLESS OTHERWISE LABELED

(1) REMOVE EX. CATCH BASIN & PIPE

(2) REMOVE EX. MANHOLE & PIPE



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
113 - 120	DRAINAGE QUANTITIES
149 - 152	S.R. 161 PLAN & PROFILE
583 - 584	DRAINAGE DETAILS
587-590	WATER WORK

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

CALCULATED WDG
CHECKED KEH

HORIZONTAL SCALE IN FEET
0 25 50 100

D130
M.H. NO. 3, 72" BASE
STA. 65+60, 64.00 LT
COVER EL. 933.79
℄ 24"x38" (NW) 928.98
℄ 24"x38" (SW) 928.98

D94
C.B. NO. 3
STA. 65+60, 58.50 LT
GRATE EL. 933.12
℄ 24"x38" (NE) 928.97
℄ 24"x38" (SW) 928.97
℄ 4" (W) 931.23

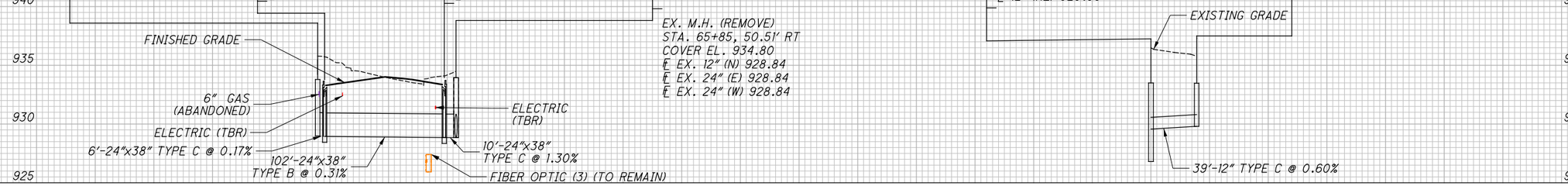
D74
C.B. NO. 3
STA.65+85, 40.50 RT
COVER EL. 933.19
℄ 24"x38" (NE) 928.85
℄ 24"x38" (SW) 928.85
℄ 4" (W) 931.30

D150
M.H. NO. 3, 72" BASE
STA. 65+85, 50.51' RT
COVER EL. 933.94
℄ 24"x38"(NE) 928.84
℄ EX. 24" (E) 928.84

EX. M.H. (REMOVE)
STA. 65+85, 50.51' RT
COVER EL. 934.80
℄ EX. 12" (N) 928.84
℄ EX. 24" (E) 928.84
℄ EX. 24" (W) 928.84

D113A
C.B. NO. 2-4
STA. 64+90, 102.11 RT
COVER EL. 933.50
℄ 36" (NW) 926.80
℄ 36" (SE) 926.80
℄ 12" (NE) 929.56

D43
C.B. NO. 3A
STA. 64+77.76, 64.50 RT
COVER EL. 933.47
℄ 12" (SW) 929.80
℄ 4" (N&S) 931.58



D111
M.H. NO. 3, 60" BASE
STA. 61+50, 75.00 RT
COVER EL. 936.32
℄ 36" (W) 927.18
℄ 36" (SE) 927.18

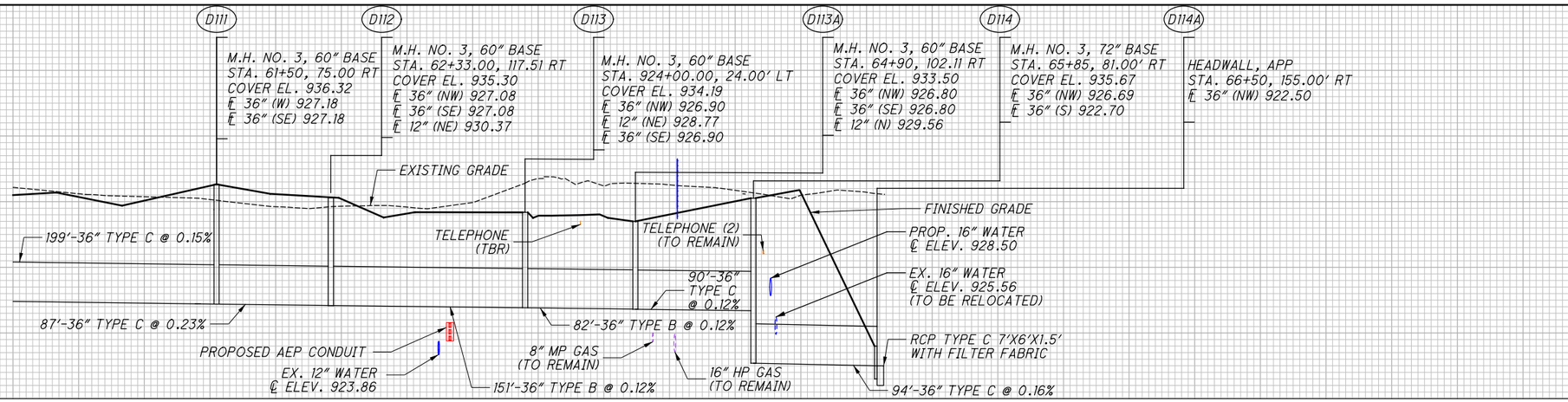
D112
M.H. NO. 3, 60" BASE
STA. 62+33.00, 117.51 RT
COVER EL. 935.30
℄ 36" (NW) 927.08
℄ 36" (SE) 927.08
℄ 12" (NE) 930.37

D113
M.H. NO. 3, 60" BASE
STA. 924+00.00, 24.00' LT
COVER EL. 934.19
℄ 36" (NW) 926.90
℄ 12" (NE) 928.77
℄ 36" (SE) 926.90

D113A
M.H. NO. 3, 60" BASE
STA. 64+90, 102.11 RT
COVER EL. 933.50
℄ 36" (NW) 926.80
℄ 36" (SE) 926.80
℄ 12" (N) 929.56

D114
M.H. NO. 3, 72" BASE
STA. 65+85, 81.00' RT
COVER EL. 935.67
℄ 36" (NW) 926.69
℄ 36" (S) 922.70

D114A
HEADWALL, APP
STA. 66+50, 155.00' RT
℄ 36" (NW) 922.50



STORM SEWER PLAN AND PROFILE
S.R. 161 STA. 60+00.00 TO STA. 72+00.00

UNI-33-24.87

571
923

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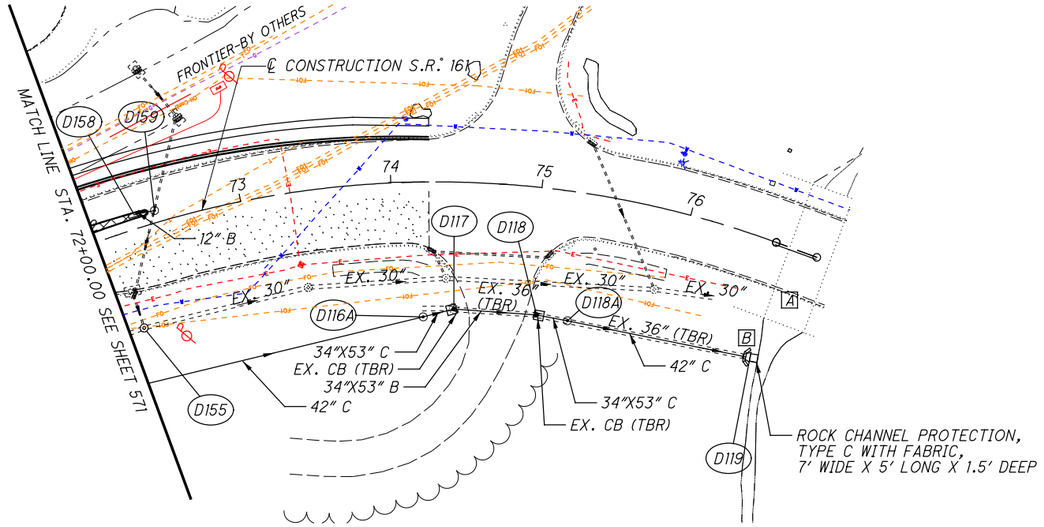
NOTE:
ALL STORM SEWER IS TO REMAIN UNLESS OTHERWISE LABELED

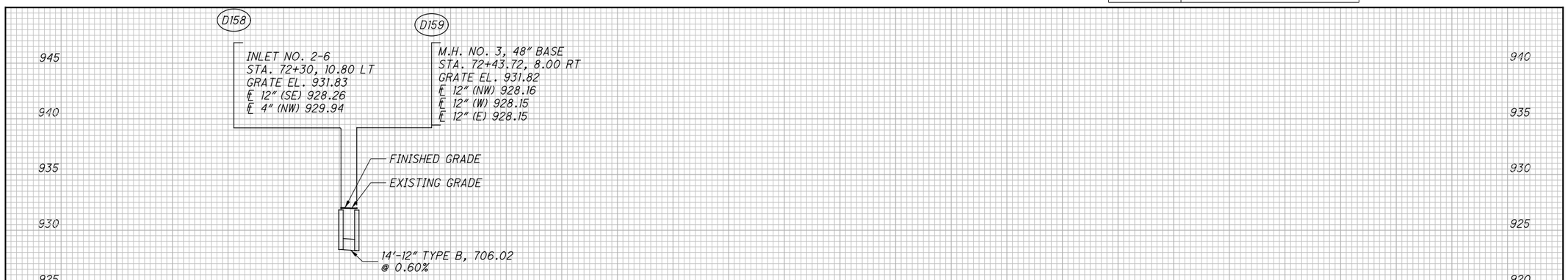


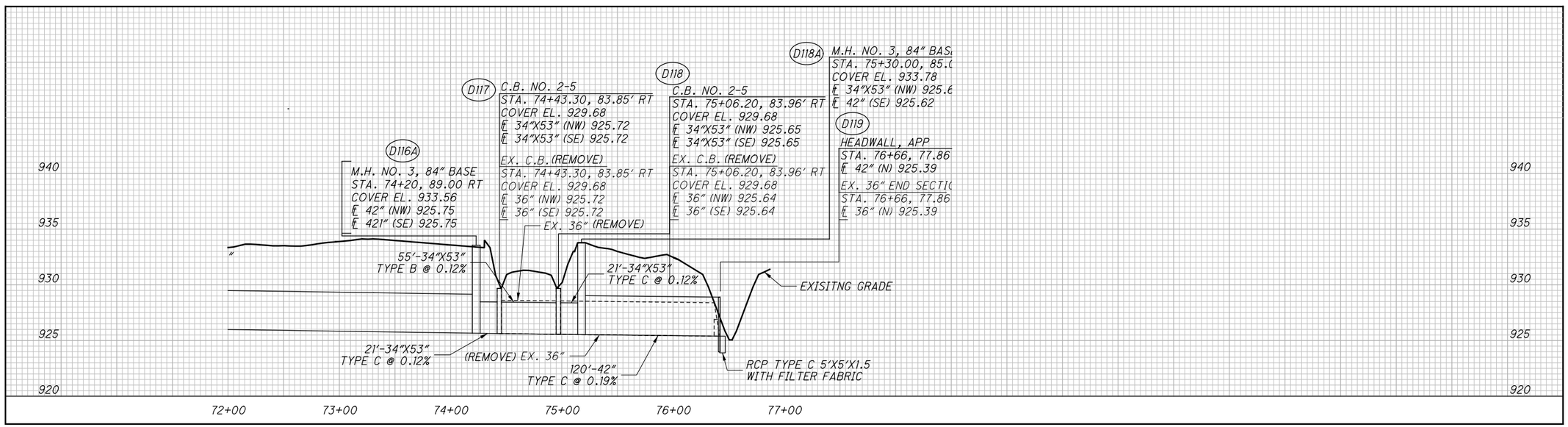
NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

A OUTLET:
DRAINAGE AREA = 1.17 AC
Q_{10} = 18.9 CFS
Q_{25} = 21.7 CFS
HGL_{50} = 927.07

B OUTLET:
DRAINAGE AREA = 10.26 AC
Q_{10} = 23.6 CFS
Q_{25} = 26.8 CFS
HGL_{50} = 928.72

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
113 - 120	DRAINAGE QUANTITIES
152 - 152	S.R. 161 PLAN & PROFILE
583 - 584	DRAINAGE DETAILS





HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED WDG
CHECKED KEH

STORM SEWER PLAN AND PROFILE
S.R. 161 STA. 72+00 TO STA. 76+75

UNI-33-24.87

574
923

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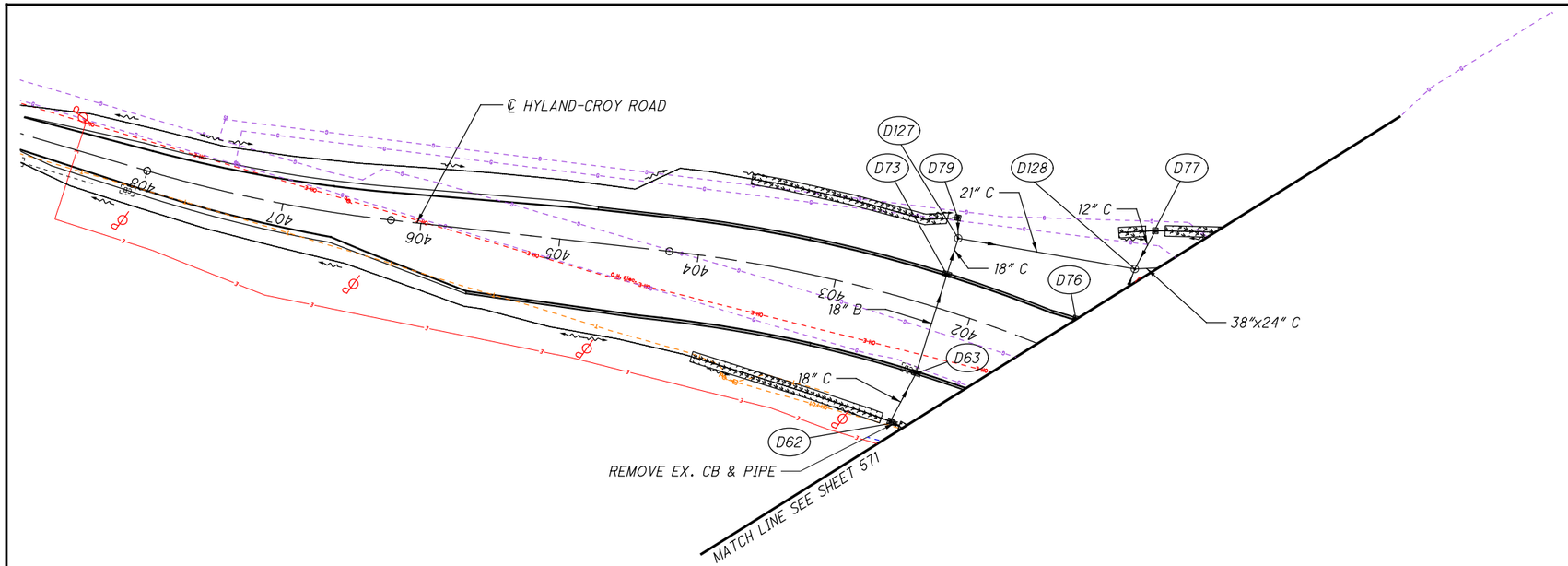
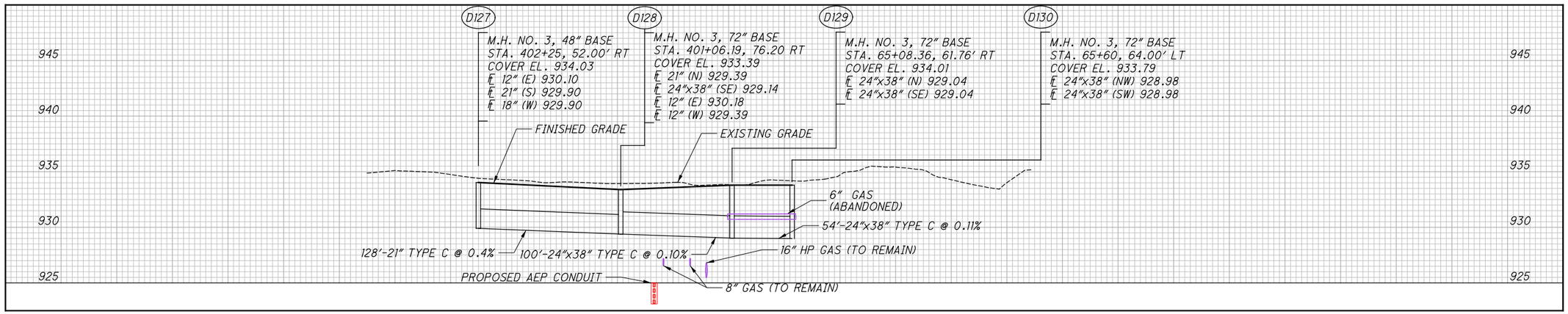
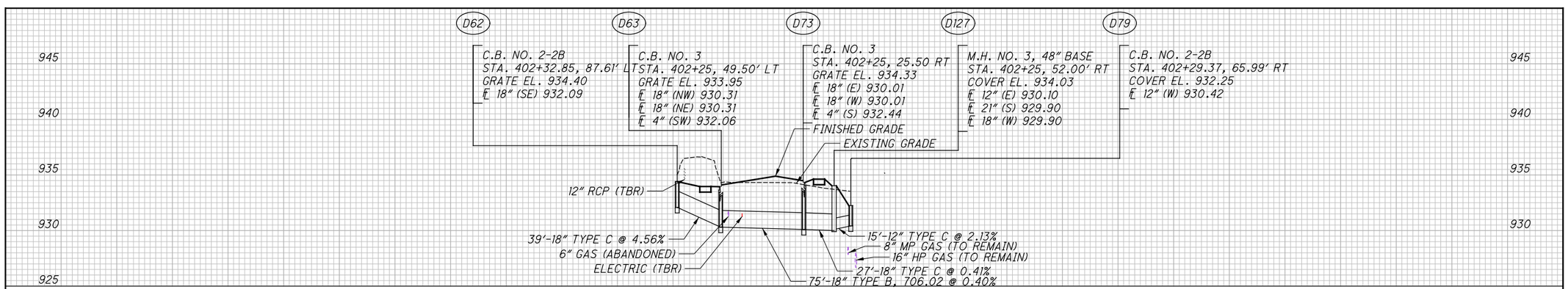


NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
113 - 120	DRAINAGE QUANTITIES
166	HYLAND-CROY ROAD
583 - 584	DRAINAGE DETAILS





HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED WDG
CHECKED KEH

STORM SEWER PLAN AND PROFILE
NORTH LEG - EASTERN ROUNDABOUT

UNI-33-24.87

575
923

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REF NO.	SHEET NO.	STATION TO STATION			202 VALVE BOX REMOVED EACH	613 LOW STRENGTH MORTAR BACKFILL, AS PER PLAN CY	638 12" WATERMAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN, (COC 801) FT	638 16" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN, (COC 801) FT	638 20" STEEL PIPE ENCASEMENT, OPEN CUT, AS PER PLAN FT	638 20" STEEL PIPE ENCASEMENT, BORED OR JACKED, AS PER PLAN FT	638 12" GATE VALVE, AS PER PLAN, (COC 802) EACH	638 6" FIRE HYDRANT, AS PER PLAN, (COC 809) EACH	638 VALVE BOX ADJUSTED TO GRADE, (COC 807) EACH	638 1" AIR RELEASE VALVE, (COC 812) EACH	SPECIAL FIRE HYDRANT REMOVED FOR STORAGE, (COC 809) EACH		638 FIRE HYDRANT AND GATE VALVE REMOVED AND RESET, (COC 809) EACH
		WATER MAIN															
			TO														
	587	2001+85.00		2002+30.00		13	45										
	588	2008+76.00		2010+00.00		11	124.00										
	588	2008+90.00									1						
	589	2010+00.00		2015+00.00			500										
	589	2010+23.00		2013+43.00						320.00							
	589	2014+00.00		2014+60.00					60.00								
	589	2013+53.00									1						
	589	2014+70.00									1						
	590	2015+00.00		2015+99.04			100										
	590	2015+72.00										1					
	590	2015+82.00									1						
	590	2015+87.42		168' RT	1										1		
	587	44+25.72		173.15' LT									1				
	587	45+67.79		192.85' LT									1				
	594	1+00.00		2+59.90		8		159.9									
	594	1+85.12												1			
	594	65+20.21		121.55' RT									1				
	594	68+06.83		88.78' RT									1				
	594	68+82.12		37.63' RT									1				
	594	69+86.44		35.42' RT									1				
	594	69+80.94		32.77' RT													1
	146	42+96.80		53.91' RT	1												
	146	45+10.50		66.39' RT	1												
	149	58+90.93		40.22' RT	1												
	149	59+16.43		42.72' RT	1												
	150	63+19.81		30.79' RT	1												
	150	63+96.43		14.08' RT	1												
	150	64+06.93		51.95' RT	1												
	151	66+86.32		36.72' RT	1												
	159	53+25.69		176.45' RT									1				
	159	51+38.01		180.74' RT									1				
	168	21+48.58		27.38' LT									1				
		TOTALS CARRIED TO GENERAL SUMMARY			9	32	769	160	60	320	4	1	9	1	1		1

NO.	DESCRIPTION	REV. BY	DATE
C	REMOVED ITEM	ENR	3-3-2022

CALCULATED ARL
CHECKED JED

WATER WORK SUBSUMMARY

UNI-33-24.87

585
923

WATER NOTES - CITY OF MARYSVILLE

1. ALL WATER LINE AND APPURTENANCES, MATERIALS AND INSTALLATION PROCEDURES, SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF MARYSVILLE.

2. ALL WATER LINE MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF MARYSVILLE AND THE AWWA. THE WATER LINE MATERIAL SHALL BE CLEARLY IDENTIFIED AS CONFORMING TO AWWA STANDARDS. WATER LINE PIPE SIZE 4 INCH IN DIAMETER SHALL CONFORM TO THE REQUIREMENTS OF AWWA C900. WATER LINE PIPE SIZES 6 INCHES THROUGH 12 INCHES IN DIAMETER SHALL CONFORM TO THE REQUIREMENTS OF AWWA C909, CLASS 235. WATER LINE PIPE SIZES GREATER THAN 12 INCHES IN DIAMETER SHALL CONFORM TO THE REQUIREMENTS OF AWWA C905.

3. ALL RESIDENTIAL SERVICE LINES SHALL BE 1" MINIMUM.

4. WATER LINE TRENCHES SHALL BE DEWATERED TO 2" BELOW THE BELL OF PIPE PRIOR TO INSTALLATION.

5. IN CASE OF A CONFLICT IN GRADE BETWEEN STORM SEWERS AND WATER LINE, THE WATER LINE SHALL BE LOWERED.

6. ALL WATER METERS SHALL BE INSTALLED INSIDE OF THE PROPOSED STRUCTURE, NOT IN A METER PIT, UNLESS SAID METER PIT IS APPROVED BY THE CITY OF MARYSVILLE. METER PITS SHALL COMPLY WITH STANDARD DRAWING WTR-07.

7. A BRONZE PAD LOCKABLE METER BYPASS BALL VALVE, APOLLO 75-100 SERIES OR EQUAL, IS REQUIRED FOR 1 1/2" AND LARGER METERS.

8. WATER SERVICE BOXES SHALL BE SET AT THE FOLLOWING LOCATIONS:

   SHORT SERVICE RUNS - AT THE RIGHT-OF-WAY LINE OR 1 FOOT BEHIND THE BACK OF SIDEWALK.

   LONG SERVICE RUNS - 4 FEET FROM THE EDGE OF SIDEWALK (BETWEEN SIDEWALK AND CURB) OR CENTERED BETWEEN THE SIDEWALK AND CURB.

   WATER SERVICE BOXES WILL NOT BE PERMITTED WITHIN THE CONCRETE SIDEWALK OR FUTURE ASPHALT/CONCRETE DRIVEWAYS.

9. WATER LINES SHALL HAVE A MINIMUM COVER OF 4 FEET 6 INCHES FROM FINAL GRADE.

10. CONTRACTORS SHALL PROVIDE MEGALUG RETAINING GLANDS OR APPROVED EQUAL AT ALL BENDS AND TEES. CONTRACTORS SHALL BACK BENDS, ELBOWS, TEES WITH SOLID CONCRETE BLOCKS AGAINST UNDISTURBED SOIL. HARDWOOD WEDGES SHALL BE USED WHERE NECESSARY.

11. FIRE HYDRANTS SHALL BE MUELLER COMPANY CENTURION 250 HYDRANT WITH A 4 1/2 MAIN VALVE OPENING. THEY ARE TO HAVE A THREE WAY UPPER BARREL WITH ONE 4 1/2 INCH PUMPER NOZZLE WITH AN INTEGRAL 5" STORZ CONNECTION INSTALLED, AND TWO 2 1/2 INCH HOSE NOZZLES. MUST MEET A.W.W.A. C-502 STANDARDS.

12. ALL SERVICE LINES SHALL BE TYPE K SOFT COPPER CONFORMING TO ASTM B-88, AND UNDERGROUND JOINTS MUST BE COMPRESSION. AWWA C909 WATER LINE SHALL BE USED IF SERVICE EXCEEDS 2 INCHES.

13. WATER LINE SHALL BE DEFLECTED, PER MANUFACTURER SPECIFICATIONS, TO PROVIDE 1 FT 6 IN VERTICAL AND 10 FT HORIZONTAL CLEARANCE WITH SEWERS. IF THIS IS NOT FEASIBLE, THEN STANDARD CONSTRUCTION DRAWING WTR06 APPLIES.

14. ALL WATER MAINS ARE TO BE SEPARATED 10 FEET HORIZONTALLY AND 1.5 FEET VERTICALLY FROM ALL PARALLEL SANITARY SEWERS.

15. WHENEVER A WATER MAIN AND SANITARY SEWER MUST CROSS, THE WATER MAIN SHALL BE 1.5 FEET ABOVE THE CROWN OF THE SEWER PIPE. MEASUREMENT TO BE BETWEEN THE OUTSIDE OF PIPE WALLS.

16. IF THE TOP OF THE OPERATING NUT FOR WATER VALVE IS GREATER THAN 36 INCHES BELOW FINISH GRADE, AN EXTENSION STEM SHALL BE FURNISHED TO BRING THE TOP OF THE OPERATING NUT TO 36 INCHES BELOW FINAL GRADE.

17. TRANSVERSE WATER LINES WITHIN THE PAVEMENT AREA SHALL BE BACKFILLED WITH ODOT 304 COMPACTED GRANULAR MATERIAL OR ODOT 613 (LSM) TO THREE FEET BEYOND THE FACE OF CURB OR EDGE OF PAVEMENT.

18. PRESSURE TESTING WILL BE IN ACCORDANCE WITH AWWA C909 AND ASTM F1483 PVCO PIPE.

19. ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE CITY OF MARYSVILLE SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF AWWA C651 PARTICULARLY FOR FLUSHING (SECTION 5) AND FOR CHLORINATING VALVES AND FIRE HYDRANTS.

20. INDIVIDUAL BOOSTER PUMPS WILL NOT BE ALLOWED FOR ANY INDIVIDUAL SERVICE. (OHIO ADMINISTRATIVE CODE RULE 3745-95-07(A))

21. THE NORMAL WORKING PRESSURE IN THE WATERLINE WILL NOT BE LESS THAN 35 PSI. (2003 RECOMMENDED STANDARDS FOR WATER WORKS, PRESSURE, SECTION 8.2.1) AND A MINIMUM OF 20 PSI SHALL BE MAINTAINED AT GROUND LEVEL AT ALL POINTS OF THE DISTRIBUTION SYSTEM UNDER ALL OPERATING CONDITIONS

22. WATER LINES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH ANSI/AWWA C605-13; UNDERGROUND INSTALLATION OF POLYVINYL CHLORIDE (PVC) AND MOLECULARLY ORIENTED POLYVINYL CHLORIDE (PVCO) PRESSURE PIPE AND FITTINGS.

ITEM 638 - 12" DUCTILE IRON PIPE, WITH PUSH ON FITTINGS, AS PER PLAN (COC 801)

PIPE SHALL MEET THE SPECIFICATION FOR DUCTILE IRON PIPE AND FITTINGS AS PROVIDED IN THE CITY OF MARYSVILLE WATER DIVISION SPECIFICATIONS DATED NOVEMBER, 2020. PAYMENT FOR THIS WORK SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS IN THE UNIT PRICE BID FOR EXCAVATING THE TRENCH, FURNISHING AND LAYING OF THE PIPE, PLACEMENT OF CONCRETE THRUST BLOCKS, BACK-FILLING, HYDROSTATIC TESTING, AND DISINFECTING TO COMPLETE THE WORK AND HAVE READY FOR SERVICE.

ITEM 638 - 12" GATE VALVE, AS PER PLAN (COC 801)

VALVES SHALL BE CLOW VALVE COMPANY RESILIENT WEDGE VALVES, 250 PSI. VALVES SHALL HAVE A MACHINED SEATING SERVICE, EPOXY-COATED SURFACES, AND BE M.J. JOINT (UNLESS SPECIFIED DIFFERENTLY). VALVES SHALL CONFORM TO AWWA C-509 SPECIFICATIONS. ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL ANSI TYPE 304 ON BONNET AND PACKING GLAND. ALL VALVES 8 INCHES AND LARGER SHALL HAVE A #160 OVAL VALVE BOX BASE.

VALVE BOXES SHALL BE STANDARD CAST IRON THREE-PIECE TYPE EQUAL TO THE TYLER #6860 SERIES WITH THE PROPER SIZE BASE. LIDS WILL BE MARKED "WATER", AND BOXES SET TO THE FINISHED GRADE.

THE PAYMENT FOR ALL WORK PERFORMED UNDER THIS ITEM SHALL BE AT THE UNIT PRICE AS BID THEREFORE, WHICH IS FULL COMPENSATION FOR ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS TO FURNISH AND INSTALL THE VARIOUS TYPES AND SIZES OF VALVES SPECIFIED INCLUDING OPERATION EXTENSION STEMS, CONCRETE VALVE SUPPORTS AND VALVE BOXES.

ITEM 638 - 20" STEEL PIPE ENCASEMENT, OPEN CUT, AS PER PLAN
ITEM 638 - 20" STEEL PIPE ENCASEMENT, BORED OR JACKED, AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING AN ENCASEMENT PIPE OF SUFFICIENT SIZE, MINIMUM SIZE 4" LARGER BELL O.D. IF SO STATED, TO PERMIT THE INSTALLATION OF THE CARRIER PIPE THEREIN AND THE ENCASING OF THE CARRIER PIPE AS SHOWN ON THE PLANS OR AS SPECIFIED.

CROSSINGS CONSTRUCTED ON THE RIGHT OF WAY OF PRIVATE OR PUBLIC AGENCIES SHALL CONFORM TO THE REQUIREMENTS AND REGULATIONS OF THE RESPECTIVE COMPANIES AND AGENCIES. THE OWNER WILL ACQUIRE THE NECESSARY PERMITS AND CROSSING RIGHTS FROM THE PERSPECTIVE AUTHORITIES INVOLVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PAYMENT OF ANY COSTS DUE TO THE AUTHORITY'S REQUIREMENT, OF WHATEVER NATURE, INCLUDING WATCHMEN AND SUPERVISION BY THE AUTHORITY'S FORCES.

THE ENCASEMENT PIPE SHALL MEET THE REQUIREMENTS OF THE CITY OF MARYSVILLE WATER DIVISION AS WELL AS PRIVATE OR PUBLIC AUTHORITY INVOLVED. THE SIZE, TYPE OF MATERIAL AND THICKNESS SHALL BE SHOWN ON THE DRAWINGS. PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT WHICH PRICE SHALL INCLUDE ALL MATERIAL, EQUIPMENT, LABOR, INCLUDING EXCAVATING, PUMPING, TUNNEL PLUGGING, GROUTING, COMPACTED BACKFILL, CONCRETE SUPPORTS, PITS AND OPENINGS, AND TWO (2) SETS OF AS BUILT PLANS UPON COLPETIONS OF THE JOB PROVIDED TO THE CITY OF MARYSVILLE WATER DIVISION.

ITEM SPECIAL - FIRE HYDRANT REMOVED FOR STORAGE

REMOVAL OF A FIRE HYDRANT SHALL BE ACCOMPLISHED BY CLOSING THE WATER VALVE, REMOVING THE HYDRANT, AND CAPPING OR PLUGGING THE WATERLINE AT THE WATCH VALVE. ALL REMOVED HYDRANTS SHALL BE DELIVERED TO THE CITY OF MARYSVILLE, DIVISION OF WATER, 455 NORTH MAPLE STREET, MARYSVILLE, OHIO. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS DELIVERY.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS TO REMOVE THE HYDRANT AND DELIVER IT TO THE DIVISION OF WATER AND THRUST BLOCKING TO COMPLETE THE WORK.

ITEM 613 - LOW STRENGTH MORTAR BACKFILL, AS PER PLAN

WHERE WATER LINE PIPE IS TO BE ABANDONED IT SHALL BE FILLED WITH ITEM 613 - LOW STRENGTH MORTAR BACKFILL PER SECTION 613 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. PROVIDE AN ALTERNATE MIX AS FOLLOWS: 0 LB CEMENT; 0 LB FLY ASH, CLASS F; 400 LB FLY ASH, CLASS C; 2900 LB SAND; AND 425 LB WATER (MAXIMUM).

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER CUBIC YARD WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS FOR PLACING THE LOW STRENGTH MIXTURE.

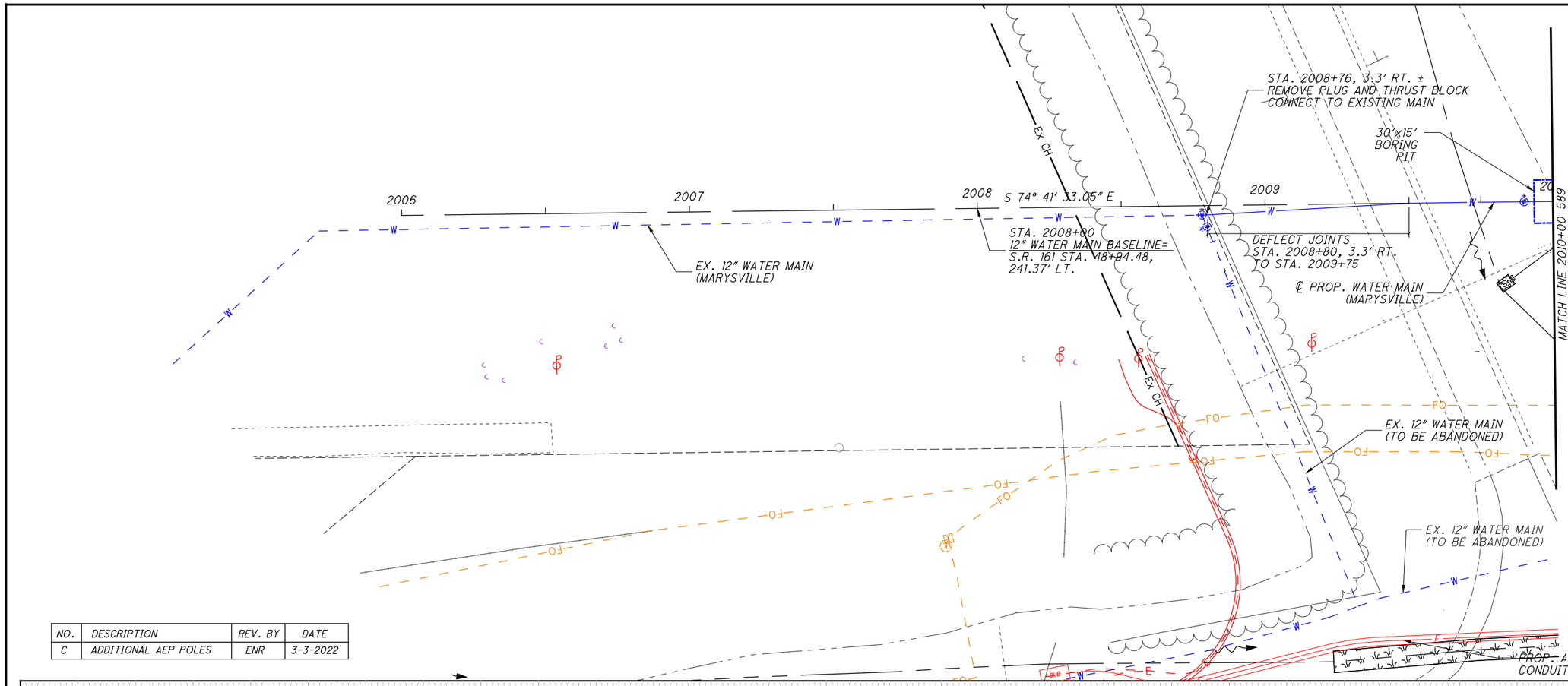
NO.	DESCRIPTION	REV. BY	DATE
C	REMOVED NOTE	ENR	3-3-2022

CALCULATED ARL CHECKED MAH

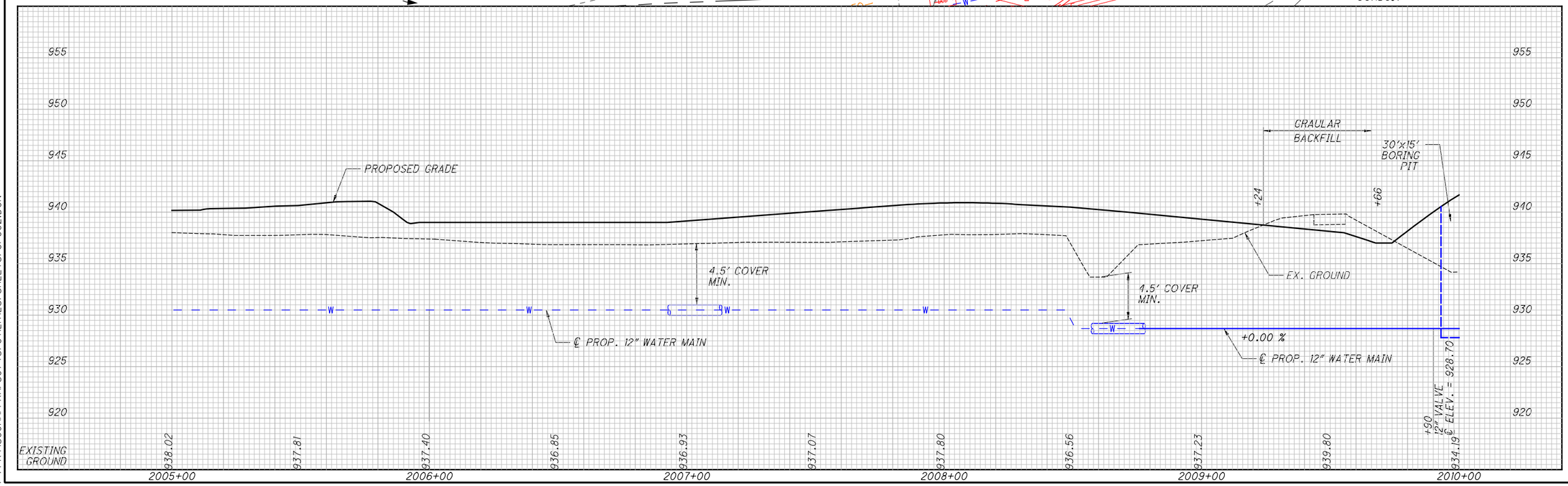
WATER WORK NOTES - MARYSVILLE

UNI-33-24.87

586
923



NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ARL
CHECKED JED

WATER WORK PLAN - MARYSVILLE 12" MAIN
STA. 2005+00.00 TO STA. 2010+00.00

UNI-33-24.87

588
923

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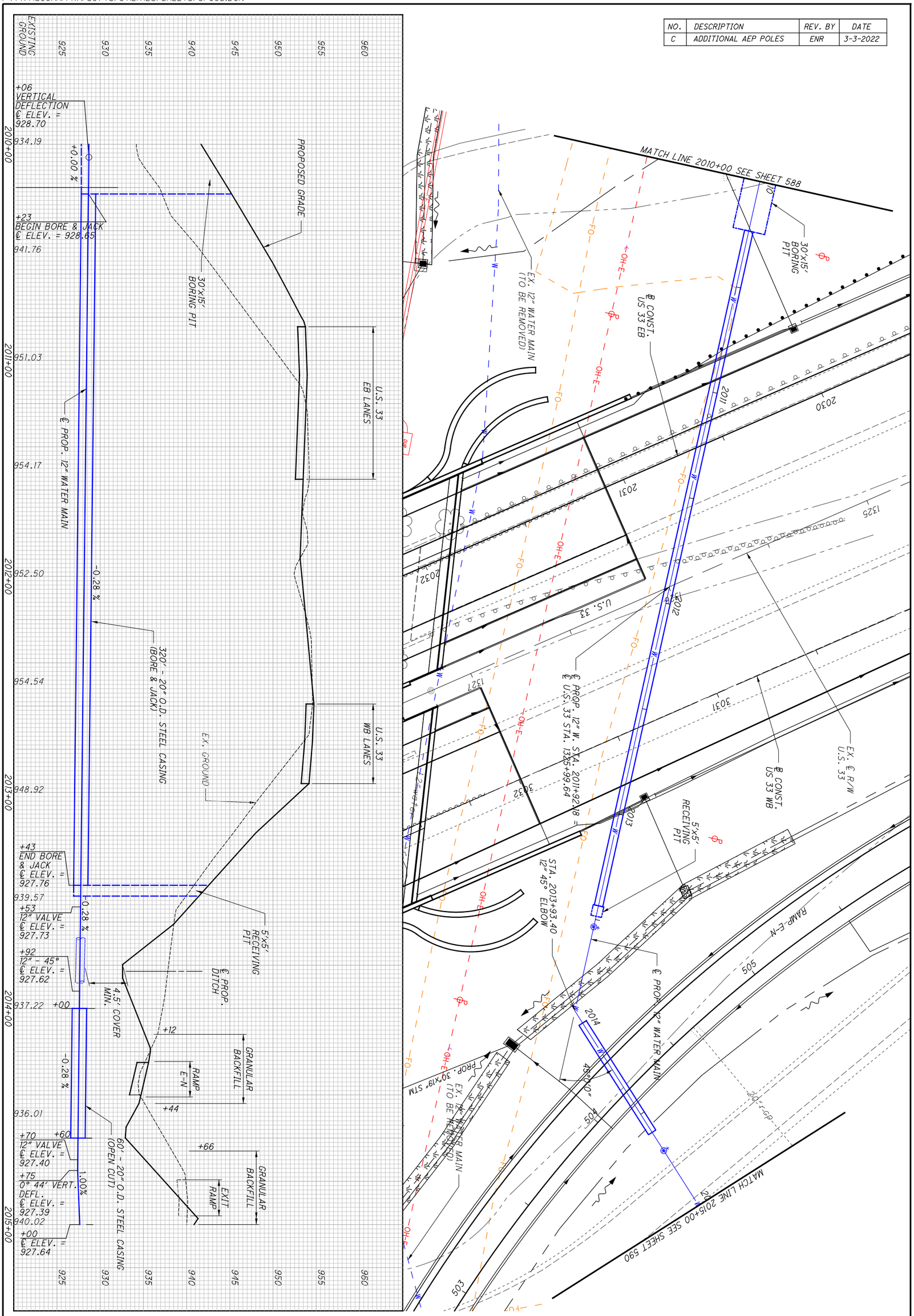
NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022



589 / 923	UNI-33-24.87	WATER WORK PLAN - MARYSVILLE 12" MAIN STA. 2010+00.00 TO STA. 2015+00.00	CALCULATED ARL CHECKED JED	0 20 10 40 HORIZONTAL SCALE IN FEET

℄ CONSTRUCTION POST ROAD (CR 24)

65 66 67 68 69 70

N 37° 14

S 52° 45' 50" E

1" AIR RELEASE VALVE (COC L-6473A)
RELO. STA. 1+85.12 =
S.R. 161 STA. 66+65.28, 82.57' RT.

℄ PROP. 16" WATER MAIN

PT STA. 67+03.48

16" - 22.5° BEND (18.4° HORIZ. DEFL.)
RELO. STA. 2+45.68 =
S.R. 161 STA. 67+26.99, 83.45' RT.

EX. VALVE (ATG)

RELOCATE EX. FIRE HYDRANT
L-8502, TYPE "A" RELOCATION
S.R. 161 STA. 69+80.94, 32.77' RT.
EX. VALVE ADJUSTED TO GRADE

16" - 22.5° BEND (HORIZ. DEFL.)
RELO. STA. 1+45.57 =
S.R. 161 STA. 66+21.05, 80.21' RT.

ASPHALT BIKE PATH

EX. 16" WATER MAIN
(TO REMAIN)

16" - 22.5° BEND (17° HORIZ. DEFL.)
RELO. STA. 1+13.68 =
S.R. 161 STA. 65+89.45, 93.00' RT.

FRONTIER-BY OTHERS

16" - 22.5° BEND (17° HORIZ. DEFL.)
RELO. STA. 1+00.00 = STA. 3048+55.55
16" WATER MAIN BASELINE =
S.R. 161 STA. 65+77.93, 101.72' RT.

4.0'

5.0'

3049

3050

3051

N 82° 19' 31" E

EX. 16" WM (07-097_152)

S 52° 45' 50" E

EX. 16" WATER MAIN
(TO BE REMOVED)

EX. VALVE (ATG)

STA. 3049+02.17 =
STA. 66+30.47, 88.00' RT. (POST RD)
16" - 22.5° BEND

16" - 22.5° BEND (18.4° HORIZ. DEFL.)
RELO. STA. 2+59.90= STA. 3050+11.15
16" WATER MAIN BASELINE =
S.R. 161 STA. 67+40.46, 88.00' RT.

3048

EX. 16" WM (07-097_152)

EX. 16" WATER MAIN
(TO REMAIN)

EX. VALVE (ATG)

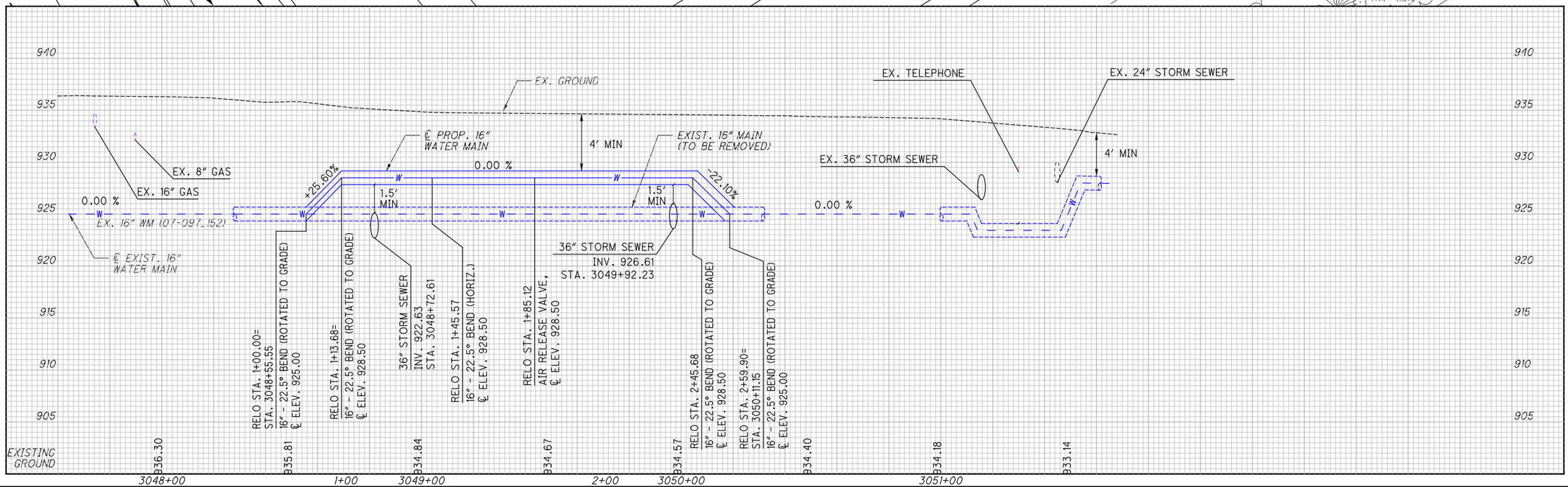
EX U

EX. CASING PIPE

dense brush

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

NOTE: CONTRACTOR TO LOCATE EXISTING 16" MAIN PRIOR TO THE START OF CONSTRUCTION AND USE CAUTION NOT TO DISTURB THE EXISTING PRESSURIED MAIN. THE CONTRACTOR SHALL COORDINATE THE SHUT DOWN AND TIE IN WITH THE COLUMBUS DIVISION OF WATER. SEE COLUMBUS WATER WORK NOTES ON SHEET 592.



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ARL
CHECKED JED

WATER WORK PLAN - COLUMBUS 16" MAIN
STA. 3047+50.00 TO STA. 3051+50.00

UNI-33-24.87

594
923

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NOTE:
36' MINIMUM RADIUS OF CURVATURE ON ALL ELECTRIC DUCT. 5' MINIMUM RADIUS ON ALL TELECOM DUCT.

P.I. Sta. 1041+10.81
Δ = 16° 07' 11" (RT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 162.27'
L = 322.40'

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
567-576	DRAINAGE PLAN & PROFILE

DUB DUBLINK 5' x 10' x 7' CONCRETE MANHOLE

SPM CHARTER/SPECTRUM 36" X 48" X 36" CHANNEL VAULT

MATCH LINE STA. 1038+50

℄ RAMP E-N

PC Sta. 501+48.85

PC Sta. 500+00.00

PC Sta. 1039+48.54

PT Sta. 1042+70.94

℄ AEP MAINLINE CONDUIT

MATCH LINE STA. 1044+00.00

N 87° 37' 16" E

S 76° 15' 33" E

Ex U

Ex LA-R/W

OH-E

OH-Comb

FO

E

W

Water Trees

1039 1040 1041 1042 1043

502 501 500

A D E G H

℄ S.R. 161

57 58 59 60 61

PC Sta. 614+38.30

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ARL CHECKED JED

UTILITY DUCT PLAN AND PROFILE
STA. 1038+50.00 TO STA. 1044+00.00

UNI-33-24.87

611
923

955 950 945 940 935 930 925 920

928.75 928.86 928.98 929.09 929.21 929.33 929.44 929.56 929.67 929.79 929.91 930.02 930.14 930.25 930.37 930.49 930.60 930.72 930.83 930.95 931.07 931.18 931.30

935.8 937.5 938.0 936.6 936.3 937.4 938.2 938.7 939.5 939.7 940.3 940.7 940.6 940.8 941.2 941.0 939.8 938.1 937.7 937.3 936.8 936.2 936.1

1039+00 1040+00 1041+00 1042+00 1043+00 1044+00

EXISTING GROUND

PROPOSED GROUND

6" UD

EX. TELE

6" UD

EX. ELEC.

2'-6" MIN COVER SEE ELEV.

PGL (TOP OF CONCRETE)

+0.46 %

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NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
567-576	DRAINAGE PLAN & PROFILE

DUB DUBLINK
5' x 10' x 7' CONCRETE MANHOLE

SPM CHARTER/SPECTRUM
36" X 48" X 36" CHANNEL VAULT

NOTE:
36' MINIMUM RADIUS OF CURVATURE ON ALL ELECTRIC DUCT. 5' MINIMUM RADIUS ON ALL TELECOM DUCT.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ARL
CHECKED JED

UTILITY DUCT PLAN AND PROFILE
STA. 1044+00.00 TO STA. 1049+00.00

UNI-33-24.87

612
923

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NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
567-576	DRAINAGE PLAN & PROFILE

7270 HYLAND CROY ROAD

PI Sta. 1049+04.89

MATCH LINE STA. 1049+00.00

℄ AEP MAINLINE CONDUIT

℄ POST ROAD (CR 24)

POST PRESERVE DRIVE

FRONTIER-BY OTHERS

ELECTRICAL MANHOLE
℄ POST ROAD STA. 70+13.22, 77.5' LT
℄ MAINLINE DUCT STA. 1052+88.31

INSTALL FIBERGLASS SWITCH PAD
℄ POST ROAD STA. 70+32.24, 76.90' LT
℄ MAINLINE DUCT STA. 1053+06.71, 4.88' LT

POT Sta. 1053+81.20
END CONCRETE ENCASED CONDUIT
TIE INTO EXISTING UTILITY POLE

NEW RISER POLE BY OTHERS
POST RD. STA. 71+30.50, 46.50' LT.

SEE INSET C BELOW FOR CONTINUATION OF DUCT

S 62° 52' 08" E

S 52° 45' 50" E

S 36° 05' 57" E

NOTE:
36' MINIMUM RADIUS OF CURVATURE ON ALL ELECTRIC DUCT. 5' MINIMUM RADIUS ON ALL TELECOM DUCT.

DUB DUBLINK
5' x 10' x 7' CONCRETE MANHOLE

SPM CHARTER/SPECTRUM
36" X 48" X 36" CHANNEL VAULT

DUBLINK MANHOLE
℄ POST ROAD STA. 73+00.00, 74.0' LT.
STUB OUT AND CAP DUCT ON EAST SIDE OF MH

INSET C

E6 ELECTRICAL MANHOLE
STA. 1052+88.31 MAINLINE

STA. 1053+81.20
END CONC. ENCASED DUCT
CONNECT TO TELEPHONE/
ELECTRIC POLE TURN 2 DUCT,
EXTEND 7 DUCT 2' BEYOND POLE
TO STA. 71+30.50, 49.50' LT
(℄ CONST. POST RD.)

EXISTING GROUND

PGL (TOP OF CONCRETE)

+0.00 %

-15.00 %

+15.00 %

+0.00 %

STA 1051+00.00
ELEV = 931.00'

STA 1051+45.00
ELEV = 924.25'

STA 1052+46.44
ELEV = 924.25'

STA 1052+73.21
ELEV = 928.27'

EX. ELEC.

EX. TELE.

EX. 8" WATER

2'-6" MIN COVER SEE ELEV.

1' MIN CLEARANCE

EX. 8" GAS

EX. 8" GAS

EX. 8" GAS

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ARL
CHECKED JED

UTILITY DUCT PLAN AND PROFILE
STA. 1049+00.00 TO STA. 1053+99.14

UNI-33-24.87

613
923

P:/PR41806AA/FRA/80748/UTILITIES/SHEETS/80748UP415.DGN

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
567-576	DRAINAGE PLAN & PROFILE

DUB DUBLINK
5' x 10' x 7' CONCRETE MANHOLE

SPM CHARTER/SPECTRUM
36" X 48" X 36" CHANNEL VAULT

NOTE:
36' MINIMUM RADIUS OF CURVATURE ON ALL ELECTRIC DUCT. 5' MINIMUM RADIUS ON ALL TELECOM DUCT.

P.I. Sta. 701+68.67
Δ = 40° 57' 48" (LT)
Dc = 14° 19' 26"
R = 400.00'
T = 149.41'
L = 285.98'

P.I. Sta. 704+25.03
Δ = 17° 01' 51" (RT)
Dc = 7° 09' 43"
R = 800.00'
T = 119.78'
L = 237.80'

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES & FRONTIER CONDUIT	ENR	3-3-2022

ELECTRICAL MANHOLE
℄ S.R. 161 STA. 62+19.43, 94.31' LT
MAINLINE DUCT STA. 1044+48.95
BRANCH 2 STA. 700+00.00
℄ OVERHEAD ELECTRICAL STA. 800+00.00

FIBERGLASS SWITCH PAD

SEE INSET D BELOW FOR ELECTRIC SERVICE DUCT

INSET D

ELECTRICAL MANHOLE
STA. 1044+57.42 MAINLINE =
STA. 700+00.00 BRANCH 2

STA 701+16.67
ELEV = 930.25'

STA 701+68.87
ELEV = 922.42'

36" STORM SEWER
INV. 926.98'
STA. 702+38.12

STA 702+98.88
ELEV = 922.42'

STA 703+39.41
ELEV = 928.50'

TRANSFORMER BY AEP
℄ S.R. 161
STA. 61+91.4, 76.1' LT

700+00 701+00 702+00 703+00 704+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ARL CHECKED JED

UTILITY DUCT PLAN AND PROFILE
STA. 700+00.00 TO STA. 704+00.00

UNI-33-24.87

614
923

P:/PR41806AA/FRA/80748/UTILITIES/SHEETS/80748UP417.DGN

NO.	DESCRIPTION	REV. BY	DATE
C	ADDITIONAL AEP POLES	ENR	3-3-2022

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
567-576	DRAINAGE PLAN & PROFILE

DUB DUBLINK
5' x 10' x 7' CONCRETE MANHOLE

SPM CHARTER/SPECTRUM
36" X 48" X 36" CHANNEL VAULT

NOTE:
36' MINIMUM RADIUS OF CURVATURE ON ALL ELECTRIC DUCT. 5' MINIMUM RADIUS ON ALL TELECOM DUCT.

P.I. Sta. 704+25.03
Δ = 17° 01' 51" (RT)
Dc = 7° 09' 43"
R = 800.00'
T = 119.78'
L = 237.80'

MATCH LINE STA. 704+00.00

dense brush

Ex U

LA-R/W

Ex LA-R/W

Ex R/W

EX. 8" PMMP GAS

Ex LA-R/W

Ex LA-R/W

OHE FOT

922

705

706

S 10° 11' 30" E

℄ BRANCH 2

℄ RAMP S-EW

PT Sta. 706+43.04

921

920

POT Sta. 706+86.11
END CONCRETE ENCASED CONDUIT
TIE INTO EXISTING UTILITY POLE

14"

10"

Ex R/W

Ex U

M/R Ex LA-R/W

Ex SH

EX. 8" PMMP GAS

EX. 16" WTHP GAS

Ex U

EX LA-R/W

B

	704+00	705+00	706+00
Existing Ground	936.80	936.66 / 936.51 / 936.37 / 936.25 / 936.22 / 936.22 / 936.24 / 936.67 / 936.06	936.36
Proposed Ground	928.50	928.50	928.50

EXISTING GROUND

PROPOSED GROUND

PGL (TOP OF CONCRETE)

6" UD

6" UD

2'-6" MIN COVER SEE ELEV.

STA. 706+86.11
END CONC. ENCASED DUCT
CONNECT TO EXISTING
TELEPHONE/ELECTRIC POLE

915 910 915 910

P:/PR41806AA/FRA/80748/UTILITIES/SHEETS/80748UP418.DGN

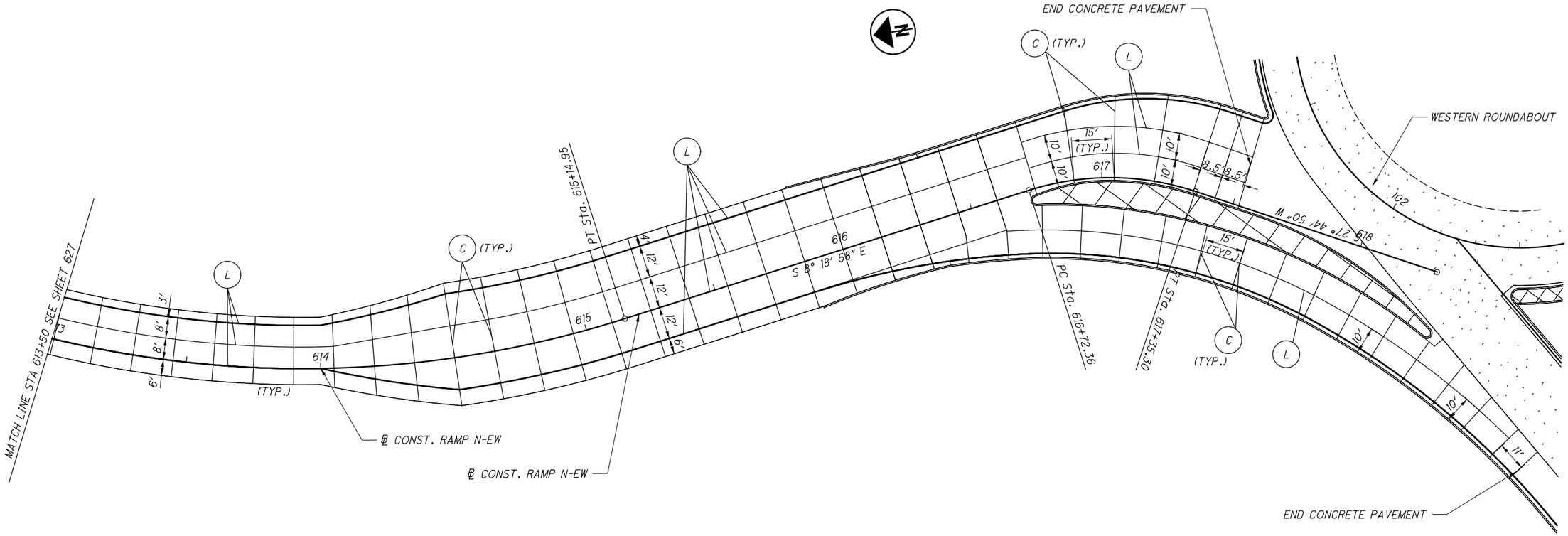
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ARL
CHECKED JED

UTILITY DUCT PLAN AND PROFILE
STA. 704+00.00 TO STA. 706+74.43

UNI-33-24.87

615
923



NO.	DESCRIPTION	REV. BY	DATE
C	TURNED OFF LEVELS	ENR	3-3-2022

FOR LEGEND, SEE SHEET 627

CALCULATED MDV
CHECKED MAH

PAVEMENT JOINT DETAIL - RAMP N-EW
STA. 613+50 TO STA. 618+03

UNI-33-24.87

628
923

ITEM 630 - SIGN, STREET NAME, AS PER PLAN

THE ROUNDABOUT STREET NAME SIGNS SHALL BE MANUFACTURED TO THE CURRENT CITY OF DUBLIN RD15 STANDARD DRAWING.

THE ALUMINUM SIGN BLANK SHALL BE 12 INCHES IN HEIGHT. THE LEGEND SHALL BE WHITE IN COLOR ON FOREST BROWN BACKGROUND. THE LETTERING SHALL BE 10 INCH CAPITAL LETTERS FOR THE STREET NAME AND 5 INCH CAPITAL LETTERS FOR THE STREET NAME SUFFIX. THE WHITE CHEVRON SHALL BE PROPORTIONAL TO THE CHEVRON USED ON THE W1-8 SIGN, BUT TO THE HEIGHT SHOWN IN THE DETAIL BELOW. THE FONT FOR ALL LETTERING SHALL BE HIGHWAY GOTHIC, SERIES C. THE SIGNS SHALL BE DOUBLE POSTED AND MOUNTED 5 FEET ABOVE THE GROUND.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID PER EACH SIGN FABRICATED, INCLUDING ALL NECESSARY HARDWARE TO PROPERLY MOUNT SIGN ON SUPPORTS.

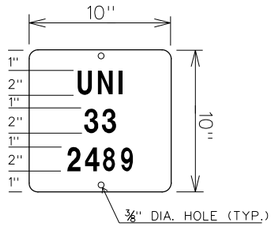
ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST

THESE ITEMS SHALL BE USED TO PLACE NEW STRUCTURE IDENTIFICATION SIGNS AT THE FOLLOWING BRIDGE STRUCTURES: UNI-33-2489

EACH SIGN SHALL BE ATTACHED TO THE CONCRETE PARAPET WITH CONCRETE ANCHORS AT THE RIGHT, REAR (AND FORWARD LEFT IF TWIN BRIDGES) LOCATION. IF THE BRIDGE DOES NOT HAVE A CONCRETE PARAPET, THE SIGN SHALL BE POST MOUNTED TO ONE NEW NO. 2 POST AS PER CONSTRUCTION DRAWING TC-41.20 MOST CURRENT REVISION USING TWO 5/16" ALUMINUM BOLTS 2½" IN LENGTH. THE POST SHALL BE 7'-0" LONG. IN SOME CASES, THE SIGN SHOULD ALSO BE ADDED TO THE BRIDGE PIER(S) BELOW.

SIGNS SHALL BE SIZED AS PER EXAMPLE. SIGNS SHALL BE ALUMINUM AND HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND AS PER CMS 730.20. THE LETTERS SHALL BE BLACK 2" IN HEIGHT, SERIES C STROKE WIDTH, AND SILK SCREENED AS PER CMS 730.22.



ITEM 630 - OVERHEAD SIGN SUPPORT, BY TYPE, BY DESIGN, AS PER PLAN

THE OVERHEAD SIGN SUPPORTS ON S.R. 161/POST ROAD SHALL BE POWDER-COATED TO MATCH THE CITY OF DUBLIN STANDARD FOR POLE PAINT COLOR (DUBLIN BRONZE). THE PAINT SHALL BE A POWDER POLYESTER PAINT FINISHED TO A GLOSS OF 35 PERCENT (AT 60 DEGREES) OVER THE GALVANIZED POLES. PAINT CHIP SAMPLE MUST BE SUBMITTED TO THE CITY ENGINEER AT LEAST 7 DAYS PRIOR TO ORDERING MATERIALS FOR REVIEW AND APPROVAL ALONG WITH SHOP DRAWINGS FOR ALL COMPONENTS.

ALL EXPOSED SURFACES (INCLUDING, BUT NOT LIMITED TO THE SUPPORTS, ARMS, ARM CAPS, UPPER CHORD, DIAGONALS, BRACES, AND ALL MOUNTING HARDWARE SHALL BE FACTORY PREPARED UNDER THE FOLLOWING SPECIFICATIONS OR AN APPROVED EQUAL:

1. SANDBLAST TO A SSPC-SP7 BRUSH BLAST.

2. PRIME 1 COAT TILE CLAD II HI-BUILD PRIMER - B62 N71/B60V70 3 TO 4 MILS D.F.T.

3. FINISH 1 COAT POLANE POLYURETHANE ENAMEL - 1 TO 1.5 MILS D.F.T.

IF DURING TRANSPORTATION, ERECTION, OR INSTALLATION OF SIGN HARWARE, OR AT ANY TIME BEFORE FINAL ACCEPTANCE THE PAINTED SURFACES ARE SCRATCHED OR MARRED IN ANY MANNER, THE CONTRACTOR SHALL BE REQUIRED TO APPLY "TOUCH-UP" PAINT OF THE SAME TYPE AS SPECIFIED ABOVE TO THE AFFECTED AREAS.

PAYMENT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EACH ITEM 630 - OVERHEAD SIGN SUPPORT, BY TYPE, BY DESIGN, AS PER PLAN.

TC-12.31 BASE PLATE CONNECTION:

ALL REFERENCE ITEMS THAT REFER TO THE TC-12.31 STANDARD DRAWING SHALL HAVE BASE CONNECTION FABRICATED AS PER THE "STANDARD BASE DESIGN" WHICH UTILIZES COMPLETE JOINT PENETRATION (CJP) WELDS.

NO.	DESCRIPTION	REV. BY	DATE
C	ADDED NOTE	ENR	3-3-2022

CALCULATED EMW CHECKED SLT

SIGNING AND PAVEMENT MARKING NOTES

UNI-33-24.87

653
923

P:\PR41806AA\fra\80748\traffic\sheets\80748TN001.dgn

SHEET NO.	REF NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	625 GROUND ROD (TRAFFIC CONTROL) EACH	630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN FT	630 GROUND MOUNTED SUPPORT, NO. 4 POST FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9 FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12 FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18 FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30 FT	630 SIGN POST REFLECTOR EACH	630 BREAKAWAY STRUCTURAL BEAM CONNECTION EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12 EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2 EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3 EACH	630 SIGNING, MISC.: 2-1/4" SQUARE ANCHOR POST EACH	630 SIGN, FLAT SHEET (TRAFFIC CONTROL) SF	630 SIGN, FLAT SHEET, AS PER PLAN SF	630 SIGN, GROUND MOUNTED EXTRUSHEET SF	630 SIGN, OVERHEAD EXTRUSHEET SF	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION EACH	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	632 PEDESTAL, MISC.: PEDESTAL REMOVE AND REERECT EACH	632 PEDESTAL FOUNDATION, AS PER PLAN (TRAFFIC CONTROL) EACH
686	R-32	EITERMAN NB	122+55	RT	REMOVAL																						1					1					
687	S-48	SR-161 WB	46+70	LT	R3-8LT_T	36 X 30			10.5													1	7.5															
	R-33	SR-161 WB	46+68	LT	REMOVAL																						1					1					
	S-49	NOT USED																																				
	S-50	SR-161 WB	48+50	LT	W13-3	24 X 30																				5.0											
	OS-5	SR-161 WB	48+50	LT	LEVEL 3	144 X 120																				120.0											
	R-34	SR-161 WB	48+50	LT	REMOVAL																													1				
	OS-6	SR-161 WB	48+50	LT	LEVEL 3	192 X 72																				96.0											
	OS-7	SR-161 EB	48+50	RT	LEVEL 3	108 X 72																				54.0											
	OS-8	SR-161 EB	48+50	RT	LEVEL 4	168 X 84																				98.0											
	R-35	SR-161 EB	48+50	RT	REMOVAL																													1				
	R-36	SR-161 EB	48+50	RT	REMOVAL																													1				
	R-37	SR-161 EB	49+16	RT	REMOVAL																						1					1					
	R-38	SR-161 WB	50+40	LT	REMOVAL																						4					1					
	R-39	SR-161 WB	50+84	RT	REMOVAL																						4					1					
	R-40	SR-161 WB	51+23	LT	REMOVAL																						2					1					
	R-41	RAMP S-W	803+94	RT	REMOVAL																						1					1					
688	R-42	SR-161 EB	52+19	RT	REMOVAL																						1					1					
	S-51	SR-161 EB	52+36	RT	R2-1	24 X 30		10.0													1	5.0														
	R-43	SR-161 EB	53+20	RT	REMOVAL																						3					1					
	R-44	SR-161 EB	53+20	RT	REMOVAL																						3					1					
	R-45	SR-161 WB	53+43	LT	REMOVAL																						1					1					
	S-52	SR-161 EB	53+38	RT	SPECIAL	10 X 10		3.5													1		1														
	S-53	SR-161 WB	54+62	LT	SPECIAL	10 X 10		3.5													1		1														
	R-46	SR-161 WB	54+77	LT	REMOVAL																						6					1					
	R-47	SR-161 WB	54+77	LT	REMOVAL																						6					1					
689	S-54	SR-161 WB	56+00	LT	R2-1	24 X 30		10.0													1	5.0														
	R-48	SR-161 EB	56+14	RT	REMOVAL																						1					2					
	R-49	SR-161 WB	56+27	LT	REMOVAL																									1			2				
	R-50	SR-161 WB	56+42	LT	REMOVAL																						2					1					
	R-51	SR-161 EB	56+68	RT	REMOVAL																									3			2				
	R-52	SR-161 EB	57+00	RT	REMOVAL																						1					2					
	R-53	SR-161 EB	57+42	RT	REMOVAL																						3					2					
	R-54	SR-161 EB	57+52	RT	REMOVAL																						1					1					
	S-55	SR-161 EB	58+19	RT	REERECTION				10.5													1													1	1
	R-55	SR-161 EB	58+12	RT	REMOVAL																						1					1					
	S-57	SR-161 WB	58+82	LT	R4-7	24 X 30		10.0													1	5.0														
	OS-9	SR-161 WB	59+30	LT	LEVEL 3	144 X 180	2									1									180.0		2									
	OS-10	SR-161 WB	59+30	LT	LEVEL 3	144 X 120																			120.0											
	OS-11	SR-161 EB	59+30	RT	LEVEL 3	144 X 180																			180.0											
690	S-82	SR-161 EB	59+30	RT	R3-H8EB	66 X 30		10.0													1	13.8														
	S-56	RAMP S-EW	1000+00	RT	W13-3	24 X 30		10.0													1	5.0														
	R-56	SR-161 WB	60+65	LT	REMOVAL																													1				
	S-58	NOT USED																																				
	R-57	SR-161 EB	60+74	RT	REMOVAL																						1					2					
	R-58	SR-161 WB	61+86	LT	REMOVAL																														3			
	S-59	SR-161 WB	62+65	LT	LEVEL 3	108 X 72						38.0			2								15.0														
	R-59	SR-161 EB	63+66	RT	REMOVAL																						1					1					
	R-60	SR-161 EB	63+76	RT	REMOVAL																						1					1					
	R-61	SR-161 EB	63+88	RT	REMOVAL																						1					1					
	R-62	SR-161 EB	64+56	RT	REMOVAL																																	
	S-60	SR-161 WB	64+56	LT	REERECTION						11.5											1													1			
	S-61	NOT USED																																				
	S-62	SR-161 EB	65+78	RT	REERECTION				10.5													1													1			
	S-63	SR-161 EB	64+90	RT	R4-7	24 X 30			10.0													1	5.0														
	S-64	SR-161 EB	65+32	RT	I-H2B	24 X 18			9.0													1	3.0														
TOTALS CARRIED TO SHEET 671							2.0	57.0	50.5		12.0		38.0				2.0			1.0	13.0	49.5	2.0	15.0	853.0		2.0	47.0	4.0	5.0		30.0	6.0	3.0	3.0	1.0	1.0

NO.	DESCRIPTION	REV. BY	DATE
C	QUANTITY UPDATES	ENR	3-3-2022

CALCULATED JZM
CHECKED EMW

SIGNING SUBSUMMARY

UNI-33-24.87

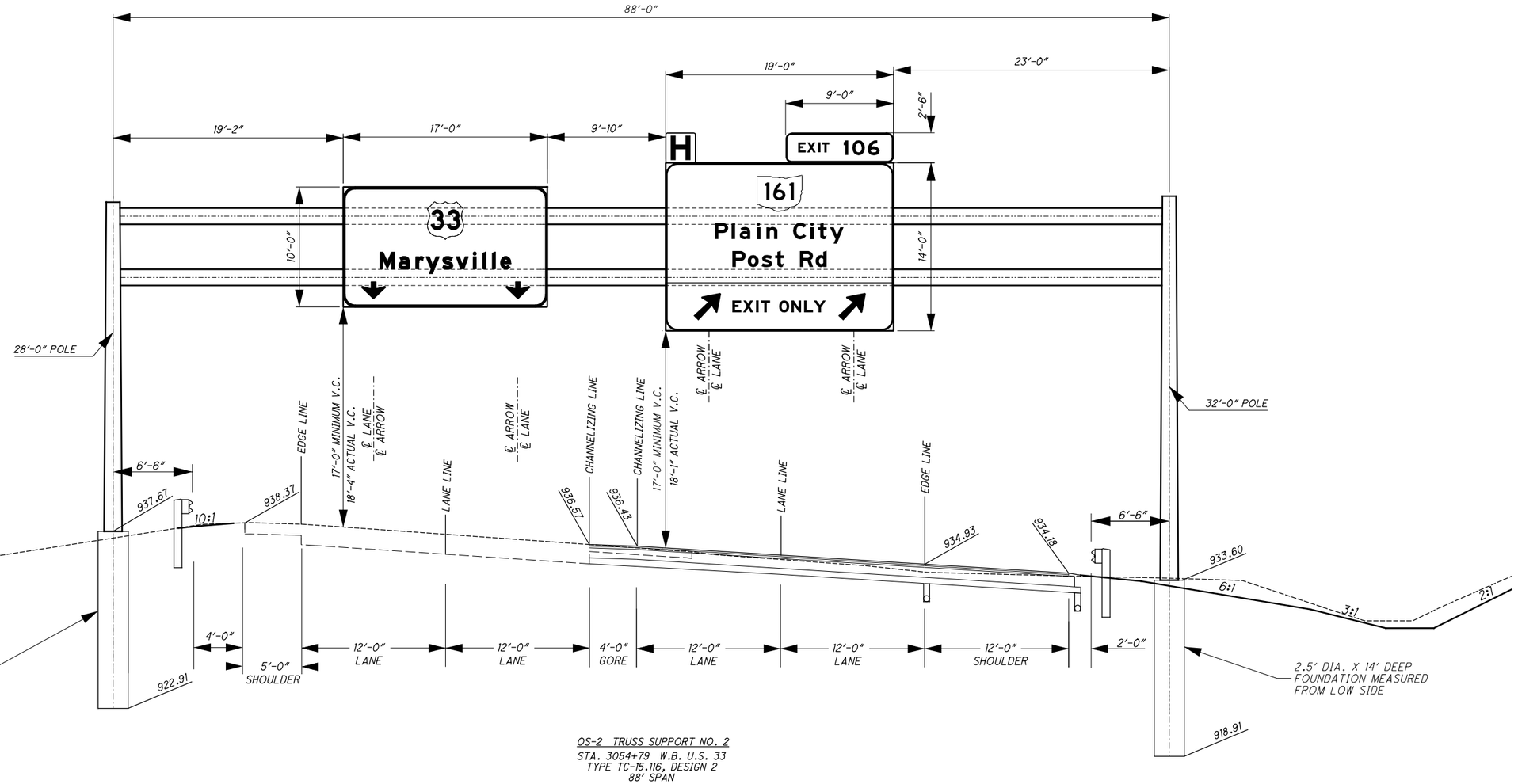
SHEET NO.	REF NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	625 GROUND ROD (TRAFFIC CONTROL) EACH	630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN FT	630 GROUND MOUNTED SUPPORT, NO. 4 POST FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9 FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12 FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18 FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30 FT	630 SIGN POST REFLECTOR EACH	630 BREAKAWAY STRUCTURAL BEAM CONNECTION EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12 EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2 EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3 EACH	630 SIGNING, MISC.: 2-1/4" SQUARE ANCHOR POST EACH	630 SIGN, FLAT SHEET (TRAFFIC CONTROL) SF	630 SIGN, FLAT SHEET, AS PER PLAN SF	630 SIGN, GROUND MOUNTED EXTRUSHEET SF	630 SIGN, OVERHEAD EXTRUSHEET SF	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION EACH	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	632 PEDESTAL, MISC.: PEDESTAL REMOVE AND REERECT EACH	632 PEDESTAL FOUNDATION, AS PER PLAN (TRAFFIC CONTROL) EACH
690	S-65	RAMP S-EW	923+98	RT	R5-1	36 X 36					30.0					2							9.0															
		RAMP S-EW	923+98	RT	R6-1R	54 X 18																	6.75															
		RAMP S-EW	923+98	RT	R6-1R	54 X 18																	6.75															
	S-66	RAMP S-EW	924+21	LT	R5-1	36 X 36					30.0					2							9.0															
		RAMP S-EW	924+21	LT	R6-1R	54 X 18																	6.75															
		RAMP S-EW	924+21	LT	R6-1R	54 X 18																	6.75															
691	R-63	SR-161 EB	66+33	LT	REMOVAL																								2				1					
	R-64	SR-161 WB	65+66	RT	REMOVAL																								1				2					
	S-67	SR-161 EB	66+72	RT	R3-H8CA	48 X 30			10												1	10																
	S-68	SR-161 WB	67+85	LT	REERECTION				10.5												1									1				1				1	1
	S-69	SR-161 WB	67+89	LT	REERECTION				11.5												1									2				1					
	S-70	SR-161 EB	68+12	RT	D9-2	24 X 24			11												1	4																
		SR-161 EB	68+12	RT	M6-3	21 X 15																2.5																
	S-71	SR-161 WB	68+39	LT	R3-H8DN	54 X 30			10.0												1	11.5																
	S-72	NOT USED																																				
	R-65	SR-161 WB	68+94	LT	REMOVAL																								1				1					
	S-73	SR-161 WB	69+59	LT	REERECTION				9.0												1									2				1					
	S-74	NOT USED																																				
	S-75	POST PRESERVE	20+91	LT	R1-1	30 X 30			12							1					1	6.5																
		POST PRESERVE	20+91	LT	R3-2	24 X 24																2.0																
	S-83	SR-161 WB	69+04	LT	R6-2R	24 X 30			10.0												1	5.0																
	S-84	SR-161 WB	70+28	LT	R3-H8DN	54 X 30			10.0												1	11.5																
692	S-76	SR-161 WB	72+36	LT	R4-7	24 X 30			10.0												1	5.0																
	R-66	SR-161 WB	73+47	LT	REMOVAL																								1				1					
	S-78	SR-161 WB	73+77	LT	R2-1	24 X 30			10												1	5																
693	S-79	HYLAND-CROY	402+15	RT	W4-2R	36 X 36			10.5												1	9																
	R-67	HYLAND-CROY	402+38	LT	REMOVAL																								1				1					
	S-80	HYLAND-CROY	403+70	LT	R3-H8DK	54 X 30			10.0												1	11.5																
	R-68	HYLAND-CROY	403+98	LT	REMOVAL																								2				1					
	S-81	HYLAND-CROY	405+51	LT	R3-H8DK	48 X 30			10												1	10																
QUANTITIES FOR PLAN SPLIT 01/NHS/PV							6.0	73.0	128.0	300.0	152.5	122.0	97.0	45.0	186.0	6.0	18.0	2.0	2.0		3.0	388.0	2.0	104.0	1910.0	18.0	8.0	27.0	3.0	19.0	5.0	29.0	28.0				
QUANTITIES FOR PLAN SPLIT 02/S>2/PV							2.0	77.0	203.5		59.0		38.0			6.0	2.0			1.0	34.0	125.8	2.0	15.0	853.0			52.0	24.0	5.0		47.0	6.0	3.0	3.0	2.0	2.0
TOTALS FROM SHEET						668	2.0	44.0	104.0	220.0	15.0	122.0		45.0	123.5		12.0		1.0		2.0	170.5	2.0	104.0	823.5	12.0	2.0	21.0	3.0	14.0	1.0	25.0	18.0				
TOTALS FROM SHEET						669	4.0	49.0	63.0	80.0	125.0		97.0		62.0	7.0	6.0	2.0	1.0		11.0	183.5			1086.5	6.0	4.0	5.0	15.0	5.0	4.0	12.0	10.0				
TOTALS FROM SHEET						670	2.0	57.0	50.5		12.0		38.0				2.0			1.0	13.0	49.5	2.0	15.0	853.0		2.0	47.0	4.0	5.0		30.0	6.0	3.0	3.0	1.0	1.0
TOTALS FROM THIS SHEET									144.5		60.0					5.0					14.0	139.0						8.0	5.0			10.0				1.0	1.0
TOTAL CARRIED TO GENERAL SUMMARY							8.0	150.0	362.0	300.0	212.0	122.0	135.0	45.0	186.0	12.0	20.0	2.0	2.0	1.0	40.0	543.0	4.0	119.0	2763.0	18.0	8.0	81.0	27.0	24.0	5.0	77.0	34.0	3.0	3.0	2.0	2.0

SIGNING SUBSUMMARY

CALCULATED JZM
CHECKED EMW

UNI-33-24.87

NO.	DESCRIPTION	REV. BY	DATE
C	QUANTITY UPDATES	ENR	3-3-2022



OS-2 TRUSS SUPPORT NO. 2

STA. 3054+79 W.B. U.S. 33
TYPE TC-15.116, DESIGN 2
88' SPAN

NO.	DESCRIPTION	REV. BY	DATE
C	NOTE UPDATES	ENR	3-3-2022

CALCULATED EMW
CHECKED SLT

0 2.5 5 10
HORIZONTAL SCALE IN FEET

TRUSS SIGN ELEVATION DETAILS

UNI-33-24.87

701
923

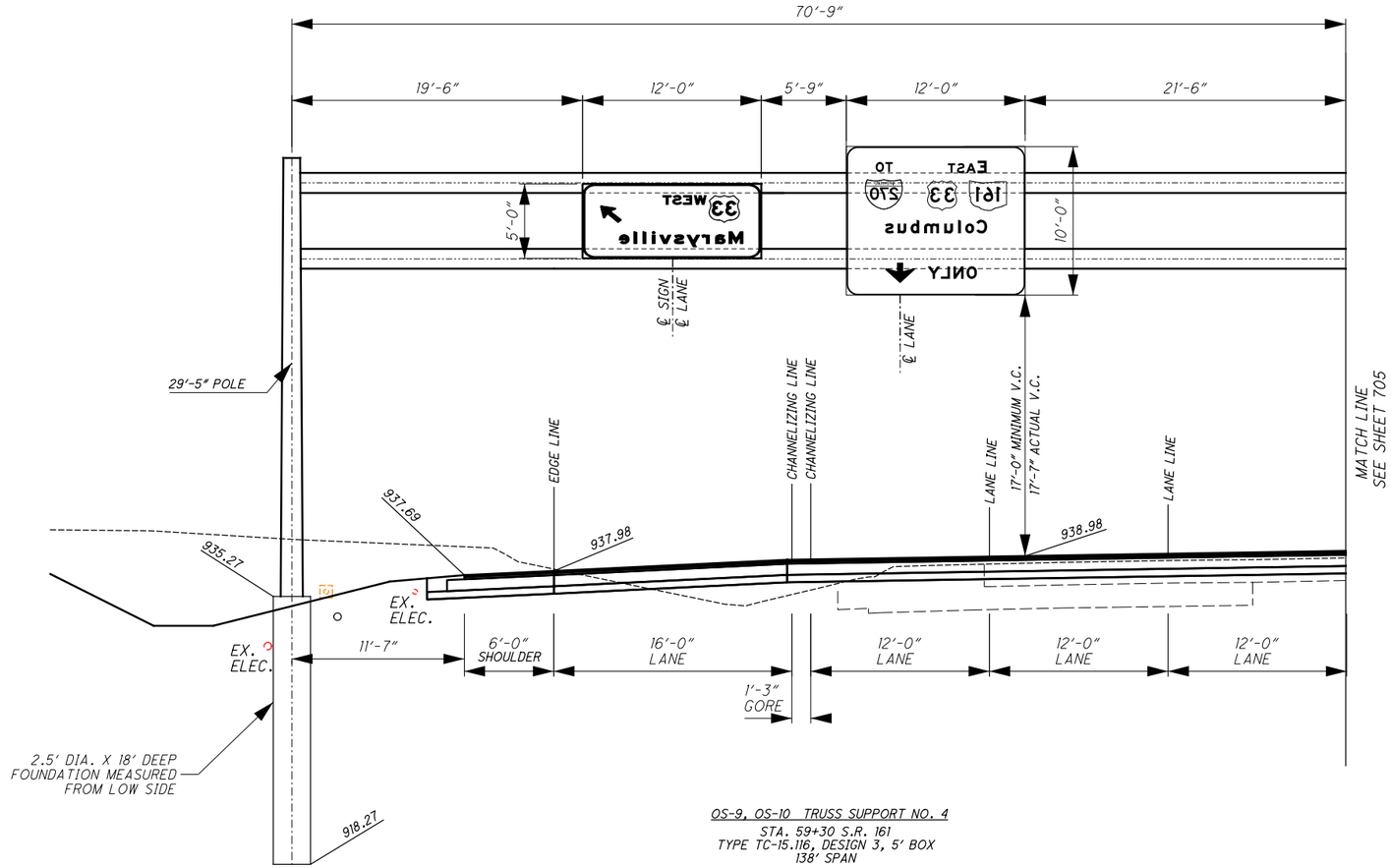
P:\PR41806AA\fro\80748\traffic\sheets\80748TE03A.dgn

TRUSS SIGN ELEVATION DETAILS

UNI-33-24.87

CALCULATED EMW
CHECKED SLT

0 2.5 5 10
HORIZONTAL SCALE IN FEET



OS-9, OS-10 TRUSS SUPPORT NO. 4
STA. 59+30 S.R. 161
TYPE TC-15.116, DESIGN 3, 5' BOX
138' SPAN

NO.	DESCRIPTION	REV. BY	DATE
C	NOTE UPDATES	ENR	3-3-2022

704
923

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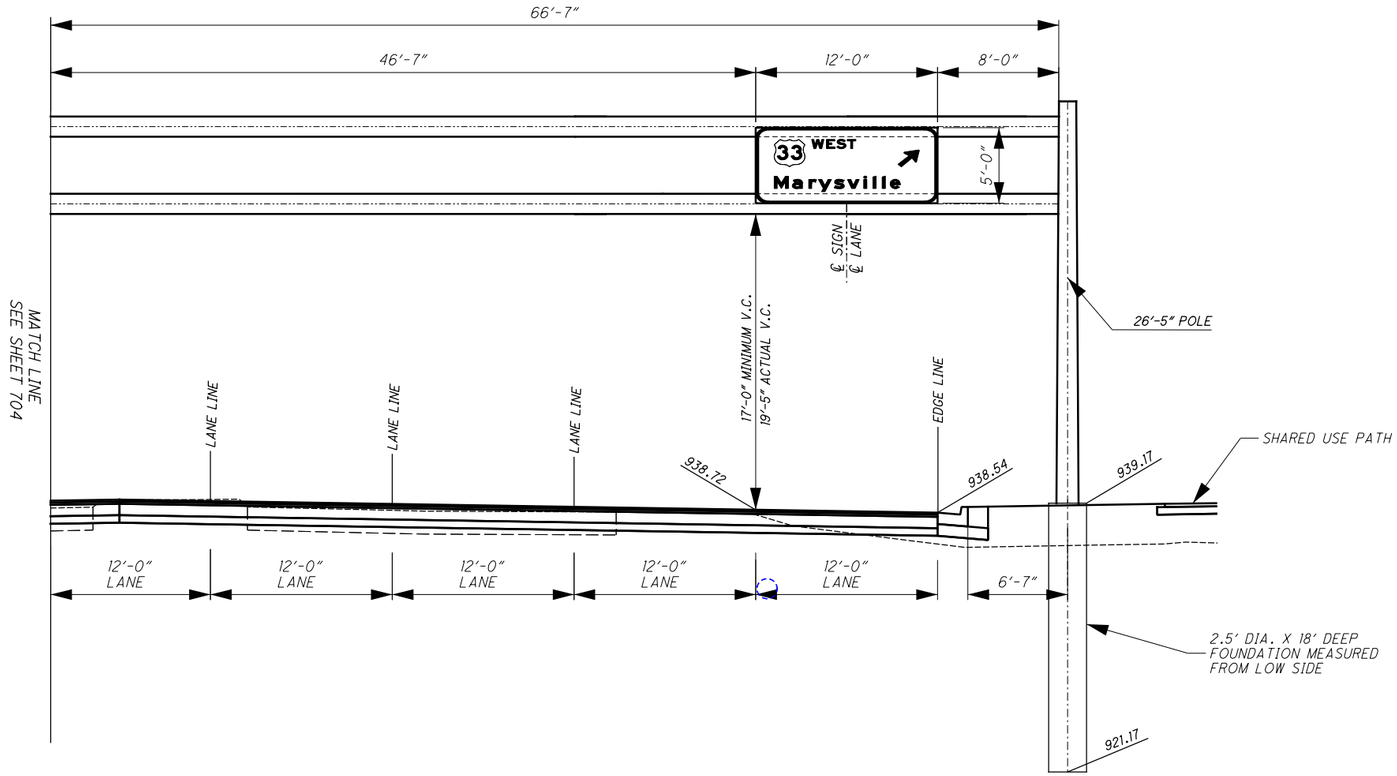

OS-11 TRUSS SUPPORT NO. 4

STA. 59+30 S.R. 161
TYPE TC-15.116, DESIGN 3, 5' BOX
138' SPAN

NO.	DESCRIPTION	REV. BY	DATE
C	NOTE UPDATES	ENR	3-3-2022

CALCULATED EMW
CHECKED SLT

0 2.5 5 10
HORIZONTAL SCALE IN FEET

TRUSS SIGN ELEVATION DETAILS

UNI-33-24.87

705
923

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ITEM 625 PULL BOX, MISC.: PULL BOX ADJUSTED TO GRADE

IN ADDITION TO THE REQUIREMENTS OF 625.11, THE EXISTING PULL BOX SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR. THE CABLES GOING THROUGH THE PULL BOX SHALL NOT BE DISCONNECTED AND EXISTING CONDUITS SHALL NOT BE MOVED. THE FOLLOWING GUIDELINES SHALL BE FOLLOWED UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

IF ADJUSTING THE PULL BOX UP, THE PULL BOX ITSELF SHALL STAY WHERE IT IS AND ONLY THE RING AND LID ADJUSTED. IF RAISING A MAXIMUM OF 1 FOOT, BRICK AND MORTAR SHALL BE USED AROUND THE TOP OF THE PULL BOX OR BY CUTTING A CASTING FROM ANOTHER PULL BOX AND PLACING IT ON TOP WITH MORTAR AND REPLACING THE LID TO THE APPROPRIATE LEVEL. IF ADJUSTING THE PULL BOX MORE THAN 1 FOOT, PULL OUT AND RESET THE PULL BOX AND RAISE THE CONDUITS AND AGGREGATE TO THE APPROPRIATE HEIGHT. NEW ANCHOR BOLTS SHALL BE SET. THE STAINLESS STEEL CLIPS MAY BE REUSED IF THEY ARE IN GOOD CONDITION. IF NOT THEY SHALL ALSO BE REPLACED.

IF ADJUSTING THE PULL BOX DOWN, THE PULL BOX SHALL BE REMOVED AND RESET ON NEW AGGREGATE BASE SO IT IS STILL THE CORRECT THICKNESS AS THE STANDARD CONSTRUCTION DRAWING CALLS FOR. CREATE NEW KNOCKOUTS IN THE PULL BOX IF NECESSARY TO AVOID DISTURBING THE CONDUITS.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER EACH PULL BOX ADJUSTED TO GRADE AND SHALL INCLUDE ALL LABOR, MATERIALS, CONNECTIONS AND INCIDENTALS REQUIRED TO ADJUST EACH PULL BOX.

ITEM 804 FIBER OPTIC CABLE, MISC.: FIBER OPTIC CABLE REMOVED AND RE-PULLED

EXISTING FIBER OPTIC INTERCONNECT CABLE ALONG US-33 AND POST RD SHALL BE REMOVED FROM THE EXISTING CONDUIT FOR REINSTALLATION THE PROPOSED CONDUIT SYSTEM WHERE SHOWN IN THE PLANS.

PRIOR TO RELOCATION, THE CONTRACTOR AND THE ENGINEER SHALL INSPECT THE CABLE TO DOCUMENT ITS CONDITION. DAMAGE IDENTIFIED AS OCCURRING DURING THE RELOCATION PROCESS WILL BE PRESUMED TO BEEN CAUSED BY THE CONTRACTOR. IN THE EVENT OF CABLE DAMAGE CAUSED BY THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL REPLACE THE ENTIRE RUN OF CABLE BETWEEN EXISTING TERMINATION POINTS AT THE CONTRACTOR'S EXPENSE. ADDITIONAL CABLE SPLICES BEYOND THOSE SHOWN IN THE PLANS WILL NOT BE PERMITTED.

FIBER OPTIC CABLE SHALL BE INSTALLED IN FULL ACCORDANCE WITH SPECIFICATIONS AS DESCRIBED IN ODOT C&MS 804.

REESTABLISHING COMMUNICATION FUNCTIONALITY FOR EACH RELOCATED CABLE SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM OF WORK.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER FOOT OF CABLE AND SHALL INCLUDE ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO REMOVE AN RE-PULL THE CABLE.

ITEM 809 ITS DEVICE, MISC.: CCTV EQUIPMENT REMOVED AND REERECTED

THIS ITEM OF WORK SHALL CONSIST OF REMOVING ALL OF THE EXISTING EQUIPMENT ON THE CCTV POLE INCLUDING THE FIXED CAMERAS AND REERRECTING IT WHERE SHOWN IN THE PLANS.

THE FIXED CAMERAS SHALL BE REMOVED AND DELIVERED TO DRIVEOHIO FOR REINSTALLATION. CONTACT NICK HEGEMIER AT 740-272-8462 AT DRIVEOHIO FOR COORDINATION.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER EACH CCTV POLE AND SHALL INCLUDE ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO REMOVE THE EQUIPMENT FROM THE POLE AND ATTACH EQUIPMENT TO THE NEW POLE AND INCLUDES TESTING AND ACCEPTANCE ONCE OPERATIONAL AND DELIVER ALL OF THE FIXED CAMERAS.

ITEM 809 - ITS CABINET, GROUND MOUNTED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING THE EXISTING CCTV CABINET INCLUDING ALL EQUIPMENT AND REERRECTING THE CABINET WHERE SHOWN IN THE PLANS.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER EACH AND SHALL INCLUDE ALL LABOR, MATERIALS, CONNECTIONS, INCIDENTALS REQUIRED TO REMOVE AND REERECT THE CABINET INCLUDING TESTING AND ACCEPTANCE ONCE OPERATIONAL.

ITEM 625 - POWER SERVICE, AS PER PLAN

ELECTRICAL POWER SHALL BE OBTAINED FROM AEP. THE AT THE LOCATION INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120/240 VOLTS. INSTALL PER SCD ITS-15.10 OR ITS-15.11.

ITEM 625 - PULL BOX REMOVED, AS PER PLAN

REMOVAL OF A PULL BOX SHALL BE DONE SO WITH CARE. DELIVER PULL BOXES APPROVED BY THE ENGINEER AS IN GOOD CONDITION TO:

ODOT ITS
1606 W. BROAD STREET
COLUMBUS, OHIO 43223

DISPOSE OF THE PULL BOXES DEEMED TO BE IN LESS THAN GOOD CONDITION.

PAYMENT FOR ITEM 625 - PULL BOX REMOVED, AS PER PLAN SHALL BE PAID FOR AT THE BID PRICE PER EACH INCLUDING DELIVERY OR DISPOSAL.

ITEM 625 - PULL BOX, 725.08, 32", AS PER PLAN

IN ADDITION TO THE 625 REQUIREMENTS THE 32" PULL BOXES SHALL BE INSTALLED PER ODOT STANDARD CONSTRUCTION DRAWING ITS-14.11.

ITEM 809 ITS DEVICE, MISC.: CCTV POLE REMOVED AND DELIVERED

THIS ITEM OF WORK SHALL CONSIST OF REMOVING THE EXISTING CCTV POLE WHERE SHOWN IN THE PLANS.

THE CCTV POLE SHALL BE REMOVED AND DELIVERED TO ODOT ITS LAB/SIGN SHOP AT 1606 W BROAD ST, COLUMBUS OHIO 53223.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER EACH CCTV POLE AND SHALL INCLUDE ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO REMOVE THE POLE, AND DELIVER.

ITEM 809 - CONDUIT, 4", MULTICELL, HDPE WITH 4-1" INNERDUCTS
ITEM 809 - CONDUIT, MULTICELL, JACKED OR DRILLED, 4"

DESCRIPTION:
THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND OR ENCASED INSIDE CONCRETE BARRIER WALL SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROADSIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNALS CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS:
THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT. THE CONDUIT SHALL ADHERE TO 725.20 AND BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40 OR 80, HIGH DENSITY POLYETHYLENE (HDPE), OR APPROVED EQUIVALENT. THE INNERDUCTS SHALL BE A MINIMUM OF 1.10 INCH INSIDE DIAMETER. THE OUTER DUCT SHALL BE NOMINAL 4 INCH INSIDE DIAMETER AND MAXIMUM OUTSIDE DIAMETER OF 4.8 INCH.

WHERE COUPLINGS ARE NEEDED, THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED, AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, 1-1/4-INCH NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS, THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO, EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION, THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM. FOR MULTI-CELL DUCT INSTALLED IN MEDIAN WALLS, ALL ROPES AND PLUGS SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT.

INSTALLATION:
FOR PVC CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, EXCEPT AS NOTED ON THE PLANS. PVC CONDUITS SHALL NOT BE INSTALLED INSIDE CONCRETE BARRIER WALL. ALL PVC MULTI-CELL CONDUIT INSTALLED OUTSIDE OF THE ROADWAY IN TRENCH SHALL BE SCHEDULE 40 UNLESS DIRECTED BY THE PROJECT ENGINEER.

FOR INSTALLATIONS UNDER ROADWAYS, INSTALLATION WILL BE AT LEAST 30 INCHES DEEP, JACKED OR DRILLED UNDER PAVEMENT, EXCEPT AS NOTED ON THE PLANS. ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL PVC MULTI-CELL CONDUIT INSTALLED UNDER THE ROADWAY SHALL BE SCHEDULE 80.

FOR HDPE CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, DRILLED OR PLOWED TO A MINIMUM OF 30 DEEP, ENCASED INSIDE CONCRETE BARRIER WALL, OR AS NOTED ON THE PLANS. THE HDPE CONDUIT SHALL BE INSTALLED IN CONTINUOUS LENGTHS WITHOUT JOINTS OR COUPLINGS BETWEEN PULL BOXES OR JUNCTION BOXES.

INSTALLATION WITHIN 6 FEET OF GUARDRAIL WILL BE AT LEAST 30 INCHES DEEP TRENCH AND ENCASED IN CONCRETE.

WHEN ENTERING A PULL BOX, CONDUIT SHALL BE BROUGHT IN 3 INCHES MINIMUM AND A MAXIMUM OF 6 INCHES FROM THE EDGE OF THE PULL BOX WALL KNOCKOUT.

METHOD OF MEASUREMENT:
THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED OF EACH TYPE SCHEDULE 40 OR 80 MEASURED FROM CENTER-TO-CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTINGS AND APPURTENANCES, JOINTS, BENDS, GROUNDS AND CONCRETE ENCASEMENT WHERE SPECIFIED.

BASIS OF PAYMENT:
THE PAYMENT FOR THESE ITEMS WILL BE MADE FOR THE ACCEPTED LINER FOOT QUANTITIES AT THE CONTRACT BID PRICE.

NO.	DESCRIPTION	REV. BY	DATE
C	REMOVED NOTE	EMW	3-3-2022

CALCULATED BPT CHECKED EMW

TRAFFIC SURVEILLANCE NOTES

UNI-33-24.87

706
923

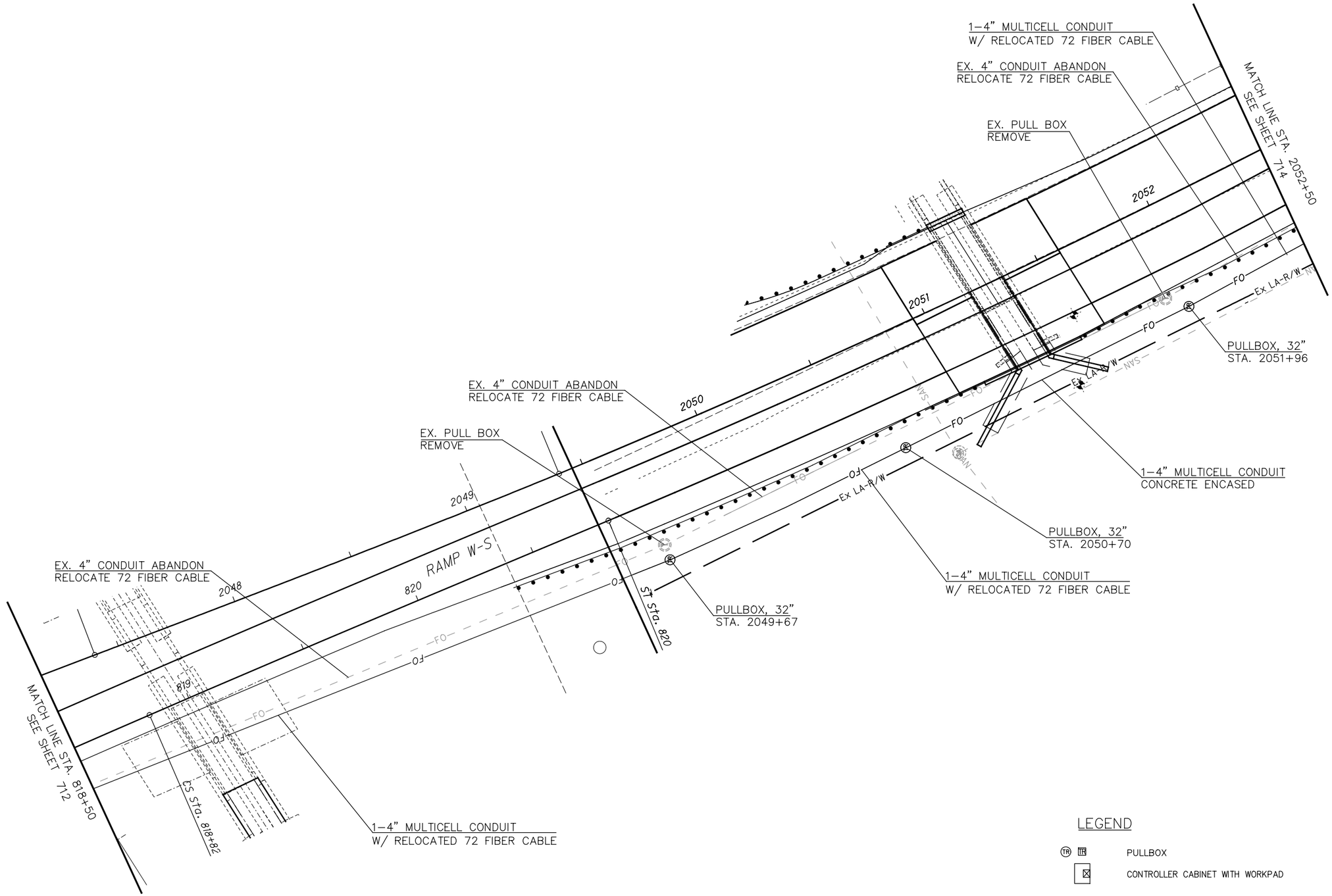
ITEM	EXTENSION	708	709	710	711	712	713	714	715	TOTAL	UNIT	DESCRIPTION	SEE SHEET
625	25408			32						32	FT	CONDUIT, 2", 725.051	
625	25604			45						45	FT	CONDUIT, 4", 725.051	
625	29000			308	565	675	232	534		2314	FT	TRENCH	
625	30700			1						1	EACH	PULL BOX, 725.08, 18"	
625	30711			2	3	2	3			10	EACH	PULL BOX, 725.08, 32", AS PER PLAN	706
625	32000			2						2	EACH	GROUND ROD (TRAFFIC SURVEILLANCE)	
625	31600	3	2						1	6	EACH	PULL BOX, MISC.: PULL BOX ADJUSTED TO GRADE	706
625	31511			7	1	1	2			11	EACH	PULL BOX REMOVED, AS PER PLAN	706
625	34001			1						1	EACH	POWER SERVICE, AS PER PLAN (TRAFFIC SURVEILLANCE)	706
632	68300			33						33	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
633	67100			1						1	EACH	CABINET FOUNDATION	
633	67200			1						1	EACH	CONTROLLER WORK PAD	
804	98000			301	565	675	232	534		2307	FT	FIBER OPTIC CABLE, MISC.: FIBER OPTIC CABLE REMOVED AND RE-PULLED	706
809	24000			235						235	FT	CONDUIT, MULTICELL, JACKED OR DRILLED	706
809	24500			262	565	675	232	534		2268	FT	CONDUIT, 4", MULTICELL, HDPE WITH 4-1" INNERDUCTS	706
809	61002			1						1	EACH	CCTV CONCRETE POLE, 70 FEET	
809	65001			1						1	EACH	ITS CABINET - GROUND MOUNTED, AS PER PLAN	706
809	65990			1						1	EACH	ITS DEVICE, MISC.: CCTV POLE REMOVED AND DELIVERED	706
809	65990			1						1	EACH	ITS DEVICE, MISC.: CCTV EQUIPMENT REMOVED AND REERECTED	706

NO.	DESCRIPTION	REV. BY	DATE
C	ITEM UPDATES	EMW	3-3-2022

CALCULATED BPT
CHECKED EMW

TRAFFIC SURVEILLANCE SUBSUMMARY

UNI-33-24.87



LEGEND

- PULLBOX
- CONTROLLER CABINET WITH WORKPAD

NO.	DESCRIPTION	REV. BY	DATE
C	MOVED CONDUIT	EMW	3-3-22

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED BPT
CHECKED EMW

TRAFFIC SURVEILLANCE PLAN
US33 EB ON RAMP (RAMP W-S)

UNI-33-24.87

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF THE STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2003 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:
QC/QA CONCRETE, CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

QC/QA CONCRETE, CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

FOUNDATION BEARING PRESSURE: FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 2.5 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 2.5 TONS PER SQUARE FOOT.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN: CULVERT AND WINGWALL BACKFILL EXCLUDING THE TOP 1 FOOT OF EMBANKMENT, SHALL BE CRUSHED GRANULAR MATERIAL MEETING THE REQUIREMENTS OF 304, BUT WITH LESS THAN 5 PERCENT PASSING THE NO. 200 SIEVE. THE TOP 1 FOOT OF EMBANKMENT SHALL BE BACKFILLED IN ACCORDANCE TO 503.08 USING EMBANKMENT MATERIALS CONFORMING TO 203.02R. BACKFILL SHALL BE PLACED SYMMETRICALLY ON BOTH SIDES OF THE CULVERT AND SIMULTANEOUSLY ALONG ITS ENTIRE LENGTH, AND SHALL NOT BE PLACED UNTIL AFTER THE SLAB IS IN PLACE. BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH 503.08 EXCEPT PLACE IN 6-INCH (MAXIMUM) LOOSE LIFTS. THE LIMITS OF THE BACKFILL ARE AS SHOWN ON THESE PLANS. PAYMENT FOR GRANULAR BACKFILL SHALL BE INCLUDED IN ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE THE MINIMUM LAP LENGTH FOR THAT BAR AS SHOWN ON THE PLANS.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

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

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN: REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN: IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE

THIS WORK SHALL INCLUDE SEALING OF THE CONCRETE SURFACES USING XL70 BRIDGE COTE W/SILANE AS PER THE MANUFACTURER'S RECOMMENDATIONS WITH THE FOLLOWING REQUIREMENTS, AT THE LOCATIONS SHOWN IN THE PLANS.

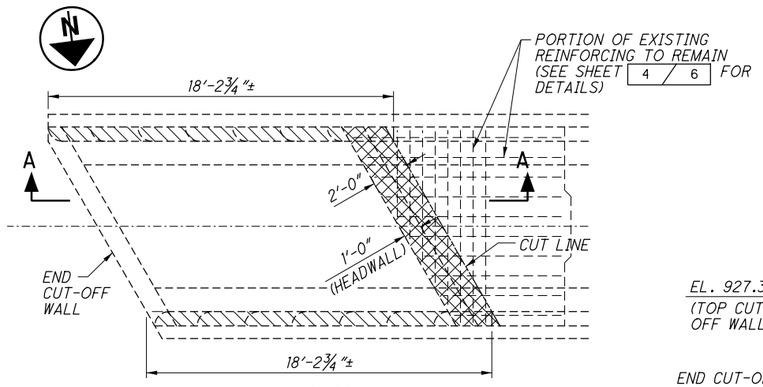
MEET THE SURFACE PREPARATION REQUIREMENTS FOR NON-EPOXY SEALERS PER CMS 512.03.F AND REMOVE ANY CURING COMPOUNDS PER THE MANUFACTURER'S RECOMMENDATIONS.

AT LEAST 5 DAYS BEFORE SEALING, PROVIDE THE ENGINEER THE SEALER MANUFACTURER'S WRITTEN REQUIREMENTS FOR APPLICATION EQUIPMENT, MIXING EQUIPMENT, MIXING PROCEDURES, MIXING TIME, STORAGE REQUIREMENTS, AND TECHNICAL AND SAFETY DATA SHEETS.

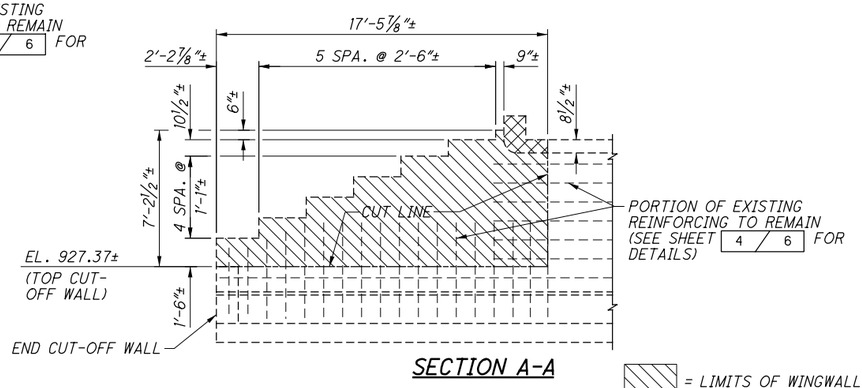
TINT SO THE FINAL COLOR IS FEDERAL COLOR STANDARD NO. 17778 - LIGHT NEUTRAL.

SAGS AND RUNS ARE NOT ACCEPTABLE IN THE SEALER. THE DEPARTMENT WILL MEASURE THE SEALING OF CONCRETE SURFACES BY THE NUMBER OF SQUARE YARDS OF COATED AREA PROJECTED TO A TWO-DIMENSIONAL SURFACE.

THE DEPARTMENT WILL CONSIDER THE REMOVAL OF DUST, DIRT, OIL, WAX, CURING COMPOUNDS, EFFLORESCENCE, LAITANCE AND OTHER FOREIGN MATERIALS AS INCIDENTAL TO THE SURFACE PREPARATION OF THE CONCRETE SURFACE TO BE SEALED.



PLAN



SECTION A-A

= LIMITS OF WINGWALL TO BE REMOVED

= LIMITS OF SLAB/HEADWALL TO BE REMOVED

REMOVAL LIMITS

ESTIMATED QUANTITIES				CALC.	DATE	CHK'D	DATE
				JHL	2/07	JMK	7/07
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION			SHT. REF.
202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			2/6
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING			
503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN			2/6
509	10001	2880	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN			2/6
509	20001	170	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN			2/6
510	10000	22	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT			
511	33414	7	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE			
511	44112	12	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING			
511	46512	9	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING			
SPECIAL	51275500	34	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE			2/6
512	33000	7	SY	TYPE 2 WATERPROOFING			
516	13600	18	SF	1" PREFORMED EXPANSION JOINT FILLER			
518	21200	21	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC			
518	40000	27	FT	6" PERFORATED CORRUGATED PLASTIC PIPE			
518	40011	20	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN			5/6

NO.	DESCRIPTION	REV. BY	DATE
C	ADDED "ITEM SPECIAL - SEALING OF CONCRETE SURFACES" NOTE AND UPDATED ESTIMATED QUANTITIES	BES	3/3/22

NOTE:

1) ALL FUNDING ITEMS ARE INCLUDED IN THE FUNDING PARTICIPATION SPLIT CODE 04/S>2/BR.

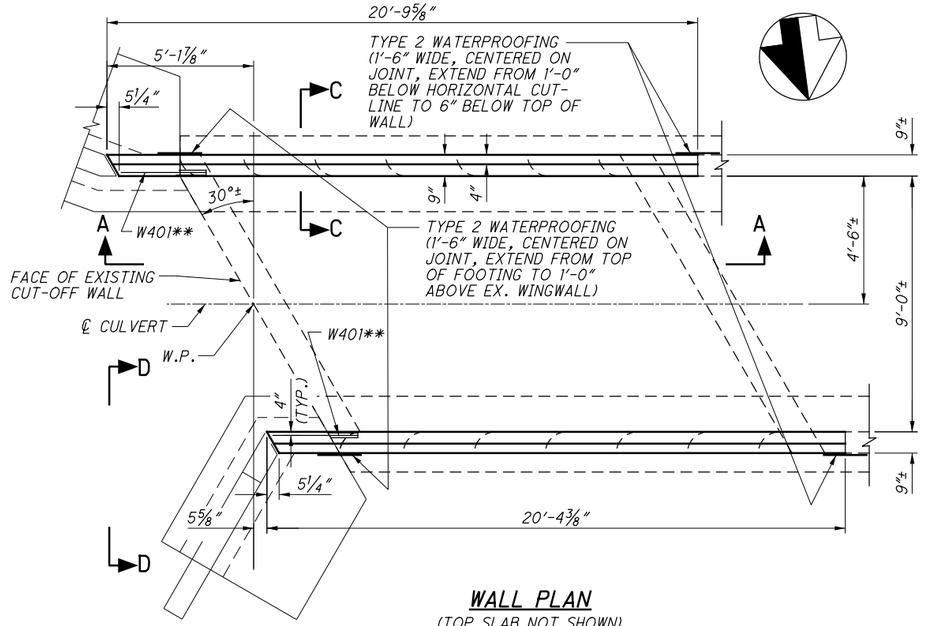
BURGESS & NIPLE
Engineers ■ Architects ■ Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED	DRAWN	REVIEWED	DATE
JPS/JFM	AAA/JFM	JCS	12/24/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JHL		8001553	

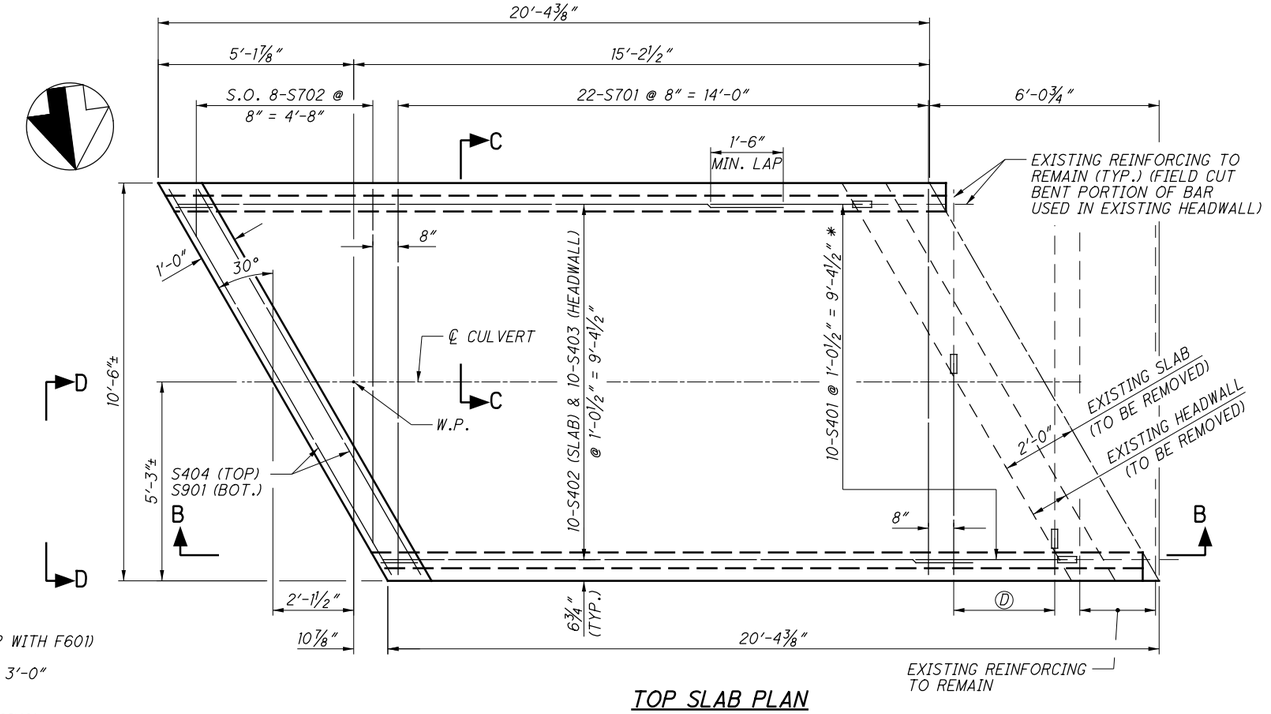
GENERAL NOTES, ESTIMATED QUANTITIES & REMOVALS
STRUCTURE NO. UNI-33-2450
OVER GORDON TRI-COUNTY DITCH

UNI-33-24.87
PID No. 80748

P:/PR41806AA/FRA/80748/BRIDGE/UNI033_2450C/SHEETS/033_2450CGN001.DGN



WALL PLAN
(TOP SLAB NOT SHOWN)



TOP SLAB PLAN

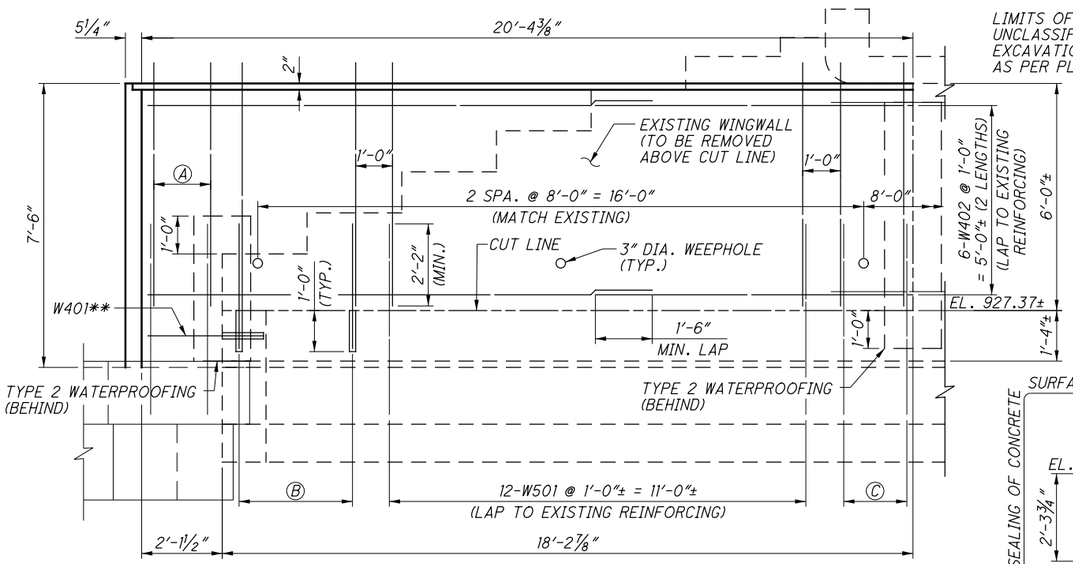
Ⓐ = 3-W501 @ 10¾" = 1'-9½" (LAP WITH F601)

Ⓑ = 4-F501** & 4-W501 @ 1'-0" = 3'-0"

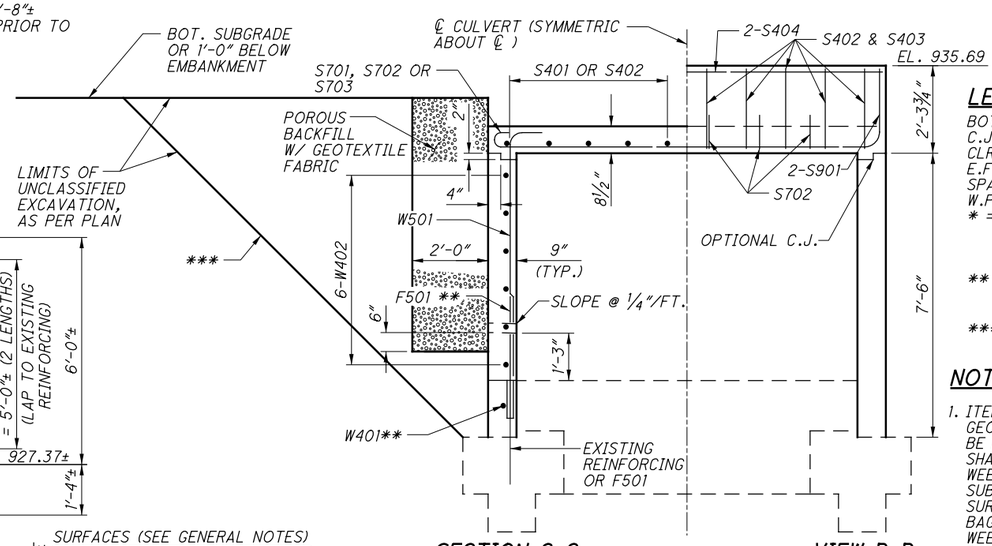
Ⓒ = 3-W501 @ 11"± = 1'-10"± (LAP WITH EXISTING REINFORCING)

Ⓓ = S.O. 5-S703* @ 8"± = 2'-8"± (FIELD CUT TO LENGTH PRIOR TO ATTACHING MECHANICAL CONNECTOR)

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22



VIEW A-A
(TOP SLAB NOT SHOWN)



SECTION C-C

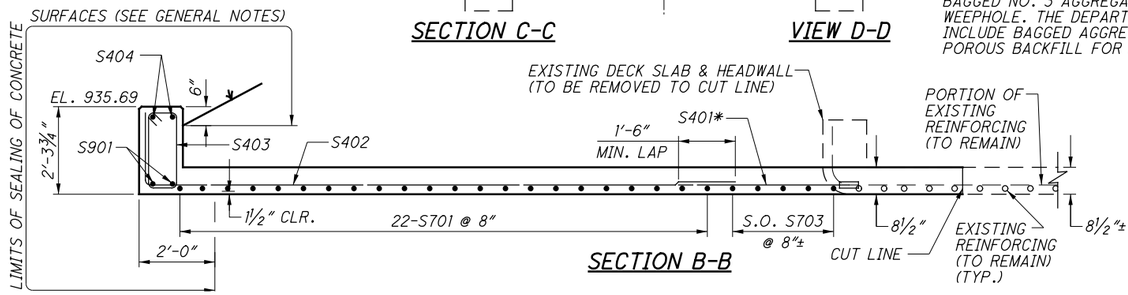
VIEW D-D

LEGEND:

BOT. = BOTTOM
C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
E.F. = EACH FACE
SPA. = SPACING
W.P. = WORK POINT
* = CONNECT TO EXISTING REINFORCING WITH MECHANICAL CONNECTOR. FIELD CUT AS NECESSARY AND REPAIR PER CMS 509.09.
** = DOWEL 1'-0" INTO EXISTING WALL USING NONSHRINK, NONMETALLIC GROUT PER CMS 510.
*** = A SLOPE OF 1:1 WAS ASSUMED FOR ESTIMATING QUANTITIES

NOTES:

1. ITEM 518 - POROUS BACK FILL W/ GEOTEXTILE FABRIC 2'-0" THICK SHALL BE PLACED BEHIND THE CULVERT LEGS AND SHALL EXTEND FROM 6 INCHES BELOW WEEPHOLE TO THE BOTTOM OF THE SUBGRADE OR 1'-0" BELOW THE EMBANK SURFACE. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEPHOLE. THE DEPARTMENT WILL INCLUDE BAGGED AGGREGATE WITH POROUS BACKFILL FOR PAYMENT.



SECTION B-B

BURGESS & NIPLE
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5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED JPS | DRAWN JPS | REVIEWED JCS | DATE 12/24/20
CHECKED WTL | REVISED | STRUCTURE FILE NUMBER 8001553

CULVERT DETAILS
STRUCTURE NO. UNI-33-2450
OVER GORDON TRI-COUNTY DITCH

UNI-33-24.87
PID No. 80748

4 / 6

768
923

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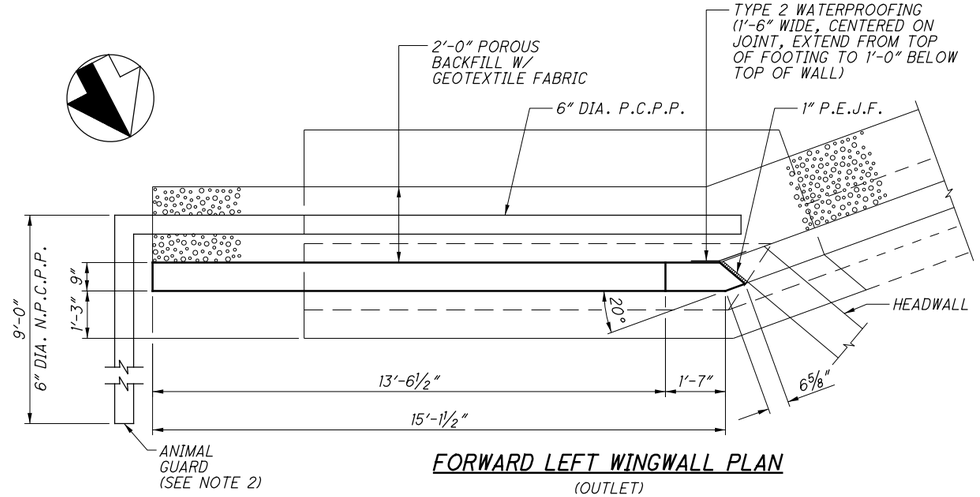
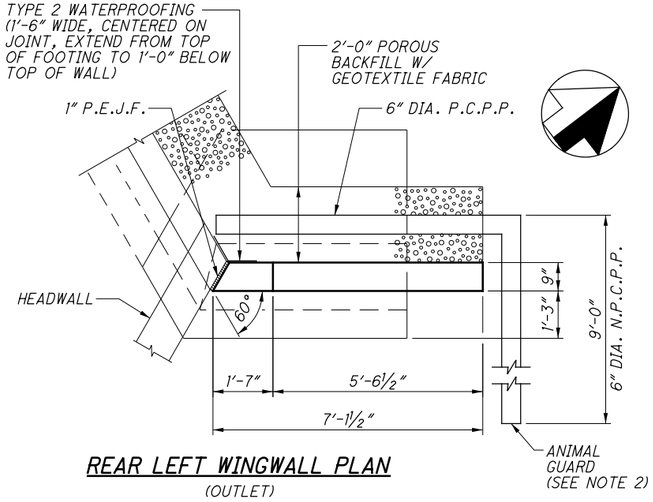
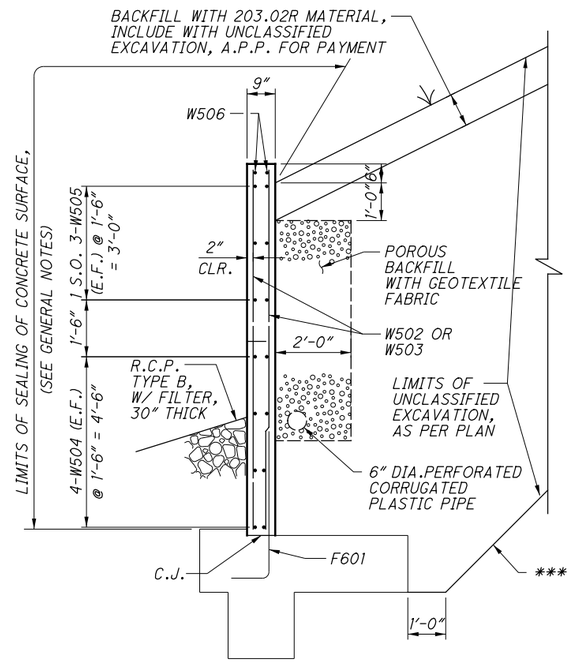


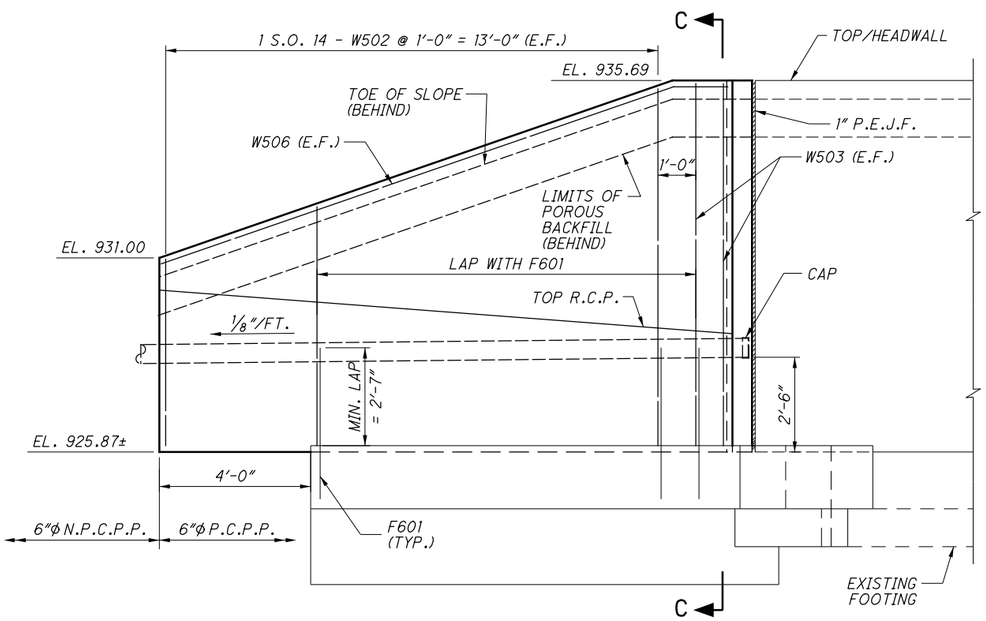
FORWARD LEFT WINGWALL PLAN
(OUTLET)



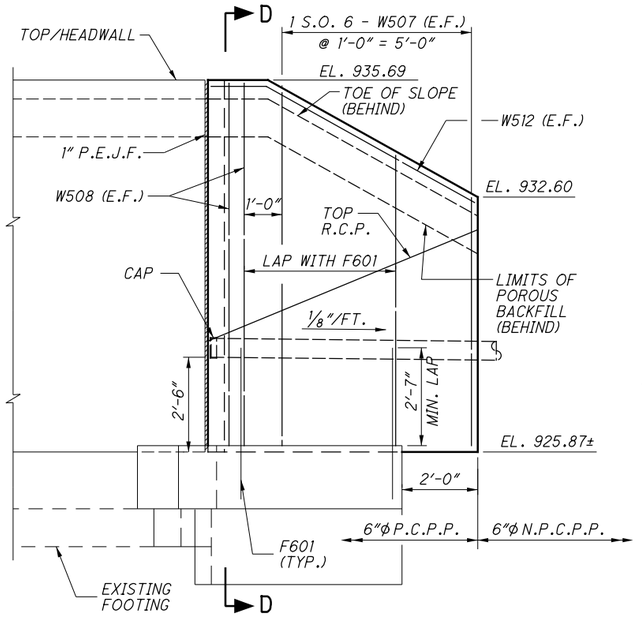
REAR LEFT WINGWALL PLAN
(OUTLET)



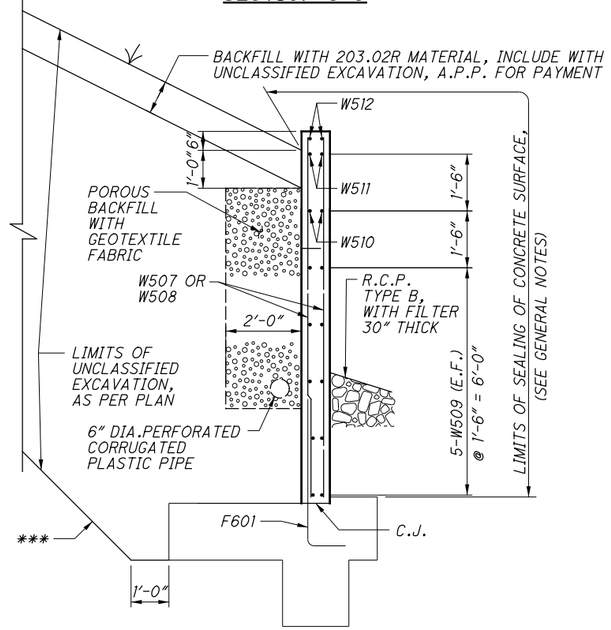
SECTION C-C



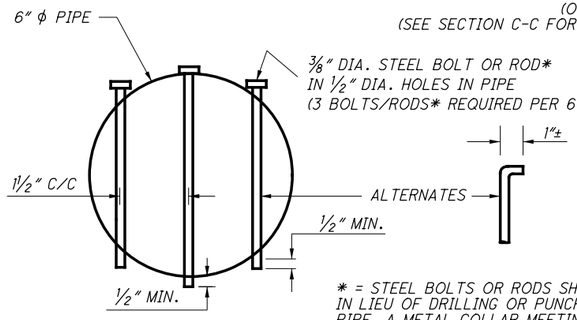
FORWARD LEFT WINGWALL ELEVATION
(OUTLET)
(SEE SECTION C-C FOR HORIZONTAL REINFORCING)



REAR LEFT WINGWALL ELEVATION
(OUTLET)
(SEE SECTION D-D FOR HORIZONTAL REINFORCING)



SECTION D-D



ANIMAL GUARD

* = STEEL BOLTS OR RODS SHALL BE GALVANIZED PER CMS 711.02. IN LIEU OF DRILLING OR PUNCHING THE ½" DIA. HOLES INTO THE PIPE, A METAL COLLAR MEETING ALL OF THE ABOVE REQUIREMENTS MAY BE CLAMPED ONTO THE PIPE IF APPROVED BY THE ENGINEER.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUTS	BES	3/3/22

LEGEND:

A.P.P. = AS PER PLAN
CLR. = CLEAR
C.J. = CONSTRUCTION JOINT
E.F. = EACH FACE
N.P.C.P.P. = NON-PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
P.C.P.P. = PERFORATED CORRUGATED PLASTIC PIPE
R.C.P. = ROCK CHANNEL PROTECTION
S.O. = SERIES OF
SPA. = SPACING
*** = A SLOPE OF 1:1 WAS ASSUMED FOR ESTIMATING QUANTITIES

NOTE:

1. ITEM 518 - POROUS BACK FILL W/ GEOTEXTILE FABRIC 2'-0" THICK SHALL BE PLACED BEHIND THE WINGWALLS AND SHALL EXTEND FROM 2'-6" ABOVE THE TOP OF THE FOOTING TO 1'-0" BELOW THE EMBANK SURFACE.

2. PROVIDE AN ANIMAL GUARD AS SHOWN IN THE DETAIL ON THIS SHEET. ANIMAL GUARD SHALL BE PAID FOR WITH 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN.

BURGESS & NIPLE
Engineers ■ Architects ■ Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED JHL | DRAWN JHL | CHECKED JPS | REVIEWED JCS | DATE 12/24/20 | REVISED | STRUCTURE FILE NUMBER 8001553

WINGWALL DETAILS
STRUCTURE NO. UNI-33-2450
OVER GORDON TRI-COUNTY DITCH

UNI-33-24.87
PID No. 80748

5 / 6

769 / 923

P:/PR41806AA/FRA/80748/BRIDGE/UNI033_2450C/SHEETS/033_2450CMD003.DGN

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020, INCLUDING REVISIONS THROUGH JULY 2020.

REFER TO THE FOLLOWING OHIO DEPARTMENT OF TRANSPORTATION (ODOT) STANDARD BRIDGE DRAWINGS:
AS-1-15 DATED (REVISED) 7-17-15
AS-2-15 DATED (REVISED) 1-18-19
GSD-1-19 DATED 1-15-21
PCB-91 DATED (REVISED) 7-17-20
SBR-1-20 DATED (REVISED) 7-17-20
SICD-2-14 DATED 1-15-21

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 60 PSF

DESIGN DATA:
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 3.0 KSI (MUDMAT)

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 5.0 KSI (PRECAST CONCRETE ARCH PANELS)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

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

DECK PROTECTION METHOD:
EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

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

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN: IN ADDITION TO THE REMOVALS SHOWN ON THE PLANS AND THE REQUIREMENTS OF 202.03, REMOVE ANY EXISTING PILING TO A MINIMUM OF 1' BELOW ANY PROPOSED FOOTINGS OVER THE PILING.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN,
ITEM 504 - STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN: TEMPORARY SHORING SHALL BE USED TO ACCOMPLISH THE PROPOSED CONSTRUCTION IN STAGES. PORTIONS OF THE TEMPORARY SHORING MAY BE LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER. REMOVAL OF SOIL ANCHORS IS REQUIRED ONLY WHERE THOSE COMPONENTS WILL INTERFERE WITH THE PROPOSED CONSTRUCTION.

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. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR "COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN." NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

CONSTRUCTION CONSTRAINTS: FILL THE VOID CREATED BY EXCAVATING FOR THE ABUTMENT FOOTINGS WITH TYPE B GRANULAR MATERIAL, 703.16.C. AFTER THE FOOTING AND THE BREASTWALL HAVE BEEN CONSTRUCTED, FILL THE VOID BEHIND EACH ABUTMENT UP TO THE BEAM SEAT ELEVATION AND FROM THE BEAM SEAT UP ON A 1:1 SLOPE TO THE SUBGRADE ELEVATION PRIOR TO CONSTRUCTING THE BACKWALL AND SETTING THE BEAMS ON THE ABUTMENT.

ITEM 511 - CLASS QC3 CONCRETE, MISC.: MUDMAT: SUBSEQUENT TO EXCAVATION, INSPECTION AND APPROVAL OF THE FOOTING BEARING SURFACES, A CONCRETE MUDMAT SHALL BE PLACED ON THE SOIL TO PROTECT THE FOOTING SUBGRADE. THE MUDMAT IS REQUIRED ONLY FOR FOOTINGS BEARING AT ELEV. 929.00. WHERE FOOTINGS BEAR AT HIGHER ELEVATIONS, A MUDMAT IS NOT REQUIRED. THE MUDMAT SHALL CONSIST OF A 3-INCH THICK LAYER OF CLASS QC3 CONCRETE. THE MUDMAT SHALL BE PLACED IMMEDIATELY AFTER FINAL INSPECTION AND APPROVAL OF THE FOOTING BEARING SURFACE.

FOUNDATION BEARING RESISTANCE:

LOCATION	BOT./FOOTING ELEVATION	BEARING PRESSURE (KIPS/SQ. FT.) MAX. SERVICE	MAX. STRENGTH	FACTORED BRG. RESISTANCE
ABUTMENTS	929	3.9	5.2	7.0
WINGWALLS	929	4.0	5.4	7.0
	942	2.4	3.3	3.5
LOWER LANDSCAPE WALLS	929	3.0	4.2	7.0
	930.5	2.5	3.5	3.5
	932	2.0	2.7	3.5
UPPER LANDSCAPE WALLS	935.5	2.5	3.5	3.5
	938.25	2.1	3.0	3.5
PIER	929	3.9	5.0	7.0

UTILITY LINES: SEE ROADWAY PLANS FOR THE RELOCATION OF THE 12" W WITH 24" CASING. THE CONTRACTOR SHALL NOTIFY AMERICAN ELECTRIC POWER (AEP) PRIOR TO REMOVAL AND CONSTRUCTION OF THE REAR ABUTMENT. THE PROPOSED ELECTRICAL CONDUIT SHALL BE CONSTRUCTED AFTER INSTALLATION OF THE STEEL PILING LEFT IN PLACE AT THE REAR ABUTMENT. SEE NOTE ON SHEET 604 / 923 FOR ADDITIONAL INFORMATION.

MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE THE MINIMUM LAP LENGTH FOR THAT BAR AS SHOWN ON THE PLANS.

CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY MAY BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

CONNECTORS AND DOWEL BARS SHALL CONFORM WITH ITEM 509 AND ARE CONSIDERED INCIDENTAL TO THE BID PRICE PER POUND FOR ITEM 509.

FINISH COLORS:

THE TOP COAT COLOR FOR ITEM 517 - RAILING, MISC.: GALVANIZED AND PAINTED STEEL RAILING, TEXAS TYPE T80HT WITH PAINTED ALUMINUM POST ORNAMENTS SHALL BE METALLIC SILVER, FEDERAL COLOR STANDARD 37178.

FOR THE TOP COAT COLOR ON THE FASCIA GIRDERS, SEE THE NOTES ON THIS SHEET FOR ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN.

THE FINISH COLOR FOR ITEM SPECIAL - SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/ SILANE SHALL BE AS FOLLOWS: ABUTMENTS, WINGWALLS, LANDSCAPE RETAINING WALLS, PRECAST CONCRETE ARCH SEGMENTS, MEDIAN PARAPETS, AND OUTSIDE PARAPETS (EXCEPT SURFACES NOTED BELOW) SHALL BE WHITE, FEDERAL COLOR STANDARD 37925. PIER AND RECESSED BACK FACE OF OUTSIDE PARAPETS SHALL BE GRAY, FEDERAL COLOR STANDARD 36280.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN: THE REQUIREMENTS OF CMS 511.03 & 511.04 SHALL APPLY TO THIS ITEM OF WORK. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, REINFORCING STEEL, ITEMS LISTED ON STANDARD DRAWING AS-1-15, AND ALL OTHER MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO COMPLETE THIS ITEM OF WORK.

ITEM 511 - QC/QA CONCRETE ITEMS, AS PER PLAN (BRIDGE DECK, PARAPET, ABUTMENTS, PIER, WINGWALLS, AND LANDSCAPE RETAINING WALLS) FINISH REQUIREMENTS: UNLESS OTHERWISE NOTED ON THE PLANS, PROVIDE SURFACE FINISH USING RUBBED FINISH PROCEDURES PER 511.15B TO SMOOTH ALL CONTRASTING SURFACE TEXTURES CAUSED BY STONE OR POWER GRINDING OF IRREGULARITIES ON ALL EXPOSED SURFACES OF CONCRETE ABUTMENT (INCLUDING WINGWALLS AND LANDSCAPE RETAINING WALLS), PIER, ABUTMENT DIAPHRAGMS AND PARAPET FASCIA.

ITEM 511 - CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN:
IN ADDITION TO THE REQUIREMENTS OF ITEM 511, CLASS QC1 CONCRETE, INSTALL A REFERENCE MONUMENT AT EACH END OF THE SPREAD FOOTING. THE REFERENCE MONUMENT SHALL CONSIST OF A #8, OR LARGER, EPOXY COATED REBAR EMBEDDED AT LEAST 6" INTO THE FOOTING AND EXTENDED VERTICALLY 4 TO 6 INCHES ABOVE THE TOP OF THE FOOTING. INSTALL A SIX INCH DIAMETER, SCHEDULE 40, PLASTIC PIPE AROUND THE REFERENCE MONUMENT. CENTER THE PIPE ON THE REFERENCE MONUMENT AND PLACE THE PIPE VERTICAL WITH ITS TOP AT THE FINISHED GRADE. THE PIPE SHALL HAVE A REMOVABLE, SCHEDULE 40, PLASTIC CAP. PERMANENTLY ATTACH THE BOTTOM OF THE PIPE TO THE TOP OF THE FOOTING.

ESTABLISH A BENCHMARK TO DETERMINE THE ELEVATIONS OF THE REFERENCE MONUMENTS AT VARIOUS MONITORING PERIODS THROUGHOUT THE LENGTH OF THE CONSTRUCTION PROJECT. THE BENCHMARK SHALL BE THE SAME THROUGHOUT THE PROJECT AND SHALL BE INDEPENDENT OF ALL STRUCTURES.

RECORD THE ELEVATION OF EACH REFERENCE MONUMENT AT EACH MONITORING PERIOD SHOWN IN THE TABLES ON THE NEXT SHEET.

THE ORIGINAL COMPLETED TABLES WILL BECOME PART OF THE DISTRICT'S PROJECT PLAN RECORDS.

ITEM 511 - CLASS QC3 CONCRETE, MISC.: PRECAST CONCRETE ARCH PANELS:

SEE SHEETS 61 / 70 AND 62 / 70 FOR DETAILS AND ADDITIONAL REQUIREMENTS.

PRECAST PANELS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE DEAD LOAD SELF-WEIGHT OF THE PRECAST MEMBER. IN ADDITION, THE PANELS SHALL BE DESIGNED FOR A 75 LB./SQ. FT. WIND LOAD APPLIED PERPENDICULAR TO THE MEMBER. ALL MEMBERS SHALL BE DESIGNED TO PREVENT THERMAL AND FLEXURAL CRACKS FROM OCCURING DURING ANY STAGE OF CONSTRUCTION. SEE PLANS FOR MINIMUM REINFORCING TO BE PROVIDED.

CONCRETE FOR PRECAST PANELS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4 KSI WHEN FIRST LIFTED AND 5 KSI AT 28 DAYS. THE MAXIMUM AIR-DRIED DENSITY OF THE CONCRETE (INCLUDING REINFORCING STEEL) SHALL BE 130 PCF. FINE AGGREGATE SHALL BE IN ACCORDANCE WITH CMS 703.02. COARSE AGGREGATE SHALL BE A COMBINATION OF AGGREGATE PER CMS 703.02 AND STRUCTURAL LIGHTWEIGHT AGGREGATES PER ASTM C 330. STRUCTURAL LIGHTWEIGHT AGGREGATE SHALL BE ONLY PROCESSED AGGREGATES PREPARED FROM NATURAL DEPOSITS SUCH AS SHALES AND CLAYS, PRODUCED BY A ROTARY KILN OPERATION. OBTAIN ALL CONCRETE FOR USE IN PRECAST CONCRETE PANELS FROM A SINGLE SUPPLIER USING CONSISTENT COMPONENTS IN ORDER TO OBTAIN A UNIFORM APPEARANCE.

REINFORCING STEEL SHALL CONFORM TO CMS 509 AND SHALL BE EPOXY COATED.

PROVIDE SHOP DRAWINGS PER 501.04. THE REQUIREMENTS OF 501.04A, 501.04B, AND 501.04C SHALL APPLY.

ON ALL EXPOSED SURFACES, PROVIDE A RUBBED FINISH PER 511.15B.

PROVIDE A ½" BEVEL ON ALL EXPOSED EDGES, EXCEPT AS NOTED, USING A TRIANGULAR STRIP BUILT INTO THE FORMS. DO NOT BEVEL THE EDGES AT RUSTICATION GROOVES.

LIFTING LUGS SHALL BE DESIGNED AND INSTALLED BY THE PRECAST MANUFACTURER. FOLLOWING INSTALLATION, LUGS SHALL BE REMOVED AND GROUTED TO PROVIDE A SMOOTH, UNIFORM APPEARANCE.

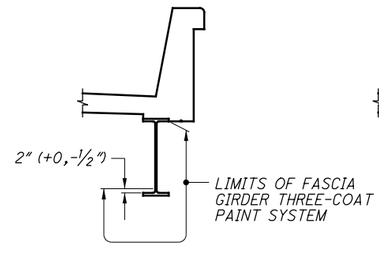
ALL INSERTS, REINFORCING STEEL, LIFTING LUGS, AND OTHER REQUIRED APPURTENANCES SHALL BE FURNISHED AND SHOP-INSTALLED BY THE PRECAST MANUFACTURER. THESE ITEMS, TOGETHER WITH THE DESIGN, SHOP DRAWINGS, FABRICATION, DELIVERY AND INSTALLATION (INCLUDING CAULKING) OF THE PANELS ON THE BRIDGE, SHALL BE INCLUDED FOR PAYMENT WITH ITEM 511 - CLASS QC3 CONCRETE, MISC.: PRECAST CONCRETE ARCH PANELS.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN:

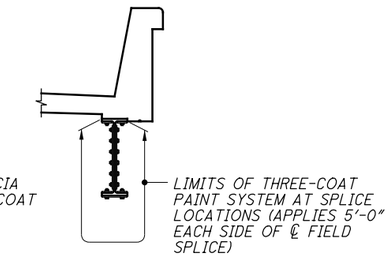
IN ADDITION TO THE REQUIREMENTS OF 513.27, APPLY AN INORGANIC ZINC PRIME COAT IN THE SHOP TO THE ENTIRE PERIMETER OF ALL GIRDERS OVER THE END 4'-0" OF EACH GIRDER AT EACH ABUTMENT. TINT THE PRIME COAT AS SPECIFIED IN CMS 708.01, EXCEPT AT GIRDER ENDS WHERE INTERMEDIATE AND FINISH COATS ARE NOT APPLIED, TINT THE PRIME COAT USING BROWN, FEDERAL COLOR STANDARD 20059.

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT:
ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN:

FIELD PAINT THE ENTIRE LENGTH OF GIRDERS G1, G10, G11 & G20 FOR THE LIMITS SHOWN IN THE DIAGRAM ON THE LEFT BELOW. THE TOP COAT COLOR SHALL BE GRAY, FEDERAL COLOR STANDARD 36280. FIELD PAINT GIRDERS G1, G10, G11 & G20 AT FIELD SPLICES AS SHOWN IN THE DIAGRAM ON THE RIGHT BELOW. THE TOP COAT COLOR SHALL BE GRAY, FEDERAL COLOR STANDARD 36280, EXCEPT AT THE INBOARD SIDE OF THE WEB AND TOP FLANGE, WHERE THE COLOR SHALL BE BROWN, FEDERAL COLOR STANDARD 20059.



FASCIA GIRDER COATING LIMITS



FASCIA GIRDER COATING LIMITS AT SPLICE

ABUTMENT AND BRIDGE DECK CONSTRUCTION SEQUENCE:

DO NOT BACKFILL ABOVE THE BEAM SEAT UNTIL AFTER THE DECK CONCRETE HAS BEEN PLACED AND HAS REACHED THE STRENGTH SPECIFIED IN CMS TABLE 511.14-1A. PLACE AND COMPACT THE BACKFILL MATERIALS SIMULTANEOUSLY BEHIND BOTH ABUTMENTS ABOVE THE BEAM SEATS. BACKFILL AND COMPACTION HEIGHTS ABOVE THE BEAM SEAT AT EACH ABUTMENT SHALL NOT DIFFER BY MORE THAN 1 FOOT AT ANY TIME.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN:

SEE EXCAVATION DIAGRAMS ON SHEET 8 / 70 FOR BACKFILL MATERIALS, COMPACTION REQUIREMENTS, AND UNCLASSIFIED EXCAVATION PAY LIMITS AT ABUTMENTS, WINGWALLS, AND LANDSCAPE RETAINING WALLS. FOR PAY LIMITS AT PIER, REFER TO 503.09.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED NOTE	BES	3/3/22

BURGESS & NIPLE
Engineers ■ Architects ■ Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED BES | DRAWN AAA | REVIEWED JCS | DATE 2/25/21
CHECKED BDE | REVISED | STRUCTURE FILE NUMBER 8001588L/8001618R

GENERAL NOTES - 1
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

UNI-33-24.87
PID No. 80748

3 / 70

773
923

ALL STONE AREAS SHALL BE SET WITH FLUSH VERTICAL MORTAR JOINTS.

POINTING: POINTING SHALL NOT BE DONE IN FREEZING WEATHER OR WHEN THE STONE CONTAINS FROST. THE FACE JOINTS SHALL BE PROPERLY POINTED BY RAKING TO DEPTH OF 1 TO 1.5 INCHES, PREFERABLY BEFORE THE MORTAR BECOMES SET. JOINTS THAT CANNOT BE POINTED SHALL BE PREPARED FOR POINTING BY RAKING THEM OUT TO A DEPTH OF 1 TO 1.5 INCHES BEFORE THE MORTAR HAS SET. THE FACE SURFACES OF STONES SHALL NOT BE SMEARED WITH THE MORTAR FORCED OUT OF THE JOINTS OR THAT USED IN POINTING. JOINTS NOT POINTED AT THE TIME THE STONE IS LAID SHALL BE THOROUGHLY WET WITH CLEAN WATER AND FILLED WITH MORTAR USING ALL MASONRY TYPE S CEMENT. THE MORTAR SHALL BE WELL DRIVEN IN TO THE JOINTS AND FINISHED WITH AN APPROVED POINTING TOOL. THE WALL SHALL BE KEPT WET WHILE POINTING IS BEING DONE AND IN HOT OR DRY WEATHER THE POINTED MASONRY SHALL BE PROTECTED FROM THE SUN AND KEPT WET FOR A PERIOD OF AT LEAST 3 DAYS AFTER COMPLETION.

JOINT SEALING: PRIMER, WHEN REQUIRED, SHALL BE NON-STAINING AND NON-ACIDIC AND SHALL BE USED AS RECOMMENDED BY MANUFACTURER OF SEALANT, HAVING BEEN TESTED BEFORE FOR STAINING AND DURABILITY ON SAMPLES OF ACTUAL SURFACES TO BE SEALED.

(IF PRIMERS ARE REQUIRED, THEY SHOULD BE APPLIED TO THE CONFINES OF JOINT SURFACES AFTER STONE IS INSTALLED INTO THE WALL. IN SOME INSTANCES IT MAY BE ADVISABLE TO APPLY PRIMER TO THE STONE BEFORE THE STONE IS INSTALLED INTO THE WALL. APPLICATION PROCEDURES SHOULD BE AS RECOMMENDED BY MANUFACTURER OF SEALANT.)

BACK-UP MATERIALS AND PREFORMED JOINT FILLERS SHALL BE NON-STAINING, COMPATIBLE WITH SEALANT AND PRIMER, AND OF A RESILIENT NATURE, SUCH AS CLOSED CELL RESILIENT FOAM, SPONGE RUBBER, OR OF A SUPPORTING TYPE SUCH AS CLOSED CELL RIGID FOAM, CORK, OR NON-IMPREGNATED FIBERBOARD. MATERIALS IMPREGNATED WITH OIL, BITUMEN, OR SIMILAR MATERIALS SHALL NOT BE USED. SIZE AND SHAPE SHALL BE AS INDICATED BY JOINT DETAIL IN DRAWINGS.

SEALANT SHALL NOT ADHERE TO BACK UP MATERIAL AND SHALL BE AS RECOMMENDED BY SEALANT MANUFACTURER.

BOND BREAKERS, WHEN REQUIRED, SHALL BE AS RECOMMENDED BY MANUFACTURER OF SEALANT.

SOLVENTS, CLEANING AGENTS, AND OTHER ACCESSORY MATERIALS SHALL BE NON-STAINING TO THE STONE AND SHALL BE RECOMMENDED BY MANUFACTURER OF SEALANT.

PROTECTION OF FINISHED WORK: RECEIPT, STORAGE, AND PROTECTION OF CUT STONE WORK PRIOR TO, DURING, AND SUBSEQUENT TO INSTALLATION SHALL BE THE RESPONSIBILITY OF THE MASON CONTRACTOR.

DURING CONSTRUCTION, TOPS OF WALLS SHALL BE CAREFULLY COVERED AT NIGHT AND ESPECIALLY DURING ANY PRECIPITATION OR OTHER INCLEMENT WEATHER.

AT ALL TIMES, WALLS SHALL BE ADEQUATELY PROTECTED FROM MORTAR DROPPINGS.

CLEANING: FINISHED STONEWORK SHALL BE WASHED CLEAN FREE OF DIRT, MORTAR, AND OTHER OBJECTIONABLE ACCUMULATIONS. MORTAR DROPPINGS AND SMEARS SHALL BE REMOVED AS WORK PROGRESSES. FINAL CLEAN DOWN SHALL INCLUDE BRUSHING WITH FIBER BRUSHES AND MILD SOAP OR DETERGENT, AND RINSING WITH CLEAN WATER. NO ACIDS SHALL BE USED WITHOUT PRIOR APPROVAL. STONEWORK SHALL BE PROTECTED FROM RUNDOWN OR SPLASH WHEN USING ACID ON ADJACENT MATERIALS.

METHOD OF MEASUREMENT: THE AREA TO BE PAID FOR SHALL BE THE ACTUAL AREA IN SQUARE FEET OF ALL EXPOSED VERTICAL FACES OF STONE FACING, COMPLETED, AND ACCEPTED.

BASIS OF PAYMENT: THE AREA, MEASURED AS PROVIDED ABOVE, SHALL BE PAID AT THE CONTRACT UNIT PRICE PER SQUARE FOOT BID FOR ITEM 602, MASONRY MISC.: STONE FACING. PRICE SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING AND PREPARING ALL MATERIALS, PLACING, INCLUDING ALL DOVETAIL ANCHORS AND SLOTS, FINISHING AND CLEANING, AND ALL LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS, INCLUDING SAMPLE LAY-UP PANELS, NECESSARY TO COMPLETE THIS ITEM.

ITEM 517 - RAILING, MISC.: GALVANIZED AND PAINTED STEEL RAILING, TEXAS TYPE T80HT WITH PAINTED ALUMINUM POST ORNAMENTS:

DESCRIPTION:

THIS ITEM CONSISTS OF PREPARING SHOP DRAWINGS, FURNISHING, FABRICATING, COATING, AND ERECTING STEEL RAILINGS AND ALUMINUM POST ORNAMENTS ON THE BRIDGE AND WINGWALLS.

SHOP DRAWINGS:

IN ADDITION TO THE REQUIREMENTS OF 501 AND THE REQUIREMENTS IN THESE NOTES, SUBMIT FOR REVIEW AND ACCEPTANCE, THREE COPIES OF SHOP DRAWINGS, UNLESS ADDITIONAL COPIES ARE REQUESTED. DO NOT BEGIN FABRICATION UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED DRAWINGS HAS BEEN RECEIVED.

SELECT A FABRICATOR FROM THE OHIO DEPARTMENT OF TRANSPORTATION PRE-QUALIFIED FABRICATORS LIST IN EFFECT AT THE DATE OF THE CONTRACT LETTING. SELECT A FABRICATOR THAT IS AT LEAST PRE-QUALIFIED AT LEVEL UF. BEFORE OR AT THE PRECONSTRUCTION CONFERENCE, PROVIDE A WRITTEN NOTIFICATION TO THE ENGINEER OF THE SELECTED FABRICATOR.

SUBMIT SHOP DRAWINGS PER 501.04, 501.04B AND 501.04C AND PER THE REQUIREMENTS IN THESE NOTES. PREPARE THE SHOP DRAWINGS BY OR UNDER DIRECT SUPERVISORY CONTROL OF AN OHIO REGISTERED ENGINEER HAVING PERSONAL PROFESSIONAL KNOWLEDGE OF AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND ITEMS 513 AND 517. THE REGISTERED ENGINEER SHALL SIGN, SEAL AND DATE EACH DRAWING. HAVE ALL QUESTIONS AND COMMENTS ADDRESSED BEFORE SUBMITTING THE SHOP DRAWINGS.

MATERIALS:

SEE RAILING DETAILS, SHEET 59 / 70 FOR MATERIAL REQUIREMENTS.

SEE POST ORNAMENT DETAILS, SHEET 60 / 70 FOR MATERIAL REQUIREMENTS.

CONSTRUCTION:

SEE SHEET 59 / 70 FOR RAILING DETAILS.

SEE SHEET 60 / 70 FOR POST ORNAMENT DETAILS.

FABRICATE RAILING ACCORDING TO 513 AND 517. SHOP CURVE THE RAIL MEMBERS AT RAILING ENDS.

ALL PLAN DIMENSIONS ARE MEASURED ALONG THE HORIZONTAL. SEE SITE PLAN FOR VERTICAL PROFILE.

SHOW FIELD SPLICE LOCATIONS FOR RAILS ON THE SHOP DRAWINGS. DO NOT SHOP-SPLICE RAILS.

POST BASE PLATES SHALL BE FLAT AFTER FABRICATION.

TO ENSURE PROPER PLACEMENT OF THE ANCHOR BOLTS, SURVEY THE BOLT LOCATIONS AND PLACE ALL ANCHOR BOLTS WITHIN 1/8" OF THE PLAN LOCATION IN THE TRANSVERSE AND LONGITUDINAL DIRECTIONS. ENSURE THAT ANCHOR BOLTS DO NOT MOVE DURING PARAPET CONCRETE POURS.

COATING:

THE STEEL RAILING SHALL BE GALVANIZED AND PAINTED AS SPECIFIED HEREIN. THE ALUMINUM POST ORNAMENTS SHALL NOT BE GALVANIZED AND SHALL BE PAINTED AS SPECIFIED HEREIN.

ALL ROUGH EDGES ON POSTS AND RAILS SHALL BE GROUND SMOOTH BEFORE GALVANIZING AND PAINTING.

PAINT ALL EXPOSED SURFACES OF BOLTS, NUTS AND WASHERS WITH THE SAME PAINT AS USED ON THE RAIL AND ORNAMENTS.

GALVANIZE ALL STEEL RAILING COMPONENTS IN ACCORDANCE WITH CMS 711.02. AFTER REMOVING HIGH SPOTS, THE GALVANIZED COATING SHALL BE CLEANED PER 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. INDIVIDUAL PIECES SHALL BE SEPARATED AND POSITIONED TO FACILITATE DRAINAGE AND DRYING. THE PIECES SHALL BE COMPLETELY DRY BEFORE PROCEEDING.

AFTER CLEANING, THE PIECES SHALL BE ABRASIVE BLASTED PER SSPC-SP7 BRUSH-OFF BLAST CLEANING. THE BLASTING OPERATION SHALL ROUGHEN THE GALVANIZED SURFACE TO AN ANGULAR SURFACE PROFILE OF 0.25 TO 0.50 MILS. THE BLASTING EQUIPMENT, TECHNIQUE AND ABRASIVE MATERIAL SHALL BE SELECTED TO PROVIDE FOR THE SPECIFIED SURFACE PROFILE WITHOUT REMOVAL OF ZINC LAYERS. THE FINAL ZINC MILAGE SHALL NOT BE LESS THAN 3.0 MILS. ALL ABRASIVE RESIDUE SHALL BE REMOVED WITH CLEAN COMPRESSED AIR OR OTHER METHODS ACCEPTABLE TO THE DEPARTMENT.

AFTER OBTAINING AN ACCEPTABLE SURFACE PROFILE, SHOP APPLY A TWO COAT PAINT SYSTEM CONSISTING OF AN EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT MEETING THE REQUIREMENTS OF CMS 514. THE FINISH COAT COLOR SHALL BE METALLIC SILVER, FEDERAL COLOR STANDARD 37178.

THE EPOXY INTERMEDIATE COATING SHALL BE APPLIED WITHIN 24 HOURS OF THE BRUSH-OFF BLASTING. THE COATINGS SHALL BE APPLIED PER CMS 514 EXCEPT THAT REQUIREMENTS FOR SURFACE PREPARATION AND PRIMING SHALL NOT BE PERFORMED. THE COATING SHALL BE SHOP APPLIED AS SPECIFIED IN THESE NOTES WITHOUT THE WORK LIMITATION SPECIFIED IN CMS 514. FIELD REPAIRS AND TOUCH UPS SHALL FOLLOW WORK LIMITATIONS SPECIFIED PER CMS 514 AND BE AS DIRECTED BY THE ENGINEER.

METHOD OF MEASUREMENT:

THE DEPARTMENT WILL MEASURE RAILING BY THE NUMBER OF FEET OF RAILING EXTENDING HORIZONTALLY FROM END TO END OF RAILINGS.

BASIS OF PAYMENT:

ALL MATERIALS AND LABOR NECESSARY TO PREPARE SHOP DRAWINGS AND FURNISH, FABRICATE, COAT, AND ERECT THE RAILINGS AND ALUMINUM POST ORNAMENTS ON THE BRIDGE AND WINGWALLS, AS SPECIFIED IN THESE NOTES AND ON THE PLANS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RAILING.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 517 - RAILING, MISC.: GALVANIZED AND PAINTED STEEL RAILING, TEXAS TYPE T80HT WITH PAINTED ALUMINUM POST ORNAMENTS, PER FOOT.

DECK PLACEMENT DESIGN ASSUMPTIONS:

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

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF "A" KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF "B".

LOCATION:	A (KIPS)	B (IN)
OUTSIDE FASCIA GIRDERS (G1 & G20)	2.3	47
MEDIAN FASCIA GIRDERS (G10 & G11)	2.5	52
PHASE 2 FASCIA GIRDERS (G4 & G17)	2.3	65

ITEM SPECIAL - SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE

THIS WORK SHALL INCLUDE SEALING OF THE CONCRETE SURFACES USING XL70 BRIDGE COTE W/SILANE AS PER THE MANUFACTURER'S RECOMMENDATIONS WITH THE FOLLOWING REQUIREMENTS, AT THE LOCATIONS SHOWN IN THE PLANS.

MEET THE SURFACE PREPARATION REQUIREMENTS FOR NON-EPOXY SEALERS PER CMS 512.03.F AND REMOVE ANY CURING COMPOUNDS PER THE MANUFACTURER'S RECOMMENDATIONS.

AT LEAST 5 DAYS BEFORE SEALING, PROVIDE THE ENGINEER THE SEALER MANUFACTURER'S WRITTEN REQUIREMENTS FOR APPLICATION EQUIPMENT, MIXING EQUIPMENT, MIXING PROCEDURES, MIXING TIME, STORAGE REQUIREMENTS, AND TECHNICAL AND SAFETY DATA SHEETS.

SEE SHEET 3 / 70 FOR FINISH COLORS.

SAGS AND RUNS ARE NOT ACCEPTABLE IN THE SEALER.

THE DEPARTMENT WILL MEASURE THE SEALING OF CONCRETE SURFACES BY THE NUMBER OF SQUARE YARDS OF COATED AREA PROJECTED TO A TWO-DIMENSIONAL SURFACE.

THE DEPARTMENT WILL CONSIDER THE REMOVAL OF DUST, DIRT, OIL, WAX, CURING COMPOUNDS, EFFLORESCENCE, LAITANCE AND OTHER FOREIGN MATERIALS AS INCIDENTAL TO THE SURFACE PREPARATION OF THE CONCRETE SURFACE TO BE SEALED.

NO.	DESCRIPTION	REV. BY	DATE
C	ADDED "ITEM SPECIAL - SEALING OF CONCRETE SURFACES" NOTE	BES	3/3/22

BURGESS & NIPLE
Engineers ■ Architects ■ Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED BES | DRAWN AAA | REVIEWED JCS | DATE 2/25/21
CHECKED BDE/CAS | REVISED | STRUCTURE FILE NUMBER 8001588L/8001618R

GENERAL NOTES - 3
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

UNI-33-24.87
PID No. 80748

ESTIMATED QUANTITIES

	ITEM	ITEM EXT.	TOTAL LEFT	TOTAL RIGHT	UNIT	DESCRIPTION	LEFT BRIDGE ABUTMENTS	LEFT BRIDGE PIER	LEFT BRIDGE SUPERSTR.	LEFT BRIDGE GENERAL	RIGHT BRIDGE ABUTMENTS	RIGHT BRIDGE PIER	RIGHT BRIDGE SUPERSTR.	RIGHT BRIDGE GENERAL	SHEET REF.
							CALC. BDE	DATE 2/24/21	CHK'D AAA/MAK	DATE 2/25/21					
	202	11003	LS	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS				LS	3 , 11 - 13 / 70
	202	22900	134	134	SY	APPROACH SLAB REMOVED				134				134	
	202	23500	134	936	SY	WEARING COURSE REMOVED				134				936	
	503	11101	LS	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LS				LS	3 , 14- 17 / 70
	503	21301	LS	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN				LS				LS	3 / 70
	504	11101	2073	2073	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN	2073				2073				3 , 14- 17 / 70
**	509	10000	331183	331183	LB	EPOXY COATED REINFORCING STEEL	119605	38455	119356	53767	119605	38455	119356	53767	
	509	30020	9429	9429	FT	NO. 4 GFRP DEFORMED BARS				9429				9429	
	511	34447	492	492	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			492				492		3 , 46 / 70
	511	33500	2	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2				2				
	511	34451	91	91	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			50	41			50	41	3 / 70
	511	41013	159	159	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN		159				159			3 / 70
	511	44113	395	395	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	395				395				3 / 70
**	511	46013	451	451	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN				451				451	3 / 70
**	511	46513	1003	1003	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN	888	115			888	115			3 / 70
	511	53014	61	61	CY	CLASS QC3 CONCRETE, MISC.: MUDMAT	47	11		3	47	11		3	3 / 70
*	511	53014	10	10	CY	CLASS QC3 CONCRETE, MISC.: PRECAST CONCRETE ARCH PANELS			10				10		3 / 70
**	SPECIAL	51275500	1529	1531	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/ SILANE	233	199	540	557	234	199	540	558	3 , 5 / 70
	512	33000	71	71	SY	TYPE 2 WATERPROOFING	32			39	32			39	
**	513	10281	354300	354300	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN			354300				354300		3 , 40 , 41 / 70
	513	20000	5460	5460	EACH	WELDED STUD SHEAR CONNECTORS			5460				5460		
*	514	00060	2023	2023	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			2023				2023		
*	514	00067	2023	2023	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			2023				2023		3 / 70
	516	10010	182	182	FT	ARMORLESS PREFORMED JOINT SEAL				182				182	
	516	13600	416	416	SF	1" PREFORMED EXPANSION JOINT FILLER	62	32	6	316	62	32	6	316	
	516	13900	222	222	SF	2" PREFORMED EXPANSION JOINT FILLER			93	129			93	129	
	516	14020	190	190	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	190				190				
	516	44101	10	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),		10				10			43 / 70
						AS PER PLAN (1'-5" x 1'-3" x 2.649" BEARING)									
	516	44201	20	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),	20				20				43 / 70
						AS PER PLAN (1'-3" x 1'-0" x 3.224" BEARING)									
*	517	76300	194	194	FT	RAILING, MISC.: GALVANIZED AND PAINTED STEEL RAILING, TEXAS TYPE T80HT WITH				194				194	5 / 70
						PAINTED ALUMINUM POST ORNAMENTS									
**	518	21200	603	604	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	241			362	241			363	
	518	40000	672	672	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	190			482	190			482	
	518	40010	235	249	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	85			150	86			163	
	526	30011	530	530	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN				530				530	3 / 70
	526	90030	182	182	FT	TYPE C INSTALLATION				182				182	
*	602	97000	4738	4845	SF	MASONRY, MISC.: STONE FACING	1562	1085		2091	1663	1085		2097	4 / 70

LEGEND:

* = DESIGNATED PAY ITEMS ARE FULLY INCLUDED IN THE FUNDING PARTICIPATION SPLIT CODE 05/S>2/OT/DUB.

** = DESIGNATED PAY ITEMS ARE PARTIALLY INCLUDED IN THE FUNDING PARTICIPATION SPLIT CODE 05/S>2/OT/DUB, AS FOLLOWS:
79292 LB FOR ITEM 509 - EPOXY COATED REINFORCING STEEL
322 CY FOR ITEM 511 - CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN
518 CY FOR ITEM 511 - CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN
258 SY FOR ITEM SPECIAL - SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/ SILANE
5200 LB FOR ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN
290 CY FOR ITEM 518 - POROUS BACKFILL WITH GEOTEXTILE FABRIC
THE QUANTITIES ABOVE ARE TOTALS FOR LEFT & RIGHT BRIDGES COMBINED.

NOTES:

1. UNLESS NOTED OTHERWISE, ALL PAY ITEMS ARE INCLUDED IN THE FUNDING PARTICIPATION SPLIT CODE 03/NHS/BR.

NO.	DESCRIPTION	REV. BY	DATE
C	UPDATED NOTE IN LEGEND AND REVISED ESTIMATED QUANTITIES	BES	3/3/22

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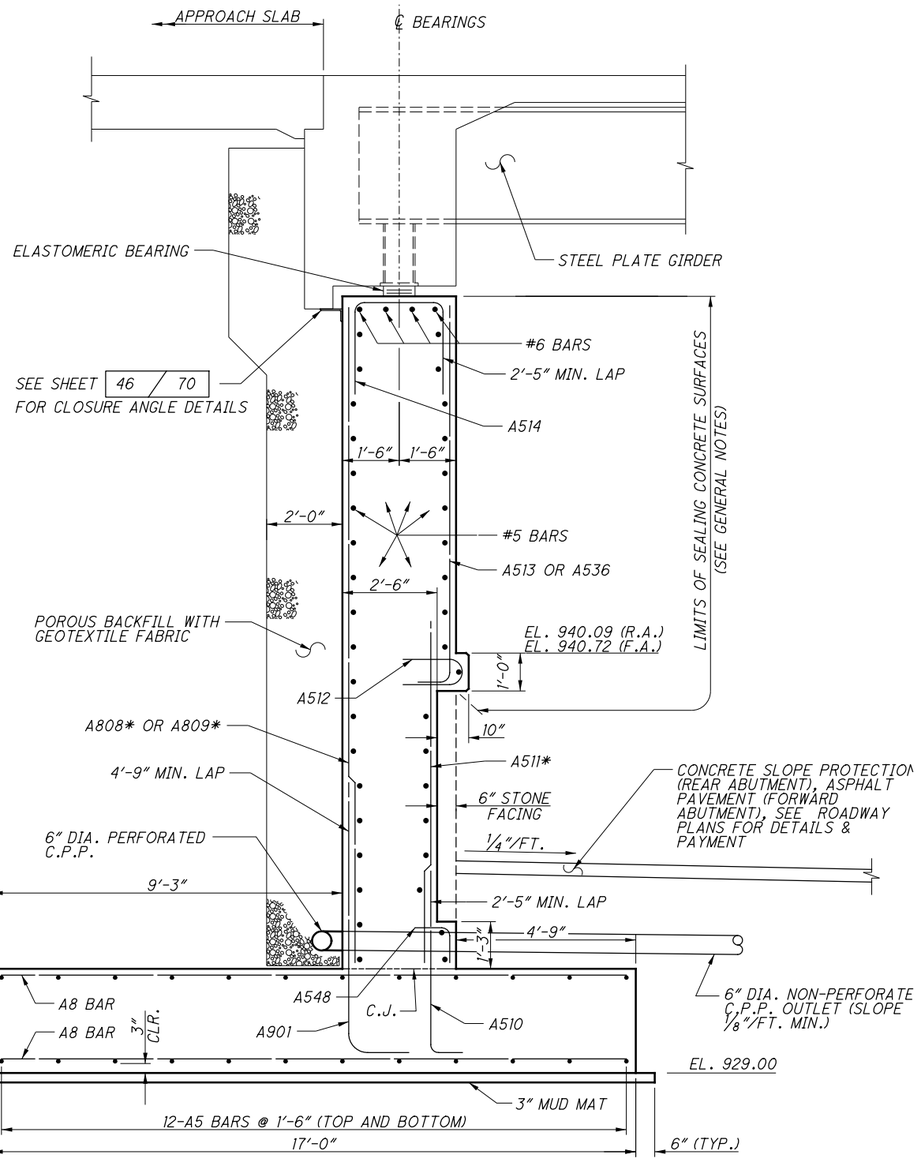
DESIGNED BES | DRAWN AAA | REVIEWED JCS | DATE 2/25/21 | CHECKED MAK/AAA | REVISED | STRUCTURE FILE NUMBER 8001588L/8001618R

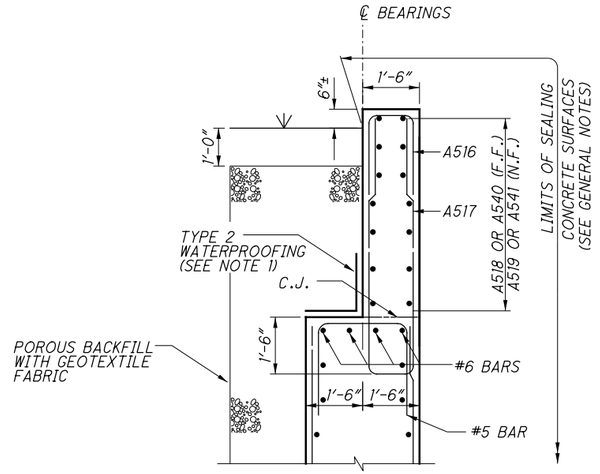
ESTIMATED QUANTITIES
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

UNI-33-24.87
PID No. 80748

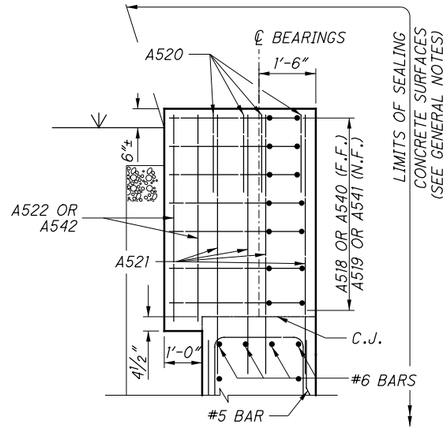


SECTION A-A

(* = SET BAR ON TOP OF FOOTING)



SECTION B-B



SECTION C-C

NOTES

1. CENTER 3'-0" WIDE TYPE 2 WATERPROOFING ON CONSTRUCTION JOINT.
2. LOCATE PERFORATED PIPE AS CLOSE TO TOP OF FOOTING AS PRACTICABLE, WHILE MAINTAINING A SLOPE OF 1/8" PER FOOT TOWARDS OUTLET.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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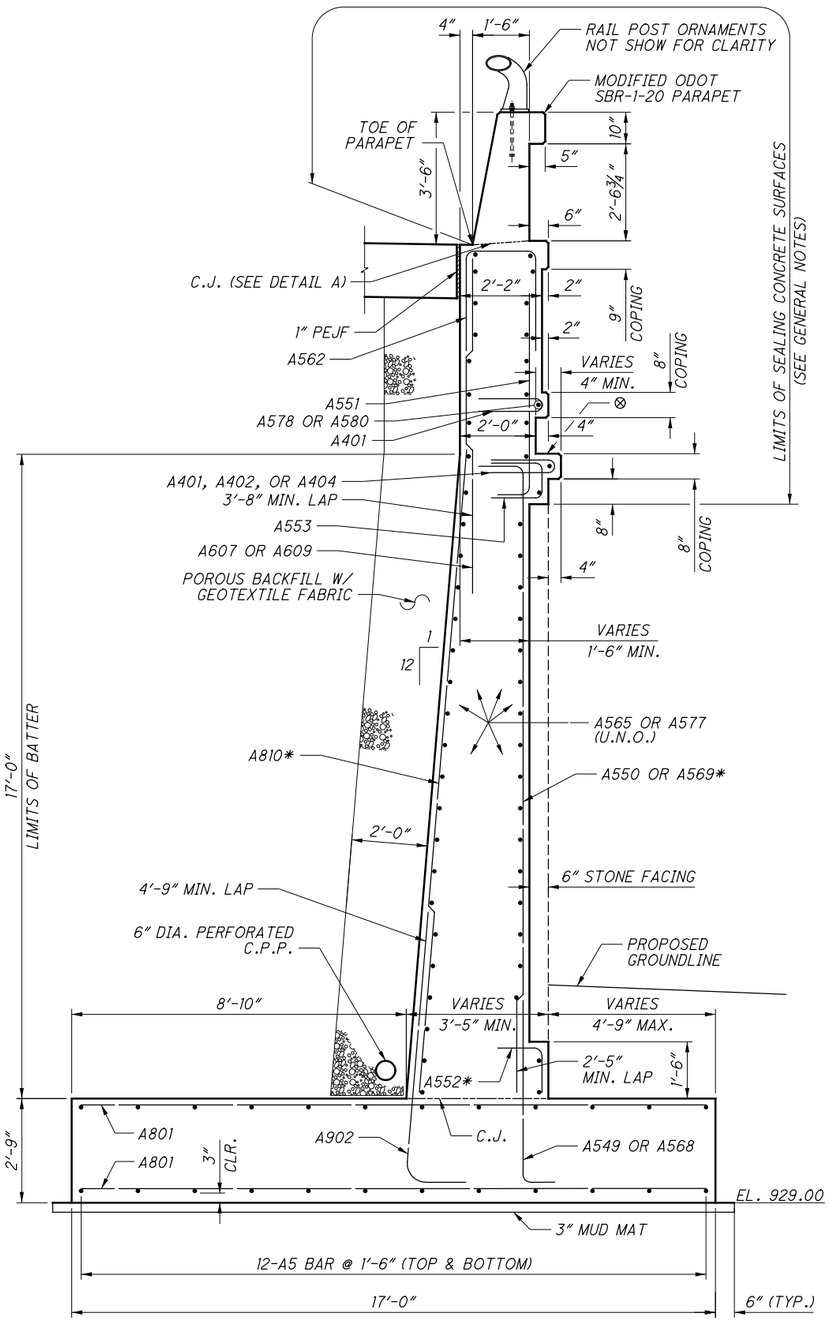
DESIGNED	DRAWN	REVIEWED	DATE
BES	BES/AAA	JCS	2/25/21
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDE		8001588L/8001618R	

ABUTMENT SECTIONS AND DETAILS - 1
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

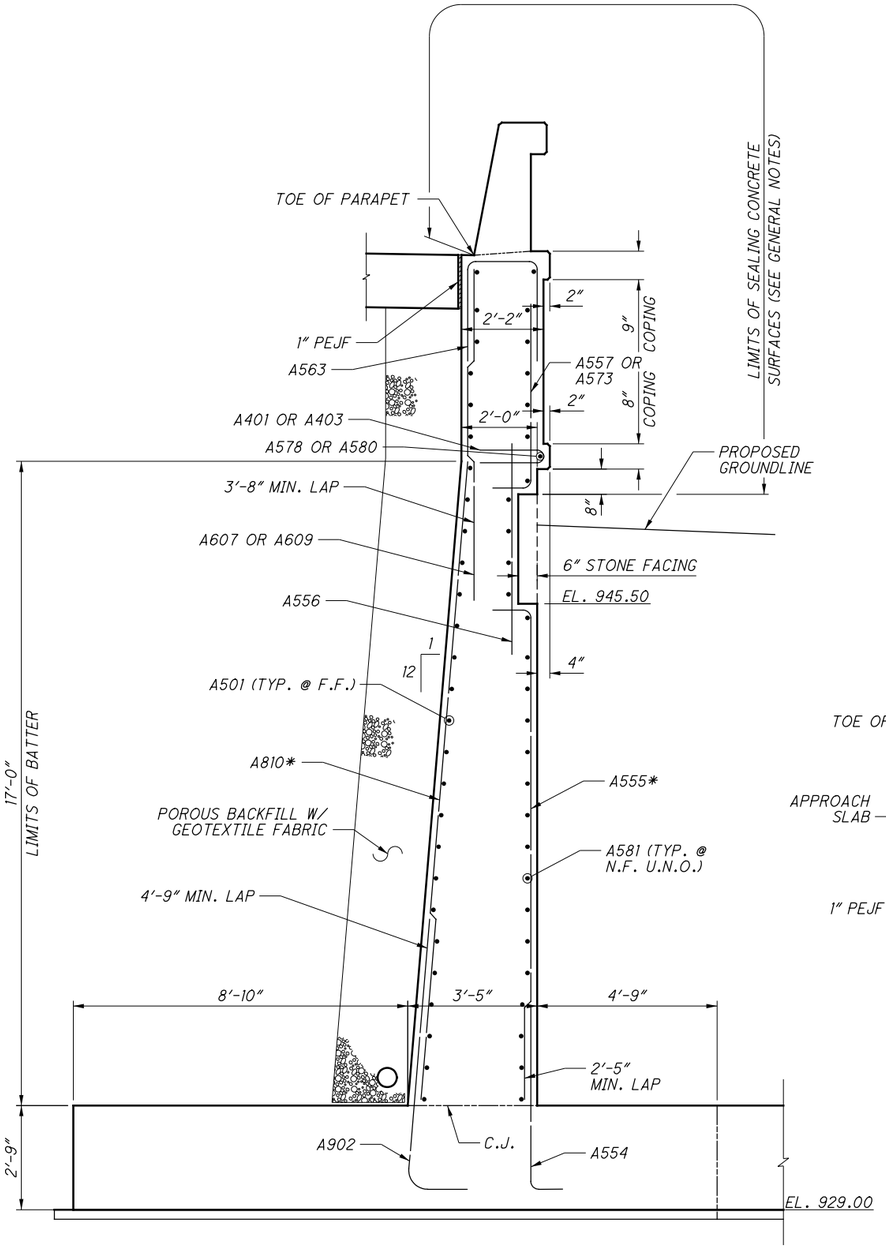
UNI-33-24.87
PID No. 80748

29 / 70

799
923

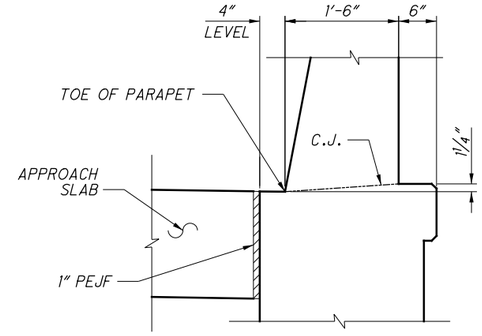


SECTION I-I



SECTION J-J

(SEE SECTION I-I FOR DETAILS NOT SHOWN)



DETAIL A

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

NOTE

1. LOCATE PERFORATED PIPE AS CLOSE TO TOP OF FOOTING AS PRACTICABLE, WHILE MAINTAINING A SLOPE OF ⅛″ PER FOOT TOWARDS OUTLET.

LEGEND

* = SET ON TOP OF FOOTING
⊗= SLOPE AT ⅛″ PER FOOT TO DRAIN AWAY FROM WALL

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DESIGNED	DRAWN	REVIEWED	DATE
BES	BES/AAA	JCS	2/25/21
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDE/ODW		8001588L/8001618R	

WINGWALL SECTIONS AND DETAILS - 1
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

UNI-33-24.87
PID No. 80748

31/70

801/923

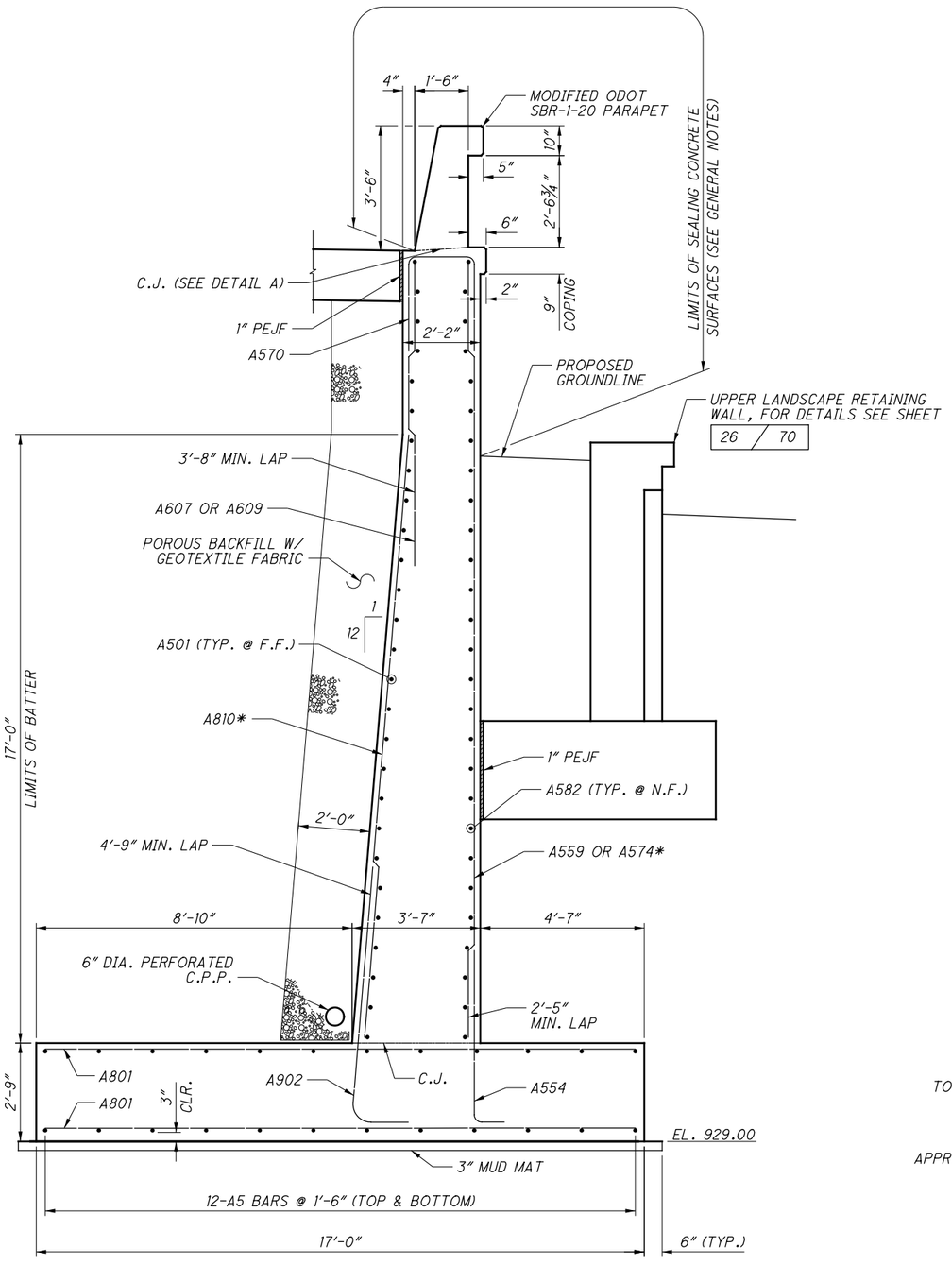
NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

LEGEND

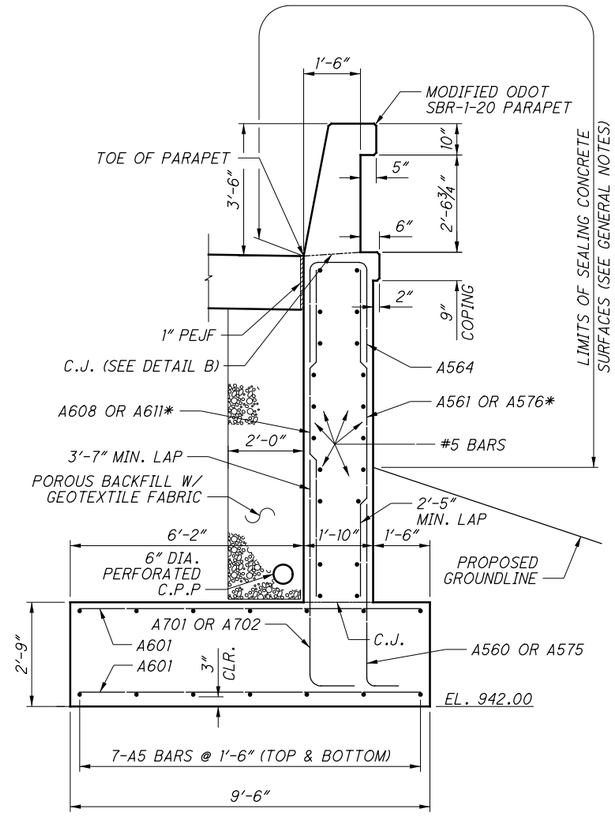
* = SET ON TOP OF FOOTING

NOTES:

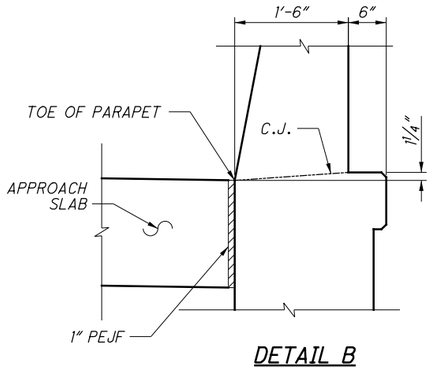
1. SEE SHEET 31 / 70 FOR DETAIL A.
2. LOCATE PERFORATED PIPE AS CLOSE TO TOP OF FOOTING AS PRACTICABLE, WHILE MAINTAINING A SLOPE OF 1/8" PER FOOT TOWARDS OUTLET.



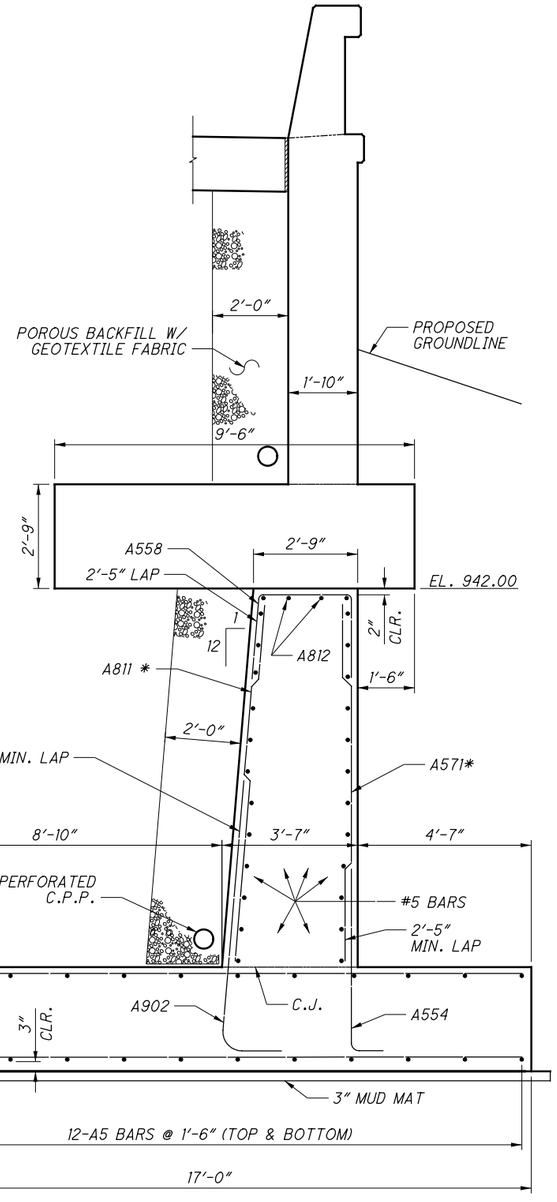
SECTION K-K



SECTION L-L



DETAIL B



SECTION M-M

(SEE SECTION L-L FOR DETAILS NOT SHOWN)
(REINFORCING NOT SHOWN IN UPPER WALL FOR CLARITY)

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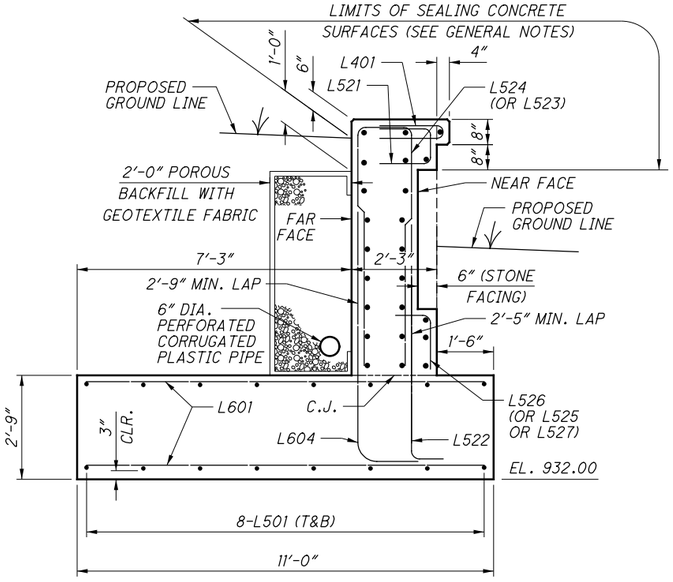
BDE/ODW		8001588L/8001618R	

WINGWALL SECTIONS AND DETAILS - 2
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

UNI-33-24.87
PID No. 80748

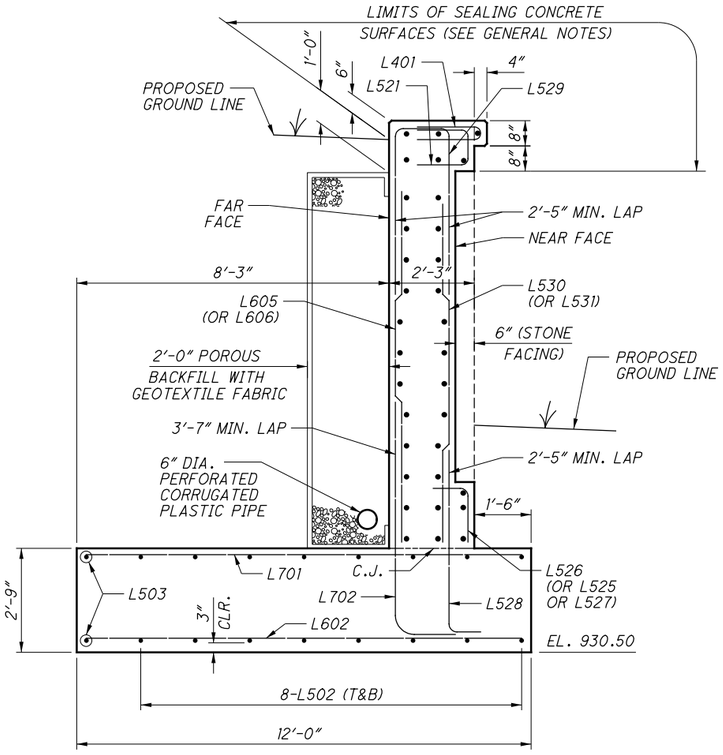
32 / 70

802
923



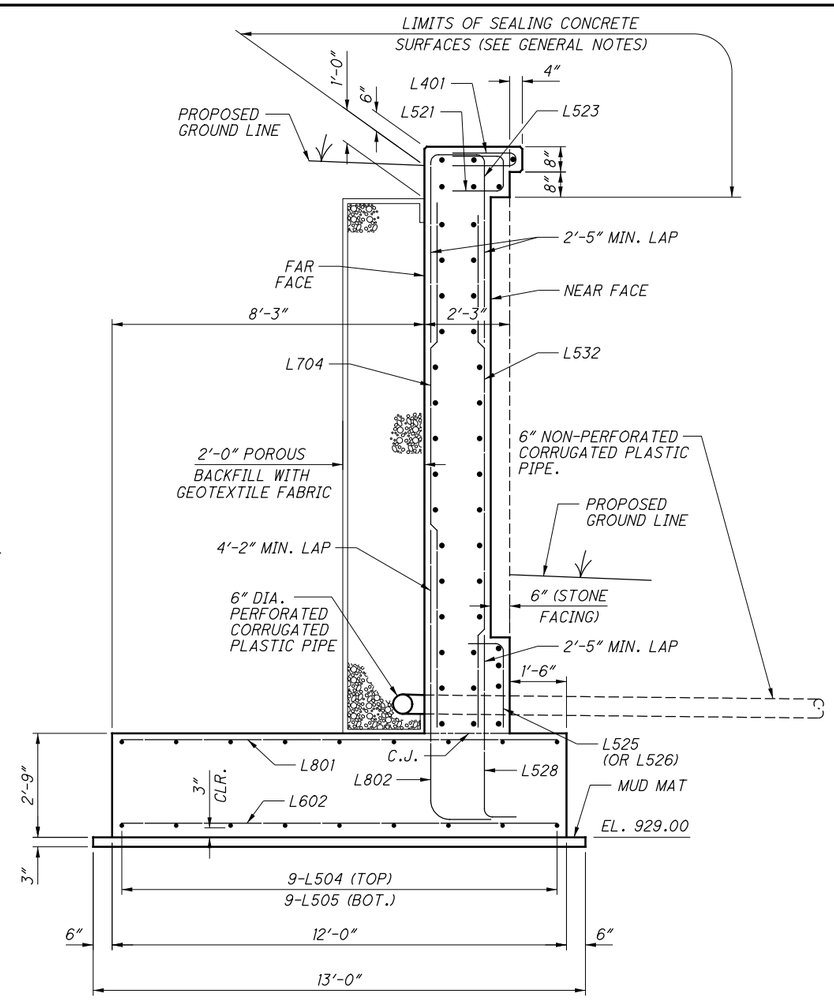
SECTION A-A

(ALL BARS NORMAL TO THE SECTION ARE #5 BARS)
(SEE NOTE 1)



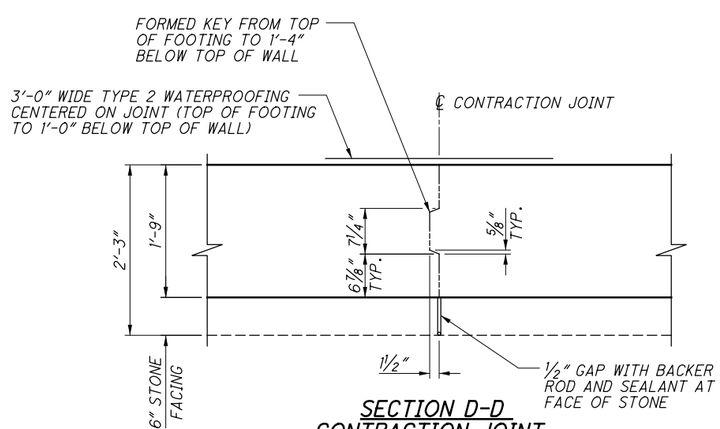
SECTION B-B

(ALL BARS NORMAL TO THE SECTION ARE #5 BARS)
(SEE NOTE 1)



SECTION C-C

(ALL BARS NORMAL TO THE SECTION ARE #5 BARS)
(SEE NOTE 1)



SECTION D-D CONTRACTION JOINT

(REINFORCING STEEL NOT SHOWN)

NOTES:

1. SEE SHEET 25 / 70 FOR LOCATION OF SECTIONS A-A, B-B, C-C, D-D AND OTHER DETAILS.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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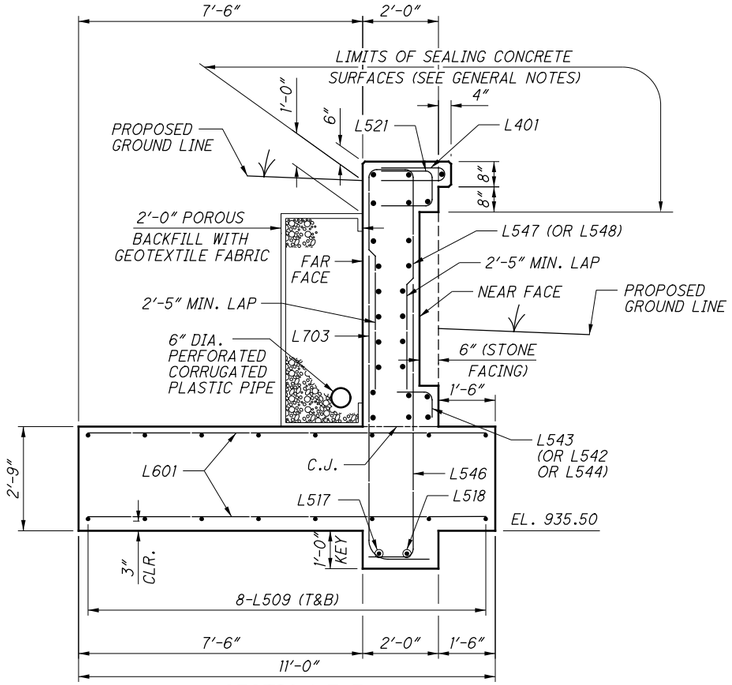
ODW/BDE		8001588L/8001618R	

SECTIONS - LOWER LANDSCAPE RETAINING WALL
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

UNI-33-24.87
PID No. 80748

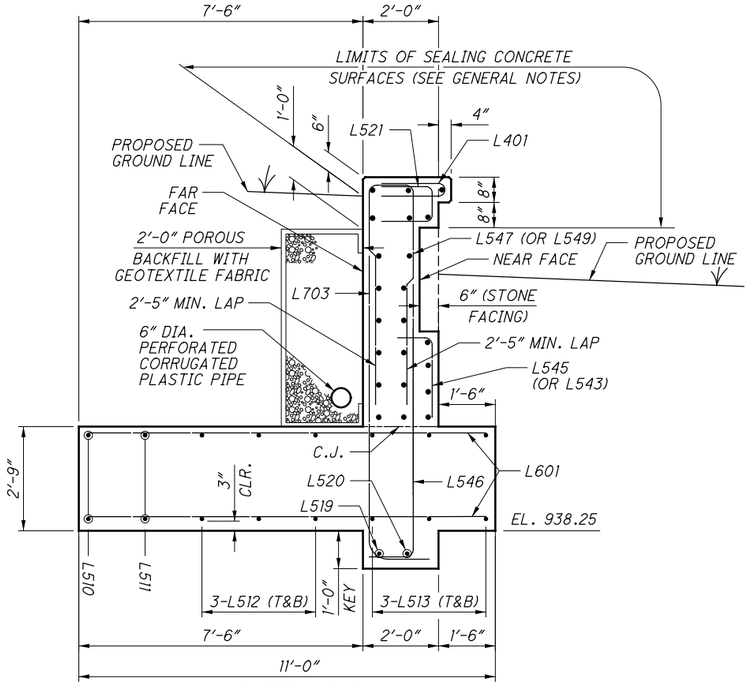
34 / 70

804
923



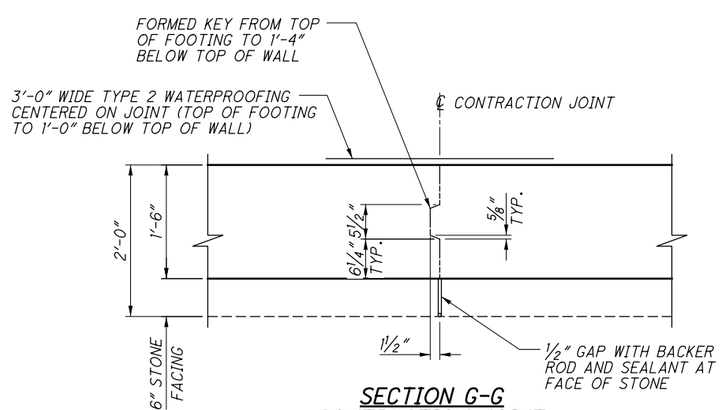
SECTION F-F

(ALL BARS NORMAL TO THE SECTION ARE #5 BARS)



SECTION E-E

(ALL BARS NORMAL TO THE SECTION ARE #5 BARS)



SECTION G-G CONTRACTION JOINT

(REINFORCING STEEL NOT SHOWN)

NOTES:

1. SEE SHEET 28 / 70 FOR LOCATION OF SECTIONS F-F, E-E, G-G AND OTHER DETAILS.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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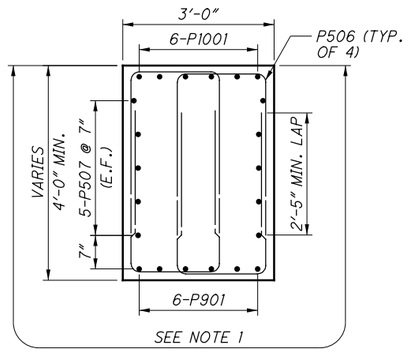
ODW/BDE		8001588L/8001618R	

SECTIONS - UPPER LANDSCAPE RETAINING WALL
BRIDGE NO. UNI-33-2489 L/R OVER SR-161

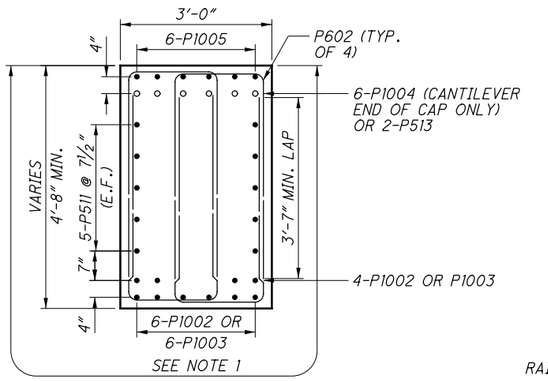
UNI-33-24.87
PID No. 80748

35 / 70

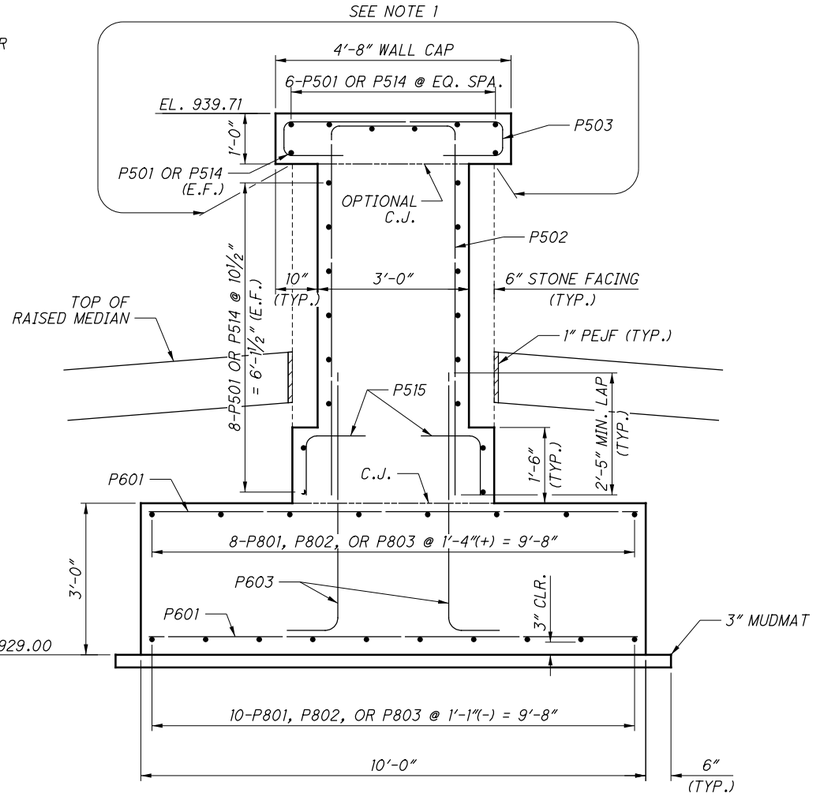
805
923



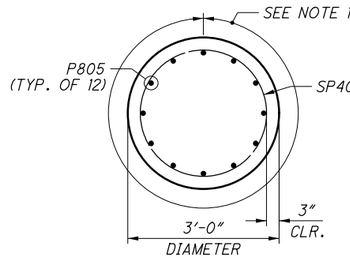
SECTION A-A



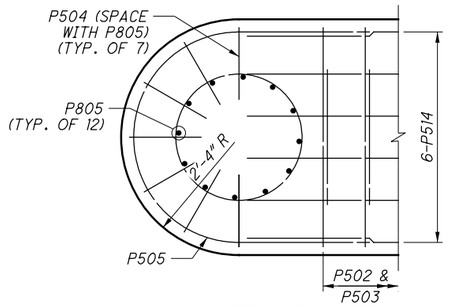
SECTION B-B



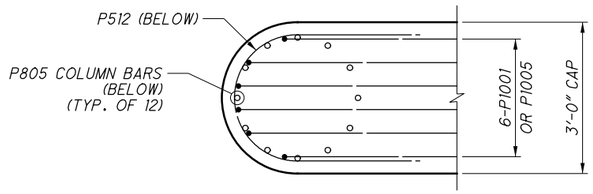
SECTION D-D



SECTION C-C

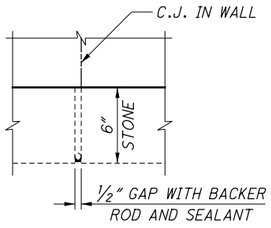


SECTION E-E

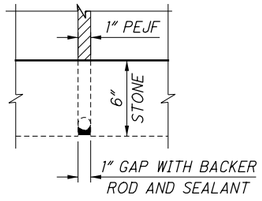


VIEW F-F

(PLACEMENT OF TOP PIER CAP BARS AT ROUNDED ENDS)
(LEFT END OF CAP SHOWN, RIGHT END OPPOSITE HAND)
(SHEAR STIRRUPS NOT SHOWN)



WALL CONSTRUCTION JOINT DETAIL



WALL EXPANSION JOINT DETAIL

NO.	DESCRIPTION	REV. BY	DATE
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NOTES:

1. SEAL CONCRETE SURFACES ABOVE GRADE TO LIMITS SHOWN (SEE GENERAL NOTES).

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PIER SECTIONS AND DETAILS
BRIDGE NO. UNI-33-2489 L/R
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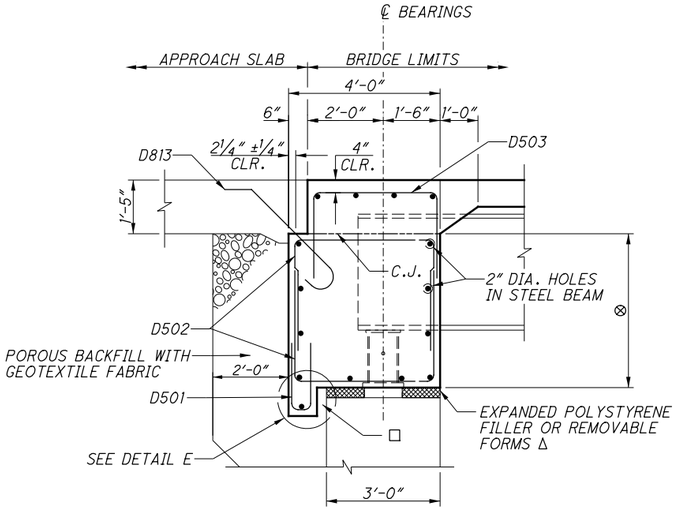
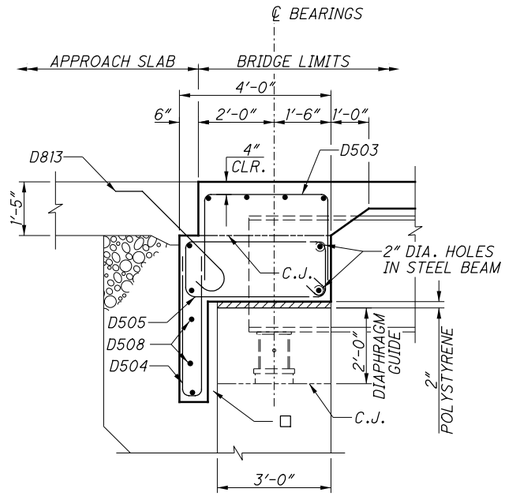


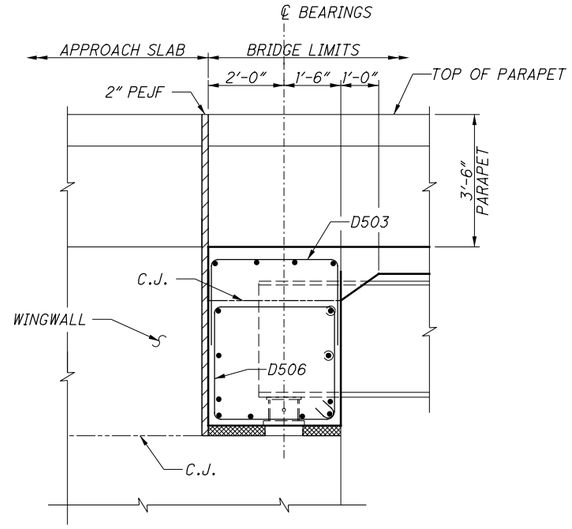
SECTION A-A

(ALL BARS NORMAL TO SECTION ARE D8)



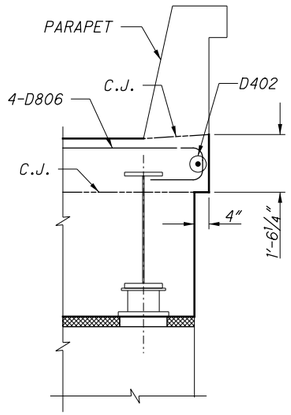
SECTION B-B

(ALL BARS NORMAL TO SECTION ARE D8 U.N.O.)
(SEE SECTION A-A FOR DIMENSIONS NOT SHOWN)

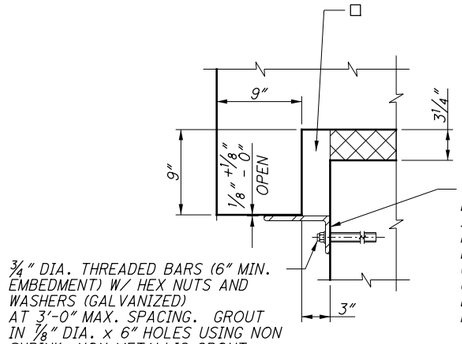


SECTION C-C

(ALL BARS NORMAL TO SECTION ARE D8)
(SEE SECTION A-A FOR DIMENSIONS NOT SHOWN)



SECTION D-D



DETAIL E

ANGLES, THREADED BARS, GROUT, NUTS, AND WASHERS ARE CONSIDERED INCIDENTAL TO THE BID PRICE PER CUBIC YARD FOR ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN. GALVANIZING SHALL BE AS PER 711.02.

LEGEND:

Δ = INCLUDED WITH SUPERSTRUCTURE CONCRETE FOR PAYMENT. REMOVE FORMING MATERIALS TO A DEPTH OF 1′-0″ OR TO THE NEAR FACE OF THE ELASTOMERIC BEARINGS.

□ = FORM OPENING BETWEEN ABUTMENT AND END DIAPHRAGM USING POLYSTYRENE OR REMOVABLE FORMS. COMPLETELY REMOVE FORMING MATERIAL BETWEEN BACK FACE OF ABUTMENT AND END DIAPHRAGM LIP WITHIN 48 HOURS AFTER POUR

⊗ = LIMITS OF SEALING OF CONCRETE SURFACES (SEE GENERAL NOTES)

NOTES:

1. MINIMUM LAP LENGTHS SHALL BE AS FOLLOWS:

   #8 BAR: 5′-0″

2. SEE MECHANICAL CONNECTOR NOTE ON SHEET 3 / 70.
3. SEE STANDARD DRAWING SICD-2-14 FOR DIAPHRAGM GUIDE DETAILS AND PAYMENT.
4. ALL ABUTMENT DIAPHRAGM CONCRETE SHALL BE ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN.
5. ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK. PLACE CLOSURE POUR CONCRETE IN THE DIAPHRAGM AND DECK CONCURRENTLY.
6. PLACE TRANSVERSE STIRRUP BARS APPROXIMATELY PARALLEL TO THE GIRDERS. SPACING OF TRANSVERSE STIRRUP BARS IS MEASURED PARALLEL TO ℄ BRG. REAR OR FORWARD ABUTMENT.
7. PLACE NEOPRENE SHEETING, 3′-0″ WIDE, CENTERED ON 1″ AND 2″ PEJF, AND EXTENDING UP TO THE APPROACH SLAB SEAT.
8. PLACE TYPE 2 WATERPROOFING, 3′-0″ WIDE, CENTERED ON PHASE CONSTRUCTION JOINTS, FROM BEAM SEAT TO APPROACH SLAB SEAT.
9. SEE SHEET 54 / 70 FOR FINAL DECK SURFACE ELEVATIONS AT ℄ BEARINGS.
10. SEE SHEET 19 / 70 & 20 / 70 FOR DIAPHRAGM GUIDE LOCATION.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED LEGEND CALLOUT	BES	3/3/22

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ABUTMENT DIAPHRAGM SECTIONS
BRIDGE NO. UNI-33-2489 L/R
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PID No. 80748

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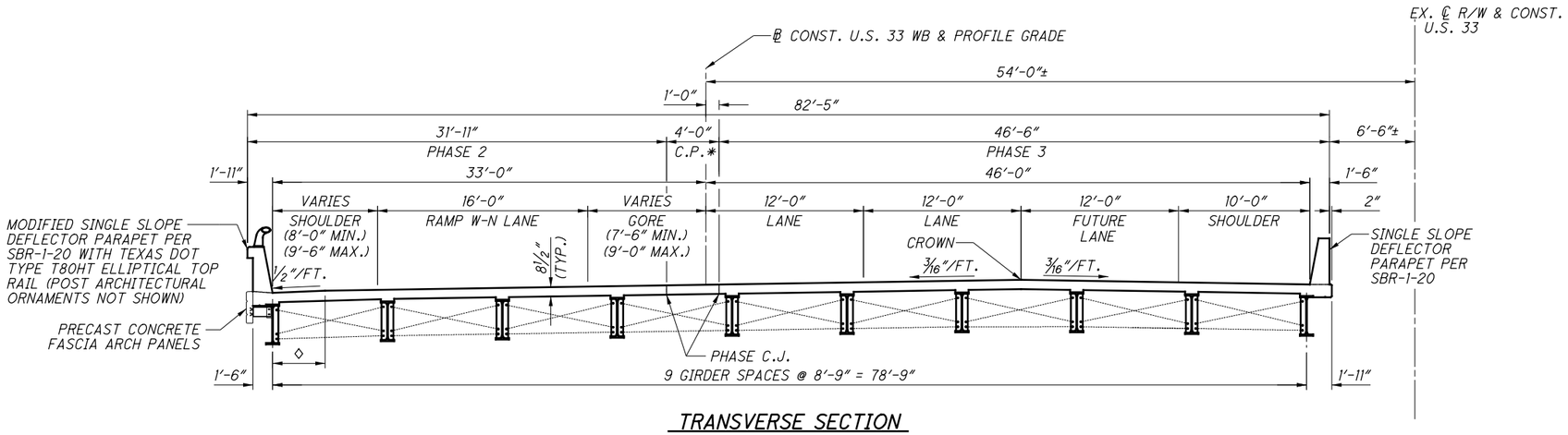
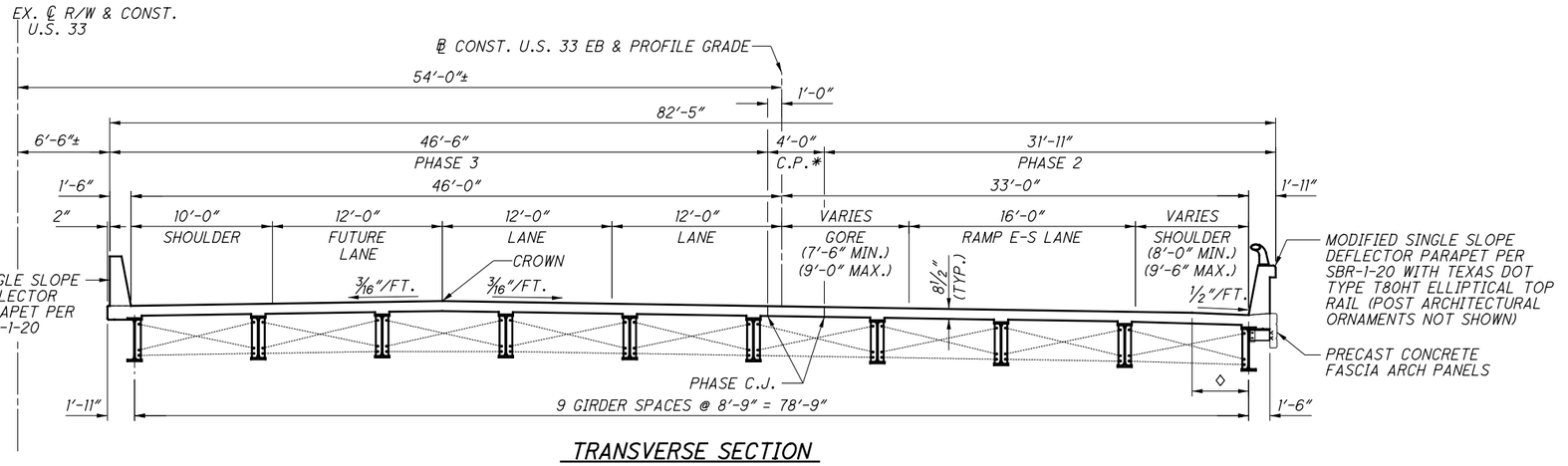
923



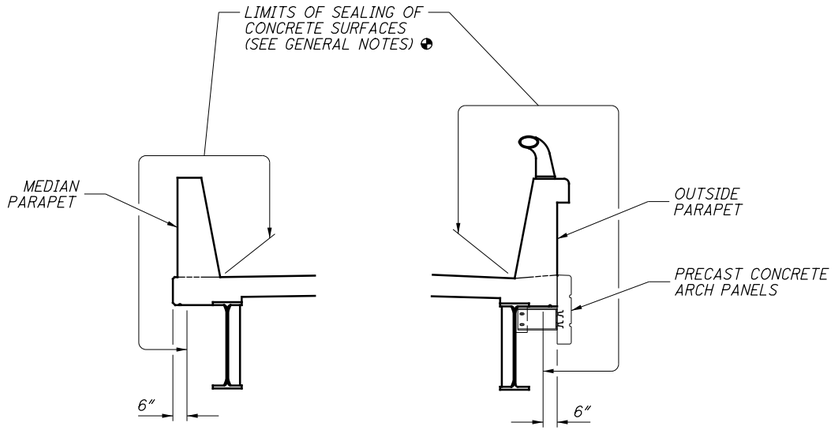
TRANSVERSE SECTION

LEFT BRIDGE



TRANSVERSE SECTION

RIGHT BRIDGE



CONCRETE SEALING LIMITS

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

LEGEND:

◇ = 4'-0" (GRADE BREAK)

* = INSTALL CROSSFRAMES IN THIS BAY AFTER PHASE 3 CONSTRUCTION AND PRIOR TO CLOSURE POUR

◕ = AT OUTSIDE PARAPETS, SEAL THE PARAPET SURFACES, THE VERTICAL SIDE FACE OF THE DECK, 6" ALONG THE UNDERSIDE OF THE DECK FASCIA, AND THE TOP, BOTTOM, AND OUTBOARD SURFACES OF THE PRECAST CONCRETE ARCH PANELS.

NOTES :

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3½ INCHES AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

   THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, 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 ACCORDANCE WITH 511.23.

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TRANSVERSE SECTION - 1
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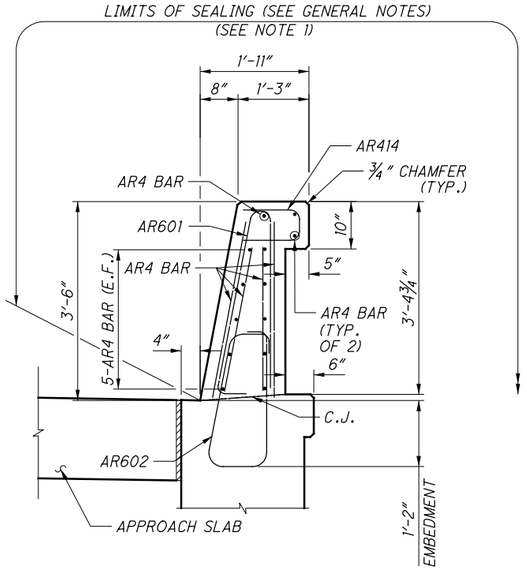
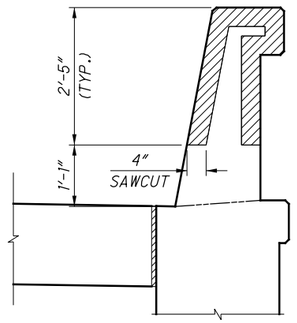
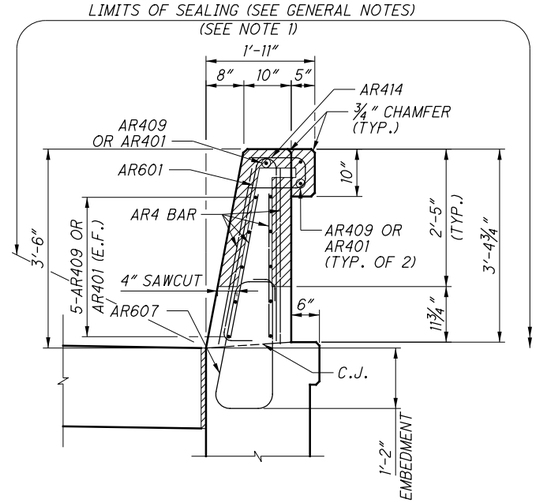


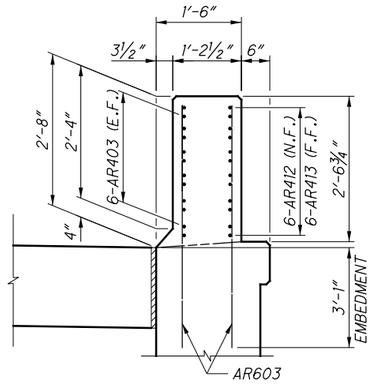
SECTION A-A
(WINGWALL REINFORCING STEEL NOT SHOWN FOR CLARITY)



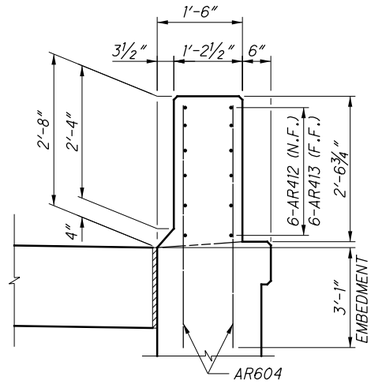
SECTION A-A (SAWCUT DETAIL)
(REINFORCING STEEL NOT SHOWN)



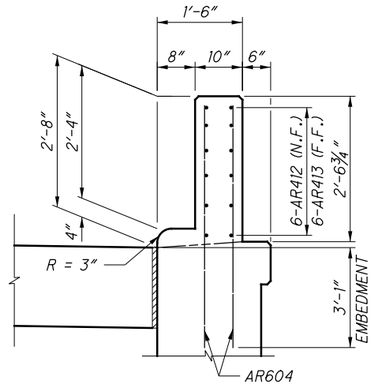
SECTION B-B
(WINGWALL REINFORCING STEEL NOT SHOWN FOR CLARITY)



SECTION C-C



SECTION D-D
(GUARDRAIL NOT SHOWN)



SECTION E-E
(GUARDRAIL NOT SHOWN)

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

NOTES:

1. SEE SHEETS 31 / 70 AND 32 / 70 FOR LIMITS OF SEALING.
2. SEE ODOT STANDARD DRAWING SBR-1-20 FOR ADDITIONAL DETAILS NOT SHOWN.

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ODW		8001588L/8001618L	

WINGWALL PARAPET DETAILS - 2

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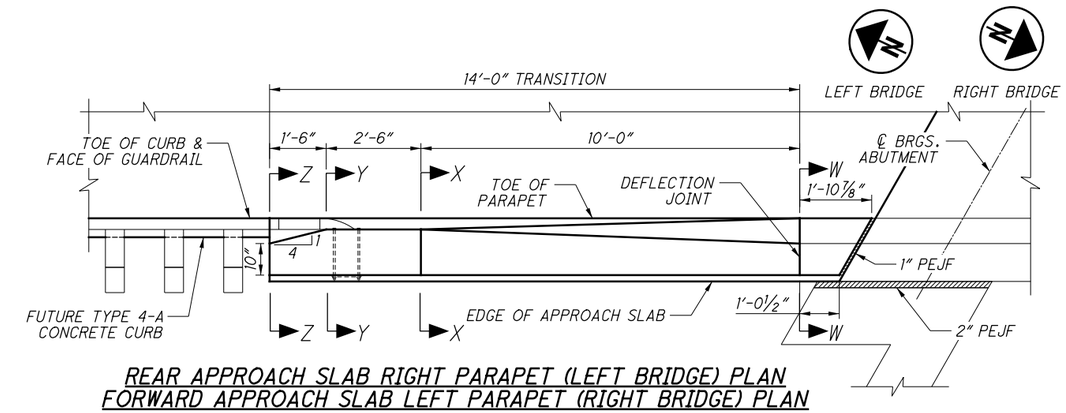
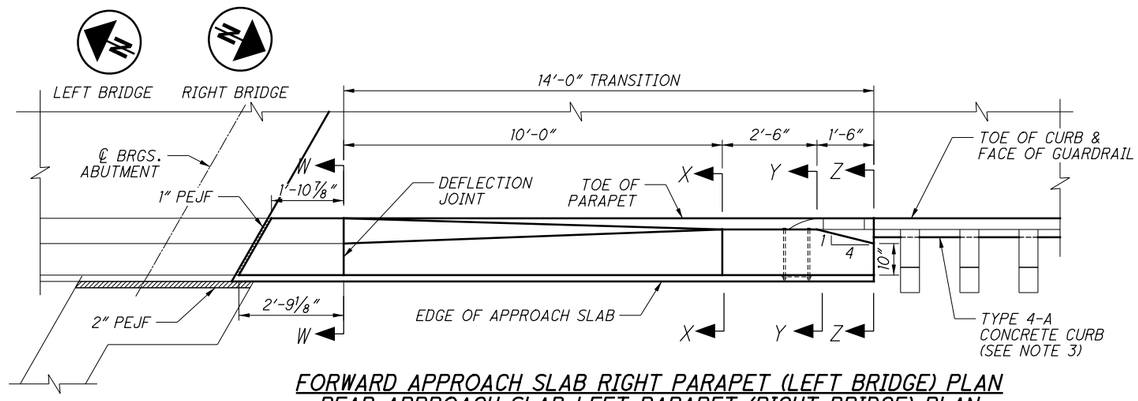
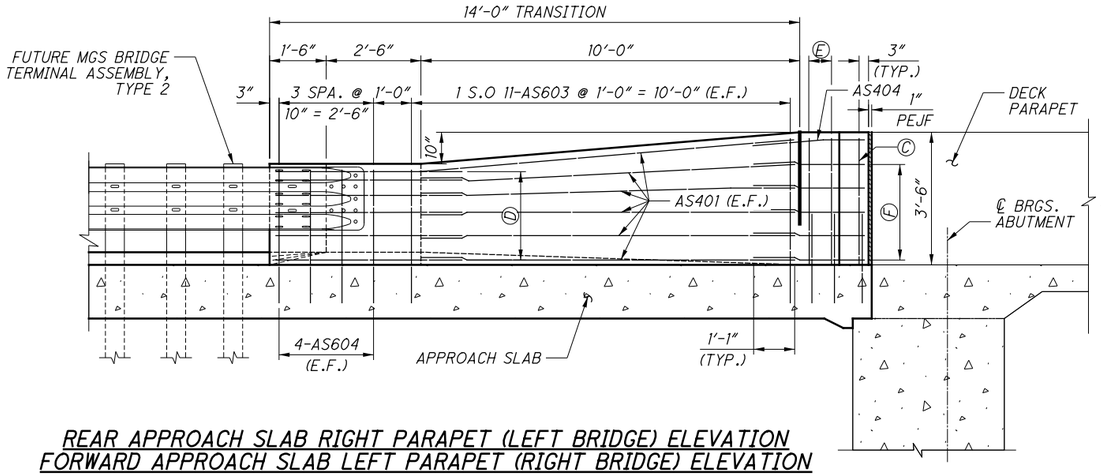
PID No. 80748



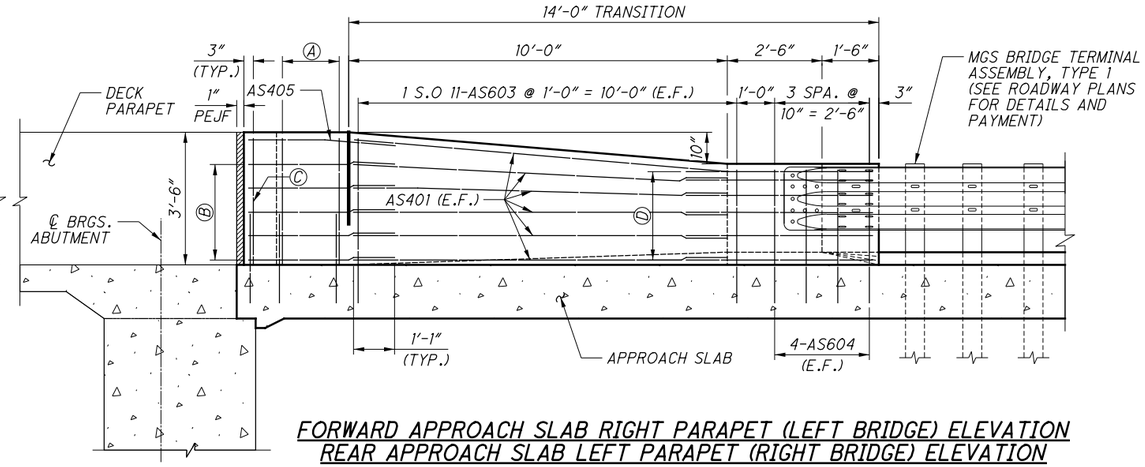
REAR APPROACH SLAB RIGHT PARAPET (LEFT BRIDGE) PLAN
FORWARD APPROACH SLAB LEFT PARAPET (RIGHT BRIDGE) PLAN



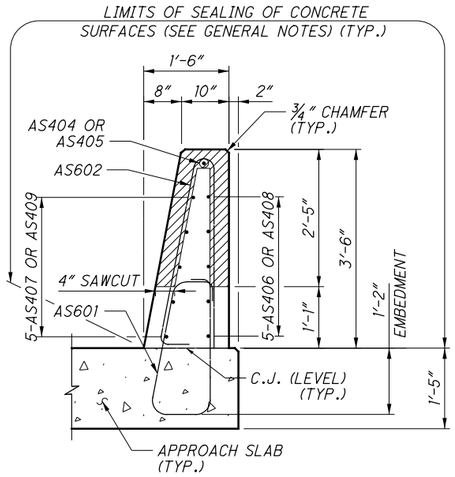
FORWARD APPROACH SLAB RIGHT PARAPET (LEFT BRIDGE) PLAN
REAR APPROACH SLAB LEFT PARAPET (RIGHT BRIDGE) PLAN



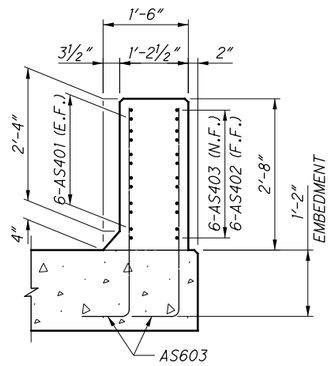
REAR APPROACH SLAB RIGHT PARAPET (LEFT BRIDGE) ELEVATION
FORWARD APPROACH SLAB LEFT PARAPET (RIGHT BRIDGE) ELEVATION



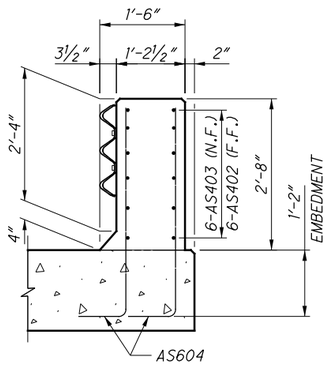
FORWARD APPROACH SLAB RIGHT PARAPET (LEFT BRIDGE) ELEVATION
REAR APPROACH SLAB LEFT PARAPET (RIGHT BRIDGE) ELEVATION



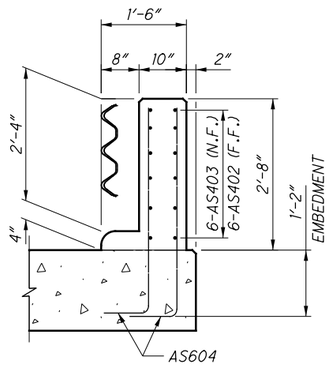
SECTION W-W
(APPROACH SLAB REINFORCING NOT SHOWN)



SECTION X-X



SECTION Y-Y



SECTION Z-Z

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

LEGEND:

Ⓐ = 3-AS601 & AS602 @ 9" = 1'-6"
Ⓑ = 5-AS406 (N.F.) & 5-AS407 (F.F.)
Ⓒ = 1-AS605 & AS606
Ⓓ = 6-AS403 (N.F.) & 6-AS402 (F.F.)
Ⓔ = 2-AS601 & AS602
Ⓕ = 5-AS408 (N.F.) & 5-AS409 (F.F.)

NOTES:

1. PARAPETS MOUNTED ON APPROACH SLABS ARE INCLUDED FOR PAYMENT WITH ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN. REINFORCING STEEL FOR PARAPETS MOUNTED ON APPROACH SLABS IS INCLUDED FOR PAYMENT WITH ITEM 509 - EPOXY COATED REINFORCING STEEL OR ITEM 509 - NO. 4 GFRP DEFORMED BARS.
2. SEE STANDARD DRAWING SBR-1-20 FOR ADDITIONAL PARAPET DETAILS NOT SHOWN.
3. SEE STANDARD CONSTRUCTION DRAWING BP-5.1 FOR TYPE 4-A CONCRETE CURB DETAILS.
4. ALL STRAIGHT NO. 4 BARS SHALL BE GFRP.

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5085 REED ROAD, COLUMBUS, OHIO 43220

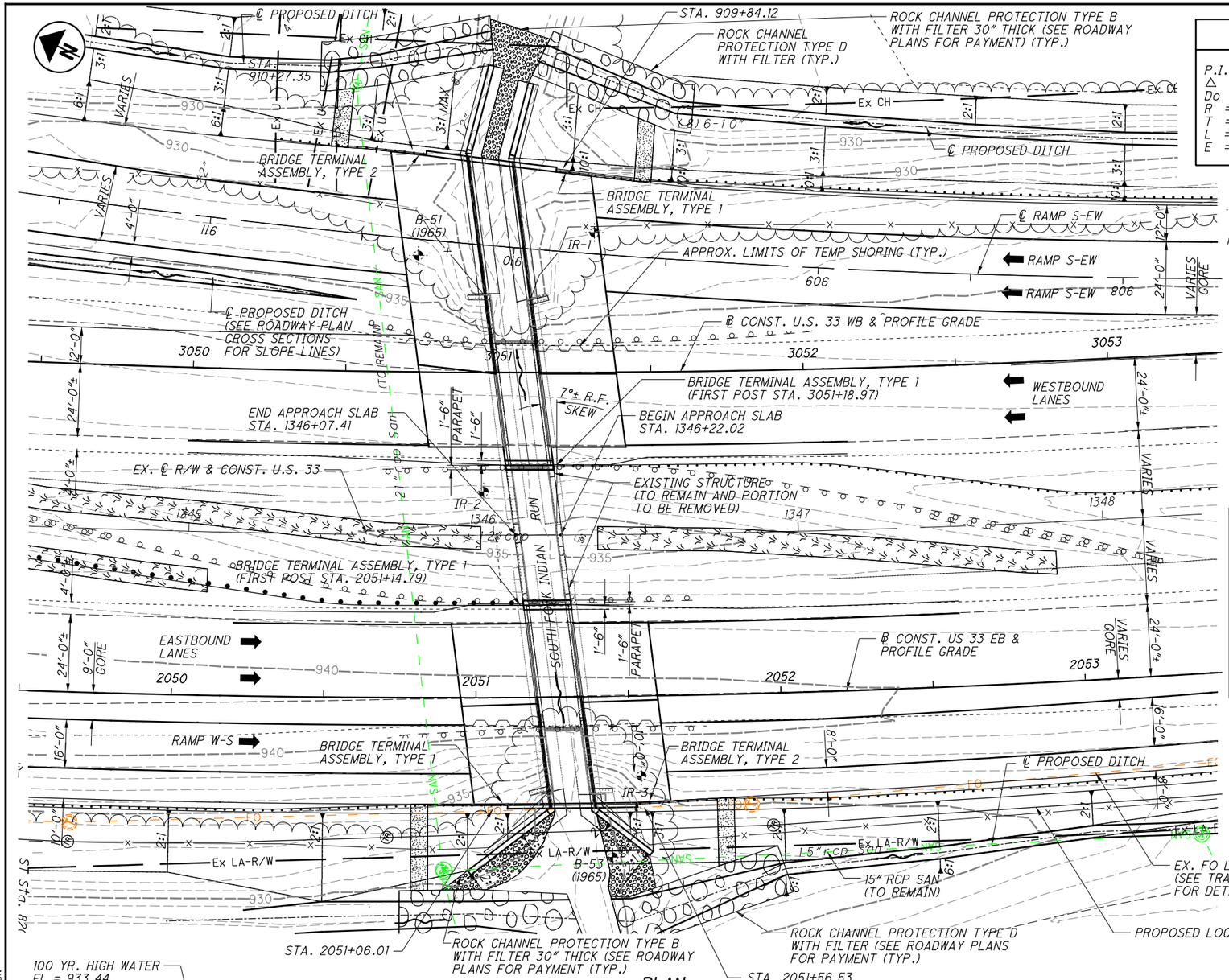
DESIGNED	DRAWN	REVIEWED	DATE
JHL	JHL	JCS	2/25/21
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ODW		8001588L/8001618L	

APPROACH SLAB DETAILS - 2
BRIDGE NO. UNI-33-2489 L/R
OVER SR-161

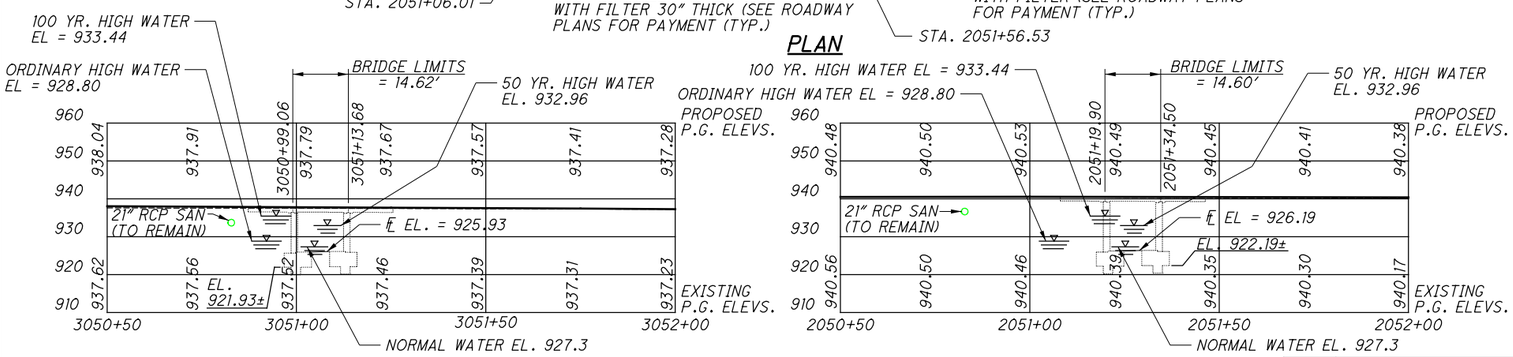
UNI-33-24.87
PID No. 80748

64/70

834
923



PLAN



PROFILE - LEFT STRUCTURE
(@ ℄ CONST. US 33 WB)

PROFILE - RIGHT STRUCTURE
(@ ℄ CONST. US 33 EB)

NO.	DESCRIPTION	REV. BY	DATE
C	ADDED FO LINE LABELS	BES	3/3/22

CURVE DATA

P.I. STA. = 1350+55.19
△ = 18°00'00" (LT)
Dc = 1°28'00"
R = 3,906.62'
T = 618.75'
L = 1,227.30'
E = 48.70'

BENCHMARK DATA

BM #1162: EX. ℄ R/W & CONST. U.S. 33 STA. 1344+36.44, ELEV. 939.13, OFFSET 0' REBAR IN CONC. R/W MONUMENT FOUND, IN THE EXISTING CENTERLINE OF U.S. 33.

BM #1076: BRASS PLAQUE IN THE NORTHWEST WINGWALL OF CULVERT (WAS-41-0.75) FOR THE SOUTH FORK OF INDIAN RUN, 148' SW OF PROPOSED ℄ CONST. U.S. 33 EB. ℄ CONST. US 33 EB STA. 2051+51.71, 148.26' RT. EL. 936.33.

FOR ADDITIONAL BENCHMARK INFORMATION, SEE ROADWAY PLAN SHEET 4/923

LEGEND

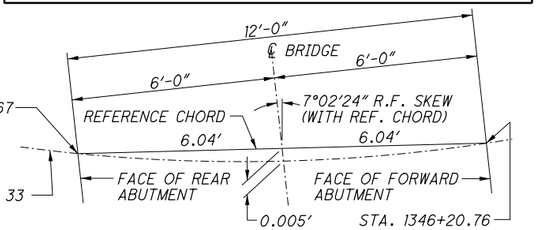
SOIL BORING LOCATION
R.F. = RIGHT FORWARD

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE, ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC US-33EB (US-33WB)

2019 ADT = 34,000 (33,200)	2019 ADTT = 4,080 (3,980)
2042 ADT = 44,990 (43,850)	2042 ADTT = 5,400 (5,260)



LAYOUT DIAGRAM

HYDRAULIC DATA

DRAINAGE AREA = 2.03 SQ. MILES
Q (50) = 493 CFS
Q (100) = 567 CFS
V (50) = 6.4 FT/S
V (100) = 6.9 FT/S
STRUCTURE CLEARS THE 50 YEAR DESIGN HW BY 0.57 FEET.

PROPOSED WORK

PARTIAL REMOVAL OF EXISTING SUBSTRUCTURES AND STRUCTURES, CONSTRUCTING NEW SUBSTRUCTURES FOR BRIDGE WIDENING, WIDENING THE BRIDGE DECK ON EACH SIDE, REMOVAL OF EXISTING DECK OVERLAY, RESURFACING EXISTING DECK, REPLACING GUARDRAILS AT MEDIAN WITH PARAPETS.

EXISTING STRUCTURE

TYPE: REINFORCED CONCRETE SLAB WITH REINFORCED CONCRETE SUBSTRUCTURE
SPANS: 12'-0"± f/f ABUTMENTS
ROADWAY: 40'-0"± f/f GUARD RAIL (LT.)
40'-2¾"± AVG. f/f GUARD RAIL (RT.)
LOAD FREQUENCY: CF2000 (57)
SKEW: 7°± R.F.
APPROACH SLABS: AS-1-54, (25'± LONG)
ALIGNMENT: 1°28'± CURVE
WEARING SURFACE: ASPHALT CONCRETE
SUPERELEVATION: ¾"±/FT.
STRUCTURAL FILE NUMBER: 2500965 (LT.)/2501023 (RT.)
DATE BUILT: 1969

PROPOSED STRUCTURE

TYPE: REINFORCED CONCRETE SLAB ON MODIFIED EXISTING AND NEW REINFORCED CONCRETE SUBSTRUCTURE
SPAN: 12'-0" f/f ABUTMENTS
ROADWAY: VARIES
DESIGN LOADING: HS20 AND ALTERNATE MILITARY
FUTURE WEARING SURFACE LOADING: 60 PSF
SKEW: 7°02'24" R.F.
APPROACH SLABS: 25' LONG (AS-1-15)
ALIGNMENT: 1°28'00" CURVE
WEARING SURFACE: 3" SUPERPLASTICIZED DENSE CONCRETE (EXISTING) MONOLITHIC CONCRETE (WIDENING)
SUPERELEVATION: ¾"/FT.
COORDINATES: LATITUDE 40°6'19.08"
LONGITUDE 83°10'38.86"

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DESIGNED JPS | DRAWN AAA | REVIEWED JCS | DATE 02/25/21
CHECKED JMK | REVISED
STRUCTURE FILE NUMBER 2500965 (LT.) 2501023 (RT.)

FRANKLIN COUNTY
STA. 1346+07.41
STA. 1346+22.02

SITE PLAN
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

P:\PR41806AA\fro\80748\bridge\FRA033_0014C\sheets\SitePlan.DGN

GENERAL NOTES:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):
AS-1-15 REVISED 7-17-15
PCB-91 REVISED 7-17-20
SB-1-03 REVISED 4-18-03
SBR-1-20 REVISED 7-17-20

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):
847 DATED 1-15-21

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF THE STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2003 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20 AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 60 LBS/FT2.

DESIGN DATA: CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE), CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE), REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, 2½" CONCRETE COVER, AND SUPERPLASTICIZED DENSE CONCRETE OVERLAY (EXISTING DECKS AND APPROACH SLABS).

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

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

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

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

CONSTRUCTION CONSTRAINTS: PRIOR TO CONSTRUCTING THE SPREAD FOOTING FOUNDATIONS, CONSTRUCT THE BRIDGE APPROACH EMBANKMENTS BEHIND THE ABUTMENT UP AT A 1:1 SLOPE FROM THE BOTTOM OF THE HEEL OF THE FOOTING TO THE SUBGRADE ELEVATION AND FOR A MINIMUM DISTANCE OF 250 FEET BEHIND THE ABUTMENTS. PLACE EMBANKMENT IMMEDIATELY BEHIND THE ABUTMENT NO HIGHER THAN ONE-THIRD ABUTMENT HEIGHT PRIOR TO PLACEMENT OF DECK SLAB.

FOUNDATION BEARING PRESSURE: FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 1.76 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 1.80 TONS PER SQUARE FOOT.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN: ABUTMENT AND WINGWALL BACKFILL EXCLUDING THE TOP 1 FOOT OF EMBANKMENT, SHALL BE CRUSHED GRANULAR MATERIAL MEETING THE REQUIREMENTS OF 304, BUT WITH LESS THAN 5 PERCENT PASSING THE NO. 200 SIEVE. THE TOP 1 FOOT OF EMBANKMENT SHALL BE BACKFILLED IN ACCORDANCE TO 503.08 USING EMBANKMENT MATERIALS CONFORMING TO 203.02R. BACKFILL SHALL BE PLACED SYMMETRICALLY BEHIND BOTH ABUTMENTS AND SIMULTANEOUSLY ALONG THEIR ENTIRE LENGTH, AND NOT MORE THAN ONE-THIRD OF ABUTMENT HEIGHT SHALL BE PLACED UNTIL AFTER THE SLAB IS IN PLACE. BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH 503.08 EXCEPT PLACE IN 6-INCH (MAXIMUM) LOOSE LIFTS. THE LIMITS OF THE BACKFILL ARE AS SHOWN ON THESE PLANS. PAYMENT FOR GRANULAR BACKFILL SHALL BE INCLUDED IN ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN: REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN: IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

MECHANICAL CONNECTORS:
AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR THE REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURE. CONNECTORS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY OR UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL THAT MEETS THE SPECIFICATIONS.

CONNECTORS SHALL CONFORM WITH ITEM 509 AND ALSO BE PAID FOR UNDER ITEM 509 EPOXY COATED REINFORCING STEEL, AS PER PLAN.

ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN:
IN ADDITION TO THE REQUIREMENTS OF 510, LOCATE EXISTING REINFORCING STEEL TO AVOID CUTTING BARS DURING THE DRILLING OPERATION USING NON-DESTRUCTIVE TESTING METHODS.

PHASE CONSTRUCTION AND MAINTENANCE OF TRAFFIC: THE PROPOSED BRIDGE WORK (INCLUDING THE APPROACH SLABS) SHALL BE COORDINATED WITH OVERALL PROJECT MAINTENANCE OF TRAFFIC PLANS AND PHASED CONSTRUCTION AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

PHASE 2

1. PLACE PORTABLE CONCRETE BARRIERS ON WESTBOUND OUTSIDE SHOULDER AND SHIFT TRAFFIC TOWARD MEDIAN.
2. REMOVE PORTIONS OF THE EXISTING STRUCTURE AS SHOWN ON THESE PLANS.
3. CONSTRUCT SUBSTRUCTURES FOR PHASE 2.
4. COMPLETE PHASE 2 CONSTRUCTION.
5. REMOVE PORTABLE CONCRETE BARRIERS AND OPEN THE NEW STRUCTURE TO TRAFFIC.

PHASE 4

1. PLACE PORTABLE CONCRETE BARRIERS ON EASTBOUND OUTSIDE SHOULDER AND SHIFT TRAFFIC TOWARD MEDIAN.
2. REMOVE PORTIONS OF THE EXISTING STRUCTURE AS SHOWN ON THESE PLANS.
3. CONSTRUCT SUBSTRUCTURES FOR PHASE 4.
4. COMPLETE PHASE 4 CONSTRUCTION.
5. REMOVE PORTABLE CONCRETE BARRIERS AND OPEN THE NEW STRUCTURE TO TRAFFIC.

PHASE 5

1. PLACE PORTABLE CONCRETE BARRIERS ON THE WB AND EB LANES AS SHOWN ON THESE PLANS.
2. REMOVE THE EXISTING GUARDRAIL, PORTIONS OF EXISTING SUBSTRUCTURE AND SLAB AS SPECIFIED IN THE PLANS, AND REMOVE THE EXISTING OVERLAYS.
3. COMPLETE PHASE 5 CONSTRUCTION.
4. REMOVE THE PORTABLE CONCRETE BARRIERS AND OPEN THE STRUCTURE FOR THE FINAL TRAFFIC CONDITION.

ITEM 847 -SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING SCARIFICATION AND CHIPPING, AS PER PLAN (2¾" THICK) AND (3" THICK):

ITEM 847 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), AS PER PLAN:

THESE ITEMS SHALL ALSO BE APPLIED TO THE APPROACH SLABS.

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION 847 "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING SCARIFICATION AND CHIPPING" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, ASPHALT WEARING COURSE REMOVED AND THE PROPOSED OVERLAY SHALL BE AS SPECIFIED IN THE PLANS

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C-127.

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

THE FOLLOWING REVISIONS SHALL APPLY:

(SEE 847.17) THE REMOVAL OPERATIONS SHALL NOT BEGIN IF SUSTAINED RAINS (5 HOURS OR MORE WITH BREAKS BETWEEN SHOWERS LESS THAN 1½ HOURS) ARE PREDICTED WITHIN 48 HOURS OF COMMENCEMENT.

(SEE 847.18) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 847.25) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 10, AS PER CMS 511.17 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL, AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 847.25) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PSI.

(SEE 847.26) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 9:30 AM.

(SEE 847.27) FOR EACH PHASE, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI. TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI.

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

ITEM 847 - WEARING COURSE REMOVED, ASPHALT, AS PER PLAN:
EXISTING ASPHALT WEARING COURSE ON THE FULL DEPTH SLAB REMOVAL IS INCLUDED WITH THIS ITEM.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/SILANE

THIS WORK SHALL INCLUDE SEALING OF THE CONCRETE SURFACES USING XL70 BRIDGE COTE W/SILANE AS PER THE MANUFACTURER'S RECOMMENDATIONS WITH THE FOLLOWING REQUIREMENTS, AT THE LOCATIONS SHOWN IN THE PLANS.

MEET THE SURFACE PREPARATION REQUIREMENTS FOR NON-EPOXY SEALERS PER CMS 512.03.F AND REMOVE ANY CURING COMPOUNDS PER THE MANUFACTURER'S RECOMMENDATIONS.

AT LEAST 5 DAYS BEFORE SEALING, PROVIDE THE ENGINEER THE SEALER MANUFACTURER'S WRITTEN REQUIREMENTS FOR APPLICATION EQUIPMENT, MIXING EQUIPMENT, MIXING PROCEDURES, MIXING TIME, STORAGE REQUIREMENTS, AND TECHNICAL AND SAFETY DATA SHEETS.

TINT SO THE FINAL COLOR IS FEDERAL COLOR STANDARD NO. 17778 - LIGHT NEUTRAL.

SAGS AND RUNS ARE NOT ACCEPTABLE IN THE SEALER. THE DEPARTMENT WILL MEASURE THE SEALING OF CONCRETE SURFACES BY THE NUMBER OF SQUARE YARDS OF COATED AREA PROJECTED TO A TWO-DIMENSIONAL SURFACE.

THE DEPARTMENT WILL CONSIDER THE REMOVAL OF DUST, DIRT, OIL, WAX, CURING COMPOUNDS, EFFLORESCENCE, LAITANCE AND OTHER FOREIGN MATERIALS AS INCIDENTAL TO THE SURFACE PREPARATION OF THE CONCRETE SURFACE TO BE SEALED.

NO.	DESCRIPTION	REV. BY	DATE
C	ADDED "ITEM SPECIAL - SEALING OF CONCRETE SURFACES" NOTE	BES	3/3/22

BURGESS & NIPLE
Engineers ■ Architects ■ Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED JPS/JFM | DRAWN AAA/JFM | REVIEWED JCS | DATE 02/25/21
CHECKED TTK/ODW | REVISED

STRUCTURE FILE NUMBER
2501065 (LT.)
2501023 (RT.)

GENERAL NOTES
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

842
923

P:/PR41806AA/FRA/80748/BRIDGE/FRA033_0014C/SHEETS/033_0014CGN001.DGN

ESTIMATED QUANTITIES

CALC.	DATE	CHK'D	DATE
JHL	02/21	TTK/JFM	02/21

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	LEFT BRIDGE ABUTS.	LEFT BRIDGE SUPER.	LEFT BRIDGE GENERAL	RIGHT BRIDGE ABUTS.	RIGHT BRIDGE SUPER.	RIGHT BRIDGE GENERAL	SHT. REF.
202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LS			LS	2, 4-11/32
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING			LS			LS	
503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN			LS			LS	2/32
509	10001	33,534	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	10358	9649		7941	5586		2/32
509	20001	850	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	255	287		195	113		2 & 18/32
509	30020	800	FT	NO. 4 GFRP DEFORMED BARS		402.5			397.5		
510	10001	136	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	64			72			2/32
511	33412	75	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE		49			26		
511	34448	10	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)		5			5		
511	44112	172	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	87			85			
511	46512	258	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	171			87			
SPECIAL	51275500	404	SY	SEALING OF CONCRETE SURFACES WITH TEXCOTE - XL 70 BRIDGE COTE W/ SILANE	170	33		168	33		2/32
512	10300	38	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN		7	12		7	12	
512	33000	94	SY	TYPE 2 WATERPROOFING	46			48			
516	13200	16	SF	½" PREFORMED EXPANSION JOINT FILLER		8			8		
516	13600	94	SF	1" PREFORMED EXPANSION JOINT FILLER	30	5		54	5		
518	21200	190	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	94			96			
518	40000	111	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	60			51			
518	40010	37	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	4			33			
526	25001	574	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN		189			385		21-22/32
847	10201	97	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (3" THICK)		49			48		2, 4-6/32
847	10201	287	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2¾" THICK)		141			146		2, 4-6/32
847	20201	2	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN		1			1		2/32
847	30000	LS		TEST SLAB							
847	30300	422	SY	WEARING COURSE REMOVED, ASPHALT		209			213		
847	30400	98	SY	EXISTING CONCRETE OVERLAY REMOVED		50			48		

NO.	DESCRIPTION	REV. BY	DATE
C	UPDATED ESTIMATED QUANTITIES	BES	3/3/22

NOTE:

1) ALL FUNDING ITEMS ARE INCLUDED IN THE FUNDING PARTICIPATION SPLIT CODE 04/S>2/BR.

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BURGESS & NIPLE
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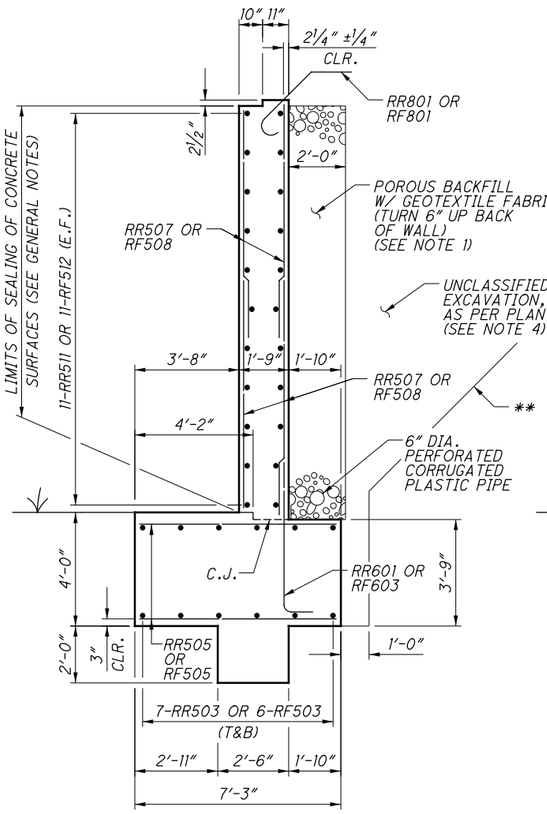
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED JPS/JFM
DRAWN JPS/JFM
REVIEWED JCS
DATE 02/25/21
CHECKED TTK/JHL
REVISED
STRUCTURE FILE NUMBER 2501023 (LT.) 2501023 (RT.)

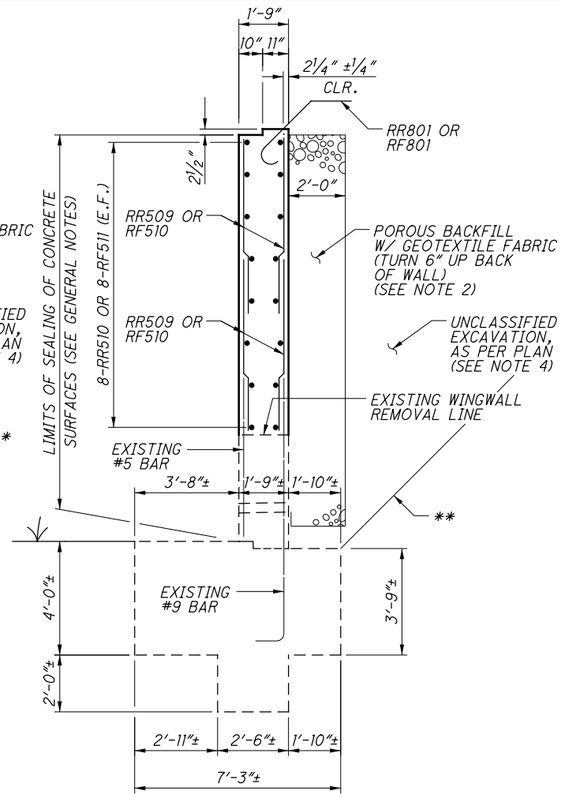
ESTIMATED QUANTITIES
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748



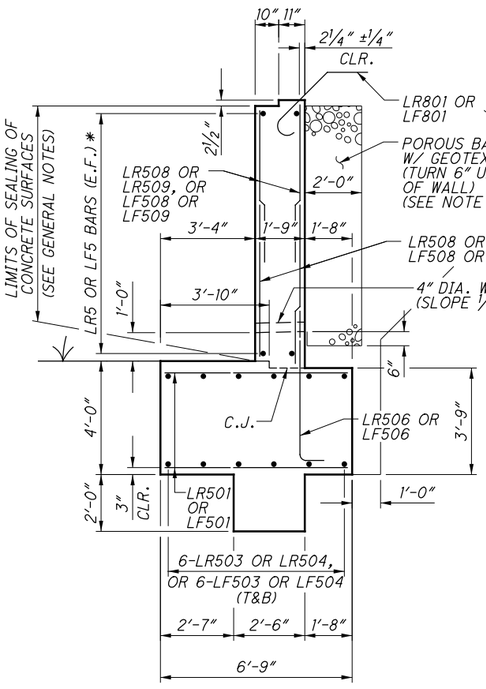
SECTION A-A

(REAR RIGHT AND FORWARD RIGHT ABUTMENTS)



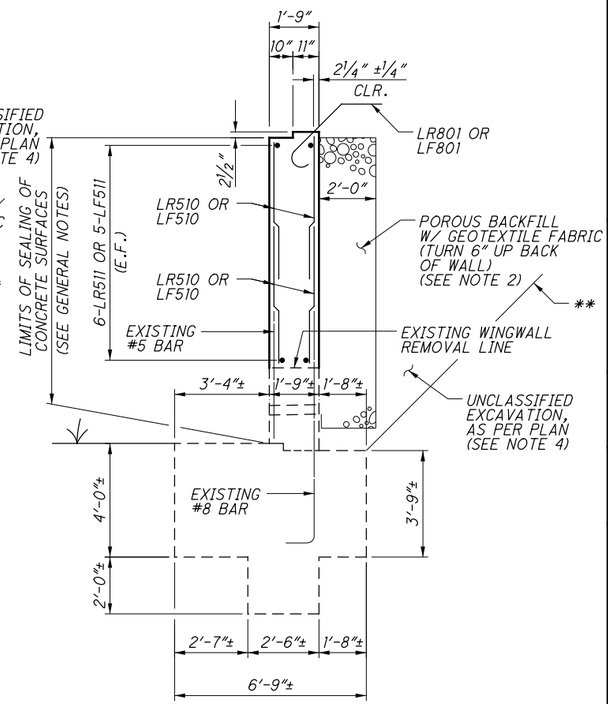
SECTION B-B

(REAR RIGHT AND FORWARD RIGHT ABUTMENTS)



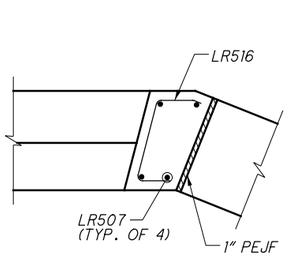
SECTION E-E

(REAR LEFT AND FORWARD LEFT ABUTMENTS)

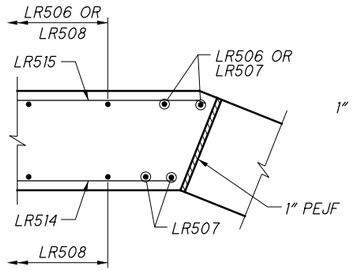


SECTION F-F

(REAR LEFT AND FORWARD LEFT ABUTMENTS)



SECTION G-G



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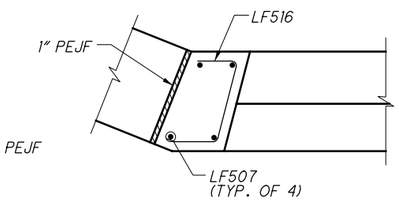
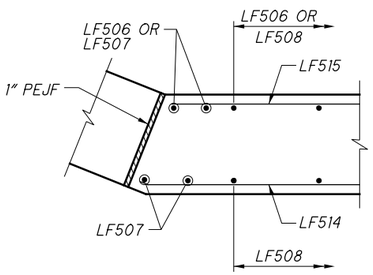
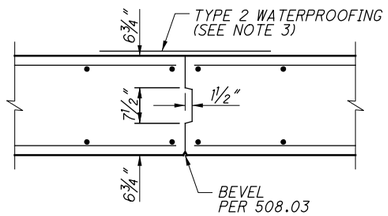


SECTION L-L



SECTION M-M



CONTRACTION JOINT DETAIL

LEGEND:

C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
DIA. = DIAMETER
E.F. = EACH FACE
PEJF = PREFORMED EXPANSION JOINT FILLER
T&B = TOP & BOTTOM
* = SEE ELEVATION ON SHEET 13 / 32 FOR REAR LEFT ABUTMENT BAR MARKS AND CALLOUTS OR SHEET 15 / 32 FOR FORWARD LEFT ABUTMENT BAR MARKS AND CALLOUTS
** = A SLOPE OF 1:1 WAS ASSUMED FOR ESTIMATING QUANTITIES

NOTES:

1. POROUS BACKFILL WITH GEOTEXTILE FABRIC, 2 FEET THICK SHALL EXTEND FROM THE TOP OF THE FOOTING UP TO THE BOTTOM OF THE SUBGRADE OR 1 FOOT BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS.
2. POROUS BACKFILL WITH GEOTEXTILE FABRIC, 2 FEET THICK SHALL EXTEND FROM 6 INCHES BELOW THE WEEPHOLES UP TO THE BOTTOM OF THE SUBGRADE OR 1 FOOT BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS. PLACE TWO CUBIC FEET OF BAGGED NO. 3 AGGREGATE AT EACH WEEPHOLE. THE DEPARTMENT WILL INCLUDE BAGGED AGGREGATE WITH POROUS BACKFILL FOR PAYMENT.
3. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO TOP OF ABUTMENT BACKWALL.
4. SEE GENERAL NOTES, SHEET 2 / 32, FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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5085 REED ROAD, COLUMBUS, OHIO 43220

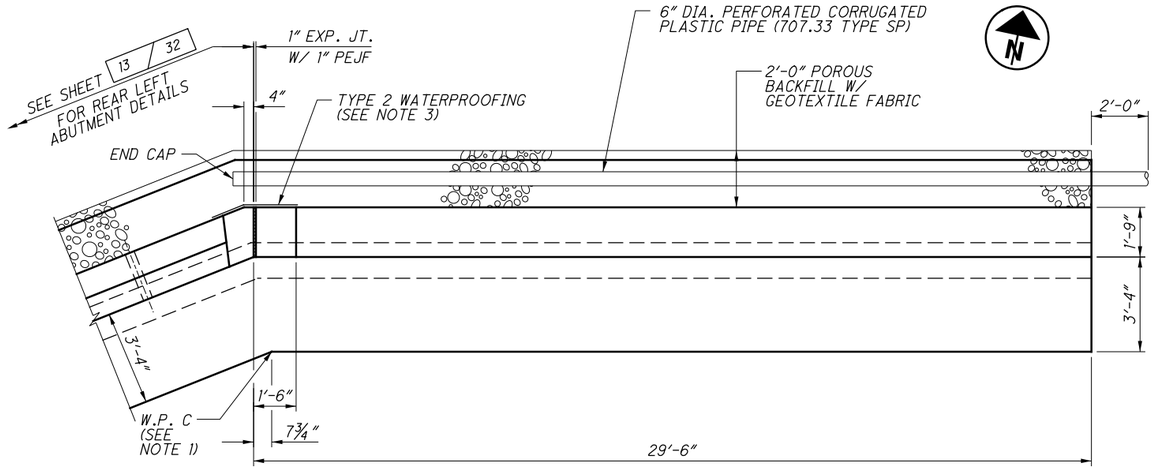
DESIGNED	DRAWN	REVIEWED	DATE
TTK	TTK	JCS	02/25/21
CHECKED	REVISED	STRUCTURE FILE NUMBER 2501023 (PT. 1) 2501023 (PT. 2)	
JHL			

ABUTMENT DETAILS
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

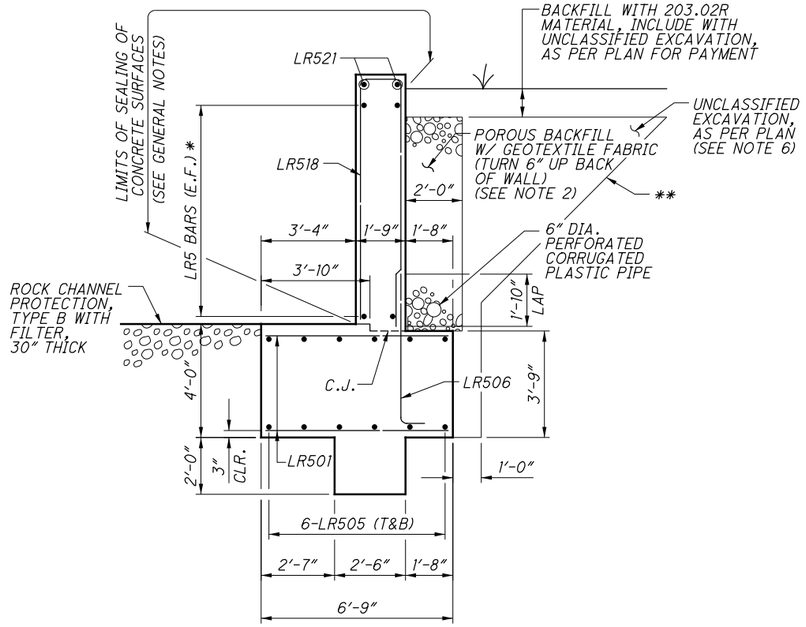
UNI-33-24.87
PID No. 80748

17 / 32

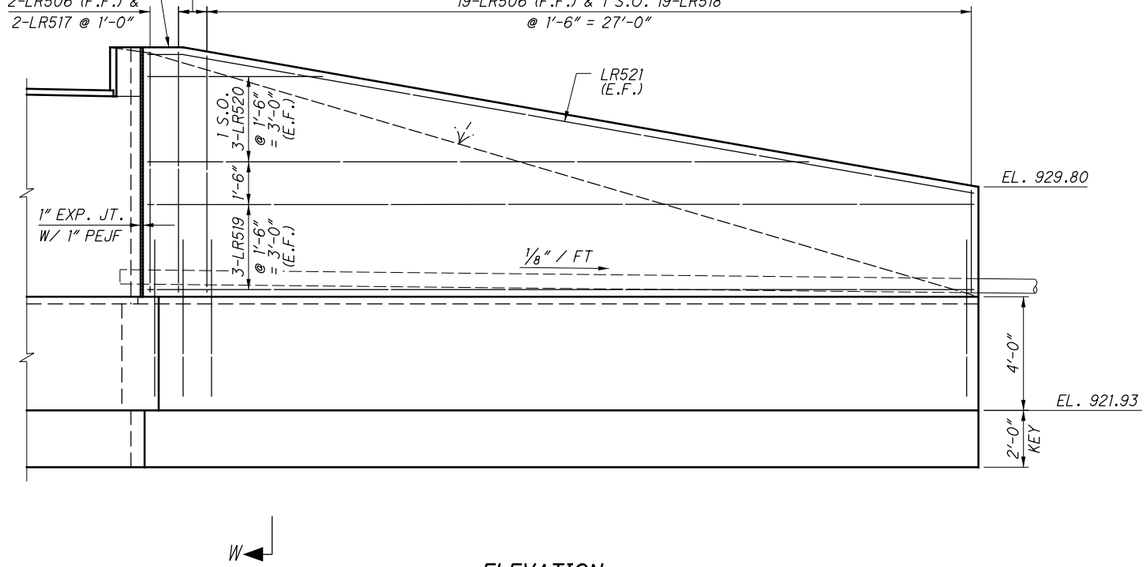
857
923



PLAN



SECTION W-W



ELEVATION

(FOOTING REINFORCEMENT NOT SHOWN)

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

LEGEND:

C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
DIA. = DIAMETER
E.F. = EACH FACE
EXP. = EXPANSION
F.F. = FAR FACE
JT. = JOINT
PEJF = PREFORMED EXPANSION JOINT FILLER
S.O. = SERIES OF
T&B = TOP & BOTTOM
W.P. = WORK POINT
* = SEE ELEVATION FOR BAR MARKS AND CALLOUTS
** = A SLOPE OF 1:1 WAS ASSUMED FOR ESTIMATING QUANTITIES

NOTES:

1. SEE SHEET 12 / 32 FOR WORK POINT DETAILS.
2. POROUS BACKFILL WITH GEOTEXTILE FABRIC, 2 FEET THICK SHALL EXTEND FROM THE TOP OF THE FOOTING UP TO THE BOTTOM OF THE SUBGRADE OR 1 FOOT BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS.
3. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO 6" BELOW GROUND BEHIND WALL.
4. SEE SHEET 12 / 32 FOR FOOTING REINFORCEMENT.
5. ALL WINGWALL CONCRETE ABOVE FOOTING SHALL BE CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING.
6. SEE GENERAL NOTES, SHEET 2 / 32, FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

BURGESS & NIPLE
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5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED TTK | DRAWN TTK | REVIEWED JCS | DATE 02/25/21
CHECKED JHL | REVISED | STRUCTURE FILE NUMBER 25010065 (PT.) 25010023 (PT.)

REAR LEFT WINGWALL PLAN & ELEVATION
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

19 / 32

859 / 923

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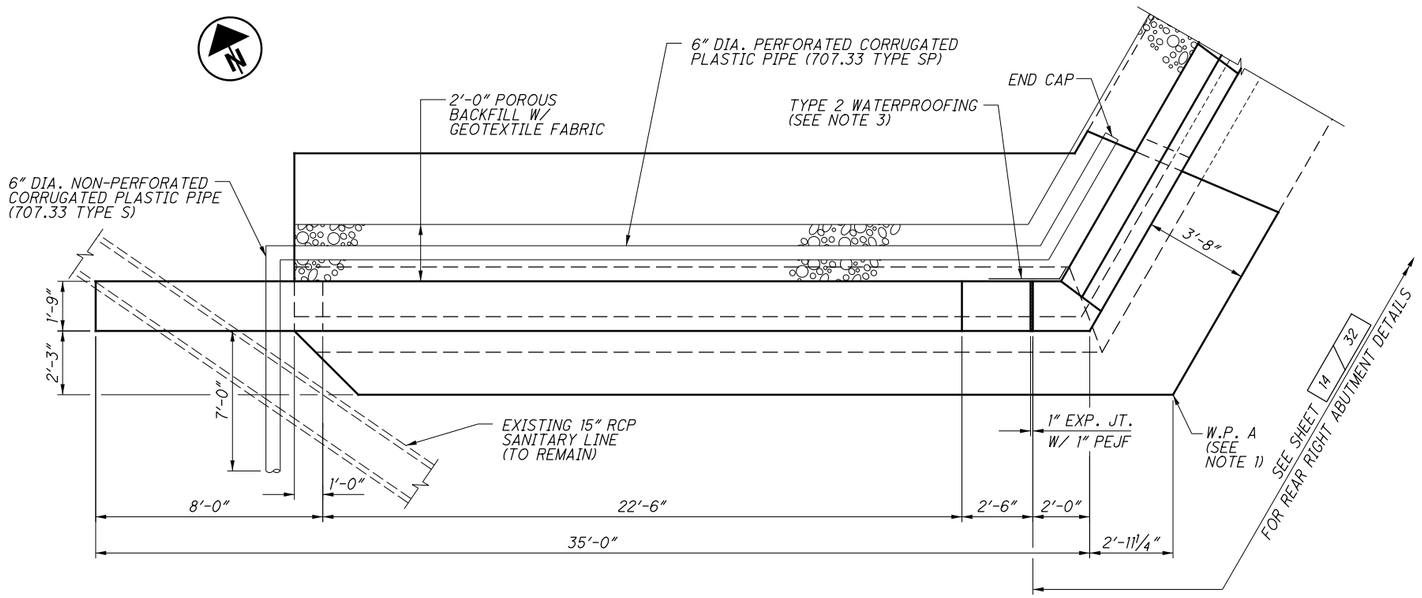
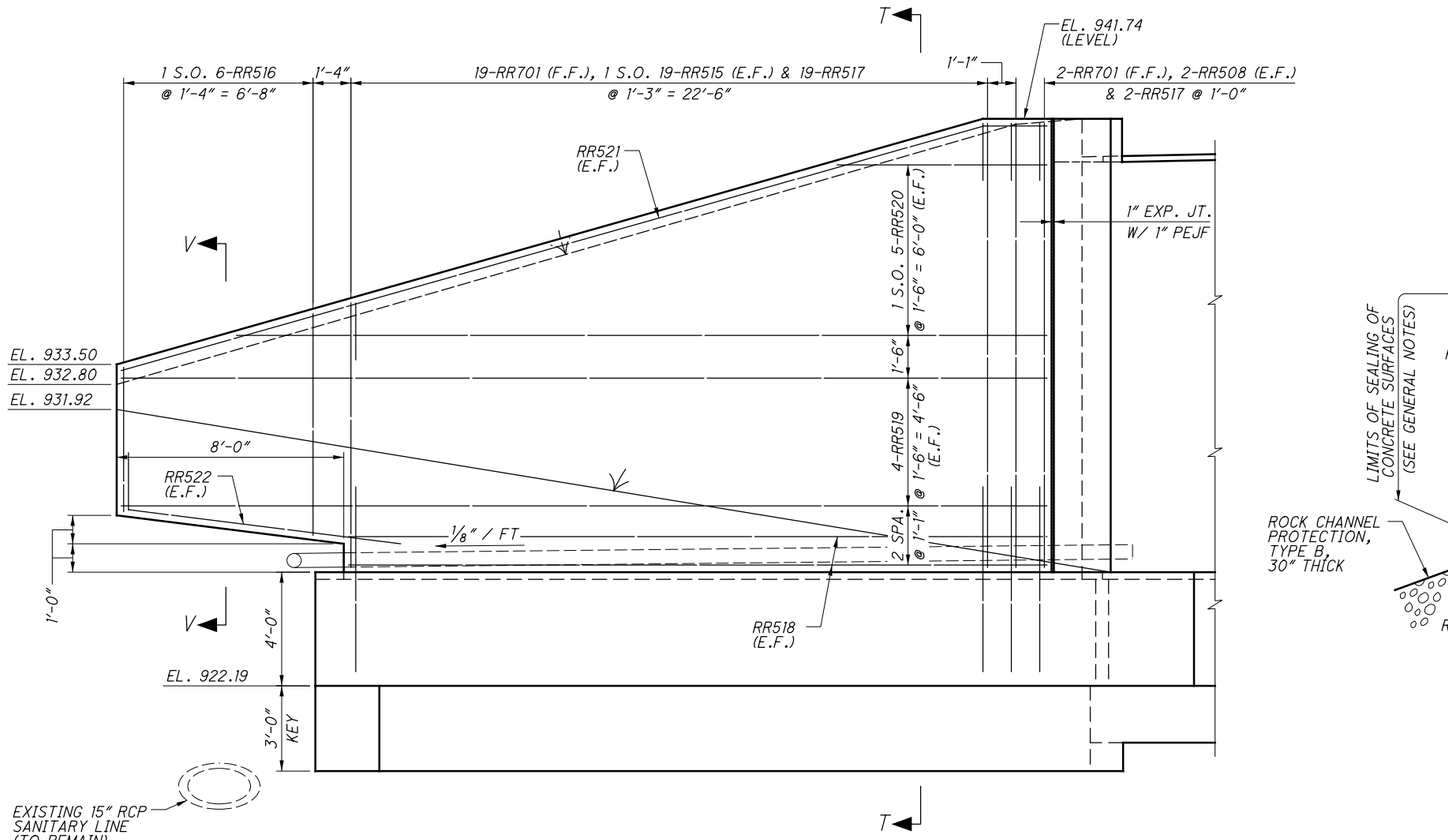
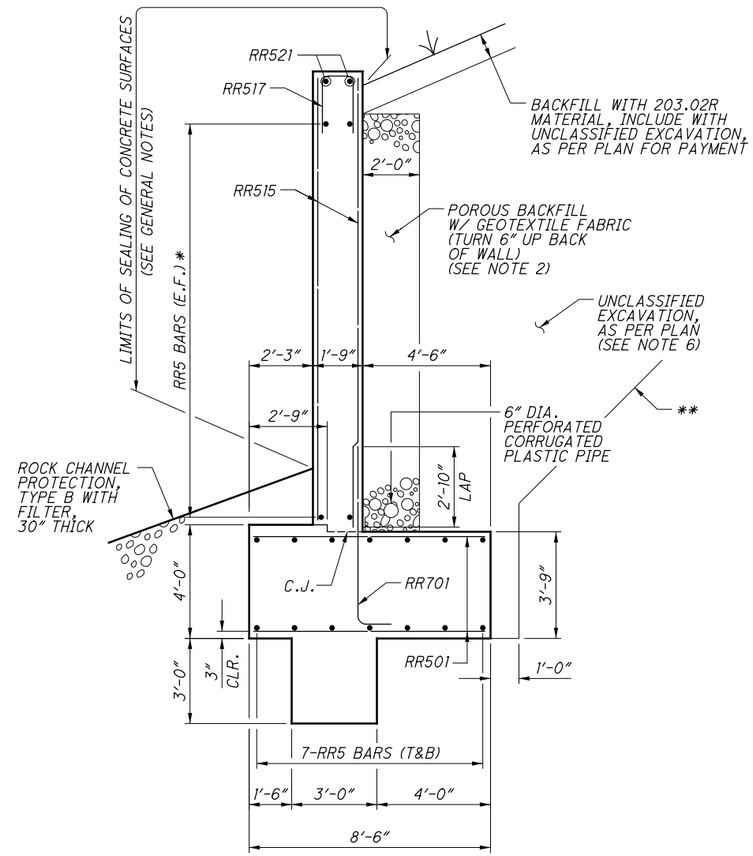


PLAN

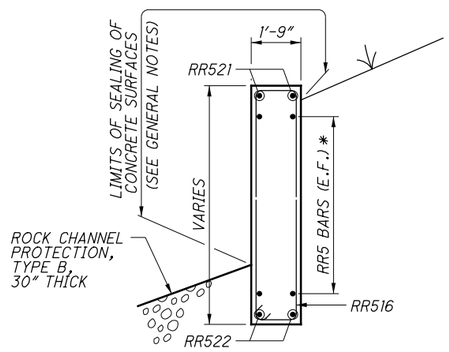


ELEVATION

(FOOTING REINFORCEMENT NOT SHOWN)



SECTION T-T



SECTION V-V

LEGEND:

C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
DIA. = DIAMETER
E.F. = EACH FACE
EXP. = EXPANSION
F.F. = FAR FACE
JT. = JOINT
PEJF = PREFORMED EXPANSION JOINT FILLER
S.O. = SERIES OF
T&B = TOP & BOTTOM
W.P. = WORK POINT
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NOTES:

1. SEE SHEET 12 / 32 FOR WORK POINT DETAILS.
2. POROUS BACKFILL WITH GEOTEXTILE FABRIC, 2 FEET THICK SHALL EXTEND FROM THE TOP OF THE FOOTING UP TO THE BOTTOM OF THE SUBGRADE OR 1 FOOT BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS.
3. PLACE TYPE 2 WATERPROOFING, 3' WIDE, CENTERED ON JOINT, FROM TOP OF FOOTING TO 6" BELOW GROUND BEHIND WALL.
4. SEE SHEET 12 / 32 FOR FOOTING REINFORCEMENT.
5. ALL WINGWALL CONCRETE ABOVE FOOTING SHALL BE CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING.
6. SEE GENERAL NOTES, SHEET 2 / 32, FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED TTK | DRAWN TTK | REVIEWED JCS | DATE 02/25/21
CHECKED JHL | REVISED | STRUCTURE FILE NUMBER 2501023 (RT.) 2501023 (RT.)

REAR RIGHT WINGWALL PLAN & ELEVATION

BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

20 / 32

860
923

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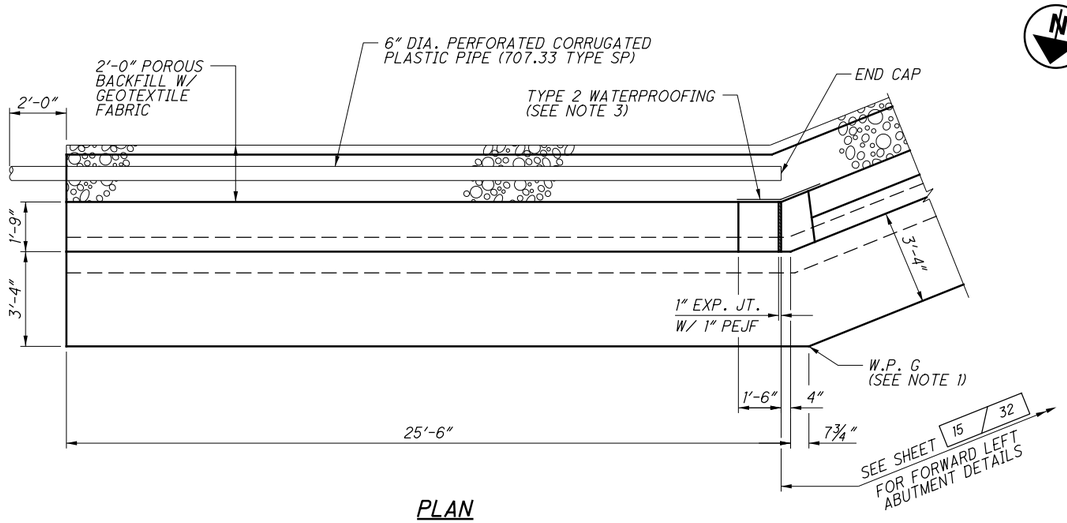
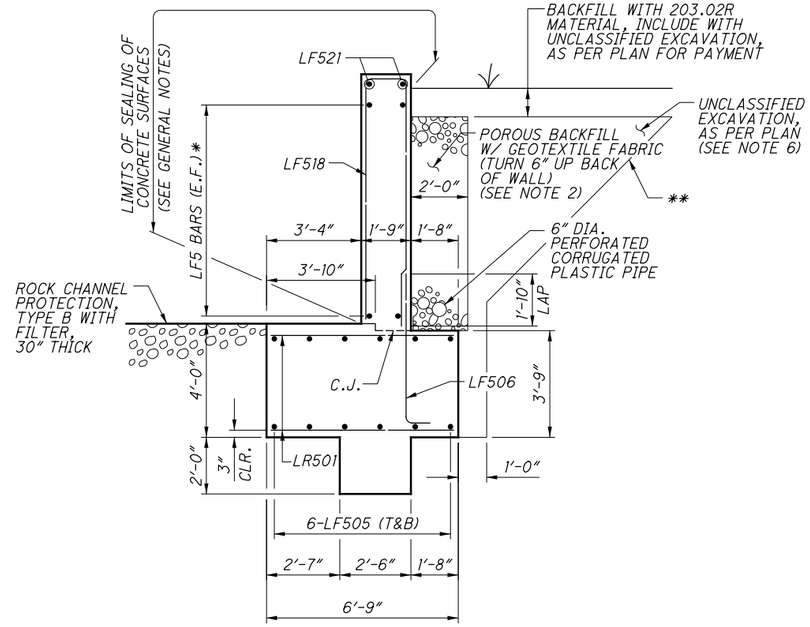
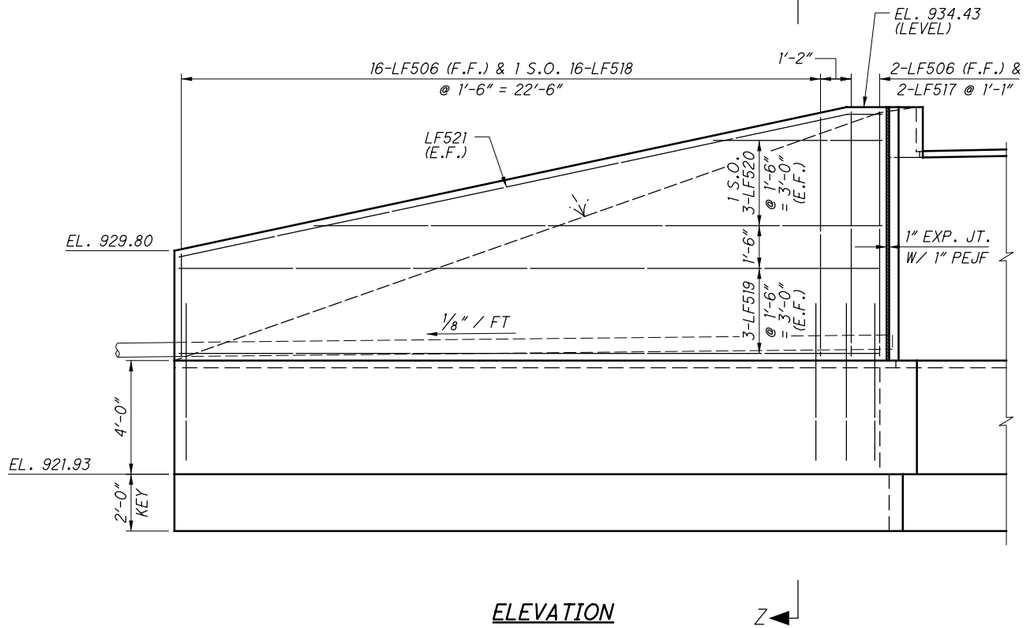


PLAN



SECTION Z-Z



ELEVATION

(FOOTING REINFORCEMENT NOT SHOWN)

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

LEGEND:

C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
DIA. = DIAMETER
E.F. = EACH FACE
EXP. = EXPANSION
F.F. = FAR FACE
JT. = JOINT
PEJF = PREFORMED EXPANSION JOINT FILLER
S.O. = SERIES OF
T&B = TOP & BOTTOM
W.P. = WORK POINT
* = SEE ELEVATION FOR BAR MARKS AND CALLOUTS
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NOTES:

1. SEE SHEET 12 / 32 FOR WORK POINT DETAILS.
2. POROUS BACKFILL WITH GEOTEXTILE FABRIC, 2 FEET THICK SHALL EXTEND FROM THE TOP OF THE FOOTING UP TO THE BOTTOM OF THE SUBGRADE OR 1 FOOT BELOW THE EMBANKMENT SURFACE AND LATERALLY TO THE ENDS OF THE WINGWALLS.
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4. SEE SHEET 12 / 32 FOR FOOTING REINFORCEMENT.
5. ALL WINGWALL CONCRETE ABOVE FOOTING SHALL BE CLASS QCI CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING.
6. SEE GENERAL NOTES, SHEET 2 / 32, FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

BURGESS & NIPLE
Engineers ■ Architects ■ Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED TTK | DRAWN TTK | REVIEWED JCS | DATE 02/25/21
CHECKED JHL | REVISED | STRUCTURE FILE NUMBER 25001065 (RT.) 25001023 (RT.)

FORWARD LEFT WINGWALL PLAN & ELEVATION
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

21 / 32

861 / 923

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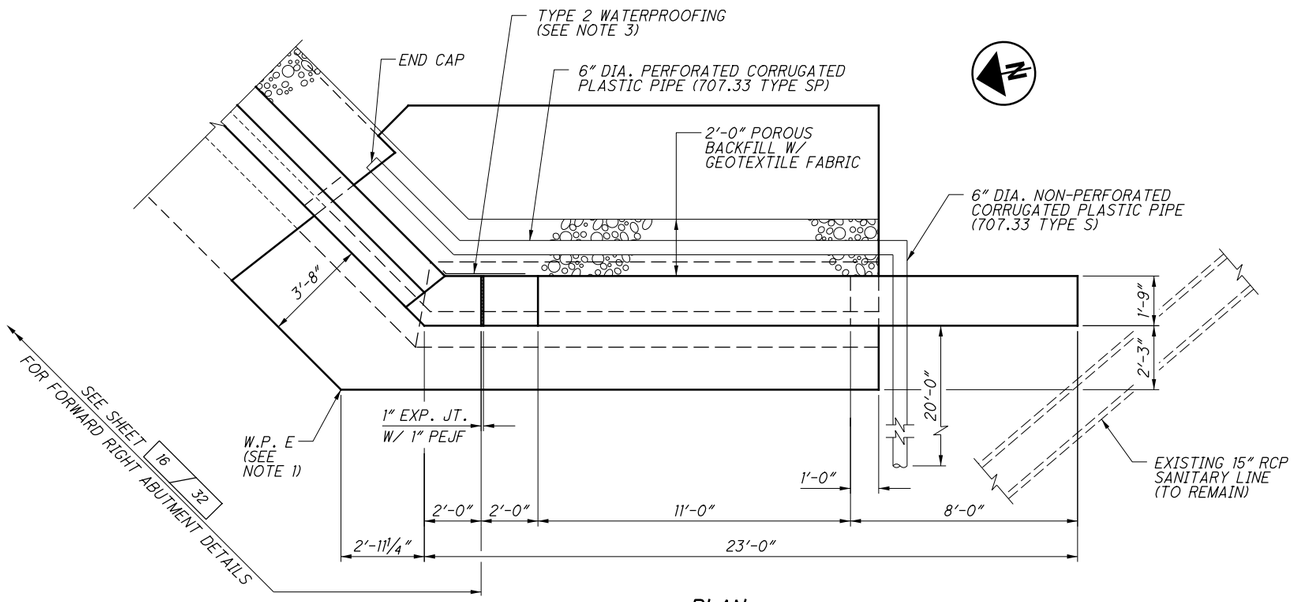
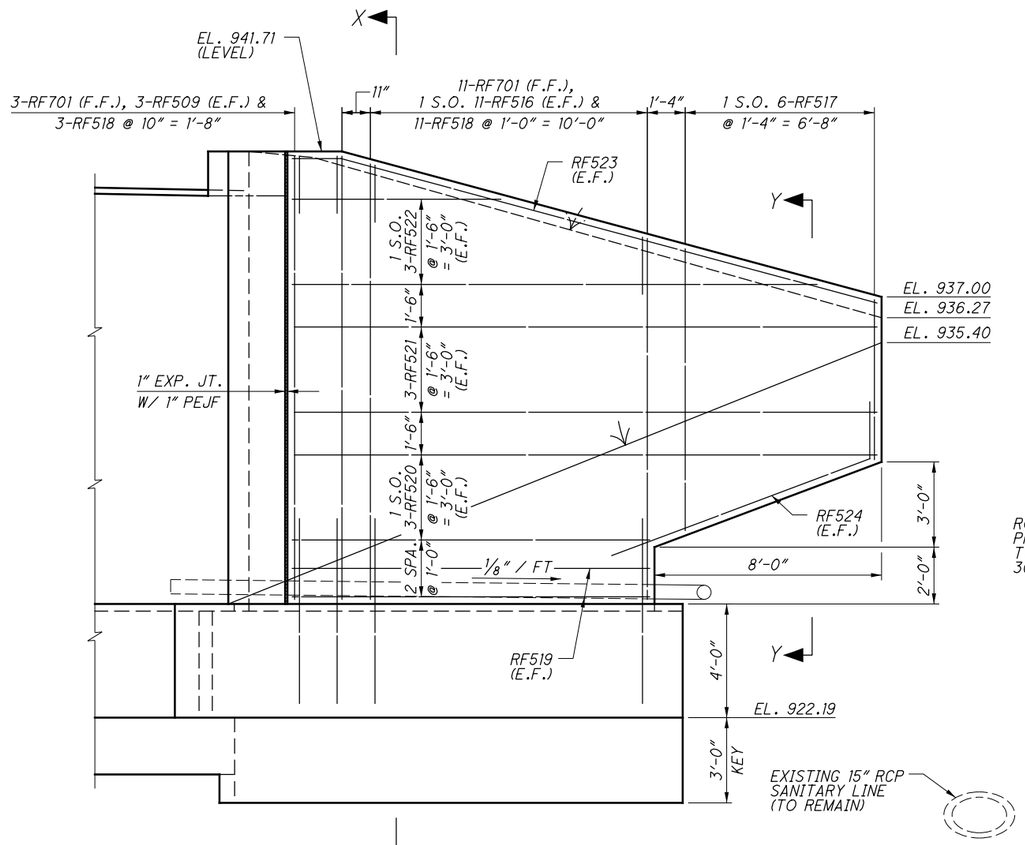
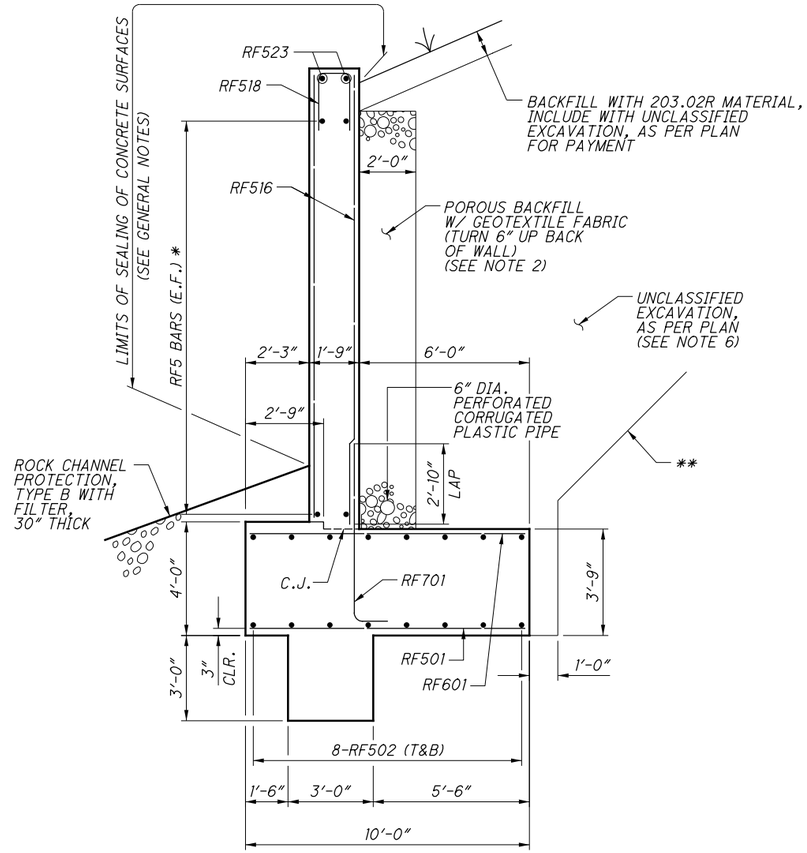


PLAN

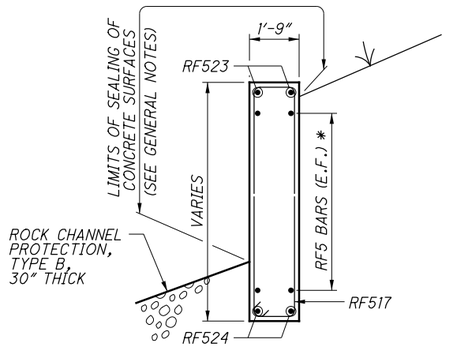


ELEVATION

(FOOTING REINFORCEMENT NOT SHOWN)



SECTION X-X



SECTION Y-Y

LEGEND:

C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
DIA. = DIAMETER
E.F. = EACH FACE
EXP. = EXPANSION
F.F. = FAR FACE
JT. = JOINT
PEJF = PREFORMED EXPANSION JOINT FILLER
S.O. = SERIES OF
T&B = TOP & BOTTOM
W.P. = WORK POINT
* = SEE ELEVATION FOR BAR MARKS AND CALLOUTS
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NOTES:

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6. SEE GENERAL NOTES, SHEET 2 / 32, FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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Engineers ■ Architects ■ Planners
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DESIGNED TTK | DRAWN TTK | REVIEWED JCS | DATE 02/25/21
CHECKED JHL | REVISED | STRUCTURE FILE NUMBER 25001065 (L.)
25001023 (R.)

FORWARD RIGHT WINGWALL PLAN & ELEVATION

BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

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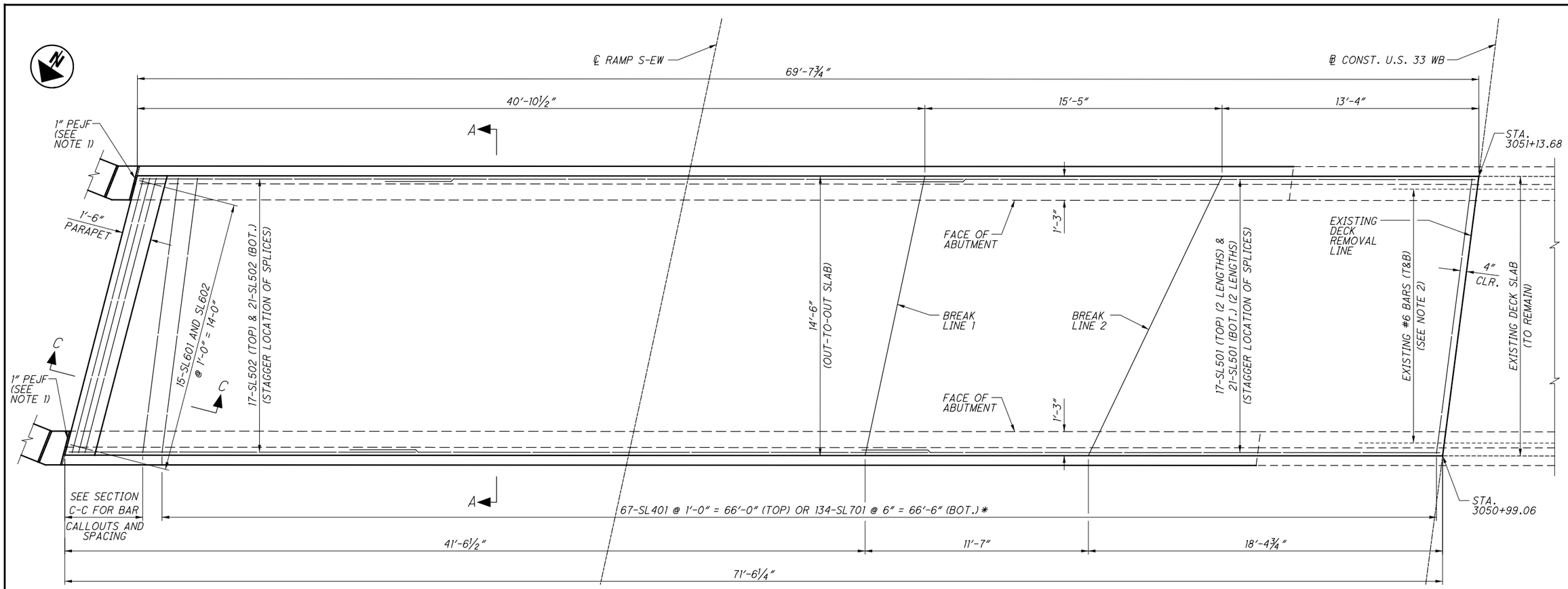
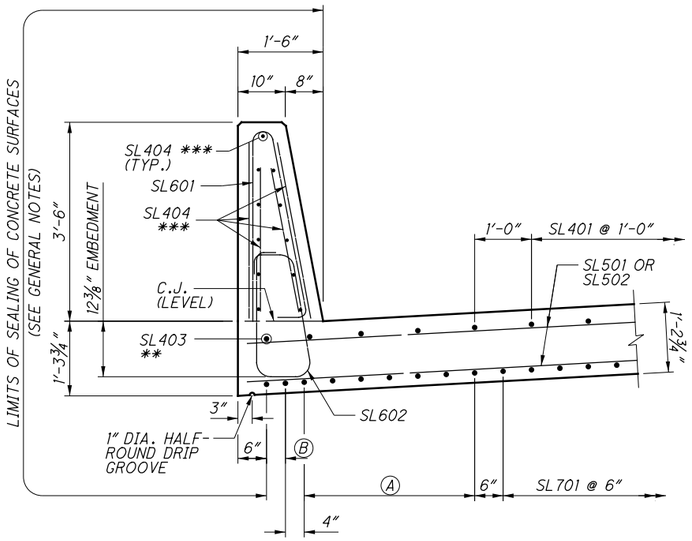


LEFT DECK SLAB PLAN



SECTION C-C

LEGEND:

BOT. = BOTTOM
C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
PEJF = PREFORMED EXPANSION JOINT FILLER
SPA. = SPACES
T&B = TOP & BOTTOM
* = PLACE PARALLEL WITH ℄ US 33 WB
** = PLACE PARALLEL WITH EDGE OF PROPOSED DECK
*** = GLASS FIBER REINFORCED POLYMER (GFRP) BAR

Ⓐ = 1 S.O. 4-SL402 @ 1'-0" = 3'-0" (TOP) OR 1 S.O. 7-SL702 @ 6" = 3'-0" (BOT.) (FAN BARS)

Ⓑ = 2-SL703 @ 4" (BOT.) **

NOTES:

1. PLACE 1" PEJF FROM TOP OF ABUTMENT TO TOP OF WINGWALL.
2. EXISTING BARS TO REMAIN 3'-7" MINIMUM BEYOND THE EXISTING DECK REMOVAL LINE. FIELD-CUT PER 509 IF NECESSARY.
3. MINIMUM STEEL LAP LENGTHS:
   #5 BAR = 3'-5"
4. SEE STD. DWG. SB-1-03 FOR ADDITIONAL DECK SLAB NOTES AND DETAILS NOT SHOWN.
5. SEE STD. DWG. SBR-1-20 FOR ADDITIONAL PARAPET NOTES AND DETAILS NOT SHOWN.
6. SEE SHEET 24 / 32 FOR SECTION A-A.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

BURGESS & NIPLE
Engineers ■ Architects ■ Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

DESIGNED	DRAWN	REVIEWED	DATE
TTK/JFM	TTK/JFM	JCS	02/25/21
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JPS/ODW		25001065 (LT.) 25010223 (RT.)	

LEFT DECK SLAB PLAN
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

23 / 32

863
923

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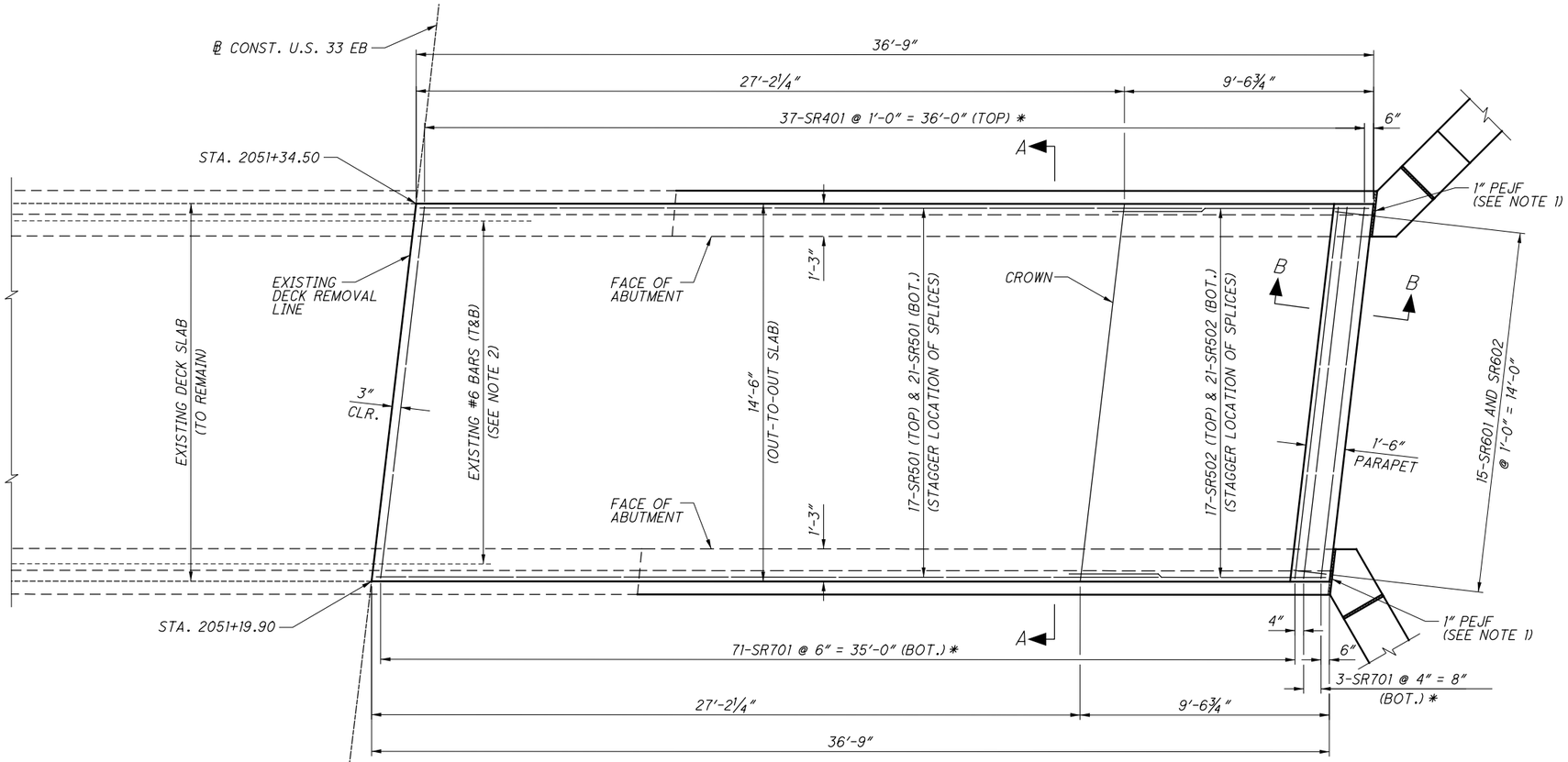
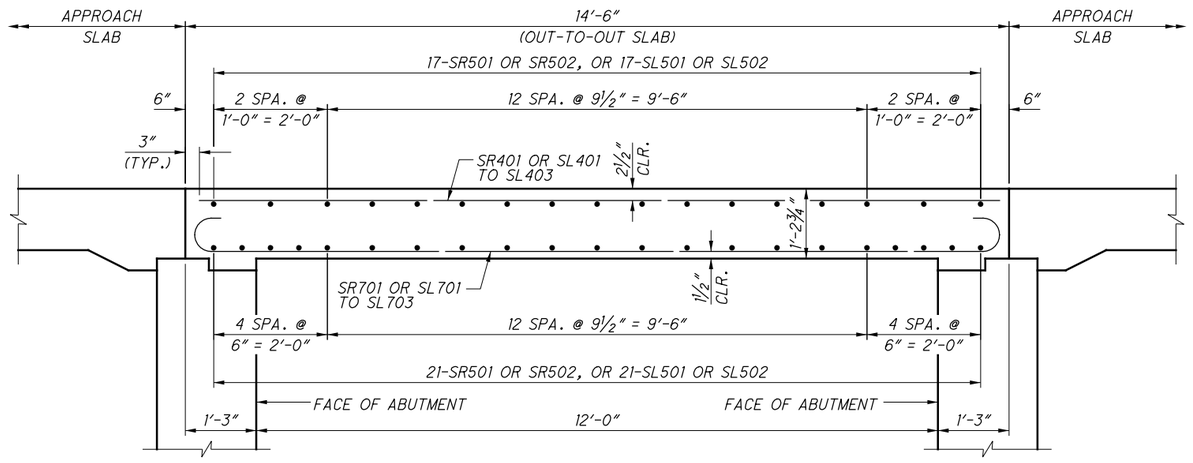
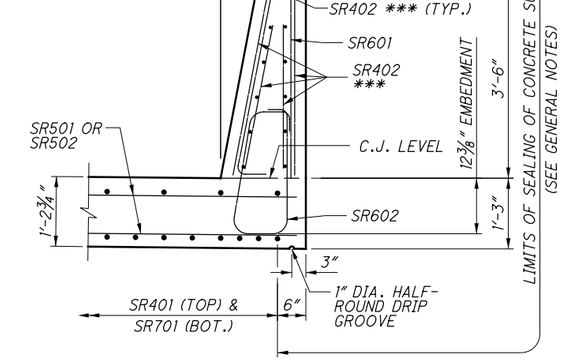


RIGHT DECK SLAB PLAN



SECTION A-A

(SL BARS IN LEFT BRIDGE, SR BARS IN RIGHT BRIDGE)



SECTION B-B

LEGEND:

BOT. = BOTTOM
C.J. = CONSTRUCTION JOINT
CLR. = CLEAR
PEJF = PREFORMED EXPANSION JOINT FILLER
SPA. = SPACES
T&B = TOP & BOTTOM
* = PLACE PARALLEL WITH ℄ US 33 EB
*** = GLASS FIBER REINFORCED POLYMER (GFRP) BAR

NOTES:

1. PLACE 1″ PEJF FROM TOP OF ABUTMENT TO TOP OF WINGWALL.
2. EXISTING BARS TO REMAIN 3′-7″ MINIMUM BEYOND THE EXISTING DECK REMOVAL LINE. FIELD-CUT PER 509 IF NECESSARY AND INCLUDE WITH ITEM 202 FOR PAYMENT.
3. MINIMUM STEEL LAP LENGTHS:
   #5 BAR = 3′-5″
4. SEE STD. DWG. SB-1-03 FOR ADDITIONAL DECK SLAB NOTES AND DETAILS NOT SHOWN.
5. SEE STD. DWG. SBR-1-20 FOR ADDITIONAL PARAPET NOTES AND DETAILS NOT SHOWN.

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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DESIGNED TTK/JFM
DRAWN TTK
REVIEWED JCS
DATE 02/25/21
CHECKED JPS/ODW
REVISED
STRUCTURE FILE NUMBER 25001063 (RT.) 25001023 (RT.)

RIGHT DECK SLAB PLAN
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

24 / 32

864
923

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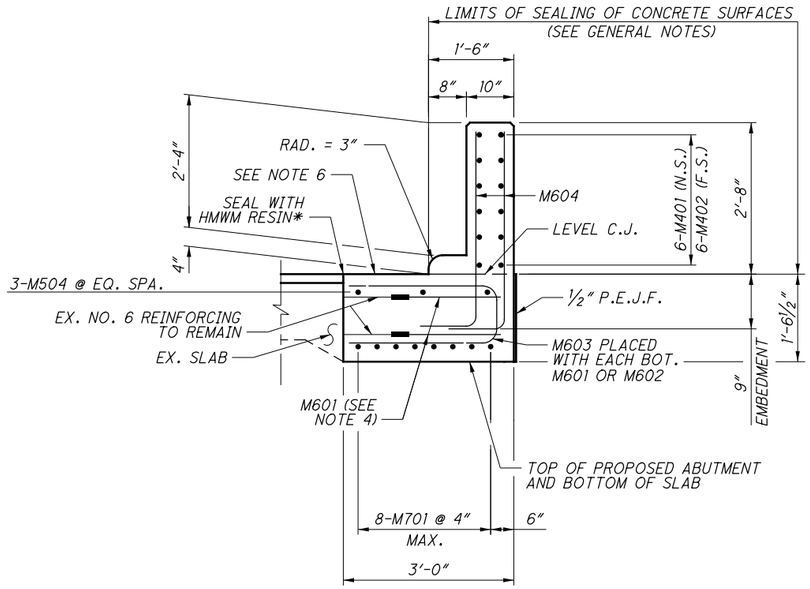
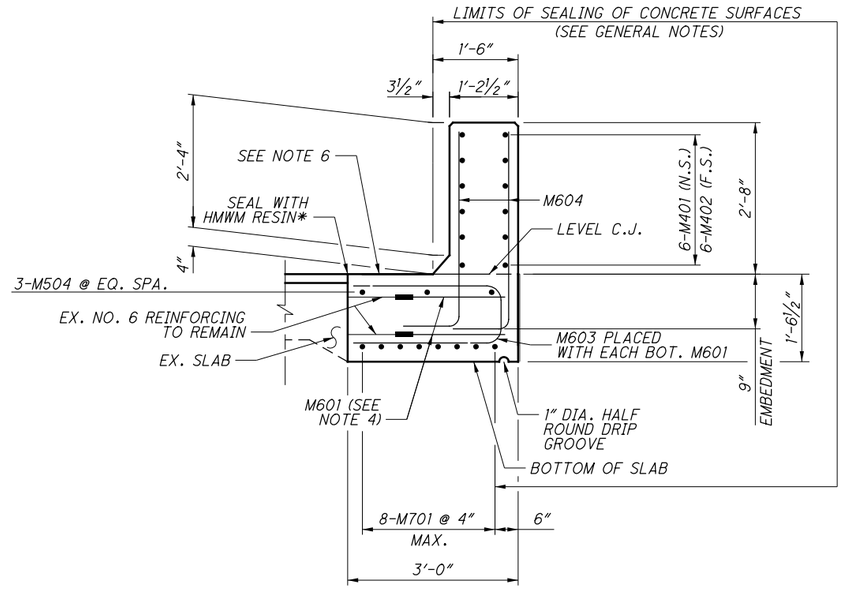


SECTION B-B
(WINGWALL NOT SHOWN)



SECTION C-C

LEGEND:

CLR.	= CLEAR
C.J.	= CONSTRUCTION JOINT
DIA.	= DIAMETER
EQ.	= EQUAL
EX.	= EXISTING
F.S.	= FAR SIDE
H.M.W.M	= HIGH MOLECULAR WEIGHT METHACRYLATE
N.S.	= NEAR SIDE
PEJF	= PREFORMED EXPANSION JOINT FILLER
SPA.	= SPACES
*	= SEAL WITH HMWM SEALER PER 511.19, 2'-0" WIDE CENTERED ON JOINT

NOTES:

1. FOR LOCATIONS OF SECTIONS B-B AND C-C AND ADDITIONAL NOTES, SEE SHEET 26 / 32
2. SLAB SHOWN AS LEVEL IN SECTION BUT SHALL BE SLOPED PER THE ELEVATIONS SHOWN ON SHEET 26 / 32

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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DESIGNED JFM | DRAWN JFM | REVIEWED JCS 02/25/21 | DATE

CHECKED ODW | REVISED

STRUCTURE FILE NUMBER
25001065 (LT.)
25001023 (RT.)

DECK SLAB AND PARAPET AT MEDIAN SECTIONS
BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

27 / 32

867
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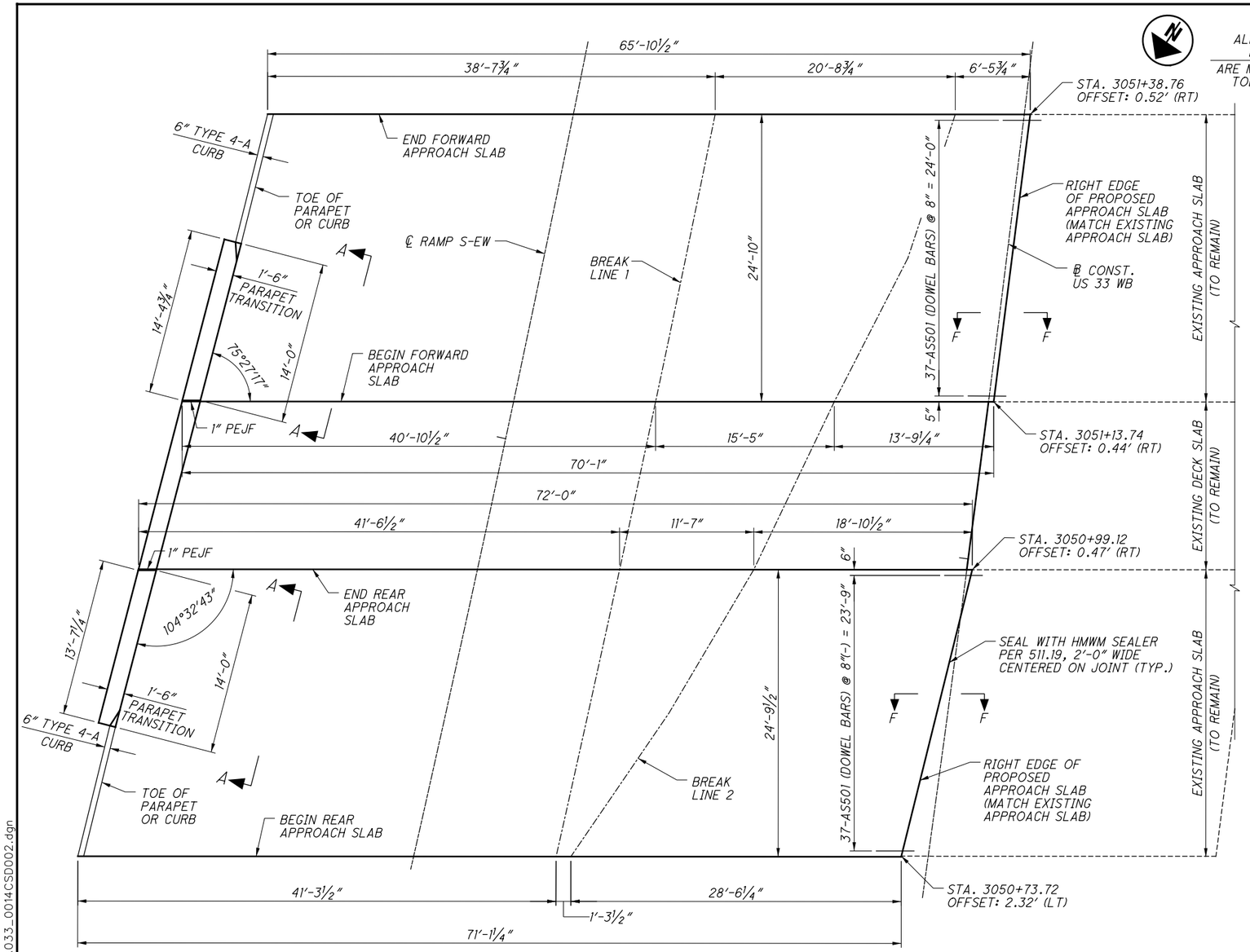
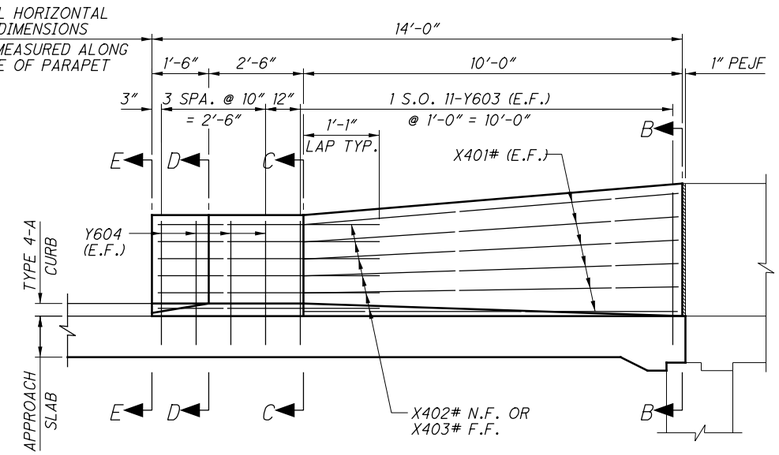


LEFT APPROACH SLAB PLAN



VIEW A-A

(FORWARD RIGHT APPROACH SLAB PARAPET SHOWN, ALL OTHER APPROACH SLAB PARAPETS ARE SIMILIAR)

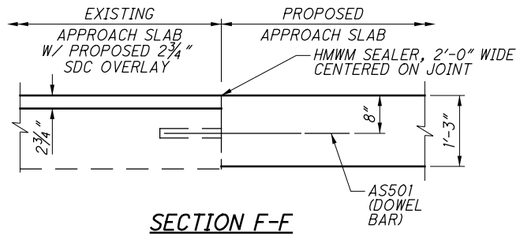
SECTION B-B

LEGEND:

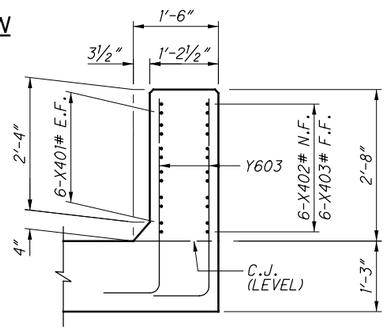
= GLASS FIBER REINFORCED POLYMER (GFRP)

NOTE:

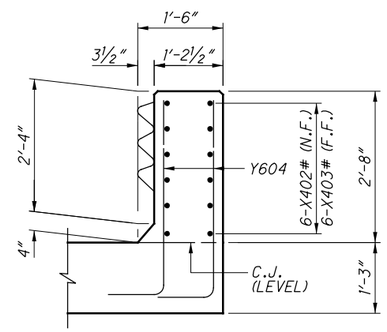
1. SEE SHEET 30 / 32 FOR NOTES AND LEGEND.



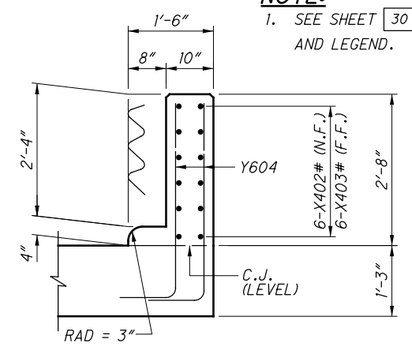
SECTION F-F



SECTION C-C



SECTION D-D



SECTION E-E

NO.	DESCRIPTION	REV. BY	DATE
C	REVISED "SEALING OF CONCRETE SURFACES" CALLOUT	BES	3/3/22

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DESIGNED TTK/JFM
DRAWN TTK
CHECKED JPS/ODW
REVIEWED JCS
DATE 02/26/21
STRUCTURE FILE NUMBER 2500623 (L.) 2501023 (R.)
REVISED

LEFT APPROACH SLAB DETAILS

BRIDGE NO. FRA-33-0014 L/R
OVER SOUTH FORK INDIAN RUN

UNI-33-24.87
PID No. 80748

29 / 32

869
923