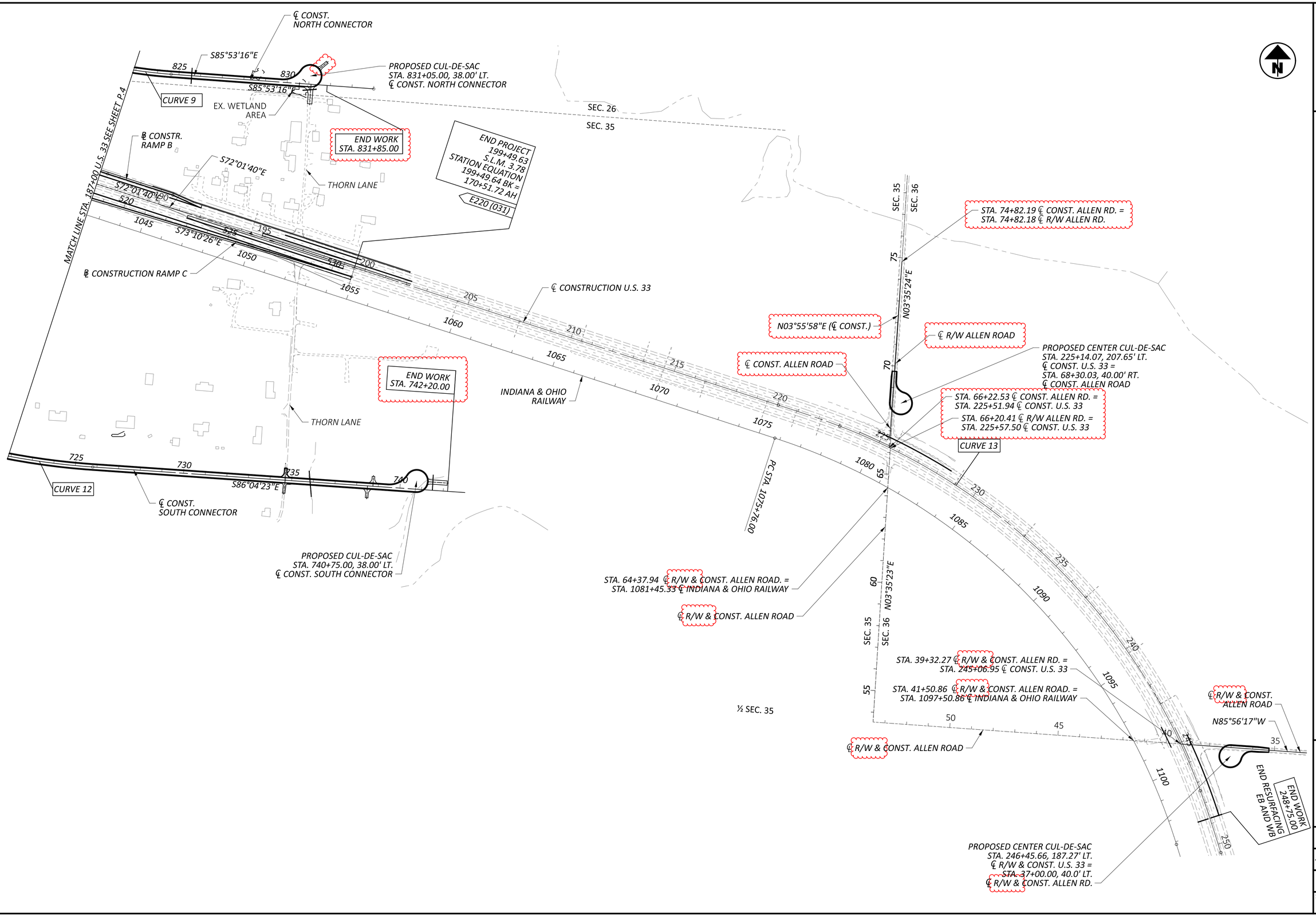

HORIZONTAL SCALE IN FEET
0 100 200 400

SCHEMATIC PLAN

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 3:00:14 AM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GB002.dgn

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	JJL
REVIEWER	TWG 12/09/24
PROJECT ID	77555
SHEET	P:5
TOTAL	846

ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD & MAPPING SERVICES WEBSITE. A CD CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO THE PROJECT ENGINEER AFTER ALL INFORMATION HAS BEEN COLLECTED. THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING NAME OF SURVEYOR, DATE(S) OF COLLECTION, HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO STATE PLANE COORDINATE SYSTEM NORTH OR SOUTH), VERTICAL DATUM (I.E. NAVD 88, GEOID12A) AND METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.) AND BE IN A TABLE FORM AS FOLLOWS:

POINT NUMBER, NORTHING, EASTING, ELEVATION, FEATURE CODE, DESCRIPTION

BELOW IS A LIST OF THE ITEMS THE CONTRACTOR IS REQUIRED TO PROVIDE FOR THE PROJECT:

- RIGHT-OF-WAY FENCE (POINTS AT ALL CHANGES IN DIRECTION)
- LIGHT POLES AND LIGHTING PULLBOXES
- BARRIER (GUARDRAIL, CONCRETE OR CABLE)
- BMP'S (SEE PROJECT SITE PLAN FOR INFO)
- CULVERTS (INLET INVERT, OUTLET INVERT, TYPE, AND SIZE)
- STORM SEWER OUTLETS (OUTLET INVERT, TYPE, AND SIZE)
- CATCH BASINS, MANHOLES, AND INLETS
- UNDERDRAIN OUTLETS
- SIGNS (WITH DESCRIPTIONS)
- TRAFFIC SIGNAL POLES, CONTROLLER LOCATION, AND SIGNAL PULLBOXES

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE OHIO DEPARTMENT OF TRANSPORTATION SURVEY & MAPPING SPECIFICATIONS MANUAL.

ALL COST ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

ALL MATERIALS, LABOR, AND EQUIPMENT RELATED TO MAINTAINING USABLE CONTROL POINTS AND ASSOCIATED REPORTS SHALL BE INCLUDED IN ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN. (SEE NOTE ON SHEET P.23 FOR SURVEY PARAMETERS)

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 11:00PM AND 7:00AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIPS FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTERS FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

PROVIDE CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. FURNISH A STUB MEETING THE REQUIREMENTS OF 707 WITH A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THOROUGHLY CLEAN AND REGALVANIZE OR OTHERWISE SUITABLY REPAIR THE FIELD WELDED JOINT, IF USED. MEET WELDING REQUIREMENTS OF 513.21.

PROVIDE A MASONRY COLLAR PER STANDARD CONSTRUCTION DRAWING DM-1.1, TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS USED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, IS INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 OR 522.

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

ITEM 611 - CONDUIT UNDER RAILROAD

THE STATE SHALL PAY TO THE RAIL COMPANY ALL COSTS FOR WATCHMEN OR FLAGGERS DEEMED NECESSARY BY THE RAIL COMPANY, OR OCCASIONED BY THE OPERATIONS OF THE CONTRACTOR, OR ANY SUB-CONTRACTOR, IN CARRYING FORWARD THE INSTALLATION OF PIPE OR CONDUIT UNDER THE RAILROAD PER THE PLAN. THE COSTS FOR WATCHMEN OR FLAGGERS REQUIRED BY AN ALTERNATE METHOD OF INSTALLATION SHALL BE PAID TO THE RAIL COMPANY BY THE CONTRACTOR. THE COSTS FOR WATCHMEN OR FLAGGERS OCCASIONED BY THE NEGLIGENCE OF THE CONTRACTOR, OR ANY SUB-CONTRACTOR, IN CONNECTION WITH THE INSTALLATION OF THE PIPE OR CONDUIT SHALL BE PAID BY THE CONTRACTOR.

TRACK SUPPORTS REQUIRED BY THE RAIL COMPANY IN CONNECTION WITH THE INSTALLATION OF THE PIPE OR CONDUIT PER THE PLAN SHALL BE INCLUDED IN THE COMPANY FORCE ACCOUNT WORK AND PAID BY THE STATE. THE COST OF ANY TRACK SUPPORTS REQUIRED BY AN ALTERNATE METHOD OF INSTALLATION OF THE PIPE OR CONDUIT SHALL BE SHALL BE PAID TO THE RAIL COMPANY BY THE CONTRACTOR.

THE CONTRACTOR SHALL SECURE APPROVAL OF HIS OPERATIONS FROM THE STATE AND THE RAIL COMPANY. THE RAIL COMPANY WILL PERFORM AN ENGINEERING REVIEW OF METHODS OF OPERATIONS AND ENGINEERING SUPERVISION OF CONSTRUCTION WITHOUT COST TO THE CONTRACTOR.

PRIOR TO BIDDING, THE CONTRACTOR SHALL COORDINATE WITH THE RAIL COMPANY TO AGREE UPON THE REQUIREMENTS OF WATCHMEN AND FLAGGERS TO PROTECT RAILROAD TRAFFIC DURING THE CONTRACTOR'S OPERATIONS. THE CONTRACTOR SHALL EXECUTE A BOND IN FAVOR OF BOTH THE STATE AND THE COMPANY AS REQUIRED BY SECTION 5525.16 OF THE REVISED CODE OF OHIO.

THE CONTRACTOR SHALL CO-OPERATE WITH THE RAILROAD OFFICIALS CONCERNING WORK ADJACENT TO RAILROAD TRACKS, IN ORDER TO AVOID DELAY TO, OR INTERFERENCE WITH RAILROAD TRAFFIC, AND SHALL NOTIFY THE COMPANY 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET RW.10.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

EARTHWORK QUANTITY SUBSUMMARY

ROAD	203		659
	EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
	CY	CY	SY
US 33 (01/NHS/01)	14589	10906	34391
PICKERINGTON (04/STR/04)	21352	146323	59405
RAMP A (01/NHS/01)	1587	17204	7798
RAMP B (01/NHS/01)	4949	22619	13895
RAMP C (01/NHS/01)	1108	2513	4301
RAMP D (01/NHS/01)	1875	9472	8644
NORTH CONNECTOR (04/STR/04)	20745	8254	38699
SOUTH CONNECTOR (04/STR/04)	19153	29204	53334
ALLEN RD (01/NHS/01)	837	147	2762
ALLEN RD (01/NHS/01)	234	132	1281
SERVICE RD 1 (04/STR/04)	2462	4194	7345
SERVICE RD 2 (04/STR/04)	5212	2638	11085
DRIVE 1 (04/STR/04)	672	3970	3226
KING DITCH (04/STR/04)	1382	27	3572
CARRIED TO GENERAL SUMMARY	96157	257603	249738

GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MDW
REVIEWER TWG 12/09/24
PROJECT ID 77555
SHEET P.25 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/4/2025 TIME: 9:57:00 PM USER: cmt012
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ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

WORK ZONE MARKINGS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF C&MS 614.11.

ITEM 614, WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	4.39 MILE
ITEM 614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT	2.88 MILE
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT	4.92 MILE
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	10.86 MILE
ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	1311 FT
ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	5381 FT
ITEM 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT	389 MILE
ITEM 614, WORK ZONE ARROW, CLASS III, 642 PAINT	31 EACH

GENERAL ELECTRICAL REQUIREMENTS FOR SOLAR-POWERED DEVICES

THESE SPECIFICATIONS APPLY TO THE SOLAR POWERED LED SIGNAL AHEAD WARNING SIGNS (W3-3-48) AT STA.176+20 FOR US-33 WESTBOUND.

RUN REQUIREMENTS OF THIS DEVICE ARE 24 HOURS PER DAY, 7 DAYS PER WEEK.

UTILIZE ENVIRONMENTALLY-SEALED, HIGH-EFFICIENCY LED LIGHT SOURCES FOR THIS SOLAR-POWERED APPLICATION.

HOUSE THE SOLAR POWER SUPPLY CONTROLLER AND BATTERY IN ONE OR TWO STAINLESS STEEL OR ALUMINUM ENCLOSURES WITH A MINIMUM NEMA 3 OR 3X RATING.

IF THE EXTERIOR SIZE OF THE ENCLOSURE NECESSARY TO MEET THE REQUIREMENTS BELOW IS LESS THAN 1000 CUBIC INCHES, A SINGLE POLYMER ENCLOSURE RATED NEMA 4 AND LISTED AS SUNLIGHT-RESISTANT MAY BE INSTALLED, WITH APPROVAL OF THE ENGINEER.

SEAL ENCLOSURE CONDUIT ENTRIES TO PREVENT INSECT AND/OR RODENT ENTRY. PROVIDE METAL ENCLOSURES WITH AN EXTERIOR OF BARE OR POWDER-COATED ALUMINUM, OR STAINLESS STEEL.

PROVIDE A LOCKING ENCLOSURE USING EITHER AN INTEGRATED LOCKING MECHANISM OR A PADLOCK PER C&MS 631.06.

SMALL ENCLOSURES OF 300 CUBIC INCHES OR LESS (EXTERIOR) MAY BE PROVIDED WITH SECURITY FASTENERS IN LIEU OF A LOCKING MECHANISM OR PADLOCK.

SEPARATE THE CONTROL ELECTRONICS AND BATTERY, IF CONTAINED WITHIN A SINGLE ENCLOSURE, TO PREVENT DAMAGE TO THE CONTROL ELECTRONICS IF THE BATTERY ENVELOPE IS COMPROMISED.

PROVIDE SEALED GEL-CELL OR AGM (ABSORBED GLASS MAT) LEAD-ACID BATTERIES FOR ALL INSTALLATIONS WITH INSTANTANEOUS LOAD REQUIREMENTS OF 4 WATTS OR ABOVE, REGARDLESS OF DUTY CYCLE.

FOR INSTALLATIONS WITH INSTANTANEOUS LOAD REQUIREMENTS OF LESS THAN 4 WATTS, RECHARGEABLE NICD, LI-ION, OR NIMH BATTERIES MAY BE USED INSTEAD OF AGM OR GEL-CELL, IF APPROVED BY THE ENGINEER.

PROVIDE SIGNED COPIES FROM THE SOLAR PANEL AND/OR CONTROLLER MANUFACTURER OF ALL CALCULATIONS USED TO SIZE THE SOLAR PANEL AND BATTERIES.

INCLUDE IN THESE CALCULATIONS THE INSOLATION VALUE USED AND ITS REFERENCE SOURCE, THE SOLAR PANEL EFFICIENCY, CHARGER/CONTROLLER EFFICIENCY, INVERTER EFFICIENCY, PROPOSED LED LAMP AND/OR EQUIPMENT LOAD, AND A FIGURE REPRESENTING ANTICIPATED MISCELLANEOUS LOSSES.

SHOW CALCULATIONS DOCUMENTING A RESERVE CAPACITY OF TWO WEEKS OPERATION UNDER CONTINUOUS WORST-CASE (MINIMUM) INSOLATION FIGURES (USUALLY DECEMBER) FOR THE PROPOSED GEOGRAPHIC LOCATION, USING A PANEL ELEVATION ANGLE APPROPRIATE TO THE SITE, AT A SUSTAINED TEMPERATURE OF 25 DEGREES FAHRENHEIT (-4 DEGREES CELSIUS).

DELIVER A COPY OF THE CALCULATIONS TO THE ENGINEER AND ANOTHER COPY TO THE OFFICE OF ROADWAY ENGINEERING FOR APPROVAL.

PROVIDE DOCUMENTATION SHOWING THAT THE SOLAR PANEL MANUFACTURER TESTED THE PANEL ACCORDING TO IEC61215 OR EQUIVALENT APPROVED STANDARD.

PROVIDE DOCUMENTATION SHOWING THAT SOLAR PANEL MOUNTING IS RATED FOR 90 MPH DESIGN WIND AND DESIGNED TO RESIST VANDALISM.

ENSURE NEC GROUNDING AND BONDING REQUIREMENTS ARE MET IF VOLTAGES OVER 50V AC OR DC ARE PRESENT.

PROVIDE A TIMER (IF REQUIRED) THAT SATISFIES THE REQUIREMENTS OF C&MS 731.10 AND IS LISTED ON THE ODOT QUALIFIED PRODUCTS LIST.

PROVIDE COMPLETE PHOTO-CONTROLLER SPECIFICATIONS, INCLUDING ON/OFF PHOTOMETRIC SWITCH POINTS (TYPICALLY GIVEN IN FOOT-CANDLES), IF A PHOTO-CONTROLLER IS UTILIZED.

PAYMENT FOR INSTALLING, MAINTAINING, AND REMOVING THESE SIGNS, INCLUDING ALL LABOR, EQUIPEMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM, 614 MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
CTF

REVIEWER
NAU 12/09/24

PROJECT ID
77555

SHEET P.32 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 4/30/2025 TIME: 11:33:48 AM USER: cmt008
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GENERAL SUMMARY

SHEET NUM.													PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.23	P.24	P.25	P.139B	P.139G	P.146	P.147	P.148	P.149	P.150	P.453	RW.10		01/NHS/01	02/NHS/08	03/NHS/13	04/STR/04						
																					ROADWAY	
LS													LS			LS	201	11000	LS		CLEARING AND GRUBBING	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, PICKERINGTON ROAD	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, THORN LANE	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, ALLEN ROAD (EAST)	
					LS								LS				202	00200	LS		RAILROAD CROSSING REMOVED, ALLEN ROAD (WEST)	
						2			2							4	202	20010	4	EACH	HEADWALL REMOVED	
			15,253	7,666	1,057	2,954							16,310			10,620	202	23000	26,930	SY	PAVEMENT REMOVED	
					4,020	1,226										5,246	202	30000	5,246	SF	WALK REMOVED	
					212	743			1,375				693			1,637	202	35100	2,330	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
						26			66				66			26	202	35200	92	FT	PIPE REMOVED, OVER 24" DIAMETER	
					956	521							956			521	202	38000	1,477	FT	GUARDRAIL REMOVED	
					14	14							14			14	202	53100	28	EACH	MAILBOX REMOVED	
						3										3	202	58000	3	EACH	MANHOLE REMOVED	
						1			6				4			3	202	58100	7	EACH	CATCH BASIN REMOVED	
						1										1	202	62700	1	EACH	SEPTIC TANK REMOVED	
					7,750	264							7,750			264	202	75000	8,014	FT	FENCE REMOVED	
						1										1	202	75250	1	EACH	GATE REMOVED	
						1										1	202	98100	1	EACH	REMOVAL MISC.: STONE MAILBOX	P.26
						5										5	202	98100	5	EACH	REMOVAL MISC.: LARGE ROCK	P.26
						1										1	202	98100	1	EACH	REMOVAL MISC.: PRIVATE BRIDGE	P.26
	1															1	202	98100	1	EACH	REMOVAL MISC.: INSPECTION WELL	P.24
									2							2	202	98100	2	EACH	REMOVAL MISC.: CONCRETE BLOCK HEADWALL	P.26
	100												50			50	202	98200	100	FT	REMOVAL MISC.: CONDUIT	P.24
					1,651	247							1,651			247	202	98200	1,898	FT	REMOVAL MISC.: DECORATIVE FENCE WITH CONCRETE PILLARS	P.26
									860				860				202	98200	860	FT	REMOVAL MISC.: SLOTTED DRAIN	P.26
		96,157											25,179			70,978	203	10000	96,157	CY	EXCAVATION	
		257,603											62,993			194,610	203	20000	257,603	CY	EMBANKMENT	
	100												50			50	203	20001	100	CY	EMBANKMENT, AS PER PLAN	P.24
			14,062	28,558						4,518			14,277			32,861	204	10000	47,138	SY	SUBGRADE COMPACTION	
44													18			26	204	45000	44	HOUR	PROOF ROLLING	
			678	739									678			739	206	10500	1,417	TON	CEMENT	
			25,843	28,096									25,843			28,096	206	11000	53,939	SY	CURING COAT	
			4,476	25,412									4,476			25,412	206	15010	29,888	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
			21,368	2,684									21,368			2,684	206	15020	24,052	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
													LS			LS	206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
							4,898	2,450					4,898			2,450	606	15050	7,348	FT	GUARDRAIL, TYPE MGS	
							2	2					2			2	606	26050	4	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
							4	2					4			2	606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
							6	1					6			1	606	26550	7	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
							6	4					6			4	606	35002	10	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							4						4				606	35102	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
							1						1				606	60002	1	EACH	IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL)	
							2						2				606	60028	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 70 MPH, 24" WIDE	
							621						621				607	15000	621	FT	FENCE, TYPE 47	
							3,585	1,312					3,585			1,312	607	23000	4,897	FT	FENCE, TYPE CLT	
							4,206	1,312					4,206			1,312	607	70000	5,518	FT	FENCELINE SEEDING AND MULCHING	
							156						156				622	10100	156	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
							2,040						2,040				622	10160	2,040	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
							1,159						1,159				622	10180	1,159	FT	CONCRETE BARRIER, SINGLE SLOPE, 81"	
							1						1				622	24834	1	EACH	CONCRETE BARRIER END SECTION, 81" TO 57"	
							3						3				622	24850	3	EACH	CONCRETE BARRIER END SECTION, TYPE B1	
							1						1				622	25000	1	EACH	CONCRETE BARRIER END SECTION, TYPE D	
							5						5				622	25050	5	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
							3						3				622	25080	3	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, 81"	
											14		14				623	40500	14	EACH	REFERENCE MONUMENT, TYPE A	
											12					12	623	40520	12	EACH	RIGHT-OF-WAY MONUMENT, TYPE B	
								15								15	SPECIAL	69050100	15	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	P.26

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/4/2025 TIME: 9:58:13 PM USER: cmt012
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DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/17/24

PROJECT ID 77555

SHEET P.128 TOTAL 846

SHEET NUM.											PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.24	P.139B	P.139G	P.148	P.149	P.151	P.152	P.153	P.154	P.453	P.547	01/NHS/01	02/NHS/08	03/NHS/13	04/STR/04						
																			DRAINAGE CONTINUED	
					44						44				611	08900	44	FT	21" CONDUIT, TYPE B	
					180						180				611	09100	180	FT	21" CONDUIT, TYPE C	
						98								98	611	10400	98	FT	24" CONDUIT, TYPE B, 707.33	
					200						200				611	10600	200	FT	24" CONDUIT, TYPE C	
						198								198	611	13400	198	FT	30" CONDUIT, TYPE B, 707.33	
						100								100	611	13600	100	FT	30" CONDUIT, TYPE C, 707.33	
					38						38				611	25200	38	FT	66" CONDUIT, TYPE B	
						140								140	611	27000	140	FT	78" CONDUIT, TYPE A, 706.02	
						43								43	611	52304	43	FT	19" X 30" CONDUIT, TYPE C, 706.04	
					142	106					142			106	611	53500	248	FT	63" X 98" CONDUIT, TYPE A, 706.04	
					60						60				611	94700	60	FT	6' X 4' CONDUIT, TYPE A, 706.05	
					171						171				611	97010	171	FT	SLOTTED DRAIN, TYPE 2, 15"	
100											25			75	611	97400	100	FT	CONDUIT, MISC.: TYPE B FOR DRAINAGE CONTINUANCE	P.24
100											25			75	611	97400	100	FT	CONDUIT, MISC.: TYPE C FOR DRAINAGE CONTINUANCE	P.24
100											25			75	611	97400	100	FT	CONDUIT, MISC.: TYPE E FOR DRAINAGE CONTINUANCE	P.24
100											25			75	611	97400	100	FT	CONDUIT, MISC.: TYPE F FOR DRAINAGE CONTINUANCE	P.24
					2	2					2			2	611	98180	4	EACH	CATCH BASIN, NO. 3A	
					1						1				611	98370	1	EACH	CATCH BASIN, NO. 6	
					4						4				611	98410	4	EACH	CATCH BASIN, NO. 8	
					3	4					3			4	611	98470	7	EACH	CATCH BASIN, NO. 2-2B	
					2	4					2			4	611	98510	6	EACH	CATCH BASIN, NO. 2-3	
					1						1				611	98820	1	EACH	INLET, NO. 3D	
					7						7				611	99574	7	EACH	MANHOLE, NO. 3	
1							10	4			11			4	611	99710	15	EACH	PRECAST REINFORCED CONCRETE OUTLET	
1														1	611	99720	1	EACH	INSPECTION WELL	
																			PAVEMENT	
	113,108	682									113,108			682	254	01000	113,790	SY	PAVEMENT PLANING, ASPHALT CONCRETE (DEPTH = 3 1/4")	
	5,826	10,802									5,826			10,802	301	56000	16,628	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
									157					157	301	56100	157	CY	ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)	
	6,584	9,169							30		6,584			9,199	304	20000	15,783	CY	AGGREGATE BASE	
	19,671	7,556							142		19,671			7,698	407	20000	27,369	GAL	NON-TRACKING TACK COAT	
	81	1,697							528		129			2,177	411	10000	2,306	CY	STABILIZED CRUSHED AGGREGATE	
	84	1,796									84			1,796	441	10100	1,880	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	
	117	2,513									117			2,513	441	10200	2,630	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	
									89					89	441	70500	89	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
									62					62	441	70700	62	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	
	5,607										5,607				442	10000	5,607	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	
	6,545										6,545				442	10080	6,545	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)	
									81					81	451	10010	81	SY	6" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
									95					95	452	12010	95	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
	13,515										13,515				452	13020	13,515	SY	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
			128	360							128			360	609	24510	488	FT	CURB, TYPE 4-C	
			112								112				609	54000	112	SY	6" CONCRETE TRAFFIC ISLAND	
																			WATER WORK	
										299				299	638	01140	299	FT	6" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR14	
										178				178	638	01710	178	FT	8" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR14	
										5,203				5,203	638	02750	5,203	FT	12" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR-14	
										350				350	638	07314	350	FT	30" STEEL PIPE ENCASEMENT, BORED OR JACKED	
										10				10	638	07800	10	EACH	6" GATE VALVE AND VALVE BOX	
										1				1	638	07900	1	EACH	8" GATE VALVE AND VALVE BOX	
										3				3	638	08100	3	EACH	12" GATE VALVE AND VALVE BOX	
										2				2	638	09800	2	EACH	12" X 12" TAPPING SLEEVE, VALVE AND VALVE BOX	
										10				10	638	10200	10	EACH	6" FIRE HYDRANT	
										11				11	638	10700	11	EACH	FIRE HYDRANT REMOVED AND DISPOSED OF	
										1				1	638	11102	1	EACH	METER AND VAULT REMOVED AND RESET	
										1,035				1,035	SPECIAL	63820768	1,035	FT	¾" POLYETHYLENE WATER SERVICE LINE (FAIRFIELD COUNTY)	P.551
										2				2	SPECIAL	63820884	2	EACH	CUT AND PLUG EXISTING 12" WATER LINE (FAIRFIELD COUNTY)	P.547
										13				13	SPECIAL	63820904	13	EACH	SERVICE BOX (FAIRFIELD COUNTY)	P.551

GENERAL SUMMARY

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
MGM

REVIEWER
TWG 12/17/24

PROJECT ID
77555

SHEET P.130 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 3:29:19 PM USER: cml008
P:\ODT\05\0004_FAI-33-3.1\77555\400-Engineering\Roadway\Sheets\77555_GG003.dgn

SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		P.25	P.27	P.29	P.30	P.31	P.32	P.42	P.47	01/NHS/01	02/NHS/08	03/NHS/13	04/STR/04						
																		MAINTENANCE OF TRAFFIC	
									585				585	202	35100	585	FT	*PIPE REMOVED, 24" DIAMETER AND UNDER*	
			1,922							1,922				254	01000	1,922	SY	*PAVEMENT PLANING, ASPHALT CONCRETE (DEPTH = 1.5")*	
			106		10					106			10	407	20000	116	GAL	*NON-TRACKING TACK COAT*	
			100										100	410	12000	100	CY	*TRAFFIC COMPACTED SURFACE, TYPE A OR B*	
			100										100	410	13000	100	CY	*TRAFFIC COMPACTED SURFACE, TYPE C*	
					50								50	441	70000	50	CY	*ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22*	
			80							80				442	20000	80	CY	*ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)*	
									154				154	611	04200	154	FT	*12" CONDUIT, TYPE A, 706.02*	
									318				318	611	04900	318	FT	*12" CONDUIT, TYPE D*	
									35				35	611	05900	35	FT	*15" CONDUIT, TYPE B*	
									78				78	611	07200	78	FT	*18" CONDUIT, TYPE A*	
				1,000						800			200	614	11110	1,000	HOUR	*LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE*	
						1				1				SPECIAL	61411300	1	EACH	*WORK ZONE TRAFFIC SIGNAL*	P.31
								18		18				614	12380	18	EACH	*WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)*	
								17					17	614	12384	17	EACH	*WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)*	
			LS										LS	614	12420	LS		*DETOUR SIGNING*	
			5							5				614	12500	5	EACH	*REPLACEMENT SIGN*	
			25							25				614	12600	25	EACH	*REPLACEMENT DRUM*	
								2,122		2,122				614	12800	2,122	EACH	*WORK ZONE RAISED PAVEMENT MARKER*	
			50		50					10			90	614	13000	100	CY	*ASPHALT CONCRETE FOR MAINTAINING TRAFFIC*	
								387		387				614	13310	387	EACH	*BARRIER REFLECTOR, TYPE 1, ONE WAY*	
								76					76	614	13310	76	EACH	*BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL*	
								387		387				614	13350	387	EACH	*OBJECT MARKER, ONE WAY*	
								76					76	614	13360	76	EACH	*OBJECT MARKER, TWO WAY*	
										100,000				614	18000	100,000	EACH	*MAINTAINING TRAFFIC, MISC.: SAFETY REPAIRS*	P.31
				36						36				614	18601	36	SNMT	*PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN*	P.29
								2.38		2.38				614	20056	2.38	MILE	*WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT*	
							4.39			4.39				614	20560	4.39	MILE	*WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT*	
								4.3					4.3	614	21100	4.3	MILE	*WORK ZONE CENTER LINE, CLASS I, 642 PAINT*	
							2.88			0.04			2.84	614	21550	2.88	MILE	*WORK ZONE CENTER LINE, CLASS III, 642 PAINT*	
								9.75		9.75				614	22056	9.75	MILE	*WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT*	
								8.18					8.18	614	22110	8.18	MILE	*WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT*	
							4.92						4.92	614	22350	4.92	MILE	*WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT*	
							10.86			10.86				614	22360	10.86	MILE	*WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT*	
								17,781		17,781				614	23110	17,781	FT	*WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT*	
								925					925	614	23200	925	FT	*WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT*	
							1,311						1,311	614	23680	1,311	FT	*WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT*	
							5,381			5,381				614	23690	5,381	FT	*WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT*	
								1,936		1,936				614	24102	1,936	FT	*WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT*	
								3,471					3,471	614	25200	3,471	FT	*WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT*	
								454		88			366	614	26200	454	FT	*WORK ZONE STOP LINE, CLASS I, 642 PAINT*	
							389			78			311	614	26610	389	FT	*WORK ZONE STOP LINE, CLASS III, 642 PAINT*	
								36		26			10	614	30200	36	EACH	*WORK ZONE ARROW, CLASS I, 642 PAINT*	
							31			15			16	614	30650	31	EACH	*WORK ZONE ARROW, CLASS III, 642 PAINT*	
								2					2	614	32200	2	EACH	*WORK ZONE RAILROAD SYMBOL MARKING, CLASS I, 642 PAINT*	
													LS	615	10000	LS		*ROADS FOR MAINTAINING TRAFFIC*	
								12,502					12,502	615	20000	12,502	SY	*PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A*	
			1,100							500			600	616	10000	1,100	MGAL	*WATER*	
					50								50	617	10100	50	CY	*COMPACTED AGGREGATE*	
					10								10	617	25000	10	MGAL	*WATER*	
			8,650							8,650				618	40100	8,650	FT	*RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)*	
								21,810		18,590			3,220	622	41100	21,810	FT	*PORTABLE BARRIER, UNANCHORED*	
					1								1	642	00300	1	MILE	*CENTER LINE, TYPE 1*	
						144				144				808	18700	144	SNMT	*DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY*	
																		INCIDENTALS	
										LS				108	10000	LS		*CPM PROGRESS SCHEDULE*	
			LS							LS				614	11000	LS		*MAINTAINING TRAFFIC*	
										36				619	16020	36	MNTH	*FIELD OFFICE, TYPE C*	
		LS								LS				623	10001	LS		*CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN*	P.25
										LS				624	10000	LS		*MOBILIZATION*	

GENERAL SUMMARY

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER MGM

REVIEWER TWG 12/17/24

PROJECT ID 77555

SHEET P.135 | TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 4/30/2025 TIME: 11:34:12 AM USER: cmt008
P:\ODT\0510004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GG008.dgn

MODEL: 77555_DE003 PAPERSIZE: 34x22 (in.) DATE: 5/4/2025 TIME: 10:46:26 PM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Drainage\Sheets\77555_DE003.dgn

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
JJL	MGM 12/09/24	77555	P.142	846

DESIGN AGENCY: CARPENTER MARTY transportation

PROJECT SITE PLAN
U.S. 33 AND NORTH CONNECTOR

HORIZONTAL SCALE IN FEET
0 100
50 200

REF. NO.	SHEET NO.	LOCATION	STATION FROM	STATION TO	SIDE	601 RIPRAP, TYPE D SY	601 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER CY	601 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER CY	601 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER CY	602 CONCRETE MASONRY CY	611 12" CONDUIT, TYPE C FT	611 15" CONDUIT, TYPE B FT	611 15" CONDUIT, TYPE C FT	611 18" CONDUIT, TYPE C FT	611 21" CONDUIT, TYPE B FT	611 21" CONDUIT, TYPE C FT	611 24" CONDUIT, TYPE C FT	611 21"CONDUIT, TYPE A, 706.02, 707.33 OR 24" CONDUIT, TYPE A, 707.01 (ALUMINIZED) FT	611 63" X 98" CONDUIT, TYPE A, 706.04 FT	611 66" CONDUIT, TYPE B FT	611 6'X 4' CONDUIT, TYPE A, 706.05 FT	611 CATCH BASIN, NO. 2-2B EACH	611 CATCH BASIN, NO. 2-3 EACH	611 CATCH BASIN, NO. 3A EACH	611 CATCH BASIN, NO. 6 EACH	611 CATCH BASIN, NO. 8 EACH	611 INLET, NO. 3D EACH	611 SLOTTED DRAIN, TYPE 2, 15" FT	611 MANHOLE, NO. 3 EACH	670 DITCH EROSION PROTECTION SY
D-1	P.471	U.S. 33	164+77.71	164+90.71	MED									13											1				125
D-2	P.471	U.S. 33	164+90.71	166+74.86	MED									184											1				125
D-3	P.472	U.S. 33	170+00.00	173+00.00	MED								298												1				125
D-4	P.473	U.S. 33	194+41.00	194+53.00	MED						6			12														1	
D-5	P.470	U.S. 33	148+80.38	151+97.00	RT								145											1			171		
D-6	P.470	U.S. 33	151+97.00	153+52.47	RT							165									1								
D-7	P.470	U.S. 33	155+68.14	155+53.26	RT											17												1	
D-8	P.470	U.S. 33	156+49.20	155+68.14	RT											80						1							
D-9	P.472	U.S. 33	173+00.00	174+63.23	RT							163																1	
D-10	P.472	U.S. 33	174+63.23	175+00.00	RT															38								1	
D-11	P.472	U.S. 33	175+00.00	175+09.83	RT		18			2.8											60							1	
D-12	P.472	U.S. 33	176+08.75	176+08.75	RT								9									1							
D-13	P.472	RAMP A	308+50.00	308+94.59	LT/RT				2	0.9								112											
D-14	P.273	RAMP B	404+89.09	405+68.10	LT/RT	16		19		4.8									142										
D-15	P.472	RAMP C	507+55.00	507+55.00	LT/RT							25												1					
D-16	P.472	RAMP C	507+55.00	507+55.00	RT								8											1					
D-17	P.472	RAMP C	507+55.00	507+55.00	RT				2	0.3			13															1	
D-18	P.470	RAMP D	607+74.22	608+58.17	RT			6		0.3			84									1							
D-19	P.470	RAMP D	608+96.77	609+80.00	RT		10			0.5						83							1						
D-20	P.470	RAMP D	609+75.00	609+80.00	LT/RT										44												1		
D-58	P.474	U.S. 33	195+39.26	195+59.13	LT/RT								9	9															
D-59	P.471	U.S. 33	158+71.00	159+96.00	LT				2	0.5							125								1				
D-60	P.471	U.S. 33	159+96.00	160+71.00	LT					0.5							75											1	
TOTALS CARRIED TO GENERAL SUMMARY (01/NHS/01)						16	28	25	6	10.5	6	353	566	218	44	180	200	112	142	38	60	3	2	2	1	4	1	171	7	375

DRAINAGE SUBSUMMARY - MAINLINE

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
BAC

REVIEWER
TWG 12/09/24

PROJECT ID
77555

SHEET P.151 TOTAL 846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 3:25:49 PM USER: cmt008
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Drainage\Sheets\77555_DS002.dgn

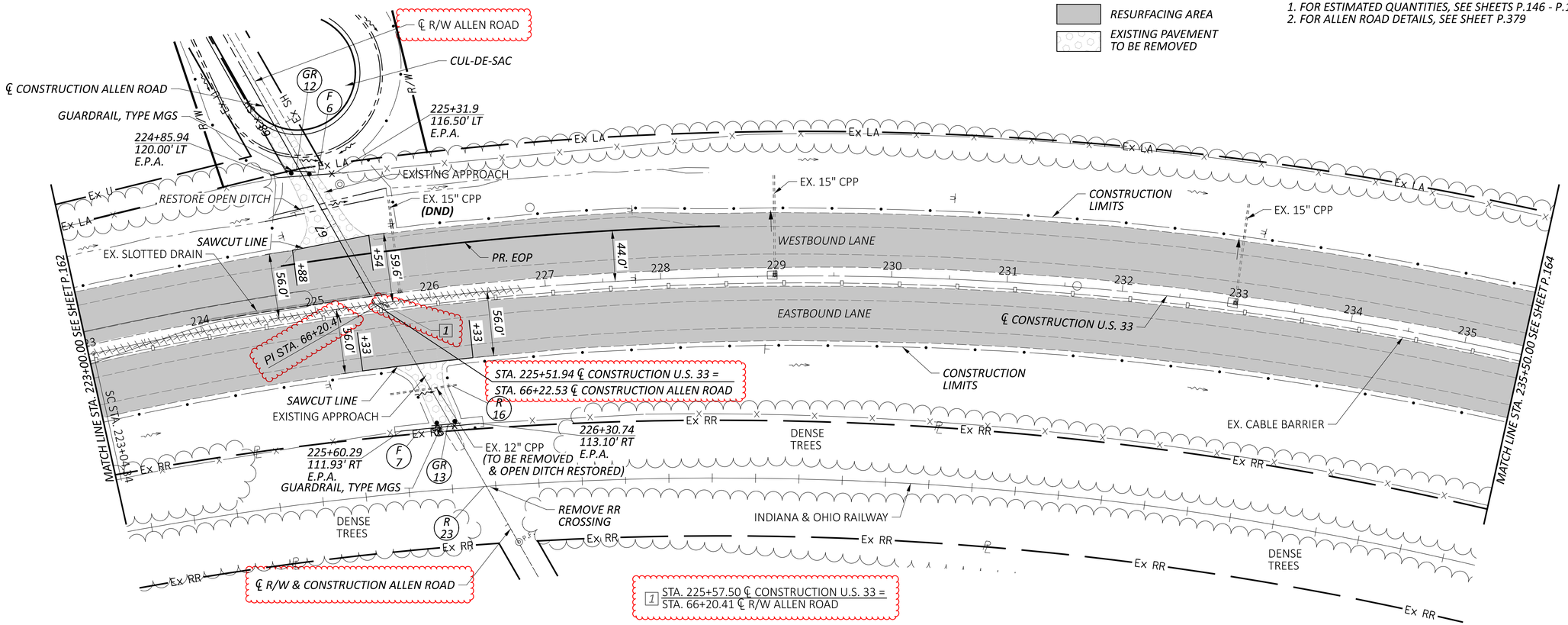
LEGEND

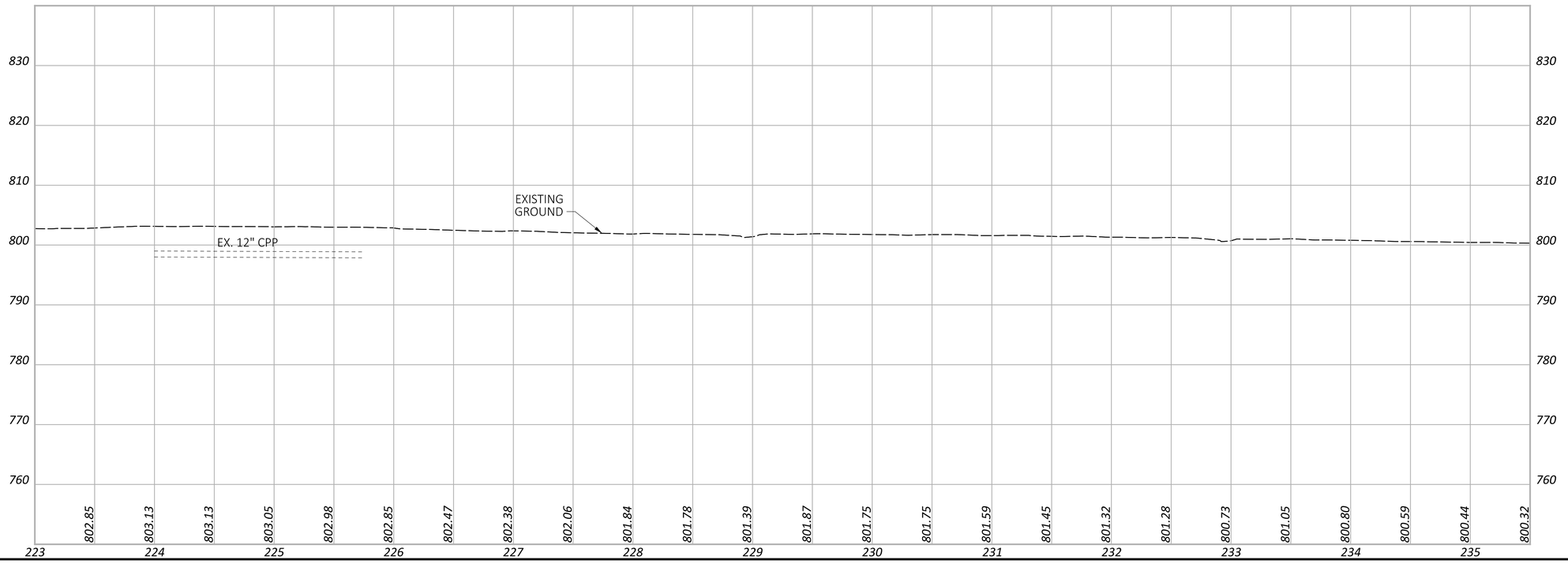
- RESURFACING AREA
- EXISTING PAVEMENT TO BE REMOVED

NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR ALLEN ROAD DETAILS, SEE SHEET P.379

HORIZONTAL SCALE IN FEET: 0, 25, 50, 100





PLAN AND PROFILE - U.S. 33
STA. 223+00.00 TO STA. 235+50.00

DESIGN AGENCY: CARPENTER MARTY transportation

DESIGNER: JJL

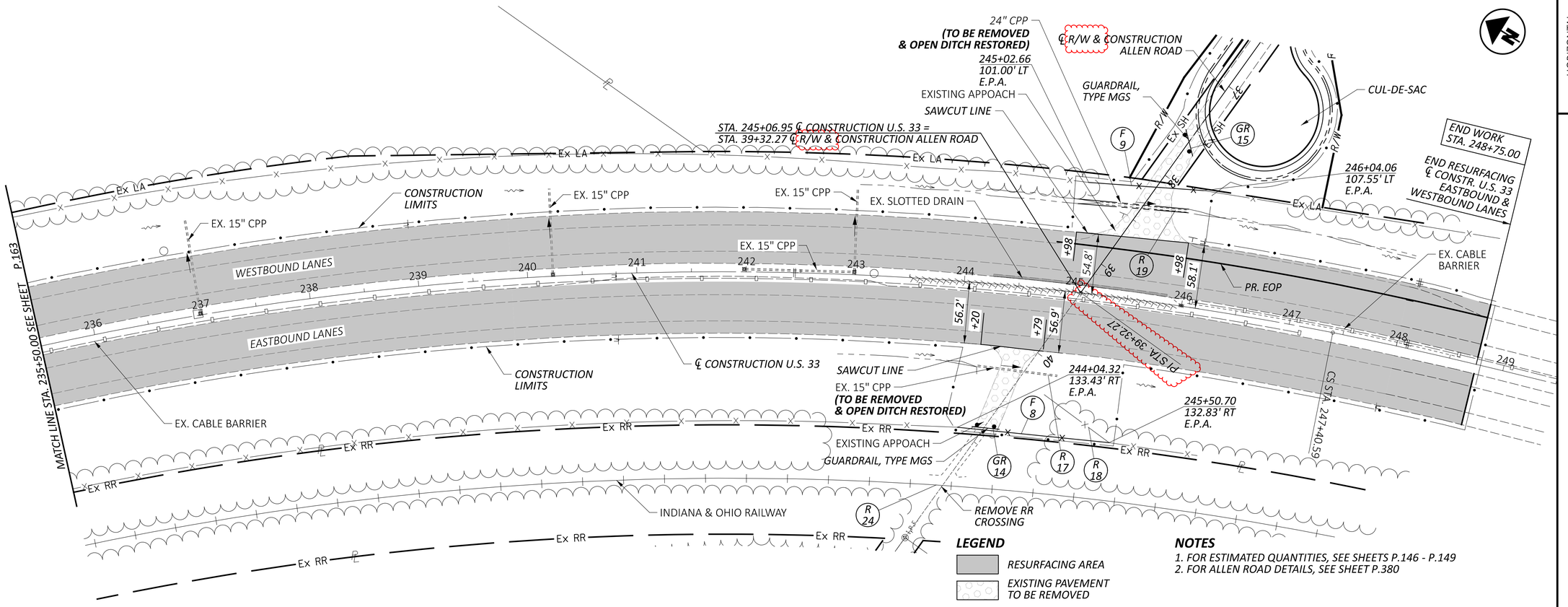
REVIEWER: TWG 12/09/24

PROJECT ID: 77555

SHEET: P.163 | TOTAL: 846

FAI-33-2.64

MODEL: CLX_U033 - Plan 8 PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 1:41:49 AM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GP008.dgn

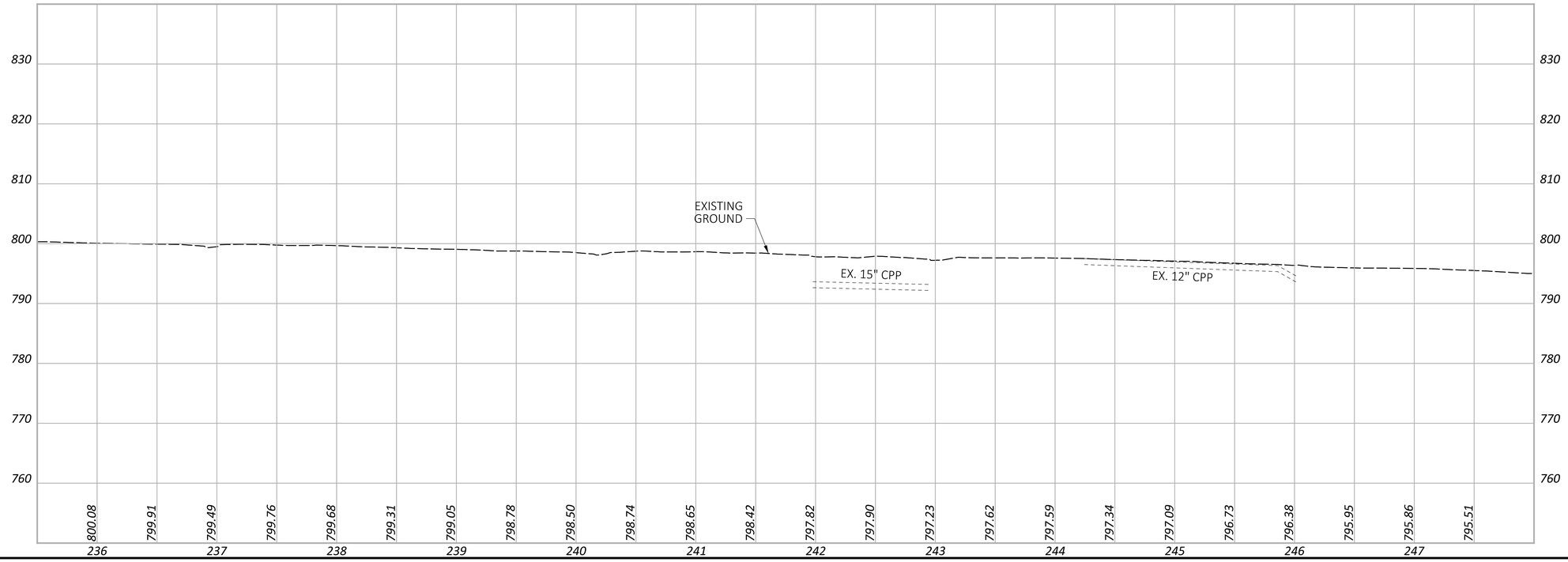


LEGEND

- RESURFACING AREA
- EXISTING PAVEMENT TO BE REMOVED

NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR ALLEN ROAD DETAILS, SEE SHEET P.380



HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN AND PROFILE - U.S. 33
STA. 235+50.00 TO STA. 249+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER JJL

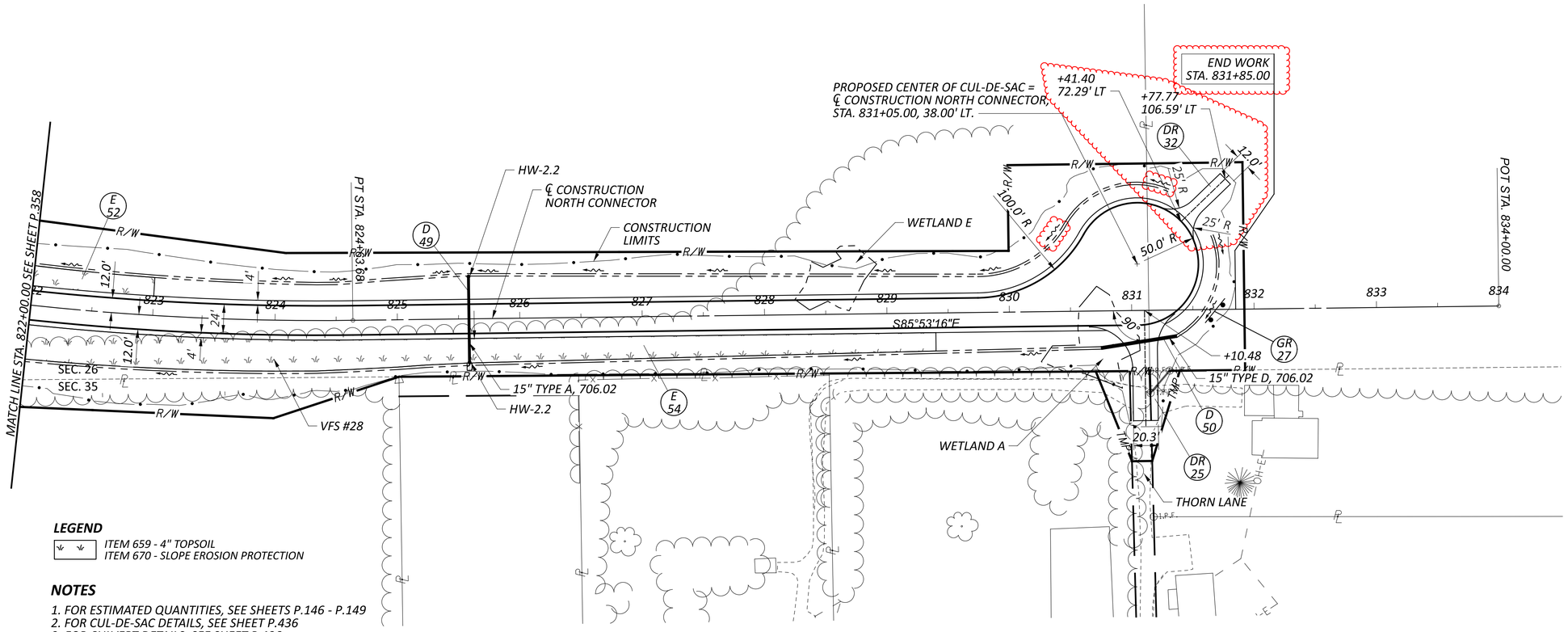
REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.164 TOTAL 846

FAI-33-2.64

MODEL: CLX_U033 - Plan 9 PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 1:42:22 AM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GP009.dgn

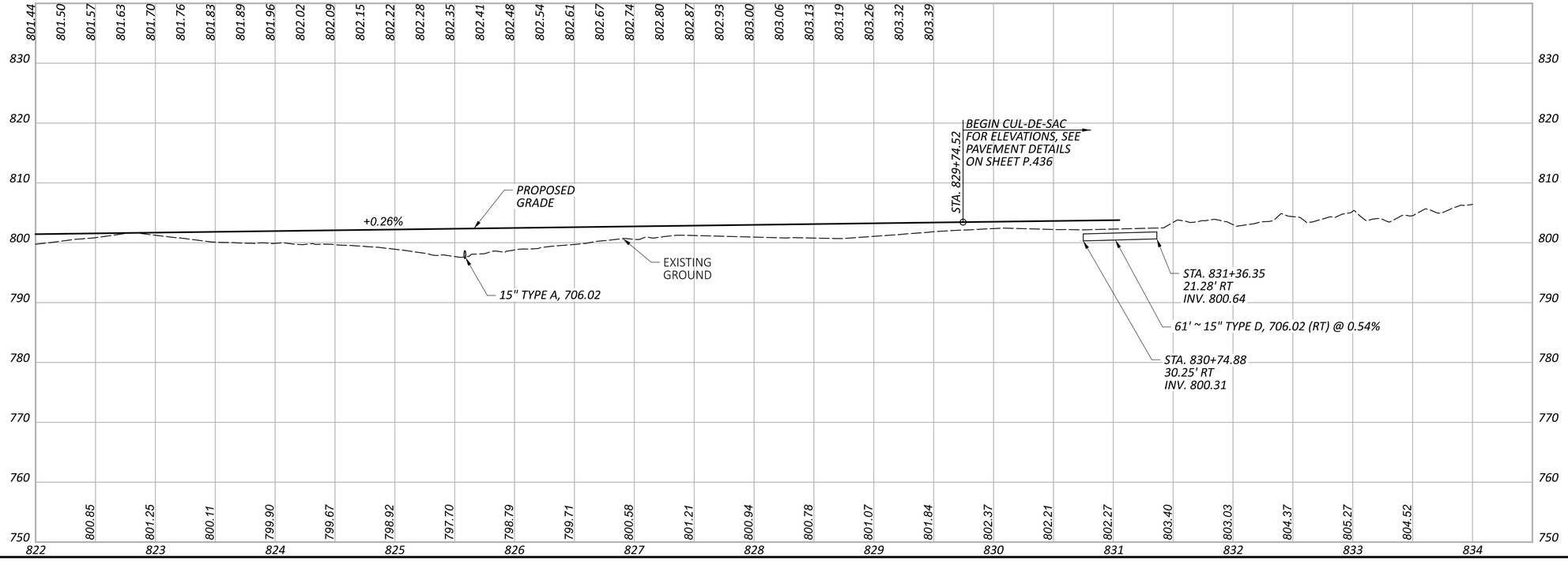


LEGEND

ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR CUL-DE-SAC DETAILS, SEE SHEET P.436
3. FOR CULVERT DETAILS, SEE SHEET P.486
4. FOR EROSION CONTROL ESTIMATED QUANTITIES, SEE SHEET P.155
5. FOR DRIVE DETAILS, SEE SHEETS P.453 , P.466



HORIZONTAL SCALE IN FEET
0 25 50 100

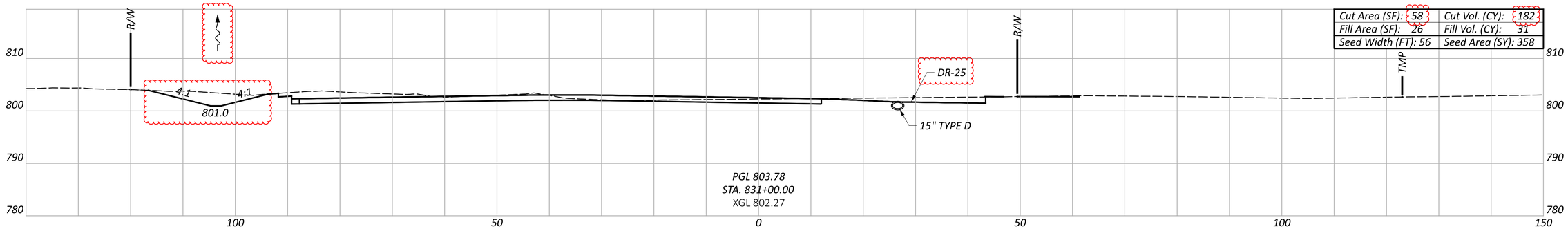
PLAN AND PROFILE - NORTH CONNECTOR
STA. 822+00.00 TO STA. 831+55.00

FAI-33-2.64

MODEL: CLP_NorthConnector-1 - Plan 7 PAPERSIZE: 34x22 (in.) DATE: 5/4/2025 TIME: 10:40:23 PM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GP603.dgn

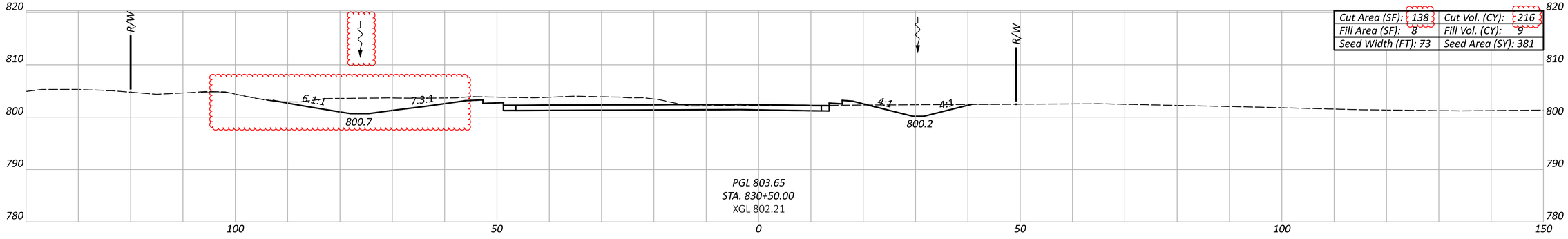
DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	BAC
REVIEWER	TWG 12/09/24
PROJECT ID	77555
SHEET	P.359
TOTAL	846



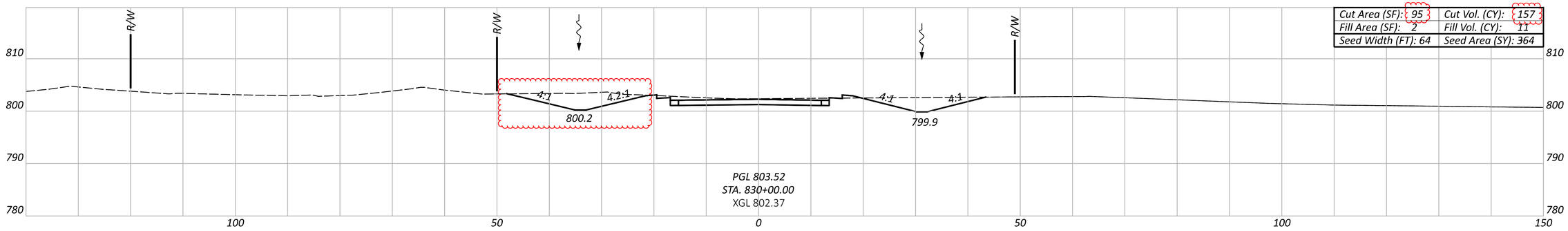
Cut Area (SF): 58	Cut Vol. (CY): 182
Fill Area (SF): 26	Fill Vol. (CY): 31
Seed Width (FT): 56	Seed Area (SY): 358

PGL 803.78
STA. 831+00.00
XGL 802.27



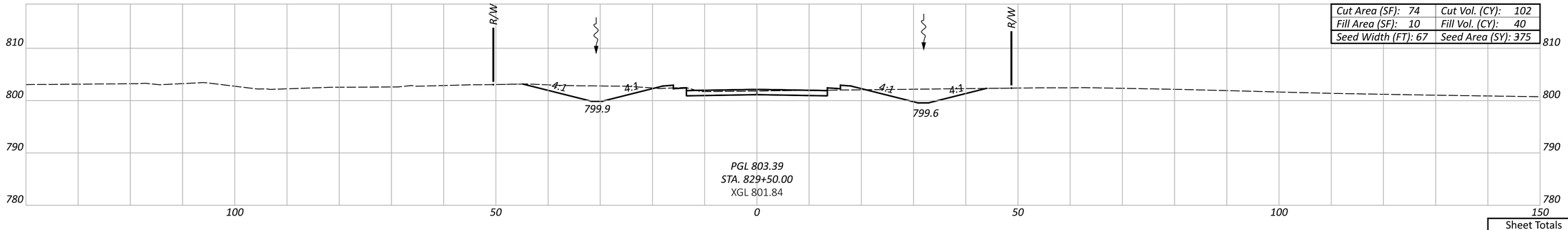
Cut Area (SF): 138	Cut Vol. (CY): 216
Fill Area (SF): 8	Fill Vol. (CY): 9
Seed Width (FT): 73	Seed Area (SY): 381

PGL 803.65
STA. 830+50.00
XGL 802.21



Cut Area (SF): 95	Cut Vol. (CY): 157
Fill Area (SF): 2	Fill Vol. (CY): 11
Seed Width (FT): 64	Seed Area (SY): 364

PGL 803.52
STA. 830+00.00
XGL 802.37



Cut Area (SF): 74	Cut Vol. (CY): 102
Fill Area (SF): 10	Fill Vol. (CY): 40
Seed Width (FT): 67	Seed Area (SY): 375

PGL 803.39
STA. 829+50.00
XGL 801.84

CROSS SECTIONS - NORTH CONNECTOR
STA. 829+50.00 TO STA. 831+00.00

Sheet Totals		
Seeding	Cut	Fill
1478	657	91

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
JJL

REVIEWER
MGM 12/09/24

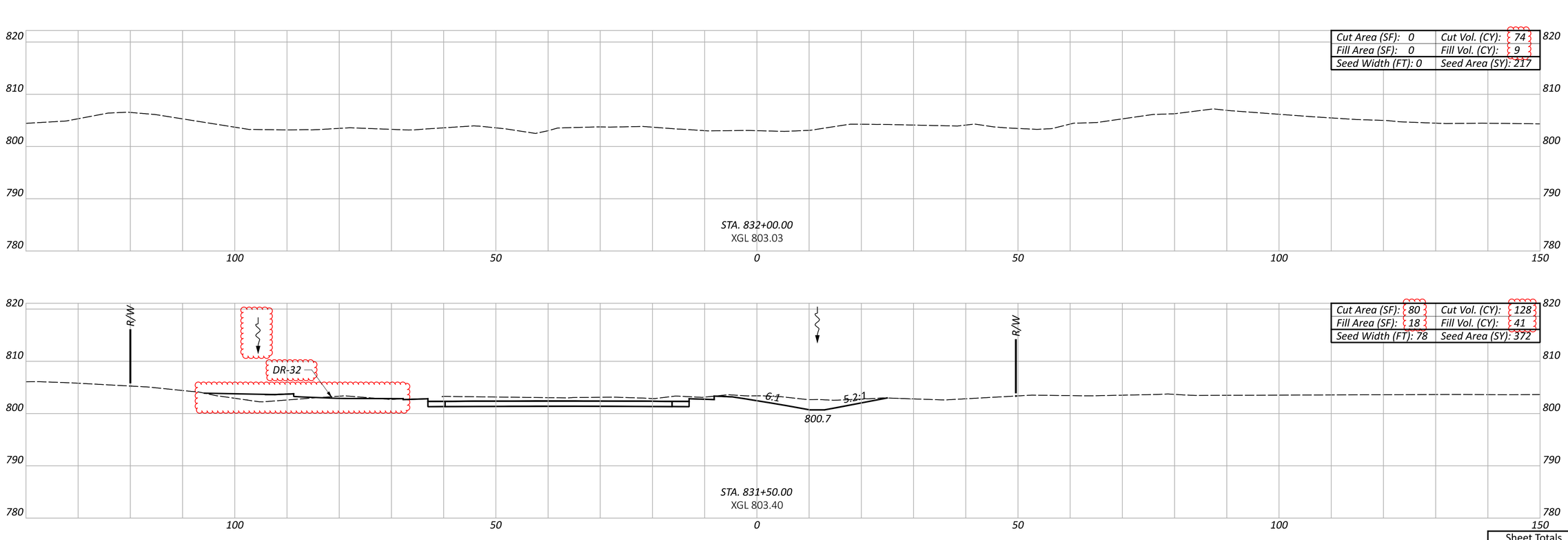
PROJECT ID
77555

SHEET P.377 TOTAL 846

FAI-33-2.64

MODEL: Sheet - NConn - 829+50.00 PAPERSIZE: 34x22 (in.) DATE: 5/4/2025 TIME: 9:27:54 PM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_XS600.dgn

EARTHWORK QUANTITY SUBSUMMARY			
SHEET	203		659
	EXCAVATION	EMBANKMENT	SEEDING AND MULCHING
	CY	CY	SY
P.360	364	58	961
P.361	1087	21	1605
P.362	1590	13	2111
P.363	1938	1099	3422
P.364	2981	238	2934
P.365	2692	46	2000
P.366	2030	361	2689
P.367	1478	467	2539
P.368	1147	661	2333
P.369	812	805	2273
P.370	890	635	2222
P.371	344	910	1949
P.372	241	873	1812
P.373	1109	322	2539
P.374	720	361	2193
P.375	131	950	1533
P.376	332	293	1517
P.377	657	91	1478
P.378	202	50	589
CARRIED TO SHEET P.25	20745	8254	38699



CROSS SECTIONS - NORTH CONNECTOR
STA. 831+50.00 TO STA. 832+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
JJL

REVIEWER
MGM 12/09/24

PROJECT ID
77555

SHEET P.378 TOTAL 846

Sheet Totals		
Seeding	Cut	Fill
589	202	50

FAI-33-2.64

MODEL: Sheet - NConn - 831+50.00 PAPERSIZE: 34x22 (in.) DATE: 5/4/2025 TIME: 9:29:56 PM USER: cmt012
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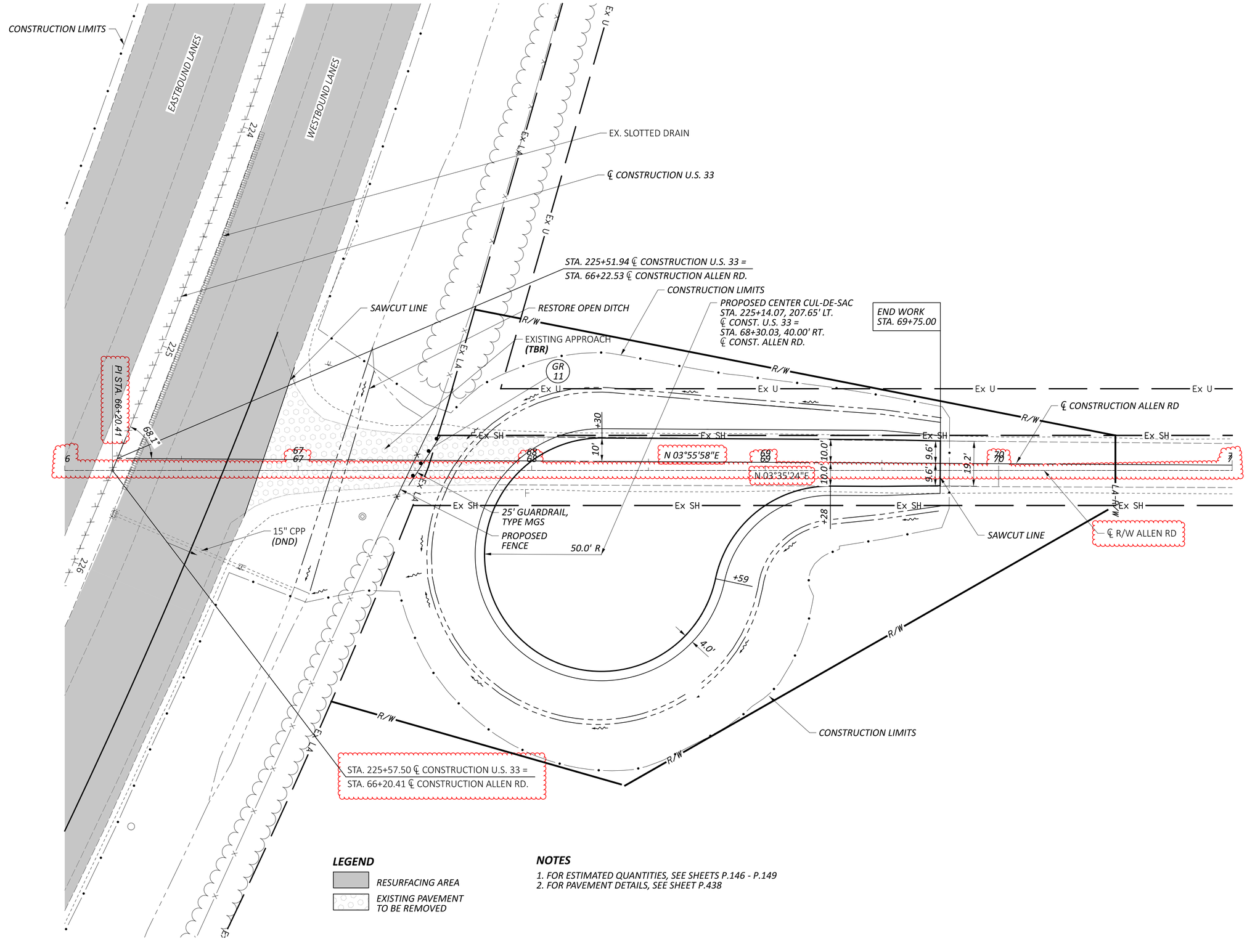

LEGEND

- RESURFACING AREA
- EXISTING PAVEMENT TO BE REMOVED

NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR PAVEMENT DETAILS, SEE SHEET P.438

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - ALLEN ROAD
STA. 66+00.00 TO STA. 71+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	JJL
REVIEWER	TWG 12/09/24
PROJECT ID	77555
SHEET	P.379
TOTAL	846

FAI-33-2.64

MODEL: GP801 PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 2:30:22 AM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GP801.dgn

NOTES

1. FOR ESTIMATED QUANTITIES, SEE SHEETS P.146 - P.149
2. FOR PAVEMENT DETAILS, SEE SHEET P.439

LEGEND

- RESURFACING AREA
- EXISTING PAVEMENT TO BE REMOVED

HORIZONTAL SCALE IN FEET
0 10 20 40

STA. 245+06.95 ℄ CONSTRUCTION U.S. 33 =
STA. 39+32.27 ℄ R/W & CONSTRUCTION ALLEN RD.

24" CPP
(REMOVE)

RESTORE OPEN DITCH

SAWCUT LINE

EX. APPROACH
(TBR)

CONSTRUCTION LIMITS

℄ R/W & CONSTRUCTION ALLEN RD

BEGIN WORK
STA. 35+25.00

EX. SLOTTED DRAIN

PI STA. 39+32.27

61.3°

℄ CONSTRUCTION U.S. 33

25' GUARDRAIL, TYPE MGS

GR 14

50.0' R

PROPOSED CENTER CUL-DE-SAC
STA. 246+45.66, 187.27' LT.
℄ R/W & CONST. U.S. 33 =
STA. 37+00.00, 40.0' LT.
℄ R/W ALLEN RD.

CONSTRUCTION LIMITS

SAWCUT LINE

N 85°56'17"W

10.0' 10.0'

8.8' 8.1'

PLAN - ALLEN ROAD
STA. 34+50.00 TO STA. 39+50.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER JJL

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.380 TOTAL 846

FAI-33-2.64

MODEL: GB802 PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 2:39:43 AM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GP802.dgn

STA. 829+74.52, 112.00' LT.
℄ NORTH CONNECTOR
R = 100.0'
Δ = 60° 26' 24"
L = 105.49'

STA. 831+05.22, 38.00' LT.
℄ NORTH CONNECTOR
R = 50.0'
Δ = 240° 26' 24"
L = 209.82'
ELEV. = 804.40'

STA. 829+74.52
ELEV. 803.45'

PAVEMENT DETAILS - NORTH CONNECTOR
STA. 829+50.00 TO STA. 832+00.00

HORIZONTAL SCALE IN FEET
0 5 10 20

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	JJL
REVIEWER	TWG 12/09/24
PROJECT ID	77555
SHEET	P.436
TOTAL	846

FAI-33-2.64

MODEL: 77555_GI601 PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 1:56:17 AM USER: cmt012
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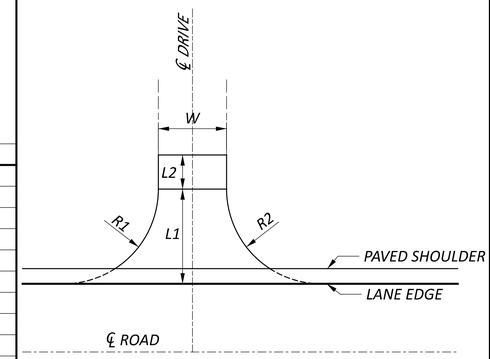
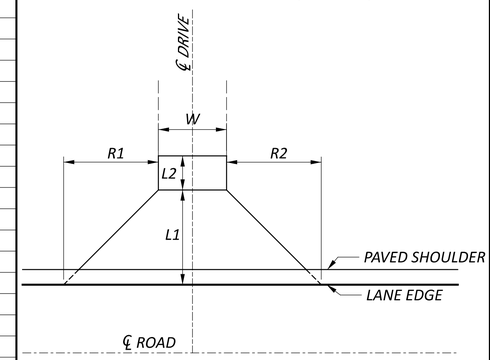
SHEET NO.	REFERENCE NO.	ROUTE	STATION	SIDE	DRIVE ANGLE	APRON LENGTH "L1"	DRIVEWAY LENGTH "L2"	WIDTH "W"	R1 (LEFT SIDE APRON WIDTH)	R2 (RIGHT SIDE APRON WIDTH	CADD GENERATED SURFACE AREA	PART	204 SUBGRADE COMPACTION	301 3.5" ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)	304 3.5" AGGREGATE BASE	407 NON-TRACKING TACK COAT	411 6" STABILIZED CRUSHED AGGREGATE	411 8" STABILIZED CRUSHED AGGREGATE	441 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	441 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	451 6" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	452 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P
					DEG.	FT.	FT.	FT.	FT.	FT.	SQ. FT.		SY	CY	CY	GAL	CY	CY	CY	CY	SY	SY
P.219	DR-1	PICKERINGTON RD	245+54.26	RT.	105	43.69	257.91	20.00	30.00	40.00	6637.00	04/STR/04	737.4			40.6		163.9	25.6	35.8		
P.221	DR-2	PICKERINGTON RD	266+89.48	RT	90	16.00	29.53	14.14	15.00	15.00	638.00	04/STR/04	70.9	6.9		3.9			2.5			
P.221	DR-3	PICKERINGTON RD	268+86.20	LT	90	21.00	19.26	12.00	20.00	20.00	628.00	04/STR/04	69.8	6.8		3.8			2.4			
P.221	DR-4	PICKERINGTON RD	269+48.67	RT	90	21.00	9.46	24.24	20.00	20.00	955.00	04/STR/04	106.1	10.3		5.8			3.7			
P.222	DR-5	PICKERINGTON RD	272+51.61	LT	110	-	-	13.08	25.00	17.00	660.00	04/STR/04	73.3	7.1		4.0			2.5			
P.222	DR-6	PICKERINGTON RD	273+07.01	RT	90	26.00	7.00	12.38	25.00	25.00	690.00	04/STR/04	76.7	7.5		4.2			2.7			
P.222	DR-7	PICKERINGTON RD	273+80.89	LT	90	23.00	13.00	12.00	22.00	22.00	690.00	04/STR/04	76.7	7.5		4.2			2.7			
P.222	DR-8	PICKERINGTON RD	276+48.24	LT	90	21.00	33.00	12.00	20.00	20.00	732.00	04/STR/04	81.3								81.3	
P.222	DR-9	PICKERINGTON RD	276+91.23	RT	90	16.00	25.25	12.00	15.00	15.00	622.00	04/STR/04	69.1	6.7		3.8			2.4			
P.322	DR-10	SOUTHERN CONNECTOR	709+21.45	RT	90	26.00	18.00	35.26	25.00	25.00	1867.00	04/STR/04	207.4	20.2		11.4			7.2			
P.322	DR-11	SOUTHERN CONNECTOR	710+25.00	LT	90	25.00	18.00	12.00	25.00	25.00	784.00	04/STR/04	87.1				14.5					
P.322	DR-12	SOUTHERN CONNECTOR	714+25.00	RT	90	25.10	42.90	12.00	25.00	25.00	1077.00	04/STR/04	119.7				19.9					
P.322	DR-13	SOUTHERN CONNECTOR	715+71.19	LT	90	24.89	26.11	20.55	25.00	25.00	1260.00	04/STR/04	140.0				23.3					
P.324	DR-14	SOUTHERN CONNECTOR	734+69.43	LT	90	25.00	18.00	12.00	25.00	25.00	784.00	04/STR/04	87.1	8.5	8.5	4.8			3.0	4.2		
P.324	DR-15	SOUTHERN CONNECTOR	734+69.57	RT	88	15.00	33.00	12.00	15.00	15.00	673.00	04/STR/04	74.8					16.6				
P.324	DR-16	SOUTHERN CONNECTOR	738+50.00	RT	90	25.00	18.00	12.00	25.00	25.00	784.00	04/STR/04	87.1				14.5					
P.324	DR-17	SOUTHERN CONNECTOR	738+75.00	LT	90	25.00	8.00	12.00	25.00	25.00	664.00	04/STR/04	73.8				12.3					
P.324	DR-18	SOUTHERN CONNECTOR	741+25.00	LT	90	16.33	74.67	20.00	25.00	25.00	1921.00	04/STR/04	213.4				35.6					
P.357	DR-19	NORTHERN CONNECTOR	802+02.15	LT	90	24.20	109.51	12.00	25.00	25.00	1813.00	04/STR/04	201.4	19.6		11.1			7.0			
P.357	DR-20	NORTHERN CONNECTOR	804+50.00	LT	90	25.36	27.83	12.00	25.14	25.14	907.00	04/STR/04	100.8				16.8					
P.357	DR-21	NORTHERN CONNECTOR	804+50.00	RT	90	25.00	28.00	12.00	25.14	25.14	907.00	04/STR/04	100.8				16.8					
P.357	DR-22	NORTHERN CONNECTOR	809+50.00	LT	90	25.60	52.40	12.00	25.14	25.14	1190.00	04/STR/04	132.2				22.0					
P.357	DR-23	NORTHERN CONNECTOR	809+50.00	RT	90	25.86	57.14	12.00	25.00	25.00	1286.00	04/STR/04	142.9				23.8					
P.358	DR-24	NORTHERN CONNECTOR	821+22.45	RT	90	25.00	38.72	12.00	25.00	25.00	1025.00	04/STR/04	113.9				19.0					
P.359	DR-25	NORTHERN CONNECTOR	831+10.48	RT	90	28.79	49.51	20.30	35.00	35.00	1972.00	04/STR/04	219.1	21.3	21.3	12.1			7.6	10.7		
P.391	DR-26	SERVICE ROAD 1	13+25.56	LT	94	-	-	12.00	20.00	20.00	747.00	04/STR/04	83.0					18.4				
P.391	DR-27	SERVICE ROAD 1	14+43.33	LT	92	-	-	23.39	35.00	35.00	2001.00	04/STR/04	222.3			12.2		49.4	7.7	10.8		
P.399	DR-28	SERVICE ROAD 2	23+74.78	LT	90	21.00	32.33	12.00	20.00	20.00	854.00	04/STR/04	94.9									94.9
P.399	DR-29	SERVICE ROAD 2	26+16.36	LT	90	21.00	38.80	14.00	20.00	20.00	1045.00	04/STR/04	116.1	11.3		6.4			4.0			
P.399	DR-30	SERVICE ROAD 2	28+00.00	LT	90	14.23	156.75	12.00	15.00	15.00	2195.00	04/STR/04	243.9	23.7		13.4			8.5			
P.262	DR-31	RAMP A	308+31.48	LT	90	5.30	154.68	12.00	5.00	5.00	1931.00	01/NHS/01	214.6					47.7				
P.359	DR-32	NORTHERN CONNECTOR	831+41.40	LT	90	18.29	31.71	12.00	25.00	25.00	717.00	04/STR/04	79.7				13.3					
												SUBTOTAL (01/NHS/01)	215	0	0	0		48	0	0	0	0
												SUBTOTAL (04/STR/04)	4303	157	30	142		480	89	62	81	95
TOTALS CARRIED TO GENERAL SUMMARY													4518	157	30	142		528	89	62	81	95

TYPE 1 DRIVEWAY PLAN VIEW (TYPICAL)



TYPE 2 DRIVEWAY PLAN VIEW (TYPICAL)



DRIVE DETAILS

DESIGN AGENCY
CARPENTER MARTY transportation

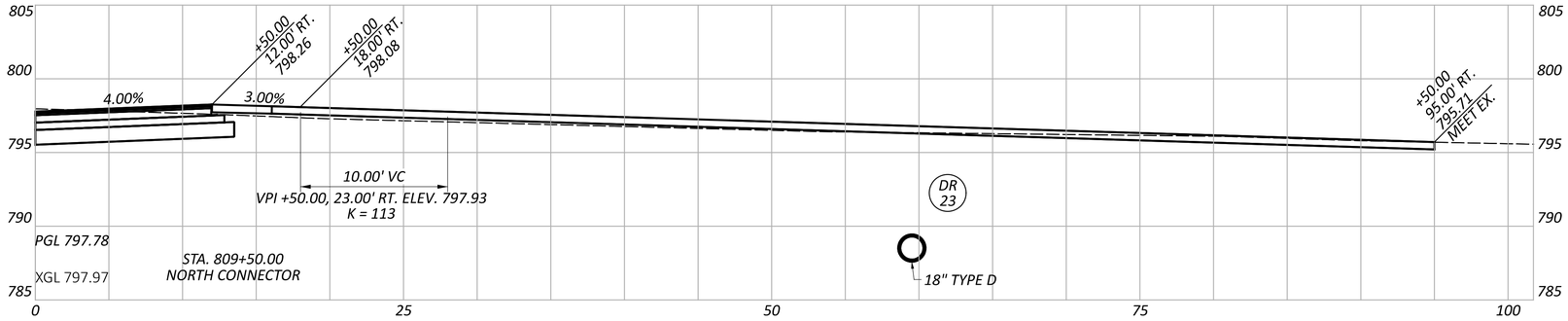
DESIGNER MGM

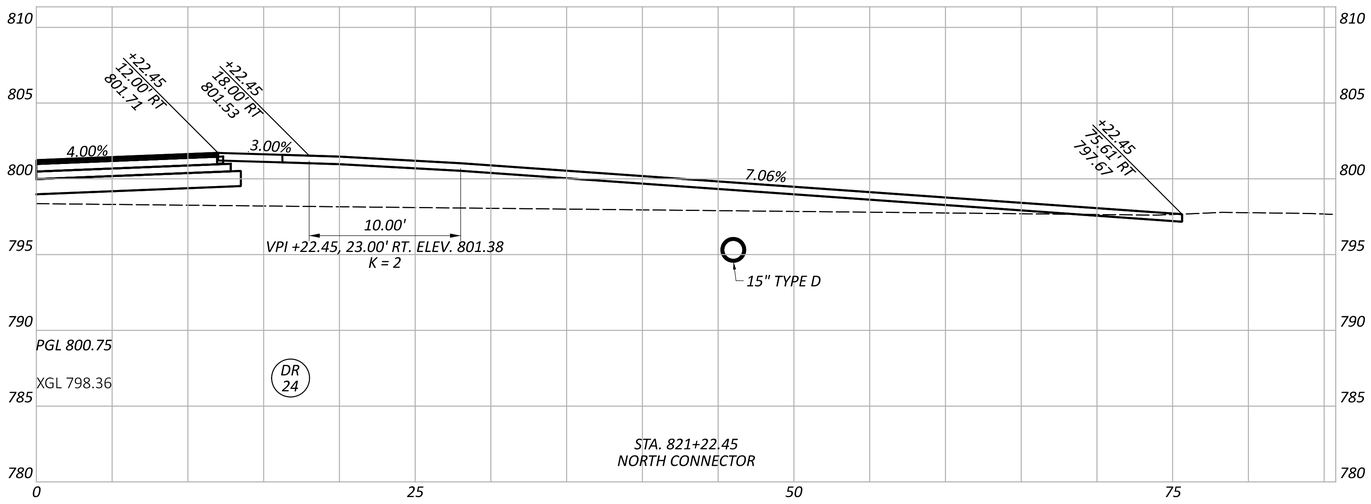
REVIEWER TWG 12/09/24

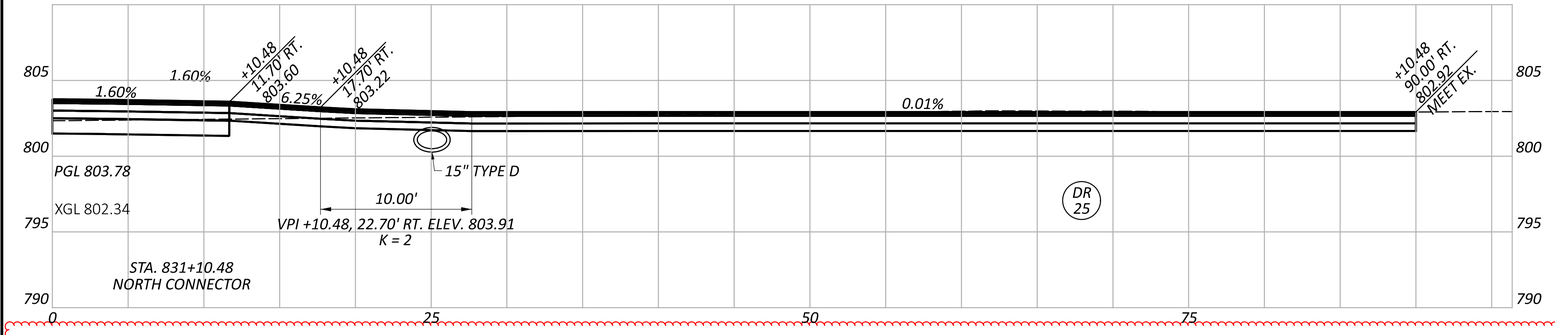
PROJECT ID 77555

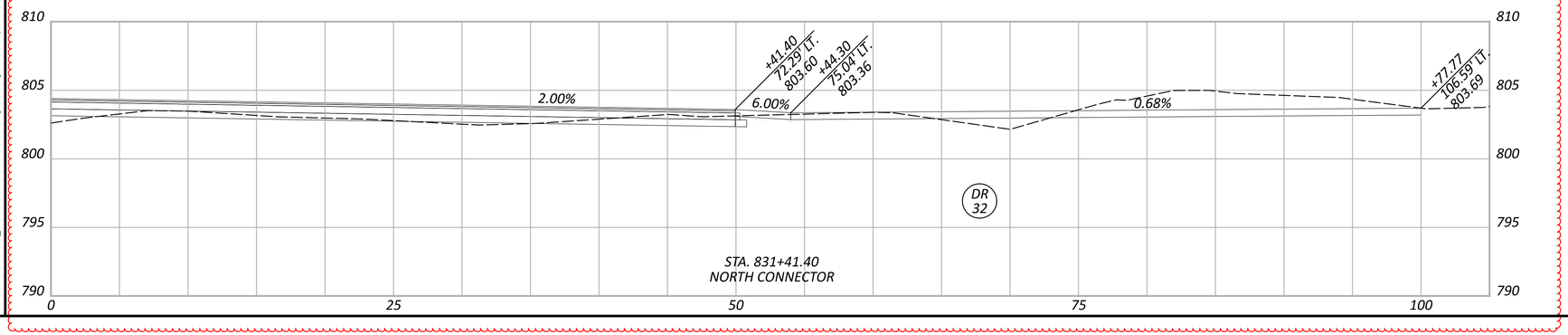
SHEET P.453 | TOTAL 846

FAI-33-2.64









NORTH CONNECTOR
DRIVEWAY PROFILES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
BAC

REVIEWER
TWG 12/09/24

PROJECT ID
77555

SHEET P.466 | TOTAL 846

FAI-33-2.64

MODEL: DRIVE PROFILES 5 - NORTH CONNECTOR PAPERSIZE: 34x22 (in.) DATE: 5/4/2025 TIME: 9:48:19 PM USER: cmt012
P:\ODT\05\0004_FAI-33-3.18\77555\400-Engineering\Roadway\Sheets\77555_GD002.dgn

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING:

SBR-1-20	REVISED	7-19-2024
VPF-1-24	DATED	7-19-2024

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATION:

SS840	REVISED	7-19-2024

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.

DESIGN DATA

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4.0 KSI (COPING, FOOTING, MOMENT SLAB)

CONCRETE CLASS QC2 WITH QC/QA - COMPRESSIVE STRENGTH 4.5 KSI (RAILING)

CONCRETE REINFORCEMENT:
GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (WALLS, MOMENT SLABS, FOOTINGS)

GFRP REINFORCEMENT (PARAPET)

STEEL CIP PILES - ASTM A252 GRADE 3 - YIELD STRENGTH 45 KSI

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.

CONSTRUCTION CLEARANCE

MAINTAIN A CONSTRUCTION CLEARANCE OF 14 FEET HORIZONTALLY FROM THE CENTER OF THE TRACKS AND 22 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6 FEET FROM THE CENTER OF THE TRACKS AT ALL TIMES.

DESIGN SUBMITTALS

THE CONTRACTOR IS HEREBY NOTIFIED THAT THE RETAINING WALL SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS PROVIDED IN THESE NOTES. AFTER THE AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT RETAINING WALL DETAIL DESIGN PLANS (4 SETS), DESIGN CALCULATIONS (2 SETS), AND SHOP DRAWINGS PER 501.04 TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL BY THE DIRECTOR. THE PLANS SHALL BE SUBMITTED EIGHT WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OF THE WALLS AND THE CONTRACTOR SHALL ALLOW FOUR WEEKS FOR THE REVIEW BY ODOT.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 55 KIPS PER PILE FOR THE PILES SUPPORTING WALLS 3 AND 4 IN FOOTING SEGMENTS 27, 28, AND 41.

WALL FOOTING PILES:
12" CAST-IN-PLACE REINFORCED CONCRETE PILES 25 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF 0.250 INCHES FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES.

ITEM 203, SPECIAL - ENGINEERED FILL: LOW DENSITY CELLULAR CONCRETE FILL, CLASS II &
ITEM 203, SPECIAL - ENGINEERED FILL: LOW DENSITY CELLULAR CONCRETE FILL, CLASS III

IN ADDITION TO THE REQUIREMENTS LISTED IN SPECIAL PROVISION: LOW DENSITY CELLULAR CONCRETE FILL, THE FOLLOWING REQUIREMENTS SHALL BE MET:

A. MATERIALS
1. ADMIXTURES
701.10 MICRO-SILICA, 701 GGBF SLAG, OR FLY ASH SHALL BE CLASS C OR CLASS F AND COMPATIBLE WITH FOAMING AGENT.

B. CONSTRUCTION METHODS
1. PLACEMENT
TOP OF THE CLASS III CCF SHALL NOT BE LESS THAN 2'-0" BELOW THE TOP OF PAVEMENT.

DO NOT PLACE CCF INTO AN AREA OF STANDING WATER.

DO NOT PLACE REINFORCEMENTS AT COLD JOINTS. SUPPORT REINFORCEMENTS IN A LEVEL POSITION THROUGHOUT THEIR LENGTH AND KEEP THEM AT LEAST 6 INCHES ABOVE THE PREVIOUS DAY'S COLD JOINT.

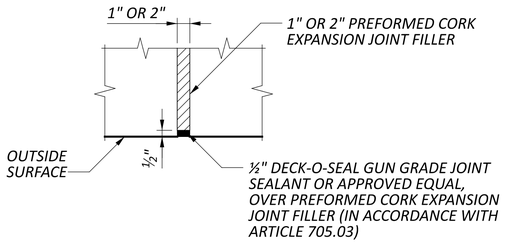
ITEM 511 - CONCRETE, MISC: WALL SLAB

PLACE 6" THICK SLAB OF UNREINFORCED CLASS QC1 CONCRETE AS SHOWN ON SHEET 35/41 . ONCE CONCRETE HAS CURED ENOUGH TO PLACE SAWCUTTING EQUIPMENT, GROOVE SLAB WITH 2" DEEP GROOVING TOOL AT THE CONTRACTION JOINT LOCATIONS DETAILED IN THE PLAN. ALL CONCRETE, SAWCUTTING, LABOR, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR ITEM 511 - CONCRETE, MISC: WALL SLAB (CY).

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

ALL 1"AND 2" P.E.J.F., AS PER PLAN CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ½" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVE MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

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



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF, OR ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN, SF AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

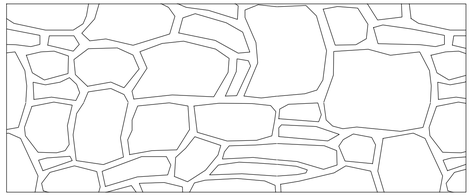
ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)

THE SURFACE FINISH AESTHETICS ON THE REFERENCED PROJECT WERE CONSTRUCTED USING ONE OF THE PATTERNS DESCRIBED BELOW IN THE ARCHITECTURAL SURFACE ELEVATION AND TABLE FROM AN APPROVED COMPANY MEETING THE DETAILS SHOWN ON THIS PAGE. FOR THIS PROJECT, THE CONTRACTOR WILL RESEARCH WHICH PATTERN/COMPANY WAS USED AND, AGAIN, MATCH IT TO CONSTRUCT THIS PROJECT AS DESCRIBED BELOW.

THE SURFACE TREATMENTS REFERENCED BELOW ARE INTENDED FOR PROCEDURE, TEXTURE, AND APPEARANCE REFERENCE.

ONE FULL SCALE PATTERNED PRECONSTRUCTION TEST PANEL SHALL BE PROVIDED FOR APPROVAL BY THE DISTRICT 5 BRIDGE SECTION. IF THE TEST PANEL DOES NOT MEET THE APPROVAL OF THE DISTRICT 5 BRIDGE SECTION, THE RESULT WILL BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE TEST PANEL WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. THE CONTRACTOR SHALL PROVIDE AN END SECTION OF THE PARAPET, AS SHOWN IN THE PLAN, SHOWING THAT THEY CAN ACHIEVE THE FORMLINING APPLICATION AS DETAILED. THE MOCK-UP SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN INTENDED TO BE USED ON THE PROJECT. THE PANEL SHALL BE OF THE SAME CEMENT AND AGGREGATE SOURCE THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE TEST PANEL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE SURFACE FINISH, TEST PANELS, AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEM SPECIAL 530, STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER).



ARCHITECTURAL SURFACE - ELEVATION

THE FOLLOWING SHALL BE USED:

COMPANY NAME:	PANEL SURFACE TREATMENT:	SPECIFICATIONS:
SPEC FORMLINERS, INC.	WASHINGTON DRYSTACK #1581	MAX RELIEF: 1½" LINER THICKNESS: 2⅝" STONE SIZE: 4" TO 24"
CUSTOM ROCK INTERNATIONAL	NEW ENGLAND DRYSTACK #12003	MAX RELIEF: 1⅜" LINER THICKNESS: 2¼" STONE SIZE: 3" TO 24"
APPROVED EQUAL	APPROVED EQUAL	APPROVED EQUAL

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

FABRICATE AND INSTALL THE VANDAL PROTECTION FENCE AS DETAILED IN THIS PLAN AND STANDARD DRAWING VPF-1-24. THE VANDAL PROTECTION FENCE SHALL BE 6'-0" STRAIGHT FENCE. THE COATING SYSTEM USED FOR THIS FENCE SHALL BE MODIFIED AS FOLLOWS. IF NOT ALREADY SPECIFIED IN VPF-1-24, ALL STEEL COMPONENTS SHALL RECEIVE PVC COATING IN ADDITION TO THE STANDARD SURFACE TREATMENTS. ALL THREADED ASSEMBLY COMPONENTS (I.E. THREAD LENGTH OF BOLTS, NUTS, AND WASHERS) WILL BE EXCLUDED FROM THIS ADDITIONAL COATING REQUIREMENT. PVC COATINGS SHALL CONFORM TO EITHER ASTM F668 CLASS 2A OR 2B (MESH, WIRE, ETC.), ASTM F626-14 (FENCE FITTINGS, ETC.), OR ASTM F1043-16 (FRAMEWORK, POSTS, RAILS, ETC.).

DUE TO THE ADDITIONAL THICKNESS OF THIS COATING SYSTEM, THE POTENTIAL EXISTS THAT TYPICAL FITTINGS MAY REQUIRE THEIR SIZES INCREASED ABOVE THE STANDARD SIZES SHOWN IN STD. DWG. VPF-1-24. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/FABRICATOR TO TEST ALL FENCE COMPONENTS FOR FIT-UP AT THE FABRICATION STAGE AND TO INCORPORATE ANY SIZE-UP ADJUSTMENTS TO ENSURE EASE OF FIELD INSTALLATION AND ERECTION. THE FINAL COLOR FOR ALL PVC COATED FENCE COMPONENTS SHALL BE BLACK (CLOSELY APPROACHING AMS 595A-17038). HANDLE ALL PVC COATED MATERIALS WITH CARE. IF THE PVC COATING IS DAMAGED, REPLACE THE DAMAGED FENCE COMPONENT(S) AT NO COST TO THE DEPARTMENT.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LINEAR FEET BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN.

GENERAL NOTES
WALLS

WFN
VARIES

DESIGN AGENCY
CARPENTER MARTY engineering

DESIGNER	CHECKER
BWR	JMV

REVIEWER
GDJ 10-18-23

PROJECT ID
77555

SUBSET	TOTAL
3	41

SHEET	TOTAL
P.505	846

FAI-33-2.64

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 3:09:28 PM USER: share
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ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS

A. DESCRIPTION

THIS BID ITEM CONSISTS OF PRECAST WALLS MANUFACTURED AND CONSTRUCTED IN ACCORDANCE WITH THIS SPECIFICATION AND DESIGNED IN ACCORDANCE WITH 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.

PRECAST WALL PANELS ARE SHOWN AND DETAILED IN THE PLANS WITH A 10 INCH STRUCTURAL THICKNESS AND A 2 INCH AESTHETIC THICKNESS. OTHER STRUCTURAL WALL THICKNESSES ARE ACCEPTABLE PROVIDING THEY MEET ALL THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED TO ACCOMMODATE ALTERNATE WALL DIMENSIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. DESIGN DATA

CONCRETE - COMPRESSIVE STRESS 4 KSI

CONCRETE REINFORCEMENT:
- GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

WELDED WIRE FABRIC - MINIMUM YIELD STRENGTH 70 KSI

C. MATERIALS - CONCRETE

THE CONCRETE FOR THE WALL SECTIONS SHALL BE COMPOSED OF PORTLAND CEMENT, FINE AND COARSE AGGREGATES, ADMIXTURES AND WATER. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C150, TYPE I, II, OR III. THE AIR ENTRAINING ADMIXTURE SHALL CONTAIN 6% ± 2% ENTRAINED AIR, AND SLUMP SHALL BE MAINTAINED WITH THE RANGE OF 1" TO 4". THE SLUMP MAY BE INCREASED TO 7" PROVIDED THE INCREASE IS ACHIEVED BY THE ADDITION OF A CHEMICAL WATER-REDUCING ADMIXTURE APPROVED BY THE ENGINEER.

D. MATERIALS AND REINFORCING HARDWARE

REINFORCEMENT SHALL CONSIST OF WELDED WIRE FABRIC CONFORMING TO ASTM A185, OR DEFORMED BILLET-STEEL BARS CONFORMING TO ASTM A615, A616, OR A617, GRADE 60.

E. SHOP DRAWING REQUIREMENTS

THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING.
- ALL STRUCTURAL DESIGN AND LOADING INFORMATION
- A PLAN VIEW
- ALL ELEVATION VIEWS
- ALL DIMENSIONS

MANUFACTURING SHALL NOT BEGIN UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED SHOP DRAWINGS HAS BEEN RECEIVED.

F. TESTING AND INSPECTION

ACCEPTABILITY OF THE CONCRETE FOR THE PRECAST PANELS WILL BE DETERMINED ON THE BASIS OF COMPRESSION TESTS, CERTIFICATIONS AND VISUAL INSPECTIONS. THE CONCRETE STRENGTH REQUIREMENTS FOR THE PRECAST PANELS SHALL BE CONSIDERED ATTAINED REGARDLESS OF CURING AGE WHEN COMPRESSION TEST RESULTS INDICATE STRENGTH WILL CONFORM TO 28-DAY SPECIFICATIONS AS STATED BELOW. THE MANUFACTURER SHALL FURNISH FACILITIES AND PERFORM ALL NECESSARY SAMPLING AND TESTING IN AN EXPEDITIOUS AND SATISFACTORY MANNER. PANELS UTILIZING TYPE I OR TYPE II CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL WHEN 7-DAY INITIAL STRENGTHS EXCEED 85 PERCENT OF THE 28-DAY REQUIREMENTS. PANELS UTILIZING TYPE III CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL PRIOR TO 28 DAYS ONLY WHEN COMPRESSIVE STRENGTH TEST RESULTS INDICATE THAT THE STRENGTH EXCEEDS THE 28-DAY SPECIFICATION.

G. MANUFACTURE

THE AGGREGATES, CEMENT AND WATER SHALL BE PROPORTIONED AND MIXED IN A BATCH MIXER TO PRODUCE A HOMOGENEOUS CONCRETE MEETING THE STRENGTH REQUIREMENTS OF THESE NOTES. THE PROPORTION OF PORTLAND CEMENT IN THE MIXTURE SHALL NOT BE LESS THAN 564 POUNDS PER CUBIC YARD OF CONCRETE.

THE WALL SECTIONS SHALL BE CURED FOR A SUFFICIENT LENGTH OF TIME SO THAT THE CONCRETE WILL DEVELOP THE SPECIFIED COMPRESSIVE STRENGTH IN 28 DAYS OR LESS. ANY ONE OF THE METHODS OF CURING OR COMBINATION THEREOF SHALL BE USED:

STEAM CURING - THE SECTIONS MAY BE LOW PRESSURE, STEAM CURED BY A SYSTEM THAT WILL MAINTAIN A MOIST ATMOSPHERE.

WATER CURING - THE SECTIONS MAY BE WATER CURED BY ANY METHOD THAT WILL KEEP THE SECTIONS MOIST.

THE FORMS USED IN MANUFACTURE SHALL BE SUFFICIENTLY RIGID AND ACCURATE TO MAINTAIN THE SECTIONS DIMENSIONS WITHIN THE PERMISSIBLE VARIATIONS GIVEN THESE NOTES. ALL CASTING SURFACE SHALL BE OF SMOOTH MATERIAL.

THE WALL SECTION SHALL BE STORED IN SUCH A MANNER TO PREVENT CRACKING OR DAMAGES.

THE FRONT FACE OF THE REINFORCED CONCRETE PANELS SHALL HAVE AN AESTHETIC FINISH AS SHOWN IN THE PLANS. CAULKING BETWEEN PRECAST PANELS SHALL BE IN ACCORDANCE WITH THE PLAN DETAILS. THE BACK SIDE OF THE REINFORCED CONCRETE PANELS SHALL HAVE A UNIFORM SURFACE FINISH AND SHALL BE ROUGH SCREEDED TO ELIMINATE OPEN POCKETS OF AGGREGATE AND SURFACE DISTORTIONS IN EXCESS OF 1/4".

ALL PANELS SHALL BE MANUFACTURED WITH ALL PANEL DIMENSIONS WITHIN 1/4".

H. COMPRESSIVE STRENGTH

ACCEPTANCE OF THE CONCRETE PANELS WITH RESPECT TO COMPRESSIVE STRENGTH WILL BE DETERMINED ON THE BASIS OF PRODUCTION LOTS. A PRODUCTION LOT IS DEFINED AS A GROUP OF PANELS THAT WILL BE REPRESENTED BY A SINGLE COMPRESSIVE STRENGTH SAMPLE AND WILL CONSIST OF EITHER 6 PANELS OR A SINGLE DAY'S PRODUCTION, WHICHEVER IS LESS.

DURING THE PRODUCTION OF THE CONCRETE PANELS THE MANUFACTURER WILL RANDOMLY SAMPLE THE CONCRETE IN ACCORDANCE WITH ASTM C172. A SINGLE COMPRESSIVE STRENGTH SAMPLE, CONSISTING OF A MINIMUM OF FOUR CYLINDERS, WILL BE RANDOMLY SELECTED FOR EVERY PRODUCTION LOT.

CYLINDERS FOR COMPRESSIVE STRENGTH TESTS SHALL BE 6" DIA. X 1'-0" SPECIMENS PREPARED IN ACCORDANCE WITH ASTM C31. FOR EVERY COMPRESSIBLE STRENGTH SAMPLE, A MINIMUM OF 2 CYLINDERS WILL BE CURED IN THE SAME MANNER AS THE PANELS AND TESTED AT APPROXIMATELY 7 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE CYLINDERS WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A TEST RESULT WHICH WILL DETERMINE THE INITIAL STRENGTH OF THE CONCRETE. IN ADDITION, 2 CYLINDERS SHALL BE CURED IN ACCORDANCE WITH ASTM C31 AND TESTED AT 28 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE TWO CYLINDERS, WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A COMPRESSIVE STRENGTH TEST RESULT WHICH WILL DETERMINE THE COMPRESSIVE STRENGTH OF THE PRODUCTION LOT.

IF THE INITIAL STRENGTH TESTS RESULTS INDICATE A COMPRESSIVE STRENGTH IN EXCESS OF 4 KSI, THEN THESE TESTS RESULTS WILL BE UTILIZED AS THE COMPRESSIVE STRENGTH TEST RESULT FOR THE PRODUCTION LOT AND THE REQUIREMENT FOR TESTING AT 28 DAYS WILL BE WAIVED FOR THAT PARTICULAR PRODUCTION LOT.

ACCEPTANCE OF A PRODUCTION LOT WILL BE MADE IF THE COMPRESSIVE STRENGTH TEST RESULT IS GREATER THAN OR EQUAL TO 4 KSI. IF THE RESULT IS LESS THAN 4 KSI, THE ACCEPTANCE OF THE PRODUCTION LOT WILL BE BASED ON ITS MEETING THE FOLLOWING THREE ACCEPTANCE CRITERIA:
- 90% OF THE COMPRESSIVE STRENGTH TEST RESULTS FOR THE OVERALL PRODUCTION SHALL EXCEED 4 KSI.
- THE AVERAGE OF ANY SIX CONSECUTIVE COMPRESSIVE STRENGTH TEST RESULTS SHALL EXCEED 4 KSI.
- NO INDIVIDUAL COMPRESSIVE STRENGTH TEST RESULT SHALL FALL BELOW 3.6 KSI.

IN THE EVENT THAT A PRODUCTION LOT FAILS TO MEET THE SPECIFIED COMPRESSIVE STRENGTH REQUIREMENTS, THE PRODUCTION LOT SHALL BE REJECTED. SUCH REJECTION SHALL PREVAIL UNLESS THE MANUFACTURER, AT THEIR OWN EXPENSE, OBTAINS AND SUBMITS EVIDENCE ACCEPTABLE TO THE ENGINEER THAT THE STRENGTH AND QUALITY OF THE CONCRETE PLACED WITHIN THE PANELS OF THE PRODUCTION LOT IS ACCEPTABLE. IF SUCH EVIDENCE CONSISTS OF TESTS MADE ON CORES TAKEN FROM THE PANELS WITHIN THE PRODUCTION LOT. THE CORES SHALL BE OBTAINED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS OF ASTM C42.

I. REJECTION

PANELS SHALL BE SUBJECT TO REJECTION BECAUSE OF FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTION:
- DEFECTS THAT INDICATE IMPERFECT MOLDING
- DEFECTS INDICATING HONEYCOMBED OR OPEN TEXTURED CONCRETE
- DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE SEALING OF CONCRETE SURFACE TREATMENT OR TO AESTHETIC SURFACE TREATMENTS
- CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER
- STAINED FORM FACES, DUE TO FORM OIL, CURING, OR OTHER CONTAMINANTS
- SIGNS OF AGGREGATE SEGREGATION
- CRACKS WIDER THAN 0.01 INCHES, PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK. REPAIR ALL CRACKS THAT ARE SMALLER
- PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES
- UNUSABLE LIFTING INSERTS
- EXPOSED REINFORCING STEEL
- INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH

EITHER REPLACE DAMAGED PRECAST WALL PANELS OR DOCUMENT THE DAMAGE AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL; PERFORM REPAIRS WITH THE ACCEPTANCE OF THE ENGINEER. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.

J. MARKING

THE DATE OF MANUFACTURE, THE PRODUCTION LOT NUMBER AND THE PIECE MARK SHALL BE CLEARLY SCRIBED ON THE BACK SURFACE OF EACH PANEL.

K. CONCRETE LEVELING PAD

THE CONCRETE LEVELING PAD (MUD SLAB) SHALL BE CONSTRUCTED WITH CONCRETE HAVING A STRENGTH THAT IS NOT LESS THAN 3.5 KSI AND SHALL HAVE SUFFICIENT STRENGTH TO ADEQUATELY SUPPORT THE PANELS AT THE BOTTOM OF THE WALL IN A LEVEL POSITION DURING INSTALLATION.

A 4" (MIN.) THICK UNREINFORCED CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE PAD SHALL BE CURED A MINIMUM OF 24 HOURS BEFORE PLACING WALL PANELS ON THE LEVELING PAD.

L. WALL ERECTION

PANELS ARE HANDLED BY MEANS OF A LIFTING DEVICE CONNECTED TO THE LIFTING INSERT WHICH IS CAST INTO THE UPPER EDGE OR BACK SIDE OF THE PANELS. ALL PANELS SHALL BE BRACED TO RESIST THE TEMPORARY CONSTRUCTION LOADS INCLUDING WIND LOADS, PRIOR TO FOOTING CONSTRUCTION.

M. BASIS OF PAYMENT

PAYMENT FOR ITEM 530- SPECIAL - STRUCTURES: PRECAST WALL PANELS COVERS ALL WORK DESCRIBED ABOVE.

FOUNDATION BEARING RESISTANCE

PRECAST WALL PANEL FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM STRENGTH LIMIT STATE BEARING PRESSURE OF 2.27 KIPS PER SQUARE FOOT FOR WALLS 1 & 2 AND 3.34 KIPS PER SQUARE FOOT FOR WALLS 3 AND 4. THE FACTORED BEARING RESISTANCE IS 2.21 KIPS PER SQUARE FOOT FOR WALLS 1 & 2 AND 2.28 KIPS PER SQUARE FOOT FOR WALLS 3 AND 4.

GENERAL NOTES
WALLS

WFN VARIES

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
BWR	JMV

REVIEWER
GDJ 10-18-23

PROJECT ID
77555

SUBSET	TOTAL
4	41

SHEET	TOTAL
P.506	846

FAI-33-2.64

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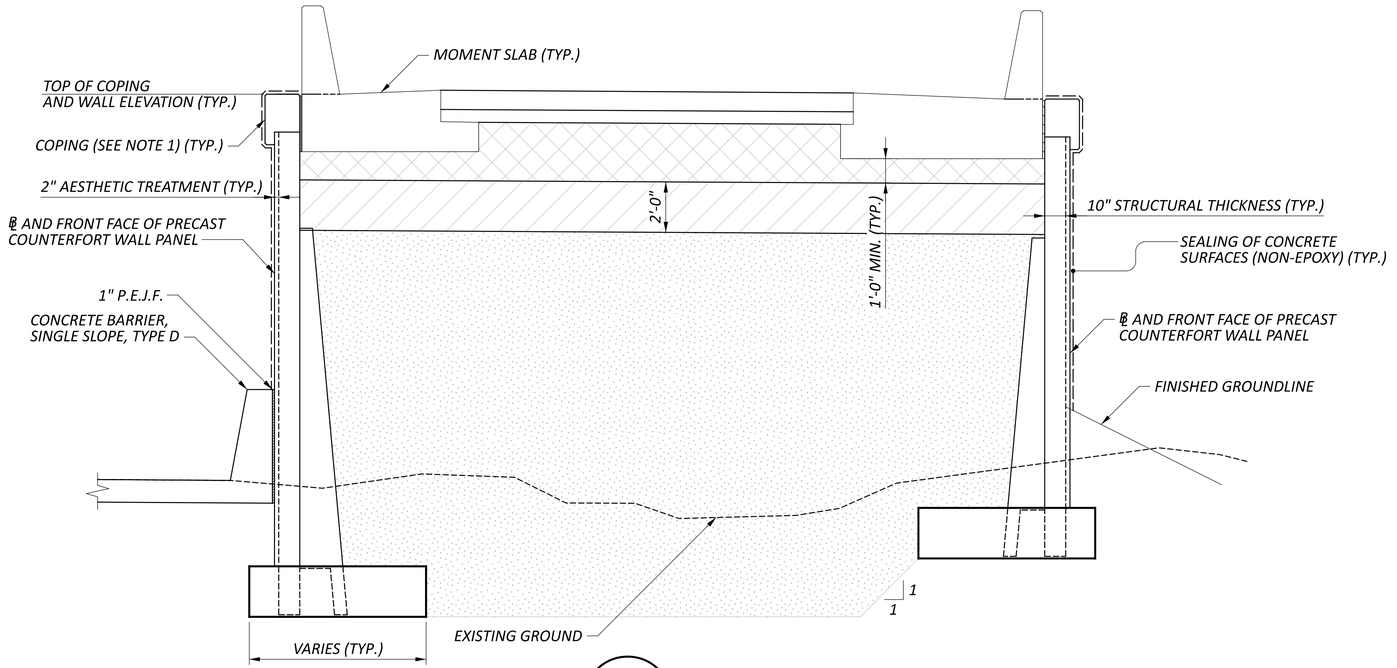
LEGEND

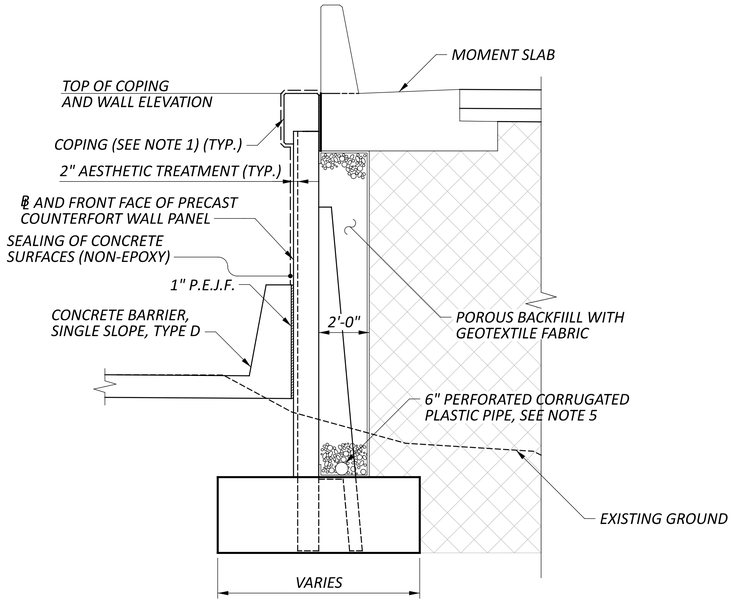
- LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS II
- LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS III
- ITEM 203 - EMBANKMENT

NOTES

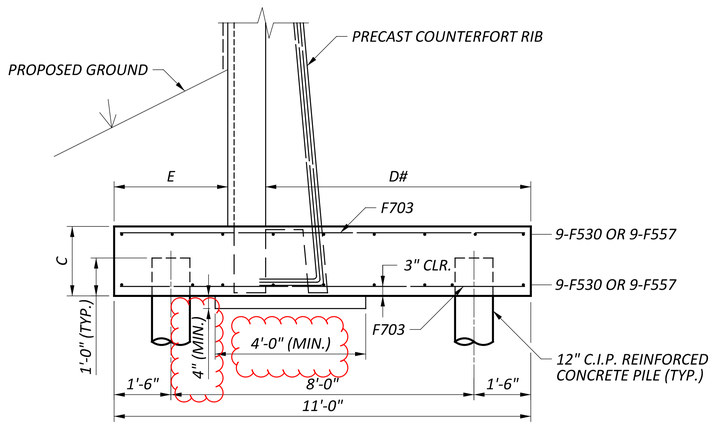
1. FOR COPING DETAILS, SEE SHEET 27/41
2. FOR MOMENT SLAB BARRIER DETAILS, SEE SHEET 28/41 - 34/41
3. ALL DIMENSIONS ARE PERPENDICULAR TO WALL.
4. FOR SECTION A LOCATIONS SEE SHEETS 6/41 - 17/41
5. THE 6" DIAMETER PERFORATED PERFORATED CORRUGATED PLASTIC PIPE MAY BE PLACED BEHIND THE COUNTERFORT INSTEAD OF THROUGH THE COUNTERFORT. ADDITIONAL POROUS BACKFILL WITH FILTER FABRIC TO BE PROVIDED AT NO ADDITIONAL COST TO THE DEPARTMENT.
6. SEE SHEET 25/41 FOR LOCATION OF DIMENSIONS B, C, D#, AND E.
7. REINFORCING LOCATIONS BENEATH PRECAST WINGWALL PANELS MAY REQUIRE ADJUSTMENT TO AVOID CONFLICTS WITH PANEL SUPPORTS AND RIB REINFORCEMENT. COORDINATE WITH WALL MANUFACTURER PRIOR TO PLACING.



A / NOTE 4 SECTION

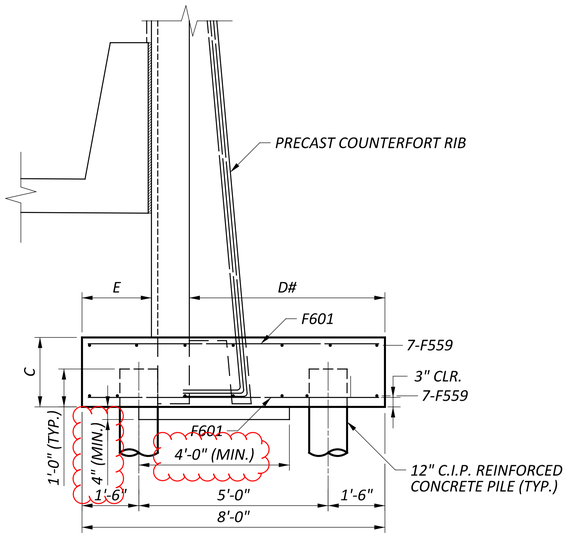


B / 10 B / 11 SECTION



WALL 3 PILE SUPPORTED FOOTING

(FOOTING SEGMENTS 27 & 28)



WALL 4 PILE SUPPORTED FOOTING

(FOOTING SEGMENT 41)

WALL TYPICAL SECTION
WALLS 1-4

WFN	VARIES
DESIGN AGENCY	CARPENTER MARTY transportation
DESIGNER	SMH
CHECKER	BWR
REVIEWER	GDJ 10-20-23
PROJECT ID	77555
SUBSET	26
TOTAL	41
SHEET	P.528
TOTAL	846

FAI-33-2.64

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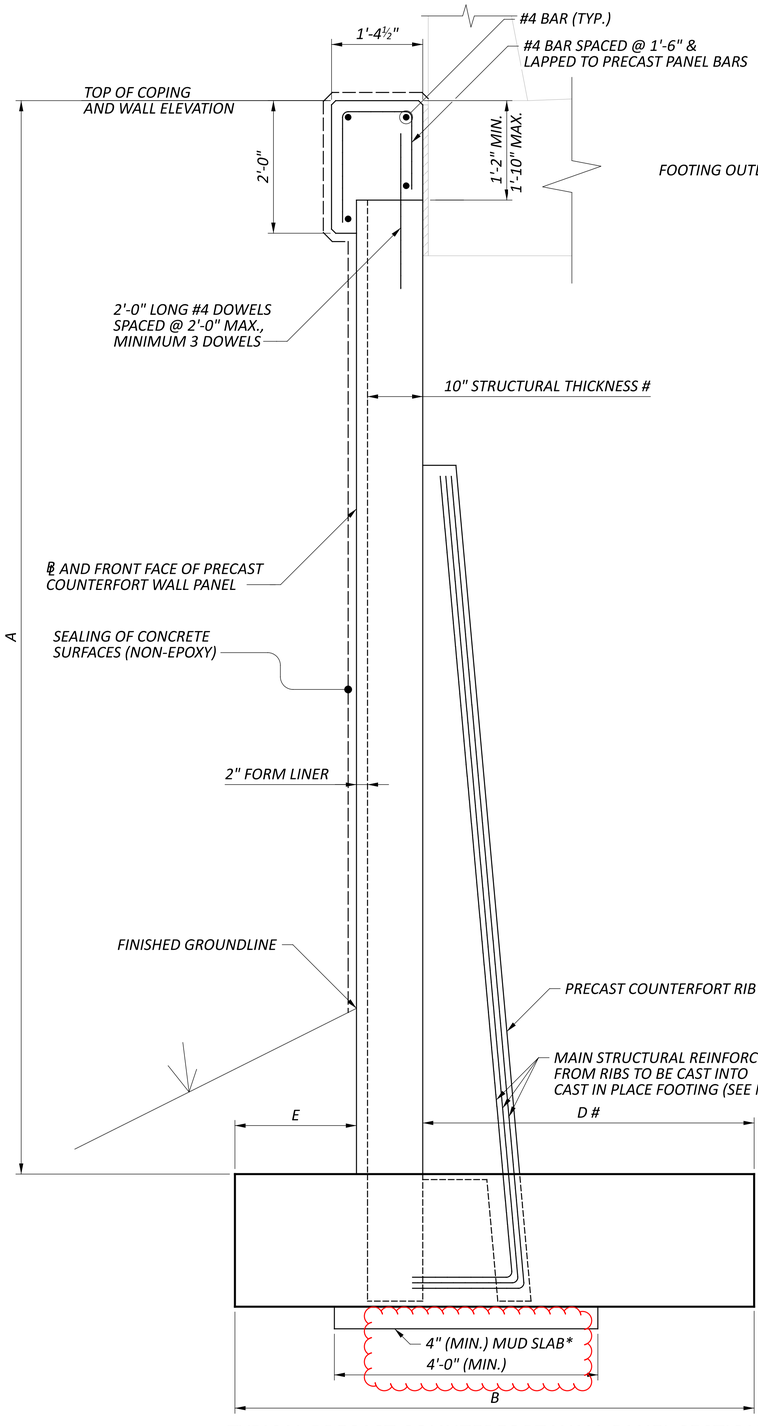
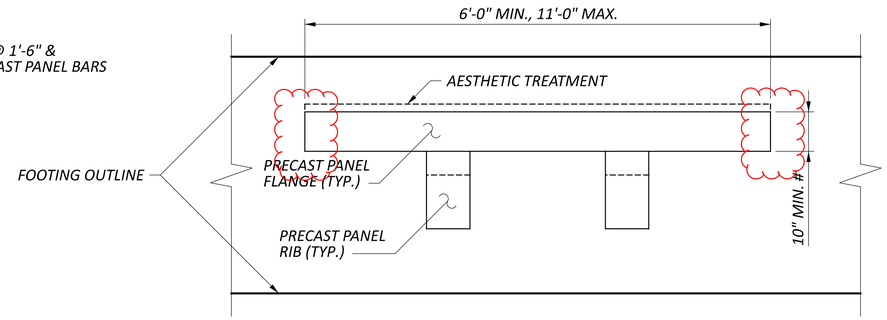


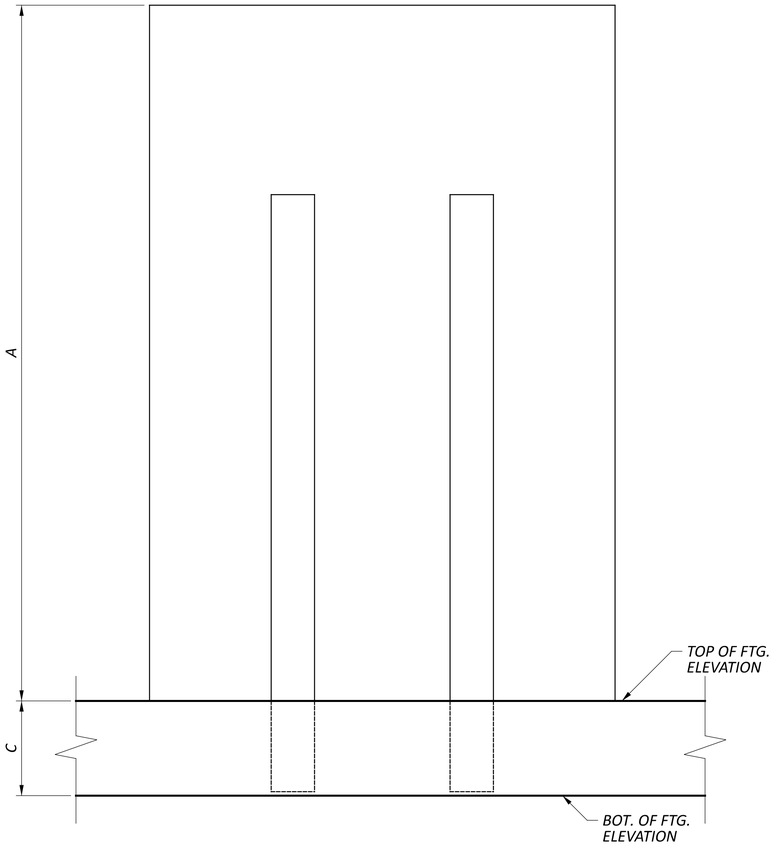
TYPICAL PRECAST COUNTERFORT WALL PANEL SECTION

(SPREAD FOOTING)



TYPICAL PRECAST COUNTERFORT WALL PANEL PLAN VIEW

PANEL SIDE ADJACENT TO EXPANSION JOINT SHALL NOT HAVE SHEAR KEY



TYPICAL PRECAST COUNTERFORT WALL PANEL ELEVATION

WALL 1		
WALL SEGMENT	DIMENSION A	
	BEGIN	END
A	9'-8"	14'-2"
B	13'-2"	17'-1"
C	16'-7"	18'-11"
D	18'-11"	22'-2"
E	22'-0"	23'-11"
F	23'-11"	24'-5"
G	24'-5"	25'-0"
H	26'-6"	26'-11"
I	26'-11"	27'-6"

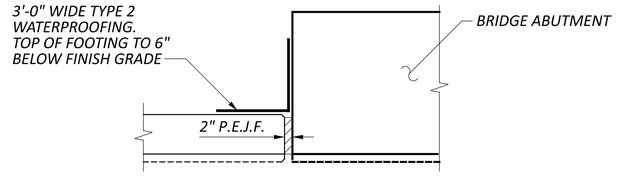
WALL 2		
WALL SEGMENT	DIMENSION A	
	BEGIN	END
J	30'-5"	30'-0"
K	30'-0"	29'-0"
L	30'-0"	27'-7"
M	27'-7"	26'-11"
N	26'-11"	23'-2"
O	24'-3"	19'-9"
P	19'-11"	15'-5"
Q	14'-9"	10'-3"
R	10'-3"	6'-6"
S	6'-6"	4'-0"
T	4'-0"	3'-2"

WALL 3		
WALL SEGMENT	DIMENSION A	
	BEGIN	END
U	28'-5"	28'-1"
V	28'-1"	27'-4"
W	26'-4"	25'-2"
X	25'-2"	21'-10"
Y	22'-0"	17'-8"
Z	17'-8"	17'-8"
AA	17'-8"	15'-4"
BB	17'-10"	16'-4"
CC	16'-4"	15'-3"
DD	15'-3"	14'-3"
EE	12'-3"	8'-9"

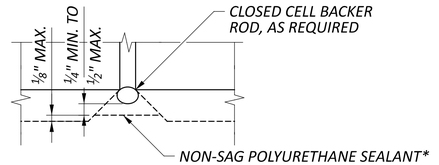
WALL 4		
WALL SEGMENT	DIMENSION A	
	BEGIN	END
FF	7'-1"	9'-0"
GG	9'-0"	9'-6"
HH	9'-6"	12'-2"
II	12'-2"	16'-1"
JJ	15'-7"	20'-0"
KK	19'-10"	24'-4"
LL	24'-0"	28'-1"
MM	28'-1"	30'-9"
NN	31'-5"	31'-5"
OO	31'-5"	31'-8"

NOTES

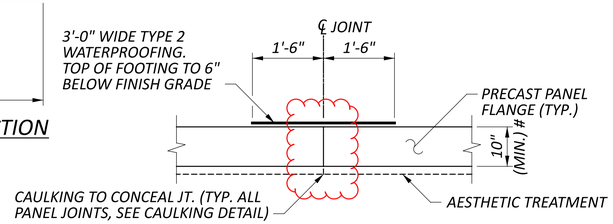
1. REFER TO SHEET 25/41 FOR FOOTING DIMENSIONS B, C, D#, AND E.
2. REFER TO SHEET 26/41 FOR PILE SUPPORTED WALL DETAILS.
3. REINFORCING LOCATIONS BENEATH PRECAST WINGWALL PANELS MAY REQUIRE ADJUSTMENT TO AVOID CONFLICTS WITH PANEL SUPPORTS AND RIB REINFORCEMENT. COORDINATE WITH WALL MANUFACTURER PRIOR TO PLACING.



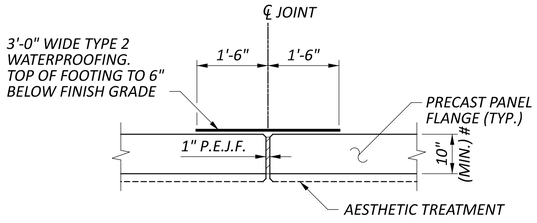
TYPICAL PANEL END AT ABUTMENT



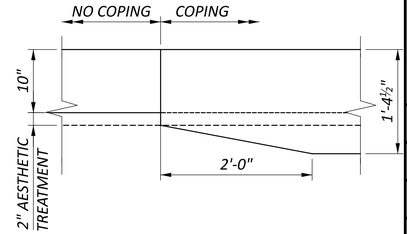
CAULKING DETAIL



TYPICAL PANEL JOINT DETAIL



EXPANSION JOINT DETAIL



COPING TRANSITION DETAIL (PLAN VIEW)

LEGEND

* - INCLUDE FOR PAYMENT WITH ITEM SPECIAL - STRUCTURES: PRECAST WALL PANELS

- SEE SHEET 4/41 FOR NOTE REGARDING STRUCTURAL THICKNESS.

WALL DETAILS
WALLS 1-4

WFN VARIES

DESIGN AGENCY CARPENTER MARTY engineering

DESIGNER	CHECKER
SMH	BWR

REVIEWER GDJ 10-20-23

PROJECT ID 77555

SUBSET	TOTAL
27	41

SHEET	TOTAL
P.529	846

FAI-33-2.64

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LEGEND

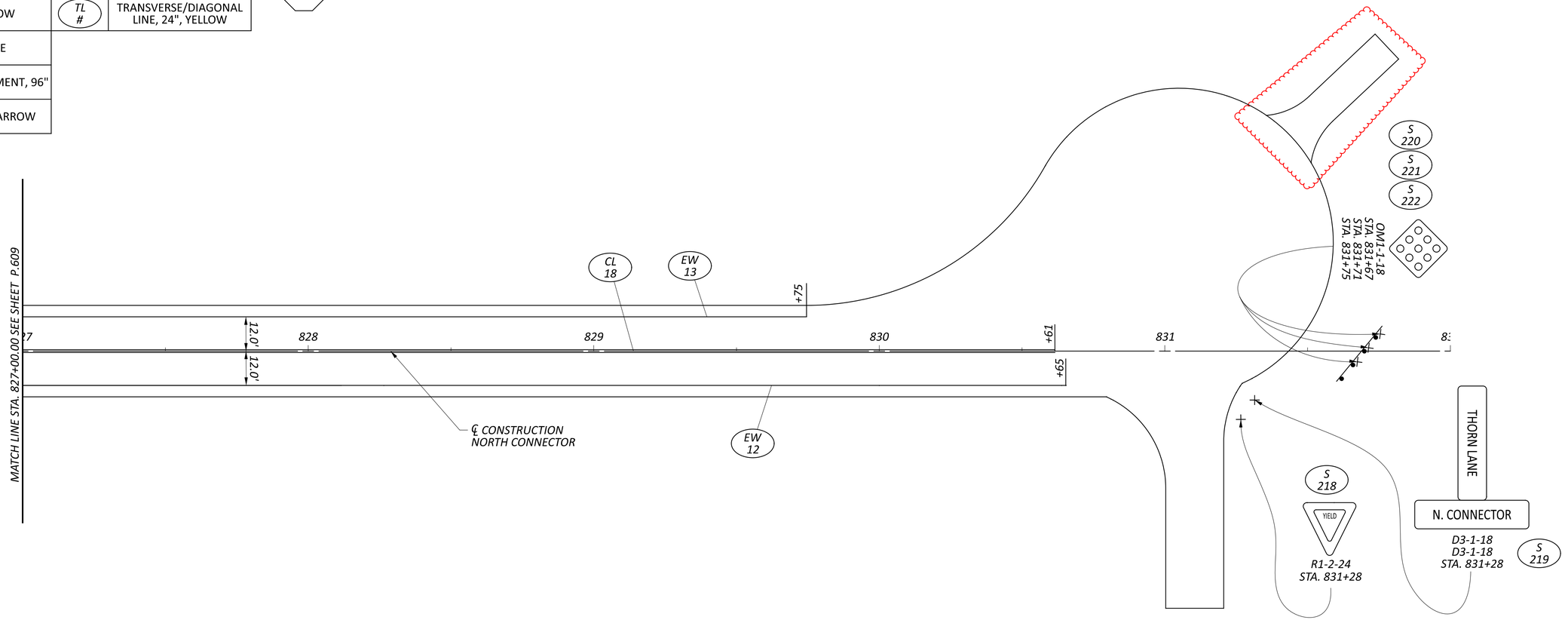
MAINLINE U.S. 33/ RAMPS		SIDE STREETS	
ITEM 644/646	DESCRIPTION	ITEM 644/646	DESCRIPTION
CH #	CHANNELIZING LINE, 12"	CL #	CENTER LINE, DOUBLE SOLID
DL #	DOTTED LINE, 6"	CH #	CHANNELIZING LINE, 8"
EW #	EDGE LINE, WHITE, 6"	EW #	EDGE LINE, WHITE, 4"
EY #	EDGE LINE, YELLOW, 6"	AR #	LANE ARROW
LL #	LANE LINE, 6"	SL #	STOP LINE
AR #	LANE ARROW	TL #	TRANSVERSE/DIAGONAL LINE, 24", YELLOW
SL #	STOP LINE		
WP #	WORD ON PAVEMENT, 96"		
WW #	WRONG WAY ARROW		

STOP *EXISTING SIGN TO BE REMOVED*

STOP *EXISTING SIGN TO REMAIN*

STOP *EXISTING SIGN TO BE REERECTED*

STOP *PROPOSED SIGN*



HORIZONTAL SCALE IN FEET
0 10 20 40

TRAFFIC CONTROL PLAN - NORTH CONNECTOR
STA. 827+00.00 TO STA. 832+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER BAC

REVIEWER TWG 12/09/24

PROJECT ID 77555

SHEET P.610 TOTAL 846

FAI-33-2.64

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LEGEND

MAINLINE U.S. 33/ RAMPS		SIDE STREETS	
ITEM 644/646	DESCRIPTION	ITEM 644/646	DESCRIPTION
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DL #	DOTTED LINE, 6"	CH #	CHANNELIZING LINE, 8"
EW #	EDGE LINE, WHITE, 6"	EW #	EDGE LINE, WHITE, 4"
EY #	EDGE LINE, YELLOW, 6"	AR #	LANE ARROW
LL #	LANE LINE, 6"	SL #	STOP LINE
AR #	LANE ARROW	TL #	TRANSVERSE/DIAGONAL LINE, 24", YELLOW
SL #	STOP LINE		
WP #	WORD ON PAVEMENT, 96"		
WW #	WRONG WAY ARROW		

EXISTING SIGN TO BE REMOVED

EXISTING SIGN TO REMAIN

EXISTING SIGN TO BE REERECTED

PROPOSED SIGN

HORIZONTAL SCALE IN FEET
0 10 20 40

TRAFFIC CONTROL PLAN - SOUTH CONNECTOR
STA. 739+00.00 TO STA. 743+00.00

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER
AA

REVIEWER
MGM 12/09/24

PROJECT ID
77555

SHEET P.619 | TOTAL 846

FAI-33-2.64

MODEL: 77555_TP009 PAPERSIZE: 34x22 (in.) DATE: 5/5/2025 TIME: 2:09:50 AM USER: cmt012
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ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS

A. DESCRIPTION

THIS BID ITEM CONSISTS OF PRECAST WALLS MANUFACTURED AND CONSTRUCTED IN ACCORDANCE WITH THIS SPECIFICATION AND DESIGNED IN ACCORDANCE WITH 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.

PRECAST WALL PANELS ARE SHOWN AND DETAILED IN THE PLANS WITH A 10 INCH STRUCTURAL THICKNESS AND A 2 INCH AESTHETIC THICKNESS. OTHER STRUCTURAL WALL THICKNESSES ARE ACCEPTABLE PROVIDING THEY MEET ALL THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED TO ACCOMMODATE ALTERNATE WALL DIMENSIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. DESIGN DATA

CONCRETE - COMPRESSIVE STRESS 4 KSI

CONCRETE REINFORCEMENT:
- GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

WELDED WIRE FABRIC - MINIMUM YIELD STRENGTH 70 KSI

C. MATERIALS - CONCRETE

THE CONCRETE FOR THE WALL SECTIONS SHALL BE COMPOSED OF PORTLAND CEMENT, FINE AND COARSE AGGREGATES, ADMIXTURES AND WATER. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C150, TYPE I, II, OR III. THE AIR ENTRAINING ADMIXTURE SHALL CONTAIN 6% ± 2% ENTRAINED AIR, AND SLUMP SHALL BE MAINTAINED WITH THE RANGE OF 1" TO 4". THE SLUMP MAY BE INCREASED TO 7" PROVIDED THE INCREASE IS ACHIEVED BY THE ADDITION OF A CHEMICAL WATER-REDUCING ADMIXTURE APPROVED BY THE ENGINEER.

D. MATERIALS AND REINFORCING HARDWARE

REINFORCEMENT SHALL CONSIST OF WELDED WIRE FABRIC CONFORMING TO ASTM A185, OR DEFORMED BILLET-STEEL BARS CONFORMING TO ASTM A615, A616, OR A617, GRADE 60.

E. SHOP DRAWING REQUIREMENTS

THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING.
- ALL STRUCTURAL DESIGN AND LOADING INFORMATION
- A PLAN VIEW
- ALL ELEVATION VIEWS
- ALL DIMENSIONS

MANUFACTURING SHALL NOT BEGIN UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED SHOP DRAWINGS HAS BEEN RECEIVED.

F. TESTING AND INSPECTION

ACCEPTABILITY OF THE CONCRETE FOR THE PRECAST PANELS WILL BE DETERMINED ON THE BASIS OF COMPRESSION TESTS, CERTIFICATIONS AND VISUAL INSPECTIONS. THE CONCRETE STRENGTH REQUIREMENTS FOR THE PRECAST PANELS SHALL BE CONSIDERED ATTAINED REGARDLESS OF CURING AGE WHEN COMPRESSION TEST RESULTS INDICATE STRENGTH WILL CONFORM TO 28-DAY SPECIFICATIONS AS STATED BELOW. THE MANUFACTURER SHALL FURNISH FACILITIES AND PERFORM ALL NECESSARY SAMPLING AND TESTING IN AN EXPEDITIOUS AND SATISFACTORY MANNER. PANELS UTILIZING TYPE I OR TYPE II CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL WHEN 7-DAY INITIAL STRENGTHS EXCEED 85 PERCENT OF THE 28-DAY REQUIREMENTS. PANELS UTILIZING TYPE III CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL PRIOR TO 28 DAYS ONLY WHEN COMPRESSIVE STRENGTH TEST RESULTS INDICATE THAT THE STRENGTH EXCEEDS THE 28-DAY SPECIFICATION.

G. MANUFACTURE

THE AGGREGATES, CEMENT AND WATER SHALL BE PROPORTIONED AND MIXED IN A BATCH MIXER TO PRODUCE A HOMOGENEOUS CONCRETE MEETING THE STRENGTH REQUIREMENTS OF THESE NOTES. THE PROPORTION OF PORTLAND CEMENT IN THE MIXTURE SHALL NOT BE LESS THAN 564 POUNDS PER CUBIC YARD OF CONCRETE.

THE WALL SECTIONS SHALL BE CURED FOR A SUFFICIENT LENGTH OF TIME SO THAT THE CONCRETE WILL DEVELOP THE SPECIFIED COMPRESSIVE STRENGTH IN 28 DAYS OR LESS. ANY ONE OF THE METHODS OF CURING OR COMBINATION THEREOF SHALL BE USED:

STEAM CURING - THE SECTIONS MAY BE LOW PRESSURE, STEAM CURED BY A SYSTEM THAT WILL MAINTAIN A MOIST ATMOSPHERE.

WATER CURING - THE SECTIONS MAY BE WATER CURED BY ANY METHOD THAT WILL KEEP THE SECTIONS MOIST.

THE FORMS USED IN MANUFACTURE SHALL BE SUFFICIENTLY RIGID AND ACCURATE TO MAINTAIN THE SECTIONS DIMENSIONS WITHIN THE PERMISSIBLE VARIATIONS GIVEN THESE NOTES. ALL CASTING SURFACE SHALL BE OF SMOOTH MATERIAL.

THE WALL SECTION SHALL BE STORED IN SUCH A MANNER TO PREVENT CRACKING OR DAMAGES.

THE FRONT FACE OF THE REINFORCED CONCRETE PANELS SHALL HAVE AN AESTHETIC FINISH AS SHOWN IN THE PLANS. CAULKING BETWEEN PRECAST PANELS SHALL BE IN ACCORDANCE WITH THE PLAN DETAILS. THE BACK SIDE OF THE REINFORCED CONCRETE PANELS SHALL HAVE A UNIFORM SURFACE FINISH AND SHALL BE ROUGH SCREEDED TO ELIMINATE OPEN POCKETS OF AGGREGATE AND SURFACE DISTORTIONS IN EXCESS OF 1/4".

ALL PANELS SHALL BE MANUFACTURED WITH ALL PANEL DIMENSIONS WITHIN 1/4".

H. COMPRESSIVE STRENGTH

ACCEPTANCE OF THE CONCRETE PANELS WITH RESPECT TO COMPRESSIVE STRENGTH WILL BE DETERMINED ON THE BASIS OF PRODUCTION LOTS. A PRODUCTION LOT IS DEFINED AS A GROUP OF PANELS THAT WILL BE REPRESENTED BY A SINGLE COMPRESSIVE STRENGTH SAMPLE AND WILL CONSIST OF EITHER 6 PANELS OR A SINGLE DAY'S PRODUCTION, WHICHEVER IS LESS.

DURING THE PRODUCTION OF THE CONCRETE PANELS THE MANUFACTURER WILL RANDOMLY SAMPLE THE CONCRETE IN ACCORDANCE WITH ASTM C172. A SINGLE COMPRESSIVE STRENGTH SAMPLE, CONSISTING OF A MINIMUM OF FOUR CYLINDERS, WILL BE RANDOMLY SELECTED FOR EVERY PRODUCTION LOT.

CYLINDERS FOR COMPRESSIVE STRENGTH TESTS SHALL BE 6" DIA. X 1'-0" SPECIMENS PREPARED IN ACCORDANCE WITH ASTM C31. FOR EVERY COMPRESSIBLE STRENGTH SAMPLE, A MINIMUM OF 2 CYLINDERS WILL BE CURED IN THE SAME MANNER AS THE PANELS AND TESTED AT APPROXIMATELY 7 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE CYLINDERS WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A TEST RESULT WHICH WILL DETERMINE THE INITIAL STRENGTH OF THE CONCRETE. IN ADDITION, 2 CYLINDERS SHALL BE CURED IN ACCORDANCE WITH ASTM C31 AND TESTED AT 28 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE TWO CYLINDERS, WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A COMPRESSIVE STRENGTH TEST RESULT WHICH WILL DETERMINE THE COMPRESSIVE STRENGTH OF THE PRODUCTION LOT.

IF THE INITIAL STRENGTH TESTS RESULTS INDICATE A COMPRESSIVE STRENGTH IN EXCESS OF 4 KSI, THEN THESE TESTS RESULTS WILL BE UTILIZED AS THE COMPRESSIVE STRENGTH TEST RESULT FOR THE PRODUCTION LOT AND THE REQUIREMENT FOR TESTING AT 28 DAYS WILL BE WAIVED FOR THAT PARTICULAR PRODUCTION LOT.

ACCEPTANCE OF A PRODUCTION LOT WILL BE MADE IF THE COMPRESSIVE STRENGTH TEST RESULT IS GREATER THAN OR EQUAL TO 4 KSI. IF THE RESULT IS LESS THAN 4 KSI, THE ACCEPTANCE OF THE PRODUCTION LOT WILL BE BASED ON ITS MEETING THE FOLLOWING THREE ACCEPTANCE CRITERIA:
- 90% OF THE COMPRESSIVE STRENGTH TEST RESULTS FOR THE OVERALL PRODUCTION SHALL EXCEED 4 KSI.
- THE AVERAGE OF ANY SIX CONSECUTIVE COMPRESSIVE STRENGTH TEST RESULTS SHALL EXCEED 4 KSI.
- NO INDIVIDUAL COMPRESSIVE STRENGTH TEST RESULT SHALL FALL BELOW 3.6 KSI.

IN THE EVENT THAT A PRODUCTION LOT FAILS TO MEET THE SPECIFIED COMPRESSIVE STRENGTH REQUIREMENTS, THE PRODUCTION LOT SHALL BE REJECTED. SUCH REJECTION SHALL PREVAIL UNLESS THE MANUFACTURER, AT THEIR OWN EXPENSE, OBTAINS AND SUBMITS EVIDENCE ACCEPTABLE TO THE ENGINEER THAT THE STRENGTH AND QUALITY OF THE CONCRETE PLACED WITHIN THE PANELS OF THE PRODUCTION LOT IS ACCEPTABLE. IF SUCH EVIDENCE CONSISTS OF TESTS MADE ON CORES TAKEN FROM THE PANELS WITHIN THE PRODUCTION LOT. THE CORES SHALL BE OBTAINED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS OF ASTM C42.

I. REJECTION

PANELS SHALL BE SUBJECT TO REJECTION BECAUSE OF FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTION:
- DEFECTS THAT INDICATE IMPERFECT MOLDING
- DEFECTS INDICATING HONEYCOMBED OR OPEN TEXTURED CONCRETE
- DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE SEALING OF CONCRETE SURFACE TREATMENT OR TO AESTHETIC SURFACE TREATMENTS
- CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER
- STAINED FORM FACES, DUE TO FORM OIL, CURING, OR OTHER CONTAMINANTS
- SIGNS OF AGGREGATE SEGREGATION
- CRACKS WIDER THAN 0.01 INCHES, PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK. REPAIR ALL CRACKS THAT ARE SMALLER
- PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES
- UNUSABLE LIFTING INSERTS
- EXPOSED REINFORCING STEEL
- INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH

EITHER REPLACE DAMAGED PRECAST WALL PANELS OR DOCUMENT THE DAMAGE AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL; PERFORM REPAIRS WITH THE ACCEPTANCE OF THE ENGINEER. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.

J. MARKING

THE DATE OF MANUFACTURE, THE PRODUCTION LOT NUMBER AND THE PIECE MARK SHALL BE CLEARLY SCRIBED ON THE BACK SURFACE OF EACH PANEL.

K. CONCRETE LEVELING PAD

THE CONCRETE LEVELING PAD (MUD SLAB) SHALL BE CONSTRUCTED WITH CONCRETE HAVING A STRENGTH THAT IS NOT LESS THAN 3.5 KSI AND SHALL HAVE SUFFICIENT STRENGTH TO ADEQUATELY SUPPORT THE PANELS AT THE BOTTOM OF THE WALL IN A LEVEL POSITION DURING INSTALLATION.

A 4" (MIN.) THICK UNREINFORCED CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE PAD SHALL BE CURED A MINIMUM OF 24 HOURS BEFORE PLACING WALL PANELS ON THE LEVELING PAD.

L. WALL ERECTION

PANELS ARE HANDLED BY MEANS OF A LIFTING DEVICE CONNECTED TO THE LIFTING INSERT WHICH IS CAST INTO THE UPPER EDGE OR BACK SIDE OF THE PANELS. ALL PANELS SHALL BE BRACED TO RESIST THE TEMPORARY CONSTRUCTION LOADS INCLUDING WIND LOADS, PRIOR TO FOOTING CONSTRUCTION.

M. BASIS OF PAYMENT

PAYMENT FOR ITEM 530- SPECIAL - STRUCTURES: PRECAST WALL PANELS COVERS ALL WORK DESCRIBED ABOVE.

VOLUME OF THE EMBEDDED PORTION OF PRECAST WALL HAS NOT BEEN SUBTRACTED FROM FOOTING CONCRETE VOLUME. QUANTITY TO BE ADJUSTED BASED ON SELECTED WALL FABRICATOR.

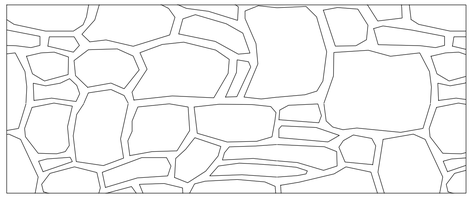
ITEM SPECIAL - 530 - STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER)

THE SURFACE FINISH AESTHETICS ON THE REFERENCED PROJECT WERE CONSTRUCTED USING ONE OF THE PATTERNS DESCRIBED BELOW IN THE ARCHITECTURAL SURFACE ELEVATION AND TABLE FROM AN APPROVED COMPANY MEETING THE DETAILS SHOWN ON THIS PAGE. FOR THIS PROJECT, THE CONTRACTOR WILL RESEARCH WHICH PATTERN/COMPANY WAS USED AND, AGAIN, MATCH IT TO CONSTRUCT THIS PROJECT AS DESCRIBED BELOW.

THE SURFACE TREATMENTS REFERENCED BELOW ARE INTENDED FOR PROCEDURE, TEXTURE, AND APPEARANCE REFERENCE.

ONE FULL SCALE PATTERNED PRECONSTRUCTION TEST PANEL SHALL BE PROVIDED FOR APPROVAL BY THE DISTRICT 5 BRIDGE SECTION. IF THE TEST PANEL DOES NOT MEET THE APPROVAL OF THE DISTRICT 5 BRIDGE SECTION, THE RESULT WILL BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE TEST PANEL WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. THE CONTRACTOR SHALL PROVIDE AN END SECTION OF THE PARAPET, AS SHOWN IN THE PLAN, SHOWING THAT THEY CAN ACHIEVE THE FORMLINING APPLICATION AS DETAILED. THE MOCK-UP SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN INTENDED TO BE USED ON THE PROJECT. THE PANEL SHALL BE OF THE SAME CEMENT AND AGGREGATE SOURCE THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE TEST PANEL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE SURFACE FINISH, TEST PANELS, AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEM SPECIAL 530, STRUCTURES: AESTHETIC TREATMENT (CONCRETE FORMLINER).



ARCHITECTURAL SURFACE - ELEVATION

THE FOLLOWING SHALL BE USED:

COMPANY NAME:	PANEL SURFACE TREATMENT:	SPECIFICATIONS:
SPEC FORMLINERS, INC.	WASHINGTON DRYSTACK #1581	MAX RELIEF: 1½" LINER THICKNESS: 2⅝" STONE SIZE: 4" TO 24"
CUSTOM ROCK INTERNATIONAL	NEW ENGLAND DRYSTACK #12003	MAX RELIEF: 1⅜" LINER THICKNESS: 2¼" STONE SIZE: 3" TO 24"
APPROVED EQUAL	APPROVED EQUAL	APPROVED EQUAL

GENERAL NOTES

BRIDGE NO. FAI-C0020-04.722
PICKERINGTON ROAD OVER INDIANA & OHIO RAILWAY

SFN 2300003

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
BWR	AMR

REVIEWER WHM 11-3-23

PROJECT ID 77555

SUBSET	TOTAL
3	29

SHEET	TOTAL
P.709	846

FAI-33-2.64

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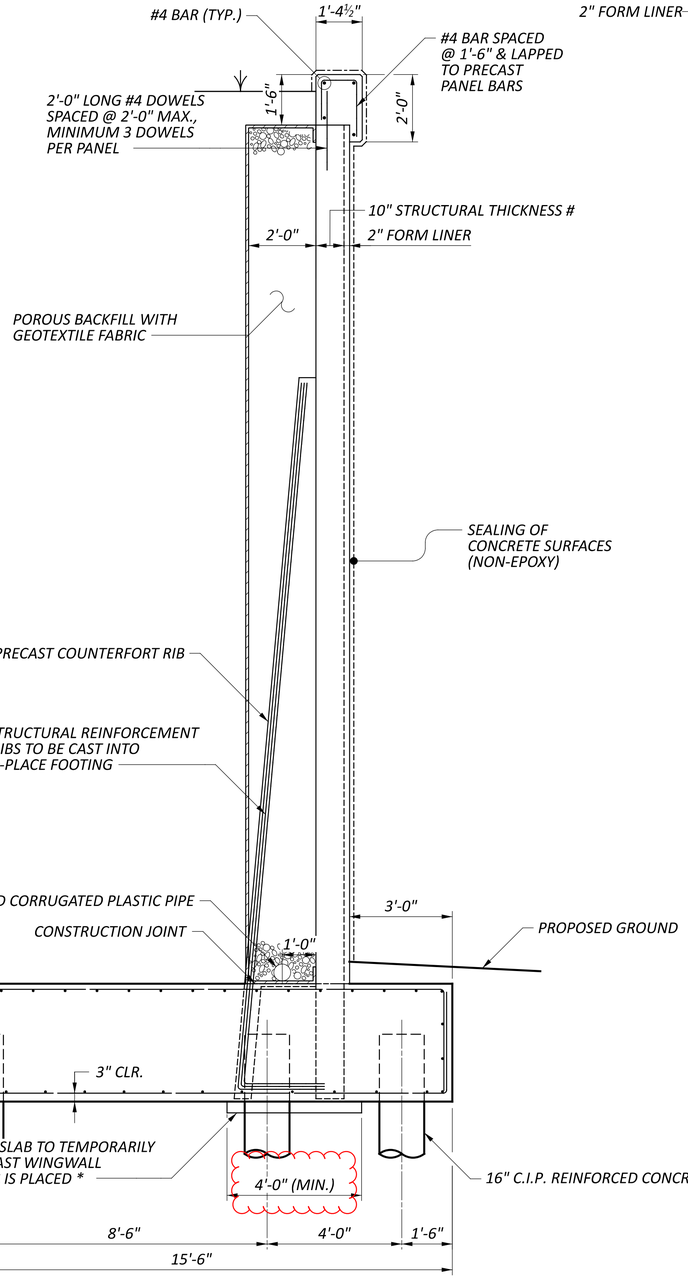
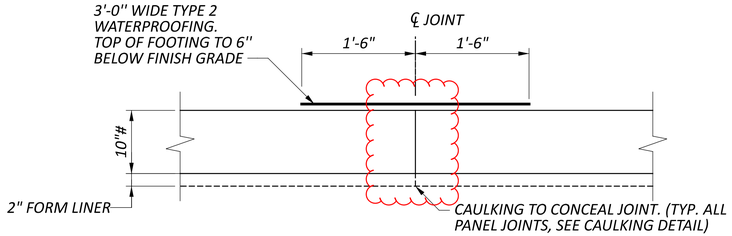
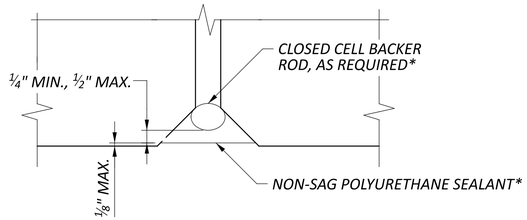


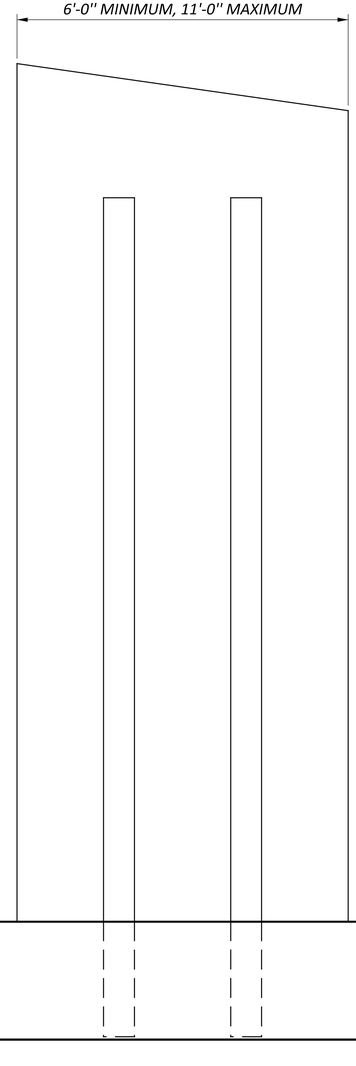
D/8 SECTION



TYPICAL PANEL JOINT DETAIL



CAULKING DETAIL



TYPICAL PRECAST COUNTERFORT WINGWALL PANEL ELEVATION

LEGEND

* - INCLUDE FOR PAYMENT WITH ITEM SPECIAL - STRUCTURES: PRECAST WALL PANELS

\# - SEE SHEET 3/29 FOR NOTE REGARDING STRUCTURAL THICKNESS.

NOTE

REINFORCING LOCATIONS BENEATH PRECAST WINGWALL PANELS MAY REQUIRE ADJUSTMENT TO AVOID CONFLICTS WITH PANEL SUPPORTS AND RIB REINFORCEMENT. COORDINATE WITH WALL MANUFACTURER PRIOR TO PLACING. SEE SHEET 6/29 FOR FOOTING REINFORCEMENT.

REAR ABUTMENT WINGWALL DETAILS
BRIDGE NO. FAI-C0020-04.722
PICKERINGTON ROAD OVER INDIANA & OHIO RAILWAY

SFN 2300003

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
BWR	AMR

REVIEWER: WHM 11-3-23

PROJECT ID: 77555

SUBSET	TOTAL
9	29

SHEET	TOTAL
P.715	846

FAI-33-2.64

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ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN AND 511 - CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC INTO THE BRIDGE DECK PARAPET CONCRETE AND ABUTMENT CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC SCC MEETING A DESIGN STRENGTH OF 4.5 KSI FOR PARAPETS AND 4.0 KSI FOR ABUTMENTS, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02 FIBERS FOR CONCRETE ASTM C1116, TYPE III.

THE CLASS QC SCC CONCRETE SHALL MEET THE FOLLOWING CRITERIA:
- WATER/CEMENT RATIO = 0.40 MAXIMUM
- MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 MAX.) MEETING ASTM C1116, TYPE III SHALL BE ADDED TO THE MIX.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AN ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.5 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURER'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT, AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING THAT BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OF EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CY, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CONCRETE SUPPLIER'S CHOICE OF ADMIXTURES DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS.

PAYMENT FOR TRIAL MIXES SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

ITEM 511 - CLASS QC SCC CONCRETE WITH QC/QA, ABUTMENT, AS PER PLAN

ABUTMENT FOOTING CONCRETE NOT INCLUDED.

ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS

A. DESCRIPTION

THIS BID ITEM CONSISTS OF PRECAST WALLS MANUFACTURED AND CONSTRUCTED IN ACCORDANCE WITH THIS SPECIFICATION AND DESIGNED IN ACCORDANCE WITH 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.

PRECAST WALL PANELS ARE SHOWN AND DETAILED IN THE PLANS WITH A 10 INCH STRUCTURAL THICKNESS AND A 2 INCH AESTHETIC THICKNESS. OTHER STRUCTURAL WALL THICKNESSES ARE ACCEPTABLE PROVIDING THEY MEET ALL THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED TO ACCOMMODATE ALTERNATE WALL DIMENSIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. DESIGN DATA

CONCRETE - COMPRESSIVE STRESS 4.0 KSI

CONCRETE REINFORCEMENT:
- GALVANIZED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI

WELDED WIRE FABRIC - MINIMUM YIELD STRENGTH 70 KSI

C. MATERIALS - CONCRETE

THE CONCRETE FOR THE WALL SECTIONS SHALL BE COMPOSED OF PORTLAND CEMENT, FINE AND COARSE AGGREGATES, ADMIXTURES AND WATER. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C150, TYPE I, II, OR III. THE AIR ENTRAINING ADMIXTURE SHALL CONTAIN 6% ± 2% ENTRAINED AIR, AND SLUMP SHALL BE MAINTAINED WITH THE RANGE OF 1" TO 4". THE SLUMP MAY BE INCREASED TO 7" PROVIDED THE INCREASE IS ACHIEVED BY THE ADDITION OF A CHEMICAL WATER-REDUCING ADMIXTURE APPROVED BY THE ENGINEER.

D. MATERIALS AND REINFORCING HARDWARE

REINFORCEMENT SHALL CONSIST OF WELDED WIRE FABRIC CONFORMING TO ASTM A185, OR DEFORMED BILLET-STEEL BARS CONFORMING TO ASTM A615, A616, OR A617, GRADE 60.

E. SHOP DRAWING REQUIREMENTS

THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING.
- ALL STRUCTURAL DESIGN AND LOADING INFORMATION
- A PLAN VIEW
- ALL ELEVATION VIEWS
- ALL DIMENSIONS

MANUFACTURING SHALL NOT BEGIN UNTIL WRITTEN APPROVAL OF THE SUBMITTED SHOP DRAWINGS HAS BEEN RECEIVED.

F. TESTING AND INSPECTION

ACCEPTABILITY OF THE CONCRETE FOR THE PRECAST PANELS WILL BE DETERMINED ON THE BASIS OF COMPRESSION TESTS, CERTIFICATIONS AND VISUAL INSPECTIONS. THE CONCRETE STRENGTH REQUIREMENTS FOR THE PRECAST PANELS SHALL BE CONSIDERED ATTAINED REGARDLESS OF CURING AGE WHEN COMPRESSION TEST RESULTS INDICATE STRENGTH WILL CONFORM TO 28-DAY SPECIFICATIONS AS STATED BELOW. THE MANUFACTURER SHALL FURNISH FACILITIES AND PERFORM ALL NECESSARY SAMPLING AND TESTING IN AN EXPEDITIOUS AND SATISFACTORY MANNER. PANELS UTILIZING TYPE I OR TYPE II CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL WHEN 7-DAY INITIAL STRENGTHS EXCEED 85 PERCENT OF THE 28-DAY REQUIREMENTS. PANELS UTILIZING TYPE III CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT IN THE WALL PRIOR TO 28 DAYS ONLY WHEN COMPRESSIVE STRENGTH TEST RESULTS INDICATE THAT THE STRENGTH EXCEEDS THE 28-DAY SPECIFICATION.

G. MANUFACTURE

THE AGGREGATES, CEMENT AND WATER SHALL BE PROPORTIONED AND MIXED IN A BATCH MIXER TO PRODUCE A HOMOGENEOUS CONCRETE MEETING THE STRENGTH REQUIREMENTS OF THESE NOTES. THE PROPORTION OF PORTLAND CEMENT IN THE MIXTURE SHALL NOT BE LESS THAN 564 POUNDS PER CUBIC YARD OF CONCRETE.

THE WALL SECTIONS SHALL BE CURED FOR A SUFFICIENT LENGTH OF TIME SO THAT THE CONCRETE WILL DEVELOP THE SPECIFIED COMPRESSIVE STRENGTH IN 28 DAYS OR LESS. ANY ONE OF THE METHODS OF CURING OR COMBINATION THEREOF SHALL BE USED:

STEAM CURING - THE SECTIONS MAY BE LOW PRESSURE, STEAM CURED BY A SYSTEM THAT WILL MAINTAIN A MOIST ATMOSPHERE.

WATER CURING - THE SECTIONS MAY BE WATER CURED BY ANY METHOD THAT WILL KEEP THE SECTIONS MOIST.

THE FORMS USED IN MANUFACTURE SHALL BE SUFFICIENTLY RIGID AND ACCURATE TO MAINTAIN THE SECTIONS DIMENSIONS WITHIN THE PERMISSIBLE VARIATIONS GIVEN THESE NOTES. ALL CASTING SURFACE SHALL BE OF SMOOTH MATERIAL.

THE WALL SECTION SHALL BE STORED IN SUCH A MANNER TO PREVENT CRACKING OR DAMAGES.

THE FRONT FACE OF THE REINFORCED CONCRETE PANELS SHALL HAVE AN AESTHETIC FINISH AS SHOWN IN THE PLANS. CAULKING BETWEEN PRECAST PANELS SHALL BE IN ACCORDANCE WITH THE PLAN DETAILS. THE BACK SIDE OF THE REINFORCED CONCRETE PANELS SHALL HAVE A UNIFORM SURFACE FINISH AND SHALL BE ROUGH SCREEDED TO ELIMINATE OPEN POCKETS OF AGGREGATE AND SURFACE DISTORTIONS IN EXCESS OF 1/4".

ALL PANELS SHALL BE MANUFACTURED WITH ALL PANEL DIMENSIONS WITHIN 1/4".

H. COMPRESSIVE STRENGTH

ACCEPTANCE OF THE CONCRETE PANELS WITH RESPECT TO COMPRESSIVE STRENGTH WILL BE DETERMINED ON THE BASIS OF PRODUCTION LOTS. A PRODUCTION LOT IS DEFINED AS A GROUP OF PANELS THAT WILL BE REPRESENTED BY A SINGLE COMPRESSIVE STRENGTH SAMPLE AND WILL CONSIST OF EITHER 6 PANELS OR A SINGLE DAY'S PRODUCTION, WHICHEVER IS LESS.

DURING THE PRODUCTION OF THE CONCRETE PANELS THE MANUFACTURER WILL RANDOMLY SAMPLE THE CONCRETE IN ACCORDANCE WITH ASTM C172. A SINGLE COMPRESSIVE STRENGTH SAMPLE, CONSISTING OF A MINIMUM OF FOUR CYLINDERS, WILL BE RANDOMLY SELECTED FOR EVERY PRODUCTION LOT.

CYLINDERS FOR COMPRESSIVE STRENGTH TESTS SHALL BE 6" DIA. X 1'-0" SPECIMENS PREPARED IN ACCORDANCE WITH ASTM C31. FOR EVERY COMPRESSIBLE STRENGTH SAMPLE, A MINIMUM OF 2 CYLINDERS WILL BE CURED IN THE SAME MANNER AS THE PANELS AND TESTED AT APPROXIMATELY 7 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE CYLINDERS WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A TEST RESULT WHICH WILL DETERMINE THE INITIAL STRENGTH OF THE CONCRETE. IN ADDITION, 2 CYLINDERS SHALL BE CURED IN ACCORDANCE WITH ASTM C31 AND TESTED AT 28 DAYS. THE AVERAGE COMPRESSIVE STRENGTH OF THESE TWO CYLINDERS, WHEN TESTED IN ACCORDANCE WITH ASTM C39, WILL PROVIDE A COMPRESSIVE STRENGTH TEST RESULT WHICH WILL DETERMINE THE COMPRESSIVE STRENGTH OF THE PRODUCTION LOT.

IF THE INITIAL STRENGTH TESTS RESULTS INDICATE A COMPRESSIVE STRENGTH IN EXCESS OF 4 KSI, THEN THESE TESTS RESULTS WILL BE UTILIZED AS THE COMPRESSIVE STRENGTH TEST RESULT FOR THE PRODUCTION LOT AND THE REQUIREMENT FOR TESTING AT 28 DAYS WILL BE WAIVED FOR THAT PARTICULAR PRODUCTION LOT.

ACCEPTANCE OF A PRODUCTION LOT WILL BE MADE IF THE COMPRESSIVE STRENGTH TEST RESULT IS GREATER THAN OR EQUAL TO 4 KSI. IF THE RESULT IS LESS THAN 4 KSI, THE ACCEPTANCE OF THE PRODUCTION LOT WILL BE BASED ON ITS MEETING THE FOLLOWING THREE ACCEPTANCE CRITERIA:
- 90% OF THE COMPRESSIVE STRENGTH TEST RESULTS FOR THE OVERALL PRODUCTION SHALL EXCEED 4 KSI.
- THE AVERAGE OF ANY SIX CONSECUTIVE COMPRESSIVE STRENGTH TEST RESULTS SHALL EXCEED 4 KSI.
- NO INDIVIDUAL COMPRESSIVE STRENGTH TEST RESULT SHALL FALL BELOW 3.6 KSI.

IN THE EVENT THAT A PRODUCTION LOT FAILS TO MEET THE SPECIFIED COMPRESSIVE STRENGTH REQUIREMENTS, THE PRODUCTION LOT SHALL BE REJECTED. SUCH REJECTION SHALL PREVAIL UNLESS THE MANUFACTURER, AT THEIR OWN EXPENSE, OBTAINS AND SUBMITS EVIDENCE ACCEPTABLE TO THE ENGINEER THAT THE STRENGTH AND QUALITY OF THE CONCRETE PLACED WITHIN THE PANELS OF THE PRODUCTION LOT IS ACCEPTABLE. IF SUCH EVIDENCE CONSISTS OF TESTS MADE ON CORES TAKEN FROM THE PANELS WITHIN THE PRODUCTION LOT. THE CORES SHALL BE OBTAINED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS OF ASTM C42.

I. REJECTION

PANELS SHALL BE SUBJECT TO REJECTION BECAUSE OF FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTION:
- DEFECTS THAT INDICATE IMPERFECT MOLDING
- DEFECTS INDICATING HONEYCOMBED OR OPEN TEXTURED CONCRETE
- DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE SEALING OF CONCRETE SURFACE TREATMENT OR TO AESTHETIC SURFACE TREATMENTS
- CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER
- STAINED FORM FACES, DUE TO FORM OIL, CURING, OR OTHER CONTAMINANTS
- SIGNS OF AGGREGATE SEGREGATION
- CRACKS WIDER THAN 0.01 INCHES, PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK. REPAIR ALL CRACKS THAT ARE SMALLER
- PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES
- UNUSABLE LIFTING INSERTS
- EXPOSED REINFORCING STEEL
- INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH

EITHER REPLACE DAMAGED PRECAST WALL PANELS OR DOCUMENT THE DAMAGE AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL; PERFORM REPAIRS WITH THE ACCEPTANCE OF THE ENGINEER. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.

J. MARKING

THE DATE OF MANUFACTURE, THE PRODUCTION LOT NUMBER AND THE PIECE MARK SHALL BE CLEARLY SCRIBED ON THE BACK SURFACE OF EACH PANEL.

K. CONCRETE LEVELING PAD

THE CONCRETE LEVELING PAD (MUD SLAB) SHALL BE CONSTRUCTED WITH CONCRETE HAVING A STRENGTH THAT IS NOT LESS THAN 3.5 KSI AND SHALL HAVE SUFFICIENT STRENGTH TO ADEQUATELY SUPPORT THE PANELS AT THE BOTTOM OF THE WALL IN A LEVEL POSITION DURING INSTALLATION.

A 4" (MIN.) THICK UNREINFORCED CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE PAD SHALL BE CURED A MINIMUM OF 24 HOURS BEFORE PLACING WALL PANELS ON THE LEVELING PAD.

L. WALL ERECTION

PANELS ARE HANDLED BY MEANS OF A LIFTING DEVICE CONNECTED TO THE LIFTING INSERT WHICH IS CAST INTO THE UPPER EDGE OR BACK SIDE OF THE PANELS. ALL PANELS SHALL BE BRACED TO RESIST THE TEMPORARY CONSTRUCTION LOADS INCLUDING WIND LOADS, PRIOR TO FOOTING CONSTRUCTION.

M. BASIS OF PAYMENT

PAYMENT FOR ITEM 530 - SPECIAL - STRUCTURES: PRECAST WALL PANELS COVERS ALL WORK DESCRIBED ABOVE.

VOLUME OF THE EMBEDDED PORTION OF PRECAST WALL HAS NOT BEEN SUBTRACTED FROM FOOTING CONCRETE VOLUME AND TO ADJUST QUANTITY BASED ON SELECTED WALL FABRICATOR.

GENERAL NOTES (CONTINUED)
BRIDGE NO. FAI-C0020-04.734
PICKERINGTON ROAD OVER U.S. 33

SFN 2300001

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
AMR	BWR

REVIEWER
GDJ 10-20-23

PROJECT ID
77555

SUBSET	TOTAL
3	39

SHEET	TOTAL
P.738	846

FAI-33-2.64

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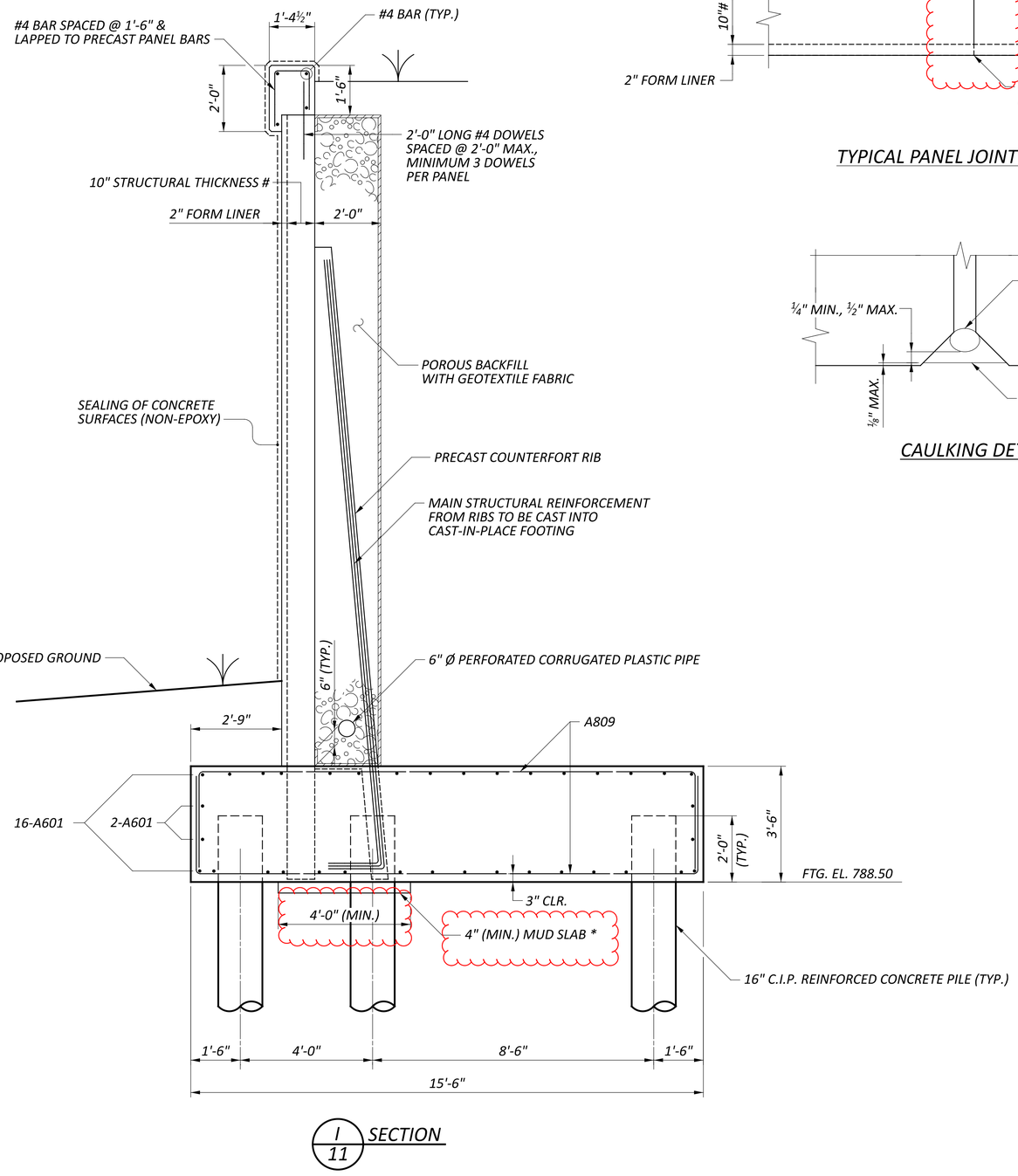
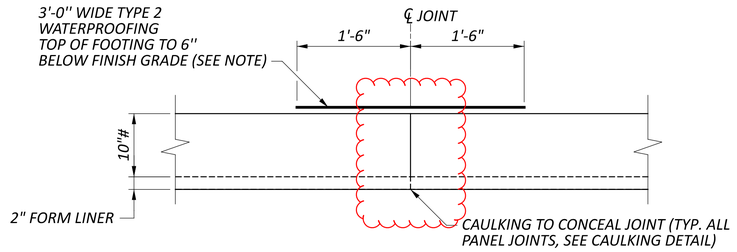
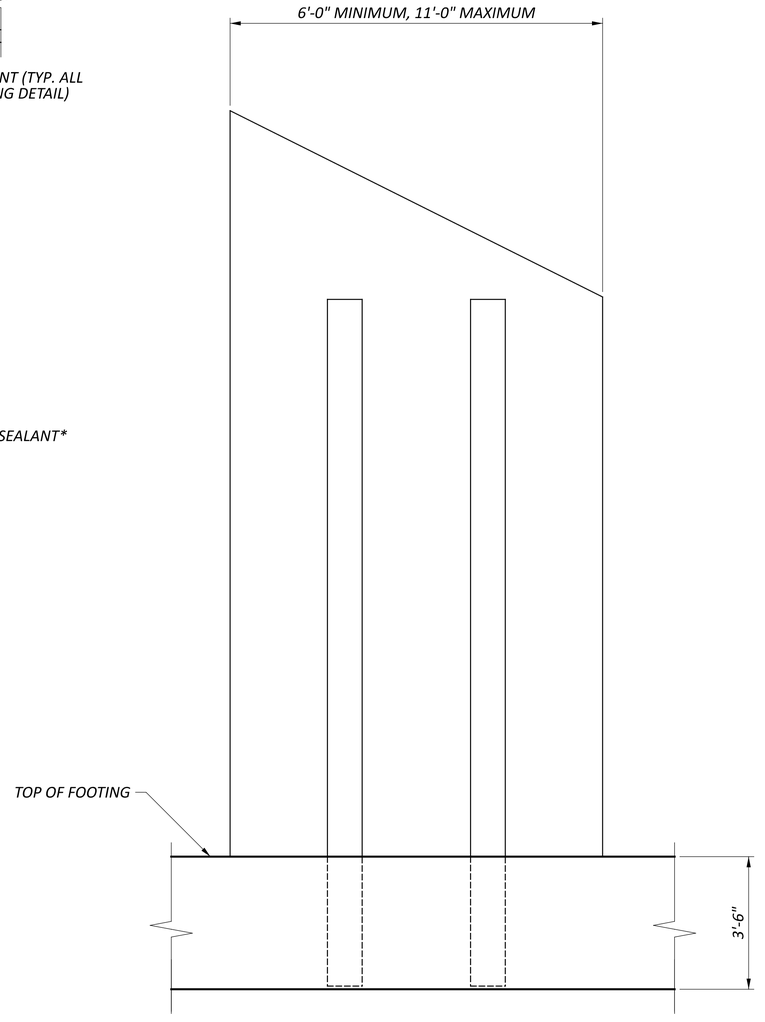


I / 11 SECTION



TYPICAL PANEL JOINT DETAIL

CAULKING DETAIL



TYPICAL PRECAST COUNTERFORT WINGWALL PANEL ELEVATION

NOTE

THE ESTIMATED QUANTITY FOR THE TYPE 2 WATERPROOFING CONSERVATIVELY ASSUMES 6'-0" PANEL LENGTHS. ADJUST THE QUANTITY ACCORDINGLY BASED ON ACTUAL ORDER LENGTHS.

LEGEND

** - INCLUDE FOR PAYMENT WITH ITEM SPECIAL - STRUCTURES: PRECAST WALL PANELS*

 # - REFER TO SHEET 3/39 FOR NOTE REGARDING STRUCTURAL THICKNESS.

FORWARD ABUTMENT WINGWALL DETAILS
BRIDGE NO. FAI-C0020-04.734
PICKERINGTON ROAD OVER U.S. 33

SFN 2300001

DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNER	CHECKER
AMR	BWR

REVIEWER: GDJ 10-25-23

PROJECT ID: 77555

SUBSET	TOTAL
12	39

SHEET	TOTAL
P.747	846

FAI-33-2.64

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