

BUT-126-2.92

MODEL: Sheet 02 PAPERSIZE: 34x22 (in.) DATE: 4/4/2025 TIME: 3:07:17 PM USER: zsmoran
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GENERAL SUMMARY

DESIGN AGENCY  Stantec 10200 Alliance Road, Suite 300 Cincinnati, OH 45242 (513) 842-8200	
DESIGNER ZTM	
REVIEWER TCM 11/22/24	
PROJECT ID 116204	
SHEET P.8	TOTAL 39

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

866 DATED 04-21-17
878 DATED 01-21-22

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.

OPERATIONAL IMPORTANCE

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

DESIGN LOADING

DESIGN LOADING INCLUDES:
VEHICULAR LIVE LOAD: HL-93

DESIGN DATA

CONCRETE CLASS QC1:
COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT:

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI (RETAINING WALL & FOOTING)

STEEL SHEET PILING ASTM A572 GRADE 50 - YIELD STRENGTH 50 KSI

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE EXISTING SHEET PILING WALL, SOLDIER PILE WALL WITH LAGGING, AND GABION BASKET WALL ALONG WITH THE DUMPED ROCK BUTTRESS AND ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. REMOVALS SHALL BE RESTRICTED TO ITEMS WITHIN THE EXISTING RIGHT OF WAY LIMITS.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATION. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN.

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	WALL	GEN.	SEE SHEET
202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN		LUMP	22
503	11101	LUMP	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN		LUMP	22
503	21331	LUMP	LS	UNCLASSIFIED EXCAVATION, INCLUDING ROCK AND/OR SHALE, AS PER PLAN		LUMP	22
504	11100	12540	SF	STEEL SHEET PILING LEFT IN PLACE		12540	
509	10000	121,830	LB	EPOXY COATED STEEL REINFORCEMENT	121,830		
511	46012	732	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING	732		
511	46512	755	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	755		
512	10100	957	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	957		
512	33000	81	SY	TYPE 2 WATERPROOFING	81		
516	13600	225	SF	1" PREFORMED EXPANSION JOINT FILLER	225		
518	20000	658	SY	PREFABRICATED GEOCOMPOSITE DRAIN	658		
518	21200	66	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	66		
518	40000	444	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	444		
518	40010	210	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	210		

ITEM 503, UNCLASSIFIED EXCAVATION, INCLUDING ROCK AND/OR SHALE, AS PER PLAN

EXCAVATION AND BACKFILL SHALL BE PER CMS 503 WITH THE FOLLOWING EXCEPTIONS. BACKFILL BETWEEN BACK OF WALL AND TEMPORARY SHEET PILING SHALL BE STRUCTURAL BACKFILL, TYPE 3. BACKFILL BETWEEN PERMANENT SHEET PILING AND FACE OF WALL SHALL BE LOW STRENGTH MORTAR BACKFILL AND/OR CLASS QC1 CONCRETE AS SHOWN IN PLANS. ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED FOR PAYMENT WITH ITEM 503, UNCLASSIFIED EXCAVATION, INCLUDING ROCK AND/OR SHALE, AS PER PLAN.

FOUNDATION BEARING RESISTANCE

RETAINING WALL FOOTING, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LOAD PRESSURE OF 3.9 KIPS PER SQUARE FOOT AND A MAXIMUM STRENGTH LOAD PRESSURE OF 5.5 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 7.4 KIPS PER SQUARE FOOT.

