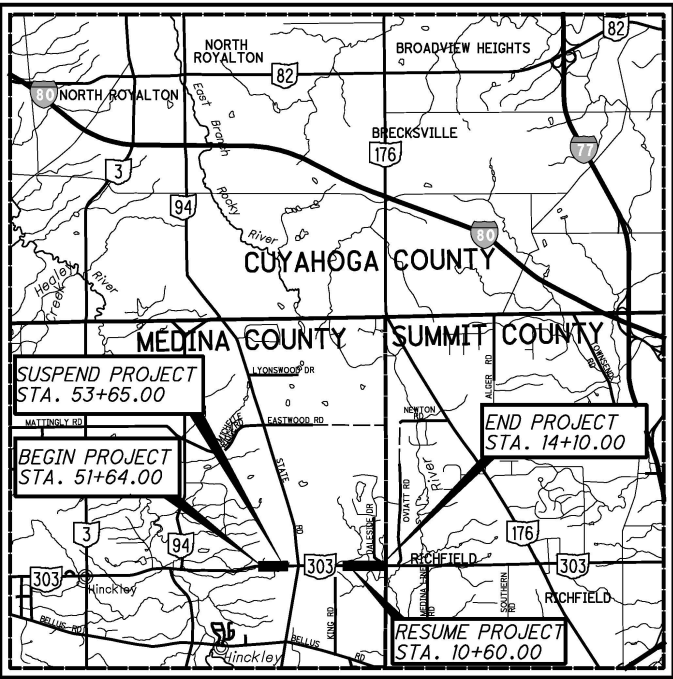


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MED-303-13.90/14.96
HINCKLEY TOWNSHIP
MEDINA COUNTY



LOCATION MAP

MED-303-13.90 - LATITUDE: 41° 14' 23" LONGITUDE: 81° 42' 26"
 MED-303-14.96 - LATITUDE: 41° 14' 23" LONGITUDE: 81° 41' 17"
 MED-303-13.90/14.96 - LATITUDE: 41° 14' 23" LONGITUDE: 81° 41' 52"



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

DESIGN DESIGNATION

CURRENT ADT (2020)	6,000
DESIGN YEAR ADT (2040)	6,500
DESIGN HOURLY VOLUME (2040)	600
DIRECTIONAL DISTRIBUTION	51%
TRUCKS (24 HOUR B&C)	4%
DESIGN SPEED	45 MPH
LEGAL SPEED	45 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL - 05 MAJOR COLLECTOR	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

Call Before You Dig
1-800-362-2764

(Non-members must be called directly)

OIL & GAS PRODUCERS UNDERGRND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:



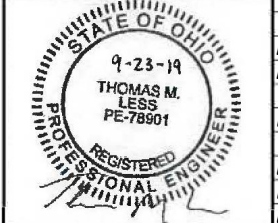
FOR MED-303-1390 RELATED RETAINING WALL SHEETS



FOR ENTIRE PLAN EXCEPT STRUCTURES & RETAINING WALL:



FOR MED-303-1496 RELATED STRUCTURE SHEETS



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STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	7/18/14	DM-4.4	1/15/16	TST-I-99	7/20/18	800-2019 7/19/19	WATERWAY
BP-4.1	7/19/13					832 10/19/18	PERMIT 12/5/18
BP-5.1	1/18/19	MGS-1.1	1/19/18	MT-101.60	1/20/17	836 1/19/19	
		MGS-2.1	1/19/18	MT-105.10	7/19/13	846 4/17/15	
CB-1.2	1/15/16	MGS-3.1	1/19/18			873 10/17/08	
CB-2.1	7/20/18	MGS-4.2	7/19/13	TC-41.20	10/18/13		
		MGS-4.3	1/18/13	TC-41.30	10/18/13		
		MGS-5.2	7/15/16	TC-42.20	10/18/13		
HW-2.1	7/20/18	MGS-5.3	7/15/16	TC-61.30	7/19/19		
HW-2.2	7/20/18	MGS-6.1	1/19/18	TC-65.10	1/17/14		
MH-1.2	1/15/16	AS-1-15	7/17/15	RM-1.1	7/18/14		
		AS-2-15	1/19/18				
DM-1.1	7/21/17	DS-1-92	7/18/03				
DM-4.1	7/20/18	GSD-1-96	7/19/02				
DM-4.3	1/15/16	ICD-1-82	7/19/02				

PROJECT DESCRIPTION

BRIDGE REPLACEMENT OVER EAST BRANCH OF ROCKY RIVER. CULVERT REPLACEMENT 0.2 MILES WEST OF STATE ROAD BY MEANS OF OPEN CUT. WORK ALSO INCLUDES GUARDRAIL REPLACEMENT, RETAINING WALL, DRAINAGE STRUCTURES, AND MINIMAL PAVEMENT WORK.

PROJECT EARTH DISTURBED AREA: .71 ACRES
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: .25 ACRES
 NOTICE OF INTENT EARTH DISTURBED AREA: N/A
 (NOI NOT REQUIRED)

2019 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 10.

APPROVED:
 DATE: 09/26/19 DISTRICT DEPUTY DIRECTOR

APPROVED: _____
 DATE: _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

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FEDERAL PROJECT NO. E161(174)
 CONSTRUCTION PROJECT NO. 94440
 RAILROAD INVOLVEMENT NONE
 MED-303-13.90/14.96
 1/60

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ITEM 614 - MAINTAINING TRAFFIC

DETOUR LIMITATION:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 90 CONSECUTIVE DAYS. THROUGH TRAFFIC WILL BE DETOURED AS SHOWN ON SHEET 10.

THE CONTRACTOR SHALL NOTIFY THE ODOT DISTRICT 3 ROADWAY SERVICES MANAGER, IN WRITING, A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS NEEDED. THE CONTRACTOR WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST TEN (10) DAYS PRIOR TO THE TIME WHEN THE SR 303 DETOUR WILL BE IMPLEMENTED :

- MEDINA COUNTY ENGINEER
- THE CITY OF NORTH ROYALTON
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- LOCAL POLICE, FIRE, AND AMBULANCE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- MEDINA COUNTY SHERIFF'S OFFICE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DETOUR SIGNING

THIS ITEM PERTAINS ONLY TO DETOUR SIGNING AS SHOWN ON THE DETOUR MAP SHEET. PAYMENT FOR ALL OTHER DETOURS NOT SHOWN ON THIS PAGE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER WILL BE MADE AS PART OF THE LUMP SUM CONTRACT BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B).

ITEM 614, DETOUR SIGNING - LUMP SUM

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 CALENDAR DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE(PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

CALCULATED
CAG
CHECKED
MS

MAINTENANCE OF TRAFFIC GENERAL NOTES

MED -303-13.90 / 14.96



NOT USED



MED - 303 - 13.90 / 14.96

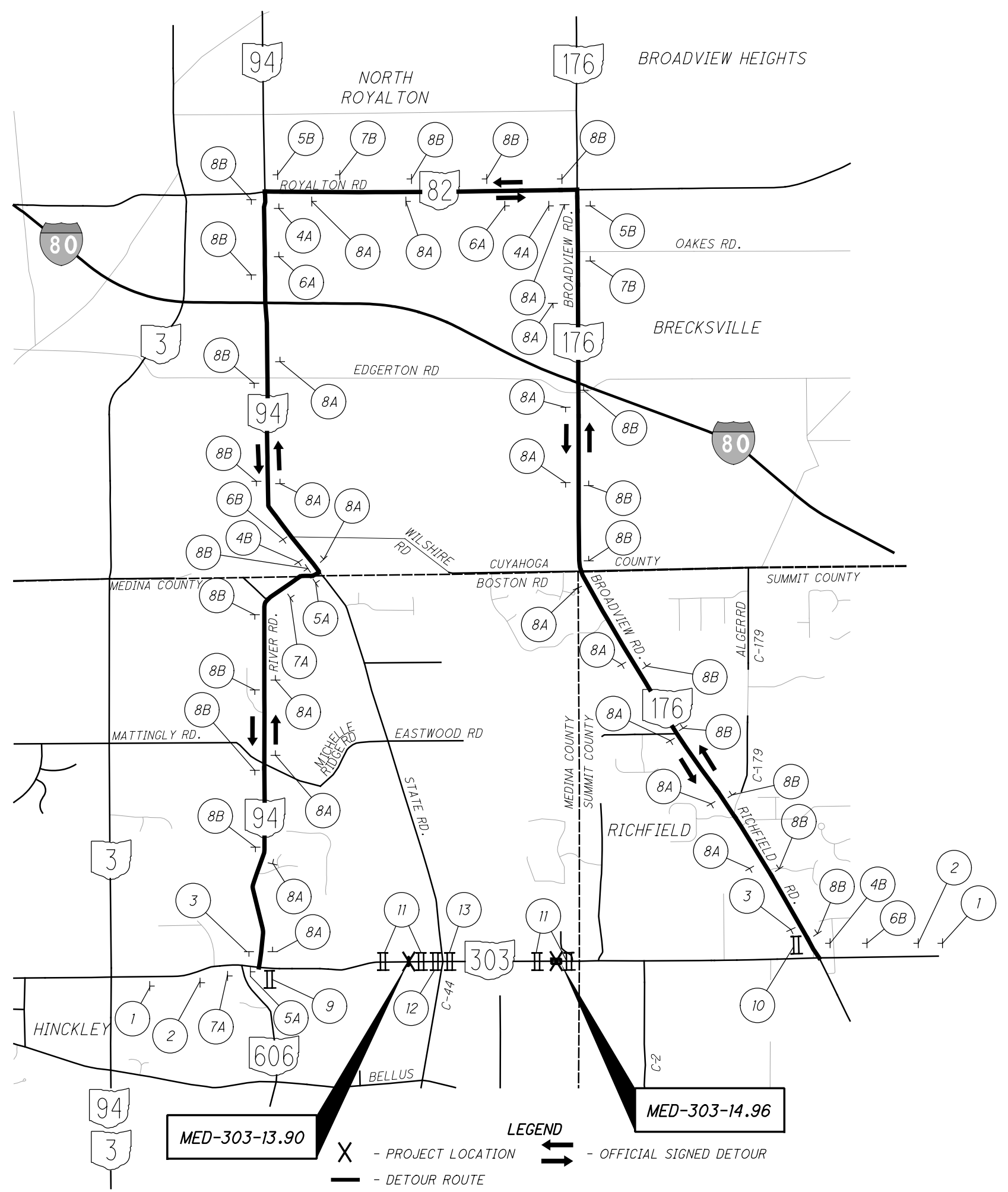
MAINTENANCE OF TRAFFIC GENERAL NOTES

CALCULATED
CAG
CHECKED
MS

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1 W20-3-36	2 W20-2-36	3 M4-8a-24			
4 M4-8-24	5 M4-8-24	6 M4-8-24	7 M4-8-24	8 M4-8-24	
 MI-5-24-3	 MI-5-24-3	 MI-5-24-3	 MI-5-24-3	 MI-5-24-3	
 M6-1-21	 M6-1-21	 M5-1-21	 M5-1-21	 M6-3-21	
A M3-2-24	B M3-4-24				

9 R11-3A-60 M4-10L TYPE III BARRICADES W/ TYPE A FLASHING LIGHTS	10 R11-3A-60 M4-10R TYPE III BARRICADES W/ TYPE A FLASHING LIGHTS	11 R11-2-48 TYPE III BARRICADES W/ TYPE A FLASHING LIGHTS (CLOSE THE ROAD PER SCD MT-101.60)
12 R11-3A-60 TYPE III BARRICADES W/ TYPE A FLASHING LIGHTS	13 R11-3A-60 TYPE III BARRICADES W/ TYPE A FLASHING LIGHTS	



HORIZONTAL SCALE IN FEET
 CALCULATED JFL
 CHECKED MS

**MAINTENANCE OF TRAFFIC
DETOUR MAP**

MED-303-13.90/14.96

10
60

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PROPOSED WORK

THE PROPOSED WORK CONSISTS OF BUILDING A SOLDIER PILE WITH LAGGING RETAINING WALL (UNANCHORED) ALONG SR 303 (CENTER ROAD).

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "THE LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8TH EDITION, INCLUDING 2018 ERRATA DATED 1/19/18, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN DATA

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI
REINFORCING STEEL - ASTM A615 OR A996 GRADE 60,
MINIMUM YIELD STRENGTH 60,000 PSI
STRUCTURAL STEEL FOR SOLDIER PILES - ASTM A709 GRADE 50 YIELD STRENGTH 50,000 PSI

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

ALL EXCAVATION REQUIRED TO CONSTRUCT THE PROPOSED RETAINING WALL, STORM SEWER SYSTEM, AND ACCESS DRIVE WITHIN THE LIMITS OF THE ANTICIPATED LAY BACK AREA SHALL BE INCLUDED WITH ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN, FOR PAYMENT.

LAYING BACK OF THE ROADWAY EMBANKMENT FOR CONSTRUCTION PURPOSES FROM THE BEGINNING OF THE PROJECT TO STATION 52+60 AND FROM STATION 53+03 TO END OF THE PROJECT SHALL BE AT A 1.5 HORIZONTAL TO 1.0 VERTICAL AND AT A 2.0 HORIZONTAL TO A 1.0 VERTICAL BETWEEN STATIONS 52+60 AND 53+03 AS PER THE GEOTECHNICAL ENGINEERS RECOMMENDATIONS.

MAINTENANCE OF TRAFFIC

FOR MAINTENANCE OF TRAFFIC DETAILS, SEE THE ROADWAY PLANS.

ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES

THIS WORK CONSISTS OF FURNISHING AND PLACING STEEL SOLDIER PILES INTO DRILLED HOLES AS WELL AS MONITORING PLUMBNESS. FURNISH SOLDIER PILES CONSISTING OF STRUCTURAL STEEL MEMBERS THAT MEET THE PLAN REQUIREMENTS AND CONFORM TO ASTM A709, GRADE 50. DO NOT FIELD WELD OR SPLICE STEEL SOLDIER PILES.

MEASUREMENT FOR PAYMENT WILL BE THE DISTANCE BETWEEN THE ENDS OF THE SOLDIER PILE. PAYMENT IS FULL COMPENSATION FOR FURNISHING AND PLACING THE SOLDIER PILES INCLUDING WELDED STUD SHEAR CONNECTORS, AND MONITORING THEIR PLUMBNESS UNTIL THE PLACEMENT OF THE CONCRETE FACING HAS BEGUN.

WELD HEADED STEEL STUDS TO THE FLANGES OF THE SOLDIER PILE IN ORDER TO CONNECT THE CONCRETE WALL FACING TO THE SOLDIER PILE. ATTACH HEADED STUDS ACCORDING TO C&MS 513.22 AND AS SHOWN IN THE PLANS. THE CONTRACTOR MAY ATTACH THE STUDS EITHER BEFORE PLACING THE SOLDIER PILE IN THE DRILLED HOLE OR AFTER EXCAVATING IN FRONT OF THE WALL. PROTECT THE HEADED STUDS FROM DAMAGE UNTIL THE CONCRETE WALL FACING IS POURED. REPAIR OR REPLACE DAMAGED HEADED STUDS AT NO EXPENSE TO THE DEPARTMENT.

THE DEPARTMENT WILL PAY FOR SOLDIER PILES AT THE CONTACT UNIT PRICE BID PER FOOT FOR ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES.

ITEM 512 - TYPE 2 WATERPROOFING, AS PER PLAN

TYPE 2 WATERPROOFING SHALL BE ATTACHED TO THE WOOD LAGGING, 3 FEET WIDE FULL HEIGHT CENTERED AT ALL CONCRETE PANEL JOINTS.

ITEM 524 - DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE AND LAGGING WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFT. FURNISH AND INSTALL THE DRILLED SHAFTS IN ACCORDANCE WITH CMS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

EXCAVATE THE HOLE FOR THE DRILLED SHAFT WITHIN 3 INCHES OF THE PLAN LOCATION. THE DESIGN IS BASED ON A BEDROCK ELEVATION AS NOTED ON SHEET 5/8. ALL DRILLED SHAFTS WITH THE STEEL SECTIONS SHALL HAVE A MINIMUM ROCK SOCKET DEPTH OF 5'-6". STEEL SECTIONS SHALL BE TRIMMED TO THE REQUIRED LENGTH IF THE ROCK IS ENCOUNTERED AT A HIGHER ELEVATION THAN THE ESTIMATED TOP OF ROCK ELEVATION OF 1117.00 FT. IF ROCK IS ENCOUNTERED AT AN ELEVATION LOWER THAN THE ESTIMATED TOP OF ROCK ELEVATION OF 1117.00 FT, NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER IMMEDIATELY.

ALIGN THE SOLDIER PILE VERTICALLY WITHIN THE HOLE. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS AND THE TOP IS AT THE PLAN ELEVATION. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT. DO NOT ALLOW THE VERTICAL ALIGNMENT OF THE SOLDIER PILE TO VARY BY MORE THAN 1/4" PER FOOT OF DEPTH. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES.

USE CLASS QC1 CONCRETE ACCORDING TO CMS 511. PLACE CONCRETE TO THE ELEVATION OF THE BOTTOM OF THE LAGGING. THE CONTRACTOR MAY PLACE CONCRETE USING THE FREE FALL METHOD PROVIDED THE DEPTH OF WATER IS LESS THAN 6 INCHES AND THE CONCRETE FALLS WITHOUT STRIKING THE SIDES OF THE HOLE. POURING CONCRETE ALONG THE WEB OF THE SOLDIER PILE IS ACCEPTABLE.

CHECK THE POSITION, THE VERTICAL ALIGNMENT, AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES.

FILL THE HOLE ABOVE THE BOTTOM OF THE LAGGING TO THE EXISTING GROUND SURFACE WITH LOW STRENGTH MORTAR BACKFILL (LSM) PER ITEM 613. REMOVE CONCRETE AND LSM AS EVEN WITH THE FRONT FACE OF THE SOLDIER PILE IN ORDER TO PLACE THE LAGGING.

MEASUREMENT FOR PAYMENT FOR DRILLED SHAFTS, AS PER PLAN WILL BE LIMITED TO THE ACTUAL DRILLED DISTANCE BETWEEN THE GROUND SURFACE AND THE MINIMUM TIP ELEVATION, AS DETERMINED BY THE ENGINEER. PAYMENT IS FULL COMPENSATION FOR DRILLING THE HOLES, CONSTRUCTING THE DRILLED SHAFTS, SUPPORTING THE SOLDIER PILES, FURNISHING AND PLACING CONCRETE AND LSM, AND REMOVAL OF CONCRETE OR LSM FROM AROUND THE SOLDIER PILE AS NECESSARY TO PLACE LAGGING. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICE BID PER FOOT FOR ITEM 524 - DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN.

ITEM SPECIAL - RETAINING WALL, MISC.: TIMBER LAGGING

THIS ITEM CONSISTS OF FURNISHING AND INSTALLING UNTREATED HARDWOOD LAGGING TO SERVE AS TEMPORARY LAGGING FOR THE SOLDIER PILE WALL. THE LAGGING SHALL CONSIST OF SOUTHERN PINE NO. 2 OR BETTER, WITH NOMINAL 4"x8" DIMENSIONS. LAGGING SHALL BE PLACED AS EXCAVATION OR EMBANKMENT PLACEMENT PROGRESSES. AT NO TIME SHOULD MORE THAN 3 FEET OF UNSUPPORTED EXCAVATION BE PERMITTED. REDUCE THE UNSUPPORTED HEIGHT AS NECESSARY TO PREVENT CAVING AND SLOUGHING OF THE SOILS BETWEEN THE SOLDIER PILES. PROVIDE 1/4" TO 3/4" HORIZONTAL JOINT SPACING BETWEEN THE LAGGING BOARDS TO PERMIT DRAINAGE.

THE DEPARTMENT WILL MEASURE THE TEMPORARY SOUTHERN PINE NO. 2 LAGGING BY THE NUMBER OF SQUARE FEET AND WILL DETERMINE THE AREA FROM PLAN DIMENSIONS USING A LENGTH MEASURED ALONG A HORIZONTAL LINE ALONG THE CENTERLINE OF THE SOLDIER PILES AND A HEIGHT FROM THE BOTTOM OF THE LAGGING TO THE TOP. PAYMENT IS FULL COMPENSATION FOR FURNISHING AND PLACING ALL MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICE BID PER SQUARE FOOT FOR ITEM SPECIAL - RETAINING WALL, MISC.: TIMBER LAGGING.

ITEM SPECIAL - RETAINING WALL, MISC.: GEOCOMPOSITE DRAIN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREFABRICATED GEOCOMPOSITE DRAIN (PGD) VERTICALLY AND CENTERED IN EACH SOLDIER PILE BAY. THE PGD SHALL BE THE WIDTH AS SHOWN ON THESE PLANS WITHIN EACH SOLDIER PILE BAY. THE CONTRACTOR SHALL USE ONE OF THE FOLLOWING OR AN EQUAL PGD APPROVED BY THE ENGINEER.

AMERIDRAIN 200
AMERICAN WICK DRAIN CORPORATION, INC.
1209 AIRPORT ROAD
MONROE, NC 28110-7389
PHONE: 1-800-242-9425 OR 704-238-9200

TENCATE G100N
TENCATE GEOSYNTHETICS NORTH AMERICA
365 SOUTH HOLLAND DRIVE
PENDERGRASS, GA 30567
PHONE: 1-800-685-9900 OR 706-693-2226

J-DRAIN 200
JDR ENTERPRISES, INC.
292 SOUTH MAIN STREET. SUITE 200
ALPHARETTA, GA 30009
PHONE: 1-800-843-7569 OR 770-442-1467

ROADWAY, MISC.: GRANULAR EMBANKMENT, TYPE B

PLACE AND COMPACT EMBANKMENT MATERIAL AS PER REQUIREMENTS OF ITEM 203 GRANULAR EMBANKMENT, TYPE B.

ITEM SPECIAL - RETAINING WALL, MISC.: GEOCOMPOSITE DRAIN (CONTINUED)

INSTALL THE DRAIN PER THE MANUFACTURER'S RECOMMENDATIONS. PLACE THE GEOTEXTILE SIDE OF THE DRAIN AGAINST THE RETAINED SLOPE FACE. EXTEND THE DRAIN TO THE FULL HEIGHT OF THE WALL AS SHOWN IN THE PLANS. CARRY THE DRAIN TO THE BOTTOM OF THE WALL AND OUTLET TO THE UNDERDRAIN AS SHOWN ON WALL DETAIL SHEETS. THE DEPARTMENT WILL MEASURE THE DRAIN BY THE NUMBER OF SQUARE YARDS OF SURFACE AREA OF DRAIN PLACED. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITY AT THE CONTRACT UNIT PRICE BID PER SQUARE YARD FOR ITEM SPECIAL - RETAINING WALL, MISC.: GEOCOMPOSITE DRAIN.

ABBREVIATIONS:

- C/C - CENTER TO CENTER
- CIP - CAST-IN-PLACE
- CJ - CONSTRUCTION JOINT
- CLR - CLR
- CONST - CONSTRUCTION
- DIA - DIAMETER
- EF - EACH FACE
- ELEV - ELEVATION
- EOP - EDGE OF PAVEMENT
- EX - EXISTING
- FF - FAR FACE
- I.R. 75 - INTERSTATE ROUTE 75
- INC - INCREMENT
- LT - LEFT
- LSM - LOW STRENGTH MORTAR
- MAX - MAXIMUM
- MIN - MINIMUM
- NB - NORTH BOUND
- NF - NEAR FACE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- PERF CPP - PERFORATED CORRUGATED PLASTIC PIPE
- PROP - PROPOSED
- RT - RIGHT
- SER - SERIES
- SPA - SPACING
- ST - STRAIGHT
- STA - STATION
- TYP - TYPICAL

DESIGN AGENCY: **J.M. LAMON, INC.**
2475 Sugar Grove Rd., SE Lancaster, Ohio 43130
(740) 687-5542 Phone - (740) 687-0096 Fax

DATE: 9/19/19
REVIEWED: MUR
DRAWN: AFL
DESIGNED: JBM
CHECKED: JAH

STRUCTURE FILE NUMBER

GENERAL NOTES
SOLDIER PILE AND LAGGING WALL
ALONG SR-303 WEST OF STATE ROAD

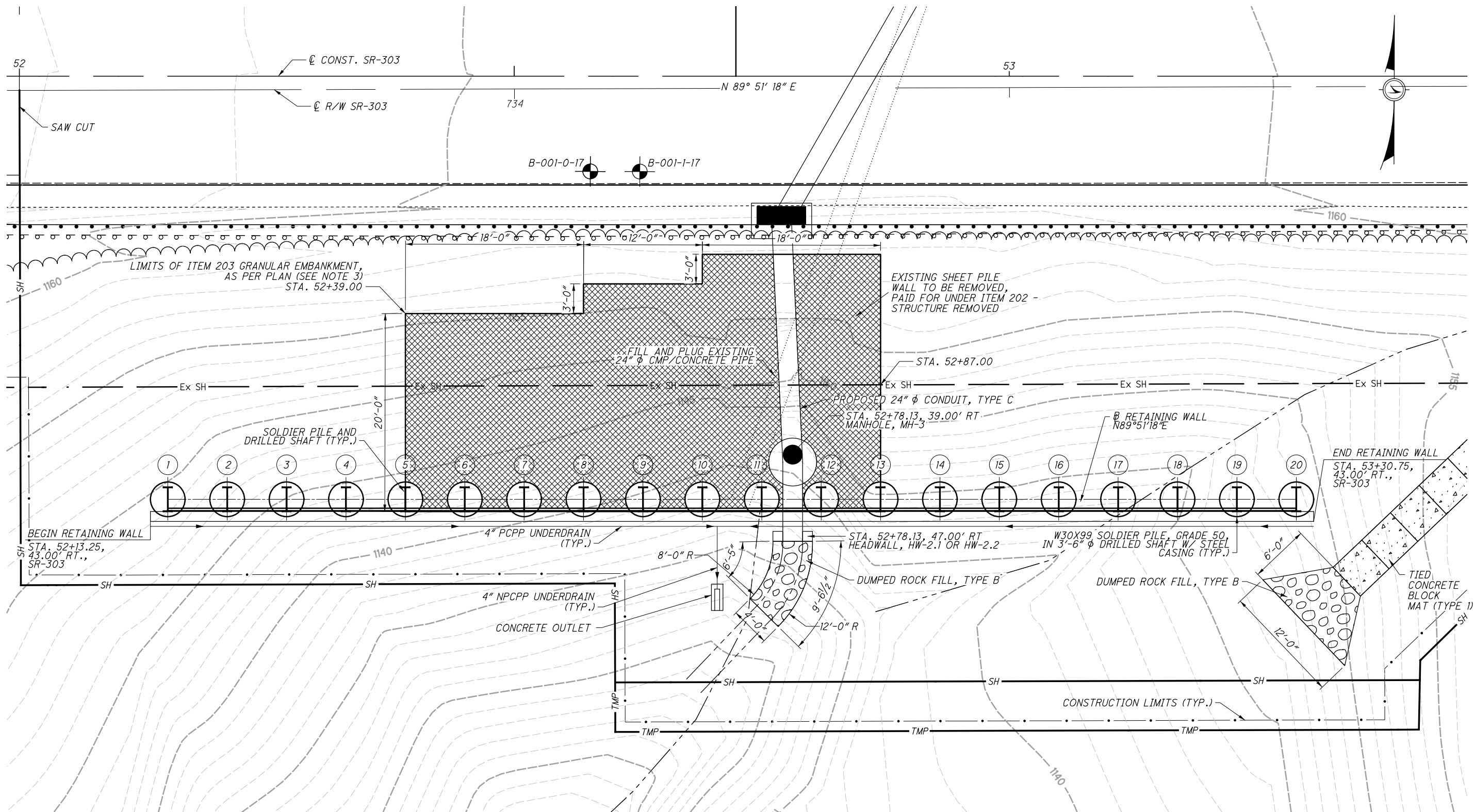
MED-303-13.90/14.96
PID No. 94440

1 / 8

26
60

ESTIMATED QUANTITIES					
ITEM	EXT.	QUANTITY O2/STR/CV	UNIT	DESCRIPTION	REF. SHEET
202	11000	LS		STRUCTURE REMOVED	
203	35001	998	CY	GRANULAR EMBANKMENT, AS PER PLAN	4/8
203	98500	LS		ROADWAY, MISC.: GRANULAR EMBANKMENT, TYPE B	1/8
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	1/8
507	00400	744	FT	STEEL PILES, MISC.: SOLDIER PILES	1/8
509	10000	8,096	LB	EPOXY COATED REINFORCING STEEL	
511	46010	47	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
512	10100	101	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	33001	24	SY	TYPE 2 WATERPROOFING, AS PER PLAN	1/8
516	13600	10	SF	1" PREFORMED EXPANSION JOINT FILLER	
518	21200	5	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
518	39800	133	FT	4" PERFORATED CORRUGATED PLASTIC PIPE	
518	39900	7	FT	4" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
524	94801	552	FT	DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN	1/8
611	99710	1	EACH	PRECAST REINFORCED CONCRETE OUTLET	
SPECIAL	610E50010	723	SF	RETAINING WALL, MISC.: GEOCOMPOSITE DRAIN	1/8
SPECIAL	610E50010	1,179	SF	RETAINING WALL, MISC.: TIMBER LAGGING	1/8

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PLAN

LEGEND:

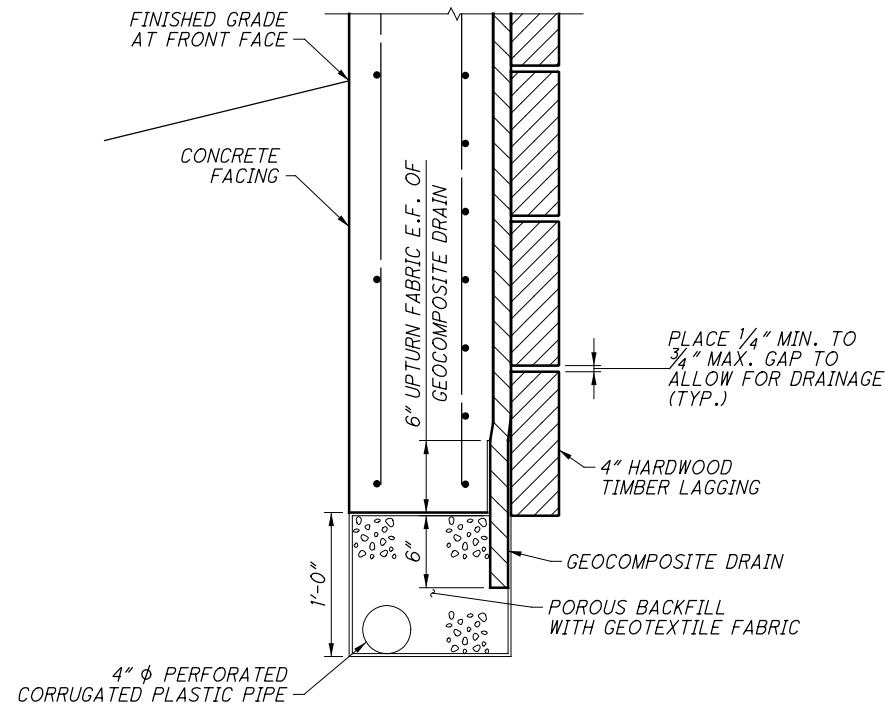
- (X) - PILE NUMBER
- [Hatched Box] - SELECT GRANULAR BACKFILL

NOTES:

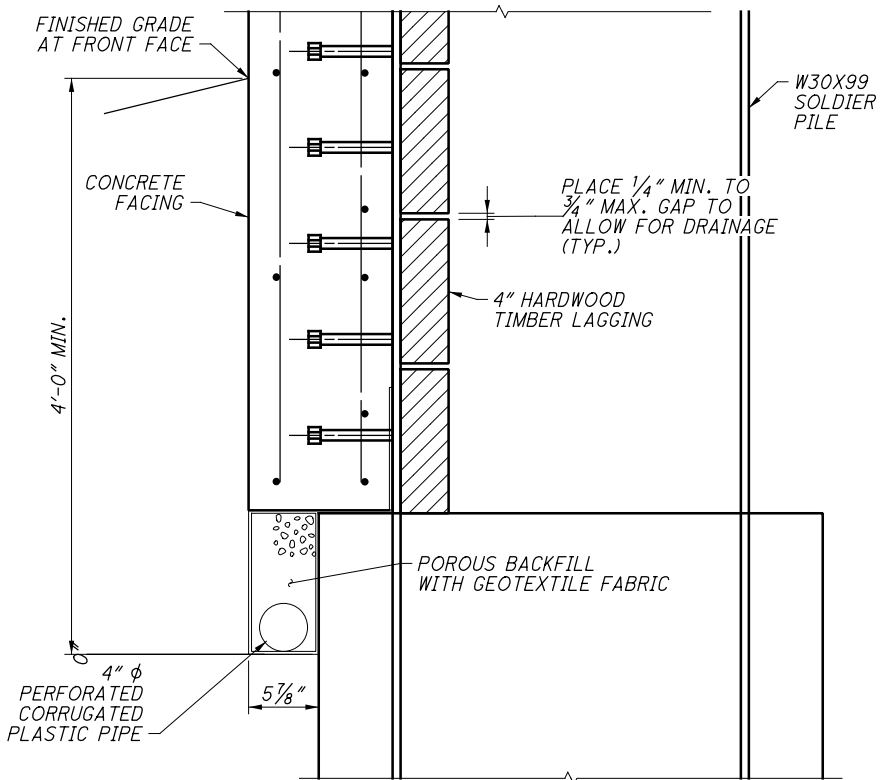
1. FOR WALL ELEVATION, SEE SHEET 5/8.
2. FOR WALL DETAILS, SEE SHEET 7/8.
3. BACKFILL OF THE RETAINING WALL SHALL BE PLACED PRIOR TO CONSTRUCTING THE CAST-IN-PLACE FACING. THE BACKFILL SHALL CONSIST OF ITEM 203 GRANULAR EMBANKMENT TYPE B, EXCEPT WHERE IT IS NOTED THAT ITEM 203 GRANULAR EMBANKMENT, AS PER PLAN, SHALL BE USED. THE ITEM 203 GRANULAR EMBANKMENT, AS PER PLAN, SHALL BE A SELECT GRANULAR BACKFILL AND SHALL CONFORM TO ODOT CMS ITEM 703.11 STRUCTURAL BACKFILL TYPE 2. THE SELECT GRANULAR BACKFILL SHALL EXTEND FROM THE BASE OF THE WALL TO THE INTERSECTING PROPOSED GRADE LINE AND TO THE BOTTOM OF THE EXCAVATION.

<p>DESIGN AGENCY 2475 Sugar Grove Rd., SE Lancaster, Ohio 43130 (740) 687-5542 Phone - (740) 687-0086 Fax</p>	<p>DATE 9/19/19</p>	<p>REVIEWED MUR</p>	<p>STRUCTURE FILE NUMBER</p>
<p>DRAWN JBM</p>	<p>REVISIONS</p>	<p>DESIGNED JBM</p>	<p>CHECKED JAH</p>
<p>WALL PLAN SOLDIER PILE AND LAGGING WALL ALONG SR-303 WEST OF STATE ROAD</p>			
<p>MED-303-13.90/14.96</p>		<p>PID No. 944440</p>	
<p>4 / 8</p>		<p>29 / 60</p>	

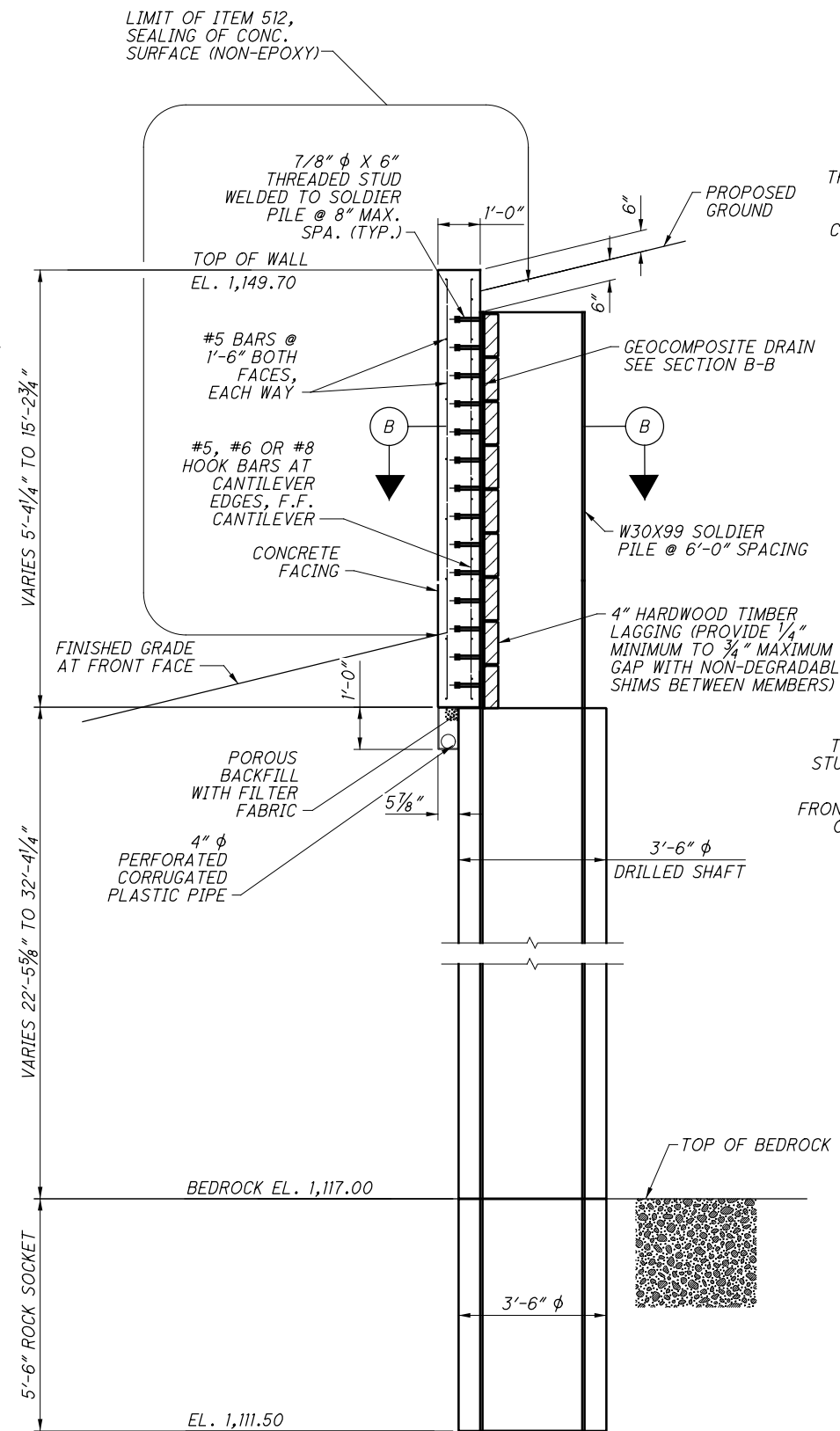
G:\DE\Clients\0001\077653_MED-303-13.90-14.96\94440\Design\Structures\MED303_1390C_Sheets\94440_001_WD001.dgn Sheet 2/10/2020 3:36:47 PM goodnight



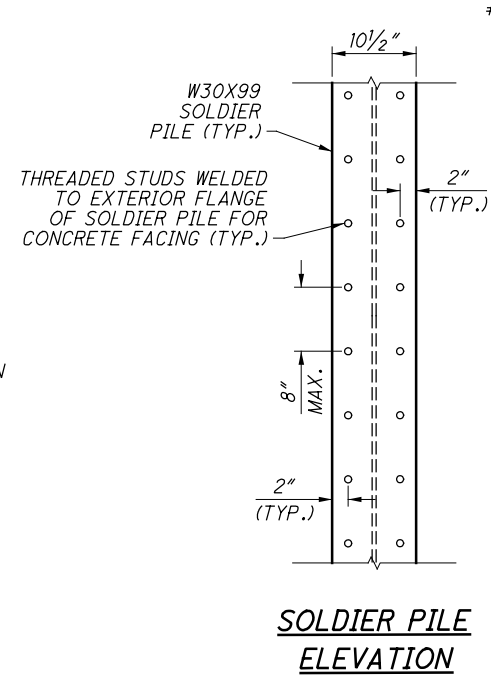
UNDERDRAIN DETAIL BETWEEN SOLDIER PILES



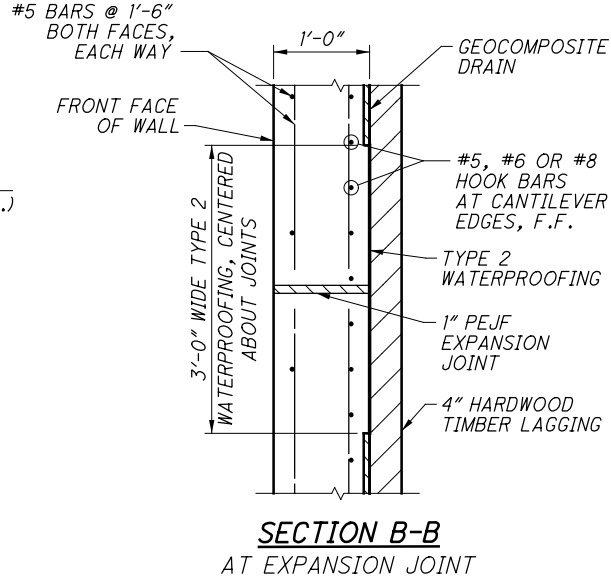
UNDERDRAIN DETAIL AT SOLDIER PILES



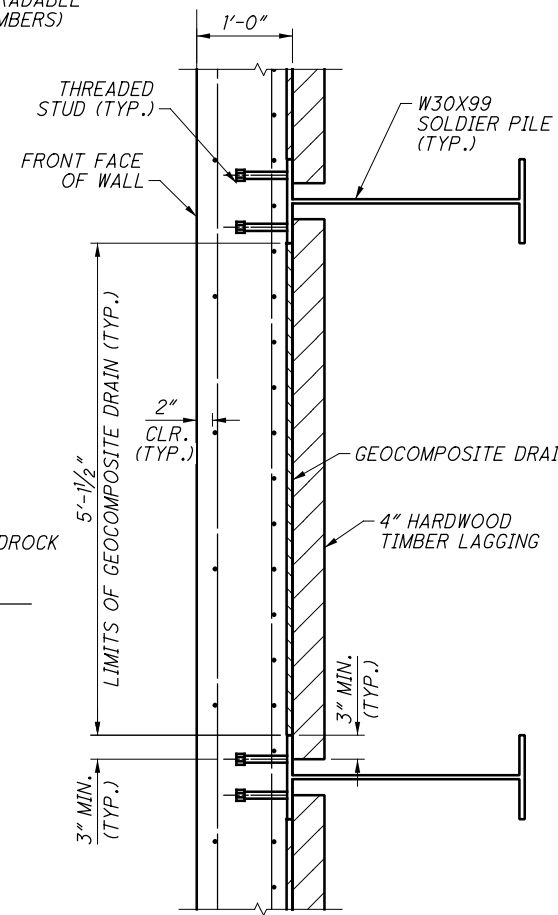
SECTION A-A



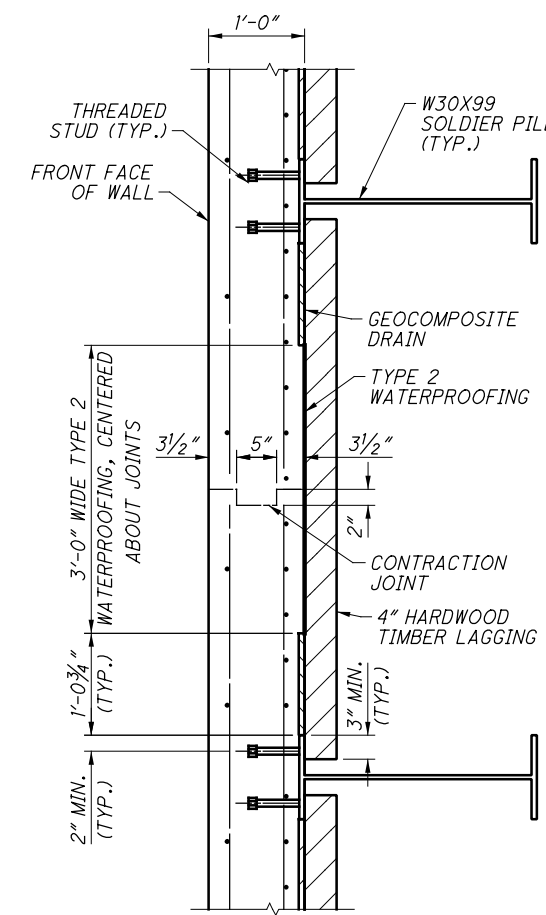
SOLDIER PILE ELEVATION



SECTION B-B AT EXPANSION JOINT



SECTION B-B



SECTION B-B TYP. AT CONTRACTION JOINTS

NOTES:

1. FOR WALL PLAN, SEE SHEET 4/8.
2. FOR WALL ELEVATION, SEE SHEET 5/8.
3. STUDS INCLUDED IN PRICE OF ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES.
4. FOR LOCATION OF SECTION A-A, SEE SHEET 5/8.
5. BACKFILL RETAINING WALL WITH ITEM 203 - ROADWAY, MISC.: GRANULAR MATERIAL, TYPE B, EXCEPT WHERE NOTED TO USE ITEM 203 - GRANULAR EMBANKMENT, AS PER PLAN.
6. BACKFILL MUST BE COMPLETED PRIOR TO INSTALLING THE CIP WALL FACING.

	DESIGN AGENCY 2475 Sugar Grove Rd., SE Lancaster, Ohio 43130 (740) 687-5542 Phone - (740) 687-0066 Fax
DRAWN JBM	DATE 9/19/19
DESIGNED JBM	REVIEWED MUR
CHECKED JAH	STRUCTURE FILE NUMBER
WALL TYPICAL SECTION SOLDIER PILE AND LAGGING WALL ALONG SR-303 WEST OF STATE ROAD	
MED-303-13.90/14.96	PID No. 94440
7 / 8	
32 60	

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- AS-1-15 REVISED 7/17/2015
- AS-2-15 REVISED 1/19/2018
- DS-1-92 REVISED 7/18/2003
- GSD-1-96 REVISED 7/19/2002
- ICD-1-82 REVISED 7/19/2002
- TST-1-99 REVISED 7/20/2018

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

- 846 DATED 4/17/2015

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2007, DATED 01/19/2018.

DESIGN LOADING:

HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN DATA:

- CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
- CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
- REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
- STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

LRFD LOAD MODIFIERS

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATION, ARTICLE 1.3.5 AND ODOT BRIDGE DESIGN MANUAL, 2007.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
STEEL DRIP STRIP

MONOLITHIC WEARING SURFACE:

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

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 230 KIPS PER PILE FOR THE REAR AND FORWARD ABUTMENT PILES.

ABUTMENT PILES:

- 8 PILES, 60 FEET LONG, ORDER LENGTH (REAR ABUTMENT)
- 8 PILES, 55 FEET LONG, ORDER LENGTH (FORWARD ABUTMENT)
- 1 DYNAMIC LOAD TESTING ITEMS

BEAM STABILITY DURING ERECTION:

THE FOLLOWING PROVISIONS APPLY IN ADDITION TO THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) 501.05. WHERE BEAMS ARE PLACED BUT NOT CONNECTED TO CROSSFRAMES, AND NOT OTHERWISE SUPPORTED BY CRANES, TEMPORARY LATERAL BRACING OR HOLD-DOWNS SHALL BE PROVIDED AT THE ABUTMENTS. IN PARTICULAR, THIS SHALL APPLY TO THE FIRST BEAM ERECTED. DESIGN OF TEMPORARY BRACING OR HOLD-DOWNS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF OHIO AND SUBMITTED IN ACCORDANCE WITH C&MS 501.05 AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE DESIGN SHALL INCORPORATE A MINIMUM WIND LOAD OF 16 PSF APPLIED Laterally TO THE BEAM. APPLICABLE STANDARDS FOR DESIGN INCLUDE THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION (2017), LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 4TH EDITION (2017), GUIDE SPECIFICATIONS FOR WIND LOADS ON BRIDGES DURING CONSTRUCTION, 1ST EDITION (2017), AND GUIDE DESIGN SPECIFICATIONS FOR BRIDGE TEMPORARY WORKS, 2ND EDITION (2017). END BRACING OR HOLD-DOWNS MAY BE REMOVED AFTER A MINIMUM OF TWO BEAM LINES HAVE BEEN SET AND ALL CROSSFRAMES ATTACHED.

DECK PLACEMENT DESIGN ASSUMPTIONS:

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

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.26 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

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

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THE WORK CONSISTS OF THE REMOVAL OF THE EXISTING BRIDGE STRUCTURE FOR MED-303-1496. REMOVE EXISTING SUPERSTRUCTURE, INCLUDING WEARING COURSE, PIERS, ABUTMENTS AND FOOTINGS IN THEIR ENTIRETY. EXISTING PIER PILES SHALL BE REMOVED TO A MINIMUM OF 2 FEET BELOW EXISTING STREAM BED ELEVATION. EXISTING ABUTMENT PILES SHALL BE REMOVED TO A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF PROPOSED FOOTING AS TO AVOID INTERFERENCE WITH PROPOSED STRUCTURE. IF INTERFERENCE IS UNAVOIDABLE, COMPLETELY REMOVE EXISTING ABUTMENT PILES. THE CONTRACTOR HAS THE OPTION OF COMPLETELY REMOVING EXISTING ABUTMENT PILES IN LIEU OF PARTIAL REMOVAL OF PILES IF THERE IS NO INTERFERENCE TO THE PROPOSED SUBSTRUCTURE. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THIS WORK SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR ITEM 202: STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 203, EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

ITEM 512, SEALING OF CONCRETE SURFACES:

ABUTMENT AND DECK EDGE CONCRETE SHALL BE SEALED WITH A NON-EPOXY SYSTEM PER C&MS 512. THE COLOR SHALL BE FEDERAL COLOR STANDARD NO. FS-595B-17778, LIGHT NEUTRAL.

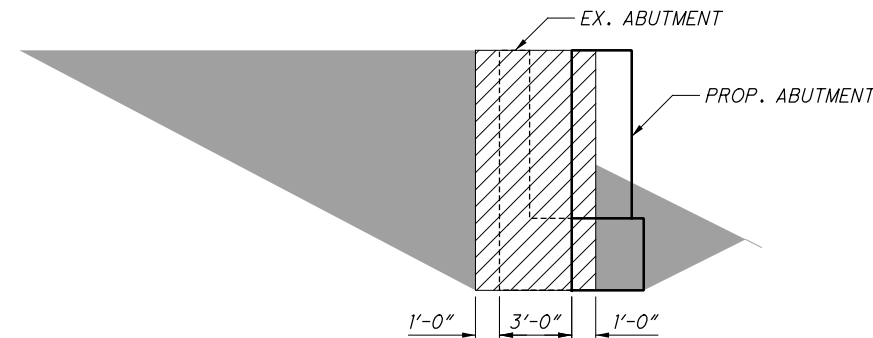
ITEM 514, PAINTING OF STRUCTURAL STEEL:

ALL STRUCTURAL STEEL SHALL BE PAINTED IN ACCORDANCE WITH C&MS 514. THE FINISH COAT COLOR SHALL BE FEDERAL COLOR STANDARD NO. FS-595B-14277, GREEN.

ABBREVIATIONS:

- APPR. - APPROACH
- BOT. - BOTTOM
- BRG(S). - BEARING(S)
- BTA - BRIDGE TERMINAL ASSEMBLY
- BTW. - BETWEEN
- C/C - CENTER TO CENTER
- CL - CENTERLINE
- CIP - CAST IN PLACE
- CLR. - CLEAR
- C.J. - CONSTRUCTION JOINT
- CONST. - CONSTRUCTION
- DIA. - DIAMETER
- EA. - EACH
- ELEV. - ELEVATION
- E.S. - EACH SIDE
- EST. - ESTIMATED
- EQ. - EQUAL
- EX. - EXISTING
- EXP. - EXPANSION
- F.A. - FORWARD ABUTMENT
- F/F - FACE TO FACE
- FL - FLOWLINE
- F.S. - FAR SIDE
- INT. - INTEGRAL
- LT. - LEFT
- MAX. - MAXIMUM
- MIN. - MINIMUM
- NO. - NUMBER
- N.S. - NEAR SIDE
- NPCPP - NON-PERFORATED CORRUGATED PLASTIC PIPE
- N.W. - NORMAL WATER
- OHWM - ORDINARY HIGH WATER MARK
- O/O - OUT-TO-OUT
- PCPP - PERFORATED CORRUGATED PLASTIC PIPE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- P/G - PROFILE GRADE
- P - PLATE
- PROP. - PROPOSED
- R.A. - REAR ABUTMENT
- RCP - REINFORCED CONCRETE PROTECTION
- RT. - RIGHT
- R/W - RIGHT OF WAY
- SCD - STANDARD CONSTRUCTION DRAWING
- SER. - SERIES
- SHLDR. - SHOULDER
- SPA. - SPACES
- SR - STATE ROUTE
- STA. - STATION
- TBR - TO BE REMOVED
- TH - TEST HOLE
- T/S - TOE OF SLOPE
- TYP. - TYPICAL

- 203 EXCAVATION
- 503 UNCLASSIFIED EXCAVATION



EXCAVATION CLASSIFICATION DETAIL

	DESIGN AGENCY WOLPERT ENGINEERS ARCHITECTS PLANNERS 100 EAST WASHINGTON AVE SUITE 400 COLUMBUS, OH 43219 T 614-476-6000 F 614-476-6225	DATE 2/2/2020	REVIEWED TML	DRAWN CML	DESIGNED CML	STRUCTURE FILE NUMBER 5207960	CHECKED PES	REVISIONS REVISED	
GENERAL NOTES BRIDGE NO. MED-303-1496 SR-303 OVER EAST BRANCH ROCKY RIVER									
MED-303-13.90/14.96 PID No. 94440									
2 / 20									
37 60									