

#### PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, LINEAR GRADING, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 705.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

#### METHOD A:

1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

#### METHOD B:

1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1 (448), UNDER GUARDRAIL, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), UNDER GUARDRAIL, AS PER PLAN. 160 CU. YDS.

#### VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 669 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.

#### ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2, 5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSUITABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

#### ITEM 606 - IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE TYPE 1 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL OR BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

#### SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 25 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

#### PROJECT CONTROL

POSITIONING METHOD: ODOT VRS  
MONUMENT TYPE: B

#### VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88  
GEOID: 12A

#### HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE SOUTH  
COMBINED SCALE FACTOR: N/A

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

#### CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

#### ITEM 630 - SIGN ATTACHMENT ASSEMBLY, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF TC-22.20, THIS ITEM SHALL CONSIST OF ALL NEW BRACKETS (e.g. "Z" BAR TO MATCH THE PROPOSED SIGN SIZE), CLAMPS, CLIPS, AND ANY OTHER HARDWARE NEEDED TO ATTACH THE SIGN TO THE EXISTING SUPPORT.

#### ITEM 631 SIGN LIGHTING, MISC.: REMOVAL OF SIGN LIGHTING

THIS REMOVAL ITEM SHALL INCLUDE THE REMOVAL OF THE SIGN WIRING, ELECTRICAL EQUIPMENT, LUMINAIRES, LUMINAIRE SUPPORT ARMS, AND SIGN SERVICE AT EACH LOCATION SPECIFIED IN THE PLANS.

THE CONTRACTOR SHALL CUT OUT EXISTING SPLICE KITS AND INSTALL NEW SPLICE KITS TO RECONNECT THE MAIN LIGHTING CIRCUIT. THE CONDUIT COMING OUT OF THE EXISTING PULLBOX SHALL BE CAPPED. PULLBOXES SHALL REMAIN. DISPOSAL OF ITEMS SHALL BE ACCORDING TO CMS 105.17.

THE CONTRACTOR SHALL CONTACT THE DISTRICT 10 TRAFFIC DEPARTMENT AT LEAST SEVEN (7) DAYS PRIOR TO PERFORMING THIS ITEM OF WORK. THE CONTACT PHONE NUMBERS ARE 740-568-3933 OR 740-568-3985.

#### ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN EXISTING 20" AND 24" DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED IN THE PLANS, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

#### ITEM 601 - PAVED GUTTER, TYPE 1-2, AS PER PLAN

"ITEM 601 - PAVED GUTTER, TYPE 1-2, AS PER PLAN" SHALL BE CONSTRUCTED AS DETAILED ON SHEET 15.

THE 1/2" PREFORMED EXPANSION JOINT FILLER, 705.03 SHALL BE INCLUDED IN THE COST OF THIS ITEM.

#### ITEM 202 - PIPE REMOVED, 24" AND UNDER, AS PER PLAN

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE REMOVAL OF EXISTING UNDERDRAINS.

ITEM 202 - PIPE REMOVED, 24" AND UNDER, AS PER PLAN.....13,480 FEET

#### TC-12.31 BASE PLATE CONNECTION

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

GENERAL NOTES

DESIGN AGENCY



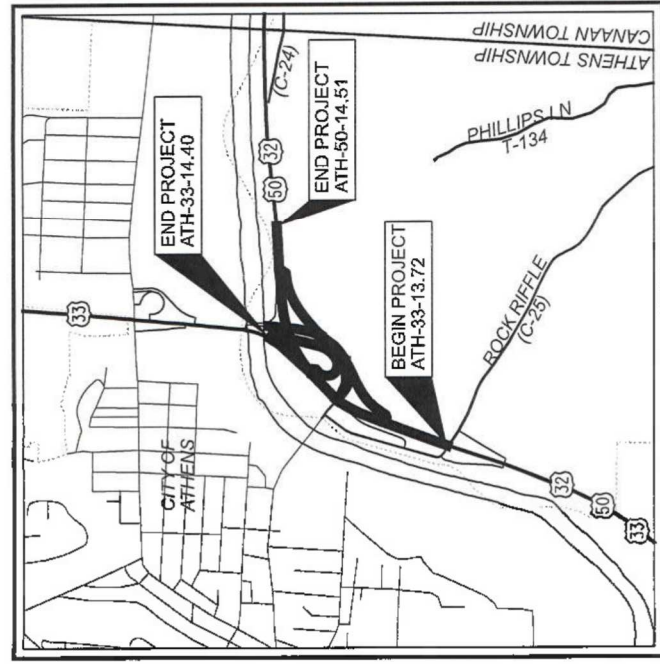
DESIGNER  
JDC

REVIEWER  
JDC 01/07/22

PROJECT ID  
106553

SHEET TOTAL  
24 393





**DESIGN DESIGNATION**

CURRENT ADT (2022)	26500
DESIGN YEAR ADT (2042)	31000
DESIGN HOURLY VOLUME (2042)	2800
DIRECTIONAL DISTRIBUTION	.53
TRUCKS (24 HOUR B&C)	.15
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
FREEWAY (RURAL)	
NHS PROJECT	YES

**PORTION TO BE IMPROVED**

- INTERSTATE HIGHWAY
- FEDERAL ROUTES
- STATE ROUTES
- COUNTY & TOWNSHIP ROADS
- OTHER ROADS

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## ATH-33-14.40

**FEDERAL PROJECT NUMBER**  
E200002

**RAILROAD INVOLVEMENT**  
NONE

**PROJECT DESCRIPTION**  
MAJOR REHABILITATION OF US33 / 50 INTERCHANGE NEAR SLM 14.00. PROJECT INVOLVES PAVEMENT REMOVAL, AND REPLACEMENT WITH FULL DEPTH ASPHALT. REALIGNMENT OF INTERCHANGE FEATURES TO MEET THE PROPOSED ROUNDABOUT AT THE END OF STIMSON.

**EARTH DISTURBED AREAS**  
 PROJECT EARTH DISTURBED AREA: 19.0 ACRES  
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 4.4 ACRES  
 NOTICE OF INTENT EARTH DISTURBED AREA: 23.4 ACRES

**2019 SPECIFICATIONS**  
 THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

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

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

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**ENGINEERS SEAL**

STATE OF OHIO  
 JOSEPH M. SCHOTT  
 E-86160  
 REGISTERED PROFESSIONAL ENGINEER

SIGNED: *Joseph M. Schott*  
 DATE: 11-10-22

**UNDERGROUND UTILITIES**  
 Contact Two Working Days Before You Dig

**OHIO811.org**  
 Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764  
 (Non members must be called directly)

PLAN PREPARED BY:  
 OHIO DEPARTMENT OF TRANSPORTATION  
 DISTRICT 10 - PLANNING AND ENGINEERING  
 MARIETTA, OHIO

STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS			
CB-2A, 2-B	7/15/16 MGS-3	7/15/16 MT-104.10	TC-12.31	10/15/21	
CB-2, 3, 2-4	7/16/21 MGS-6.1	1/19/18 MT-105.10	1/17/20 TC-15.116	7/16/21	
CB-3	7/16/21		TC-21.11	7/16/21	808
CB-3A	7/16/21 RM-3.1	7/20/18 HL-10.11	1/15/21 TC-21.21	7/16/21	813
MH-3	7/16/21 RM-4.2	4/17/20 HL-10.12	1/20/17 TC-22.20	1/17/14	832
DM-1.1	7/17/21 RM-4.3	7/18/14 HL-10.13	4/17/20 TC-41.10	7/17/13	850
DM-1.2	7/16/21 RM-4.4	7/19/19 HL-20.11	1/15/21 TC-41.20	10/18/23	
DM-4.3	1/15/16 RM-4.5	7/21/17 HL-30.11	1/15/21 TC-41.30	10/18/13	908
DM-4.4	1/15/16 RM-4.6	7/19/13 HL-30.21	4/17/20 TC-42.10	10/18/13	
BP-3.1	1/17/20 MT-95.30	1/19/19 HL-30.22	1/15/21 TC-42.20	10/18/13	
BP-5.1	7/16/21 MT-95.40	1/17/20 HL-40.10	7/17/20 TC-51.11	1/15/16	
BP-6.1	7/19/13 MT-95.45	1/17/20 HL-60.11	7/21/17 TC-51.12	1/15/16	
MGS-1.1	7/16/21 MT-95.50	7/21/17 HL-60.12	7/16/21 TC-52.10	10/18/13	
MGS-2.1	1/19/18 MT-99.20	4/19/19 HL-60.31	1/17/20		
MGS-3.1	1/19/18 MT-99.30	1/17/20			
MGS-3.2	1/18/13 MT-101.70	1/17/20			
MGS-4.2	7/19/13 MT-101.75	1/17/20			
MGS-5.2	7/15/16 MT-101.90	1/17/20			

APPROVED  
 DATE 11/10/22  
*Dale J. Miller*  
 DISTRICT DEPUTY DIRECTOR

APPROVED  
 DATE \_\_\_\_\_  
 DIRECTOR, DEPARTMENT OF TRANSPORTATION

DESIGN AGENCY

DESIGNER JMS

REVIEWER JDC 1-8-22

PROJECT ID 106553

SHEET 1 TOTAL 393

TITLE SHEET