

**NATIONAL GEODETIC SURVEY (NGS) BENCHMARKS**

ACCORDING TO THE NATIONAL GEODETIC SURVEY (NGS) EXPLORER WEBSITE (<https://www.ngs.noaa.gov/NGSDataExplorer/>), ONE EXISTING NGS BENCHMARK IS PRESENT ON STRUCTURES SUM-77-1184 (LAFOLLETTE STREET OVER SR-8). NOTIFY THE DISTRICT SURVEYOR, BY PHONE AT (330)-786-3100 AT LEAST THREE (3) WEEKS PRIOR TO REMOVAL OF THE STRUCTURE THAT THE NATIONAL GEODETIC SURVEY (NGS) DISK WILL BE REMOVED. REMOVE THE NGS DISK WITHOUT DAMAGING THE FACE AND SUBMIT IT TO THE DISTRICT SURVEYOR. ALL COSTS ASSOCIATED WITH THE REMOVAL AND SALVAGE OF THE NGS DISK ARE INCLUDED IN THE PAYMENT FOR ITEM 202 STRUCTURE REMOVED, OR ITEM 202, PORTIONS OF STRUCTURE REMOVED.

**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. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

**MONUMENT ASSEMBLIES**

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN IN THE R/W PLANS.

**AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS**

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF X FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND THE ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO FILE A NEW FAA FORM 7460-1, ADVISING THE FAA THAT AERONAUTICAL STUDY NO. X IS BEING RESUBMITTED AND THAT AN ALTERATION TO THE ORIGINAL SUBMISSION IS REQUESTED.

NOTIFY THE ODOT OFFICE OF AVIATION WHEN RESUBMITTING FAA FORM 7460-1. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FAA APPROVAL MAY TAKE UP TO 45 DAYS. ALL SUBMISSIONS SHALL BE DIRECTED TO THESE OFFICES:

EXPRESS PROCESSING CENTER THE FEDERAL AVIATION ADMINISTRATION SOUTHWEST REGIONAL OFFICE AIR TRAFFIC AIRSPACE BRANCH ASW-520 2601 MEACHAM BLVD. FORT WORTH, TX 76137-4298	OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF AVIATION 2829 WEST DUBLIN- GRANVILLE ROAD COLUMBUS, OHIO 43235 614-387-2346
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**ABANDONED (BURIED) STRUCTURES**

PER RECORD PLAN SUM-76/77-11.27/12.12, THE PIERS, ABUTMENTS, FOUNDATIONS AND OTHER SUBSTRUCTURAL ELEMENTS OF STRUCTURES SUM-76-1137R, SUM-76-1137L AND SUM-77-1212R WERE ABANDONED AND BURIED UNDER EMABANKMENT. THE ABANDONED STRUCTURAL ELEMENTS ARE DEPICTED IN THE PLANS USING THE AVAILABLE RECORD PLAN INFORMATION, AND ARE INTENDED TO BE LEFT IN PLACE AND UNDISTURBED/UMIMPACTED DURING AND AFTER THE CONSTRUCTION OF THE PROJECT. WHILE WORKING IN OR AROUND THE LOCATION(S) WHERE KNOWN SUBSURFACE ABANDONED STRUCTURAL ELEMENTS MAY BE PRESENT, THE CONTRACTOR SHALL TAKE CAUTION NOT TO IMPACT OR DISTURB THESE EXISTING STRUCTURES. SHOULD THE CONTRACTOR EXPOSE, IMPACT, DAMAGE OR OTHERWISE MAKE CONTACT WITH THESE ABANDONED STRUCTURES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY AND SUSPEND ALL WORK IN THE AREA UNTIL THE PROJECT ENGINEER GIVES NOTICE TO RESUME WORK.

**CLEARING AND GRUBBING**

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING.

INDIVIDUAL TREE/STUMP SIZES WITHIN HEAVILY VEGETATED AREAS MAY NOT BE KNOWN AND WERE NOT SURVEYED, WHICH COVERS MOST OF THE VEGETATED AREAS WITHIN THE CONSTRUCTION LIMITS. UNLESS SPECIFICALLY MARKED AS "DO NOT DISTURB" IN THE PLANS, CLEARING OF ALL HEAVILY VEGETATED AREAS SHOWN WITHIN THE CONSTRUCTION LIMITS SHALL BE PAID FOR UNDER ITEM 201, CLEARING AND GRUBBING.

**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 8AM AND 10PM, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. 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.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**ROADWAY NOTES**

**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

**EXISTING UTILITIES AND SUBGRADE TREATMENT**

THE CONTRACTOR SHALL VERIFY THE DEPTH OF ALL EXISTING UNDERGROUND UTILITIES AND SEWERS WITHIN THE PROPOSED PAVEMENT LIMITS TO ENSURE NO UTILITIES OR SEWERS ARE IMPACTED OR DAMAGED DURING CEMENT STABILIZATION AND/OR UNDERCUT ACTIVITIES. THE CONTRACTOR SHALL LOCATE AND TAKE CARE TO FLAG ALL EXISTING UTILITIES WITHIN THE PROPOSED PAVEMENT LIMITS PRIOR TO PERFORMING CEMENT STABILIZATION OR UNDERCUT, AS DESIGNATED IN THE PLANS. SHOULD THE CONTRACTOR ENCOUNTER A POTENTIAL UTILITY CONFLICT, THE CONTRACTOR SHALL NOTIFY PROJECT ENGINEER AND STOP CEMENT STABILIZATION/UNDERCUT ACTIVITIES AT THE CONFLICT LOCATION IMMEDIATELY.

**MEDIAN AND/OR CURBING ON APPROACH SLABS**

WITHIN THE LIMITS OF THE APPROACH SLAB, TRANSITION THE SHAPE OF THE MEDIAN AND/OR CURBING ON APPROACH SLABS FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE.

**SHEETING & BRACING**

ANY SHEETING AND BRACING USED BY THE CONTRACTOR AND NOT OTHERWISE CALLED FOR IN THE PLANS SHALL BE FURNISHED, INSTALLED, AND MAINTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. NO SEPARATE PAYMENT SHALL BE MADE FOR SHEETING AND BRACING. AT ALL TIMES THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE IN A MANNER THAT IS SAFE TO ALL WORKERS AND THE GENERAL TRAVELING PUBLIC. ALL OSHA REQUIREMENTS SHALL BE UPHELD AND SOUND SAFETY PRACTICES SHALL BE EXERCISED AT ALL TIMES. REMOVAL OF SHEETING AND BRACING ITEMS UPON COMPLETION OF WORK WILL BE REQUIRED AS DIRECTED BY ODOT REPRESENTATIVES.

**ITEM 203 EMBANKMENT, AS PER PLAN**

THE FOLLOWING REQUIREMENTS ARE IN ADDITION TO THOSE OF CMS 203

AT RETAINING WALLS: EMBANKMENT PLACED FOR SECTIONS OF APPROACH RAMPS N & Q UPON WHICH SUPPORTS AND IS CONTAINED BY RETAINING WALLS SHALL BE CONSTRUCTED IN THE FOLLOWING MANNER:

1. THE INITIAL EMBANKMENT LIFTS FOR THE ENTIRE WIDTH OF APPROACH EMBANKMENT SHALL BE CONSTRUCTED TO AN ELEVATION AT OR ABOVE THE TOP OF FOOTING HEEL FOR EACH INDIVIDUAL SECTION OF RETAINING WALL. WHERE BACK-TO-BACK WALLS OCCUR (SUCH AS RETAINING WALLS 2 AND 3) THE ELEVATION OF THE INITIAL FILL PLACEMENT SHALL BE BUILT TO LEVELS THAT ARE HIGH ENOUGH TO COVER ALL INDIVIDUAL FOOTING SECTIONS OF THE RETAINING WALLS.
2. AFTER INITIAL EMBANKMENT PLACEMENT IS COMPLETE FOR EACH APPROACH RAMP THE SPECIFIED EMBANKMENT SETTLEMENT WAITING PERIOD SHALL COMMENCE. SEE RAMP BRIDGE PLANS FOR WAITING PERIOD DURATION.
3. FOLLOWING EXPIRATION OF THE SPECIFIED SETTLEMENT WAITING PERIOD FOR THE INITIAL EMBANKMENT PLACEMENT, EXCAVATIONS FOR THE RETAINING WALL FOOTINGS MAY COMMENCE.
4. ALL CONCRETE FOR RETAINING WALL FOOTINGS SHALL BE CAST NEAT AGAINST THE VERTICAL SIDES OF THE INDIVIDUAL FOOTING EXCAVATION. IF FORMS ARE USED TO CONSTRUCT THE VERTICAL SIDES OF THE FOOTINGS ANY VOIDS BETWEEN THE VERTICAL SIDES OF THE FOOTINGS AND THE ADJACENT UNDISTURBED GROUND SHALL BE BACKFILLED WITH CLASS GC1 CONCRETE.

AT BRIDGE APPROACHES: AT THE FOLLOWING LOCATIONS, PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT AT BRIDGES:

- |                            |                                                                |
|----------------------------|----------------------------------------------------------------|
| 1. RAMP Q (SUM-76-1148Q)   | STA. 2530+67.83 TO 2531+67.83<br>STA. 2540+16.04 TO 2541+16.04 |
| 2. RAMP N (SUM-76-1152N)   | STA. 3331+41.18 TO 3332+41.18<br>STA. 3338+79.43 TO 3339+79.43 |
| 3. IR-76 EB (SUM-76-1127)  | STA. 520+75.68 TO 521+75.68<br>STA. 523+35.89 TO 524+35.89     |
| 4. IR-76 WB (SUM-76-1180L) | STA. 548+46.24 TO 549+46.24<br>STA. 550+06.08 TO 551+06.08     |

IN ADDITION TO THE REQUIREMENTS STATED ABOVE, PORTIONS OF THE EMBANKMENT BEHIND BOTH ABUTMENTS OF THE RAMP N BRIDGE AND THE FORWARD ABUTMENT OF THE RAMP Q BRIDGE SHALL BE COMPRISED OF TYPE A GRANULAR EMBANKMENT. SEE SHEETS 757/1022 AND 821/1022 FOR FURTHER CLARIFICATION OF THE LIMITS OF GRANULAR EMBANKMENT.

PAYMENT FOR PLACING THE EMBANKMENT DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 203 - EMBANKMENT, AS PER PLAN CALCULATED IN THE ROADWAY CROSS SECTIONS.

**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 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05

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CALCULATED  
TK  
CHECKED  
MRT

GENERAL NOTES

SUM-76/77/8  
10.99/11.54/0.00

SEEDING  
END SO.  
WIDTH YDS.  
56  
274  
42  
231  
41  
201  
706

CONST. RAMP N

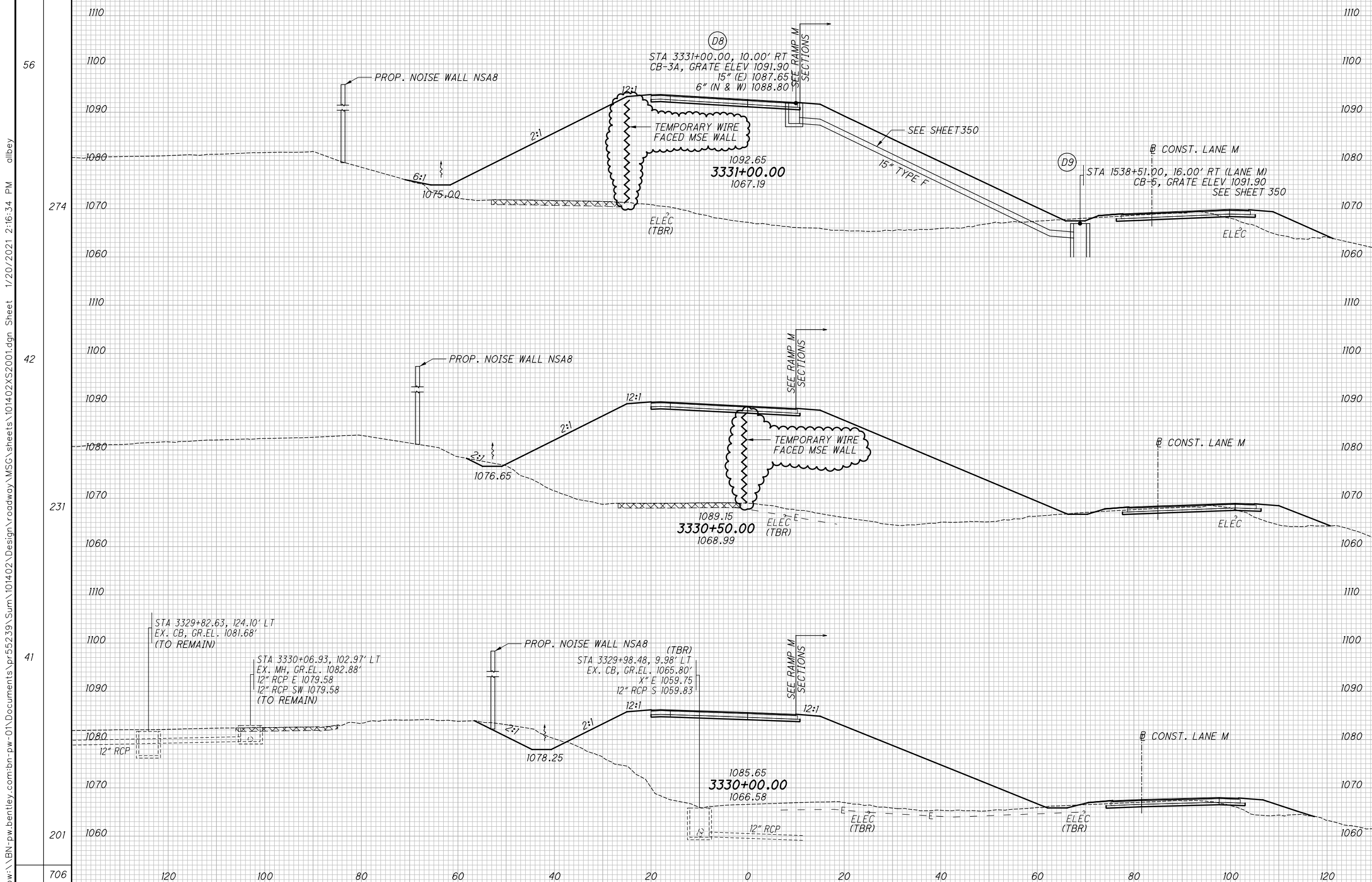
ITEM 202 - PAVEMENT REMOVED OR  
ITEM 202 - PAVEMENT REMOVED, ASPHALT

END AREA		VOLUME		CALCULATED XF	CHECKED CEB
CUT	FILL	CUT	FILL		
0	1292				
4	2114				
5	992				
43	1545				
42	677				
88	988				
135	4647				

CROSS SECTIONS RAMP N  
STA. 3330+00.00 TO STA. 3331+00.00

SUM-76/77/8  
10.99/11.54/0.00

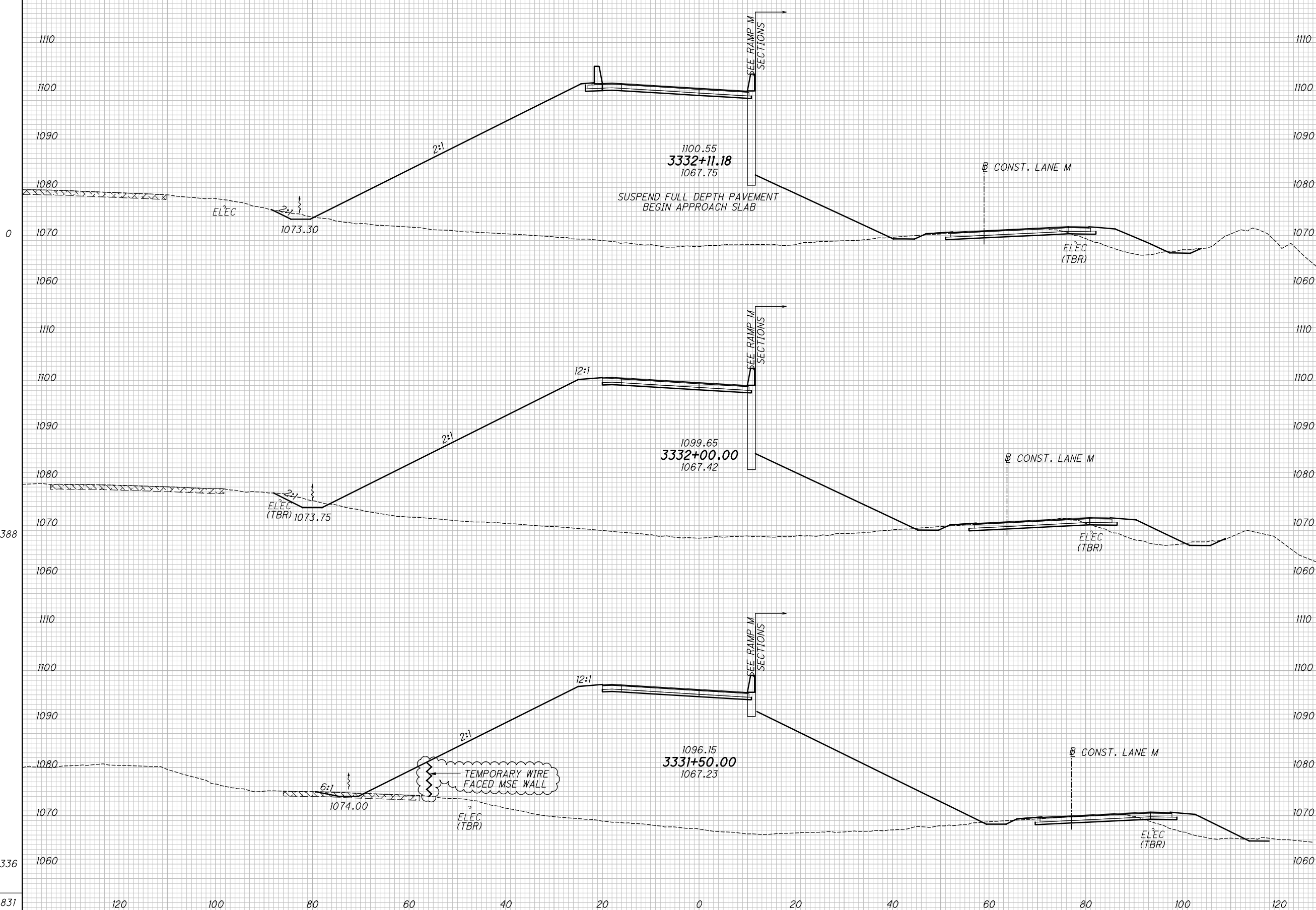
359  
1022



SEEDING  
 END WIDTH SO. YDS.  
 74  
 75  
 388  
 65  
 336  
 831

CONST. RAMP N

ITEM 202 - PAVEMENT REMOVED OR  
 ITEM 202 - PAVEMENT REMOVED, ASPHALT



END AREA	VOLUME	CALCULATED	CHECKED		
				CUT	FILL
7	1999				
5	938				
12	1917				
11	3240				
0	1582				
0	2661				
16	6839				

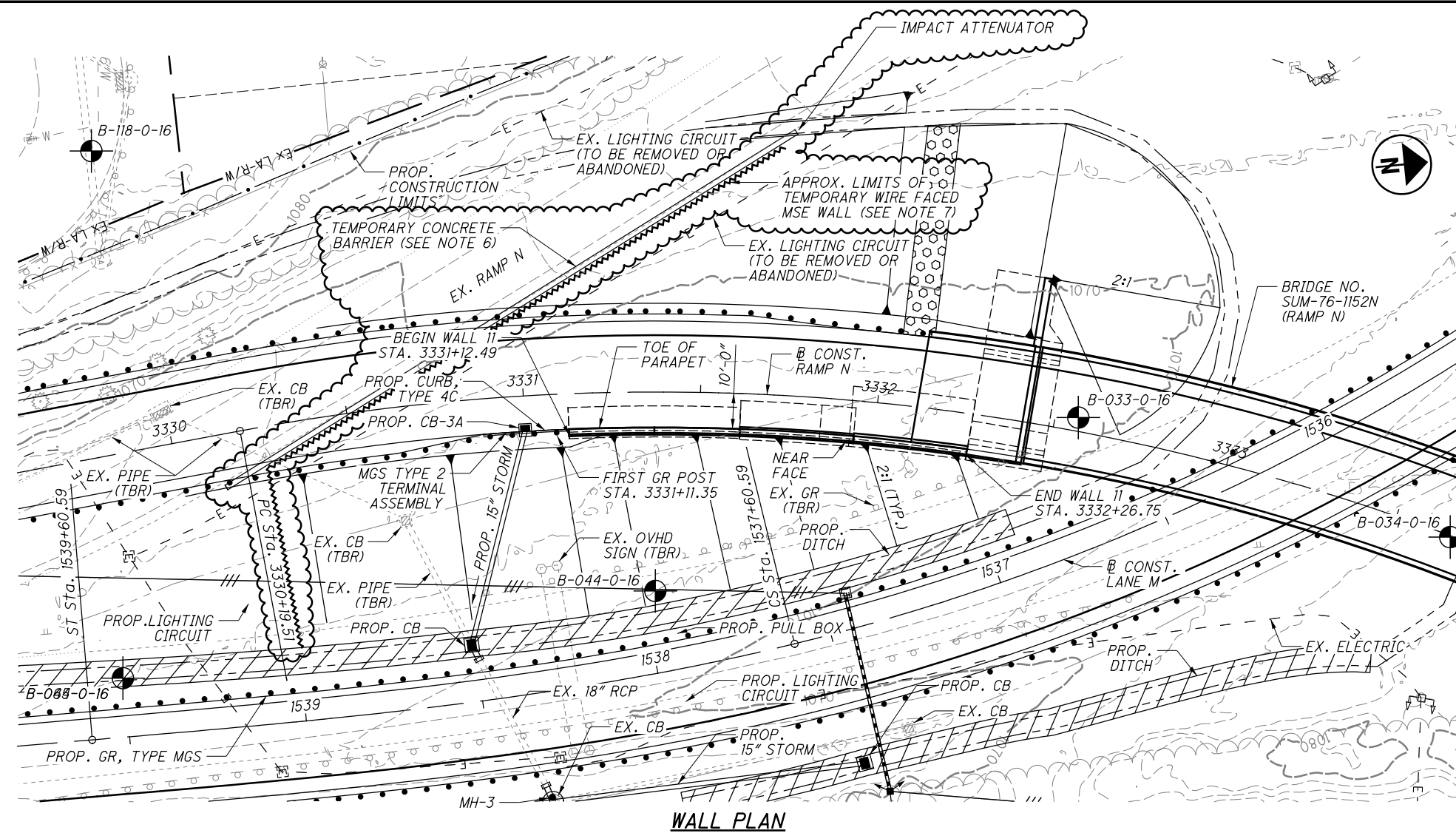
CROSS SECTIONS RAMP N  
 STA. 3331+50.00 TO STA. 3332+12.93

SUM-76/77/8  
 10.99/11.54/0.00

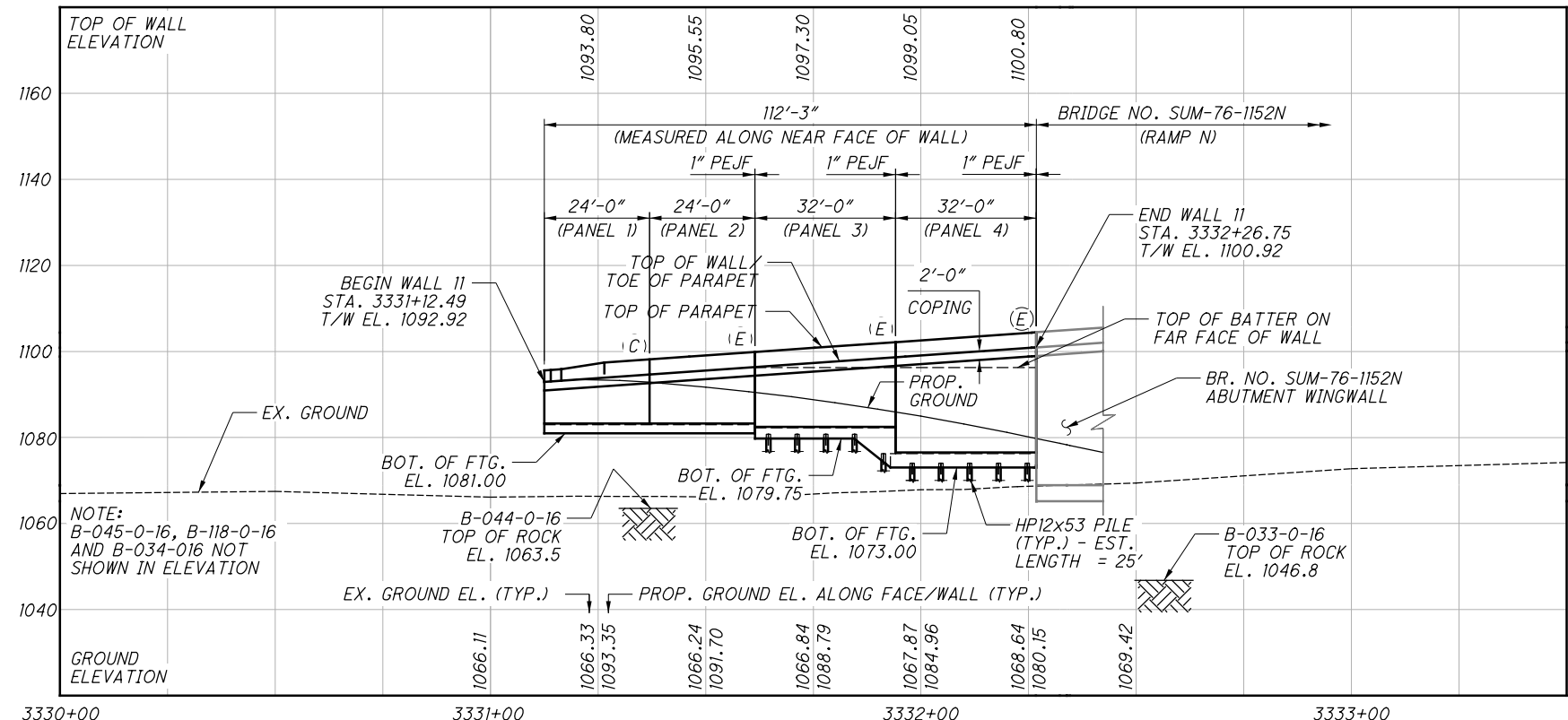
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**WALL PLAN**



**DEVELOPED ELEVATION ALONG NEAR FACE OF WALL**

BENCHMARK DATA			
POINT	NORTHING	EASTING	ELEVATION
BM-200	509553.932	2243436.787	1087.538

FOR ADDITIONAL BENCHMARK INFORMATION SEE ROADWAY PLAN  
SHEET 4/1022

NEW BORING LOCATIONS			
BORING	RAMP N STATION	OFFSET	TOP OF ROCK EL.
B-033-0-16	3332+56.42	3.9' LT.	1046.8
B-034-0-16	3333+66.27	0.4 RT.	1051.7
B-044-0-16	3331+37.19	56.1' RT.	1063.5
B-045-0-16	3329+74.22	62.3' RT.	1062.9
B-118-0-16	3329+92.93	85.2' LT.	1067.1

- LEGEND:**
- = PROJECT BORING LOCATION
  - = CONTRACTION JOINT
  - = EXPANSION JOINT
  - CB = CATCH BASIN
  - GR = GUARDRAIL
  - MGS = MIDWEST GUARDRAIL SYSTEM
  - OVHD = OVERHEAD
  - RCP = REINFORCED CONCRETE PIPE
  - TBR = TO BE REMOVED
  - T/W = TOP OF WALL

- NOTES:**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
  - WALL ALIGNMENT IS DEFINED ALONG THE NEAR FACE OF THE WALL AND CONST. RAMP N.
  - ALL EXISTING UTILITIES TO REMAIN UNLESS NOTED OTHERWISE.
  - FOR ROADWAY ALIGNMENT HORIZONTAL CURVE DATA, SEE ROADWAY PLANS.
  - SEE SHEETS 443/1022 TO 446/1022 FOR COMMON WALL GENERAL NOTES AND PRECAST RETAINING WALL ALTERNATIVE DETAILS.
  - INCLUDE COST OF TEMPORARY CONCRETE BARRIER INCLUDING IMPACT ATTENUATOR WITH DESIGN BUILD QUANTITIES.
  - ALSO SEE SHEETS 359/1022 AND 360/1022.

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

A-1-69 REVISED 7-19-02  
 AS-1-15 REVISED 7-17-15  
 AS-2-15 REVISED 1-18-19  
 SBR-1-13 REVISED 7-20-18

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

845 DATED 4/20/18

867 DATED 1/15/21

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8TH EDITION, 2017 AND THE ODOT BRIDGE DESIGN MANUAL, 2007 EDITION WITH REVISIONS THROUGH JULY 2018, EXCEPT AS NOTED ELSEWHERE IN THE PLANS.

SPECIAL DESIGN SPECIFICATIONS: THIS BRIDGE REQUIRED THE USE OF A THREE DIMENSIONAL MODEL USING THE FINITE ELEMENT DESIGN METHOD TO ANALYZE THE STRUCTURE. THE COMPUTER PROGRAM USED FOR STRUCTURAL ANALYSIS WAS MIDAS CIVIL 2019 (VERSION 1.1, BUILD 7/16/18). THIS PROGRAM WAS USED TO CALCULATE FORCES FOR THE DESIGN OF THE STEEL GIRDERS AND CROSSFRAMES AND TO CALCULATE REACTIONS FOR THE DESIGN OF THE BEARINGS AND SUBSTRUCTURES.

DEAD LOAD DISTRIBUTIONS: THE WEIGHT OF THE STEEL SUPERSTRUCTURE AND CONCRETE DECK WAS APPLIED TO EACH ELEMENT IN THE MODEL BASED ON LOCAL SECTION PROPERTIES. THE WEIGHT OF THE FUTURE WEARING SURFACE WAS APPLIED TO EACH GIRDER BASED ON TRIBUTARY AREA. PARAPET WEIGHT WAS APPLIED TO THE EXTERIOR GIRDERS.

UNIT LOADS USED IN THE ANALYSIS ARE LISTED BELOW:

FUTURE WEARING SURFACE 60 LB/SF  
 PARAPETS - EACH 613 LB/FT

LIVE LOAD DISTRIBUTION: THE DESIGN AND LOAD RATING ANALYSES WERE CARRIED OUT BY APPLYING TRUCK AND LANE LOADS DIRECTLY TO THE FINITE ELEMENT MODELS, RATHER THAN BY USING CALCULATED DISTRIBUTION FACTORS.

REDUNDANCY: THE FOLLOWING ITEMS WERE CONSIDERED NON-REDUNDANT FOR DESIGN AND INCLUDE A LOAD MODIFIER EQUAL TO 1.05 IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.4: PIER 3.

REDUNDANCY: THE DRILLED SHAFTS SUPPORTING THE FOLLOWING SUBSTRUCTURES WERE CONSIDERED NON-REDUNDANT FOR DESIGN AND INCLUDE A MODIFIED RESISTANCE FACTOR FOR TIP RESISTANCE EQUAL TO 0.40 AND A MODIFIED RESISTANCE FACTOR FOR SIDE RESISTANCE EQUAL TO 0.44 IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 10.5.5.2.4: PIER 3.

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, 2007.

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) (ABUTMENTS AND PIERS 1, 2 & 4)  
 MASS CONCRETE CLASS QC4 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE) (PIER 3)  
 CONCRETE CLASS QC5 - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFTS AT PIERS 1, 2 & 4 AND FORWARD ABUTMENT)  
 MASS CONCRETE CLASS QC4 - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT AT PIER 3)  
 REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI  
 STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI  
 STEEL H-PILES - ASTM A572 GRADE 50 - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL  
 2 1/2" CONCRETE COVER  
 CLASS QC2 CONCRETE

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

REAR ABUTMENT PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING PILES AT THE REAR ABUTMENT, CONSTRUCT THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENT UP TO THE LEVEL OF THE TOP OF THE ABUTMENT FOOTING AND UP AT A 1:1 SLOPE FROM THE TOP OF THE HEEL OF THE ABUTMENT FOOTING TO SURFACE "A", AS DEFINED BELOW. LONGITUDINALLY FROM THE ABUTMENT HEEL TO A TEMPORARY WIRE FACED MSE WALL LOCATED ALONG THE EAST SHOULDER OF EXISTING RAMP N, SURFACE "A" IS DEFINED AS THE PROPOSED 2:1 SLOPE ON THE RIGHT SIDE OF RAMP N, EXTENDED UPWARD FROM THE FRONT FACE OF RETAINING WALL #11 AT A 2:1 SLOPE TO MEET THE SUBGRADE ELEVATION OF RAMP N. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT AND RETAINING WALL FOOTINGS AND THE INSTALLATION OF THE ABUTMENT AND RETAINING WALL PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND A WAITING PERIOD OF 30 CALENDAR DAYS HAS ELAPSED. AFTER THE ABUTMENT FOOTING AND BRESTWALL AND RETAINING WALL FOOTINGS AND STEMS HAVE BEEN CONSTRUCTED, CONSTRUCT THE EMBANKMENT IMMEDIATELY BEHIND THE ABUTMENT UP TO THE BEAM SEAT ELEVATION AND ON A 1:1 SLOPE FROM THE BEAM SEAT UP TO THE SUBGRADE ELEVATION PRIOR TO SETTING THE BEAMS ON THE ABUTMENT.

FORWARD ABUTMENT CONSTRUCTION CONSTRAINTS: PRIOR TO CONSTRUCTING DRILLED SHAFTS AT THE FORWARD ABUTMENT, CONSTRUCT THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENT UP AT A 1:1 SLOPE FROM THE TOP OF THE HEEL OF THE ABUTMENT FOOTING TO THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 250 FEET BEHIND THE ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT AND RETAINING WALL FOOTINGS AND THE INSTALLATION OF THE ABUTMENT DRILLED SHAFTS UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND A WAITING PERIOD OF 30 CALENDAR DAYS HAS ELAPSED. AFTER THE ABUTMENT FOOTING AND BRESTWALL AND RETAINING WALL FOOTINGS AND STEMS HAVE BEEN CONSTRUCTED, CONSTRUCT THE EMBANKMENT IMMEDIATELY BEHIND THE ABUTMENT UP TO THE BEAM SEAT ELEVATION AND ON A 1:1 SLOPE FROM THE BEAM SEAT UP TO THE SUBGRADE ELEVATION PRIOR TO SETTING THE BEAMS ON THE ABUTMENT.

PILES TO BEDROCK: DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED WHEN THE PILE PENETRATION IS AN INCH OR LESS AFTER RECEIVING AT LEAST 20 BLOWS FROM THE PILE HAMMER. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE TOTAL FACTORED LOAD IS 367 KIPS PER PILE FOR THE REAR ABUTMENT PILES.

REAR ABUTMENT PILES:

(7) - HP12x53 PILES, 40 FEET LONG, ORDER LENGTH (PILES 1-7)  
 (12) - HP12x53 PILES, 35 FEET LONG, ORDER LENGTH (PILES 8-19)  
 (6) - HP12x53 PILES, 30 FEET LONG, ORDER LENGTH (PILES 20-25)

PILE SPLICES: IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION  
 8 WOOD HOLLOW RD. PLAZA 1  
 PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

DRILLED SHAFTS:

THE FOLLOWING TABLE SUMMARIZES THE DRILLED SHAFT FACTORED LOADS AND FACTORED RESISTANCES AT EACH SUBSTRUCTURE. THE MAXIMUM FACTORED LOAD AT EACH SUBSTRUCTURE IS FULLY SUPPORTED BY THE DRILLED SHAFTS IN TIP RESISTANCE, IGNORING ANY CONTRIBUTION FROM SIDE RESISTANCE. ALL INFORMATION IN THE TABLE IS GIVEN PER EACH DRILLED SHAFT.

LOCATION	MAXIMUM FACTORED LOAD (KIPS)	FACTORED TIP RESISTANCE (KIPS)	TOTAL FACTORED RESISTANCE (KIPS)
PIER 1	1143	6754	6754
PIER 2	1063	6754	6754
PIER 3	2979	18679	18679
PIER 4	1013	3217	3217
F.A.	1035	7860	7860

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN:

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

FIELD CUTTING IS REQUIRED AT THE FOLLOWING LOCATIONS:

AT MODULAR EXPANSION JOINT, SEE SHEET 46 / 64

ITEM 524 - DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK WITH QC/QA, AS PER PLAN:

ITEM 524 - DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK WITH QC/QA, AS PER PLAN:

THE AGGREGATE SHALL BE 3/8" NOMINAL MAXIMUM SIZE.

ITEM 524 - DRILLED SHAFTS, 96" DIAMETER, INTO BEDROCK WITH QC/QA, AS PER PLAN:

CONCRETE SHALL BE CLASS QC4. THE PROVISIONS FOR MASS CONCRETE IN CMS 511.04.A SHALL APPLY. THE MINIMUM COMPRESSIVE STRENGTH SHALL BE 4.5 KSI. THE AGGREGATE SHALL BE 3/8" NOMINAL MAXIMUM SIZE.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

SEE AESTHETIC PLANS FOR SEALING COLOR FOR ABUTMENTS AND WINGWALLS. FOR PIERS AND PARAPETS, TINT SO THE FINAL COLOR IS FEDERAL COLOR STANDARD NO. 27769 - LIGHT NEUTRAL.

IN ADDITION TO THE LIMITS OF SEALING SHOWN ON THE PLANS, SEAL ALL EXPOSED CONCRETE SURFACES OF ALL PROPOSED PIERS, EXCLUDING THE TOP HORIZONTAL SURFACES OF THE PIER CAPS.

REFER TO CMS 516.07 FOR SEALING REQUIREMENTS AT BEARING AREAS.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN:

THE REQUIREMENTS OF 511.03 AND 511.04 SHALL APPLY TO THIS ITEM OF WORK. THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO THE CONCRETE AND STEEL REINFORCEMENT NECESSARY TO FORM AND PLACE THE APPROACH SLABS AS SHOWN IN THE PLANS. PAYMENT FOR THIS ITEM SHALL ALSO INCLUDE THE ITEMS LISTED ON STANDARD DRAWING AS-1-15 AND ALL OTHER NECESSARY MATERIALS, LABOR, AND EQUIPMENT AND SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN.

DECK PLACEMENT DESIGN ASSUMPTIONS:

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

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.2 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

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

ITEM 524 - DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS:

PERFORM INTEGRITY TESTING ON ALL DRILLED SHAFTS SUPPORTING SINGLE-COLUMN PIERS (AT PIER 3), ONE DRILLED SHAFT AT EACH MULTI-COLUMN PIER (AT PIERS 1, 2 & 4) AND TWO DRILLED SHAFTS AT THE FORWARD ABUTMENT BY THERMAL INTEGRITY PROFILING (TIP). PERFORM TIP TESTING PER ASTM D7949 "STANDARD TEST METHODS FOR THERMAL INTEGRITY PROFILING OF CONCRETE DEEP FOUNDATIONS", METHOD B, AND PER THE PROJECT SPECIAL PROVISIONS.

ITEM 524 - DRILLED SHAFTS, MISC.: CSL TESTING, 96" DIAMETER SHAFT:

PERFORM INTEGRITY TESTING ON ALL DRILLED SHAFTS SUPPORTING SINGLE-COLUMN PIERS (AT PIER 3) BY CROSSHOLE SONIC LOGGING (CSL). PERFORM CSL TESTING PER ASTM D6760 "STANDARD TEST METHOD FOR INTEGRITY TESTING OF CONCRETE DEEP FOUNDATIONS BY ULTRASONIC CROSSHOLE TESTING" AND PER THE PROJECT SPECIAL PROVISIONS. WHERE DIFFERENT SHAFT DIAMETERS ARE USED ABOVE ROCK AND IN ROCK, THE CSL TESTING FOR THE ENTIRE COMBINED SHAFT (ABOVE ROCK AND IN ROCK) SHALL BE INCLUDED IN ONE SINGLE PAY ITEM.

ITEM SPECIAL - FORM LINER:

USE FORM LINERS AT THE REAR AND FORWARD ABUTMENTS AS SHOWN ON THE PLANS. FORM LINERS SHALL BE ARCHITECTURAL POLYMERS #9110, LARGE STONE OHIO DRY STACK OR EQUAL AS APPROVED BY THE ENGINEER. THE STONE FORM LINER PATTERN SHALL MATCH OTHER PARTS OF THE PROJECT (RETAINING WALLS AND ROADWAY SIDE OF NOISE WALLS) TO ENSURE UNIFORM SURFACE TREATMENTS THROUGHOUT, AS DETERMINED BY THE ENGINEER.

FORM LINERS SHALL BE CAPABLE OF WITHSTANDING ANTICIPATED CONCRETE POUR PRESSURES WITHOUT LEAKAGE OR CAUSING PHYSICAL DEFECTS. FORM LINERS SHALL BE REMOVABLE WITHOUT CAUSING CONCRETE SURFACE DAMAGE. USE A FORM RELEASE PRODUCT AS RECOMMENDED BY THE FORM LINER MANUFACTURER. USE MANUFACTURER'S APPLICATION RATES AND ALL OTHER MANUFACTURER'S INSTRUCTIONS. FORM RELEASE PRODUCTS SHALL BE FULLY COMPATIBLE WITH THE FORM LINER MATERIAL AND THE EPOXY-URETHANE SEALER TO BE APPLIED TO THE FINISHED SURFACES.

ALIGN THE FORM LINER PATTERNS ACROSS ALL EXPANSION, CONTRACTION, AND CONSTRUCTION JOINTS.

FORM LINERS SHALL EXTEND A MINIMUM OF 1'-0" BELOW THE PROPOSED GROUND LINE AT THE FRONT FACE OF THE WALL. FORM LINERS MAY EXTEND MORE THAN 1'-0" BELOW THE PROPOSED GROUND LINE BUT THE PAY LIMITS SHALL BE 1'-0" BELOW THE PROPOSED GROUND LINE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM SPECIAL - FORM LINER, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM AS SPECIFIED ABOVE AND IN A SATISFACTORY AND WORKMANLIKE MANNER.

DRILLED SHAFT ROCK SOCKET LENGTHS AND TIP ELEVATIONS:

DUE TO THE PRESENCE OF AN EXISTING STORM SEWER IN THE SR-8 MEDIAN, BOTH A MINIMUM ROCK SOCKET LENGTH AND A MAXIMUM TIP ELEVATION ARE SHOWN AT PIER 3. BOTH CRITERIA SHALL BE MET.

AT PIER 3, IN THE EVENT THAT THE TOP OF ROCK ELEVATION ENCOUNTERED IN THE FIELD AT THE LOCATION OF THE EXISTING STORM SEWER IS LOWER THAN EL. 1046.7, THE TIP ELEVATION SHOWN ON THE PLANS SHALL BE LOWERED BY AN AMOUNT EQUAL TO THE DIFFERENCE BETWEEN EL. 1046.7 AND THE TOP OF ROCK ELEVATION ENCOUNTERED IN THE FIELD AT THE LOCATION OF THE EXISTING STORM SEWER.

MECHANICAL CONNECTORS:

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES.

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

MECHANICAL CONNECTORS SHALL CONFORM WITH ITEM 509, AND SHALL BE INCLUDED FOR PAYMENT WITH ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN.

TEMPORARY WIRE FACED MSE WALL (TWF MSEW)

TWF MSEW SHALL BE INSTALLED TO ALLOW TRAFFIC TO BE MAINTAINED ON EXISTING RAMP N. DESIGN AND CONSTRUCTION OF TWF MSEW SHALL CONFORM TO SUPPLEMENTAL SPEC. 867. DESIGN FOR EXTERNAL AND GLOBAL STABILITY OF THE TWF MSEW SHALL BE PERFORMED IN ACCORDANCE WITH BRIDGE DESIGN MANUAL SECTION 307.4. COST OF DESIGN AND CONSTRUCTION OF TWF MSEW INCLUDING MEASURES TO ACHIEVE EXTERNAL AND GLOBAL STABILITY, IF NECESSARY, SHALL BE INCLUDED IN TEMPORARY WIRE FACED MSE WALL FOR PAYMENT.

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**BURGESS & NIPLÉ**  
 Engineers & Architects & Planners  
 5085 REED ROAD, COLUMBUS, OHIO 43220

DATE: 4/29/19  
 REVIEWED: JCS  
 DRAWN: AAA  
 DESIGNED: MAB  
 CHECKED: BES

STRUCTURE FILE NUMBER: 7705973

GENERAL NOTES - 1  
 SUM-76-1152N  
 RAMP N OVER RAMP S, LANE O, IR-76 EB, SR-8 NB/SB, LANE M

SUM-76/77/8-10.99 / 11.54 / 0.00  
 PID No. 101402

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ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN:

PERFORM THE WORK PER CMS 513, EXCEPT AS NOTED BELOW.

SELECT ONE OF THE TWO OPTIONS DESCRIBED BELOW:

**OPTION 1: FIELD PAINTING**

APPLY SHOP COATING PER 513.27.

APPLY INTERMEDIATE AND FINISH COATS IN THE FIELD PER CMS 514 TO ALL STRUCTURAL STEEL SURFACES, INCLUDING BUT NOT LIMITED TO GIRDERS, CROSSFRAMES, STIFFENERS, CONNECTION PLATES, SPLICE PLATES, BOLTS, AND BEARING LOAD PLATES.

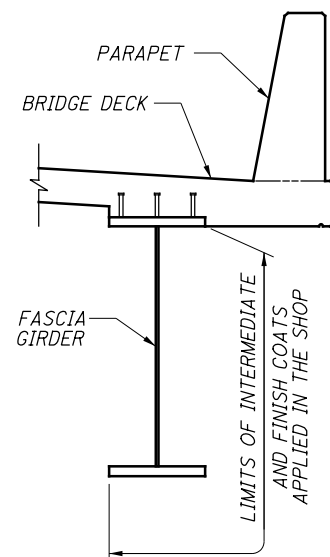
FOR THE URETHANE FINISH COAT, USE FEDERAL COLOR STANDARD NO. 10076.

FOR OPTION 1, SURFACE PREPARATION, PRIME COAT, INTERMEDIATE COAT, FINISH COAT, AND REPAIR WORK ARE CONSIDERED INCIDENTAL TO ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN. ALL APPLICABLE PROVISIONS OF CMS 514 SHALL APPLY.

**OPTION 2: SHOP METALIZING AND SHOP PAINTING OF FASCIA GIRDERS**

DELETE THE REQUIREMENTS OF 513.27. SHOP METALIZE ALL STRUCTURAL STEEL SURFACES PER SUPPLEMENTAL SPECIFICATION (SS) 845, INCLUDING BUT NOT LIMITED TO GIRDERS, CROSSFRAMES, STIFFENERS, CONNECTION PLATES, SPLICE PLATES, AND BEARING LOAD PLATES, EXCEPT DO NOT METALIZE THE TOP SURFACE OF GIRDER TOP FLANGES. APPLY A PRIME COAT, 708.01, IN THE SHOP TO THE TOP SURFACE OF GIRDER TOP FLANGES. THE PRIME COAT SHALL BE A MIST COATING FROM 0.5 TO 1.5 MILS.

APPLY INTERMEDIATE AND FINISH COATS IN THE SHOP PER CMS 514 TO THE SURFACES NOTED IN THE FOLLOWING DIAGRAM (APPLIES TO BOTH FASCIA GIRDERS, AND INCLUDES STIFFENERS AND SPLICE PLATES/BOLTS ON THE OUTBOARD (FASCIA) SIDE AND BOTTOM OF FASCIA GIRDERS):



FOR THE URETHANE FINISH COAT, USE FEDERAL COLOR STANDARD NO. 10076.

REPAIR DAMAGE TO THE METALIZING CAUSED DURING STORAGE, TRANSPORTATION, ERECTION, BOLTING, WELDING, FORMING, CONCRETE PLACEMENT, AND FORM REMOVAL OPERATION, ACCORDING TO CMS 711.02. REPAIR DAMAGE TO THE GALVANIZED COATING ON THE NUTS, BOLTS, AND WASHERS, IN THE FIELD DUE TO THE BOLT TIGHTENING OPERATIONS, ACCORDING TO CMS 711.02. EXERCISE EXTREME CARE WHILE HANDLING THE STEEL DURING ERECTION, AND DURING SUBSEQUENT CONSTRUCTION OF THE BRIDGE. INSULATE THE STEEL FROM THE BINDING CHAINS BY SOFTENERS AND PAD ALL HOOKS AND SLINGS THAT ARE USED TO HOIST/ERECT THE STEEL MEMBERS.

FOR OPTION 2, SURFACE PREPARATION, METALIZING, SEALING, PRIME COAT, INTERMEDIATE COAT, FINISH COAT, AND REPAIR WORK ARE CONSIDERED INCIDENTAL TO ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN. ALL APPLICABLE PROVISIONS OF CMS 514 SHALL APPLY.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT:

<http://www.epa.ohio.gov/asbestos>

AND IS ENCOURAGED OR, THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW:

ASBESTOS PROGRAM  
OHIO EPA, DAPC  
P.O. BOX 1049  
COLUMBUS, OH 43216-1049

OR

ASBESTOS PROGRAM  
OHIO EPA, DAPC  
50 W. TOWN ST., SUITE 700  
COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

1. THE CONTRACTOR'S NAME AND ADDRESS
2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHODS BE USED
4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN:

IN ADDITION TO THE REQUIREMENTS OF CMS 511, THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO FABRICATE AND INSTALL PARAPET AESTHETIC SIGNS AS SHOWN IN THE AESTHETIC PLANS, INCLUDING SIGNS, MOUNTING HARDWARE, SILICONE CAULK AND OTHER INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

STANDARD ABBREVIATIONS LIST:

- APPROX. = APPROXIMATE  
 BOT. = BOTTOM  
 BRG. = BEARINGS  
 BRGS. = BEARINGS  
 B.S. = BOTH SIDES  
 B# = BEAM NUMBER  
 c/c = CENTER-TO-CENTER  
 C.J. = CONSTRUCTION JOINT  
 CJP = COMPLETE JOINT PENETRATION  
 CLR. = CLEAR  
 CMS OR C&MS = CONSTRUCTION AND MATERIALS SPECIFICATIONS  
 CONST. = CONSTRUCTION  
 CS = INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY  
 CVN = CHARPY V-NOTCH  
 DIA. = DIAMETER  
 EB = EASTBOUND  
 E.F. = EACH FACE  
 EL. = ELEVATION  
 EMBED. = EMBEDMENT  
 EQ. = EQUAL  
 EXP. = EXPANSION  
 F.A. = FORWARD ABUTMENT  
 F.F. = FAR FACE  
 F.S. = FIELD SPLICE  
 FWD = FORWARD  
 GFRP = GLASS FIBER REINFORCED POLYMER  
 G# = GIRDER NUMBER  
 HMWM = HIGH MOLECULAR WEIGHT METHACRYLATE  
 LT. = LEFT  
 MAX. = MAXIMUM  
 M.C. = MECHANICAL CONNECTOR  
 M.E. = MATCH EXISTING  
 MIN. = MINIMUM  
 MGS = MIDWEST GUARDRAIL SYSTEM  
 NB = NORTHBOUND  
 N.F. = NEAR FACE  
 NPCPP = NON-PERFORATED CORRUGATED PLASTIC PIPE  
 o/o = OUT-TO-OUT  
 PCB = PORTABLE CONCRETE BARRIER  
 PCPP = PERFORATED CORRUGATED PLASTIC PIPE  
 PEJF = PREFORMED EXPANSION JOINT FILLER  
 P.G. = PROFILE GRADE  
 R.A. = REAR ABUTMENT  
 RAD. = RADIUS  
 RT. = RIGHT  
 SB = SOUTHBOUND  
 SHLD. = SHOULDER  
 SHT. = SHEET  
 S.O. = SERIES OF  
 SPA. = SPACES  
 STA. = STATION  
 SYMM. = SYMMETRICAL  
 T&B = TOP AND BOTTOM  
 T/R = TOP OF ROCK  
 t/t = TOE-TO-TOE  
 U.N.O. = UNLESS NOTED OTHERWISE  
 VAR. = VARIES  
 WB = WESTBOUND  
 W.P. = WORK POINT

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

DESIGNED BY: BES  
 CHECKED BY: MAB

DRAWN BY: AAA  
 REVISED

REVIEWED BY: JCS  
 DATE: 4/29/19

STRUCTURE FILE NUMBER: 7705973

**GENERAL NOTES - 3**  
 SUM-76-1152N  
 RAMP N OVER RAMP S, LANE O, IR-76 EB, SR-8 NB/SB, LANE M

SUM-76/77/8-10.99/11.54/0.00  
 PID No. 101402

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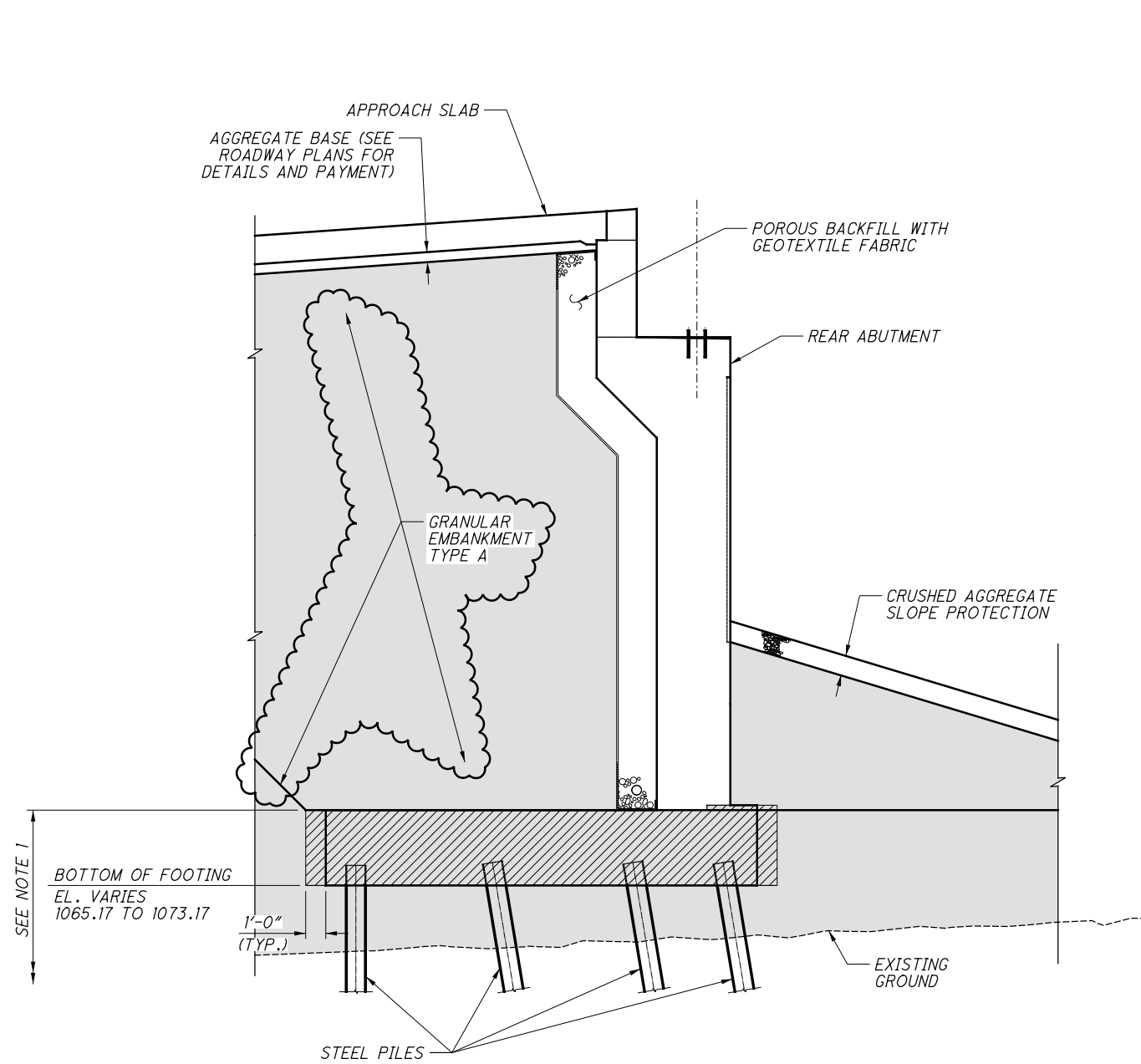
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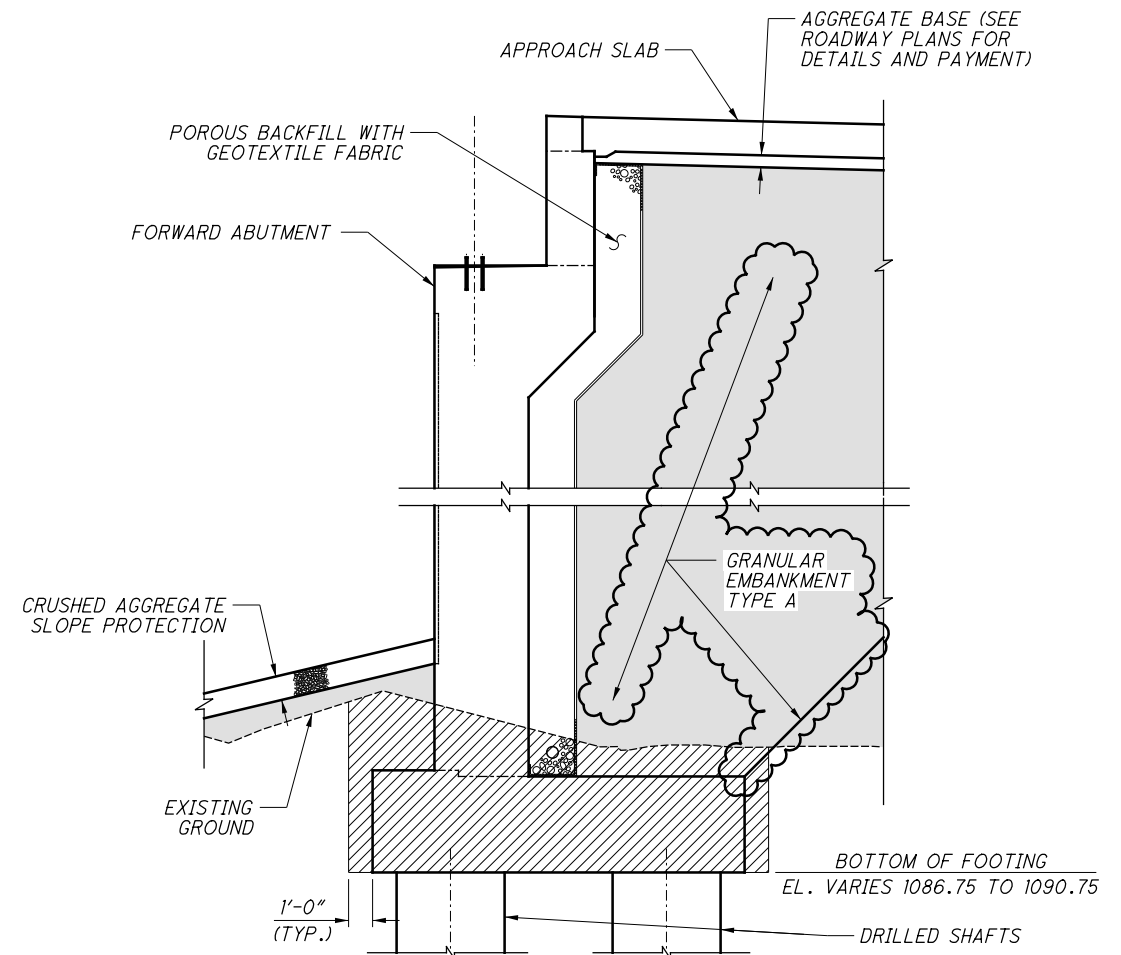
ESTIMATED QUANTITIES							CALC.	DATE	CHK'D	DATE
							JHL/ASG	5/19/20	SJA	5/19/20
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPERSTR.	GENERAL	TOTAL	PARTICIPATION 07/IMS/BR	SHEET REF.
OPTION A										
202	11003	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	LS	LS	6, 9 / 64
202	22900	SY	APPROACH SLAB REMOVED				111	111	111	
503	21100	CY	UNCLASSIFIED EXCAVATION	757				757	757	
505	11100	LS	PILE DRIVING EQUIPMENT MOBILIZATION	LS				LS	LS	
507	00200	FT	STEEL PILES HP12X53, FURNISHED	880				880	880	
507	00250	FT	STEEL PILES HP12X53, DRIVEN	755				755	755	
509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	124900	78000	182900	35000	420800	420800	4 / 64
511	34446	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			640		640	640	
511	34451	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			208		208	208	6 / 64
511	41012	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		173			173	173	
511	44112	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	635				635	635	
511	45602	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA		122			122	122	
511	46512	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	485				485	485	
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	532	754	1345	76	2707	2707	
512	33000	SY	TYPE 2 WATERPROOFING	31				31	31	
513	10301	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN			816300		816300	816300	6 / 64
513	17001	FT	STRUCTURAL STEEL MEMBERS, MODULAR EXPANSION JOINT, LEVEL UF, AS PER PLAN			67		67	67	5 / 64
513	20000	EACH	WELDED STUD SHEAR CONNECTORS			6543		6543	6543	
513	95030	EACH	STRUCTURAL STEEL, MISC.: PARAPET SLIDING PLATE JOINT			4		4	4	57 / 64
516	13600	SF	1" PREFORMED EXPANSION JOINT FILLER	107				107	107	
516	44101	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-8" x 1'-5" x 2 7/8")		8			8	8	41-43 / 64
516	44201	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-8" x 1'-5" x 3 7/8")		4			4	4	41-43 / 64
516	44301	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-8" x 1'-5" x 4 15/16")		4			4	4	41-43 / 64
516	44401	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-8" x 1'-2" x 6 1/4")	4				4	4	41-43 / 64
516	44401	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-6" x 1'-2" x 6 15/16")	4				4	4	41-43 / 64
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	355				355	355	
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	205				205	205	
518	40010	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	45				45	45	
524	95100	EACH	DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS	2	4			6	6	4 / 64
524	95100	EACH	DRILLED SHAFTS, MISC.: CSL TESTING, 96" DIAMETER SHAFT		1			1	1	4 / 64
524	95455	FT	DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK WITH QC/QA, AS PER PLAN	207	111			318	318	4 / 64
524	95463	FT	DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK WITH QC/QA, AS PER PLAN	152	71			223	223	4 / 64
524	95535	FT	DRILLED SHAFTS, 96" DIAMETER, INTO BEDROCK WITH QC/QA, AS PER PLAN		22			22	22	4 / 64
526	30011	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN				220	220	220	4 / 64
526	90010	FT	TYPE A INSTALLATION				66	66	66	
SPECIAL	53013000	SF	FORM LINER	3524				3524	3524	4 / 64
601	20000	SY	CRUSHED AGGREGATE SLOPE PROTECTION	159				159	159	
867	00101	LS	TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN				LS	LS	LS	
OPTION B: ATC										
SPECIAL	20299000	LS	STRUCTURE REMOVED				LS	LS	LS	
SPECIAL	51299000	LS	SEALING OF CONCRETE	LS	LS	LS	LS	LS	LS	
SPECIAL	53099010	LS	SUBSTRUCTURE	LS	LS			LS	LS	
SPECIAL	53099020	LS	SUPERSTRUCTURE			LS		LS	LS	

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**10.99 / 11.54 / 0.00**  
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**EXCAVATION & EMBANKMENT DIAGRAM - REAR ABUTMENT**



**EXCAVATION & EMBANKMENT DIAGRAM - FORWARD ABUTMENT**

**LEGEND:**

= LIMITS OF ITEM 203 - EMBANKMENT, AS PER PLAN, SEE ROADWAY PLANS FOR ADDITIONAL DETAILS & PAYMENT

= LIMITS OF ITEM 503 - UNCLASSIFIED EXCAVATION

**NOTES:**

1. SEE GENERAL NOTES FOR REQUIREMENTS REGARDING CONSTRUCTION OF EMBANKMENT BELOW TOP OF REAR ABUTMENT FOOTING, AND REQUIRED WAITING PERIOD PRIOR TO DRIVING PILES.



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ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN:

PERFORM THE WORK PER CMS 513, EXCEPT AS NOTED BELOW.

SELECT ONE OF THE TWO OPTIONS DESCRIBED BELOW:

**OPTION 1: FIELD PAINTING**

APPLY SHOP COATING PER 513.27.

APPLY INTERMEDIATE AND FINISH COATS IN THE FIELD PER CMS 514 TO ALL STRUCTURAL STEEL SURFACES, INCLUDING BUT NOT LIMITED TO GIRDERS, CROSSFRAMES, STIFFENERS, CONNECTION PLATES, SPLICE PLATES, BOLTS, AND BEARING LOAD PLATES.

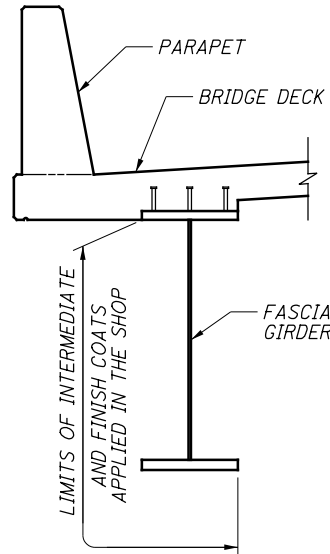
FOR THE URETHANE FINISH COAT, USE FEDERAL COLOR STANDARD NO. 10076.

FOR OPTION 1, SURFACE PREPARATION, PRIME COAT, INTERMEDIATE COAT, FINISH COAT, AND REPAIR WORK ARE CONSIDERED INCIDENTAL TO ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN. ALL APPLICABLE PROVISIONS OF CMS 514 SHALL APPLY.

**OPTION 2: SHOP METALIZING AND SHOP PAINTING OF FASCIA GIRDERS**

DELETE THE REQUIREMENTS OF 513.27. SHOP METALIZE ALL STRUCTURAL STEEL SURFACES PER SUPPLEMENTAL SPECIFICATION (SS) 845, INCLUDING BUT NOT LIMITED TO GIRDERS, CROSSFRAMES, STIFFENERS, CONNECTION PLATES, SPLICE PLATES, AND BEARING LOAD PLATES, EXCEPT DO NOT METALIZE THE TOP SURFACE OF GIRDER TOP FLANGES. APPLY A PRIME COAT, 708.01, IN THE SHOP TO THE TOP SURFACE OF GIRDER TOP FLANGES. THE PRIME COAT SHALL BE A MIST COATING FROM 0.5 TO 1.5 MILS.

APPLY INTERMEDIATE AND FINISH COATS IN THE SHOP PER CMS 514 TO THE SURFACES NOTED IN THE FOLLOWING DIAGRAM (APPLIES TO BOTH FASCIA GIRDERS IN EACH SUPERSTRUCTURE UNIT, AND INCLUDES STIFFENERS AND SPLICE PLATES/BOLTS ON THE OUTBOARD (FASCIA) SIDE AND BOTTOM OF FASCIA GIRDERS):



FOR THE URETHANE FINISH COAT, USE FEDERAL COLOR STANDARD NO. 10076.

REPAIR DAMAGE TO THE METALIZING CAUSED DURING STORAGE, TRANSPORTATION, ERECTION, BOLTING, WELDING, FORMING, CONCRETE PLACEMENT, AND FORM REMOVAL OPERATION, ACCORDING TO CMS 711.02. REPAIR DAMAGE TO THE GALVANIZED COATING ON THE NUTS, BOLTS, AND WASHERS, IN THE FIELD DUE TO THE BOLT TIGHTENING OPERATIONS, ACCORDING TO CMS 711.02. EXERCISE EXTREME CARE WHILE HANDLING THE STEEL DURING ERECTION, AND DURING SUBSEQUENT CONSTRUCTION OF THE BRIDGE. INSULATE THE STEEL FROM THE BINDING CHAINS BY SOFTENERS AND PAD ALL HOOKS AND SLINGS THAT ARE USED TO HOIST/ERECT THE STEEL MEMBERS.

FOR OPTION 2, SURFACE PREPARATION, METALIZING, SEALING, PRIME COAT, INTERMEDIATE COAT, FINISH COAT, AND REPAIR WORK ARE CONSIDERED INCIDENTAL TO ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN. ALL APPLICABLE PROVISIONS OF CMS 514 SHALL APPLY.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT:

<http://www.epa.ohio.gov/asbestos>

AND IS ENCOURAGED OR, THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW:

ASBESTOS PROGRAM  
OHIO EPA, DAPC  
P.O. BOX 1049  
COLUMBUS, OH 43216-1049

OR

ASBESTOS PROGRAM  
OHIO EPA, DAPC  
50 W. TOWN ST., SUITE 700  
COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

1. THE CONTRACTOR'S NAME AND ADDRESS
2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHODS BE USED
4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

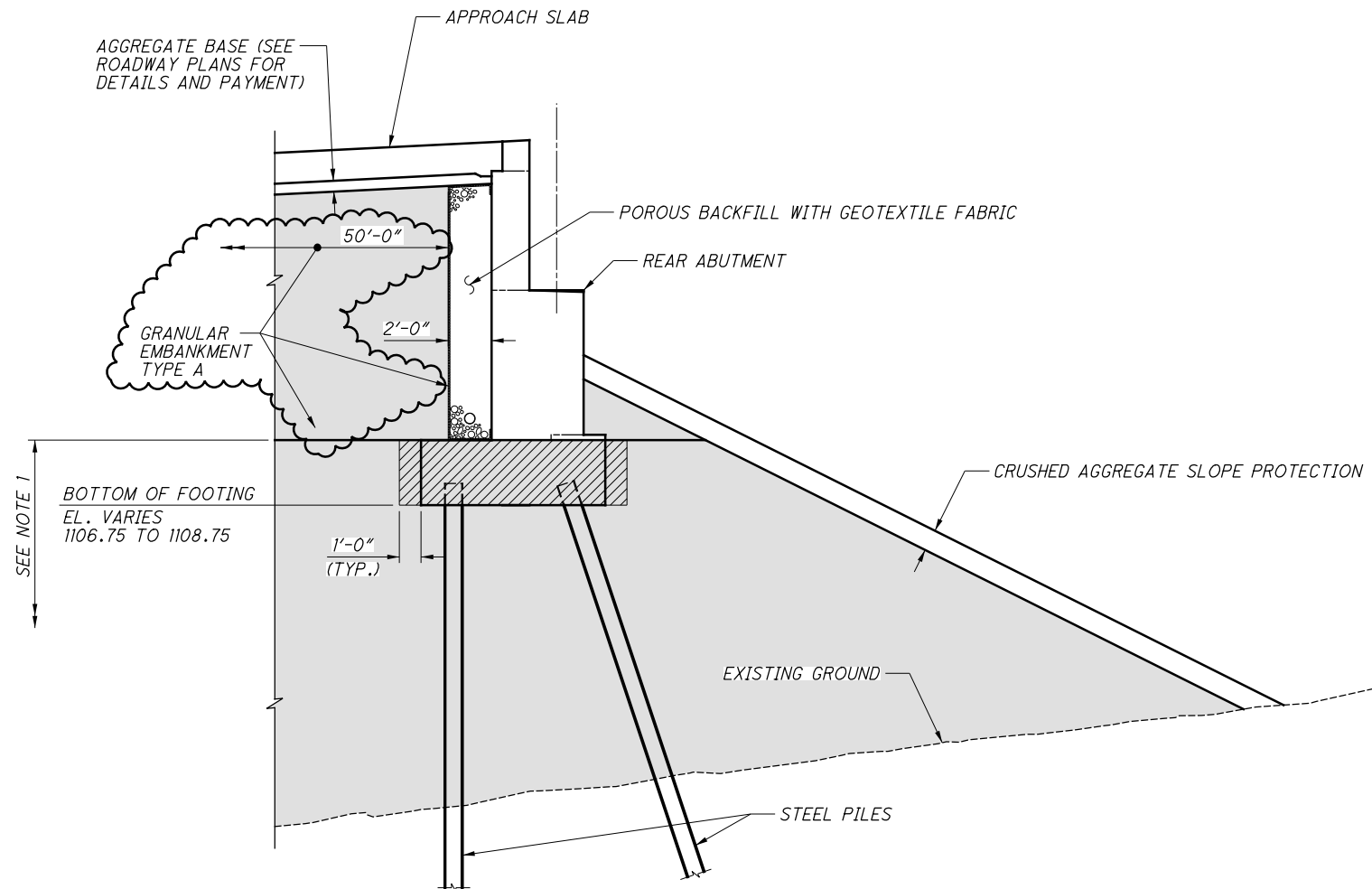
ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN:

IN ADDITION TO THE REQUIREMENTS OF CMS 511, THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO FABRICATE AND INSTALL PARAPET AESTHETIC SIGNS AS SHOWN IN THE AESTHETIC PLANS, INCLUDING SIGNS, MOUNTING HARDWARE, SILICONE CAULK AND OTHER INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

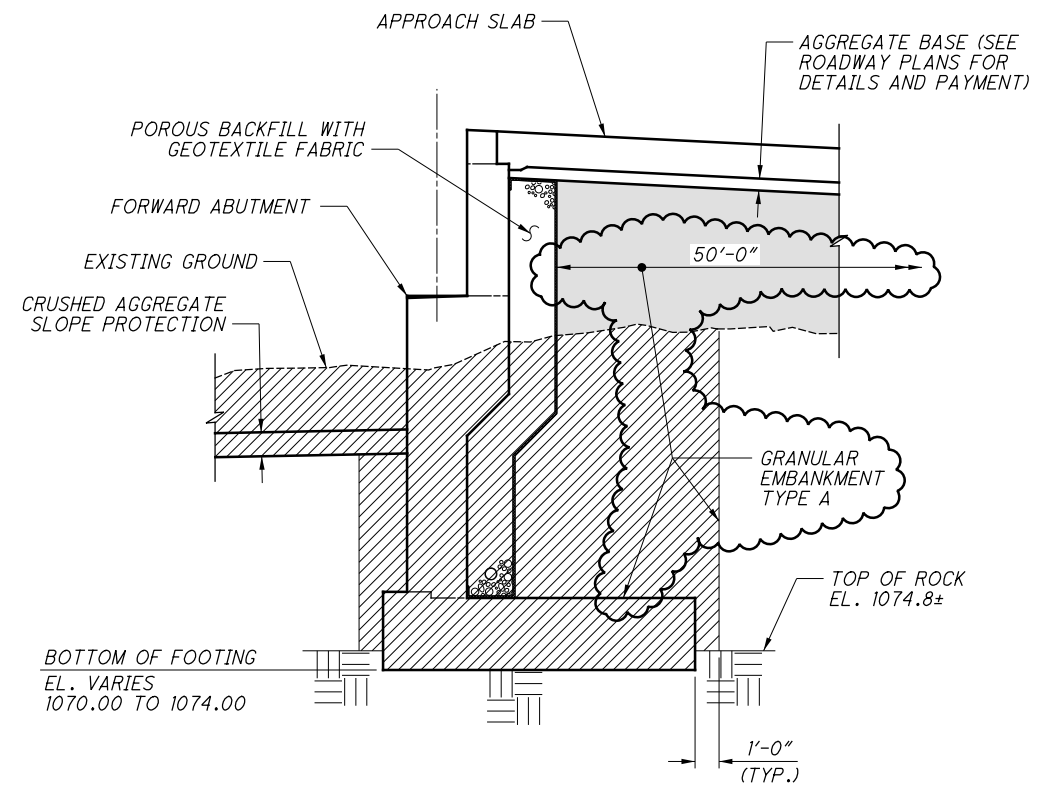
STANDARD ABBREVIATIONS LIST:

- APPROX. = APPROXIMATE
- BOT. = BOTTOM
- BRG. = BEARINGS
- BRGS. = BEARINGS
- B.S. = BOTH SIDES
- B# = BEAM NUMBER
- c/c = CENTER-TO-CENTER
- C.J. = CONSTRUCTION JOINT
- CJP = COMPLETE JOINT PENETRATION
- CLR. = CLEAR
- CMS OR C&MS = CONSTRUCTION AND MATERIALS SPECIFICATIONS
- CONST. = CONSTRUCTION
- CS = INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY
- CVN = CHARPY V-NOTCH
- DIA. = DIAMETER
- EB = EASTBOUND
- E.F. = EACH FACE
- EL. = ELEVATION
- EMBED. = EMBEDMENT
- EQ. = EQUAL
- EXP. = EXPANSION
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- F.S. = FIELD SPLICE
- FWD = FORWARD
- GFRP = GLASS FIBER REINFORCED POLYMER
- G# = GIRDER NUMBER
- HMWM = HIGH MOLECULAR WEIGHT METHACRYLATE
- LT. = LEFT
- MAX. = MAXIMUM
- M.C. = MECHANICAL CONNECTOR
- M.E. = MATCH EXISTING
- MIN. = MINIMUM
- MGS = MIDWEST GUARDRAIL SYSTEM
- NB = NORTHBOUND
- N.F. = NEAR FACE
- NPCPP = NON-PERFORATED CORRUGATED PLASTIC PIPE
- o/o = OUT-TO-OUT
- PCB = PORTABLE CONCRETE BARRIER
- PCPP = PERFORATED CORRUGATED PLASTIC PIPE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- P.G. = PROFILE GRADE
- R.A. = REAR ABUTMENT
- RAD. = RADIUS
- RT. = RIGHT
- SB = SOUTHBOUND
- SHLD. = SHOULDER
- SHT. = SHEET
- S.O. = SERIES OF
- SPA. = SPACES
- STA. = STATION
- SYMM. = SYMMETRICAL
- T&B = TOP AND BOTTOM
- T/R = TOP OF ROCK
- t/t = TOE-TO-TOE
- U.N.O. = UNLESS NOTED OTHERWISE
- VAR. = VARIES
- WB = WESTBOUND
- W.P. = WORK POINT

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**EXCAVATION & EMBANKMENT DIAGRAM - REAR ABUTMENT**



**EXCAVATION & EMBANKMENT DIAGRAM - FORWARD ABUTMENT**

**LEGEND:**

= LIMITS OF ITEM 203 - EMBANKMENT, AS PER PLAN, SEE ROADWAY PLANS FOR ADDITIONAL DETAILS & PAYMENT

= LIMITS OF ITEM 503 - UNCLASSIFIED EXCAVATION

**NOTES:**

1. SEE GENERAL NOTES FOR REQUIREMENTS REGARDING CONSTRUCTION OF EMBANKMENT BELOW TOP OF REAR ABUTMENT FOOTING, AND REQUIRED WAITING PERIOD PRIOR TO DRIVING PILES.

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**GALVANIZED COATING SYSTEM FOR STRUCTURAL STEEL BRIDGES:  
(CONTINUED FROM PREVIOUS SHEET)**

WHEN SCAFFOLDING IS MORE THAN TWO AND ONE HALF FEET ABOVE THE GROUND, THE CONTRACTOR MUST PROVIDE A LADDER FOR ACCESS ONTO THE SCAFFOLDING. THE LADDER AND ANY EQUIPMENT USED TO ATTACH THE LADDER TO THE STRUCTURE MUST BE CAPABLE OF SUPPORTING 250 POUNDS WITH A SAFETY FACTOR OF AT LEAST FOUR (4). ALL RUNGS, STEPS, CLEATS, OR TREADS MUST HAVE UNIFORM SPACING AND MUST NOT EXCEED 12" ON CENTER. AT LEAST ONE SIDE RAIL MUST EXTEND AT LEAST 36" ABOVE THE LANDING NEAR THE TOP OF THE LADDER.

AN ADDITIONAL LANDING MUST BE REQUIRED WHEN THE DISTANCE FROM THE LADDER TO THE POINT WHERE THE SCAFFOLDING MAY BE ACCESSED, EXCEEDS 12". THE LANDING MUST BE A MINIMUM OF AT LEAST 24" WIDE AND 24" LONG. IT MUST ALSO BE OF ADEQUATE SIZE AND SHAPE SO THAT THE DISTANCE FROM THE LANDING TO THE POINT WHERE THE SCAFFOLDING IS ACCESSED DOES NOT EXCEED 12". THE LANDING MUST BE RIGID AND FIRMLY ATTACHED TO THE LADDER; HOWEVER, MUST NOT BE SUPPORTED BY THE LADDER. THE SCAFFOLDING MUST BE CAPABLE OF SUPPORTING A MINIMUM OF 1000 LBS.

IN ADDITION TO THE AFOREMENTIONED REQUIREMENTS, THE CONTRACTOR IS STILL RESPONSIBLE TO OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, REGULATIONS, ORDERS AND DECREES.

THE CONTRACTOR MUST FURNISH ALL NECESSARY TRAFFIC CONTROL TO PERMIT INSPECTION DURING AND AFTER ALL PHASES OF THE PROJECT.

**1.1.10 PROTECTION OF PERSONS AND PROPERTY**

THE CONTRACTOR MUST INSTALL AND MAINTAIN SUITABLE SHIELDS OR ENCLOSURES TO PREVENT DAMAGE TO ADJACENT BUILDINGS, PARKED CARS, TRUCKS, BOATS, OR VEHICLES TRAVELING ON, OVER, OR UNDER STRUCTURES HAVING GALVANIZED REPAIRS. THEY MUST BE SUITABLY ANCHORED AND REINFORCED TO PREVENT INTERFERING WITH NORMAL TRAFFIC OPERATIONS IN THE OPEN LANES.

PAYMENT FOR THE SHIELDS MUST BE INCLUDED AS INCIDENTAL TO THE APPLICABLE FIELD COATING OPERATION. WORK MUST BE SUSPENDED WHEN DAMAGE TO ADJACENT BUILDINGS, MOTOR VEHICLES, BOATS, OR OTHER PROPERTY IS OCCURRING.

WHEN OR WHERE ANY DIRECT OR INDIRECT DAMAGE OR INJURY IS DONE TO PUBLIC OR PRIVATE PROPERTY, THE CONTRACTOR MUST RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY, TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE.

**1.1.11 POLLUTION CONTROL**

THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO COMPLY WITH POLLUTION CONTROL LAWS, RULES OR REGULATIONS OF FEDERAL, STATE OR LOCAL AGENCIES.

**ASBESTOS NOTIFICATION**

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT:

<http://www.epa.ohio.gov/asbestos>

AND IS ENCOURAGED OR, THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW:

ASBESTOS PROGRAM  
OHIO EPA, DAPC  
P.O. BOX 1049  
COLUMBUS, OH 43216-1049

OR

ASBESTOS PROGRAM  
OHIO EPA, DAPC  
50 W. TOWN ST., SUITE 700  
COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

1. THE CONTRACTOR'S NAME AND ADDRESS
2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHODS BE USED
4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

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**ITEM 524, DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS:**

PERFORM INTEGRITY TESTING ON ONE DRILLED SHAFT AT EACH ABUTMENT BY THERMAL INTEGRITY PROFILING (T.I.P.). PERFORM T.I.P. TESTING PER ASTM D7949 "STANDARD TEST METHODS FOR THERMAL INTEGRITY PROFILING OF CONCRETE DEEP FOUNDATIONS", METHOD B, AND PER THE PROJECT SPECIAL PROVISIONS.

**ITEM 511, CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN:**

THIS ITEM SHALL INCLUDE THE BRIDGE DECK, THE END DIAPHRAGMS AT THE ABUTMENTS AND THE EXPANDED POLYSTYRENE FILLER USED TO FORM THE BOTTOM OF THE DIAPHRAGMS

**MECHANICAL CONNECTORS:**

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

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

CONNECTORS AND DOWEL BARS SHALL CONFORM WITH ITEM 509.



DESIGNED	DRH	CHECKED	RJS
DRAWN	DRH	REVISED	
REVIEWED	RCH	DATE	04/16/20
STRUCTURE FILE NUMBER		7706154	

**GENERAL NOTES - 4**  
SUM-76-1180L  
IR-76 WESTBOUND OVER INMAN STREET

SUM-76/77/8  
10.99 / 11.54 / 0.00  
PID No. 101402

1800 INDIAN WOOD CIRCLE  
MAUMEE, OHIO 43537

GENERAL NOTES (CONTINUED):

STEEL RUB RAILS SHALL BE HOLLOW STRUCTURAL SECTIONS (HSS) PER ASTM 1085 AND AS INDICATED ON THE PLANS. RUB RAILS SHALL BE PAINTED WITH THE SAME SYSTEM USED TO PAINT THE TRUSS. RUB RAILS SHALL BE WELDED TO THE TRUSS VERTICALS AS INDICATED ON THE PLANS.

FABRICATION:

THE FABRICATOR SHALL MEET LEVEL 6 QUALIFICATIONS PER C&MS 513.03.

WELDERS SHALL BE PROPERLY ACCREDITED EXPERIENCED OPERATORS, EACH OF WHOM SHALL SUBMIT CERTIFICATION OF SATISFACTORILY PASSING AWS STANDARD QUALIFICATION TESTS FOR ALL POSITIONS WITH UNLIMITED BASE METAL THICKNESS AND HAVE AT LEAST 6 MONTHS EXPERIENCE IN WELDING TUBULAR AND OTHER STRUCTURES AND WHO HAVE DEMONSTRATED THE ABILITY TO MAKE UNIFORM GOOD WELDS MEETING THE SIZE AND TYPE OF WELD REQUIRED.

SPECIAL ATTENTION SHALL BE GIVEN TO DEVELOPING SUFFICIENT WELD THROATS ON TUBULAR MEMBERS. WELD DETAILS SHALL BE IN ACCORDANCE WITH AWS D1.1. FILLET WELDS WHICH RUN ONTO THE RADIUS OF A TUBE SHALL BE BUILT-UP TO OBTAIN THE FULL THROAT THICKNESS.

THE BRIDGE SHALL BE INSPECTED BY A CERTIFIED WELD INSPECTOR (CWI) THAT IS QUALIFIED UNDER THE AWS QC-1 PROGRAM. THIS INSPECTION SHALL INCLUDE AS A MINIMUM REQUIREMENT THE FOLLOWING: REVIEW OF SHOP DRAWINGS, WELD PROCEDURES, WELDER QUALIFICATIONS AND WELD TEST REPORTS, VISUAL INSPECTION OF WELDS AND VERIFICATION OF OVERALL DIMENSIONS AND GEOMETRY OF BRIDGE. A REPORT SHALL BE PRODUCED INDICATING THE ABOVE ITEMS WERE REVIEWED. THE REPORT SHALL BE SIGNED BY THE CWI, SIGNIFYING COMPLIANCE WITH AWS D1.1 CODES.

WEEP HOLES:

THE FOLLOWING PROCEDURES ARE FOR INSTALLATION OF WEEP HOLES IN SPLICED TRUSSES OR OTHER STRUCTURAL MEMBERS TO PROVIDE POSITIVE DRAINAGE FOR ANY MEMBER THAT COULD HOLD WATER EITHER DURING CONSTRUCTION OR DURING SERVICE. WEEP HOLES SHALL BE PROVIDED AT THE LOWEST POINT OF THE MEMBER.

WHEN A WEEP HOLE IS REQUIRED IN THE TOP CHORD (AT AN END PORTAL OR IF THE END VERTICAL IS EXTENDED UP WITH CAP AND/OR STIFFENER PLATES), A 1/8-INCH DIAMETER WEEP HOLE SHALL BE PLACED AS CLOSE TO THE WELD AS POSSIBLE. EITHER BURNING THROUGH OR DRILLING IS ACCEPTABLE. REMOVE BURRS WITH A GRINDER AS REQUIRED.

IF THERE IS NOT SUFFICIENT CLEARANCE ON THE BOTTOM TUBE FACE NEAR THE WELD FOR THE HOLE, IT MAY BE PUT IN FRONT OF THE END DIAGONAL.

WHERE THE FLOOR BEAMS DO NOT HAVE OPEN ENDS AND ANY HOLE OR SCREW IS PUT IN THE FLOOR BEAM, A 1/8-INCH DIAMETER WEEP HOLE WILL BE DRILLED IN EACH END OF THE FLOOR BEAM.

THESE HOLES SHALL BE DRILLED PRIOR TO INSTALLING THE FLOOR BEAMS.

FOR THE BOTTOM CHORD AND END VERTICALS WHERE WEEP HOLES ARE REQUIRED, TORCH OR GRIND A 1/2-INCH HALF CIRCLE AT THE END OF THE MEMBER. THIS HOLE SHOULD BE TOUCHED UP WITH A DIE GRINDER SO THAT THERE ARE NO SHARP EDGES. THIS HOLE SHOULD BE AS CLOSE TO THE CENTER OF THE TUBE FACE AS POSSIBLE. DO NOT WELD AT THE HOLE.

FOR SPLICED VERTICAL DIAGONALS, DRILL A 1/8-INCH DIAMETER HOLE AS CLOSE TO THE BASE OF THE DIAGONAL AS POSSIBLE ON THE OUTSIDE FACE OF THE MEMBER, THEN GRIND REMAINING MATERIAL OUT TO CHORD FACE AND INSTALL WITHOUT WELDING AT THE HOLE. THIS HOLE SHOULD BE DRILLED ON A PRESS PRIOR TO INSTALLING THE DIAGONAL IN THE BRIDGE.

BEARING DEVICES:

BEARING DEVICES SHALL BE DESIGNED AND SUPPLIED BY THE BRIDGE FABRICATOR. BEARINGS SHALL MEET THE REQUIREMENTS OF C&MS 516. BRIDGE EXPANSION BEARINGS SHALL INCLUDE STAINLESS STEEL/TEFLON SLIDING SURFACES/ELASTOMERIC BEARINGS OR LAMINATED ELASTOMERIC BEARINGS AND BE DESIGNED TO ACCOMMODATE THE FULL MOVEMENT REQUIREMENTS. STAINLESS STEEL, TEFLON AND ELASTOMERIC SURFACES SHALL NOT BE PAINTED. BEARINGS SHALL BE FIXED AT THE PIER AND DESIGNED TO ALLOW MOVEMENT UNDER THERMAL EXPANSION OR CONTRACTION AT THE ABUTMENTS.

THE FOLLOWING ASSUMED UNFACTORED BEARING REACTIONS WERE USED FOR THE DESIGN OF THE ABUTMENTS AND PIER:

SPAN 1: DEAD LOAD - 52 KIPS
LIVE LOAD - 33 KIPS
WIND UP - 14 KIPS
WIND DOWN - 11 KIPS
WIND LONGITUDINAL - 8 KIPS

SPAN 2: DEAD LOAD - 57 KIPS
LIVE LOAD - 36 KIPS
WIND UP - 15 KIPS
WIND DOWN - 12 KIPS
WIND LONGITUDINAL - 9 KIPS

NAMEPLATE:

THE BRIDGE MANUFACTURE SHALL SECURE A NAMEPLATE TO THE STRUCTURE WITH THE MANUFACTURER'S NAME, MAXIMUM LOAD LIMITS AND SERIAL NUMBER.

FINISH/COATING SYSTEM:

A COMPLETE SHOP APPLIED 3-COAT IZEU PAINT SYSTEM ACCORDING TO C&MS 514 SHALL BE APPLIED TO ALL EXPOSED SURFACES OF THE STEEL TRUSSES. FIELD TOUCH-UP SHALL BE PERFORMED ACCORDING TO C&MS 514.17.C. THE FINISH COAT COLOR SHALL BE RED SAE AMS-STD-595 #11350 FOR THE END VERTICALS, EXTENDED TOP CHORDS, CANOPY BRACES, AESTHETIC END DIAGONALS AND END TOP BRACES. FINISH COAT COLOR SHALL BE GRAY SAE AMS-STD-595 #16515 FOR ALL OTHER TRUSS MEMBERS. ALL COSTS ASSOCIATED WITH FIELD TOUCH-UPS SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED WITH THIS ITEM.

SUBMITTALS:

SUBMIT SHOP DRAWINGS AND STRUCTURAL DESIGN CALCULATIONS FOR THE STEEL STRUCTURE, BEARINGS AND THE ASSOCIATED REINFORCED CONCRETE DECK SLAB ACCORDING TO C&MS 501.04, 501.05 AND 513.06.

THE BRIDGE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS TO THE OHIO DEPARTMENT OF TRANSPORTATION (BRIDGE OWNER) AND CONTRACTOR FOR ACCEPTANCE PRIOR TO BEGINNING FABRICATION.

SHOP DRAWINGS SHALL BE UNIQUE DRAWINGS PREPARED TO ILLUSTRATE THE SPECIFIC PORTION OF THE WORK TO BE DONE. ALL RELATIVE DESIGN INFORMATION INCLUDING BUT NOT LIMITED TO GOVERNING CODES, DESIGN PARAMETERS, MEMBER SIZES, MATERIAL PROPERTIES, BRIDGE REACTIONS, SHOP AND FIELD CONNECTION DETAILS, DECK DETAILS, DIMENSIONS RELATED TO SUBSTRUCTURES AND GENERAL NOTES SHALL BE CLEARLY SPECIFIED ON THE DRAWINGS. SHOP DRAWINGS SHALL BE ACCURATELY PREPARED BY SKILLED DRAFTERS TO BE COMPLETE IN EVERY RESPECT. DRAWINGS SHALL HAVE CROSS-REFERENCED DETAILS AND SHEET NUMBERS.

THE OWNER MUST PROVIDE A WRITTEN ACCEPTANCE LETTER OF SHOP DRAWINGS TO CONFIRM TYPE, STYLE AND GENERAL APPEARANCE OF PREFABRICATED STRUCTURE IN ACCORDANCE WITH CONTRACT DOCUMENTS.

WRITTEN ACCEPTANCE FROM BOTH CONTRACTOR AND OWNER MUST BE PROVIDED PRIOR TO INITIATING FABRICATION MILL TEST REPORTS:

CONTRACTOR MUST PROVIDE WRITTEN ACCEPTANCE OF MILL TEST REPORTS FROM SUPPLIER SHOWING COMPLIANCE WITH C&MS 711.01.

DELIVERY AND ERECTION:

THE CONTRACTOR SHALL COORDINATE WITH THE BRIDGE MANUFACTURER, THE DEPARTMENT AND OVERHEAD UTILITY OWNERS REGARDING THE DELIVERY AND ERECTION SCHEDULE. HAULING PERMITS AND FREIGHT CHARGES SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER.

DELIVERY TO THE JOB SITE WILL BE BY TRUCKS BY MEANS OF GOOD HAUL ROADS UNLESS SPECIFIED OTHERWISE. THE BRIDGE MANUFACTURER SHALL PROVIDE DETAILED, WRITTEN INSTRUCTION PROCEDURES FOR PROPER LIFTING AND SPLICING OF BRIDGE COMPONENTS. THE CONTRACTOR SHALL PROVIDE A DETAILED WRITTEN ERECTION PLAN TO THE ENGINEER. THE CONTRACTOR SHALL BE REQUIRED TO VERIFY THAT THE PROPOSED SUBSTRUCTURE DIMENSIONS, WIDTHS AND ELEVATIONS WILL ACCOMMODATE THE PROPOSED PREFABRICATED BRIDGE, AND ADJUST ACCORDINGLY IF NEEDED. ANY ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION, UNLESS SPECIFICALLY STATED OTHERWISE IN THESE PLANS.

THE CONTRACTOR SHALL COORDINATE WITH THE BRIDGE FABRICATOR TO OBTAIN ADEQUATE EQUIPMENT TO ERECT, LIFT AND INSTALL THE BRIDGE SPANS. THIS INCLUDES SPREADER BEAMS ETC. AS REQUIRED TO ENSURE THAT NO PORTION OF THE BRIDGE IS OVERSTRESSED DURING INSTALLATION OF THE STRUCTURE.

THE CONTRACTOR SHALL COORDINATE WITH THE DEPARTMENT AND LOCAL LAW ENFORCEMENT REGARDING ERECTION OF THE BRIDGE SPANS OVER S.R. 8. ERECTION OVER THE HIGHWAY SHALL OCCUR AT NIGHT ONLY BETWEEN THE HOURS OF 9:00 PM TO 5:00 AM TO ENSURE MINIMAL DISTURBANCE TO THE TRAVELING PUBLIC. ADVANCED WARNING SIGNAGE SHALL ALERT THE PUBLIC OF TEMPORARY NIGHTLY LANE CLOSURES AT LEAST FOURTEEN DAYS PRIOR TO THE START OF CONSTRUCTION.

THE BRIDGE MANUFACTURER SHALL PROVIDE WRITTEN INSPECTION AND MAINTENANCE PROCEDURES TO BE FOLLOWED TO THE BRIDGE OWNER.

WARRANTY:

THE BRIDGE MANUFACTURER SHALL PROVIDE THE BRIDGE OWNER WITH A WRITTEN WARRANTY AGAINST DEFECTS IN DESIGN, MATERIAL AND WORKMANSHIP OF THE PREFABRICATED BRIDGE SUPERSTRUCTURE FOR A PERIOD OF TEN YEARS FROM THE DATE OF DELIVERY TO THE SITE. PAINT AND OTHER SPECIAL COATINGS SHALL BE WARRANTED BY THE COATING MANUFACTURER. REPAIR OR REPLACEMENT OF THE SUPERSTRUCTURE BY THE MANUFACTURER SHALL BE THE SPECIFIC REMEDY FOR DEFECTS UNDER THE WARRANTY. AS PART OF THE WARRANTY COVERAGE, THE BRIDGE OWNER WILL KEEP RECORDS OF ROUTINE INSPECTIONS AND MAINTENANCE OF THE BRIDGE. YEARLY BRIDGE INSPECTIONS WILL BE PERFORMED BY THE OWNER.

PAYMENT:

PAYMENT FOR THE PREFABRICATED/PAINTED STEEL SUPERSTRUCTURE SHALL BE MADE AT A LUMP SUM BID PRICE AND SHALL INCLUDE ALL ITEMS LISTED ABOVE AND SHOWN ON THE PLANS, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE REQUIRED WORK. NOTE THAT THE DESIGN OF THE DECK AND THE DESIGN AND MATERIAL FOR THE STAY-IN-PLACE FORM SYSTEM SHALL BE PROVIDED BY THE BRIDGE MANUFACTURER AND ARE INCLUDED IN ANOTHER PAY ITEM.

THE OWNER SHALL NOT BE RESPONSIBLE FOR ADDED EXPENSE DUE TO UNAVOIDABLE DELAYS SUCH AS INCLEMENT WEATHER, DELAYS IN PERMITS, RE-ROUTING BY PUBLIC AGENCIES, ETC.

Table with 3 columns: ITEM, UNIT, DESCRIPTION. Row 1: SPECIAL, LUMP, STRUCTURE MISC.: PREFABRICATED PAINTED STEEL SUPERSTRUCTURE

ITEM SPECIAL - STRUCTURE MISC.: CLASS QC2 CONCRETE BRIDGE DECK:

THIS WORK SHALL CONSIST OF THE COMPLETE STRUCTURAL DESIGN OF THE DECK AND FORM SYSTEM BY THE PREFABRICATED BRIDGE DESIGNER AND MANUFACTURER. THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO: PROVIDING HOT DIP GALVANIZED STAY-IN-PLACE FORM PANS (MATERIAL SHALL BE IN ACCORDANCE WITH ASTM A653, GALVANIZED TO A MINIMUM G165 COATING WEIGHT, 20-GAUGE MINIMUM THICKNESS) AND ALL OTHER NECESSARY FORMING; FURNISHING AND PLACING EPOXY COATED REINFORCING STEEL; AND FURNISHING, PLACING, CONSOLIDATING, FINISHING AND CURING A PORTLAND CEMENT CONCRETE DECK SLAB WITH INTEGRAL TYPE 2-A CURBS ON THE PREFABRICATED PAINTED STEEL TRUSS SUPERSTRUCTURE. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE PREFABRICATED BRIDGE MANUFACTURER AND C&MS 508, 509 AND 511, UNLESS OTHERWISE NOTED. FOR THE PURPOSES OF DECK SLAB STRUCTURAL DESIGN, THE GALVANIZED STAY-IN-PLACE FORM SYSTEM SHALL NOT BE CONSIDERED AS A STRUCTURAL REINFORCEMENT OF THE HARDENED CONCRETE DECK. FOAM OR OTHER FILLERS WITHIN THE TROUGHS OF THE FORM PANS WILL NOT BE PERMITTED.

CONCRETE MATERIALS SHALL CONFORM TO C&MS 499.02 AND 499.03 USING CLASS QC2 CONCRETE MIX. PROVIDE A BROOM FINISH ON THE CONCRETE DECK IN THE TRANSVERSE DIRECTION. BRIDGE DECK GROOVING OF THE CURED DECK PER C&MS 511.17 IS NOT REQUIRED.

DESIGN LOADING FOR THE DECK SLAB SHALL BE THE SAME AS REQUIRED FOR THE PREFABRICATED BRIDGE. UPPER AND LOWER LAYERS OF LONGITUDINAL REINFORCEMENT ARE REQUIRED. AT LEAST ONE LAYER OF TRANSVERSE REINFORCEMENT SHALL BE PROVIDED WHEN THE DECK THICKNESS ABOVE THE FORM PAN RIBS IS LESS THAN 7 1/2-INCHES. UPPER AND LOWER LAYERS OF TRANSVERSE REINFORCEMENT SHALL BE PROVIDED WHEN THE DECK THICKNESS ABOVE THE FORM PAN RIBS IS 7 1/2-INCHES OR GREATER. LONGITUDINAL REINFORCEMENT PLACED WITHIN FORM PAN TROUGHS MAY BE CONSIDERED AS CONTRIBUTING TO THE STRENGTH OF THE DECK WHEN THE DESIGNER CAN SHOW THIS ASSUMPTION IS VALID. REINFORCING BARS SHALL BE PLACED 2-INCHES MINIMUM CLEAR TO TOP AND SIDE SURFACES AND 1 1/2-INCHES MINIMUM CLEAR TO THE BOTTOM SURFACE OF THE SLAB. AS PART OF THE PREFABRICATED BRIDGE SHOP DRAWING SUBMITTAL, SUBMIT STRUCTURAL DESIGN CALCULATIONS FOR THE DECK AND FORM SYSTEM. CALCULATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO.

THE DEPARTMENT WILL PAY FOR THE DECK ON A LUMP SUM BASIS FOR:

Table with 3 columns: ITEM, UNIT, DESCRIPTION. Row 1: SPECIAL, LUMP, STRUCTURE MISC.: CLASS QC2 CONCRETE BRIDGE DECK

ITEM SPECIAL - FORM LINER:

USE FORM LINERS AT THE REAR AND FORWARD ABUTMENTS AS SHOWN ON THE PLANS. FORM LINERS SHALL BE ARCHITECTURAL POLYMERS #9110, LARGE STONE OHIO DRY STACK OR EQUAL AS APPROVED BY THE ENGINEER. THE STONE FORM LINER PATTERN SHALL MATCH OTHER PARTS OF THE PROJECT (RETAINING WALLS AND ROADWAY SIDE OF NOISE WALLS) TO ENSURE UNIFORM SURFACE TREATMENTS THROUGHOUT, AS DETERMINED BY THE ENGINEER.

FORM LINERS SHALL BE CAPABLE OF WITHSTANDING ANTICIPATED CONCRETE POUR PRESSURES WITHOUT LEAKAGE OR CAUSING PHYSICAL DEFECTS. FORM LINERS SHALL BE REMOVABLE WITHOUT CAUSING CONCRETE SURFACE DAMAGE. USE A FORM RELEASE PRODUCT AS RECOMMENDED BY THE FORM LINER MANUFACTURER. USE MANUFACTURER'S APPLICATION RATES AND ALL OTHER MANUFACTURER'S INSTRUCTIONS. FORM RELEASE PRODUCTS SHALL BE FULLY COMPATIBLE WITH THE FORM LINER MATERIAL AND THE EPOXY-URETHANE SEALER TO BE APPLIED TO THE FINISHED SURFACES.

ALIGN THE FORM LINER PATTERNS ACROSS ALL EXPANSION, CONTRACTION, AND CONSTRUCTION JOINTS.

FORM LINERS SHALL EXTEND A MINIMUM OF 1'-0" BELOW THE PROPOSED GROUND LINE AT THE FRONT FACE OF THE WALL. FORM LINERS MAY EXTEND MORE THAN 1'-0" BELOW THE PROPOSED GROUND LINE BUT THE PAY LIMITS SHALL BE 1'-0" BELOW THE PROPOSED GROUND LINE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM SPECIAL - FORM LINER, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM AS SPECIFIED ABOVE AND IN A SATISFACTORY AND WORKMANLIKE MANNER.

STRUCTURE GROUNDING:

THE STRUCTURE SHALL BE GROUNDED ACCORDING TO C&MS 625.16. SEE ODOT STANDARD CONSTRUCTION DRAWING HL-50.21 FOR DETAILS. SEE LIGHTING PLANS FOR PAYMENT.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION. THE INSPECTION DETERMINED THAT NO ASBESTOS IS PRESENT. HOWEVER, AN EXISTING 6" BELOW-DECK GAS LINE WRAP AND 2" ELECTRICAL CONDUIT IN THE SOUTH SIDEWALK SHALL BE ASSUMED TO CONTAIN ASBESTOS, AND BE DISPOSED OF ACCORDINGLY. THE ASSUMED ASBESTOS CONTAINING MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL ENSURE THAT THE ABATEMENT, TRANSPORT, AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL IS CONDUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL ENSURE THAT ALL DOCUMENTATION RELATED TO THE ABATEMENT, TRANSPORT, AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS IS SUBMITTED TO THE PROJECT ENGINEER FOR RECORD KEEPING WITHIN 2 WEEKS OF COMPLETION.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION.

ONLINE SUBMISSION IS AVAILABLE AT:

http://www.epa.ohio.gov/asbestos

AND IS ENCOURAGED OR, THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW;

Table with 2 columns: ASBESTOS PROGRAM, ADDRESS. Row 1: OHIO EPA, DAPC, P.O. BOX 1049, COLUMBUS, OH 43216-1049. Row 2: ASBESTOS PROGRAM, OHIO EPA, DAPC, 50 W. TOWN ST., SUITE 700, COLUMBUS, OH 43215

- THE FORM SHALL INCLUDE: 1. THE CONTRACTOR'S NAME AND ADDRESS 2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION 3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHODS BE USED 4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

THE CONTRACTOR SHALL FURNISH ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY ABATE, TRANSPORT, AND DISPOSE OF ASBESTOS CONTAINING MATERIALS IN A LANDFILL LICENSED BY THE LOCAL HEALTH DEPARTMENT AND PERMITTED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY - DIVISION OF AIR POLLUTION CONTROL TO ACCEPT ASBESTOS CONTAINING MATERIAL. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM SPECIAL - MISC.: WORK INVOLVING ASBESTOS CONTAINING MATERIAL LUMP SUM.