UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AT&T
MS. PATRICIA HARRIS
700 HURON RD.
CLEVELAND, OH 44115
PHONE: (216) 822-6535
FAX: (216) 822-6560
E-MAIL: PH1924@ATT.COM

CENTURYLINK/INVOLTA
MR. BOBBY WALTERS
3801 ELM ROAD
WARREN, OH 44483
PHONE: (440) 244-8415
E-MAIL:
BOBBY.D.WALTERS@CENTURYLINK.COM

CITY OF AKRON
WATER DISTRIBUTION DIVISION
MR. TONY PUGLIA
1460 TRIPLET BLVD.
AKRON, OH 44306
PHONE: (330) 375-2420
EMAIL: TPUGLIA@AKRONOHIO.GOV

FIRST ENERGY (TRANSMISSION)
MR. DAVE KOZY
76 S. MAIN ST.
AKRON, OH 44308
PHONE: (330) 384-5194

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 4 - ITS
MS. MICHELLE CHANEY
2088 S. ARLINGTON RD.
AKRON, OH 44306
PHONE: (330) 786-2267
FAX: (330) 786-2232
E-MAIL:
MICHELLE.CHANEY@DOT.OHIO.GOV

OHIO DEPARTMENT OF TRANSPORTATION
CENTRAL OFFICE - ITS
1606 W. BROAD STREET
COLUMBUS, OH 43223
PHONE: (614) 387-4113
E-MAIL: cen.its.lab@dot.ohio.gov

SPRINT
MR. JOSEPH J. THOMAS
11370 ENTERPRISE PARK DR.
SHARONVILLE, OH 45241
PHONE: (440) 447-6163
E-MAIL:
JOSEPH.J.THOMAS@SPRINT.COM

VERIZON
MR. AL GUEST
120 RAVINE ST.
AKRON, OH 44303
PHONE: (330) 253-8267
FAX: (918) 562-7014

OHIO EDISON (TRANSMISSION)
FIRST ENERGY SERVICE COMPANY
SUPERVISOR,
TRANSMISSION MAINTENANCE
ATTN: RYAN GRADY
(330) 252-6379
(330) 413-2046 CELL
RGRADY@FIRSTENERGYCORP.COM

DOMINION ENERGY OHIO
ATTN: MICAH RISACHER
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OH 44333
(330) 664-2638
(440) 371-1533 CELL
Micah.J.Risacher@
dominionenergy.com

AT&T OHIO
MR. PAUL THOMPSON
50 W. BOWERY ST RM 628
AKRON, OH 44308
PHONE: (330) 384-9988
FAX: (330) 384-9866

CITY OF AKRON
ENGINEERING BUREAU
MS. CHRISTINE JONKE
166 S. HIGH ST. ROOM 701
AKRON, OH 44308
PHONE: (330) 375-2495
FAX: (330) 375-2288

DOMINION EAST OHIO GAS
MS. MARY J. LONG
320 SPRINGSIDE DR.
AKRON, OH 44333
PHONE: (330) 664-2409
FAX: (888) 504-0126
E-MAIL: MARY.J.LONG@DOM.COM

CENTURYLINK
MR. DOUG HOLLOWAY
1025 ELDORADO BLVD.
SUITE 43C-402
BROOMFIELD, CO 80021
PHONE: (216) 906-6284
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DOUG.HOLLOWAY
@CENTURYLINK.COM

OHIO EDISON
ATTN: DAVID MILLER
1910 W. MARKET ST. BLDG. 1
AKRON, OH 44313
PHONE: (330) 436-4055
CELL: (330) 715-4340
Millerdl@firstenergycorp.com

CHARTER COMMUNICTIONS
MR. JAMES LONG
530 S. MAIN ST. STE. 1741
AKRON, OH 44311
PHONE: (330) 312-8845
FAX: (330) 622-4106
E-MAIL:
James.Long@charter.com

WINDSTREAM BUSINESS
MR. DWAYNE LAHMANN
10070 RUTH DR,
WADSWORTH, OH 44281
PHONE: (330) 329-5495
E-MAIL:
DWAYNE.LAHMANN@
WINDSTREAM.COM

ZAYO
MR. ERIK LICIS
4199 KINROSS LAKES PARKWAY
SUITE #10
RICHFIELD, OH 44286
PHONE: (330) 237-3292
ERIK.LICIS@ZAYO.COM

WINDSTREAM OSP OHIO
LEON TAYLOR
2165 STATE ROUTE 133 SOUTH
BLANCHESTER, OHIO, 45107
937 725 5358

AKRON SEWER - CITY OF
ATTN: SCOTT DAVENPORT
2460 AKRON PENINSULA ROAD
AKRON, OH 44310
330-375-2769

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

ODOT UTILITY COORDINATOR
MATT STEELE
330-786-4832

THE UNDERGROUND UTILITIES ON THIS PLAN HAVE BEEN LOCATED BY USING A SUBSURFACE UTILITY COMPANY (SUE), NATIONAL ENGINEERING& ARCHITECTURE SERVICES (NEAS). IF THERE ARE ANY DISCREPANCIES BETWEEN FIELD MARKINGS AND WHAT THE PLAN INDICATED PLEASE CONTACT THE PROJECT UTILITY COORDINATE PRIOR TO ANY SUBSURFACE UTILITY WORK BEING INITIATED.

EXISTING PLANS

EXISTING PLANS ENTITLED SUM-8-0.63, SUM-8-1.73/1.95, SUM-8-2.23, SUM-8-1.99, SUM-8-0.38A, SUM-8-12.31, SUM-8-1.95, AND SUM-8-1.99 MAY BE INSPECTED IN THE ODOT DISTRICT 4 IN AKRON, OHIO

ENVIRONMENTAL COMMITMENTS

1. THE CONTRACTOR WILL ADVISE THE ODOT PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST ALSO PROVIDE NOTIFICATION TO THE ODOT PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO ANY LANE RESTRICTIONS/CLOSURES AND BRIDGE/RAMP CLOSURES. THE ODOT PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE ODOT-DISTRICT 4 OFFICE OF PUBLIC INFORMATION FOR USE TO NOTIFY EMERGENCY SERVICES AND COMMUNITIES A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF PROJECT CONSTRUCTION. INCLUDED IN THIS NOTIFICATION WILL BE THE PROJECTED DATES/TIMES OF THE LANE RESTRICTIONS/CLOSURES, BRIDGE/RAMP CLOSURES AND PROPOSED DETOURS.

2. PRIOR TO BRIDGE DEMOLITION ACTIVITIES, THE UNDERSIDE OF THE EXISTING BRIDGE SHALL BE CAREFULLY EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY FROM APRIL 1 TO SEPTEMBER 30. IF ANY BATS ARE FOUND ROOSTING ON THE UNDERSIDE OF THE BRIDGE, THE ECOLOGICAL STAFF OF ODOT'S OFFICE OF ENVIRONMENTAL SERVICES AND ODOT DISTRICT 4 ENVIRONMENTAL STAFF SHALL BE CONTACTED UPON IDENTIFICATION.

3. ANY AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES SHALL BE RE-SEEDED/RE-VEGETATED WITH NATIVE PLANT SPECIES, INCLUDING NATIVE RIPARIAN TREE SPECIES, AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF NATIVE VEGETATION COVER, DECREASE EROSION AND PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE U.S.

4. EXISTING RIPARIAN HABITAT ZONES SHALL BE MAINTAINED TO THE MAXIMUM EXTENT POSSIBLE.

5. CONSTRUCTION EQUIPMENT AND MATERIAL STAGING AREAS SHALL BE KEPT AWAY FROM STREAMS TO THE EXTENT PRACTICABLE. THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK AUTHORIZED HEREIN SHALL BE OPERATED IN A MANNER TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER OUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

6. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING THE STREAM(S). ANY DEBRIS THAT DOES FALL INTO THE STREAM(S) SHALL BE REMOVED AS SOON AS POSSIBLE.

7. ACCESS TO LOOKOUT PARK AND FREEDOM TRAIL WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES, EXCEPT AS NEEDED TO FACILITATE BRIDGE CONSTRUCTION OVER FREEDOM TRAIL.

8. EXCEPT AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES, THE STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT WILL NOT TAKE PLACE OUTSIDE PROPOSED CONSTRUCTION LIMITS THAT ARE WITHIN THE DEFINED BOUNDARIES OF LOOKOUT PARK, ADAMS PARK AND FREEDOM TRAIL.

9. NO TREES SHALL BE REMOVED WITHIN THE PROPOSED CONSTRUCTION FOOTPRINT 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 PROTECTEC BAT 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.

10. ANY AREAS OF DISTURBANCE THAT OCCUR WITHIN OR ADJACENT TO THE IDENTIFIED 4(F) PROPERTIES WILL BE RESTORED TO A CONDITION AS GOOD AS OR BETTER THAN EXISTING.

11. THE CONTRACTOR SHALL ABIDE BY ALL WATERWAY PERMIT CONDITIONS THROUGHOUT DURATION OF CONSTRUCTION ACTIVITIES.

12. A CO-PERMITTEE NOTICE OF INTENT (NOI) WILL BE PREPARED AND PROVIDED TO THE CONTRACTOR BY ODOT PERSONNEL AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE CO-PERMITTEE NOI FOR COVERAGE UNDER OHIO EPA STORMWATER CONSTRUCTION GENERAL PERMIT AND SUBMITTING TO OHIO EPA FOR APPROVAL, ALONG WITH THE DEVELOPMENT OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), BEFORE CONSTRUCTION ACTIVITY CAN TAKE PLACE. SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S "CONSTRUCTION AND MATERIAL SPECIFICATIONS, LOCATION AND DESIGN MANUAL AND STANDARD DRAWINGS" SHALL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL, ALONG WITH ADDITIONAL PROTECTIVE MEASURES TO AVOID IMPACTS TO ADJACENT PROPERTIES, STREAMS AND WETLANDS FROM CONSTRUCTION ACTIVITIES.

13. THE CONTRACTOR SHALL RESTRICT WORK IN THE LITTLE CUYAHOGA RIVER BETWEEN DATES OF APRIL 15TH AND JUNE 30TH TO REDUCE THE IMPACTS TO INDIGENOUS AQUATIC SPECIES AND THEIR HABITAT.

14. THE CONTRACTOR SHALL MAINTAIN ACCESS TO LOOKOUT PARK AND ADAMS PARK AT ALL TIMES DURING CONSTRUCTION ACTIVITIES, EXCEPT FOR THE TIME NEEDED TO COMPLETE CERTAIN CONSTRUCTION ACTIVITIES THAT WOULD COMPROMISE SAFETY OF THE USERS OF LOOKOUT PARK.

15. THE CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION FENCING ALONG THE KNOWN BOUNDARIES OF LOOKOUT PARK, FREEDOM TRAIL, AND ADAMS PARK, WITHIN THE PROJECT CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT THE PUBLIC AND TO MINIMIZE IMPACTS TO THE PROPERTIES. THE CONSTRUCTION FENCE SHALL BE 4'-0" (MIN.) IN HEIGHT AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION BY THE CONTRACTOR. UNIT COST SHALL INCLUDE MATERIALS AND LABOR, INCLUDING REMOVAL OF FENCING WHEN PROJECT IS COMPLETED. THE FOLLOWING OUANTITY HAS BEEN INCLUDED FOR THIS WORK:

ITEM 607 - FENCE, MISC.:
CONSTRUCTION FENCING (PLASTIC/NYLON) - 900 FT

16. PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPROPRIATE SIGNAGE TO ALERT USERS OF LOOKOUT PARK, FREEDOM TRAIL, AND ADAMS PARK, OF CONSTRUCTION ACTIVITIES, ANY ACCESS RESTRICTION OR CLOSURES, AND TO DIRECT USERS TO SECONDARY ACCESS POINTS.

17. THE CONTRACTOR SHALL NOT STORE OR STAGE CONSTRUCTION EQUIPMENT OR MATERIALS WITHIN THE KNOWN BOUNDARIES OF LOOKOUT PARK, FREEDOM TRAIL, AND ADAMS PARK, OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS, WITH THE EXCEPTION OF AREA(S) IDENTIFIED BY THE OFFICIAL WITH JURISDICTION TO FACILITATE THE STORAGE AND STAGING OF EQUIPMENT.

18. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT (ODOT PROJECT ENGINEER), THE CITY OF AKRON (DIRECTOR OF PUBLIC SERVICE), AND SUMMIT METRO PARKS (CHIEF OF PLANNING AND DEVELOPMENT) 30 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

19. THE CONTRACTOR SHALL LIMIT THE TEMPORARY OCCUPANCY OF ADAMS PARK AND FREEDOM TRAIL TO TWO (2) NON-CONSECUTIVE SIX (6) MONTH PERIODS. A TEMPORARY PAVED CONNECTOR PATH TO BE USED AS A HAUL ROAD FOR CONSTRUCTION PURPOSES WILL BE BUILT WITHIN ADAMS PARK, INCLUDING A TEMPORARY PATH TO THE EAST OF THE HAUL ROAD THAT WILL CONNECT TO FREEDOM TRAIL.

21. THE CONTRACTOR SHALL MAINTAIN PUBLIC ACCESS TO FREEDOM TRAIL TO ADAMS PARK VIA THE TEMPORARY PATH LOCATED TO THE EAST OF THE HAUL ROAD AND INSTALL A BARRIER TO SEPARATE THE TWO PATHS.

FREEDOM TRAIL

THE CONTRACTOR SHALL BE REQUIRED TO REPAVE ANY SECTION OF THE FREEDOM TRAIL THAT HAS BEED DISTURBED DURING CONSTRUCTION OF ACCESS ROAD 1 PRIOR TO REOPENING THE TRAIL AFTER EACH OF THE TWO (2) SCHEDULED CLOSURES. QUANTITY HAS BEEN PROVIDED IN THE PLANS FOR AGGREGATE BASE COURSE AND ASPHALT SURFACE COURSE. THE CONTRACTOR SHALL UTILIZE THE EXISTING PLANS AND REFERENCE THE PROFILE GRADE IN THE AS-BUILT PLANS. THE CONTRACTOR SHALL INSTALL THE TRAIL AT A 1.50% CROSS SLOPE FOR THE LENGTH OF THE DISTURBANCE REGARDLESS OF THE EXISTING TRAIL CROSS SLOPE. THE CONTRACTOR SHALL TRANSITION THE CROSS SLOPE FROM THE NEWLY PAVED SECTION TO EXISTING OVER A MINIMUM LENGTH OF 15 FEET. ANY SECTION OF THE TRAIL THAT EXCEEDS 1.50% SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE PROJECT. SEE TYPICAL SECTIONS SHEET 10. THE CONTRACTOR SHALL RECORD VIDEO PRE AND POST CONSTRUCTION FOR RECORD OF THE TRAIL CONDITION

FOR RECORD PLAN INFORMATION REGARDING THE EXISITNG FREEDOM TRAIL CONTACT

SUMMIT METRO PARKS
975 TREATY LINE RD.
AKRON, OHIO 44313

ITEM SPECIAL - REMOVAL OF ELECTRICAL PLUGS

THIS ITEM OF WORK INCLUDES THE REMOVAL OF THE EXISTING GUARDRAIL MOUNTED RECEPTACLES USED FOR BUS MOTOR BLOCK HEATERS. THE CONTRACTOR SHALL CONTACT DEBRA FOULK AT THE AKRON CITY SCHOOLS BUS GARAGE AT (330) 761-2805 ONE WEEK PRIOR TO PERFORMING THE WORK. THE CONTRACTOR SHALL COORDINATE THE DISCONNECT OF THE POWER PRIOR TO PERFORMING THE WORK. THIS ITEM ONLY INCLUDES THE REMOVAL OF THE RECEPTACLES, CONDUIT AND CONDUCTOR NECESSARY. ALL MATERIAL SHALL BE RETURNED TO THE AKRON CITY SCHOOLS BUS GARAGE PERSONNEL OR DISPOSED OF PROPERLY. CONTRACTOR SHALL ENSURE THAT THE REMAINING RECEPTACLES ARE IN PROPER WORKING CONDITION UPON COMPLETION OF THE WORK. THIS WORK INCLUDES ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO REMOVE THE PORTION OF THE EXITING SYSTEM, AND SHALL BE PAID UNDER:

ITEM SPECIAL - REMOVAL OF ELECTRICAL PLUGS

CALCULATED DLT
CHECKED HRB

GENERAL NOTES

SUM-8-1.75

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEETOF 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:
MONUMENT TYPE:

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2012a

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011 (EPOCH: 2010.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.9998951776
ORIGIN OF COORDINATE SYSTEM: (X,Y) - EASTING (X): 0
-NORTHING (Y): 0

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.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST 2 EACH
659, TOPSOIL 4255 CU. YD.
659, SEEDING AND MULCHING, CLASS 2: 38332 SQ. YD.
659, REPAIR SEEDING AND MULCHING 1917 SQ. YD
659, INTER-SEEDING 1917 SQ. YD.
659, COMMERCIAL FERTILIZER 5.35 TON
659, LIME 7.92 ACRES
659, WATER 217 M. GAL.
659, MOWING 87 M. SQ. FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING, AS PER PLAN, AND PAVING UNDER THE GUARDRAIL USING 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (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 105.17.

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.

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 MAY BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING 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 ALL WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN.

LOCATIONS FOR PAVING UNDER GUARDRAIL ARE SHOWN IN THE PLANS AND ARE AS FOLLOWS:

SR8 NB STA. 541+29.89 TO STA. 545+92.31 RT.
SR8 NB STA. 541+29.89 TO STA.543+07.69 LT.
SR8 SB STA. 215+22.99 TO STA. 219+55.24 LT.
SR8 SB STA. 222+60.76 TO STA. 224+62.84 RT.
SR8 SB STA. 241+41.84 TO STA. 258+61.20 RT.
RAMP J STA. 415+38.84 TO STA. 415+98.80 LT.
RAMP J STA. 420+94.25 TO STA. 424+64.76 RT.

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET 729

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

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 SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).

   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 UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

PAVEMENT SUBGRADE IMPROVEMENT SCHEDULE

ALIGNMNET	BEGIN STATION	END STATION	SUBGRADE METHOD	DEPTH	UNDERCUT REASON
RAMP I	STA 13+72.00 RT/LT	STA 16+23.00 RT/LT	UNDERCUT	24"	UNSUITABLE
RAMP J	STA 416+50.00 RT/LT	STA 420+00.00 RT/LT	UNDERCUT	24"	UNSUITABLE

ITEM 253 - PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED BEFORE THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 253 - PAVEMENT REPAIR 685 SY

ITEM SPECIAL - SURVEY CONTROL VERIFICATION

THE CONTRACTOR SHALL PERFORM THIS WORK TO VERIFY THE PROVIDED SURVEY CONTROL. THE CONTRACTOR WILL PERFORM THE VERIFICATION USING ONE OF THE TWO METHODS BELOW DEPENDENT UPON THE CONTRACTOR'S CHOSEN MEANS OF SURVEY CONTROL TO BE USED ON THE PROJECT. THE WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN OHIO LICENSED SURVEYOR.

1. IF USING GPS DEVICES TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
   a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   b. PERFORM A SITE CALIBRATION UTILIZING THE AVAILABLE HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED IN THE PLAN.
   c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSESD SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.
2. IF USING CONVENTIONAL SURVEY INSTRUMENTATION TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
   a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   b. LOCATE AND OBSERVE ANGLE AND DISTANCE TO ALL AVAILABLE HORIZONTAL CONTROL POINTS PROVIDE IN THE PLAN
   c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

CALCULATED DLT
CHECKED HRB

GENERAL NOTES

SUM-8-1.75

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801

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE A (447), AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM SPECIAL - MISC.: VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES: SUM-8-1.75 (PERKINS STREET)

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SPECIAL - MISC.: VERTICAL CLEARANCE, 1 EACH

ROUNDING

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

ITEM 607 FENCE, TYPE CLT, AS PER PLAN

THE CONTRACTOR SHALL INSTALL CHAIN LINK FENCING AT THE LOCATIONS IDENTIFIED IN THE LANDSCAPE LAYOUT PLANS. THE FENCING SHALL MEET THE REQUIREMENTS OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWING F-1.1, WITH THE FOLLOWING MODIFICATIONS:

- THE FENCE SHALL BE 60 INCHES TALL.
- ALL WIRE FABRIC, POSTS AND ACCESSORIES WILL BE GALVANIZED AND PVC COATED. THE PVC COATING SHALL BE BLACK IN COLOR, CLOSELY APPROACHING FEDERAL STANDARD NO. 27038.

ALL PVC FABRIC AND POSTS SHALL BE HANDLED WITH CARE. IF THE PVC COATING IS DAMAGED, THE CONTRACTOR SHALL REPLACE THE DAMAGED ITEM OR REPAIR THE PVC COATING AS DIRECTED BY THE ENGINEER AT NO COST TO THE DEPARTMENT.

THIS WORK SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO INSTALL THE FENCING AND SHALL BE PAID FOR UNDER THE UNIT BID PRICE FOR:

ITEM 607 FENCE, TYPE CLT, AS PER PLAN (FT)

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET NO. 13 FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING 31 HOUR.

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

ITEM 611 - CONDUIT UNDER RAILROAD

THE PROPOSED STORM SEWER CONDUITS BENEATH THE ACTIVE W&LE, AND THE ACTIVE AKRON METRO RTA RAILROAD TRACKS SHALL BE BORED OR JACKED, AND WILL BE PAID FOR AT THE CONTRACT PRICE UNDER:

ITEM 611 - CONDUIT, BORED OR JACKED, 36"

THE PROPOSED STORM SEWER CONDUIT BENEATH THE INACTIVE AKRON METRO RTA RAILROAD TRACKS MAY BE INSTALLED BY BORE/JACK OR BY OPEN CUT TRENCH, AND WILL BE PAID FOR AT THE CONTRACT PRICE UNDER:

ITEM 611 - CONDUIT, MISC.: 36" CONDUIT UNDER RAILROAD

THE CONTRACTOR SHALL FOLLOW ODOT CMS 611, AND THE RAILROAD CLAUSES AND PERMIT PROCESS TO PERFORM THESE CONDUIT INSTALLATIONS.

THE CONTRACTOR SHALL FIELD VERIFY THE DEPTH OF FIBER LINES ALONG THE RAILROADS PRIOR TO ANY SUBMITTALS OR PERFORMANCE OF WORK.

ITEM 202 - REMOVAL MISC.: RETAINING WALL REMOVED

REMOVE THE EXISTING RETAINING WALL WHEN THE EXISTING FENCE IS REMOVED. THE SQUARE FOOTAGE OF THE EXISTING RETAINING WALL IS BASED ON SURVEYED ELEVATIONS FROM THE TOP OF THE WALL TO THE EXISTING GROUND SURFACE. ALL WORK AND PAYMENT ASSOCIATED WITH THE REMOVAL OF THE RETAINING WALL SHALL BE IN CONFORMANCE WITH ODOT CMS 202.01, 202.02, 202.03 AND 202.13.

VEGETATED BIOFILTER

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

ITEM SPECIAL - AS-BUILT CONSTRUCTION RECORD DRAWINGS

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING PLANS. THE FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION RECORD-DRAWINGS.

THE CONTRACTOR$^{5}/_{32}$S VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL RECORD-DRAWING. THE CONTRACTOR$^{5}/_{32}$S VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTOR$^{5}/_{32}$S PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS- BUILT CONSTRUCTION RECORD-DRAWINGS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE RECORD-DRAWING PLAN IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE J, ASTM D4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 607 - FENCE MISC.: BIKE PATH RAILING

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING BIKE PATH RAILING ACCORDING TO THE DETAIL ON SHEET 314 .

THIS WORK SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE WORK.

THIS WORK SHALL BE PAID FOR UNDER ITEM 607 - FENCE MISC.: BIKE PATH RAILING.

INTERIM PAVEMENT

DUE TO THE DURATION OF PROJECT CONSTRUCTION AND NOT WANTING TO DAMAGE THE SURFACE COURSE OF SOUTHBOUND SR 8 A SACRIFICIAL SURFACE COURSE SHALL BE PLACED ON THE SOUTHBOUND LANES DURING THE CONSTRUCTION PHASES TO BE PLANED OFF AT THE END OF CONSTRUCTION. THE FINAL WEARING COURSE WILL THEN BE PLACED ON NORTHBOUND AND SOUTHBOUND AT THE SAME TIME. THE INTERIM SURFACE COURSE BUILD- UP IS:

ITEM 441 - 1.25" ASPHALT CONCRETE SURFACE COURSE TYPE 1, (448)
713 CY
ITEM 442 - 2" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (448)
143 CY
ITEM 254 - PAVEMENT PLANNING, ASPHALT CONCRETE, VARIABLE DEPTH (3.25" MAX)
20534 SY

CONNECT TO EXISTING HEADWALL

THE CONTRACTOR SHALL REMOVE THE EXISTING 42" PIPE COMPLETELY FROM THE EXISTING HEADWALL. THE PROPOSED 42" PIPE SHALL BE PUT INTO THE HEADWALL AND GROUTED IN PLACE TO SECURE THE PROPOSED PIPE. ANY DAMAGE TO THE EXISTING HEADWALL SHALL BE REPAIRED BY THE CONTRACTOR.

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GENERAL NOTES

SUM-8-1.75

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR HAZARDS OVER 24" AND LESS THAN 36" WIDE (UNI-DIRECTIONAL OR BI-DIRECTIONAL)

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

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

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

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

ITEM 614, WORK ZONE IMPACT ATTENUATOR, MISC.: WORK ZONE IMPACT ATTENUATOR FOR HAZARDS WIDER THAN 36" (UNI-DIRECTIONAL)

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

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

THE CONTRACTOR SHALL FIELD VALIDATE THE ACTUAL HAZARD WIDTH PRIOR TO ORDERING THE IMPACT ATTENUATOR FOR INSTALLATION. THE CONTRACTOR SHALL REPAIR AND REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF DAMAGING IMPACT.

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

CALCULATED MTD
CHECKED MTR

MAINTENANCE OF TRAFFIC NOTES

SUM-8-1.75

SHEET NUM.														PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE
18	19	20		25	47	48	49	50	51	52	53	54	55	04/NHS/ 04		EXT	TOTAL			SHEET NO.
																			MAINTENANCE OF TRAFFIC	
		605												605	251	01000	605	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
		7,250												7,250	254	01000	7,250	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")	
		580												580	407	20000	580	GAL	NON-TRACKING TACK COAT	
50														50	410	12000	50	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
10													35	45	411	10000	45	CY	STABILIZED CRUSHED AGGREGATE	
		305												305	441	50000	305	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
				680										680	614	11110	680	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
					100	810	848	2,953	2,784	6,279	1,670	2,140		17,584	614	11630	17,584	FT	INCREASED BARRIER DELINEATION	
15					2	6	3	3	2	5	2	2		40	614	12380	40	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
								1		2				3	614	12390	3	EACH	WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL)	
								1						1	614	12400	1	EACH	WORK ZONE IMPACT ATTENUATOR, MISC.: WORK ZONE IMPACT ATTENUATOR FOR HAZARDS WIDER THAN 36" (UNIDIRECTIONAL)	21
	LS													LS	614	12420	LS		DETOUR SIGNING	19
		12												12	614	12484	12	EACH	WORK ZONE INCREASED PENALTIES SIGN	
						276	552	432	616	908	897	1,488		5,169	614	12801	5,169	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	24
200													1,332	1,532	614	13000	1,532	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
					45		87	88	171	240	90	87		808	614	13310	808	EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	
					45		31	88	171	86	90	87		598	614	13350	598	EACH	OBJECT MARKER, ONE WAY	
							28			77				105	614	13360	105	EACH	OBJECT MARKER, TWO WAY	
		100,000												100,000	614	18000	100,000	EACH	MAINTAINING TRAFFIC, MISC.: BRIDGE DECK AND PAVEMENT PATCHING	20

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CHECKED MTR

MAINTENANCE OF TRAFFIC GENERAL SUMMARY

SUM-8-1.75

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Ohio DOT Workspace
SUM-8

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SHEET NUM.												PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
12	13	161	162	163	166	335	335A	431	462	519	OFFICE CALCULATIONS	01/BRO/11	02/NHS/31	04/NHS/04	05/S>2/04	06/NHS/04						
																					ROADWAY	
	LUMP								LUMP					LUMP			201	11000	LS		CLEARING AND GRUBBING	
			1											1			202	20010	1	EACH	HEADWALL REMOVED	
		1,895									41,497			42,569	823		202	23000	43,392	SY	PAVEMENT REMOVED	
						358	20							378			202	30000	378	SF	WALK REMOVED	
			56											56			202	30600	56	SY	CONCRETE MEDIAN REMOVED	
		1,391	2,019											3,410			202	30700	3,410	FT	CONCRETE BARRIER REMOVED	
			2,169											1,111	1,058		202	32000	2,169	FT	CURB REMOVED	
		2,341	1,092											1,907	236	1,290	202	35100	3,433	FT	PIPE REMOVED, 24" AND UNDER	
		11	138											149			202	35200	149	FT	PIPE REMOVED, OVER 24"	
		870	3,404											4,146	128		202	38000	4,274	FT	GUARDRAIL REMOVED	
		1	1											2			202	47000	2	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
		16	15											26		5	202	58000	31	EACH	MANHOLE REMOVED	
		15	11											13	2	11	202	58100	26	EACH	CATCH BASIN REMOVED	
		2	3											4		1	202	58200	5	EACH	INLET REMOVED	
		162	692											340		514	SPECIAL	20270000	854	FT	FILL AND PLUG EXISTING CONDUIT	14
		4,139	2,396											5,546	989		202	75000	6,535	FT	FENCE REMOVED	
					1									1			202	75254	1	EACH	GATE REMOVED FOR REUSE	
					579									579			202	75266	579	FT	VANDAL PROTECTION FENCE REMOVED AND RESET	
						LUMP								LUMP			202	98000	LS		REMOVAL MISC.: PIPE ABANDONED - 8-INCH, CITY OF AKRON	336-338
							LUMP							LUMP			202	98000	LS		REMOVAL MISC.:8-INCH WATERLINE AND GATE VALVE REMOVED, COMPLETE, CITY OF AKRON	340
							LUMP							LUMP			202	98000	LS		REMOVAL MISC.:PIPE ABANDONED - 6-INCH, CITY OF AKRON	340
						2								2			202	98100	2	EACH	REMOVAL MISC.: MANHOLE REMOVED, CITY OF AKRON	336-338
							4							4			202	98100	4	EACH	REMOVAL MISC.:FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY REMOVED, COMPLETE, CITY OF AKRON	340
						524	142							666			202	98200	666	FT	REMOVAL MISC.: PIPE REMOVED - 6-INCH, CITY OF AKRON	336-338,340
						487								487			202	98200	487	FT	REMOVAL MISC.: PIPE REMOVED - 8-INCH, CITY OF AKRON	336-338
		220												220			202	98400	220	SF	REMOVAL MISC.: RETAINING WALL REMOVED	15
											53,427			41,693	11,734		203	10000	53,427	CY	EXCAVATION	
											52,554			51,596	958		203	20000	52,554	CY	EMBANKMENT	
										14,646		14,646				203	20001	14,646	CY	EMBANKMENT, AS PER PLAN	519
										150		150					203	35110	150	CY	GRANULAR MATERIAL, TYPE B	
					56						55,921			54,058	1,919		204	10000	55,977	SY	SUBGRADE COMPACTION	
											1,149			474	675		204	13000	1,149	CY	EXCAVATION OF SUBGRADE	
											1,149			474	675		204	30010	1,149	CY	GRANULAR MATERIAL, TYPE B	
											30			29	1		204	45000	30	HOUR	PROOF ROLLING	15
											1,723			711	1,012		204	50000	1,723	SY	GEOTEXTILE FABRIC	
											1,723			711	1,012		204	51000	1,723	SY	GEOGRID	
					3,988									3,675	313		606	15050	3,988	FT	GUARDRAIL, TYPE MGS	
					6									5	1		606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
					8									8			606	26550	8	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
					7									6	1		606	35002	7	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
					3									3			606	35102	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
					2,812									2,799	13		607	23000	2,812	FT	FENCE, TYPE CLT	
					240							240					607	23001	240	FT	FENCE, TYPE CLT, AS PER PLAN	15
					1									1			607	61200	1	EACH	GATE, TYPE CLT	
900					717									900			607	98000	900	FT	FENCE, MISC.: CONSTRUCTION FENCING (PLASTIC/NYLON)	12
														717			607	98000	717	FT	FENCE, MISC.: BIKE PATH RAILING	14
				2,969		358	20	1,116				1,116		3,347			608	10000	4,463	SF	4" CONCRETE WALK	
				3,254										3,254			608	30000	3,254	SF	AGGREGATE WALK	
				444										444			608	52000	444	SF	CURB RAMP	
				73										73			608	53020	73	SF	DETECTABLE WARNING	
				1,501										1,501			622	10140	1,501	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	
				68										68			622	10141	68	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN	313

CALCULATED DNO
CHECKED HRB

GENERAL SUMMARY

SUM-8-1.75

153
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GENERAL SUMMARY

CALCULATED DNO | CHECKED HRB

SHEET NUM. 13	14	15	16	17	161	163	164	165	168	169	326	520	729	OFFICE CALCULATIONS	PART. 01/BRO/11	04/NHS/04	05/S>2.04	06/NHS/04	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																							ROADWAY CONTINUED	
						1,213										1,213			622	10160	1,213	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
						3										3			622	10200	3	EACH	BARRIER TRANSITION	
						5										5			622	25000	5	EACH	CONCRETE BARRIER END SECTION, TYPE D	
						36										36			622	25014	36	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	
						8										8			622	25050	8	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
													15			15			623	40520	15	EACH	RIGHT-OF-WAY MONUMENT, TYPE B	13
																LUMP			878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	14
					LUMP											LUMP			SPECIAL	69098400	LS		REMOVAL OF ELECTRICAL PLUGS	12
		1														1			SPECIAL	69098000	1	EACH	MISC.: VERTICAL CLEARANCE	15
											LUMP				LUMP				SPECIAL	69098400	LS		CONSTRUCTION ACCESS ROAD 1	326
											LUMP				LUMP				SPECIAL	69098400	LS		CONSTRUCTION ACCESS ROAD 2A	326
											LUMP				LUMP				SPECIAL	69098400	LS		CONSTRUCTION ACCESS ROAD 3A	326
											LUMP				LUMP				SPECIAL	69098400	LS		CONSTRUCTION ACCESS ROAD 5A	326
											LUMP				LUMP				SPECIAL	69098400	LS		CONSTRUCTION ACCESS ROAD 6A	326
											LUMP				LUMP				SPECIAL	69098400	LS		CONSTRUCTION ACCESS ROAD 6B	326
											LUMP				LUMP				SPECIAL	69098400	LS		CONSTRUCTION ACCESS ROAD 8	326
				LUMP											LUMP				SPECIAL	69098400	LS		CONSTRUCTION VIDEO MONITORING	17
LUMP															LUMP				SPECIAL	69098400	LS		SURVEY CONTROL VERIFICATION	13
																							EROSION CONTROL	
						1,182										1,182			601	11000	1,182	SY	RIPRAP, TYPE D	
						34										34			601	12000	34	SY	RIPRAP, WITH GROUT	
												875			875				601	20010	875	CY	CRUSHED AGGREGATE SLOPE PROTECTION	
							6									6			601	32200	6	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
2																2			659	00100	2	EACH	SOIL ANALYSIS TEST	13
4,255																4,255			659	00300	4,255	CY	TOPSOIL	13
														38,332		33,248	5,084		659	00510	38,332	SY	SEEDING AND MULCHING, CLASS 2	13
1,917																1,917			659	14000	1,917	SY	REPAIR SEEDING AND MULCHING	13
1,917																1,917			659	15000	1,917	SY	INTER-SEEDING	13
5.35																5.35			659	20000	5.35	TON	COMMERCIAL FERTILIZER	13
7.92																7.92			659	31000	7.92	ACRE	LIME	13
217																217			659	35000	217	MGAL	WATER	13
87																87			659	40000	87	MSF	MOWING	13
						2,936										2,196	740		670	00710	2,936	SY	DITCH EROSION PROTECTION MAT, TYPE A	
																LUMP			832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
																LUMP			832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
																LUMP			832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
																82,000			832	30000	82,000	EACH	EROSION CONTROL	
						178										178			836	10000	178	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
						298										298			836	10020	298	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2	
																							ENVIRONMENTAL / REMEDIATION	
			1,000													1,000			SPECIAL	69065000	1,000	TON	WORK INVOLVING NON-REGULATED MATERIALS	16
			100													100			SPECIAL	69065002	100	TON	WORK INVOLVING HAZARDOUS WASTE	16
			500													500			SPECIAL	69065010	500	TON	WORK INVOLVING SOLID WASTE	16
			10,000													10,000			SPECIAL	69065022	10,000	GAL	WORK INVOLVING NON-REGULATED WATER	16
			10,000													10,000			SPECIAL	69065024	10,000	GAL	WORK INVOLVING REGULATED WATER	16
																							DRAINAGE	
							2									2			602	20000	2	CY	CONCRETE MASONRY	
									5,408	2,704						6,366	1,746		605	11100	8,112	FT	6" SHALLOW PIPE UNDERDRAINS	
	100								462	83						645			605	13300	645	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
									6,485	3,619						9,921	183		605	14000	10,104	FT	6" BASE PIPE UNDERDRAINS	
								41								41			605	31100	41	FT	AGGREGATE DRAINS	
									520	214						626	108		611	00510	734	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	100															100			611	01500	100	FT	6" CONDUIT, TYPE F	
								36								36			611	02000	36	FT	8" CONDUIT, TYPE C	
								122								122			611	02600	122	FT	8" CONDUIT, TYPE F	
								10										10	611	04400	10	FT	12" CONDUIT, TYPE B	
								212								201		11	611	04600	212	FT	12" CONDUIT, TYPE C	
							528	448										976	611	05900	976	FT	15" CONDUIT, TYPE B	

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View: FENCE_VIEW1
By: dtout

34" x 22"

SHEET NUM.													PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
13	14	15	161	162	163	164	165	166	335	335A	519	OFFICE CALCULATIONS	01/BRO/11	04/NHS/04	05/S>2/04	06/NHS/04	07/S>2/04						
																						DRAINAGE CONTINUED	
						334	355							475		214		611	06100	689	FT	15" CONDUIT, TYPE C	
						98								56	42			611	06700	98	FT	15" CONDUIT, TYPE F	
						137										70	67	611	07400	137	FT	18" CONDUIT, TYPE B	
						807	224							831	200			611	07600	1,031	FT	18" CONDUIT, TYPE C	
						241								202	39			611	09100	241	FT	21" CONDUIT, TYPE C	
						295								29		266		611	10400	295	FT	24" CONDUIT, TYPE B	
						428								190		238		611	10600	428	FT	24" CONDUIT, TYPE C	
						53										53		611	11200	53	FT	24" CONDUIT, TYPE F	
						814										814		611	16400	814	FT	36" CONDUIT, TYPE B	
						76	164							208		32		611	16600	240	FT	36" CONDUIT, TYPE C	
							240							240				611	19600	240	FT	42" CONDUIT, TYPE C	
							61									61		611	96600	61	FT	CONDUIT, BORED OR JACKED, 18"	
							142							142				611	96600	142	FT	CONDUIT, BORED OR JACKED, 36"	15
										16				16				611	97400	16	FT	CONDUIT, MISC.: 4-INCH STORM LATERAL, CITY OF AKRON	340
						63								63				611	97400	63	FT	CONDUIT, MISC.: 36" CONDUIT UNDER RAILROAD	15
						1	2								1	2		611	98150	3	EACH	CATCH BASIN, NO. 3	
						3	2							3		2		611	98151	5	EACH	CATCH BASIN, NO. 3, AS PER PLAN	14
						4										4		611	98181	4	EACH	CATCH BASIN, NO. 3A, AS PER PLAN	14
						13	3							9	2	4	1	611	98410	16	EACH	CATCH BASIN, NO. 8	
							1							1				611	98434	1	EACH	CATCH BASIN, NO. 8A	
							2							2				611	98470	2	EACH	CATCH BASIN, NO. 2-2B	
						4	1							1		4		611	99110	5	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	
						2										2		611	99114	2	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
						1										1		611	99115	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN	323, 324
						12	15							23		4		611	99574	27	EACH	MANHOLE, NO. 3	
							4							4				611	99660	4	EACH	MANHOLE RECONSTRUCTED TO GRADE	
																						PAVEMENT	
			1,177	1,673										2,163	87			252	01500	2,250	FT	FULL DEPTH PAVEMENT SAWING	
685			44						377	236				1,342				253	01000	1,342	SY	PAVEMENT REPAIR	
		20,534										2,895		23,429				254	01000	23,429	SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIABLE DEPTH (3.25"	
	19											9,694		9,713				301	56000	9,713	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
											260	9,371	260	9,051	320			304	20000	9,631	CY	AGGREGATE BASE	
									13			8,610		8,623				407	20000	8,623	GAL	NON-TRACKING TACK COAT	
		713										34		747				441	50000	747	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
												359		359				441	70000	359	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
									6					6				441	70500	6	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
									8					8				441	70600	8	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (DRIVEWAYS)	
												159		159				441	70801	159	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL	13
												1,837		1,837				442	10301	1,837	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS	14
		143										2,199		2,342				442	20200	2,342	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	
												7,303		5,461	1,842			452	16010	7,303	SY	13" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
					799									799				609	24510	799	FT	CURB, TYPE 4-C	
					1,487									1,447	40			609	26000	1,487	FT	CURB, TYPE 6	
					218									218				609	50000	218	SY	4" CONCRETE TRAFFIC ISLAND	
												6,832		6,832				618	40100	6,832	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
																						WATER WORK	
										36				36				SPECIAL	63820088	36	FT	8" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON	340
										324				324				SPECIAL	63820176	324	FT	12" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON	340
										1				1				SPECIAL	63820554	1	EACH	8" GATE VALVE WITH VALVE BOX, CITY OF AKRON	340
										358				358				SPECIAL	63820770	358	FT	1" COPPER WATER SERVICE LINE, CITY OF AKRON	340
										3				3				638	98000	3	EACH	WATER WORK, MISC.: FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY, COMPLETE, CITY OF AKRON	340
										1				1				638	98000	1	EACH	WATER WORK, MISC.: TYING INTO 6-INCH MAIN, CITY OF AKRON	340
										2				2				638	98000	2	EACH	WATER WORK, MISC.: TYING INTO 10-INCH MAIN, CITY OF AKRON	340
										LUMP				LUMP				638	98100	LS		WATER WORK, MISC.:DRINKING FOUNTAIN, COMPLETE, CITY OF AKRON	340
										LUMP				LUMP				638	98100	LS		WATER WORK, MISC.: HOT BOX ENCLOSURE ASSEMBLY, COMPLETE, CITY OF AKRON	340
																						SANITARY SEWER	
									466					466				611	97400	466	FT	CONDUIT, MISC.:8-INCH SANITARY SEWER, CITY OF AKRON	336-338
									275					275				611	97400	275	FT	CONDUIT, MISC.:RECONNECT LATERAL, CITY OF AKRON	336-338
									2					2				611	99690	2	EACH	MANHOLE, MISC.:MANHOLE-2A ON 8" SANITARY SEWER, CITY OF AKRON	336-338

CALCULATED DNO
CHECKED HRB

GENERAL SUMMARY

SUM-8-1.75

SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			386	387	431	437	438	462		02/NHS/31	03/NHS/20	04/NHS/04	05/S>2/04						
																		TRAFFIC SIGNALS ALTERNATES (INTERCONNECT CONTROLLER CABINET)	
				1								1		632	62820	1	EACH	INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET (NEMA) (ALTERNATE 1)	376
				1								1		632	62820	1	EACH	INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET (SEICOR) (ALTERNATE 2)	376
																		TRAFFIC SIGNALS ALTERNATES (VIDEO DETECTION SYSTEM)	
			1									1		632	90400	1	EACH	SIGNALIZATION, MISC.: VIDEO DETECTION SYSTEM (GENERIC) (ALTERNATE 1)	372
			1									1		632	90400	1	EACH	SIGNALIZATION, MISC.: VIDEO DETECTION SYSTEM (AUTOSCOPE) (ALTERNATE 2)	372
			1									1		632	90400	1	EACH	SIGNALIZATION, MISC.: VIDEO DETECTION SYSTEM (FLIR) (ALTERNATE 3)	372
																		TRAFFIC SIGNALS ALTERNATES (UPS)	
			1									1		633	74001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), AS PER PLAN (GENERIC) (ALTERNATE 1)	371
			1									1		633	74001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), AS PER PLAN (CLARY) (ALTERNATE 2)	371
																		TRAFFIC SIGNALS ALTERNATES (SIGNAL CONTROLLER WITH CABINET)	
			1									1		633	99000	1	EACH	CONTROLLER ITEM, MISC.: SIGNAL CONTROLLER WITH CABINET (ECONOLITE) (ALTERNATE 1)	370, 371
			1									1		633	99000	1	EACH	CONTROLLER ITEM, MISC.: SIGNAL CONTROLLER WITH CABINET (EDCO) (ALTERNATE 2)	370, 371
																		TRAFFIC SIGNALS ALTERNATES (PREEMPTION)	
			1									1		809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION (GENERIC) (ALTERNATE 1)	372
			1									1		809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION PREEMPTION PRIORITY CONTROL (SONEM) (ALTERNATE 2)	372
			1									1		809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION PREEMPTION PRIORITY CONTROL (RIGHT-OF-WAY) (ALTERNATE 3)	372
																		LANDSCAPING	
						7	6					7	6	661	00500	13	CY	MULCH	
					51					51				661	00501	51	CY	MULCH, AS PER PLAN "A"	430
					34					34				661	00501	34	CY	MULCH, AS PER PLAN "B"	430
						162	82					162	82	661	14000	244	EACH	PERENNIALS, IMPERATA CYLINDRICA 'RED BARON'/JAPANESE BLOOD GRASS	
						188	54					188	54	661	14000	242	EACH	PERENNIALS, HEMEROCALLIS 'EENIE WEENIE'/ DAYLILY	
						188	54					188	54	661	14000	242	EACH	PERENNIALS, NARCISSUS 'ICE FOLLIES'/LARGE CUPPED DAFFODIL	
							54						54	661	14000	54	EACH	PERENNIALS, HEMEROCALLIS 'VIOLET LIGHT'/VIOLET LIGHT DAYLILY	
							25						25	661	20000	25	EACH	DECIDUOUS SHRUB, 15" HEIGHT, POTENTILLA FRUTICOSA 'JACKMANI'/JACKMAN POTENTILLA	
					3					3				SPECIAL	69098000	3	EACH	6' BENCH, GABION MOUNTED	430
					1					1				SPECIAL	69098000	1	EACH	RECYCLED TIRE BIKE RACK	430
					67					67				838	20701	67	CY	GABIONS, AS PER PLAN	430
					981					981				870	10001	981	SF	PREFABRICATED MODULAR RETAINING WALL, AS PER PLAN	430
					280					280				870	11100	280	CY	NATURAL SOIL	
					417					417				870	12000	417	FT	6" DRAINAGE PIPE, PERFORATED	
					58					58				870	12100	58	FT	6" DRAINAGE PIPE, NON-PERFORATED	
					2					2				870	14000	2	DAY	ON-SITE ASSISTANCE	
					LUMP					LUMP				870	15000	LS		PMRW INSPECTION AND COMPACTION TESTING	
																		RETAINING WALLS (BIKE PATH)	
								LUMP				LUMP		202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	462
								LUMP				LUMP		503	21320	LS		UNCLASSIFIED EXCAVATION, INCLUDING ROCK	
								8,025				8,025		509	10000	8,025	LB	EPOXY COATED STEEL REINFORCEMENT	
								146				146		511	46212	146	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL INCLUDING FOOTING	
								145				145		512	10100	145	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
								16				16		512	33000	16	SY	TYPE 2 WATERPROOFING	
								16				16		516	13600	16	SF	1" PREFORMED EXPANSION JOINT FILLER	
								76				76		518	21201	76	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC, AS PER PLAN	467

CALCULATED DNO CHECKED HRB

GENERAL SUMMARY

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159
801

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View: FENCE_VIEW1
By: srifle

34" x 22"

SEE SHEETS 199 - 205
FOR COVERAGE OF RAMPS I & J.

SEE SHEETS 430 - 436
FOR HARDSCAPE PLANS.

SEE SHEETS 161 - 169
FOR QUANTITIES.

SEE SHEET 178
FOR PROFILE.

SEE SHEETS 209-292
FOR CROSS SECTIONS.

SEE SHEET 307
FOR GORE DETAILS.

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED DWH
CHECKED HRB

PLAN
STA. 522+00 TO STA. 527+00/ 222+00 TO 227+00
SUM-8-1.75

177
801

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C1
P.I.Sta. 222+97.31
Δ = 14° 12' 04" (RT)
Dc = 4° 15' 00"
R = 1,348.14'
T = 167.93'
L = 334.14'
E = 10.42'
PC Sta. 221+29.38
PT Sta 224+63.52 BK
V (des) = 60 MPH
e (max) = 0.060

C7
P.I. STA. 422+88.00
Ls = 200.00'
θ s = 6° 00' 14"
LT = 133.41'
ST = 66.74'
x = 199.78'
y = 6.98'
k = 99.96'
p = 1.75'
CS Sta. 422+21.27
ST Sta. 424+21.27
V (des) = 50 MPH
e (max) = 0.059

(TBR) = TO BE REMOVED
(DND) = DO NOT DISTURB

POLES (2) TO BE RELOCATED BY OTHERS
DITCH EROSION PROTECTION MAT TYPE A 102' X 7.5'
+94, 177' LT
LA-R/W
CONST. LIMITS
RCP TYPE C 4'x8' 18" THICK WITH FABRIC FILTER
U.D. OUTLET +60.17, 77.03' LT
POLE TO BE RELOCATED BY OTHERS
HARDSCAPE AREA
NOISE BARRIER 3
+31, 87' LT
+51.94, 79' LT BEGIN FENCE
SUM-8-0199L
2 STORY FRAME RES. 333
2 STORY FRAME RES. 414
2 STORY FRAME RES. 329
2 STORY FRAME RES. 325
SAN MH
CITY OF AKRON
N. ADAMS ST.
PT Sta. 18+09.97
END RAMP I
RAMP I
℄ CONSTRUCTION RAMP I
PCC Sta. 17+59.52
SR-8 SB
℄ CONSTRUCTION SR-8 SB
EX. CB (TBR)
POLE TO BE RELOCATED BY OTHERS
EX SH-LA-R/W
BEGIN APPROACH SLAB 224+62.64
EQUATION: Sta 224+76.90 BK = Sta 224+76.60 AH
END APPROACH SLAB 224+92.34
+86.92 48.00' RT
CAUTION: FIBER OPTIC LINE
MATCH LINE STA. 222+00, SEE SHEET 175
MATCH LINE STA. 227+00, SEE SHEET 179
RIPRAP, TYPE D
+60.58 11.44' RT.
+21.10 9.47' RT.
ANCHOR ASSEMBLY TYPE I
END SHOULDER TAPER +00.50, 14.00 LT
15:1 FLARE BTA, TYPE 2
MH (TBR) END SHOULDER TAPER +62.41, 21.59 RT
POLES (2) TO BE RELOCATED BY OTHERS
N 20° 57' 08" E
STM MH (TBR)
15" PIPE (TBR)
POTI Sta 225+00.00
EX F.O. (OL "B")
EX SH-LA
RIP RAP
℄ CONSTRUCTION SR-8 NB
N 20° 57' 08" E
N 20° 56' 45" E
EQUATION: Sta 523+66.61 BK = Sta 523+65.41 AH
BEGIN APPROACH SLAB 524+81.89
END APPROACH SLAB 525+11.69
PT Sta. 522+49.06
PT Sta. 101+63.28
ST Sta. 424+21.27 = STA 524+20.64, 55.82' RT
BEGIN CURB +64.25, 62.75' RT
BEGIN TAPER 423+96.27, 6.00' RT.
℄ CONSTRUCTION RAMP J
RAMP J
NOISE BARRIER 4
PAVING UNDER GUARDRAIL
END TAPER 424+21.27, 7.65' RT.
EQUATION: Sta 425+00.53 BK = Sta 425+00.00 AH
EX. MH (TBR)
EX. CB (TBR)
EX. INLET (DND)
EX. INLET (TBR)
CS Sta. 422+21.27
CONST. LIMITS
DITCH EROSION PROTECTION MAT TYPE A 150' X 7.5' & ITEM 659 TOP SOIL SEE CROSS SECTIONS FOR LIMITS
DOLOROS HARRIS 6738233 361 N. ADAMS ST. 2 STORY FRAME RES. 361
2 STORY FRAME RES. 358
GRAVEL
LIMESTONE
BMP: VEGETATED BIOFILTER REQUIRED DITCH WIDTH 4'
* = DITCH EROSION PROTECTION MAT TYPE A 103' X 7.5' & ITEM 659 TOP SOIL SEE CROSS SECTIONS FOR LIMITS
END APPROACH SLAB 529+11.69
(TBR) EX. MH
EX. CB (TBR)
RIPRAP WITH GROUT
+95.66, 82' RT END FENCE
15' x 15' JACK OR BORED PIT
CAUTION: FIBER OPTIC LINES
T.H. 13
LEVEL A TEST HOLE #13
TOP OF GROUND = 1002.51
TOP OF PIPE = 997.74
EXPOSED 2.5" STEEL F.O.
T.H. 14
LEVEL A TEST HOLE #14
TOP OF GROUND = 1002.92
TOP OF PIPE = 999.82
EXPOSED 2.5" STEEL F.O.

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Ohio DOT Workspace
SUM-8

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View: FENCE_VIEW1
By: srifle

34" x 22"

SEE SHEETS 161 - 169
FOR QUANTITIES.

SEE SHEETS 180 - 181
FOR PROFILE.

SEE SHEETS 209-292
FOR CROSS SECTIONS.

WETLAND F

CONST. LIMITS

CAUTION:
FIBER OPTIC LINE

SUM-8-0199L

SUM-8-0199R

SR-8 SB

℄ CONSTRUCTION
SR-8 SB

SR-8 NB

℄ CONSTRUCTION
SR-8 NB

MATCH LINE STA. 227+00, SEE SHEET 177

MATCH LINE STA. 232+00, SEE SHEET 182

MATCH LINE STA. 527+00, SEE SHEET 177

MATCH LINE STA. 532+00, SEE SHEET 182

POT Sta. 428+88.45

N 20° 57' 08" E

N 69° 03' 15" W 108

245.62'

1,023'

B-007-2-16
B-009-2-16
B-009-3-16
B-009-4-16
B-008-1-19
B-009-1-16
B-009-6-19
B-011-0-15
B-010-0-48
B-014-0-48
B-009-5-19
B-012-0-48
B-010-0-15
B-009-7-19
B-017-0-48

D87 D80 D88 D81 D82 D83 D84 D66 D67 D59 D59A D61A D65 D64 D68

R29 R26 R27 R28 R24 R25 R30 R94 R31 R32 R95

EX SH-LA

Ex LA-R/W

LA-R/W

Ex RR

TMP

EX. F.O., (OL "C")

EX. F.O., (OL "B")

FO

E

OVHD

138 KV

PENNSYLVANIA AND OHIO CANAL

MERO RTA RR

UNKNOWN UTILITY QUALITY LEVEL "B"

EX. F.O., LEVEL "B" (OL "B")

EX. F.O., LEVEL "C" (OL "C")

FUEL MARKER

15' x 15' JACK OR BORED PIT

8" SMP AERIAL BRIDGE SCUPPER (TBR)

AERIAL BRIDGE SCUPPER OUTLET (TBR)

STM. MH (NO ACCESS) (TBR)

EX. MH (TO REMAIN)

EX. MH (DND)

MH-3 (TO REMAIN)

18" RCP (TO REMAIN)

18" VCP (TO REMAIN)

18" RCP (TBR)

18" PIPE (TBR)

12" CPP (TBR)

EX CB (TBR)

CATCH BASIN (NO APPARENT OUTLET) (TBR)

3' GRATE SCREEN (TO REMAIN)

OUTLET/OVERFLOW STRUCTURE (TO REMAIN)

48" RCP (42" REC.) (TO REMAIN)

42" RCP (TBR)

(36" REC.) (TBR)

CONCRETE HEADWALL

RIP RAP

BALLAST

LIMESTONE

AKRON BOARD OF EDUCATION
670-906 EAST NORTH ST.

THE REAL ESTATE AND IMPROVEMENT COMPANY OF BALTIMORE CITY
NO PARCEL NUMBER

EXIST. BABB-EVANS OVERHEAD ELECTRIC (3-138 KV, 145 KV MAX.) (TO REMAIN)

LITTLE CUYAHOGA RIVER

AKRON 6708909 500 E.

T.H. 6
LEVEL A TEST HOLE #6
TOP OF GROUND = 960.25
TOP OF PIPE = 956.06
EXPOSED 4" PLASTIC CONDUIT

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED DWH
CHECKED HRB

PLAN - S.R. 8 NB / SB
STA. 527+00 / 227+00 TO STA. 532+00 / 232+00

SUM-8-1.75

179
801

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SEE SHEETS 161 - 169 FOR QUANTITIES.

SEE SHEET 195 FOR PROFILE.

SEE SHEETS 209-292 FOR CROSS SECTIONS.

C15

P.I.Sta. 62+09.54
Δ = 8° 30′ 00″ (LT)
Dc = 3° 45′ 00″
R = 1,527.89′
T = 113.54′
L = 226.67′
E = 4.21′
P.C. Sta. 60+96.00
P.T. Sta. 63+22.67

C17

P.I.Sta. 58+63.54
Δ = 7° 51′ 25″ (RT)
Dc = 3° 45′ 00″
R = 1,527.89′
T = 104.92′
L = 209.52′
E = 3.60′
P.C. Sta. 57+58.62
P.T. Sta. 59+68.13

PAVEMENT REPAIR
(TBR) = TO BE REMOVED
(DND) = DO NOT DISTURB

PARKVIEW AVE.
CONST. LIMITS
NOISE BARRIER 1B
END EOP TAPER STA. 258+37.87, 54.76′ LT.
15′ x 15′ JACK OR BORED PIT
B-033-0-16
B-032-1-16
B-032-0-15
B-032-2-16
B-034-0-16
EX. I-2-8 (TBR)
EX. MH (DND)
EX. MH (TBR)
EX. I-3C-JS (FLAT TOP SLAB)
MEDIAN INLET (NO ACCESS)
SAWCUT
℄ CONSTRUCTION SR-8 SB
℄ CONSTRUCTION SR-8 NB
SR-8 SB
SR-8 NB
EX. I-3C-JS (DND)
MEDIAN INLET (NO ACCESS)
12″ PIPE (DND)
℄ RAMP B
RAMP B
PC Sta. 60+96.00
END SHOULDER WORK STA. 261+87.77, 67.13′ LT.
RAMP A
℄ RAMP A
61 N 0° 30′ 13″ W
EX. CB (TBR)
EX. MH (TBR)
CURB INLET (NO ACCESS) (TBR)
15″ STUB (TBA)
DITCH EROSION PROTECTION MAT TYPE A 150′ X 7.5′
DITCH EROSION PROTECTION MAT TYPE A 40′ X 7.5′
ANCHOR ASSEMBLY, TYPE T
+73.34
62.53′ RT
NOISE BARRIER 2B
CONST. LIMITS
END FENCE REMOVAL +32.10
8″ VCP C.S.
8″ VCP C.S. (DND)
12″ VCP C.S. (TO REMAIN)
12″ VCP (TBA)
36″ C.S. (DND)
36″ C.S. (DND)
MATCH LINE STA. 257+00, SEE SHEET 192
MATCH LINE STA. 557+00, SEE SHEET 192
MATCH LINE STA. 262+00, SEE SHEET 196
MATCH LINE STA. 562+00, SEE SHEET 196
Ex R/W
Ex LA-R/W
Ex SH-LA R/W
LA-R/W
CONC.
LIMESTONE
BRICK
ASPHALT
1 STORY FRAME RES. 618
2 STORY FRAME RES. 622
1 STORY FRAME RES. 626
2 STORY FRAME RES. 630
1 STORY FRAME RES. 634
ASPHALT ALLEY
4″ SPP
18″ VCP
15″ VCP
4″G
6″W
N 8° 22′ 50″ W
N 8° 23′ 01″ W

(A) BEGIN EOP TAPER STA. 557+91.87, 48.00′ RT.
(B) END EOP TAPER STA. 558+50.00, 51.05′ RT.
(C) BEGIN SHOULDER TAPER STA. 557+91.86, 60.00′ RT.
(D) END SHOULDER TAPER STA. 558+50.00, 60.73′ RT.

END PROJECT
SR-8 NB
STA. 558+50.00
SR-8 SB
STA. 258+37.87
SLM = 1.75

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED DWH
CHECKED HRB

PLAN - S.R. 8 NB / SB
STA. 557+00 / 257+00 TO STA. 562+00 / 262+00

SUM-8-1.75

194
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Batchplot Spec: \\msconsultants.com\files\Production\PW\60\08326\standards\plotdrv\batchplt.spc UCF: ohdotV8i
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Plot Driver: \\msconsultants.com\files\Standards\usin\ohdot\v8i\ms\plotting\PDF.pltcfg

Model: Sheet View: FENCE_VIEW1
Printed: 4/4/2023 @ 2:43:02 PM By: strifle
File: N:\PW\60\08326\roadway\sheets\191710_GP010.dgn

Ohio DOT Workspace
SUM-8

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34" x 22"

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1" 0.5" 0

JOF: ohdot1V8i
POF: 60-08326_PW

Batchplot Spec: \\msconsultants.com\files\Production\PW\60\08326\standards\plotdrv\batchplt.spf
Pen Table: N:\PW\60\08326\standards\tables\V8_ms_std - Cloud.tbl
Plot Driver: c:\users\doros\pwworkdir\dms11763\PDF.plt

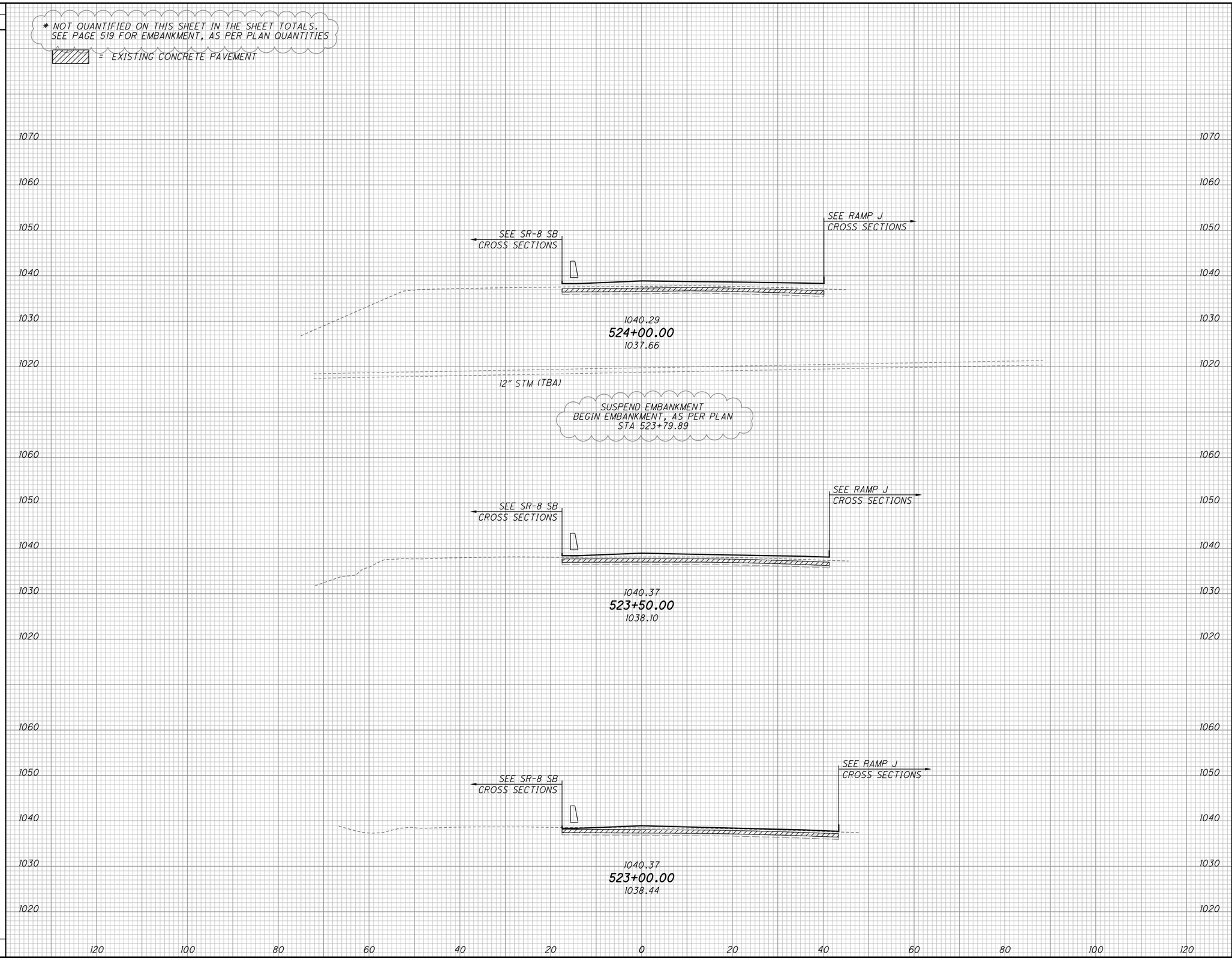
34" x 22"

Model: XS_SHEET_523+00.00_TO_524+00.00 - FENCE_VIEW1
Printed: 3/30/2023 @ 8:44:20 AM By: doros
File: \\msconsultants.com\files\Production\PW\60\08326\roadway\sheets\91710_XS001.dgn

SEEDING	
END WIDTH	SQ. YDS.
0	0
0	0
0	0
0	0

* NOT QUANTIFIED ON THIS SHEET IN THE SHEET TOTALS.
SEE PAGE 519 FOR EMBANKMENT, AS PER PLAN QUANTITIES

= EXISTING CONCRETE PAVEMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL
51	152	94	80*
			62
			107
51	132		
		96	225
53	111		
		101	186
		291	518

CALCULATED DNO
CHECKED HRB

CROSS SECTIONS S.R. 8 NB
STA. 523+00.00 TO STA. 524+00.00

SUM-8-1.75

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1" = 0.5"

JCF: ohdot1V8i
PCF: 60-08326_PW

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Pen Table: M:\PW\60\08326\standards\tables\V8i_ms_std - Cloud.tbl
Plot Driver: c:\users\doros\pwworkdir\dms1763\PDF.plcfg

Model: XS_SHEET_524-20.64_TO_524+50.00
Printed: 3/30/2023 @ 8:44:21 AM
File: \\msconsultants.com\files\Production\PW\60\08326\roadway\sheets\19170_XS001.dgn

FENCE_VIEW1
By: doros

34" x 22"

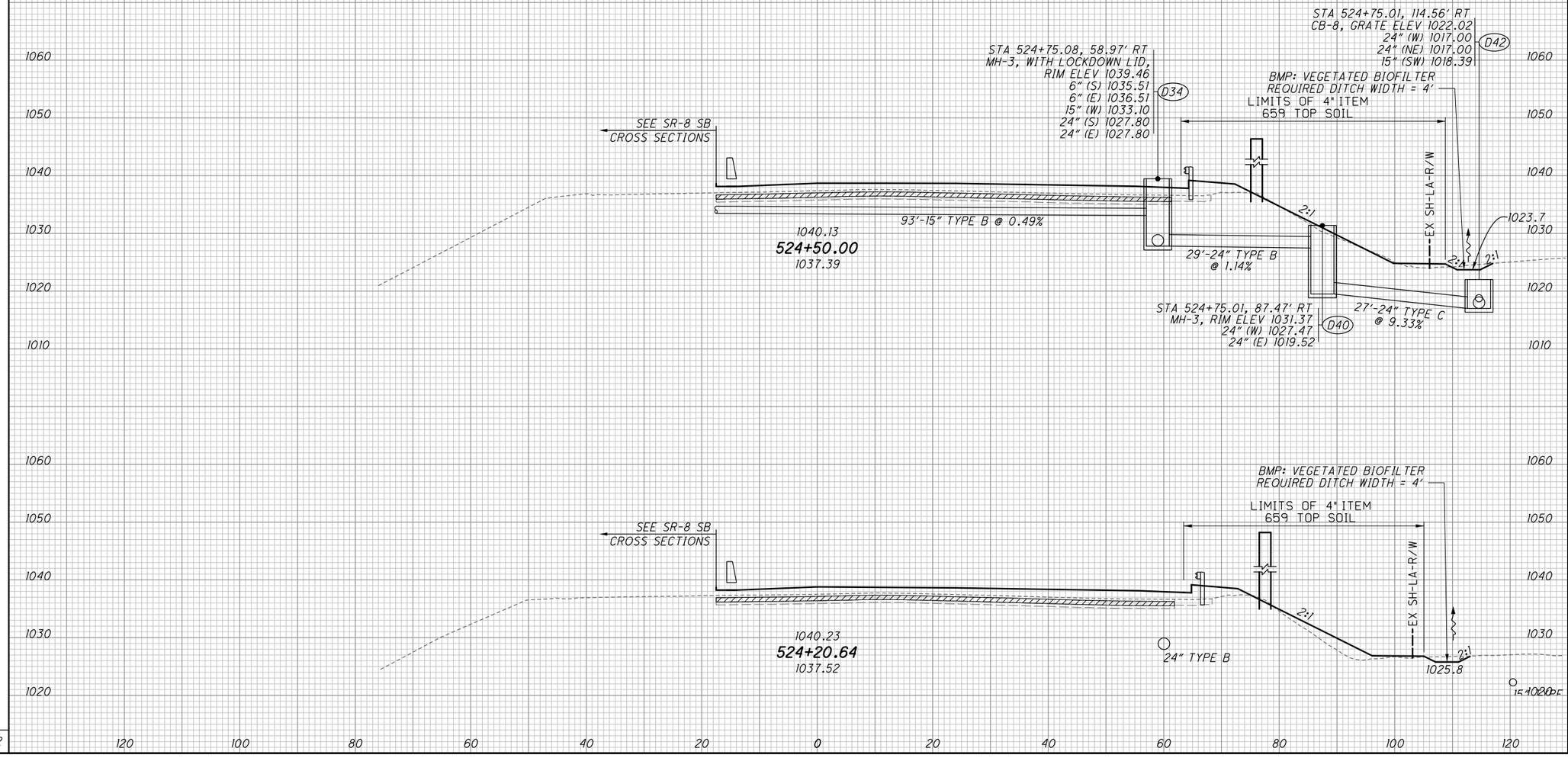
SEEDING	
END WIDTH	SQ. YDS.
58	181
53	61
	242

* NOT QUANTIFIED ON THIS SHEET IN THE SHEET TOTALS.
SEE PAGE 519 FOR EMBANKMENT, AS PER PLAN QUANTITIES

= EXISTING CONCRETE PAVEMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		82	267
		82	276
		89	295*
		51	164*
		140	0

CALCULATED DNO
CHECKED HRB



CROSS SECTIONS S.R. 8 NB
STA. 524+20.64 TO STA. 524+50.00

SUM-8-1.75

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1" 0.5" 0

"DCF: ohdot1V8i
PCF: 60-08326_PW

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Pen Table: N:\PW\60\08326\standards\tables\V8i_ms_std - Cloud.tbl
Plot Driver: c:\users\doros\pwworkdir\dms117631\PDF.pltcfg

Model: XS_SHEET_524+89.81_TO_541+50.00
Printed: 3/30/2023 @ 8:44:22 AM
File: \\msconsultants.com\files\Production\PW\60\08326\roadway\sheets\91710_XS001.dgn

View: FENCE_VIEW1
By: doros

34" x 22"

SEEDING END WIDTH	SEEDING SQ. YDS.
	53
	81
	19
	64
	270
	351

* NOT QUANTIFIED ON THIS SHEET IN THE SHEET TOTALS.
SEE PAGE 519 FOR EMBANKMENT, AS PER PLAN QUANTITIES

= EXISTING CONCRETE PAVEMENT

SUSPEND EMBANKMENT, AS PER PLAN
RESUME EMBANKMENT
STA 541+99.89

BMP: VEGETATED BIOFILTER
REQUIRED DITCH WIDTH = 7'

SEE SR-8 SB
CROSS SECTIONS

D18
STA 541+50.00, 37.45' LT
CB-8, GRATE ELEV 1025.35
15" (E) 1022.60
18" (NW) 1022.60

D17A
STA 541+50.00, 14.17' LT
CB-3, GRATE ELEV 1029.62
15" (W) 1025.37
15" (S) 1025.37
15" (E) 1025.37

LIMITS
OF 4" ITEM
659 TOP SOIL

D16A
STA 541+50.00, 62.00' RT
CB-3A, GRATE ELEV 1030.93
15" (W) 1026.30
15" (S) 1026.30

4:1
4:1
2:1
2:1

23'-18" TYPE C @ 2.48%
25'-15" TYPE C @ 11.08%
74'-15" TYPE B @ 1.26%

1025.6
1030.34
541+50.00
1029.34

12" STM (TBR)

EX SH-LA-R/W

1030.46
541+29.89
1029.37

RESUME EARTHWORK APPROACH SLAB
STA 541+29.89

RESUME EMBANKMENT, AS PER PLAN
STA 540+99.89

SUSPEND EMBANKMENT, AS PER PLAN
STA 525+11.89

BMP: VEGETATED BIOFILTER
REQUIRED DITCH WIDTH = 4'
LIMITS OF 4" ITEM
659 TOP SOIL

SEE SR-8 SB
CROSS SECTIONS

EX SH-LA-R/W

1040.00
524+89.81
1037.21

SUSPEND EARTHWORK APPROACH SLAB
STA 524+89.84

1020.9

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	52		
			198*
124	162		
		77	121*
			97*
82	164		
	11		
			558
			350*
50	299		
		97	417*
		174	0

CALCULATED DNO
CHECKED HRB

CROSS SECTIONS S.R. 8 NB
STA. 524+89.81 TO STA. 541+50.00

SUM-8-1.75

217A
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1" / 0.5" / 0

DCF: ohdot1V8i
PCF: 60-08326_PW

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Plot Driver: c:\users\taras\pwworkdir\ams11763\PDF.plt
Model: XS_SHEET_542+00.00_TO_543+00.00 By: FENCE_VIEW1
Printed: 3/30/2023 @ 8:44:22 AM By: taras
File: \\msconsultants.com\files\Production\PW\60\08326\roadway\sheets\91710_XS001.dgn

34" x 22"

SEEDING	
END WIDTH	SQ. YDS.
72	378
64	
63	
	353
	322
	1,053

= EXISTING CONCRETE PAVEMENT

STA 543+22.56, 39.56' LT (TBR)
EX. MH-1, GRATE ELEV 1027.32'
12" N 1012.54 (TBA)
12" S 1012.54 (TBA)

STA 543+22.43, 33.99' LT (TBR)
EX. CB, GRATE ELEV 1026.86'
--" W N/A

SEE SR-8 SB CROSS SECTIONS

BMP: VEGETATED BIOFILTER
REQUIRED DITCH WIDTH = 7'

LIMITS OF 4" ITEM 659 TOP SOIL

4:1
6.5:1
1026.2
21" TYPE C
1029.47
543+00.00
1028.75
EX. ELEC.
2:1
2:1
1022.7
EX SH-LA-R/W

BMP: VEGETATED BIOFILTER
REQUIRED DITCH WIDTH = 7'
SEE SR-8 SB CROSS SECTIONS
LIMITS OF 4" ITEM 659 TOP SOIL
5:1
5:1
1026.1
21" TYPE C
1029.76
542+50.00
1028.97
12" STM (TBA)
EX. ELEC.
2:1
EX SH-LA-R/W

BMP: VEGETATED BIOFILTER
REQUIRED DITCH WIDTH = 7'
SEE SR-8 SB CROSS SECTIONS
LIMITS OF 4" ITEM 659 TOP SOIL
5:1
5:1
1025.9
1030.05
542+00.00
1029.15
12" STM (TBA)
EX. ELEC.
2:1
EX SH-LA-R/W

END AREA	
CUT	FILL
114	196

VOLUME	
CUT	FILL
213	344
217	311
118	160
224	1
654	656

CALCULATED DNO
CHECKED HRB

CROSS SECTIONS S.R. 8 NB
STA. 542+00.00 TO STA. 543+00.00

SUM-8-1.75

218
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SUM-8

1" 0.5" 0

JCF: ohdot\V8i
PCF: 60-08326_PW

Batchplot Spec: \\msconsultants.com\files\Production\PW\60\08326\standards\plotdrv\batchplt.spc
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Model: XS_SHEET_557-50.00_TO_558-50.00
Printed: 4/4/2023 @ 4:03:42 PM
File: M:\PW\60\08326\roadway\sheets\91710_XS001.dgn

FENCE_VIEW1
By: srifle

34" x 22"

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
1	156	72	16	370	30
55	275	328	16	544	30
44	233	259	16	472	31
	664			1386	91

CALCULATED DNO
CHECKED HRB

CROSS SECTIONS S.R. 8 NB
STA. 557+50.00 TO STA. 558+50.00

SUM-8-1.75

229
801

= EXISTING CONCRETE PAVEMENT

SEE SR-8 SB CROSS SECTIONS

1021.80
558+50.00
1021.80
36" C.S.
(DND)

EX. R/W
L.A. R/W
EX. ELEC.
15" TYPE B
8" VCP

STA 258+00.00, 13.17' RT
1-3-CI, GRATE ELEV 1021.46
WINDOW ELEV 1021.54
Y = 0.08
D3
6" (E) 1017.74
6" (S) 1018.74
18" (E) 1015.11
18" (W) 1015.11

STA 558+12.13, 73.09' RT
CB-8, GRATE ELEV 1019.13
D4
6" (W) 1017.05
15" (W) 1016.55

STA 558+12.13, 53.09' RT
MH-3, WITH LOCKDOWN LID, ELEV 1021.80
15" (N) 1015.56
D71
15" (E) 1015.56
18" (W) 1015.31

SEE SR-8 SB CROSS SECTIONS

2:1
4:1
1:1
EX. ELEC.
1019.6
JACK OR BORED PIT
70'-18" TYPE B @ 0.51%
15'
4.5'
61'-18" TYPE B @ 0.33% BORED OR JACKED
3.5'
20'-15" TYPE B @ 4.95%
15'
36" C.S. (DND)
1022.03
558+00.00
1022.01

PROPOSED NOISE WALL
EX. R/W
L.A. R/W
8" VCP

SEE SR-8 SB CROSS SECTIONS

2:1
4:1
EX. ELEC.
1020.6

1022.27
557+50.00
1022.26
36" C.S.
(DND)

1050 1040 1030 1020 1010 1000

120 100 80 60 40 20 0 20 40 60 80 100 120

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1" 0.5" 0

JOF: ohdot1V8i
POF: 60-08326.PW

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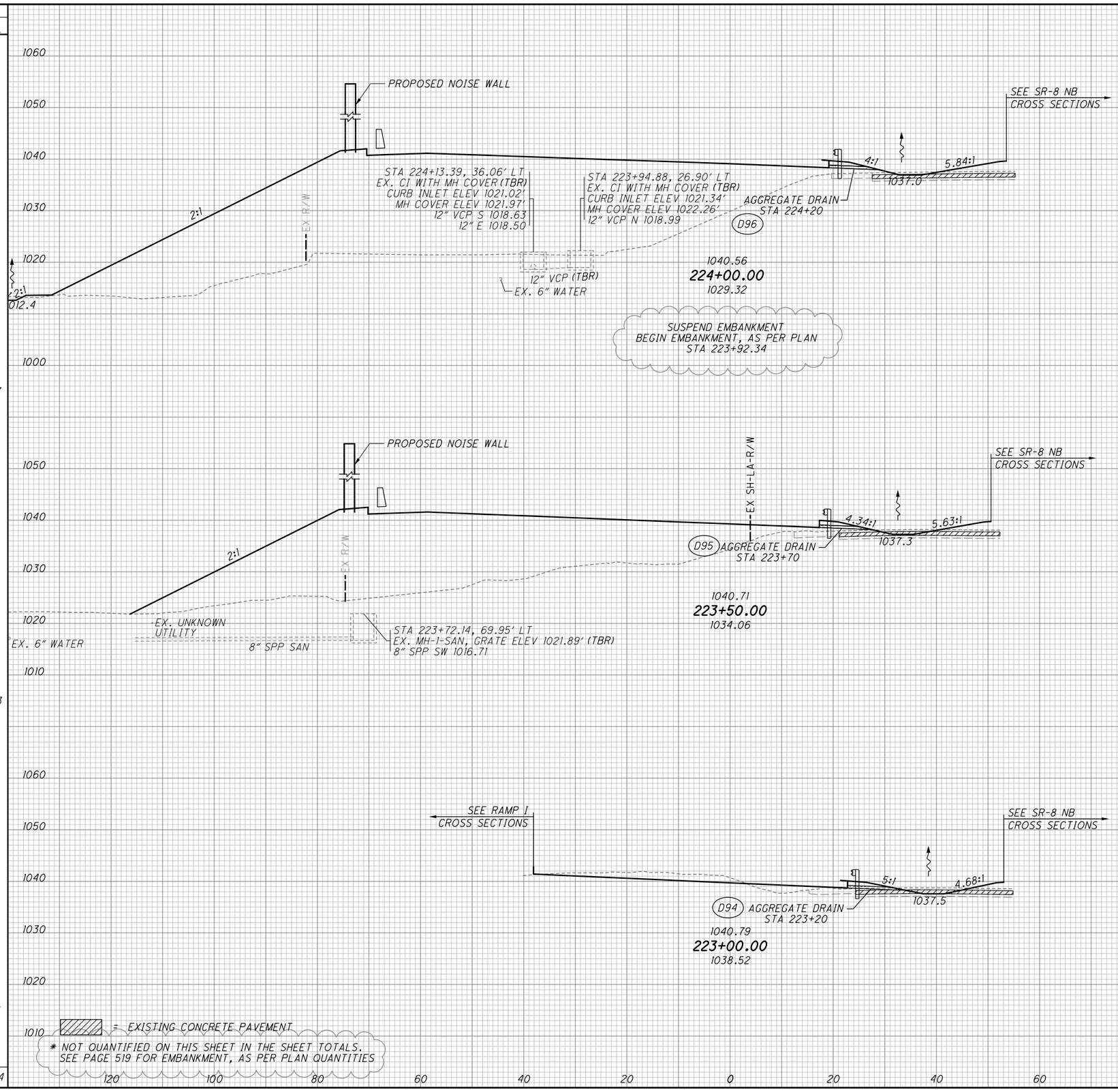
Model: XS_SHEET_223+00.00_TO_224+00.00
Printed: 3/30/2023 @ 8:44:24 AM
File: \\msconsultants.com\files\Production\PW\60\08326\roadway\sheets\197710_XS002.dgn

34" x 22"

FENCE_VIEW1
By: doros

SEEDING END WIDTH	SEEDING SQ. YDS.
116	567
88	333
32	164
1064	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
33	2175		589*
	1980		
		63	2588
35	1321		
		101	1291
74	73		
		180	111
		344	3990

CALCULATED DNO
CHECKED HRB

CROSS SECTIONS S.R. 8 SB
STA. 223+00.00 TO STA. 224+00.00

SUM-8-1.75

235
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Ohio DOT Workspace
SUM-8

1" 0.5" 0

DCF: ohdot1V8i
PCF: 60-08326_PW

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Model: XS_SHEET_224+50.00_TO_224+62.64
Date: 3/30/2023 @ 8:44:24 AM
File: \\vmsconsultants.com\files\Production\PW\60\08326\roadway\sheets\91710_XS002.dgn
Level: FENCE_VIEW1
By: doros

34" x 22"

SEEDING	
END WIDTH	SQ. YDS.
	124
	175
	125
	670
	845

* NOT QUANTIFIED ON THIS SHEET IN THE SHEET TOTALS.
SEE PAGE 519 FOR EMBANKMENT, AS PER PLAN QUANTITIES

= EXISTING CONCRETE PAVEMENT

PROPOSED NOISE WALL

SUSPEND EMBANKMENT, AS PER PLAN
STA 224+92.34

SEE SR-8 NB
CROSS SECTIONS

4:1

5.3:1

1036.6

1040.27
224+62.64
1023.06

SUSPEND EARTHWORK APPROACH SLAB
STA 224+62.64

MATCH LINE

2:1

2:1 2:1

1009.9

MATCH LINE

STA 224+31.65, 0.59' LT
EX. MH-1, GRATE ELEV 1029.40' (TBR)
15" NE 1017.00
12" W 1017.50
12" E 1017.43

STA 224+86.95, 37.51' RT
CB-8, GRATE ELEV 1036.06
6" (SE) 1034.56
15" (E) 1033.56

D39

PROPOSED NOISE WALL

SEE SR-8 NB
CROSS SECTIONS

4:1

4.52:1

AGGREGATE DRAIN
STA 224+62.84

1036.7

93'-15" TYPE B
@ 0.49%

D97

EX SH-LA-R/W

MATCH LINE

2:1

1040.34
224+50.00
1023.84

12" STM (TBA)

LA-R/W

2:1 2:1

1010.5

MATCH LINE

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	2697		
			3167*
28	3061		
29	3027		
	1425*	13	
	4817*	57	
70	0		

CALCULATED DNO
CHECKED HRB

CROSS SECTIONS S.R. 8 SB
STA. 224+50.00 TO STA. 241+50.00

SUM-8-1.75

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SUM-8

1" 0.5" 0

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34" x 22"

SEEDING	
END WIDTH	SQ. YDS.
55	258
38	336
66	594

* NOT QUANTIFIED ON THIS SHEET IN THE SHEET TOTALS.
SEE PAGE 519 FOR EMBANKMENT, AS PER PLAN QUANTITIES

= EXISTING CONCRETE PAVEMENT

SEE SR-8 NB CROSS SECTIONS

2:1

1029.79
242+50.00
1024.35

12" STM (TBA)

END EMBANKMENT, AS PER PLAN
RESUME EARTHWORK
STA 242+11.84

SEE SR-8 NB CROSS SECTIONS

2:1

21" TYPE C

1030.08
242+00.00
1024.21

12" STM (TBA)

STA 241+70.27, 62.00' LT
CB-3A, GRATE ELEV 1028.57
6" (S) 1026.45
15" (E) 1024.55
D20

D20C
STA 241+70.27, 114.01' LT
HW 2.1/2.2
15" (E) 1004.53

SEE SR-8 NB CROSS SECTIONS

2:1

6'-15" TYPE F @ 1.87%

18" MIN.

44'-15" TYPE F @ 50.00%

6'-15" TYPE F @ 2.00%

1030.42
241+41.84
1024.39

RESUME EARTHWORK APPROACH SLAB
STA 241+41.84

RESUME EMBANKMENT, AS PER PLAN
STA 241+11.84

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	933		1047
	549		
0	540	0	239*
0	1572*		
0	920		
			1115*
			1087
0	0	0	0

CALCULATED DNO
CHECKED HRB

CROSS SECTIONS S.R. 8 SB
STA. 241+41.84 TO STA. 242+50.00

SUM-8-1.75

237
801

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Ohio DOT Workspace
SUM-8

1" 0 0.5"

DGF: ohdot\V8i
PDF: 60-08326_PW

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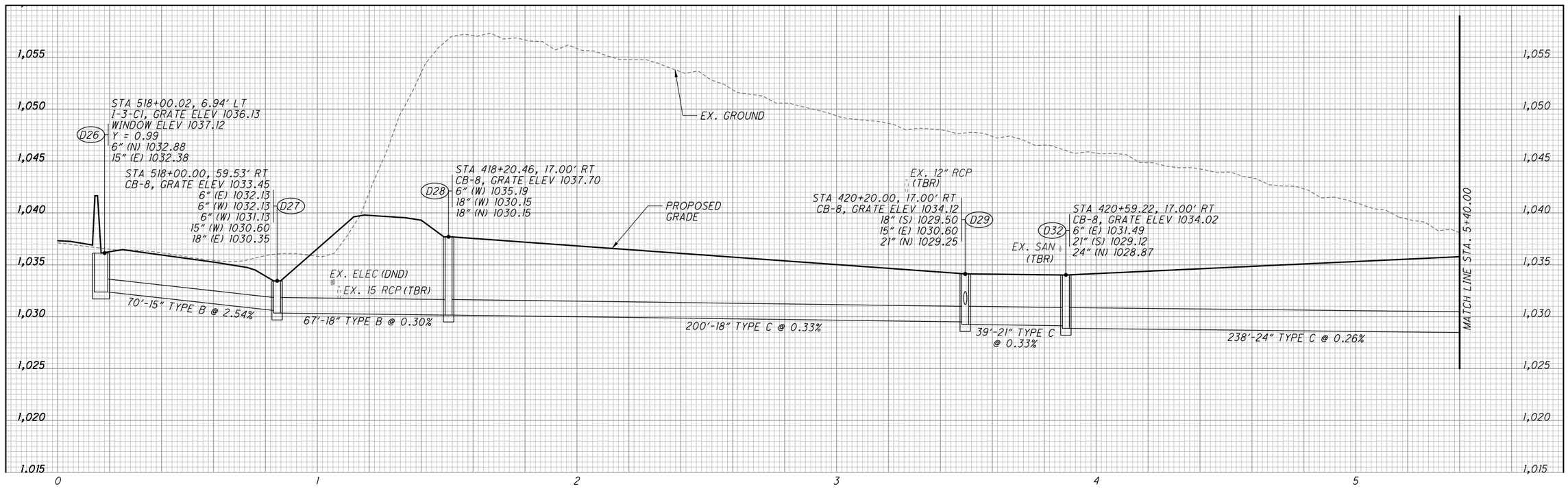
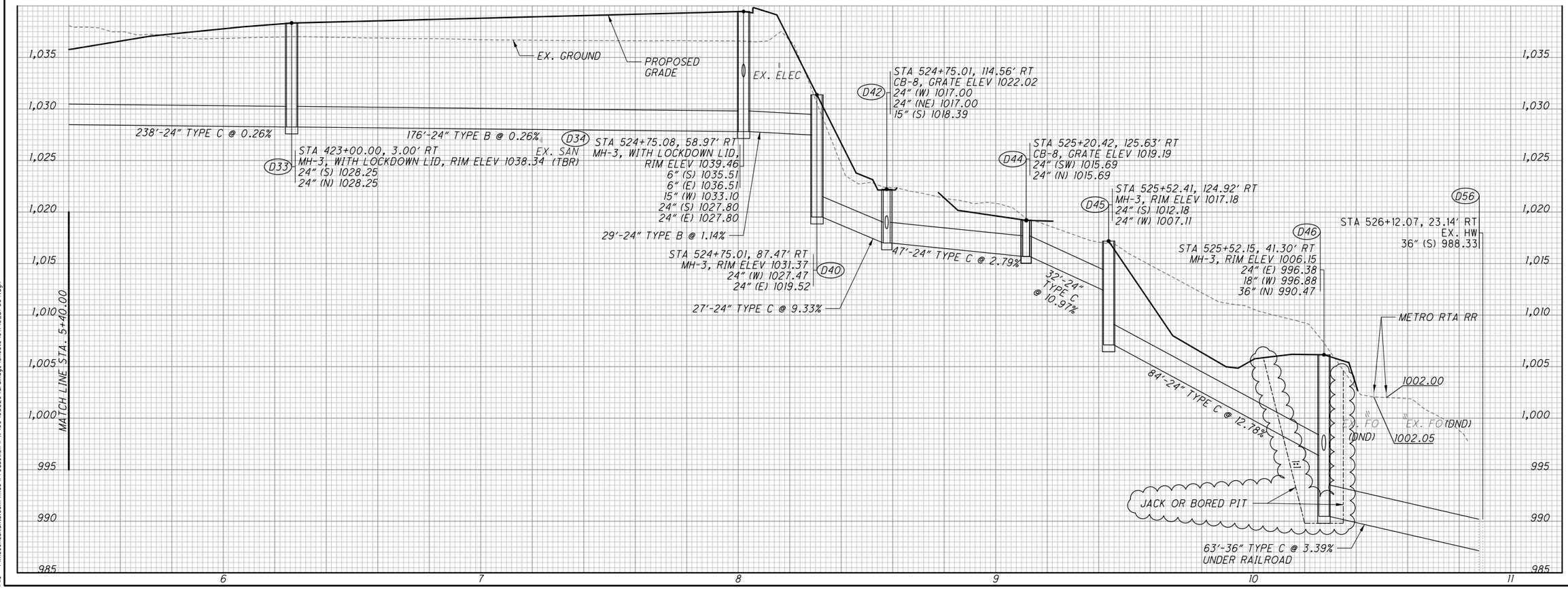
STORM SEWER PROFILES

SUM-8-1.75





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Ohio DOT Workspace
SUM-8

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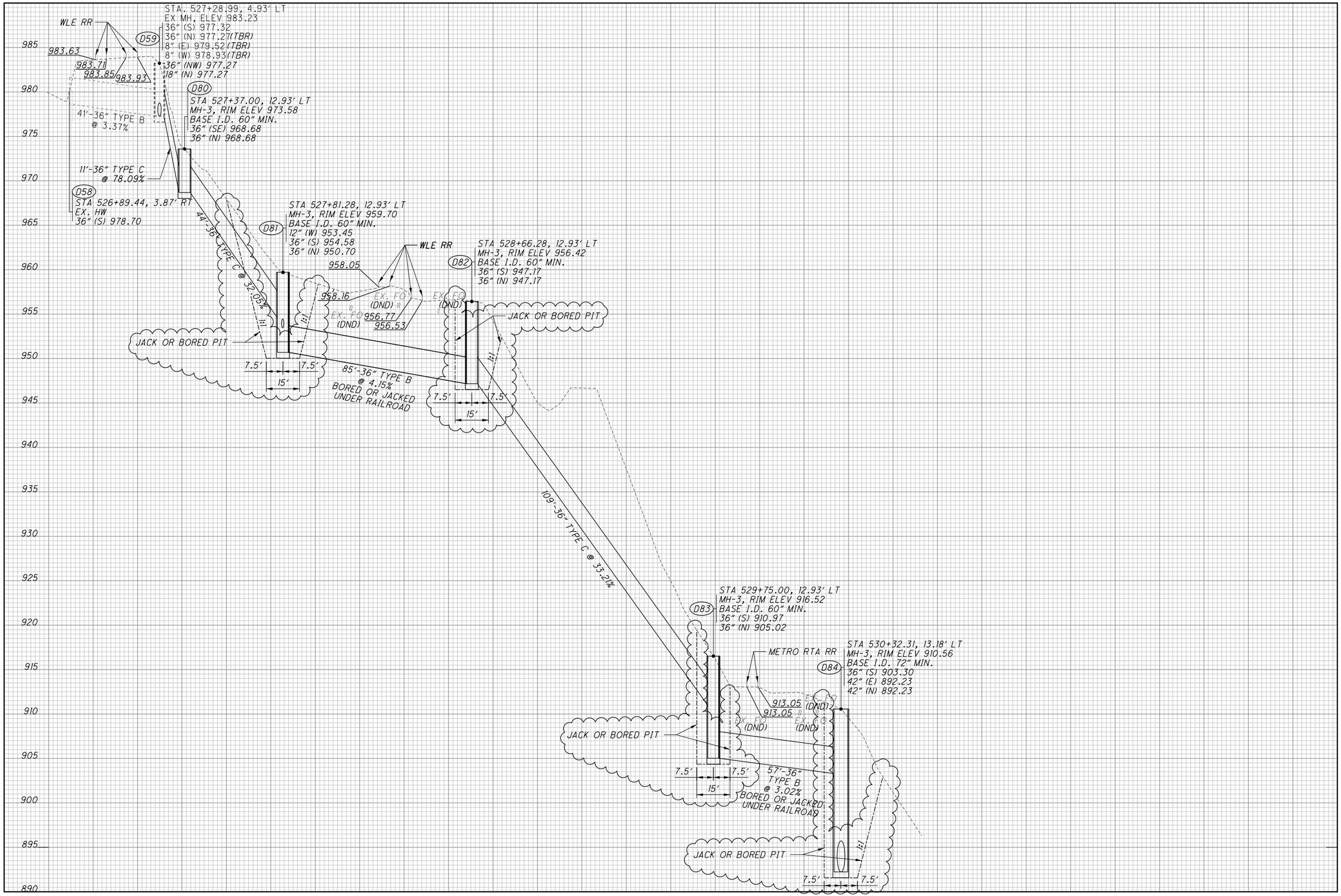
CALCULATED DNO
CHECKED HRB

STORM SEWER PROFILES

SUM-8-1.75

318
801



PLOT.CEL

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Ohio DOT Workspace
SUM-8

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By= dtout

34" x 22"

REF NO.	SHEET NO.	STATION TO STATION					202 WALK REMOVED SF	202 REMOVAL MISC.: 8-INCH WATERLINE AND GATE VALVE REMOVED, COMPLETE, CITY OF AKRON LS	202 REMOVAL MISC.: PIPE ABANDONED - 6-INCH, CITY OF AKRON LS	202 REMOVAL MISC.: FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY REMOVED, COMPLETE, CITY OF AKRON EACH	202 REMOVAL MISC.: PIPE REMOVED - 6-INCH, CITY OF AKRON FT		253 PAVEMENT REPAIR SY		608 4" CONCRETE WALK SF	611 CONDUIT, MISC.: 4-INCH STORM LATERAL, CITY OF AKRON FT		638 WATER WORK, MISC.: FIRE HYDRANT AND 6-INCH GATE VALVE ASSEMBLY, COMPLETE, CITY OF AKRON EACH	638 WATER WORK, MISC.: TYING INTO 6-INCH MAIN, CITY OF AKRON EACH	638 WATER WORK, MISC.: TYING INTO 10-INCH MAIN, CITY OF AKRON EACH	638 WATER WORK, MISC.: DRINKING FOUNTAIN, COMPLETE, CITY OF AKRON LS	638 WATER WORK, MISC.: HOT BOX ENCLOSURE ASSEMBLY, COMPLETE, CITY OF AKRON LS		SPECIAL 8" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON FT	SPECIAL 12" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, CITY OF AKRON FT	SPECIAL 8" GATE VALVE WITH VALVE BOX, CITY OF AKRON EACH	SPECIAL 1" COPPER WATER SERVICE CONNECTION, CITY OF AKRON FT
W1	341	420+19.92	RT	TO	420+56.06	RT							22												36			
W2	341	420+19.92	RT																								1	
W3	341	420+56.06	RT																1									
W4	341	15+24.51	LT										13					1										
W5	341	12+03.80	LT										6					1										
W6	342	7+08.89	LT															1										
W7	343	0+00.00																		1								
W8	343	0+00.00			3+23.20								160													324		
W9	343	3+23.20																		1								
WR1	341	420+19.92	RT	TO	420+56.06	RT		LUMP																				
WR2	341	12+19.44	LT							1			5															
WR3	341	15+09.56	LT							1																		
WR4	342	17+63.26	LT	TO	18+09.97	RT					142		11															
WR5	342	18+09.97	RT							1																		
WR6	342	16+70.34	LT						LUMP				10															
WR7	342	7+26.71	LT							1																		
WF1	345	0+00.00		TO	3+57.46		20						9		20													358
WF2	345	0+33.00																					LUMP					
WF3	345	3+57.46																				LUMP						
WF4	345	3+57.46		TO	3+59.46	LT										16												
TOTALS CARRIED TO GENERAL SUMMARY							20	LS	LS	4	142		236		20	16		3	1	2	LS	LS		36	324	1	358

CALCULATED EMB
CHECKED TRT

CITY OF AKRON WATER WORKS SUB-SUMMARY

SUM-8-1.75

335A
801

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Ohio DOT Workspace
SUM-8

0 0.5" 1"

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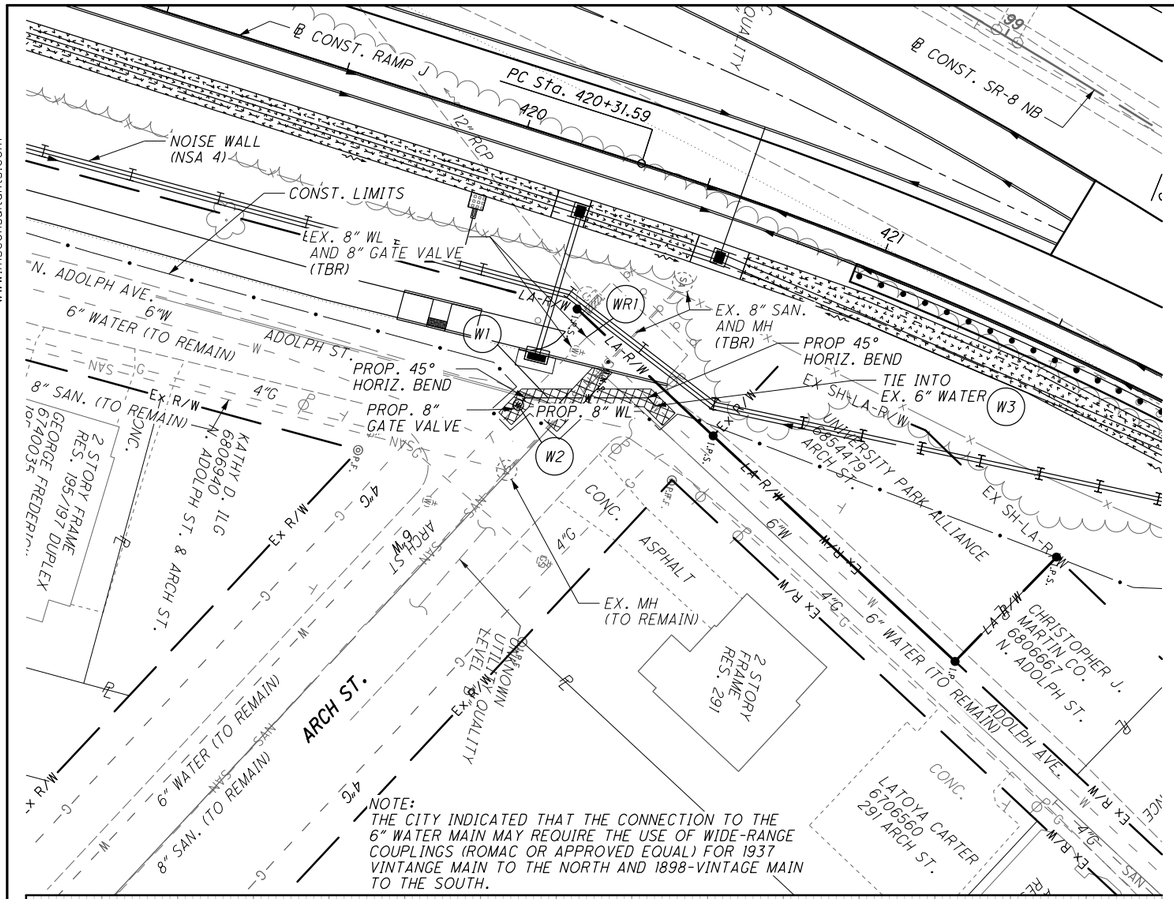
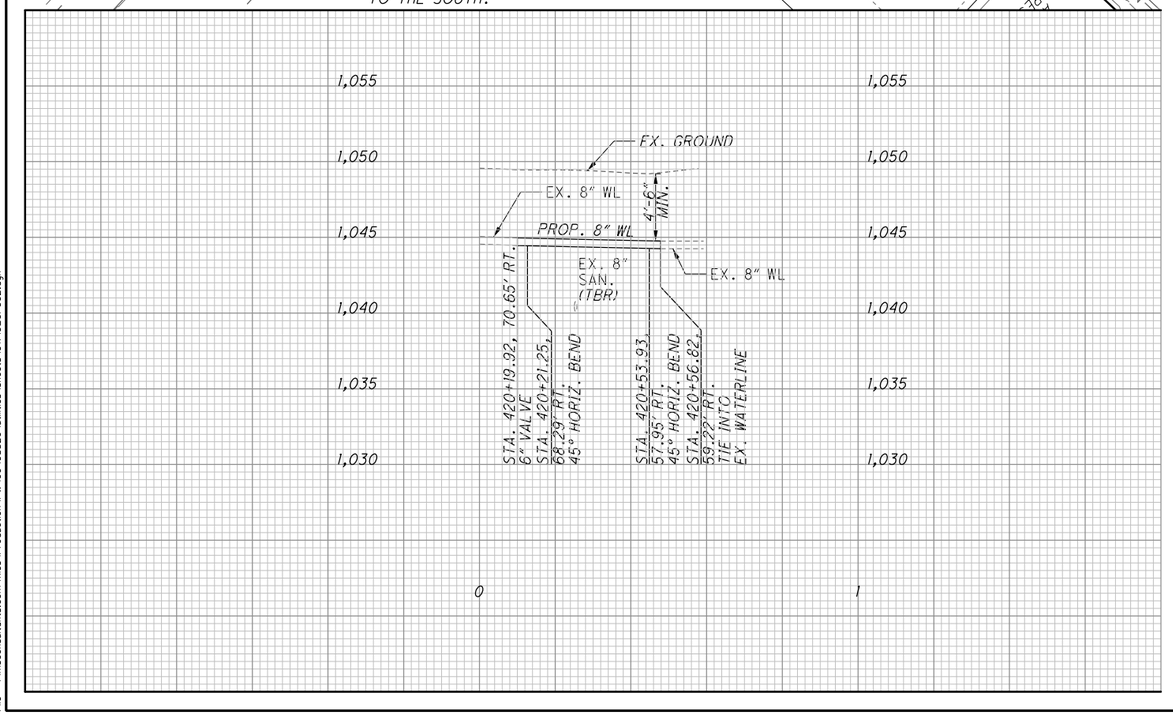
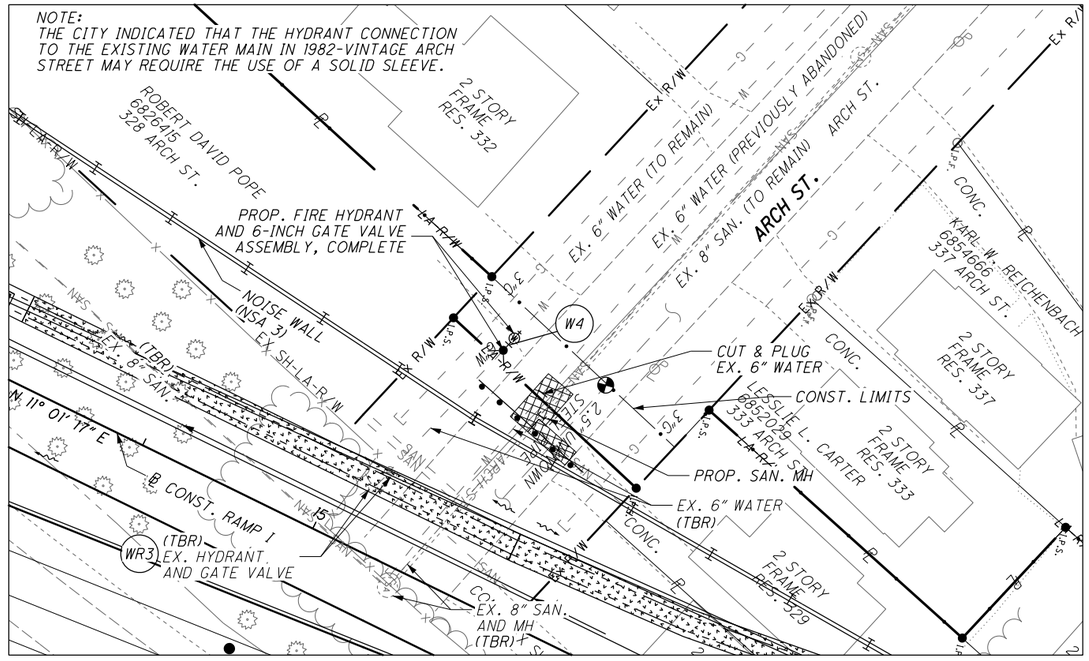
34" x 22"



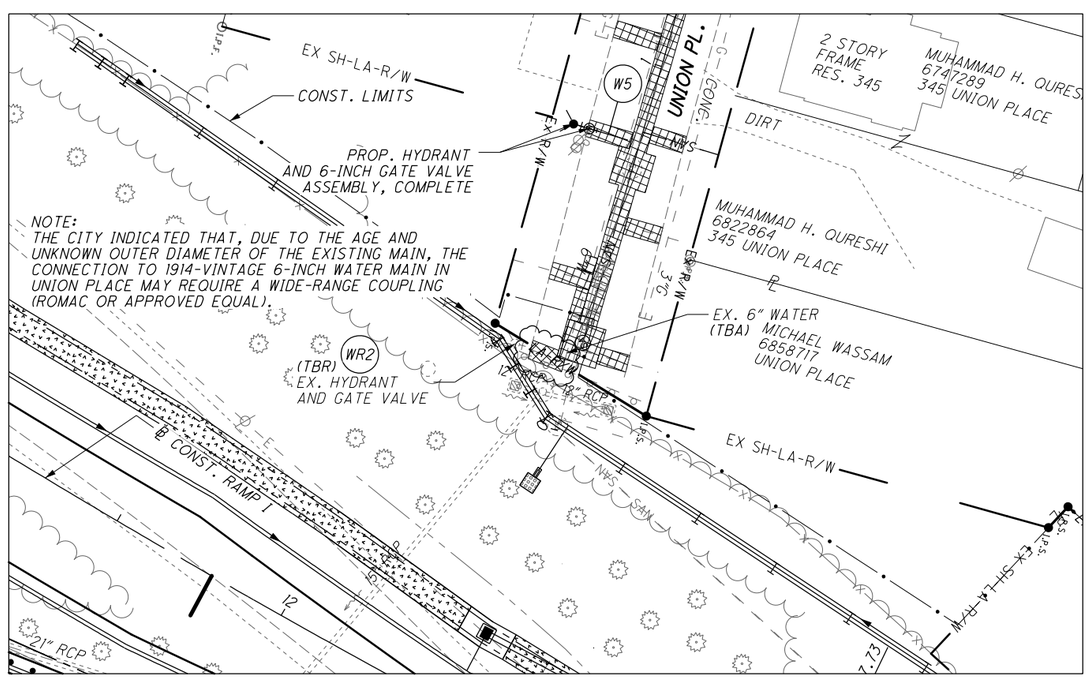
NOTE:
THE CITY INDICATED THAT THE CONNECTION TO THE 6" WATER MAIN MAY REQUIRE THE USE OF WIDE-RANGE COUPLINGS (ROMAC OR APPROVED EQUAL) FOR 1937 VINTANGE MAIN TO THE NORTH AND 1898-VINTAGE MAIN TO THE SOUTH.



NOTE:
THE CITY INDICATED THAT THE HYDRANT CONNECTION TO THE EXISTING WATER MAIN IN 1982-VINTAGE ARCH STREET MAY REQUIRE THE USE OF A SOLID SLEEVE.



FIRE HYDRANT RELOCATION
STA. 15+24.51, 64.41' LT.



FIRE HYDRANT RELOCATION
STA. 12+03.80, 151.00' LT.

PAVEMENT REPAIR
(TBA) = TO BE ABANDONED
(TBR) = TO BE REMOVED

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EMB
CHECKED TRT

PLAN AND PROFILE - ARCH ST. AND UNION PL.
CITY OF AKRON WATERLINE

SUM-8-1.75

341
801

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Ohio DOT Workspace
SUM-8

0 0.5" 1"

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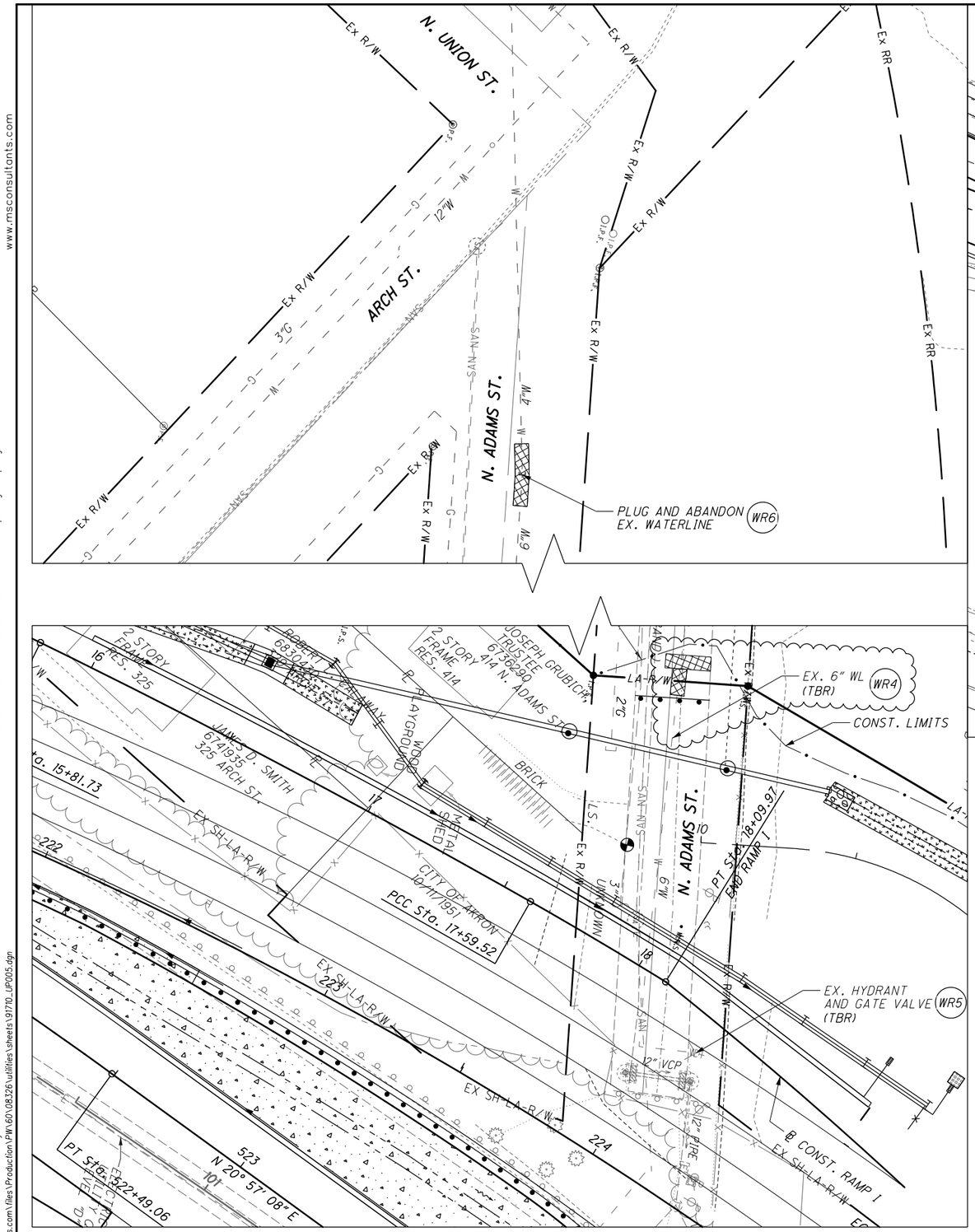
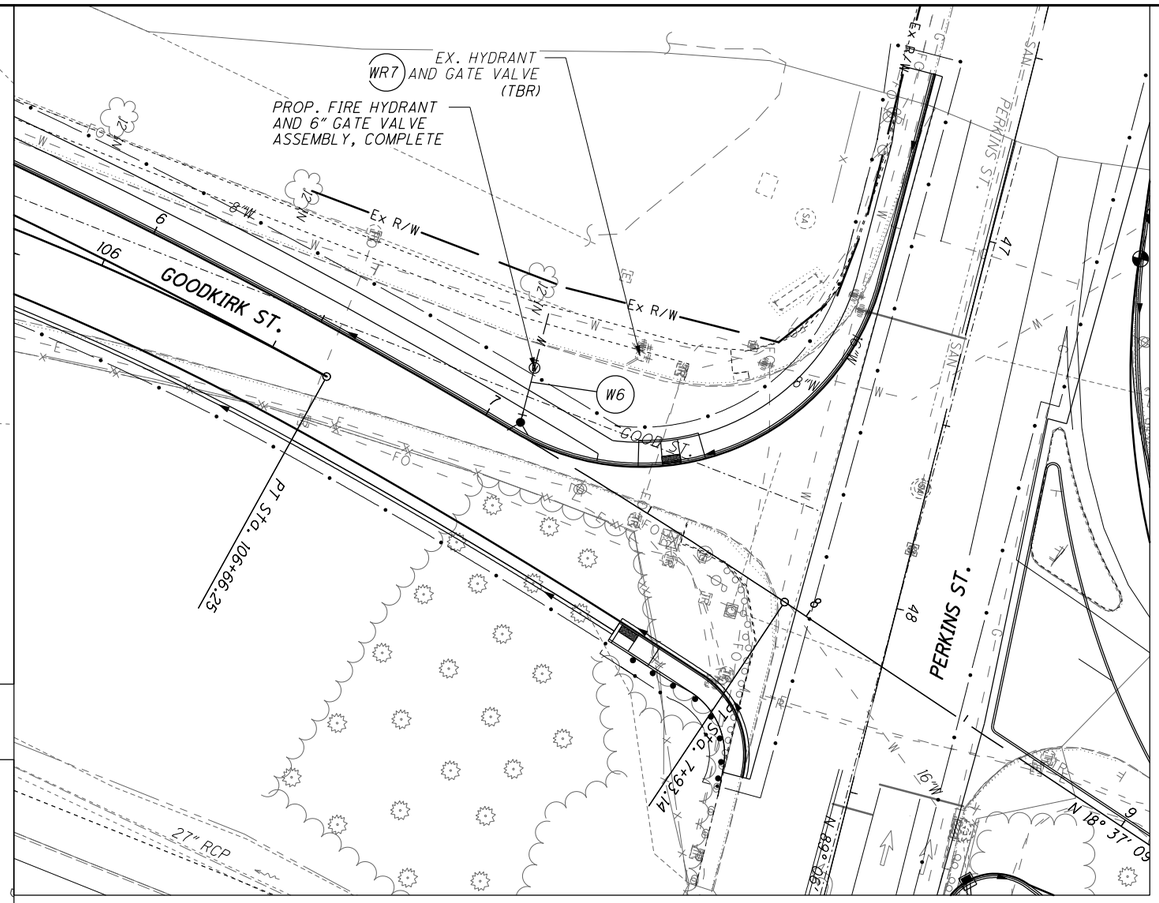
34" x 22"



NOTE:
THE CITY INDICATED THAT THE CONNECTION TO 6" WATER MAIN MAY REQUIRE THE USE OF WIDE-RANGE COUPLINGS (ROMAC OR APPROVED EQUAL) FOR 1918 VINTANGE MAIN.

FIRE HYDRANT ABANDONMENT
STA. 18+09.97, 14.41' LT.



FIRE HYDRANT RELOCATION
STA. 7+08.89, 3.00' LT.

NOTE:
THE CITY INDICATED THAT THE CONNECTION TO THE 8" 1980-VINTAGE WATER MAIN WILL REQUIRE THE USE OF 8"x6" TAPPING SLEEVE AND VALVE. AFTER EXISTING HYDRANT TEE IS REMOVED FROM THE MAIN LINE, CLOSE WITH A PLAIN END PIECE AND TWO SOLID SLEEVES.

PAVEMENT REPAIR
(TBA) = TO BE ABANDONED
(TBR) = TO BE REMOVED

N

0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED EMB
CHECKED TRT

PLAN - N. ADAMS ST. AND GOODKIRK ST.
CITY OF AKRON WATERLINE

SUM-8-1.75

342
801

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Ohio DOT Workspace
SUM-8

1" / 0.5" / 0

DGF: ohdot\V8i
TCF: 60-08326_PW

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View: FENCE_VIEW1
By: dtout

34" x 22"

CAUTION:
FIBER OPTIC LINE

4" PVC SDR 35 FOUNTAIN DRAIN LINE @ 1.00%

EX. ℄ FREEDOM TRAIL
(SEE SHEET 433 FOR ADDITIONAL INFORMATION)

PROP. SHUT-OFF CURB VALVE

PROP. 45° HORIZ BEND

PROP. 11.25° HORIZ BEND

EQUATION:
Sta 103+07.53 BK =
Sta 25+00.00 AH

PROP. 1" COPPER, TYPE K WATERLINE (WF1)

(2) PROP. 45° HORIZ BEND

PROP. HOT BOX ENCLOSURE, COMPLETE (WF2)

PROP. 45° HORIZ BEND

PROP. 45° HORIZ BEND

3-#2 IN 1.5" SCH40 PVC CONDUIT

CONNECT TO EX. SERVICE BOX (SEE NOTES FOR COST OWED BY CONTRACTOR)

PT Sta. 101+65.28

4" PAVEMENT REPAIR

DOLOROS HARRIS
6738233
361 N. ADAMS ST.

HILDA L. SPIES
6738368
357 N. ADAMS ST.

TXS PROPERTY SERVICES, LLC
6740132
365 N. ADAMS ST

6"W 6" WATER, CITY OF AKRON, (QL "B")

8" VCP

3"G

4"G

SAN

NOTES:
1. INSTALL THE DRINKING FOUNTAIN AND 1-INCH TYPE K UNDERGROUND WATER LINE AT 4.5 FOOT DEEP AND PER AKRON WATER STANDARD 2017-009-02.

2. PRESSURE AT DRINKING FOUNTAIN WILL BE 85 PSI.

3. THE DRINKING FOUNTAIN HOSE BIB MUST BE EQUIPPED WITH AN APPROVED SCREW ON VACUUM BREAKER AT THE HOSE CONNECTION.

4. CONTACT TOMMY BARNETT FOR A MANDATORY UNDERGROUND WATER LINE INSPECTION PRIOR TO BACKFILLING THE TRENCH AT (330) 812-7822.

5. CONTACT MELISSA LONGFELLOW TO SCHEDULE A MANDATORY INSPECTION UPON INSTALLATION OF THE DRINKING FOUNTAIN AND HOUSELINE AT (330) 375-2690.

6. IN LIEU OF BENDS, CONTRACTOR CAN PERFORM INSTALLATIONS BY CURVING 1" COPPER, TYPE K WATERLINE.

PROP. 24"-TYPE C (STORM)
EX. GAS (DEPTH ASSUMED)
EX. ELECTRIC (DEPTH ASSUMED)
EX. STORM (DEPTH ASSUMED)
4'-6" MIN.
18" MIN. (TYP.)
PROP. 1" COPPER, TYPE K WATERLINE

1,025 / 1,020 / 1,015 / 1,010 / 1,005 / 1,000 / 995 / 990 / 985

0 / 1 / 2 / 3

STA. 0+00.00 CONNECTION TO EXISTING 6" WATERLINE — 1,025.66
STA. 0+10.00 45° HORIZ BENDS USE 45° BENDS — 1,026.98
STA. 0+35.36 45° HORIZ BENDS USE 45° BENDS — 1,026.15
STA. 0+40.36 HOT BOX ENCLOSURE, COMPLETE — 1,024.97
1,023.12
1,021.39
STA. 1+26.62 (2) 45° HORIZ BENDS USE 45° BENDS — 1,020.69
1,019.19
1,017.68
STA. 1+75.64 9.16° HORIZ BEND USE 11.25° BEND — 1,017.82
1,035.44
1,030.23
1,029.70
1,029.91
1,032.62
STA. 3+03.64 11.25° VERT BEND USE 11.25° BEND — 1,033.19
1,013.35
STA. 3+44.51 45° HORIZ BEND USE 45° BEND — 1,011.65
STA. 3+52.31 11.25° VERT BEND USE 11.25° BEND — 1,004.98
STA. 3+59.46 CONNECTION TO DRINKING FOUNTAIN

N

0 / 10 / 20 / 40 HORIZONTAL SCALE IN FEET

CALCULATED EMB
CHECKED TRT

WATER FOUNTAIN PLAN AND PROFILE

SUM-8-1.75

345
801

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ITEM 625 - LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-II-M, LED, 13,700 - 15,000 LUMENS, AS PER PLAN

LUMINAIRES SHALL BE AMERICAN ELECTRIC LIGHTING (AEL) AUTOBAHN ATB2 SERIES, GENERAL ELECTRIC (GE) EVOLVE EALS-03 SERIES, LITHONIA LIGHTING D-SERIES, OR EQUAL APPROVED BY THE ENGINEER.

LUMINAIRES SHALL BE 480 VOLT, SHALL HAVE A CORRELATED COLOR TEMPERATURE (CCT) OF 4000K, SHALL HAVE A HOUSE-SIDE SHIELD (WHEN AVAILABLE AS AN OPTION) AND SHALL HAVE A GRAY EXTERIOR FINISH.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-II-M, LED, 13,700 - 15,000 LUMENS, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III-M, LED, 13,700 - 15,000 LUMENS, AS PER PLAN

LUMINAIRES SHALL BE AMERICAN ELECTRIC LIGHTING (AEL) AUTOBAHN ATB2 SERIES, GENERAL ELECTRIC (GE) EVOLVE EALS-03 SERIES, LITHONIA LIGHTING D-SERIES, OR EQUAL APPROVED BY THE ENGINEER.

LUMINAIRES SHALL BE 480 VOLT, SHALL HAVE A CORRELATED COLOR TEMPERATURE (CCT) OF 4000K, SHALL HAVE A HOUSE-SIDE SHIELD (WHEN AVAILABLE AS AN OPTION) AND SHALL HAVE A GRAY EXTERIOR FINISH.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III-M, LED, 13,700 - 15,000 LUMENS, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III-M, LED, 13,700 - 15,000 LUMENS, DARK BRONZE, AS PER PLAN

LUMINAIRES SHALL BE AMERICAN ELECTRIC LIGHTING (AEL) AUTOBAHN ATB2 SERIES, GENERAL ELECTRIC (GE) EVOLVE EALS-03 SERIES, LITHONIA LIGHTING D-SERIES, OR EQUAL APPROVED BY THE ENGINEER.

LUMINAIRES SHALL BE 480 VOLT, SHALL HAVE A CORRELATED COLOR TEMPERATURE (CCT) OF 4000K, SHALL HAVE A HOUSE-SIDE SHIELD (WHEN AVAILABLE AS AN OPTION) AND SHALL HAVE AN EXTERIOR FINISH OF DARK BRONZE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III-M, LED, 13,700 - 15,000 LUMENS, DARK BRONZE, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LIGHT POLE, CONVENTIONAL, AS PER PLAN

THIS ITEM OF WORK SHALL BE IN ACCORDANCE WITH CMS ITEMS 625 AND 725 WITH THE FOLLOWING EXCEPTIONS AND CLARIFICATIONS:

- LIGHT POLES SHALL BE ROUND, TAPERED DAVIT ARM STYLE.
- LIGHT POLES SHALL BE PAINTED GALVANIZED STEEL, PAINTED STAINLESS STEEL, OR PAINTED ANODIZED ALUMINUM AND SHALL BE DARK BROWN IN COLOR (FEDERAL COLOR #20059).
- ALL PARTS OF THE LIGHT POLE ASSEMBLY SHALL BE MANUFACTURED BY VALMONT INDUSTRIES, INC., MILLERBERND MANUFACTURING CO., OR EQUAL APPROVED BY THE ENGINEER.
- LIGHT POLES SHALL HAVE THE MAXIMUM STANDARD WALL THICKNESS AVAILABLE FOR THE MATERIAL TO BE PROVIDED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625 - "LIGHT POLE, CONVENTIONAL, AS PER PLAN" FOR EACH LIGHT POLE INSTALLED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO PERFORM THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNED FOR EACH INSTALLED, TESTED AND ACCEPTED.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON CIRCUITS '1K' AND '3K' MODIFIED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

ITEM 625 - ARC FLASH CALCULATION AND LABEL, (BY LOCATION)

THE CONTRACTOR SHALL SATISFY THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 825 FOR EACH OF THE NEW LIGHTING CONTROL CENTERS INDICATED IN THE PLANS.

THE CONTRACTOR MAY BE ABLE TO OBTAIN LABELS FOR ODOT MAINTAINED INSTALLATIONS FROM THE ODOT SIGN SHOP, 1606 WEST BROAD STREET, COLUMBUS, OH 43223. FOR NON-ODOT MAINTAINED INSTALLATIONS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE LABEL, MADE FROM "ENGINEER GRADE" SIGN SHEETING OR AN EQUIVALENT COMMERCIAL LABEL MATERIAL.

THE ODOT OFFICE OF ROADWAY ENGINEERING HAS AN EXCEL SPREADSHEET, AVAILABLE UPON REQUEST, TO ASSIST WITH MAKING AND DOCUMENTING THE REQUIRED CALCULATIONS.

METHOD OF MEASUREMENT SHALL BE PER 825.06.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ARC FLASH CALCULATIONS AND LABEL (CC-'BW')	1 EACH
ARC FLASH CALCULATIONS AND LABEL (CC-'BE')	1 EACH
ARC FLASH CALCULATIONS AND LABEL (CC-'SB')	1 EACH

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING, PROPOSED, AND TEMPORARY ROADWAYS WHICH ARE OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT OPERATIONAL, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR. IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS. REPLACEMENTS OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A PER UNIT BASIS. BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS. THE MAINTAINING AGENCY SHALL GIVE THE CONTRACTOR ONE COPY OF THE EXISTING LIGHTING CIRCUITRY LAYOUT. WHEN THE CONTRACTOR HAS TAKEN OVER THE MAINTENANCE OF THE EXISTING SYSTEM, HE SHALL PROVIDE ALL REQUIRED LAYOUT AND LOCATING OF EXISTING LIGHTING CIRCUITS WITHIN THE PROJECT.

SHOULD THE CONTRACTOR DESIRE THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR ADEQUATE TEMPORARY LIGHTING OF THAT ~~PORTION OF THE EXISTING ROADWAY AFFECTED BY THE~~ REMOVAL OF THE EXISTING LIGHTING. PROPOSED ROADWAYS WHICH ARE LIGHTED IN THE FINAL CONDITION AND ARE OPEN TO TRAFFIC DURING CONSTRUCTION SHALL HAVE LIGHTING IN PLACE AND OPERATIONAL THROUGH THE USE OF TEMPORARY OR PROPOSED LIGHT POLES. TWO [2] WEEKS PRIOR TO ~~INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL~~ PREPARE AND SUBMIT FOUR (4) SETS OF THE TEMPORARY LIGHTING PLANS TO THE ENGINEER FOR REVIEW AND APPROVAL. THIS PLAN SHALL SHOW LOCATION OF POLES, LENGTH OF BRACKET ARMS, STYLE OF LUMINAIRES, MOUNTING HEIGHT, WIRING METHODS, AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY RATIO NOT TO EXCEED 4:1. MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 27 FEET AND MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THIS CRITERIA, THEN UNDERGROUND WIRING WILL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING. ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. A SEPARATE POWER SERVICE WILL BE PROVIDED BY THE CONTRACTOR FOR THE TEMPORARY LIGHTING SYSTEM. THE TEMPORARY LIGHTING SHALL NOT BE SPLICED INTO EXISTING LIGHTING CIRCUITS. THE CONTRACTOR SHALL PAY ALL HOOK-UP FEES AND ELECTRICAL COSTS FOR THE TEMPORARY SYSTEM. THESE COSTS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM SPECIAL MAINTAIN EXISTING LIGHTING. WHEN NO LONGER NEEDED THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE LUMP SUM BID FOR ITEM SPECIAL - MAINTAIN EXISTING LIGHTING, SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, INCIDENTALS, AND TEMPORARY POWER SERVICES NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN. THE UNIT BID PRICE FOR EACH ITEM SPECIAL - REPLACING EXISTING CONVENTIONAL LIGHTING UNIT, SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFORE-MENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, EACH MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A LUMP REPLACEMENT FOR SUCH UNIT. THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNIT
SPECIAL - MAINTAIN EXISTING LIGHTING

CALCULATED KWR
CHECKED DRB

ROADWAY LIGHTING GENERAL NOTES

SUM-8-1.75

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 7-17-2020.

DESIGN LOADING:

LIVE LOAD SURCHARGE: 240 LB/FT'

GENERAL DESIGN DATA:

CONCRETE CLASS QC1 COMPRESSIVE STRENGTH 4.0 KSI (RETAINING WALL)

REINFORCING STEEL MINIMUM YIELD STRENGTH 60 KSI

OPERATIONAL IMPORTANCE:

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

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

THE END OF THE EXISTING RETAINING WALL SHALL BE REMOVED AS SHOWN ON THE PLANS. THE EXISTING RETAINING WALL STEM AND FOOTING SHALL BE SAWCUT ALONG THE RA DIAL ALIGNMENT TO MATCH THE BEGIN RETAINING WALL ALIGNMENT OF THE PROPOSED RETAINING WALL.

FOUNDATION BEARING RESISTANCE:

FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LIMIT STATE BEARING PRESSURE OF 3.50 KIPS PER SQUARE FOOT AND A MAXIMUM STRENGTH LIMIT STATE BEARING PRESSURE OF 5.65 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 7.90 KIPS PER SQUARE FOOT.

GEOTECHNICAL SITE CONDITIONS:

GEOTECHNICAL FIELD INVESTIGATIONS AND LABORATORY TESTING WERE NON-PERFORMED BASED ON FIELD OBSERVATIONS THAT INDICATED ROCK OUTCROPS ALONG THE LENGTH OF THE PROPOSED WALL. FOR THE PURPOSE OF DESIGNING THE PROPOSED WALL AN ASSUMPTION WAS MADE THAT ROCK WILL BE ENCOUNTERED AT A SHALLOW DEPTH WITH MINIMAL SOIL OVERBURDEN AND THAT THE PROPOSED WALL FOOTING WILL BE PLACED ENTIRELY WITHIN ROCK EXCAVATION. NOTIFY THE ENGINEER IF THE TOP OF ROCK IS ENCOUNTERED BELOW THE BOTTOM OF THE FOOTING AT ANY LOCATION ALONG THE LENGTH OF THE WALL. REMEDIAL MEASURES SHALL BE TAKEN AT THE DIRECTION OF THE ENGINEER.

STANDARD ABBREVIATIONS LIST:

C/C	CENTER TO CENTER
C.J.	CONTRACTION JOINT
CLR.	CLEAR
DIA.	DIAMETER
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
EQ.	EQUAL
EX.	EXISTING
F.F.	FAR FACE
LT.	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
N.F.	NEAR FACE
PEJF	PREFORMED EXPANSION JOINT FILLER
PROP.	PROPOSED
RT.	RIGHT
S.O.	SERIES OF
SPA.	SPACES
STA.	STATION
TYP.	TYPICAL

ESTIMATED QUANTITIES CARRIED TO GENERAL SUMMARY

CALCULATED BY: AI DATE: 03/27/2023

CHECKED BY: JS DATE: 03/27/2023

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	SHEET REFERENCE
201	11000		LS	CLEARING AND GRUBBING	
202	11201		LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	2 OF 8
503	21220		LS	UNCLASSIFIED EXCAVATION, INCLUDING ROCK	
509	10000	8025	LB	EPOXY COATED STEEL REINFORCEMENT	
511	46212	146	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL INCLUDING FOOTING	
512	10100	145	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	53000	18	SY	TYPE 2 WATERPROOFING	
516	13600	16	SF	1" PREFORMED EXPANSION JOINT FILLER	
518	21201	76	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC, AS PER PLAN	7 OF 8

DESIGN AGENCY
EAS Engineering & Architectural Services Inc.
2800 CORPORATE EXCHANGE DR., STE. 240
COLUMBUS, OH 43231
TEL: 614.714.0299
WWW.NEASINC.COM

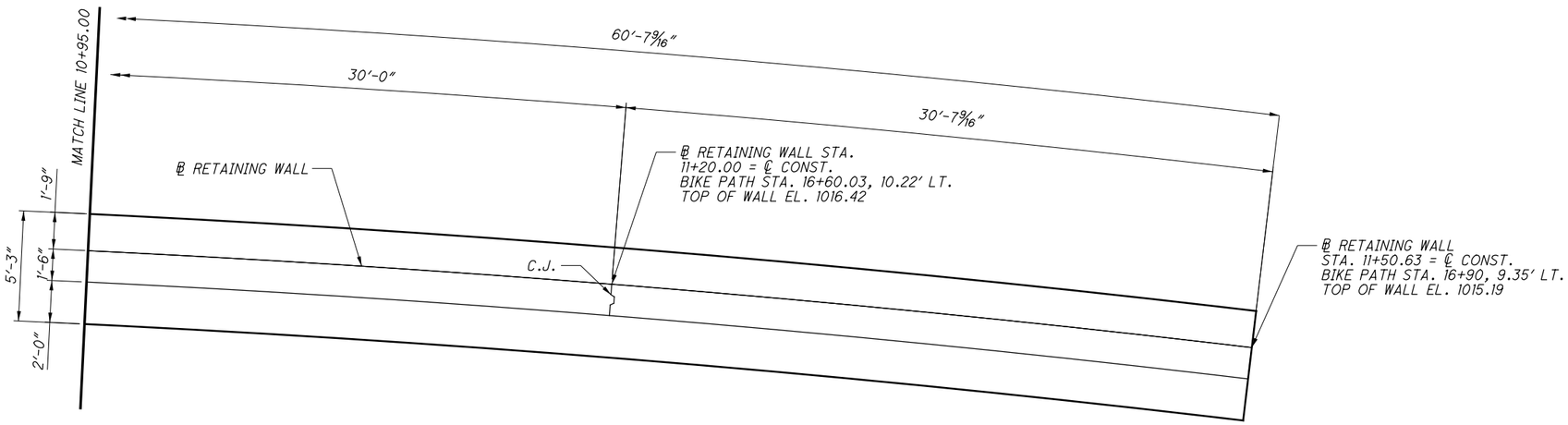
DESIGNED	DRAWN	REVIEWED	DATE
AI	AI	JS	03/08/23
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CH			

GENERAL NOTES AND ESTIMATED QUANTITIES

BIKE PATH RETAINING WALL

SUM-8-1.75

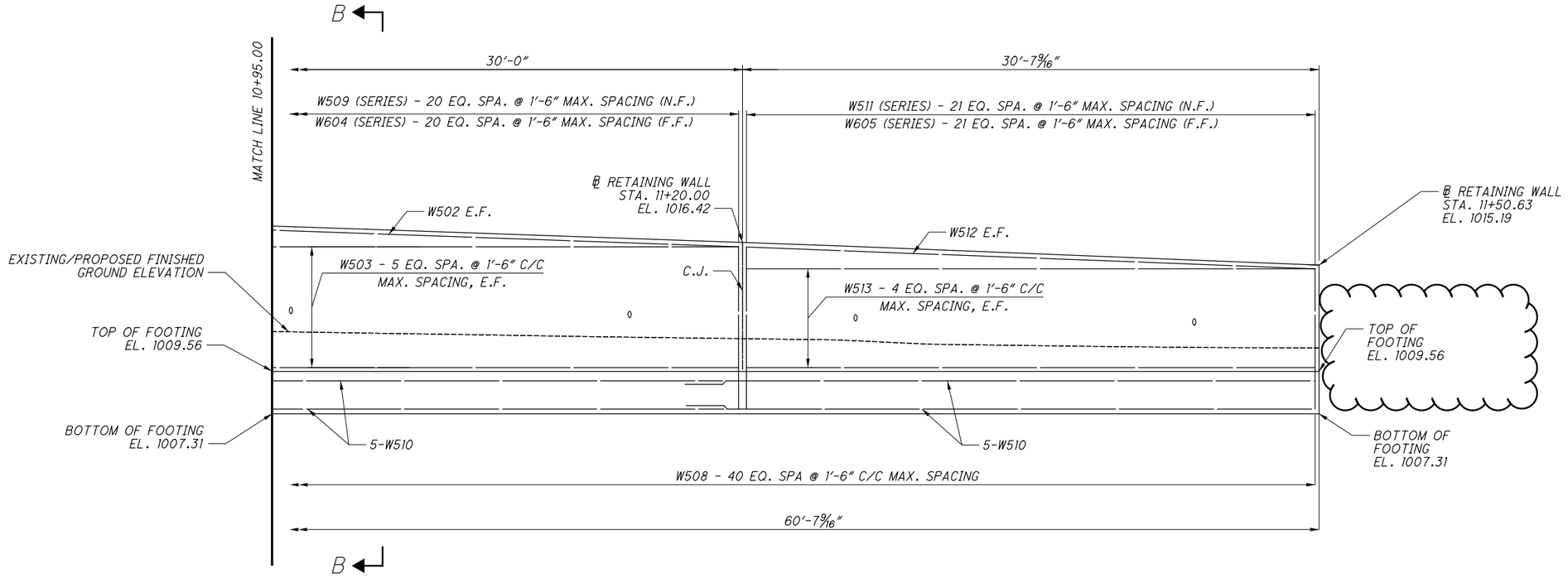
PID No. 91710



PLAN

NOTES:

1. PROVIDE 2.5 INCHES MIN. CONCRETE COVER EXCEPT AS NOTED BELOW.
2. 3.0 INCHES FOR SURFACES CAST AGAINST EARTH.
3. PROVIDE MIN. LAP LENGTH OF 2'-2" FOR ALL EPOXY COATED #5 REBAR.
4. SEE SHEET 7/8 FOR SECTION B-B.



ELEVATION
(ALONG ℄ RETAINING WALL)

DESIGN AGENCY
NEAS
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DESIGNED	DRAWN	REVIEWED	DATE
AI	AI/ZM	CH	03/08/23
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JS			

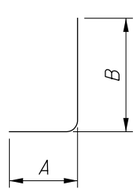
RETAINING WALL DETAILS

BIKE PATH RETAINING WALL

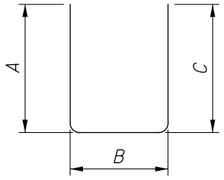
SUM-8-1.75
PID No. 91710

MARK	TOTAL	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS					
					A	B	C	D	R	INC
CAST-IN-PLACE RETAINING WALL 1										
	1	11'- 10"				11'-3 ½"				
W501	SERIES OF	TO	274	1	0'-8 ½"	TO				0'-3/4"
	21	13'-1"				12'-6"				
W502	8	29'-7 ¼"	247	STR						
W503	26	29"-7"	802	STR						
	1	10'-8"				10'-1"				
W504	SERIES OF	TO	246	1	0'-8 ½"	TO				0'-3/4"
	21	11'- 10"				11'-3 ½"				
	1	9'-7"				9'-0"				
W505	SERIES OF	TO	221	1	0'-8 ½"	TO				0'-3/4"
	21	10'-8"				10'- 1"				
W506	122	9'-6"	1209	2	1'-8"	6'-3"	1'-8"			
W507	36	31'-6"	1183	STR						
W508	88	7'-6"	688	2	1'-6"	4'-9"	1'-6"			
	1	9'-1"				8'-6"				
W509	SERIES OF	TO	210	1	0'-8 ½"	TO				0'-3/4"
	21	10'- 1"				9'-6 ½"				
W510	20	34'-4"	717	STR						
	1	8'-0"				7'-5 ½"				
W511	SERIES OF	TO	197	1	0'-8 ½"	TO				0'-3/4"
	22	9'-1"				8'-6"				
W512	2	30'-3"	63	STR						
W513	10	30'-3"	315	STR						
SUBTOTAL (LBS):			6372							

MARK	TOTAL	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS					
					A	B	C	D	R	INC
CAST-IN-PLACE RETAINING WALL 1										
	1	12'- 0"				11'-3 ½"				
W601	SERIES OF	TO	397	1	0'-10"	TO				0'-3/4"
	21	13'-3"				12'-6"				
	1	10'-9"				10'-1"				
W602	SERIES OF	TO	356	1	0'-10"	TO				0'-3/4"
	21	12'- 0"				11'-3 ½"				
	1	9'-8"				8'-11"				
W603	SERIES OF	TO	324	1	0'-10"	TO				0'-3/4"
	21	10'-9"				10'- ¼"				
	1	9'-2"				8'-6"				
W604	SERIES OF	TO	305	1	0'-10"	TO				0'1/2"
	21	10'-3"				9'-6 ½"				
	1	8'-0"				7'-5 ½"				
W605	SERIES OF	TO	271	1	0'-10"	TO				0'-3/4"
	22	9'-2"				8'-6"				
SUBTOTAL (LBS):			1863							
RETAINING WALL TOTAL (LBS):			8025							



TYPE-1



TYPE-2

NOTES:

1. THE BAR SIZE IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER, FOR EXAMPLE S501 IS A NUMBER 5 BAR.
2. BAR DIMENSIONS SHOWN ARE OUT-TO-OUT UNLESS OTHERWISE INDICATED.
3. "R" INDICATES INSIDE RADIUS, UNLESS NOTED OTHERWISE.
4. "STD" WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
5. ALL REINFORCING STEEL SHALL BE EPOXY COATED.

DESIGN AGENCY
2800 CORPORATE EXCHANGE DR. STE 240
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DESIGNED AI | DRAWN AI | REVIEWED CH | DATE 03/08/23

CHECKED JS | REVISED | STRUCTURE FILE NUMBER

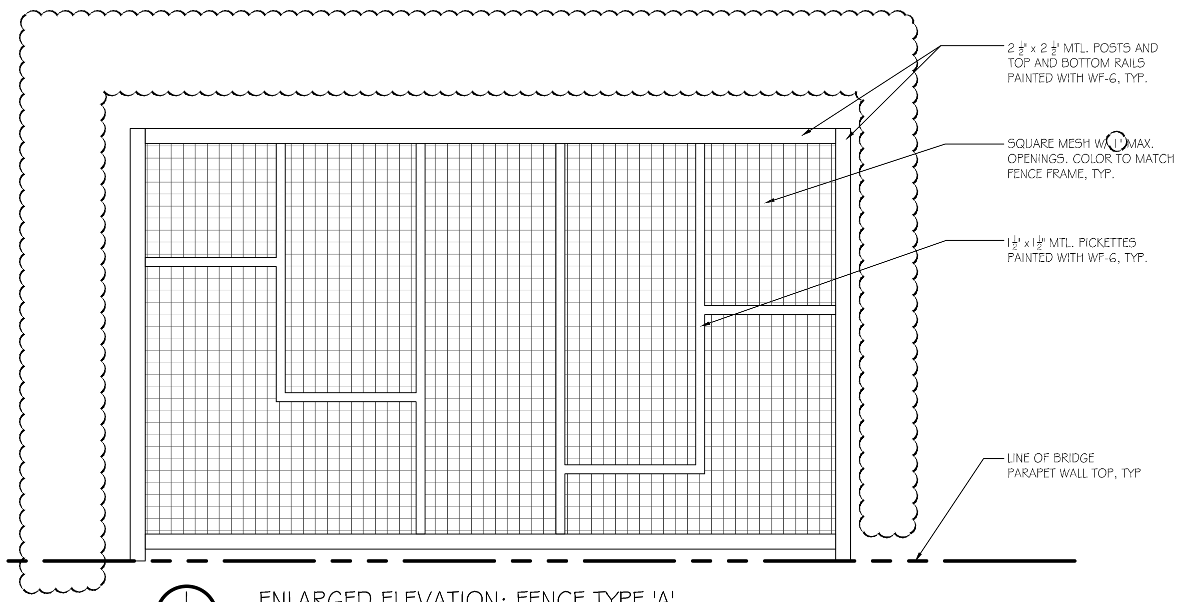
REINFORCEMENT LIST

RETAINING WALL

SUM-8-1.75 BIKE PATH PROJECT

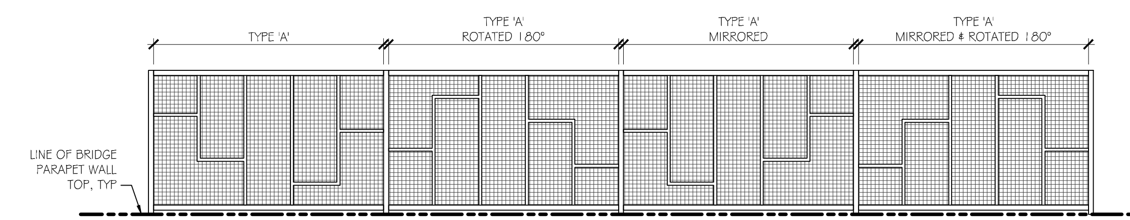
SUM-8-1.75

PID No. 91710



1 A3.0 ENLARGED ELEVATION: FENCE TYPE 'A'

SCALE: 3/4" = 1'-0"

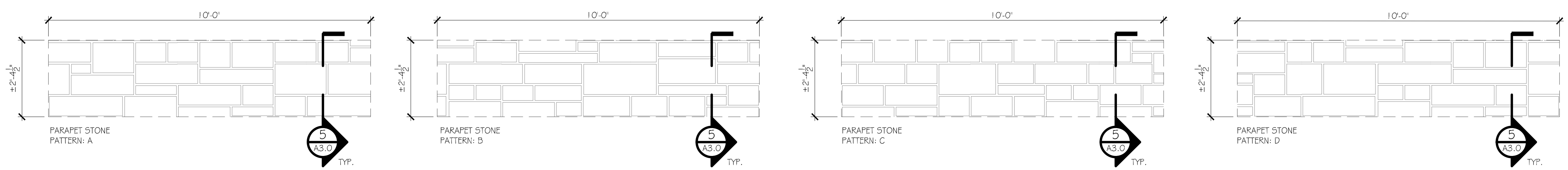


2 A3.0 TYPICAL FENCE SEQUENCE

SCALE: 1/4" = 1'-0"

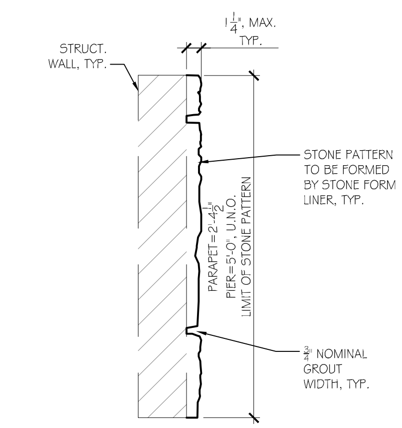
GENERAL SHEET NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
3. CONTRACTOR TO REFER TO STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
4. ALL PATTERNS SHALL NOT ENCROACH INTO MINIMUM AND/OR CLEAR DIMENSIONS DETERMINED BY STRUCTURAL DRAWING.
5. CONTRACTOR TO REFER TO PROJECT SPECIAL PROVISIONS FOR SPECIAL CASTING NOTES, DETAIL & MOCK-UP REQUIREMENT, CONCRETE FINISH & NOTES, ETC. ALL CUSTOM PATTERNS TO BE REVIEWED AND APPROVED BY ODOT PRIOR TO CASTING OF FORM LINERS.
6. ALL FORM LINER PATTERN SHALL BE INSPECTED AND APPROVED BY ODOT.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH PATTERN LAYOUT FOR APPROVAL BY ODOT.
8. FOR FENCE DIMENSIONS, SEE SHEET 679/801



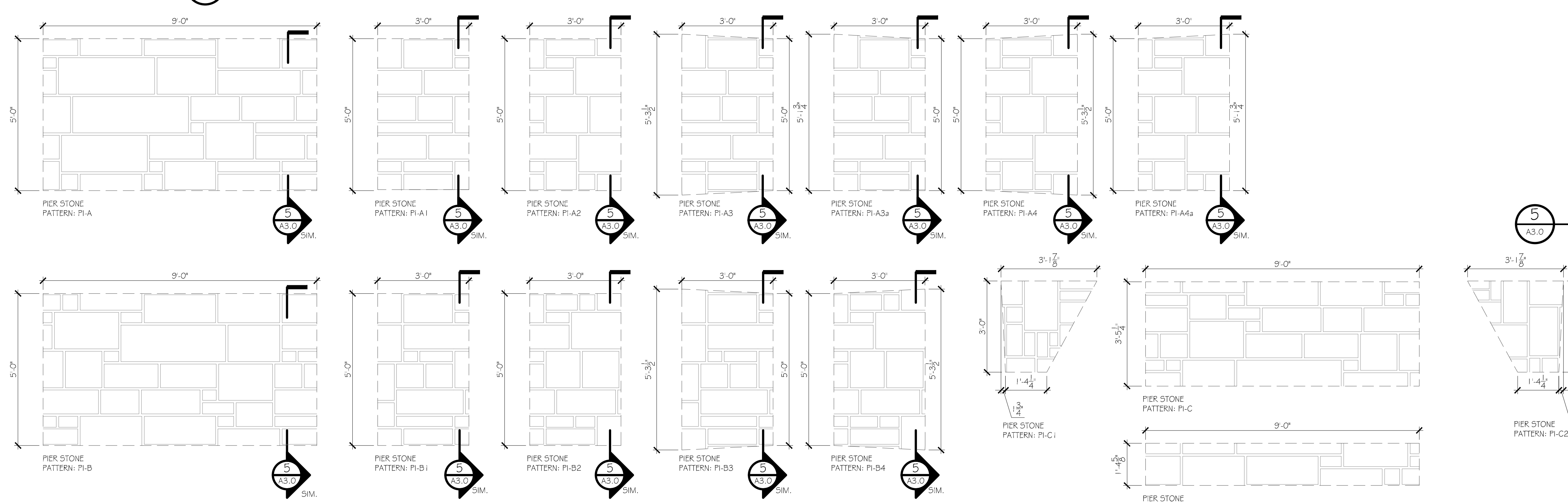
3 A3.0 ENLARGED ELEVATION: PARAPET STONE PATTERNS

SCALE: 1/2" = 1'-0"



5 A3.0 TYPICAL SECTION: PARAPET STONE PATTERNS

SCALE: 1 1/2" = 1'-0"



4 A3.0 ENLARGED ELEVATION: PIER STONE PATTERNS

SCALE: 1/2" = 1'-0"

DESIGN AGENCY
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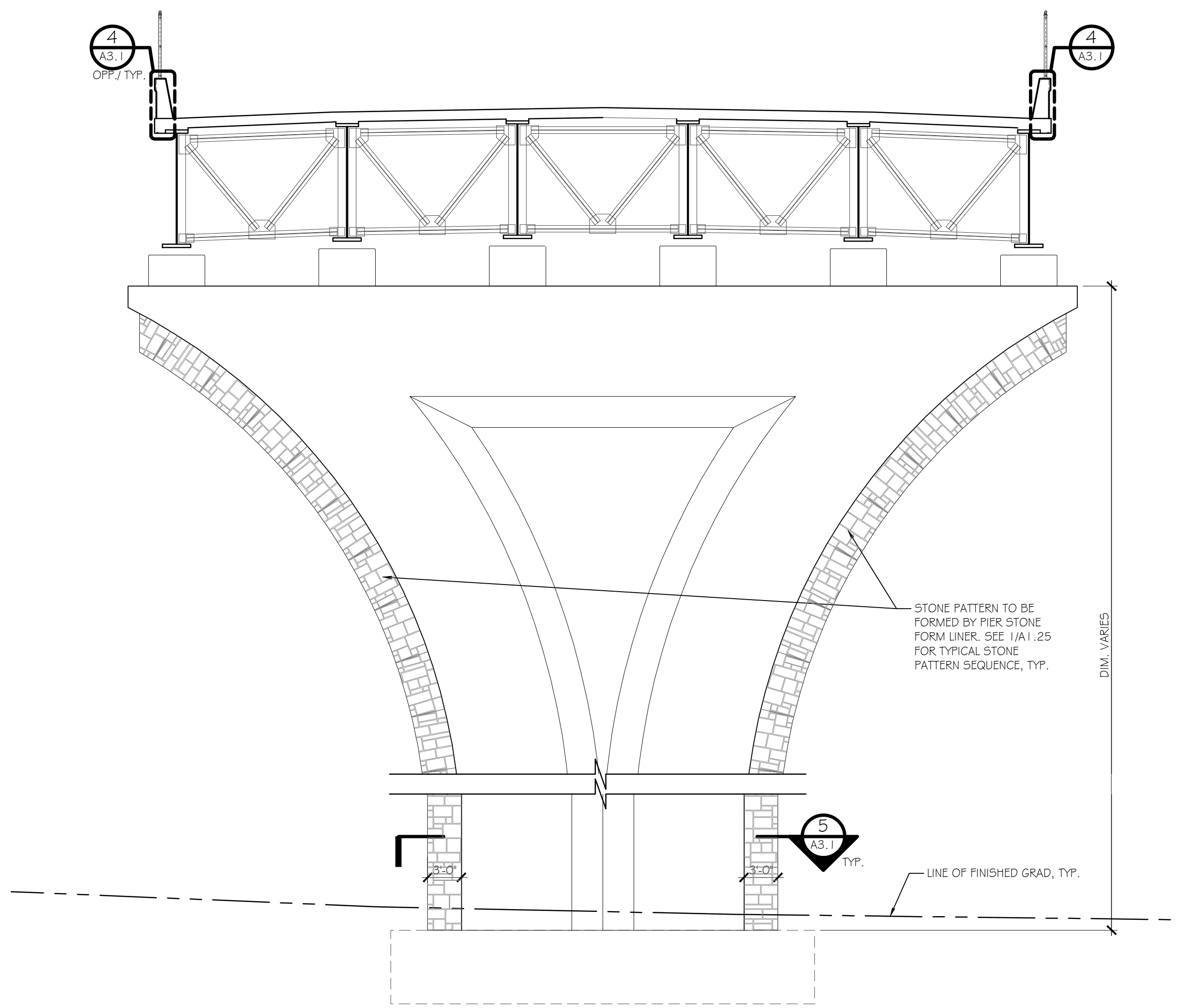
DESIGNED	DRAWN	REVIEWED	DATE
SW	BT	JH	12/18/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JH		7700370/7700371	

MISCELLANEOUS DETAILS: SR8 BRIDGE

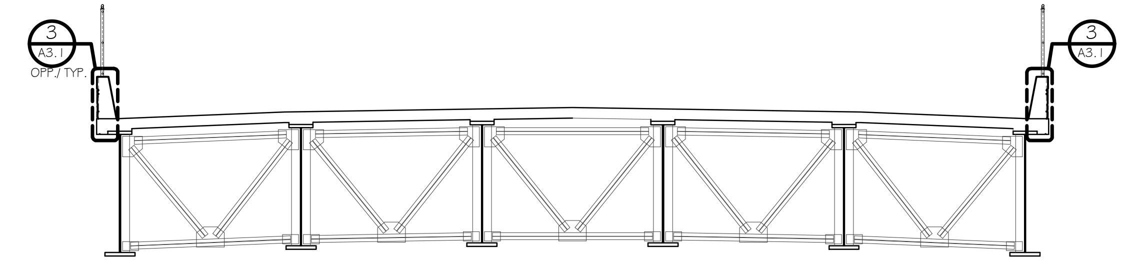
SUM-8-1.75

PID No. 91710

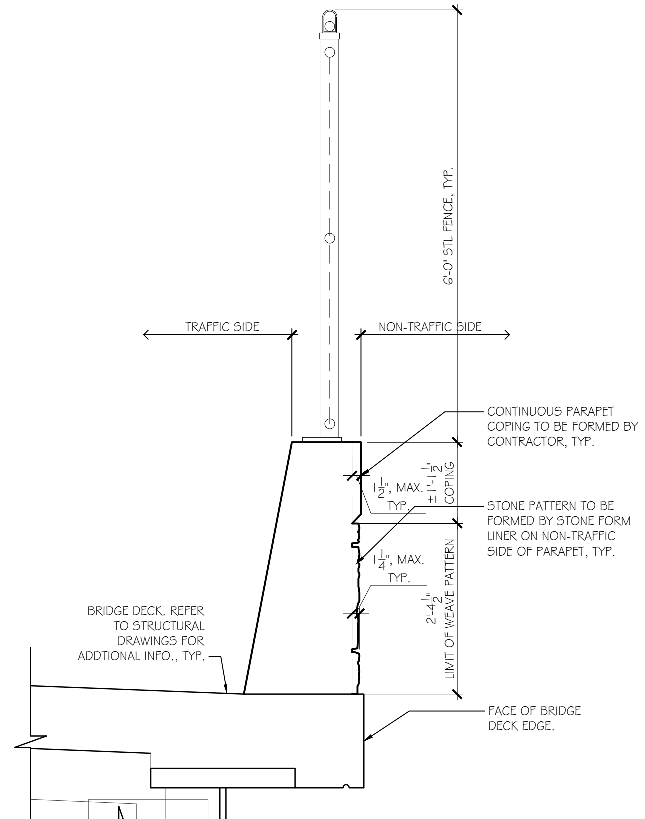
A3.0



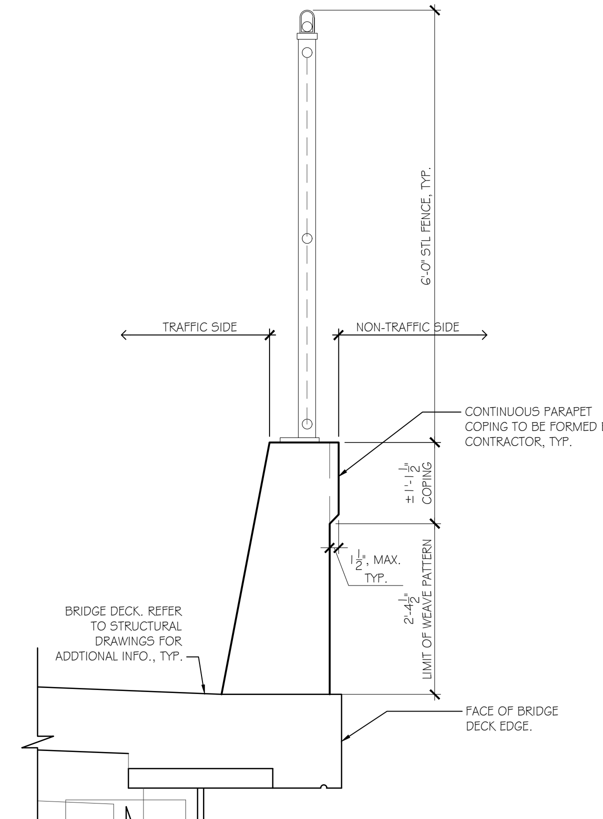
1 A3.1 TYPICAL SECTION/ELEVATION: PIER & BRIDGE DECK
SCALE: 1/8" = 1'-0"



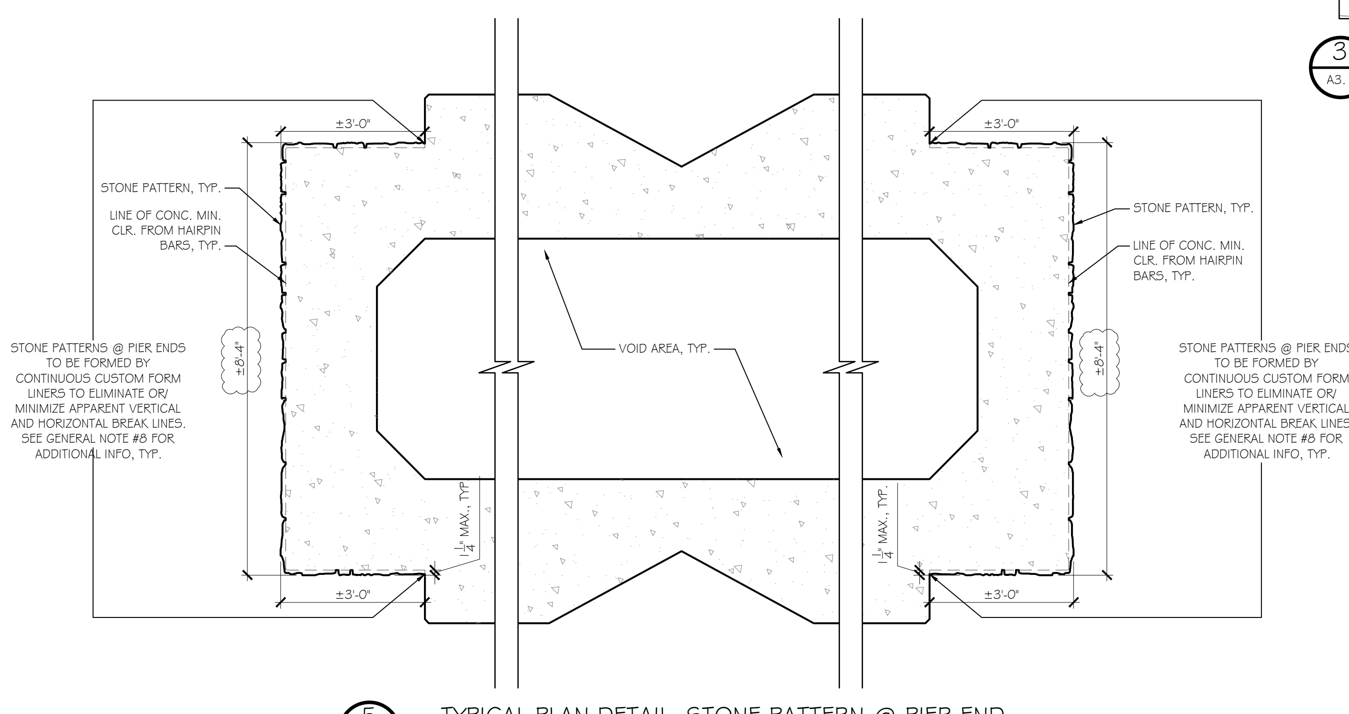
2 A4.6 TYPICAL SECTION: BRDIGE DECK
SCALE: 1/8" = 1'-0"



3 A3.1 TYPICAL DETAIL: PARAPET WALL @STONE PATTERN
SCALE: 3/4" = 1'-0"



4 A3.1 TYPICAL DETAIL: PARAPET WALL
SCALE: 3/4" = 1'-0"



5 A3.1 TYPICAL PLAN DETAIL: STONE PATTERN @ PIER END
SCALE: 1/2" = 1'-0"

GENERAL SHEET NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
3. CONTRACTOR TO REFER TO STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
4. ALL PATTERNS SHALL NOT ENCROACH INTO MINIMUM AND/OR CLEAR DIMENSIONS DETERMINED BY STRUCTURAL DRAWING.
5. CONTRACTOR TO REFER TO PROJECT SPECIAL PROVISIONS FOR SPECIAL CASTING NOTES, DETAIL & MOCK-UP REQUIREMENT, CONCRETE FINISH & NOTES, ETC. ALL CUSTOM PATTERNS TO BE REVIEWED AND APPROVED BY ODOT PRIOR TO CASTING OF FORM LINERS.
6. ALL FORM LINER PATTERN SHALL BE INSPECTED AND APPROVED BY ODOT.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH PATTERN LAYOUT FOR APPROVAL BY ODOT.
8. STONE PATTERNS AT ALL CORNERS OF PIER SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.

DESIGN AGENCY
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DESIGNED	DRAWN	REVIEWED	DATE
SW	BT	JH	12/18/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JH		7700370/7700371	

MISCELLANEOUS DETAILS: SR8 BRIDGE

SUM-8-1.75
PID No. 91710

A3.1

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD DRAWINGS:

AS-1-15 REVISED 7-17-15
AS-2-15 DATED 1-18-19
SBR-1-20 DATED 7-17-20

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

867 DATED 1-18-19
869 DATED 10-17-14
878 DATED 1-18-19

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8TH EDITION AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

SPECIAL DESIGN SPECIFICATIONS:

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 THIS STRUCTURAL ANALYSIS WAS CSI BRIDGE. THE BRIDGE COMPONENTS DESIGNED BY THIS METHOD WERE THE STEEL GIRDERS AND CROSSFRAMES.

DEAD LOAD DISTRIBUTION: WEIGHT OF DECK AND STEEL GIRDERS WERE USED FOR THE NON-COMPOSITE DEAD LOAD BASED ON TRIBUTARY AREA. THE WEIGHT OF PARAPETS AND FUTURE WEARING SURFACE WERE DIVIDED EQUALLY AMONG THE GIRDERS FOR THE COMPOSITE DEAD LOAD.

LIVE LOAD DISTRIBUTION FACTORS:

DIRECT LANE LOADING FOR WHEEL (OR AXLE) LOAD & FOR LANE LOAD MOMENTS. DIRECT LANE LOADING FOR WHEEL (OR AXLE) LOAD & LANE LOAD SHEARS.

FOUNDATION BEARING RESISTANCE:

SUM-8-0199L/R REAR ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM STRENGTH LOAD PRESSURE OF 22.68 KIPS PER SQUARE FOOT AND A MAXIMUM SERVICE LOAD PRESSURE OF 15.61 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE ON OC1 CONCRETE FILL IS A MINIMUM OF 104 KIPS PER SQUARE FOOT FOR THE NORTHBOUND BRIDGE AND 69.5 KIPS PER SQUARE FOOT FOR THE SOUTHBOUND BRIDGE.

LRFD LOAD MODIFIERS:

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.05 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.

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 1 THROUGH PIER 5.

DESIGN LOADING:

DESIGN LOADING: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ. FT.
STAY IN PLACE (SIP) DECK FORMS OF 0.020 KIPS/SQ. FT.

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 5.0 KSI (PIER COLUMNS)

CONCRETE CLASS QC5 - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

CONCRETE CLASS QC4 - COMPRESSIVE STRENGTH 4.0 KSI (AS INDICATED BELOW)*

CONCRETE CLASS QC4 - COMPRESSIVE STRENGTH 5.0 KSI (AS INDICATED BELOW)**

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI.

STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI AND
- ASTM A709 GRADE HPS 70W - YIELD STRENGTH 70 KSI
AS INDICATED IN THE PLANS

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

*THE FOLLOWING ELEMENTS ARE CONSIDERED MASS CONCRETE:
REAR AND FORWARD ABUTMENT BREASTWALLS
PIER 1 THRU 5 FOOTINGS
**THE FOLLOWING ELEMENTS ARE CONSIDERED MASS CONCRETE:
PIER 1 THRU 5 CAPITALS
PIER 1 COLUMN

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 2.74 KIPS AND TOTAL MACHINE LOAD OF 21.92 KIPS.

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

DO NOT PLACE CONCRETE PUMP TRUCK OR ANY VEHICLE SUPPORTED ON OUTRIGGERS ON THE EXISTING TRUSS BRIDGES. DO NOT QUEUE CONCRETE TRUCKS OR DISCHARGE CONCRETE FROM TRUCKS LOCATED ON THE EXISTING TRUSS BRIDGES. DO NOT STORE MATERIAL ON THE EXISTING TRUSS BRIDGES.

ALL WORK IN ALL PHASES SHALL FOLLOW THE PERMITTED LANE CLOSURE CHART (PLCC). FAILURE TO MEET ANY OF THE PLCC REQUIREMENTS WILL RESULT IN A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127) OF $500 PER LANE PER MINUTE.

ANALYZE ALL STRUCTURES FOR THE LOAD EFFECTS CAUSED BY ALL VEHICLES SUPPORTED ON OUTRIGGERS IN ACCORDANCE WITH C&MS 501.05.B.6.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 380 KIPS PER PILE FOR THE 93 FORWARD ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 658 KIPS PER PILE FOR THE 46 SOUTHBOUND PIER 5 PILES. THE ULTIMATE BEARING VALUE IS 693 KIPS PER PILE FOR THE 46 NORTHBOUND PIER 5 PILES. THE FACTORED STRUCTURAL RESISTANCE OF THE ⅝" THICK, 16" DIAMETER CAST-IN-PLACE CONCRETE PILES AT PIER 5 IS 820 KIPS (ASSUMING AN UNBRACED LENGTH OF 15 FEET AND 0.38 INCHES OF PILE SECTION LOSS OVER THE 75-YEAR DESIGN LIFE OF THE STRUCTURE).

FORWARD ABUTMENT PILES (14" C.I.P. CONCRETE PILES) :
40 PILES 60 FEET LONG, ORDER LENGTH (SOUTHBOUND)
53 PILES 40 FEET LONG, ORDER LENGTH (NORTHBOUND)
1 DYNAMIC LOAD TESTING ITEM
PROVIDE PLAIN CYLINDRICAL PILE CASINGS WITH A MINIMUM PILE WALL THICKNESS OF ⅜ INCHES FOR THE CAST-IN-PLACE REINFORCED CONCRETE ABUTMENT PILES.

PIER 5 PILES (16" C.I.P. CONCRETE PILES) :
46 PILES 90 FEET LONG, ORDER LENGTH (SOUTHBOUND)
46 PILES 80 FEET LONG, ORDER LENGTH (NORTHBOUND)
2 DYNAMIC LOAD TESTING ITEMS
PROVIDE PLAIN CYLINDRICAL PILE CASINGS WITH A MINIMUM PILE WALL THICKNESS OF ⅝ INCHES FOR THE CAST-IN-PLACE REINFORCED CONCRETE PIER 5 PILES

MONOLITHIC WEARING SURFACE:

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

PILE DRIVING

USE A PILE DRIVING HAMMER OF A MINIMUM RATED ENERGY OF: 43,000 FOOT-POUNDS (ABUTMENT), 51,300 FOOT-POUNDS (NB PIER 5), AND 57,500 FOOT-POUNDS (SB PIER 5) TO INSTALL THE PILES. ENSURE THAT STRESSES IN THE PILES DURING DRIVING DO NOT EXCEED 35 KSI.

DRILLED SHAFTS:

THE MAXIMUM FACTORED LOAD SUPPORTED BY EACH DRILLED SHAFT IS INDICATED IN THE TABLE BELOW. THESE LOADS ARE RESISTED BY BOTH SIDE RESISTANCE AND TIP RESISTANCE AS INDICATED IN THE TABLE BELOW:

LOCATION	MAXIMUM FACTORED LOAD (KIPS)	MAXIMUM FACTORED UPLIFT LOAD (KIPS)	FACTORED TIP RESISTANCE (KIPS)	FACTORED SIDE RESISTANCE (KIPS)	FACTORED UPLIFT RESISTANCE (KIPS)	ASSUMED LENGTH OF SIDE RESISTANCE (FT)
PIER 1 NB	5011	453	11016	863	628	6
PIER 1 SB	4590	500	4987	728	529	16
PIER 2 NB	4044	0	6526	834	607	6
PIER 2 SB	4546	0	5576	100	73	7.5
PIER 3 NB	4439	267	6799	404	294	8
PIER 3 SB	4152	0	11582	269	196	6.5
PIER 4 NB	4288	52	3790	729	530	21
PIER 4 SB	3749	179	14072	1087	790	6.5

PAINTING OF A588/A709 GRADE 50W & 70W STEEL

PARTIAL PAINTING OF A709 GRADE 50W STEEL: PAINT THE LAST 10 FT OF EACH GIRDER END ADJACENT TO THE ABUTMENTS AND WITHIN 20' OF PIER CENTERLINE, INCLUDING ALL CROSS FRAMES AND OTHER STEEL WITHIN THESE LIMITS. THE PRIME COAT SHALL BE 708.01. THE TOP COAT COLOR SHALL CLOSELY APPROACH FEDERAL STANDARD NO. 595B - 20045 OR 20059 (THE COLOR OF WEATHERING STEEL).

TEMPORARY SHORING TOWER LOADS

ESTIMATED MAXIMUM LOADS FOR TEMPORARY SHORING TOWERS ARE LISTED IN THE EXISTING TRUSS REMOVAL SHEETS ON SHEET 49/226. THE LOADS ARE APPROXIMATE AND ARE INTENDED TO GIVE BIDDERS AN ORDER OF MAGNITUDE FOR ESTIMATING THE WORK. ACTUAL TEMPORARY SHORING TOWER LOADS ARE TO BE DETERMINED BY THE CONTRACTOR.

EXISTING STRUCTURE PLANS:

INCLUDING DESIGN PLANS, SHOP DRAWINGS, AND RECONSTRUCTION PLANS ARE AVAILABLE FOR REVIEW AT THE ODOT DISTRICT 4 OFFICE, 2088 SOUTH ARLINGTON RD., AKRON, OHIO

PLANS ARE ALSO AVAILABLE FOR VIEWING ON THE FOLLOWING WEBSITE:

ftp://ftp.dot.state.oh.us/pub/Districts/D04

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C.M.S. SECTIONS 102.05, 105.02 AND 513.04.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

MAINTENANCE OF TRAFFIC

FOR MAINTENANCE OF TRAFFIC NOTES, PERMITTED LANE CLOSURES AND DETAILS, REFER TO THE MAINTENANCE OF TRAFFIC PLANS.

E NORTH STREET BUS GARAGE

THE CONTRACTOR SHALL MINIMIZE CLOSURES AND CONSTRUCTION IMPACTS TO THE AKRON CITY SCHOOL DISTRICT BUS GARAGE PROPERTY. FENCE SHALL BE USED TO SEPARATE THE WORK ZONE FROM THE AREA MADE AVAILABLE TO THE GARAGE. AFTER NORTHBOUND PIER 3 CONSTRUCTION IS COMPLETE AND THE SURROUNDING AREA IS RESTORED, IT SHALL BE MADE AVAILABLE FOR USE BY THE GARAGE AS SOON AS PRACTICAL. ANY ADDITIONAL DISTURBANCES DURING CONSTRUCTION SHALL BE RESTORED TO THE EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE. SEE SHEET 18 FOR ADDITIONAL INFORMATION.

SPECIAL RAILROAD REQUIREMENTS:

THESE REQUIREMENTS APPLY TO ALL RAILROADS UNLESS OTHERWISE SUPERCEDED BY THE SPECIFIC RAILROAD'S REQUIREMENTON SHEET 15/223, OR BY OTHER RAILROAD SPECIFIC REQUIREMENTS INCORPORATED BY REFERENCE IN THE NOTES OR BID PROPOSAL.

MAINTAIN A CONSTRUCTION CLEARANCE OF 12 FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 23 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6 FEET FROM THE CENTER OF THE TRACKS, AT ALL TIMES.

REFER TO THE NOTES IN THE LAUNCHING SPECIAL PROVISIONS DOCUMENT FOR REQUIREMENTS REGARDING WORK ON OR ABOVE RAILWAY PROPERTY.

THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS, CALCULATIONS AND PROCEDURES PREPARED BY A REGISTERED PROFESSIONAL ENGINEER TO THE DISTRICT AND EACH RAILWAY FOR ALL DEMOLITION WORK ABOVE OR ADJACENT TO THE TRACKS OF EACH RAILWAY. THE PLAN AND PROCEDURE SHALL INDICATE THE METHOD OF PROTECTION FOR THE TRACK STRUCTURE, THE SEQUENCE OF DEMOLITION, AND THE PROCEDURES AND EQUIPMENT TO BE USED. NO DEBRIS SHALL BE ALLOWED TO INTENTIONALLY FALL ONTO RAILWAY PROPERTY. NO STAGING OF EQUIPMENT OR MATERIAL IS PERMITTED ON RAILWAY PROPERTY WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE RAILWAY'S ENGINEER OR AUTHORIZED REPRESENTATIVE.

DURING REMOVAL OF THE EXISTING STRUCTURE, THE MINIMUM CONSTRUCTION VERTICAL CLEARANCES SHALL NOT BE REDUCED. MINIMUM CONSTRUCTION HORIZONTAL CLEARANCES LISTED IN THE SPECIAL CLAUSES OF THE BID PROPOSAL FOR EACH RAILWAY SHALL BE MAINTAINED TO ANY TEMPORARY FALSE WORK, STOCKPILED MATERIALS, OR OTHER OBSTRUCTION WHICH WILL BE LEFT IN PLACE DURING TRAIN MOVEMENTS THROUGH THE JOB SITE.

UPON COMPLETION OF THE WORK ON RAILROAD PROPERTY, THE CONTRACTOR SHALL REQUEST THE ENGINEER TO ARRANGE A FINAL INSPECTION OF THE PROJECT WITH EACH RAILWAY'S DIVISION ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
ABD	ABD	GLG	20-APR
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ELP		7700370/7700371	

GENERAL NOTES (1 OF 7)
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

14/226

512
801

PLOT.CEL

ms consultants, inc.
msconsultants.com

www.msconsultants.com

Ohio DOT Workspace
SUM-8

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34" x 22"

CSX RAILROAD COORDINATION

REFER TO BID PROPOSAL FOR INSURANCE REQUIREMENTS, CONSTRUCTION SUBMISSION CRITERIA, AND SPECIAL PROVISIONS.

THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES ADJACENT TO AND OVER THE CSX RAILROAD TRACKS WITH CSX TRANSPORTATION, INC. (CSXT) TO ENSURE THE CONTINUOUS SAFE OPERATION OF THE RAIL TRAFFIC.

CONTRACTOR SHALL SUBMIT ALL CONSTRUCTION PROCEDURES (BRIDGE DEMOLITION, SHORING, BRIDGE ERECTION, ETC.) THAT WILL BE PERFORMED ADJACENT TO, ON, AND ABOVE CSX PROPERTY.

BLASTING WILL NOT BE PERMITTED TO DEMOLISH A STRUCTURE OVER OR WITHIN CSXT'S RIGHT OF WAY. WHEN BLASTING OFF OF CSXT PROPERTY BUT WITH POTENTIAL TO FOUL, VIBRATION MONITORING, TRACK SETTLEMENT, SURVEYING AND/OR OTHER PROTECTIVE MEASURES MAY BE REQUIRED AS DETERMINED BY THE ENGINEER. BLASTING IS NOT PERMITTED ADJACENT TO CSXT RIGHT OF WAY WITHOUT WRITTEN APPROVAL FROM THE CHIEF ENGINEER, CSXT.

CONTRACTOR SHALL OBTAIN ADVANCE APPROVAL FROM CSXT FOR CONSTRUCTION ACTIVITIES ADJACENT TO AND/OR OVER THE CSX TRACKS. THE WRITTEN REQUEST MUST INCLUDE A DETAILED CONSTRUCTION PLAN AND ERECTION SEQUENCE THAT HIGHLIGHTS THE EQUIPMENT, LIFTING PROCEDURES, CLEARANCES, EXCAVATION LIMITS, AND PROPOSED SCHEDULES FOR THE WORK DIRECTLY AFFECTING THE MOVEMENT OF TRAINS. USE CSX TRANSPORTATION GUIDELINES FOR BRIDGE DESIGN - CRITERIA FOR OVERHEAD BRIDGES, ISSUED OCTOBER 1, 1999 AS A GUIDE FOR ANY TEMPORARY STRUCTURE CONSTRUCTION.

SUBMITTALS SHALL BE IN ACCORDANCE WITH CMS 501.05, WHICH SHALL INCLUDE COPIES SENT TO CSX TRANSPORTATION, INC., MR. DAVID CLARK, CSXT DIRECTOR CONSTRUCTION ENGINEERING, 500 MEIJER DRIVE, SUITE 305, FLORENCE, KENTUCKY 41042.

AFTER RECEIVING WRITTEN APPROVAL OF INSURANCE REQUIREMENTS FROM CSXT, FLAG PROTECTION MAY BE REQUESTED THROUGH THE DESIGNATED CSXT CONSTRUCTION REPRESENTATIVE A MINIMUM OF 30 DAYS IN ADVANCE TO ARRANGE FOR CSXT FLAGMEN PRIOR TO ANY ACCESS ON CSX PROPERTY.

UPON COMPLETION OF ANY WORK PERFORMED, THE CONTRACTOR SHALL REQUEST THE ENGINEER TO ARRANGE A FINAL INSPECTION OF THE PROJECT WITH THE RAILROAD'S AUTHORIZED REPRESENTATIVE.

CONSTRUCTION CLEARANCE OVER CSX RAILROAD

MAINTAIN A CONSTRUCTION CLEARANCE OF 12 FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 23 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF HIGHER RAIL UNLESS OTHERWISE PERMITTED BY CSX. INDICATE PROPOSED CONSTRUCTION CLEARANCES WITH SUBMITTALS FOR APPROVAL TO CSX RAILROAD.

METRO RTA REQUIREMENTS

EQUIPMENT AND MATERIAL STAGING ON METRO RTA PROPERTY SHALL ONLY BE PERMITTED DURING PERIODS OF TIME WHEN CONSTRUCTION ACTIVITIES ARE ACTIVELY TAKING PLACE ON METRO RTA PROPERTY INCLUDING CLEARING AND GRUBBING, CONSTRUCTION OF THE REAR ABUTMENT, STORM SEWER AND WATER LINE INSTALLATION, LANDSCAPING, CONSTRUCTION ACCESS ROUTE CONSTRUCTION, RESTORATION OF THE FREEDOM TRAIL, BRIDGE DEMOLITION, AND SUPERSTRUCTURE ERECTION OVER METRO RTA. DURING PERIODS OF TIME WHEN THE FREEDOM TRAIL IS OPEN TO PUBLIC USE, KEEP EQUIPMENT AND MATERIALS A SAFE DISTANCE FROM THE TRAIL. DO NOT STORE ANY HAZARDOUS OR FLAMMABLE MATERIAL ON METRO RTA PROPERTY. DO NOT LEAVE ANY HAZARDOUS OR FLAMMABLE MATERIALS ON METRO RTA PROPERTY WHEN THE CONTRACTOR'S WORKERS ARE NOT PRESENT.

WHEN PERFORMING WORK ON METRO RTA PROPERTY COMPLY WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL LAWS AND REGULATIONS AND PERFORM THE WORK IN AN ENVIRONMENTALLY PROTECTIVE MANNER. PREVENT RELEASES AND SPILLS OF ANY MATERIALS THAT COULD HARM HUMAN HEALTH OR THE ENVIRONMENT, INCLUDING BUT NOT LIMITED TO FUEL, HYDROCARBON PRODUCTS, ANTI-FREEZE, SPENT MECHANICAL DRAINING, SOLVENTS, HAZARDOUS SUBSTANCES AND HAZARDOUS WASTES AS DEFINED IN THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT AND THE RESOURCE CONSERVATION RECOVERY ACT, RESPECTIVELY ("ENVIRONMENTAL SUBSTANCES"). NOTIFY METRO RTA OF ANY SPILLS OR RELEASES OF ENVIRONMENTAL SUBSTANCES WITHIN 48 HOURS. THE CONTRACTOR SHALL, AT ITS EXPENSE, ASSUME RESPONSIBILITY FOR THE INVESTIGATION AND CLEANUP OF ANY RELEASE OR DISCHARGE OF ANY ENVIRONMENTAL SUBSTANCE AT THE PROPERTY THAT ARISES FROM THE PERFORMANCE OF ANY WORK, PRESENCE, OR OTHER ACTIVITY AT THE PROPERTY BY THE CONTRACTOR.

UPON COMPLETION OF THE WORK, REMOVE FROM THE PROPERTY ANY EQUIPMENT, SURPLUS MATERIALS, OR RUBBISH AND LEAVE METRO RTA PROPERTY IN ITS ORIGINAL CONDITION (OR PROPOSED CONDITION PER THE CONSTRUCTION PLANS), SATISFACTORY TO METRO RTA'S AUTHORIZED REPRESENTATIVE. METRO RTA'S AUTHORIZED REPRESENTATIVE SHALL HAVE THE RIGHT TO OBSERVE THE WORK AND INSPECT THE GROUNDS BEFORE, DURING, AND AFTER CONSTRUCTION.

WHEELING & LAKE ERIE RAILWAY COORDINATION

ALL PARTIES, INCLUDING CONTRACTORS, SUBCONTRACTORS OR ANY OTHER PARTIES WISHING TO ENTER ON, NEAR, ABOVE OR BELOW WHEELING & LAKE ERIE RAILWAY COMPANY'S (W&LE) RIGHT OF WAY AND PROPERTY, MUST EXECUTE ITS PERMIT TO ENTER PROPERTY AGREEMENT AND PROVIDE PROOF OF INSURANCE MEETING THE MINIMUM REQUIREMENTS. COORDINATION WITH W&LE FOR THE EXECUTION OF ITS PERMIT TO ENTER PROPERTY AGREEMENTS AND PROVIDING PROOF OF INSURANCE, AND ANY INQUIRIES RELATING TO SUCH, MUST BE SUBMITTED TO:

WHEELING & LAKE ERIE RAILWAY COMPANY
ATTN: JEFFERY A. DAVIS JR.
MANAGER OF REAL ESTATE
100 E 1ST ST.
BREWSTER, OH 44613
PHONE: 330-767-7284
EMAIL: JDAVISJR@WLERWY.COM

AFTER EXECUTING W&LE'S PERMIT FOR RIGHT OF ENTRY AND PROVIDING THE REQUIRED INSURANCE DOCUMENTATION, ALL WORK ON, NEAR, ABOVE OR UNDER, W&LE'S PROPERTY AND RIGHT OF WAY, UNLESS OTHERWISE SPECIFIED BY W&LE IN WRITING, REQUIRES TO SCHEDULE RAILROAD FLAGGING PROTECTION BY CONTACTING THE FOLLOWING:

WHEELING & LAKE ERIE RAILWAY COMPANY
ATTN: HEIDI ROWLANDS
ENGINEERING ADMINISTRATOR
100 E 1ST ST.
BREWSTER, OH 44613
PHONE: 330-767-7229
EMAIL: HROWLANDS@WLERWY.COM

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

1. WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED TO LIMITS DETAILED IN THE PLANS AND AS REQUIRED BY CMS 202. THIS WORK SHALL CONSIST OF THE REMOVAL OF THE WEARING COURSE, CONCRETE BRIDGE DECK, STEEL SUPERSTRUCTURE AND PORTIONS OF THE PIERS AND ABUTMENTS AS INDICATED IN THE PLANS.

2. IF THE CONTRACTOR CHOOSES TO INCORPORATE BLASTING TO REMOVE PORTIONS OF THE STRUCTURE, HE MUST PREPARE A BLASTING PROCEDURE IN A MANUAL AND PROVIDE STAMPED ENGINEERING DRAWINGS, IN ACCORDANCE WITH ITEM 8 OF THIS NOTE, FOR REVIEW. THE MANUAL SHALL ADDRESS THE DESIGN OF THE BLASTING, THE SAFETY PROCEDURES TO BE INCORPORATED, AND PROTECTION OF ADJACENT PROPERTIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MOT FULL CLOSURE OF SR-8 AND THE CLOSURE AND RESTORATION OF EXISTING NORTH STREET. CONTRACTOR SHALL PROTECT ALL UTILITIES ABOVE OR BELOW GROUND FROM DAMAGE, AND REPAIR DAMAGES AT NO ADDITIONAL COST TO THE DEPARTMENT. BLASTING WILL NOT BE ALLOWED OVER ANY RAILROAD PROPERTY. THE CONTRACTOR SHALL NOTIFY CSX, W&LE, AKRON METRO RTA AND FIRST ENERGY REPRESENTATIVES OF BLASTING SCHEDULE, AT LEAST 30 DAYS PRIOR TO BLASTING SO ALL CAN HAVE PERSONNEL ONSITE DURING BLASTING OPERATIONS.

3. THE MANUAL SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER, FIRST ENERGY AND RAILROADS AT LEAST 180 DAYS BEFORE DEMOLITION WORK IS TO BEGIN.

4. SUGGESTED DEMOLITION SEQUENCE AND SUGGESTED REMOVAL LIMITS FOR EXISTING SUBSTRUCTURE HAVE BEEN SHOWN IN THE PLANS. REASONABLE CARE SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT REMOVED MATERIALS FROM FALLING INTO THE LITTLE CUYAHOGA RIVER OR WETLAND AREAS. ANY DEBRIS FALLING IN THE LITTLE CUYAHOGA RIVER MUST BE REMOVED WITHIN 72 HOURS. IN STREAM RESTRICTIONS: NO DEBRIS OR ANY FILL MAY ENTER THE LITTLE CUYAHOGA RIVER FROM APRIL 30 TO JUNE 30. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 202 - STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN.

5. THE COST OF DISPOSAL OF DEMOLITION DEBRIS SHALL BE CONSIDERED INCIDENTAL TO DEMOLITION. THE CONTRACTOR MUST COORDINATE REMOVAL AND DISPOSAL OF DEMOLITION DEBRIS WITH ODOT AND OTHER APPLICABLE AGENCIES AND SUBMIT THE REMOVAL AND DISPOSAL PLAN FOR APPROVAL BY THE CONCERNED PARTIES, INCLUDING ALL RAILROAD OWNERS WITHIN THE PROJECT BOUNDARIES.

6. EXISTING BRIDGE DEMOLITION PROCEDURE, MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE PROPOSED TRUSS SPANS DEMOLITION PROCEDURE SHOWN IN THESE PLANS IS AN ACCEPTABLE GENERAL DEMOLITION SEQUENCE AND PROCEDURE. THE CONTRACTOR MAY PROPOSE ALTERNATIVE PROCEDURES AND SEQUENCE IN ACCORDANCE WITH THE CONDITIONS OF THE PLANS AND SPECIFICATIONS.

7. LOAD EFFECTS ON THE EXISTING STRUCTURE SHALL BE ANALYZED BASED ON OPERATING LEVEL CALCULATED BY LOAD FACTOR RATING METHOD AS GIVEN IN AASHTO MANUAL FOR BRIDGE EVALUATION WHEN TOTAL LOAD APPLIED TO STRUCTURE DURING CONSTRUCTION EXCEEDS 75 PERCENT OF THE LEGAL LIMIT PER ODOT CMS 501.05.B.6.

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (CONTINUED)

8. THE CONTRACTOR SHALL SUBMIT DETAILED METHODS, SEQUENCE OF DEMOLITION, AND PROCEDURES IN ACCORDANCE WITH CMS 501.05. THE DETAILED SUBMISSION SHALL INCLUDE THE METHODS OF CONSTRUCTION LISTED IN THIS NOTE; EQUIPMENT SIZES AND LOCATIONS; TEMPORARY SHORING TOWERS AND FOUNDATIONS, ATTACHMENT AND LIFTING DIAGRAMS FOR REMOVALS; CONTRACTOR DESIGNED MATERIALS; AND SPECIFIC CONTRACTOR METHODS. THE DEMOLITION PLANS, COMPUTATIONS AND ANY OTHER CONTRACTOR DESIGNED INFORMATION SUBMITTED FOR REVIEW MUST BE PREPARED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER WITH PRIOR EXPERIENCE ON SIMILAR PROJECTS AND CHECKED BY A SECOND OHIO REGISTERED PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL SUBMIT THE INFORMATION TO THE ENGINEER AT LEAST 180 DAYS BEFORE DEMOLITION BEGINS FOR REVIEW AND COMMENT. THE SUBMISSIONS WILL BE REVIEWED IN ACCORDANCE WITH THE PROVISIONS OF CMS 105.02 FOR PLANS AND WORKING DRAWINGS.

9. THE CONTRACTOR SHALL SCHEDULE THE VARIOUS ITEMS OF WORK IN SUCH A MANNER TO COMPLETE THE WORK WITHIN THE SCHEDULED ROADWAY CLOSURES; AND INTERIM COMPLETION DATES IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC NOTES.

10. CRANE, PADS, OUTRIGGERS, OR STORED MATERIALS SHALL NOT EXCEED THE MAXIMUM ALLOWABLE BEARING PRESSURE OF 2.5 KSI.

11. INSTALL FALSEWORK SYSTEM BELOW THE PORTIONS OF THE DECK TO BE REMOVED OVER THE LITTLE CUYAHOGA RIVER, RAILROADS, AND CITY STREETS TO PREVENT FALLING DEBRIS. THE MAXIMUM FALSEWORK WEIGHT SUPPORTED BY THE EXISTING BRIDGE SHALL BE 10 POUNDS PER SQUARE FOOT.

THE CONCRETE DECK HAS BEEN ASSUMED TO BE REMOVED AS FOLLOWS:

A. SAW CUT THE DECK INTO MAXIMUM 12,000 POUND PIECES.

B. PRY AND LIFT EACH DECK PIECE WITH A TRACK MOUNTED HYDRAULIC EXCAVATOR. THE MAXIMUM GROSS VEHICLE WEIGHT OF THE EXCAVATOR SHALL BE 74,000 POUNDS.

C. LIFT THE DECK PIECE ONTO A LEGAL WEIGHT TRUCK. DO NOT STOCKPILE DECK PIECES ON THE BRIDGE. NO MORE THAN (4) LEGAL WEIGHT TRUCKS AND THE EXCAVATOR SHALL BE ALLOWED IN A SPAN AT THE SAME TIME.

D. PROCEED REMOVING DECK PIECES UNTIL THE DECK REMOVAL WORK IS COMPLETED FOR THE REQUIRED PHASE.

RAILROAD TRACKS AND ROAD BED SHALL BE PROTECTED FROM DAMAGE AND DRAINAGE WITHIN RAILROAD RIGHT OF WAY SHALL BE MAINTAINED AT ALL TIMES. REFER TO "SPECIAL" RAILROAD REQUIREMENTS GENERAL NOTES FOR ADDITIONAL CRITERIA. A PROTECTION SHIELD SHALL BE ERECTED OVER THE RAILROAD TRACKS TO CATCH FALLING DEBRIS. THE SHIELD SHALL NOT REDUCE THE TEMPORARY VERTICAL CLEARANCE. LARGE PIECES OF DEBRIS SHALL NOT BE ALLOWED TO FALL ON THE PROTECTION SHIELDS.

ODOT TEMPORARY SEDIMENT AND EROSION CONTROL SUPPLEMENTAL SPECIFICATIONS 832 AND ODOT CONSTRUCTION & MATERIALS SPECIFICATIONS SHALL BE FOLLOWED WHERE APPLICABLE. PAYMENT SHALL BE INCLUDED IN ITEM 832 EROSION CONTROL.

PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH THE PERTINENT PROVISIONS OF 202, AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN SOUTHBOUND STATIONS 223+92.34 TO 224+92.34 AND 241+11.84 TO 242+11.84 AND BETWEEN NORTHBOUND STATIONS 523+79.89 TO 525+11.89 AND 540+99.89 TO 541+99.89. THIS ITEM HAS BEEN CARRIED TO THE ROADWAY SUBSUMMARY.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
ABD	ABD	GLG	20-APR

CHECKED	REVISED	STRUCTURE FILE NUMBER
ELP		77000370/77003711

GENERAL NOTES (2 OF 7)
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

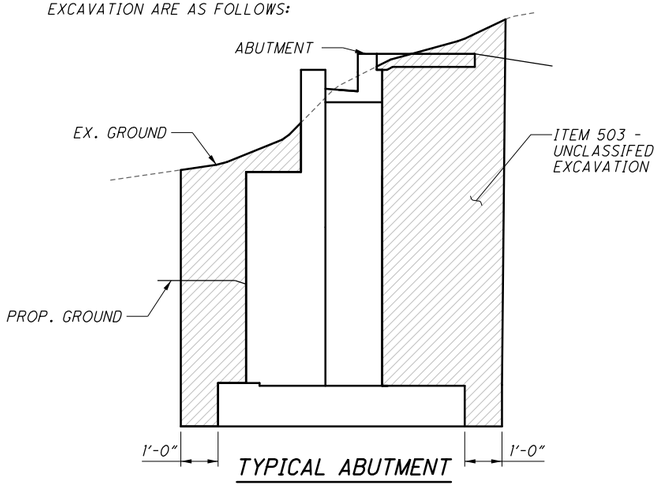
15 / 226

513
801

ms consultants, inc.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THE BACKFILL MATERIAL BEHIND ABUTMENTS SHALL BE PLACED AND COMPACTED IN 6" MAXIMUM LIFTS. THE LIMITS OF UNCLASSIFIED EXCAVATION ARE AS FOLLOWS:



TYPICAL ABUTMENT

PIER 5L CONTAMINATED SOIL

THIS WORK SHALL CONSIST OF EXCAVATION FOR THE SUM-8-0199L (SOUTHBOUND) PIER 5 FOOTING. CONTAMINATED SOILS ARE ANTICIPATED TO EXIST AT THE FORMER ABC DEMOLITION/HARRIS STREET LANDFILL. LIMITS OF THE CONTAMINATED SOILS AS ENCOUNTERED IN BORING B-015-1-16 ARE SHOWN ON SHEET 541 OF 801. ALL REASONABLE AND FEASIBLE EXCAVATION OPTIONS SHALL BE UTILIZED BY THE CONTRACTOR TO MINIMIZE GRADING, EXCAVATION, AND SHORING TO THIS AREA. ANY HAZARDOUS/CONTAMINATED EXCAVATION MATERIAL ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE CONTAMINATED SOIL NOTE ON PAGE 16/801 OF THE ROADWAY PLAN NOTES. FOLLOW ROADWAY PLAN NOTES FOR PAYMENT.

ITEM 503 - STRUCTURAL EXCAVATION, MISC.: LAUNCHING PIT

THIS WORK SHALL CONSIST OF ALL LABOR, MATERIAL AND EQUIPMENT TO CONSTRUCT THE TEMPORARY WALLS AND LAUNCHING PIT IN ACCORDANCE WITH THE PLANS AND DESIGN REQUIREMENTS SPECIFIED IN THE CONTRACT PLANS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR ITEM 503 - STRUCTURAL EXCAVATION, MISC.: LAUNCHING PIT REFER TO THE STRUCTURAL STEEL ERECTION SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. ANY FILL MATERIAL PLACED SHALL BE COMPACTED IN 6" LIFTS.

ITEM 503 - STRUCTURAL EXCAVATION, MISC.: RECEIVING PIT

THIS WORK SHALL CONSIST OF ALL LABOR, MATERIAL AND EQUIPMENT TO CONSTRUCT THE TEMPORARY WALLS AND RECEIVING PIT IN ACCORDANCE WITH THE PLANS AND DESIGN REQUIREMENTS SPECIFIED IN THE CONTRACT PLANS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR ITEM 503 - STRUCTURAL EXCAVATION, MISC.: RECEIVING PIT REFER TO THE STRUCTURAL STEEL ERECTION SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION. ANY FILL MATERIAL PLACED SHALL BE COMPACTED IN 6" LIFTS.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH CMS 501.05 EXCEPT AS REQUIRED FOR SHORING ADJACENT TO RAILROADS AS OUTLINED IN THE NOTE, STRUCTURE EXCAVATION AND SHORING ADJACENT TO RAILROADS, ON SHEET 20/226. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

ITEM 511 - CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA, AS PER PLAN

CONCRETE SHALL CONFORM TO CMS 511 WITH THE EXCEPTION THAT THE CONCRETE SHALL BE 5 KSI FOR PIER CAPS AS DETAILED IN THE PLANS.

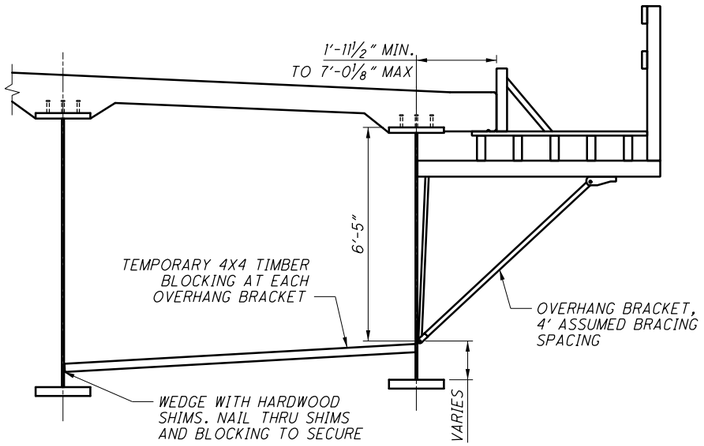
ITEM 511 - CLASS QC1 CONCRETE, MISC.: FOOTING APRON

THIS ITEM SHALL CONSIST OF ALL THE LABOR, MATERIAL, AND EQUIPMENT FOR THE CONCRETE APRON TO BE INSTALLED AT PIER 5 FOR BOTH NORTHBOUND AND SOUTHBOUND BRIDGES IN ACCORDANCE WITH THE PLANS AND DESIGN REQUIREMENTS SPECIFIED IN THE CONTRACT PLANS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR ITEM 511 - CLASS QC1 CONCRETE, MISC.: FOOTING APRON.

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

LOCATE THE LOWER CONTACT POINT OF THE OVERHANG FALSEWORK AT LEAST 42 INCHES ±2 IN. ABOVE THE TOP OF THE GIRDER'S BOTTOM FLANGE. THE BRACKET CONTACT POINT LOCATION REQUIREMENTS OF CMS 508 DO NOT APPLY. IN ADDITION TO THE WORK REQUIREMENTS OF 511, THE CONTRACTOR MAY EITHER PROVIDE TRADITIONAL BRIDGE FORMS, CONFORMING TO CMS 508 OR DESIGN, BUILD, PROVIDE, AND CONSTRUCT GALVANIZED STEEL STAY-IN-PLACE (SIP) FABRICATED METAL FORMS CONFORMING TO CMS 508. THE DEPARTMENT WILL NOT SEPARATELY PAY FOR SIP FORMS. THE COST OF THIS WORK IF CHOSEN BY THE CONTRACTOR SHALL BE INCLUDED FOR PAYMENT IN THE PRICE BID FOR ITEM 511. THE DEPARTMENT WILL NOT PAY FOR ANY ADDITIONAL CONCRETE, REINFORCING STEEL, OR STRUCTURAL STEEL THAT MAY BE REQUIRED WHEN USING SIP FORMS. ANY ADDITIONAL COST AND/OR DESIGN ASSOCIATED WITH THE USE OF SIP FORMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ADDITIONAL DEAD LOAD OF THE SIP FORM PLUS THE WEIGHT OF THE ADDITIONAL CONCRETE WAS CALCULATED AS SPECIFIED IN THE DESIGN LOADS AND WAS INCLUDED IN THE DESIGN OF THE THE BRIDGE BEAMS OR GIRDERS, CAMBER DIAGRAMS, DECK SCREED TABLES, BRIDGE BEARINGS AND SUBSTRUCTURES. SHOULD THE CONTRACTOR CHANGE ANY LOAD SPECIFIED IN THE DESIGN LOADS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DESIGN, FABRICATION, AND INSTALLATION MODIFICATIONS TO THE BRIDGE COMPONENTS INCLUDING THE BRIDGE BEAMS OR GIRDERS, CAMBER DIAGRAMS, DECK SCREED TABLES, BRIDGE BEARINGS, AND SUBSTRUCTURES. ALL PLAN MODIFICATIONS SHALL BE PREPARED AS PER 501.

PROVIDE TEMPORARY BLOCKING TO SUPPORT LOWER CONTACT POINT. SUGGESTED DETAIL SHOWN BELOW.

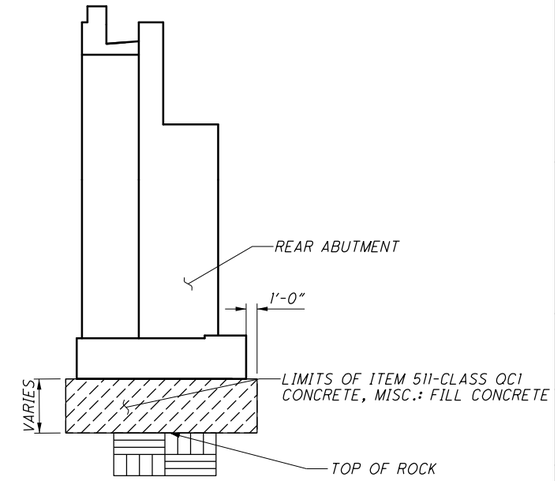


ITEM 511 - CLASS QC1 CONCRETE, MISC: FILL CONCRETE

PLACE CLASS QC1 CONCRETE, MISC.: FILL CONCRETE FROM A DISTANCE OF THE BOTTOM OF REAR ABUTMENT FOOTING TO THE TOP OF BEDROCK, AS DETERMINED BY THE ENGINEER. CLASS QC1 CONCRETE, MISC.: FILL CONCRETE SHALL BE PLACED NEAT AGAINST NATIVE ROCK.

THIS ITEM CONSISTS OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR EXCAVATION TO THE TOP OF BEDROCK AS WELL AS DEWATERING AND CONCRETE PLACEMENT. NO PAYMENT WILL BE MADE FOR OVER-EXCAVATION AND PLACEMENT IN EXCESS OF THE LATERAL LIMITS LOCATED ONE FOOT BEYOND THE LIMIT OF THE PROPOSED FOOTING OR AS INDICATED ON THE PLANS. ADDITIONAL EXCAVATION AND PLACEMENT OF AREAS TO ACCOMMODATE THE CONTRACTOR'S MEANS AND METHODS WILL BE CONSIDERED INCIDENTAL TO THIS WORK.

ITEM 511 - CLASS QC1 CONCRETE, MISC: FILL CONCRETE (CONTINUED)



REAR ABUTMENT SECTION

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN

APPLY A PERMANENT ANTI-GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. APPLY THE ANTI-GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN

SEALING AND COLOR STAINING OF REAR ABUTMENT, PIERS AND PARAPETS SHALL BE IN ACCORDANCE WITH THE PIER AND AESTHETIC DETAIL SHEETS.

ITEM 513 - STRUCTURAL STEEL, MISC.: MONUMENT

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT THE STEEL MONUMENT. ALL PROVISIONS OF 513 SHALL APPLY.

ITEM 513 - STRUCTURAL STEEL, MISC.: STRUCTURAL STEEL ERECTION EQUIPMENT

THIS WORK SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT THE LAUNCHING NOSE, LAUNCHING TAIL, KINGPOST, TEMPORARY BRACING, ROLLERS, AND ALL OTHER TEMPORARY DETAILS NECESSARY. REFER TO THE STRUCTURAL STEEL ERECTION SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

ITEM 513 - STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN

A. DESCRIPTION

1. THIS WORK CONSISTS OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT STRUCTURAL STEEL MEMBERS UTILIZING THE LAUNCHING METHODS SHOWN IN THESE PLANS AND AS PER SPECIAL PROVISIONS PROVIDED IN THE FINAL BID DOCUMENTS.

2. ALL STEEL MEMBERS SHALL BE DESIGNATED AS LEVEL 6 FABRICATION.

3. THIS WORK SHALL BE PERFORMED PER ITEM 513 STRUCTURAL STEEL MEMBER, LEVEL SIX EXCEPT AS MODIFIED BY THE STEEL BRIDGE FABRICATION GUIDE SPECIFICATIONS (AASHTO/NSBA STEEL BRIDGE COLLABORATION 2018), AND AS MODIFIED IN THESE PLAN NOTES.

B. MATERIALS

1. STEEL FOR GIRDER WEBS AND FLANGES SHALL BE A COMBINATION OF ASTM A709 GRADE HPS70W MANUFACTURED BY THE THERMO-MECHANICAL CONTROLLED PROCESSING (TMCP) OR QUENCHED AND TEMPERED HEAT TREATMENT PROCESSING ALONG WITH ASTM A588/709 GRADE 50W. ALL OTHER STEEL SHALL BE ASTM A709 GRADE 50W.

2. STEEL DESIGNATED CVN SHALL BE IMPACT TESTED TO EXCEED THE TEST VALUES OF ASTM A709 TABLE S1.2 NON-FRACTURE CRITICAL IMPACT TEST REQUIREMENTS FOR ZONE 2, TEMPERATURE RANGE.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

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ELP		77003707700371	

GENERAL NOTES (3 OF 7)
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16/226

514/801

ITEM 517 - RAILING, MISC: DECORATIVE RAILING WITH CHAIN LINK FENCE, AS PER PLAN

DESCRIPTION:

THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FABRICATE, GALVANIZE, CLEAN, APPLYING A TWO COAT SHOP PAINT SYSTEM (EPOXY/URETHANE) AND INSTALLING THE DECORATIVE RAILING WITH CHAIN LINK FENCE AS DETAILED IN THESE PLANS AND NOTES. UNLESS OTHERWISE SPECIFIED IN THE PLANS, INSTALL POSTS AND POST SLEEVES PLUMB. FOR ADDITIONAL DETAILS, SEE AESTHETIC PLANS.

SHOP DRAWINGS DETAILING FENCE FABRICATION:

SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH 501.04 AND INCLUDE DETAILS THAT CLEARLY IDENTIFY ALL OF THE REQUIREMENTS LISTED HEREIN. PROVIDE CONNECTIONS CONSISTENT WITH CONCEPTS SHOWN ON THE DRAWING. INDICATE WELDS BY STANDARD AWS SYMBOLS, DISTINGUISHING BETWEEN SHOP AND FIELD WELDS, AND SHOW SIZE, LENGTH AND TYPE OF EACH WELD. IDENTIFY GRINDING FINISH AND PROFILE OF WELDS AS DEFINED HEREIN. INDICATE TYPE, SIZE, FINISH AND LENGTH OF BOLTS, DISTINGUISHING BETWEEN SHOP AND FIELD BOLTS. IDENTIFY HIGH STRENGTH BOLTED SLIP-CRITICAL DIRECT-TENSIONED SHEAR/BEARING CONNECTIONS. CLEARLY INDICATE WHICH SURFACES OR EDGES ARE EXPOSED AND WHAT CLASS OF SURFACE PREPARATION IS BEING USED. INDICATE SPECIAL TOLERANCES AND ERECTION REQUIREMENT AS NOTED ON THE DRAWINGS OR DEFINED HEREIN.

SUBMIT MANUFACTURER'S COLOR CHARTS:

SUBMIT SAMPLES OF EACH COLOR AND MATERIAL TO BE APPLIED, WITH TEXTURE TO SIMULATE ACTUAL CONDITIONS, ON REPRESENTATIVE SAMPLE, OF THE ACTUAL SUBSTRATE. PROVIDE STEPPED SAMPLES, DEFINING EACH SEPARATE COAT, INCLUDING BLOCK FILLERS AND PRIMERS. USE REPRESENTATIVE COLORS WHEN PREPARING SAMPLES FOR REVIEW. RESUBMIT UNTIL REQUIRED SHEEN, COLOR, AND TEXTURE ARE ACHIEVED. PROVIDE A LIST OF MATERIAL AND APPLICATION FOR EACH COAT OF EACH SAMPLE; LABEL EACH SAMPLE AS TO LOCATION AND APPLICATION. SUBMIT SAMPLES ON THE FOLLOWING SUBSTRATES FOR THE FIELD ENGINEER'S REVIEW OF COLOR AND TEXTURE ONLY: FERROUS METAL: TWO 8 INCH LONG SAMPLE OF SOLID METAL FOR EACH COLOR AND FINISH.

FABRIC:

FABRIC SHALL CONSIST OF 1 1 INCH INTERCRIMP WOVEN WIRE MESH USING 0.12 INCH DIA. (11 GAGE) CRIMPED WIRE CONFORMING TO ASTM E2016 EXCEPT AS NOTED. THE PVC COATING SHALL BE BROWN IN COLOR CLOSELY APPROACHING FEDERAL COLOR STANDARD NO. 20059 UNLESS OTHERWISE SPECIFIED IN THE PLANS. HANDLE ALL PVC COATED FABRIC WITH CARE. IF THE PVC COATING IS DAMAGED, REPLACE THE DAMAGED PORTION OF THE FABRIC AT NO COST TO THE DEPARTMENT. THE INSTALLATION SHOULD BE AS PER 709.

FABRICATION:

FABRICATION OF THE RAILING SHALL BE IN ACCORDANCE WITH CMS 513, UF LEVEL. COATING OF THE RAILING SHALL BE IN ACCORDANCE WITH CMS 514, EXCEPT AS NOTED BELOW.

THE GALVANIZED COATING SYSTEM MAY BE APPLIED BY A GALVANIZER NOT PRE-QUALIFIED AS A FABRICATION SHOP UNDER SUPPLEMENT 1078, BUT THE PRE-QUALIFIED FABRICATOR OF THE STRUCTURAL STEEL SHALL BE RESPONSIBLE FOR THE QUALITY OF THE APPLIED GALVANIZED COATING SYSTEM AND ANY REPAIRS, RE-FABRICATION AND ADDITIONAL ASSEMBLIES REQUIRED TO ASSURE THE FABRICATED STEEL MEETS THE PLAN REQUIREMENTS.

THE TWO SHOP COATS SHALL BE APPLIED IN A STRUCTURAL STEEL FABRICATION SHOP HAVING PERMANENT BUILDINGS PER 513.04 AND PRE-QUALIFIED AT THE UF LEVEL. THE PAINT QUALITY CONTROL SPECIALIST (QCS) SHALL BE QUALIFIED AS SPECIFIED IN 514.04.

PRIOR TO GALVANIZING, ALL CORNERS OF THERMALLY CUT OR SHEARED EDGES SHALL HAVE A 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE.

GALVANIZE THE FABRICATED RAILING AND HARDWARE ACCORDING TO CMS 711.02, EXCEPT THAT FABRICATED RAILING ELEMENTS SHALL NOT BE POST TREATED WITH WATER QUENCHING OR CHROMATE CONVERSION COATED.

AFTER GALVANIZATION, REMOVE ZINC HIGH SPOTS SUCH AS METAL DRIP LINE AND OTHERS THAT WOULD DETRACT FROM THE PAINT APPEARANCE BY SSPC SP2 OR SP3. TAKE CARE THAT THE BASE GALVANIZED COATING IS NOT REMOVED. CHECK REPAIRED AREAS FOR REQUIRED COATING THICKNESS.

REPAIR GALVANIZED COATINGS DAMAGED IN THE SHOP ACCORDING TO ASTM A780 METHOD A3. REPAIR GALVANIZED COATINGS DAMAGED IN THE FIELD ACCORDING TO ASTM A780 METHOD A1.

AFTER REMOVING HIGH SPOTS, CLEAN THE GALVANIZED COATING ACCORDING TO SSPC SP-1. THE CLEANING SOLUTION SHALL BE AN ALKALINE SOLUTION WITH A PH RANGING FROM A MINIMUM OF 11 TO A MAXIMUM OF 12. THIS SOLUTION CAN BE APPLIED BY IMMERSION, SPRAY OR SOFT NYLON BRUSH. FOLLOW CLEANING WITH A HOT WATER OR HOT PRESSURE WASHER RINSE. SEPARATE INDIVIDUAL PIECES AND POSITION TO FACILITATE DRAINAGE AND DRYING. THE PIECES SHALL BE COMPLETELY DRY BEFORE PROCEEDING.

AFTER CLEANING, ABRASIVE BLAST THE PIECES ACCORDING TO SSPC-SP7 BRUSH-OFF BLAST CLEANING. THE BLASTING OPERATION SHALL ROUGHEN THE GALVANIZED SURFACE TO AN ANGULAR SURFACE PROFILE OF 0.75 TO 1.00 MILLS. SELECT THE BLASTING EQUIPMENT, TECHNIQUE AND ABRASIVE MATERIAL TO PROVIDE FOR THE SPECIFIED SURFACE PROFILE WITHOUT REMOVAL OF EXCESSIVE ZINC LAYERS. THE FINAL ZINC MILAGE SHALL NOT BE LESS THAN 4.0 MILS. REMOVE ALL ABRASIVE RESIDUES WITH CLEAN COMPRESSED AIR OR OTHER METHODS ACCEPTABLE TO THE DEPARTMENT.

AFTER OBTAINING SURFACE PROFILE, SHOP APPLIES A TWO COAT PAINT SYSTEM ACCORDING TO 514 CONSISTING OF EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT MEETING THE REQUIREMENTS OF CMS 708.02. THE FINISH COAT SHALL MATCH FEDERAL COLOR STANDARD NO. 20059. APPLY THE EPOXY COATING WITHIN 24 HOURS OF THE BRUSH-OFF BLASTING.

FENCE POST:

FENCE POST, TOP AND BOTTOM RAILS SHALL BE 2.5 INCH BY 2.5 INCH (OUTSIDE DIMENSION) SQUARE TUBING OR SQUARE CHANNEL CMS 707.10, GRADE 36 OR 50 STEEL TUBE GALVANIZED ACCORDING TO 711.02 WITH A WALL THICKNESS OF 0.25 INCH.

FENCE MIDDLE RAILS:

FENCE MIDDLE RAILS SHALL BE 1.5 INCH BY 1.5 INCH (OUTSIDE DIMENSION) SQUARE CMS 707.10, GRADE 36 OR 50 STEEL TUBE GALVANIZED ACCORDING TO 711.02 WITH A WALL THICKNESS OF 0.125 INCH.

POST SLEEVES:

POST SLEEVES SHALL BE 2.75 INCH BY 2.75 INCH (OUTSIDE DIMENSION) STEEL CMS 707.10, 25,000 PSI MINIMUM YIELD STRENGTH, AND 4.75 LB/FT, GALVANIZED ACCORDING TO 711.02. HEXAGON SOCKET SET SCREW SHALL BE SAE 4140 ALLOY STEEL, HEAT TREATED, WITH FLAT OR OVAL POINT.

BASE PLATE:

BASE PLATES SHALL BE ASTM A709 GRADE 36 OR 50 GALVANIZED ACCORDING TO 711.02.

FASTENERS:

THE ¾ INCH DIA. HEAVY HEX HIGH STRENGTH BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH C&MS 711.09(ASTM A 325) OR ASTM A449 GALVANIZED ACCORDING TO 711.02.

THE ½ INCH DIA. THREADED ROD FOR ADHESIVE ANCHORS SHALL BE ASTM A193, GRADE B7, WITH ASTM A 563 NUTS AND ASTM F 436 WASHERS. MECHANICALLY GALVANIZE ALL ANCHOR HARDWARE ACCORDING TO ASTM B 695, CLASS 65.

USE AN ANCHOR ADHESIVE EVALUATED ACCORDING TO ICCES REPORT AC308, "ACCEPTANCE CRITERIA FOR POST INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS", FOR CRACKED AND UNCRACKED CONCRETE APPLICATIONS. PUBLISHED ICCES REPORTS FOR ACCEPTABLE PRODUCT ARE AVAILABLE AT:
WWW.ICC-ES.ORG/EVALUATION_REPORTS/INDEX_SHTML

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

POWERS PE1000+ EPOXY ADHESIVE ANCHOR SYSTEM
(ICCES REPORT ESR-2583)

CHEMFAST C-RE 385 EPOXY ADHESIVE ANCHOR SYSTEM
(ICCES REPORT ESR-2538)

SIMPSON STRONG- TIE SET -XP ADHESIVE ANCHORS
(ICCES REPORT ESR-2508)

WURTH WIT-PE500 EPOXY ADHESIVE ANCHORS
(ICCES REPORT ESR-3051)

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN SECTION 4.3 OF THE ICCES REPORT LISTED ABOVE. THE MINIMUM EMBEDMENT DEPTH FOR ANCHORS SHALL BE 7 INCHES.

FABRIC TIES AND HOG RINGS:

FABRIC TIES AND HOG RINGS SHALL BE 0.148 INCH CORE DIAMETER GALVANIZED PVC COATED STEEL WIRE AND 0.120 INCH ANNEALED STAINLESS STEEL WIRE CONFORMING TO ASTM A478 RESPECTIVELY. TO CONNECT THE FABRIC TO THE LINE POSTS, SUPPLY ONE FABRIC TIE FOR EACH ONE FOOT OF FABRIC HEIGHT. CONNECT THE FABRIC TO THE TENSION WIRE USING HOG RINGS 2-3 INCHES ON EACH SIDE OF THE POSTS AND AT SPACINGS NOT TO EXCEED 12 INCHES BETWEEN POSTS. THE PVC COATING SHALL BE THE SAME AS THAT FOR THE STEEL FABRIC.

FILLET WELDS:

FILLET WELDS SHALL CONFORM TO ODOT 513.

SHIM PLATES:

SHIP PLATES SHALL BE MADE FROM ANY MULTI-POLYMER PLASTIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI IN ORDER TO INSTALL POSTS PLUMB, ENDS OF POSTS AND SLEEVES MAY BE CUT ON A BIAS.

CAULKING COMPOUND:

CAULKING COMPOUND SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-00230 TYPE II, CLASS A, ALUMINUM GRAY. WHEN APPLYING CAULK TO THE BASE PLATE, PROVIDE A 1 INCH OPENING THROUGH THE CAULKING ON LOW SIDE OF BASE PLATE.

SILICONE CAULK:

SILICONE CAULK SHALL CONFORM TO ASTM C-920, TYPE -S, GRADE-NS, CLASS 25, USE NT TEST REQUIREMENTS. COLOR: CLEAR.

CONSTRUCTION PROCEDURE:

1. *FIELD VERIFY THE PLAN LOCATIONS OF ALL BASE PLATES AND MARK PARAPET ACCORDINGLY.*
2. *MARK AND DRILL HOLES FOR THE INCH HIGH STRENGTH THREADED ANCHORS OR ½ INCH BOLTS USING A BASE PLATE OR TEMPLATE.*
3. *INSTALL ½ IN DIAMETER HIGH STRENGTH THREADED ANCHORS OR ½ INCH BOLTS.*
4. *INSTALL POSTS AND BASE PLATES AND SHIMS WHERE REQUIRED.*
5. *CAULK EDGES OF BASE PLATES, SHIMS AND SLEEVES.*
6. *COMPLETE INSTALLATION OF THE RAIL.*

INSTALL FENCING FOR EACH CONSTRUCTION PHASE PRIOR TO OPENING THAT PHASE TO VEHICULAR AND/OR PEDESTRIAN TRAFFIC.

METHOD OF MEASUREMENT:

THE DEPARTMENT WILL MEASURE THE QUANTITY BY THE FOOT. THE DEPARTMENT WILL MEASURE ALONG THE BOTTOM OF THE RAIL INCLUDING END POST.

BASIS OF PAYMENT:

THE DEPARTMENT WILL MAKE PAYMENT FOR THE COMPLETED AND ACCEPTED QUANTITIES AT CONTRACT PRICE AS FOLLOWS:

ITEM	EXT	UNIT	DESCRIPTION
517	75301	FOOT	RAILING, MISC: DECORATIVE RAILING WITH CHAIN LINK FENCE, AS PER PLAN

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

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ELP	-----	7700370/7700371	

GENERAL NOTES (6 OF 7)
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(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

ESTIMATED QUANTITIES

																	CALC.	DATE	CHK'D	DATE
																	ATM	2019 SEP	ELP	2019 SEP
				PART.						SOUTHBOUND				NORTHBOUND						
ITEM	ITEM EXT.	TOTAL SOUTHBOUND	TOTAL NORTHBOUND	01/BRO/11	02/NHS/ 31**	03/NH S/20	04/NH S/04	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	ABUT.	PIERS	SUPER.	GEN.	SHEET REF.		
202	11003		LUMP	LUMP					STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN									15 /226		
202	22900		521	521				SY	APPROACH SLAB REMOVED								521			
203	20001	12,924	1,722	14,646				CY	EMBANKMENT, AS PER PLAN*	12,924				1,722				15 /226		
203	35110	100	100	200				CY	GRANULAR MATERIAL, TYPE B*		100				100					
304	20000	130	130	260				CY	AGGREGATE BASE*		130				130					
503	11101	LUMP	LUMP	LUMP					COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN									16 /226		
503	21101	4,506	7,675	12,181				CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	2,015	2,491			5,854	1,821			16 /226		
503	31100		829	829				CY	ROCK EXCAVATION					664	165					
503	31500	LUMP	LUMP	LUMP					STRUCTURAL EXCAVATION, MISC.: LAUNCHING PIT									16 /226		
503	31500	LUMP	LUMP	LUMP					STRUCTURAL EXCAVATION, MISC.: RECEIVING PIT									16 /226		
505	11100	LUMP	LUMP	LUMP					PILE DRIVING EQUIPMENT MOBILIZATION											
507	00600	2,200	1,855	4,055				FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	2,200				1,855						
507	00650	2,400	2,120	4,520				FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	2,400				2,120						
507	00700	3,910	3,450	7,360				FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		3,910				3,450					
507	00750	4,140	3,680	7,820				FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		4,140				3,680			14 /226		
509	10000	3,006,458	3,016,127	6,011,568	11,017			LB	EPOXY COATED STEEL REINFORCEMENT	201,151	1,245,219	1,560,088		235,878	1,236,580	1,543,669				
509	30020	53,782	53,366	107,148				FT	NO. 4 DEFORMED GFRP REINFORCEMENT			53,782				53,366				
510	10000	612	612	1224				EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT		612				612					
511	34447	4,414	4,349	8,763				CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			4,407	7			4,340	9	16 /226		
511	34450	515	506	1,021				CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			495	20			486	20			
511	42012	1,570	1,649	3,219				CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		1,570				1,649					
511	42512	91	91	182				CY	CLASS QC1 CONCRETE WITH QC/QA, PIER CAP		91				91					
511	44112	495	526	1021				CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	495				526						
511	45602	2,074	2,071	4,145				CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA	529	1,545			526	1,545					
511	45603	4,999	4,854	9,853				CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA, AS PER PLAN		4,999				4,854			16 /226		
511	46012	131	406	537				CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING	131				406						
511	46512	479	624	1,103				CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	479				624						
511	53010	114		114				CY	CLASS QC1 CONCRETE, MISC.: FILL CONCRETE	114								16 /226		
511	53010	147			147			CY	CLASS QC1 CONCRETE, MISC.: MONUMENT				147							
511	53010	250	250	500				CY	CLASS QC1 CONCRETE, MISC.: FOOTING APRON		250				250			16 /226		
512	10001	1,808	1,957	3,765				SY	SEALING OF CONCRETE SURFACES, AS PER PLAN	420	1,388			569	1,388			16 /226		
512	10050	1,835	1,872	3,707				SY	SEALING OF CONCRETE SURFACES, (NON-EPOXY)	191		1,644		259		1,613				
512	10051	7,341	7,666	14,751	256			SY	SEALING OF CONCRETE SURFACES, (NON-EPOXY), AS PER PLAN	420	4,810	2,111		825	4,770	2,071		16 /226		
512	33000	129	156	285				SY	TYPE 2 WATERPROOFING	129				156						
513	10401	8,253,152	7,779,001	16,032,153				LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN			8,253,152				7,779,001		16 /226		
513	20000	23,330	23,248	46,578				EACH	WELDED STUD SHEAR CONNECTORS	326		23,004		316		22,932				
513	90000	35,909			35,909			LB	STRUCTURAL STEEL, MISC.: MONUMENT				35,909					16 /226		
513	95020	LUMP	LUMP	LUMP					STRUCTURAL STEEL, MISC.: STRUCTURAL STEEL ERECTION EQUIPMENT									16 /226		
514	00060	39,124	39,028	78,152				SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			39,124				39,028				
514	00066	39,124	39,028	78,152				SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			39,124				39,028				
514	27700		3,727		3,727			SF	FIELD PAINTING, MISC.: MONUMENT DECORATIVE STEEL								3,727	18 /226		
516	12400	162	157	319				FT	SPECIAL - MODULAR EXPANSION JOINT	162				157				17 /226		
516	13600	271	344	615				SF	1" PREFORMED EXPANSION JOINT FILLER	142	129			215	129					
516	13900	102	102	204				SF	2" PREFORMED EXPANSION JOINT FILLER	102				102						

LEGEND:

* QUANTITY CARRIED TO GENERAL SUMMARY

** QUANTITY APPLIES TO THE REAR ABUTMENT MONUMENT

CALCULATED BY: ATM DATE: 2019 SEPT.
CHECKED BY: ELP DATE: 2019 SEPT.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

REVIEWED GLG DATE 20-APR
DRAWN ATM REVISED
DESIGNED ATM CHECKED ELP
STRUCTURE FILE NUMBER 7700370/7700371

ESTIMATED QUANTITIES (1 OF 2)
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

ESTIMATED QUANTITIES

				PART.						SOUTHBOUND				NORTHBOUND				CALC.	DATE	CHK'D	DATE
																		ATM	2019 SEP	ELP	2019 SEP
ITEM	ITEM EXT.	TOTAL SOUTHBOUND	TOTAL NORTHBOUND	01/BRO/11	02/NHS /31**	03/NHS /20	04/NHS /04	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	ABUT.	PIERS	SUPER.	GEN.				SHEET REF.
517	75000	107	109	216				FT	RAILING, ALUMINUM		107				109					
517	76300	3,218	3,155	6,373				FT	RAILING, MISC.: DECORATIVE RAILING WITH CHAIN LINK FENCE, AS PER PLAN			3,218				3,155				19/226
518	12200	21		21				EACH	SCUPPERS, INCLUDING SUPPORTS				21							
518	21200	949	1,096	2,045				CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	949				1,096						
518	42000	241	319	560				FT	8" PERFORATED CORRUGATED PLASTIC PIPE	241				319						
518	42010	202	317	519				FT	8" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	202				317						
518	51101	1,308		1,308				FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN				1,308							18/226
518	62200	3	3	6				EACH	STRUCTURE DRAINAGE, MISC.: PIER DRAINAGE AND VENTILATION		3				3					
523	20000	2	1	3				EACH	DYNAMIC LOAD TESTING	1	1				1					
524	94904	304	328	632				FT	DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK		304				328					
524	94906	841	516	1,357				FT	DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK		841				516					
524	95200	LUMP	LUMP	LUMP					DRILLED SHAFTS, MISC.: SHAFT INSPECTION DEVICE											18/226
526	30010	548	530	1,078				SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")				548				530			
526	90010	167	159	326				FT	TYPE A INSTALLATION				167				159			
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: ACCESS DOORS - PIERS											18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: LADDERS AND PLATFORMS - PIERS											18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: LADDER SAFETY DEVICE - PIERS											18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: BRIDGE CONSTRUCTION MONITORING											18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: INTERIOR LIGHTING - PIERS											18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: LIGHTING - BRIDGES, ABUTMENTS, PIERS											18/226
SPECIAL	530E00200		LUMP		LUMP				STRUCTURE, MISC.: AESTHETIC LIGHTING - MONUMENT											18/226
SPECIAL	530E00200	LUMP	LUMP	LUMP					STRUCTURE, MISC.: STRUCTURAL SURVEY AND MONITORING OF VIBRATION											18/226
SPECIAL	530E13000	24,875	25,456	50,331				SF	SPECIAL - FORM LINER	1,815	16,460	6,600		3,213	16,443	5,800				18/226
601	20010	385	490	875				CY	CRUSHED AGGREGATE SLOPE PROTECTION				385				490			
613	41200	400	300	700				CY	LOW STRENGTH MORTAR BACKFILL		400				300					
867	00100	LUMP	LUMP	LUMP					TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL											
869	00101	42	42	84				EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARING, AS PER PLAN	12	30			12	30					18/226
894	10000	32	32	64				EACH	THERMAL INTEGRITY PROFILER (T.I.P.) TEST		32				32					18/226

LEGEND:

* QUANTITY CARRIED TO GENERAL SUMMARY
** QUANTITY APPLIES TO THE REAR ABUTMENT MONUMENT

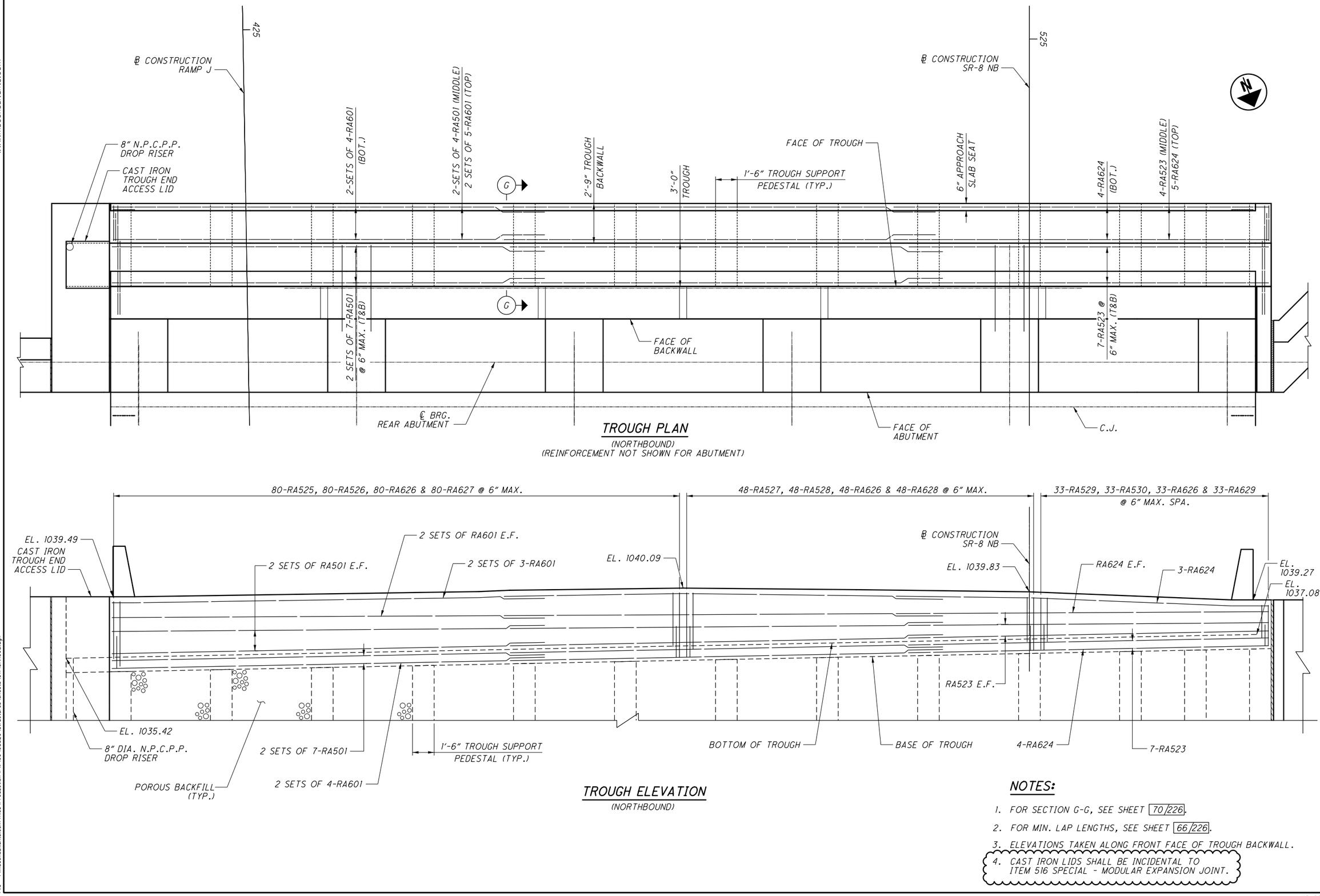
CALCULATED BY: ATM DATE: 2019 SEPT.
CHECKED BY: ELP DATE: 2019 SEPT.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
ATM	ATM	GLG	20-APR
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ELP		77003707700371	

ESTIMATED QUANTITIES (2 OF 2)
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710



NOTES:

1. FOR SECTION G-G, SEE SHEET 70/226.
2. FOR MIN. LAP LENGTHS, SEE SHEET 66/226.
3. ELEVATIONS TAKEN ALONG FRONT FACE OF TROUGH BACKWALL.
4. CAST IRON LIDS SHALL BE INCIDENTAL TO ITEM 516 SPECIAL - MODULAR EXPANSION JOINT.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
ABD	KRM	GLG	20-APR
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KCL		7700370/7700371	

REAR ABUTMENT TROUGH PLAN AND ELEVATION (1 OF 2)

BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

PLOT.CEL

ms consultants, inc.
msconsultants.com

www.msconsultants.com

Ohio DOT Workspace
SUM-8

0 0.5" 1"

USE: ohdot1V8i
Project: 80-08326_PW

Batchplot Spec: \\msconsultants.com\files\Production\PW\60\08326\standards\plotdrv\batchplt.spc
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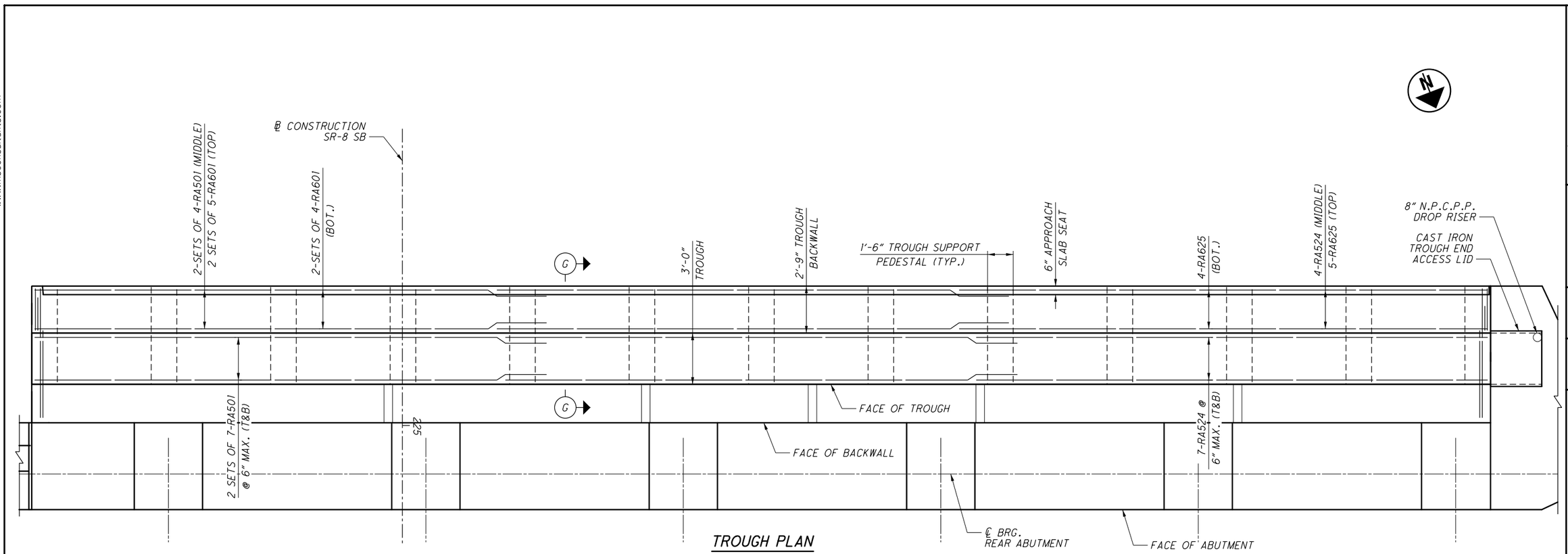
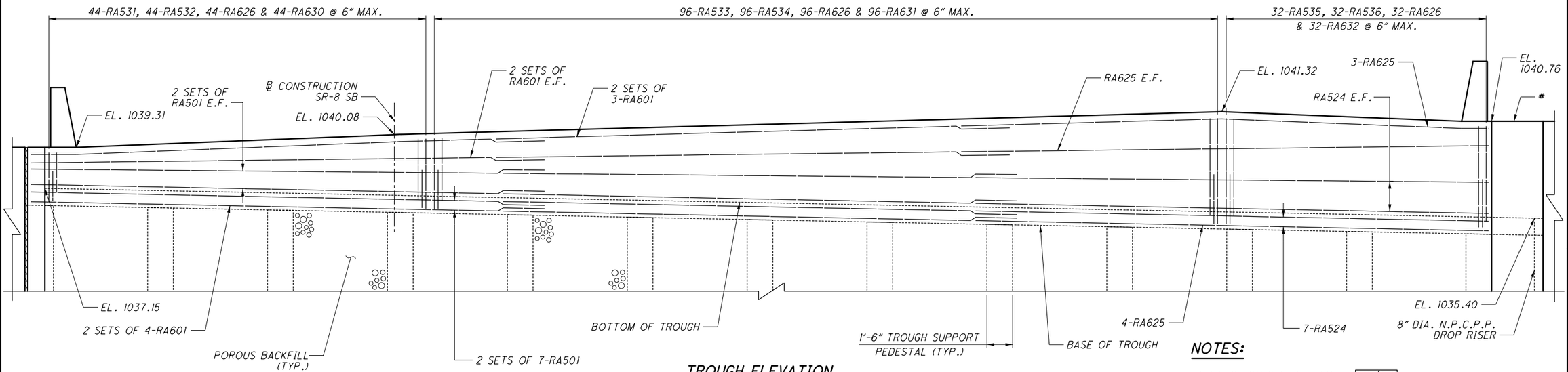
By: BLester

34" x 22"



TROUGH PLAN

(SOUTHBOUND)
(REINFORCEMENT NOT SHOWN FOR ABUTMENT)



TROUGH ELEVATION

(SOUTHBOUND)

LEGEND:

\# CAST IRON TROUGH END ACCESS LID

NOTES:

1. FOR SECTION G-G, SEE SHEET 70/226.
2. FOR MIN. LAP LENGTHS, SEE SHEET 66/226.
3. ELEVATIONS TAKEN ALONG FRONT FACE OF TROUGH BACKWALL.
4. CAST IRON LIDS SHALL BE INCIDENTAL TO ITEM 516 SPECIAL - MODULAR EXPANSION JOINT.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
ABD	KRM	GLG	20-APR
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KCL		17003707700371	

REAR ABUTMENT TROUGH PLAN AND ELEVATION (2 OF 2)

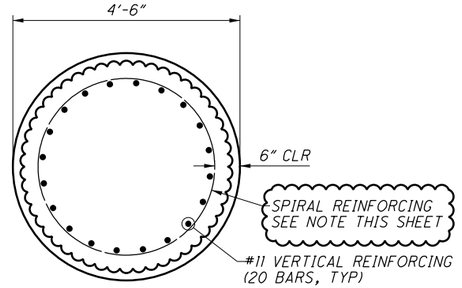
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

69/226

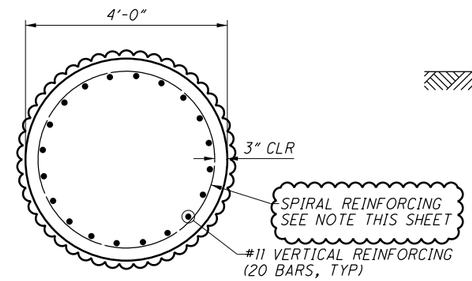
567/801

DRILLED SHAFT DATA								
DRILLED SHAFT NUMBER	TOP OF SHAFT ELEV	TOP OF VERTICAL REINF ELEV	APPROX TIP ELEV	TOP OF ROCK ELEV	SPIRAL ELEV	54" SHAFT PAY LENGTH	48" SHAFT PAY LENGTH	VERTICAL REINF LENGTH
P1N1-P1N8	954.25	958.25	948.25	958.80	954.75	N/A	6'-0"	9'-9"
P1S1-P1S8	952.00	956.00	917.00	933.00	952.50	19'-0"	16'-0"	38'-9"
P2N1-P2N8	878.75	882.75	849.70	855.70	879.25	24'-0"	6'-0"	32'-9"
P2S1-P2S8	874.25	878.25	855.20	862.70	874.75	12'-0"	8'-0"	22'-9"
P3N1-P3N8	865.00	869.00	836.60	844.60	865.50	21'-0"	8'-0"	32'-2"
P3S1-P3S8	866.75	870.75	831.20	837.70	867.25	30'-0"	7'-0"	39'-3"
P4N1-P4N8	872.50	876.50	830.50	851.50	873.00	21'-0"	21'-0"	45'-9"
P4S1-P4S8	886.50	890.50	834.60	841.10	887.00	46'-0"	7'-0"	55'-8"



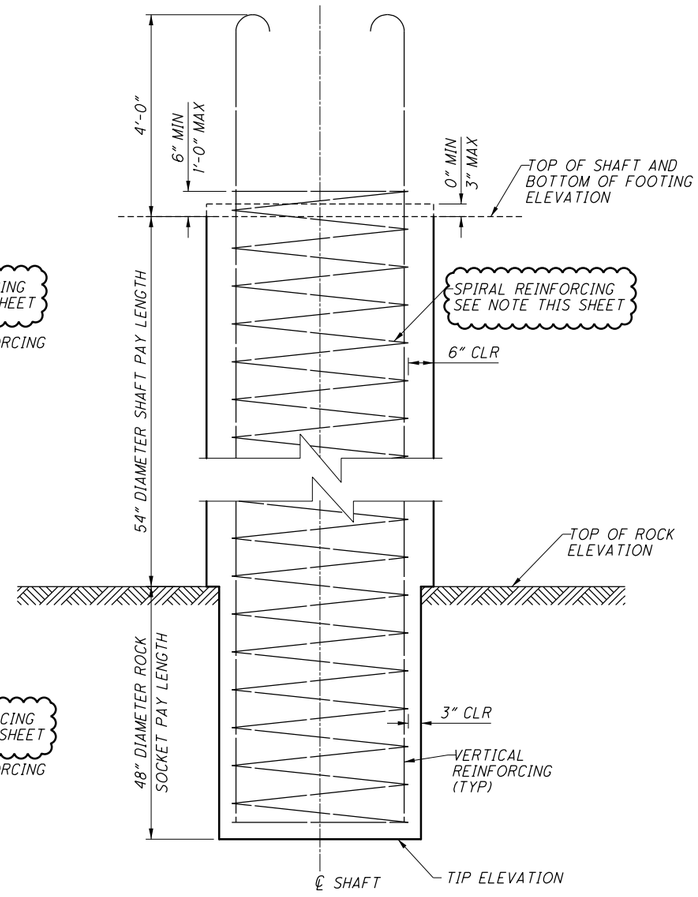
TYPICAL PIER DRILLED SHAFTS

54" DIAMETER



TYPICAL ROCK SOCKETS

48" DIAMETER



TYPICAL PIER DRILLED SHAFT ELEVATION

54" DIA ABOVE ROCK, 48" DIA ROCK SOCKET

SPIRAL REINFORCING NOTE

SPIRAL REINFORCING SHALL BE DETAILED AS ONE OF THE FOLLOWING OPTIONS:
* 2 BUNDLED #5 BARS AT 5½" PITCH
* SINGLE #6 SPIRAL AT 3¾" PITCH

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

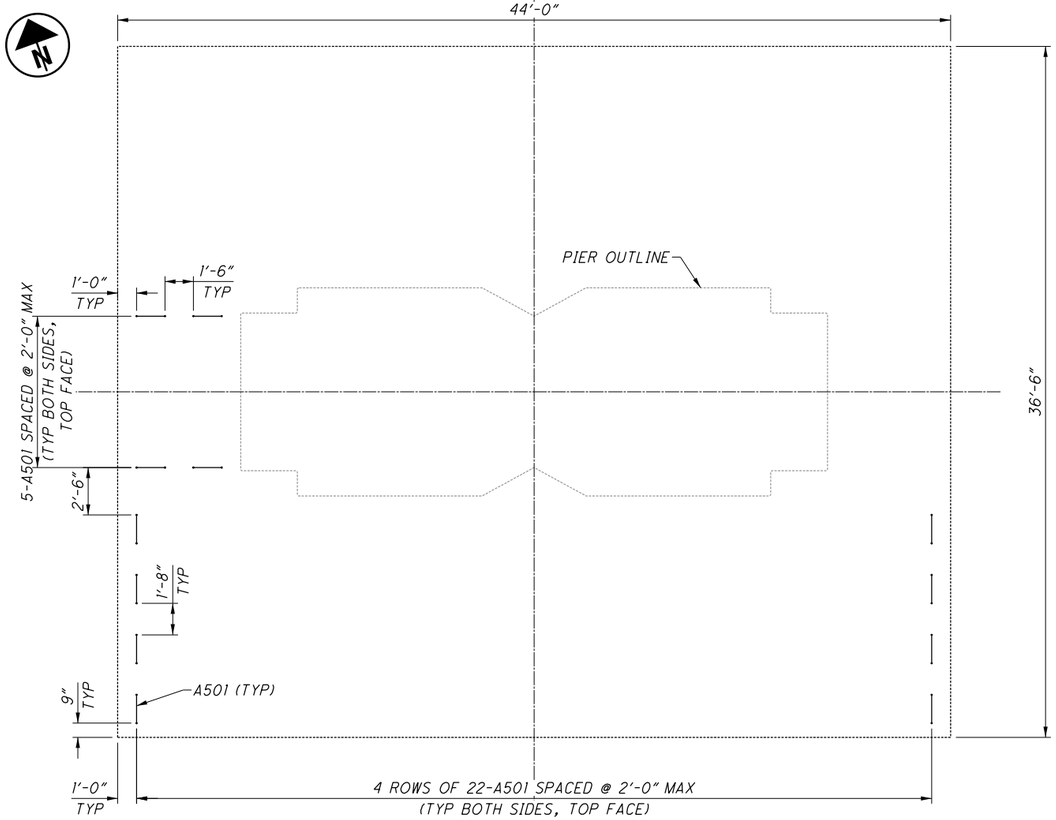
DESIGNED	DRAWN	REVIEWED	DATE
AH	VDT	EFD	9/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTM		7700370/7700371	

PIER DRILLED SHAFT DETAILS
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

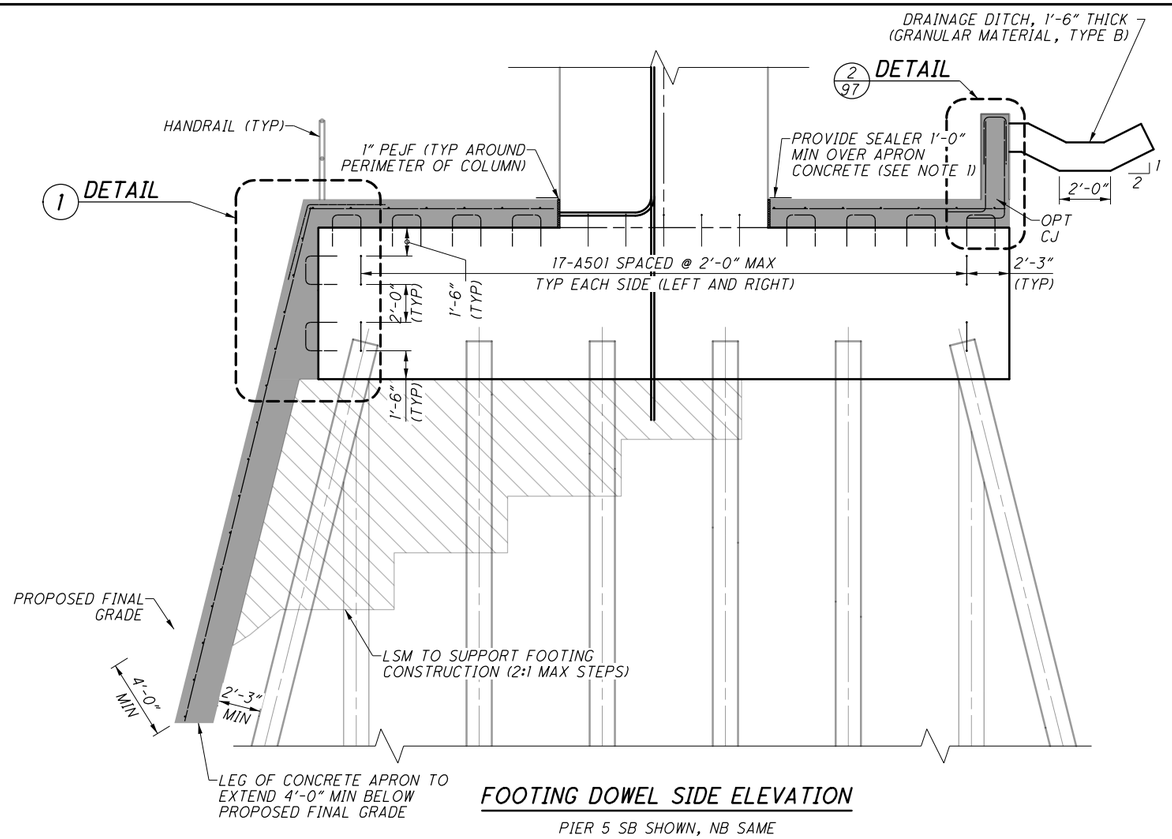
93 / 226

591
801



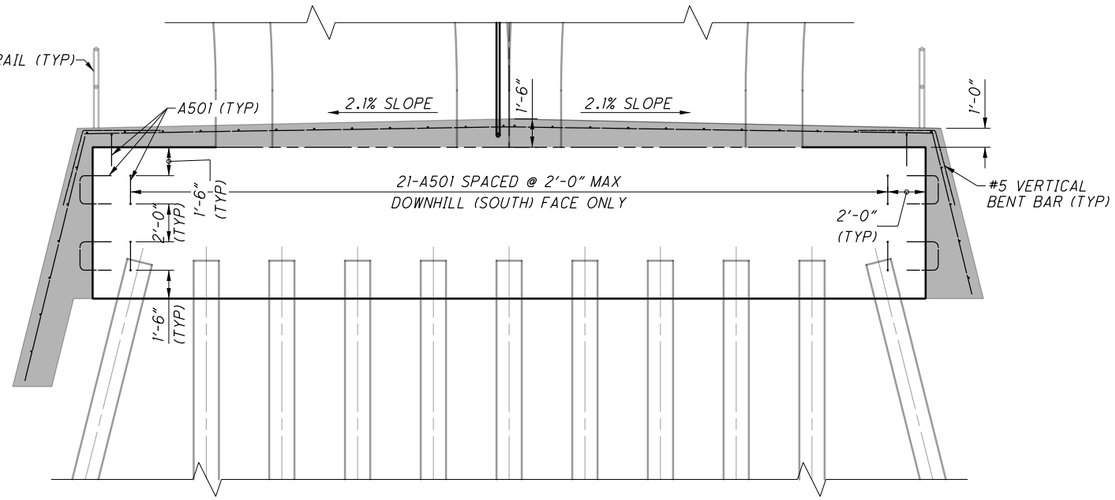
FOOTING DOWEL PLAN

PIER 5 SB SHOWN, NB SAME



FOOTING DOWEL SIDE ELEVATION

PIER 5 SB SHOWN, NB SAME

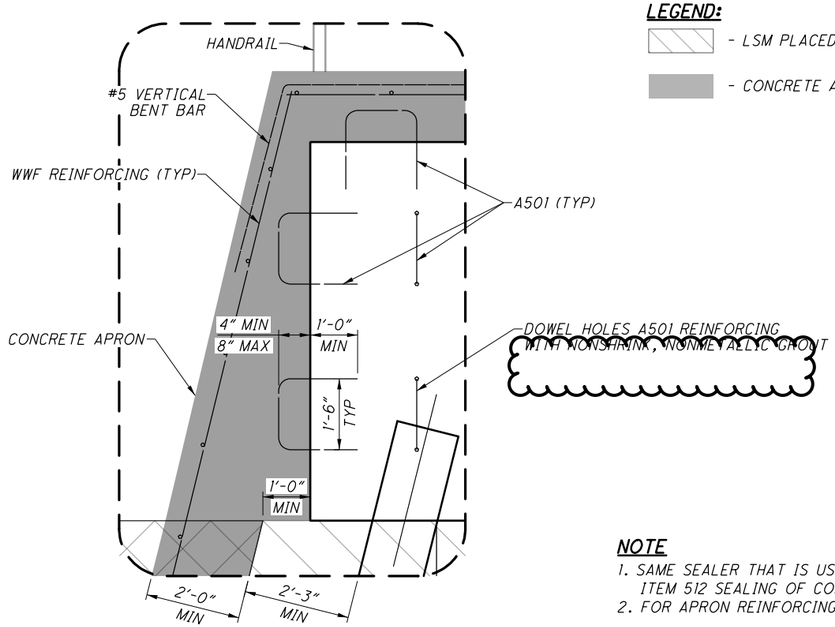


FOOTING DOWEL FRONT ELEVATION

PIER 5 SB SHOWN, NB SAME

LEGEND:

- LSM PLACED BEFORE FOOTING CONSTRUCTION
- CONCRETE APRON



1 DETAIL
APRON REINFORCING

NOTE

1. SAME SEALER THAT IS USED ON COLUMN. PAID FOR WITH ITEM 512 SEALING OF CONCRETE SURFACES, AS PER PLAN.
2. FOR APRON REINFORCING DETAILS, SEE SHEET 97228.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
AH	VDT	EFD	9/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CTM		7700370/7700371	

CONCRETE APRON DETAILS (1/4)
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

96 / 226

594
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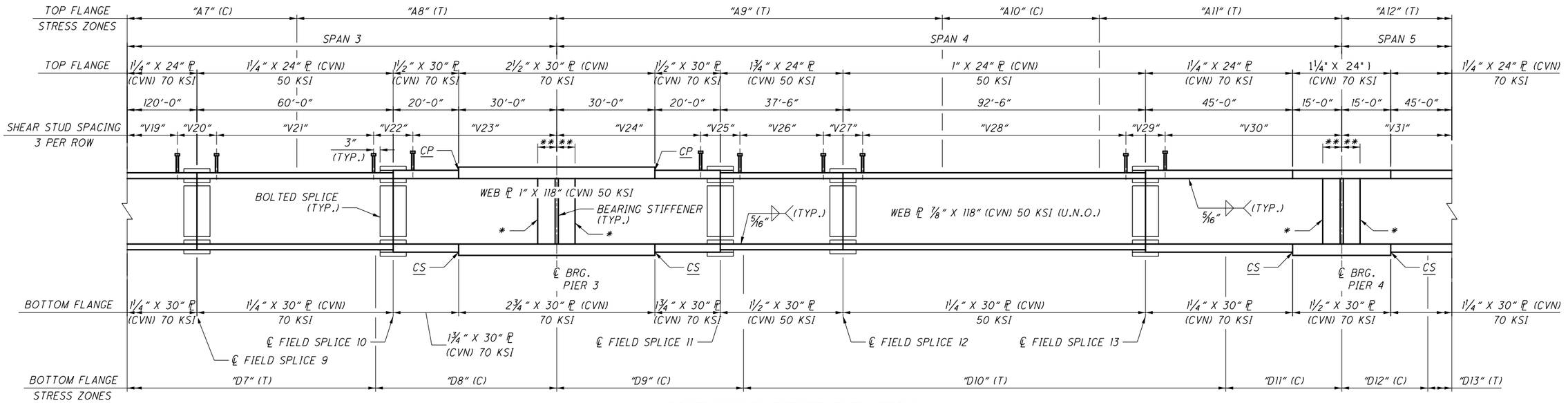
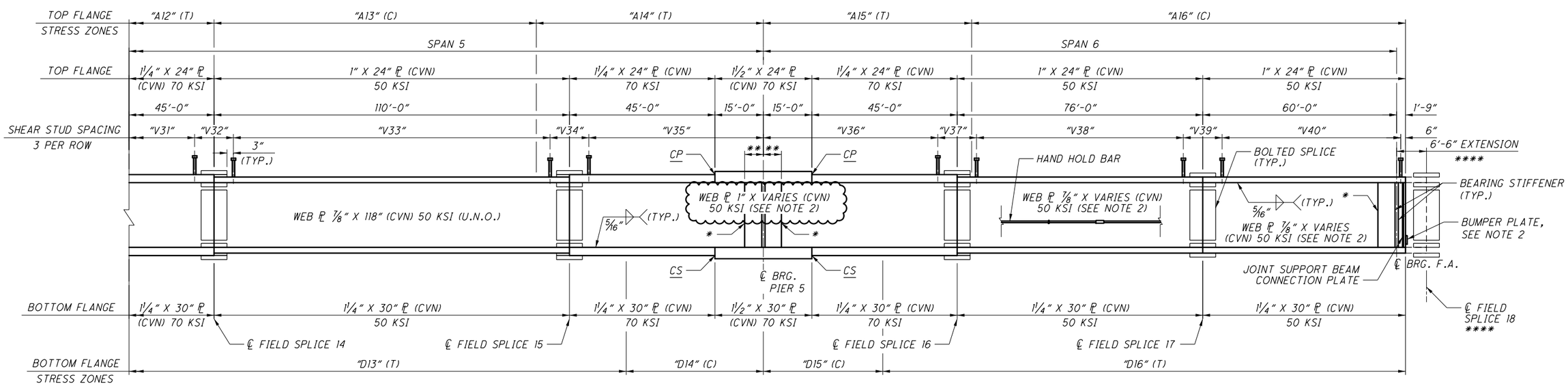


SOUTHBOUND GIRDER ELEVATION

PART 3 OF 4
GIRDERS 1 THRU 6



SOUTHBOUND GIRDER ELEVATION

PART 4 OF 4
GIRDERS 1 THRU 6

NOTES:

1. FOR ADDITIONAL NOTES AND LEGEND, SEE SHEET 110/226.
2. FOR VARIABLE DEPTH SUPER STRUCTURE DETAILS, SEE SHEET 143/226.
3. SEE SHEET 110/226 FOR LEGEND.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

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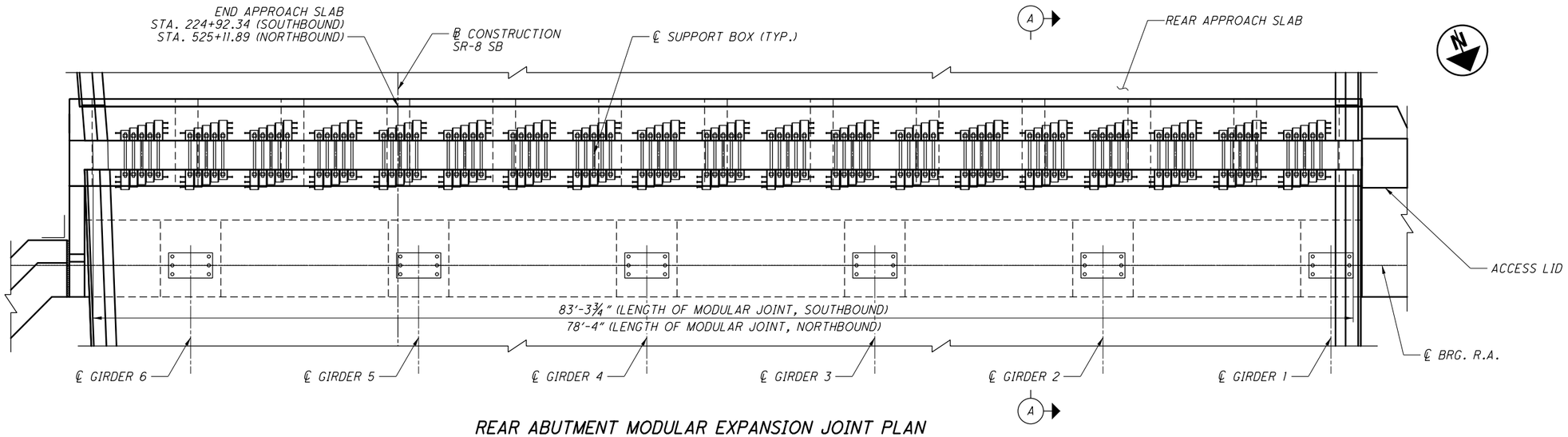
SOUTHBOUND BRIDGE GIRDER ELEVATION (2 OF 2)
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

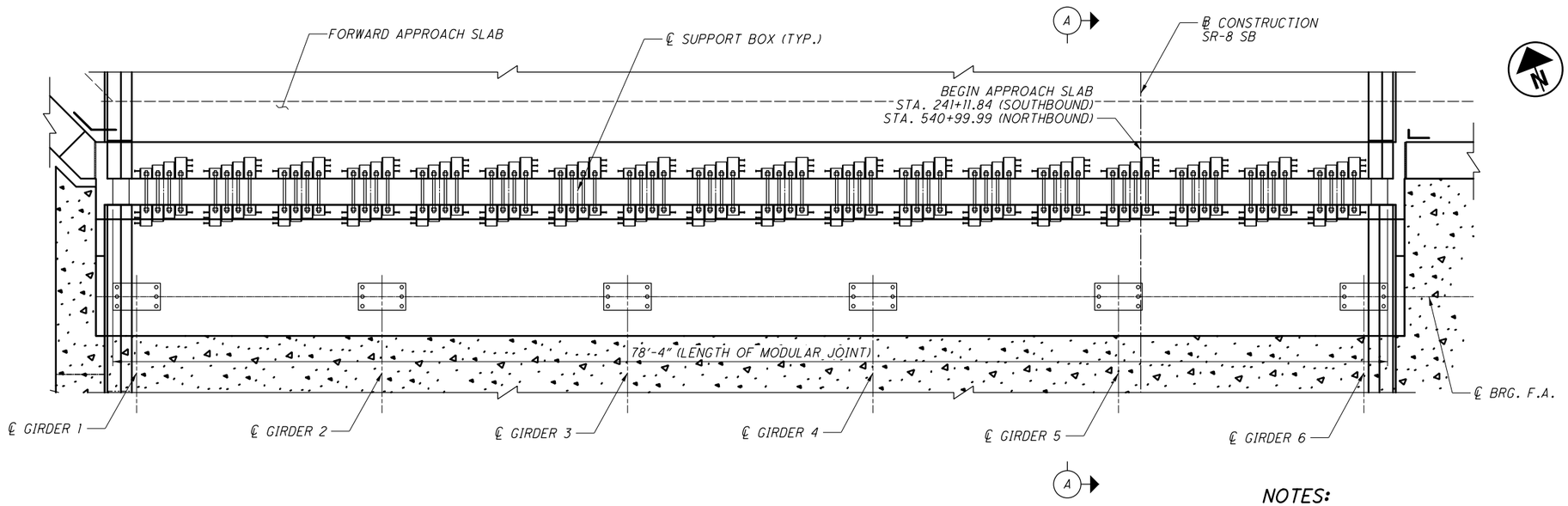
111/226

609/801



REAR ABUTMENT MODULAR EXPANSION JOINT PLAN

(SOUTHBOUND BRIDGE SHOWN, NORTHBOUND BRIDGE SIMILAR)



FORWARD ABUTMENT MODULAR EXPANSION JOINT PLAN

(SOUTHBOUND BRIDGE SHOWN, NORTHBOUND BRIDGE SIMILAR)

NOTES:

1. SEE ITEM 516 SPECIAL - MODULAR EXPANSION JOINT OF THE GENERAL NOTES ON SHEET 17/226.
2. LOCATION, SPACING AND QUANTITY OF SUPPORT BOXES TO BE DETERMINED BY JOINT MANUFACTURER.
3. SEAL DECK CONSTRUCTION JOINT WITH 2'-0" HMWM, PER 2016 ODOT CMS 705.15. PAYMENT FOR HMWM SHALL BE INCLUDED UNDER ITEM 511-CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK.
4. EXPANSION JOINT SHOWN IN THE DETAILS IS FOR ILLUSTRATION ONLY. JOINT MANUFACTURER SHALL DETERMINE THE SIZE AND TYPE OF THE JOINT BASED ON THE INFORMATION PROVIDED.
5. FOR SECTION A-A, SEE SHEET 184/226.
6. FOR DECK REINFORCING AT EXPANSION JOINT SUPPORT BOXES DETAIL, SEE SHEET 153/226.

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

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MODULAR EXPANSION JOINT DETAILS (1 OF 2)

BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
(CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET

SUM-8-1.75
PID No. 91710

183/226

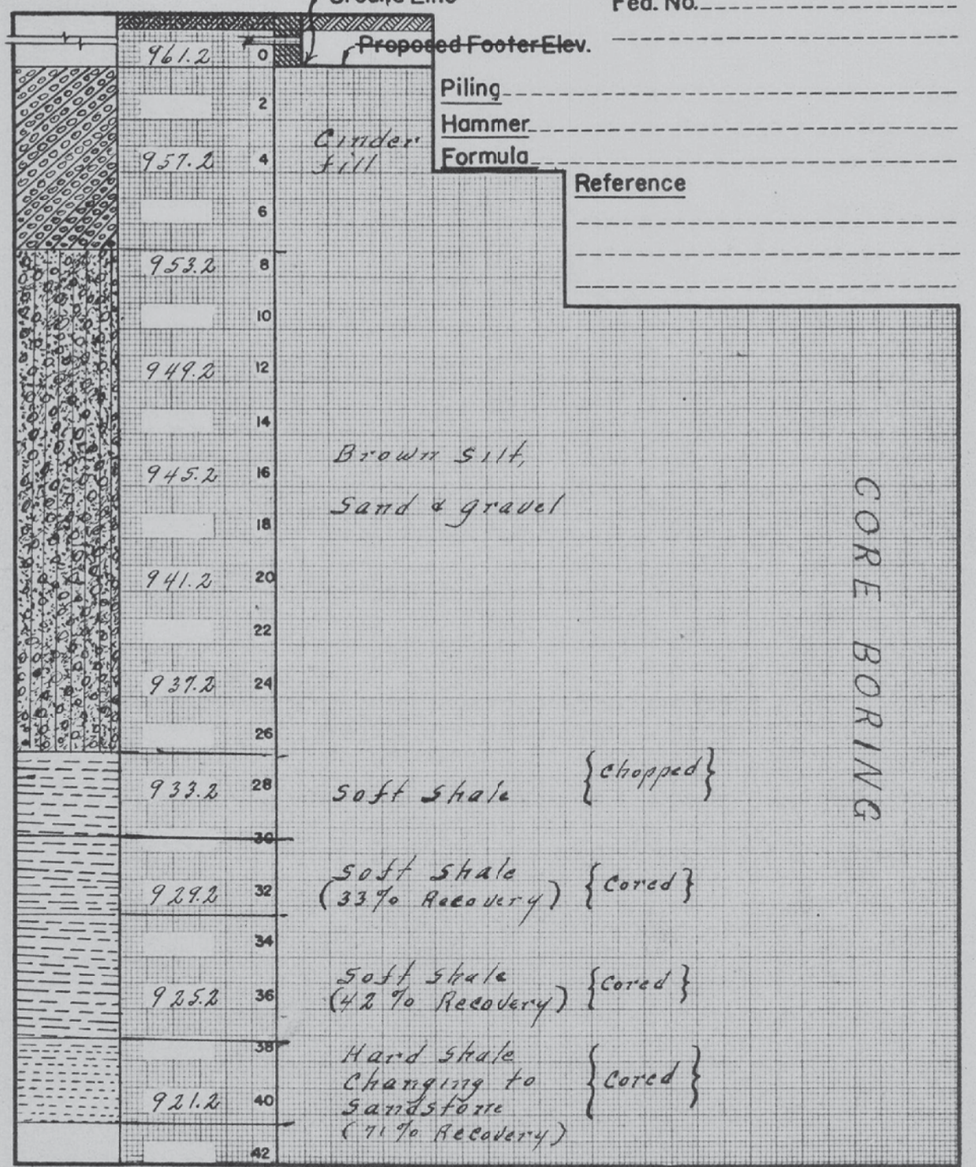
681
801

PILE PENETRATION CURVES

#3 Abut - Pier
T.H. 14 Date _____
Sta. 28+64 Offset 26' Lt.
Water Elev. _____

County Summit
S.H. _____ Sec. City of Akron
Bridge No. Union St Viaduct
over Little Cuyahoga River
AKRON EXPRESSWAY
Fed. No. _____

Piling _____
Hammer _____
Formula _____
Reference _____



10 20 30 40 50 60 70 80 90 100 110 120 130
Capacity "R" in Thousands of Pounds

BUREAU OF BRIDGES
DEPT. OF HIGHWAYS
STATE OF OHIO

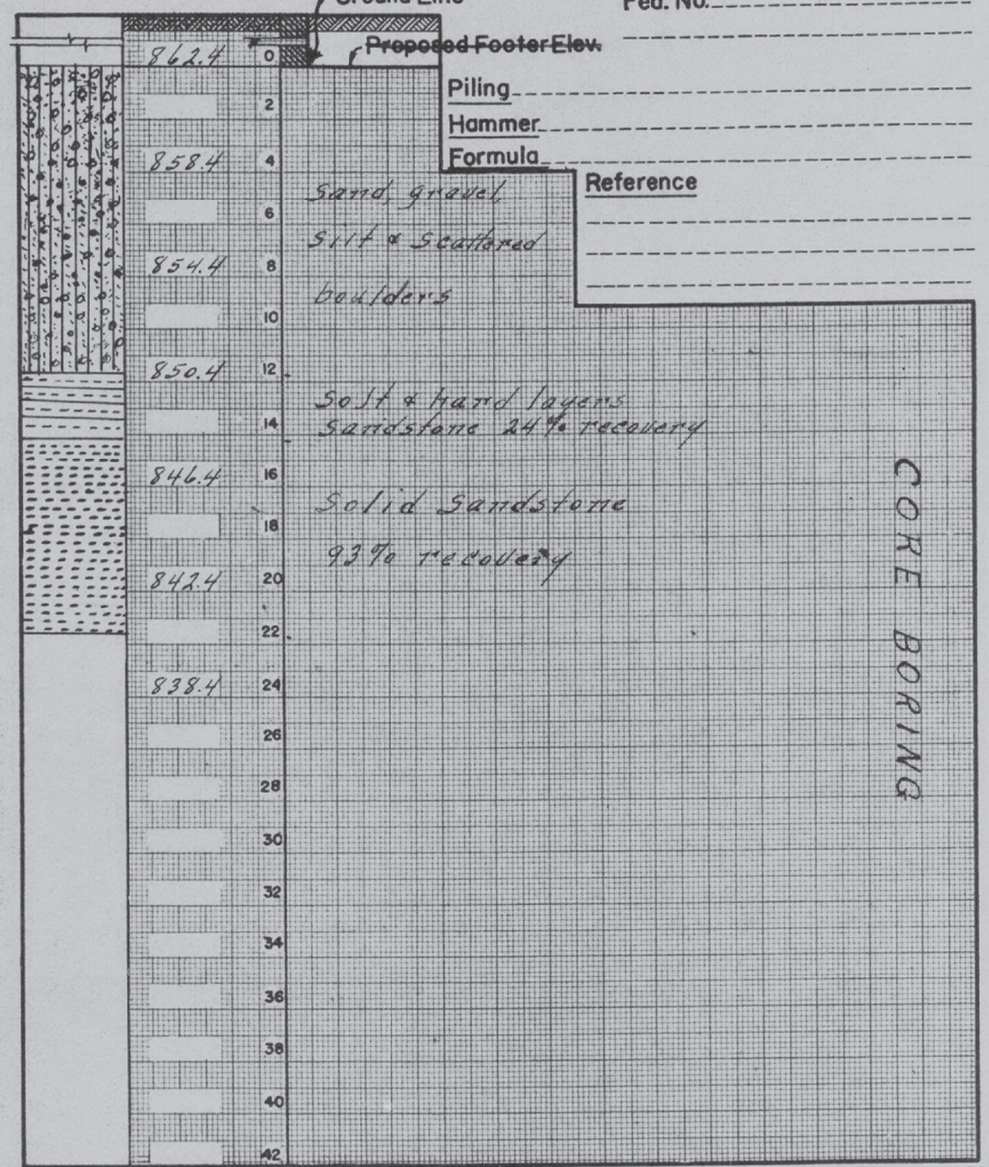
By W.G.T.
Date _____

PILE PENETRATION CURVES

#4 Abut - Pier
T.H. 17 Date _____
Sta. 31+80 Offset 43' Rt.
Water Elev. _____

County Summit
S.H. _____ Sec. City of Akron
Bridge No. Union St Viaduct
over Little Cuyahoga River
AKRON EXPRESSWAY
Fed. No. _____

Piling _____
Hammer _____
Formula _____
Reference _____



10 20 30 40 50 60 70 80 90 100 110 120 130
Capacity "R" in Thousands of Pounds

BUREAU OF BRIDGES
DEPT. OF HIGHWAYS
STATE OF OHIO

By W.G.T.
Date _____

DRAWN YLZ
CHECKED TLM

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. SUM-8-0199 OVER LITTLE CUYAHOGA RIVER
CORE BORING LOGS B-014-0-48 & B-017-0-48

SUM-8-1.75

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