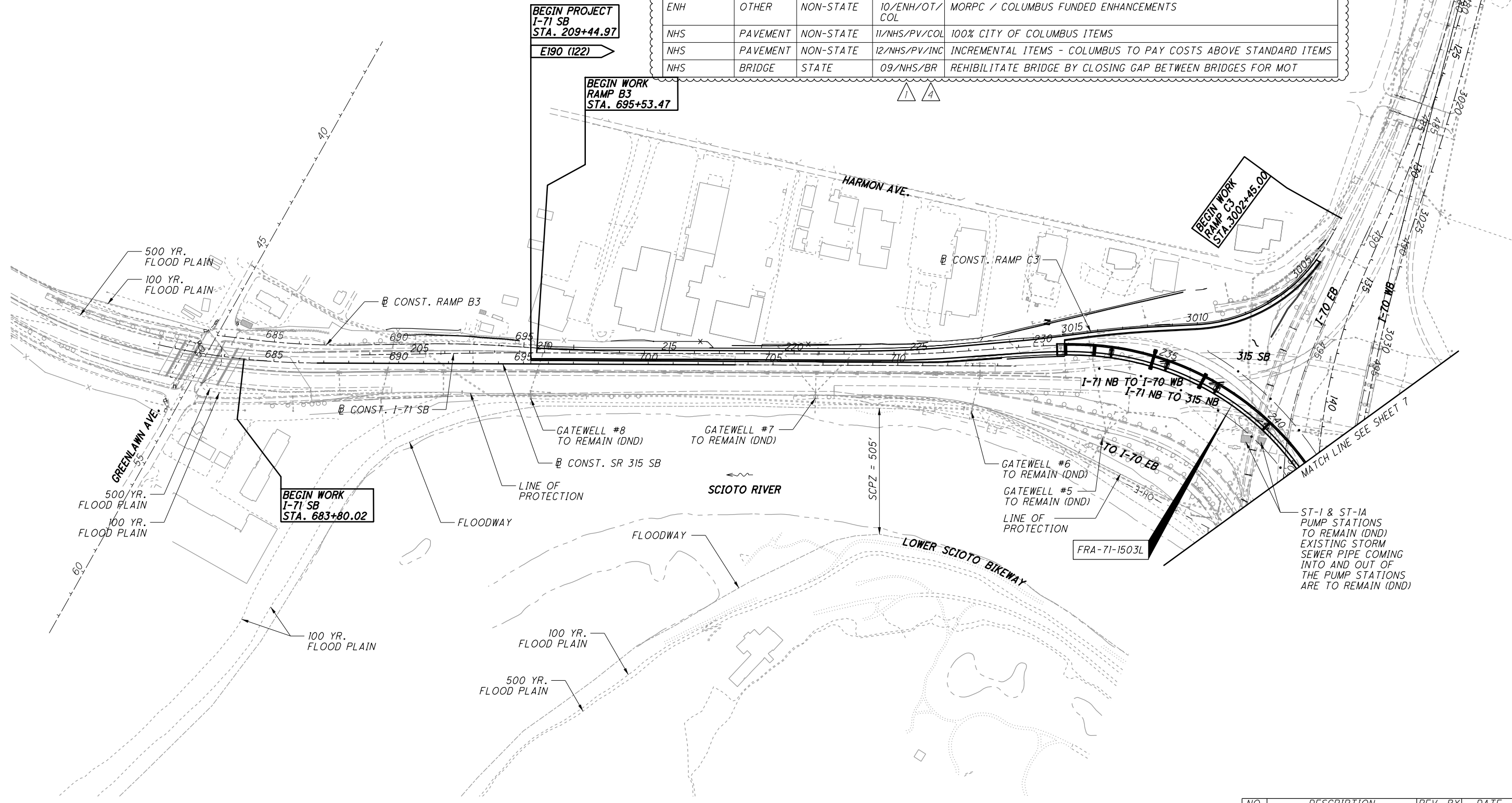


LEGEND
(DND) = DO NOT DISTURB

CATEGORY	GROUP	RESPONSIBLE ENTITY	PLAN SPLIT CODE	DESCRIPTION
NHS	PAVEMENT	STATE	08/NHS/PV	IR TO EXISTING PAVEMENT RECONSTRUCTION FROM RAILROAD BRIDGE TO FRONT ST. (50%), RESURFACING AND RESTRIPING IR 70 FROM FRONT ST. TO GRANT AVE, RAMP D7, AND LOCAL STREETS (MOUND, SHORT, CIVIC CENTER, SECOND)
NHS	PAVEMENT	STATE	08/NHS/PV	IR 70 WIDENED PAVEMENT FROM RAILROAD TO FRONT ST. (50%) AND RETAINING WALLS
NHS	BRIDGE	STATE	09/NH/BR	BEIDGE REPLACEMENT - EXISTING WIDTH - FRA-71-1503L (I71 SB OVER RAILROADS, SCIOTO RIVER, AND SR 315 (50%))
NHS	BRIDGE	STATE	09/NHS/BR	BRIDGE REPLACEMENT - WIDENING - FRA-71-1503L (50%)
NHS	BRIDGE	STATE	09/NHS/BR	NEW BRIDGE - FRA-70-13.73B (RAMP D7 OVER SHORT ST.)
NHS	PAVEMENT	STATE	08/NHS/PV	ELIGIBLE UTILITY ITEMS (WATERWORKS, SANITARY, ELECTRIC, ETC)
ENH	OTHER	NON-STATE	10/ENH/OT/COL	MORPC / COLUMBUS FUNDED ENHANCEMENTS
NHS	PAVEMENT	NON-STATE	11/NHS/PV/COL	100% CITY OF COLUMBUS ITEMS
NHS	PAVEMENT	NON-STATE	12/NHS/PV/INC	INCREMENTAL ITEMS - COLUMBUS TO PAY COSTS ABOVE STANDARD ITEMS
NHS	BRIDGE	STATE	09/NHS/BR	REHABILITATE BRIDGE BY CLOSING GAP BETWEEN BRIDGES FOR MOT



CALCULATED
ACW
CHECKED

SCHEMATIC PLAN

FRA-71-14.36

6
1228

NO.	DESCRIPTION	REV. BY	DATE
1	REVISE PLAN SPLITS	TAZ	09/30/21
4	REVISE PLAN SPLITS	TAZ	11-29-2021



Ohio DOT Workspace
70171 West Interchange 6R
www.msconsultants.com



0 0.5
Columbus

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\msconsultants.com\files\standards\ustin\ohio\1\8\ms\plotting\pen.tbl; ms_std.ctb
Plot Driver: \\msconsultants.com\files\standards\ustin\ohio\1\8\ms\plotting\PDF.plt; ctf

34" x 22"

View: SHEET
Printed: 11/29/2021 @ 2:32:02 PM By: tzangmeister
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886002.dgn

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 LICENSED 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 690E98400, SPECIAL-SURVEY CONTROL VERIFICATION

ITEM SPECIAL - EMERGENCY CLOSURE

THIS ITEM WILL COVER PAYMENT FOR ALL WORK ASSOCIATED WITH THE EMERGENCY ACTION PLAN FOR PART 2. THIS INCLUDES BUT IS NOT LIMITED TO: STOCKPILING OF EMERGENCY FILL MATERIALS FOR EXCAVATIONS AS SHOWN IN THE EMERGENCY ACTION PLAN; EMERGENCY BACKFILLING AS NEEDED AND THEN REMOVAL OF TEMPORARY BACKFILL MATERIALS FROM THE EXCAVATION AFTER THE FLOOD EVENT AND FROM THE SITE ONCE THE WORK IS COMPLETED.

LOCATIONS POTENTIALLY REQUIRING EMERGENCY CLOSURE ARE DESCRIBED IN THE EMERGENCY ACTION PLAN AND INCLUDE THE SANITARY FORCEMAIN, FRA-71-1503L PIERS 9L AND 9R, FRA-70-13.22L WESTERN ABUTMENT AND FRA-70-1323C WESTERN ABUTMENT.

RIPARIAN HABITAT

EXISTING RIPARIAN HABITAT ZONES ALONG THE SCIOTO RIVER SHALL BE MAINTAINED TO THE MAXIMUM EXTENT PRACTICABLE DURING PROJECT CONSTRUCTION.

STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE CONSTRUCTION WORK ALONG AND WITHIN THE SCIOTO RIVER CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATION SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS. A SPILL/RUNOFF CONTAINMENT SYSTEM SHALL BE UTILIZED TO PREVENT OR MINIMIZE THE LIKELIHOOD OF CONTAMINANTS ENTERING THE RIVER. COST OF THE CONTAINMENT SYSTEM SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 832 - EROSION CONTROL (EACH).

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

LOWER SCIOTO BIKEWAY (LSB) AND SCIOTO AUDUBON METRO PARK (SAMP)

THE CONTRACTOR WILL KEEP OPEN THE EITHER THE EXISTING LOWER SCIOTO BIKEWAY OR THE CONSTRUCTED DETOUR ROUTE IN ORDER TO MINIMIZE INTERACTION BETWEEN TRAIL USERS AND CONSTRUCTION ACTIVITIES, EXCEPT FOR THE TWO-WEEK PARK CLOSURE PERIODS. BOTH TRAILS MUST BE CLOSED WHEN THE PARK IS CLOSED TO ENSURE THE SAFETY OF TRAIL USERS.

TO ENABLE THE CONTRACTOR TO HAUL MATERIALS TO THE PROJECT SITE, THE SCIOTO AUDUBON METRO PARK SHALL BE ALLOWED TO BE CLOSED FOR A PERIOD OF TWO (2) WEEKS BETWEEN JANUARY 1, 2022 AND MARCH 15, 2022 AND AGAIN BETWEEN NOVEMBER 1, 2022 AND MARCH 15, 2023. THE CONTRACTOR MUST NOTIFY ODOT AT LEAST 14 DAYS IN ADVANCE OF THE REQUESTED CLOSURE.

THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE GRANGE INSURANCE AUDUBON CENTER, PRIVATE BUSINESSES, AND UTILITY COMPANY PROPERTIES DURING THE 2-WEEK CLOSURE PERIODS OF THE SCIOTO AUDUBON METRO PARK. OUTSIDE THE 2- WEEK CLOSURE PERIODS, TRUCK DELIVERIES WILL BE ALLOWED FROM 9:00PM THRU 6:00AM APRIL 1ST THRU SEPTEMBER 30TH AND 6:00PM TO 7:00AM OCTOBER 1ST THRU MARCH 31ST. OUTSIDE OF THOSE DESIGNATED HOURS, ONLY TRUCKS WITH A TOTAL WEIGHT OF LESS THAN 13 TONS WILL BE ALLOWED TO BE WITHIN THE SCIOTO AUDUBON METRO PARK.

ANY CONCRETE POUR THAT IS LARGER THAN 200 CUBIC YARDS IS TO BE PERFORMED OUTSIDE OF SCIOTO AUDUBON METRO PARK HOURS (6:30 AM TO 8:00 PM). CONCRETE POURS SMALLER THAN 200 CUBIC YARDS MAY BE PERFORMED DURING SAMP HOURS THIS WILL BE THE ONLY EXCEPTION TO THE TONNAGE RESTRICTION ABOVE. THE CONTRACTOR WILL INSTALL SIGNAGE AT THE PARK ENTRANCE TO NOTIFY USERS OF HIGHER THAN USUAL TRUCK TRAFFIC FOR THESE EVENTS.

IF ADDITIONAL CLOSURES OF THE LOWER SCIOTO BIKEWAY OR LOWER SCIOTO BIKEWAY DETOUR ARE ANTICIPATED, THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS, FRANKLIN COUNTY METRO PARKS, AND ODOT AT LEAST 7 DAYS BEFORE THE REQUESTED CLOSURE IS TO OCCUR.

DURING PERIODS OF NO CONSTRUCTION ACTIVITY, THE EXISTING LOWER SCIOTO BIKEWAY WILL BE OPEN FOR PUBLIC USE. VEHICULAR, PEDESTRIAN, AND BICYCLE ACCESS WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES EXCEPT FOR THE 2-WEEK CLOSURE PERIODS OF THE SCIOTO AUDUBON METRO PARK.

APPROPRIATE SIGNAGE SHALL BE INSTALLED TO ALERT USERS OF THE SCIOTO AUDUBON METRO PARK AND THE LOWER SCIOTO BIKEWAY OF CONSTRUCTION ACTIVITIES, ACCESS RESTRICTIONS OR CLOSURES, AND TO DIRECT USERS TO SECONDARY ACCESS POINTS. SEE TRAFFIC CONTROL PLANS ON PART 1

NO CONSTRUCTION ACTIVITY SHALL OCCUR DURING RED WHITE AND BOOM AND ONE DAY PRECEDING THE EVENT. THE CONSTRUCTION ACTIVITY LIMITATION DATES FOR RED WHITE AND BOOM FOR EACH YEAR WILL BE PROVIDED TO THE CONTRACTOR BY ODOT.

THE STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT SHALL NOT TAKE PLACE OUTSIDE OF THE FENCED CONSTRUCTION LIMITS WITHIN THE DEFINED BOUNDARIES OF THE SCIOTO AUDUBON METRO PARK.

THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT DISTRICT 6, COLUMBUS RECREATION AND PARKS, AND FRANKLIN COUNTY METRO PARKS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

A REPRESENTATIVE FROM COLUMBUS RECREATION AND PARKS AND FRANKLIN COUNTY METRO PARKS SHALL BE INVITED TO ATTEND ALL CONSTRUCTION RELATED MEETING. A SCHEDULE OF CONSTRUCTION ACTIVITIES SHALL BE PROVIDED TO COLUMBUS RECREATION AND PARKS, AND SCIOTO AUDUBON METRO PARK REPRESENTATIVES.
CONTACT INFORMATION:

COLUMBUS RECREATION AND PARKS:
BRAD WESTALL, (614) 645-2441 BRWESTALL@COLUMBUS.GOV

FRANKLIN COUNTY METRO PARKS:
D.J. WHITE, (614) 445-1076

THE LOWER SCIOTO BIKEWAY AND LOWER SCIOTO BIKEWAY DETOUR WILL NOT BE USED FOR ACCESS TO THE WORK AREA, EXCEPT AT THE DESIGNATED CROSSINGS WITHIN EACH PHASE.

CALCULATED
CHECKED

GENERAL NOTES

FRA-71-14.36

NO.	DESCRIPTION	REV. BY	DATE
4	ADDED NOTE	LM	11-24-2021
4	Revise LSB Note	TAZ	11-24-2021

44
1228

ITEM 202E11501 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN 3

DURING CONSTRUCTION, THERE IS THE POTENTIAL FOR THE CONTRACTOR TO ENCOUNTER (8) ABANDONED CONCRETE PIER FOUNDATIONS ALONG MOUND STREET FROM APPROXIMATELY STATION 10+68 TO STATION 13+45. IF THESE STRUCTURES SHOULD BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL REMOVE THE PORTION OF THE STRUCTURE IN CONFLICT WITH PROPOSED CONSTRUCTION ACTIVITY PER C&S 109.05. THE COST FOR EACH ITEM SHALL BE \$1.00. THE FIXED AMOUNT SHOWN ON THE PROPOSAL IS INCLUDED (AS ANY OTHER BID ITEMS) IN THE TOTAL BID AMOUNT. THIS FIXED AMOUNT IS THE DEPARTMENT'S ESTIMATE OF THE TOTAL COST OF PORTIONS OF STRUCTURE REMOVED THAT IS REQUIRED TO BE PERFORMED WITHIN THE WORK LIMITS AS DIRECTED BY THE ENGINEER. C&S TABLE 104.02-2 DOES NOT APPLY TO REDUCTIONS IN THIS CONTRACT ITEM. FORCE ACCOUNT RECORDS SHALL BE KEPT TO TRACK AND ULTIMATELY DETERMINE THE AMOUNT OF THE PAY ITEM USED.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE.

202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
 25,000 EACH

ITEM 611 - CONDUIT BORED OR JACKED, AS PER PLAN:

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 25 FEET OR AS SPECIFIED IN THE PLANS TO THE NEAREST RAIL. PROVIDE A 36 INCH STEEL CASING PIPE CONFORMING TO ODOT'S SPECIFICATIONS 748.06 HAVING JOINTS WITH A CIRCUMFERENTIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE. THE CASING PIPE SHALL MEET OR EXCEED THE DESIGN REQUIREMENTS AS SPECIFIED IN "CSX DESIGN & CONSTRUCTION SPECIFICATIONS, PIPELINE OCCUPANCIES" REVISION DATE OCTOBER 14, 2015.

THE 36 INCH STEEL CASING PIPE SHALL HAVE A WALL THICKNESS OF 0.532 INCHES. THE INSTALLED CASING PIPE SHALL CONTAIN A 18 INCH STORM SEWER CARRIER PIPE. THE CARRIER PIPE SHALL BE AN 18" AWWA C905 GASKETED INTEGRAL BELL PVC PIPE, PC 200, DR 21.

ALL LABOR AND MATERIALS FOR THE INSTALLATION OF THE 36" CASING PIPE SHALL AND THE COST OF CONSTRUCTING THE 18" CARRIER PIPE PIPE SHALL BE PAID FOR AS:

ITEM 611 - CONDUIT, BORED AND JACKED, AS PER PLAN

BACKFILL FOR FORCEMAINS 4

FOR THE VOID CREATED TO EXCAVATE AND CONSTRUCT THE PROPOSED FORCE MAINS, WEST OF THE RIVER IN THE AREA OF THE EXISTING STORMWATER PUMP STATION, THE EXCAVATION AND BACKFILL SHALL BE PER THE CITY OF COLUMBUS SPECIFICATION 901 AND THE MOST RECENT USACE STANDARD OPERATING PROCEDURE (SOP) FOR EXCAVATION BENCHING AND/OR BACKFILL COMPACTION FOR LEVEE AND FLOODWALL MODIFICATIONS (14 JUNE 2021 LATEST VERSION).

USACE PROCEDURES AND GUIDANCE SHALL SUPERCEDE AND SHALL BE FOLLOWED FOR ALL EXCAVATION BENCHING AND BACKFILL WITHIN THE LEVEE EMBANKMENT AND WITHIN 15 FEET OF THE TOE OF THE LEVEE OR FACE OF FLOODWALL. ALL LEVEE EMBANKMENT MATERIAL AND LEVEE FOUNDATION MATERIAL DISTURBED DURING EXCAVATION FOR THE INSTALLATION OF THE FORCE MAINS SHALL BE REPLACED ACCORDING TO THE USACE SOP.

ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTING THE FORCE MAINS

STANDARD OPERATING PROCEDURE FOR EXCAVATION BENCHING AND/OR BACKFILL COMPACTION FOR LEVEE AND FLOODWALL MODIFICATIONS - 14 JUNE 2021

1. PLACING BACKFILL WITHIN THE LEVEE EMBANKMENT WILL REQUIRE THE FOLLOWING:

- A) THE SURFACE OF THE LEVEE SHALL BE STRIPPED OF ORGANICS AND TOPSOIL TO A DEPTH OF APPROXIMATELY 6 INCHES PRIOR TO BENCHING THE LEVEE SIDESLOPE.
- B) THE EXISTING LEVEE EMBANKMENT SHALL BE OVER-EXCAVATED IN ALL DIRECTIONS BY BENCHING 1 FT VERTICAL AND 3 FT HORIZONTAL INTO STIFF UNDISTURBED SOIL. A LEVEL BOTTOM SURFACE DAY-LIGHTING TOWARD THE LEVEE TOE SHALL BE PROVIDED FROM WHICH THE UPWARD BENCHING ON THE SIDES SHALL INITIATE. BENCHING MAY HAVE TO BE PERFORMED BY HAND METHODS OR USING SMALL-SCALE EXCAVATION EQUIPMENT.
- C) THE LEVEE SOIL ON WHICH THE BACKFILL IS TO BE PLACED SHOULD NOT BE EXCAVATED UNTIL IMMEDIATELY BEFORE BACKFILLING, AND SHALL NOT BE ALLOWED TO BECOME OVERLY WET OR DRY WHILE EXPOSED. THE SURFACE AREA OF THE BENCHES SHALL BE SCARIFIED AS NECESSARY TO ENSURE A GOOD BOND BETWEEN THE EXISTING SOIL AND THE BACKFILL MATERIAL.
- D) BACKFILL MATERIAL MUST BE LOW PERMEABILITY SOILS - IMPERMEABLE SOILS (E.G. SC, CL OR CL-ML WITH AN ESTIMATED HYDRAULIC CONDUCTIVITY LESS THAN 1×10^{-5} CM/SEC) IN ACCORDANCE WITH ASTM 2488 - USCS CLASSIFICATION SYSTEM.
- E) BACKFILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS WITH THICKNESSES NOT TO EXCEED 6-INCHES AND COMPACTED TO A MINIMUM OF 95 PERCENT STANDARD PROCTOR DENSITY DETERMINED AT OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D-698. MOISTURE CONTROL LIMITS ARE TO BE WITHIN -1% TO +3% OF OPTIMUM.
- F) COMPACTION TEST RESULTS OF WORK ACCOMPLISHED IN ITEM "E" ABOVE SHALL BE SUBMITTED TO USACE FOR REVIEW THROUGHOUT THE CONSTRUCTION PROCESS.
- G) EARTHWORK SPECIFICATION REQUIREMENTS SHALL BE SUBMITTED FOR REVIEW.
- H) THE FINISHED RIVERSIDE OR LANDSIDE SLOPE OF THE LEVEE SHALL BE GRADED TO MATCH THE EXISTING LEVEE SLOPES UPSTREAM AND DOWNSTREAM. A SITE-SPECIFIC GRADING PLAN MUST BE APPROVED FOR PROJECTS WHERE THE FINAL GRADE DIFFERS FROM THE ORIGINAL GRADE.
- I) THE DISTURBED AREAS SHALL BE SEEDED AND COVERED WITH A BIO-DEGRADABLE GEOTEXTILE WHEN FINAL GRADING IS COMPLETE.

2. PLACING BACKFILL MATERIALS OUTSIDE THE PROJECTED LEVEE SLOPES BUT WITHIN A MINIMUM OF 15 FEET OF THE TOE OF THE LEVEE OR FACE OF THE FLOODWALL REQUIRES THE FOLLOWING:

- A) BACKFILL MATERIAL MUST BE LOW PERMEABILITY SOILS - IMPERMEABLE SOILS (E.G. SC, CL OR CL-ML WITH AN ESTIMATED HYDRAULIC CONDUCTIVITY LESS THAN 1×10^{-5} CM/SEC) IN ACCORDANCE WITH ASTM 2488 - USCS CLASSIFICATION SYSTEM. ALTERNATIVELY, CONTROLLED LOW STRENGTH MATERIAL (E.G. FLOWABLE FILL) MEETING THE ABOVE CONDUCTIVITY REQUIREMENTS AND THE GOVERNING STATE'S DOT STANDARD SPECIFICATION MAY ALSO BE USED AS BACKFILL MATERIAL.
- B) BACKFILL SHALL BE PLACED IN LOOSE LIFTS WITH THICKNESSES NOT TO EXCEED 8-INCHES AND COMPACTED TO A MINIMUM OF 95 PERCENT STANDARD PROCTOR DENSITY DETERMINED AT OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D-698, UNLESS OTHERWISE DIRECTED. MOISTURE CONTROL LIMITS ARE TO BE WITHIN -1% TO +3% OF OPTIMUM.
- C) THE DISTURBED AREAS SHALL BE SEEDED AND COVERED WITH A BIO-DEGRADABLE GEOTEXTILE WHEN FINAL GRADING IS COMPLETE.

ITEM 611 - CONDUIT UNDER RAILROAD

THE STATE SHALL PAY TO THE RAIL COMPANY ALL COSTS FOR WATCHMEN OR FLAGGERS DEEMED NECESSARY BY THE RAIL COMPANY, OR OCCASIONED BY THE OPERATIONS OF THE CONTRACTOR, OR ANY SUB-CONTRACTOR, IN CARRYING FORWARD THE INSTALLATION OF PIPE OR CONDUIT UNDER THE RAILROAD PER THE PLAN. THE COSTS FOR WATCHMEN OR FLAGGERS REQUIRED BY AN ALTERNATE METHOD OF INSTALLATION SHALL BE PAID TO THE RAIL COMPANY BY THE CONTRACTOR. THE COSTS FOR WATCHMEN OR FLAGGERS OCCASIONED BY THE NEGLIGENCE OF THE CONTRACTOR, OR ANY SUB-CONTRACTOR, IN CONNECTION WITH THE INSTALLATION OF THE PIPE OR CONDUIT SHALL BE PAID BY THE CONTRACTOR.

TRACK SUPPORTS REQUIRED BY THE RAIL COMPANY IN CONNECTION WITH THE INSTALLATION OF THE PIPE OR CONDUIT PER THE PLAN SHALL BE INCLUDED IN THE COMPANY FORCE ACCOUNT WORK AND PAID BY THE STATE. THE COST OF ANY TRACK SUPPORTS REQUIRED BY AN ALTERNATE METHOD OF INSTALLATION OF THE PIPE OR CONDUIT SHALL BE PAID TO THE RAIL COMPANY BY THE CONTRACTOR.

THE CONTRACTOR SHALL SECURE APPROVAL OF HIS OPERATIONS FROM THE STATE AND THE RAIL COMPANY. THE RAIL COMPANY WILL PERFORM AN ENGINEERING REVIEW OF METHODS OF OPERATIONS AND ENGINEERING SUPERVISION OF CONSTRUCTION WITHOUT COST TO THE CONTRACTOR.

PRIOR TO BIDDING, THE CONTRACTOR SHALL COORDINATE WITH THE RAIL COMPANY TO AGREE UPON THE REQUIREMENTS OF WATCHMEN AND FLAGGERS TO PROTECT RAILROAD TRAFFIC DURING THE CONTRACTOR'S OPERATIONS. THE CONTRACTOR SHALL EXECUTE A BOND IN FAVOR OF BOTH THE STATE AND THE COMPANY AS REQUIRED BY SECTION 5525.16 OF THE REVISED CODE OF OHIO.

THE CONTRACTOR SHALL CO-OPERATE WITH THE RAILROAD OFFICIALS CONCERNING WORK ADJACENT TO RAILROAD TRACKS, IN ORDER TO AVOID DELAY TO, OR INTERFERENCE WITH RAILROAD TRAFFIC, AND SHALL NOTIFY THE COMPANY 40 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.

TEMPORARY DRAINAGE ITEMS

TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS. PAYMENT FOR THE TEMPORARY DRAINAGE ITEMS ARE ITEMIZED AND CARRIED TO THE GENERAL SUMMARY.

NORFOLK SOUTHERN NOTES

FOR PROJECTS EXCEEDING 30 DAYS OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE FLAGMAN A SMALL WORK AREA WITH A DESK/COUNTER AND CHAIR WITHIN THE FIELD/SITE TRAILER, INCLUDING THE USE OF BATHROOM FACILITIES, WHERE THE FLAGMAN CAN CHECK IN/OUT WITH THE PROJECT, AS WELL AS TO THE FLAGMAN'S HOME TERMINAL. THE WORK AREA SHOULD PROVIDE ACCESS TO TWO (2) ELECTRICAL OUTLETS FOR RECHARGING RADIO(S), AND A LAPTOP COMPUTER; AND HAVE THE ABILITY TO PRINT OFF NEEDED DOCUMENTATION AND ORDERS AS NEEDED AT THE FIELD/SITE TRAILER. THIS SHOULD AID IN MAXIMIZING THE FLAGMAN'S TIME AND EFFICIENCY ON THE PROJECT.

ALL UTILITY INSTALLATIONS OR RELOCATIONS THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR'S SUB-CONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR THE INSTALLATION OR RELOCATION TO AECOM FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES. FOR UTILITY APPLICATIONS GO TO:

www.nscorp.com > Real Estate > NS Services > Wire, Pipeline and Fiber Optics Projects

NOTE: LICENSE AGREEMENT MUST BE EXECUTED PRIOR TO UTILITY BEING INSTALLED OR RELOCATED.

TOP OF RAIL ELEVATIONS SHALL BE CHECKED AND THE MINIMUM VERTICAL CLEARANCE VERIFIED BEFORE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE NORFOLK SOUTHERN ENGINEER PUBLIC IMPROVEMENTS.

NORFOLK SOUTHERN WILL BE PROVIDED AS-BUILT DRAWINGS OF THE BRIDGES SHOWING THE ACTUAL CLEARANCES AS CONSTRUCTED. DEPTH, SIZE, AND LOCATION OF ALL FOUNDATION COMPONENTS SHALL BE SHOWN ON THE DRAWINGS.

ITEM 253 - PAVEMENT REPAIR, AS PER PLAN 4

THE PAVEMENT REPAIR CALLED OUT ON THE PLAN SHEETS IS PER SQUARE YARD. THE CONTRACTOR SHALL USE THE FOLLOWING FOR THE PAVEMENT RESTORATION BUILDUP AT THE STATED LOCATIONS:

- 1) MOUND STREET BETWEEN FRONT STREET AND SHORT STREET, AND INCLUDING SHORT STREET, SHALL USE ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B.
- 2) MOUND STREET WEST OF SHORT STREET, IN THE MILLING AND RESURFACING AREA SHALL USE THE PAVEMENT BUILDUP AS SHOWN ON THE MOUND STREET TYPICAL SECTION ON SHEET 35.
- 3) I-71SB NEAR GREENLAWN AVE SHALL USE THE PAVEMENT BUILDUP AS SHOWN ON THE I-71SB TYPICAL SECTION ON SHEET 19.
- 4) SHARED USE PATH SHALL USE THE FOLLOWING BUILDUP FOR PAVEMENT RESTORATION:
 - * ITEM 823 - 1.5" OF ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448)
 - * ITEM 823 - 1.5" OF ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448)
 - * ITEM 304 - 4" AGGERGATE BASE

NO.	DESCRIPTION	REV. BY	DATE
3	UPDATE ITEM 202 NOTE	LM	11-22-2021
4	Add Backfill & USACE Note	TAZ	11-24-2021
4	Add Pvmf. Repair Note	TAZ	11-24-2021



Ohio DOT Workspace
7071 West Interchange 6R
www.mscconsultants.com



0.5'

ohio108
60-06634_6R_Columbus

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.plt
Pen Table: \\msconsultants.com\files\standards\usint\ohio108\msstd.tbl
Plot Driver: \\msconsultants.com\files\standards\usint\ohio108\msplotting\PDF.plt

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.plt
Pen Table: \\msconsultants.com\files\standards\usint\ohio108\msstd.tbl
Plot Driver: \\msconsultants.com\files\standards\usint\ohio108\msplotting\PDF.plt

3.4" x 22"

View: SHEET
Printed: 11/22/2021 8:11:32:36 AM By: tzangmaister
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet1055886005.dgn

SHEETING & BRACING

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

ODOT'S CONCRETE BARRIER INLETS

PER ODOT'S STANDARD CONSTRUCTION DRAWINGS FOR CONCRETE BARRIER INLET DETAILS, THE STATION AND OFFSET IS CALLED OUT TO THE CENTER OF THE GRATE. THE GRATE ELEVATION CALLED OUT IN THE STORM SEWER PROFILES AND CROSS SECTIONS ARE TO THE CENTER EDGE OF THE GRATE WHERE IT ABUTS TO THE FACE OF BARRIER.

ITEM 608- CURB RAMP, MISC.: COLUMBUS CURB RAMP TYPE A, C, D, G, H, J AND P-7 AS PER PLAN

ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF COLUMBUS SPECIFICATION ITEM 608 AND DETAILS ON SHEETS 587 - 597.

GRATINGS, VALVE BOXES, AND UTILITY BOXES SHALL NOT BE LOCATED IN THE RAMP, LANDING, DETECTABLE WARNINGS, OR TRANSITION AREAS.

A MINIMUM OF 1 GALLON OF CURING MEMBRANE SHALL BE USED FOR EACH 200 SQUARE FEET OF SURFACE TREATED.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, AND NECESSARY MATERIALS.



BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05

ITEM 609 - CURB, MISC.: STRAIGHT 16", 17" AND 18" GRANITE CURB, AS PER PLAN

REFERENCE SHEETS 564 - 565 AND 573 FOR ADDITIONAL INFORMATION ON MATERIALS AND CONSTRUCTION OF STRAIGHT 18" GRANITE CURB. ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR CONSTRUCTION SHALL BE INCLUDED IN THE UNIT COSTS OF THE FOLLOWING ITEMS:

ITEM 609 - CURB, MISC.: STRAIGHT 18" GRANITE CURB AS PER PLAN FOR MT. AIRY GRANITE COLOR

ITEM 608 - DETECTABLE WARNINGS, AS PER PLAN

THE DETECTABLE WARNINGS SHALL BE TYPE E PRE-MANUFACTURED PRODUCT FOR INSTALLATION INTO WET CONCRETE.

ITEM 690 SPECIAL - 4" PIPE UNDERDRAIN

ALL PROPOSED UNDERDRAINS AS SHOWN IN THIS CONSTRUCTION DOCUMENT THAT ARE WITHIN THE CITY STREET'S RIGHT OF WAY SHALL BE FURNISHED AND INSTALLED PER ITEM 605 FROM THE 2018 CITY OF COLUMBUS CONSTRUCTION & MATERIAL SPECIFICATIONS INCLUDING ALL REVISIONS AND CHANGES.

ITEM 608 - WALKWAYS, MISC.: BRICK PAVER CROSSWALK/WALK, AS PER PLAN

SEE DETAILS, SHEETS 559 & 560.

BRICK PAVERS CONSTRUCTION FOR CROSSWALKS SHALL FOLLOW THE CITY OF COLUMBUS SUPPLEMENTAL SPECIFICATION 1524. SEE GENERAL NOTE SHEETS 53 AND 54. THE COLOR LISTED BELOW ON THIS SHEET SHALL APPLY TO BOTH.

ALL BRICK PAVEMENT PLACEMENT WILL REQUIRE ALL NEW BRICK PAVERS, FURNISHED AND INSTALLED BY THE CONTRACTOR. NO SALVAGEABLE BRICKS ARE TO BE REUSED, ALL SALVAGEABLE BRICKS ARE TO BE CLEANED AND PALLETIZED, NO MORE THAN 3' HIGH, SHRINK WRAPPED AND DELIVERED TO THE CITY OF COLUMBUS OPERATIONS YARD, LOCATED AT 1850 E. 25TH AVENUE.

THE FOLLOWING SUPPLIER CAN PROVIDE THE NEW BRICKS:

PINE HALL BRICK
2701 SHOREFAIR DRIVE
WINSTON-SALEM, NC 27105
800-334-8689
WWW.PINEHALLBRICK.COM

THE BELDEN BRICK COMPANY
P.O. BOX 20910
CANTON, OH 44701-0910
(330) 451-2031
WWW.BELDENBRICK.COM

(OR APPROVED EQUAL)

BRICK SPECIFICATIONS
MATERIAL: SOLID FIRECLAY BRICK
SIZE: 8" X 4" X 2 3/4" (HEAVY DUTY)
8" X 4" X 2 1/4" (LIGHT DUTY)
COLOR: PATHWAY FULL RANGE

PAVER WALK CONCRETE BASE

ALL WORK FOR THE CONCRETE BASE SHALL CONFORM TO ITEM 608, EXCEPT THAT THE ITEM 608 REQUIREMENTS FOR EDGING OUTSIDE EDGES AND CONTROL JOINTS AT 5-FOOT INTERVALS SHALL BE WAIVED.

THE CONCRETE BASE SHALL BE CORE DRILLED WITH A 2" DIAMETER BIT THROUGH THE ENTIRE DEPTH OF THE BASE. THE WEEP HOLES SHALL BE LOCATED FLUSH WITH THE PROPOSED CURB AND IN ALL LOW LYING AREAS ALONG THE SLAB WHICH COULD POTENTIALLY TRAP WATER. THE WEEP HOLES SHALL BE SPACED EVERY 6 FOOT ON CENTER. FINAL LAYOUT OF WEEP HOLES SHALL BE SET BY THE CONTRACTOR AND MARKED ON THE BASE PRIOR TO DRILLING FOR APPROVAL BY THE ENGINEER-IN-CHARGE. ONCE THE CORING IS COMPLETE THE HOLE SHALL BE FILLED WITH #9 WASHED AGGREGATE,

NON-ANGULAR, AND CLEANED. FILTER FABRIC SHALL BE PLACED ALONG THE CURB LINE AT A WIDTH OF 12" AND TURNED UP ALONG THE CURB PRIOR TO THE PLACEMENT OF THE SETTING BED. COSTS FOR WEEP HOLE INSTALLATION, INCLUDING DRILLING, AGGREGATE FILL, AND FILTER FABRIC SHALL BE INCLUDED WITHIN THE BID COSTS OF ITEM 608 - WALKWAY MISC.: BRICK PAVER WALK, AS PER PLAN AND ITEM 608 - MISC.: BRICK PAVER CROSSWALK, AS PER PLAN.

EDGING

WHERE THE BRICK PAVER WALK ABUTS THE LAWN, THE CONTRACTOR IS REQUIRED TO USE EDGING AS SHOWN ON MISC. DETAIL SHEET 585, STD. DWG. 2301, BRICK SIDEWALK DETAIL TO HOLD THE BRICKS IN PLACE. THE COST FOR THE EDGING SHALL BE INCLUDED IN THE COST FOR ITEM 608 - WALKWAY MISC.: BRICK PAVER WALK, AS PER PLAN.

NEOPRENE MODIFIED ASPHALT ADHESIVE

FURNISH NEOPRENE MODIFIED ASPHALT ADHESIVE THAT CONTAINS 2 PERCENT NEOPRENE, GRADE WMI, OXIDIZED ASPHALT WITH A 150 DEGREE SOFTENING POINT (77 PENETRATION), AND 10 PERCENT LONG FIBERIZED INERT MATERIAL AS SUPPLIED BY:

KARNAK
330 CENTRAL AVENUE
CLARK, NJ 07066
(800) 526-4236
http://www.karnakcorp.com

HANOVER ARCHITECTURAL PRODUCTS
5000 HANOVER ROAD
HANOVER, PA 17331
(717) 637-0500
http://www.hanoverpavers.com

(OR APPROVED EQUAL)

ALL COSTS FOR EQUIPMENT, LABOR, AND MATERIALS SHALL BE INCLUDED IN THE SQUARE FOOT UNIT PRICE OF ITEM 608 - WALKWAY, MISC.: BRICK PAVER WALK, AS PER PLAN AND ITEM 608 - WALKWAY, MISC.: BRICK PAVER CROSSWALK, AS PER PLAN.

BITUMINOUS SETTING BED

FURNISH ASPHALT CEMENT CONFORMING TO ASTM D3381, VISCOSITY GRADE AC-10 OR AC-20. FURNISH FINE AGGREGATE OF NATURAL SAND AND/OR STONE SAND, COMPOSED OF HARD, TOUGH, DURABLE, UNCOATED PARTICLES, FREE FROM CLAY, SILT, ORGANIC MATERIAL OR OTHER DELETERIOUS SUBSTANCES, INSURE THE SAND IS UNIFORMLY GRADED WITH ALL MATERIAL PASSING THE NO. 4 SIEVE AND MEETING THE REQUIREMENTS OF ASTM C136.

COMBINE THE DRIED FINE AGGREGATE WITH HOT ASPHALT CEMENT AND MIX HEAT TO APPROXIMATELY 300 DEGREES FAHRENHEIT AT AN ASPHALT PLANT.

PROVIDE AN APPROXIMATE PROPORTION OF MATERIALS OF 7 PERCENT ASPHALT CEMENT AND 93 PERCENT FINE AGGREGATE.

PROVIDE EACH TO APPORTION BY WEIGHT TO 140 POUNDS OF ASPHALT CEMENT AND 1,860 POUNDS OF FINE AGGREGATE.

ALL COSTS FOR EQUIPMENT, LABOR, AND MATERIALS SHALL BE INCLUDED IN THE SQUARE FOOT UNIT PRICE OF ITEM 608 - WALKWAY MISC.: BRICK PAVER WALK, AS PER PLAN AND ITEM SPECIAL MISC.: BRICK PAVER CROSSWALK, AS PER PLAN. NO SEPARATE PAYMENT SHALL BE MADE.

BRICK PAVER JOINTING SAND AND SEALER

BRICK PAVERS SHALL BE TOPPED WITH JOINTING SAND WITH PAVER JOINTS BEING COMPLETELY FILLED WITH SPECIFIED SAND TO THE BOTTOM OF BRICK PAVER CHAMFERS (OR 1/8 - INCH BELOW TOP OF PAVER) AS SPECIFIED; GRADATION FOR JOINTING SAND SHALL BE POLYMERIC MANUFACTURED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM C144.

METHOD OF MEASUREMENT

PAVERS SHALL BE MEASURED BY THE SQUARE FOOTAGE OF THE FINISHED PAVERS THAT ARE CONSIDERED COMPLETED IN PLACE.

BASIS OF PAYMENT

THE ACCEPTED QUANTITIES OF PAVERS WILL BE PAID FOR AT THE CONTRACT PRICES DESIGNATED FOR EACH PAVER TYPE SHOWN ON THE PLANS. EXCAVATION, BACKFILL, SUBGRADE PREPARATION AND COMPACTION, EXPANSION JOINT MATERIAL, ASPHALT ADHESIVE, BITUMINOUS SETTING BED, 4-INCH AND 8-INCH CONCRETE BASE, AND OTHER RELATED MISCELLANEOUS ITEMS WILL NOT BE PAID FOR SEPARATELY. ALL COSTS SHALL BE INCLUDED IN THE SQUARE FOOT UNIT PRICE OF ITEM 608 - MISC.: BRICK PAVER WALK, AS PER PLAN AND ITEM 608 - MISC.: BRICK PAVER CROSSWALK, AS PER PLAN.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

FOR THE PROPOSED STORM SEWER BETWEEN STRUCTURE (C302) AND STRUCTURE (SB57), THE COFFERDAMS AND EXCAVATION BRACING SHALL BE A SEPARATE PAY ITEM FROM ITEM 611 CONDUIT MISC.: CONDUIT INSTALLED BY THE TRENCHLESS METHOD, 24". IT IS ANTICIPATED THAT THE APPROXIMATE JACKING PIT DIMENSION FOR THE PROPOSED 24" PIPE AT STRUCTURE (SB57) WILL BE 35'X12' AND AT A APPROXIMATE DEPTH OF 8'. IT IS ANTICIPATED THAT THE APPROXIMATE RECEIVING PIT DIMENSION FOR THE PROPOSED 24" PIPE AT STRUCTURE (C302) WILL BE 20' IN DIAMETER AND AT A APPROXIMATE DEPTH OF 3'.

FOR THE PROPOSED STORM SEWER BETWEEN STRUCTURE (SB07) AND STRUCTURE (SB08), THE COFFERDAMS AND EXCAVATION BRACING SHALL BE A SEPARATE PAY ITEM FROM ITEM 611 CONDUIT BORED OR JACKED, AS PER PLAN. IT IS ANTICIPATED THAT THE APPROXIMATE JACKING PIT DIMENSION FOR THE PROPOSED PIPE AT STRUCTURE (SB07) WILL BE 25' IN DIAMETER AND AT A APPROXIMATE DEPTH OF 6.5'. IT IS ANTICIPATED THAT THE APPROXIMATE RECEIVING PIT DIMENSION FOR THE PROPOSED PIPE AT STRUCTURE (SB08) WILL BE 25' IN DIAMETER AND AT A APPROXIMATE DEPTH OF 9.5'.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN.

ITEM 611 - CONDUIT MISC: CONDUIT INSTALLED BY THE TRENCHLESS METHOD, 24"

INSTALL THE CONDUIT WITH A TRENCHLESS METHOD THAT PROVIDES HORIZONTAL AND VERTICAL ALIGNMENT ACCORDING TO THE PLAN THAT CONFORMS TO CMS 611. CONDUIT CAN BE INSTALLED BY TRENCHLESS METHODS SUCH AS: JACK AND BORE, TUNNELING, MICROTUNNELING, OR APPROVED EQUAL.

ALL CONDUIT MATERIALS SHALL FIT THE METHOD SELECTED AND MEET ODOT MATERIAL SPECIFICATIONS. ENSURE ALL MATERIAL PROVIDES A 75 YEAR DESIGN SERVICE LIFE. TUNNEL LINER PLATE WILL REQUIRE CONCRETE FIELD PAVING PER CMS 611.

IF FURNISHING A STEEL CASING PIPE TO CONVEY THE STORM WATER, ENSURE IT CONFORMS TO 748.06 WITH A FULL CIRCUMFERENTIAL PENETRATING B-U4B WELD AT THE JOINTS. ALL WELDING IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

IF FURNISHING A TUNNEL LINER PLATE, ENSURE THE BASE METAL COMPOSITION, DEPTH AND SPAN OF THE CORRUGATIONS, AND SIZE AND SPACING OF BOLTS AND BOLT HOLES ARE IN ACCORDANCE WITH DETAILS OF THE MANUFACTURER. INSTALLATION OF THE STRUCTURE IS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ENSURE GALVANIZING IS PROVIDED IN ACCORDANCE WITH 707.03 AFTER CORRUGATING, FORMING, AND PUNCHING OF THE PLATES AND BOLT HOLES.

ALTERNATE MATERIALS MAY BE USED CONTINGENT UPON DEPARTMENT APPROVAL.

NO TRENCH EXCAVATION SHALL BE CLOSER THAN 10 FEET TO THE EXISTING BACK OF CURB. PROVIDE ALL NECESSARY DESIGN CALCULATIONS FOR PIPE MATERIALS AND JACKING FORCES AS PART OF THE INSTALLATION PLAN.

NO.	DESCRIPTION	REV. BY	DATE
4	Remove Detectable Warnings from Note	TAZ	11-30-2021

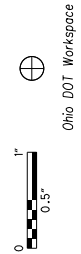
CALCULATED
CHECKED

GENERAL NOTES

FRA-71-14.36

47
1228

Batchplot Spec: \msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg; ondu\08; Pen Table: \msconsultants.com\files\Standards\usin\ohdot\1\08\ms\plotting\pen\08.ms_std.plt; Plot Driver: \msconsultants.com\files\Standards\usin\ohdot\1\08\ms\plotting\PDF.plt;g
Model: Sheet
Printed: 11/23/2021 @ 8:13:44 AM By: tzongmeister
File: \msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886001.dgn



34" x 22"

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.				
48	67	170	276	278	279	284*	285	286	OFFICE	08/NHSP V	08/NHSP V	11/NHSP VICOL											
											LUMP			201	11001	LS	CLEARING AND GRUBBING, AS PER PLAN	50					
											6	5		202	20010	11	EACH	HEADWALL REMOVED					
											11,962	4,725	9,288	7,593	511			PAVEMENT REMOVED					
													11,624	9,997				WALK REMOVED					
												15		74				WALK REMOVED, AS PER PLAN	58				
														37	37			WALK REMOVED, AS PER PLAN "A"	58				
														31	31			CONCRETE MEDIAN REMOVED					
											19	476	1,452					CONCRETE BARRIER REMOVED					
											2,313	1,957	3,301	1,928	1,127			CURB REMOVED					
														6	6			STONE CURB REMOVED FOR REUSE					
											113	373	170	1,355	833	378		PIPE REMOVED, 24" AND UNDER					
												6		3	3			PIPE REMOVED, OVER 24"					
												4,935	1,802	2,686				GUARDRAIL REMOVED					
												1						IMPACT ATTENUATOR REMOVED					
												2	4	7	7			MANHOLE REMOVED					
														4	4			MANHOLE REMOVED, AS PER PLAN	49				
											2	9	1	3	8	2		CATCH BASIN REMOVED					
												4	3	15	4			INLET REMOVED					
														7				MANHOLE ABANDONED					
														1				MANHOLE ABANDONED, AS PER PLAN	51				
														1,077				FILL AND PLUG EXISTING CONDUIT, DIAMETER VARIES	51				
											422							PIPE CLEANOUT, 24" AND UNDER	324				
											2,670	1,314	168		422			FENCE REMOVED					
														205	205			FENCE REMOVED, AS PER PLAN	52				
														42	42			FENCE REMOVED, AS PER PLAN "A"	52				
														202	101	101		FENCE REMOVED, AS PER PLAN "B"	49				
														2	1	1		GATE REMOVED					
														2	1	1		GATE REMOVED, AS PER PLAN	52				
														1				GATE REMOVED, AS PER PLAN "A"	52				
												2		1	1			GATE REMOVED FOR REUSE, AS PER PLAN	58				
														2	1	1		REMOVAL MISC.: STEPS REMOVED, AS PER PLAN	52				
														1	2			REMOVAL MISC.: TRASH RECEPTACLES REMOVED, AS PER PLAN	52				
														1	1			REMOVAL MISC.: WOOD POLE WITH CONCRETE BASE, REMOVED					
														1				REMOVAL MISC.: BENCH REMOVED, AS PER PLAN	52				
														2	1	1		REMOVAL MISC.: METAL POSTS REMOVED, AS PER PLAN	52				
														4	2	2		REMOVAL MISC.: PRIVATE LIGHT REMOVED, AS PER PLAN	52				
														2	1	1		REMOVAL MISC.: PRIVATE SIGN REMOVED					
												4	6		5	5		REMOVAL MISC.: TREE GRATES REMOVED, AS PER PLAN	52				
																		REMOVAL MISC.: RAILROAD TIE RETAINING WALL REMOVED					
											2			1	1			REMOVAL MISC.: INSPECTION WELL	48				
											100			50	50			REMOVAL MISC.: CONDUIT	48				
														21	21			REMOVAL MISC.: TENNIS NET REMOVED, AS PER PLAN	52				
														69	69			ABANDON MISC.: 24" CONDUIT, BULKHEADED AND FILLED IN-PLACE					
												138											
												4,767						EXCAVATION					
											50	7,858						EMBANKMENT					
														25	25			EMBANKMENT, AS PER PLAN	48				
														23,497	11,726	11,725	46	204	10000	23,497	SY	SUBGRADE COMPACTION	
														123			123	204	13000	123	CY	EXCAVATION OF SUBGRADE	
														1,319	655	654	10	204	13001	1,319	CY	EXCAVATION OF SUBGRADE, AS PER PLAN	50A
														4	2	2		204	30010	4	CY	GRANULAR MATERIAL, TYPE B	
														5	3	2		204	45000	5	hour	PROOF ROLLING	
														4	2	2		204	45001	4	hour	PROOF ROLLING, AS PER PLAN	50A
														8,652	3,887	3,886	879	204	50001	8,652	SY	GEOTEXTILE FABRIC, AS PER PLAN	50A
														276	138	138		206	10500	276	TON	CEMENT	
														7,796	3,898	3,898		206	11000	7,796	SY	CURING COAT	
														7,796	3,898	3,898		206	15010	7,796	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
																		**INCLUDES QUANTITIES FROM SHEET 285A					

NO.	DESCRIPTION	REV. BY	DATE
1	Move item from sheet 266	TZ	10-14-21
3	Remove Duplicate Pay Qty.	TZ	11-19-2021
4	Update Funding Splits	TZ	11-24-2021

CALCULATED
HRB
CHECKED
TAZ

GENERAL SUMMARY

FRA - 71 - 14.36

265
1228

ms consultants, inc.

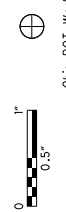
Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg; ohsoj\8; Pen Table: \\msconsultants.com\files\standards\usin\ohdot\1\8\ms\plotting\pen\1\8\ms_std.plt; Plot Driver: \\msconsultants.com\files\standards\usin\ohdot\1\8\ms\plotting\pdf\pdfc1g
Ohio DOT Workspace
70\71 West Interchange 6R
www.msconsultants.com

SHEET NUM.								PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
44	277	280	281	286	287	944	OFFICE	08/NHS/P V	08/NHS/P V	11/NHS/P V/COL	12/NHS/P V/INC							
							4						206	20000	4	hour	TEST ROLLING	
							LUMP						206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
		100											606	13000	100	FT	GUARDRAIL, TYPE 5	547-552
	2,532	450	475										606	15050	3,457	FT	GUARDRAIL, TYPE MGS	
	2		2										606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E, (MASH 2016)	49
	1												606	26550	1	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
	3	2	3										606	35002	8	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
	4	2	1										606	35102	7	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
			1										606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 44MPH, 24" HAZ. WIDTH	49
				1									606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 44MPH, 28" HAZ. WIDTH	49
				1									606	60040	1	EACH	IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL, 62MPH, 29" HAZ. WIDTH	49
	1,646	563	489										607	20000	2,698	FT	FENCE, TYPE CL	
		345		135									607	23000	480	FT	FENCE, TYPE CLT	
		20											607	23001	20	FT	FENCE, TYPE CLT, AS PER PLAN	58
			15										607	39901	15	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	58
		41											607	39994	41	FT	TEMPORARY VANDAL FENCE, TYPE B	
		326											SPECIAL	60740000	326	FT	VANDAL PROTECTION FENCE	58/545
		1											607	50901	1	EACH	GATE, TYPE CL, AS PER PLAN	58/545
				469									607	98000	469	FT	FENCE, MISC.:AEP FENCE, AS PER PLAN	561-563
				254									607	98000	254	FT	FENCE, MISC.:IRON FENCE CURB MOUNTED, AS PER PLAN	557
				1									607	98100	1	EACH	FENCE, MISC.:5.5' GATE, AS PER PLAN	558
				1									607	98100	1	EACH	FENCE, MISC.:AEP FENCE DRIVE-IN GATE, AS PER PLAN	556-557
					17,209								608	10000	17,209	SF	4" CONCRETE WALK	
					235								608	15000	235	SF	8" CONCRETE WALK	
					128								608	53021	128	SF	DETECTABLE WARNING, AS PER PLAN	47
					3,373								608	98000	3,373	SF	WALKWAY, MISC.: BRICK PAVER WALK, AS PER PLAN	47
						5,600							608	98000	5,600	SF	WALKWAY, MISC.:BRICK PAVER CROSS WALK, AS PER PLAN	47
					74								608	98000	74	SF	WALKWAY, MISC.:BRICK PAVER WALK, AS PER PLAN "A"	58
					1,661								608	98000	1,661	SF	WALKWAY, MISC.:GRANITE COBBLES, AS PER PLAN	825A
					1								608	98200	1	EACH	WALKWAY, MISC.:COLUMBUS CURB RAMP, TYPE C, AS PER PLAN	47
					5								608	98200	5	EACH	WALKWAY, MISC.:COLUMBUS CURB RAMP, TYPE D, AS PER PLAN	47
					5								608	98200	5	EACH	WALKWAY, MISC.:COLUMBUS CURB RAMP, TYPE G, AS PER PLAN	47
					3								608	98200	3	EACH	WALKWAY, MISC.:COLUMBUS CURB RAMP, TYPE H, AS PER PLAN	47
					4								608	98200	4	EACH	WALKWAY, MISC.:COLUMBUS CURB RAMP, TYPE J, AS PER PLAN	47
					1								608	98200	1	EACH	WALKWAY, MISC.:COLUMBUS CURB RAMP, TYPE P-7, AS PER PLAN	47
					7								608	98200	7	EACH	WALKWAY, MISC.:COLUMBUS CURB RAMP, TYPE A, AS PER PLAN	47
					20								622	10060	20	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	
	899		30										622	10120	929	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
	970	452	2,258	269									622	10160	3,949	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
		2											622	10200	2	EACH	BARRIER TRANSITION	553
			2										622	10201	2	EACH	BARRIER TRANSITION, AS PER PLAN	553A
			1										622	24841	1	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	554A
		4	3										622	25000	7	EACH	CONCRETE BARRIER END SECTION, TYPE D	
	10		1										622	25008	11	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	
	6												622	25010	6	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED	
	6	8	23	4									622	25050	41	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
		1											622	25051	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN "A"	552A
			6										622	25051	6	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN "B"	552A
													622	41111	41	FT	PORTABLE BARRIER, ANCHORED, AS PER PLAN	58
			86										622	90000	86	FT	BARRIER, MISC.:CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN "B"	555
			73										622	90000	73	FT	BARRIER, MISC.:CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN "A"	554
				2									622	90200	2	EACH	BARRIER, MISC.: CONCRETE BARRIER, TAPERED END SECTION, AS PER PLAN	552
		2											625	32000	2	EACH	GROUND ROD	
						LUMP							SPECIAL	69098400	LS		EMERGENCY ACTION PLAN COORDINATION	43, 941
						LUMP							SPECIAL	69098400	LS		SURVEY CONTROL VERIFICATION	44
						LUMP							SPECIAL	69098400	LS		EMERGENCY CLOSURE	44
						LUMP							878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	

NO.	DESCRIPTION	REV.	BY	DATE
1	New City Addition			10-14-21
4	Update Funding Splits			11-24-2021
4	New City Addition			11-24-2021

CALCULATED HRB CHECKED TAZ
GENERAL SUMMARY
FRA - 71 - 14.36
266
1228
ms consultants, inc.

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\Standards\usin\ohdot\18\ms\plotling\pen\18.ms_std.tbl
 Plot Driver: \\msconsultants.com\files\Standards\usin\ohdot\18\ms\plotling\PDF.plt
 Ohio DOT Workspace
 70\71 West Interchange 6R
 www.msconsultants.com
 Model: Sheet
 Printed: 11/23/2021 8:20:24 AM By: tzangmeister
 File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886003.dgn
 View: FENCE_VEW1
 By: tzangmeister



34" x 22"

SHEET NUM.											PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
51	67	170	281A	282	283	288	290	291	298	814	08/NHS/P V	08/NHS/P V	08/NHS/P V	10/ENH/O T/COL	11/NHS/P V/COL						
						28					14	14				601	20000	28	SY	EROSION CONTROL CRUSHED AGGREGATE SLOPE PROTECTION	
					498						249	249				601	21000	498	SY	CONCRETE SLOPE PROTECTION	
7			286		18	176	6	4			240	239				601	21050	479	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
											9	9				601	21060	18	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
		4	2	3							5	4				601	32200	9	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
1											1					659	00100	1	EACH	SOIL ANALYSIS TEST	
2,910											1,455	1,455				659	00300	2,910	CY	TOPSOIL	
1,814											865	864			85	659	00500	1,814	SY	SEEDING AND MULCHING, CLASS 1	
16,576	6,362								2,230		11,469	11,469	2,230			659	00510	25,168	SY	SEEDING AND MULCHING, CLASS 2	
7,830											3,915	3,915				659	00530	7,830	SY	SEEDING AND MULCHING, CLASS 3B	
										422				422		659	10001	422	SY	SEEDING AND MULCHING, AS PER PLAN	832
1,311											656	655				659	14000	1,311	SY	REPAIR SEEDING AND MULCHING	
1,311											656	655				659	15000	1,311	SY	INTER-SEEDING	
5											3	2				659	20000	5	TON	COMMERCIAL FERTILIZER	
6											3	3				659	31000	6	ACRE	LIME	
142											71	71				659	35000	142	MGAL	WATER	
0.06											0.03	0.03				659	40000	0.06	MSF	MOWING	
					125						63	62				660	25000	125	SY	SODDING STAKED	
			1,189		869						1,029	1,029				670	00720	2,058	SY	DITCH EROSION PROTECTION MAT, TYPE B	
					127						64	63				670	00760	127	SY	DITCH EROSION PROTECTION MAT, TYPE F	
											LUMP	LUMP				832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
											LUMP	LUMP				832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
											LUMP	LUMP				832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
											575,000	575,000				832	30000	1,150,000	EACH	EROSION CONTROL	
					29						15	14				836	10000	29	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	

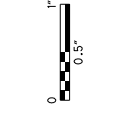
CALCULATED HRB
 CHECKED TAZ
GENERAL SUMMARY
FRA - 71 - 14.36
 267
 1228

NO.	DESCRIPTION	REV. BY	DATE
4	Update Funding Splits	TAZ	11-24-2021



ms consultants, inc.
msconsultants.com

Ohio DOT Workspace
70\71 West Interchange 6R
www.msconsultants.com



Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\msconsultants.com\files\standards\user\table\1\8\ms\plotting\pen\8\ms_std.tbl
Plot Driver: \\msconsultants.com\files\standards\user\table\1\8\ms\plotting\pdf\pdfc.g

34" x 22"

Model: Sheet
Printed: 11/23/2021 8:27:03 AM By: tzongmeister
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886004.dgn

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
48	51	281A	282	283	287	288+	290	291	292	653	08/NHS/P V	08/NHS/P V	11/NHS/P VICOL						
		1	1			1					2	1		602	20000	3	CY	CONCRETE MASONRY	
							4,968	2,209			3,589	3,588		605	05110	7,177	FT	4" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							5,990	443			3,217	3,216		605	06020	6,433	FT	4" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	200										100	100		605	13300	200	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
	200									11			11	605	98300	11	EACH	UNDERDRAINS, MISC.: 6" CLEANOUT	653
											100	100		611	00406	200	FT	4" CONDUIT, TYPE F	
							512	497	3		505	504	3	611	00410	1,012	FT	4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET	
										187			187	611	01500	187	FT	6" CONDUIT, TYPE F	
			269								135	134		611	03300	269	FT	10" CONDUIT, TYPE C	
			118								59	59		611	03700	118	FT	10" CONDUIT, TYPE F	
						113					57	56		611	04400	113	FT	12" CONDUIT, TYPE B	
		6									3	3		611	04600	6	FT	12" CONDUIT, TYPE C, 706.02	
		365	284	300							475	474		611	05900	949	FT	15" CONDUIT, TYPE B	
		18									9	9		611	05900	18	FT	15" CONDUIT, TYPE B, 706.02	
		542	363	290							598	597		611	05900	1,195	FT	15" CONDUIT, TYPE B, 706.02, JOINTS PER 706.11	
		98	1,435	38							786	785		611	06100	1,571	FT	15" CONDUIT, TYPE C	
			70								35	35		611	06100	70	FT	15" CONDUIT, TYPE C, 706.02, JOINTS PER 706.11	
			55								28	27		611	06700	55	FT	15" CONDUIT, TYPE F, 707.05, TYPE C	
											53	52		611	07400	105	FT	18" CONDUIT, TYPE B	
											62	61		611	07400	123	FT	18" CONDUIT, TYPE B, 706.02, JOINTS PER 706.11	
											113	113		611	07600	226	FT	18" CONDUIT, TYPE C	
											167	167		611	09100	334	FT	21" CONDUIT, TYPE C	
											15	15		611	16600	30	FT	36" CONDUIT, TYPE C	
											109	108		611	96601	217	FT	CONDUIT, BORED OR JACKED, AS PER PLAN, 36" CASING PIPE W/ 18" CARRIER PIPE	46
											68	68		611	97400	136	FT	CONDUIT, MISC.: CONDUIT INSTALLED BY THE TRENCHLESS METHOD, 24"	47
100											50	50		611	97400	100	FT	CONDUIT, MISC.: 4" TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	48
100											50	50		611	97400	100	FT	CONDUIT, MISC.: 8" TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE	48
100											50	50		611	97400	100	FT	CONDUIT, MISC.: 8" TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE	48
100											50	50		611	97400	100	FT	CONDUIT, MISC.: 4" TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE	48
		1									1			611	98300	1	EACH	CATCH BASIN, NO. 5	
			1								1			611	98370	1	EACH	CATCH BASIN, NO. 6	
		3	4	1							4	4		611	98410	8	EACH	CATCH BASIN, NO. 8	
		1									1			611	98434	1	EACH	CATCH BASIN, NO. 8A	
						2					2	2		611	98470	4	EACH	CATCH BASIN, NO. 2-2B	
											1			611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE	
		9	2	5							8	8		611	98821	16	EACH	INLET, NO. 3D, AS PER PLAN	49
			1	2							2	1		611	99094	3	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B	
		4									2	2		611	99104	4	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C	
											1			611	99105	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C, AS PER PLAN	614
											5	4		611	99114	9	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
		2	4	18							12	12		611	99574	24	EACH	MANHOLE, NO. 3	
			7								4	3		611	99575	7	EACH	MANHOLE, NO. 3, AS PER PLAN	48
											3	2		611	99661	5	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	48
	4										5	4		611	99710	9	EACH	PRECAST REINFORCED CONCRETE OUTLET	
20							3	2			10	10		611	99720	20	EACH	INSPECTION WELL	48
											1			611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.: ORIFICE PLATE	597A
											3	3		SPECIAL	69098000	6	EACH	DOUBLE CURB AND GUTTER INLET FOR GRANITE CURBING	45, 611
						2					3	3		SPECIAL	69098000	6	EACH	MANHOLE ADJUSTED TO GRADE	45
											11	11		SPECIAL	69098000	22	EACH	MANHOLE, TYPE C (48")	45, 602
											2	1		SPECIAL	69098000	3	EACH	MANHOLE, TYPE C (60")	45, 602
											1	1		SPECIAL	69098000	2	EACH	MISC.: MANHOLE REHABILITATION	45, 55-57
											1	1		SPECIAL	69098000	2	EACH	STANDARD CATCH BASIN 21" DIAMETER & SMALLER PIPE	45, 608
											6	5		SPECIAL	69098000	11	EACH	STANDARD CURB AND GUTTER INLET FOR GRANITE CURBING	45, 612
											5		5	SPECIAL	69098000	5	EACH	BIORETENTION CELLS	652
						1					1			SPECIAL	69098000	1	EACH	DOUBLE CURB AND GUTTER INLET	45, 611

NO.	DESCRIPTION	REV. BY	DATE
2	REVISE/ADD MH-3 OTYS	TAZ	11-12-2021
4	update Funding Splits	TAZ	11-24-2021

"+" INCLUDES QUANTITIES FROM SHEET 170, 289

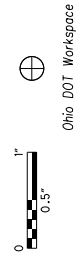
CALCULATED
HRB
CHECKED
TAZ

GENERAL SUMMARY

FRA - 71 - 14.36

268
1228

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\standards\user\table\18\ms\plotting\pen\18.ms_std.tbl
 Plot Driver: \\msconsultants.com\files\standards\user\table\18\ms\plotting\pdf\pdf.plt
 View: FENCE_VEW1
 Printed: 11/23/2021 8:30:48 AM By: tzongmeister
 File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\0558860005.dgn



SHEET NUM.

PART.

ITEM

ITEM

GRAND

UNIT

DESCRIPTION

SEE SHEET NO.

CALCULATED
HRB
CHECKED
TAZ

288	289	291	292							08/NHS/P V	08/NHS/P V	11/NHS/P VICOL	ITEM 4	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
DRAINAGE (CONT.)																		
52										26	26		SPECIAL	69098100	52	FT	10" CONDUIT, TYPE 1	48
577	24									301	300		SPECIAL	69098100	601	FT	12" CONDUIT, TYPE 1	48
22										11	11		SPECIAL	69098100	22	FT	12" CONDUIT, TYPE 1, 706.02	48
25										13	12		SPECIAL	69098100	25	FT	12" CONDUIT, TYPE F, 707.05, TYPE C	48
399										200	199		SPECIAL	69098100	399	FT	15" CONDUIT, TYPE 1	48
6										3	3		SPECIAL	69098100	6	FT	15" CONDUIT, TYPE 1, 706.02	48
429										215	214		SPECIAL	69098100	429	FT	18" CONDUIT, TYPE 1	48
6										3	3		SPECIAL	69098100	6	FT	18" CONDUIT, TYPE 1, 706.02	48
192										96	96		SPECIAL	69098100	192	FT	18" CONDUIT, TYPE 1, C905, CLASS 165, DR25	49
12										6	6		SPECIAL	69098100	12	FT	21" CONDUIT, TYPE 1	48
110										55	55		SPECIAL	69098100	110	FT	24" CONDUIT, TYPE 1	48
367										184	183		SPECIAL	69098100	367	FT	24" CONDUIT, TYPE 1, C905, CLASS 165, DR25	49
100										50	50		SPECIAL	69098100	100	FT	4" CONDUIT, TYPE E, 720.08	48
		3,156	35							1,417	1,416	358	SPECIAL	69098100	3,191	FT	4" PIPE UNDERDRAIN	47

GENERAL SUMMARY

FRA - 71 - 14.36

NO.	DESCRIPTION	REV. BY	DATE
4	Update Funding Splits	TAZ	11-24-2021

269
1228

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg; ohd01/8; Pen Table: \\msconsultants.com\files\Standards\usin\ohd01\8\ms\plotling\pen\8\ms_std.dwg; Plot Driver: \\msconsultants.com\files\Standards\usin\ohd01\8\ms\plotling\PDF.plt;g
View: FENCE - NEW! By: tzangmeister
Printed: 11/24/2021 8:34:12 AM File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886006.dgn
34" x 22"

SHEET NUM.											PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
276^	284*	285	286	287	295	297	298	680	OFFICE		08/NHS/P V	08/NHS/P V	08/NHS/P V	11/NHS/P V/COL	12/NHS/P V/INC						
									40		20	20				252	01000	40	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT	
8,554	860	568		1,900	340	160		81			5,911	5,911	163	136		252	01500	12,121	FT	FULL DEPTH PAVEMENT SAWING	4
332	53			511	83	35	10	81	1,542		1,252	1,251	63	81		253	01001	2,647	SY	PAVEMENT REPAIR, AS PER PLAN	46
									5,689		2,845	2,844				254	01000	5,689	SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIABLE DEPTH	
									3,741		1,871	1,870				302	46000	3,741	CY	ASPHALT CONCRETE BASE, PG64-22	
									4,682		2,341	2,341				302	46000	4,682	CY	ASPHALT CONCRETE BASE, PG64-22, 10.5"	
									4,769		2,385	2,384				304	20000	4,769	CY	AGGREGATE BASE, 6"	
									31		16	15				304	20000	31	CY	AGGREGATE BASE, 8"	
									2,830		1,269	1,268		293		304	20001	2,830	CY	AGGREGATE BASE, AS PER PLAN, 12"	50A
									3,106		1,214	1,213		679		305	12010	3,106	SY	8" CONCRETE BASE, CLASS QC 1P	
									2,700		1,350	1,350				305	13010	2,700	SY	9" CONCRETE BASE, CLASS QC 1P	
									464		205	205		54		407	13900	464	GAL	TACK COAT, 702 13	
									6,200		3,080	3,079		41		407	20000	6,200	GAL	NON-TRACKING TACK COAT	
									271		124	123		24		441	50000	271	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
									276		122	121		33		441	50300	276	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) PG64-22	
									4,105		2,053	2,052				442	00100	4,105	CY	ANTI-SEGREGATION EQUIPMENT	49
									998		499	499				442	10001	998	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, A	49
									388		194	194				442	10001	388	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, B	17, 49
				825					1,571		786	785				442	10100	1,571	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
									276		413	412				452	10011	825	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	49
									276		117	117		42		452	12010	276	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
									68		34	34				452	13010	68	SY	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
200			196						251		126	125				452	15010	251	SY	12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
			51								198	198		51		609	24510	396	FT	CURB, TYPE 4-C	
			254								127	127				609	30001	51	FT	CURB, TYPE 8, AS PER PLAN "B"	41
																609	30001	254	FT	CURB, TYPE 8, AS PER PLAN "A"	557
18			88													609	98000	88	FT	CURB, MISC.: STRAIGHT 16" GRANITE CURB, AS PER PLAN	47, 564
			129													609	98000	129	FT	CURB, MISC.: STRAIGHT 17" GRANITE CURB, AS PER PLAN	47, 564
			2,154											330		609	98000	2,154	FT	CURB, MISC.: STRAIGHT 18" GRANITE CURB, AS PER PLAN	47, 564
			12								6	6				609	98000	12	FT	CURB, MISC.:INSTALL GRANITE CURB FROM STORAGE, AS PER PLAN	58
			31								16	15				609	98000	31	FT	CURB, MISC.:STRAIGHT 16" CONCRETE CURB, AS PER PLAN	573
			783								322	322		139		609	98000	783	FT	CURB, MISC.:STRAIGHT 18" CONCRETE CURB, AS PER PLAN	573
									24,616		12,308	12,308				872	10000	24,616	FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)	17

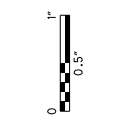
CALCULATED HRB CHECKED TAZ
GENERAL SUMMARY
FRA - 71 - 14.36
270
1228

NO.	DESCRIPTION	REV. BY	DATE
1	REVISE QUANTITIES	TAZ	10-28-2021
4	Update Funding Splits	TAZ	11-24-2021
4	Update Item Description and Quantity	TAZ	11-24-2021

"A" INCLUDES QUANTITIES FROM SHEET 276, 277, 279, 280, 281
"B" INCLUDES QUANTITIES FROM SHEET 285A



Ohio DOT Workspace
70\71 West Interchange 6R
www.msconsultants.com



Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\msconsultants.com\files\standards\user\table\18\ms\plotting\pen.tbl
Plot Driver: \\msconsultants.com\files\standards\user\table\18\ms\plotting\pdf.plt
View: FENCE - NEW1
By: tzongmeister

34" x 22"

Model: Sheet
Printed: 11/29/2021 10:30:01 AM
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886007.dwg

SHEET NUM.						PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
287	295	297	298			08/NHS/P V	08/NHS/P V	08/NHS/P V						
WATER WORK														
			48					48	511	71100	48	CY	CONCRETE, MISC.: CONCRETE BLOCKING, CLASS C, INCREASE OR DECREASE (COL. 801)	641
6						3	3		638	10801	6	EACH	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	45
		1						1	638	98000	1	EACH	WATER WORK, MISC.: 3/4" WATER SERVICE TAP, TRANSFERRED (COL. 805)	641
		1						1	638	98000	1	EACH	WATER WORK, MISC.: 8"X6" TAPPING SLEEVE AND VALVE (COL. 803)	45, 641
		131						131	638	98600	131	FT	WATER WORK, MISC.: 12" DUCTILE IRON WATER PIPE AND FITTINGS (COL. 801)	641
		1,354						1,354	638	98600	1,354	FT	WATER WORK, MISC.: 36" WATER PIPE AND FITTINGS (COL. 801)	641
		379						379	638	98600	379	FT	WATER WORK, MISC.: 6" DUCTILE IRON WATER PIPE AND FITTINGS (COL. 801)	641
		1						1	SPECIAL	69098000	1	EACH	1 1/2" CURB STOP, RELOCATED (COL 805)	641
		2						2	SPECIAL	69098000	2	EACH	36" BUTTERFLY VALVE AND APPURTENANCES (COL 802)	45, 641
		5						5	SPECIAL	69098000	5	EACH	6" GATE VALVE AND APPURTENANCES (COL 802)	45, 641
		1						1	SPECIAL	69098000	1	EACH	12" GATE VALVE AND APPURTENANCES (COL 802)	45, 641
		2						2	SPECIAL	69098000	2	EACH	FIRE HYDRANT, ABANDONED (COL 809)	641
		4						4	SPECIAL	69098000	4	EACH	FIRE HYDRANT, RELOCATED (COL 809)	45, 641
		1						1	SPECIAL	69098000	1	EACH	FIRE HYDRANT, TYPE A (COL 809)	45, 641
		1						1	SPECIAL	69098000	1	EACH	FIRE HYDRANT, TYPE A MODIFIED (COL 809)	641
		2						2	SPECIAL	69098000	2	EACH	8" WATER MAIN ABANDONED	641
		128						128	SPECIAL	69098100	128	FT	54" CASING PIPE, 3/4" THICKNESS (COL 806)	641
		971						971	SPECIAL	69098100	971	FT	PIPE REMOVED (COL 202)	643
		LUMP						LUMP	SPECIAL	69098400	LS		CONTINUITY TESTING	641
		LUMP						LUMP	SPECIAL	69098400	LS		CORROSION PROTECTION	641
		LUMP						LUMP	SPECIAL	69098400	LS		FLANGE ISOLATION KITS FOR DUCTILE IRON PIPES	641
		LUMP						LUMP	SPECIAL	69098400	LS		SURVEY COORDINATES	641
		3,200						3,200	SPECIAL	69099400	3,200	LB	FITTINGS, INCREASE OR DECREASE (COL. 801)	641
SANITARY SEWER														
		1						1	SPECIAL	69098000	1	EACH	AIR RELEASE MANHOLE AND APPURTENANCES, COMPLETE	640
		1						1	SPECIAL	69098000	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	45, 640
		3						3	SPECIAL	69098000	3	EACH	MANHOLE TYPE C, W/ OUTSIDE DROP (COL 901)	45, 640
		2						2	SPECIAL	69098000	2	EACH	SEWER ABANDONED (COL 202)	640
		1						1	SPECIAL	69098000	1	EACH	STRUCTURE REMOVED - AIR RELEASE MANHOLE VAULT (COL 202)	640
		1						1	SPECIAL	69098000	1	EACH	STRUCTURE REMOVED - SANITARY VAULT (COL 202)	640
		1						1	SPECIAL	69098000	1	EACH	STRUCTURE AT STATION 0+47, COMPLETE (COL 904)	640
		251						251	SPECIAL	69098000	251	EACH	SEWER ABANDONED AND SEALED 24" AND UNDER (USACE SOP)	
		126						126	SPECIAL	69098000	126	EACH	SEWER ABANDONED AND SEALED OVER 24" (USACE SOP)	
		495						495	SPECIAL	69098100	495	FT	16" PVC C900 PIPE, WITH TYPE 1 BEDDING WITH 912 COMPACTED GRANULAR BACKFILL (COL 901)	640
		38						38	SPECIAL	69098100	38	FT	42" PIPE, WITH TYPE 1 BEDDING WITH 912 COMPACTED GRANULAR BACKFILL (COL 901)	640
		174						174	SPECIAL	69098100	174	FT	10" DIP FORCEMAIN W/ BEDDING AND BACKFILL PER COL 801	640
		120						120	SPECIAL	69098100	120	FT	18" DIP FORCEMAIN W/ BEDDING AND BACKFILL PER COL 801	640
		169						169	SPECIAL	69098100	169	FT	36" DIP OR PCCP FORCEMAIN W/ BEDDING AND BACKFILL PER COL 801	640
		40						40	SPECIAL	69098100	40	FT	24" CASING PIPE (COL 806)	640
		40						40	SPECIAL	69098100	40	FT	30" CASING PIPE (COL 806)	640
		40						40	SPECIAL	69098100	40	FT	54" CASING PIPE (COL 806)	640
		LUMP						LUMP	SPECIAL	69098400	LS		BYPASS PUMPING, COS	640
		18						18	SPECIAL	69098700	18	CY	INCREASED OR DECREASED EARTH EXCAVATION	640

GENERAL SUMMARY

FRA - 71 - 14.36

NO.	DESCRIPTION	REV. BY	DATE
2	ADD QTY. FOR PIPE (TBR)	TAZ	11-12-2021
3	Items Deleted	ADB	11-22-2021
4	Water Quantities Revised	TAZ	11-24-2021
4	Update Funding Splits	TAZ	11-24-2021
4	Add/Rev. Sewer Quantities	TAZ	11-29-2021

271
1228

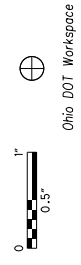
PLOT.CEL
 ms consultants, inc.
 www.msconsultants.com
 Ohio DOT Workspace
 70171 West Interchange 6R
 60-06634-6R_Columbus
 Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634-6R\standards\plotdrv\batchplot.dwg; ohio\08
 Pen Table: \\msconsultants.com\files\standards\usin\ohio\1\81\ms\plotting\pen.tbl; ms_std.tbl; PCF: 60-06634-6R_plt.crg
 Plot Driver: \\msconsultants.com\files\standards\usin\ohio\1\81\ms\plotting\PDF.plt.crg
 View: FENCE_VEW1
 By: tzangmeister
 8:42:55 AM
 11/23/2021
 Model: Sheet
 Printed: 11/23/2021 8:42:55 AM
 File: \\msconsultants.com\files\Production\03\60\06634-6R\roadway\sheet\055886008.dgn
 34" x 22"

SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
755	766	770	771	772	773	774	794	795	796	08/NHS/P V	08/NHS/P V	11/NHS/P V/COL	12/NHS/P V/INC						
LIGHTING																			
		8	18	30	18	6				40	40			625	00450	80	EACH	CONNECTION, FUSED PULL APART	
		9	12		15	3				21	18			625	00480	39	EACH	CONNECTION, UNFUSED PERMANENT	
			6	6	3					8	7			625	10490	15	EACH	LIGHT POLE, CONVENTIONAL, A12B40	
			2	2	2					2	2			625	10490	4	EACH	LIGHT POLE, CONVENTIONAL, A15B40	
		4	2							3	3			625	10490	6	EACH	LIGHT POLE, CONVENTIONAL, A6B40	
					2					1	1			625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, A8B40	
				1						1				625	10490	1	EACH	LIGHT POLE, CONVENTIONAL, AT8B40	
				2	1	1				3	1			625	10494	4	EACH	LIGHT POLE, LOW MAST, ATLM50	
				2	1					2	1			625	10500	3	EACH	LIGHT POLE, MISC.: POST TOP, ATON13	
		16	40	32	28					58	58			625	10614	116	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE	
				2	1					2	1			625	14000	3	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
				1						1				625	14100	1	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
				2	1	1				3	1			625	14200	4	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP	
		2,169	4,140	4,440	3,996	564				7,655	7,654			625	23200	15,309	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
			609	233						422	420			625	23300	842	FT	NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE	
			552	1,212	1,788	1,275	150			2,489	2,488			625	23400	4,977	FT	NO. 10 AWG POLE AND BRACKET CABLE	
			70	290	600	397	49			704	702			625	24320	1,406	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
				85						43	42			625	24330	85	FT	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VOLT CABLES	
			1,720	1,534	1,400	1,151				2,903	2,902			625	25400	5,805	FT	CONDUIT, 2", 725.04	
675										338	337			625	25408	675	FT	CONDUIT, 2", 725.051	
				18		76				47	47			625	25500	94	FT	CONDUIT, 3", 725.04	
108										54	54			625	25504	108	FT	CONDUIT, 3", 725.051	
		47								24	23			625	25902	47	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
			175				178			177	176			625	25910	353	FT	CONDUIT CLEANED AND CABLES REMOVED	
		4	8	9	7					15	13			625	26253	28	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (IES-II, LED, 15,100-16,300 LUMENS)	
				2	1	1				3	1			625	26273	4	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN (IES-III, LED, 30,000-31,000 LUMENS)	
				2	1					2	1			625	27503	3	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN (IES III S, LED, 3,200 3,400 LUMENS)	
		60	293	550	433	39				689	686			625	29002	1,375	FT	TRENCH, 24" DEEP	
		7	10	8	7					17	15			625	29900	32	EACH	JUNCTION BOX	
			1							1				625	30706	1	EACH	PULL BOX, 725.08, 24"	
		3	1							3	1			625	31510	4	EACH	PULL BOX REMOVED	
				5	2	1				5	3			625	32000	8	EACH	GROUND ROD	
					1					2				625	33000	2	EACH	STRUCTURE GROUNDING SYSTEM	
		60	293	550	433	39				689	686			625	36011	1,375	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	
		2	2							2	2			625	39520	4	EACH	PULL BOX CLEANED	
		LUMP								LUMP				SPECIAL	62540000	LS		MAINTAIN EXSTING LIGHTING	
							1			1				SPECIAL	62540004	1	EACH	MAINTAIN EXSTING LIGHTING	
		5					2			4	3			SPECIAL	62540010	7	EACH	REPLACEMENT OF EXSTING LIGHTING UNIT	
					1					1				625	75510	1	EACH	POWER SERVICE REMOVED	
			2	4	2	1	3			7	5			625	75800	12	EACH	DISCONNECT CIRCUIT	
		1								1				625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-810)	
		1								1				625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL (CC-M)	
								8	1	5	4			625	98000	9	EACH	LIGHTING, MISC.: MIS-200 STREET LIGHT FOUNDATION, 4'	
								3	8	6	4	1		625	98000	11	EACH	LIGHTING, MISC.: MIS-203 STREET LIGHT FOUNDATION, 6', DOWNTOWN	
								8	1				9	625	98000	9	EACH	LIGHTING, MISC.: MIS-307 POLE, FIBERGLASS, DECORATIVE	
								3	8			1	10	625	98000	11	EACH	LIGHTING, MISC.: MIS-308 POLE, DOWNTOWN	
								2		1	1			625	98000	2	EACH	LIGHTING, MISC.: MIS-32 LUMINAIRE, 200W HPS, 480V, COBRA STYLE	
								11	9	10	9	1		625	98000	20	EACH	LIGHTING, MISC.: MIS-501 POLE TO BE WIRED, 3 WIRE	
								2		1	1			625	98000	2	EACH	LIGHTING, MISC.: MIS-56 RISER, STREET LIGHT CIRCUIT	
									1	1				625	98000	1	EACH	LIGHTING, MISC.: MIS-603 CONTROLLER, 3 WIRE, 480V, PAD MOUNT	
								3	8	6	4	1		625	98000	11	EACH	LIGHTING, MISC.: MIS-801 LUMINAIRE, LED, TEARDROP (480V, BLACK)	
								8	1	5	4			625	98000	9	EACH	LIGHTING, MISC.: MIS-802 LUMINAIRE, LED, ACORN (480V, BLACK)	
									10	5	5			625	98000	10	EACH	LIGHTING, MISC.: MIS-900 FOUNDATION REMOVAL, AS PER PLAN	
								9	12	11	10			625	98000	21	EACH	LIGHTING, MISC.: MIS-54 PULL BOX, 13" X 24"	
									1	1				625	98000	1	EACH	LIGHTING, MISC.: MIS-54 PULL BOX, 13" X 24", AS PER PLAN	

CALCULATED HRB CHECKED TAZ
GENERAL SUMMARY
FRA - 71 - 14.36
 272
 1228

NO.	DESCRIPTION	REV. BY	DATE
4	Update Funding Splits	TAZ	11-24-2021

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg; ohd01/8;
Pen Table: \\msconsultants.com\files\standards\user\ohd01\8\ms\plot\mg\pen\8\ms_std.tbl; ohd01/8;
Plot Driver: \\msconsultants.com\files\standards\user\ohd01\8\ms\plot\mg\pdf\pdf.plt; ohd01/8;
View: FENCE - NEWT By: tzongmeister
Printed: 11/23/2021 8:52:43 AM
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\0558860010.dgn



34" x 22"

SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
277	280	281	286	685	692	694	689	691	755	08/NHS/P V	08/NHS/P V	11/NHS/P V/COL	12/NHS/P V/INC						
TRAFFIC SURVEILLANCE																			
									1	1				625	14001	1	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP, AS PER PLAN	753
									1	1				625	14301	1	EACH	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN	753
									740	370	370			625	25408	740	FT	CONDUIT, 2", 725.051	
									76	38	38			625	25504	76	FT	CONDUIT, 3", 725.051	
									2,214	1,107	1,107			625	25740	2,214	FT	CONDUIT, MULTICELL, 4", 725.20, AS PER PLAN	753
									896	448	448			625	29101	896	FT	TRENCH, 36" DEEP, AS PER PLAN	753
									302	151	151			625	29400	302	FT	TRENCH IN PAVED AREA	
									1	1				625	29931	1	EACH	MEDIAN JUNCTION BOX AS PER PLAN	761
									3	2	1			625	30700	3	EACH	PULL BOX 725.08, 18"	
									6	3	3			625	30710	6	EACH	PULL BOX 725.08, 32"	
									2	1	1			630	84901	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN	753
									92	46	46			632	62810	92	FT	INTERCONNECT CABLE, MISC.:SFRD CABLE	
									296	148	148			632	69300	296	FT	POWER CABLE, 3 CONDUCTOR, NO. 4 AWG	
									1	1				632	70001	1	EACH	POWER SERVICE, AS PER PLAN	753
									3	2	1			632	90101	3	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	753
									1	1				633	67101	1	EACH	CABINET FOUNDATION, AS PER PLAN	753
									1	1				633	67200	1	EACH	CONTROLLER WORK PAD	
									1,743	872	871			804	32060	1,743	FT	DROP CABLE, 24 FIBER, AS PER PLAN	753
									1	1				804	37000	1	EACH	SPLICE ENCLOSURE, BUTT STYLE	754
									98	49	49			809	64550	98	FT	ETHERNET CABLE, OUTDOOR-RATED	
									1	1				809	65990	1	EACH	ITS DEVICE, MISC.: RELOCATE ITS POLE	754
									1	1				809	65990	1	EACH	ITS DEVICE, MISC.: RELOCATE ITS CABINET	754
									LUMP	LUMP	LUMP			809	70000	LS		MAINTAINING ITS DURING CONSTRUCTION	754
TRAFFIC CONTROL																			
				431						216	215			621	00100	431	EACH	RPM	
					6					3	3			625	32000	6	EACH	GROUND ROD	
53	173	63	4							120	120			626	00102	240	EACH	BARRIER REFLECTOR, TYPE 1, BI DIRECTIONAL	
										27	26			626	00102	53	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
	9	8								9	8			626	00110	17	EACH	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL	
51										26	25			626	00110	51	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
						314.9				151	150.9	13		630	02100	314.9	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
					115.4	162.1				124	123.9	29.6		630	03100	277.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
					62					31	31			630	04100	62	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
					11					6	5			630	07000	11	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	
										2	2			630	08501	4	EACH	STREET NAME SIGN SUPPORT, AS PER PLAN	681
					6					3	3			630	08600	6	EACH	SIGN POST REFLECTOR	
					1					1				630	72320	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	
					1					1				630	72340	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	
					3					2	1			630	72410	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
					1					1				630	72420	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
						1						1		630	74500	1	EACH	OVERHEAD SIGN SUPPORT, MISC.: CITY OF COLUMBUS 4121, DESIGN 12	681
					8					4	4			630	75000	8	EACH	SIGN ATTACHMENT ASSEMBLY	
						4				2	2			630	79101	4	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	681
										2	1			630	79500	2	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
										17	16	1		630	79501	34	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN	681
										1				630	79604	1	EACH	SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	
					171.5	350.6				246.7	246.5	28.9		630	80100	522.1	SF	SIGN, FLAT SHEET	
					28					14	14			630	80200	28	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
					1,817.5					908.8	908.7			630	80224	1,817.5	SF	SIGN, OVERHEAD EXTRUSHEET	
										80	79			630	80400	159	SF	SIGN, PERMANENT OVERLAY	
										4	4			630	80500	8	EACH	SIGN, DOUBLE FACED, STREET NAME	
										1	1			630	84010	2	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
										2	1			630	84510	3	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
							23	65		41	40	7		630	84900	88	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
										3	2			630	85400	5	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	

CALCULATED: HRB CHECKED: TAZ

GENERAL SUMMARY

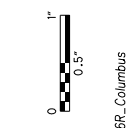
FRA - 71 - 14.36

NO.	DESCRIPTION	REV. BY	DATE
4	Update Funding Splits	TAZ	11-24-2021



ms consultants, inc.
msconsultants.com

Ohio DOT Workspace
70\71 West Interchange 6R
www.msconsultants.com



Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\msconsultants.com\files\standards\usin\ohdot\18\ms\plotting\pen\18_ms_std.dwg
Plot Driver: \\msconsultants.com\files\standards\usin\ohdot\18\ms\plotting\PDF.plt

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\msconsultants.com\files\standards\usin\ohdot\18\ms\plotting\pen\18_ms_std.dwg
Plot Driver: \\msconsultants.com\files\standards\usin\ohdot\18\ms\plotting\PDF.plt

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\msconsultants.com\files\standards\usin\ohdot\18\ms\plotting\pen\18_ms_std.dwg
Plot Driver: \\msconsultants.com\files\standards\usin\ohdot\18\ms\plotting\PDF.plt

Model: Sheet
Printed: 11/23/2021 8:55:42 AM
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886001.dgn
View: FENCE - NEW1
By: tzongmeister

SHEET NUM.							PART.			ITEM 4	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
685	687	688	689	691	694	08/NHS/P V	08/NHS/P V	11/NHS/P VICOL							
TRAFFIC CONTROL (CONT.)															
			35	48		40	39	4	630	86002	83	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		
			10			5	5		630	86102	10	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL		
				1		1			630	86272	1	EACH	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL		
			7			4	3		630	87100	7	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION		
			25	5		16	14		630	87400	30	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL		
				2	39	21	20		630	87500	41	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL		
					1	1			630	89704	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-16.21		
				4		2	2		630	89706	4	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30		
				3		2	1		630	89802	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65		
		32				16	16		630	89902	32	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC CONTROL ITEM: PARKING METER POST REMOVAL	681	
			8			4	4		630	97700	8	EACH	SIGNING, MISC.: PARKING METER POST CORE	681	
			8			4	4		630	97700	8	EACH	SIGNING, MISC.: PARKING METER POST AND INSTALLATION	681	
					1	1			630	97700	1	EACH	SIGNING, MISC.: WALL MOUNTED SIGN	681	
407						204	203		644	00700	407	FT	TRANSVERSE/DIAGONAL LINE		
						103	102		644	01200	205	FT	PARKING LOT STALL MARKING		
	13					5	4	4	644	01300	13	EACH	LANE ARROW		
1						1			644	01360	1	EACH	WRONG WAY ARROW		
	5					3	2		644	01630	5	EACH	BIKE LANE SYMBOL MARKING		
	2					1	1		644	19000	2	EACH	SHARED LANE MARKING		
204	100					152	152		644	30000	304	FT	REMOVAL OF PAVEMENT MARKING		
1	4					3	2		644	30020	5	EACH	REMOVAL OF PAVEMENT MARKING		
	685					292	292	101	644	50300	685	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 10"	681	
	207					104	103		644	50300	207	FT	PAVEMENT MARKING, MISC.: DOTTED LINE, 5"	681	
	151					64	63	24	644	50300	151	FT	PAVEMENT MARKING, MISC.: STOP LINE, 20"	681	
	325					163	162		644	50300	325	FT	PAVEMENT MARKING, MISC.: TRANSVERSE/DIAGONAL LINE, 20" (WHITE)	681	
	99					25	24	50	644	50300	99	FT	PAVEMENT MARKING, MISC.: TRANSVERSE/DIAGONAL LINE, 20" (YELLOW)	681	
	0.36					0.18	0.18		644	50400	0.36	MILE	PAVEMENT MARKING, MISC.: EDGE LINE, 5"	681	
	0.26					0.13	0.13		644	50400	0.26	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 5"	681	
	0.25					0.11	0.1	0.04	644	50400	0.25	MILE	PAVEMENT MARKING, MISC.: CENTER LINE, 5"	681	
239						120	119		646	10600	239	FT	TRANSVERSE/DIAGONAL LINE		
2						1	1		646	20350	2	EACH	LANE REDUCTION ARROW		
	4					2	2		647	50010	4	EACH	REMOVAL OF PAVEMENT MARKING		
	1					1			647	50100	1	EACH	PAVEMENT MARKING, MISC.: BIKE BOX	681	
	3					2	1		647	50100	3	EACH	PAVEMENT MARKING, MISC.: CARDINAL DIRECTION	696	
	3					2	1		647	50100	3	EACH	PAVEMENT MARKING, MISC.: ROUTE SHIELD	696	
1.87						0.94	0.93		807	12010	1.87	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"		
1.02						0.51	0.51		807	12110	1.02	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"		
2,176						1,088	1,088		807	12310	2,176	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"		
660						330	330		807	12410	660	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"		
5.35						2.68	2.67		807	14010	5.35	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"		
3.72						1.86	1.86		807	14110	3.72	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"		
8,703						4,352	4,351		807	14310	8,703	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"		
1,028						514	514		807	14430	1,028	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 12"		
4						2	2		814	00010	4	EACH	INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125		
1						1			814	00014	1	EACH	STATE ROUTE SHIELD SYMBOL MARKING, TYPE B125		
5						3	2		814	00016	5	EACH	CARDINAL DIRECTION (NORTH, SOUTH, WEST & EAST) MARKING, TYPE B125		
9.08						4.54	4.54		850	10010	9.08	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)		
8,703						4,352	4,351		850	10130	8,703	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)		
2.89						1.45	1.44		850	20010	2.89	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)		
660						330	330		850	20110	660	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)		
2,176						1,088	1,088		850	20130	2,176	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)		

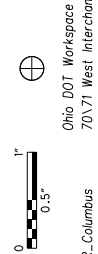
NO.	DESCRIPTION	REV. BY	DATE
4	Update Funding Splits	TAZ	11-24-2021

CALCULATED
HRB
CHECKED
TAZ

GENERAL SUMMARY

FRA - 71 - 14.36

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\standards\user\table\1\8\ms\plot\pen.tbl
 Plot Driver: \\msconsultants.com\files\standards\user\table\1\8\ms\plot\pdrv.plt
 Model Sheet
 Printed: 11/23/2021 8:59:15 AM
 File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\0558860012.dgn
 View: FENCE - NEW!
 By: tzangmeister



34" x 22"

SHEET NUM.										PART.				ITEM EXT	ITEM TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
743										08/NHS/P V	08/NHS/P V	11/NHS/P V/COL	12/NHS/P V/INC						4
TRAFFIC SIGNALS																			
921										461	460			625	23001	921	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE, AS PER PLAN	729
262										131	131			625	23304	262	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE	
124										62	62			625	25408	124	FT	CONDUIT, 2", 725.051	
12										6	6			625	25504	12	FT	CONDUIT, 3", 725.051	
71										36	35			625	25802	71	FT	CONDUIT, CONCRETE ENCASED, (1)-2"	
57										29	28			625	25802	57	FT	CONDUIT, CONCRETE ENCASED, (2)-2"	
44										22	22			625	25802	44	FT	CONDUIT, CONCRETE ENCASED, (3)-2"	
103										52	51			625	25802	103	FT	CONDUIT, CONCRETE ENCASED, (4)-2"	
656										238	238	180		625	25920	656	FT	CONDUIT, MISC.: ENCASED INTERCONNECT CONDUIT BANK, (4)-3" & (1)-1.5", TC-2, SCH 40	736
988										404	404	180		625	29001	988	FT	TRENCH, AS PER PLAN	731
5												5		625	29401	5	FT	TRENCH IN PAVED AREAS, AS PER PLAN	731
1												1		625	31511	1	EACH	PULL BOX REMOVED, AS PER PLAN	730
1										1				625	31600	1	EACH	PULL BOX MISC.: 27" ROUND CONCRETE (725.08)	730
2										1	1			625	31600	2	EACH	PULL BOX MISC.: 32" ROUND CONCRETE (725.08)	730
1											1			625	31600	1	EACH	PULL BOX MISC.: 48" ROUND CONCRETE, TYPE 1 (725.08)	730
3											2			625	31600	3	EACH	PULL BOX MISC.: CITY OF COLUMBUS, 12"X18", TRAFFIC, (725.06)	730
7										4	3			625	32000	7	EACH	GROUND ROD (SIGNALS)	
1													1	625	98000	1	EACH	LIGHTING, MISC.: BRACKET ARM, LUMINAIRE, 8'	729
1													1	625	98000	1	EACH	LIGHTING, MISC.: LED, 120V, TEARDROP (BLACK)	729
1										1				625	98000	1	EACH	LIGHTING, MISC.: PHOTO CELL	729
3										2	1			630	79101	3	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	731
7										4	3			630	79501	7	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN	731
31										16	15			630	80101	31	SF	SIGN, FLAT SHEET, AS PER PLAN	731
4										2	2			630	80501	4	EACH	SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN	731
5										3	2			630	97700	5	EACH	SIGNING, MISC.: TRAFFIC SIGNAL SIGNS	731
2										1	1			632	04911	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, ALUMINUM, AS PER PLAN	734
6										3	3			632	05007	6	EACH	VEHICULAR SIGNAL HEAD, (LED), 3 SECTION, 12" LENS, 1 WAY, POLYCARBONATE, AS PER PLAN	734
4										2	2			632	20731	4	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	732
6										3	3			632	25001	6	EACH	COVERING OF VEHICULAR SIGNAL HEAD, AS PER PLAN	733
4										2	2			632	25011	4	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD, AS PER PLAN	733
2										1	1			632	26000	2	EACH	PEDESTRIAN PUSHBUTTON	
54										27	27			632	40300	54	FT	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG	
502										251	251			632	40700	502	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
382										191	191			632	40900	382	FT	SIGNAL CABLE, 9 CONDUCTOR, NO. 14 AWG	
720										360	360			632	62810	720	FT	INTERCONNECT CABLE, MISC.: FIBER OPTIC CABLE, 144 STRAND	740
288										144	144			632	62810	288	FT	INTERCONNECT CABLE, MISC.: FIBER OPTIC CABLE, 24 STRAND	740
260												260		632	62810	260	FT	INTERCONNECT CABLE, MISC.: RELOCATE EXISTING FIBER OPTIC CABLE, 144 STRAND	740
48										24	24			632	62820	48	EACH	INTERCONNECT, MISC.: FIBER OPTIC FUSION SPLICE	740
2										1	1			632	62820	2	EACH	INTERCONNECT, MISC.: FIBER OPTIC SPLICE ENCLOSURE, CLAMSHELL, 288 SPLICE	737
2										1	1			632	64011	2	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	733
3										2	1			632	64020	3	EACH	PEDESTAL FOUNDATION	
291										146	145			632	65200	291	FT	LOOP DETECTOR LEAD-IN CABLE	
204										102	102			632	68200	204	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
29										15	14			632	68300	29	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
1										1				632	70001	1	EACH	POWER SERVICE, AS PER PLAN	732
1													1	632	80700	1	EACH	SIGNAL SUPPORT, MISC.: CITY OF COLUMBUS DESIGN C15	731
1													1	632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: CITY OF COLUMBUS DESIGN 4	731
2													2	632	90010	2	EACH	PEDESTAL, MISC.: 10.7' PEDESTAL	732
1													1	632	90010	1	EACH	PEDESTAL, MISC.: 21' PEDESTAL	732
2										1	1			632	90101	2	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	733
1										1				632	90200	1	EACH	REUSE OF VEHICULAR SIGNAL HEAD	
1										1				632	90400	1	EACH	SIGNALIZATION, MISC.: CCTV IP-CAMERA SYSTEM	734
2										1	1			632	90400	2	EACH	SIGNALIZATION, MISC.: COVERING OF PEDESTRIAN PUSHBUTTON	733
3										2	1			632	90400	3	EACH	SIGNALIZATION, MISC.: FOUNDATION PRE-EXCAVATION	733
1										1				632	90400	1	EACH	SIGNALIZATION, MISC.: POWER METER CABINET, BASE MOUNT, WITH FOUNDATION	733
1										1				633	99000	1	EACH	CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS2	735

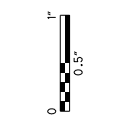
CALCULATED HRB CHECKED TAZ
GENERAL SUMMARY
FRA - 71 - 14.36
275A
1228

NO.	DESCRIPTION	REV.	BY	DATE
4	Update Funding Splits		TAZ	11-24-2021



ms consultants, inc.
mconsultants.com

Ohio DOT Workspace
70\71 West Interchange 6R
www.mconsultants.com



Batchplot Spec: \\mconsultants.com\files\Production\03_60_06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\mconsultants.com\files\standards\user\table1\81\ms\plotting\pen\81.ms_std.plt
Plot Driver: \\mconsultants.com\files\standards\user\table1\81\ms\plotting\PDF.plt
Batchplot Spec: \\mconsultants.com\files\Production\03_60_06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: \\mconsultants.com\files\standards\user\table1\81\ms\plotting\pen\81.ms_std.plt
Plot Driver: \\mconsultants.com\files\standards\user\table1\81\ms\plotting\PDF.plt

34" x 22"

Model: Sheet
Printed: 11/24/2021 3:13:28 PM
By: tzangmeister
File: \\mconsultants.com\files\Production\03_60_06634_6R\roadway\sheet1\0558860013.dgn

SHEET NUM.					PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
653	743	755	814	847	08/NHS/P V	08/NHS/P V	10/ENH/O T/COL	11/NHS/P V/COL						
TRAFFIC SIGNALS (CONT.)														
	1								633	67100	1	EACH	CABINET FOUNDATION	
	2								633	99000	2	EACH	CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE	737
	1								633	99000	1	EACH	CONTROLLER ITEM, MISC.: LAYER 2 ETHERNET SWITCH	738
	2	1,337							804	32060	1,337	FT	DROP CABLE, 24 FIBER	
									804	34023	2	EACH	FIBER TERMINATION PANEL, 24 FIBER, AS PER PLAN	736
									804	37000	1	EACH	SPLICE ENCLOSURE, BUTT STYLE	
	1								809	69101	1	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	733
LANDSCAPING														
40									40	20020	40	EACH	DECIDUOUS SHRUB, 18" HEIGHT, (#3 CONTAINER) (RHUS AROMATICA 'GRO-LOW')	654
			40				40		661	20041	40	EACH	DECIDUOUS SHRUB, 2' HEIGHT, AS PER PLAN, RIBES ALPINUM 'GREEN MOUND'	824-824B
			95				95		661	30061	95	EACH	EVERGREEN SHRUB, 2' HEIGHT, AS PER PLAN, JUNIPERIS CHINENSIS 'SEA GREEN'	824-824B
			12				12		661	40081	12	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN, MALUS X 'GOLDEN RAINDROPS'	824-824B
			8				8		661	40121	8	EACH	DECIDUOUS TREE, 3" CALIPER, AS PER PLAN, ACER RUBRUM 'FRANKSRED'	824-824B
			8				8		661	40141	8	EACH	DECIDUOUS TREE, 4" CALIPER, AS PER PLAN, ACER X FREEMANII 'ARMSTRONG'	824-824B
			45				45		661	40141	45	EACH	DECIDUOUS TREE, 4" CALIPER, AS PER PLAN, PLATANUS X ACERFOLIA	824-824B
			4				4		661	50160	4	EACH	EVERGREEN TREE, 8' HEIGHT, THUJA OCCIDENTALIS 'EMERALD'	824-824B
			32				32		661	50170	32	EACH	EVERGREEN TREE, 10' HEIGHT, PICEA OMORIKA	824-824B
			1,575				788	787	661	99900	1,575	EACH	PLANTING, MISC.: BULB, NARCISSUS ICE FOLLIES'	824
			1,575				788	787	661	99900	1,575	EACH	PLANTING, MISC.: PERENNIAL, HEMEROCALLIS X 'HAPPY RETURNS'	824
			23				23		SPECIAL	69098000	23	EACH	TREE GRATE, 4'X8'	824A-824B
			18				18		SPECIAL	69098700	18	CY	TURFGRASS SOIL MIX FURNISHED AND PLACED (12" DEPTH UPPER HORIZON)	824-826
			7				7		SPECIAL	69098700	7	CY	TURFGRASS BASE MIX FURNISHED AND PLACED (4 1/2" DEPTH LOWER HORIZON)	824-826
			622				622		SPECIAL	69098700	622	CY	TREE AND PLANTS SOIL MIX FURNISHED AND PLACED (24" DEPTH UPPER HORIZON)	824-826
			233				233		SPECIAL	69098700	233	CY	TREE AND PLANTS BASE MIX FURNISHED AND PLACED (9" DEPTH LOWER HORIZON)	824-826
			765				765		SPECIAL	69098700	765	CY	SAND-BASED STRUCTURAL SOIL FURNISHED AND PLACED (24" DEPTH UPPER HORIZON)	824-826
			287				287		SPECIAL	69098700	287	CY	SAND BASED STRUCTURAL SOIL BASE MIX FURNISHED AND PLACED (9" DEPTH LOWER HORIZON)	824 826
RETAINING WALLS (E4)														
			961				961		203	20000	961	CY	EMBANKMENT	
			2,085				2,085		203	35000	2,085	CY	GRANULAR EMBANKMENT	
			246				246		203	35110	246	CY	GRANULAR MATERIAL, TYPE B	
			2				2		SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	844
			5,680				5,680		203	98100	5,680	SY	ROADWAY, MISC.: COLUMN SUPPORTED WALLS	848
			LUMP				LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	838
			14,932				14,932		509	10001	14,932	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
			93				93		511	53012	93	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
			348				348		512	10001	348	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	838
			703				703		512	10100	703	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
			56				56		516	13200	56	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
			518				518		516	13900	518	SF	2" PREFORMED EXPANSION JOINT FILLER	
			6,894				6,894		840	20001	6,894	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839843
			630				630		840	21000	630	CY	WALL EXCAVATION	
			547				547		840	22000	547	SY	FOUNDATION PREPARATION	
			3,908				3,908		840	23000	3,908	CY	SELECT GRANULAR BACKFILL	
			608				608		840	25010	608	FT	6" DRAINAGE PIPE, PERFORATED	
			315				315		840	26000	315	FT	CONCRETE COPING	
			6,264				6,264		840	26050	6,264	SF	AESTHETIC SURFACE TREATMENT	
			5				5		840	27000	5	DAY	ON-SITE ASSISTANCE	
			LUMP				LUMP		867	00101	LS		TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839

CALCULATED
HRB
CHECKED
TAZ

GENERAL SUMMARY

FRA - 71 - 14.36

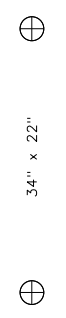
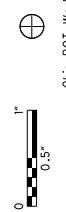
275B
1228

Ohio DOT Workspace
70\71 West Interchange 6R
www.msconsultants.com

Batchplot Spec: \msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg; ohio\08
Pen Table: \msconsultants.com\files\standards\user\ohio\1\08\ms\plotting\pen\08.ms_std.plt; PCF: 60-06634_6R_Columbus
Plot Driver: \msconsultants.com\files\standards\user\ohio\1\08\ms\plotting\PDF.plt; c; g

View: FENCE_VEW1
By: tzangmeister

Model: Sheet
Printed: 11/23/2021 9:09:22 AM
File: \msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\0558860015.dgn



34" x 22"

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
874	884									08/NHSP V.	ITEM	EXT	TOTAL			
RETAINING WALLS (E10)																
1,346										1,346	SPECIAL	20302000	1,346	CY	ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS II	841
122										122	SPECIAL	20302000	122	CY	ENGINEERED FILL: LIGHTWEIGHT CELLULAR CONCRETE FILL, CLASS III	841
678										678	203	20000	678	CY	EMBANKMENT	
827										827	203	35110	827	CY	GRANULAR MATERIAL TYPE B	
RETAINING WALLS (W2)																
6,138										6,138	203	98000	6,138	CY	ROADWAY, MISC.: EPS GEOFOAM FILL	840
LUMP										LUMP	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	838
39,409										39,409	509	10001	39,409	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
247										247	511	53012	247	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
4,628										4,628	511	71200	4,628	SF	CONCRETE, MISC.: PRECAST WALL PANELS	838
152										152	511	81100	152	FT	CONCRETE, MISC.: PRECAST FOOTING	838
1,240										1,240	512	10100	1,240	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
10,345										10,345	840	20001	10,345	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839
4,104										4,104	840	21000	4,104	CY	WALL EXCAVATION	
743										743	840	22000	743	SY	FOUNDATION PREPARATION	
1,748										1,748	840	23000	1,748	CY	SELECT GRANULAR BACKFILL	
455										455	840	25010	455	FT	6" DRAINAGE PIPE, PERFORATED	
5										5	840	27000	5	DAY	ON-SITE ASSISTANCE	
RETAINING WALLS (W2)																
2,649										2,649	203	20000	2,649	CY	EMBANKMENT	
LUMP										LUMP	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	838
87,095										87,095	509	10001	87,095	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
560										560	511	53012	560	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838
1,627										1,627	512	10001	1,627	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	838
4,459										4,459	512	10100	4,459	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
216										216	516	13200	216	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
2,217										2,217	516	13900	2,217	SF	2" PREFORMED EXPANSION JOINT FILLER	
431										431	601	37500	431	FT	PAVED GUTTER, TYPE 1-2	
36,756										36,756	840	20001	36,756	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843
6,905										6,905	840	21000	6,905	CY	WALL EXCAVATION	
3,332										3,332	840	22000	3,332	SY	FOUNDATION PREPARATION	
27,781										27,781	840	23000	27,781	CY	SELECT GRANULAR BACKFILL	
924										924	840	23050	924	CY	NATURAL SOIL	
3,135										3,135	840	25010	3,135	FT	6" DRAINAGE PIPE, PERFORATED	
1,555										1,555	840	26000	1,555	FT	CONCRETE COPING	
33,647										33,647	840	26050	33,647	SF	AESTHETIC SURFACE TREATMENT	
5										5	840	27000	5	DAY	ON-SITE ASSISTANCE	

CALCULATED HRB CHECKED TAZ

GENERAL SUMMARY

FRA - 71 - 14.36

NO.	DESCRIPTION	REV. BY	DATE
1	Removal of Item 203E35120	TAZ	11-05-2021
3	Remove Item 840E28000	TAZ	11-19-2021
3	Update Item 509 to A.P.P.	TAZ	11-19-2021
4	Update Funding Splits	TAZ	11-24-2021

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
170	277	278	894	909A	279	280	281	286	281A	282	199E	08/NHS/P V							08/NHS/P V	
			3,578										3,578	203	20000	3,578	CY	EMBANKMENT		
			278										278	203	35110	278	CY	GRANULAR MATERIAL TYPE B		
			2										2	SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	844	
			1,912										1,912	203	98100	1,912	SY	ROADWAY, MISC.: COLUMN SUPPORTED WALLS	901	
			LUMP										LUMP	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING		
			31,723										31,723	509	10001	31,723	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838	
			524										524	511	53012	524	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838	
			5,418										5,418	512	10100	5,418	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
			419										419	516	13200	419	SF	1/2" PREFORMED EXPANSION JOINT FILLER		
			1,962										1,962	516	13900	1,962	SF	2" PREFORMED EXPANSION JOINT FILLER		
			746										746	601	37500	746	FT	PAVED GUTTER, TYPE 1-2		
			47,388										47,388	840	20001	47,388	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843	
			12,124										12,124	840	21000	12,124	CY	WALL EXCAVATION		
			6,296										6,296	840	22000	6,296	SY	FOUNDATION PREPARATION		
			62,184										62,184	840	23000	62,184	CY	SELECT GRANULAR BACKFILL		
			9,690										9,690	840	23050	9,690	CY	NATURAL SOIL		
			4,033										4,033	840	25010	4,033	FT	6" DRAINAGE PIPE, PERFORATED		
			1,777										1,777	840	26000	1,777	FT	CONCRETE COPING		
			43,836										43,836	840	26050	43,836	SF	AESTHETIC SURFACE TREATMENT		
			5										5	840	27000	5	DAY	ON-SITE ASSISTANCE		
			1,393										1,393	203	20000	1,393	CY	EMBANKMENT		
			LUMP										LUMP	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING		
			30,007										30,007	509	10001	30,007	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838	
			192										192	511	53012	192	CY	CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB WITH QC/QA	838	
			2,629										2,629	512	10100	2,629	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	838	
			196										196	516	13200	196	SF	1/2" PREFORMED EXPANSION JOINT FILLER		
			720										720	516	13900	720	SF	2" PREFORMED EXPANSION JOINT FILLER		
			392										392	601	37500	392	FT	PAVED GUTTER, TYPE 1-2		
			27,132										27,132	840	20001	27,132	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	843	
			3,256										3,256	840	21000	3,256	CY	WALL EXCAVATION		
			1,835										1,835	840	22000	1,835	SY	FOUNDATION PREPARATION		
			18,250										18,250	840	23000	18,250	CY	SELECT GRANULAR BACKFILL		
			701										701	840	23050	701	CY	NATURAL SOIL		
			1,090										1,090	840	25010	1,090	FT	6" DRAINAGE PIPE, PERFORATED		
			25										25	840	25020	25	FT	6" DRAINAGE PIPE, NON-PERFORATED		
			871										871	840	26000	871	FT	CONCRETE COPING		
			25,394										25,394	840	26050	25,394	SF	AESTHETIC SURFACE TREATMENT		
			5										5	840	27000	5	DAY	ON-SITE ASSISTANCE		
			LUMP										LUMP	867	00101	LS		TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839	
			LUMP										LUMP	LUMP	202	11200	LS	PORTIONS OF STRUCTURE REMOVED		
			50		78								13,000	12,000	202	11501	25,000	EACH	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	46
													64	64	202	22900	128	SY	APPROACH SLAB REMOVED	
			LUMP										LUMP	LUMP	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
									LUMP	LUMP			LUMP	LUMP	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	47
			2,096			739	2,924	206					2,983	2,982	512	10000	5,965	SY	SEALING OF CONCRETE SURFACES	
											LUMP		LUMP	LUMP	867	00100	LS		TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL	199E

NO.	DESCRIPTION	REV.	BY	DATE
1	Removal of Item 203L35120	1A	1A	11-05-2021
2	Change 203L98100 Desc.	1A	1A	11-05-2021
3	Remove Duplicate Pay Qty	1A	1A	11-19-2021
3	Remove Multi-Sheet Ref.	1A	1A	11-19-2021
3	Remove Item 840E28000	1A	1A	11-19-2021
3	Update Item 509 To A P P.	1A	1A	11-19-2021
3	Revise 202E1500 To 1501	1A	1A	11-19-2021
4	Update Foundation Spill Is	1A	1A	11-24-2021

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg; ondu\8; Pen Table: \\msconsultants.com\files\standards\usin\ohdot\1\8\ms\plotting\pen\18\ms_std.dwg; PCF: 60-06634_6R_Columbus Plot Driver: \\msconsultants.com\files\standards\usin\ohdot\1\8\ms\plotting\PDF.plt;g
View: FENCE_NEW1 By: tzongmeister
Model: Sheet
Printed: 11/23/2021 9:23:42 AM
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\0558860017.dgn

Ohio DOT Workspace
70\71 West Interchange 6R
www.msconsultants.com

0 0.5' 1'

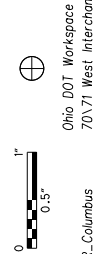
34" x 22"

SHEET NUM.		PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
1200		09/NHS/B R.	4	EXT	TOTAL			
STRUCTURE (FRA-70-1373B)								
3		3	203	35110	3	CY	GRANULAR MATERIAL, TYPE B	
LUMP		LUMP	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
855		855	507	00100	855	FT	STEEL PILES HP10X42, FURNISHED	
810		810	507	00150	810	FT	STEEL PILES HP10X42, DRIVEN	
9		9	507	93300	9	EACH	STEEL POINTS OR SHOES	
133,381		133,381	509	10001	133,381	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	1199
309		309	511	34446	309	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
98		98	511	34450	98	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
168		168	511	41012	168	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
171		171	511	43512	171	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
116		116	512	10001	116	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	1199
1,383		1,383	512	10100	1,383	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
27		27	512	33000	27	SY	TYPE 2 WATERPROOFING	
361,373		361,373	513	10300	361,373	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5	
3,135		3,135	513	20000	3,135	EACH	WELDED STUD SHEAR CONNECTORS	
5,704		5,704	514	00060	5,704	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
5,704		5,704	514	00067	5,704	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	1199
75		75	516	10010	75	FT	ARMORLESS PREFORMED JOINT SEAL	
75		75	516	11210	75	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	
160		160	516	13900	160	SF	2" PREFORMED EXPANSION JOINT FILLER	
88		88	516	25000	88	SF	NYLON REINFORCED NEOPRENE SHEETING	
3		3	516	44100	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)(1'-4" x 5 1/8" x 1'-7" PAD WITH 1'-5" x 2" x 1'-9" STEEL LOAD PLATE)	
1		1	516	44100	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)(1'-4" x 5 1/8" x 1'-7" PAD WITH 1'-5" x 2" x 2'-1" STEEL LOAD PLATE)	
3		3	516	44101	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN(1'-4" x 5 1/8" x 1'-7" PAD WITH 1'-5" x 2 3/8" x 1'-9" BEVELED STEEL LOAD PLATE)	1199
1		1	516	44101	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN(1'-4" x 5 1/8" x 1'-7" PAD WITH 1'-5" x 2 3/8" x 2'-1" BEVELED STEEL LOAD PLATE)	1199
3		3	516	44101	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN(2'-0 1/2" x 5 3/8" x 2'-0 1/2" PAD WITH 2'-1 1/2" x 2 1/4" x 2'-8" BEVELED STEEL LOAD PLATE)	1199
1		1	516	44101	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN(2' 0 1/2" x 5 3/8" x 2' 0 1/2" PAD WITH 2' 1 1/2" x 2 1/4" x 3' 0" BEVELED STEEL LOAD PLATE)	1199
1		1	518	12000	1	EACH	SCUPPERS, INCLUDING SUPPORTS	
20		20	518	21200	20	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
75		75	518	40000	75	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
25		25	518	40010	25	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
52		52	518	51200	52	FT	PIPE DOWNSPOUT, INCLUDING SPECIALS, 10"	
108		108	524	94700	108	FT	DRILLED SHAFTS, 36" DIAMETER	
156		156	524	94704	156	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK	
372		372	524	94802	372	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK	
249		249	526	30000	249	SY	REINFORCED CONCRETE APPROACH SLABS (T=17")	
75		75	526	90030	75	FT	TYPE C INSTALLATION	
205		205	607	39901	205	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	1199

CALCULATED HRB CHECKED TAZ
GENERAL SUMMARY
FRA-71-14.36
275F
1228

NO.	DESCRIPTION	REV. BY	DATE
3	Update Item 509 to A.P.P.	TAZ	11-19-2021
3	511E34451 to 511E34450	TAZ	11-19-2021
4	Update Funding Splits	TAZ	11-24-2021

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\Standards\user\table\1\8\1\ms\plot\pen\1\8\1\ms_std.tbl
 Plot Driver: \\msconsultants.com\files\Standards\user\table\1\8\1\ms\plot\pen\1\8\1\ms_std.tbl
 View: FENCE - NEW1
 Printed: 11/23/2021 9:28:26 AM By: tzongmeister
 File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\0558860018.dgn



34" x 22"

SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
912	944							09/NHS/B R	09/NHS/B R	09/NHS/B R	ITEM	EXT						
STRUCTURE REPAIR (FRA-70-1373L)																		
LUMP										LUMP	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	911		
157										157	202	22900	157	SY	APPROACH SLAB REMOVED			
705										705	202	23501	705	SY	WEARING COURSE REMOVED, AS PER PLAN	911		
3										3	202	98100	3	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE	917		
8										8	407	20000	8	GAL	NON-TRACKING TACK COAT			
5										5	441	10000	5	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22			
LUMP										LUMP	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING			
11,409										11,409	509	25000	11,409	LB	UNCOATED REINFORCING STEEL			
372										372	510	10000	372	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT			
48										48	511	21521	48	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN	911		
117										117	512	33010	117	SY	TYPE 3 WATERPROOFING			
494										494	513	10200	494	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF			
1,005										1,005	513	10240	1,005	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2			
4										4	518	12200	4	EACH	SCUPPERS, INCLUDING SUPPORTS			
32										32	SPECIAL	51912510	32	SY	PATCHING CONCRETE BRIDGE DECK	911		
4										4	846	00110	4	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM			
STRUCTURE (FRA-71-1503L)																		
LUMP								LUMP	LUMP		202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	941		
LUMP								LUMP	LUMP		202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	941		
159								80	79		202	22900	159	SY	APPROACH SLAB REMOVED			
2,034								1,017	1,017		202	23500	2,034	SY	WEARING COURSE REMOVED			
21								11	10		202	98100	21	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE	946		
LUMP								LUMP	LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	942		
6,586								3,293	3,293		503	21101	6,586	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	942		
LUMP								LUMP	LUMP		505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION			
980								490	490		507	00100	980	FT	STEEL PILES HP10X42, FURNISHED			
935								468	467		507	00150	935	FT	STEEL PILES HP10X42, DRIVEN			
1,760								880	880		507	00200	1,760	FT	STEEL PILES HP12X53, FURNISHED			
1,680								840	840		507	00250	1,680	FT	STEEL PILES HP12X53, DRIVEN			
27								14	13		507	93300	27	EACH	STEEL POINTS OR SHOES			
3	6,011,221							3,005,611	3,005,610		509	10001	6,011,221	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	942		
8,950								4,475	4,475		511	34447	8,950	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	942		
1,506								753	753		511	34451	1,506	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	942, 1143		
278								139	139		511	43512	278	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING			
11,516								5,758	5,758		511	45602	11,516	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA			
1,642								821	821		512	10001	1,642	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)	942, 1143		
22,021								11,011	11,010		512	10100	22,021	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			
19								10	9		512	33000	19	SY	TYPE 2 WATERPROOFING			
13,156,600								6,578,300	6,578,300		513	10401	13,156,600	LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN	942, 1035		
84,927								42,464	42,463		513	20000	84,927	EACH	WELDED STUD SHEAR CONNECTORS			
154,349								77,175	77,174		514	00060	154,349	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			
154,349								77,175	77,174		514	00066	154,349	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			
118								59	59		516	10010	118	FT	ARMORLESS PREFORMED JOINT SEAL			
263								132	131		SPECIAL	51612400	263	FT	MODULAR EXPANSION JOINT	943		
26								13	13		516	13600	26	SF	1" PREFORMED EXPANSION JOINT FILLER			
10								5	5		518	12200	10	EACH	SCUPPERS, INCLUDING SUPPORTS			
83								42	41		518	21200	83	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC			
46								23	23		518	40000	46	FT	6" PERFORATED CORRUGATED PLASTIC PIPE			
38								19	19		518	40010	38	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS			
229								115	114		518	51200	229	FT	PIPE DOWNSPOUT, INCLUDING SPECIALS, 10"			
130								65	65		524	94804	130	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK			
1,340								670	670		524	94902	1,340	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK			
725								363	362		524	94904	725	FT	DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK			
2,854								1,427	1,427		524	94906	2,854	FT	DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK			
290								145	145		524	94994	290	FT	DRILLED SHAFTS, 90" DIAMETER, INTO BEDROCK			
633								317	316		524	94996	633	FT	DRILLED SHAFTS, 96" DIAMETER, ABOVE BEDROCK			

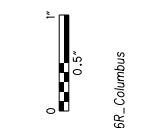
NO.	DESCRIPTION	REV.	BY	DATE
2	DOWEL PILE ITEM INCLUDED		TAL	11-10-2021
3	Update Item & Qty		TAL	11-19-2021
4	Update Funding Splits		TAL	11-24-2021

GENERAL SUMMARY

FRA - 71 - 14.36



Ohio DOT Workspace
7077 West Interchange 6R
www.msconsultants.com



Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batcplp1000.ctb
Pen Table: \\msconsultants.com\files\standards\usin\ohio\1\8\ms\plotting\pen\18.ms_std.tbl
Plot Driver: \\msconsultants.com\files\standards\usin\ohio\1\8\ms\plotting\pdf\plc1g

Model: Sheet
Printed: 11/23/2021 9:34:22 AM By: tzongmaister
File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055886009.dgn

34" x 22"

View: SHEET

SHEET NUM.									PART.				ITEM EXT	ITEM TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
59	65	66	67	68	69	71	77	944	08/NHS/P V	08/NHS/P V	09/NHS/B R	09/NHS/B R					
STRUCTURE (FRA-71-1503L) (CONT.)																	
								93			47	46	524	95100	93	EACH	DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS
								LUMP			LUMP	LUMP	524	95200	LS		DRILLED SHAFTS, MISC. SHAFT INSPECTION DEVICE
								392			196	196	526	30010	392	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")
								116			58	58	526	90030	116	FT	TYPE C INSTALLATION
								LUMP			LUMP	LUMP	SPECIAL	53000200	LS		STRUCTURES SOLDIER PILE RETAINING WALL
								465			233	232	607	39901	465	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN
								570			285	285	SPECIAL	69098100	570	FT	COVERED WALKWAY SYSTEM
								148			74	74	869	00100	148	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS
MAINTENANCE OF TRAFFIC																	
			2,208						1,104	1,104			614	11110	2,208	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
100									50	50			614	11111	100	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN
							31		16	15			614	12380	31	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)
							1		1				614	12381	1	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN
		LUMP							LUMP	LUMP			614	12420	LS		DETOUR SIGNING
		7							4	3			614	12484	7	EACH	WORK ZONE INCREASED PENALTIES SIGN
	20								10	10			614	12500	20	EACH	REPLACEMENT SIGN
	50								25	25			614	12600	50	EACH	REPLACEMENT DRUM
							2,857		1,429	1,428			614	12801	2,857	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN
							1,542		771	771			614	13310	1,542	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY
									8	7			614	13312	15	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY
							510		263	262			614	13350	525	EACH	OBJECT MARKER, ONE WAY
							4		2	2			614	13360	4	EACH	OBJECT MARKER, TWO WAY
100									50	50			614	18020	100	hour	MAINTAINING TRAFFIC, MISC.: LAW ENFORCEMENT OFFICER (LEO) WITHOUT PATROL CAR
					1,400				700	700			614	18030	1,400	FT	MAINTAINING TRAFFIC, MISC.: PORTABLE WATER FILLED BARRIER PROTECTED PEDESTRIAN WALKWAY
			53						27	26			614	18601	53	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
							2.75		1.38	1.37			614	20056	2.75	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT
				1.38					0.69	0.69			614	20366	1.38	MILE	WORK ZONE LANE LINE, CLASS I, 6", 648
			4.76						2.38	2.38			614	20410	4.76	MILE	WORK ZONE LANE LINE, CLASS II, 6"
							6.91		3.46	3.45			614	22056	6.91	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (WHITE)
							5.72		2.86	2.86			614	22056	5.72	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (YELLOW)
							6.25		3.13	3.12			614	22336	6.25	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 648
							37,779		18,890	18,889			614	23110	37,779	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT
			18,906						9,453	9,453			614	23150	18,906	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 648
							4,956		2,478	2,478			614	24102	4,956	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT
							349		175	174			614	25400	349	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 740.06, TYPE I
							15		8	7			614	30400	15	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I
							0.3		0.15	0.15			614	98000	0.3	MILE	WORK ZONE PAVEMENT MARKING, MISC.: CENTER LINE, DOUBLE SOLID, 5"
							0.02		0.01	0.01			614	98000	0.02	MILE	WORK ZONE PAVEMENT MARKING, MISC.: EDGE LINE, 5" (WHITE)
							0.1		0.05	0.05			614	98000	0.1	MILE	WORK ZONE PAVEMENT MARKING, MISC.: LANE LINE, 5"
							1,225		613	612			614	98100	1,225	FT	WORK ZONE PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 10"
							765		383	382			614	98100	765	FT	WORK ZONE PAVEMENT MARKING, MISC.: DOTTED LINE, 5"
							78		39	39			614	98100	78	FT	WORK ZONE PAVEMENT MARKING, MISC.: STOP LINE, 20"
							6		3	3			614	98200	6	EACH	WORK ZONE PAVEMENT MARKING, MISC.: PAVEMENT TATOO
							4		2	2			614	98200	4	EACH	WORK ZONE PAVEMENT MARKING, MISC.: SHARROW
							30		15	15			615	20000	30	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
							8,511		4,256	4,255			615	20001	8,511	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
									3	3			615	20001	6	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN, "A"
						100			50	50			615	25001	100	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1
						50			25	25			615	25001	50	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2
						20			10	10			615	25001	20	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3
					666				333	333			616	10000	666	MGAL	WATER
							22,681		11,341	11,340			622	41100	22,681	FT	PORTABLE BARRIER, UNANCHORED
							986		493	493			622	41101	986	FT	PORTABLE BARRIER, UNANCHORED, AS PER PLAN
							829		415	414			622	41110	829	FT	PORTABLE BARRIER, ANCHORED
							460		230	230			630	80300	460	SF	SIGN, TEMPORARY OVERLAY
							9		5	4			630	89894	9	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL
		168							84	84			808	18700	168	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY

CALCULATED
HRB
CHECKED
TAZ

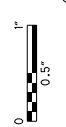
GENERAL SUMMARY

NO.	DESCRIPTION	REV.	BY	DATE
3	Revise See Sheet No.			11-19-2021
4	Update Funding Sp/Its			11-24-2021

FRA - 71 - 14.36

275H
1228

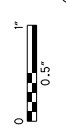
Batchplot Spec: \\msconsultants.com\files\Production\03_60_06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\standards\user\ahod\1\8\ms\plotting\pen.tbl; ms_std.plt; 60-06634_6R_Columbus
 Plot Driver: \\msconsultants.com\files\standards\user\ahod\1\8\ms\plotting\pdf.plt; g
 Model: Sheet
 Printed: 11/24/2021 @ 7:41:30 AM
 File: \\msconsultants.com\files\Production\03_60_06634_6R\roadway\sheet\055860001raw.dgn
 View: FENCE - MEWT
 By: tzongmeister



NO.	DESCRIPTION	REV. BY	DATE	512	606	606	606	606	SPECIAL	607	607	625	607	622	609	622	622	622	622	622	253	626	626	607	607		
1	QUANTITY	REVISION	TAZ	10-13-2021																							
4	Revise Item	Description	TAZ	11-24-2021																							
REF NO.	SHEET NO.	STATION TO STATION				SEALING OF CONCRETE SURFACES	GUARDRAIL, TYPE MGS	GUARDRAIL, TYPE 5	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	VANDAL PROTECTION FENCE	FENCE, TYPE CL	GATE, TYPE CL, AS PER PLAN	GROUND ROD	FENCE, TYPE CLT	PORTABLE BARRIER, ANCHORED, AS PER PLAN	CURB, TYPE 4-C	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	BARRIER TRANSITION	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN "A"	PAVEMENT REPAIR, AS PER PLAN	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL	FENCE, TYPE CLT, AS PER PLAN	TEMPORARY VANDAL FENCE, TYPE B
						SY	FT	FT	EACH	EACH	FT	FT	EACH	EACH	FT	FT	EA	EACH	EACH	EACH	EACH	SY	EA	EA	FT	FT	
B100	327-328	57+60.68 RT (315SB)	TO	58+59.44 RT (315SB)																							
B101	329	501+41.24 RT (D)	TO	502+10.24 RT (D)													63	1		1					1		
B102	330	839+74.53 LT (TD3)	TO	840+38.06 LT (TD3)													20	1		1	1				2		
B103	335	527+48.97 LT (C.)	TO	528+88.80 RT (C.)													35				2				2		
B104	335	529+08.81 RT (C.)	TO	530+88.86 RT (C.)													110			1		1			2		
B105	335	17004+95.00 LT (TD7)	TO	17005+54.68 LT (TD7)													150			2					2		
B106	335-336	7006+27.05 RT (D7)	TO	7007+00.10 RT (D7)													31			1	1				1		
B130	334	267+05.55 RT (I-71SB)	TO	267+18.21 RT (I-71SB)											41		43			2					2		
BR100	327-336	230+87.74 LT (I-71SB)	TO	277+64.00 LT (I-71SB)																						68	
BR101	327-336	230+87.74 RT (I-71SB)	TO	277+64.00 RT (I-71SB)																						68	
BR102	335-336, 348, 350	7005+54.64 LT (D7)	TO	7012+40.00 LT (D7)																						14	
BR103	336, 348, 350	7007+00.13 RT (D7)	TO	7012+35.00 RT (D7)																						11	
C100	327	57+45.00 RT (315SB)	TO	57+60.68 RT (315SB)												16											
C101	328	56+15.50 RT (315SB)	TO	56+73.00 RT (315SB)												58											
C102	329-330	502+10.24 RT (D)	TO	502+26.55 RT (D)												16											
C103	330	839+53.23 LT (TD3)	TO	839+74.53 LT (TD3)												21											
C106	334-335	17001+79.65 LT (TD7)	TO	17001+89.69 LT (TD7)												10											
P1	334	265+65.17 LT (I-71SB)	TO	265+84.74 LT (I-71SB)																		17					
P2	333	262+80.25 LT (I-71SB)	TO	263+73.45 LT (I-71SB)																		131					
P3	333	264+72.97 LT (I-71SB)	TO	264+80.35 LT (I-71SB)																		14					
P4	333	264+82.84 LT (I-71SB)	TO	264+91.85 LT (I-71SB)																		15					
P6	334	265+88.52 LT (I-71SB)	TO	266+19.98 LT (I-71SB)																		19					
P7	334	267+04.59 RT (I-71SB)	TO	267+17.24 RT (I-71SB)																		34					
P8	334	269+59.13 RT (I-71SB)	TO	269+90.80 RT (I-71SB)																		34					
GR100	328	56+13.36 RT (315SB)	TO	56+75.12 RT (315SB)				62.5																			
GR101	329	501+41.61 RT (D)	TO	501+78.95 RT (D)				37.5																			
GR102	329-330	502+10.24 RT (D)	TO	502+84.59 RT (D)			50																			1	
GR103	330	839+13.63 LT (TD3)	TO	839+74.53 LT (TD3)			50																			1	
GR104	330	840+38.06 LT (TD3)	TO	841+13.27 LT (TD3)			50																			1	
GR105	334-335	17001+80.09 LT (TD7)	TO	17004+95.00 LT (TD7)			300																			6	
S100	327	57+60.68 RT (315SB)	TO	58+59.44 RT (315SB)	88																						
S101	329	501+41.24 RT (D)	TO	502+10.24 RT (D)	62																						
S102	330	839+74.53 LT (TD3)	TO	840+38.06 LT (TD3)	56																						
S103	335-336	527+48.97 LT (C.)	TO	532+12.12 RT (C.)	414																						
S104	335	17004+95.00 LT (TD3)	TO	17005+54.68 LT (TD3)	53																						
S105	335-336	7006+27.05 RT (D7)	TO	7007+00.10 RT (D7)	66																						
F100	330	893+00.22 LT (TD3)	TO	4+74.42 LT (SC)						128																	
F101	330	4+62.65 RT (SC)	TO	4+74.42 LT (SC)																							
F102	330	3+34.60 RT (SC)	TO	4+62.65 RT (SC)																							
F103	330-331	2+18.15 LT (SC)	TO	2+32.95 LT (SC)																							
F104	330-331	0+52.70 RT (SC)	TO	3+34.60 RT (SC)																							
F105	331	0+54.14 LT (SC)	TO	0+63.19 LT (SC)																							
F108	334-335	17000+99.33 LT (TD)	TO	17005+54.70 LT (TD7)																							
F113	334	267+05.55 RT (I-71SB)	TO	267+18.21 RT (I-71SB)																							41
F114	334	267+07.54 RT (I-71SB)	TO	267+13.77 RT (I-71SB)																						20	
TOTALS CARRIED TO SUBSUMMARY					739	450	100	2	2	326	563	1	2	345	41	121	452	2	8	4	1	264	173	9	20	41	

CALCULATED TAZ CHECKED DLT
ROADWAY SUBSUMMARY - ODOT
FRA - 71 - 14.36
 280
 1228
 ms consultants, inc.

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\standards\user\ahad\1\8\ms\plotting\pen\8.ms_std.plt
 Plot Driver: \\msconsultants.com\files\standards\user\ahad\1\8\ms\plotting\pdf\pdfc1g
 Model: Sheet
 Printed: 11/24/2021 7:46:34 AM
 File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\055860002.dwg
 View: FENCE - NEW!
 By: tzongmeister



NO.	DESCRIPTION	REV.	BY	DATE	512	606	607	606	606	606	607	606	606	606	609	622	622	622	622	622	622	622	622	253	626	626	622			
4	Revise Item Description	TAZ		11-24-2021																										
REF NO.	SHEET NO.	STATION TO STATION				SEALING OF CONCRETE SURFACES	GUARDRAIL, TYPE MGS	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL), 62 MPH, 28' HAZ WIDTH	FENCE, TYPE CL	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 44 MPH, 28' HAZ WIDTH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 44 MPH, 24' HAZ WIDTH	CURB, TYPE 4-C	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	BARRIER TRANSITION, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN "B"	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	CONCRETE BARRIER END SECTION, TYPE D	BARRIER MISC.: CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN "B"	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	PAVEMENT REPAIR, AS PER PLAN	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL	BARRIER MISC.: CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN "A"	
		SHORT ST. = (SS)	RAMP D7 = (D7)	RAMP D6 = (D6)	EX. ROAD "C" = (C)	EX. ROAD "D" = (D)	TRANS I-70WB = (I-70WBT)	TRANS. I-71SB = (I-71SBT)																						
B107	336	377+99.91 RT (I-71SBT)	TO	378+72.73 RT (I-71SBT)													44			2						2				
B108	336-337	633+77.55 LT (I-70WBT)	TO	638+97.18 LT (I-70WBT)													493			2						6				
B109	336	634+08.03 RT (I-70WBT)	TO	634+99.36 RT (I-70WBT)													61			1	1					2				
B110	336-337	635+19.42 RT (I-70WBT)	TO	636+89.97 RT (I-70WBT)													140			1	1					2				
B111	336	631+10.01 RT (I-70WBT)	TO	631+53.65 RT (I-70WBT)													14				2					1				
B112	336	631+73.68 RT (I-70WBT)	TO	632+13.08 RT (I-70WBT)													10				2					1				
B113	337	6003+60.00 LT (D6)	TO	6003+74.71 (D6)																	1					1				
B114	337	383+35.40 RT (I-71SBT)	TO	383+89.98 RT (I-71SBT)																						2				
B115	337	384+10.02 RT (I-71SBT)	TO	384+40.76 RT (I-71SBT)																						55				
B116	337	637+10.03 RT (I-70WBT)	TO	639+88.64 RT (I-70WBT)													249			1	1					2				
B117	337-338	640+08.63 RT (I-70WBT)	TO	682+90.07 RT (I-70WBT)													252			1	1					3				
B118	337-338	382+00.00 LT (I-71SBT)	TO	386+47.28 LT (I-71SBT)													418			1	1					5				
B119	338	386+67.28 LT (I-71SBT)	TO	388+64.95 LT (I-71SBT)													167			1	1					3				
B120	338	388+85.05 LT (I-71SBT)	TO	389+14.95 LT (I-71SBT)																	2									
B121	338	389+35.05 LT (I-71SBT)	TO	389+39.95 LT (I-71SBT)																	1									
B122	338	389+60.05 LT (I-71SBT)	TO	390+07.35 LT (I-71SBT)													18				1	1				1				
B123	338	643+09.99 RT (I-70WBT)	TO	644+56.22 RT (I-70WBT)													117				2					2				
B124	339	548+14.22 LT (C.)	TO	549+29.21 LT (C.)													84					2				2				
B125	339	550+16.66 LT (C.)	TO	550+56.67 LT (C.)																						2				
B126	339	550+66.67 LT (C.)	TO	551+06.67 LT (C.)																						2				
B127	350	7012+40.00 LT (D7)	TO	7013+12.51 LT (D7)																						4		72.5		
B128	350	7012+35.00 RT (D7)	TO	7013+09.67 RT (D7)																						2				
B129	350	7010+13.44 RT (D7)	TO	7012+73.00 RT (D7)													191			30						2				
BR104	336-337	277+97.84 LT (I-71SBT)	TO	6003.60.00 LT (D6)																						8				
BR105	336-337	378+72.73 RT (I-71SBT)	TO	383+35.40 RT (I-71SBT)																						5				
BR106	336	632+01.53 LT (I-70WBT)	TO	633+80.38 LT (I-70WBT)																						2				
BR107	336	632+13.08 RT (I-70WBT)	TO	633+87.28 RT (I-70WBT)																						2				
P5	336	633+95.05 LT (I-70WBT)	TO	635+10.83 LT (I-70WBT)																						68				
S106	336	377+99.91 RT (I-71SBT)	TO	378+72.73 RT (I-70WBT)	66																									
S107	336-337	633+77.55 LT (I-70WBT)	TO	638+97.18 LT (I-70WBT)	468																									
S108	336-338	633+87.42 RT (I-70WBT)	TO	644+56.22 RT (I-70WBT)	958																									
S109	337	6003+60.00 LT (D6)	TO	6003+74.71 LT (D6)	13																									
S110	337	383+35.40 RT (I-71SBT)	TO	384+40.96 RT (I-71SBT)	129																									
S111	337-338	382+00.00 LT (I-71SBT)	TO	390+07.35 LT (I-71SBT)	725																									
S112	339	548+14.22 LT (C.)	TO	549+29.21 LT (C.)	101																									
S113	339	550+16.66 LT (C.)	TO	551+06.67 LT (C.)	95																									
S114	350	7012+40.00 LT (D7)	TO	7013+12.51 LT (D7)	88																									
S115	350	7012+35.00 RT (D7)	TO	7013+10.00 RT (D7)	83																									
S116	350	7010+13.44 RT (D7)	TO	7012+73.00 RT (D7)	198																									
F109	336	13+70.50 LT (SS)	TO	14+42.48 LT (SS)											135															
F110	337,350	6004+82.24 RT (D6)	TO	382+68.44 LT (I-71SBT)											298															
F111	350	7012+35.00 RT (D7)	TO	7012+50.00 RT (D7)																										
F112	340	555+53.18 (C.)	TO	555+88.07 (C.)											56															
AT01	337	384+40.96 RT (I-71SBT)	TO	384+68.09 RT (I-71SBT)										1																
AT02	350	7013+12.51 LT (D7)																												
AT03	350	7013+09.67 RT (D7)																												
GR106	337,350	6003+74.71 LT (D6)	TO	6004+65.00 LT (D6)																								2		
GR107	338-339	390+07.35 LT (I-71SBT)	TO	392+38.37 LT (I-71SBT)																								3		
GR108	339	549+29.21 LT (C.)	TO	551+92.27 LT (C.)																								3		
C107	339	549+29.21 LT (C.)	TO	549+54.65 LT (C.)																										
TOTALS CARRIED TO SUBSUMMARY					2924	475	15	3	1		489	2	1	1	25	1	2	2258	30	6	23	3	86	1	68	63	8	73		

CALCULATED
TAZ
CHECKED
DLT

ROADWAY SUBSUMMARY - ODOT

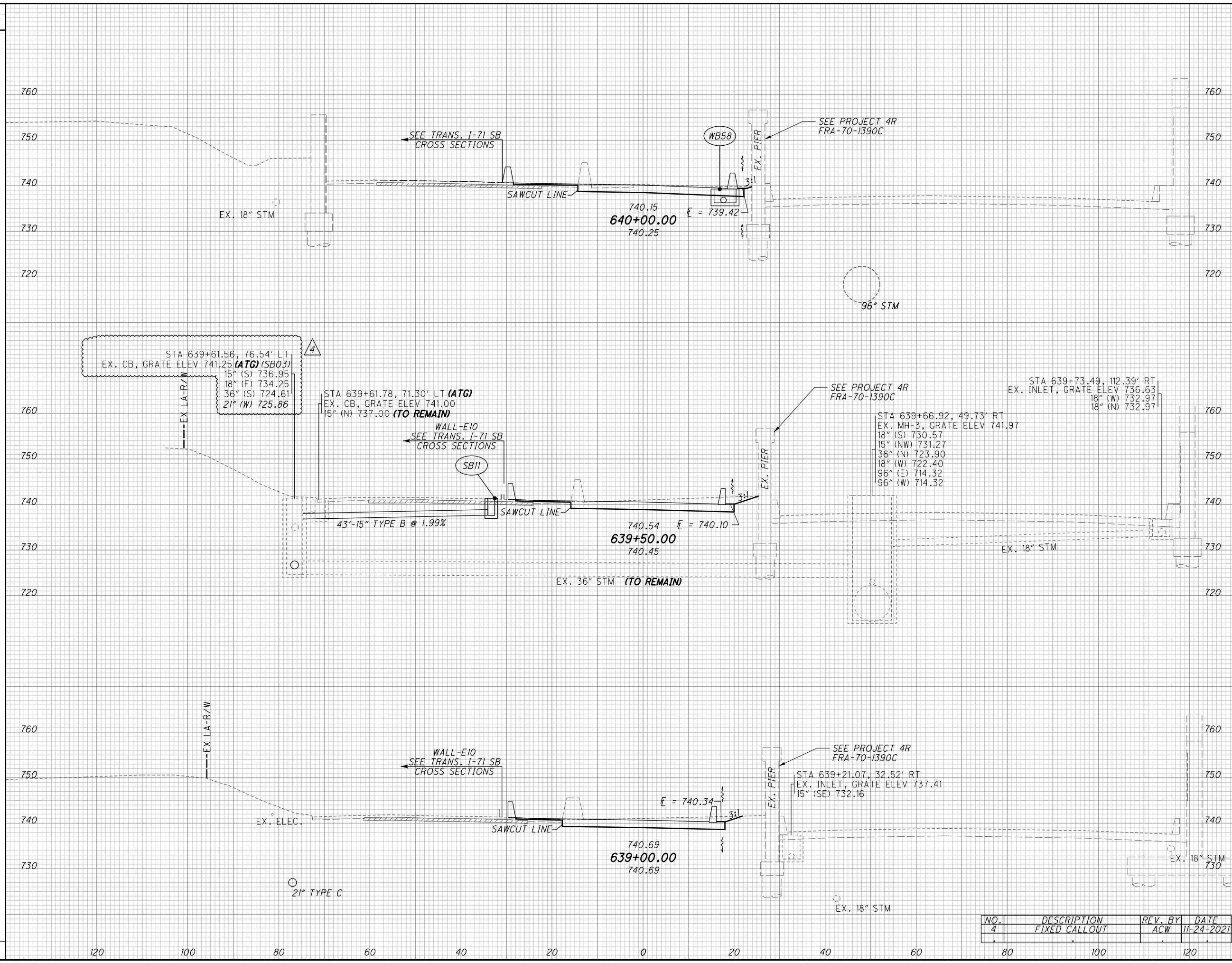
FRA - 71 - 14.36

281
1228

ms consultants, inc.

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plots\batchplot\batchplot.dwg
 Pen Table: N:\03\60\06634_6R\standards\tables\VB\ms_sic_6R_Cross_Secs.tbl
 Plot Driver: \\msconsultants.com\files\standards\usin\whd\1\8\ms_plotting\PDF.plt;c
 Model: XS-SHEET_639-00.00_TO_640-00.00-FENCE_VNEW1
 Plotted: 11/23/2021 @ 12:56:33 PM By: white
 File: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plots\batchplot\batchplot.dwg

SEEDING	END AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
3						
29						
7						
42						
8						
39						
110						



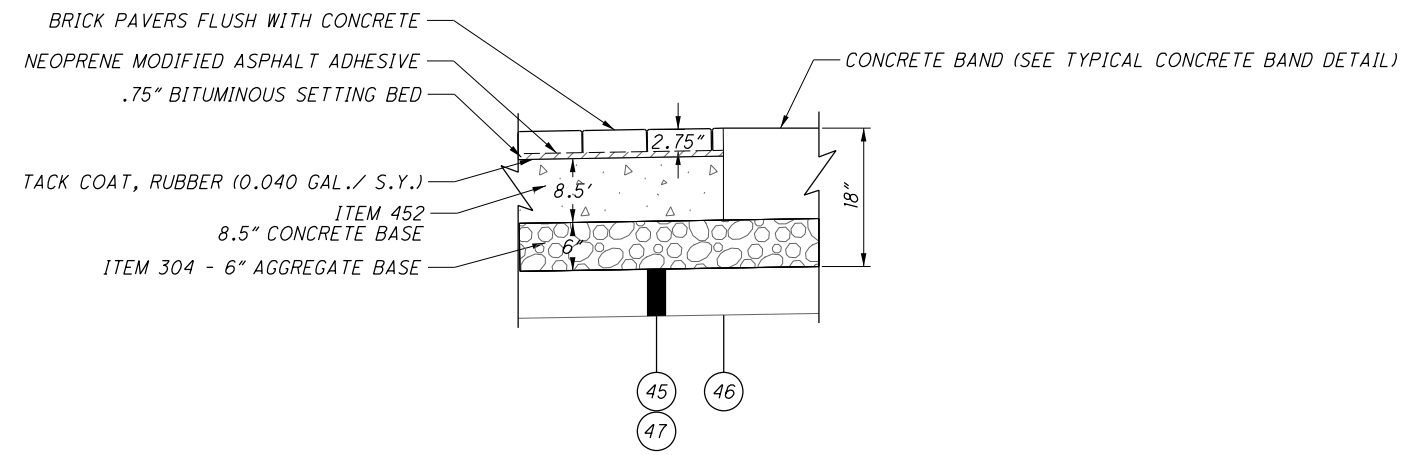
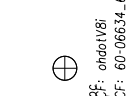
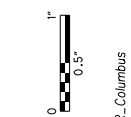
END AREA	VOLUME		CALCULATED	CHECKED
	CUT	FILL		
67		1		
140		2		
84		1		
149		2		
76		1		
129		2		
418		6		

CROSS SECTIONS TRANSITIONAL I-70 WB
STA. 639+00.00 TO STA. 640+00.00

FRA-71-14.36

NO.	DESCRIPTION	REV. BY	DATE
4	FIXED CALLOUT	ACW	11-24-2021

403
1228



**ITEM 608 - WALKWAY, MISC.:
BRICK PAVER CROSSWALK, AS PER PLAN**

CONCRETE BASE, CONCRETE BAND, AGGREGATE BASE, SUBGRADE COMPACTION AND APPURTENANCES SHALL BE INCLUDED IN ITEM 608 - WALKWAY, MISC.: BRICK PAVER CROSSWALK, AS PER PLAN, PER S.F..

MATERIAL NOTES

BRICK PAVER'S CONCRETE BASE

SEE GENERAL NOTE SHEET 47 FOR WEEP HOLE REQUIREMENTS.

BRICK PAVER

SEE GENERAL NOTE SHEET 47 FOR SUPPLIER.
SEE DETAIL SHEET 560 FOR PATTERN.

NEOPRENE - MODIFIED ASPHALT ADHESIVE

- FURNISH NEOPRENE-MODIFIED ASPHALT ADHESIVE THAT CONTAINS 2 PERCENT NEOPRENE, GRADE WMI, OXIDIZED ASPHALT WITH A 150 DEGREE SOFTEN POINT (77 PENETRATION), AND 10 PERCENT LONG-FIBERED INERT MATERIAL, AS SUPPLIED BY:

KARNAK
330 CENTRAL AVENUE
CLARK, NJ 07066
(800) 526-4236
<http://www.karnakcorp.com>

HANOVER ARCHITECTURAL PRODUCTS
5000 HANOVER ROAD
HANOVER, PA 17331
(717) 637-0500
<http://www.hanoverpavers.com>

OR APPROVED EQUAL

BITUMINOUS SETTING BED

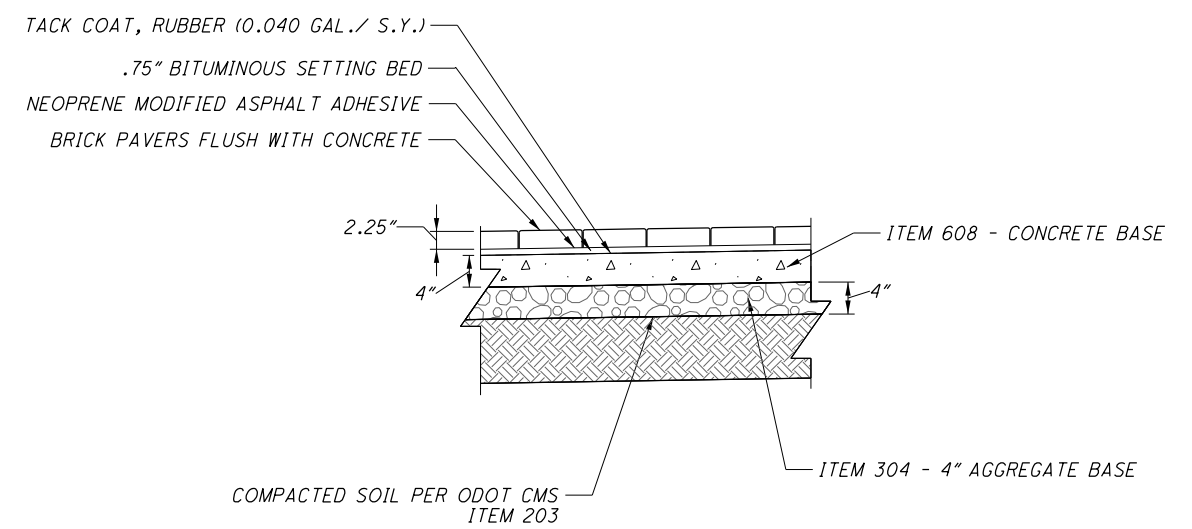
- FURNISH ASPHALT CEMENT CONFORMING TO ASTM 03381, VISCOSITY GRADE PG64-22.
- FURNISH FINE AGGREGATE OF NATURAL SAND AND/OR STONE SAND, COMPOSED OF HARD, TOUGH, DURABLE, UNCOATED PARTICLES, FREE FROM CLAY, SILT, ORGANIC MATERIAL OR OTHER DELETERIOUS SUBSTANCES. INSURE THE SAND IS UNIFORMLY GRADED WITH ALL MATERIAL PASSING THE NO. 4 SIEVE AND MEETING THE REQUIREMENTS OF ASTM C136.
- COMBINE THE DRIED FINE AGGREGATE WITH HOT ASPHALT CEMENT AND HEAT MIX TO APPROXIMATELY 300°F AT AN ASPHALT PLANT.
 - PROVIDE AN APPROXIMATE PROPORTION OF MATERIALS OF 7 PERCENT ASPHALT CEMENT AND 93 PERCENT FINE AGGREGATE.
 - PROVIDE EACH TON APPORTIONED BY WEIGHT TO 140 POUNDS OF ASPHALT CEMENT AND 1,860 POUNDS OF FINE AGGREGATE.

ITEM SPECIAL - MISC: BRICK PAVER CROSSWALK, AS PER PLAN SHALL BE PLACED IN LOCATIONS AS SHOWN ON PLAN SHEETS AND DETAIL SHEETS.

ITEM 608 - WALKWAY, MISC.: BRICK PAVER CROSSWALK, AS PER PLAN SHALL BE PLACED IN HERRINGBONE PATTERN.

- FOR PROTECTION OF THE BRICK PAVERS IN THE CROSSWALK FROM CONSTRUCTION ACTIVITIES OF THIS PROJECT, SEE NOTE BRICK PAVER CROSSWALK CONSTRUCTION PROTECTION IN THE GENERAL NOTES.
- BRICK PAVERS CONSTRUCTION FOR CROSSWALKS SHALL ALSO FOLLOW THE CITY OF COLUMBUS SUPPLEMENTAL SPECIFICATION 1524. SEE GENERAL NOTE SHEETS 47 FOR COLORS AND SUPPLIERS.

SEE SHEET 17 FOR LEGEND

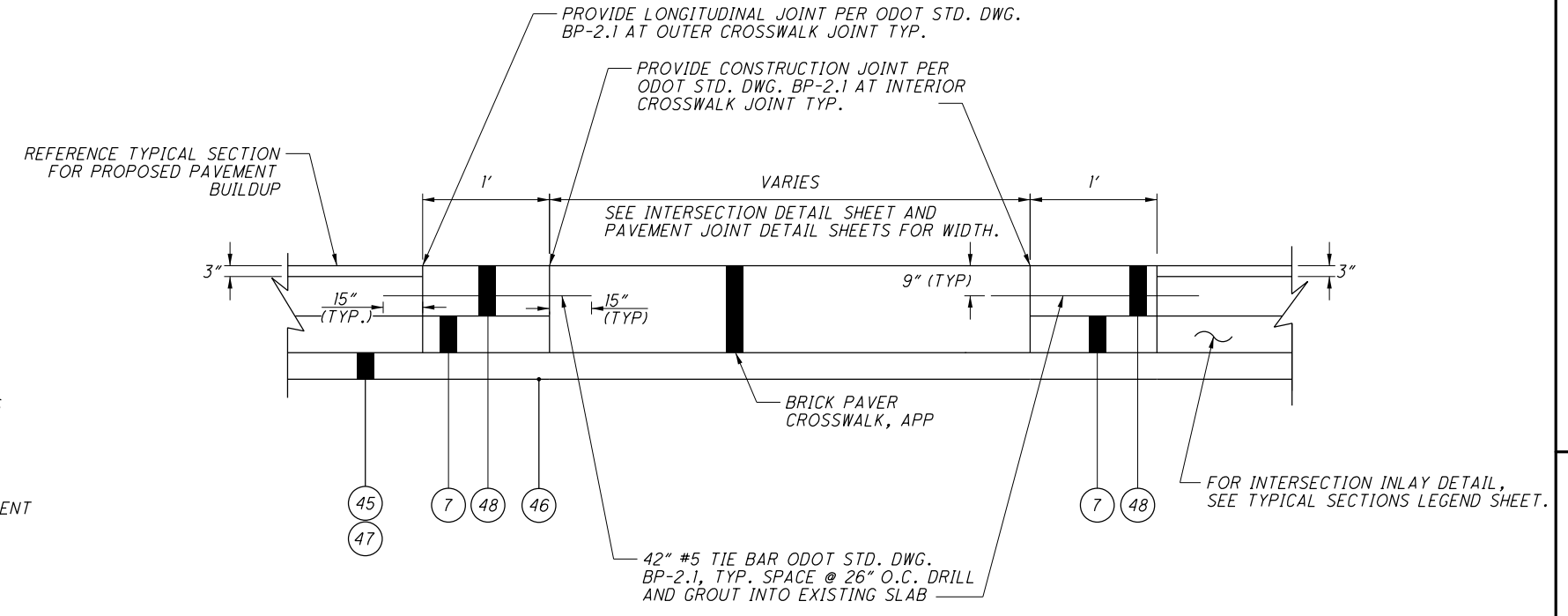


ITEM 608 - WALKWAY MISC: BRICK PAVER WALK, AS PER PLAN

SEE ITEM 608 - WALKWAY, MISC.: BRICK PAVER CROSSWALK, AS PER PLAN FOR MATERIAL NOTES, WITH THE EXCEPTION OF NOTE 5 ON THIS SHEET.

ITEM 608 - WALKWAY, MISC.: BRICK PAVER WALK, AS PER PLAN SHALL BE PLACED IN LOCATIONS SHOWN ON PLAN SHEETS AND MISC. DETAIL SHEETS.

CONCRETE BASE, CONCRETE APRON AROUND STRUCTURES, AGGREGATE BASE, SUBGRADE COMPACTION AND APPURTENANCES SHALL BE INCLUDED IN ITEM 608 - WALKWAY, MISC.: BRICK PAVER WALK, AS PER PLAN.



**ITEM 452 - 12" NON-REINFORCED CONCRETE PAVEMENT
TYPICAL CONCRETE BAND SECTION AT CROSS WALKS**



NO.	DESCRIPTION	REV. BY	DATE
4	Remove Conflicting Note	TAZ	11-24-2021

CALCULATED
CHECKED

MISC. DETAILS - BRICK CROSSWALK AND BRICK WALK

FRA - 71-14.36

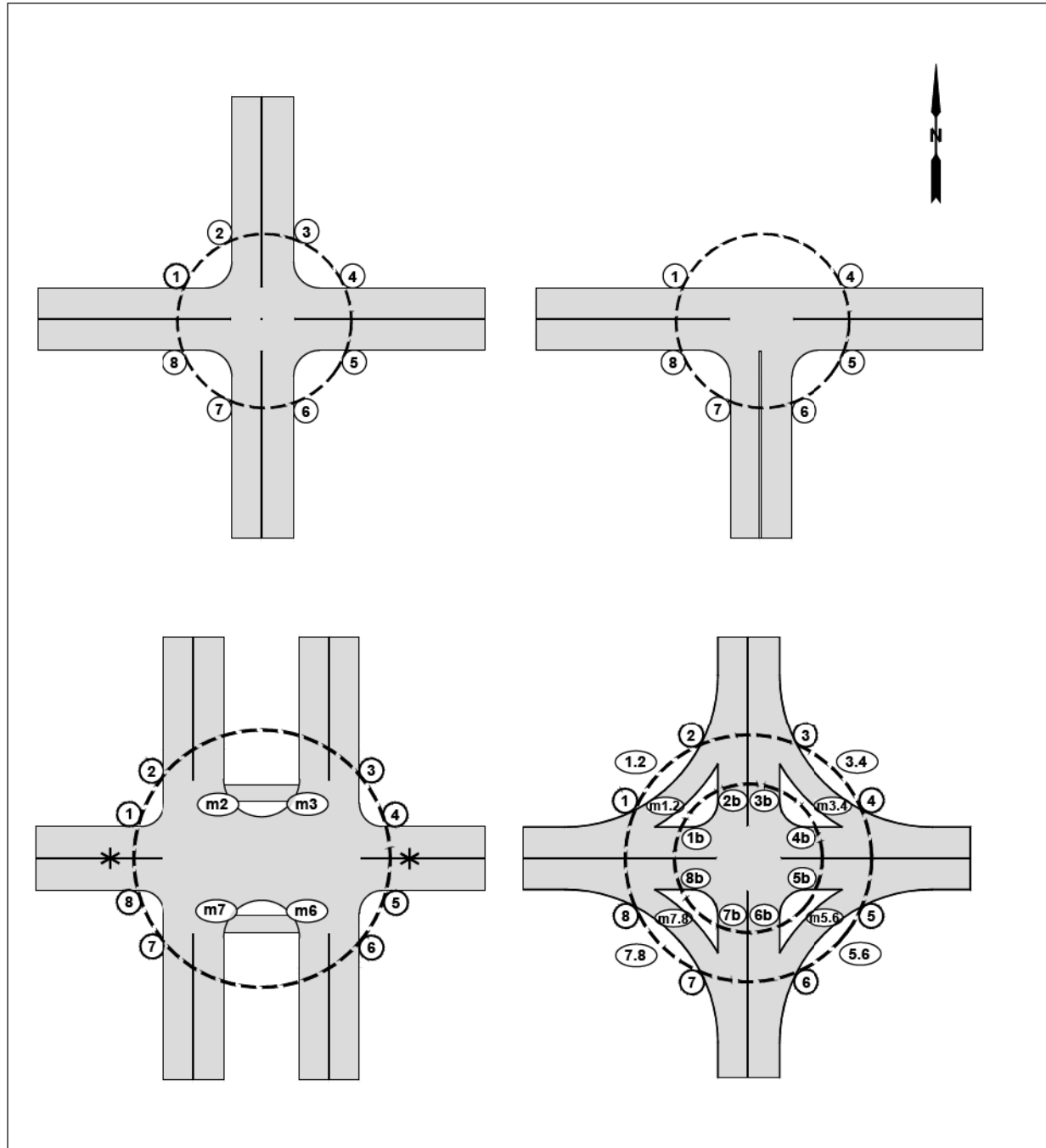
559
1228

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\Production\03\60\06634_6R\deliverables\10_Current_Applications\Add\p144_R4_V8\ms_sft\td\70\71 West Interchange 6R
 Plot Driver: \\msconsultants.com\files\Standards\usin\ohdot\18\ms\plotting\PDF.plt.crg
 www.msconsultants.com

Model: Sheet
 Printed: 11/22/2021 @ 1:24:01 PM
 File: \\msconsultants.com\files\Production\03\60\06634_6R\roadway\sheet\05588\026.dgn

View: FENCE_VNEW1
 By: onhite

34" x 22"



ALL NUMBERING BEGINS FROM THE NORTHWEST CORNER AND GOES CLOCKWISE. EACH CORNER HAS ITS SPECIFIC NUMBER THAT SHALL BE USED IF CURB RAMPS ARE IN THESE LOCATIONS.

* MEDIAN RAMPS ON THE WEST AND/OR EAST LEGS WOULD BE M1, M8, AND M4, M5 RESPECTIVELY.

INTERSECTION CURB RAMP NUMBERING SYSTEM

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION CITY ENGINEER	STD DWG 2319 07/01/20 SHT 1 OF 22
--	--

GENERAL NOTES, CURB RAMPS

1. CURB RAMPS SHALL BE INSTALLED PER STD DWGS 2300, 2303, 2319, CMSC 608, AND DPS ADA RULES AND REGULATIONS.
2. MATERIAL: THE RAMP PANEL AND FLARED SIDES SHALL BE CONCRETE.
3. RAMP TYPES ARE CATEGORIZED BELOW IN TIERS BY REQUIRED ORDER OF USE. LOCATING THE RAMP AS CLOSE AS POSSIBLE TO THE INTERSECTION FOLLOWING THE CURB RAMP DESIGN BOUNDARY CONTAINED IN THE ADA RULES AND REGULATIONS IS THE FIRST PRIORITY. THE DESIGNER SHALL NOT USE A LOWER TIERED RAMP WITHOUT FIRST DETERMINING AND HAVING JUSTIFICATION THAT THE UPPER TIER RAMPS ARE NOT CONSTRUCTIBLE.

CITY OF COLUMBUS RAMP TYPE HIERARCHY

- TIER 1** (THESE PERPENDICULAR RAMPS SHOULD BE UTILIZED WHENEVER POSSIBLE.)
- TYPE D
 - TYPE C
 - TYPE A
- TIER 2** (PARALLEL RAMPS SHOULD ONLY BE USED DUE TO RIGHT OF WAY (ROW) OR OTHER SPACE CONSTRAINTS WHERE A TIER 1 RAMP CANNOT BE USED.)
- TYPE P-6 (6' OF ROW AVAILABLE)
 - TYPE P-7 (7' OF ROW AVAILABLE)
 - TYPE P-5 (5' OF ROW AVAILABLE)
 - TYPE P-4 (4' OF ROW AVAILABLE)

TIER 3 (TIER 3 RAMPS CAN ONLY BE USED WITH WRITTEN APPROVAL BY THE CITY ENGINEER OR DESIGNEE. TIER 3 RAMPS SHALL BE IDENTIFIED IN THE DESIGN SCOPE OR APPROVAL REQUESTED BY THE DESIGNER JUSTIFYING THAT THIS RAMP TYPE IS NECESSARY.)

- TYPE J (MODIFIED ALLEY RAMP), USE SHOULD BE LIMITED DUE TO DRAINAGE CONCERNS
 - RADIAL RAMPS
 - SINGLE SHARED RAMPS
- SPECIALTY RAMPS** (SHALL ONLY BE USED FOR THE LISTED SITUATION, OR WRITTEN APPROVAL BY THE CITY ENGINEER OR DESIGNEE.)

- TYPE G - ONLY TO BE USED ON ALLEY CROSSINGS
- TYPE H - ONLY TO BE USED ON ALLEY CROSSINGS
- TYPE L-1 - ONLY FOR MEDIAN CROSSINGS
- TYPE L-2 - ONLY FOR MEDIAN CROSSINGS
- PEDESTRIAN PADS - USED FOR ACCESS TO PUSHBUTTONS WHERE THERE IS NO EXISTING SIDEWALK. THE INTENT IS TO PROVIDE ACCESS TO CROSS THE INTERSECTION IN BOTH DIRECTIONS WITHOUT ENTERING THE STREET TO ACCESS TO OTHER CROSSING. THE FOLLOWING IS THE ORDER OF PREFERENCE ON PEDESTRIAN PADS:
 1. PP-1 TWO CONNECTED RAMPS WITH UTILITY STRIP
 2. PP-2 TWO CONNECTED RAMPS WITH SIDEWALK AGAINST CURB
 3. PP-3 USED AS SINGLE SHARED RAMP THAT CAN ACCESS BOTH CROSSWALK LEGS AND THE PUSHBUTTON
 4. PP-3 USED TO ONLY ACCESS THE LEG OF THE INTERSECTION CONTROLLED BY THE PUSHBUTTON
- 4. RAMP RUNNING SLOPE: THE RUNNING SLOPE SHALL BE NO GREATER THAN 7.69%. THE MINIMUM SLOPE FOR ANY RAMP SHALL BE 5% AND SHOULD BE MAXIMIZED UP TO 7.69% WHENEVER POSSIBLE FOR DRAINAGE.
- 5. ALL JOINTS BETWEEN NEW AND EXISTING MATERIALS SHALL BE FLUSH.
- 6. LANDINGS:
 - LANDINGS SHALL HAVE A MAXIMUM 1.56% SLOPE IN ALL DIRECTIONS FOR ALL CURB RAMP TYPES.
 - A PARALLEL RAMP, CONSTRAINED ON TWO (2) SIDES, E.G., TYPE P-7, SHALL HAVE A LANDING 5-FT WIDE BY 5-FT DEEP A PARALLEL RAMP, CONSTRAINED ON ONE (1) SIDE, E.G., TYPES P-4, 5, & 6, SHALL HAVE A LANDING NO LESS THAN 4-FT MINIMUM BY 5-FT. THE 5-FT DIMENSION SHALL BE PROVIDED AS SHOWN IN THESE STANDARD DRAWINGS.

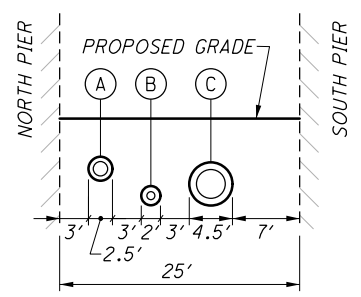
CURB RAMP GENERAL NOTES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION CITY ENGINEER	STD DWG 2319 07/01/20 SHT 2 OF 22
--	--

NO.	DESCRIPTION	REV. BY	DATE
4	STD DWG CORRECTED	ACW	11-22-21

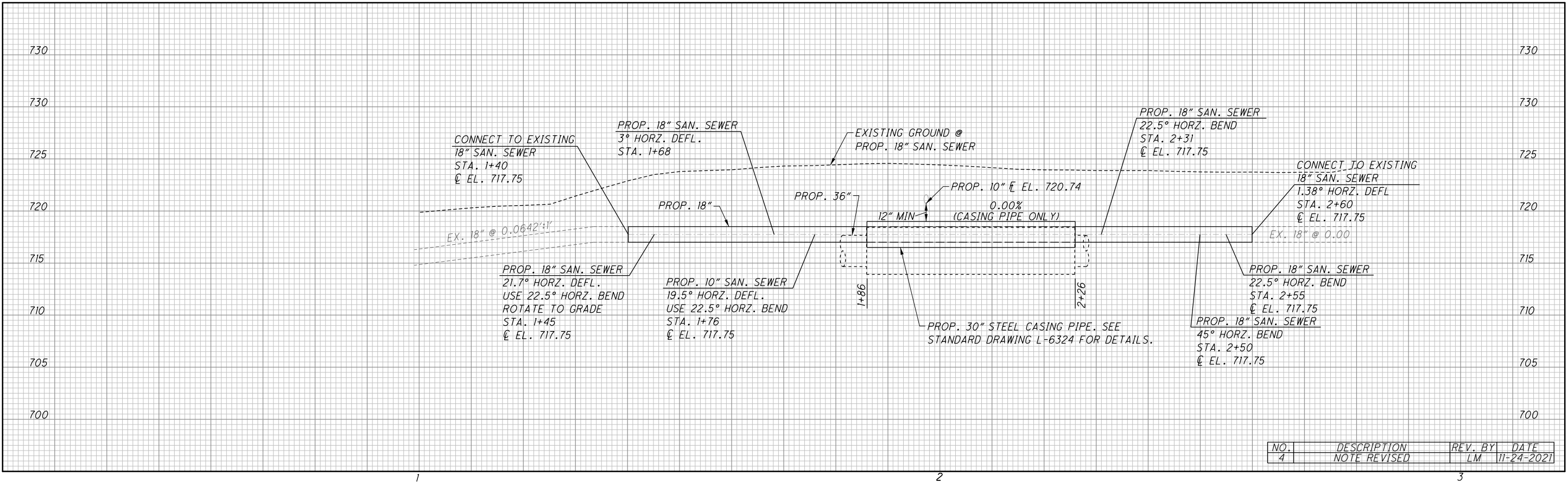
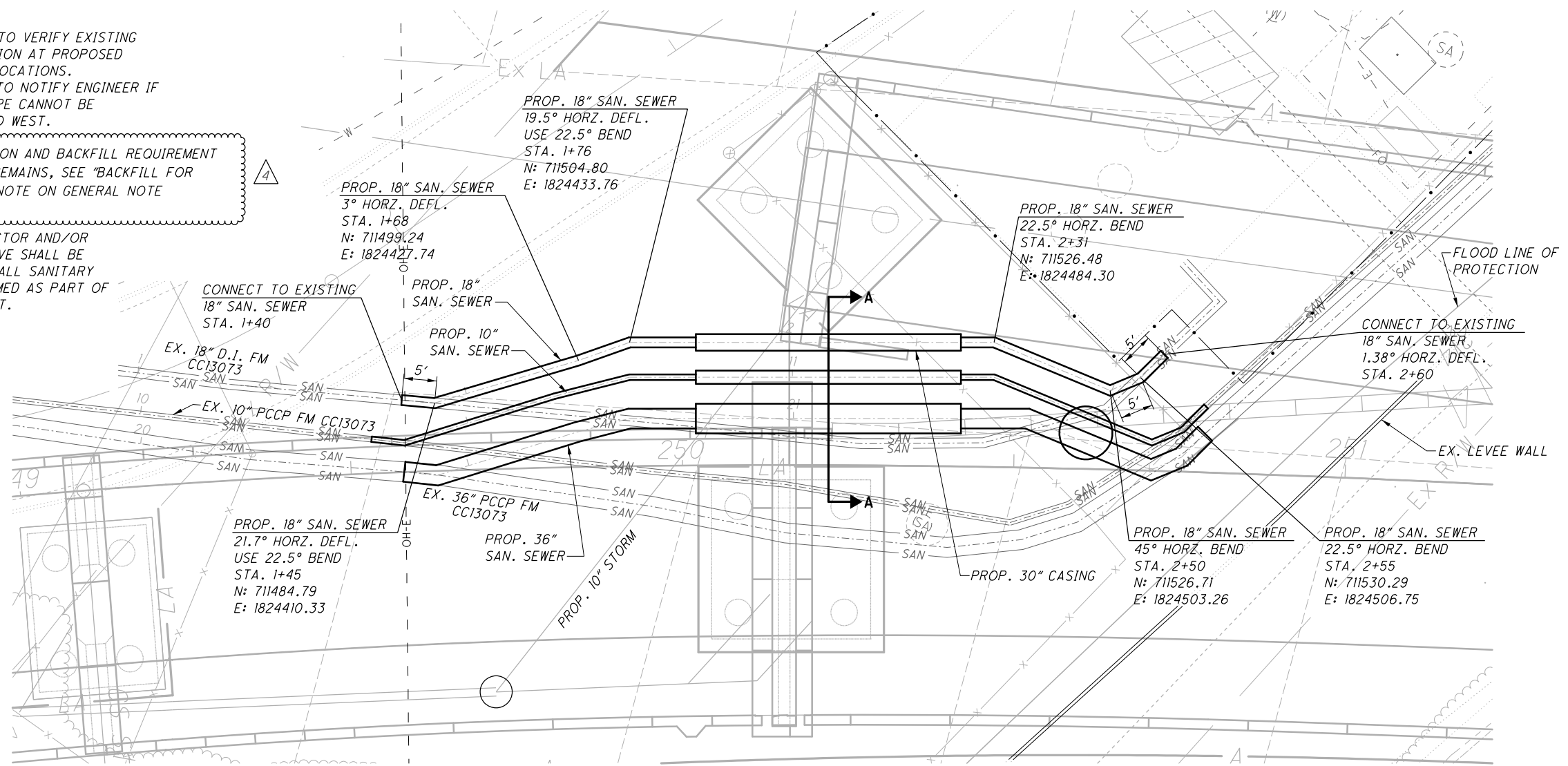


- NOTES:**
- SEE SHEET 640 FOR PROPOSED CONSTRUCTION SEQUENCE ON THE FORCEMAIN RELOCATIONS.
 - ALL NECESSARY JOINTS SHALL UTILIZE RESTRAINED JOINT FITTINGS PER THE RESTRAINED JOINT LENGTH TABLE, SHEET 640. AT NO TIME SHALL CONCRETE THRUST BLOCKS BE USED.
 - CONTRACTORS SHALL VERIFY EXISTING 36-INCH FM LOCATION, MATERIAL, AND ELEVATION PRIOR TO COMMENCING RELOCATION WORK.
 - 18-INCH FM RELOCATION SHALL MAINTAIN POSITIVE SLOPE SUCH THAT LINE DRAINS WEST FOR ENTIRETY OF RELOCATION. AT NO POINT SHALL SLOPE BE LESS THAN 0%.
 - CONTRACTOR TO VERIFY EXISTING 18" FM ELEVATION AT PROPOSED CONNECTION LOCATIONS. CONTRACTOR TO NOTIFY ENGINEER IF POSITIVE SLOPE CANNOT BE MAINTAINED TO WEST.
 - FOR EXCAVATION AND BACKFILL REQUIREMENT FOR THE FORCEMAINS, SEE "BACKFILL FOR FORCEMAINS" NOTE ON GENERAL NOTE SHEET 46.
 - A CITY INSPECTOR AND/OR REPRESENTATIVE SHALL BE PRESENT FOR ALL SANITARY WORK PERFORMED AS PART OF THIS CONTRACT.



- (A) PROP. 18" FM IN 30" CASING
- (B) PROP. 10" FM IN 24" CASING
- (C) PROP. 36" IN 54" CASING

SECTION A-A
SCALE: 1"=10'



NO.	DESCRIPTION	REV. BY	DATE
4	NOTE REVISED	LM	11-24-2021



CALCULATED
CHECKED

SANITARY PLAN AND PROFILE
18" SANITARY LINE

FRA-71-14.34

636
1228



ms consultants, inc.
msconsultants.com

Ohio DOT Workspace
70171 West Interchange 6R
www.msconsultants.com

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dgn
Pen Table: N:\03\60\06634_6R\standards\tables\SarSew_UF003.tbl
Plot Driver: \\msconsultants.com\files\standards\ustin\ohdot\18\ms\plotting\PDF.plt

View: FENCE - NEW1
By: white
7:33:48 AM
11/24/2021

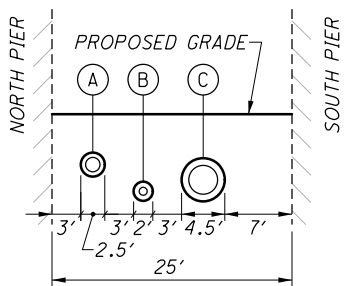
34" x 22"

Model: Sheet
Printed: 11/24/2021 @ 7:33:48 AM
File: \\msconsultants.com\files\Production\03\60\06634_6R\utilities\sheets\105588\1011.dgn

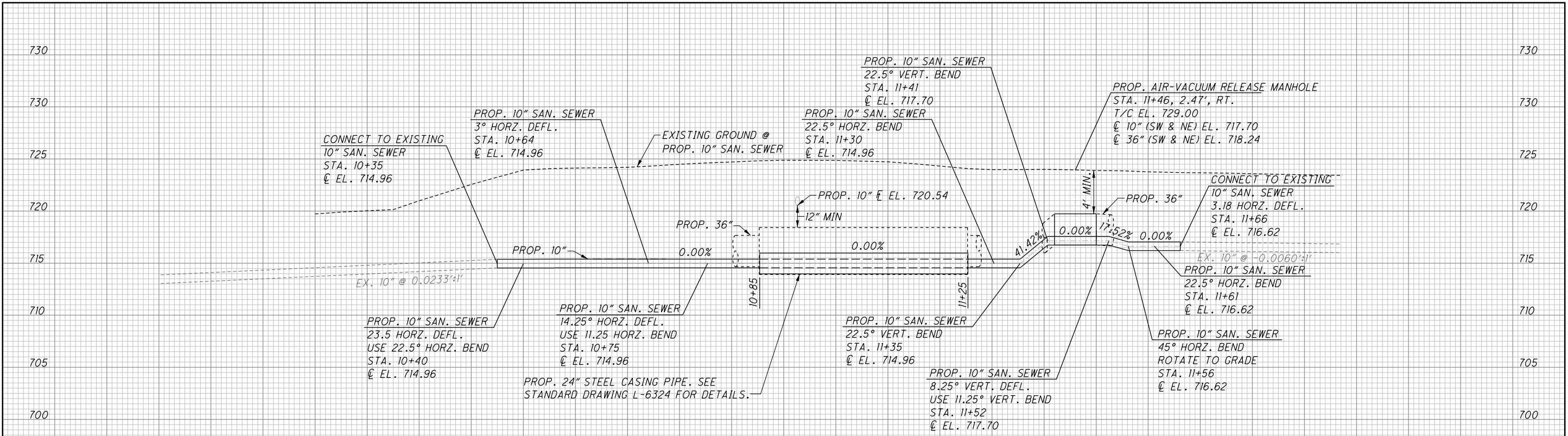
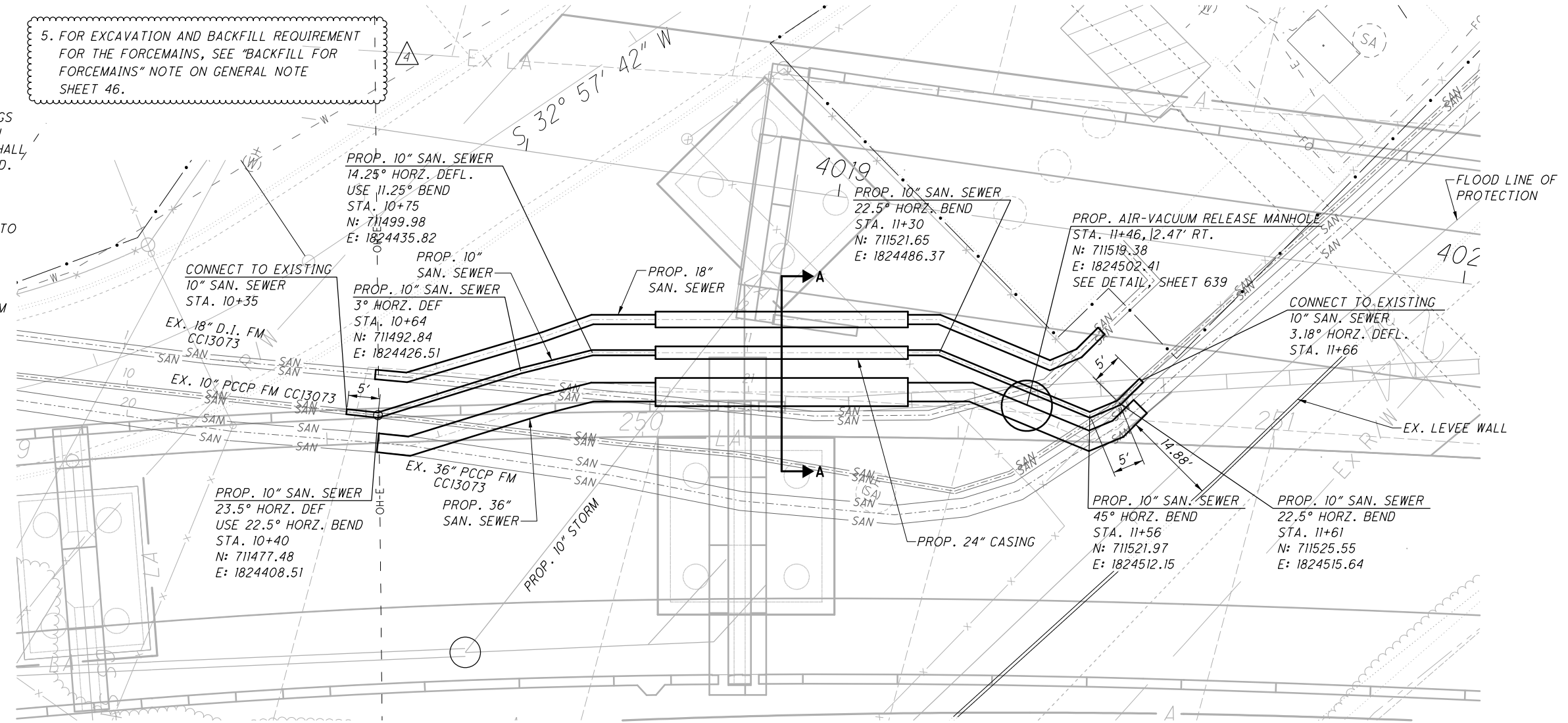
NOTES:

- SEE SHEET 640 FOR PROPOSED CONSTRUCTION SEQUENCE ON THE FORCEMAIN RELOCATIONS.
- ALL NECESSARY JOINTS SHALL UTILIZE RESTRAINED JOINT FITTINGS PER THE RESTRAINED JOINT LENGTH TABLE, SHEET 640. AT NO TIME SHALL CONCRETE THRUST BLOCKS BE USED.
- CONTRACTORS SHALL VERIFY EXISTING 36-INCH FM LOCATION, MATERIAL, AND ELEVATION PRIOR TO COMMENCING RELOCATION WORK.
- CONTRACTOR SHALL MAINTAIN THE HIGH POINT ELEVATION FOR THE FORCEMAIN WITHIN THE AIR-VACUUM RELEASE MANHOLE.

5. FOR EXCAVATION AND BACKFILL REQUIREMENT FOR THE FORCEMAINS, SEE "BACKFILL FOR FORCEMAINS" NOTE ON GENERAL NOTE SHEET 46.



- (A) PROP. 18" FM IN 30" CASING
- (B) PROP. 10" FM IN 24" CASING
- (C) PROP. 36" IN 54" CASING



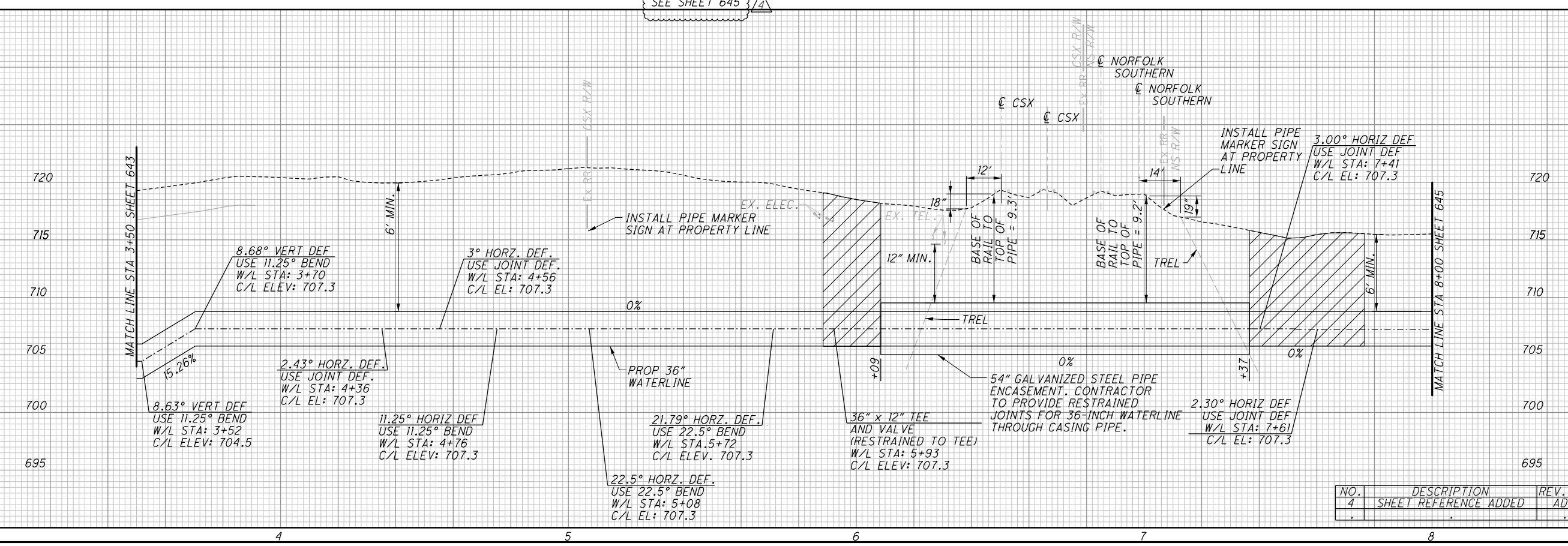
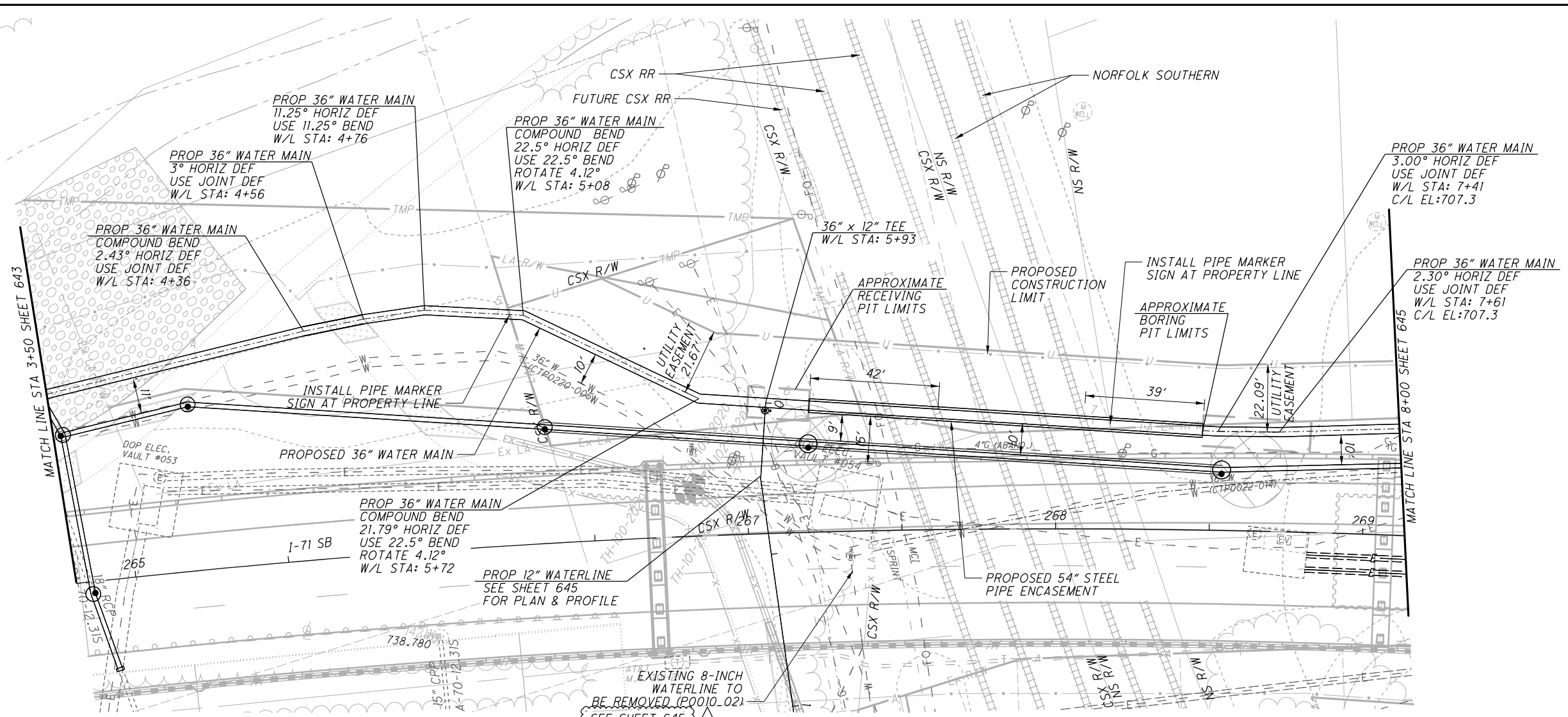
NO.	DESCRIPTION	REV. BY	DATE
4	NOTE REVISED	LM	11-24-2021



**SANITARY PLAN AND PROFILE
10" SANITARY LINE**

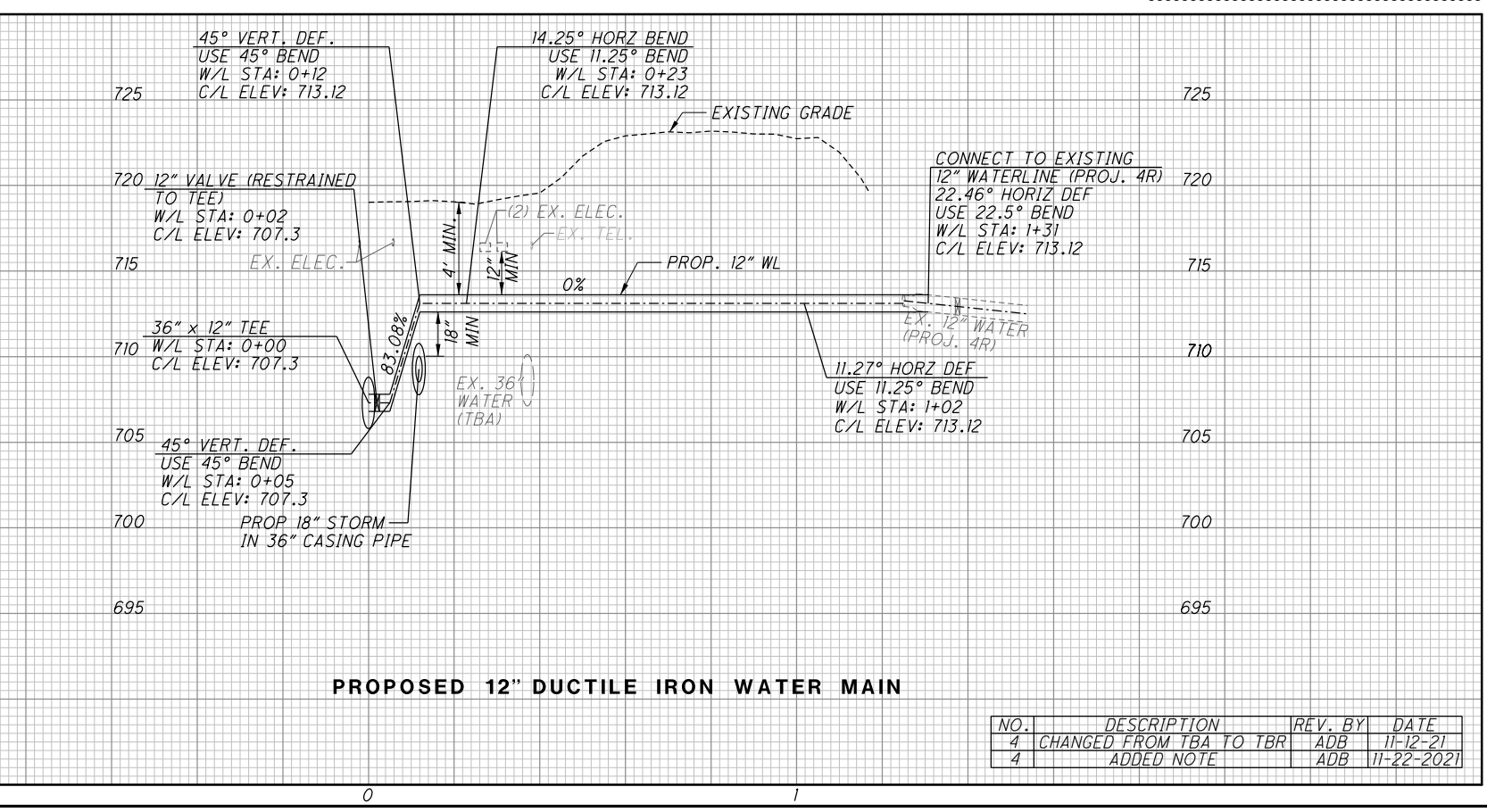
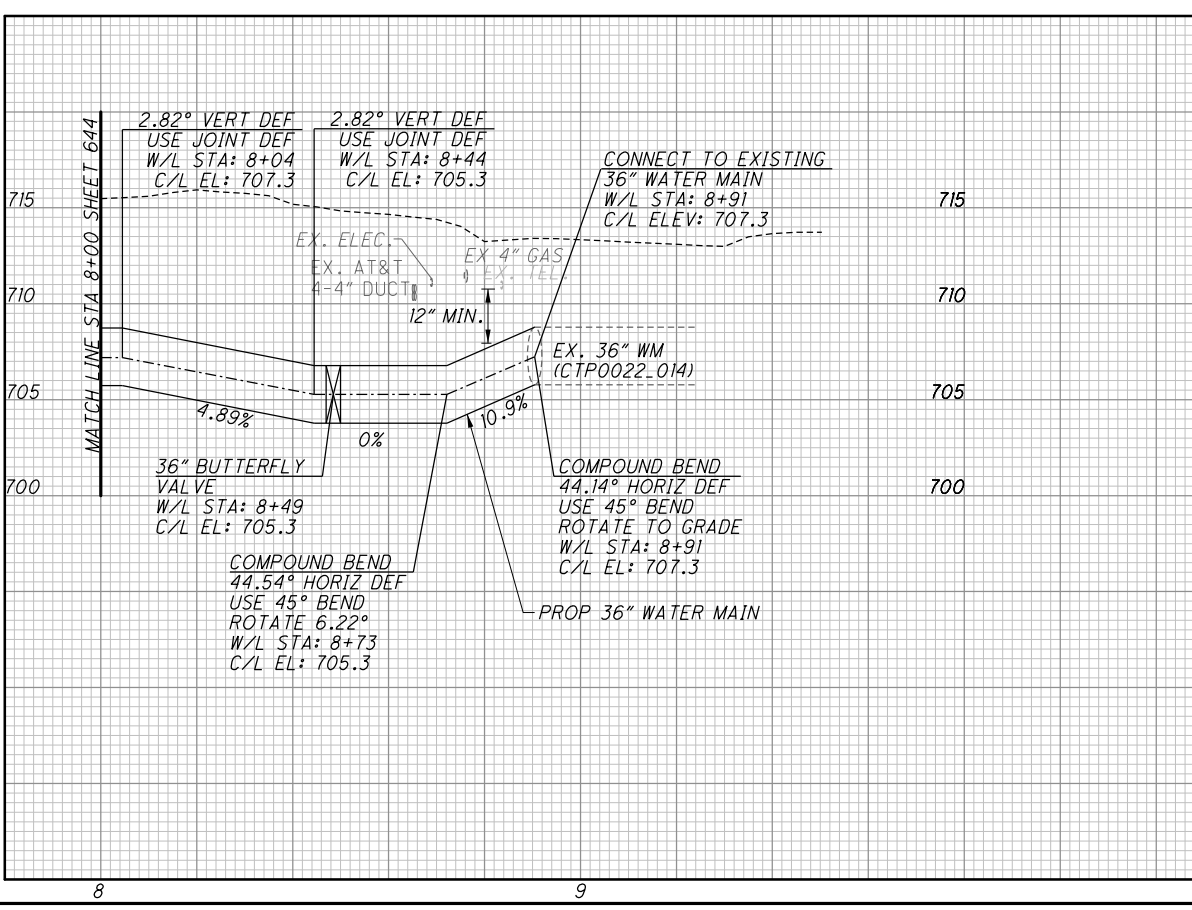
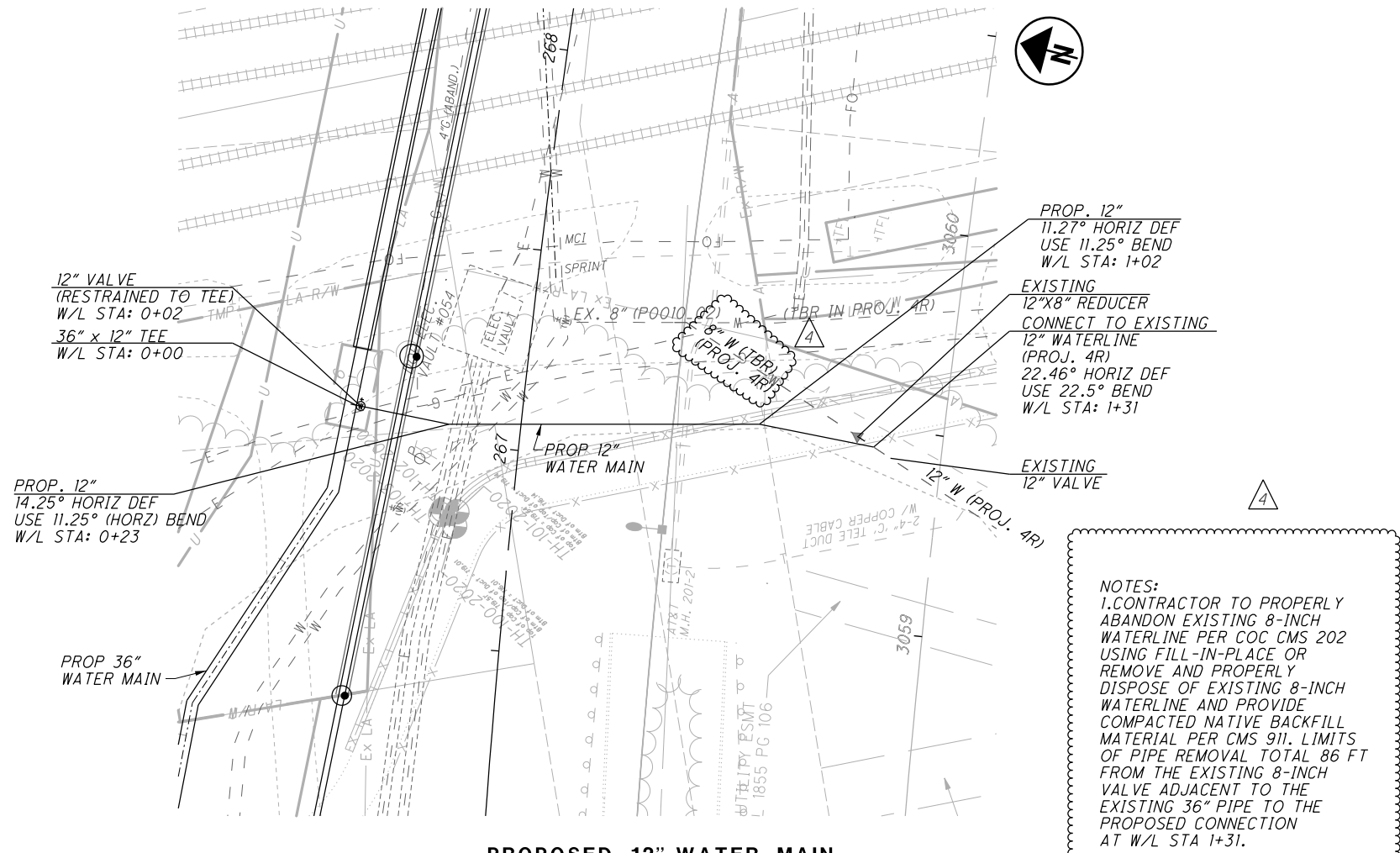
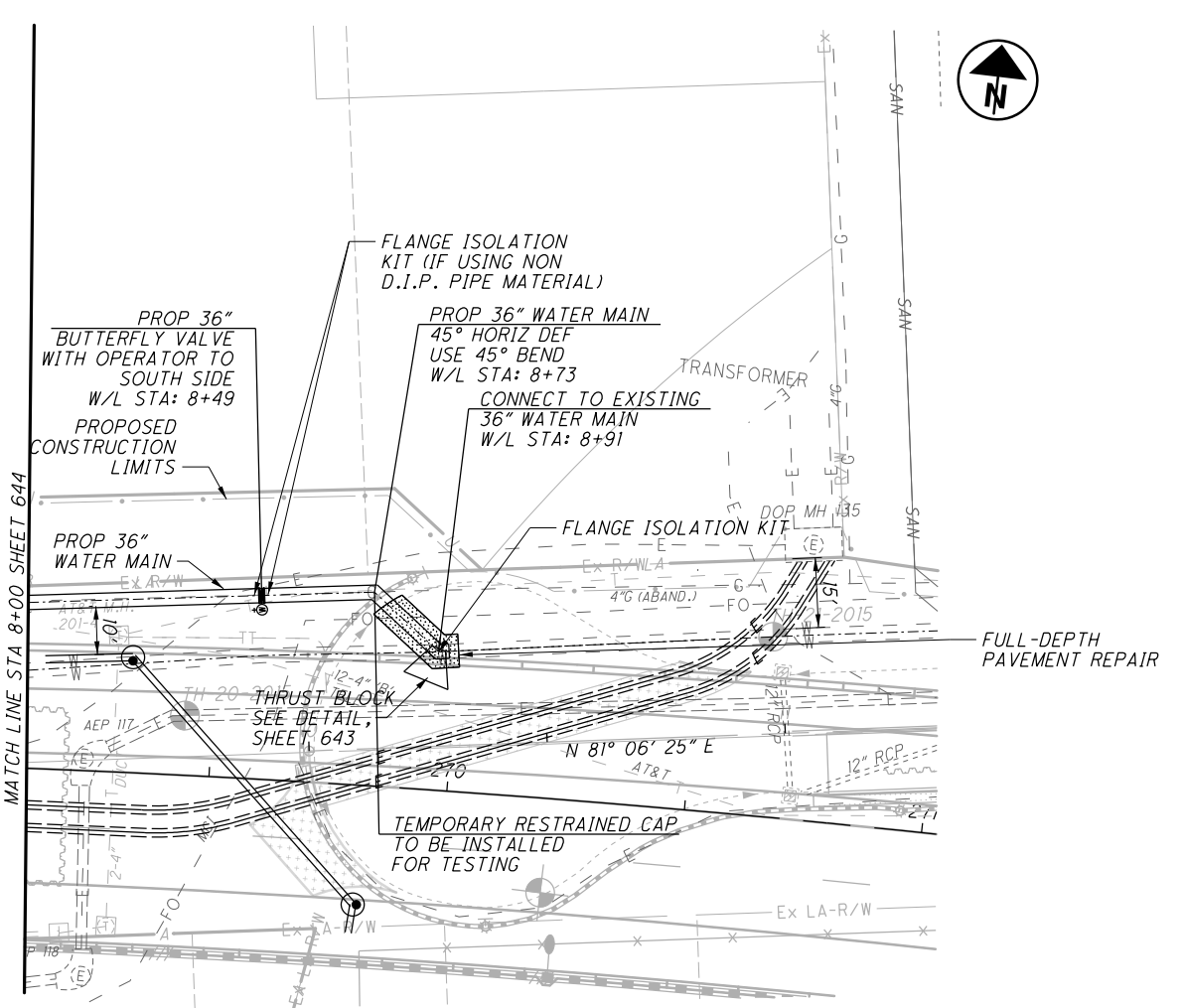
FRA-71-14.34

637
1228

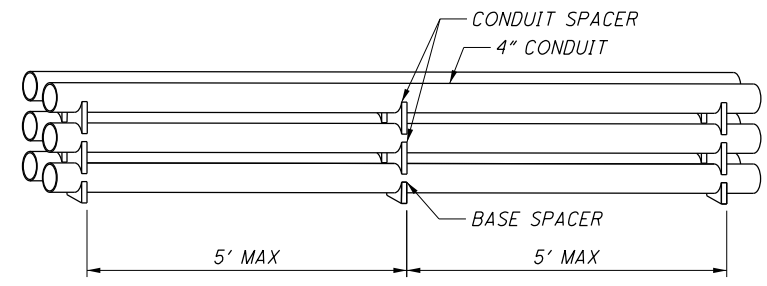
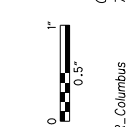


NO.	DESCRIPTION	REV. BY	DATE
4	SHEET REFERENCE ADDED	ADB	11-22-21

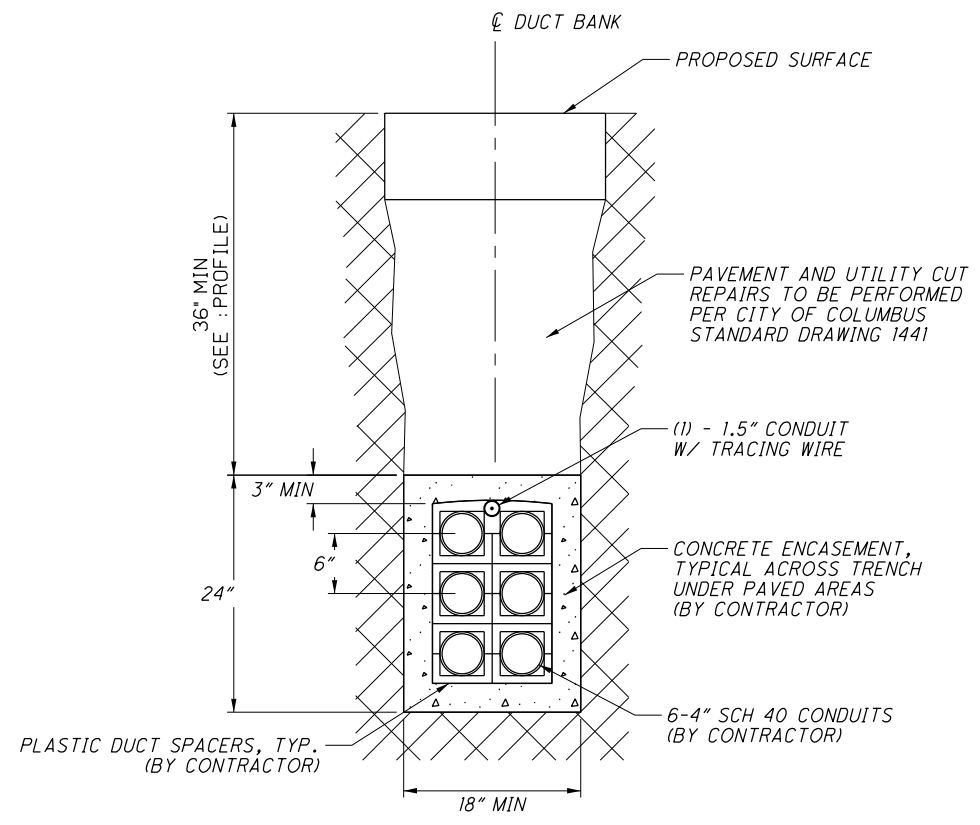
PLAN AND PROFILE 36" (EAST)
STA. 3+50 TO STA. 8+00
FRA-71-14.34
 644
 1228



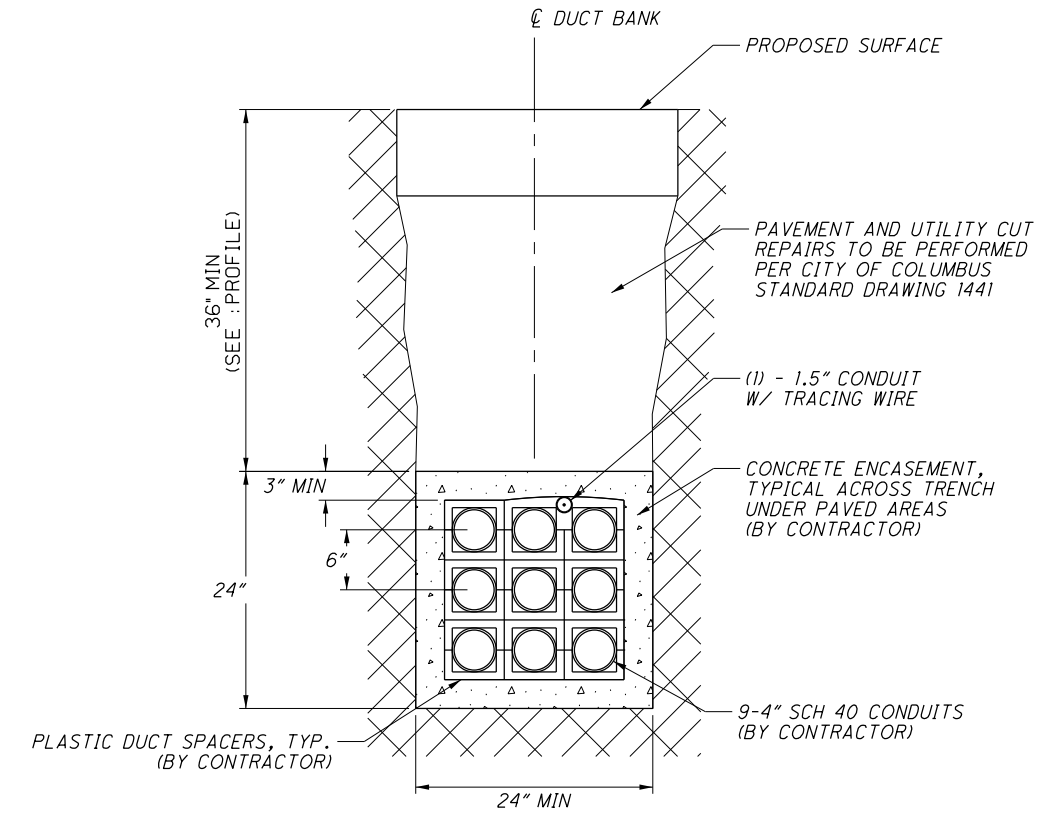
NO.	DESCRIPTION	REV. BY	DATE
4	CHANGED FROM TBA TO TBR	ADB	11-12-21
4	ADDED NOTE	ADB	11-22-2021



TYPICAL CONDUIT STACKING DETAIL (TYP)
NTS



2x3: 6-4\"/>



3x3: 9-4\"/>

REF NO.	SHEET NO.	STATION TO STATION				253	252	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL		
		SY	FT	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT			
JC1	678	18+53.86 (M)	RT	TO	20+70.89 (M)	RT	17	74					217		217		
JC2	678-679	20+70.89 (M)	RT	TO	26+38.62 (M)	RT	42	205					564		564		
MH1	678	18+53.86 (M)	RT							1							
MH2	678	20+70.89 (M)	RT							1							
MH3	679	22+45.83 (M)	RT							1							
MH4	679	26+38.62 (M)	RT							1							
CC1	678	17+42.51 (M)	LT	TO	18+75.15 (M)	RT					1			135			
CC2	678	17+99.42 (M)	LT	TO	18+49.81 (M)	RT						55					
CC3	678	17+66.69 (M)	LT	TO	18+49.81 (M)	RT						86					
CC4	678	2+38.11 (CC)	RT	TO	18+53.86 (M)	RT							48				
CC5	678	20+28.60 (M)	RT	TO	3+46.99 (J)	RT					1			72			
CC6	678	20+70.89 (M)	RT	TO	3+46.99 (J)	RT						48					
CC7	679	24+58.65 (M)	RT	TO	6+38.36 (L)	LT	22					155					
CC8	679	26+42.62 (M)	RT	TO	26+82.91 (M)	LT						44					
CC9	679	26+42.62 (M)	RT	TO	26+83.12 (M)	LT							45				
TOTALS CARRIED TO GENERAL SUMMARY							81	279	5	4	2	781	388	93	207	217	564

NO.	DESCRIPTION	REV. BY	DATE
4	Revise Item Description	TAZ	11-24-2021

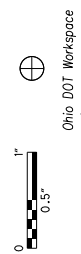
CALCULATED
CHECKED

JOINT-USE COMMUNICATION DETAILS

FRA - 71 - 14.34

680
1228

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
 Pen Table: \\msconsultants.com\files\standards\pen.tbl
 Plot Driver: \\msconsultants.com\files\standards\plotdrv\msplotting.pdf
 View: FENCE_NEW1
 Printed: 11/18/2021 @ 1:36:06 PM
 By: MBarbieri
 File: \\msconsultants.com\files\Production\03\60\06634_6R\Traffic\Sheets\105588_1S102.dgn



34" x 22"

SHEET NO.	LOCATION	STATION TO STATION		MARKING QUANTITIES																					
		FT/MI	FT/MI	644	644	644	644	644	644	644	644	644	644	644	644	647	647	647	644	644	647	SPECIAL			
715	MOUND ST.	25+61	RT																						
		25+84	RT																						
		26+07	RT																						
		26+30	RT																						
		26+48	RT																						
		26+50	LT																						
		26+53	RT																						
		26+68	RT																						
		12+58	LT/RT																						
		12+58	LT																						
		12+58	LT/RT																						
		12+92	LT																						
		13+51	LT																						
		14+92	LT																						
716		15+50	LT																						
		15+50	RT																						
		17+60	RT																						
		17+90	RT																						
		19+11	RT																						
		20+48	RT																						
718		12+00	CL																						
		12+00	RT																						
		13+00	RT																						
		13+20	RT																						
719	THIRD ST.	153+56	LT																						
		153+87	LT																						
		154+01	LT																						
		154+08	LT																						
		154+28	LT																						
		154+49	LT																						
		155+09	LT																						
		155+33	LT																						
		155+47	LT																						
		155+49	LT																						
		156+00	LT																						
		156+04	LT																						
		156+06	LT																						
		156+89	LT																						
TOTALS FROM THIS SHEET				1397		899	200			46	93	261			49	3	1	5	3	3	1	100	4	4	
TOTALS CARRIED FROM SHEET 686				245	253	484	1144	685	105	114	64	99	156	10	1										4
TOTAL FEET/EACH				1642	253	1383	1344	685	151	207	325	99	205	13	2	5	3	3	1	100	4	4	4		
TOTAL MILES				0.31	0.05	0.26	0.25																		
FUNDING SPLIT (08/NHS/PV)				0.16	0.03	0.13	0.11	292	64	104	163	25	103	5	1	3	2	2	1	50	2	2	2		
FUNDING SPLIT (08/NHS/PV)				0.15	0.02	0.13	0.10	292	63	103	162	24	102	4	1	2	1	1	1	50	2	2	2		
FUNDING SPLIT (11/NHS/PV/COL)							0.04	101	24					4											
TOTALS CARRIED TO GENERAL SUMMARY				0.31	0.05	0.26	0.25	685	151	207	325	99	205	13	2	5	3	3	1	100	4	4	4		

FUNDING SPLIT (08/NHS/PV) Δ
 FUNDING SPLIT (08/NHS/PV)
 FUNDING SPLIT (11/NHS/PV/COL)

NO.	DESCRIPTION	REV.	BY	DATE
4	REVISED PART. CODE		MJB	11-18-2021


FRA - 71 - 14.36

PAVEMENT MARKING SUBSUMMARY (CITY)

CALCULATED
KWR
CHECKED
JML

(687)
1228

SHEET NO.	REF. NO.	LOCATION	STATION	SIDE	630					
					REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-16.21
					EACH	EACH	EACH	EACH	EACH	EACH
716	R98	MOUND ST.	15+53	LT	1	1				
716	R99	MOUND ST.	17+78	RT	1	1				
716	R100	MOUND ST.	18+70	RT					1	
716	R101	MOUND ST.	19+22	LT	1	1				
717	R102	MOUND ST.	22+11	RT	2	1				
717	R103	3RD ST.	NO STATION						2	
717	R104	3RD ST.	157+08	LT	2	1				
718	R105	SHORT ST.	13+76	LT	2	1				
718	R106	SHORT ST.	13+95	RT	1	1				
719	R107	3RD ST.	152+63	LT				1		
719	R108	3RD ST.	152+94	LT					1	
719	R109	3RD ST.	152+93	LT	1	2				
719	R110	3RD ST.	152+94	LT				1		
719	R111	3RD ST.	153+17	LT	1	2				
719	R112	3RD ST.	153+91	LT	1	1				
719	R113	3RD ST.	154+60	LT					1	
719	R114	3RD ST.	155+63	LT	1	1				
719	R115	3RD ST.	156+30	LT					6	
719	R116	3RD ST.	156+30	LT				1		
719	R117	FULTON ST.	30+76	RT	1	1				
711	R118	2ND ST.	NO STATION		1					
TOTALS THIS SHEET					16	14		3	11	
TOTALS CARRIED FROM SHEET 690					49	34	1	2	28	1
FUNDING SPLIT (08/NHS/PV)					29	22	1	3	20	1
FUNDING SPLIT (08/NHS/PV)					29	22		2	19	
FUNDING SPLIT (11/NHS/PV/COL)					7	4				
TOTALS CARRIED TO GENERAL SUMMARY					65	48	1	5	39	1

FUNDING SPLIT (08/NHS/PV) 
FUNDING SPLIT (08/NHS/PV)
FUNDING SPLIT (11/NHS/PV/COL)

NO.	DESCRIPTION	REV. BY	DATE
4	REVISED PART. CODE	MJB	11-18-2021

105588cg501Addendum.dgn CD 11/19/2021 1:02:35 PM 89464_PDF_Half_C.pltcf 89464_Pen_BW.tbl rfoote

SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
756										08/NHS/PV	08/NHS/PV						
									4	1		625	14001	1	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP, AS PER PLAN	753
										1		625	14301	1	EACH	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN	753
										370	370	625	25408	740	FT	CONDUIT, 2", 725.051	
										38	38	625	25504	76	FT	CONDUIT, 3", 725.051	
										1,107	1,107	625	25740	2,214	FT	CONDUIT, MULTICELL, 4", 725.20, AS PER PLAN	753
										448	448	625	29101	896	FT	TRENCH, 36" DEEP, AS PER PLAN	753
										151	151	625	29400	302	FT	TRENCH IN PAVED AREA	
										1		625	29931	1	EACH	MEDIAN JUNCTION BOX, AS PER PLAN	761
										2	1	625	30700	3	EACH	PULL BOX, 725.08, 18"	
										3	3	625	30710	6	EACH	PULL BOX, 725.08, 32"	
										1	1	630	84901	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN	753
										46	46	632	62810	92	FT	INTERCONNECT CABLE, MISC.:SFRD CABLE	754
										148	148	632	69300	296	FT	POWER CABLE, 3 CONDUCTOR, NO. 4 AWG	
										1		632	70001	1	EACH	POWER SERVICE, AS PER PLAN	753
										2	1	632	90101	3	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	753
										1		633	67101	1	EACH	CABINET FOUNDATION, AS PER PLAN	753
										1		633	67200	1	EACH	CONTROLLER WORK PAD	
										872	871	804	32060	1,743	FT	DROP CABLE, 24 FIBER, AS PER PLAN	753
										1		804	37000	1	EACH	SPLICE ENCLOSURE, BUTT STYLE	754
										49	49	809	64550	98	FT	ETHERNET CABLE, OUTDOOR-RATED	
										1		809	65990	1	EACH	ITS DEVICE, MISC.: RELOCATE ITS POLE	754
										1		809	65990	1	EACH	ITS DEVICE, MISC.: RELOCATE ITS CABINET	754
										LS		809	70000	LS		MAINTAINING ITS DURING CONSTRUCTION	754

ITS GENERAL SUMMARY

FRA - 71 - 14.36

755
1228

NO.	DESCRIPTION	REV. BY	DATE
4	REVISED PART. CODE	RGF	11/18/2021

G:\projects\2013\W-13-072_FRA-70-13-10_6A\89464_structures\wall_OE4_sheets\105588_OE4W0001.dgn 11/24/2021 11:35:58 AM meets

CALCULATED BY: KSJ DATE: 03/04/2020
 CHECKED BY: MMS DATE: 03/04/2020

ESTIMATED QUANTITIES					AS PER PLAN REFERENCE SHEET
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	
203	20000	961	CU YD	EMBANKMENT	
203	35000	2085	CU YD	GRANULAR EMBANKMENT	
203	35110	246	CU YD	GRANULAR MATERIAL, TYPE B	
203	65000	2	EACH	SPECIAL - SETTLEMENT PLATFORM	
203	98100	5680	SQ YD	ROADWAY MISC.: COLUMN SUPPORTED WALLS *	
503	1101	LS	LS	COFFERDAMS AND EXCAVATION BRACINGS, AS PER PLAN	838
509	10001	14932	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	838
51	53012	93	CU YD	CLASS CC2 CONCRETE, MISC. PARAPET INCLUDING SLEEPER SLAB WITH OC/OA	
512	10001	348	SQ YD	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	838
512	10100	703	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	
516	13200	56	SQ FT	1/2" PREFORMED EXPANSION JOINT FILLER	
516	13900	518	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	
840	20001	6894	SQ FT	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	839 & 843
840	21000	630	CU YD	WALL EXCAVATION	
840	22000	547	SQ YD	FOUNDATION PREPARATION	
840	23000	3908	CU YD	SELECT GRANULAR BACKFILL	
840	25010	608	FT	6" DRAINAGE PIPE, PERFORATED	
840	26000	315	FT	CONCRETE COPING	
840	26050	6264	SQ FT	AESTHETIC SURFACE TREATMENT	
840	27000	5	DAY	ON-SITE ASSISTANCE	
867	00101	LS	LS	TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN (WALL T1)	839

3

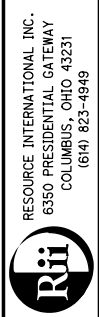
1

3

* - QUANTITY FOR COLUMN SUPPORTED WALLS INCLUDE GROUND IMPROVEMENT UP TO RAMP D7 STA. 7002+25.00

1

NO.	DESCRIPTION	REV. BY	DATE
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS	MMS	11/5/21
3	UPDATED ITEM 509 TO AS PER PLAN	MMS	11/18/21
3	REMOVED ITEM 840E28000 - SGB INSPECTION AND COMPACTION TESTING	MMS	11/18/21
4	UPDATED CSW QUANTITY	MMS	11/24/21



REVIEWED DATE: 6/23/2021
 NCK
 STRUCTURE FILE NUMBER

DESIGNED: KSJ
 CHECKED: MMS

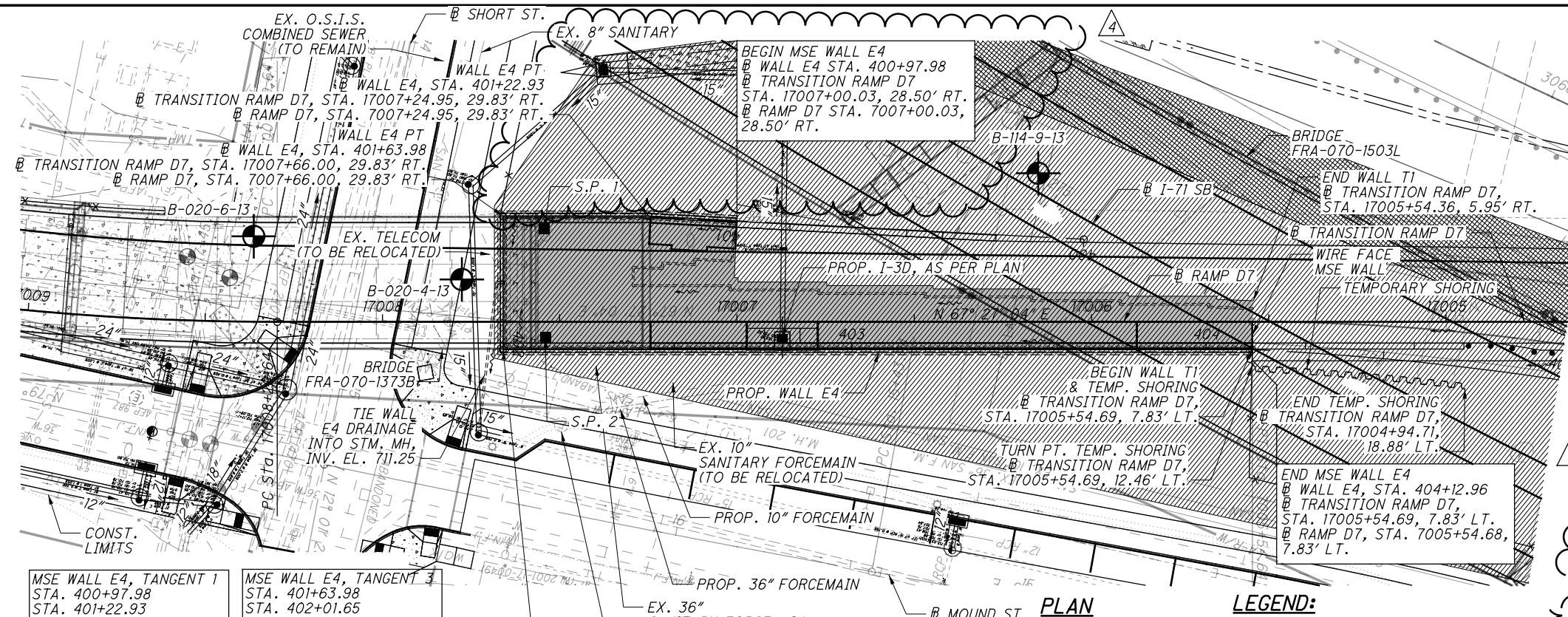
ESTIMATED QUANTITIES
 RETAINING WALL E4
 I-70/I-71 WEST INTERCHANGE PROJECT

FRA-71-14.36
 PID No. 105588

1/10

847
 1228

G:\projects\2013\W-13-072_FRA-70-13-10_6A\89464_structures_wall_OE4\sheets\105588_OE4WP001.dgn 11/24/2021 11:35:54 AM meets



NO.	DESCRIPTION	REV. BY	DATE
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS (CSW)	MMS	11/5/21
4	UPDATED GROUND IMPROVEMENT AREA	MMS	11/24/21
4	UPDATED NOTE	MMS	11/24/21

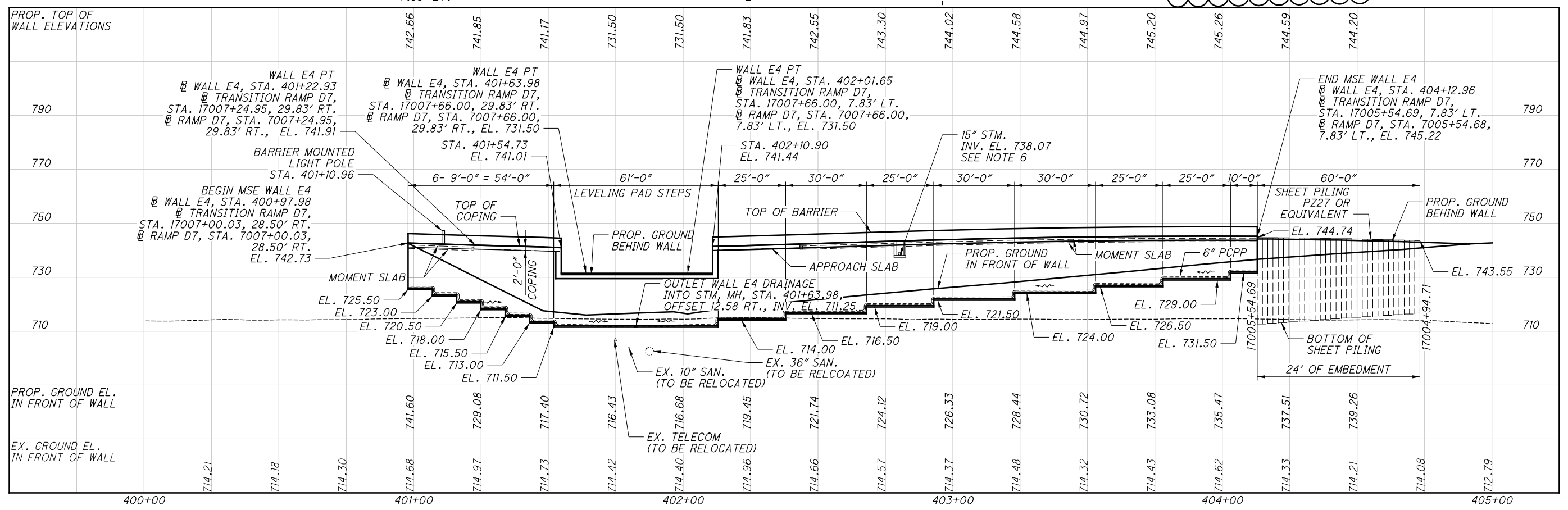
NOTES:

- ITEM 503, COFFERDAMS AND EXCAVATION BRACINGS, 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 C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.
- LEVELING PAD ELEVATIONS ARE GIVEN AT BOTTOM OF PAD.
- ALL EXISTING UTILITIES TO BE REMOVED/RELOCATED UNLESS NOTED OTHERWISE.
- STATIONING IS ALONG @ WALL E4.
- STATIONS AND OFFSETS ARE GIVEN AT BACK FACE OF THE WALL.
- TOP OF WALL ELEVATIONS ARE GIVEN AT TOP OF COPING.
- SOIL REINFORCEMENT SHALL BE CONSTRUCTED SO AS TO AVOID INTERFERENCE WITH PROPOSED DRAINAGE STRUCTURES.
- GROUND IMPROVEMENT SHALL BE IN THE FORM OF CSW COLUMNS AND DENSE GRADE AGGREGATE LOAD TRANSFER PLATFORM (LTP). THE BOTTOM 1'-0" OF THE LTP IS CONSIDERED A WORKING PLATFORM FOR ADDITIONAL INFORMATION, SEE NOTES FROM SHEET 842. FOR SECTION VIEWS, SEE SHEET 851.
- FOR TEMPORARY WIRE MESH WALL T1 DETAIL, SEE SHEET 852.

MSE WALL E4, TANGENT 1 STA. 400+97.98 STA. 401+22.93 L = 24.95' BRG. = N 70°30'27" E	MSE WALL E4, TANGENT 3 STA. 401+63.98 STA. 402+01.65 L = 37.67' BRG. = S 22°32'56" E
MSE WALL E4, TANGENT 2 STA. 401+22.93 STA. 401+63.98 L = 41.05' BRG. = N 67°27'04" E	MSE WALL E4, TANGENT 4 STA. 402+01.65 STA. 404+12.96 L = 211.31' BRG. = N 67°27'04" E

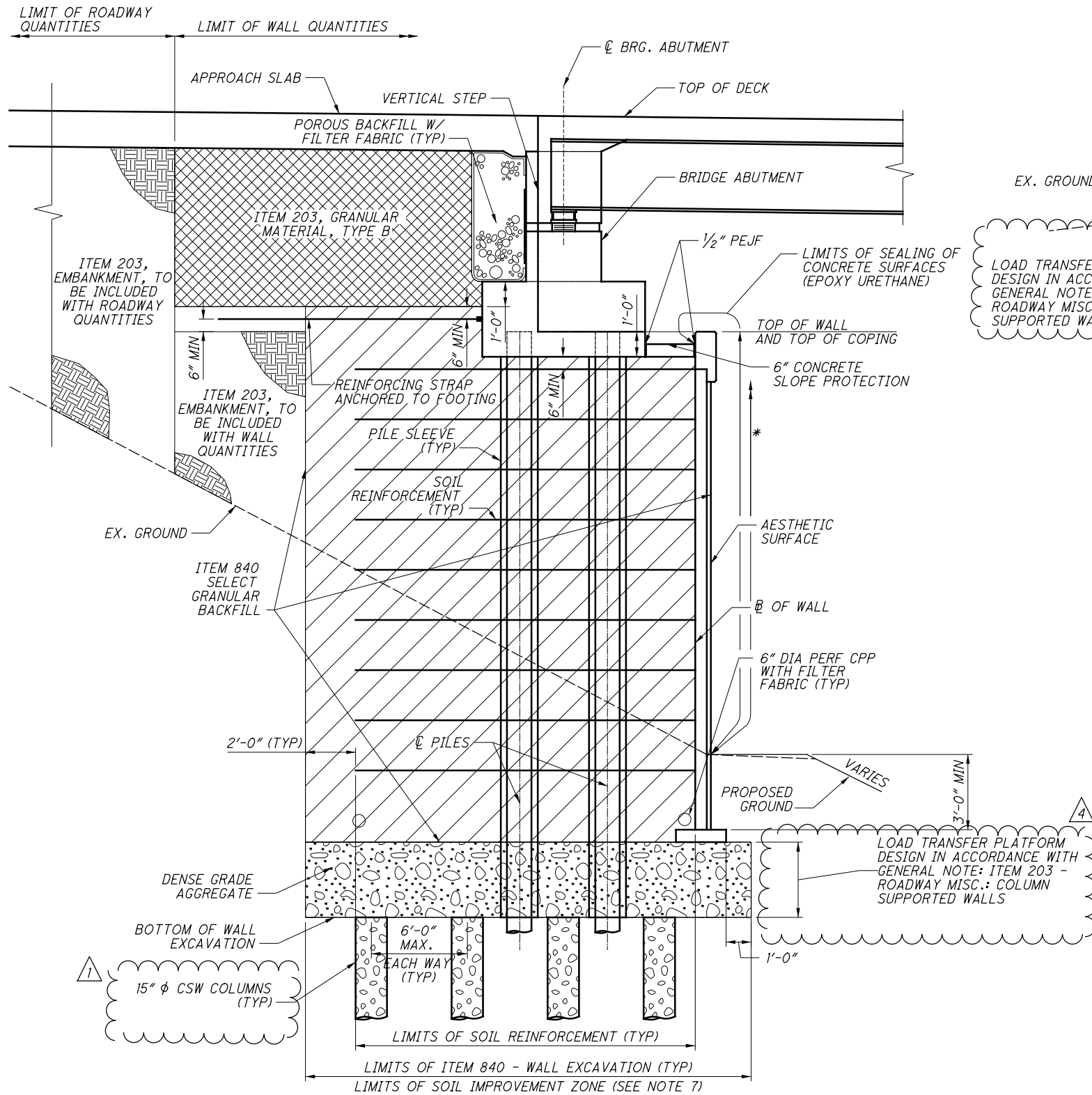
LEGEND:

- 6" DIA PERF CPP
- PROJECT BORING LOCATION
- SETTLEMENT PLATFORM
- HISTORIC BORING LOCATION
- LIGHT POLE LOCATION
- LIMIT OF GROUND IMPROVEMENT NEEDED OVER EXIST. 1-70 EMBANKMENT: 1310 SQ. YD.
- LIMIT OF GROUND IMPROVEMENT NEEDED: 4,370 SQ. YD.
- PLAN BOUNDARY FOR ITEMS INCLUDED WITH MSE WALL E4 FOR PAYMENT

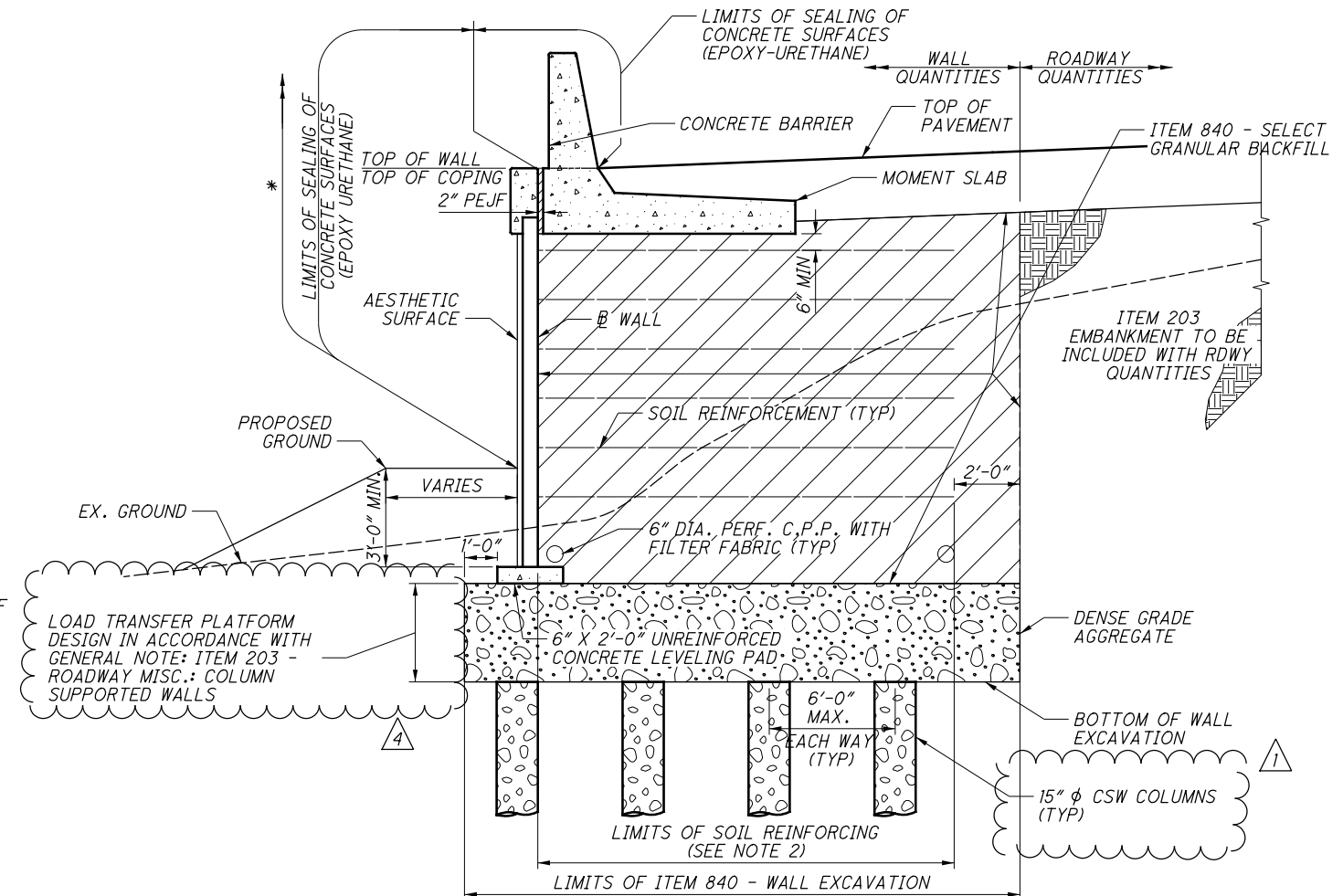


NO.	DESCRIPTION	REV. BY	DATE
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS (CSW)	MMS	11/5/21
4	REMOVED 3'-0" DIMENSION & UPDATED CALLOUT	MMS	11/24/21

G:\projects\2013\W-13-072_FRA-70-13-10_6A\89464_structures_wall_OE4_sheets\105588_OE4WY001.dgn 11/24/2021 11:35:59 AM meets



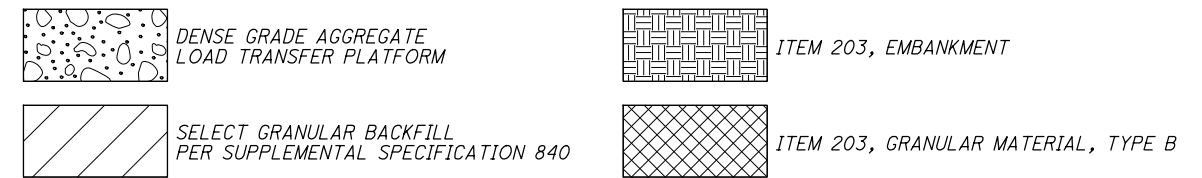
**TYPICAL SECTION
MSE WALL AT BRIDGE ABUTMENTS
WALL E4**



TYPICAL SECTION: WALL E4

LEGEND:

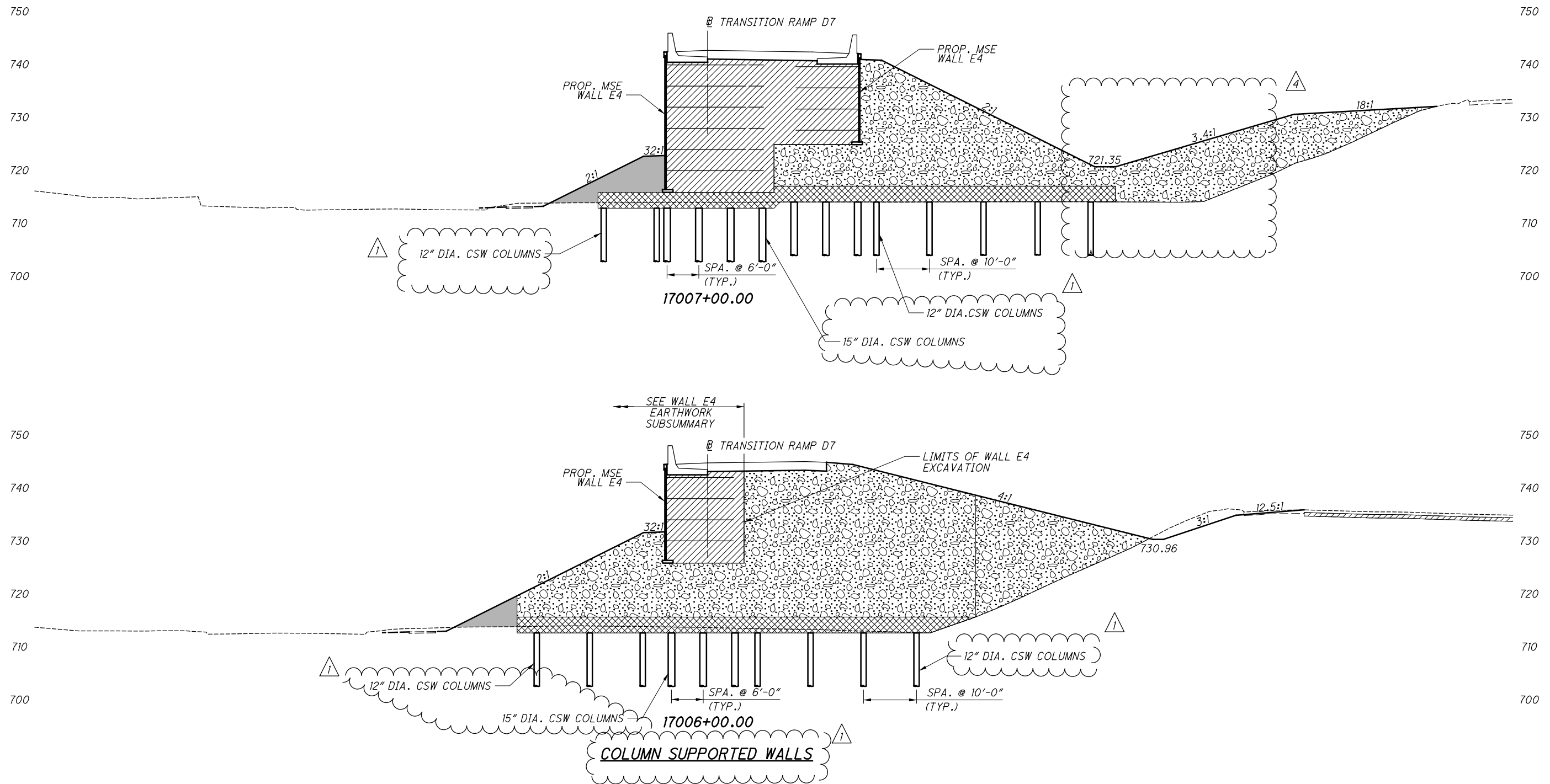
- * LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION) SEAL ALL EXPOSED SURFACES EXTENDING 10'-0" VERTICAL FROM GROUND LINE
- # GRADING SLOPES AWAY FROM BARRIER. SEE WALL PLAN SHEETS AND ROADWAY CROSS SECTIONS FOR MORE INFORMATION.



NOTES:

1. FLOW LINE OF 6" DIA. PERFORATED PLASTIC PIPE WILL VARY TO PROVIDE POSITIVE DRAINAGE AT OUTLET. MINIMUM SLOPE OF PIPE SHALL BE 1/8" PER FOOT.
2. SOIL REINFORCEMENT LENGTH TO BE DETERMINED BY WALL SUPPLIER OF THE APPROVED WALL SYSTEM, AND SHALL COMPLY WITH THE REQUIREMENTS LISTED ON SHEET 843.
3. AS SHOWN IN THE PLANS, THE MAXIMUM DESIGN HEIGHT OF THE MSE WALL VARIES FROM 16'-9" TO 29'-6" (ACTUAL HEIGHT VARIES FROM 16'-9" TO 29'-6"), FINAL HEIGHTS TO BE DETERMINED BY WALL SUPPLIER.
4. THE THICKNESS OF MSE WALL PANELS IS ASSUMED AT 5 1/2".
5. COPING EXPANSION JOINTS SHALL BE SPACED NO MORE THAN 20 FEET APART AND ALIGNED WITH JOINTS BETWEEN FACING PANELS.
6. INSTALL PILE SLEEVES DURING THE CONSTRUCTION OF THE MSE WALL. PILE SLEEVES SHALL EXTEND FROM BOTTOM OF ABUTMENT FOOTING TO BOTTOM OF WALL EXCAVATION/ITEM 203, ROADWAY MISC.: COLUMN SUPPORTED WALLS AND SHALL BE INSTALLED AS PER SS 840.06.J.
7. CSW COLUMNS SHALL BE INSTALLED TO IMPROVE THE SOIL IN THE AREAS AS SHOWN ON SHEET 909K
8. SIZE AND SPACING OF CSW COLUMNS ARE SHOWN FOR REPRESENTATION ONLY. ACTUAL SIZE AND SPACING TO BE DETERMINED BY CONTRACTOR.

G:\projects\2013\W-13-072_FRA-70-13-10_6A\89464_structures_wall_OE4\sheets\105588_OE4X5002.dgn 11/24/2021 11:36:00 AM meets



LEGEND:

- SELECT GRANULAR BACKFILL
- ITEM 203 GRANULAR EMBANKMENT
- DENSE GRADE AGGREGATE LOAD TRANSFER PLATFORM
- ITEM 203 EMBANKMENT

NO.	DESCRIPTION	REV. BY	DATE
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS (CSW)	MMS	11/5/21
4	UPDATED GROUND IMPROVEMENT LIMITS	MMS	11/24/21

NOTES:

1. SIZE AND SPACING OF CSW COLUMNS ARE SHOWN FOR REPRESENTATION ONLY. ACTUAL SIZE AND SPACING TO BE DETERMINED BY CONTRACTOR.

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNED
K.S.J.

DRAWN
K.S.J.

REVIEWED
NCK

DATE
6/23/2021

CHECKED
NCK

REVISOR
K.S.J.

STRUCTURE FILE NUMBER

CROSS SECTIONS OF CONTROLLED MODULUS COLUMNS

RETAINING WALL E4

I-70/I-71 WEST INTERCHANGE PROJECT

FRA-71-14.36

PID No. 105588

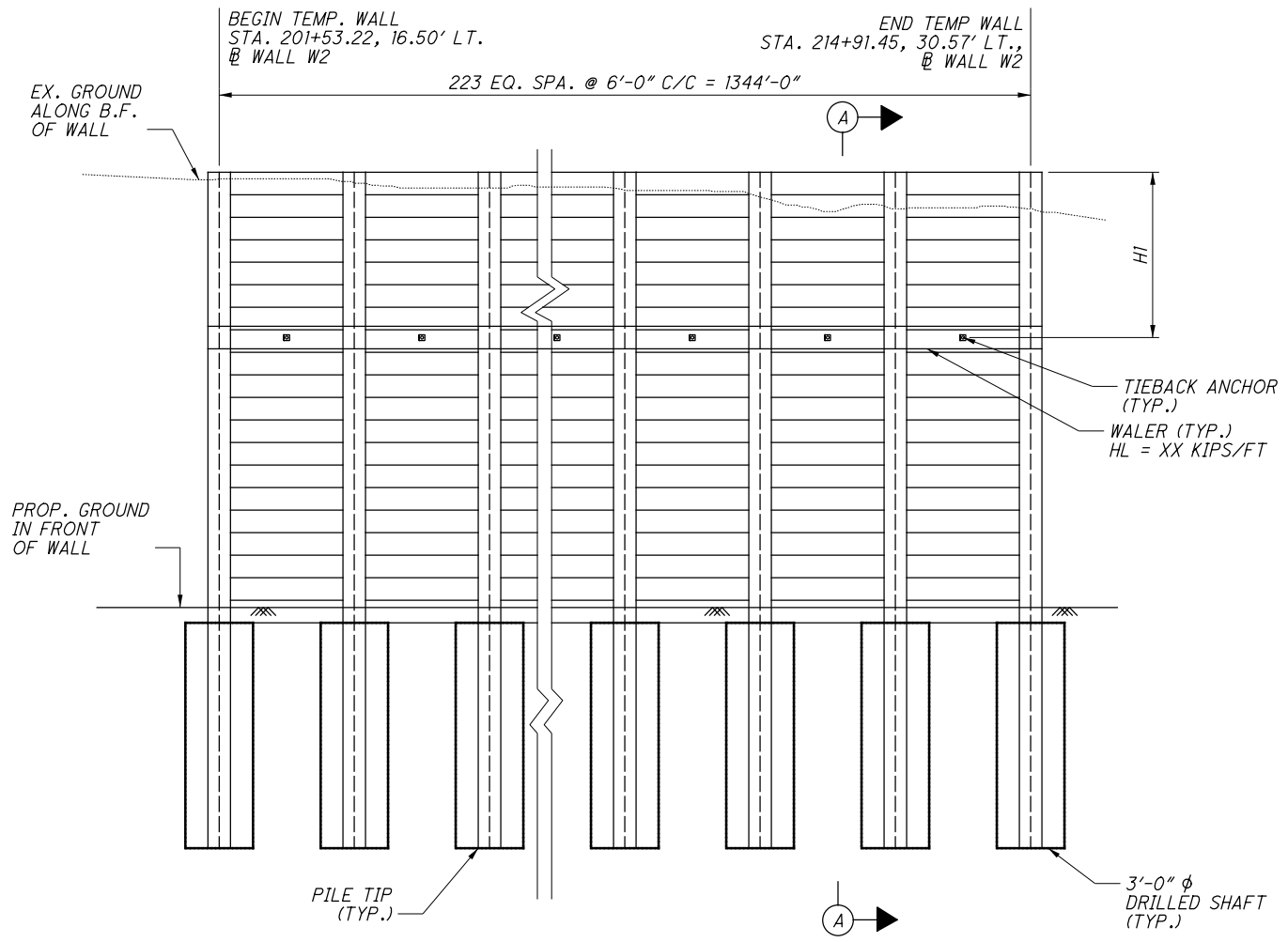
5 / 10

851
1228

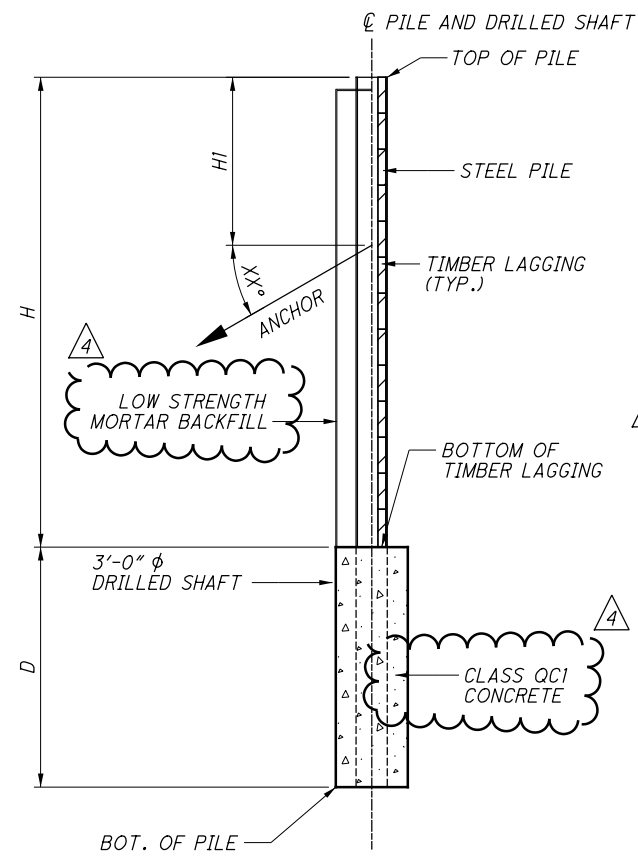
G:\projects\2013\W-13-072_FRA-70-13.10_6A\89464\17\15B_PHASE_3\structures\wall_OW2_OW2\OW2WD109.dgn 11/22/2021 4:26:20 PM meets

DESIGN	H (FT.)	D (FT.)	HI (FT.)	HL (KIPS/FT)	STEEL PILE
1	<= 8.5	16	-		HP 12X53
2	8.5 TO 12.5	10	4	6.94	HP 12X53
3	12.5 TO 20.5	10	6	17.24	HP 12X53

WALL W2 STA.	Top OF SPL WALL EL.	BOTTOM OF EXCAVATION EL.	H (FT.)	DESIGN
201+53.22	713.65	703.50	10.15	2
202+00	713.20	701.00	12.20	3
202+50	712.67	699.50	13.17	3
203+00	712.26	699.50	12.76	3
203+50	711.54	699.50	12.04	3
204+00	710.85	699.50	11.35	2
204+50	710.33	699.50	10.83	2
205+00	710.09	699.50	10.59	2
205+50	710.14	699.50	10.64	2
206+00	710.36	699.50	10.86	2
206+50	709.63	699.50	10.13	2
207+00	708.89	702.00	6.89	1
207+50	709.19	702.00	7.19	1
208+00	709.45	702.00	7.45	1
208+50	709.70	702.00	7.70	1
209+00	709.96	702.00	7.96	1
209+50	710.35	702.00	8.35	2
210+00	710.81	702.00	8.81	2
210+50	711.21	702.00	9.21	2
211+00	712.56	699.50	13.06	3
211+50	713.59	699.50	14.09	3
212+00	713.47	699.50	13.97	3
212+50	713.46	697.00	16.46	3
213+00	713.48	697.00	16.48	3
213+50	713.00	692.80	20.20	3
214+00	713.61	693.00	20.61	3
214+50	712.79	693.25	19.54	3
214+91.45	712.30	693.25	19.05	3



SCHEMATIC SOLDIER PILE WALL - ELEVATION



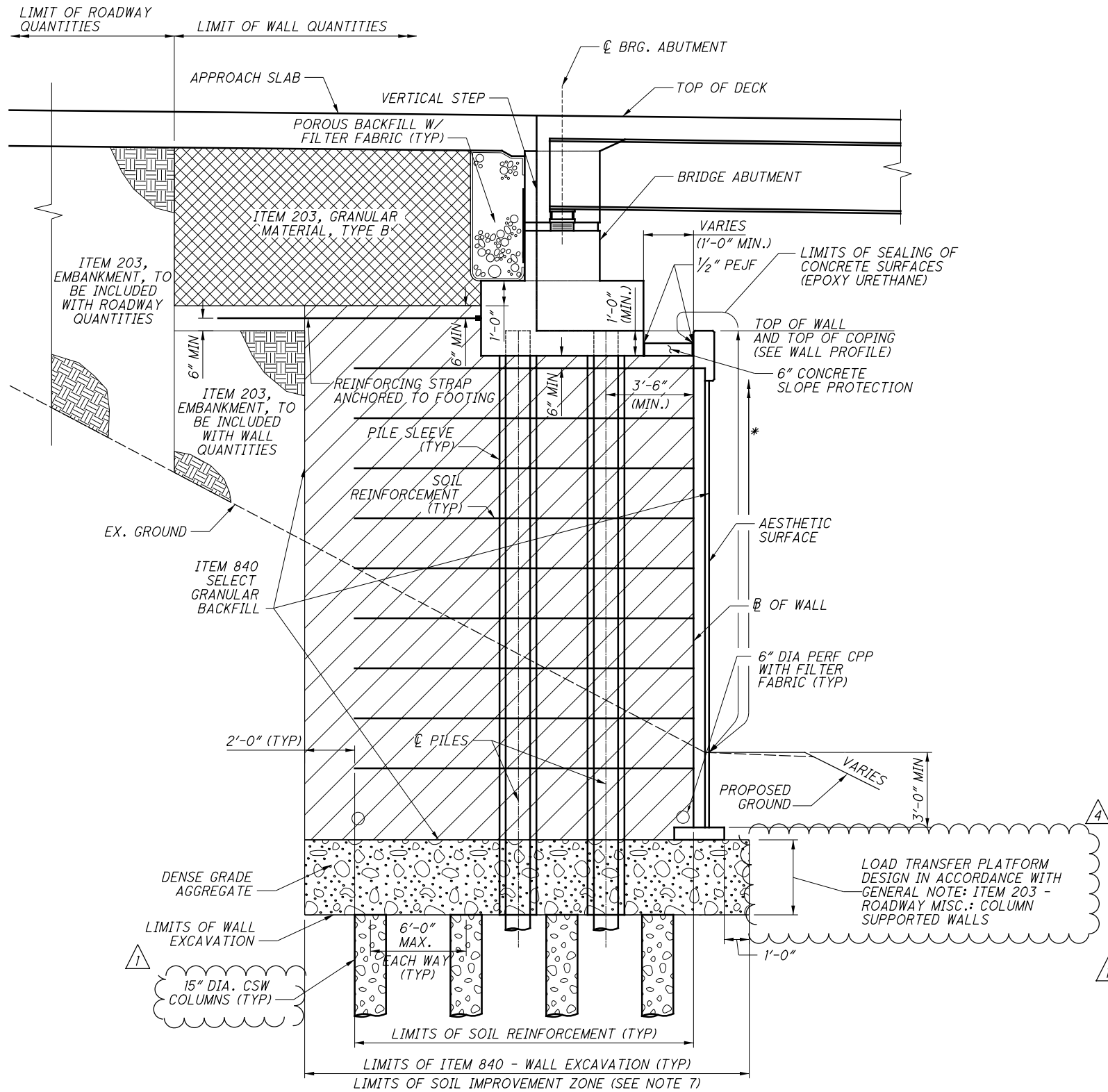
SECTION A-A

NO.	DESCRIPTION	REV. BY	DATE
4	CHANGED CLASS QC1 CONCRETE TO LOW STRENGTH MORTAR	MMS	11/22/2021
4	CHANGED CLASS QC4 CONCRETE TO CLASS QC1 CONCRETE	MMS	11/22/2021

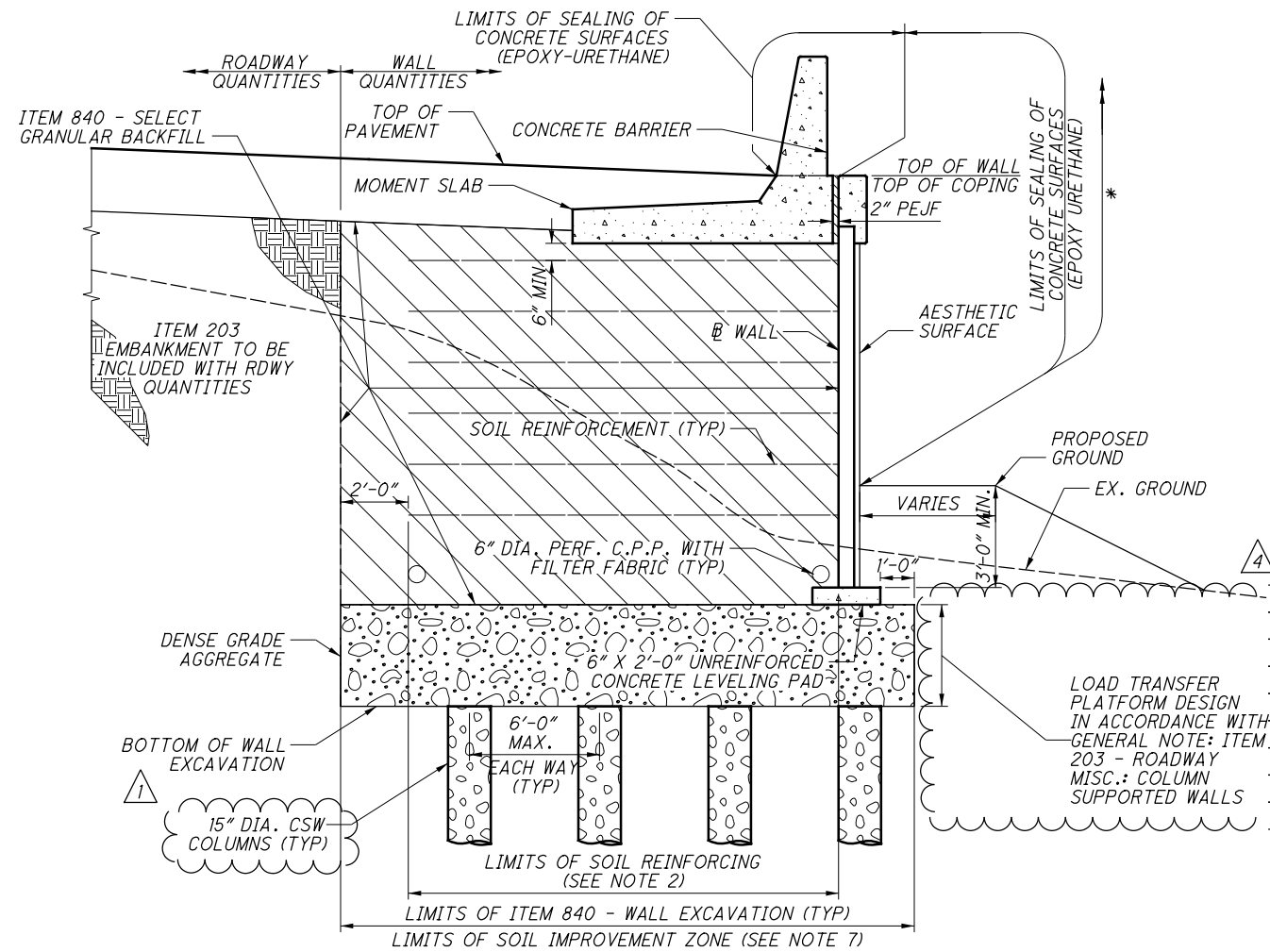
- NOTES:**
- CONTRACTOR SHALL DESIGN AND INSTALL TIMBER LAGGING AND BLOCKING AS REQUIRED. (LAGGING SHALL HAVE A 4" NOMINAL THICKNESS MIN.)
 - SOLDIER PILES SHALL BE ASTM A572, GRADE 50.
 - THE SOLDIER PILES ARE TO BE INSTALLED PRIOR TO EXCAVATION AND THE WOOD LAGGINGS ARE TO BE INSTALLED AS EXCAVATION PROCEEDS DOWNWARD.
 - BACKFILL, PREDRILLED HOLES WITH LOW STRENGTH MORTAR TO BOTTOM OF TIMBER LAGGING.
 - CONTRACTOR TO ADJUST DRILLED SHAFT SPACING TO AVOID INTERFERENCE WITH ANY EXISTING AND PROPOSED UTILITIES.
 - ALL COSTS ASSOCIATED WITH TEMPORARY SHORING INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL INCLUDED WITH WALL 2, ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, FOR PAYMENT.

- LEGEND:**
- H - DESIGN HEIGHT
 - D - EMBEDMENT DEPTH
 - HI - HEIGHT OF TIEBACK ANCHOR FROM THE TOP OF WALL
 - HL - HORIZONTAL COMPONENT OF REQUIRED SOIL ANCHOR DESIGN LOAD

NO.	DESCRIPTION	REV. BY	DATE
1	CHANGED CONTROLLED MODULUS COLUMNS TO COLUMN SUPPORTED WALLS (CSW)	KSJ	11/5/21
4	REMOVED 3'-0" DIMENSION & UPDATED CALLOUT	MMS	11/24/21





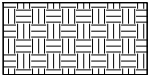
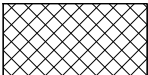
**TYPICAL SECTION
MSE WALL AT BRIDGE ABUTMENTS
WALL W5**



TYPICAL SECTION: WALL W5
WALL W5 STA. 507+00.00 TO STA. 509+43.60
& STA. 600+19.08 TO STA 601+17.17

LEGEND:

* LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION) SEAL ALL EXPOSED SURFACES EXTENDING 10'-0" VERTICAL FROM GROUND LINE

-  DENSE GRADE AGGREGATE LOAD TRANSFER PLATFORM
-  SELECT GRANULAR BACKFILL PER SUPPLEMENTAL SPECIFICATION 840
-  ITEM 203, EMBANKMENT
-  ITEM 203, GRANULAR MATERIAL, TYPE B

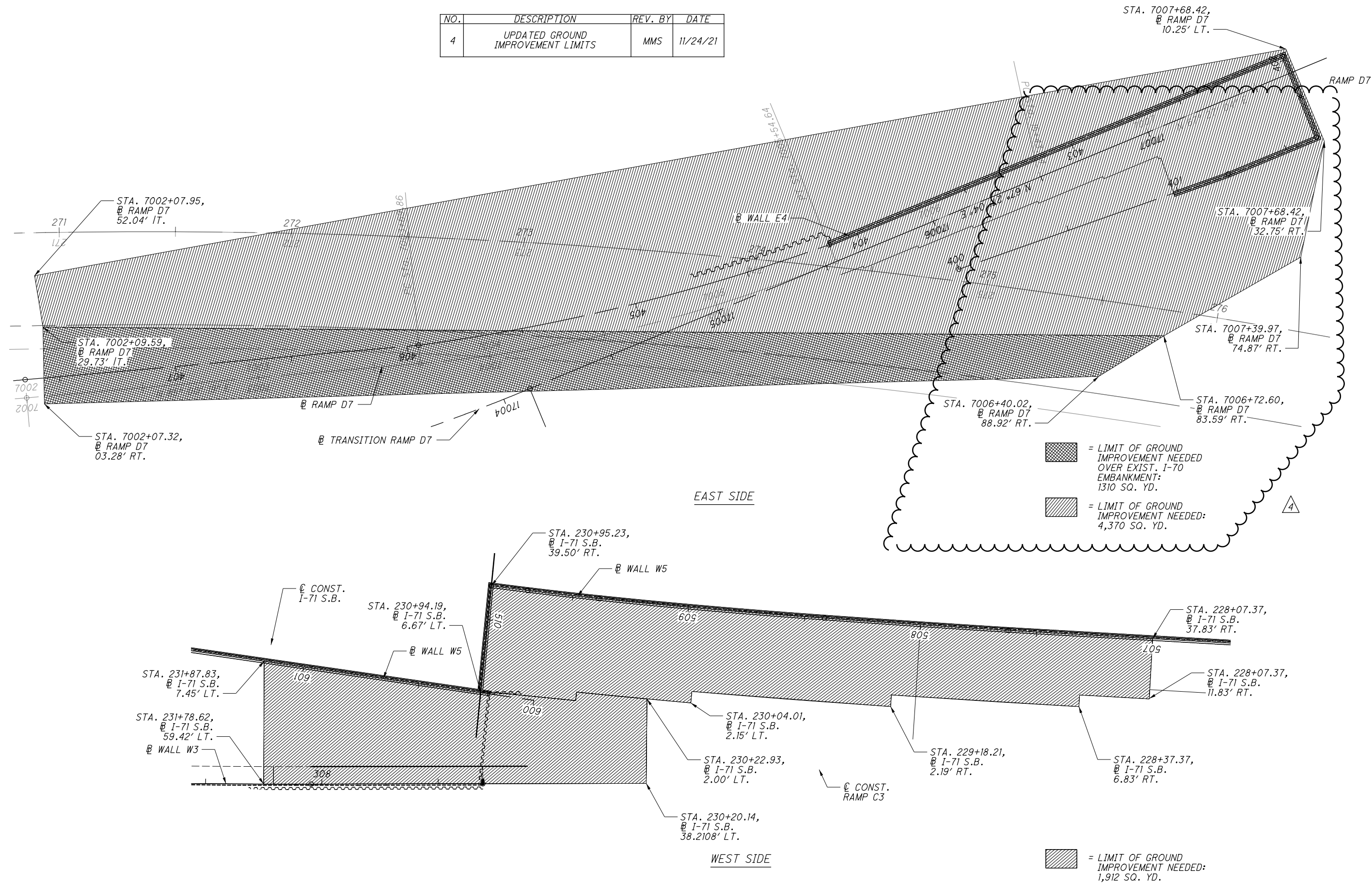
NOTES:

1. FLOW LINE OF 6" DIA. PERFORATED PLASTIC PIPE WILL VARY TO PROVIDE POSITIVE DRAINAGE AT OUTLET. MINIMUM SLOPE OF PIPE SHALL BE 1/8" PER FOOT.
2. SOIL REINFORCEMENT LENGTH TO BE DETERMINED BY WALL SUPPLIER OF THE APPROVED WALL SYSTEM, AND SHALL COMPLY WITH THE REQUIREMENTS LISTED ON SHEET 843.
3. AS SHOWN IN THE PLANS, THE MAXIMUM DESIGN HEIGHT OF THE MSE WALL VARIES FROM 10'-9" TO 48'-9" (ACTUAL HEIGHT VARIES FROM 10'-9" TO 48'-9"), FINAL HEIGHTS TO BE DETERMINED BY WALL SUPPLIER.
4. THE THICKNESS OF MSE WALL PANELS IS ASSUMED AT 5 1/2".
5. COPING EXPANSION JOINTS SHALL BE SPACED NO MORE THAN 20 FEET APART AND ALIGNED WITH JOINTS BETWEEN FACING PANELS.
6. INSTALL PILE SLEEVES DURING THE CONSTRUCTION OF THE MSE WALL. PILE SLEEVES SHALL EXTEND FROM BOTTOM OF ABUTMENT FOOTING TO BOTTOM OF WALL EXCAVATION/ITEM 203, ROADWAY MISC.: COLUMN SUPPORTED WALLS AND SHALL BE INSTALLED AS PER SS 840.06.J.
7. CSW COLUMNS SHALL BE INSTALLED TO IMPROVE THE SOIL IN THE AREAS AS SHOWN ON SHEET 909K
8. SIZE AND SPACING OF CSW COLUMNS ARE SHOWN FOR REPRESENTATION ONLY. ACTUAL SIZE AND SPACING TO BE DETERMINED BY CONTRACTOR.

G:\projects\2013\W-13-072_FRA-70-13-10_6A\89464\71SB_PHASE_3\structures_wall_W5_Phi3\sheets\05588_0W5WD108.dgn 11/24/2021 1:42:13 PM meets

G:\projects\2013\W-13-072_FRA-70-13.10_6A\89464\71SB_PHASE_3\structures\sheets\105588_MSEWD006.dgn 11/24/2021 11:36:10 AM meets

NO.	DESCRIPTION	REV. BY	DATE
4	UPDATED GROUND IMPROVEMENT LIMITS	MMS	11/24/21



RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949



DESIGNED	DRAWN	REVIEWED	DATE
MMS	MMS	NCK	6/23/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JGM			

GROUND IMPROVEMENT AREA
RETAINING WALLS
I-70/I-71 WEST INTERCHANGE PROJECT

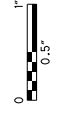
FRA-71-14.36
PID No. 105588

1 / 1

909K
1228



Ohio DOT Workspace
70171 West Interchange 6R
www.msconsultants.com



Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: C:\Users\darnold\Desktop\18_ms_std.tbl
Plot Driver: \\msconsultants.com\files\standards\usin\ohdot\18\ms\plotting\PDF.plt
PCF: 60-06634_6R_Columbus

Model: Sheet
Printed: 11/23/2021 1:59:25 PM
File: \\msconsultants.com\files\Production\03\60\06634_6R\structures\FRA070-1373L\RSheets\070-1373L\F0001.dgn
View: FENCE_VNEW1
By: darnold

34" x 22"

PARTICIPATION		ESTIMATED QUANTITIES					
09/NHS/BR	ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SHEET REF.	
	202	11203		LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	2/12	
705	202	23501	705	SY	WEARING COURSE REMOVED, AS PER PLAN	2/12	
157	202	22900	157	SY	APPROACH SLAB REMOVED		
3	202	98100	3	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE		
8	407	20000	8	GAL	NON-TRACKING TACK COAT		
5	441	10000	5	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22		
	503	11100		LUMP	COFFERDAMS AND EXCAVATION BRACING		
11,409	509	25000	11,409	LB	REINFORCING STEEL		
372	510	10000	372	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT		
48	511	21521	48	CY	CLASS OC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN	2/12	
117	512	33010	117	SY	TYPE 3 WATERPROOFING	2/12	
494	513	10200	494	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF		
1,005	513	10240	1,005	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2		
4	518	12200	4	EACH	SCUPPERS, INCLUDING SUPPORTS		
32	519	12510	32	SY	SPECIAL - PATCHING CONCRETE BRIDGE DECK - TYPE A		
4	846	00110	4	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	10/12	

NO.	DESCRIPTION	REV. BY	DATE
2	DOWEL PAY ITEM INCLUDED	DEA	11-09-2021
4	PARTICIPATION CODE	DEA	11-23-2021

ESTIMATED QUANTITIES
BRIDGE NO. FRA-70-1373L
I-70 OVER SHORT STREET

FRA-71-14.36
PID No. 105588

3 / 12

912
1228

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

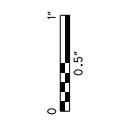
REVIEWED
GLG
DATE
20-APR
STRUCTURE FILE NUMBER
2504537

DRAWN
CDH
REVISION

DESIGNED
DEA
CHECKED
ELP



ms consultants, inc.
mconsultants.com



Ohio DOT Workspace
70171 West Interchange 6R
www.mmsconsultants.com

Batchplot Spec: \\mmsconsultants.com\files\Production\03_60_06634_6R\standards\plotdrv\batchplot.dwg
Pen Table: C:\Users\darnold\Desktop\158_ms_std.tbl
Plot Driver: \\mmsconsultants.com\files\standards\usin\ohdot\158\ms\plotting\PDF.plt

Model: Sheet
Printed: 11/23/2021 @ 2:04:06 PM
File: W:\03\60\06634_6R\structures\FR407L_1503L\steels\07L_1503L\E0001.dgn

34" x 22"

View: FENCE_NEW1
By: darnold

PARTICIPATION		ESTIMATED QUANTITIES					ABUT.	CALC.	DATE	CHK'D	DATE
09/NHS/BR	09/NHS/BR	ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION		DBL	4/6/2020	DEA / ATM	4/9/2020
								PIERS	SUPER.	GEN.	SHEET REF.
		202	11003	LUMP	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				1	20/276
		202	11201	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN				1	20/276
80	79	202	22900	159	SY	APPROACH SLAB REMOVED				159	
1017	1017	202	23500	2034	SY	WEARING COURSE REMOVED				2,034	
11	10	202	98100	21	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE				21	
		503	11101	LUMP	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				1	21/276
3293	3293	503	21101	6586	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN		6,586			21/276
		505	11100	LUMP	LS	PILE DRIVING EQUIPMENT MOBILIZATION				1	
495	495	507	00100	990	FT	STEEL PILES HPI0X42, FURNISHED	990				
468	467	507	00150	935	FT	STEEL PILES HPI0X42, DRIVEN	935				
880	880	507	00200	1760	FT	STEEL PILES HPI2X53, FURNISHED	1,760				
840	840	507	00250	1680	FT	STEEL PILES HPI2X53, DRIVEN	1,680				
14	13	507	93300	27	EACH	STEEL POINTS OR SHOES	27				
3005611	3005610	509	10001	6011221	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	34,142	3,181,074	2,796,005		21/276
4475	4475	511	34447	8950	CY	CLASS OC2 CONCRETE WITH OC/OA, BRIDGE DECK, AS PER PLAN			8,950		21/276
753	753	511	34451	1506	CY	CLASS OC2 CONCRETE WITH OC/OA, BRIDGE DECK (PARAPET), AS PER PLAN			1,506		21/276, 222/276
139	139	511	43512	278	CY	CLASS OC1 CONCRETE WITH OC/OA, ABUTMENT INCLUDING FOOTING	278				
5758	5758	511	45602	11516	CY	CLASS OC4 MASS CONCRETE, SUBSTRUCTURE WITH OC/OA		11,516			
821	821	512	10001	1642	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)		1,642			21/276
11011	11010	512	10100	22021	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	638	11,903	9,480		
10	9	512	33000	19	SY	TYPE 2 WATERPROOFING	19				
6578300	6578300	513	10401	13156600	LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN			13,156,600		21/276, 114/276
42464	42463	513	20000	84927	EACH	WELDED STUD SHEAR CONNECTORS			84,927		
77175	77174	514	00060	154349	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			154,349		
77175	77174	514	00066	154349	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			154,349		
59	59	516	10010	118	FT	ARMORLESS PREFORMED JOINT SEAL				118	
132	131	SPECIAL	12400	263	FT	SPECIAL - MODULAR EXPANSION JOINT	115	148			22/276
13	13	516	13600	26	SF	1" PREFORMED EXPANSION JOINT FILLER				26	
5	5	518	12200	10	EACH	SCUPPERS, INCLUDING SUPPORTS			10		
115	114	518	51200	229	FT	10" PIPE DOWNSPOUT, INCLUDING SPECIALS		229			
42	41	518	21200	83	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	83				
23	23	518	40000	46	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	46				
19	19	518	40010	38	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	38				
65	65	524	94804	130	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK		130			
670	670	524	94902	1340	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK		1340			
363	362	524	94904	725	FT	DRILLED SHAFTS, 48" DIAMETER, INTO BEDROCK		725			
1427	1427	524	94906	2854	FT	DRILLED SHAFTS, 54" DIAMETER, ABOVE BEDROCK		2854			
145	145	524	94994	290	FT	DRILLED SHAFTS, 90" DIAMETER, INTO BEDROCK		290			
317	316	524	94996	633	FT	DRILLED SHAFTS, 96" DIAMETER, ABOVE BEDROCK		633			
47	46	524	95100	93	EACH	DRILLED SHAFTS, MISC.: THERMAL INTEGRITY PROFILER (T.I.P.) WIRE CABLE TESTING OF DRILLED SHAFTS		93			
		524	95200	LUMP	LS	DRILLED SHAFTS, MISC.: SHAFT INSPECTION DEVICE				1	
196	196	526	30010	392	SY	REINFORCED CONCRETE APPROACH SLABS WITH OC/OA (T=17")				392	
58	58	526	90030	116	FT	TYPE C INSTALLATION				116	
		SPECIAL	530E00200	LUMP	LS	STRUCTURE, MISC.: SOLDIER PILE RETAINING WALL				1	21/276
60	60	605	14000	120	FT	6" BASE PIPE UNDERDRAINS *	120				
233	232	607	39901	465	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN				465	21/276
285	285	SPECIAL	690E98100	570	LF	SPECIAL - COVERED WALKWAY SYSTEM				570	20/276
		SPECIAL	690E98400	LUMP	LS	SPECIAL - EMERGENCY ACTION PLAN COORDINATION				1	20/276
74	74	869	00100	148	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS	11	137			

LEGEND:

* QUANTITY CARRIED TO ROADWAY GENERAL SUMMARY

NO.	DESCRIPTION	REV. BY	DATE
3	UPDATED ITEM NO. AND QUANTITY	DBL	11/18/21
4	PARTICIPATION CODE	DEA	11/23/21

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

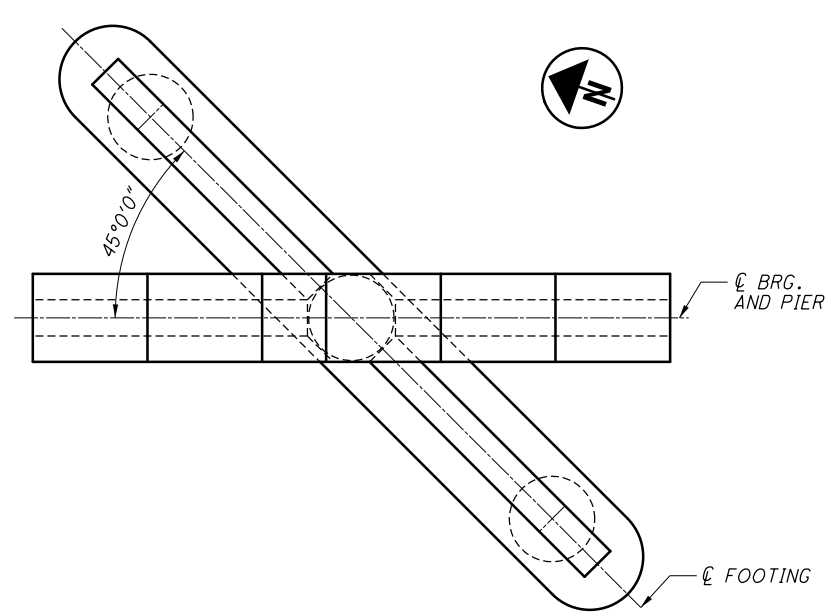
DATE
20-APR
2510025
REVIEWED
GLG
STRUCTURE FILE NUMBER
2510025
DRAWN
CMA
REVISID
DESIGNED
CMA
CHECKED
ABD

ESTIMATED QUANTITIES
BRIDGE NO. FRA-71-1503L
I-71 SB OVER SCIOTO RIVER

FRA-71-14.36
PID No. 105588

23 / 276

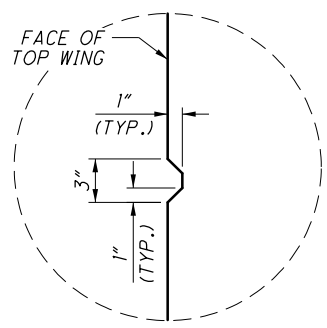
944
1228



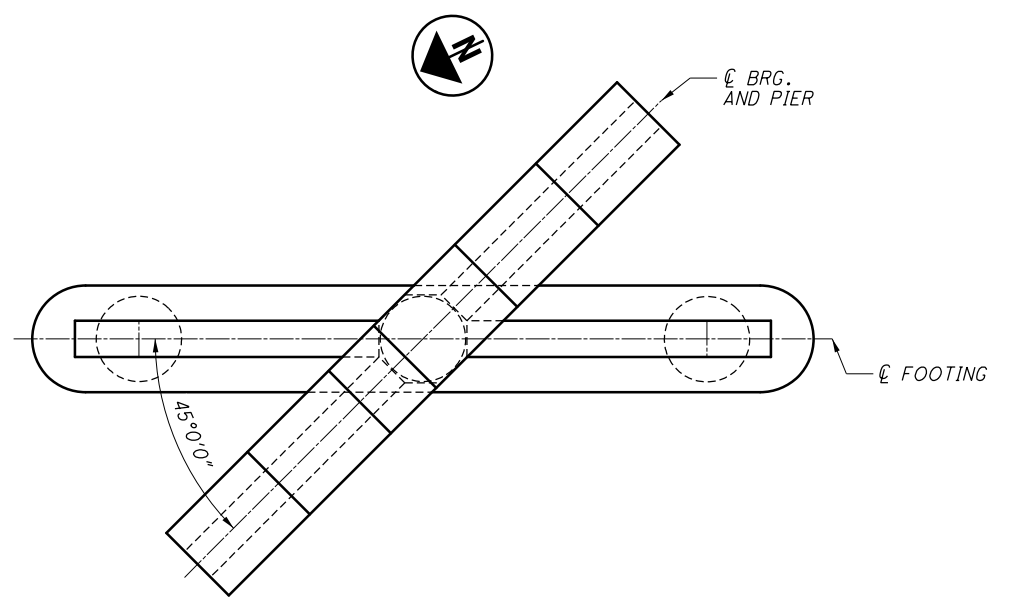
PLAN

NOTES:

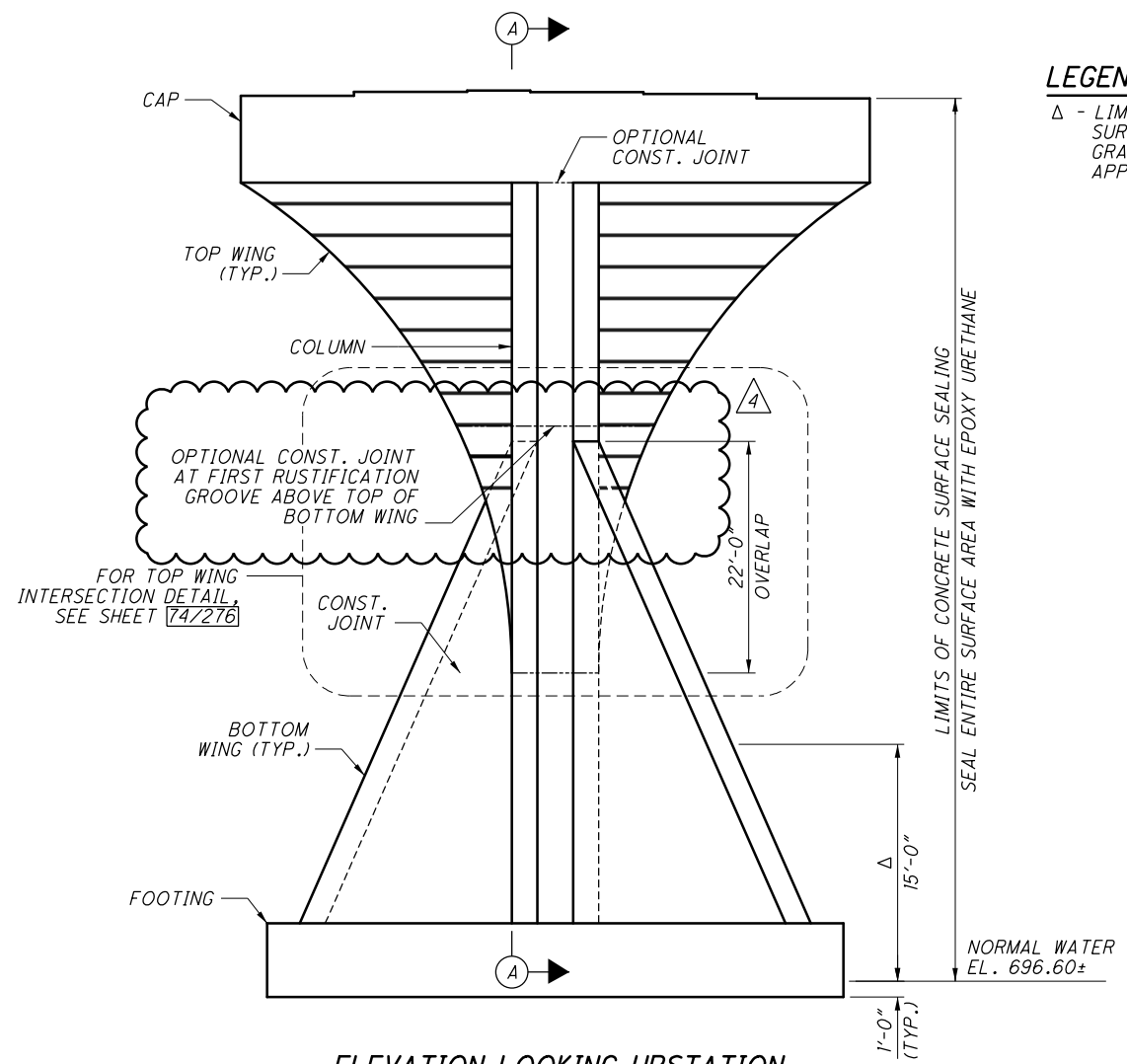
1. CAPS, COLUMNS AND FOOTINGS TO BE PAID FOR UNDER ITEM 511 - CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/OA.



DETAIL A



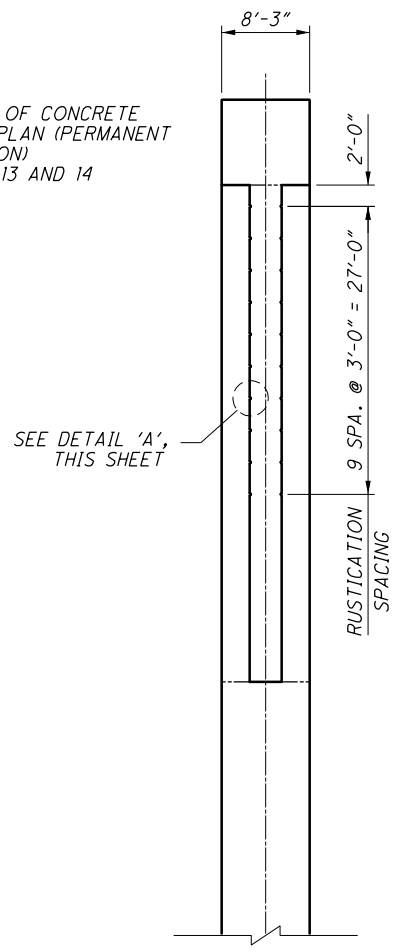
PLAN



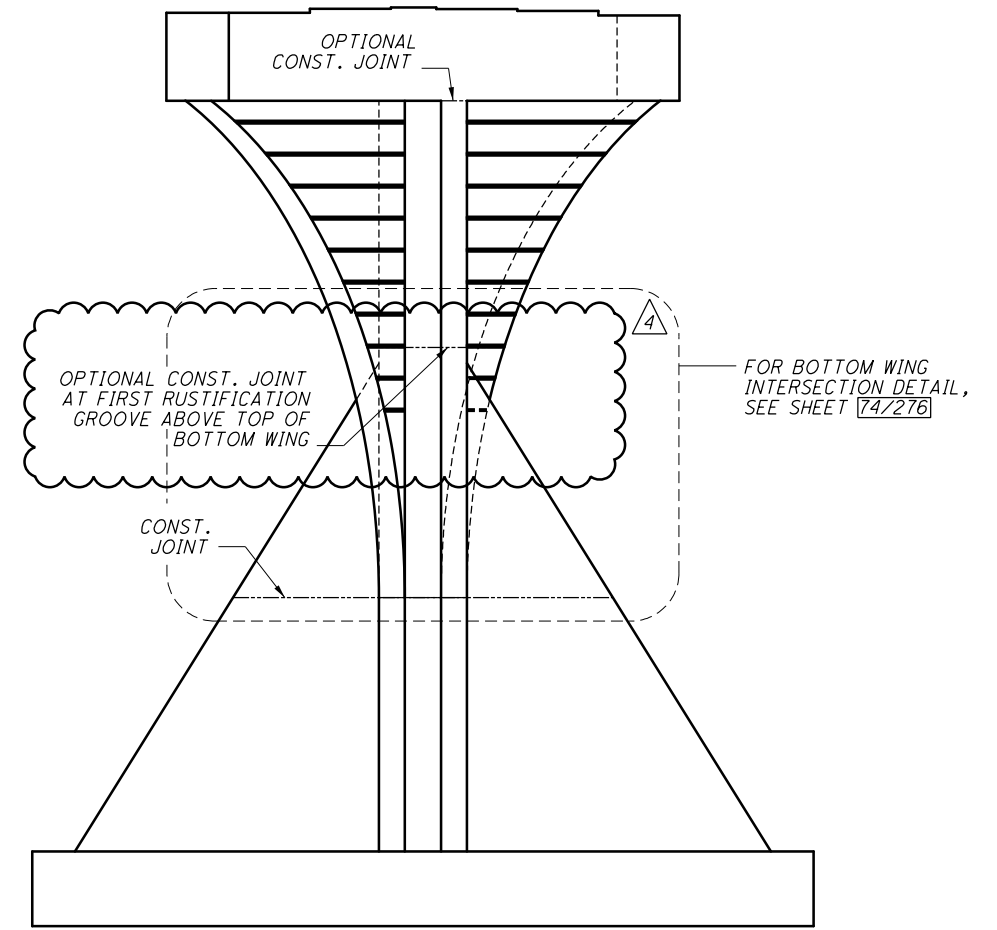
ELEVATION LOOKING UPSTATION
PIER 13 SHOWN
DRILLED SHAFTS AND REINFORCING NOT SHOWN

LEGEND

- Δ - LIMITS OF SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION) APPLY TO PIER 10, 13 AND 14



SECTION A-A
BOTTOM WING AND FOOTING NOT SHOWN



ELEVATION FACING BOTTOM WING
PIER 13 SHOWN
DRILLED SHAFTS AND REINFORCING NOT SHOWN

DESIGN AGENCY: ms consultants, inc.
2921 Schrock Road
Columbus, Ohio 43229

DATE: 20-APR
REVIEWED: FBW
DRAWN: ABD
DESIGNED: AKS
CHECKED: TGH

STRUCTURE FILE NUMBER: 2510025

UNIT 2 - PIER 10 THRU 14 PLAN, ELEVATION & SECTION
BRIDGE NO. FRA-71-1503L
I-71 SB OVER SCIOTO RIVER

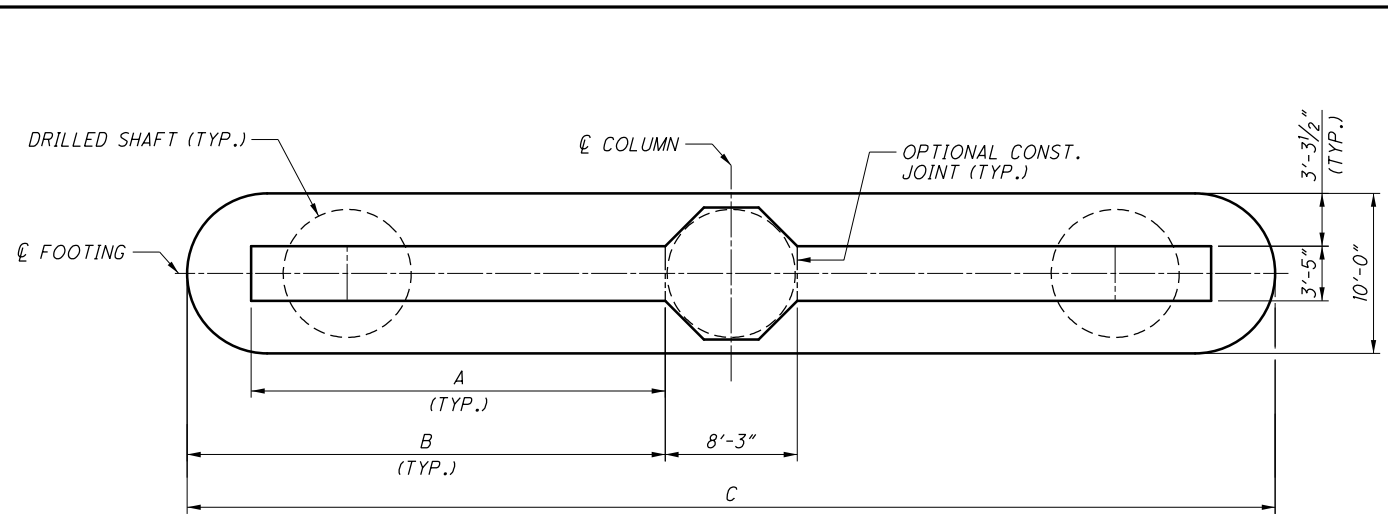
FRA-71-14.36
PID No. 105588

67/276

NO.	DESCRIPTION	REV. BY	DATE
4	ADDED OPTIONAL CONSTRUCTION JOINT	DBL	11/23/21

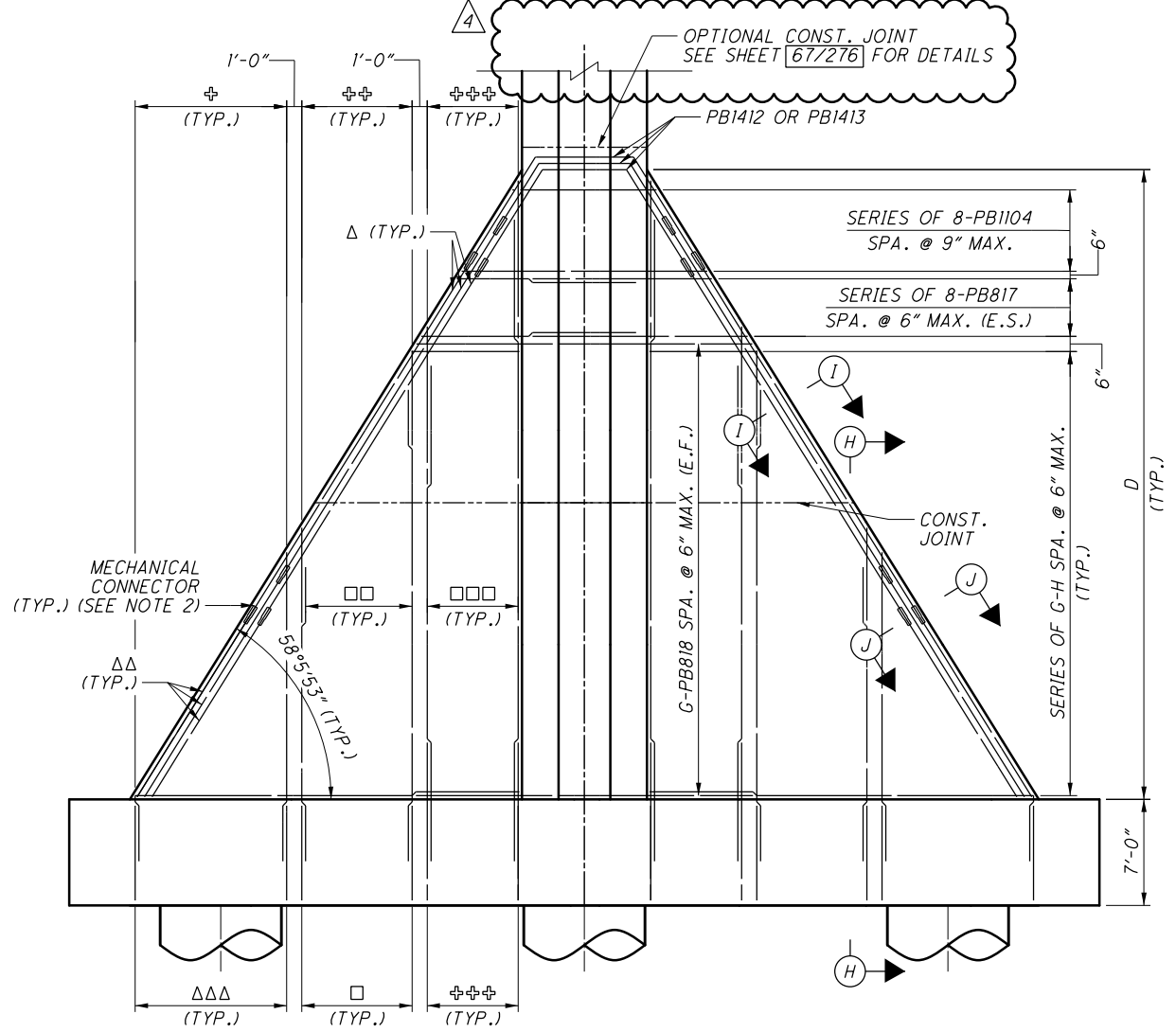
988
1228

ms consultants, inc.



BOTTOM PLAN

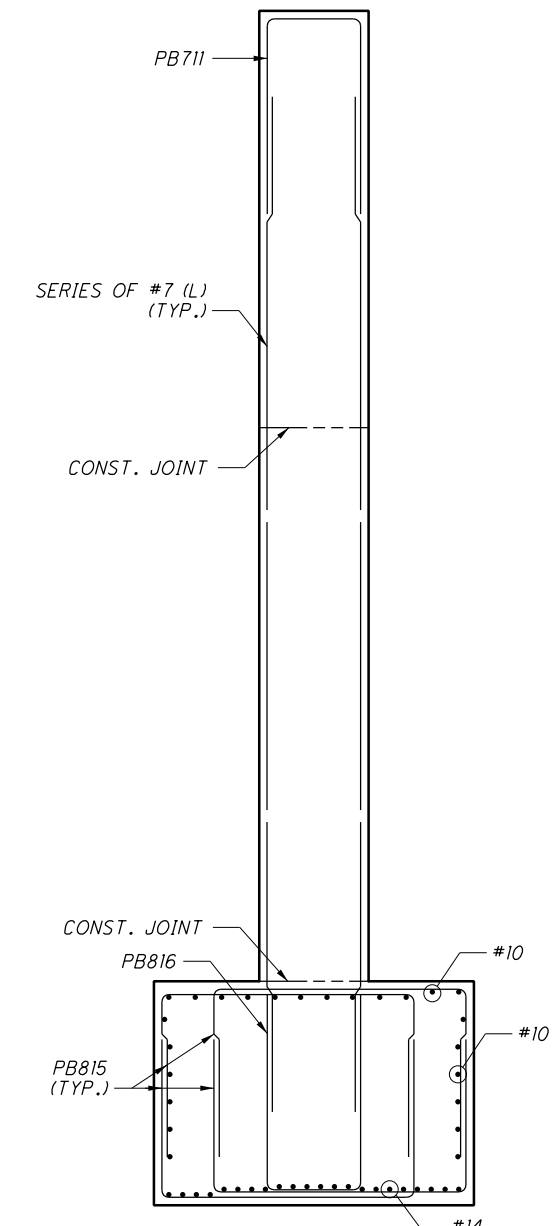
TOP PORTION OF PIER NOT SHOWN



BOTTOM WINGS ELEVATION

COLUMN AND FOOTING REINFORCEMENT, TOP PORTION OF PIER AND DRILLED SHAFTS NOT SHOWN

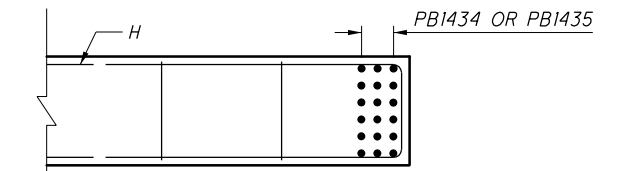
NO.	DESCRIPTION	REV. BY	DATE
4	ADDED OPTIONAL CONSTRUCTION JOINT	DBL	11/23/21



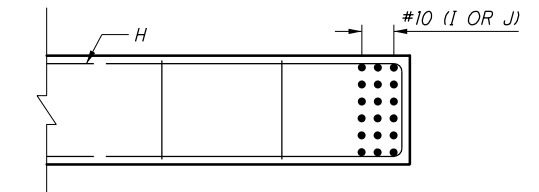
SECTION H-H

	PIER 10	PIER 11	PIER 12	PIER 13	PIER 14
A	25' 10-1/2"	26' 9-3/8"	27' 7-7/8"	28' 6-1/8"	29' 7/8"
B	29' 10-1/2"	30' 9-3/8"	31' 7-7/8"	32' 6-1/8"	33' 7/8"
C	68' 0"	69' 9-3/4"	71' 6-7/8"	73' 3-1/8"	74' 4-3/4"
D	41' 6-3/4"	43' 3/8"	44' 5-1/4"	45' 9-1/2"	46' 8-1/2"
E	10	11	13	14	15
F	PB1022	PB1023	PB1024	PB1025	PB1026
G	60	63	66	68	70
H	PB819	PB820	PB821	PB822	PB823
I	PB1027	PB1029	PB1031	PB1033	PB1035
J	PB1028	PB1030	PB1032	PB1034	PB1036
K	PB712	PB713	PB714	PB715	PB716
L	PB717	PB718	PB719	PB720	PB721

MIN. REBAR LAP	
#7	= 3'-8"
#8 VERT.	= 4'-11"
#8 HORIZ.	= 6'-10"
#10	= 7'-10"



SECTION I-I



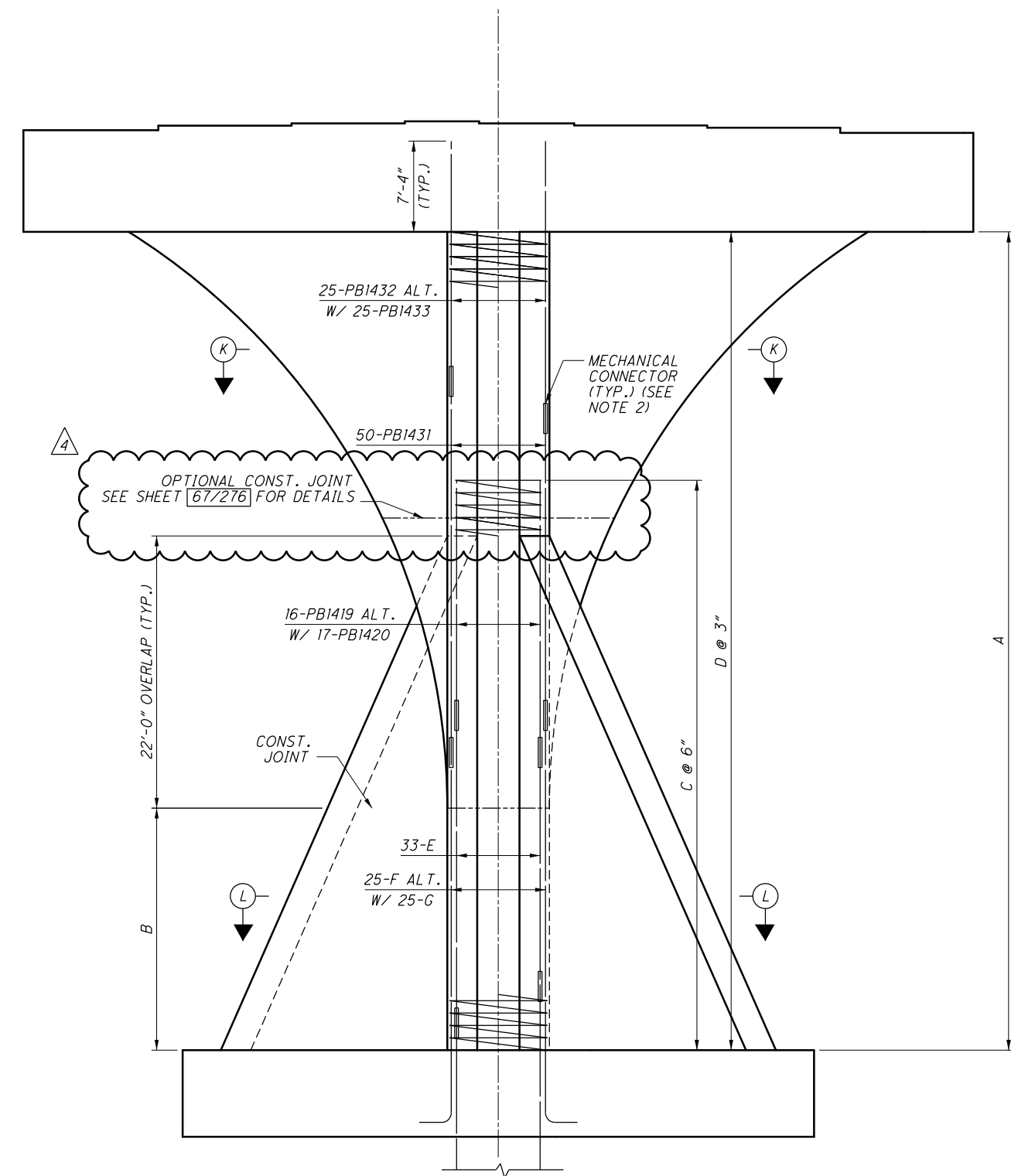
SECTION J-J

LEGEND:

- Δ 3-PBI434 ALT. W/ 3-PBI435
- ΔΔ 3-1 ALT. W/ 3-J
- ΔΔΔ 21-PB816 SPA. @ 6"
- ⊕ SERIES OF 21-K SPA. @ 6"
- ⊕⊕ 9-PB711 SPA. @ 12" MAX.
- ⊕⊕⊕ E SETS OF 2-PB1021 SPA. @ 8" MAX.
- 9-PB816 SPA. @ 12" MAX.
- SERIES OF 9-L SPA. @ 12" MAX. (E.F.)
- SERIES OF E SETS OF 2-F SPA. @ 8" MAX. (E.F.)

NOTES:

1. FOR FOOTING DETAILS, SEE SHEETS 68/276 THRU 70/276.
2. MECHANICAL CONNECTORS TO BE STAGGERED AT 3'-0" IN ALL DIRECTIONS IN ORDER TO OBTAIN AMPLE SPACE TO MAKE THE CONNECTION. MECHANICAL CONNECTORS SHALL BE INCIDENTAL TO ITEM 509 - EPOXY COATED REINFORCING STEEL.



COLUMN ELEVATION
PIER 10 SHOWN
LOOKING UPSTATION
DRILLED SHAFTS AND ALL OTHER REINFORCEMENT NOT SHOWN

	PIER 10	PIER 11	PIER 12	PIER 13	PIER 14
A	66' 1-3/4"	67' 7-1/4"	69' 1/8"	70' 4-1/2"	71' 3-3/8"
B	19' 6-3/4"	21' 3/8"	22' 5-1/4"	23' 9-1/2"	24' 8-1/2"
C	SPB401	SPB402	SPB403	SPB404	SPB405
D	SPB501	SPB502	SPB503	SPB504	SPB505
E	PB1414	PB1415	PB1416	PB1417	PB1418
F	PB1421	PB1423	PB1425	PB1427	PB1429
G	PB1422	PB1424	PB1426	PB1428	PB1430

- NOTES:**
- FOR SECTIONS K-K AND L-L, SEE SHEET 73/276.
 - MECHANICAL CONNECTORS TO BE STAGGERED AT 3'-0" IN ALL DIRECTIONS IN ORDER TO OBTAIN AMPLE SPACE TO MAKE THE CONNECTION. MECHANICAL CONNECTORS SHALL BE INCIDENTAL TO ITEM 509 - EPOXY COATED REINFORCING STEEL.

NO.	DESCRIPTION	REV. BY	DATE
4	ADDED OPTIONAL CONSTRUCTION JOINT	DBL	11/23/21

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

DATE
20-APR
2510025

REVIEWED
FBW

DRAWN
CMA

DESIGNED
AKS

CHECKED
TGH

UNIT 2 - PIER 10 THRU 14 COLUMN ELEVATION
BRIDGE NO. FRA-71-1503L
I-75 SB OVER SCIOTO RIVER

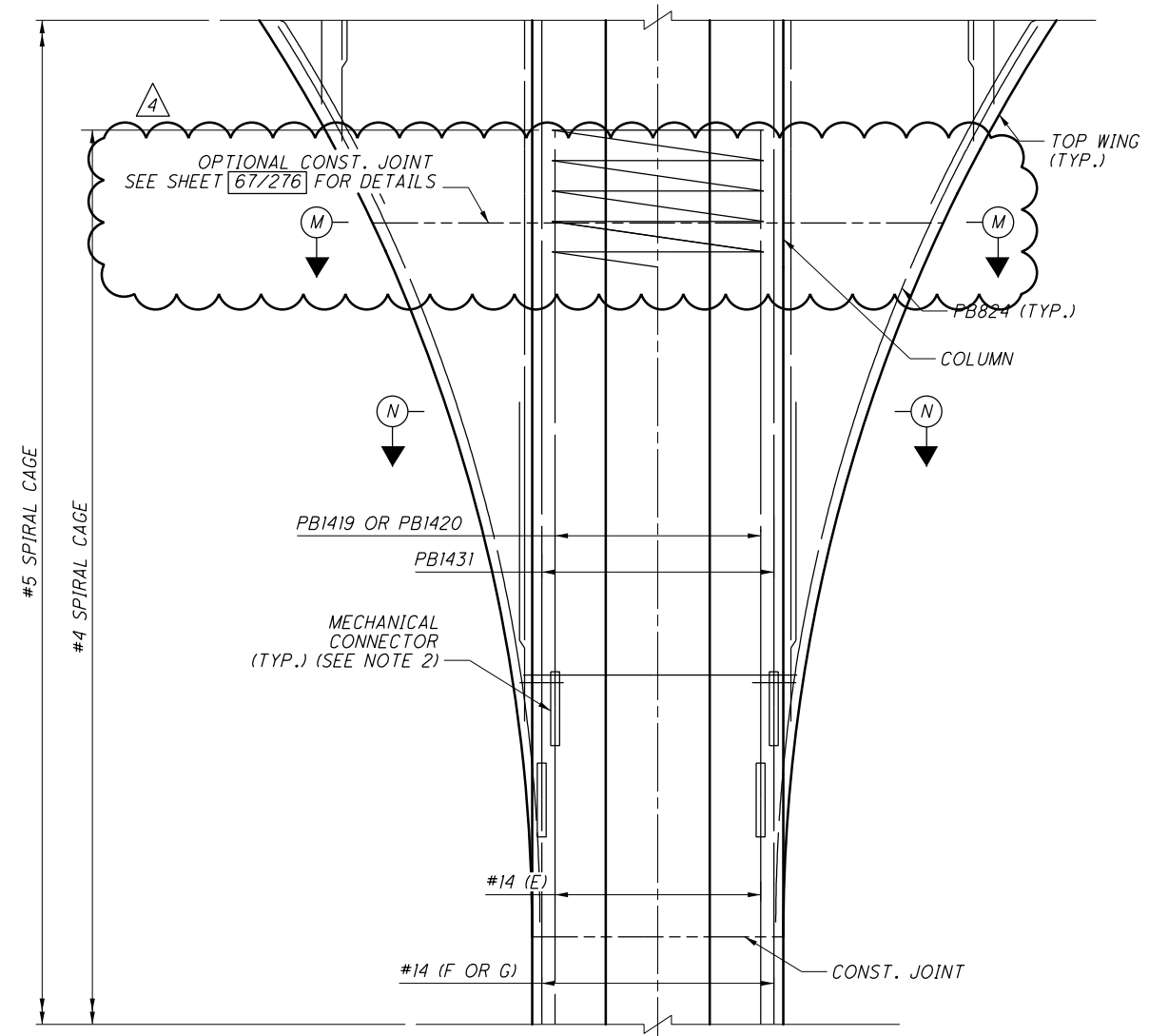
FRA-71-14.36
PID No. 105588

72/276

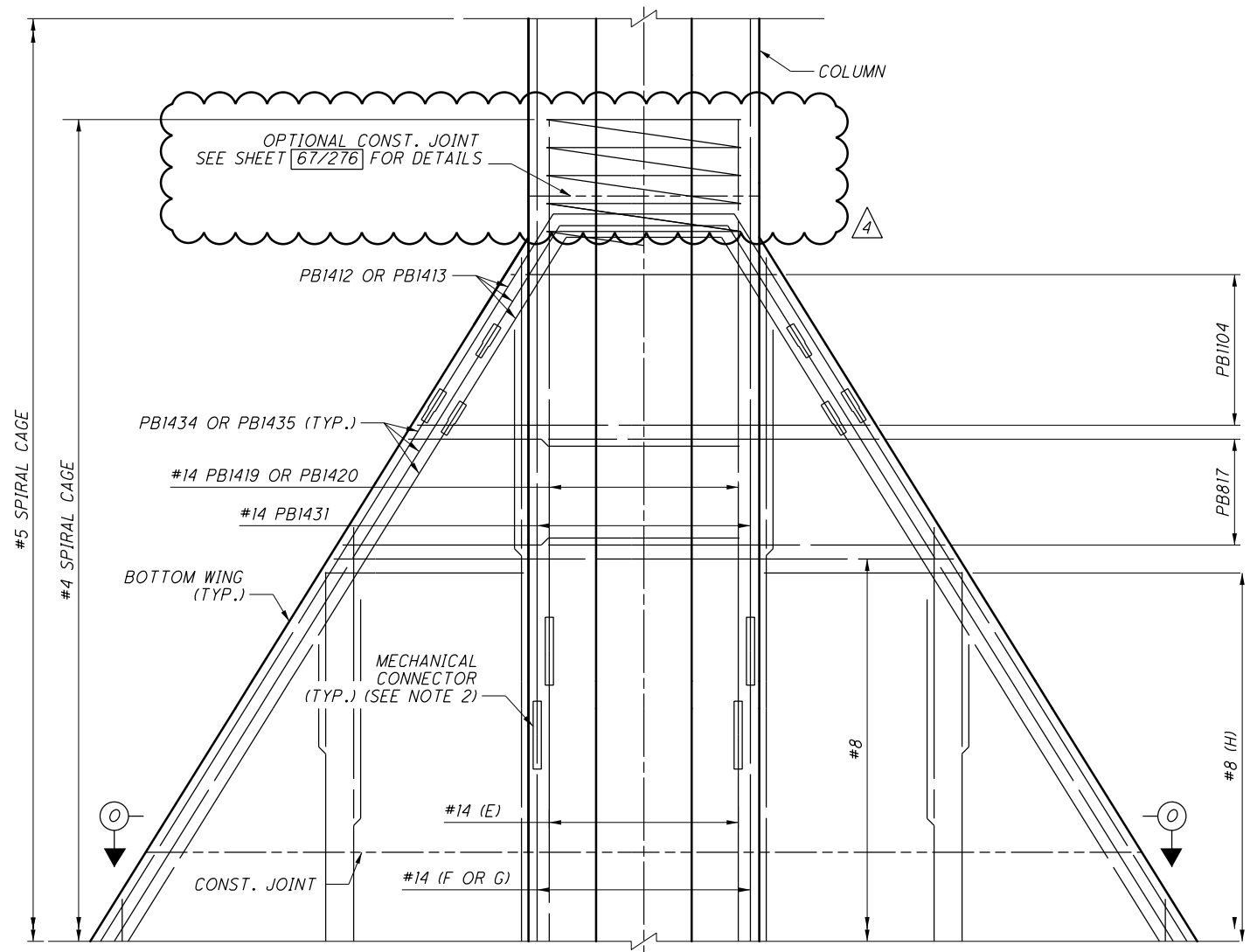
993
1228

ms consultants, inc.

Batchplot Spec: \\msconsultants.com\files\Production\03\60\06634_6R\standards\plotdrv\batchplot.plt
 Pen Table: \\msconsultants.com\files\standards\ustin\ohio\1\8\ms\plot\pen\8.ms_std.plt
 Plot Driver: S:\usr\ohio\1\8\ms\plot\pen\8.ms_std.plt
 Ohio DOT Workspace
 7071 West Interchange 6R
 Columbus
 www.msconsultants.com
 Model: Sheet
 Printed: 11/23/2021 @ 2:13:17 PM
 By: Bl ester
 File: \\msconsultants.com\files\Production\03\60\06634_6R\structures\FRA071_1503L\sheets\071_1503L\035.dgn



TOP WING INTERSECTION DETAIL
 LOOKING UPSTATION
 BOTTOM WING NOT SHOWN



BOTTOM WING INTERSECTION DETAIL
 FACING BOTTOM WINGS
 TOP WING NOT SHOWN

NO.	DESCRIPTION	REV. BY	DATE
4	ADDED OPTIONAL CONSTRUCTION JOINT	DBL	11/23/21

- NOTES:**
- FOR LOCATION OF INTERSECTION DETAILS, SEE SHEET 67/276.
 - FOR SECTIONS M-M THRU O-O, SEE SHEET 75/276.
 - MECHANICAL CONNECTORS TO BE STAGGERED AT 3'-0" IN ALL DIRECTIONS IN ORDER TO OBTAIN AMPLE SPACE TO MAKE THE CONNECTION. MECHANICAL CONNECTORS SHALL BE INCIDENTAL TO ITEM 509 - EPOXY COATED REINFORCING STEEL.

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

DATE: 20-APR
 20-APR
 2510025

DESIGNED BY: AKS
 CHECKED BY: TGH

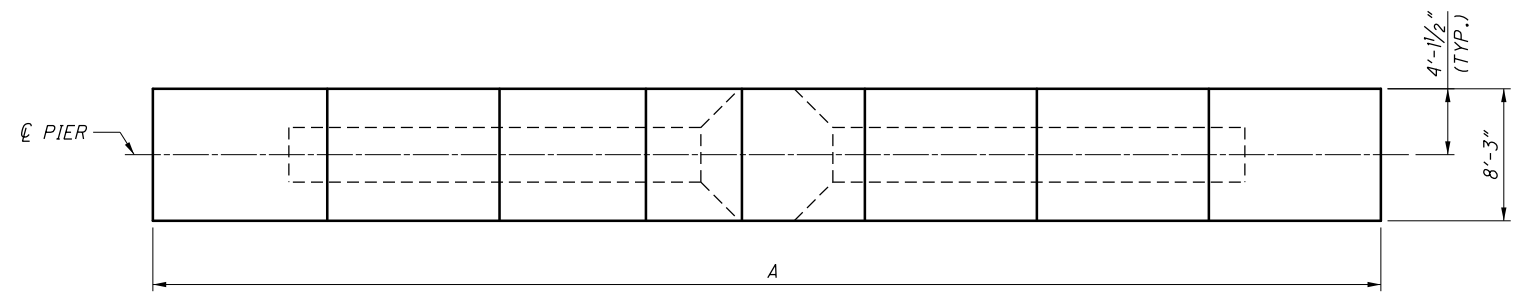
DRAWN BY: ABD
 REVISED BY:

UNIT 2 - PIER 10 THRU 14 COLUMN INTERSECTION DETAILS
 BRIDGE NO. FRA-71-1503L
 I-71 SB OVER SCIOTO RIVER

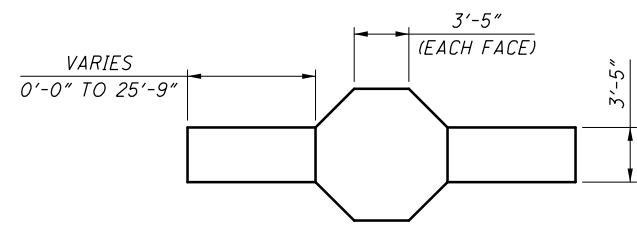
FRA-71-14.36
 PID No. 105588

74/276
 995
 1228

ms consultants, inc.

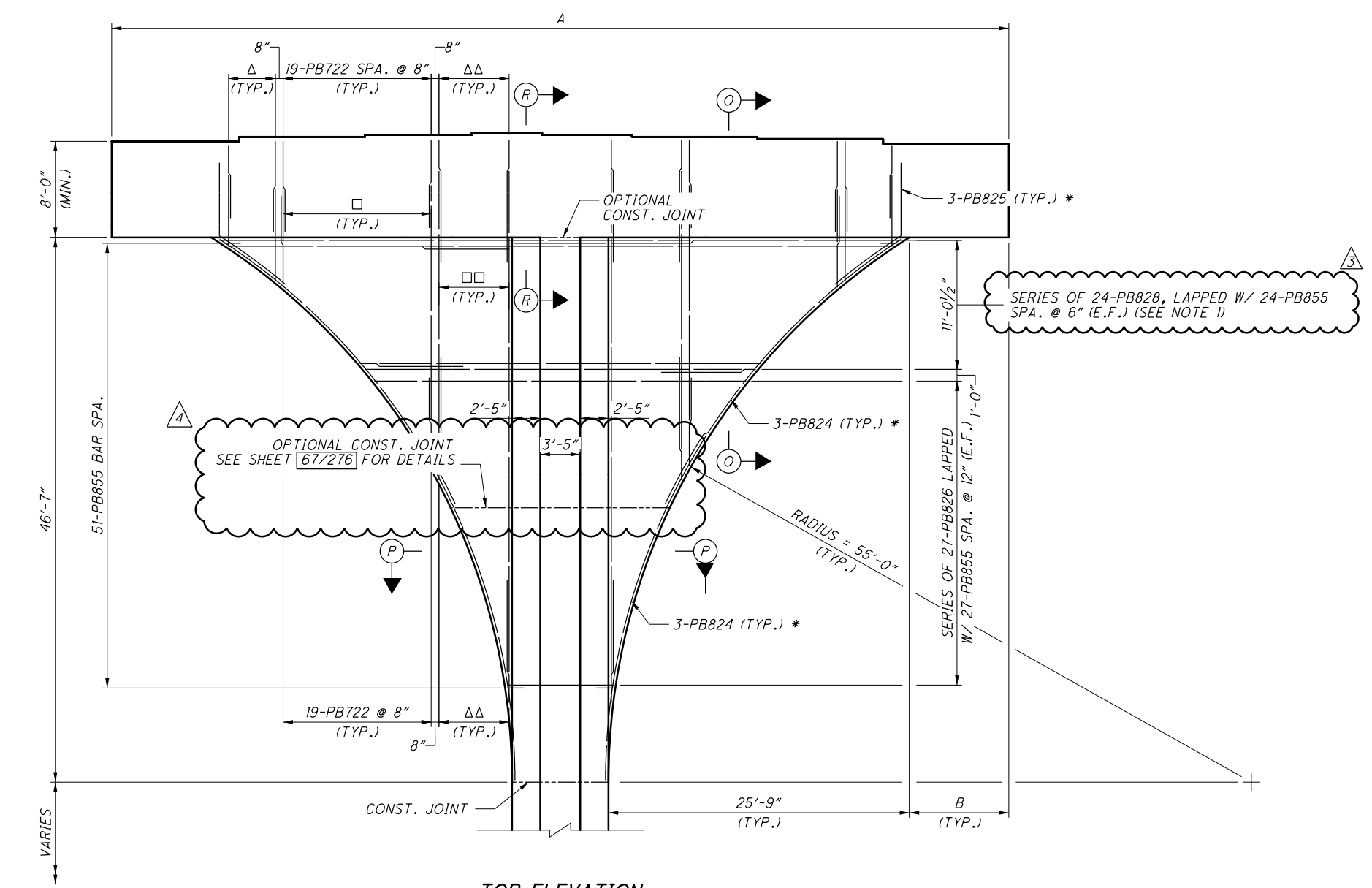


TOP PLAN
BOTTOM PORTION OF PIER NOT SHOWN



SECTION P-P

	PIER 10	PIER 11	PIER 12	PIER 13	PIER 14
A	76'-9"	66'-0"	61'-0"	59'-9"	59'-9"
B	8'-6"	3'-1 1/2"	0'-7 1/2"	0'-0"	0'-0"



TOP ELEVATION
PIER 10 SHOWN
LOOKING UPSTATION
BOTTOM PORTION OF PIER, AND CAP & COLUMN REINFORCEMENT NOT SHOWN

LEGEND:

- △ 7 SETS OF A SERIES OF PB724 SPA. @ 8" (TOP AND BOTTOM)
- △△ 13-PB1037 SPA. @ 6"
- SERIES OF 19-PB723 SPA. @ 8" (E.F.)
- SERIES OF 13-PB1038 SPA. @ 6" (E.F.)

MIN. REBAR LAP	
#7	= 3'-8"
#8	= 6'-10"
* #8	= 4'-11"
#10	= 7'-10"

NOTES:

1. SPLICE LOCATION TO ALTERNATE IN ALL DIRECTIONS.
2. FOR SECTIONS Q-Q AND R-R, SEE SHEET [79/276].

NO.	DESCRIPTION	REV. BY	DATE
3	UPDATED REBAR CALLOUTS	DBL	11/21/21
4	ADDED OPTIONAL CONSTRUCTION JOINT	DBL	11/23/21

070_1373BE0001.dgn Sheet 11/23/2021 9:42:09 AM 89464_Half_BW.pltcf 89464_Pen_BW.tbl PDF-XChange Standard mpierce

PARTICIPATION 4 09/NHS/BR	ESTIMATED QUANTITIES					DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
	ITEM	EXTENSION	TOTAL	UNIT							
3	203	35110	3	CY	GRANULAR MATERIAL, TYPE B					3	
	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION					LS	
855	507	00100	855	FT	STEEL PILES HPI0X42, FURNISHED	855					
810	507	00150	810	FT	STEEL PILES HPI0X42, DRIVEN	810					
9	507	93300	9	EACH	STEEL POINTS OR SHOES	9					
133381	509	10001	133381	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	16880	5927	98338	12236		
309	511	34446	309	CY	CLASS QC2 CONCRETE WITH QC/OA, BRIDGE DECK				309		
98	511	34450	98	CY	CLASS QC2 CONCRETE WITH QC/OA, BRIDGE DECK (PARAPET)				98		
168	511	41012	168	CY	CLASS QC1 CONCRETE WITH QC/OA, PIER ABOVE FOOTINGS		31			137	
171	511	43512	171	CY	CLASS QC1 CONCRETE WITH QC/OA, ABUTMENT INCLUDING FOOTING	171					
116	512	10001	116	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)					116	
1383	512	10100	1383	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	174	96	695		418	
27	512	33000	27	SY	TYPE 2 WATERPROOFING	27					
361373	513	10300	361373	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5				361373		
3135	513	20000	3135	EACH	WELDED STUD SHEAR CONNECTORS				3135		
5704	514	00060	5704	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				5704		
5704	514	00067	5704	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN				5704		4/33
75	516	10010	75	FT	ARMORLESS PREFORMED JOINT SEAL				75		
75	516	11210	75	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL				75		
160	516	13900	160	SF	2" PREFORMED EXPANSION JOINT FILLER	82				78	
88	516	25000	88	SF	NYLON REINFORCED NEOPRENE SHEETING	88					
1	516	44100	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 5/8" x 1'-7" PAD WITH 1'-5" x 2" x 2'-1" STEEL LOAD PLATE)	1					
3	516	44100	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 5/8" x 1'-7" PAD WITH 1'-5" x 2" x 1'-9" STEEL LOAD PLATE)	3					
1	516	44101	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 5/8" x 1'-7" PAD WITH 1'-5" x 2 3/8" x 2'-1" BEVELED STEEL LOAD PLATE), AS PER PLAN	1					4/33
3	516	44101	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 5/8" x 1'-7" PAD WITH 1'-5" x 2 3/8" x 1'-9" BEVELED STEEL LOAD PLATE), AS PER PLAN	3					4/33
1	516	44101	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2'-0 1/2" x 5 3/8" x 2'-0 1/2" PAD WITH 2'-1 1/2" x 2 1/4" x 3'-0" BEVELED STEEL LOAD PLATE), AS PER PLAN		1				4/33
3	516	44101	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2'-0 1/2" x 5 3/8" x 2'-0 1/2" PAD WITH 2'-1 1/2" x 2 1/4" x 2'-8" BEVELED STEEL LOAD PLATE), AS PER PLAN		3				4/33
1	518	12000	1	EACH	SCUPPERS, INCLUDING SUPPORTS			1			
20	518	21200	20	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	20					
75	518	40000	75	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	75					
25	518	40010	25	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	25					
52	518	51200	52	FT	10" PIPE DOWNSPOUT, INCLUDING SPECIALS		52				
108	524	94700	108	FT	DRILLED SHAFTS, 36" DIAMETER					108	
156	524	94704	156	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK	81	75				
372	524	94802	372	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK	192	180				
249	526	30000	249	SY	REINFORCED CONCRETE APPROACH SLABS (T=17")					249	
75	526	90030	75	FT	TYPE C INSTALLATION					75	
38	605	14000	38	FT	6" BASE PIPE UNDERDRAINS*					38	
205	607	39901	205	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN					205	4/33

* QUANTITY CARRIED TO ROADWAY GENERAL SUMMARY

ABBREVIATIONS

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS:

& = AND
 @ = AT
 ° = DEGREES
 ' = FEET OR MINUTES
 " = INCHES OR SECONDS
 ± = PLUS OR MINUS

AASHTO = AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
 ABUT. = ABUTMENT
 ADT = AVERAGE DAILY TRAFFIC
 ADTT = AVERAGE DAILY TRUCK TRAFFIC
 A.P.P. = AS PER PLAN
 APPR. = APPROACH
 APPROX. = APPROXIMATE
 ASTM = AMERICAN SOCIETY OF TESTING AND MATERIALS

BM = BENCHMARK
 BOT. = BOTTOM
 BOT./FTG. = BOTTOM OF FOOTING
 BRGS. = BEARINGS
 B/W = BETWEEN

CL = CENTERLINE
 C/C = CENTER TO CENTER
 CFS = CUBIC FEET PER SECOND
 CJ = CONSTRUCTION JOINT
 CLR. = CLEAR
 CMP = CORRUGATED METAL PIPE
 CMS = CONSTRUCTION AND MATERIAL SPECIFICATIONS
 CONSTR./CONST. = CONSTRUCTION
 CON'T = CONTINUED
 COL. = COLUMN
 C.R./CR = COUNTY ROAD
 CU = CUBIC
 CVN = CHARPY V-NOTCH

DEFL. = DEFLECTION
 φ/DIA. = DIAMETER
 DIM. = DIMENSION
 DL = DEAD LOAD
 DWG. = DRAWING

EMBED. = EMBEDMENT
 EQ. = EQUAL
 EX./EXIST. = EXISTING
 EXP. = EXPANSION
 EXT. = EXTENSION

F = FAHRENHEIT
 FF = FAR FACE
 F/F = FACE TO FACE
 FS = FIELD SPLICE
 FT. = FEET
 FT/FT. = FOOT/FOOT
 FT/S = FEET PER SECOND
 FTG. = FOOTING
 FWD. = FORWARD
 FWS = FUTURE WEARING SURFACE

GEN. = GENERAL
 HR = HOUR
 HW = HIGH WATER
 IN. = INCHES
 INT. = INTERMEDIATE

JT. = JOINT
 LF = LEFT FORWARD
 LONG. = LONGITUDINAL
 LT. = LEFT

MAX. = MAXIMUM
 MIN. = MINIMUM
 MISC. = MISCELLANEOUS

N = NORTH
 NF = NEAR FACE
 NPCPP = NON-PERFORATED CORRUGATED PLASTIC PIPE
 #/NO. = NUMBER
 OHWM = ORDINARY HIGH WATER MARK
 OUT/OUT = OUT TO OUT

PEJF = PREFORMED EXPANSION JOINT FILLER

PCPP = PERFORATED CORRUGATED PLASTIC PIPE
 P/PL = PLATE
 PSF = POUND PER SQUARE FOOT
 PSI = POUND PER SQUARE INCH
 PT. = POINT
 PVI = POINT OF VERTICAL INTERSECTION

O = FLOW

R = RADIUS
 REF. = REFERENCE
 REINF. = REINFORCED
 REQ'D. = REQUIRED
 RF = RIGHT FORWARD
 RT. = RIGHT

SHLDR. = SHOULDER
 SPA. = SPACING
 SQ = SQUARE

STA. = STATION
 STD. = STANDARD
 STR. = STRAIGHT
 SUPER = SUPERSTRUCTURE

T = THICKNESS
 TELE = TELEPHONE
 TRANS. = TRANSVERSE
 TWP. = TOWNSHIP
 TYP. = TYPICAL

UBV = ULTIMATE BEARING VALUE

V = VELOCITY
 V.C. = VERTICAL CURVE
 VERT. = VERTICAL

W = WEST
 W/O = WITH
 W/O = WITHOUT
 W.P. = WORKING POINT
 WT. = WEIGHT

YD = YARD

NO.	DESCRIPTION	REV. BY	DATE
3	GFRP PAYMENT MOVED TO ITEM 509	DGS	11/17/21
4	PARTICIPATION CODE	DGS	11/23/21

DESIGN AGENCY: **ch2m**
 2 Easton Oval, Suite 500
 Columbus, Ohio 43219
 DATE: 05/15
 REVIEWED VS: 2510030
 DRAWN JBA
 DESIGNED DGS
 CHECKED JTC
 ESTIMATED QUANTITIES
 BRIDGE NO. FRA-070-1373B
 RAMP D7 OVER SHORT STREET
 FRA-71-14.36
 PID No. 105588
 5 / 33
 1200
 1228