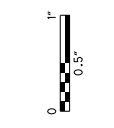




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TYPICAL SECTIONS

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LEGEND

PROPOSED

- ① ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE
12.5 mm, TYPE A (447), AS PER PLAN
- ② ITEM 407 - NON-TRACKING TACK COAT
- ③ ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE
19mm, TYPE A, (448)
- ④ ITEM 301 - 8" ASPHALT CONCRETE BASE
PG64-22, (449)*
- ⑤ ITEM 304 - 6" AGGREGATE BASE
- ⑥ ITEM 204 - SUBGRADE COMPACTION
- ⑦ ITEM 452 - 13" NON-REINFORCED CONCRETE
PAVEMENT CLASS OCIP
- ⑧ ITEM 441 - 3" ASPHALT CONCRETE INTERMEDIATE COURSE
TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN
- ⑨ ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C1
(4" SINGLE-CELL ELECTRICAL RACEWAY PER SCD RM-4.3)
- ⑩ ITEM 526 - REINFORCED CONCRETE APPROACH SLABS
WITH OC/OA (T=17")
- ⑪ ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- ⑫ ITEM 606 - GUARDRAIL, TYPE MGS
- ⑬ ITEM 605 - 6" BASE PIPE UNDERDRAIN+
- ⑭ ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN+
- ⑮ ITEM 609 - CURB, TYPE 6
- ⑯ ITEM 609 - CURB, TYPE 4-C
- ⑰ ITEM 659 - SEEDING AND MULCHING
- ⑱ ITEM 204 - GRANULAR MATERIAL, TYPE B

*ITEM 407 - NON-TRACKING TACK COAT SHALL BE PLACED BETWEEN LIFTS OF ITEM 301 - 8" ASPHALT CONCRETE BASE PG64-22.

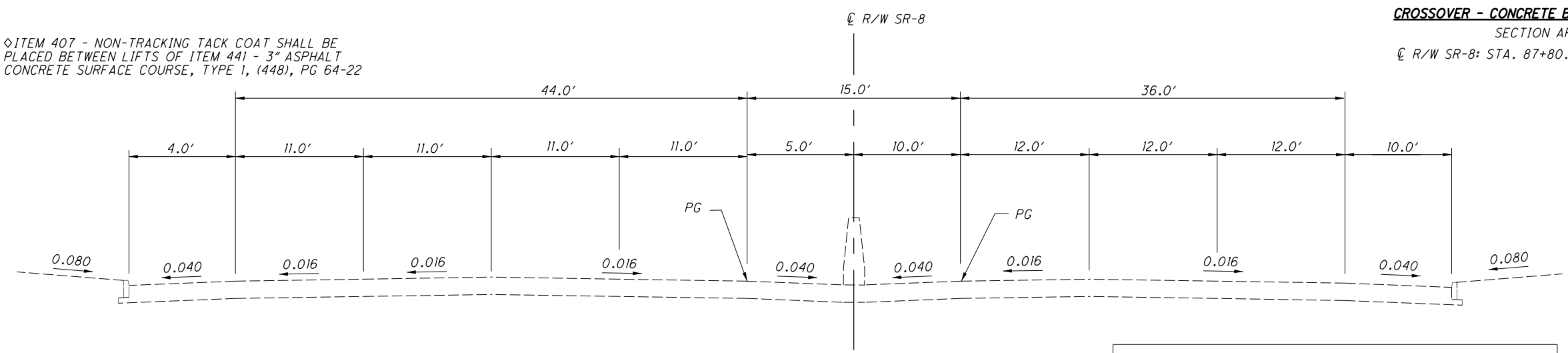
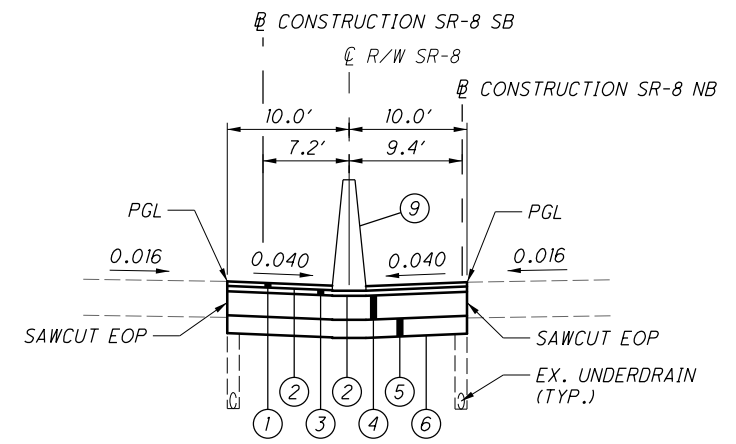
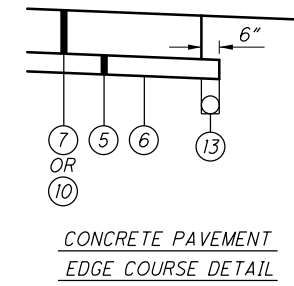
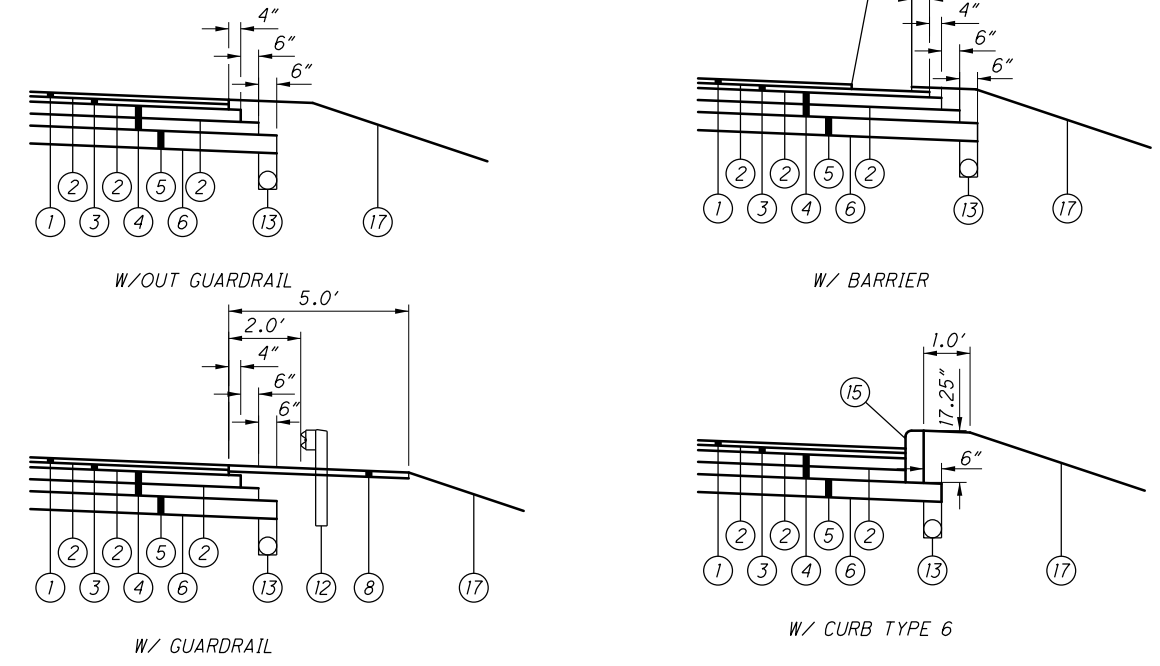
◇ ITEM 407 - NON-TRACKING TACK COAT SHALL BE PLACED BETWEEN LIFTS OF ITEM 441 - 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22

- ⑲ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE
(3.25" MAX.)
- ⑳ 42" PARAPET (ON APPROACH SLAB)
- ㉑ ITEM 441 - 3" ASPHALT CONCRETE SURFACE COURSE,
TYPE 1, (448), PG 64-22 ◇
- ㉒ ITEM 304 - 4" AGGREGATE BASE
- ㉓ ITEM 204 - EXCAVATION OF SUBGRADE
- ㉔ ITEM 204 - GEOTEXTILE FABRIC
- ㉕ ITEM 204 - GEOGRID FOR SUBGRADE STABILIZATION
- ㉖ ITEM 618 - RUMBLE STRIPS, (ASPHALT CONCRETE)
- ㉗ ITEM 204 - PROOF ROLLING
- ㉘ ITEM 608 - 4" CONCRETE WALK
- ㉙ MULTI-PURPOSE BRIDGE RAILING
- ㉚ ITEM 609 - 4" CONCRETE TRAFFIC ISLAND

EXISTING

- Ⓐ 1.25" ASPHALT CONCRETE, AC-20
1.75" ASPHALT CONCRETE, AC-20
- Ⓑ 9" REINFORCED CONCRETE PAVEMENT
- Ⓒ 6" SUBBASE, TYPE II

SR-8 NB/SB STEPPING DETAIL



EXISTING SECTION
SOUTH OF SUM-8-0199 STRUCTURE
NB: STA. 514+65.00
SB: STA. 214+65.00

EXISTING PAVEMENT BUILDUP REF: SUM-8-0.38A (1992) 4.5" ASPHALT OVER 9.0" CONCRETE	EXISTING SHOULDER BUILDUP REF: SUM-8-1.73/1.95 (1985) 3.0" ASPHALT OVER 9.0" AGGREGATE BASE
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ITEM 619 FIELD OFFICE, TYPE C, AS PER PLAN

THIS WORK CONSISTS OF PROVIDING, MAINTAINING, AND SUBSEQUENTLY REMOVING A FIELD OFFICE FOR THE EXCLUSIVE USE OF THE DEPARTMENT FOR THE DURATION OF THE CONTRACT AT A LOCATION APPROVED BY THE ENGINEER.

FURNISH A COMPLETELY FUNCTIONAL FIELD OFFICE OF THE TYPE SPECIFIED IN THE CONTRACT PRIOR TO BEGINNING WORK.

THE FIELD OFFICE WILL BE A SUITE TYPE OFFICE (NO TRAILER OR MODULAR OFFICE) WITH A MINIMUM OF 3,000 SQUARE FEET AND AT GROUND LEVEL WITH A MINIMUM CEILING HEIGHT OF EIGHT (8) FEET. PROVIDE TWO (2) OUTSIDE DOORS, LOCKABLE VANDAL PROOF CYLINDER TYPE DEAD BOLTS AND LOCKABLE WINDOWS. THE FLOOR SPACE WILL BE DIVIDED INTO A RESTROOM, ONE GENERAL OFFICE AREA (MINIMUM 400 SQUARE FEET), NOT LESS THAN THREE INDIVIDUAL OFFICES (MINIMUM 300 SQUARE FEET EACH), AND ONE CONFERENCE ROOM (MINIMUM 500 SQUARE FEET), AS DEEMED NECESSARY BY THE ENGINEER.

FURNISH EACH FIELD OFFICE WITH A MEANS FOR MAINTAINING ROOM TEMPERATURE BETWEEN 68°F AND 80°F.

FURNISH ELECTRIC SERVICE FOR EACH FIELD OFFICE.

FURNISH NEAT, SANITARY, ENCLOSED TOILET ACCOMMODATIONS CONNECTED TO AN EXISTING SANITARY SEWER LINE FOR THE USE OF THE OCCUPANTS OF THE FIELD OFFICE, MEETING APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. FURNISH ASSOCIATED LAVATORY AND SANITARY SUPPLIES. POTABLE HOT AND COLD RUNNING WATER WILL BE PROVIDED IN THE RESTROOM FOR SANITARY PURPOSES.

FURNISH TRASH COLLECTION SERVICE / DUMPSTER.

FURNISH PROFESSIONAL, BONDED AND INSURED JANITORIAL SERVICE WITH A WEEKLY CLEANING OF THE ENTIRE OFFICE TO INCLUDE THE RESTROOM FACILITIES FOR THE DURATION OF THE PROJECT.

FURNISH BOTTLED DRINKING WATER SERVICE WITH A HOT AND COLD DISPENSER AND ASSOCIATED SUPPLIES.

PROVIDE A LOCKABLE WOOD OR METAL STORAGE BOX OF SUFFICIENT SIZE TO STORE A NUCLEAR DENSITY GAUGE AND AN ELECTRICAL CONNECTION FOR THE GAUGE.

TELEPHONE SERVICE AND TELEPHONES, INCLUDING ALL NECESSARY WIRING, WILL BE SUPPLIED AT EACH DESK, THE CONFERENCE ROOM, AND THE GENERAL OFFICE AREA INTERCONNECTED BETWEEN TELEPHONES. ALL TELEPHONES WILL BE EQUIPPED WITH SPEAKER PHONE AND TWO (2) LINE CAPABILITIES WITH TWO (2) LINE SERVICE AT EACH LOCATION. A TOTAL OF THREE (3) OUTSIDE LINES WILL BE PROVIDED, ONE OF WHICH WILL BE DEDICATED FOR THE USE OF THE FACSIMILE MACHINE. THE TWO (2) LINES FOR THE TELEPHONE WILL HAVE THE ABILITY TO AUTOMATICALLY TRANSFER TO THE NEXT LINE IF ANOTHER LINE IS IN USE.

PROVIDE A BROADBAND INTERNET CONNECTION CAPABLE OF MINIMUM DOWNLOAD SPEEDS GREATER THAN 10 MBPS, UPLOAD SPEEDS GREATER THAN 2 MBPS, AND THE NETWORK LATENCY LESS THAN 50 MILLISECONDS. WHEN MULTIPLE BROADBAND SERVICES ARE AVAILABLE, THE FOLLOWING IS THE PREFERRED ORDER: CABLE, DSL, CELLULAR, AND WIRELESS RADIO. SATELLITE COMMUNICATION IS NOT COMPATIBLE WITH ODOT VPN CONNECTION AND WILL NOT BE ACCEPTED. SUPPLY ALL WIRING, ROUTERS, MODEMS (CAPABLE TO BE CONFIGURED IN BRIDGE MODE), SOFTWARE, AND INCIDENTALS NECESSARY TO CONNECT FIVE (5) PERSONAL COMPUTERS AT SEPARATE LOCATIONS, DESIGNATED BY THE PROJECT ENGINEER, THROUGHOUT THE OFFICE TO THE SYSTEM.

PROVIDE THE FOLLOWING OFFICE FURNITURE AND EQUIPMENT:

- SIX (6) TELEPHONES WITH SPEAKER PHONE AND TWO (2) LINE CONNECTION.
- ONE (1) DIGITAL ANSWERING MACHINE WITH TIME / DATE STAMP.
- ONE (1) MULTI -FUNCTION COLOR COPIER THAT IS SET UP FOR SCANNING, PRINTING, FAXING, AND COPYING WITH THE FOLLOWING SPECIFICATIONS:
 - COLOR PRINT/COPY/SCAN
 - COPY/PRINT SPEED: 30 PPM (LETTER), 15 PPM (LEGAL), 15 PPM (LEDGER), OR HIGHER.

ITEM 619 FIELD OFFICE, TYPE C, AS PER PLAN (CONT.)

- DUPLEX PRINTING SUPPORT
- AUTOMATIC DOCUMENT FEEDER WITH 50 SHEET DUPLEXING DOCUMENT FEEDER
- COPIER MEMORY: 1 GB
- INSTALLED HDD: 40 GB
- DATA ENCRYPTION AND HDD ERASE SUPPORT INCLUDED WITH MACHINE
- INTERNAL STAPLER SUPPORT
- PAPER CAPACITY: 250 SHEET X 2 TRAYS, 50 SHEET BYPASS TRAY
- NETWORK INTERFACE: 10/100 BASE-TX, 1000 BASE-TX
- ANALOG FAX SUPPORT INCLUDED WITH MACHINE
- COLOR SCANNING WITH THE FOLLOWING REQUIREMENTS:
 - RESOLUTION: 600 X 600 DPI
 - SCAN AREA UP TO 11 1/2 X 17 1/2
 - SCANNING PROTOCOL SUPPORT TCP/IP, SMTP, SMB, FTP, POP3, NCP
 - FILE SCAN TYPES SUPPORTED: SINGLE PAGE TIFF, JPEG, PDF, MULTI -PAGE TIFF, PDF, AND OCR PDF
 - SCANNING SUPPORT FOR SCAN-TO-EMAIL, HDD, SMB, (FOLDER), URL, TWIN
- NETWORK PROTOCOL SUPPORT FOR TCP/IP
- CLIENT AND SERVER PRINT DRIVER SUPPORT FOR PCL PRINT DRIVERS
- SERVER OPERATING SYSTEM SUPPORT FOR WINDOWS SERVER 2008 AND WINDOWS SERVER 2008 R2 (32 BIT/64 BIT)
- CLIENT PRINT DRIVER SUPPORT FOR WINDOWS XP/WINDOWS 7 (BOTH PCL 32 BIT/64 BIT)
- MINIMUM PRINT/COPY RESOLUTION OF 600 X 600 DPI
- SECURE PRINTING WITH PASSWORD OR PIN FROM CLIENT TO COPIER
- PROVIDE THE COPIER WITH ALL NECESSARY TONER, PAPER SUPPLIES, AND A SERVICE CONTRACT WITH A RESPONSE TIME OF 24 HOURS OR LESS FOR MAINTENANCE AND SUPPLIES OF THE COPY MACHINE.

- ONE (1) SLIM DESIGN GPS ENABLED CAMERA, 12.1 MEGAPIXELS, IMAGE RESOLUTION UP TO 4000 X 2248, 20X OPTICAL ZOOM, 4X DIGITAL ZOOM, 3" LCD SCREEN, PANORAMA MODE, IMAGE STITCHING, MOVIE MODE, USB 2.0 INTERFACE AND SHALL INCLUDE THE FOLLOWING ACCESSORIES: 16 GB SECURE DIGITAL MEMORY CARD, LITHIUM ION RECHARGEABLE BATTERY, BATTERY CHARGER, AC ADAPTER, WRIST STRAP, USB INTERFACE CABLE, AUDIO/VIDEO CABLE, SOFT FORM FITTING CARRYING CASE, DIGITAL PHOTO SOFTWARE FOR PC COMPUTER. WINDOWS 8 COMPATIBLE. ONE (1) DIGITAL HD FLASH MEMORY VIDEO CAMERA, 16 GB INTERNAL MEMORY, 3" MINIMUM LCD SCREEN SIZE, 60X OPTICAL ZOOM, 2000X DIGITAL ZOOM, 470K VIDEO RESOLUTION, SUPER STEADY SHOT IMAGE STABILIZATION, SUPER NIGHT SHOT INFRARED SYSTEM FOR FULL COLOR IMAGING IN LOW LIGHT CONDITIONS, BUILT-IN MICROPHONE, RECHARGEABLE LITHIUM ION BATTERY, BATTERY CHARGER, AC ADAPTER, CARRYING CASE, UNIVERSAL TRIPOD, USB INTERFACE CABLE, DIGITAL VIDEO CAMERA SOFTWARE FOR PC COMPUTER.
- EIGHT (8) PRINTING DESK CALCULATORS WITH TAPE.
- EIGHT (8) DESK AND CHAIR SETS.
- TEN (10) STACKABLE CHAIRS.
- EIGHT (8) WORK TABLES, 30" X 72"
- ONE (1) DRAFTING/PLAN TABLE WITH A MINIMUM 36" X 60" WORKING SURFACE WITH AN APPROPRIATE ADJUSTABLE HEIGHT DRAFTING CHAIR.
- THREE (3), 4-DRAWER, LOCKABLE, LEGAL SIZE METAL FILING CABINETS.
- FOUR (4), 2-DRAWER, LOCKABLE, LEGAL SIZE METAL FILING CABINETS.
- THREE (3) PORTABLE, TYPE 2-A:10-BC, FIVE POUND SIZE FIRE EXTINGUISHERS.
- THREE (3) PLAN RACKS, EACH CAPABLE OF HANDLING THE BREAKDOWN OF 22 X 34 INCH SIZED PLANS INTO TEN SECTIONS.
- TWENTY (20) ALL-WEATHER PARKING SPACES.
- EIGHT (8) 24-QUART WASTE BASKETS WITH APPROPRIATE SIZED TRASH BAGS.
- ONE (1) NEW PROJECTOR TO BE USED BY THE PROJECT WITH THE FOLLOWING SPECIFICATIONS:
 - NATIVE RESOLUTION - 1920 X 1080
 - ENGINE TYPE - LCD
 - ASPECT RATIO - 16:9
 - RATED CONTRAST RATIO - 70,000:1
 - RATED BRIGHTNESS - 2500 ANSI LUMENS
 - ZOOM - OPTICAL
 - COMPUTER INTERFACES - ANALOG VGA, HDMI, MHL
 - VIDEO INTERFACES - COMPONENT, COMPOSITE, HDMI, MHL

- SUPPORTED VIDEO FORMATS - 480p, 720p, 1080i, 576i, 576p, 480i, 1080p
- USB PORTS
- WIRELESS REMOTE CONTROL
- BUILT IN SPEAKERS
- ALL ACCESSORIES NECESSARY TO OPERATE

ITEM 619 FIELD OFFICE, TYPE C, AS PER PLAN (CONT.)

- ONE (1) NEW TELEVISION WITH THE FOLLOWING SPECIFICATIONS:
 - DIAGONAL SCREEN SIZE - 55"
 - NATIVE RESOLUTION - 1920 X 1080
 - HDMI PORTS - 3
 - VIDEO INTERFACES - COMPOSITE, HDMI, USB
 - ALL ACCESSORIES NECESSARY TO OPERATE
 - ALL HARDWARE NECESSARY TO HANG TELEVISION ON THE WALL

EXPENSES FOR THE OPERATION OF THE FIELD OFFICE TO INCLUDE BUT NOT BE LIMITED TO ELECTRICAL SERVICE, HEATING/COOLING, RUNNING WATER SERVICE, SEWER SERVICE, TELEPHONE SERVICE, JANITORIAL SERVICE, BOTTLED WATER SERVICE, HIGH SPEED ONLINE SERVICE, ETC. WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL ALSO PROVIDE ALL NECESSARY SUPPLIES AND MAINTENANCE FOR ALL EQUIPMENT THAT THE CONTRACTOR IS REQUIRED TO FURNISH.

FURNISH A CONCRETE CYLINDER CURING BOX CAPABLE OF HOLDING AT LEAST EIGHT 6X12 INCH (150 X 300MM) CYLINDERS AT 73 DEG F (23 DEG C) +/- 3 DEGREES NO MATTER WHAT THE AMBIENT TEMPERATURE IS WHEN CONSTRUCTING EITHER PORTLAND CEMENT CONCRETE PAVEMENT OVER 10,000 SQUARE YARDS (8000 SQUARE METERS) OR OVER 50 CUBIC YARDS (38 CUBIC METERS) OF BRIDGE STRUCTURE REPAIR OR REPLACEMENT CONCRETE. THE BOX WILL HAVE A SEALED LID.

THE CONTRACTOR WILL RETAIN RESPONSIBILITY FOR RISK OF LOSS OR DAMAGE TO SAID FIELD OFFICE, FURNISHINGS, AND EQUIPMENT WHILE THE OFFICE IS IN USE FOR THIS CONTRACT.

THE FIELD OFFICE WILL BE APPROVED IN ADVANCE BY THE ENGINEER AND FULLY OPERATIONAL WITHIN 30 DAYS AFTER THE SIGNING AND EXECUTION OF THE CONTRACT OR PRIOR TO THE START OF ANY CONSTRUCTION WORK, WHICHEVER COMES FIRST.

THE DEPARTMENT WILL MEASURE FIELD OFFICE, TYPE C, AS PER PLAN BY THE NUMBER OF MONTHS THE OFFICE IS MAINTAINED. A PARTIAL MONTH AT THE END OF THE PROJECT WILL BE PAID AS A FULL MONTH.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS FOLLOWS:

ITEM	UNIT	DESCRIPTION
619	MONTH	FIELD OFFICE, TYPE C, AS PER PLAN

REGULATED WASTE AND WATER PLAN NOTE

THIS WORK IS LIMITED TO BUILDING THE NB AND SB PIER 5 FOUNDATIONS, WHICH REQUIRES EXCAVATION IN AN UNREGULATED LANDFILL AREA. THE EXCAVATION LIMITS HAVE BEEN MINIMIZED THROUGH USE OF TEMPORARY SHORING AROUND THE PROPOSED PIERS. THE ONLY OTHER WORK ANTICIPATED WITHIN THE LANDFILL LIMITS IS BUILDING HAUL ROAD 5A ABOVE THE KNOWN LIMITS OF THE UNREGULATED LANDFILL AREA.

SUBGRADE EXCAVATIONS FROM THE AREA AS IDENTIFIED ABOVE MAY CONTAIN REGULATED MATERIALS, SEE SOIL BORING PROFILES AND PREVIOUS ENVIRONMENTAL STUDIES LOCATED IN THE CONSTRUCTION PROJECT FILE. ALL EXCAVATED MATERIAL FROM THE AREAS IDENTIFIED BY THIS NOTE SHALL BE MANAGED AS REGULATED MATERIALS UNTIL APPROPRIATELY REUSED AS A CONSTRUCTION MATERIAL OR DISPOSED OF IN LICENSED DISPOSAL FACILITY. ANY EXCAVATED WASTE FROM THE LANDFILL TO BE REUSED MUST MEET THE REQUIREMENTS OF ITEM 203 AND MUST BE PLACED WITHIN THE EXISTING HORIZONTAL LIMITS OF THE WASTE LAYER. EXCAVATED MATERIALS NOT SUITABLE FOR USE IN ITEM 203 EMBANKMENT SHALL BE TESTED FOR CHARACTERIZATION AND DISPOSED OF IN A LICENSED DISPOSAL FACILITY. EXCAVATED MATERIALS NOT BEING REUSED FOR EMBANKMENT ARE REFERRED TO AS "WASTE MATERIALS" FOR THE REMAINDER OF THIS NOTE. DISTURBED AREAS WITHIN THE LIMITS OF WASTE PLACEMENT MUST BE CAPPED IN ACCORDANCE WITH OAC 3745-513-350(E).

PROVIDE AN EXCAVATION AND EMBANKMENT PLAN TO THE ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO PERFORMING EXCAVATION WITHIN THE AREAS, AS IDENTIFIED ABOVE. THE EXCAVATION AND EMBANKMENT PLAN WILL INCLUDE A SCHEDULE OF EXCAVATION/EMBANKMENT ACTIVITIES, A SCHEDULE FOR TESTING AND DISPOSAL OF WASTE MATERIALS, AND IDENTIFY ALL TEMPORARY STOCKPILE LOCATIONS FOR THE

REGULATED WASTE AND WATER PLAN NOTE (CONT.)

EXCAVATED MATERIALS WITHIN THESE AREAS. PROVIDE A SAMPLING AND TESTING PLAN TO THE ENGINEER FOR THE PURPOSES OF CHARACTERIZING THE WASTE MATERIALS FOR PROPER DISPOSAL. PROVIDE THE SAMPLING AND TESTING PLAN TO THE ENGINEER AT THE SAME TIME AS THE EXCAVATION AND EMBANKMENT PLAN.

THE CONTRACTOR SHALL SEGREGATE WASTE MATERIALS INTO INDIVIDUAL STOCKPILES BY THE PARCEL OF GENERATION. EACH STOCKPILE OF WASTE MATERIAL WILL BE SAMPLED AND TESTED FOR PROPER DISPOSAL. PROVIDE THE ENGINEER WITH ALL WASTE MATERIAL SAMPLING RESULTS WITHIN FORTY-EIGHT (48) HOURS OF RECEIVING THE RESULTS. DO NOT MIX WASTE MATERIALS WITH MATERIALS FROM ANY OTHER SOURCE OF GENERATION UNTIL THE WASTE MATERIALS HAVE BEEN CHARACTERIZED.

WASTE MATERIAL NOT CHARACTERIZED AS HAZARDOUS WASTE SHALL BE MANAGED AS SOLID WASTE. TEMPORARILY STORAGE OF SOLID WASTE SHALL BE IN COVERED, PORTABLE CONTAINERS FREE FROM HOLES OR DAMAGES. THE CONTRACTOR MAY ALSO UTILIZE TEMPORARY STOCKPILES OF THE SOLID WASTE WITH A SYNTHETIC COVER THAT PREVENTS INFILTRATION FROM RAINWATER AND SURROUNDED BY BERMS THAT PREVENTS CONTACT WITH STORMWATER RUN-ON. STOCKPILED WASTE FROM THE LANDFILL THAT WILL REMAIN ONSITE FOR MORE THAN ONE WEEK SHOULD BE TARPED TO PREVENT RUNOFF. PROVIDE PROPER TRANSPORTATION AND DISPOSAL IN A LICENSED SOLID WASTE DISPOSAL FACILITY. THE CONTRACTOR SHALL FILL OUT AND SIGN ALL WASTE DISPOSAL FACILITY FORMS REQUIRED BY THE DISPOSAL FACILITY INCLUDING, BUT NOT LIMITED TO MATERIAL PROFILES, DATA SHEETS AND MATERIAL CERTIFICATIONS. PROVIDE A COPY OF ALL COMPLETED DISPOSAL FACILITY FORMS TO THE ENGINEER.

WASTE MATERIALS CHARACTERIZED AS HAZARDOUS WASTE SHALL IMMEDIATELY BE PLACED IN AN APPROPRIATE LINED, COVERED CONTAINERS, LABELED AS HAZARDOUS WASTE AND SECURED FOR TEMPORARY STORAGE. NOTIFY THE ENGINEER IMMEDIATELY IF SAMPLING RESULTS INDICATE THAT ANY WASTE MATERIALS ARE CHARACTERIZED AS HAZARDOUS. THE DEPARTMENT WILL SUBMIT A REQUEST FOR A RCRA SUBTITLE C SITE GENERATOR ID FROM OHIO EPA. UTILIZE PROPER HANDLED, STORAGE AND TRANSPORTATION METHODS UNTIL PROPERLY DISPOSED OF IN A LICENSE HAZARDOUS WASTE FACILITY. THE CONTRACTOR SHALL COMPLETE ALL MANIFEST AND PROVIDE THE COMPLETED MANIFESTS TO THE ENGINEER FOR SIGNATURE AS THE GENERATOR. PROVIDE THE ENGINEER WITH A COPY OF THE MANIFEST SIGNED BY THE DESIGNATED HAZARDOUS WASTE DISPOSAL FACILITY.

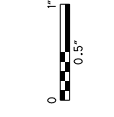
IF THE EXCAVATIONS WITHIN THESE AREAS REQUIRE DEWATERING FOR CONSTRUCTION PURPOSES, THE CONTRACTOR SHALL DEWATER, CONTAINERIZE AND DISPOSE OF THE LIQUID WASTE IN A LICENSED DISPOSAL FACILITY. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONDUCTING ALL TESTING NEEDED TO STORE, TRANSPORT, AND DISPOSE OF THE LIQUID WASTE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. INCLUDE DETAILS OF THE WASTE WATER SAMPLING AND TESTING AS PART OF THE WASTE MATERIAL SAMPLING AND TESTING PLAN. THE CONTRACTOR SHALL FILL OUT AND SIGN ALL LIQUID WASTE DISPOSAL FACILITY FORMS REQUIRED BY THE DISPOSAL FACILITY INCLUDING, BUT NOT LIMITED TO MATERIAL PROFILES, DATA SHEETS AND MATERIAL CERTIFICATIONS. PROVIDE A COPY OF ALL COMPLETED DISPOSAL FACILITY FORMS TO THE ENGINEER.

THE CONTRACTOR SHALL DEVELOP A HEALTH AND SAFETY PLAN PER OSHA REGULATION 1910.120 COVERING THE WORK FOR THIS NOTE.

THE CONTRACTOR SHALL PROVIDE ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY HANDLE, TEMPORARILY STORE, TEST FOR CHARACTERIZATION, HEALTH AND SAFETY PLAN, TRANSPORT, AND DISPOSE OF THE REGULATED MATERIALS, INCLUDING ANY REQUIRED PERMITS OR FEES. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT PRICES BID PER TON AND PER GALLON. THE BASIS FOR CONVERSION OF CUBIC YARDS TO TONS IS 1.5 TON/CUBIC YARD. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY.

THE FOLLOWING ESTIMATED QUANTITIES FOR THE WORK ABOVE:

- 690E65000 - ITEM SPECIAL - WORK IN INVOLVING NON-REGULATED MATERIAL - 1000 TON
- 690E65002 - ITEM SPECIAL - WORK INVOLVING HAZARDOUS WASTE - 100 TON
- 690E65010 - ITEM SPECIAL - WORK INVOLVING SOLID WASTE - 500 TON
- 690E65022 - ITEM SPECIAL - WORK INVOLVING NON-REGULATED WATER - 10,000 GAL
- 690E65024 - ITEM SPECIAL - WORK INVOLVING REGULATED WATER - 10,000 GAL



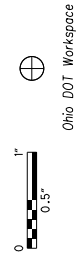
SHEET NUM.								PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
386	387	431	437	438	462	02/NHS/3 1	03/NHS/2 0	04/NHS/0 4	05/S>2/04								
TRAFFIC SIGNALS ALTERNATES (INTERCONNECT CONTROLLER CABINET)																	
	1							1		632	62820	1	EACH	INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET (NEMA) (ALTERNATE 1)	376		
	1							1		632	62820	1	EACH	INTERCONNECT, MISC.: TERMINATION PANEL, CONTROLLER CABINET (SEICOR) (ALTERNATE 2)	376		
TRAFFIC SIGNALS ALTERNATES (VIDEO DETECTION SYSTEM)																	
	1							1		632	90400	1	EACH	SIGNALIZATION, MISC.: VIDEO DETECTION SYSTEM (GENERIC) (ALTERNATE 1)	372		
	1							1		632	90400	1	EACH	SIGNALIZATION, MISC.: VIDEO DETECTION SYSTEM (AUTOSCOPE) (ALTERNATE 2)	372		
	1							1		632	90400	1	EACH	SIGNALIZATION, MISC.: VIDEO DETECTION SYSTEM (FUR) (ALTERNATE 3)	372		
TRAFFIC SIGNALS ALTERNATES (UPS)																	
	1							1		633	74001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), AS PER PLAN (GENERIC) (ALTERNATE 1)	371		
	1							1		633	74001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), AS PER PLAN (CLARY) (ALTERNATE 2)	371		
TRAFFIC SIGNALS ALTERNATES (SIGNAL CONTROLLER WITH CABINET)																	
	1							1		633	99000	1	EACH	CONTROLLER ITEM, MISC.: SIGNAL CONTROLLER WITH CABINET (ECONOLITE) (ALTERNATE 1)	370, 371		
	1							1		633	99000	1	EACH	CONTROLLER ITEM, MISC.: SIGNAL CONTROLLER WITH CABINET (EDCO) (ALTERNATE 2)	370, 371		
TRAFFIC SIGNALS ALTERNATES (PREEMPTION)																	
	1							1		809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION (GENERIC) (ALTERNATE 1)	372		
	1							1		809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION PREEMPTION PRIORITY CONTROL (SONEM) (ALTERNATE 2)	372		
	1							1		809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION PREEMPTION PRIORITY CONTROL (RIGHT-OF-WAY) (ALTERNATE 3)	372		
LANDSCAPING																	
			7	6				7	6	661	00500	13	CY	MULCH			
						51				661	00501	51	CY	MULCH, AS PER PLAN "A"	430		
						34				661	00501	34	CY	MULCH, AS PER PLAN "B"	430		
			162	82				162	82	661	14000	244	EACH	PERENNIALS, IMPERATA CYLINDRICA 'RED BARON'/JAPANESE BLOOD GRASS			
			188	54				188	54	661	14000	242	EACH	PERENNIALS, HEMEROCALLIS 'EENIE WEENIE' DAYLILY			
			188	54				188	54	661	14000	242	EACH	PERENNIALS, NARCISSUS ICE FOLLIES/LARGE CUPPED DAFFODIL			
				54					54	661	14000	54	EACH	PERENNIALS, HEMEROCALLIS 'VIOLET LIGHT'/VIOLET LIGHT DAYLILY			
				25					25	661	20000	25	EACH	DECIDUOUS SHRUB, 15" HEIGHT, POTENTILLA FRUTICOSA 'JACKMANI'/JACKMAN POTENTILLA			
			3					3		SPECIAL	69098000	3	EACH	6' BENCH, GABION MOUNTED	430		
			1					1		SPECIAL	69098000	1	EACH	RECYCLED TIRE BIKE RACK	430		
			67					67		838	20701	67	CY	GABIONS, AS PER PLAN	430		
			981					981		870	10001	981	SF	PREFABRICATED MODULAR RETAINING WALL, AS PER PLAN	430		
			280					280		870	11100	280	CY	NATURAL SOIL			
			417					417		870	12000	417	FT	6" DRAINAGE PIPE, PERFORATED			
			58					58		870	12100	58	FT	6" DRAINAGE PIPE, NON-PERFORATED			
			2					2		870	14000	2	DAY	ON-SITE ASSISTANCE			
			LUMP					LUMP		870	15000	LS		PMRW INSPECTION AND COMPACTION TESTING			
RETAINING WALLS (BIKE PATH)																	
					LUMP					202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	462		
					LUMP					503	21320	LS		UNCLASSIFIED EXCAVATION, INCLUDING ROCK			
					9,860					509	10000	9,860	LB	EPOXY COATED STEEL REINFORCEMENT			
					211					511	46212	211	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL INCLUDING FOOTING			
					258					512	10100	258	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			
					16					512	33000	16	SY	TYPE 2 WATERPROOFING			
					16					516	13600	16	SF	1" PREFORMED EXPANSION JOINT FILLER			
					98					518	21201	98	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC, AS PER PLAN	467		

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34" x 22"

REF NO.	SHEET NO.	STATION TO STATION				202	202	202	202	202	202	202	202	202	SPECIAL	253	252	SPECIAL								
		CONCRETE BARRIER REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED	MANHOLE REMOVED	CATCH BASIN REMOVED	INLET REMOVED	PIPE REMOVED, OVER 24"	PAVEMENT REMOVED	FENCE REMOVED	FILL AND PLUG EXISTING CONDUIT	PAVEMENT REPAIR	FULL DEPTH PAVEMENT SAWING	SPECIAL - REMOVAL OF ELECTRICAL PLUGS											
		FT	FT	FT	EACH	EACH	EACH	EACH	FT	SY	FT	FT	SY	FT	FT	FT										
R1	173	514+65.06	LT	TO	524+87.26	RT	1821																			
R1A	172	87+80.00	CL	TO	91+25.00	CL	345																			
R2	173	214+65.00	LT	TO	214+89.74	LT	25																			
R3	173	214+89.37	LT	TO	218+01.75	LT			288	1																
R4	173	214+89.62	LT	TO	214+94.36	LT			10																	
R5	173	214+94.31	LT	TO	214+92.87	LT			19																	
R6	173	315+75.70	RT (RAMP I)	TO	214+92.87	LT			129																	
R7	173	215+37.72	RT	TO	515+47.84	RT			23																	
R7A	173	214+65.00	BL	TO	218+00.00	LT/BL																				
R7B	173	514+65.00	BL	TO	517+10.05	BL/RT																				
R8		NOT USED																								
R9	175	217+98.89	LT	TO	219+53.94	LT			156																	
R10	175	217+98.89	LT	TO	217+92.58	RT			78																	
R11	175	517+92.71	RT	TO	418+06.66	LT			90																	
R12	175	220+89.75	LT	TO	224+99.01	RT				413																
R13	173	214+92.87	LT	TO	217+98.89	LT																				
R14	177	223+44.18	LT	TO	223+72.14	LT																				
R15	177	223+72.14	LT	TO	224+19.13	LT																				
R16	177	223+94.77	LT	TO	224+13.39	LT																				
R17	177	224+13.39	LT	TO	523+98.79	RT			40																	
R18	177	224+31.65	LT	TO	225+42.83	RT			117																	
R19	177	225+42.83	RT	TO	525+47.63	RT			90																	
R20	177	525+44.67	RT	TO	525+47.63	RT			8																	
R21	177	525+47.63	RT	TO	525+68.29	RT			21																	
R22	177	524+04.93	RT	TO	523+98.79	RT			31																	
R23	177	223+94.79	LT	TO	224+18.67	LT																				
R24	179	527+28.99	LT	TO	527+40.75	LT																				
R25	179	527+50.99	RT	TO	527+40.75	LT																				
R26	179	527+40.75	LT	TO	528+01.68	LT																				
R27	179	528+01.68	LT	TO	528+08.99	RT			61																	
R28	179	528+82.28	RT	TO	528+66.49	LT			7																	
R29	179	528+66.97	LT	TO	528+66.46	LT			47																	
R30	179	530+32.31	LT	TO	531+02.89	RT			11																	
R31	179	531+02.89	LT	TO	531+66.55	LT																				
R32	179	531+66.55	LT	TO	531+80.42	RT																				
R33	182	533+79.88	LT	TO	534+74.14	LT																				
R34	182	534+74.14	LT	TO	535+12.19	LT																				
R35	182	534+74.14	LT	TO	535+12.24	RT																				
R36	182	533+09.24	LT	TO	533+43.47	LT																				
R37	182	532+72.22	RT	TO	534+53.83	RT																				
R37A	182	532+42.00	LT	TO	532+78.40	RT																				
R37B	182	532+74.63	LT	TO	532+75.64	RT																				
R37C	182	532+73.17	RT	TO	534+67.74	RT																				
R38	185	540+37.45	RT	TO	540+93.99	RT																				
R38A	185	540+93.99	RT	TO	541+00.86	RT			59																	
R39	185	540+37.45	RT	TO	540+34.03	RT			23																	
R40	185	540+34.03	RT	TO	540+34.28	LT			14																	
R41	185	540+34.28	LT	TO	540+36.93	LT			82																	
R42	185	540+36.93	LT	TO	543+22.56	LT																				
R43	185	540+93.99	RT	TO	541+27.97	RT																				
R44	185	540+80.95	RT	TO	553+86.00	RT																				
R45	185	240+92.98	LT	TO	265+60.38	LT																				
TOTALS CARRIED TO GENERAL SUMMARY							1391	2341	870	1	16	15	2	11	1895	4139	162	44	1177	LS						

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REF NO.	SHEET NO.	CULVERT FILE NO. (CFN)	STATION TO STATION		202	202	202	202	202	202	202	SPECIAL	202	202	202	202	252	202							
			CONCRETE BARRIER REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED	MANHOLE REMOVED	CATCH BASIN REMOVED	INLET REMOVED	PIPE REMOVED, OVER 24"	FILL AND PLUG EXISTING CONDUIT	FENCE REMOVED	CURB REMOVED	HEADWALL REMOVED	CONCRETE MEDIAN REMOVED	FULL DEPTH PAVEMENT SAWING	REMOVAL MISC.: RETAINING WALL REMOVED								
			FT	FT	FT	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	SY	FT	SF								
R46	185		540+95.66	RT																					
R47	185		540+94.79	LT																					
R48	185		540+95.03	RT																					
R49	185		540+94.79	LT																					
R50	185		540+95.65	RT																					
R51	190	1930150	248+59.76	LT																					
R52	190		550+97.17	RT																					
R52A	190		551+44.28	RT																					
R53	188		543+22.43	LT																					
R54	188		545+89.47	RT																					
R55	192		259+64.18	LT																					
R56	188		243+31.04	RT																					
R57	192		556+41.99	RT																					
R58	194		557+27.13	RT																					
R59	188	1988684	246+00.54	RT																					
R60	194	1988727	60+18.35 RT (RAMP A)																						
R61	194		60+18.35 RT (RAMP A)																						
R62	194		60+12.74 RT (RAMP A)																						
R63	194		61+94.60 LT (RAMP B)																						
R64	194		62+09.95 LT (RAMP B)																						
R65	194	1930152	557+13.18	RT																					
R88	194		258+37.87	LT																					
R89	194		258+37.87	LT																					
R90	194		258+37.87	LT																					
R91	194		558+50.00	CL																					
R92A	194		58+49.46 RT (RAMP A)																						
R99	194	1930155	559+75.22	LT																					
R66	194		557+92.72	RT																					
R67	194		259+13.17	LT																					
R68	199		314+38.65 LT (RAMP I)																						
R68A	199		46+52.37 LT (PERK.)																						
R69	199		46+52.37 LT (PERK.)																						
R70	199		48+49.63 LT (PERK.)																						
R71	199		318+30.49	LT																					
R72	199		318+55.94	LT																					
R73	199		318+37.84	LT																					
R74	199		12+41.25	LT																					
R75	199		316+80.23	LT																					
R76	200		15+24.79	RT																					
R77	200		324+29.22	LT																					
R78	200		324+60.02	RT																					
R79	204		415+16.58	RT																					
R80	204		415+09.28	LT																					
R81	204		50+78.68 LT (PERK.)																						
R82	204		418+06.54	LT																					
R83	204		415+36.64	RT																					
R84	204		418+86.42	LT																					
R85	204		50+91.44 LT (PERK.)																						
R86	206		37+62.15 LT (PERK.)																						
R87	206		14+73.62 LT (SUP)																						
R92	194		60+62.92 (A)	LT																					
R93	194		60+06.42 (A)	RT																					
R94	179		530+36.92	RT																					
R95	179		531+32.33	RT																					
R96	208		628+40.33 RT (TRAIL)																						
R97	206		38+02.96 LT (PERK.)																						
R98	205		420+52.17 RT (RAMP J)																						
TOTALS CARRIED TO GENERAL SUMMARY					2019	1092	3404	1	15	11	3	138	692	2396	2169	1	56	1673	220						

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REF NO.	SHEET NO.	STATION TO STATION		622							609		670		836		601		608		608	608			
				CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	BARRIER TRANSITION	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	CURB, TYPE 4-C	CURB, TYPE 6	4" CONCRETE TRAFFIC ISLAND	DITCH EROSION PROTECTION MAT, TYPE A	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2	RIPRAP, TYPE D	RIPRAP, WITH GROUT	CURB RAMP	DETECTABLE WARNING			AGGREGATE WALK	4" CONCRETE WALK	
		FT	FT	EACH	EACH	EACH	FT	EACH	FT	FT	SY	SY	SY	SY	SY	SY	SF	SF	SF	SF					
B1	173	514+65.00	LT	521+62.95	LT	394		1		13	30														
B1A	172	87+80.00	CL	91+25.00	CL	345																			
B2	175	521+62.95	LT	524+81.89	LT		283		2		38														
B3	173	214+65.00	LT	215+22.99	LT		44		1																
B4	190	248+25.00	RT	261+00.00	RT	762		2		23															
B5	188	245+89.64	LT	255+31.44	LT		595		2																
B6	200	15+96.35	LT	224+63.27	LT		291					6													
C1	175	517+10.05	RT	517+53.76	RT																				
C2	177	524+64.26	RT	524+81.89	RT							18													
C3	185	541+29.89	RT	541+56.75	RT							27													
C4	185	541+29.89	LT	541+58.04	LT							28													
C5	185	241+41.84	RT	241+77.02	RT							35													
C6	185	241+41.84	LT	241+77.02	LT							35													
C7	192	255+31.44	LT	61+99.50	LT							656													
C8	199	8+05.15	LT	10+02.07	LT																				
C9	199	8+76.66	LT	9+00.27	RT								229												
C10	204	50+91.46	LT	415+38.84	LT								53												
C11	204	51+71.79	LT	415+64.54	RT								42												
C12	205	420+15.60	RT	420+57.17	RT								60												
C13	194	60+06.42 (A)	RT	60+26.50 (A)	RT								40												
C14	194	60+62.92 (A)	LT	60+72.00 (A)	LT								20												
C15	197	3+41.94	LT	46+60.79	RT								9												
C16	197	3+41.94	RT	4+36.09	RT								544												
C17	198	7+59.29	RT	8+09.56	RT								94												
C18	198	7+37.92	LT	7+50.08	LT								75												
C19	199	8+30.93	LT	9+26.39	LT								16												
C20	199	8+30.93	LT	9+26.39	LT								261												
E1	173	215+01.29	LT	216+51.23	LT									218											
E3	175	518+07.03	RT	519+58.88	RT																				
E5	175	220+13.63	RT	225+32.94	RT																				
E6	177	224+00.00	LT	224+73.73	LT																				
E6A	177	224+90.16	LT	225+27.03	LT																				
E7	177	524+20.64	RT	524+68.09	RT																				
E8	177	524+81.87	RT	525+13.42	RT																				
E9	177	526+54.21	RT	526+77.86	RT																				
E10	185	541+56.77	LT	543+65.80	LT																				
E11	188	543+74.94	LT	545+25.00	LT																				
E12	188	546+06.75	LT	549+00.00	LT																				
E13	190	548+00.00	RT	551+37.67	RT																				
E14	190	551+50.89	RT	553+50.00	RT																				
E15	190	251+49.20	LT	254+00.00	LT																				
E16	192	556+55.18	RT	558+05.16	RT																				
E17	194	558+19.17	RT	558+50.00	RT																				
E18	199	9+17.01	LT	12+42.94	LT																				
E19	199	12+57.03	LT	13+98.00	LT																				
E20	200	14+06.99	LT	15+50.00	LT																				
E21	200	15+50.00	LT	16+43.00	LT																				
E22	200	16+56.89	LT	16+82.23	LT																				
E23	204	415+38.64	LT	418+13.58	LT																				
E24	204	415+72.81	RT	418+13.45	RT																				
E25	204	418+22.46	RT	420+13.00	RT																				
E26	205	420+22.00	RT	420+52.12	RT																				
E27	205	420+66.37	RT	422+18.68	RT																				
W1	204	415+28.35	RT	420+27.50	RT																				
W2	197-198	3+41.94 (GOOD.)	LT	46+60.79 (PERK.)	RT																				
W3	198	7+59.29	RT	8+09.56	RT																				
W4	208	0+22.06	RT/LT	0+27.57	RT/LT																				
W5	208	5+32.90	RT/LT	5+37.98	RT/LT																				
TOTALS CARRIED TO GENERAL SUMMARY						1501	1213	3	5	36	68	8		799	1487	218	2936	178	298	1182	34	444	73	3254	2969

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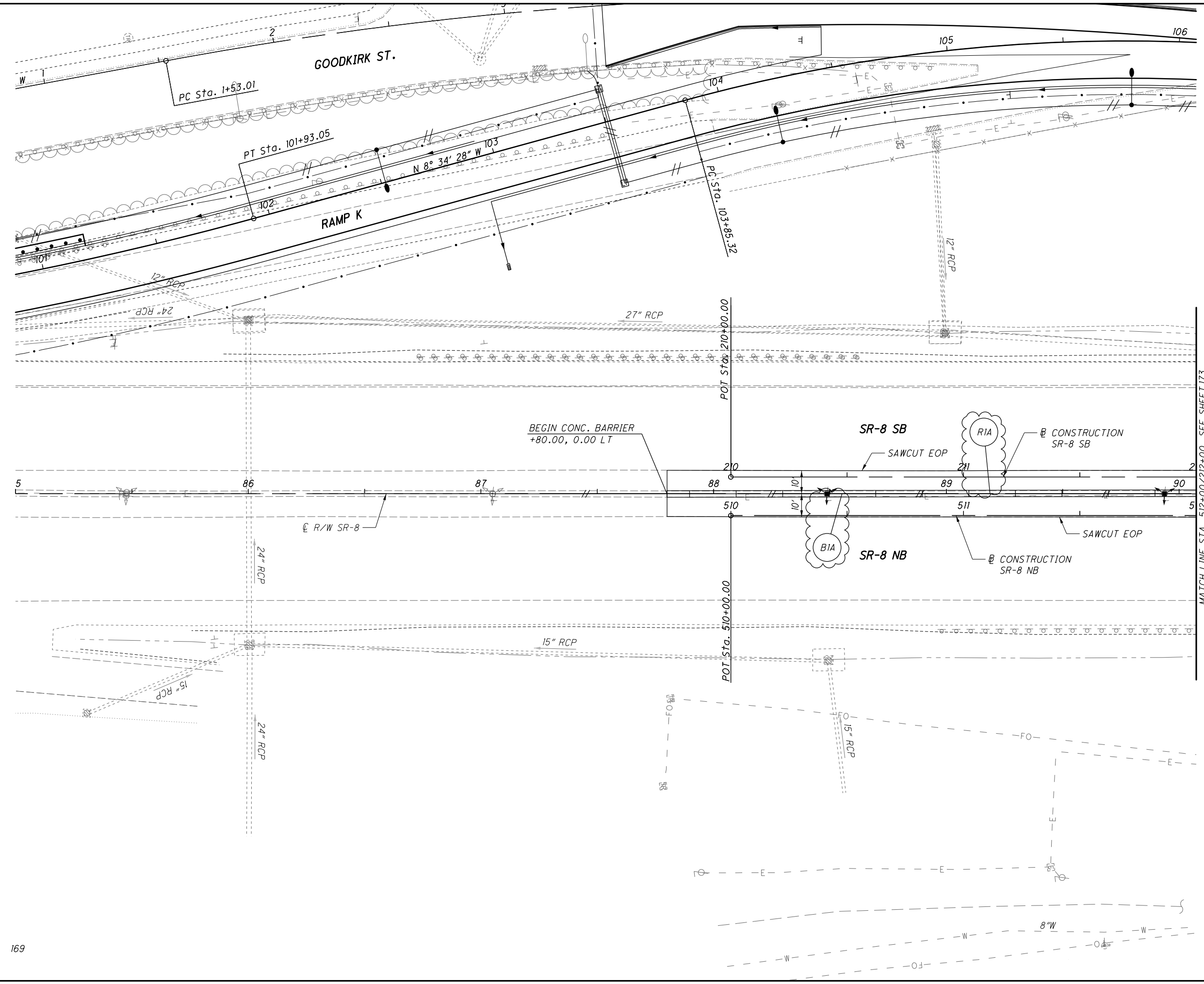
163
801


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REF NO.	SHEET NO.	CULVERT FILE NO. (CFN)	STATION TO STATION		611	611	611	611	611	611	611	611	605	611	611	611	611	611	611	611	611	611	611	611	611
			8" CONDUIT, TYPE C	8" CONDUIT, TYPE F	12" CONDUIT, TYPE B	12" CONDUIT, TYPE C	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE C	AGGREGATE DRAINS	CONDUIT, BORED OR JACKED, 18"	CONDUIT, BORED OR JACKED, 36"	36" CONDUIT, TYPE C	42" CONDUIT, TYPE C	CATCH BASIN, NO. 2-2B	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3, AS PER PLAN	CATCH BASIN, NO. 8	CATCH BASIN, NO. 8A	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	MANHOLE RECONSTRUCTED TO GRADE	MANHOLE, NO. 3			
					FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
D50	173	1988649	214+89.62	LT					11	19															
D53	173	1930145	515+48.04	RT			10																		
D54	173	1930144	515+47.84	LT																					
D59	179		527+28.99	LT																					
D61	190		551+44.28	RT																					
D59A	179		527+28.99	LT																					
D64	179		530+32.30	RT																					
D65	179		530+32.31	LT																					
D66	179		530+62.23	LT																					
D67	179		531+50.23	LT			86																		
D68	179		531+50.20	RT																					
D70	194	1988731	560+14.23	RT																					
D71	194	1988722	558+12.13	RT																					
D72	194	1988730	259+64.19	LT																					
D73	194	1988729	259+64.19	LT																					
D74	194	1988726	60+67.46	LT																					
D75	194		560+24.41	RT																					
D80	179		527+37.00	LT																					
D81	179		527+81.28	LT																					
D82	179		528+66.28	LT																					
D83	179		529+75.00	LT																					
D84	179		530+32.31	LT																					
D85	177		224+79.56	LT																					
D85A	177		225+28.33	LT																					
D86	177		225+48.81	LT																					
D87	179		227+68.67	LT																					
D88	179		227+78.67	LT																					
D89	208		628+40.33	RT																					
D90	190		248+66.26	LT																					
D91	190		551+68.98	LT																					
D92	192		554+51.04	LT																					
D93	194		557+24.09	LT																					
D94	235		223+20.00	RT																					
D95	235		223+70.00	RT																					
D96	235		224+20.00	RT																					
D97	236		224+62.84	RT																					
TOTALS CARRIED TO GENERAL SUMMARY					36	122	10	212	448	355	224		41	61	142	164	240	2	2	2	3	1	1	4	15

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SEE SHEETS 161 - 169
FOR QUANTITIES.



 = PAVEMENT PLANING AND RESURFACING

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

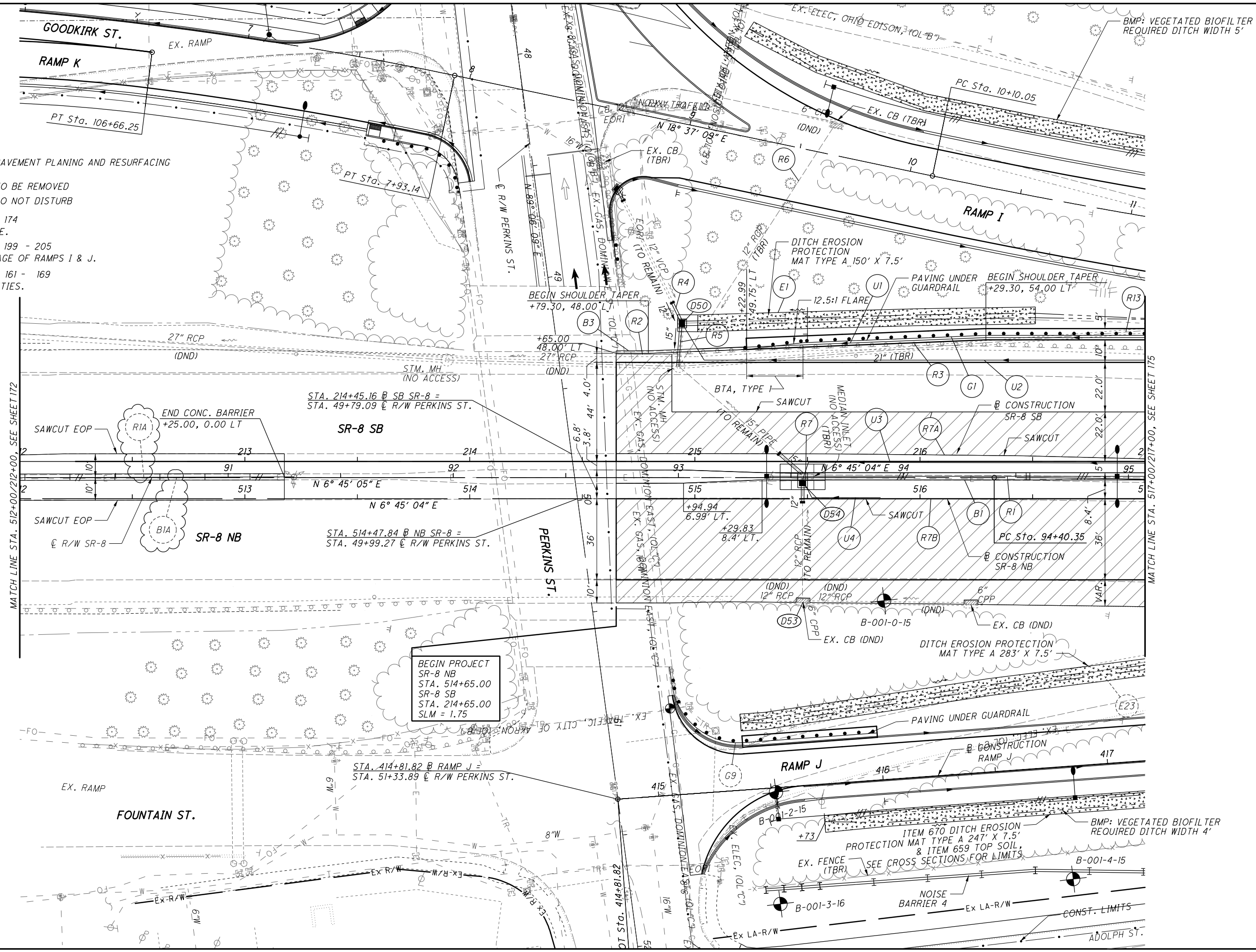
SEE SHEETS 174
FOR PROFILE.

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

SEE SHEETS 161 - 169
FOR QUANTITIES.

SEE SHEETS 209-292
FOR CROSS SECTIONS.

SEE SHEET 307
FOR GORE DETAILS.



BEGIN PROJECT
SR-8 NB
STA. 514+65.00
SR-8 SB
STA. 214+65.00
SLM = 1.75

MATCH LINE STA. 517+00/217+00, SEE SHEET 175

PLOT.CEL
ms consultants, inc.
msconsultants.com
Ohio DOT Workspace
SUM-8
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SEE SHEETS 199 - 205
FOR COVERAGE OF RAMPS I & J.

SEE SHEETS 161 - 169
FOR QUANTITIES.

SEE SHEET 176
FOR PROFILE.

SEE SHEETS 209-292
FOR CROSS SECTIONS.

SEE SHEET 307
FOR GORE DETAILS.

T.H. 3
LEVEL A TEST HOLE #3
TOP OF GROUND = 1049.28
TOP OF PIPE = 1044.77
2.5" UNKNOWN STEEL PIPE

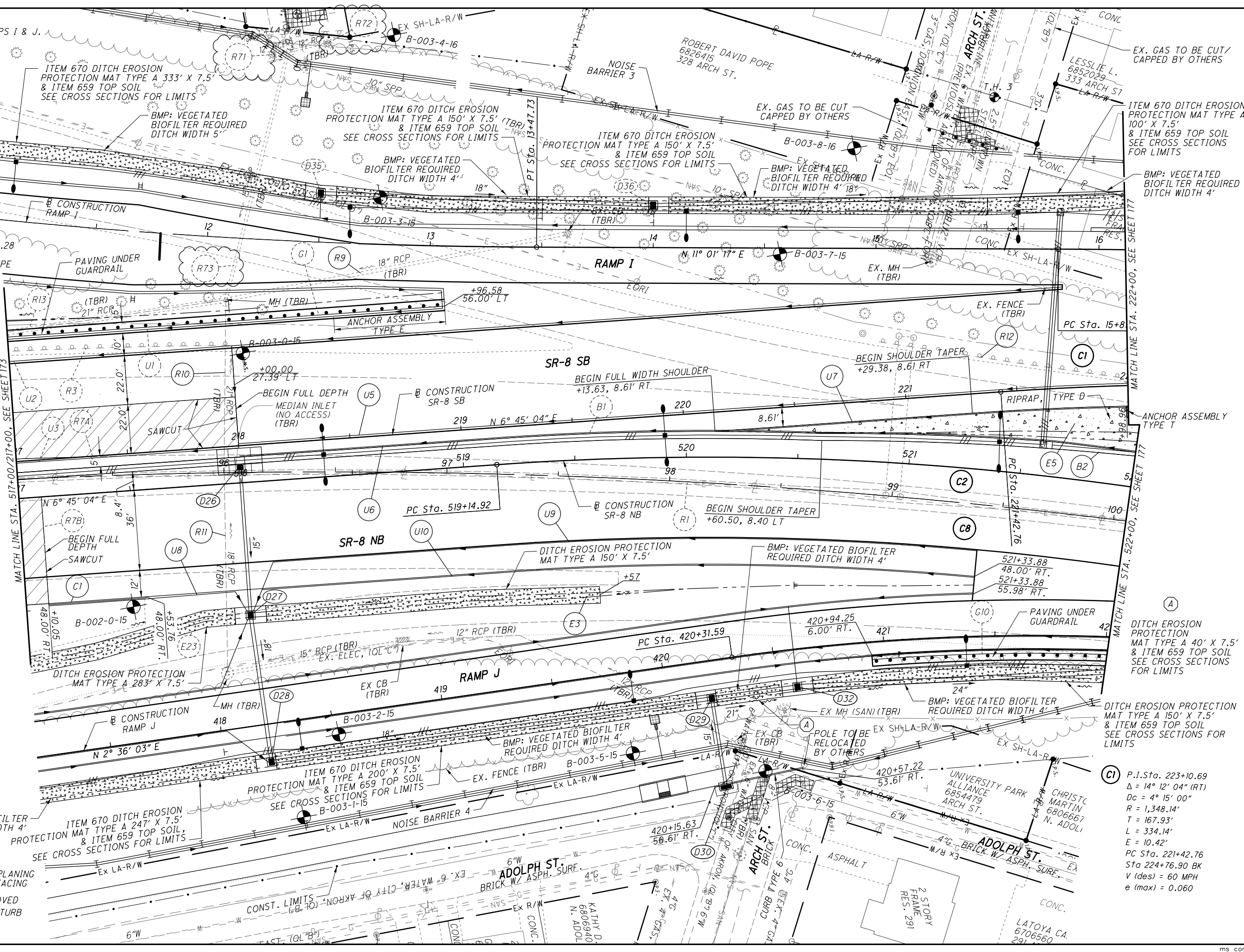
C2
P.I. Sta. 520+82.85
 $\Delta = 14^\circ 12' 04''$ (RT)
Dc = 4° 15' 00"
R = 1,348.14'
T = 167.93'
L = 334.14'
E = 10.42'
P.C. Sta. 519+14.92
P.T. Sta. 522+49.06
V (des) = 60 MPH
e (max) = 0.060

C8
P.I. Sta. 98+03.68
 $\Delta = 14^\circ 11' 40''$ (RT)
Dc = 1° 57' 48"
R = 2,918.12'
T = 363.33'
L = 722.93'
E = 22.53'
P.C. Sta. 94+40.35
P.T. Sta. 101+63.28

C1
P.I. Sta. 223+10.69
 $\Delta = 14^\circ 12' 04''$ (RT)
Dc = 4° 15' 00"
R = 1,348.14'
T = 167.93'
L = 334.14'
E = 10.42'
PC Sta. 221+42.76
Sta 224+76.90 BK
V (des) = 60 MPH
e (max) = 0.060

= PAVEMENT PLANING AND RESURFACING

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



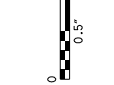
PLAN - S.R. 8 NB / SB

STA. 517+00 / 217+00 TO STA. 522+00 / 222+00

SUM-8-1.75

175
801

ms consultants, inc.



C9
 P.I. Sta. 248+70.39
 $\Delta = 29^\circ 20' 09''$ (LT)
 $Dc = 2^\circ 30' 00''$
 $R = 2,291.83'$
 $T = 599.88'$
 $L = 1,173.43'$
 $E = 77.21'$
 P.C. Sta. 242+70.51
 P.T. Sta. 254+43.94
 V (des) = 60 MPH
 e (max) = 0.051

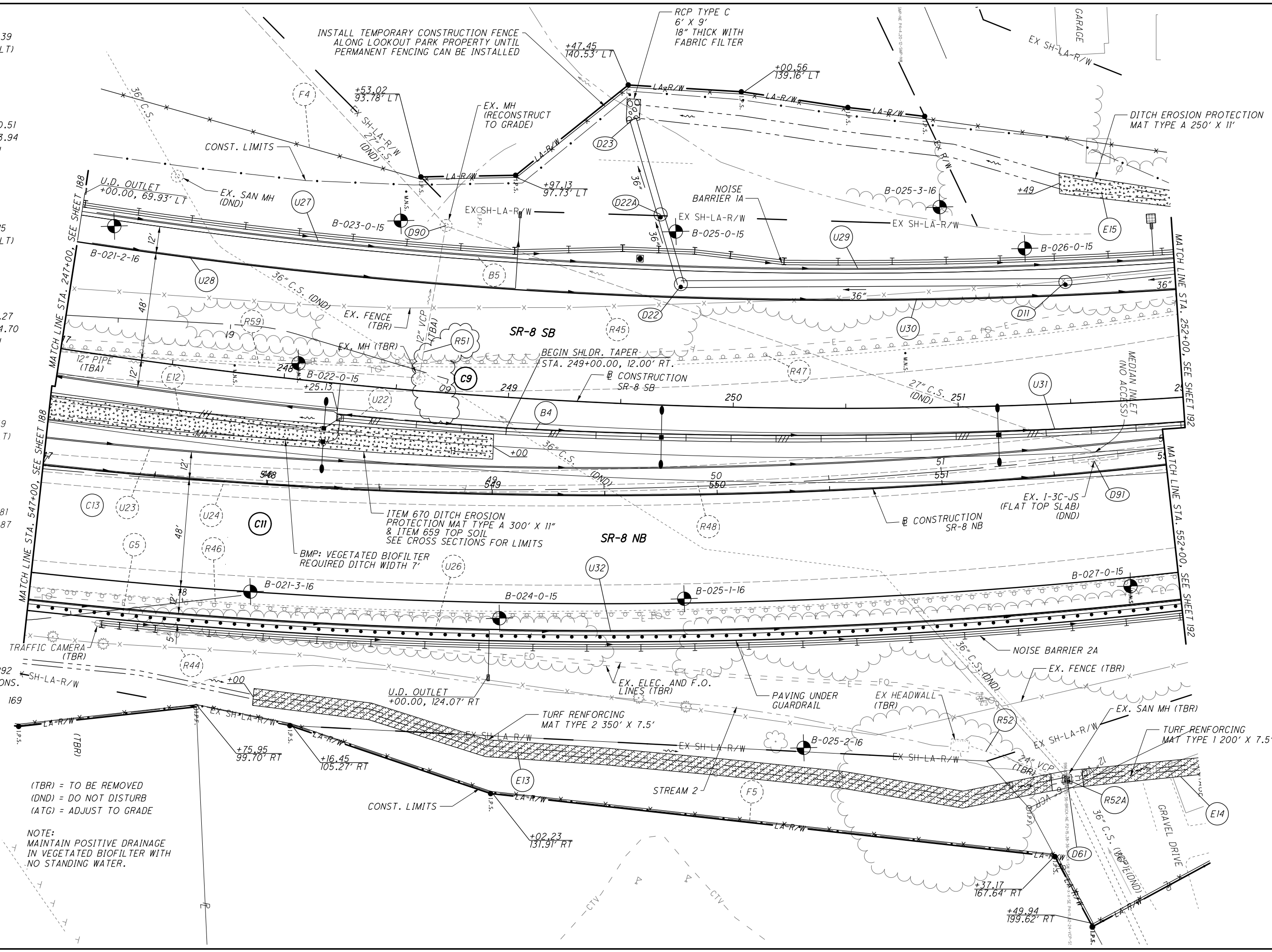
C11
 P.I. Sta. 547+71.15
 $\Delta = 29^\circ 20' 09''$ (LT)
 $Dc = 2^\circ 30' 00''$
 $R = 2,291.83'$
 $T = 599.88'$
 $L = 1,173.43'$
 $E = 77.21'$
 P.C. Sta. 541+71.27
 P.T. Sta. 553+44.70
 V (des) = 60 MPH
 e (max) = 0.051

C13
 P.I. Sta. 47+28.49
 $\Delta = 29^\circ 19' 35''$ (LT)
 $Dc = 2^\circ 30' 00''$
 $R = 2,291.83'$
 $T = 599.68'$
 $L = 1,173.06'$
 $E = 77.16'$
 P.C. Sta. 41+28.81
 P.T. Sta. 53+01.87

SEE SHEETS 209-292 FOR CROSS SECTIONS.
 SEE SHEETS 161 - 169 FOR QUANTITIES.
 SEE SHEET 191 FOR PROFILE.

(TBR) = TO BE REMOVED
 (DND) = DO NOT DISTURB
 (ATG) = ADJUST TO GRADE

NOTE:
 MAINTAIN POSITIVE DRAINAGE IN VEGETATED BIOFILTER WITH NO STANDING WATER.



CALCULATED
 DWH
 CHECKED
 HRB

0 20 40
 HORIZONTAL SCALE IN FEET

PLAN - S.R. 8 NB / SB
 STA. 547+00 / 247+00 TO STA. 552+00 / 252+00

SUM-8-1.75

190
 801

ms consultants, inc.

SEE SHEET 201 AND 202 FOR RAMP 1 PROFILE
SEE SHEETS 161 - 169
FOR QUANTITIES.

CI	C5	C5A
P.I.Sta. 222+97.31	P.I.Sta. 16+70.66	P.I.Sta. 17+84.75
$\Delta = 14^\circ 12' 04''$ (RT)	$\Delta = 3^\circ 33' 21''$ (RT)	$\Delta = 2^\circ 07' 30''$ (RT)
Dc = $4^\circ 15' 00''$	Dc = $2^\circ 00' 00''$	Dc = $4^\circ 12' 45''$
R = 1,348.14'	R = 2,864.79'	R = 1,360.14'
T = 167.93'	T = 88.92'	T = 25.23'
L = 334.14'	L = 177.79'	L = 50.45'
E = 10.42'	E = 1.38'	E = 0.23'
PC Sta. 221+29.38	PC Sta. 15+81.73	PC Sta. 17+59.52
PT Sta. 224+63.52 BK	PT Sta. 17+59.52	PT Sta. 18+09.97
V (des) = 60 MPH	V (des) = 60 MPH	V (des) = 60 MPH
e (max) = 0.060	e (max) = 0.045	e (max) = 0.050

T.H. 5
LEVEL A TEST HOLE #5
TOP OF GROUND = 1022.00
TOP OF PIPE = 1019.72
EXPOSED 3" STEEL PIPE
BELIEVED TO BE 2" GAS

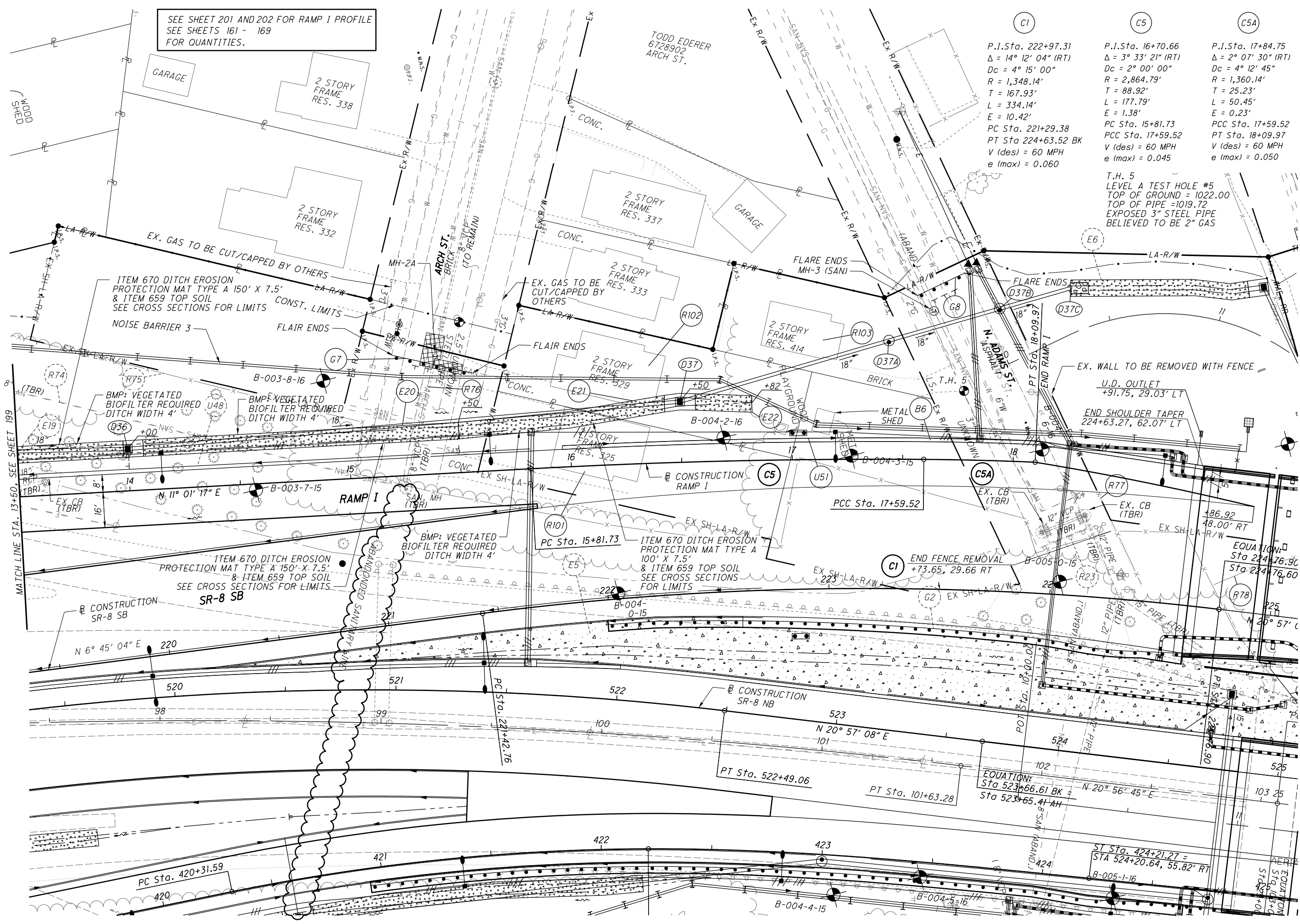


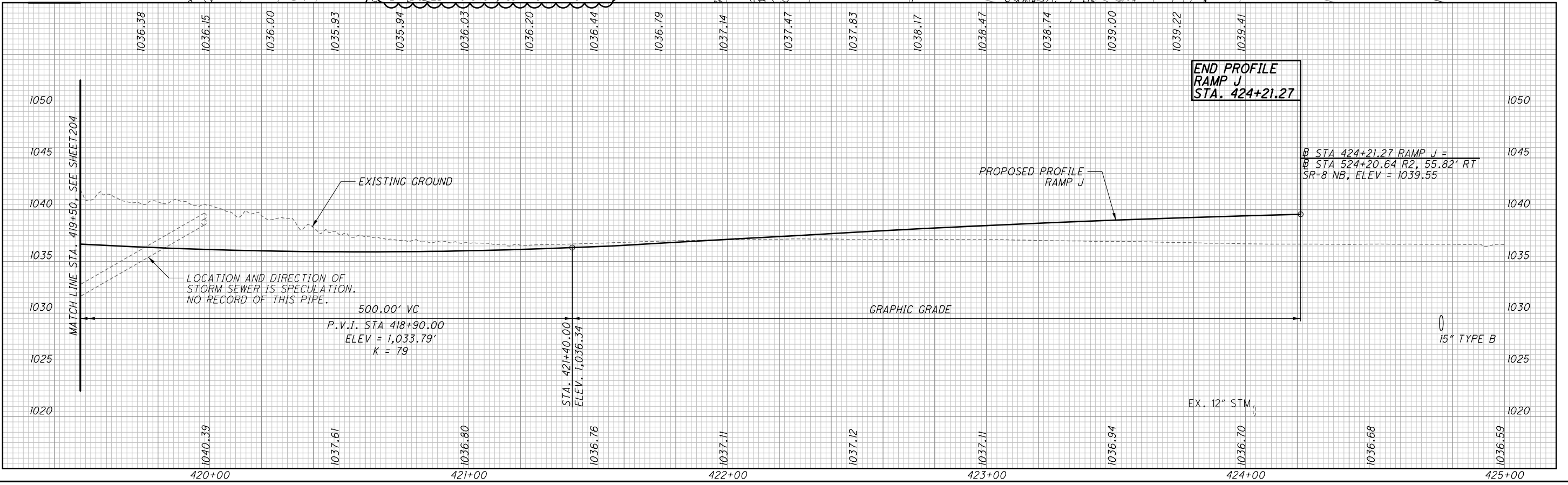
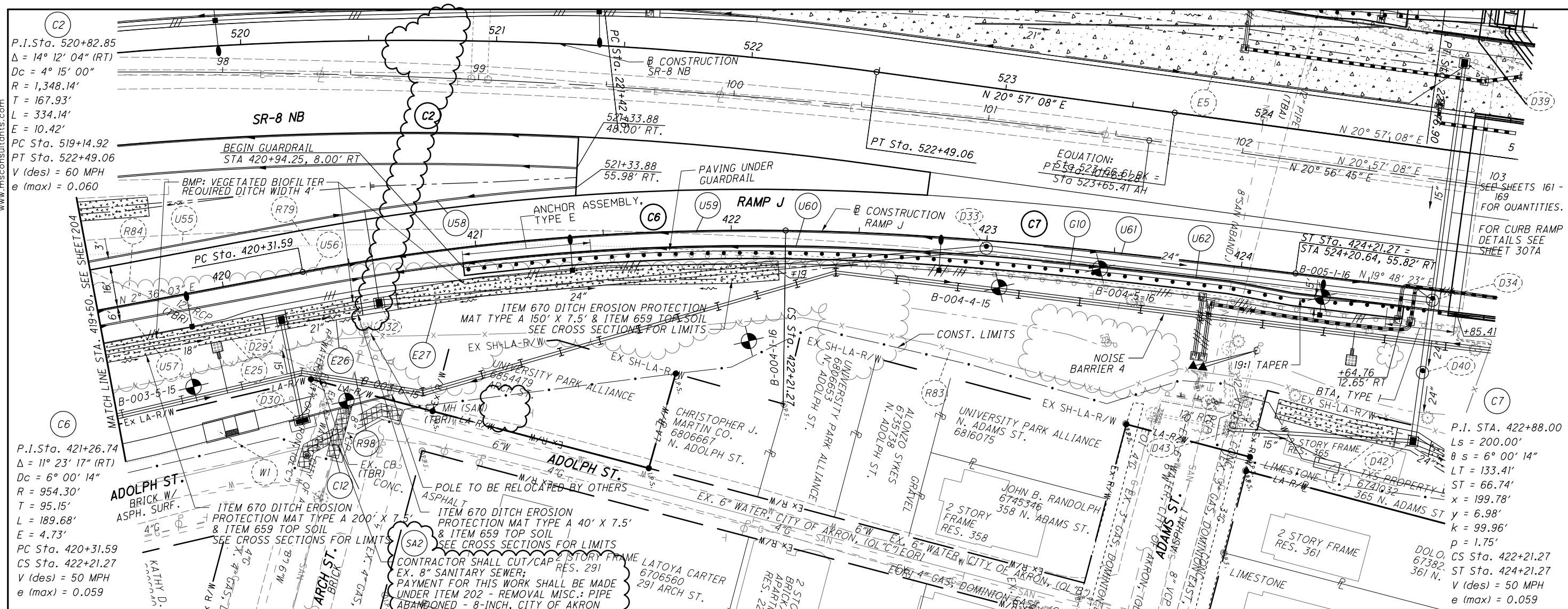
CALCULATED	DNO	CHECKED
		HRB

**PLAN AND PROFILE - RAMP I
STA. 13+50 TO STA. 18+09.97**

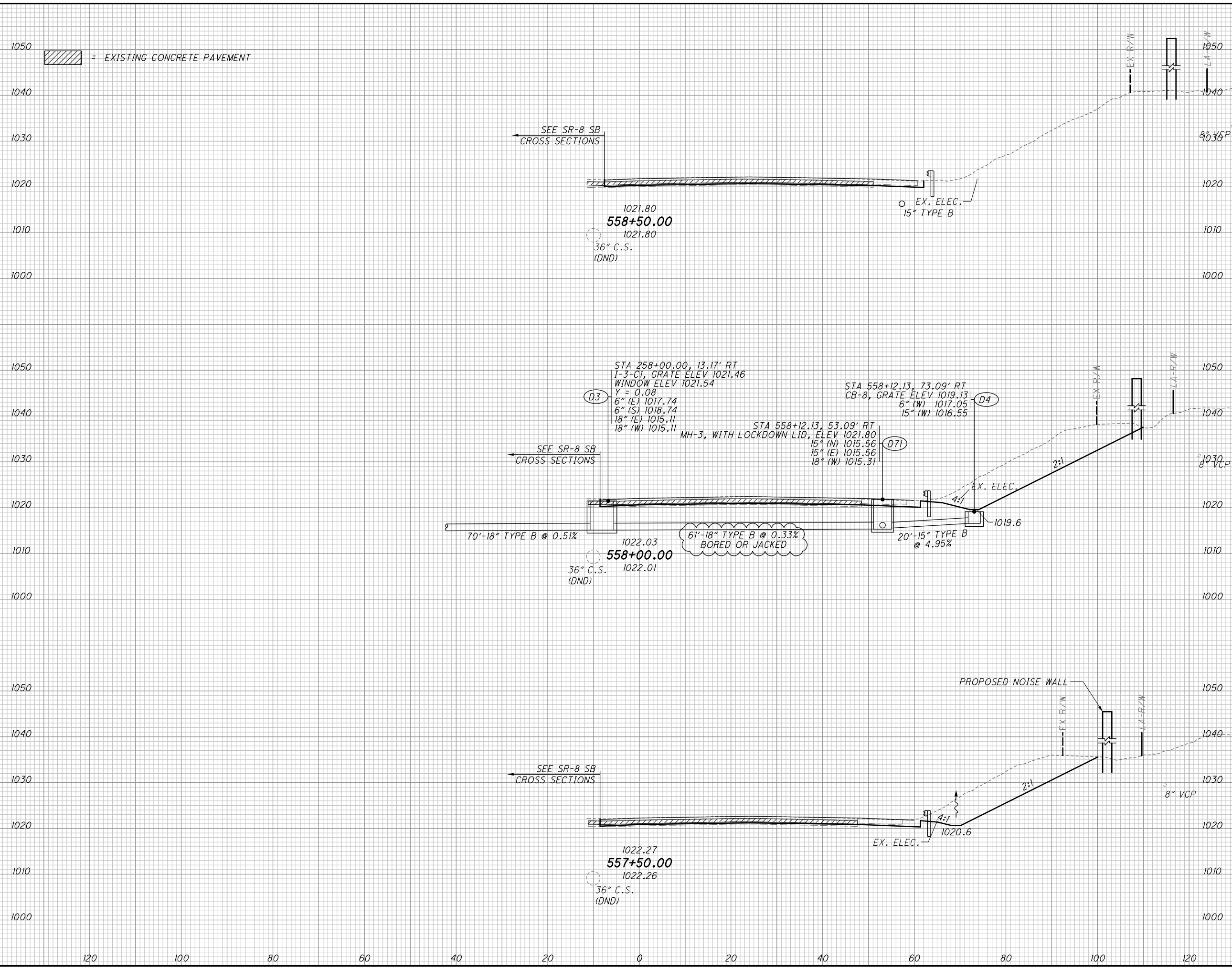
SUM-8-1.75

200
801





SEEDING	
END WIDTH	SO. YDS.
1	1050
156	1020
55	1020
275	1000
44	1020
233	1000
664	1000



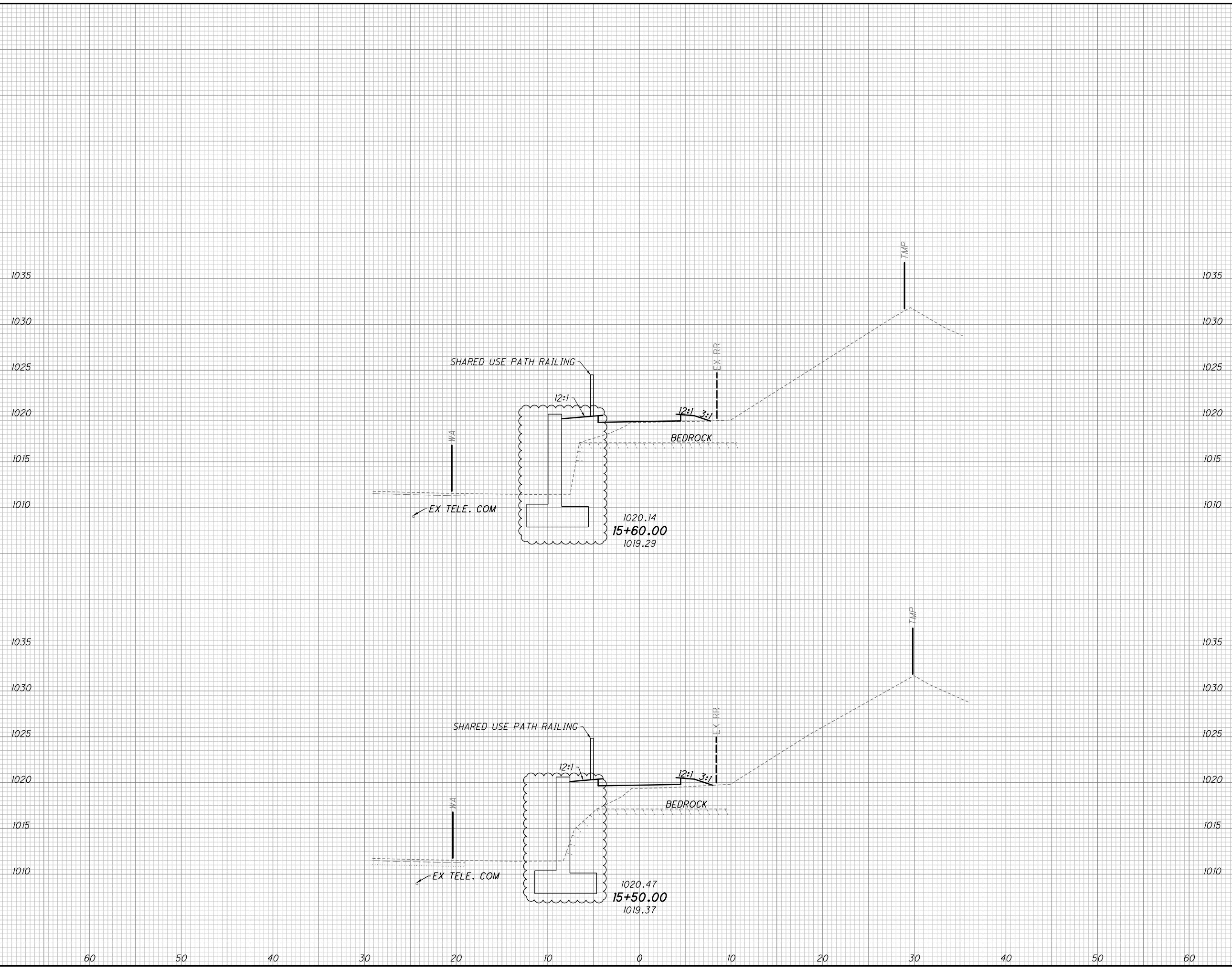
END AREA		VOLUME		CALCULATED		
CUT	FILL	CUT	FILL	DNO	CHECKED	HRB
72	16					
		370	30			
328	16					
		544	30			
259	16					
		472	31			
		1386	91			

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

SUM-8-1.75

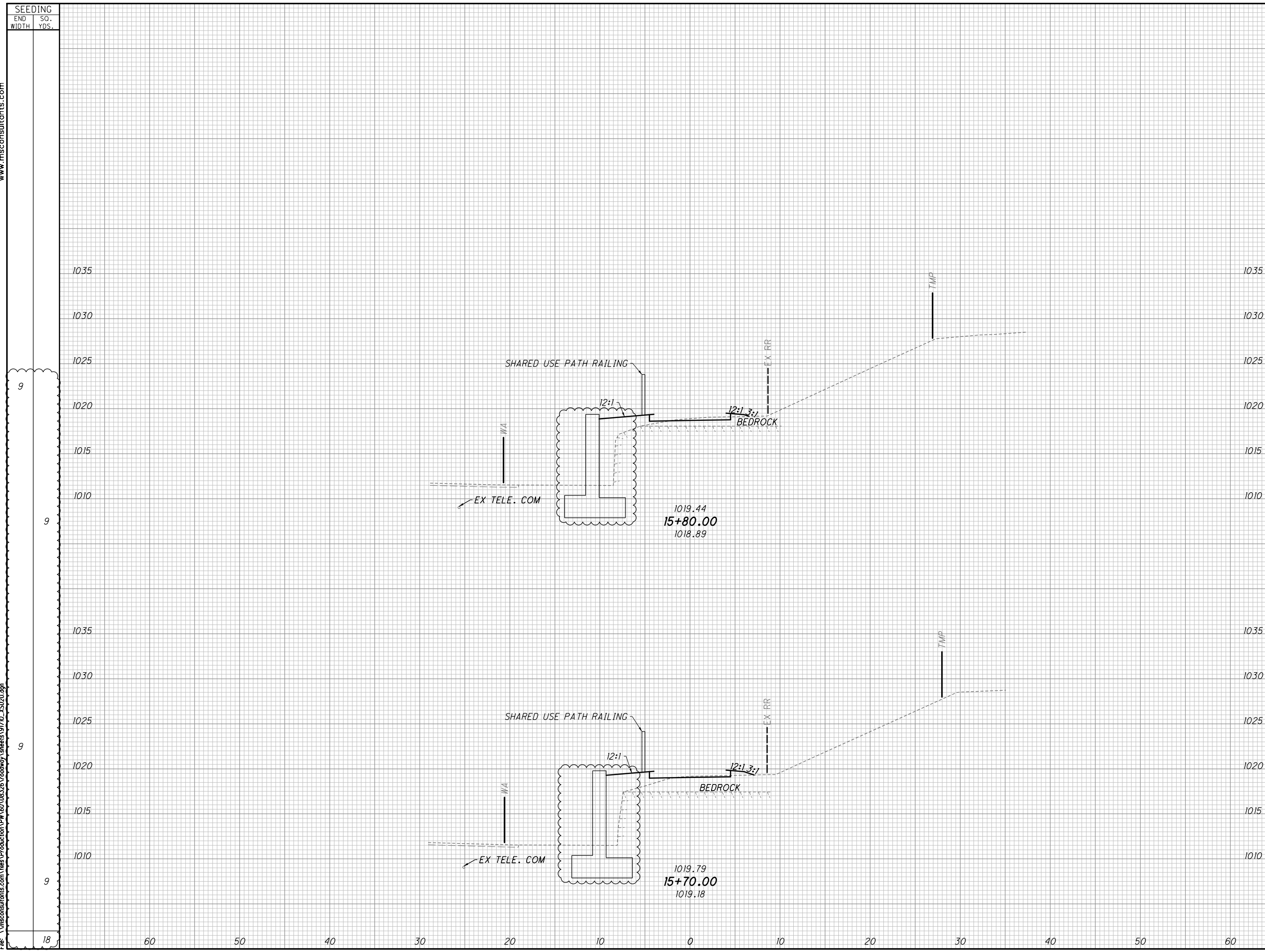
229
801

SEEDING	
END WIDTH	SO. YDS.
8	16
8	60
8	50
8	40
8	30
8	20
8	10
8	0
8	10
8	20
8	30
8	40
8	50
8	60



END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
		27	10		
		11	4		
		32	13		
		6	3		
		17	7		
				SUM - 8 - 1.75	
				(278)	
				(801)	

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 15+50.00 TO STA. 15+60.00**

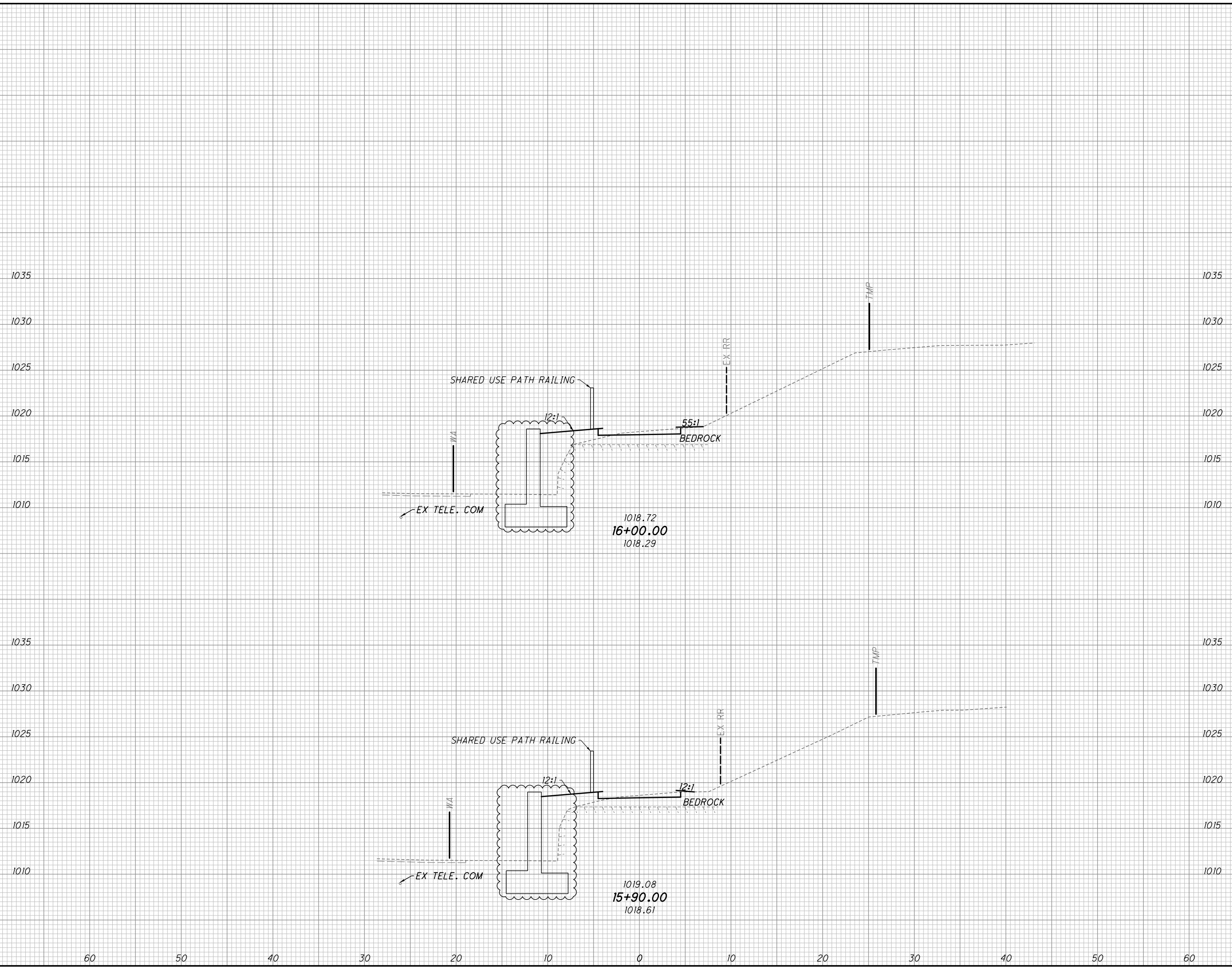


SEEDING		END AREA		VOLUME		CALCULATED	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	DNO	HRB
9	9	27	6	10	2		
9	9	27	7	10	3		
18	18			20	5		
						279 801	

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 15+70.00 TO STA. 15+80.00**

SUM - 8 - 1.75

SEEDING	
END WIDTH	SO. YDS.
10	10
11	11
9	9
10	10
21	21

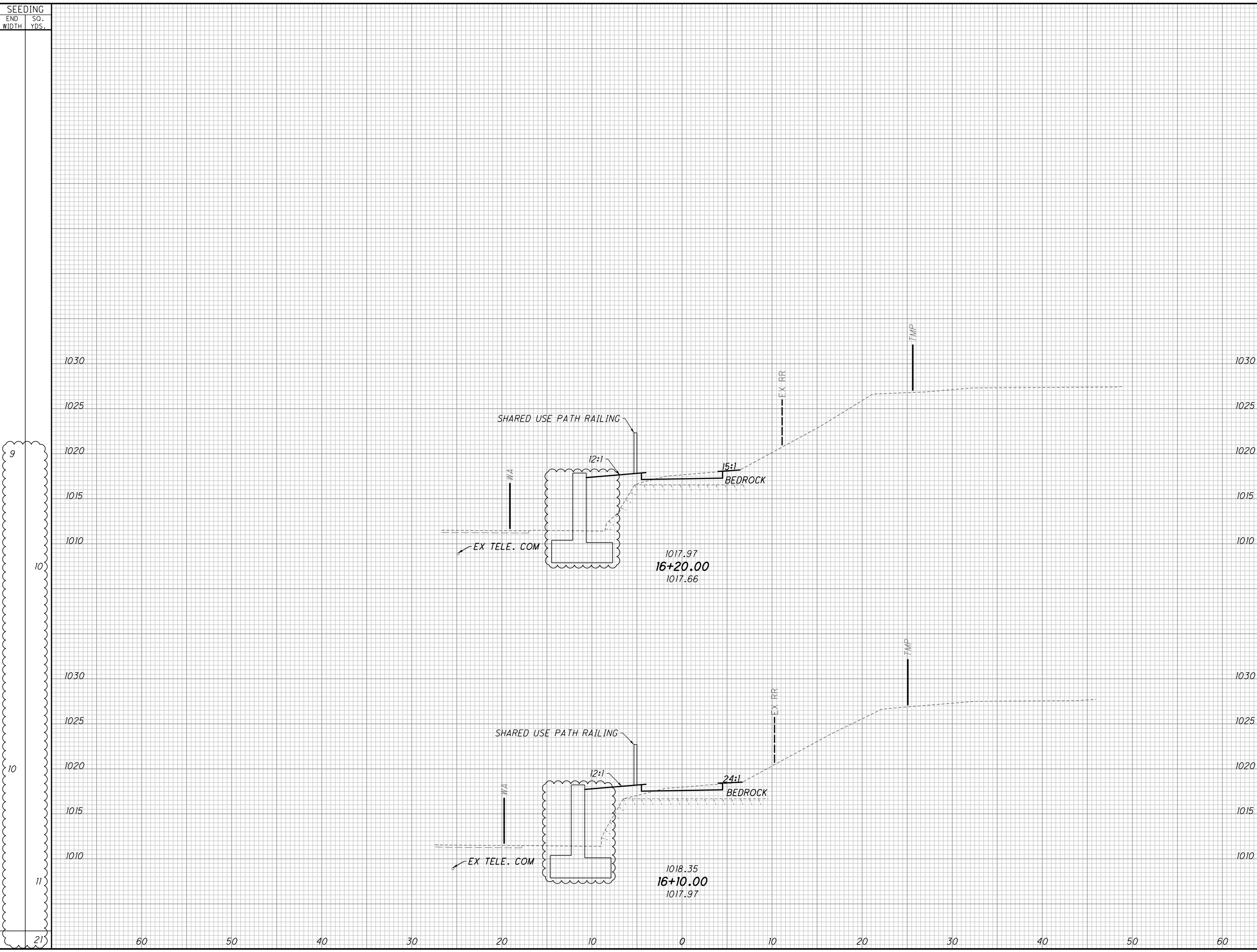


END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
26	9	10	3		
26	7	10	2		
20	5				

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 15+90.00 TO STA. 16+00.00**

SUM - 8 - 1.75

280
801



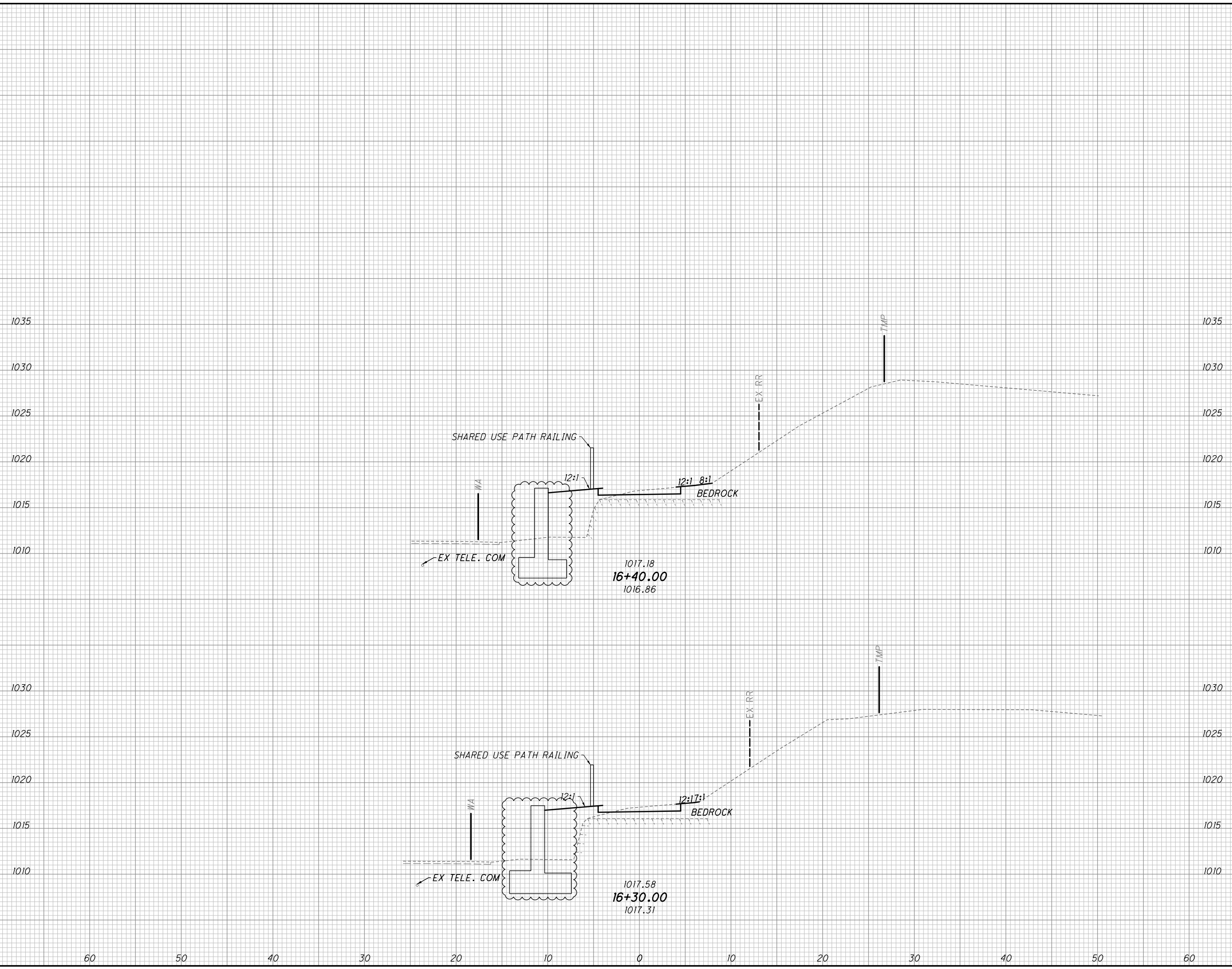
END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
27	14			
10		4		
26	10			
10		4		
20		8		

CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 16+10.00 TO STA. 16+20.00

SUM - 8 - 1.75

281
801

SEEDING	
END WIDTH	SO. YDS.
10	10
11	11
9	9
10	10
21	21

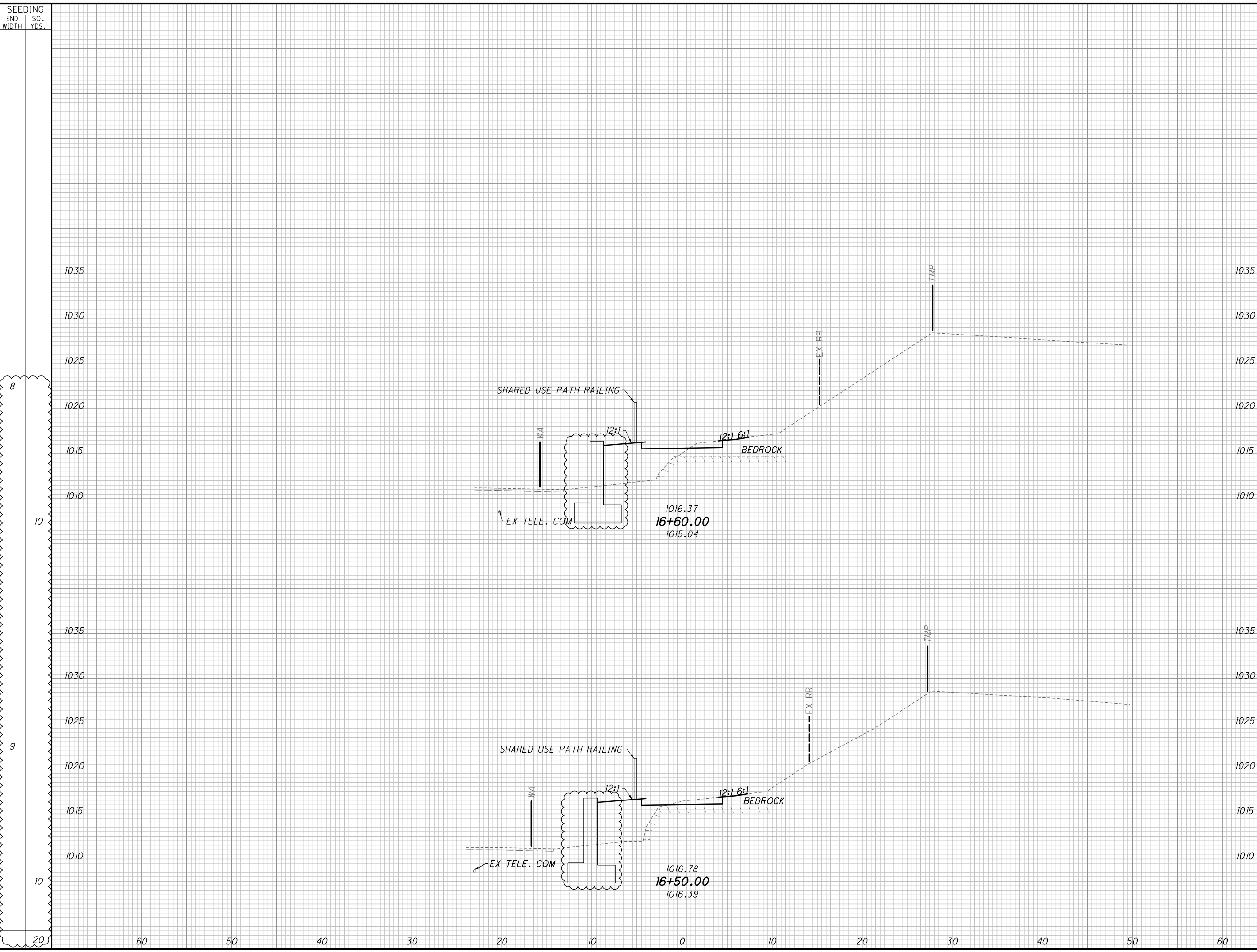


END AREA		VOLUME	
CUT	FILL	CUT	FILL
27	15	10	5
28	13	10	5

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 16+30.00 TO STA. 16+40.00**

SUM - 8 - 1.75

282
801



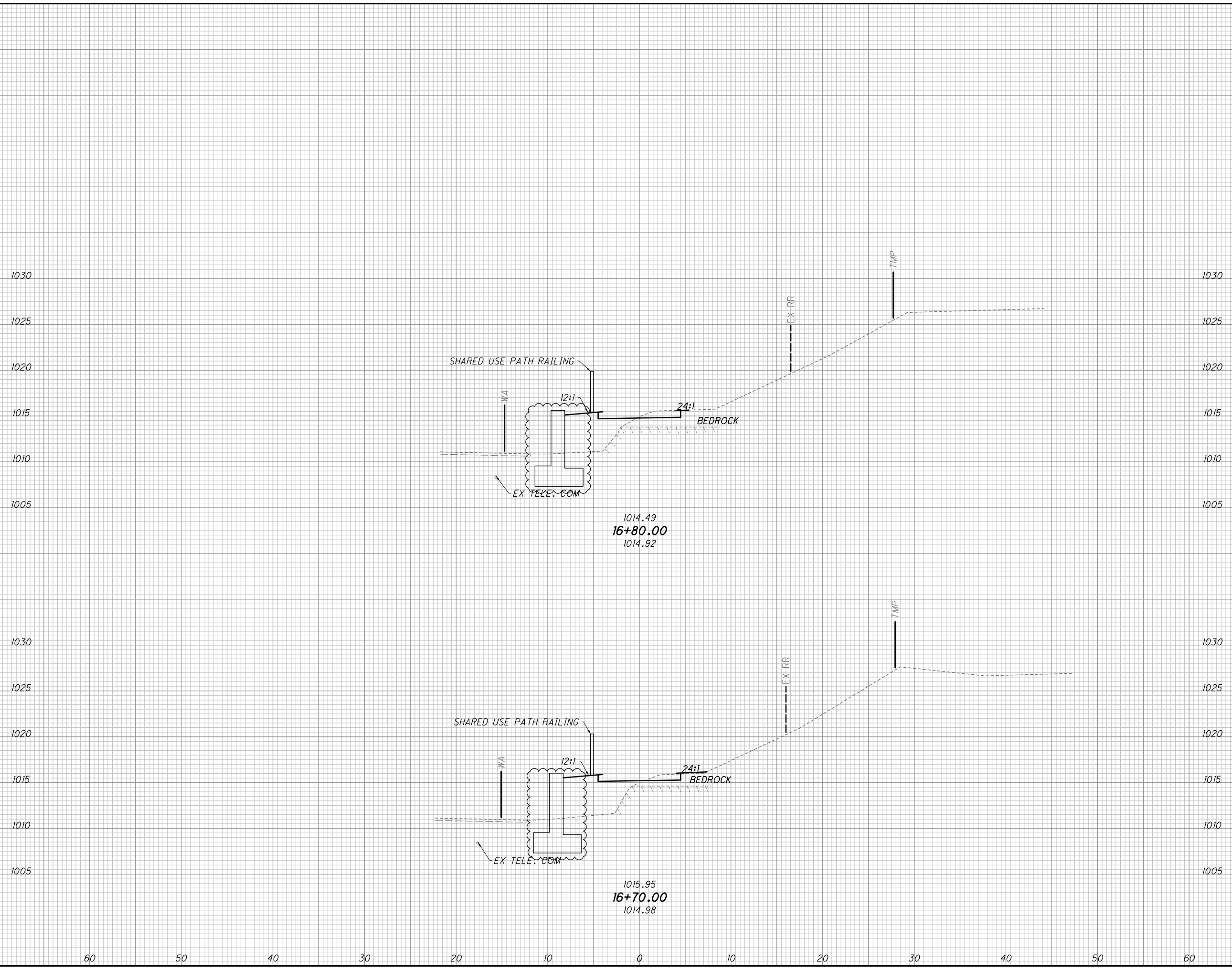
END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
24	21	9	7		
26	17	10	6		
19	13				

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 16+50.00 TO STA. 16+60.00**

SUM-8-1.75

283
801

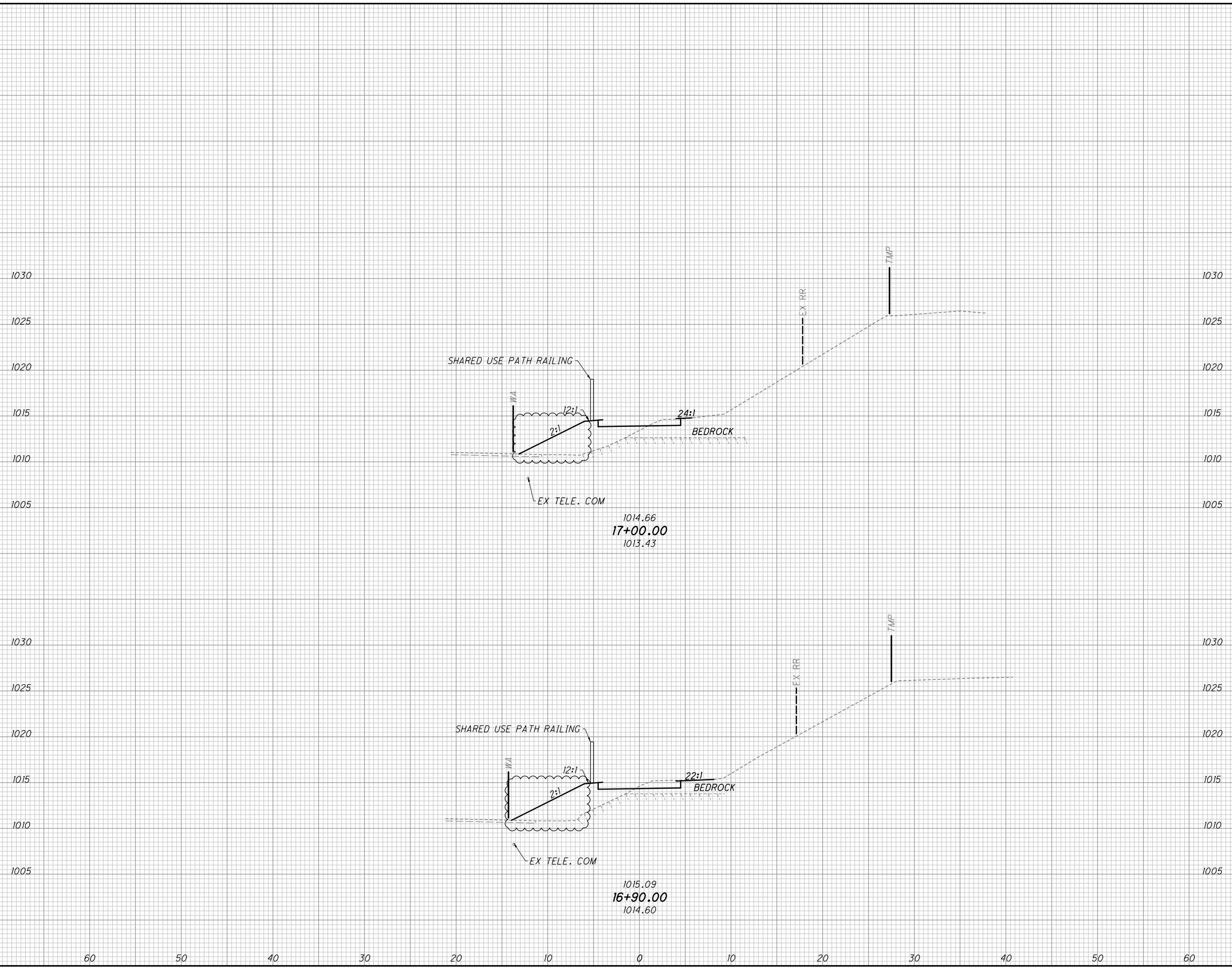
SEEDING	
END WIDTH	SO. YDS.
5	
6	
8	
9	
15	



END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
22	14	8	6		
22	19	9	7		
		17	13		
SUM - 8 - 1.75					
(284 / 801)					

CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 16+70.00 TO STA. 16+80.00

SEEDING	
END WIDTH	SO. YDS.
12	
15	
15	
12	
27	



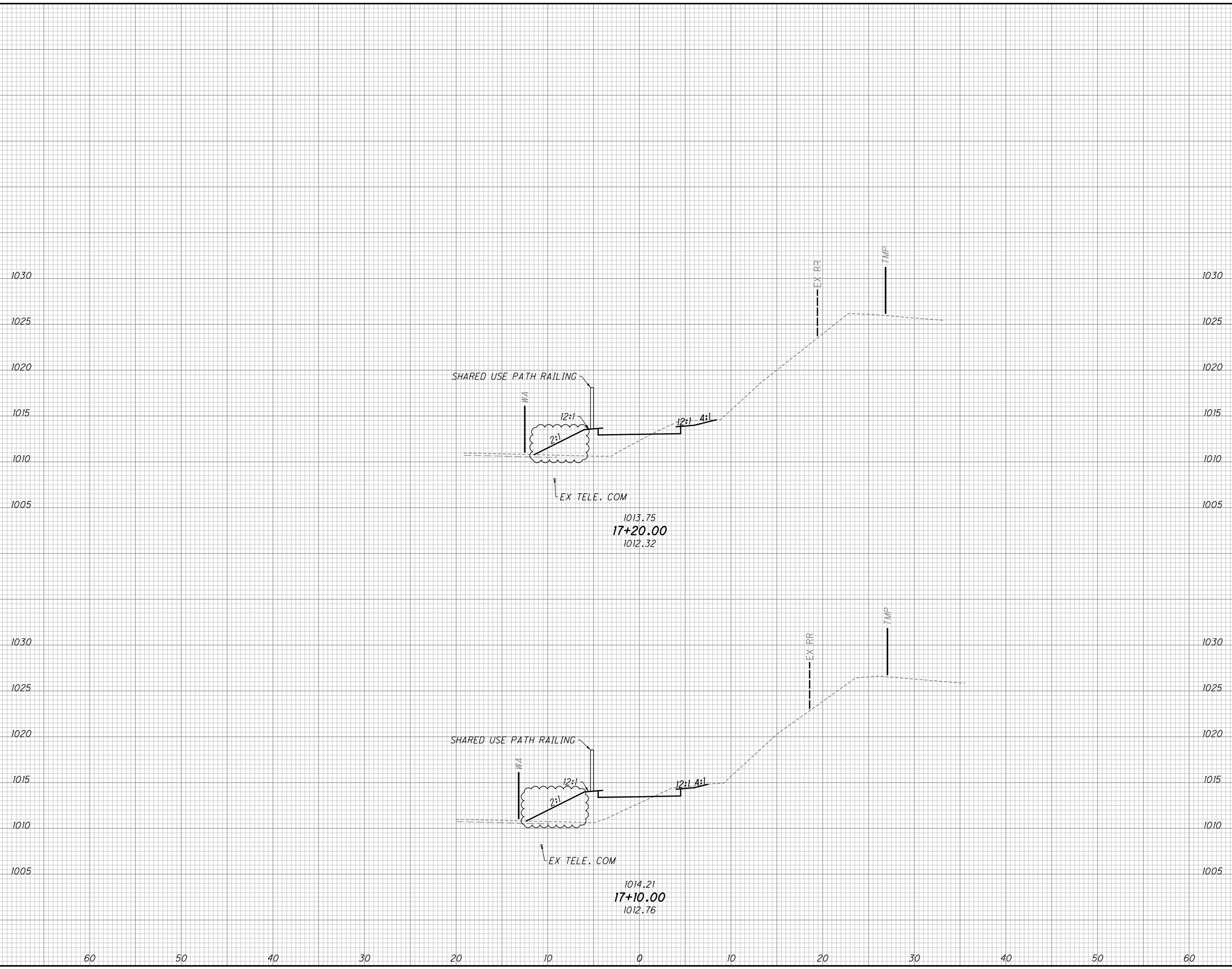
END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
2	26				
		1	9		
4	24				
		5	7		
6	16				
		5	7		

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 16+90.00 TO STA. 17+00.00**

SUM-8-1.75

285
801

SEEDING	
END WIDTH	SO. YDS.
12	
14	
13	
14	
28	



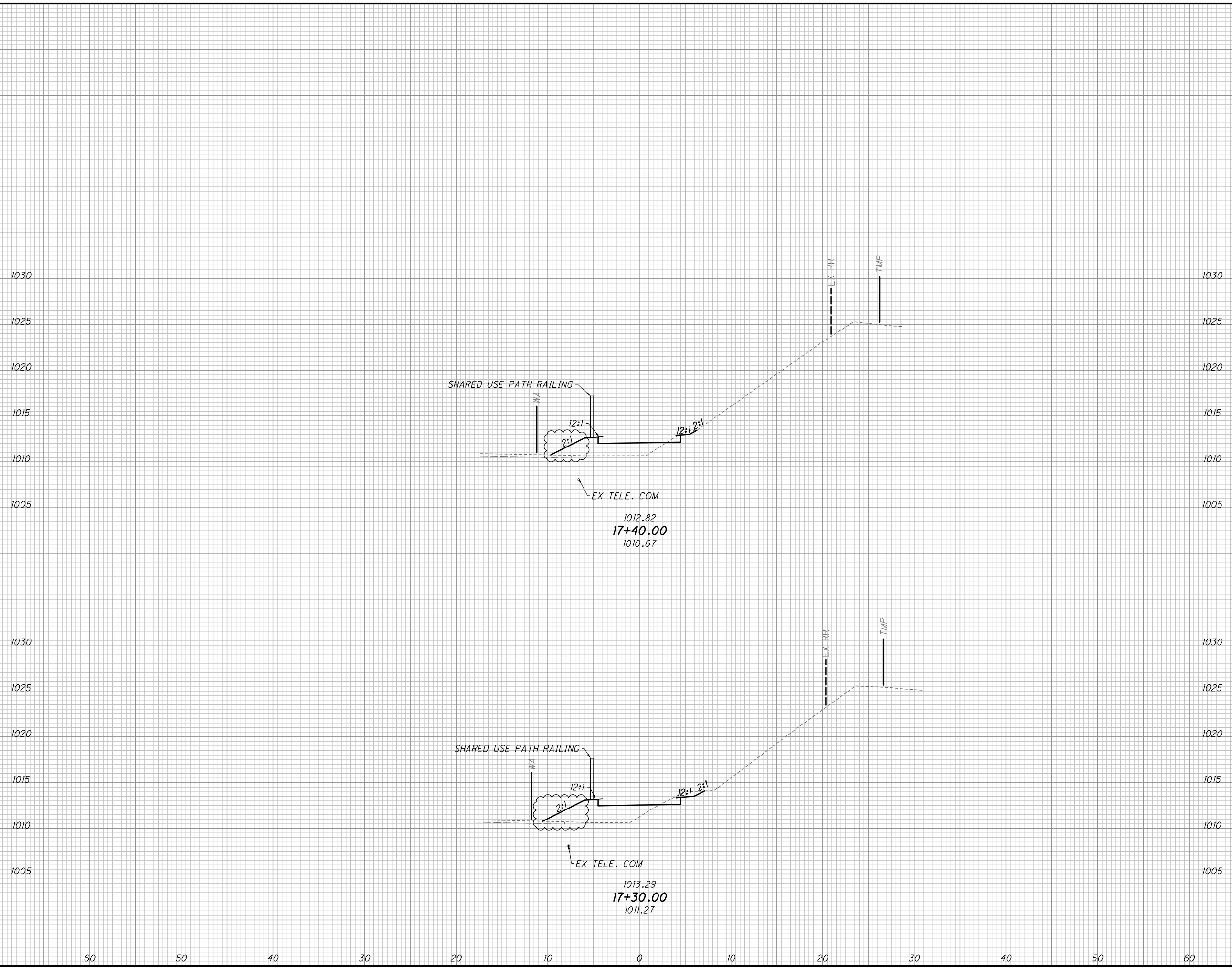
END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
4	21	1	8		
2	24	1	9		
		2	17		

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 17+10.00 TO STA. 17+20.00**

SUM - 8 - 1.75

286
801

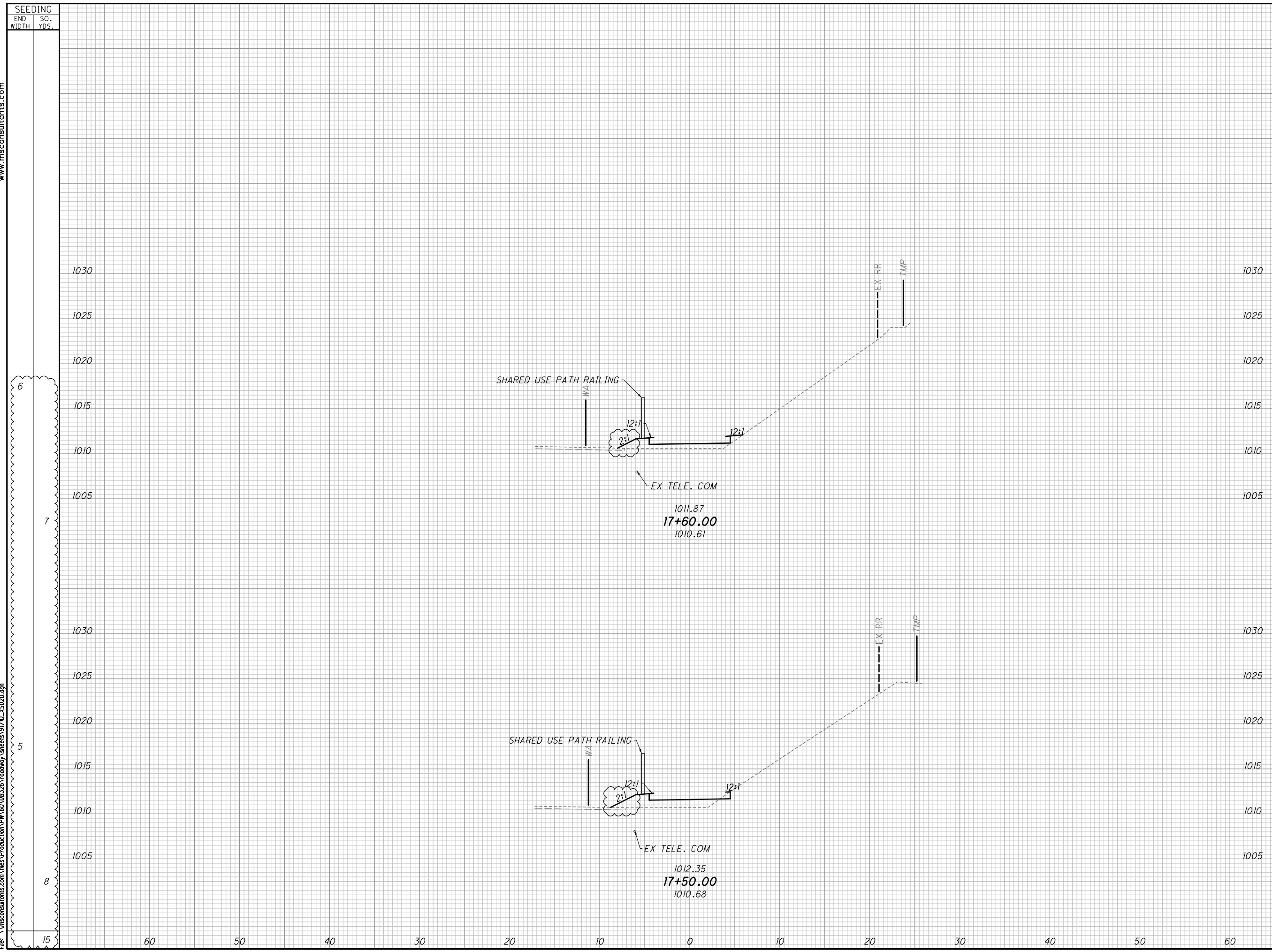
SEEDING	
END WIDTH	SO. YDS.
8	
11	
10	
13	
24	



END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
1	15	1	6		
2	19	1	7		
		2	13		
				287	801

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 17+30.00 TO STA. 17+40.00**

SUM - 8 - 1.75

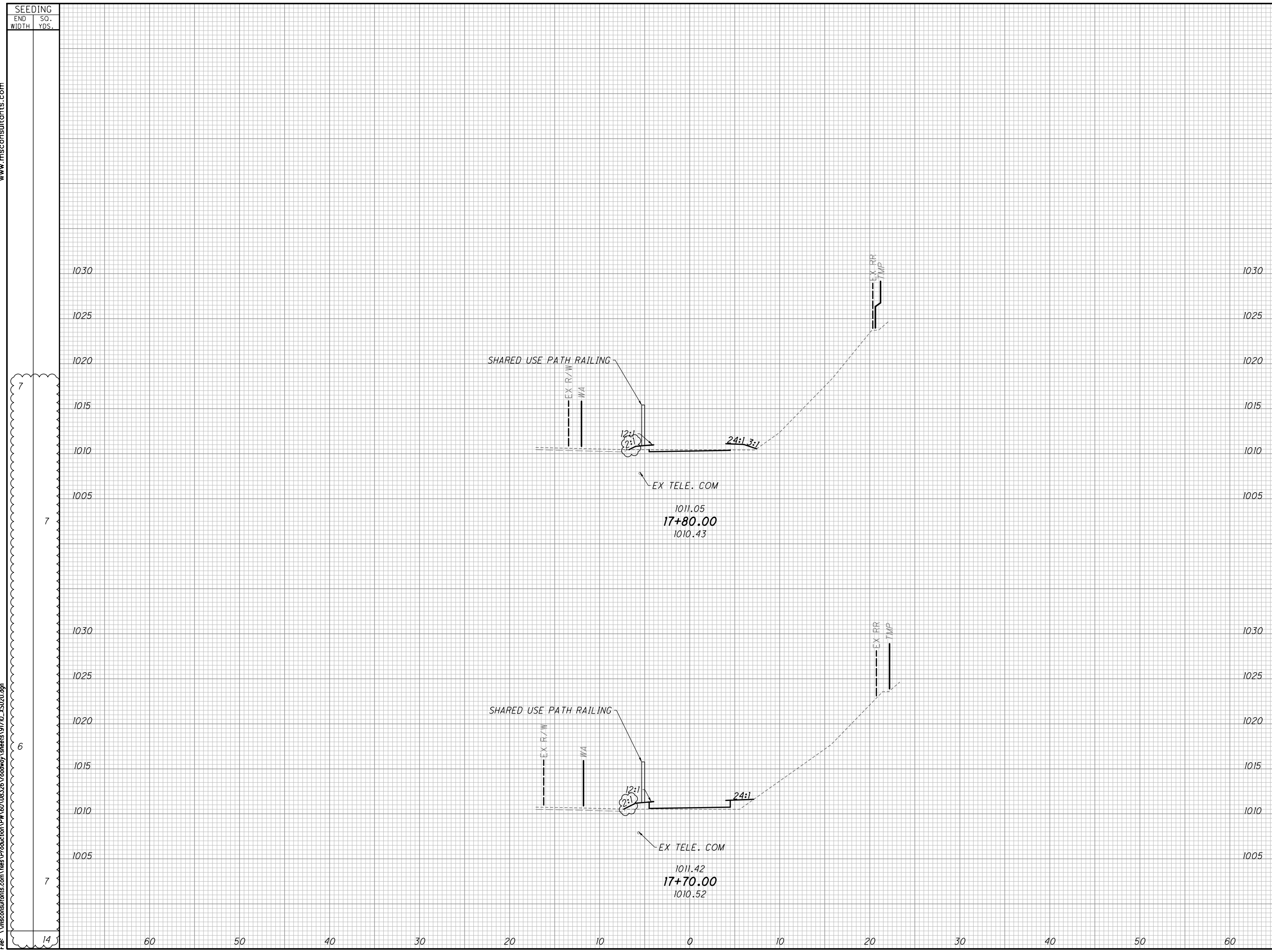


SEEDING		END AREA		VOLUME		CALCULATED	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	DNO	HRB
6		0	8	0	4		
7				0			
5		0	11				
8				0	5		
15		0	9				
60							
50							
40							
30							
20							
10							
0							
10							
20							
30							
40							
50							
60							
		0	8	0	4		
		0	11	0	5		
		0	9				

CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 17+50.00 TO STA. 17+60.00

SUM - 8 - 1.75

288
801



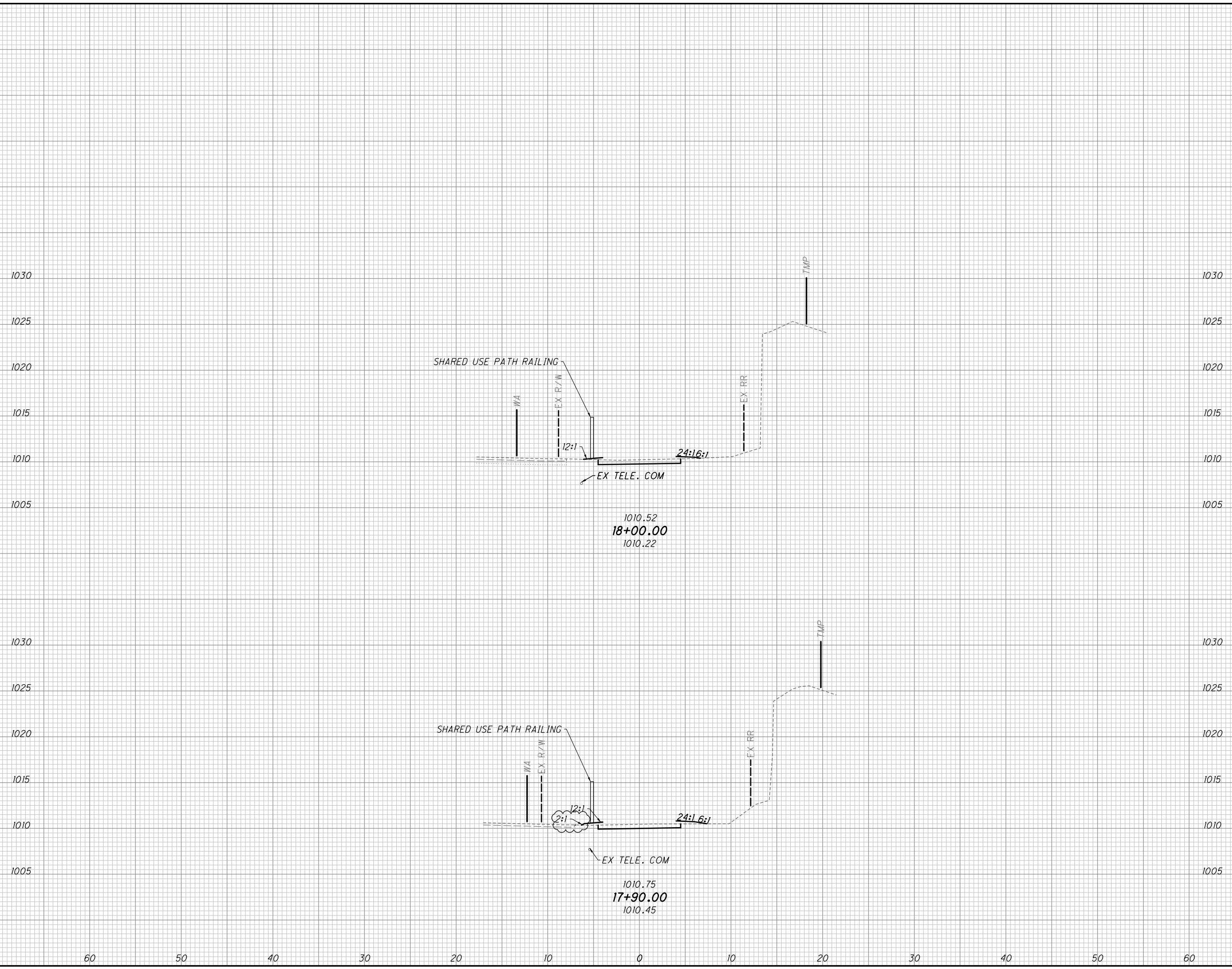
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END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	DNO	HRB
7		1	2	0	1		
7				0			
6		0	5	0	2		
7				0	3		
14							

CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 17+70.00 TO STA. 17+80.00

SUM - 8 - 1.75

289
801

SEEDING	
END WIDTH	SO. YDS.
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	

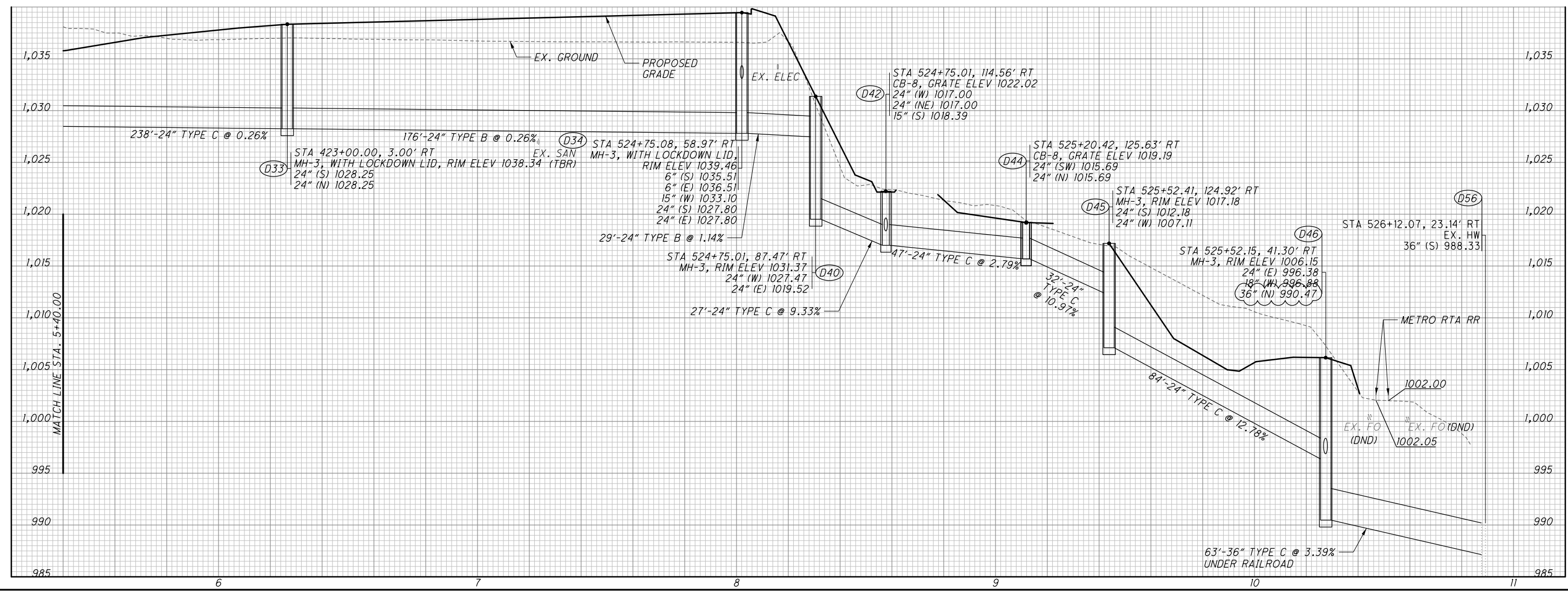
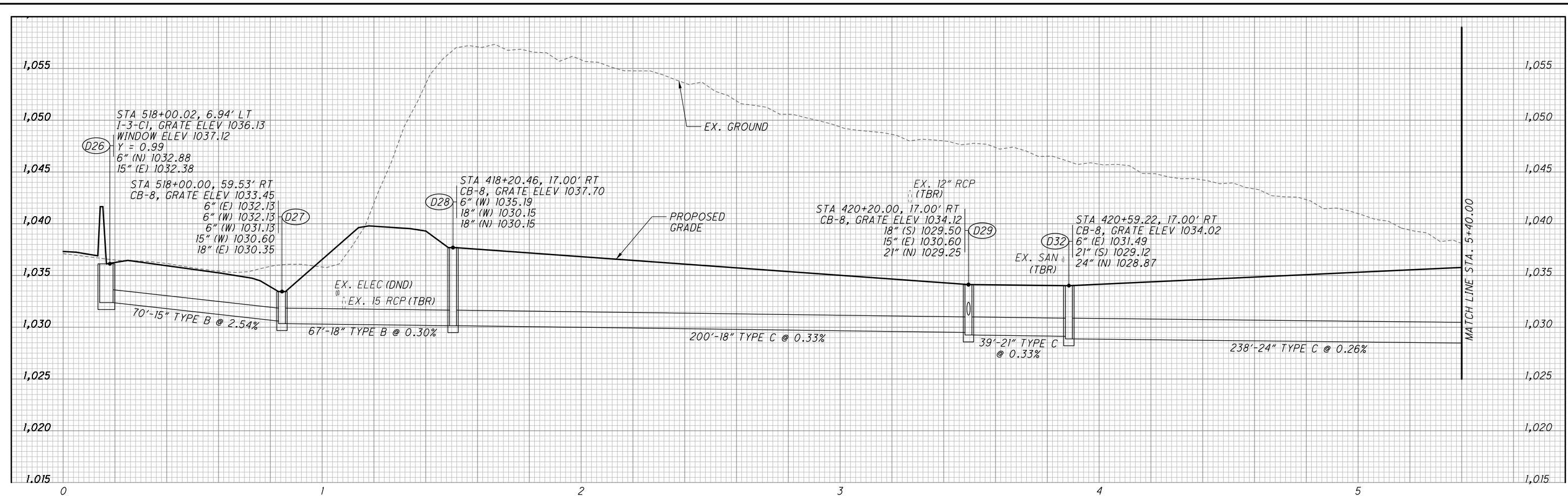


END AREA		VOLUME		CALCULATED DNO	CHECKED HRB
CUT	FILL	CUT	FILL		
4	0	1	0		
4	1	1	1		
		2	1		
				290	801

**CROSS SECTIONS SHARED-USE PATH DETOUR
STA. 17+90.00 TO STA. 18+00.00**

SUM - 8 - 1.75

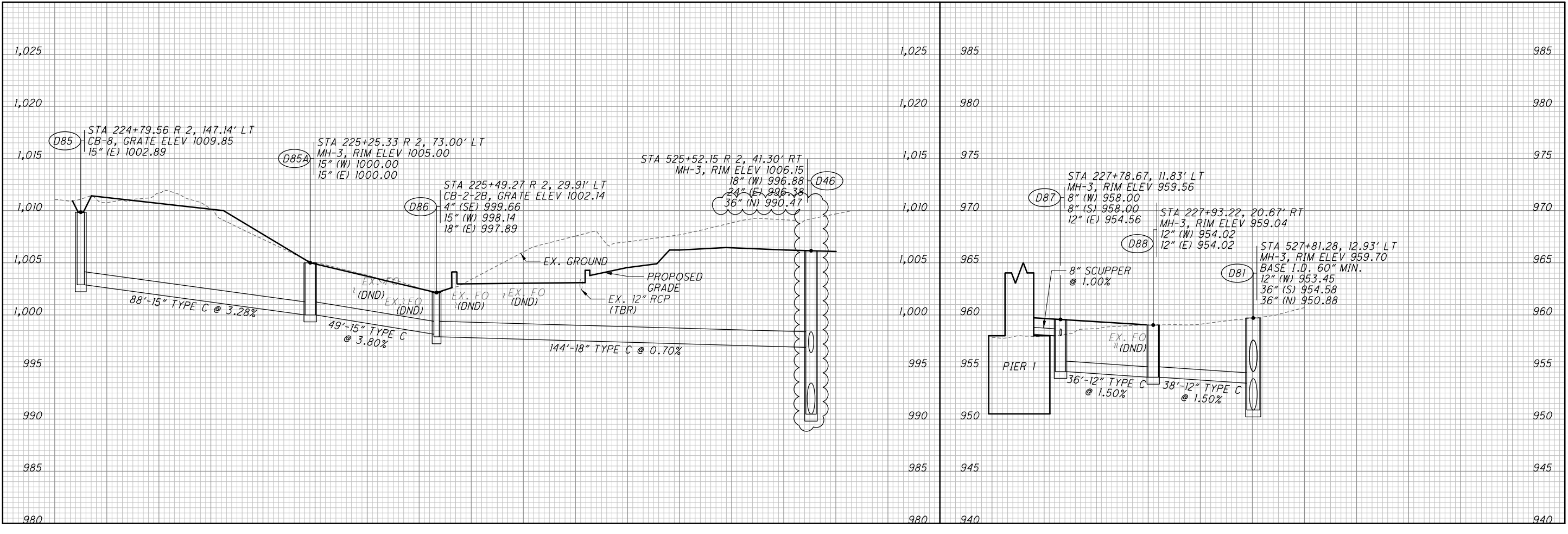
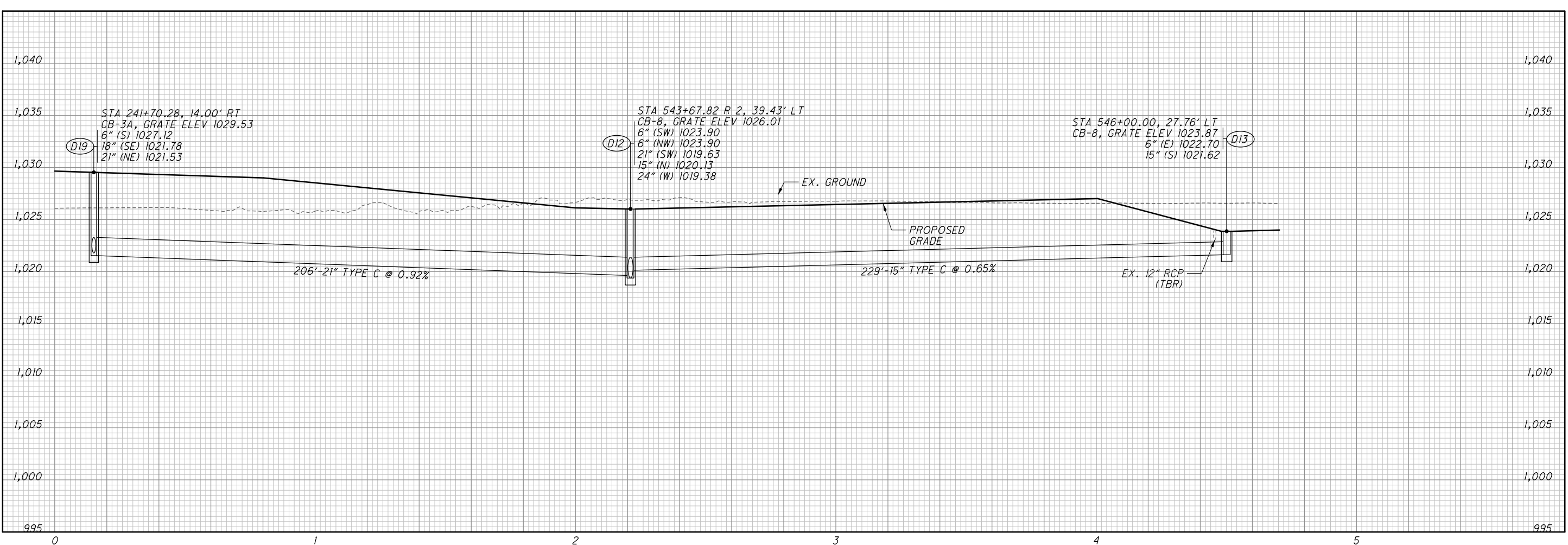
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Ohio DOT Workspace
SUM-8
www.msconsultants.com

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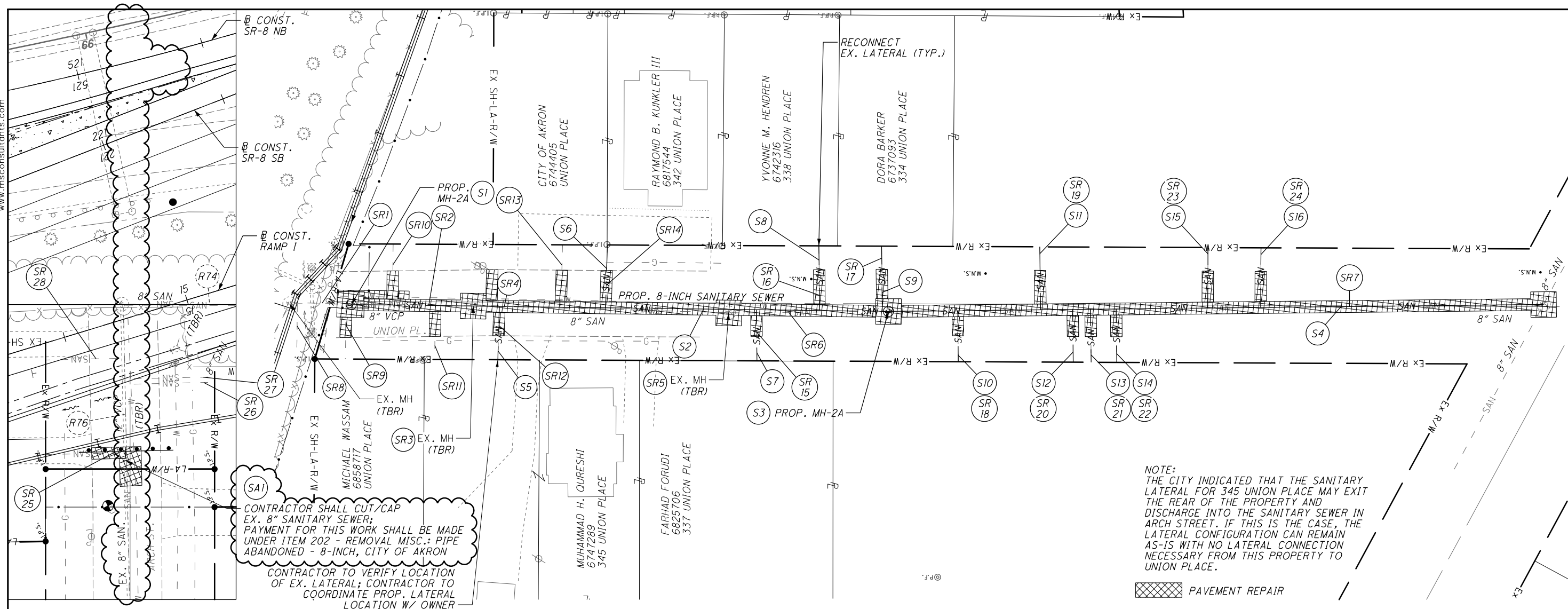


CALCULATED
DNO
CHECKED
HRB

STORM SEWER PROFILES

SUM-8-1.75

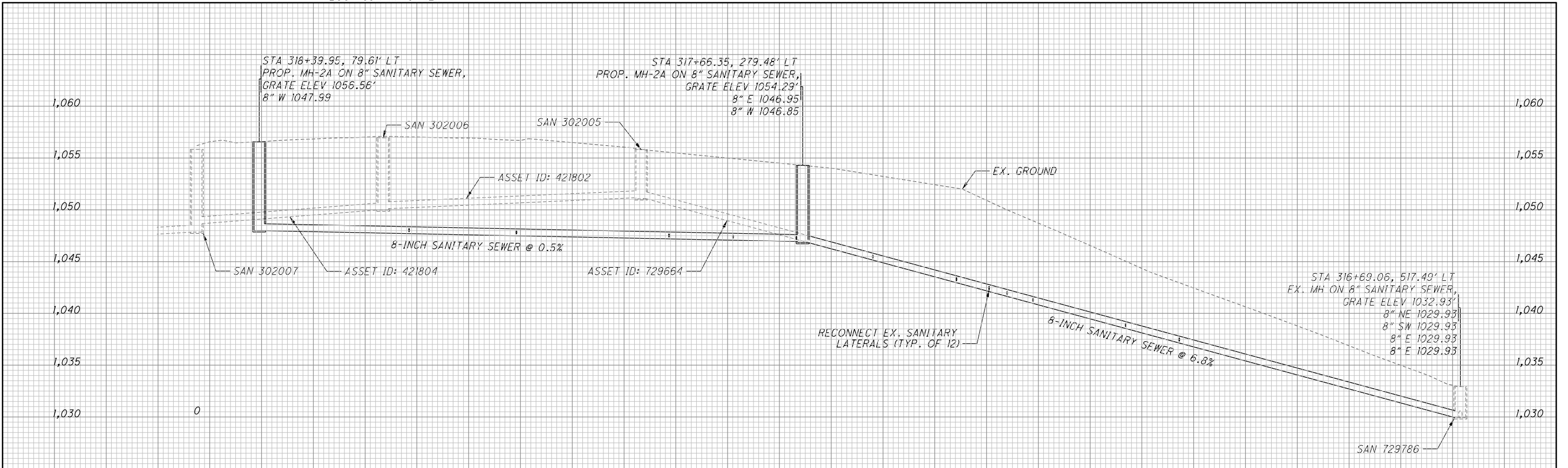
320
801



CONTRACTOR SHALL CUT/CAP EX. 8" SANITARY SEWER; PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM 202 - REMOVAL MISC.: PIPE ABANDONED - 8-INCH, CITY OF AKRON
CONTRACTOR TO VERIFY LOCATION OF EX. LATERAL; CONTRACTOR TO COORDINATE PROP. LATERAL LOCATION W/ OWNER

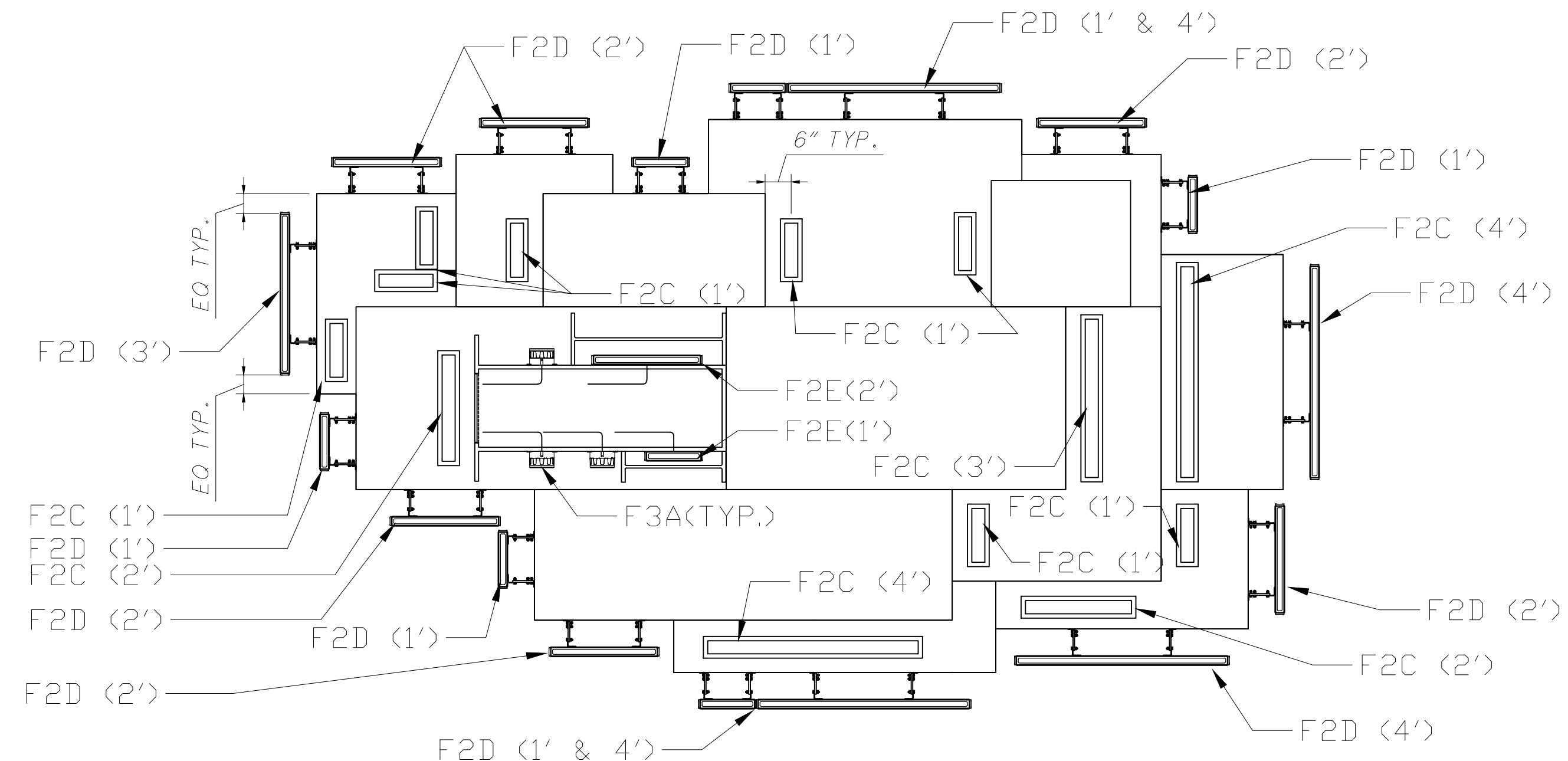
NOTE:
THE CITY INDICATED THAT THE SANITARY LATERAL FOR 345 UNION PLACE MAY EXIT THE REAR OF THE PROPERTY AND DISCHARGE INTO THE SANITARY SEWER IN ARCH STREET. IF THIS IS THE CASE, THE LATERAL CONFIGURATION CAN REMAIN AS-IS WITH NO LATERAL CONNECTION NECESSARY FROM THIS PROPERTY TO UNION PLACE.

PAVEMENT REPAIR

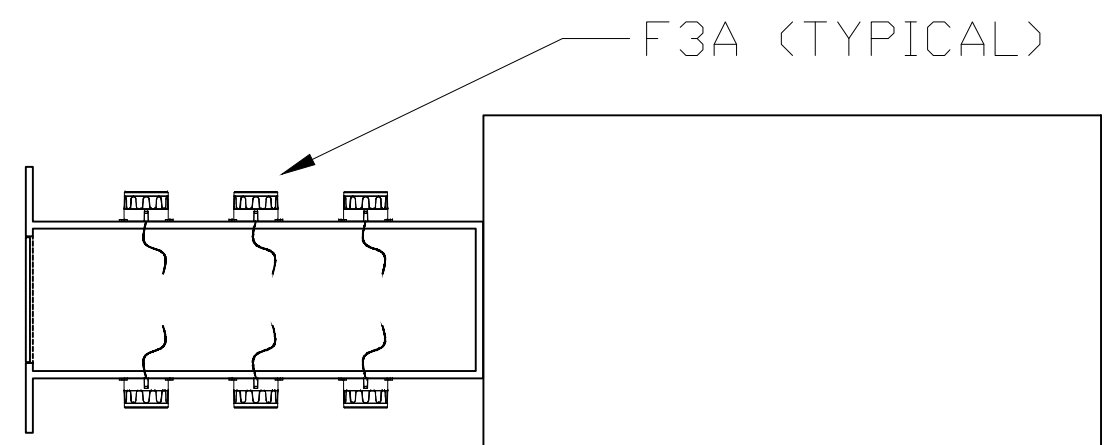


NOTES:

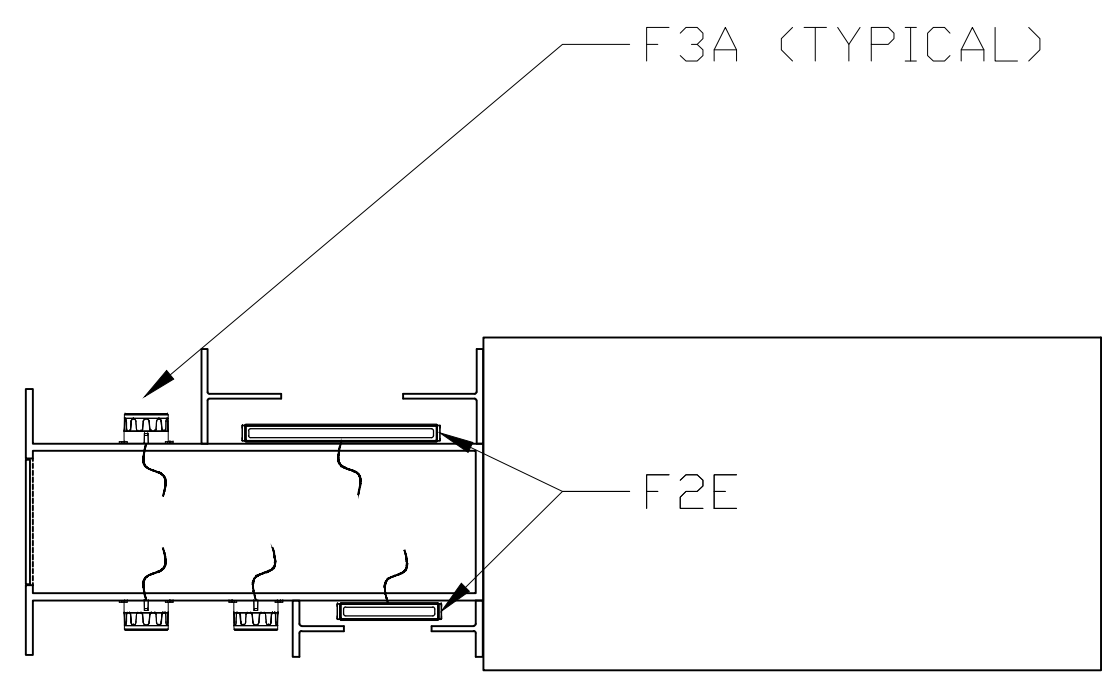
1. SUPPLIER AND CONTRACTOR TO ENSURE THAT ALL CONNECTIONS OF DISSIMILAR METALS ARE PROPERLY PROTECTED TO AVOID LONG TERM CORROSION.
2. ALL SUPPORTING HARDWARE TO BE FINISHED TO MATCH CUSTOM COLOR LUMINAIRE. ALL JOINTS ARE TO BE WELDED AND GROUND FOR A SMOOTH APPEARANCE THERE SHALL BE NO OPENINGS IN THE STRUCTURAL MEMBERS.
3. CONTRACTOR TO ENSURE THAT ALL VERTICAL ELEMENTS HUNG PLUMB AND ALL HORIZONTAL ELEMENTS HUNG LEVEL.
4. CONTRACTOR TO COORDINATE LUMINAIRE MOUNTING DETAILS BASED ON ENGINEER'S DRAWINGS, MANUFACTURER'S INSTRUCTION, AND SITE CONDITIONS. PROVIDE SHOP DRAWINGS FOR ENGINEER'S REVIEW PRIOR TO LUMINAIRE ORDERING.
5. PROVIDE PROPER DRAINAGE FOR F2C LUMINAIRES. SEE SHEET 573A FOR DETAILS.
6. SEE SHEET 573A FOR CONDUIT ROUTING DETAILS.
7. REFER TO SHEET LT13 FOR MONUMENT ZONING PLAN
8. REFER TO SHEET LT14 FOR ZONING SCHEDULE



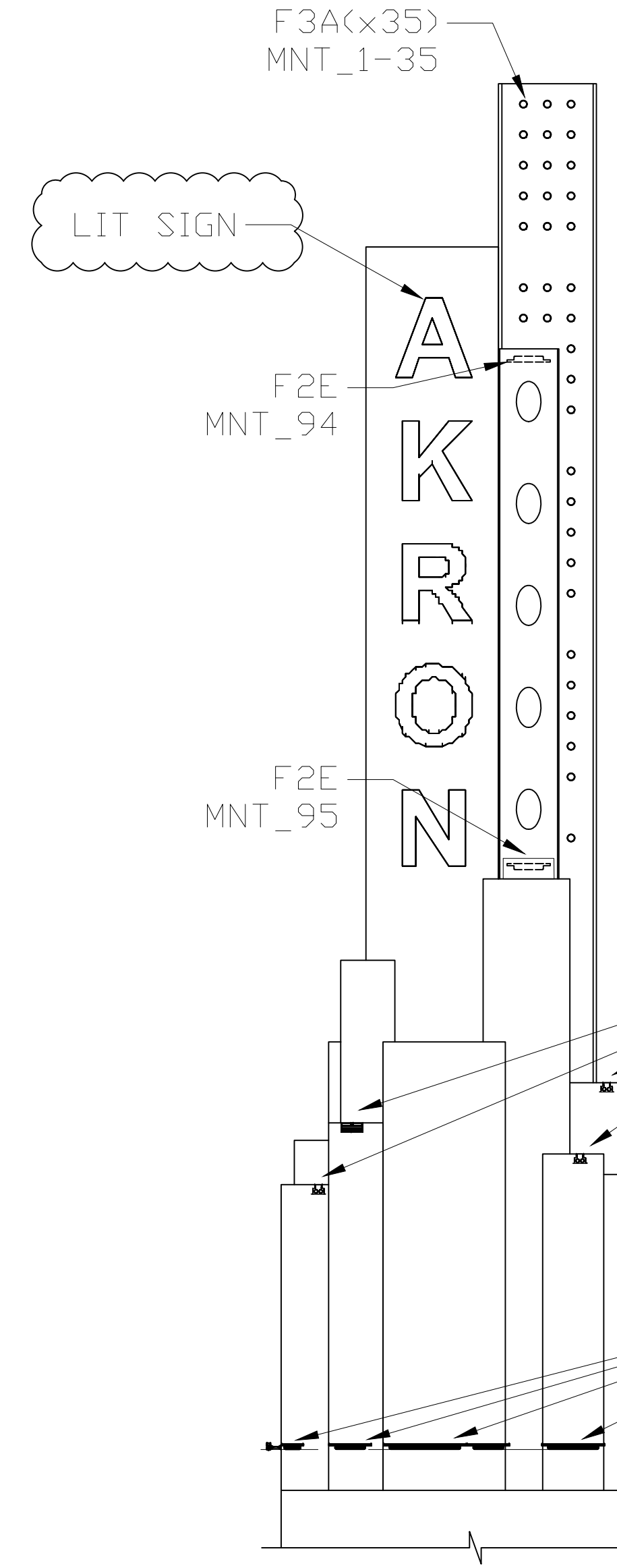
MONUMENT PLAN VIEW



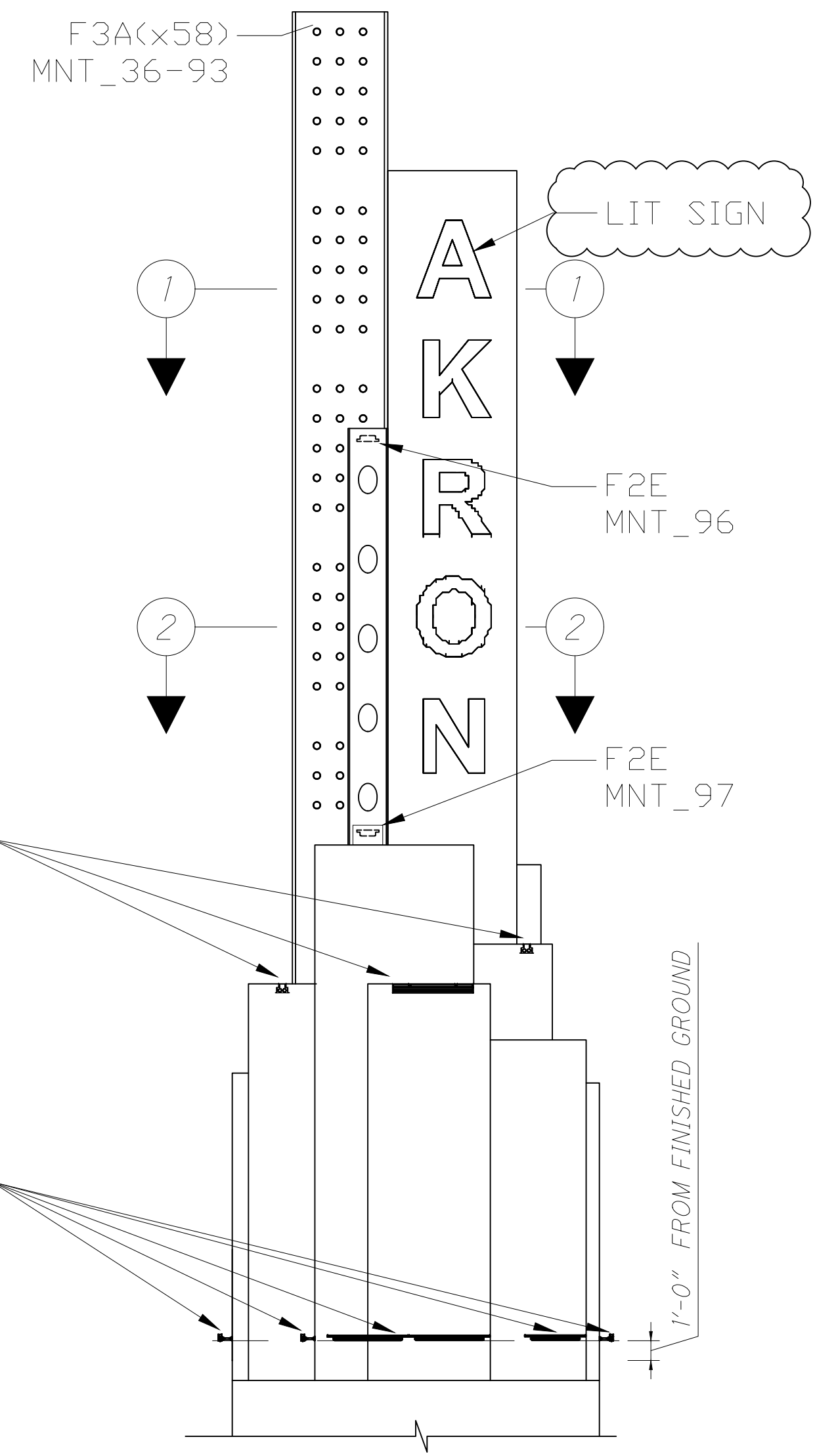
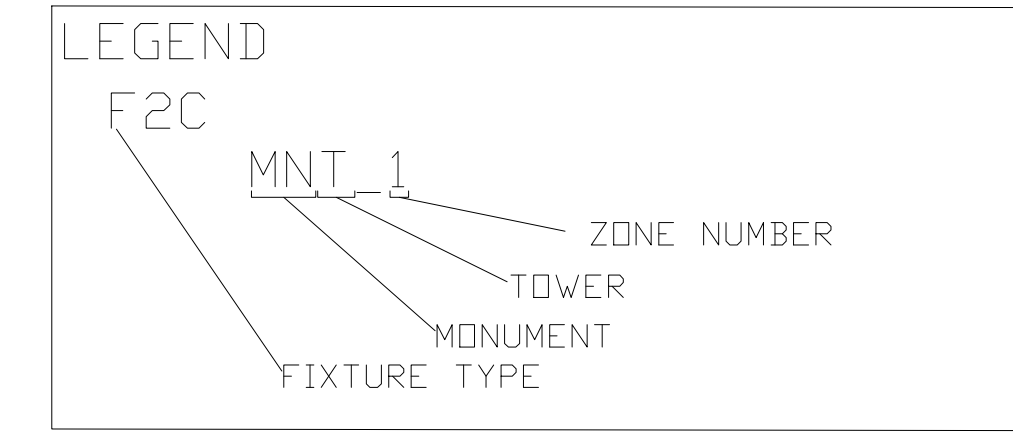
I BEAM LIGHTING DETAIL SECTION 1



I BEAM LIGHTING DETAIL SECTION 2



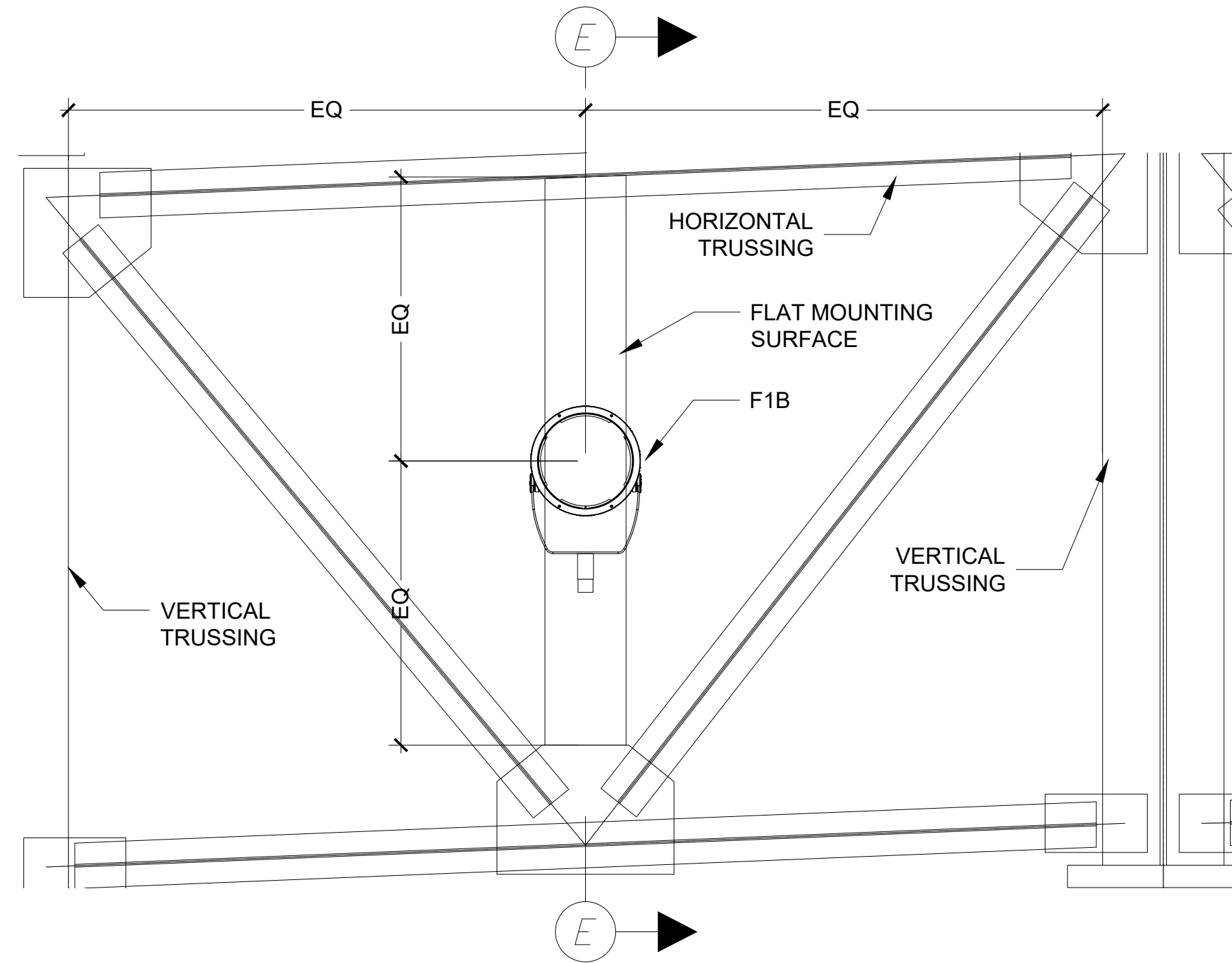
MONUMENT SOUTH ELEVATION



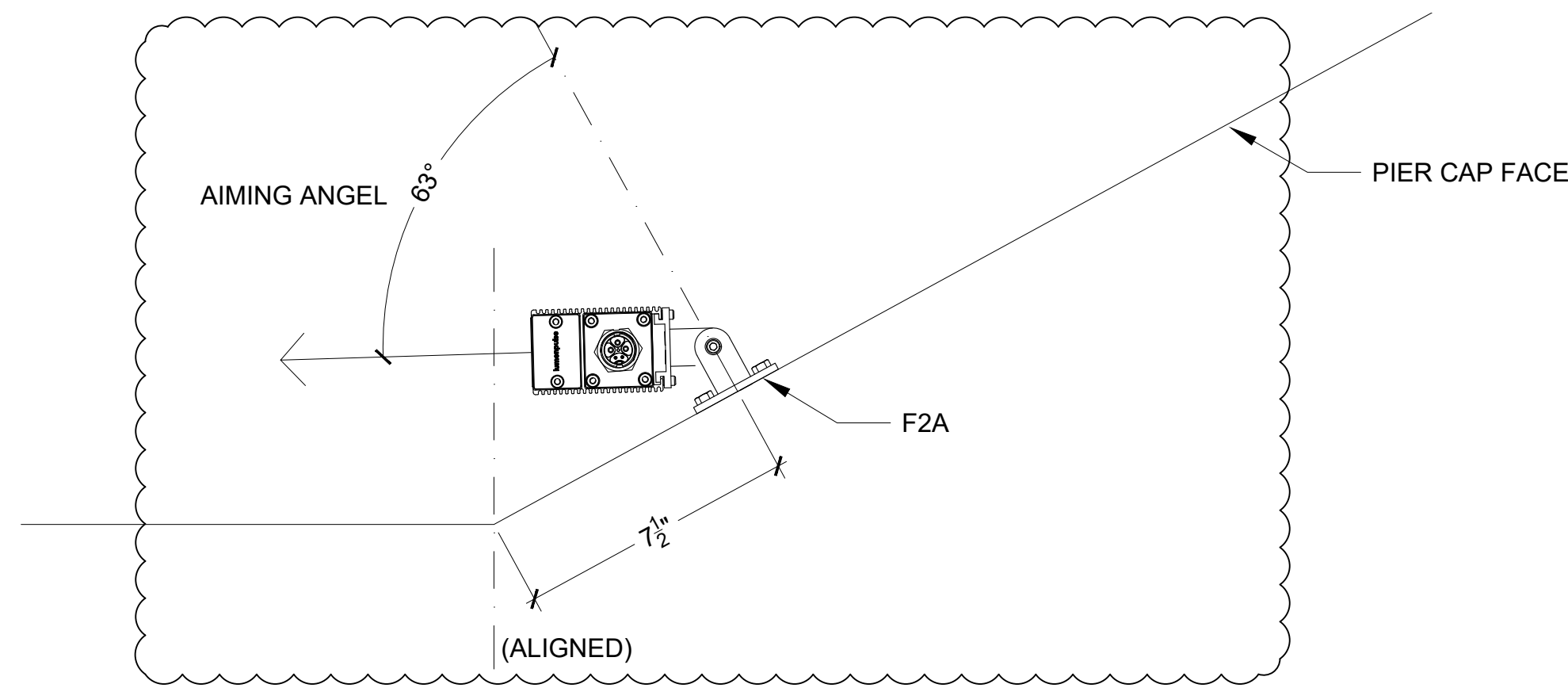
MONUMENT NORTH ELEVATION

DESIGNED HLB		REVIEWED GLG	DATE 07-Oct	DESIGN AGENCY ms consultants, inc. 2221 Schrock Road Columbus, Ohio 43229
CHECKED HLB		REVIS HLB	STRUCTURE FILE NUMBER 7700370/7700371	
MONUMENT AESTHETIC LIGHTING BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS (CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET				
SUM-8-1.75		PID No. 91710		
LT9/LT14		424 801		

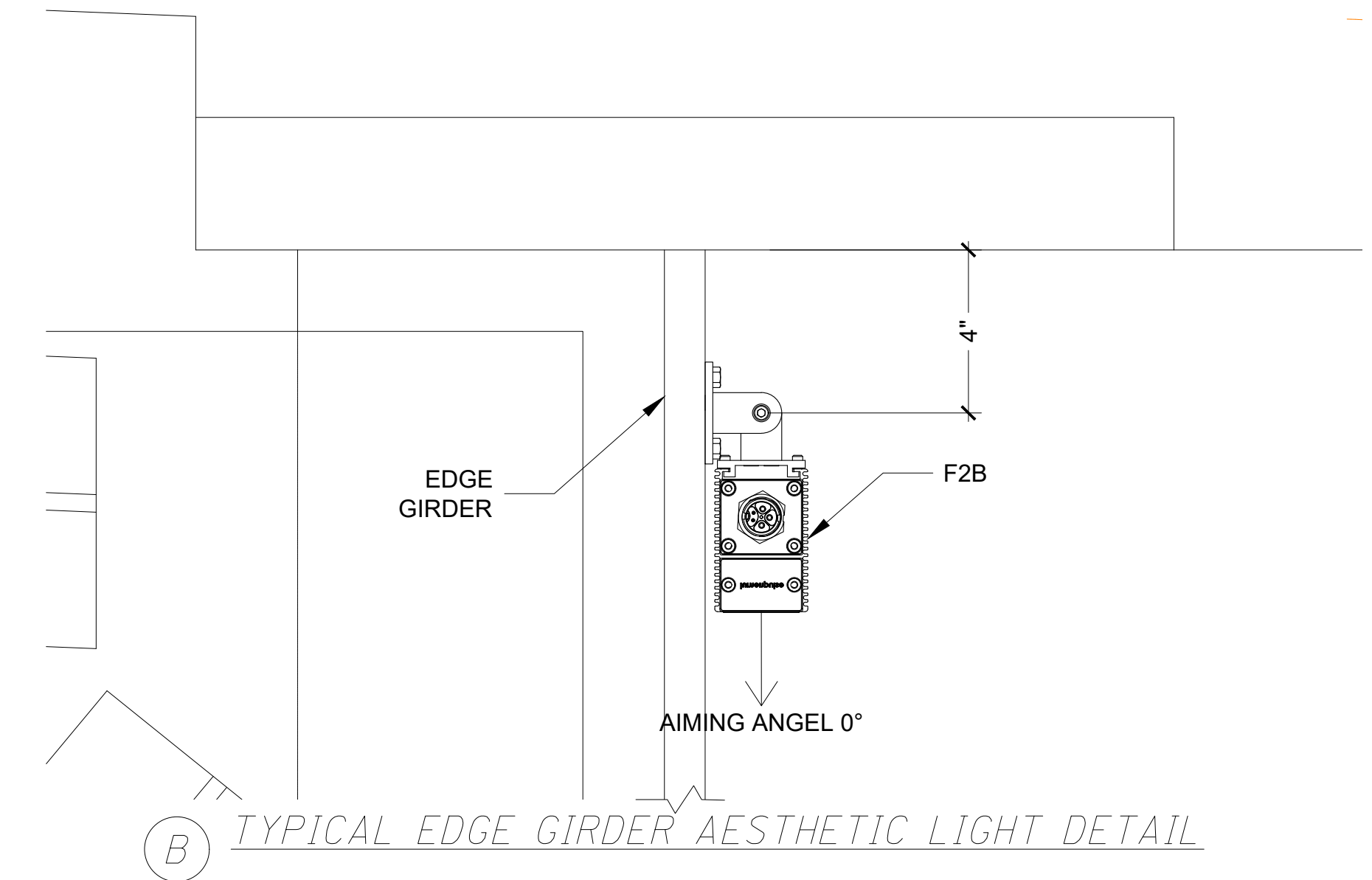
- NOTES:
- CONTRACTOR SHALL COORDINATE LUMINAIRE MOUNTING DETAILS WITH MANUFACTURER'S INSTRUCTIONS. THE CONTRACTOR IS RESPONSIBLE FOR FINAL DETAILING AND INSTALLATION, AND SHALL PROVIDE SHOP DRAWINGS FOR ENGINEER APPROVAL PRIOR TO ORDERING THE LUMINAIRES. PAYMENT FOR THIS WORK, INCLUDING ALL LABOR, HARDWARE, AND SHOP DRAWINGS IS INCIDENTAL TO THE LIGHTING AND WILL BE PAID FOR UNDER THE UNIT BID PRICE FOR ITEM SPECIAL - STRUCTURE MISC.: LIGHTING - BRIDGES, ABUTMENTS, PIERS.
 - SUPPLIER AND CONTRACTOR TO ENSURE THAT ALL CONNECTIONS OF DISSIMILAR METALS ARE PROPERLY PROTECTED TO AVOID LONG TERM CORROSION.
 - ALL SUPPORTING HARDWARE TO BE FINISHED TO MATCH CUSTOM COLOR LUMINAIRE. ALL JOINTS ARE TO BE WELDED AND GROUND FOR A SMOOTH APPEARANCE THERE SHALL BE NO OPENINGS IN THE STRUCTURAL MEMBERS



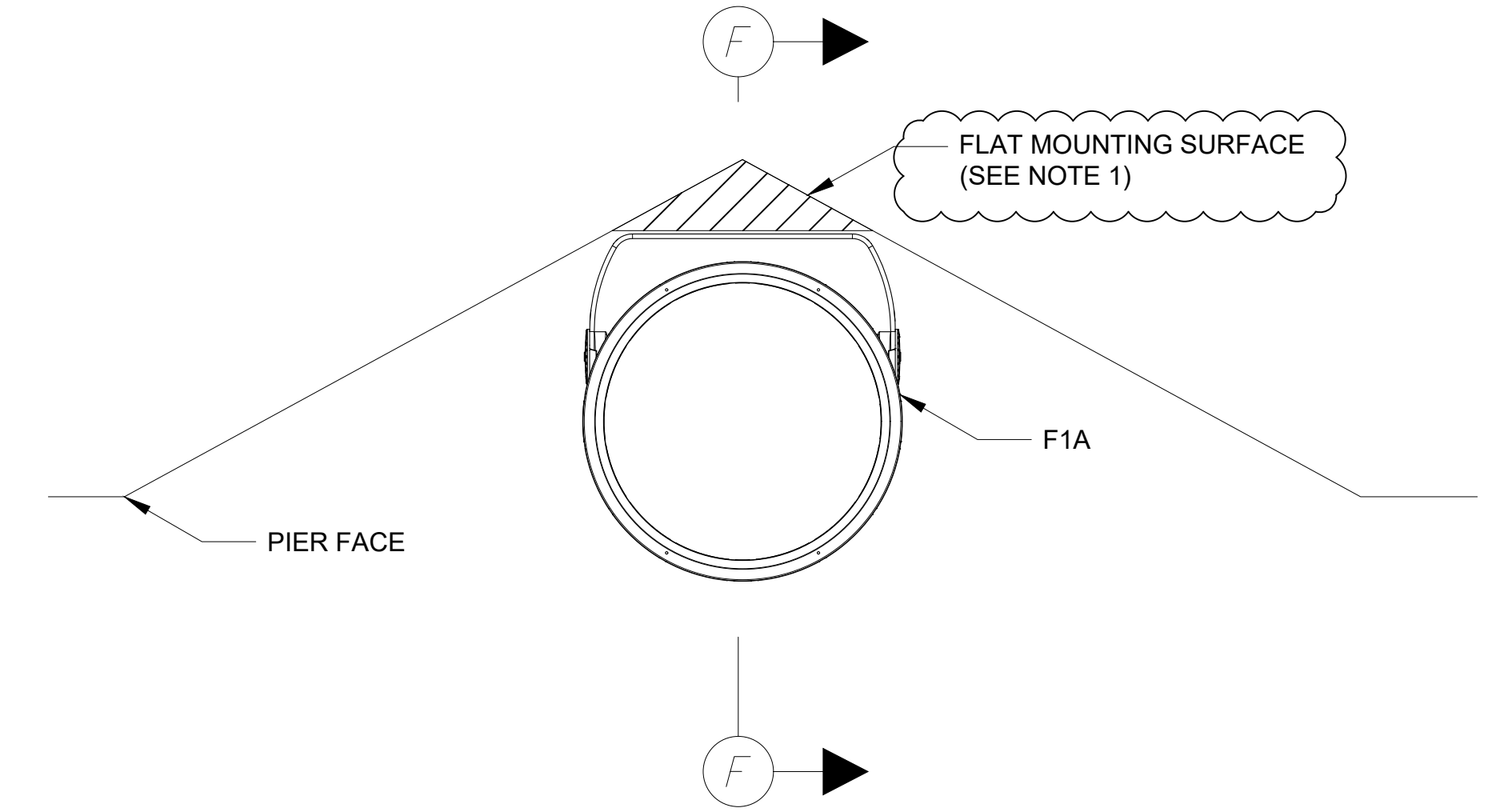
A TYPICAL UNDER DECK AESTHETIC FLOOD LIGHT FRONT ELEVATION DETAIL



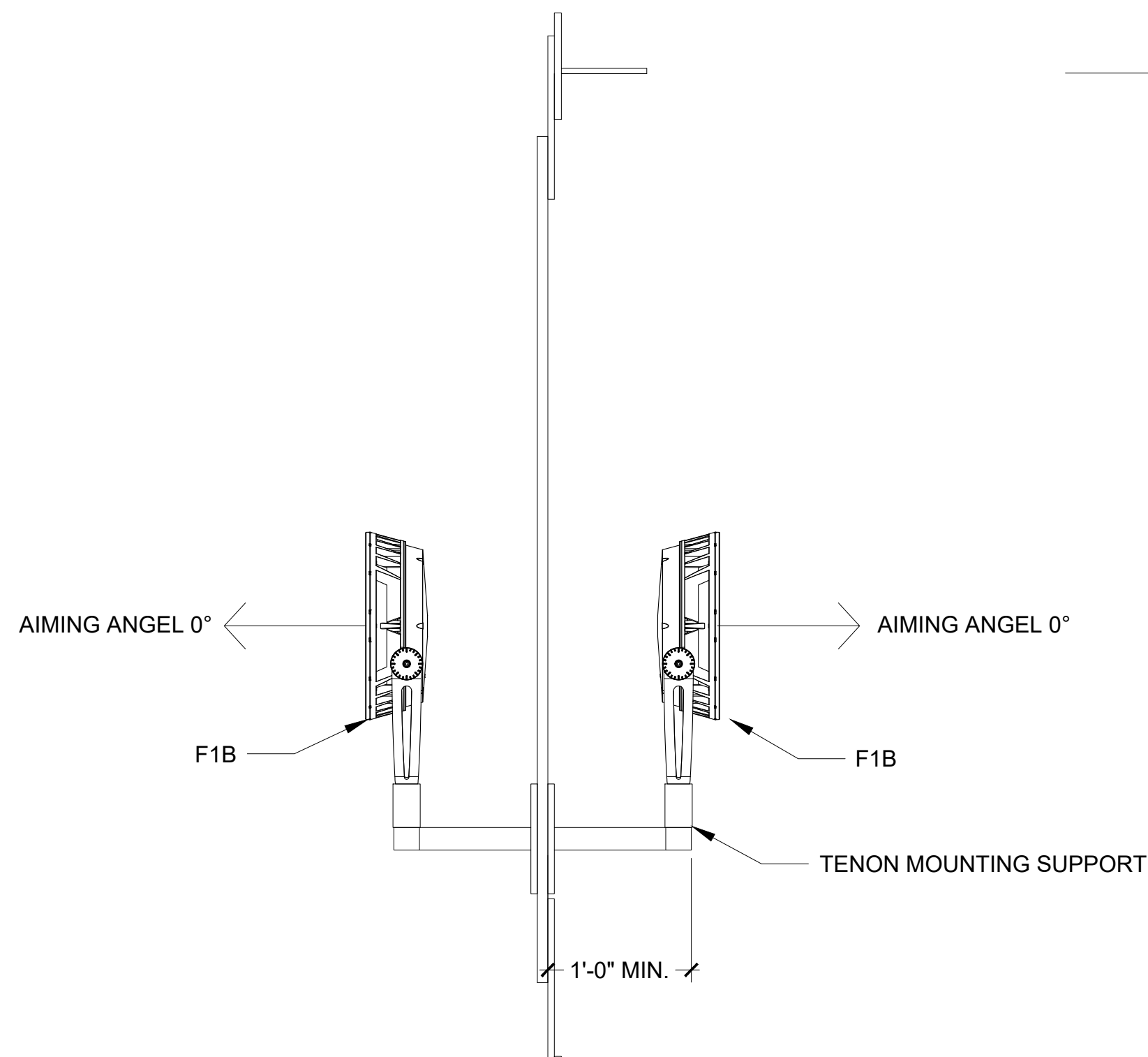
C TYPICAL PIER CAP AESTHETIC LIGHT DETAIL



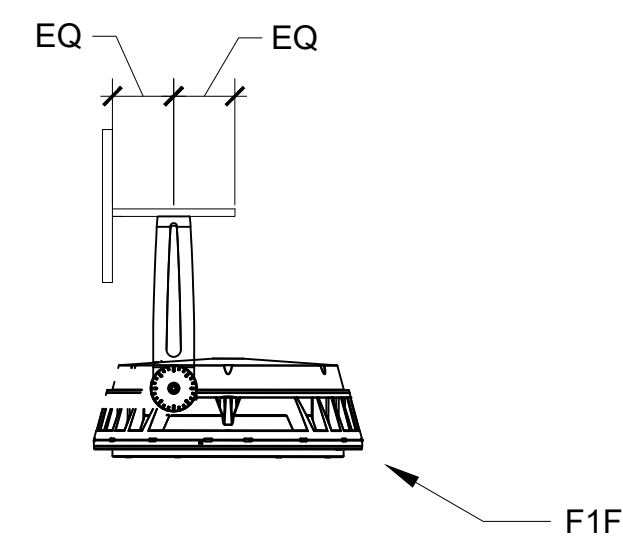
B TYPICAL EDGE GIRDER AESTHETIC LIGHT DETAIL



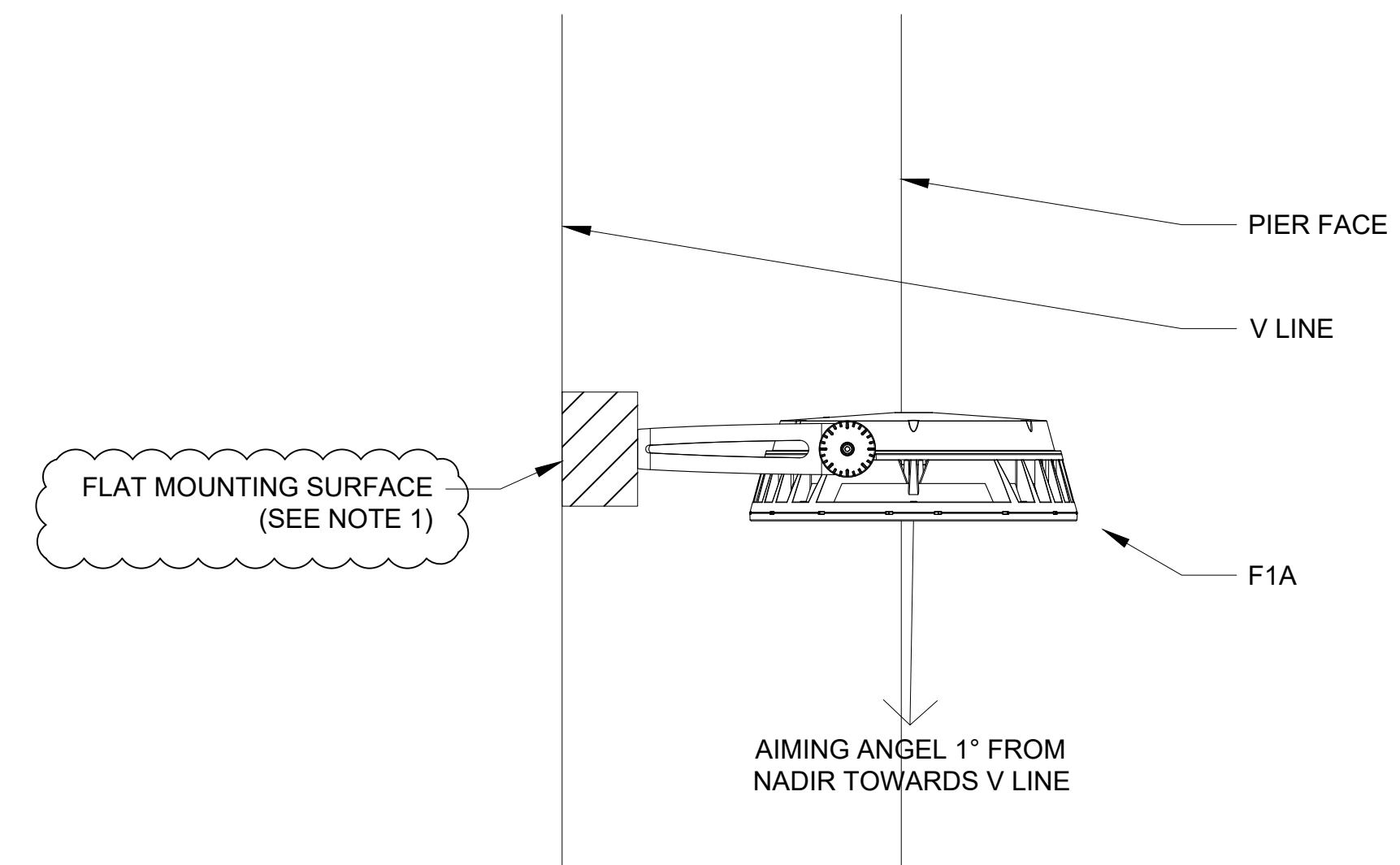
D TYPICAL PIER AESTHETIC FLOOD LIGHT DETAIL-PLAN



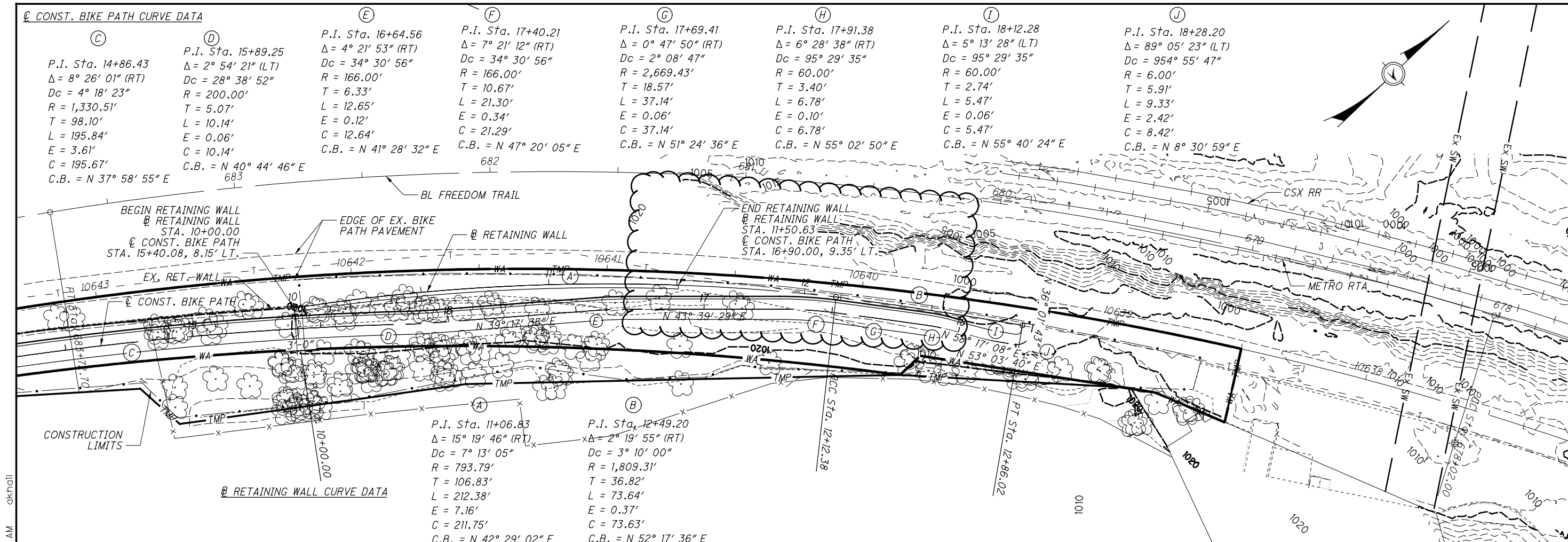
E TYPICAL UNDER DECK AESTHETIC FLOOD LIGHT SECTION ELEVATION DETAIL



G TYPICAL SW ABUTMENT TRAIL DAYTIME LIGHTING SECTION ELEVATION DETAIL



F TYPICAL PIER AESTHETIC FLOOD LIGHT DETAIL-SECTION

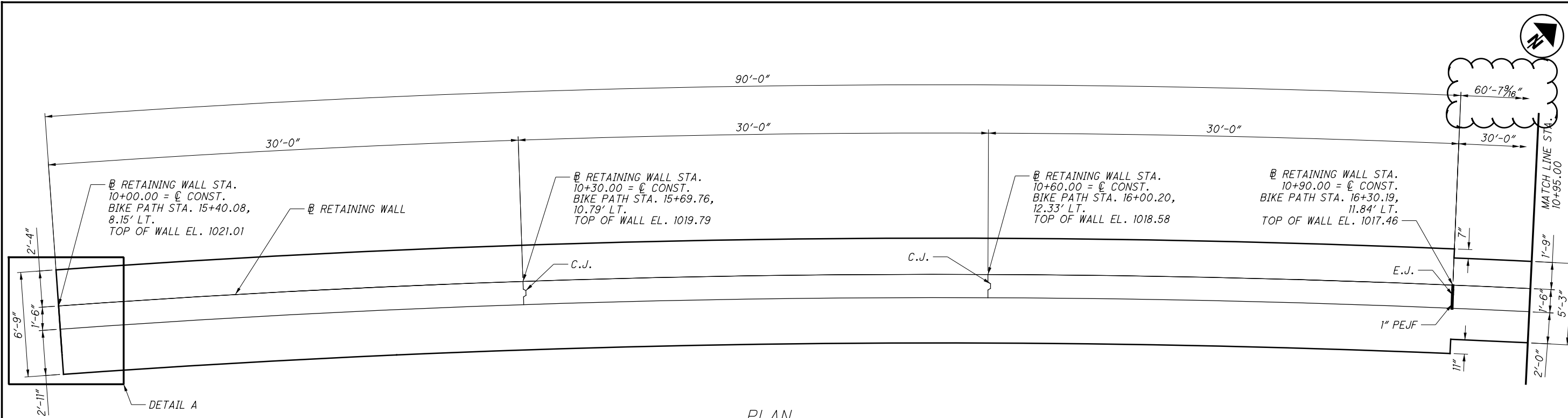


Station	Proposed Top of Wall Elevations	Proposed Ground El. at Back Face of Wall	Existing/Proposed Ground El. at Front Face of Wall
10+00	1021.01	1020.51	1011.53
10+50	1020.00	1019.50	1011.48
11+00	1018.96	1018.46	1011.48
11+50	1018.03	1017.53	1011.40
12+00	1017.12	1016.62	1011.60
12+50	1016.24	1015.74	1011.24
13+00	1015.19	1014.74	1010.69

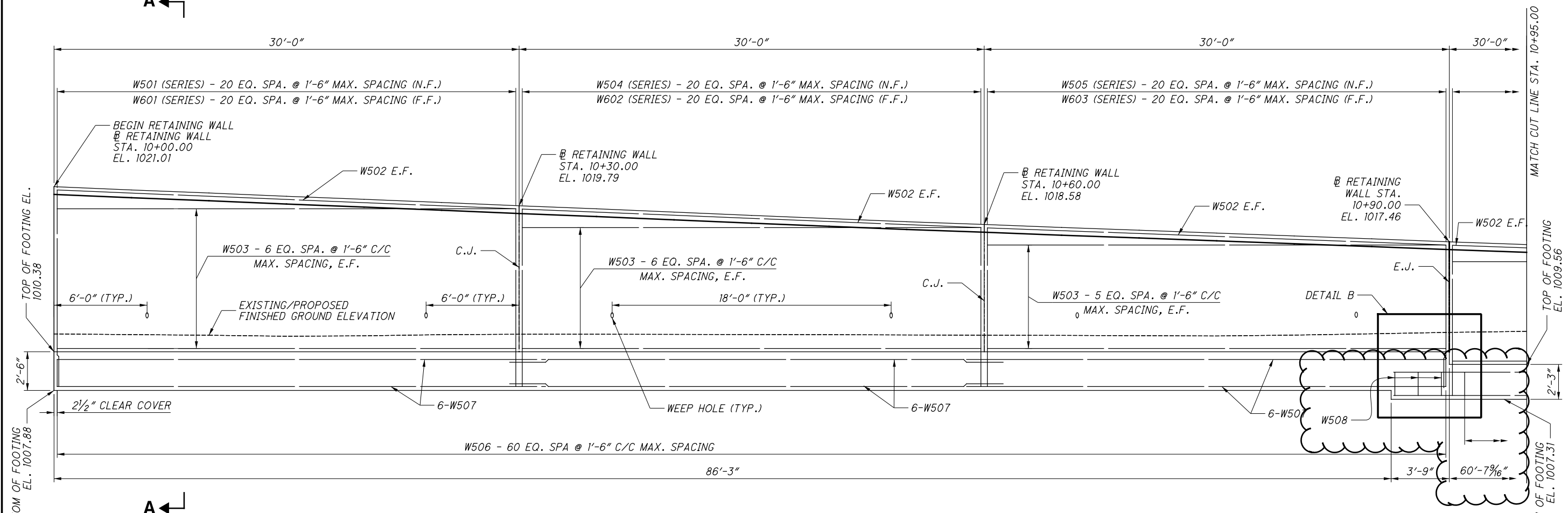
ELEVATION ALONG B RET. WALL

P:\16-0187 (91710_SUM-008)\91710\structures\AAAI\III\sheet\91710\91710WPO01.dgn_Sheet 3/9/2023 11:00:15 AM akhal

P:\16-0187 (91710_SUM-008)\91710\structures\91710\91710.dgn Sheet 3/14/2023 12:49:51PM akhail



PLAN
(EXISTING WALL NOT SHOW FOR CLARITY)



ELEVATION
(ALONG @ RETAINING WALL)

NOTES:

1. PROVIDE 2.5 INCHES MIN. CONCRETE COVER EXCEPT AS NOTED BELOW.
2. 3.0 INCHES MIN. FOR SURFACES CAST AGAINST EARTH.
3. PROVIDE MIN. LAP LENGTH OF 2'-2" FOR ALL #5 REBAR.
4. SEE SHEET 6/8 FOR DETAIL A. SEE SHEET 6/8 FOR DETAIL B. SEE SHEET 7/8 FOR SECTION A-A

DESIGNED	AI
CHECKED	JS
DRAWN	AI/ZM
REVIEWED	CH
DATE	03/08/23
EXCHANGE DR.	STE 240
COLUMBUS, OH	43231
TEL:	614.774.0299
WWW:	NEASINC.COM
RETAINING WALL DETAILS BIKE PATH RETAINING WALL	
SUM-8-1.75 PID No. 91710	
3 / 8	
463 801	

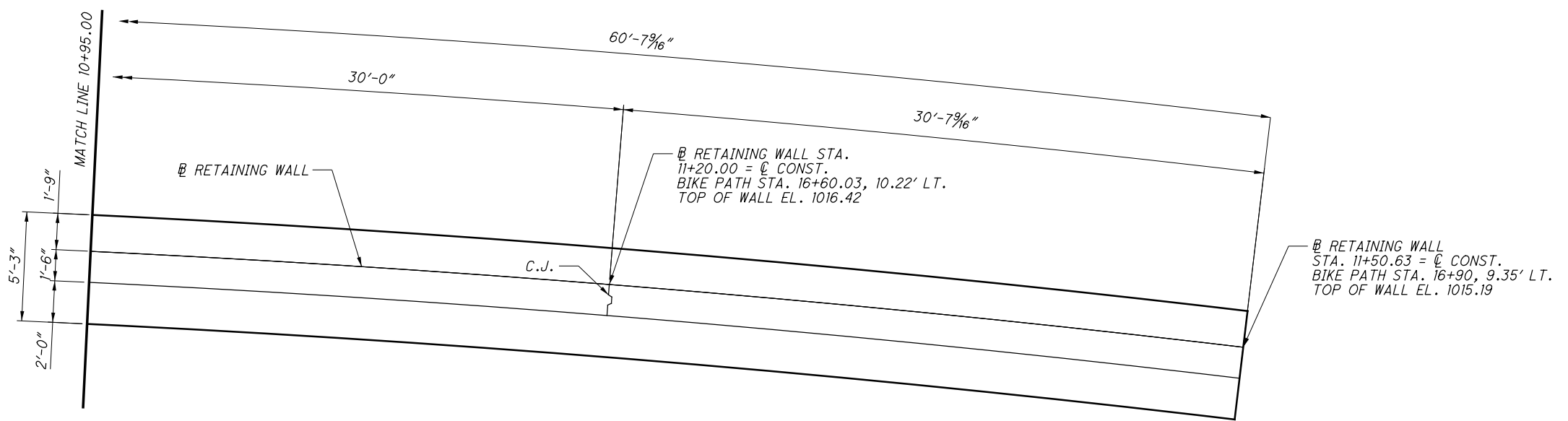
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DESIGNED	AI	CHECKED	JS
DRAWN	AI/ZM	REVISED	
REVIEWED	CH	STRUCTURE FILE NUMBER	
DATE	03/08/23	BIKE PATH FILE NUMBER	

RETAINING WALL DETAILS
 BIKE PATH RETAINING WALL

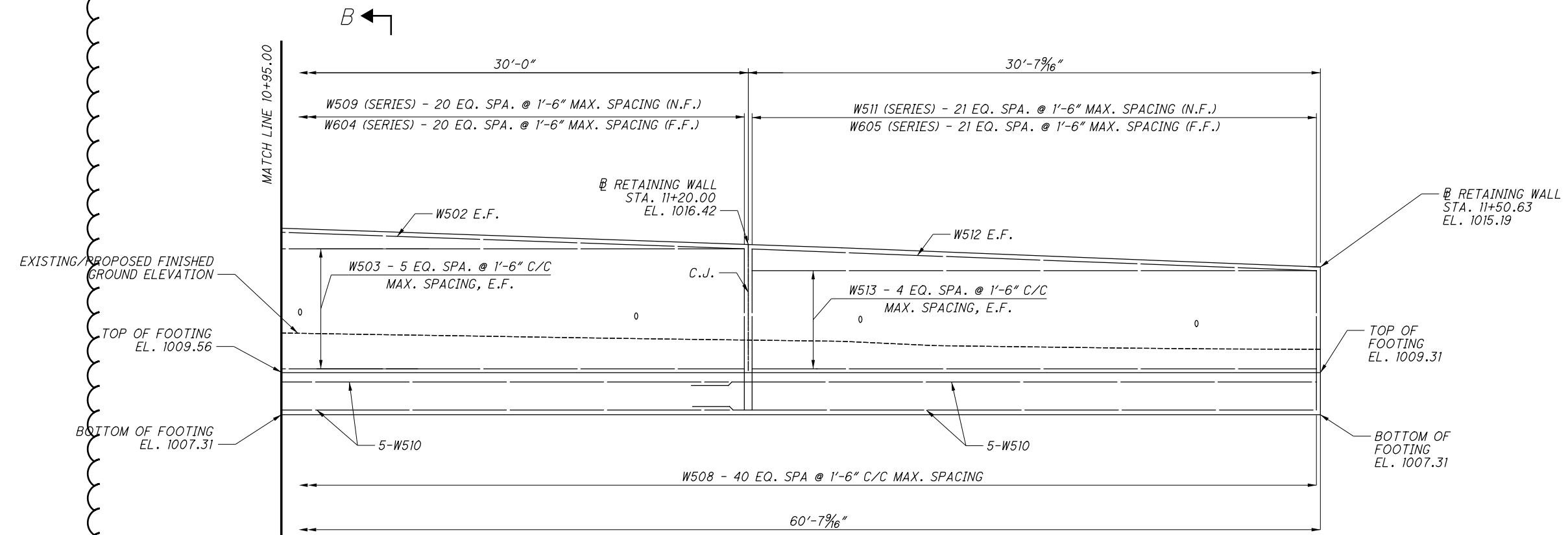
SUM-8-1.75
 PID No. 91710



PLAN

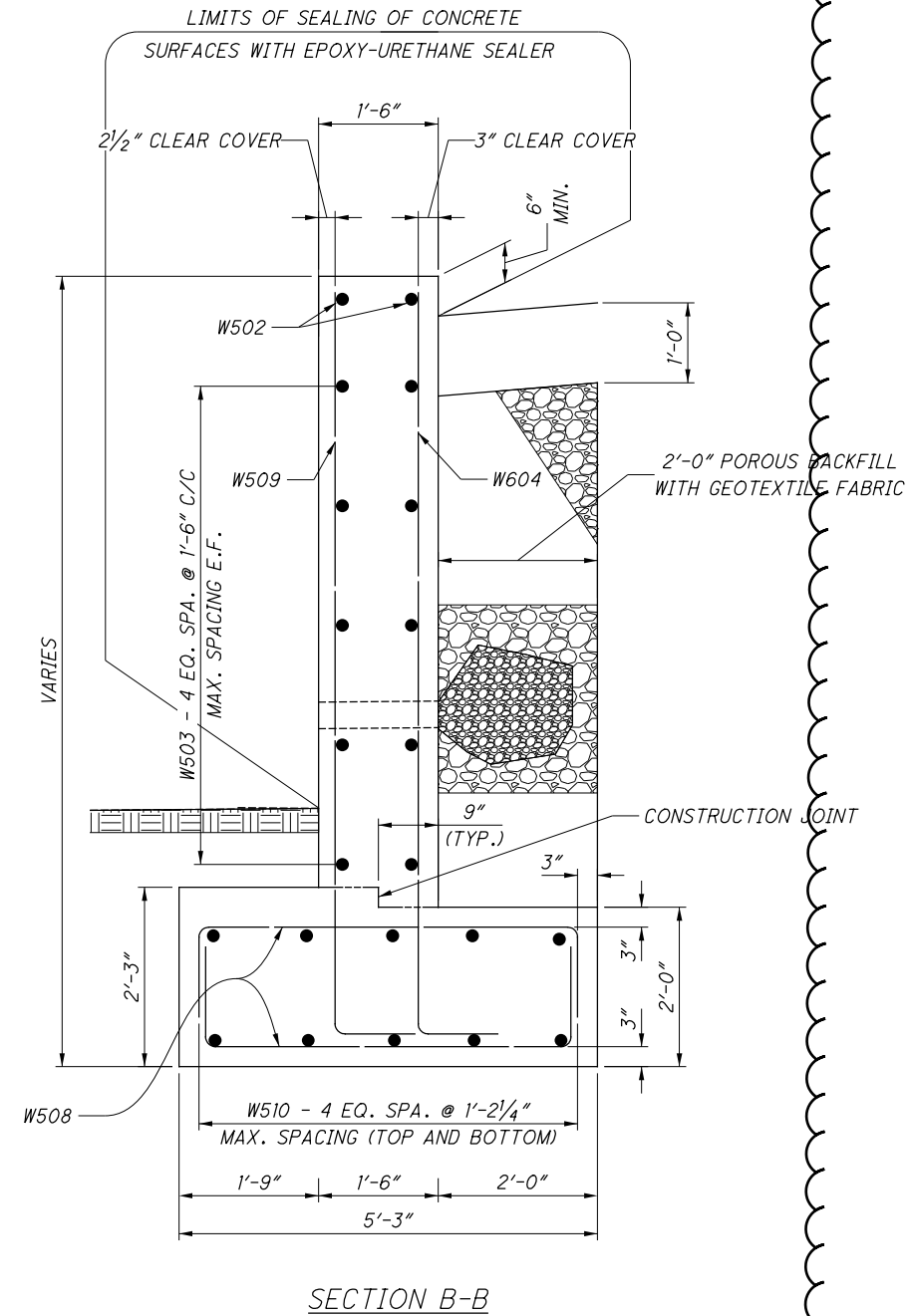
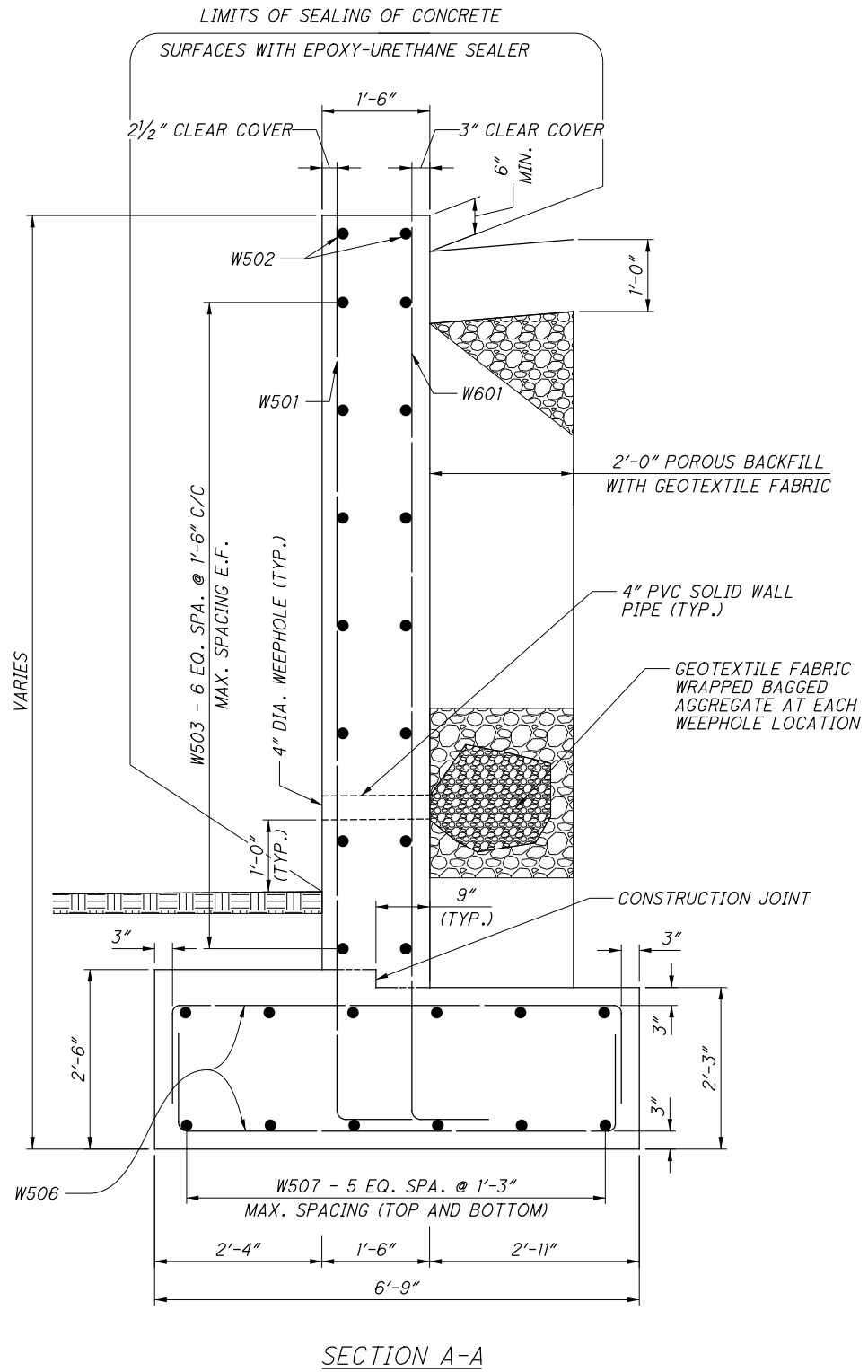
NOTES:

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



ELEVATION
 (ALONG B-B RETAINING WALL)

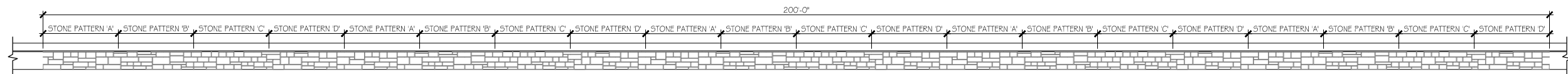
THIS SHEET LEFT BLANK INTENTIONALLY.



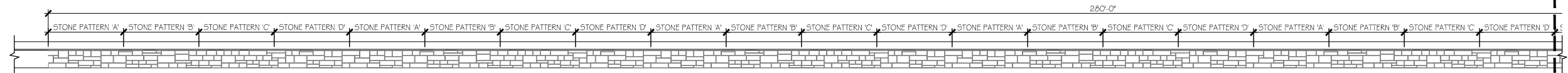
NOTES:

1. PROVIDE 2.5 INCHES MIN. CONCRETE COVER EXCEPT AS NOTED BELOW.
2. 3.0 INCHES MIN. FOR SURFACES CAST AGAINST EARTH.
3. GEOTEXTILE FABRIC WRAPPED BAGGED AGGREGATE AND 4" PVC SOLID WALL PIPE AT EACH WEEPHOLE LOCATION SHALL BE INCLUDED WITH ITEM 518 FOR PAYMENT.

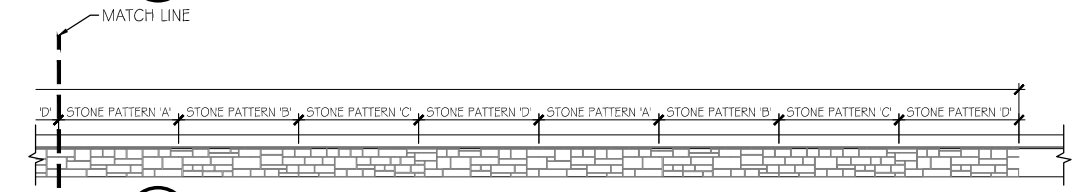
DESIGN AGENCY: MEAS ENGINEERING & ARCHITECTURE INC. 5800 CORPORATE EXCHANGE DR. SUITE 240 COLUMBUS, OH 43231 TEL: 614.714.0299 WWW.MEASINC.COM	
DESIGNED	DATE
AI	03/08/23
CHECKED	STRUCTURE FILE NUMBER
JS	-----
DRAWN	REVIEWED
AI/ZM	CH
REVISED	-----
RETAINING WALL DETAILS BIKE PATH RETAINING WALL	
SUM-8-1.75 PID No. 91710	
7 / 8	
467 801	



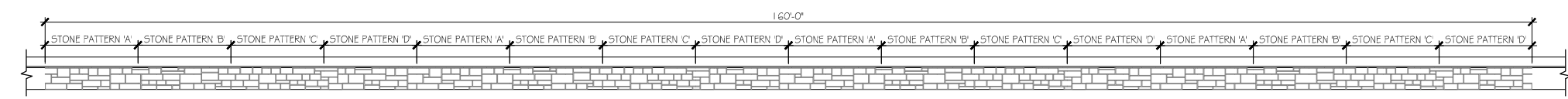
1 PARAPET ELEVATION: STONE PATTERN SEQUENCE 'A'
A1.23 SCALE: 1/32" = 1'-0"



2 PARAPET ELEVATION: STONE PATTERN SEQUENCE 'B'
A1.23 SCALE: 1/32" = 1'-0"



3 PARAPET ELEVATION: STONE PATTERN SEQUENCE 'B' CONTINUES
A1.23 SCALE: 1/32" = 1'-0"



4 PARAPET ELEVATION: STONE PATTERN SEQUENCE 'C'
A1.23 SCALE: 1/32" = 1'-0"

ACRYLIC STAIN

A. GENERAL

1. STAIN THE SIMULATED STONE SURFACES USING AN ACRYLIC RESIN-BASED STAIN. APPLY AFTER SEALING TEXTURED SURFACES WITH NON-EPOXY SEALANT (AND AFTER SEALANT HAS CURED PER MFG'S RECOMMENDATIONS.) APPLY ONE BASE COLOR STAIN FOLLOWED BY RANDOM APPLICATION OF ONE SURFACE AND TWO ACCENT COLORS TO ACHIEVE NATURAL STONE EFFECT.

B. PRODUCTS

2. PRODUCT SHALL CREATE A SURFACE FINISH THAT IS BREATHABLE (ALLOWING WATER VAPOR TRANSMISSION), AND THAT RESISTS DETERIORATION FROM WATER, ACID, ALKALI, FUNGI, SUNLIGHT OR WEATHERING.
3. STAIN MIX SHALL BE A WATER BORNE, LOW VOC MATERIAL (LESS THAN 289 GRAMS/LITER), AND SHALL MEET REQUIREMENTS FOR WEATHERING RESISTANCE OF 2000 HOURS ACCELERATED EXPOSURE MEASURED IN ACCORDANCE WITH ASTM G 23. SCRUB TEST 1000 REVOLUTIONS. ABRASIVE REABRASIVE RESISTANCE (TABOR CF 10) 500 CYCLES. ADHESION ASTM D 3359 1.00MM CROSS CUTS ON GLASS PASS 3 OR HIGHER ON A SCALE OF 1 TO 5. SUPPLY INFORMATION PERTAINING TO CHEMICAL RESISTANCE ASTM D 1308 TO 87.

C. EXECUTION

4. PROVIDE THE ENGINEER WITH THE MANUFACTURER'S SPECIFICATIONS FOR PRODUCT APPLICATION. APPLY THE PRODUCT IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS WITH EXCEPTIONS AS NOTED.
5. CLEAN SURFACE PRIOR TO APPLICATION OF STAIN MATERIALS BY PRESSURE WASHING WITH WATER, MINIMUM 3000 PSI (A RATE OF THREE TO FOUR GALLONS PER MINUTE), USING FAN NOZZLE PERPENDICULAR TO AND AT A DISTANCE OF ONE OR TWO FEET FROM SURFACE. COMPLETE SURFACE. COMPLETED SURFACE SHALL BE FREE OF BLEMISHES, DISCOLORATION, SURFACE VOIDS AND UNNATURAL FORM WORKS. DO NOT SANDBLAST. ETCHING IS NOT REQUIRED.

6. APPLY STAIN BY HAND USING A BRUSH, ROLLER, OR SPONGE WHEN AMBIENT TEMPERATURE IS BETWEEN 50-90 DEGREES FAHRENHEIT. APPLY SURFACE AND TWO ACCENT STAINS TO RAISED SURFACES OF THE SIMULATED STONE TEXTURE ONLY, ALLOWING BASE STAIN COLOR TO REMAIN IN THE GROUT LINES OF THE SIMULATED STONE TEXTURE.

7. THE SIMULATED STONE STAIN SHALL CLOSELY MATCH THE SAMPLE COLOR IMAGE AS SHOWN IN SHEET A4.6.

8. USE BASE STAIN SIMILAR TO THE RECOMMENDED FEDERAL COLOR NUMBER 36586. THREE ADDITIONAL RECOMMENDED COLORS FOR SURFACE AND ACCENT COLORS SHALL BE FEDERAL COLOR NUMBER 33446 (SURFACE), 34201, (ACCENT) AND 36473 (ACCENT). ACTUAL COLORS USED ARE SUBJECT TO CHANGE AT THE DIRECTION OF THE ENGINEER ON REVIEW OF THE APPEARANCE OF THE MOCKUP. USE COLOR AND TECHNIQUES AS APPROVED FOR THE FINAL MOCKUP.

9. WHERE EXPOSED SOIL OR PAVEMENTS IS ADJACENT WHICH MAY SPLATTER DIRT OR SOIL FROM RAINFALL, OR WHERE SURFACE MAY BE EXPOSED TO OVERSPRAY FROM OTHER PROCESSES, PROVIDE TEMPORARY COVER OF FINISHED WORK.

D. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

10. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 512- SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN. QUANTITIES ARE BASED ON THE PLAN AREA, PER SQUARE FOOT, OF FORMLINER TEXTURED SURFACES, WITH NO DEDUCTIONS MADE FOR THE GROUT LINES NOT STAINED AND NO ADDITIONS FOR THE ADDITIONAL STAIN REQUIRED TO COAT THE TEXTURED SURFACES.

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

PRIOR TO APPLICATION OF ACRYLIC STAINS, APPLY NON-EPOXY CONCRETE SEALER TO MOLDED STONE SURFACES. THE PROVISIONS OF ITEM 512- SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN:

1. APPLY SEALER WITH A BRUSH OR ROLLER ONLY.
2. USE A CLEAR SEALER, UNLESS SPECIFIED OTHERWISE.
3. VERIFY THE PRODUCT FURNISHED IS COMPATIBLE WITH THE PROPOSED STAIN PRODUCT. PROVIDE WRITTEN VERIFICATION TO THE ENGINEER.
4. THE ACRYLIC STAIN AND NON-EPOXY SEALER WILL BE PAID UNDER ITEM 512-SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN.

GENERAL CONCRETE SURFACE FINISH AND COLOR

1. SURFACE POINTING. ONCE CAST, TIE RECESSES, MINOR HONEYCOMBING AND BUG HOLES IN THE SURFACE OF THE CONCRETE SHALL BE REPAIRED BY POINTED WITH CONCRETE MORTAR THAT CLOSELY MATCHES THE COLOR AND CONSISTENCY OF THE BASE POUR.
2. SURFACE CLEANING AND FINISHING.
 - a. PRESSURE WASHING WITH WATER (MINIMUM 3000 PSI) IS THE PREFERRED METHOD OF REMOVING LATENT CONCRETE FROM RAISED RELIEF OR RECESSED AESTHETIC TREATMENTS. FOLLOWING SURFACE CLEANING, THE FINAL SURFACE SHALL BE FREE OF BLEMISHES, DISCOLORATIONS, VOIDS, AND FORM MARKS, TO THE SATISFACTION OF THE ENGINEER.
 - b. SANDBLASTING SHALL NOT BE ALLOWED FOR CLEANING CONCRETE SURFACES WITHIN AREAS OF AESTHETIC TREATMENTS, INCLUDING BAS-RELIEFS, RECESSED TEXT, MEDALLIONS, OR STANDARD FORM LINER FINISHES, AS IT WILL COMPROMISE THE CONTRAST AND CLARITY OF THE IMAGES.
 - c. GROUT CLEANING AND RUBBED SURFACE FINISHING SHALL NOT BE USED WITHIN AREAS OF AESTHETIC TREATMENTS, AS THESE METHODS WILL COMPROMISE THE CONTRAST AND CLARITY OF THE IMAGES.
3. SURFACE COLOR.
 - a. CONCRETE SEALER. A NON-EPOXY SEALER SHALL BE APPLIED TO ALL EXPOSED AREAS OF CONCRETE AS SPECIFIED IN THE FINISH ELEVATIONS FROM SHEET A4.3 THROUGH A4.7.
4. THE APPROVED SAMPLE PANELS SHALL BE THE BASIS FOR DETERMINING ACCEPTABILITY OF THE COLOR/STAIN APPLICATION. ANY AREAS LACKING UNIFORM APPEARANCE OR CONSISTENCY WITH THE APPROVED SAMPLE PANELS WILL BE RECOLORED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE CLIENT.

GENERAL SHEET NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
3. CONTRACTOR TO REFER TO STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
4. CONTRACTOR TO SEE SHEET A3.0 FOR PARAPET CONCRETE STONE PATTERN INFORMATION & DETAILS.



ESTIMATED QUANTITIES

CALC.	DATE	CHK'D	DATE
ATM	2019 SEP	ELP	2019 SEP

ITEM	ITEM EXT.	TOTAL SOUTHBOUND	TOTAL NORTHBOUND	PART.				UNIT	DESCRIPTION	SOUTHBOUND				NORTHBOUND				SHEET REF.	
				01/BRO/II	02/NHS/31**	03/NH S/20	04/NH S/04			ABUT.	PIERS	SUPER.	GEN.	ABUT.	PIERS	SUPER.	GEN.		
202	11003		LUMP	LUMP															15 / 226
202	22900		521	521				SY	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN										521
203	20001	5,038	1,107	6,145				CY	EMBANKMENT, AS PER PLAN*	5,038				1,107					15 / 226
203	35110	100	100	200				CY	GRANULAR MATERIAL, TYPE B*		100				100				
304	20000	130	130	260				CY	AGGREGATE BASE*		130				130				
503	11101	LUMP	LUMP	LUMP					COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN										16 / 226
503	21101	4,506	7,675	12,181				CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	2,015	2,491			5,854	1,821				16 / 226
503	31100		829	829				CY	ROCK EXCAVATION					664	165				
503	31500	LUMP	LUMP	LUMP					STRUCTURAL EXCAVATION, MISC.: LAUNCHING PIT										16 / 226
503	31500	LUMP	LUMP	LUMP					STRUCTURAL EXCAVATION, MISC.: RECEIVING PIT										16 / 226
505	11100	LUMP	LUMP	LUMP					PILE DRIVING EQUIPMENT MOBILIZATION										
507	00600	2,200	1,855	4,055				FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	2,200				1,855					
507	00650	2,400	2,120	4,520				FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	2,400				2,120					
507	00700	3,910	3,450	7,360				FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		3,910				3,450				
507	00750	4,140	3,680	7,820				FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		4,140				3,680				14 / 226
509	10000	3,006,458	3,016,127	6,011,568	11,017			LB	EPOXY COATED STEEL REINFORCEMENT	201,151	1,245,219	1,560,088		235,878	1,236,580	1,543,669			
509	30020	53,782	53,366	107,148				FT	NO. 4 DEFORMED GFRP REINFORCEMENT			53,782				53,366			
510	10000	220	220	440				EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT		220				220				
511	34447	4,414	4,349	8,763				CY	CLASS QC2 CONCRETE WITH OC/OA, BRIDGE DECK, AS PER PLAN			4,407	7		4,340	9			16 / 226
511	34450	515	506	1,021				CY	CLASS QC2 CONCRETE WITH OC/OA, BRIDGE DECK (PARAPET)			495	20		486	20			
511	42012	1,570	1,649	3,219				CY	CLASS QC1 CONCRETE WITH OC/OA, PIER ABOVE FOOTINGS		1,570				1,649				
511	42512	91	91	182				CY	CLASS QC1 CONCRETE WITH OC/OA, PIER CAP		91				91				
511	44112	400	433	833				CY	CLASS QC1 CONCRETE WITH OC/OA, ABUTMENT NOT INCLUDING FOOTING	400					433				
511	45602	2,169	2,164	4,333				CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH OC/OA	624	1,545			619	1,545				
511	45603	4,999	4,854	9,853				CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH OC/OA, AS PER PLAN		4,999				4,854				16 / 226
511	46012	131	354	485				CY	CLASS QC1 CONCRETE WITH OC/OA, RETAINING/WINGWALL NOT INCLUDING FOOTING	131				354					
511	46512	479	624	1,103				CY	CLASS QC1 CONCRETE WITH OC/OA, FOOTING	479				624					
511	53010	114		114				CY	CLASS QC1 CONCRETE, MISC.: FILL CONCRETE	114									16 / 226
511	53010	147		147				CY	CLASS QC1 CONCRETE, MISC.: MONUMENT				147						
511	53010	250	250	500				CY	CLASS QC1 CONCRETE, MISC.: FOOTING APRON		250				250				16 / 226
512	10001	1,808	1,957	3,765				SY	SEALING OF CONCRETE SURFACES, AS PER PLAN	420	1,388			569	1,388				16 / 226
512	10050	1,835	1,872	3,707				SY	SEALING OF CONCRETE SURFACES, (NON-EPOXY)	191		1,644		259	1,613				
512	10051	7,341	7,666	14,751	256			SY	SEALING OF CONCRETE SURFACES, (NON-EPOXY), AS PER PLAN	420	4,810	2,111		825	4,770	2,071			16 / 226
512	33000	129	156	285				SY	TYPE 2 WATERPROOFING	129				156					
513	10401	8,253,152	7,779,001	16,032,153				LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN			8,253,152			7,779,001				16 / 226
513	20000	23,330	23,248	46,578				EACH	WELDED STUD SHEAR CONNECTORS	326		23,004		316	22,932				
513	90000	35,909		35,909				LB	STRUCTURAL STEEL, MISC.: MONUMENT				35,909						16 / 226
513	95020	LUMP	LUMP	LUMP					STRUCTURAL STEEL, MISC.: STRUCTURAL STEEL ERECTION EQUIPMENT										16 / 226
514	00060	39,124	39,028	78,152				SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			39,124			39,028				
514	00066	39,124	39,028	78,152				SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			39,124			39,028				
514	27700		3,727	3,727				SF	FIELD PAINTING, MISC.: MONUMENT DECORATIVE STEEL							3,727			18 / 226
516	12400	162	157	319				FT	SPECIAL - MODULAR EXPANSION JOINT	162				157					17 / 226
516	13600	271	344	615				SF	1" PREFORMED EXPANSION JOINT FILLER	142	129			215	129				
516	13900	102	102	204				SF	2" PREFORMED EXPANSION JOINT FILLER	102				102					

LEGEND:

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

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

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

DATE: 20-APR
 STRUCTURE FILE NUMBER: 7700370/7700371

REVIEWED: GLG
 DRAWN: ATM
 DESIGNED: ATM

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

SUM-8-1.75
 PID No. 91710

21 / 226

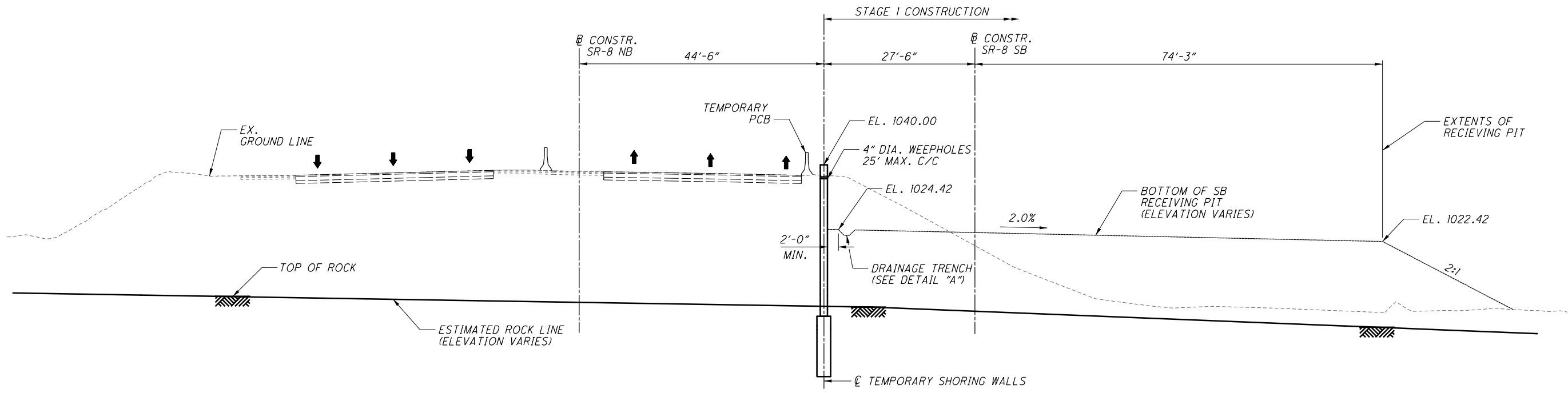
519
 801

ms consultants, inc.

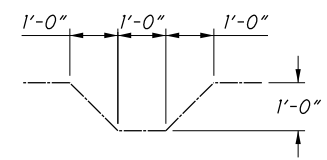
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Ohio DOT Workspace
 SUM-8
 0.5"
 34" x 22"

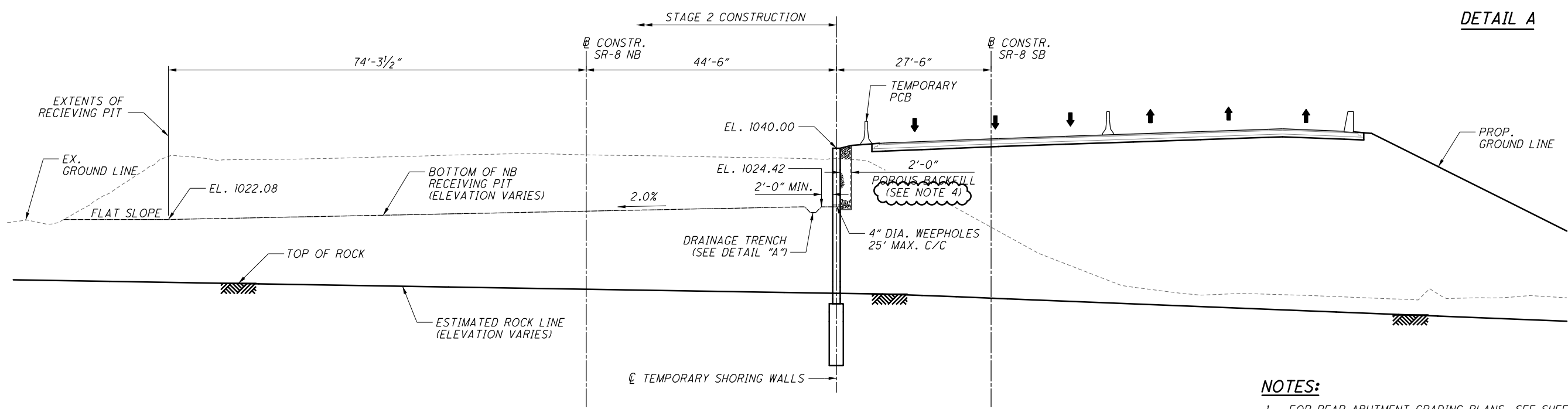
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SECTION A-A (STAGE 1 CONSTRUCTION)
(LOOKING DOWNSTATION AT STA. 224+70.68)



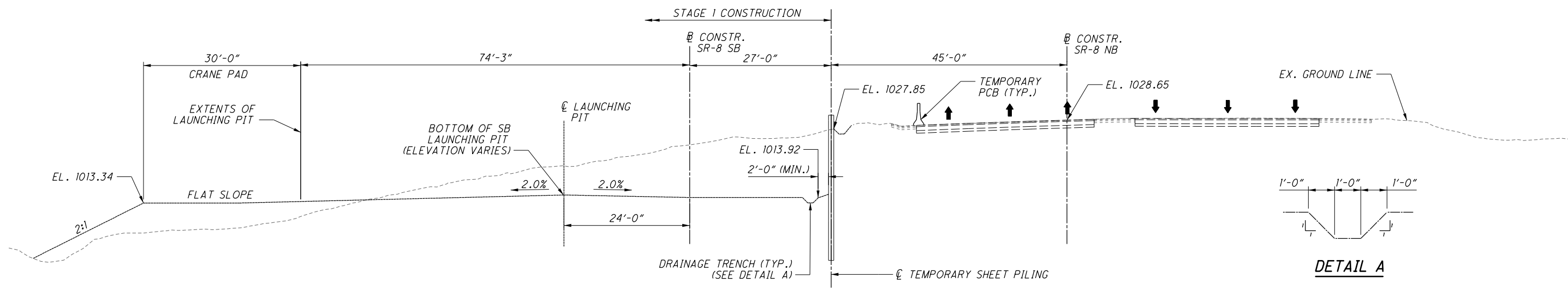
DETAIL A



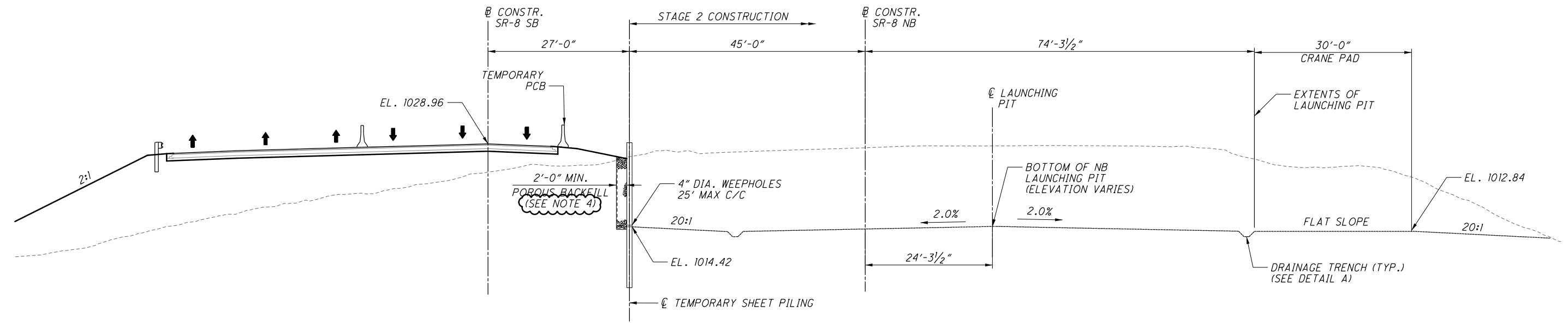
SECTION B-B (STAGE 2 CONSTRUCTION)
(LOOKING DOWNSTATION AT STA. 524+58.04)

- NOTES:**
1. FOR REAR ABUTMENT GRADING PLANS, SEE SHEETS 29/226 AND 30/226.
 2. FOR REAR ABUTMENT TEMPORARY SHORING WALL PLAN, ELEVATIONS, AND DETAILS, SEE SHEET 35/226.
 3. FOR REAR ABUTMENT STAGED CONSTRUCTION DETAILS, SEE SHEETS 25/226 AND 26/226.
 4. PAYMENT FOR POROUS BACKFILL SHALL BE INCIDENTAL TO ITEM 503 - STRUCTURAL EXCAVATION, MISC. RECEIVING PIT.

DESIGN AGENCY ms consultants, inc. 2221 Schrock Road Columbus, Ohio 43229
DATE 20-APR
REVIEWED GLG
STRUCTURE FILE NUMBER 7700370/7700371
DESIGNED JDS
CHECKED ELP
STAGED CONSTRUCTION - RECEIVING PIT CROSS SECTIONS BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS (CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET
SUM-8-1.75 PID No. 91710
33/226
531 801



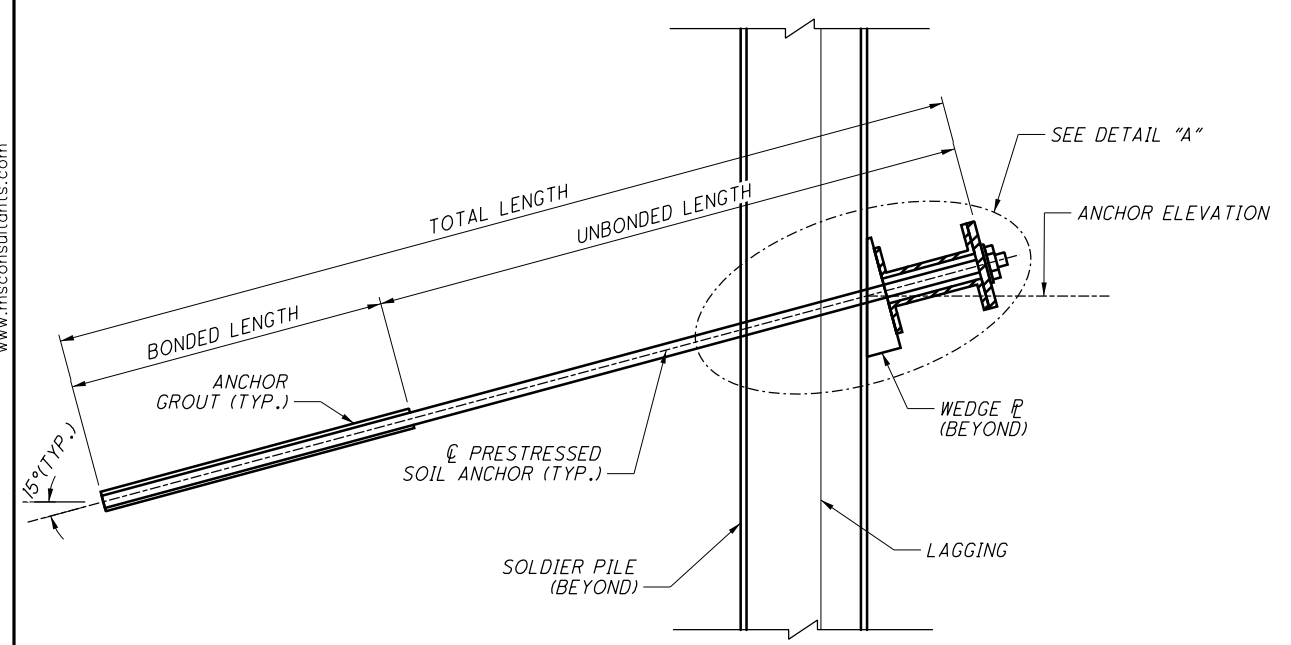
SECTION C-C (STAGE 1 CONSTRUCTION)
(LOOKING UPSTATION STA. 241+26.38)



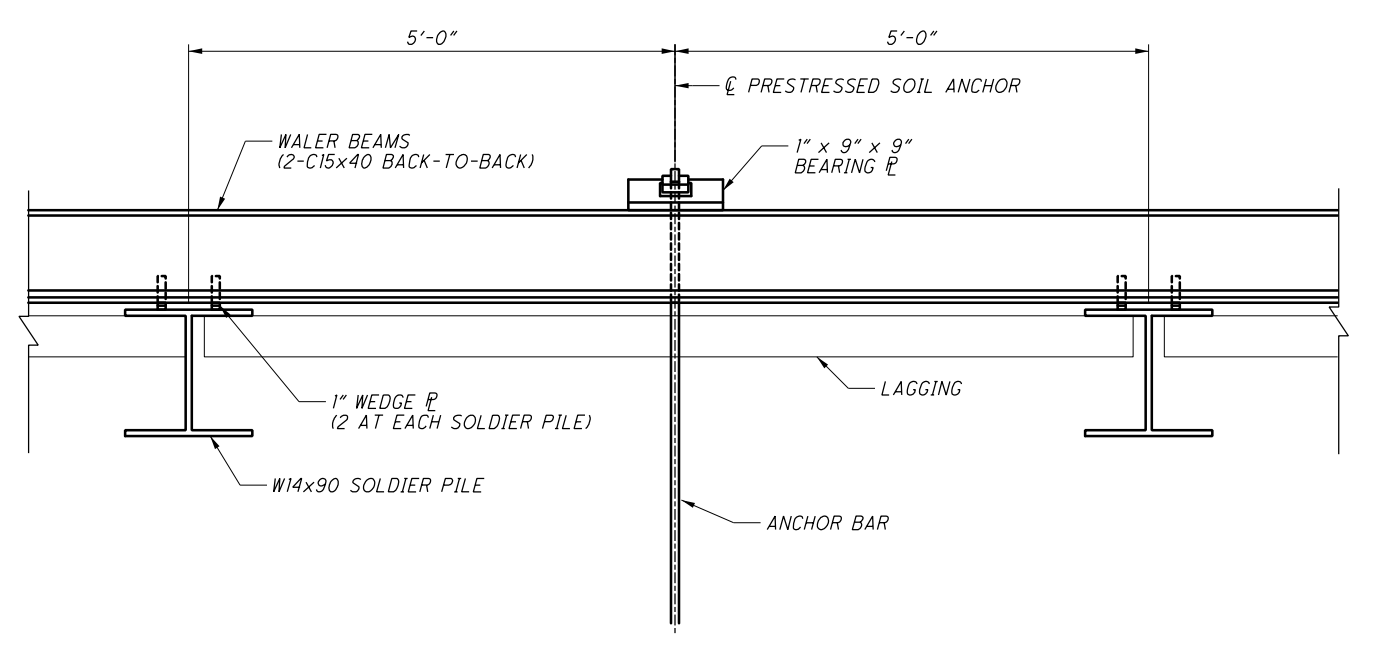
SECTION D-D (STAGE 2 CONSTRUCTION)
(LOOKING UPSTATION AT STA. 541+15.60)

- NOTES:**
- FOR FORWARD ABUTMENT GRADING PLANS, SEE SHEETS 31/226 AND 32/226.
 - FOR FORWARD ABUTMENT TEMPORARY SHORING WALL PLAN AND DETAILS, SEE SHEET 37/226.
 - FOR FORWARD ABUTMENT STAGED CONSTRUCTION DETAILS, SEE SHEETS 27/226 AND 28/226.
 - PAYMENT FOR POROUS BACKFILL SHALL BE INCIDENTAL TO ITEM 503 - STRUCTURAL EXCAVATION, MISC.: LAUNCHING PIT.

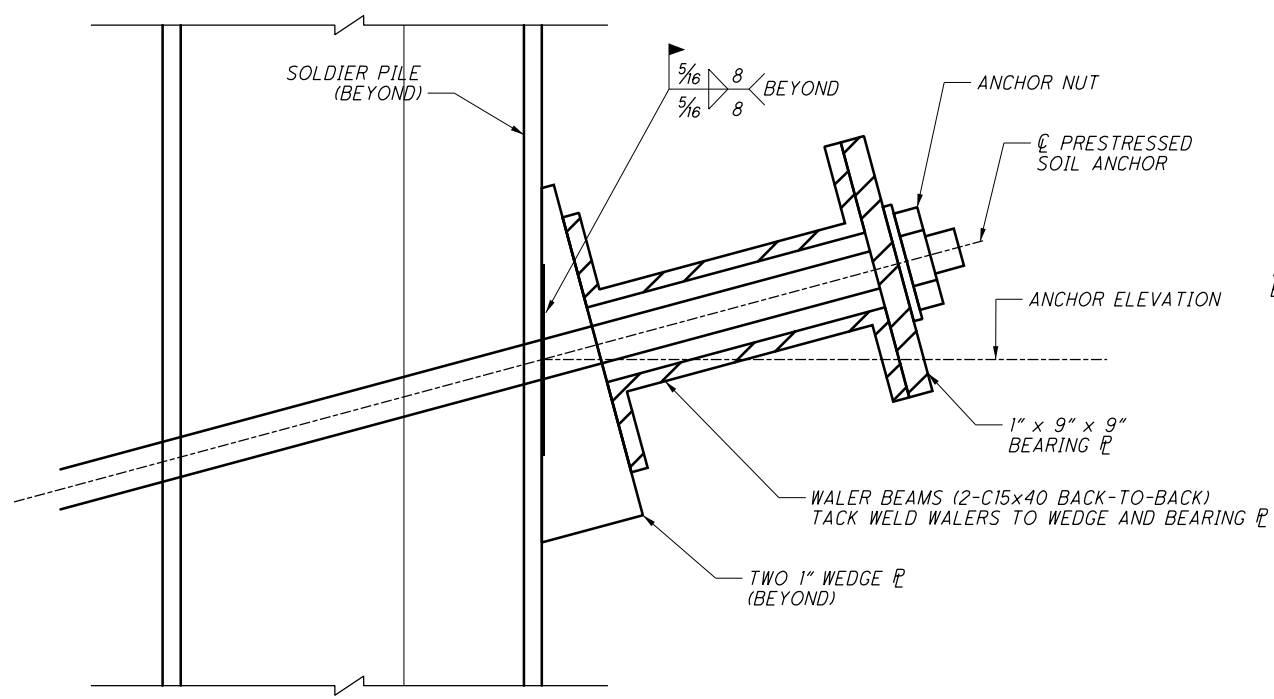
DESIGNED	JDS	CHECKED	ELP
DRAWN	JDS	REVISOR	
REVIEWED	GLG	DATE	20-APR
DATE	20-APR	STRUCTURE FILE NUMBER	7700370/7700371
DESIGN AGENCY	ms consultants, inc.		
BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS (CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET			
SUM-8-1.75 PID No. 91710			
34/226			
532 801			



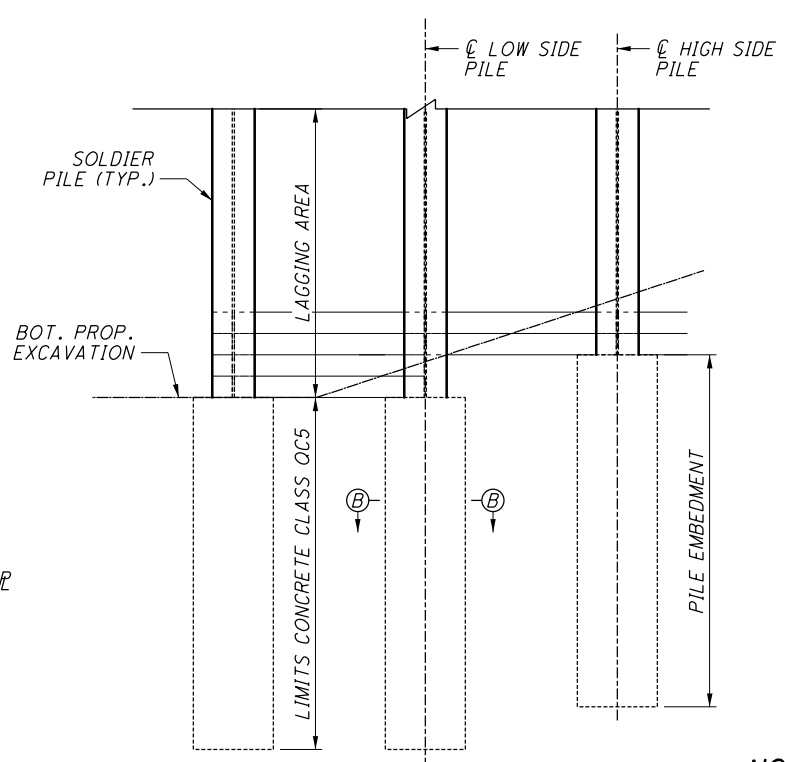
TYPICAL SECTION
TIE BACK & SOLDIER PILE WALLS



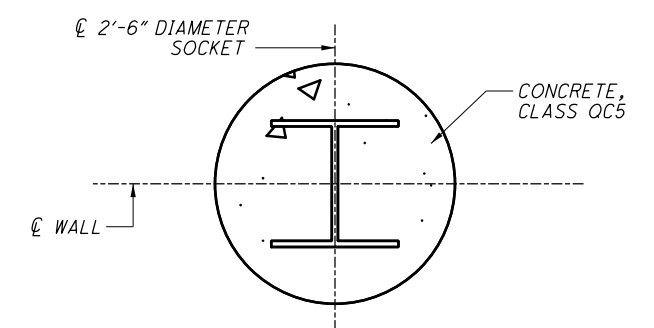
PARTIAL TYPICAL PLAN VIEW
TIE BACK & SOLDIER PILE WALLS



DETAIL "A"



PARTIAL TYPICAL ELEVATION VIEW
SOLDIER PILE WALLS



SECTION B-B

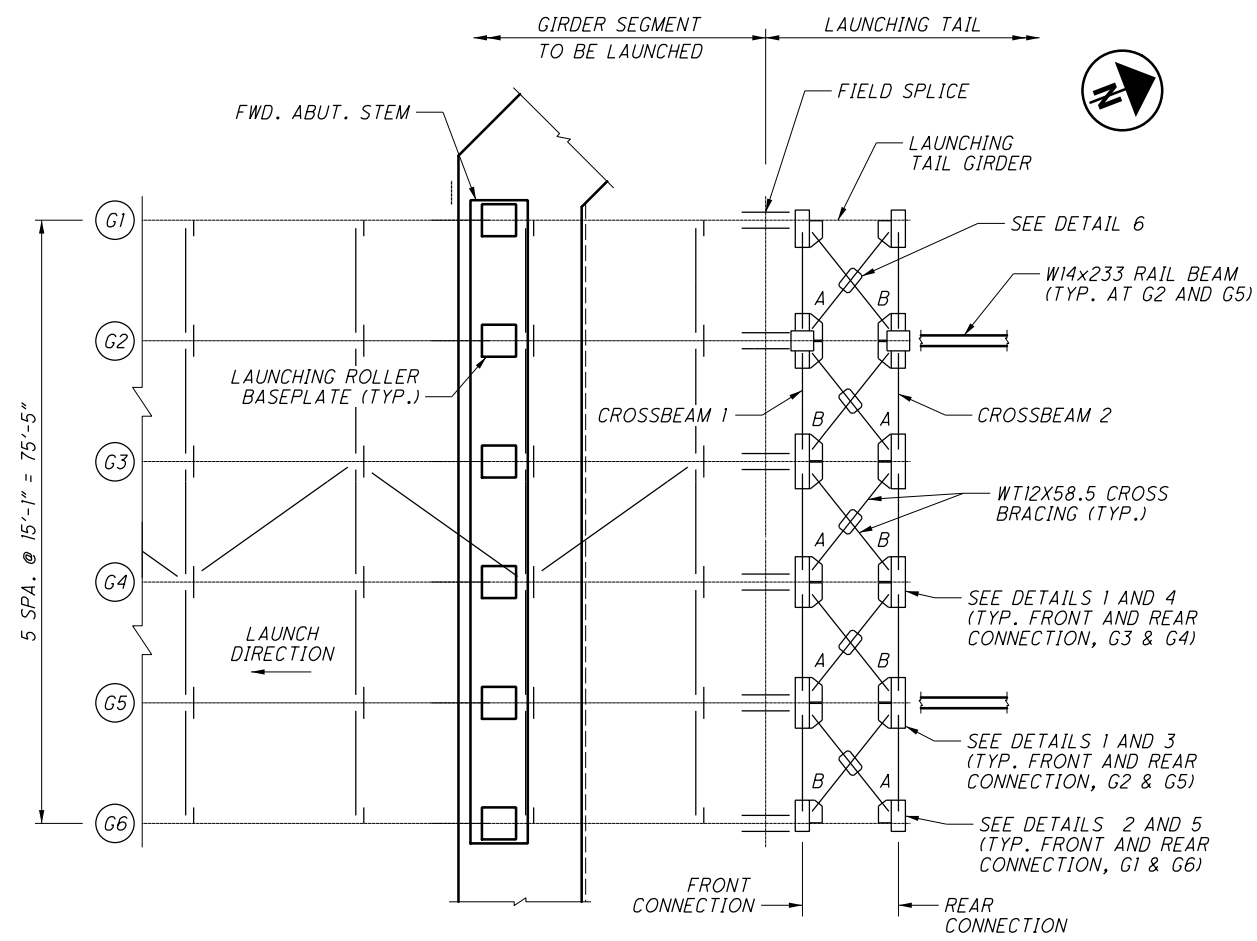
PRESTRESSED SOIL ANCHOR SCHEDULE					
ANCHOR LAYER NUMBER	ELEVATION	NO. REQUIRED	DESIGN LOAD *		MIN. UNBONDED LENGTH
			SERVICE	STRENGTH	
-	-	-	(kip)		(ft)
1	1026.00	3	151.5	232.5	22
2	1016.00	4	90.9	137.7	17
2A	1016.00	2	40.7	62.5	17
3	1006.00	3	70.7	108.2	12

*DESIGN LOAD IS ALONG THE AXIS OF PRESTRESSED SOIL ANCHORS (AT 15 DEGREES FROM HORIZONTAL)

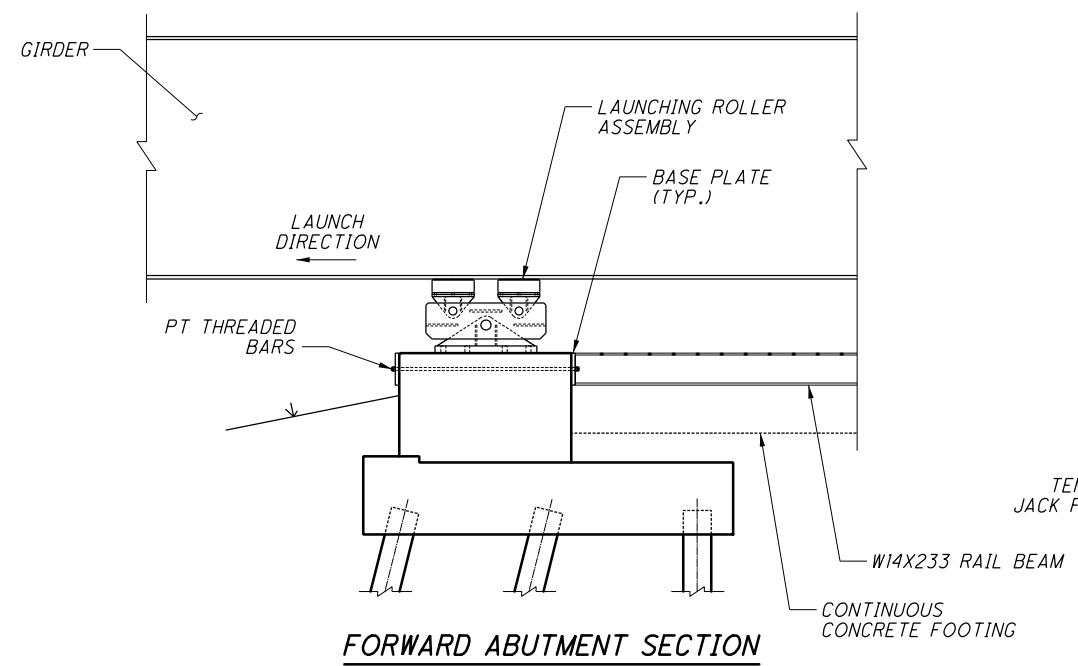
NOTES:

- FOR SOLDIER PILE AND SHEET PILE WALL GRADING PLANS, SEE SHEETS 29/226 THRU 32/226.
- FOR SOLDIER PILE AND SHEET PILE WALL PLANS, SEE SHEETS 35/226 THRU 37/226.
- FOR ADDITIONAL PHASED CONSTRUCTION DETAILS, SEE SHEETS 25/226 THRU 28/226.
- THE BONDED LENGTH OF THE TIEBACKS SHALL BE DESIGNED BY THE CONTRACTOR TO HAVE A MINIMUM ULTIMATE TENSILE CAPACITY EQUAL TO THE SOIL ANCHOR STRENGTH DESIGN LOAD.
- STRUCTURAL STEEL FOR BEARING PLATES, WALER BEAMS, AND WEDGE PLATES SHALL BE GRADE 50.
- WEDGE PLATE, BEARING PLATE, ANCHOR NUT SHOWN ARE SCHEMATIC. CONTRACTOR TO VERIFY CONFIGURATION BASED ON ANCHOR SIZE AND LOADS PROVIDED.

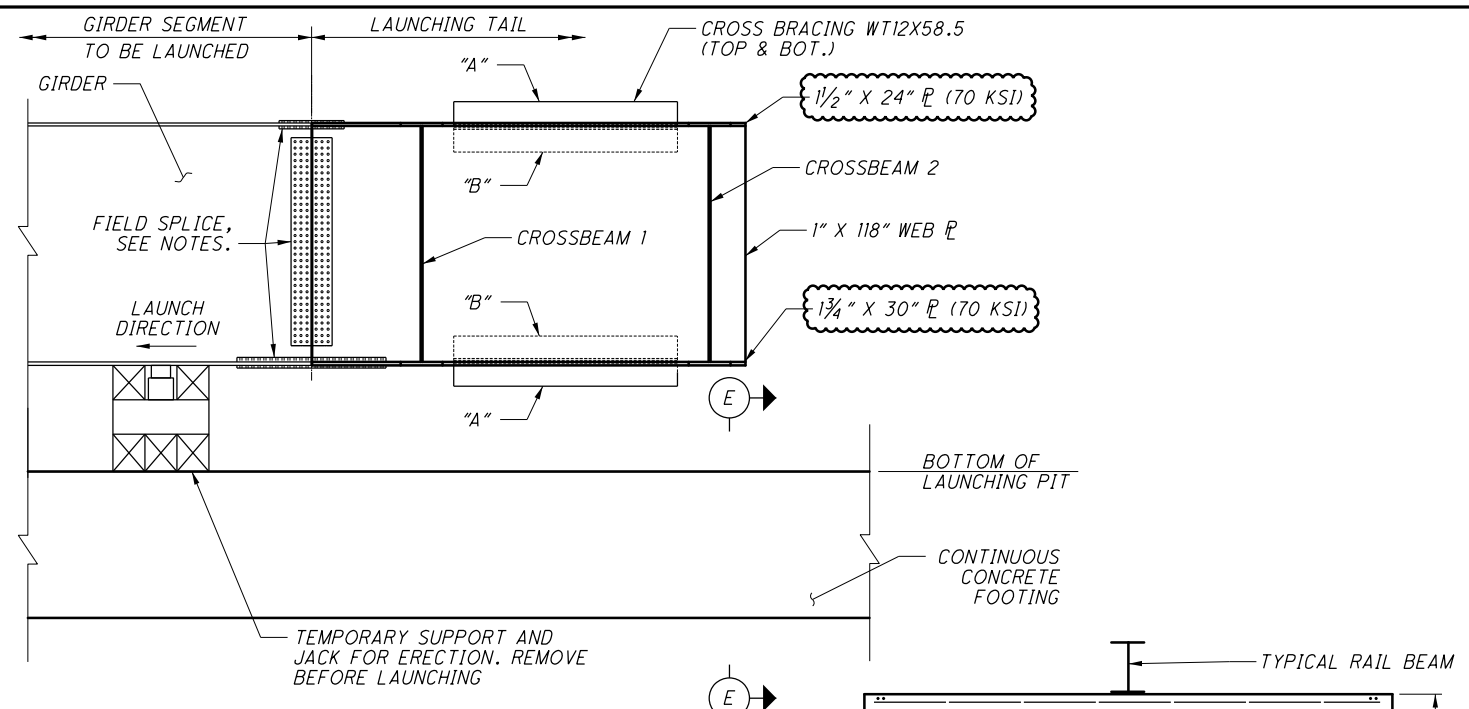
PLOTCEL
 ms consultants, inc.
 maconsultants.com
 Ohio DOT Workshop
 8M-6
 www.msconsultants.com
 LCF: chg0108
 PCF: 60-0828_PW
 Batch/Job Spec: \\msconsultants.com\files\Production\PM\0199L\R - OVER RAILROADS\0199L\Batch/Job Spec
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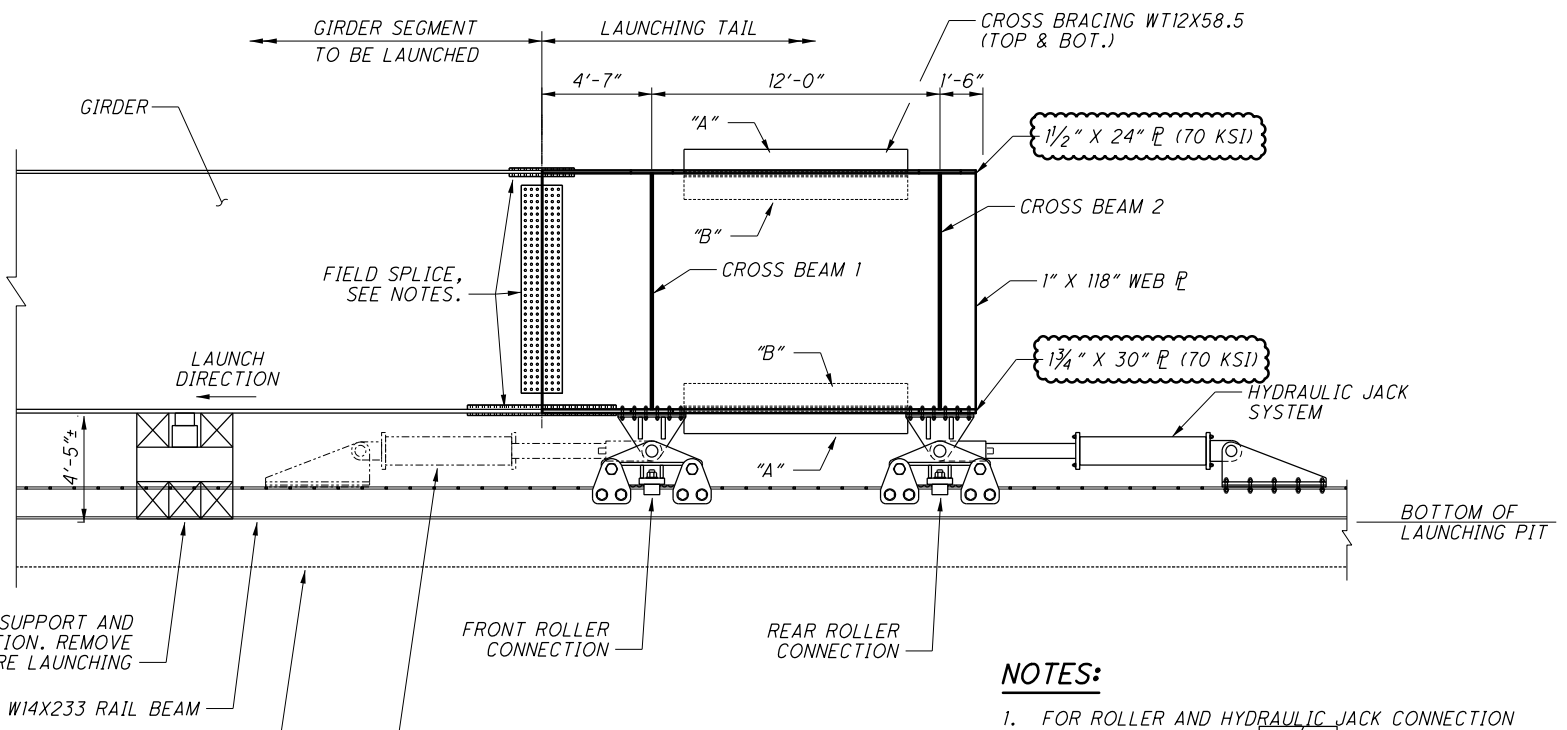
LAUNCHING ABUTMENT AND TAIL SCHEMATIC
(ISB BRIDGE SHOWN, NB BRIDGE SIMILAR)



FORWARD ABUTMENT SECTION



LAUNCHING TAIL ELEVATION AT GIRDERS 1, 3, 4 AND 6



LAUNCHING TAIL ELEVATION AT GIRDERS 2 AND 5

- NOTES:**
1. FOR ROLLER AND HYDRAULIC JACK CONNECTION DETAILS, SEE SHEET 209/226.
 2. FOR TABLE OF DESIGN LOADS, SEE SHEET 209/226.
 3. FOR CROSS BEAM DETAILS, SEE SHEET 210/226.
 4. FOR DETAILS 1 THROUGH 6, SEE SHEETS 210/226 & 211/226.
 5. FOR FIELD SPLICE DETAILS, SEE SHEET 124/226.
 6. "A" AND "B" REPRESENT THE CROSS BRACING ORIENTATION. SEE "LAUNCHING ABUTMENT AND TAIL SCHEMATIC", THIS SHEET.

DESIGN AGENCY: ms consultants, inc.
 2221 Schrock Road
 Columbus, Ohio 43229
 DATE: 20-APR
 REVIEWED: GLG
 DRAWN: KCL
 DESIGNED: KCL
 CHECKED: MJB
 STRUCTURE FILE NUMBER: 7700370/7700371
LAUNCHING TAIL DETAILS (1 OF 4)
 BRIDGE NO. SUM-8-0199L/R - OVER RAILROADS
 (CSXT, W&LE, AND METRO RTA), LITTLE CUYAHOGA RIVER, AND EAST NORTH STREET
SUM-8-1.75
PID No. 91710
 208/226
 706
 801
 ms consultants, inc.