EROSION CONTROL

SEEDING AND MULCHING

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

659, SEEDING AND MULCHING	1,396 SY*
659, TOPSOIL	156 CU. YD.
659, COMMERCIAL FERTILIZER	1 TON
659, WATER	8 MGAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL WITHIN THE CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

BEST MANAGEMENT PRACTICES

THE CONDITIONS OF THE NPDES CONSTRUCTION STORMWATER GENERAL PERMIT SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACT ON THE RECEIVING WATERS. IMPLEMENTATION AND MAINTENANCE OF THE STORMWATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

TO PROTECT AND DELINEATE THE BOUNDARY OF THE EXISTING ADJACENT WETLANDS, STREAM CHANNELS AND/OR DRAINAGE WAYS ITEM 832 – FILTER FABRIC FENCE AND ITEM 832 – TEMPORARY CONSTRUCTION FENCE WILL BE REQUIRED. THIS FILTER FABRIC FENCE AND THE TEMPORARY CONSTRUCTION FENCE ARE TO BE INSTALLED AT THE PROPOSED CONSTRUCTION LIMITS AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION.

THE OHIO EPA NOTICE OF INTENT WILL BE SUBMITTED TO OHIO EPA BY THE OWNER AT LEAST 21 DAYS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REGISTER AS A CO-PERMITTEE TO OHIO EPA PRIOR TO COMMENCING EARTHMOVING ACTIVITIES. SEE THE STORM WATER POLLUTION PREVENTION PLAN FOR ADDITIONAL INFORMATION.

DRAINAGE

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE BY ROUTING DRAINAGE FLOWS THAT ARE INTERRUPTED BY TRAIL AND ROAD CONSTRUCTION ON THE UPSLOPE SIDE OF THE TRAIL OR ROADWAY. THE CONTRACTOR SHALL MAKE MINOR GRADING ADJUSTMENTS IN THE FIELD ALONG THE PROPOSED SWALES AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.

THE CONTRACTOR SHALL INSPECT ALL EXISTING CULVERTS AND REPORT CONCERNS TO THE ENGINEER PRIOR TO CONSTRUCTION.

ALL STORM PIPES SHALL BE AS NOTED ON THE PLANS. THE COST OF PIPE, EXCAVATION, BEDDING, BACKFILL, AND ASSOCIATED LABOR AND MATERIALS SHALL BE INCLUDED IN THE LINEAR FOOT COST BID FOR THE PIPE. MINIMUM COVER SHALL BE 12" FROM PIPE CROWN TO THE BOTTOM OF PROPOSED TRAIL AGGREGATE BASE.

IF A WATERMAIN IS ENCOUNTERED WITHIN THE PROJECT LIMITS, MAINTAIN A TEN-FOOT MINIMUM HORIZONTAL CLEARANCE FROM THE OUTSIDE EDGE OF THE EXISTING WATERLINE TO THE OUTSIDE EDGE OF THE PROPOSED STORM SEWER AT ALL TIMES AND AN EIGHTEEN-INCH VERTICAL CLEARANCE FROM THE EDGE OF THE PROPOSED WATER MAIN TO THE EDGE OF THE EXISTING STORM SEWER OR INLET LEAD PIPE WHERE THEY CROSS. IF MINIMUM CLEARANCES CANNOT BE PROVIDED, CONTACT THE ENGINEER FOR GUIDANCE.

REVIEW OF EXISTING DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ITEM 611 – CATCH BASIN GRATE, AS PER PLAN

THIS ITEM OF WORK CONSISTS OF INSTALLING A CATCH BASIN GRATE PER ITEM 611 AND AS SHOWN AND DETAILED ON THE PLANS. IN ADDITION TO THE REQUIREMENTS OF ITEM 611, THE CONTRACTOR SHALL INSTALL AN ADA APPROVED BICYCLE SAFE GRATE THE COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM. ALL EQUIPMENT, LABOR, TOOLS, MATERIALS, SUBMITTALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID.

TRAFFIC CONTROL

ITEM 625 – LIGHTING MISC: LIGHT POLE REMOVED & RELOCATED

THIS ITEM SHALL CONSIST OF REMOVING AND RELOCATING A COMPLETE, FULLY FUNCTIONING LIGHT POLE AS SHOWN AND DETAILS ON THE PLANS. THE COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM. ALL EQUIPMENT, LABOR, TOOLS, MATERIALS, SUBMITTALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID.

ITEM 690 – LONGITUDINAL CHANNELIZER DEVICE

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A COMPLETE, FULLY FUNCTIONING LONGITUDINAL CHANNELIZER DEVICE AS SHOWN AND DETAILED IN THE PLANS. THE COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM. THE DEVICE SHALL CONFORM TO ODOT PID 2010180. ALL EQUIPMENT, LABOR, TOOLS, MATERIALS, SUBMITTALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID.

ITEM 690 SIGNING MISC.: RECTANGULAR RAPID FLASHING BEACON SIGN ASSEMBLY (RRFB)

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY. THE FLASHING UNIT SHALL BE SOLAR POWERED, PEDESTRIAN ACTIVATED, AND 2-SIDED WITH TWO LED ARRAY BASED YELLOW INDICATIONS ON EACH SIDE. MULTIPLE UNITS SHALL BE WIRELESSLY CONTROLLED AND SYNCHRONIZED. THE UNIT SHALL BE COMPLIANT WITH THE MOST CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) AND FHWA INTERIM APPROVAL FOR RRFBS (IA-21).

GENERAL REQUIREMENTS:

EACH RRFB SHALL CONSIST OF TWO RAPIDLY FLASHED RECTANGULAR-SHAPED YELLOW INDICATIONS HAVING LED ARRAY BASED LIGHT SOURCE.

EACH RRFB SHALL BE A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS AND ELECTRICAL COMPONE

NTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.).

EACH RRFB SHALL CONTAIN A PEDESTRIAN INDICATION LIGHT VISIBLE BY THE PEDESTRIAN IN THE DIRECTION OF TRAVEL.

FUNCTIONAL REQUIREMENTS:

EACH RRFB SHALL UTILIZE SOLAR POWER.

EACH RRFB SHALL BE ACTIVATED BY ADA COMPLIANT PUSHBUTTONS.

THE RRFB SHALL BE NORMALLY DARK, SHALL INITIATE OPERATION ONLY UPON PEDESTRIAN ACTUATION, AND SHALL CEASE OPERATION AFTER A PREDETERMINED TIME LIMIT (BASED ON OMUTCD PROCEDURES).

EACH REMOTE RRFB SHALL BE WIRELESSLY ACTIVATED.

ALL RRFB LIGHT INDICATIONS SHALL BE WIRELESSLY SYNCHRONIZED (ALL LIGHTS WILL TURN ON WITHIN 120 MSEC AND REMAIN SYNCHRONIZED THROUGHOUT THE DURATION OF THE FLASHING CYCLE).

THE UNIT SHALL BE CAPABLE OF RUNNING 14 DAYS WITHOUT SUNLIGHT.

MATERIALS:

FURNISH A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS, AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.). THE RRFB ASSEMBLY INCLUDES THE FOLLOWING ITEMS:

1. RRFB INDICATIONS
   - A. EACH RRFB INDICATION LENS SHALL BE A MINIMUM SIZE OF APPROXIMATELY 5" WIDE X 2" HIGH.
   - B. THE RRFB INDICATIONS SHALL BE ALIGNED HORIZONTALLY, WITH THE LONGER DIMENSION OF THE INDICATION HORIZONTAL. THERE SHALL BE TWO INDICATIONS ON THE FRONT AND TWO INDICATIONS ON THE BACK.
   - C. EACH RRFB SHALL BE SUPPLIED WITH ALL REQUIRED HARDWARE TO INSTALL ASSEMBLY. ALL EXPOSED HARDWARE SHALL BE ANTI-VANDAL.
   - D. EACH RRFB SHALL BE LOCATED BETWEEN THE BOTTOM OF THE CROSSING WARNING SIGN AND THE TOP OF THE SUPPLEMENTAL DOWNWARD DIAGONAL ARROW PLAQUE.
   - E. THE LIGHT INTENSITY OF THE YELLOW INDICATIONS SHALL MEET THE MINIMUM CLASS 1 SPECIFICATIONS OF SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) STANDARD J595 (DIRECTIONAL FLASHING OPTICAL WARNING DEVICES FOR AUTHORIZED EMERGENCY, MAINTENANCE, AND SERVICE VEHICLES) DATED JANUARY, 2005.
   - F. TO MINIMIZE EXCESSIVE GLARE DURING NIGHTTIME CONDITIONS, AN AUTOMATIC SIGNAL DIMMING DEVICE SHALL BE USED TO REDUCE THE BRILLIANCE OF THE RRFB INDICATIONS.
   - G. AN LED PEDESTRIAN CONFIRMATION LIGHT DIRECTED AT AND VISIBLE TO PEDESTRIANS IN THE CROSSWALK SHALL BE INSTALLED INTEGRAL TO THE RRFB OR PUSHBUTTON TO GIVE CONFIRMATION THAT THE RRFB IS IN OPERATION.
   - H. THE PEDESTRIAN CONFIRMATION LIGHT SHALL HAVE A MINIMUM AREA OF 0.5 SQUARE INCHES AND BE CONSPICUOUS TO PEDESTRIANS AT ALL DISTANCES FROM THE BEGINNING OF THE CONTROLLED CROSSWALK TO A POINT 10 FEET FROM THE END OF THE CONTROLLED CROSSWALK DURING BOTH DAY AND NIGHT.

2. SIGNS
   - A. ALL SIGN ASSEMBLIES SHALL USE ANTI-VANDAL FASTENERS TO MOUNT COMPONENTS TO SIGN AND SIGN TO FIXTURE.
   - B. PEDESTRIAN PUSHBUTTONS SIGNS SHALL BE PROVIDED AND INCLUDE THE LEGEND "PUSH BUTTON TO TURN ON WARNING LIGHTS". SIGNS SHOULD BE MOUNTED ADJACENT TO OR INTEGRAL WITH EACH PEDESTRIAN PUSHBUTTON.
   - C. TWO SETS OF SIGNS SHALL BE REQUIRED PER UNIT FOR VIEW FROM EACH APPROACH.
   - D. ASSURE SIGN MEETS THE REQUIREMENTS OF C&MS 630.

3. CONTROL CIRCUIT
   - A. THE CONTROL CIRCUIT SHALL HAVE THE CAPABILITY OF INDEPENDENTLY FLASHING UP T [TO] TWO INDEPENDENT OUTPUTS. THE LED LIGHT OUTPUTS AND FLASH PATTERN SHALL BE COMPLETELY PROGRAMMABLE.
   - B. THE CONTROL CIRCUIT SHALL BE SEALED WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER CONDITIONS.
   - C. THE LEDS SHALL BE SEALED AGAINST DUST AND MOISTURE INTRUSION AS PER THE REQUIREMENTS OF NEMA STANDARD 250-1991 FOR TYPE 4 ENCLOSURE AND TO PROTECT ALL INTERNAL LED AND ELECTRICAL COMPONENTS.

4. BATTERY AND SOLAR PANELS
   - A. BATTERY UNIT SHALL BE A 12VDC, 35 AHR MINIMUM, SEALED GEL OR AGM LEAD ACID BATTERY. BATTERIES SHALL HAVE A WRITTEN TWO YEAR FULL REPLACEMENT WARRANTY.
   - B. THE SOLAR PANEL SHALL PROVIDE A MINIMUM OF 40 WATTS PEAK TOTAL OUTPUT.
   - C. THE SOLAR PANEL SHALL BE MOUNTED TO AN ALUMINUM PLATE AND BRACKET AT AN ANGLE OF 45 DEGREES – 60 DEGREES TO PROVIDE MAXIMUM OUTPUT.

5. WIRELESS RADIO
   - A. RADIO CONTROL SHALL OPERATE ON A 900 MHZ FREQUENCY HOPPING SPREAD SPECTRUM NETWORK, WI-FI OR APPROVED EQUAL.
   - B. RADIO SHALL INTEGRATE COMMUNICATION OF RRFB CONTROL CIRCUIT TO ACTIVATE SIGN FROM PUSHBUTTON INPUT.
   - C. THE RADIO SHALL BE SYNCHRONIZED SO ALL OF THE REMOTE RRFB LIGHT INDICATIONS WILL TURN ON WITHIN 120 MSEC OF EACH OTHER AND REMAIN SYNCHRONIZED THROUGH-OUT THE DURATION OF THE FLASHING CYCLE.

6. PUSHBUTTON
   - A. THE PUSHBUTTON SHALL BE CAPABLE OF CONTINUOUS OPERATION OVER A TEMPERATURE RANGE OF -30 DEGREES F TO +165 DEGREES F.
   - B. PUSHBUTTON SHALL BE ADA COMPLIANT.

7. PEDESTAL SHAFT AND BASE
   - A. FOR THE ONE AT STA. 5+86.88, 48.43' LT. MOUNT ON A STANDARD 4.5-INCH OD ALUMINUM PEDESTAL POLE WITH BREAKAWAY BASE. A 14 FOOT POLE SHALL BE PROVIDED AND FIELD ADJUSTED AND CAPPED TO MAINTAIN THE PROPER SIGN MOUNTING HEIGHTS, UNLESS SPECIFIED OTHERWISE IN THE PLANS. POLE AND BASE MANUFACTURER SHALL BE LISTED ON ODOT'S QUALIFIED PRODUCTS LIST.
   - B. FOR THE ONE AT STA.1+64.80, 6.96' RT. MOUNT PUSH BUTTON ON A STANDARD 4.5-INCH OD ALUMINUM PEDESTAL POLE WITH BREAKAWAY BASE. A 4 FOOT POLE SHALL BE PROVIDED AND FIELD ADJUSTED. POLE AND BASE MANUFACTURER SHALL BE LISTED ON ODOT'S QUALIFIED PRODUCTS LIST.

CONSTRUCTION:

THE RRFB SHALL BE ASSEMBLED AND CONSTRUCTED BY THE CONTRACTOR AS SHOWN AND SPECIFIED ON THE PLANS.

WARRANTY:

WARRANTY SHALL BE TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE.

MEASUREMENT:

THE DEPARTMENT WILL MEASURE THE ITEM COMPLETE IN PLACE, INCLUDING ALL MATERIALS, TESTING, LABOR AND SOFTWARE FOR A FULLY FUNCTIONAL UNIT.

PAYMENT:

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 630 "SIGNING MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY".

RETAINING WALL

ITEM 504 – SHEET PILING LEFT IN PLACE, AS PER PLAN

THE CONTRACTOR SHALL PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05 FOR SHEET PILING LEFT IN PLACE, THE COST OF WHICH SHALL BE PAID FOR IN THE CONTRACT LUMP SUM PRICE FOR SHEET PILING LEFT IN PLACE, AS PER PLAN.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, SIGNED AND SEALED BY REGISTERED OHIO PROFESSIONAL ENGINEER, AND INCLUDE COMPUTATIONS (INCLUDING BOTH INTERNAL AND EXTERNAL STABILITY), PLAN, CROSS SECTIONS, ELEVATIONS, COMPLETE DIMENSIONS, DETAILS, MATERIAL TYPES, SIZES, QUANTITIES AND LOCATIONS. SHOP DRAWING SUBMITTAL SHALL OCCUR NO LATER THAN 45 DAYS PRIOR TO COMMENCEMENT OF WORK. NO WORK NOR ORDERING OF MATERIALS FOR THE WALL SHALL BE DONE BY THE CONTRACTOR UNTIL THE SUBMITTAL HAS BEEN ACCEPTED IN WRITING BY THE ENGINEER. INCOMPLETE SHOP DRAWINGS OR OTHER SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.

THE FOLLOWING QUANTITIES ARE ESTIMATES THAT HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR BIDDING PURPOSES:

504E11101 STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN	5,041 SF

1

ITEM 870 PREFABRICATED MODULAR RETAINING WALL, AS PER PLAN

THIS ITEM OF WORK CONSISTS OF DESIGNING AND CONSTRUCTING A COMPLETE AND FUNCTIONAL RETAINING WALL AT THE LOCATION SHOWN AND AS PER THE DETAILS IN ODOT SUPPLEMENTAL SPECIFICATION SS870 AND THESE PLANS. ALL WORK SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION SS870. REFER TO ODOT'S GEOTECHNICAL DESIGN MANUAL SECTION 1503 AND ODOT'S BRIDGE DESIGN MANUAL SECTIONS 201 AND 307 FOR MORE INFORMATION. THIS INCLUDES FURNISHING ALL DESIGN COMPUTATIONS, SHOP DRAWINGS, MATERIALS, EQUIPMENT AND LABOR.

THE CONTRACTOR SHALL HIRE AND ENGAGE A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF OHIO, TO DESIGN THE RETAINING WALLS FOR THE WALL LOCATIONS SHOWN ON THE PLANS. THE SLOPE STABILITY ANALYSIS AVAILABLE IN THE GEOTECHNICAL REPORT PREPARED BY CTL ENGINEERING, INC. ON OCTOBER 31, 2025 SHALL BE REVIEWED TO INFORM THE WALL DESIGN. ADDITIONAL SOIL SAMPLING, TESTING, ETC. MAY BE OBTAINED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT. THE RETAINING WALL LENGTH, HEIGHT AND LOCATION SHOWN ON THE PLANS ARE GRAPHICAL IN NATURE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FULLY REVIEW THE EXISTING CONDITIONS AND DESIGN THE RETAINING WALLS THAT ARE ACCEPTABLE TO THE CITY AND ENGINEER. THE CONTRACTOR'S ENGINEER SHALL ENSURE A COMPLETELY ENGINEERED WALL SYSTEM PER SS870.

THE CONTRACTOR SHALL INSTALL AN ODOT APPROVED PREFABRICATED RETAINING WALL SYSTEMS (PRWS) HTTPS: //WWW.TRANSPORTATION.OHIO.GOV/WORKING/ENGINEERING/GEOTECHNICAL/PRWS

THE WALL MANUFACTURER SHALL BE ODOT PRE-QUALIFIED. THE COLOR AND PATTERN OF THE WALL SHALL BE APPROVED BY THE CITY AND ENGINEER. SAMPLES FOR REVIEW AND APPROVAL SHALL BE PROVIDED PRIOR TO ANY WORK.

THE PLANS AND DETAILS SHOW THE INTENDED LOCATION AND ELEVATIONS OF THE RETAINING WALLS AND ARE APPROXIMATIONS ONLY. PRIOR TO DETAILED DESIGN, CONTRACTOR SHALL SUBMIT GENERAL LAYOUT PLAN AND PROPOSED WALL TYPE TO THE ENGINEER FOR APPROVAL. THE FINAL WALL DESIGN AND LAYOUT SHALL BE PERFORMED BY THE CONTRACTOR'S ENGINEER. ALL OF THE MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS AND SPECIFICATIONS SHALL BE FOLLOWED.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, SIGNED AND SEALED BY REGISTERED OHIO PROFESSIONAL ENGINEER, AND INCLUDE COMPUTATIONS (INCLUDING BOTH INTERNAL AND EXTERNAL STABILITY), PLAN, CROSS SECTIONS, ELEVATIONS, COMPLETE DIMENSIONS, DETAILS, MATERIAL TYPES, SIZES, QUANTITIES AND LOCATIONS. SHOP DRAWING SUBMITTAL SHALL OCCUR NO LATER THAN 45 DAYS PRIOR TO COMMENCEMENT OF WORK. NO WORK NOR ORDERING OF MATERIALS FOR THE WALL SHALL BE DONE BY THE CONTRACTOR UNTIL THE SUBMITTAL HAS BEEN ACCEPTED IN WRITING BY THE ENGINEER. INCOMPLETE SHOP DRAWINGS OR OTHER SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.

THE CONTRACTOR SHALL INSTALL AN UNDERDRAIN THE ENTIRE LENGTH OF THE WALL SYSTEM PER SS870 TO PREVENT WATER SEEPAGE BENEATH THE WALL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE UNDERDRAIN LAYOUT TO THE ENGINEER FOR APPROVAL.

HANDLE MATERIALS AND PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORE MATERIALS AND PRODUCTS IN MANUFACTURER'S ORIGINAL PACKAGING UNTIL READY FOR INSTALLATION. PROTECT MATERIALS AND PRODUCTS FROM IMPACTS AND ABRASION DURING STORAGE.

PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR, TOOLS, MATERIALS, SUBMITTALS, AND INCIDENTALS NECESSARY TO COMPLETE THE RETAINING WALL ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID.

THE FOLLOWING QUANTITIES ARE ESTIMATES THAT HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR BIDDING PURPOSES:

870E11001 PREFABRICATED MODULAR RETAINING WALL, AS PER PLAN	534 SF 1
870E11000 WALL EXCAVATION	786 CY
870E14000 ON-SITE ASSISTANCE	5 DAYS
870E15000 PMRW INSPECTION AND COMPACTION TESTING	LS

ENVIRONMENTAL

NATIVE AMERICAN ARTIFACTS

IN THE EVENT THAT ANY NATIVE AMERICAN ARTIFACTS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL STOP ALL WORK WITHIN 100' OF THE DISCOVERY AND CONTACT THE ODOT DISTRICT 11 ENVIRONMENTAL COORDINATOR, THOMAS STRATTON AT 330-308-3992. ODOT WILL THEN CONSULT WITH THE SHAWNEE TRIBE REGARDING THE ARTIFACTS AND HOW THE PROJECT CAN PROCEED.

ENDANGERED BAT HABITAT REMOVAL

THE 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.

ENVIRONMENTAL WORK

BASED ON ENVIRONMENTAL STUDIES WITH TESTING CONDUCTED BY ODOT AND/OR FOR REGULATORY AGENCIES PETROLEUM CONTAMINATED SOILS WILL BE ENCOUNTERED DURING THE EXCAVATIONS FOR CONSTRUCTION ACTIVITIES AT THE SITES LISTED BELOW. THE ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS WORK. ALL EXCAVATIONS AT THE AFOREMENTIONED LOCATION SHALL BE PAID FOR UNDER THE ORIGINAL PLAN BID ITEMS.

1. KENT STATE UNIVERSITY, 400 BROADWAY ST.

ALL EXCAVATED MATERIALS WITHIN THE AFOREMENTIONED LIMITS MAY BE STOCKPILED IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE SUSPECTED CONTAMINATED SOILS ON AN IMPERMEABLE MEMBRANE. THE MEMBRANE WILL BE SURROUNDED BY BALES OF STRAW TO PREVENT THE SUSPECTED SOILS FROM COMING IN CONTACT WITH THE ORIGINAL SOILS. AN IMPERMEABLE MEMBRANE WILL BE PLACED OVER THE STOCKPILE TO PREVENT CONTACT WITH PRECIPITATION AND/OR SURFACE RUN-OFF. AS A TEMPORARY STORAGE ALTERNATIVE, THE ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED SOILS INTO TRUCKS. OR AS A THIRD ALTERNATIVE, THE CONTRACTOR MAY PLACE THE MATERIAL IN LEAK-PROOF, COVERED CONTAINERS PROVIDED BY THE CONTRACTOR. THE MATERIAL WILL REMAIN ON-SITE UNTIL ANALYTICAL RESULTS ARE RECEIVED BY THE ENGINEER.

THIS MATERIAL WILL BE PROPERLY TESTED (FOR DISPOSAL), TRANSPORTED, AND DISPOSED OF IN A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY) SOLID WASTE FACILITY.

IF EXCAVATIONS WITHIN THE AFOREMENTIONED LIMITS REQUIRE DEWATERING FOR CONSTRUCTION PURPOSES, THE CONTRACTOR WILL DEWATER, CONTAINERIZE, TEST THE WATER (FOR DISPOSAL) AND DISPOSE OF BY METHODS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL OBTAIN ALL THE REQUIRED PERMITS AND /OR AUTHORIZATIONS NEEDED TO STORE, TRANSPORT AND DISPOSE OF THE WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL REGULATIONS.

THE CONTRACTOR WILL FURNISH ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY HANDLE, STORE, TEST (FOR DISPOSAL), TRANSPORT, AND DISPOSAL; INCLUDING ANY REQUIRED PERMITS, APPROVALS, OR FEES WITHIN THE AFOREMENTIONED LOCATION. PAYMENT FOR THIS WORK WILL BE MADE AT THE CONTRACT PRICE BID PER TON, PER GALLON, PER CUBIC YARD AND PER UST. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

690E65016 ITEM SPECIAL – WORK INVOLVING PETROLEUM CONTAMINATED SOIL	100 TON
690E65024 ITEM SPECIAL – WORK INVOLVING REGULATED WATER	500 GAL

GENERAL NOTES

DESIGN AGENCY
Environmental Design Group
The community beyond people.
800.835.1390
envdesigngroup.com

DESIGNER ESD

REVIEWER KTL 01-19-26

PROJECT ID 21-00267-010

SHEET P.3 | TOTAL 29

COL-EL RIVERFRONT TRAIL, PHASE 1.1

DWG: #### DATE: 10/23/2026 TIME: 2:04:07 PM
E:\east liverpool\21-00267-010 river front design\CAD\Deliverable\zNOTE 21-00267-010.dwg

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	3	5D	5E	6A	21	OFFICE CALCS							01/ENH						
																		ROADWAY	
LS													LS	201	11000	LS		CLEARING AND GRUBBING	
		1,805											1,805	202	23000	1,805	SY	PAVEMENT REMOVED	
		13,932											13,932	202	30000	13,932	SF	WALK REMOVED	
		1,317											1,317	202	32000	1,317	FT	CURB REMOVED	
		70											70	202	34900	70	FT	PIPE REMOVED	
		2											2	202	58000	2	EACH	MANHOLE REMOVED	
		2											2	202	58200	2	EACH	INLET REMOVED	
		410											410	202	75000	410	FT	FENCE REMOVED	
		13			1,209								1,222	203	10000	1,222	CY	EXCAVATION	
		2			111								113	203	20000	113	CY	EMBANKMENT	
		373											373	204	10000	373	SY	SUBGRADE COMPACTION	
3													3	204	45000	3	HOUR	PROOF ROLLING	
		25											25	606	15050	25	FT	GUARDRAIL, TYPE MGS	
		372											372	607	23000	372	FT	FENCE, TYPE CLT	
		12											12	607	98000	12	FT	FENCE, MISC.:TIMBER RAIL	P.2
			1																
		12,802											12,802	608	10001	12,802	SF	4" CONCRETE WALK, AS PER PLAN	P.2
		2,862											2,862	608	52000	2,862	SF	CURB RAMP	
		70											70	608	52001	70	SF	CURB RAMP, AS PER PLAN	P.2
		20											20	608	53021	20	SF	DETECTABLE WARNING, AS PER PLAN	P.2
		28											28	608	98000	28	SF	WALKWAY, MISC.:BRICK PAVEMENT REPLACEMENT	P.2
1,222													1,222	608	98000	1,222	SF	WALKWAY, MISC.:WALK CLEANING	P.2
		408											408	608	98000	408	SF	WALKWAY, MISC.:INTEGRAL CURB AND WALK	P.2
LS													LS	SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	P.2
LS													LS	SPECIAL	69098400	LS		SURVEY CONTROL VERIFICATION	P.2
																		EROSION CONTROL	
	156												156	659	00300	156	CY	TOPSOIL	
	1,396												1,396	659	10000	1,396	SY	SEEDING AND MULCHING	
	1												1	659	20000	1	TON	COMMERCIAL FERTILIZER	
	8												8	659	35000	8	MGAL	WATER	
	100												100	SPECIAL	69065016	100	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	P.3
	500												500	SPECIAL	69065024	500	GAL	WORK INVOLVING REGULATED WATER	P.3
				LS									LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
				LS									LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
				LS									LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
				5,000									5,000	832	30000	5,000	EACH	EROSION CONTROL	
																		DRAINAGE	
			5										5	611	02400	5	FT	8" CONDUIT, TYPE D	
			13										13	611	06400	13	FT	15" CONDUIT, TYPE D	
			10										10	611	07400	10	FT	18" CONDUIT, TYPE B	
			40										40	611	07600	40	FT	18" CONDUIT, TYPE C, 706.02	
			5										5	611	08900	5	FT	21" CONDUIT, TYPE B	
			11										11	611	09400	11	FT	21" CONDUIT, TYPE D	
			11										11	611	10900	11	FT	24" CONDUIT, TYPE D	
			25										25	611	13900	25	FT	30" CONDUIT, TYPE D	
			1										1	611	98180	1	EACH	CATCH BASIN, NO. 3A	
			4										4	611	98470	4	EACH	CATCH BASIN, NO. 2-2B	
			8										8	611	98630	8	EACH	CATCH BASIN ADJUSTED TO GRADE	
			1										1	611	98645	1	EACH	CATCH BASIN GRATE, AS PER PLAN	P.3
			2										2	611	98890	2	EACH	INLET, NO. 2-A-16	
			2										2	611	99574	2	EACH	MANHOLE, NO. 3	
			3										3	611	99654	3	EACH	MANHOLE ADJUSTED TO GRADE	
			2										2	SPECIAL	61199700	2	EACH	GAS VALVE BOX ADJUSTED TO GRADE	P.2
																		PAVEMENT	
		1,406											1,406	255	20000	1,406	FT	FULL DEPTH PAVEMENT SAWING	
						46							46	301	56000	46	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
						303							303	304	20000	303	CY	AGGREGATE BASE	
						109							109	407	10000	109	GAL	TACK COAT	
						69							69	441	70000	69	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	

1

1

GENERAL SUMMARY

COL-EL RIVERFRONT TRAIL, PHASE 1.1

DWG: #### DATE: 10/23/2026 TIME: 2:44:09 PM
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DESIGN AGENCY
Environmental Design Group
The community impact people.
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DESIGNER ESD
REVIEWER KTL 01-19-26
PROJECT ID 21-00267-010
SHEET P.4 TOTAL 29

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	3	5D	5E	6A	21	OFFICE CALCS							01/ENH						
						85 △1							85	441	70200	85	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)	
		71											71	451	13011	71	SY	8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	P.2
		334											334	452	12011	334	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	P.2
		1,665											1,665	609	26000	1,665	FT	CURB, TYPE 6	
																		WATER WORK	
			2										2	638	10400	2	EACH	FIRE HYDRANT ADJUSTED TO GRADE	
			1										1	638	10401	1	EACH	FIRE HYDRANT ADJUSTED TO GRADE, AS PER PLAN	P.15
			1										1	638	10600	1	EACH	FIRE HYDRANT AND GATE VALVE REMOVED AND RESET	
			2										2	638	10800	2	EACH	VALVE BOX ADJUSTED TO GRADE	
																		LIGHTING	
	1												1	625	98000	1	EACH	LIGHTING, MISC.: LIGHT POLE REMOVED & RELOCATED	P.3
																		TRAFFIC CONTROL	
			392										392	630	03100	392	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
			108										108	630	80100	108	SF	SIGN, FLAT SHEET	
			2										2	630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
			9										9	630	85100	9	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
			2										2	SPECIAL	69098000	2	EACH	RECTANGULAR RAPID FLASHING BEACON SIGN ASSEMBLY (RRFB)	P.3
			0.1										0.1	644	00100	0.1	MILE	EDGE LINE, 4"	
			0.2										0.2	644	00300	0.2	MILE	CENTER LINE	
			13										13	644	00500	13	FT	STOP LINE	
			441										441	644	00630	441	FT	CROSSWALK LINE, 24"	
			155										155	644	00700	155	FT	TRANSVERSE/DIAGONAL LINE	
			1										1	644	01120	1	EACH	SCHOOL SYMBOL MARKING, 120"	
			238										238	644	01200	238	FT	PARKING LOT STALL MARKING	
			738										738	644	30000	738	FT	REMOVAL OF PAVEMENT MARKING	
			1										1	644	30020	1	EACH	REMOVAL OF PAVEMENT MARKING	
			112										112	SPECIAL	69098100	112	FT	LONGITUDINAL CHANNELIZER DEVICE	P.3
																		RETAINING WALLS	
	5,041 △1												5,041	504	11101	5,041	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN	P.3
	534												534	870	10001	534	SF	PREFABRICATED MODULAR RETAINING WALL, AS PER PLAN	P.3
	786												786	870	11000	786	CY	WALL EXCAVATION	
	5												5	870	14000	5	DAY	ON-SITE ASSISTANCE	
	LS												LS	870	15000	LS		PMRW INSPECTION AND COMPACTION TESTING	
																		INCIDENTALS	
													LS	614	11000	LS		MAINTAINING TRAFFIC	
													6	619	16010	6	MNTH	FIELD OFFICE, TYPE B	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

COL-EL RIVERFRONT TRAIL, PHASE 1.1

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DESIGN AGENCY
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DESIGNER: ESD
REVIEWER: KTL 01-19-26
PROJECT ID: 21-00267-010
SHEET: P.5 | TOTAL: 29

SHEET NO.	REFERENCE NO.	STATION		SIDE	202							203		204	255	451	452	606	607		608						609
					PAVEMENT REMOVED	WALK REMOVED	CURB REMOVED	PIPE REMOVED	INLET REMOVED	MANHOLE REMOVED	FENCE REMOVED	EXCAVATION	EMBANKMENT	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	8" REINFORCED CONCRETE, CLASS QC1P, AS PER PLAN	8" NON-REINFIRCED CONCRETE, CLASS QC1P, AS PER PLAN	GUARDRAIL, TYPE MGS	FENCE, TYLE CLT	FENCE, MISC: TIMBER RAIL	4" CONCRETE WALK, AS PER PLAN	CURB RAMP	CURB RAMP, AS PER PLAN	WALKWAY MISC,: INTEGRAL CURB AND WALK	DETECTABLE WARNING, AS PER PLAN	WALKWAY MISC - BRICK PAVEMENT REPLACEMENT	CURB, TYPE 6
		FROM	TO		SY	SF	FT	FT	EACH	EACH	FT	CY	CY	SY	FT	SY	SY	FT	FT	FT	SF	SF	SF	SF	SF	SF	FT
P.8	SW-1	-+00.97	+07.50	RT/LT																	71						
P.8	SW-2	+51.75	+59.10	RT																	69						
P.8	SW-3	+51.90	+74.85	RT/LT																	230						
P.8	SW-4	1+08.53	1+62.52	RT/LT								13	2	55										490			
P.9	SW-5	6+48.04	9+50.00	LT																	1519						
P.9	SW-6	6+76.07	6+90.71	LT																	150						
P.9	SW-7	6+93.13	7+02.73	LT																	79						
P.10	SW-8	9+50.00	9+90.82	LT																	184						
P.10	SW-9	9+90.82	10+22.01	LT																	238						43
P.10	SW-10	10+51.25	10+86.24	RT/LT																	796						42
P.10	SW-11	11+94.35	12+41.43	RT/LT																	834						
P.10	SW-12	12+38.01	12+40.46	RT																						13	
P.10	SW-13	12+78.12	12+97.70	RT/LT																	272						
P.11	SW-14	16+30.91	16+75.82	RT/LT																	536						
P.11	SW-15	18+38.61	18+58.46	RT/LT																	158						
P.12	SW-16	19+28.11	19+50.07	RT/LT																	192						
P.12	SW-17	20+62.67	20+77.61	LT																	54						
P.12	SW-18	21+51.76	21+96.76	RT/LT																	510						
P.12	SW-19	22+11.65	22+27.85	RT/LT																	180						
P.13	SW-20	22+51.64	22+76.74	RT/LT																	247						
P.13	SW-21	24+04.05	24+05.61	RT																						15	
P.13	SW-22	24+83.86	27+50.00	RT/LT																	3190						
P.14	SW-23	27+50.00	28+46.00	RT/LT																	1216						
P.14	SW-24	28+67.73	29+65.47	RT/LT																	1022						
P.15	SW-25	36+10.39	36+58.79	RT/LT																	791						
P.8	TR-1	3+77.37	5+50.00	RT																	188						
P.9	TR-2	5+50.00	6+15.38	RT																	76						
SUBTOTALS, THIS SHEET					0	0	0	0	0	0	0	13	2	55	0	0	0	0	0	0	12802	0	0	490	0	28	85
SUBTOTALS FROM SHEET P.5A					0	0	0	0	0	0	0	0	0	318	20	0	334	0	372	12	0	2862	70	0	20	0	1298
SUBTOTALS FROM SHEET P.5B					645	1382	461	9	1	0	410	0	0	0	1386	71	0	25	0	0	0	0	0	0	0	0	0
SUBTOTALS FROM SHEET P.5C					1160	12550	856	61	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	282
TOTALS CARRIED TO GENERAL SUMMARY					**1805**	**13932**	**1317**	**70**	**2**	**2**	**410**	**13**	**2**	**373**	**1406**	**71**	**334**	**25**	**372**	**12**	**12802**	**2862**	**70**	**408**	**20**	**28**	**1665**

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ROADWAY SUBSUMMARY

COL-EL RIVERFRONT TRAIL, PHASE 1.1

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DESIGN AGENCY
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DESIGNER
ESD

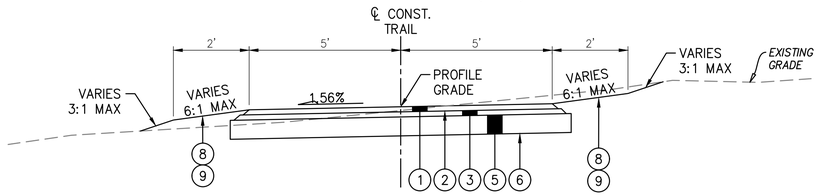
REVIEWER
KTL 01-19-26

PROJECT ID
21-00267-010

SHEET P.5D | TOTAL 29

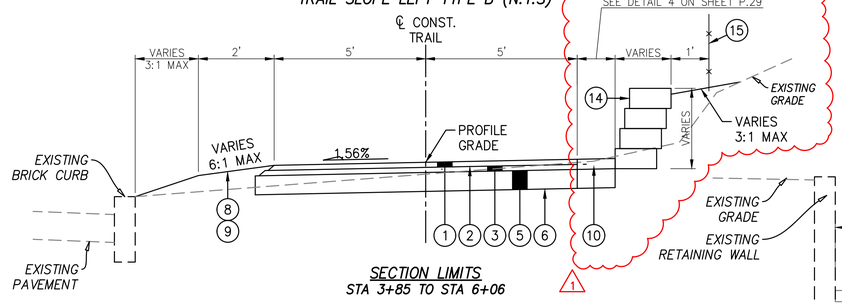
COL-EL-RIVERFRONT TRAIL, PHASE 1.1

TRAIL SLOPE LEFT TYPE A (N.T.S)



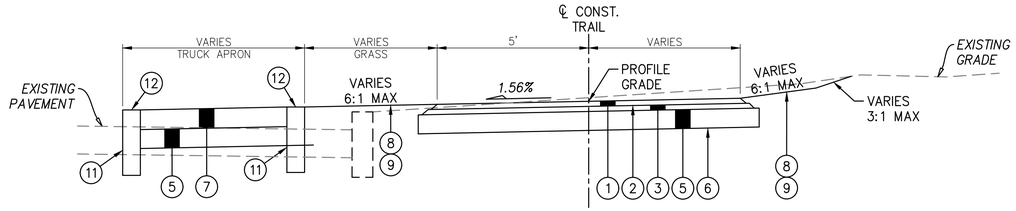
SECTION LIMITS
STA 3+22 TO STA 3+85

TRAIL SLOPE LEFT TYPE B (N.T.S)



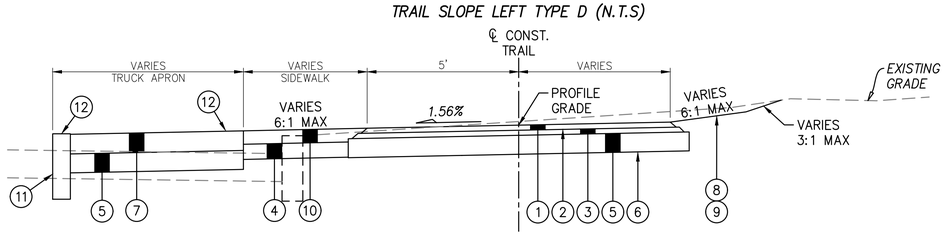
SECTION LIMITS
STA 3+85 TO STA 6+06

TRAIL SLOPE LEFT TYPE C (N.T.S)



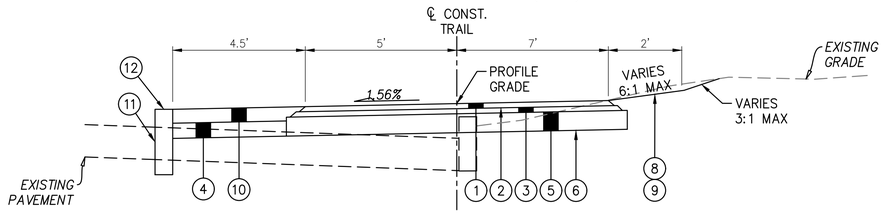
SECTION LIMITS
STA 06+06 TO STA 6+48

TRAIL SLOPE LEFT TYPE D (N.T.S)



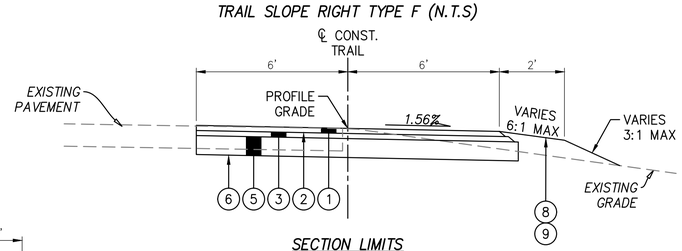
SECTION LIMITS
STA 06+48 TO STA 6+92

TRAIL SLOPE LEFT TYPE E (N.T.S)



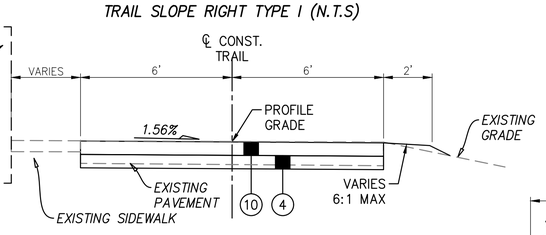
SECTION LIMITS
STA 06+92 TO STA 10+22

TRAIL SLOPE RIGHT TYPE F (N.T.S)



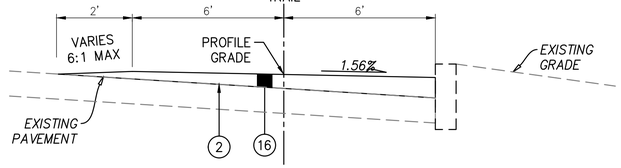
SECTION LIMITS
STA 29+95 TO STA 32+00

TRAIL SLOPE RIGHT TYPE I (N.T.S)



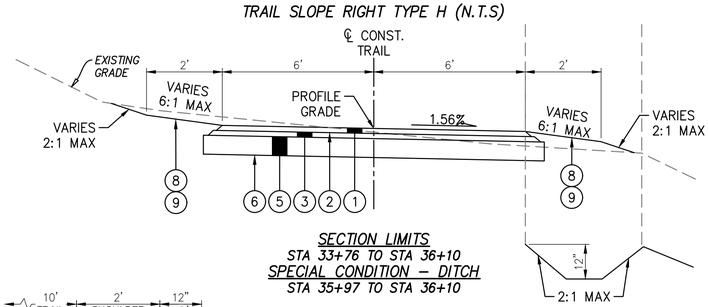
SECTION LIMITS
STA 36+10 TO STA 36+59

TRAIL SLOPE RIGHT TYPE G (N.T.S)

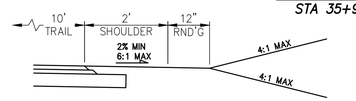


SECTION LIMITS
STA 32+00 TO STA 33+76

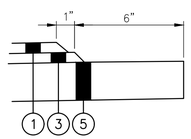
TRAIL SLOPE RIGHT TYPE H (N.T.S)



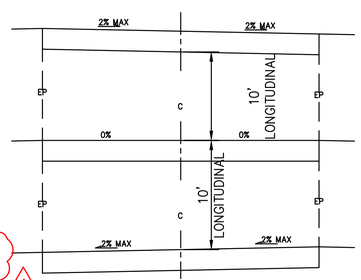
SECTION LIMITS
STA 33+76 TO STA 36+10
SPECIAL CONDITION – DITCH
STA 35+97 TO STA 36+10



TRAIL SHOULDER TRANSITION TO EXISTING GRADE
NOT TO SCALE



ASPHALT TRAIL PAVEMENT STEP DETAIL



CROSS SLOPE TRANSITION DETAIL
PROVIDE MINIMUM 20' TRANSITION WHEN CHANGING DIRECTION OF PAVEMENT CROSS SLOPE

LEGEND

1. ITEM 441 – 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)
2. ITEM 407 – NON–TRACKING TACK COAT (APPLIED AT 0.055 GAL/SY)
3. ITEM 441 – 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
4. ITEM 304 – 4" AGGREGATE BASE
5. ITEM 304 – 6" AGGREGATE BASE
6. ITEM 204 – SUBGRADE COMPACTION
7. ITEM 451 – 8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
8. ITEM 659 – SEEDING AND MULCHING (UNLESS OTHERWISE SHOWN ON PLAN)
9. ITEM 653 – 3" TOPSOIL, FURNISHED AND PLACED
10. ITEM 608 – 4" CONCRETE WALK, AS PER PLAN
11. ITEM 255 – FULL DEPTH PAVEMENT SAWING
12. ITEM 609 – CURB, TYPE 6
13. ITEM 605 – 4" BASE PIPE UNDERDRAINS
14. ITEM 690 – RETAINING WALL OR SHEET PILE WALL (SEE ITEMS 870 & 504 ON SHEET P.3)
15. ITEM 607 – FENCE, TYPE CLT
16. ITEM 441 – 2–6" VARIABLE – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)

TYPICAL SECTIONS

COL-EL RIVERFRONT TRAIL, PHASE 1.1

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DESIGN AGENCY
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DESIGNER ESD
REVIEWER KTL ########
PROJECT ID 21-00267-010
SHEET P.7 | TOTAL 29

PLAN AND PROFILE

NOTES

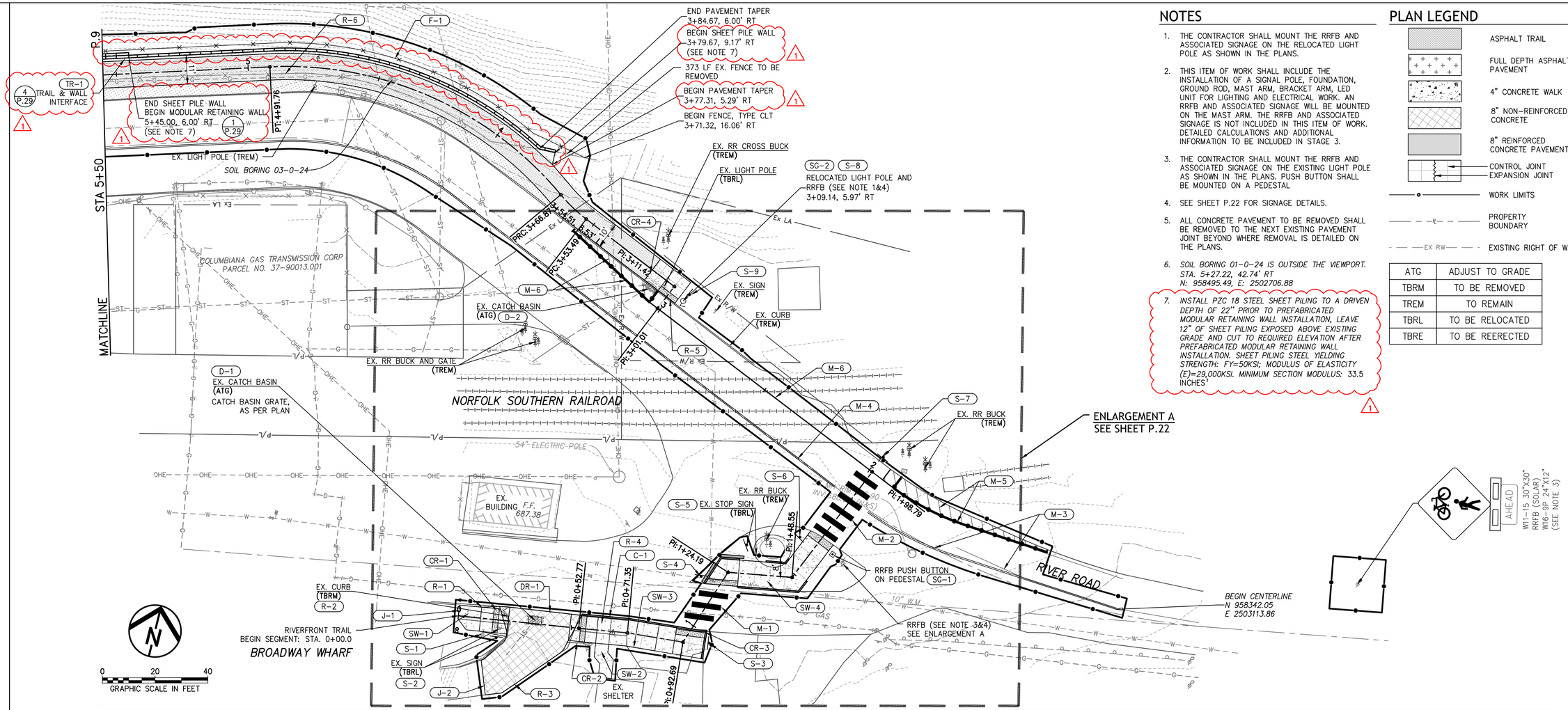
1. THE CONTRACTOR SHALL MOUNT THE RRFB AND ASSOCIATED SIGNAGE ON THE RELOCATED LIGHT POLE AS SHOWN IN THE PLANS.
2. THIS ITEM OF WORK SHALL INCLUDE THE INSTALLATION OF A SIGNAL POLE, FOUNDATION, GROUND ROD, MAST ARM, BRACKET ARM, LED UNIT FOR LIGHTING AND ELECTRICAL WORK. AN RRFB AND ASSOCIATED SIGNAGE WILL BE MOUNTED ON THE MAST ARM. THE RRFB AND ASSOCIATED SIGNAGE IS NOT INCLUDED IN THIS ITEM OF WORK. DETAILED CALCULATIONS AND ADDITIONAL INFORMATION TO BE INCLUDED IN STAGE 3.
3. THE CONTRACTOR SHALL MOUNT THE RRFB AND ASSOCIATED SIGNAGE ON THE EXISTING LIGHT POLE AS SHOWN IN THE PLANS. PUSH BUTTON SHALL BE MOUNTED ON A PEDESTAL
4. SEE SHEET P.22 FOR SIGNAGE DETAILS.
5. ALL CONCRETE PAVEMENT TO BE REMOVED SHALL BE REMOVED TO THE NEXT EXISTING PAVEMENT JOINT BEYOND WHERE REMOVAL IS DETAILED ON THE PLANS.
6. *SOIL BORING 01-0-24 IS OUTSIDE THE VIEWPORT. STA. 5+27.22, 42.74' RT N: 958495.49, E: 2502706.88*
7. *INSTALL PZC 18 STEEL SHEET PILING TO A DRIVEN DEPTH OF 22" PRIOR TO PREFABRICATED MODULAR RETAINING WALL INSTALLATION, LEAVE 12" OF SHEET PILING EXPOSED ABOVE EXISTING GRADE AND CUT TO REQUIRED ELEVATION AFTER PREFABRICATED MODULAR RETAINING WALL INSTALLATION. SHEET PILING STEEL YIELDING STRENGTH: FY=50KSI; MODULUS OF ELASTICITY (E)=29,000KSI. MINIMUM SECTION MODULUS: 33.5 INCHES³*

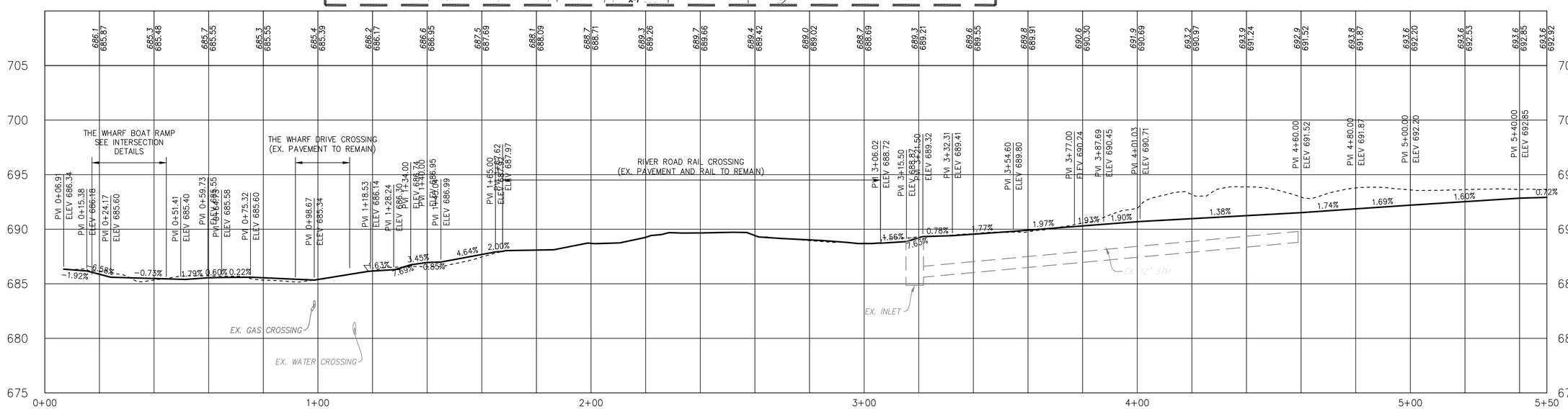
PLAN LEGEND

- ASPHALT TRAIL
- FULL DEPTH ASPHALT PAVEMENT
- 4" CONCRETE WALK
- 8" NON-REINFORCED CONCRETE
- 8" REINFORCED CONCRETE PAVEMENT
- CONTROL JOINT / EXPANSION JOINT
- WORK LIMITS
- PROPERTY BOUNDARY
- EX RW — EXISTING RIGHT OF WAY

ATG	ADJUST TO GRADE
TBRM	TO BE REMOVED
TREM	TO REMAIN
TBRL	TO BE RELOCATED
TBRE	TO BE REERECTED

HORIZONTAL SCALE IN FEET: 0, 10, 20, 40



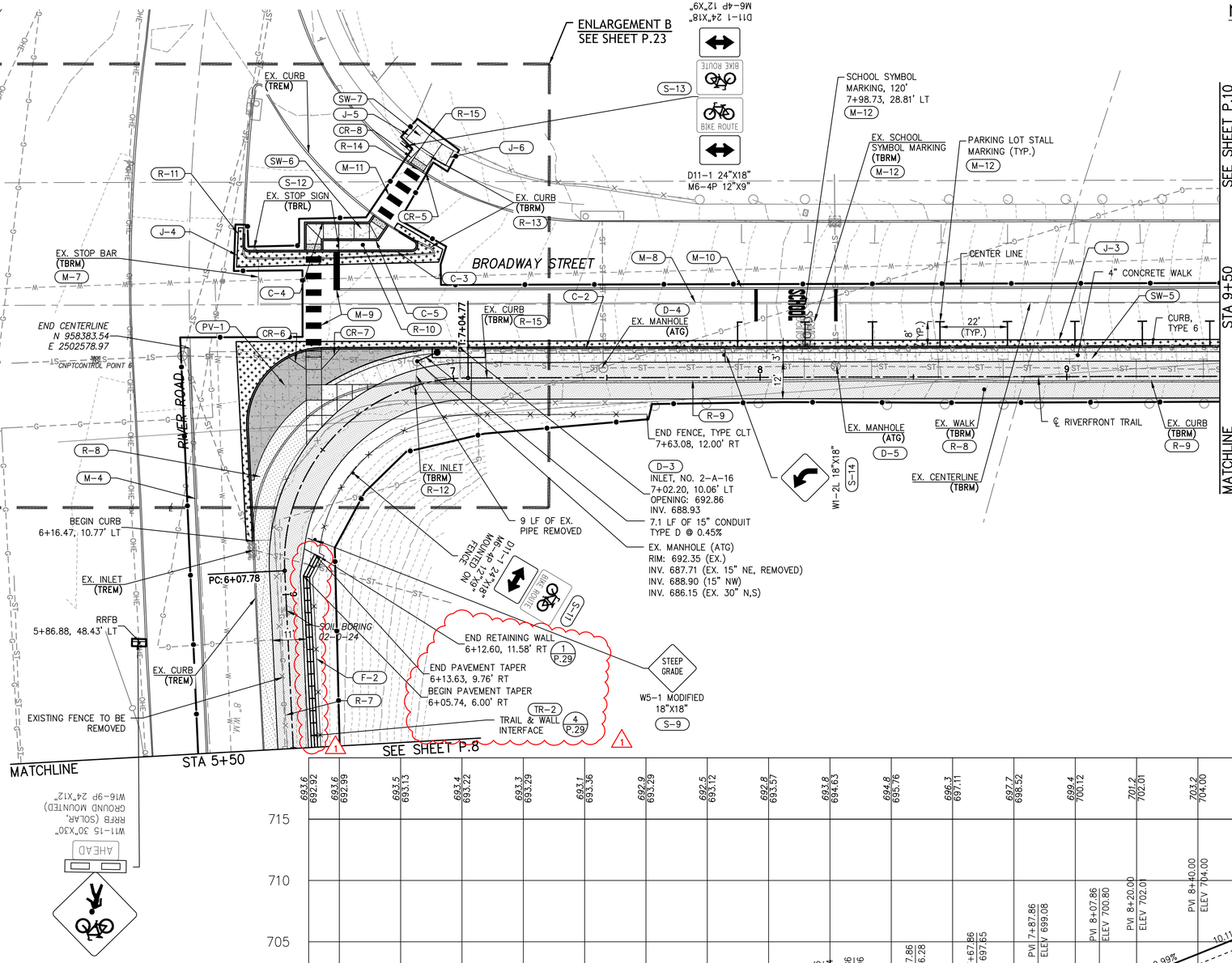


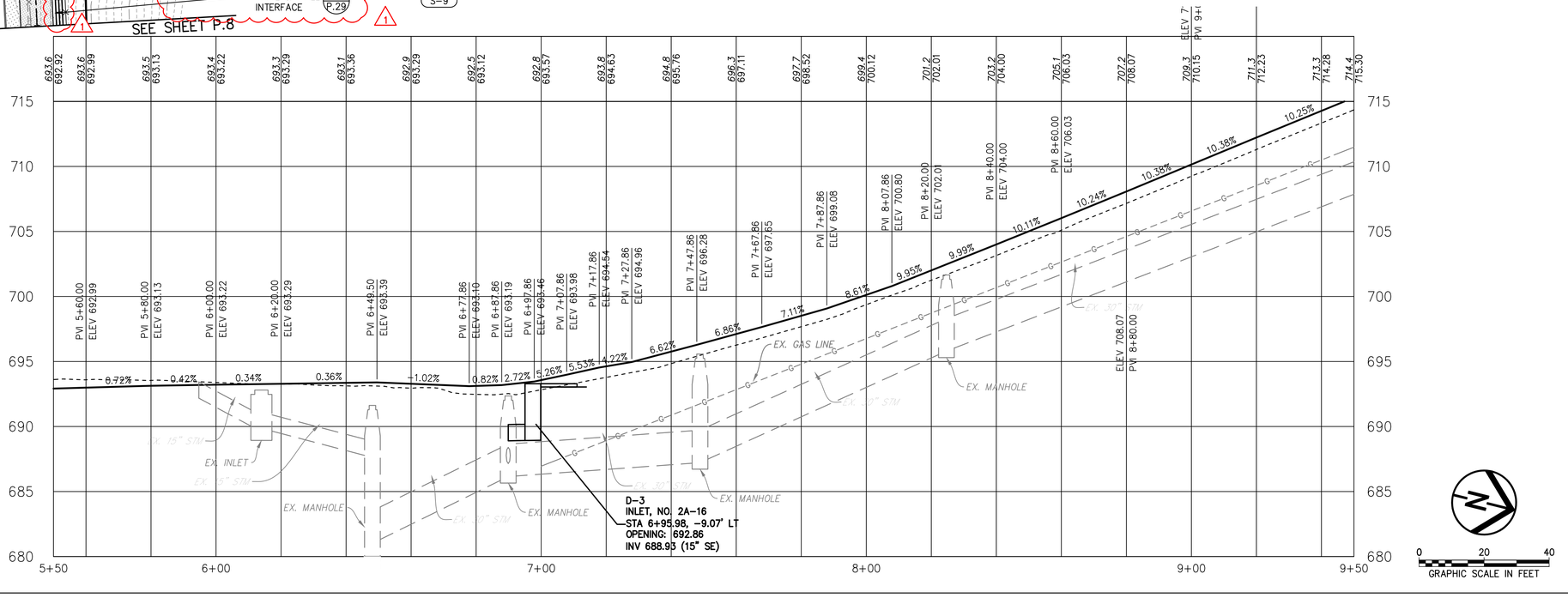
COL-EL RIVERFRONT TRAIL, PHASE 1.1

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DESIGNER	ESD
REVIEWER	KTL 01-19-26
PROJECT ID	21-00267-010
SHEET	P.8
TOTAL	29





NOTES

1. ALL CONCRETE PAVEMENT TO BE REMOVED SHALL BE REMOVED TO THE NEXT EXISTING PAVEMENT JOINT BEYOND WHERE REMOVAL IS DETAILED ON THE PLANS.

PLAN LEGEND

- ASPHALT TRAIL
- FULL DEPTH ASPHALT PAVEMENT
- 4" CONCRETE WALK
- 8" NON-REINFORCED CONCRETE
- 8" REINFORCED CONCRETE PAVEMENT
- CONTROL JOINT / EXPANSION JOINT
- WORK LIMITS
- PROPERTY BOUNDARY
- EX RW — EXISTING RIGHT OF WAY

ATG	ADJUST TO GRADE
TBRM	TO BE REMOVED
TREM	TO REMAIN
TBRL	TO BE RELOCATED
TBRE	TO BE REERECTED

HORIZONTAL SCALE IN FEET: 0, 10, 20, 40

GRAPHIC SCALE IN FEET: 0, 20, 40

PLAN AND PROFILE

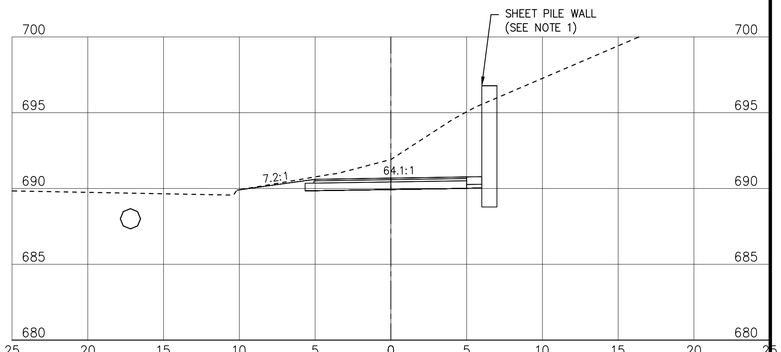
COL-EL RIVERFRONT TRAIL, PHASE 1.1

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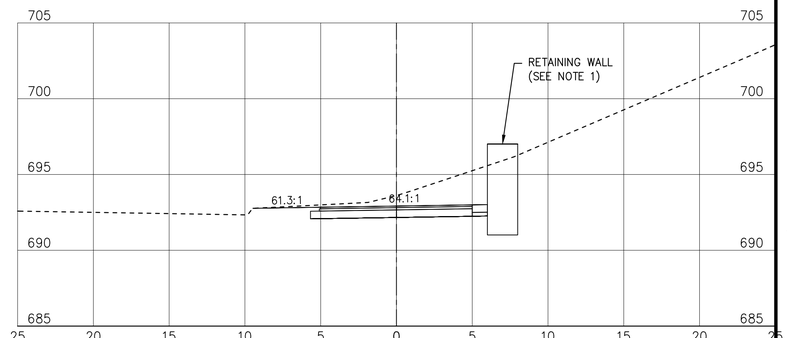
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DESIGNER	ESD
REVIEWER	KTL 01-19-26
PROJECT ID	21-00267-010
SHEET	P.9
TOTAL	29

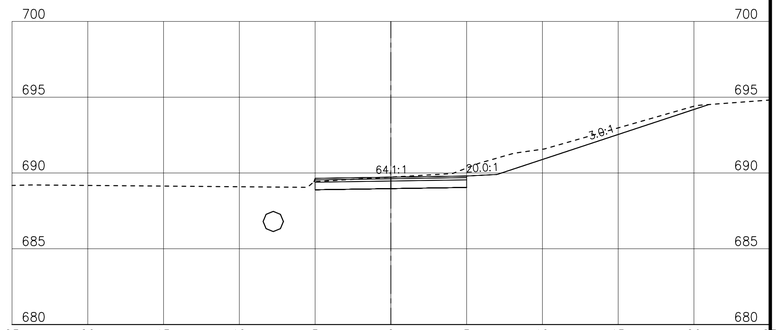
NOTES
1. WALL LOCATIONS AND DIMENSIONS ARE GRAPHICAL ONLY



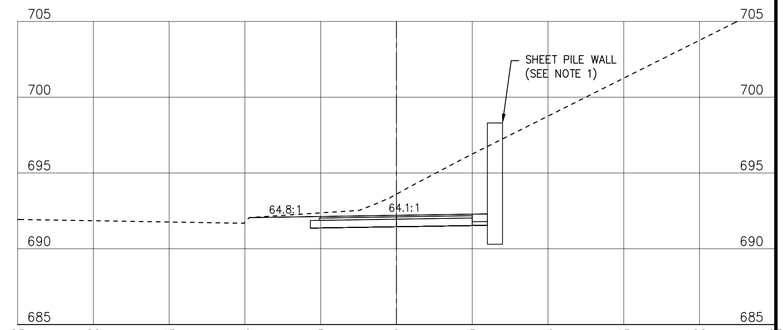
690.69 PR
STA 4+00
691.9 EX



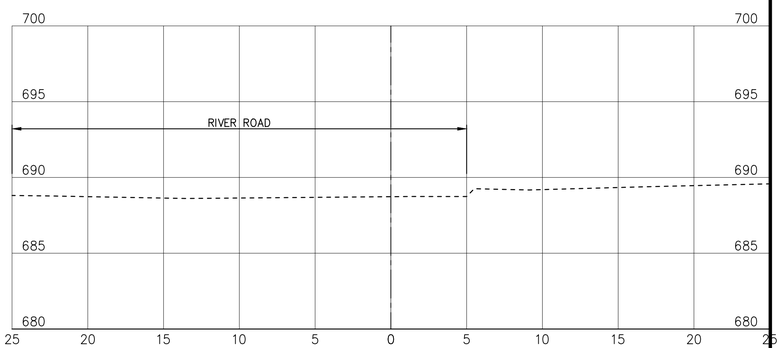
692.92 PR
STA 5+50
693.6 EX



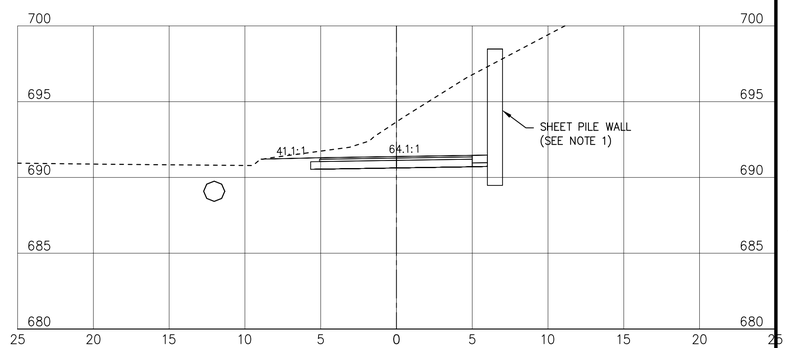
689.72 PR
STA 3+50
689.7 EX



692.20 PR
STA 5+00
693.6 EX



PR
STA 3+00
688.7 EX



691.38 PR
STA 4+50
693.7 EX

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10	75	38	0			9	48	30	0		
				51	0					62	0
17	0	17	0			8	45	37	0		
				15	0					79	0
0	0	0	0			8	50	48	0		
				0	0					81	0
	75			72	0		143			260	0

HORIZONTAL SCALE IN FEET
0 2.5 5 10

RIVERFRONT TRAIL CROSS SECTIONS
STA 3+00 TO STA 5+50

COL-EL RIVERFRONT TRAIL, PHASE 1.1

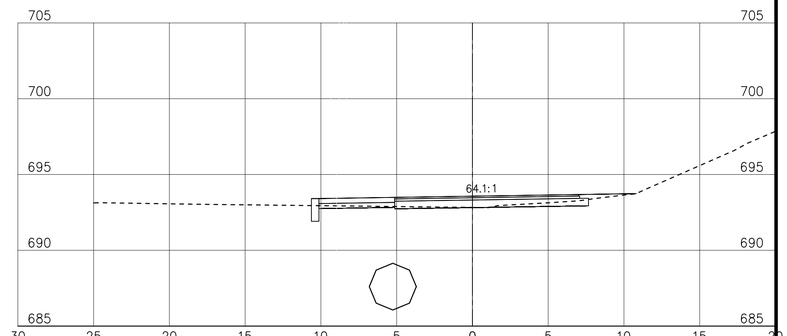
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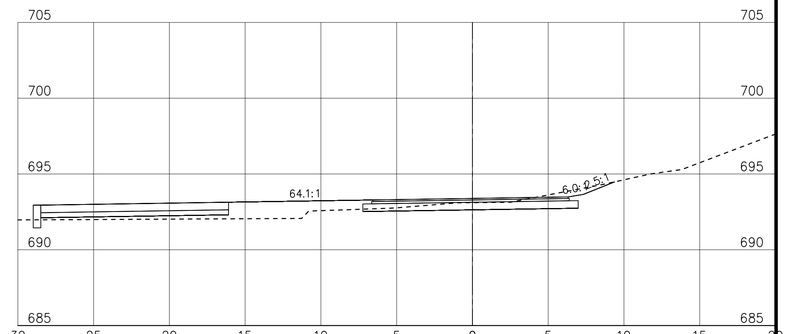
DESIGNER ESD
REVIEWER KTL 01-19-26
PROJECT ID 21-00267-010
SHEET P.16 | TOTAL 29

NOTES
1. WALL LOCATIONS AND DIMENSIONS ARE GRAPHICAL ONLY

1

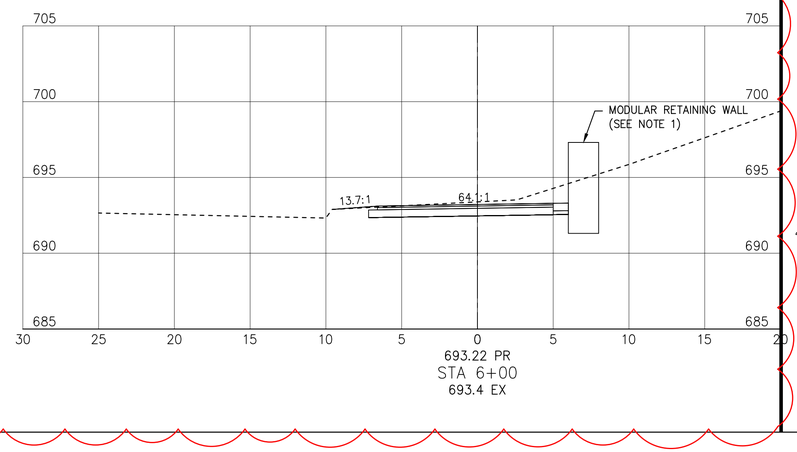


693.57 PR
STA 7+00
692.8 EX

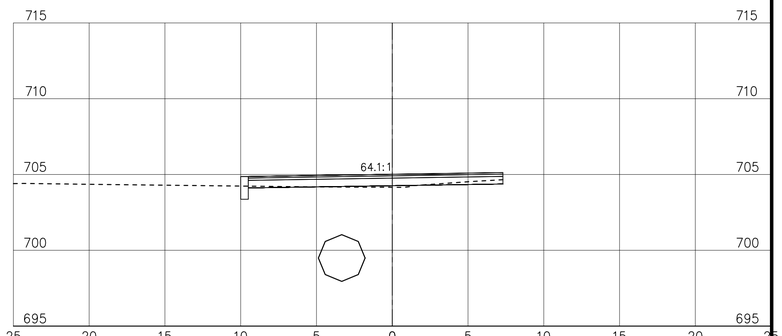


693.39 PR
STA 6+50
693.1 EX

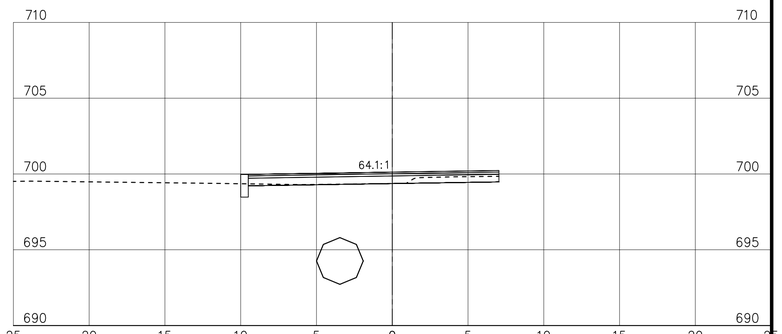
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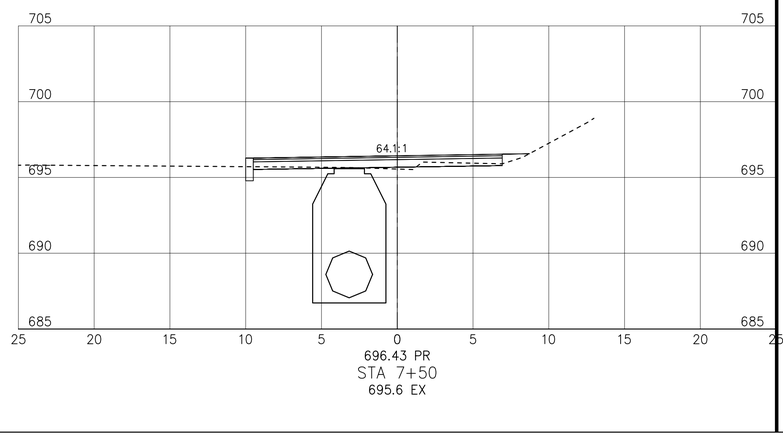
693.22 PR
STA 6+00
693.4 EX



705.01 PR
STA 8+50
704.2 EX



700.12 PR
STA 8+00
699.4 EX



696.43 PR
STA 7+50
695.6 EX

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5	50	3	1			0	0	2	0		
				10	13					4	0
13	78	8	11			0	6	3	0		
				26	12					5	1
15	67	21	0			2	20	2	1		
				47	0					5	1
195				83	25		26			14	2

HORIZONTAL SCALE IN FEET
0 2.5 5 10

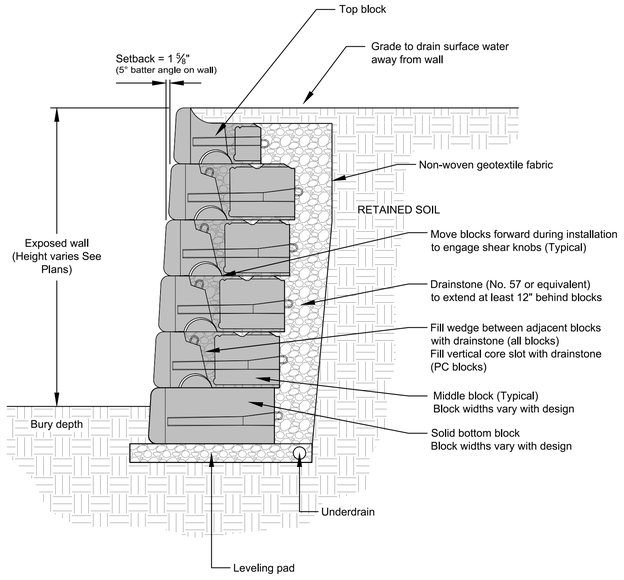
RIVERFRONT TRAIL CROSS SECTIONS
STA 6+00 TO STA 8+50

COL-EL RIVERFRONT TRAIL, PHASE 1.1

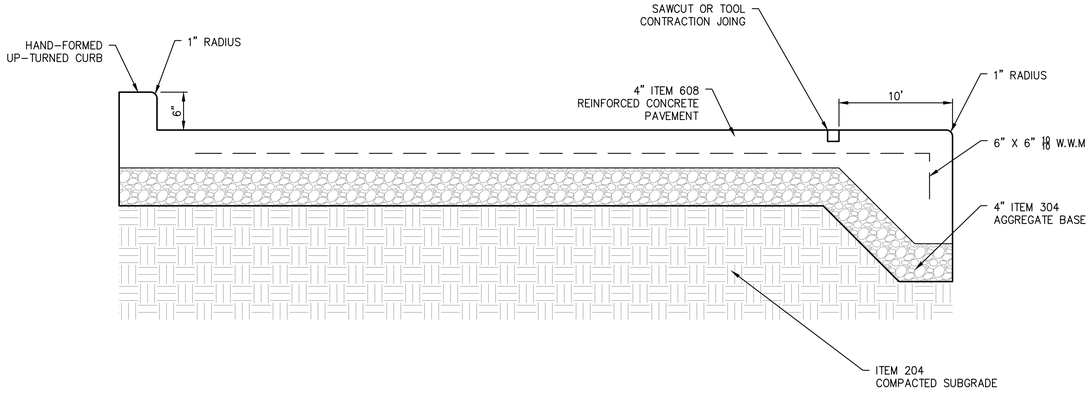
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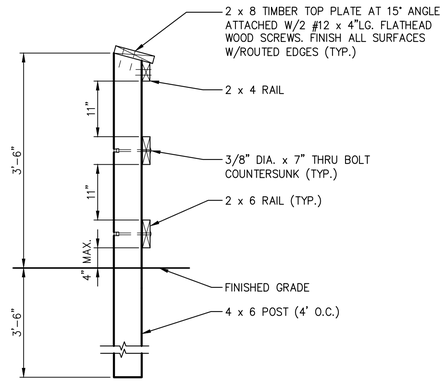
DESIGNER ESD
REVIEWER KTL 01-19-26
PROJECT ID 21-00267-010
SHEET P.17 TOTAL 29



1 P.29 RETAINING WALL
NOT TO SCALE

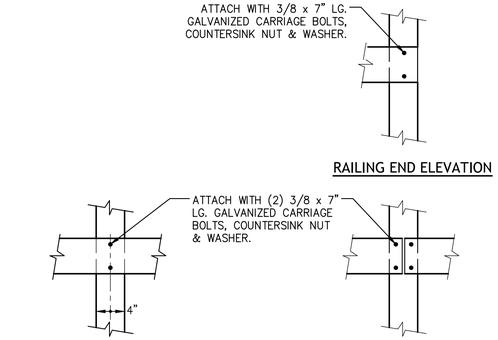


2 P.29 INTEGRAL CURB AND WALK
NOT TO SCALE

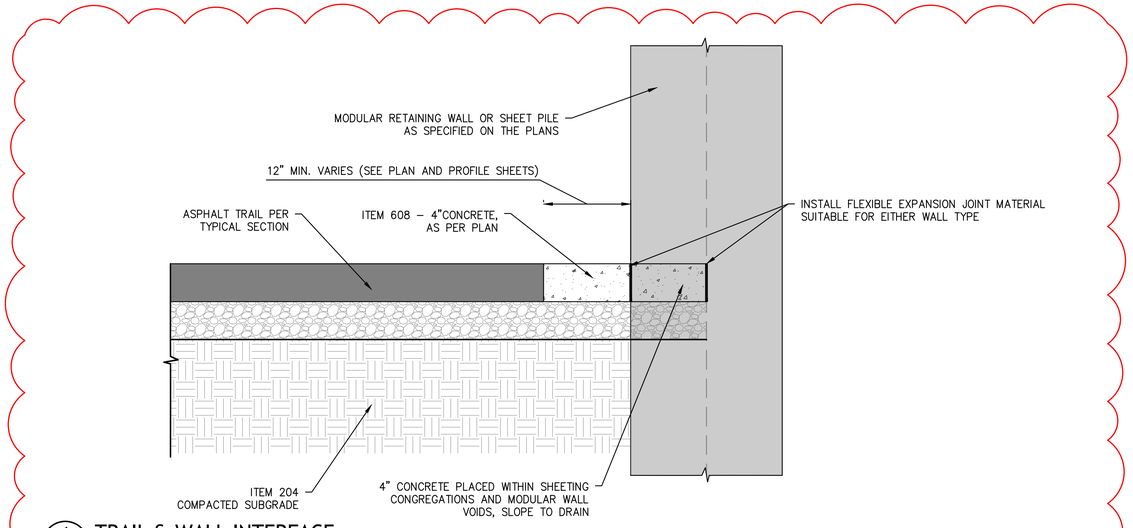


SECTION

NOTES:
1.ALL HARDWARE SHALL BE MANUFACTURED FROM MEDIUM CARBON STEEL AND BE HOT-DIP GALVANIZED PER ASTM 153A OR 153M AND ODOT SECTION 711.02.



3 P.29 ITEM 607 - FENCE, MISC.: TIMBER RAIL
NOT TO SCALE



4 P.29 TRAIL & WALL INTERFACE
NOT TO SCALE

1

HORIZONTAL SCALE IN FEET
0 5 10 20

CONSTRUCTION DETAILS

COL-EL RIVERFRONT TRAIL, PHASE 1.1

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SHEET	P.29
TOTAL	29