

- 1

ITEM 203 EXCAVATION
- 2

ITEM 203 EMBANKMENT, AS PER PLAN
- 3

ITEM 203 6" EMBANKMENT, AS PER PLAN, SOIL PLUG
- 4

ITEM 653 4" TOPSOIL FURNISHED AND PLACED
- 5

ITEM 203 ROADWAY, MISC.: VEGETATION REINFORCED COIR MAT WRAP
- 6

ITEM 601 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER, AS PER PLAN
- 7

ITEM 601 3.00' ROCK CHANNEL PROTECTION, TYPE B WITH FILTER, AS PER PLAN
- 9

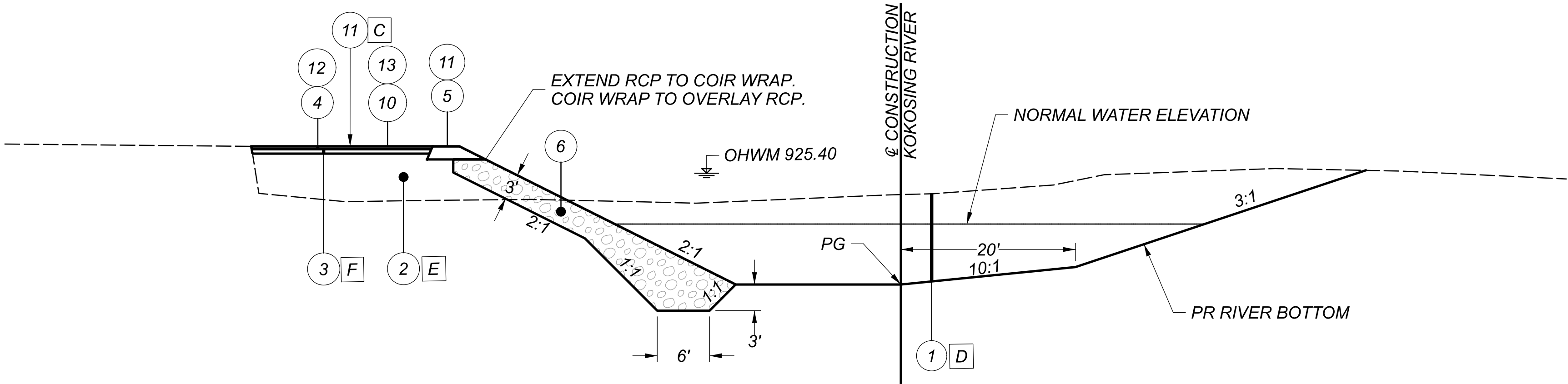
ITEM 601 1.50' ROCK CHANNEL PROTECTION, MISC.: RIFFLE BED MATERIAL
- 10

ITEM 659 SEEDING AND MULCHING CLASS 5B
- 11

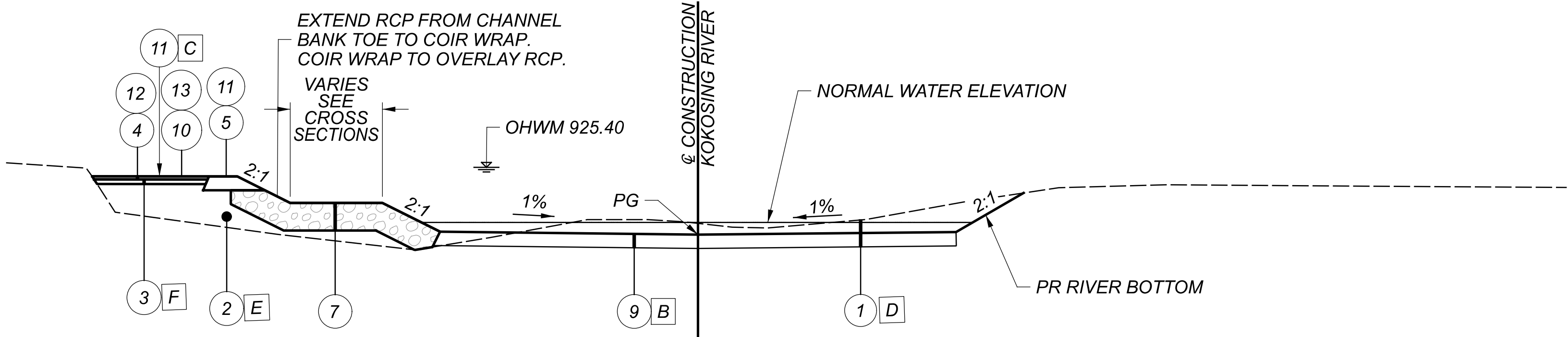
ITEM 661 PLANTING, MISC.: LIVE STAKE
- 12

ITEM 670 SLOPE EROSION PROTECTION, AS PER PLAN
- 13

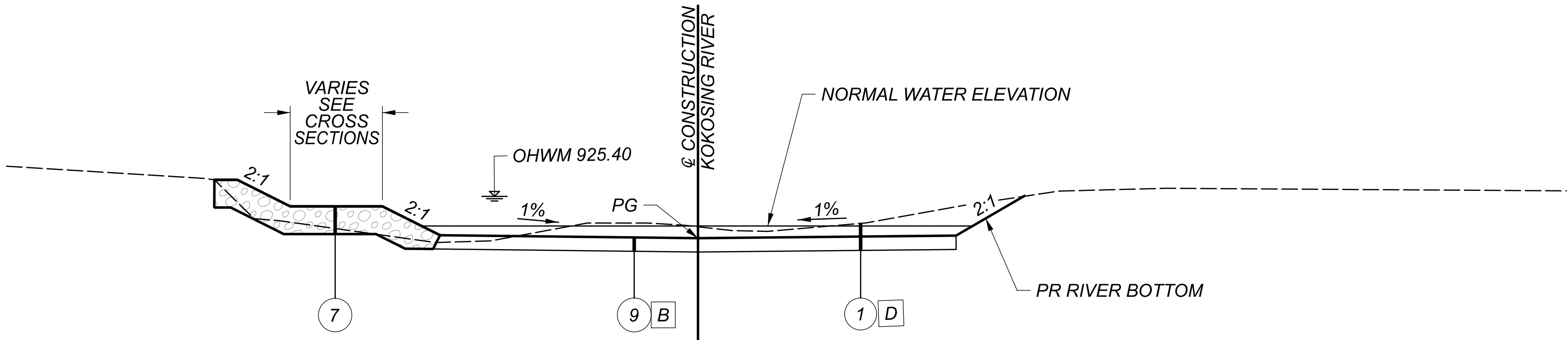
ITEM 661 DECIDUOUS TREE, 1" CALIPER



TYPICAL SECTION – RIVER POOL
STA. 3+50 TO STA. 4+00 A
STA. 4+00 TO STA. 5+75
STA. 5+75 TO STA. 6+50 A



TYPICAL SECTION – RIVER RIFFLE (WITH EMBANKMENT)
STA. 2+20 TO STA. 3+50
STA. 3+50 TO STA. 4+00 A



TYPICAL SECTION – RIVER RIFFLE (WITHOUT EMBANKMENT)
STA. 1+35 TO STA. 2+20
STA. 5+75 TO STA. 6+50 A
STA. 6+50 TO STA. 8+50

- A

CONTRACTOR SHALL TRANSITION CHANNEL BED MATERIALS FROM POOLS TO RIFFLES WITHIN THE RUNS AND GLIDES AS SHOWN. BLEND RIFFLE MATERIALS AND POOL MATERIALS FROM ONE FEATURE TO THE NEXT, DECREASING IN SIZE FROM RIFFLES TO POOLS, AND INCREASING IN SIZE FROM POOLS TO RIFFLES OVER THE LENGTH OF THE RUN OR GLIDE AS SHOWN ABOVE. POOL BED MATERIAL CONSISTS OF EXISTING IN-SITU ALLUVIUM MATERIAL.
- B

EXTEND BED MATERIAL FROM LEFT TOE OF SLOPE TO RIGHT TOE OF SLOPE AS SHOWN.
- C

WITHIN DISTURBED AREAS PLANT LIVE STAKES IN A 5' x 5' GRID SPACING.
- D

RIVER BED
- E

RIVER BED MATERIAL
- F

SOIL PLUG

UTILITIES

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

AEP DISTRIBUTION	OHIO CUMBERLAND GAS CO.
850 TECH CENTER DRIVE	20718 DANVILLE-AMITY ROAD
GAHANNA, OHIO 43230	MOUNT VERNON, OHIO 43050
ATTN: PAUL PAXTON	OFFICE PHONE NUMBER
614-883-6831	740-392-2941
CENTURYLINK TELEPHONE CO.	TIME WARNER CABLE
701 HARCOURT ROAD	3760 INTERCHANGE DR.
MOUNT VERNON, OHIO 43050	COLUMBUS, OHIO 43204
ATTN: CASPER SCHMIDT	ATTN: RAY MAURER
740-397-3609	614-481-5262

CLEARING AND GRUBBING

THE EXACT QUANTITY AND LOCATION OF TREES AND SHRUBS SHOWN ON THESE PLANS IS APPROXIMATE BASED ON THE BEST AVAILABLE AERIAL IMAGERY. SHRUBS AND BRUSH SHALL BE REMOVED FROM THE RIVER BANK WITHIN PROJECT LIMITS. SUFFICIENT REMOVAL SHALL OCCUR TO ALLOW PLACEMENT OF FILL AND PROPOSED REVETMENT; HOWEVER, EXISTING TREES SHALL BE PROTECTED WHERE POSSIBLE TO ALLOW ROOTMASS TO PROVIDE ADDITIONAL PROTECTION TO EXISTING AND PROPOSED RIVER BANKS.

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

WORKING LIMITS

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

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS BETWEEN THE OUTSIDE EDGE OF TREATED SHOULERS AND 50 FEET RIGHT OF THE CENTERLINE OF RIGHT-OF-WAY:

ITEM 659 SEEDING AND MULCHING CLASS 2	2275 SY
ITEM 659 SOIL ANALYSIS TEST	1 EACH
ITEM 659 COMMERCIAL FERTILIZER	0.21 TON
ITEM 659 LIME	0.47 ACRE
ITEM 659 WATER	18 MGAL

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS WITHIN THE CONSTRUCTION LIMITS OF THE NORTHERN SIDE OF THE KOKOSING RIVER BETWEEN THE LIMITS SHOWN IN THE CROSS SECTIONS AND 50 FEET RIGHT OF THE CENTERLINE OF RIGHT-OF-WAY.

ITEM 659 SEEDING AND MULCHING CLASS 5B	3290 SY
ITEM 659 COMMERCIAL FERTILIZER	0.30 TON
ITEM 659 LIME	0.68 ACRE
ITEM 659 WATER	27 MGAL

SEEDING AND MULCHING (CONT'D)

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR TEMPORARY EASEMENT EXCEPT FOR AREAS ON THE SOUTH SIDE OF THE KOKOSING RIVER. IT IS NOT ANTICIPATED THAT ANY SEEDING AND MULCHING WILL BE NEEDED SOUTH OF THE KOKOSING RIVER.

QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

SCENIC RIVER

DEVELOP AND IMPLEMENT A SWPPP, PER SS 832, BEFORE EARTHWORK COMMENCES. PROPERLY INSTALL AND MAINTAIN SEDIMENT AND EROSION CONTROLS THROUGHOUT THE DURATION OF THE PROJECT. STRAW BALES ARE NOT PERMITTED AS A FORM OF SEDIMENT CONTROL. ENSURE TIMELY ADHERENCE TO THE GENERAL CONSTRUCTION PERMIT FOR ALL SEDIMENT AND EROSION CONTROLS, INCLUDING SEEDING AND MULCHING. ENSURE BMPS ARE INSTALLED TO PREVENT DRAINAGE WAYS, UNPROTECTED SLOPES, DITCHES, AND STREAMS FROM CONVEYING SEDIMENT LADEN WATERS DIRECTLY TO THE KOKOSING RIVER. PROPERLY INSTALLED (FRAMED AND ENTRENCHED) SEDIMENT FENCE SHOULD BE UTILIZED AROUND THE WORK SITE PERIMETER. ALL CONTROLS SHALL BE PROPERLY MAINTAINED UNTIL FINAL SITE STABILIZATION IS ACHIEVED. ALL SEDIMENT AND EROSION CONTROLS SHALL BE REMOVED UPON STABILIZATION OF THE PROJECT AREA WITH VEGETATION. ALL DENUDED AREAS SHALL BE PERMANENTLY SEEDED AND MULCHED (OR FIBER MAT) IMMEDIATELY UPON COMPLETION OF EARTH WORK OR TEMPORARILY SEEDED AND MULCHED (OR FIBER MAT) WITHIN SEVEN DAYS IF THE AREA IS TO REMAIN IDLE FOR MORE THAN THIRTY DAYS. IDLE EQUIPMENT, PETROCHEMICALS AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE STORED IN THE FLOODPLAIN OR NEAR ANY DRAINAGE WAYS, DITCHES OR STREAMS THAT COULD CONVEY SUCH MATERIALS TO THE KOKOSING STATE SCENIC RIVER. PETROCHEMICALS AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE DISCHARGED INTO KOKOSING SCENIC RIVER, ITS FLOODPLAIN OR ANY DRAINAGE WAYS, DITCHES OR STREAMS. REFUELING OF EQUIPMENT SHOULD NOT OCCUR IN THE FLOODPLAIN OR NEAR ANY DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT AND CLEANUP PLAN SHALL BE DEVELOPED PRIOR TO THE START OF THE PROJECT.

DO NOT DISCHARGE TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND TO A SCENIC RIVER, ITS TRIBUTARIES, OR DRAINAGE WAYS. IF REFUELING OF IMMOBILE EQUIPMENT IS NECESSARY WITHIN THE FLOODPLAIN OR NEAR ANY TRIBUTARY DRAINAGE WAYS, DITCHES, OR STREAM, PROVIDE SECONDARY CONTAINMENT WITH ENOUGH CAPACITY TO COMPLETELY CONTAIN AND COLLECT ALL POTENTIAL LIQUID WASTES IN THE EVENT OF A SPILL.

REPORT SPILLS EQUAL TO OR EXCEEDING THE REPORTABLE QUANTITIES PRESCRIBED IN OAC CHAPTER 3750-25, IN ACCORDANCE WITH ORC 3750.06, TO THE LOCAL FIRE DEPARTMENT (911), THE LOCAL EMERGENCY COORDINATOR, AND THE OHIO SPILL LINE (1-800-282-9378).

ALL DEBRIS, EXCESS FILL MATERIAL AND MATERIAL EXCAVATED FROM THE RIVER BOTTOM SHOULD BE DISPOSED OF AT AN APPROVED UPLAND SITE (ABOVE 100 YEAR FLOOD ELEVATIONS). DISPOSAL IN WETLANDS, FLOODPLAINS OR WITHIN 1000 FEET OF THE KOKOSING SCENIC RIVER SHALL BE PROHIBITED.

SCENIC RIVER (CONT'D)

ALL IN-STREAM WORK SHALL BE CONDUCTED DURING LOW FLOW PERIOD (AUGUST 1 THROUGH OCTOBER 31). ANY DISTURBED AREAS IN THE STREAM BOTTOM SHOULD BE RETURNED TO PRE-CONSTRUCTION CONTOURS UNLESS MODIFIED WITH THESE PLANS. FILL MATERIAL USED BELOW OHWM OF THE KOKOSING RIVER SHALL BE RELATIVELY FREE FROM FINE PARTICULATE MATTER AND FREE FROM TOXIC CONTAMINANTS OTHER THAN IN TRACE QUANTITIES AND SHALL BE KEPT TO THE MINIMUM

AMOUNT NECESSARY. BROKEN CONCRETE OR ASPHALT ARE SPECIFICALLY PROHIBITED FROM USE AS FILL BELOW THE OHWM OR ON ANY PORTION OF THE SCENIC RIVER STREAM BANKS. APPLICABLE IN-STREAM WORK RESTRICTION DATES WILL BE INCORPORATED INTO THE SPECIAL PROVISIONS.

ROCK CHANNEL PROTECTION SHALL BE PLACED FROM THE BENCH AREA ABOVE THE RIVER CHANNEL AS MUCH AS PRACTICAL. NO EQUIPMENT IS PERMITTED WITHIN THE KOKOSING RIVER CHANNEL EXCEPT FOR THE ITEMS “EXCAVATION” , “ROCK CHANNEL PROTECTION, TYPE B WITH FILTER”, “ROCK CHANNEL PROTECTION, MISC.: TYPE B WITH TYPE D”, “ROCK CHANNEL PROTECTION, MISC.: RIFFLE BED MATERIAL, “ROCK CHANNEL PROTECTION, MISC.: J-HOOK STONE”. IT IS ANTICIPATED THAT CONSTRUCTION OF THESE ITMES WILL GENERALLY BE PERFORMED IN THE WET AND THAT COFFER DAMS, CRIBS, OR SHEETING WILL NOT BE UTILIZED HOWEVER, THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE PROJECT ENGINEER (CONSTRUCTION METHODS, DEWATERING, ETC.) FOR THESE ITEMS, AS NECESSARY TO CONSTRUCT THE PROJECT.

STREAMBANK VEGETATION SHALL BE LEFT UNDISTURBED TO THE MAXIMUM EXTENT POSSIBLE. HEATHER DOHERTY, CENTRAL REGION SCENIC RIVER MANAGER, SHALL BE INVITED TO A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR PRESENT. HEATHER SHALL BE NOTIFIED OF THE PROJECT START DATE AND COMPLETION DATE, AND BE ALLOWED TO CONDUCT A FINAL INSPECTION BEFORE THE PROJECT CLOSES TO MAKE RECOMMENDATIONS REGARDING FINAL SITE STABILIZATION. HEATHER’S CONTACT INFORMATION IS:

HEATHER DOHERTY
CENTRAL REGIONAL SCENIC RIVER MANAGER
ODNR, DIVISION OF NATURAL AREAS AND PRESERVES
2045 MORSE ROAD, H-3
COLUMBUS, OH 43229
740-258-0567

RECREATIONAL BOATING ACCESS TO THE KOKOSING RIVER SHALL BE MAINTAINED AT ALL TIMES. DURING CONSTRUCTION ACTIVITIES, A DETOUR/PORTAGE FOR BOATING HAS BEEN MADE AVAILABLE FOR BOATERS TO SAFELY TRAVERSE THE CONSTRUCTION AREA (SEE PORTAGE PLAN IN THE REFERENCE FILES FOR THIS PROJECT).

THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNAGE/BUOYS/MARKERS 300 FEET UPSTREAM AND 300 FEET DOWNSTREAM OF THE PROJECT AREA TO ALERT USERS OF CONSTRUCTION ACTIVITIES, ACCESS RESTRICTIONS, AND TO DIRECT USERS TO THE PORTAGE AREA ON THE KOKOSING RIVER, AS NEEDED. THE CONTRACTOR SHALL ALSO PLACE SIGNAGE AT THE UPSTREAM ACCESS (CECIL BRIDGE, COUNTY ROAD 105) AND DOWNSTREAM ACCESS (BEND ROAD) TO ALERT PADDLERS/BOATERS OF ACCESS RESTRICTIONS AND DIRECT USERS TO SECONDARY ACCESS POINTS AND PORTAGE, IF NEEDED.

SCENIC RIVER (CONT'D)

THE PROJECT ENGINEER SHALL NOTIFY THE ODNR TRAILS ADMINISTRATOR 14 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO ALLOW ODNR TO POST NOTICE OF IMPENDING PROJECT CONSTRUCTION ON THE APPROPRIATE ODNR WEBPAGES AND ASSOCIATED ONLINE BOATING MAPS. AS PART OF NOTIFICATION EFFORTS, THE PROJECT ENGINEER SHALL ALSO PROVIDE PLANS THAT INDICATE SIGNAGE LOCATION ALONG THE WATERWAY AND ANY ADDITIONAL PLANNED NOTIFICATION EFFORTS WITH ODNR THAT WILL TAKE PLACE DURING OR AFTER CONSTRUCTION. THE ODNR TRAILS ADMINISTRATOR WILL BE NOTIFIED WHEN THE PROJECT IS COMPLETE, AND ALL SIGNAGE HAS BEEN REMOVED.

PARAGRAPH REMOVED

IF ON-THE-WATER LAW ENFORCEMENT ASSISTANCE IS NEEDED DURING ANY PORTION OF THE DEMOLITION OR CONSTRUCTION PHASE, OR IF ANY QUESTIONS REGARDING NAVIGATION ARISE, THE ODOT PROJECT ENGINEER SHALL CONTACT THE ODNR DIVISION OF PARKS AND WATERCRAFT LAW ENFORCEMENT SUPERVISOR, DAWN ROBERTS VIA PHONE OR E-MAIL AT DAWN.ROBERTS@DNR.STATE.OH.US OR 614-813-2505.

THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH NATALIE PIRVU, THE ODNR TRAILS ADMINISTRATOR, HEATHER DOHERTY, CENTRAL OHIO ASSISTANT SCENIC RIVERS MANAGER, AND ODOT PRIOR TO THE START OF CONSTRUCTION ACTIVITIES AND PROVIDE REGULAR UPDATES THROUGHOUT CONSTRUCTION. THE ODNR TRAILS ADMINISTRATOR CONTACT IS NATALIE PIRVU, NATALIE.PIRVU@DNR.OHIO.GOV, 1-614-265-6466.

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. THE CONTRACTOR SHALL REMOVE ONLY THE TREES NECESSARY TO CONSTRUCT THE PROJECT.

FIELD CONDITIONS

DUE TO CONTINUED SLOPED EROSION SUBSEQUENT TO THE TIME OF FIELD SURVEY, DETAILS SHOWN ON THE PLAN ARE TO BE CONSIDERED APPROXIMATE AND FOR ESTIMATING PURPOSES ONLY.

SPECIAL MISC.: FIELD SURVEY FOR CONSTRUCTION PLANS

THE CONTRACTOR SHALL FIELD REVIEW THE SITE WITH THE PROJECT ENGINEER FOR CHANGES. UPON PROJECT ENGINEER’S CONFIRMATION OF THE LIMITS, BEGIN THE WORK AFTER INSTALLATION OF STREAM ELEVATION GAUGES. INSTALL AT LEAST TWO STAKES REPRESENTED AS STREAM ELEVATION GAUGES AT LOCATIONS DIRECTED BY THE ENGINEER. THE GAUGES WILL HAVE INDICATORS SHOWING AN ORDINARY HIGH WATER MARK OF KOKOSING RIVER AT ELEVATION OF 925.4 FEET. THE STREAM GAUGES MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.

PERFORM ADDITIONAL FIELD SURVEYS TO CONFIRM THE EARTHWORK AND EROSION CONTROL QUANTITIES.

THE CONTRACTOR SHALL SUBMIT PAY ITEM QUANTITY CALCULATIONS, OR; DIGITAL/PRINT CROSS SECTION SHEETS AND PLAN SHEET PRIOR TO FINALIZING THE PROJECT.

DESIGN AGENCY



DESIGNER

QEP

REVIEWER

JMB 05/16/22

PROJECT ID

111312

SHEET

3

TOTAL

29

SPECIAL MISC.: FIELD SURVEY FOR CONSTRUCTION PLANS (CONT'D)

THE PLAN SHEET SHALL SHOW TOPOGRAPHIC FEATURES WITHIN CONSTRUCTION PROJECT WORK LIMITS SHOWING PROPOSED IMPROVEMENT. DUE TO THE CHANNEL SHAPING CAPACITY OF FLOWING WATER IN THE RIVER, SLIGHT SHIFTS AND ADJUSTMENTS IN THE CHANNEL BED ARE EXPECTED OVER TIME. IN ORDER TO VERIFY PROPER CONSTRUCTION, CONTRACTOR SHALL RECORD RIVER CENTERLINE ELEVATIONS WITHIN 24 HOURS OF ACHIVING FINAL GRADES AS WORK PROGRESSES. CONTRACTOR IS NOT RESPONSIBLE FOR MINOR CHANGES IN GRADE (+/- 0.5 FEET) FOLLOWING ACHIEVEMENT OF FINAL GRADE WITH THE EXCEPTION OF THE RIFFLE HEADER STRUCTURE AND J-HOOK STRUCTURE, WHICH SHALL HAVE A TOLERANCE OF +/- 0.1 FEET.

ESTABLISHED VEGETATION

DURING CONSTRUCTION EVERY ATTEMPT SHOULD BE MADE TO PRESERVE TREES, SHRUBS AND OTHER ESTABLISHED VEGETATION WITHIN THE CONSTRUCTION LIMITS AND PROPOSED RIGHT OF WAY.

PARAGRAPH REMOVED

ITEM 601 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER, AS PER PLAN

ON SITE EXCAVATED RIVER BED ALLUVIUM MATERIAL SHALL BE INCORPORATED INTO ROCK CHANNEL PROTECTION TYPE B STONE TO FILL VOID SPACE BETWEEN TYPE B STONE. THE INTENTION OF INCORPORATING ON SITE EXCAVATED RIVER BED ALLUVIUM MATERIAL IS TO PROVIDE A MORE NATURAL APPERENCE OF THE FINISHED SURFACE OF THE ROCK CHANNEL PROTECTION.

ITEM 601 ROCK CHANNEL PROTECTION, MISC: RIFFLE BED MATERIAL

MATERIAL SHALL BE A BLEND OF RIVERBED MATERIAL EXCAVATED FROM EXISTING RIFFLES AND GRAVEL POINT BARS ON SITE, AND QUARRIED SAND STONE CONFORMING TO THE SIZING SPECIFICATIONS OF ODOT TYPE C, AND TYPE D ROCK CHANNEL PROTECTION. BLEND SHALL BE 30% RIVERBED MATERIAL, 50% TYPE D RCP, AND 20% TYPE C RCP. BLEND STONE PRIOR TO PLACING FOR RIFFLE CONSTRUCTION. LIMESTONE SHALL NOT BE USED FOR RIFFLE BED MATERIAL.

ITEM 601 ROCK CHANNEL PROTECTION, MISC.: TYPE B WITH TYPE D

ITEM USED IN RIFFLE HEADER STRUCTURE. BLEND IN JUST ENOUGH TYPE D ROCK CHANNEL PROTECTION INTO TYPE B ROCK CHANNEL PROTECTION TO FILL THE VOIDS IN THE TYPE B. BLEND TO CREATE A DENSE WELL GRADED MIX. THE TONS OF TYPE B RCP PER YARD IN THE BLENDED MATERIAL SHALL BE APPROXIMATELY EQUAL TO THE TONS OF TYPE B RCP PER YARD WITHOUT ADDING ANY MATERIAL TO IT. THIS MIXTURE WORKS OUT APPROXIMATELY 85% TYPE B TO 15% TYPE D FOR ESTIMATE PURPOSES.

ITEM 203 EMBANKMENT, AS PER PLAN

ON SITE EXCAVATED MATERIAL SHALL BE CONSIDERED SUITABLE MATERIAL FOR EMBANKMENT. EMBANKMENT MATERIAL SHALL BE PLACED IN MAXIMUM 8-INCH LOOSE LIFTS WITH EACH LIFT NOMINALLY COMPACTED UNIFORMLY USING A MINIMUM OF TWO ROLLER PASSES (4 CONTACTS) WITH TRACKED CONSTRUCTION EQUIPMENT HAVING A MINIMUM EFFECTIVE WEIGHT OF 10 TONS. NO COMPACTION DENSITY TESTING WILL BE REQUIRED.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY ENGINEER.

ITEM 203 EMBANKMENT, AS PER PLAN 298 CY

ITEM 203 EMBANKMENT, AS PER PLAN, SOIL PLUG

FURNISH A-6 OR A-7-6 NATURAL SOIL MEETING THE REQUIREMENTS OF 203.02.1.

SOIL PLUG PLACEMENT: ONCE THE ITEM 203 EMBANKMENT IS COMPLETED, PLACE THE NATURAL SOIL ABOVE IT IN 6-INCH (150MM) LOOSE LIFTS. THE DEPARTMENT WILL USE 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY FOR COMPACTION ACCEPTANCE.

ALL OTHER REQUIREMENTS OF CMS 203 SHALL APPLY.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY ENGINEER.

ITEM 203 EMBANKMENT, AS PER PLAN, SOIL PLUG 29 CY

ITEM 601 STONE SOURCING NOTE:

THE FOLLOWING SUPPLIERS ARE AWARE OF THE KNO-229-14.80 (PID:111312) REQUIRING THE USE OF LARGE NATURAL ROCK MEETING THE PLAN REQUIRMENTS OF:

ITEM 601 ROCK CHANNEL PROTECTION, MISC.: J-HOOK STONE

AT AN OPTION TO THE CONTRACTOR, THE CONTRACTOR MAY REACH OUT TO ANY/ALL SUPPLIERS PRIOR TO PREPARING THE BIDS. THE CONTRACTOR MAY PROVIDE ANY OTHER SOURCE MATERIAL THAT MEETS THE PLAN REQUIRMENTS. IF A SUPPLIER NOT LISTED BELOW IS UTILIZED, CONTRACTOR SHALL OBTAIN PHOTOGRAPHS OF SOURCE MATERIAL FOR APPROVAL BY ENGINEER PRIOR TO PROCURMENT.

ENSURE THAT INDIVIDUAL STONES HAVE ROUGHLY RIGHT ANGLES AND ARE GENERALLY RECTANGULAR PRISMS.

BRIAR HILL STONE COMPANY
PO BOX 457 12470 STATE ROUTE 520
GLENMONT, OHIO 44628
ATTN: FRANK WALLER
EMAIL: BRIAIRHILL@VALKYRIE.NET
PHONE: 330-377-5100 (BRIAR HILL MAIN)
PHONE: 740-259-2356 (BIDDING OFFICE-WALLER BROS)
FAX: 330-337-5110

WOLHONDING VALLEY SAND AND GRAVEL
27679 STATE ROUTE 206
WALHOUNDING, OHIO 43843
ATTN: EZRA HELMICK
EMAIL: EZRAHELMICK@ICLOUD.COM
EMAIL: WSVG@VOL.COM
PHONE: 740-824-5241 (MAIN)
PHONE: 740-502-2803 (CELL)

ITEM 601 STONE SOURCING NOTE (CONT'D)

CLEVELAND QUARRIES
850 WEST RIVER RD.
VERMILLION, OHIO
ATTN: DAVE DUNN
EMAIL: DAVED@CLEVELANDQUARRIES.COM
PHONE: 440-963-4008 (OFFICE)
PHONE: 517-214-7674 (CELL)

PLANTING PLAN

ITEM 661 PLANTING, MISC.: LIVE STAKE

LIVE STAKES SHALL BE PER THE LIVE STAKE PLANTING DETAIL SHOWN IN THE DRAINAGE, CHANNEL DETAILS AND THE SPECIES TABLE SHOWN BELOW. THE QUANTITIES OF EACH SPECIES SHALL BE PER THE PERCENTAGES SHOWN IN THE TABLE. DIFFERENT SPECIES SHALL BE INTERSPERSED WITH EACH OTHER AND NOT CLUMPED TOGETHER. LIVE STAKE PLANTING SHALL OCCUR BETWEEN NOVEMBER 30TH AND MARCH 31ST

COIR MAT WRAP LIVE STAKES			
SCIENTIFIC NAME	COMMON NAME	QUANTITY	PERCENTAGE OF COMPOSITION
SALIX INTERIOR	SANDBAR WILLOW	409	33%
SALIX NIGRA	BLACK WILLOW	409	33%
PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	409	33%
DISTURBED AREA LIVE STAKES			
SALIX INTERIOR	SANDBAR WILLOW	105	20%
SALIX NIGRA	BLACK WILLOW	105	20%
CORNUS AMOMUM	SILKY DOGWOOD	105	20%
CORNUS SERICEA	RED-OSIER DOGWOOD	105	20%
PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	105	20%

ITEM 661 PLANTING MISC.: LIVE STAKE 1752 EACH

THE FOLLOWING CONTINGENCY QUANTITY FOR COIR WRAP LIVE STAKES HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY ENGINEER.

ITEM 661 PLANTING MISC.: LIVE STAKE 245 EACH

THE FOLLOWING CONTINGENCY QUANTITY FOR DISTURBED AREA LIVE STAKES HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY ENGINEER.

ITEM 661 PLANTING MISC.: LIVE STAKE 105 EACH

ITEM 661 DECIDUOUS TREE, 1" CALIPER

TREES SHALL BE PLANTED A MINIMUM OF 10' FROM TOP OF BANK AND APPROXIMATELY 25' ON CENTER AS DIRECTED BY ENGINEER.

SYCAMORE (PLATANUS OCCIDENTALIS) 25 EACH
SILVER MAPLE (ACER SACCHARINUM) 25 EACH

THE ABOVE QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY

ITEM 662 LANDSCAPE WATERING 8000 GALLONS

ITEM 670 SLOPE EROSION PROTECTION, AS PER PLAN

EROSION CONTROL MAT SHALL BE COIR MAT.

COIR MAT

COIR MAT SHALL BE ONE OF THE FOLLOWING:

NEDIA ENTERPRISES KOIRMAT 900
NEDIA ENTERPRISES, INC.
44675 CAPE COURT, SUITE 120
ASHBURN, VA 20147
TEL: 571-223-0200

EAST COAST EROSION – EC-9Y COIR MAT
EAST COAST EROSION
443 BRICKER RD
BERNVILLE, PA 19506
OFFICE: 610-486-3848

ROLANKA INTERNATIONAL, INC. – BIOD MAT 90
ROLANKA INTERNATIONAL, INC.
155 ANDREW DRIVE
STOCKBRIDGE, GA 30281
TEL: 770-506-8211

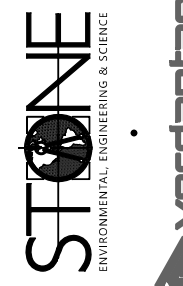
ITEM 690, SPECIAL - MISC.; ROADWAY PRESERVATION

PRESERVE THE EXISTING S.R. 229 EASTBOUND PAVEMENT AND GUARDRAIL. SUBMIT PROTECTION PLAN FOR THE PROJECT ENGINEER'S FILES. PROTECT THE PAVEMENT AND GUARDRAIL ALONG S.R. 229 WITH A METHOD APPROVED BY THE PROJECT ENGINEER.

REPAIR ANY DAMAGE TO THE ROADWAY AND GUARDRAIL DURING CONTRUCTION AT NO ADDITIONAL COSTS TO THE STATE. UNLESS ITEMIZED SEPERATELY, INCLUDE ALL LABOR, MATERIALS, AND TOOLS NECESSARY FOR PROTECTION OF EXISTING ROADWAY PAVEMENT.

ITEM 690 SPECIAL, ROADWAY PRESERVATION, LUMP

DESIGN AGENCY



DESIGNER
KJS

REVIEWER
JMB 04/07/22

PROJECT ID
111312

SHEET 4 TOTAL 29

ITEM 614 – MAINTAINING TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

AS PER MT-97.10, ONE LANE OF TRAFFIC MAY BE CLOSED BY USE OF FLAGGERS AND EXISTING PAVEMENT DURING THE HOURS OF CONSTRUCTION ACTIVITIES. ALL OTHER TIMES, THE CONTRACTOR SHALL MAINTAIN NORMAL TRAFFIC. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO)
BY FAX: (614) 887-4510 OR
BY EMAIL: D05.PIO@dot.ohio.gov

DISTRICT PERMIT SECTION
BY FAX: (614) 887-4525 OR
BY EMAIL: Brian.Bosch@dot.ohio.gov

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION
BY FAX: (614) 728-4099 OR
BY EMAIL: Hauling.Permits@dot.ohio.gov

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

IF IN THE OPINION OF THE ENGINEER, THE CONTRACTOR FAILS TO COMPLY WITH THESE REQUIREMENTS AND THE PROVISIONS OF THE APPROVED MAINTENANCE OF TRAFFIC PLAN, THE ENGINEER SHALL SUSPEND WORK UNTIL ALL REQUIREMENTS ARE MET. ANY COST OR DELAYS INCURRED AS A RESULT OF THE FAILURE SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

POINT NUMBER	GRID COORDINATES US SURVEY FEET		SCALED COORDINATES US SURVEY FEET		ORTHOMETRIC HEIGHT (ELEVATION)	STATION	OFFSET
	NORTHING	EASTING	NORTHING	EASTING			
CP01	253133.700	2001523.700	253133.700	2001523.700	935.37	88+57.27	20.722
CP02	252960.800	2001862.350	252960.800	2001862.350	936.31	92+37.69	21.125
CP03	252793.160	2002241.680	252793.160	2002241.680	949.52	96+48.15	27.968

MAINTENANCE OF CANOE TRAFFIC

CANOE TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT EITHER THROUGH EXISTING RIVER CHANNEL OR THROUGH PORTAGE TRAIL APPROVED BY THE ENGINEER.

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT.

1. APPROXIMATELY ONE-QUARTER MILE UPSTREAM, ADVANCED WARNING TYPE SIGNS;
2. APPROXIMATELY 300 FEET UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST;
3. APPROXIMATELY ONE-QUARTER MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS; AND
4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST.

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE ORDINARY HIGH WATER LEVEL, UNOBSTRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CONTRACTOR SHALL NOTIFY LOCAL CANOE LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING CANOE TRAFFIC.

PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OR-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

IN THE EVENT PIPES ARE USED TO DIVERT OR CARRY RIVER WATER, BOTH THE INLET AND OUTLET ENDS SHALL BE ADEQUATELY PROTECTED BY GRATES OR FENCE SO THAT PEOPLE OR CANOES ARE NOT DRAWN THROUGH OR HELD BY THEM.

PAYMENT FOR THIS ITEM SHALL BE MADE INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC AT THE CONTRACT PRICE PER LUMP SUM BID AND SHALL INCLUDE THE COST OF ORDERING, DELIVERING, INSTALLING, MAINTAINING AND REMOVING SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

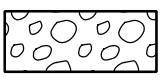
PARAGRAPH REMOVED

TABLE REMOVED

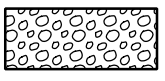
LEGEND

HATCH TYPES

ROCK CHANNEL
PROTECTION



RIFFLE BED
MATERIAL

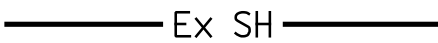


LINE TYPES

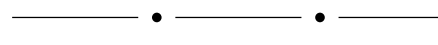
PROPOSED STANDARD
HIGHWAY EASMENT



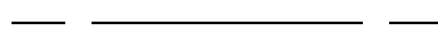
EXISTING STANDARD
HIGHWAY EASMENT



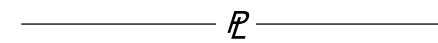
CONSUCTION LIMITS



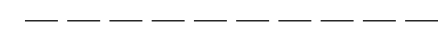
CENTERLINE



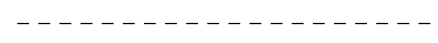
PROPERTY LINE



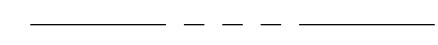
EDGE OF PAVEMENT



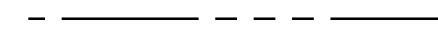
EDGE OF SHOULDER



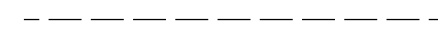
EDGE OF WATER



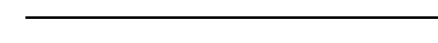
NORMAL WATER ELEVATION



EXISTING CONTOUR



PROPOSED CONTOUR



ABBREVIATIONS

BMTZ - BED MATERIAL
TRANSITION ZONE

ELEV - ELEVATION

EX - EXISTING

L - LEFT

OHWM - ORDINARY HIGH
WATER MARK

PR - PROPOSED

R - RIGHT

RBM - RIFFLE BED MATERIAL

RCP - ROCK CHANNEL
PROTECTION

RW - RIGHT-OF-WAY

STA - STATION

NW - NORMAL WATER

EW - EDGE OF WATER

GENERAL NOTES

DESIGN AGENCY



DESIGNER

KJS

REVIEWER

JMB 04-07-22

PROJECT ID

111312



SHEET

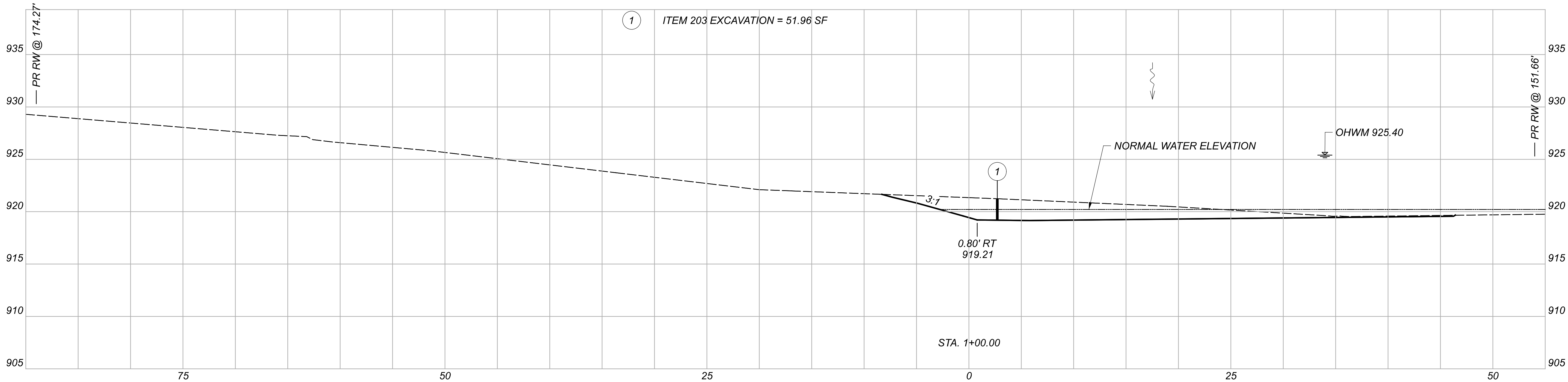
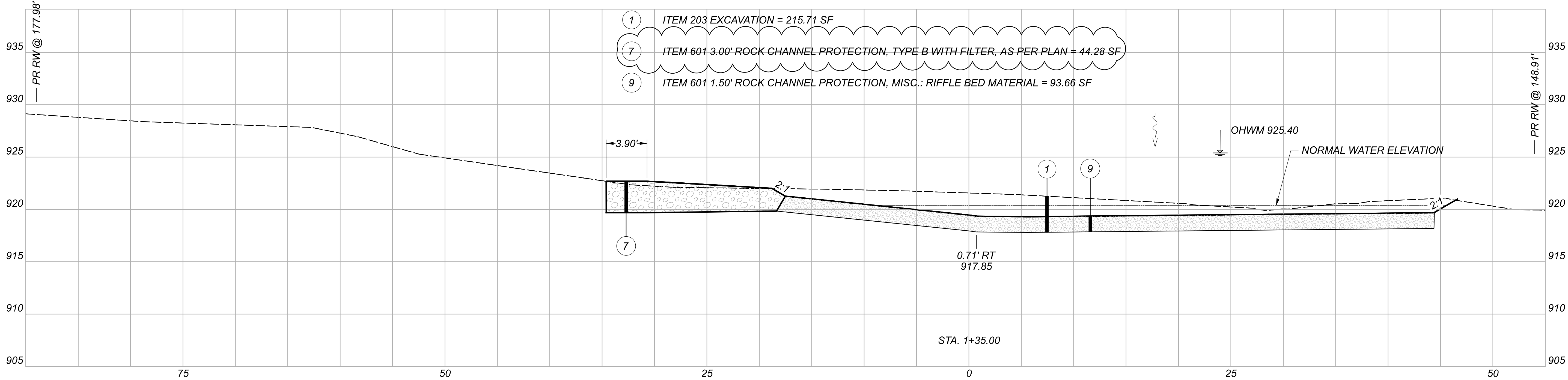
5

TOTAL

29

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 6/17/2022 TIME: 2:42:12 PM USER: khalilnberger
SYNOPSIS:Verdants (Formerly Hull & Associates) 0732-014-22 KNO-229-148007 Maps Plans and Drawings CAD and Survey 111312400-Engineering/Roadway/Sheets/111312_6000.dgn

<h1 style="text-align: center;">GENERAL SUMMARY</h1>	
DESIGN AGENCY  STONE ENVIRONMENTAL, ENGINEERING & SCIENCE  verdantia PEOPLE. FOCUSED. FUTURE.	
DESIGNER KJS	
REVIEWER JMB 05/16/22	
PROJECT ID 111312	
SHEET 6	TOTAL 29



Sheet Totals 0+50 to 1+35		
1	7	9
237 CY	29 CY	61 CY

DESIGN AGENCY

STONE

verdateas

DESIGNER

QEP

REVIEWER

JMB 04/07/22

PROJECT ID

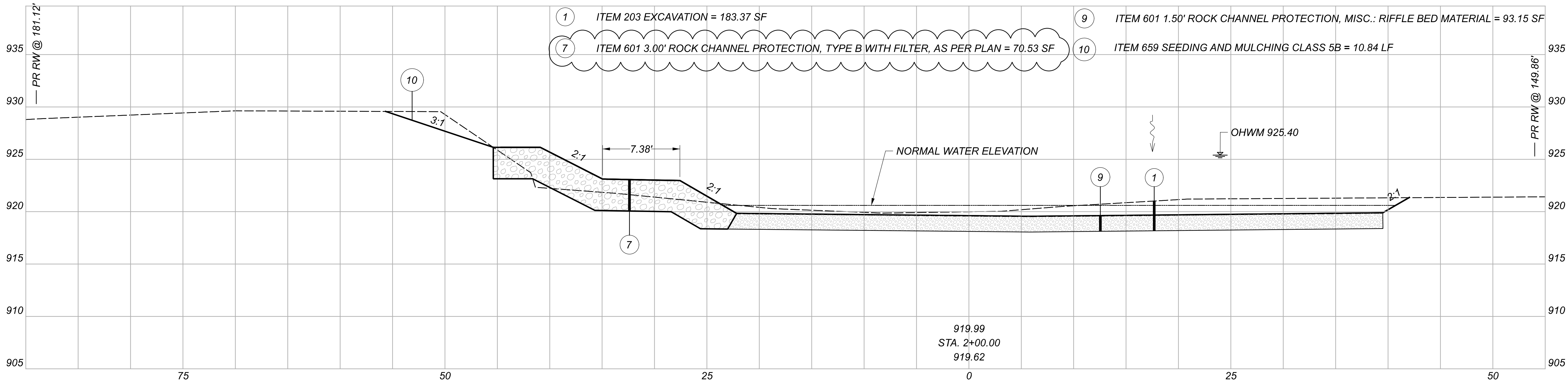
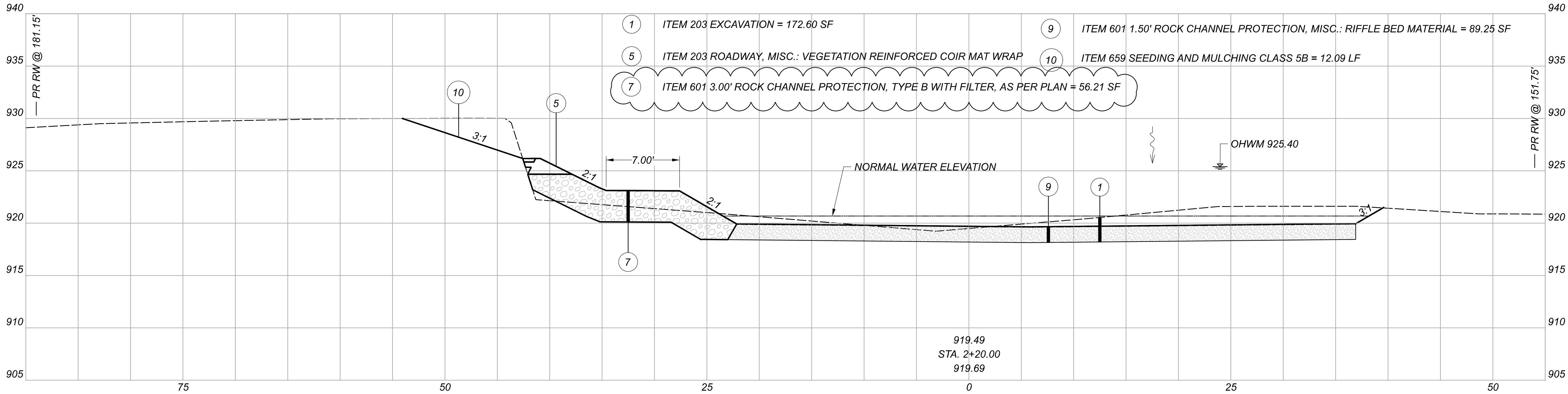
111312

SHEET

11

TOTAL

29



CROSS SECTIONS
STA. 2+00 TO 2+20

DESIGN AGENCY



DESIGNER

QEP

REVIEWER

JMB 04/07/22

PROJECT ID

111312

SHEET

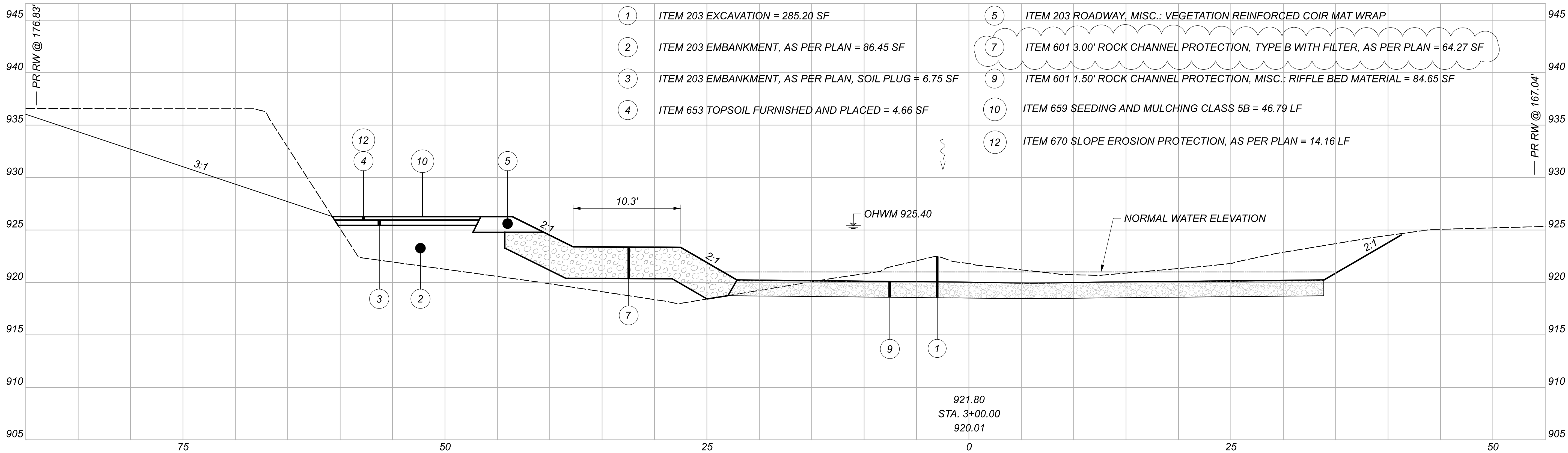
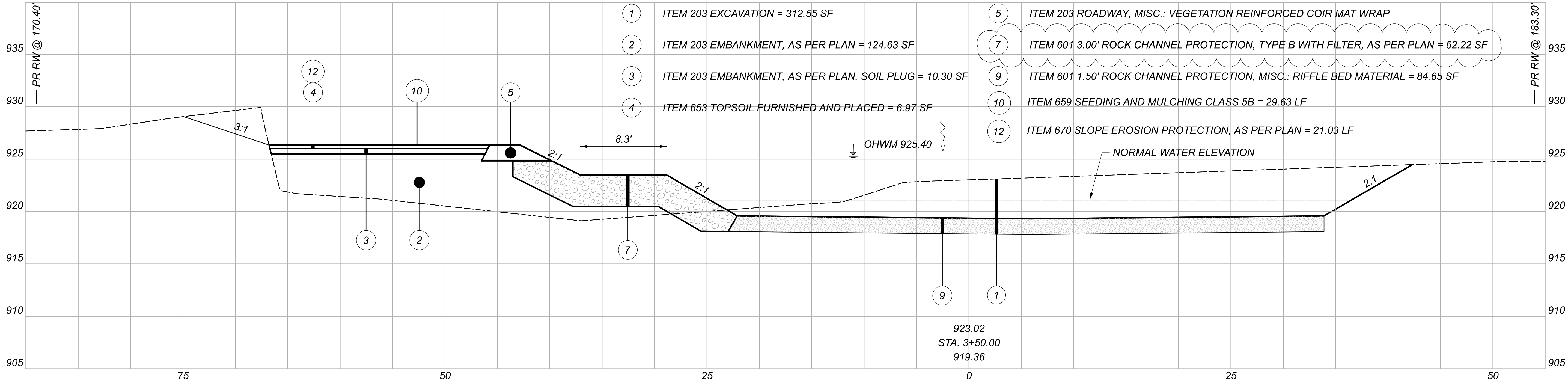
12

TOTAL

29

Sheet Totals 1+35 to 2+20

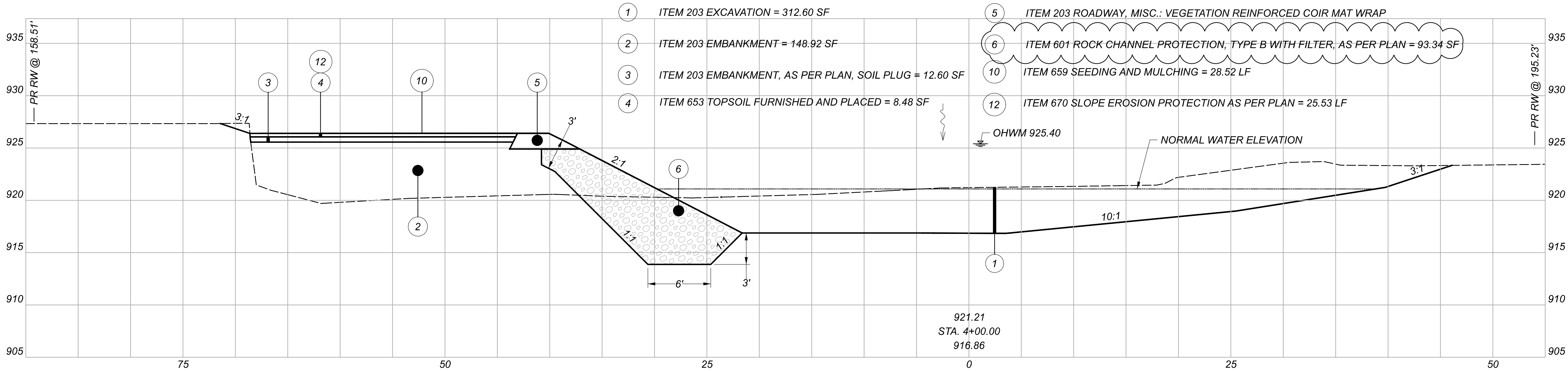
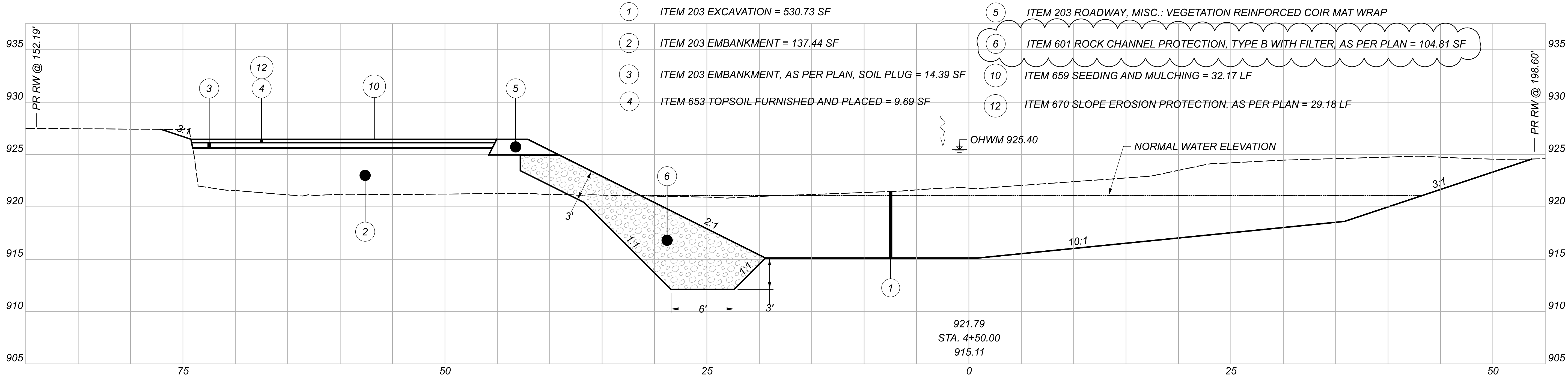
1	7	9	10
612 CY	185 CY	292 CY	65 SY



CROSS SECTIONS
STA. 3+00 TO 3+50

DESIGN AGENCY	
STONE	verdant's
ENVIRONMENTAL ENGINEERING & SCIENCE	
PEOPLE. FOCUSED. FUTURE.	
DESIGNER	
QEP	
REVIEWER	
JMB 04/07/22	
PROJECT ID	
111312	
SHEET	TOTAL
13	29

Sheet Totals 2+20 to 3+50									
1	2	3	4	5	7	9	10	12	
1232 CY	324 CY	26 CY	18 CY	130 LF	296 CY	414 CY	212 SY	98 SY	



CROSS SECTIONS
STA. 4+00 TO 4+50

DESIGN AGENCY



DESIGNER

QEP

REVIEWER

JMB 04/07/22

PROJECT ID

111312

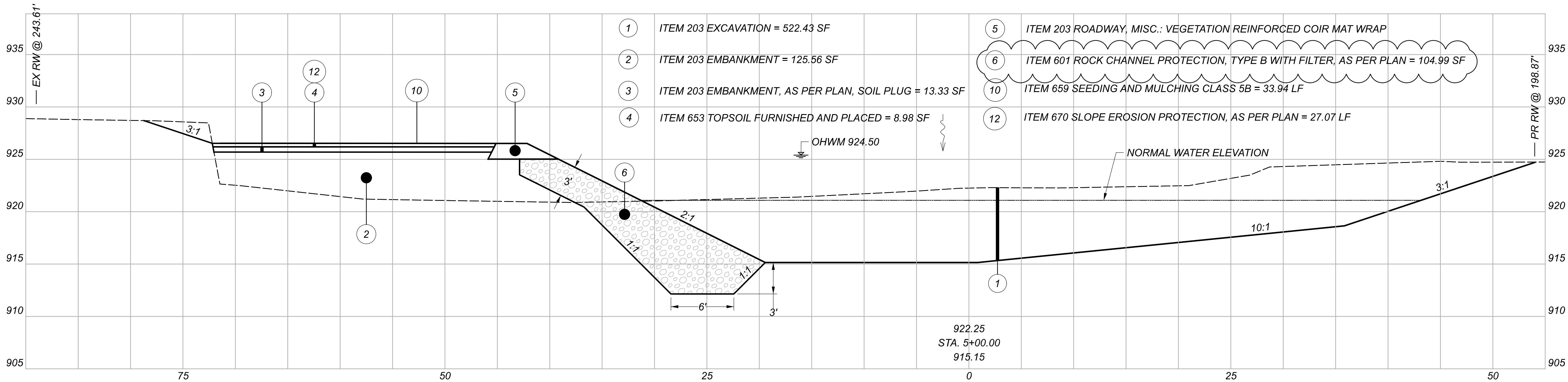
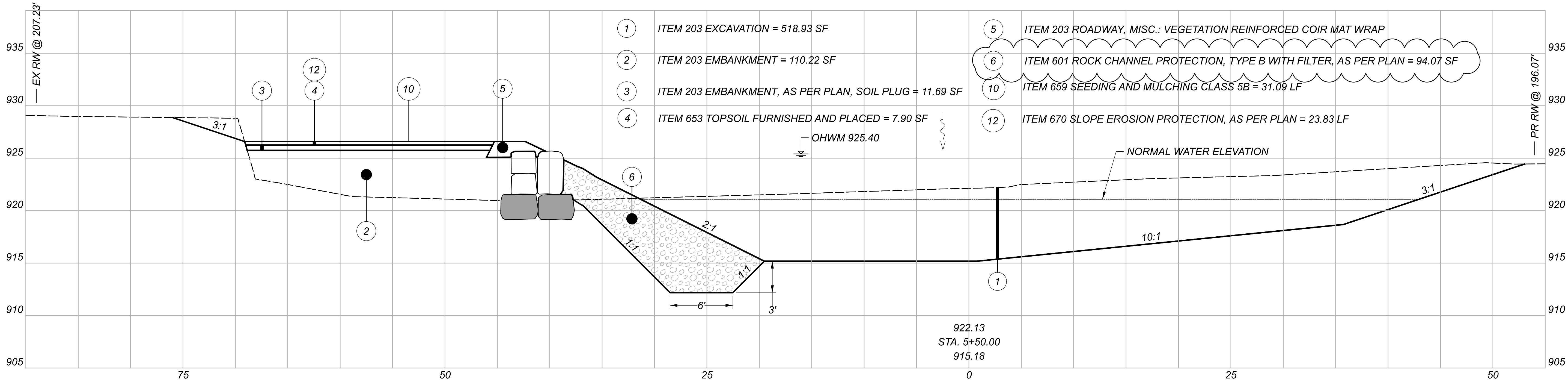
SHEET

14

TOTAL

29

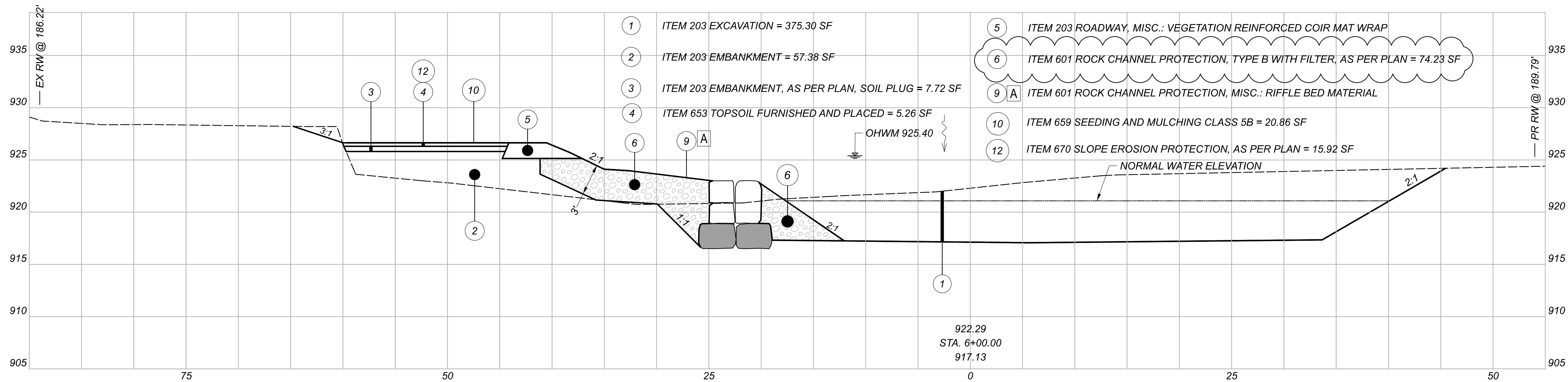
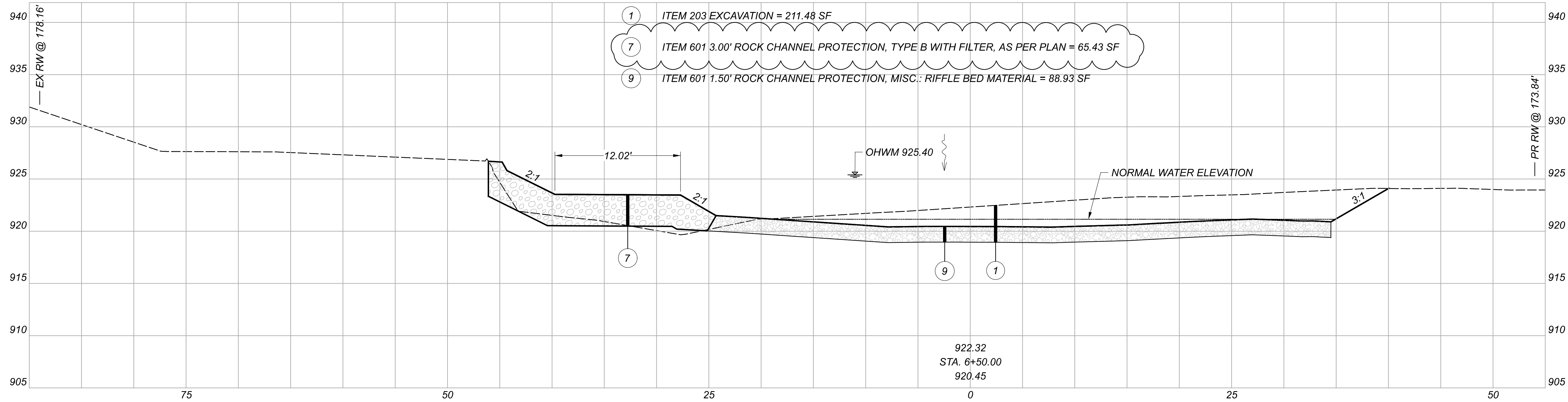
Sheet Totals 3+50 to 4+50												
1	2	3	4	5	6	7	9	10	12			
1360 CY	518 CY	46 CY	31 CY	100 LF	810 CY	58 CY	78 CY	330 SY	281 SY			



CROSS SECTIONS
STA. 5+00 TO 5+50

DESIGN AGENCY	
STONE	verdantas
DESIGNER	
QEP	
REVIEWER	
JMB 04/07/22	
PROJECT ID	
111312	
SHEET	TOTAL
15	29

Sheet Totals 4+50 to 5+50							
1	2	3	4	5	6	10	12
1939 CY	462 CY	49 CY	33 CY	100 LF	1136 CY	364 SY	298 SY



A INCORPORATE INTO RCP TYPE B, FILLING VOIDS IN TOP SURFACE BEHIND J-HOOK ARM. QUANTITY FOR THIS WORK PROVIDED IN J-HOOK STRUCTURE DETAIL, SHEET 19.

Sheet Totals 5+50 to 6+50												
1	2	3	4	5	6	7	9	10	12			
1371 CY	208 CY	25 CY	17 CY	50 LF	674 CY	61 CY	82 CY	202 SY	155 SY			

CROSS SECTIONS
STA. 6+00 TO 6+50

DESIGN AGENCY
STONE
ENVIRONMENTAL, ENGINEERING & SCIENCE
verdantae
PEOPLE. PROBLEMS. FUTURE.

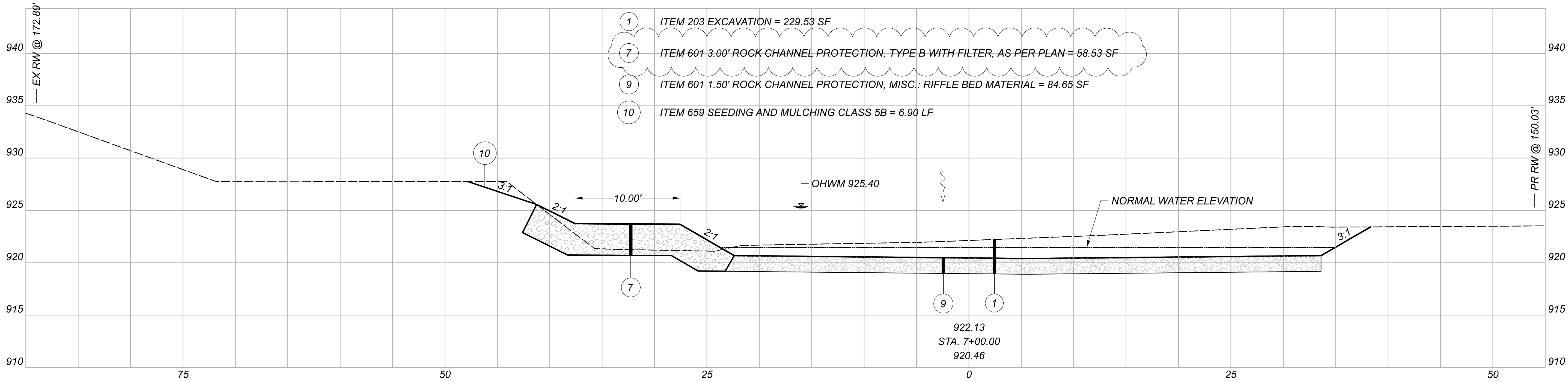
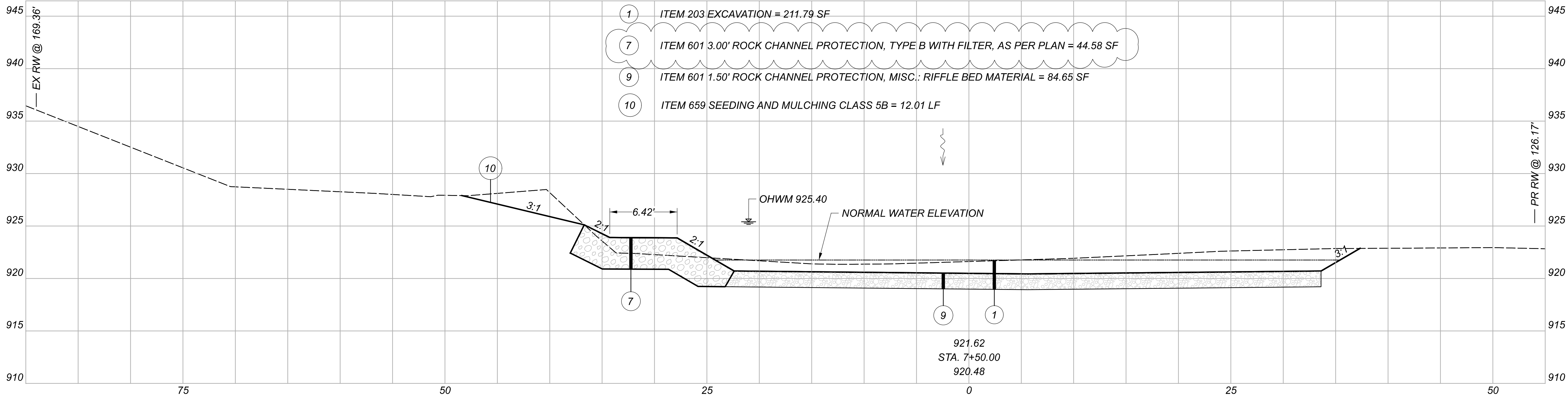
DESIGNER
QEP

REVIEWER
JMB 04/07/22

PROJECT ID
111312

SHEET
16

TOTAL
29



CROSS SECTIONS
STA. 7+00 TO 7+50

DESIGN AGENCY



DESIGNER

QEP

REVIEWER

JMB 04/07/22

PROJECT ID

111312

SHEET

17

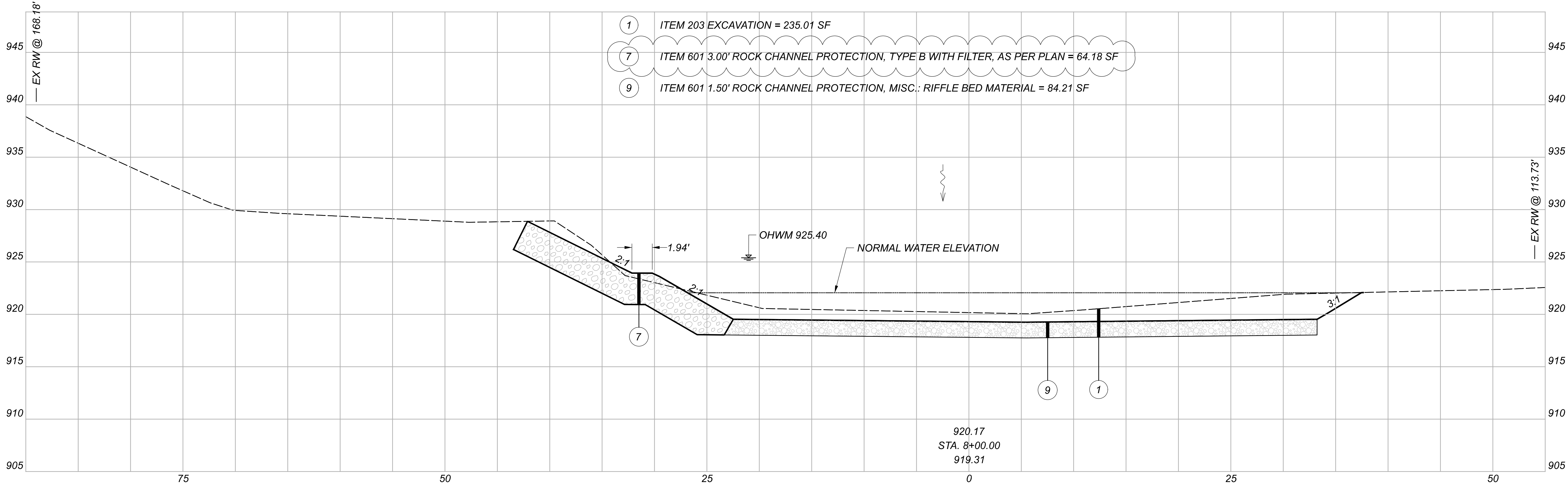
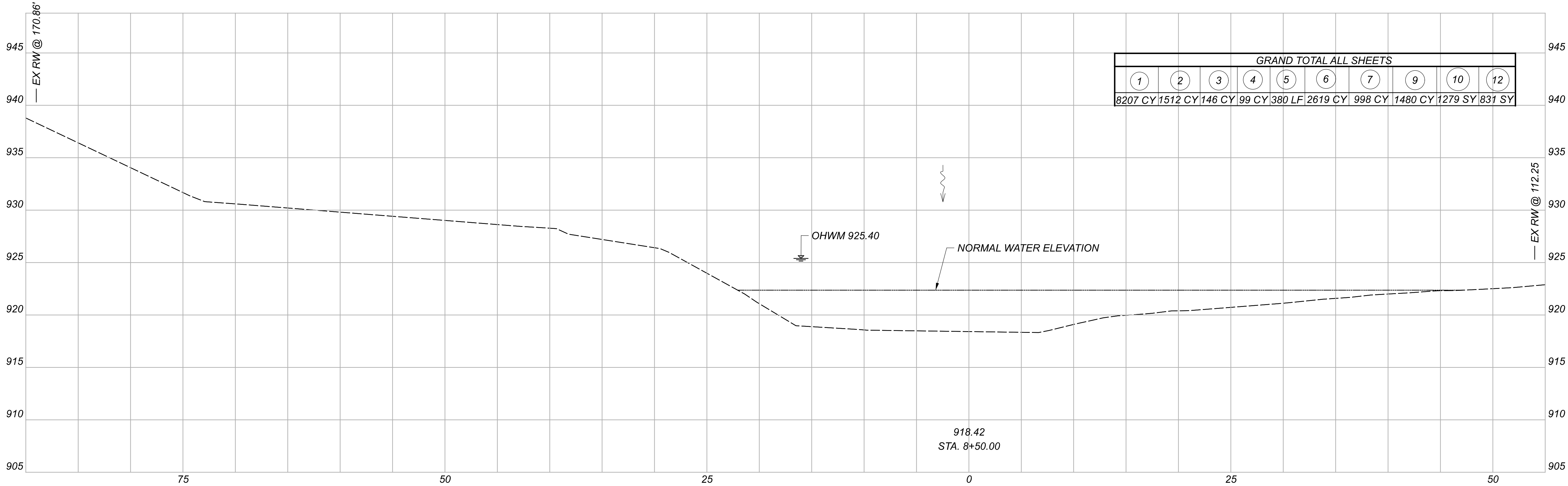
TOTAL

29

Sheet Totals 6+50 to 7+50

1 7 9 10

817 CY 210 CY 317 CY 72 SY



Sheet Totals 7+50 to 8+50			
1	7	9	10
631 CY	160 CY	234 CY	33 SY

CROSS SECTIONS
STA. 8+00 TO 8+50

DESIGN AGENCY

STONE

verdantae

DESIGNER

QEP

REVIEWER

JMB 04/07/22

PROJECT ID

111312

SHEET

18

TOTAL

29