

ATH-CR 90 / VAR - 1.69 / VAR LANDSLIDE REPAIRS

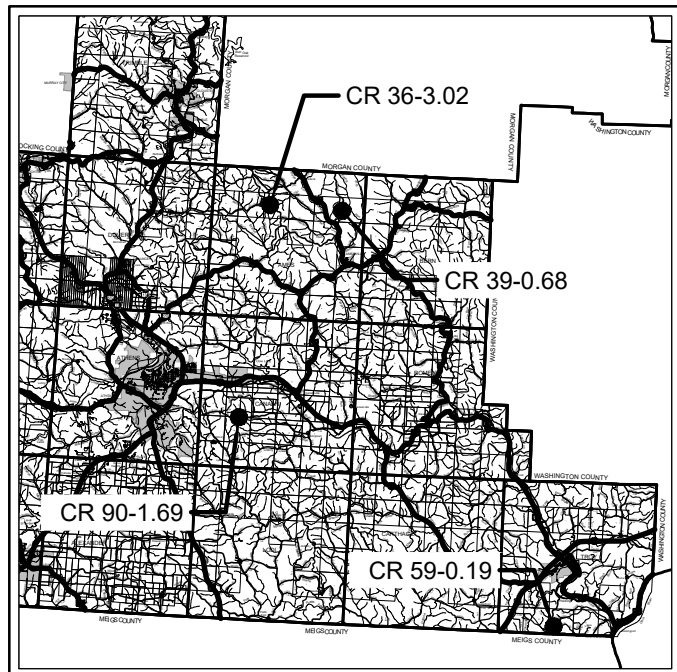
PROJECT DESCRIPTION

CR 90 - 1.69 SLIP REPAIR CONSISTS OF CONSTRUCTION OF A 50 FOOT RETAINING WALL WITH 30" DIAMETER KING PILES DRILLED INTO ROCK AND 36" DIAMETER PLUG PILES.

CR 59 - 0.19 SLIP REPAIR CONSISTS OF CONSTRUCTION OF A 40 FOOT LONG SOLDIER PILE AND LAGGING WALL WITH 30" DRILLED SHAFTS.

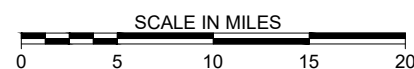
CR 39-0.68 SLIP REPAIR CONSISTS OF CONSTRUCTION OF A 84 FOOT RETAINING WALL WITH 24" DIAMETER KING PILES DRILLED INTO ROCK WITH 30" DIAMETER PLUG PILES.

CR 36-3.02 SLIP REPAIR CONSISTS OF CONSTRUCTION OF A 65 FOOT LONG SOLDIER PILE AND LAGGING WALL WITH 24" DRILLED SHAFTS.



LOCATION MAP

COUNTY GARAGE LATITUDE: N39.324167 LONGITUDE: W81.992778



- INTERSTATE HIGHWAY _____
- FEDERAL ROUTES _____
- STATE ROUTES _____
- COUNTY & TOWNSHIP ROADS _____
- OTHER ROADS _____

INDEX OF SHEETS:

TITLE SHEET.....1
 SITE LOCATION.....2
 GENERAL NOTES.....3-4
 GENERAL SUMMARIES.....5
 CR 90-1.69 - PLAN & PROFILE.....6
 CR 90-1.69 - RETAINING WALL DETAILS.....7
 CR 90-1.69 - DRILLED SHAFT SUMMARY.....8
 CR 59-0.19 - PLAN & PROFILE.....9
 CR 59-0.19 - RETAINING WALL DETAILS.....10
 CR 59-0.19 - DRILLED SHAFT SUMMARY.....11
 CR 39-0.68 - PLAN & PROFILE.....12
 CR 39-0.68 - RETAINING WALL DETAILS.....13
 CR 39-0.68 - DRILLED SHAFT SUMMARY.....14
 CR 36-3.02 - PLAN & PROFILE.....15
 CR 36-3.02 - RETAINING WALL DETAILS.....16
 CR 36-3.02 - DRILLED SHAFT SUMMARY.....17

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

CR 90 - 1.69
 -LATITUDE: N39.310920° LONGITUDE: W82.036081°
 -APPROXIMATELY 1.69 MILES EAST FROM THE INTERSECTION OF COUNTY ROAD 90 AND COUNTY ROAD 25.

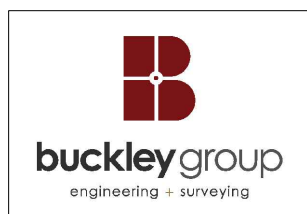
CR 39 - 0.68
 -LATITUDE: N39.4321° LONGITUDE: W81.9598°
 -APPROXIMATELY 0.68 MILES NORTH FROM THE INTERSECTION OF COUNTY ROAD 39 AND STATE ROUTE 329.

CR 59 - 0.19
 -LATITUDE: N39.184273° LONGITUDE: W81.800345°
 -APPROXIMATELY 0.19 MILES NORTH OF THE ATHENS/MEIGS COUNTY LINE ON COUNTY ROAD 59.

CR 36 - 3.02
 -LATITUDE: N39.43371° LONGITUDE: W82.01052°
 -APPROXIMATELY 3.02 MILES NORTH FROM THE INTERSECTION OF COUNTY ROAD 36 AND STATE ROUTE 550.

UNDERGROUND UTILITIES

Call 811 or 1-800-362-2764
 Two Working Days Before you Dig
 (Non-members must be called directly)



PLANS PREPARED BY:
 BUCKLEY GROUP, LLC.
 6801 STATE ROUTE 56, ATHENS, OH 45701
 PH: (740)589-5001 www.buckley.group

ENGINEER'S SEAL	STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
<p>SIGNED: <i>Clinton Kuenzli</i> DATE: 7/7/2022</p>	DM-1.1	7/17/20			SS-800 10-15-21	
	GR-1.1	7/20/12			SS-832 10-19-18	
	GR-1.2	7/20/12				
	GR-4.2	7/20/12				
	MT-97.10	4/19/19				
	MT-101.60	1/17/20				
	MT-101.70	1/17/20				
	MT-105.10	1/17/20				

FEMA DISASTER NO. _____

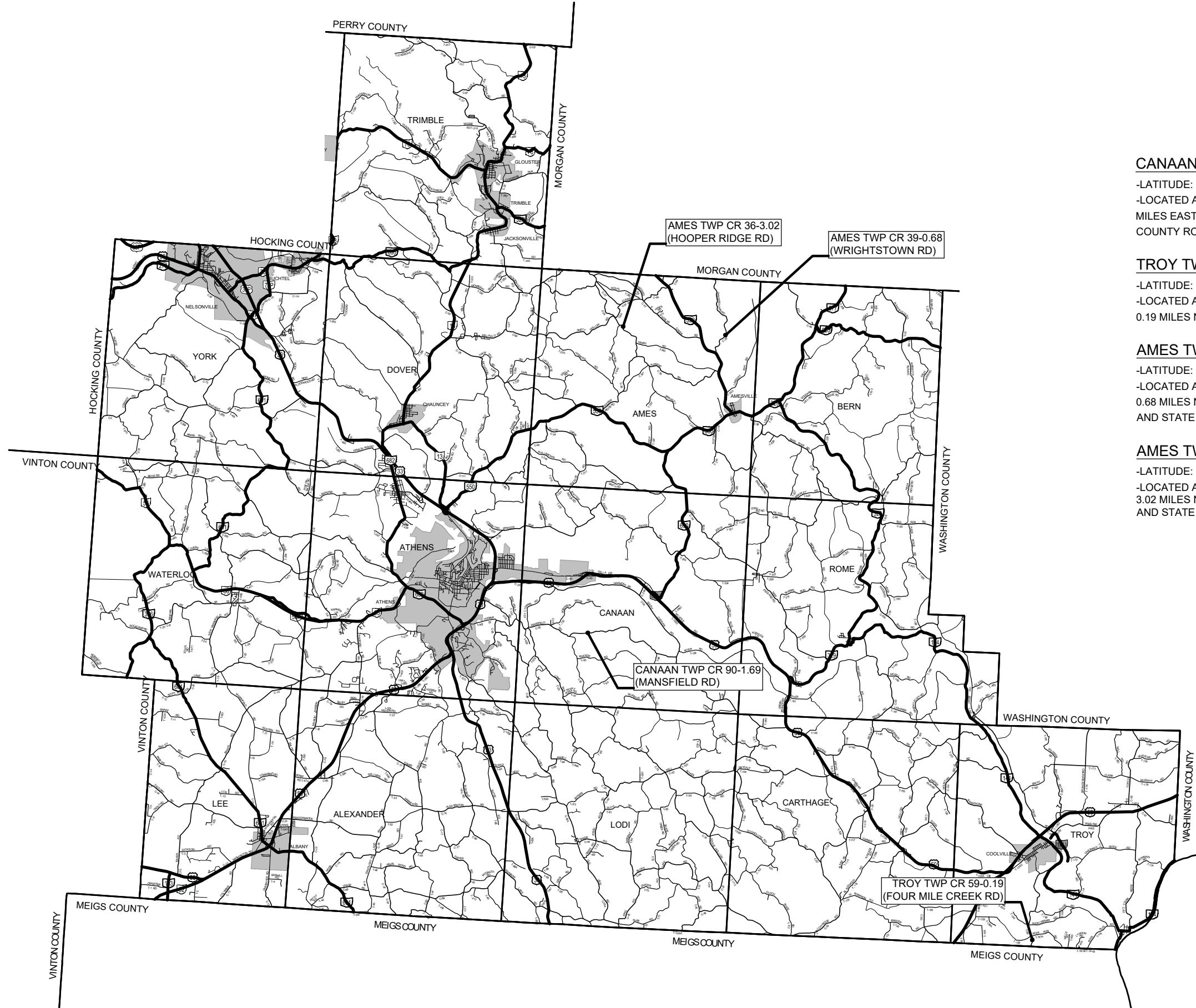
PROJECT NO. 211863, 211862, 211864, & 211912

CONSTRUCTION PROJ. NO. _____

RAILROAD INVOLVEMENT NONE

ATH-CR 90 / VAR - 1.69 / VAR LANDSLIDE REPAIRS

1 / 17



CANAAN TWP - CR 90-1.69

-LATITUDE: N39.310923 LONGITUDE: W82.036081
-LOCATED ALONG MANSFIELD ROAD (CR 90) APPROXIMATELY 1.69 MILES EAST FROM THE INTERSECTION OF COUNTY ROAD 90 AND COUNTY ROAD 25.

TROY TWP - CR 59-0.19

-LATITUDE: N39.184273 LONGITUDE: W81.800345
-LOCATED ALONG FOUR MILE CREEK ROAD (CR 59) APPROXIMATELY 0.19 MILES NORTH FROM THE ATHENS/MEIGS COUNTY LINE.

AMES TWP - CR 39-0.68

-LATITUDE: N39.4321 LONGITUDE: W81.9598
-LOCATED ALONG WRIGHTSTOWN ROAD (CR 39) APPROXIMATELY 0.68 MILES NORTH FROM THE INTERSECTION OF COUNTY ROAD 39 AND STATE ROUTE 329.

AMES TWP - CR 36-3.02

-LATITUDE: N39.43371 LONGITUDE: W82.02052
-LOCATED ALONG HOOPER RIDGE ROAD (CR 36) APPROXIMATELY 3.02 MILES NORTH FROM THE INTERSECTION OF COUNTY ROAD 36 AND STATE ROUTE 550.

CONTRACT SPECIFICATIONS

THE JANUARY 1, 2019 VERSION OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS PUBLISHED BY THE OHIO DEPARTMENT OF TRANSPORTATION SHALL GOVERN ALL ASPECTS OF THE CONTRACT WORK. THE CONTRACTOR SHOULD BE FAMILIAR WITH THESE SPECIFICATIONS AND THEIR PROCEDURAL REQUIREMENTS.

STANDARD DRAWINGS

REFERENCE SHOULD BE MADE TO THE STANDARD DRAWINGS SHOWN IN THE TABLE ON THE COVER SHEET.

O.U.P.S CALL:

THE CONTRACTOR IS RESPONSIBLE FOR CALLING THE OHIO UTILITIES PROTECTION SERVICE AT LEAST TWO DAYS BEFORE DIGGING. THE TOLL-FREE NUMBER IS (800) 362-2764.

UTILITIES

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

ATH-CR 90 - 1.69 OUPS TICKET #: B133300904-00B DATE: 11/29/21

ELECTRIC AEP OHIO
9135 SR 682
ATHENS, OH 45701
CONTACT: DAVID ROHRER
PHONE: 740-594-1925

TELEPHONE FRONTIER COMMUNICATIONS
PHONE: 855-768-5743

WATER LE-AX WATER
PHONE: 740-594-0123

FIBER ZAYO FIBER SOLUTIONS
PHONE: 866-364-6033

ATH-CR 59 - 0.19 OUPS TICKET #: B133300798-00B DATE: 11/29/21

ELECTRIC AEP OHIO
9135 SR 682
ATHENS, OH 45701
CONTACT: DAVID ROHRER
PHONE: 740-594-1925

TELEPHONE WINDSTREAM OHIO
PHONE: 1-440-329-4000

WATER TUPPERS PLAINS CHESTER WATER DISTRICT
PHONE: 740-985-3315

ATH-CR 39 - 0.68 OUPS TICKET #: B133301058-00B DATE: 11/29/21

ELECTRIC AEP OHIO
9135 SR 682
ATHENS, OH 45701
CONTACT: DAVID ROHRER
PHONE: 740-594-1925

WATER SUNDAY CREEK VALLEY WATER
PHONE: 740-79-2566

ATH-CR 36 - 3.02 OUPS TICKET #: A200400893-00A DATE: 1/4/2022

ELECTRIC AEP OHIO
9135 SR 682
ATHENS, OH 45701
CONTACT: DAVID ROHRER
PHONE: 740-594-1925

TELEPHONE FRONTIER COMMUNICATIONS
PHONE: 855-768-5743

WATER SUNDAY CREEK VALLEY WATER
PHONE: 740-79-2566

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

UTILITY LINES

ALL EXPENSES INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITY(IES). THE CONTRACTOR AND UTILITY ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

WORK LIMITS

ALL PHYSICAL WORK SHALL BE COMPLETED WITHIN THE COUNTY RIGHT-OF-WAY 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.

ELEVATION DATUM

ALL ELEVATIONS ARE ORTHOMETRIC HEIGHTS USING THE NORTH AMERICAN VERTICAL DATUM OF 1988(NAVD 88) AND THE GEOID 12A. HORIZONTAL POSITIONS ARE BASED ON THE OHIO STATE PLANE SOUTH ZONE 3402.

ROAD CLOSED/MAINTENANCE OF TRAFFIC

MANSFIELD ROAD (CR 90), FOUR MILE CREEK RD (CR-59), WRIGHTSTOWN ROAD (CR 39), AND HOOPER RIDGE ROAD (CR 36) SHALL EACH BE CLOSED FOR A MAXIMUM OF 45 DAYS . LOCAL TRAFFIC WILL BE DETOURED. CONTRACTOR SHALL COORDINATE CLOSURE WITH ATHENS COUNTY. ATHENS COUNTY CONTRACTOR SHALL SET UP AND MAINTAIN ROAD CLOSURE TRAFFIC CONTROL THROUGHOUT CONSTRUCTION.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ITEM 201 - CLEARING AND GRUBBING

CONTRACTORS SHOULD INSPECT THE AREAS WHERE THE RETAINING WALLS ARE TO BE CONSTRUCTED TO FIND THE BULK OF THIS WORK. SPECIFIC TREES TO BE REMOVED HAVE NOT BEEN DENOTED ON THESE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE SCOPE OF WORK REQUIRED TO CLEAR THE AREAS NEEDED TO CONSTRUCT THE VARIOUS ELEMENTS OF THIS PROJECT.

ITEM 614 - MAINTAINING TRAFFIC

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48" X 30" - "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES, AND LIGHTS, AS DETAILED IN STANDARD CONSTRUCTION DRAWING MT-101.60 AT LOCATIONS NEAR THE SLIPS DURING PERIODS IN WHICH THE AFFECTED ROAD IS CLOSED TO TRAFFIC.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 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 LUMP CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC.

ATHENS COUNTY ENGINEER WILL PROVIDE SIGNS FOR DETOUR ROUTE, AND MAINTAIN DETOUR SIGNS.

ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES HP 12x53

ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES HP 12x84

ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES HP 10x57

THIS WORK CONSISTS OF FURNISHING AND PLACING STEEL SOLDIER PILES INTO DRILLED HOLES. FURNISH SOLDIER PILES CONSISTING OF STRUCTURAL STEEL MEMBER THAT MEET THE PLAN REQUIREMENTS AND CONFORM TO ASTM A572, GRADE 50. DO NOT FIELD WELD OR SPLICE SOLDIER PILES.

MEASUREMENT FOR PAYMENT WILL BE LIMITED TO THE DISTANCE BETWEEN THE TOP OF WALL ELEVATION AND THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER. THE DEPARTMENT WILL PAY FOR SOLDIER PILES AT THE CONTRACT UNIT PRICE PER FOOT OF ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES - HP 12x53, HP 12x84, AND HP 10x57.

COAL TAR EPOXY COATING

THE COAL TAR EPOXY COATING DOES NOT APPLY TO COATING OF STEEL IN PLUG PILE WALLS AS THE STEEL IS COMPLETELY ENCASED IN CONCRETE. COAL TAR EPOXY COATING ONLY APPLIES TO SOLDIER PILE AND LAGGING WALLS.

DESCRIPTION

A. THIS WORK SHALL CONSIST OF PROVIDING ALL LABOR, MATERIALS, EQUIPMENT AND SUPERVISION NECESSARY TO PROVIDE A PROTECTIVE COAL TAR EPOXY COATING SYSTEM. THE COATING SHALL BE APPLIED TO ALL SPACER AND ALL EXTERIOR SURFACES OF THE SOLDIER PILE FROM APPROXIMATELY 4' BELOW THE TOP OF THE SHAFT TO THE TOP OF THE SOLDIER PILE. THE ANGLES USED FOR SEATS SHALL ALSO BE COATED IN THE PANEL SEATS ARE TO BE FIELD WELDED, COAT THE ANTICIPATED PANEL SEAT AREA ON THE PILE.

COATING MATERIALS

A. THE COATING SHALL BE SELF CURING CONSISTING OF TWO COMPONENTS. THE MATERIAL USED SHALL MEET OR EXCEED ALL THE REQUIREMENTS OF THE CORPS OF ENGINEERS SPECIFICATION C-200, GOVERNMENT SPECIFICATION MIL -P-23236 AND STEEL STRUCTURES PAINTING COUNCIL PAINT SYSTEM SSPC- PAINT NO. 16, COAL TAR EPOXY-POLYAMIDE BLACK.
B. ALL COATINGS SHALL BE PROCESSED AND PACKAGED AS TO INSURE THAT WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF MANUFACTURE, THEY WILL NOT GEL, LIVER OR THICKEN DELETERIOUSLY OR FROM GASSES IN THE CLOSED CONTAINER.

PACKAGING AND LABELING

COATINGS AND VEHICLES SHALL BE PACKAGED IN STANDARD CONTAINERS NOT LARGER THAN FIVE GALLONS IN SIZE, WITH REMOVABLE FRICTION OR LUG-TYPE COVERS. EACH CONTAINER OF SEPARATELY PACKAGED COMPONENTS SHALL BE CLEARLY AND DURABLY LABELED TO INDICATE THE PURCHASERS ORDER NUMBER, DATE OR MANUFACTURE, MANUFACTURES BATCH NUMBER, QUANTITY, COLOR, COMPONENT IDENTIFICATION, AND THE DESIGNATED NAME AND FORMULA OR SPECIFICATION NUMBER OF THE COATING TOGETHER WITH SPECIAL INSTRUCTIONS.

CERTIFICATIONS

IN ADDITION TO MEETING THE OTHER QUALIFICATIONS, THE COATING MANUFACTURER SHALL CERTIFY THAT:

- A. HE HAS BEEN A PRODUCER OF COATINGS OF THIS CLASS FOR A PERIOD OF AT LEAST TWO YEARS.
- B. THE COATING BEING OFFERED UNDER THIS SPECIFICATION IS THE SAME FORMULATION WHICH HAS BEEN MANUFACTURED AND DISTRIBUTED BY HIM DURING THIS TWO YEAR PERIOD.
- C. THE COATING BEING OFFERED UNDER THIS SPECIFICATION HAS BEEN SUCCESSFULLY USED IN SEA WATER IMMERSION SERVICE FOR AT LEAST TWO YEARS.

SURFACE PREPARATION

- A. ALL SURFACES SHALL BE THOROUGHLY PREPARED FOR COATING APPLICATION IS IN STRICT ACCORDANCE WITH THE COATING MANUFACTURERS RECOMMENDATION. ALL CLEANING AND COATING WORK MUST BE PERFORMED IN A HEATED BUILDING. PRECEDING GRIT BLASTING, STEEL MUST BE HEATED TO AT LEAST 100 F TO ELIMINATE THE POSSIBILITY OF MOISTURE ON THE SURFACE TO BE CLEANED AND COATED.
- B. GRIT BLASTING SHALL BE TO CLEAN NEAR-WHITE METAL, BLAST AS DEFINED BY SSPC SPECIFICATION SP-10. ALL WORK BLASTED IN ONE DAY MUST BE COATED ON THAT DAY.
- C. ANY AREAS OF THE SURFACE WHICH SHOW TRACES OF OIL, GREASE, OR OTHER ORGANIC MATTER, SHALL BE REMOVED PRIOR TO BLASTING. THE CONTAMINATION SHALL BE REMOVED USING A SOLVENT WAS AS DEFINED BY STEEL STRUCTURES PAINTING COUNCIL SPECIFICATION SP-1.
- D. ALL SURFACES TO BE COATED MUST BE COMPLETELY DRY, FREE OF MOISTURE, SOIL, DUST AND GRIT AT THE TIME THE COATING IS APPLIED.
- E. THE FINISHED COATING SHALL BE POST-CURED AT A TEMPERATURE OF APPROXIMATELY NO DEGREES F WHEREVER THE AMBIENT AVERAGE TEMPERATURE FALLS BELOW 70 DEGREES F.

APPLICATION OF COATING

ALL COATING SHALL BE APPLIED BY BRUSH OR SPRAY USING COMMERCIALY AVAILABLE SPRAY EQUIPMENT. THE COATINGS SHALL EXHIBIT REASONABLE LEVELING WITHOUT EXCESSIVE SAGGING WHEN APPLIED AT THE REQUIRED FILM THICKNESS. COATING MANUFACTURERS RECOMMENDATIONS SHALL BE ADHERED TO STRICTLY. THE TEMPERATURE OF THE COATING SHALL NOT BE LESS THAN THE TEMPERATURE OF THE STEEL AT THE SUBSTRUCTURE MUST BE AT LEAST 5 DEGREES F ABOVE THE DEW POINT TEMPERATURE.

PROGRESS OF COATING WORK

WHERE COATING ON ANY TYPE OF SURFACE HAS COMMENCED, THE COMPLETE COATING OPERATION, INCLUDING PRIMING AND FINISHING COATS WHEN MULTIPLE COATS ARE USED ON THAT PORTION OF THE WORK, SHALL BE COMPLETED AS SOON AS PRACTICAL, WITHOUT PROLONGED DELAYS. WHERE NECESSARY, SUFFICIENT TIME SHALL ELAPSE BETWEEN SUCCESSIVE COATS TO PERMIT THEM TO DRY PROPERLY FOR RECOATING AND THIS PERIOD SHALL BE MODIFIED AS NECESSARY TO SUIT SHOP CONDITIONS, FASTER BETWEEN COAT APPLICATIONS ARE POSSIBLE AT HIGHER TEMPERATURES, FOR EXAMPLE IF THE INITIAL COAT IS APPLIED AT 100 DEGREES F BY USE OF AN INLINE HEATER, A SECOND COAT MAY USUALLY BE APPLIED WITHIN THREE HOURS AFTER THE FIRST COAT.

COATING THICKNESS

- A. THE MINIMUM THICKNESS OF 16 MILS DRY FILM IS REQUIRED ON ALL SURFACES TO BE COATED.
- B. WHERE TWO COATS ARE REQUIRED TO ACHIEVE THE RECOMMENDED FILM BUILD, THE INTERNAL BETWEEN COATS SHOULD BE AS SHORT AS POSSIBLE. TO INSURE MAXIMUM INTERCOAT ADHESION, IT IS RECOMMENDED THAT:
 - (1) THE NEXT COAT BE APPLIED AS SOON AS POSSIBLE AFTER THE PREVIOUS COAT IS FIRM.
 - (2) IF THE PREVIOUS COAT HAS CURED FOR MORE THAN THE RECOAT TIME SPECIFIED BY THE MANUFACTURER, BRUSH SAND BLAST FOLLOWED BY DRY CLEANING SUCH AS VACUUMING, USE OF AIR HOSES OR SWEEPING TO REMOVE DIRT ALL SURFACES TO BE RECOATED MUST SHOW A SURFACE PROFILE SUFFICIENT TO PROVIDE AN ADEQUATE MECHANICAL BOND. SURFACE PROFILE IS ESSENTIAL FOR INTERCOAT ADHESION.

FINAL CURING TIME

COATING SURFACES SHALL BE PERMITTED AS LONG A DRYING TIME AS PRACTICABLE, BUT IN ANY EVENT THE FOLLOWING MINIMUM REQUIREMENTS SHALL BE MET: THE STEEL COATED WITH THE COAL TAR EPOXY SYSTEM SHALL NOT BE PLACED UNTIL THE FINISHED COATING HAS CURED AT LEAST SEVEN DAYS AT 77 DEGREES F, OR BEEN POSTCURED AT HIGHER TEMPERATURES FOR A SHORT PERIOD OF TIME IN ACCORDANCE WITH THE COATING MANUFACTURERS RECOMMENDATIONS.

THINNING OF THE COATING MATERIAL FOR APPLICATION WILL BE PERMITTED ONLY IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

INSPECTION

- A. SATISFACTION PERFORMANCE WILL BE BASED ON ACCEPTANCE BY THE ENGINEER OF THE COMPLETED WORK, ALL WORK WILL BE SUBJECT TO THE INSPECTION OF THE ENGINEER. THE GRIT BLASTING IS TO BE APPROVED BEFORE THE START OF THE COATING APPLICATION.
- B. INSPECTION OF THE COMPLETED COATING WILL BE BASED UPON A NORDSON MIKROTEST OR OTHER MAGNETIC DETECTOR READINGS. DETECTION OF INADEQUATELY COATED SECTIONS WILL BE INDICATED BY CIRCLING WITH CHALK THE AREAS TO BE RECOATED.

APPEARANCE OF FINISHED COATING

- A. THE FINISHED COATING SHALL BE GENERALLY SMOOTH AND FREE OF SHARP PROTUBERANCES WHICH COULD BE REMOVED BY ABRASION. A MINOR AMOUNT OF SAGGING, DIMPLING, OR CURTAINING WHICH DOES NOT EXCEED TWO TO THREE PERCENT OF THE SURFACE WILL NOT BE CONSIDERED CAUSE FOR REJECTION UNLESS THEY PRESENT SHARP EDGES WHICH MIGHT BE REMOVED BY ABRASION.
- B. SHARP PROTUBERANCES SHALL BE CUT OFF USING A SHARP WOOD CHISEL LAID FLAT AGAINST THE SURFACE. THE AREA FROM WHICH MATERIAL HAS BEEN REMOVED SHALL BE RECOATED TO SMOOTH THE SURFACE.

CALCULATED
TMF
CHECKED
CDK

GENERAL NOTES

ATH-CR 90 / VAR - 1.69 / VAR
LANDSLIDE REPAIRS

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ITEM 524 - DRILLED SHAFTS, 24" DIAMETER, KING PILE, AS PER PLAN
ITEM 524 - DRILLED SHAFTS, 30" DIAMETER, KING PILE, AS PER PLAN

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR WALL. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND TO TOP OF THE DRILLED SHAFT AT PROPOSED FINISH GRADE BEHIND WALL. FURNISH AND INSTALL DRILLED SHAFTS IN ACCORDANCE WITH CMS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

EXCAVATE THE HOLE FOR THE DRILLED SHAFTS WITHIN 3 INCHES OF THE PLAN LOCATION IN THE HORIZONTAL PLANE. IF FIELD CONDITIONS INDICATE GREATER DEPTHS, NOTIFY THE ENGINEER FOR FURTHER EVALUATION.

PLACE THE SOLDIER PILE VERTICALLY WITHIN THE HOLE SO IT IS NOT INCLINED MORE THAN 1" BETWEEN THE TOP AND BOTTOM. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF CONSTRUCTION. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE CONCRETE PLACEMENT.

USE CLASS QC1 CONCRETE ACCORDING TO CMS 511. THE CONTRACTOR MAY PLACE CONCRETE USING THE FREE FALL METHOD PROVIDED THE DEPTH OF WATER IS LESS THAN 6 INCHES AND THE CONCRETE FALLS WITHOUT STRIKING THE SIDES OF THE HOLE. POURING CONCRETE ALONG THE WEB OF THE SOLDIER PILE IS ACCEPTABLE.

IF DEPTH OF WATER AT BOTTOM OF HOLE IS GREATER THAN 6 INCHES, CONCRETE PUMPING OR TREMIE SHALL BE UTILIZED TO PREVENT IRREGULAR DEPOSITION OF AGGREGATE AND CEMENT. AND/OR LOSS OF CEMENT IN DISCHARGE OF WATER.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES.

SEQUENCE OF INSTALLATION
THE INSTALLATION SEQUENCE SHALL BE SUCH THAT NO DRILLED SHAFT IS INSTALLED ADJACENT TO EITHER AN OPEN DRILLED SHAFT EXCAVATION OR A DRILLED SHAFT IN WHICH THE CONCRETE HAS LESS THAN A 48 HOUR CURE. INSTALLING THE SHAFTS IN AN ALTERNATING SEQUENCE OR ANY OTHER SEQUENCE THAT MEETS THIS CRITERIA IS PERMISSIBLE.

PROTECTION OF UNATTENDED OPEN SHAFTS CARE SHALL BE EXERCISED AS TO COVER UNATTENDED OPEN SHAFTS. TEMPORARY COVERS SHALL BE OF ADEQUATE STRENGTH TO PREVENT A PERSON OR ANIMAL FROM FALLING IN. NO DRILLED SHAFT EXCAVATION SHALL BE LEFT UN-POURED OVERNIGHT.

ACCESS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS USED TO CONSTRUCT THE DRILLED SHAFTS. ANY TEMPORARY GRADING, AGGREGATE, DRAINAGE, SHEETING ETC. NEEDED FOR ACCESS TO THE WORK AREA SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS. THE COST OF ANY EXCAVATION AND SUBSEQUENT REPLACEMENT OF EMBANKMENT (PER ITEM 203 EMBANKMENT) SHALL BE INCLUDED IN THE VARIOUS BID ITEMS FOR THE DRILLED SHAFT. NO SEPARATE PAYMENT WILL BE MADE. PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE. PAYMENT FOR SOIL OVERBURDEN DRILLING, WHICH IS GROUND LEVEL TO THE TOP OF THE SHAFT, SHALL BE INCLUSIVE OF ITEM 524 DRILLED SHAFTS, 24" DIAMETER, KING PILES, AS PER PLAN.

MEASUREMENT FOR PAYMENT FOR DRILLED SHAFTS,AS PER PLAN, WILL BE MEASURED ALONG THE AXIS OF THE DRILLED SHAFT FROM THE TOP OF THE SHAFT TO THE BOTTOM OF SHAFT, AS DETERMINED BY THE ENGINEER.

PAYMENT FOR ITEM 524 DRILLED SHAFTS IS FULL COMPENSATION FOR PERFORMING REQUIRED EXCAVATION; FURNISHING AND PLACING STEEL CASINGS; FURNISHING AND PLACING REINFORCING STEEL AND CONCRETE BY FREE FALL, PUMPING, OR TREMIE METHOD; REMOVING CASINGS; CASINGS LEFT IN PLACE; SUPPLYING EQUIPMENT AND PERFORMING SLURRY TESTING, SUPPLYING AND DISPOSING OF SLURRY AND DISPOSING OF EXCESS EXCAVATED MATERIAL.

ITEM 524 - DRILLED SHAFTS, 24" DIAMETER, AS PER PLAN
ITEM 524 - DRILLED SHAFTS, 30" DIAMETER, AS PER PLAN

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR WALL. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFT. FURNISH AND INSTALL DRILLED SHAFTS IN ACCORDANCE WITH CMS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

EXCAVATE THE HOLE FOR THE DRILLED SHAFTS WITHIN 3 INCHES OF THE PLAN LOCATION IN THE HORIZONTAL PLANE. IF FIELD CONDITIONS INDICATE GREATER DEPTHS, NOTIFY THE ENGINEER FOR FURTHER EVALUATION.

PLACE THE SOLDIER PILE VERTICALLY WITHIN THE HOLE SO IT IS NOT INCLINED MORE THAN 1" BETWEEN THE TOP AND BOTTOM. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF CONSTRUCTION. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE CONCRETE PLACEMENT.

USE CLASS QC1 CONCRETE ACCORDING TO CMS 511. THE CONTRACTOR MAY PLACE CONCRETE USING THE FREE FALL METHOD PROVIDED THE DEPTH OF WATER IS LESS THAN 6 INCHES AND THE CONCRETE FALLS WITHOUT STRIKING THE SIDES OF THE HOLE. POURING CONCRETE ALONG THE WEB OF THE SOLDIER PILE IS ACCEPTABLE.

IF DEPTH OF WATER AT BOTTOM OF HOLE IS GREATER THAN 6 INCHES, CONCRETE PUMPING OR TREMIE SHALL BE UTILIZED TO PREVENT IRREGULAR DEPOSITION OF AGGREGATE AND CEMENT. AND/OR LOSS OF CEMENT IN DISCHARGE OF WATER.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES.

SEQUENCE OF INSTALLATION
THE INSTALLATION SEQUENCE SHALL BE SUCH THAT NO DRILLED SHAFT IS INSTALLED ADJACENT TO EITHER AN OPEN DRILLED SHAFT EXCAVATION OR A DRILLED SHAFT IN WHICH THE CONCRETE HAS LESS THAN A 48 HOUR CURE. INSTALLING THE SHAFTS IN AN ALTERNATING SEQUENCE OR ANY OTHER SEQUENCE THAT MEETS THIS CRITERIA IS PERMISSIBLE.

PROTECTION OF UNATTENDED OPEN SHAFTS CARE SHALL BE EXERCISED AS TO COVER UNATTENDED OPEN SHAFTS. TEMPORARY COVERS SHALL BE OF ADEQUATE STRENGTH TO PREVENT A PERSON OR ANIMAL FROM FALLING IN. NO DRILLED SHAFT EXCAVATION SHALL BE LEFT UN-POURED OVERNIGHT.

ACCESS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS USED TO CONSTRUCT THE DRILLED SHAFTS. ANY TEMPORARY GRADING, AGGREGATE, DRAINAGE, SHEETING ETC. NEEDED FOR ACCESS TO THE WORK AREA SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS. THE COST OF ANY EXCAVATION AND SUBSEQUENT REPLACEMENT OF EMBANKMENT (PER ITEM 203 EMBANKMENT) SHALL BE INCLUDED IN THE VARIOUS BID ITEMS FOR THE DRILLED SHAFT. NO SEPARATE PAYMENT WILL BE MADE. PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE. PAYMENT FOR SOIL OVERBURDEN DRILLING, WHICH IS GROUND LEVEL TO THE TOP OF THE SHAFT, SHALL BE INCLUSIVE OF ITEM 524 DRILLED SHAFTS, 30" DIAMETER, KING PILES, AS PER PLAN.

MEASUREMENT FOR PAYMENT FOR DRILLED SHAFTS,AS PER PLAN, WILL BE MEASURED ALONG THE AXIS OF THE DRILLED SHAFT FROM THE TOP OF THE SHAFT TO THE BOTTOM OF SHAFT, AS DETERMINED BY THE ENGINEER.

PAYMENT FOR ITEM 524 DRILLED SHAFTS IS FULL COMPENSATION FOR PERFORMING REQUIRED EXCAVATION; FURNISHING AND PLACING STEEL CASINGS; FURNISHING AND PLACING REINFORCING STEEL AND CONCRETE BY FREE FALL, PUMPING, OR TREMIE METHOD; REMOVING CASINGS; CASINGS LEFT IN PLACE; SUPPLYING EQUIPMENT AND PERFORMING SLURRY TESTING, SUPPLYING AND DISPOSING OF SLURRY AND DISPOSING OF EXCESS EXCAVATED MATERIAL.

ITEM 524 - DRILLED SHAFTS, 30" DIAMETER, PLUG PILES, AS PER PLAN
ITEM 524 - DRILLED SHAFTS, 36" DIAMETER, PLUG PILES, AS PER PLAN
THESE SHAFTS ARE TO BE UNREINFORCED NON-STRUCTURAL "PLUG PILES".

THIS WORK SHALL BE PER ITEM 524 EXCEPT REINFORCING WILL NOT BE USED IN THE SHAFT. EACH PLUG PILE SHALL BE CENTERED BETWEEN EACH REINFORCED 30" DIAMETER DRILLED SHAFT AND SHALL BE DRILLED TO TOP OF ROCK PER THE PLUG PILE DRILLED SHAFT SUMMARY ON SHEET 7 AND DETAILS ON SHEET 6, AND BACKFILLED WITH UNREINFORCED CLASS QC1 CONCRETE. EXCAVATE THE HOLE FOR THE DRILLED SHAFTS WITHIN 3 INCHES OF THE PLAN LOCATION IN THE HORIZONTAL PLANE. IF FIELD CONDITIONS INDICATE GREATER DEPTHS, NOTIFY THE ENGINEER FOR FURTHER EVALUATION.

SEQUENCE OF INSTALLATION
THE INSTALLATION SEQUENCE SHALL BE SUCH THAT NO DRILLED SHAFT IS INSTALLED ADJACENT TO EITHER AN OPEN DRILLED SHAFT EXCAVATION OR A DRILLED SHAFT IN WHICH THE CONCRETE HAS LESS THAN A 48 HOUR CURE. INSTALLING THE SHAFTS IN AN ALTERNATING SEQUENCE OR ANY OTHER SEQUENCE THAT MEETS THIS CRITERIA IS PERMISSIBLE.

PROTECTION OF UNATTENDED OPEN SHAFTS CARE SHALL BE EXERCISED AS TO COVER UNATTENDED OPEN SHAFTS. TEMPORARY COVERS SHALL BE OF ADEQUATE STRENGTH TO PREVENT A PERSON OR ANIMAL FROM FALLING IN. NO DRILLED SHAFT EXCAVATION SHALL BE LEFT UN-POURED OVERNIGHT.

ACCESS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS USED TO CONSTRUCT THE DRILLED SHAFTS AND PLACE CONCRETE PANELS. ANY TEMPORARY GRADING, AGGREGATE, DRAINAGE, SHEETING ETC. NEEDED FOR ACCESS TO THE WORK AREA SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS. THE COST OF ANY EXCAVATION AND SUBSEQUENT REPLACEMENT OF EMBANKMENT (PER ITEM 203 EMBANKMENT) SHALL BE INCLUDED IN THE VARIOUS BID ITEMS FOR THE DRILLED SHAFT AND CONCRETE PANELS NO SEPARATE PAYMENT WILL BE MADE. PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE AND REMOVAL OF CONCRETE FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE PRECAST LAGGING. PAYMENT FOR SOIL OVERBURDEN DRILLING, WHICH IS GROUND LEVEL TO THE TOP OF THE SHAFT, SHALL BE INCLUSIVE OF ITEM 524 DRILLED SHAFTS, 30" DIAMETER, PLUG PILES, AS PER PLAN.

MEASUREMENT FOR PAYMENT FOR DRILLED SHAFTS,AS PER PLAN, WILL BE MEASURED ALONG THE AXIS OF THE DRILLED SHAFT FROM THE TOP OF THE SHAFT TO THE BOTTOM OF SHAFT, AS DETERMINED BY THE ENGINEER.

ITEM 530 - STRUCTURE, MISC.: PRECAST CONCRETE PANEL
THIS WORK CONSISTS OF FURNISHING AND PLACING PRECAST REINFORCED CONCRETE PANELS BETWEEN THE SOLDIER PILES TO FUNCTION AS LAGGING FOR THE RETAINING WALL. PROVIDE PRECAST CONCRETE LAGGING FROM A PRECAST CONCRETE MANUFACTURER CERTIFIED UNDER SUPPLEMENT 1073. PROVIDE CONCRETE WITH A 28-DAY DESIGN STRENGTH OF AT LEAST 4000 PSI ACCORDING TO CMS 499. PROVIDE EPOXY COATED REINFORCING STEEL ACCORDING TO CMS 709.00. IN LIEU OF EPOXY COATING, A CORROSION INHIBITING CONCRETE ADMIXTURE MAY BE USED AT THE SPECIFIED DOSAGE RATE. A QUALIFIED PRODUCT LIST OF CORROSION INHIBITING ADMIXTURES IS ON FILE AT THE LABORATORY. MANUFACTURERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR MAY AFFECT THE STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE MANUFACTURER'S CHOICE TO USE ONE OF THE THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING ALL DESIGN REQUIREMENTS. DO NOT ALLOW THE DIMENSIONS OF THE REINFORCING STEEL TO VARY BY MORE THAN 1/4 INCH. PERMANENTLY MARK EACH PANEL TO INDICATE THE FACE TO BE PLACED AGAINST THE SOIL. PLACE THE PANEL BETWEEN THE FLANGES OF THE SOLIDER PILES AND BEARING AGAINST THE FLANGES ON THE EXPOSED SIDE OF THE WALL.

THE DEPARTMENT WILL PAY FOR PRECAST LAGGING AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 530 - STRUCTURE, MISC.: PRECAST CONCRETE LAGGING.

ITEM 518 - POROUS BACKFILL WITH FILTER FABRIC
POROUS BACKFILL, 2' THICKNESS, WILL BE PLACED BEHIND THE CONCRETE LAGGING. IT WILL EXTEND FROM THE BOTTOM OF THE LAGGING TO WITHIN 2 FEET OF THE FINISH GRADE SURFACE. FILTER FABRIC WILL BE PLACED AROUND THE POROUS BACKFILL.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN
THIS ITEM CONSISTS OF EXCAVATING A BENCH IN ORDER TO CONSTRUCT THE DRILLED SHAFTS AND PLACING A COMPACTED FILL AFTER THE WALL IS CONSTRUCTED. CONTRACTOR SHALL COMPACT THE FILL BEHIND THE WALL USING EITHER A VIBRATORY "HO-PAC" OR SIMILAR COMPACTION DEVICE. THIS ITEM ALSO INCLUDES THE COST TO PERFORM THE FULL DEPTH REPAIR OF ANY ROADWAY REMOVED TO CONSTRUCT THE WALL. SEE FULL DEPTH REPAIR DETAIL.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN
CONTRACTOR MAY USE ITEM 617 COMPACTED AGGREGATE OR 304 AGGREGATE BASE FOR SHOULDER.

ITEM 659 - SEEDING AND MULCHING
SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE EASEMENT LINES. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 202 - PAVEMENT REMOVED
THIS ITEM INCLUDES THE COST OF ALL LABOR AND EQUIPMENT NECESSARY TO REMOVE THE FULL DEPTH OF PAVEMENT TO BOTTOM OF ROAD BASE AS DETAILED ON RETAINING WALL DETAILS TO ALLOW FOR PLACEMENT OF NEW STONE BASE AND ASPHALT COURSES.

CALCULATED
TMF
CHECKED
CDK

GENERAL NOTES

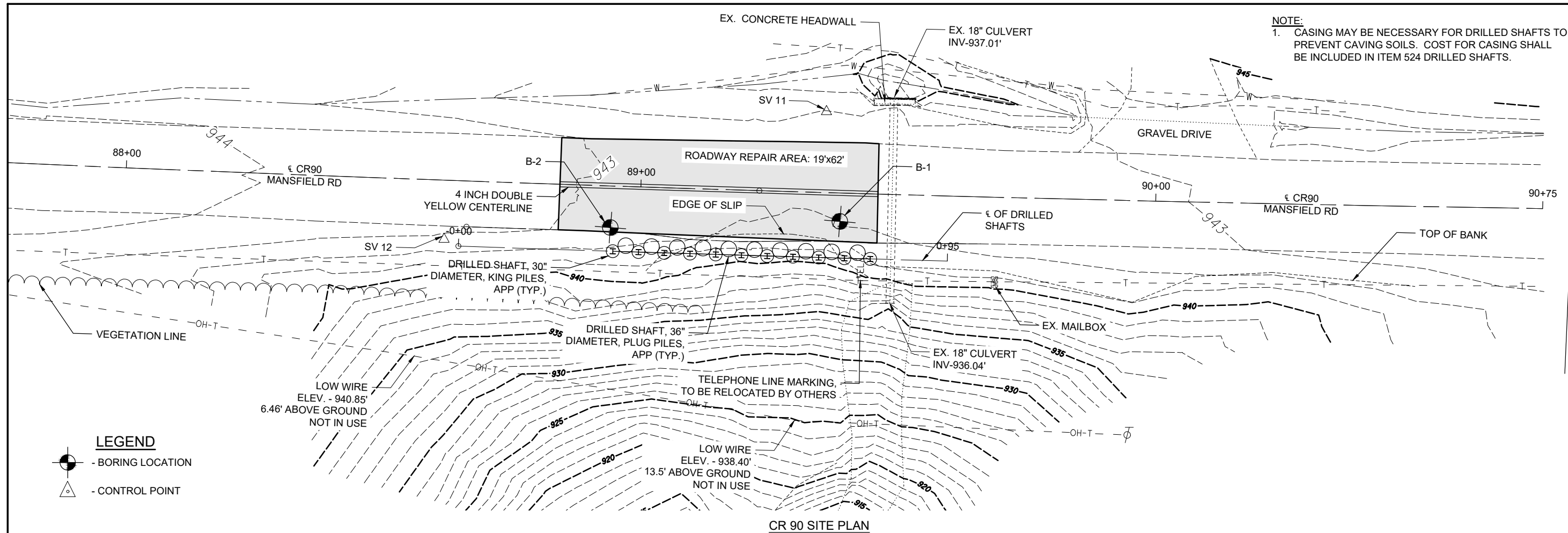
ATH-CR 90 / VAR - 1.69 / VAR
LANDSLIDE REPAIRS

PART 1: CR 90 - 1.69 MANSFIELD RD GENERAL SUMMARY				
REF NO.	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1	201	CLEARING AND GRUBBING	1	LS
2	202	PAVEMENT REMOVED	131	SY
3	203	EMBANKMENT	20	CY
4	254	SUBGRADE COMPACTION	131	SY
5	301	ASPHALT CONCRETE BASE, PG64-22	15	CY
6	304	AGGREGATE BASE	30	CY
7	441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	8	CY
8	507	STEEL PILES, MISC.:SOLDIER PILE HP 12x84	275	FT
9	524	DRILLED SHAFTS, 30" DIAMETER, KING PILES, AS PER PLAN	273	FT
10	524	DRILLED SHAFTS, 36" DIAMETER, PLUG PILES, AS PER PLAN	148	FT
11	642	CENTER LINE	62	FT
12	659	SEEDING AND MULCHING	86	SY
13	832	EROSION CONTROL	2000	EA
14	614	MAINTAINING TRAFFIC	1	LS
15	623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS
16	624	MOBILIZATION	1	LS
17	103	PREMIUM FOR PERFORMANCE BOND AND PAYMENT BOND	1	LS

PART 3: CR 39 - 0.68 WRIGHTSTOWN RD GENERAL SUMMARY				
REF NO.	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1	201	CLEARING AND GRUBBING	1	LS
2	202	PAVEMENT REMOVED	90	SY
3	203	EMBANKMENT	32	CY
4	254	SUBGRADE COMPACTION	90	SY
5	301	ASPHALT CONCRETE BASE, PG64-22	10	CY
6	304	AGGREGATE BASE	20	CY
7	441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	5	CY
8	507	STEEL PILES, MISC.:SOLDIER PILE HP 12x53	638	FT
9	524	DRILLED SHAFTS, 24" DIAMETER, KING PILES, AS PER PLAN	612	FT
10	524	DRILLED SHAFTS, 30" DIAMETER, PLUG PILES, AS PER PLAN	374	FT
11	659	SEEDING AND MULCHING	127	SY
12	832	EROSION CONTROL	2200	EA
13	614	MAINTAINING TRAFFIC	1	LS
14	623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS
15	624	MOBILIZATION	1	LS
16	103	PREMIUM FOR PERFORMANCE BOND AND PAYMENT BOND	1	LS



PART 2: CR 59 - 0.19 FOUR MILE CREEK RD GENERAL SUMMARY				
REF NO.	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1	201	CLEARING AND GRUBBING	1	LS
2	202	PAVEMENT REMOVED	85	SY
3	203	EMBANKMENT	9	CY
4	254	SUBGRADE COMPACTION	85	SY
5	301	ASPHALT CONCRETE BASE, PG64-22	10	CY
6	304	AGGREGATE BASE	19	CY
7	441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	5	CY
8	503	UNCLASSIFIED EXCAVATION, AS PER PLAN	1	LS
9	507	STEEL PILES, MISC.:SOLDIER PILE HP 12x53	270	FT
10	511	CLASS QC1 CONCRETE, FOOTING	3	CY
11	518	POROUS BACKFILL WITH GEOTEXTILE FABRIC	30	CY
12	518	6" PERFORATED CORRUGATED PLASTIC PIPE	43	FT
13	518	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	11	FT
14	524	DRILLED SHAFTS, 30" DIAMETER, AS PER PLAN	176	FT
15	530	STRUCTURE, MISC.: PRECAST CONCRETE PANEL	16	EA
16	606	GUARDRAIL, TYPE 5	62.5	FT
17	606	ANCHOR ASSEMBLY, TYPE T	2	EA
18	611	15" CONDUIT, TYPE B	40	FT
19	659	SEEDING AND MULCHING	110	SY
20	832	EROSION CONTROL	1800	EA
21	614	MAINTAINING TRAFFIC	1	LS
22	623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS
23	624	MOBILIZATION	1	LS
24	103	PREMIUM FOR PERFORMANCE BOND AND PAYMENT BOND	1	LS

PART 4: CR 36 - 3.02 HOOPER RIDGE RD GENERAL SUMMARY				
REF NO.	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1	201	CLEARING AND GRUBBING	1	LS
2	202	PAVEMENT REMOVED	123	SY
3	254	SUBGRADE COMPACTION	123	SY
4	301	ASPHALT CONCRETE BASE, PG64-22	14	CY
5	304	AGGREGATE BASE	28	CY
6	441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	7	CY
7	503	UNCLASSIFIED EXCAVATION, AS PER PLAN	1	LS
8	507	STEEL PILES, MISC.:SOLDIER PILE HP 10x57	364	FT
9	511	CLASS QC1 CONCRETE FOOTING	4	CY
10	518	POROUS BACKFILL WITH GEOTEXTILE FABRIC	37	CY
11	518	6" PERFORATED CORRUGATED PLASTIC PIPE	73	FT
12	518	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	20	FT
13	524	DRILLED SHAFTS, 24" DIAMETER, AS PER PLAN	217	FT
14	530	STRUCTURE, MISC.: PRECAST CONCRETE PANEL	26	EA
15	606	GUARDRAIL, TYPE 5	88	FT
16	606	ANCHOR ASSEMBLY, TYPE T	2	EA
17	617	COMPACTED AGGREGATE, APP	3	CY
18	659	SEEDING AND MULCHING	111	SY
19	832	EROSION CONTROL	2000	EA
20	614	MAINTAINING TRAFFIC	1	LS
21	623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS
22	624	MOBILIZATION	1	LS
23	103	PREMIUM FOR PERFORMANCE BOND AND PAYMENT BOND	1	LS



NOTE:
 1. CASING MAY BE NECESSARY FOR DRILLED SHAFTS TO PREVENT CAVING SOILS. COST FOR CASING SHALL BE INCLUDED IN ITEM 524 DRILLED SHAFTS.

LEGEND

-  - BORING LOCATION
-  - CONTROL POINT

CONTROL POINT TABLE
NAD 83 (2011) OHIO STATE PLANE SOUTH ZONE,
GRID NAVD88, GEOID (12A)

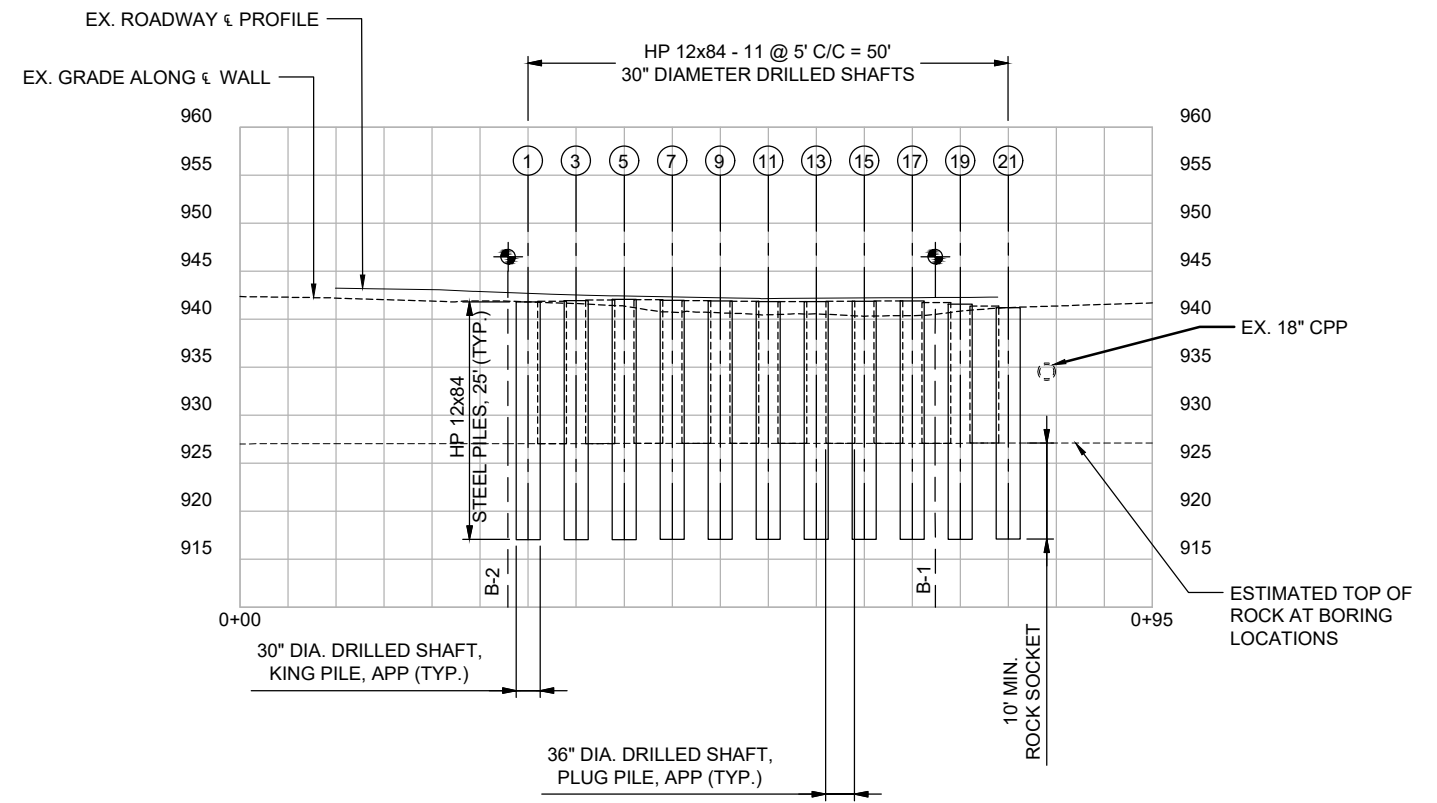
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SV10	477818.4060	2099979.1450	943.60	3/4" REBAR
SV11	477812.6380	2099824.3020	942.04	3/4" REBAR
SV12	477781.9850	2099752.2930	942.71	3/4" REBAR

SOIL BORINGS

BORING	STATION	OFFSET	EX. GROUND SURFACE ELEV.	APPROX. TOP OF ROCK
B-1	89+38.80	5.50 RT	942.09	927.09
B-2	88+94.34	8.06 RT	942.55	927.05

CR 90 - 1.69 MANSFIELD RD ESTIMATED QUANTITIES

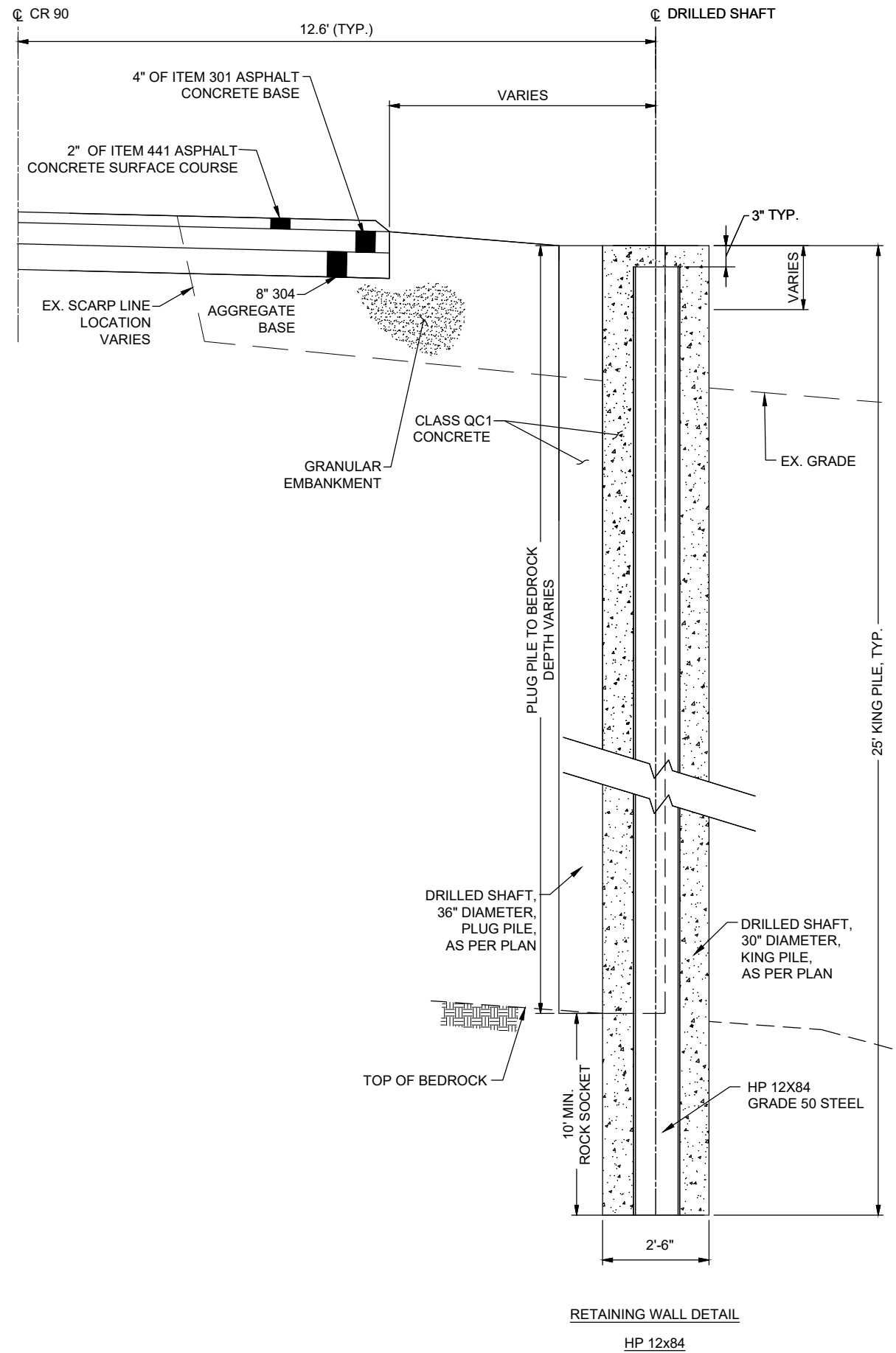
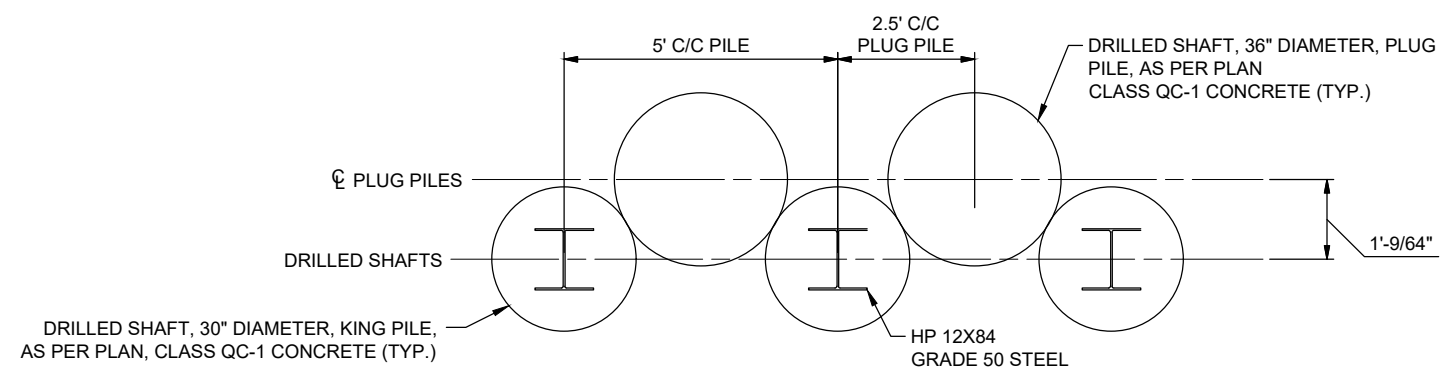
ITEM NO.	ITEM DESCRIPTION	QTY.	UNIT
202	PAVEMENT REMOVED	131	SY
203	EMBANKMENT	20	CY
254	SUBGRADE COMPACTION	131	SY
301	ASPHALT CONCRETE BASE, PG64-22	15	CY
304	AGGREGATE BASE	30	CY
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	8	CY
642	CENTER LINE	62	FT



CR 90 PROFILE

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RETAINING WALL DETAIL

HP 12x84

CALCULATED
TMF
CHECKED
CDK

CR 90 - 1.69 MANSFIELD RD
RETAINING WALL DETAILS

ATH-CR 90 / VAR - 1.69 / VAR
LANDSLIDE REPAIRS

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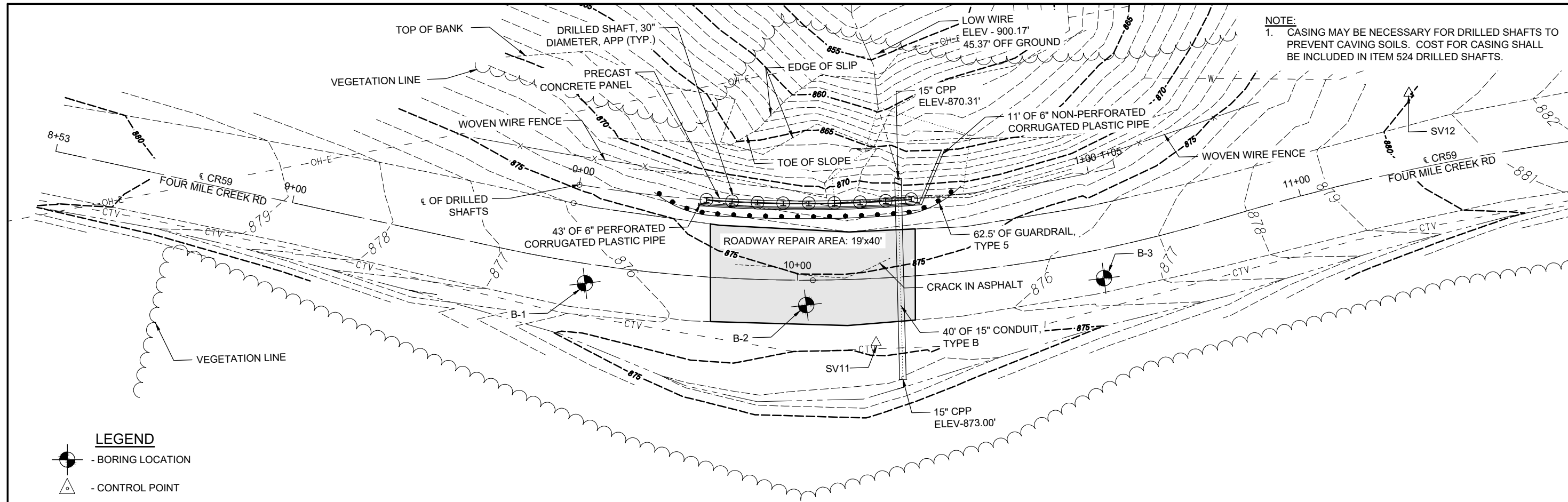
CR 90 - 1.69 MANSFIELD RD DRILLED SHAFT SUMMARY (KING PILES)								
SHAFT NO.	€ DRILLED SHAFT STATION	€ CR 90 OFFSET	BOTTOM ELEV. OF SHAFT	TOP ELEV. OF SHAFT	ESTIMATED TOP ELEV. OF ROCK	ITEM 524 DRILLED SHAFTS, 30" DIA., KING PILES, APP	ITEM 507 STEEL PILES, MISC.: SOLDIER PILES HP 12x84	BEAM ORDER LENGTH HP 12x84
						(FT)	(FT)	(FT)
1	0+30	88+98.95, 12.65 RT	917.05	941.81	927.05	24.8	24.8	25
3	0+35	88+99.94, 12.65 RT	917.06	941.93	927.06	24.9	24.9	25
5	0+40	89+04.93, 12.64 RT	917.06	942.08	927.06	25.0	25.0	25
7	0+45	89+09.93, 12.64 RT	917.07	941.99	927.07	24.9	24.9	25
9	0+50	89+14.92, 12.64 RT	917.07	941.90	927.07	24.8	24.8	25
11	0+55	89+19.92, 12.63 RT	917.07	941.82	927.07	24.8	24.8	25
13	0+60	89+24.91, 12.63 RT	917.08	941.85	927.08	24.8	24.8	25
15	0+65	89+29.90, 12.63 RT	917.08	941.88	927.08	24.8	24.8	25
17	0+70	89+34.90, 12.62 RT	917.09	941.91	927.09	24.8	24.8	25
19	0+75	89+39.89, 12.62 RT	917.09	941.57	927.09	24.5	24.5	25
21	0+80	89+44.89, 12.62 RT	917.10	941.21	927.10	24.1	24.1	25
TOTALS CARRIED TO GENERAL SUMMARY						273	273	275

CR 90 - 1.69 MANSFIELD RD DRILLED SHAFT SUMMARY (PLUG PILES)						
SHAFT NO.	€ DRILLED SHAFT STATION	€ CR 90 OFFSET	BOTTOM ELEV. OF SHAFT	TOP ELEV. OF SHAFT	ESTIMATED TOP ELEV. OF ROCK	ITEM 524 DRILLED SHAFTS, 36" DIA., PLUG PILES, APP
						(FT)
2	0+32.5	88+97.4, 11.50 RT	927.05	941.87	927.05	14.8
4	0+37.5	89+02.44, 11.50 RT	927.06	942.01	927.06	15.0
6	0+42.5	89+07.43, 11.49 RT	927.06	942.04	927.06	15.0
8	0+47.5	89+12.42, 11.49 RT	927.07	941.94	927.07	14.9
10	0+52.5	89+17.42, 11.49 RT	927.07	941.86	927.07	14.8
12	0+57.5	89+22.41, 11.49 RT	927.08	941.84	927.08	14.8
14	0+62.5	89+27.41, 11.48 RT	927.08	941.87	927.08	14.8
16	0+67.5	89+32.40, 11.48 RT	927.09	941.90	927.09	14.8
18	0+72.5	89+37.39, 11.48 RT	927.09	941.74	927.09	14.7
20	0+77.5	89+42.39, 11.47 RT	927.09	941.39	927.09	14.3
TOTALS CARRIED TO GENERAL SUMMARY						148



CALCULATED
TMF
CHECKED
CDK

CR 90 - 1.69 MANSFIELD RD
DRILLED SHAFT SUMMARY

ATH-CR 90 / VAR - 1.69 / VAR
LANDSLIDE REPAIRS



NOTE:
 1. CASING MAY BE NECESSARY FOR DRILLED SHAFTS TO PREVENT CAVING SOILS. COST FOR CASING SHALL BE INCLUDED IN ITEM 524 DRILLED SHAFTS.

- LEGEND**
-  - BORING LOCATION
 -  - CONTROL POINT

CR 59 SITE PLAN

CONTROL POINT TABLE
 NAD 83 (2011) OHIO STATE PLANE SOUTH ZONE,
 GRID NAVD88, GEOID (12A)

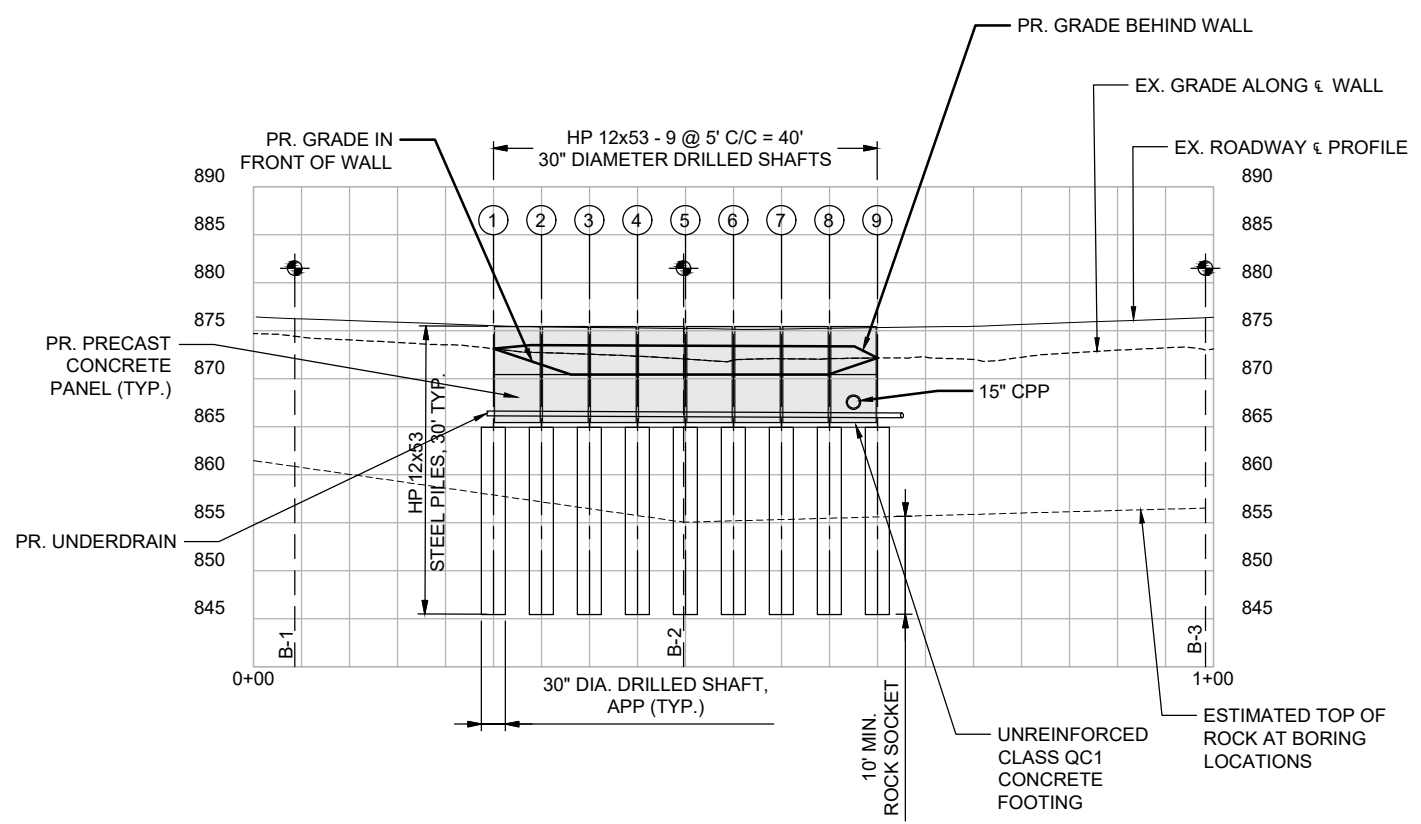
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SV10	431972.384	2166796.638	881.5	3/4" REBAR
SV11	432164.13	2166849.20	875.37	3/4" REBAR
SV12	432273.23	2166813.30	879.88	3/4" REBAR

SOIL BORINGS

BORING	STATION	OFFSET	EX. GROUND SURFACE ELEV.	APPROX. TOP OF ROCK
B-1	9+58.92	3.83 RT	876.35	860.85
B-2	10+01.71	4.87 RT	875.05	855.05
B-3	10+59.10	5.67 RT	876.52	856.52

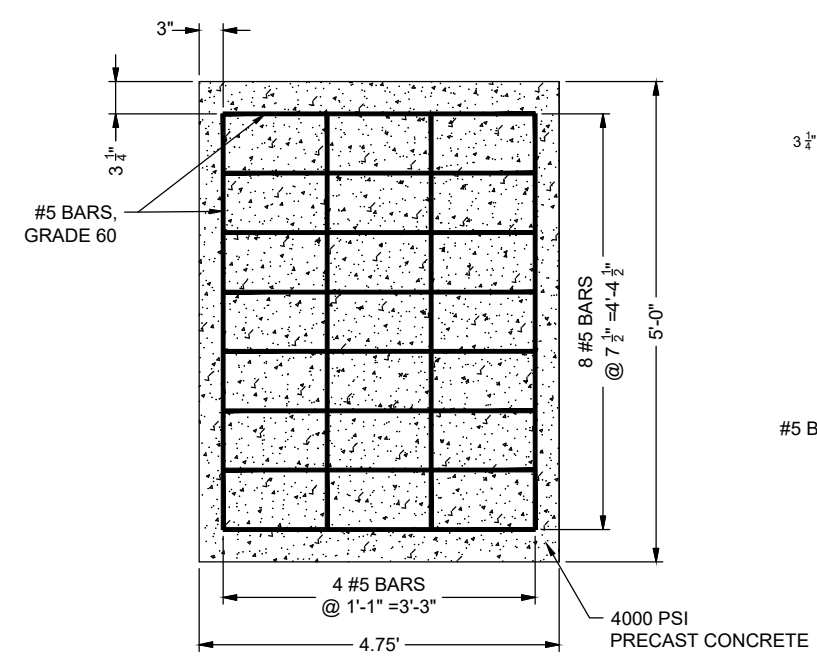
CR 59 - 0.19 FOUR MILE CREEK RD ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QTY.	UNIT
202	PAVEMENT REMOVED	85	SY
203	EMBANKMENT	9	CY
254	SUBGRADE COMPACTION	85	SY
301	ASPHALT CONCRETE BASE, PG64-22	10	CY
304	AGGREGATE BASE	19	CY
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	5	CY
511	CLASS QC1 CONCRETE, FOOTING	3	CY
518	POROUS BACKFILL WITH GEOTEXTILE FABRIC	30	CY
518	6" PERFORATED CORRUGATED PLASTIC PIPE	43	FT
518	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	11	FT
530	STRUCTURE, MISC.: PRECAST CONCRETE PANEL	16	EA
606	GUARDRAIL, TYPE 5	62.5	FT
606	ANCHOR ASSEMBLY, TYPE T	2	EA
611	15" CONDUIT, TYPE B	40	FT

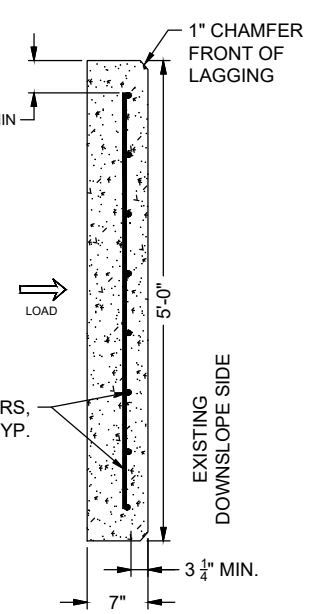


CR 59 PROFILE

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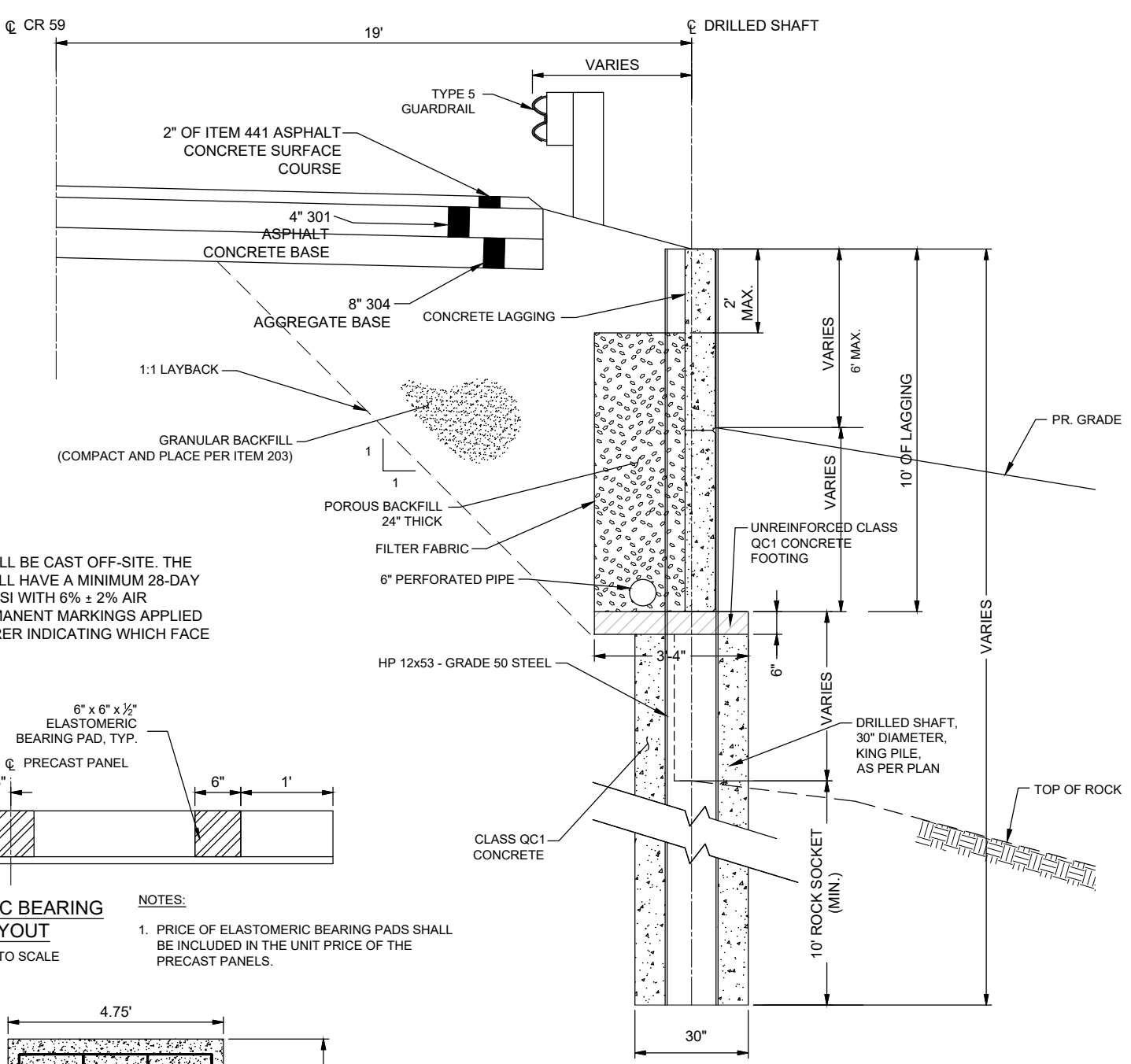


PRECAST CONCRETE LAGGING PANEL DETAIL
SCALE: NOT TO SCALE

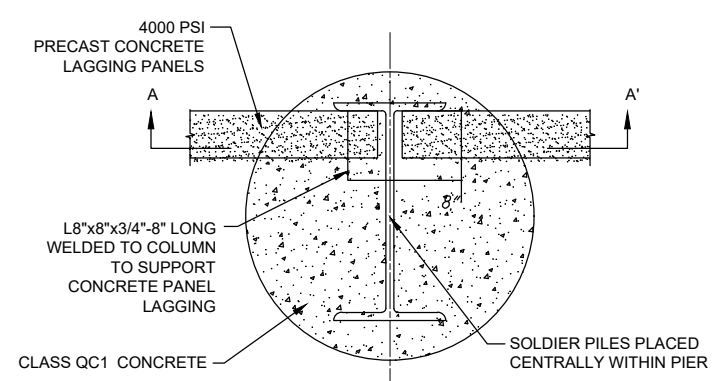


NOTES:

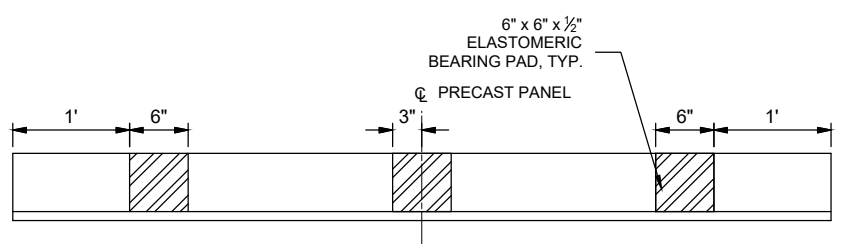
1. PRECAST REINFORCED CONCRETE PANELS SHALL BE CAST OFF-SITE. THE CONCRETE USED TO FABRICATE THE PANELS SHALL HAVE A MINIMUM 28-DAY UNCONFINED COMPRESSIVE STRENGTH OF 4000 PSI WITH 6% ± 2% AIR ENTRAINMENT. EACH PANEL SHALL INCLUDE PERMANENT MARKINGS APPLIED TO THE FACE OF THE PANEL BY THE MANUFACTURER INDICATING WHICH FACE SHALL BE PLACED AGAINST GRANULAR FILL.



RETAINING WALL DETAIL
HP 12x53



PLAN

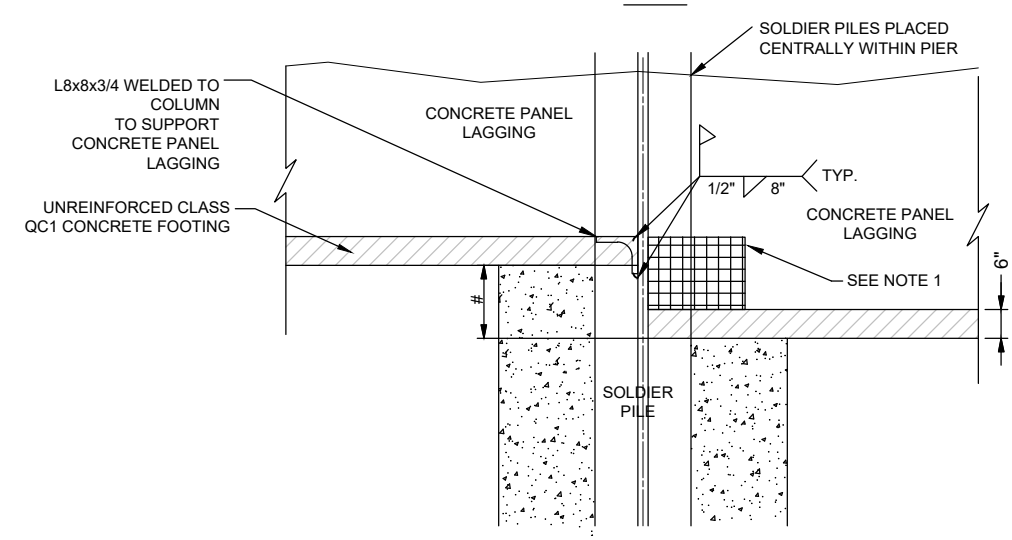


ELASTOMERIC BEARING PAD LAYOUT

SCALE: NOT TO SCALE

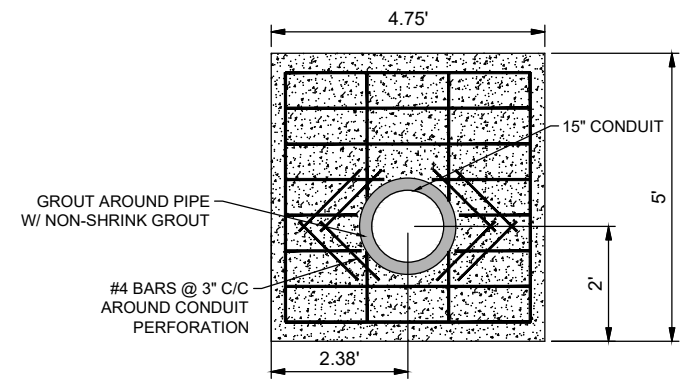
NOTES:

1. PRICE OF ELASTOMERIC BEARING PADS SHALL BE INCLUDED IN THE UNIT PRICE OF THE PRECAST PANELS.



SECTION A-A'

CONCRETE PANEL LAGGING ATTACHMENT TO SOLDIER PILE
SCALE: NOT TO SCALE



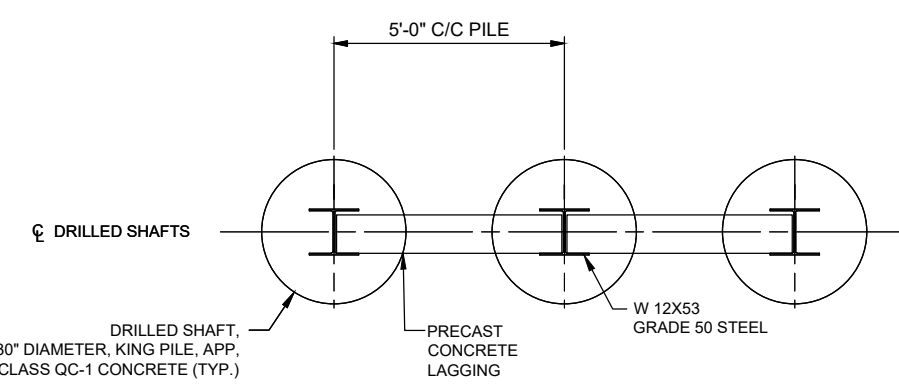
PRECAST CONCRETE LAGGING PANEL DETAIL FOR CONDUIT PERFORATION

SCALE: NOT TO SCALE

NOTES:

1. BLOCK OUT DRILLED SHAFT CONCRETE WITH FOAM INSULATION OR SIMILAR TO PROVIDE SUPPORT TO THE LOWER PANEL. THE COST TO BLOCK OUT THE DRILLED SHAFT WILL BE INCLUDED FOR PAYMENT UNDER ITEM 524-DRILLED SHAFT, 30" DIAMETER, AS PER PLAN.

DRILLED SHAFT EXTENSION SHALL BE INCIDENTAL TO ITEM 524-DRILLED SHAFT, 30" DIAMETER, AS PER PLAN.



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CR 59 - 0.19 FOUR MILE CREEK RD DRILLED SHAFT SUMMARY

CALCULATED
TMF
CHECKED
CDK

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SHAFT NO.	€ DRILLED SHAFT STATION	€ CR 59 OFFSET	BOTTOM ELEV. OF SHAFT	TOP ELEV. OF SHAFT	TOP ELEV. OF LAGGING WALL	ESTIMATED TOP ELEV. OF ROCK	ITEM 524 DRILLED SHAFTS, 30" DIA., APP	ITEM 507 STEEL PILES, MISC.: SOLDIER PILES HP 12x53
							(FT)	(FT)
1	0+25	9+81.15, 15.00 LT	845.44	864.94	875.44	857.89	19.5	30.0
2	0+30	9+86.44, 15.00 LT	845.44	864.94	875.44	857.17	19.5	30.0
3	0+35	9+91.72, 15.00 LT	845.44	864.94	875.44	856.46	19.5	30.0
4	0+40	9+97.00, 15.00 LT	845.44	864.94	875.44	855.74	19.5	30.0
5	0+45	10+02.28, 15.00 LT	845.44	864.94	875.44	855.05	19.5	30.0
6	0+50	10+07.56, 15.00 LT	845.44	864.94	875.44	855.19	19.5	30.0
7	0+55	10+12.85, 15.00 LT	845.44	864.94	875.44	855.33	19.5	30.0
8	0+60	10+18.13, 15.00 LT	845.44	864.94	875.44	855.46	19.5	30.0
9	0+65	10+23.41, 15.00 LT	845.44	864.94	875.44	855.60	19.5	30.0

TOTALS CARRIED TO GENERAL SUMMARY



176

270

CR 59 - 0.19 FOUR MILE CREEK RD
DRILLED SHAFT SUMMARY

ATH-CR 90 / VAR - 1.69 / VAR
LANDSLIDE REPAIRS

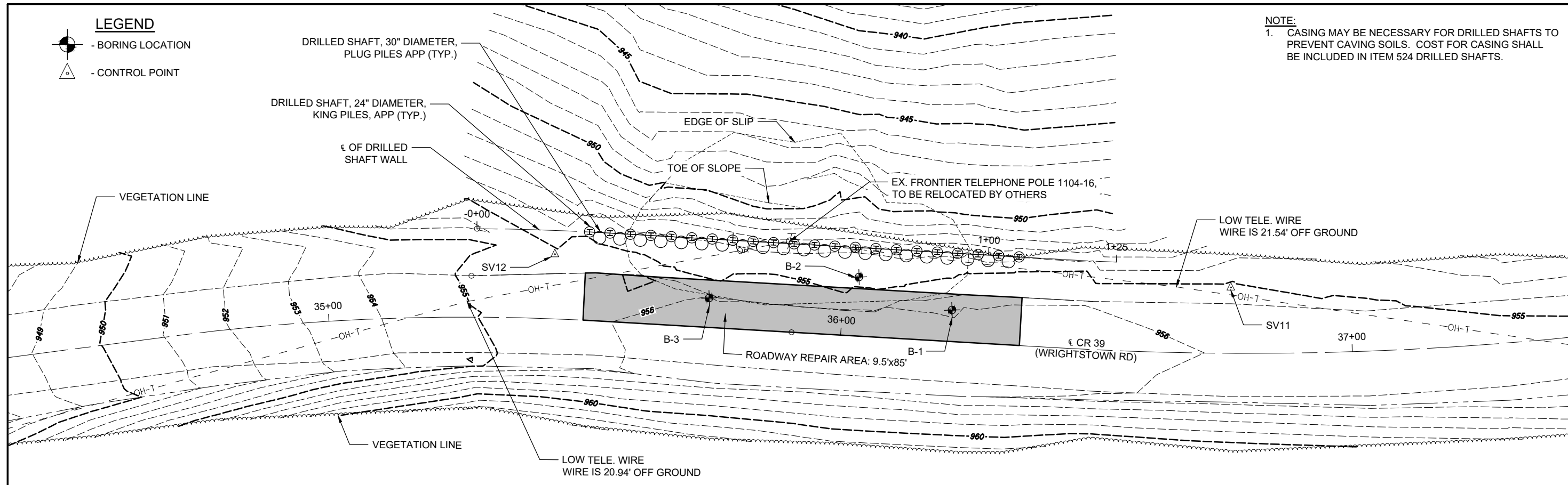
11
17

- LEGEND**
-  - BORING LOCATION
 -  - CONTROL POINT

NOTE:
 1. CASING MAY BE NECESSARY FOR DRILLED SHAFTS TO PREVENT CAVING SOILS. COST FOR CASING SHALL BE INCLUDED IN ITEM 524 DRILLED SHAFTS.

CALCULATED
 T.M.F.
 CHECKED
 C.D.K.

0 5 10 20
 HORIZONTAL
 SCALE IN FEET



CR 39 SITE PLAN

CONTROL POINT TABLE
 NAD 83 (2011) OHIO STATE PLANE SOUTH ZONE,
 GRID NAVD88, GEOID (12A)

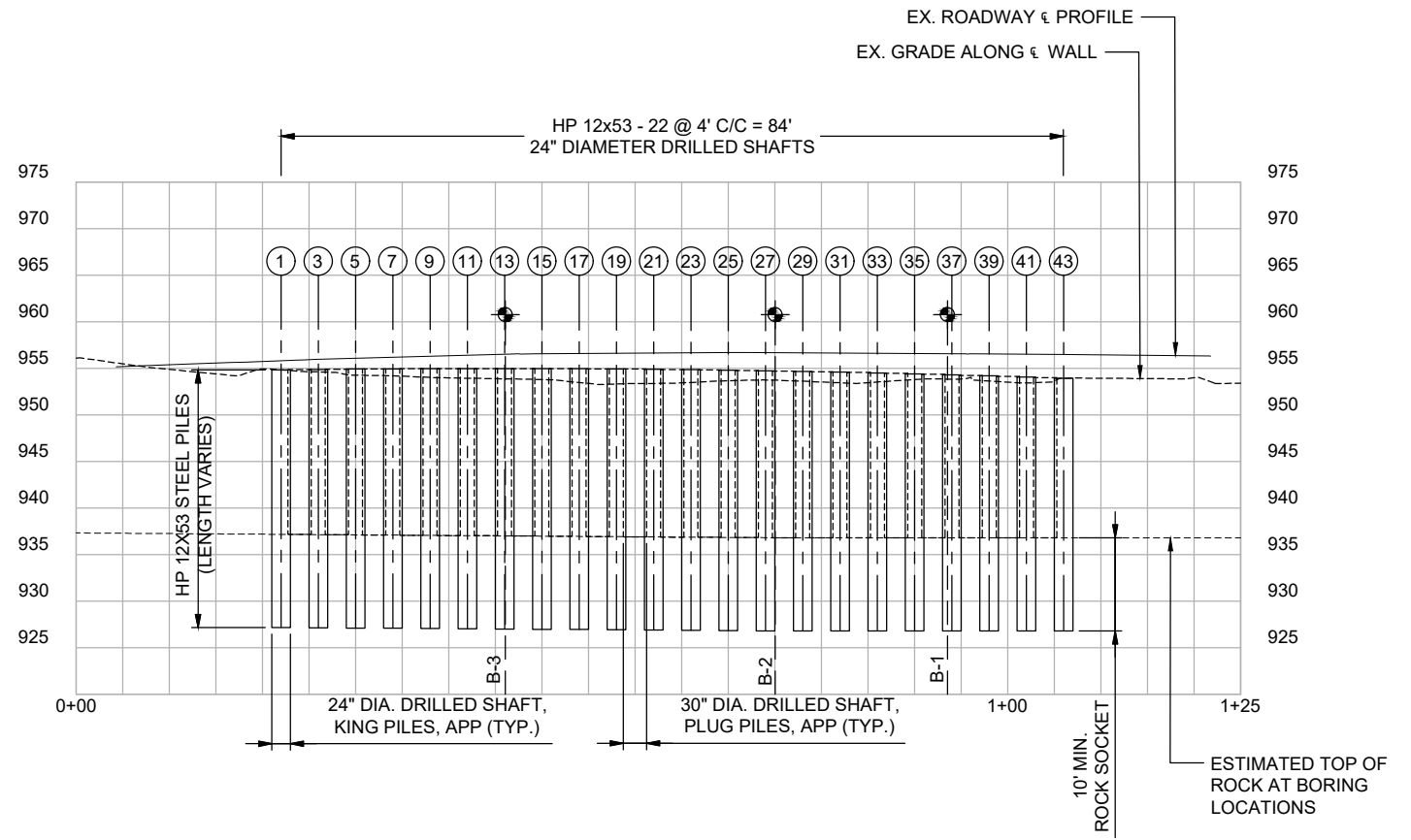
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SV11	552120.9310	2121137.4990	955.26	3/4" REBAR
SV12	522019.2080	2121053.1920	955.24	3/4" REBAR
SV13	521892.8920	2120975.8850	945.05	3/4" REBAR

SOIL BORINGS

BORING	STATION	OFFSET	EX. GROUND SURFACE ELEV.	APPROX. TOP OF ROCK
B-1	36+21.43	6.15 LT	955.83	936.80
B-2	36+02.93	11.53 LT	954.80	936.80
B-3	35+73.97	5.75 LT	956.02	937.00

CR 39 - 0.68 WRIGHTSTOWN RD ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QTY.	UNIT
202	PAVEMENT REMOVED	90	SY
203	EMBANKMENT	32	CY
254	SUBGRADE COMPACTION	90	SY
301	ASPHALT CONCRETE BASE, PG64-22	10	CY
304	AGGREGATE BASE	20	CY
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	5	CY



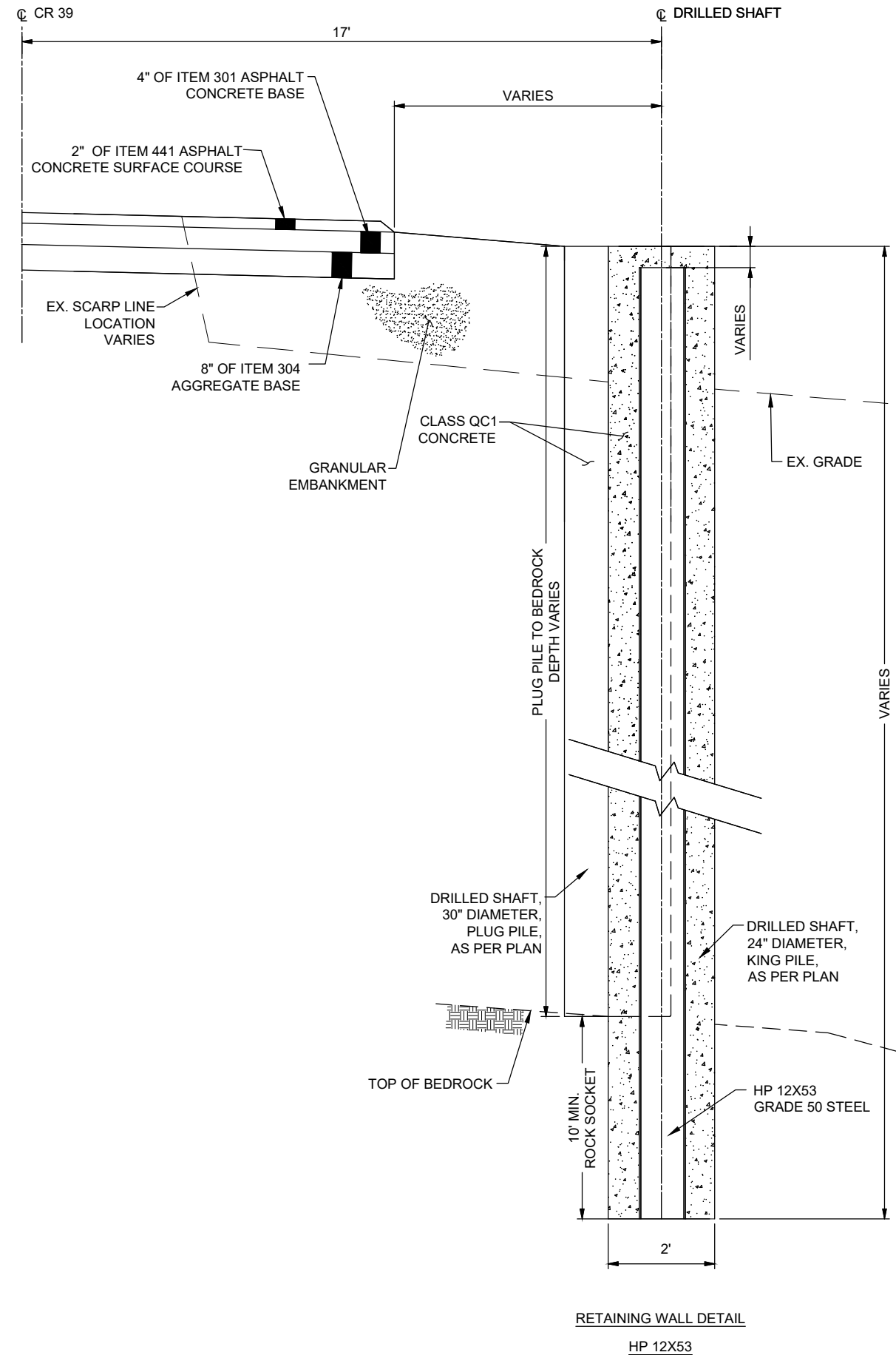
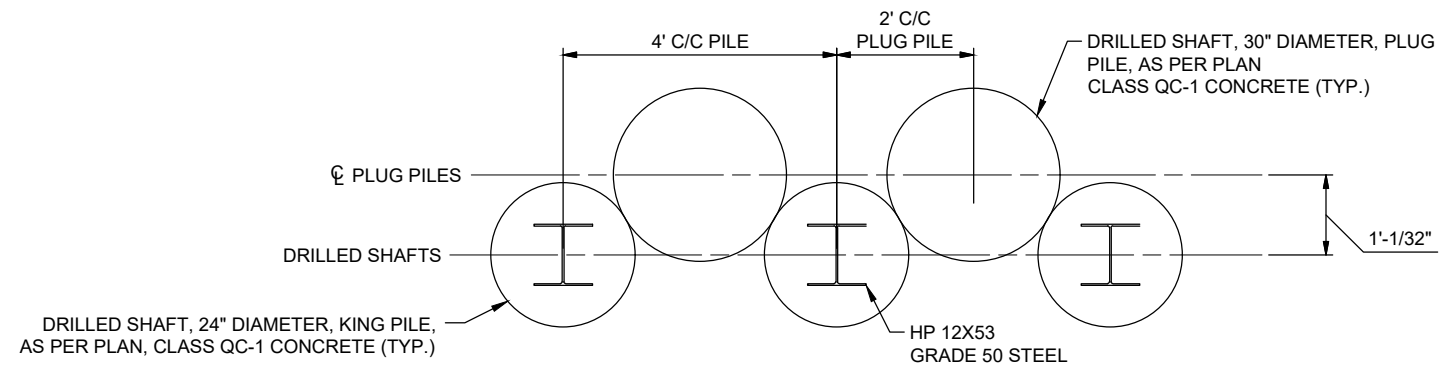
CR 39 PROFILE

CR 39-0.68 WRIGHTSTOWN RD
 RETAINING WALL PLAN AND PROFILE

ATH-CR 90 / VAR - 1.69 / VAR
 LANDSLIDE REPAIRS

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CALCULATED	TMF
CHECKED	CDK



CR 39-0.68 WRIGHTSTOWN RD
RETAINING WALL DETAILS

ATH-CR 90 / VAR - 1.69 / VAR
LANDSLIDE REPAIRS

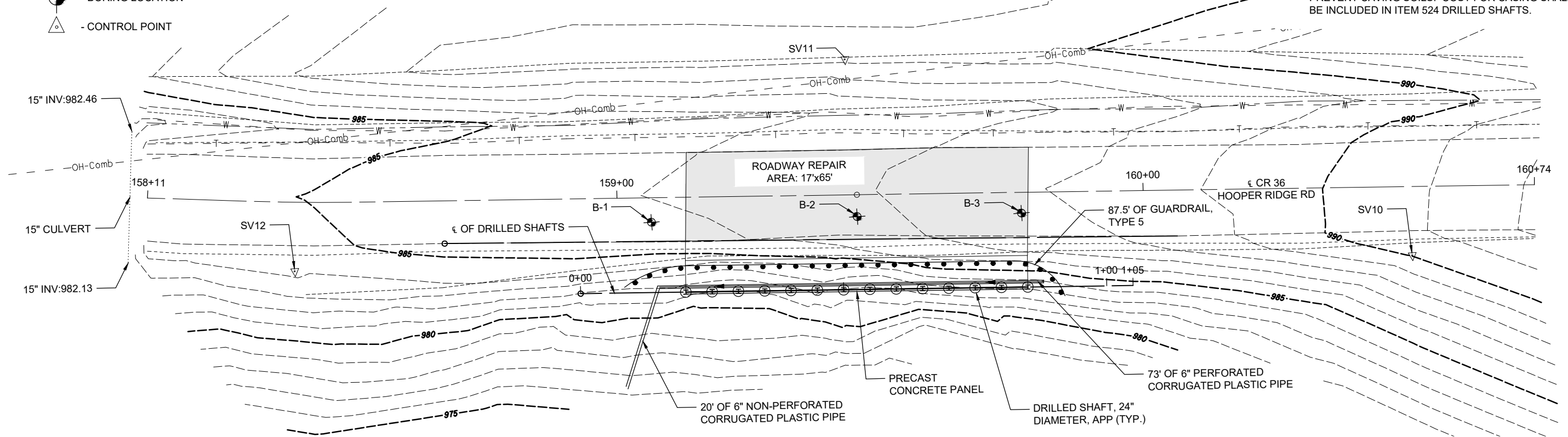
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CR 39 - 0.68 WRIGHTSTOWN RD DRILLED SHAFT SUMMARY (KING PILES)								
SHAFT NO.	€ DRILLED SHAFT STATION	€ CR 39 OFFSET	BOTTOM ELEV. OF SHAFT	TOP ELEV. OF SHAFT	ESTIMATED TOP ELEV. OF ROCK	ITEM 524 DRILLED SHAFTS, 24" DIA., KING PILES, APP	ITEM 507 STEEL PILES, MISC.: SOLDIER PILES HP 12x53	BEAM ORDER LENGTH HP 12x53
						(FT)	(FT)	(FT)
1	0+22	35+49.99, 17.27 LT	927.17	954.83	937.17	27.7	27.7	29
3	0+26	35+53.90, 17.28 LT	927.14	954.87	937.14	27.7	27.7	29
5	0+30	35+57.90, 17.28 LT	927.11	954.91	937.11	27.8	27.8	29
7	0+34	35+61.90, 17.28 LT	927.08	954.94	937.08	27.9	27.9	29
9	0+38	35+65.90, 17.28 LT	927.06	954.96	937.06	27.9	27.9	29
11	0+42	35+69.90, 17.28 LT	927.03	954.97	937.03	27.9	27.9	29
13	0+46	35+73.90, 17.28 LT	927.00	954.98	937.00	28.0	28.0	29
15	0+50	35+77.90, 17.28 LT	926.97	954.97	936.97	28.0	28.0	29
17	0+54	35+81.90, 17.28 LT	926.94	954.95	936.95	28.0	28.0	29
19	0+58	35+85.90, 17.28 LT	926.92	954.93	936.92	28.0	28.0	29
21	0+62	35+89.90, 17.28 LT	926.89	954.89	936.89	28.0	28.0	29
23	0+66	35+93.90, 17.28 LT	926.86	954.85	936.86	28.0	28.0	29
25	0+70	35+97.90, 17.28 LT	926.83	954.80	936.83	28.0	28.0	29
27	0+74	36+01.90, 17.28 LT	926.81	954.74	936.81	27.9	27.9	29
29	0+78	36+05.90, 17.28 LT	926.80	954.67	936.80	27.9	27.9	29
31	0+82	36+09.90, 17.28 LT	926.80	954.59	936.80	27.8	27.8	29
33	0+86	36+13.90, 17.28 LT	926.80	954.50	936.80	27.7	27.7	29
35	0+90	36+17.90, 17.28 LT	926.80	954.40	936.80	27.6	27.6	29
37	0+94	36+21.90, 17.28 LT	926.80	954.30	936.80	27.5	27.5	29
39	0+98	36+25.90, 17.28 LT	926.80	954.18	936.80	27.4	27.4	29
41	1+02	36+29.90, 17.28 LT	926.80	954.06	936.80	27.3	27.3	29
43	1+06	36+33.90, 17.28 LT	926.80	953.92	936.80	27.1	27.1	29
TOTALS CARRIED TO GENERAL SUMMARY						612	612	638

CR 39 - 0.68 WRIGHTSTOWN RD DRILLED SHAFT SUMMARY (PLUG PILES)							
SHAFT NO.	€ DRILLED SHAFT STATION	€ CR 39 OFFSET	BOTTOM ELEV. OF SHAFT	TOP ELEV. OF SHAFT	ESTIMATED TOP ELEV. OF ROCK	ITEM 524 DRILLED SHAFTS, 30" DIA., PLUG PILES, APP	
						(FT)	
2	0+24	35+51.92, 16.24 LT	937.15	954.85	937.15	17.7	
4	0+28	35+55.90, 16.25 LT	937.12	954.89	937.12	17.8	
6	0+32	35+59.90, 16.25 LT	937.10	954.93	937.10	17.8	
8	0+36	35+63.90, 16.25 LT	937.07	954.95	937.07	17.9	
10	0+40	35+67.90, 16.25 LT	937.04	954.97	937.04	17.9	
12	0+44	35+71.90, 16.25 LT	937.01	954.98	937.01	18.0	
14	0+48	35+75.90, 16.25 LT	936.99	954.97	936.99	18.0	
16	0+52	35+79.90, 16.25 LT	936.96	954.96	936.96	18.0	
18	0+56	35+83.90, 16.25 LT	936.93	954.94	936.93	18.0	
20	0+60	35+87.90, 16.25 LT	936.90	954.91	936.90	18.0	
22	0+64	35+91.90, 16.25 LT	936.88	954.87	936.88	18.0	
24	0+68	35+95.90, 16.25 LT	936.85	954.83	936.85	18.0	
26	0+72	35+99.90, 16.25 LT	936.82	954.77	936.82	17.9	
28	0+76	36+03.90, 16.25 LT	936.80	954.70	936.80	17.9	
30	0+80	36+07.90, 16.25 LT	936.80	954.63	936.80	17.8	
32	0+84	36+11.90, 16.25 LT	936.80	954.55	936.80	17.8	
34	0+88	36+15.90, 16.25 LT	936.80	954.45	936.80	17.7	
36	0+92	36+19.90, 16.25 LT	936.80	954.35	936.80	17.6	
38	0+96	36+23.90, 16.25 LT	936.80	954.24	936.80	17.4	
40	1+00	36+27.90, 16.25 LT	936.80	954.12	936.80	17.3	
42	1+04	36+31.90, 16.25 LT	936.80	953.99	936.80	17.2	
TOTALS CARRIED TO GENERAL SUMMARY							374

- LEGEND**
-  - BORING LOCATION
 -  - CONTROL POINT

NOTE:
 1. CASING MAY BE NECESSARY FOR DRILLED SHAFTS TO PREVENT CAVING SOILS. COST FOR CASING SHALL BE INCLUDED IN ITEM 524 DRILLED SHAFTS.



CR 36 SITE PLAN

CONTROL POINT TABLE
 NAD 83 (2011) OHIO STATE PLANE SOUTH ZONE,
 GRID NAVD88, GEOID (12A)

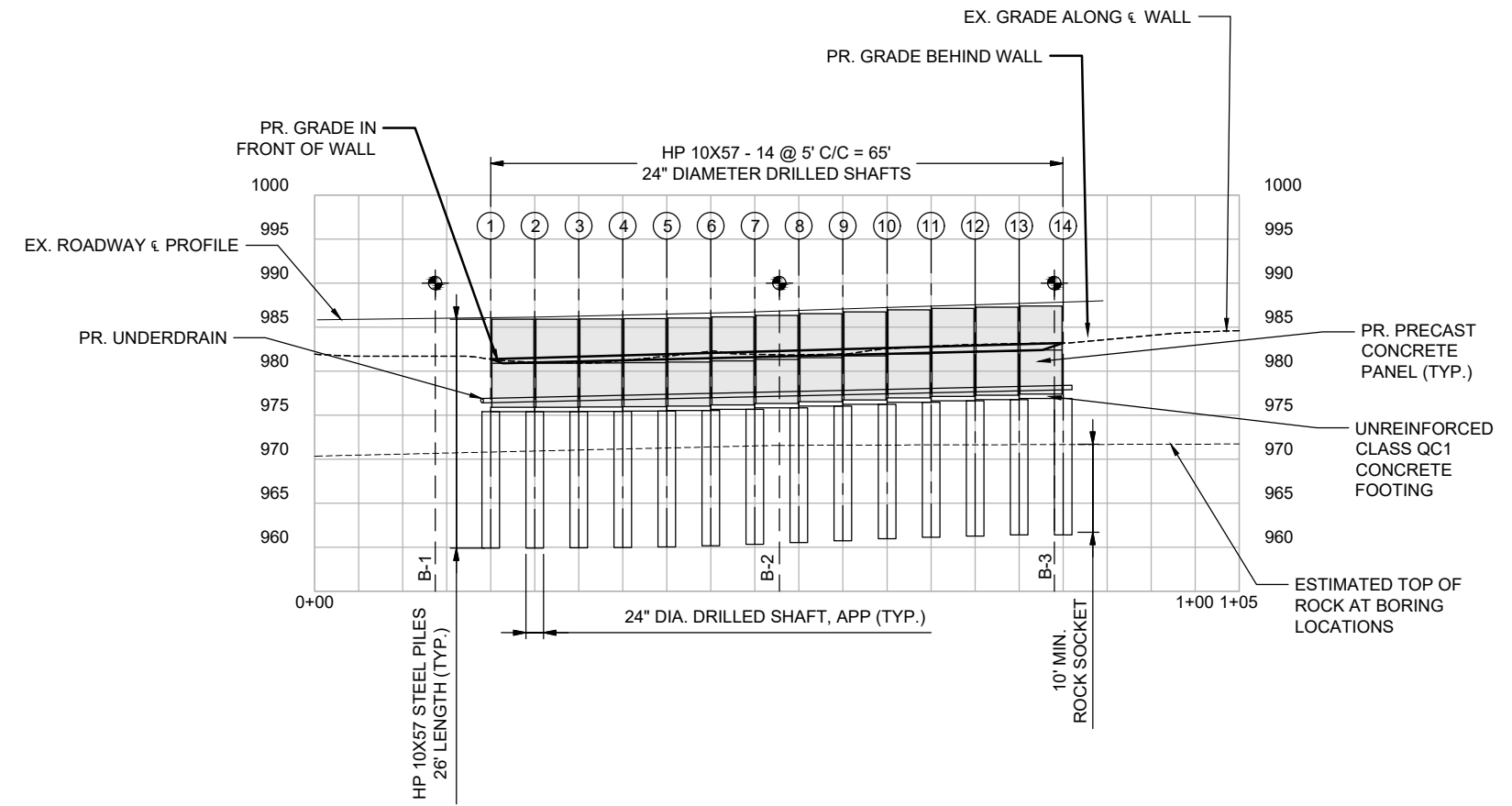
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SV10	522620.5360	2106668.0020	990.04	3/4" REBAR
SV11	522529.2770	2106736.4560	989.21	3/4" REBAR
SV12	522504.0250	2106845.5890	984.29	3/4" REBAR

SOIL BORINGS

BORING	STATION	OFFSET	EX. GROUND SURFACE ELEV.	APPROX. TOP OF ROCK
B-1	159+06.51	4.65' RT	985.68	970.68
B-2	159+45.60	4.16' RT	986.59	971.59
B-3	159+76.85	3.49' RT	987.68	971.68

CR 36 - 3.02 HOOPER RIDGE RD ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QTY.	UNIT
202	PAVEMENT REMOVED	123	SY
254	SUBGRADE COMPACTION	123	SY
301	ASPHALT CONCRETE BASE, PG64-22	14	CY
304	AGGREGATE BASE	28	CY
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	7	CY
511	CLASS QC1 CONCRETE FOOTING	4	CY
518	POROUS BACKFILL WITH GEOTEXTILE FABRIC	37	CY
518	6" PERFORATED CORRUGATED PLASTIC PIPE	73	FT
518	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	20	FT
530	STRUCTURE, MISC.: PRECAST CONCRETE PANEL	26	EA
606	GUARDRAIL, TYPE 5	87.5	FT
606	ANCHOR ASSEMBLY, TYPE T	2	EA
617	COMPACTED AGGREGATE, APP	3	CY



CR 36 PROFILE

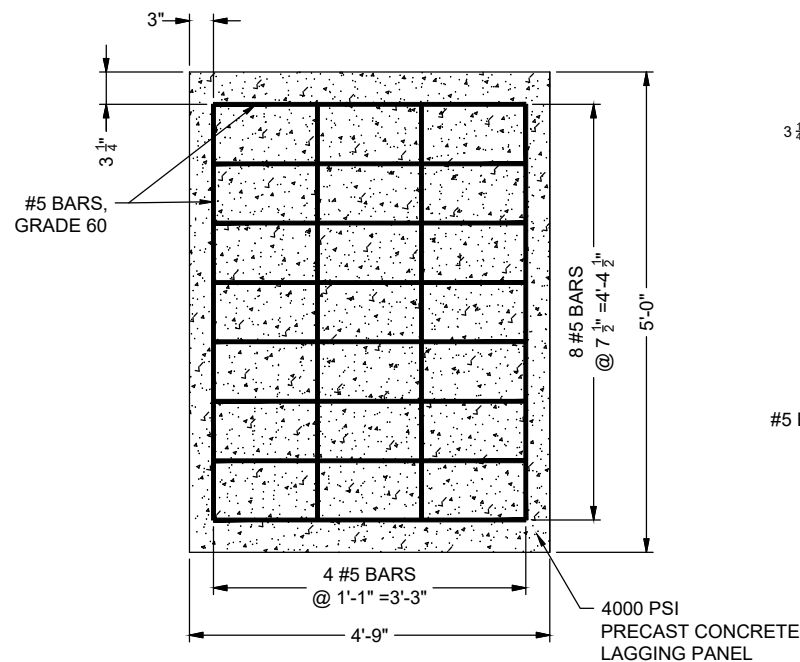
CALCULATED
 TMF
 CHECKED
 CDK

0 5 10 20
 HORIZONTAL
 SCALE IN FEET

CR 36-3.02 HOOPER RIDGE RD
 RETAINING WALL PLAN AND PROFILE

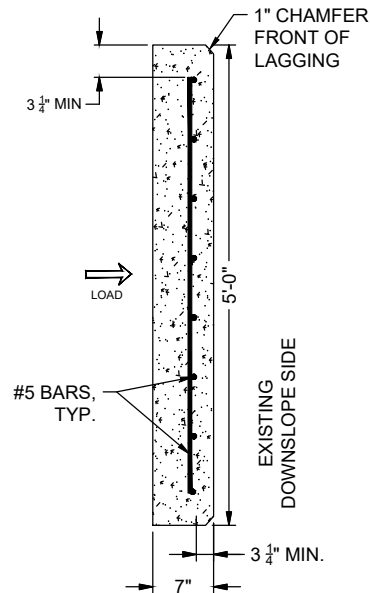
ATH-CR 90 / VAR - 1.69 / VAR
 LANDSLIDE REPAIRS

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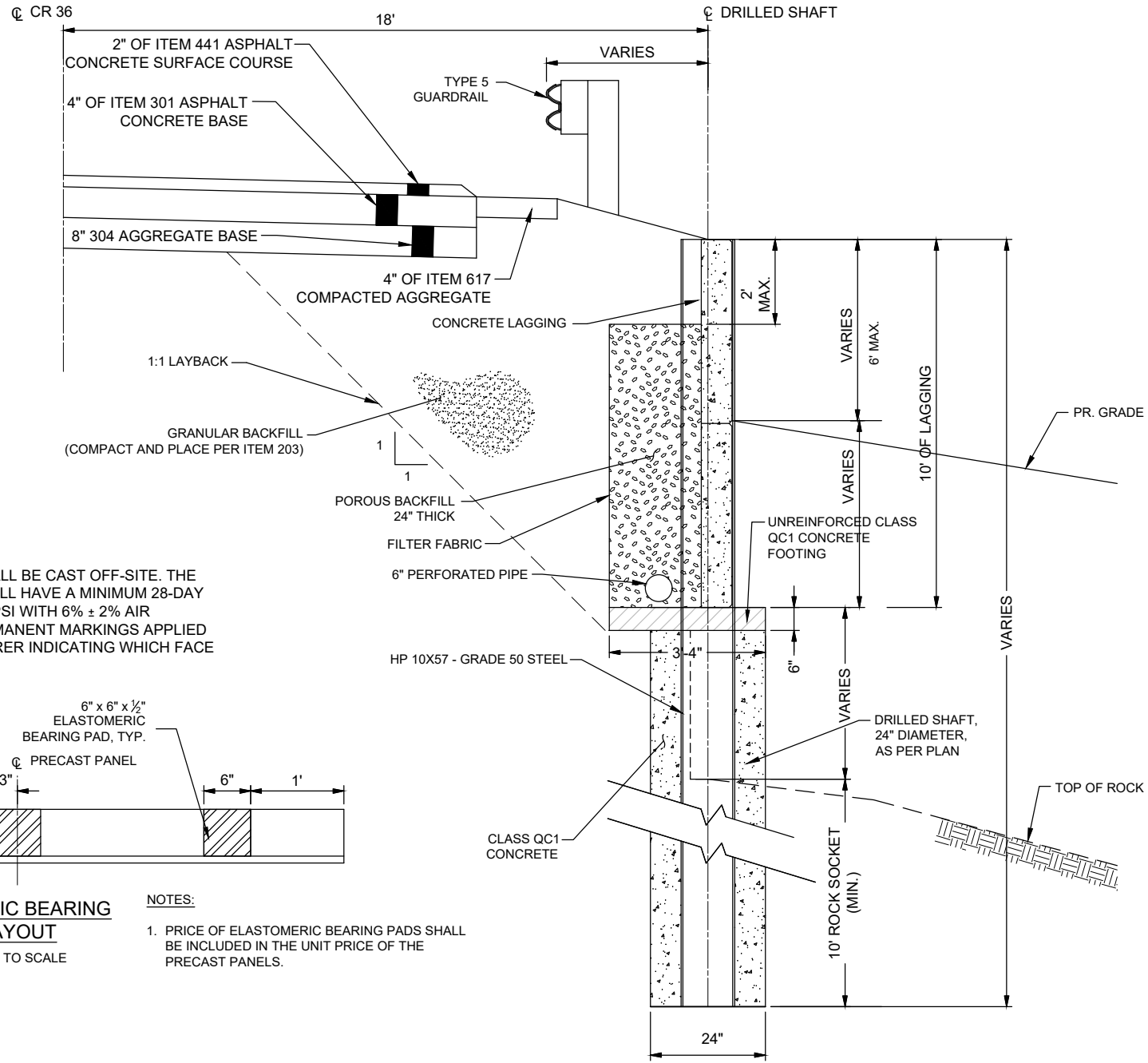
PRECAST CONCRETE LAGGING PANEL DETAIL

SCALE: NOT TO SCALE



NOTES:

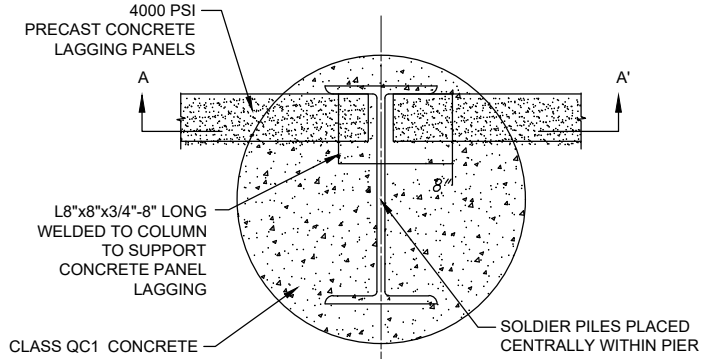
1. PRECAST REINFORCED CONCRETE PANELS SHALL BE CAST OFF-SITE. THE CONCRETE USED TO FABRICATE THE PANELS SHALL HAVE A MINIMUM 28-DAY UNCONFINED COMPRESSIVE STRENGTH OF 4000 PSI WITH 6% ± 2% AIR ENTRAINMENT. EACH PANEL SHALL INCLUDE PERMANENT MARKINGS APPLIED TO THE FACE OF THE PANEL BY THE MANUFACTURER INDICATING WHICH FACE SHALL BE PLACED AGAINST GRANULAR FILL.



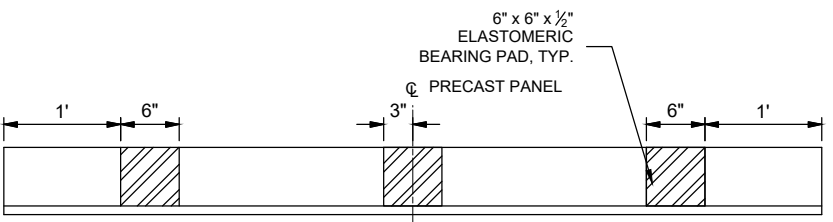
**RETAINING WALL DETAIL
HP 10X57**

NOTES:

1. PRICE OF ELASTOMERIC BEARING PADS SHALL BE INCLUDED IN THE UNIT PRICE OF THE PRECAST PANELS.

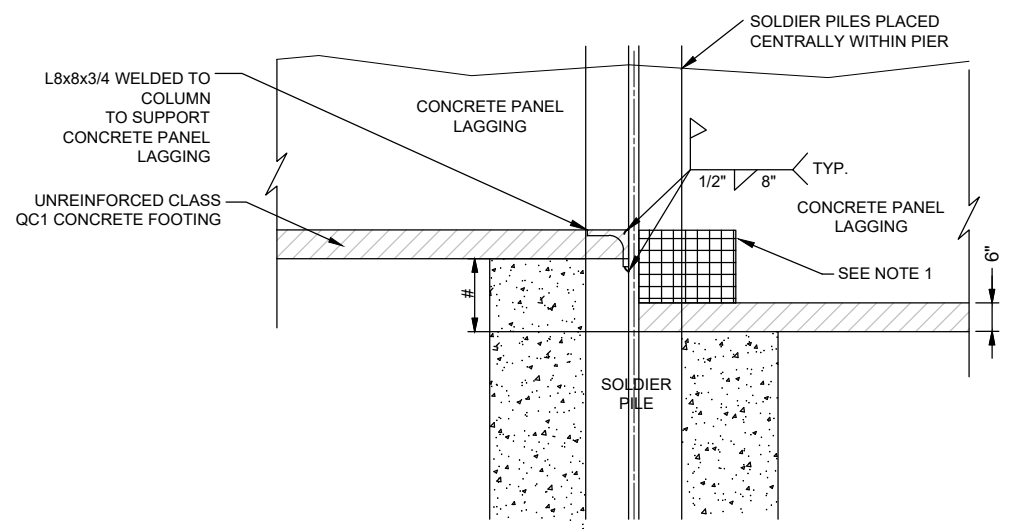


PLAN



ELASTOMERIC BEARING PAD LAYOUT

SCALE: NOT TO SCALE



SECTION A-A'

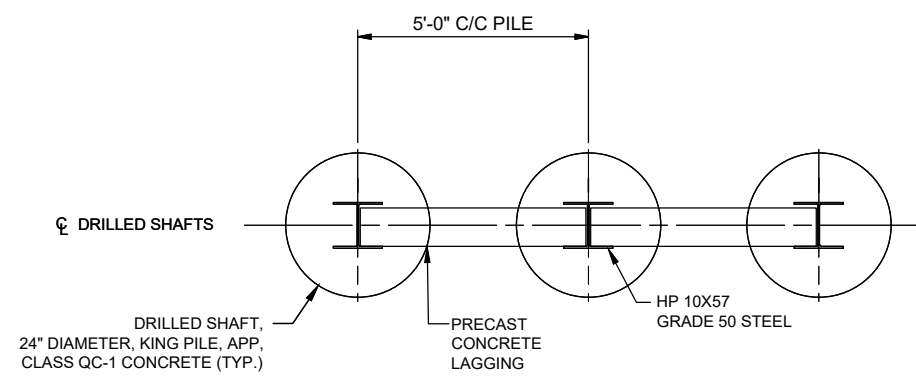
CONCRETE PANEL LAGGING ATTACHMENT TO SOLDIER PILE

SCALE: NOT TO SCALE

NOTES:

1. BLOCK OUT DRILLED SHAFT CONCRETE WITH FOAM INSULATION OR SIMILAR TO PROVIDE SUPPORT TO THE LOWER PANEL. THE COST TO BLOCK OUT THE DRILLED SHAFT WILL BE INCLUDED FOR PAYMENT UNDER ITEM 524-DRILLED SHAFT, 24" DIAMETER, AS PER PLAN.

DRILLED SHAFT EXTENSION SHALL BE INCIDENTAL TO ITEM 524-DRILLED SHAFT, 24" DIAMETER, AS PER PLAN.



CL DRILLED SHAFTS

DRILLED SHAFT, 24" DIAMETER, KING PILE, APP, CLASS QC-1 CONCRETE (TYP.)
PRECAST CONCRETE LAGGING
HP 10X57 GRADE 50 STEEL

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CR 36 - 3.02 HOOPER RIDGE RD DRILLED SHAFT SUMMARY

CALCULATED
TMF
CHECKED
CDK

SHAFT NO.	€ DRILLED SHAFT STATION	€ CR 36 OFFSET	BOTTOM ELEV. OF SHAFT	TOP ELEV. OF SHAFT	TOP ELEV. OF LAGGING WALL	ESTIMATED TOP ELEV. OF ROCK	ITEM 524 DRILLED SHAFTS, 24" DIA., APP	ITEM 507 STEEL PILES, MISC.: SOLDIER PILES HP 10X57
							(FT)	(FT)
1	0+20	159+12.83, 18.00 RT	959.90	975.40	985.90	970.83	15.5	26.0
2	0+25	159+17.83, 18.00 RT	959.90	975.40	985.90	970.94	15.5	26.0
3	0+30	159+22.83, 18.00 RT	959.95	975.45	985.95	971.06	15.5	26.0
4	0+35	159+27.83, 18.00 RT	959.99	975.49	985.99	971.18	15.5	26.0
5	0+40	159+32.83, 18.00 RT	960.06	975.56	986.06	971.29	15.5	26.0
6	0+45	159+37.83, 18.00 RT	960.17	975.67	986.17	971.41	15.5	26.0
7	0+50	159+42.83, 18.00 RT	960.34	975.84	986.34	971.53	15.5	26.0
8	0+55	159+47.83, 18.00 RT	960.55	976.05	986.55	971.60	15.5	26.0
9	0+60	159+52.83, 18.00 RT	960.76	976.26	986.76	971.61	15.5	26.0
10	0+65	159+57.83, 18.00 RT	960.98	976.48	986.98	971.63	15.5	26.0
11	0+70	159+62.83, 18.00 RT	961.14	976.64	987.14	971.64	15.5	26.0
12	0+75	159+67.83, 18.00 RT	961.28	976.78	987.28	971.65	15.5	26.0
13	0+80	159+72.83, 18.00 RT	961.42	976.92	987.42	971.67	15.5	26.0
14	0+85	159+77.83, 18.00 RT	961.42	976.92	987.42	971.68	15.5	26.0

CR 36-3.02 HOOPER RIDGE RD
DRILLED SHAFT SUMMARY

ATH-CR 90 / VAR - 1.69 / VAR
LANDSLIDE REPAIRS

TOTALS CARRIED TO GENERAL SUMMARY

217

364

17
17

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