

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

AMERICAN ELECTRIC POWER (DISTRIBUTION)
38831 STATE ROUTE 7
REEDSVILLE, OHIO 45772
MR. CLARKE SAUNDERS
740-985-3054

AT&T OHIO
7201 FAR HILLS AVENUE
DAYTON, OHIO 45459
MR. ALAN STUTES
937-708-1026

HIGHLAND COUNTY WATER COMPANY
P. O. BOX 940
HILLSBORO, OHIO 45133
MR. DAN CUTLER
937-393-4281, EXT. 101

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT LDP
MONUMENT TYPE: TYPE B, REBAR AND CAP VERTICAL POSITIONING

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAVD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHDOT LDP - HIGHLAND COUNTY SURV. FT
COMBINED SCALE FACTOR: 1.00000000
ORIGIN OF COORDINATE SYSTEM: (0,0)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

CLEARING AND GRUBBING

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.

WORK 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:

659, TOPSOIL	373 CU. YD.
659, SEEDING AND MULCHING	3356 SQ. YD.
659, REPAIR SEEDING AND MULCHING	168 SQ. YD.
659, COMMERCIAL FERTILIZER	0.45 TON
659, LIME	0.69 ACRES
659, WATER	18 M. GAL.

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

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING	2 HOUR
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ITEM 605 - AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT 50 FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS, STAGGERED SO THAT EACH DRAIN IS 25 FEET FROM THE ADJACENT DRAIN ON THE OPPOSITE SIDE, AND AT 25 FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS. AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

SR-73					
1109+00	LT	6'	1112+00	LT	7'
1109+25	LT	6'	1112+25	RT	7'
1109+50	LT	7'	1112+50	LT	7'
1109+75	LT	8'	1114+00	RT	10'
1110+00	LT	8'	1114+25	LT	5'
1110+25	LT	8'	1114+50	RT	7'
1110+50	LT	7'	1114+75	LT	7'
1110+75	LT	7'	1115+00	RT	7'
1111+00	LT	7'	1115+25	LT	7'
1111+25	LT	7'	1115+50	RT	7'
1111+37.47	LT	7'	1115+75	RT	7'
1111+50	LT	7'	1116+00	RT	6'
1111+75	RT	6'	1116+25	RT	5'
TOTAL = 180'					

(L.P.)

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIP FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

REVIEW OF 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.

FARM DRAINS

PROVIDE UNOBSTRUCTED OUTLETS TO ALL FARM DRAINS ENCOUNTERED DURING CONSTRUCTION. REPLACE EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY WITHIN THE (CONSTRUCTION) LIMITS WITH ITEM 611, CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

OUTLET EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES INTO THE ROADWAY.

DITCH USING ITEM 611, TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION IS ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. INTERCEPT LATERAL FIELD TILES WHICH CROSS THE ROADWAY WITH ITEM 611, TYPE E CONDUIT, AND CARRY IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS IS DETERMINED BY THE ENGINEER AND PAYMENT MADE ON FINAL MEASUREMENTS.

PROVIDE EROSION CONTROL PADS AT THE OUTLET END OF ALL FARM DRAINS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE.

PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES IS INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED BELOW:

611, 6" CONDUIT, TYPE E	30 FT
611, 6" CONDUIT, TYPE F	30 FT

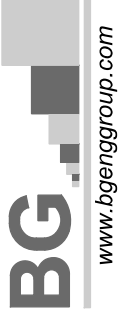
REMOVAL MISC.: CONCRETE GUTTER

REMOVAL OF THE EXISTING CONCRETE GUTTER LOCATED ON THE RIGHT SIDE OF SR-73 SHALL BE PAID FOR UNDER THE SQUARE FOOT ITEM 202, REMOVAL MISC.: CONCRETE GUTTER. PAYMENT FOR ALL LABOR, EQUIPMENT, AND DISPOSAL OF MATERIALS SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE.

CONTROL POINTS - Ȣ CONSTRUCTION SR-73						
CONTROL POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP#1	1110+76.39	18.79' LT	295205.153	184004.598	809.45	5/8" REBAR & CAP
CP#2	1118+12.35	18.73' RT	294645.902	184479.348	831.94	5/8" REBAR & CAP
CP#3	1114+99.35	19.07' RT	294878.090	184275.452	816.48	5/8" REBAR & CAP

CENTERLINE REFERENCE - Ȣ CONSTRUCTION SR-73				
STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
1103+80.00	0.00'	295811.087	183709.097	P.O.T.
1104+91.65	0.00'	295700.632	183725.402	P.C.
1107+77.24	45.68' RT	295418.101	183767.108	P.I.
1110+43.55	0.00'	295215.256	183968.146	P.T.
1115+99.66	0.00'	294820.271	184359.612	P.C.
1118+69.54	30.72' LT	294628.586	184549.589	P.I.
1121+30.14	0.00'	294373.055	184636.408	P.T.
1123+28.61	0.00'	294185.127	184700.259	P.O.T.

DESIGN AGENCY



www.bgeingroup.com
5560 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER

JPK

REVIEWER

RG 09-18-25

PROJECT ID

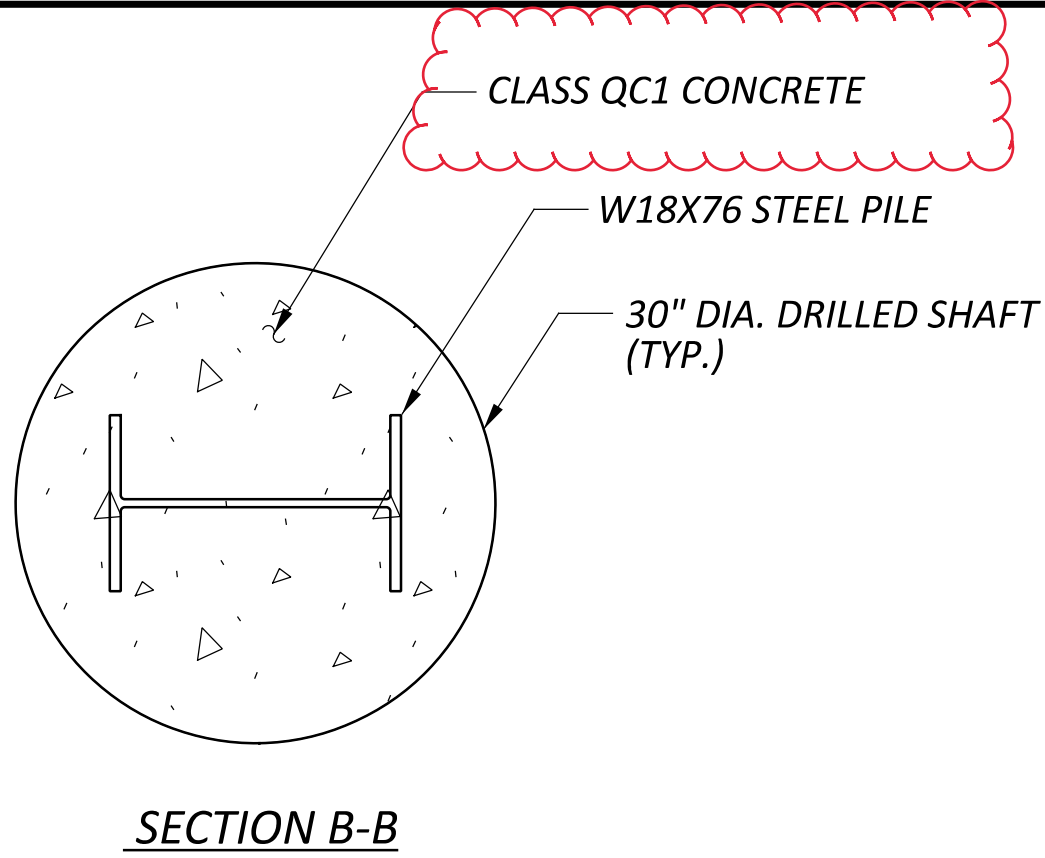
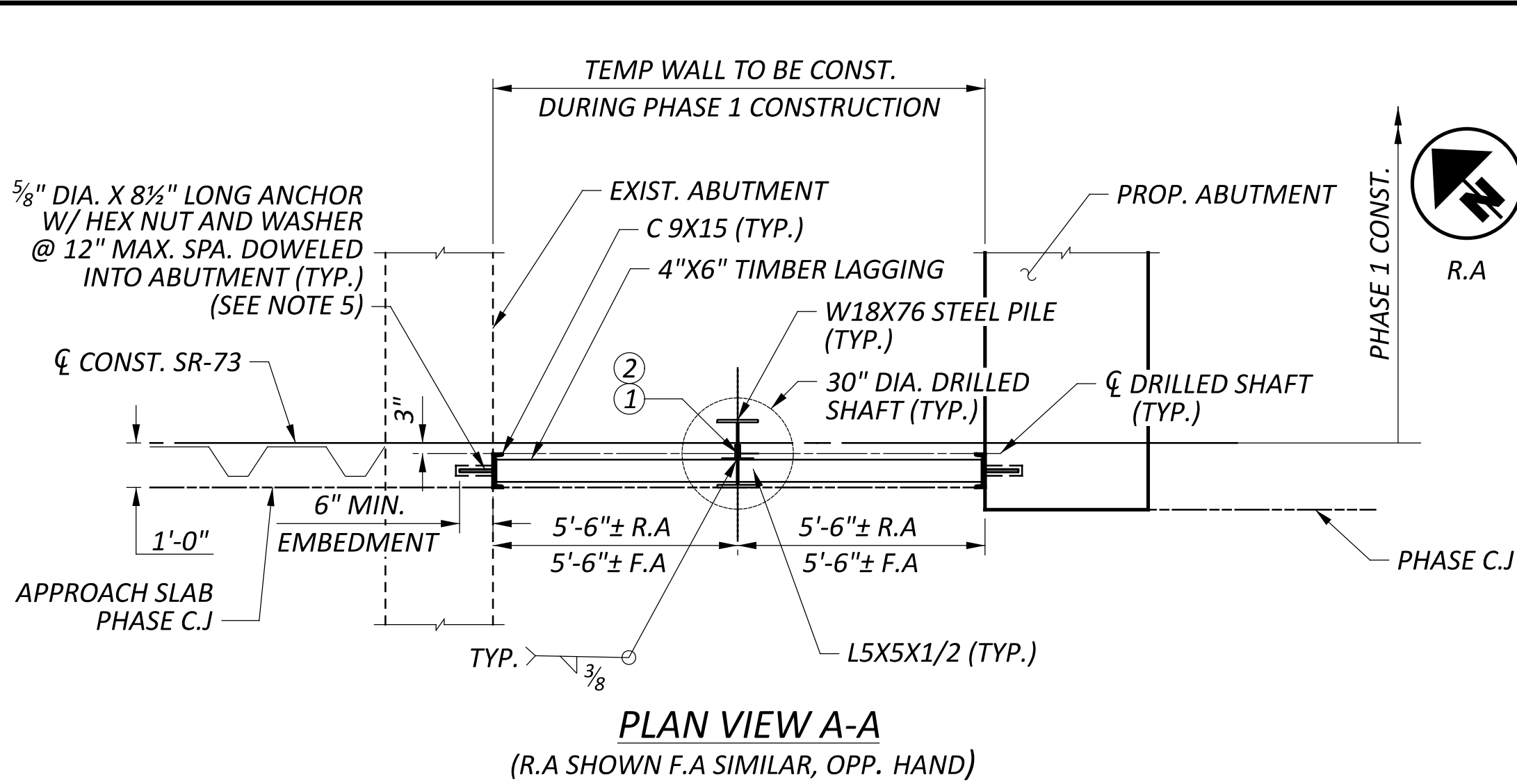
119769

SHEET

P.6

TOTAL

64

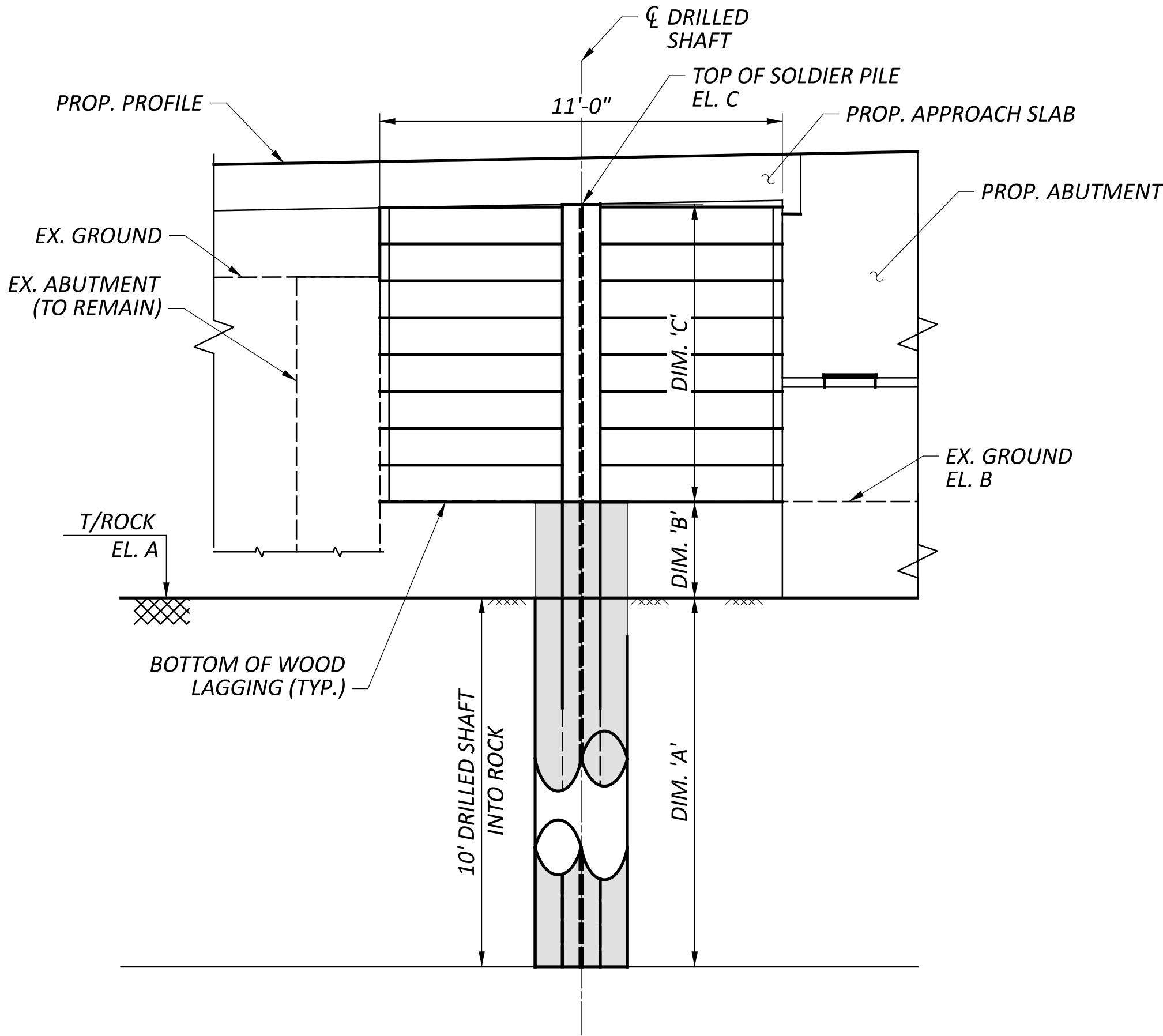


NOTES:

1. W STEEL PILE AND STEEL CHANNEL SHALL BE ASTM A709, GRADE 50, YIELD STRENGTH 50 KSI.
2. DRILLED SHAFT CONCRETE SHALL BE CLASS QC1, COMPRESSIVE STRENGTH 4.0 KSI.
3. ALL COSTS ASSOCIATED WITH TEMPORARY SHORING, INCLUDING ALL LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS NECESSARY TO FURNISH, INSTALL, AND REMOVE TEMPORARY SHORING AS SHOWN IN THE PLANS ARE INCLUDED WITH ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN FOR PAYMENT.
4. EXCAVATE THE HOLE FOR THE DRILLED SHAFT WITHIN 3 INCHES OF THE PLAN LOCATION. PLACE THE SOLDIER PILE WITHIN THE HOLE SO IT IS VERTICAL AND NOT INCLINED MORE THAN 1 INCH BETWEEN TOP TO BOTTOM. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS. 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 DURING CONCRETE PLACEMENT. CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT
5. THE 5/8\"/>

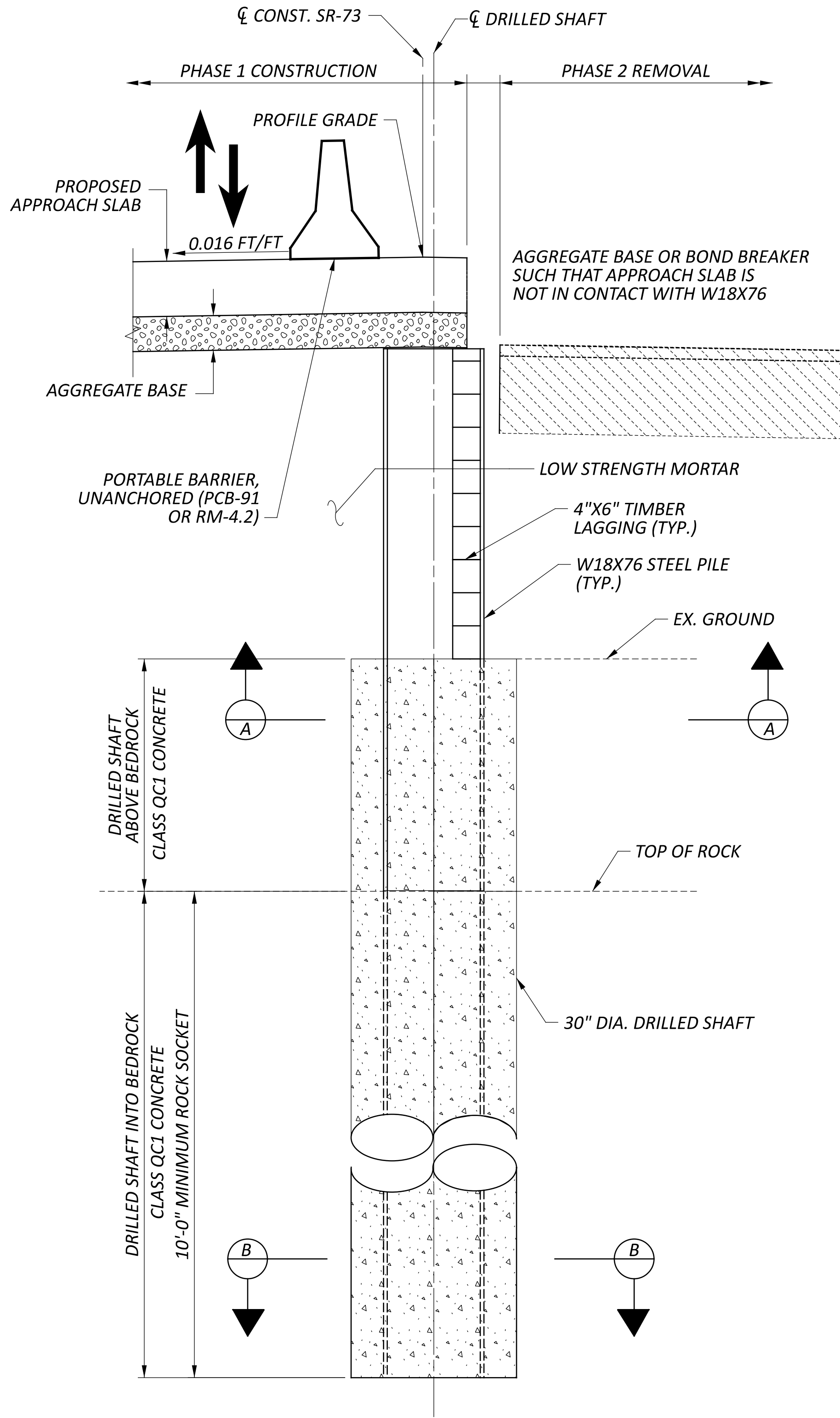
LEGEND:

- SOLDIER PILE DESIGNATION




REAR ABUTMENT SECTION
(F.A SIMILAR, OPP. HAND)

DRILLED SHAFT NUMBER	STATION	OFFSET	EL. A	EL. B	EL. C	DIM. 'A'	DIM. 'B'	DIM. 'C'	LENGTH OF W18X76
			INTERPOLATED TOP OF ROCK	ESTIMATED GROUND EL.	TOP OF SOLDIER PILE EL.	30" DRILLED SHAFT INTO THE ROCK (FT.)	30" DRILLED SHAFT ABOVE THE ROCK (FT.)	APPROXIMATE WALL HEIGHT (FT.)	
1	1112+55.32	0.24' RT.	796.60	805.00	811.20	10.00	8.40	6.20	24.60
2	1113+79.71	0.24' RT.	799.20	807.00	813.90	10.00	7.80	6.90	24.70



TYPICAL WALL SECTION
(LOOKING UPSTATION)

SHORING WALL DETAILS
BRIDGE NO. HIG-00073-21.110
SR-73 OVER OHIO BRUSH CREEK

SFN	
3601750	
DESIGN AGENCY	
 BG GROUP www.bggroupp.com 5960 WILCOX PLACE, SUITE C DUBLIN, OHIO 43016	
DESIGNER	CHECKER
LA	RG
REVIEWER	
GTB 03/20/25	
PROJECT ID	
119769	
SUBSET	TOTAL
9	27
SHEET	TOTAL
P.39	64