SHORING STRUCTURAL NOTES

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00100 - CODE REQUIREMENTS

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE, AS AMENDED BY THE CITY OF PUYALLUP.

00101 - EASEMENTS

ALL EASEMENTS, IF REQUIRED, SHALL BE THE RESPONSIBILITY OF THE OWNER.

00200 - DESIGN LOADS

DESIGN LOADS FOR THE SHORING SYSTEM ARE AS SPECIFIED IN THE GEOTECHNICAL REPORT:
PREPARED BY: HART CROWSER
REPORT NO. 0205193-000
DATED MARCH 11, 2022

AND ARE AS INDICATED IN THE SHORING DESIGN PARAMETERS.

00201 – SHORING SYSTEM

THE SHORING SYSTEM IS PERMANENT. TIEBACKS ARE TEMPORARY AND SHALL BE DE-TENSIONED AFTER BUILDING FOUNDATIONS AND SLAB ON GRADE ARE COMPLETED AND STRUCTURAL BACKFILL PLACED AGAINST SHORING UP TO SLAB ON GRADE FINAL GRADE ELEVATIONS. PLANTING SOIL BERM ABOVE SLAB ON GRADE ELEVATIONS RE LANDSCAPE. RE SECTION 00601 RE CORROSION PROTECTION REQUIREMENTS.

00300 – UTILITIES, ADJACENT PROPERTIES AND SPECIAL CONDITIONS

STABILITY AND EROSION PROTECTION OF EXISTING AND CUT SLOPES, AND THE COORDINATION OF THE EXCAVATION, SHORING AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL SIDE SEWERS CROSSING INTO THE EXCAVATION SHALL BE FIELD LOCATED PRIOR TO DRILLING AND EXCAVATION AND PERMANENTLY OR TEMPORARILY PLUGGED DURING CONSTRUCTION. ACTIVE SIDE SEWERS AND OTHER UTILITIES ON ADJACENT PROPERTY SHALL BE MAINTAINED IN OPERATING CONDITION DURING CONSTRUCTION. LOCATE AND DISCONNECT ALL UNDERGROUND POWER, COMMUNICATION, GAS AND WATER LINES CROSSING INTO THE EXCAVATION AREA PRIOR TO DRILLING AND EXCAVATION. CONTRACTOR SHALL VERIFY OVERHEAD CLEARANCES PRIOR TO MOBILIZATION AND CONSTRUCTION.

UTILITIES REFERENCED ON THE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. INDICATED UTILITY LOCATIONS ARE ESTIMATED BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. SEGMENTS OF ABANDONED UTILITIES TO BE REMOVED HAVE NOT BEEN SHOWN ON THE PLANS. THE CONTRACTOR SHALL POTHOLE OR USE OTHER MEANS TO VERIFY THE EXACT LOCATION, DEPTH OF BURRIAL (TOP AND BOTTOM OF UTILITY) AND WIDTH OF ALL UNDERGROUND UTILITIES OR STRUCTURES TO ENSURE ADEQUATE CLEARANCE FROM SOIL ANCHORS PRIOR TO SHORING AND TIEBACK INSTALLATION. THE TIEBACKS SHALL BE NO CLOSER THAN THREE FEET HORIZONTAL AND BELOW, AND FIVE FEET ABOVE ANY EXISTING UTILITY MAIN AND FACILITIES. HORIZONTAL LOCATION AND VERTICAL PROFILE FOR EACH UTILITY AND FACILITIES SHALL BE DETERMINED AT A MINIMUM OF EVERY 50 FEET ALONG THE UTILITY LINE AND AT EVERY JUNCTION STRUCTURE AND CHANGE OF ALIGNMENT.

00301 - DRAINAGE CONTROL

THE CONTRACTOR SHALL TAKE MEASURES TO CONTROL ALL SURFACE WATER RUNOFF FLOW AND FLOWS FROM EXISTING SUBSURFACE DRAINAGE FEATURES INCLUDING PERCHED WATER. IN NO CASE SHALL THE CONTRACTOR ALLOW THE SHORING WALL SYSTEM TO BE EXPOSED TO HYDROSTATIC PRESSURES OR ALLOW SURFACE WATER TO FLOW INTO THE EXCAVATION

00302 - GROUNDWATER

THE GEOTECHNICAL REPORT INDICATES THAT THE GROUNDWATER TABLE IS BELOW THE BOTTOM OF EXCAVATION ELEVATION AND LOCAL PERCHED GROUNDWATER MAY BE ENCOUNTERED. A DEWATERING SYSTEM, IF REQUIRED, SHALL BE INSTALLED AND SHALL COMMENCE AND BE IN OPERATION PRIOR TO SHORING WORK AND REMAIN IN OPERATION UNTIL DECOMMISSIONING IS APPROVED BY BOTH THE GEOTECHNICAL ENGINEER AND SHORING DESIGN ENGINEER. REFER TO THE GEOTECHNICAL REPORT.

00400 - PRE-CONSTRUCTION MEETING

A PRE-CONSTRUCTION MEETING WITH THE BUILDING OFFICIAL AND SEPARATE MEETINGS WITH THE DEPARTMENT OF TRANSPORTATION SHALL BE REQUIRED PRIOR TO THE START OF SHORING INSTALLATION. ATTENDEES SHALL INCLUDE REPRESENTATIVES OF THE OWNER, GENERAL CONTRACTOR, EXCAVATION AND SHORING SUBCONTRACTORS, THE GEOTECHNICAL ENGINEER, SURVEYORS, SHORING STRUCTURAL ENGINEER, ETC.

00401 - MONITORING AND QUALITY CONTROL

THE OWNER SHALL PROVIDE FULL TIME OBSERVATION MONITORING OF THE SHORING WALLS, ADJACENT GROUND SURFACES, MOVEMENT SENSITIVE UTILITIES, BUILDINGS AND STRUCTURES. MONITORING SHALL INCLUDE BOTH VERTICAL AND HORIZONTAL MOVEMENT. THE REQUIRED MONITORING SCHEDULE IS AS OUTLINED BELOW.

A VISUAL AND PHOTOGRAPHIC BASELINE SURVEY SHALL BE MADE OF ADJACENT BUILDINGS AND PAVEMENT PRIOR TO CONSTRUCTION.

A LICENSED SURVEYOR SHALL ESTABLISH BENCHMARKS AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER AND SHALL SURVEY THESE MARKS PRIOR TO THE COMMENCEMENT OF EXCAVATION. ONCE THE SOLDIER PILES ARE IN PLACE, MONITORING POINTS SHALL BE ESTABLISHED AT THE TOP OF EVERY OTHER PILE. STATIONARY BENCHMARKS SHALL BE SET AT LEAST A DISTANCE UP TO THE WALL HEIGHT, H, BEHIND THE WALL FACE AT A SPACING NOT TO EXCEED 50 FEET ON CENTER. A BASELINE SURVEY SHALL BE PERFORMED BEFORE EXCAVATION COMMENCES. DISPLACEMENTS SHALL BE SURVEYED TWICE EVERY WEEK UNTIL THE PERMANENT STRUCTURE IS COMPLETED UP TO ADJACENT STREET GRADE AND SUCH TIME THAT THE PROJECT GEOTECHNICAL ENGINEER AND THE CITY DETERMINE NO FURTHER MOVEMENT WILL OCCUR. A LICENSED SURVEYOR HIRED BY THE OWNER (NOT THE CONTRACTOR) SHALL PERFORM THE SURVEY AT LEAST ONCE A WEEK.

AFTER THE SHORING SYSTEM HAS BEEN INSTALLED AND THE EXCAVATION IS COMPLETE, AND IF THE MONITORING DATA INDICATES NO OR LITTLE ADDITIONAL MOVEMENT, THE SURVEY FREQUENCY CAN BE DECREASED AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND REVIEWED BY BUILDING OFFICIAL. SURVEYING SHALL CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AS BRACES) IS COMPLETED UP TO ADJACENT GRADES.

SURVEY REPORTS SHALL BE TRANSMITTED TO THE GEOTECHNICAL ENGINEER AND GENERAL CONTRACTOR WITHIN 24 HOURS OF SURVEY. WEEKLY REPORTS SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER, SHORING STRUCTURAL ENGINEER, GENERAL CONTRACTOR, CITY BUILDING DEPARTMENT AND CITY DOT FOR REVIEW. THE GEOTECHNICAL ENGINEER SHALL PROVIDE A GRAPHICAL REPRESENTATION OF WALL MOVEMENT VERSUS TIME TO THE CITY BUILDING DEPARTMENT AND CITY DOT. THE GEOTECHNICAL ENGINEER SHALL NOTIFY THE SHORING ENGINEER, THE GENERAL CONTRACTOR, CITY BUILDING DEPARTMENT AND CITY DOT, IMMEDIATELY AND DIRECTLY, IF ANY UNUSUAL OR SIGNIFICANTLY INCREASED MOVEMENT OCCURS.

THE SURVEYOR AND GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER OF RECORD AND SHORING STRUCTURAL ENGINEER IMMEDIATELY AND DIRECTLY IF MORE THAN 0.5 INCH OF DISPLACEMENT OCCURS. AT THAT TIME, THE GEOTECHNICAL ENGINEER, AND SHORING DESIGN ENGINEER SHALL PREPARE A REMEDIAL PLAN. REMEDIAL MEASURES SHALL BE IMPLEMENTED IMMEDIATELY TO PREVENT DEFLECTIONS FROM EXCEEDING 1.0 INCH. FOR THE SOUTH WALL SHORING IMMEDIATELY ADJACENT TO EXISTING STRUCTURES, THE LIMIT OF TOTAL MOVEMENT IS 0.5 INCHES.

00405 – GEOTECHNICAL OBSERVATION, SPECIAL INSPECTION AND TESTING

CONTINUOUS OBSERVATION BY THE GEOTECHNICAL ENGINEER OR GEOTECHNICAL INSPECTOR IS REQUIRED FOR THE SHORING SYSTEM INSTALLATION INCLUDING DRILLING OF PILE HOLES, INSTALLATION OF SOLDIER PILES AND LEAN MIX PILE GROUT, TIEBACK INSTALLATION, GROUTING AND LOAD TESTING. A COMPLETE AND ACCURATE RECORD SHALL KEPT OF ALL PILE DEPTHS, QUANTITY OF STRUCTURAL AND/OR LEAN MIX GROUT PER PILE, AND ANY UNUSUAL CONDITIONS ENCOUNTERED. THE CONTRACTOR SHALL PROVIDE TESTING EQUIPMENT THAT HAS BEEN CALIBRATED IN THE PAST 60 DAYS. MEASUREMENTS OF ANCHOR MOVEMENT SHALL BE OBTAINED WITH EQUIPMENT ACCURATE TO 0.001 INCH.

SPECIAL INSPECTION SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR. SPECIAL INSPECTION IS REQUIRED FOR SHORING WELDING, IF ANY, TIEBACK GROUT STRENGTH AND CORROSION PROTECTION OF PERMANENT PILES. TESTING OF LEAN MIX GROUT IS NOT REQUIRED. REFERENCE THE SPECIAL INSPECTION AND TESTING SCHEDULE.

GROUT CUBE SAMPLES SHALL BE OBTAINED AND LABORATORY TESTED PRIOR TO ANCHOR TESTING.

00600 - MATERIALS

LEAN MIX GROUT	1 1/2 SACK MIX	
STRUCTURAL GROUT	f'c = 3000 PSI (@ 5 DAYS), 9 SACK MIN. PUMPABLE, 8" MINIMUM SLUMP	
STRUCTURAL STEEL	WF SECTIONS	ASTM A992 Fy = 50 KSI
	CHANNELS	ASTM A36 Fy = 36 KSI
	STEEL ANGLES	ASTM A36 Fy = 36 KSI
	PLATE MATERIAL	ASTM A36 Fy = 36 KSI
	STRUCTURAL PIPE	ASTM A53 Fy = 35 KSI GRADE B
	STRUCTURAL HSS	ASTM A500 Fy = 42 KSI GRADE B
	STRUCTURAL BOLTS	ASTM A 325-N
	WELDED HEADED STUDS (WHS) ASTM A -108	
	WELDING ELECTRODES E70-XX WITH CHARPY V-NOTCH TOUGHNESS OF AT LEAST 20 FT-LBS AT 0 DEGREES F.	
TIMBER LAGGING	DF-L NO. 2 OR BETTER 4X12 TYPICAL UNO. RE. ELEVATION	
ANCHOR TENDONS	0.6 IN. DIA., 7-WIRE STRAND ASTM A416 LOW RELAXATION Fy = 270 KSI Pu = 58.5 KIPS	

TIMBER LAGGING SHALL BE PRESERVATIVE TREATED WITH WATER BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U1 (A OR F) TO A MINIMUM RETENTION OF 0.4 LBS/CU. FT. (0.21 LBS/CU. FT. FOR CA-B) ANY SAWN ENDS OF SUCH TREATED LAGGING SHALL BE FIELD TREATED WITH TWO BRUSHED COATS OF THE SAME PRESERVATIVE. LAGGING SHALL BE GAPPED PER THE GEOTECHNICAL ENGINEER TO PERMIT SEEPAGE.

DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC "STEEL CONSTRUCTION MANUAL AND THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 360 LATEST EDITION.

00601 - CORROSION PROTECTION

THE SHORING SYSTEM IS PERMANENT. ALL PERMANENT SOLDIER PILE EXPOSED SURFACES TWO FEET BELOW THE EXCAVATION LINE AND ABOVE SHALL HAVE A 5 MIL THICKNESS OF ZINC CLAD II ETHYL SILICATE INORGANIC ZINC-RICH COATING OR EQUAL. ANY COATING REMOVED FOR WELDING SHALL RECEIVE TWO FIELD COATS OF COATING NOTED ABOVE.

00602 - WELDING

WELDING SHALL CONFORM TO AWS D1.4-11 "STRUCTURAL WELDING CODE." WELDING ELECTRODES SHALL BE E70XX. ALL WELDING SHALL BE PERFORMED BY WABO AND AWS CERTIFIED WELDERS. ALL COMPLETE PENETRATION WELDS (CP) SHALL BE ULTRASONIC TESTED. ALL SINGLE PASS FILLET WELDS SHALL BE VISUALLY INSPECTED. MINIMUM WELD SIZE IS 1/4" CONTINUOUS FILLET.

00603 - SUBMITTALS

SUBMITTALS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION:

1. CONSTRUCTION SEQUENCE NARRATIVE & DESCRIPTION INCLUDING EQUIPMENT LIST AND KEY PERSONNEL.
2. LEAN GROUT AND STRUCTURAL GROUT MIX DESIGNS
3. STRUCTURAL STEEL AND EMBEDDED ITEMS.

00604 - EXCAVATION

THE DISPOSAL SITE FOR EXCAVATION SPOILS, INCLUDING FACILITY NAME AND ADDRESS SHALL BE PROVIDED TO THE BUILDING DEPARTMENT SITE DEVELOPMENT INSPECTOR AT THE PRECONSTRUCTION MEETING.

EXCAVATION SHALL PROCEED TO A DEPTH NO GREATER THAN 2'-0" BELOW THE ELEVATION OF ANY TIEBACK BEFORE STRESSING OF THAT AND ADJACENT TIEBACKS. LOCAL EXCAVATION AT A SOLDIER PILE IS ALLOWED TO A 2'-0" DEPTH AND A 2'-0" WIDTH AT THE TIEBACK FOR INSTALLATION. TIEBACK MUST BE INSTALLED AND STRESSED BEFORE MAKING A SIMILAR LOCAL EXCAVATION AT AN ADJACENT SOLDIER PILE.

INSTALLED ANCHORS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PROCEEDING WITH EXCAVATION.

ANY VOIDS BETWEEN THE FACE OF THE EXCAVATION AND THE LAGGING SHALL BE FILLED IMMEDIATELY WITH A PERMEABLE, FREE DRAINING MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER. THIS SHALL INCLUDE CDF OR LEAN CONCRETE GROUT BEHIND THE UPPER TWO-THIRDS OF THE CUT FACE OF THE SHORING SYSTEM IF APPROVED BY THE GEOTECHNICAL ENGINEER. NO EXCAVATION FOR A LOWER LIFT SHALL PROCEED UNTIL THE INSTALLATION OF THE LIFT ABOVE IS COMPLETED, INCLUDING BACKFILLING BEHIND THE LAGGING.

THE CONTRACTOR SHALL LIMIT THE OPEN FACE OF THE EXCAVATION TO 4 FEET VERTICAL, UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL EXCAVATE THE WALL FACE AND INSTALL THE TIMBER LAGGING IN SUCH A MANNER AS TO MAINTAIN A SAFE WORK AREA AND AVOID EXCESSIVE SLOUGHING, CAVING OR OVERBREAK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS USED FOR TEMPORARY FACE STABILITY AND MEANS TO CONTROL EXCESSIVE OVERBREAK, AS APPROVED BY THE GEOTECHNICAL ENGINEER. EXCAVATION SHALL PROCEED TO A BOTTOM OF EXCAVATION (BOE) DEPTH NO GREATER THAN SHOWN ON THE PLANS.

00605 - SLOPE PROTECTION

THE CONTRACTOR SHALL PROTECT CUT SLOPES WITH PLASTIC IF CONSTRUCTION OCCURS DURING WET WEATHER. PLASTIC SHEETING SHALL BE OVERLAPPED AT LEAST 12 INCHES. SURFACE DRAINAGE AROUND THE EXCAVATION SHALL BE CONTROLLED BY THE CONTRACTOR TO PREVENT WATER FROM FLOWING INTO THE EXCAVATION. CUT SLOPES SHALL BE EXCAVATED TO INTERSECT THE BACKSIDE OF THE DRILLED HOLE.

CLEAR PLASTIC SHALL HAVE A MINIMUM THICKNESS OF 6 MIL AND SHALL MEET THE REQUIREMENTS OF WSDOT SPECIFICATION M41-10 SECTION 9-14.5.

CONTRACTOR SHALL MONITOR SLOPES FOR ANY SIGNS OF DISTRESS AND TAKE CORRECTIVE ACTIONS AS REQUIRED BY THE GEOTECHNICAL ENGINEER.

00700 - SOLDIER PILES

SOLDIER PILES SHALL BE INSTALLED IN HOLES SIZE PER ELEVATION AND SCHEDULE, AND BACKFILLED WITH LEAN MIX CONCRETE, TYPICAL U.N.O. REFER TO SHORING ELEVATIONS. ALL HOLES SHALL BE DRILLED IN AN ACCEPTABLE MANNER WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES TO THE GEOTECHNICAL ENGINEERS SATISFACTION.

SHOULD GROUNDWATER OR CAVING SOIL CONDITIONS BE ENCOUNTERED, TEMPORARY CASING OR OTHER APPROVED METHODS SHALL BE USED AS REQUIRED FOR PILE INSTALLATION TO KEEP THE SIDEWALLS OPEN WITHOUT SIGNIFICANT SLOUGHING OR CAVING. WHEN CASING HOLES ARE REQUIRED, THE CASING SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND ALL INSTALLATION AND REMOVAL STRESSES, TO PREVENT DISTORTION CAUSED BY PLACING ADJACENT PILES AND TO PREVENT COLLAPSE DUE TO SOIL OR HYDROSTATIC PRESSURE. ALTERNATE PILE PLACEMENT AT LEAST 24 HOURS TO ALLOW GROUT TO HARDENED PRIOR TO DRILLING ADJACENT PILES

INSTALLATION TOLERANCES SHALL BE AS FOLLOWS:

PLAN DIRECTION	3 INCHES PARALLEL TO WALL 1 INCH PERPENDICULAR TO WALL
VERTICAL DIRECTION	1 1/2% OF TOTAL LENGTH, 3 INCH MAXIMUM IN ELEVATION

THE GEOTECHNICAL INSPECTOR SHALL BE CONTINUOUSLY PRESENT DURING DRILLING OPERATION TO VERIFY THAT THE CONTRACTORS DRILLING METHOD AND PROCEDURES ARE APPROPRIATE FOR THE GROUND CONDITIONS.

ALL PILES, GROUT AND TIMBER LAGGING WITHIN THE CITY RIGHT-OF-WAY SHALL BE REMOVED TO A DEPTH OF 4 FEET BELOW THE FINISH GRADE AFTER THE SHORING IS NO LONGER REQUIRED FOR EXCAVATION STABILITY.

00701 - TIEBACK INSTALLATION

CASING OR AUGERCAST METHOD SHALL BE USED FOR PRIMARY GROUTING OF TIEBACK ANCHORS TO MINIMIZE GROUND LOSS SHOULD CAVING SOIL CONDITIONS BE ENCOUNTERED.

THE GEOTECHNICAL ENGINEER WILL OBSERVE ALL TIEBACK HOLES AND APPROVE THEM PRIOR TO TIEBACK AND GROUT INSTALLATION. DO NOT FORCE THE TIEBACK INTO THE HOLE.

TIEBACK ANCHORS SHALL ONLY HAVE THE BOND ZONE FILLED WITH STRUCTURAL GROUT. NO-LOAD ZONES SHALL BE IMMEDIATELY BACKFILLED WITH LEAN MIX CONCRETE TO PREVENT CAVING OF THE BORE HOLE.

SPACERS SHALL BE USED ALONG THE TIEBACK TENDON BOND LENGTH TO SEPARATE EACH OF THE STRANDS SO THAT THEY WILL BOND TO THE GROUT.

CENTRALIZERS SHALL BE PROVIDED TO ALLOW THE GROUT TO FLOW FREELY AND PROVIDE A MINIMUM OF 2 INCHES OF COVER OVER THE TENDON.

00900 – TIEBACK TESTING

PERFORMANCE TESTING (200%) SHALL BE PERFORMED AT LOCATIONS SELECTED BY THE GEOTECHNICAL ENGINEER AS NOTED BELOW. ALL OTHER PRODUCTION TIEBACKS SHALL BE PROOF TESTED (130%). ALL REQUIRED TEST DATA SHALL BE RECORDED BY THE GEOTECHNICAL INSPECTOR.

00901 - PERFORMANCE TIEBACK ANCHORS

THERE SHALL BE A MIMIMUM OF TWO PERFORMANCE (VERIFICTION) TIEBACK ANCHORS IN EACH TYPE OF SOIL ENCOUNTERED AS DETERMINED BY THE GEOTECHNICAL ENGINEER, AND NOT LESS THAN TWO PERFORMANCE (VERIFICATION) TIEBACK ANCHORS PER INSTALLATION METHOD

TIEBACK PERFORMANCE / VERIFICATION TESTS (200% TESTS)

1. VERIFICATION TESTS SHALL BE PERFORMED ON EACH PERFORMANCE TIEBACK ANCHOR TO 200% OF THE DESIGN LOAD.
2. VERIFICATION TESTS SHALL NOT BE INITIATED UNTIL THE TIEBACK GROUT HAS ATTAINED AT LEAST 50 PERCENT OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH.
3. THE TIEBACK ANCHOR SHALL BE SEATED BY APPLYING AN ALIGNMENT LOAD. THE ALIGNMENT LOAD SHALL BE BETWEEN 2% AND 10% OF THE DESIGN LOAD. THE LOAD SHALL THEN BE HELD AND A ZERO DEFLECTION READING TAKEN.
4. VERIFICATION TESTS SHALL BE PERFORMED BY INCREMENTALLY LOADING THE TIEBACK ANCHOR IN ACCORDANCE WITH THE SCHEDULE BELOW. THE TIEBACK ANCHOR MOVEMENT SHALL BE MEASURED, RECORDED TO THE NEAREST 0.001 INCH WITH RESPECT TO AN INDEPENDENT FIXED REFERENCE POINT AT THE ALIGNMENT LOAD AND AT EACH INCREMENT OF LOAD. THE SCHEDULE OF HOLD TIMES SHALL BE AS FOLLOWS:

AL	1 MINUTE
0.25 DL	10 MINUTES
0.50 DL	10 MINUTES
0.75 DL	10 MINUTES
1.00 DL	10 MINUTES
1.25 DL	10 MINUTES
1.50 DL	60 MINUTES
1.75 DL	10 MINUTES
2.00 DL	10 MINUTES
1.75 DL	UNTIL STABLE
1.50 DL	UNTIL STABLE
1.25 DL	UNTIL STABLE
1.00 DL	UNTIL STABLE
0.75 DL	UNTIL STABLE
0.50 DL	UNTIL STABLE
0.25 DL	UNTIL STABLE
AL	UNTIL STABLE

WHERE AL = ALIGNMENT LOAD
DL = DESIGN LOAD

THE LOAD-HOLD PERIOD SHALL START AS SOON AS THE LOAD IS APPLIED AND THE TIEBACK ANCHOR MOVEMENT SHALL BE MEASURED AND RECORDED AT EACH LOAD INCREMENT. THE APPLIED LOAD SHALL REMAIN CONSTANT DURING ALL HOLD LOAD PERIODS. (IE. NO MORE THAN 5% VARIATION FROM THE SPECIFIED LOAD.)

5. THE TIEBACK ANCHOR SHALL THEN BE UNLOADED AND LOCKED-OFF AT 90% TO 100% OF THE DESIGN LOAD

00902 - ACCEPTANCE CRITERIA FOR PERFORMANCE TIEBACKS

ACCEPTANCE CRITERIA FOR PERFORMANCE / VERIFICATION TIEBACK TESTING SHALL INCLUDE THE FOLLOWING:

1. HOLD MAXIMUM PERFORMANCE / VERIFICATION TEST LOAD FOR REQUIRED DURATION WITH LESS THAN 0.08 INCH OF CREEP PER LOG CYCLE OF TIME (BETWEEN 6 AND 60 MINUTES.)
2. LINEAR OR DECREASING CREEP MOVEMENT RATE.
3. TOTAL MOVEMENT DURING PERFORMANCE TEST LOADING, FROM 50 TO 200% DL, EXCEEDS 80% OF THEORETICAL ELASTIC ELONGATION OF UNBONDED TIEBACK LENGTH.
4. TOTAL MOVEMENT DURING VERIFICATION TEST LOADING, DOES NOT EXCEED THEORETICAL ELASTIC ELONGATION OF (UNBONDED TIEBACK LENGTH PLUS 50% OF BOND LENGTH.)
5. PERFORMANCE OF THE ANCHOR HEAD/PILE CONNECTION IS ACCEPTABLE TO THE SHORING STRUCTURAL ENGINEER.

FAILURE OF A TIEBACK ANCHOR TO MEET THE REQUIRED TEST ACCEPTANCE CRITERIA SHOULD IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE SHORING STRUCTURAL ENGINEER. IN MOST CASES, WHERE TOTAL MOVEMENT IS WITHIN TOLERABLE RANGES, A REDUCED CAPACITY WILL BE ASSIGNED TO THE SUBJECT TIEBACK AND ADDITONAL MONITORING WILL BE ADDED TO VERIFY THE TIEBACK'S PERFORMANCE. IF TOTAL ANCHOR MOVEMENT IS IN EXCESS OF 6 INCHES, THE ANCHOR WILL BE ABANDONED AND A REPLACEMENT REQUIRED. THE ACCEPTABILITY OF EACH ANCHOR SHALL DEPEND ON A REVIEW AND APPROVAL OF THE TEST BY THE GEOTECHNICAL ENGINEER.

00903 – PRODUCTION TIEBACK ANCHORS

ALL OTHER TIEBACK ANCHORS ARE PRODUCTION TIEBACK ANCHORS AND SHALL BE PROOF TESTED.

PROOF TESTS (133% TESTS)

1. PROOF TEST SHALL BE PERFORMED ON EACH PRODUCTION TIEBACK ANCHOR TO 133% OF THE DESIGN LOAD.
2. PROOF TESTS SHALL NOT BE INITIATED UNTIL THE TIEBACK GROUT HAS ATTAINED AT LEAST 50 PERCENT OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH.
3. THE TIEBACK ANCHOR SHALL BE SEATED BY APPLYING AN ALIGNMENT LOAD. THE ALIGNMENT LOAD SHALL BE BETWEEN 2% AND 10% OF THE DESIGN LOAD. THE LOAD SHALL THEN BE HELD AND A ZERO DEFLECTION READING TAKEN.
4. PROOF TESTS SHALL BE PERFORMED BY INCREMENTALLY LOADING THE TIEBACK ANCHOR IN ACCORDANCE WITH THE SCHEDULE BELOW. THE TIEBACK ANCHOR MOVEMENT SHALL BE MEASURED, RECORDED TO THE NEAREST 0.001 INCH WITH RESPECT TO AN INDEPENDENT FIXED REFERENCE POINT IN THE SAME MANNER AS FOR THE VERIFICATION TESTS AT THE ALIGNMENT LOAD AND AT EACH INCREMENT OF LOAD. THE SCHEDULE OF HOLD TIMES SHALL BE AS FOLLOWS:

AL	1 MINUTE	
	0.25 DL	1 MINUTE OR UNTIL STABLE
	0.50 DL	1 MINUTE OR UNTIL STABLE
	0.75 DL	1 MINUTE OR UNTIL STABLE
	1.00 DL	1 MINUTE OR UNTIL STABLE
	1.33 DL	10 MINUTES

AL = ALIGNMENT LOAD
DL = DESIGN LOAD

THE MAXIMUM LOAD IN A PROOF TEST SHALL BE HELD FOR 10 MINUTES. THE LOAD HOLD PERIOD SHALL START AS SOON AS THE LOAD IS APPLIED AND THE ANCHOR MOVEMENT SHALL BE MEASURED AND RECORDED AT EACH LOAD INCREMENT. THE ANCHOR MOVEMENT BETWEEN 1 AND 10 MINUTES SHALL NOT EXCEED 0.04 INCHES PER LOG CYCLE OF TIME. IF THE ANCHOR MOVEMENT BETWEEN 1 AND 10 MINUTES EXCEEDS 0.04 INCHES, THE MAXIMUM LOAD SHALL BE HELD AN ADDITIONAL 50 MINUTES AND THE ANCHOR MOVEMENT SHALL BE RECORDED AT EACH 10 MINUTE INCREMENT OF HOLD PERIOD. IF AN ANCHOR FAILS IN CREEP DURING THE EXTENDED HOLD PERIOD, RETESTING SHALL NOT BE ALLOWED. THE APPLIED LOAD SHALL REMAIN CONSTANT DURING ALL HOLD PERIODS. (IE. NO MORE THAN 5% VARIATION FROM THE SPECIFIED LOAD.)

5. THE TIEBACK ANCHOR SHALL BE UNLOADED AND LOCKED-OFF AT 90% TO 100% OF THE DESIGN LOAD.

00904 - ACCEPTANCE CRITERIA FOR PRODUCTION TIEBACKS

ACCEPTANCE CRITERIA FOR PROOF TIEBACK TESTING SHALL INCLUDE THE FOLLOWING:

1. HOLD MAXIMUM PROOF TEST LOAD FOR REQUIRED DURATION WITH LESS THAN 0.04 INCH OF CREEP PER LOG CYCLE OF TIME (BETWEEN 1 AND 10 MINUTES.) OR LESS THAN 0.08 INCH BETWEEN 6 AND 60 MINUTES.
2. LINEAR OR DECREASING CREEP MOVEMENT RATE.
3. TOTAL MOVEMENT DURING PROOF TEST LOADING, FROM 50 TO 133% DESIGN LOAD, EXCEEDS 80% OF THEORETICAL ELASTIC ELONGATION OF UNBONDED TIEBACK LENGTH.
4. TOTAL MOVEMENT DURING PROOF TEST LOADING, DOES NOT EXCEED THEORETICAL ELASTIC ELONGATION OF (UNBONDED TIEBACK LENGTH PLUS 50% OF BOND LENGTH.)
5. PERFORMANCE OF THE ANCHOR HEAD/PILE CONNECTION IS ACCEPTABLE TO THE SHORING STRUCTURAL ENGINEER.

FAILURE OF A TIEBACK ANCHOR TO MEET THE REQUIRED TEST ACCEPTANCE CRITERIA SHOULD IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE SHORING STRUCTURAL ENGINEER. IN MOST CASES, WHERE TOTAL MOVEMENT IS WITHIN TOLERABLE RANGES, A REDUCED CAPACITY WILL BE ASSIGNED TO THE SUBJECT TIEBACK AND ADDITONAL MONITORING WILL BE ADDED TO VERIFY THE TIEBACK'S PERFORMANCE. IF TOTAL TIEBACK MOVEMENT IS IN EXCESS OF 6 INCHES, THE ANCHOR WILL BE ABANDONED AND SHALL BE REPLACED BY THE CONTRACTOR. THE ACCEPTABILITY OF EACH ANCHOR SHALL DEPEND ON A REVIEW AND APPROVAL OF THE TEST BY THE GEOTECHNICAL ENGINEER.

STRUCTURAL DRAWING SHEET INDEX

City of Puyallup Building REVIEWED FOR COMPLIANCE
RayC
05/13/2022
3:17:23 PM

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

B-20-0078Deferred submittal Shoring PlanSee approved building permit and structural calculations.

City of Puyallup Development Engineering APPROVED
See permit for additional requirements.
Linda Lian
08/17/2022
9:08:44 AM

See drawing submitted by applicant in CityView 08/09/2022 named CTE 22012 2022 0322 PERMIT ISSUE Shoring Hampton Inn Addition - MARK UP for approved water, domestic and fire, locations

The applicant shall request an inspection with a City Engineering Inspector through the CityView portal least 48 hours in advance of job start.

BALDWIN GENERAL CONTRACTING, INC
PO BOX 686 ALBANY, OR 97321

- [x] Reviewed
- [ ] Reviewed as Corrected
- [ ] Rejected
- [ ] Revise & Resubmit
- [ ] Submit Specified Items

This review is only for limited purposes and general compliance to the project documents. This by no means relives the submitter of the responsibility to fully comply with the specified project requirements. Baldwin General Contracting is not responsible for any dimensions or quantities.

Date________ By Manda Catterlin (Digitally signed by Manda Catterlin Date: 2022.04.26 16:35:50-07'00')

Checking by PCS is only for conformance of design criteria and concept. Structural performance of the supplier designed components is the responsibility of the components structural engineer. JKleir4/22/2022

PROPRIETARY INFORMATION
FOR USE ONLY WITH THE WRITTEN PERMISSION OF
KULCHIN

CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555

Utility Conflict Note

CAUTION:

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CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0618 (F)

CRAIG F. ROBERTS — STATE OF WASHINGTON — 34840 — STRUCTURAL — PROFESSIONAL ENGINEER — 03/22/22

NO.	REVISION	DATE
	PERMIT ISSUE	03/22/22

ENG'R: AEM | CAD: DWH | DATE: 03/22/22 | FILE: 22012SS1 | JOB #: 22012

City of Puyallup Development & Permitting Services ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

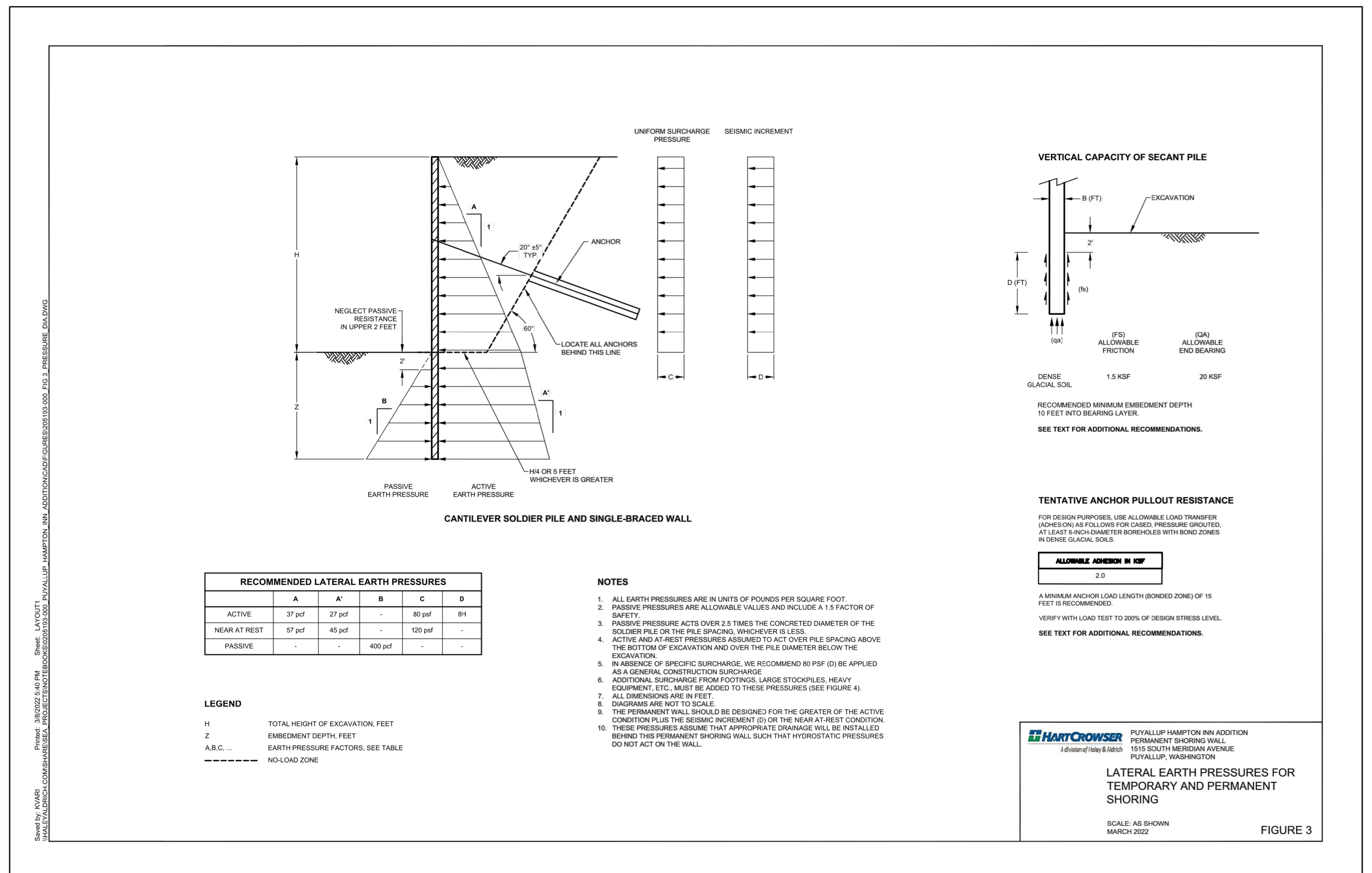
Shoring Structural Notes

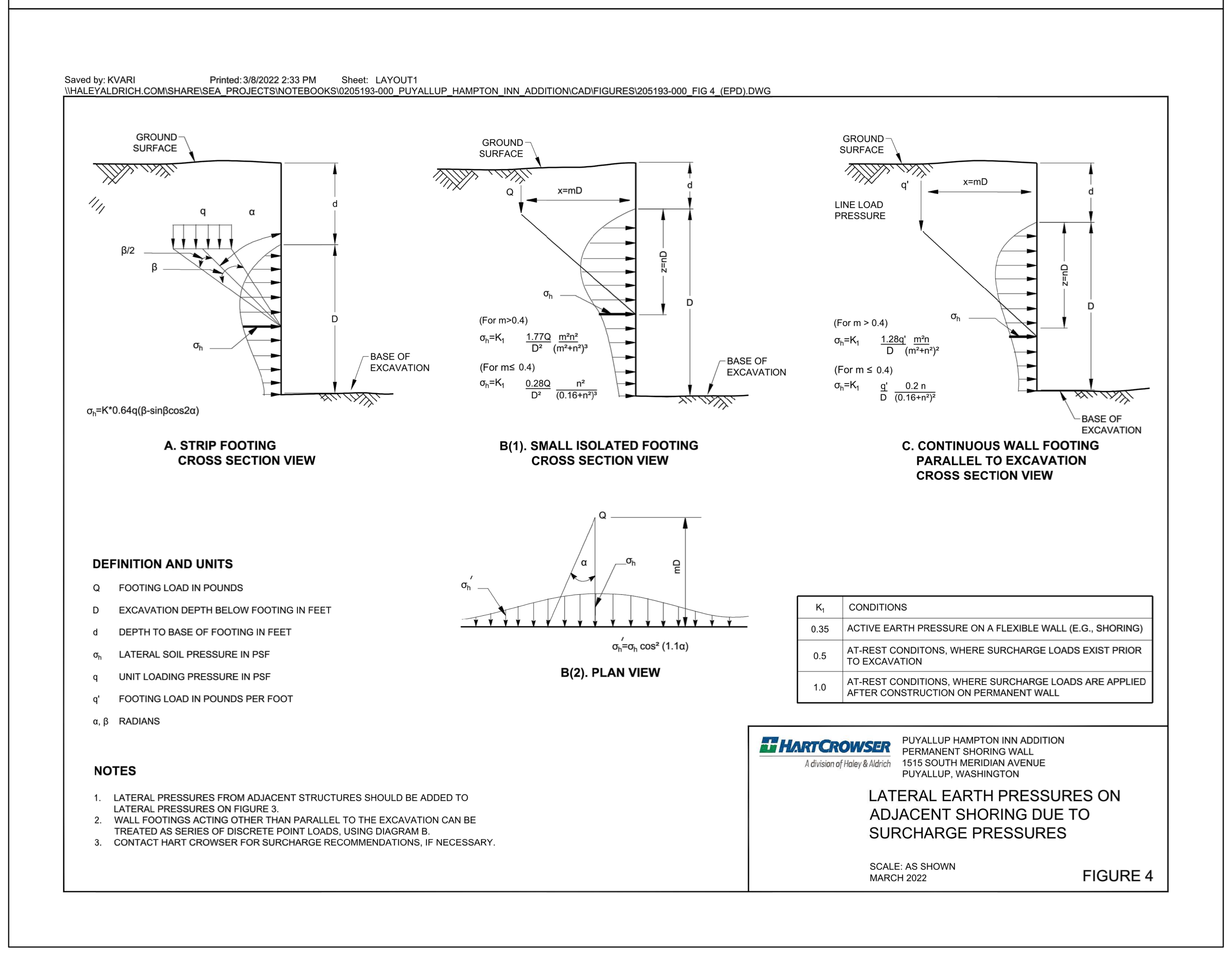
Puyallup Hampton Inn Addition
1515 S. Meridian Avenue
Puyallup, Washington 98371

SS1.0

ABBREVIATIONS

&	AND
@	AT
'	FEET(FOOT)
"	INCH (INCHES)
#	POUND(S), NUMBER
=	EQUAL(S)
/	PER
A.B.	ANCHOR BOLT
ABV.	ABOVE
ADD.	ADDITIONAL
ADJ.	ADJACENT
ALUM.	ALUMINUM
ALT.	ALTERNATE
APPRX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
ASSY	ASSEMBLY
B.	BOTTOM
BEL.	BELOW
BEN	BOUNDARY EDGE NAILING
B.F.	BRACED FRAME
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BLW.	BELOW
BM.	BEAM
BMU	BRICK MASONRY UNIT
BN	BOUNDARY NAILING
BNDRY.	BOUNDARY
B.O.	BOTTOM OF
B.O.E.	BOTTOM OF EXCAVATION
B.O.F.	BOTTOM OF FOOTING
BRDG.	BRIDGE(ING)
BRG.	BEARING
BTM.	BOTTOM
BTWN.	BETWEEN
C	CAMBER
CAMB.	CAMBER(ED)
CANT.	CANTILEVER(ED)
CF	CUBIC FOOT
C.I.P.	CAST IN PLACE
C.J.	CONSTRUCTION JOINT
CL	CENTER LINE
CLG.	CEILING
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CTSK.	COUNTERSINK
CTR.	CENTER(ED)
CVR	COVER VERTICAL REINF.
CY	CUBIC YARD
d	PENNY(NAILS)
DB	DROPPED BEAM
DBA	DEFORMED BAR ANCHORS
DBL.	DOUBLE
DCW	DEMAND CRITICAL WELD
DEPT.	DEPARTMENT
DET.	DETAIL
DF	DOUGLAS FIR
DIA.	DIAMETER
DIAG.	DIAGONAL
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
DN.	DOWN
D.O.	DITTO(REPEAT)
DP.	DEEP
DS	DOWNSPOUT
DWG.	DRAWING(S)
DWL.	DOWEL(S)
(E)	EXISTING
EA.	EACH
E.E.	EACH END
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV.	ELEVATOR
EMBD.	EMBED(MENT)
EN	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EQPT.	EQUIPMENT
E.W.	EACH WAY
EXP.	EXPANSION
EXST.	EXISTING
EXT.	EXTERIOR
FAB.	FABRICATION
FB	FLUSH BEAM
FDN.	FOUNDATION
F.F.	FINISH FLOOR
FIN.	FINISH(ED)
FLG.	FLANGE
FLR.	FLOOR
FN	FIELD (FACE) NAIL
F.O.	FINISHED OPENING
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FRMG.	FRAME(ING)
F.S.	FAR SIDE
FSD	FORMED STEEL DECK
FT.	FEET(FOOT)
FRTW	FIRE RETARDANT TREATED WOOD
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZE(D)
GB.	GRADE BEAM
GLB	GLUE LAMINATED BEAM
GRD.	GRADE
GT	GIRDER TRUSS
GWB	GYPSUM WALLBOARD
GYP.	GYPCRETE
H.	HORIZONTAL
HD	HOLDOWN
H.D.G.	HOT DIPPED GALVANIZED
HDR.	HEADER
HGR.	HANGER
HORZ.	HORIZONTAL
HORIZ.	HORIZONTAL
HR	HEADER
H.S.B.	HIGH STRENGTH BOLT
HT.	HEIGHT
I.D.	INSIDE DIAMETER
I.E.	INVERT ELEVATION
I.F.	INSIDE FACE
IN.	INCH(ES)
INFO.	INFORMATION
INT.	INTERIOR
JST.	JOIST
JT.	JOINT
K	KIPS(1000)
LAT.	LATERAL
LB.	POUND(S)
L.B.	LAG BOLT(S)
LG.	LONG(ITUDINAL)
LGTH.	LENGTH
LGMF	LIGHT GAUGE METAL FRAMING
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SLOTTED HOLE(S)
LT. WT.	LIGHT WEIGHT
L.W.	LIGHT WEIGHT
MAS.	MASONRY
MASN.	MASONRY
MAT.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MBM	METAL BUILDING MANUFACTURER
MECH.	MECHANICAL
M.E.J.	MASONRY EXPANSION JOINT
MEZZ.	MEZZANINE
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
MTL.	METAL
(N)	NEW
N/A	NOT APPLICABLE
N.L.B.	NON-LOAD BEARING
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
N.W.C.	NORMAL WEIGHT CONCRETE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
ORNT.	ORIENTATE(ION)
OSB	ORIENTED STRAND BOARD
O.W.J.	OPEN WEB JOIST
O.W.T.	OPEN WEB TRUSS
PAF	POWDER ACTUATED FASTENER
PAR.	PARALLEL
P/C	PRECAST
PEN	PANEL EDGE NAIL
PERP.	PERPENDICULAR
PL.	PLATE
PL	PROPERTY LINE
PLN	PLAN
PLMBG.	PLUMBING
PLYWD.	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESERVATIVE TREATED
PT	POST TENSION(ED)
QTY.	QUANTITY
R.	RADIUS
RAD.	RADIUS
RE:	REFERENCE
REF.	REFERENCE
REINF.	REINFORCEMENT(ING)
REQ.	REQUIRED
R.F.	RIGID FRAME
R.O.	ROUGH OPENING
R.S.	ROUGH SAWN
SCH.	SCHEDULE
SCL	STRUCTURAL COMPOSITE WOOD
SCHED.	SCHEDULE
SHT.	SHEET
SIM.	SIMILAR
S.J.	SHRINKAGE CONTROL JOINT
SKW.	SKEW(ED)
S.O.G.	SLAB ON GRADE
SPC.	SPACE(S) (ING)
SPEC.	SPECIFICATION(S)
SQ.	SQUARE
STD.	STANDARD
STGR.	STAGGER
STIFF.	STIFFENER(S)
STIR.	STIRRUP(S)
STL.	STEEL
STRUC.	STRUCTURAL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED(TION)
SYMM.	SYMMETRICAL
T.	TOP
T.&B.	TOP AND BOTTOM
TEMP.	TEMPORARY
T.&G.	TONGUE AND GROOVE
THK.	THICK(NESS)
THRD.	THREADED
TN	TOE NAIL
T.O.S.	TOP OF SHEATHING(SLAB)
T.O.W.	TOP OF WALL
TRANSV.	TRANSVERSE
T.O.S..	TOP OF STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
V.	VERTICAL
VERT.	VERTICAL
VIF	VERIFY IN FIELD
W.	WIDE(WIDTH)
W/	WITH
W/O	WITHOUT
WD.	WOOD
W.H.S.	WELDED HEADED STUDS
W.P.	WORK POINT
W.S.	WELDED STUD
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
X-STG	EXTRA STRONG
XX-STG	DOUBLE EXTRA STRONG
YD	YARD





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SPECIAL INSPECTIONS, TESTING and GEOTECHNICAL OBSERVATION SCHEDULE

INSPECTION ITEMS	CONTINUOUS	PERIODIC	TESTING	COMMENTS
SOIL AND FOUNDATIONS (IBC 1705.6)				
SITE PREPARATION, EXCAVATION AND GRADING		X		GEOTECH
DEWATERING				GEOTECH
SOLDIER PILES	X			GEOTECH
TIEBACK SYSTEM	X		X	GEOTECH
SUBSURFACE DRAINAGE				
FILL PLACEMENT AND COMPACTION	X			GEOTECH
FIELD VERIFICATION OF BEARING CAPACITY		X		GEOTECH
CORROSION PROTECTION		X		GEOTECH
CONCRETE CONSTRUCTION (IBC 1705.3 AND 1705.12.1)				
REINFORCEMENT		N/A		
EMBEDDED ITEMS		X		
PREPARATION OF TEST SPECIMENS		X	X	
CONCRETE AND / OR SHOTCRETE PLACEMENT	N/A		N/A	NOTE 8
WELDING (IBC 1705.2.1 AND AWS D1.1)				NOTE 4
COMPLETE AND PARTIAL PENETRATION	X		X	NOTE 5
MULTIPASS FILLET WELD	X			
SINGLE-PASS FILLET > 5/16"	X			
SINGLE-PASS FILLET ≤ 5/16"		X		
WELDED HEADED STUDS AND DBA		N/A		NOTE 6

INSPECTION SCHEDULE NOTES:

1. ITEMS MARKED WITH AND "X" SHALL BE INSPECTED IN ACCORDANCE WITH IPC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN AGENCY APPROVED BY THE JURISDICTION.
2. SPECIAL INSPECTION SHALL NOT BE REQUIRED FOR WORK IN AN APPROVED FABRICATOR'S PER IBC 1704.2.5.2. VERIFY APPROVAL WITH JURISDICTION PRIOR TO FABRICATION.
3. CONTINUOUS SPECIAL INSPECTION REQUIRES THE INSPECTOR SHALL BE ONSITE AT ALL TIMES AND THAT WORK REQUIRING SPECIAL INSPECTION IS PERFORMED. PERIODIC SPECIAL INSPECTION SHALL ALLOW INSPECTION AT THE INTERVALS NECESSARY TO CONFORM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH THE REQUIREMENTS.
4. ALL WELDS SHALL BE VISUALLY INSPECTED.
5. ALL COMPLETE PENETRATION WELDS SHALL BE TESTED ULTRASONICALLY.
6. PERIODIC SPECIAL INSPECTION SHALL BE ALLOWED FOR SHOP WELDING OF ASTM A706 REINFORCEMENT NO. 5 OR SMALLER USED FOR EMBEDDED ITEMS, PROVIDED THAT; THE MATERIALS AND THE QUALIFICATIONS OF WELDING PROCEDURES AND WELDERS ARE VERIFIED PRIOR TO THE START OF WORK, THAT PERIODIC INSPECTIONS ARE MADE OF WORK IN PROGRESS, AND THAT A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO SHIPMENT OF SHOP WELDED ITEMS.
7. THE SPECIAL INSPECTOR SHALL PROVIDE THE BUILDING OFFICIAL, OWNER, ARCHITECT, ENGINEER OF RECORD, AND CONTRACTOR WITH COPIES OF ALL REPORTS AND TEST RESULTS (IBC 1704.2.4)
8. REFERENCE BUILDING STRUCTURAL DRAWINGS FOR REQUIREMENTS AT BUILDING. THIS SCHEDULE COVERS SHORING ONLY.

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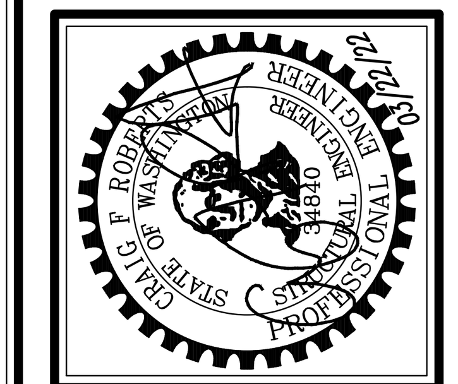

NO.	REVISION	DATE

PERMIT ISSUE | DATE: 03/22/22 | 03/22/22
ENGR: AEM | CAD: DWH | FILE: 22012SS1 | JOB #: 22012

City of Puyallup
Development & Permitting Services
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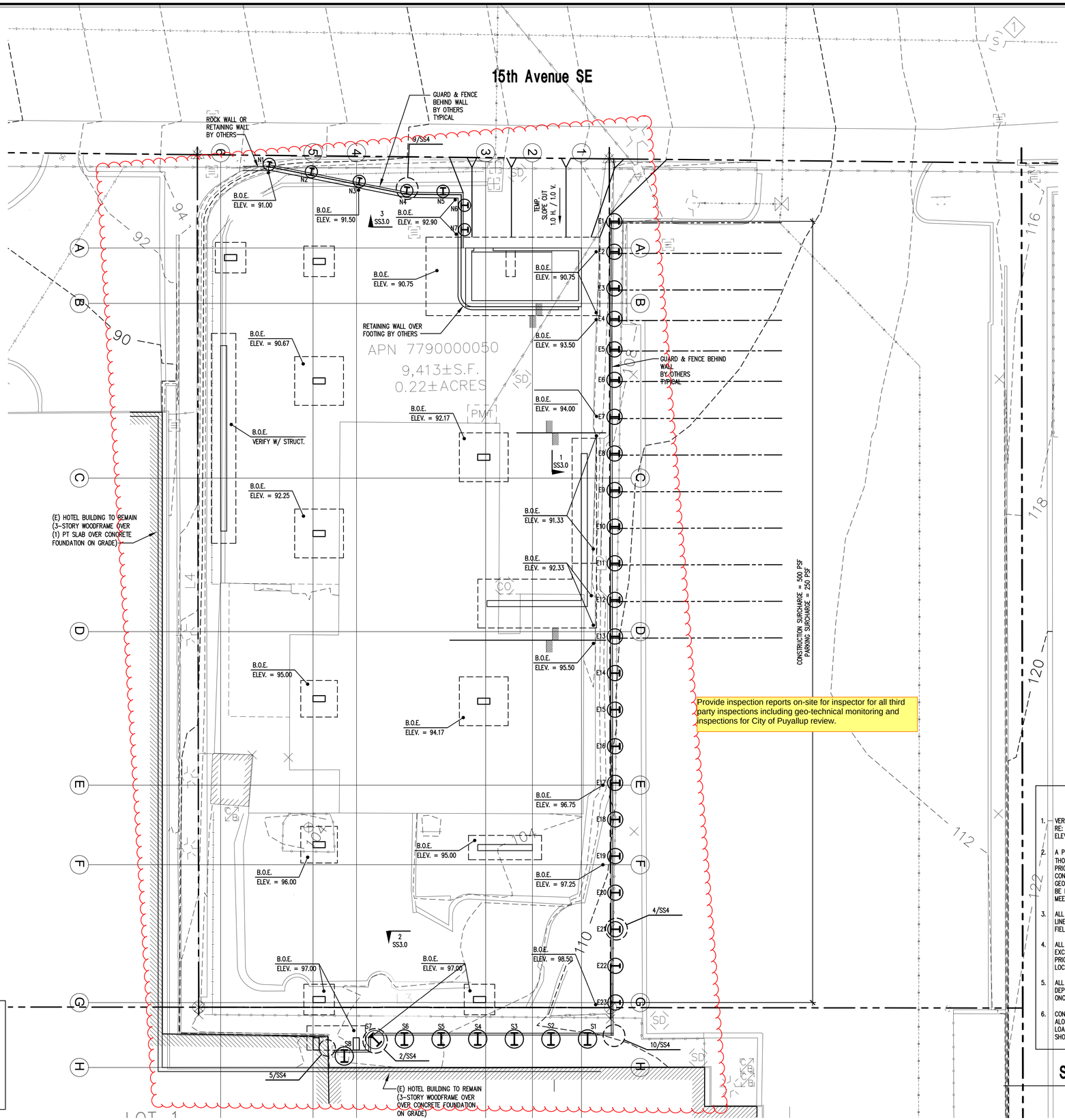
Building | Planning
Engineering | Public Works
Fire | Traffic

Shoring Structural Notes
Puyallup Hampton Inn Addition
1515 S. Meridian Avenue
Puyallup, Washington 98371

SS1.1



See drawing submitted by applicant in CityView 08/09/2022 named CTE 22012 2022 0322 PERMIT ISSUE Shoring Hampton Inn Addition - MARK UP for approved water, domestic and fire, locations

Refer to approved civil plan: E-20-005 for sedimentation and erosion control methods

Refer to approved civil plan: E-20-005 for roof downspout control methods

GRAPHIC SCALE
−8 0 4 8 16
(IN FEET)
1 inch = 8 ft.

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Provide inspection reports on-site for inspector for all third party inspections including geo-technical monitoring and inspections for City of Puyallup review.

Shoring Notes

1. VERIFY ALL DIMENSIONS WITH ARCHITECT PRIOR TO CONSTRUCTION. RE: ARCHITECT FOR GRID TO FACE OF SHORING. SEE WALL ELEVATIONS FOR SHORING LAYOUT TO GRIDS.
2. A PRECONSTRUCTION MEETING WITH THE CITY DOT (IN ADDITION TO THOSE REQUIRED BY THE BUILDING DEPARTMENT) SHALL BE REQUIRED PRIOR TO START OF CONSTRUCTION. THE OWNER, GENERAL CONTRACTOR, EXCAVATION AND SHORING SUBCONTRACTORS, GEOTECHNICAL ENGINEER, SURVEYOR AND SHORING DESIGNER SHALL BE IN ATTENDANCE. GENERAL CONTRACTOR SHALL COORDINATE MEETING TIME WITH ATTENDEES AND CITY DOT.
3. ALL EXISTING UTILITIES, I.E., OVERHEAD POWER, COMMUNICATION LINES, ETC., AS WELL AS ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED AND PROTECTED THROUGHOUT CONSTRUCTION.
4. ALL EXISTING STORM, SEWER, GAS, ETC., LINES CROSSING INTO THE EXCAVATION SHALL BE FIELD LOCATED AND REROUTED OR CAPPED PRIOR TO INSTALLATION OF THE SHORING. POTHOLE TO VERIFY LOCATION OF UNDER SIDEWALK POWER AND PHONE.
5. ALL SHORING ELEMENTS IN THE ROW SHALL BE REMOVED TO A DEPTH OF AT LEAST 4 FEET BELOW FINISHED GRADE IN THE ROW ONCE THEY ARE NO LONGER NEEDED FOR CONSTRUCTION.
6. CONTRACTOR SHALL NOT STOCK PILE MATERIALS AND/OR EQUIPMENT ALONG THE TOP OF SHORING WALL THAT EXCEEDS 250 PSF. ALL LOADS SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER AND SHORING DESIGNER PRIOR TO PLACEMENT.

Shoring Plan

SCALE: 1/8" = 1'-0"

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		JOB #: 22012

City of Puyallup
Development & Permitting Services
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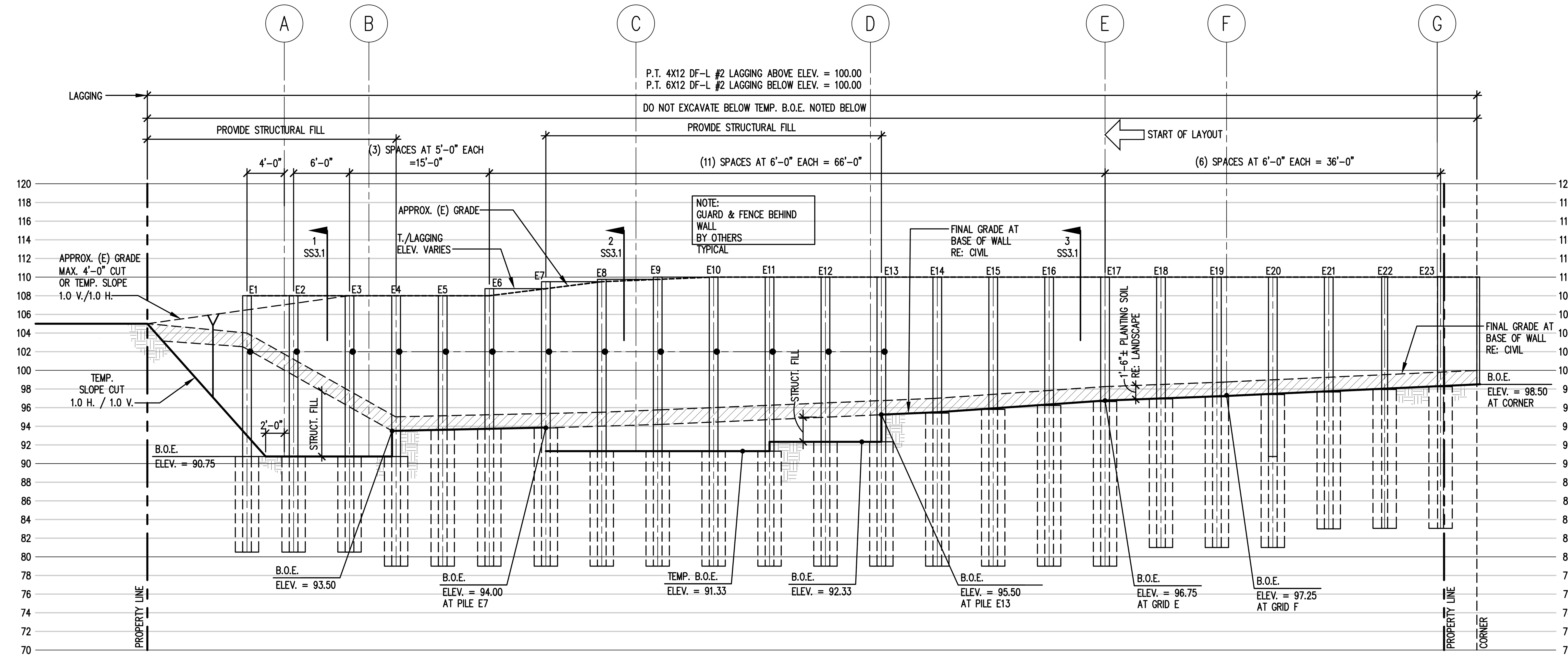
Shoring Plan

Puyallup Hampton Inn Addition
1515 S. Meridian Avenue
Puyallup, Washington 98371

SS2.0

PERMANENT PILE SCHEDULE - EAST WALL

SOLDIER PILE NUMBER	PILE SIZE	HOLE DIAMETER (INCHES)	T.O.P. ELEVATION (FEET)	B.O.P. ELEVATION (FEET)	TIEBACK ELEVATION (FEET)	TIEBACK DIAMETER (INCHES)	TIEBACK ANGLE (DEGREES)	TIEBACK FORCE (KIPS)	BOND LENGTH (FEET)	TOTAL LENGTH (FEET)
E1	W18 X 130	30	108.00	80.50	102.00	6	20	46.0	15.00	30.00
E2	W18 X 130	30	108.00	80.50	102.00	6	20	46.0	15.00	30.00
E3	W18 X 130	30	108.00	80.50	102.00	6	20	46.0	15.00	30.00
E4	W18 X 130	30	108.00	79.00	102.00	6	20	46.0	15.00	30.00
E5	W18 X 130	30	108.00	79.00	102.00	6	20	46.0	15.00	30.00
E6	W18 X 130	30	108.50	79.00	102.00	6	20	46.0	15.00	30.00
E7	W18 X 130	30	109.00	79.00	102.00	6	20	46.0	15.00	30.00
E8	W18 X 130	30	109.50	79.00	102.00	6	20	46.0	15.00	30.00
E9	W18 X 130	30	109.50	79.00	102.00	6	20	46.0	15.00	30.00
E10	W18 X 130	30	110.00	79.00	102.00	6	20	46.0	15.00	30.00
E11	W18 X 130	30	110.00	79.00	102.00	6	20	46.0	15.00	30.00
E12	W18 X 130	30	110.00	79.00	102.00	6	20	46.0	15.00	30.00
E13	W18 X 130	30	110.00	79.00	102.00	6	20	46.0	15.00	30.00
E14	W18 X 130	30	110.00	79.00	--	--	--	--	--	--
E15	W18 X 130	30	110.00	79.00	--	--	--	--	--	--
E16	W18 X 130	30	110.00	79.00	--	--	--	--	--	--
E17	W18 X 130	30	110.00	79.00	--	--	--	--	--	--
E18	W18 X 86	30	110.00	81.00	--	--	--	--	--	--
E19	W18 X 86	30	110.00	81.00	--	--	--	--	--	--
E20	W18 X 86	30	110.00	81.00	--	--	--	--	--	--
E21	W18 X 65	30	110.00	83.00	--	--	--	--	--	--
E22	W18 X 65	30	110.00	83.00	--	--	--	--	--	--
E23	W18 X 65	30	110.00	83.00	--	--	--	--	--	--



1 SS3.0 **East Shoring Elevation**

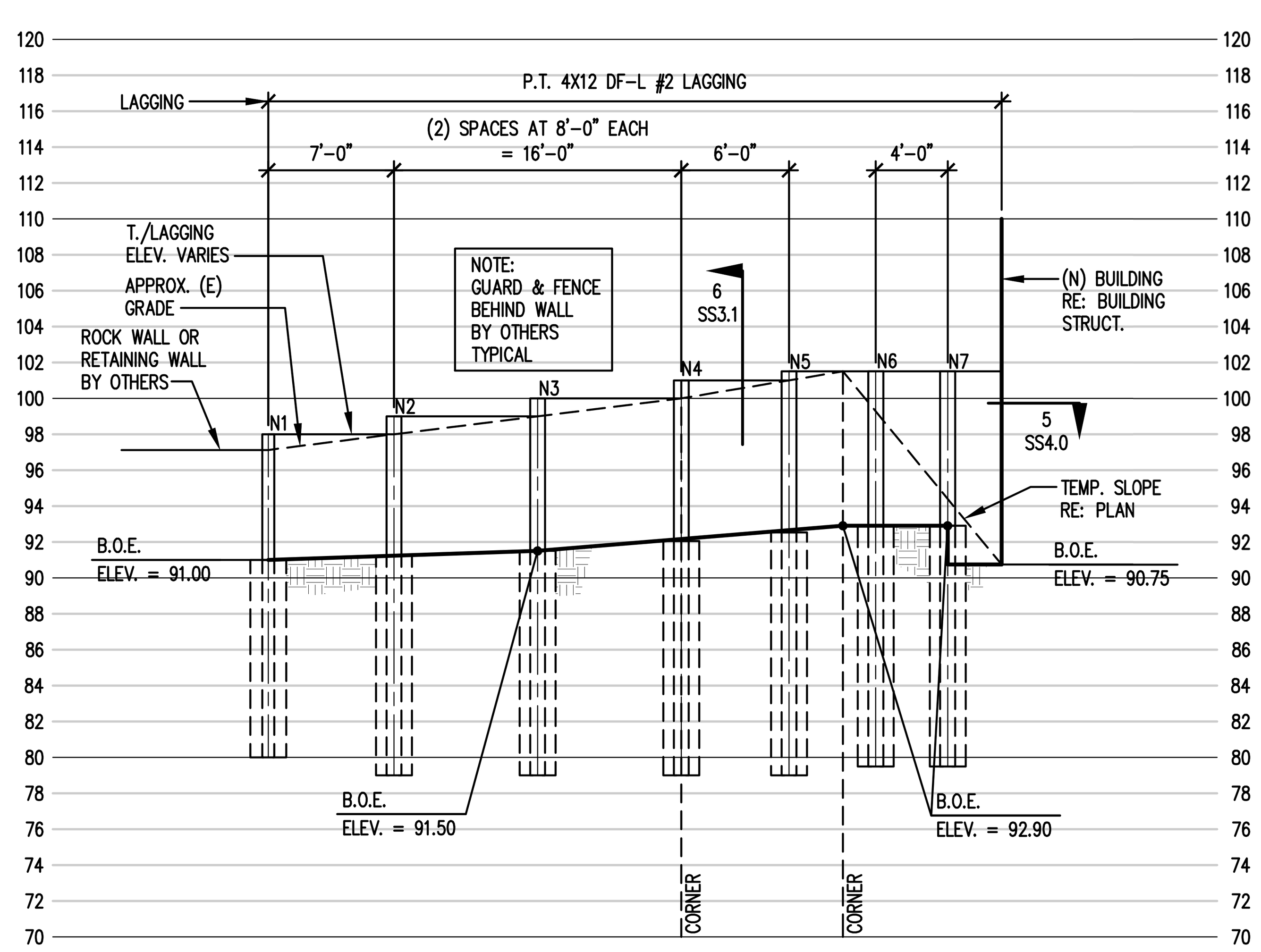
SCALE: 1/8" = 1'-0"

PERMANENT PILE SCHEDULE - SOUTH WALL

SOLDIER PILE NUMBER	PILE SIZE	HOLE DIAMETER (INCHES)	T.O.P. ELEVATION (FEET)	B.O.P. ELEVATION (FEET)
S1 & S2	W24 X 131	36	110.0	80.0
S3	W24 X 131	36	109.5	79.0
S4	W24 X 131	36	109.0	79.0
S5	W24 X 131	36	108.5	79.0
S6	W24 X 131	36	108.0	79.0
S7 & S8	W24 X 131	36	109.0	79.0

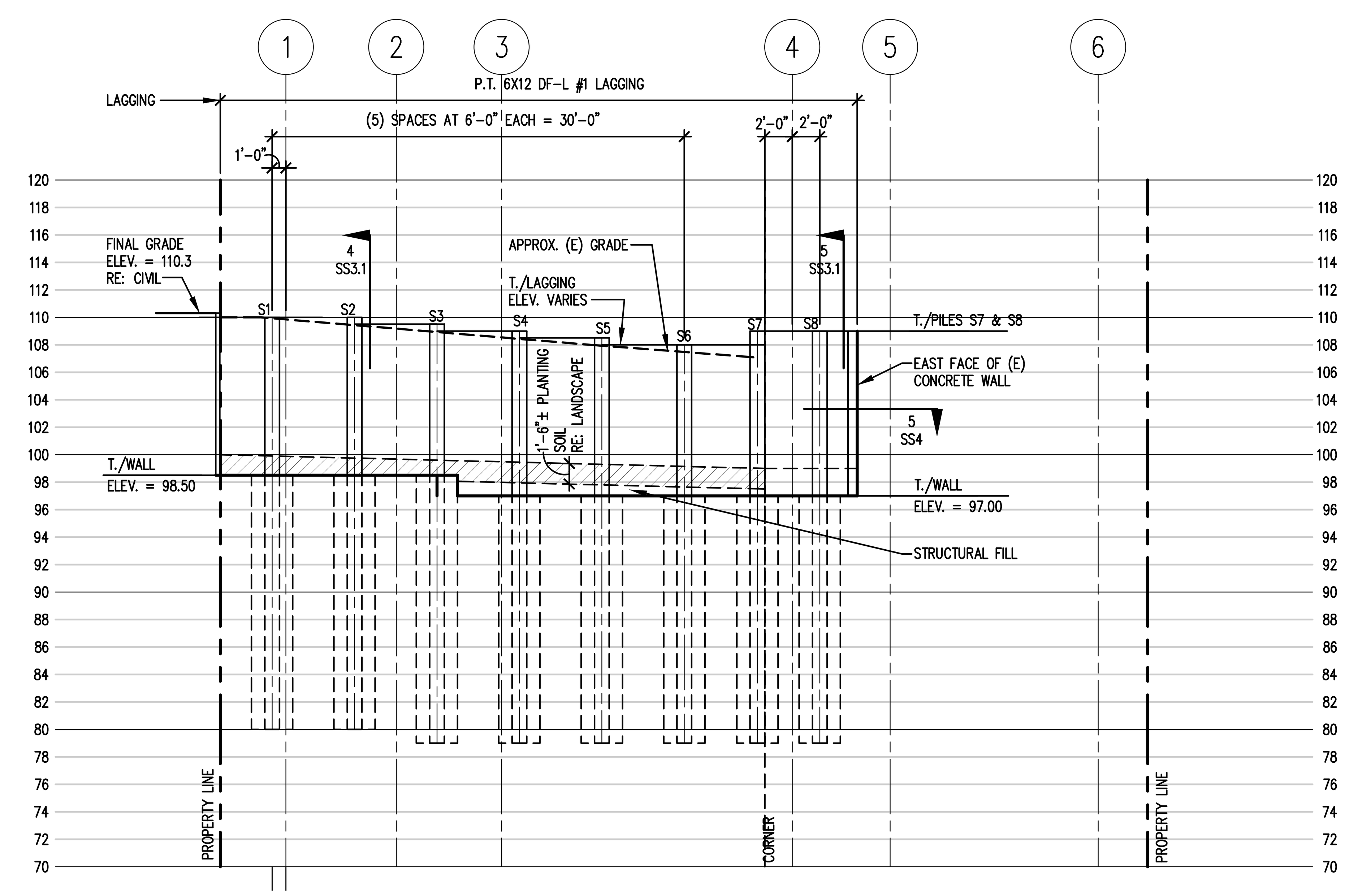
PILE SCHEDULE - NORTH WALL

SOLDIER PILE NUMBER	PILE SIZE	HOLE DIAMETER (INCHES)	T.O.P. ELEVATION (FEET)	B.O.P. ELEVATION (FEET)
N1	W10 X 33	24	98.00	80.00
N2	W14 X 48	24	99.00	79.00
N3	W14 X 48	24	100.00	79.00
N4	W14 X 61	24	101.00	79.00
N5	W14 X 61	24	101.50	79.00
N6	W14 X 61	24	101.50	79.50
N7	W14 X 61	24	101.50	79.50



3 SS3.0 **North Shoring Elevation**

SCALE: 1/8" = 1'-0"



2 SS3.0 **South Shoring Elevation**

SCALE: 1/8" = 1'-0"

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-8 0 4 8 16

(IN FEET)
1 inch = 8 ft.

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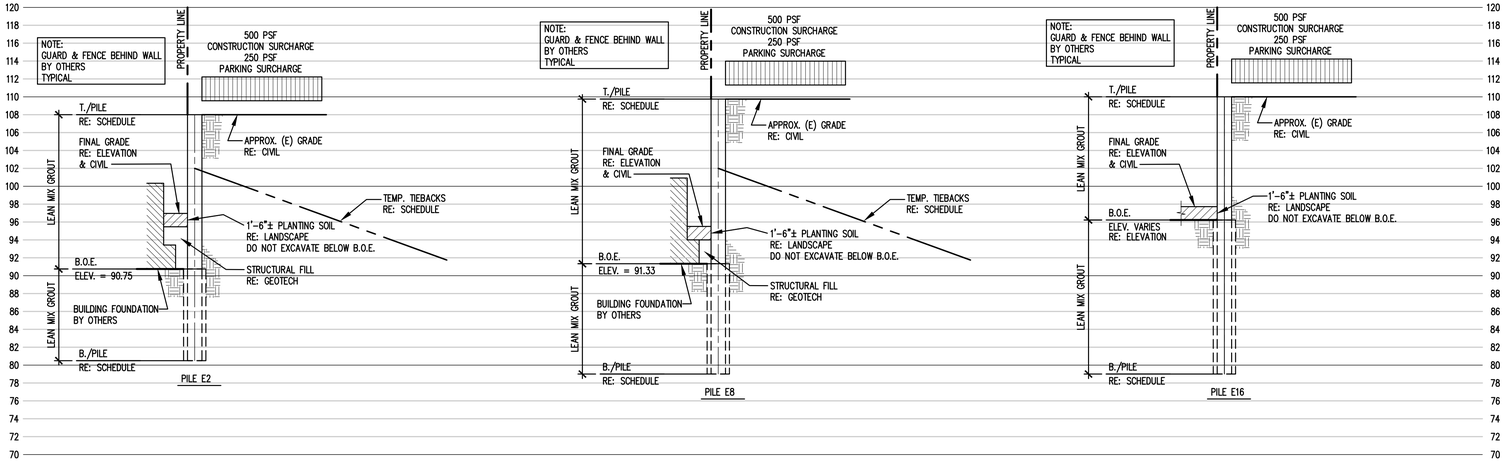
SS3.0



1 SS3.1 **Section At East Wall**

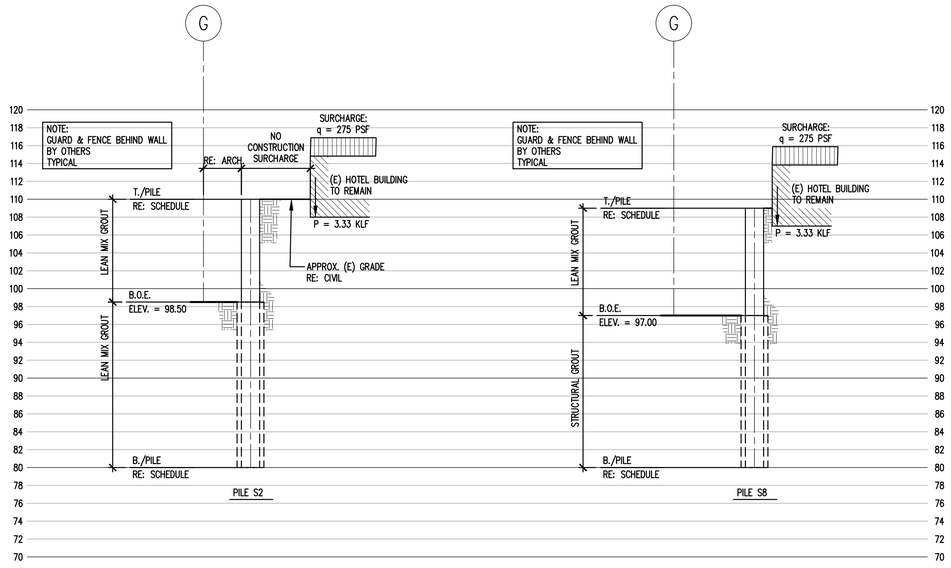
SCALE: 1/8" = 1'-0"

2 SS3.1 **Section At East Wall**

SCALE: 1/8" = 1'-0"

3 SS3.1 **Section At East Wall**

SCALE: 1/8" = 1'-0"

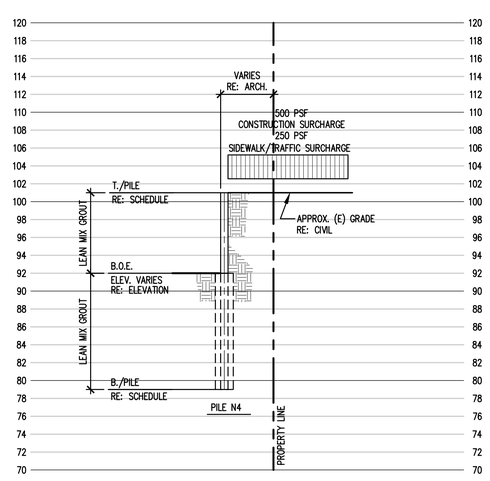


4 SS3.1 **Section At South Wall**

SCALE: 1/8" = 1'-0"

5 SS3.1 **Section At South Wall**

SCALE: 1/8" = 1'-0"



6 SS3.1 **Section At North Wall**

SCALE: 1/8" = 1'-0"

Utility Conflict Note

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GRAPHIC SCALE
−8 0 4 8 16
(IN FEET)
1 inch = 8 ft.

CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street, Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0618 (F)

NO.	REVISION	DATE

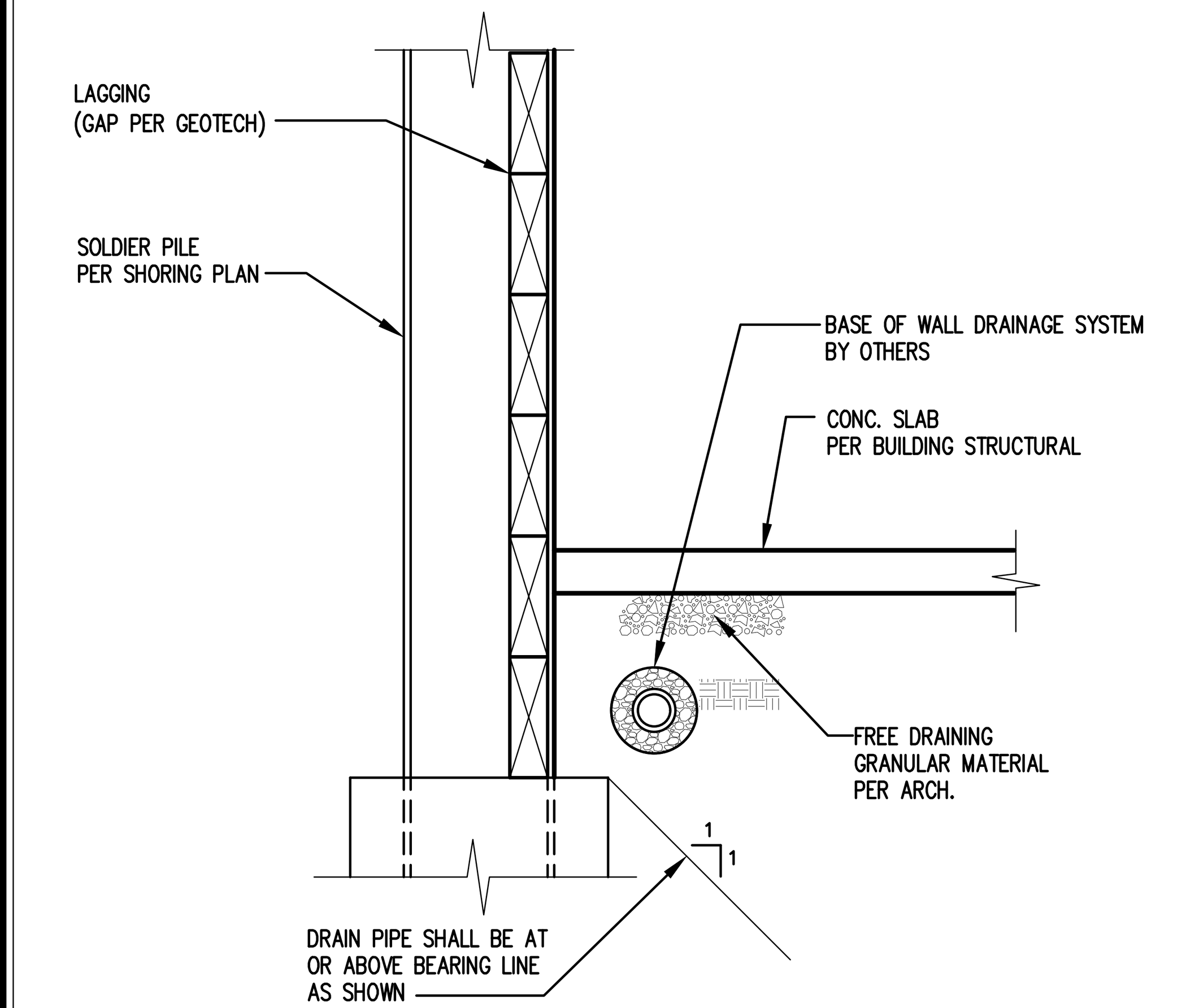
PERMIT ISSUE 03/22/22
ENGR: AEM CAD: DWH DATE: 03/22/22 FILE: 22012SS2
JOB #: 22012

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

Shoring Sections

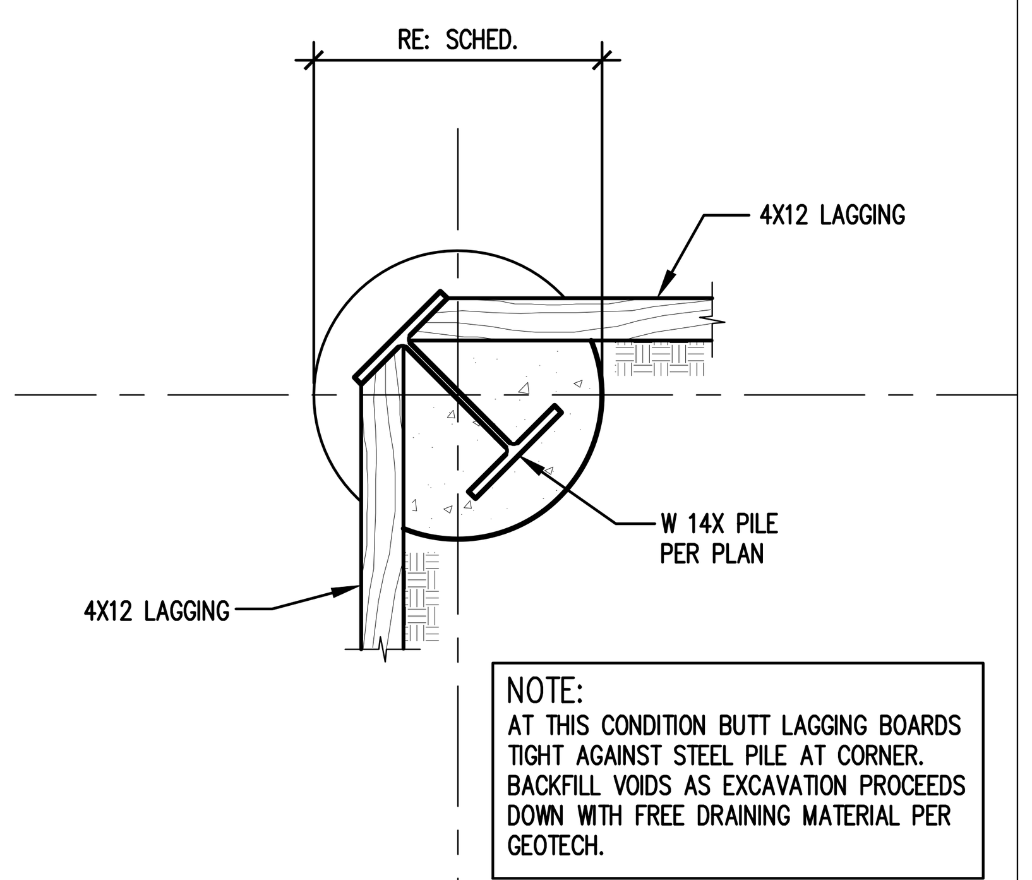
Puyallup Hampton Inn Addition
1515 S. Meridian Avenue
Puyallup, Washington 98371

SS3.1



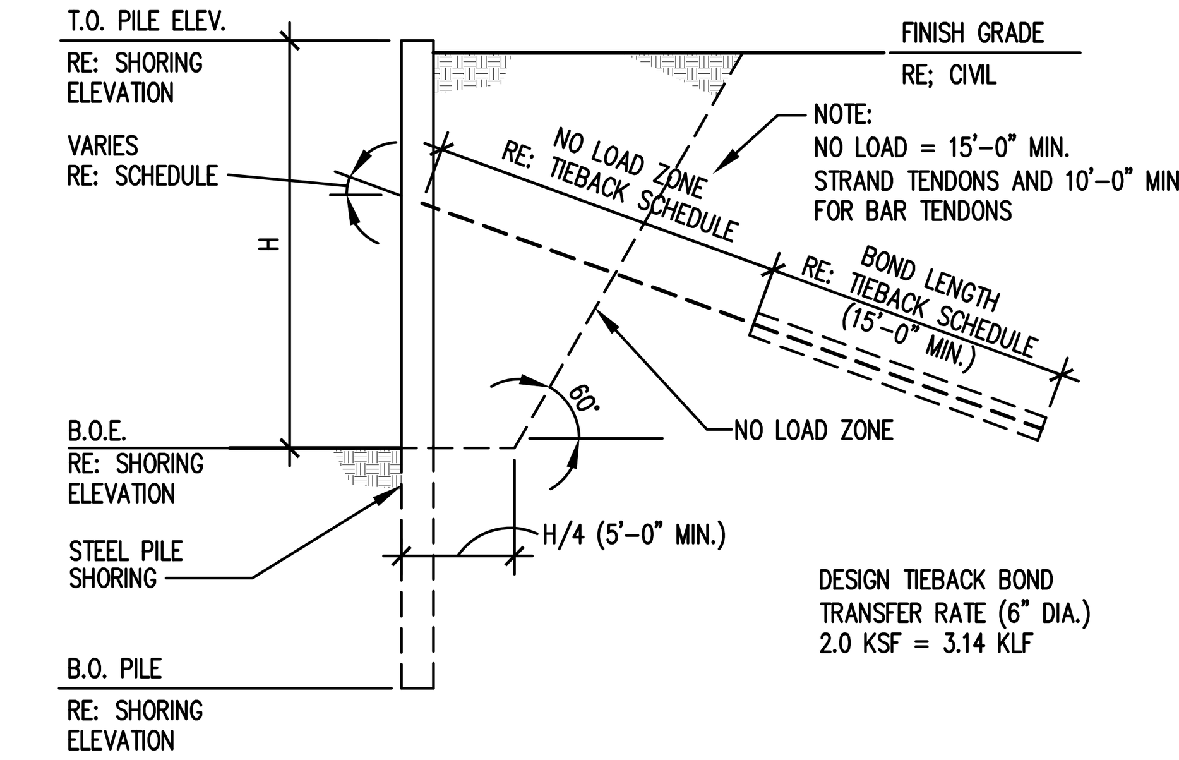
SCALE: 3/4" =1'-0"

6 TYPICAL SECTION



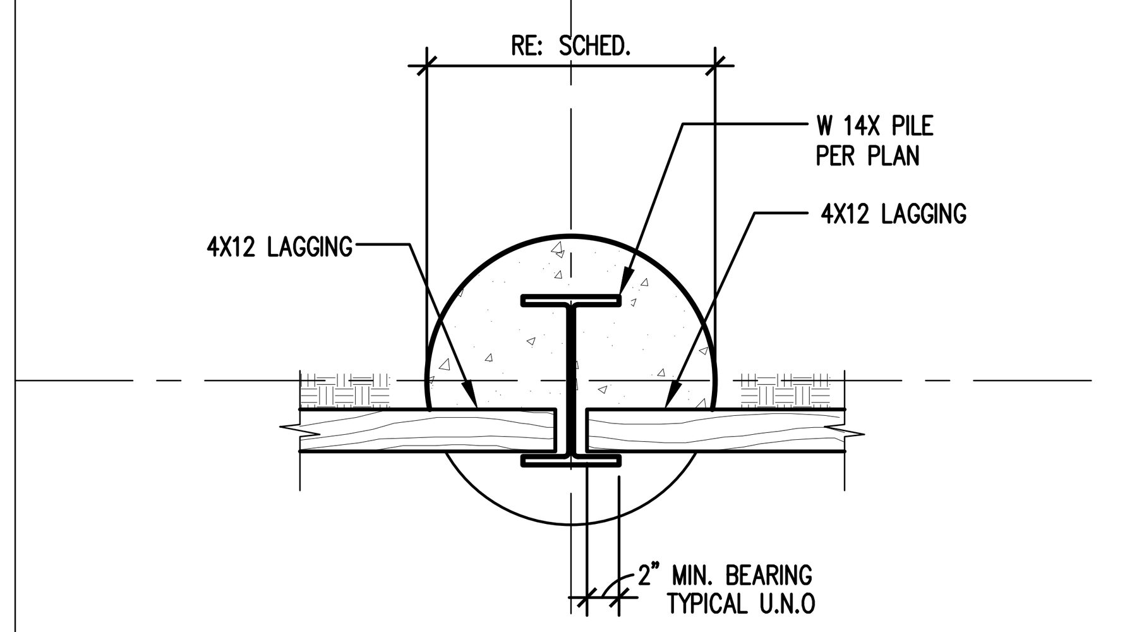
SCALE: 3/4" =1'-0"

2 TYPICAL CORNER PILE DETAIL



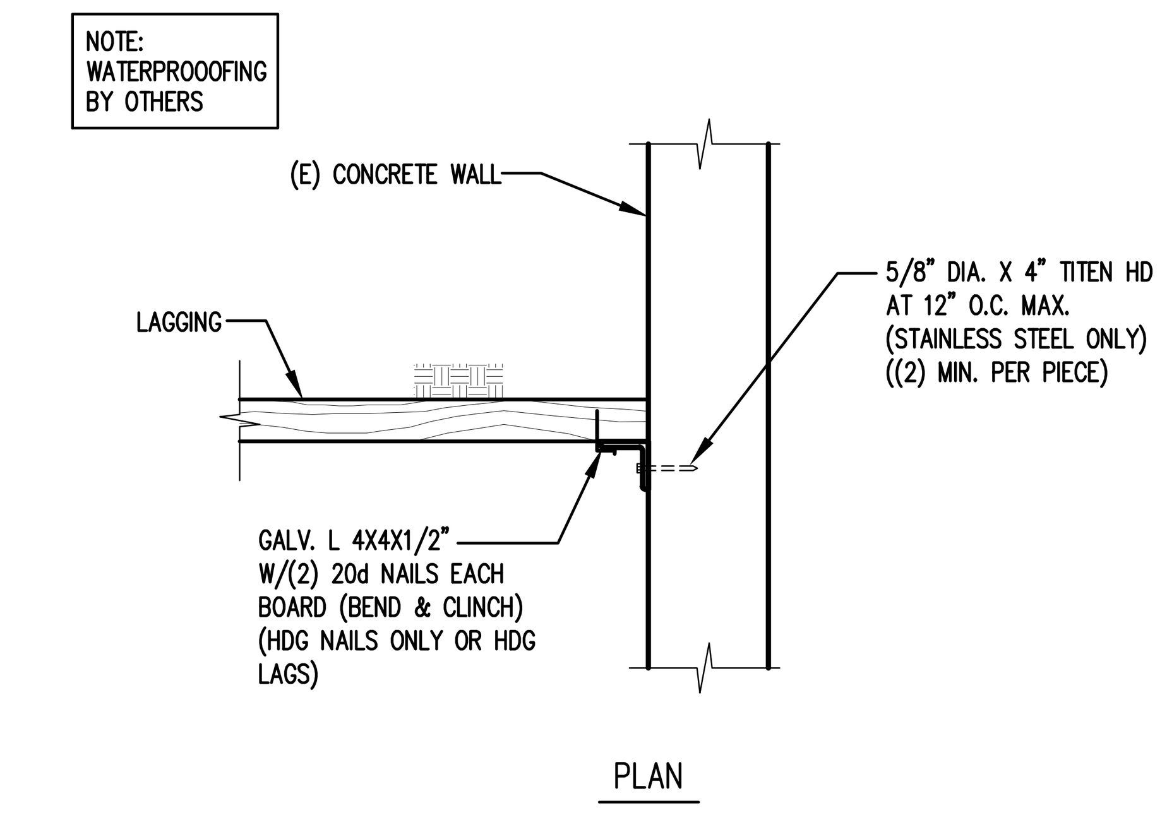
NO SCALE

3 TIEBACK PARAMETERS



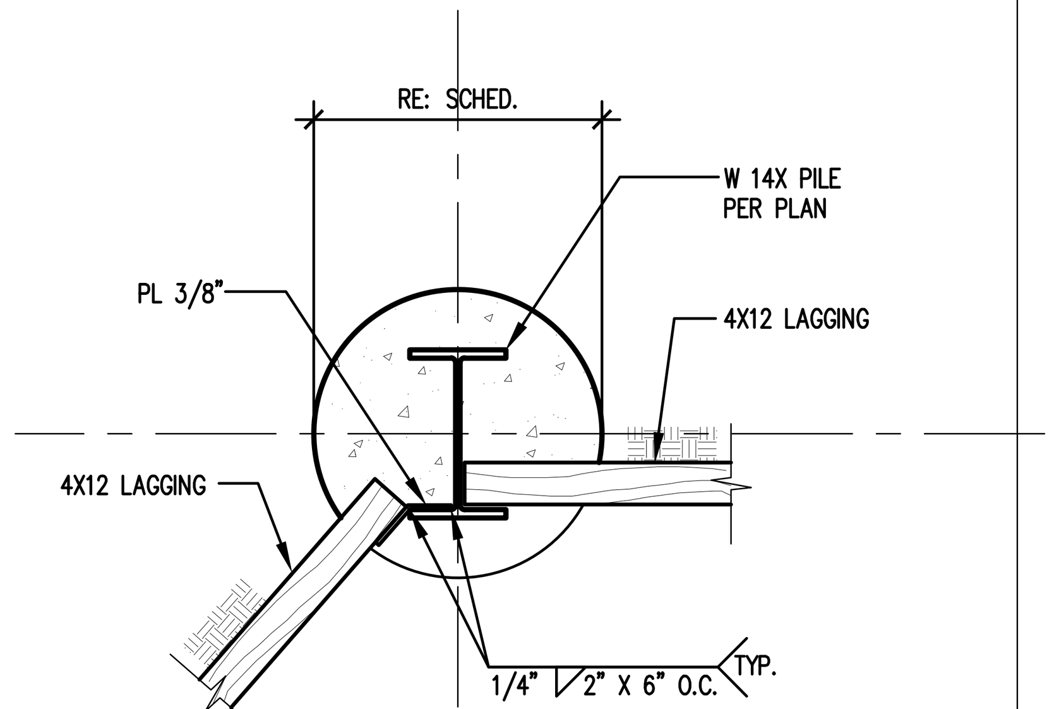
SCALE: 3/4" =1'-0"

4 TYPICAL PILE DETAIL



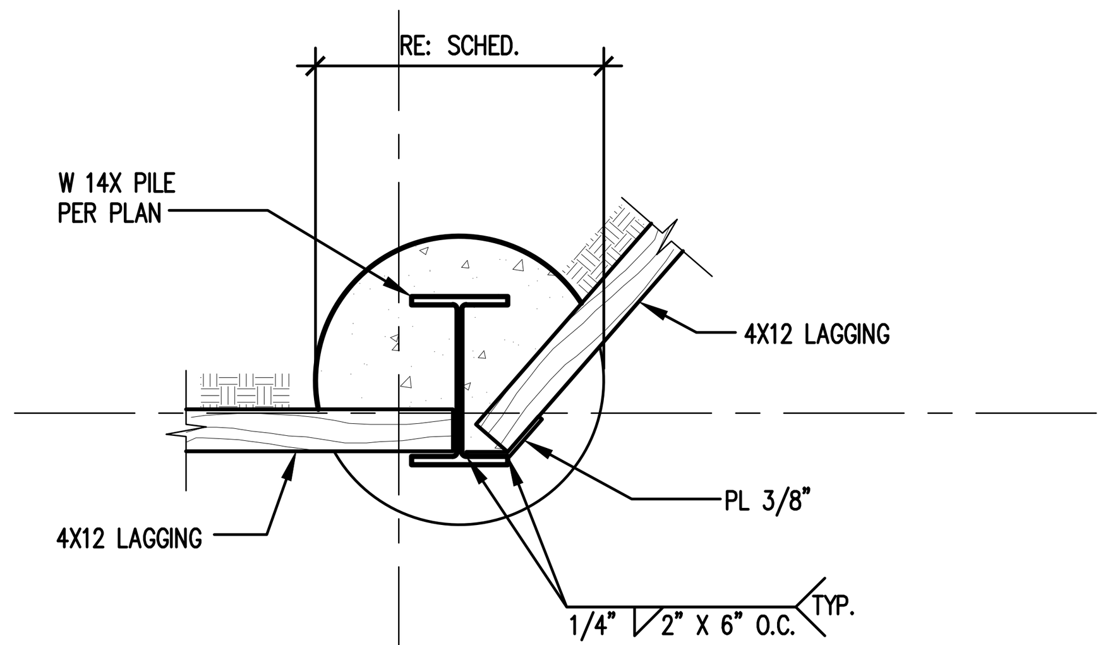
NO SCALE

5 LAGGING DETAIL AT CONCRETE WALL



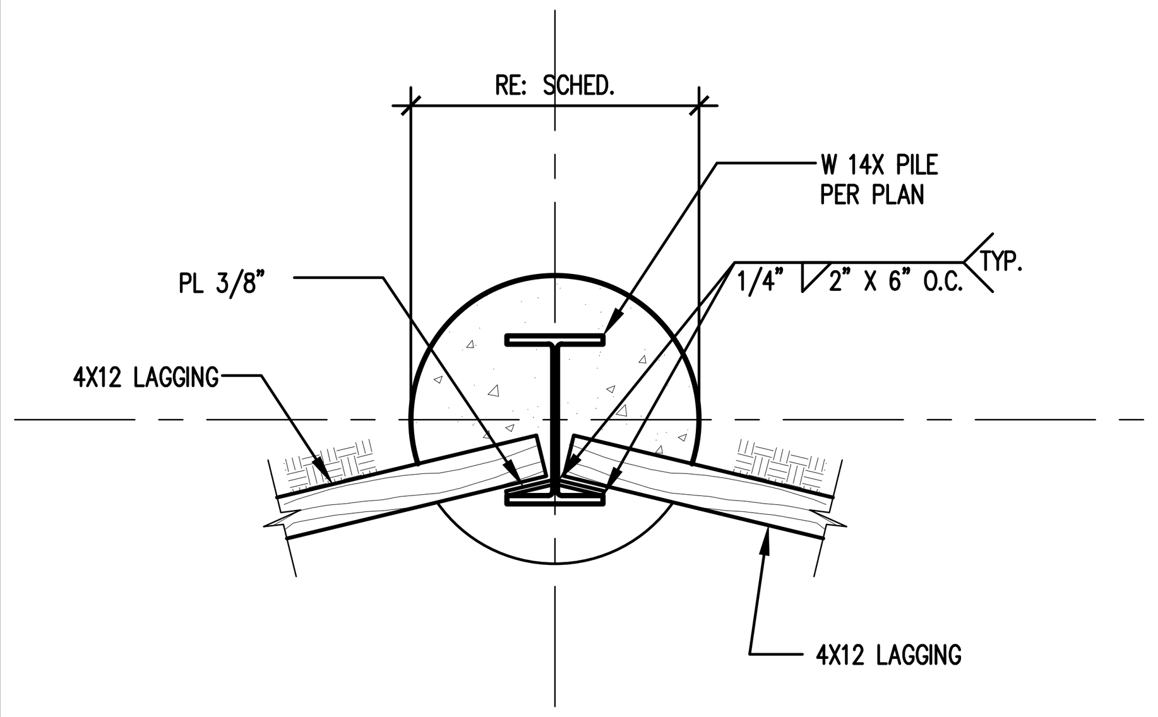
SCALE: 3/4" =1'-0"

7 TYPICAL CORNER PILE DETAIL



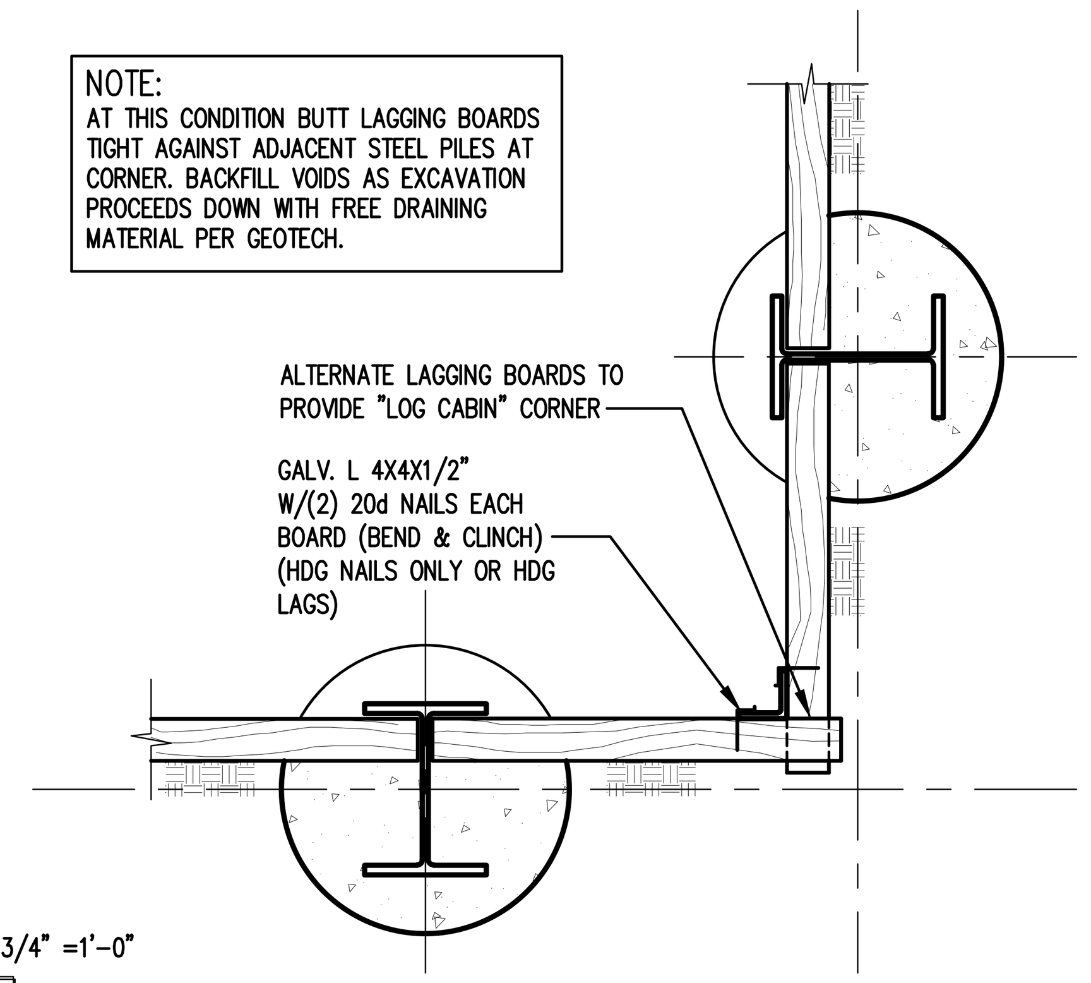
SCALE: 3/4" =1'-0"

8 TYPICAL CORNER PILE DETAIL



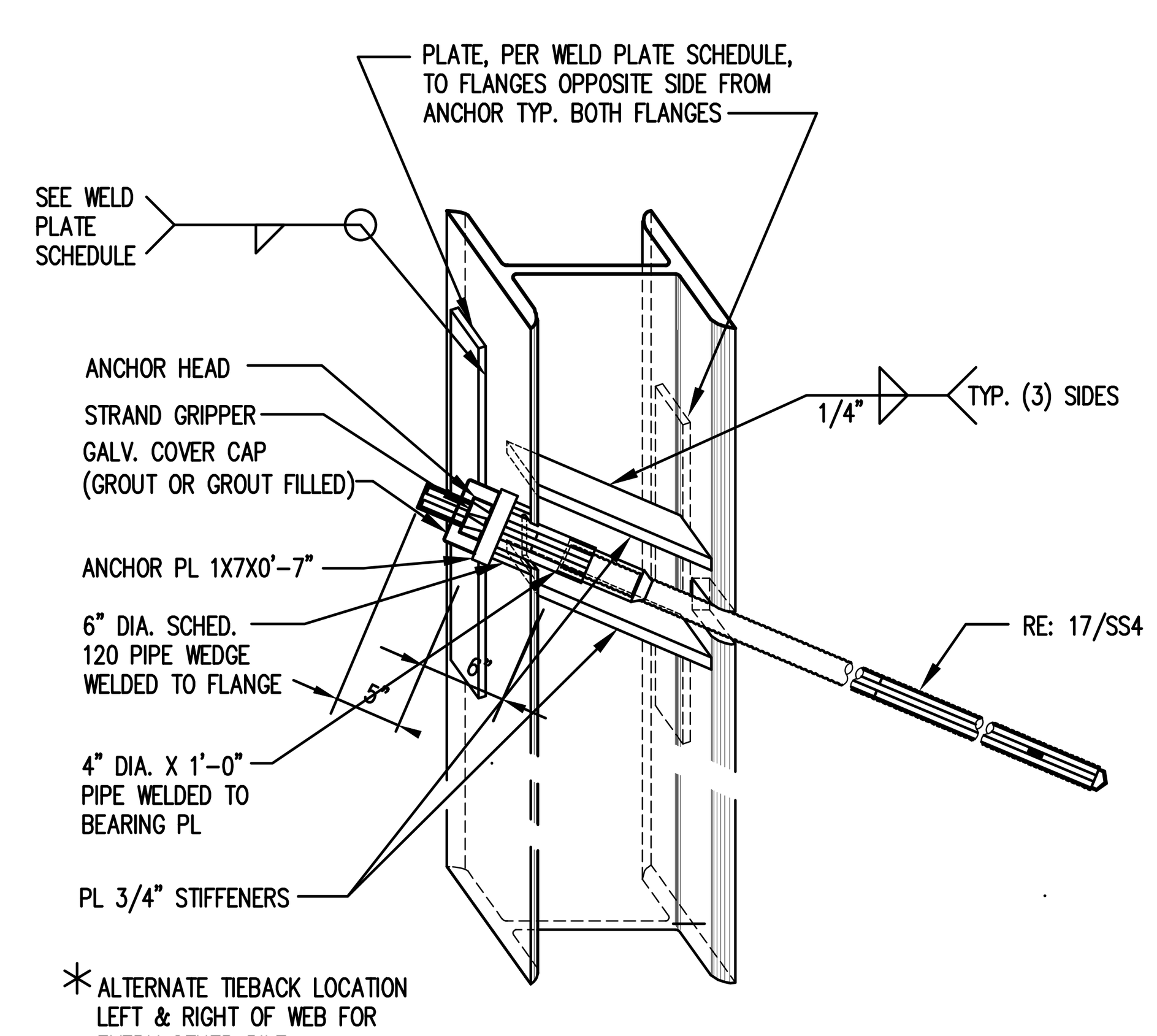
SCALE: 3/4" =1'-0"

9 TYPICAL CORNER PILE DETAIL



SCALE: 3/4" =1'-0"

10 TYPICAL BUTTED CORNER DETAIL



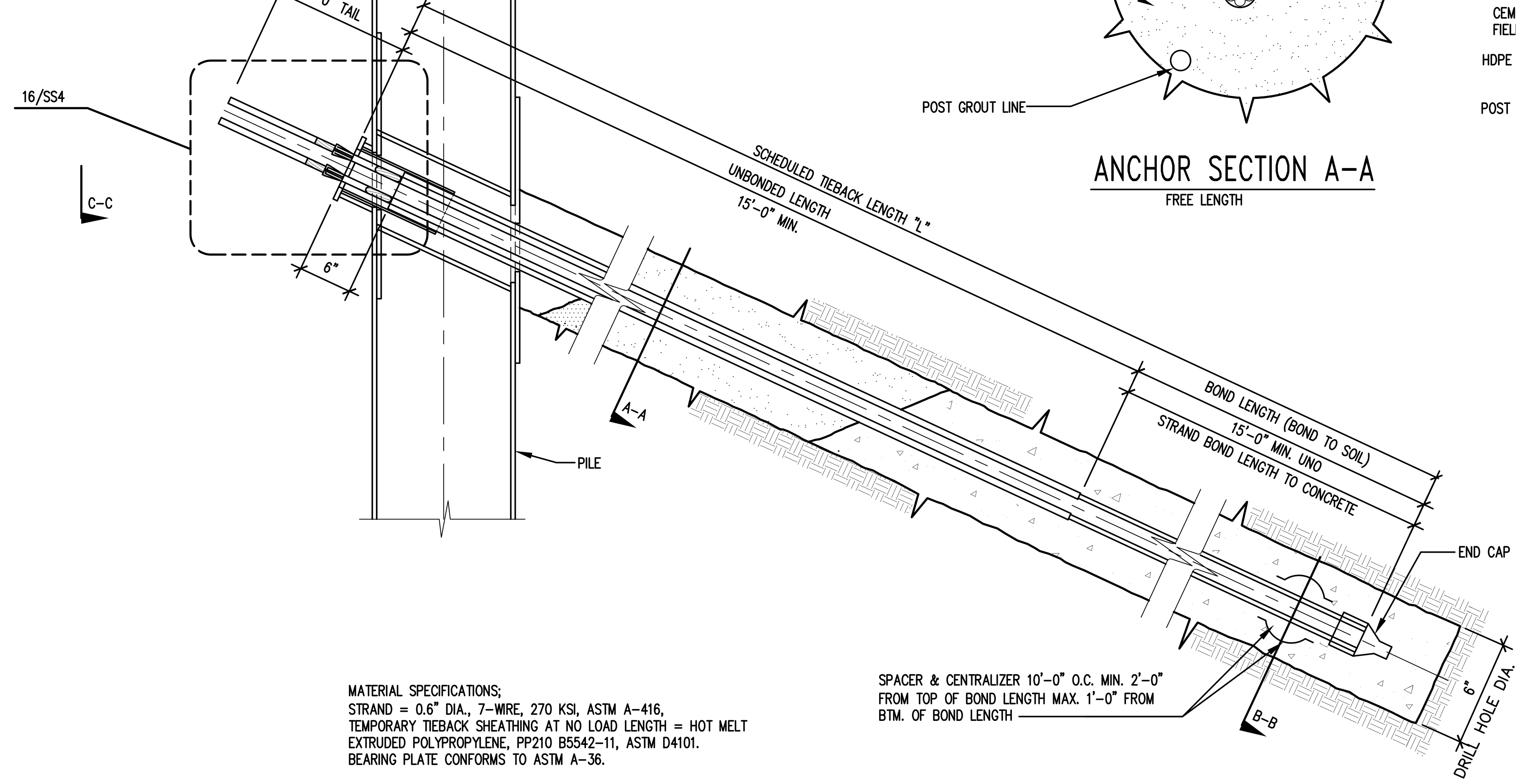
Weld Plate Schedule

PILE	PLATE	WELD
W 18X130	PL 1X4 1/2X3'-0"	5/16"

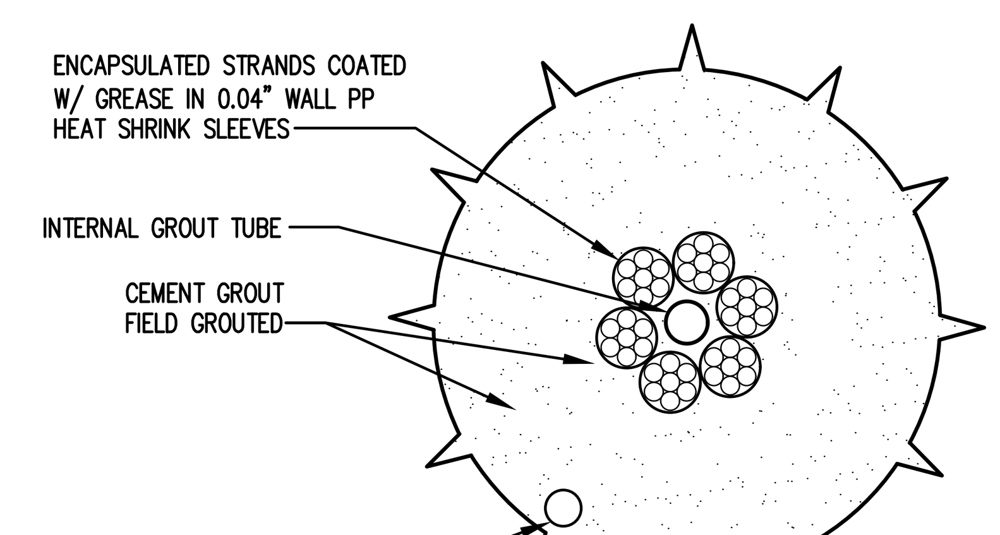
NOTE:
ALL PLATES SHALL BE ASTM A572

SCALE: 3/4" =1'-0"

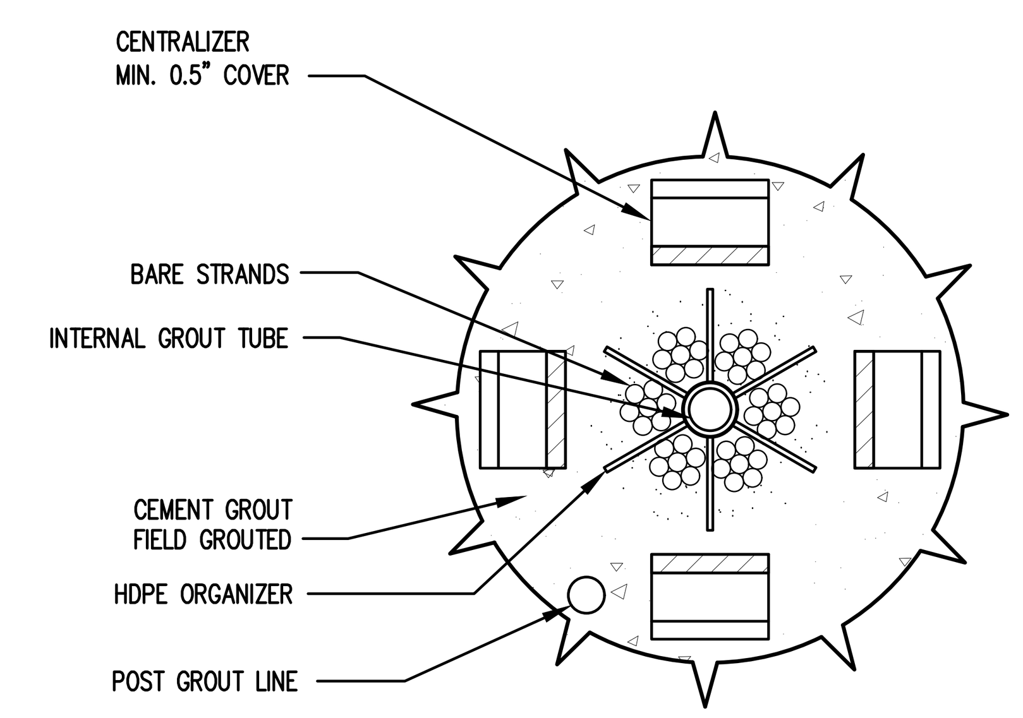
16 TYPICAL PILE REINFORCING at TIEBACK



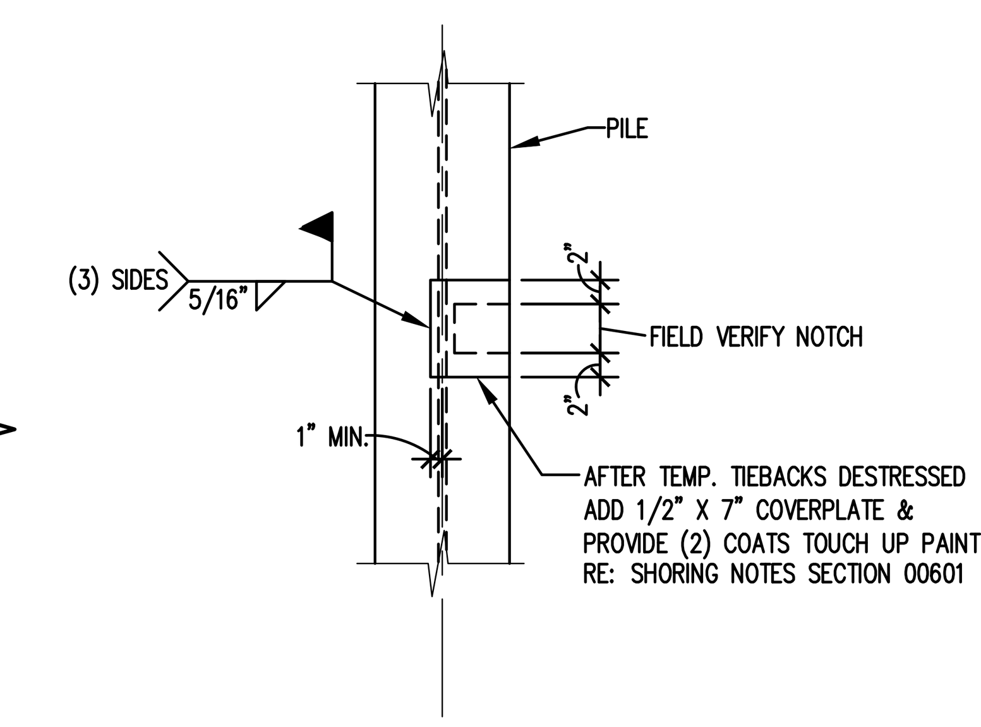
MATERIAL SPECIFICATIONS;
STRAND = 0.6" DIA., 7-WIRE, 270 KSI, ASTM A-416,
TEMPORARY TIEBACK SHEATHING AT NO LOAD LENGTH = HOT MELT EXTRUDED POLYPROPYLENE, PP210 B5542-11, ASTM D4101.
BEARING PLATE CONFORMS TO ASTM A-36.



ANCHOR SECTION A-A
FREE LENGTH



ANCHOR SECTION B-B
BOND LENGTH



DEETAIL C-C

SCALE: 3/4" =1'-0"

17 TYPICAL TEMPORARY TIEBACK ANCHOR SECTIONS and DETAILS

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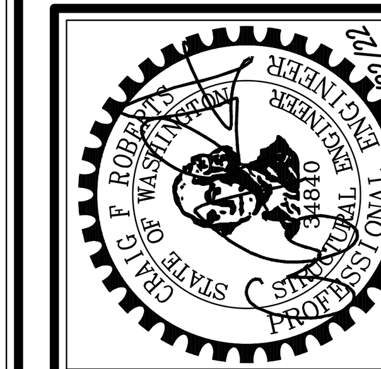

NO.	REVISION	DATE
	PERMIT ISSUE	03/22/22

ENG'R: AEM | CAD: DWH | DATE: 03/22/22 | FILE: 22012SS4 | JOB #: 22012

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Shoring Details

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Puyallup, Washington 98371

SS4.0