

C:\ADEPT\WORK AREAS\WORKING\E11432_S-1.DWG 7/27/2023 8:38 AM TRACY, DALLAS

STRUCTURAL NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE 2022 OSSC AS WELL AS LOCAL CODES AND REGULATIONS.
2. ALL FEATURES OF CONSTRUCTION NOT FULLY SHOWN SHALL BE OF THE SAME TYPE AND CHARACTER AS SHOWN FOR SIMILAR CONDITIONS, SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.
3. SPECIAL INSPECTION AND REPORTING AND COMPLIANCE PROCEDURES, IN ACCORDANCE WITH CHAPTER 17 OF THE OSSC, SHALL BE PROVIDED FOR THIS STRUCTURE, AND SHALL INCLUDE SPECIAL INSPECTION.
4. THE GENERAL STRUCTURAL NOTES ARE INTENDED FOR USE IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. IN THE EVENT OF A CONFLICT BETWEEN THE TWO, THE SPECIFICATIONS SHALL TAKE PRECEDENCE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
5. CONSTRUCTION SEQUENCE AND METHODS:

A. THE STRUCTURAL DRAWINGS ARE INTENDED FOR THE STRUCTURE TO ACT AS A WHOLE ONCE CONSTRUCTION IS COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE SAFETY AND STABILITY (I.E. TEMPORARY BRACING AND/OR SHORING IF REQUIRED) DURING CONSTRUCTION AS A RESULT OF CONSTRUCTION METHODS AND SEQUENCES.

B. THE CONTRACTOR SHALL TAKE INTO ACCOUNT COLD AND HOT WEATHER CONSTRUCTION AND THE EFFECTS OF THERMAL MOVEMENT DURING THE CONSTRUCTION SCHEDULE.
6. DESIGN CRITERIA:

A. CODE: 2021 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF OREGON (2022 OSSC).

B. SEISMIC:

- Ie = 1.0

- SITE CLASS D

- RISK CATEGORY III

- Ss = 0.92, S1 = 0.36

- Sds = 0.77, Sd1 = 0.52

- SDC = D

- Wp = 1,200 FOR ELECTRICAL CABINET

POST-INSTALLED ANCHORS:

1. ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND ES REPORT.
2. ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.
3. STEEL ANCHOR MATERIAL SHALL BE EITHER STAINLESS STEEL 304 OR 316. NUTS AND WASHERS TO MATCH ANCHOR STEEL MATERIAL.
4. ACCEPTABLE EXPANSION ANCHORS:

- HILTI KWIK-BOLT TZ2 (KB-TZ2), ESR-4266

- DEWALT/POWERS POWER-STUD +SD4 OR +SD6, ESR-2502

- SIMPSON STRONG TIE STRONG-BOLT 2, ESR-3037
5. ACCEPTABLE ADHESIVES:

- HILTI HIT RE 500V3, ESR-3814

- DEWALT/POWERS PURE 110+ EPOXY, ESR-4057

- SIMPSON STRONG TIE SET-3G, ESR-3298
6. LOCATE REINFORCING PRIOR TO DRILLING. DO NOT DRILL OR CUT ANY REINFORCING.

SPECIAL INSPECTIONS NOTES:

1. THE SPECIAL INSPECTION SHALL BE PROVIDED BY OWNER.
2. DUTIES OF THE CONTRACTOR INCLUDE, BUT ARE NOT LIMITED TO:

2.1. NOTIFYING THE SPECIAL INSPECTOR THAT THE WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE SUCH INSPECTION.

2.2. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR.

2.3. PROVIDING THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED PERMIT PLANS AND SPECIFICATIONS AT THE JOBSITE.

2.4. MAINTAINING AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.
3. DEFINITIONS:

3.1. CONTINUOUS INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT ALL TIMES OBSERVING THE WORK REQUIRING SPECIAL INSPECTION.

3.2. PERIODIC INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT THE WORK REQUIRING SPECIAL INSPECTION IS IN CONFORMANCE WITH APPROVED PERMIT PLANS AND SPECIFICATIONS.
4. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION:

4.1. POST-INSTALLED ANCHORS (PERIODIC).

4.2. CONCRETE:

- INSPECT FORM-WORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED (PERIODIC)

- REINFORCING STEEL PLACEMENT (PERIODIC)

- VERIFY USE OF REQUIRED MIX DESIGN (PERIODIC)

- PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE (CONTINUOUS)

- INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES (CONTINUOUS)

- VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES (PERIODIC)

CONCRETE NOTES:

1. FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CRSI MSP-1 "MANUAL OF STANDARD PRACTICE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
2. CONCRETE COVER FOR REINFORCING, UNLESS SHOWN OTHERWISE, SHALL BE:

- WHEN CAST AGAINST THE EARTH: 3"

- EXPOSED TO OZONE OR OZONATED WATER: 3"

- INTERIOR, DRY, HUMIDITY, CONTROLLED AREAS:

- WALLS, SLABS, AND JOISTS ¾"

- BEAM STIRRUPS AND COLUMN TIES 1½"

- CONCRETE EXPOSED TO EARTH, LIQUID, WASHDOWN, OR WEATHER:

- WALLS AND SLABS 2"

- BEAM STIRRUPS AND COLUMN TIES 2"

- BEAM AND COLUMN PRIMARY REINFORCING 2½"

3. 90 DEGREE BENDS, UNLESS OTHERWISE SHOWN, SHALL BE ACI 318 STANDARD HOOKS.

4. REINFORCING STEEL FOR FOOTINGS AND SLABS ON GRADE SHALL BE ADEQUATELY SUPPORTED ON BAR SUPPORTS WITH SPACERS TO KEEP REINFORCING ABOVE THE PREPARED GRADE. LIFTING REINFORCING OFF GRADE DURING CONCRETE PLACEMENT IS NOT PERMITTED.

5. 28-DAY COMPRESSIVE AND DESIGN STRENGTH = 4,000 PSI.

6. PROVIDE ¼" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.

				XREF(S) USED:	DESIGNED BY	ET	DATE APPD.
				ROTATION ANGLE: #####	DRAWN BY	DKT	PROGRAM MGR.
				CONSTRUCTED BY	CHECKED BY	ET	CONST. MGR.
				PROJECT COMPLETED	DESIGN MGR.	###	
				MAP CORRECTED BY			
				CHECKED BY			
NO.	DATE	DESCRIPTION	APPD.	FINAL MAP DATA			
		REVISION		DRAWING NAME: E11432_S-1.dwg			

CITY OF PORTLAND

ENVIRONMENTAL SERVICES

STRUCTURAL
REGISTERED PROFESSIONAL
ENGINEER
18040PE

OREGON
MAY 15, 2017
ERIC D. THOMAS

EXPIRES: JUNE-30-2024

CBWTP SILVER TUNNEL AND DIPU
DEEP WELL VFD REPLACEMENT

STRUCTURAL
GENERAL NOTES

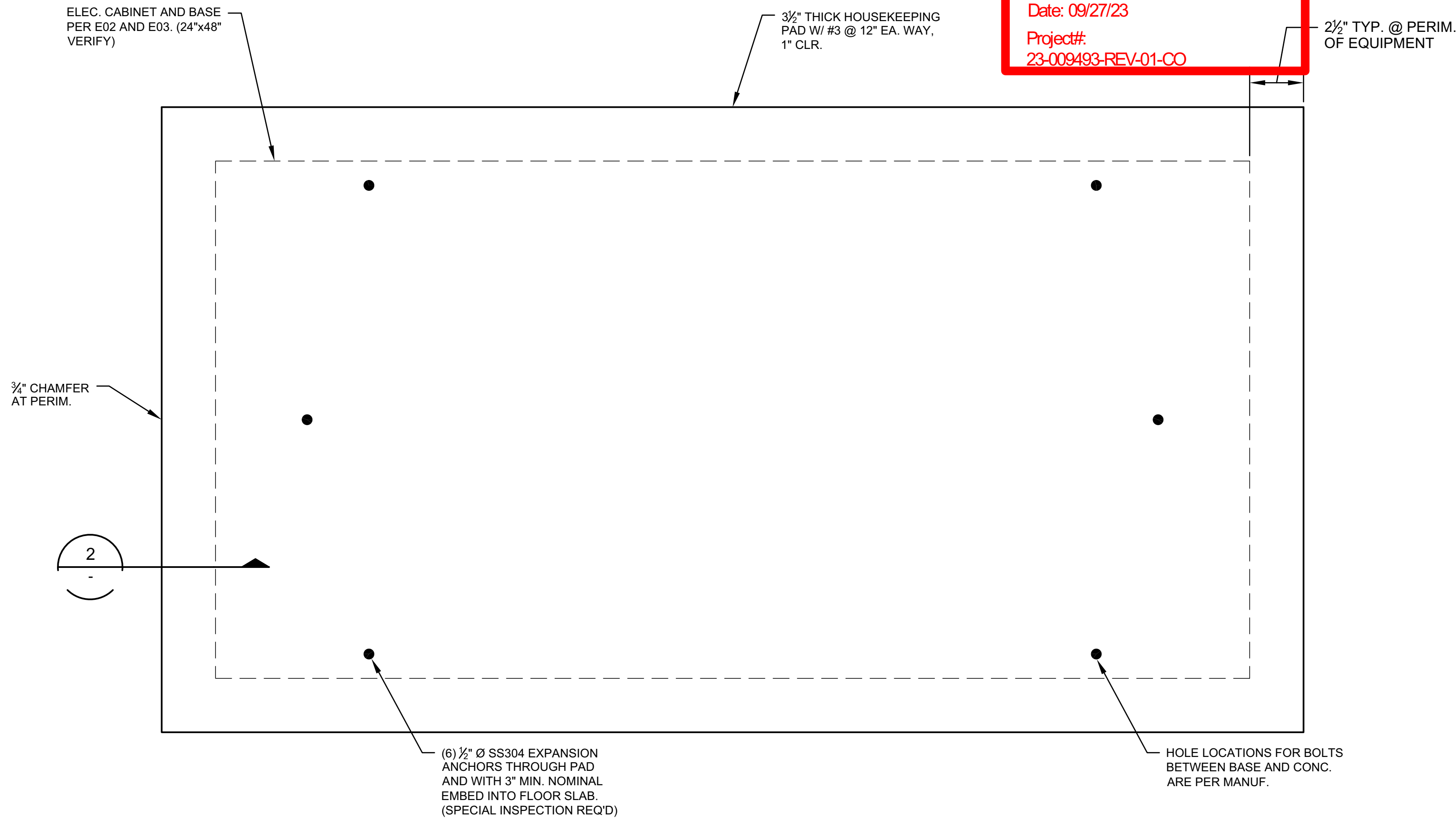
1/4 SECTION

JOB NO.
E11432

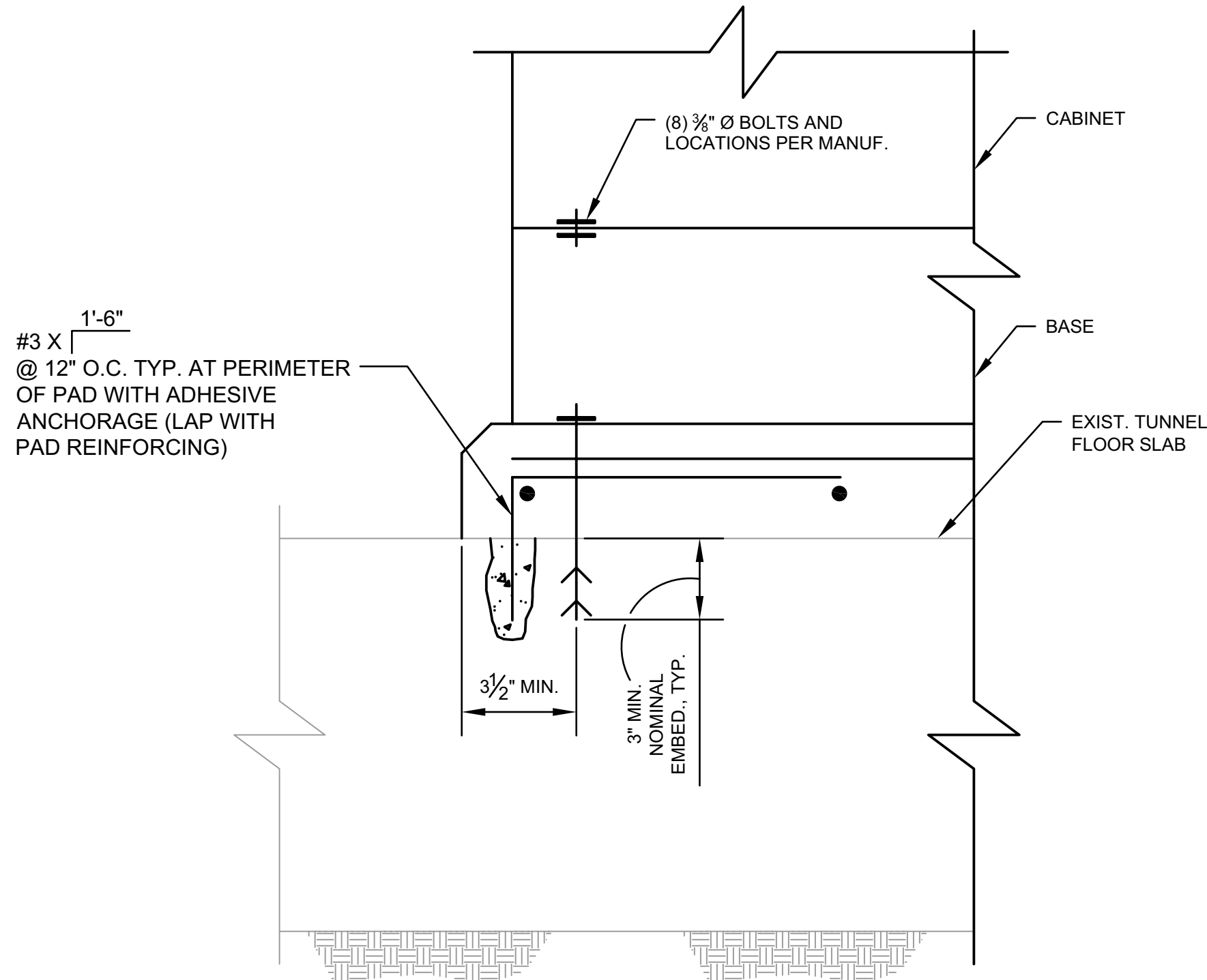
SHEET NO.
S-1

13 OF 14

C:\ADEPT\WORK AREAS\WORKING\E11432_S-2.DWG 7/27/2023 8:39 AM TRACY, DALLAS



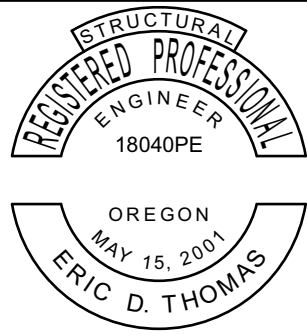
1 HOUSEKEEPING PAD PLAN
SCALE: NTS



2 PAD AND EQUIPMENT DETAIL
SCALE: NTS

				XREF(S) USED: _____	DESIGNED BY	ET	DATE APPD.
				ROTATION ANGLE: #####	DRAWN BY	DKT	PROGRAM MGR.
				CONSTRUCTED BY _____	CHECKED BY	ET	CONST. MGR.
				PROJECT COMPLETED _____	DESIGN MGR.	###	
				MAP CORRECTED BY _____ CHECKED BY _____			
NO.	DATE	DESCRIPTION	APPD.	FINAL MAP DATA			
		REVISION		DRAWING NAME: E11432_S-2.dwg			

CITY OF PORTLAND
ENVIRONMENTAL SERVICES



EXPIRES: JUNE-30-2024

CBWTP SILVER TUNNEL AND DIPU
DEEP WELL VFD REPLACEMENT

STRUCTURAL
DETAILS

1/4 SECTION
JOB NO.
E11432
SHEET NO.
S-2
14 OF 14