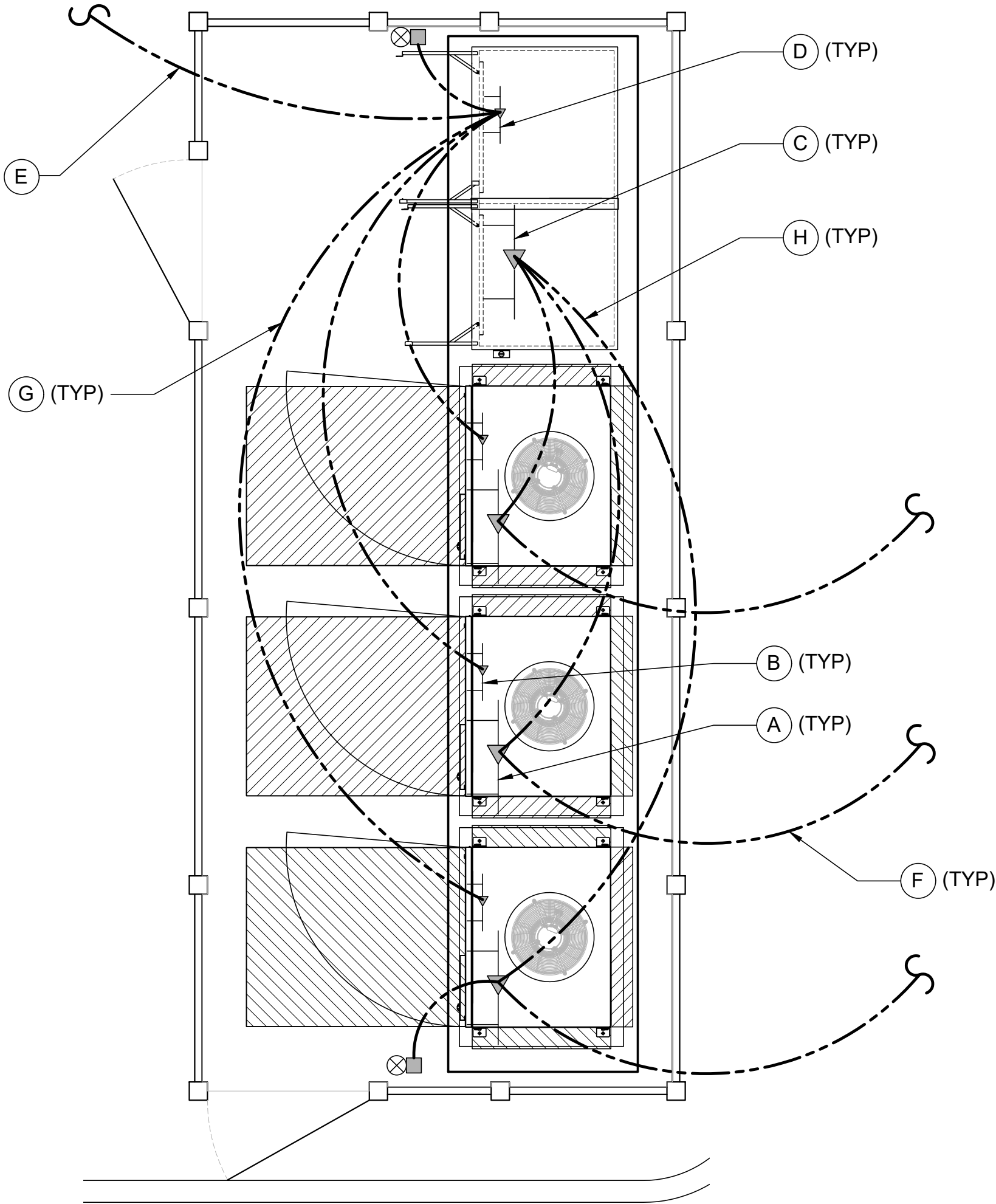


GROUNDING LEGEND

- EXOTHERMIC WELD (2) TWO, #6 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR/LUG. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
- ALL GROUND BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE."
- ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUND BUS.
- NUT AND WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, 600 VOLT INSULATION, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
- ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
- TESLA CHARGERS HAVE INTERNAL HIGH IMPEDANCE GROUND FAULT PROTECTION (10MΩ).
- EMC - ELECTROMAGNETIC COMPATIBILITY.
- ALL GROUNDING HARDWARE SUPPLIED AND INSTALLED BY CONTRACTOR.



GROUNDING LEGEND

- (A) GROUND BUSBAR WITHIN PROPOSED SUPERCHARGER CABINET
- (B) NEUTRAL BUSBER WITHIN PROPOSED SUPERCHARGER CABINET
- (C) GROUND BUSBAR WITHIN PROPOSED MAIN SERVICE EQUIPMENT
- (D) NEUTRAL BUS BER WITHIN PROPOSED MAIN SERVICE EQUIPMENT
- (E) GROUNDED CONDUCTOR AND CONNECTION PER UTILITY REQUIREMENTS FROM MAIN SERVICE EQUIPMENT TO TRANSFORMER
- (F) EGC, TYP. "DC#" FROM PROPOSED SUPERCHARGER CABINET TO PROPOSED SUPERCHARGER POST.
- (G) NEUTRAL, TYP. "SPR#" FROM MAIN SERVICE EQUIPMENT TO SUPERCHARGER CABINET
- (H) EGC, TYP. "SPR#" FROM MAIN SERVICE EQUIPMENT TO SUPERCHARGER CABINET

- PROPOSED GROUND CONDUCTOR
- CADWELD CONNECTION (EXOTHERMIC WELD)
- ▲ MECHANICAL CONNECTION
- ⊗ GROUND ROD

TRENCHING NOTES

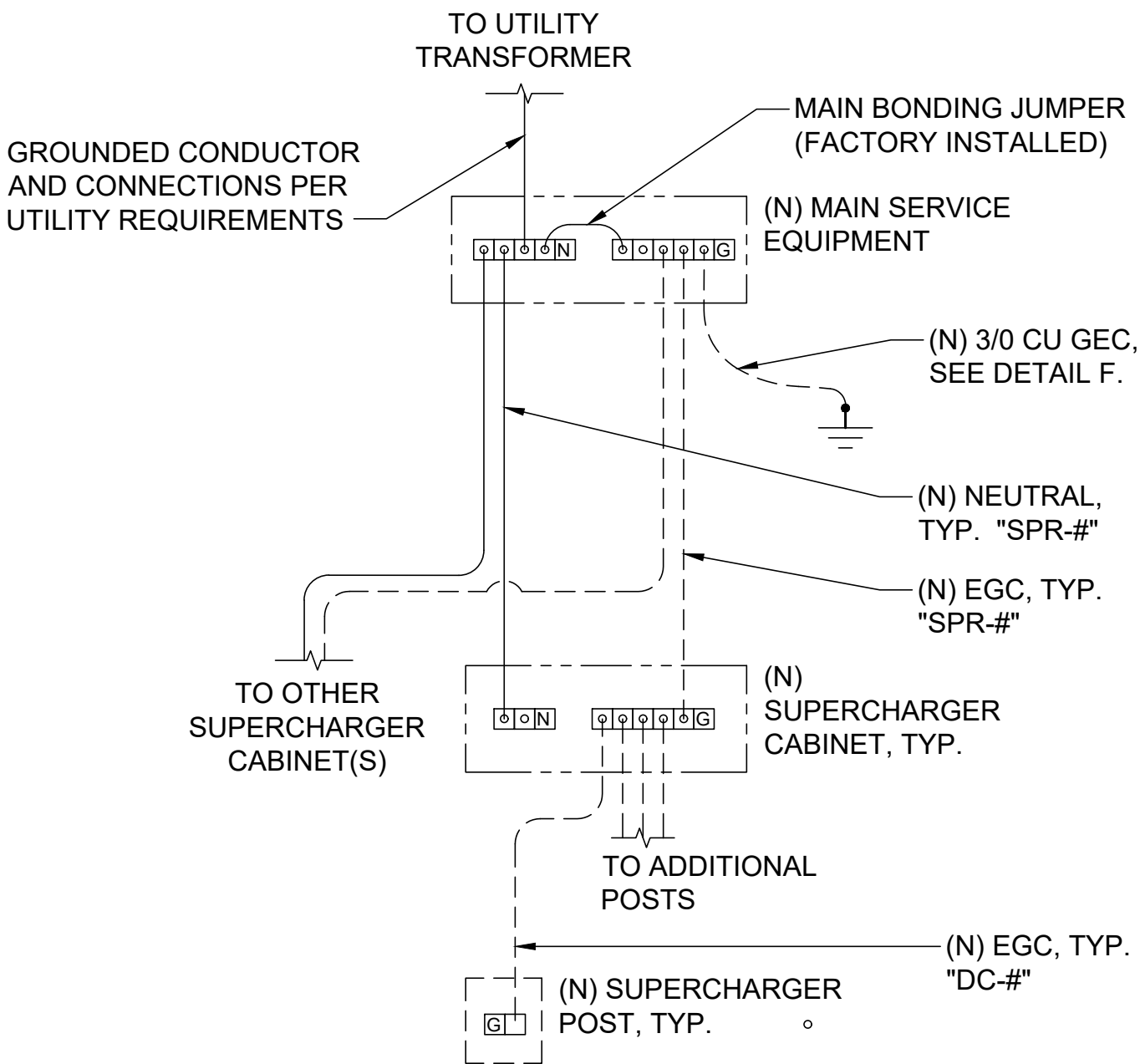
- THE TRENCH DESIGNS ARE THE RESULT OF A THERMAL ANALYSIS OF THE CONDUCTORS UNDER LOAD. FOR PROPER PROTECTION THEY MUST BE FOLLOWED.
- APPROVED BACKFILL IS REQUIRED TO MEET THE DESIGNED RHO VALUES. USE THE SPECIFIED BACKFILL LISTED BELOW OR TEST NATIVE SOIL CONDITIONS TO CONFIRM MAX DEFINED RHO VALUES
- RHO 90 BACKFILL** - LOW STRENGTH FLUIDIZED THERMAL (SLURRY) BACKFILL WITH MIN 28 DAY COMPRESSIVE STRENGTH OF 150 PSI MUST BE USED TO ACHIEVE MAX RHO 90.
- FOR TRENCHES WITH MIXED CIRCUIT TYPES, APPLY THE CONDUIT SPACING FOR THE CIRCUIT TYPE WITH THE LARGER SPACING REQUIREMENT.
- CONDUIT TO BE INSTALLED TO A MAX COVER OF 24". COVER MAY BE REDUCED PER THE NEC TABLE 300.5.

GROUNDING NOTES

- REFER TO ONE-LINE DIAGRAM FOR SPECIFIC CIRCUIT IDENTIFIERS BETWEEN EQUIPMENT.
- REFER TO AC & DC CIRCUIT SCHEDULES FOR NEUTRAL/GROUND SIZING PER CIRCUIT.

SYMBOLS LEGEND

- |   |   |   |  |
|---|---|---|--|
| ⊖ | NEUTRAL BUSBAR                                      | ⊖ | TERMINAL ON NEUTRAL OR GROUND BUSBAR           |
| ⊖ | GROUND BUSBAR                                       | • | IRREVERSIBLE SPLICE OR CRIMP PER NEC 250.64(C) |
| ⊖ | PRIMARY OR SECONDARY COMMON TERMINAL, AS APPLICABLE | ⊖ | NEC 250.52(A)-COMPLIANT GROUNDING ELECTRODE    |



GROUNDING PLAN

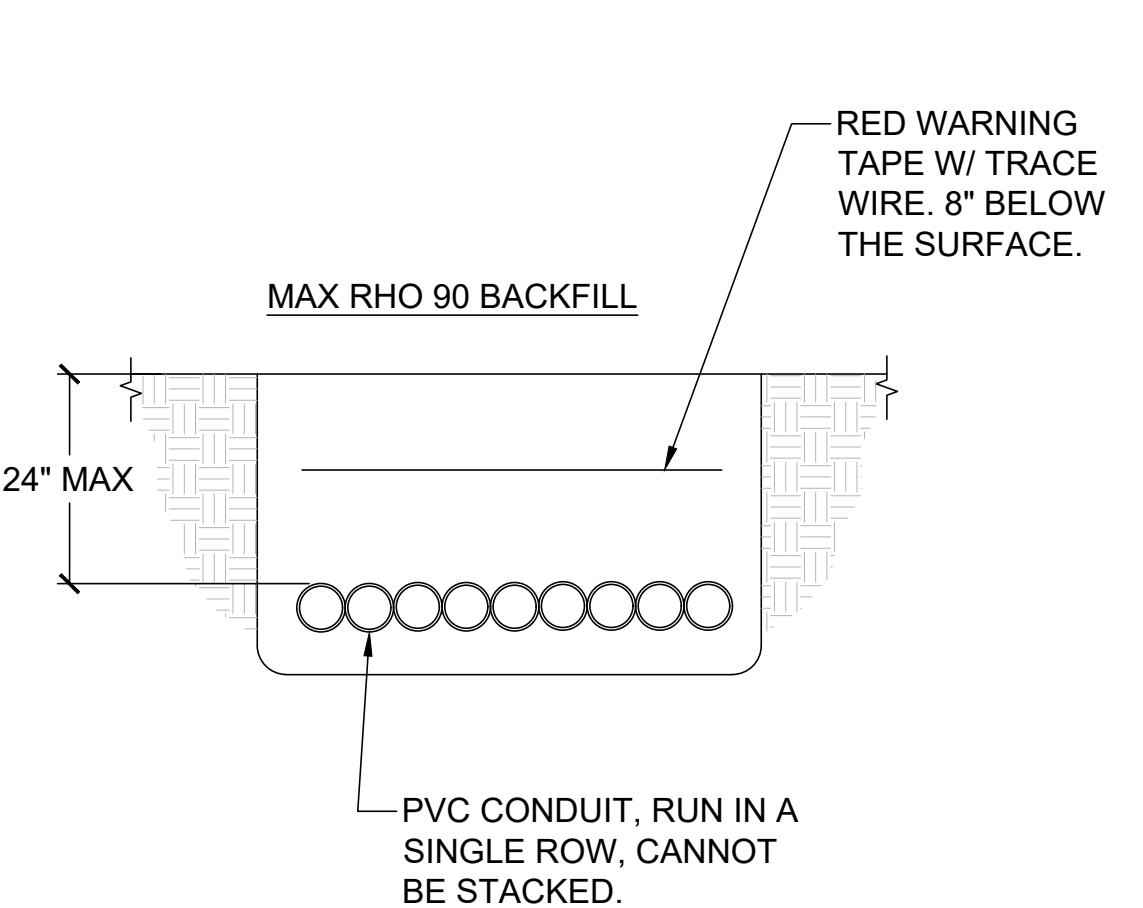
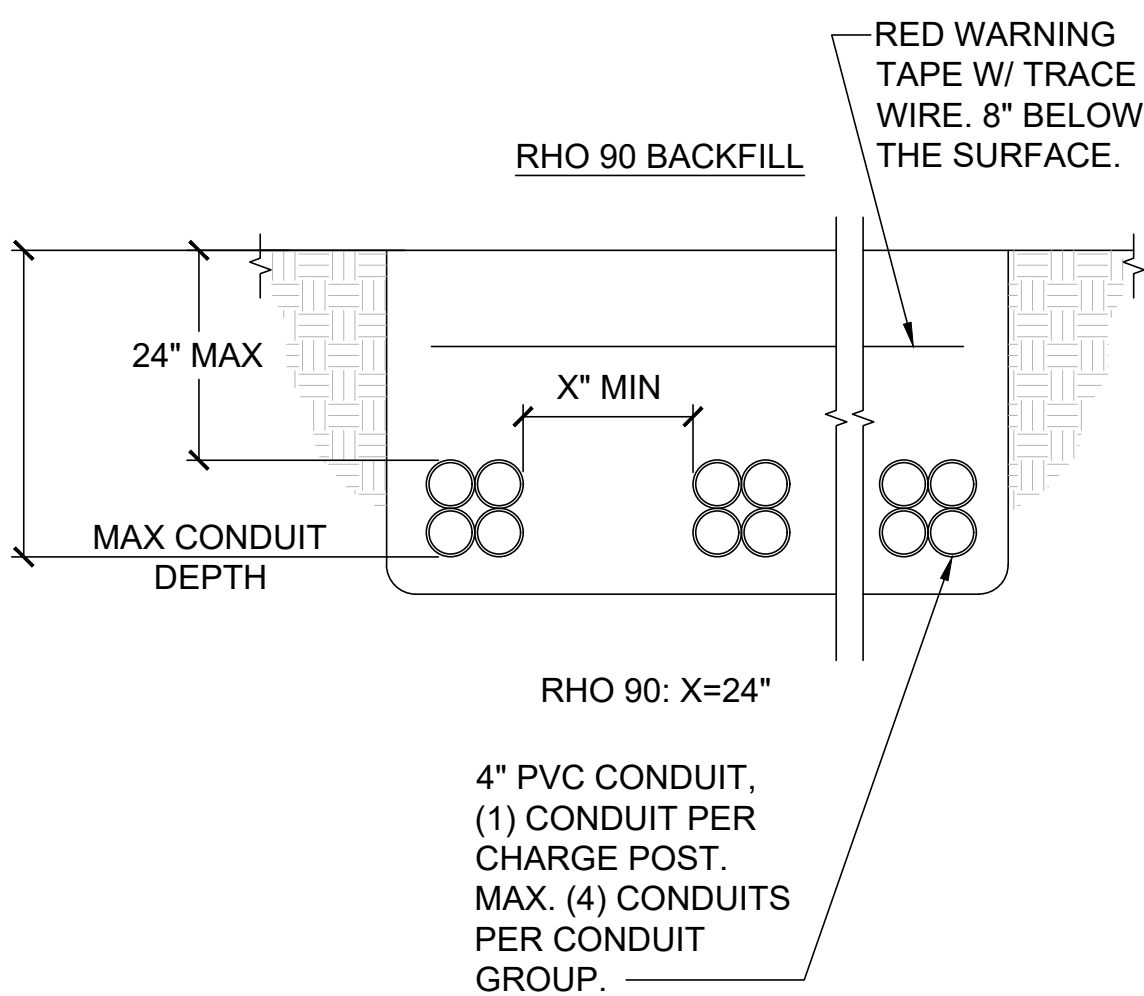
NO SCALE

A

CONCRETE ENCASED ELECTRODE DETAIL

NO SCALE

B



DC CIRCUIT TRENCH - RHO 90

NO SCALE

C

"DC-BUS" CIRCUITS TRENCH - MAX RHO 90

NO SCALE

D

AC CIRCUIT TRENCH - MAX RHO 90

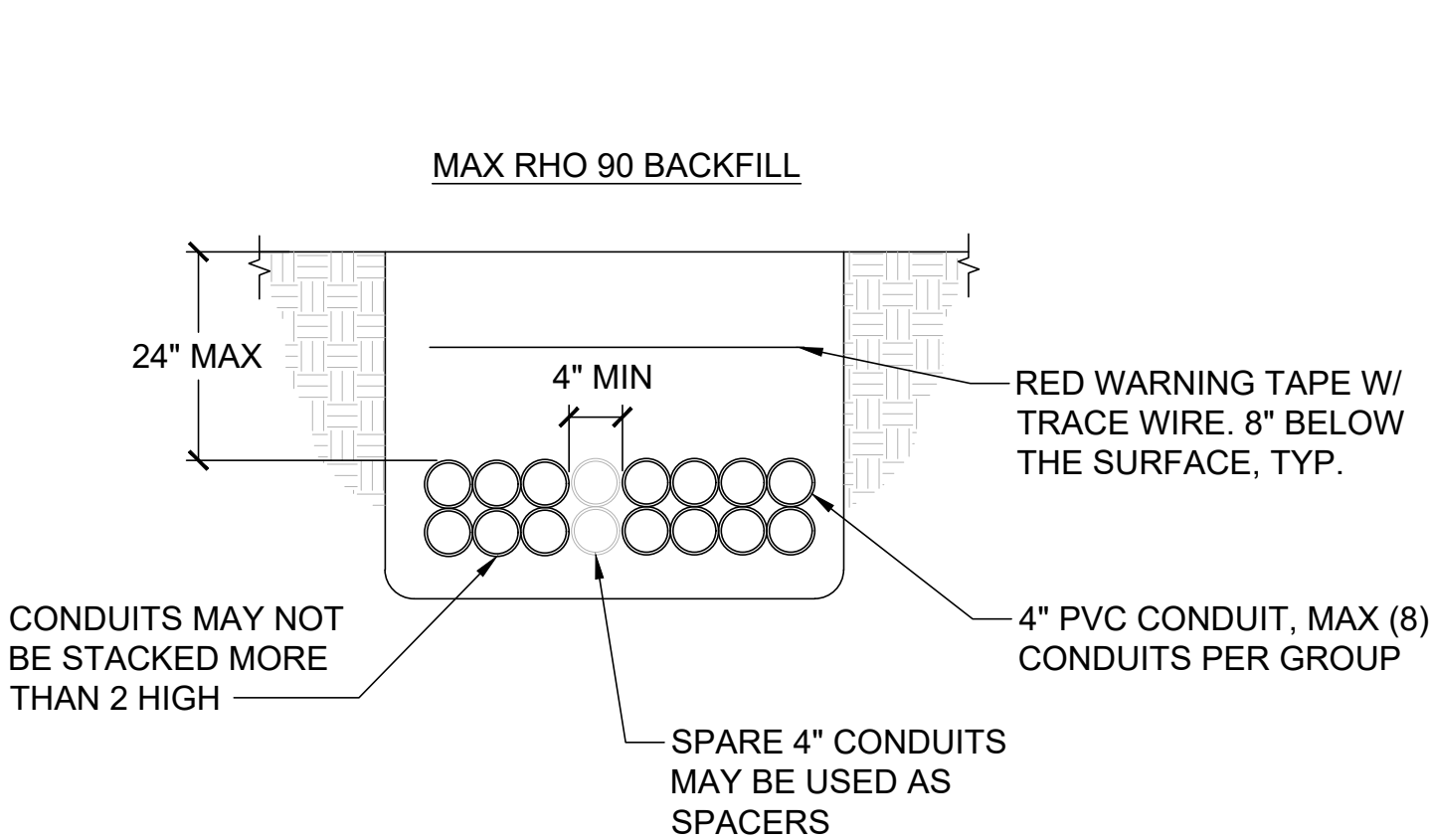
NO SCALE

E

CONCRET PAD GROUNDING DETAIL

NO SCALE

F



GEC OR COMBINED GEC/EGC FROM GROUND BAR IN EQUIPMENT

ATTACH GEC OR COMBINED GEC/EGC TO 20' OF CONTINUOUS OR SPLICED REBAR USING LISTED REBAR GROUNDING CONNECTOR

CONCRETE EQUIPMENT PAD

REBAR CAGE CONNECTED BY REBAR TIES

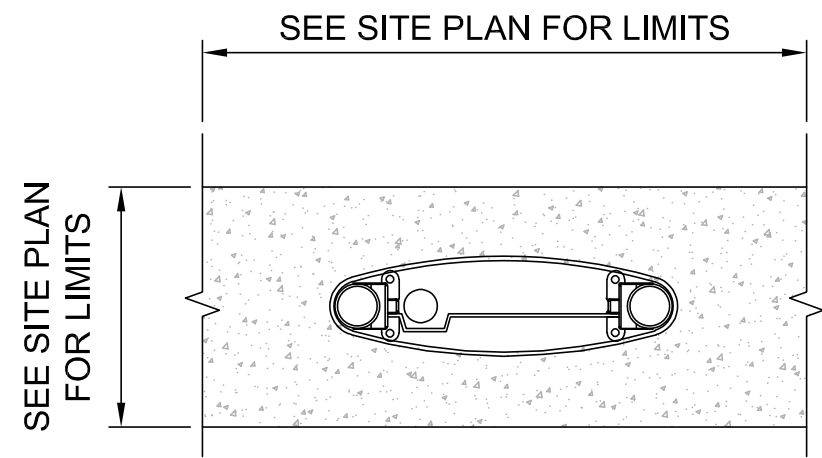
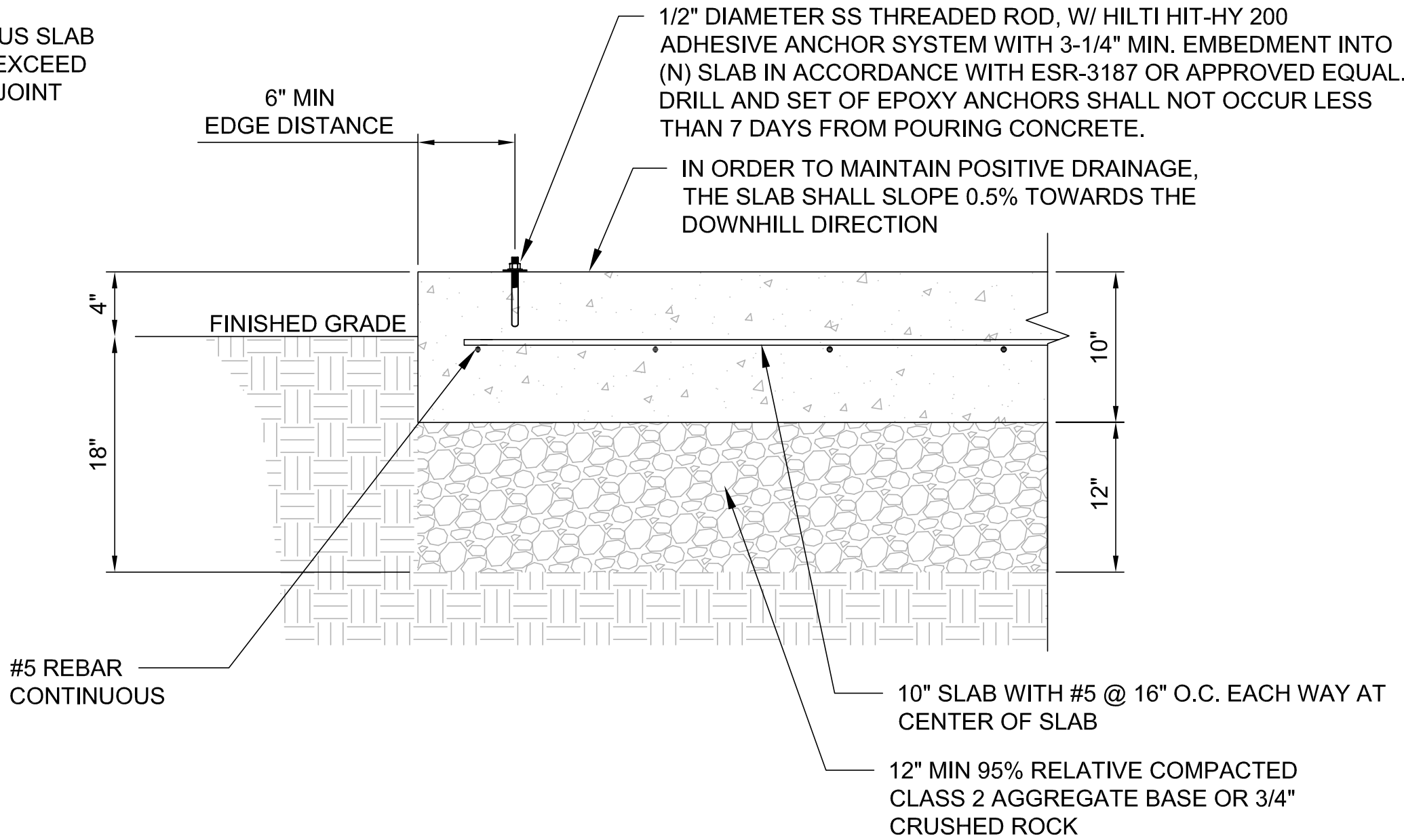
SITE NAME: DETROIT, MI  
1301 W 8 MILE RD  
DETROIT, MI 48203

SHEET TITLE  
**GROUNDING DETAILS**

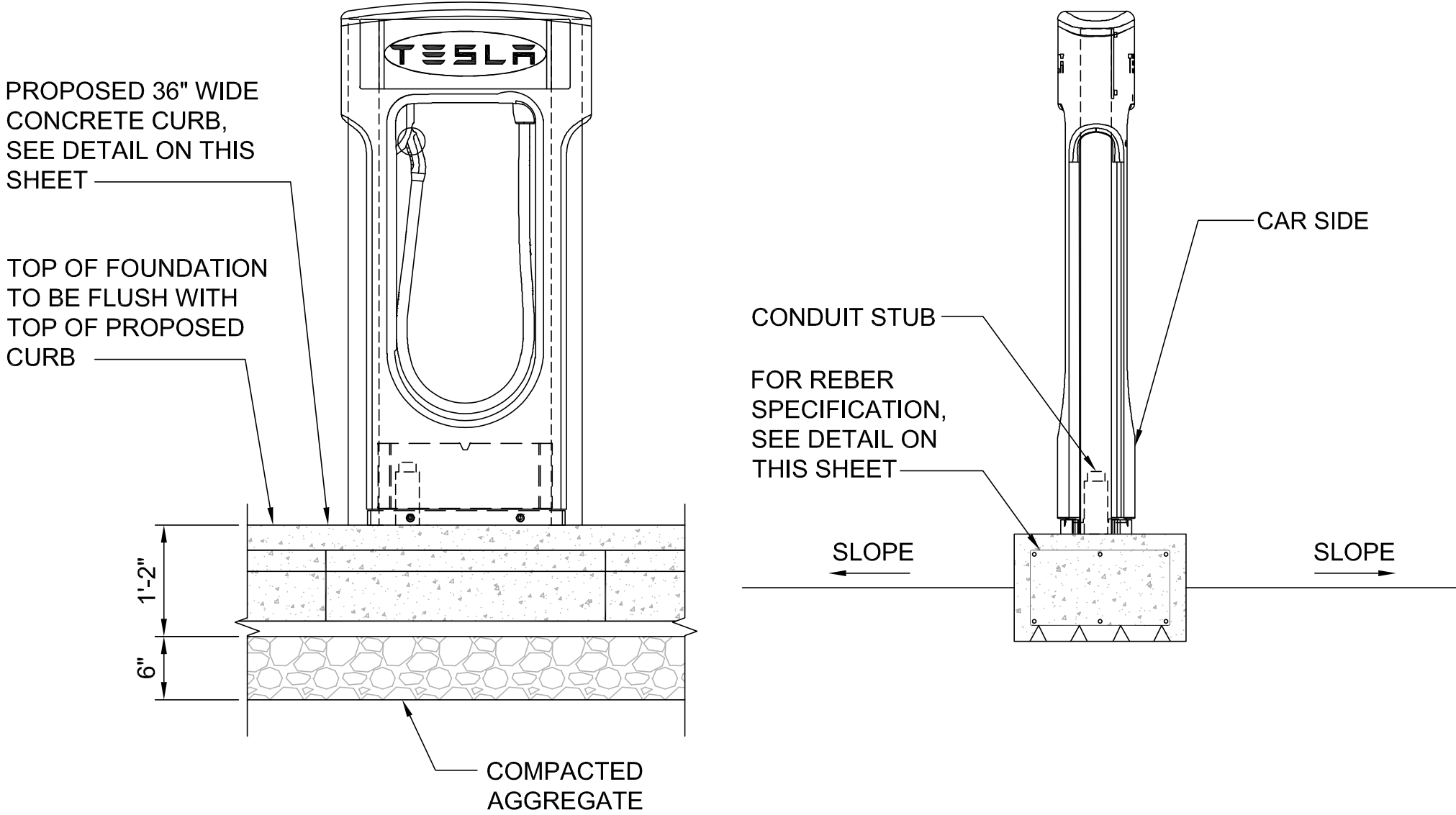
SHEET NUMBER  
**G-1**



NOTE: MAX. CONTINUOUS SLAB LENGTH SHOULD NOT EXCEED 50 FT W/O EXPANSION JOINT



**ANCHORING NOTES**  
ANCHORS- (4) 5/8" DIAMETER HILTI KWIK BOLT STAINLESS STEEL ANCHORS 3' Ø EFFECTIVE EMBEDMENT MIN 6" EDGE DISTANCE  
  
FASTENERS-(2) TOTAL 5/8" NUTS AND (2) TOTAL 5/8" WASHERS PER ANCHOR. NUT AND WASHER MATERIAL TYPE TO MATCH ANCHOR MATERIAL. (2) 5/8" NUT AND WASHERS ABOVE BOLLARD FLANGE (1) BELOW.



EQUIPMENT PAD & ANCHOR SECTION

NO SCALE

A

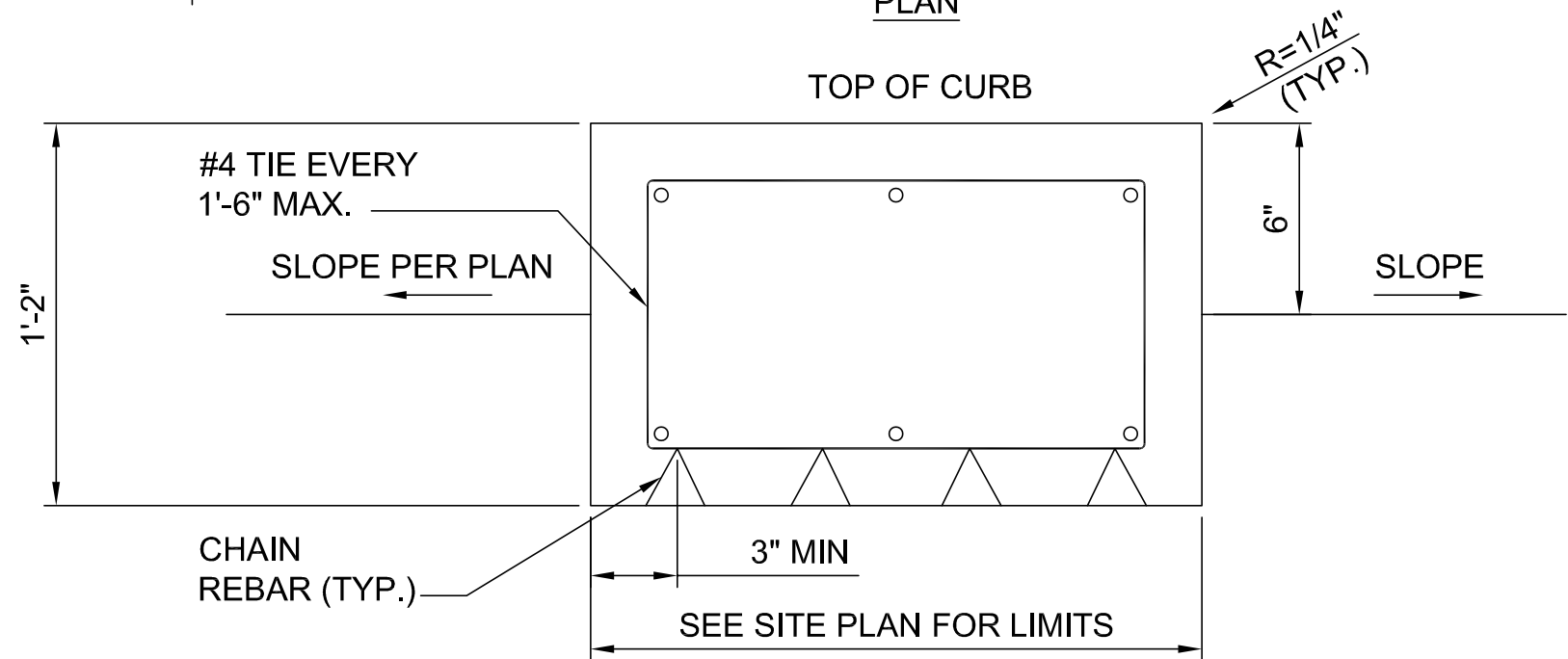
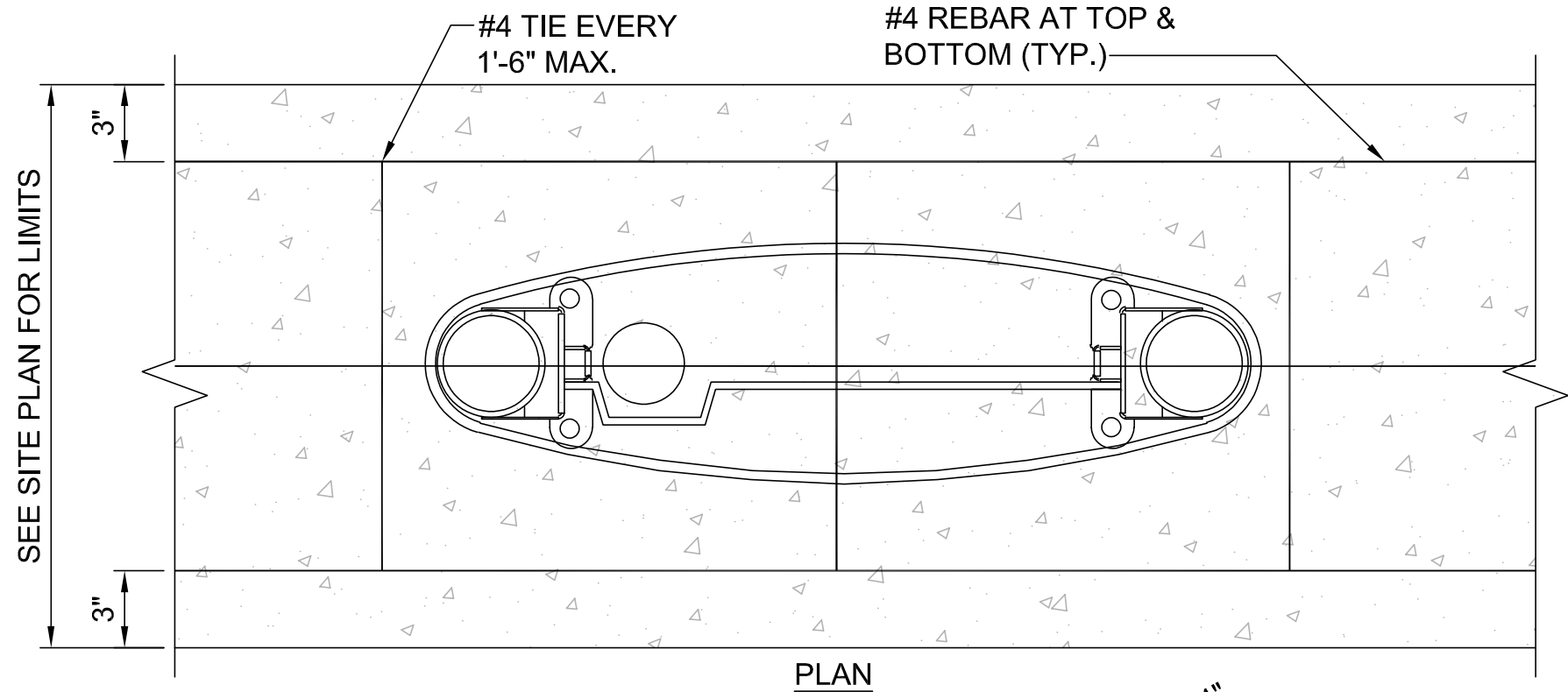
CHARGING POST CONTINUOUS CONCRETE SPLINE FOUNDATION (TYPICAL)

NO SCALE

B

NOTES

1. SEE CURB LENGTH ON SITE PLAN.
2. CHARGING POST AND PROPOSED FOUNDATION SHALL FOLLOW GRADE AS POSSIBLE
3. REINFORCING BAR TO BE #4
4. ALL REINFORCEMENTS TO HAVE MINIMUM CONCRETE COVER PER ACT SPECIFICATIONS.
5. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO ACI 318-14 AND APPLICABLE STATE BUILDING CODE.



NOT USED

NO SCALE

C

CHARGING POST CONTINUOUS CONCRETE SPLINE REINFORCEMENT DETAIL (TYPICAL)

D



3500 DEER CREEK RD  
PALO ALTO, CA 94304  
(650) 681-5000



49030 Pontiac Trail, Ste 400  
Wixom, Michigan 48393  
PHONE: 248-705-9212

DRAWN BY: RC  
CHECKED BY: PL

REV	DATE	DESCRIPTION
D	11/29/2021	CD100
C	10/16/2021	CD90
B	09/08/2021	CD50
A	08/11/2021	CD50



CONSISTENT WITH APPLICABLE LICENSING LAWS THIS SEAL CERTIFIES ONLY THAT THE ARCHITECTURAL DESIGN WORK WAS PREPARED EITHER PERSONALLY BY ME OR UNDER MY IMMEDIATE AND DIRECT SUPERVISION AND CONTROL. THE SEAL IS NOT INTENDED TO AND DOES NOT IN FACT ATTEST TO ANY ENGINEERING WORK THAT WOULD FALL OUTSIDE THE SCOPE OF WHAT THE APPLICABLE LICENSING LAWS WOULD PERMIT AS THE PRACTICE OF ARCHITECTURE.

SITE NAME: DETROIT, MI (TRT: 16613)  
1301 W 8 MILE RD  
DETROIT, MI 48203

SHEET TITLE  
**INSTALLATION DETAILS**

SHEET NUMBER  
**D-1**



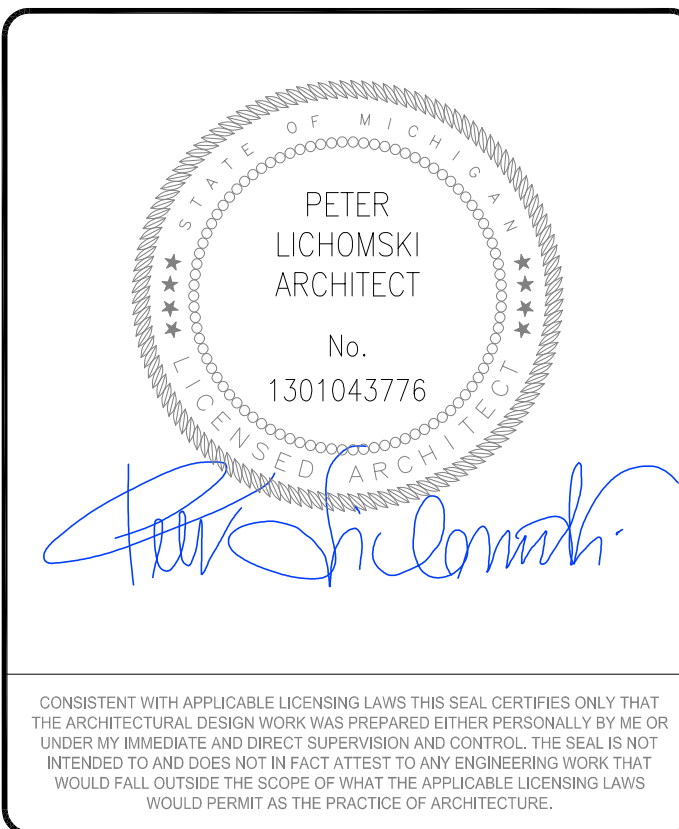
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D	11/29/2021	CD100
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A	08/11/2021	CD50
REV	DATE	DESCRIPTION



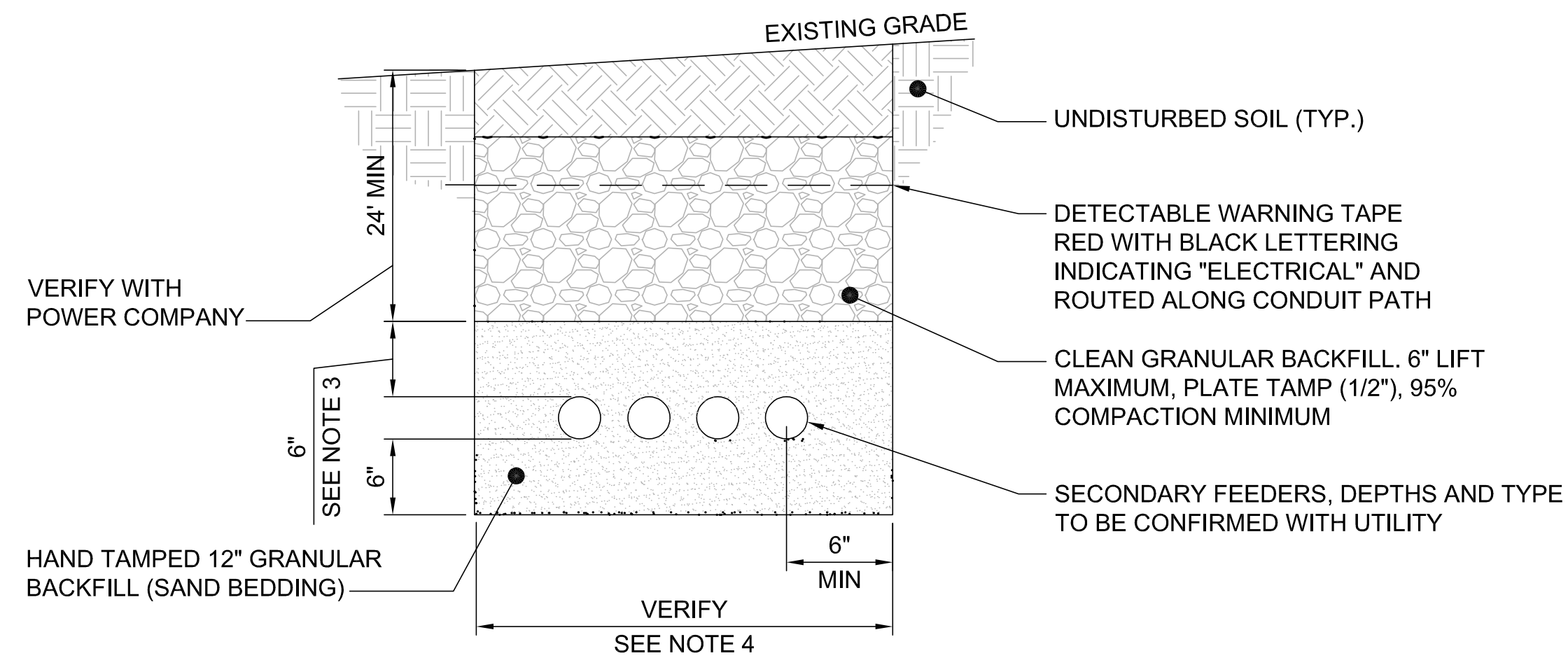
SITE NAME: DETROIT, MI (TRT: 16613)  
1301 W 8 MILE RD  
DETROIT, MI 48203

SHEET TITLE  
**INSTALLATION DETAILS**

SHEET NUMBER  
**D-2**

NOT USED	NO SCALE	A	NOT USED	NO SCALE	B		
<div><div><p>NON-ILLUMINATED SIGN. SEE DETAIL E ON THIS SHEET.</p><p>1/4"x1" SELF TAPPING TORX STAINLESS STEEL TAMPER-PROOF SCREW WITH FRONT BACKING WASHER (TOP &amp; BOTTOM)</p><p>EPOXY BEAD BETWEEN POST &amp; SIGN</p><p>6" STD. GALV. STEEL PIPE FILLED WITH CONCRETE</p><p>RED SLIP COVER</p><p>SLOPE TO DRAIN</p><p>EXISTING GRADE</p><p>CONCRETE FOOTING</p><p>3" CLR</p><p>1'-0" TYP</p><p>3'-0"</p><p>36" (MIN.)</p><p>(EXTEND FOUNDATION TO MIN. 6" BELOW FROST LINE- 42" TYP.) CONSULT LOCAL CODES BEFORE INSTALLATION</p><p>FRONT VIEW</p></div><div><p>NON-ILLUMINATED SIGN. SEE DETAIL E ON THIS SHEET.</p><p>1/4"x1" SELF TAPPING TORX STAINLESS STEEL SCREW WITH FRONT BACKING WASHER (TOP &amp; BOTTOM)</p><p>EPOXY BEAD BETWEEN POST &amp; SIGN</p><p>6" STD. GALV. STEEL PIPE FILLED WITH CONCRETE</p><p>RED SLIP COVER</p><p>SLOPE TO DRAIN</p><p>CURB</p><p>1" MIN.</p><p>PAVEMENT</p><p>EXISTING GRADE</p><p>CONCRETE FOOTING</p><p>3" CLR</p><p>1'-0" TYP</p><p>3'-0"</p><p>6'-0"</p><p>36" (MIN.)</p><p>(EXTEND FOUNDATION TO MIN. 6" BELOW FROST LINE- 42" TYP.) CONSULT LOCAL CODES BEFORE INSTALLATION</p><p>SIDE VIEW</p></div></div>			<div><div><p>1'-0"</p><p>1'-6"</p><p>6'-0" TO GRADE</p><p>TESLA</p><p>VEHICLE CHARGING ONLY</p><p>SIGN PLATE MECHANICALLY FASTENED TO 2"x2"x1/8" CONTRACTOR SUPPLIED HSS STEEL POST (8' LONG, 6' ABOVE GRADE)</p><p>1/4"x1" SELF TAPPING TORX STAINLESS STEEL TAMPER-PROOF SCREW WITH FRONT BACKING WASHER (TOP &amp; BOTTOM)</p></div><div><p>NOTES</p><p>1. SIGN SHALL BE PROVIDED BY TESLA.</p><p>2. POST SHALL BE PROVIDED BY CONTRACTOR.</p><p>3. IF PAINT FINISH IS DAMAGED DURING INSTALLATION, CONTRACTOR SHALL REPAINT AS REQUIRED.</p><p>4. NON-ILLUMINATED POLE MOUNT PARKING SIGN FACES AND RETURNS TO BE 0.090" ALUMINUM PANELS WITH #680-82 RED REFLECTIVE VINYL APPLIED (VERIFY REFLECTIVITY WITH OWNER).</p><p>5. LOGO TO BE #280-10 REFLECTIVE WHITE VINYL (VERIFY REFLECTIVITY WITH OWNER).</p><p>6. SEE TYPICAL TESLA PARKING SIGNAGE DETAIL FOR SIGNAGE VARIATION (IF APPLICABLE).</p><p>7. SEE TYPICAL TESLA PARKING SIGNAGE DETAIL FOR SIGNAGE VARIATION (IF APPLICABLE).</p><p>8. SIGN POST SHALL BE POWDER COATED, COLOR - MEDIUM/DARK GREY</p><p>9. SIGN POST SHALL BE PLUGGED/CAPPED TO PREVENT WATER INTRUSION FROM TOP.</p><p>10. SIGN POST SHALL BE MOUNTED TO LIGHT POLE WHERE APPLICABLE. SEE PLAN.</p></div></div>				
BOLLARD WITH SIGN INSTALLATION DETAIL			NO SCALE	C	TESLA DEDICATED NON-ILLUMINATED PARKING SIGN DETAIL	NO SCALE	D

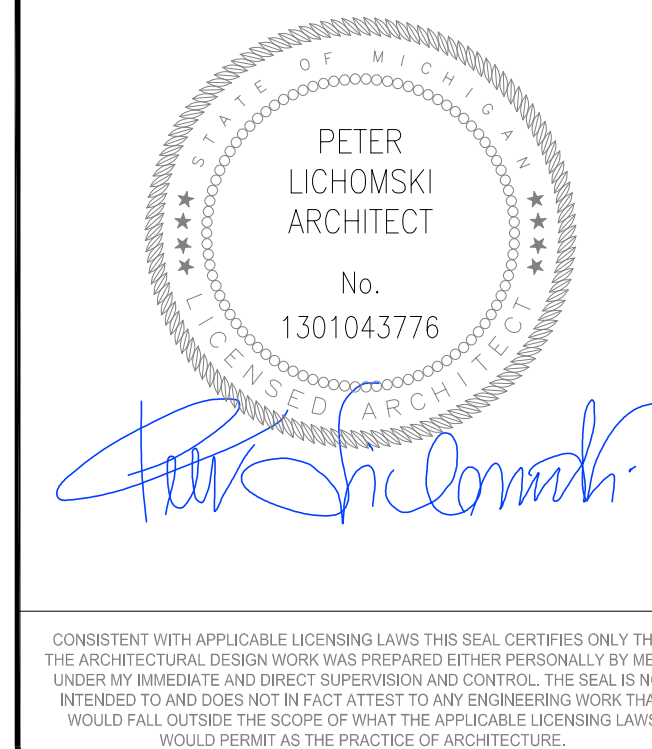




LAB

DRAWN BY:	F
CHECKED BY:	I

D	11/29/2021	CD100
C	10/16/2021	CD90
B	09/08/2021	CD50
A	08/11/2021	CD50
REV	DATE	DESCRIPTION



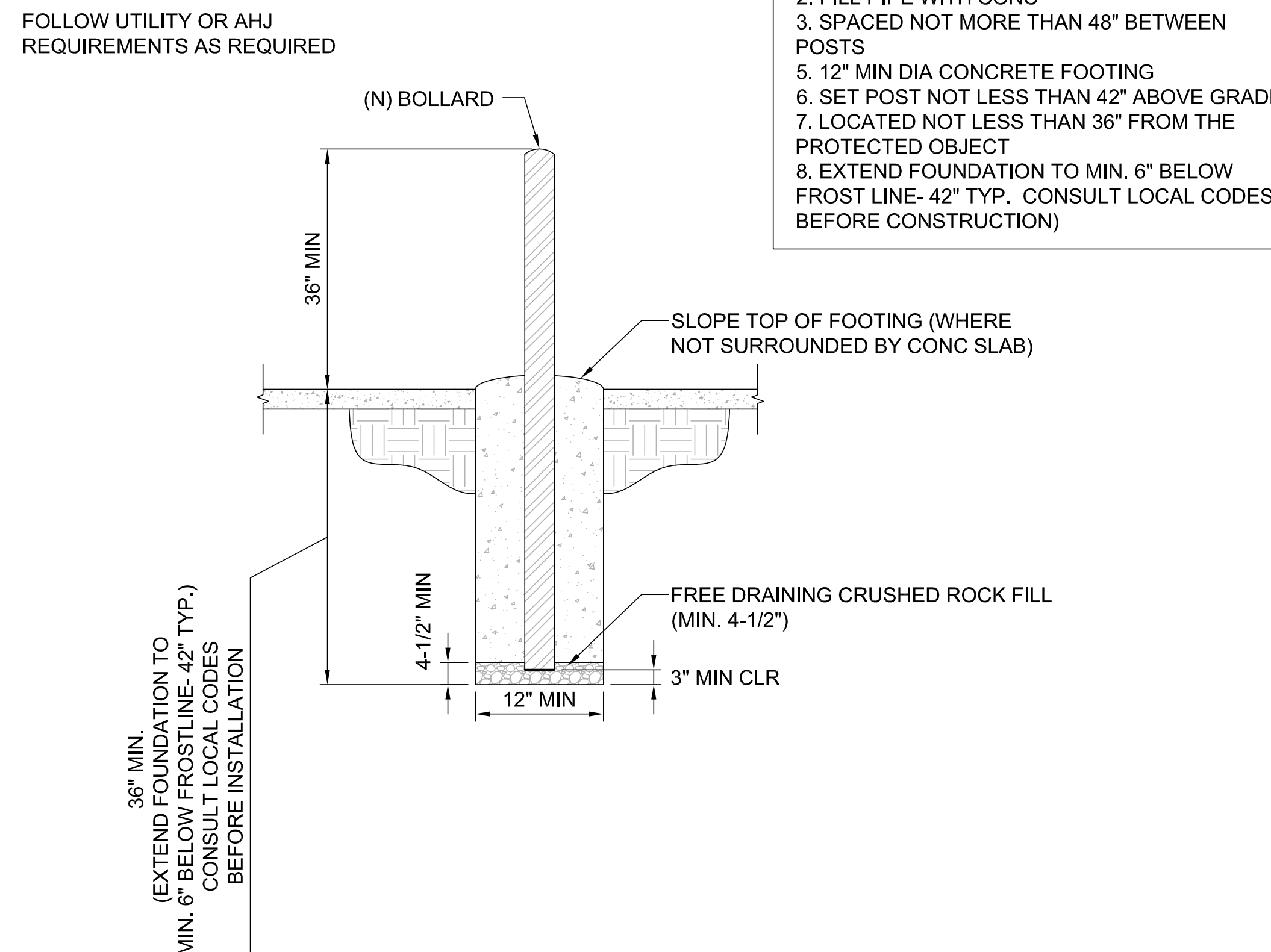
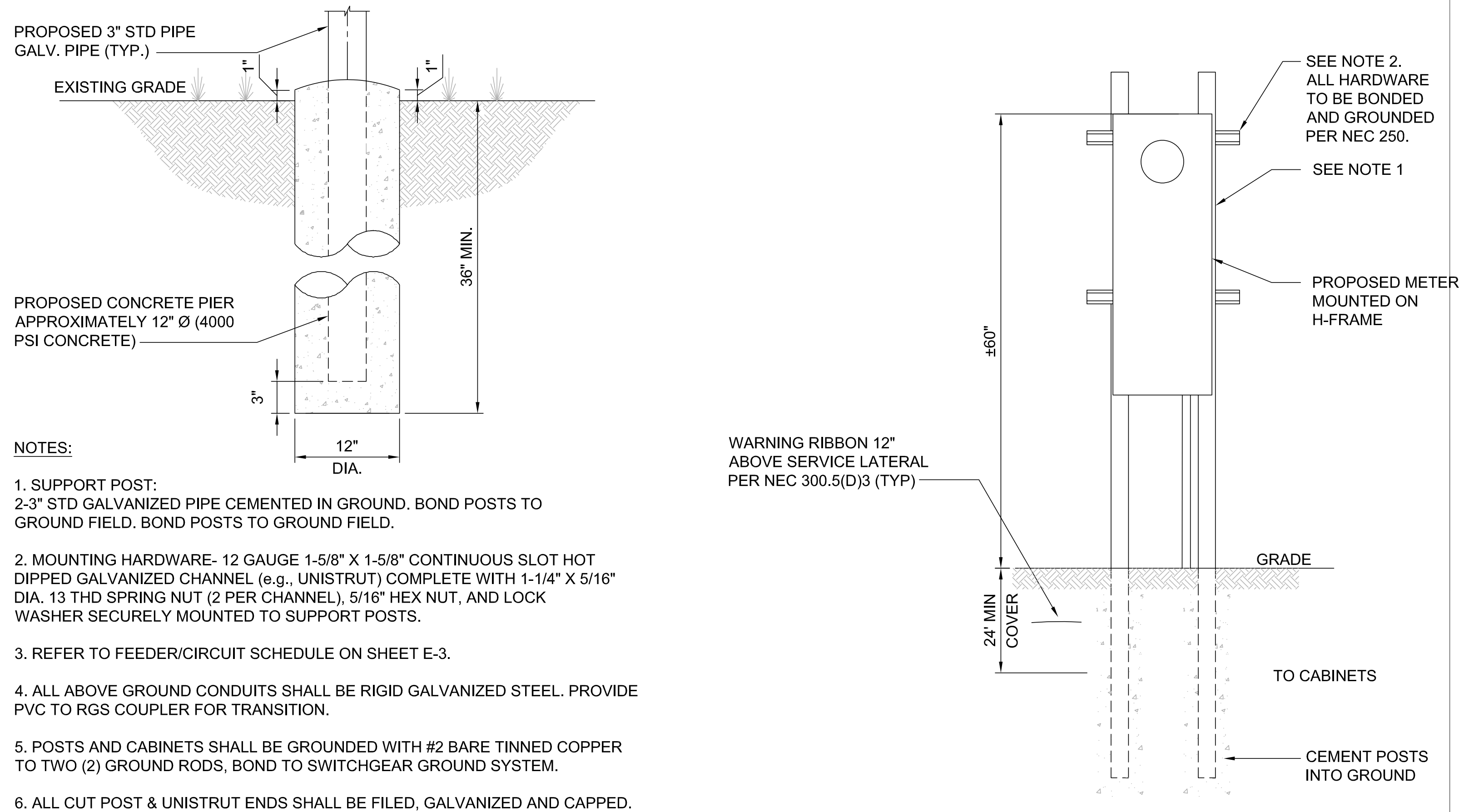
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1301 W 8 MILE RD  
DETROIT, MI 48203

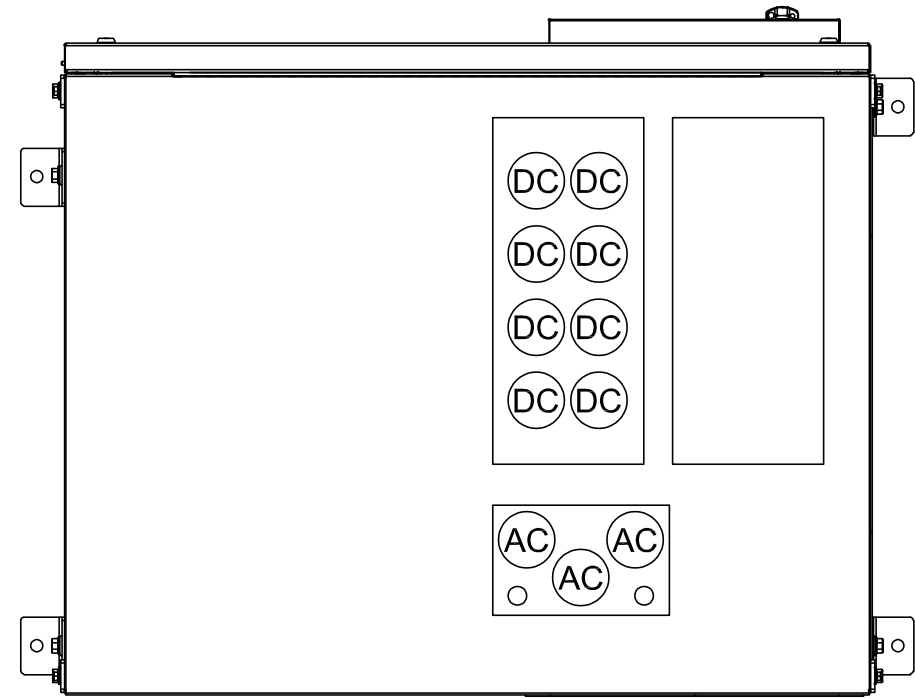
SHEET TITLE

## INSTALLATION DETAILS

SHEET NUMBER

**D-3**





6" (CLEARANCE)

6" (CLEARANCE)

89.5"

49.21"

54.74"

5'-0" (CLEARANCE)

35.83"

16" (CLEARANCE)

89.5"

37.8"

41.98"

5'-0" (CLEARANCE)

33.86"

52.76"

33.86"

VENT FAN

**TESLA CHARGING CABINET**

ENCLOSURE: INGRESS PROTECTION IP66  
 WEIGHT: 1500 KG, 3307 LBS.  
 COMPLIANCE: UL 2202, CSA 22.2 NO 107.1-16,  
 UL1998 PENDING

**NOTES:**

1. CABINET SHOULD BE LIFTED USING ROOF MOUNTED EYE HOOKS. A FORKLIFT OR PALLET JACK CAN ALSO BE USED TO MOVE CABINET IF DONE PROPERLY.
2. SEE GN-3 FOR CHARGING CABINET NOTE.

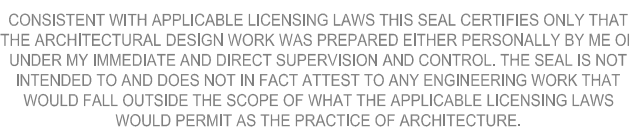
1. CABINET SHOULD BE LIFTED USING ROOF MOUNTED EYE HOOKS. A FORKLIFT OR PALLET JACK CAN ALSO BE USED TO MOVE CABINET IF DONE PROPERLY.
2. SEE GN-3 FOR CHARGING CABINET NOTE.

**A**



**C**

## D

**B**

D-4





AERIAL SITE PLAN (STORE # 268)