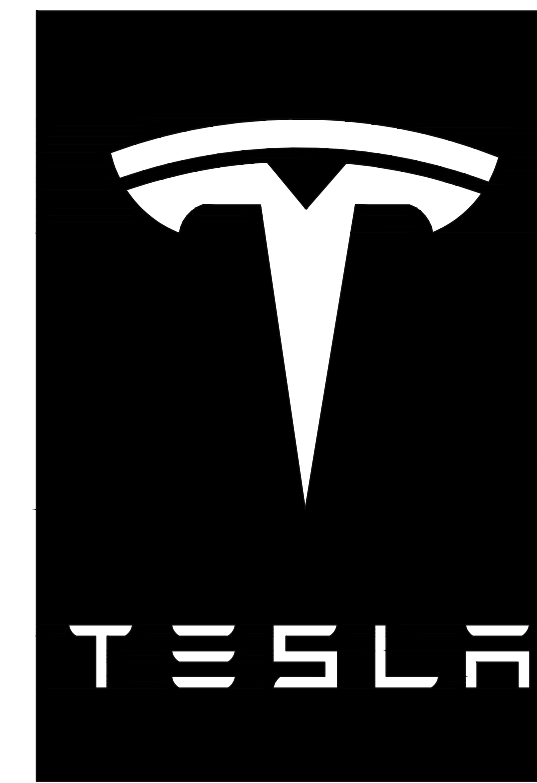


# TESLA



## SUPERCHARGING STATION

**EAST TOWNE MALL  
WI001\_MADISON  
89 EAST TOWNE MALL  
MADISON, WI 53704**

### TESLA APPROVAL SIGNATURE BLOCK



_____ SITE DEVELOPER	_____ DATE
_____ SITE INSTALLATION	_____ DATE
_____ SITE ENGINEERING	_____ DATE

**TESLA**  
MOTORS, INC.

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



**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
(913) 458-2000

PROJECT NO: 179056  
DRAWN BY: NMB  
CHECKED BY: MBG

REV	DATE	DESCRIPTION
G	08/12/13	ISSUED FOR 100% REVIEW
F	07/31/13	REISSUED FOR 90% REVIEW
E	07/29/13	REISSUED FOR 30% REVIEW
D	07/29/13	REISSUED FOR 30% REVIEW
C	07/19/13	REISSUED FOR 90% REVIEW
B	06/28/13	ISSUED FOR 90% REVIEW
A	06/27/13	ISSUED FOR 30% REVIEW

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**WI001\_MADISON  
EAST TOWNE MALL  
89 EAST TOWNE MALL  
MADISON, WI 53704**

SHEET NUMBER

**TITLE SHEET & PROJECT DATA**

SHEET NUMBER

**T-1**

#### SITE INFORMATION

**SITE ADDRESS:**  
89 EAST TOWNE MALL  
MADISON, WI 53704

**PROPERTY OWNER:**  
MADISON JOINT VENTURE  
JAMES J. GUDIN  
3418 PELHAN PL  
AVON, OH 44011

**EQUIPMENT SUPPLIER:**  
TESLA MOTORS, INC.  
3500 DEER CREEK RD  
PALO ALTO, CA 94304  
(650) 681-5000

**POWER COMPANY:**  
MADISON GAS AND ELECTRIC

**COUNTY:**  
DANE

**LATITUDE (NAD83):**  
43° 7' 36.33" N  
43.12676°

**LONGITUDE (NAD83):**  
89° 18' 25.09" W  
-89.30697°

**CONTACT ENGINEER:**  
RUSSELL POLLOM  
(913) 458-6274  
POLLOMRE@BV.COM

#### APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

IBC 2009 WISCONSIN BUILDING CODE  
IBC 2009 WISCONSIN MECHANICAL CODE  
NEC 2008 WISCONSIN ELECTRICAL CODE  
IBC 2009 WISCONSIN STRUCTURAL CODE  
IBC 2009 MFPA-1 WISCONSIN FIRE/LIFE SAFETY CODE  
WISCONSIN COMMERCIAL BUILDING CODE  
ADA STANDARDS (WISCONSIN COMMERCIAL BUILDING CODE)

IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL

#### PROJECT DESCRIPTION

- INSTALL (3) TESLA SUPERCHARGER CABINETS
  - INSTALL (6) TESLA CHARGING STATIONS
  - INSTALL (1) QED SWITCHGEAR ASSEMBLY
  - INSTALL (1) UTILITY TRANSFORMER
- FLOOD HAZARD AREA NOTE**
- THIS SITE IS LOCATED IN FLOOD ZONE "X". NO BASE FLOOD ELEVATION. AREA DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN.

#### ZONING INFORMATION

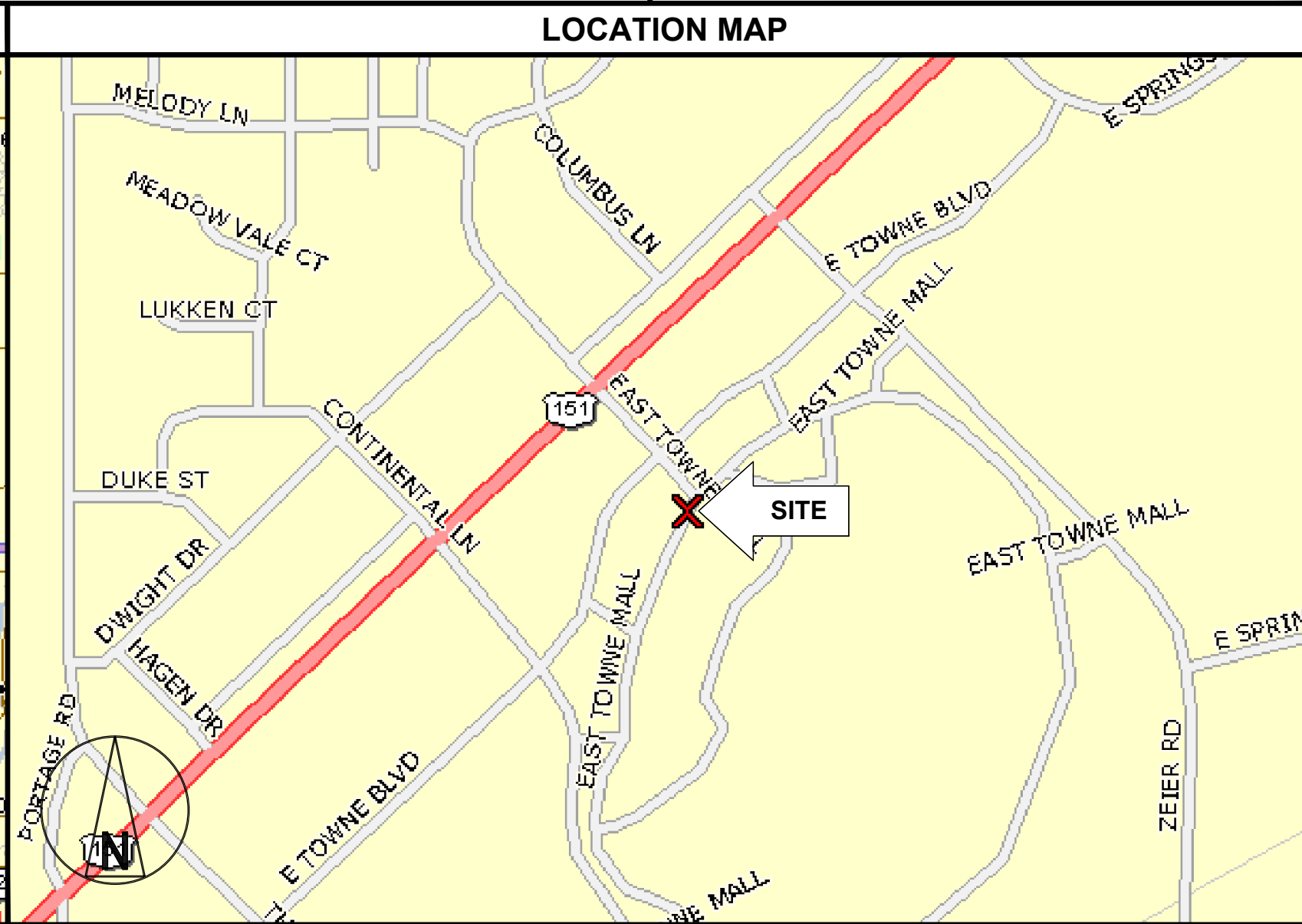
PERMITTING JURISDICTION: CITY OF MADISON  
ZONING CLASS: C3L

**DO NOT SCALE DRAWINGS**

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

#### DRAWING INDEX

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A-8	SIGNAGE SITE PLAN	G
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#### DRIVING DIRECTIONS FROM DANE COUNTY REGIONAL AIRPORT

HEAD NORTH ON INTERNATIONAL LANE FOR 1.3 MILES, TURN LEFT ONTO ANDERSON STREET FOR 1.4 MILES, TURN RIGHT ONTO NORTH STOUGHTON ROAD FOR 0.3 MILES, TURN LEFT ONTO EAST WASHINGTON AVENUE FOR 1.1 MILES, TURN RIGHT ONTO INDEPENDENCE LANE FOR 495 FEET, TURN RIGHT FOR 66 FEET, ARRIVE AT TOWNE MALL.

#### ENGINEER OF RECORD

ROBLEY (AARON) EVANS  
PE # 37439-006  
BLACK & VEATCH CORPORATION

#### CALL BEFORE YOU DIG

UNDERGROUND SERVICE ALERT  
UTILITY NOTIFICATION CENTER OF WISCONSIN  
811 OR 1-800-242-8511  
3 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

**GENERAL CONSTRUCTION NOTES**

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY  
GENERAL CONTRACTOR: OVERLAND CONTRACTING INC. (B&V)  
CONTRACTOR: (CONSTRUCTION)  
OWNER: TESLA
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS.
- GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
- WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER AND RF. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.

**GENERAL CONSTRUCTION NOTES CONT.**

- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
- NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
- CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- ALL (THWN-2) WIRING INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

**ELECTRICAL NOTES**

- ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/DRAWINGS AND ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY 'CONSTRUCTION MANAGER' AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE 'CONSTRUCTION MANAGER' HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.
- ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ANY/ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL EXISTING CONDITIONS OF ELECTRICAL EQUIP., LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTAL OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT NOT BE LIMITED TO:  
A. UL - UNDERWRITERS LABORATORIES  
B. NEC - NATIONAL ELECTRICAL CODE  
C. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOC.  
D. OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT  
E. SBC - STANDARD BUILDING CODE  
F. NFPA - NATIONAL FIRE CODES
- DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH 'CONSTRUCTION MANAGER' ANY SIZES AND LOCATIONS WHEN NEEDED.
- EXISTING SERVICES: CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.
- CONTRACTOR SHALL PAY FOR ANY/ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING EQUIPMENT.
- THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

**ELECTRICAL NOTES CONT.**

- CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.
- ALL CONDUCTORS SHALL BE COPPER WITH (THWN-2) INSULATION.
- OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
- IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY CONSTRUCTION MANAGER.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
- THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.
- ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.
- PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.
- DITCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS 'EXCAVATION, AND BACKFILLING.
- MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IEEE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURERS CATALOG INFORMATION OF ANY/ALL LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
- ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE 'CONSTRUCTION MANAGER' UPON FINAL ACCEPTANCE.
- THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.
- ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.
- ALL EXTERIOR ABOVE GROUND CONDUIT SHALL BE RIGID UNLESS OTHERWISE SPECIFIED. ALL BURIED CONDUITS SHALL BE SCH 40 PVC UNLESS OTHERWISE SPECIFIED. ALL INTERIOR CONDUITS SHALL BE EMT UNLESS OTHERWISE SPECIFIED.
- RACEWAYS: CONDUIT SHALL BE SCHEDULE 40 PVC MEETING OR EXCEEDING NEMA TC2 - 1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITZ ZINC' OR 'GOLD GALV'.
- SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.
- CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER WITH TYPE (THWN-2) INSULATION, 600 VOLT, COLOR CODED. UNLESS SPECIFIED DIFFERENT ON DRAWINGS.
- CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.
- CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC".
- WHEN DIRECTIONAL BORING IS REQUIRED, CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.
- ALL BOLTS SHALL BE STAINLESS STEEL.
- ALL ELECTRICAL CIRCUITS INSTALLED SHALL UTILIZE (THWN-2) CONDUCTOR AND SHEATHING.



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



**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
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WI001\_MADISON  
EAST TOWNE MALL  
89 EAST TOWNE MALL  
MADISON, WI 53704

SHEET NUMBER  
**GENERAL NOTES 1**

SHEET NUMBER  
**GN-1**



**REINFORCED CONCRETE NOTES**

1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS; CONTINUOUS INSPECTION IS NOT REQUIRED.  
SLUMP: 4" MIN./6" MAX.  
AIR ENTRAINMENT: 4 1/2% - 7% BY VOLUME
2. REINFORCEMENT SHALL BE A NEW BILLET STEEL DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615 GRADE 60. MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4".
3. REINFORCEMENT SHALL COMPLY WITH THE LATEST EDITION OF ACI-318 FOR MINIMUM CLEARANCES.
4. ALL EMBEDDED ITEMS SHALL BE SECURELY HELD IN POSITION PRIOR TO PLACEMENT OF CONCRETE. ALL CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.
5. MAINTAIN TEMPERATURE OF CAST IN PLACE CONCRETE BETWEEN 50 DEGREES AND 90 DEGREES FAHRENHEIT.
6. DO NOT USE RETEMPERED CONCRETE, OR ADD WATER TO READY-MIX CONCRETE AT THE JOB SITE.
7. WELDED WIRE FABRIC: ASTM A185.
8. EXCEPT AS DETAILED OR AUTHORIZED. MAKE BARS CONTINUOUS AROUND CORNERS. WHERE PERMITTED, SPLICES MADE BY CONTACT LAPS SHALL BE CLASS "B" TENSION LAPS UNLESS NOTED OTHERWISE.
9. DETAIL BARS IN ACCORDANCE WITH "ACI DETAILING MANUAL - 2004, PUBLICATION SP-66" AND "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318-08.
10. PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING.

**GENERAL SITE WORK AND DRAINAGE NOTES**

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

1.1 REFERENCES:

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

1.2 INSPECTION AND TESTING:

- A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE SUBCONTRACTOR.
  - B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF WORK INACCESSIBLE OR DIFFICULT TO INSPECT.
- 1.3 SITE MAINTENANCE AND PROTECTION:
- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE SUBCONTRACT.
  - B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
  - C. KEEP SITE FREE OF ALL PONDING WATER.
  - D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.
  - E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
  - F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.

2. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

**GENERAL SITE WORK AND DRAINAGE NOTES CONT.**

PART 2 - PRODUCTS

- 2.1. SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, III OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2. NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA OR IVB) COARSE AGGREGATE. FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3. POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.4. SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95. FOR USE AROUND AND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5. GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).
- 2.6. COARSE AGGREGATE FOR ACCESS ROAD SUBBASE COURSE SHALL CONFORM TO ASTM D2940.
- 2.7. UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.

PART 3 - EXECUTION

3.1 GENERAL:

- A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.
  - B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
  - C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
  2. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
  3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.
- A. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
  - B. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
  - C. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.

3.2 BACKFILL:

- A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
  2. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.

3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.

- B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.3 TRENCH EXCAVATION:

- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.
- B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
- C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.

3.4 TRENCH BACKFILL:

- A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.
- B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.
- C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
- D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.
- E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.
- F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.
- G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.5 FINISH GRADING:

- A. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.
- B. UTILIZE SATISFACTORY FILL MATERIAL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.
- C. ACHIEVE FINISHED GRADE BY PLACING A MINIMUM OF 4 INCHES OF 1/2" - 3/4" CRUSHED STONE ON TOP SOIL STABILIZER FABRIC.
- D. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

3.6 ASPHALT PAVING ROAD:

WISCONSIN STANDARD SPECIFICATION

PART 4 - WISCONSIN DEPARTMENT OF TRANSPORTATION PAVEMENT



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PROJECT NO:	179056
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CHECKED BY:	MBG

REV	DATE	DESCRIPTION
G	08/12/13	ISSUED FOR 100% REVIEW
F	07/31/13	REISSUED FOR 90% REVIEW
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SHEET NUMBER  
**GENERAL NOTES 2**

SHEET NUMBER  
**GN-2**

**STRUCTURAL STEEL NOTES**

1. STRUCTURAL STEEL SHAPES, PLATES, AND BARS SHALL CONFORM TO ASTM A36. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B.
2. HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A325: ONE HIGH-STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY NUT, A HARDENED WASHER CONFORMING TO ASTM F436. THE HARDENED WASHER SHALL BE INSTALLED AGAINST ELEMENT TURNED IN TIGHTENING. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.
3. WELDING ELECTRODES SHALL COMPLY WITH AWS S1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.
4. UNLESS NOTED OTHERWISE ON THE DRAWING, ALL ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 WITH HEAVY HEXAGONAL NUT.
5. PRIMER SHALL BE RED OXIDE-CHROMATE PRIME COMPLYING WITH STEEL STRUCTURES PAINTING COUNCIL (SSPC) PAINT SPECIFICATION NUMBER 11.
6. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION AND AS INDICATED ON THE APPROVED SHOP DRAWINGS.
7. ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123.
8. SUBMIT FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND A;; TOP OF STEEL ELEVATIONS FOR APPROVAL.



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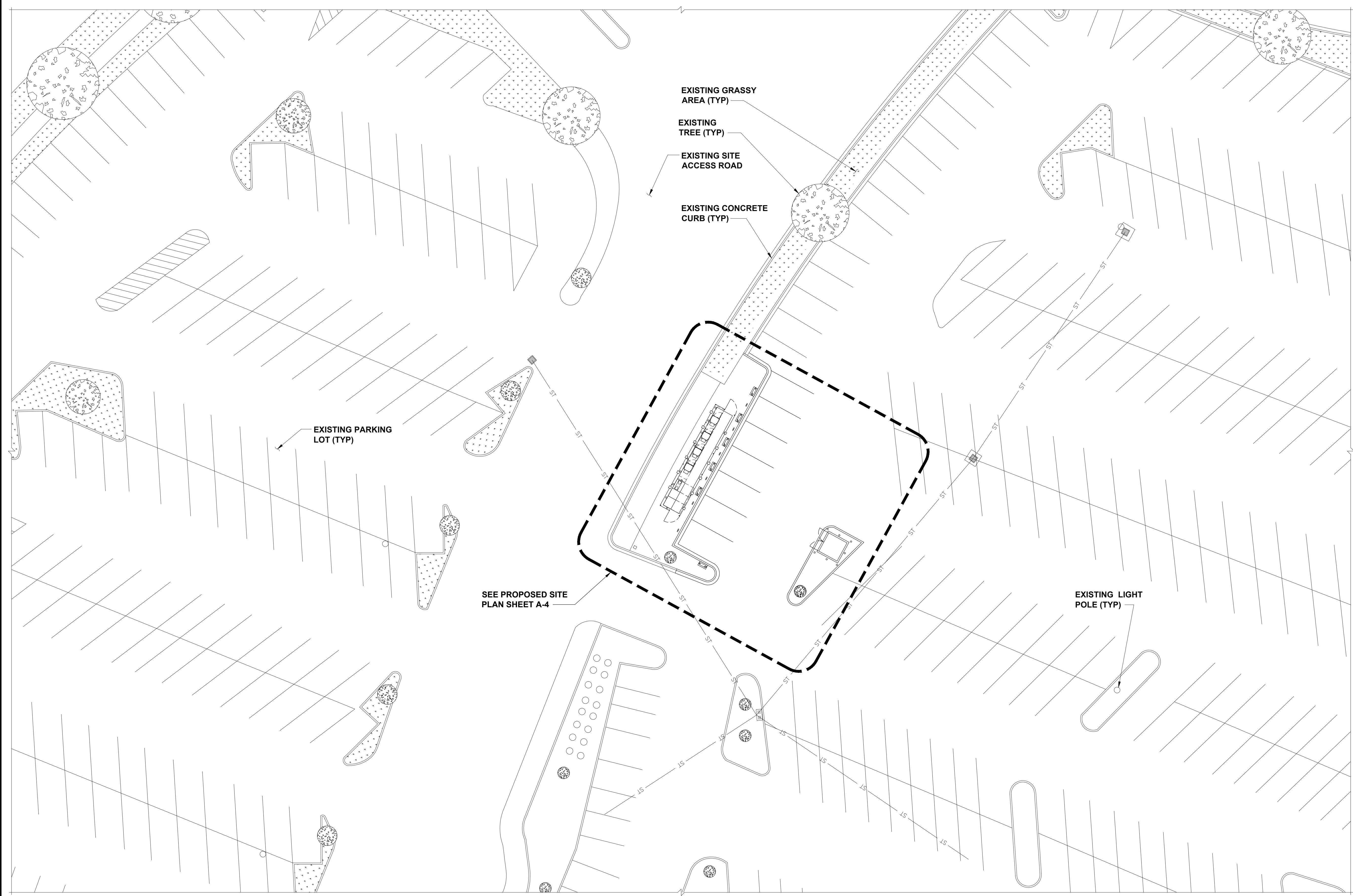
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SHEET NUMBER  
**GENERAL NOTES 3**

SHEET NUMBER  
**GN-3**



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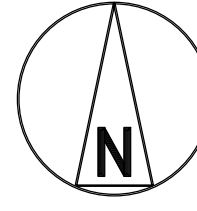
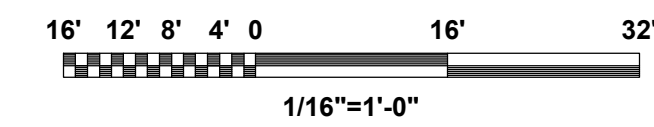
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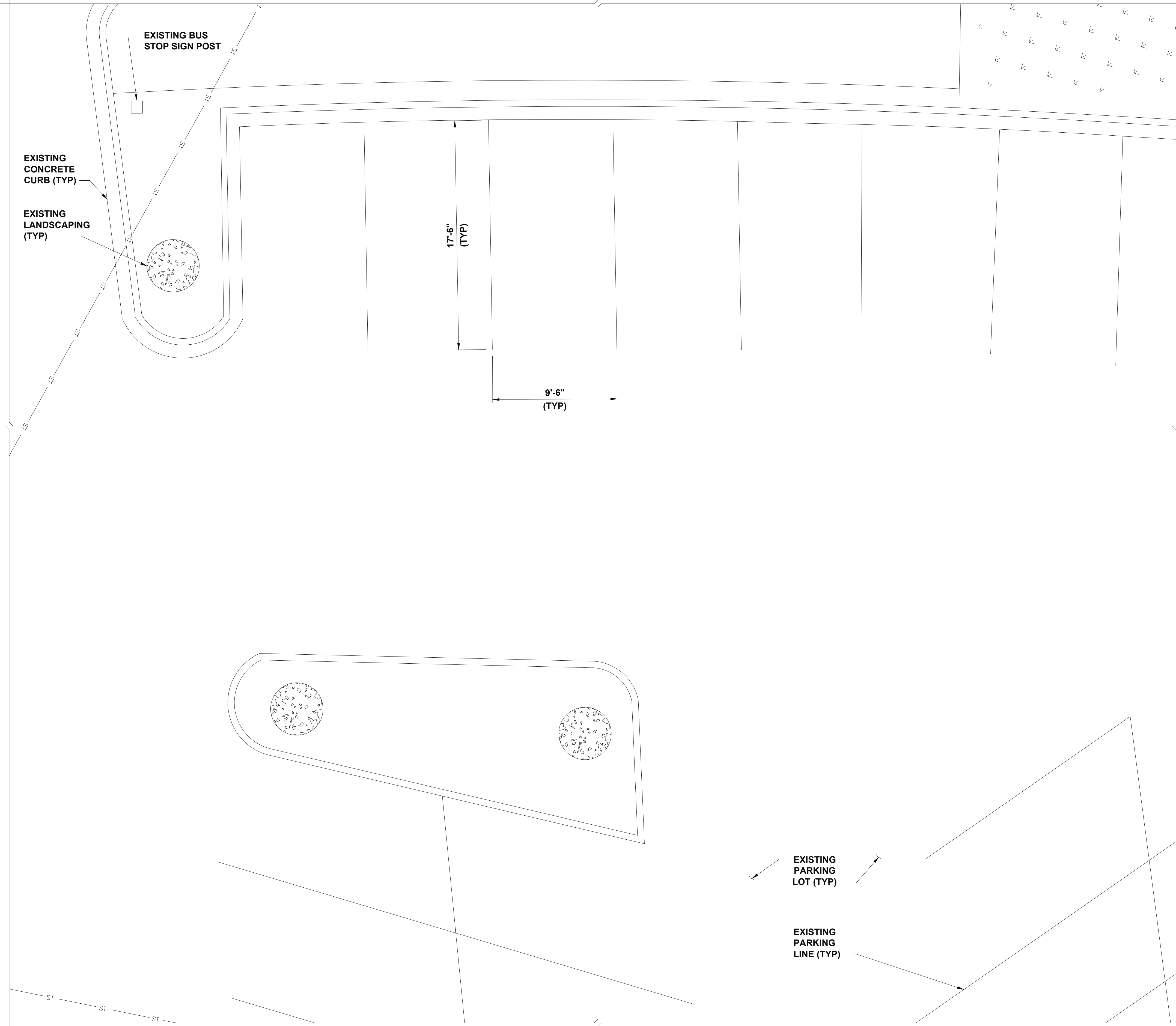
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SHEET NUMBER  
**OVERALL SITE PLAN**

SHEET NUMBER  
**A-1**

OVERALL SITE PLAN





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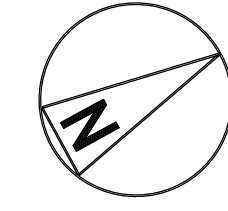
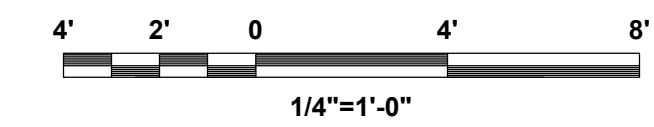
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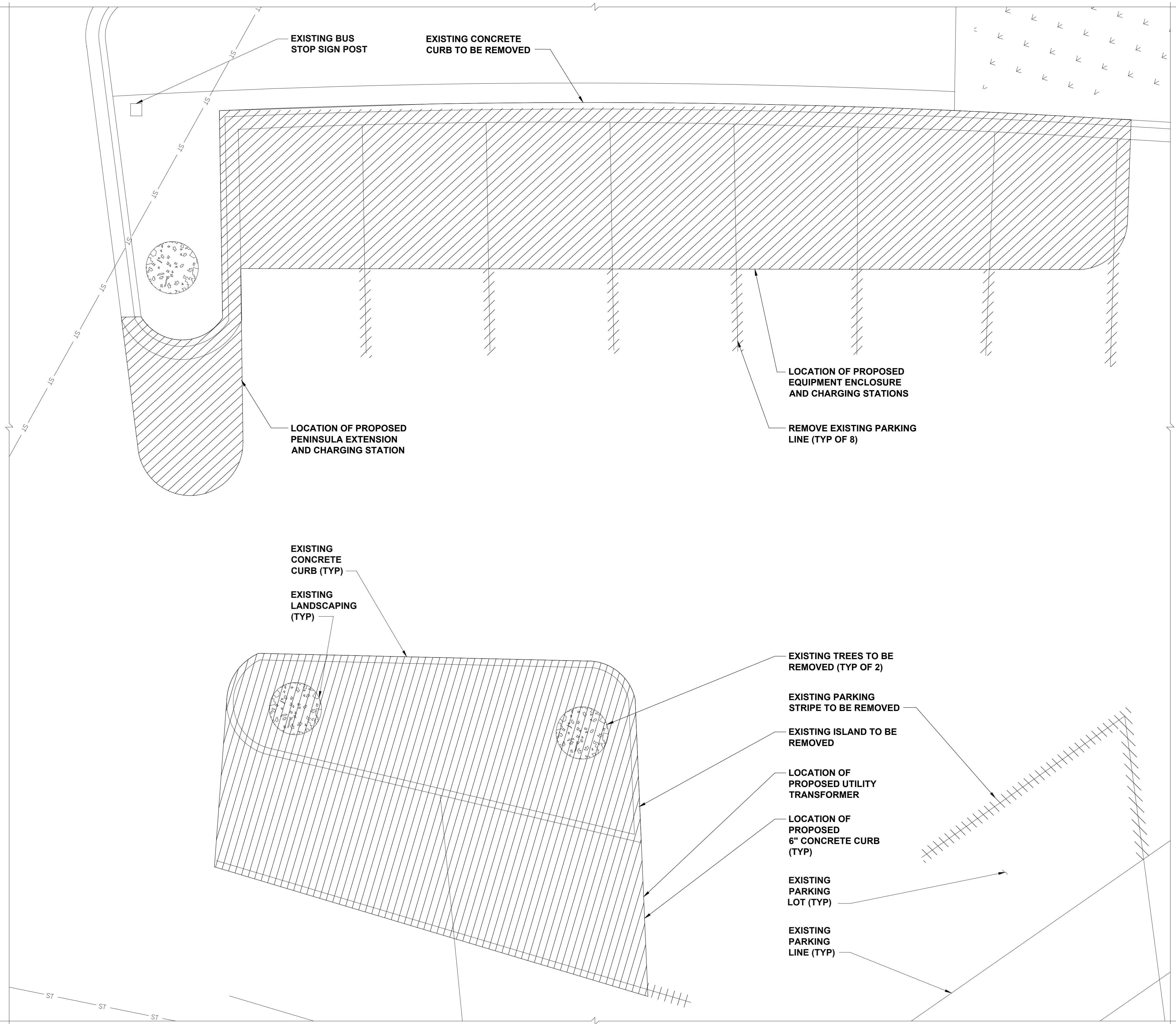
SHEET NUMBER  
**EXISTING SITE PLAN**

SHEET NUMBER  
**A-2**

EXISTING SITE PLAN







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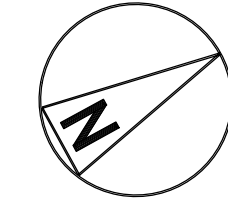
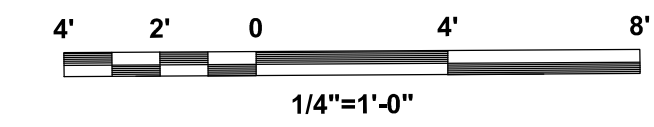
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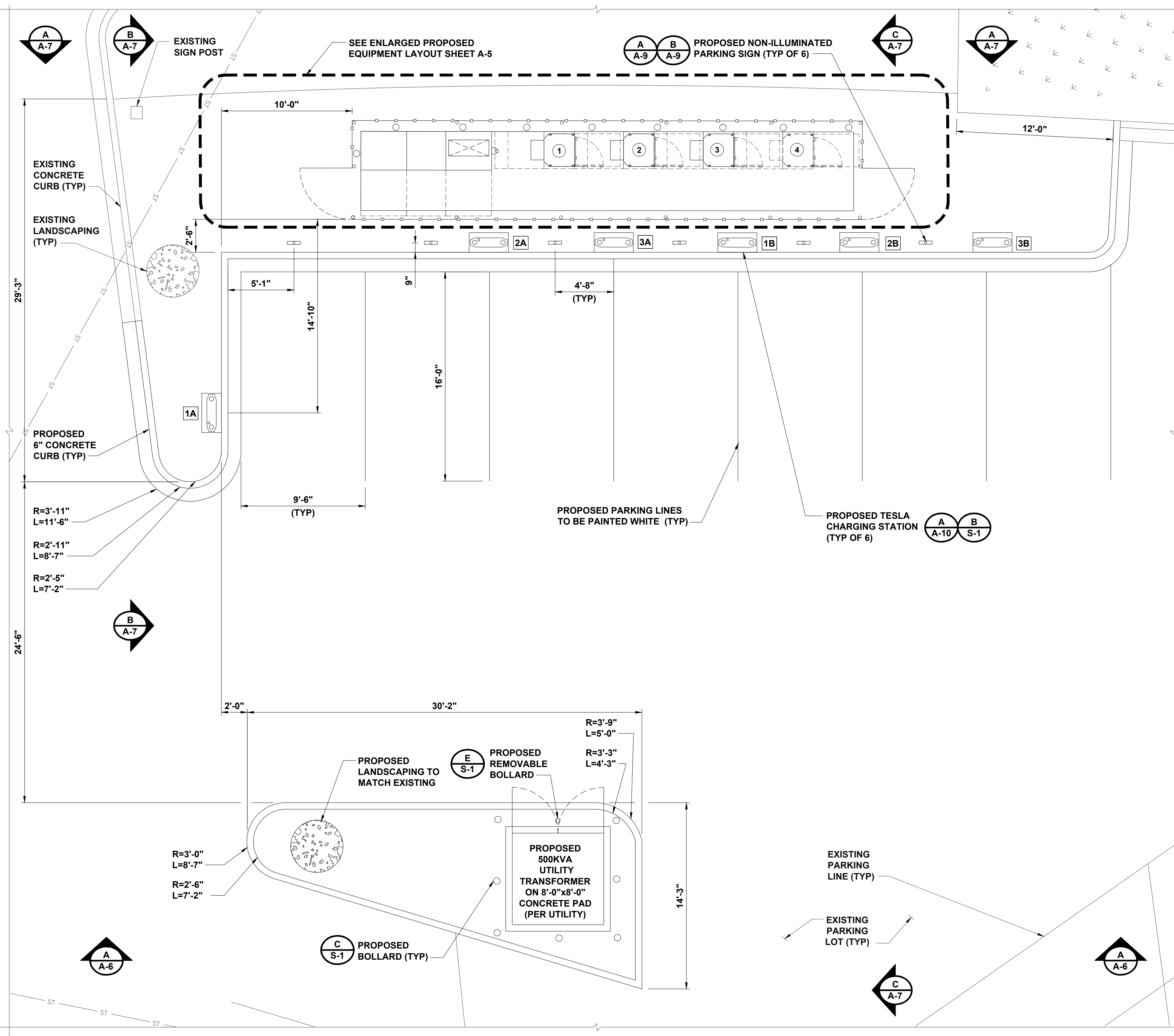
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SHEET NUMBER  
**DEMOLITION SITE PLAN**

SHEET NUMBER  
**A-3**

DEMOLITION SITE PLAN





CHARGING POST CIRCUIT SCHEDULE		
SUPERCHARGER	DEDICATED FEED CHARGING POST	ENABLED FEED CHARGING POST
1	1A	1B
2	2A	2B
3	3A	3B

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MOTORS, INC.

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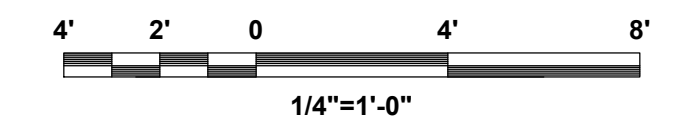
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SHEET NUMBER  
**PROPOSED SITE PLAN**

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**A-4**

PROPOSED SITE PLAN







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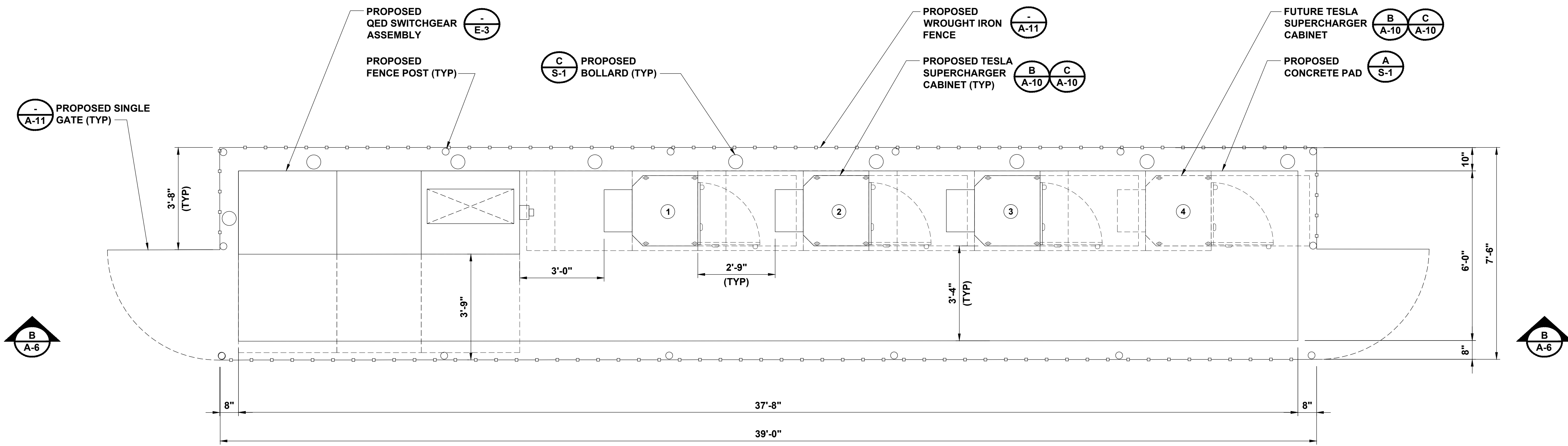
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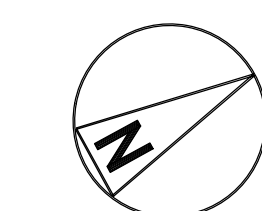
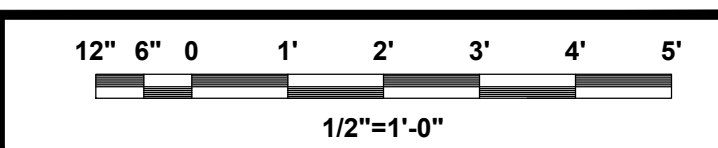
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SHEET NUMBER  
**ENLARGED PROPOSED  
EQUIPMENT LAYOUT**

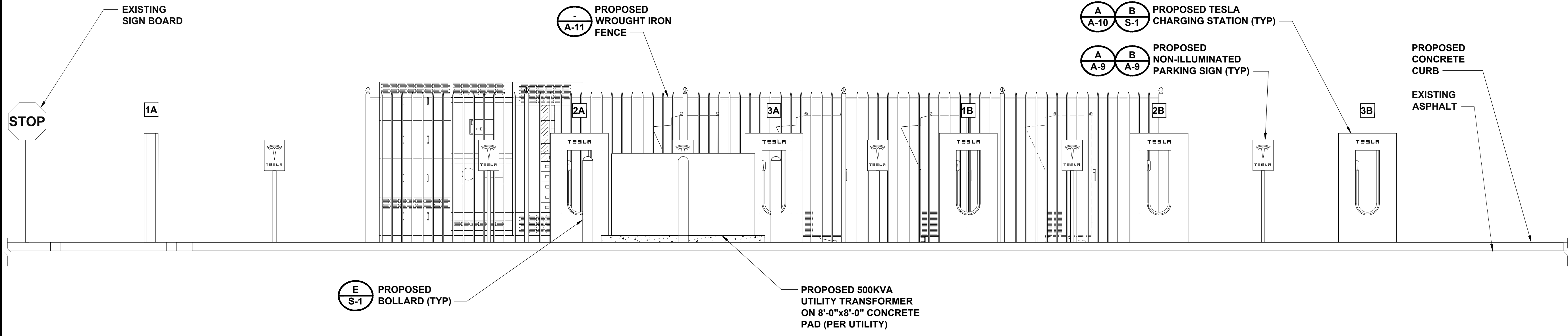
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**A-5**



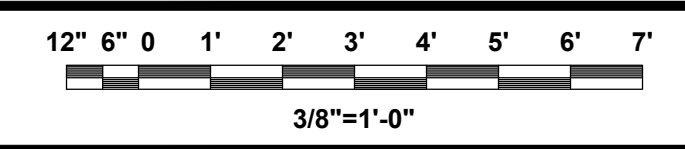
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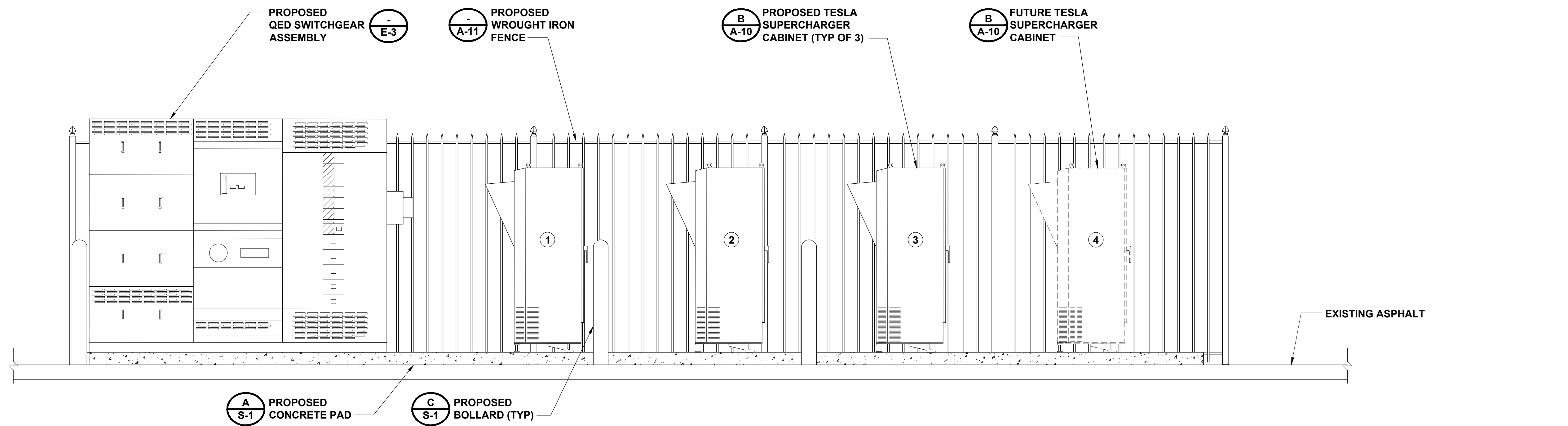
CHARGING POST CIRCUIT SCHEDULE		
SUPERCHARGER	DEDICATED FEED CHARGING POST	ENABLED FEED CHARGING POST
①	1A	1B
②	2A	2B
③	3A	3B



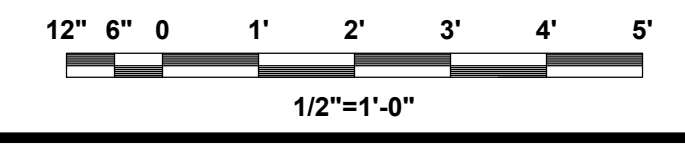
EAST ENCLOSURE ELEVATION



A



EAST ENCLOSURE ELEVATION



B



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89 EAST TOWNE MALL  
MADISON, WI 53704

SHEET NUMBER  
SITE ELEVATIONS

SHEET NUMBER  
**A-6**



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



**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
(913) 458-2000

PROJECT NO: 179056  
DRAWN BY: NMB  
CHECKED BY: MBG

REV	DATE	DESCRIPTION
G	08/12/13	ISSUED FOR 100% REVIEW
F	07/31/13	REISSUED FOR 90% REVIEW
E	07/29/13	REISSUED FOR 30% REVIEW
D	07/29/13	REISSUED FOR 30% REVIEW
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B	06/28/13	ISSUED FOR 90% REVIEW
A	06/27/13	ISSUED FOR 30% REVIEW

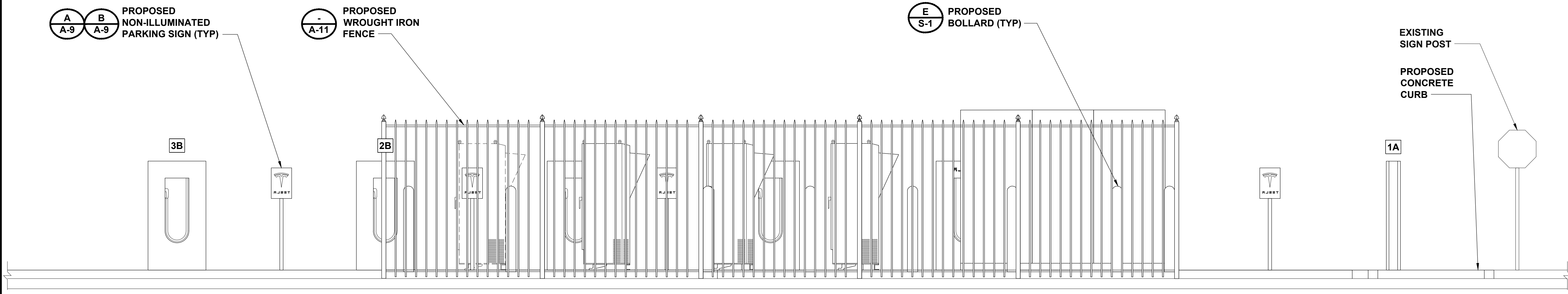
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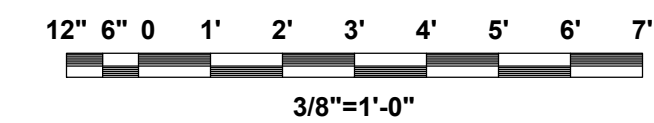
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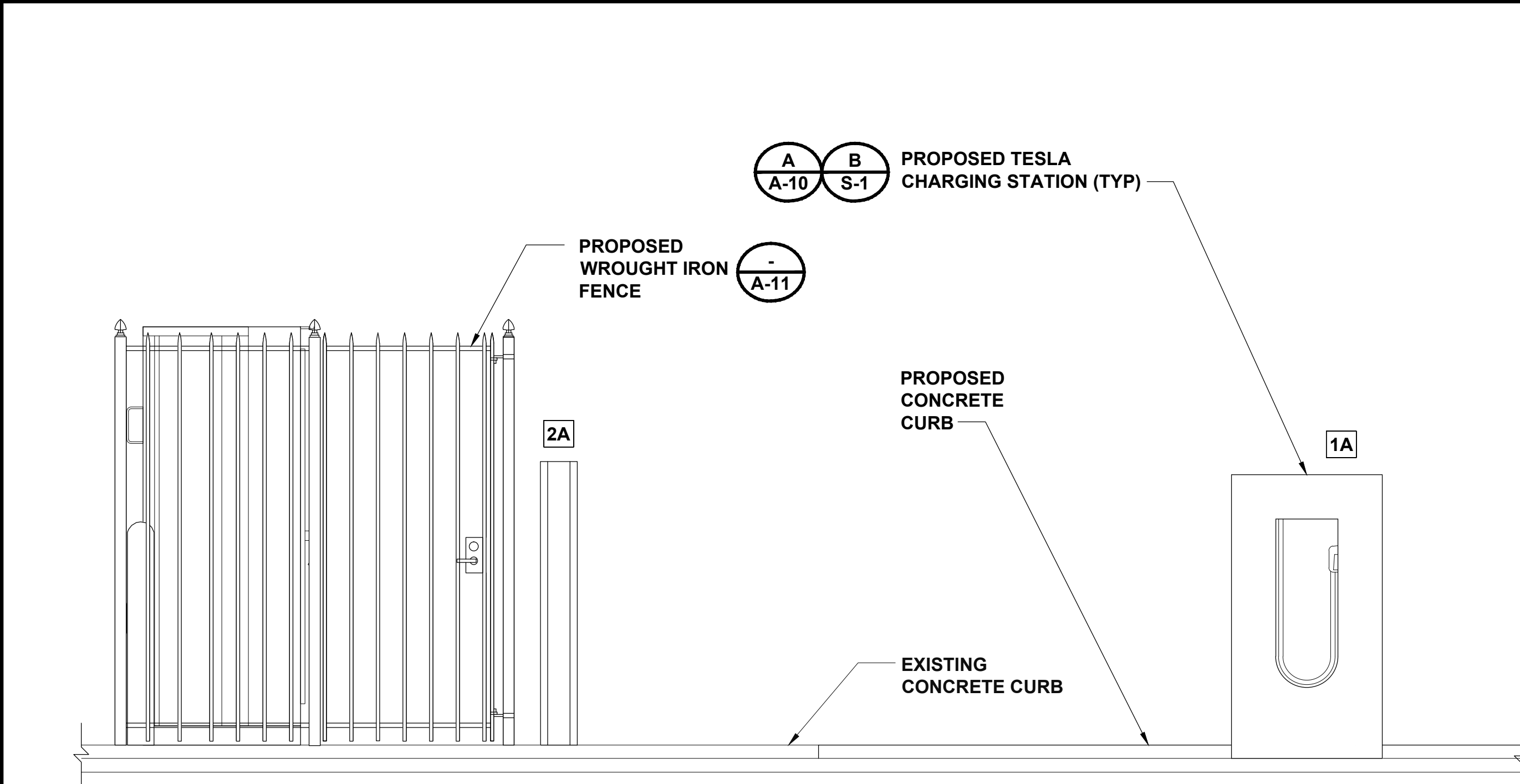
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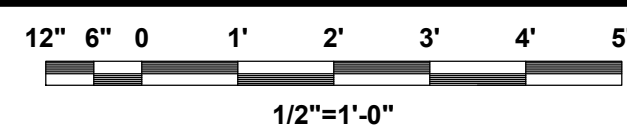
WEST ENCLOSURE ELEVATION



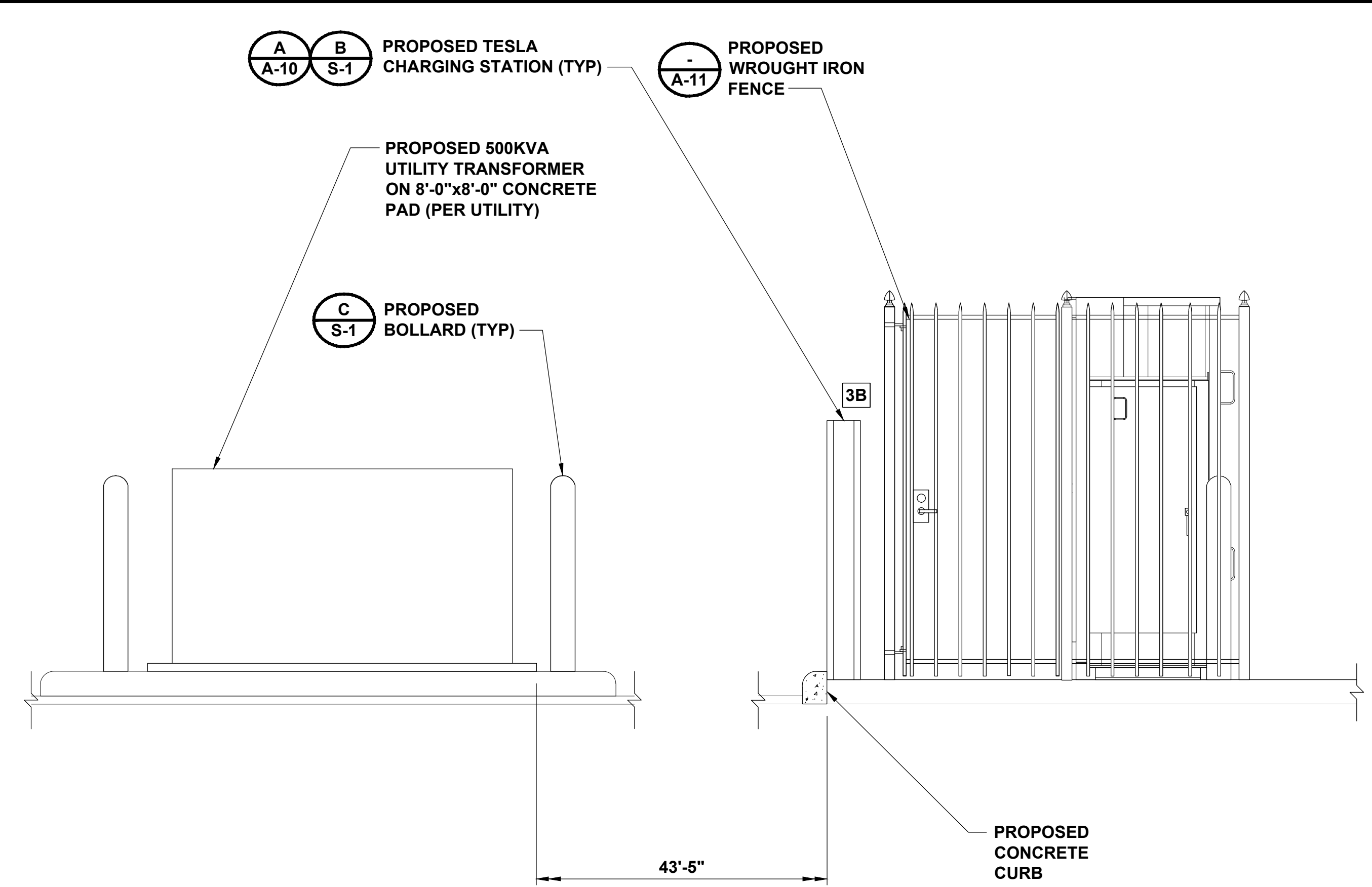
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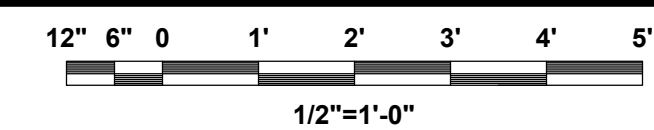
SOUTH ENCLOSURE ELEVATION



B



NORTH ENCLOSURE ELEVATION

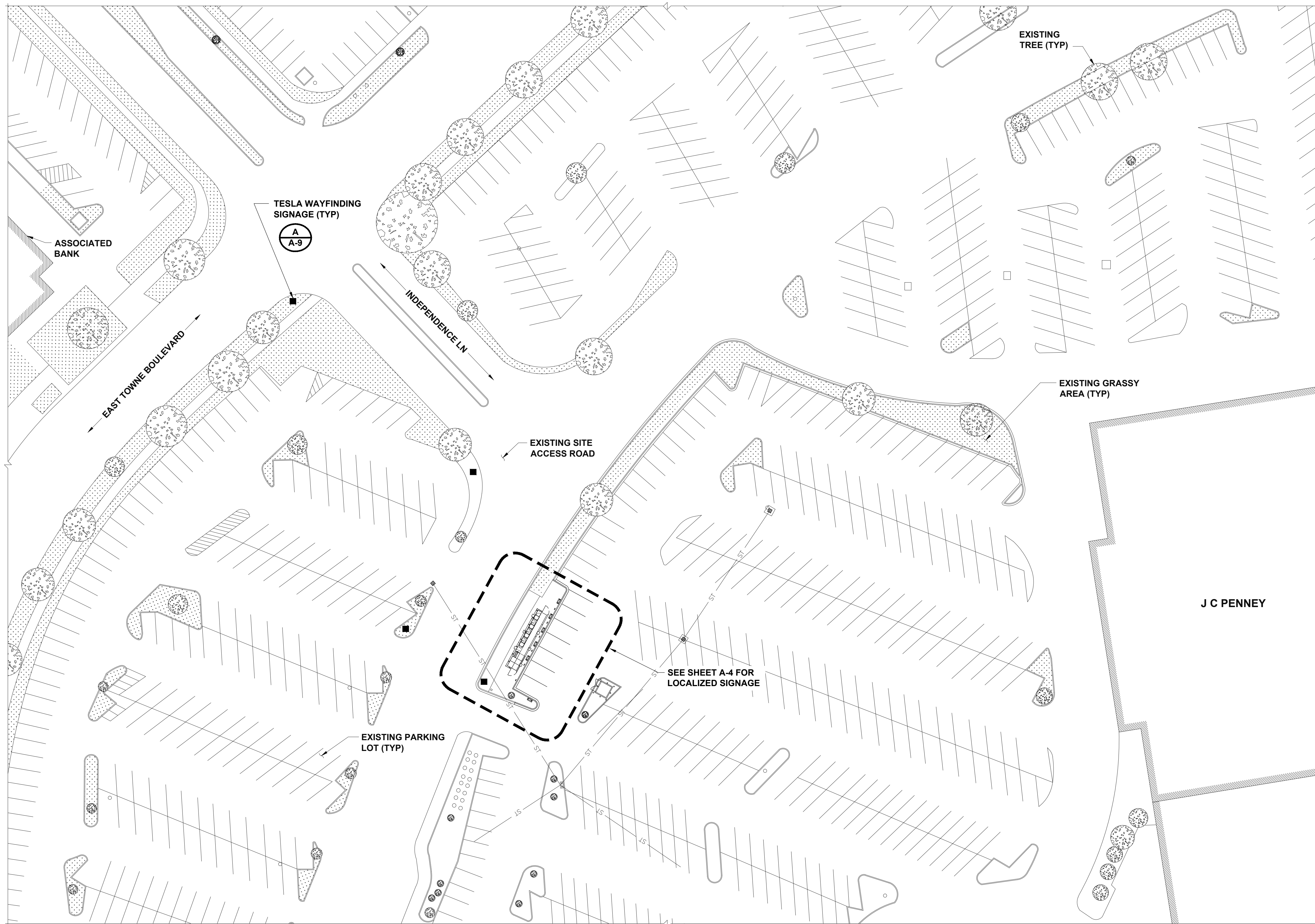


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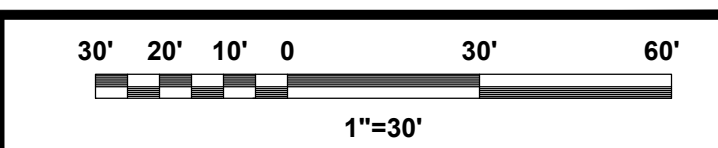


**NOTE**


1. FINAL LOCATION OF THE TESLA NON-ILLUMINATED PARKING SIGNS WILL BE DETERMINED AFTER CONSULTATION WITH THE PROPERTY OWNER AND VERIFICATION OF THE EXISTING PROPERTY LINE.



**SIGNAGE SITE PLAN**



**TESLA**  
MOTORS, INC.



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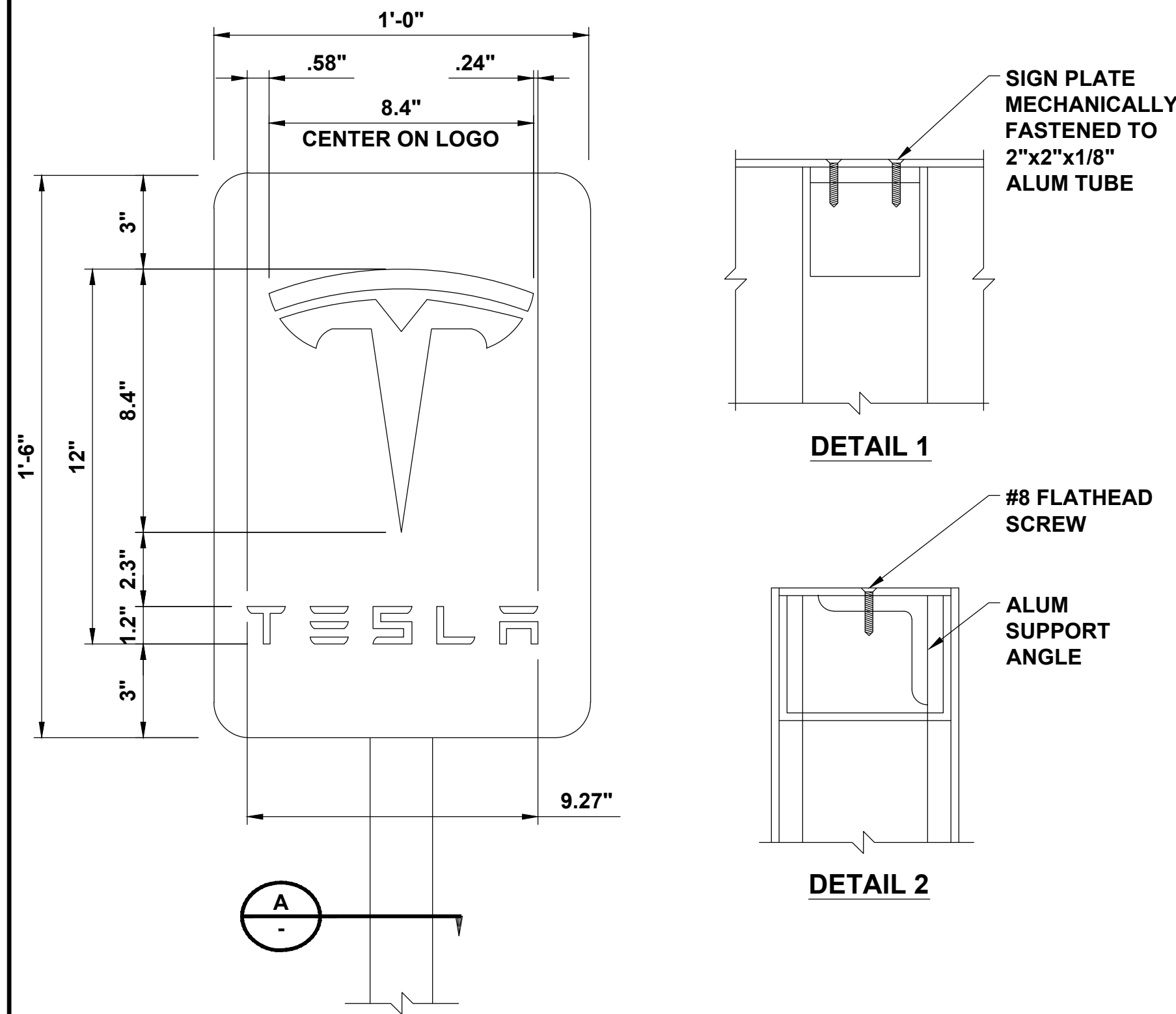
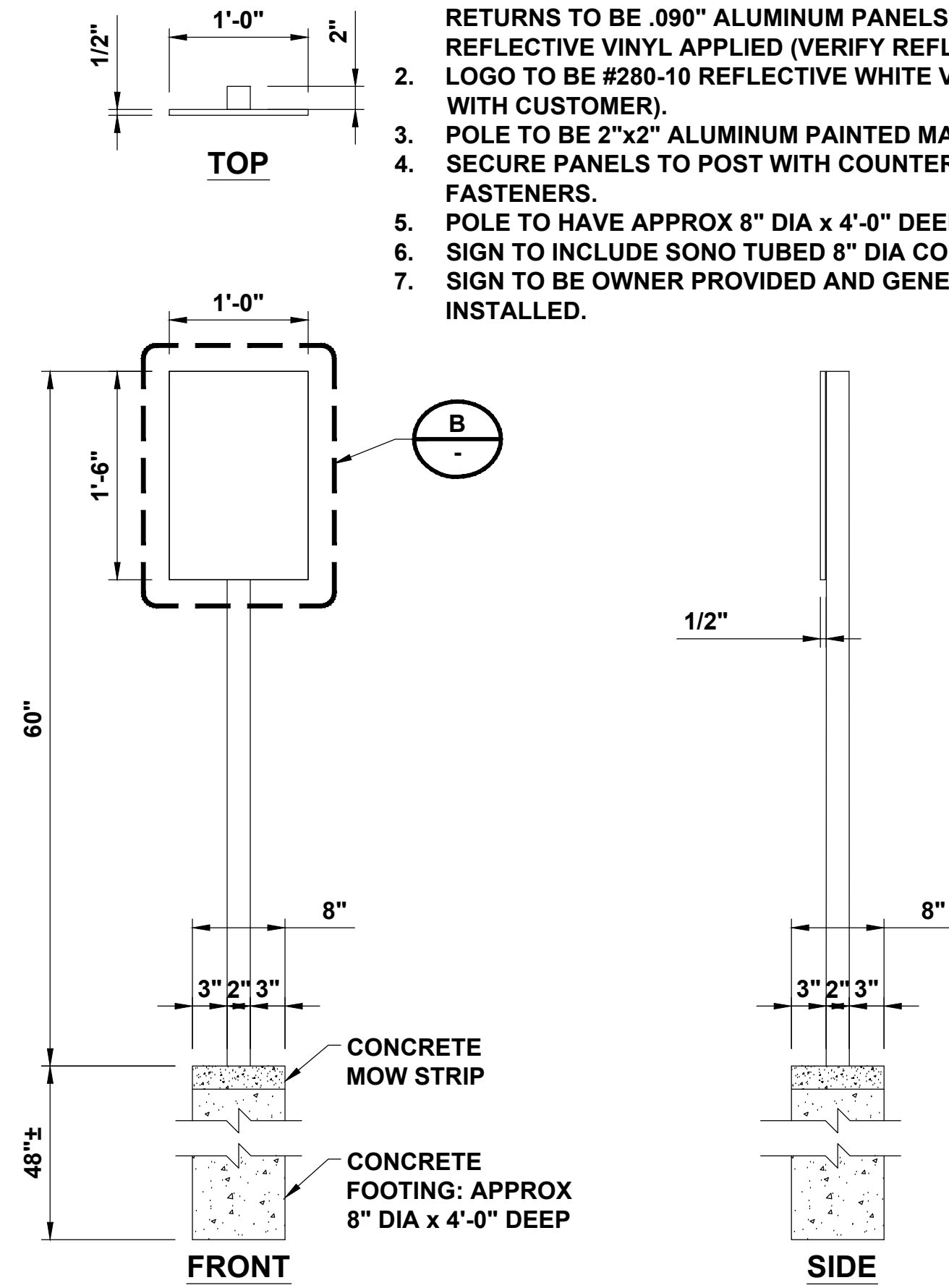
SHEET NUMBER  
**SIGNAGE SITE PLAN**

SHEET NUMBER  
**A-8**

# TO BE PROVIDED BY TESLA

## NOTES

1. D/F NON-ILLUMINATED POLE MOUNT PARKING SIGN FACES AND RETURNS TO BE .090" ALUMINUM PANELS WITH #680-82 RED REFLECTIVE VINYL APPLIED (VERIFY REFLECTIVITY WITH CUSTOMER).
2. LOGO TO BE #280-10 REFLECTIVE WHITE VINYL (VERIFY REFLECTIVITY WITH CUSTOMER).
3. POLE TO BE 2"x2" ALUMINUM PAINTED MATTHEWS SATIN WHITE.
4. SECURE PANELS TO POST WITH COUNTERSUNK MECHANICAL FASTENERS.
5. POLE TO HAVE APPROX 8" DIA x 4'-0" DEEP CONCRETE FOOTINGS.
6. SIGN TO INCLUDE SONO TUBED 8" DIA CONCRETE MOW STRIP
7. SIGN TO BE OWNER PROVIDED AND GENERAL CONTRACTOR INSTALLED.



NON-ILLUMINATED SIGN & FOUNDATION DETAIL

NO SCALE

A

NON-ILLUMINATED PARKING SIGNAGE - REAR

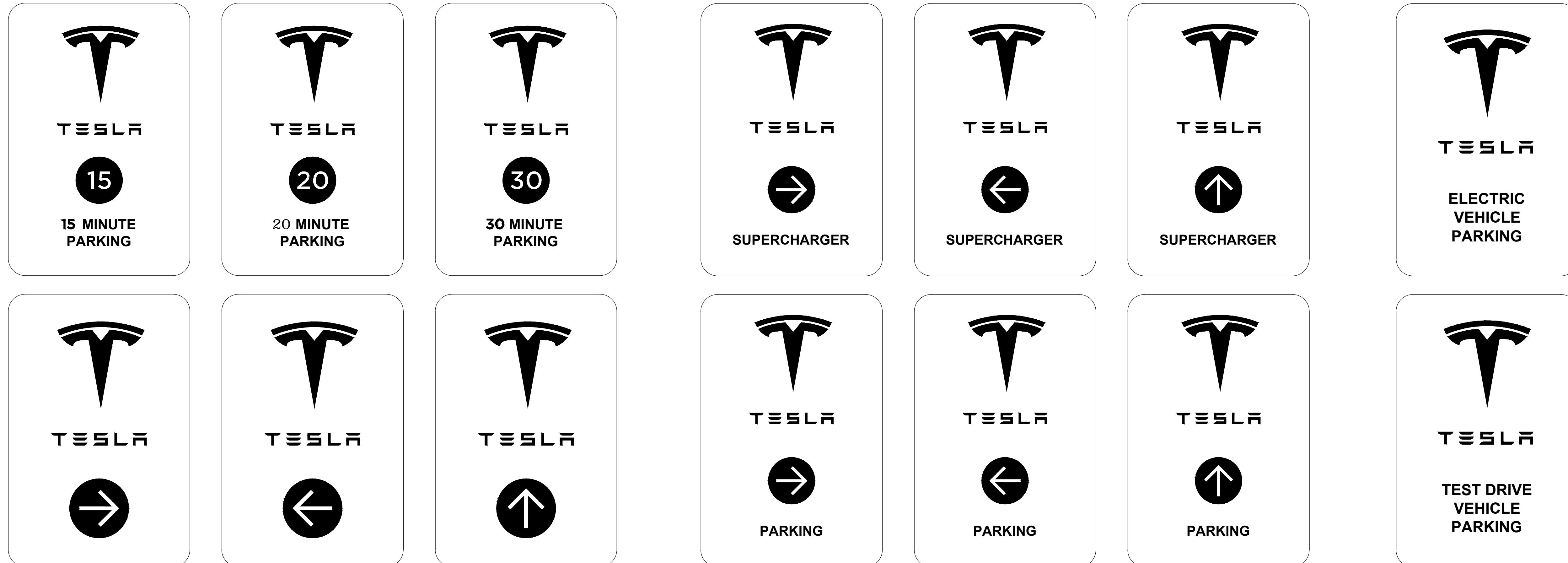
NO SCALE

B

DETAIL NOT USED

NO SCALE

C



TYPICAL TESLA PARKING SIGNAGE

NO SCALE

D



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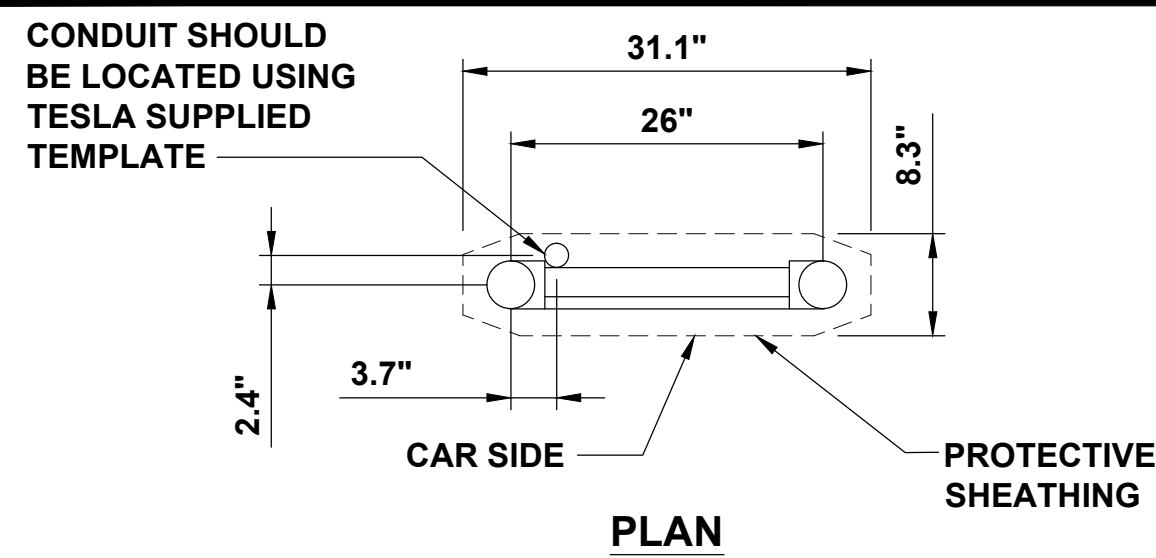
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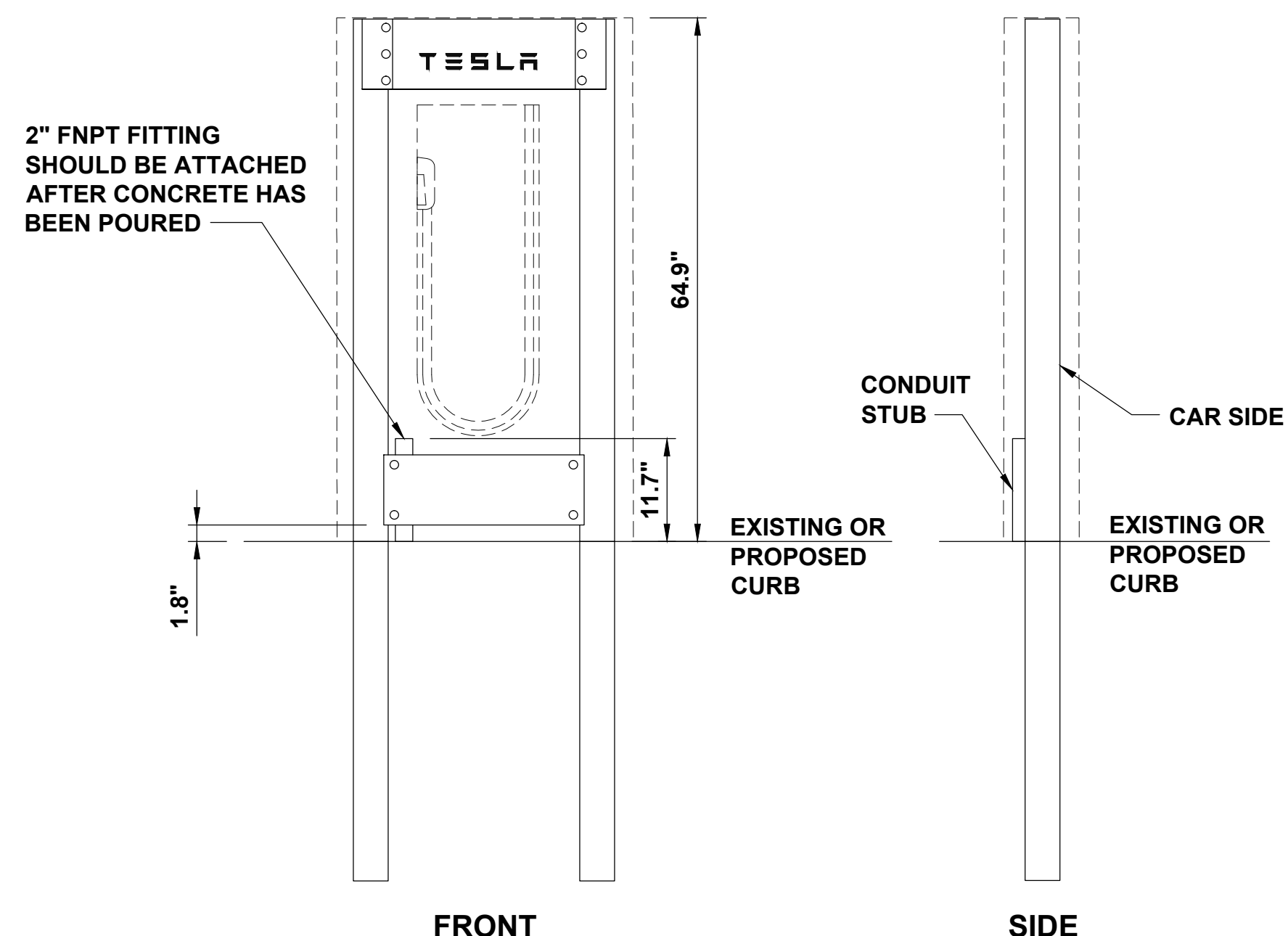
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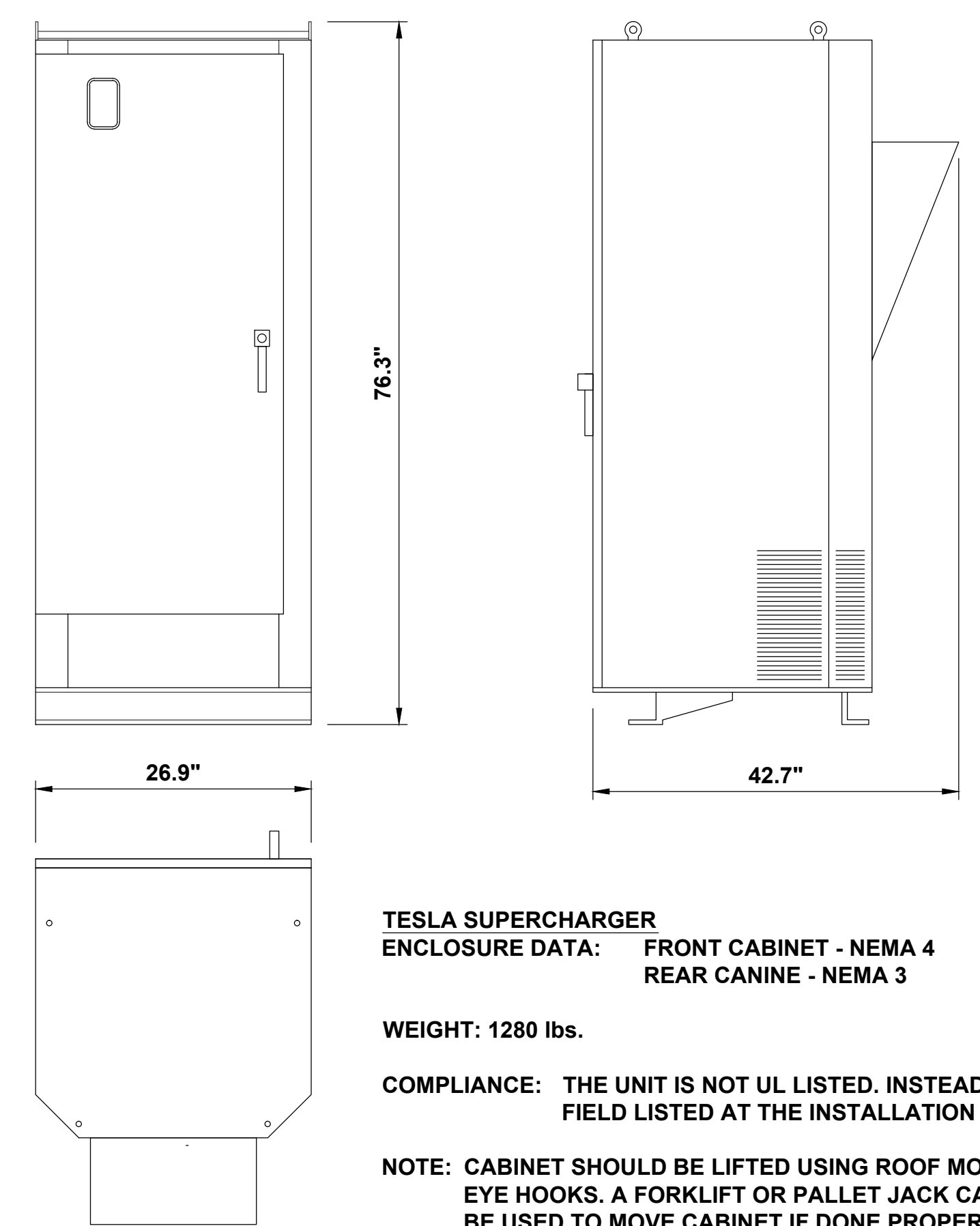
SHEET NUMBER  
**A-9**



**NOTE**  
 1. BOLLARD MUST BE FROM TESLA AND INCLUDE WELDED ON FIXTURE ATTACHMENT PADS. CONCRETE SHOULD ONLY BE POURED WITH BOLLARDS TIED TOGETHER THROUGH TESLA SUPPLIED PLATES ATTACHING TO EACH FIXTURE MOUNTING PAD.

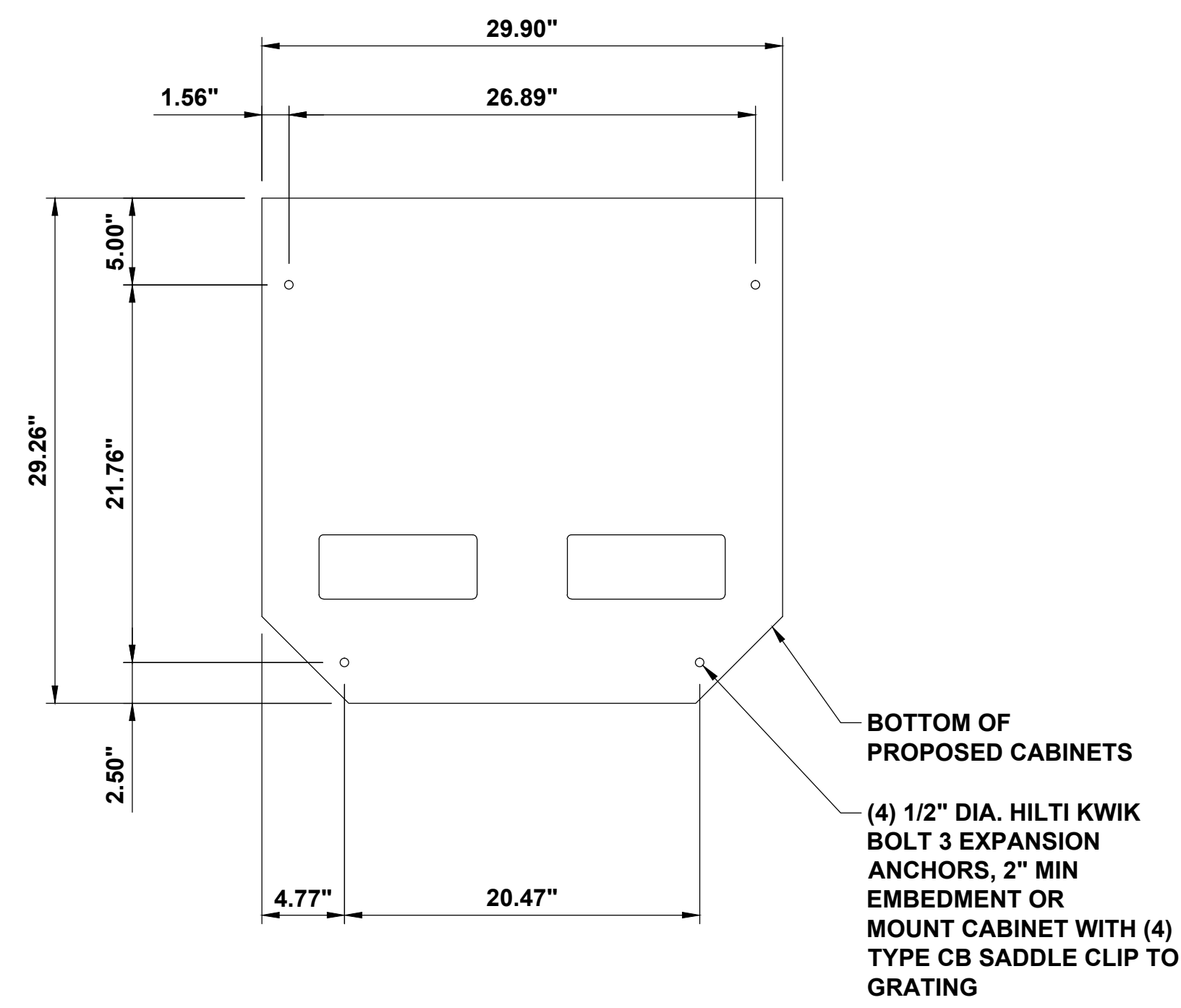


**TESLA CHARGING STATION DETAIL** NO SCALE **A**



**TESLA SUPERCHARGER**  
 ENCLOSURE DATA: FRONT CABINET - NEMA 4  
 REAR CANINE - NEMA 3  
 WEIGHT: 1280 lbs.  
 COMPLIANCE: THE UNIT IS NOT UL LISTED. INSTEAD IT IS FIELD LISTED AT THE INSTALLATION SITE.  
 NOTE: CABINET SHOULD BE LIFTED USING ROOF MOUNTED EYE HOOKS. A FORKLIFT OR PALLET JACK CAN ALSO BE USED TO MOVE CABINET IF DONE PROPERLY.

**TESLA SUPERCHARGER CABINET DETAIL** NO SCALE **B**



(4) 1/2" DIA. HILTI KWIK BOLT 3 EXPANSION ANCHORS, 2" MIN EMBEDMENT OR MOUNT CABINET WITH (4) TYPE CB SADDLE CLIP TO GRATING

**TESLA SUPERCHARGER ANCHOR BOLT PLAN** NO SCALE **C**

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**EQUIPMENT DETAILS**

SHEET NUMBER  
**A-10**

**DETAIL NOT USED** NO SCALE **D**

**DETAIL NOT USED** NO SCALE **E**

**DETAIL NOT USED** NO SCALE **F**



**WROUGHT IRON FENCE NOTES:**

**1.1 SUBMITTALS**

- A. SUBMIT PRODUCT DATA IN THE FORM OF MANUFACTURER'S TECHNICAL DATA, SPECIFICATIONS, AND INSTALLATION INSTRUCTIONS FOR FENCES AND GATES, INCLUDING HARDWARE AND GATE OPERATORS.
- B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS SHOWING LOCATION OF FENCE AND GATES, INCLUDING EACH POST, DETAILS OF POST INSTALLATION, HARDWARE, AND ACCESSORIES. SHOW SIZES AND THICKNESS OF ALL MEMBERS, TYPES OF MATERIALS, METHODS OF CONNECTION AND ASSEMBLY, COMPLETE DIMENSIONS, CLEARANCES, ANCHORAGE, RELATIONSHIP TO SURROUNDING WORK, AND OTHER PERTINENT DETAILS OF FABRICATION AND INSTALLATION.
- C. SAMPLES FOR VERIFICATION: SUBMIT SAMPLES FOR EACH PROFILE AND PATTERN OF FABRICATED METAL AND FOR EACH TYPE OF METAL FINISH REQUIRED, PREPARED ON METAL OF SAME THICKNESS AND ALLOY INDICATED FOR THE WORK. INCLUDE SAMPLES OF THE FOLLOWING:
  - 1. POST CAP INCLUDING 12 INCH (300\_MM) LONG SECTION OF POST.
  - 2. FULL-SIZE SAMPLE OF FENCE, 2 FEET WIDE BY FULL HEIGHT.
  - 3. GATE HARDWARE INCLUDING HINGES AND LATCH.
- D. QUALIFICATION DATA: SUBMIT QUALIFICATION DATA FOR FABRICATOR.

**1.2 QUALITY ASSURANCE**

- A. INSTALLER QUALIFICATIONS: ARRANGE FOR INSTALLATION OF ORNAMENTAL METAL FENCES SPECIFIED IN THIS SECTION BY THE SAME FIRM THAT FABRICATED IT.
- B. FABRICATOR QUALIFICATIONS: A FIRM EXPERIENCED IN PRODUCING ORNAMENTAL METAL FENCES AND GATES SIMILAR TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPACITY TO PRODUCE REQUIRED UNITS.
- C. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 400, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.
- D. UL STANDARD: PROVIDE GATE OPERATORS THAT COMPLY WITH UL 525.
- E. WELDING: QUALIFY PROCEDURES AND PERSONNEL ACCORDING TO AWS D1.1, "STRUCTURAL WELDING CODE--STEEL."

**1.3 MANUFACTURER**

- A. PROVIDE ORNAMENTAL METAL FENCES AND GATES AS MANUFACTURED BY CASSIDY BROS. FORGE, INC., U.S. ROUTE 1, ROWLEY, MA 01969 (TELEPHONE 978-948-7303.) OR APPROVED EQUAL.

**1.4 MATERIALS**

- A. STEEL AND IRON: PROVIDE STEEL AND IRON IN FORM INDICATED TO COMPLY WITH THE FOLLOWING REQUIREMENTS:
  - 1. STEEL PLATE, SHAPES, AND BARS: ASTM A36/A36M.
  - 2. STEEL SHEET: COMMERCIAL-QUALITY, COLD-ROLLED, STRETCHER-LEVELLED, CARBON-STEEL SHEET COMPLYING WITH ASTM A366/A366M, CLASS I, MATTE FINISH.
  - 3. GRAY-IRON CASTINGS: ASTM A48, CLASS 30 (ASTM A48M, CLASS 200).
  - 4. MALLEABLE-IRON CASTINGS: ASTM A47 (ASTM A47M), GRADE AS RECOMMENDED BY FABRICATOR FOR TYPE OF USE INDICATED.
  - 5. DUCTILE IRON CASTINGS: ASTM A36, GRADE AS RECOMMENDED BY FABRICATOR FOR TYPE OF USE INDICATED.
- B. STAINLESS STEEL:
  - 1. SHEET, STRIP, PLATE, AND FLAT BAR: ASTM A304, TYPE 304.
  - 2. BARS AND SHAPES: ASTM A276, TYPE 304.
- C. FASTENERS: TYPE 304 STAINLESS-STEEL. SELECT FASTENERS FOR TYPE, GRADE, AND CLASS REQUIRED.
- D. EXTERIOR EROSION-RESISTANT ANCHORING CEMENT: SUPER POR-ROK BY MINWAX CONSTRUCTION PRODUCTS, MONTVALE, NJ OR APPROVED EQUAL.
- E. PAINT:
  - 1. PRIMER: INTERTUF (MODIFIED EPOXY, HIGH BUILD, HIGH SOLIDS) PRIMER BY INTERNATIONAL COATINGS LTD OR APPROVED EQUAL.
  - 2. TOPCOAT: INTERTHANE 990HS (POLYURETHANE) BY INTERNATIONAL COATINGS LTD OR APPROVED EQUAL.

**1.5 ORNAMENTAL METAL FENCES**

- A. FENCE DESIGN: MONTVALE
- B. FENCE HEIGHT: 8 FEET
- C. PICKETS: SOLID 5/8 INCH SQUARE PICKETS WITH EITHER FORGED OR CAST IRON FINIALS. FINIAL: TYPE F\_3, BULLET
- D. RAILS: STEEL CHANNELS, 3/4 INCH BY 1-1/2 INCH BY 1/8 INCH THICK.
- E. POSTS: SQUARE STEEL TUBES, 2 INCHES BY 2 INCHES BY 3/16 INCH THICK, WITH CAST IRON POST CAPS.
  - 1. POST CAPS: TYPE C-4, BULLET

- F. SCROLLS: HAND FORGED WITH TAPERED ENDS FROM 1/4 INCH BY 1/2 INCH SOLID MATERIAL.
- G. PROVIDE DECORATIVE COLLARS WITH SCROLLS AND RINGS.

**1.6 PEDESTRIAN GATES**

- A. PEDESTRIAN GATE DESIGN: MATCH FENCES DESIGN.
- B. GATE HARDWARE:
  - 1. HINGES: SIZE AND MATERIAL TO SUIT GATE SIZE, NON-LIFT-OFF TYPE, OFF-SET TO PERMIT 180 DEGREE OPENING.
  - 2. LATCH: SIZE AND TYPE TO SUIT GATE SIZE, OPERABLE FROM BOTH SIDES OF GATE. ALL STRIKE SURFACES SHALL BE STAINLESS STEEL.

**1.7 FABRICATION, GENERAL**

- A. SHOP ASSEMBLY: PRE-ASSEMBLE FENCE IN SHOP TO GREATEST EXTENT POSSIBLE TO MINIMIZE FIELD SPlicing AND ASSEMBLY. DISASSEMBLE UNITS ONLY AS NECESSARY FOR SHIPPING AND HANDLING LIMITATIONS. USE CONNECTIONS THAT MAINTAIN STRUCTURAL VALUE OF JOINED PIECES. CLEARLY MARK UNITS FOR REASSEMBLY AND COORDINATED INSTALLATION.
  - 1. ATTACH CAST IRON PICKET FINIALS AND POST CAPS WITH STAINLESS STEEL SET SCREWS AFTER PAINTING AND FINISHING OF PICKETS, POSTS, FINIALS, AND CAPS. WELDING OF FINIALS TO PICKETS AND CAPS TO POSTS WILL NOT BE ACCEPTED.
- B. STRAIGHTEN PICKETS. MAXIMUM DEVIATION FROM STRAIGHT SHALL BE 1/8 INCH IN 4 FEET.
- C. SHEAR AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS.
- D. EASE EXPOSED EDGES TO A RADIUS OF APPROXIMATELY 1/32 INCH (1 MM), UNLESS OTHERWISE INDICATED. FORM BENT-METAL CORNERS TO SMALLEST RADIUS POSSIBLE WITHOUT CAUSING GRAIN SEPARATION OR OTHERWISE IMPAIRING WORK.
- E. ALL FORGING SHALL BE COAL FORGED.
- F. PROVIDE CASTINGS THAT ARE SOUND AND FREE OF WARP OR DEFECTS WHICH IMPAIR STRENGTH OR APPEARANCE.
- G. WELD PICKETS TO RAILS AND WELD BRACKETS TO POSTS. MAKE ALL WELDS CONTINUOUS, TO COMPLY WITH THE FOLLOWING:
  - 1. USE MATERIALS AND METHODS THAT MINIMIZE DISTORTION AND DEVELOP STRENGTH AND CORROSION RESISTANCE OF BASE METALS.
  - 2. OBTAIN FUSION WITHOUT UNDERCUT OR OVERLAP.
  - 3. AT EXPOSED CONNECTIONS, FINISH EXPOSED WELDS AND SURFACES SMOOTH AND BLENDED SO NO ROUGHNESS SHOWS AFTER FINISHING AND CONTOUR OF WELDED SURFACE MATCHES THAT OF ADJACENT SURFACE.
- H. PROVIDE FOR ANCHORAGE OF TYPE INDICATED; COORDINATE WITH SUPPORTING STRUCTURE. FABRICATE AND SPACE ANCHORING DEVICES TO SECURE METAL FENCE RIGIDLY IN PLACE.
- I. ALLOW FOR THERMAL MOVEMENT RESULTING FROM THE FOLLOWING MAXIMUM CHANGE (RANGE) IN AMBIENT AND SURFACE TEMPERATURES BY PREVENTING BUCKLING, OPENING UP OF JOINTS, OVERSTRESSING OF COMPONENTS, FAILURE OF CONNECTIONS, AND OTHER DETRIMENTAL EFFECTS. BASE ENGINEERING CALCULATION ON SURFACE TEMPERATURES OF MATERIALS DUE TO BOTH SOLAR HEAT GAIN AND NIGHTTIME-SKY HEAT LOSS.
  - 1. TEMPERATURE CHANGE (RANGE): 120 DEG F (67 DEG C), AMBIENT; 180 DEG F (100 DEG C), MATERIAL SURFACES.

**1.8 FINISHES, GENERAL**

- A. COMPLY WITH NAAMM'S "METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS" FOR RECOMMENDATIONS FOR APPLYING AND DESIGNATING FINISHES.
- B. FINISH ORNAMENTAL METAL FENCES AND GATES AFTER ASSEMBLY.

**1.9 STEEL AND IRON FINISHES**

- A. PREPARATION FOR SHOP PRIMING: PREPARE UNCOATED FERROUS-METAL SURFACES TO COMPLY WITH MINIMUM REQUIREMENTS INDICATED BELOW AND SSPC-SP 6/NACE NO. 8, "COMMERCIAL BLAST CLEANING" FOR SURFACE PREPARATION SPECIFICATIONS AND ENVIRONMENTAL EXPOSURE CONDITIONS OF INSTALLED METAL FABRICATIONS:
  - 1. REMOVE ALL LOOSE SCALE BY BLASTING IN ACCORDANCE WITH SSPC-SP6. PERFORM BLASTING WITH AN AIR COMPRESSOR HAVING A MINIMUM CAPACITY OF 200 C.F.M. AND AN AIR DRYER WITH A MINIMUM CAPACITY OF 250 C.F.M.. USE CAST STEEL GRIT BLAST MEDIA G25, G40, OR G50 IN ACCORDANCE WITH SAE J1993.
  - 2. APPLY COATING SYSTEM WITHIN FOUR HOURS OF BLASTING, IN A SUITABLY DESIGNED SPRAY BOOTH CAPABLE OF CONTROLLING ENVIRONMENTAL CONDITIONS. DO NOT APPLY PAINT WHEN THE AIR, STEEL OR PAINT MATERIALS ARE BELOW 50 DEGREES F. OR THE HUMIDITY IS ABOVE 80 PERCENT.
    - 2.1. DO NOT APPLY PAINT WHEN THE RELATIVE HUMIDITY EXCEEDS 80 PERCENT OR WHEN THE TEMPERATURE IS LESS THAN 5 DEGREES ABOVE THE DEW POINT. THE TEMPERATURE OF THE MATERIAL TO BE COATED MUST BE WITHIN 5 DEGREES OF THE AMBIENT TEMPERATURE WITH MINIMUM MATERIAL TEMPERATURE TO BE ABOVE 50 DEGREES. MONITOR AND RECORD TEMPERATURE AND RELATIVE HUMIDITY ON A DAILY BASIS DURING EACH APPLICATION.
- B. SHOP PRIMING: SHOP APPLY EPOXY PRIMER, WITHIN FOUR HOURS OF BLASTING, TO UNCOATED SURFACES OF METAL AT 4.0 TO 6.0 MILS DFT. COMPLY WITH SSPC\_PA 4, "PAINT APPLICATION SPECIFICATION NO. 4: SHOP, FIELD, AND MAINTENANCE PAINTING OF STEEL," FOR SHOP PAINTING.

- 1. PRIME SURFACES PRIOR TO APPLICATION OF FINISH COAT. SURFACES TO BE PAINTED SHALL BE CLEAN AND FREE OF OIL AND DIRT. FILL CRACKS AND CREVICES AT SCROLLS, CIRCLES, AND AT SANDWICHED COMPONENTS, WITH DYMONIC POLYURETHANE CAULKING AFTER PRIMING HAS CURED AND PRIOR TO APPLICATION OF THE FINISH PAINT COAT.
- 2. STRIPE PAINT CORNERS, CREVICES, BOLTS, WELDS, AND SHARP EDGES.
- C. FINISH COAT: SHOP APPLY ONE FINISH COAT OF POLYURETHANE APPLIED AT 2.0 TO 3.0 MILS DFT.
  - 1. COLOR: BLACK, HIGH GLOSS.
- D. PROVIDE FINISHED PRODUCT FREE OF RUNS, SAGS, PINHOLES AND HOLIDAYS. ALLOW PAINT TO FULLY CURE BEFORE INSTALLATION.

**1.10 FENCE INSTALLATION**

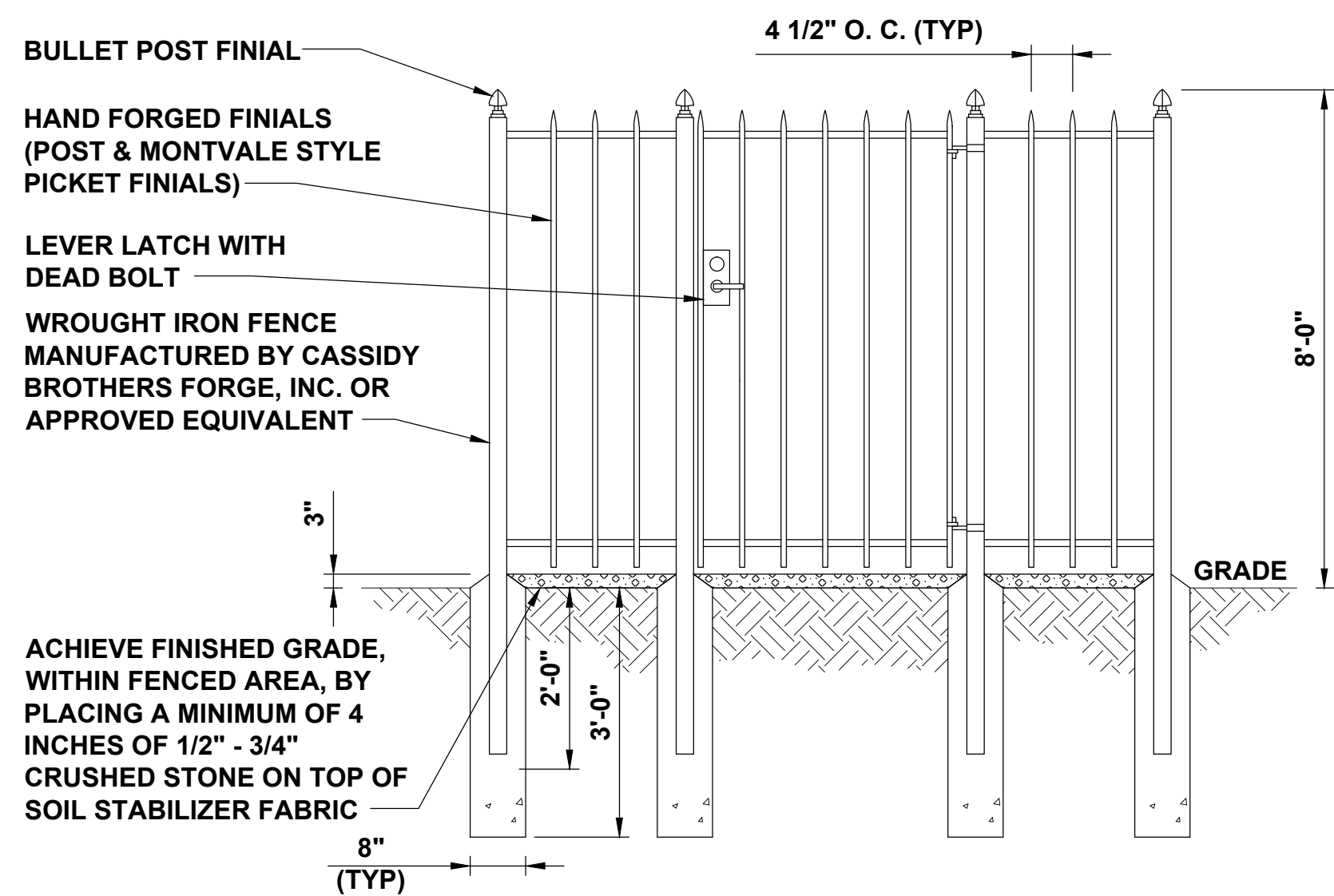
- A. INSTALL ORNAMENTAL METAL FENCES AND GATES IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. DO NOT BEGIN INSTALLATION AND ERECTION BEFORE FINAL GRADING IS ESTABLISHED.
- B. EXCAVATION: DRILL OR HAND-EXCAVATE (USING POST-HOLE DIGGER) HOLES FOR POSTS TO DIAMETERS AND SPACING INDICATED, IN FIRM, UNDISTURBED OR COMPACTED SOIL.
  - 1. IF NOT INDICATED ON DRAWINGS, EXCAVATE HOLES FOR EACH POST 6 TO 8 INCHES IN DIAMETER.
  - 2. UNLESS OTHERWISE INDICATED, EXCAVATE HOLE DEPTHS NOT LESS THAN 36 INCHES BELOW THE FINISH GRADE SURFACE.
- C. SETTING POSTS IN EARTH: CENTER AND ALIGN POSTS IN HOLES, SPACE AS REQUIRED BY MANUFACTURER. BRACE TERMINAL POST AGAINST STRUCTURE AS REQUIRED.
  - 1. PROTECT PORTION OF POSTS ABOVE GROUND FROM CONCRETE SPLATTER. PLACE CONCRETE AROUND POSTS AND VIBRATE OR TAMP FOR CONSOLIDATION. CHECK EACH POST FOR VERTICAL AND TOP ALIGNMENT, AND HOLD IN POSITION DURING PLACEMENT AND FINISHING OPERATIONS.
    - 1.1. UNLESS OTHERWISE INDICATED, SET TOP OF CONCRETE FOOTINGS 4 INCHES BELOW FINISH GRADE.

**1.11 GATE INSTALLATION**

- A. INSTALL GATES ACCORDING TO MANUFACTURER'S APPROVED SHOP DRAWINGS, LEVEL, PLUMB, AND SECURE FOR FULL OPENING WITHOUT INTERFERENCE.
- B. INSTALL GATE HARDWARE AND OPERATORS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, ALIGNED AND TRUE TO FENCE LINE AND GRADE.

**1.12 CLEANING AND PROTECTION**

- A. TOUCHUP PAINTING: IMMEDIATELY AFTER ERECTION, CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS OF SHOP PAINT, AND PAINT EXPOSED AREAS WITH SAME MATERIAL.
- B. RESTORE FINISHES DAMAGED DURING INSTALLATION AND CONSTRUCTION PERIOD SO NO EVIDENCE REMAINS OF CORRECTION WORK.



**WROUGHT IRON FENCE AND GATE  
DETAIL**



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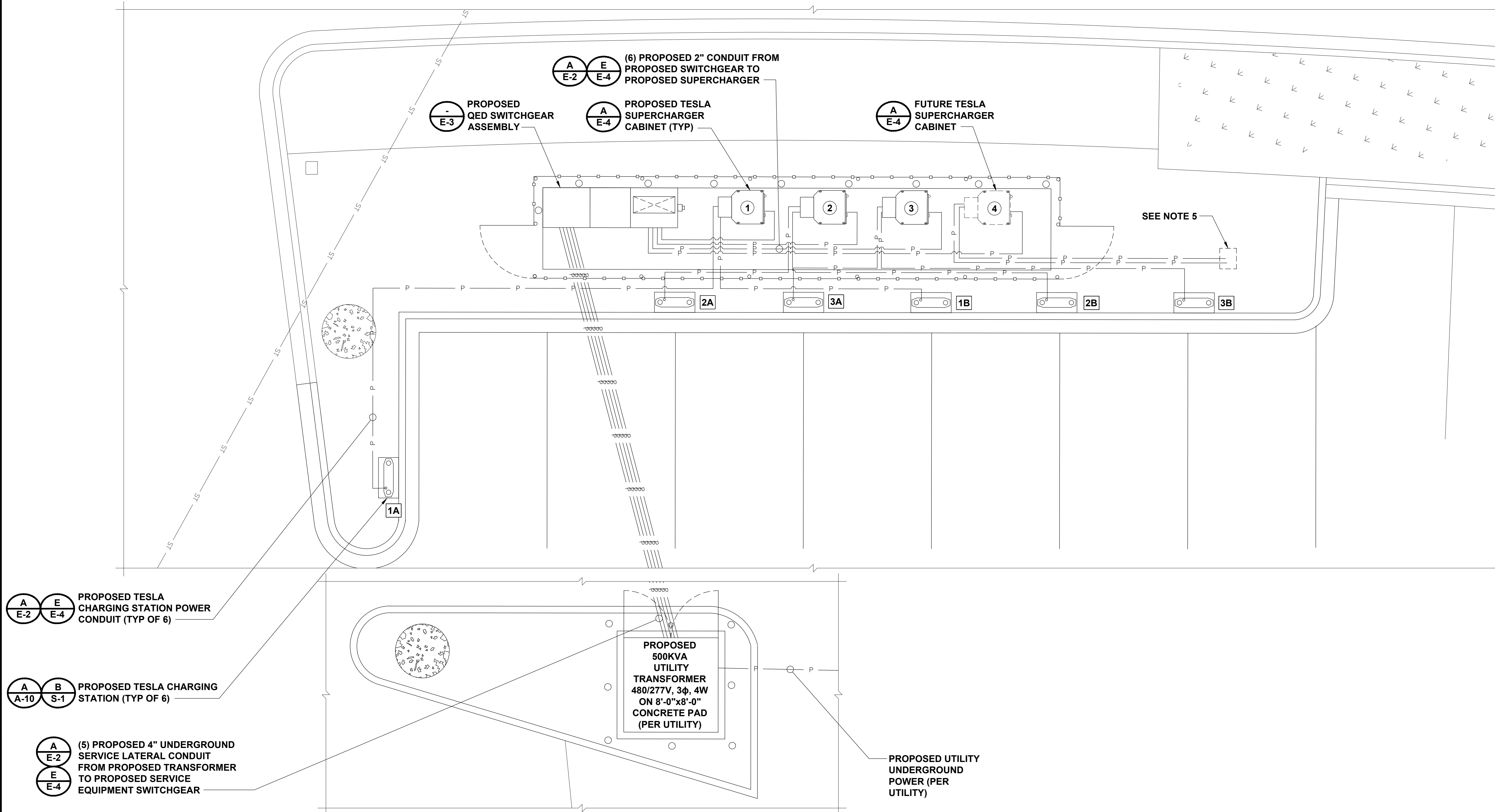
SHEET NUMBER  
**A-11**

**NOTES**

1. CONDUIT ROUTING IS DIAGRAMMATICALLY SHOWN ON PLANS AND ARE ONLY APPROXIMATIONS. THE EXACT LOCATION AND ROUTING PATHS SHALL BE FIELD VERIFIED AND INSTALLED PER JURISDICTIONAL REQUIREMENTS.
2. ALL ELECTRICAL WORK AND RELATED ACTIVITIES PERFORMED ONSITE SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) STANDARDS BEING ENFORCED BY ALL APPLICABLE JURISDICTIONAL REQUIREMENTS AT TIME OF CONSTRUCTION.
3. SUPERCHARGER CABINET CIRCUITS BETWEEN VEHICLE CHARGING STATIONS EXTENDING BEYOND 80'-0" SHALL BE ADDRESSED WITH THE APPROPRIATE ENGINEERING TEAMS AS SOON AS THE SITUATION ARISES.
4. UTILITY EQUIPMENT INSTALLATIONS AND PREP WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY ENGINEER TO ENSURE ACCURACY OF INSTALLATIONS.
5. CONTRACTOR SHALL RUN CONDUITS FOR FUTURE VEHICLE CHARGING STATIONS APPROXIMATELY 1'-0" PAST THE CONDUITS OF THE LAST OPERATING CHARGING POST. CONDUIT SHALL BE CAPPED AND BURIED.

CHARGING POST CIRCUIT SCHEDULE				
SUPERCHARGER	DEDICATED FEED CHARGING POST	ENABLED FEED CHARGING POST	*CHARGER LENGTHS*	FEEDER CONFIGURATION (PER CHARGING POST)
①	1A	1B	DEDICATED- 46' ENABLED- 26'	(2) 250MCM AWG (THWN-2)+ COMM CABLE (PER TESLA) IN 2" CONDUIT
②	2A	2B	DEDICATED- 14' ENABLED- 29'	(2) 250MCM AWG (THWN-2)+ COMM CABLE (PER TESLA) IN 2" CONDUIT
③	3A	3B	DEDICATED- 12' ENABLED- 33'	(2) 250MCM AWG (THWN-2)+ COMM CABLE (PER TESLA) IN 2" CONDUIT
④	4A	4B	DEDICATED- TBD ENABLED- TBD	(2) 2" SPARE CONDUITS

\* CHARGER CABLE LENGTHS ARE BASED ON DIAGRAMMATICAL MEASUREMENTS NOT INCLUDING BEND RADIUS & BURIED DEPTHS. CONTRACTOR TO VERIFY ACTUAL LENGTHS ON SITE.



**ELECTRICAL PLAN**

4' 2' 0 4' 8'  
1/4"=1'-0"



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(650) 681-5000



**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
(913) 458-2000

PROJECT NO: 179056  
DRAWN BY: NMB  
CHECKED BY: MBG

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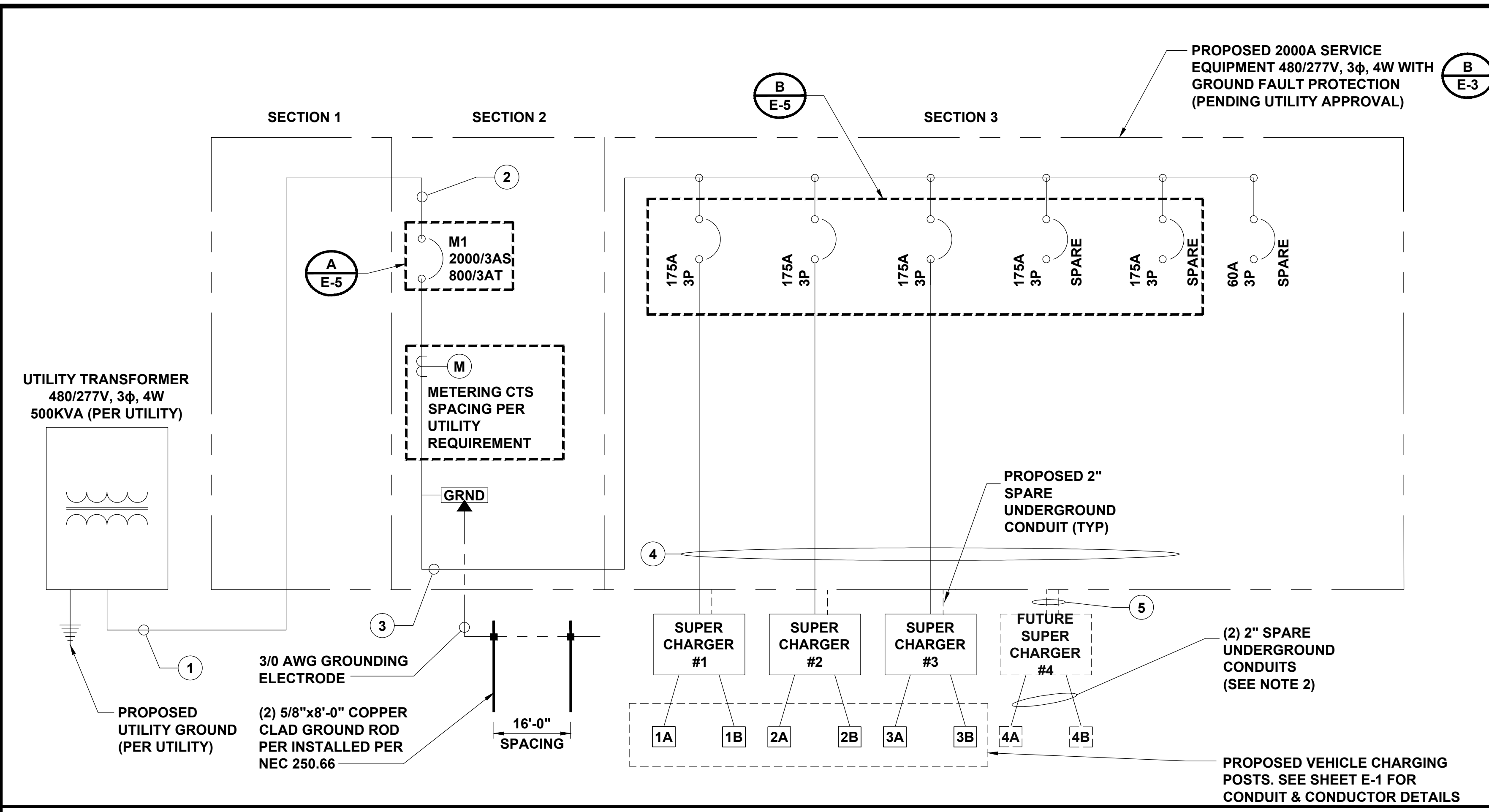
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**ELECTRICAL PLAN**

SHEET NUMBER  
**E-1**



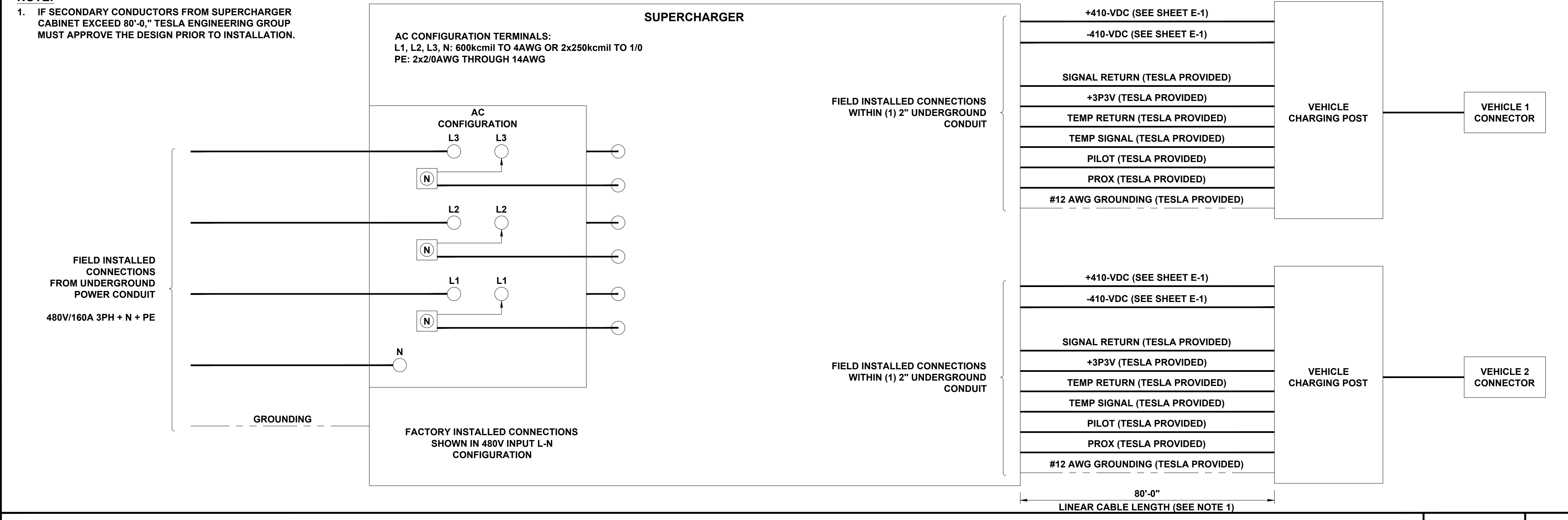
AC SERVICE ELECTRICAL CIRCUIT SCHEDULE			
NO	FROM	TO	CONFIGURATION
1	UTILITY TRANSFORMER	PROPOSED SERVICE EQUIPMENT; SECTION 1	(3) 4" CONDUITS W/ (4) 500MCM (THWN-2) PER CONDUIT+(2) SPARE 4" CONDUITS
2	PROPOSED SERVICE EQUIPMENT; SECTION 1	PROPOSED SERVICE EQUIPMENT; METERING/ 800A MAIN BREAK SECTION 2	FACTORY INSTALLED 2000A BUSS
3	PROPOSED SERVICE EQUIPMENT; METERING/ 800A MAIN BREAK SEC 2	PROPOSED SERVICE EQUIPMENT; BRANCH CIRCUIT DISTRIBUTION SECTION 3	FACTORY INSTALLED 2000A BUSS
4	PROPOSED SERVICE EQUIPMENT; CURCUIT 1 SECTION 3 (175 AMP)	PROPOSED TESLA SUPER CHARGER #1	(4) 3/0 (THWN-2) AWG, (1) #6 AWG GND IN 2" CONDUIT
	PROPOSED SERVICE EQUIPMENT; CURCUIT 2 SECTION 3 (175 AMP)	PROPOSED TESLA SUPER CHARGER #2	(4) 3/0 (THWN-2) AWG, (1) #6 AWG GND IN 2" CONDUIT
5	PROPOSED SERVICE EQUIPMENT; CURCUIT 3 SECTION 3 (175 AMP)	PROPOSED TESLA SUPER CHARGER #3	(4) 3/0 (THWN-2) AWG, (1) #6 AWG GND IN 2" CONDUIT
	PROPOSED SERVICE EQUIPMENT; CURCUIT 4 SECTION 3 (175 AMP)	FUTURE PROPOSED TESLA SUPER CHARGER #4	(2) SPARE 2" CONDUIT (SEE NOTE 2)

- NOTE**
- NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPER CHARGERS.
  - FUTURE SUPER CHARGER/VEHICLE CHARGING POST CONDUITS SHALL BE INSTALLED AND CAPPED AT THE APPROXIMATE LOCATIONS OF THE PROPOSED FUTURE EQUIPMENT.

SYSTEM ONE-LINE DIAGRAM

NO SCALE A

**NOTE:**  
1. IF SECONDARY CONDUCTORS FROM SUPERCHARGER CABINET EXCEED 80'-0," TESLA ENGINEERING GROUP MUST APPROVE THE DESIGN PRIOR TO INSTALLATION.



SUPERCHARGER CONNECTION ONE-LINE DIAGRAM

NO SCALE B

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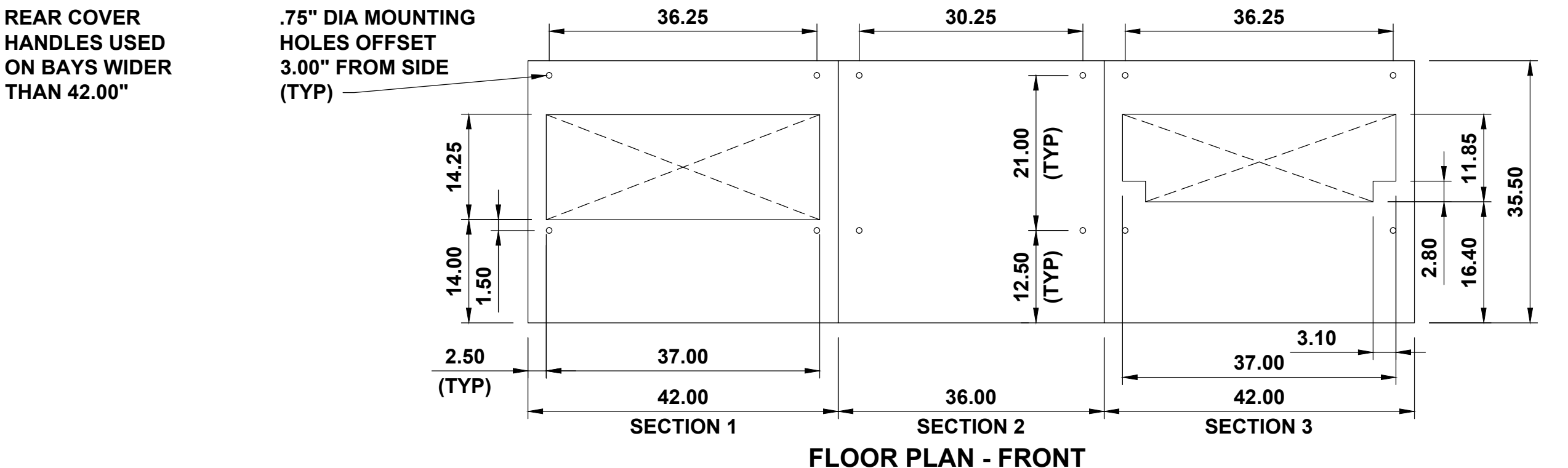
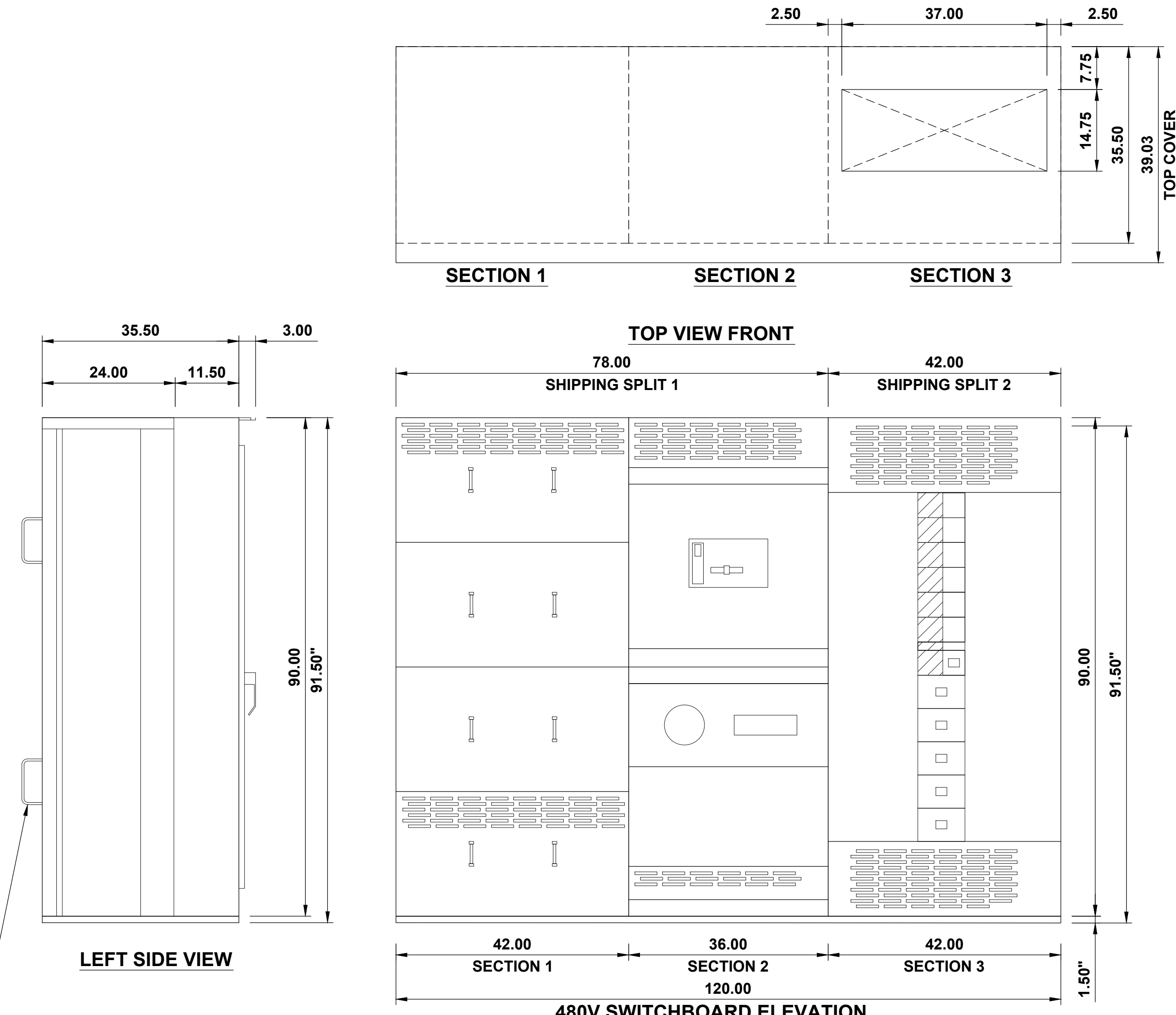
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SHEET NUMBER  
**ELECTRICAL DETAILS**

SHEET NUMBER  
**E-2**





**QED SWITCHBOARD**  
 POWER SYSTEM DATA  
 480/277V 3Ph 4W 60Hz/3 PHASE WYE  
 SOLIDLY GROUNDED  
 SYSTEM SHORT CIRCUIT RATING: 65KA RMS  
 INCOMING SECTION 1 CABLE THROUGH THE  
 BOTTOM LEFT OF LINEUP

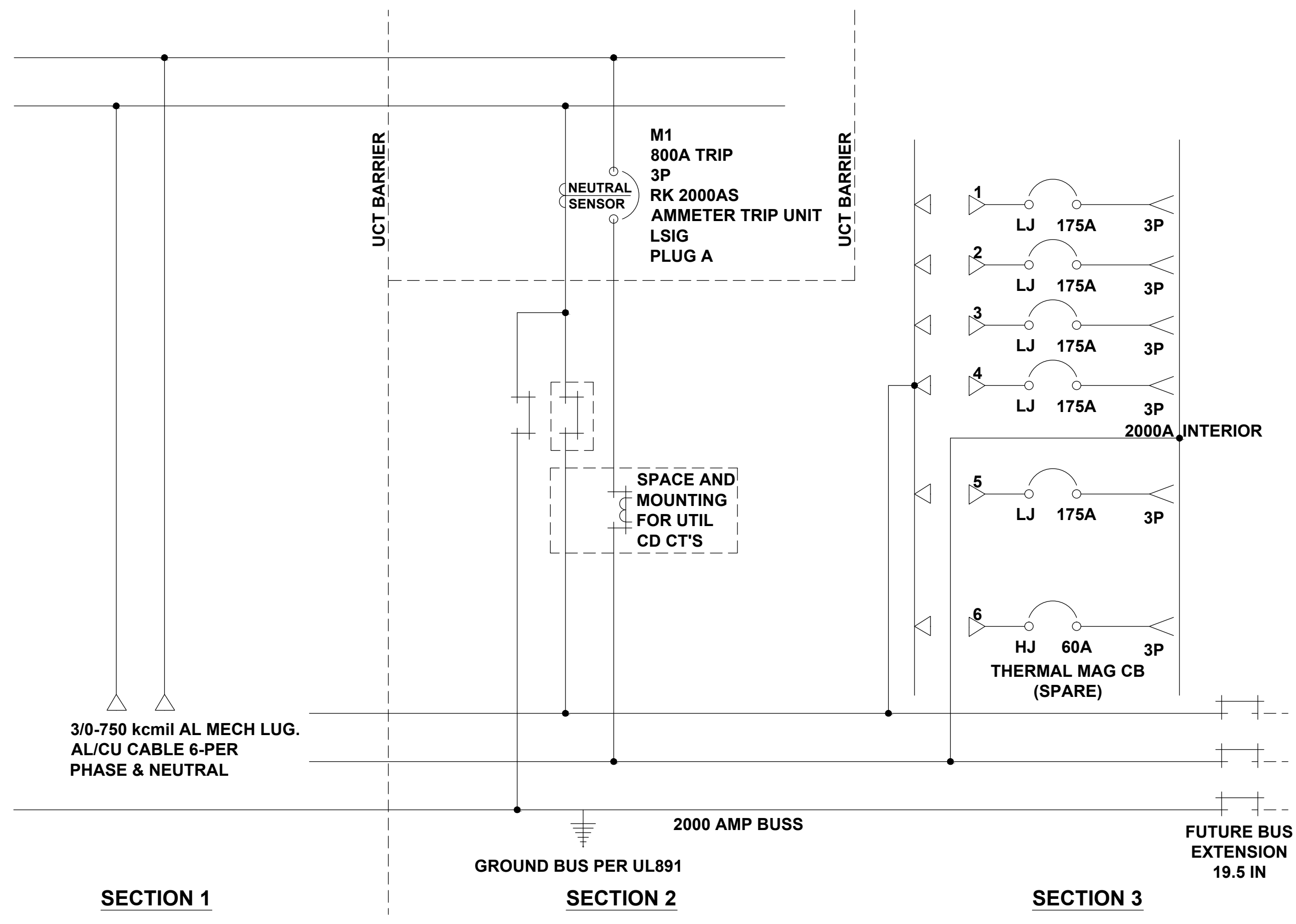
**BUS SYSTEM DATA**  
 2000A SILVER PLATED COOPER MAIN BUS  
 (4) .25x1.50" BUS BAR PER PHASE/NEUTRAL  
 (1) .25x.875" GROUND BUS

**ENCLOSURE DATA**  
 TYPE 3R FREE STANDING  
 EXTERIOR PAINT COLOR: ANSI 49  
 FRONT ACCESSIBILITY ONLY REQUIRED  
 HANDLING: ROLLERS  
 RODENT BARRIERS  
 1.5H CORROSION RESIST BASE CHANNELS  
 BASE CHANNELS CANNOT BE REMOVED FROM  
 EUSERC SWITCHBOARD LINEUPS  
 UTILITY SEALING HARDWARE INSTALLED FOR  
 UNMETERED BUS COMPARTMENTS

**ESTIMATED SHIPPING WEIGHT**  
 SHIPPING SPLIT 1: 1771.00 LBS.  
 SHIPPING SPLIT 2: 1076.00 LBS.  
 COMPLETE LINEUP: 2847.00 LBS.

**CODE STANDARDS**  
 U.L. DEADFRONT AND SUITABLE FOR USE AS  
 SERVICE ENTRANCE  
 WHEN NOT MORE THAN SIX (6) DISCONNECTING  
 MEANS ARE PROVIDED.

**RATING NAMEPLATES**  
 ST1 - DEADFRONT-SECTION BUS 2000A  
 ST2 - SERVICE ENTRANCE-SECTION BUS 2000A  
 ST3 - DEADFRONT-SECTION BUS 2000A



**QED SWITCHBOARD ONE-LINE DIAGRAM** NO SCALE B

SECTION NO.	CIRCUIT NO.	GMD HEIGHT	DEVICE/ FRAME RATING	TRIP AMP	FUSE/ TRIP	#P	DESIGNATION	N/P	LUG INFORMATION				ACCESSORIES
									QTY	PHASE WIRE RANGE	QTY	NEUT. WIRE RANGE	
1	-	-	INCOMING CONNECTION	-	-	-	CITY OF MADISON	NO	6	3/0 - 750 kcmil	6	3/0 - 750 kcmil	
2	UCT	-	2000A	-	-	-		NO	-	-	-	-	
3	M1	-	RK2000AS PLUG A 100%	800A	A-LSIG	3P		NO	-	-	-	-	GF, SDE, PLA
3	1	6"	LJ 400 AMP 100%	175A	S-LI	3P		NO	2	3/0 - 750 kcmil	1	#4 - 600 kcmil	PLA
3	2	6"	LJ 400 AMP 100%	175A	S-LI	3P		NO	2	3/0 - 750 kcmil	1	#4 - 600 kcmil	PLA
3	3	6"	LJ 400 AMP 100%	175A	S-LI	3P		NO	2	3/0 - 750 kcmil	1	#4 - 600 kcmil	PLA
3	4	6"	LJ 400 AMP 100%	175A	S-LI	3P	SPARE	NO	2	3/0 - 750 kcmil	1	#4 - 600 kcmil	PLA
3	5	6"	LG 400 AMP 100%	175A	S-LI	3P	SPARE	NO	2	3/0 - 750 kcmil	1	#4 - 600 kcmil	PLA
3	6	4.5"	HJ	60A	-	3P	SPARE	NO	1	#14 - 3/0 AWG	1	#14 - 1/0 AWG	PLA

**QED SWITCHBOARD CIRCUIT SCHEDULE** NO SCALE C

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SHEET NUMBER  
**ELECTRICAL DETAILS**

SHEET NUMBER  
**E-3**

**QED SWITCHBOARD ASSEMBLY SPECIFICATIONS** NO SCALE A

# TO BE PROVIDED BY TESLA



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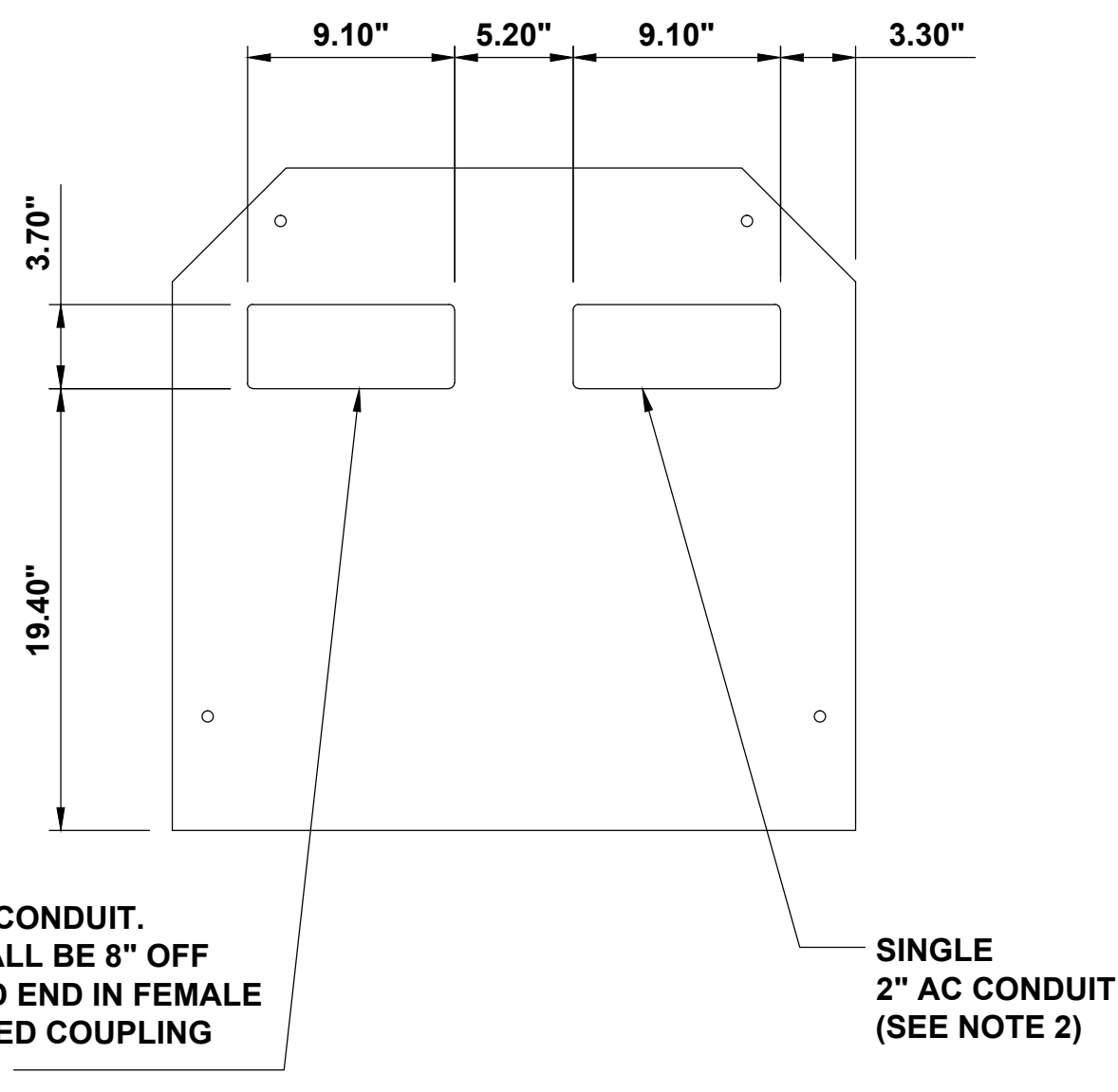
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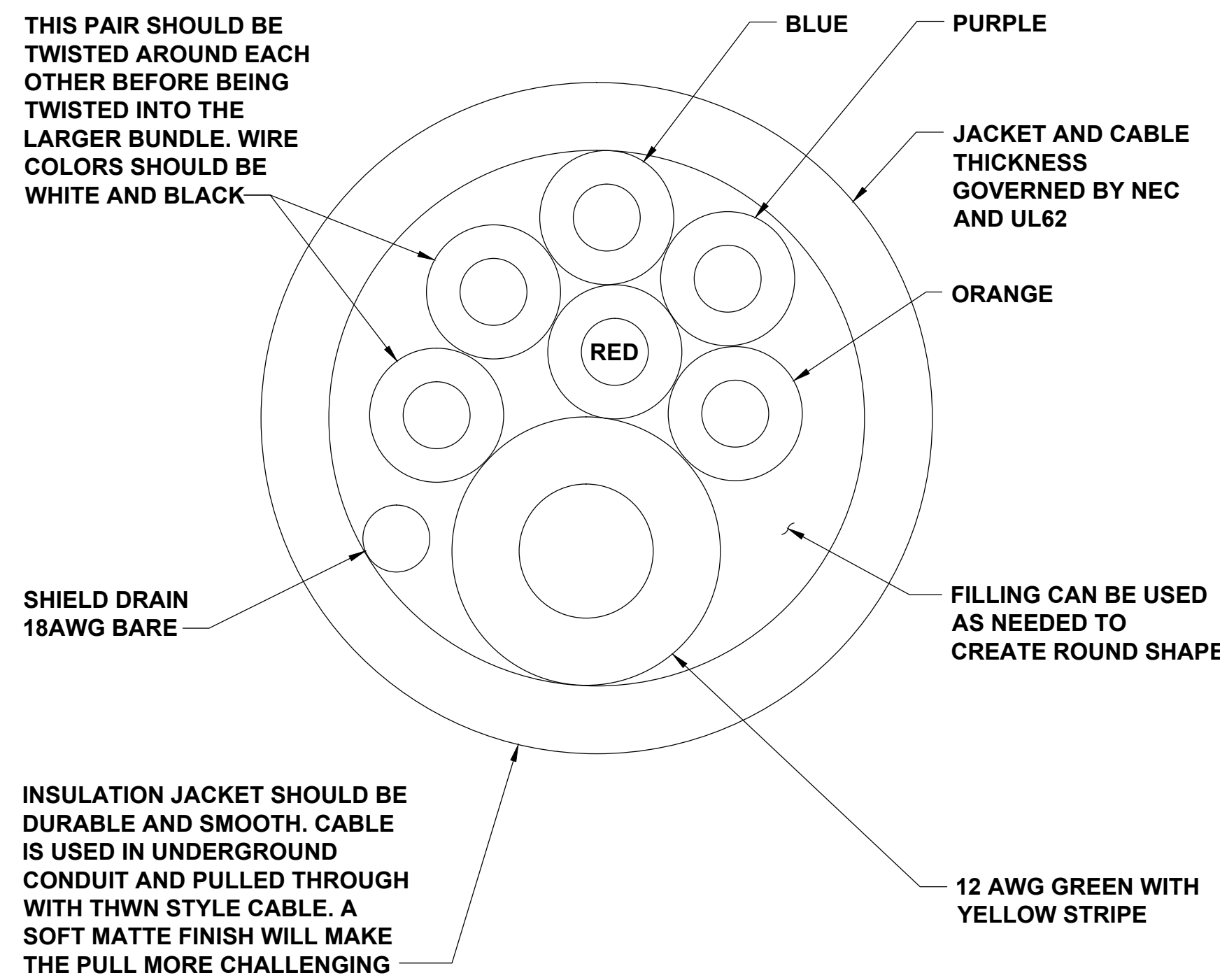
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**ELECTRICAL DETAILS**

SHEET NUMBER  
**E-4**



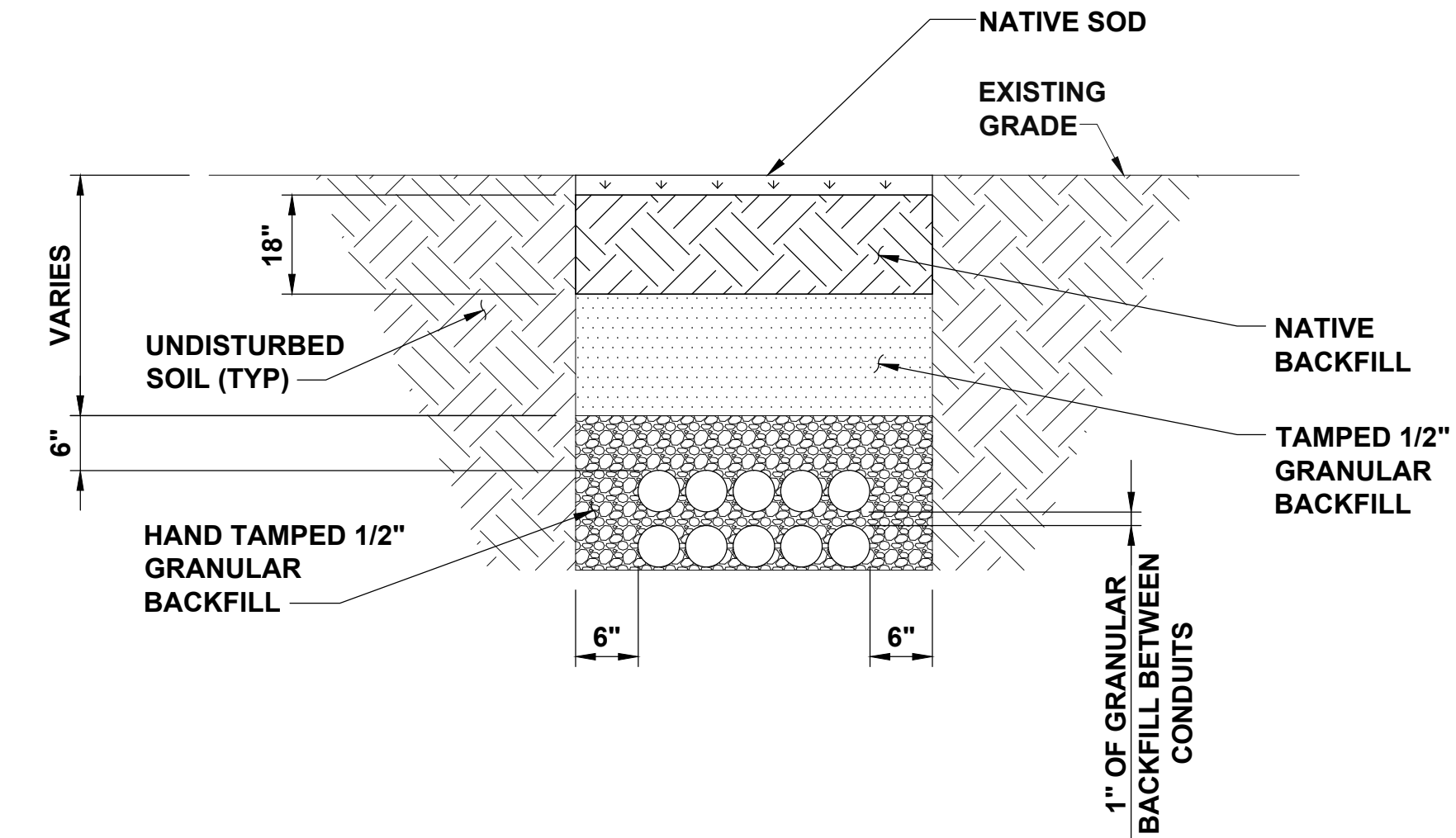
**NOTE**

- BOLT HOLES FOR REFERENCE ONLY. LOCATE WITH SUPERCHARGER TEMPLATE, TO BE PROVIDED BY TESLA.
- USE DOTTIE DUCT SEAL COMPOUND PC1630 (CAT NO LHD1) TO SEAL ENDS OF CONDUIT (TYP. ALL CONDUITS FOR SUPERCHARGERS AND CHARGE STATIONS)



**NOTES**

- ASPHALT SHALL COMPLY WITH STANDARD DOT OR LOCAL JURISDICTION SPEC. FOR HMA SURFACE COURSE.
- ANY EXCAVATION LEFT OPEN SHOULD BE SECURELY FENCED OFF.
- ANY PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRE CONSTRUCTION CONDITIONS OR BETTER.



**TESLA SUPERCHARGER CONDUIT ENTRY DETAIL**

NO SCALE

A

**CONDUIT DETAIL**

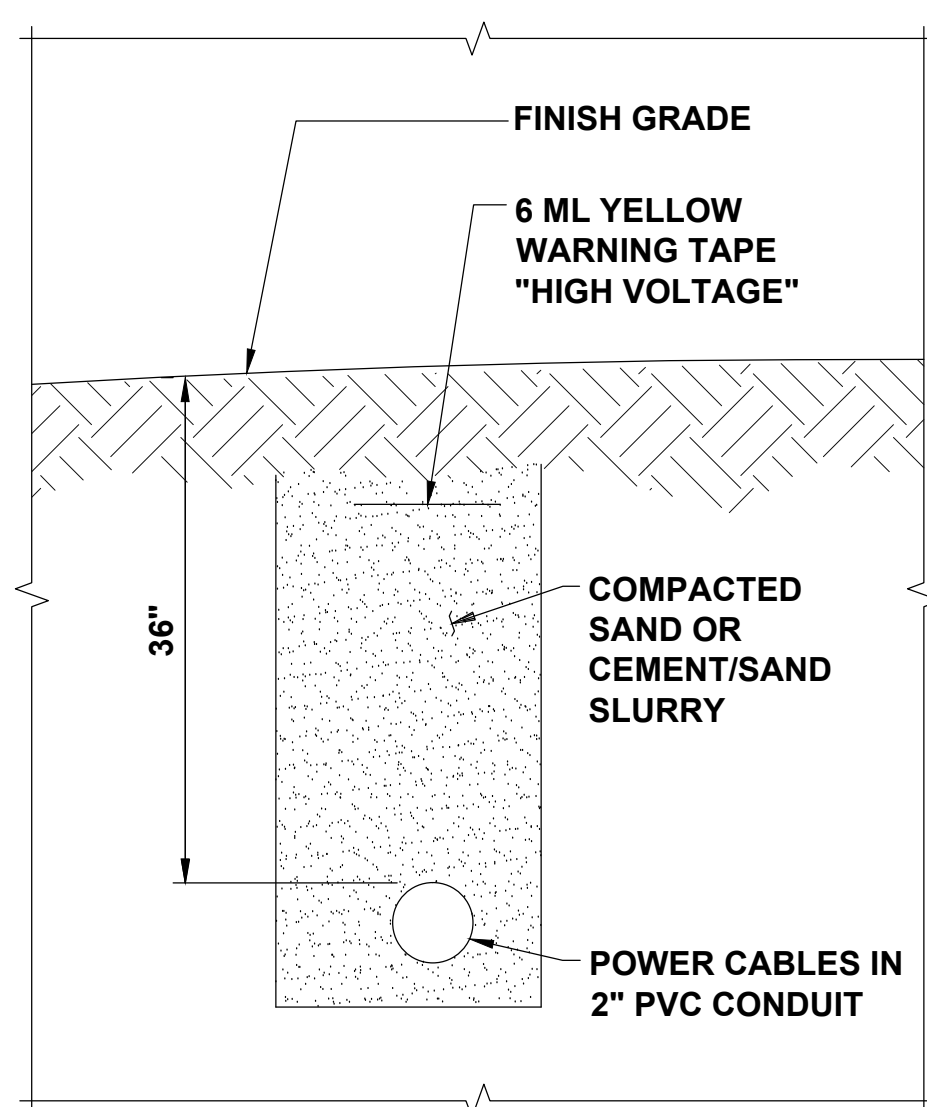
NO SCALE

B

**TYPICAL CONDUIT UNDER SOIL TRENCH DETAIL**

NO SCALE

C

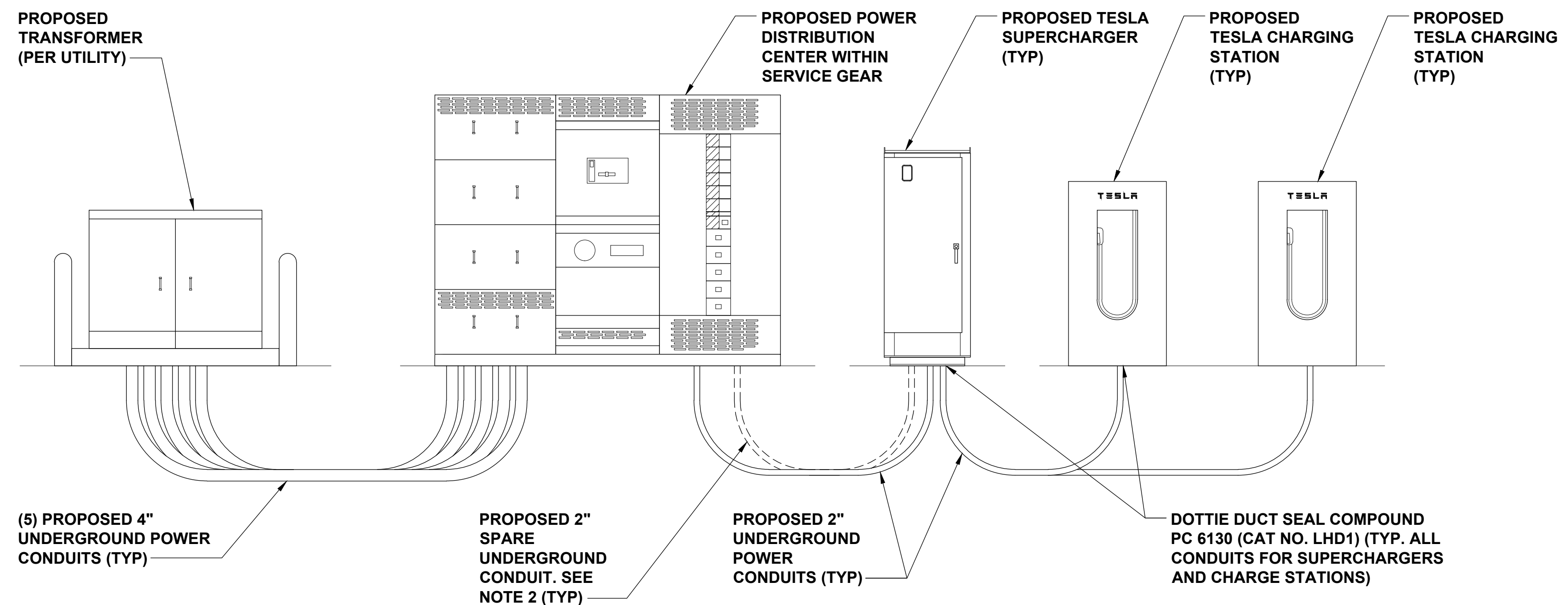


**NOTE**

- RESTORE GRADE TO ITS ORIGINAL CONDITION OR BETTER. FILL WITH WELL COMPACTED BACKFILL. IF TRENCH IS UNDER CONCRETE PAD, BACKFILL WITH AASHTO 57 STONE.

**NOTES**

- CONDUITS SHALL BE BURIED BELOW FROST LINE AND IN COMPLIANCE WITH LOCAL AND NATIONAL CODE REQUIREMENTS.
- ONE ADDITIONAL CONDUIT SHALL BE INSTALLED IN PARALLEL OF PROPOSED POWER CONDUITS FOR FUTURE EXPANSION.
- REFER TO SHEET E-2 FOR CONDUCTOR REQUIREMENTS WITHIN CONDUITS.



**BURIED CABLE DETAIL**

NO SCALE

D

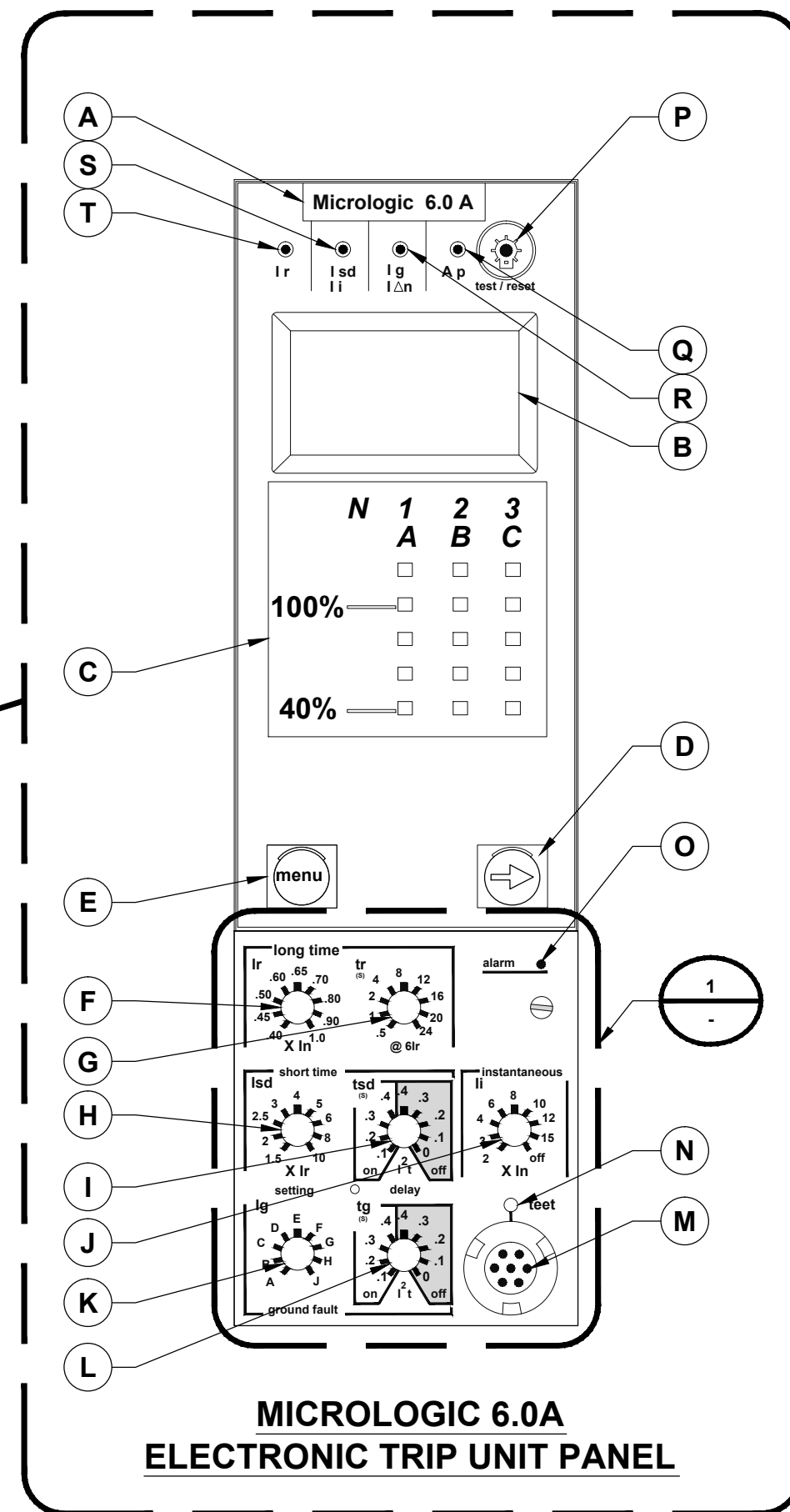
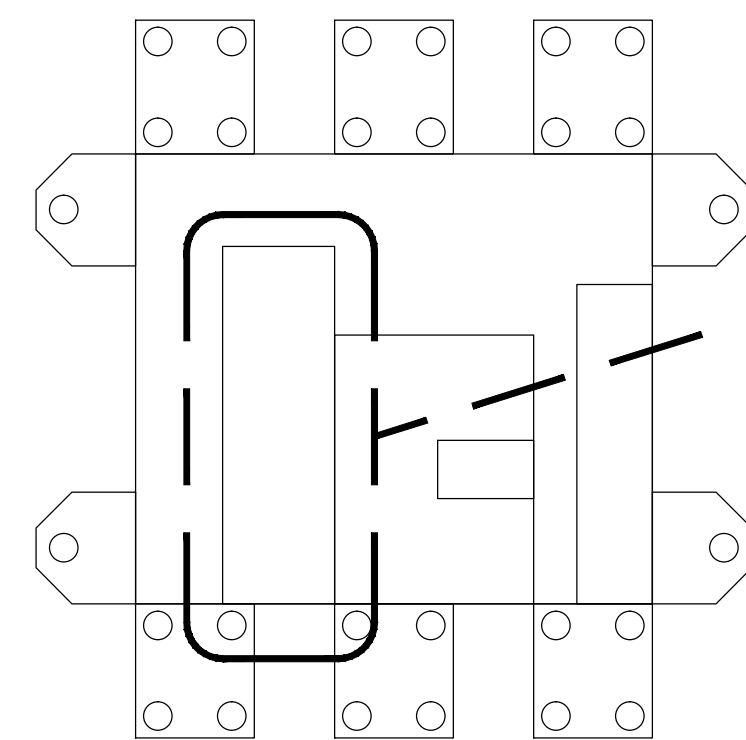
**CAR CHARGER CONDUIT ELEVATION**

NO SCALE

E

**\* RK CIRCUIT BREAKER**

480VAC L-L

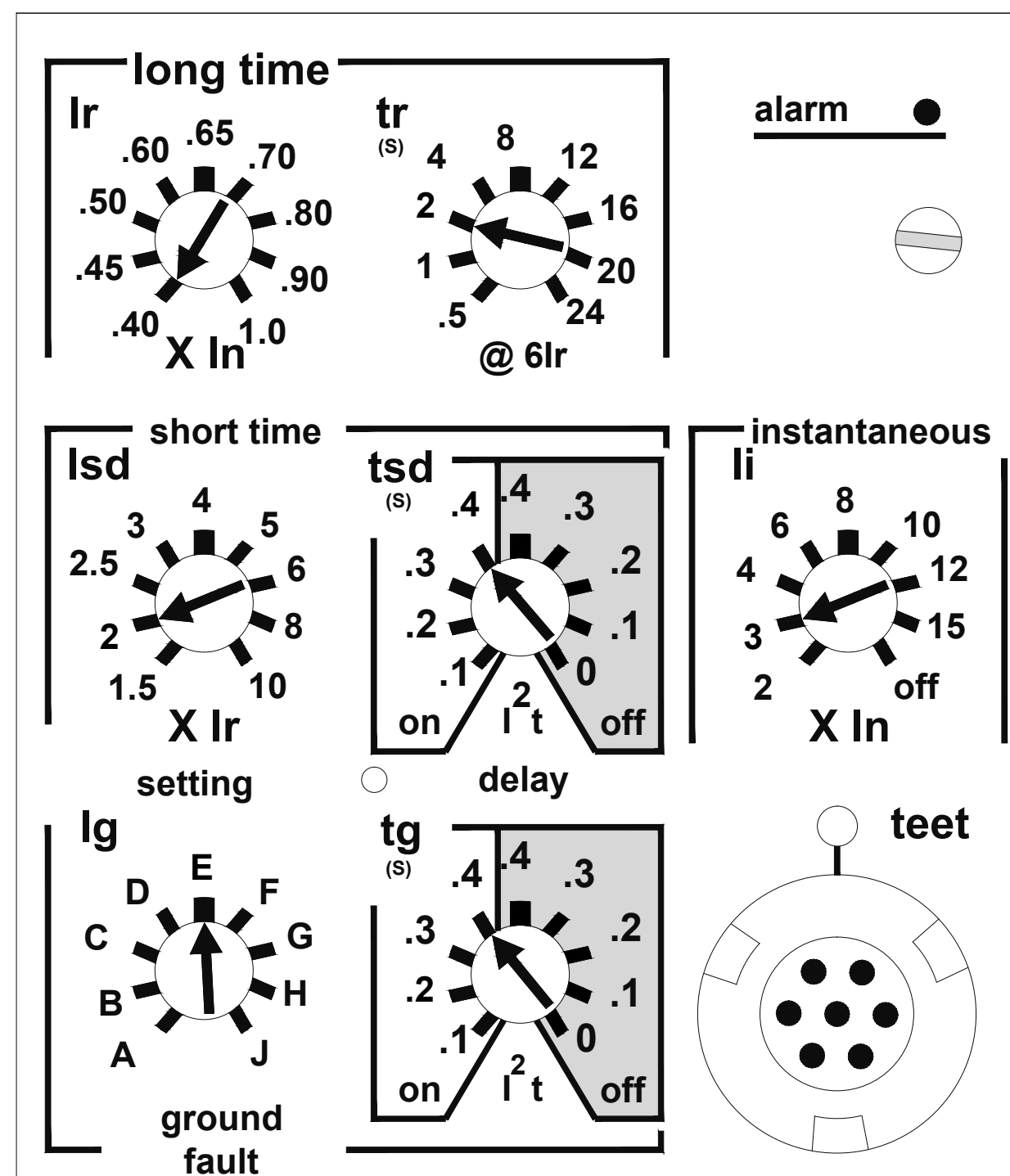


**MICROLOGIC 6.0A  
ELECTRONIC TRIP UNIT PANEL**

**\* BREAKERS ARE RATED  
FOR 100%**

THE MICROLOGIC 6.0A TRIP UNIT PROVIDES SELECTIVE AND GROUND-FAULT PROTECTION FOR EQUIPMENT (r1200 A) (LSIG) AND A BUILT-IN AMMETER.

- A. TRIP UNIT NAME
- B. ALPHANUMERIC DISPLAY
- C. THREE-PHASE BAR GRAPH
- D. SCROLL BUTTON
- E. MENU BUTTON
- F. LONG-TIME PICKUP (Ir) SWITCH
- G. LONG-TIME DELAY (tr) SWITCH
- H. SHORT-TIME PICKUP (I<sub>sd</sub>) SWITCH
- I. SHORT-TIME DELAY (tsd) SWITCH
- J. INSTANTANEOUS PICKUP (I<sub>i</sub>) SWITCH
- K. GROUND-FAULT PICKUP (I<sub>g</sub>) SWITCH
- L. GROUND-FAULT DELAY (tg) SWITCH
- M. TEST PLUG RECEPTACLE
- N. GROUND FAULT PUSH-TO-TRIP BUTTON
- O. OVERLOAD INDICATOR LIGHT
- P. RESET BUTTON FOR BATTERY STATUS CHECK AND TRIP INDICATOR LED
- Q. SELF-PROTECTOR INDICATOR LIGHT
- R. GROUND-FAULT INDICATOR LIGHT
- S. SHORT-TIME OR INSTANTANEOUS TRIP INDICATOR LIGHT
- T. LONG-TIME TRIP INDICATOR LIGHT



**SECTION 1**

**NOTE**

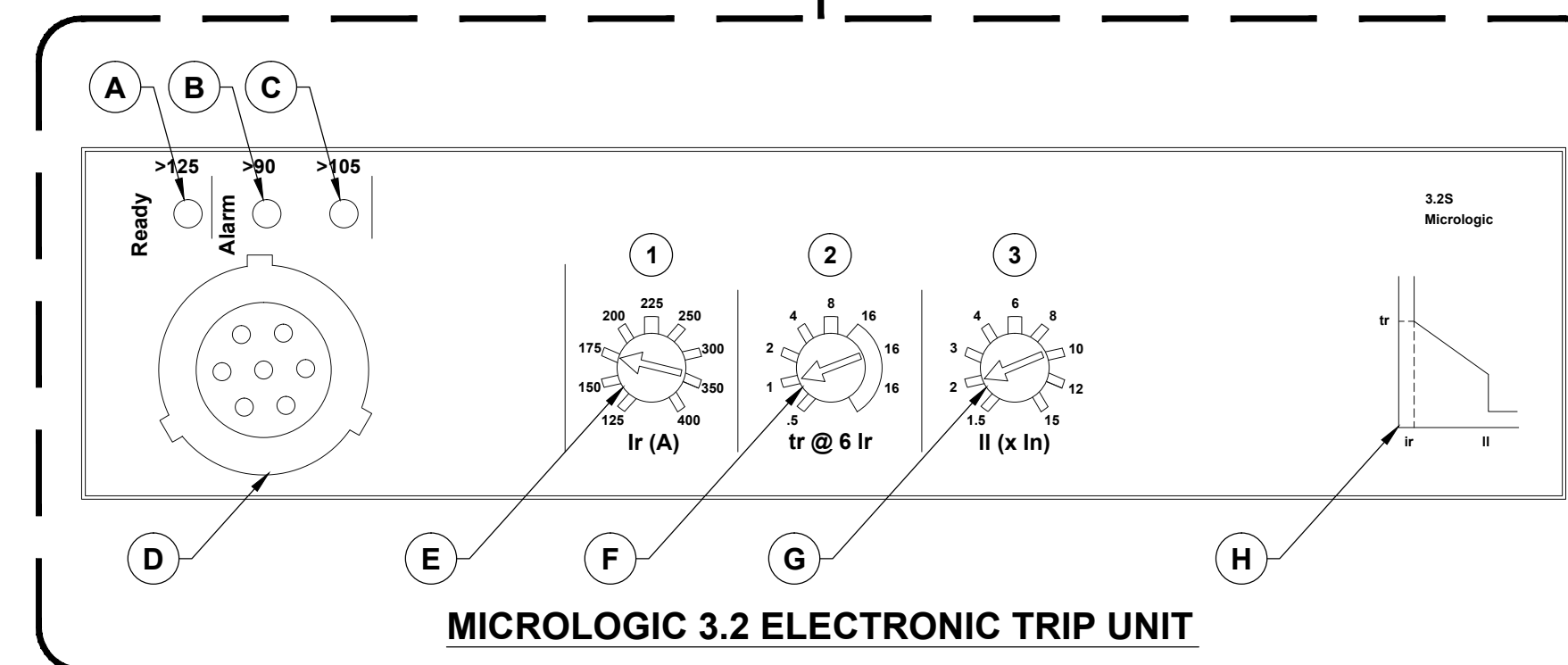
- THESE CIRCUIT BREAKER TRIP SETTINGS ARE NOT COORDINATED WITH UTILITY TRIP SETTINGS.

**\* LJ CIRCUIT BREAKER**

480VAC L-L

- A. READY LED (GREEN)
- B. OVERLOAD PRE-ALARM LED (ORANGE): 90% I<sub>r</sub>
- C. OVERLOAD ALARM LED (RED): 105% I<sub>r</sub> THE TRIP UNIT'S I<sub>n</sub> RATING CORRESPONDS TO THE MAXIMUM VALUE OF THE ADJUSTMENT RANGE
- D. TEST PORT
- E. ADJUSTMENT DIAL FOR LONG-TIME PROTECTION DELAY tr
- F. ADJUSTMENT DIAL FOR SHORT-TIME PROTECTION PICKUP I<sub>sd</sub>
- G. ADJUSTMENT DIAL FOR INSTANTANEOUS PROTECTION PICKUP I<sub>i</sub>
- H. TRIP CURVE

**\* BREAKERS ARE RATED FOR 100%**



**MICROLOGIC 3.2 ELECTRONIC TRIP UNIT**

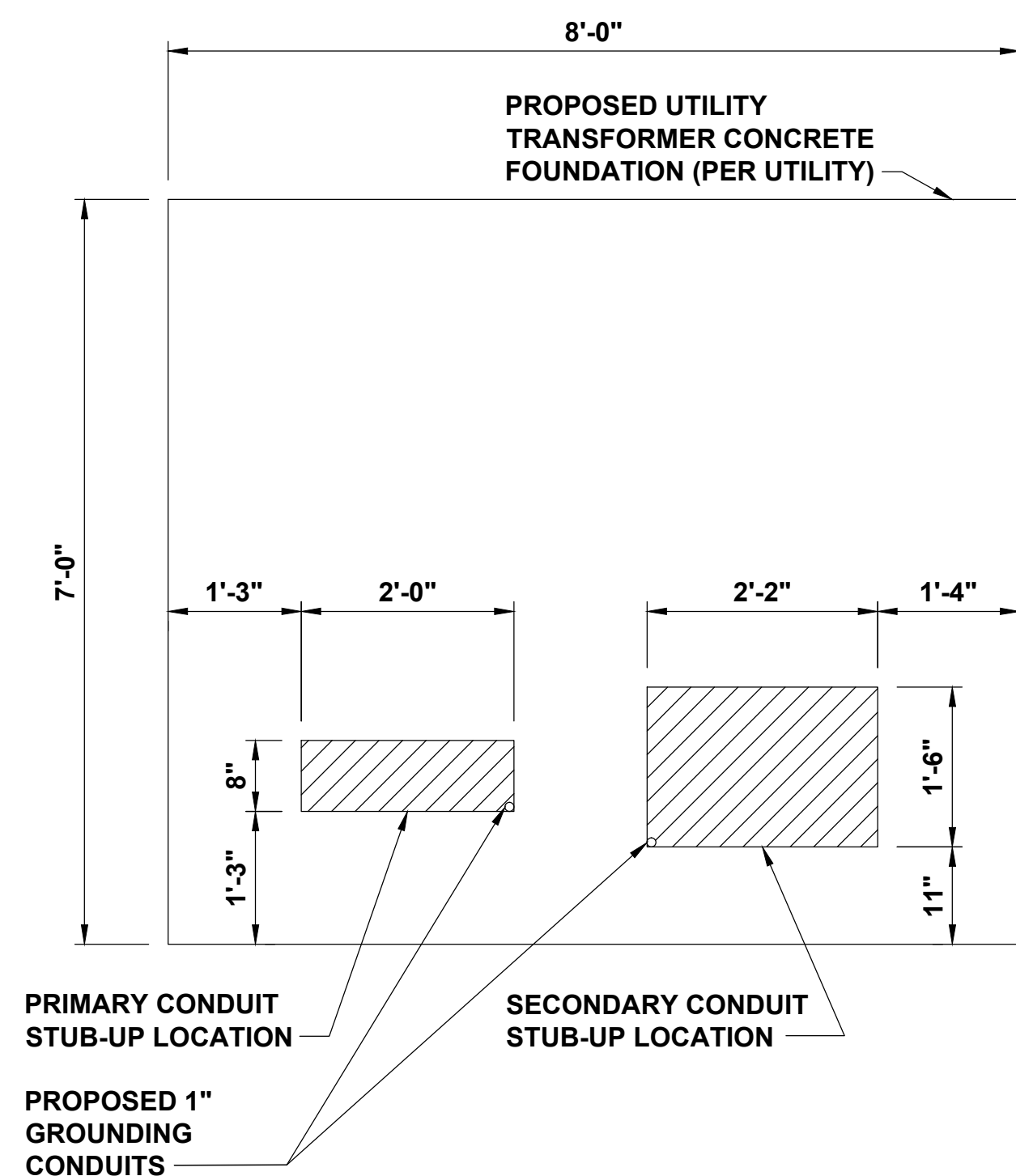
**SCHNEIDER ELECTRIC POWERPACT R-FRAME  
6.0A TRIP UNIT DETAIL**

NO SCALE

**A**

**NOTES**

- PRIMARY/SECONDARY CONDUITS MUST COME THROUGH DESIGNATED STUB-UP LOCATIONS.
- PRIMARY/SECONDARY CONDUIT LOCATIONS MUST BE "BOXED" OUT WHEN POURING CONCRETE FOUNDATION.



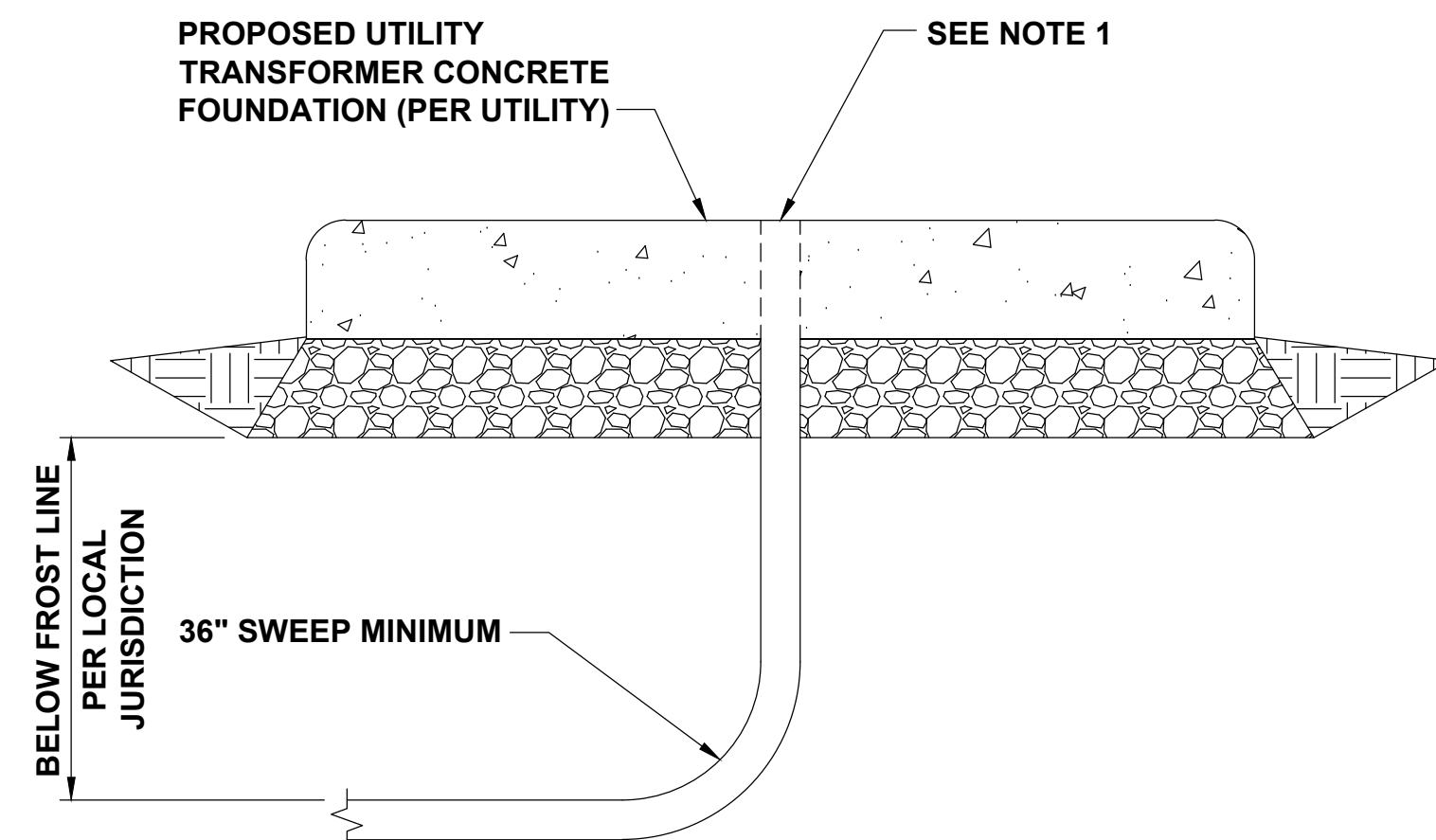
**UTILITY STUB-UP LOCATION DETAIL**

NO SCALE

**C**

**NOTES**

- CONDUIT STUBS SHALL BE FLUSH WITH FINAL GRADE OF TRANSFORMER FOUNDATION.
- 40" MINIMUM SWEEPS ON ALL SERVICE LATERAL CONDUITS.
- CONTRACTOR SHALL COORDINATE WITH UTILITY PLANNER REGARDING CONDUIT INSTALLATION AND PLACEMENT OF NEW TRANSFORMER.



**SERVICE CONDUIT SWEEP DETAIL**

NO SCALE

**D**

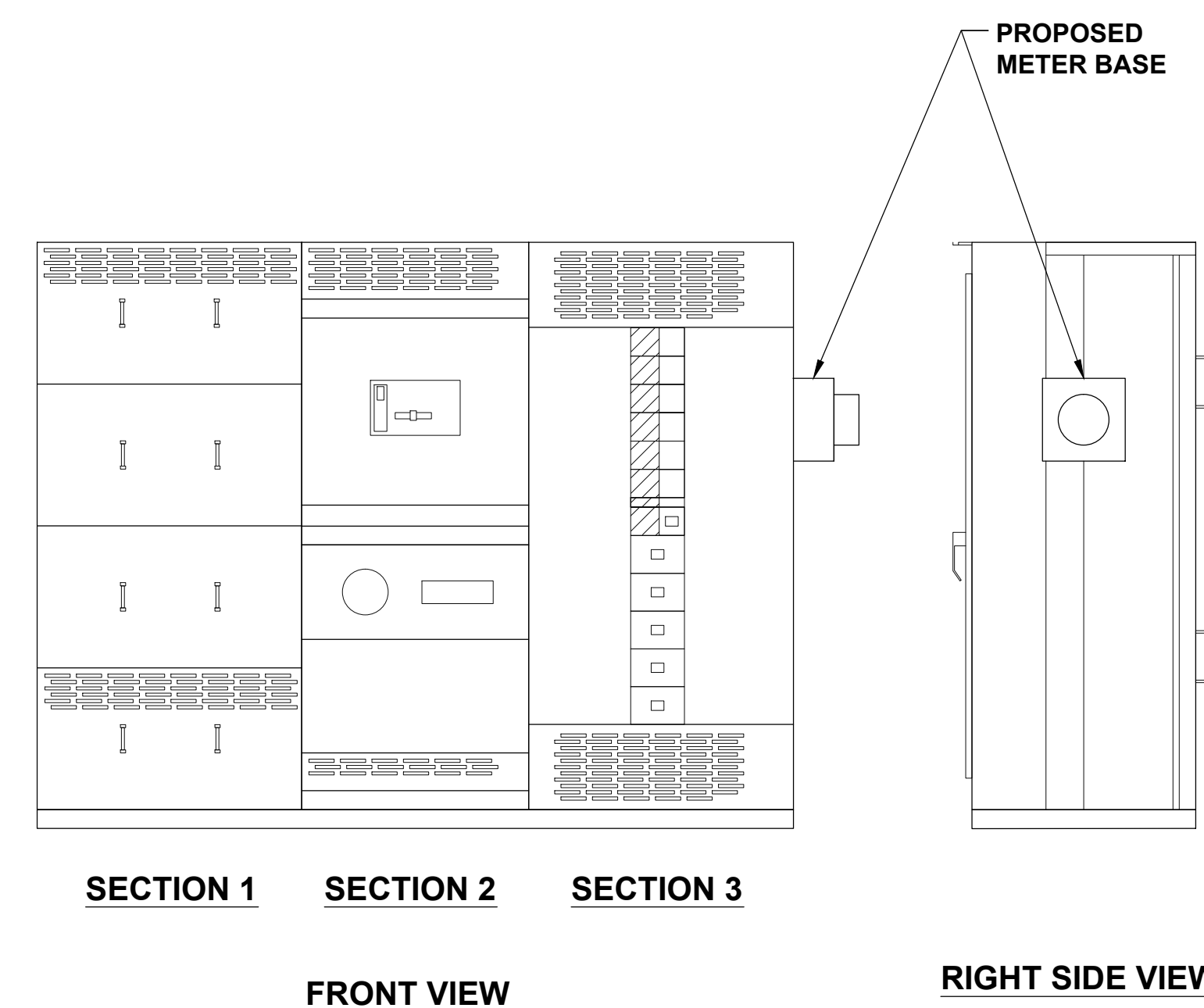
**SCHNEIDER ELECTRIC POWERPACT  
L-FRAME 400A DETAIL**

NO SCALE

**B**

**NOTE**

- THE METER BASE SHOULD BE INSTALLED ON THE SECONDARY DISTRIBUTION (SECTION 3) SIDE OF THE SWITCHGEAR ASSEMBLY



**SECTION 1 SECTION 2 SECTION 3**

**FRONT VIEW**

**RIGHT SIDE VIEW**

**METER BASE INSTALLATION DETAIL**

NO SCALE

**E**



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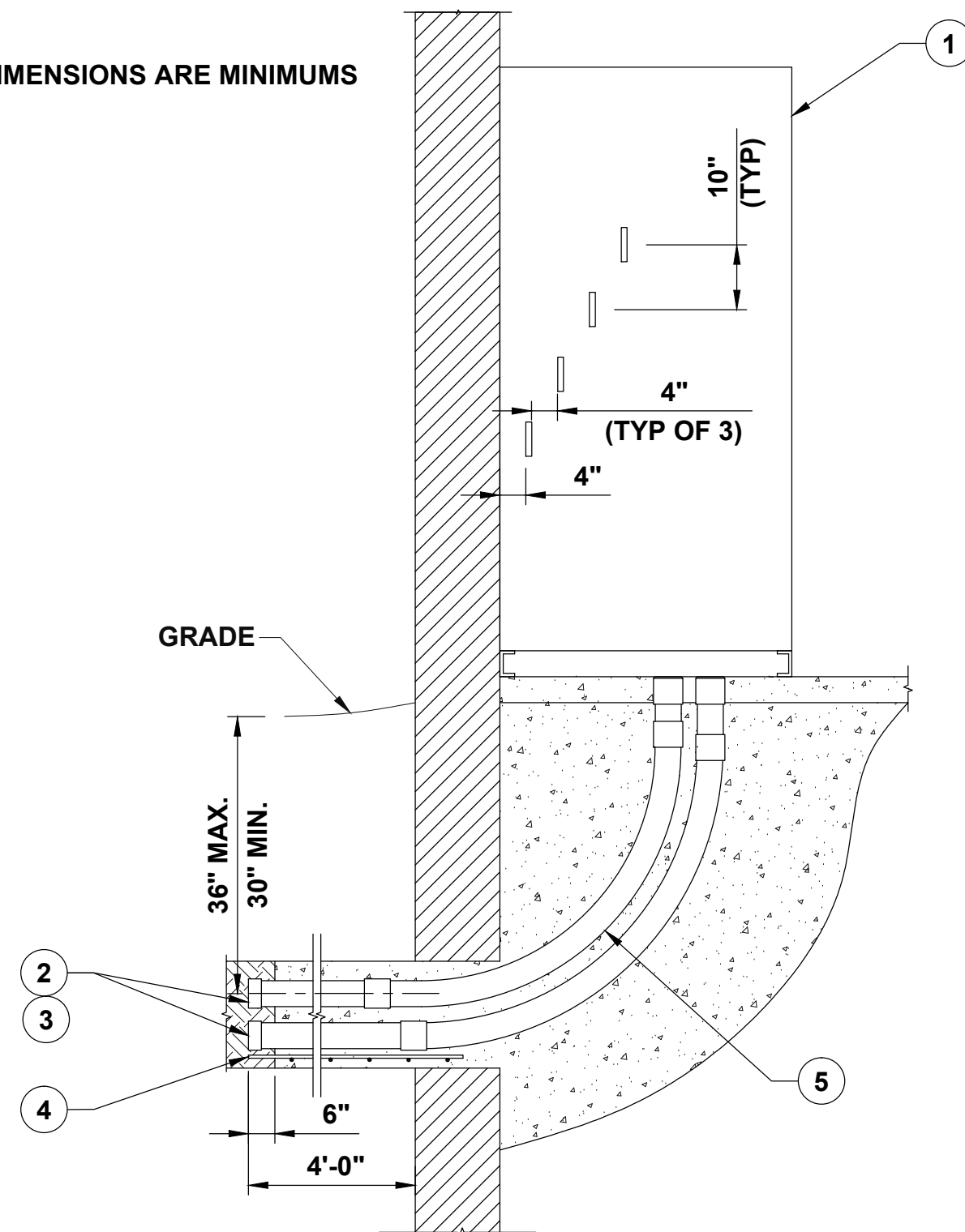
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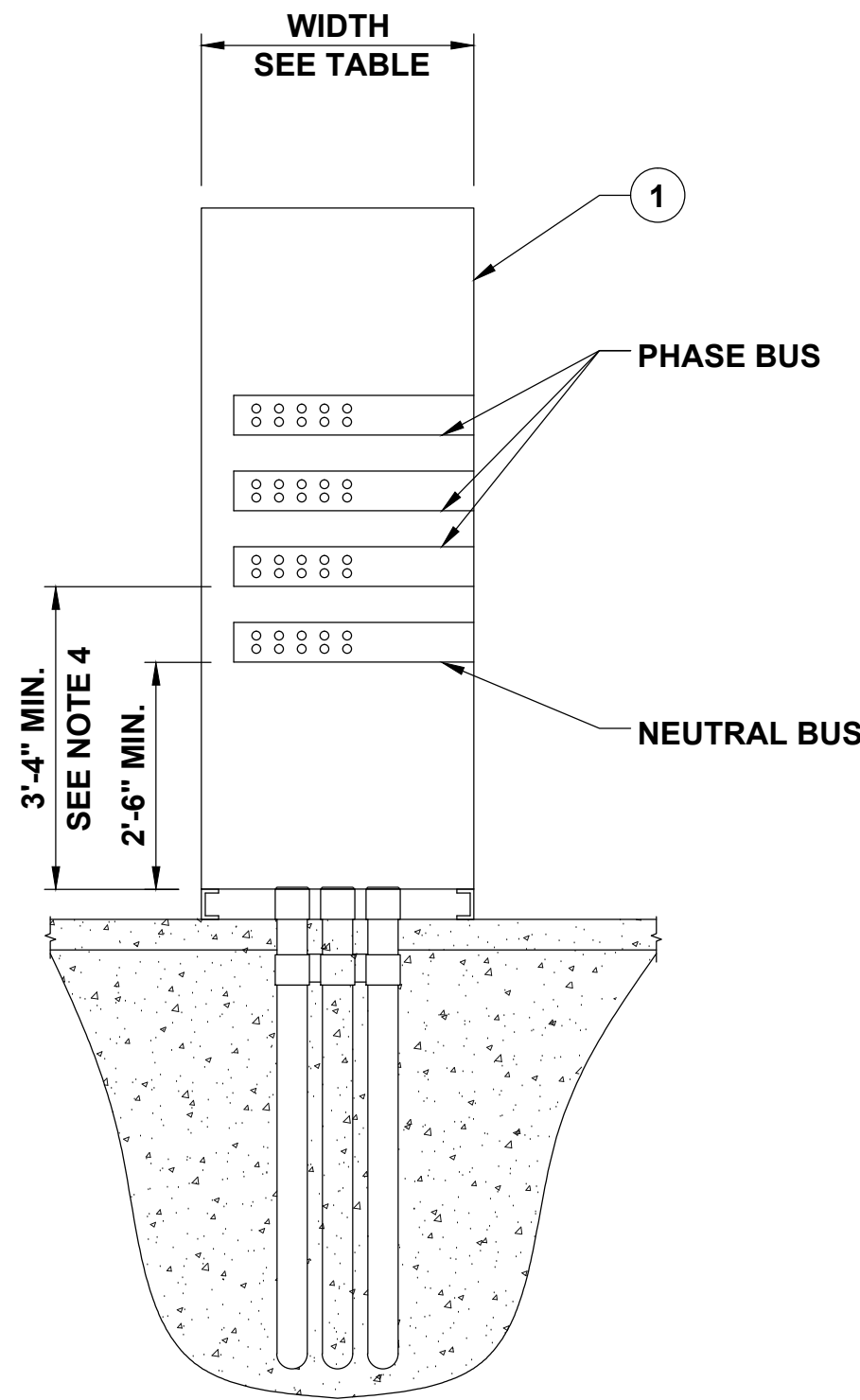
ALL DIMENSIONS ARE MINIMUMS



SIDE VIEW

NO SCALE

A



FRONT VIEW

NO SCALE

B

**CUSTOMER FURNISHES AND INSTALLS:**

- ① COMPLETELY ENCLOSED TERMINATION COMPARTMENT WITH RIGIDLY SUPPORTED BUS BARS LOCATED AND DRILLED AS SHOWN.
- ② 4" SCHEDULED 40 PVC CONDUIT, CONCRETE ENCASED. SEE TABLE FOR MINIMUM NUMBER OF CONDUITS REQUIRED. ALL METALLIC MUST BE BONDED.
- ③ TEMPORARY WATERTIGHT END CAPS.
- ④ REINFORCING RODS (EPOXY COATED RE-BAR).
- ⑤ 4' SCHEDULED 40PVC, 90° ELBOWS WITH 36" RADIUS.

NOTES

NO SCALE

C



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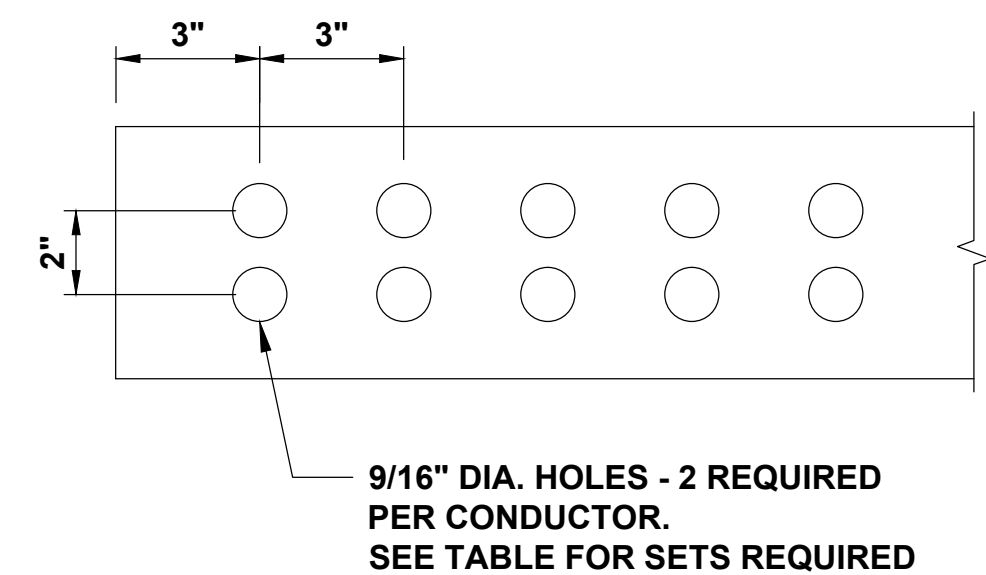
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SHEET NUMBER  
**ELECTRICAL DETAILS**

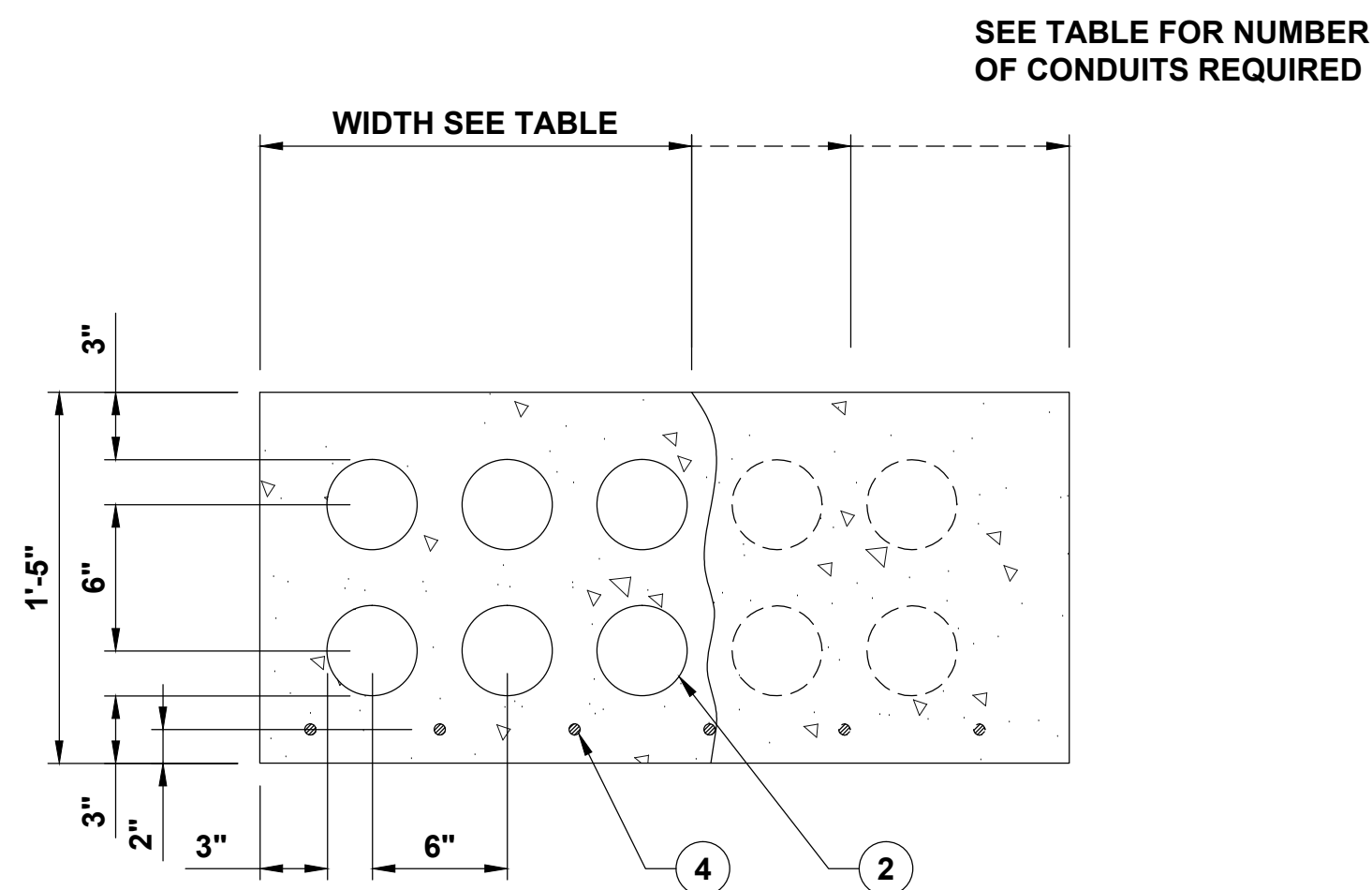
SHEET NUMBER  
**E-6**



BUS DRILLING DETAILS

NO SCALE

D



CONDUIT DETAILS

NO SCALE

E

SWITCHGEAR REQUIREMENTS 2000, 3000 AND 4000 AMPERES				
SWITCHGEAR AMPERAGE	MINIMUM WIDTH OF TERMINATION COMPARTMENT	SETS OF HOLES REQUIRED	MINIMUM NUMBERS OF DUCTS	WIDTH OF CONDUIT PACKAGE
2000	24 INCHES	6	6	24 INCHES
3000	30 INCHES	8	8	30 INCHES
4000	36 INCHES	10	10	36 INCHES

**NOTE:**  
THE SHOWN ABOVE ARE MINIMUMS AND SHOULD NOT BE USED FOR DESIGN PURPOSES. FOR ACTUAL DIMENSIONS CONTACT THE SWITCHGEAR MANUFACTURER.

FRONT VIEW

NO SCALE

F



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



**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
(913) 458-2000

PROJECT NO: 179056  
DRAWN BY: NMB  
CHECKED BY: MBG

REV	DATE	DESCRIPTION
G	08/12/13	ISSUED FOR 100% REVIEW
F	07/31/13	REISSUED FOR 90% REVIEW
E	07/29/13	REISSUED FOR 30% REVIEW
D	07/29/13	REISSUED FOR 30% REVIEW
C	07/19/13	REISSUED FOR 90% REVIEW
B	06/28/13	ISSUED FOR 90% REVIEW
A	06/27/13	ISSUED FOR 30% REVIEW

NOT TO BE USED FOR CONSTRUCTION

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WI001\_MADISON  
EAST TOWNE MALL  
89 EAST TOWNE MALL  
MADISON, WI 53704

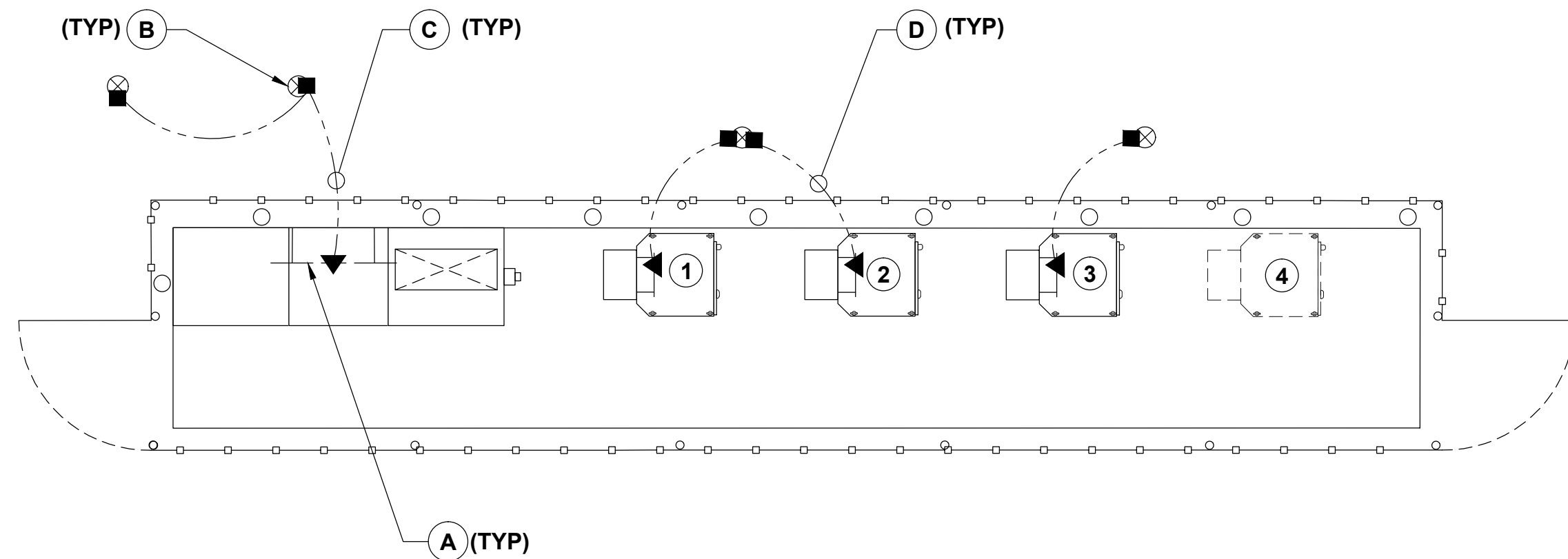
SHEET NUMBER  
**GROUNDING DETAILS**

SHEET NUMBER  
**G-1**

BURNDY CONNECTIONS OR ENGINEER APPROVED EQUAL	CADWELD CONNECTIONS OR ENGINEER APPROVED EQUAL	
 <b>BOND JUMPER</b> FIELD FABRICATED GREEN STRANDED INSULATED TYPE 2-YA-2	 <b>HORIZONTAL SPLICE</b> SPLICE OF HORIZONTAL CABLES TYPE SS	 <b>PARALLEL HORIZONTAL CONDUCTORS</b> PARALLEL THROUGH CONNECTION OF HORIZONTAL CABLES TYPE PT
 <b>COPPER LUGS</b> TWO HOLE - LONG BARREL LENGTH TYPE YA-2	 <b>HORIZONTAL STEEL SURFACE</b> TO FLAT STEEL SURFACE OR HORIZONTAL PIPE TYPE HS	 <b>PARALLEL HORIZONTAL CONDUCTORS</b> PARALLEL DEAD END TAP OR HORIZONTAL THRU CONDUCTOR TYPE PC
	 <b>VERTICAL PIPE</b> CABLE DOWN AT 45° TO RANGE OF VERTICAL PIPES TYPE VS	 <b>VERTICAL STEEL SURFACE</b> CABLE DOWN AT 45° TO VERTICAL STEEL SURFACE INCLUDING PIPE TYPE VS
	 <b>HORIZONTAL TEE</b> TEE OF HORIZONTAL RUN AND TAP CABLES TYPE TA	 <b>THROUGH CABLE TO GROUND ROD</b> THROUGH CABLE TO TOP OF GROUND ROD TYPE GT

**GROUNDING LEGEND**

- (A) GROUND BAR WITHIN PROPOSED EQUIPMENT
- (B) PROPOSED 5/8"x8'-0" GROUND ROD, SEE DETAIL D, SHEET G-2
- (C) PROPOSED SERVICE GROUND, SEE DETAIL C, THIS SHEET
- (D) PROPOSED SUPERCHARGER CABINET GROUND, SEE DETAIL C, THIS SHEET
- PROPOSED GROUND RING
- CADWELD CONNECTION (EXOTHERMIC WELD)
- ▲ MECHANICAL CONNECTION
- ⊗ GROUND ROD



**GROUNDING PLAN**

NO SCALE

A

**CADWELD CONNECTION DETAIL**

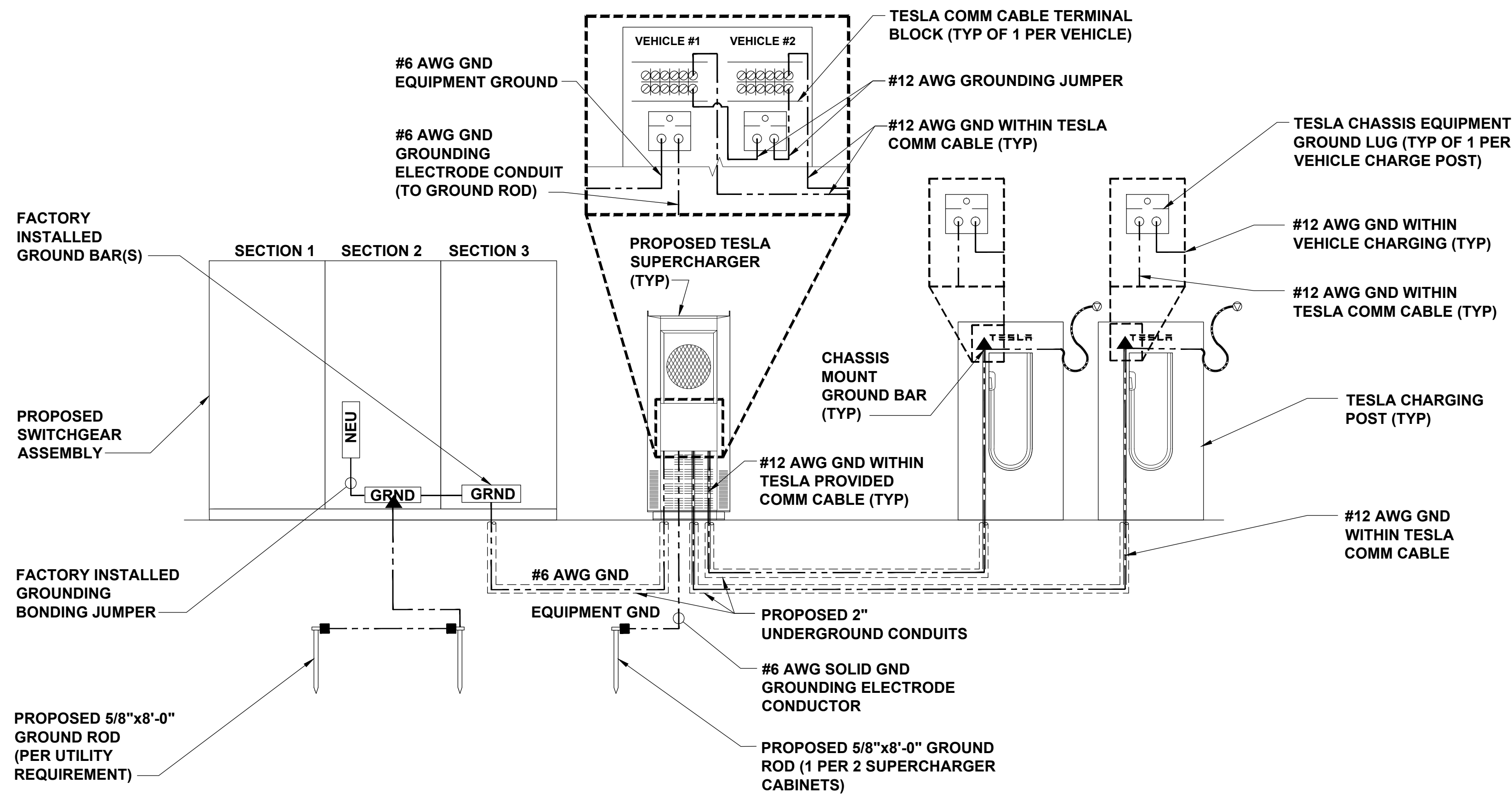
NO SCALE

B

**NOTES**

- EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. 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." THE CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "N", "I") WITH 1" HIGH LETTERS.
- 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 & 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.
- SUPPLIED AND INSTALLED BY CONTRACTOR.
- 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).

**COMM CABLE TERMINAL DETAIL**



**GROUNDING SCHEMATIC**

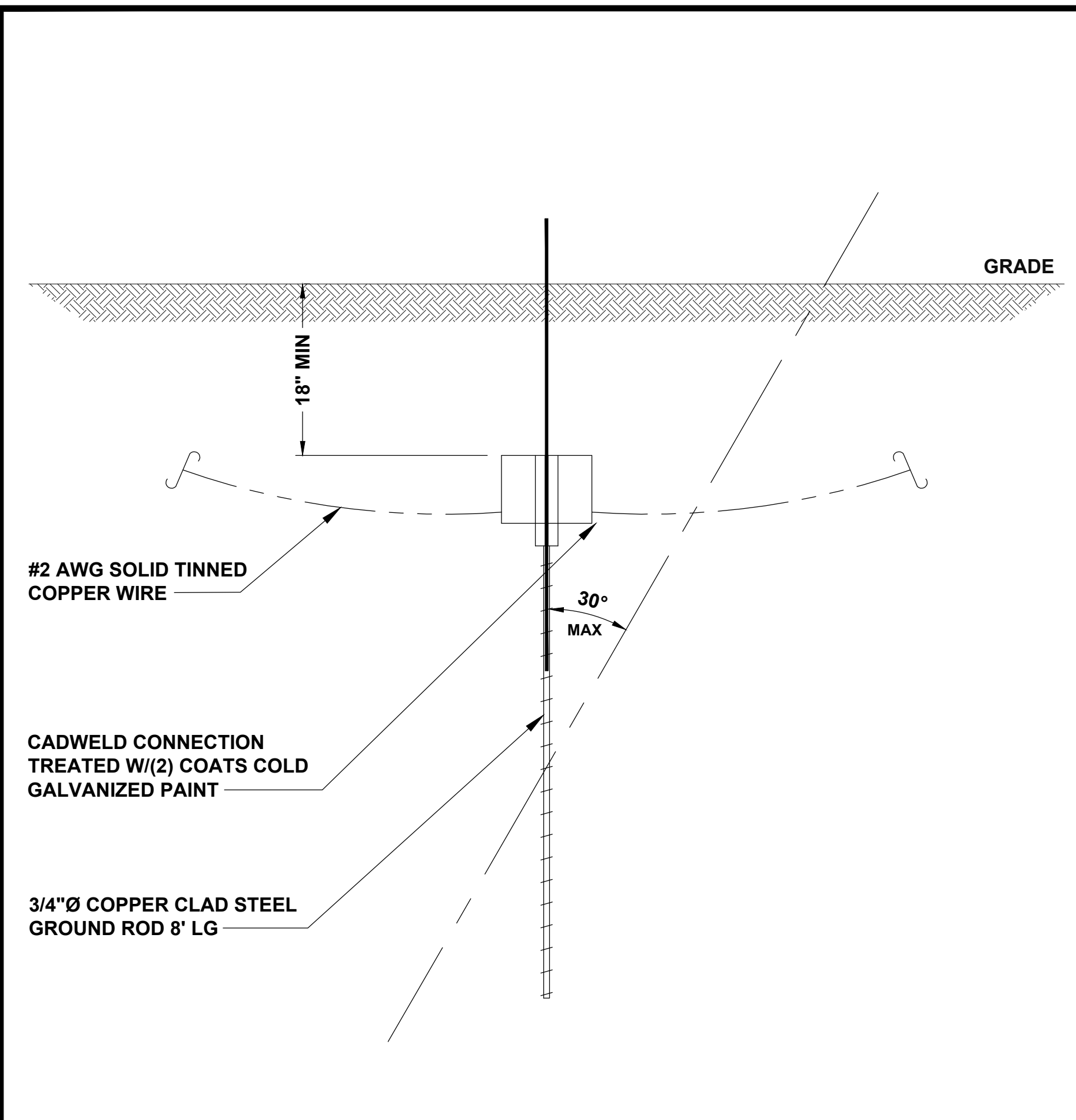
NO SCALE

C

**GROUNDING NOTES**

NO SCALE

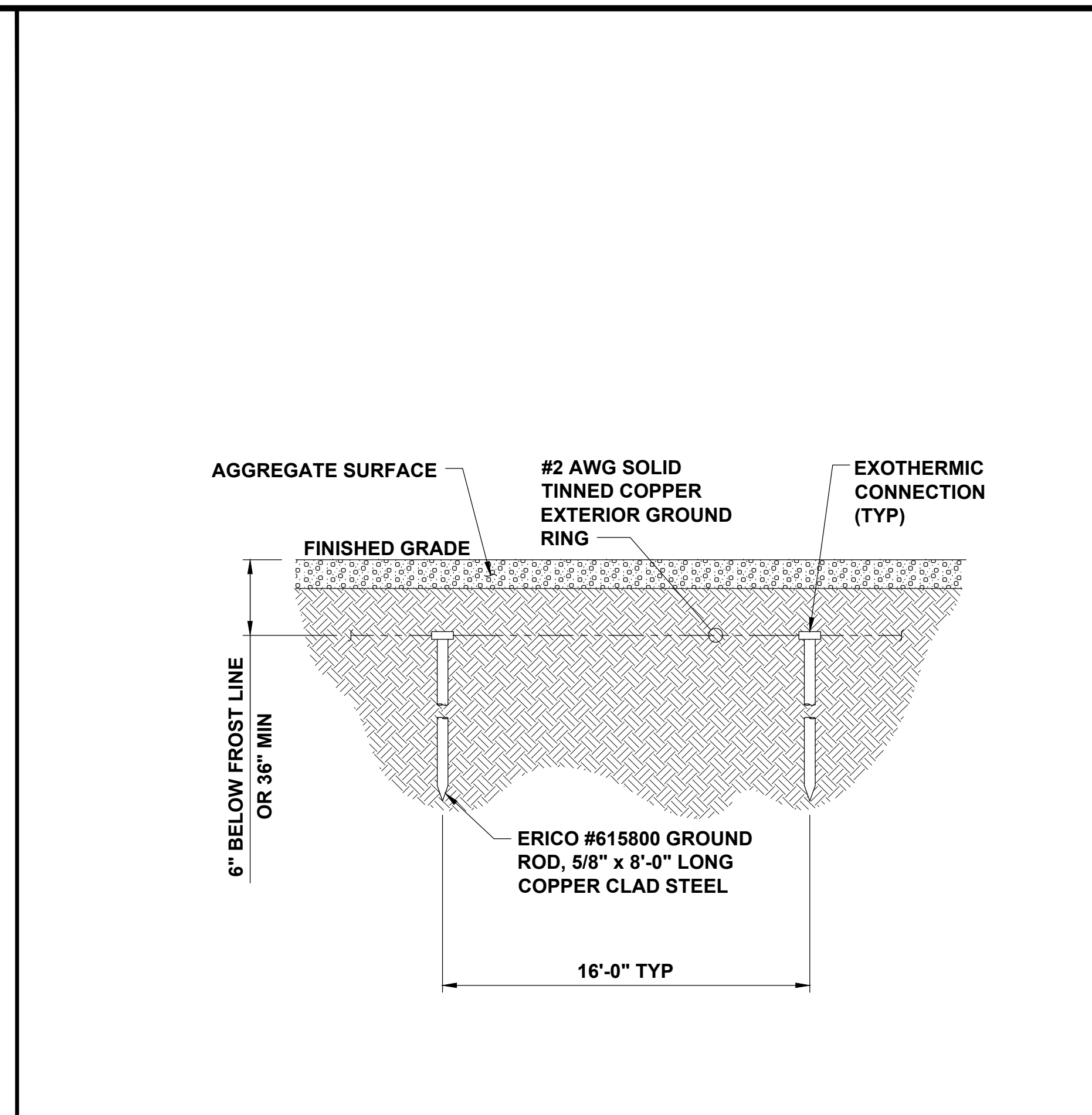
D



TYPICAL GROUND ROD DETAIL

NO SCALE

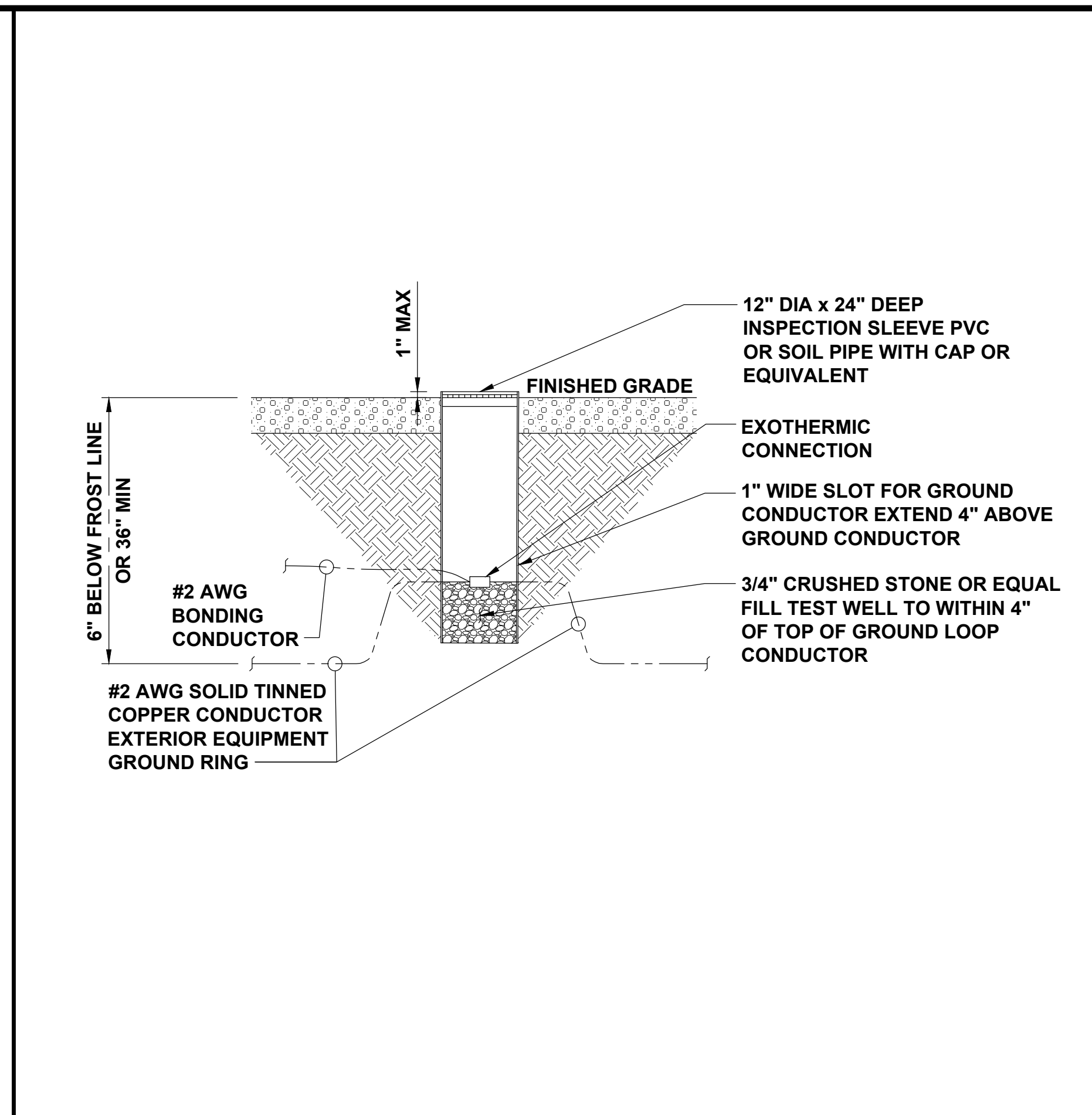
A



PROPOSED GROUNDING RING DETAIL

NO SCALE

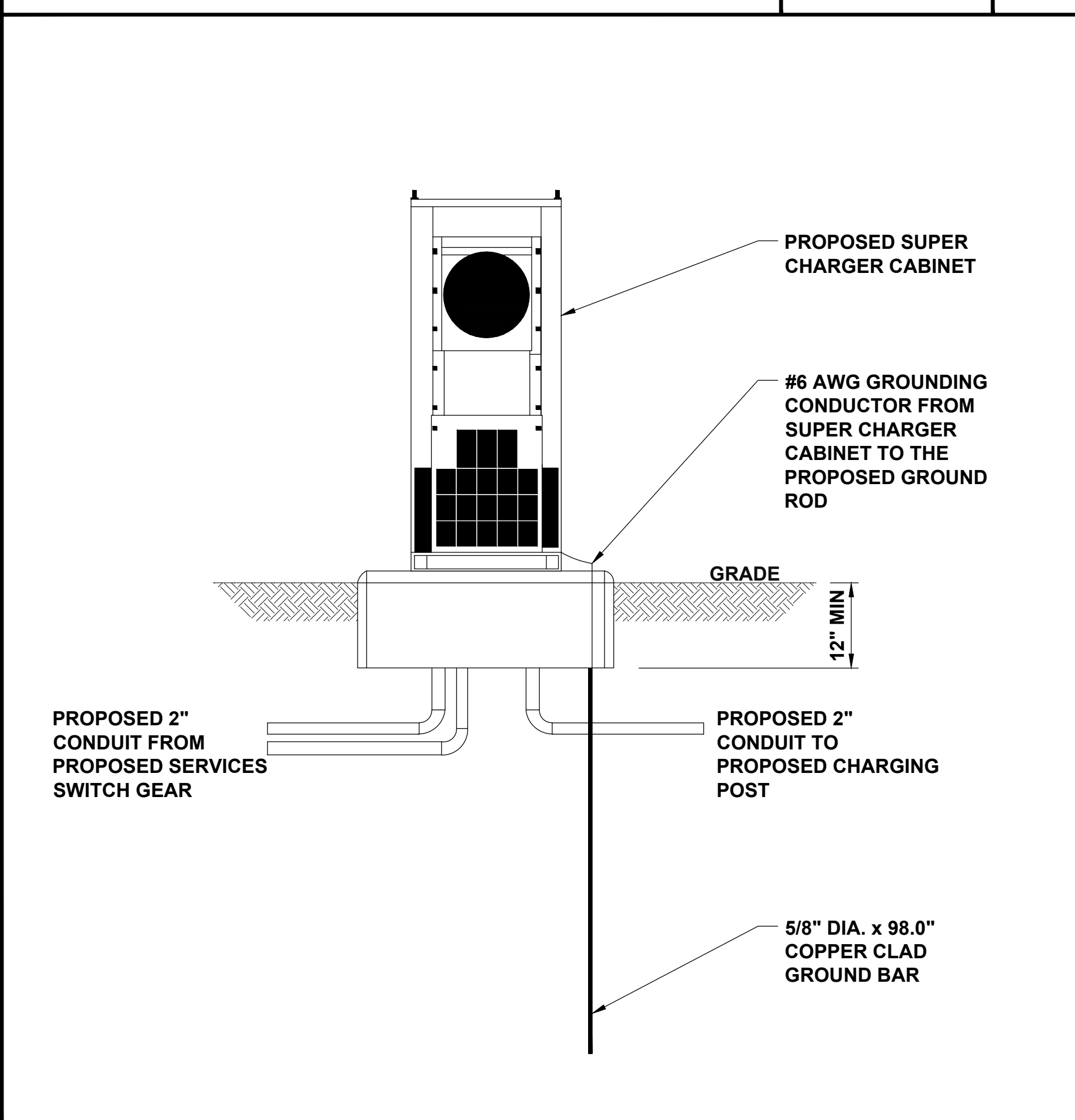
B



EXOTHERMIC WELD INSPECTION SLEEVE DETAIL

NO SCALE

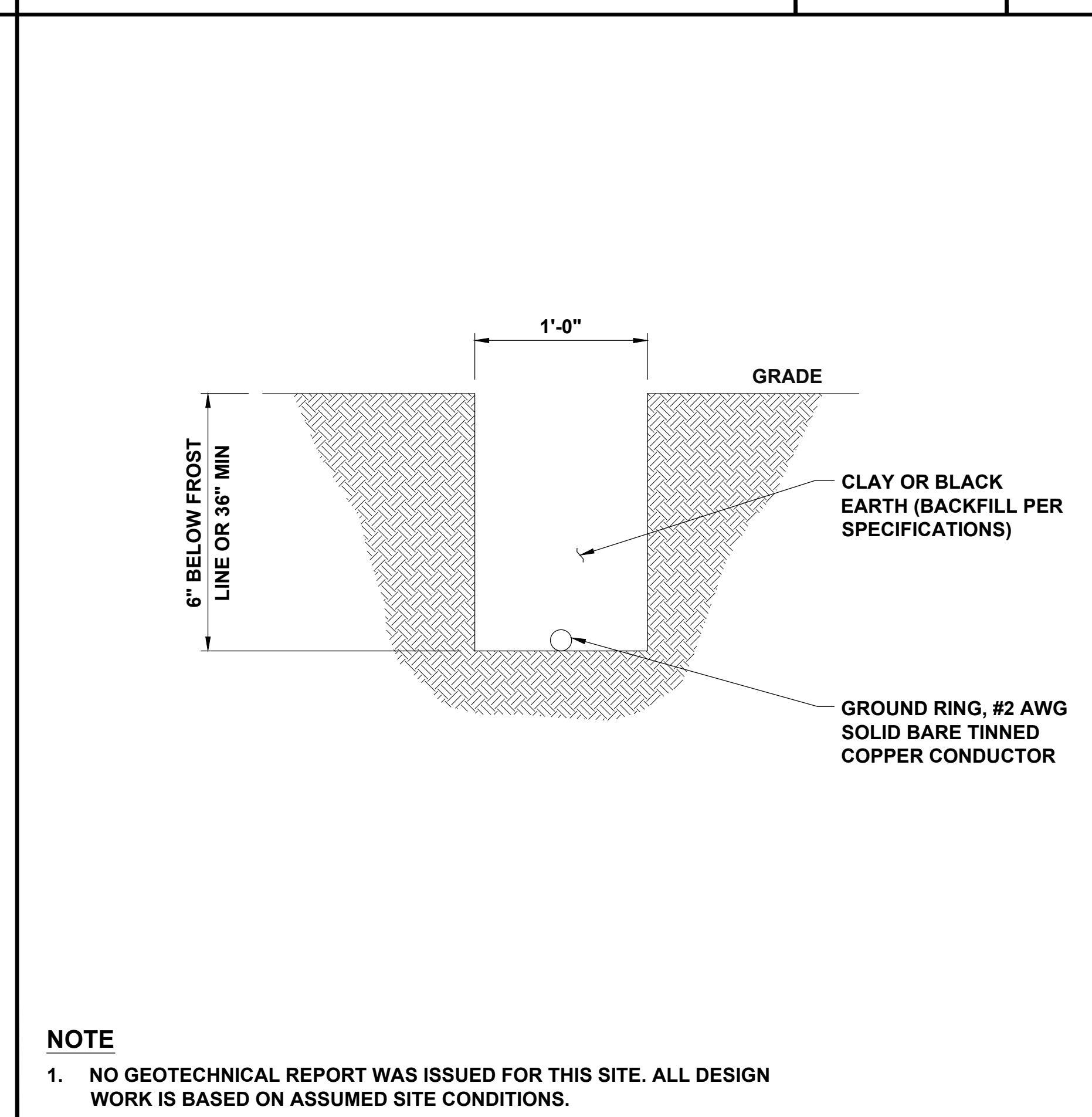
C



SUPERCHARGER GROUNDING DETAIL

NO SCALE

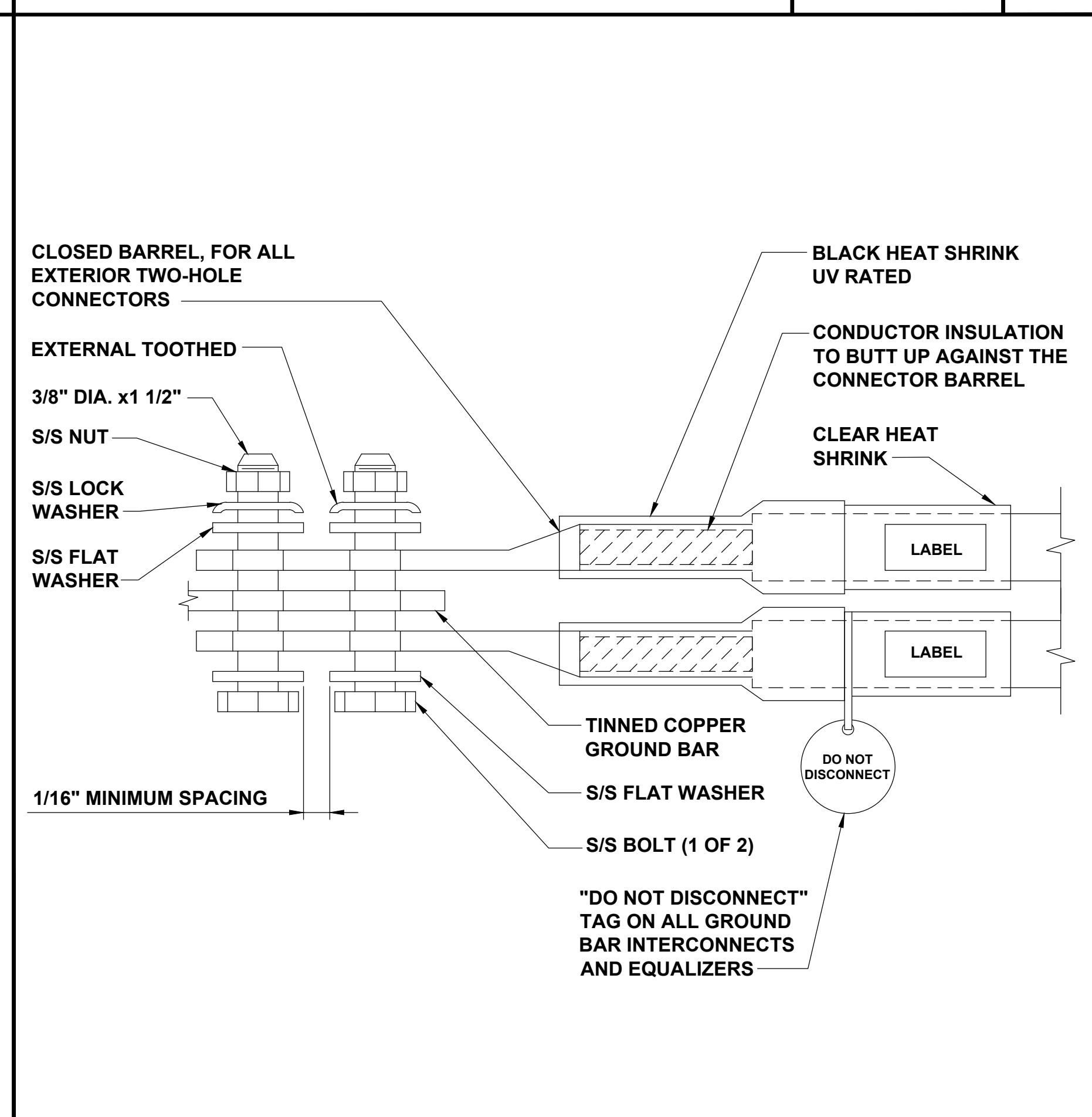
D



GROUNDING TRENCH DETAIL

NO SCALE

E



EXTERIOR TWO HOLE LUG DETAIL

NO SCALE

F

**TESLA**  
MOTORS, INC.

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

**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
(913) 458-2000

PROJECT NO:	179056
DRAWN BY:	NMB
CHECKED BY:	MBG

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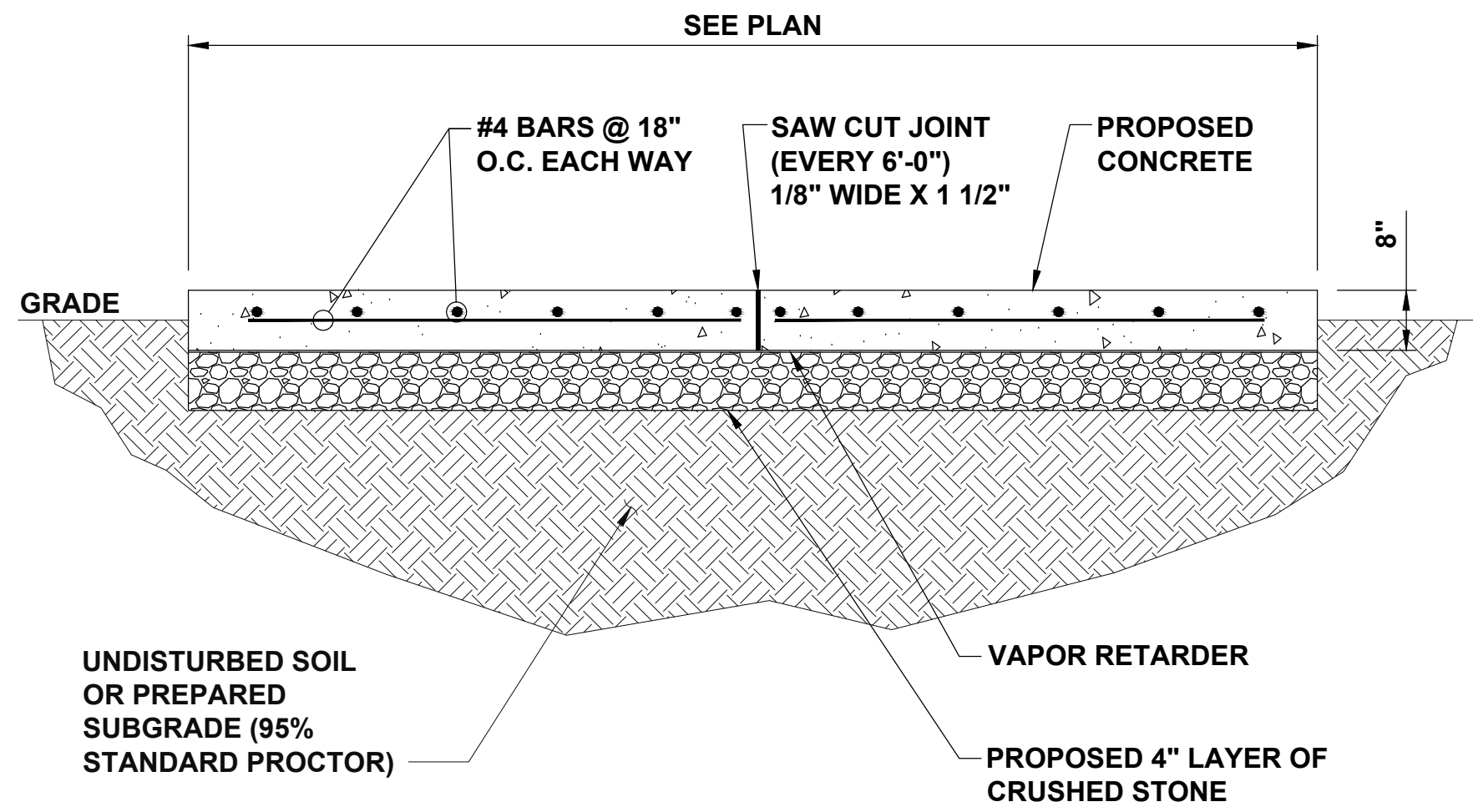
WI001\_MADISON  
EAST TOWNE MALL  
89 EAST TOWNE MALL  
MADISON, WI 53704

SHEET NUMBER  
**GROUNDING DETAILS**

SHEET NUMBER  
**G-2**

**NOTE**  
1. NO GEOTECHNICAL REPORT WAS ISSUED FOR THIS SITE. ALL DESIGN WORK IS BASED ON ASSUMED SITE CONDITIONS.

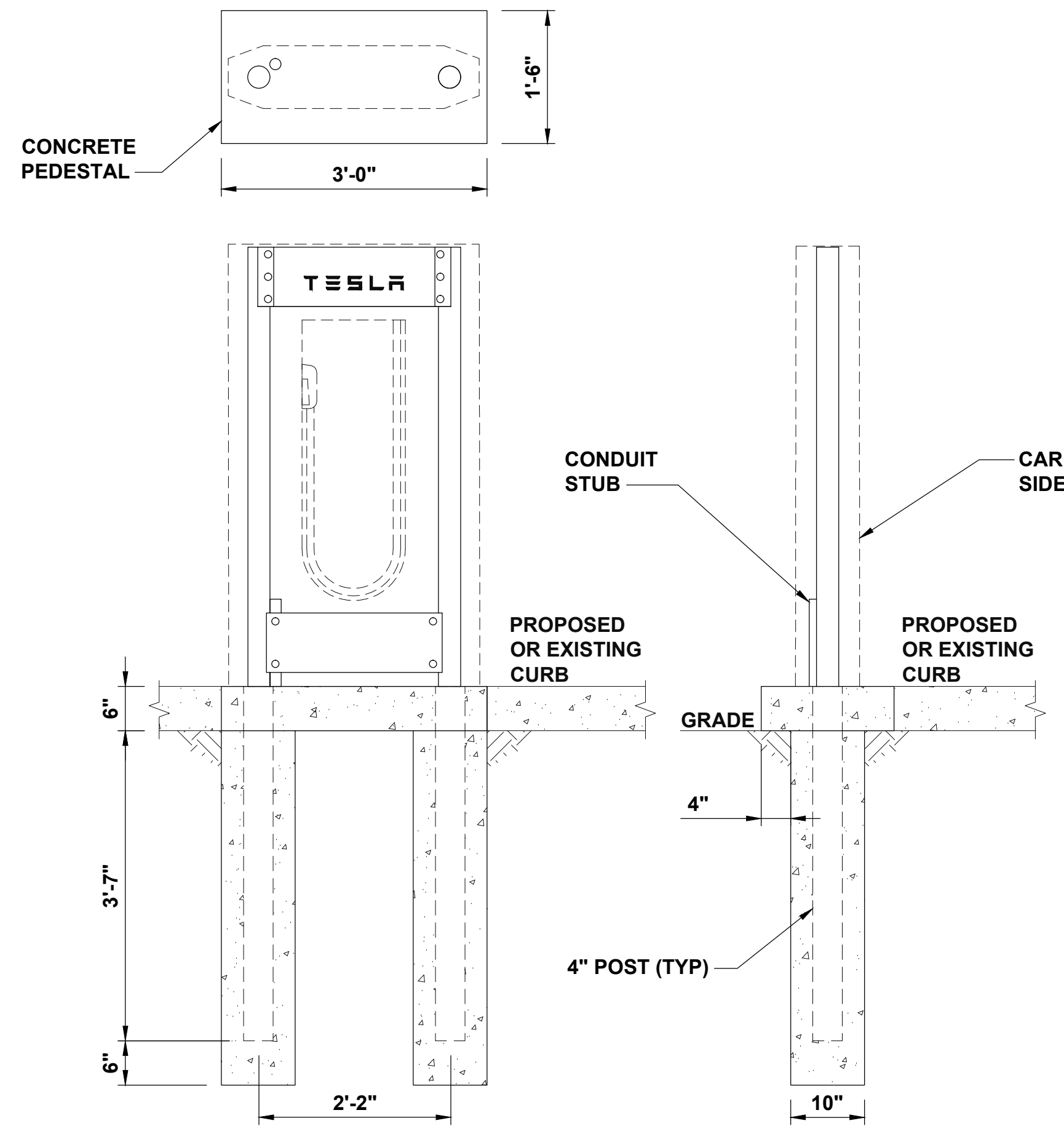




CONCRETE PAD DETAIL

NO SCALE

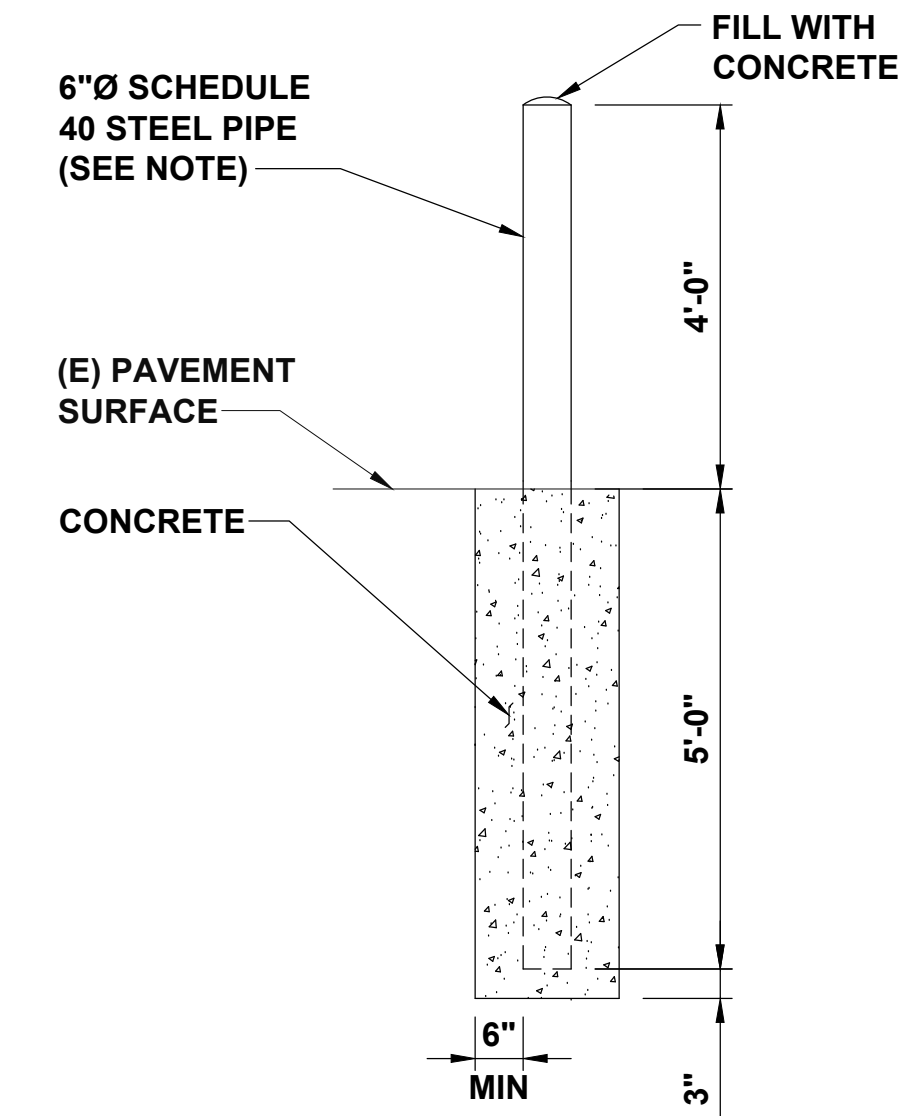
A



CHARGING STATION FOOTING DETAIL

NO SCALE

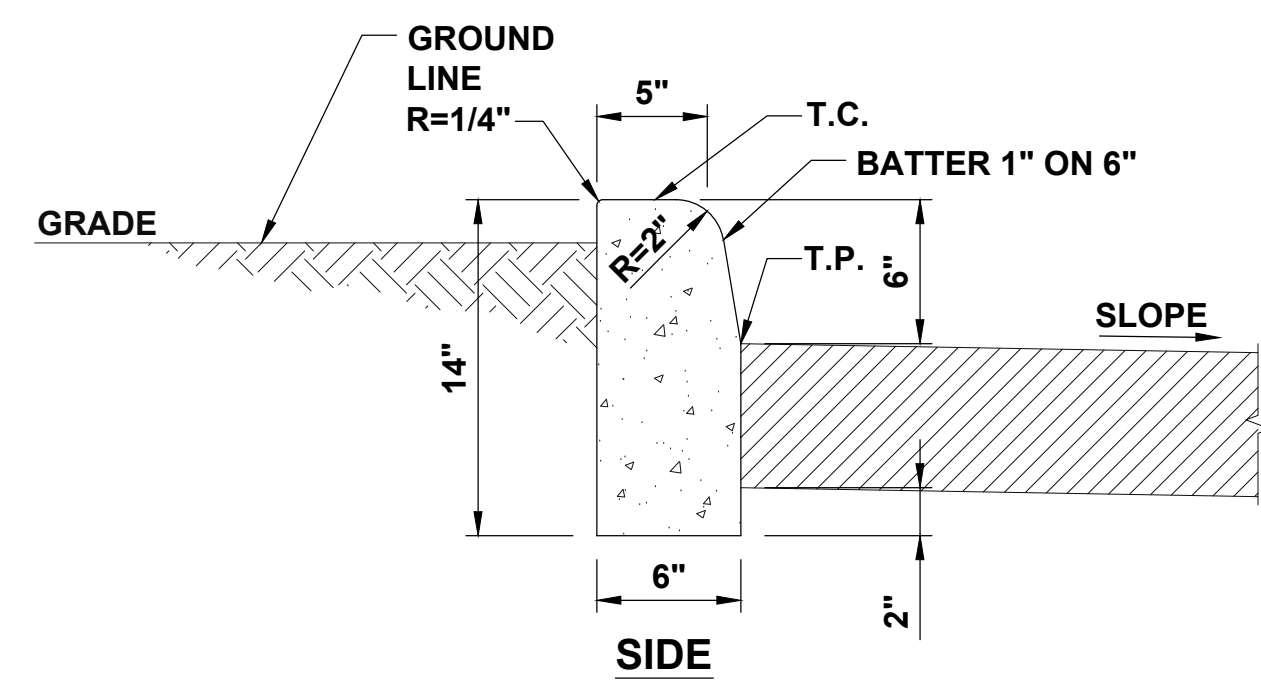
B



CONCRETE BOLLARD DETAIL

NO SCALE

C



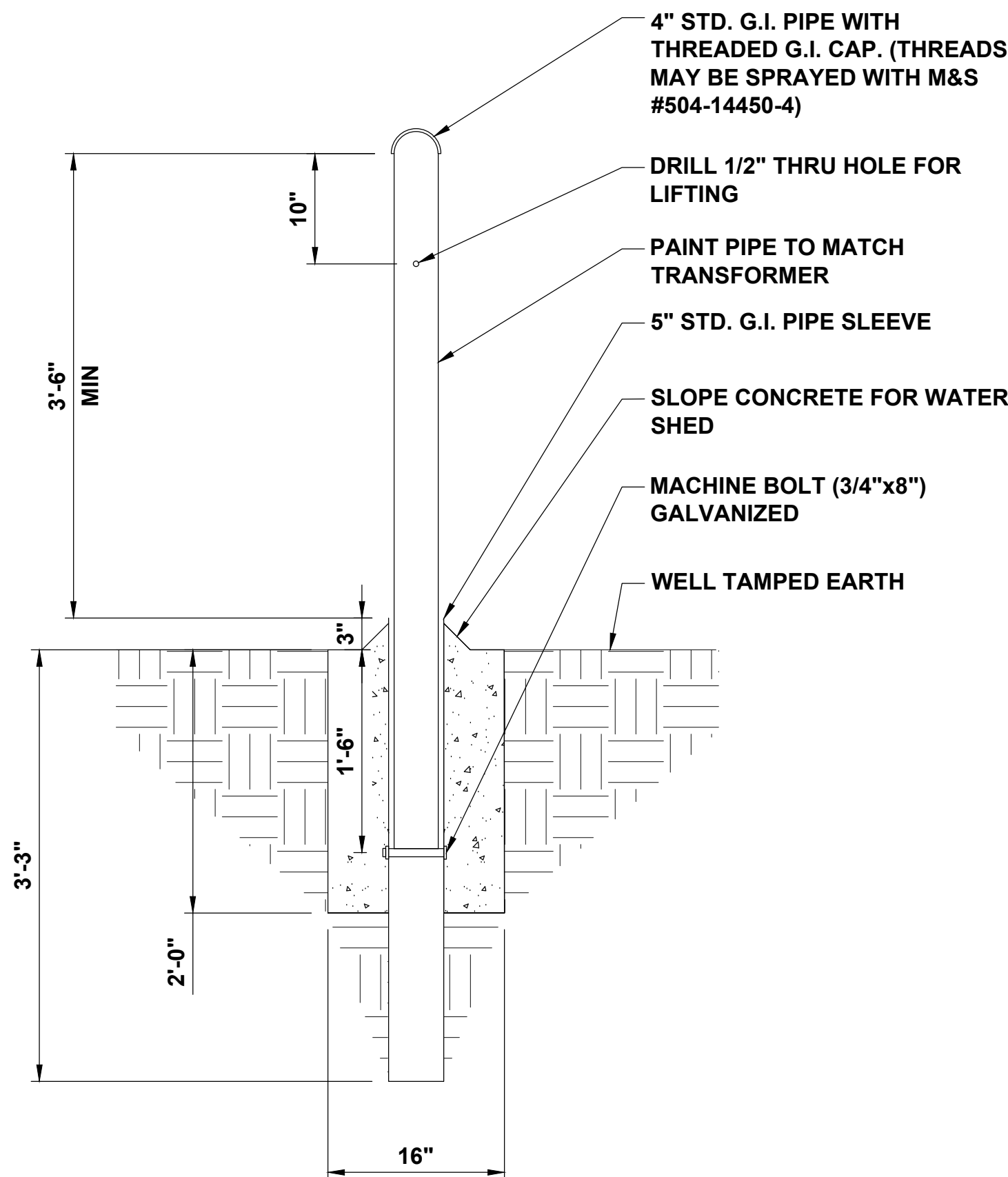
NOTES

- BREAKUP AND REMOVE AREA TO BE REPAIRED/REPLACED TO THE NEAREST JOINT OR SAW CUT. DISPOSE OF DEBRIS OFF SITE.
- INSTALL FORMS AS NECESSARY.
- COMPACT EXISTING SUBGRADE MATERIAL TO ACHIEVE MAXIMUM DENSITY.
- POUR CONCRETE USING 3500 PSI AIR ENTRAINED CONCRETE TO MATCH EXISTING ADJACENT CURB.
- INSTALL EXPANSION JOINTS EVERY 150 LINEAR FEET. INSTALL CRACK JOINTS EVERY 10 LINEAR FEET.

STRAIGHT CURB DETAIL

NO SCALE

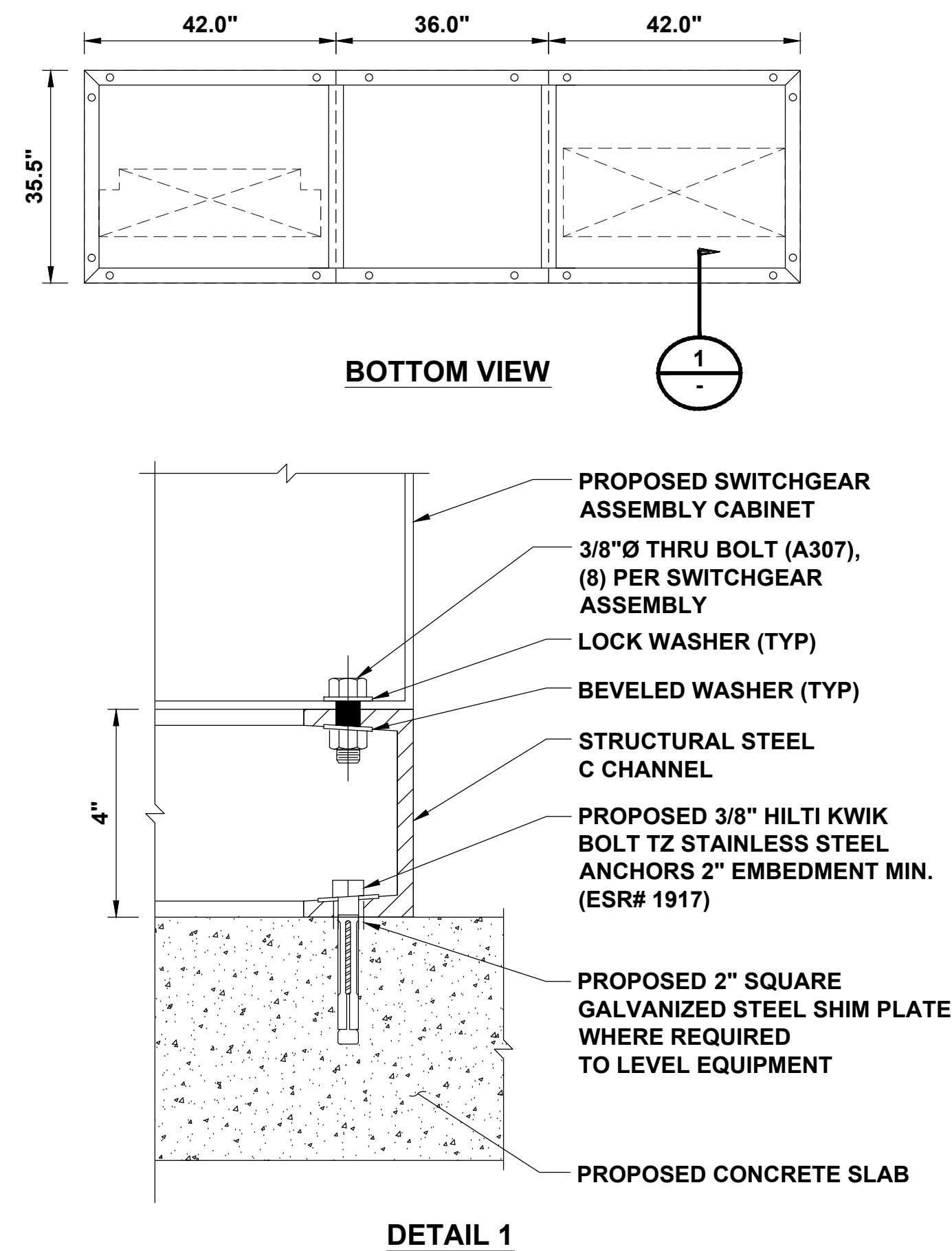
D



REMOVABLE VEHICLE DETERRENT BOLLARD

NO SCALE

E



QED SWITCHGEAR CHANNEL ASSEMBLY

NO SCALE

F



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BLACK & VEATCH

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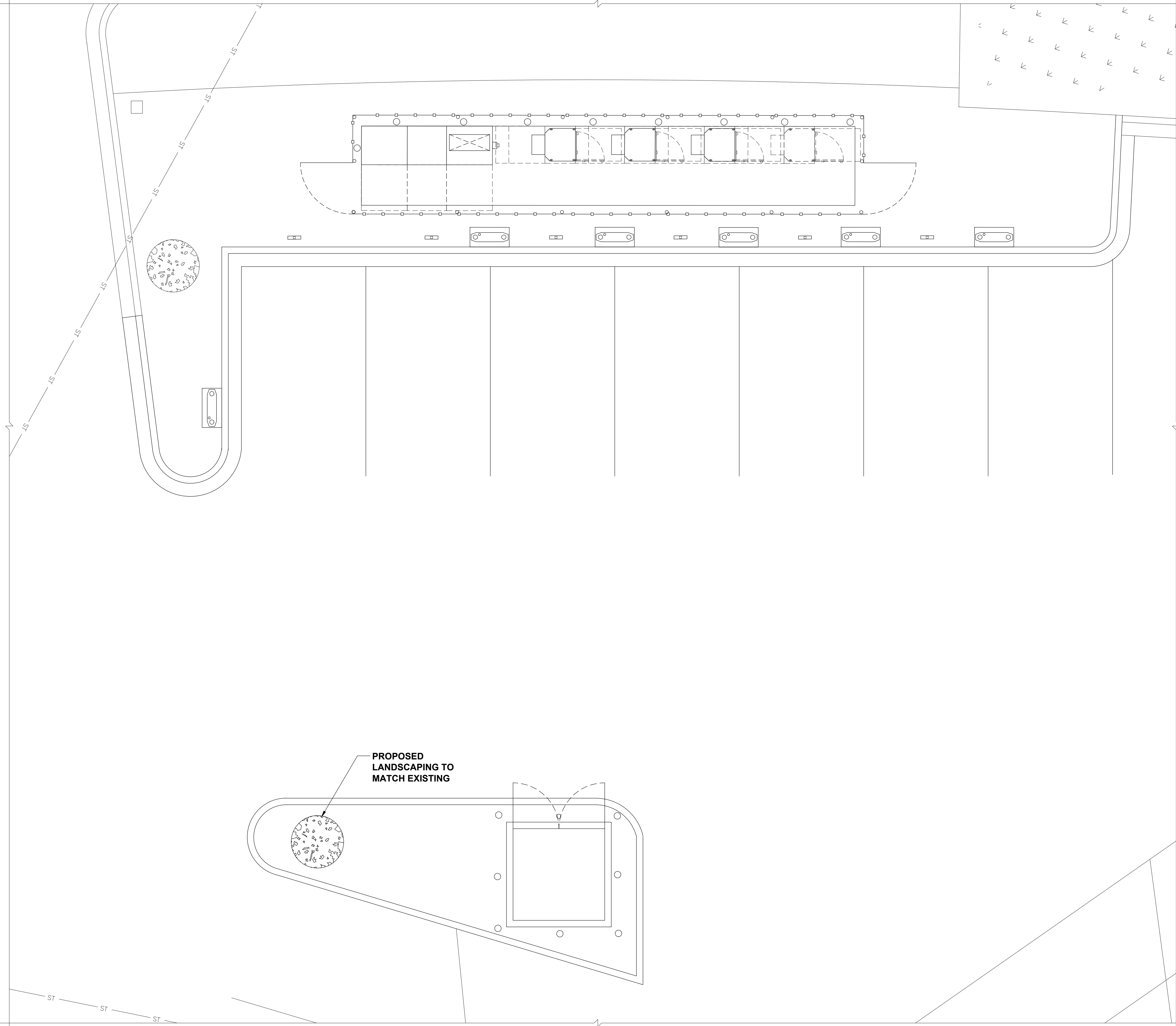
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EAST TOWNE MALL  
89 EAST TOWNE MALL  
MADISON, WI 53704

SHEET NUMBER  
**STRUCTURAL DETAILS**

SHEET NUMBER  
**S-1**



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



**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
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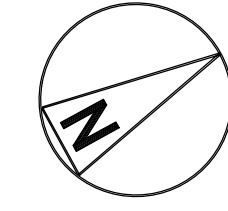
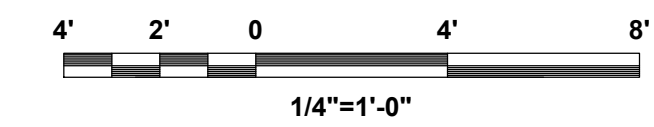
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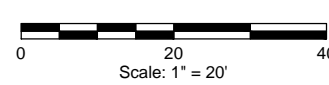
SHEET NUMBER  
**LANDSCAPING PLAN**

SHEET NUMBER  
**LS-1**

LANDSCAPING PLAN



Boundary reference to the East Towne Condominium System and the Northwesterly common line of Parcel A and B as indicated herein, bearing 369°07'15"E

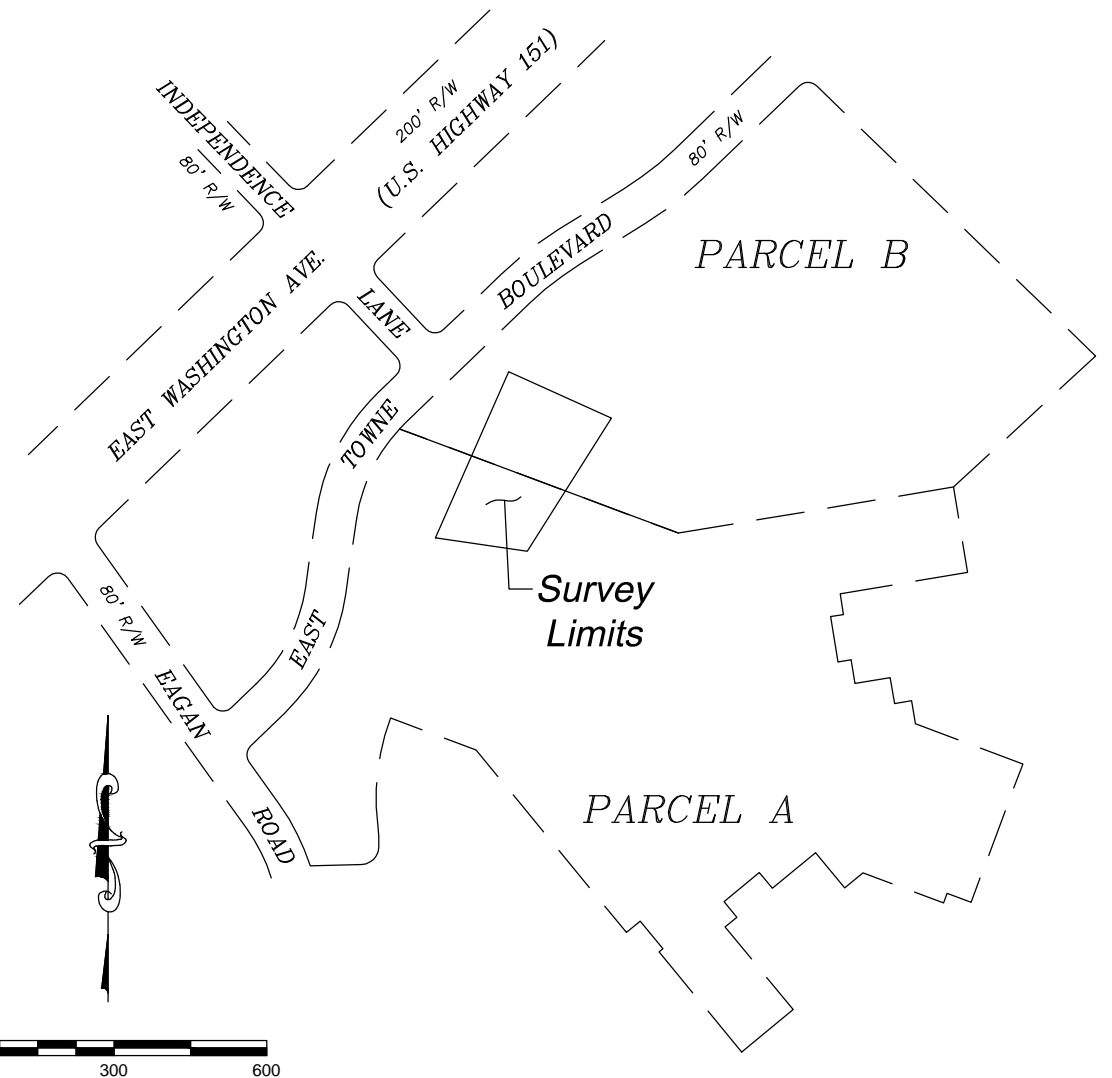


Dane County Coord's N: 501890.828  
E: 841566.594  
State Plan Coord's N: 411496.690  
Wis. South Zone E: 2153302.846

**Notes**  
This survey is subject to any and all easements and agreements both recorded and unrecorded.  
No title work provided.  
The disturbance of a survey stake by anyone is in violation of Section 236.32 of Wisconsin Statutes.  
Wellands, if present, have not been delineated.  
This survey shows visible, above-ground improvements only. No guarantee is made for below-ground structures.  
Contour interval = 1/2 foot  
Underground utilities located per field observations, plans provided to this office, and Digger's Hotline Ticket Number 20132911781. Public and private utilities may exist; no guarantee is made that the utilities shown comprise all utilities on site, active or abandoned. Lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, excavation may be necessary. Care should be taken when excavating and Digger's Hotline shall be contacted at 1-800-242-8311 prior to any construction for safety and liability purposes of all parties involved.

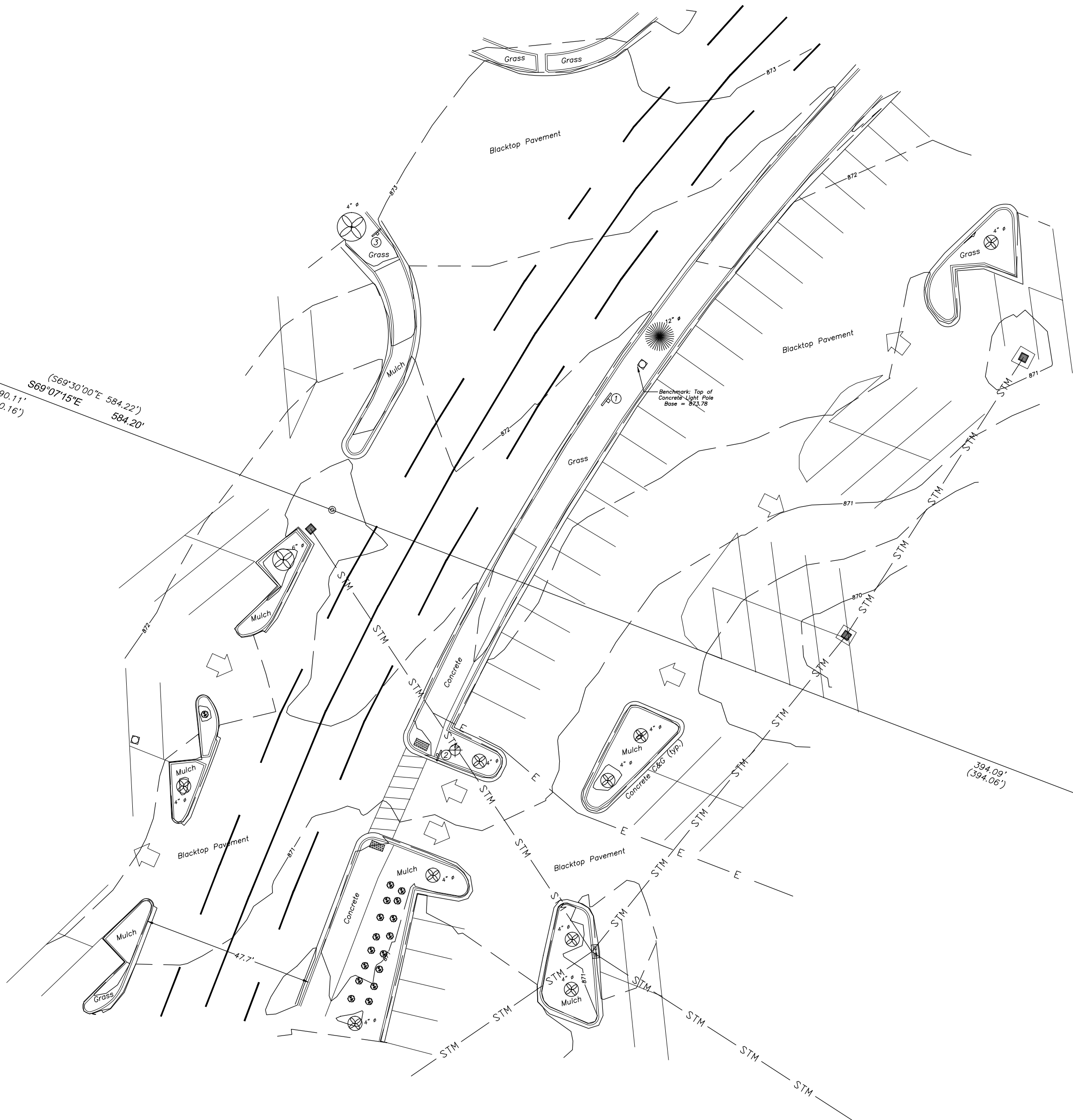


Vicinity Sketch



**BIRRENKOTT SURVEYING INC.**  
LAND SURVEYING & PERC TESTING  
P.O. BOX 237  
1677 N. BRISTOL ST. SUN PRAIRIE, WIS. 53590  
(608) 837-7463  
FAX (608) 837-1081

**Description:**  
Part of the East 1/2 of Section 28, T8N, R10E, City of Madison, Dane County, Wisconsin, described as follows: The Northwesterly line common to Parcels A and B as described herein with a bearing and distance of 369°07'15"E, 584.20 feet (recorded as 369°30'00"E, 584.22 feet).



**Parcel A Description:**  
(Per Access Dane)

Part of the West 1/2 of Section 27 and part of the East 1/2 of Section 28, T8N, R10E, City of Madison, Dane County, Wisconsin, described as follows: Commencing at the Southwest corner of said Section 27; thence N88°36'12"E along the South line of Section 27, 130.70 feet; thence N35°32'00"W, 512.84 feet; thence S88°36'12"W, 91.31 feet; thence N35°21'32"E, 611.70 feet to the point of beginning; thence N39°30'00"W, 255.00 feet; thence N65°30'00"E, 10.00 feet; thence N39°30'00"W, 70.00 feet; thence S50°30'00"W, 35.00 feet; thence N39°30'00"W, 464.25 feet; thence N69°30'00"W, 179.51 feet; thence along the arc of a 443.81 foot radius curve, concave to the East, having a chord length of 211.28 feet bearing S06°43'47"W, to a point of reverse curvature; thence along the arc of a 275.50 foot radius curve, concave to the West, having a chord length of 44.16 feet bearing S02°25'58"E, to a point of curvature; thence along the arc of a 35.00 foot radius curve, concave to the Northwest, having a chord length of 47.94 feet bearing S48°23'01"W; thence S88°36'08"W, 100.62 feet to a point on an Easterly right-of-way line of Egan Road; thence along said right-of-way line and continuing along the arc of a 432.34 foot radius curve, concave to the West, having a chord length of 133.88 feet bearing N08°37'22"W; thence along said right-of-way line N35°32'00"W, 102.45 feet to a point of curvature; thence along said right-of-way line and along the arc of a 25.00 foot radius curve, concave to the Southeast, having a chord length of 32.64 feet bearing N05°13'30"E, to a point on a Southeastly right-of-way line of East Towne Boulevard; thence along said right-of-way line N45°59'00"E, 27.14 feet to a point of curvature; thence along said right-of-way line and along the arc of a 406.97 foot radius curve, concave to the Northwest, having a chord length of 262.93 feet bearing N27°08'41"E; thence along East Towne Boulevard N8°17'16"E, 150.00 feet; thence along East Towne Boulevard Northeastly 197.66 feet and recorded as 197.55 feet along the arc of a curve to the right with a radius of 336.87 feet whose chord is 194.67 feet and bears N25°36'22"E; thence S69°30'00"E, 584.22 feet; thence N80°30'00"E, 547.71 feet; thence S9°30'00"E, 168.83 feet; thence S80°30'00"W, 254.00 feet; thence S9°30'00"E, 41.25 feet; thence S80°30'00"W, 26.00 feet; thence S09°30'00"E, 90.00 feet; thence N80°30'00"E, 26.00 feet; thence S9°30'00"E, 47.25 feet; thence N80°30'00"E, 70.00 feet; thence S9°30'00"E, 52.00 feet; thence N80°30'00"E, 34.00 feet; thence S9°30'00"E, 45.93 feet; thence S09°30'00"E, 224.82 feet; thence S20°30'00"W, 290.00 feet; thence N69°30'00"W, 50.00 feet; thence S20°30'00"W, 20.00 feet; thence N69°30'00"W, 169.06 feet; thence S50°30'00"W, 46.71 feet; thence N39°30'00"W, 90.00 feet; thence S50°30'00"W, 110.00 feet; thence N39°30'00"W, 40.00 feet; thence S50°30'00"W, 90.00 feet; thence S39°30'00"E, 40.00 feet; thence S50°30'00"W, 30.00 feet; thence S39°30'00"E, 210.00 feet; thence S50°30'00"W, 131.08 feet to the point of beginning.

**Parcel B Description:**  
(Per Access Dane)

Part of the West 1/2 of Section 27 and part of the East 1/2 of Section 28, T8N, R10E, City of Madison, Dane County, Wisconsin, described as follows: Commencing at the Southwest corner of said Section 27; thence N88°36'12"E along the South line of Section 27, 1440.44 feet; thence N02°27'44"W, 1270.60 feet; thence N40°59'05"W, 564.24 feet; thence N23°49'36"E, 277.01 feet; thence N45°59'05"W, 480.00 feet to the point of beginning; thence S47°17'31"W, 381.15 feet; thence S80°30'00"W, 547.71 feet; thence N69°30'00"W, 584.22 feet; thence Northeastly on a curve to the right with a radius of 326.87 feet and a long chord bearing and distance N42°27'14"E, 17.45 feet; thence N45°59'00"E, 336.55 feet; thence Northeastly on a curve to the right with a radius of 603.56 feet and a long chord bearing and distance of N42°01'51"E, 122.17 feet; thence N68°04'41"E, 150.00 feet; thence Northeastly on a curve to the left with a radius of 683.56 feet and a long chord bearing and distance of N52°01'51"E, 144.03 feet; thence N45°59'00"E, 262.14 feet; thence Easterly on a curve to the right with a radius of 25.00 feet and a long chord bearing and distance of N89°59'58"E, 34.74 feet; thence S45°59'05"E, 763.23 feet to the point of beginning.

Legend

- = Found 3/4" Iron Bar
- ⊙ = Found P.K. Nail
- ◇ = Light Pole
- ↔ = Traffic Signs as numbered below
- ⊙ = Pine Tree (Size noted)
- ⊗ = Deciduous Tree (Size noted)
- ⊙ = Deciduous Tree (Size noted)
- ⊕ = Proposed site: Madison Gas & Electric Transformer
- E — = Proposed buried line: Madison Gas & Electric Electric Line
- STM — = Storm Sewer per Plans provided by the City of Madison Engineering Department
- ⊕ = Storm sewer grate
- ⊕ = Storm sewer curb inlet

Dane County Coord's N: 501682.622  
E: 842112.430  
State Plan Coord's N: 411292.295  
Wis. South Zone E: 2153850.061

**SURVEYOR'S CERTIFICATE:**  
I, Daniel V. Birrenkott, hereby certify that this survey is in compliance with the Wisconsin Administrative Code. I also certify that I have surveyed and mapped the lands described herein and that the map is a correct representation in accordance with the information provided and is correct to the best of my knowledge and belief.

Daniel V. Birrenkott  
Wisconsin Registered Land Surveyor No. S-1531.

SURVEYED BY	T.A.S.	PREPARED FOR:	JOB NO.
DRAWN BY	M.A.P.	KMB DESIGN GROUP LLC	130441
CHECKED BY	M.A.P./D.V.B.	1800 ROUTE 34, SUITE 209	SHEET 1 OF 1
APPRV'D BY	D.V.B.	WALL, NJ 07719	FB 340/21
		732-2800-5623	

**FOR REFERENCE ONLY**

PROPERTY SURVEY

NO SCALE



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



**BLACK & VEATCH**

10950 GRANDVIEW DRIVE  
OVERLAND PARK, KS 66210  
(913) 458-2000

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WI001\_MADISON  
EAST TOWNE MALL  
89 EAST TOWNE MALL  
MADISON, WI 53704

SHEET NUMBER  
PROPERTY SURVEY

SHEET NUMBER  
PS-1



# PHOTOGRAPHIC SIMULATION



## PROPOSED SUPER CHARGING STATION

### SITE LOCATION MAP

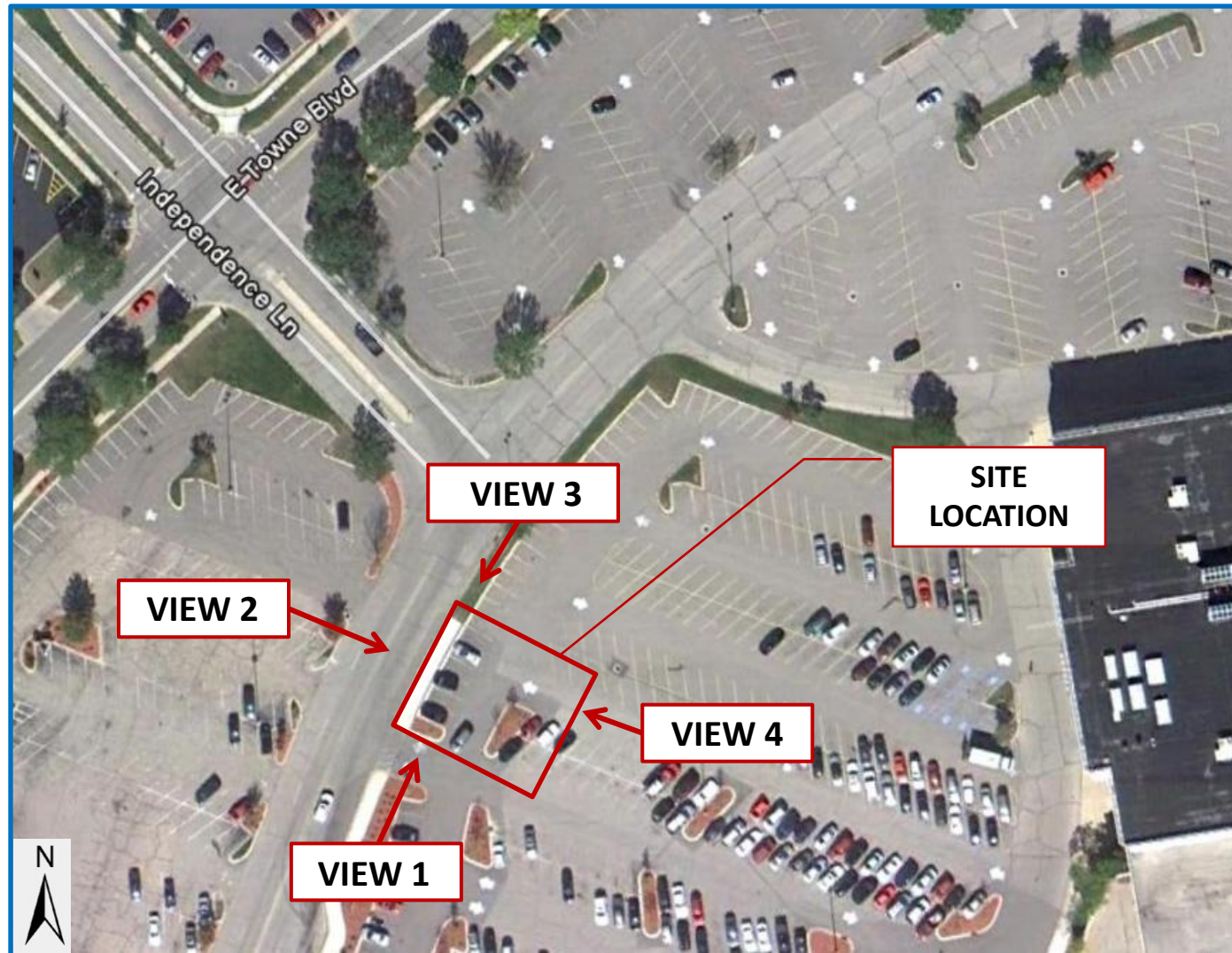


Image ©Google Maps 2013

SITE NUMBER: WI\_001

SITE NAME: MADISON

SITE ADDRESS: 89 EAST TOWNE MALL  
MADISON, WI 53704

DATE: 08/12/13

APPLICANT: TESLA MOTORS INC.

CONTACT: RUSSELL POLLOM  
BLACK & VEATCH  
(913) 458-6274

The included Photographic Simulation(s) are intended as visual representations only and should not be used for construction purposes. The materials represented within the included Photographic Simulation(s) are subject to change.



EXISTING SITE

**PHOTOGRAPHIC SIMULATION –  
VIEW 1 - LOOKING NORTHEAST**

**EXISTING VIEW 1 –  
LOOKING NORTHEAST**



PROPOSED TESLA  
EQUIPMENT

PROPOSED TESLA  
CHARGING STATIONS





EXISTING SITE

**PHOTOGRAPHIC SIMULATION –  
VIEW 2 - LOOKING SOUTHEAST**

**EXISTING VIEW 2 –  
LOOKING SOUTHEAST**



PROPOSED TESLA  
EQUIPMENT

PROPOSED TESLA  
CHARGING STATIONS





EXISTING SITE

**PHOTOGRAPHIC SIMULATION –  
VIEW 3 - LOOKING SOUTHWEST**

**EXISTING VIEW 3 –  
LOOKING SOUTHWEST**



PROPOSED TESLA  
CHARGING STATIONS

PROPOSED TESLA  
EQUIPMENT





EXISTING SITE

PHOTOGRAPHIC SIMULATION –  
VIEW 4 - LOOKING NORTHWEST

EXISTING VIEW 4 –  
LOOKING NORTHWEST



PROPOSED TESLA  
CHARGING STATIONS

PROPOSED TESLA  
EQUIPMENT