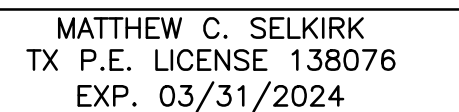
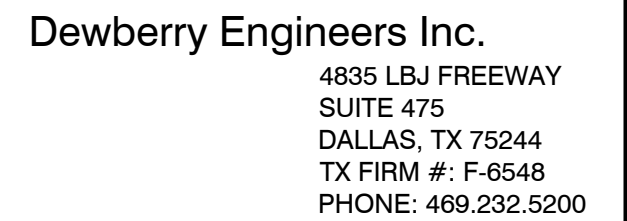
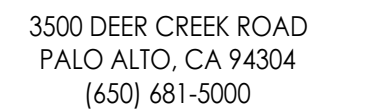


**SITE ADDRESS:**  
**3134 1/2 E SH 71 SVRD EB**  
**DEL VALLE, TX 78617**  
**TRT: 45392**  
**JB: 7864268-00**



SHEET NUMBER  
T-1



GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
GENERAL CONTRACTOR(S) OR SUB-CONTRACTOR(S) – CIVIL CONTRACTOR AND/OR ELECTRICIAN CONTRACTOR  
PROJECT OWNER/CONSTRUCTION MANAGER – TESLA  
PROJECT HOST – LEGAL PROPERTY OWNER  
ENGINEER – DEWBERRY ENGINEERS INC.
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING THE GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF PROJECT OWNER PRIOR TO THE COMMENCEMENT OF WORK.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. THE 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 THE WORK.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE THE INSTALLATION AS INDICATED ON THE DRAWINGS FOR A FULLY FUNCTIONAL CHARGING STATION AND COMPLETE PROJECT.
6. THE SUB-CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON DRAWINGS, THE GENERAL CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE PROJECT ENGINEER. ONLY WRITTEN APPROVALS SHALL BE DEEMED TO CONFIRM ANY SUCH CHANGES AS BEING APPROVED.
8. 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 GENERAL 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 UNIQUE JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK.
9. THE GENERAL CONTRACTOR SHALL REVIEW ROUTING OF CONDUIT, POWER AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING PLAN DRAWING. THE GENERAL CONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONSTRUCTION MANAGER AND PROJECT HOST.
10. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE PROJECT HOST. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
11. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF GENERAL CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE CONSTRUCTION MANAGER IMMEDIATELY.
12. APPLICABLE BUILDING CODES:  
THE GENERAL CONTRACTORS WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.  
THE GENERAL CONTRACTOR WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:  
  
AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE  
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)  
MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION
13. FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.
14. 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.
15. THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER GENERAL CONTRACTOR(S) AND/OR SUB-CONTRACTOR(S).
16. CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMEN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
17. THE GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND GENERAL CONTRACTOR(S) AND/OR SUB-CONTRACTOR(S) TO THE SITE AND/OR BUILDING.
18. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
19. THE GENERAL CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
20. THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE PROJECT HOST 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
21. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS 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 CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
22. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 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.
23. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE PROJECT OWNER AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
24. GENERAL CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES AND ALL SPECIFIED CLOSE-OUT DOCUMENTATION TO THE PROJECT OWNER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
25. THE GENERAL CONTRACTOR SHALL LEAVE THE WORK AREA AND SURROUNDING PREMISES IN A CLEAN CONDITION.
26. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
27. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.

SITE WORK NOTES:

PART 1 – GENERAL

- 1.1 REFERENCES:
- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION–CURRENT EDITION).
- B. AASHTO (AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS)
- C. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- D. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).
- 1.2 INSPECTION AND TESTING:
- A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY AN INDEPENDENT TESTING LAB. THIS WORK IS TO BE COORDINATED BY THE GENERAL CONTRACTOR.
- B. ALL WORK SHALL BE INSPECTED AND VERIFIED FOR CONFORMANCE AND RELEASED BY THE ENGINEER 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 GENERAL CONTRACTOR(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 CONTRACT.
- B. AVOID DAMAGE AND TAKE PROTECTIVE MEASURES TO THE SITE AND TO EXISTING FACILITIES, IMPROVEMENTS, STRUCTURES, PAVEMENTS, CURBS, AND LANDSCAPING DESIGNATED TO REMAIN. ANY DAMAGED PART SHALL BE REPAIRED AT SUB-CONTRACTOR(S) EXPENSE TO THE SATISFACTION OF THE PROJECT HOST.
- C. KEEP SITE FREE OF ALL PONDING OR STANDING WATER.
- D. PROVIDE EROSION CONTROL MEASURES, IF REQUIRED, SHALL BE IN ACCORDANCE WITH STATE DOT, LOCAL PERMITTING AGENCY 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. 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. EXTREME CAUTION SHOULD BE USED BY THE SUB-CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. THE GENERAL 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.
- G. 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 ENGINEER, AND SUBJECT TO THE APPROVAL OF THE PROJECT OWNER AND/OR LOCAL UTILITIES.
- H. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE PROJECT HOST OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE PROJECT HOST AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
- I. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE PROJECT HOST AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.
- J. SOD PLANTED IN THE FALL MUST ESTABLISH ITS ROOTS BEFORE THE FIRST WINTER FROST. DETERMINE WHEN THE FIRST FROST USUALLY OCCURS, AND PLANT THE SOD NO LATER THAN ONE MONTH BEFORE THE FIRST FROST. IF THE CONSTRUCTION IS FINISHED LATER THAN ONE MONTH BEFORE THE FIRST FROST, USE STRAW UNTIL SOD CAN BE INSTALLED.
- K. THE GENERAL CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS, RUBBISH, DEBRIS, STUMPS, STICKS, AND STONES.
- L. THE GENERAL CONTRACTOR SHALL REMOVE ALL TRASH DEBRIS FROM THE SITE ON A DAILY BASIS.
- M. CONTRACTOR TO TAKE NECESSARY PRECAUTIONS TO PROTECT TREES, VEGETATION, AND ROOT SYSTEMS DURING CONSTRUCTION.
- N. CONTRACTOR TO COORDINATE POST CONSTRUCTION LANDSCAPING FINISHES WITH OWNER AND TESLA.

PART 2 – PRODUCTS

2.1 GRANULAR BACKFILL: SHALL MEET THE FOLLOWING GRADATION:

SIEVE SIZE	TOTAL PERCENT PASSING
1-1/2 INCH	100
1 INCH	75 TO 100
3/4 INCH	80 TO 100
3/8 INCH	35 TO 75
NO. 4	30 TO 60
NO. 30	7 TO 30
NO. 200	3 TO 15

2.2 GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).

2.3 ALL STRUCTURAL BACKFILL AND SUBBASE UNDER SLABS SHALL BE SELECT STRUCTURAL FILL MEETING THE GRADATION AND SOUNDNESS REQUIREMENTS IN ACCORDANCE WITH THE FOLLOWING:

SIEVE SIZE	TOTAL PERCENT PASSING
4 INCH	100
NO. 40	0 TO 70
NO. 200	0 TO 40

2.4 MATERIALS SHALL BE SUBSTANTIALLY FREE OF SHALE OR OTHER SOFT, POOR DURABILITY PARTICLES. IF TESTING IS ELECTED BY PROJECT OWNER, MATERIAL WITH A MAGNESIUM SULFATE SOUNDNESS LOSS EXCEEDING 30% WILL BE REJECTED.

2.5 COARSE AGGREGATE FOR SUBBASE COURSE SHALL CONFORM TO ASTM D2940.

2.6 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 ENGINEER. TYPICALLY 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 A RAIN EVENT, NO SEDIMENT WILL LEAVE THE WORK SITE.
- 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.
- D. 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.
- E. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR UNDESIRABLE MATERIALS.

- F. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH GRANULAR FILL.
- G. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
- H. 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 ENGINEER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
- I. 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.
- J. DURING EXCAVATION, THE SUB-CONTRACTOR SHALL PROVIDE SHORING, SHEETING, AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF EXCAVATION.
- K. WHEN DIRECTIONAL BORING IS REQUIRED, SUB-CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.

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 SPECIFIED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
- B. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
- C. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW, OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- D. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 12-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 12-INCHES IN LOOSE DEPTH AND COMPACTED.
- E. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS ESTABLISHED BY THE STANDARD PROCTOR TEST, ASTM D 698.
- F. WHENEVER THE DENSITY TESTING INDICATES THAT THE SUB-CONTRACTOR(S) HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE CONSTRUCTION MANAGER. THE SUB-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.
- G. THE SUB-CONTRACTOR SHALL OBTAIN GRAB SAMPLES OF SUFFICIENT QUANTITY TO PROVIDE TO LAB FOR PURPOSE OF DETERMINING MAX DRY DENSITY. ALL LOOSE AND/OR ORGANIC MATERIAL SHALL BE REMOVED PRIOR TO PREPARATION OF THE AREA FOR PLACEMENT OF STRUCTURAL BACKFILL. OVERALL PLAN AREA OF WORK SHALL EXTEND 3'-0" MINIMUM BEYOND THE FINAL DIMENSIONS.
- H. SCARIFY THE EXISTING SOILS TO A DEPTH OF 6" AND RE-COMPACT USING A VIBRATING PLATE OR TAMPER, ANY SOFT AREAS SHALL BE OVEREXCAVATED 12" AND BACKFILLED WITH MATERIALS AND COMPACTION REQUIREMENTS SHOWN ON THE DRAWINGS.
- I. PLACEMENT AND COMPACTION OF STRUCTURAL BACKFILL AND SUBBASE SHALL BE IN 12" LIFTS. EXCAVATE FOR THE FOOTING EDGE AS SHOWN ON THE DRAWINGS.

3.3 TRENCHING EXCAVATION:

- J. 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.
- K. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
- L. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, EXCAVATE THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION, THEN BACKFILL WITH 12" OF GRANULAR MATERIAL.

3.4 TRENCHING BACKFILL:

- A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.
- B. NOTIFY THE ENGINEER 24 HOURS IN ADVANCE OF BACKFILLING.
- C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
- D. PLACE GRANULAR 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 AND HAUNCHES.
- E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.
- F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 12-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 ESTABLISHED BY THE STANDARD PROCTOR TEST, ASTM D 698.
- H. PER LOCAL REGULATORY AUTHORITY AND AS APPLICABLE, ALL TRENCHES IN PUBLIC RIGHT-OF-WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.



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



Dewberry Engineers Inc.

4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2024

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159177

SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

SITE NAME:

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

SITE ADDRESS:

3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

SHEET TITLE

GENERAL NOTES I

SHEET NUMBER

GN-1



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 MATCH SURROUNDING TOPOGRAPHY AND STRUCTURES.
- B. UTILIZE GRANULAR FILL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.
- C. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL OR BETTER CONDITION.
- D. AREAS OF THE PROJECT HOST’S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT OR PARKING/DRIVING AREAS SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION.

3.6 ASPHALT PAVING ROAD:

- A. AASHTO
- B. STATE SPECIFIC ASPHALT SPECIFICATIONS FOR HIGHWAYS
- C. THE SUB-CONTRACTOR IS RESPONSIBLE FOR RE-STRIPING AND APPLYING SEALCOATING, UNLESS OTHERWISE SPECIFIED.

ELECTRICAL NOTES:

1. THE GENERAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS. ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, SUB-CONTRACTOR SHALL NOTIFY THE PROJECT HOST AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE PROJECT HOST HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.
2. THE GENERAL 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 EQUIPMENT, LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE SUB-CONTRACTOR, PRIOR TO THE SUBMITTAL OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE THE SUBCONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
3. 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 ADMINISTRATION
- E. SBC – STANDARD BUILDING CODE
- F. NFPA – NATIONAL FIRE PROTECTION ASSOCIATION
4. DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH ENGINEER ANY SIZES AND LOCATIONS WHEN NEEDED.
5. EXISTING SERVICES: THE GENERAL CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE PROJECT HOST.
6. THE GENERAL CONTRACTOR SHALL PAY FOR ANY/ALL PERMITS, FEES, INSPECTIONS AND TESTING. THE GENERAL CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING EQUIPMENT.
7. THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL, UNLESS OTHERWISE SPECIFIED BY CONSTRUCTION MANAGER OR BY PROJECT DEVELOPER.
8. THE GENERAL 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 PROJECT HOST’S CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.
9. CONDUCTORS: THE CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER OR ALUMINUM WITH TYPE (THWN-2) INSULATION, 600 VOLT, COLOR CODED UNLESS SPECIFIED DIFFERENTLY ON DRAWINGS.
10. ALL (THWN-2) WIRING INSTALLATIONS TO FOLLOW MANUFACTURER’S INSTRUCTIONS AND RECOMMENDATIONS.
11. 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.
12. 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. SUB-CONTRACTOR IS TO PROVIDE ALL ELECTRICAL EQUIPMENT UNLESS OTHERWISE DIRECTED.
13. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL SUB-CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY THE CONSTRUCTION MANGER.
14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
15. THE GENERAL CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
16. 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.
17. ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.

20. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE CONTRACTOR(S) RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE CONSTRUCTION MANAGER UPON FINAL ACCEPTANCE.
21. THE SUBCONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES.
22. DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.
23. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NOALOX" BY IDEAL INDUSTRIAL INC. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED ALUMINUM & COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED – NO SUBSTITUTIONS.
24. ALL EXTERIOR AND INTERIOR ABOVE GROUND CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS SPECIFIED OTHERWISE. RACEWAYS: ALL CONDUITS SHALL BE SCHEDULE 40 EMT MEETING OR EXCEEDING NEMA TC2 – 1990 UNLESS SPECIFIED OTHERWISE. THE SUB-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 3 FT. RADIUS. EMT 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 'BRITE ZINC' OR 'GOLD GALV'.
25. SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.
26. CONNECTORS FOR POWER CONDUCTORS: SUB-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.
27. THE SUB-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".
28. WHEN DIRECTIONAL BORING IS REQUIRED, SUB-CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.
29. ALL BOLTS SHALL BE STAINLESS STEEL.
30. ALL MATERIALS AND EQUIPMENT SUPPLIED AND INSTALLED BY THE SUBCONTRACTOR SHOULD BE NEW AND UNUSED.
31. PER NEC 625.22 – THE USER INTERFACE (CHARGE POST) IS CONTROLLED BY THE ELECTRICAL EQUIPMENT (SUPERCHARGER CABINET) AND THE FOLLOWING PRECAUTIONS HAVE BEEN TAKEN TO ENSURE THE SAFETY OF CUSTOMERS AND THOSE AROUND THE EQUIPMENT: BEFORE ANY VOLTAGE OR CURRENT IS APPLIED TO THE CHARGE POST, THE CABINET MUST COMMUNICATE WITH THE TESLA VEHICLE. THERE IS A 'HANDSHAKE' BETWEEN THE CAR AND THE CABINET CONFIRMING THAT THE VEHICLE IS ACTUALLY A TESLA AND THAT THE VEHICLE CAN HANDLE THE SUPERCHARGING. VOLTAGE IS THEN APPLIED TO THE POWER SOCKETS IN THE CHARGE POST AND ONCE THE VOLTAGE READING FROM THE CAR IS VERIFIED AS THE SAME IN THE CHARGING CABINET, THEN CURRENT BEGINS TO FLOW. IF AT ANY POINT IN THIS PROCESS A FAULT IS DETECTED, THE CHARGING WILL STOP IMMEDIATELY, WITHIN A MATTER OF MILLISECONDS. DURING THE NORMAL CHARGING CYCLE, IF ANY FAULT OR IRREGULARITY IS DETECTED, THE CHARGING WILL AGAIN STOP WITHIN MILLISECONDS OF DETECTION. BEYOND THIS LOGIC PROTECTION, THERE IS PHYSICAL PROTECTION FROM OVER-CURRENT OR OVER-VOLTAGE WITHIN EACH OF THE CHARGERS. BEYOND THAT, FAST ACTING FUSES ALSO PROTECT THE VEHICLE OUTPUTS FROM OUTPUTTING TOO HIGH OF A CURRENT.

REINFORCED CONCRETE NOTES:

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. DO NOT USE RETEMPERED CONCRETE, OR ADD WATER TO READY-MIX CONCRETE AT THE JOB SITE. MIX DESIGN SHALL BE APPROVED BY OWNER’S REPRESENTATIVE PRIOR TO PLACING CONCRETE.
3. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
4. MAXIMUM AGGREGATE SIZE SHALL BE 3/4".
5. THE FOLLOWING MATERIALS SHALL BE USED:
- |                          |                         |
|--------------------------|-------------------------|
| PORTLAND CEMENT:         | ASTM C 150, TYPE I      |
| REINFORCEMENT:           | ASTM A 615, GRADE 60    |
| NORMAL WEIGHT AGGREGATE: | ASTM C 33               |
| WATER:                   | DRINKABLE               |
| ADMIXTURES:              | NON-CHLORIDE CONTAINING |
6. REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH "DETAILING MANUAL-2004 PUBLICATION SP-66" AND "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI-318-08.
7. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B"; ALL HOOKS SHALL BE STANDARD, UNO.
8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
- |  |   |
|--|---|
| CONCRETE CAST AGAINST EARTH:   | 3 IN.   |
| CONCRETE EXPOSED TO EARTH OR WEATHER:                                    | #6 AND LARGER 2 IN.<br>#5 AND SMALLER & WWF 1-1/2 IN. |
| CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND: | SLAB AND WALL 3/4 IN.<br>BEAMS AND COLUMNS 1-1/2 IN.  |
9. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
10. INSTALLATION OF CONCRETE ANCHOR, SHALL BE PER MANUFACTURERS WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
11. CURING COMPOUNDS SHALL CONFORM TO ASTM C-309.
12. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI-301.
13. DO NOT WELD OR TACKWELD REINFORCING STEEL.
14. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.

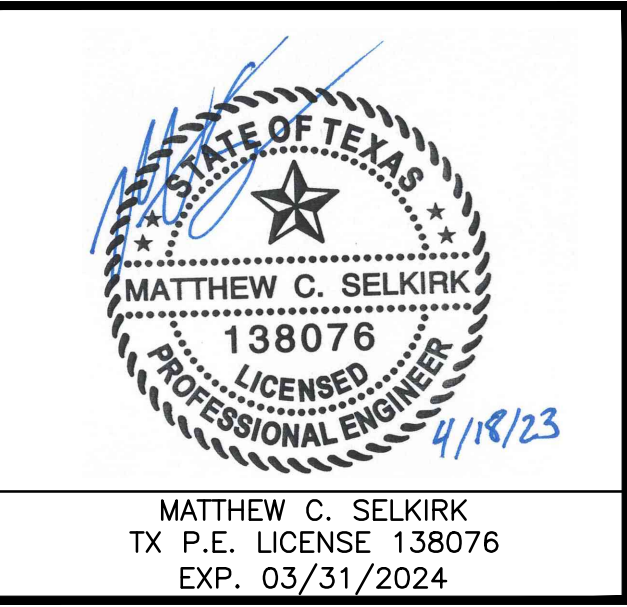
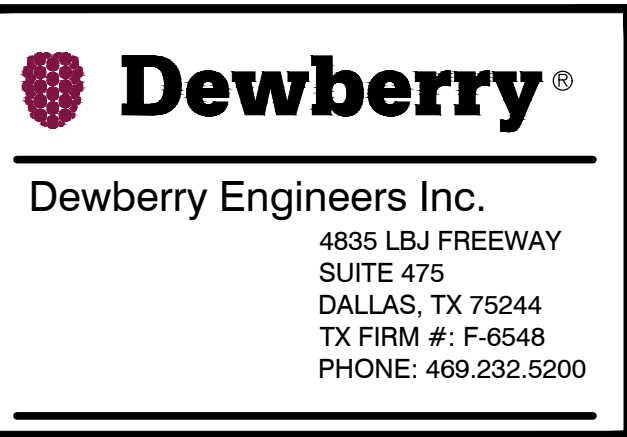
15. LOCATE ADDITIONAL EXPANSION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT.
16. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
17. PLACE CONCRETE IN A UNIFORM MANNER TO PREVENT THE FORMATION OF COLD JOINTS AND OTHER PLANES OF WEAKNESS. VIBRATE THE CONCRETE TO FULLY EMBED REINFORCING. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE THROUGH CHUTES OR FORMWORK.
18. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
19. DO NOT ALLOW CONCRETE SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 14 DAYS AFTER PLACEMENT.
20. MAINTAIN TEMPERATURE OF CAST IN PLACE CONCRETE BETWEEN 50 DEGREES AND 90 DEGREES FAHRENHEIT. FOR COLD-WEATHER AND HOT-WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS MINIMUM.
21. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, REINFORCEMENT SPLICES SHALL MEET CLASS B, TENSION LAP REQUIREMENTS IN ACCORDANCE WITH ALL PROVISIONS OF ACI 318 LATEST EDITION, UNLESS NOTED OTHERWISE.
22. PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING.

HORIZONTAL DIRECT DRILLING NOTES:

1. THE WORK SPECIFIED IN THIS SECTION CONSISTS OF FURNISHING AND INSTALLING UNDERGROUND UTILITIES USING THE DIRECTIONAL BORING (HORIZONTAL DIRECTIONAL DRILLING, HDD) METHOD OF INSTALLATION, ALSO COMMONLY REFERRED TO AS GUIDED HORIZONTAL BORING. THIS WORK SHALL INCLUDE ALL SERVICES, EQUIPMENT, MATERIALS, AND LABOR FOR THE COMPLETE AND PROPER INSTALLATION, TESTING, RESTORATION OF UNDERGROUND UTILITIES AND ENVIRONMENTAL PROTECTION AND RESTORATION.
2. WORK PLAN: PRIOR TO BEGINNING WORK, THE CONTRACTOR MUST SUBMIT TO THE ENGINEER A GENERAL WORK PLAN OUTLINING THE PROCEDURE AND SCHEDULE TO BE USED TO EXECUTE THE PROJECT. PLAN SHOULD DOCUMENT THE THOUGHTFUL PLANNING REQUIRED TO SUCCESSFULLY COMPLETE THE PROJECT.
3. ENVIRONMENTAL PROTECTION: CONTRACTOR SHALL PLACE SILT FENCE BETWEEN ALL BORING OPERATIONS AND ANY DRAINAGE, WETLAND, WATERWAY OR OTHER AREA DESIGNATED FOR SUCH PROTECTION BY CONTRACT DOCUMENTS, STATE, FEDERAL AND LOCAL REGULATIONS. ADDITIONAL ENVIRONMENTAL PROTECTION NECESSARY TO CONTAIN ANY HYDRAULIC OR BORING FLUID SPILLS SHALL BE PUT IN PLACE, INCLUDING BERMS, LINERS, TURBIDITY CURTAINS AND OTHER MEASURES. CONTRACTOR SHALL ADHERE TO ALL APPLICABLE ENVIRONMENTAL REGULATIONS. FUEL OR OIL MAY NOT BE STORED IN BULK CONTAINERS WITHIN 200' OF ANY WATER-BODY OR WET-LAND.
4. UTILITY LOCATES: CONTRACTOR SHALL NOTIFY ALL COMPANIES WITH UNDERGROUND UTILITIES IN THE WORK AREA VIA THE STATE OR LOCAL "ONE-CALL" TO OBTAIN UTILITY LOCATES. ONCE THE UTILITIES HAVE BEEN LOCATED CONTRACTOR SHALL PHYSICALLY IDENTIFY THE EXACT LOCATION OF THE UTILITIES BY VACUUM OR HAND EXCAVATION, WHEN POSSIBLE, IN ORDER TO DETERMINE THE ACTUAL LOCATION AND PATH OF ANY UNDERGROUND UTILITIES WHICH MIGHT BE WITHIN 20 FEET OF THE BORE PATH. CONTRACTOR SHALL NOT COMMENCE BORING OPERATIONS UNTIL THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE WORK AREA HAVE BEEN VERIFIED.
5. SAFETY: CONTRACTOR SHALL ADHERE TO ALL APPLICABLE STATE, FEDERAL AND LOCAL SAFETY REGULATIONS AND ALL OPERATIONS SHALL BE CONDUCTED IN A SAFE MANNER. SAFETY MEETINGS SHALL BE CONDUCTED AT LEAST WEEKLY WITH A WRITTEN RECORD OF ATTENDANCE AND TOPIC SUBMITTED TO ENGINEER.
6. SITE RESTORATION: FOLLOWING BORING OPERATIONS, CONTRACTOR WILL DE-MOBILIZE EQUIPMENT AND RESTORE THE WORK-SITE TO ORIGINAL CONDITION. ALL EXCAVATIONS WILL BE BACKFILLED AND COMPACTED TO 95% OF ORIGINAL DENSITY. LANDSCAPING WILL BE RESTORED TO ORIGINAL.
7. RECORD KEEPING: CONTRACTOR SHALL MAINTAIN A DAILY PROJECT LOG OF BORING OPERATIONS AND A GUIDANCE SYSTEM LOG WITH A COPY GIVEN TO ENGINEER AT COMPLETION OF PROJECT. AS-BUILT DRAWINGS SHALL BE CERTIFIED AS TO ACCURACY BY CONTRACTOR.

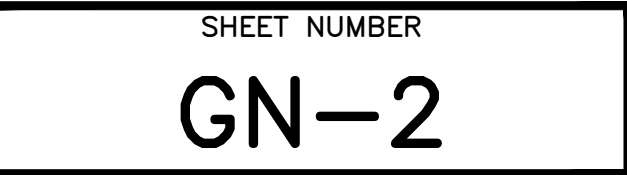
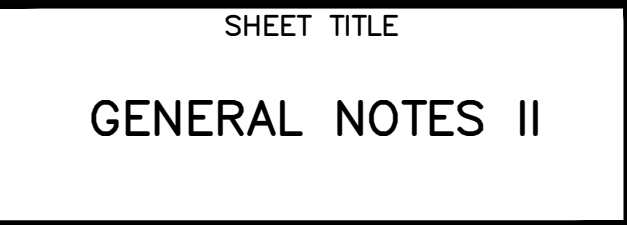
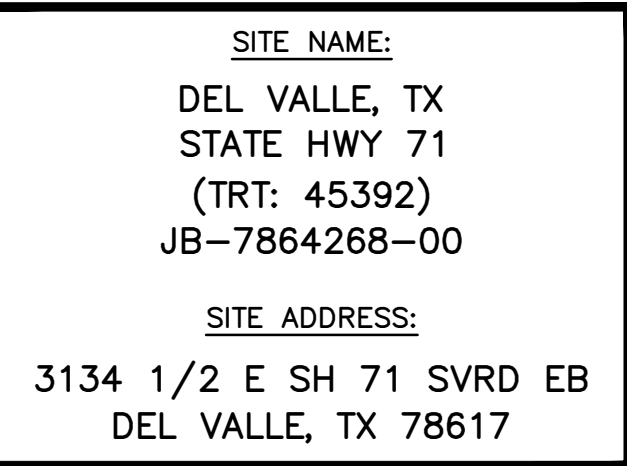
TRAFFIC MANAGEMENT NOTES:

1. ALL TEMPORARY CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
2. ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
3. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
4. TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
5. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
6. CONTRACTORS SHALL NOTIFY THE OWNER AND ALL TENANTS OF THIS PROPERTY AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
7. THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
8. MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
9. MINIMUM LANE WIDTH IS TO BE 11 FEET (3.3m) UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
10. EXISTING PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES THROUGH A COMBINATION OF PEDESTRIAN DETOURS OR PROTECTED SAFE ROUTES. ALL PEDESTRIAN ROUTES SHALL MEET APPLICABLE ACCESSIBILITY REQUIREMENTS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC THROUGHOUT CONSTRUCTION AT THIS LOCATION. THE CONTRACTOR SHALL INSTALL TEMPORARY TRAFFIC SIGNS, DRUMS, CONES, OR OTHER TRAFFIC CONTROL DEVICES TO DIRECT VEHICLES AND PEDESTRIANS AROUND THE WORK ZONE.

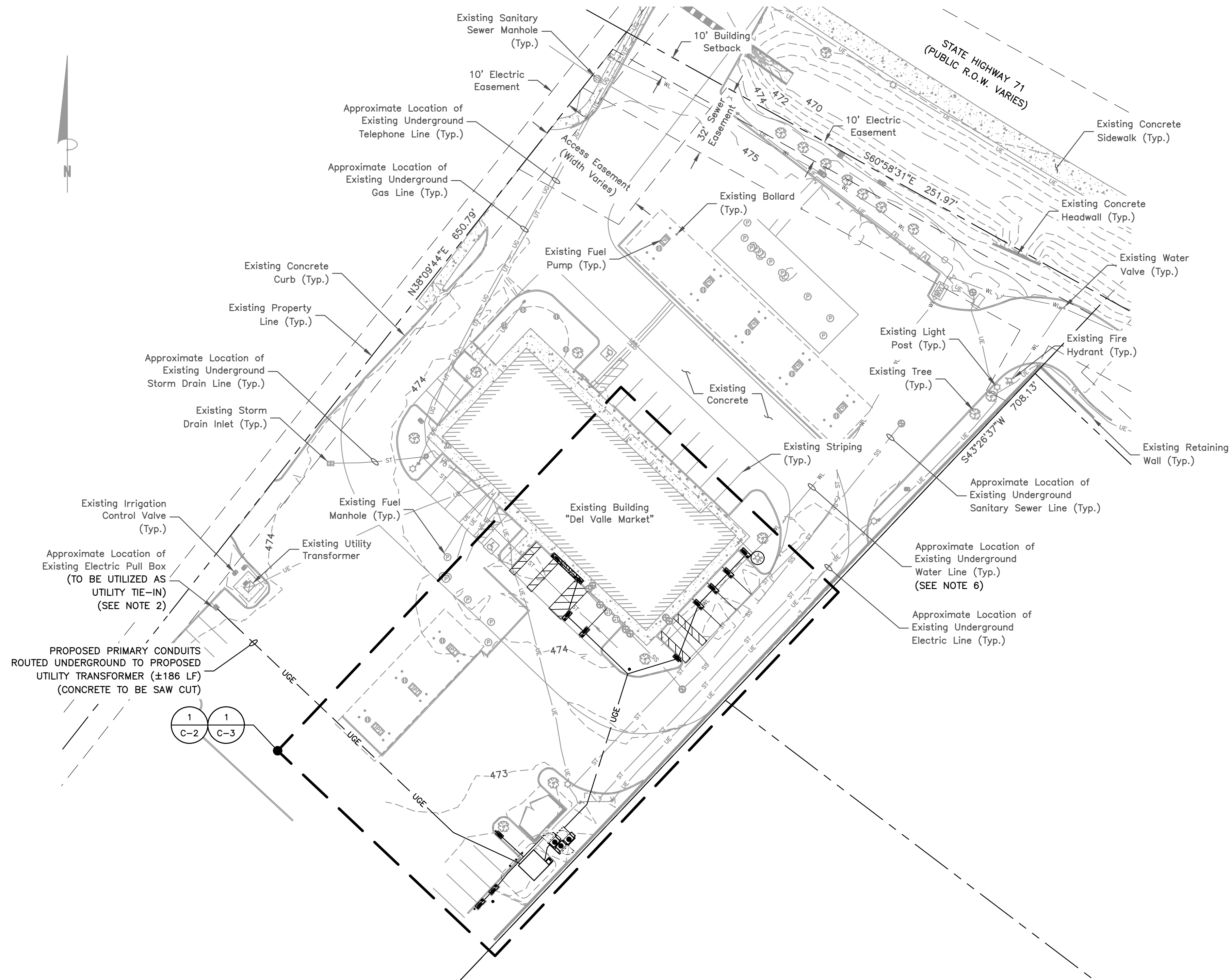


DRAWN BY:	TK
CHECKED BY:	DSW
APPROVED BY:	MCS
PROJECT #:	50123704
JOB #:	50159177

SUBMITTALS		
REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW







### SITE PLAN

SCALE: 1"=60' FOR 11"x17"  
1"=30' FOR 22"x34"



	SITE BENCHMARK
	SANITARY MANHOLE
	SANITARY CLEANOUT
	GREASE TRAP
	STORM INLET (RECTANGLE)
	FIRE HYDRANT
	WATER VALVE
	IRRIGATION CONTROL VALVE
	WATER VAULT
	LIGHT POLE
	ELECTRIC TRANSFORMER
	ELECTRIC PULLBOX
	AIR PUMP
	TELEPHONE VAULT
	GAS METER
	VENT PIPE
	PETROLEUM PUMP
	PETROLEUM MANHOLE
	HANDICAP PARKING
	PILLAR
	DECIDUOUS TREE WITH DRIPLINE
	BOLLARD
	SIGN
	FENCE GATE
	STORM LINE (UNDERGROUND)
	CULVERT
	SANITARY LINE (UNDERGROUND)
	WATER LINE (UNDERGROUND)
	GAS LINE (UNDERGROUND)
	ELECTRIC LINE (UNDERGROUND)
	TELEPHONE LINE (UNDERGROUND)
	CONCRETE AREA
	PROPERTY LINE

### NOTES:

- SITE PLAN BASED ON ENGINEERING DESIGN SURVEY, A PORTION OF DEL VALLE, S SURVEY, ABSTRACT 45324, COUNTY BLOCK 453, CITY OF AUSTIN, TRAVIS COUNTY, STATE OF TEXAS BY CLARK LAND SURVEYING, INC. DATED 10/24/2022.
- UTILITY CONNECTION TO BE MADE UNDER AUSTIN ENERGY STANDARDS, CONFIRM FINAL DESIGN PRIOR TO CONSTRUCTION, AUSTIN ENERGY WORK ORDER #: TBD.
- EXISTING UNDERGROUND UTILITIES LOCATED WITHIN AREA OF PROPOSED TRENCH & EQUIPMENT SITE AREA. HAND DIG AND RELOCATE AS REQUIRED.
- EXISTING CUSTOMER OWNED ELECTRICAL CONDUIT TO BE RELOCATED AS NEEDED DURING CONSTRUCTION.
- CONTRACTOR TO SEED & STRAW ALL DISTURBED AREA AFTER CONSTRUCTION HAS BEEN COMPLETED.
- ANY TREES OR LANDSCAPING DAMAGED DURING CONSTRUCTION TO BE REPLACED IN KIND BY CONTRACTOR.
- CONTRACTOR TO CONFIRM DEPTH OF EXISTING STORM DRAIN & WATER LINE PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF DEPTH BELOW SURFACE IS LESS THAN 36".
- CONTRACTOR TO USE PRIVATE ENTITY FOR SUB-SURFACE UTILITY MARKOUT PRIOR TO CONSTRUCTION START.
- CONTRACTOR TO CONFIRM STANDARD ADA/ACCESSIBLE STRIPING & ASSOCIATED STALLS HAVE <5% GRADE IN ALL DIRECTIONS. CONTRACTOR TO CONFIRM VAN ADA/ACCESSIBLE STRIPING & ASSOCIATED STALLS HAVE <2% GRADE IN ALL DIRECTIONS.



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



Dewberry Engineers Inc.  
4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2024

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159177

### SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

### SITE NAME:

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

### SITE ADDRESS:

3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

### SHEET TITLE

SITE PLAN

### SHEET NUMBER

C-1

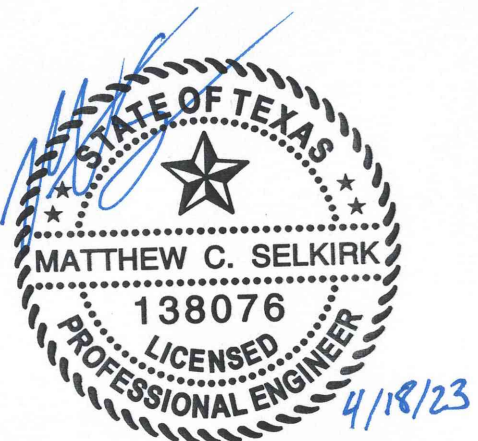




3500 DEER CREEK ROAD  
PALO ALTO, CA 94304  
(650) 681-5000



Dewberry Engineers Inc.  
4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2024

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159177

#### SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

#### SITE NAME:

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

#### SITE ADDRESS:

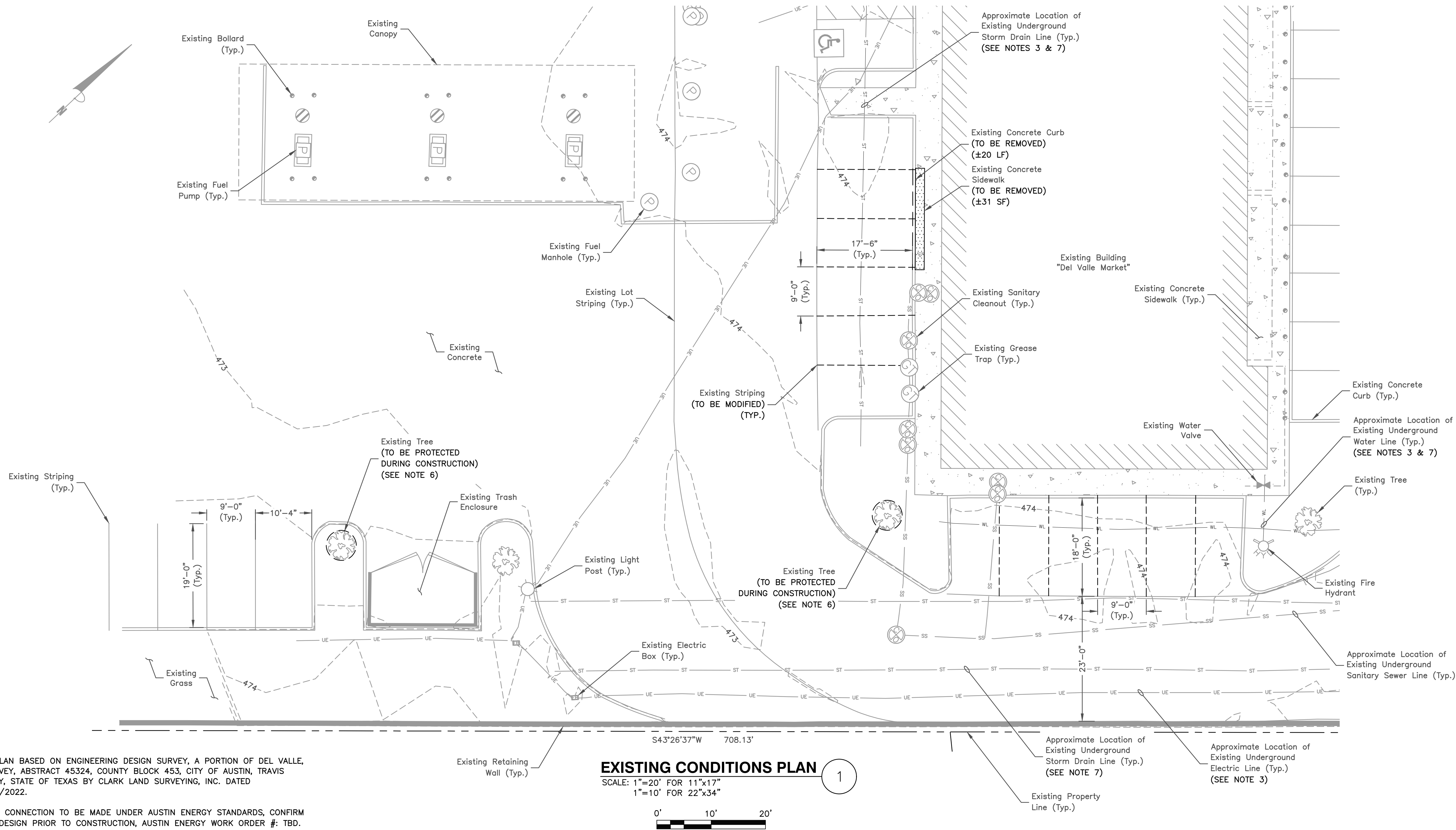
3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

#### SHEET TITLE

EXISTING CONDITIONS  
PLAN

#### SHEET NUMBER

C-2



#### NOTES:

- SITE PLAN BASED ON ENGINEERING DESIGN SURVEY, A PORTION OF DEL VALLE, S SURVEY, ABSTRACT 45324, COUNTY BLOCK 453, CITY OF AUSTIN, TRAVIS COUNTY, STATE OF TEXAS BY CLARK LAND SURVEYING, INC. DATED 10/24/2022.
- UTILITY CONNECTION TO BE MADE UNDER AUSTIN ENERGY STANDARDS, CONFIRM FINAL DESIGN PRIOR TO CONSTRUCTION, AUSTIN ENERGY WORK ORDER #: TBD.
- EXISTING UNDERGROUND UTILITIES LOCATED WITHIN AREA OF PROPOSED TRENCH & EQUIPMENT SITE AREA. HAND DIG AND RELOCATE AS REQUIRED.
- EXISTING CUSTOMER OWNED ELECTRICAL CONDUIT TO BE RELOCATED AS NEEDED DURING CONSTRUCTION.
- CONTRACTOR TO SEED & STRAW ALL DISTURBED AREA AFTER CONSTRUCTION HAS BEEN COMPLETED.
- ANY TREES OR LANDSCAPING DAMAGED DURING CONSTRUCTION TO BE REPLACED IN KIND BY CONTRACTOR.
- CONTRACTOR TO CONFIRM DEPTH OF EXISTING STORM DRAIN & WATER LINE PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF DEPTH BELOW SURFACE IS LESS THAN 36".
- CONTRACTOR TO USE PRIVATE ENTITY FOR SUB-SURFACE UTILITY MARKOUT PRIOR TO CONSTRUCTION START.
- CONTRACTOR TO CONFIRM STANDARD ADA/ACCESSIBLE STRIPING & ASSOCIATED STALLS HAVE <5% GRADE IN ALL DIRECTIONS. CONTRACTOR TO CONFIRM VAN ADA/ACCESSIBLE STRIPING & ASSOCIATED STALLS HAVE <2% GRADE IN ALL DIRECTIONS.

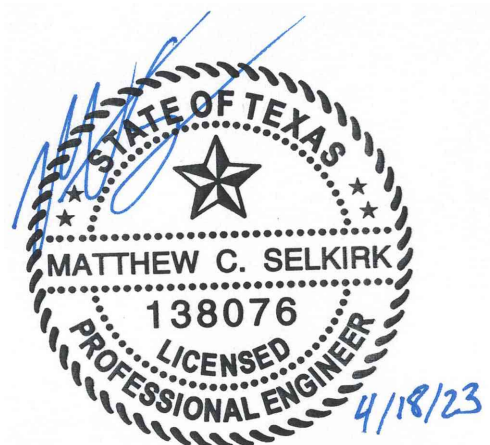




3500 DEER CREEK ROAD  
PALO ALTO, CA 94304  
(650) 681-5000



Dewberry Engineers Inc.  
4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2024

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159177

#### SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

#### SITE NAME:

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

#### SITE ADDRESS:

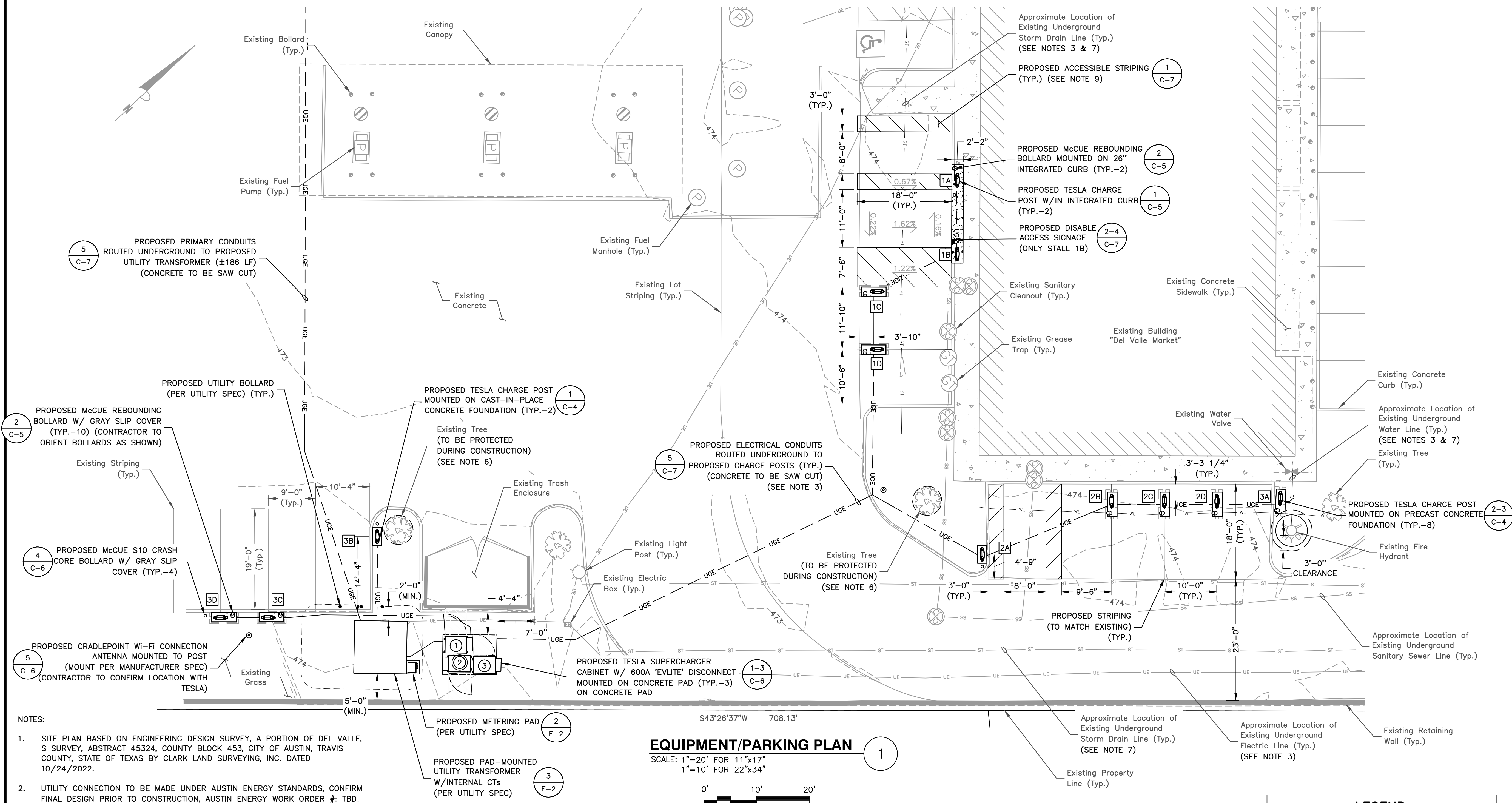
3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

#### SHEET TITLE

EQUIPMENT/PARKING  
PLAN

#### SHEET NUMBER

C-3

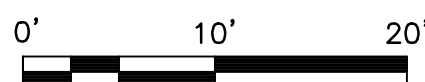


#### NOTES:

- SITE PLAN BASED ON ENGINEERING DESIGN SURVEY, A PORTION OF DEL VALLE, S SURVEY, ABSTRACT 45324, COUNTY BLOCK 453, CITY OF AUSTIN, TRAVIS COUNTY, STATE OF TEXAS BY CLARK LAND SURVEYING, INC. DATED 10/24/2022.
- UTILITY CONNECTION TO BE MADE UNDER AUSTIN ENERGY STANDARDS, CONFIRM FINAL DESIGN PRIOR TO CONSTRUCTION, AUSTIN ENERGY WORK ORDER #: TBD.
- EXISTING UNDERGROUND UTILITIES LOCATED WITHIN AREA OF PROPOSED TRENCH & EQUIPMENT SITE AREA. HAND DIG AND RELOCATE AS REQUIRED.
- EXISTING CUSTOMER OWNED ELECTRICAL CONDUIT TO BE RELOCATED AS NEEDED DURING CONSTRUCTION.
- CONTRACTOR TO SEED & STRAW ALL DISTURBED AREA AFTER CONSTRUCTION HAS BEEN COMPLETED.
- ANY TREES OR LANDSCAPING DAMAGED DURING CONSTRUCTION TO BE REPLACED IN KIND BY CONTRACTOR.
- CONTRACTOR TO CONFIRM DEPTH OF EXISTING STORM DRAIN & WATER LINE PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF DEPTH BELOW SURFACE IS LESS THAN 36".
- CONTRACTOR TO USE PRIVATE ENTITY FOR SUB-SURFACE UTILITY MARKOUT PRIOR TO CONSTRUCTION START.
- CONTRACTOR TO CONFIRM STANDARD ADA/ACCESSIBLE STRIPING & ASSOCIATED STALLS HAVE <5% GRADE IN ALL DIRECTIONS. CONTRACTOR TO CONFIRM VAN ADA/ACCESSIBLE STRIPING & ASSOCIATED STALLS HAVE <2% GRADE IN ALL DIRECTIONS.

#### EQUIPMENT/PARKING PLAN

SCALE: 1"=20' FOR 11"x17"  
1"=10' FOR 22"x34"



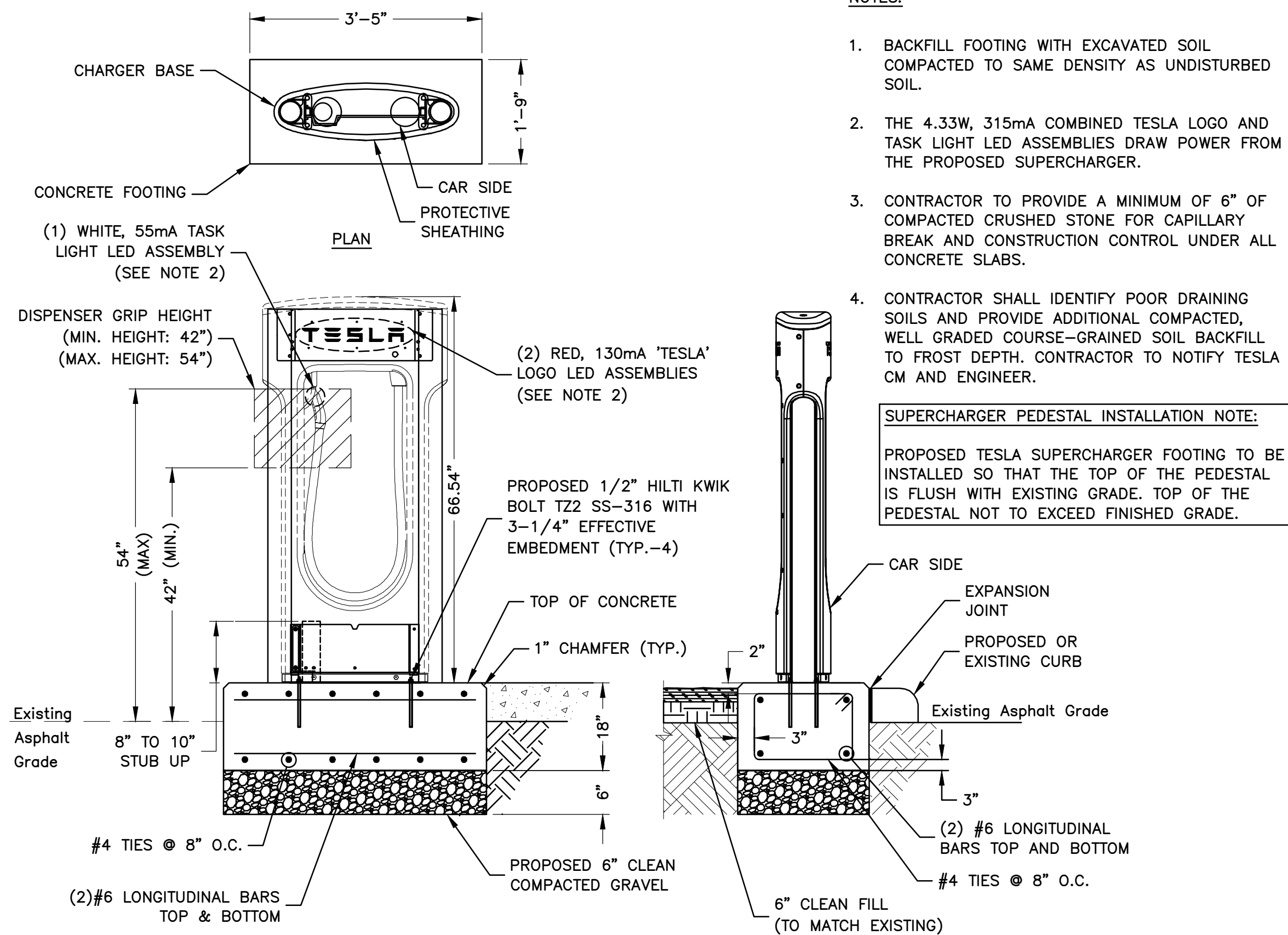
#### LEGEND

#	TESLA SUPERCHARGER #
②	TESLA 'STAR-CENTER' SUPERCHARGER #
1A	TESLA CHARGE POST

#### PARKING STALL SCHEDULE

DESCRIPTION	QUANTITY
EXISTING STANDARD STALLS UTILIZED AS A RESULT OF THIS PROJECT	15
PROPOSED TESLA STALLS	12
PROPOSED STANDARD STALLS	0
NET STALL COUNT	-3





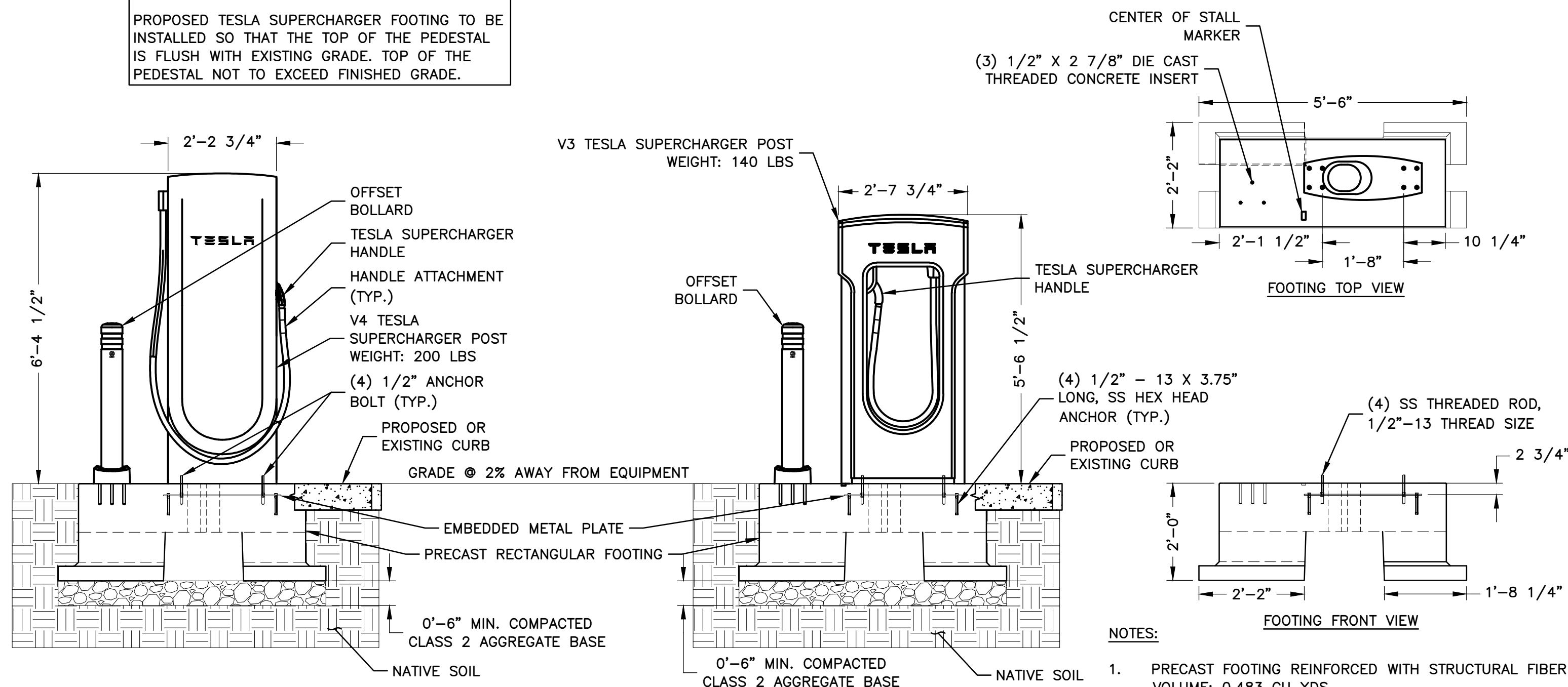
ILLUMINATED CHARGING STATION FOOTING DETAIL

SCALE: N.T.S.

1

SUPERCHARGER PEDESTAL INSTALLATION NOTE:

PROPOSED TESLA SUPERCHARGER FOOTING TO BE INSTALLED SO THAT THE TOP OF THE PEDESTAL IS FLUSH WITH EXISTING GRADE. TOP OF THE PEDESTAL NOT TO EXCEED FINISHED GRADE.



TESLA SUPERCHARGER POST PRECAST FOUNDATION DETAIL

SCALE: N.T.S.

2

NOTES:

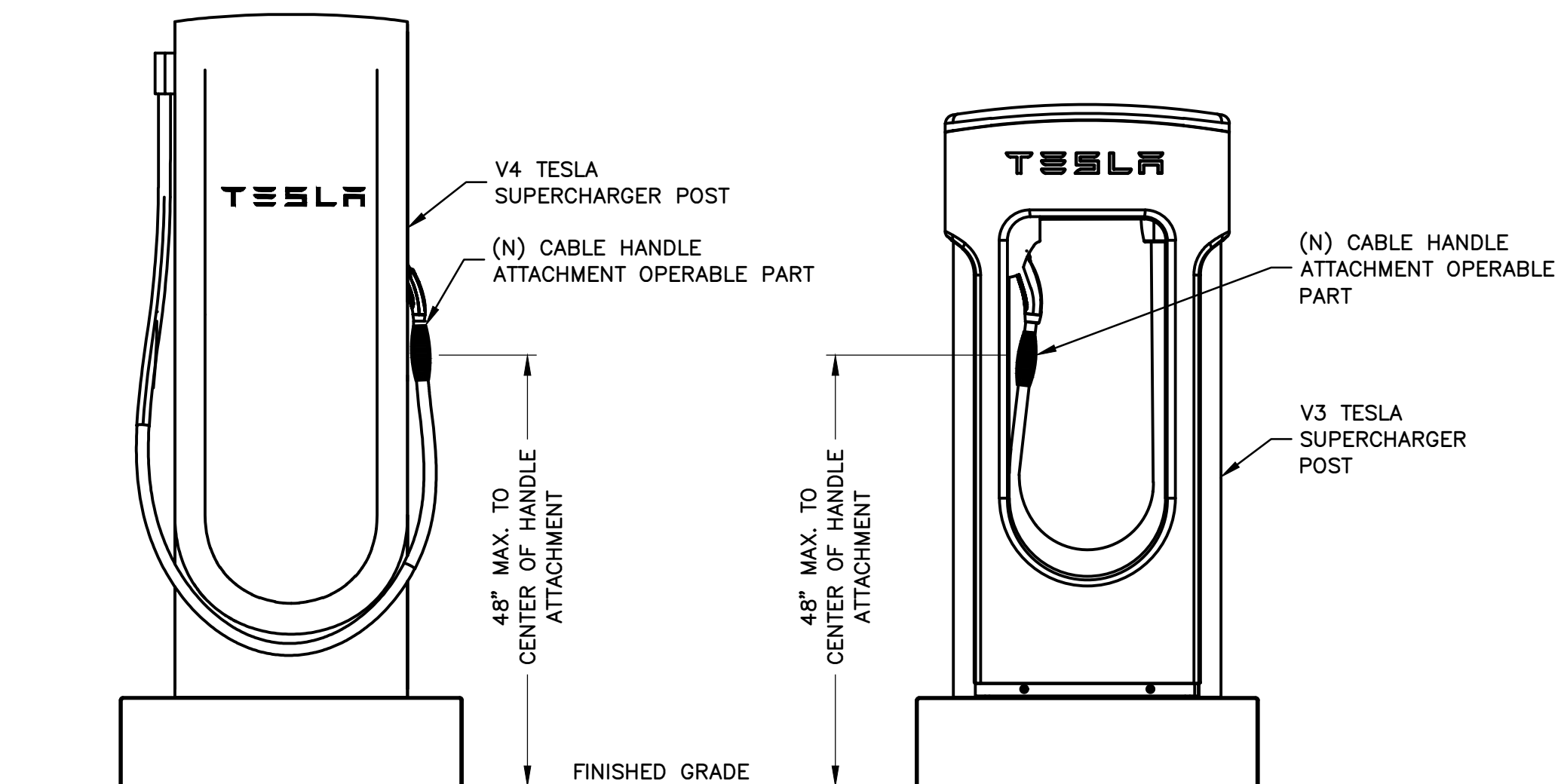
1. PRECAST FOOTING REINFORCED WITH STRUCTURAL FIBER VOLUME: 0.483 CU YDS WEIGHT: 1,990 LBS SEE CUTSHEETS FOR ADDITIONAL INFORMATION
2. S501.1333 SUPERCHARGER POST CENTER ON CENTER PRECAST FOOTING DETAIL RA WIND RATING (WITHOUT SIGN) = 134 MPH WIND RATING (WITH SIGN) = 120 MPH

NOTES:

1. BACKFILL FOOTING WITH EXCAVATED SOIL COMPACTED TO SAME DENSITY AS UNDISTURBED SOIL.
2. THE 4.33W, 315mA COMBINED TESLA LOGO AND TASK LIGHT LED ASSEMBLIES DRAW POWER FROM THE PROPOSED SUPERCHARGER.
3. CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF COMPACTED CRUSHED STONE FOR CAPILLARY BREAK AND CONSTRUCTION CONTROL UNDER ALL CONCRETE SLABS.
4. CONTRACTOR SHALL IDENTIFY POOR DRAINING SOILS AND PROVIDE ADDITIONAL COMPACTED, WELL GRADED COURSE-GRAINED SOIL BACKFILL TO FROST DEPTH. CONTRACTOR TO NOTIFY TESLA CM AND ENGINEER.

SUPERCHARGER PEDESTAL INSTALLATION NOTE:

PROPOSED TESLA SUPERCHARGER FOOTING TO BE INSTALLED SO THAT THE TOP OF THE PEDESTAL IS FLUSH WITH EXISTING GRADE. TOP OF THE PEDESTAL NOT TO EXCEED FINISHED GRADE.



NOTE:

1. 54" MAX HEIGHT OF SUPERCHARGER HANDLE AT ACCESSIBLE CHARGE POSTS FROM SURFACE OF VEHICULAR WAY WHEN INSTALLED ON EXISTING CURBS.

CABLE HANDLE ACCESSIBILITY ATTACHMENT DETAIL

SCALE: N.T.S.

3



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



Dewberry Engineers Inc.  
4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2024

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159177

SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

SITE NAME:

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

SITE ADDRESS:

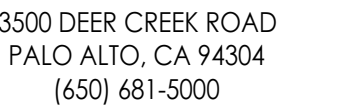
3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

SHEET TITLE

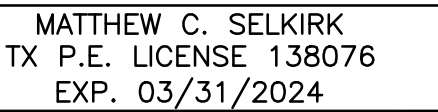
CONSTRUCTION  
DETAILS I

SHEET NUMBER

C-4



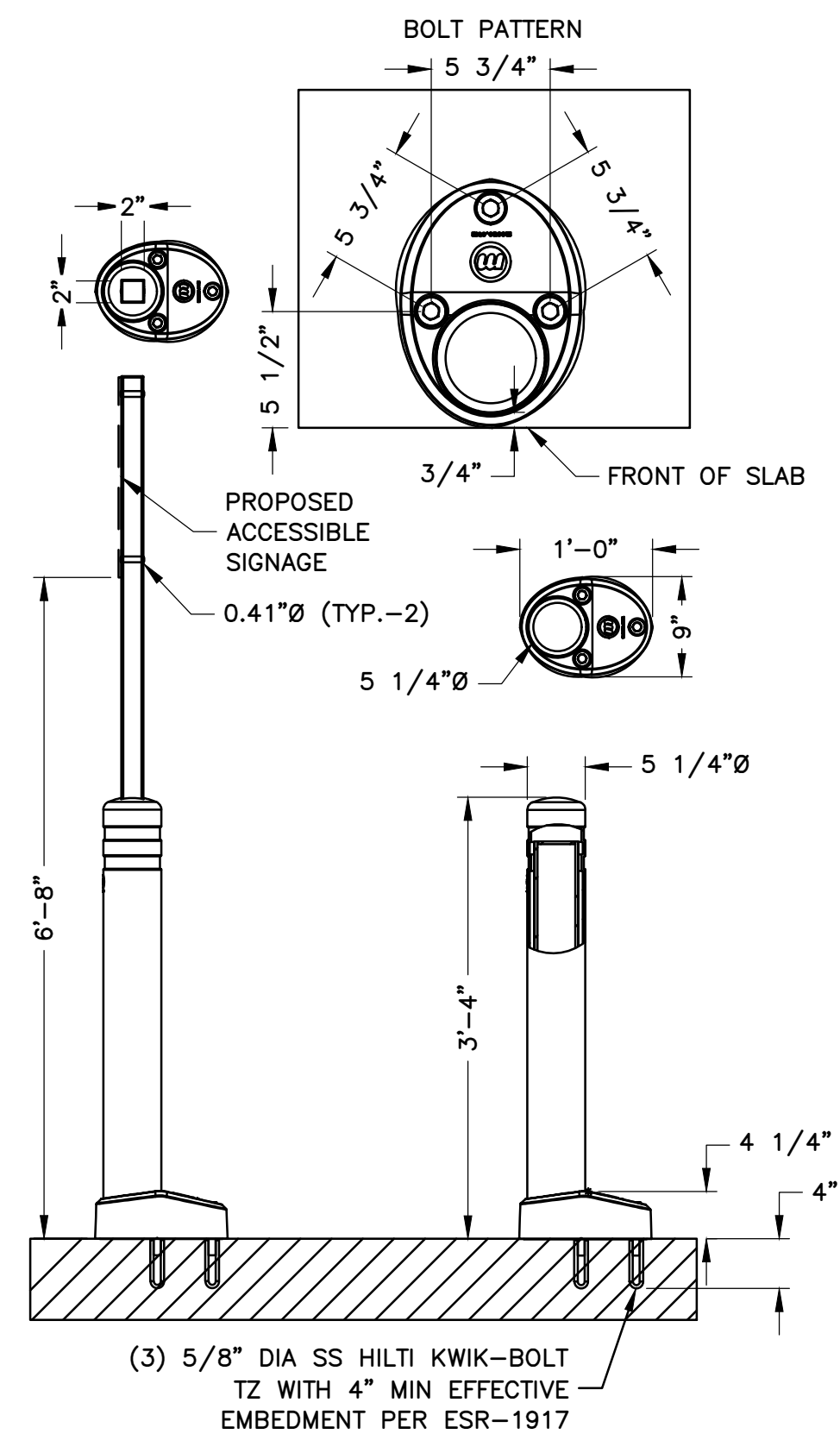
**Dewberry Engineers Inc.**  
4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



JOB #: 50159177

EV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

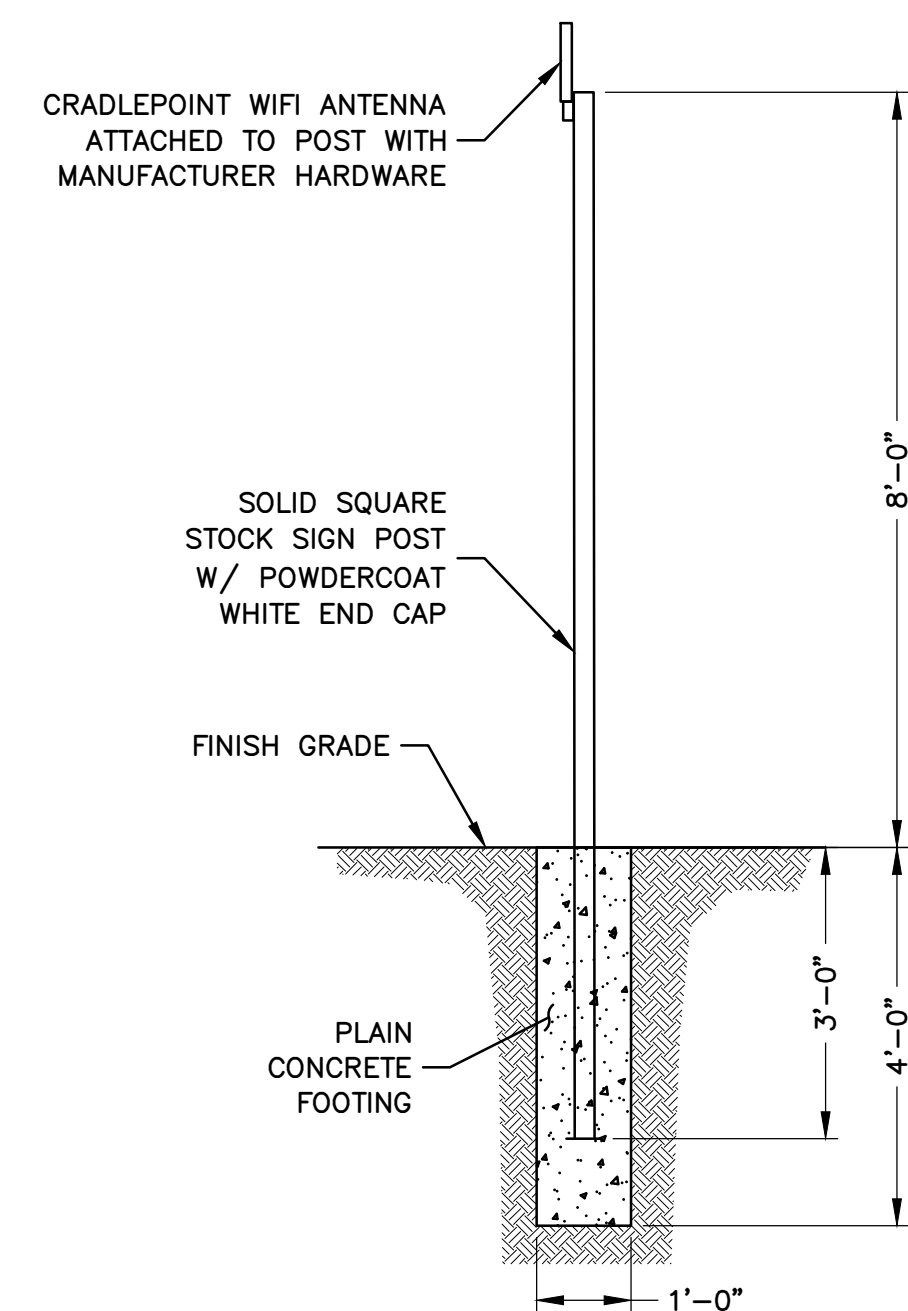
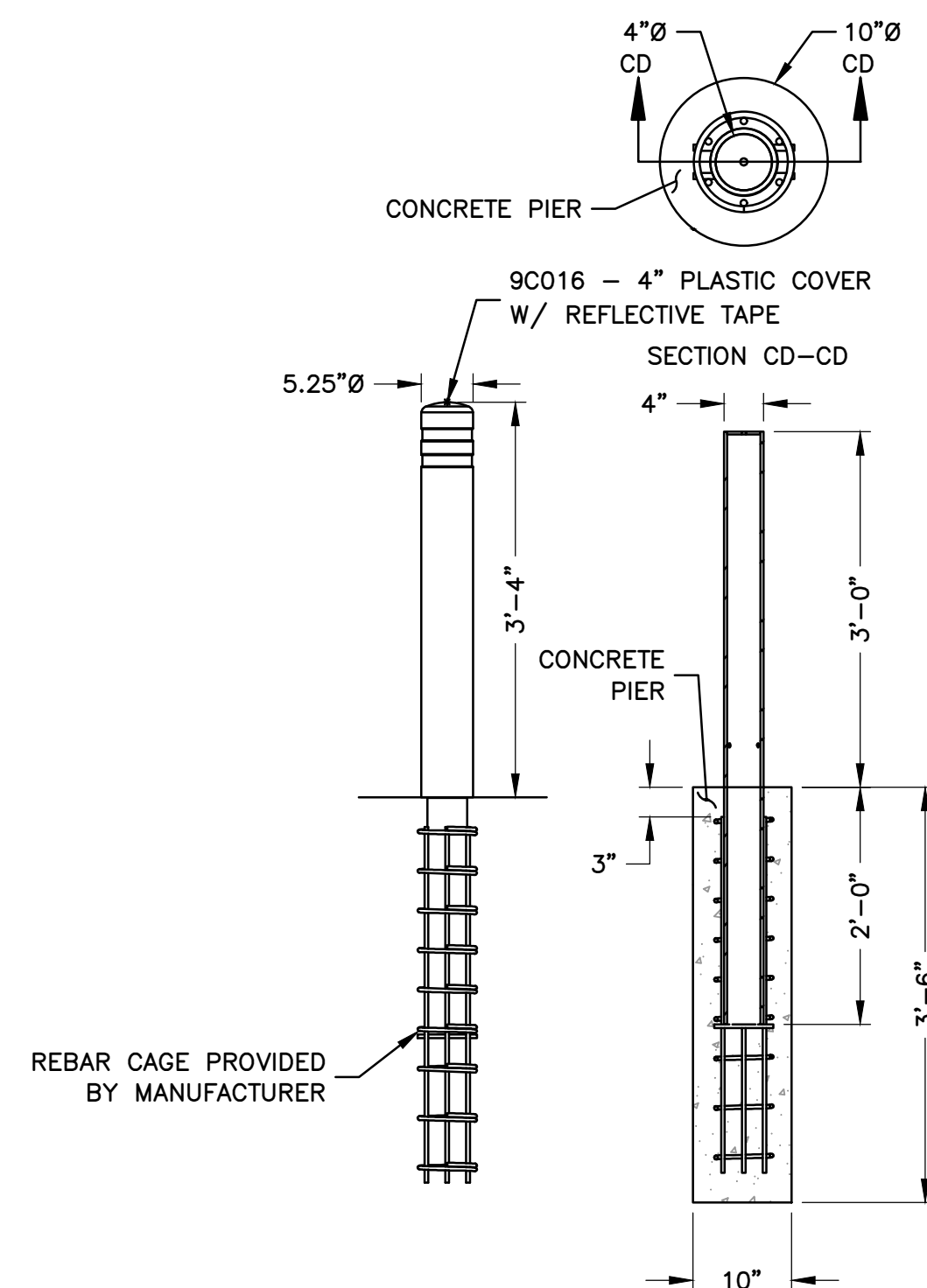
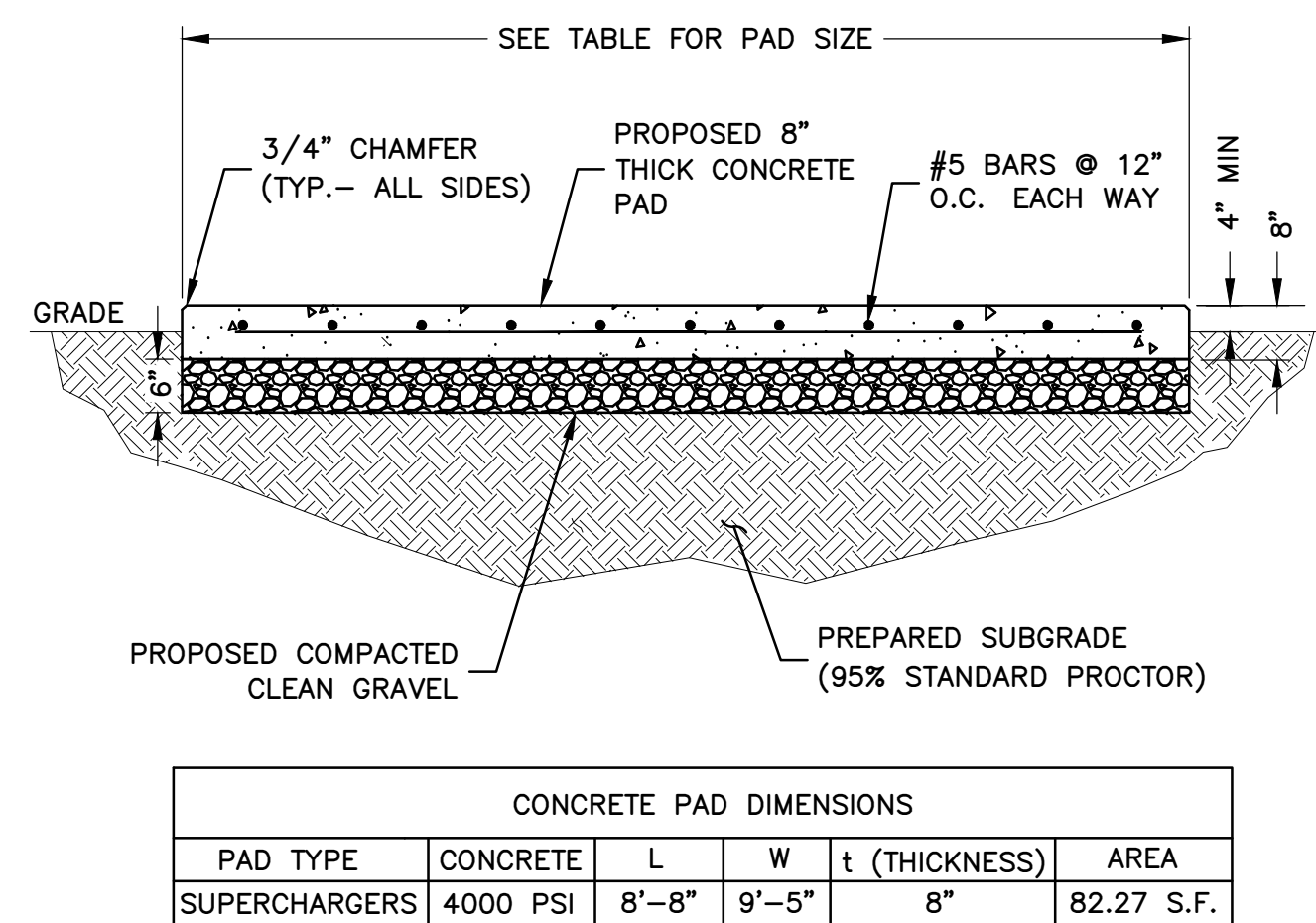
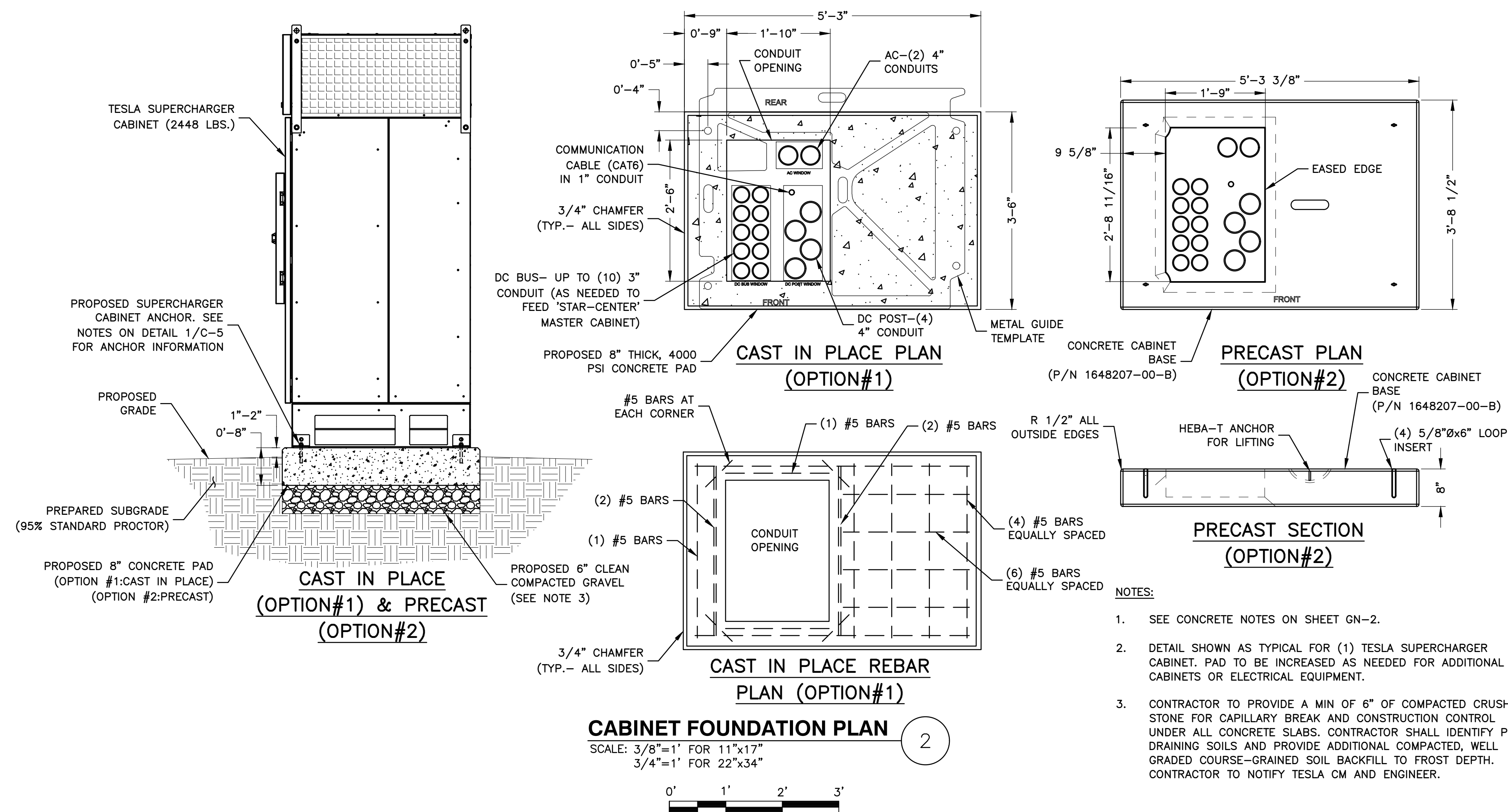
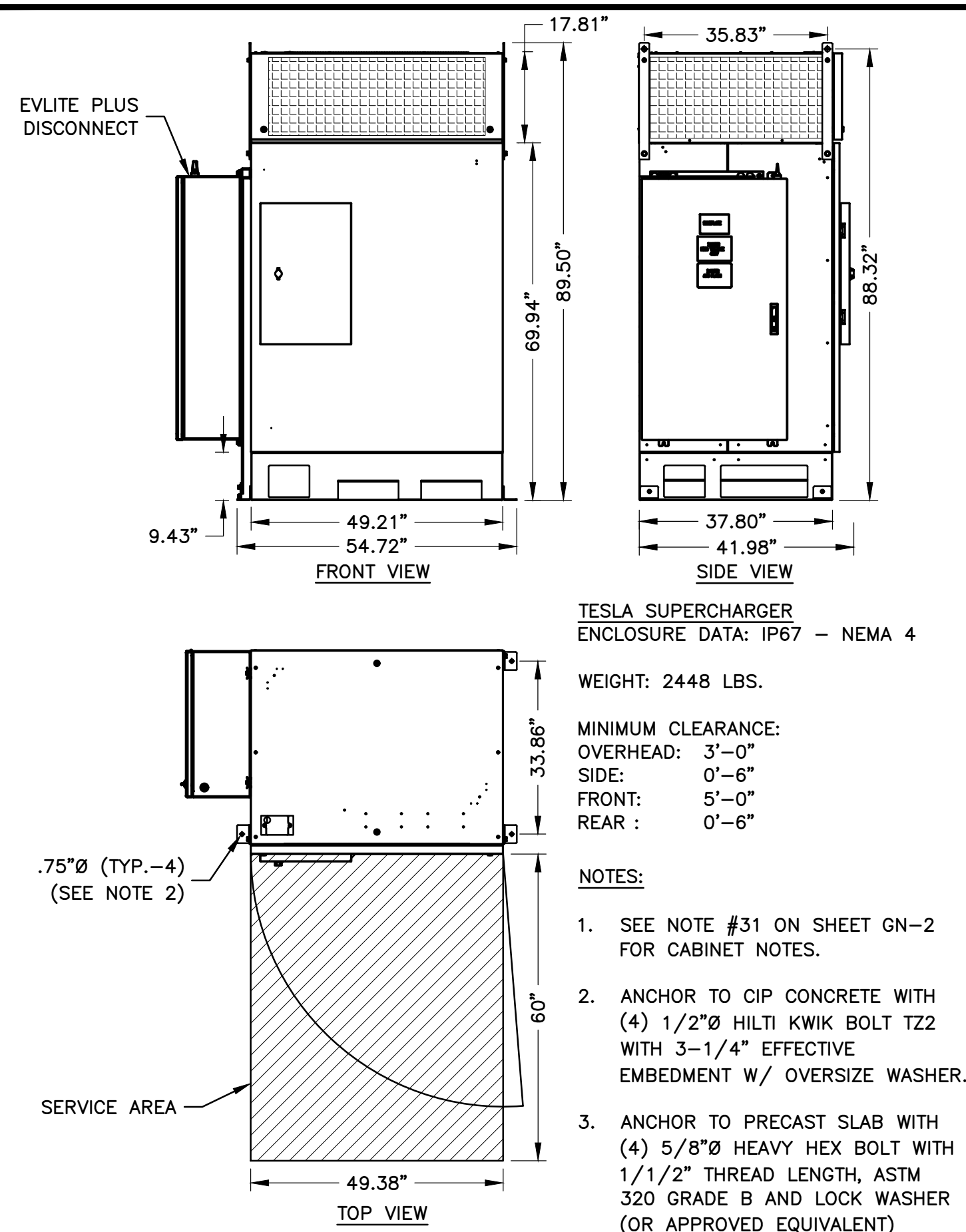
C-5



1

2





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



**Dewberry Engineers Inc.**  
4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2024

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #:	50123704
------------	----------

JOB #: 50159177

## SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

SITE NAME:

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

SITE ADDRESS:

3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

SHEET TITLE

## CONSTRUCTION DETAILS III

SHEET NUMBER

C-6

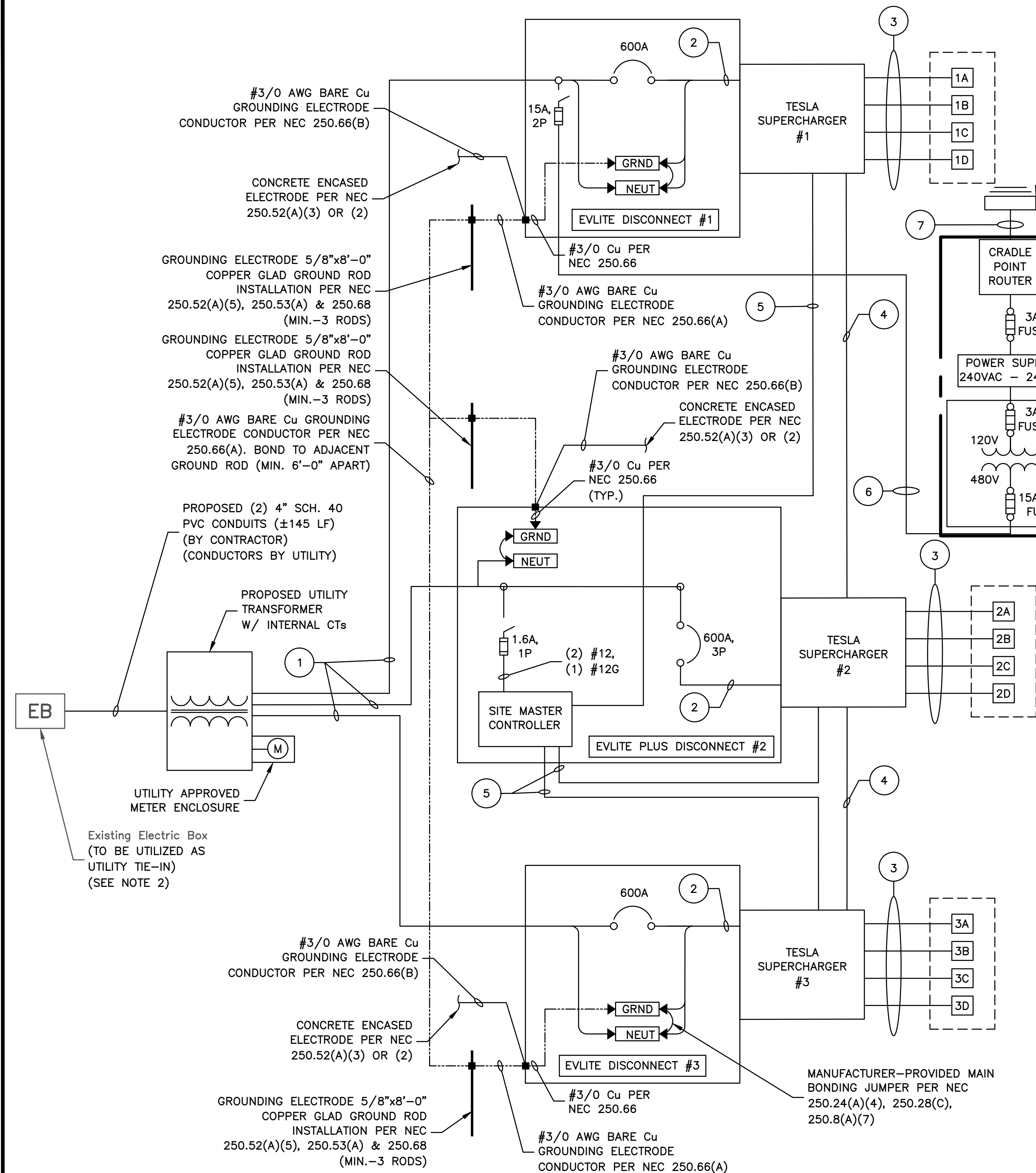




1. THE TRENCH DESIGNS FOR 'AC-CONDUITS' AND 'DC-BUS CONDUITS' ARE THE RESULT OF A THERMAL ANALYSIS OF THE CONDUCTORS UNDER LOAD. FOR PROPER PROTECTION, THEY MUST BE FOLLOWED.
2. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL. IF NOT, PROVIDE CLEAN, COMPACTABLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. CONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
3. ANY PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
4. CONDUIT TO BE INSTALLED TO A MAX COVER OF 24". COVER MAY BE REDUCED PER NEC TABLE 300.5
5. CONDUIT ARE PERMITTED TO HAVE GREATER THAN 24" COVER FOR SHORT DISTANCES WHERE REQUIRED TO CROSS UNDER EXISTING UTILITY LINES, TO ALLOW FOR NEC REQUIRED MIN. RADIUS FOR CONDUIT TURN-UPS INTO PAD-MOUNTED EQUIPMENT, AVOIDING OBSTRUCTIONS, ETC.
6. FOR TRENCHES WITH MIXED CIRCUIT TYPES, APPLY THE CONDUIT SPACING FOR THE CIRCUIT TYPE WITH THE LARGER SPACING REQUIREMENT.
7. 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. MINIMUM 2" OF APPROVED BACKFILL COVERAGE AROUND CONDUITS IS REQUIRED.
8. 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.

SHEET NUMBER  
C-7





SYSTEM ONE-LINE DIAGRAM

SCALE: N.T.S.

SERVICE DISCONNECT 1  
OF 3. DISCONNECT  
LOCATED AT SC #1

PLACE ON EVLITE #1  
SERVICE DISCONNECT

SERVICE DISCONNECT 2  
OF 3. DISCONNECT  
LOCATED AT SC #2

PLACE ON EVLITE #2  
SERVICE DISCONNECT

SERVICE DISCONNECT 3  
OF 3. DISCONNECT  
LOCATED AT SC #3

PLACE ON EVLITE #3  
SERVICE DISCONNECT

TESLA EV SYSTEM  
DISCONNECT

PLACE ON EACH  
SERVICE DISCONNECT

NOTES:

1. PLACARDS TO BE MADE OF RED PHENOLIC PLASTIC W/ 1" WHITE LETTERING. ATTACH PLACARDS USING RIVETS OR SELF-TAPPING SCREWS.

SYSTEM PLACARDS

SCALE: N.T.S.

NOTES:

1. CONDUCTOR LENGTHS ARE ESTIMATES ONLY. FINAL CONDUCTOR ROUTING PATH AND LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD BASED ON PHYSICAL MEASUREMENTS. CONTRACTOR TO ORDER CONDUCTORS BASED ON FIELD MEASUREMENTS (MUST BE APPROVED BY TESLA INSTALLATION MANAGER).
2. ALL ELECTRICAL WORK AND RELATED ACTIVITIES PERFORMED ON-SITE SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) AND UTILITY COMPANY STANDARDS.
3. ALL CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION.
4. DC RUN LENGTH MAXIMUM IS 340' INCLUDING BURIED DEPTH. ANY DC RUN LENGTHS OVER THE MAXIMUM SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF TESLA.
5. UTILITY EQUIPMENT INSTALLATIONS AND PREP WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY ENGINEER AT TIME OF PRE CONSTRUCTION MEETING TO ENSURE ACCURACY OF INSTALLATION.
6. UTILITY CONDUITS, CONNECTORS, TRANSFORMER PAD & TRANSFORMER FOUNDATION TO BE INSTALLED PER UTILITY SPECIFICATION. CONFIRM LATEST SPECIFICATIONS PRIOR TO CONSTRUCTION.
7. SYSTEM GROUNDING RESISTANCE SHALL BE LESS THAN 25Ω PER NEC. ADD ADDITIONAL GROUND RODS AS NEEDED TO SYSTEM UNTIL RESISTANCE IS MET. COORDINATE WITH VENDOR FOR REQUIRED SYSTEM GROUNDING RESISTANCE BEYOND 25Ω.
8. EXISTING UNDERGROUND UTILITIES LOCATED WITHIN AREA OF PROPOSED TRENCH & EQUIPMENT SITE AREA. HAND DIG AND RELOCATE AS REQUIRED. RELOCATION OF ANY EXISTING UTILITIES ON NJTA PROPERTY REQUIRES NJTA APPROVAL.
9. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC SAFETY MEASURES THROUGHOUT DURATION OF CONSTRUCTION. COORDINATE ANY ACCESS ROAD CLOSURES W/OWNER.
10. GROUND-FAULT PROTECTION OF EQUIPMENT SHALL BE PROVIDED FOR SOLIDLY GROUND WYE ELECTRICAL SERVICES OF MORE THAN 150 VOLTS TO GROUND, BUT NOT EXCEEDING 1000 VOLTS PHASE-TO-PHASE FOR EACH SERVICE DISCONNECT RATED 1000 AMPERES OR MORE. REFERENCE 2020 NEC ART 230.95.
11. GFPE TESTING REQUIRED. REFERENCE 2020 NEC 230.95(C).

BREAKER TRIP  
SETTINGS

600A (80%) SUPERCHARGER BREAKER:  
(EATON PDG33G0600TFAN)

LONG TIME PICK UP (I<sub>r</sub>) = FIXED 600A  
INSTANTANEOUS = 5

600A (80%) SUPERCHARGER BREAKER:  
(EATON LGH3600FAG)

LONG TIME PICK UP (I<sub>r</sub>) = FIXED 600A  
INSTANTANEOUS = 10

600A (80%) SUPERCHARGER BREAKER:  
(SQUARE-D LIL36600U31XYP)

LONG TIME PICK UP (I<sub>r</sub>) = FIXED 600A  
INSTANTANEOUS = 9

600A (80%) SUPERCHARGER BREAKER:  
(ABB XT5HU360BFF000XXX)

LONG TIME PICK UP (I<sub>r</sub>) = FIXED 600A  
LONG DELAY TIME (I<sub>tr</sub>) = 0.5  
INSTANTANEOUS = 5

600A (80%) SUPERCHARGER BREAKER:  
(ABB XT5HU360BFF000XXX)

LONG TIME PICK UP (I<sub>r</sub>) = FIXED 600A  
INSTANTANEOUS = MED

NOTE:

1. CONTRACTOR TO CONFIRM BREAKER MODEL AND CORRECT BREAKER SETTINGS AT TIME OF INSTALLATION

UTILITY FAULT CURRENT

TRANSFORMER: 1000kVA

SECONDARY VOLTAGE: 277/480V

SECONDARY FAULT CURRENT: TBD

\* FAULT CURRENT INFORMATION PROVIDED BY  
AUSTIN ENERGY XX/XX/XX.

SERVICE ELECTRICAL CIRCUIT SCHEDULE

NO:	FROM	TO	CONFIGURATION
1	PROPOSED UTILITY TRANSFORMER	PROPOSED SERVICE EQUIPMENT	[2 SETS] (3) 500 MCM AL (THWN-2) & (1) 500 MCM AL (THWN-2) NEUT IN 4" CONDUIT
2	PROPOSED SERVICE EQUIPMENT	PROPOSED TESLA SUPERCHARGER (TYP.-3)	[2 SETS:] (3) 500MCM AL (THWN-2) (1) 500MCM AL (THWN-2) NEUT (1) #1 CU OR 2/0 AL EGC* IN PRE-INSTALLED FACTORY PROVIDED RACEWAY
3A	PROPOSED TESLA SUPERCHARGER (TYP.-3)	PROPOSED TESLA V3 POST*** (TYP.-12)	[1 SET PER CHARGE POST:] (4) 350MCM AL (XHHW-2) (1000V RATED) (1) #1 AWG CU EGC OR (1) #2/0 AL EGC* & SHIELDED 600 V COMM CABLE (PER TESLA) IN 4" PVC/HDPE CONDUIT** ADD 1" CONDUITS FOR COMMS PER DESIGN GUIDE
3B	PROPOSED TESLA SUPERCHARGER (TYP.-3)	PROPOSED TESLA V4 POST*** (TYP.-12)	[1 SET PER CHARGE POST:] (4) 600MCM AL (XHHW-2) (1000V RATED) (1) 2/0 AWG CU EGC (2) #6 CU (1000V RATED) & SHIELDED 1000V COMM CABLE (PER TESLA) IN 4" EMT CONDUIT SEPARATE (1) 1" CONDUIT FOR LVDC/COMMS
4	DC BUS BETWEEN PROPOSED SUPERCHARGERS	DC BUS BETWEEN PROPOSED SUPERCHARGERS	[2 SETS:] (2) 600MCM AL (XHHW-2) (1) 1/0 CU GROUND & (1) 3/0 AWG AL DC MID 1000V RATED IN 3" PVC/HDPE CONDUIT**
5	PROPOSED SERVICE EQUIPMENT	SUPERCHARGER (TYP.)	SHIELDED CAT6+ COMM CABLE (1000V RATED) W/PROPOSED AC FEEDERS IN 4" PVC/HDPE CONDUIT** (SEE FEEDER SCHEDULE #3)
6	PROPOSED SERVICE EQUIPMENT	PROPOSED STEPDOWN ENCLOSURE	[1 SET] (2) #12 AL (THWN-2) (1) #12 AL (THWN-2) GRND IN 3/4" PVC HDPE CONDUIT**
7	PROPOSED CRADLEPOINT ROUTER	PROPOSED CRADLEPOINT WIFI ANTENNA	(1) CAT6 COMM CABLE IN 1/2" PVC/HDPE CONDUIT**

\* MODIFIED PER NEC 250.64(A)(2)

\*\* PER UL 615A AND NEC 253, LISTED HDPE CONDUIT PERMITTED. CONTRACTOR TO CONFIRM USE W/ TESLA CM

\*\*\* INSTALL APPLICABLE WIRING CONFIGURATION CORRESPONDING WITH CHARGE POST TYPE INSTALLED.

NOTE: THE DC BUS SHALL BE CONFIGURED IN A RADIAL FASHION WHERE ALL CONDUCTORS ROUTE FROM EACH 'TYPICAL' SUPERCHARGER CABINET, TO THE ONE, 'STAR CENTER' SUPERCHARGER CABINET.

UTILITY S.O.W. RESPONSIBILITIES

SCOPE OF WORK	BY UTILITY	BY CONTRACTOR
PROVIDE PRIMARY SIDE TRENCHING		X
PROVIDE & INSTALL PRIMARY SIDE CONDUITS W/PULLWIRE		X
PROVIDE & INSTALL PRIMARY SIDE CONDUCTORS	X	
PROVIDE & INSTALL UTILITY TRANSFORMER PAD		X
PROVIDE UTILITY TRANSFORMER	X	
INSTALL UTILITY TRANSFORMER	X	
INSTALL CONNECTIONS & UTILITY TRANSFORMER (PRIMARY)	X	
INSTALL CONNECTIONS & UTILITY TRANSFORMER (SECONDARY)	X	
PROVIDE METER PEDESTAL		X
INSTALL METER PEDESTAL		X
PROVIDE METER BASE		X
INSTALL METER BASE		X
PROVIDE METER	X	
INSTALL METER	X	
PROVIDE CTs	X	
INSTALL CTs (INSIDE TRANSFORMER)	X	
PROVIDE SECONDARY SIDE TRENCHING		X
PROVIDE & INSTALL SECONDARY SIDE CONDUITS W/PULLWIRE		X
PROVIDE & INSTALL SECONDARY SIDE CONDUCTORS		X
PROVIDE ROAD CUTS/ROAD BORES		X
PROVIDE & INSTALL PAVEMENT REPLACEMENT		X

NOTE: SCOPE SHOWN ABOVE WAS PROVIDED BY AUSTIN ENERGY. FIELD VERIFY PRIOR TO CONSTRUCTION.



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



Dewberry Engineers Inc.

4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



JOSEPH GIGANTIELLO

TX P.E. LICENSE 115108  
EXP. 06/30/2023

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159177

SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

SITE NAME:

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

SITE ADDRESS:

3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

SHEET TITLE

ELECTRICAL ONE-LINE  
DIAGRAM

SHEET NUMBER

E-1



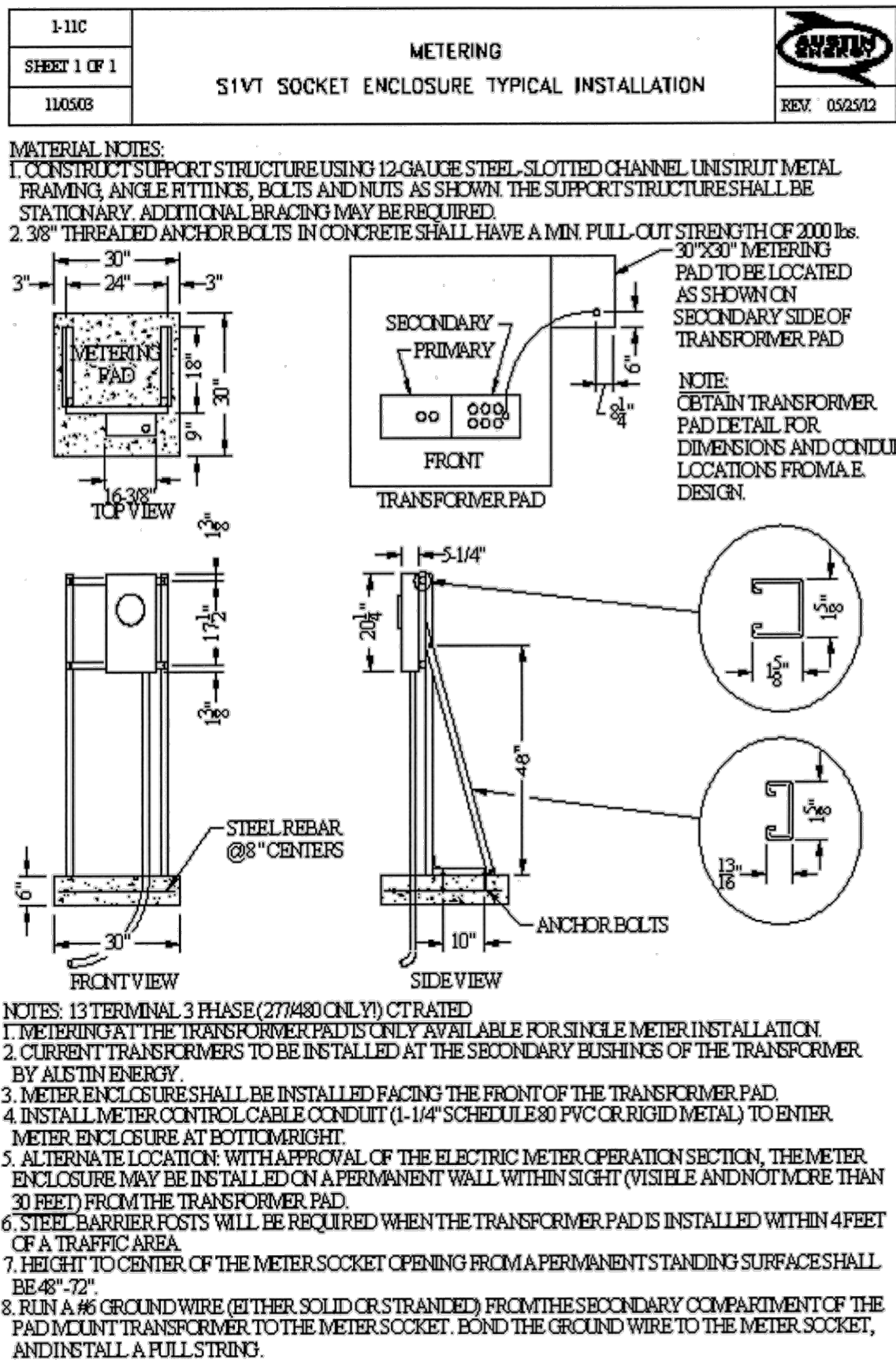
SECONDARY SERVICE LENGTH		
	LINEAR LENGTH	ESTIMATED LENGTH*
TRANSFORMER TO 600A DISCONNECT #1	12'	37'
TOTAL LENGTH OF AL WIRE**:		148'
NUMBER OF WIRE FILLED CONDUITS:		2
TRANSFORMER TO 600A DISCONNECT #2	16'	41'
TOTAL LENGTH OF AL WIRE**:		164'
NUMBER OF WIRE FILLED CONDUITS:		2
TRANSFORMER TO 600A DISCONNECT #3	20'	45'
TOTAL LENGTH OF AL WIRE**:		180'
NUMBER OF WIRE FILLED CONDUITS:		2
TOTAL LENGTH OF AC AL WIRE *****:		984'

\*\*\* LENGTH OF AL WIRE PER DISCONNECT = ESTIMATED  
TOTAL LENGTH OF AL WIRE X # WIRE SETS

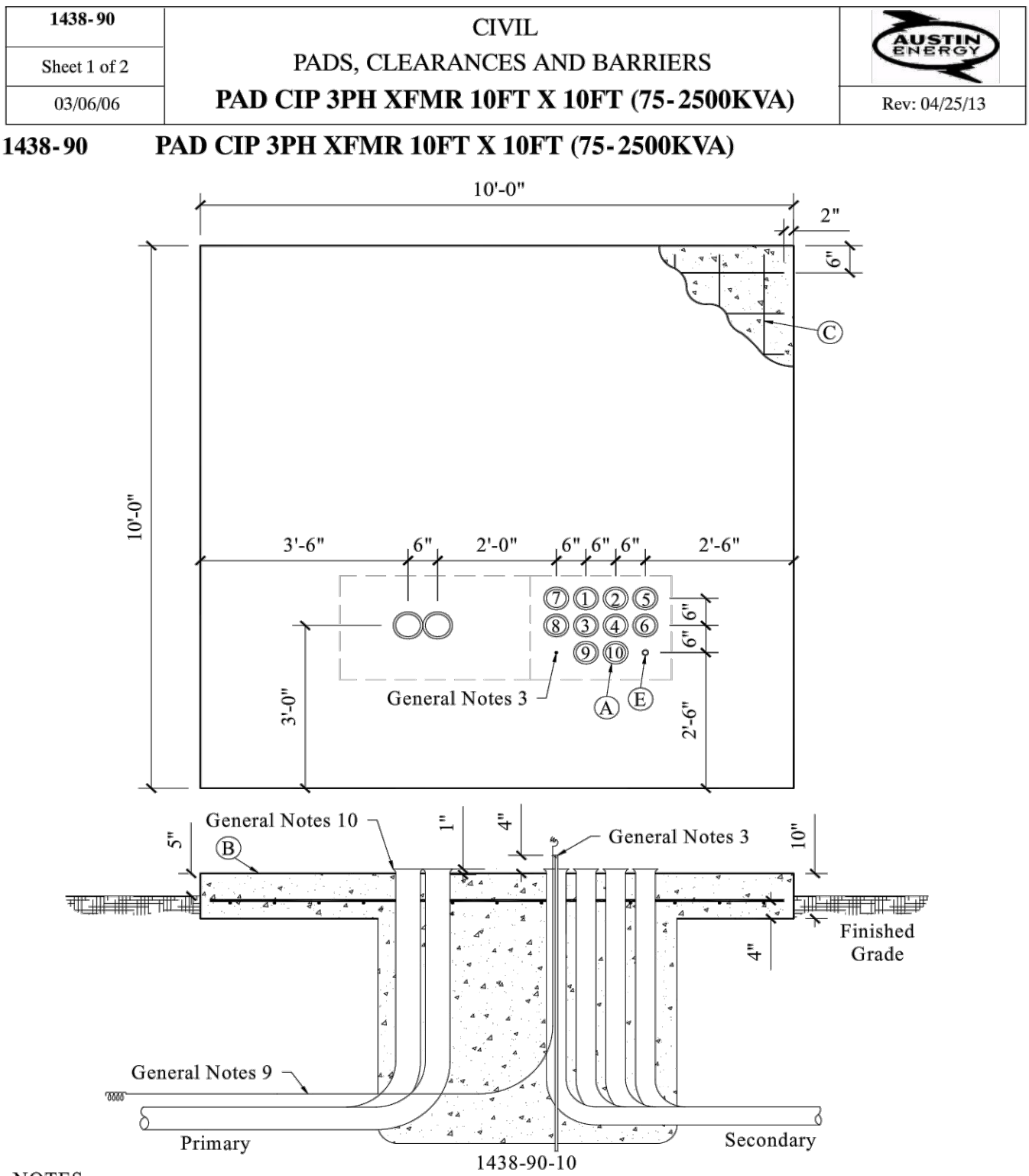
DC CHARGING POST LENGTHS			
SUPERCHARGER	CHARGE POST	LINEAR LENGTH	ESTIMATED DC WIRE LENGTH*
1	1A	138'	160'
	1B	127'	149'
	1C	107'	129'
	1D	97'	119'
2	2A	93'	115'
	2B	118'	140'
	2C	128'	150'
	2D	138'	160'
3	3A	151'	173'
	3B	33'	55'
	3C	38'	60'
	3D	46'	68'
CONDUIT LENGTH:			1478'
TOTAL CONDUCTOR LENGTH**:			5912'
TOTAL LENGTH OF #2/0 AWG GND & COMM CABLE**:			1478'

\*\* ESTIMATED LENGTH OF DC WIRE = SUM OF ESTIMATED LENGTH X 4 WIRES PER  
SUPERCHARGER

# CONDUCTOR LENGTH TABLES



Page 3



A. FOR ALL 3 PHASE TRANSFORMER SIZES, A MAXIMUM OF 10 CONDUITS AND 10 SETS OF CABLE PER PHASE, AS SPECIFIED BY AE DISTRIBUTION DESIGN, CAN BE INSTALLED IN THE ARRANGEMENT AND NUMERICAL ORDER AS SHOWN.

B. TOP OF SLAB 5" ABOVE FINISHED GRADE.

C. 1/2 IN. GRADE 60 REINFORCED STEEL RODS 9" ON CENTER.

D. REFER TO GENERAL NOTES ON SECTION 1438-55 FOR DETAILS ON TRANSFORMER CONCRETE PAD CONSTRUCTION.

E. WHEN METERING AT THE TRANSFORMER, A 1.25" CONDUIT SHALL BE INSTALLED.

© CITY OF AUSTIN DBA AUSTIN ENERGY 2002  
THIS DOCUMENT, WHEN PRINTED IS UNCONTROLLED AND FOR REFERENCE PURPOSES ONLY.



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



4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



JOSEPH GIGANTIELLO  
TX P.E. LICENSE 115108  
EXP. 06/30/2023

DRAWN BY: TK

CHECKED BY: DSW

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159177

## SUBMITTALS

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

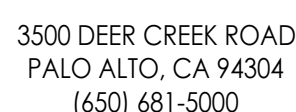
DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

3134 1/2 E SH 71 SVRD EB  
DEL VALLE, TX 78617

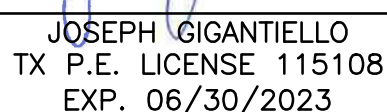
## CONDUCTOR LENGTH TABLES & DETAILS

E-2





**Dewberry Engineers Inc.**  
4835 LBJ FREEWAY  
SUITE 475  
DALLAS, TX 75244  
TX FIRM #: F-6548  
PHONE: 469.232.5200



JOB #: 5015917

REV.	DATE	DESCRIPTION
0	04/18/23	ISSUED AS FINAL
A	04/06/23	ISSUED FOR 90% REVIEW

DEL VALLE, TX  
STATE HWY 71  
(TRT: 45392)  
JB-7864268-00

G-1



SCALE: N.T.S.



SCALE: N.T.S.



1. REBAR BONDED TOGETHER WITH STEEL TIE WIRES.

## SCALE: N.T.S.

2