

# TESLA



## BUC-EE'S #37 FORT WORTH, TX - N FWY

**SITE ADDRESS:  
3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177  
TRT ID: 20483**



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. 03/31/2023

**SITE INFORMATION**

**PROPOSED TESLA EV SITE ADDRESS:**  
3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177

**PROPERTY OWNER:**  
BUC-EE'S, LTD

**PARCEL ID:**  
APN: 660602

**POWER COMPANY:**  
COSERV  
CONTACT: JARROD QUALLS  
jqalls@coserv.com  
WORK ORDER #: TBD

**COUNTY:**  
DENTON, TX

**LATITUDE\*:**  
33° 1' 23.05" N

**LONGITUDE\*:**  
97° 16' 43.90" W  
\*BASED ON GOOGLE EARTH

**CONTACT PROJECT MANAGER:**  
BRIAN GUTHRIDGE  
DEWBERRY ENGINEERS INC.  
(973) 434-1355  
bguthridge@dewberry.com

**TDLR REFERENCE:**  
TDLR#: TBD

**APPLICABLE CODES**

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

CITY OF FORT WORTH BUILDING & ENERGY CODES, CONSISTENT WITH THE FOLLOWING CODES:

2021 INTERNATIONAL BUILDING CODE  
2015 INTERNATIONAL ENERGY CONSERVATION CODE  
2020 NATIONAL ELECTRIC CODE (NEC)

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

**PROJECT DESCRIPTION**

- INSTALL (5) TESLA PRE-ASSEMBLED SUPERCHARGER UNITS (PSU) EACH W/ (1) SUPERCHARGER CABINET, (1) 600A SERVICE DISCONNECT, & (4) CHARGE POSTS
- INSTALL (1) UTILITY TRANSFORMER FOUNDATION

**ZONING INFORMATION**

JURISDICTION: CITY OF FORT WORTH, TX

APN: 660602

LOT: 1

BLOCK: 5

**DRAWING INDEX**

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E-2	ELECTRICAL & UTILITY DETAILS
G-1	GROUNDING PLAN, SCHEMATIC & DETAILS

**DRAWN BY:** FG/RR

**CHECKED BY:** BTG

**APPROVED BY:** MCS

**PROJECT #:** 50123704

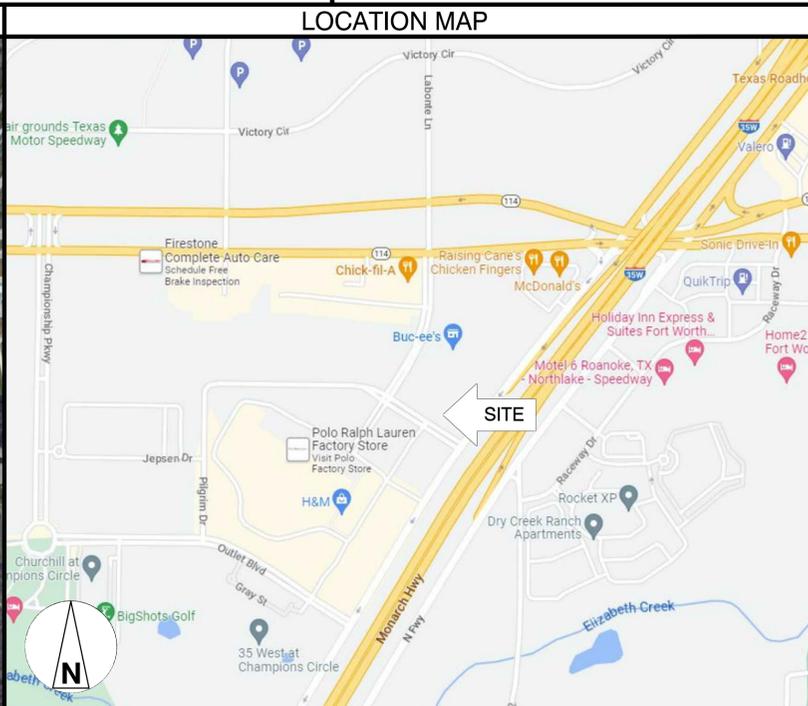
**JOB #:** 50159139

**SUBMITTALS**

REV.	DATE	DESCRIPTION
0	03/20/23	ISSUED FOR PERMITS
B	02/27/23	REVISED PER COMMENT
A	02/08/23	ISSUED FOR 90% REVIEW

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**BEFORE SCALING**

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE TESLA REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**CALL BEFORE YOU DIG**



**CONTRACTOR NOTE**

CONTRACTOR SHALL COMPLETE INSTALL PER THE SIGNED AND SEALED SET OF DRAWINGS. ANY NECESSARY DEVIATIONS FROM THE DRAWINGS MUST BE SUBMITTED THROUGH AN RFI REQUEST PROCESS WITH ENGINEERING FOR AN APPROVAL PRIOR TO CONTRACTOR PROCEEDING WITH A DEVIATION OF THE SIGNED AND SEALED SET OF DRAWINGS.

**SHEET TITLE**  
TITLE SHEET

**SHEET NUMBER**  
T-1



**ELECTRICAL NOTES:**

- 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.
- 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.
- 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:
  - UL – UNDERWRITERS LABORATORIES
  - NEC – NATIONAL ELECTRICAL CODE
  - NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
  - OSHA – OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
  - SBC – STANDARD BUILDING CODE
  - NFPA – NATIONAL FIRE PROTECTION ASSOCIATION
- 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.
- EXISTING SERVICES: THE GENERAL CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE PROJECT HOST.
- 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.
- 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.
- 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.
- CONDUCTORS: THE CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER OR ALUMINUM WITH TYPE (THWN-2) INSULATION, 600 VOLT, COLOR CODED UNLESS SPECIFIED DIFFERENTLY ON DRAWINGS.
- ALL (THWN-2) WIRING INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- 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. SUB-CONTRACTOR IS TO PROVIDE ALL ELECTRICAL EQUIPMENT UNLESS OTHERWISE DIRECTED.
- 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.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- 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.
- 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.
- 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.
- GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURES 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 CONTRACTOR(S) RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE CONSTRUCTION MANAGER UPON FINAL ACCEPTANCE.
- THE SUBCONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES.
- 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 "NOALOX" BY IDEAL INDUSTRIAL INC. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED ALUMINUM & COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED – NO SUBSTITUTIONS.
- 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 'BRITZ ZINC' OR 'GOLD GALV'.

- SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.
- 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.
- 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".
- WHEN DIRECTIONAL BORING IS REQUIRED, SUB-CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.
- ALL BOLTS SHALL BE STAINLESS STEEL.
- ALL MATERIALS AND EQUIPMENT SUPPLIED AND INSTALLED BY THE SUBCONTRACTOR SHOULD BE NEW AND UNUSED.
- 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:**

- 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".
- 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.
- 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.
- MAXIMUM AGGREGATE SIZE SHALL BE 3/4".
- 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
- REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH "DETAILING MANUAL-2004 PUBLICATION SP-66" AND "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI-318-08.
- 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.
- 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. #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. BEAMS AND COLUMNS 1-1/2 IN.
- A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- 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.
- CURING COMPOUNDS SHALL CONFORM TO ASTM C-309.
- ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI-301.
- DO NOT WELD OR TACKWELD REINFORCING STEEL.
- 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.
- LOCATE ADDITIONAL EXPANSION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT.
- REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
- 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.
- DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
- DO NOT ALLOW CONCRETE SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 14 DAYS AFTER PLACEMENT.
- 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.
- 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.
- PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING.

**HORIZONTAL DIRECT DRILLING NOTES:**

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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:**

- 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.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- 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.
- 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).
- 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.
- THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- 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.
- 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.
- 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.



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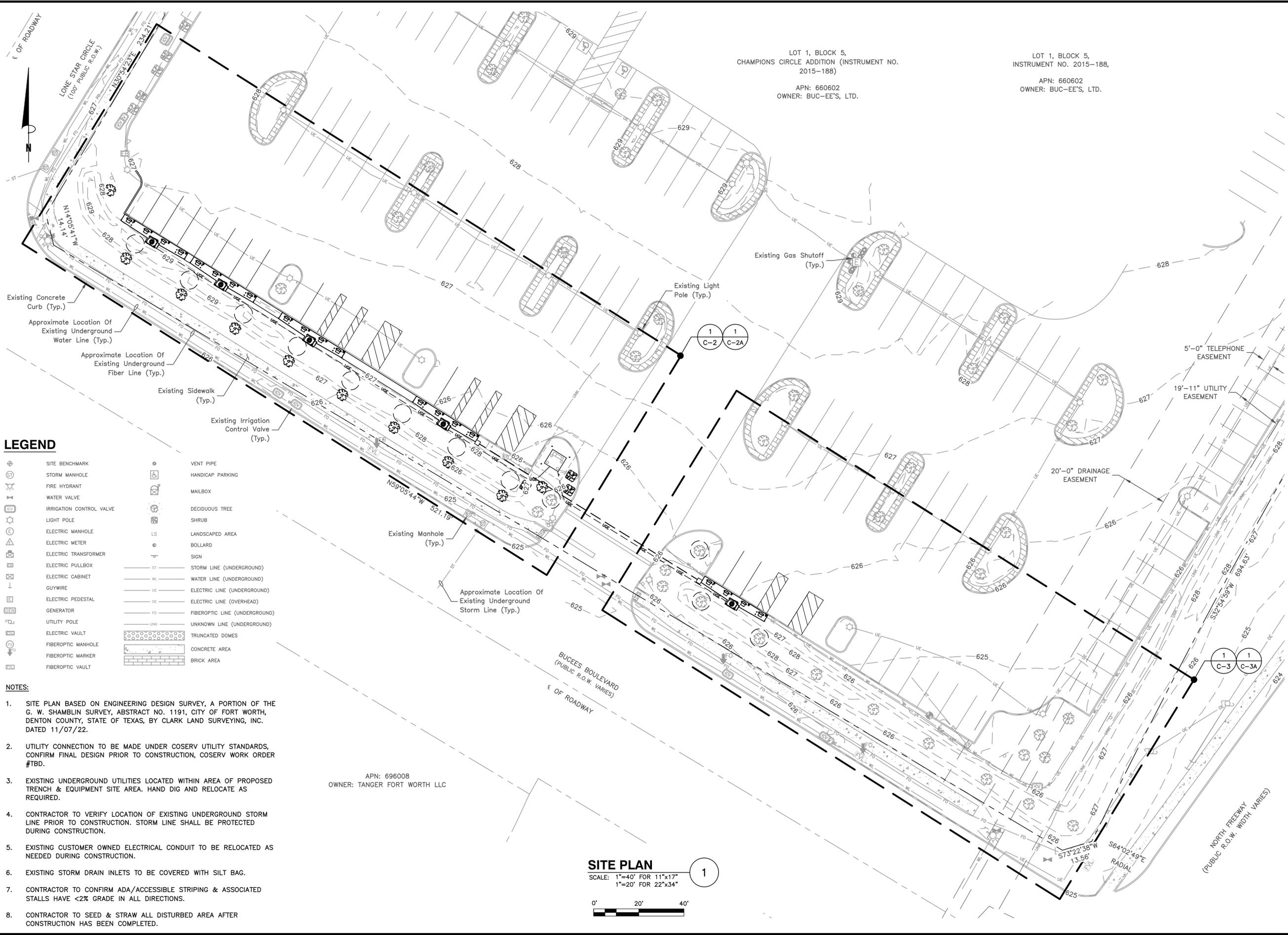
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SHEET TITLE  
**GENERAL NOTES II**

SHEET NUMBER  
**GN-2**



LOT 1, BLOCK 5,  
CHAMPIONS CIRCLE ADDITION (INSTRUMENT NO.  
2015-188)  
APN: 660602  
OWNER: BUC-EE'S, LTD.

LOT 1, BLOCK 5,  
INSTRUMENT NO. 2015-188,  
APN: 660602  
OWNER: BUC-EE'S, LTD.

APN: 696008  
OWNER: TANGER FORT WORTH LLC

**SITE PLAN**  
SCALE: 1"=40' FOR 11"x17"  
1"=20' FOR 22"x34"  
0' 20' 40'



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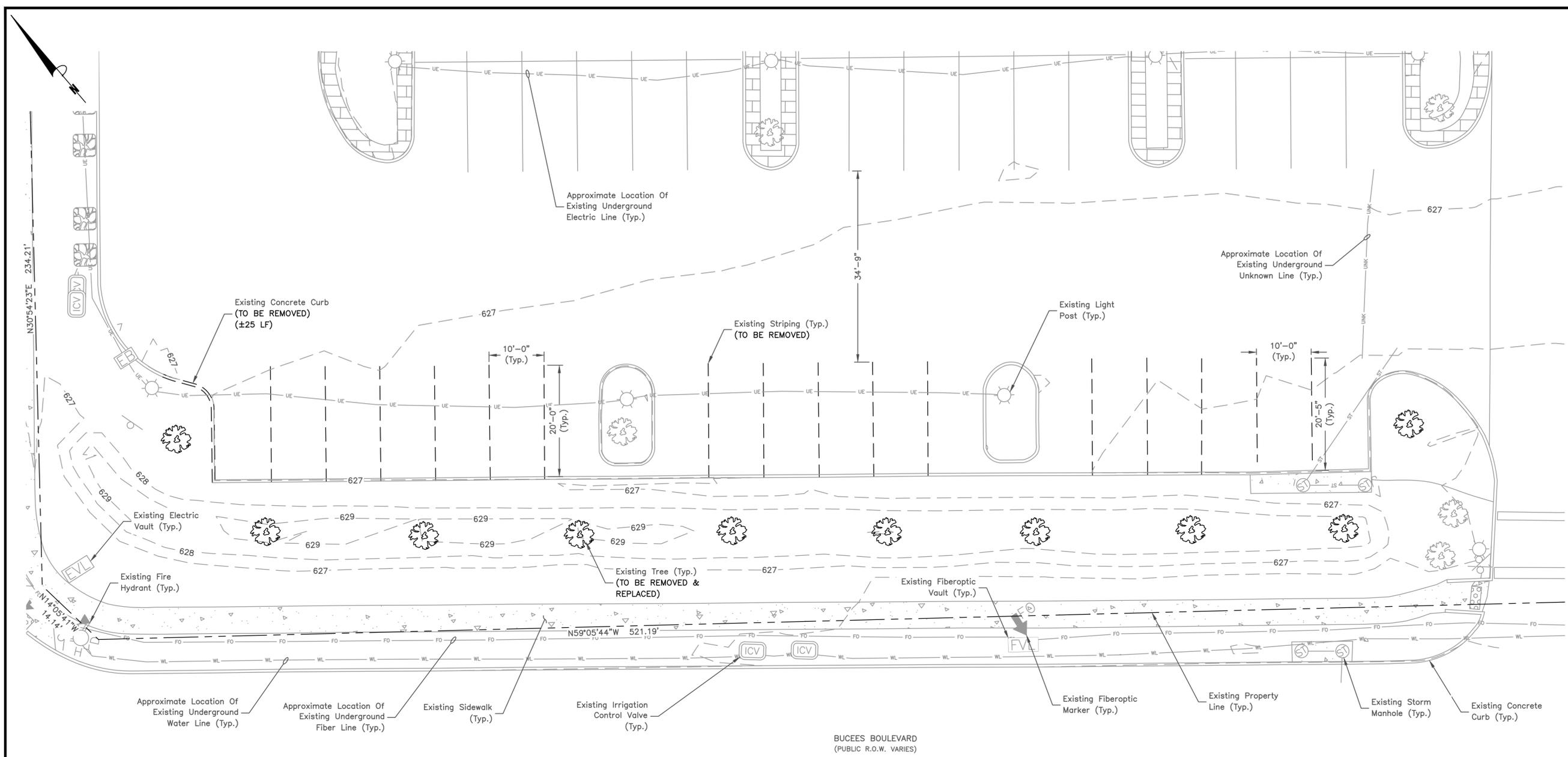
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FORT WORTH, TX 76177

SHEET TITLE  
SITE PLAN

SHEET NUMBER  
C-1

- LEGEND**
- ⊕ SITE BENCHMARK
  - ⊕ STORM MANHOLE
  - ⊕ FIRE HYDRANT
  - ⊕ WATER VALVE
  - ⊕ IRRIGATION CONTROL VALVE
  - ⊕ LIGHT POLE
  - ⊕ ELECTRIC MANHOLE
  - ⊕ ELECTRIC METER
  - ⊕ ELECTRIC TRANSFORMER
  - ⊕ ELECTRIC PULLBOX
  - ⊕ ELECTRIC CABINET
  - ⊕ GUYWIRE
  - ⊕ ELECTRIC PEDESTAL
  - ⊕ GENERATOR
  - ⊕ UTILITY POLE
  - ⊕ ELECTRIC VAULT
  - ⊕ FIBEROPTIC MANHOLE
  - ⊕ FIBEROPTIC MARKER
  - ⊕ FIBEROPTIC VAULT
  - ⊕ VENT PIPE
  - ⊕ HANDICAP PARKING
  - ⊕ MAILBOX
  - ⊕ DECIDUOUS TREE
  - ⊕ SHRUB
  - ⊕ LS LANDSCAPED AREA
  - ⊕ BOLLARD
  - ⊕ SIGN
  - ST STORM LINE (UNDERGROUND)
  - WL WATER LINE (UNDERGROUND)
  - UE ELECTRIC LINE (UNDERGROUND)
  - OE ELECTRIC LINE (OVERHEAD)
  - FO FIBEROPTIC LINE (UNDERGROUND)
  - UNK UNKNOWN LINE (UNDERGROUND)
  - ⊕ TRUNCATED DOMES
  - ⊕ CONCRETE AREA
  - ⊕ BRICK AREA

- NOTES:**
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- NOTES:**
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**EQUIPMENT & PARKING PLAN I**

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



1

**TESLA**

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

**Dewberry**

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

STATE OF TEXAS  
MATTHEW C. SELKIRK  
138076  
LICENSED PROFESSIONAL ENGINEER  
03/21/23

MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2023

DRAWN BY:	FG/RR
CHECKED BY:	BTG
APPROVED BY:	MCS
PROJECT #:	50123704
JOB #:	50159139

**SUBMITTALS**

REV.	DATE	DESCRIPTION
O	03/20/23	ISSUED FOR PERMITS
B	02/27/23	REVISED PER COMMENT
A	02/08/23	ISSUED FOR 90% REVIEW

SITE NAME:  
BUC-EE'S #37  
FORT WORTH, TX  
TRT ID: 20483

SITE ADDRESS:  
3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177

SHEET TITLE  
**EXISTING  
CONDITIONS PLAN I**

SHEET NUMBER  
**C-2**



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



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MATTHEW C. SELKIRK  
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EXP. 03/31/2023

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FORT WORTH, TX  
TRT ID: 20483

**SITE ADDRESS:**

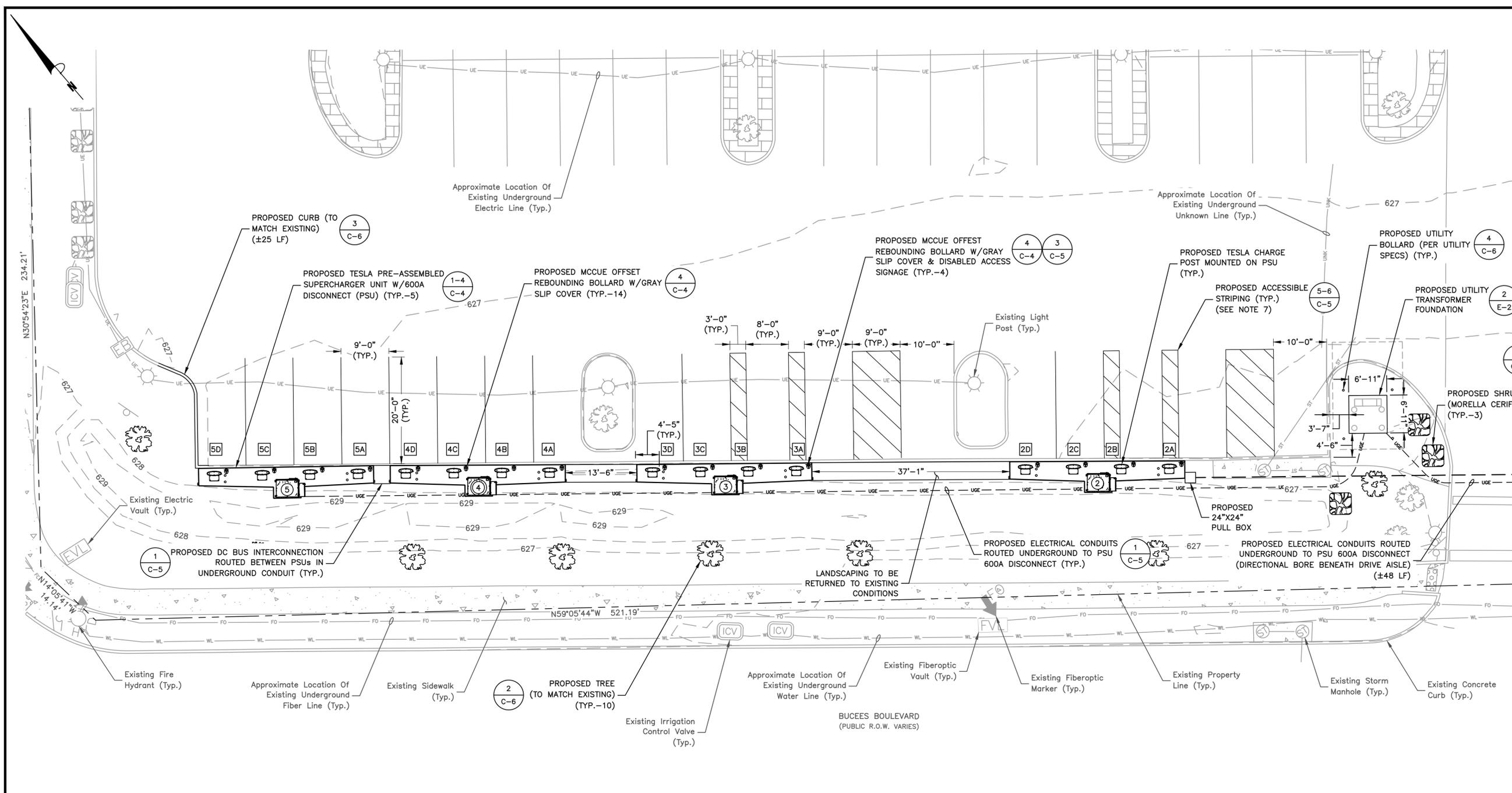
3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177

**SHEET TITLE**

**EQUIPMENT  
& PARKING PLAN I**

**SHEET NUMBER**

**C-2A**



**EQUIPMENT & PARKING PLAN I**

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**PROPOSED STALL SCHEDULE**

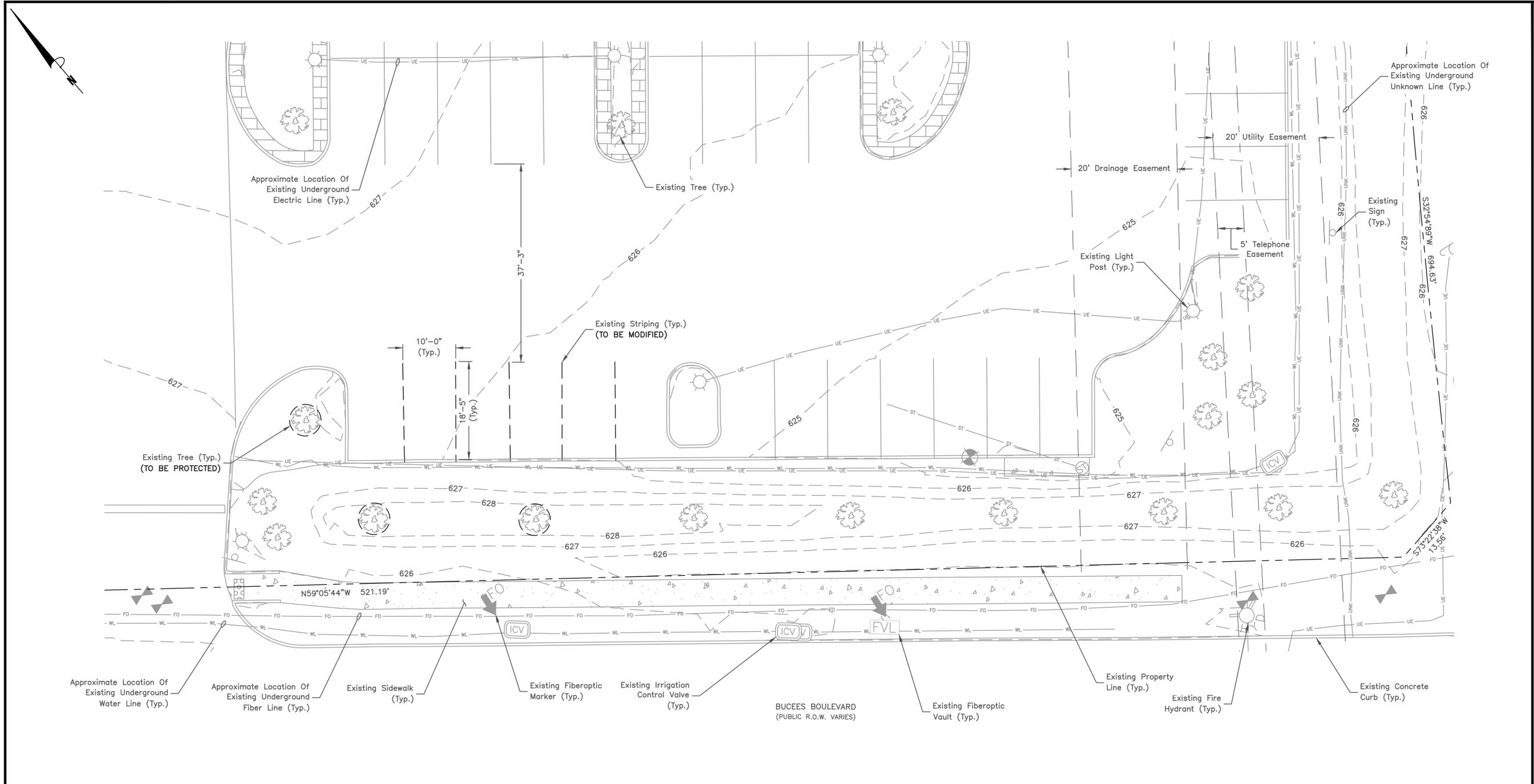
DESCRIPTION	QUANTITY
PROPOSED TESLA STALLS	20

**TOTAL STALL SCHEDULE**

DESCRIPTION	QUANTITY
EXISTING STALL COUNT	32
PROPOSED STALL COUNT	30
NET STALL CHANGE	-2

**EQUIPMENT LEGEND**

Ⓝ	TESLA 'STAR-POINT' PSU #
Ⓢ	TESLA 'STAR-CENTER' PSU #
ⓂA	TESLA CHARGE POST



- NOTES:**
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**EXISTING CONDITIONS PLAN II**  
 SCALE: 1"=20' FOR 11"x17"  
 1"=10' FOR 22"x34"



1

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 PALO ALTO, CA 94304  
 (650) 681-5000

**Dewberry**

Dewberry Engineers Inc.  
 4835 LBJ FREEWAY  
 SUITE 475  
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STATE OF TEXAS  
 MATTHEW C. SELKIRK  
 138076  
 LICENSED PROFESSIONAL ENGINEER  
 03/21/23

MATTHEW C. SELKIRK  
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 EXP. 03/31/2023

DRAWN BY:	FG/RR
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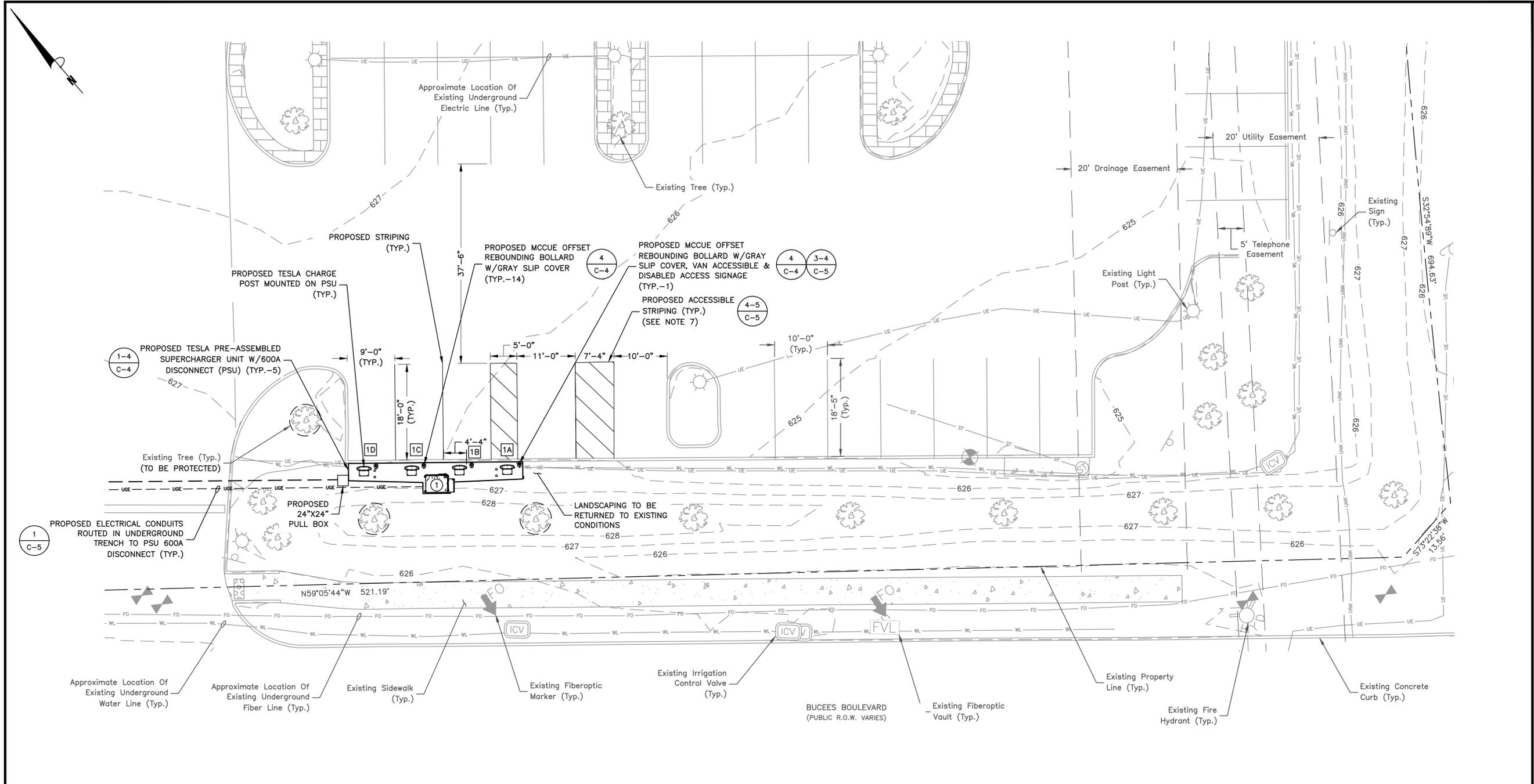
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 TRT ID: 20483

SITE ADDRESS:  
 3798 BUCEES BOULEVARD  
 FORT WORTH, TX 76177

SHEET TITLE  
**EXISTING  
 CONDITIONS PLAN II**

SHEET NUMBER  
**C-3**



- NOTES:**
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**EQUIPMENT & PARKING PLAN II**  
 SCALE: 1"=20' FOR 11"x17"  
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PROPOSED STALL SCHEDULE	
DESCRIPTION	QUANTITY
PROPOSED TESLA STALLS	20
TOTAL STALL SCHEDULE	
DESCRIPTION	QUANTITY
EXISTING STALL COUNT	32
PROPOSED STALL COUNT	29
NET STALL CHANGE	-3

EQUIPMENT LEGEND	
⊙	TESLA 'STAR-POINT' PSU #
⊕	TESLA 'STAR-CENTER' PSU #
⊠	TESLA CHARGE POST

**TESLA**

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 PALO ALTO, CA 94304  
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STATE OF TEXAS  
 MATTHEW C. SELKIRK  
 138076  
 LICENSED PROFESSIONAL ENGINEER  
 03/21/23

MATTHEW C. SELKIRK  
 TX P.E. LICENSE 138076  
 EXP. 03/31/2023

DRAWN BY:	FG/RR
CHECKED BY:	BTG
APPROVED BY:	MCS
PROJECT #:	50123704
JOB #:	50159139

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SHEET TITLE  
**EQUIPMENT & PARKING PLAN II**

SHEET NUMBER  
**C-3A**



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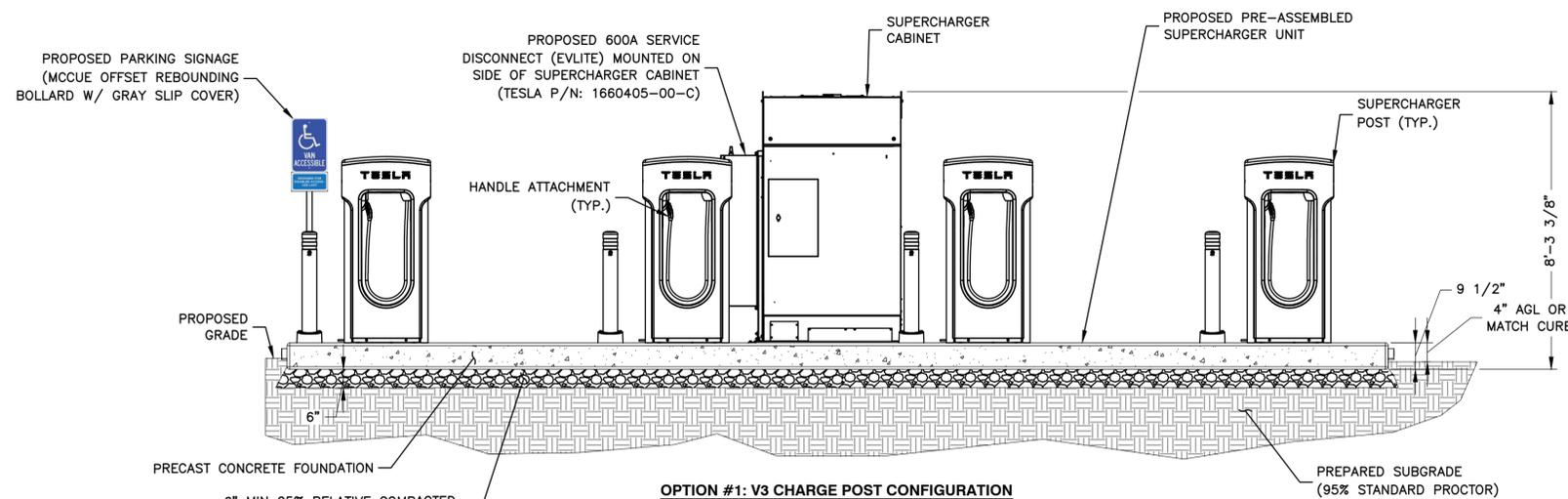
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FORT WORTH, TX  
TRT ID: 20483

SITE ADDRESS:  
3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177

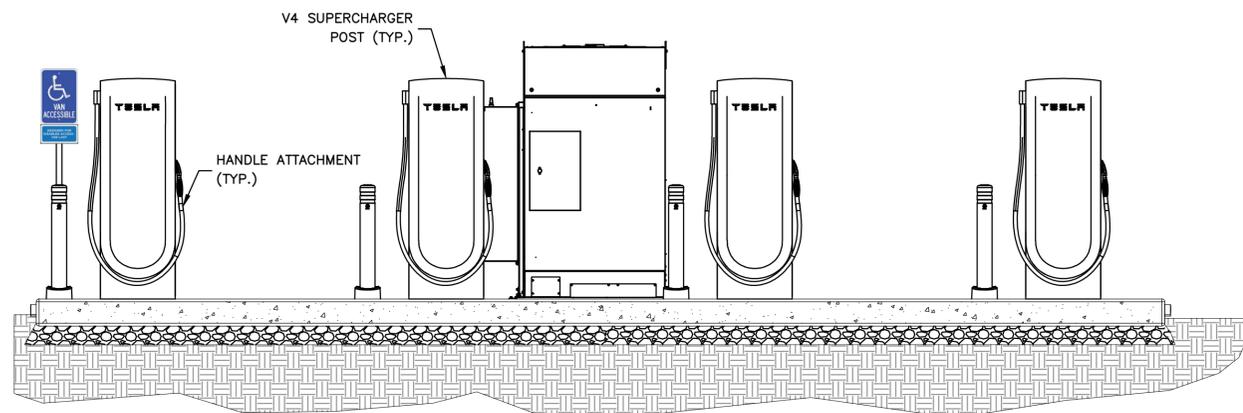
SHEET TITLE  
CONSTRUCTION  
DETAILS I

SHEET NUMBER

C-4



6" MIN 95% RELATIVE COMPACTED CLASS 2 AGGREGATE BASE. THE PRECAST SHALL MAINTAIN A CROSS SLOPE OF 1-2% AND A LONGITUDINAL SLOPE OF 0-3%

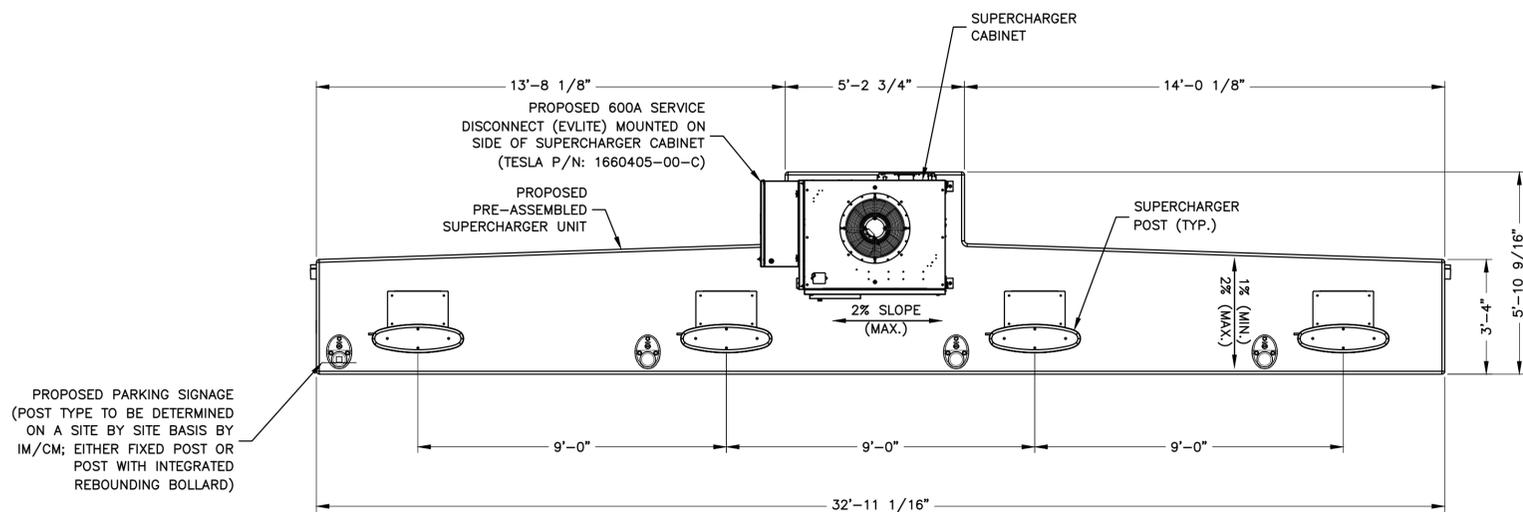


NOTE: 1. FINAL CHARGE POST CONFIGURATION SELECTION DETERMINED BY TESLA DESIGN MANAGER BASED ON AVAILABILITY AT TIME OF CONSTRUCTION.

**PSU ELEVATIONS**

SCALE: N.T.S.

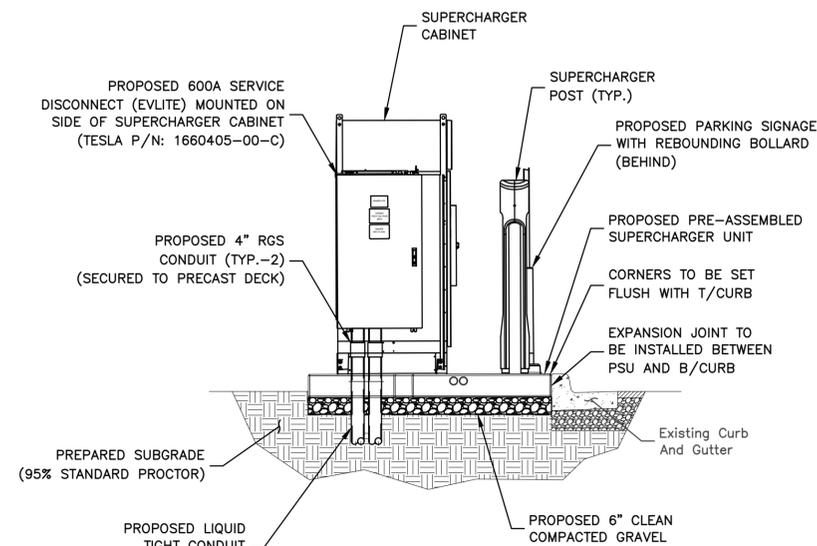
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**PSU PLAN VIEW**

SCALE: N.T.S.

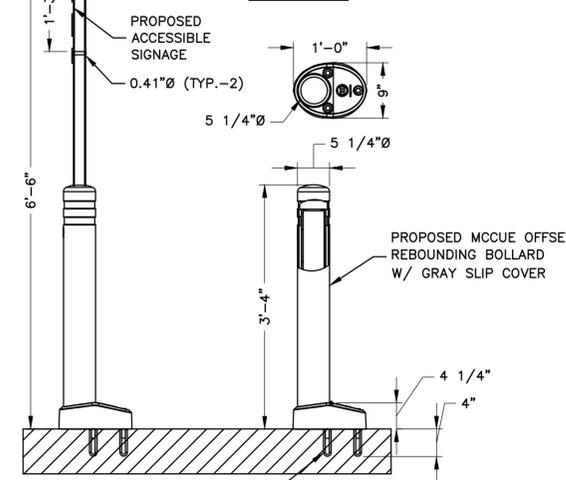
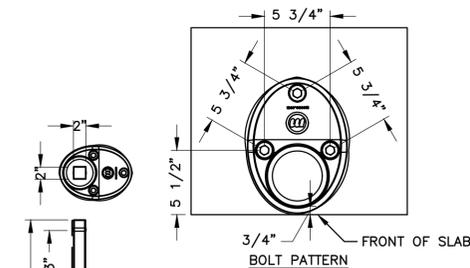
3



**PSU SIDE VIEW**

SCALE: N.T.S.

2



**McCUE REBOUNING BOLLARD & SIGN**

SCALE: N.T.S.

4



3500 DEER CREEK ROAD  
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DALLAS, TX 75244  
TX FIRM #: F-6548  
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MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2023

DRAWN BY: FG/RR

CHECKED BY: BTG

APPROVED BY: MCS

PROJECT #: 50123704

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FORT WORTH, TX  
TRT ID: 20483

**SITE ADDRESS:**

3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177

**SHEET TITLE**

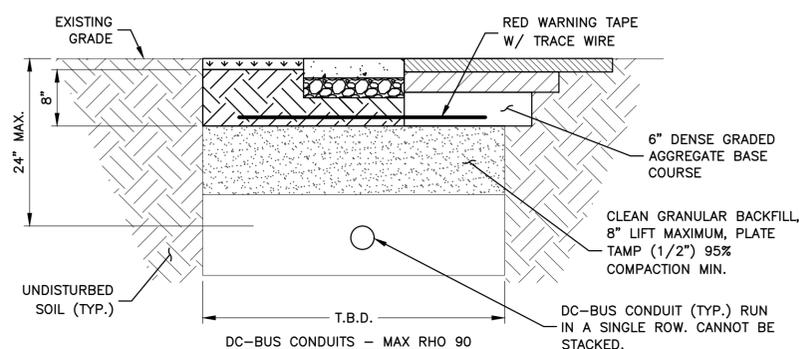
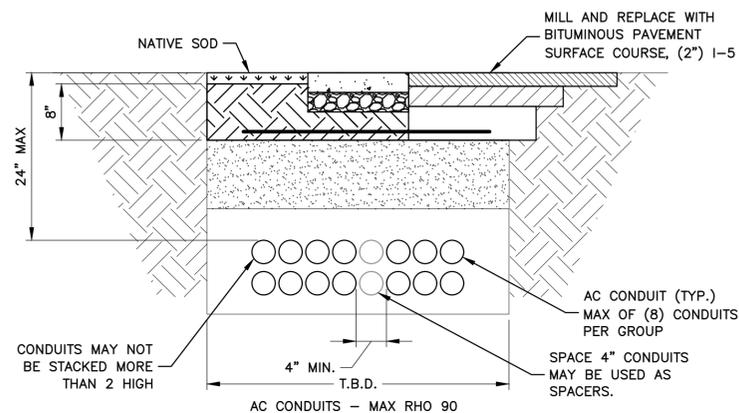
CONSTRUCTION  
DETAILS II

**SHEET NUMBER**

C-5

**NOTES:**

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.



**TYP. BURIED CONDUIT TRENCH DETAILS**

SCALE: N.T.S.

1



**ACCESSIBLE SIGNAGE DETAIL**

SCALE: N.T.S.

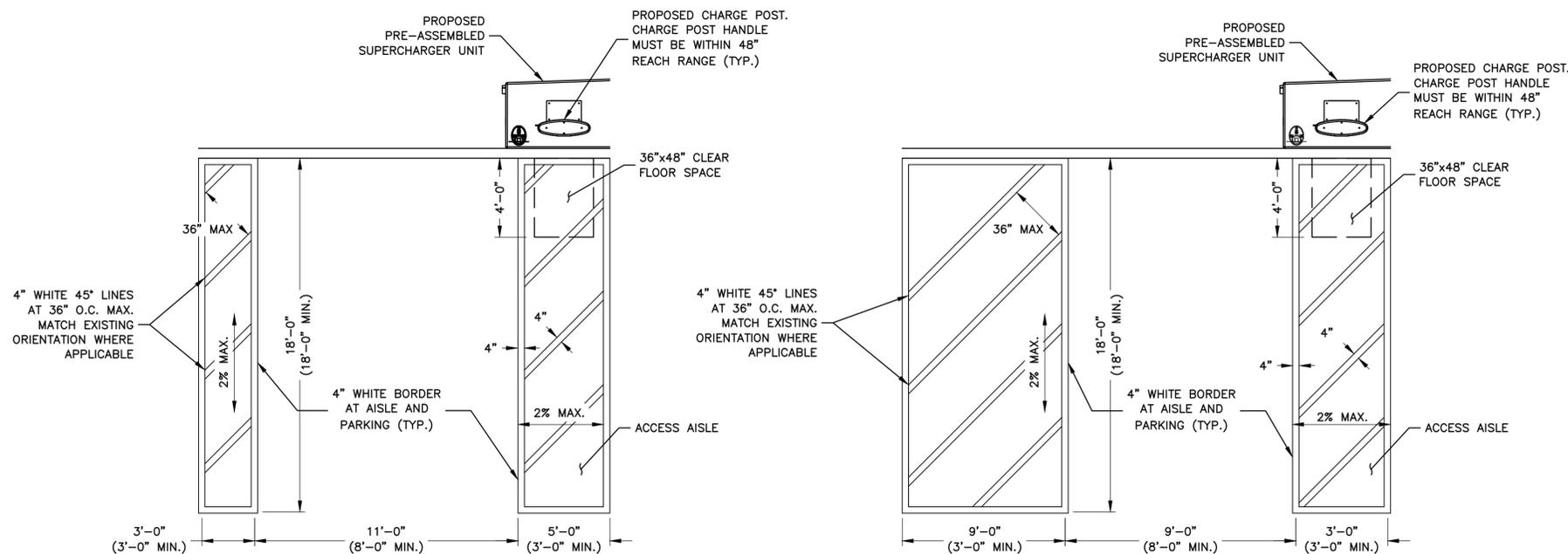
2



**DISABLED ACCESS SIGNAGE DETAIL**

SCALE: N.T.S.

3



**EV CHARGE STALL STRIPING - VAN ACCESSIBLE**

SCALE: N.T.S.

4

**EV CHARGE STALL STRIPING - TDLR ACCESSIBLE**

SCALE: N.T.S.

5



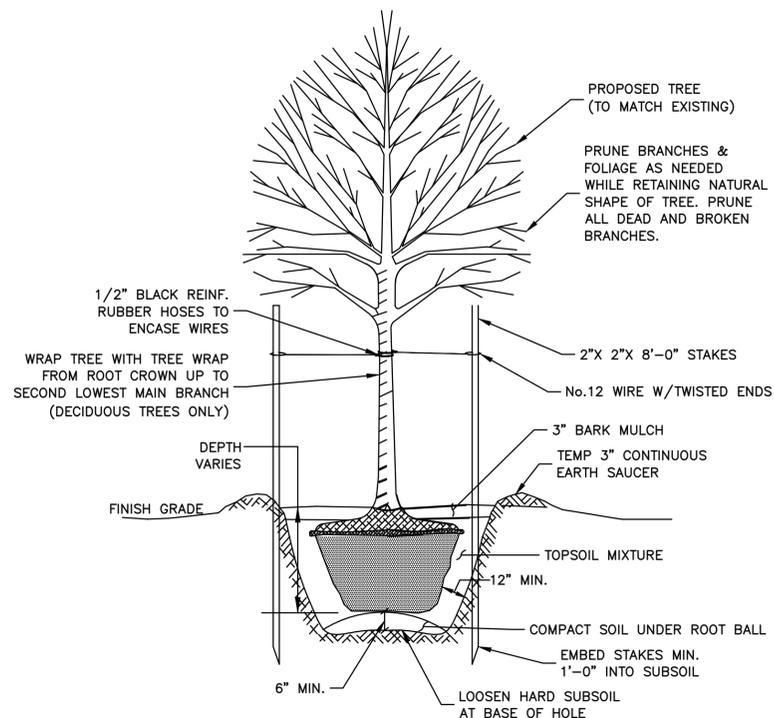
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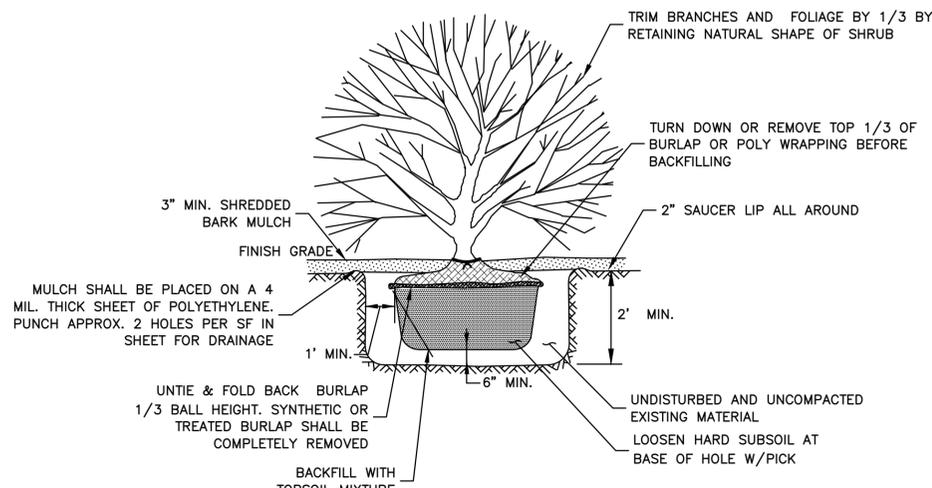
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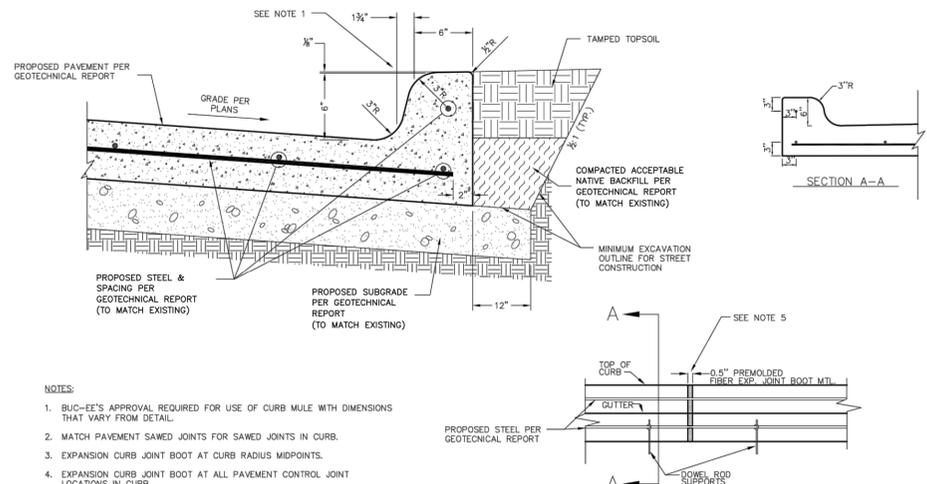
**TREE PLANTING DETAIL 1**  
SCALE: N.T.S.



**SHRUB PLANTING DETAIL 2**  
SCALE: N.T.S.

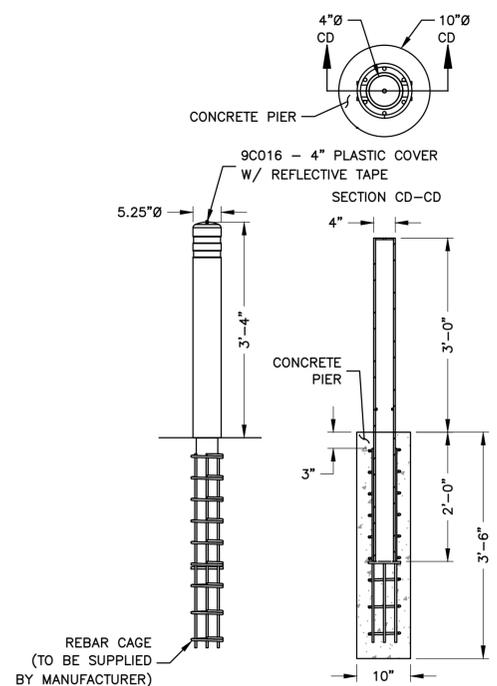
**STANDARD MONOLITHIC CURB  
BUC-EE'S STANDARD**

SCALE: N.T.S. REVISED: 04-23-2015



- NOTES:
- BUC-EE'S APPROVAL REQUIRED FOR USE OF CURB MULE WITH DIMENSIONS THAT VARY FROM DETAIL.
  - MATCH PAVEMENT SAWED JOINTS FOR SAWED JOINTS IN CURB.
  - EXPANSION CURB JOINT BOOT AT CURB RADIUS MIDPOINTS.
  - EXPANSION CURB JOINT BOOT AT ALL PAVEMENT CONTROL JOINT LOCATIONS IN CURB.
  - ALL EXPANSION JOINTS SHALL BE SEALED WITH A POLYURETHANE SEALANT ON THE FRONT, TOP AND BACK EXPOSED SURFACE.

**BUC-EE'S CONCRETE CURB DETAIL 3**  
SCALE: N.T.S.



**McCUE CRASH CORE BOLLARD DETAIL 4**  
SCALE: N.T.S.

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CHECKED BY: BTG

APPROVED BY: MCS

PROJECT #: 50123704

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FORT WORTH, TX 76177

SHEET TITLE  
**CONSTRUCTION  
DETAILS III**

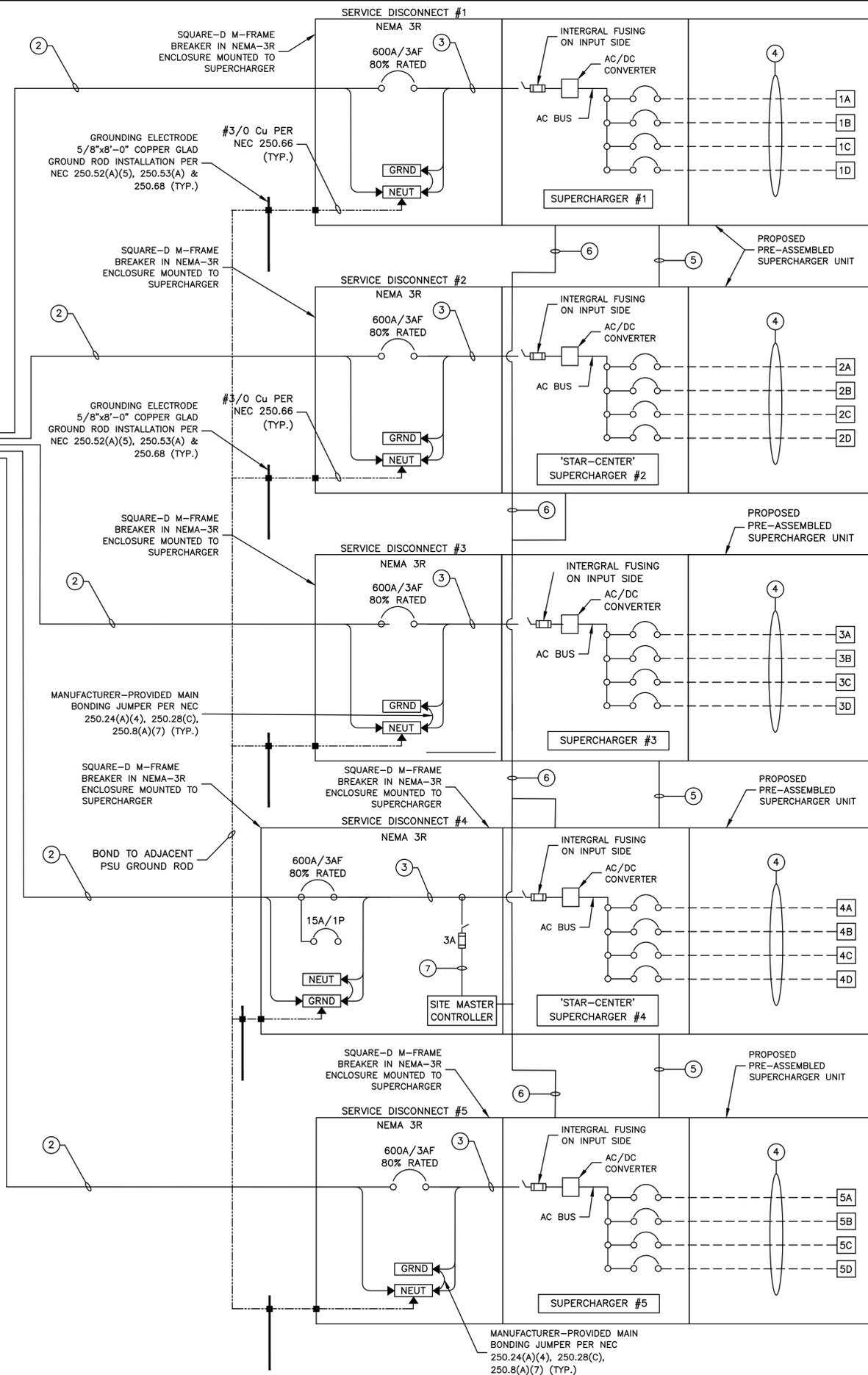
SHEET NUMBER  
**C-6**

**SYSTEM ONE-LINE DIAGRAM**

SCALE: N.T.S.

**NOTES:**

- NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPERCHARGERS.
- ALL CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION.
- CONDUCTOR LENGTHS ARE ESTIMATES ONLY. FINAL CONDUCTOR ROUTING PATH AND LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FILED BASED ON PHYSICAL MEASUREMENTS. CONTRACTOR TO ORDER CONDUCTORS BASED ON FIELD MEASUREMENTS (MUST BE APPROVED BY TESLA INSTALLATION MANAGER).
- ALL ELECTRICAL WORK AND RELATED ACTIVITIES PERFORMED ON-SITE SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) AND UTILITY COMPANY STANDARDS.
- DC RUN LENGTH MAXIMUM IS 320' INCLUDING BURIED DEPTH. ANY DC RUN LENGTHS OVER THE MAXIMUM SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF TESLA.
- 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.
- UTILITY CONDUITS, CONNECTORS, TRANSFORMER PAD & TRANSFORMER FOUNDATION TO BE INSTALLED PER UTILITY SPECIFICATION. CONFIRM LATEST SPECIFICATIONS PRIOR TO CONSTRUCTION.
- EXISTING UNDERGROUND UTILITIES LOCATED WITHIN AREA OF PROPOSED TRENCH & EQUIPMENT SITE AREA. HAND DIG AND RELOCATE AS REQUIRED.
- CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC SAFETY MEASURES THROUGHOUT DURATION OF CONSTRUCTION. COORDINATE ANY ACCESS ROAD CLOSURES W/OWNER.
- ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE IN NEMA 3R RATED UNLESS OTHERWISE NOTED.
- GROUND-FAULT PROTECTION OF EQUIPMENT SHALL BE PROVIDED FOR SOLIDLY GROUNDED 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
- GFPE TESTING REQUIRED. REFERENCE 2020 NEC 230.95(C).
- USE OF DURALINE FOR SUPERCHARGER TO CHARGE POST DC CONDUITS IS AN APPROVED ASSEMBLY.



SERVICE ELECTRICAL CIRCUIT SCHEDULE			
NO:	FROM	TO	CONFIGURATION
1	UTILITY TRANSFORMER	PROPOSED UTILITY CT CABINET: INCOMING	[6 SETS] (3) 500MCM AL (THWN-2) (1) 500MCM AL (THWN-2) NEUT IN 4" CONDUIT (INSTALL PVC CONDUIT BELOW GRADE AND RGS CONDUIT ABOVE GRADE)
2	PROPOSED UTILITY CT CABINET: OUTGOING	PROPOSED PSU INTEGRATED BREAKER (600A, 80% RATED) (TYP.-5)	[2 SETS EACH] (3) 500MCM AL (THWN-2) (1) 500MCM AL (THWN-2) NEUT IN 4" CONDUIT (INSTALL PVC CONDUIT BELOW GRADE AND RGS CONDUIT ABOVE GRADE)
3	PROPOSED PSU INTEGRATED BREAKER (600A, 80% RATED) (TYP.-5)	PROPOSED TESLA SUPERCHARGER (TYP.-5)	[2 SETS] (3) 500MCM AL (THWN-2) (1) 500MCM AL (THWN-2) NEUT (1) #1 AWG CU EGC OR (1) #2/0 AL EGC* PRE-INSTALLED BY PSU MANUFACTURER
4A	PROPOSED TESLA SUPERCHARGER (TYP.-5)	PROPOSED TESLA V3 POST**** (TYP.-20)	[1 SET PER CHARGE POST: PRE-INSTALLED] (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)
4B	PROPOSED TESLA SUPERCHARGER (TYP.-5)	PROPOSED TESLA V4 POST**** (TYP.-20)	[1 SET PER CHARGE POST: PRE-INSTALLED] (4) 600MCM AL (XHHW-2) (1000V RATED) (1) 2/0 AWG CU EGC (2) #6 CU (1000V RATED) & SHIELDED 1000V COMM CABLE (PER TESLA)
5	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 TESLA CUSTOM ABOVE GROUND WIREWAY****
6	SITE CONTROLLER	SUPERCHARGER (TYP.)	SHIELDED 600V RATED CAT6 COMM CABLE IN 1" PVC/HDPE CONDUIT**
7	PROPOSED SERVICE EQUIPMENT PANEL	SITE CONTROLLER	FACTORY INSTALLED WIRING (BY MANUFACTURER)

\* MODIFIED PER NEC 250.64(A)(2)  
 \*\* PER UL 615A AND NEC 253, LISTED HDPE CONDUIT PERMITTED. CONTRACTOR TO CONFIRM USE W/ TESLA CM  
 \*\*\* ALT DC BUS DESIGN: CONTRACTOR TO ROUTE DC BUS CONDUCTORS W/IN (2) 3" BURIED CONDUITS. TRANSITION FROM PSU TO CONDUITS TO BE MADE W/ JUNCTION BOX SIZED PER NEC.  
 \*\*\*\* INSTALL APPLICABLE WIRING CONFIGURATION CORRESPONDING WITH CHARGE POST TYPE INSTALLED.

**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 LIL36600U31XXP)	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
	INSTANTANEOUS = MED

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

**UTILITY FAULT CURRENT**

TRANSFORMER: TBD KVA
SECONDARY VOLTAGE: 277/480V
SECONDARY FAULT CURRENT: TBD A

\* FAULT CURRENT INFORMATION PROVIDED BY COSERV: XX/XX/XX.

**UTILITY S.O.W. RESPONSIBILITIES**

SCOPE OF WORK	BY UTILITY	BY CONTRACTOR
PROVIDE & INSTALL PRIMARY CONDUCTORS	X	
PROVIDE & INSTALL PRIMARY CONDUITS		X
PRIMARY TRENCH OPENING AND CLOSING		X
PROVIDE & INSTALL UTILITY TRANSFORMER	X	
INSTALL UTILITY TRANSFORMER PAD & ASSOCIATED GROUNDING		X
INSTALL SECONDARY CONDUITS		X
PROVIDE SECONDARY CONDUITS		X
PROVIDE & INSTALL SECONDARY CONDUCTORS (TO LINE SIDE OF CT CABINET)	X	
PROVIDE UTILITY CT CABINET		X
PROVIDE UTILITY METER SOCKET	X	
INSTALL H-FRAME MOUNTED UTILITY CT CABINET & METER SOCKET		X
TERMINATE SECONDARY CONDUCTORS W/IN CT CABINET		X
INSTALL UTILITY METER W/IN SOCKET	X	



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. 03/31/2023

DRAWN BY: FG/RR

CHECKED BY: BTG

APPROVED BY: MCS

PROJECT #: 50123704

JOB #: 50159139

**SUBMITTALS**

REV.	DATE	DESCRIPTION
0	03/20/23	ISSUED FOR PERMITS
B	02/27/23	REVISED PER COMMENT
A	02/08/23	ISSUED FOR 90% REVIEW

SITE NAME:  
 BUC-EE'S #37  
 FORT WORTH, TX  
 TRT ID: 20483

SITE ADDRESS:  
 3798 BUCEES BOULEVARD  
 FORT WORTH, TX 76177

SHEET TITLE  
**ELECTRICAL  
 ONE-LINE DIAGRAM**

SHEET NUMBER  
**E-1**

SECONDARY SERVICE LENGTHS		
	LINEAR LENGTH	ESTIMATED LENGTH*
TRANSFORMER TO 600A DISCONNECT #1	108'	148'
TOTAL LENGTH OF AL WIRE**:		592'
NUMBER OF WIRE FILLED CONDUITS:		2
TRANSFORMER TO 600A DISCONNECT #2	54'	94'
TOTAL LENGTH OF AL WIRE**:		376'
NUMBER OF WIRE FILLED CONDUITS:		2
TRANSFORMER TO 600A DISCONNECT #3	124'	164'
TOTAL LENGTH OF AL WIRE**:		656'
NUMBER OF WIRE FILLED CONDUITS:		2
TRANSFORMER TO 600A DISCONNECT #4	170'	210'
TOTAL LENGTH OF AL WIRE**:		840'
NUMBER OF WIRE FILLED CONDUITS:		2
TRANSFORMER TO 600A DISCONNECT #5	206'	246'
TOTAL LENGTH OF AL WIRE**:		984'
NUMBER OF WIRE FILLED CONDUITS:		2
TOTAL LENGTH OF AC AL WIRE***:		6896'

NOTES:

- SEE SHEET E-1 FOR WIRE CONFIGURATION.

\* SERVICE CONDUCTORS: 40 FT IS ADDED TO THE HORIZONTAL RUN LENGTH TO ACCOUNT FOR BURIED DEPTH & TRANSITIONS.

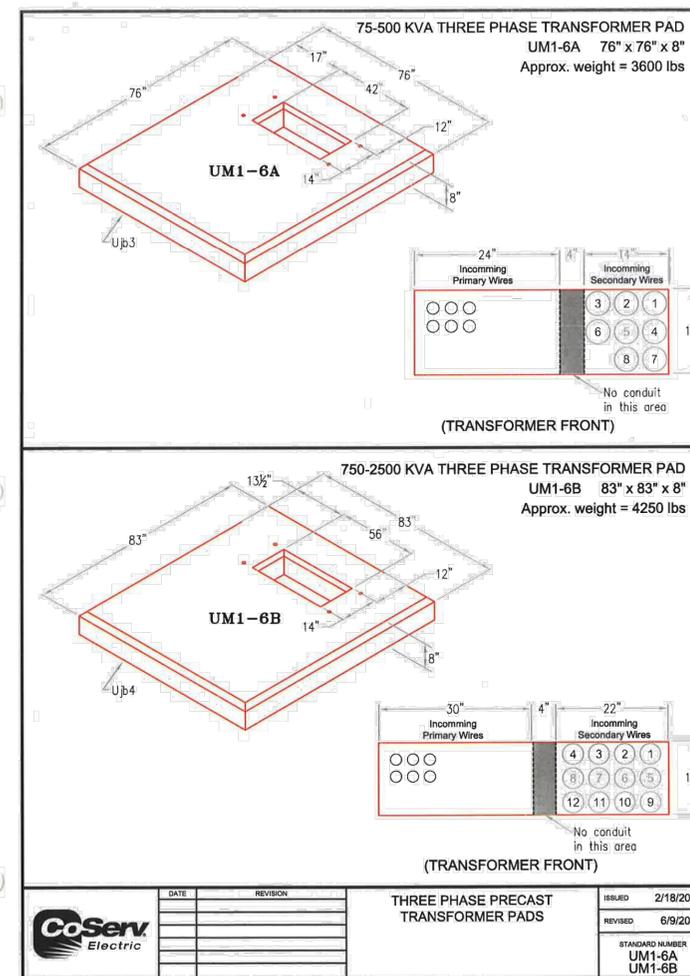
\*\* ESTIMATED LENGTH OF AL WIRE = SUM OF ESTIMATED LENGTH X 4 WIRES PER SET

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

**CONDUCTOR LENGTH TABLES**

SCALE: N.T.S.

1



**TRANSFORMER PAD DETAIL**

SCALE: N.T.S.

2



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PALO ALTO, CA 94304  
(650) 681-5000



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



MATTHEW C. SELKIRK  
TX P.E. LICENSE 138076  
EXP. 03/31/2023

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SUBMITTALS		
REV.	DATE	DESCRIPTION
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B	02/27/23	REVISED PER COMMENT
A	02/08/23	ISSUED FOR 90% REVIEW

SITE NAME:  
BUC-EE'S #37  
FORT WORTH, TX  
TRT ID: 20483

SITE ADDRESS:  
3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177

SHEET TITLE  
ELECTRICAL & UTILITY  
DETAILS

SHEET NUMBER  
E-2



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



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**SITE NAME:**

BUC-EE'S #37  
FORT WORTH, TX  
TRT ID: 20483

**SITE ADDRESS:**

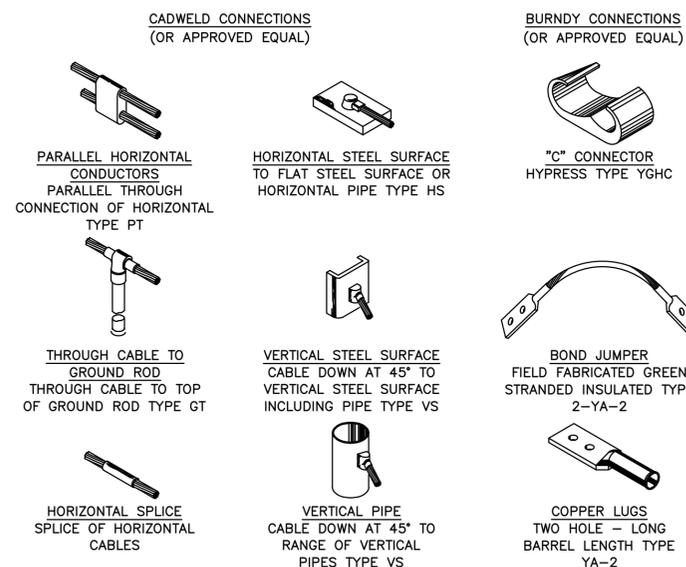
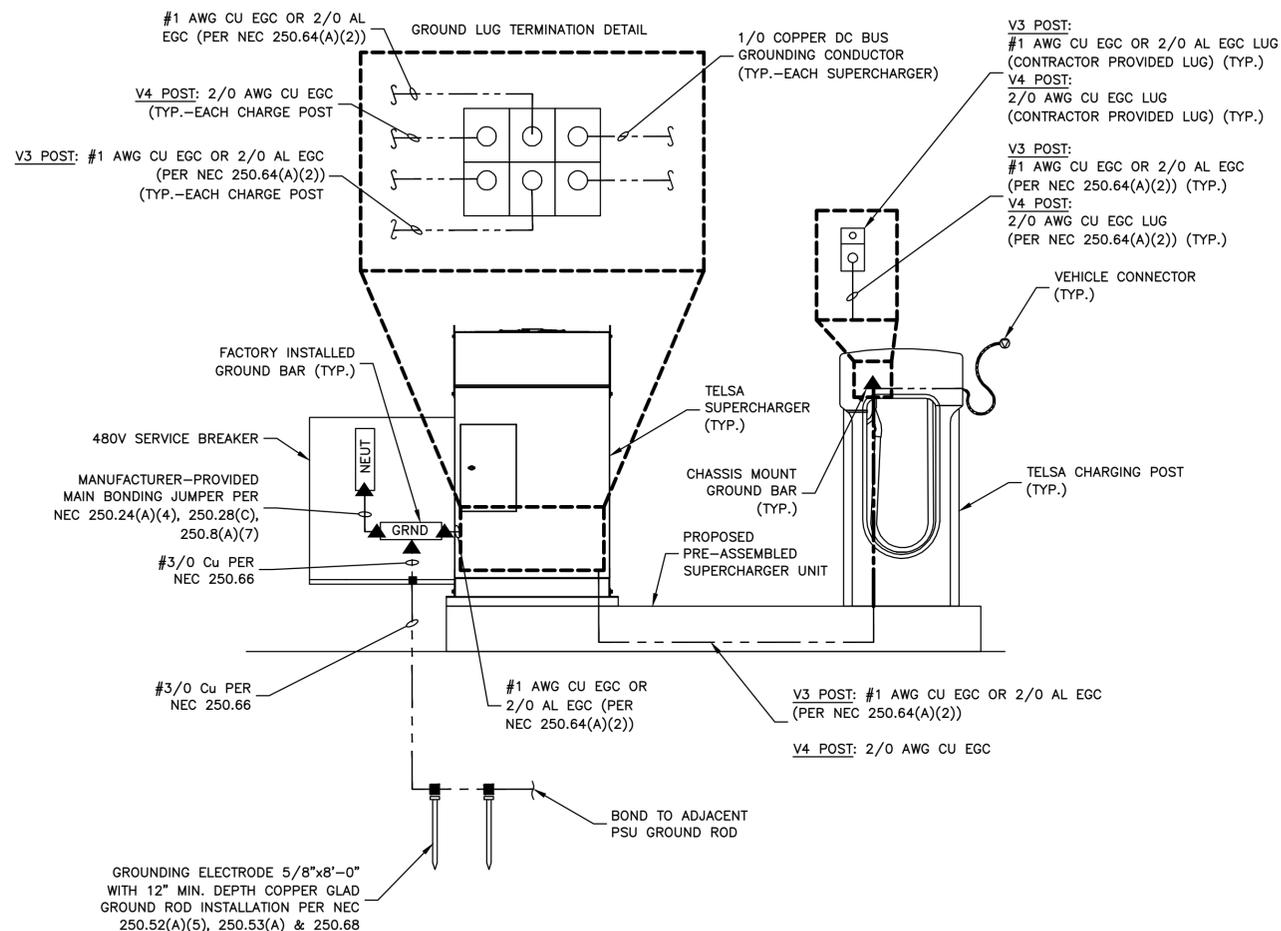
3798 BUCEES BOULEVARD  
FORT WORTH, TX 76177

**SHEET TITLE**

GROUNDING PLAN,  
SCHEMATIC & DETAIL

**SHEET NUMBER**

G-1



**GROUNDING SCHEMATIC**

SCALE: N.T.S.

1

**GROUND CONNECTION DETAILS**

SCALE: N.T.S.

2