

CONSTRUCTION NOTES

- 1. GENERAL**
 A. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE PRINCIPLES OF GOOD CONSTRUCTION PRACTICE.
 B. DURING THE CONSTRUCTION PERIOD THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY (INCLUDING FIRE SAFETY) OF THE NEW, AS WELL AS EXISTING, STRUCTURES. THE CONTRACTOR SHALL PROVIDE EQUIPE SHORING, BRACING, AND GUYS IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. ANY DEVIATION FROM SUCH ORDINANCES MUST BE APPROVED PRIOR TO ERECTION. THAT RESPONSIBILITY SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
 C. THE CONTRACTOR SHALL CHECK ALL INFORMATION ON THE PLANS (INCLUDING DIMENSIONS) PRIOR TO COMMENCING THE WORK. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER, AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
 D. ALL CONSTRUCTION WORK (INCLUDING, BUT NOT LIMITED TO, MEANS, METHODS, SEQUENCES, TECHNIQUES, PROCEEDURES, ETC.) IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
 E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF WORKING CONDITION OF ALL EXISTING COMPONENTS AND STRUCTURES AFFECTED BY THIS CONSTRUCTION. THE CONTRACTOR SHALL CONSTANTLY KEEP THE AREA OF CONSTRUCTION FROM ACCUMULATION OF WASTE MATERIALS AND DEBRIS. AT THE END OF WORK, THE CONTRACTOR SHALL REMOVE ALL WASTE, SURPLUS MATERIAL, TOOLS, AND EQUIPMENT.
 F. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THIS PROJECT EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ENGINEER, ANY LIABILITY BY SGE AS RELATED TO THIS PROJECT IS LIMITED TO THE ENGINEERING FEES RECEIVED FOR THE SERVICES RENDERED.
- 2. DESIGN CONSIDERATIONS**
 A. THESE STRUCTURAL PLANS AND CALCULATIONS WERE DEVELOPED BY SGE RESTRICTIVELY IN REGARD TO THE FOUNDATION AND ANCHORAGE FOR THE INSTALLATION OF AN ELECTRIC VEHICLE CHARGING KIOSK, SS-2.5, S1 = 0.8.
 B. THIS DESIGN DOES NOT CONSIDER THE STRUCTURAL ADEQUACY OF THE EQUIPMENT (LEGS, BASEPLATES, AND CONNECTIONS BETWEEN THESE MEMBERS BY OTHERS), FOR THE PURPOSES OF THIS DESIGN, ALL NEW EQUIPMENT WAS ASSUMED TO BE STRUCTURALLY ADEQUATE.
 C. ALL MATERIALS, STRUCTURES, AND WORKMANSHIP SHALL CONFORM TO THESE PLANS, CALCULATIONS, AS WELL AS TO THE ESTABLISHED GUIDELINES SET FORTH BY 2010 CBC / 2009 IBC, ABC MANUAL OF STEEL CONSTRUCTION (13TH EDITION), ACI 318-08, AND OTHER APPLICABLE REGULATORY DOCUMENTS. IN CASE OF ANY CONFLICTS IN SPECIFICATIONS, THE ONE(S) OF THE APPLICABLE CODE SHALL GOVERN.
 D. THESE PLANS AND CALCULATIONS ARE BASED UPON THE ASSIGNMENT FROM, AS WELL AS ON THE INFORMATION ABOUT, THE NEW EQUIPMENT, AS PROVIDED BY FUJI ELECTRIC INC.
 E. THIS DESIGN SHALL BE USED EXCLUSIVELY BY FUJI ELECTRIC INC., AS WELL AS THEIR CONTRACTORS, ANY OTHER USE (INCLUDING, BUT NOT LIMITED TO, REVIEW, DISSEMINATION, OR COPYING) OF THESE DESIGN MATERIALS AND ANY PORTION THEREOF, AS WELL AS AN USE OF THESE MATERIALS BY ANY PARTY OR PARTIES OTHER THAN THE ONES SPECIFIED ABOVE, ARE STRICTLY PROHIBITED UNLESS UNDER A WRITTEN PERMISSION BY SGE.
 F. DO NOT SCALE THE PLANS.
 G. THESE PLANS SUPERSEDE ANY OTHER PLANS PREVIOUSLY ISSUED BY SGE FOR THE SUBJECT JOB.
 H. THE MEASUREMENTS SHOWN ON THE PLANS ARE BASED UPON THE CATALOGUE (IDEAL) DIMENSIONS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS AGAINST THOSE OF THE TEMPLATE AND/OR OF THE ACTUAL EQUIPMENT PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- 3. LOADS**
 THESE STRUCTURAL PLANS AND CALCULATIONS WERE BASED UPON THE FOLLOWING MINIMAL LOADS: CLAUSE 16 OF THE 2010 CBC / 2009 IBC AND ASCE 7-05 (REFER TO SEISMIC PARAMETER SCHEDULE).
 A. WIND DESIGN DATA
 BASIC WIND SPEED (3-SECOND GUST), MPH 105
 WIND IMPORTANCE FACTOR C
 WIND EXPOSURE C
 B. EARTHQUAKE DESIGN DATA
 SITE CLASS D
 SPECTRAL RESPONSE COEFFICIENTS
 S1 2.500
 S2 0.800
 SDS 1.467
 SD1 0.800
 SEISMIC DESIGN CATEGORY E
 ANALYSIS PROCEDURE USED EQUIVALENT LATERAL FORCE
- 4. SOILS**
 A. THE DESIGN WAS BASED UPON THE MINIMUM REQUIREMENTS BELOW THOSE OF THE 2010 CBC / 2009 IBC SECTION 1804 AND 2010 CBC / 2009 IBC TABLE 1804.2.
 B. SOIL UNDER THE NEW STRUCTURES SHOULD BE CLAY, SANDY CLAY, SILTY CLAY, OR CLAYE SILT WITH ALLOWABLE CAPACITY OF 1500 PSF WITH 1/3 INCREASE FOR SEISMIC AND WIND LOADING. THE SOIL PRESSURE UNDER THE NEW EQUIPMENT PAD IS NOT EXPECTED TO EXCEED 200 PSF UNDER THE DEAD AND LIVE LOADS, AND 500 PSF UNDER DEAD, LIVE, AND SEISMIC LOADS.
 C. CONTRACTOR SHALL IMMEDIATELY INFORM SGE IF SOILS OF DIFFERENT NATURE OR PROPERTIES (GROUND WATER, APPARENTLY LOWER CAPACITY SOILS, OR AGGRESSIVE SOILS) WERE ENCOUNTERED DURING THE CONSTRUCTION.
 D. THE CONTRACTOR SHALL LOCATE, REMOVE, OR PROTECT ALL UNDERGROUND PIPING, CONDUITS, VAULTS, ETC. AS REQUIRED BY THE APPLICABLE CODE AND JURISDICTION.
 E. THE NEW FOOTINGS SHALL NOT BE PLACED AT THE FOLLOWING LOCATIONS:
 a. OVER ANY EXISTING STRUCTURE, AND/OR CAST AGAINST SUCH STRUCTURES;
 b. CLOSER THAN 6" (CLEAR) TO ANY EXISTING FOOTING;
 c. CLOSER THAN 24" TO ANY EXISTING WALL;
 d. AT/ABOVE EXISTING RETAINING WALLS UNLESS FURTHER AWAY (CLEAR) THAN THE DEPTH OF THE WALL.
 ANY OF THE ABOVE CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF SGE PRIOR TO THE BEGINNING OF CONSTRUCTION OR UPON DISCOVERY. NO WORK SHALL BE CONDUCTED ON THE LOCATION AT SUCH LOCATIONS UNTIL WRITTEN AUTHORIZATION BY SGE.
 F. AS A MINIMUM, THE SOIL IMPROVEMENTS SHALL INCLUDE THE FOLLOWING:
 BASE COMPACTED TO 90% RELATIVE COMPACTION PER ASTM D1557.
 A MINIMUM 6-INCH DEEP LAYER OF SOIL UNDERLYING THE BASES/CK SHALL BE SCARIFIED AND RECOMPACTED TO MINIMUM 90% RELATIVE COMPACTION.
 G. ALL EARTHWORK IS RECOMMENDED TO BE CONDUCTED UNDER THE GUIDANCE OF A REGISTERED GEOTECHNICAL OR CIVIL ENGINEER.
 H. A GEOTECHNICAL ENGINEER FAMILIAR WITH THE SITE IS RECOMMENDED TO REVIEW THESE PLANS, AS WELL AS THE EXCAVATION AND IMPROVEMENTS OF SOIL. THE PLACEMENT OF REBARS AND CONCRETE IS RECOMMENDED NOT TO COMMENCE WITHOUT A WRITTEN AUTHORIZATION (MEMO) FROM THE GEOTECHNICAL ENGINEER STATING THE ADEQUACY OF

- 5. NEW CONCRETE**
 A. ALL (N) REINFORCED CONCRETE STRUCTURES SHALL BE OF NORMAL WEIGHT (145 PCF) CONCRETE WITH MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS.
 B. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE (5) DAYS AFTER PLACEMENT. ALTERNATE METHODS WILL BE APPROVED IF SATISFACTORY PERFORMANCE CAN BE ASSURED.
 C. THE SURFACE OF NEW CONCRETE SHALL BE FLAT 1/8" MAX. UNFLATNESS UNDER 10-FT STRAIGHTEDGE), AND SHALL HAVE ROUGH BROOM FINISH. FORM 3/4" CHAMFERS AT ALL EXPOSED EDGES OF CONCRETE. UNO, THE SURFACE OF CONCRETE SHALL SLOPE AT 0.75% MAX. FOR DRAINAGE.
 D. CONCRETE SURFACE TO ASSURE FULL AND UNIFORM CONTACT WITH EQUIPMENT BASEPLATES, IF NECESSARY, USE EPOXY GROUTING UNDER BASEPLATES (SIKA-GROUT 212 OR APPROVED EQUAL).
 E. UNLESS SPECIFICALLY AUTHORIZED BY SGE, INSTALLATION OF EQUIPMENT MAY BEGIN NOT EARLIER THAN 7 DAYS AFTER POURING OF CONCRETE.
 F. SPECIAL INSPECTION OF CONCRETE (2010 CBC / 2009 IBC CHAPTER 17) IS NOT REQUIRED (DESIGNED AS 2500 PSI CONCRETE).
- 4. REINFORCING STEEL**
 A. UNLESS NOTED OTHERWISE, ALL (N) REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A615 GRADE 60. ALL REBARS CONNECTED BY, OR SUBJECT TO, WELDING SHALL BE OF ASTM SPECIFICATION A706.
 B. ALL REINFORCING STEEL SHALL BE SPLICED WITH CLASS B SPLICES. SPLICE LENGTHS SHALL BE AS FOLLOWS:

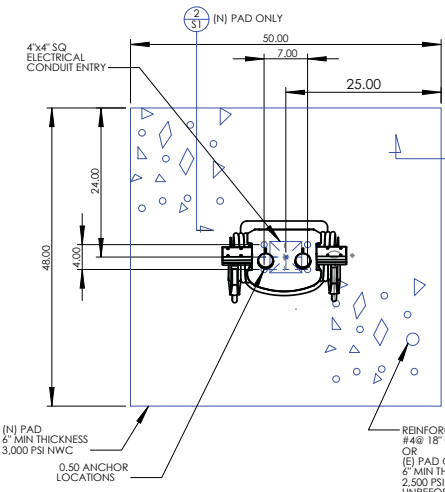
REBAR SIZE	MINIMUM SPLICE LENGTH	
	TOP REBAR	BOTTOM REBAR
PAD THICKNESS	>12"	<12"
#4	25"	19"
#5	32"	25"
#6	38"	29"
#7	43"	33"
#8	50"	38"
#9	62"	48"

- C. REBARS SHALL BE HELD IN THE REQUIRED POSITION BY MEANS OF APPROVED DEVICES.
 D. REBAR SPACING SHOWN IS MAXIMUM DISTANCE BETWEEN REBAR CENTER LINES.
 E. REBARS SHALL BE KEPT CLEAN OF DIRT, OIL, SCALE, AND FOREIGN MATERIALS.
- 6. EXISTING CONCRETE PADS**
 A. ALL EXISTING PADS SHALL BE OF 2,500 PSI NWC AND MEASURE AT LEAST 4'x4'. PADS SHALL HAVE A MINIMUM THICKNESS OF 6".
 B. IF THE KIOSK IS PLACED ON AN (E) PAD MEASURING MORE THAN 8'x8', AND HAVING THICKNESS OF 6", THE PAD SHALL BE SAW CUT FULL THICKNESS TO FORM A 8'x8' PAD.
 C. FOR ALL CONDITIONS OTHER THAN THE ONES OUTLINED ON THESE PLANS OR PREVENTING THE STRUCTURALLY ADEQUATE AND SUITABLE FOR THE INSTALLATION OF THE NEW KIOSK, WITH THE ASSUMPTION OF 2,500 PSI NORMAL WEIGHT CONCRETE, THE EXISTING PAD, FOR STRUCTURAL PURPOSES, DOES NOT REQUIRE REINFORCEMENT.
 D. PRIOR TO THE NEW INSTALLATION, THE CONTRACTOR SHALL INVESTIGATE THE CONDITION AND CONFIGURATION OF THE EXISTING PAD, IN CASE OF DISCOVERY OF ANY CONDITIONS DEVIATING FROM THE ONES OUTLINED ON THESE PLANS OR PREVENTING THE SPECIFIED INSTALLATION, THE CONTRACTOR SHALL STOP ALL WORK AND IMMEDIATELY NOTIFY SGE.
- 8. POST-INSTALLED ANCHORS**
 A. ALL POST-INSTALLED ANCHORS SHALL BE USED FOR THE CONNECTION OF THE EQUIPMENT.
 B. ALL POST-INSTALLED ANCHORS SHALL BE HILTI KWIK BOLT 1Z PER ICC ESR1917 AND OTHER APPLICABLE DOCUMENTS (FOR EXAMPLE, COLA RR 25701).
 D. SPECIAL INSPECTION (2010 CBC / 2009 IBC CHAPTER 17) IS REQUIRED DURING THE INSTALLATION OF THE ANCHORS.
 E. FOR (N) PADS, UNLESS SPECIFICALLY AUTHORIZED BY SGE, INSTALLATION OF THE ANCHORS AND EQUIPMENT MAY BEGIN NOT EARLIER THAN 7 DAYS AFTER POURING OF CONCRETE.
 F. USE EQUIPMENT BASEPLATES AS A TEMPLATE FOR THE INSTALLATION OF THE ANCHORS. REFER TO PLANS BY OTHERS FOR THE ORIENTATION OF THE EQUIPMENT ON THE PADS.
 G. INSTALL ALL SPECIFIED ANCHORS IN STRICT COMPLIANCE WITH THE AFOREMENTIONED H. ABBREVIATIONS.

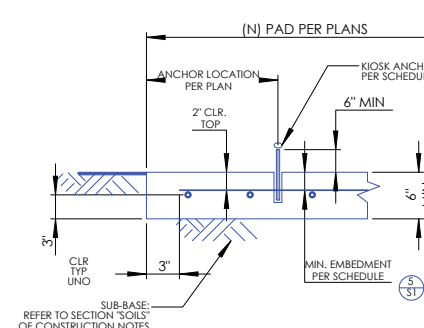
- 9. ABBREVIATIONS**
- | | |
|--------|------------------------|
| BOD | BOLT CIRCLE DIAMETER |
| BW | BOTH WAYS |
| CL | CENTERLINE |
| CLR | CLEAR |
| CONT | CONTINUOUS |
| DIA | DIAMETER |
| EA | EACH |
| (E) | EXISTING COMPONENT |
| (F) | FUTURE COMPONENT |
| EMB | EMBEDMENT |
| HORIZ | HORIZONTAL |
| LAR | LIQUID ARGON |
| LIN | LIQUID NITROGEN |
| LONGIT | LONGITUDINAL |
| LIQ OX | LIQUID OXYGEN |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| (N) | NEW COMPONENT |
| (N) | NOT IN THIS CONTRACT |
| NWC | NORMAL WEIGHT CONCRETE |
| OC | CENTER-TO-CENTER |
| PLATE | PLATE |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| REINFM | REINFORCEMENT |
| RPT | REPORT |
| STD | STANDARD |
| TOP | TOP AND BOTTOM |
| TOC | TOP OF CONCRETE |
| TOS | TOP OF STEEL |
| TRANSV | TRANSVERSE |
| TYP | TYPICAL |
| UNO | UNLESS NOTED OTHERWISE |
| VERT | VERTICAL |

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NEXT ASSY	USED ON	APPLICATION



1 (N) OR (E) PAD AND KIOSK ANCHOR LAYOUT
 PLAN, SCALE: 1" = 1'-0"



2 (N) PAD AND ANCHORAGE
 TYP. SECTION, NTS

- POWER AND COMMUNICATION REQUIREMENTS**
- 240 VAC, 40 AMP BREAKER REQUIRED PER CHARGING SIDE
 - FOR SINGLE SIDED CHARGER 1 BREAKER 1 CONDUIT
 - FOR DUAL SIDED CHARGER 2 BREAKER 2 CONDUIT
 - 240 VAC, L1, L2, N, GND
 - SEPARATE ETHERNET CONDUIT REQUIRED

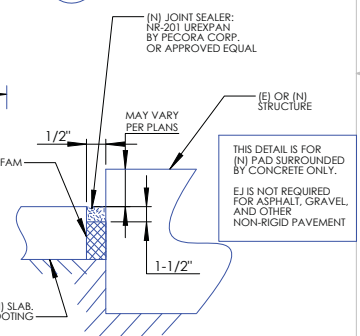
EQUIPMENT UNIT	DESIGN PARAMETER	WEIGHT/MASS KIPS	HEIGHT FT	SEISMIC DESIGN DATA PER SCHEDULE				
				U/D	R	RF	SEISMIC COEFF.	BASE SHEAR KIPS
(N) ELECTRIC VEHICLE KIOSK		1.0	6.1	1/1	2	2.5	0.833	0.83

4 SEISMIC DESIGN PARAMETER SCHEDULE

EQUIPMENT UNIT	ANCHORAGE	MECH. ANCHORS, TYP. SPECIAL REQ'D PER SCHEDULE				# PER LEG	# PER UNIT
		#	DIA. IN.	STEEL	EXT. IN.		
(N) ELECTRIC VEHICLE KIOSK	S/B	4	SS	-	-	4	

REFER TO PLANS AND CONSTRUCTION NOTES FOR ADDITIONAL INFORMATION

5 ANCHORAGE SCHEDULE



3 EXPANSION JOINT (EJ)
 TYPICAL SECTION, NTS

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DRAWN	ANDRES	10/23/13
CHECKED		
ENG APPR.	DH	10/23/13
Q.A.		
COMMENTS:		

BTC Power Inc.

TITLE: **EVP INSTALLATION OF ELECTRIC VEHICLE CHARGING KIOSK**

SIZE DWG. NO. **B SCE-10-000** REV **A**

SCALE: 1:20 WEIGHT: SHEET 1 OF 1