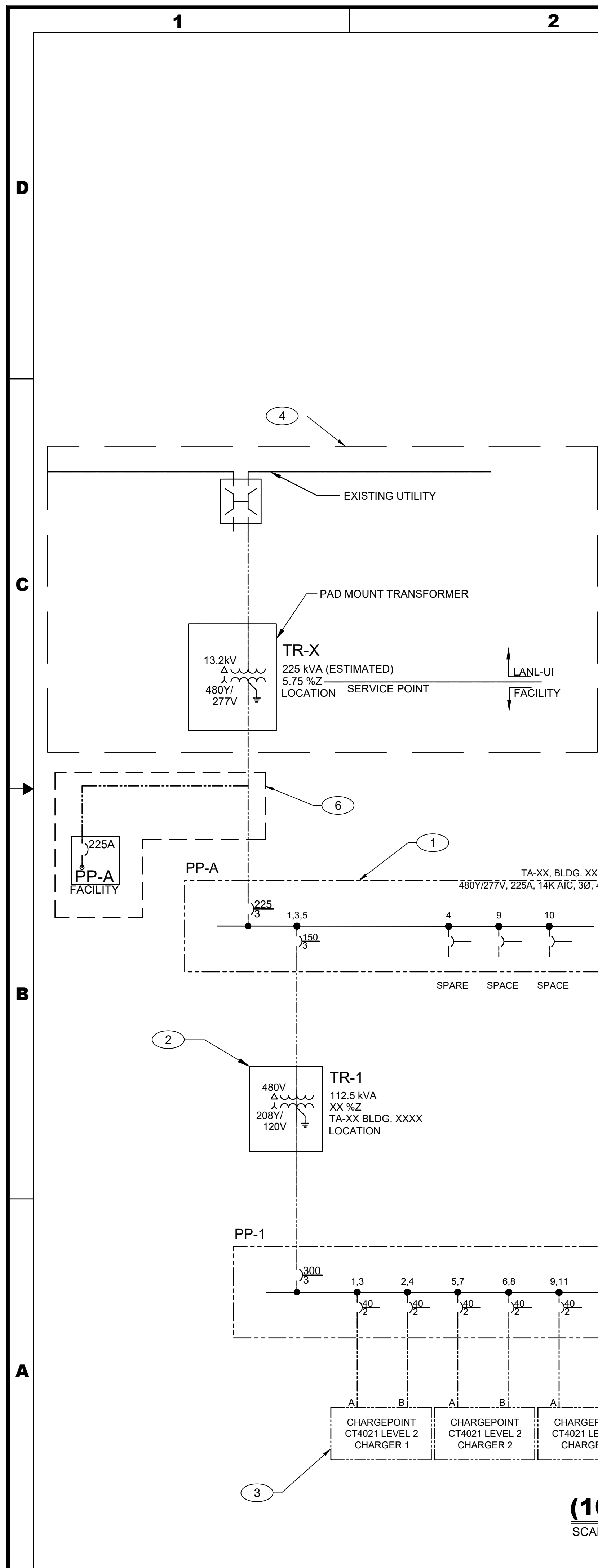


POWER PANEL # PP-A										THREE PHASE PANEL SCHEDULE										DATE: . REV.: 0						
LOCATED AT:		FRAME SIZE:	225 A	SECTION: 1 of 1		TYPE OF MAIN:		225 A	MANUFACTURER:		SERVED BY:		UTILITY		CTK: 480/277		LOCATED AT:		TA- BLDG.- ROOM- OS							
TA- BLDG.- ROOM- OS		VOLTAGE:	277 L-N	MLO SIZE:		A		ENCLOSURE TYPE:		NEMA 3R		MOUNTING:		Surface		FED: UTILITY XFMR		SUB OR THRU FEEDS:		BLDG.- ROOM- OS						
PHASE:		3 ϕ		MAIN BRKR SIZE:		225A		BUS BRACING:		22 kA		SUB/THRU LUG SIZE:		14 kA		SHORT CIRCUIT AVAILABLE:		kA								
WIRE:		4 W		MAIN BRKR AIC RATING:		14 kA		BRANCH BRKR AIC RATING:		14 kA		SHORT CIRCUIT AVAILABLE:		kA												
CKT	C/B	SERVES	CONT	RCPT	PWR	NON-C	PHASE	NON-C	PWR	RCPT	CONT	C/B	CKT													
1							A						2													
3	200/3	SERVICE TO TR-1			32000		B						4													
5					32000		C						6													
7					32000		A						8													
9		SPACE					B						10													
11							C						12													
13							A						14													
15							B						16													
17							C						18													
19							A						20													
21							B						22													
23							C						24													
25							A						26													
27							B						28													
29							C						30													
CONNECTED LOAD per PHASE:			A:	32,000	B:	32,000	C:	32,000																		
CONNECTED LOAD:			CONTINUOUS LOAD (CONT):			0 VA			FEEDER SELECTION LOAD:			CONTINUOUS LOAD @ 125%:			0 VA			ESTIMATED DEMAND LOAD:			CONTINUOUS LOAD @ 100%:			0 VA		
RECEPTACLE LOAD (RCPT):			0 VA			RECEPT LOAD per NEC 220-44:			100%:			0 VA			RECEPT LOAD per NEC 220-44:			100%:			0 VA					
NON-CONTINUOUS LOAD (PWR):			96000 VA			NON-CONTINUOUS LOAD @:			100%:			96000 VA			NON-CONTINUOUS LOAD @:			0%:			0 VA					
NON-COINCIDENTAL LOAD (NON-C):			0 VA			FUTURE GROWTH CAPACITY:			20%:			19200 VA														
TOTAL CONNECTED LOAD:			96000 VA			LOAD FOR FEEDER DESIGN:			115200 VA			ESTIMATED DEMAND LOAD:			0 VA			0 AMPS								
			115 AMPS						139 AMPS						0 AMPS											

POWER PANEL # PP-1										THREE PHASE PANEL SCHEDULE										DATE: . REV.: 0						
LOCATED AT:		FRAME SIZE:	400 A	SECTION: 1 of 1		TYPE OF MAIN:		400A	MANUFACTURER:		SERVED BY:		UTILITY		CTK: 480/277		LOCATED AT:		TA- BLDG.- ROOM- OS							
TA- BLDG.- ROOM- OS		VOLTAGE:	208 L-L	MLO SIZE:		A		ENCLOSURE TYPE:		NEMA 3R		MOUNTING:		Surface		FED: TR-1		SUB OR THRU FEEDS:		BLDG.- ROOM- OS						
PHASE:		3 ϕ		MAIN BRKR SIZE:		400A		BUS BRACING:		22 kA		SUB/THRU LUG SIZE:		10 kA		SHORT CIRCUIT AVAILABLE:		kA								
WIRE:		4 W		MAIN BRKR AIC RATING:		10 kA		BRANCH BRKR AIC RATING:		10 kA		SHORT CIRCUIT AVAILABLE:		kA												
CKT	C/B	SERVES	CONT	RCPT	PWR	NON-C	PHASE	NON-C	PWR	RCPT	CONT	C/B	CKT													
1	40/2	LEVEL 2 EV CHARGER 1A			3120		A				3120		2													
3					3120		B				3120		4													
5	40/2	LEVEL 2 EV CHARGER 2A			3120		C				3120		6													
7					3120		A				3120		8													
9	40/2	LEVEL 2 EV CHARGER 3A			3120		B				3120		10													
11					3120		C				3120		12													
13	40/2	LEVEL 2 EV CHARGER 4A			3120		A				3120		14													
15					3120		B				3120		16													
17	40/2	LEVEL 2 EV CHARGER 5A			3120		C				3120		18													
19					3120		A				3120		20													
21	40/2	LEVEL 2 EV CHARGER 6A			3120		B				3120		22													
23					3120		C				3120		24													
25	40/2	LEVEL 2 EV CHARGER 7A			3120		A				3120		26													
27					3120		B				3120		28													
29	40/2	LEVEL 2 EV CHARGER 8A			3120		C				3120		30													
31					3120		A				3120		32													
33	40/2	LEVEL 2 EV CHARGER 9A			3120		B				3120		34													
35					3120		C				3120		36													
37	40/2	LEVEL 2 EV CHARGER 10A			3120		A				3120		38													
39					3120		B				3120		40													
41		SPACE					C						42													
CONNECTED LOAD per PHASE:			A:	43,680	B:	43,680	C:	37,440																		
CONNECTED LOAD:			CONTINUOUS LOAD (CONT):			0 VA			FEEDER SELECTION LOAD:			CONTINUOUS LOAD @ 125%:			0 VA			ESTIMATED DEMAND LOAD:			CONTINUOUS LOAD @ 100%:			0 VA		
RECEPTACLE LOAD (RCPT):			124800 VA			RECEPT LOAD per NEC 220-44:			100%:			67400 VA			RECEPT LOAD per NEC 220-44:			100%:			67400 VA					
NON-CONTINUOUS LOAD (PWR):			0 VA			NON-CONTINUOUS LOAD @:			100%:			0 VA			NON-CONTINUOUS LOAD @:			0%:			0 VA					
NON-COINCIDENTAL LOAD (NON-C):			0 VA			FUTURE GROWTH CAPACITY:			20%:			24960 VA														
TOTAL CONNECTED LOAD:			124800 VA			LOAD FOR FEEDER DESIGN:			92360 VA			ESTIMATED DEMAND LOAD:			67400 VA			187 AMPS								
			346 AMPS						256 AMPS						187 AMPS											

PANEL SCHEDULES



(10) DUAL LEVEL 2 CHARGERS

SCALE: NONE

GENERAL NOTES:

- A SIGN SHALL BE ADDED TO THE FRONT OF OUR PP-A. IT SHALL BE 4" X 4", RED WITH WHITE LETTERING, AND SHALL READ "EMERGENCY SHUTOFF - ALL EV CHARGERS IN THIS LOCATION CAN BE SHUT DOWN BY SWITCHING OFF THE MAIN CIRCUIT BREAKER IN THIS PANEL."
- ALL TRANSFORMER %Z TYP., FINALIZED AFTER PROCUREMENT.
- SYSTEM ENGINEER TO PROVIDE INCIDENT ENERGIES FOR ALL NEW PANELS AND 480V EQUIPMENT.

KEYED NOTES:

- PROVIDE AND INSTALL 480V 225A PANEL. FEED FROM NEW 225 KVA TRANSFORMER AS SHOWN. CONDUCTORS TO PANEL ARE 4-4/0 AWG IN 3" CONDUIT.
- PROVIDE AND INSTALL SQD OR EQUIVALENT 480V DELTA PRIMARY, 120/208Y SECONDARY, 112.5 KVA, 3-PHASE, NEMA 3R, PAD-MOUNT TRANSFORMER. CONDUCTORS TO TRANSFORMER FROM 480V PANEL ARE 3-1/0 AWG AND #6 EGC IN 1 1/2" RACEWAY. INSTALL SUPPLY SIDE BONDING JUMPER #2 CU.
- PROVIDE AND INSTALL TEN (10 DUAL) LEVEL 2 CHARGERS, TWENTY (20) PORTS TOTAL AT 40A PER PORT. CONDUCTORS TO BE 4-8 AWG AND 1-10 AWG EGC IN 1" RACEWAY EACH. INSTALL PER MANUFACTURER'S DIRECTIONS, INCLUDING COMPLETING INSTALLATION CHECKLIST.
- UI DESIGN RESPONSIBLE FOR NEW TRANSFORMER AND EVERYTHING ON ITS PRIMARY SIDE. UTILITY TRANSFORMER SUBJECT TO CHANGE BASED ON UI CONSTRAINTS. SELECT THIS OPTION IF NO ADEQUATE PP-A EXISTS IN FACILITY.
- PROVIDE AND INSTALL 400A POWER PANEL PROVIDING 208V FEEDER. CONDUCTORS FROM TRANSFORMER TO PANEL TO BE 4-350 KCMIL AND 1-#2 AWG EGC IN 3" RACEWAY.
- SELECT THIS OPTION IF PP-A EXISTS IN FACILITY AND ADD 1-#2CU BOND CONDUCTOR TO FEEDER PLACED IN 2.5" RACEWAY.

DESIGNER NOTES:

- THIS CONFIGURATION HAS NO LEVEL 3 CHARGERS & TEN (10) DUAL LEVEL 2 CHARGERS.
- IF NO LEVEL 3 CHARGERS ARE NEEDED, CONSIDER HAVING UTILITIES INSTALL A TRANSFORMER WITH A 208/120 VOLT SECONDARY. THEN REMOVE PP-A & SIZE TR-X FOR FEEDING TR-1

REMOVE DESIGNER NOTES FROM DRAWING PACKAGE.

LBO-DESIGN PACKAGE REVIEWER		
APPROVED FOR RELEASE A. YAEGER		
SUBMITTED T. KOSTRUBALA		
VERIFIED R. DE LA TORRE		
DESIGNED M. NELSON		
DRAWN K. KETCHUM	0	INITIAL ISSUE FOR 10/02/23
CLASSIFICATION [UNCLASSIFIED]	D. SMITH	NO REVISION DESCRIPTION DATE

ENGINEERING STANDARDS

ELECTRICAL VEHICLE CHARGING STATIONS

ELECTRICAL ONE-LINE DIAGRAMS

TA-XX BLDG XXXX

SHEET **E-6002**

6 OF **6**

PROJECT ID: CHAPTER 7 DRAWING NO: ST-G4090-6 REV: 0