SERVICE LOAD CALCULATION

NEW INSTALLED FLA OF EV STATION x NUMBER OF STATIONS x DEMAND
37 x 5 x 1.00 = 185 AMPS
FUTURE EV CHARGERS x NUMBER OF STATIONS x DEMAND
37 x 6 x 1.00 = 222 AMPS

NEW + FUTURE
185+ 222 = 407 AMPS

407x1.25= 509

509A < 600A
SERVICE LOAD NOT TO BE GREATER THAN 600A SERVICE SELECTED.

SCHEDULE
EV MDP PART I
FLUSH MOUNTED

29,080 SCA AVAILABLE — 3 PHASE — 120/208 VOLTS
600 AMP BUS — 600 AMP LUGS

SERVICE	LOAD (AMP)	BREAKER (A/P)	CIRCUIT (# & Φ)			BREAKER (A/P)	LOAD (AMP)	SERVICE
EV Charger 1	32.0	40/2	1	A	2	20/1	0.0	SPARE
EV Charger 1	32.0		3	B	4	40/2	32.0	EV Charger 7
EV Charger 2	32.0	40/2	5	C	6		32.0	EV Charger 7
EV Charger 2	32.0		7	A	8	40/2	32.0	EV Charger 8
SPARE	0.0	20/1	9	B	10		32.0	EV Charger 8
EV Charger 3	32.0	40/2	11	C	12	20/1	0.0	SPARE
EV Charger 3	32.0		13	A	14	20/1	0.0	SPARE
EV Charger 4	32.0	40/2	15	B	16	20/1	0.0	SPARE
EV Charger 4	32.0		17	C	18	40/2	32.0	EV Charger 9
SPARE	0.0	20/1	19	A	20		32.0	EV Charger 9
EV Charger 5	32.0	40/2	21	B	22	40/2	32.0	EV Charger 10
EV Charger 5	32.0		23	C	24		32.0	EV Charger 10
EV Charger 6	32.0	40/2	25	A	26	20/1	1.5	WP RECPTS
EV Charger 6	32.0		27	B	28	20/1	0.0	SPARE
SPARE	0.0	40/2	29	C	30	20/1	0.0	SPARE
SPARE	0.0		31	A	32	20/1	5.0	CC Kiosk
SPARE	0.0	40/2	33	B	34	20/1	0.0	SPARE
SPARE	0.0		35	C	36	20/1	0.0	SPARE
SPARE	0.0	20/1	37	A	38	20/1	0.0	SPARE
SPARE	0.0	20/1	39	B	40	20/1	0.0	SPARE
SPARE	0.0	20/1	41	C	42	20/1	0.0	SPARE

NOTES: PROVIDE INTEGRAL SPD. PROVIDE INTEGRATED CUSTOMER METER. PROVIDE WP PANEL WITH VANDAL PROOF DOOR COVER.

SUMMARY (AMPS):

PHASE LOAD	A	B	C
CONNECTED	198.5	224.0	224.0
DEMAND	198.5	224.0	224.0

DEMAND LOAD	224.0
CONTINUOUS LOAD	0.0
SPARE LOAD	33.6
TOTAL LOAD	257.6
FUTURE	0.0
257.6 DESIGN LOAD	

SCHEDULE
EV MDP PART II
FLUSH MOUNTED

29,082 SCA AVAILABLE — 3 PHASE — 120/208 VOLTS
600 AMP BUS — 600 AMP LUGS

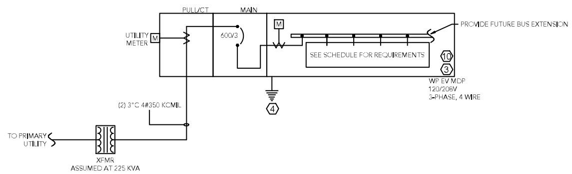
SERVICE	LOAD (AMP)	BREAKER (A/P)	CIRCUIT (# & Φ)			BREAKER (A/P)	LOAD (AMP)	SERVICE
SPARE	0.0	40/2	1	A	2	600/3	0.0	SPACE
SPARE			3	B	4			SPACE
SPARE	0.0	40/2	5	C	6			SPACE
SPARE			7	A	8	80/3	0.0	SPACE
SPARE	0.0	40/2	9	B	10			SPACE
SPARE			11	C	12			SPACE
SPARE	0.0	40/2	13	A	14	100/3	0.0	SPACE
SPARE			15	B	16			SPACE
SPARE	0.0	40/2	17	C	18			SPACE
SPARE			19	A	20	225/3	0.0	SPACE
SPARE	0.0	40/2	21	B	22			SPACE
SPARE			23	C	24			SPACE
SPARE	0.0	20/1	25	A	26	225/3	0.0	SPACE
SPARE	0.0	20/1	27	B	28			SPACE
SPARE	0.0	20/1	29	C	30			SPACE
SPARE	0.0	20/1	31	A	32	225/3	0.0	SPACE
SPARE	0.0	20/1	33	B	34			SPACE
SPARE	0.0	20/1	35	C	36			SPACE
SPARE	0.0	20/1	37	A	38	20/1	0.0	SPARE
SPARE	0.0	20/1	39	B	40	20/1	0.0	SPARE
SPARE	0.0	20/1	41	C	42	20/1	0.0	SPARE

NOTES: PROVIDE INTEGRAL TVSS

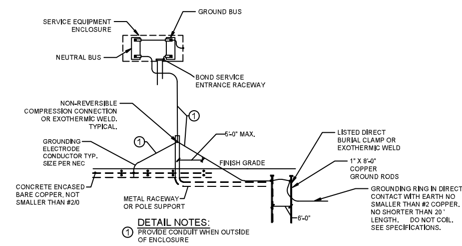
SUMMARY (AMPS):

PHASE LOAD	A	B	C
CONNECTED	0.0	0.0	0.0
DEMAND	0.0	0.0	0.0

DEMAND LOAD	0.0
CONTINUOUS LOAD	0.0
SPARE LOAD	0.0
TOTAL LOAD	0.0
FUTURE	0.0
0.0 DESIGN LOAD	



2 E8.12 ELECTRICAL ONE-LINE
SCALE: NTS



3 E8.12 EXTERIOR SERVICE GROUND DETAIL
SCALE: NTS

SHEET NOTES

A. PGE WORK ORDER NUMBER M3110622. CONTACT RAYMOND LAMBERT (RAYMOND.LAMBERT@PGN.COM) FOR SERVICE COORDINATION WITH PGE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

B. SEE CIVIL FOR TRENCHING AND OR TO BORE UNDER EXISTING PARKING AREA.

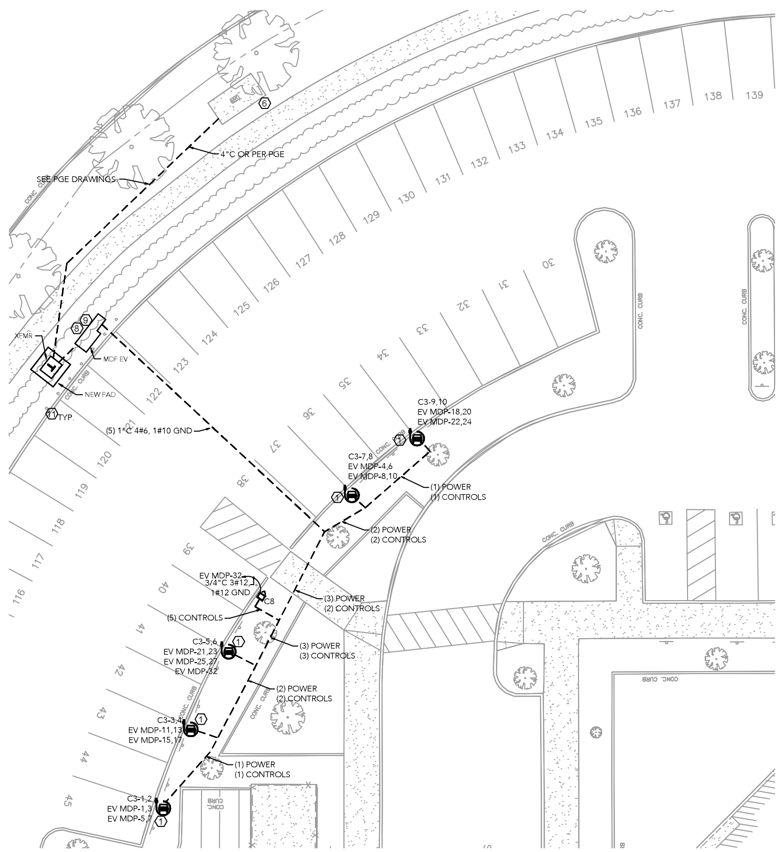
C. SEE SPECIFICATION FOR INTEGRATED PANEL METER REQUIREMENTS

D. EXTERIOR PANELBOARDS, AND SWITCHBOARDS SHALL INCLUDE WP AND VANDAL DOORS/COVERS.

E. SEE CIVIL FOR LAYOUT, SIGNAGE, TRENCHING, AND SURFACE RESORATION.

KEYED NOTES

1. CONNECT EXISTING FEEDER TO NEW EV CHARGER
2. NOT USED.
3. PROVIDE INTEGRATED SPD.
4. SEE EXTERIOR SERVICES GROUND DETAIL
5. NOT USED.
6. APPROXIMATE LOCATION OF (E) UTILITY EQUIPMENT.
7. NOT USED.
8. PROVIDE WP GFI 120V CONVENIENCE RECEPTACLE IN METAL IN-USE LOCKING COVER CIRCUITED TO 'EV MDP-26'. SEE DETAIL.
9. PROVIDE CONCRETE PAD BASE. SEE CIVIL.
10. PROVIDE INTEGRATED CUSTOMER METER.
11. SEE CIVIL FOR BOLLARD DETAIL.



1 E8.12 ENLARGED PLAN
SCALE: 3/32" = 1'-0"

REV.	DATE	DESCRIPTION
1	16 JUNE 2022	REVISIONS FOR CITY PLAN REVIEW

REGISTERED PROFESSIONAL ENGINEER 59,920
DIGITALLY SIGNED BY: Matthew J. Cash
OREGON
JANUARY 18, 2005
MATTHEW J. CASH
EXPIRES: 12/31/2023

FLUENT ENGINEERING
STEWARDSHIP THROUGH DESIGN™
2110 STATE STREET
SALEM, OREGON 97301
503-447-5030
FLUENTENGINEERING.COM
NOT FOR CONSTRUCTION WHEN UNSIGNED

Locke CIVIL & STRUCTURAL ENGINEERS inc
289 E Ellendale Ave, Suite 703
Dallas, Oregon 97338
503.364.8207 LockeEngineers.com

CONFORMED SET - 04 OCT 2022

OREGON DEPT. OF ADMINISTRATIVE SERVICES
PARKING LOT UPGRADE PROJECT
550 BUILDING LOT
550 CAPITOL STREET NE, SALEM OREGON
ELECTRICAL ENLARGED PLAN & DETAIL

JOB NO.	20-108
DATE	April 4, 2022
DESIGN BY	BJ/BM
CHECKED BY	MJC
SHEET	E8.12