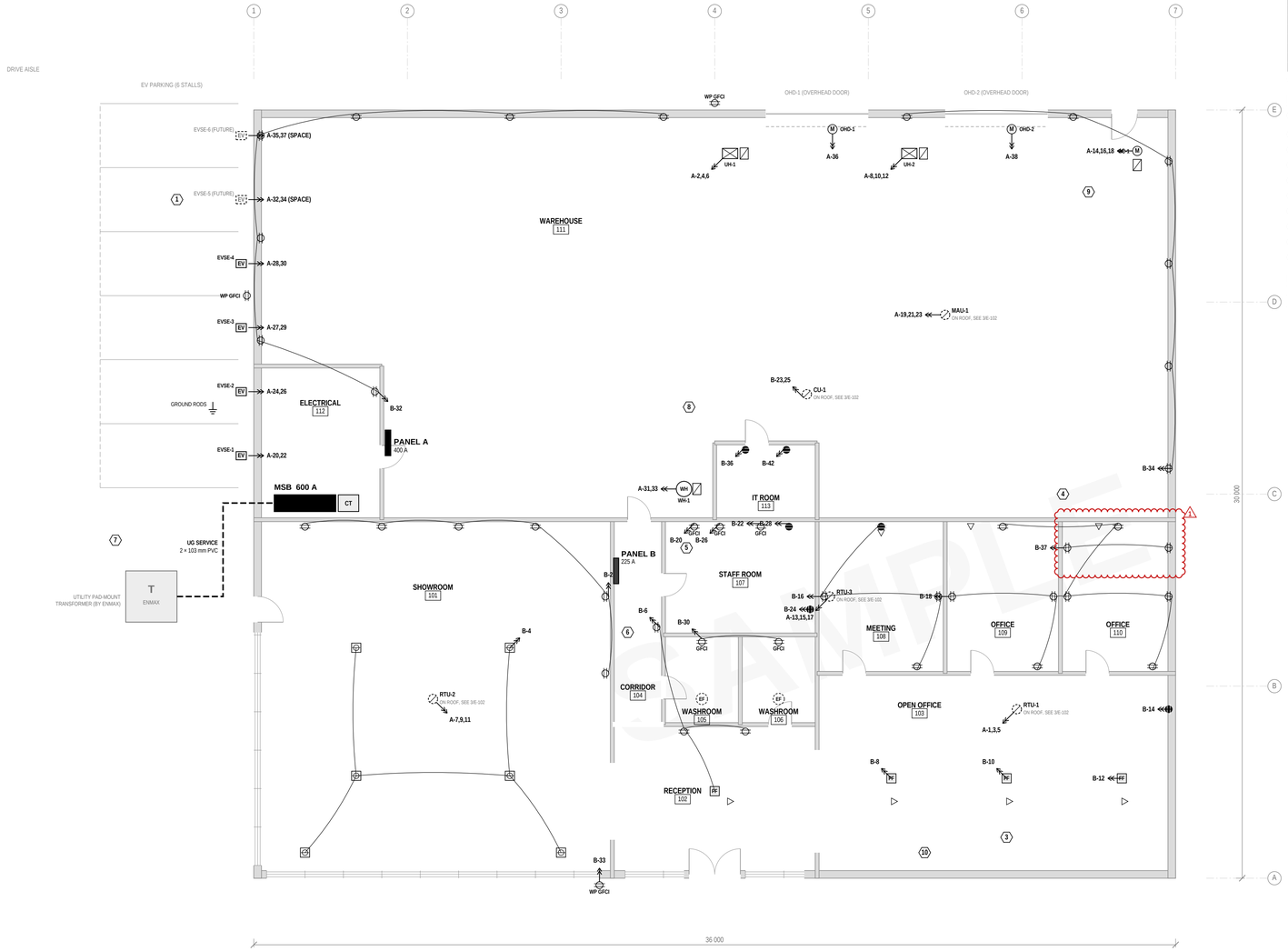
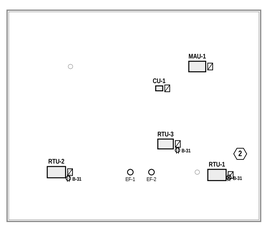


2 POWER AND SYSTEMS PLAN

E-102

SCALE 1:100



3 ROOF PLAN

E-102

SCALE 1:400 · ROOFTOP EQUIPMENT, DISCONNECTS, SERVICE RECEPTACLES

EQUIPMENT CONNECTION SCHEDULE

TAG	DESCRIPTION	V/PH	LOAD	BKR	WIRE	DISCONNECT	CIRCUIT
RTU-1	Rooftop unit, 10 t, gas heat	208/3	46.2 A MCA	60 A 3P	#6 Cu	60 A 3P NF, NEMA 3R	A-1,3,5
RTU-2	Rooftop unit, 10 t, gas heat	208/3	46.2 A MCA	60 A 3P	#6 Cu	60 A 3P NF, NEMA 3R	A-7,9,11
RTU-3	Rooftop unit, 7.5 t, gas heat	208/3	36.0 A MCA	50 A 3P	#8 Cu	60 A 3P NF, NEMA 3R	A-13,15,17
MAU-1	Make-up air unit, gas-fired, 3 hp fan	208/3	10.6 A FLA	15 A 3P	#12 Cu	30 A 3P NF, NEMA 3R	A-19,21,23
UH-1	Electric unit heater, 7.5 kW (door heat)	208/3	7.5 kW	30 A 3P	#10 Cu	30 A 3P NF	A-2,4,6
UH-2	Electric unit heater, 7.5 kW (door heat)	208/3	7.5 kW	30 A 3P	#10 Cu	30 A 3P NF	A-8,10,12
AC-1	Air compressor, 7.5 hp	208/3	24.2 A FLA	50 A 3P	#8 Cu	60 A 3P NF	A-14,16,18
EVSE-1	Level 2 EV charger, 32 A continuous	208/1	32.0 A	40 A 2P	#8 Cu	Integral	A-20,22
EVSE-2	Level 2 EV charger, 32 A continuous	208/1	32.0 A	40 A 2P	#8 Cu	Integral	A-24,26
EVSE-3	Level 2 EV charger, 32 A continuous	208/1	32.0 A	40 A 2P	#8 Cu	Integral	A-27,29
EVSE-4	Level 2 EV charger, 32 A continuous	208/1	32.0 A	40 A 2P	#8 Cu	Integral	A-28,30
WH-1	Electric water heater, 6 kW	208/1	6.0 kW	40 A 2P	#8 Cu	30 A 2P NF	A-31,33
OHD-1	Overhead door operator, 1/2 hp	120/1	9.8 A FLA	20 A 1P	#10 Cu	Motor-rated switch	A-36
OHD-2	Overhead door operator, 1/2 hp	120/1	9.8 A FLA	20 A 1P	#10 Cu	Motor-rated switch	A-38
EF-1	Washroom exhaust fan, 1/6 hp	120/1	2.1 A FLA	15 A 1P	#12 Cu	Integral switch	B-30
EF-2	Washroom exhaust fan, 1/6 hp	120/1	2.1 A FLA	15 A 1P	#12 Cu	Integral switch	B-30
CU-1	IT room split system, outdoor unit	208/1	12.0 A MCA	20 A 2P	#12 Cu	30 A 2P NF, NEMA 3R	B-23,25
EVSE-5	Future EV charger: conduit stub only	208/1	-	SPACE	-	-	A-32,34
EVSE-6	Future EV charger: conduit stub only	208/1	-	SPACE	-	-	A-35,37

Values are design values. Confirm every nameplate (MCA / MOCP) with the mechanical submittal before ordering breakers.

KEYED NOTES

1. Four Level 2 EVSE, 32 A continuous on 40 A 2P breakers. EVSE-5 and -6: 27 mm EMT stub with pull string to Panel A. Connecting them later needs an EV energy management system to stay within Panel A's 400 A rating.
2. Rooftop units: 60 A 3P non-fused disconnect, NEMA 3R, within sight of each unit. WP GFCI service receptacle at each unit on B-31.
3. FF-1 to FF-3: furniture feeds hard-wired to the workstation base feed; four duplex outlets each. Data back boxes by this contractor, cabling by others.
4. REV 1 (CO-07): two duplex receptacles added in 110 OFFICE on new circuit B-37 (20 A). See E-301 and the change order.
5. Staff room counter receptacles GFCI (within 1.5 m of the sink). Dishwasher receptacle below the counter, GFCI.
6. Panel B recessed in the 104 CORRIDOR wall; feeder F2 from the MSB, 21 m (see E-201).
7. Utility transformer, primary and metering equipment by ENMAX. Consumer's service: 2 sets 350 kcmil Cu in 2 × 103 mm PVC, underground (see E-201).
8. WH-1: 6 kW, 208 V 1-phase, 2P non-fused disconnect within sight.
9. AC-1: 7.5 hp, 208 V 3-phase, local disconnect; confirm the nameplate before setting the breaker.
10. Data outlets shown for coordination only. Cabling, patch panels and the rack by others.

DEVICE NOTES

- Receptacles 15 A spec grade at 400 mm AFF unless noted; dedicated outlets 5-20R. See detail 4/E-501 for mounting heights.
- Exterior and roof receptacles WP GFCI with in-use covers.

SAMPLE · FICTIONAL JOB · NOT FOR CONSTRUCTION

Shows the format of an AI-drafted set. A real set uses your title block and your standards.

YOUR LOGO

YOUR COMPANY ELECTRIC LTD.

ELECTRICAL CONTRACTOR

Calgary, Alberta

Your address, phone, email

Master Electrician: your name, No.

REVIEW AND SIGNATURE

MASTER ELECTRICIAN SIGNATURE

P.ENG. SEAL (WHERE REQUIRED)

SAMPLE: NOT REVIEWED, NOT SIGNED, NOT SEALED

PROJECT

OFFICE / SHOWROOM / WAREHOUSE FIT-OUT AND 600 A SERVICE

CALGARY, ALBERTA · FICTIONAL SITE. NO REAL ADDRESS.

OWNER: EXAMPLE OWNER LTD. (FICTIONAL)

PROJECT NO. AS-24-0247

REVISIONS

NO.	DATE	DESCRIPTION
0	2026-09-04	ISSUED FOR PERMIT
1	2026-10-23	CO-07: TWO RECEPTACLES ADDED IN OFFICE 110, NEW CIRCUIT B-37

DRAWN	AI DRAFT (ALPHA SEED)
CHECKED	ESTIMATOR / DESIGNER
REVIEWED	MASTER ELECTRICIAN
SCALE	1:100
DATE	2026-10-23

SHEET TITLE

POWER AND SYSTEMS PLAN

Equipment connection schedule · Rev 1 (CO-07)

SHEET

E-102

PROJECT NO. AS-24-0247

SAMPLE DRAFTED BY ALPHA SEED AI FOR YOUR TEAM TO CHECK · ALPHASEED.CA