ELECTRICAL SYMBOL LIST

LIGHTING SYMBOLS

- FLUORESCENT LIGHT FIXTURE, RECESSED. TYPE AS NOTED.
- A — FLUORESCENT LIGHT FIXTURE, RECESSED – EMERGENCY
- FLUORESCENT LIGHT FIXTURE, SURFACE MOUNT
- FLUORESCENT LIGHT FIXTURE, STRIP
- FLUORESCENT LIGHT FIXTURE, STRIP – EMERGENCY
- DOWNLIGHT FIXTURE, RECESSED
- DOWNLIGHT FIXTURE, RECESSED – EMERGENCY
- FLUORESCENT LIGHT FIXTURE, WALL MOUNT
- LIGHT FIXTURE, WALL MOUNT
- LIGHT FIXTURE, TRACK W/ HEADS AS SHOWN ON PLAN
- EXIT SIGN, UNIVERSAL MOUNT, W/ DIRECTIONAL ARROW
- EMERGENCY LIGHT W/ BATTERY PACK, +8'–0" A.F.F.
- H.I.D. AREA LUMINAIRE, POLE MOUNT

SWITCH SYMBOLS

- $ — SWITCH, SPST +44" A.F.F. TO CENTER
- $3 — SWITCH, 3–WAY +44" A.F.F. TO CENTER
- $3(2) — (2) SWITCHES, 3–WAY +44" A.F.F. TO CENTER
- $4 — SWITCH, 4–WAY +44" A.F.F. TO CENTER
- $D — SWITCH, DIMMER +44" A.F.F. TO CENTER
- $P — SWITCH, SPST, W/PILOT LIGHT +44" A.F.F. TO CENTER
- $K — SWITCH, KEY–OPERATED +44" A.F.F. TO CENTER
- PC — PHOTOCELL

4 — OCCUPANCY SENSOR CONTROL TYPE 1
WALL MOUNT – ON/OFF CONTROL ONLY
(TYPICAL FOR RESTROOMS, EQUIPMENT ROOMS & AREAS THAT DO NOT REQUIRE DIMMING)

OS 1 — OCCUPANCY SENSOR CONTROL TYPE 1
WALL MOUNT – ON/OFF CONTROL ONLY
(TYPICAL FOR RESTROOMS, EQUIPMENT ROOMS & AREAS THAT DO NOT REQUIRE DIMMING)

OS 1D — OCCUPANCY SENSOR CONTROL–TYPE 1 WITH DIMMING
WALL MOUNT
(TYPICAL FOR AMENITY AREAS, CONFERENCE ROOMS, OFFICES & AREAS THAT REQUIRE DIMMING)

OS 2 — OCCUPANCY SENSOR CONTROL–TYPE 2 WITH 360 DEGREE COVERAGE
CEILING MOUNT – ON/OFF CONTROL ONLY

POWER SYMBOLS

- RECEPTACLE, DUPLEX +18" AFF
- RECEPTACLE, QUAD +18" AFF
- RECEPTACLE, MT'D ABOVE COUNTER OR HT. INDICATED
- 5 — RECEPTACLE, DUPLEX ON 'SWITCHED' CIRCUIT +18" AFF
- EMERGENCY DEVICES MT'D ABOVE COUNTER OR HT. INDICATED
- FURNITURE SYSTEM CONNECTION POKE THRU
- OR — RECEPTACLE, SPECIAL (COORDINATE WITH EQUIPMENT SERVED)
- FLOORBOX WITH QUAD RECEPTACLE, REFER TO LOW VOLTAGE DRAWINGS FOR ADD'L REQUIREMENTS
- POWER POLE
- MAGNETIC MOTOR STARTER
- $M — MANUAL MOTOR STARTER
- R — RELAY
- PUSHBUTTON STATION
- JUNCTION BOX
- 5 — T — THERMOSTAT, +44" AFF
- T — TRANSFORMER
- DISCONNECT, NON–FUSED
- F — DISCONNECT, FUSED
- MOTOR
- 277/480V ELECTRICAL PANEL
- 120/208V ELECTRICAL PANEL
- ELECTRICAL PANEL, RECESSED (FLUSH)
- ELECTRICAL PANEL, SURFACE
- MISCELLANEOUS PANEL, RECESSED
- MISCELLANEOUS PANEL, SURFACE

WIRING SYMBOLS

- 2A–9 (PC) — PANEL DESIGNATION & CIRCUIT NUMBER
- DENOTES PART CIRCUIT (SHOWN IN MORE THAN ONE PLACE)
- HOMERUN BACK TO ELECTRICAL PANEL
- #10 — CONDUCTOR SIZE (IF OTHER THAN #12)
- PHASE CONDUCTOR
- NEUTRAL CONDUCTOR
- GROUND CONDUCTOR
- CONCEALED CONDUIT
- CONDUIT UNDERGROUND
- CONDUIT, STUBBED & CAPPED
- LIGHTING CIRCUIT – NORMAL POWER
- LIGHTING CIRCUIT – EMERGENCY POWER

NOTATIONS

- 1 — DRAWING NOTE
- 2 / E9.2 — DETAIL REFERENCE: TOP=DETAIL NO., BOTTOM=SHEET NO.
- EF 2 — MECHANICAL EQUIPMENT MARK NO. (SEE EQUIPMENT SCHEDULE)
- 2 — REVISION DELTA
- 1 — FEEDER NO. (SEE FEEDER SCHEDULE)

ONE LINE DIAGRAM SYMBOLS

- 200/3 — CIRCUIT BREAKER (TRIP RATING & POLES AS INDICATED ON PLAN)
- MAIN SWITCH (RATING & POLES AS INDICATED ON PLAN)
- 200A 3P / 200A 'RK1' — FUSE (RATING & CLASS AS INDICATED ON PLAN)
- GEN — GENERATOR (RATING AS INDICATED ON PLAN)
- TRANSFORMER (RATING AS INDICATED ON PLAN)
- GROUND
- TRANSFER SWITCH (MANUAL OR AUTOMATIC)
- 200A 'RK1' — FUSE (RATING & CLASS AS INDICATED ON PLAN)
- GROUND SYSTEM (SIZE AS INDICATED ON PLAN)
- WATER PIPE GROUND ELECTRODE
- M — UTILITY METER & METER BASE
- C.T. — UTILITY METER CURRENT TRANSFORMER

(SCALE AS INDICATED ON PLANS)

(SCALE AS INDICATED ON PLANS)

(SCALE AS INDICATED ON PLANS)

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	GND	GROUND	SPD	SURGE PROTECTIVE DEVICE (TVSS)
AFG	ABOVE FINISH GRADE	HID	HIGH INTENSITY DISCHARGE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
'ATS'	AUTOMATIC TRANSFER SWITCH	HP	HORSEPOWER	UG	UNDERGROUND
BOF	BOTTOM OF FIXTURE	JB	JUNCTION BOX	UNO	UNLESS NOTED OTHERWISE
C (C/W)	CONDUIT (CONDUIT & WIRE)	MCB	MAIN CIRCUIT BREAKER	VFD	VARIABLE FREQUENCY DRIVE
CATV	CABLE TELEVISION	MLO	MAIN LUGS ONLY	W	WIRE
CB	CIRCUIT BREAKER	'MTS'	MANUAL TRANSFER SWITCH	WG	WIRE GUARD
CCT	CIRCUIT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	WP	WEATHERPROOF
CF/CI	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED	NEC	NATIONAL ELECTRICAL CODE	XFMR	TRANSFORMER
CT	CURRENT TRANSFORMER	NIC	NOT IN CONTRACT	XP	EXPLOSION PROOF
DBL	DOUBLE (AS IN DOUBLE SWITCHED)	NL	NIGHT LIGHT		
(E)	EXISTING	OL	OVERLOAD		
EG	EQUIPMENT GROUND	OF/OI	OWNER FURNISHED / OWNER INSTALLED		
EPO	EMERGENCY POWER OFF	OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED		
FA	FIRE ALARM	(PC)	PART CIRCUIT		
FACP	FIRE ALARM CONTROL PANEL	RGSC	RIGID STEEL CONDUIT		
GFI	GROUND FAULT INTERRUPTER	SEC	SECONDARY		

GENERAL CONSTRUCTION NOTES:

CONTRACTOR SHALL BE RESPONSIBLE FOR THOROUGHLY REVIEWING THE PLANS AND SPECIFICATION DOCUMENTS PRIOR TO THE START OF ANY WORK.

ALL DIMENSIONS ARE MEASURED TO THE CENTER OF THE DEVICE ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED AS IS STANDARD BUILDING PRACTICE.

ALL ELECTRICAL PLANS ARE DIAGRAMMATICAL AND THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF DEVICES AND FIXTURES.

FIRE RATED INSTALLATION NOTE:

ELECTRICAL ITEMS (LIGHT FIXTURES, BOXES, ETC.) WHICH ARE RECESSED INTO FIRE–RATED CEILINGS OR WALLS, SHALL BE 'ALCOVED' IN GYPSUM BOARD ENCLOSURES PER ARCHITECTURAL DETAILS, OR THE DEVICES SHALL BE 'UL' LISTED WITH FIRE–RATING EQUAL TO OR GREATER THAN THE FIRE–RATING OF THE ADJACENT CONSTRUCTION.

1. SYMBOLS & ABBREVIATIONS MAY OR MAY NOT APPLY TO PROJECT
2. REFER TO LOW VOLTAGE DRAWINGS FOR ASSOCIATED SYMBOLS

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www.studio3architecture.com

10-8-2015
REGISTERED PROFESSIONAL ENGINEER
16,597
OREGON
JULY 20, 1993
ROBERT L. CONNELL
EXPIRES 12-31-2017

PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS

1	02.05.16 PLAN REVIEW
2	07.14.17 COORDINATION
4	06.22.18 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING
NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

MEA INC. Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PHN: (503) 234-0548
FAX: (503) 234-0677
WWW.MFIA-ENG.COM
CONTACT: DENISE TAYLOR

SHEET:
E1.00

1 E1.01 SITE PLAN – ELECTRICAL
SCALE: 1" = 10'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. REFER TO CIVIL UTILITY PLANS FOR EXACT LOCATION OF TRANSFORMER AND VAULT.

C. U.G. PRIMARY FEEDER SHALL HAVE MINIMUM 48" BURY

D. U.G. SECONDARY FEEDER SHALL HAVE MINIMUM 36" BURY.

E. REFER TO ONE LINE DIAGRAM SHEET E1.11 FOR FEEDER SCHEDULE.

F. SECONDARY CONDUIT SWEEPS SHALL BE MIN. 60" RADIUS WITH A MINIMUM OF 7'-0" STRAIGHT CONDUIT RUN BETWEEN SWEEPS.

G. LOCATION AND INSTALLATION OF PRIMARY AND SECONDARY CONDUITS, TRANSFORMER AND TRANSFORMER VAULT SHALL BE PROVIDED PER PGE RULES AND REQUIREMENTS.

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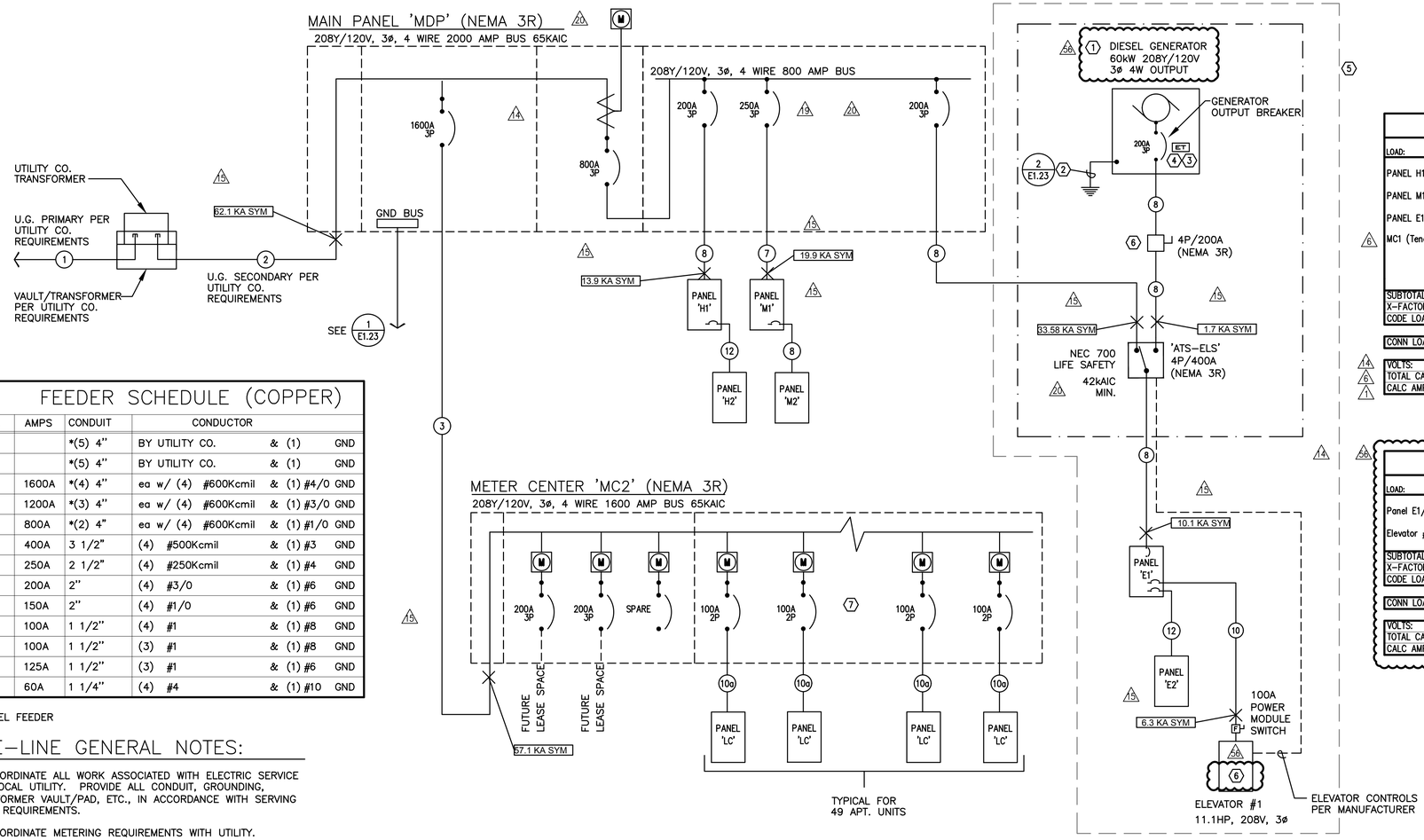

FEEDER SCHEDULE (COPPER)

NO.	AMPS	CONDUIT	CONDUCTOR		
(1)		*(5) 4"	BY UTILITY CO.	& (1)	GND
(2)		*(5) 4"	BY UTILITY CO.	& (1)	GND
(3)	1600A	*(4) 4"	ea w/ (4) #600Kcmil	& (1) #4/0	GND
(4)	1200A	*(3) 4"	ea w/ (4) #600Kcmil	& (1) #3/0	GND
(5)	800A	*(2) 4"	ea w/ (4) #600Kcmil	& (1) #1/0	GND
(6)	400A	3 1/2"	(4) #500Kcmil	& (1) #3	GND
(7)	250A	2 1/2"	(4) #250Kcmil	& (1) #4	GND
(8)	200A	2"	(4) #3/0	& (1) #6	GND
(9)	150A	2"	(4) #1/0	& (1) #6	GND
(10)	100A	1 1/2"	(4) #1	& (1) #8	GND
(10a)	100A	1 1/2"	(3) #1	& (1) #8	GND
(11)	125A	1 1/2"	(3) #1	& (1) #6	GND
(12)	60A	1 1/4"	(4) #4	& (1) #10	GND

* PARALLEL FEEDER

ONE-LINE GENERAL NOTES:

A. COORDINATE ALL WORK ASSOCIATED WITH ELECTRIC SERVICE WITH LOCAL UTILITY. PROVIDE ALL CONDUIT, GROUNDING, TRANSFORMER VAULT/PAD, ETC., IN ACCORDANCE WITH SERVING UTILITY REQUIREMENTS.

B. COORDINATE METERING REQUIREMENTS WITH UTILITY.

△1 C. FOR LOAD CENTER FEEDER LENGTHS GREATER THAN 145'-0" FROM METER CENTER, INCREASE WIRE SIZE ONE SIZE UP FOR VOLTAGE DROP.

△19 D. PER NEC 240.87, THE ELECTRICAL CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR ARC ENERGY REDUCTION DEVICE(S) FOR CIRCUIT BREAKERS 1200A OR GREATER. CONTRACTOR SHALL PROVIDE AN ENERGY-REDUCING ACTIVE FLASH MITIGATION SYSTEM OR OTHER METHOD APPROVED BY THE NEC.

⬡ ONE-LINE NOTES:

△5B 1. GENERATOR SIZED BASED ON CONNECTED LIFE SAFETY PANEL LOADS AND (1) ELEVATOR WITH A MOTOR STARTING RATE OF 53 AMPS. PER THE GENERATOR PROVIDER, THE AUTOMATIC TRANSFER SWITCH SHALL FUNCTION IN TWO STEPS TO REDUCE STARTING INRUSH. CONSULT GENERATOR VENDOR FOR ADDITIONAL INFORMATION.

2. PROVIDE GROUND FOR SEPARATELY DERIVED SYSTEM PER NEC.

3. PROVIDE ELECTRONIC TRIP CIRCUIT BREAKER. EXACT BREAKER TYPE, SETTINGS, ETC. TO BE VERIFIED AND AS DETERMINED BY SELECTIVE COORDINATION STUDY AS PERFORMED BY THE ELECTRICAL DISTRIBUTION EQUIPMENT MANUFACTURER.

4. COORDINATE INSTALLATION OF OUTPUT BREAKER WITH GENERATOR MANUFACTURER TO SELECTIVELY COORDINATE WITH POWER STUDY RECOMMENDATIONS.

5. 'LIFE SAFETY' BRANCH TO MEET ALL REQUIREMENTS OF NEC 700. CONTRACTOR SHALL BE AWARE THAT MFIA HAS ATTEMPTED TO INDICATE EQUIPMENT AND SIZES THAT WILL SELECTIVELY COORDINATE, BUT WILL NOT BE KNOWN UNTIL ELECTRICAL EQUIPMENT MANUFACTURER PERFORMS THE REQUIRED POWER STUDIES AS SPECIFIED IN 26 05 73. CHANGES MAY BE NECESSARY AFTER THE BID.

△5B △14 6. ELEVATOR TO BE PROVIDED WITH 30 SECOND DELAYED START WHEN TRANSFERRED TO THE EMERGENCY POWER SYSTEM IN THE EVENT OF NORMAL POWER FAILURE. CONSULT MANUFACTURER'S REPRESENTATIVE FOR ADDITIONAL INFORMATION.

7. ALL TWO BEDROOM APARTMENTS UNITS TO BE PROVIDED WITH A 125A LOAD CENTER, TYPICAL.

1 / E1.11 ELECTRICAL ONE-LINE DIAGRAM
208/120v, 3ph, 4w

Shaver Street Apartments
LOAD SUMMARY - MAIN PANEL 'MDP' — 4/10/2017

LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	MISC	LARGEST MOTOR
PANEL H1/H2	4,105	14,040	8,000	0	4,200	0	0	
PANEL M1/M2	0	1,620	28,336	0	0	20,872	0	19836
PANEL E1/E2	0	0	0	0	0	0	38,000	
△6 MC1 (Tenant Meters)	0	0	0	0	0	0	505,000	
SUBTOTAL	4,105	15,660	36,336	0	4,200	20,872	543,000	19,836
X-FACTOR	1.25	1 + .5	1	0.65	1	1	1	0.25
CODE LOAD:	5,131	12,830	36,336	0	4,200	20,872	543,000	4,959

CONN LOAD:	624	KVA

△14 VOLTS:	208	3ph
△6 TOTAL CALC:	627	KVA
△1 CALC AMPS:	1741	AMPS

Shaver Street Apartments
'EDP' LOAD SUMMARY - EMERGENCY GENERATOR LOAD — 8/6/2019

LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	ELEVATOR	LARGEST MOTOR
Panel E1/E2	6,511	360	0	0	10,120	7,596	0	
Elevator # 1							17,388	17,388
SUBTOTAL	6,511	360	0	0	10,120	7,596	17,388	17,388
X-FACTOR	1.25	1 + .5	1	0.65	1	1	1	0.25
CODE LOAD:	8,139	360	0	0	10,120	7,596	17,388	4,347

CONN LOAD:	42	KVA

VOLTS:	208	3ph
TOTAL CALC:	48	KVA
CALC AMPS:	133	AMPS

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REVISIONS
△15 04.18.17 COORDINATION
△19 06.30.17 COORDINATION
△20 07.14.17 COORDINATION
△5B 08.30.19 COORDINATION

VANCOUVER AVE PHASE II MIXED USE BUILDING

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Shaver Street Apartments — 7/19/2019

LOAD SUMMARY – EMERGENCY GENERATOR LOAD

LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	ELEVATOR	LARGEST MOTOR
Panel E1/E2	6,511	360	0	0	10,120	7,596	0	
Elevator # 1							17,388	17,388
SUBTOTAL	6,511	360	0	0	10,120	7,596	17,388	17,388
X-FACTOR	1.25	1 + .5	1	0.65	1	1	1	0.25
CODE LOAD:	8,139	360	0	0	10,120	7,596	17,388	4,347

CONN LOAD:	42	KVA

VOLTS:	208	3ph
TOTAL CALC:	48	KVA
CALC AMPS:	133	AMPS

The Shaver Street Apartments — 4/10/2017

RESIDENTIAL LOAD SUMMARY

UNIT TYPE:	QTY PER FLOOR 1	2	3	4	5	TOTAL	AREA (SF)	LTG/RECEPT (3VA / SF)	SM APPL (1500VA X 2)	LAUNDRY (1500VA)	COOKING (CONNECTED)	MICROWAVE (CONNECTED)	DISHWASHER (CONNECTED)	ELECT DRYER (CONNECTED)	WATER HEATER (CONNECTED)	DISPOSAL (CONNECTED)	MOTORS (CONNECTED)	LARGEST OF: AC/HEATING (CONNECTED)
Type A (ADA) – 1 Bed/1 Bath	1	---	---	---	---	1	655	1965	3000	1500	8000	6 1000	744	5400	0	864	0	4500
Type B – 2 Bed/1 Bath	1	---	---	---	---	1	832	2496	3000	1500	8000	1000	744	5400	0	864	0	5200
Type C – 2 Bed/2 Bath	---	2	2	1	---	5	898	2694	3000	1500	8000	1000	744	5400	0	864	0	5200
Type D – 1 Bed/1Bath	---	2	2	2	2	8	660	1980	3000	1500	8000	1000	744	5400	0	864	0	4500
Type E – Studio	---	4	4	1	---	9	531	1593	3000	1500	8000	1000	744	5400	0	864	0	3500
Type F – 1 Bed/1 Bath	---	4	4	1	---	9	661	1983	3000	1500	8000	1000	744	5400	0	864	0	4500
Type G – 2 Bed/2 Bath	---	1	1	---	---	2	1011	3033	3000	1500	8000	1000	744	5400	0	864	0	5200
Type H – 2 Bed/2 Bath	---	1	1	---	---	2	883	2649	3000	1500	8000	1000	744	5400	0	864	0	5500
Type I – 1 Bed/1 Bath	---	1	1	---	---	2	546	1638	3000	1500	8000	1000	744	5400	0	864	0	4500
Type J – 2 Bed/2 Bath	---	---	---	1	1	2	915	2745	3000	1500	8000	1000	744	5400	0	864	0	5200
Type K – 2 Bed/2 Bath	---	---	---	1	1	2	1071	3213	3000	1500	8000	1000	744	5400	0	864	0	5200
Type L– 2 Bed/2 Bath	---	---	---	1	1	2	886	2658	3000	1500	8000	1000	744	5400	0	864	0	5200
Type M – 2 Bed/2 Bath	---	---	---	1	1	2	1012	3036	3000	1500	8000	1000	744	5400	0	864	0	5200
Type N – 1 Bed/1 Bath	---	---	---	1	1	2	533	1599	3000	1500	8000	1000	744	5400	1 0	864	0	4500
TOTALS:	2	15	15	10	7	49		107097	147000	73500	392000	49000	36456	264600	0	42336	0	224700

VOLTS:		208	3ph
TOTAL CONNECTED:	1	1337	KVA
DEMAND FACTOR:		0.26	Based on Total Number of Residential Units = 49 (See N.E.C. Article: 220.84)
TOTAL CALCULATED:	6	348	KVA
CALCULATED AMPS:		966	AMPS

14

MECHANICAL EQUIPMENT SCHEDULE

NO.	EQUIPMENT NAME	HP/KW	VOLTS	PH	AMPS	CONDUIT	WIRE	GND	CIRCUIT
EF–1	EXHAUST FAN NO.1	80.2W	120	1		1/2"	#12	#12	SEE PLANS
EF–2	EXHAUST FAN NO.2	57W	120	1		1/2"	#12	#12	SEE PLANS
EF–3	EXHAUST FAN NO.3	1/4 HP	120	1		1/2"	#12	#12	M1–1
EF–4	EXHAUST FAN NO.4	1/2 HP	120	1		1/2"	#12	#12	E2–7
EF–5	EXHAUST FAN NO.5	1/2 HP	120	1		1/2"	#12	#12	E2–9
EF–6	EXHAUST FAN NO.6	1/4 HP	120	1		1/2"	#12	#12	E2–11
EF–7	EXHAUST FAN NO.7	1/2 HP	120	1		1/2"	#12	#12	E2–13
EF–8	EXHAUST FAN NO.8	80.2W	120	1		1/2"	#12	#12	SEE PLANS
EF–9	EXHAUST FAN NO.9	1/4 HP	120	1		1/2"	#12	#12	E2–12
EF–10	EXHAUST FAN NO.10	1/4 HP	120	1		1/2"	#12	#12	E2–14
1 EH–1	ELECTRIC WALL HEATER #1	1.5 KW	208	1		1/2"	#12	#12	SEE UNIT PLANS
EH–2a	ELECTRIC WALL HEATER NO.2a	1.5 KW	120	1		1/2"	#12	#12	M1–2
EH–2b	ELECTRIC WALL HEATER NO.2a	1.5 KW	120	1		1/2"	#12	#12	M1–3
EH–3a	ELECTRIC WALL HEATER NO.3a	4.0 KW	208	1		1/2"	#12	#12	H1–25,27
EH–3b	ELECTRIC WALL HEATER NO.3b	4.0 KW	208	1		1/2"	#12	#12	H1–26,28
EH–4	ELECTRIC WALL HEATER NO.4	500W	120	1		1/2"	#12	#12	M1–4
EH–5a	ELECTRIC WALL HEATER NO.5a	2.5KW	208	1		1/2"	#12	#12	M1–5,7
EH–5b	ELECTRIC WALL HEATER NO.5b	2.5KW	208	1		1/2"	#12	#12	M1–6,8
IAC–1	SPLIT SYSTEM UNIT NO.1		208	1	13.0 MCA	1/2"	#12	#12	M1–23,25 (PC)
OAC–1	SPLIT SYSTEM UNIT NO.1					1/2"	#12	#12	M1–23,25 (PC)
6 IHP–1	MINI SPLIT HEAT PUMP NO.1		208	1	17.0 MCA	1/2"	#12	#12	SEE UNIT PLANS
OHP–1	MINI SPLIT HEAT PUMP NO.1					1"	#4	#10	SEE UNIT PLANS
IHP–2	MINI SPLIT HEAT PUMP NO.2A/B		208	1	17.0 MCA	1/2"	#12	#12	SEE UNIT PLANS
OHP–2	MINI SPLIT HEAT PUMP NO.2					1/2"	#12	#12	SEE UNIT PLANS
IHP–3	MINI SPLIT HEAT PUMP NO.3		208	1	17.0 MCA	1/2"	#12	#12	SEE UNIT PLANS
OHP–3	MINI SPLIT HEAT PUMP NO.3					1/2"	#12	#12	SEE UNIT PLANS
FC–1	FAN COIL UNIT NO.1		208	3	55.1 MCA	1"	#4	#10	M1–15,17,19
HP–1	HEAT PUMP NO.1		208	3	14.1 MCA	1/2"	#12	#12	M2–2,4,6
RTU–1	AIR HANDLING UNIT NO.1		208	3	36.0 MCA	3/4'	#6	#10	M2–1,3,5
4 P–1	BOOSTER PUMP NO.1	(2) 5HP	208	3	28.8 EA.	1"	#4	#10	H1–35,37,39
6 PTHP–1	THRU–WALL HEAT PUMP NO.1	3.5KW	208	1		1/2"	#12	#12	SEE UNIT PLANS
PTHP–2	THRU–WALL HEAT PUMP NO.2	3.5KW	208	1		1/2"	#12	#12	SEE UNIT PLANS
SP–1	SUMP PUMP NO.1	1/2HP	120	1		1/2"	#12	#12	E1–20
5 RP–1	RECIRC. PUMP NO.1	1/2HP	120	1		1/2"	#12	#12	M1–31
WH–1	WATER HEATER NO.1 (GAS)		120	1		1/2"	#12	#12	M1–29(PC)
WH–2	WATER HEATER NO.2 (GAS)		120	1		1/2"	#12	#12	M1–29 (PC)

GENERAL EQUIPMENT NOTES:

A. CONTRACTOR/DESIGNER SHALL VERIFY ALL MECHANICAL EQUIPMENT CONNECTION LOAD REQUIREMENTS WITH THE MECHANICAL EQUIPMENT PROVIDER PRIOR TO ROUGH IN.

B. MECHANICAL EQUIPMENT SIZES SHOWN IN THE MECHANICAL SCHEDULE ABOVE ARE FOR REFERENCE ONLY AND MAY NOT REFLECT THE ACTUAL EQUIPMENT TO BE INSTALLED.

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REGISTERED PROFESSIONAL ENGINEER 16,597 OREGON JULY 20, 1993 ROBERT L. CONNELL
EXPIRES 12-31-2017

PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS
1 02.05.16 PLAN REVIEW
6 12.16.16 COORDINATION
14 04.14.17 COORDINATION
15 05.17.19 COORDINATION

VANCOUVER AVE PHASE II MIXED USE BUILDING

NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

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SHEET: E1.12

MFIA PANEL SCHEDULE

panel	mounting	location	connected load amps
E1	SURFACE	1ST FLOOR (20)	106

voltage	phase	bus & main (15)	calculated load amps
120/208V	3	200A (SCCR: 42K) MCB	109

C	service	va	o/p	no.	a b c	no.	o/p	va	service	C
1	LIGHTS – BLDG EXTERIOR	112	20/1	1	*	2	20/1	500	GENERATOR ANNUNCICATOR	5
1	LIGHTS – GARAGE	828	20/1	3	*	4	20/1	500	GEN. BLOCK HEATER	5
1	LIGHTS – STAIR #1	420	20/1	5	*	6	20/1	1000	GEN. CHARGER	5
1	LIGHTS – STAIR #2	462	20/1	7	*	8	20/1	500	GEN CONTROLS	5
1	LIGHTS – 1ST FLOOR (LCP)	460	20/1	9	*	10	20/1	500	GEN SET LTS & RECEPT	5
1	LIGHTS – 1ST FLOOR	460	20/1	11	*	12	20/1	248	ELEVATOR PIT LIGHTS	1
1	LIGHTS – 2ND FLOOR (LCP)	739	20/1	13	*	14	20/1	360	RECEPT – ELEVATOR PIT	2
5	FACP	500	20/1	15	*	16	20/1	500	ELEVATOR CAB LIGHTS	1
	SPARE	0	20/1	17	*	18	20/1	500	FIRE RISER AIR COMPRESSOR	6
5	SMOKE DAMPERS	1000	20/1	19	*	20	20/1	500	SP–1 (ELEV. PIT)	6
	SPARE	0	20/1	21	*	22	20/1	1500	SMOKE CURTAINS	5
	SPARE	0	20/1	23	*	24	20/1	0	SPARE	
	SPARE	0	20/1	25	*	26	20/1	0	SPARE	
	SPARE	0	20/1	27	*	28	20/1	0	SPARE	
	SPARE	0	20/1	29	*	30	20/1	0	SPARE	
	SPARE	0	20/1	31	*	32	20/1	0	SPARE	
	SPARE	0	20/1	33	*	34	20/1	0	SPARE	
	SPARE	0	20/1	35	*	36	20/1	0	SPARE	
6	ELEVATOR	5796	100/3	37	*	38	60/3	4216	PANEL E2	7
6	*.	5796	*	39	*	40	*	2580	*	7
6	*	5796	*	41	*	42	*	2480	*	7

		NOTES:	line–line voltage
Phase A	14185 VA		208
Phase B	13164 VA		largest motor (va)
Phase C	10904 VA		0
Total Connected	38253 VA		

load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)
1. LIGHTS=	1313	1788	1128 VA	4229	1.25	5286
2. RECEPT.=	360	0	0 VA	360	1 + 0.5	360
3. HEATING=	0	0	0 VA	0	1.00	0
4. KITCHEN=	0	0	0 VA	0	1.00	0
5. EQUIP.=	2098	3000	1000 VA	6000	1.00	6000
6. MOTORS=	6296	5796	6296 VA	18388	*	18388
7. MISC=	4216	2580	2480 VA	9276	1.00	9276
(* 125% of the largest motor + 100% of the balance)				TOTAL =		39310

MFIA PANEL SCHEDULE

panel	mounting	location	connected load amps
H1	SURFACE	1ST FLOOR (20)	140

voltage	phase	bus & main (15)	calculated load amps
120/208V	3	200A (SCCR: 22K) MLO	143

C	service	va	o/p	no.	a b c	no.	o/p	va	service	C
	SPARE	0	20/1	1	*	2	20/1	720	RECEPT – BLDG EXTERIOR	2
1	LIGHTS – GARAGE (LCP)	740	20/1	3	*	4	20/1	1080	RECEPT – 1ST FLOOR	2
1	LIGHTS – 1ST FLOOR (LCP)	772	20/1	5	*	6	20/1	720	RECEPT – 1ST FLOOR	2
1	LIGHTS – 2ND FLOOR (LCP)	384	20/1	7	*	8	20/1	1080	RECEPT – 1ST FLOOR	2
1	LIGHTS – 1ST FLOOR	500	20/1	9	*	10	20/1	540	RECEPT – 1ST FLOOR	2
1	LIGHTS – 2ND FLOOR	384	20/1	11	*	12	20/1	1500	BUILDING SIGNS	5
2	RECEPT – 2ND FLOOR	900	20/1	13	*	14	20/1	360	RECEPT – ELEV. MACH RM	2
2	RECEPT – 2ND FLOOR	900	20/1	15	*	16	20/1	500	PHONE BOARD	5
2	RECEPT – 2ND FLOOR DATA	360	20/1	17	*	18	20/1	1000	AUTO DOORS (FUTURE)	5
2	RECEPT – LEASE SPACE A	540	20/1	19	*	20	20/1	900	RECEPT – LEASE SPACE B	2
1	LIGHTS – LEASE SPACE A	560	20/1	21	*	22	20/1	560	LIGHTS – LEASE SPACE A	1
5	SIGNS – LEASE SPACE A	1000	20/1	23	*	24	20/1	1000	SIGNS – LEASE SPACE B	5
3	HEAT – LEASE SPACE A	2000	20/2	25	*	26	20/2	2000	HEAT – LEASE SPACE B	3
3	*	2000	*	27	*	28	*	2000	*	3
5	AUTO DOORS	1000	20/1	29	*	30	20/2	1675	COFFEE MAKER	5
5	PKG CONCIERGE SYSTEM	1000	20/1	31	*	32	*	1675	*	5
5	PKG CONCIERGE SYSTEM	1000	20/1	33	*	34	20/1	1400	RECEPT – COFFEE BAR	2
6	BOOSTER PUMP P–1	3456	60/3	35	*	36	20/1	0	SPARE	
6	*	3456	*	37	*	38	60/3	2924	PANEL HP2	7
6	*	3456	*	39	*	40	*	2181	*	7
	SPARE	0	20/1	41	*	42	*	2124	*	7

		NOTES:	line–line voltage
Phase A	17939 VA		208
Phase B	17417 VA		largest motor (va)
Phase C	14991 VA		0
Total Connected	50347 VA		

load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)
1. LIGHTS=	384	2360	1156 VA	3900	1.25	4875
2. RECEPT.=	4500	3920	1080 VA	9500	1 + 0.5	9500
3. HEATING=	4000	4000	0 VA	8000	1.00	8000
4. KITCHEN=	0	0	0 VA	0	1.00	0
5. EQUIP.=	2675	1500	7175 VA	11350	1.00	11350
6. MOTORS=	3456	3456	3456 VA	10368	*	10368
7. MISC=	2924	2181	2124 VA	7229	1.00	7229
(* 125% of the largest motor + 100% of the balance)				TOTAL =		51322

MFIA PANEL SCHEDULE

panel	mounting	location	connected load amps
M1	SURFACE	1ST FLOOR (20)	217

voltage	phase	bus & main (15)	calculated load amps
120/208V	3	250A (SCCR: 22K) MLO	221

C	service	va	o/p	no.	a b c	no.	o/p	va	service	C
6	EF–3	696	20/1	1	*	2	20/1	1500	EH–2a (STAIR #1)	3
3	EH–2b (STAIR #2)	1500	20/1	3	*	4	20/1	500	EH–4 (RISER RM)	3
3	EH–5a (BIKE STORAGE)	1250	20/2	5	*	6	20/2	1250	EH–5b (TRASH RM)	3
3	*	1250	*	7	*	8		1250	*	3
6	TRASH COMPACTOR	2100	35/3	9	*	10	35/3	2100	TRASH COMPACTOR	6
6	*	2100	*	11	*	12	*	2100	*	6
6	*	2100	*	13	*	14	*	2100	*	6
3	FCU–1	6612	60/3	15	*	16	20/2	1000	OVERHEAD DOOR–TRASH RM	6
3	*	6612	*	17	*	18	*	1000	*	6
3	*	6612	*	19	*	20	20/1	500	IRRIGATION CONTROLLER	5
6	LOUVER DAMPER	500	20/1	21	*	22	20/1	1500	TRAP PRIMERS	5
6	IAC/OAC–1	1352	20/2	23	*	24	20/1	360	GATE CONTROLS	5
6	*	1352	*	25	*	26	20/1	1176	MOTORIZED GATE	6
5	BUILD ACCESS CONTROLS	1000	20/1	27	*	28	20/1	500	LCP	5
3	WH–1 & WH–2	1000	20/1	29	*	30	20/1	0	SPARE	
6	RP–1	1176	20/1	31	*	32	100/3	8232	PANEL M2	7
3	HEAT TRACE	1000	20/1	33	*	34	*	7112	*	7
3	HEAT TRACE	1000	20/1	35	*	36	*	6612	*	7
	BLANK			37	*	38			BLANK	
	BLANK			39	*	40			BLANK	
	BLANK			41	*	42			BLANK	

		NOTES:	line–line voltage
Phase A	27944 VA		208
Phase B	25424 VA		largest motor (va)
Phase C	24636 VA		6300
Total Connected	78004 VA		

load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)
1. LIGHTS=	0	0	0 VA	0	1.25	0
2. RECEPT.=	0	0	0 VA	0	1 + 0.5	0
3. HEATING=	10612	9612	11112 VA	31336	1.00	31336
4. KITCHEN=	0	0	0 VA	0	1.00	0
5. EQUIP.=	500	3000	360 VA	3860	1.00	3860
6. MOTORS=	8600	5700	6552 VA	20852	*	22427
7. MISC=	8232	7112	6612 VA	21956	1.00	21956
(* 125% of the largest motor + 100% of the balance)				TOTAL =		79579

MFIA CIRCUIT DIRECTORY — 31–Jul–17

Loadcenter Name	mounting	location
LC–STUDIO (TYPICAL)	RECESSED	

voltage	phase	bus & main					
208/120	1	125A MLO			(SCCR: 22K) (20)		
service	o/p	no.	L1	L2	no.	o/p	service
LIGHTS–KITCHEN/LIVING (14)	20/1(A)	1	*		2	20/1	APPLIANCE CIRCUIT
LTS – BATH	20/1(A)	3		*	4	20/1	APPLIANCE CIRCUIT
SPARE	20/1(A)	5	*		6	20/1	REFRIGERATOR
RECEPT – BATH	20/1(A)	7		*	8	20/1	MICRO/HOOD
RECEPT – LIVING	20/1(A)	9	*		10	20/1	GAS RANGE
RECEPT – LIVING (OPT)	20/1(A)	11		*	12	20/1	SPARE
RECEPT – SLEEP AREA	20/1(A)	13	*		14	20/1	DISHWASHER
SPARE	20/1	15		*	16	20/1	DISPOSAL
WASHER	20/1 (G)	17	*		18	20/2	PTHP–1
DRYER (20)	30/2	19	*		20	*	*
* (20)	*	21		*	22	20/1	EF–2 (WHERE USED)
SPARE	30/2	23		*	24	20/1	SPARE
*	*	25	*		26	20/1	SPARE
DRYER BOOSTER(WHERE USED)	20/1	27			28	-----	BLANK
BLANK	-----	29			30	-----	BLANK

NOTES:
1. (A) DENOTES: ARC–FAULT INTERRUPTER CIRCUIT BREAKER. PROVIDE PER NEC 210.12.
2. LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".
3. BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.
4. (G) PROVIDE GFCI RATED BREAKER.

MFIA CIRCUIT DIRECTORY — 31–Jul–17

Loadcenter Name	mounting	location
LC–1BR/1BA (TYPICAL)	RECESSED	

voltage	phase	bus & main					
208/120	1	125A MLO			(SCCR: 22K) (20)		
service	o/p	no.	L1	L2	no.	o/p	service
LIGHTS–KITCHEN/LIVING (14)	20/1(A)	1	*		2	20/1	APPLIANCE CIRCUIT
LTS – BATH	20/1(A)	3		*	4	20/1	APPLIANCE CIRCUIT
LTS – BEDROOMS	20/1(A)	5	*		6	20/1	REFRIGERATOR
RECEPT – BATH	20/1(A)	7		*	8	20/1	MICRO/HOOD
RECEPT – LIVING	20/1(A)	9	*		10	20/1	GAS RANGE
RECEPT – LIVING	20/1(A)	11		*	12	20/1	SPARE
RECEPT – BEDROOM	20/1(A)	13	*		14	20/1	DISHWASHER
SPARE	20/1	15		*	16	20/1	DISPOSAL
WASHER	20/1(G)	17	*		18	20/2	PTHP or IHP/OHP (Where Used)
DRYER (20)	30/2	19	*		20	*	*
* (20)	*	21		*	22	20/1	EF–2(WHERE USED)
SPARE	30/2	23	*		24	20/2	EH–1
*	*	25		*	26	*	*
DRYER BOOSTER(WHERE USED)	20/1	27			28	-----	BLANK
BLANK	-----	29			30	-----	BLANK

NOTES:
1. (A) DENOTES: ARC–FAULT INTERRUPTER CIRCUIT BREAKER. PROVIDE PER NEC 210.12.
2. LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".
3. BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.
4. (G) PROVIDE GFCI RATED BREAKER

MFIA PANEL SCHEDULE

panel	mounting	location	connected load amps
E2	SURFACE	3RD FLOOR (15)	36

voltage	phase	bus & main (15)	calculated load amps
120/208V	3	60A (SCCR: 22K) MLO	38

C	service	va	o/p	no.	a b c	no.	o/p	va	service	C
1	LIGHTS –3RD FLOOR (LCP)	728	20/1	1	*	2	20/1	500	ELEVATOR REFUEF VENT	6
1	LIGHTS – 4TH FLOOR (LCP)	496	20/1	3	*	4	20/1	120	TERRACE GAS SHUT OFF	5
1	LIGHTS – 5TH FLOOR (LCP)	608	20/1	5	*	6	20/1	1000	SMOKE DAMPERS	5
6	EF–4	1176	20/1	7	*	8	20/1	1000	SMOKE DAMPERS	5
6	EF–5	1176	20/1	9	*	10	20/1	1000	SMOKE DAMPERS	5
6	EF–6	1176	20/1	11	*	12	20/1	696	EF–9	6
6	EF–7	1176	20/1	13	*	14	20/1	696	EF–10	6
1	LIGHTS – 5TH FLOOR	450	20/1	15	*	16	20/1	1000	SMOKE DAMPERS	5
	BLANK			17	*	18			BLANK	
	BLANK			19	*	20			BLANK	
	BLANK			21	*	22			BLANK	
	BLANK			23	*	24			BLANK	
	BLANK			25	*	26			BLANK	
	BLANK			27	*	28			BLANK	
	BLANK			29	*	30			BLANK	

		NOTES:	line–line voltage
Phase A	5276 VA		208
Phase B	4242 VA		largest motor (va)
Phase C	3480 VA		0
Total Connected	12998 VA		

load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)
1. LIGHTS=	728	946	608 VA	2282	1.25	2853
2. RECEPT.=	0	0	0 VA	0	1 + 0.5	0
3. HEATING=	0	0	0 VA	0	1.00	0
4. KITCHEN=	0	0	0 VA	0	1.00	0
5. EQUIP.=	1000	2120	1000 VA	4120	1.00	4120
6. MOTORS=	3548	1176	1872 VA	6596	*	6596
7. MISC=	0	0	0 VA	0	1.00	0
(* 125% of the largest motor + 100% of the balance)				TOTAL =		13569

MFIA PANEL SCHEDULE

panel	mounting	location	connected load amps
H2	SURFACE	3RD FLOOR (15)	27

voltage	phase	bus & main (15)	calculated load amps
120/208V	3	60A (SCCR: 22K) MLO	28

C	service	va	o/p	no.	a b c	no.	o/p	va	service	C
1	LIGHTS –3RD FLOOR	384	20/1	1	*	2	20/1	720	RECEPT – 3RD FLOOR	2
1	LIGHTS – 4TH FLOOR	324	20/1	3	*	4	20/1	720	RECEPT – 3RD FLOOR	2
1	LIGHTS – 5TH FLOOR	324	20/1	5	*	6	20/1	720	RECEPT – 4TH FLOOR	2
5	5TH FLOOR FIRE PIT IGNITOR	200	20/1	7	*	8	20/1	720	RECEPT – 4TH FLOOR	2
2	RECEPT – 3RD FLOOR DATA	360	20/1	9	*	10	20/1	720	RECEPT – 5TH FLOOR	2
2	RECEPT – 4TH FLOOR DATA	360	20/1	11	*	12	20/1	720	RECEPT – 5TH FLOOR	2
2	RECEPT – 5TH FLOOR DATA	360	20/1	13	*	14	20/1	540	RECEPT – 5TH FLOOR TERRACE	2
1	LIGHTS – 5TH FLR TERRACE	57	20/1	15	*	16	20/1	500	LOW VOLTAGE LTG–TERRACE	5
5	FIRE PIT IGNITOR (TERRACE)	150	20/1	17	*	18	20/1		5TH FLOOR TERRACE–FUTURE	2
1	LIGHTS –FLRS 3,4,5	384	20/1	19	*	20	20/1	1500	MUSIC SYSTEM	5
	BLANK			21	*	22			BLANK	
	BLANK			23	*	24			BLANK	
	BLANK			25	*	26			BLANK	
	BLANK			27	*	28			BLANK	
	BLANK			29	*	30			BLANK	

		NOTES:	line–line voltage
Phase A	4808 VA		208
Phase B	2681 VA		largest motor (va)
Phase C	2274 VA		0
Total Connected	9763 VA		

load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)
1. LIGHTS=	768	381	324 VA	1473	1.25	1841
2. RECEPT.=	2340	1800	1800 VA	5940	1 + 0.5	5940
3. HEATING=	0	0	0 VA	0	1.00	0
4. KITCHEN=	0	0	0 VA	0	1.00	0
5. EQUIP.=	1700	500	150 VA	2350	1.00	2350
6. MOTORS=	0	0	0 VA	0	*	0
7. MISC=	0	0	0 VA	0	1.00	0
(* 125% of the largest motor + 100% of the balance)				TOTAL =		10131

MFIA PANEL SCHEDULE

panel	mounting	location	connected load amps
M2	SURFACE	3RD FLOOR (15)	61

voltage	phase	bus & main (15)	calculated load amps
120/208V	3	100A (SCCR: 22K) MLO	68

C	service	va	o/p	no.	a b c	no.	o/p	va	service	C
6	RTU–1	4920	50/3	1	*	2	20/3	1692	HP–1	6
6	*	4920	*	3	*	4	*	1692	*	6
6	*	4920	*	5	*	6	*	1692	*	6
2	RECEPT – ROOF GFI	720	20/1	7	*	8	20/1	900	RECEPT – ROOF GFI	2
3	EH–4 (TERRACE RESTRM)	500	20/1	9	*	10	20/1	0	SPARE	
	SPARE	0	20/1	11	*	12	20/1	0	SPARE	
	SPARE	0	20/1	13	*	14	20/1	0	SPARE	
	SPARE	0	20/1	15	*	16	20/1	0	SPARE	
	BLANK			17	*	18			BLANK	
	BLANK			19	*	20			BLANK	
	BLANK			21	*	22			BLANK	
	BLANK			23	*	24			BLANK	
	BLANK			25	*	26			BLANK	
	BLANK			27	*	28			BLANK	
	BLANK			29	*	30			BLANK	

		NOTES:	line–line voltage
Phase A	8232 VA		208
Phase B	7112 VA		largest motor (va)
Phase C	6612 VA		10440
Total Connected	21956 VA		

load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)
1. LIGHTS=	0	0	0 VA	0	1.25	0
2. RECEPT.=	1620	0	0 VA	1620	1 + 0.5	1620
3. HEATING=	0	500	0 VA	500	1.00	500
4. KITCHEN=	0	0	0 VA	0	1.00	0
5. EQUIP.=	0	0	0 VA	0	1.00	0
6. MOTORS=	6612	6612	6612 VA	19836	*	22446
7. MISC=	0	0	0 VA	0	1.00	0
(* 125% of the largest motor + 100% of the balance)				TOTAL =		24566

MFIA CIRCUIT DIRECTORY — 31–Jul–17

Loadcenter Name	mounting	location
LC–2BR/2BA (TYPICAL)	RECESSED	

voltage	phase	bus & main					
208/120	1	125A MLO			(SCCR: 22K) (20)		
service	o/p	no.	L1	L2	no.	o/p	service
LIGHTS–KITCHEN/LIVING (14)	20/1(A)	1	*		2	20/1	APPLIANCE CIRCUIT
LTS – BATH	20/1(A)	3		*	4	20/1	APPLIANCE CIRCUIT
LTS – BEDROOMS	20/1(A)	5	*		6	20/1	REFRIGERATOR
RECEPT – BATH	20/1(A)	7		*	8	20/1	MICRO/HOOD
RECEPT – LIVING	20/1(A)	9	*		10	20/1	GAS RANGE
RECEPT – LIVING	20/1(A)	11		*	12	20/1	SPARE
RECEPT – BEDROOM	20/1(A)	13	*		14	20/1	DISHWASHER
RECEPT – BEDROOM	20/1(A)	15		*	16	20/1	DISPOSAL
WASHER	20/1(G)	17	*		18	20/2	PTHP–2
DRYER (20)	30/2	19	*		20	*	*
* (20)	*	21		*	22	20/1	EF–2 (WHERE USED).
SPARE	30/2	23	*		24	20/2	EH–1 (BR #1)
*	*	25			26	*	*
DRYER BOOSTER(WHERE USED)	20/1	27			28	20/2	EH–1 (BR #2)
BLANK	-----	29			30	*	*

NOTES:
1. (A) DENOTES: ARC–FAULT INTERRUPTER CIRCUIT BREAKER. PROVIDE PER NEC 210.12.
2. LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".
3. BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.
4. (G) PROVIDE GFCI RATED BREAKER.

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REGISTERED PROFESSIONAL ENGINEER
16,597
OREGON
JULY 20, 1993
ROBERT L. CONNELL
EXPIRES 12-31-2017

PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS
(46) 09.21.18 COORDINATION
(47) 10.26.18 COORDINATION
(48) 11.30.18 COORDINATION
(49) 05.17.19 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING
NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

SHEET:
E1.13

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CONTACT: DENISE TAYLOR

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: A-ADA 1BED/1BATH

Area: 655 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,965	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	13,703	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,481	VA
Net "general load"	11,481	VA
Largest of: 3,500 VA of electric space heating (less than 4) at 65%	2,275	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	13,756	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
13,756 VA / 208 volts = 66 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: B 2BED/1BATH

Area: 832 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	2,496	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,234	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,694	VA
Net "general load"	11,694	VA
Largest of: 4,500 VA of electric space heating (less than 4) at 65%	2,925	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	14,619	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
14,619 VA / 208 volts = 70 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: C 2Bed/2Bath

Area: 989 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	2,967	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,705	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,882	VA
Net "general load"	11,882	VA
Largest of: 5,500 VA of electric space heating (less than 4) at 65%	3,575	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	15,457	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
15,457 VA / 208 volts = 74 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: D 1Bed/1Bath

Area: 660 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,980	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	13,718	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,487	VA
Net "general load"	11,487	VA
Largest of: 3,500 VA of electric space heating (less than 4) at 65%	2,275	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	13,762	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
13,762 VA / 208 volts = 66 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: E Studio

Area: 531 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,593	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
Gas Range	500	VA
6 Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	13,331	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,332	VA
Net "general load"	11,332	VA
Largest of: 2,500 VA of electric space heating (less than 4) at 65%	1,625	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	12,957	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
12,957 VA / 208 volts = 62 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: F 1Bed/1Bath

Area: 661 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,983	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	13,721	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,488	VA
Net "general load"	11,488	VA
Largest of: 3,500 VA of electric space heating (less than 4) at 65%	2,275	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	13,763	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
13,763 VA / 208 volts = 66 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: G 2Bed/2Bath

Area: 1,011 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	3,033	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,771	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,908	VA
Net "general load"	11,908	VA
Largest of: 5,500 VA of electric space heating (less than 4) at 65%	3,575	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	15,483	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
15,483 VA / 208 volts = 74 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: H 2Bed/2Bath

Area: 883 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	2,649	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,387	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,755	VA
Net "general load"	11,755	VA
Largest of: 5,500 VA of electric space heating (less than 4) at 65%	3,575	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	15,330	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
15,330 VA / 208 volts = 74 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: I 1Bed/1Bath

Area: 546 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,638	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	13,376	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,350	VA
Net "general load"	11,350	VA
Largest of: 3,500 VA of electric space heating (less than 4) at 65%	2,275	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	13,625	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
13,625 VA / 208 volts = 66 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: J 2Bed/2Bath

Area: 915 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	2,745	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,483	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,793	VA
Net "general load"	11,793	VA
Largest of: 5,500 VA of electric space heating (less than 4) at 65%	3,575	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	15,368	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
15,368 VA / 208 volts = 74 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: K 2Bed/2Bath

Area: 1,071 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	3,213	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,951	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,980	VA
Net "general load"	11,980	VA
Largest of: 5,500 VA of electric space heating (less than 4) at 65%	3,575	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	15,555	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
15,555 VA / 208 volts = 75 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: L 2Bed/2Bath

Area: 886 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	2,658	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,396	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,758	VA
Net "general load"	11,758	VA
Largest of: 5,500 VA of electric space heating (less than 4) at 65%	3,575	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	15,333	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
15,333 VA / 208 volts = 74 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: M 2Bed/2Bath

Area: 1,012 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	3,036	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	14,774	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,910	VA
Net "general load"	11,910	VA
Largest of: 5,500 VA of electric space heating (less than 4) at 65%	3,575	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	15,485	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
15,485 VA / 208 volts = 74 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Shaver Street Apartments

Unit Type: N 1Bed/1Bath

Area: 533 square feet

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	1,599	VA
Small Appliance load (2 ckts at 1500VA each)	3,000	VA
Laundry Load (1 ckt at 1500VA)	1,500	VA
6 Gas Range	500	VA
Other Cooking Appliance Load (Microwave Oven)	1,580	VA
Dishwasher Load	744	VA
1 Electric Dryer Load	3,500	VA
Electric Water Heater Load	0	VA
Disposal load	864	VA
Other motor loads	50	VA
Total "General Loads"	13,337	VA
First 10 kVA of "general loads" at 100%	10,000	VA
Remainder of "general loads" at 40%	1,335	VA
Net "general load"	11,335	VA
Largest of: 3,500 VA of electric space heating (less than 4) at 65%	2,275	VA
-or- VA of electric space heating (4 or more) at 40%	0	VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0	VA
TOTAL LOAD	13,610	VA

For 120/208-volt, 3-wire, single-phase service or feeder,
13,610 VA / 208 volts = 65 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

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REGISTERED PROFESSIONAL ENGINEER
16,597
OREGON
JULY 20, 1993
ROBERT L. CONNELL
EXPIRES 12-31-2017

PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS

1	02.05.16 PLAN REVIEW
6	12.16.16 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING

NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

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SHEET:
E1.14

LIGHTING FIXTURE LIST

TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'A'	(2) F25T8 54 W	TEXAS FLUORESCENTS	C SERIES	TYPE :4' GEN. PURPOSE STRIP MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :ELECTRONIC	 RETAIL SPACE
'A1' 'A1E'	LED 3500K 2000 LM/80CRI 24W	LITHONIA (OR APPROVED EQUAL)	ZL2N SERIES	TYPE :4' GEN. PURPOSE STRIP MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :DIFFUSED ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER	TYPE 'AE' SIMILAR TO TYPE 'A' EXCEPT WITH EMERGENCY BATTERY BACK-UP EQUIP. RMS, TRASH RM
'A2'	LED 3500K 1800 LM/80CRI 24W	LITHONIA (OR APPROVED EQUAL)	XWMLED SERIES	TYPE :4' ENCLOSED INDUSTRIAL MOUNTING :SURFACE HOUSING :POLYCARBONATE LENS/REFL :CLEAR POLYCARBONATE VOLTAGE :MVOLT BALLAST :LED DRIVER	 ELEVATOR PIT
'B1' ⟨2⟩	LED 3500K 2152 LM 18.7W	LITHONIA (OR APPROVED EQUAL)	WL4 20LP835 SERIES	TYPE :4' WRAP AROUND MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER	 STAIRWELLS, EQUIP RMS
LF01 ⟨5⟩	LED 3500K 775LM/80CRI 9W	USAI LIGHTING (OR APPROVED EQUAL)	BEVELED 2.1 3321 SERIES	TYPE :4" DIA. DOWNLIGHT MOUNTING :RECESSED (TRIMLESS) HOUSING :STEEL LENS/REFL :ACRYLIC (90° REFLECTOR) VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT PROVIDE APPROPRIATE HOUSING FOR IC RATED CEILING RESTROOMS, CORRIDORS, LOBBY
LF03 ⟨5⟩	LED 3500K 300LM 5W	JUNO LIGHTING (OR APPROVED EQUAL)	MG1162RD03LM35K SERIES	TYPE :3" DIA. ADJ. DOWNLIGHT MOUNTING :RECESSED HOUSING :ALUMINUM LENS/REFL :GIMBLE VOLTAGE :MVOLT BALLAST :LED DRIVER	NARROW FLOOD DISTRIBUTION. FINISH PER ARCHITECT FIXTURE SHALL BE IC RATED WHERE REQUIRED. FIELD AIMED LOBBY, CORRIDORS
LF05 ⟨5⟩	LED 3500K 625LM/80CRI 9W	USAI LIGHTING (OR APPROVED EQUAL)	BEVELED 2.1 3021 SERIES	TYPE :4" DIA. DOWNLIGHT MOUNTING :RECESSED HOUSING :STEEL LENS/REFL :DEEP REGRESS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT PROVIDE APPROPRIATE HOUSING FOR IC RATED CEILING CORRIDORS, LOBBY
LF06 ⟨6⟩	LED 2700K 845LM/80CRI 11W	ZANEEN LIGHTING LIGHTING (OR APPROVED EQUAL)	BO-LA D9-2209 SERIES	TYPE :DIRECTIONAL SPOT MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT FIELD AIM PER DECORATOR CORRIDORS, LOBBY
LF07 ⟨3⟩ ⟨6⟩	LED 2700K 845LM/80CRI 11W	ZANEEN LIGHTING (OR APPROVED EQUAL)	BO-LA D9-6040 SERIES	TYPE :ADJ, TRACK HEAD MOUNTING :TRACK HOUSING :STEEL LENS/REFL :GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT FIELD AIM PER DECORATOR CORRIDORS, LOBBY
LF08 ⟨3⟩	LED 3500K 340LM/FT 2W/FT	VOLT LIGHTING GROUP CORE LIGHTING GROUP (OR APPROVED EQUAL)	MX35K-24V SERIES APL-90 CHANNEL	TYPE :LED TAPE LIGHT MOUNTING :SELF-ADHESIVE HOUSING :ALUMINUM CHANNEL LENS/REFL :CLEAR LENS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	 CORRIDORS, LOBBY
LF12 ⟨3⟩	LED 3500K 555LM/FT 4W/FT	CORE LIGHTING (OR APPROVED EQUAL)	CSL-320 L1 SERIES	TYPE :LINEAR DIRECT/INDIRECT MOUNTING :SUSPENDED (CABLE HUNG) HOUSING :ALUMINUM LENS/REFL :FROSTED ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT VERIFY MOUNTING HEIGHT BIKE STORAGE
LF13 ⟨1⟩ ⟨3⟩	LED 3500K 340LM/FT 2W/FT	VOLT LIGHTING GROUP CORE LIGHTING GROUP (OR APPROVED EQUAL)	MX35K-24V SERIES APL-90 CHANNEL	TYPE :LED TAPE LIGHT MOUNTING :SELF-ADHESIVE HOUSING :ALUMINUM CHANNEL LENS/REFL :CLEAR LENS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	CONSULT ARCHITECT FOR EXACT INSTALLATION LOCATIONS CORRIDORS, LOBBY
LF15 ⟨3⟩	LED 3500K 350LM/FT 4.5W/FT	PRUDENTIAL LIGHTING (OR APPROVED EQUAL)	BIO2 LED35LOMWGD1G SERIES	TYPE :LINEAR WALL GRAZER MOUNTING :SURFACE (WALL) HOUSING :ALUMINUM LENS/REFL :FROSTED ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT VERIFY MOUNTING HEIGHT ROOF TERRACE RESTRM
△18 LF19	LED 3500K 775LM/80CRI 9W	USAI LIGHTING (OR APPROVED EQUAL)	BEVELED 2.1 3321 SERIES	TYPE :4" DIA. DOWNLIGHT MOUNTING :RECESSED HOUSING :STEEL LENS/REFL :TRIMLESS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT PROVIDE APPROPRIATE HOUSING FOR IC RATED CEILING TERRACE RESTROOM

LIGHTING FIXTURE LIST

△12 △19 △20

TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'X1' 'X2'	LED (GREEN LETTERS) (1.5W)	LITHONIA DMF LIGHTING (OR APPROVED EQUAL)	LE EL N SERIES DLED500EM-G	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :SINGLE FACE/DUAL FACE VOLTAGE :MVOLT BALLAST :NICKLE CADMIUM BATTERY	TYPE 'X2' SIMILAR TO 'X1' EXCEPT WITH DUAL FACE AND/OR DIRCTIONAL ARROWS
'X3'	LED (GREEN LETTERS) (3.5W)	LITHONIA (OR APPROVED EQUAL)	WLTE EL SERIES	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :SINGLE FACE VOLTAGE :MVOLT BALLAST :NICKLE CADMIUM BATTERY	UL LISTED WET LOCATION
'SA'	LED 3000K 1488LM 31W	BEGA (OR APPROVED EQUAL)	6057LED SERIES	TYPE :7.5" DIA. CYLINDER MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :PARTIALLY FROSTED GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT UL LISTED WET LOCATION BUILDING EXTERIOR, CANOPY
'SA1'	LED 3000K 750LM 12W	CORE LIGHTING (OR APPROVED EQUAL)	RLD-420C SERIES	TYPE :4" SQ. DOWNLIGHT MOUNTING :RECESSED HOUSING :ALUMINUM LENS/REFL :PLASTIC VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT UL LISTED WET LOCATION COVERED TERRACE
'SB'	LED 4000k 4245 LUMENS 56 W	LSI LIGHTING (OR APPROVED EQUAL)	CROSSOVER (XPG3) SERIES	TYPE :GARAGE LIGHT MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :TEMPERED GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER	 PARKING GARAGE
'SD'	LED 2000K 2739 LUMEN 50 W	BEGA LIGHTING LSI INDUSTRIES (OR APPROVED EQUAL)	2260L SERIES SWS SERIES	TYPE :WALL SCONCE MOUNTING :SURFACE (+8'-0" AFF MIN) HOUSING :STEEL LENS/REFL :TEMEPERED MATT GLASS VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT 1ST FLOOR COURTYARD

GENERAL NOTES:

A. ALL LIGHT FIXTURES SHALL HAVE ENERGY EFFICIENT LAMPING AND BALLASTS.

B. LIGHT FIXTURES FOR LIVING UNITS SHALL BE "ENERGY STAR" RATED.

C. VERIFY ALL FIXTURE FINISHES WITH ARCHITECT PRIOR TO BID.

D. VERIFY ALL FIXTURE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO BID.

E. VERIFY ALL FIXTURE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH IN.

F. ALL INTERIOR LIGHTING SHALL BE 3500 KELVIN UNLESS OTHERWISE NOTED. THE EXCEPTION TO THIS WILL BE THE LIGHT FIXTURES IN THE APARTMENT UNITS, FIXTURES IN MAINTENANCE AREAS AND TEMPORARY LIGHTING.

G. ALL PRODUCT SUBSTITUTIONS AND VALUE ENGINEERING SHALL BE SUBMITTED DURING BID PHASE, SHALL MEET DESIGN INTENT AND IS SUBJECT TO OWNER APPROVAL.

△4 H. NOT USED.

I. CONTRACTOR SHALL CONSULT MANUFACTURER INSTALLATION INSTRUCTIONS FOR ALL FIXTURES AND DEVICES AND INSTALL AS INSTRUCTED. THIS INCLUDES ALL ELECTRICAL COMPONENTS REQUIRED FOR COMPLETE INSTALLATION. WORK SHALL BE PERFORMED SUCH THAT MANUFACTURER WARRANTY IS NOT VOIDED.

⟨⟩ KEYED LIGHTING NOTES:

1. CONTRACTOR TO DETERMINE FIXTURE LENGTH BASED ON ARCHITECTURAL REFLECTED CEILING PLANS AND ELECTRICAL LIGHTING PLANS. DESIGN INTENT IS FOR THE FIXTURE TO RUN THE ENTIRE LENGTH OF THE "COVE" TO PROVIDE EVEN LIGHT DISTRIBUTION.

   FIXTURE TO BE FIELD AIMED SUCH THAT THE LIGHT OUTPUT IS DIRECTED TOWARD THE CENTER OF THE CORRIDOR.

   FIXTURE(S) SHALL BE PROVIDED WITH DIMMING CAPABILITY.

2. STAIRWELL AND CORRIDOR FIXTURES TO BE EQUIPPED WITH FACTORY INSTALLED OCCUPANCY SENSORS FOR LIGHT REDUCTION DURING PERIODS OF NO ACTIVITY.

△12 3. CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS FOR COMPLETE INSTALL PER INTERIOR DECORATOR'S DIRECTION.

4. PROVIDE ALTERNATE PRICING FOR SIMILAR TYPE FIXTURE WITH LED LAMPING. FIXTURE SHALL BE 3500K, 2400 LUMEN (MINIMUM) AND 100 WATTS (MAX.).

5. IF NECESSARY, CONTRACTOR SHALL PROVIDE IC RATED BOXES FOR FIXTURES NOT MEETING INSULATED CEILING REQUIREMENTS.

△12 6. CONSULT PRODUCT VENDOR AND PROVIDE WITH 3500K LAMPS IF AVAILABLE.

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REVISIONS

△20	07.14.17 COORDINATION
△12	02.02.18 COORDINATION
△18	03.30.18 COORDINATION
△4	07.20.18 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING
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SHEET:
△4
E1.21

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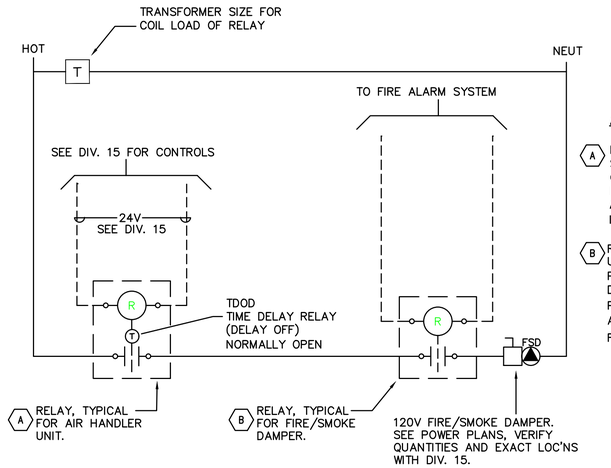
LIGHTING FIXTURE LIST – TYPICAL LIVING UNITS

TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'UA' ⬡2 ⬡3	LED 786 LUMEN 3500K (10W)	HALO (OR APPROVED OTHER)	SMD4R SERIES	TYPE :4" DIA. DOWNLIGHT MOUNTING :SURFACE (J-BOX) HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT. UNIT KITCHEN, HALL, CLOSET,LIVING
'UB'	LED 750 LUMEN 3500K (18W)	KUZCO LIGHTING (OR APPROVED OTHER)	FM3511 SERIES	TYPE :11" DIA. CEILING LIGHT MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :GLASS VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT. UNIT DINING, BEDROOM
'UC'	LED 1000 LUMEN 3000K 15W	DMF LIGHTING (OR APPROVED EQUAL)	DCC2–LARGE SERIES	TYPE :4.5" DIA. PENDANT MOUNTING :SURFACE (STEM HUNG) HOUSING :ALUMINUM LENS/REFL :N/A VOLTAGE :120V BALLAST :LED DRIVER (DIMMING)	VERIFY MOUNTING HEIGHT WITH INTERIOR DESINGER. LOFT UNIT ONLY
'UD'	LED 3000K 3200 LUMENS 50W	LEDALITE (OR APPROVED EQUAL)	24R5LCE SERIES	TYPE :4' LINEAR LED LIGHT MOUNTING :SUSPENDED (CABLE HUNG) HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	VERIFY MOUNTING HEIGHT WITH INTERIOR DESIGNER. LOFT UNIT ONLY
'UF' ⬡4	LED 3000K (5W)	MAJESTIC MIRROR & FRAME (OR APPROVED EQUAL)	ARGYLE SMALL–V SERIES	TYPE :23.5"X37.5" BACK–LIT MIRROR MOUNTING :SURFACE HOUSING :PER MFR LENS/REFL :PER MFR VOLTAGE :120V BALLAST :LED DRIVER	MOUNTING HEIGHT AND FINISH PER ARCHITECT. VERIFY WIRING METHOD PRIOR TO ROUGH IN. UNIT BATHROOM
'UH' ⬡1	N/A 500 W	KING (OR APPROVED EQUAL)	WHFC1210	TYPE :CEILING HEATER MOUNTING :RECESSED HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :NA	 UNIT BATHROOM

⬡ KEYED LIGHTING NOTES:

1. ELECTRICAL CONTRACTOR TO PROVIDE BATHROOM HEATERS AND COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. EACH HEATER SHALL BE CONTROLLED VIA WALL MOUNTED THERMOSTAT, KING ELECTRICAL MODEL K101 OR APPROVED OTHER, MOUNTED PER ADA REACH REQUIREMENTS (48" AFF). REFER TO TYPICAL ENLARGED UNIT PLANS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR TO PROVIDE SINGLE POLE DIMMER SWITCHES AS INDICATED ON SHEETS E4.01–E4.03. DIMMER SWITCHES SHALL MATCH THE DECORATOR TYPE ROCKER SWITCH SPECIFIED IN THE TYPICAL UNIT LIGHTING PLANS OR AS DIRECTED BY THE OWNER. DIMMER SWITCHES SHALL BE COMPATIBLE WITH THE LED LIGHT FIXTURES AND SHALL BE FULLY ADJUSTABLE. CONTRACTOR SHALL FIELD ADJUST TO REDUCE ANY MOMENTARY FLASH DURING START UP.
3. TYPE 'UA' FIXTURES LOCATED IN UNIT BATHROOMS SHALL BE 3000K COLOR TEMPERATURE. ALL OTHER 'UA' FIXTURES SHALL BE AS INDICATED.
4. BACK–LIT MIRROR FIXTURE TYPE 'UF' IS A CUSTOM FIXTURE AND SIZE WILL VARY PER EACH UNIT BATHROOM INSTALLATION. CONTRACTOR SHALL CONSULT WITH ARCHITECTURAL INTERIOR ELEVATIONS FOR THE FIXTURE REQUIREMENTS IN EACH UNIT TYPE, INCLUDING MOUNTING HEIGHT AND LOCATION.

⚠19 ⚠20



ADDRESSABLE DETECTOR CONTROL

⬡A RELAY TO BE 'NORMALLY OPEN'. TDOD (TIME DELAY ON DE–ENERGY) SET FOR 15 SECONDS. RELAY TO CLOSE UPON SIGNAL FROM HVAC CONTROL SYSTEM (ALLOWS DAMPER TO OPEN); DAMPERS TO CLOSE ON DE–ENERGIZE AFTER 15 SEC. TIME–OUT. PROVIDE WITH 20A CONTACTS AND COIL VOLTAGE AS REQ'D BY HVAC CONTROL SYSTEM. MOUNT RELAY IN NEMA 1 ENCLOSURE ADJACENT TO HVAC CONTROL PANEL.

⬡B RELAY TO BE 'NORMALLY ENERGIZED'. RELAY TO BE DE–ENERGIZED UPON SIGNAL FROM FIRE ALARM SYSTEM (ALLOWS DAMPERS TO CLOSE). PROGRAM FIRE ALARM SYSTEM FOR 15 SECOND DELAY BETWEEN SMOKE DETECTOR ACTIVATION AND FIRE/SMOKE DAMPER SHUTDOWN. PROVIDE WITH 20A CONTACTS AND COIL VOLTAGE AS REQ'D BY FIRE ALARM SYSTEM. MOUNT RELAY IN NEMA 1 ENCLOSURE ADJACENT TO FIRE/SMOKE DAMPER.

1 / E1.22 SMOKE/FIRE DAMPER CONTROL DIAGRAM

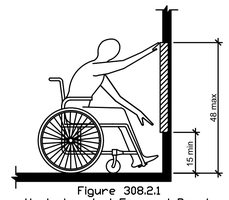


Figure 308.2.1
Unobstructed Forward Reach

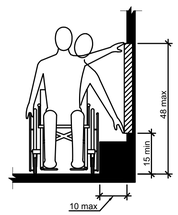


Figure 308.3.1
Unobstructed Side Reach

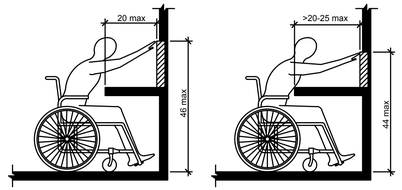


Figure 308.2.2
Obstructed High Forward Reach

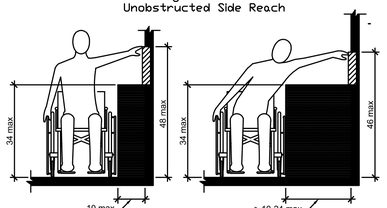


Figure 308.3.2
Obstructed High Side Reach

2 / E1.22 ADA REACH REQUIREMENTS N.T.S.

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48" maximum and the low forward reach shall be 15" minimum above the floor or ground.

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor or ground space shall extend beneath the element for a distance not less thank the required reach depth over the obstruction. The high forward reach shall be 48" maximum where the reach depth is 20" maximum. Where the reach depth exceeds 20", the high forward reach shall be 44" maximum and the reach depth shall be 25" maximum.

308.3 Side Reach.

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48" maximum and the low side reach shall be 15" minimum above the floor or ground.
Exception: Existing elements shall be permitted at 54" maximum above the floor or ground.

308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an object and the high side reach is over an obstruction, the height of the obstruction shall be 34" maximum and the depth of the obstruction shall 24" maximum. The high side reach shall be 48" maximum for a reach depth of 10" maximum. Where the reach depth exceeds 10", the high side reach shall be 46" maximum for a reach depth of 24" maximum.

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REVISIONS
⚠4 05.27.16 PLAN REVIEW
⚠19 06.30.17 COORDINATION
⚠20 07.14.17 COORDINATION

VANCOUVER AVE PHASE II
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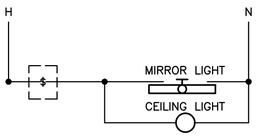
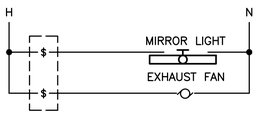


BATHROOM WITH CEILING LIGHT

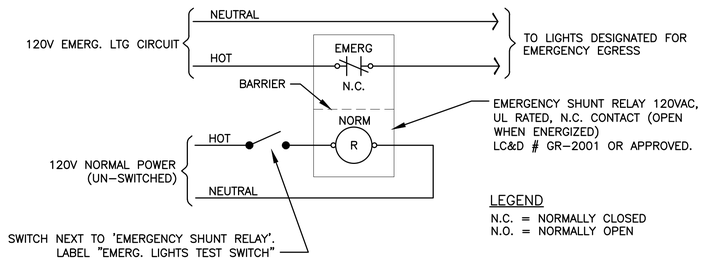


19

BATHROOM WITH EXHAUST FAN

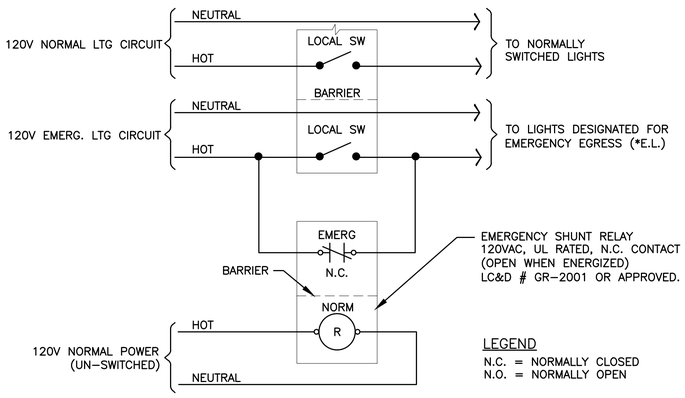
1 / E1.23 BATHROOM SWITCHING DIAGRAM – TYPICAL

NO SCALE



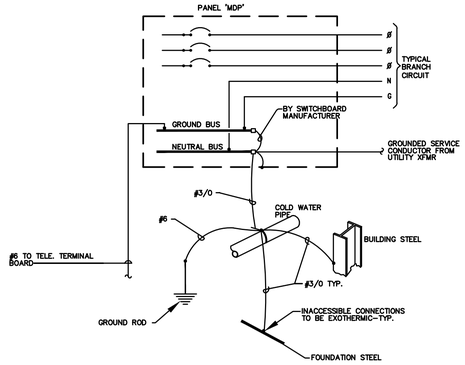
2 / E1.23 EMERGENCY EGRESS LIGHTING – UNSWITCHED

NO SCALE



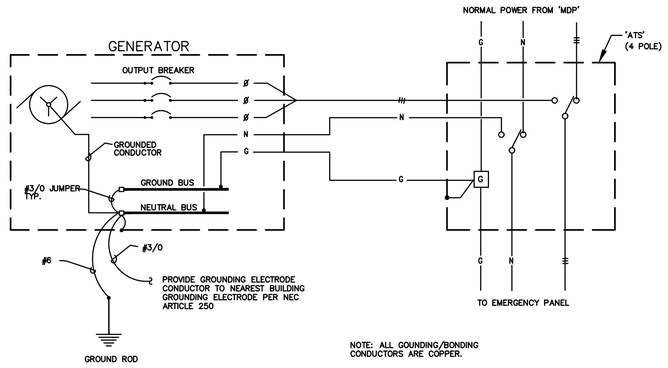
3 / E1.23 EMERGENCY EGRESS LIGHTING – SWITCHED

NO SCALE



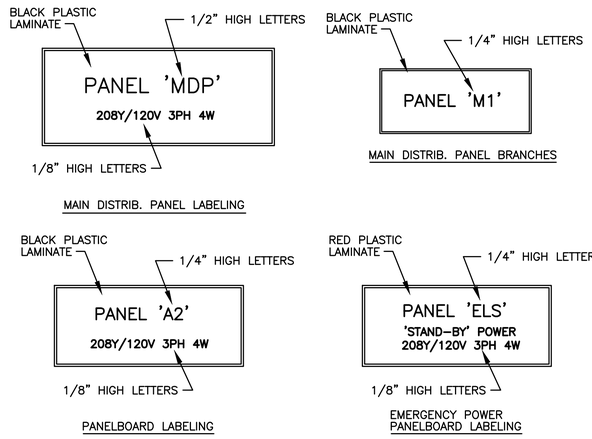
4 / E1.23 GROUNDING/BONDING DIAGRAM

208Y/120V, 3ø, 4 WIRE



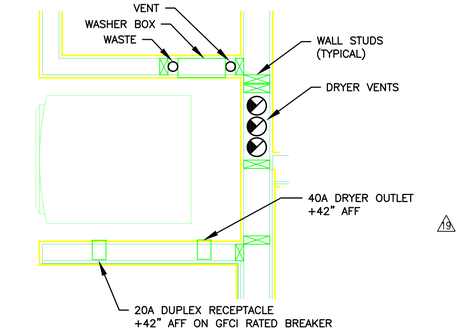
5 / E1.23 GENERATOR – ELECTRICAL GROUNDING/BONDING DETAIL

NO SCALE



6 / E1.23 SWITCHBOARD/PANEL LABELING DETAIL

NO SCALE



19

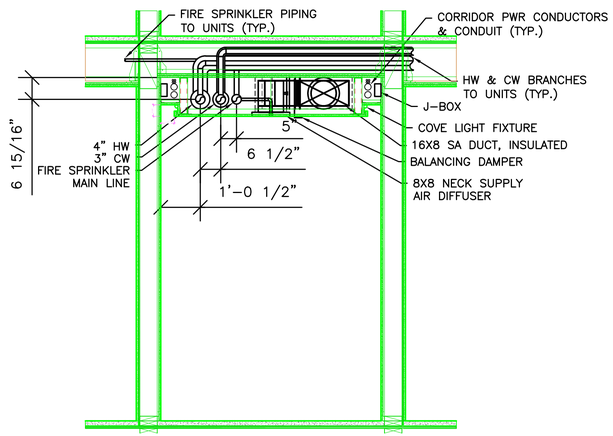
7 / E1.23 TYPICAL WASHER/DRYER ALCOVE

NO SCALE

NOTE:

19 1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR PRIOR TO ROUGH IN, TO ENSURE THAT ELECTRICAL DEVICES ARE NOT INSTALLED WHERE THEY WILL CREATE CONFLICT.

2. PREFERRED INSTALLATION SHALL HAVE THE ELECTRICAL DEVICES ON A WALL OPPOSITE THE WORK OF ANY OTHER TRADE.



NOTES:

1. UNIT ELECTRICAL PANEL FEEDERS ARE NOT TO BE RUN IN CORRIDOR.
2. DIFFUSERS AND SPRINKLER HEADS TO BE CENTERED IN CORRIDOR CEILING.
3. HW AND CW SUPPLY PIPING LOCATED IN 2ND FLOOR CEILING.
4. HWR PIPING LOCATED IN 4TH FLOOR CEILING.
5. TELECOM CABLES TO BE LOCATED ABOVE RESIDENTIAL UNITS.
6. COORDINATE JOIST PENETRATIONS WITH STRUCTURAL.
7. FIRE SPRINKLER PIPING SHALL NOT OBSTRUCT HVAC DUCT ROUTING.

8 / E1.23 CORRIDOR SECTION

NO SCALE

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REVISIONS

4	05.27.16 PLAN REVIEW
19	06.30.17 COORDINATION

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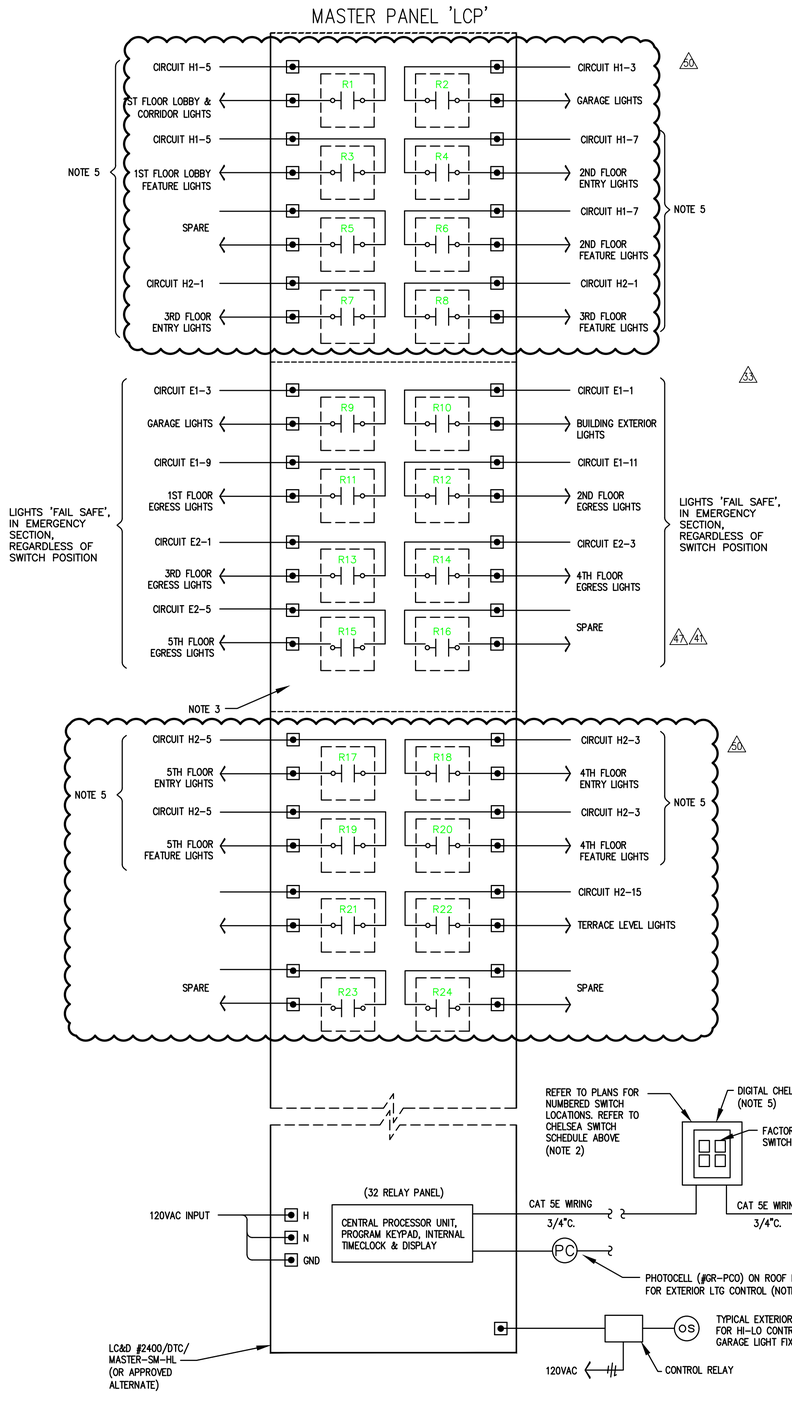

1 E1.24 LIGHTING CONTROL SYSTEM DIAGRAM

NO SCALE

GENERAL NOTES:

A. DESIGN IS BASED ON 'LCD' COMPANY EQUIPMENT. THE LIGHTING CONTROL SYSTEM WILL BE INSTALLED COMPLETE WITH ALL FUNCTIONS MEETING THE DESIGN INTENT.

B. ADEQUATE TRAINING SHALL BE PROVIDED TO THE OWNER (& REPRESENTATIVES) TO FULLY UNDERSTAND LIGHTING CONTROL SYSTEM FUNCTIONS, PROGRAMMING, MAINTENANCE, RE-PROGRAMMING RELAYS, ETC.

△3 C. REFER TO SHEET E1.25 FOR CHELSEA SWITCH INFORMATION.

△46 D. CONTRACTOR SHALL CONSULT ACUITY'S PROJECT DESIGN FOR ADDITIONAL INFORMATION REGARDING ALL DEVICES AND EQUIPMENT LOCATION AND COORDINATE ALL WORK.

'LCP' - DETAIL NOTES:

△3 1. RELAYS R1, R2, R12, R17, R18 & R24 ARE PHOTOCELL/TIMECLOCK CONTROLLED. VERIFY WITH OWNER FOR TIMECLOCK SETTINGS. DESIGN INTENT IS FOR DUSK-TIL-DAWN OPERATION.

2. RELAYS R3 - R11 ARE TIMECLOCK CONTROLLED AS WELL AS MANUALLY SWITCHED BY CHELSEA SWITCH. COORDINATE WITH OWNER FOR SET TIMES.

3. UL924 BARRIERED SECTION FOR EMERGENCY CIRCUITS.

4. RELAYS R19 - R23 INTENDED TO BE CONSTANT "ON".

5. CHELSEA SWITCHES FOR CORRIDOR LIGHTS ON FLOORS 2, 3, 4 & 5 TO HAVE LOCKING COVER.

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△47	10.26.18 COORDINATION
△48	11.30.18 COORDINATION
△50	01.25.19 COORDINATION

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E1.24

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CHELSEA SWITCH SCHEDULE – 1ST FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS1a	LOBBY	6	1	R1	ZONE 1 ON/OFF	ON/OFF	LOBBY, MAIL ROOM & CORRIDOR DOWNLIGHTS
			2	R1	ZONE 1 RAISE	RAISE	LOBBY, MAIL ROOM & CORRIDOR DOWNLIGHTS
			3	R1	ZONE 1 LOWER	LOWER	LOBBY, MAIL ROOM & CORRIDOR DOWNLIGHTS
			4	R3	ZONE 2 ON/OFF	ON/OFF	LOBBY ACCENT & TRACK LIGHTS
			5	R3	ZONE 2 RAISE	RAISE	LOBBY ACCENT & TRACK LIGHTS
			6	R3	ZONE 2 LOWER	LOWER	LOBBY ACCENT & TRACK LIGHTS

CHELSEA SWITCH SCHEDULE – 1ST FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS1b	LOBBY	3	1	R11	EGRESS	ON/OFF	LOBBY EGRESS
			2	R11	EGRESS	RAISE	LOBBY EGRESS
			3	R11	EGRESS	LOWER	LOBBY EGRESS

CHELSEA SWITCH SCHEDULE – 2ND FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS2a	ELEVATOR LOBBY	6	1	R4	ZONE 1 ON/OFF	ON/OFF	ENTRY DOWNLIGHTS
			2	R4	ZONE 1 RAISE	RAISE	ENTRY DOWNLIGHTS
			3	R4	ZONE 1 LOWER	LOWER	ENTRY DOWNLIGHTS
			4	R6	ZONE 2 ON/OFF	ON/OFF	CORRIDOR FEATURE LIGHTS
			5	R6	ZONE 2 RAISE	RAISE	CORRIDOR FEATURE LIGHTS
			6	R6	ZONE 2 LOWER	LOWER	CORRIDOR FEATURE LIGHTS

CHELSEA SWITCH SCHEDULE – 2ND FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS2b	ELEVATOR LOBBY	3	1	R12	EGRESS	ON/OFF	CORRIDOR COVE LIGHTS (EP)
			2	R12	EGRESS	RAISE	CORRIDOR COVE LIGHTS (EP)
			3	R12	EGRESS	LOWER	CORRIDOR COVE LIGHTS (EP)

CHELSEA SWITCH SCHEDULE – 3RD FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS3a	ELEVATOR LOBBY	6	1	R7	ZONE 1 ON/OFF	ON/OFF	ENTRY DOWNLIGHTS
			2	R7	ZONE 1 RAISE	RAISE	ENTRY DOWNLIGHTS
			3	R7	ZONE 1 LOWER	LOWER	ENTRY DOWNLIGHTS
			4	R8	ZONE 2 ON/OFF	ON/OFF	CORRIDOR FEATURE LIGHTS
			5	R8	ZONE 2 RAISE	RAISE	CORRIDOR FEATURE LIGHTS
			6	R8	ZONE 2 LOWER	LOWER	CORRIDOR FEATURE LIGHTS

CHELSEA SWITCH SCHEDULE – 3RD FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS3b	ELEVATOR LOBBY	3	1	R13	EGRESS	ON/OFF	CORRIDOR COVE LIGHTS (EP)
			2	R13	EGRESS	RAISE	CORRIDOR COVE LIGHTS (EP)
			3	R13	EGRESS	LOWER	CORRIDOR COVE LIGHTS (EP)

CHELSEA SWITCH SCHEDULE – 4TH FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS4a	ELEVATOR LOBBY	6	1	R18	ZONE 1 ON/OFF	ON/OFF	ENTRY DOWNLIGHTS
			2	R18	ZONE 1 RAISE	RAISE	ENTRY DOWNLIGHTS
			3	R18	ZONE 1 LOWER	LOWER	ENTRY DOWNLIGHTS
			4	R20	ZONE 2 ON/OFF	ON/OFF	CORRIDOR FEATURE LIGHTS
			5	R20	ZONE 2 RAISE	RAISE	CORRIDOR FEATURE LIGHTS
			6	R20	ZONE 2 LOWER	LOWER	CORRIDOR FEATURE LIGHTS

CHELSEA SWITCH SCHEDULE – 4TH FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS4b	ELEVATOR LOBBY	3	1	R14	EGRESS	ON/OFF	CORRIDOR COVE LIGHTS (EP)
			2	R14	EGRESS	RAISE	CORRIDOR COVE LIGHTS (EP)
			3	R14	EGRESS	LOWER	CORRIDOR COVE LIGHTS (EP)

CHELSEA SWITCH SCHEDULE – 5TH FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS5a	ELEVATOR LOBBY	6	1	R5	ZONE 1 ON/OFF	ON/OFF	ENTRY DOWNLIGHTS
			2	R5	ZONE 1 RAISE	RAISE	ENTRY DOWNLIGHTS
			3	R5	ZONE 1 LOWER	LOWER	ENTRY DOWNLIGHTS
			4	R5	ZONE 2 ON/OFF	ON/OFF	CORRIDOR FEATURE LIGHTS
			5	R5	ZONE 2 RAISE	RAISE	CORRIDOR FEATURE LIGHTS
			6	R5	ZONE 2 LOWER	LOWER	CORRIDOR FEATURE LIGHTS

CHELSEA SWITCH SCHEDULE – 5TH FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS TOTAL	BUTTONS #	ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
CS5b	ELEVATOR LOBBY	3	1	R15	EGRESS	ON/OFF	CORRIDOR COVE LIGHTS (EP)
			2	R15	EGRESS	RAISE	CORRIDOR COVE LIGHTS (EP)
			3	R15	EGRESS	LOWER	CORRIDOR COVE LIGHTS (EP)

CHELSEA SWITCH NOTES:

A. REGARDLESS OF SETTING, EGRESS LIGHTING SHALL REMAIN "ON" AT ALL TIMES. MANUAL SWITCHING IS ONLY PROVIDED FOR MAINTENANCE PURPOSES.

B. EGRESS LIGHTING SHALL MEET CODE MINIMUM REQUIREMENT OF (1) FOOTCANDLE AVERAGE, MEASURED AT THE FLOOR AT ALL TIMES. CONSULT VENDOR FOR PROCEDURE TO SET DIMMING LIMITS FOR THE RESIDENT FLOOR COVE LIGHTS.

C. CONTRACTOR TO PROVIDE LOCKING COVERS AT ALL SWITCH LOCATIONS TO PREVENT TAMPERING ONCE LIGHT LEVELS ARE SET BY THE OWNER.

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REVISIONS

47	10.26.18 COORDINATION
48	11.30.18 COORDINATION
50	01.25.19 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING

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SHEET: 48

E1.25

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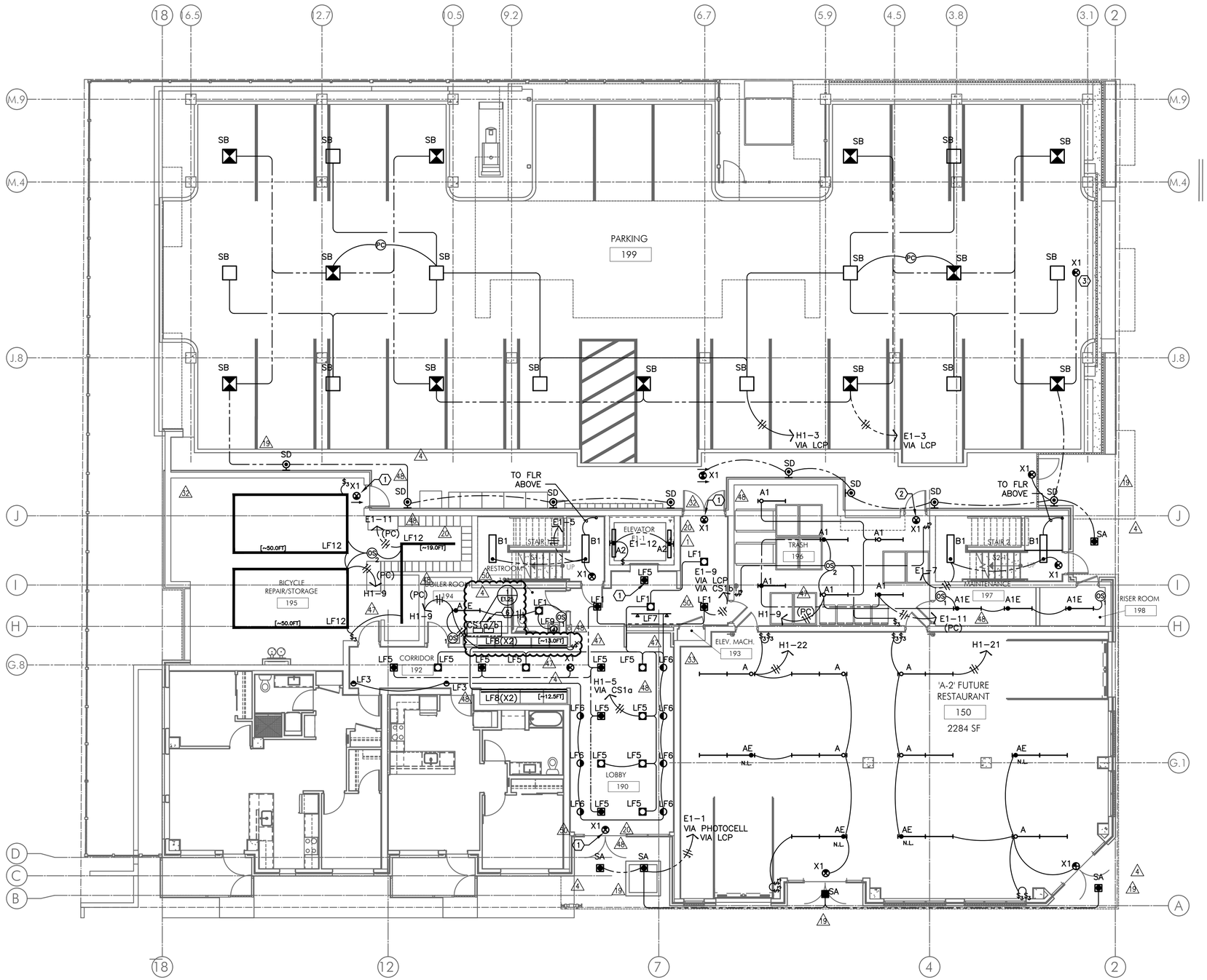

1 E2.01 FIRST FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. LIGHTING AND RECEPTACLES IN THE RETAIL LEASE SPACES SHALL BE PROVIDED WITH TEMPORARY CIRCUITS FROM THE HOUSE BRANCH PANELS AS INDICATED ON THE PLANS. AT SUCH TIME THAT EACH SPACE IS LEASED AND BUILT TO SUIT THE TENANT, THE TEMPORARY POWER CIRCUITS SHALL BE DISCONNECTED AND REMOVED, WITH THE BREAKERS NOTED AS "SPARE".

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

△1 D. NOT USED.

E. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

F. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.

G. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK

H. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.

△4 I. PROVIDE LOCKING SWITCH COVER FOR DEVICES LOCATED IN PUBLIC AREAS.

△48 ⬡ KEYED NOTES:

1. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.
2. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.
3. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. CIRCUIT AHEAD OF ANY OTHER DEVICES AS NEEDED.

△1
△19

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△48	11.30.18 COORDINATION
△50	01.25.19 COORDINATION

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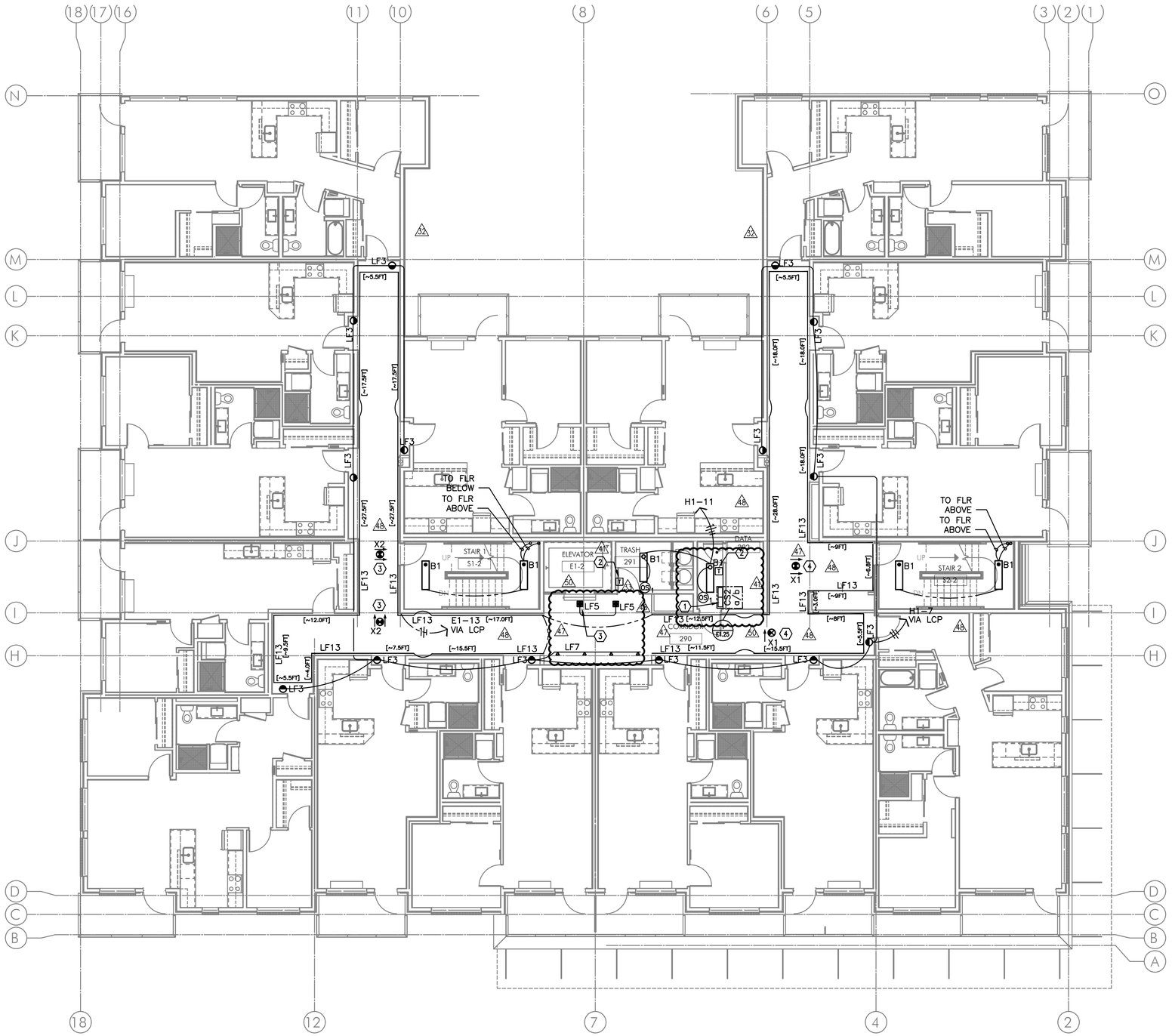
SHEET: E2.01



GENERAL NOTES:

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△2 B. NOT USED.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND INTERORS DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

E. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.

△4 F. LOW VOLTAGE POWER SUPPLIES FOR LED COVE LIGHTS SHALL BE LOCATED AS INDICATED IN SHEET NOTE #2 BELOW. POWER SUPPLIES SHALL BE INSTALLED IN THE TRASH ROOM AND DATA CLOSETS AT EACH FLOOR, WITH EACH LOCATION SERVING ONE HALF OF THE CORRIDOR COVE LIGHTS. QUANTITY & SIZE OF POWER SUPPLIES SHALL BE PER MANUFACTURER RECOMMENDATION. REFER TO MFR PRODUCT SUBMITTALS FOR MORE INFORMATION.

△19 ⬡ KEYED NOTES:

1. PROVIDE LOCKING SWITCH COVER.
△4 2. LOW VOLTAGE TRANSFORMERS FOR COVE LIGHTING PER MANUFACTURER'S REQUIREMENTS. MOUNT DEVICES CLOSE TO CEILING OR ABOVE, IF PROVIDING ACCESS PANEL. WIRING TO BE #12 AWG TO MEET MANUFACTURER'S REQUIREMENTS FOR 5% VOLTAGE DROP. MAXIMUM WIRING RUN TO BE 80'–0".
△4B 3. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.
4. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.

△19 1 / E2.02 SECOND FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"

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△4 10.26.18 COORDINATION
△4B 11.30.18 COORDINATION
△5 01.25.19 COORDINATION

VANCOUVER AVE PHASE II MIXED USE BUILDING

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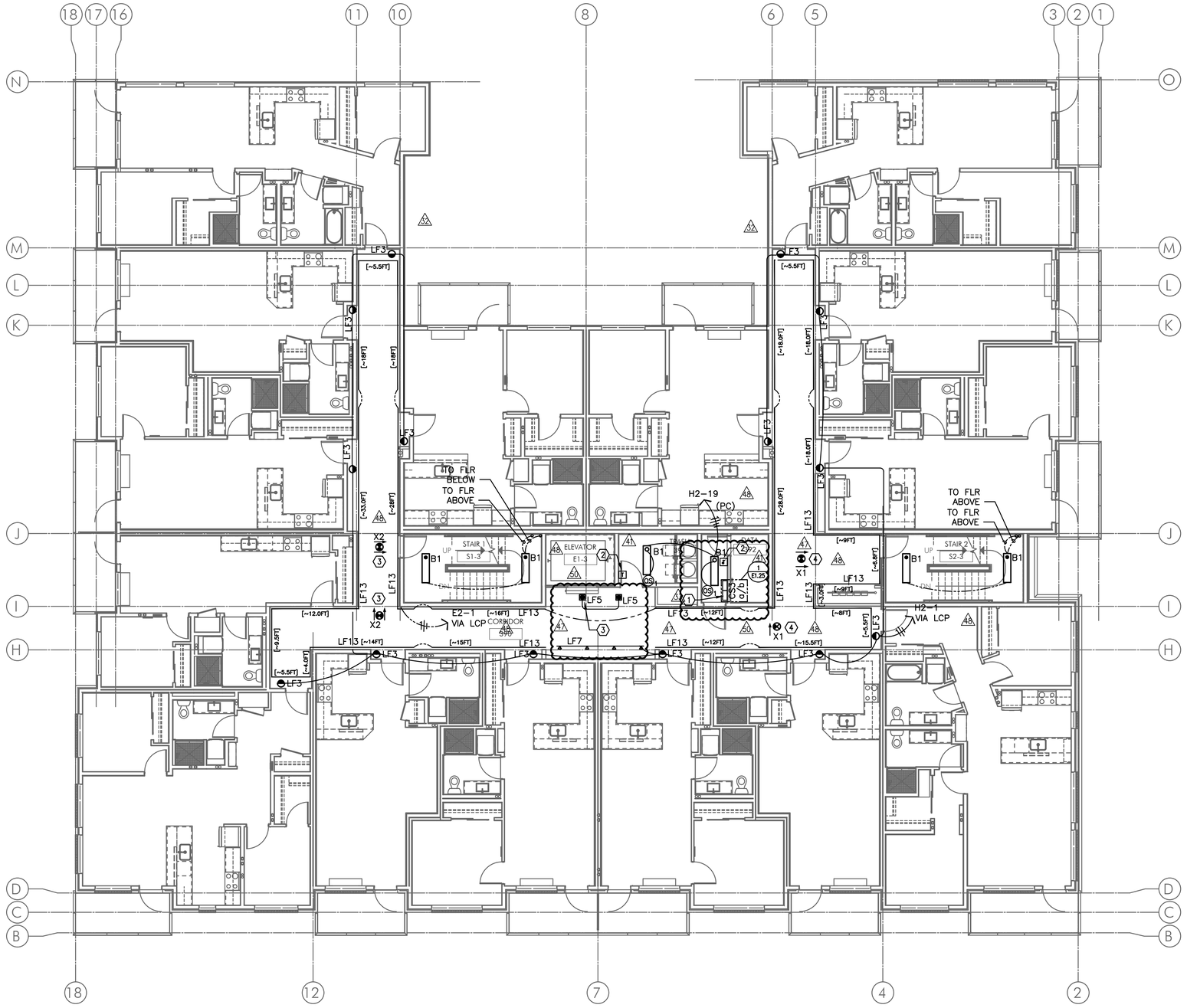

19

1 / E2.03 THIRD FLOOR LIGHTING PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

42 B. NOT USED.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND INTERORS DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

E. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.

41 F. LOW VOLTAGE POWER SUPPLIES FOR LED COVE LIGHTS SHALL BE LOCATED AS INDICATED IN SHEET NOTE #2 BELOW. POWER SUPPLIES SHALL BE INSTALLED IN THE TRASH ROOM AND DATA CLOSETS AT EACH FLOOR, WITH EACH LOCATION SERVING ONE HALF OF THE CORRIDOR COVE LIGHTS. QUANTITY & SIZE OF POWER SUPPLIES SHALL BE PER MANUFACTURER RECOMMENDATION. REFER TO MFR PRODUCT SUBMITTALS FOR MORE INFORMATION.

19 KEYED NOTES:

1. PROVIDE LOCKING SWITCH COVER.

41 2. LOW VOLTAGE TRANSFORMERS FOR COVE LIGHTING PER MANUFACTURER'S REQUIREMENTS. MOUNT DEVICES CLOSE TO CEILING OR ABOVE, IF PROVIDING ACCESS PANEL. WIRING TO BE #12 AWG TO MEET MANUFACTURER'S REQUIREMENTS FOR 5% VOLTAGE DROP. MAXIMUM WIRING RUN TO BE 80'-0".

48 3. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.

4. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.

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VANCOUVER AVE PHASE II
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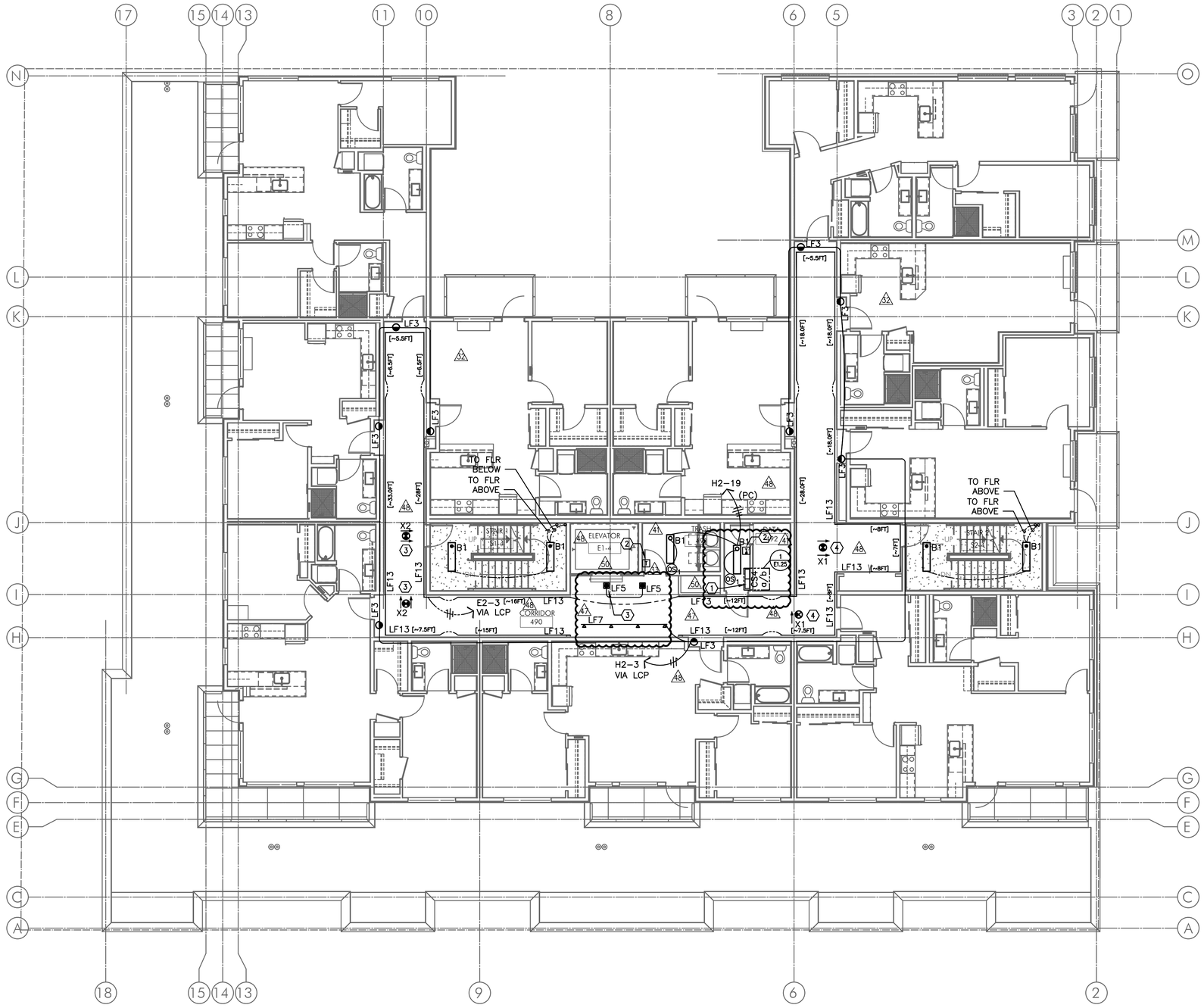

1 / E2.04 FOURTH FLOOR LIGHTING PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. NOT USED.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND INTERORS DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

E. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.

F. LOW VOLTAGE POWER SUPPLIES FOR LED COVE LIGHTS SHALL BE LOCATED AS INDICATED IN SHEET NOTE #2 BELOW. POWER SUPPLIES SHALL BE INSTALLED IN THE TRASH ROOM AND DATA CLOSETS AT EACH FLOOR, WITH EACH LOCATION SERVING ONE HALF OF THE CORRIDOR COVE LIGHTS. QUANTITY & SIZE OF POWER SUPPLIES SHALL BE PER MANUFACTURER RECOMMENDATION. REFER TO MFR PRODUCT SUBMITTALS FOR MORE INFORMATION.

KEYED NOTES:

1. PROVIDE LOCKING SWITCH COVER.
2. LOW VOLTAGE TRANSFORMERS FOR COVE LIGHTING PER MANUFACTURER'S REQUIREMENTS. MOUNT DEVICES CLOSE TO CEILING OR ABOVE, IF PROVIDING ACCESS PANEL. WIRING TO BE #12 AWG TO MEET MANUFACTURER'S REQUIREMENTS FOR 5% VOLTAGE DROP. MAXIMUM WIRING RUN TO BE 80'-0".
3. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.
4. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.

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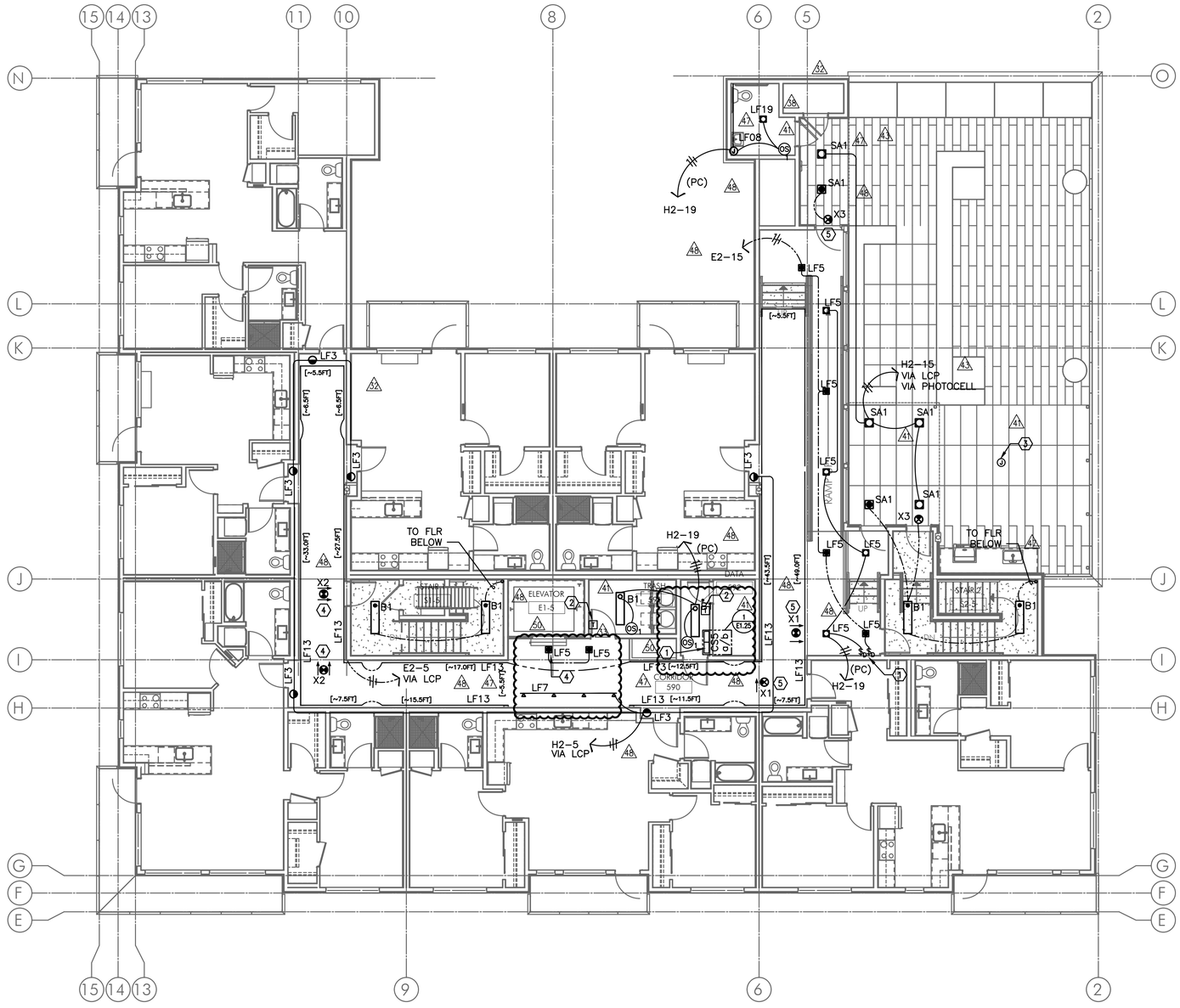

GENERAL NOTES:

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B. NOT USED.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND INTERORS DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

E. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.

F. TERRACE LIGHT FIXTURES TO BE CIRCUITED VIA A ROOF MOUNTED PHOTOCELL FOR DUSK–TO–DAWN OPERATION.

G. LOW VOLTAGE POWER SUPPLIES FOR LED COVE LIGHTS SHALL BE LOCATED AS INDICATED IN SHEET NOTE #2 BELOW. POWER SUPPLIES SHALL BE INSTALLED IN THE TRASH ROOM AND DATA CLOSETS AT EACH FLOOR, WITH EACH LOCATION SERVING ONE HALF OF THE CORRIDOR COVE LIGHTS. QUANTITY & SIZE OF POWER SUPPLIES SHALL BE PER MANUFACTURER RECOMMENDATION. REFER TO MFR PRODUCT SUBMITTALS FOR MORE INFORMATION.

KEYED NOTES:

1. PROVIDE LOCKING SWITCH COVER.
2. LOW VOLTAGE TRANSFORMERS FOR COVE LIGHTING PER MANUFACTURER'S REQUIREMENTS. MOUNT DEVICES CLOSE TO CEILING OR ABOVE, IF PROVIDING ACCESS PANEL. WIRING TO BE #12 AWG TO MEET MANUFACTURER'S REQUIREMENTS FOR 5% VOLTAGE DROP. MAXIMUM WIRING RUN TO BE 80'–0".
3. PROVIDE CEILING MOUNTED POWER CONNECTION TIED INTO THE TERRACE LIGHTING CIRCUIT FOR OWNER PROVIDED EXTERIOR PENDANT LIGHT FIXTURE. CONSULT ARCHITECT AND/OR INTERIOR DECORATOR FOR EXACT LOCATION, POWER REQUIREMENTS, MOUNTING HEIGHT AND LIGHTING CONTROL METHOD.
4. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.
5. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.

1 E2.05 FIFTH FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"

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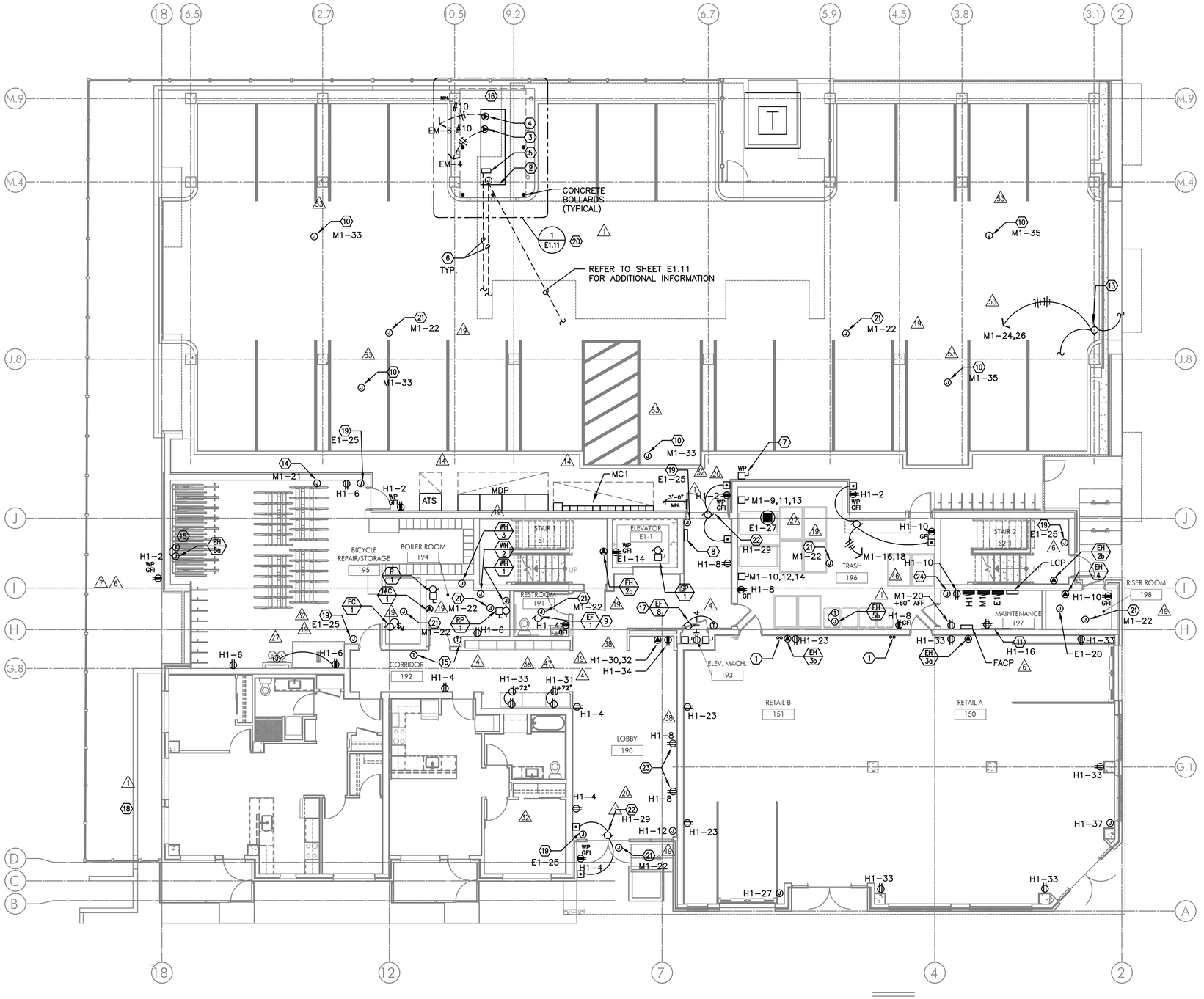

1 E3.01 FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.

C. LIGHTING AND RECEPTACLES IN THE RETAIL LEASE SPACES SHALL BE PROVIDED WITH TEMPORARY CIRCUITS FROM THE HOUSE BRANCH PANELS AS INDICATED ON THE PLANS. AT SUCH TIME THAT EACH SPACE IS LEASED AND BUILT TO SUIT THE TENANT, THE TEMPORARY POWER CIRCUITS SHALL BE DISCONNECTED AND REMOVED, WITH THE BREAKERS NOTED AS "SPARE".

D. ELECTRICAL CONTRACTOR TO PROVIDE EMPTY CONDUIT FOR FUTURE CONNECTION OF MECHANICAL EQUIPMENT INSTALLED FOR EACH RETAIL SPACE. CONSULT MECHANICAL DRAWINGS AND COORDINATE WITH THE MECHANICAL INSTALLED FOR THE APPROPRIATE CONDUIT SIZE AND ROUTING PRIOR TO ROUGH IN.

E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

F. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

△7 G. PER IFC 5704.2.3.2, TANKS MORE THAN 100 GALLONS (379 L) IN CAPACITY, WHICH ARE PERMANENTLY INSTALLED OR MOUNTED AND USED FOR THE STORAGE OF CLASS I, II OR III LIQUIDS, SHALL BEAR A LABEL AND PLACARD IDENTIFYING THE MATERIAL THEREIN. PLACARDS SHALL BE IN ACCORDANCE WITH NFPA 704.

⬡ KEYED NOTES:

1. ROUTE (2) EMPTY 3 1/2" CONDUIT FROM MC2 UNDER SLAB AND STUB-UP INTO LEASE SPACE FOR TENANT SUPPLIED BRANCH PANEL AND CAP OFF.
2. DIESEL GENERATOR TO BE PROVIDED WITH DOUBLE-WALL FUEL TANK AND SPILL CONTAINMENT PER CITY OF PORTLAND REQUIREMENTS.
3. 120V GENERATOR BLOCK HEATER. PANEL E1.
4. 120V GENERATOR BATTERY CHARGER. PANEL E1.
5. GENERATOR OUTPUT BREAKER AND CONTROL SECTION. PANEL E1.
6. POWER AND CONTROL TO TRANSFER SWITCH AND REMOTE ANNUNCIATOR. SEE ONE-LINE DIAGRAM ON SHEET E1.11.
7. GENERATOR DISCONNECT. SEE ONE-LINE DIAGRAM ON SHEET E1.11.
8. GENERATOR REMOTE ANNUNCIATOR. PANEL E1.
9. EXHAUST FAN TO BE TIED INTO LIGHTING CIRCUIT FOR THIS AREA. REFER TO DETAIL 3/E1.23 FOR TYPICAL BATHROOM SWITCHING DIAGRAM.
10. PROVIDE 20A, 120V, 1P POWER CONNECTION FOR HEAT TRACE. CIRCUIT AS NOTED.
11. CONSULT TELEPHONE SERVICE PROVIDER TO COORDINATE EXACT LOCATION OF TELEPHONE BACKBOARD PRIOR TO ROUGH IN.
12. COORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF SMOKE DAMPERS PRIOR TO ROUGH IN.
13. MOTORIZED GATE AND CONTROLS. VERIFY EXACT POWER REQUIREMENTS AND LOCATION PRIOR TO ROUGH IN AND COORDINATE ALL WORK WITH GATE INSTALLER.
14. PROVIDE 20A, 120V, 1P POWER CONNECTION FOR LOUVER DAMPER. CIRCUIT AS NOTED.
15. PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
16. CONSULT WITH MECHANICAL DRAWINGS FOR EXHAUST ROUTING.
17. EXHAUST FAN TO BE TIED INTO LIGHTING CIRCUIT FOR THIS AREA. FAN TO BE CONTROLLED BY THERMOSTAT. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.

△1 18. ROUTE ONE 2" PVC CONDUIT SLEEVE W/ PULL STRING THROUGH STRUCTURE, FROM SWALE AREA TO LANDSCAPE PLANTERS. CONSULT LANDSCAPE CONTRACTOR FOR EXACT REQUIREMENTS AND ROUTING PRIOR TO ROUGH IN. REFER TO SHEET L.1 AND COORDINATE INSTALLATION WITH ARCHITECT.

19. PROVIDE 20A, 120V, 1P POWER CONNECTION AT CEILING FOR FUTURE ACCESS CONTROL. CIRCUIT AS NOTED.
20. DIESEL GENERATOR TANK SHALL BE DOUBLE WALLED AND EQUIPPED WITH OVERFILL PROTECTION (AUTO SHUTOFF), 5 GALLON INFILL SPILL BUCKET WITH DRAIN BACK, 12FT ABOVE GRADE TANK FUME VENTING AND ONSITE PRESSURE TESTING PER CITY REQUIREMENTS.

△19 21. PROVIDE 20A, 120V, 1P POWER CONNECTION FOR TRAP PRIMER. CIRCUIT AS NOTED.

△20 22. PROVIDE ONE 20A, 120V, 1P CIRCUIT FOR AUTOMATIC DOOR OPENERS.

△3b 23. PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, MOUNTED AT 18" AFF AS INDICATED. CONSULT ARCHITECT AND/OR INTERIOR DESIGNER PLANS FOR EXACT LOCATION AND PRODUCT TYPE PRIOR TO ROUGH IN.

△4b 24. PROVIDE ROUGH IN FOR SYMETRIX SYSTEM CONTROL. CONSULT INTERIORS GROUP FOR EXACT LOCATION. COORDINATE WITH SYSTEM INSTALLER FOR EXACT REQUIREMENTS.

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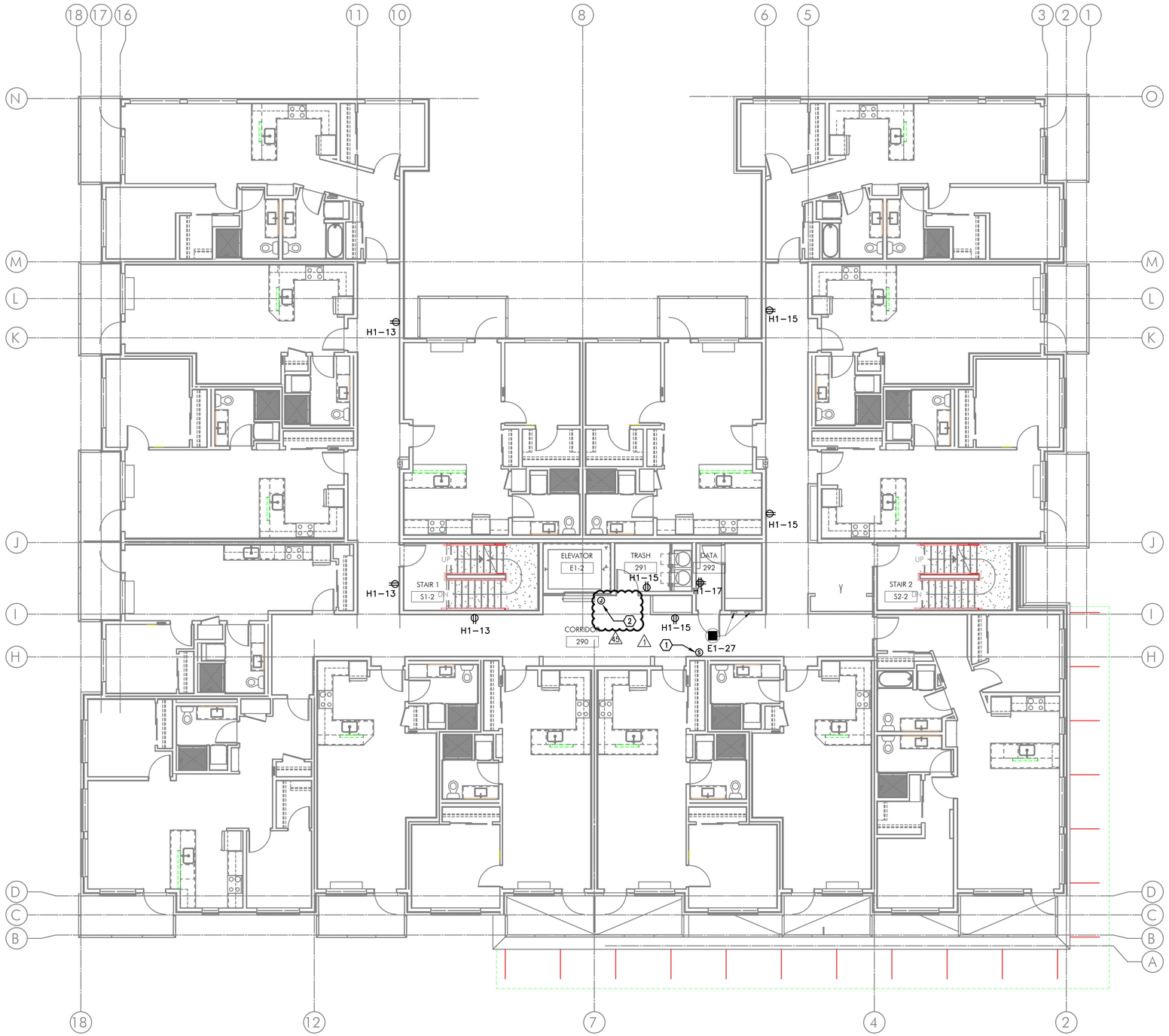
PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS

△3b	03.30.18 COORDINATION
△4b	09.21.18 COORDINATION
△1	10.26.18 COORDINATION
△3a	05.17.19 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING
NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

SHEET:
E3.01



1 E3.02 SECOND FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

⚠1 ⬡ KEYED NOTES:

1. PROVIDE WIRE CONNECTION FOR SENSOR/THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

⚠4⁄5 2. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM THE EMERGENCY PANEL "E1" FOR ELEVATOR SMOKE CURTAINS. SMOKE CURTAINS ARE TO BE SMOKE GUARD SYSTEM MODEL 200 AND SHALL BE INSTALLED AT EACH ELEVATOR LOBBY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION WITH THE EQUIPMENT PROVIDER/INSTALLER FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN. EACH SMOKE CURTAIN SHALL BE INTERLINKED WITH THE NEAREST SMOKE DETECTOR AT EACH LOCATION.

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REVISIONS
⚠1 02.05.16 PLAN REVIEW
⚠4⁄5 08.31.18 COORDINATION

VANCOUVER AVE PHASE II MIXED USE BUILDING

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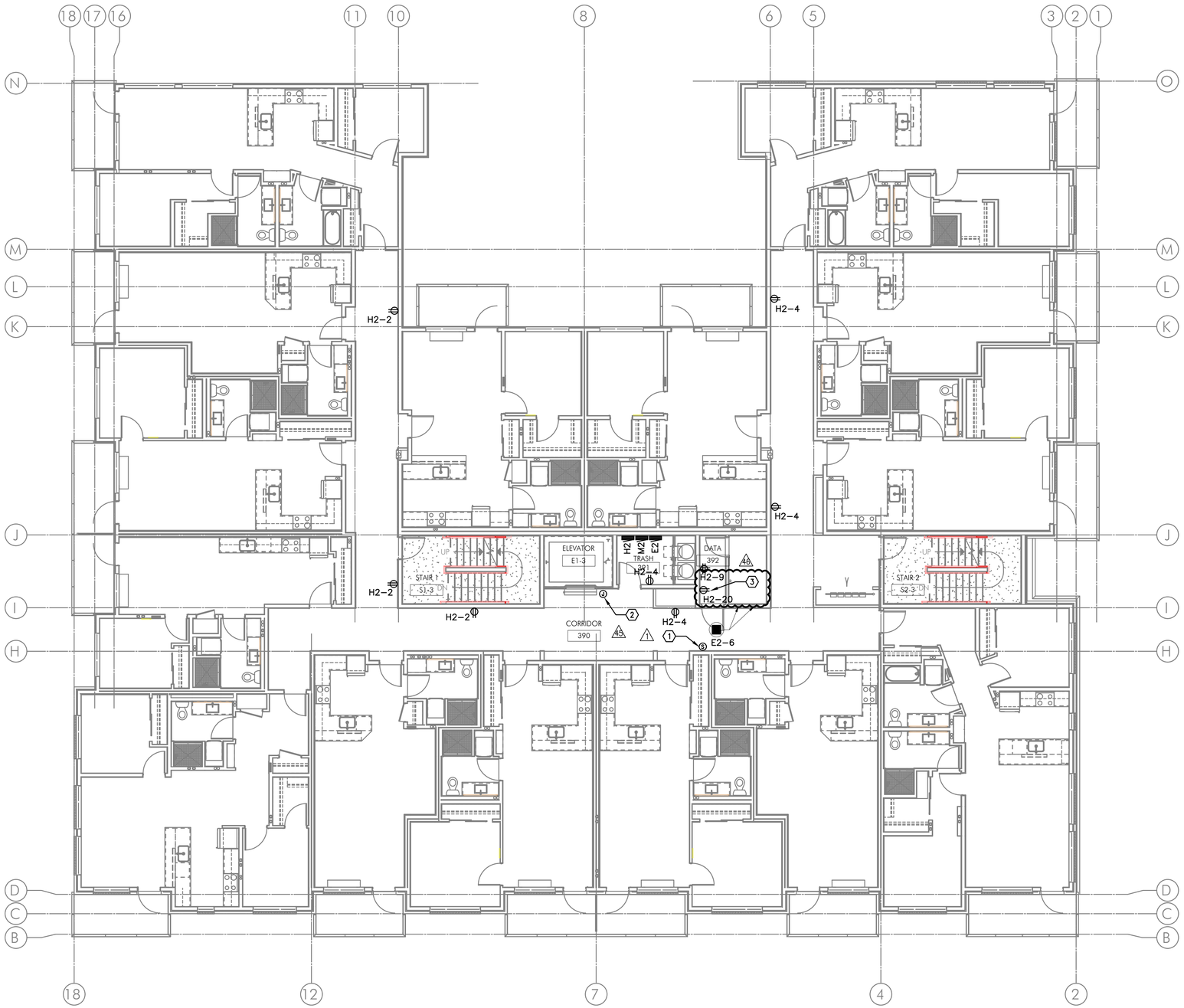
SHEET: E3.02



GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

⚠ ⬡ KEYED NOTES:

1. PROVIDE WIRE CONNECTION FOR SENSOR/THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

⚠5 2. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM THE EMERGENCY PANEL "E1" FOR ELEVATOR SMOKE CURTAINS. SMOKE CURTAINS ARE TO BE SMOKE GUARD SYSTEM MODEL 200 AND SHALL BE INSTALLED AT EACH ELEVATOR LOBBY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION WITH THE EQUIPMENT PROVIDER/INSTALLER FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN. EACH SMOKE CURTAIN SHALL BE INTERLINKED WITH THE NEAREST SMOKE DETECTOR AT EACH LOCATION.

⚠6 3. PROVIDE ONE DEDICATED 20A CIRCUIT WITH #6 GROUND AND FIRE RATED BACKBOARD. CONSULT INTERIORS GROUP FOR EXACT ELECTRICAL REQUIREMENTS, LOCATION & MOUNTING HEIGHT PRIOR TO ROUGH IN. CIRCUIT AS INDICATED.

1 E3.03 THIRD FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

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REVISIONS

1	02.05.16 PLAN REVIEW
45	08.31.18 COORDINATION
46	09.21.18 COORDINATION

VANCOUVER AVE PHASE II
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SHEET:
E3.03

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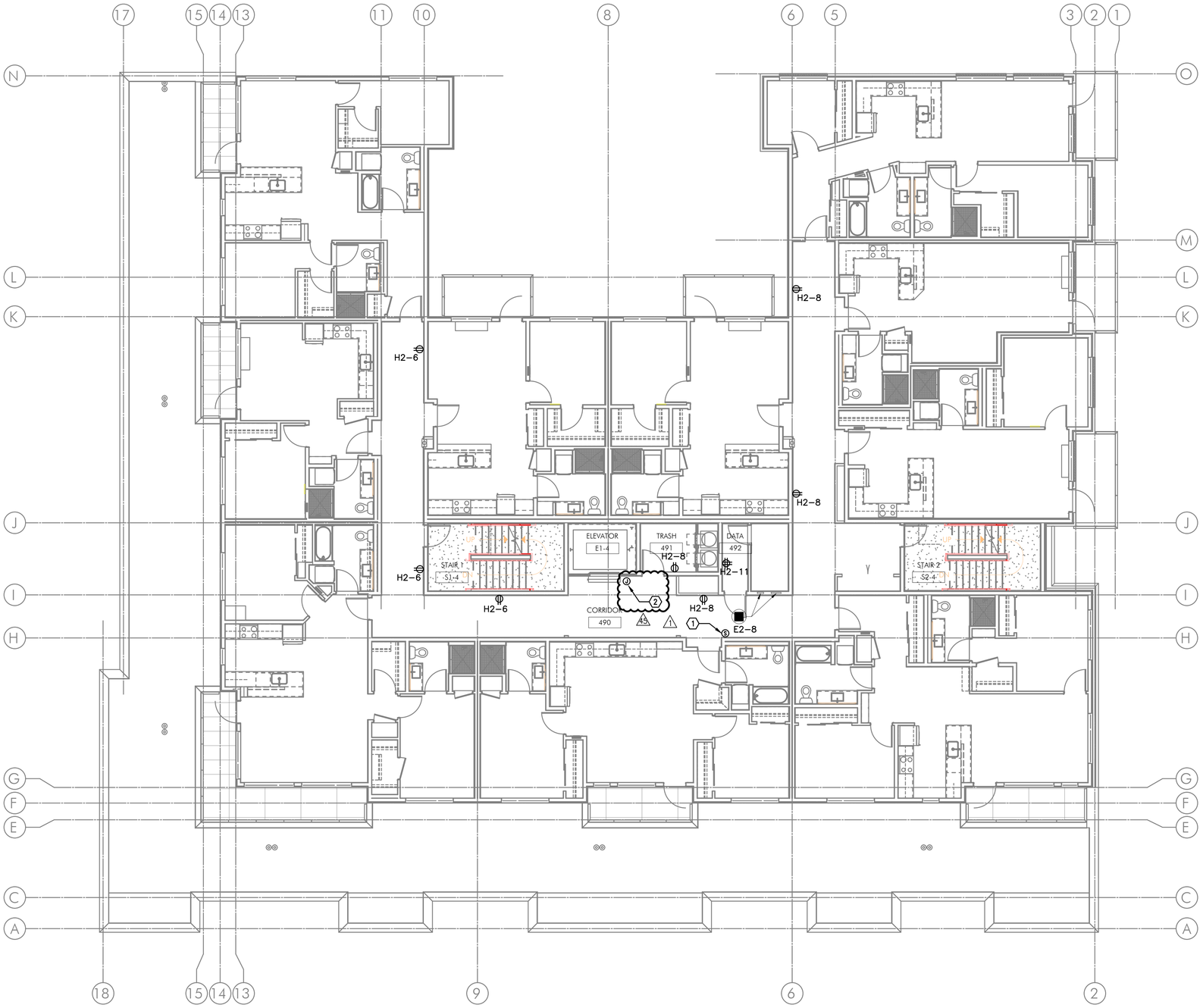

1 / E3.04 FOURTH FLOOR POWER PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

⚠ ⬡ KEYED NOTES:

1. PROVIDE WIRE CONNECTION FOR SENSOR/THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

⚠4 2. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM THE EMERGENCY PANEL "E1" FOR ELEVATOR SMOKE CURTAINS. SMOKE CURTAINS ARE TO BE SMOKE GUARD SYSTEM MODEL 200 AND SHALL BE INSTALLED AT EACH ELEVATOR LOBBY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION WITH THE EQUIPMENT PROVIDER/INSTALLER FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN. EACH SMOKE CURTAIN SHALL BE INTERLINKED WITH THE NEAREST SMOKE DETECTOR AT EACH LOCATION.

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REVISIONS

⚠1	02.05.16 PLAN REVIEW
⚠4	08.31.18 COORDINATION

VANCOUVER AVE PHASE II
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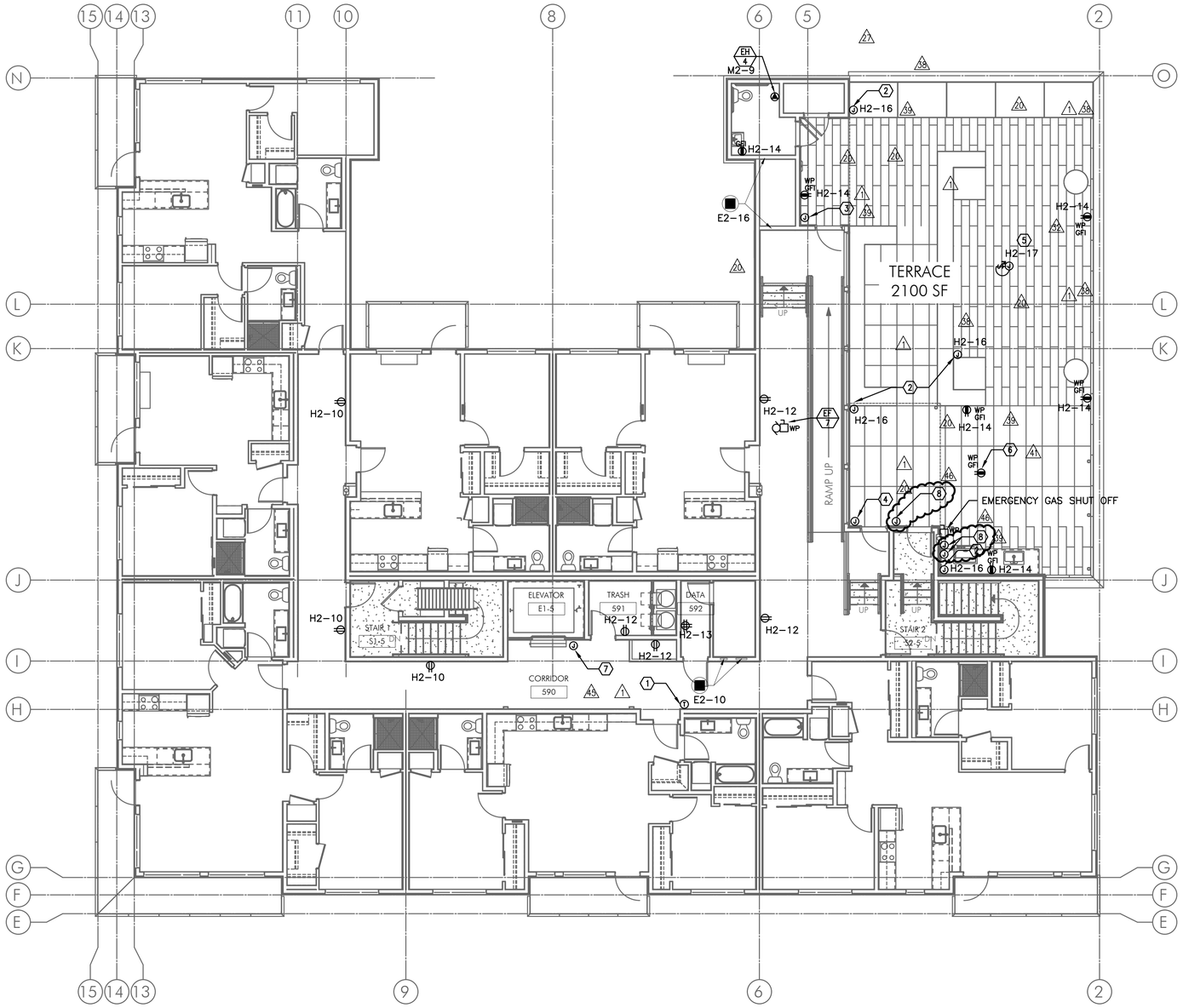
SHEET: E3.04



1 E3.05 FIFTH FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.

C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.

D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.

⚠ ⬡ KEYED NOTES:

1. PROVIDE WIRE CONNECTION FOR SENSOR/THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

⚠20 2. POWER CONNECTION(S) PROVIDED AT ROOF TOP TERRACE FOR LOW VOLTAGE LANDSCAPE LIGHTING BY OTHERS. COORDINATE WITH LANDSCAPE CONTRACTOR FOR ADDITIONAL REQUIREMENTS PRIOR TO ROUGH IN.

3. PROVIDE WEATHER PROOF J-BOX FOR ADDITIONAL/FUTURE LIGHTING TIED INTO LIGHTING CIRCUIT H2-15.

4. PROVIDE WEATHER PROOF J-BOX FOR FUTURE DEVICES AND CIRCUIT TO H2-18.

5. CONSULT FIRE PIT MANUFACTURER FOR EXACT POWER REQUIREMENTS PRIOR TO ROUGH IN AND COORDINATE WORK WITH ALL TRADES FOR COMPLETE INSTALL.

⚠41 6. PROVIDE ONE COUNTER HEIGHT 20A, WEATHERPROOF GFCI DUPLEX RECEPTACLE AT ISLAND COUNTER. TIE INTO NEAREST GENERAL PURPOSE RECEPTACLE CIRCUIT. CONSULT ARCHITECT AND/OR INTERIOR DECORATOR FOR EXACT LOCATION AND FINISH REQUIREMENTS.

⚠45 7. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM THE EMERGENCY PANEL "E1" FOR ELEVATOR SMOKE CURTAINS. SMOKE CURTAINS ARE TO BE SMOKE GUARD SYSTEM MODEL 200 AND SHALL BE INSTALLED AT EACH ELEVATOR LOBBY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION WITH THE EQUIPMENT PROVIDER/INSTALLER FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN. EACH SMOKE CURTAIN SHALL BE INTERLINKED WITH THE NEAREST SMOKE DETECTOR AT EACH LOCATION.

⚠46 8. PROVIDE ROUGH IN FOR A/V SYSTEM AS REQUIRED. CONSULT INTERIORS GROUP FOR EXACT LOCATIONS. COORDINATE WITH SYSTEM INSTALLER FOR EXACT ELECTRICAL REQUIREMENTS.

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PROJECT # 2014-75
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REVISIONS

⚠39	04.20.18 COORDINATION
⚠41	06.22.18 COORDINATION
⚠45	08.31.18 COORDINATION
⚠46	09.21.18 COORDINATION

VANCOUVER AVE PHASE II MIXED USE BUILDING

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1 ROOF LEVEL POWER PLAN
E3.06 SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.

C. ELECTRICAL CONTRACTOR TO PROVIDE EMPTY CONDUIT FOR FUTURE CONNECTION OF MECHANICAL EQUIPMENT INSTALLED FOR EACH RETAIL SPACE. CONSULT MECHANICAL DRAWINGS AND COORDINATE WITH THE MECHANICAL INSTALLED FOR THE APPROPRIATE CONDUIT SIZE AND ROUTING PRIOR TO ROUGH IN.

D. ELECTRICAL CONTRACTOR TO PROVIDE A MINIMUM OF ONE 20A, 120V, 1P RECEPTACLE CIRCUIT FROM PANEL M2 FOR WEATHER PROOF GFIC RATED RECEPTACLES AS REQUIRED BY CODE.

2A E. ELECTRICAL CONTRACTOR SHALL CONSULT MECHANICAL PLANS FOR THE PURPOSE OF COORDINATING APARTMENT DESIGNATION(S) OF ROOF MOUNTED HEAT PUMP UNITS.

KEYED NOTES:

1. ROUTE EMPTY 1 1/4" CONDUIT WITH PULL STRING FROM LEASE SPACE FOR TENANT SUPPLIED HVAC EQUIPMENT AND CAP OFF.

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PROJECT # 2014-75
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REVISIONS

6	12.16.16 COORDINATION
1	12.30.16 COORDINATION
19	06.30.17 COORDINATION
2A	12.15.17 COORDINATION

VANCOUVER AVE PHASE II
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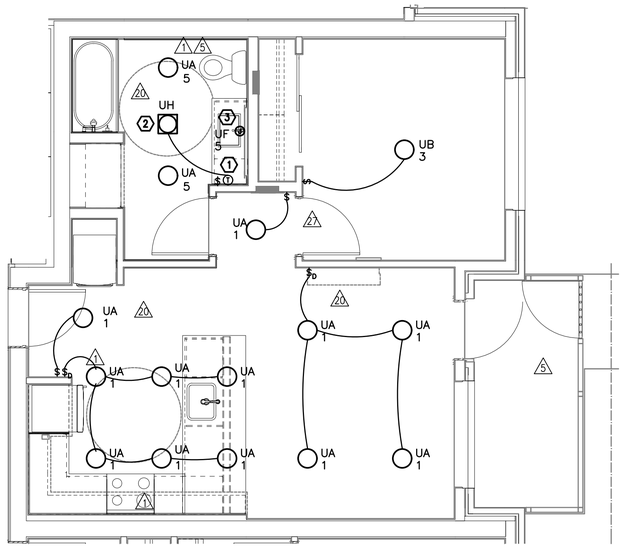
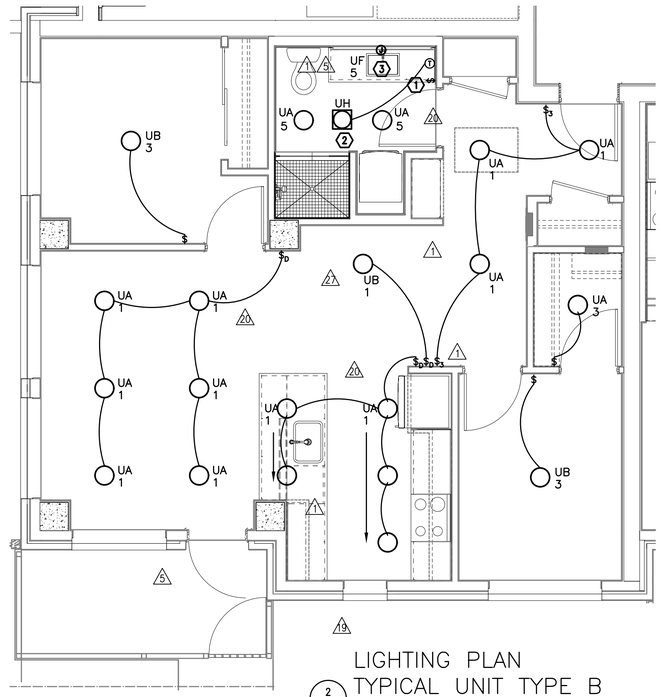


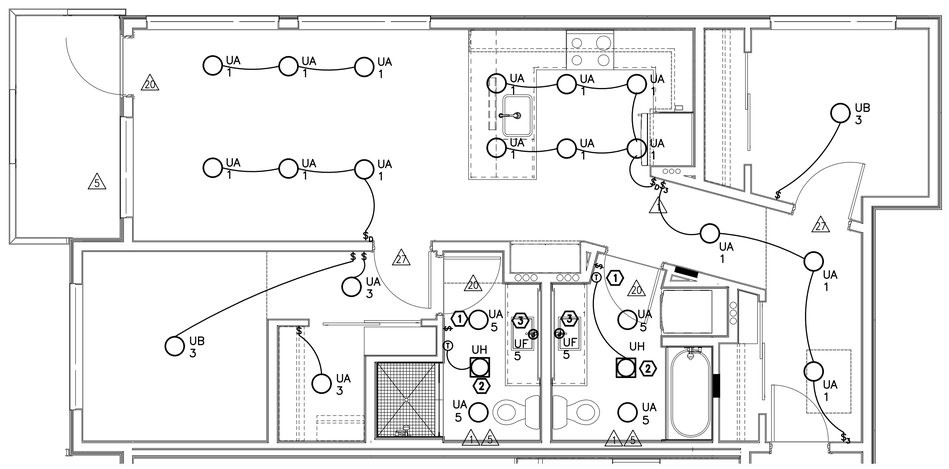
LIGHTING PLAN
TYPICAL UNIT TYPE A–ADA

1 / E401 SCALE:1/4" = 1'–0"



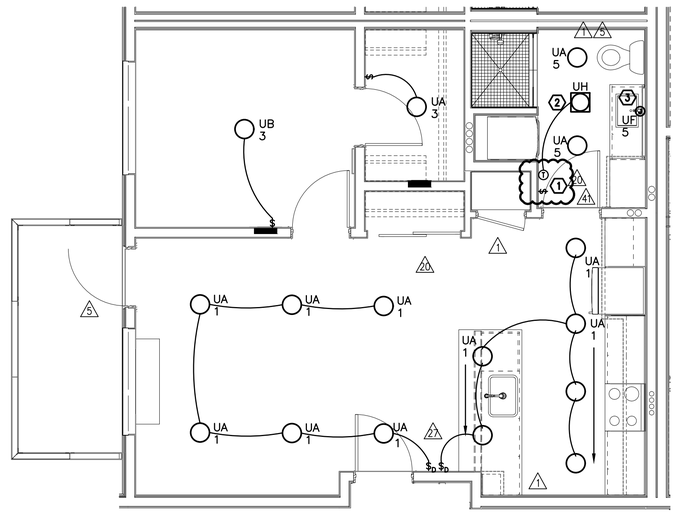
LIGHTING PLAN
TYPICAL UNIT TYPE B

2 / E401 SCALE:1/4" = 1'–0"



LIGHTING PLAN
TYPICAL UNIT TYPE C

3 / E401 SCALE:1/4" = 1'–0"



LIGHTING PLAN
TYPICAL UNIT TYPE D

4 / E401 SCALE:1/4" = 1'–0"

GENERAL NOTES (APARTMENT UNITS):

A. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL DEVICES AND FIXTURES.

B. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

C. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.

D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS. CONSULT INTERIOR DESIGNER FOR MOUNTING HEIGHTS NOT SPECIFIED.

KEYED NOTES (APARTMENT UNITS):

1. (1) REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.22.
2. (2) PROVIDE ONE DEDICATED 20A CIRCUIT FOR BATHROOM HEATER FROM TENANT LOAD CENTER. PROVIDE THERMOSTAT AS INDICATED.
5. (3) PROVIDE ONE 15A RECEPTACLE, MOUNTED ABOVE VANITY AND TIED INTO THE BATHROOM LIGHT SWITCH FOR BACK–LIT MIRROR. REFER TO MANUFACTURER'S INSTALLATION GUIDE AND COORDINATE EXACT MOUNTING HEIGHT WITH THE INTERIOR DECORATOR AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH IN.

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PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS

19.	06.30.17 COORDINATION
20.	07.14.17 COORDINATION
7.	12.15.17 COORDINATION
4.	06.22.18 COORDINATION

VANCOUVER AVE PHASE II
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SHEET:
E4.01

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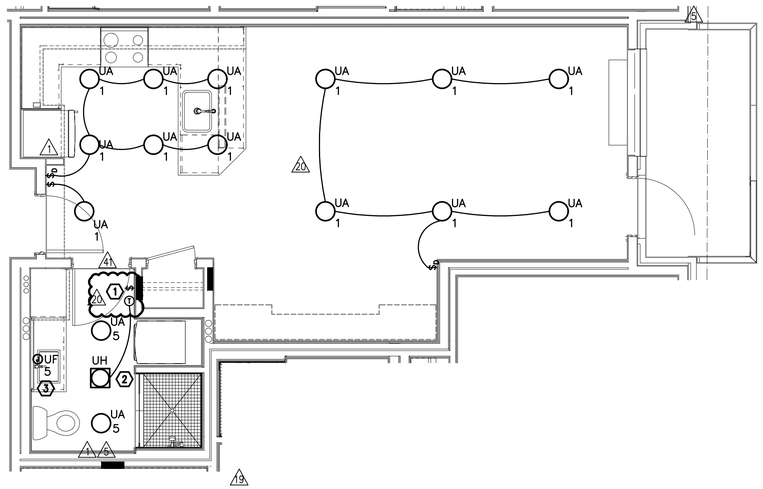
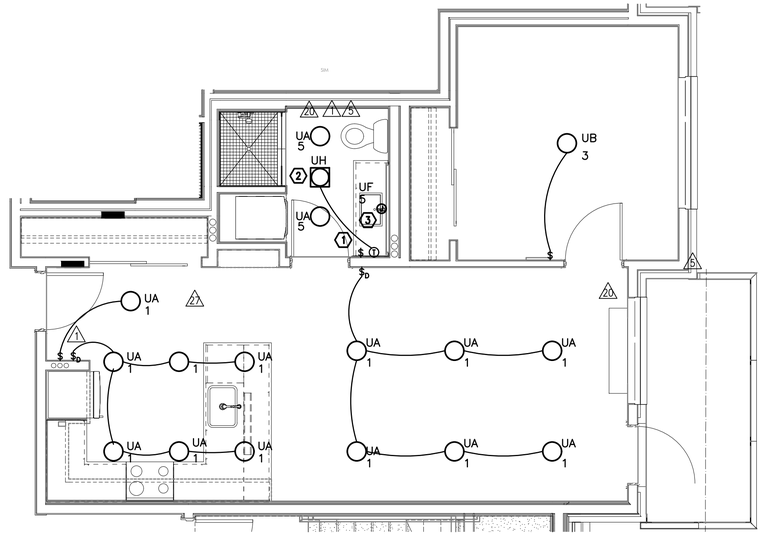
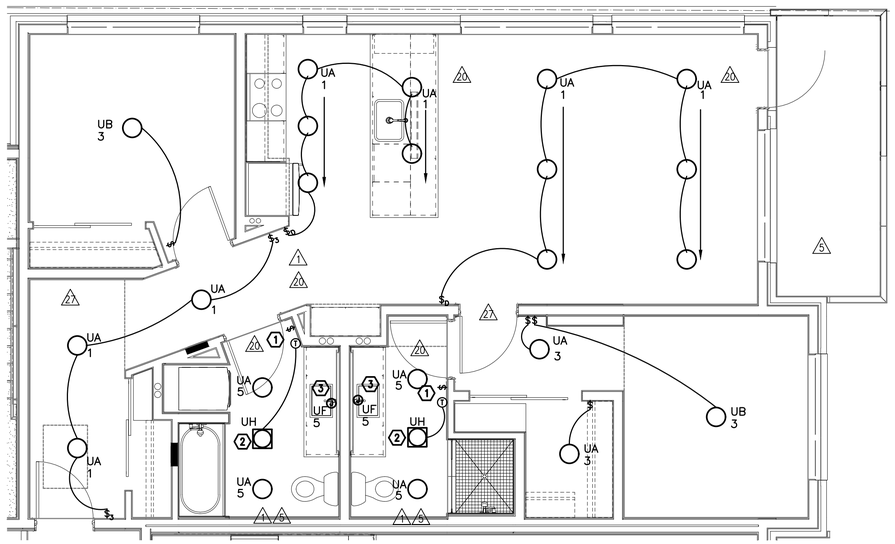


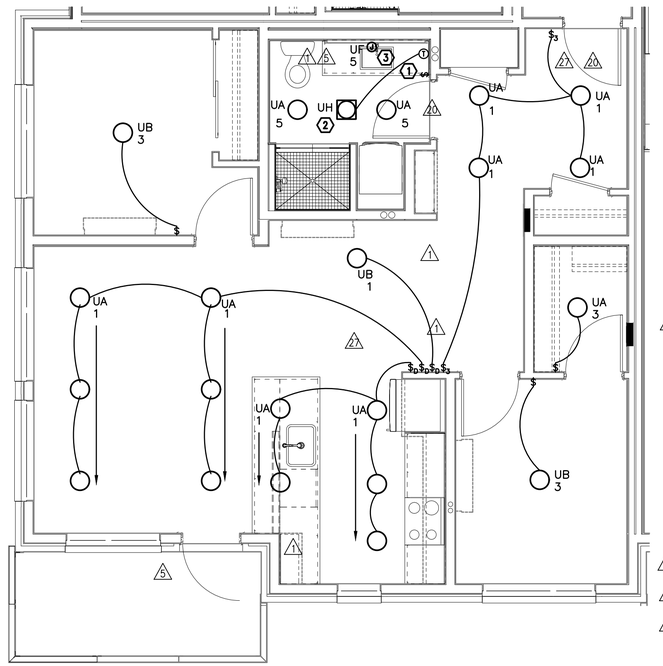
LIGHTING PLAN
TYPICAL UNIT TYPE E
1 / E402 SCALE:1/4" = 1'-0"



LIGHTING PLAN
TYPICAL UNIT TYPE F
2 / E402 SCALE:1/4" = 1'-0"



LIGHTING PLAN
TYPICAL UNIT TYPE G
3 / E402 SCALE:1/4" = 1'-0"



LIGHTING PLAN
TYPICAL UNIT TYPE H
4 / E402 SCALE:1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

A. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL DEVICES AND FIXTURES.

B. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

C. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.

D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS. CONSULT INTERIOR DESIGNER FOR MOUNTING HEIGHTS NOT SPECIFIED.

KEYED NOTES (APARTMENT UNITS):

1. (1) REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.22.
2. (2) PROVIDE ONE DEDICATED 20A CIRCUIT FOR BATHROOM HEATER FROM TENANT LOAD CENTER. PROVIDE THERMOSTAT AS INDICATED.
3. (3) PROVIDE ONE 15A RECEPTACLE, MOUNTED ABOVE VANITY AND TIED INTO THE BATHROOM LIGHT SWITCH FOR BACK-LIT MIRROR. REFER TO MANUFACTURER'S INSTALLATION GUIDE AND COORDINATE EXACT MOUNTING HEIGHT WITH THE INTERIOR DECORATOR AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH IN.

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10-8-2015
REGISTERED PROFESSIONAL ENGINEER
16,597
OREGON
JULY 20, 1991
ROBERT L. CONNELL
EXPIRES 12-31-2017

PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS

19	06.30.17 COORDINATION
20	07.14.17 COORDINATION
7	12.15.17 COORDINATION
4	06.22.18 COORDINATION

VANCOUVER AVE PHASE II MIXED USE BUILDING

NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

SHEET:
E4.02

MFIA INC. Consulting Engineers
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Portland, OR 97214
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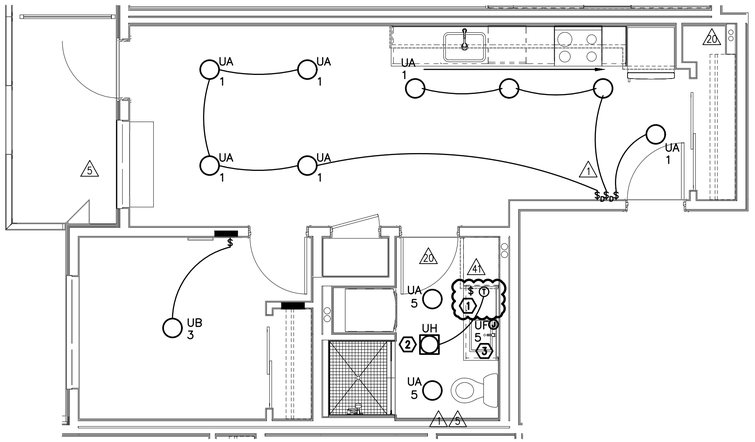
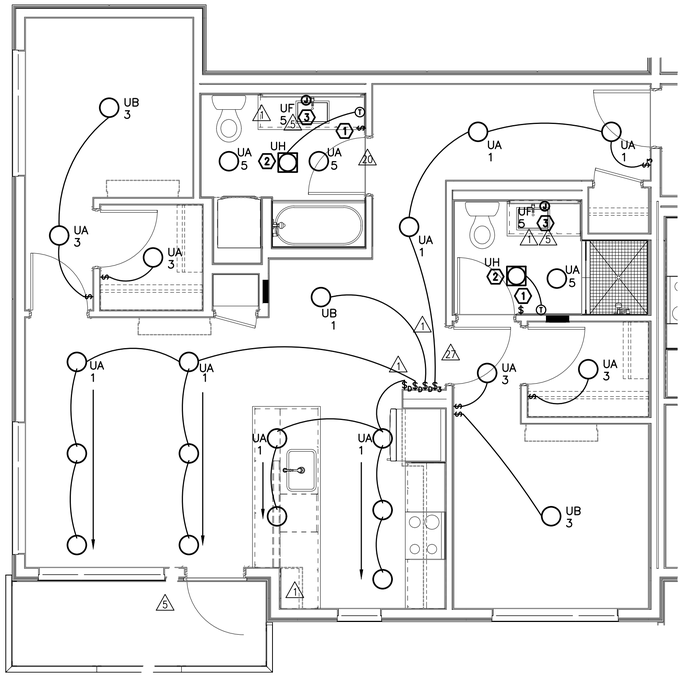
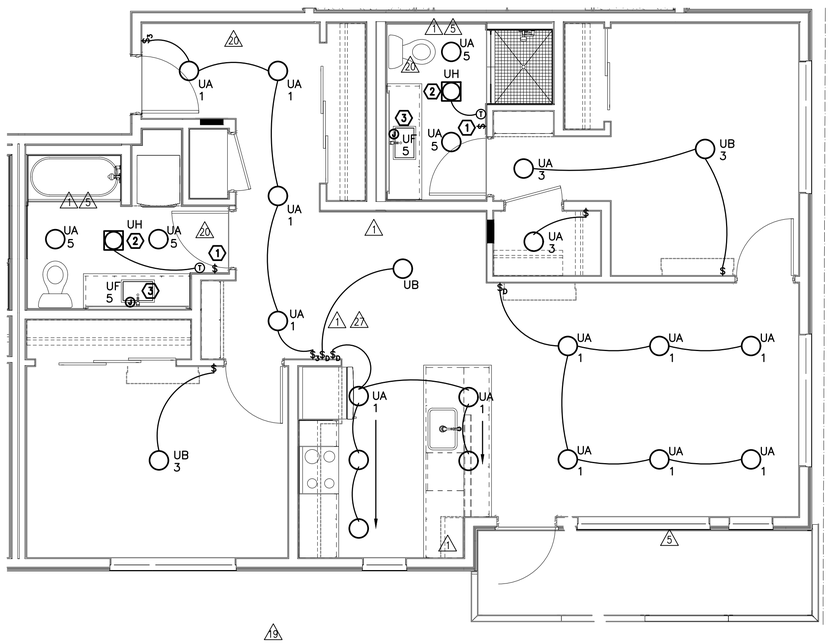
CONTACT: DENISE TAYLOR



19 LIGHTING PLAN
TYPICAL UNIT TYPE I
1 / E403 SCALE:1/4" = 1'-0"



19 LIGHTING PLAN
TYPICAL UNIT TYPE J
2 / E403 SCALE:1/4" = 1'-0"



19 LIGHTING PLAN
TYPICAL UNIT TYPE K
3 / E403 SCALE:1/4" = 1'-0"

1 GENERAL NOTES (APARTMENT UNITS):

A. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL DEVICES AND FIXTURES.

B. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

C. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.

27 D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS. CONSULT INTERIOR DESIGNER FOR MOUNTING HEIGHTS NOT SPECIFIED.

KEYED NOTES (APARTMENT UNITS):

1 (1) REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.22.

19 (2) PROVIDE ONE DEDICATED 20A CIRCUIT FOR BATHROOM HEATER FROM TENANT LOAD CENTER. PROVIDE THERMOSTAT AS INDICATED.

5 (3) PROVIDE ONE 15A RECEPTACLE, MOUNTED ABOVE VANITY AND TIED INTO THE BATHROOM LIGHT SWITCH FOR BACK-LIT MIRROR. REFER TO MANUFACTURER'S INSTALLATION GUIDE AND COORDINATE EXACT MOUNTING HEIGHT WITH THE INTERIOR DECORATOR AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH IN.

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REVISIONS

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1	12.15.17 COORDINATION
4	06.22.18 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING
NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

SHEET:
E4.03

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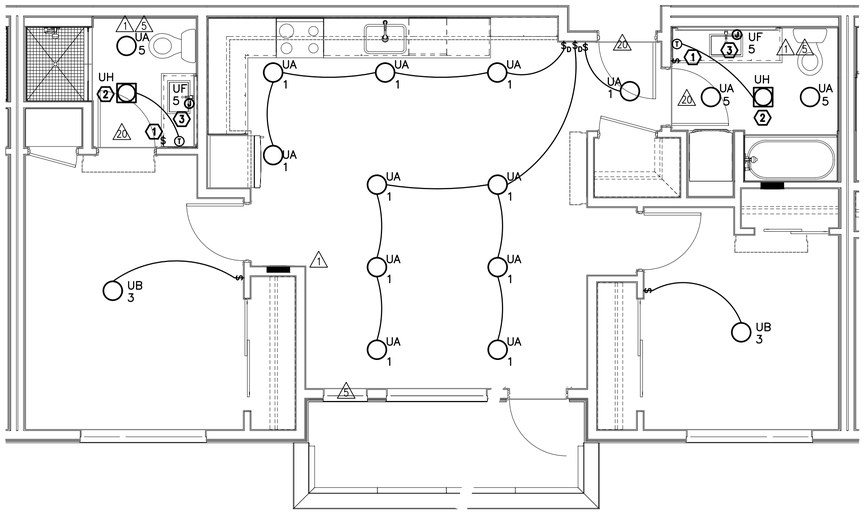
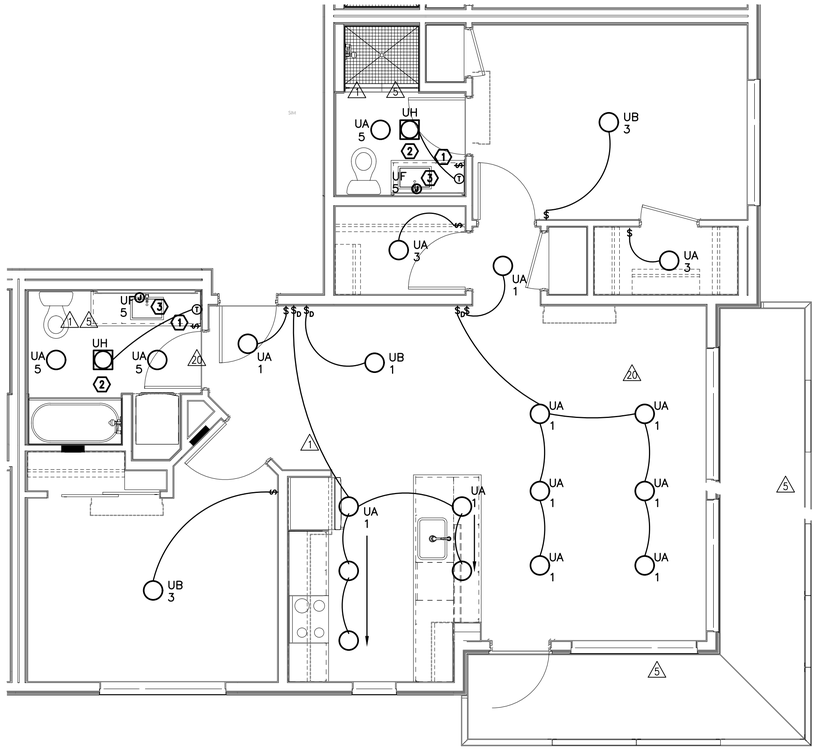
CONTACT: DENISE TAYLOR



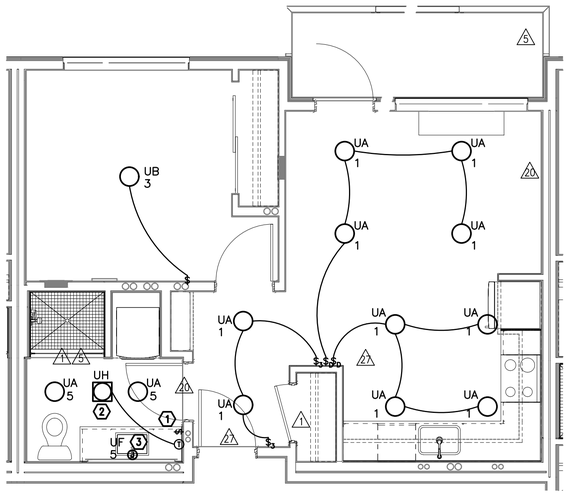
19

1 E404 LIGHTING PLAN TYPICAL UNIT TYPE L
SCALE:1/4" = 1'-0"



19

2 E404 LIGHTING PLAN TYPICAL UNIT TYPE M
SCALE:1/4" = 1'-0"



19

3 E404 LIGHTING PLAN TYPICAL UNIT TYPE N
SCALE:1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

1

A. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL DEVICES AND FIXTURES.

B. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

C. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.

17 D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS. CONSULT INTERIOR DESIGNER FOR MOUNTING HEIGHTS NOT SPECIFIED.

KEYED NOTES (APARTMENT UNITS):

1 (1) REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.22.

19 (2) PROVIDE ONE DEDICATED 20A CIRCUIT FOR BATHROOM HEATER FROM TENANT LOAD CENTER. PROVIDE THERMOSTAT AS INDICATED.

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5	10.21.16	COORDINATION
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17	12.15.17	COORDINATION

VANCOUVER AVE PHASE II MIXED USE BUILDING

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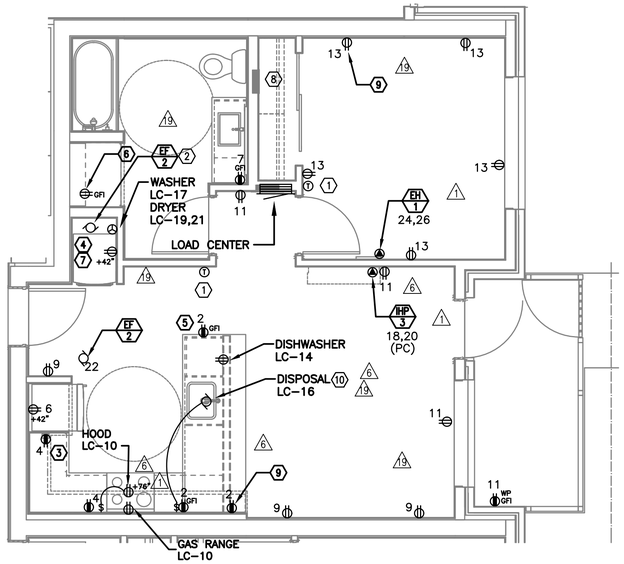
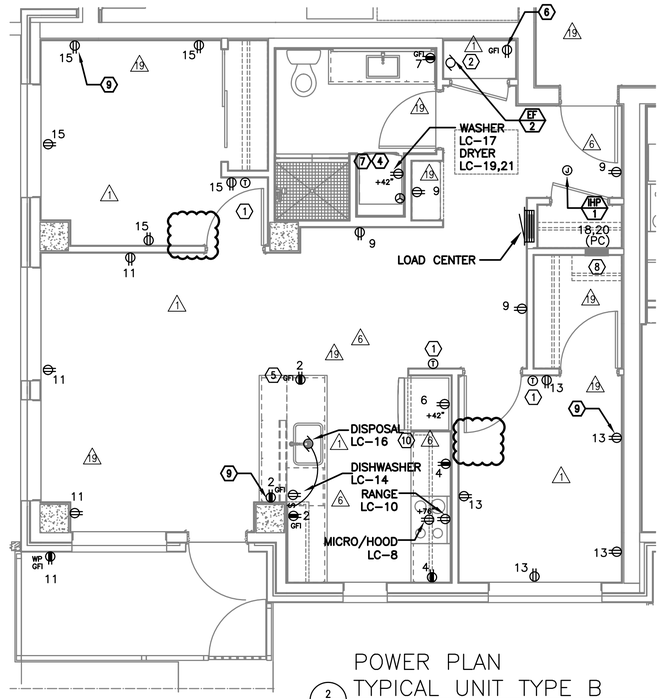
SHEET:
E4.04



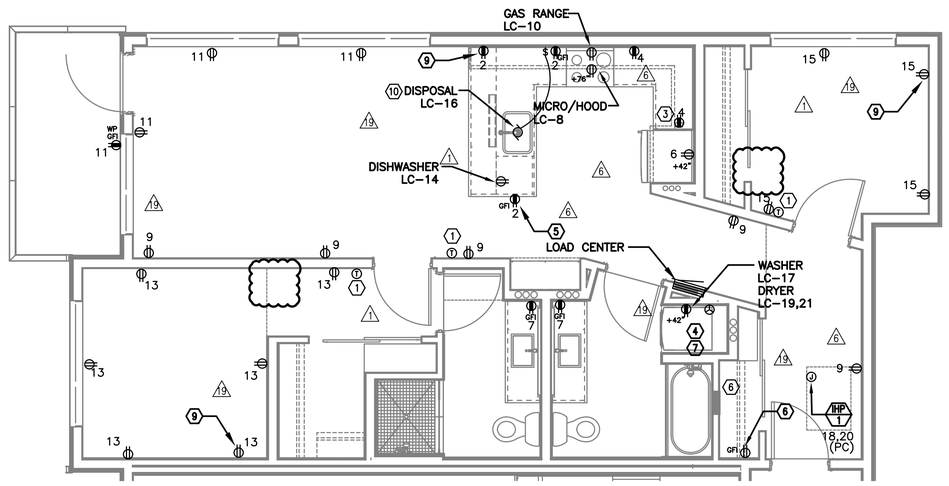
POWER PLAN
TYPICAL UNIT TYPE A–ADA

1 / E411 SCALE:1/4" = 1'-0"



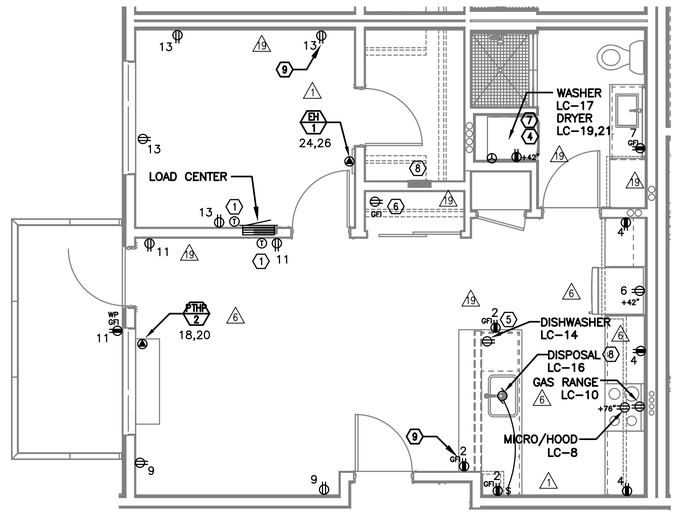
POWER PLAN
TYPICAL UNIT TYPE B

2 / E411 SCALE:1/4" = 1'-0"



POWER PLAN
TYPICAL UNIT TYPE C

3 / E411 SCALE:1/4" = 1'-0"



POWER PLAN
TYPICAL UNIT TYPE D

4 / E411 SCALE:1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

19 A. KITCHEN RECEPTACLES LOCATED IN ISLANDS OR PENINSULAS WHERE THE BACK SPLASH WILL NOT ACCOMMODATE VERTICAL PLACEMENT OR THE DUPLEX RECEPTACLE, THE CONTRACTOR SHALL ROTATE THE DEVICE 90 DEGREES SO THAT THE RECEPTACLE IS INSTALLED HORIZONTALLY.

B. REFER TO DETAILS ON SHEET E1.23 AND G2.01 FOR ADDITIONAL INFORMATION REGARDING ADA REACH REQUIREMENTS FOR RECEPTACLE AND SWITCH MOUNTING HEIGHT.

C. STANDARD RECEPTACLE MOUNTING HEIGHT IS 18" A.F.F. UNLESS OTHERWISE SPECIFIED. RECEPTACLES LOCATED BELOW WINDOW SILLS SHALL NOT BE LESS THE 15" A.F.F.

2A D. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES AND FIXTURES.

E. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES (APARTMENT UNITS):

1 PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

2 FOR UNITS USING MINI–SPLIT SYSTEMS, PROVIDE INTERCONNECTION BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED. COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

19 3 RECESSED 20A, 1P GFIC RATED, POP–UP COUNTER TOP RECEPTACLE, LEW ELECTRIC PUR20 SERIES OR APPROVED EQUAL. FINISH PER OWNER'S DIRECTION.

1 4 REFER TO DETAIL 4/E1.23 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR.

19 5 MOUNT DEVICES HORIZONTALLY, JUST UNDER THE EDGE OF THE COUNTER TOP.

6 PROVIDE ONE DEDICATED GFIC RATED 20A, 120V, 1P RECEPTACLE, LOCATED NEAR WATER SERVICE ENTRY INTO UNIT FOR WATER METER. MOUNT CLOSE TO CEILING AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.

19 6 7 PROVIDE POWER CONNECTION FOR DRYER BOOSTER FAN WHERE REQUIRED. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION PRIOR TO ROUGH IN.

6 8 PROVIDE ONE 15A, RECEPTACLE CIRCUIT FROM TENANT LOAD CENTER FOR COMCAST SMART PANEL. COORDINATE WORK WITH SERVICE PROVIDER FOR EXACT LOCATION AND FINAL CONNECTION.

9 PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, MOUNTED AT 48" A.F.F AT KITCHEN ISLAND/PENNISULA COUNTER & AT 18" AFF IN BEDROOMS. CONSULT ARCHITECT AND/OR INTERIOR DESIGNER FOR ADDITIONAL LOCATIONS WHERE REQUIRED.

10 PROVIDE ONE 20A, 120V, 1P GFIC DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.

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10-8-2015
REGISTERED PROFESSIONAL ENGINEER
16,597
OREGON
JULY 20, 1982
ROBERT L. CONNELL
EXPIRES 12-31-2017

PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS

1	02.05.16 PLAN REVIEW
6	16.16.16 COORDINATION
19	06.30.17 COORDINATION
2A	07.14.17 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING
NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

SHEET:
E4.11

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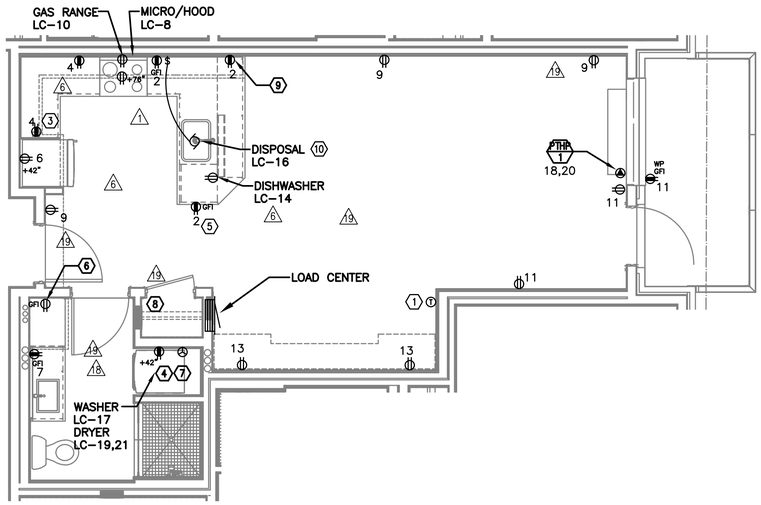
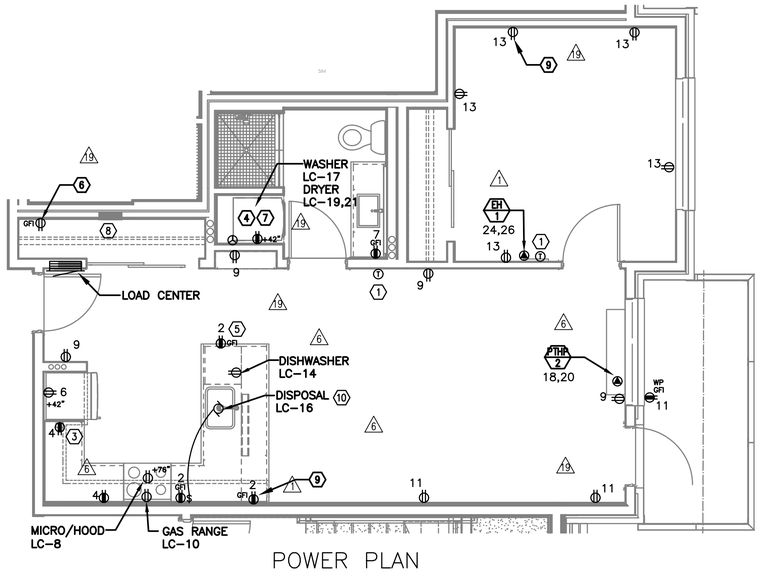
WWW.MFIA-ENG.COM
CONTACT: DENISE TAYLOR



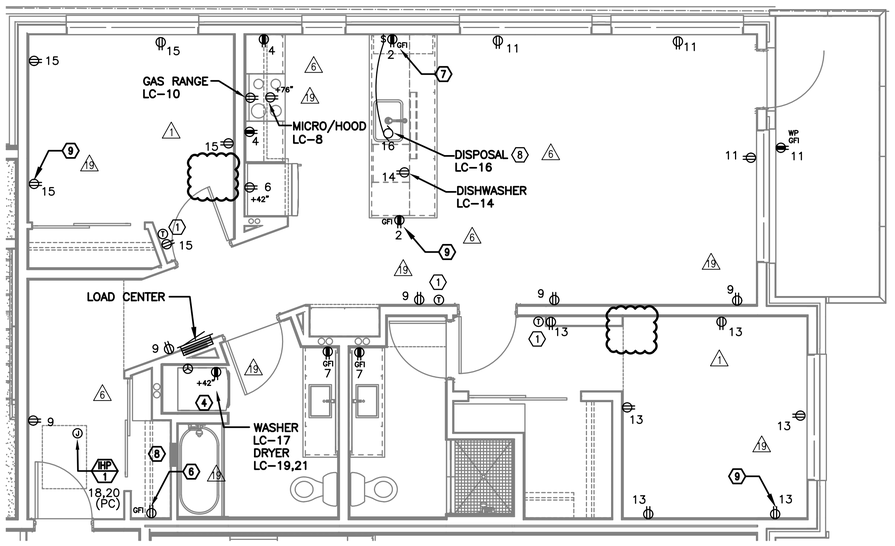
POWER PLAN
TYPICAL UNIT TYPE E

1 / E412 SCALE:1/4" = 1'-0"



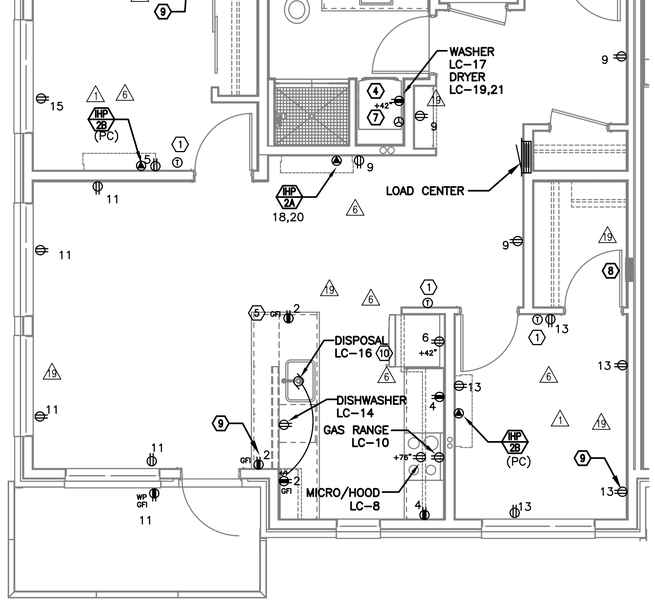
POWER PLAN
TYPICAL UNIT TYPE F

2 / E412 SCALE:1/4" = 1'-0"



POWER PLAN
TYPICAL UNIT TYPE G

3 / E412 SCALE:1/4" = 1'-0"



POWER PLAN
TYPICAL UNIT TYPE H

4 / E412 SCALE:1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

19 A. KITCHEN RECEPTACLES LOCATED IN ISLANDS OR PENINSULAS WHERE THE BACK SPLASH WILL NOT ACCOMMODATE VERTICAL PLACEMENT OR THE DUPLEX RECEPTACLE, THE CONTRACTOR SHALL ROTATE THE DEVICE 90 DEGREES SO THAT THE RECEPTACLE IS INSTALLED HORIZONTALLY.

B. REFER TO DETAILS ON SHEET E1.23 AND G2.01 FOR ADDITIONAL INFORMATION REGARDING ADA REACH REQUIREMENTS FOR RECEPTACLE AND SWITCH MOUNTING HEIGHT.

C. STANDARD RECEPTACLE MOUNTING HEIGHT IS 18" A.F.F. UNLESS OTHERWISE SPECIFIED. RECEPTACLES LOCATED BELOW WINDOW SILLS SHALL NOT BE LESS THE 15" A.F.F.

20 D. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES AND FIXTURES.

E. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES (APARTMENT UNITS):

(1) PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

(2) FOR UNITS USING MINI-SPLIT SYSTEMS, PROVIDE INTERCONNECTION BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED. COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

19 (3) RECESSED 20A, 1P GFIC RATED, POP-UP COUNTER TOP RECEPTACLE, LEW ELECTRIC PUR20 SERIES OR APPROVED EQUAL. FINISH PER OWNER'S DIRECTION.

1 (4) REFER TO DETAIL 4/E1.23 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR.

19 (5) MOUNT DEVICES HORIZONTALLY, JUST UNDER THE EDGE OF THE COUNTER TOP.

(6) PROVIDE ONE DEDICATED GFIC RATED 20A, 120V, 1P RECEPTACLE, LOCATED NEAR WATER SERVICE ENTRY INTO UNIT FOR WATER METER. MOUNT CLOSE TO CEILING AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.

19 6 (7) PROVIDE POWER CONNECTION FOR DRYER BOOSTER FAN WHERE REQUIRED. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION PRIOR TO ROUGH IN.

6 (8) PROVIDE ONE 15A, RECEPTACLE CIRCUIT FROM TENANT LOAD CENTER FOR COMCAST SMART PANEL. COORDINATE WORK WITH SERVICE PROVIDER FOR EXACT LOCATION AND FINAL CONNECTION.

(9) PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, MOUNTED AT 48" A.F.F AT KITCHEN ISLAND/PENNISULA COUNTER & AT 18" AFF IN BEDROOMS. CONSULT ARCHITECT AND/OR INTERIOR DESIGNER FOR ADDITIONAL LOCATIONS WHERE REQUIRED.

(10) PROVIDE ONE 20A, 120V, 1P GFIC DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.

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REVISIONS

1	02.05.16 PLAN REVIEW
6	16.16.16 COORDINATION
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20	07.14.17 COORDINATION

VANCOUVER AVE PHASE II
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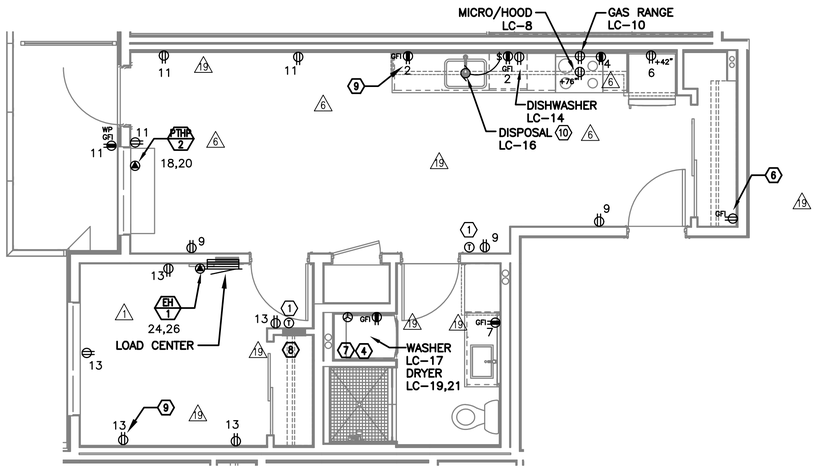
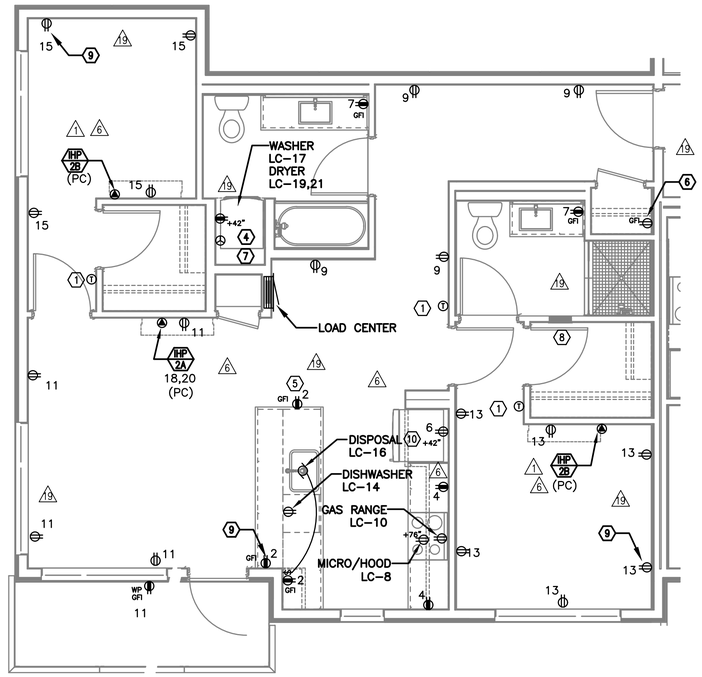
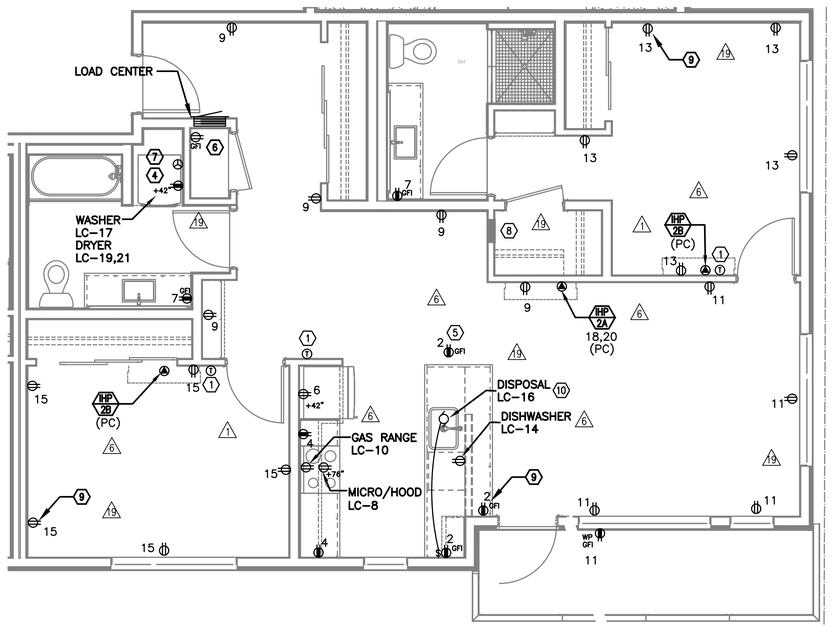
SHEET:
E4.12



POWER PLAN
TYPICAL UNIT TYPE I
1 / E413 SCALE:1/4" = 1'-0"



POWER PLAN
TYPICAL UNIT TYPE J
2 / E413 SCALE:1/4" = 1'-0"



POWER PLAN
TYPICAL UNIT TYPE K
3 / E413 SCALE:1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

19 A. KITCHEN RECEPTACLES LOCATED IN ISLANDS OR PENINSULAS WHERE THE BACK SPLASH WILL NOT ACCOMMODATE VERTICAL PLACEMENT OR THE DUPLEX RECEPTACLE, THE CONTRACTOR SHALL ROTATE THE DEVICE 90 DEGREES SO THAT THE RECEPTACLE IS INSTALLED HORIZONTALLY.

B. REFER TO DETAILS ON SHEET E1.23 AND G2.01 FOR ADDITIONAL INFORMATION REGARDING ADA REACH REQUIREMENTS FOR RECEPTACLE AND SWITCH MOUNTING HEIGHT.

C. STANDARD RECEPTACLE MOUNTING HEIGHT IS 18" A.F.F. UNLESS OTHERWISE SPECIFIED. RECEPTACLES LOCATED BELOW WINDOW SILLS SHALL NOT BE LESS THE 15" A.F.F.

20 D. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES AND FIXTURES.

E. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES (APARTMENT UNITS):

1 PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

2 FOR UNITS USING MINI-SPLIT SYSTEMS, PROVIDE INTERCONNECTION BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED. COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.

19 3 RECESSED 20A, 1P GFIC RATED, POP-UP COUNTER TOP RECEPTACLE, LEW ELECTRIC PUR20 SERIES OR APPROVED EQUAL. FINISH PER OWNER'S DIRECTION.

1 4 REFER TO DETAIL 4/E1.23 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR.

19 5 MOUNT DEVICES HORIZONTALLY, JUST UNDER THE EDGE OF THE COUNTER TOP.

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6 8 PROVIDE ONE 15A, RECEPTACLE CIRCUIT FROM TENANT LOAD CENTER FOR COMCAST SMART PANEL. COORDINATE WORK WITH SERVICE PROVIDER FOR EXACT LOCATION AND FINAL CONNECTION.

9 PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, MOUNTED AT 48" A.F.F AT KITCHEN ISLAND/PENNISULA COUNTER & AT 18" AFF IN BEDROOMS. CONSULT ARCHITECT AND/OR INTERIOR DESIGNER FOR ADDITIONAL LOCATIONS WHERE REQUIRED.

10 PROVIDE ONE 20A, 120V, 1P GFIC DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.

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10-8-2015
REGISTERED PROFESSIONAL ENGINEER
16,597
OREGON
JULY 20, 1993
ROBERT L. CONNELL
EXPIRES 12-31-2017

PROJECT # 2014-75
DATE: 10-08-2015

REVISIONS

1	02.05.16 PLAN REVIEW
6	16.16.16 COORDINATION
19	06.30.17 COORDINATION
20	07.14.17 COORDINATION

VANCOUVER AVE PHASE II
MIXED USE BUILDING
NEC N VANCOUVER AVE & N SHAVER ST, PORTLAND, OR 97227

SHEET:
E4.13

MFA INC. Consulting Engineers
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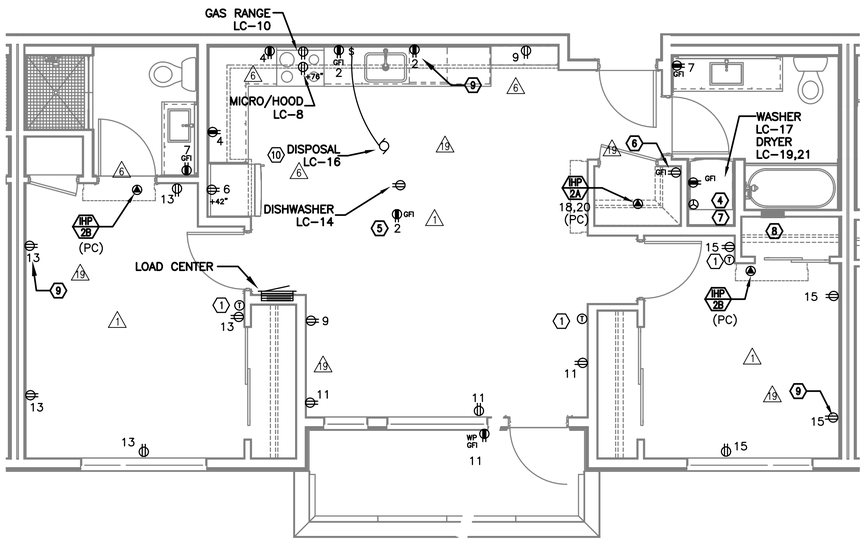
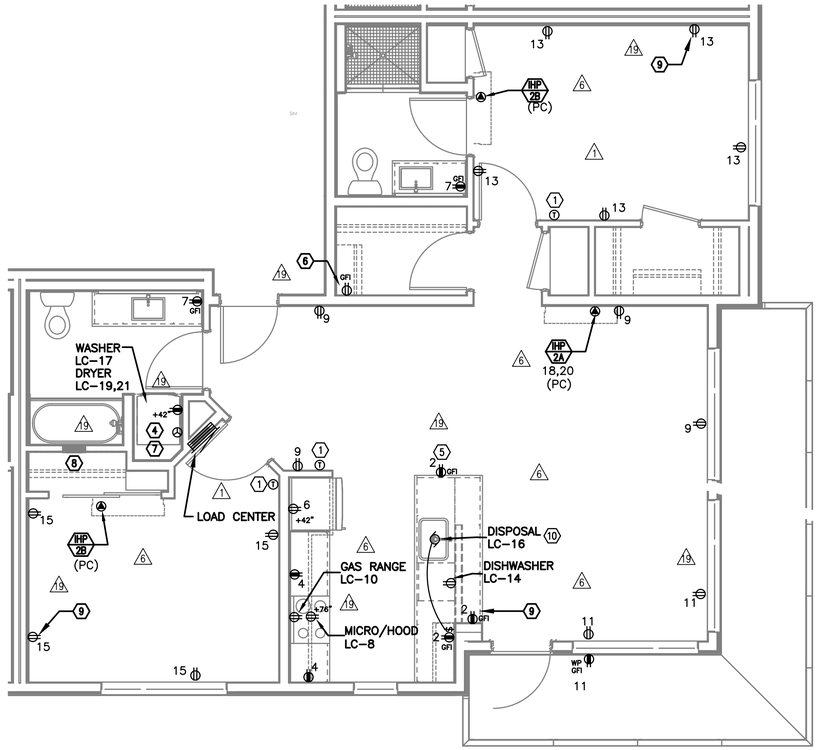
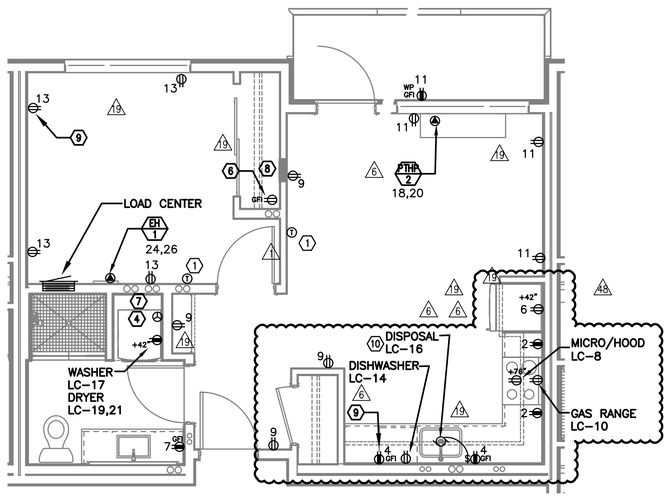


POWER PLAN
TYPICAL UNIT TYPE L
1 / E414 SCALE:1/4" = 1'–0"



POWER PLAN
TYPICAL UNIT TYPE M
2 / E414 SCALE:1/4" = 1'–0"



POWER PLAN
TYPICAL UNIT TYPE N
3 / E414 SCALE:1/4" = 1'–0"

GENERAL NOTES (APARTMENT UNITS):

19 A. KITCHEN RECEPTACLES LOCATED IN ISLANDS OR PENINSULAS WHERE THE BACK SPLASH WILL NOT ACCOMMODATE VERTICAL PLACEMENT OR THE DUPLEX RECEPTACLE, THE CONTRACTOR SHALL ROTATE THE DEVICE 90 DEGREES SO THAT THE RECEPTACLE IS INSTALLED HORIZONTALLY.

B. REFER TO DETAILS ON SHEET E1.23 AND G2.01 FOR ADDITIONAL INFORMATION REGARDING ADA REACH REQUIREMENTS FOR RECEPTACLE AND SWITCH MOUNTING HEIGHT.

C. STANDARD RECEPTACLE MOUNTING HEIGHT IS 18" A.F.F. UNLESS OTHERWISE SPECIFIED. RECEPTACLES LOCATED BELOW WINDOW SILLS SHALL NOT BE LESS THE 15" A.F.F.

20 D. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES AND FIXTURES.

E. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.

KEYED NOTES (APARTMENT UNITS):

1. PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
2. FOR UNITS USING MINI–SPLIT SYSTEMS, PROVIDE INTERCONNECTION BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED. COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
19 3. RECESSED 20A, 1P GFIC RATED, POP–UP COUNTER TOP RECEPTACLE, LEW ELECTRIC PUR20 SERIES OR APPROVED EQUAL. FINISH PER OWNER'S DIRECTION.
1 4. REFER TO DETAIL 4/E1.23 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR.
19 5. MOUNT DEVICES HORIZONTALLY, JUST UNDER THE EDGE OF THE COUNTER TOP.
6. PROVIDE ONE DEDICATED GFIC RATED 20A, 120V, 1P RECEPTACLE, LOCATED NEAR WATER SERVICE ENTRY INTO UNIT FOR WATER METER. MOUNT CLOSE TO CEILING AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
19 6 7. PROVIDE POWER CONNECTION FOR DRYER BOOSTER FAN WHERE REQUIRED. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION PRIOR TO ROUGH IN.
6 8. PROVIDE ONE 15A, RECEPTACLE CIRCUIT FROM TENANT LOAD CENTER FOR COMCAST SMART PANEL. COORDINATE WORK WITH SERVICE PROVIDER FOR EXACT LOCATION AND FINAL CONNECTION.
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