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John Grace Arms
21030 Indian St, Southfield MI 48033
Developed by
John Grace Arms LDHA LLC

- SDG**
Architects + Planners
607 Shelby Street
Suite 704
Detroit, MI 48226
Tel: 313-961-9000
Fax: 313-964-3233



CITY STAMP

DO NOT PLACE ANYTHING IN THIS AREA

A circular professional engineer seal for the State of Michigan. The outer ring contains the text "STATE OF MICHIGAN" at the top and "LICENSED PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The center of the seal contains the name "MATTHEW J. JOSEPH" and the title "ENGINEER". Below the name is the license number "9201064269". The seal is signed with a stylized signature across the center.

ELECTRICAL SYMBOLS AND ABBREVIATIONS

ISSUED FOR DATE
PERMITS 12.20.24

APPROVED

21026.00

FILE NO

E-001

SHEET NO.

FEEDER (AMPS)	COND. SIZE	2-WIRE W/ GROUND	FEEDER (AMPS)	COND. SIZE	3-WIRE W/ GROUND	FEEDER (AMPS)	COND. SIZE	4-WIRE W/ GROUND
15S	12	2#12, 1#12G IN 3/4"C	15	12	3#12, 1#12G IN 3/4"C	15N	12	4#12, 1#12G IN 3/4"C
20S	12	2#12, 1#12G IN 3/4"C	20	12	3#12, 1#12G IN 3/4"C	20N	12	4#12, 1#12G IN 3/4"C
30S	10	2#10, 1#10G IN 3/4"C	30	10	3#10, 1#10G IN 3/4"C	30N	10	4#10, 1#10G IN 3/4"C
35S	8	2#8, 1#10G IN 3/4"C	35	8	3#8, 1#10G IN 3/4"C	35N	8	4#8, 1#10G IN 3/4"C
40S	8	2#8, 1#10G IN 3/4"C	40	8	3#6, 1#10G IN 3/4"C	40N	8	4#6, 1#10G IN 3/4"C
45S	6	2#6, 1#10G IN 3/4"C	45	6	3#6, 1#10G IN 3/4"C	45N	6	4#6, 1#10G IN 3/4"C
50S	6	2#6, 1#10G IN 3/4"C	50S	6	3#6, 1#10G IN 3/4"C	50N	6	4#6, 1#10G IN 3/4"C
60S	4	2#4, 1#10G IN 3/4"C	60S	4	3#4, 1#10G IN 1"C	60N	4	4#4, 1#10G IN 1"C
70S	4	2#4, 1#8G IN 1"C	70	4	3#4, 1#10G IN 1"C	70N	4	4#4, 1#10G IN 1"C
80S	3	2#3, 1#8G IN 1"C	80	3	3#3, 1#8G IN 1"C	80N	3	4#3, 1#8G IN 1"C
90S	2	2#2, 1#8G IN 1"C	90	2	3#2, 1#8G IN 1 1/4"C	90N	2	4#2, 1#8G IN 1 1/4"C
100S	1	2#1, 1#8G IN 1 1/4"C	100	1	3#1, 1#8G IN 1 1/4"C	100N	1	4#1, 1#8G IN 1 1/4"C
			110	2	3#2, 1#6G IN 1 1/4"C	110N	2	4#2, 1#6G IN 1 1/4"C
			125	1	3#1, 1#6G IN 1 1/4"C	125N	1	4#1, 1#6G IN 3/4"C
			150	1/0	3#1/0, 1#6G IN 1 1/4"C	150N	1/0	4#1/0, 1#6G IN 1 1/4"C
			175	2/0	3#2/0, 1#6G IN 1 1/2"C	175N	2/0	4#2/0, 1#6G IN 1 1/2"C
			200	3/0	3#3/0, 1#6G IN 2"C	200N	3/0	4#3/0, 1#6G IN 2"C
			225	4/0	3#4/0, 1#4G IN 2"C	225N	4/0	4#4/0, 1#4G IN 2"C
			250	250	3#250 KCMIL, 1#4G IN 2"C	250N	250	4#250 KCMIL, 1#4G IN 2"C
			300	350	3#350 KCMIL, 1#4G IN 2"C	300N	350	4#350 KCMIL, 1#4G IN 2"C
			350	500	3#500 KCMIL, 1#3G IN 3"C	350N	500	4#500 KCMIL, 1#3G IN 3"C
			400	600	3#600 KCMIL, 1#3G IN3"C	400N	600	4#600 KCMIL, 1#3G IN3"C
			450	2-3/0	(2) 3#3/0 KCMIL, 1#2G IN 2"C	450N	2-3/0	(2) 4#3/0 KCMIL, 1#2G IN 2"C
			500	2-250	(2) 3#250 KCMIL, 1#2G IN 2 1/2"C	500N	2-250	(2) 4#250 KCMIL, 1#2G IN 2 1/2"C
			600	2-300	(2) 3#300 KCMIL, 1#1G IN 2 1/2"C	600N	2-300	(2) 4#300 KCMIL, 1#1G IN 2 1/2"C
			700	2-500	(2) 3#500 KCMIL, 1#1/0G IN 3"C	700N	2-500	(2) 4#500 KCMIL, 1#1/0G IN 3"C
			800	2-600	(2) 3#600 KCMIL, 1#1/0G IN 3"C	800N	2-600	(2) 4#600 KCMIL, 1#1/0G IN 3"C
			1000	3-500	(3) 3#500 KCMIL, 1#1/0G IN 3"C	1000N	3-500	(3) 4#500 KCMIL, 1#1/0G IN 3"C
			1200	3-600	(3) 3#600 KCMIL, 1#3/0G IN 4"C	1200N	3-600	(3) 4#600 KCMIL, 1#3/0G IN 4"C
			1600	4-600	(4) 3#600 KCMIL, 1#4/0G IN 4"C	1600N	4-600	(4) 4#600 KCMIL, 1#4/0G IN 4"C
			1900	5-500	(5) 3#500 KCMIL, 1#250 KCMIL IN 4"C	1900N	5-500	(5) 4#500 KCMIL, 1#250 KCMIL IN 4"C
						2000N	5-600	(5) 4#600 KCMIL, 1#250 KCMIL IN 4"C

120V SINGLE-PHASE CIRCUIT LENGTH TABLE							
BREAKER AMPACITY (AMPS)	MAX. CIRCUIT CURRENT (AMPS)	MAX. CIRCUIT LOAD (VA)	MAXIMUM LENGTH IN FEET				
			#12AWG	#10AWG	#8AWG	#6AWG	#4AWG
20	4	480	220	349	556	882	-
	8	960	110	174	278	441	701
	12	1440	73	116	185	294	467
	16	1920	55	87	139	221	350
30	24	2880	-	58	93	147	234
40	32	3840	-	-	70	110	175
50	40	4800	-	-	-	88	140
60	48	5760	-	-	-	-	117

208V SINGLE-PHASE CIRCUIT LENGTH TABLE							
BREAKER AMPACITY (AMPS)	MAX. CIRCUIT CURRENT (AMPS)	MAX. CIRCUIT LOAD (VA)	MAXIMUM LENGTH IN FEET				
			#12AWG	#10AWG	#8AWG	#6AWG	#4AWG
20	4	832	380	605	964	-	-
	8	1664	190	302	482	765	-
	12	2496	127	202	321	510	810
	16	3328	95	151	241	382	607
30	24	4992	-	101	161	255	405
40	32	6656	-	-	121	191	304
50	40	8320	-	-	-	153	243
60	48	9984	-	-	-	-	202

208V THREE-PHASE CIRCUIT LENGTH TABLE							
BREAKER AMPACITY (AMPS)	MAX. CIRCUIT CURRENT (AMPS)	MAX. CIRCUIT LOAD (VA)	MAXIMUM LENGTH IN FEET				
			#12AWG	#10AWG	#8AWG	#6AWG	#4AWG
20	4	1440	439	698	1113	-	-
	8	2880	220	349	557	883	-
	12	4320	127	233	371	589	935
	16	5760	95	175	278	442	701
30	24	8640	-	116	186	294	468
40	32	11520	-	-	139	221	351
50	40	14400	-	-	-	177	281
60	48	16200	-	-	-	-	234

/Volumes/ernight/Shared/Projects/SDG/23-460_SDG_John_Grace_SDG_John_Grace_SDG_John_Grace_SD_1.1.pln

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LIGHTING FIXTURE SCHEDULE - INTERIOR							
TYPE	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE	LAMP	VOLTAGE	COMMENTS
R1	4" RECESSED LED CAN WITH WHITE TRIM	PROGRESS LIGHTING	P807-000-028-30	10W		120V	
R2	4" ROUND WET LISTED	PROGRESS LIGHTING	P810027-028-30	12.5W		120V	
T1	2'X2' RECESSED LED TROFFER	SUNCO	PN_SM2X2	40W		120-277V	
V1	24" VANITY LIGHT	PROGRESS LIGHTING	P300408-009-30	22W		120V	
W1	4" WALL MOUNT LED STRIP	PROGRESS LIGHTING	P730001-030-30	40W		120V	
U1	4' SUSPENDED LED UTILITY STRIP	PROGRESS LIGHTING	PCINS-LED-4-40K	45W		120-277V	
U2	2' SUSPENDED LED UTILITY STRIP	PROGRESS LIGHTING	PCINS-LED-2-40K	18W		120-277V	
C1	4" UNDERCOUNTER KITCHEN LIGHT	PROGRESS LIGHTING	#P700025-028-CS	5W		120V	
C2	2' UNDERCOUNTER KITCHEN LIGHT	PROGRESS LIGHTING	#P700027-028-CS	8.5W		120V	
P1	VAPOR TIGHT PIT LIGHT	LITHONIA	VAPOR TIGHT	15W		120-277V	
L1	HIGH BAY ROUND LED	HUBBELL	CRN-40MV-EDU	200W		120-277V	MOUNT 18'-0" AFF
X1	LED EXIT SIGN WITH RED ARROWS, QUANTITY OF FACES AND DIRECTIONAL ARROWS INDICATED ON PLANS.	ENVISIONEDLED LTG	LED-EM-EXT-R-WH	4W			

LIGHTING FIXTURE SCHEDULE - SITE							
TYPE	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE	LAMP	VOLTAGE	COMMENTS
P1	20FT ALUMINUM LIGHT POLE BASE WITH TYPE 3 DISTRIBUTION FIXTURE, SILICONE LENS, AND BLACK FINISH; 12000 LUMENS; 4000K CCT	LSI INDUSTRIES	SLICE MEDIUM	85W		120-277V	
P2	10FT DECORATIVE LIGHT POLE; 3000 LUMENS; 4000K CCT	STREETWORKS	UTR TRADITIONAIRE LED	29W		120V	
W1	LED WALL PACK WITH PHOTOCELL AND CARBON BRONZE FINISH; 3000K CCT	LUMARK	XTOR2B	18W		120V	

LIGHTING CONTROL MATRIX											
	MANUAL ON	MANUAL OFF	DIMMER SWITCH	OCCUPANCY SENSOR ON	OCCUPANCY SENSOR OFF	TIME CLOCK ON	TIMECLOCK OFF	PHOTOCELL ON	PHOTOCELL OFF		
SPACE TYPE										CONTROL DESCRIPTION	
PARKING LOT POLES								•	•	WHEN PHOTOCELL SENSES LIGHT LEVEL BELOW LIGHT LEVEL SETPOINT, LIGHTS SHALL AUTOMATICALLY TURN ON. WHEN LIGHT LEVEL IS ABOVE LIGHT LEVEL SETPOINT, LIGHTS SHALL AUTOMATICALLY SHUT OFF.	
WALL PACKS								•	•	WALL PACKS ON EMERGENCY TO OVERRIDE PHOTOCELL IN THE EVENT OF A POWER OUTAGE.	
CORRIDOR				•							
MECHANICAL/ELECTRICAL ROOM	•	•									
JANITOR CLOSET	•				•						
STORAGE	•				•						
LAUNDRY ROOM	•				•						
1BR/2BR - KITCHEN			•							DIMMING CONTROL ZONES INDICATED ON PLANS	
1BR/2BR - BATHROOM	•	•								LIGHT SWITCH INTERLOCKS WITH COMBINATION EXHAUST FAN/LIGHT	
1BR/2BR - BEDROOM	•	•	•								

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2808 Ypsilanti Way, South Lyon, MI 48178

CITY OF _____ STAMP

CITY STAMP
DO NOT PLACE ANYTHING IN THIS AREA

REGISTRATION SEAL



KEY PLANS

SHEET TITLE
ELECTRICAL & LIGHTING
SCHEDULES

SCALE: AS NOTED

ISSUED FOR
PERMITS
DATE
12.20.24

DRAWN BY
MT

CHECKED
SC

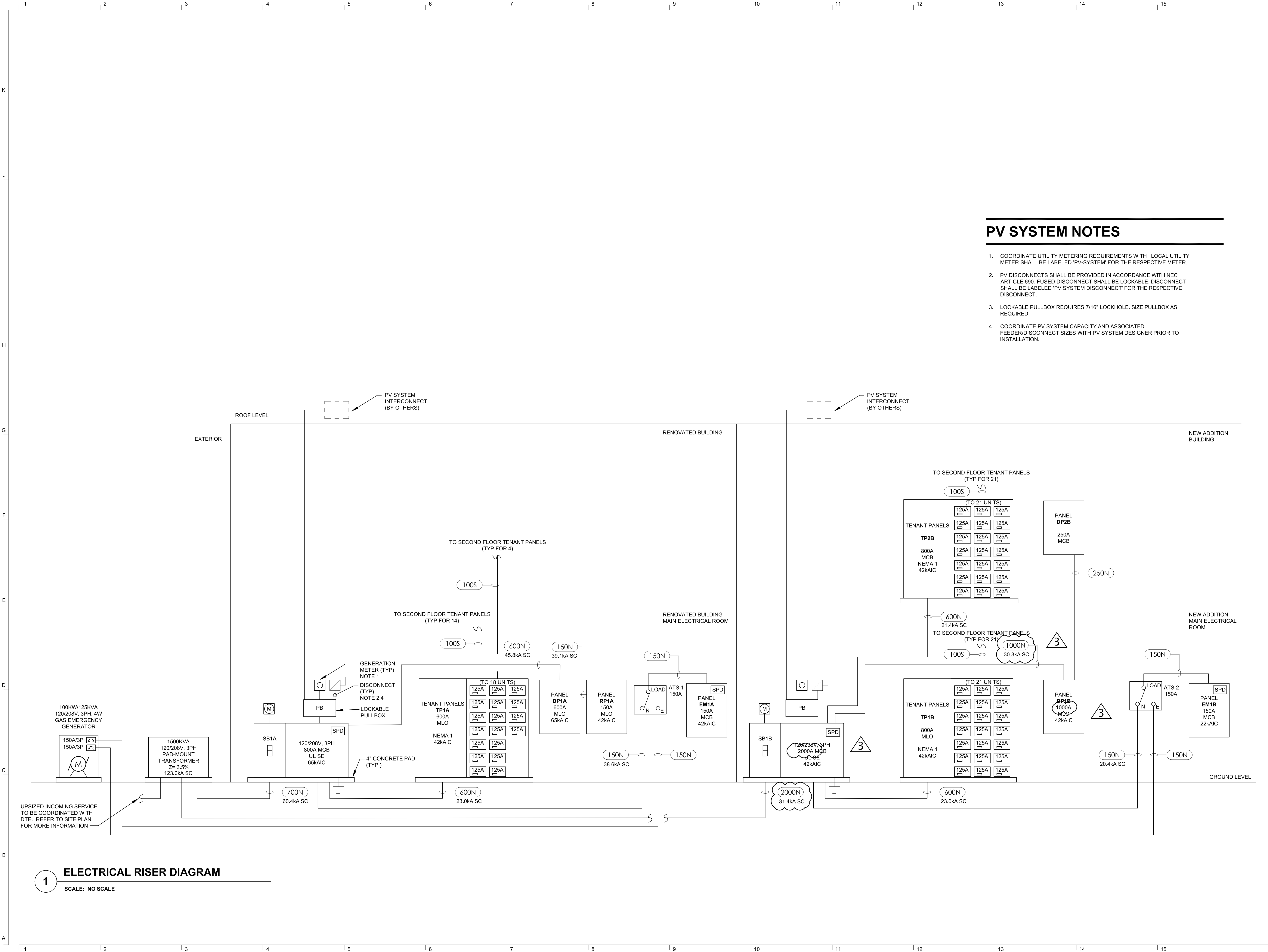
APPROVED

21026.00

FILE NO.

E-003

SHEET NO.



1 ELECTRICAL RISER DIAGRAM
SCALE: NO SCALE

John Grace Arms
21030 Indian St, Southfield MI 48033
Developed by
John Grace Arms LDHA LLC



A & A Engineering & Consulting
28862 Vista Way, South Lyon, MI 48178



KEY PLANS



SHEET TITLE
**ELECTRICAL RISER
DIAGRAM - EXISTING &
NEW ADDITION**

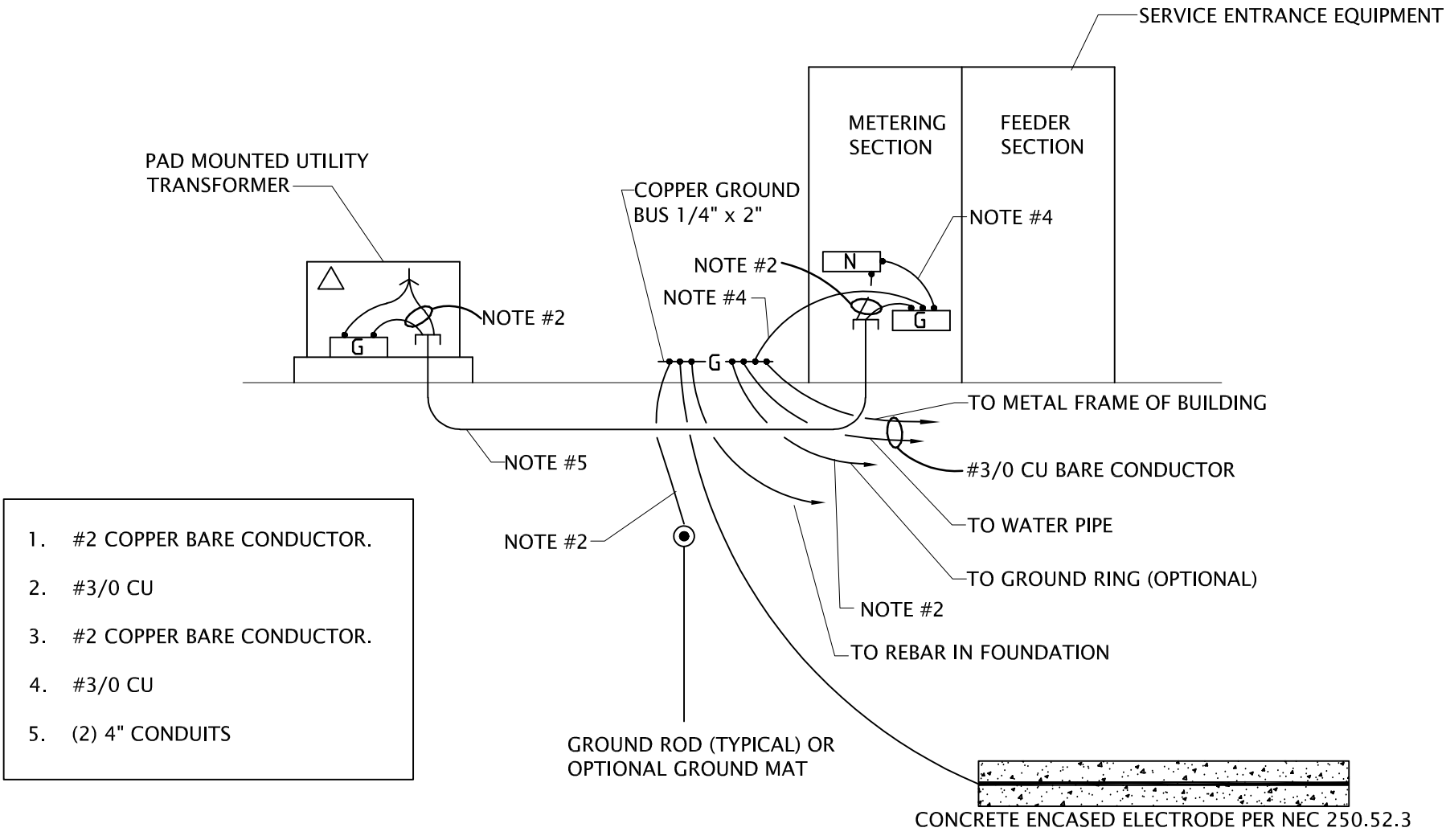
SCALE: AS NOTED

ISSUED FOR: Permits
DATE: 12.20.2024
Bulletin No. 3
06.03.2025

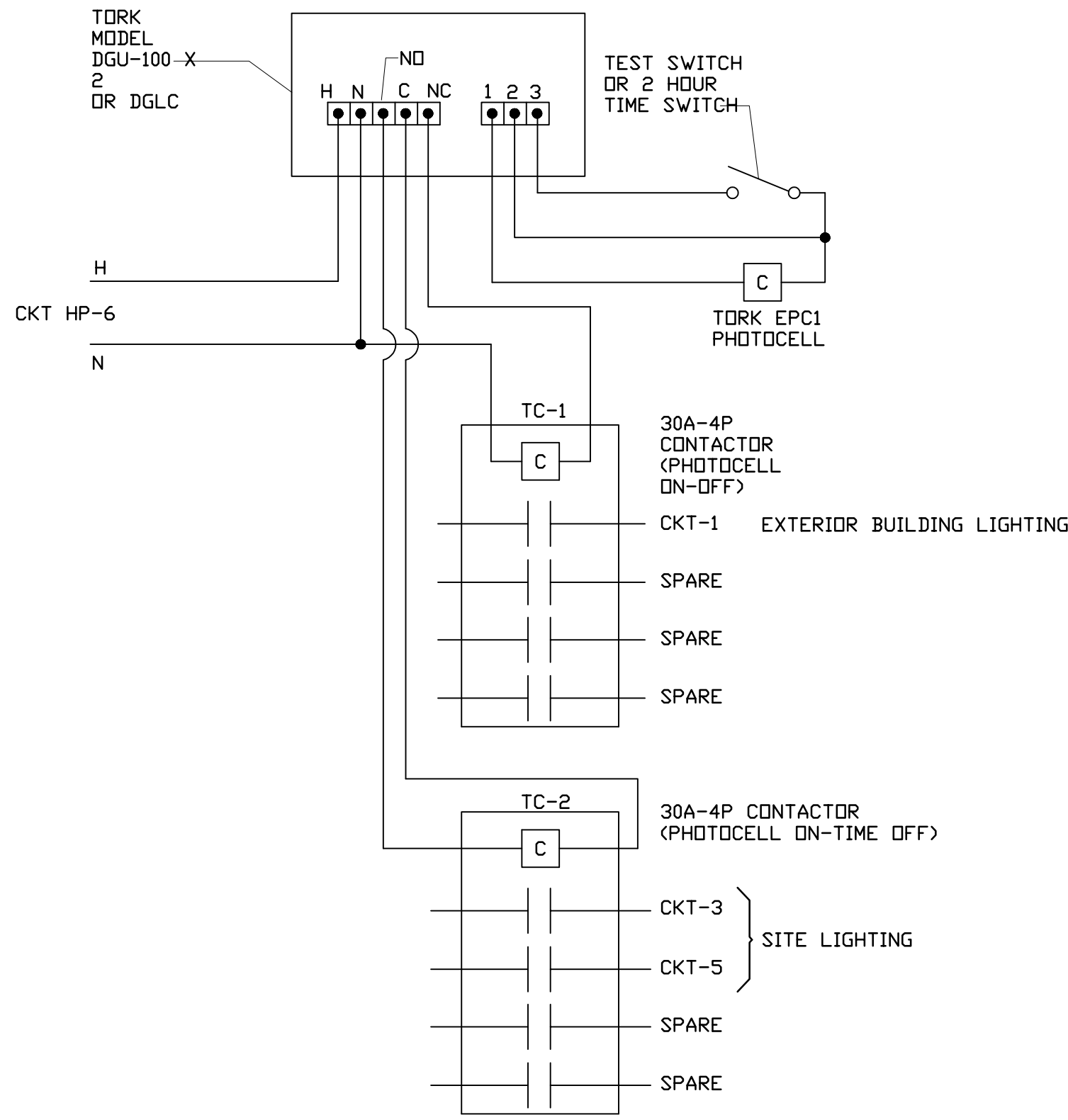
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21026.00
FILE NO.:
E-004

SHEET NO.

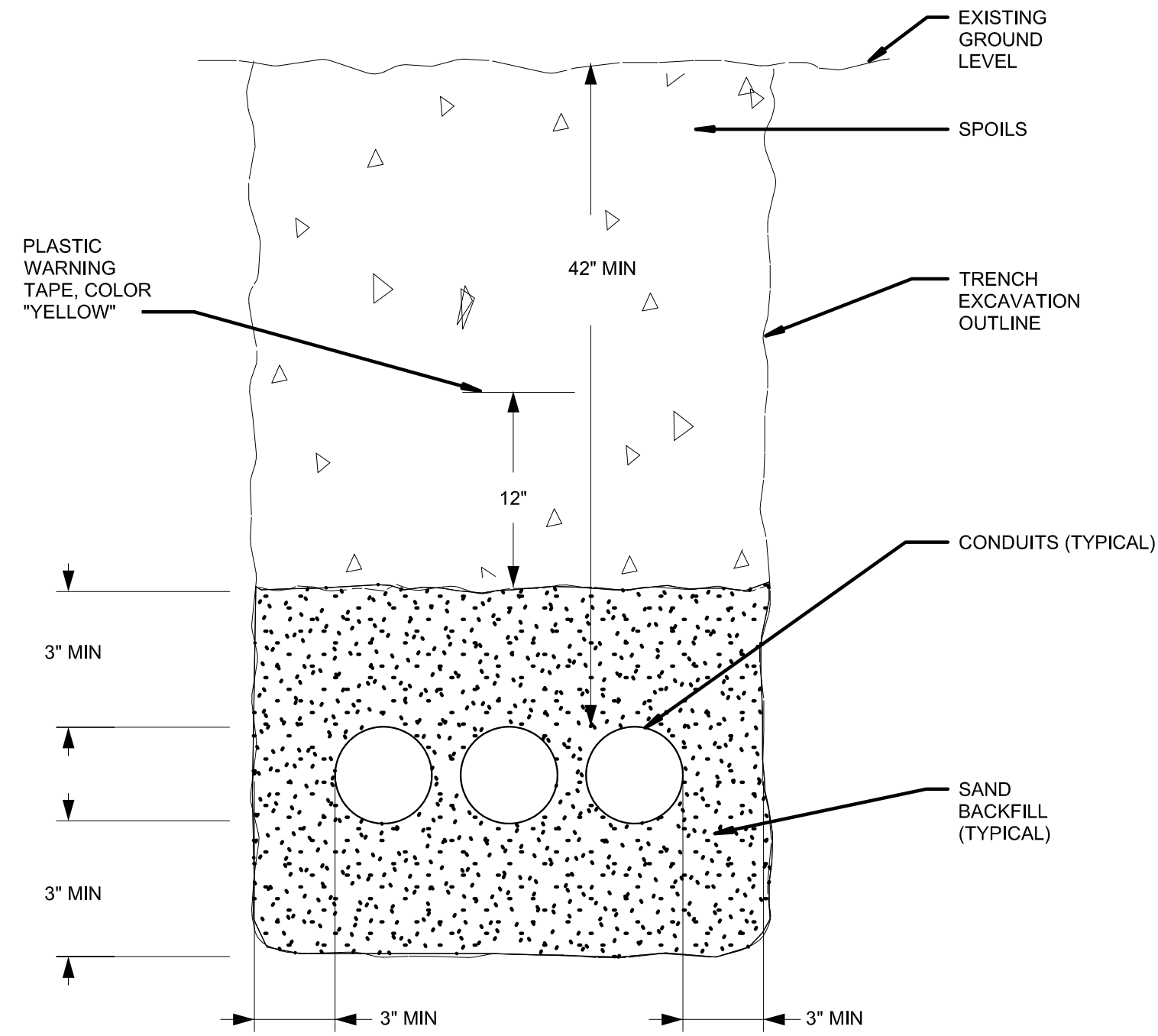
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1 SERVICE ENTRANCE DETAIL
SCALE: NO SCALE



2 LIGHTING CONTACTOR DIAGRAM
SCALE: NO SCALE



3 DIRECT BURIAL CONDUIT DETAIL
SCALE: NO SCALE

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2808 Van Way, South Lyon, MI 48179

CITY OF _____ STAMP

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REGISTRATION SEAL

STATE OF MICHIGAN
MATTHEW J. JOSEPH
ENGINEER
No. 82019269
LICENSED PROFESSIONAL ENGINEER

KEY PLANS

SHEET TITLE
ELECTRICAL DETAILS

SCALE: AS NOTED

ISSUED FOR	DATE
PERMITS	12.20.24

DRAWN BY	SC
CHECKED	MT

APPROVED
21026.00
FILE NO.
E-300
SHEET NO.

PROVIDE ARC FAULT PROTECTION IN
BEDROOMS, LIVING ROOMS, DINING, AND
KITCHEN AREAS.

3PH PANELBOARD										SB1A		SCHEDULE												
VOLTAGE: 208Y/120 BUS SIZE: 1000 AMP										MAINS: 1000 MCB MOUNTING: SURFACE FAULT DUTY 65k														
No.	SERVES		LOAD (KVA)					BRKR	PH		BRKR	LOAD (KVA)					SERVES		No.					
1			LTG	RCPT	MTR	A/C	HTG	MISC	TRIP	P	A	B	C	P	TRIP	MISC	HTG	A/C	MTR	RCPT	LTG			
3	TP1A		0.4	18.6	0.2	12.1	10.4	2.7	600	3	X				600	7.3	16.7	33.0	0.0	3.5	0.9	DP1A	2	
5			0.4	18.6	0.2	12.1	10.4	2.7			X	X					7.3	16.7	33.0	0.0	3.5		0.9	4
7			0.4	18.6	0.2	12.1	10.4	2.7			X						7.3	16.7	33.0	0.0	3.5		0.9	6
9										3	X				150	1.5	0.0	0.0	2.1	0.2	0.3	BM1A (VIA ATS-1)	8	
11									X		X					1.5	0.0	0.0	2.1	0.2	0.3		10	
13										3	X					1.5	0.0	0.0	2.1	0.2	0.3		12	
15									X															14
17									X															16
																	34.3	81.4	135.4	6.8	66.9	4.8	CONNECTED KVA	329.6
																	34.3	81.4	135.4	8.5	38.5	6.1	DEMAND KVA	222.7
																						DEMAND AMPS	618	

PANELBOARD										TP1A					SCHEDULE									
VOLTAGE: 208Y/120 BUS SIZE: 600 AMP										MAINS: 600A MLO					MOUNTING: SURFACE FAULT DUTY 65k									
No.	SERVES	LOAD (KVA)						BRKR	TRIP	P			BRKR	TRIP	LOAD (KVA)						SERVES	No.		
		LTG	RCPT	MTR	A/C	HTG	MISC			A	B	C			MISC	HTG	A/C	MTR	RCPT	LTG				
1	UNIT-0 (2BR)	0.1	8.3	0.0	2.7	2.3	0.7	125	2	X			2	125	0.7	2.3	2.7	0.0	8.2	0.1	UNIT-N (2BR)	2		
3		0.1	8.3	0.0	2.7	2.3	0.7			X					0.7	2.3	2.7	0.0	8.2	0.1				
5	UNIT-H (1BR)	0.1	7.7	0.0	2.7	2.3	0.6	125	2	X		X	2	125	0.6	2.3	2.7	0.0	7.7	0.1	UNIT-G (1BR)	6		
7		0.1	7.7	0.0	2.7	2.3	0.6			X					0.6	2.3	2.7	0.0	7.7	0.1				
9	UNIT-F (1BR)	0.1	7.7	0.0	2.7	2.3	0.6	125	2	X		X	2	125	0.6	2.3	2.7	0.0	7.7	0.1	UNIT-M (1BR)	10		
11		0.1	7.7	0.0	2.7	2.3	0.6			X		X			0.6	2.3	2.7	0.0	7.7	0.1				
13	UNIT-L (1BR)	0.1	7.7	0.0	2.7	2.3	0.6	125	2	X		X	2	125	0.6	2.3	2.7	0.0	7.7	0.1	UNIT-E (1BR)	14		
15		0.1	7.7	0.0	2.7	2.3	0.6			X		X			0.6	2.3	2.7	0.0	7.7	0.1				
17	UNIT-K (1BR)	0.1	7.7	0.0	2.7	2.3	0.6	125	2	X		X	2	125	0.6	2.3	2.7	0.0	7.7	0.1	UNIT-D (1BR)	18		
19		0.1	7.7	0.0	2.7	2.3	0.6			X		X			0.6	2.3	2.7	0.0	7.7	0.1				
21	UNIT-J (1BR)	0.1	7.7	0.0	2.7	2.3	0.6	125	2	X		X	2	125	0.6	2.3	2.7	0.0	7.7	0.1	UNIT-C (1BR)	22		
23		0.1	7.7	0.0	2.7	2.3	0.6			X		X			0.6	2.3	2.7	0.0	7.7	0.1				
25	UNIT-B (1BR)	0.1	7.7	0.0	2.7	2.3	0.6	125	2	X		X	2	125	0.6	2.3	2.7	0.0	7.7	0.1	UNIT-A (1BR)	26		
27		0.1	7.7	0.0	2.7	2.3	0.6			X		X			0.6	2.3	2.7	0.0	7.7	0.1				
29	UNIT-Z, 2ND FLR (2BR)	0.1	8.5	0.0	2.7	2.3	0.7	125	2	X		X	2	125	0.7	2.3	2.7	0.0	8.4	0.1	UNIT-Y, 2ND FLR (2BR)	30		
31		0.1	8.5	0.0	2.7	2.3	0.7			X		X			0.7	2.3	2.7	0.0	8.4	0.1				
33	UNIT-X, 2ND FLR (1BR)	0.1	7.7	0.0	2.7	2.3	0.6	125	2	X		X	2	125	0.6	2.3	2.7	0.0	7.7	0.1	UNIT-W, 2ND FLR (1BR)	34		
35		0.1	7.7	0.0	2.7	2.3	0.6			X		X			0.6	2.3	2.7	0.0	7.7	0.1				
37										X														
39										X														
41								1		X		1												
															21.0	82.8	95.4	0.0	283.4	2.4	CONNECTED KVA	485.0		
															8.0	31.5	36.3	0.0	55.7	1.1	DEMAND KVA X 38%	132.6		
																				DEMAND AMPS	368			

3PH PANELBOARD										RP1A		SCHEDULE														
VOLTAGE: 208Y/120				MAINS:		MLO		MOUNTING: SURFACE																		
BUS SIZE: 225				AMP				FAULT DUTY 42k																		
No.	SERVES	LOAD (KVA)						BRKR		P	X	PH	B	LOAD (KVA)						No.						
		LTG	RCPT	MTR	A/C	HTG	MISC	C	TRIP					MISC	HTG	A/C	MTR	LTG	SERVES							
1	RECEPTACLES - 104,105,106		0.720					20	1		X			1	20					0.720		RECEPTACLES - 103,102,101	2			
3	RECEPTACLES - 107,108		0.540					20	1		X			1	20					0.360		RECEPTACLES - 142, 143	4			
5	RECEPTACLES - 141		0.720					20	1		X			X	1	20				0.900		RECEPTACLES - 141	6			
7	RECEPTACLES - 140		0.900					20	1		X			1	20					0.900		RECEPTACLES - 140	8			
9	BIDET & GFCI -		0.180				0.3	20	1		X			X	1	20				0.900		RECEPTACLES - 132	10			
11	RECEPTACLES - 132		0.720					20	1		X			X	1	20		1.9				HOT ROOM POWER - 133	12			
13	HOT ROOM POWER - 133					1.9		20	1		X			1	20		1.9					HOT ROOM POWER - 133	14			
15	HOT ROOM POWER - 133					1.9		20	1		X			2	30		2.5					HOT ROOM POWER - 133	16			
17	DRYER - 131						2.5	30	2		X			X	2	30		2.5				DRYER - 131	18			
19	WASHER - 131						2.5	30	2		X			X	2	30		2.5				DRYER - 131	20			
21	WASHER - 131						1.2	20	1		X			X	2	30		2.5				DRYER - 131	22			
23	WASHER - 131						1.2	20	1		X			X	1	20		1.2				WASHER - 131	24			
25	RECEPTACLES - 131,131A		0.900					20	1		X			1	20					0.540		RECEPTACLES - 150,151	26			
27	RECEPTACLES - 201		0.360					20	1		X			X	2	20					0.5	EXTERIOR LIGHTS	28			
29	RECEPTACLES - 202		0.360					20	1		X			X	2	20					0.5	EXTERIOR LIGHTS	30			
31	LIGHTS	0.6						20	1		X			X	1	20						SPARE	32			
33	LIGHTS	0.6						20	1		X			X	1	20						SPARE	34			
35	LIGHTS	0.6						20	1		X			X	1	20						SPARE	36			
37	SPARE							20	1		X			X	1	20						SPARE	38			
39	SPARE							20	1		X			X	1	20						SPARE	40			
41	SPARE							20	1		X			X	1	20						SPARE	42			
																		18.9	7.6	0.0	0.0	9.7	2.8	CONNECTED KVA	39.0	
																		18.9	7.6	0.0	0.0	9.7	3.5	DEMAND KVA	39.7	
																									DEMAND AMPS	110

3PH PANELBOARD										EM1A		SCHEDULE																
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP										MAINS: 150A MCB		MOUNTING: SURFACE FAULT DUTY 42k					REMARKS:											
No	SERVES		LTG	RCPT	LOAD (KVA)		MTR	A/C	HTG	MISC	BRKR	TRIP	P	A	PH	B	C	BRKR	TRIP	MISC	HTG	A/C	MTR	RCPT	LTG	SERVES		No.
1	FACP			0.300							20	1	X		X			1	20						0.8	EM LIGHTS - 1ST FLR NORTH & 2ND FLR		2
3	MAG SYSTEM			0.300							20	1	X		X			1	20						0.7	EM LIGHTS - 1ST FLR SOUTH		4
5	(5) ELECTRIC STRIKE										20	1	X		X			1	20						0.2	EXIT LIGHTS		6
7	(4) ELECTRIC STRIKE										20	1	X		X			1	20							SPARE		8
9											20	1	X		X			1	20		1.5					GENERATOR BLOCK HEATER		10
11	ELEVATOR DISC SW					3.6					40	3	X		X			1	20		0.5					GENERATOR BATTERY CHARGER		12
13						3.6							X		X			1	20				1.7			SP-1		14
15	SPARE					3.6					20	1	X		X			1	20				0.1			RP-1		16
17	SPARE										20	1	X		X			1	20							SPARE		18
19	SPARE										20	1	X		X			1	20							SPARE		20
21	SPARE										20	1	X		X			1	20							SPARE		22
23	SPARE												X		X			1	20							SPARE		24
25	SPARE												X		X			1	20							SPARE		26
27	SPARE												1		X			1	20							SPARE		28
29	SPARE												1		X			1	20							SPARE		30
																				4.4	0.0	0.0	12.6	0.6	1.7	CONNECTED KVA		19.3
																				4.4	0.0	0.0	15.8	0.6	2.1	DEMAND KVA		22.9
																						DEMAND AMPS		63				

1PH PANEL SCHEDULE: UNIT-O (2BR)																										
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP										MAINS: 125A MCB		MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:										
No.	SERVES	LOAD (KVA)					BRKR		PH			BRKR			LOAD (KVA)					SERVES	No.					
		LTG	RCPT	MTR	AC	HTG	MISC	TRIP	P	A	C	P	TRIP	MISC	HTG	A/C	MTR	RCPT	LTG							
1	STOVE		5.0					60	2	X		2	20													
3			5.0																							
5				0.3					20	1	X		2	30												
7	REFRIGERATOR (GFCI BRKR)		0.5					20	1																	
9	COUNTERTOP RECEPTACLES		0.4					20	1	X		1	20													
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X		1	20													
13	DISHWASHER		1.2					15	1	X		1	20													
15	SINK GFCI		0.2				0.5	20	1	X		1	20													
17	SMOKE DETECTOR						0.9	20	1	X		1	20													
19	ERV-2				0.1			15	1	X		1	20													
21	BIDET		0.2					20	1	X		1	20													
23	SPARE							20	1	X		1	20													
25	SPARE							20	1	X		1	20													
27	SPACE							-	1																	
29	SPACE							-	1	X		1	-													
														1.4	4.6	3.5	0.0	16.9	0.2	CONNECTED KVA	26.5					
														1.4	4.6	3.5	0.0	13.4	0.2	DEMAND KVA	19.6					
																		DEMAND AMPS	94							

1PH PANEL SCHEDULE: UNIT-K (1BR)																					
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP						MAINS: 125A MCB		MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:									
No.	SERVES	LOAD (KVA)					BRKR		P		BRKR		LOAD (KVA)					SERVES	No.		
		LTG	RCPT	MTR	A/C	HTG	MISC	TRIP	P	A	C	P	TRIP	MSC	HTG	A/C	MTR	RCPT	LTG		
1	STOVE	5.0						60	2	X		2	20			1.4				ACCU-1 (ROOF)	2
3		5.0														1.4					4
5	HOOD FAN	0.3						20	1	X		2	30			2.3				DWH-1	8
7	REFRIGERATOR (GFCI BRKR)	0.6						20	1	X						2.3					6
9	COUNTERTOP RECEPTACLES	0.4						20	1	X								1.0		LIVING ROOM RECEPTACLES	10
11	GARAGE DISPOSAL (GFCI BRKR)	0.6						20	1	X			20					1.0		BEDROOM 1 RECEPTACLES	12
13	DISHWASHER	1.2						15	1	X		1	20							SPARE	14
15	SINK GFCI	0.2				0.5		20	1	X		1	20							SPARE	16
17	SMOKE DETECTOR				0.6			20	1	X		1	20						0.1	LIGHTING	18
19	ERV-2				0.1			15	1	X		1	20							SPARE	20
21	BIDET	0.2						20	1	X		1	20							SPARE	22
23	SPARE							20	1	X		1	20							SPARE	24
25	SPARE							20	1	X		1	20							SPARE	26
27	SPACE							-	1	X		1	-							SPACE	28
29	SPACE							-	1	X		1	-							SPACE	30
														1.1	4.6	2.9	0.0	15.7	0.1	CONNECTED KVA	24.4
														1.1	4.6	2.9	0.0	12.8	0.1	DEMAND KVA	18.6
																		DEMAND AMPS	90		

1PH PANEL SCHEDULE: UNIT-H (1BR)																								
VOLTAGE: 208Y/120 MAINS: 125A MCB										MOUNTING: RECESSED					REMARKS:									
BUS SIZE: 225 AMP										FAULT DUTY: 22k														
No.	SERVES	LOAD (KVA)						BRKR		PH		BRKR		LOAD (KVA)						SERVES	No.			
		LTG	RCPT	MTR	AC	HTG	MISC	TRIP	P	A	C	P	TRIP	MISC	HTG	AC	MTR	RCPT	LTG					
1	STOVE		5.0					60	2	X		2	20			1.4				ACCU-1 (ROOF)	2			
3			5.0													1.4					4			
5			0.3						20	1	X		2	30							DWH-1	6		
7	REFRIGERATOR (GFCI BRKR)		0.6					20	1							2.3					8			
9	COUNTERTOP RECEPTACLES		0.4					20	1	X		1	20					1.0		LIVING ROOM RECEPTACLES	10			
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X		1	20					1.0		BEDROOM 1 RECEPTACLES	12			
13	DISHWASHER		1.2					15	1	X		1	20							SPARE	14			
15	SINK GFCI		0.2				0.5	20	1	X		1	20							SPARE	16			
17	SMOKE DETECTOR						0.6	20	1	X		1	20						0.1	LIGHTING	18			
19	ERV-2				0.1			15	1	X		1	20							SPARE	20			
21	BIDET		0.2					20	1	X		1	20							SPARE	22			
23	SPARE							20	1	X		1	20							SPARE	24			
25	SPARE							20	1	X		1	20							SPARE	26			
27	SPACE							-	1	X		1	-							SPACE	28			
29	SPACE							-	1	X		1	-							SPACE	30			
														1.1	4.6	2.9	0.0	15.7	0.1	CONNECTED KVA				24.4
														1.1	4.6	2.9	0.0	12.8	0.1	DEMAND KVA				18.6
																		DEMAND AMPS				90		

1PH PANEL SCHEDULE: UNIT-J (1BR)																							
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP						MAINS: 125A MCB		MOUNTING: RECESSED FAULT DUTY: 22k						REMARKS:									
No.	SERVES	LOAD (KVA)					BRKR	P			BRKR			LOAD (KVA)					SERVES	No.			
		LTG	RCPT	MTR	AC	HTG	MISC	TRIP	P	A	C	P	TRIP	MISC	HTG	A/C	MTR	RCPT			LTG		
1	STOVE		5.0					60	2	X		2	20			1.4				ACCU-1 (ROOF)	2		
3			5.0													1.4					4		
5			0.3						20	1	X		2	30		2.3					DWH-1	6	
7	REFRIGERATOR (GFCI BRKR)		0.5					20	1												8		
9	COUNTERTOP RECEPTACLES		0.4					20	1	X		1	20						1.0	LIVING ROOM RECEPTACLES	10		
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X		1	20					1.0		BEDROOM1 RECEPTACLES	12		
13	DISHWASHER		1.2					15	1	X		1	20							SPARE	14		
15	SINK GFCI		0.2			0.5		20	1	X		1	20							SPARE	16		
17	SMOKE DETECTOR					0.6		20	1	X		1	20					0.1		LIGHTING	18		
19	ERV-2				0.1			15	1	X		1	20							SPARE	20		
21	BIDET		0.2					20	1	X		1	20							SPARE	22		
23	SPARE							20	1	X		1	20							SPARE	24		
25	SPARE							20	1	X		1	20							SPARE	26		
27	SPACE							-	1	X		1	-							SPACE	28		
29	SPACE							-	1	X		1	-							SPACE	30		
														1.1	4.6	2.9	0.0	15.7	0.1	CONNECTED KVA			24.4
														1.1	4.6	2.9	0.0	12.8	0.1	DEMAND KVA			18.6
														DEMAND AMPS					90				

1PH PANEL SCHEDULE: UNIT-F (1BR)																								
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP										MAINS: 125A		MCB		MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:						
No.	SERVES	LOAD (KVA)						BRKR		PH		BRKR		LOAD (KVA)						SERVES	No.			
		LTG	RCPT	MTR	A/C	HTG	MISC	TRIP	P	A	C	P	TRIP	MISC	HTG	A/C	MTR	RCPT	LTG					
1	STOVE	5.0						60	2	X		2	20			1.7				ACCU-3 (ROOF)	2			
3		5.0														1.7					4			
5		HOOD FAN	0.3						20	1	X		2	30			2.3				DWH-1	6		
7	REFRIGERATOR (GFCI BRKR)	0.5						20	1	X						2.3					8			
9	COUNTERTOP RECEPTACLES	0.4						20	1	X		1	20						1.0	LIVING ROOM RECEPTACLES	10			
11	GARBAGE DISPOSAL (GFCI BRKR)	0.8						20	1	X		1	20					1.0		BEDROOM 1 RECEPTACLES	12			
13	DISHWASHER	1.2						15	1	X		1	20							SPARE	14			
15	SINK GFCI	0.2				0.5		20	1	X		1	20							SPARE	16			
17	SMOKE DETECTOR					0.6		20	1	X		1	20					0.1		LIGHTING	18			
19	ERV-2				0.1			15	1	X		1	20							SPARE	20			
21	BIDET	0.2						20	1	X		1	20							SPARE	22			
23	SPARE							20	1	X		1	20							SPARE	24			
25	SPARE							20	1	X		1	20							SPARE	26			
27	SPACE							-	1	X		1	-							SPACE	28			
29	SPACE							-	1	X		1	-							SPACE	30			
														1.1	4.6	3.5	0.0	15.7	0.1	CONNECTED KVA				25.0
														1.1	4.6	3.5	0.0	12.8	0.1	DEMAND KVA				18.6
																		DEMAND AMPS				90		

1PH PANEL SCHEDULE: UNIT-B (1BR)																										
		VOLTAGE: 208Y/120				MAINS: 125A MCB				MOUNTING: RECESSED				REMARKS:												
		BUS SIZE: 225 AMP								FAULT DUTY: 22k																
No.	SERVES	LOAD (KVA)						BRKR		P		BRKR		LOAD (KVA)						SERVES	No.					
		LTG	RCPT	MTR	AC	HTG	MISC	TRIP	P	A	C	P	TRIP	MISC	HTG	A/C	MTR	RCPT	LTG							
1	STOVE		5.0					60	2	X		2	20			1.7				ACCU-3 (ROOF)	2					
3			5.0													1.7					4					
5		HOOD FAN		0.3					20	1	X		2	30			2.3				DWH-1	6				
7	REFRIGERATOR (GFCI BRKR)		0.5					20	1												8					
9	COUNTERTOP RECEPTACLES		0.4					20	1	X		1	20						1.0	LIVING ROOM RECEPTACLES	10					
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X		1	20					1.0		BEDROOM1 RECEPTACLES	12					
13	DISHWASHER		1.2					15	1	X		1	20							SPARE	14					
15	SINK GFCI		0.2				0.5	20	1	X		1	20							SPARE	16					
17	SMOKE DETECTOR						0.6	20	1	X		1	20					0.1		LIGHTING	18					
19	ERV-2				0.1			15	1	X		1	20							SPARE	20					
21	BIDET		0.2					20	1	X		1	20							SPARE	22					
23	SPARE							20	1	X		1	20							SPARE	24					
25	SPARE							20	1	X		1	20							SPARE	26					
27	SPACE							-	1	X		1	-							SPACE	28					
29	SPACE							-	1	X		1	-							SPACE	30					
																			1.1	4.6	3.5	0.0	15.7	0.1	CONNECTED KVA	25.0
																			1.1	4.6	3.5	0.0	12.8	0.1	DEMAND KVA	18.6
																								DEMAND AMPS	90	

1PH PANEL SCHEDULE: UNIT-L (1BR)																								
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP										MAINS: 125A		MCB		MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:						
No.	SERVES	LOAD (KVA)						BRKR		PH		BRKR		LOAD (KVA)						SERVES	No.			
		LTG	RCPT	MTR	AC	HTG	MISC	TRIP	P	A	C	P	TRIP	MISC	HTG	AC	MTR	RCPT	LTG					
1	STOVE		5.0					60	2	X		2	20			1.7				ACCU-3 (ROOF)	2			
3			5.0													1.7					4			
5			0.3						20	1	X		2	30			2.3				DWH-1	6		
7	REFRIGERATOR (GFCI BRKR)		0.6					20	1													8		
9	COUNTER TOP RECEPTACLES		0.4					20	1	X		1	20					1.0			LIVING ROOM RECEPTACLES	10		
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X	1	20						1.0			BEDROOM 1 RECEPTACLES	12		
13	DISHWASHER		1.2					15	1	X	1	20									SPARE	14		
15	SINK GFCI		0.2			0.5		20	1	X	1	20									SPARE	16		
17	SMOKE DETECTOR					0.6		20	1	X	1	20							0.1		LIGHTING	18		
19	ERV-2				0.1			15	1	X	1	20									SPARE	20		
21	BIDET		0.2					20	1	X	1	20									SPARE	22		
23	SPARE							20	1	X	1	20									SPARE	24		
25	SPARE							20	1	X	1	20									SPARE	26		
27	SPACE							-	1	X		-									SPACE	28		
29	SPACE							-	1	X		-									SPACE	30		
														1.1	4.6	3.5	0.0	15.7	0.1	CONNECTED KVA		25.0		
														1.1	4.6	3.5	0.0	12.8	0.1	DEMAND KVA		18.6		
																			DEMAND AMPS		90			

1PH PANEL SCHEDULE: UNIT-Z (2BR)																									
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP										MAINS: 125A		MCB		MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:							
No	SERVES	LOAD (KVA)					BRKR	P	PH	A	C	P	BRKR	LOAD (KVA)					SERVES					No.	
		LTG	RCPT	MTR	A/C	HTG	MISC							MISC	HTG	A/C	MTR	RCPT	LTG						
1	STOVE		5.0					60	2	X		2	20			1.7				ACCU-4 (ROOF)	2				
3			5.0													1.7					4				
5	HOOD FAN		0.0					20	1	X		2	30			2.3				DWH-1	6				
7	REFRIGERATOR (GFCI BRKR)		0.6					20	1	X		1	20			2.3					8				
9	COUNTER TOP RECEPTACLES		0.4					20	1	X		1	30					0.0		LIVING ROOM RECEPTACLES	10				
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X	1	20						1.0		BEDROOM 1 RECEPTACLES	12				
13	DISHWASHER		1.2					15	1	X	1	20						1.0		BEDROOM 2 RECEPTACLES	14				
15	SINK GFCI		0.2			0.0		20	1	X	1	20								SPARE	16				
17	SMOKE DETECTOR					0.0		20	1	X	1	20							0.2	LIGHTING	18				
19	ERV-2				0.1			15	1	X	1	20						0.7		LIVING ROOM RECEPTACLES	20				
21	BIDET		0.2					20	1	X	1	20								SPARE	22				
23	SPARE							20	1	X	1	20								SPARE	24				
25	SPARE							20	1	X	1	20								SPARE	26				
27	SPACE		-					-	1	X		-								SPACE	28				
29	SPACE							-	1	X		-								SPACE	30				
														1.4	4.6	3.5	0.0	17.3	0.2	CONNECTED KVA					27.0
														1.4	4.6	3.5	0.0	13.6	0.2	DEMAND KVA					19.8
																			DEMAND AMPS					95	

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2000 Vista Way, South Lyon, MI 48178

CITY OF _____ STAMP

CITY STAMP

DO NOT PLACE ANYTHING IN THIS AREA

REGISTRATION SEAL



KEY PLANS

SHEET TITLE

PANEL SCHEDULES - EXISTING

SCALE: AS NOTED

ISSUED FOR	DATE
PERMITS	12.20.24

CHECKED _____

APPROVED

21026.00

FILE NO.

E-401

SHEET NO.

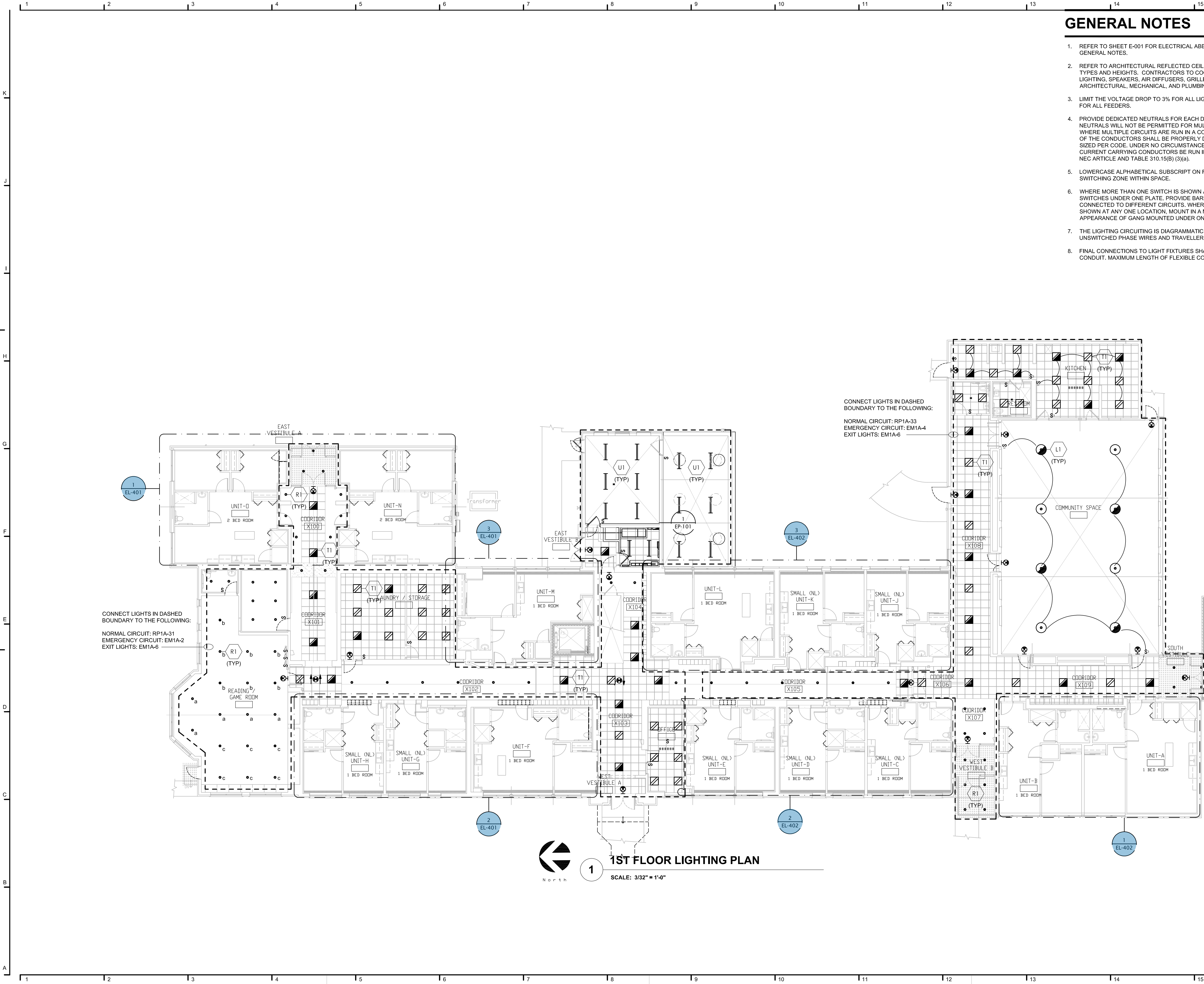
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1PH PANEL SCHEDULE: UNIT-X (2BR)																										
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP													MAINS: 125A		MCB		MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:					
No.	SERVES	LOAD (KVA)						BRKR		P	PH		BRKR		LOAD (KVA)						LTG	SERVES	No.			
		LTG	RCPT	MTR	AC	HTG	MISC	TRIP	A		C	P	TRIP	MISC	HTG	AC	MTR	RCPT								
1	STOVE		5.0					60	2	X		2	20				1.7						ACCU-3 (ROOF)	2		
3			5.0								X						1.7							4		
5	HOOD FAN		0.3					20	1	X		2	30				2.3						DWH-1	6		
7	REFRIGERATOR (GFCI BRKR)		0.6					20	1	X							2.3							8		
9	COUNTERTOP RECEPTACLES		0.4					20	1	X		1	20							0.9			LIVING ROOM RECEPTACLES	10		
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X		1	20						1.0				BEDROOM 1 RECEPTACLES	12		
13	DISHWASHER		1.2					15	1	X		1	20											14		
15	SINK GFCI		0.2				0.5	20	1	X		1	20										SPARE	16		
17	SMOKE DETECTOR					0.6		20	1	X		1	20							0.2			LIGHTING	18		
19	ERV-2				0.1			15	1	X		1	20										SPARE	20		
21	BIDET		0.2					20	1	X		1	20										SPARE	22		
23	SPARE							20	1	X		1	20										SPARE	24		
25	SPARE							20	1	X		1	20										SPARE	26		
27	SPACE							-	1	X		1	-										SPACE	28		
29	SPACE							-	1	X		1	-										SPACE	30		
													1.1	4.6	3.5	0.0	15.6	0.2	CONNECTED KVA							25.0
													1.1	4.6	3.5	0.0	12.8	0.2	DEMAND KVA							18.7
													DEMAND AMPS													90

1PH PANEL SCHEDULE: UNIT-N (2BR)																												
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP														MAINS: 125A MCB				MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:						
No.	SERVES	LOAD (KVA)						BRKR				PH				LOAD (KVA)						SERVES	No.					
		LTG	RCPT	MTR	AC	HTG	MISC	TRIP	P	A	C	P	TRIP	MISC	HTG	AC	MTR	LTG										
1	STOVE		5.0					60	2	X		2	20			1.7										2		
3			5.0													1.7										4		
5	HOOD FAN		0.3					20	1	X						2.3										6		
7	REFRIGERATOR (GFCI BRKR)		0.6					20	1	X		2	30			2.3										8		
9	COUNTERTOP RECEPTACLES		0.4					20	1	X		1	20							1.0						10		
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X		1	20							1.0						12		
13	DISHWASHER		1.2					15	1	X		1	20							1.0						14		
15	SINK GFCI		0.2				0.5	20	1	X		1	20													16		
17	SMOKE DETECTOR					0.9	20	1	X		1	20										0.2				18		
19	ERV-2				0.1			15	1	X		1	20													20		
21	BIDET		0.2					20	1	X		1	20													22		
23	SPARE							20	1	X		1	20													24		
25	SPARE							20	1	X		1	20													26		
27	SPACE							-	1	X		1	-													28		
29	SPACE							-	1	X		1	-													30		
														1.4	4.6	3.5	0.0	16.7	0.2	CONNECTED KVA						26.4		
														1.4	4.6	3.5	0.0	13.3	0.2	DEMAND KVA						19.5		
																										DEMAND AMPS		94

1PH PANEL SCHEDULE: UNIT-G (1BR)																											
VOLTAGE: 208Y/120 BUS SIZE: 225 AMP														MAINS: 125A MCB				MOUNTING: RECESSED FAULT DUTY: 22k				REMARKS:					
No.	SERVES	LOAD (KVA)						BRKR				PH		BRKR		LOAD (KVA)						No.					
		LTG	RCPT	MTR	A/C	HTG	MISC	TRIP	P	A	C	P	BRKR	MISC	HTG	A/C	MTR	RCPT	LTG	SERVES							
1	STOVE		5.0					60	2	X		2	20			1.7										2	
3			5.0								X					1.7										4	
5	HOOD FAN		0.3					20	1	X		2	30			2.3										6	
7	REFRIGERATOR (GFCI BRKR)		0.6					20	1	X		2	30			2.3										8	
9	COUNTERTOP RECEPTACLES		0.4					20	1	X		1	20						1.0							10	
11	GARBAGE DISPOSAL (GFCI BRKR)		0.8					20	1	X		1	20					1.0								12	
13	DISHWASHER		1.2					15	1	X		1	20													14	
15	SINK GFCI		0.2				0.5	20	1	X		1	20													16	
17	SMOKE DETECTOR					0.6		20	1	X		1	20						0.1							18	
18	ERV-2				0.1			15	1	X		1	20													16	
21	BIDET		0.2					20	1	X		1	20													22	
23	SPARE							20	1	X		1	20													24	
25	SPARE							20	1	X		1	20													26	
27	SPACE							-	1	X		1	-													28	
29	SPACE							-	1	X		1	-													30	
														1.1	4.6	3.5	0.0	15.7	0.1	CONNECTED KVA						25.0	
														1.1	4.6	3.5	0.0	12.8	0.1	DEMAND KVA						18.6	
																				DEMAND AMPS						90	

/Volumes/e/might/Shared/Projects/SDG/23-460_SDG_John_Grace_Housing/5_Disciplines-Design/Architectural/CAD/SD/John_Grace_SD_1.1.plt



GENERAL NOTES

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT CEILING TYPES AND HEIGHTS. CONTRACTORS TO COORDINATE LOCATIONS OF LIGHTING, SPEAKERS, AIR DIFFUSERS, GRILLES, SPRINKLER HEADS WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS.
3. LIMIT THE VOLTAGE DROP TO 3% FOR ALL LIGHTING BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.
4. PROVIDE DEDICATED NEUTRALS FOR EACH DIMMING CIRCUIT. SHARED NEUTRALS WILL NOT BE PERMITTED FOR MULTI-CIRCUIT INSTALLATIONS. WHERE MULTIPLE CIRCUITS ARE RUN IN A COMMON RACEWAY, THE AMPACITY OF THE CONDUCTORS SHALL BE PROPERLY DERATED & CONDUIT SHALL BE SIZED PER CODE. UNDER NO CIRCUMSTANCES SHALL MORE THAN SIX (6) CURRENT CARRYING CONDUCTORS BE RUN IN A SINGLE CONDUIT. REFERENCE NEC ARTICLE AND TABLE 310.15(B) (3)(a).
5. LOWERCASE ALPHABETICAL SUBSCRIPT ON FIXTURES/DEVICES INDICATES SWITCHING ZONE WITHIN SPACE.
6. WHERE MORE THAN ONE SWITCH IS SHOWN AT ANY ONE LOCATION, GANG ALL SWITCHES UNDER ONE PLATE. PROVIDE BARRIERS BETWEEN SWITCHES CONNECTED TO DIFFERENT CIRCUITS. WHERE MORE THAN ONE DIMMER IS SHOWN AT ANY ONE LOCATION, MOUNT IN A MANNER TO GIVE THE APPEARANCE OF GANG MOUNTED UNDER ONE PLATE.
7. THE LIGHTING CIRCUITING IS DIAGRAMMATIC. PROVIDE SWITCH LEGS, UNSWITCHED PHASE WIRES AND TRAVELLERS AS NECESSARY.
8. FINAL CONNECTIONS TO LIGHT FIXTURES SHALL BE MADE WITH FLEXIBLE CONDUIT. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL BE 6'-0".

John Grace Arms
21030 Indian St, Southfield MI 48033
Developed by
John Grace Arms LDHA LLC

SDG
Architects + Planners
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Tel: 313-961-9000
Fax: 313-964-3233

A & A Engineering & Consulting
2808 Ypsilanti Way, South Lyon, MI 48178

CITY OF _____ STAMP

CITY STAMP

DO NOT PLACE ANYTHING IN THIS AREA

REGISTRATION SEAL

STATE OF MICHIGAN
MATTHEW J. JOSEPH
REGISTERED PROFESSIONAL ENGINEER
No. 620268

KEY PLANS

SHEET TITLE

1ST FLOOR LIGHTING PLAN
EXISTING BUILDING

SCALE: AS NOTED

ISSUED FOR
PERMITS

DATE
12.20.24

DRAWN BY
SC

CHECKED
MT

APPROVED

21026.00

FILE NO.

EL-101

SHEET NO.

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT CEILING TYPES AND HEIGHTS. CONTRACTORS TO COORDINATE LOCATIONS OF LIGHTING, SPEAKERS, AIR DIFFUSERS, GRILLES, SPRINKLER HEADS WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS.
3. LIMIT THE VOLTAGE DROP TO 3% FOR ALL LIGHTING BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.
4. PROVIDE DEDICATED NEUTRALS FOR EACH DIMMING CIRCUIT. SHARED NEUTRALS WILL NOT BE PERMITTED FOR MULTI-CIRCUIT INSTALLATIONS. WHERE MULTIPLE CIRCUITS ARE RUN IN A COMMON RACEWAY, THE AMPACITY OF THE CONDUCTORS SHALL BE PROPERLY DERATED & CONDUIT SHALL BE SIZED PER CODE. UNDER NO CIRCUMSTANCES SHALL MORE THAN SIX (6) CURRENT CARRYING CONDUCTORS BE RUN IN A SINGLE CONDUIT. REFERENCE NEC ARTICLE AND TABLE 310.15(B)(3)(a).
5. LOWERCASE ALPHABETICAL SUBSCRIPT ON FIXTURES/DEVICES INDICATES SWITCHING ZONE WITHIN SPACE.
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7. THE LIGHTING CIRCUITING IS DIAGRAMMATIC. PROVIDE SWITCH LEGS, UNSWITCHED PHASE WIRES AND TRAVELLERS AS NECESSARY.
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Fax: 313-964-3233



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STATE OF MICHIGAN
 MATTHEW J. JOSEPH
 ENGINEER
 No. 9201064269
 LICENSED PROFESSIONAL ENGINEER

SHEET TITLE

SCALE: AS NOTED

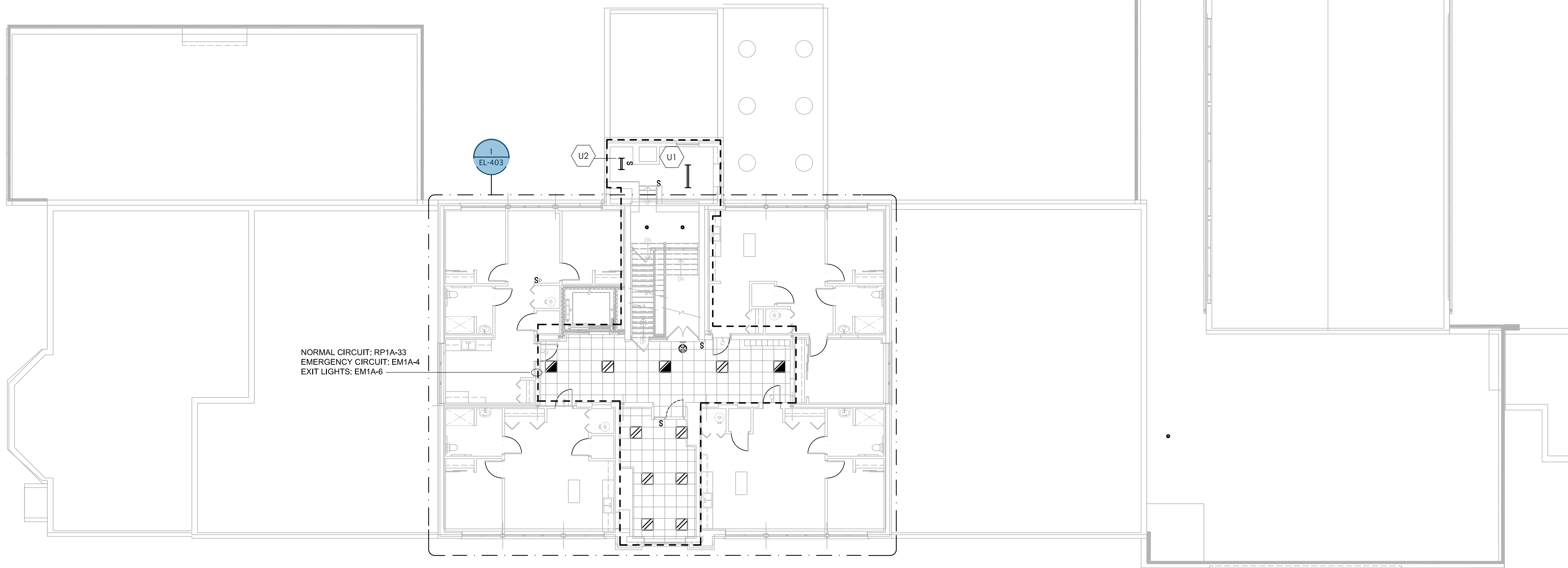
So

21026.00

FILE NO.

EL-102

SHEET NO.



SCALE: 3/32" = 1'-0'

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET FOR RISER DIAGRAM.
3. REFER TO SHEET SERIES FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
4. COORDINATE ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS FOR APPLIANCES AND EQUIPMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. COORDINATE FINAL LOCATION AND ANY POWER CONNECTION REQUIREMENTS OF MECHANICAL AND PLUMBING EQUIPMENT PRIOR TO INSTALLATION.
6. VOLTAGE DROP SHALL BE LIMITED TO LESS THAN 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.

SDG
Architects + Planners

607 Shelby Street
Suite 704
Detroit, MI 48226

Tel: 313-961-9000
Fax: 313-964-3233



DO NOT PLACE ANYTHING IN THIS AREA

A circular professional engineer seal for the State of Michigan. The outer ring contains the text "STATE OF MICHIGAN" at the top and "LICENSED PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The center of the seal contains the name "MATTHEW J. JOSEPH", the title "ENGINEER", and the license number "9201084269". A handwritten signature, "Matthew J. Joseph", is written across the center of the seal.

SHEET TITLE

SCALE: AS NOTED

ISSUED FOR	DATE
------------	------

sc

MT

OF THE

APPROVED

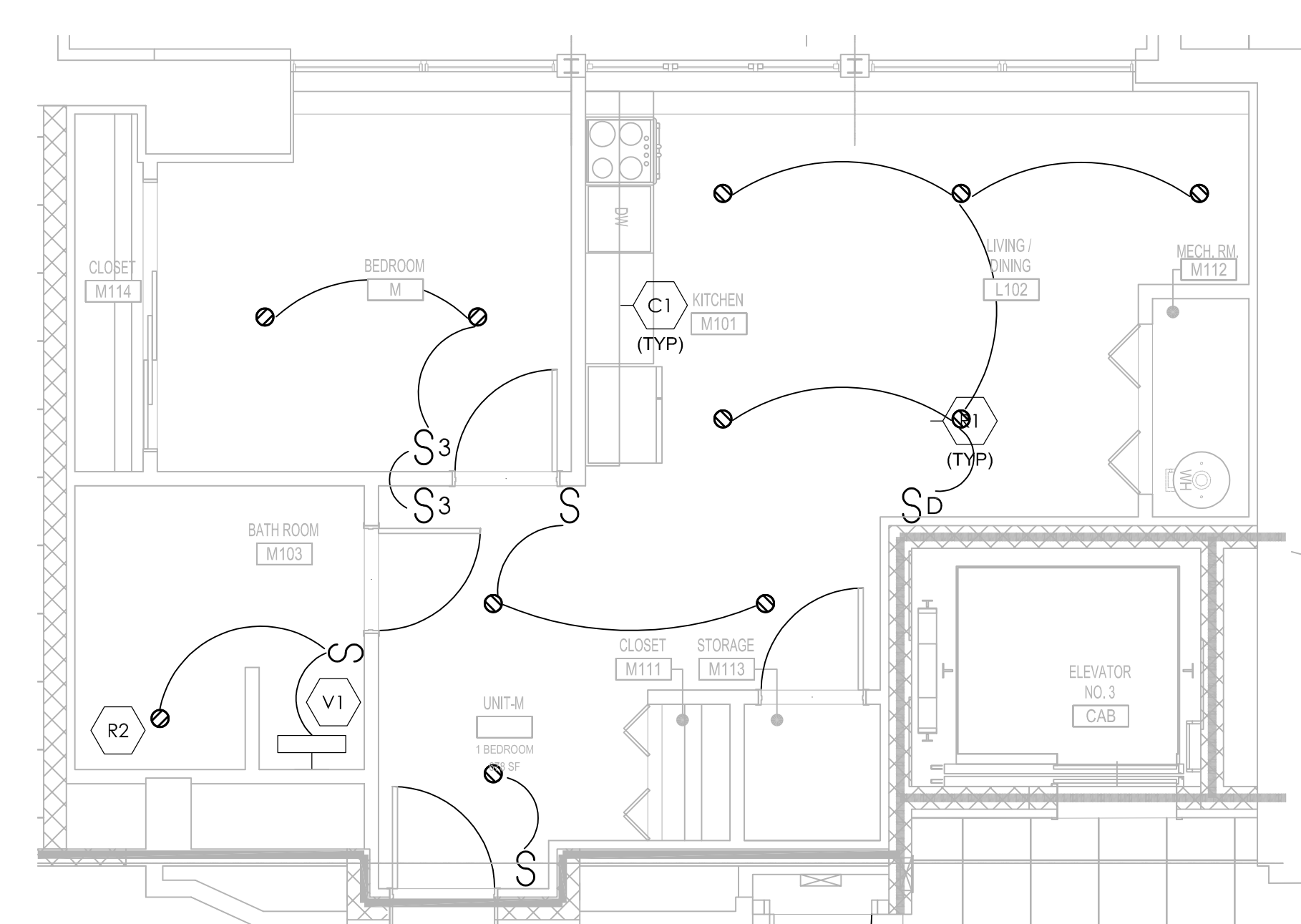
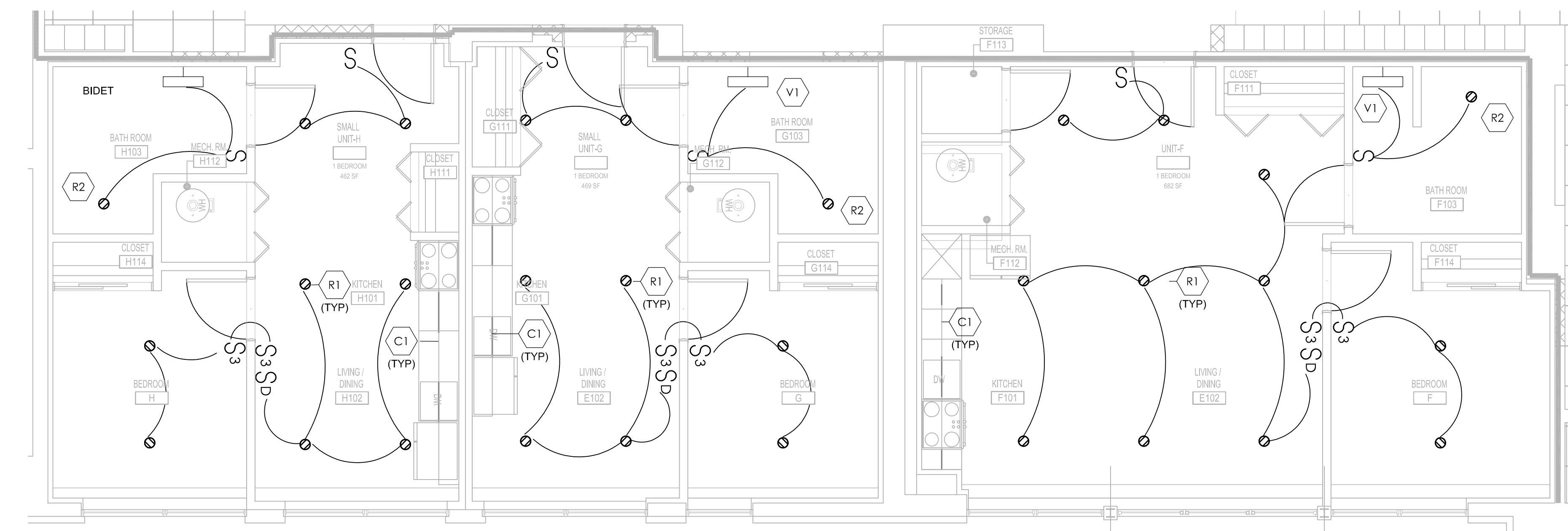
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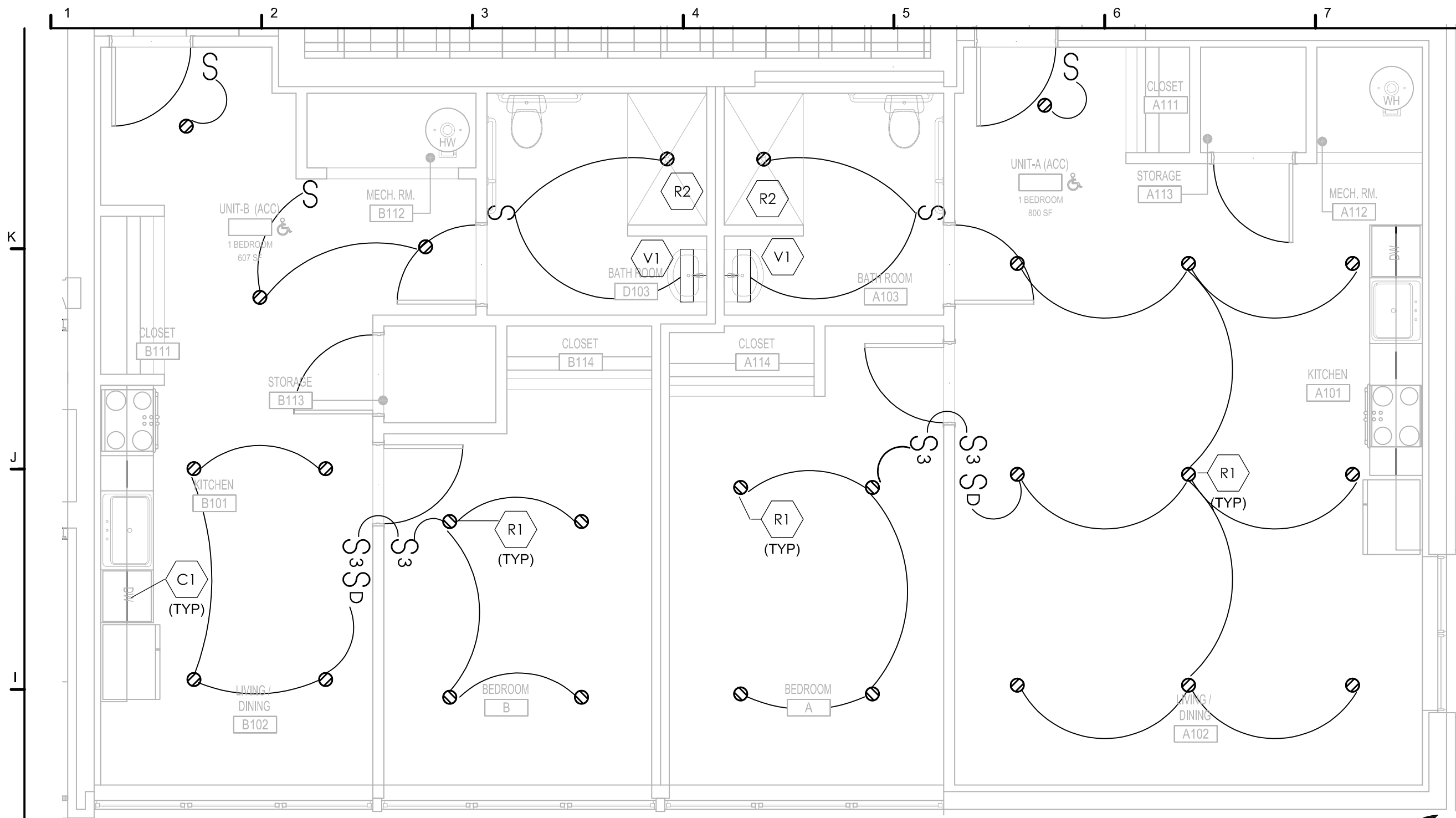
EI 401

SHEET NO. _____

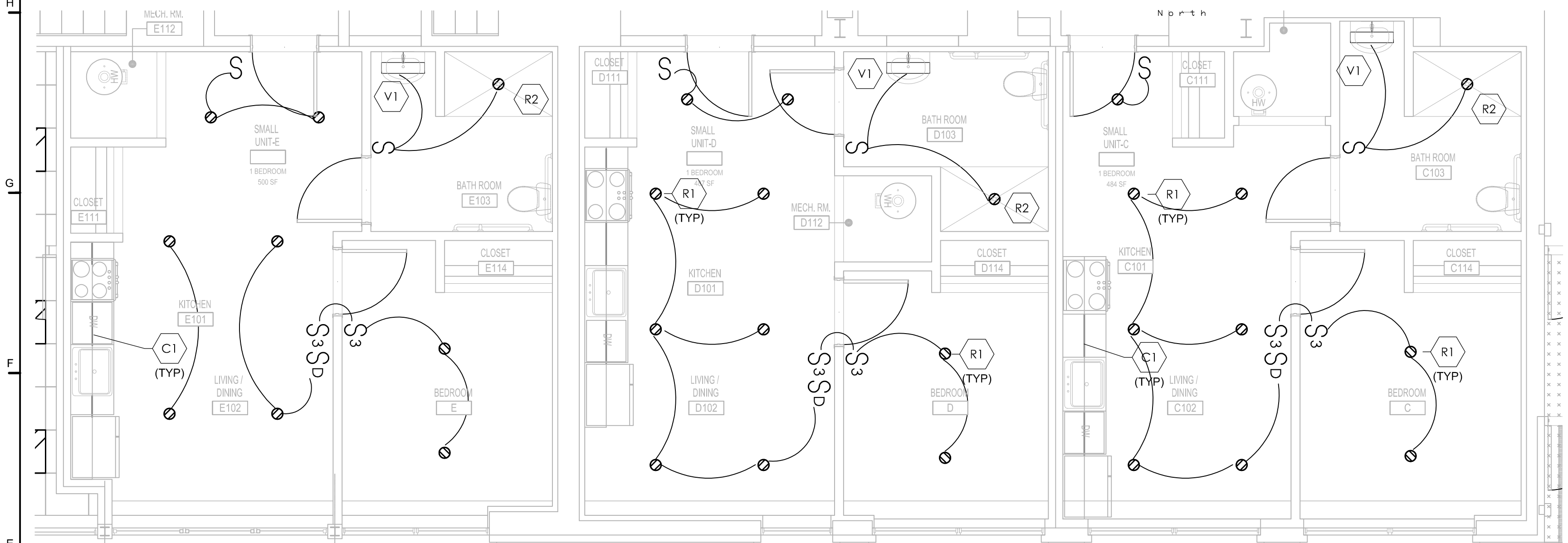


North

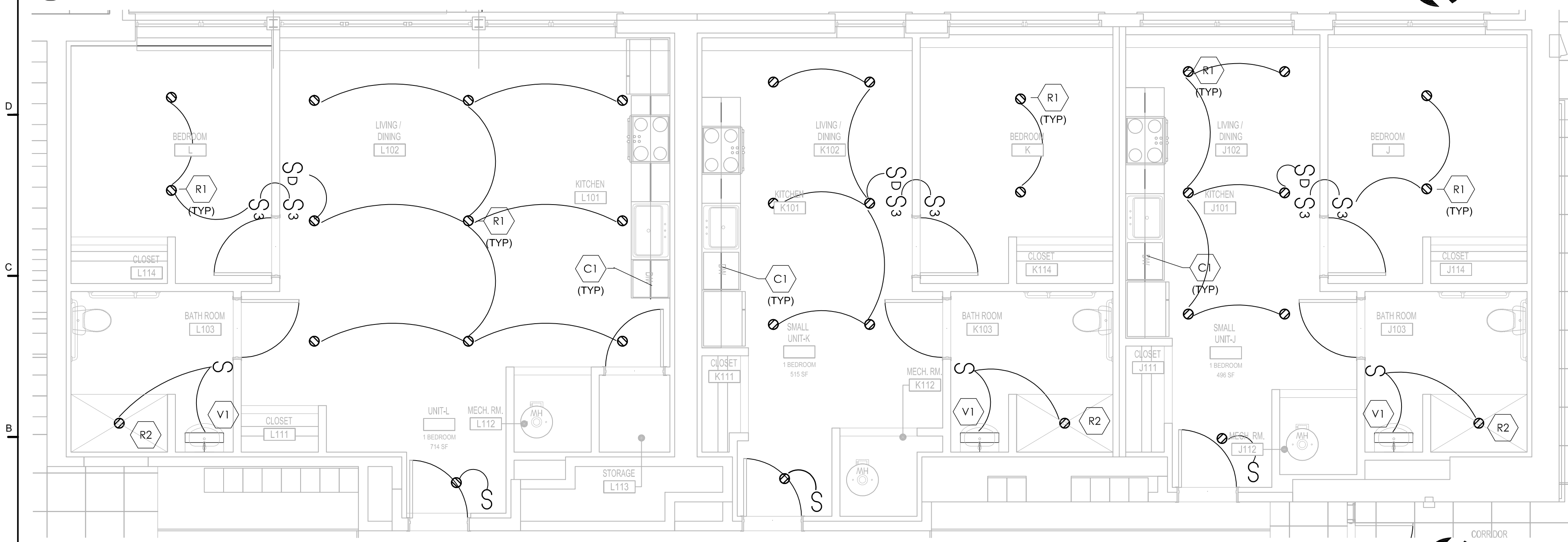
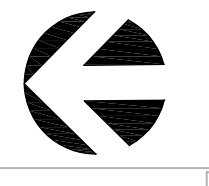




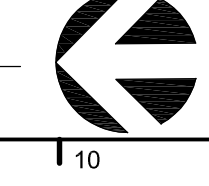
1 ENLARGED UNIT PLAN
SCALE: 1/4" = 1'-0"



2 ENLARGED UNIT PLAN
SCALE: 1/4" = 1'-0"



3 ENLARGED UNIT PLAN



GENERAL NOTES

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET FOR RISER DIAGRAM.
3. REFER TO SHEET SERIES FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
4. COORDINATE ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS FOR APPLIANCES AND EQUIPMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. COORDINATE FINAL LOCATION AND ANY POWER CONNECTION REQUIREMENTS OF MECHANICAL AND PLUMBING EQUIPMENT PRIOR TO INSTALLATION.
6. VOLTAGE DROP SHALL BE LIMITED TO LESS THAN 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.

ALL LIGHTS IN EACH UNIT TO
CONNECT TO CIRCUIT #18 ON
UNIT PANEL

John Grace Arms
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Fax: 313-964-3233

A & A Engineering & Consulting
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CITY OF _____ STAMP

CITY STAMP

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REGISTRATION SEAL



KEY PLANS

SHEET TITLE

SCALE: AS NOTED

ISSUED FOR	DATE
PERMITS	12.20.24

DRAWN BY _____

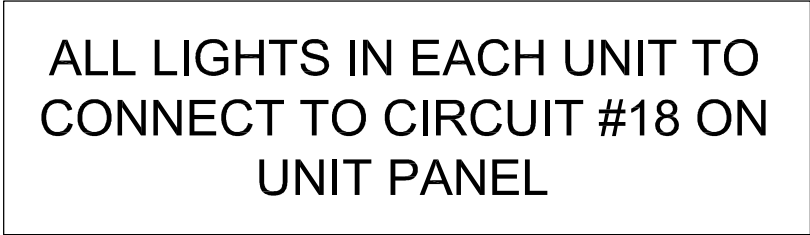
CHECKED _____

APPROVED _____

21026.00

FILE NO. _____

SHEET NO. _____



1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET FOR RISER DIAGRAM.
3. REFER TO SHEET SERIES FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
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6. VOLTAGE DROP SHALL BE LIMITED TO LESS THAN 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.

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SHEET TITLE

2ND FLOOR ENLARGED
LIGHTING PLANS

SCALE: AS NOTED

ISSUED FOR	DATE
PERMITS	12.20.24

SC

DRAWN BY
MT

APPROVED

21026.00

FILE NO. _____

EL-403

SHEET NO.

1 FC IS SERVED BY ACCU ON ROOF TOP. POWER AND CONTROL CABLING FROM ACCU TO FC WITHIN IS PROVIDED BY MECHANICAL TRADES. ASSOCIATED ROOF ACCU IS FED FROM UNIT PANEL

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET FOR RISER DIAGRAM.
3. REFER TO SHEET SERIES FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
4. COORDINATE ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS FOR APPLIANCES AND EQUIPMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. COORDINATE FINAL LOCATION AND ANY POWER CONNECTION REQUIREMENTS OF MECHANICAL AND PLUMBING EQUIPMENT PRIOR TO INSTALLATION.
6. VOLTAGE DROP SHALL BE LIMITED TO LESS THAN 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.

SDG
Architects + Planners

607 Shelby Street
Suite 704
Detroit, MI 48226

Tel: 313-961-9000
Fax: 313-964-3233



A & A Engineering & Consulting
20008 Vicks Way, South Lyon, MI 48176

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KEY PLANS

SHEET TITLE

1st FLOOR PLAN - EXISTING

SCALE: AS NOTED

ISSUED FOR	DATE
PERMITS	12.20.24

SC

DRAWN BY

DRAWN BY _____

CHECKED _____ MT

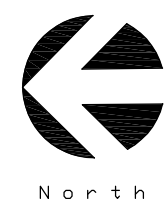
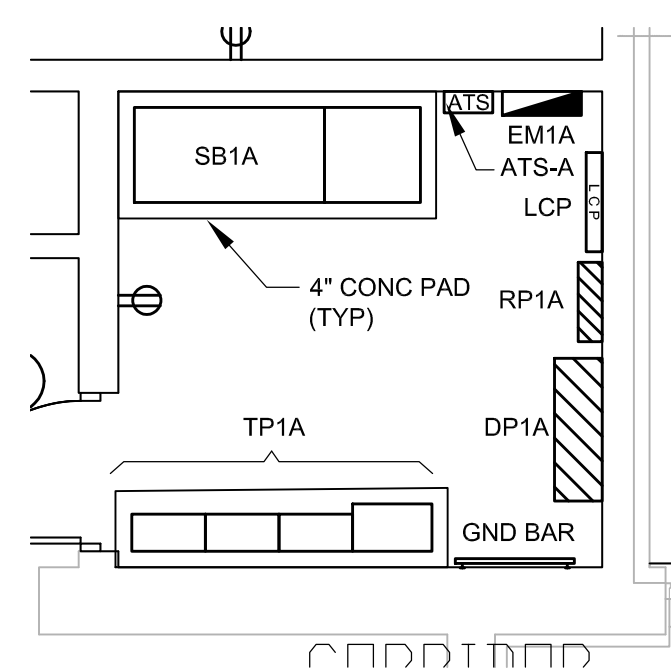
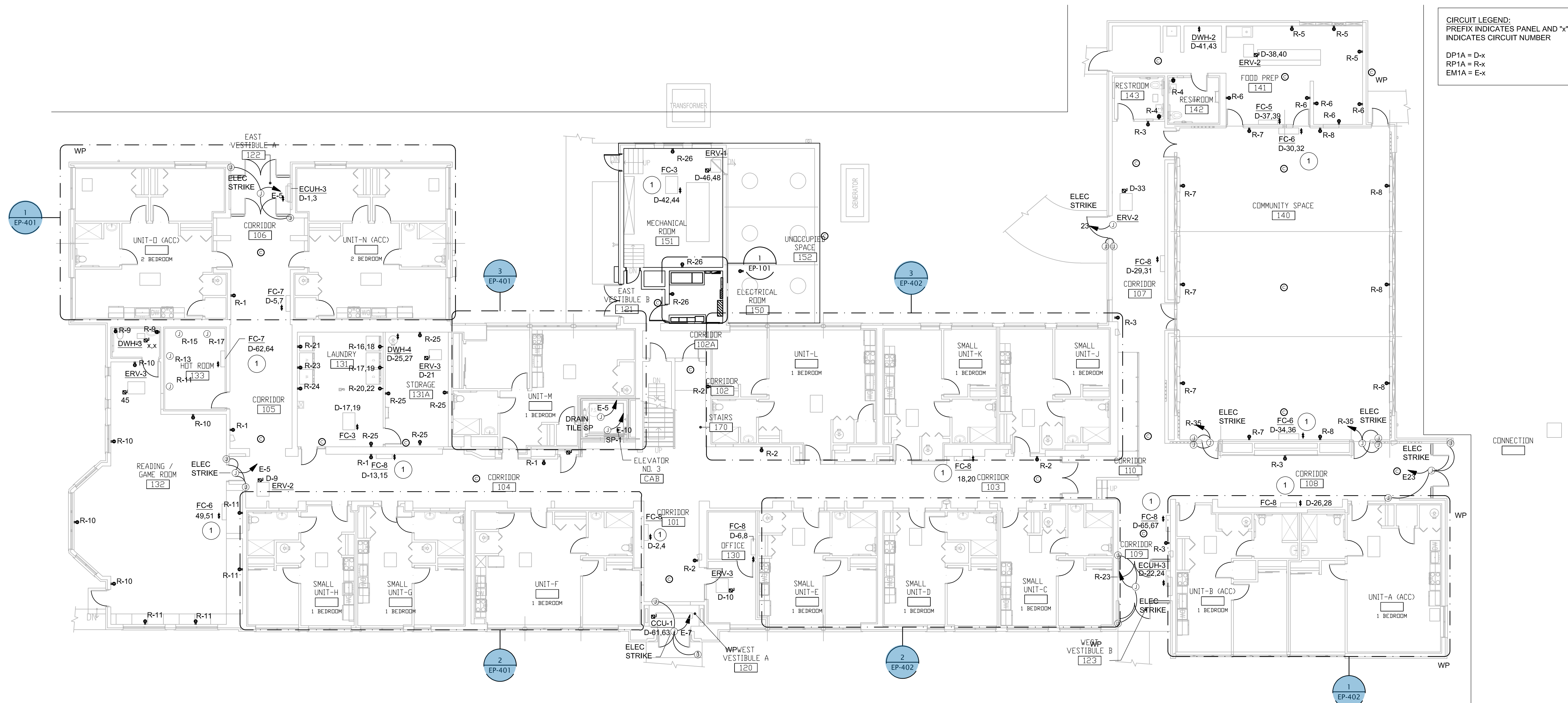
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21026.00

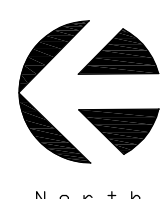
FILE NO.

EP-101

SHEET NO. _____

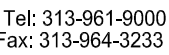


1 ENLARGED ELEC RM
SCALE: 1/4" = 1'-0"



1ST FLOOR POWER PLAN

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

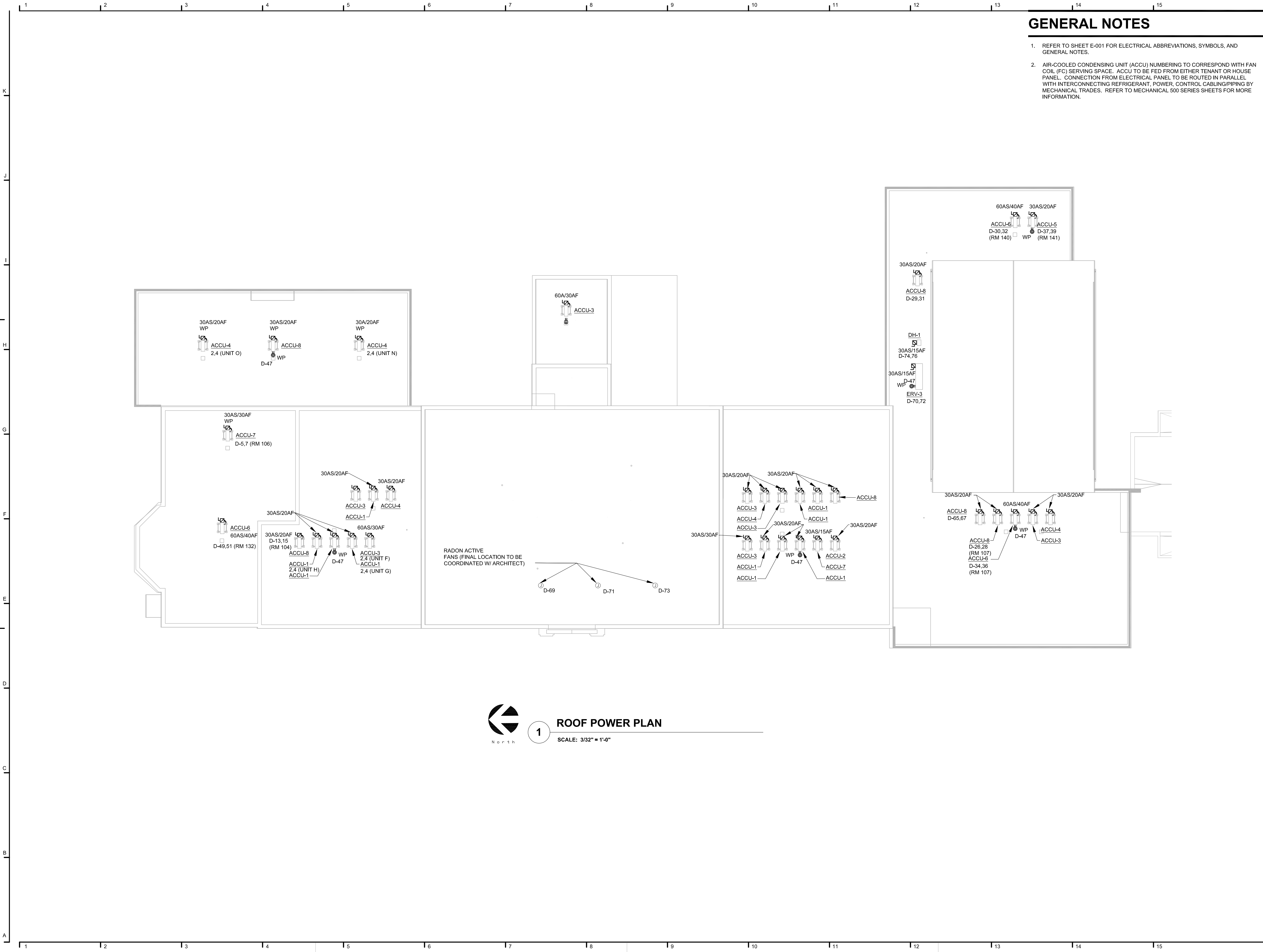


KEY PLANS

SHEET NO. _____



/Volumes/ernight/Shared/Projects/SDG/23-460_SDG_John_Grace_SDG_Architectural/CAD/SD/John_Grace_SD_1.1.plt



GENERAL NOTES

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. AIR-COOLED CONDENSING UNIT (ACCU) NUMBERING TO CORRESPOND WITH FAN COIL (FC) SERVING SPACE. ACCU TO BE FED FROM EITHER TENANT OR HOUSE PANEL. CONNECTION FROM ELECTRICAL PANEL TO BE ROUTED IN PARALLEL WITH INTERCONNECTING REFRIGERANT, POWER, CONTROL CABLING/PIPING BY MECHANICAL TRADES. REFER TO MECHANICAL 500 SERIES SHEETS FOR MORE INFORMATION.

John Grace Arms
21030 Indian St, Southfield MI 48033
Developed by
John Grace Arms LDHA LLC

SDG
Architects + Planners
607 Shelby Street
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Detroit, MI 48226
Tel: 313-961-9000
Fax: 313-964-3233

A & A Engineering & Consulting
2808 Ypsilanti Way, South Lyon, MI 48178

CITY OF _____ STAMP

CITY STAMP

DO NOT PLACE ANYTHING IN THIS AREA

REGISTRATION SEAL

STATE OF MICHIGAN
MATTHEW J. JOSEPH
REGISTERED PROFESSIONAL ENGINEER
No. 82012
Exp. 12/31/2025

KEY PLANS

SHEET TITLE

ROOF POWER PLAN

SCALE: AS NOTED

ISSUED FOR PERMITS DATE 12.20.24

DRAWN BY SC

CHECKED MT

APPROVED

21026.00

FILE NO.

EP-103

SHEET NO.

1 FC IS SERVED BY ACCU ON ROOF TOP. POWER AND CONTROL CABLING FROM ACCU TO FC WITHIN IS PROVIDED BY MECHANICAL TRADES. ASSOCIATED ROOF ACCU IS FED FROM UNIT PANEL

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET FOR RISER DIAGRAM.
3. REFER TO SHEET SERIES FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
4. COORDINATE ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS FOR APPLIANCES AND EQUIPMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. COORDINATE FINAL LOCATION AND ANY POWER CONNECTION REQUIREMENTS OF MECHANICAL AND PLUMBING EQUIPMENT PRIOR TO INSTALLATION.
6. VOLTAGE DROP SHALL BE LIMITED TO LESS THAN 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.

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Architects + Planners
607 Shelby Street
Suite 704
Detroit, MI 48226
Tel: 313-961-9000
Fax: 313-964-3233



DO NOT PLACE ANYTHING IN THIS AREA

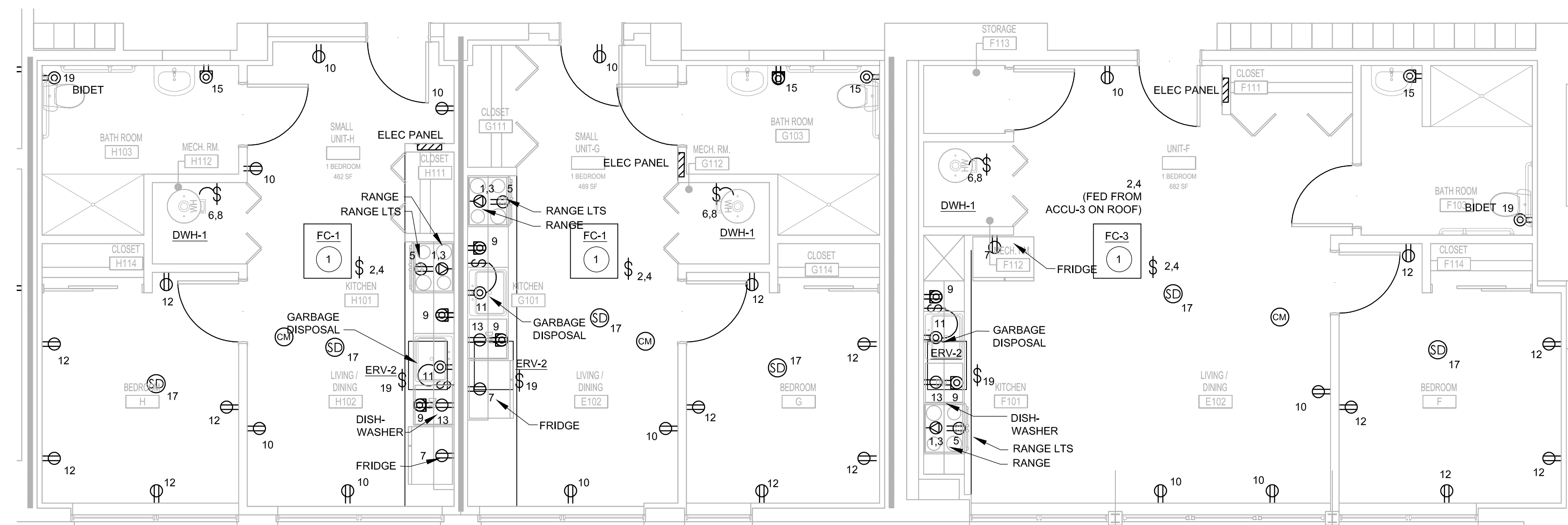
STATE OF MICHIGAN
MATTHEW J. JOSEPH
ENGINEER
No. 9201054269
LICENSED PROFESSIONAL ENGINEER

The floor plan illustrates a two-unit residential building with a central corridor. Unit O (left) and Unit N (right) are symmetrical in layout. Key features include:

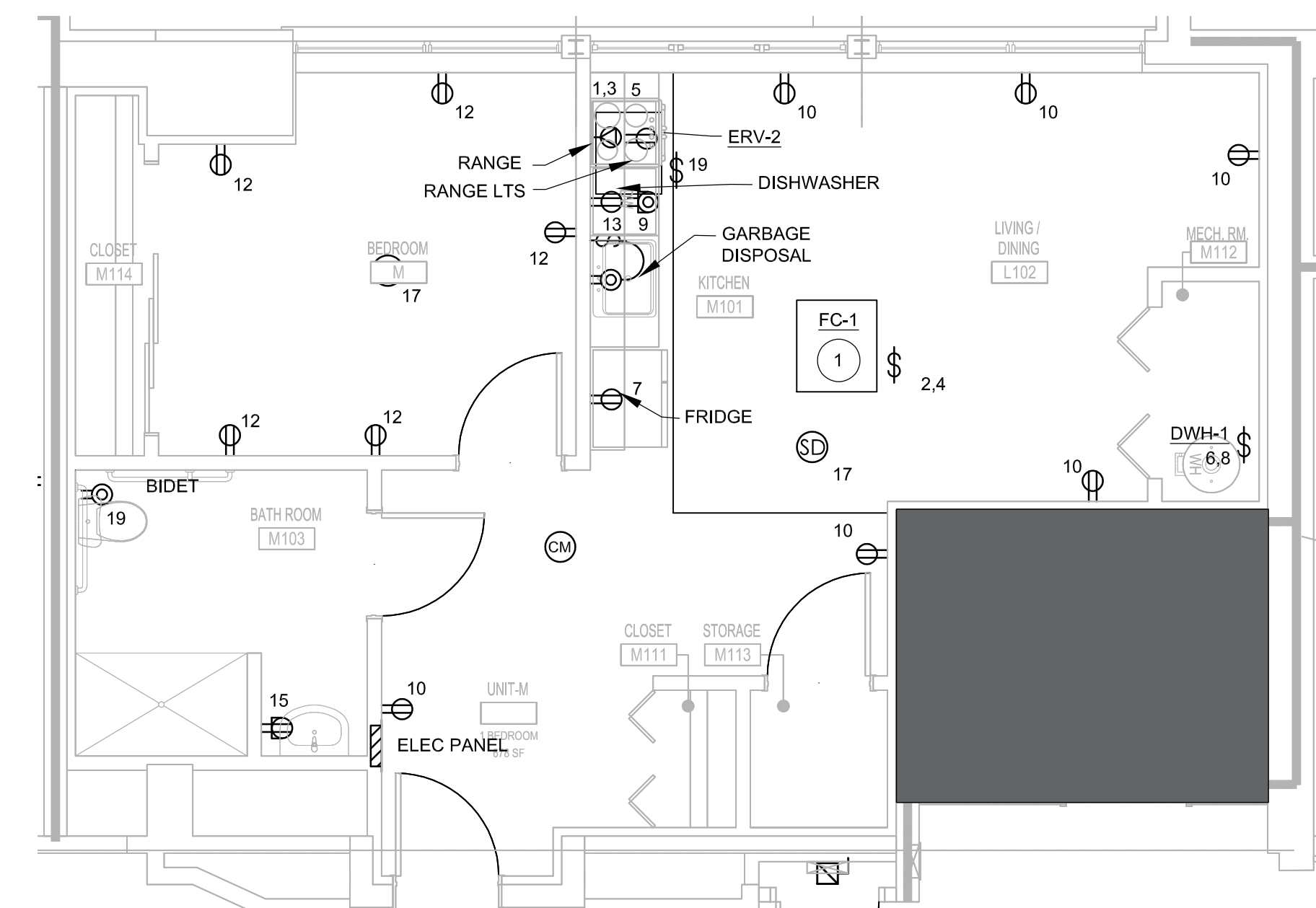
- Unit O (Left):**
 - Living/Dining (O102):** Includes a fireplace, refrigerator, dishwasher, garbage disposal, and range with lights.
 - Kitchen (O101):** Adjacent to the living area.
 - Bathroom (O103):** Includes a bidet.
 - Bedroom 2 (O105):** Located at the rear.
 - Bedroom 1 (O104):** Located at the rear.
 - Electrical:** Includes a main panel, a 40A panel, and various outlets and switches labeled with numbers (e.g., 10, 12, 14, 15, 17, 19).
 - Equipment:** Includes a furnace (FC-4), a water heater (DWH-1), and an ERV-2.
- Unit N (Right):**
 - Living/Dining (N102):** Includes a fireplace, refrigerator, dishwasher, garbage disposal, and range with lights.
 - Kitchen (N101):** Adjacent to the living area.
 - Bathroom (N103):** Includes a bidet.
 - Bedroom 2 (N105):** Located at the rear.
 - Bedroom 1 (N104):** Located at the rear.
 - Electrical:** Includes a main panel, a 40A panel, and various outlets and switches labeled with numbers (e.g., 10, 12, 14, 15, 17, 19).
 - Equipment:** Includes a furnace (FC-4), a water heater (DWH-1), and an ERV-2.
- Common Areas:**
 - Corridor:** A central corridor provides access to both units.
 - Stairs:** Located at the rear of the building.
 - Storage:** Includes closets (O114, O115, N114, N115) and a linen closet (N111).

1 **ENLARGE**
SCALE: 1/4" = 1'-0"

North



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



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



SHEET TITLE

1st FLOOR ENLARGED
POWER PLANS -
NORTH UNITS

SCALE: AS NOTED

ISSUED FOR	DATE
PERMITS	12.20.24

SC

MT

APPROVED _____

FILE NO. _____

SHEET NO. _____



GENERAL NOTES

- 1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
- 2. REFER TO SHEET FOR RISER DIAGRAM.
- 3. REFER TO SHEET SERIES FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
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- 6. VOLTAGE DROP SHALL BE LIMITED TO LESS THAN 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.

KEYNOTES

- 1. FC IS SERVED BY ACCU ON ROOF TOP. POWER AND CONTROL CABLING FROM ACCU TO FC WITHIN IS PROVIDED BY MECHANICAL TRADES. ASSOCIATED ROOF ACCU IS FED FROM UNIT PANEL

John Grace Arms
21030 Indian St, Southfield MI 48033
Developed by
John Grace Arms LDHA LLC

SDG
Architects + Planners
607 Shelby Street
Suite 704
Detroit, MI 48226
Tel: 313-961-9000
Fax: 313-964-3233

A & A Engineering & Consulting
2808 Vasa Way, South Lyon, MI 48179

CITY OF _____ STAMP

CITY STAMP

DO NOT PLACE ANYTHING IN THIS AREA

REGISTRATION SEAL



KEY PLANS

SHEET TITLE

1st FLOOR ENLARGED
POWER PLANS -
NORTH UNITS

SCALE: AS NOTED

ISSUED FOR
PERMITS

DATE
12.20.24

SC

MT

APPROVED

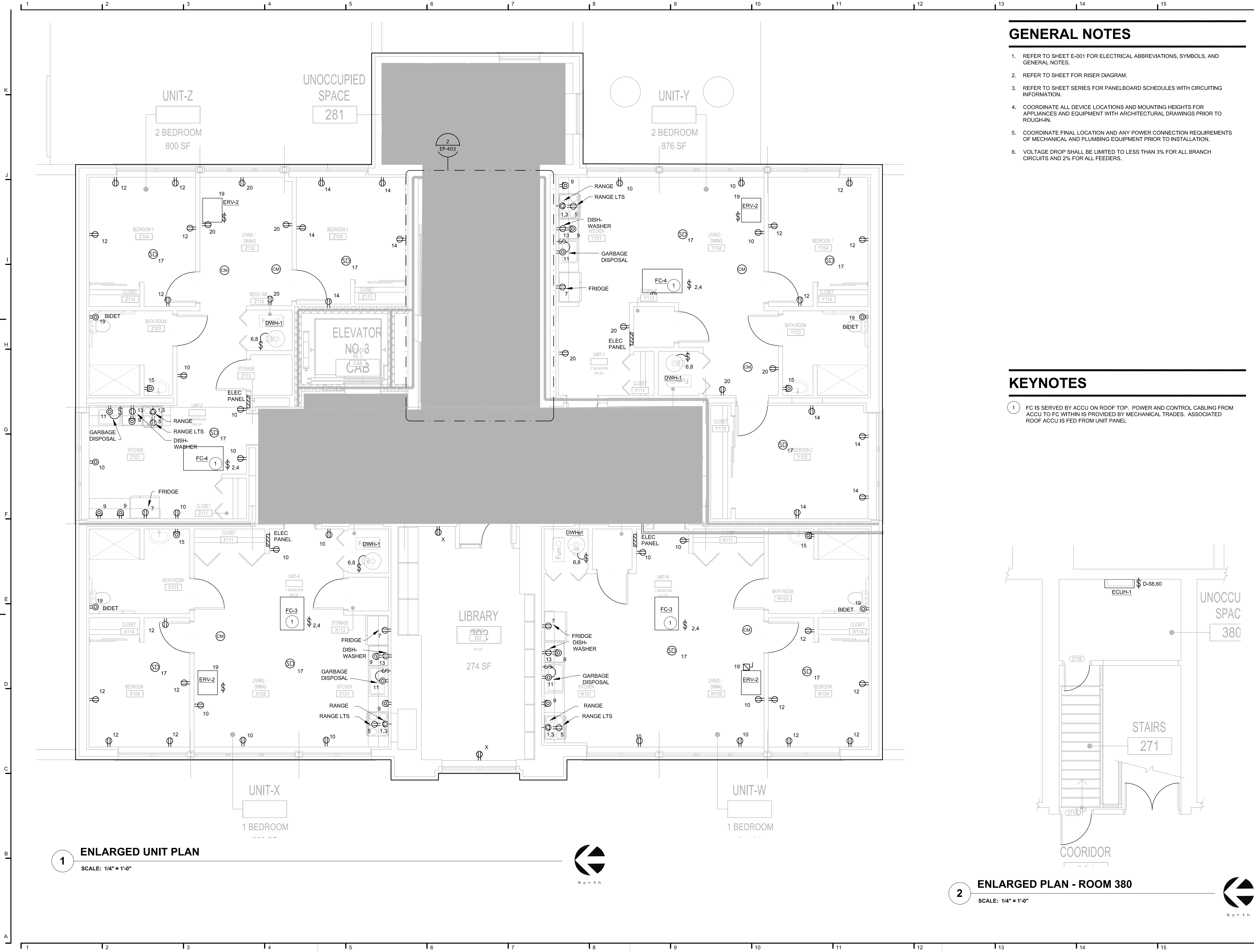
21026.00

FILE NO.

EP-402

SHEET NO.

/Volumes/e/might/Shared/Projects/SDG/23-460_SDG_John_Grace_Housing/5_Disciplines-Design/Architectural/CAD/SD/John_Grace_SD_1.1.plt

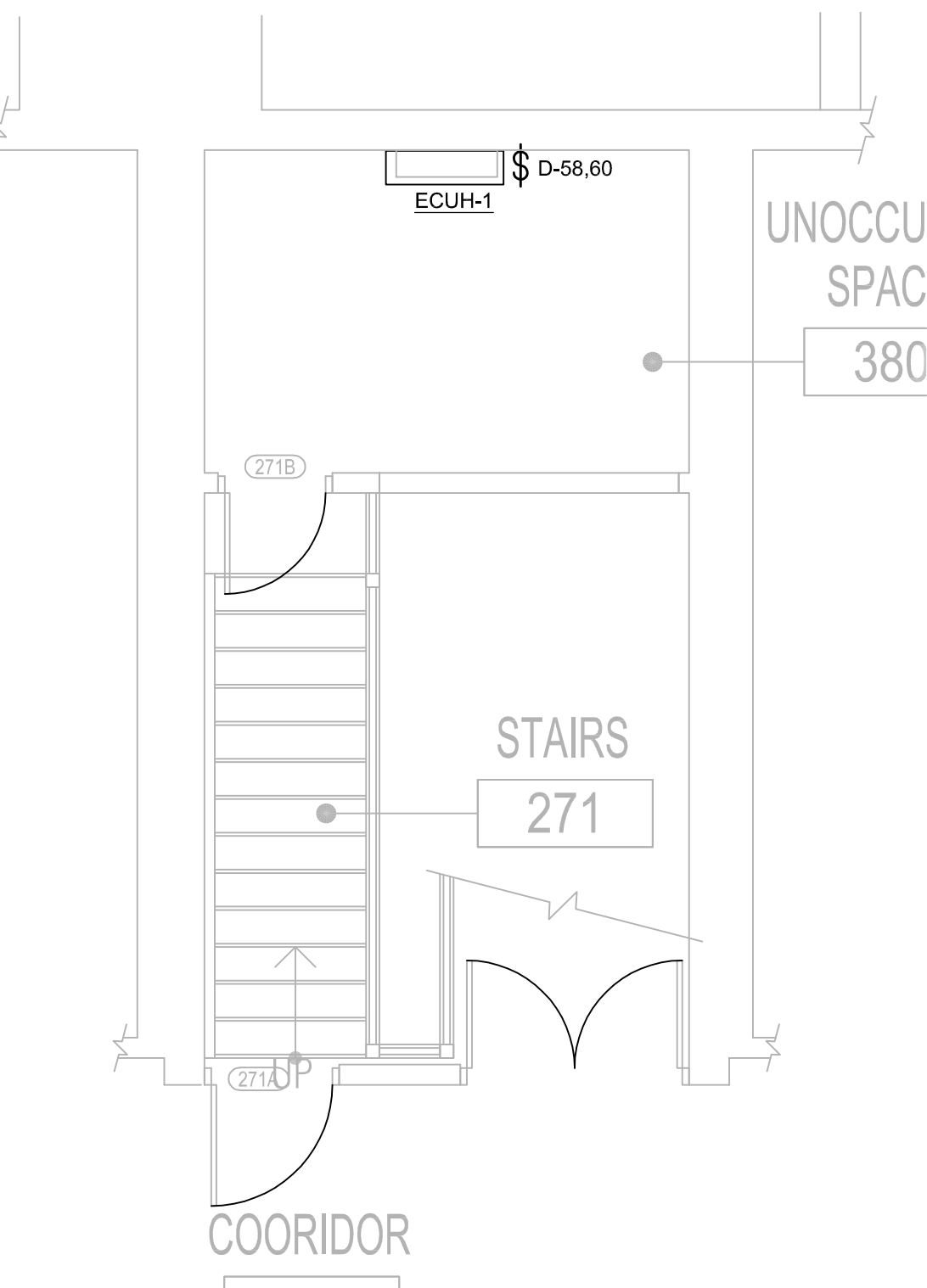


GENERAL NOTES

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET FOR RISER DIAGRAM.
3. REFER TO SHEET SERIES FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
4. COORDINATE ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS FOR APPLIANCES AND EQUIPMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. COORDINATE FINAL LOCATION AND ANY POWER CONNECTION REQUIREMENTS OF MECHANICAL AND PLUMBING EQUIPMENT PRIOR TO INSTALLATION.
6. VOLTAGE DROP SHALL BE LIMITED TO LESS THAN 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.

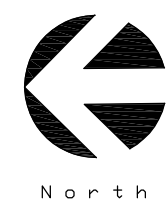
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2 ENLARGED PLAN - ROOM 380

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



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2808 Ypsilanti Way, South Lyon, MI 48178

CITY OF _____ STAMP

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KEY PLANS

SHEET TITLE

**2ND FLOOR ENLARGED
POWER PLANS**

SCALE: AS NOTED

ISSUED FOR PERMITS DATE 12.20.24

DRAWN BY SC

CHECKED MT

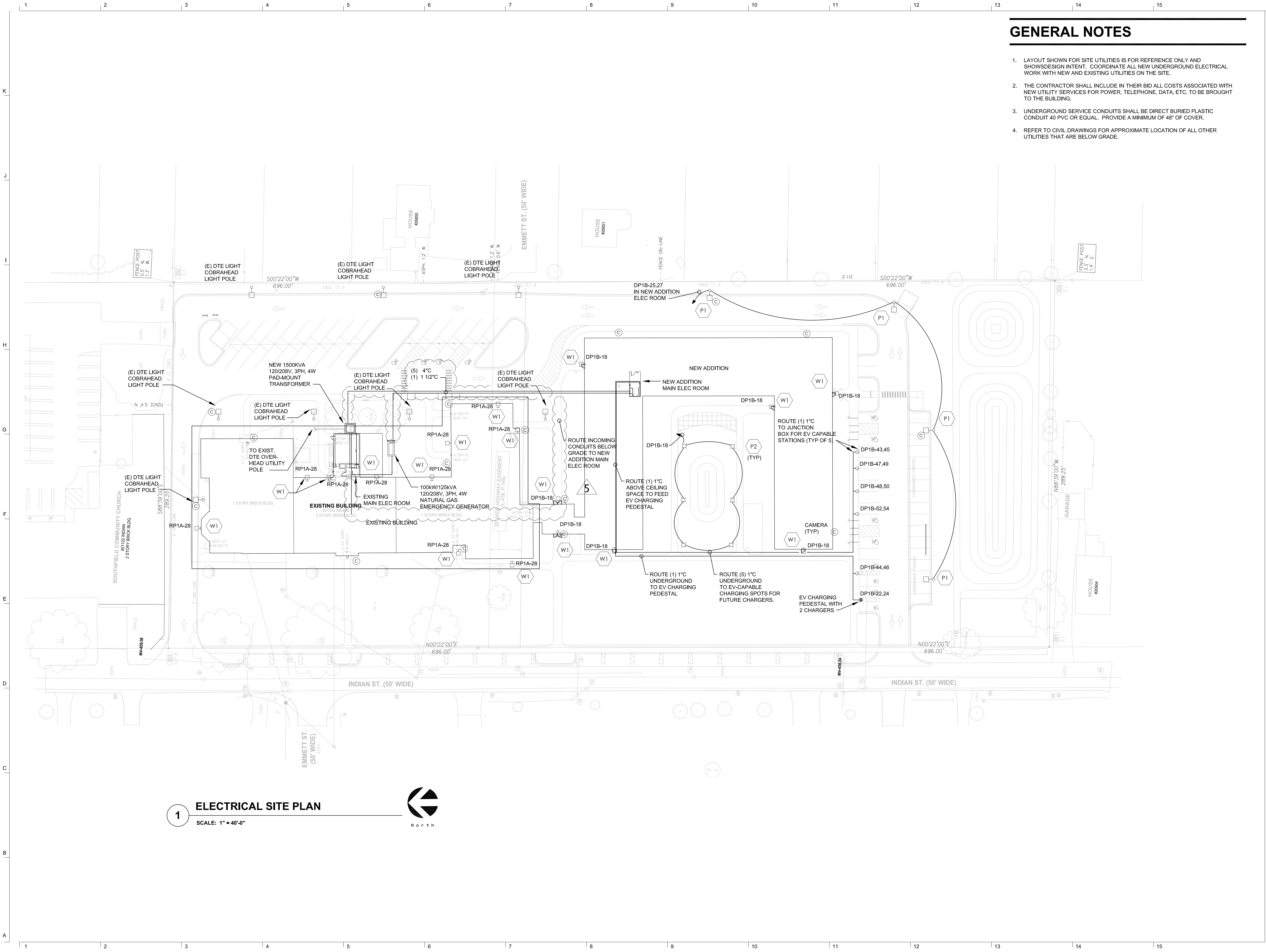
APPROVED

21026.00

FILE NO.

EP-403

SHEET NO.



GENERAL NOTES

- LAYOUT SHOWN FOR SITE UTILITIES IS FOR REFERENCE ONLY AND SHOWS DESIGN INTENT. COORDINATE ALL NEW UNDERGROUND ELECTRICAL WORK WITH NEW AND EXISTING UTILITIES ON THE SITE.
- THE CONTRACTOR SHALL INCLUDE IN THEIR BID ALL COSTS ASSOCIATED WITH NEW UTILITY SERVICES FOR POWER, TELEPHONE, DATA, ETC. TO BE BROUGHT TO THE BUILDING.
- UNDERGROUND SERVICE CONDUITS SHALL BE DIRECT BURIED PLASTIC CONDUIT 40 PVC OR EQUAL. PROVIDE A MINIMUM OF 48" OF COVER.
- REFER TO CIVIL DRAWINGS FOR APPROXIMATE LOCATION OF ALL OTHER UTILITIES THAT ARE BELOW GRADE.

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28862 Vista Way, South Lyon, MI 48178

REGISTRATION SEAL

KEY PLANS

SHEET TITLE
ELECTRICAL SITE PLAN

SCALE: AS NOTED

ISSUED FOR	DATE
Permits	12.20.2024
Bulletin No. 1	02.19.2025
Bulletin No. 2	03.05.2025
Bulletin No. 5	10.13.2025

DRAWN BY SC

CHECKED MJ

APPROVED

21026.00

FILE NO.

ES-101

SHEET NO.