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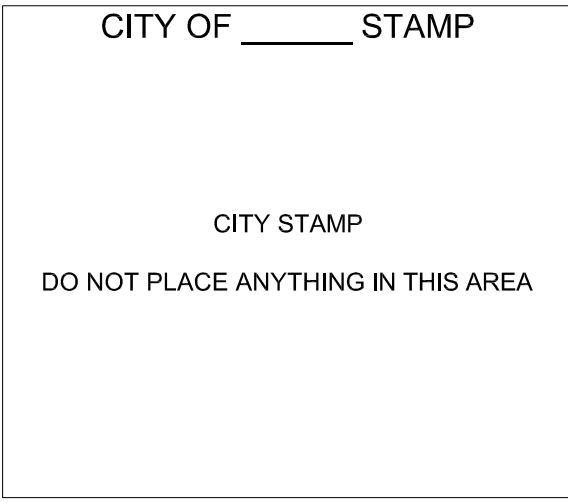
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1. PROVIDE 1#12 + 1#12N + 1#12G FOR 20A BRANCH CIRCUITING, UON; MAXIMUM OF THREE CIRCUITS PER CONDUIT; MINIMUM CONDUIT SIZE OF 3/4" C, UON.
2. PROVIDE A DEDICATED NEUTRAL WIRE FOR EACH BRANCH CIRCUIT. COORDINATE DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
3. PROVIDE FIRE STOPPING FOR CONDUITS AND ELECTRICAL EQUIPMENT FOR FLOOR SLABS, WALLS AND CEILINGS TO MAINTAIN FIRE RATING.
4. INSTALL ELECTRICAL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL BUILDING AND FIRE CODES, IN A NEAT AND WORKMANLIKE MANNER.
5. LIMIT VOLTAGE DROP TO 2% FOR FEEDERS AND 3% FOR BRANCH CIRCUITS. INCLUDE DERATING FACTOR FOR ROOF-MOUNTED CONDUITS.
6. REFER TO ARCH. REFLECTED CEILING PLANS FOR EXACT LOCATION OF CEILING MOUNTED DEVICES AND LIGHT FIXTURES, UNLESS OTHERWISE INDICATED.
7. WHERE MULTIPLE SWITCHES, RECEPTACLES, AND OTHER OUTLETS (EXCEPT WALL PHONES) ARE INDICATED PROVIDE MULTI-GANG BACK BOXES WITH GANG BARRIERS AND A COMMON FACEPLATE.
8. WHERE DIFFERENT RECESSED ELECTRICAL DEVICES WITH THE SAME MOUNTING
9. HEIGHTS ARE INDICATED SIDE-BY-SIDE, MOUNT THE DEVICES SO THAT THERE IS FOUR INCHES BETWEEN ADJACENT VERTICAL EDGES OF THE FACEPLATES, UON.
10. WHERE ELECTRICAL DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE LOCATED IN THE SAME AREA ALIGN DEVICES VERTICALLY THROUGH THEIR CENTERLINES, UON.
11. PROVIDE FEEDERS AND BRANCH CIRCUITS WHICH HAVE AN AMPACITY EQUAL TO OR GREATER THAN THE CIRCUIT OVERCURRENT PROTECTIVE DEVICE RATING, U.O.N.
12. FURNITURE LAYOUTS ARE FOR REFERENCE ONLY. COORDINATE THE FINAL LOCATION OF ELECTRICAL DEVICES AND OUTLETS WITH ARCHITECT, OWNER AND FINAL FURNITURE PLANS PRIOR TO INSTALLATION.
13. IN AREAS WITH FINISHED CEILINGS, ALL BRANCH CIRCUIT AND DATA SYSTEM WIRING SHALL BE CONCEALED ABOVE CEILING.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REINSTALLING CEILING TILES AS REQUIRED TO COMPLETE THE WORK; ANY CEILING
15. WHERE PAINTED, PAINT NEW CONDUIT AND BOXES TO MATCH EXISTING WALL OR CEILING COLOR.
16. THE DRAWINGS REPRESENT ELECTRICAL DESIGN INTENT. THEY ARE DIAGRAMMATIC.
17. PROVIDE ALL COMPONENTS NECESSARY FOR COMPLETE OPERATING ELECTRICAL SYSTEMS.

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ELECTRICAL SYMBOLS AND ABBREVIATIONS

SCALE: AS NOTED

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COPPER FEEDER SCHEDULE									
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	

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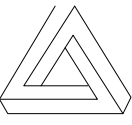
120V SINGLE-PHASE CIRCUIT LENGTH TABLE							
BREAKER AMPACITY (AMPS)	MAX. CIRCUIT CURRENT (AMPS)	MAX. CIRCUIT LOAD (VA)	MAXIMUM LENGTH IN FEET				
			#12AWG	#10AWG	#8AWG	#6AWG	#4AWG
20	4	480	220	349	556	882	-
	8	960	110	174	278	441	701
	12	1440	73	116	185	294	467
	16	1920	55	87	139	221	350
30	24	2880	-	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

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

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KEY PLANS

SHEET TITLE
ELECTRICAL & LIGHTING
SCHEDULES

SCALE: AS NOTED

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Permits
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DATE
12.20.2024
06.03.2025

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

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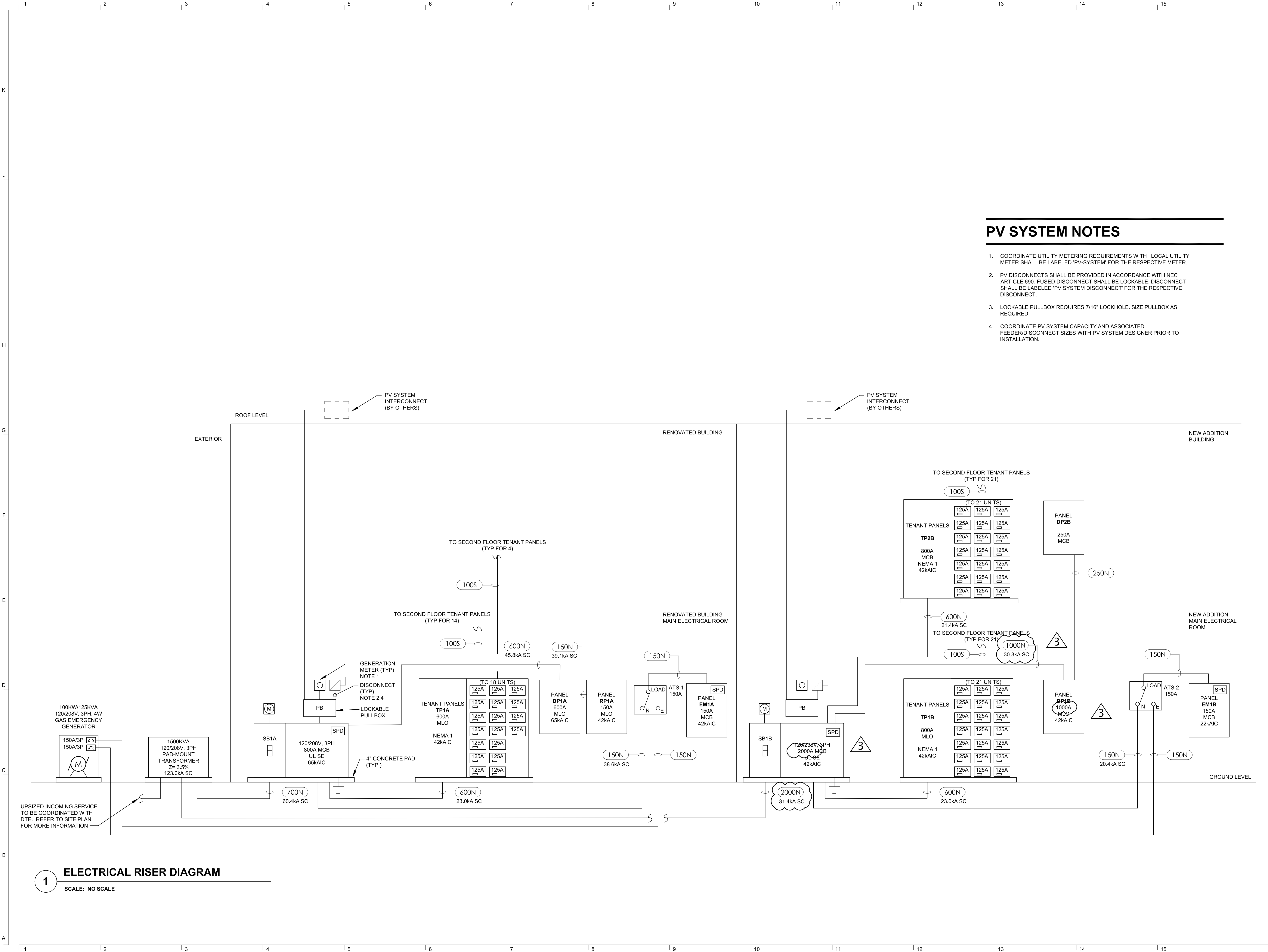
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1 ELECTRICAL RISER DIAGRAM

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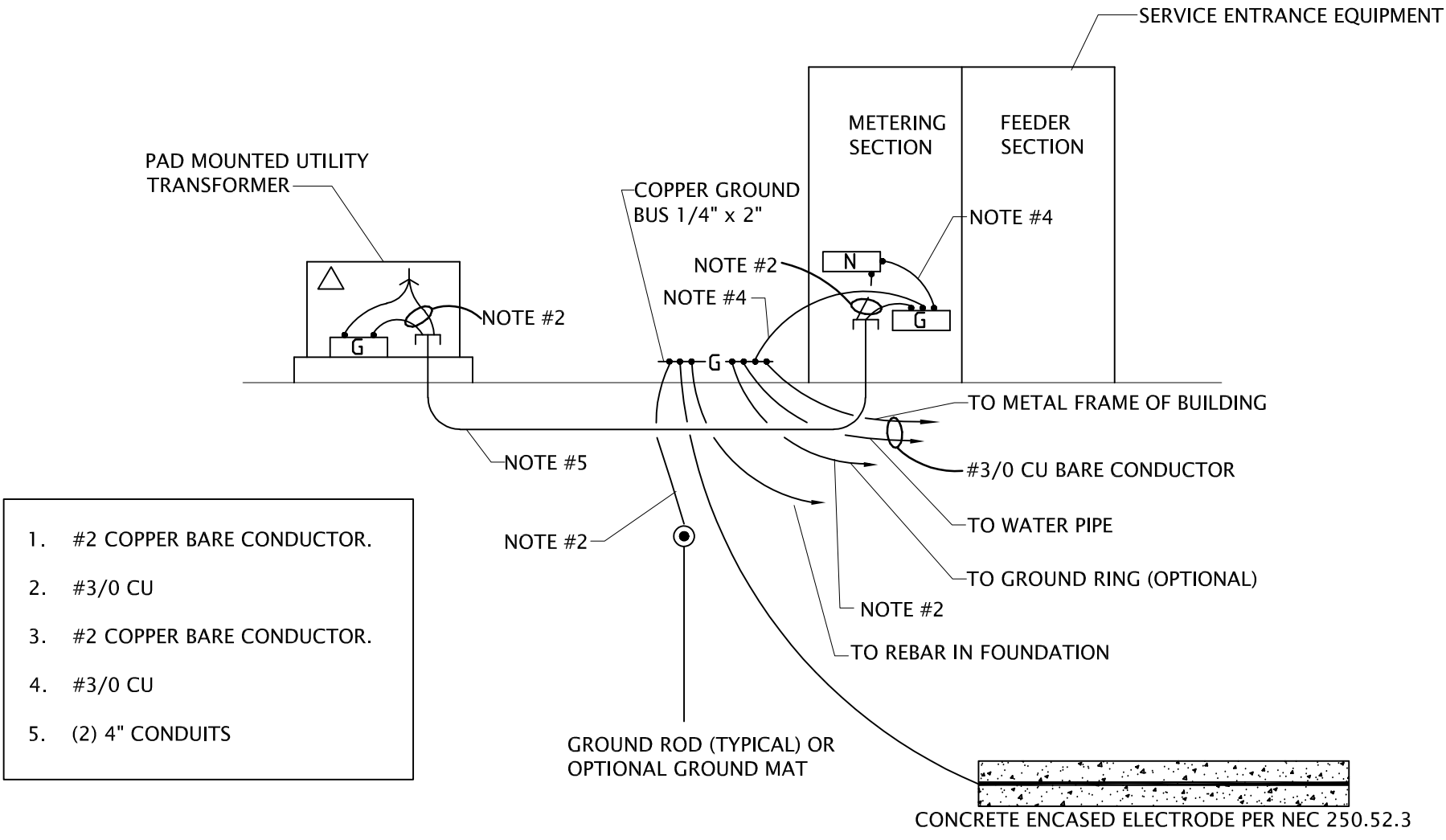
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**ELECTRICAL RISER
DIAGRAM - EXISTING &
NEW ADDITION**

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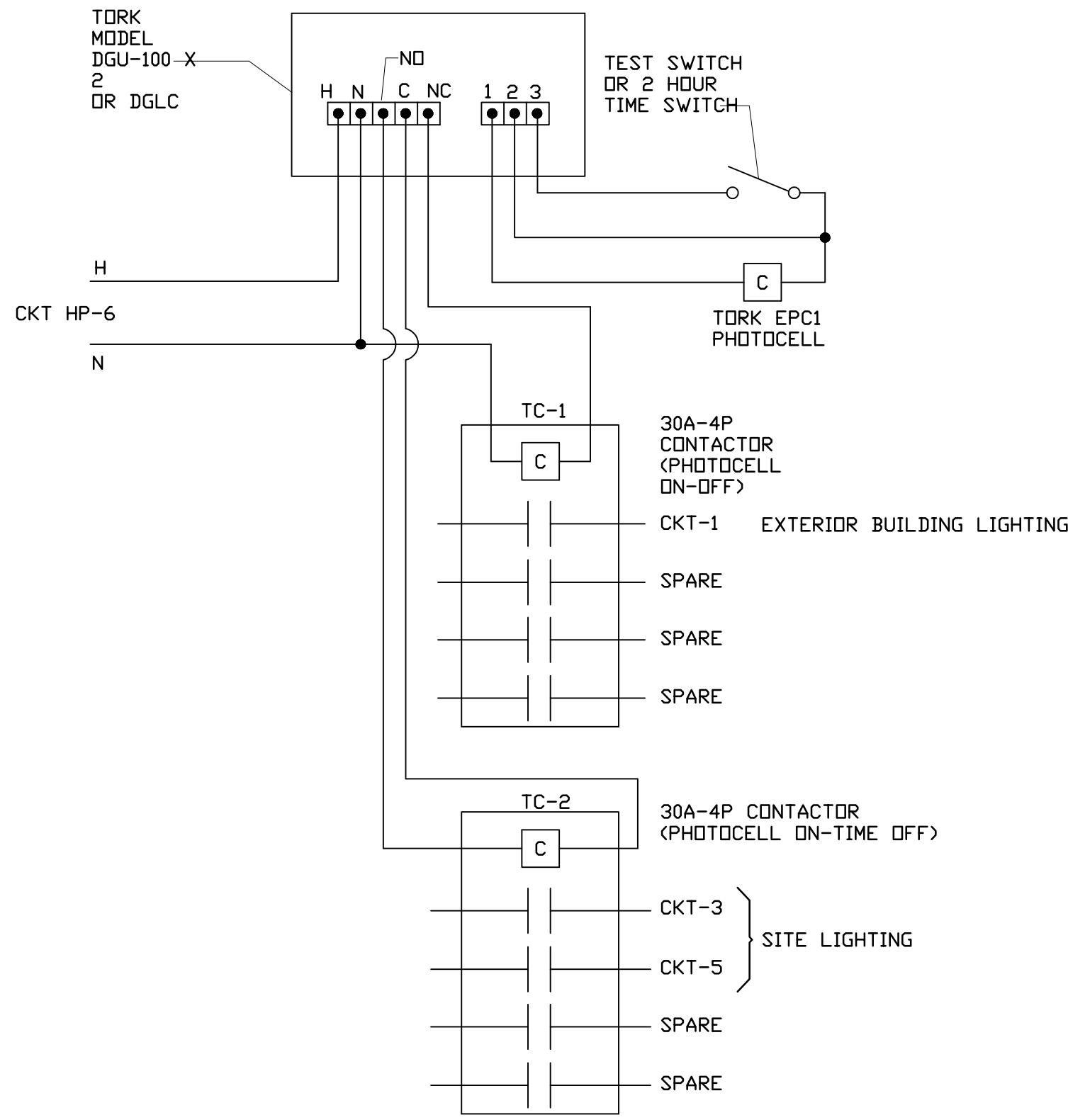
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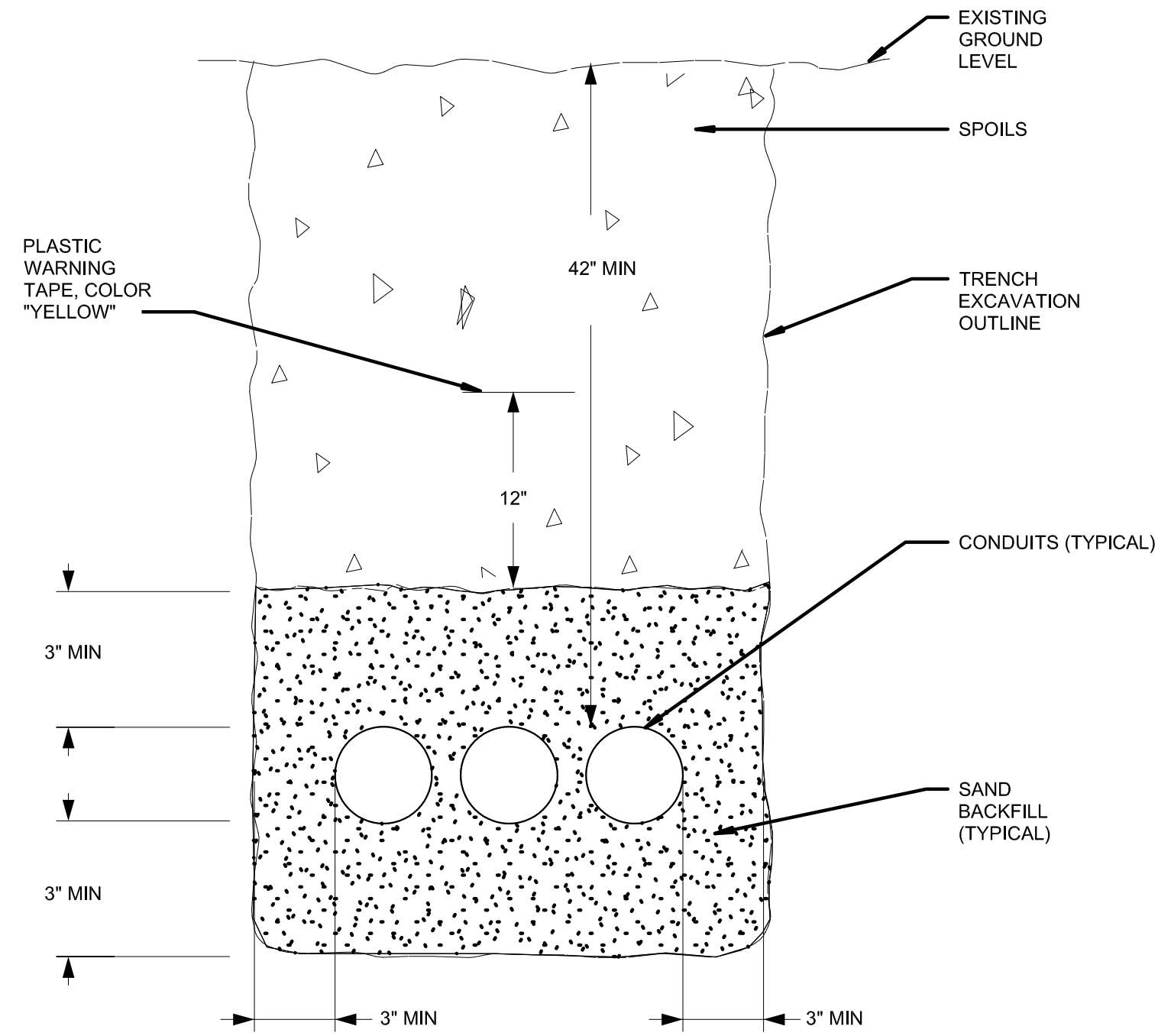
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1 SERVICE ENTRANCE DETAIL
SCALE: NO SCALE



2 LIGHTING CONTACTOR DIAGRAM
SCALE: NO SCALE



3 DIRECT BURIAL CONDUIT DETAIL
SCALE: NO SCALE

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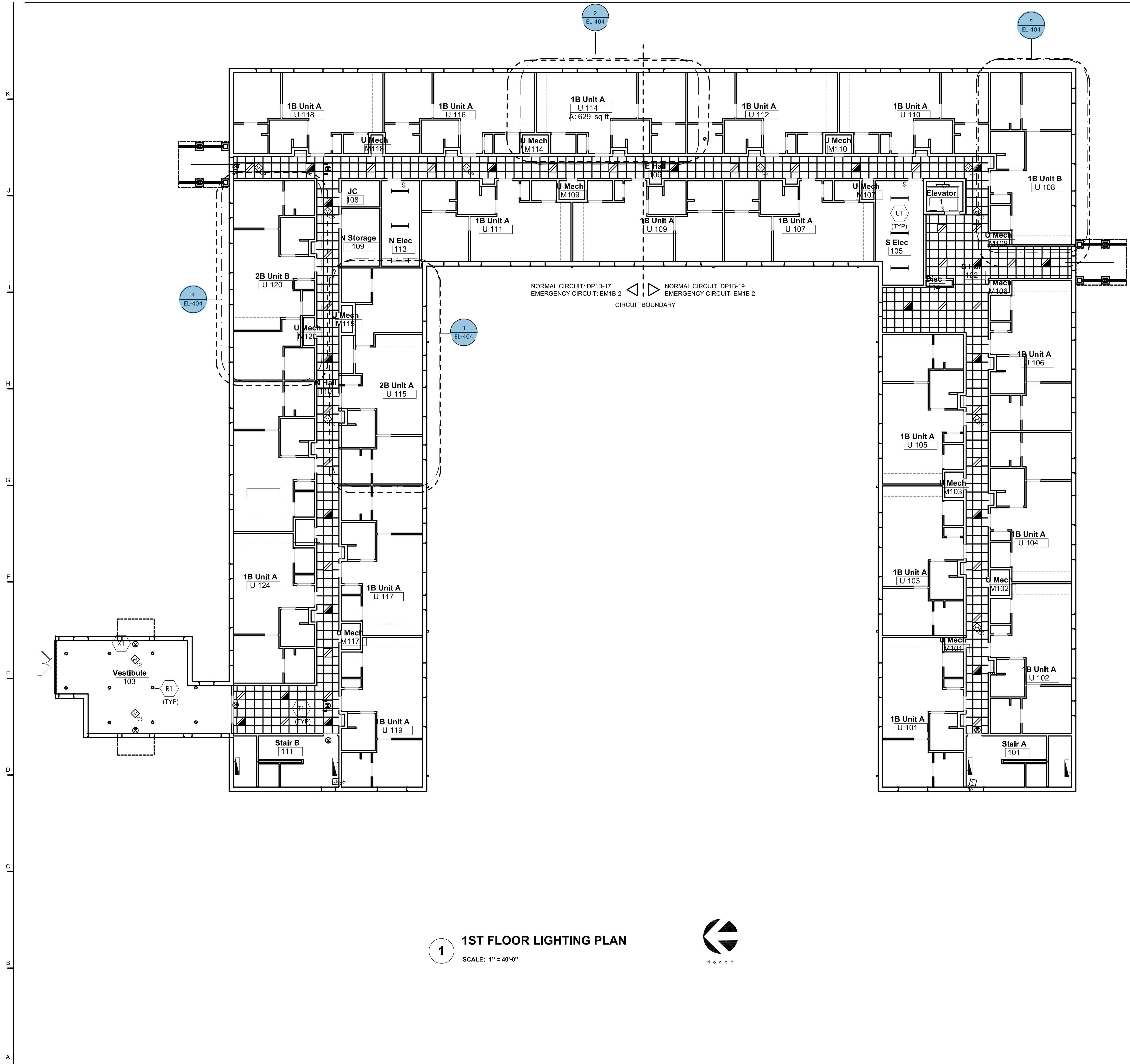
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SHEET NO.



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".

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STATE OF MICHIGAN
MATTHEW J. JOSEPH
REGISTERED PROFESSIONAL ENGINEER
No. 201004269

KEY PLANS

SHEET TITLE
**1st FLOOR LIGHTING PLAN
ADDITION**

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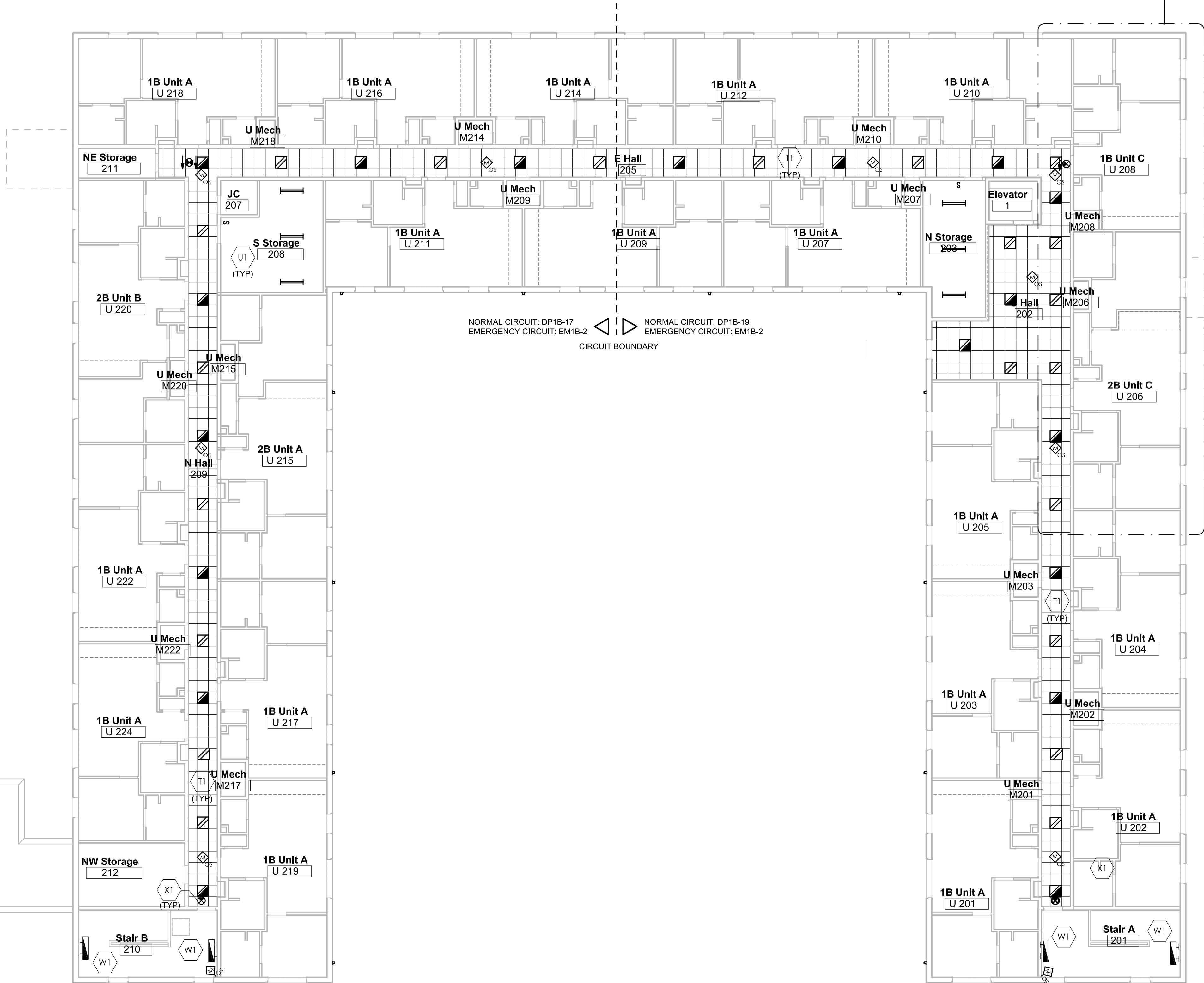
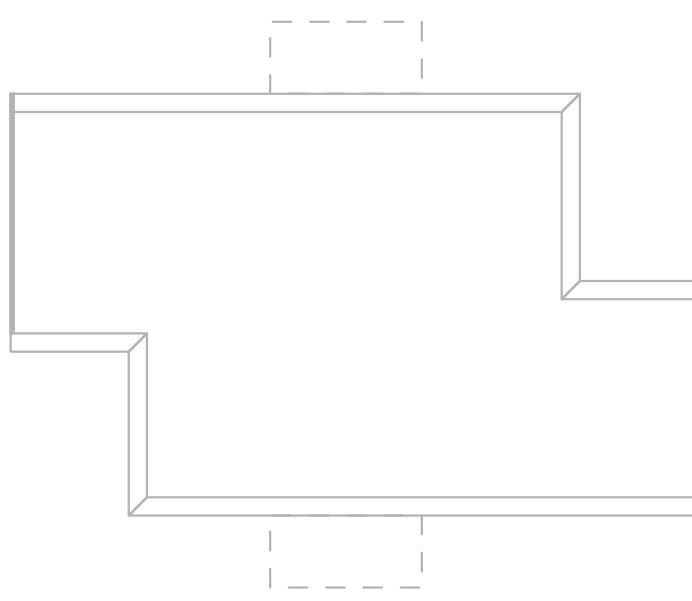
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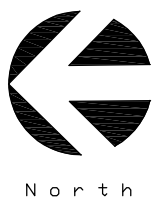
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1ST FLOOR LIGHTING PLAN

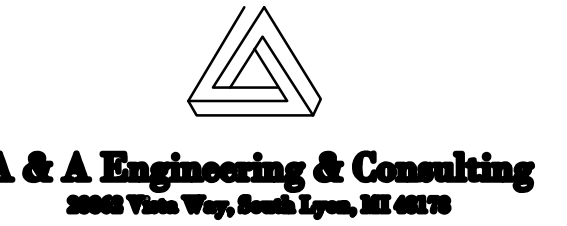
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GENERAL NOTES

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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



CITY OF _____ STAMP

CITY STAMP

DO NOT PLACE ANYTHING IN THIS AREA



KEY PLANS

SHEET TITLE
2ND FLOOR LIGHTING
PLAN - ADDITION

SCALE: AS NOTED

ISSUED FOR PERMITS DATE 12.20.24

DRAWN BY SC

CHECKED M1

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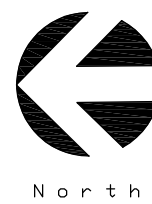
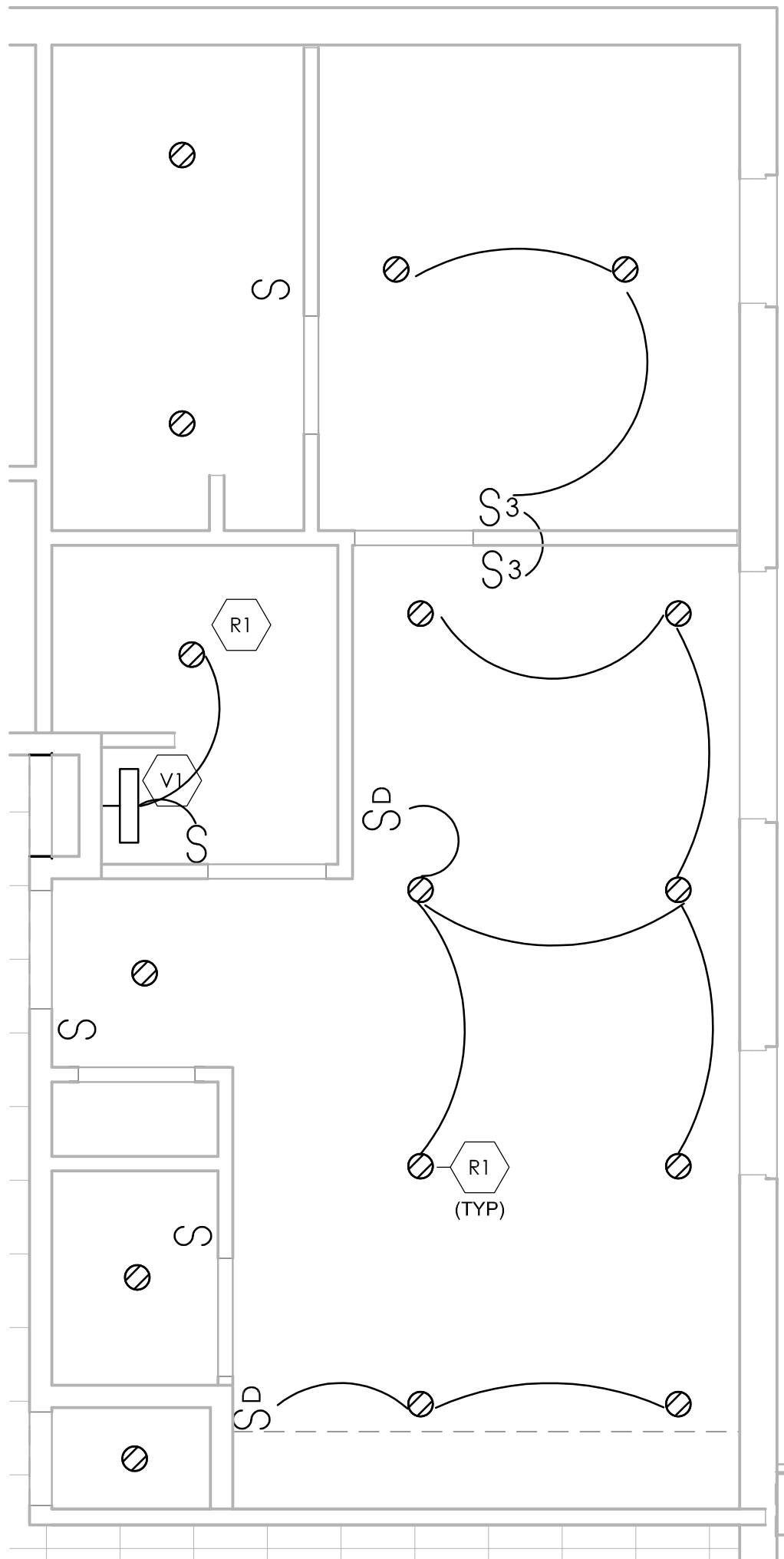
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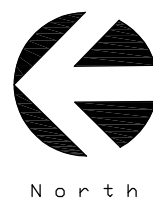
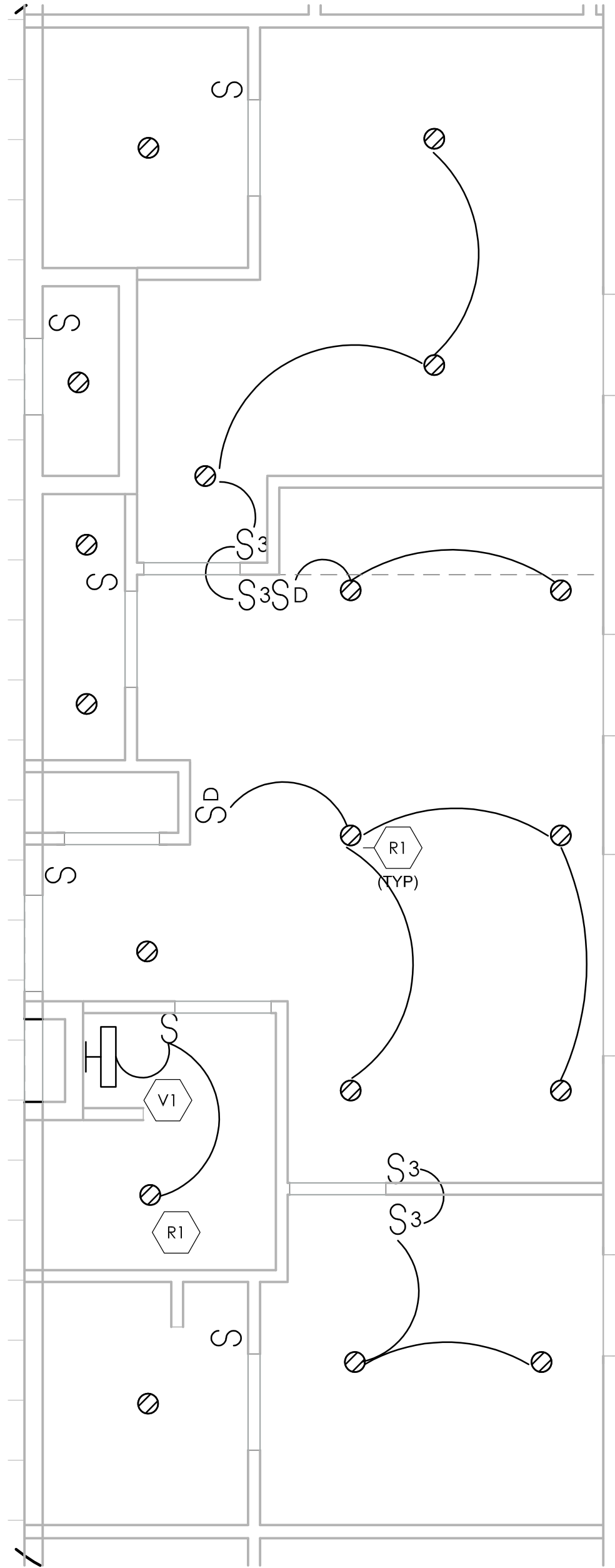
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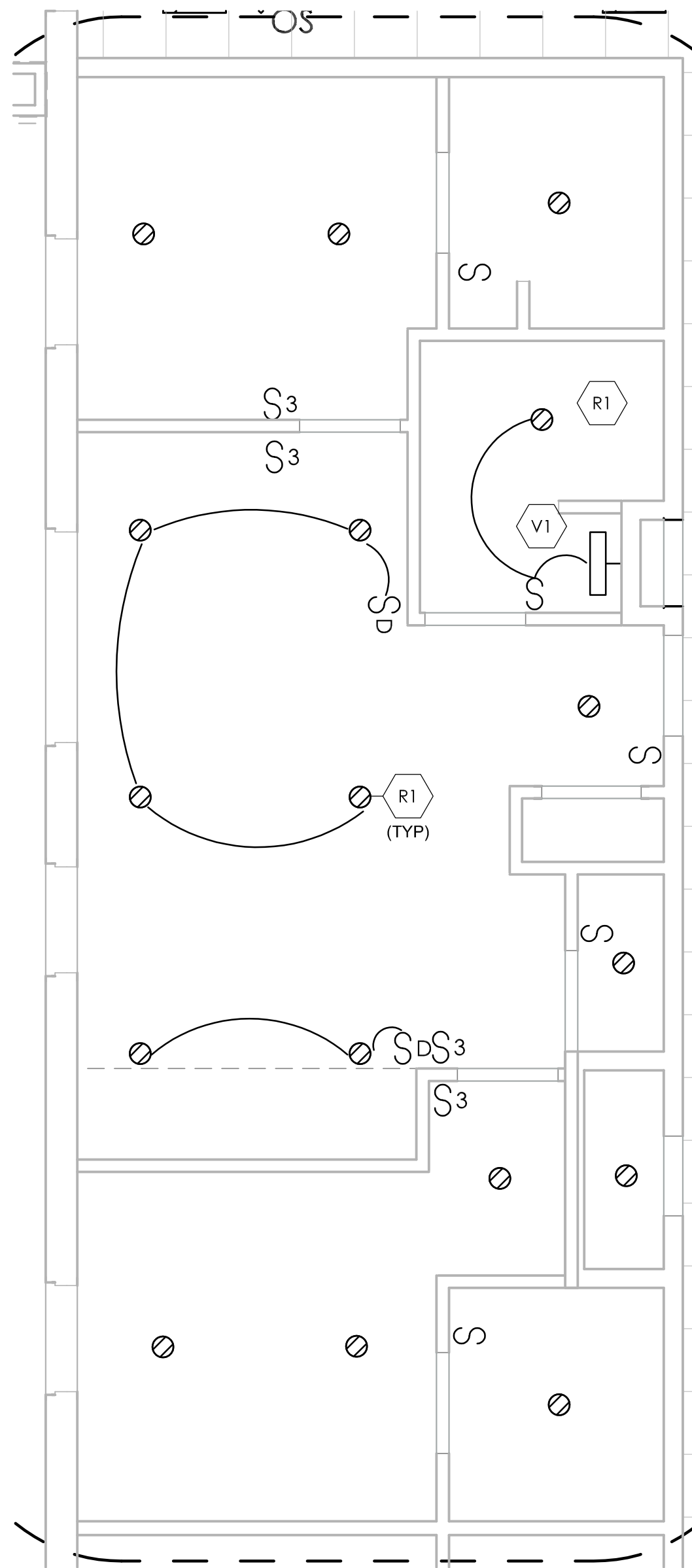
ALL LIGHTS IN EACH UNIT TO
CONNECT TO CIRCUIT #20 ON
UNIT PANEL



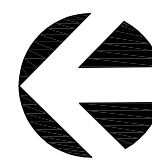
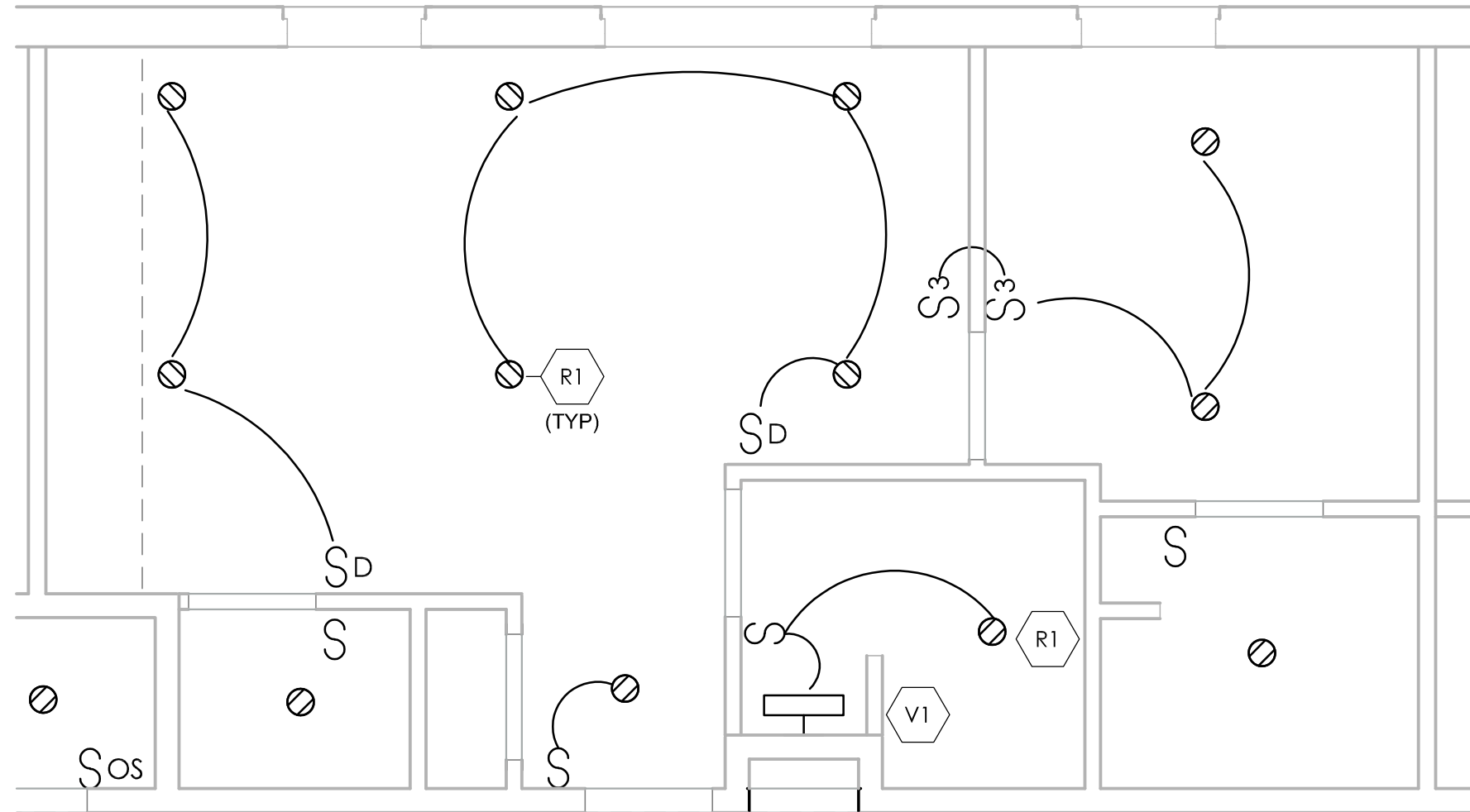
1 1B UNIT B - 1BR CORNER
SCALE: 1/4" = 1'-0"



3 2B UNIT A - 2BR
SCALE: 1/4" = 1'-0"



4 2B UNIT B - 2BR
SCALE: 1/4" = 1'-0"



2 1B UNIT A - 1BR
SCALE: 1/4" = 1'-0"

GENERAL NOTES

- REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
- 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.
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John Grace Arms
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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
2800 Van Way, South Lyon, MI 48176

CITY OF _____ STAMP

CITY STAMP

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REGISTRATION SEAL



KEY PLANS

SHEET TITLE

**TYPICAL UNIT LIGHTING
PLANS - ADDITION**

SCALE: AS NOTED

ISSUED FOR _____ DATE _____
PERMITS 12.20.24

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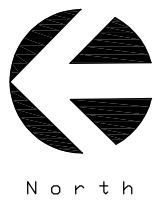
EL-404

SHEET NO.

/Volumes/enright/Shared/Projects/-SDG/23-460_SDG_John_Grace_Housing/5_Disciplines-Design/Architectural/CAD/_SD/John_Grace_SD_1.1.pln

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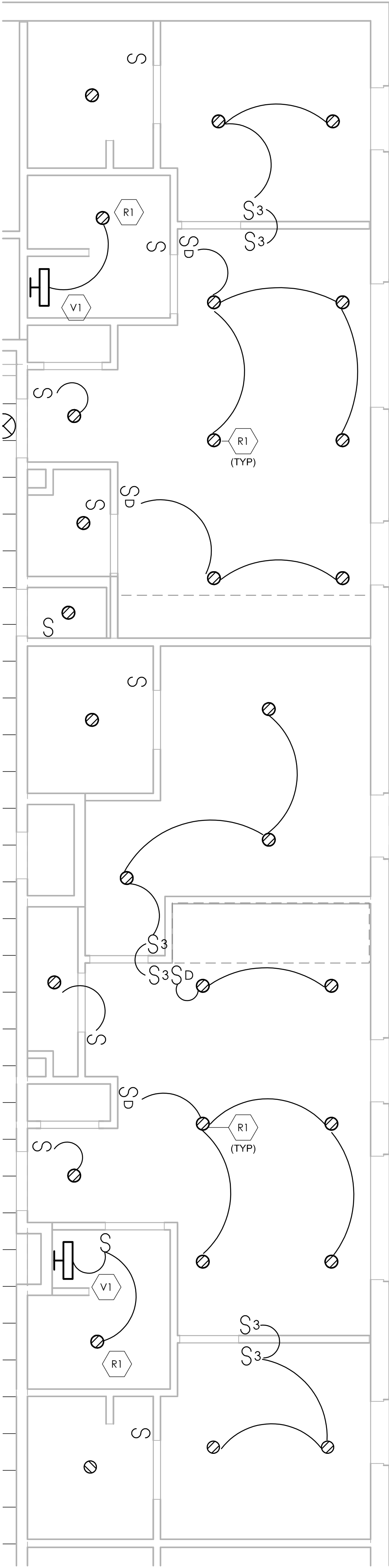
ALL LIGHTS IN EACH UNIT TO
CONNECT TO CIRCUIT #20 ON
UNIT PANEL



1

2B UNIT B - 2BR

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



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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KEY PLANS

SHEET TITLE

ENLARGED LIGHTING
PLANS - ADDITION

SCALE: AS NOTED

ISSUED FOR _____ DATE _____
PERMITS _____ 12.20.24

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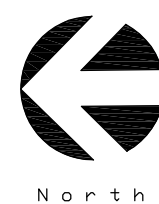
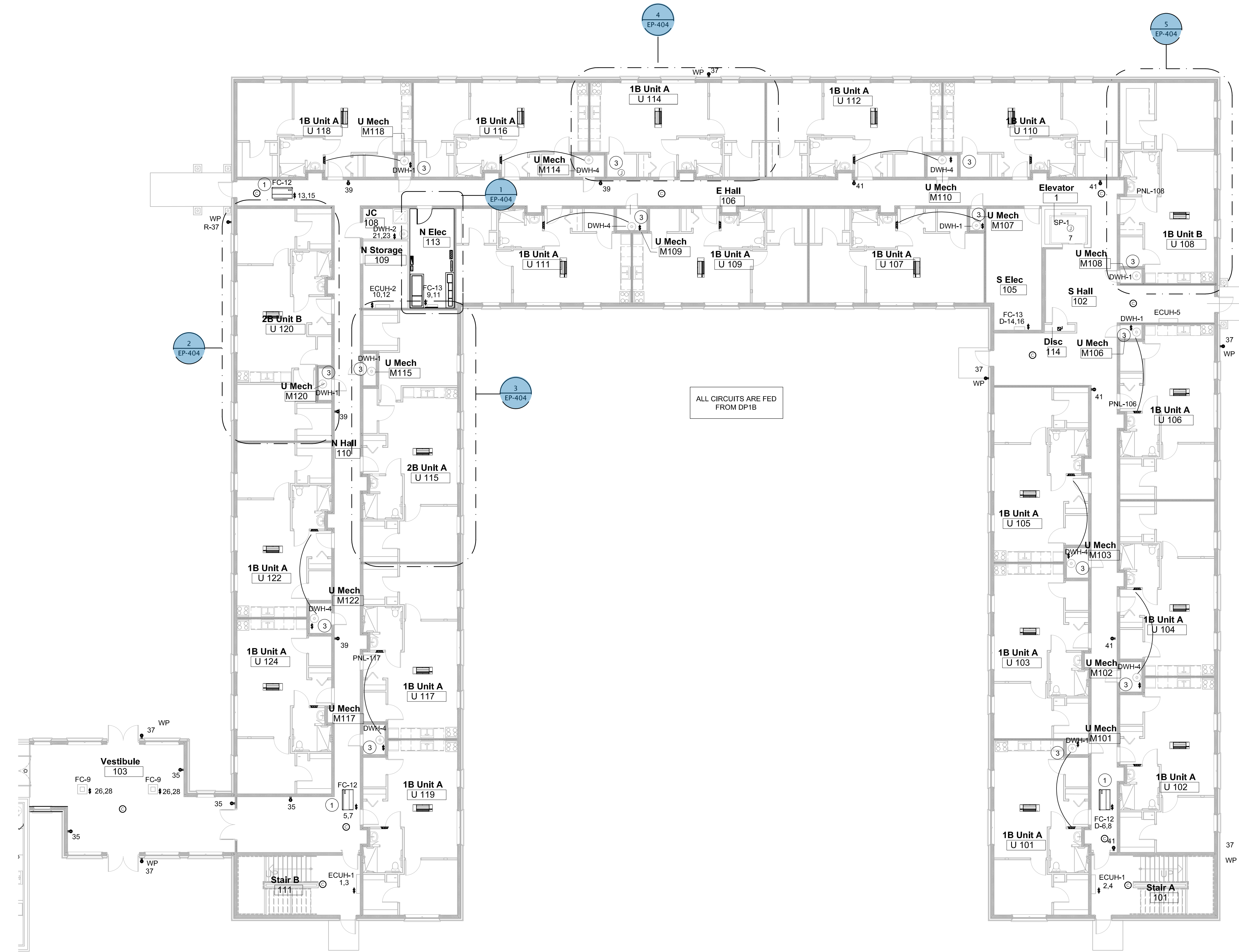
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FILE NO.

EL-405

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1ST FLOOR POWER PLAN

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

GENERAL NOTES

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET E-004 FOR RISER DIAGRAM.
3. REFER TO "400" SERIES SHEETS 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.

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.
- 2 COORDINATE ACCU ROUTING TO ASSOCIATED FC UNIT ON SECOND AND FIRST LEVELS. ROUTING TO RUN IN PARALLEL WITH ACCU CONTROL AND POWER CABLING BY MECHANICAL TRADES.
- 3 FEED DWH FROM PANEL AS SHOWN. (SOME DWHs, SUCH AS DWH-4 SERVES TWO UNITS; CIRCUIT TO UNIT PANEL AS SHOWN.

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Fax: 313-964-3233

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

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KEY PLANS

SHEET TITLE
**1st FLOOR POWER PLAN
ADDITION**

SCALE: AS NOTED

ISSUED FOR
PERMITS DATE
12.20.24

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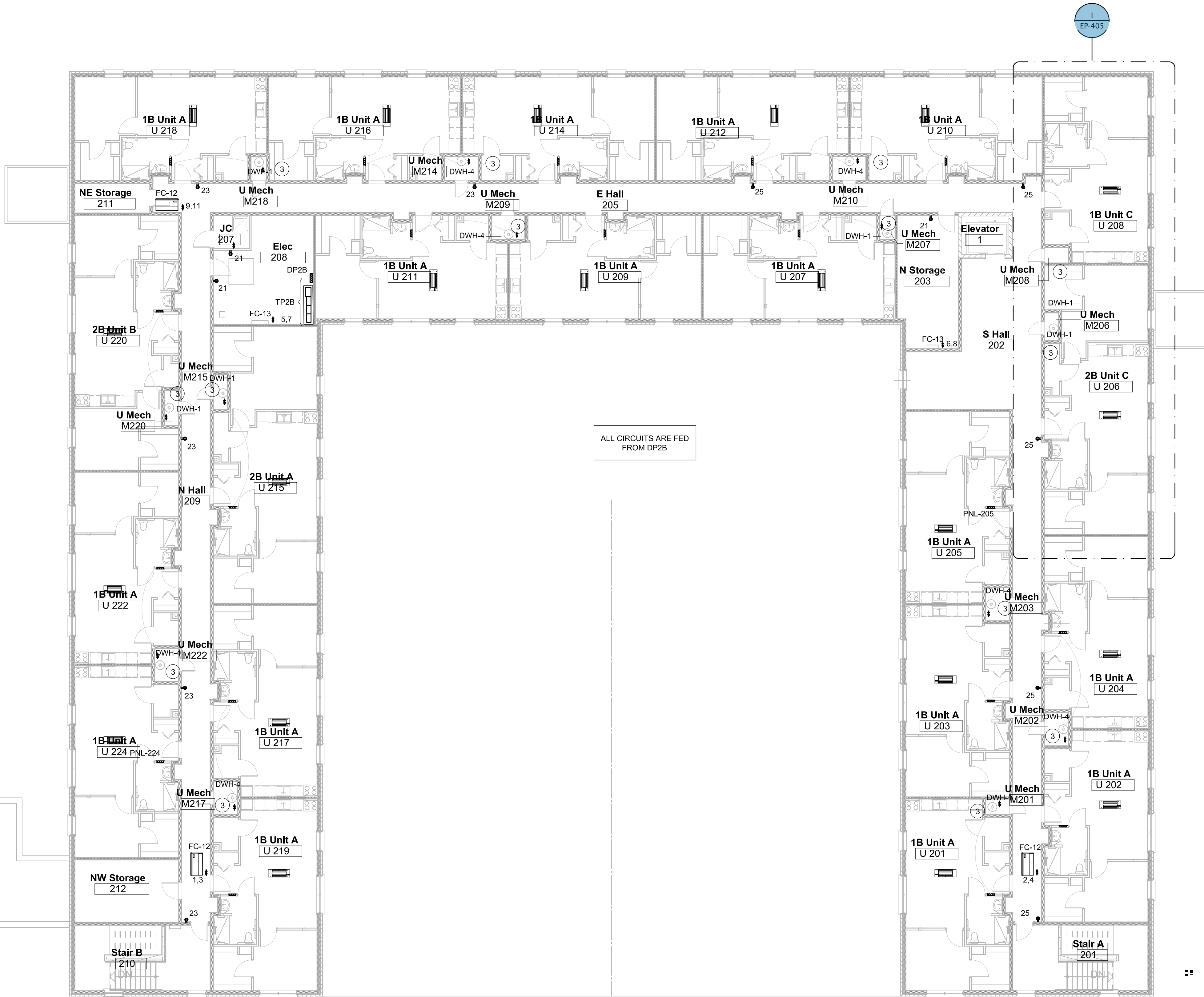
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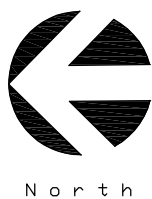
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1 2ND FLOOR POWER PLAN
SCALE: 3/32" = 1'-0"



GENERAL NOTES

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2. REFER TO SHEET E-004 FOR RISER DIAGRAM.
3. REFER TO "400" SERIES SHEETS FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
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KEYNOTES

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- 3 FEED DWH FROM PANEL AS SHOWN. (SOME DWHs, SUCH AS DWH-4 SERVES TWO UNITS; CIRCUIT TO UNIT PANEL AS SHOWN.

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2800 Van Way, South Lyon, MI 48176

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KEY PLANS

SHEET TITLE
2nd FLOOR POWER PLAN
ADDITION

SCALE: AS NOTED

ISSUED FOR _____ DATE _____

APPROVED _____

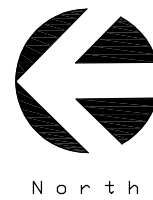
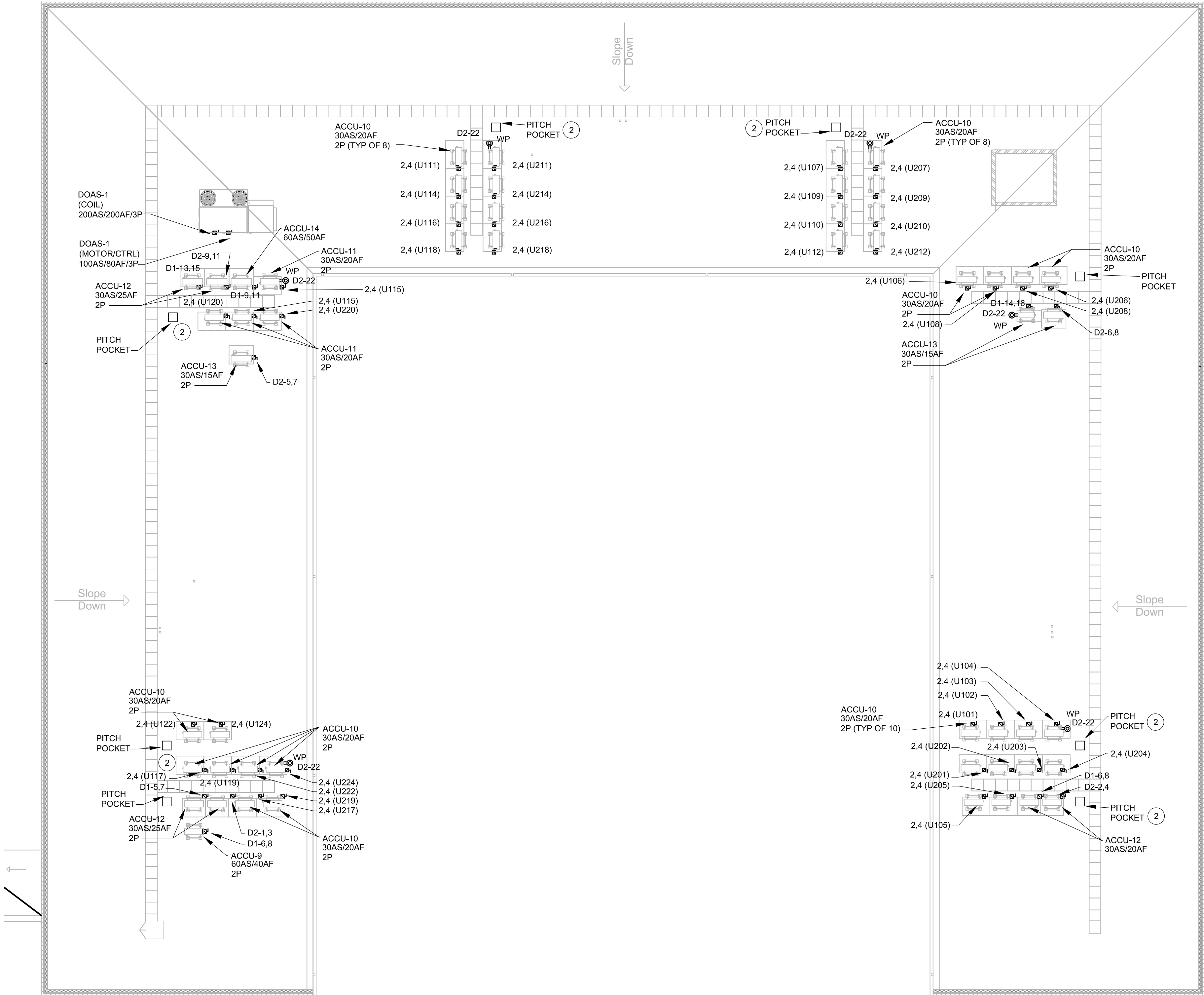
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ROOF POWER PLAN

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

GENERAL NOTES

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- REFER TO "400" SERIES SHEETS FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
- COORDINATE ALL DEVICE LOCATIONS AND MOUNTING HEIGHTS FOR APPLIANCES AND EQUIPMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
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CIRCUIT LEGEND:
PREFIX INDICATES PANEL AND "x"
INDICATES CIRCUIT NUMBER

DP1B = D1-x
DP2B = D2-x
EM1B = E-x

"2.4" INDICATES CIRCUIT ON UNIT
PANELBOARD AND "xxx"
INDICATES THE UNIT ROOM
NUMBER.

2.4 (Uxxx)

KEYNOTES

- 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.
- COORDINATE ACCU ROUTING TO ASSOCIATED FC UNIT ON SECOND AND FIRST LEVELS. ROUTING TO RUN IN PARALLEL WITH ACCU CONTROL AND POWER CABLING BY MECHANICAL TRADES.
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John Grace Arms
21030 Indian St, Southfield MI 48033
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SDG
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Detroit, MI 48226
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Fax: 313-964-3233

A & A Engineering & Consulting
20000 Van Wyck, Southfield, MI 48033

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REGISTRATION SEAL

STATE OF MICHIGAN
MATTHEW J. JOSEPH
ELECTRICAL ENGINEER
No. 920104269
LICENSED PROFESSIONAL ENGINEER

KEY PLANS

SHEET TITLE
**ROOF POWER PLAN
ADDITION**

SCALE: AS NOTED

ISSUED FOR
PERMITS

DATE
12.20.24

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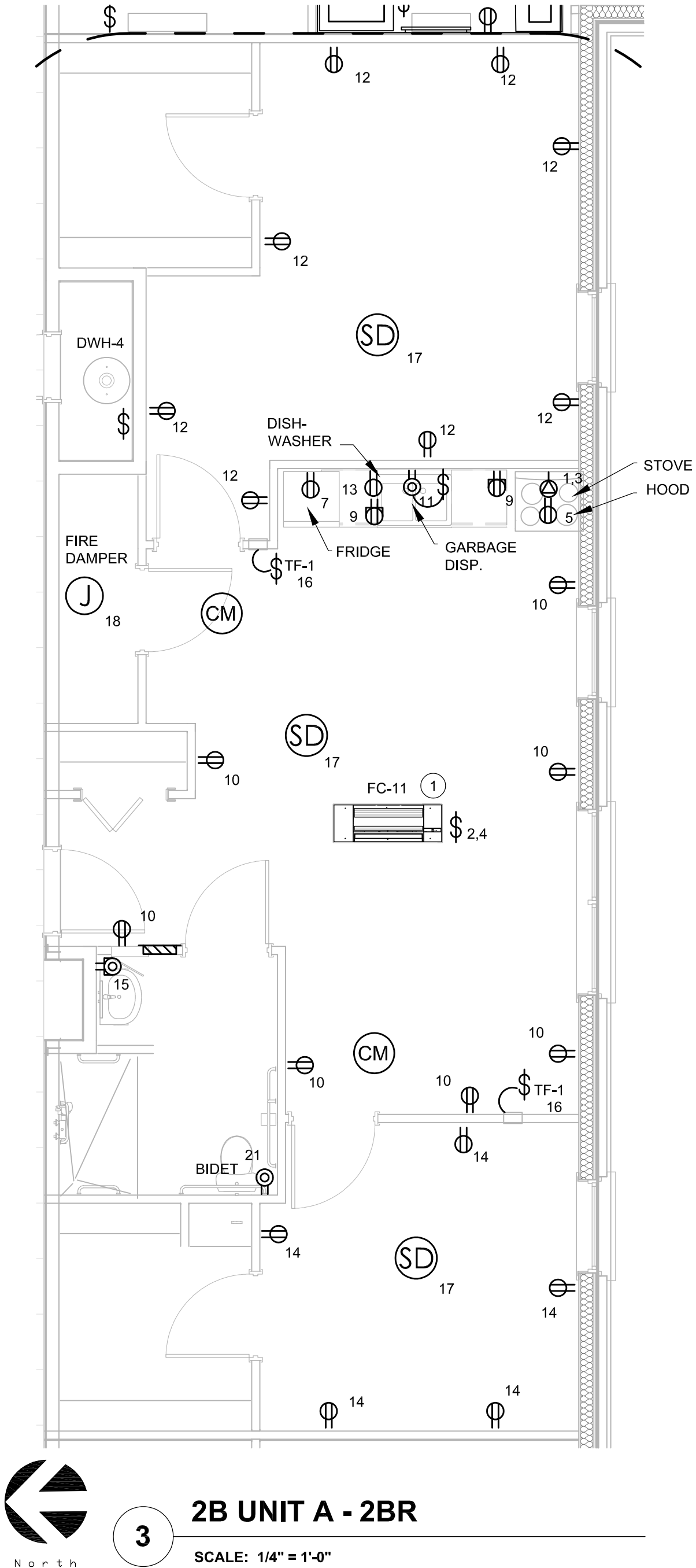
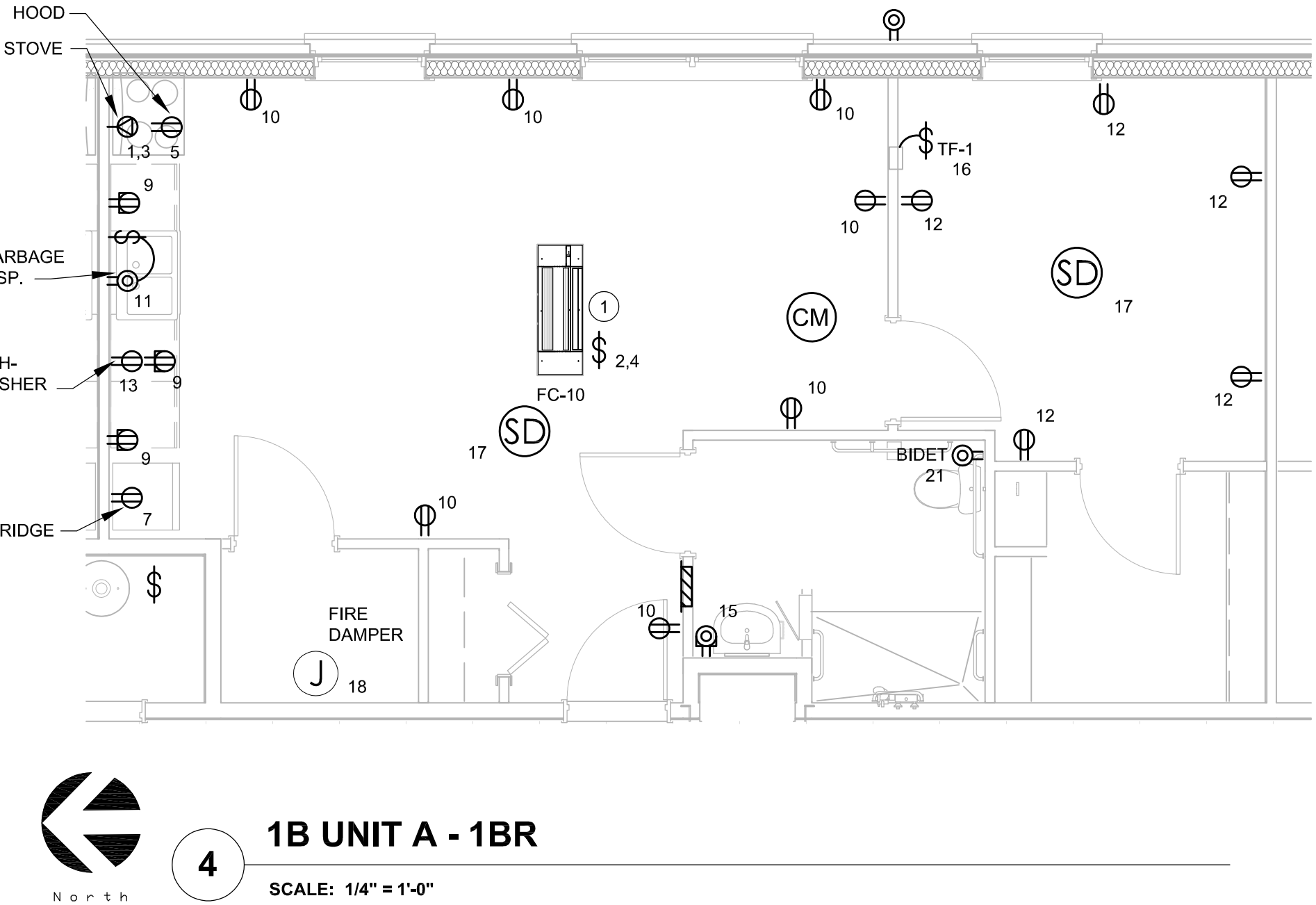
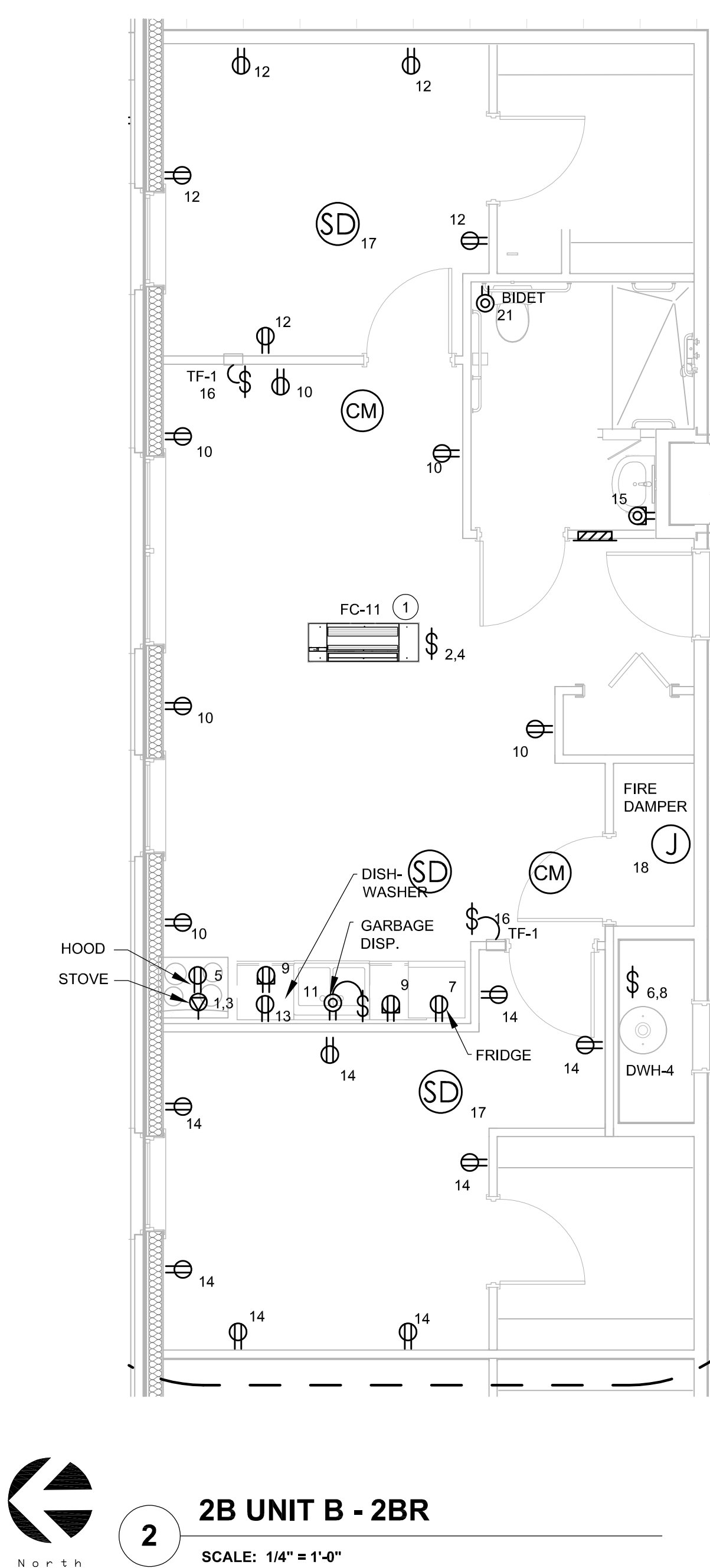
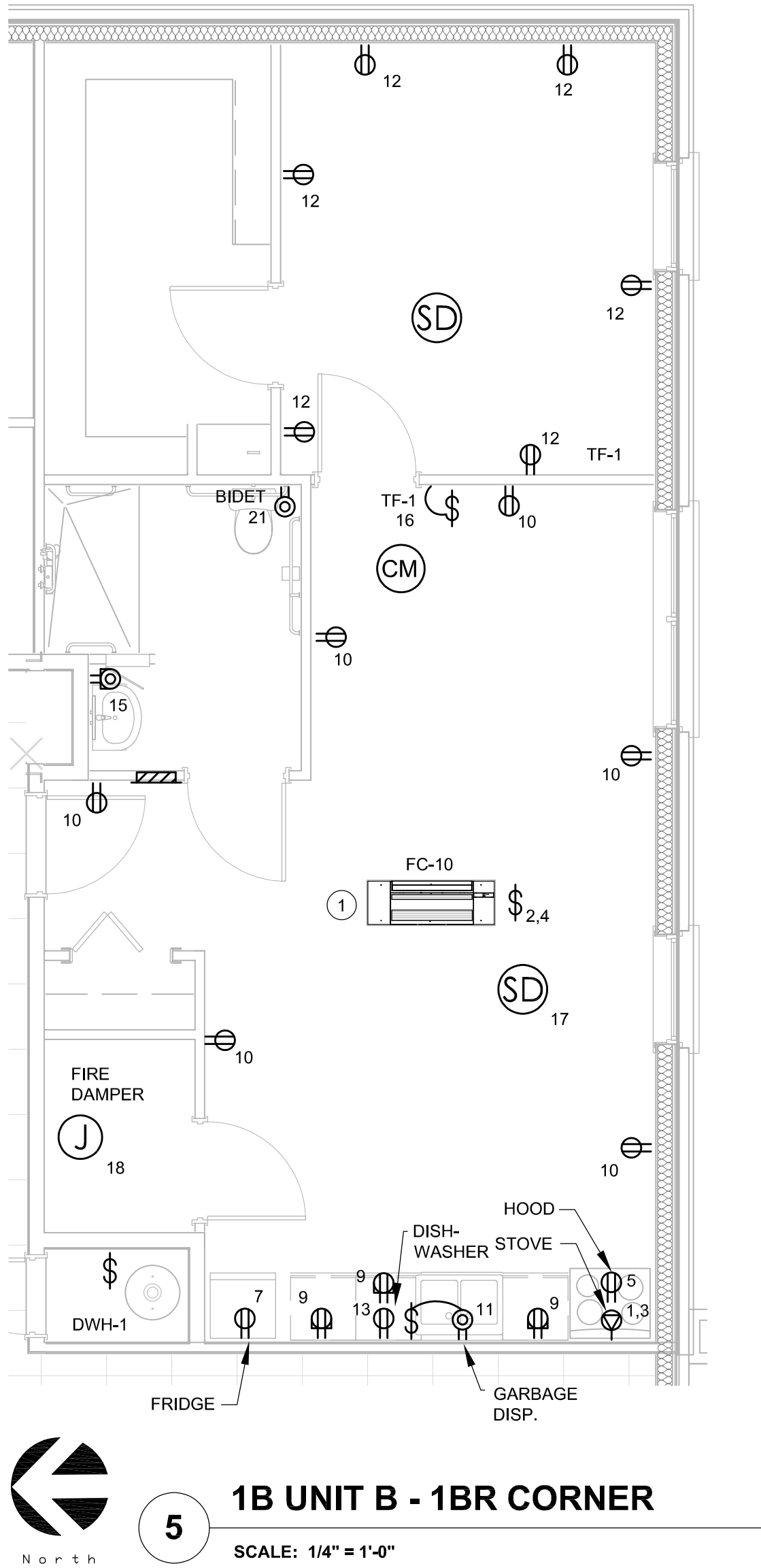
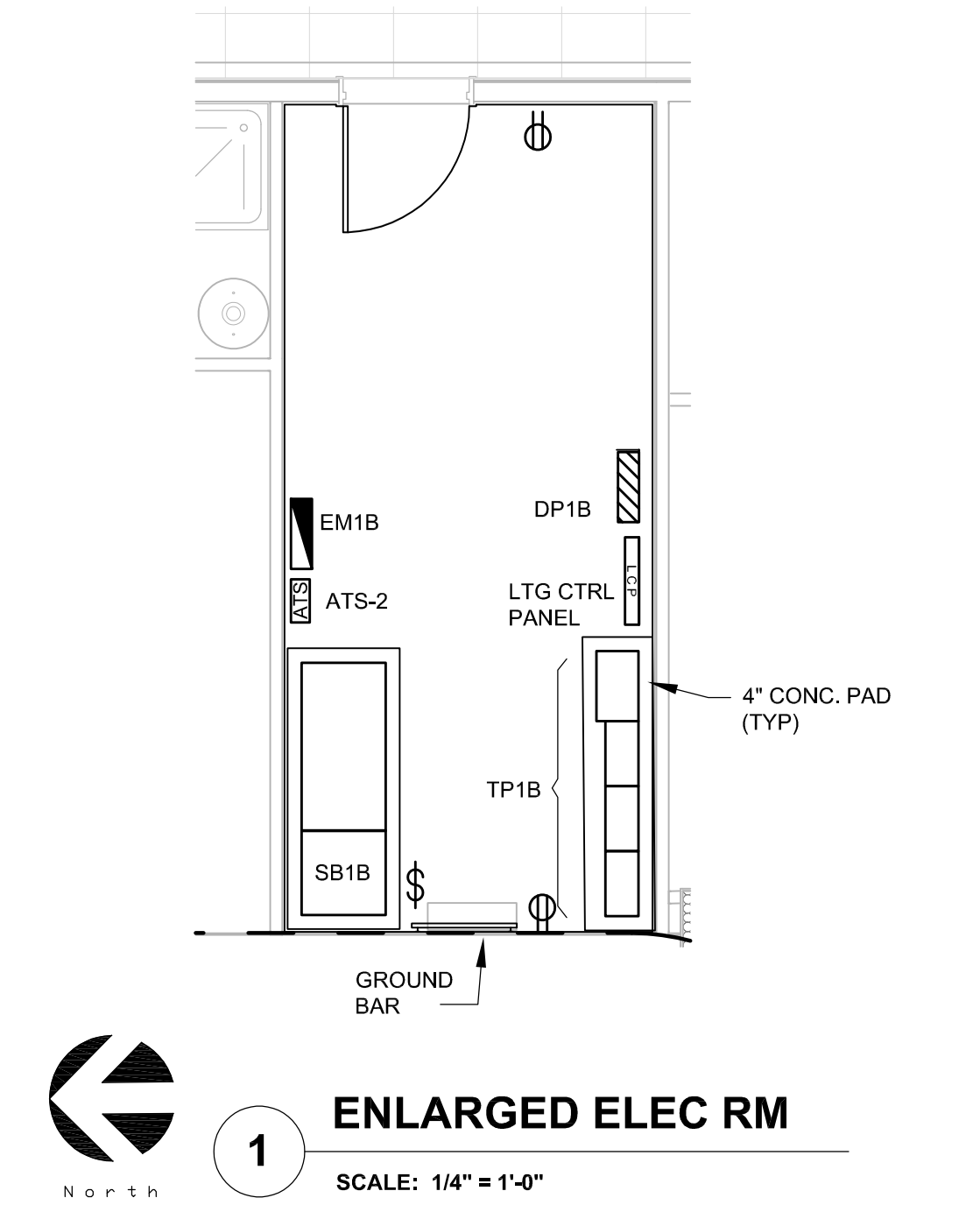
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GENERAL NOTES

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Fax: 313-964-3233

A & A Engineering & Consulting
2800 Van Way, South Lyon, MI 48176

CITY OF _____ STAMP

CITY STAMP
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REGISTRATION SEAL



KEY PLANS

SHEET TITLE
ENLARGED POWER
PLANS - ADDITION

SCALE: AS NOTED

ISSUED FOR
PERMITS
DATE
12.20.24

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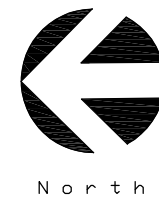
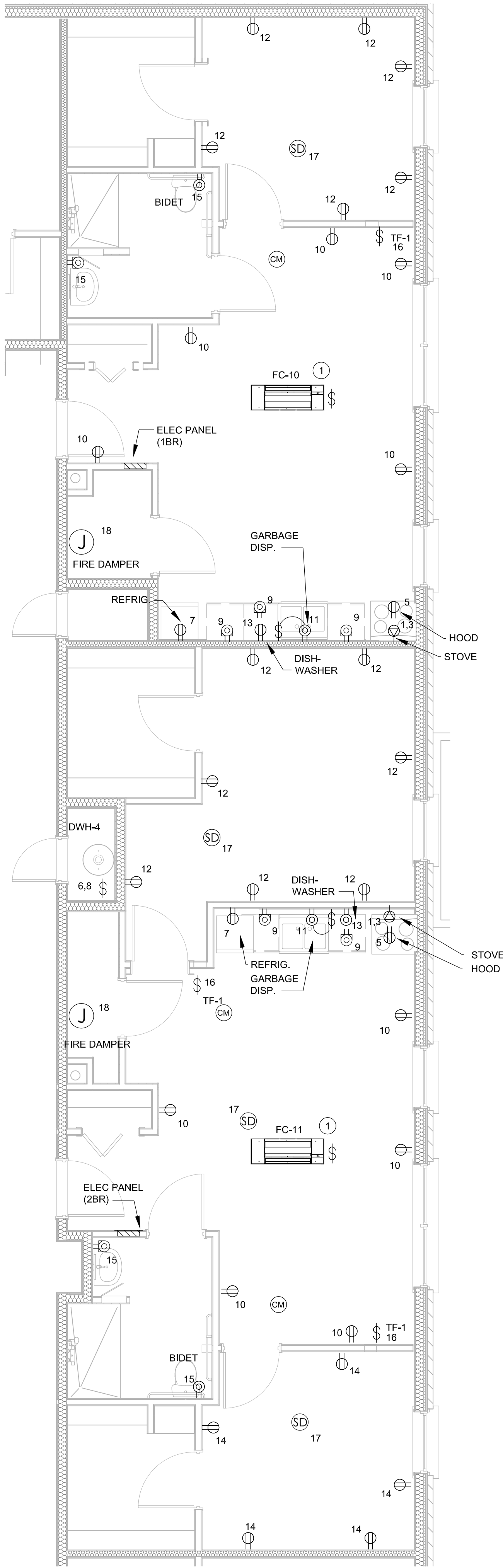
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EP-404

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1 1B & 2B - UNIT C
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET E-001 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. REFER TO SHEET E-004 FOR RISER DIAGRAM.
3. REFER TO "400" SERIES SHEETS FOR PANELBOARD SCHEDULES WITH CIRCUITING INFORMATION.
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A & A Engineering & Consulting
2800 Ypsilanti Way, South Lyon, MI 48178

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REGISTRATION SEAL

STATE OF MICHIGAN
MATTHEW J. JOSEPH
LICENSED PROFESSIONAL ENGINEER
9201004269

KEY PLANS

SHEET TITLE
ENLARGED POWER PLANS - ADDITION

SCALE: AS NOTED

ISSUED FOR PERMITS DATE 12.20.24

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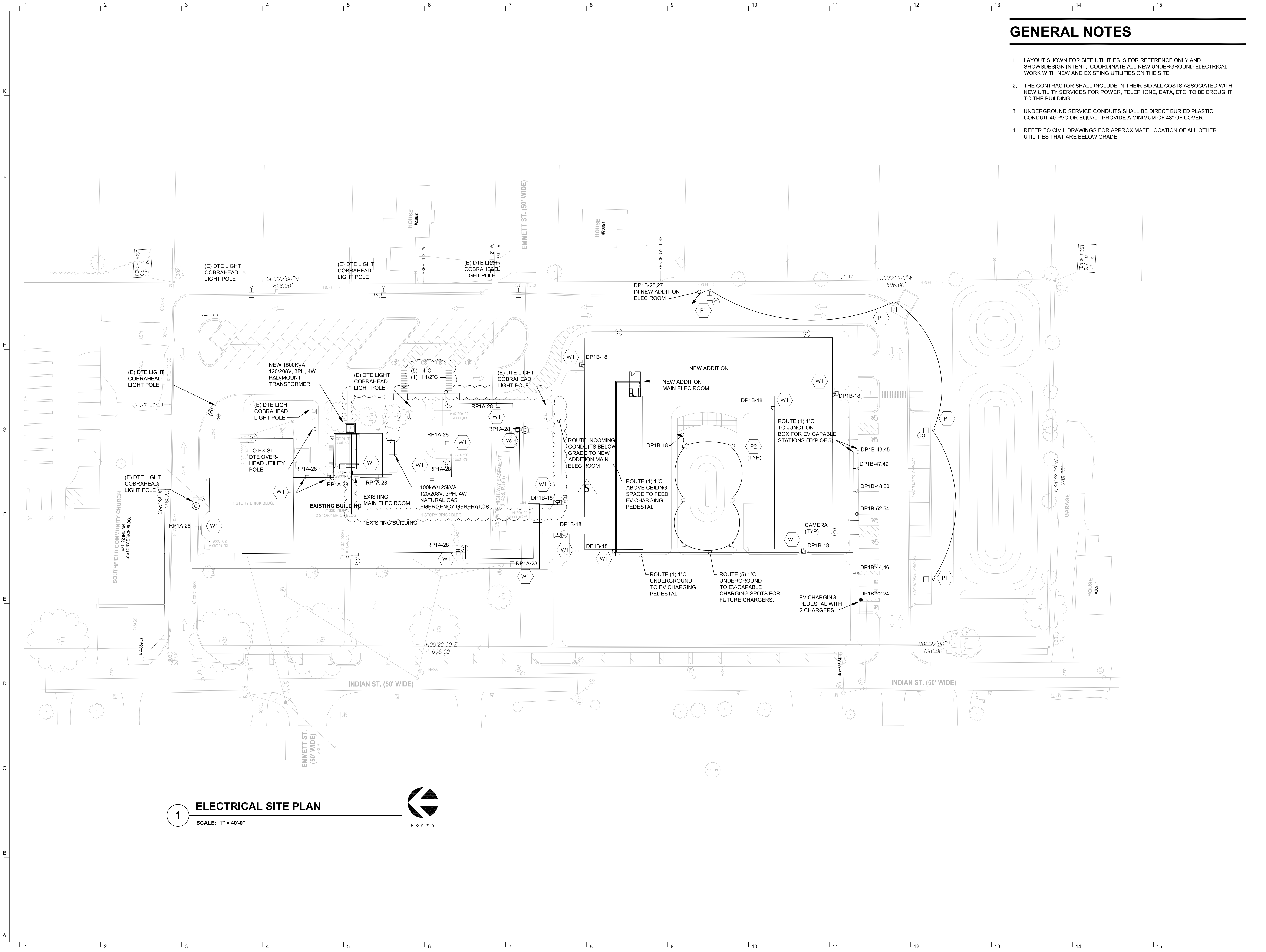
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FILE NO.
EP-405

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

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SHEET NO.