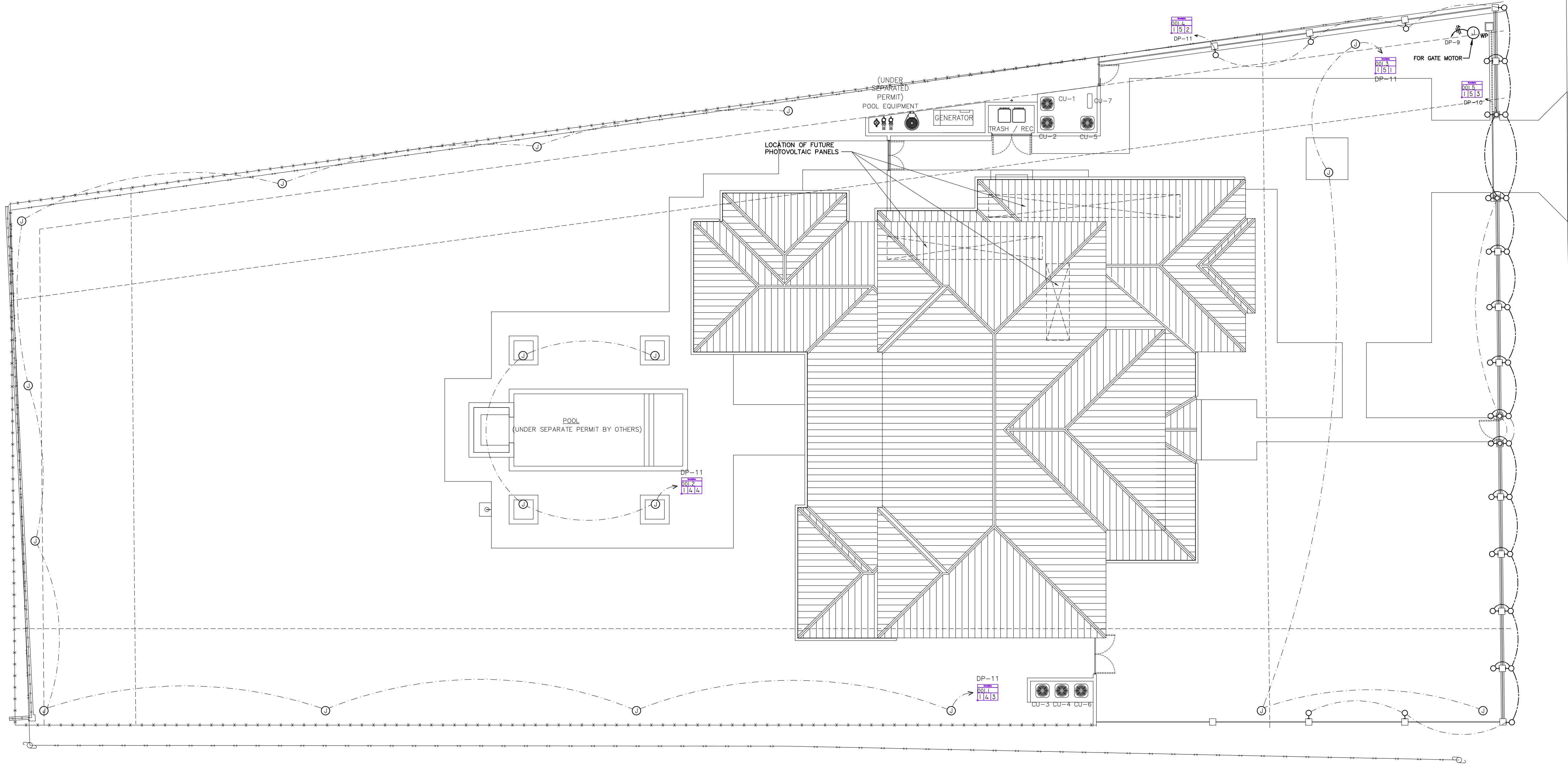


- NOTES:
1. POOL AND POOL PANEL UNDER SEPARATE PERMIT.
 2. OUTLETS WITHIN 5'-25' OF POOL MUST BE GFCI PROTECTED.
 3. FIXTURES WITHIN 5' OF POOL MUST BE GFCI PROTECTED.
 4. ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS; HEATING, VENTILATION, AIR CONDITIONING; PLUMBING APPLIANCES AND PLUMBING FIXTURES; DUCT SYSTEMS; AND OTHER SERVICE EQUIPMENT (WATER HEATERS, GENERATORS, ELECTRICAL PANELS, ETC.) SHALL BE ELEVATED AT 1 FT ABOVE DESIGN FLOOD ELEVATION (AGE 24-14 Ch. 7-2)
 5. ALL OUTDOOR INSTALLATIONS SHALL COMPLY WITH NEC 110.11, 358.12 AND 110.28 CORROSIVE AGENTS.



NORTH
ELECTRICAL SITE PLAN
SCALE: 3/32" = 1'-0"

Ricardo Perez de Alejo
Digitally signed by Ricardo Perez de Alejo
Date: 2025.05.08 12:33:57 -04'00'

RPA Engineering
PROVIDING MEP SOLUTIONS

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RICARDO PEREZ DE ALEJO
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MILO RESIDENCE
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ARCHITECT :

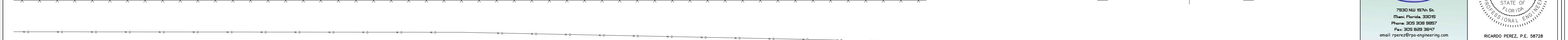
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THIS DRAWING HAS BEEN DIGITALLY SIGNED AND SEALED BY RICHARDO PEREZ DE ALEJO ON THE DATE ADJUNCT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

DRAWING INFORMATION :
ISSUED 04.25.25

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SHEET :
E1.1



1. ALL UTILITIES AND EQUIPMENT AND ACCESSORIES ELECTRICAL (ELECTRICAL, MECHANICAL AND PLUMBING) SERVING THE BUILDING SHALL BE INSTALLED 1FT MIN. ABOVE THE FLOOD ELEVATION.

CU-3 CU-4 CU-5

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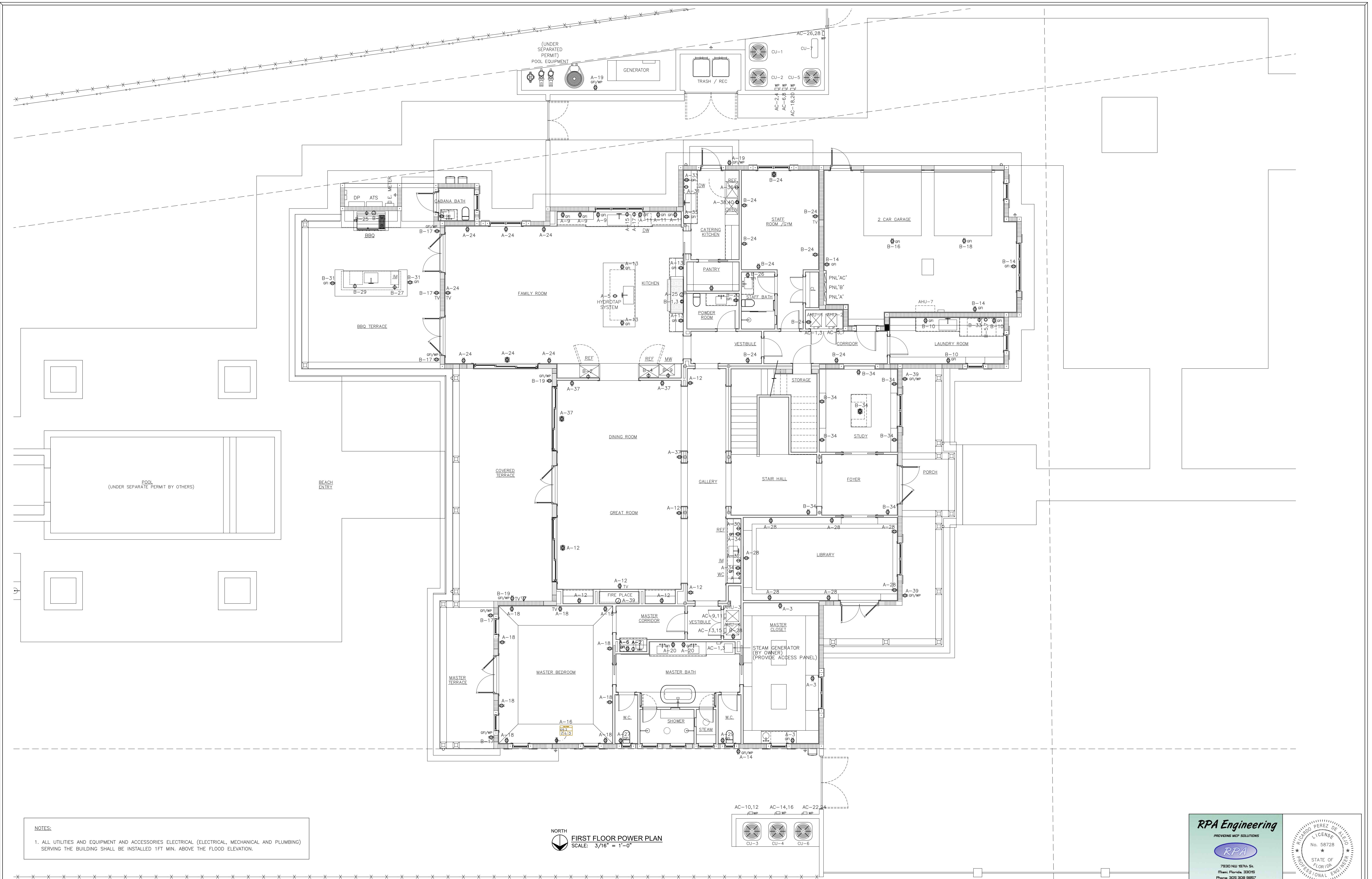

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E1.2

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No. 58728
★
STATE OF
FLORIDA
PROFESSIONAL ENGINEER ★

RICARDO PEREZ, P.E. 58728

CARDIO PEREZ, P.E. 58728



NOTES:

1. ALL UTILITIES AND EQUIPMENT AND ACCESSORIES ELECTRICAL (ELECTRICAL, MECHANICAL AND PLUMBING) SERVING THE BUILDING SHALL BE INSTALLED 1FT MIN. ABOVE THE FLOOD ELEVATION.



FIRST FLOOR POWER PLAN
SCALE: 3/16" = 1'-0"

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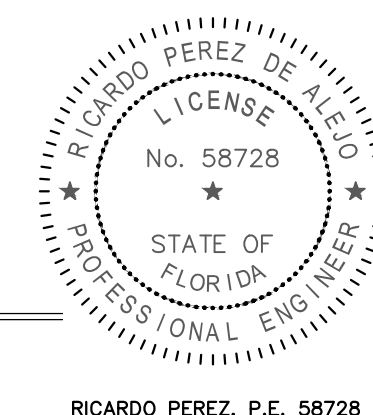
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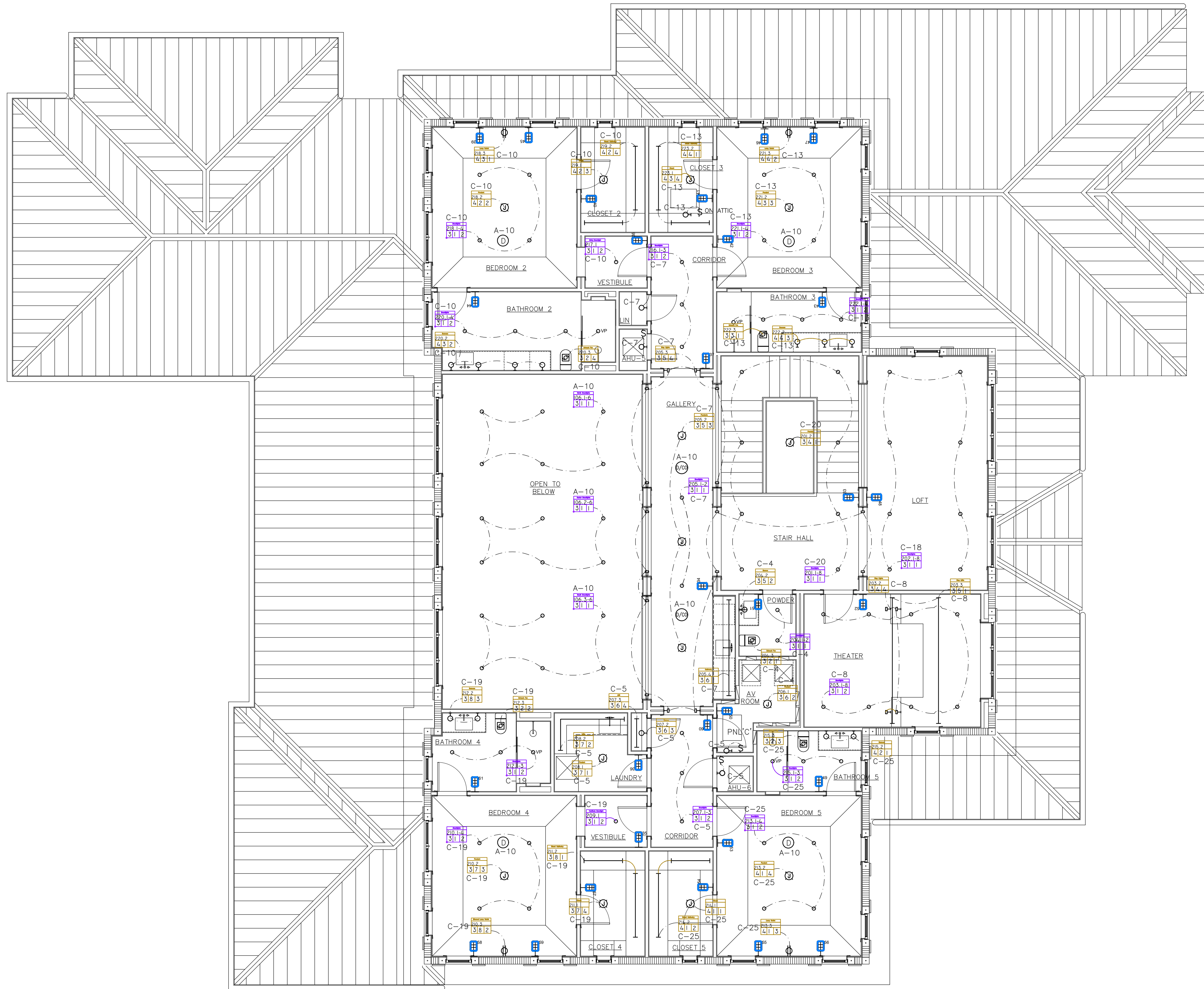
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RICARDO PEREZ, P.E. 58728



NORTH
SECOND FLOOR LIGHTING PLAN
SCALE: 3/16" = 1'-0"

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NORTH
SECOND FLOOR POWER PLAN
SCALE: 3/16" = 1'-0"

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DRAWING INFORMATION :

ISSUED 04.25.25

SHEET :

E1.5

ELECTRICAL PANEL SCHEDULE "A"												
TYPE : A.Q. G.E. MOUNTING : FLUSH LOCATION : GARAGE				10,000 A.I.C.		MAINS BUS RATING : M.C.B. 200 AMP VOLTAGE : 120/240V-1PHASE-3WIRE-5/N						
DESCRIPTION	WIRE & COND. SIZE	LOAD (VA.)	POLE TRIP	CKT. No.	A	B	CKT. No.	POLE TRIP	LOAD (V.A.)	WIRE & COND. SIZE	DESCRIPTION	
CABANA BATH REC.	#12-1/2"	(1)	1	2	1		2	1	800	#12-1/2"	U/C REFRIGERATOR	
M CLOSET REC.	#12-1/2"	1200	3	4	2		4	2	800	#12-1/2"	WINE COOLER	
HYDROTAP SYSTEM	#12-1/2"	1250	5	6	2		6	2	1200	#12-1/2"	BAR RECEPTACLE	
MASTER BATH LTS	#12-1/2"	(1)	7	8	1		8	1	200	(1)	MASTER BATH LTS	
SMALL APP.	#12-1/2"	1500	9	10	2		10	2	200	(1)	GREAT ROOM LTS.	
SMALL APP.	#12-1/2"	1500	11	12	1		12	1	200	(1)	GREAT ROOM REC.	
SMALL APP.	#12-1/2"	1500	13	14	2		14	2	600	(1)	EXTERIOR REC.	
DISPOSAL	#12-1/2"	1200	15	16	1		16	1	200	(1)	M. BEDROOM LTS.	
DISH WASHER	#12-1/2"	1200	17	18	2		18	2	200	(1)	M. BEDROOM REC.	
EXTERIOR REC.	#12-1/2"	600	19	20	1		20	1	200	(1)	M. BATH REC.	
REFRIGERATOR	#12-1/2"	800	20	22	2		22	2	200	(1)	FAMILY ROOM LTS.	
FREEZER	#12-1/2"	800	23	24	2		24	2	200	(1)	FAMILY ROOM REC.	
KITCHEN HOOD	#14-1/2"	200	25	26	1		26	1	15	(1)	LIBRARY LTS.	
TOILET REC.	#12-1/2"	1000	27	28	1		28	1	200	(1)	LIBRARY REC.	
TOILET REC.	#12-1/2"	1000	29	30	2		30	2	800	#12-1/2"	ICE MAKER	
DISH WASHER	#12-1/2"	1200	31	32	1		32	1	800	#12-1/2"	U/C REFRIGERATOR	
SMALL APP.	#12-1/2"	1500	33	34	2		34	2	1200	#12-1/2"	BAR RECEPTACLE	
MASTER CLOSET LTS	#12-1/2"	(1)	35	36	1		36	1	200	800	#12-1/2"	U/C REFRIGERATOR
DINING ROOM REC.	#12-1/2"	1500	37	38	2		38	2	200	6000	#8-3/4"	WALL OVEN
FIRE PLACE	#14-1/2"	200	39	40	1		40	1	50			
				41								

* AFCI TYPE BREAKER

** GFCI TYPE BREAKER

*** AFCI & GFCI TYPE BREAKER

LOAD CALCULATION PANEL "A"

GENERAL LIGHTING 2728 S.F. AT 3 VA/S.F. = 8184 VA

SMALL APP. = 7500 VA

LAUNDRY REC. = 0 VA

TOTAL = 15684 VA

DEMAND FACTOR:

FIRST 3000 VA AT 100% = 3000 VA

REMAINDER AT 35% = 15684 - 3000 = 12684 * 0.35 = 4439 VA

LIGHTING LOAD = 3000 + 4439 = 7439 VA

OVEN LOAD = 6000 VA

APPLIANCES LOAD = 9200 VA

MISCELLANEOUS LOAD = 8450 VA

A/C LOAD AT 100% = 0 VA

TOTAL DEMAND LOAD = 31089 VA

TOTAL DEMAND AMPS = 130 AMPS PER PHASE

(1) LIGHTING LOAD AT 3 VA PER SQUARE FEET

<

(1) LIGHTING LOAD AT 3 VA PER SQUARE FEET

ELECTRICAL PANEL SCHEDULE "B"											
TYPE : A.Q. G.E. MOUNTING : FLUSH LOCATION : GARAGE				10,000 A.I.C.		M.I.N.S BUS RATING : 150 AMP VOLTAGE : 120/240V-1PHASE-3WIRE-S/N					
DESCRIPTION	WIRE & COND. SIZE	LOAD (V.A.)	POLE TRIP	CKT. No.	A	B	CKT. No.	POLE TRIP	LOAD (V.A.)	WIRE & COND. SIZE	DESCRIPTION
DUAL FUEL RANGE	#6-3/4"	6500	2 60	1			2	1 20	800	#12-1/2"	REFRIGERATOR
DRYER	#10-1/2"	5000	2 30	5			4	1 20	800	#12-1/2"	REFRIGERATOR
MICROWAVE	#12-1/2"	1200	1 20	9			6	1 20	(1)	#12-1/2"	CABANA BATH LTS.
LAUNDRY LTS.	#12-1/2"	(1)	1 20	11			8	1 20	(1)	#12-1/2"	PANTRY LTS.
BBQ TERRACE LTS.	#12-1/2"	800	1 20	13			10	1 20	1500	#12-1/2"	LAUNDRY REC.
COV. TERRACE LTS.	#12-1/2"	800	1 20	15			12	1 20	(1)	#12-1/2"	GARAGE LTS.
BBQ TERRACE REC.	#12-1/2"	800	1 20	17			14	1 20	(1)	#12-1/2"	GARAGE REC.
COV. TERRACE REC.	#12-1/2"	800	1 20	19			16	1 20	600	#12-1/2"	GARAGE DOOR
EXTERIOR LTS.	#12-1/2"	600	1 20	21			18	1 20	600	#12-1/2"	GARAGE DOOR
FRONT PORCH	#12-1/2"	600	1 20	23			20	1 20	(1)	#12-1/2"	POWDER REC.
BBQ HOOD/PILOT	#14-1/2"	200	15 25	25			22	15 1	(1)	#14-1/2"	STAFF ROOM LTS.
TERRACE ICE MAKER	#12-1/2"	800	1 20	27			24	15 1	(1)	#14-1/2"	STAFF ROOM REC.
TERRACE REF.	#12-1/2"	800	1 20	29			26	1 20	(1)	#12-1/2"	STAFF BATH REC.
COUNTER REC.	#12-1/2"	1200	1 20	31			28	1 20	(1)	#12-1/2"	GALLERY
WASHER	#12-1/2"	1500	1 20	33			30	1 20	(1)	#12-1/2"	STORAGE LTS.
FOYER LTS.	#12-1/2"	(1)	1 20	35			32	15 1	(1)	#14-1/2"	STUDY LTS.
READING ROOM	#12-1/2"	(1)	1 20	37			34	1 20	(1)	#12-1/2"	STUDY REC.
			20 37	39			36	1 20	(1)	#12-1/2"	KITCHEN LTS.
				41			38				
							40				
							42				

* AFCI TYPE BREAKER
** GFCI TYPE BREAKER
*** AFCI & GFCI TYPE BREAKER

LOAD CALCULATION PANEL "B"

GENERAL LIGHTING 2332 S.F. AT 3 VA/S.F. = 6996 VA

SMALL APP. = 0 VA

LAUNDRY REC. = 3000 VA

TOTAL = 9996 VA

DEMAND FACTOR:

FIRST 3000 VA AT 100% = 3000 VA

REMAINDER AT 35% = 9996 - 3000 = 6996 * 0.35 = 2449 VA

LIGHTING LOAD = 3000 + 2449 = 5449 VA

DUAL FUEL RANGE = 6500 VA

DRYER = 5000 VA

APPLIANCES LOAD = 4400 VA

MISCELLANEOUS LOAD = 7000 VA

A/C LOAD AT 100% = 0 VA

TOTAL DEMAND LOAD = 28349 VA

TOTAL DEMAND AMPS = 118 AMPS PER PHASE

GENERAL LOAD = 32896 VA

(1) LIGHTING LOAD AT 3 VA PER SQUARE FEET

ELECTRICAL PANEL SCHEDULE "AC"											
TYPE : A.Q. G.E. MOUNTING : FLUSH LOCATION : GARAGE				10,000 A.I.C.		MAINS : M.C.B. BUS RATING : 250 A VOLTAGE : 120/240V-1PHASE-3WIRE-S/N					
DESCRIPTION	WIRE & COND. SIZE	LOAD (V.A.)	POLE TRIP	CKT. No.	A	B	CKT. No.	POLE TRIP	LOAD (V.A.)	WIRE & COND. SIZE	DESCRIPTION
AHU-1	#8-3/4"	5904	2 40	1 3	→	→	2 4	2 30	3840	#10-1/2"	CU-1
AHU-2	#10-1/2"	3672	2 30	5 7			6 8	2 20	2688	#12-1/2"	CU-2
AHU-3	#8-3/4"	5904	2 40	9 11	→	→	10 12	2 30	3840	#10-1/2"	CU-3
AHU-4	#8-3/4"	5472	2 40	13 15			14 16	2 20	2304	#8-3/4"	CU-4
AHU-5	#8-3/4"	8496	2 50	17 19	→	→	18 20	2 40	4800	#8-3/4"	CU-5
AHU-6	#8-3/4"	8496	2 50	21 23			22 24	2 40	4800	#8-3/4"	CU-6
STEAM GENERATOR	#6-3/4"	9000	2 60	25 27	→	→	26 28	2 20	3264	#12-1/2"	CU-7
				29			30				
				31	→	→	32				
				33			34				
				35	→	→	36				
				37			38				
				39	→	→	40				
				41			42				

* AFCI TYPE BREAKER

** GFCI TYPE BREAKER

*** AFCI & GFCI TYPE BREAKER

LOAD CALCULATION PANEL "AC"	
GENERAL LOAD = 9000 VA	
A/C LOAD AT 100% = 25536 VA	
TOTAL DEMANDED LOAD = 34536 VA	
TOTAL DEMAND AMPS = 162 AMPS PER PHASE	

ELECTRICAL PANEL SCHEDULE "DP"						MAINS		M.C.B.			
TYPE: A.Q. O.E. (OR EQUIVALENT)						42,000 A.I.C.		BUS RATING			
MOUNTING: FLUSH								400 AMP			
LOCATION: ELECTRICAL SERVICE								VOLTAGE			
								120/240V-1PHASE-3WIRE			
DESCRIPTION	WIRE & COND. SIZE	LOAD (V.A.)	POLE TRIP	CKT. No.	A	B	CKT. No.	POLE TRIP	LOAD (V.A.)	WIRE & COND. SIZE	DESCRIPTION
PANEL A	3#1 & 1#6G" THWN CU IN 1-1/2"	28365	2 150	1			2	2	16707	3#1 & 1#6G" THWN CU IN 1-1/2"	PANEL C
PANEL B	3#1 & 1#6G" THWN CU IN 1-1/2"	28349	2 150	5			6	2	38972	3#250 & 1#4G" THWN CU IN 2-1/2"	PANEL AC
GATE MOTOR	#12-1/2"	750	1 20	9			10	1	800	#12-1/2"	FENCE LTS.
FENCE LTS.	#12-1/2"	1500	1 20	11			12	1	26		
LANDSCAPE LTS.	#12-1/2"	800	1 20	13			14				
LANDSCAPE LTS.	#12-1/2"	800	1 20	15			16				
				17			18				
<u>SUMMARY LOAD CALCULATIONS:</u>											
PANEL "A" GENERAL LOAD = 35634 VA											
PANEL "B" GENERAL LOAD = 32896 VA											
PANEL "C" GENERAL LOAD = 23220 VA											
PANEL "AC" GENERAL LOAD = 9000 VA											
FUTURE POOL, PANEL "P" GENERAL LOAD = 9000 VA											
GATE MOTORS LOAD = 750 VA											
FENCE LTS. LOAD = 2300 VA											
LANDSCAPE LTS. LOAD = 1600 VA											
TOTAL GENERAL LOAD = 112820 VA											
FIRST 10000 VA AT 100% = 10000 VA											
REMAINDER AT 40% = 41128 VA											
COOLING LOAD AT 100% = 25536 VA											
TOTAL DEMAND LOAD = 81104 VA											
TOTAL DEMAND AMPS = 338 AMPS PER PHASE											

SUMMARY LOAD CALCULATIONS:

PANEL "A" GENERAL LOAD = 39334 VA
PANEL "B" GENERAL LOAD = 32896 VA
PANEL "C" GENERAL LOAD = 23220 VA
PANEL "AC" GENERAL LOAD = 9000 VA
FUTURE POOL PANEL "P" GENERAL LOAD = 9000 VA
GAGE MOTORS LOAD = 750 VA
FENCE LTS. LOAD = 2300 VA
LANDSCAPE LTS. LOAD = 1600 VA
TOTAL GENERAL LOAD = 118100 VA
FIRST 10000 VA AT 100% = 10000 VA
REMAINDER AT 40% = 43240 VA
COOLING LOAD AT 100% = 29976 VA
TOTAL DEMAND LOAD = 83216 VA
TOTAL DEMAND AMPS = 347 AMPS PER PHASE

SUMMARY LOAD CALCULATIONS:

PANEL "A" GENERAL LOAD = 39334 VA
PANEL "B" GENERAL LOAD = 32896 VA
PANEL "C" GENERAL LOAD = 23220 VA
PANEL "AC" GENERAL LOAD = 9000 VA
FUTURE POOL PANEL "P" GENERAL LOAD = 9000 VA
GAGE MOTORS LOAD = 750 VA
FENCE LTS. LOAD = 2300 VA
LANDSCAPE LTS. LOAD = 1600 VA
TOTAL GENERAL LOAD = 118100 VA
FIRST 10000 VA AT 100% = 10000 VA
REMAINDER AT 40% = 43240 VA
COOLING LOAD AT 100% = 29976 VA
TOTAL DEMAND LOAD = 83216 VA
TOTAL DEMAND AMPS = 347 AMPS PER PHASE

USE A 80 KW GENERATOR

ELECTRICAL LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL MTD LIGHT FIXTURE	I.B.T.	INTERSYSTEM BONDING TERMINATION
	SURFACE MOUNTED LIGHT FIXTURE		ELECTRICAL JUNCTION BOX
	RECESSED MOUNTED LIGHT FIXTURE		DUPLX RECEPTACLE, 20A, 120V W/ISOLATED GROUND
	FLUORESCENT STRIP FIXTURE		ELECTRICAL PLUG MOLD
	SMOKE DETECTOR		TELEPHONE OUTLET,FLOOR MTD
	CARBON MONOXIDE DETECTOR		TELEVISION OUTLET
	SMOKE/CARBON MONOXIDE DETECTOR		TOGGLE SWITCH, SINGLE POLE, 20 A
	DISCONNECT SWITCH		TOGGLE SWITCH, THREE WAY, 20 A
	MOTOR, NUMBER INDICATES HP		TELEPHONE/DATA COMB. OUTLET
	ELECTRICAL PANEL		TELEPHONE OUTLET
	POWER BRANCH CKT HOME RUN HATCH MARKS DENOTE # OF WIRE /- DENOTE GROUND WIRE		DUPLX RECEPTACLE, 20A, 120V W/ WEATHERPROOF, 20A
			FLOOR MTD DUPLX RECEP, 120V, 20A
A.F.F.	ABOVE FINISHED FLOOR	MH	MOUNTING HEIGHT
GF1	GROUND FAULT INTERRUPTION	C	CONDUIT
WP	WEATHER RESISTENT		DUPLX RECEPTACLE, 20A, 120V WALL MTD. AT 18" A.F.F.
S3	TOGGLE SWITCH, THREE WAY, 20 A		DUPLX RECEPTACLE, 20A, 120V WALL MTD. AT 48" A.F.F.
S0	DIMMER SWITCH RATED FOR CKT LOAD		QUADRAPLEX RECEPTACLE, 20A, 120V WALL MTD. AT 18" A.F.F.
	SINGLE RECEPTACLE, 20A, 120V		GARAGE DOOR SWITCH
	DUPLX RECEPTACLE, 20A, 120V W/ GROUND FAULT CIRCUIT INTERRUPT		SPECIAL RECEPTACLE OUTLET, 250 VOLTS; SINGLE PHASE, 4-WIRE, GROUNDING TYPE, AMPS AS SHOWN. INSTALL 18" A.F.F. UNLESS OTHERWISE INDICATED.
V.P.	VAPOR PROOF.		

ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE CODES IN EFFECT: NATIONAL ELECTRICAL CODE 2020, FLORIDA BUILDING CODE RESIDENTIAL 2020, 8TH EDITION, AND ALL OTHER APPLICABLE CODES AND ORDINANCES IN EFFECT AT THIS LOCATION.
2. ALL MATERIAL SHALL BE NEW AND SHALL BEAR UNDERWRITER'S AND UNION LABELS, WHERE APPLICABLE.
3. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT AND CONFIRM WITH OWNER'S REPRESENTATIVE AND/OR ARCHITECT.
4. ALL CABLE MUST BE ROMEX TYPE CABLE ACCORDING WITH THE DIAMETER SPECIFIED IN THE DRAWINGS. ALL ROMEX CABLE SHALL COMPLY WITH ALL NATIONAL ELECTRICAL CODE SPECIFICATIONS.
5. RACEWAYS INSTALLED UNDERGROUND, IN CONCRETE SLABS, AND/OR LARGER THAN 2 INCHES IN DIAMETER SHALL BE GALVANIZED RIGID STEEL. SCHEDULE 40 IS ACCEPTABLE FOR UNDERGROUND INSTALLATION ONLY IF APPROVED BY LOCAL AUTHORITIES. RACEWAY 2 INCHES AND SMALLER IN DIAMETER SHALL BE I.M.C. IF EXPOSED TO WEATHER, E.M.T. ELSEWHERE. FLEXIBLE CONDUIT USED WHERE INDICATED SHALL BE METAL FOR INDOOR LOCATIONS, LIQUID-TIGHT FOR OUTDOOR LOCATIONS.
6. RACEWAYS INSTALLED IN OR THRU ANY CONCRETE SLABS SHALL BE SPACED A MINIMUM OF 3 DIA. OF THE LARGEST RACEWAY. METALLIC RACEWAYS INSTALLED UNDERGROUND OR UNDER SLABS SHALL BE COATED WITH TWO COATS OF AN ASPHALTIC PAINT. USE STEEL COMPRESSION TYPE FITTING.
7. OUTLETS SHALL BE FLUSHED WITH FINISHED SURFACES. TWO OR MORE LIGHT SWITCHES IN SAME WALL SHALL BE INSTALLED IN GANG-TYPE BOXES.
8. JUNCTION BOXES SHALL BE GALVANIZED STEEL WITH SCREW OR HINGED COVERS FOR INDOOR LOCATIONS AND WEATHER-PROOF WHERE EXPOSED TO WEATHER. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS. CAST ALLOY WITH TREADED HUBS IN WET OR DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
9. ELECTRICAL CONTRACTOR SHALL PERFORM ALL NECESSARY WORK FOR A COMPLETE ELECTRICAL INSTALLATION AND SHALL PROVIDE ALL NECESSARY INSTRUMENTS AND SPECIAL APPARATUS TO CONDUCT ANY TEST THAT MAY BE REQUIRED TO INSURE THE SYSTEM IS FREE OF ALL IMPROPER GROUNDS AND SHORT CIRCUITS, AND THAT ALL FEEDERS ARE PROPERLY BALANCED.
10. ALL GROUND CONNECTIONS TO BE DONE AS PER NATIONAL ELECTRICAL CODE 2020.
11. LOAD DATA IS BASED ON INFORMATION GIVEN TO THE ENGINEER AT THE TIME OF DESIGN. VERIFY ALL EQUIPMENT AND PANEL SIZES BEFORE ORDERING.
12. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
13. CORRECTIONS OF ANY DEFECTS SHALL BE COMPLETED WITHOUT CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.
14. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING; AND ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
15. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE OF DEFECT FOR A PERIOD NOT LESS THAN ONE YEAR FROM THE DATE OF ACCEPTANCE.
16. CONTRACTOR'S WORK PRACTICES AND CONDITIONS MUST CONFORM WITH THE LATEST OCCUPATIONAL SAFETY AND HEALTH ACT.
17. THE CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING HIS BID IN ORDER THAT HE MAY BECOME AWARE OF EXISTING CONDITIONS. NO ALLOWANCES WILL BE MADE FOR ANY EXISTING CONDITIONS OF WHICH THIS CONTRACTOR WAS NOT AWARE.
18. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF LOCAL POWER, TELEPHONE AND CABLE T.V. UTILITIES.
19. FURNISH AND INSTALL ALL LIGHTING FIXTURES WITH LAMPS. TYPES SHALL BE AS SELECTED BY THE ARCHITECT, THE OWNER, AND/OR THE INTERIOR DESIGNER.
20. WIRING DEVICES SHALL BE APPROVED RESIDENTIAL GRADE. VERIFY LOCATION WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN. TYPES SHALL BE AS SELECTED BY THE ARCHITECT, THE OWNER, AND/OR THE INTERIOR DESIGNER.
21. CONTRACTOR SHALL DO HIS OWN CUTTING OF FLOORS AND WALLS AND GENERAL CONTRACTOR SHALL DO ALL PATCHING. OBTAIN APPROVAL BEFORE DOING ANY CUTTING. REPAIR ANY DAMAGE DONE TO OTHER'S EQUIPMENT OR MATERIAL.
22. CONTRACTOR SHALL COORDINATE WITH THE OWNER THE INSTALLATION OF ANY ADDITIONAL SYSTEM TO BE PROVIDED BY HIMSELF OR BY OTHERS, SUCH AS ALARM SYSTEM, INTERCOM SYSTEM, ETC.
23. PRIOR TO INSTALLATION OF ROUGH ELECTRICAL WIRING, CHECK NAMEPLATE DATA OF A/C EQUIPMENT, KITCHEN EQUIPMENT AND OTHER EQUIPMENT TO OBTAIN CORRECT WIRE SIZES AND OVERCURRENT DEVICE SIZES.
24. ALL CIRCUITS SHALL BE CLEARLY IDENTIFIED AND SHOWN ON PANEL DIRECTORIES. DO NOT CHANGE CIRCUIT ARRANGEMENT SHOWN ON THESE DRAWINGS.
25. CIRCUITS ON THE PLANS ARE TO DETERMINE LOAD DATA AND PANEL SIZE. THE CONTRACTOR SHALL PROVIDE CIRCUITS AND ROUTING OF CONDUITS TO SUIT JOB CONDITIONS.
26. ALL RECEPTACLES SPECIFIED IN NEC 2020, 210.52 SHALL BE TAMPER RESISTANT.
27. ALL 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, BEDS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE AFCI PROTECTED. 2017 NEC, SECTION 210.12(D).
28. ALL EQUIPMENT DISCONNECT MEANS SHALL COMPLY WITH NEC 2020.
29. ALL ELECTRICAL EQUIPMENTS SHALL BE ABOVE FLOOD LEVEL AS FEMA AND CMB REGULATIONS.
30. ALL LUMINAIRES INSTALLED IN WET LOCATIONS SHALL BE MARKED, "SUITABLE FOR WET LOCATIONS." ALL LUMINAIRES INSTALLED IN DAMP LOCATIONS SHALL BE MARKED "SUITABLE FOR WET LOCATIONS" OR "SUITABLE FOR DAMP LOCATIONS."
31. SPACE ABOUT ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH NEC 2020 ART 110.26.
32. STAIR SHALL BE ILLUMINATED AT A MINIMUM OF 1 FOOT CANDLE AT FLOOR LEVEL.
33. AT LEAST 90% OF THE LAMPS SHALL HAVE AN EFFICACY OF AT LEAST 45 LUMENS/W OR NOT LESS THAN 65 LUMENS/W. FBC RE R404.
34. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED ABOVE BASE FLOOD ELEVATION.
35. ALL OUTDOOR INSTALLATIONS SHALL COMPLY WITH NEC 2020 SART 110.11, 358.12 AND 110.28 CORROSIVE AGENTS.
36. RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED SPACES. ALL RECESSED LUMINAIRES SHALL BE I-C-RATED AND LABELED AS MEETING ASTM E 283 (AIR TIGHT). FBC EC 502.3.8.
37. ALL TERMINATIONS SHALL BE RATED AT 75 DEG. NEC 110.14.
38. NOT LESS THAN 90% OF THE LAMPS SHALL HAVE AN EFFICACY OF AT LEAST 45 LUMENS/W OR NOT LESS THAN 65 LUMENS/W. FBC RE R404.
39. ALL FANS UNITS MUST BE INSTALLED USING A FAN BOX. NEC 422.18.

SMOKE DETECTOR NOTES:

1. SMOKE DETECTORS WILL BE CONNECTED TO A LISTED FIRE ALARM SYSTEM AS PER "FBC 314 AND NFPA 72.
2. FIRE ALARM SYSTEM MUST BE CONNECTED TO LISTED FIRE ALARM CONTROLLER. 314.2. NFPA 72.8.2.1
3. ALARM SHOP DRAWINGS AND PLANS WILL BE PROVIDED UNDER SEPARATE ALARM PERMIT.
4. PROVIDE SMOKE ALARMS (DETECTORS) ON EACH SLEEPING ROOM, IMMEDIATE VICINITY OF SLEEPING AREAS, AND ON EACH ADDITIONAL STORY IN COMPLIANCE WITH FBCR 314.
5. SMOKE ALARM STATION SHALL BE 120 VOLTS HARDWIRE WITH BATTERY BACKUP. SMOKE ALARM SHALL STATION SHALL BE IN THE SAME BRANCH CIRCUIT.

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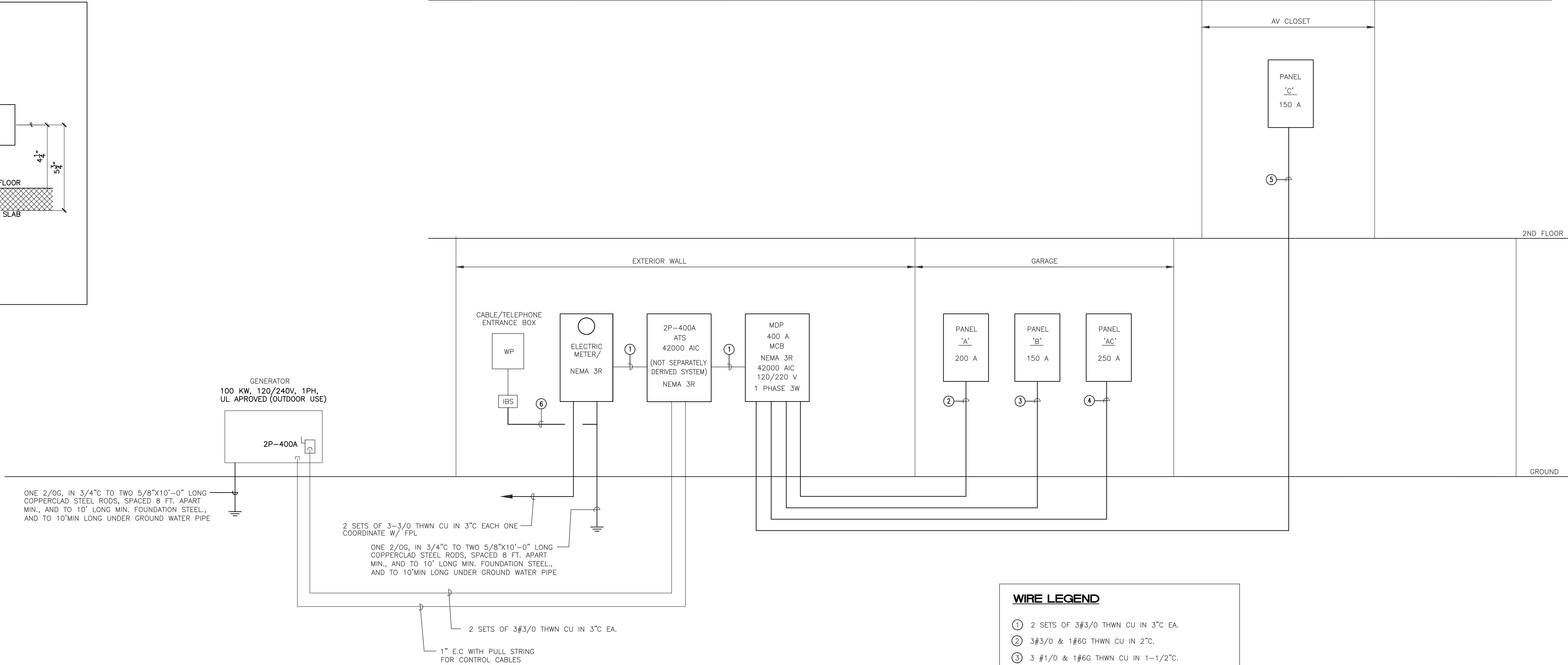
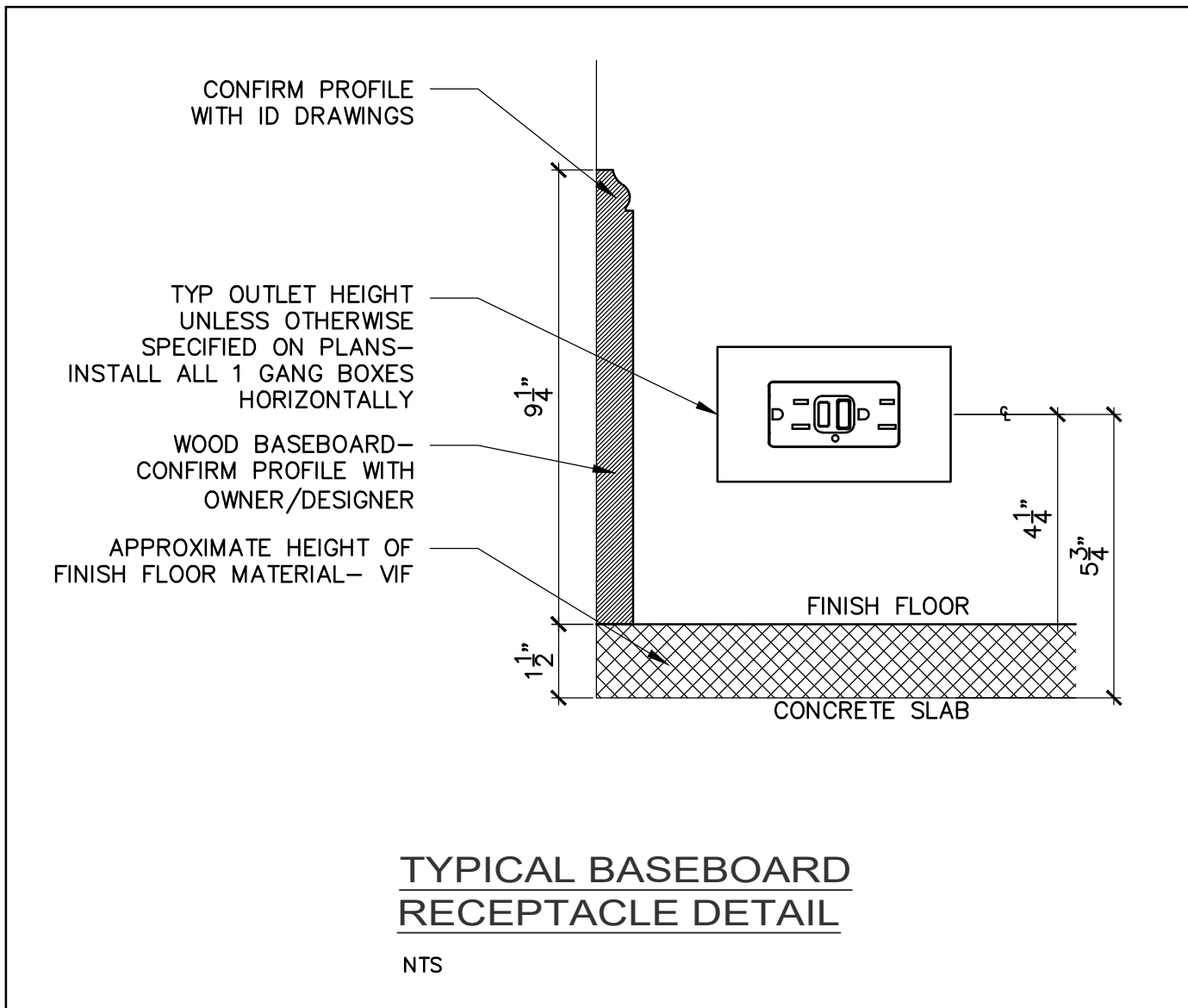
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RICARDO PEREZ, P.E. 58728



WIRE LEGEND

- 2 SETS OF 3#3/0 THWN CU IN 3°C EA.
- 3#3/0 & 1#6G THWN CU IN 2°C.
- 3 #1/0 & 1#6G THWN CU IN 1-1/2°C.
- 3 #250 MCM & 1#4G THWN CU IN 2°C.
- 3 #1/0 & 1#6G THWN CU IN 1-1/2°C.
- 1#6G THWN CU.

ELECTRICAL RISER DIAGRAM

SCALE: N.T.S.



April 30, 2025

RICARDO PEREZ
19570 SW 84TH AVE
MIAMI, FL 33015

Re: Available Fault Current for 11901 SW 63RD AVE

Dear RICARDO PEREZ:

Thank you for contacting FPL about the available fault current at 11901 SW 63RD AVE. Based on the plans you have provided dated April 25 2025, the maximum available fault current at the transformer secondary terminals is estimated to be 35750 symmetrical amperes at 120/240 volts. The protective device on the line side of the transformer currently in place or to be installed and serving your property located at the subject location is a 25 amp type Bayonet fuse. The primary service voltage is 7.6kV L-G. This calculated symmetrical fault current is not intended for use as the basis for motor starting calculations and does not include:

- Consideration for any motor contribution or
- Fault current asymmetry.

The FPL equipment currently serving or planned to serve your facility may change over time as a result of any number of factors, including but not limited to transformer replacements due to load growth, electrical grid changes or emergencies. As a result, although we are providing you with this information for the sole purpose of assisting you in the completion of your study, you and your client should not design, install or operate your system in reliance upon any expectation that the specific size and type of equipment currently in place will remain so. If and when the size and type of the equipment changes, our employees are not always in a position to immediately notify customers.

As the construction project progresses, any questions or information you may need can be communicated through me.

Sincerely,

Maria Castillo Chavez
MARIA CASTILLO CHAVEZ
Distribution Engineer

1 PHASE SHORT CIRCUIT CALCULATION LINE TO LINE AT PANEL 'ATS'

SHORT CIRCUIT CURRENT AT THE ENTRANCE = I_{sc1}
 $I_{sc1} = 35750$ AMPS (AS PER FPL LETTER)

$$f = \frac{2 \times L \times I_{sc1}}{\# \times C \times E_{L-L}}$$

$$f = \frac{2 \times 180 \times 35750}{2 \times 13923 \times 240} = 1.926$$

$$M = \frac{1}{1+f}$$

$$M = \frac{1}{1 + 1.926} = 0.342$$

$$I_{sc2} = I_{sc1} \times M$$

$$I_{sc2} = 35750 \times 0.342$$

$$I_{sc2} = 12219 \text{ AMPS AT THE DISTANCE OF 180 FEET}$$

WHERE:

$$L = 180 \text{ (DISTANCE OF CONDUCTOR)}$$

$$I_{sc1} = 35750 \text{ (FAULT CURRENT AT THE ENTRANCE)}$$

$$\# = 2 \text{ (CONDUCTOR PER PHASE)}$$

$$C = 13923 \text{ (C VALUE FOR 3/0, 600V, COPPER, SINGLE COND. IN PVC RACEWAYS)}$$

$$E_{L-L} = 240 \text{ V (1 PHASE VOLTAGE L-L)}$$

$$I_{sc2} = \text{FAULT CURRENT AT THE CALCULATED DISTANCE}$$

1 PHASE SHORT CIRCUIT CALCULATION LINE TO LINE AT PANEL 'A'

SHORT CIRCUIT CURRENT AT THE ENTRANCE = I_{sc2}
 $I_{sc2} = 12219$ AMPS (AS PER FPL LETTER)

$$f = \frac{2 \times L \times I_{sc2}}{\# \times C \times E_{L-L}}$$

$$f = \frac{2 \times 80 \times 12219}{1 \times 13923 \times 240} = 0.585$$

$$M = \frac{1}{1+f}$$

$$M = \frac{1}{1 + 0.585} = 0.631$$

$$I_{sc3} = I_{sc1} \times M$$

$$I_{sc3} = 12219 \times 0.631$$

$$I_{sc3} = 7709 \text{ AMPS AT THE DISTANCE OF 80 FEET}$$

WHERE:

$$L = 80 \text{ (DISTANCE OF CONDUCTOR)}$$

$$I_{sc2} = 12219 \text{ (FAULT CURRENT AT THE ENTRANCE)}$$

$$\# = 1 \text{ (CONDUCTOR PER PHASE)}$$

$$C = 13923 \text{ (C VALUE FOR 3/0, 600V, COPPER, SINGLE COND. IN PVC RACEWAYS)}$$

$$E_{L-L} = 240 \text{ V (1 PHASE VOLTAGE L-L)}$$

$$I_{sc3} = \text{FAULT CURRENT AT THE CALCULATED DISTANCE}$$

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CLIENT :

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11901 SW 63RD AVE
PINECREST, FL 33132

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ARCHITECT :

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DRAWING INFORMATION :

ISSUED 04.25.25

SHEET :

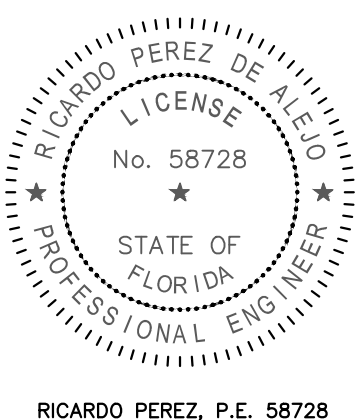
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