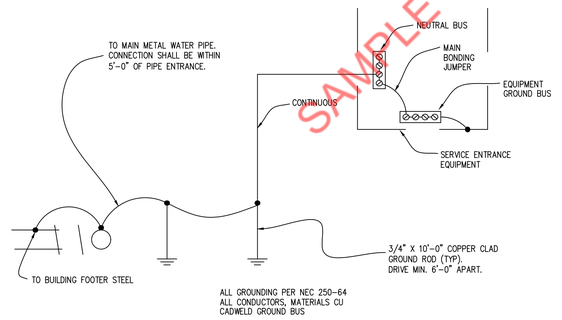
GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORKS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC 2017) NFPA 70.
2. A MINIMUM OF 75% OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS AS PER FBC E404.1. PROVIDE LAMPS WITH FIXTURES, VERIFY LAMP TYPE WITH MANUFACTURER. ALL RECESSED LIGHT FIXTURES IN CONTACT WITH INSULATION SHALL BE RATED FOR SUCH USE.
3. ALL 120-VOLT, SINGLE PHASE, BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI), COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. KITCHENS, BATHROOMS, GARAGES AND OUTDOORS ARE NOT CONSIDERED TO BE AFCI PROTECTED.
4. IN ALL AREAS OF A DWELLING UNIT, ALL 120-VOLT, 15A AND 20A RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES, TO COMPLY WITH NEC 406.11.
5. COORDINATE ALL ELECTRICAL SITE WORK WITH GENERAL CONTRACTOR.
6. ELECTRICAL CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT UNLESS OTHERWISE IS NOTED. IT SHALL BE UNDERSTOOD THAT ALL WORK PERFORMED SHALL BE DONE BY A LICENSED ELECTRICAL CONTRACTOR AND IN A FIRST-CLASS WORKMANLIKE MANNER. SAID CONTRACTOR SHALL MEET ALL REQUIREMENTS SET FORTH BY ANY LOCAL ORDINANCE AND GOVERNING AUTHORITIES.
7. IT SHALL NOT BE THE INTENT OF THESE PLANS AND/OR SPECIFICATION TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE ELECTRICAL CONTRACTOR SHALL BE EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
8. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS AND COUNTS AS SHOWN AND/OR NOTED ON THE DRAWINGS. THIS SHALL INCLUDE ANY AND ALL FABRICATIONS PRIOR TO INSTALLATION. NOTIFY ENGINEER OF ANY DISCREPANCIES AT ONCE. FAILURE TO DO SO AND CONTRACTOR PRECEDES AT HIS OWN RISK.
9. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS, AS NOT TO INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME AND ALSO, TO PROVIDE ALL LABOR, MATERIALS AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK AS SHOWN AND/OR NOTED ON THE DRAWINGS.
10. THE ELECTRICAL CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AND UNUSED MATERIALS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY. AT THE COMPLETION OF THE PROJECT ALL EQUIPMENT, DEVICES AND FIXTURES TO BE CLEANED.
11. WHERE CORE DRILLING OF FLOOR/WALLS IS REQUIRED, CONTRACTOR SHALL SEAL OPENINGS WATERTIGHT AFTER UTILITIES HAVE BEEN INSTALLED. LOCATION OF CORED HOLES SHALL COORDINATE WITH LOCATION OF EQUIPMENT IN A MANNER TO BE CLEAN AND FUNCTIONAL. THE CONTRACTOR SHALL INSTALL ONLY ONE CONDUIT PER HOLE AND SEAL THE OPENING AROUND THE CONDUIT AS SPECIFIED. WALL/FLOOR FIRE RATING MUST BE MAINTAINED.
12. ALL ELECTRICAL ELEMENTS TO BE THOROUGHLY PROTECTED FROM DAMAGE AFTER INSTALLATION AND SHALL HAVE TRIM INSTALLED AFTER ADJOINING FINISH MATERIALS ARE INSTALLED. ALL ELECTRICAL EQUIPMENT, DEVICES, WIRE, ETC., SHALL BE LISTED, FOR THE INTENDED USE, WITH UNDERWRITER'S LABORATORY, INC. (U.L.) WHERE STANDARDS HAVE BEEN ESTABLISHED BY U.L.
13. ELECTRICAL CONTRACTOR TO PROVIDE TEMPORARY POWER FOR ALL TRADES.
14. CONTRACTOR TO REMOVE ALL ABANDONED OR UNUSED WIRING, CONDUIT AND BOXES.
15. UNLESS NOTED AS EXISTING, ALL EQUIPMENT, WIRING, DEVICES, ETC. SHALL BE NEW.
16. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR TO ORIGINAL CONDITIONS ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT AND FURNISHINGS CAUSED DURING PERFORMANCE OF WORK.
17. ALL CONDUCTORS SHALL BE COPPER, RATED 75°C WET/DRY EXCEPT WHERE OTHERWISE REQUIRED BY U.L. OR CODES, UNLESS OTHERWISE IS NOTED. MINIMUM WIRE SIZE SHALL BE #12 AWG EXCLUDING CONTROL WIRING. MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A CONDUIT TO BE INSTALLED PER NEC 310(B)(2). WIRE WAYS SHALL BE SIZED AS REQUIRED, PER NEC, UNLESS OTHERWISE NOTED.
18. ALL CONDUITS, FIXTURES, DEVICES TO HAVE GROUND EXTEND AS PER NEC TABLE 250-122, UNLESS OTHERWISE IS NOTED.
19. NEUTRAL NOT TO BE SHARED, UNLESS OTHERWISE IS NOTED.
20. ALL CONDUIT RUNS ARE SHOWN DIAGRAMMATIC. EXACT ROUTING SHALL BE DETERMINED IN THE FIELD, UNLESS OTHERWISE NOTED.
21. ALL DISCONNECT SWITCHES SHALL BE SIZED BY NEC TO ACCOMMODATE EQUIPMENT SERVED, INCLUDING REQUIRED FUSES, UON.
22. WHERE EXPOSED TO THE WEATHER, ALL ELECTRICAL EQUIPMENT SHALL BE RAIN TIGHT (NEMA 3R). ALL FLEX CONDUITS CONNECTED TO SUCH EQUIPMENT SHALL BE LIQUID TIGHT.
23. FOR UNDERGROUND CONDUITS, PROVIDE PULL BOXES, SUCH THAT NO SINGLE CONDUIT RUN HAS BENDS IN EXCESS OF 360 FEET. PULL BOXES SHALL BE SUITABLE AND APPROVED FOR THE INTENDED USE. WARNING TAPE WHICH SAYS "WARNING BURIED ELECTRIC" SHALL BE PLACED IN TRENCHES ABOVE ALL UNDERGROUND ELECTRIC CONDUITS. WHERE CONDUITS PASS UNDERNEATH PAVED AREAS, THEY SHALL BE RGS. WHERE UNDERGROUND CONDUITS ARE NOT EXPOSED TO MECHANICAL DAMAGE OR ARE NOT UNDER PAVED AREAS, THEY SHALL BE SCHEDULE 40 PVC.
24. ALL LOW VOLTAGE CABLING AND SYSTEM ARE THE RESPONSIBILITY OF THE VENDOR THAT IS PROVIDING THE SYSTEM INCLUDING PERMITTING.
25. ALL CIRCUIT BREAKERS SHALL BE INVERSE TIME TYPE (THERMAL MAGNETIC). TWO POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP. NO TIE HANDLES PERMITTED.
26. ALL FUSES TO BE CURRENT LIMITING AT SERVICE ENTRANCE. ALL OTHER FUSES ACCORDING TO MANUFACTURER SPECIFICATIONS.
27. ALL CONDUCTORS SHALL BE IN CONDUITS. ALL CONDUITS SHALL BE INTERMEDIATE (IMC) OR RIGID GALVANIZED STEEL (RGS) EXCEPT THAT: (A) POLY VINYL CHLORIDE (PVC) CONDUITS MAY BE USED IN CONCRETE SLABS AND UNDERGROUND PROVIDED ELBOWS AND RISERS ARE RGS; (B) ELECTRICAL NON-METALLIC TUBING (ENT) MAY BE USED IN OR ON WALLS OR CEILINGS WHERE NOT SUBJECT TO MECHANICAL DAMAGE, DAMP CONDITIONS OR CORROSIVE CONDITIONS; (C) LIQUID TIGHT FLEXIBLE CONDUIT WHERE REQUIRED, (D) FLEXIBLE METALLIC CONDUIT WHERE REQUIRED IN DRY LOCATIONS. ALL CONDUITS IN HAZARDOUS AREAS PER NEC SHALL MEET THE REQUIREMENTS OF NEC CHAPTER 5.
28. COORDINATE ELECTRIC SERVICE WITH POWER COMPANY.
29. TYPICAL LIGHT SWITCHES TO BE AT 48" A.F.F. LEVEL. TYPICAL ELECTRICAL RECEPTACLE TO BE AT 18" A.F.F. ALL SWITCHES TO BE GANGED WITH CONTINUOUS FACE PLATES. ALL DEVICES THAT ARE ADJACENT TO BE SPARES 6" O.C.
30. CONTRACTOR TO BALANCE LOADS IN ALL PHASES AND PROVIDE PANEL SCHEDULES IDENTIFYING ALL CIRCUITS IN PANEL. PROVIDE BLANK PLATE IN EMPTY CIRCUIT BREAKER SPARES.
31. ELECTRICAL CONTRACTOR SHALL VERIFY CIRCUIT PROTECTIVE DEVICE RATING FOR EQUIPMENT PRIOR TO CONSTRUCTION. COORDINATE ALL EQUIPMENT LOAD AND PROTECTION WITH NAMEPLATE DATA PRIOR TO INSTALL OR WIRING.
32. THE LIGHTING DEVICES WITHOUT DIMENSION LOCATION WILL BE LOCATED AT LESS AT 6" TO THE BORDER OF A DOOR OR EDGE OF A WALL, IF OTHERS DEVICES ARE LOCATED NEAR OF THIS ITEM THEY WILL SPACED TO 4" AT LESS; THE LIGTHING FIXTURES WITHOUT DIMENSION LOCATION WILL BE PLACED AT THE CENTER OF THE LOCAL; THE TV CABLE AND TELEPHONE OUTLETS WILL BE PLACED AT LESS AT 4" OF THE DUPLEX DEVICE; THIS DIMENSIONS ARE REFERED TO THE CENTER OF EACH ITEM.

ELECTRICAL SHEET INDEX:

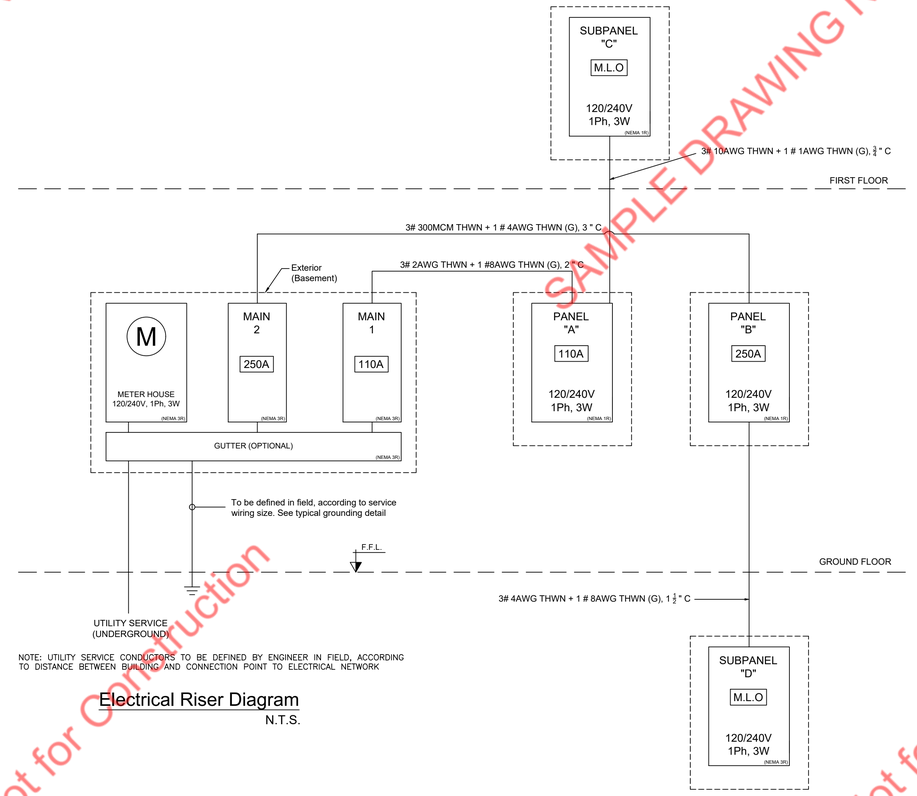
ELECTRICAL SYMBOL LEGEND:

- SURFACE MOUNTED LIGHT FIXTURE
- SURFACE LIGHT FIXTURE 2x9W LED, 120V
- SURFACE LIGHT FIXTURE 2x18W LED, 120V
- PENDANT LIGHT FIXTURE 2x18W LED, 120V
- SURFACE WALL MOUNTED LIGHT FIXTURE
- RECESSED DOWNLIGHT LIGHT FIXTURE DAMP LOCATION
- RECESSED DOWNLIGHT LIGHT FIXTURE
- PENDANT DOWNLIGHT LIGHT FIXTURE
- SURFACE WALL MOUNTED EMERGENCY LIGHT FIXTURE
- SINGLE LIGHTING SWITCH 15A 1P 120V IN RECESSED WALL MOUNTED BOX AT 48" AFFL
- 3-WAY SINGLE LIGHTING SWITCH 15A 1P 120V IN RECESSED WALL MOUNTED BOX AT 48" AFFL
- INDOOR LIFTMASTER STATION BUTTON FOR OPEN THE GARAGE DOOR AT 48" AFFL
- WALL CEILING VENTILADOR SPEED AND LIGHTING CONTROL AT 48" AFFL
- DUPLEX RECEPTACLE (20A, 125V), AT 18" AFF (U.O.N) ("G" DENOTE GROUND FAULT TYPE)
- DRYER RECEPTACLE NEMA 14-30R (30A, 240V), AT 48" AFF
- RANGE RECEPTACLE NEMA 14-50R (50A, 240V), AT 18" AFF
- SINGLE RECEPTACLE (20A, 120V), AT 48" A.F.F.
- CEILING SINGLE RECEPTACLE (20A, 125V), (GFCI TYPE)
- TELEFHONE/DATA OUTLET WALL MOUNTED AT 18" AFF, SPLIT WIRED
- TV CABLE OUTLET WALL MOUNTED AT 18" AFF
- 120V CEILING SMOKE DETECTOR
- 120V WALL SMOKE DETECTOR
- JUNCTION BOX
- INTERIOR WALL UNIT OF MULTI SPLT SYSTEM
- EXTERIOR UNIT (CONDENSER UNIT-CU) OF MULTI SPLIT SYSTEM
- GARBAGE DISPOSAL
- CEILING MOUNTED EXHAUST FAN
- LIFT MOTOR FOR GARAGE DOOR
- ELECTRICAL LOW VOLTAGE PANELBOARD
- ELECTRICAL METER
- ELECTRICAL MAIN BREAKER
- DISCONNECT SWITCH
- CEILING VENTILATOR WITH LIGHTING BULB
- G — DENOTE GROUND FAULT CIRCUIT INTERRUPTER
- WP — DENOTE WEATHERPROOF PROTECTION RECEPTACLES, TO BE WR
- SW — DENOTE SPLIT WIRE RECEPTACLE
- TS — TIMER SWITCH
- MANHOLE FOR UNDERGROUND ELECTRICAL INSTALLATIONS



Typical Grounding Schematic

N.T.S.



NOTE: UTILITY SERVICE CONDUCTORS TO BE DEFINED BY ENGINEER IN FIELD, ACCORDING TO DISTANCE BETWEEN BUILDING AND CONNECTION POINT TO ELECTRICAL NETWORK

Electrical Riser Diagram

N.T.S.

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
Rev. A	
Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

GENERAL NOTES, SYMBOLS, RISER DIAGRAM AND INDEX.

DESCRIPTION

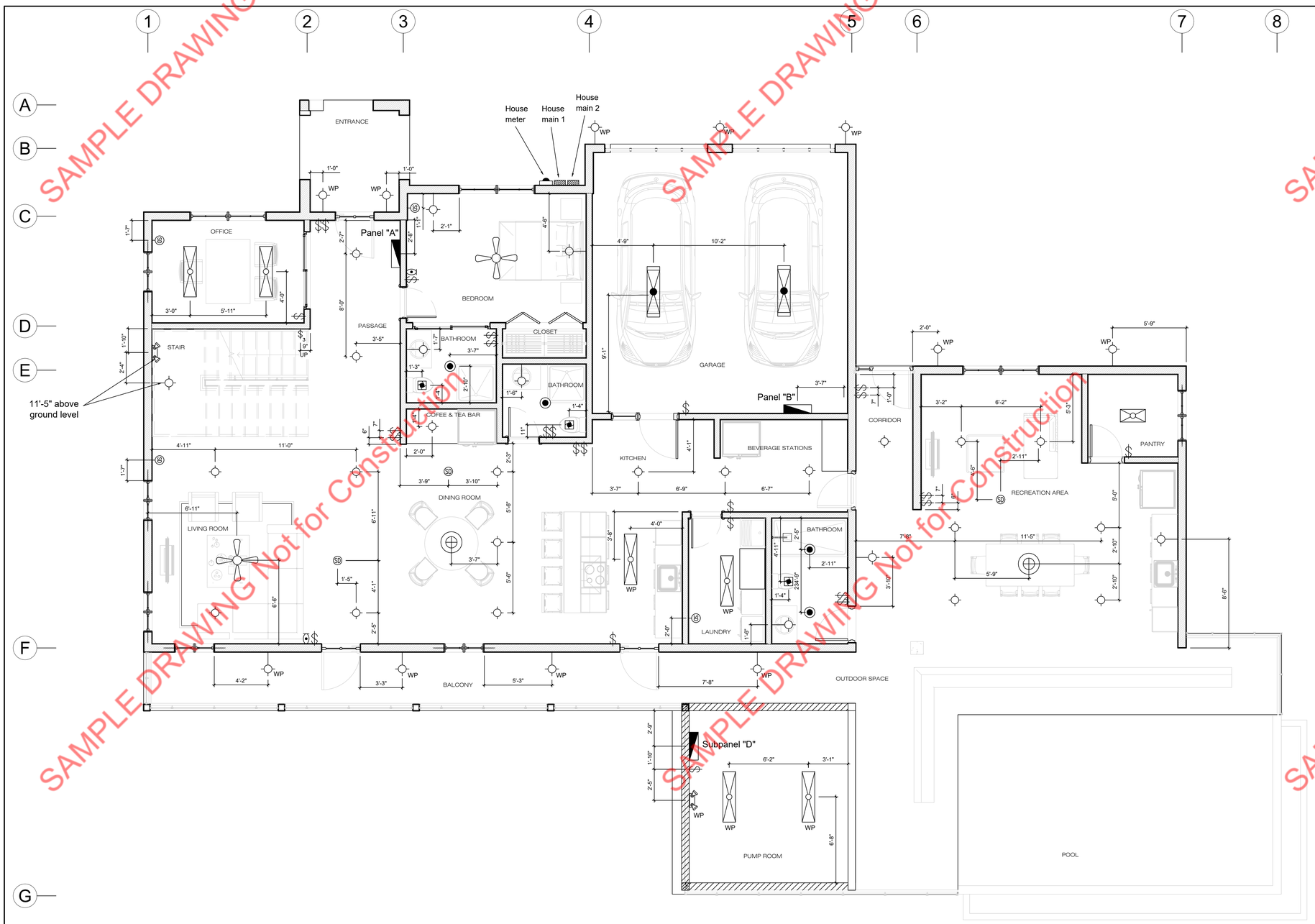
ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

E-1

DATE



GROUND FLOOR LIGHTING PLAN. LOCATION.

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

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
Rev. A	
Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

GROUND FLOOR. LIGHTING PLAN. LOCATION.

DESCRIPTION

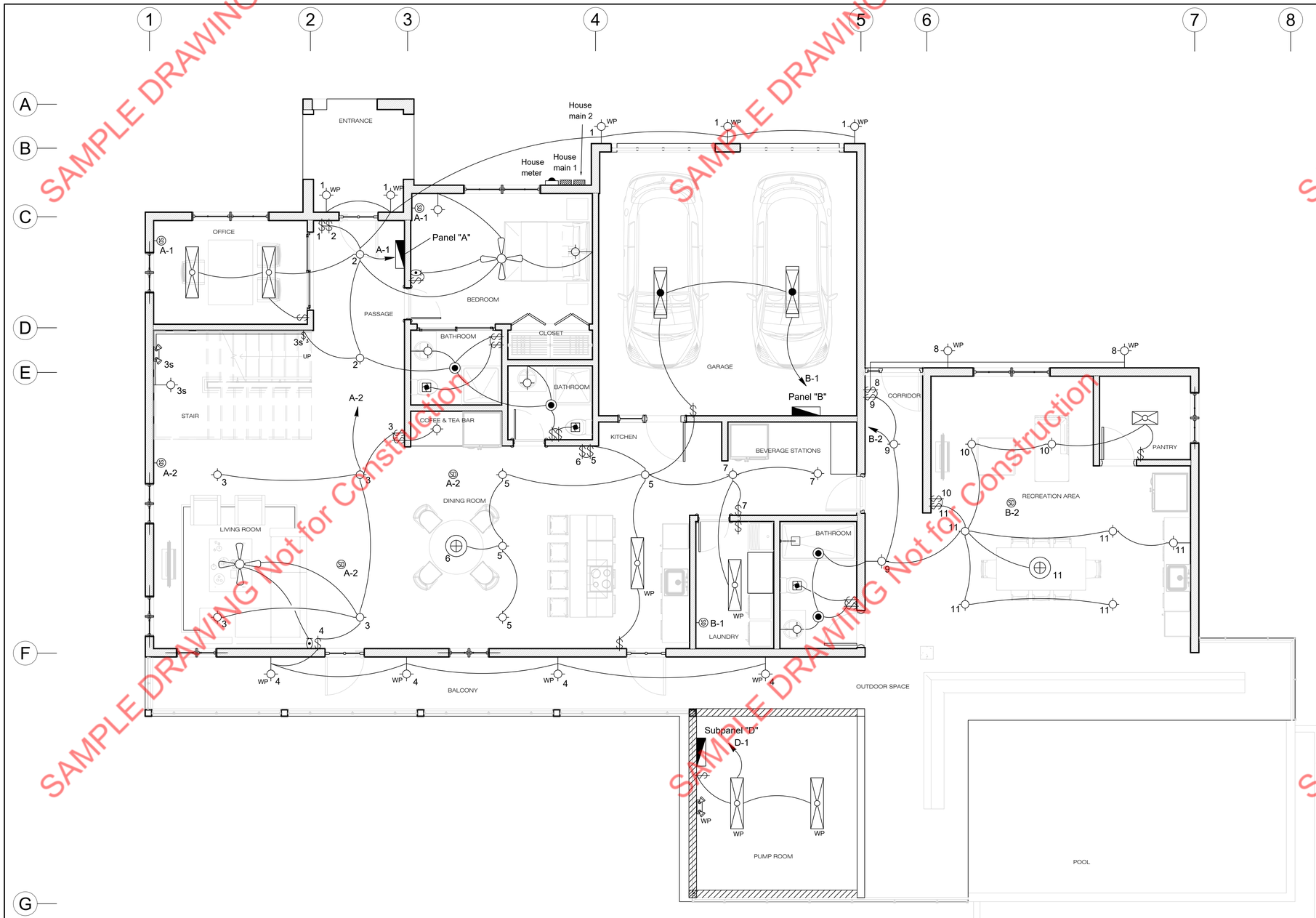
ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

E-2

DATE



GROUND FLOOR LIGHTING PLAN. CIRCUITS.

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

KEYNOTES

1. CONNECT ALL EXIT TO NEAREST LIGHT FIXTURE AND AHEAD OF ANY LIGHTING CONTROL DEVICE FOR CONTINUOUS OPERATION OF THE BATTERY CHARGER.
2. THE 3-WAY COUPLE FOR THE LIGHTING CONTROL OF THE FIXTURES OF THE STAIRS ARE LABELED WITH 3s INDICATION.

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
Rev. A	
Rev. O	

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FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

GROUND FLOOR. LIGHTING PLAN. CIRCUITS.

DESCRIPTION

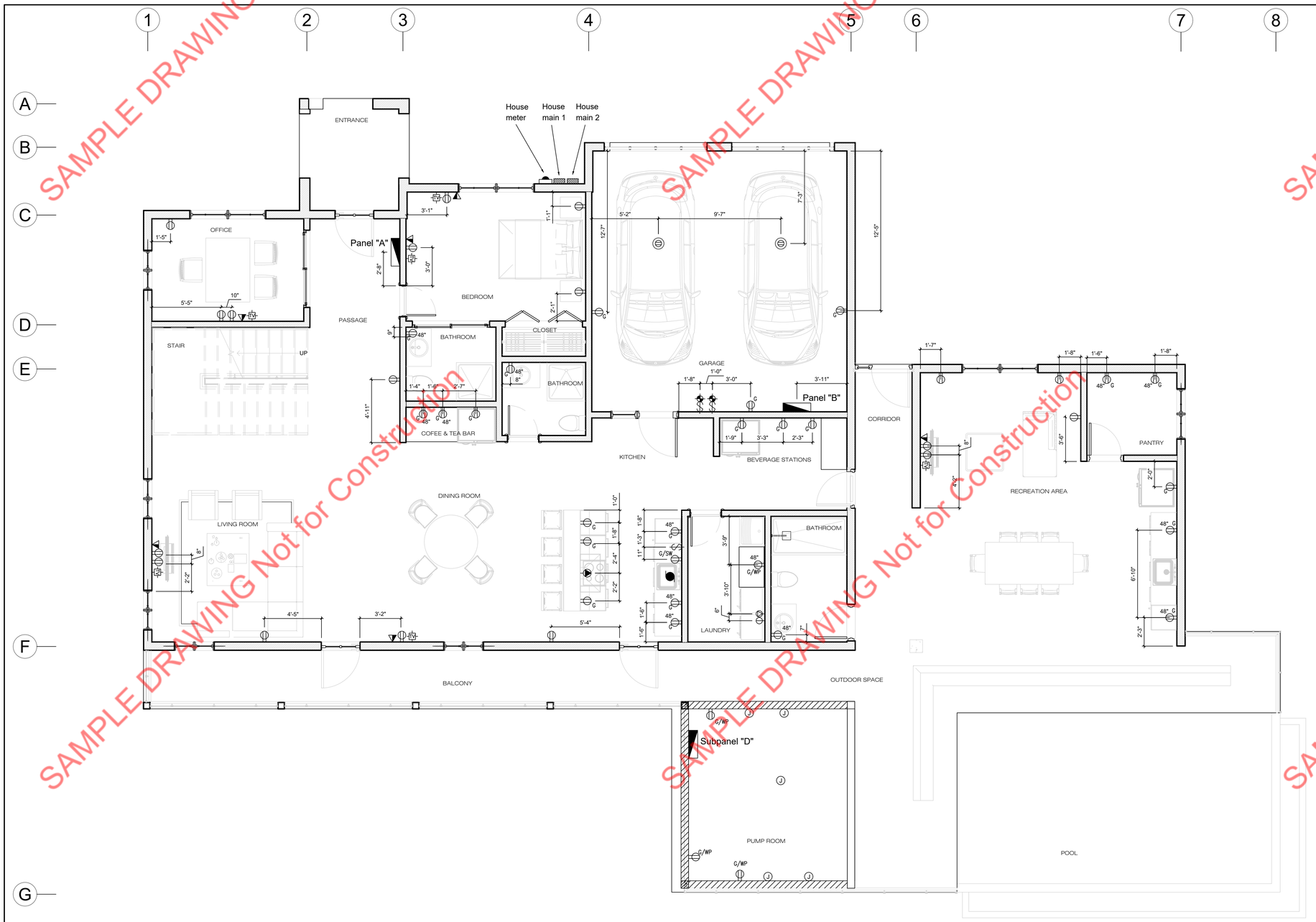
ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

E-3

DATE



GROUND FLOOR POWER PLAN. LOCATION.

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

KEYNOTES

1. THE LOCATION OF EACH ELECTRICAL FIXTURE IN THE PUMP ROOM WILL BE RELOCATED ACCORDING THE EQUIPMENT INSTALLATION.

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
Rev. A	
Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

GROUND FLOOR. POWER PLAN. LOCATION.

DESCRIPTION

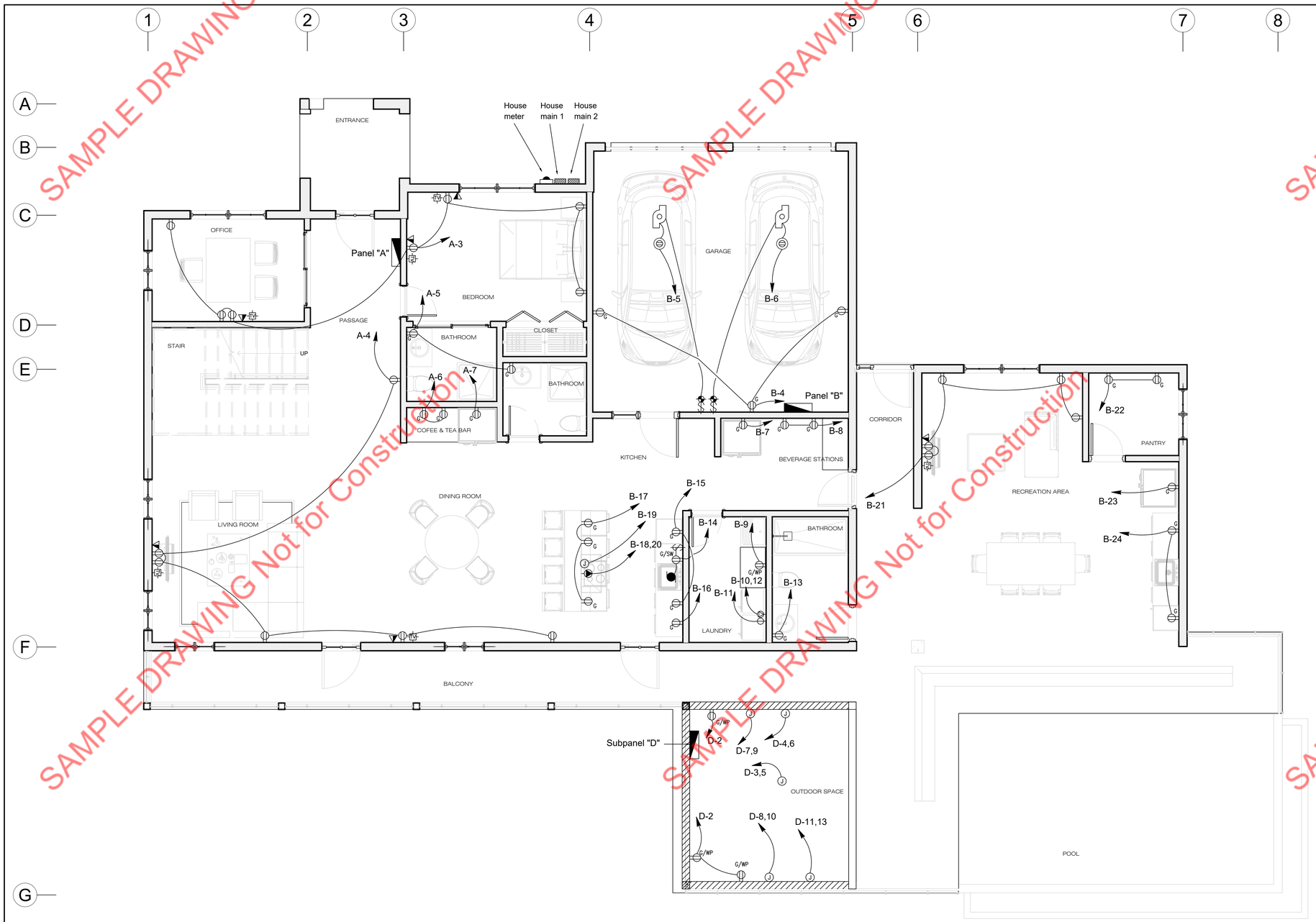
ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

E-4

DATE



GROUND FLOOR POWER PLAN. CIRCUITS.

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

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
Rev. A	
Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

GROUND FLOOR. POWER PLAN. CIRCUITS.

DESCRIPTION

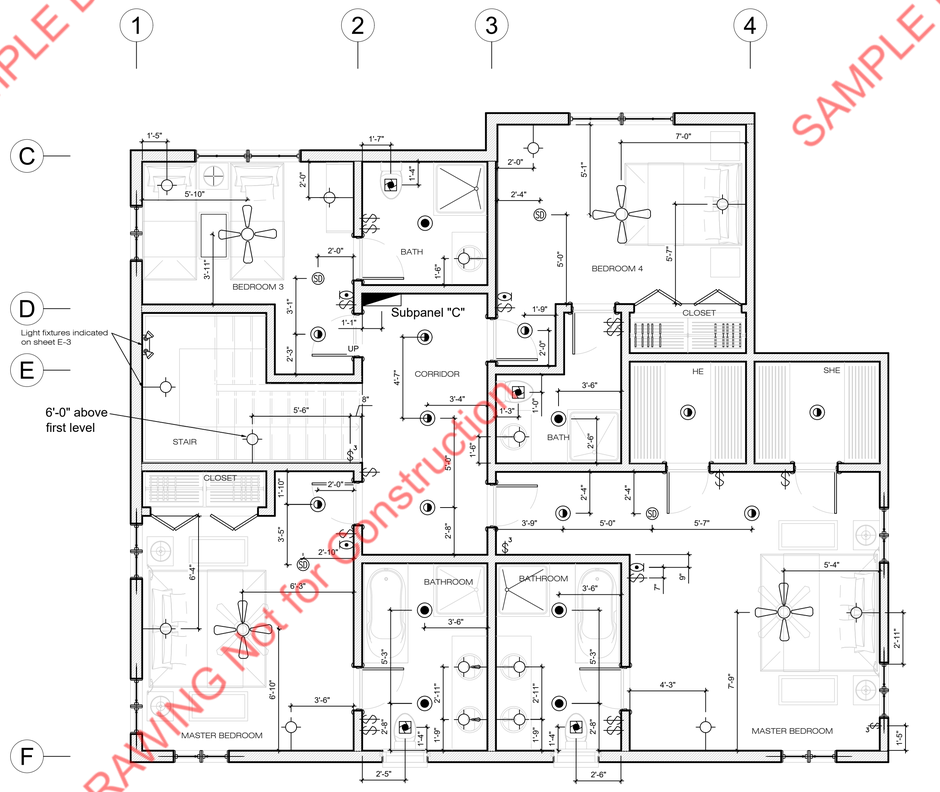
ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

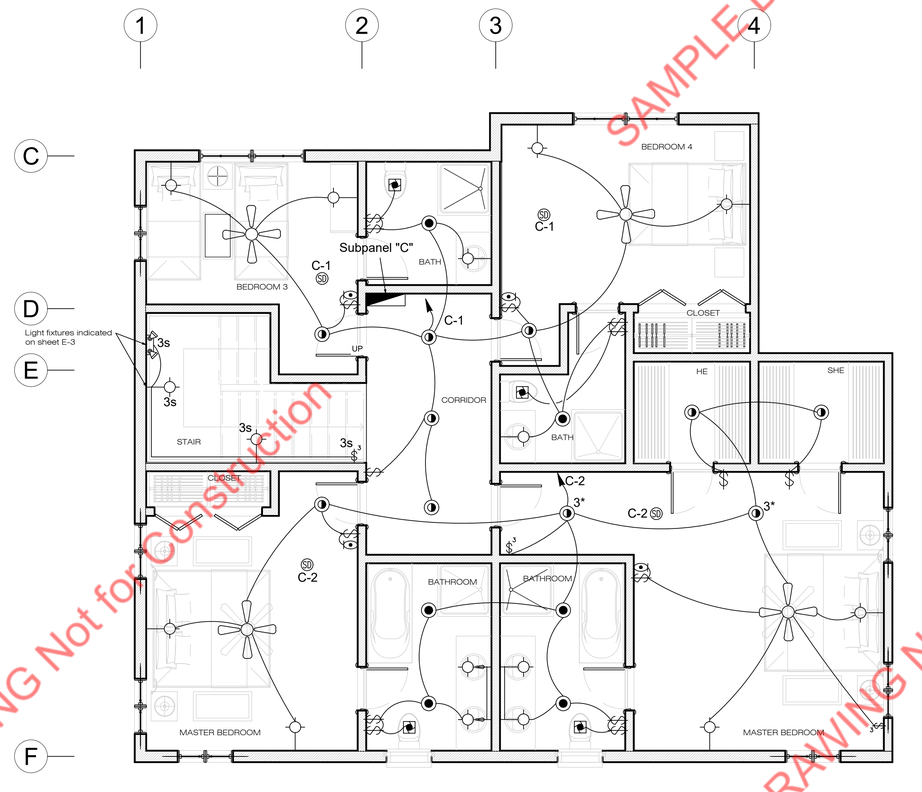
DATE

E-5



FIRST FLOOR LIGHTING PLAN. LOCATION.

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



FIRST FLOOR LIGHTING PLAN. CIRCUITS.

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

KEYNOTES

1. CONNECT ALL EXIT TO NEAREST LIGHT FIXTURE AND AHEAD OF ANY LIGHTING CONTROL DEVICE FOR CONTINUOUS OPERATION OF THE BATTERY CHARGER.
2. THE 3-WAY COUPLE FOR THE LIGHTING CONTROL OF THE FIXTURES OF THE STAIRS ARE LABELED WITH 3s INDICATION.
3. THE 3-WAY COUPLE OF THE RIGHT MASTER BEDROOM CONTROLS THE LIGHT FIXTURES WITH 3* INDICATION.

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
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Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

FIRST FLOOR. LIGHTING PLAN.

DESCRIPTION

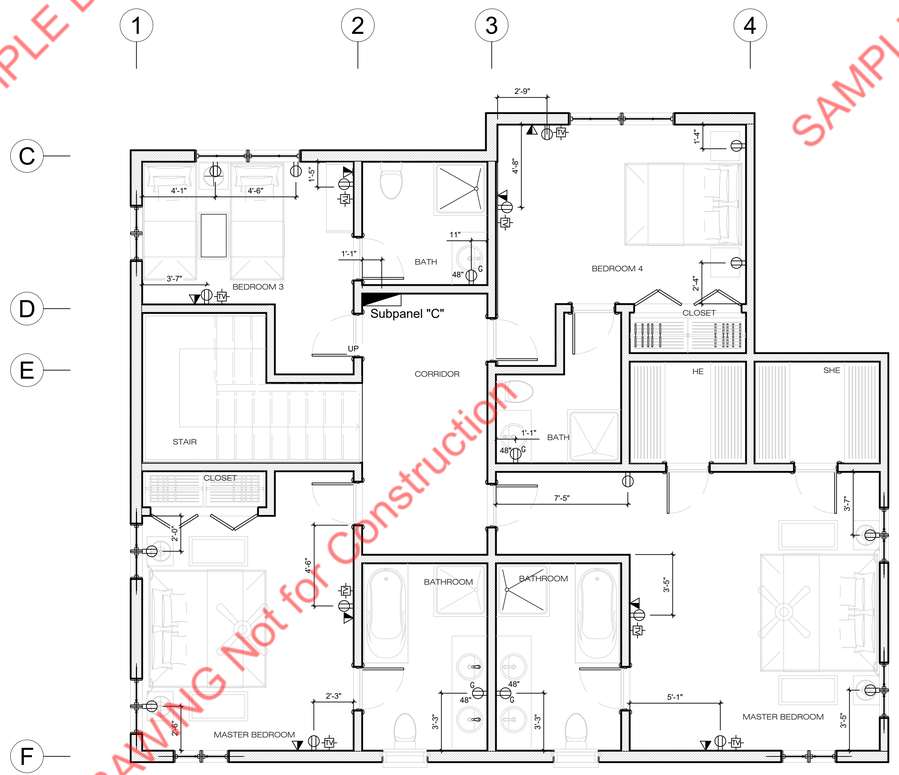
ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

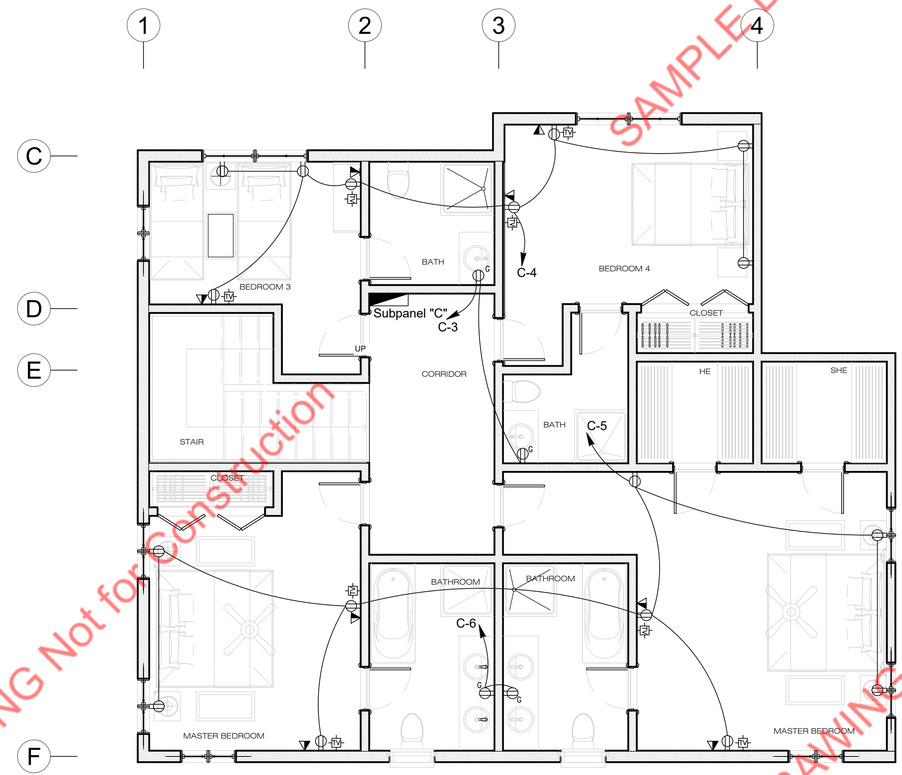
DATE

E-6



FIRST FLOOR POWER PLAN. LOCATION.

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



FIRST FLOOR POWER PLAN. CIRCUITS.

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

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
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Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

FIRST FLOOR. POWER PLAN.

DESCRIPTION

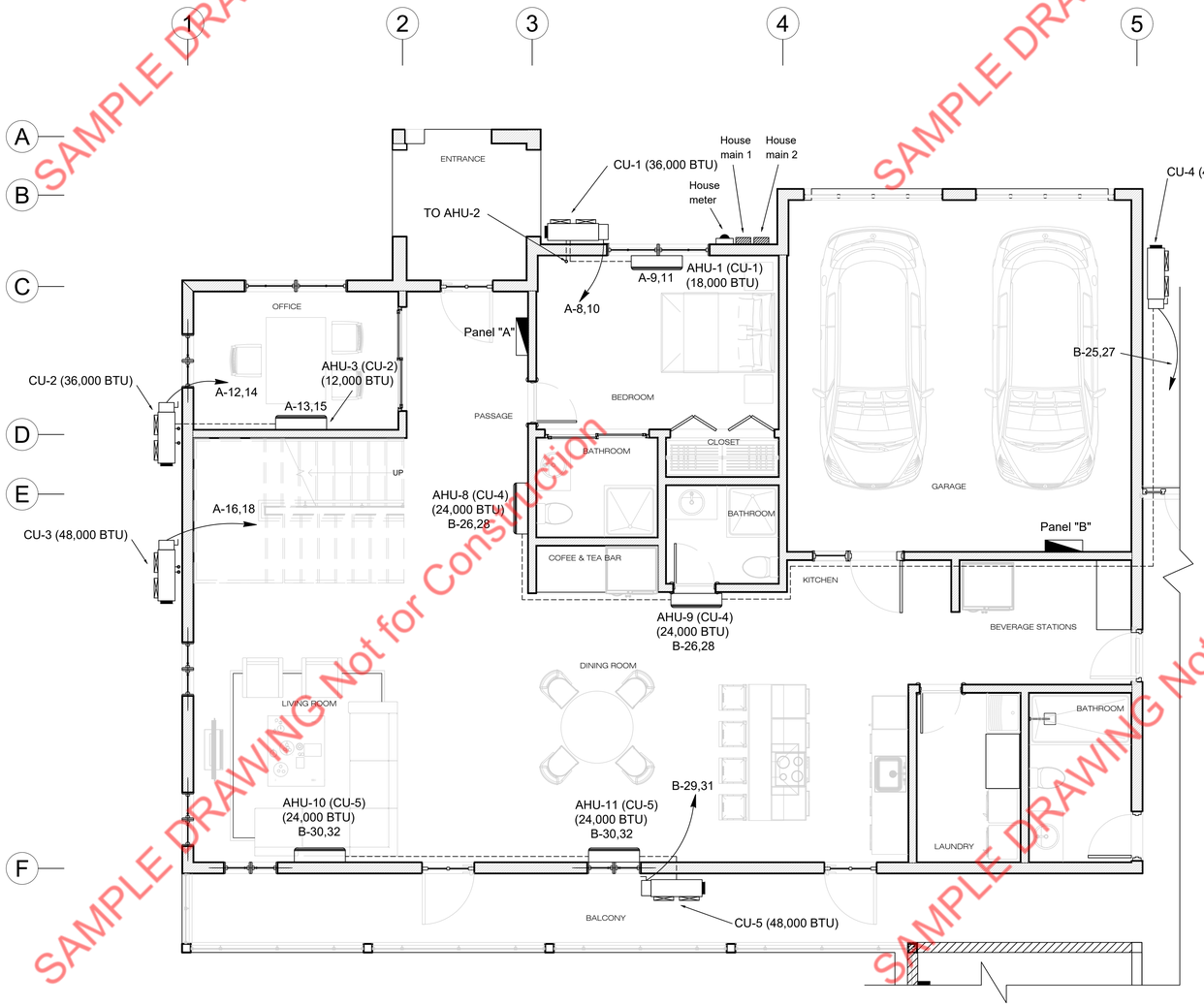
ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

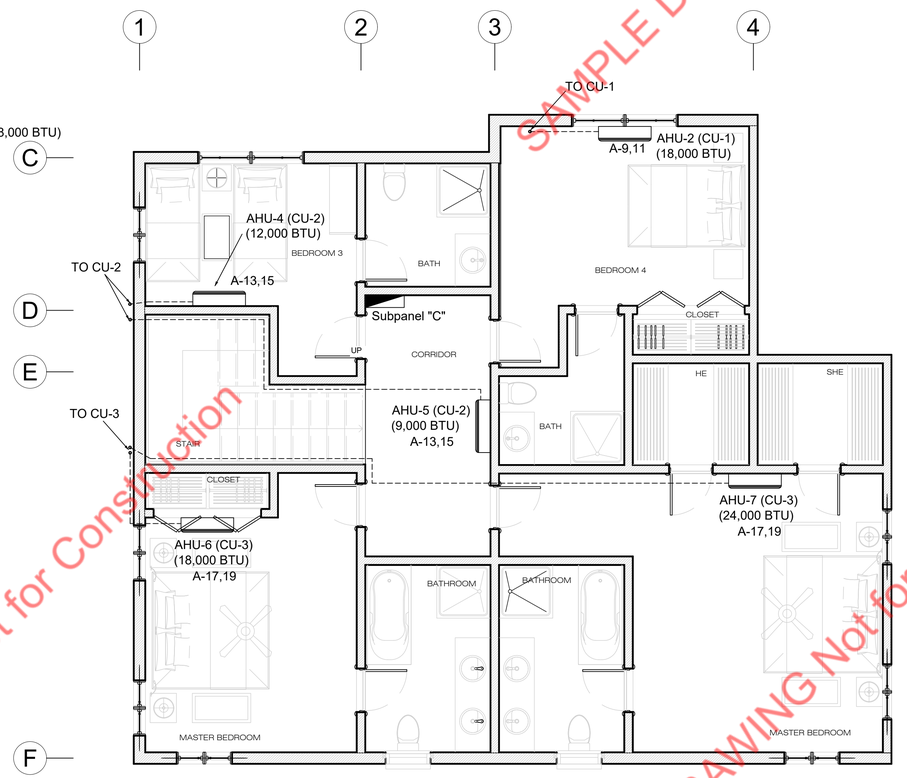
E-7

DATE



GROUND FLOOR MECHANICAL SYSTEM..

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



FIRST FLOOR MECHANICAL SYSTEM.

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

KEYNOTES

1. DO NOT LOCATE CEILING MOUNTED SMOKE DETECTORS LESS THAN 3 FEET AWAY OF ANY AIR CONDITIONING EQUIPMENT.
2. ELECTRICAL CONTRACTOR SHALL RUN ADDITIONAL 3/4" EMPTY CONDUIT W/PULL STRING BETWEEN EACH AIR HANDLER UNIT AND IT RESPECTIVE CONDENSING UNIT FOR CONTROL WIRING.
3. THE PATH SHOWN FOR REFRIGERATING PIPES IS DIAGRAMMATIC. MECHANICAL CONTRACTOR TO AVOID PENETRATION THROUGH FIRE RATED WALLS.

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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
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Rev. O	

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FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

MECHANICAL PLAN. GROUND AND FIRST FLOOR.

DESCRIPTION

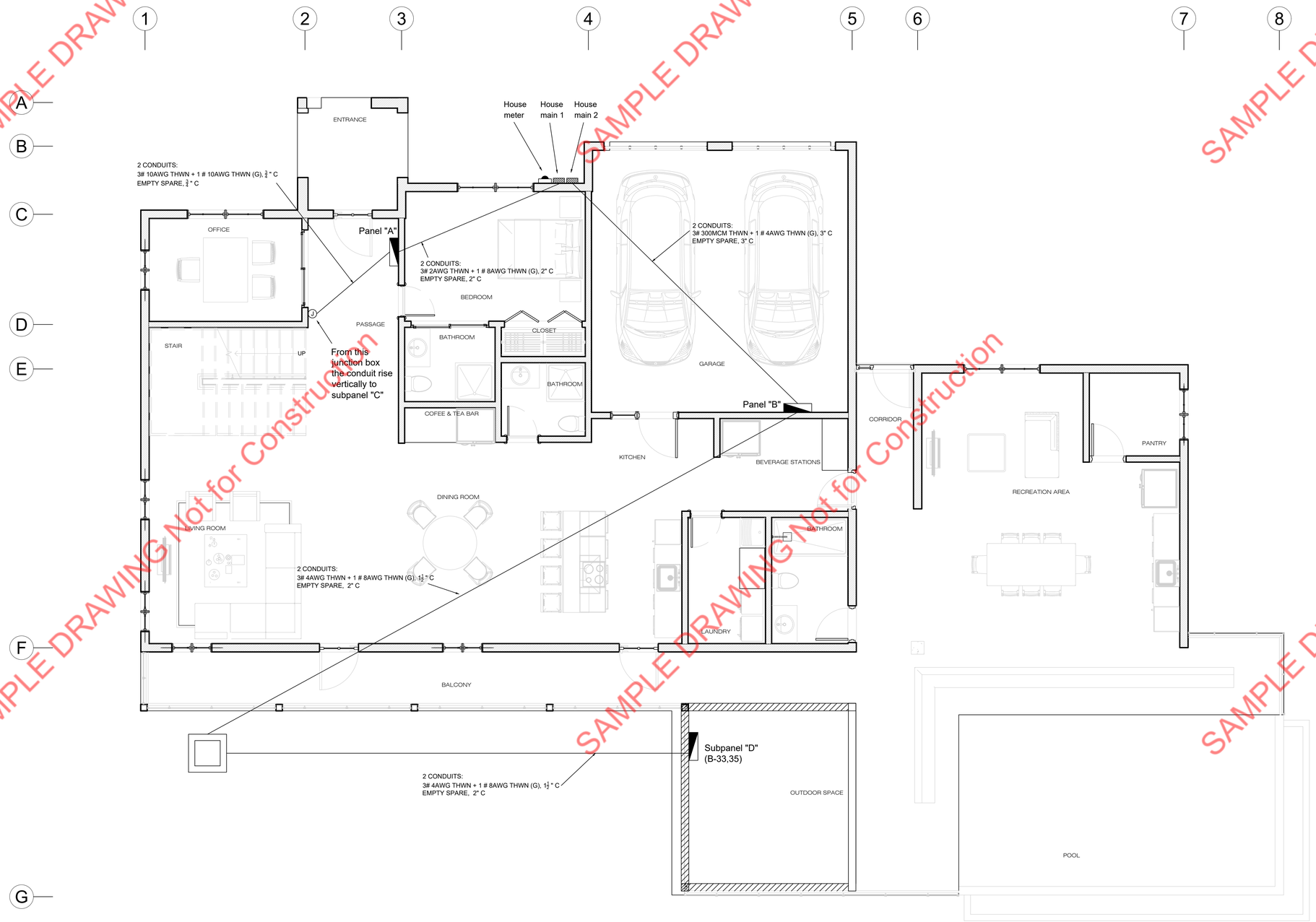
ERECTION OF A NEW BUILDING.

SCALE 1/4"=1'-0"

UNITS FEETS-INCHES

E-8

DATE



GROUND FLOOR. POWER SUPPLY DESIGN PLAN.

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

EBENEZER ENGINEERING CONSULTING
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LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
Rev. A	
Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:

ENGINEER: ENG.R.DON

DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

POWER SUPPLY DESIGN PLAN.

DESCRIPTION

ERECTION OF A NEW BUILDING.

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

UNITS: FEETS-INCHES

DATE

E-9

PANEL "A"

TYPE: SIEMENS OR EQUAL APPROVED
MOUNTING: FLUSH
ENCLOSURE: NEMA 1
SUPPLY FROM: FPL SERVICE

RATED VOLTAGE: 120/240V, 1Ph, 3W
BUS RATING: 125 AMPS
A.I.C. RATING: N/A KAIC
BRANCH POLES: 24 CIRCUITS

MAINS: M.C.B.
FEED LOCATION: BOTTON
SYSTEM: NORMAL
LOCATION: PASSAGE GROUND FLOOR

ID	LOAD SERVED	COND.	EQ. GND.	WIRE AWG	TYPE	TRIP	CKT	Phase A [kVA]		Phase B [kVA]		CKT	TRIP	TYPE	WIRE AWG	EQ. GND.	COND.	LOAD SERVED	ID
L	LTG. Ground floor	½	12	12	-	20A	1	(*)	(*)			2	20A	-	12	12	½	LTG. Ground floor	L
R	RECEPT. Ground floor (Bedroom and office)	½	12	12	-	20A	3			(*)	(*)	4	20A	-	12	12	½	RECEPT. Ground floor (Living room and dining room)	R
R	RECEPT. Ground floor (Bathrooms)	½	12	12	-	20A	5	(*)	1.5			6	20A	-	12	12	½	Ground floor - Small appliances - Cofee and tea bar	A
A	Ground floor - Refrigerator	½	12	12	-	20A	7			1.0	1.9	8	30A/2	-	10	10	¾	MS CU-1 - 36,000 BTU	C
C	AHU-1, AHU-2	½	12	12	-	20A/2	9	0.15	1.9			10							C
C							11			0.15	1.90	12	40A/2	-	10	10	¾	MS CU-2 - 36,000 BTU	C
C	AHU-3, AHU-4, AHU-5	½	12	12	-	30A/2	13	0.23	1.90			14							C
C							15			0.23	2.5	16	40A/2	-	8	8	¾	MS CU-3 - 48,000 BTU	C
C	AHU-6, AHU-7	½	12	12	-	20A/2	17	0.15	2.5			18							C
C							19			0.15	1.66	20	30A/2	-	10	10	¾	Subpanel C	P
	SPARE	-	-	-	-	20A/2	21	-	1.66			22							P
							23	-	-	-	-	24	20A	-	-	-	-	SPARE	

ID:
(R) RECEPTACLE LOAD
(L) LIGHTING LOAD
(C) AC LOAD
(A) APPLIANCE LOAD
(P) SUBPANEL
(*) INCLUDED IN AREA CALCULATION (3 VA/SQ FT)

DEMAND LOAD CALCULATION:

CONNECTED LOAD:		=	19.5 KVA	(1)
LTG. & RECEPT. (3VA/SQ.FT) ...	1212 FT²	=	3.6 KVA	(2)
TOTAL CONNECTED LOAD:		=	23.1 KVA	(3)=(1)+(2)
TOTAL CONNECTED LOAD LESS - N1		=	3.6 KVA	
FIRST 3 KVA @	100%	=	3.0 KVA	
REMAINDER @	35%	=	0.2 KVA	
APPLIANCE LOADS.....	75%	=	1.9 KVA	
OTHER LOADS.....	100%	=	3.3 KVA	
A/C LOAD (COLD) @	100%	=	13.7 KVA	
TOTAL DEMAND LOAD:		=	22.1 KVA	
DEMAND AMPERES:		=	**92** AMPS	

N1: LESS A/C, APPLIANCE LOADS AND OTHER LOADS

PANEL "B"

TYPE: SIEMENS OR EQUAL APPROVED
MOUNTING: FLUSH
ENCLOSURE: NEMA 1
SUPPLY FROM: FPL SERVICE

RATED VOLTAGE: 120/240V, 1Ph, 3W
BUS RATING: 400 AMPS
A.I.C. RATING: N/A KAIC
BRANCH POLES: 42 CIRCUITS

MAINS: M.C.B.
FEED LOCATION: BOTTON
SYSTEM: NORMAL
LOCATION: GARAGE GROUND FLOOR

ID	LOAD SERVED	COND.	EQ. GND.	WIRE AWG	TYPE	TRIP	CKT	Phase A [kVA]		Phase B [kVA]		CKT	TRIP	TYPE	WIRE AWG	EQ. GND.	COND.	LOAD SERVED	ID
L	LTG. Ground floor	½	12	12	-	20A	1	(*)	(*)			2	20A	-	12	12	½	LTG. Ground floor	L
L	SPARE	½	12	12	-	20A	3			-	(*)	4	20A	-	12	12	½	RECEPT. Ground floor (Garage)	R
A	Ground floor - Door opener 1	½	12	12	GFCI	20A	5	1.0	1.0			6	20A	GFCI	12	12	½	Ground floor - Door opener 2	A
A	Ground floor - Refrigerator	½	12	12	-	20A	7			1.0	(*)	8	20A	-	12	12	½	RECEPT. Ground floor (Beverage stations)	R
R	RECEPT. Ground floor (GFCI Laundry)	½	12	12	-	20A	9	(*)	2.5			10	30A/2	-	10	10	¾	Groud floor - Dryer	O
O	Ground floor - Cloth washer machine	½	12	12	-	20A	11			1.5	2.5	12							O
R	RECEPT. Ground floor (Bathroom)	½	12	12	-	20A	13	(*)	1.4			14	20A	-	12	12	½	Ground floor - Dishwasher and garbage disposal	A
A	Ground floor -Small appliances	½	12	12	-	20A	15			1.5	1.4	16	20A	-	12	12	½	Ground floor - Microwave	A
A	Ground floor - Small appliances	½	12	12	-	20A	17	1.5	5.0			18	50A/2	-	6	6	1	Ground floor - Range	A
A	Ground floor (Kitchen hood)	½	12	12	-	20A	19			0.9	5.0	20							A
R	RECEPT. Ground floor (Recreation area)	½	12	12	-	20A	21	(*)	1.5			22	20A	-	12	12	½	Ground floor - Small appliances - Pantry	A
A	Ground floor - Refrigerator	½	12	12	-	20A	23			1.0	1.5	24	20A	-	12	12	½	Ground floor (Small appliances - Recreation area)	A
C	MS CU-4 - 48,000 BTU	¾	8	8	-	40A/2	25	2.5	0.15			26	20A/2	-	12	12	½	AHU-8, AHU-9	C
C							27			2.5	0.15	28							C
C	MS CU-5 - 48,000 BTU	¾	8	8	-	40A/2	29	2.5	0.15			30	20A/2	-	12	12	½	AHU-10, AHU-11	C
C							31			2.5	0.15	32							C
P	Subpanel D	1 ½	8	4	-	70A/2	33	6.0	-			34	20A/2	-	-	-	-	SPARE	
P							35			6.0	-	36							
	SPARE	-	-	-	-	20A	37	-	-			38	30A/2	-	-	-	-	SPARE	
	SPARE	-	-	-	-	20A/2	39			-	-	40							
							41	-	-			42	30A	-	-	-	-	SPARE	

ID:
(R) RECEPTACLE LOAD
(L) LIGHTING LOAD
(A) APPLIANCE LOAD
(O) OTHER LOAD
(C) AC LOAD
(P) SUBPANEL
(*) INCLUDED IN AREA CALCULATION (3 VA/SQ FT)

DEMAND LOAD CALCULATION:

CONNECTED LOAD:		=	52.8 KVA	(1)
LTG. & RECEP. (3VA/SQ.FT)	2064 FT²	=	6.2 KVA	(2)
TOTAL CONNECTED LOAD:		=	59.0 KVA	(3) = (1) + (2)
TOTAL CONNECTED LOAD LESS - N1		=	6.2 KVA	
FIRST 3 KVA @	100%	=	3.0 KVA	
REMAINDER @	35%	=	1.1 KVA	
APPLIANCE LOADS.....	75%	=	17.8 KVA	
OTHER LOADS.....	100%	=	18.5 KVA	
A/C LOAD (COLD) @	100%	=	10.6 KVA	
TOTAL DEMAND LOAD:		=	51.0 KVA	
DEMAND AMPERES:		=	**212** AMPS	

N1: LESS A/C, APPLIANCE LOADS AND OTHER LOADS

SUBPANEL "C"

TYPE: SIEMENS OR EQUAL APPROVED
MOUNTING: FLUSH
ENCLOSURE: NEMA 1
SUPPLY FROM: PANEL A

RATED VOLTAGE: 120/240V, 1Ph, 3W
BUS RATING: 100 AMPS
A.I.C. RATING: N/A KAIC
BRANCH POLES: 6 CIRCUITS

MAINS: M.L.O.
FEED LOCATION: BOTTON
SYSTEM: NORMAL
LOCATION: CORRIDOR FIRST FLOOR

ID	LOAD SERVED	COND.	EQ. GND.	WIRE AWG	TYPE	TRIP	CKT	Phase A [kVA]		Phase B [kVA]		CKT	TRIP	TYPE	WIRE AWG	EQ. GND.	COND.	LOAD SERVED	ID
L	LTG. First floor	½	12	12	-	20A	1	(*)	(*)			2	20A	-	12	12	½	LTG. First floor	L
R	RECEPT. First floor (Bathrooms)	½	12	12	-	20A	3			(*)	(*)	4	20A	-	12	12	½	RECCEPT. First floor	R
R	RECCEPT. First floor	½	12	12	-	20A	5	(*)	(*)			6	20A	-	12	12	½	RECEPT. First floor (Bathrooms)	R

ID:
(R) RECEPTACLE LOAD
(L) LIGHTING LOAD
(*) INCLUDED IN AREA CALCULATION (3 VA/SQ FT)

DEMAND LOAD CALCULATION:

CONNECTED LOAD:		=	0.0 KVA	(1)
LTG. & RECEP. (3VA/SQ.FT)	1310 FT²	=	3.9 KVA	(2)
TOTAL CONNECTED LOAD:		=	3.9 KVA	(3) = (1) + (2)
TOTAL CONNECTED LOAD LESS - N1		=	3.9 KVA	
FIRST 3 KVA @	100%	=	3.0 KVA	
REMAINDER @	35%	=	0.3 KVA	
APPLIANCE LOADS.....	75%	=	0.0 KVA	
OTHER LOADS.....	100%	=	0.0 KVA	
A/C LOAD (COLD) @	100%	=	0.0 KVA	
TOTAL DEMAND LOAD:		=	3.3 KVA	
DEMAND AMPERES:		=	**14** AMPS	

N1: LESS A/C, APPLIANCE LOADS AND OTHER LOADS

SUBPANEL "D"

TYPE: SIEMENS OR EQUAL APPROVED
MOUNTING: FLUSH
ENCLOSURE: NEMA 3R
SUPPLY FROM: PANEL B

RATED VOLTAGE: 120/240V, 1Ph, 3W
BUS RATING: 100 AMPS
A.I.C. RATING: N/A KAIC
BRANCH POLES: 18 CIRCUITS

MAINS: M.L.O.
FEED LOCATION: BOTTON
SYSTEM: NORMAL
LOCATION: PUMP ROOM GROUND FLOOR

ID	LOAD SERVED	COND.	EQ. GND.	WIRE AWG	TYPE	TRIP	CKT	Phase A [kVA]		Phase B [kVA]		CKT	TRIP	TYPE	WIRE AWG	EQ. GND.	COND.	LOAD SERVED	ID
L	LTG. Pump room	½	12	12	-	20A	1	(*)	(*)			2	20A	-	12	12	½	RECEPT. Pump room	R
O	Main pump	¾	10	10	-	25A/2	3			0.5	0.5	4	25A/2	-	10	10	¾	Pool pump	O
O							5	0.5	0.5			6							O
O	Stenner dose pump (Pool equipment)	½	12	12	-	20A/2	7			0.25	4.0	8	45A/2	-	8	8	¾	Electrical water heater supply	O
O							9	0.25	4.0			10							O
O	Flow pump	½	12	12	-	20A/2	11			0.2	0.3	12	20A/2	-	12	12	½	Extraction (SPARE)	O
O							13	0.2	0.3			14							O
	SPARE	-	-	-	-	20A	15			-	-	16	30A/2	-	-	-	-	SPARE	
	SPARE	-	-	-	-	30A	17	-	-			18							

ID:
(R) RECEPTACLE LOAD
(L) LIGHTING LOAD
(O) OTHER LOAD
(*) INCLUDED IN AREA CALCULATION (3 VA/SQ FT)

DEMAND LOAD CALCULATION:

CONNECTED LOAD:		=	11.5 KVA	
LTG. & RECEP. (3VA/SQ.FT)	164 FT²	=	0.5 KVA	
TOTAL CONNECTED LOAD:		=	12.0 KVA	
TOTAL CONNECTED LOAD LESS - N1		=	0.5 KVA	
FIRST 3 KVA @	100%	=	0.5 KVA	
REMAINDER @	35%	=	0.0 KVA	
APPLIANCE LOADS.....	75%	=	0.0 KVA	
OTHER LOADS.....	100%	=	11.5 KVA	
A/C LOAD (COLD) @	100%	=	0.0 KVA	
TOTAL DEMAND LOAD:		=	12.0 KVA	
DEMAND AMPERES:		=	**50** AMPS	

N1: LESS A/C, APPLIANCE LOADS AND OTHER LOADS

TOTAL DEMAND LOAD CALCULATION (SERVICE):

CONNECTED LOAD:		=	72.3 KVA
LTG. & RECEP. (3VA/SQ.FT)	4750 FT²	=	11.6 KVA
TOTAL CONNECTED LOAD:		=	83.9 KVA
TOTAL CONNECTED LOAD LESS A/C:		=	59.6 KVA
FIRST 10 KVA @	100%	=	10.0 KVA
REMAINDER @	40%	=	19.8 KVA
A/C LOAD (COLD/HEAT) @	100%	=	24.3 KVA
TOTAL DEMAND LOAD:		=	54.1 KVA
DEMAND AMPERES:		=	**225** AMPS

EBENEZER ENGINEERING CONSULTING
Let's build our mark!

LOCATION

NOTES

CAPTION

REVIEWS

REVIEWS N°	DATE
Rev. A	
Rev. O	

REFERENCES FILES

FILE N°	DESCRIPTION	APROVED

DESIGNERS

PROJET MANAGEMENT:
ENGINEER: ENG.R.DON
DRAFTSMAN: ENG.R.DON

PROYECT

PLAN NAME

PANEL SCHEDULES.

DESCRIPTION

ERECTION OF A NEW BUILDING.

SCALE: 1/4"=1'-0"
UNITS: FEETS-INCHES
DATE:

E-10