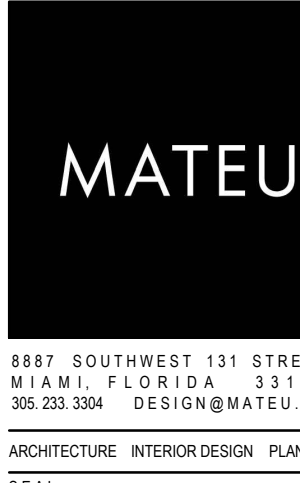




RONNEY J. MATEU, FAIA
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STRUCTURAL ENGINEERING
13170 SW 128 STREET, SUITE 204
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JMM CONSULTING ENGINEERS
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CARLAB, INC.
CIVIL ENGINEERING
8730 SW 25 STREET
MIAMI, FLORIDA 33165

CARLOS MAURICIO &
FERNANDA ROCA
MA 2405
13125 SW 63 AVENUE
PINECREST, FLORIDA 33156

CASA @
63RD AVENUE

NEW SINGLE-FAMILY RES.
EU-1 RESIDENTIAL ESTATE

MATEU ARCHITECTURE INC

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PHASE

Project Status

FILE NAME:

PROJECT NO:
MA 2405

DRAWN BY:
JMM

CHECKED BY:
JMM

ISSUE DATE:
11/01/24

REVISIONS:
B.D.C. 11-25-24

SHEET TITLE

PANEL SCHEDULE
RISER DIAGRAM

SHEET: OF:

E-400

MOUNTING: SURFACE SHORT CIRCUIT RATINGS: 22K AIC LOCATION: GARAGE (SEE FLOOR PLAN) TYPE: SIEMENS OR SIMILAR										PANEL 'A'				BASED ON: 120/240V, 1ø, 3W MAIN BUS AMPS: 200A MAIN: MLO			
LOAD	COND.	WIRE	TRIP	POLE	DESCRIPTION	CKT No.	CKT No.	DESCRIPTION	POLE	TRIP	WIRE	COND.	LOAD				
(*) 1/2"	14	15	1		GEN LTG (ENTRY FOYER RECS)	③	1	2	GEN LTG (GARAGE LTS)	③	1	15	14 1/2"	(*)			
1200	3/4"	12	20	1	GATE DOOR	②④	3	4	GEN LTG (THEATRE/OFFICE LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	14	15	1		GEN LTG (THEATRE RECS)	③	5	6	GEN LTG (FOYER/STAIRS LTS/SD)	③	1	15	14 1/2"	(*)			
(*) 1/2"	12	20	1		GEN LTG (BATHROOM)	③	7	8	GEN LTG (KITCHEN LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	12	20	1		GEN LTG (BATH RECS)	③	9	10	GEN LTG (LIVING ROOM LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	14	15	1		GEN LTG (LIVING ROOM RECS)	③	11	12	GEN LTG (EXTERIOR LTS)	③	1	15	14 1/2"	(*)			
900	1/2"	12	20	1	HOOD	②⑤	13	14	RANGE	②⑤⑥	2	50	8 1"	12000			
1500	1/2"	12	20	1	SMALL APPLIANCE	③	15	16									
1500	1/2"	12	20	1	SMALL APPLIANCE	③	17	18	DOOR OPENER	②④	1	20	12 1/2"	1000			
1500	1/2"	12	20	1	SMALL APPLIANCE	③	19	20	DOOR OPENER	②④	1	20	12 1/2"	1000			
1000	1/2"	12	20	1	FREEZER	②③	21	22	CU-1	②④	2	60	6 1"	7752			
1000	1/2"	12	20	1	REFRIGERATOR	②③	23	24	(HACR TYPE BREAKER)								
1200	1/2"	12	20	1	DISHWASHER	②⑤	25	26	AHU-1	②	2	60	6 1"	11632			
800	1/2"	12	20	1	GARBAGE DISPOSAL	②⑤	27	28	NON-CONCURRENT								
800	1/2"	12	20	1	WINE COOLER	②⑤	29	30	EY CAR CHARGER	②④	2	50	8 1"	7200			
9000	1"	8	40	2	OVEN	②④⑥	31	32	REFER TO MANUF. SPECS								
						⑦	33	34	I.T. EQUIPMENT		1	20	12 1/2"	500			
2800	3/4"	12	20	2	IRRIGATION PUMP	②④	35	36	UND.REFRIGERATOR	②③	1	20	12 1/2"	800			
							37	38	ICE MAKER	②④	1	20	12 1/2"	800			
--	--	--	--	--	SPACE		39	40	SPACE		--	--	--	--			
--	--	--	--	--	SPACE		41	42	SPACE		--	--	--	--			

- (*) PART OF THE 3W/SQ.FT. LOAD (GRAL LIGHTING)
- VERIFY WITH EQUIPMENT PLATE PRIOR TO ORDERING AND INSTALLATION.
- CONTRACTOR TO PROVIDE COMBINATION AFCI TYPE BREAKERS AS PER NEC-210.12.
- CONTRACTOR TO PROVIDE COMBINATION GFCI TYPE BREAKERS AS PER NEC-210.8.
- PROVIDE COMBINATION GFCI-AFCI TYPE BREAKER.
- THE FRAME OF RANGE & ELECTRIC CLOTHES DRYER SHALL BE CONNECTED TO THE EQUIPMENT GROUNDING CONDUCTOR BY NEC-250.140 & 250.134 OR 250.138.
- SMM-PROVIDE SMART MANAGEMENT MODULE.

MOUNTING: SURFACE SHORT CIRCUIT RATINGS: 22K AIC LOCATION: GARAGE (SEE FLOOR PLAN) TYPE: SIEMENS OR SIMILAR										PANEL 'B'				BASED ON: 120/240V, 1ø, 3W MAIN BUS AMPS: 200A MAIN: MLO			
LOAD	COND.	WIRE	TRIP	POLE	DESCRIPTION	CKT No.	CKT No.	DESCRIPTION	POLE	TRIP	WIRE	COND.	LOAD				
(*) 1/2"	14	15	1		GEN LTG (BEDROOM RECS)	③	1	2	GEN LTG (GUEST BEDROOM LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	12	20	1		GEN LTG (G. BATHROOM)	③	3	4	GEN LTG (CORRIDOR LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	14	15	1		GEN LTG (GAME ROOM RECS)	③	5	6	GEN LTG (BEDROOM 2 LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	14	15	1		GEN LTG (BEDROOM 2 RECS)	③	7	8	GEN LTG (BEDROOM 1 LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	12	20	1		GEN LTG (BATHROOM 2)	③	9	10	GEN LTG (M.BEDROOM LTS)	③	1	15	14 1/2"	(*)			
(*) 1/2"	12	20	1		GEN LTG (BATHROOM 3)	③	11	12	GAS WATER HEATER	②④	1	20	12 1/2"	200			
(*) 1/2"	14	15	1		GEN LTG (M. BEDROOM RECS)	③	15	16	CU-2	②④	2	50	6 1"	5304			
(*) 1/2"	14	15	1		GEN LTG (M. BATHROOM)	③	17	18	(HACR TYPE BREAKER)								
(*) 1/2"	14	15	1		GEN LTG (CORRIDOR RECS)	③	19	20	AHU-2	②	2	60	6 1"	11632			
1500	1/2"	12	20	1	WISHER	②⑤	21	22	NON-CONCURRENT								
1500	3/4"	12	20	1	GAS DRYER	②④⑥	23	24	CU-3	②④	2	50	6 1"	6365			
1500	1/2"	12	20	1	LAUNDRY CIRCUIT	③	25	26	(HACR TYPE BREAKER)								
800	3/4"	12	20	1	LANDSCAPE LIGHTING	②	27	28	AHU-3	②	2	60	6 1"	11464			
800	3/4"	12	20	1	LANDSCAPE LIGHTING	②	29	30	NON-CONCURRENT								
1500	1/2"	12	20	1	JACUZZY	②④	31	32	CU-4	②④	2	60	6 1"	7752			
500	3/4"	12	20	1	SEPTIC TANK CONTROLLER	②	33	34	(HACR TYPE BREAKER)								
--	--	--	--	--	SPACE		35	36	AHU-4	②	2	60	6 1"	11632			
--	--	--	--	--	SPACE		37	38	NON-CONCURRENT								
--	--	--	--	--	SPACE		39	40	SPACE		--	--	--	--			
--	--	--	--	--	SPACE		41	42	SPACE		--	--	--	--			

- (*) PART OF THE 3W/SQ.FT. LOAD (GRAL LIGHTING)
- VERIFY WITH EQUIPMENT PLATE PRIOR TO ORDERING AND INSTALLATION.
- CONTRACTOR TO PROVIDE COMBINATION AFCI TYPE BREAKERS AS PER NEC-210.12.
- CONTRACTOR TO PROVIDE COMBINATION GFCI TYPE BREAKERS AS PER NEC-210.8.
- PROVIDE COMBINATION GFCI-AFCI TYPE BREAKER.
- THE FRAME OF RANGE & ELECTRIC CLOTHES DRYER SHALL BE CONNECTED TO THE EQUIPMENT GROUNDING CONDUCTOR BY NEC-250.140 & 250.134 OR 250.138.
- SMM-PROVIDE SMART MANAGEMENT MODULE.

DEMAND LOAD				240
BASED ON 120/240V, 1ø, 3W				
SERVICE LOAD				
GRAL LTG SQ.F.*3VA/SQ.F.	=	21600	VA	
SMALL APPLIANCE (3)	=	4500	VA	
LAUNDRY CIRCUIT	=	1500	VA	
DOOR OPENER (2) (PANEL "A")	=	2000	VA	
REFRIGERATOR (PANEL "A")	=	1000	VA	
FREEZER (PANEL "A")	=	1000	VA	
DISHWASHER (PANEL "A")	=	1200	VA	
WINE COOLER (PANEL "A")	=	800	VA	
UND.REFRIGERATOR (PANEL "A")	=	800	VA	
HOOD (1) (PANEL "A")	=	800	VA	
GARBAGE DISPOSAL (PANEL "A")	=	800	VA	
RANGE (PANEL "A")	=	12000	VA	
OVEN (PANEL "A")	=	9000	VA	
EV CAR CHARGER (PANEL "A")	=	7200	VA	
GATE DOOR (PANEL "A")	=	1200	VA	
IRRIGATION PUMP (PANEL "A")	=	2800	VA	
I.T. EQUIPMENT (PANEL "A")	=	500	VA	
ICE MAKER (PANEL "A")	=	800	VA	
REFRIGERATOR (PANEL "A")	=	800	VA	
WASHER (PANEL "B")	=	1500	VA	
GAS WATER HEATER (PANEL "B")	=	400	VA	
LANDSCAPE LIGHTING (2) (PANEL "B")	=	2000	VA	
GAS DRYER (PANEL "B")	=	1500	VA	
JACUZZY (PANEL "B")	=	1500	VA	
INSTA-WATER HEATER (PANEL "C")	=	12000	VA	
POOL LOADS	=	3460	VA	
CONNECTED LOAD	=	92660	VA	
FIRST 10 KW @ 100%	=	10000	VA	
82660 REMAINDER AT 40%	=	33064	VA	
46360 VA HEAT @ 65%	=	30134	VA	
2887 HEAT PUMP @100%	=	2887	VA	
SAUNA EQUIPMENT @ 100%	=	8000	VA	
TOTAL DEMAND LOAD	=	84085	VA	
	=	350	A	

DEMAND LOAD		240	
BASED ON 120/240V, 1ø, 3W			
GENERATOR			
GRAL LTG SQ.F.*3VA/SQ.F.	=	21600	VA
SMALL APPLIANCE (3)	=	4500	VA
LAUNDRY CIRCUIT	=	1500	VA
DOOR OPENER (2) (PANEL "A")	=	2000	VA
REFRIGERATOR (PANEL "A")	=	1000	VA
FREEZER (PANEL "A")	=	1000	VA
DISHWASHER (PANEL "A")	=	1200	VA
WINE COOLER (PANEL "A")	=	800	VA
WINE COOLER (PANEL "A")	=	800	VA
HOOD (1) (PANEL "A")	=	800	VA
GARBAGE DISPOSAL (PANEL "A")	=	800	VA
RANGE (PANEL "A")	=	12000	VA
OVEN (PANEL "A")	=	0	VA
EV CAR CHARGER (PANEL "A")	=	7200	VA
GATE DOOR (PANEL "A")	=	1200	VA
IRRIGATION PUMP (PANEL "A")	=	2800	VA
I.T. EQUIPMENT (PANEL "A")	=	500	VA
ICE MAKER (PANEL "A")	=	800	VA
REFRIGERATOR (PANEL "A")	=	800	VA
WASHER (PANEL "B")	=	1500	VA
GAS WATER HEATER (PANEL "B")	=	600	VA
LANDSCAPE LIGHTING (2) (PANEL "B")	=	2000	VA
GAS DRYER (PANEL "B")	=	1500	VA
JACUZZY (PANEL "B")	=	1500	VA
INSTA-WATER HEATER (PANEL "C")	=	0	VA
POOL LOADS	=	660	VA
CONNECTED LOAD	=	69060	VA
FIRST 10 KW @ 100%	=	10000	VA
59060 REMAINDER AT 40%	=	23624	VA
34728 VA HEAT @ 65%	=	22573	VA
2887 HEAT PUMP @100%	=	0	VA
SAUNA EQUIPMENT @ 100%	=	0	VA
LOAD MANAGED THRU SMART MANAGEMENT MODULE			
OVEN PANEL "A" (2P-40A)	=	9000	VA
INSTA-WATER HEATER (2P-50A)	=	12000	VA
POOL PUMP (2P-20A)	=	2800	VA
SAUNA (2P-40A)	=	8000	VA
LOAD MANAGED THRU INTEGRATED SMART MANAGEMENT MODULE			
AC-5	=	2887	VA
AC-2	=	11632	VA
TOTAL DEMAND LOAD	=	56197	VA
	=	234	A

MOUNTING: SURFACE SHORT CIRCUIT RATING: 22K AIC LOCATION: EXTERIOR (FLOOR PLAN) TYPE: SIEMENS OR SIMILAR						PANEL 'C' [NEMA 3R] CU BUS/GND. BUS						BASED ON: 120/240V, 1ø, 3W MAIN BUS AMPS: 200A MAIN: 2P-200A					
LOAD	COND.	WIRE	TRIP	POLE	DESCRIPTION	CKT No.	CKT No.	DESCRIPTION	POLE	TRIP	WIRE	COND.	LOAD				
8000	1"	8	40	2	SAUNA EQUIPMENT ②④ LOOKABLE BRANCH CIRCUIT ③	1	2	GEN LTG (GYM RECS) ③	1	20	12	1/2"	(*)				
2887	3/4"	10	25	2	CU-5/AHU-5 ②④ (HACR TYPE BREAKER) ③	5	6	GEN LTG (BATHROOM CIRCUIT) ③	1	20	12	1/2"	(*)				
12000	1"	6	50	2	INSTA-WATER HEATER ②③ LOOKABLE BRANCH CIRCUIT ③	9	10	GEN LTG (STORAGE LTS) ③	1	20	12	1/2"	(*)				
300	-	-	20	1	FUT. POOL LTS(GF) ②	11	12	FUT. POOL EQUIP. PUMP (GF) ①②③	2	20	-	-	2800				
200	-	-	20	1	FUT. GAS POOL HEATER (GF)	15	16	FUT. POOL REC(GF) ②	1	20	-	-	360				
--	-	-	-	-	SPACE	17	18	SPACE	-	-	-	-	--				
--	-	-	-	-	SPACE	19	20	SPACE	-	-	-	-	--				
--	-	-	-	-	SPACE	21-23	22-24	SPACE	-	-	-	-	--				
TOTAL CONNECTED LOAD: <u>SEE LOAD ANALYSIS</u>						① VERIFY WITH EQUIPMENT PLATE PRIOR TO ORDERING AND INSTALLATION. ② POOL EQUIPMENT BY NEC-680. ③ SMM- PROVIDE SMART MANAGEMENT MODULE.											