ELECTRICAL GENERAL NOTES:

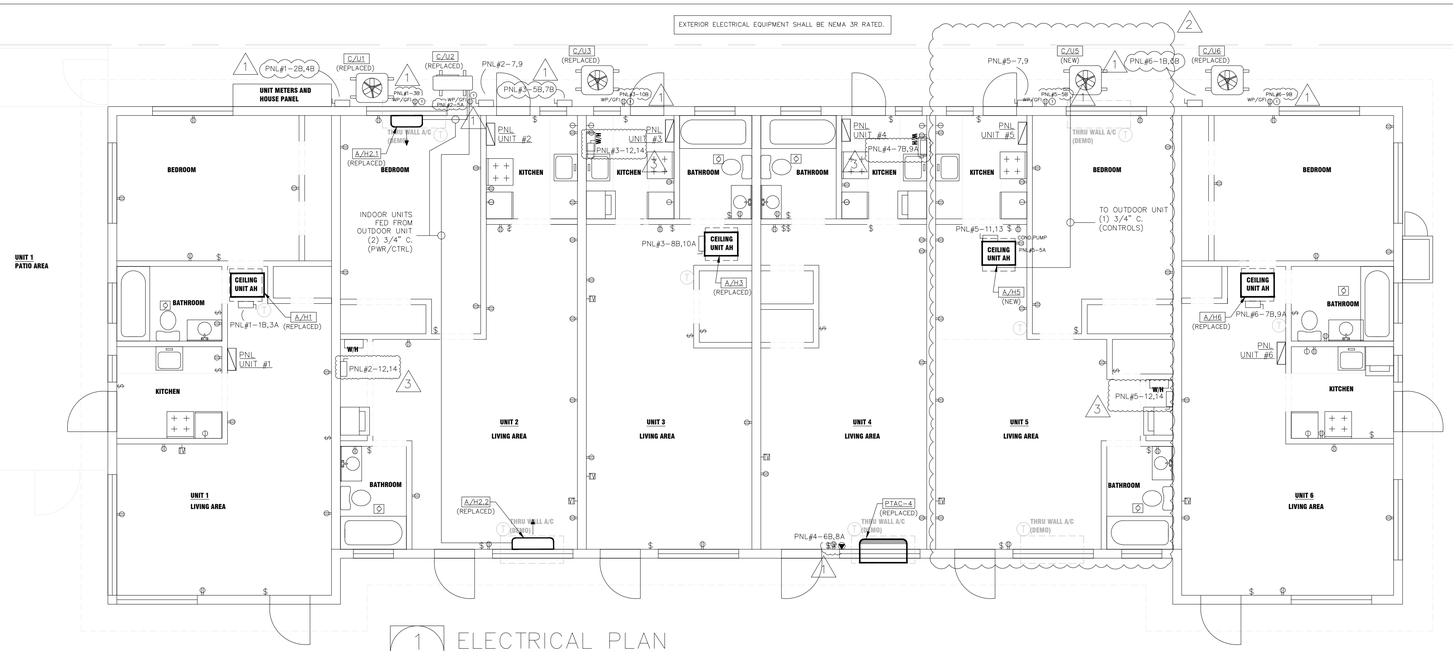
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND SHALL COMPLY WITH ALL LOCAL RULES AND ORDINANCES.
2. MINIMUM WIRE SIZE SHALL BE 12 AWG, EXCLUDING CONTROL WIRING, UNLESS OTHERWISE NOTED.
3. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS, AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
4. DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
5. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS 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.
6. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C.
7. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITER'S LABELS, WHERE APPLICABLE.
8. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
9. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
10. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF ACCEPTANCE.
11. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
12. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST LIABILITY OF PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
13. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, AND TESTING.

ELECTRICAL DEMOLITION NOTES:

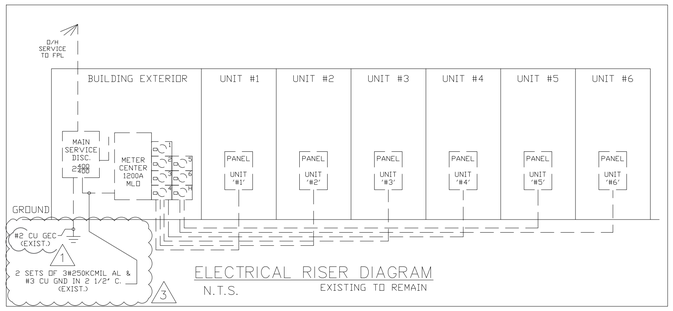
1. WITHIN THE AREA IDENTIFIED, UNLESS SPECIFICALLY NOTED OTHERWISE, CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING LIGHT FIXTURES AS INDICATED. REMOVE ALL UNUSED CONDUIT AND WIRING BACK TO POWER SOURCE OR NEXT ACTIVE OUTLET. EXISTING CIRCUIT ASSOCIATED WITH THIS SHALL REMAIN AS SPARE(S) IN RESPECTIVE PANELS. WHERE CONDUIT IS INACCESSIBLE, REMOVE CONDUCTORS AND CUT BACK CONDUIT FLUSH WITH SLAB OR WALL. PATCH OPENINGS TO MATCH EXISTING FINISHES. WHERE EXISTING WIRING EXTENDS OUTSIDE OF THE AREA BY NATURE OF THE ORIGINAL INSTALLATION, CONTRACTOR SHALL MODIFY EXISTING WIRING AS REQUIRED TO MAINTAIN CONTINUITY OF EXISTING CIRCUITRY SUCH THAT NO EQUIPMENT TO REMAIN IS LEFT WITHOUT SERVICE.
2. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND SHALL NOTIFY THE ARCHITECT AND/OR ENGINEER IF A CONDITION EXISTS WHICH PREVENTS HIM FROM ACCOMPLISHING THE WORK INDICATED AND INTENDED BY THESE DRAWINGS.
3. PRIOR TO BID, THE EXTENT AND UNDERSTANDING OF THE WORK TO BE PERFORMED SHALL BE CLEARLY ESTABLISHED SUCH THAT NO ADDITIONAL COSTS WILL BE INCURRED. ANY WORK, OTHER THAN AS DESCRIBED ON THESE DRAWINGS REQUIRED TO PROVIDE AND INSTALL ANY ITEM OR SYSTEMS, SHALL BE QUALIFIED WITH THE BID.
4. PRIOR TO COMMENCING WORK, CONTRACTOR SHALL DISCONNECT POWER IN THE DEMOLITION AREA.
5. CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING DEMOLITION WORK. EXISTING FEEDERS AND PANELS ARE SHOWN SCHEMATIC FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD-VERIFY ROUTING OF ALL EXISTING FEEDERS PRIOR TO DEMOLITION.
6. CONTRACTOR SHALL PROVIDE TEMPORARY POWER WHERE REQUIRED DURING DEMOLITION AND CONSTRUCTION SCOPE OF WORK.
7. CONTRACTOR SHALL PROVIDE ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY FOR THE DURATION OF THE WORK.

ABBOTT AVENUE

EXTERIOR ELECTRICAL EQUIPMENT SHALL BE NEMA 3R RATED.



1 E-1.00 ELECTRICAL PLAN
SCALE: 3/16" = 1'-0"



ELECTRICAL RISER DIAGRAM
N.T.S.
EXISTING TO REMAIN

NOTE: PANEL SCHEDULES ARE BASED ON EXISTING PANEL DIRECTORIES ON SITE. CONTRACTOR SHALL FIELD VERIFY ALL CIRCUITS FOR A/C LOADS.

AC SERVICE RECEPTACLE NOTE

PROVIDE GFCI RECEPTACLE WITHIN 25' OF AC EQUIPMENT.
1 CONNECT TO RESPECTIVE UNIT PANEL
EXISTING RECEPTACLE CIRCUIT.

PROJECT SCOPE OF WORK

SCOPE OF WORK IS LIMITED TO THE FOLLOWING:

HVAC

- REPLACE EXISTING AC UNITS AT EACH UNIT. MODIFY/ADD POWER AS INDICATED ON PANEL SCHEDULES. RESPECTIVE CIRCUIT NUMBERS SHOWN ON FLOOR PLAN

WATER HEATER REPLACEMENT

- REPLACE EXISTING WATER HEATERS AT UNITS 2, 3, 4, & 5. RE-USE EXISTING CIRCUITS. MODIFY CB AND WIRE AS INDICATED ON PANEL. (3)

UNIT #1 — EXISTING TO REMAIN — 580 SQ.FT.

Service: 120/240V-1PH, 3W	CKT. NO.	BRKR.-POLE	WIRE-COND.	LOAD	
SPACE	1A				T
A/H1	1B	30-2	10-1/2"	3290	T
	3A				T
RECEPTACLE	3B	20-1	12-1/2"	*	T
BATH HEATER	5A	20-1	12-1/2"	1400	T
KITHCHEN GFI	5B	20-1	12-1/2"	1500	T
EXISTING LOAD	7	15-1	14-1/2"	*	T
ELECTRIC WATER HEATER	2A	20-2 T	12-1/2"	1400	T
C/U1	2B	20-2 T	12-1/2"	-	1
ELECTRIC WATER HEATER	4A	20-2 T	12-1/2"	1400	T
C/U1	4B	20-2 T	12-1/2"		
BATHROOM GFI	6A	20-1	12-1/2"	*	T
KITCHEN GFI	6B	20-1	12-1/2"	1500	T
LIGHTING	8	15-1	14-1/2"	*	

* GENERAL LIGHTING LOAD @ 3 WATTS / SQ.FT.		1740
TOTAL CONNECTED LOAD (KVA)		12.2
TOTAL LESS A/C		8.9
1ST 10KW @ 100%		10.0
REMAINDER @ 40%		-
A/C LOAD @ 100%		3.3
NET DEMAND		13.3
AMPS @ 240V 1PH		55.4
MAIN BREAKER	125A-2P CB	
EXISTING FEEDER	3#2 & #6 GND IN 1 1/4" C. (EXISTING)	

PANEL NOTES
T - INDICATES EXISTING TANDEM BREAKER
MODIFY EXSITING AC CIRCUIT WITH NEW CB SIZE AND WIRE
1 NEW 20-2/20-2 TANDEM BREAKER AT EXISTING 20-2 CB

UNIT #2 — EXISTING TO REMAIN — 570 SQ.FT.

Service: 120/240V-1PH, 3W	CKT. NO.	BRKR.-POLE	WIRE-COND.	LOAD	
KITCHEN GFI	1A	20-1	12-1/2"	1500	T
MICROWAVE	1B	20-1	12-1/2"	1200	T
EXISTING LOAD	3A	20-1	12-1/2"	*	T
EXISTING LOAD	3B	20-1	12-1/2"	*	T
LIVING ROOM	5A	15-1	14-1/2"	*	T
EXISTING LOAD	5B	20-1	12-1/2"	*	T
C/U2	7	30-2	10-1/2"	3320	T
	9				T
SPARE	11	30-2			T
	13				T
SPACE	2A				T
DINING RECEPT.	2B	20-1	12-1/2"	*	T
KITCHEN GFI	4A	20-1	12-1/2"	1500	T
REGRIGERATOR	4B	20-1	12-1/2"	800	T
EXISTING LOAD	6A	20-1	12-1/2"	*	T
RANGE	6B	50-2	6-1"	9600	T
	8A				T
DRYER	8B	30-2	10-1/2"	5000	T
	10A				T
GEN LTS/RECEPT.	10B	15-1	14-1/2"	*	T
INSTA-HOT WATER HEATER	12	70-2	4-1 1/4"	14600	T
	14				T

* GENERAL LIGHTING LOAD @ 3 WATTS / SQ.FT.		1710
TOTAL CONNECTED LOAD (KVA)		39.2
TOTAL LESS A/C		35.9
1ST 10KW @ 100%		10.0
REMAINDER @ 40%		10.4
A/C LOAD @ 100%		3.3
NET DEMAND		23.7
AMPS @ 240V 1PH		98.7
MAIN BREAKER	125A-2P CB	
EXISTING FEEDER	3#2 & #6 GND IN 1 1/4" C. (EXISTING)	

PANEL NOTES
T - INDICATES EXISTING TANDEM BREAKER
MODIFY EXSITING AC CIRCUIT WITH NEW CB SIZE AND WIRE
1 NEW 30-2 CIRCUIT BREAKER AND WIRE

UNIT #3 — EXISTING TO REMAIN — 400 SQ.FT.

Service: 120/240V-1PH, 3W	CKT. NO.	BRKR.-POLE	WIRE-COND.	LOAD	
SPACE	1				T
BATHROOM GFI	3	20-1	12-1/2"	*	T
SPARE	5A	30-2 T			T
C/U3	5B	20-2 T	12-1/2"	-	1
SPARE	7A	30-2 T			T
C/U3	7B	20-2 T	12-1/2"		
BATHROOM LIGHTS	9A	15-1	14-1/2"	*	T
LIGHTS	9B	15-1	14-1/2"	*	T
RANGE	11	40-2	8-3/4"	7200	T
	13				T
RECEPT.	2	20-1	12-1/2"	*	T
GARBAGE DISPOSAL	4	20-1	12-1/2"	650	T
LIVING ROOM LIGHTS	6A	20-1	12-1/2"	*	T
REFRIGERATOR	6B	20-1	12-1/2"	800	T
KITCHEN GFI	8A	20-1	12-1/2"	1500	T
A/H3	8B	30-2	10-1/2"	3290	T
	10A				T
RECEPT.	10B	15-1	14-1/2"	*	T
ELECTRIC WATER HEATER	12	40-2	8-3/4"	8000	T
	14				T

* GENERAL LIGHTING LOAD @ 3 WATTS / SQ.FT.		1200
TOTAL CONNECTED LOAD (KVA)		22.6
TOTAL LESS A/C		19.4
1ST 10KW @ 100%		10.0
REMAINDER @ 40%		3.7
A/C LOAD @ 100%	C/U3 IS NON-CONCURRENT	3.3
NET DEMAND		17.0
AMPS @ 240V 1PH		71.0
MAIN BREAKER	125A-2P CB	
EXISTING FEEDER	3#2 & #6 GND IN 1 1/4" C. (EXISTING)	

PANEL NOTES
T - INDICATES EXISTING TANDEM BREAKER
MODIFY EXSITING AC CIRCUIT WITH NEW CB SIZE AND WIRE
1 NEW 30-2/20-2 TANDEM BREAKER AT EXISTING 30-2 CB

UNIT #4 — EXISTING TO REMAIN — 400 SQ.FT.

Service: 120/240V-1PH, 3W	CKT. NO.	BRKR.-POLE	WIRE-COND.	LOAD	
SPACE	1A				T
SPACE	1B				T
SPACE	3A				T
SPACE	3B				T
SPACE	5A				T
EXISTING LOAD	5B	15-1	14-1/2"	*	T
EXISTING LOAD	7A	20-1	12-1/2"	1500	T
ELECTRIC WATER HEATER	7B	40-2	8-3/4"	8000	T
	9A				T
RANGE	9B	50-2	6-1"	9600	T
	11A				T
DRYER	11B	30-2	10-1/2"	5000	T
	13A				T
SPACE	13B				T
SPACE	2A				T
SPACE	2B				T
SPACE	4A				T
SPACE	4B				T
SPACE	6A				T
PTAC-4	6B	15-2	14-1/2"	2670	T
	8A				T
BATHROOM GFI	8B	20-1	12-1/2"	*	T
FREEZER	10A	20-1	12-1/2"	850	T
KITCHEN GFI	10B	20-1	12-1/2"	1500	T
EXISTING LOAD	12	20-2	12-1/2"	2000	T
	14				T

* GENERAL LIGHTING LOAD @ 3 WATTS / SQ.FT.		1200
TOTAL CONNECTED LOAD (KVA)		32.3
TOTAL LESS A/C		32.3
1ST 10KW @ 100%		10.0
REMAINDER @ 40%		8.9
A/C LOAD @ 100%		0.0
NET DEMAND		18.9
AMPS @ 240V 1PH		78.9
MAIN BREAKER	125A-2P CB	
EXISTING FEEDER	3#2 & #6 GND IN 1 1/4" C. (EXISTING)	

PANEL NOTES
T - INDICATES EXISTING TANDEM BREAKER
MODIFY EXSITING AC CIRCUIT WITH NEW CB SIZE AND WIRE

UNIT #5 — EXISTING TO REMAIN — 570 SQ.FT.

Service: 120/240V-1PH, 3W	CKT. NO.	BRKR.-POLE	WIRE-COND.	LOAD	
KITCHEN GFI	1A	20-1	12-1/2"	1500	T
MICROWAVE	1B	20-1	12-1/2"	1200	T
EXISTING LOAD	3A	20-1	12-1/2"	*	T
EXISTING LOAD	3B	20-1	12-1/2"	*	T
LIVING ROOM	5A	15-1	14-1/2"	*	T
EXISTING LOAD	5B	20-1	12-1/2"	*	T
C/U5	7	15-2	12-1/2"	-	
	9				
A/H5	11	30-2	10-1/2"	5480	T
	13				T
SPACE	2A				T
DINING RECEPT.	2B	20-1	12-1/2"	*	T
KITCHEN GFI	4A	20-1	12-1/2"	1500	T
REGRIGERATOR	4B	20-1	12-1/2"	800	T
EXISTING LOAD	6A	20-1	12-1/2"	*	T
RANGE	6B	50-2	6-1"	9600	T
	8A				T
DRYER	8B	30-2	10-1/2"	5000	T
	10A				T
GEN LTS/RECEPT.	10B	15-1	14-1/2"	*	T
INSTA-HOT WATER HEATER	12	70-2	4-1 1/4"	14600	T
	14				T

* GENERAL LIGHTING LOAD @ 3 WATTS / SQ.FT.		1710
TOTAL CONNECTED LOAD (KVA)		41.4
TOTAL LESS A/C		35.9
1ST 10KW @ 100%		10.0
REMAINDER @ 40%		10.4
A/C HEAT LOAD @ 65%	5KW HEAT	3.7
NET DEMAND		24.1
AMPS @ 240V 1PH		100.4
MAIN BREAKER	125A-2P CB	
EXISTING FEEDER	3#2 & #6 GND IN 1 1/4" C. (EXISTING)	

PANEL NOTES
T - INDICATES EXISTING TANDEM BREAKER
MODIFY EXSITING AC CIRCUIT WITH NEW CB SIZE AND WIRE
1 NEW 30-2 CIRCUIT BREAKER AND WIRE

UNIT #6 — EXISTING TO REMAIN — 580 SQ.FT.

Service: 120/240V-1PH, 3W	CKT. NO.	BRKR.-POLE	WIRE-COND.	LOAD	
ELECTRIC WATER HEATER	1A	30-2 T	10-1/2"	2250	T
C/U6	1B	20-2 T	12-1/2"	-	1
ELECTRIC WATER HEATER	3A	30-2 T	10-1/2"	2250	T
C/U6	3B	20-2 T	12-1/2"	-	
EXISTING LOAD	5A	15-1	14-1/2"	*	T
EXISTING LOAD	5B	15-1	14-1/2"	*	T
BATHROOM GFI	7A	20-1	12-1/2"	*	T
A/H6	7B	30-2	10-1/2"	3290	T
	9A				T
EXISTING LOAD	9B	20-1	12-1/2"	*	T
EXISTING LOAD	11A	20-1	12-1/2"	*	T
DRYER	11B	30-2	10-1/2"	5000	T
	13A				T
SPACE	13B				T
MAIN	2	125-2	-	-	
	4				
DINING ROOM	6A	20-1	12-1/2"	*	T
FREEZER	6B	20-1	12-1/2"	*	T
RANGE	8	40-2	8-3/4"	7200	T
	10				T
EXISTING LOAD	12A	20-1	12-1/2"	*	T
EXISTING LOAD	12B	35-2	10-1/2"	4500	T
	14A				T
SPACE	14B				T

* GENERAL LIGHTING LOAD @ 3 WATTS / SQ.FT.		1740
TOTAL CONNECTED LOAD (KVA)		26.2
TOTAL LESS A/C		26.2
1ST 10KW @ 100%		10.0
REMAINDER @ 40%		6.5
A/C HEAT LOAD @ 65%		0.0
NET DEMAND		16.5
AMPS @ 240V 1PH		68.7
MAIN BREAKER	125A-2P CB	
EXISTING FEEDER	3#2 & #6 GND IN 1 1/4" C. (EXISTING)	

PANEL NOTES
T - INDICATES EXISTING TANDEM BREAKER
MODIFY EXSITING AC CIRCUIT WITH NEW CB SIZE AND WIRE
1 NEW 30-2/20-2 TANDEM BREAKER AT EXISTING 30-2 CB

KRel DESIGN

ARCHITECTURE/CIVIL/STRUCTURAL
924 NORTH FEDERAL HWY
HOLLYWOOD, FL 33022
(561) 666 2450

MEP ENGINEERS
RM2 ENGINEERING & DESIGN, LLC
CERTIFICATE OF AUTHORIZATION # 32694
3389 SHERIDAN STREET, #530
HOLLYWOOD, FL 33021
(305) 331 2699

Digitally signed by Robert M Molina
Reason: Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies
Date: 2020.12.22 20:32:43 -05'00

Seal: ROBERT M. MOLINA LICENSE No. 83253 STATE OF FLORIDA PROFESSIONAL ENGINEER

ROBERT M. MOLINA, P.E.
FLORIDA REG P.E. #83253

Revisions:

1.	12-06-19	PERMIT COMMENTS
2.	08-11-20	OWNER REVISION
3.	12-21-20	PERMIT COMMENTS

Project Name:

WINDOW, DOOR, & M/E SERVICES REPLACEMENT

7921 ABBOTT AVENUE
MIAMI BEACH, FL 33141

KEY PLAN

N

ISSUED FOR:

Comm. No. 2019.VIZ
Scale: AS SHOWN
Date: 11.04.2019
Drawn: RM
Checked: RM

Draw'g Title:

ELECTRICAL PLAN

Sheet No.

E-1.00