SBLM

## ELECTRICAL SERVICE & PANEL NOTES

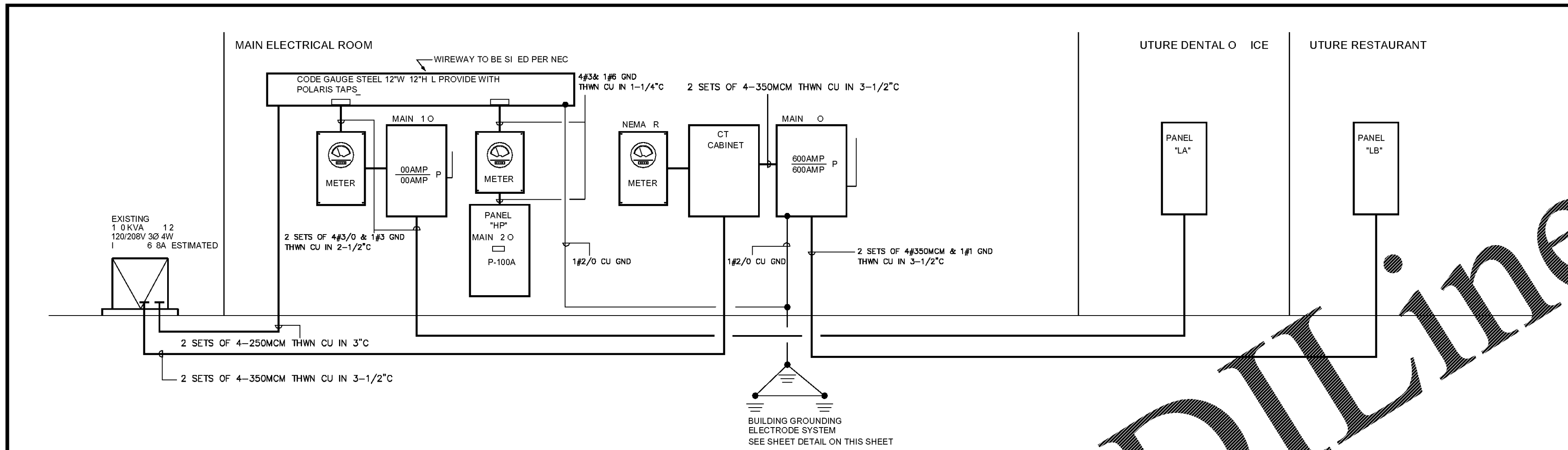
1. ALL ELECTRICAL SERVICE EQUIPMENT SHALL HAVE MIN A.I.C. RATING OF 42,000 AMPS. ALL EQUIPMENT LOCATED ON EXTERIOR OF BUILDING SHALL BE NEMA-3R RATED.

2. ALL ELECTRICAL EQUIPMENT AND WIRE SHALL BE RATED @ 75°C CONTINUOUS DUTY.

3. PRIOR TO CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL:
a) VERIFY ALL EXISTING CONDITIONS IN FIELD
b) COORDINATE THE ELECTRICAL SERVICE WITH FP&L REPRESENTATIVE
c) NOTIFY THE ENGINEER OF ANY CHANGES REQUIRED TO COMPLETE NEW CONSTRUCTION.

4. ALL ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED TO WARN OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE BEFORE ANY EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

5. EACH DISCONNECT SHALL BE LEGIBLY MARKED TO INDICATE THE UNIT IT IS FEEDING. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.




## PROPOSED POWER RISER DIAGRAM

NOT TO SCALE

C C rr
SCA S r TA Pr r l
SCA A l
L U
M rL d N
M r SCA N
M r SCA Tr M r SCA N l d d
S V 208
S P P
Tr r r
N PH S Pr V S V SCA PH
TA PL
-PH 22 208 1 2 2 0
N C d C S SCA PH
S/ WIREWAY
PVC ABS 1/ CU 2 0 2 6 2 61
S/ MAIN O
PVC ABS 1/ CU 0 2 6 2 1 8
S r EDR E r D r R r

## SCHEDULE OF SERVICE DISTRIBUTION WIREWAY

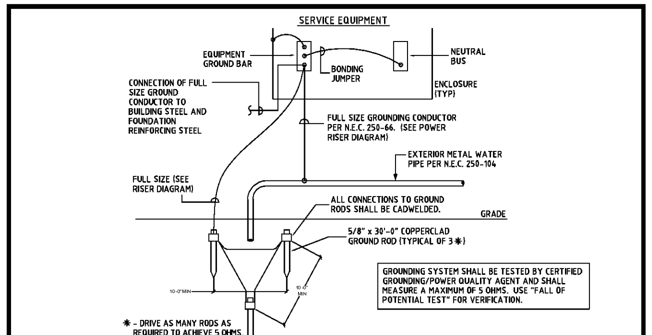
500AMP SERVICE

VOLTAGE: 208/120V, 3ø, 4 WIRE

AIC SYMM: 100,000

### DISTRIBUTION SECTION

| DESIGNATION | DESCRIPTION | METER AMPERE RATING | METER VOLTAGE | FUSIBLE SAFETY SWITCH TYPE "HD" FRAME | FUSE | POLES | FEEDER | A PHASE KVA | B PHASE KVA | C PHASE KVA | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| W-1 | DENTAL OFFICE | 400 | 208/120 VOLT 3ø 4W | 400 | 400 | 3 | SEE RISER | 38.4 | 38.4 | 38.4 | ESTIMATED FUTURE LOAD |
| W-2 | HOUSE PANEL | 100 | 208/120 VOLT 3ø 4W | 100 | 100 | 3 | SEE RISER | 2.6 | 3.2 | 3.2 | – |
| | | | | | | | KVA PER PHASE | 41.0 | 41.6 | 41.6 | |
| | | | | | | | AMPS PER PHASE | 341.7 | 346.7 | 346.7 | |
| | | | | | | | TOTAL KVA | | 124.2 | | |



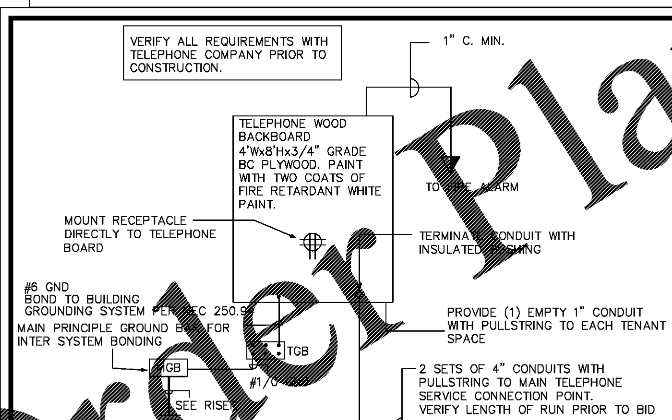

NOTE:
CONTRACTOR SHALL PROVIDE GROUND ROD TEST WELLS EQUAL TO BROOKS CAT. #38-T FOR TRAFFIC AREAS AND A SIMILAR PLASTIC TEST WELL FOR NON-TRAFFIC AREAS. THE GROUND ROD TEST WELL MUST BE LARGE ENOUGH TO ALLOW USE OF AN AEMC 3710. THE BOX MUST BE AT LEAST 14"X8" AND THE COVER SHOULD STATE GROUND.

### TRIANGULAR GROUNDING-GENERAL NOTE

# 3/0 AWG BARE CONTINUOUS GROUNDING ELECTRODE CONDUCTOR FOR MAIN SERVICE GROUNDING. CONNECT TO INTERIOR METALLIC COLD WATER PIPE, CONCRETE ENCASED STEEL REBAR IN BUILDING FOUNDATION AND THREE 5/8" x 10' COPPERCLAD GROUND RODS DRIVEN WITH BENTONITE # 1937-R IN TRIPOISE CONFIGURATION. MINIMUM DISTANCE BETWEEN RODS SHALL BE 10 FEET. GROUNDING RESISTANCE SHALL HAVE MAXIMUM READING OF 5 OHMS. IF REQUIRED PROVIDE ADDITIONAL GROUND RODS TO ACHIEVE LESS THAN 5 OHMS RESISTANCE. FOR EACH GROUND ROD PROVIDE TEST WELL FLUSHED IN GRADE ENCLOSURE, BROOKS PRODUCTS AND CAST IRON COVER PLATE WITH WORDS "GROUND RODS" ON TOP. CONTRACTOR SHALL ARRANGE TO HAVE A GROUNDING TEST/INSPECTION PERFORMED IN THE PRESENCE OF THE SPD CERTIFIED GROUNDING/POWER QUALITY AGENT. ALL GROUNDING CONDUCTORS INSTALLED UNDERGROUND SHALL BE BARE COPPER AND ALL CONNECTIONS TO THE GROUND RODS AND BUILDING STEEL SHALL BE CADWELDED. INSTALL GROUND CONDUCTORS 18" BELOW GRADE. GROUND RODS TEST WELLS SHALL BE INSTALLED IN NON-TRAFFIC AREAS. CONTRACTOR TO TAKE PICTURES OF GROUND SYSTEM INSTALLATION AND SUBMIT WITH TESTING REPORTS.

## GROUNDING ELECTRODE CONDUCTOR DETAIL

NOT TO SCALE




## TELEPHONE RISER DIAGRAM

NOT TO SCALE

## SCHEDULE OF BRANCH CIRCUIT PANEL "LB" ①②

MAIN: 600 AMP MAIN LUGS ONLY
SPEC: SQUARE D TYPE "NQ" OR APPROVED EQUIVALENT
MOUNTING: SURFACE
VOLTAGE: 208/120V, 3ø, 4 WIRE
AIC SYMM: 10,000

| DESCRIPTION | WIRE | GND. | COND. | TRIP | CKT. | A PHASE KVA | B PHASE KVA | C PHASE KVA | CKT. | TRIP | COND. | GND. | WIRE | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTU-1B ③ | #8 | #10 | 3/4" | 50/3 | 1 | 4.7 / 0.4 | — | — | 2 | 20 | 1/2" | #12 | #12 | ROOF SERVICE RECEPT |
| | | | | | 3 | — | 4.7 / 0.4 | — | 4 | 20 | 1/2" | #12 | #12 | TEMP LIGHTING |
| | | | | | 5 | — | — | 4.7 / 1.2 | 6 | 20 | 1/2" | #12 | #12 | TENANT SIGN |
| RTU-2B ③ | #8 | #10 | 3/4" | 50/3 | 7 | 4.7 / 1.2 | — | — | 8 | 20 | 1/2" | #12 | #12 | TENANT SIGN |
| | | | | | 9 | — | 4.7 / 1.2 | — | 10 | 20 | 1/2" | #12 | #12 | TENANT SIGN |
| | | | | | 11 | — | — | 4.7 / – | 12 | 20 | – | – | – | SPARE |
| RTU-3B ③ | #2 | #8 | 1-1/4" | 90/3 | 13 | 8.5 / – | — | — | 14 | 20 | – | – | – | SPARE |
| | | | | | 15 | — | 8.5 / – | — | 16 | 20 | – | – | – | SPARE |
| | | | | | 17 | — | — | 8.5 / – | 18 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 19 | – / – | — | — | 20 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 21 | — | – / – | — | 22 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 23 | — | — | – / – | 24 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 25 | – / – | — | — | 26 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 27 | — | – / – | — | 28 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 29 | — | — | – / – | 30 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 31 | – / – | — | — | 32 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 33 | — | – / – | — | 34 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 35 | — | — | – / – | 36 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 37 | – / – | — | — | 38 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 39 | — | – / – | — | 40 | 20 | – | – | – | SPARE |
| SPACE | – | – | – | – | 41 | — | — | – / – | 42 | 20 | – | – | – | SPARE |
| SPARE | – | – | – | 200/3 | | – / – | — | — | | 200/3 | – | – | – | SPARE |
| | | | | | | — | – / – | — | | | | | | |
| | | | | | | — | — | – / – | | | | | | |
| | | | | | | 19.5 | 19.5 | 19.1 | KVA PER PHASE | | | | | |
| | | | | | | 162.5 | 162.5 | 159.2 | AMPS PER PHASE | | | | | |
| | | | | | | | 58.1 | | TOTAL KVA | | | | | |

REMARKS & KEY NOTES:
① ELECTRICAL CONTRACTOR SHALL PROVIDE AN ACCURATE PER FIELD CONDITIONS, TYPED UP PANEL SCHEDULE UPON COMPLETION OF THE PROJECT.
② VERIFY ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT PRIOR TO CONSTRUCTION; ALL EQUIPMENT'S ELECTRICAL REQUIREMETNS SHALL BE CONFIRMED WITH MFG SPECS. VERIFY VOLTAGE, AMPERAGE, AND BREAKER SIZES.
③ PROVIDE "HACR" TYPE OF CIRCUIT BREAKER.

## SCHEDULE OF BRANCH CIRCUIT PANEL "LA"

MAIN: 400 AMP MAIN LUGS ONLY
SPEC: SQUARE D TYPE "NQOD" OR APPROVED EQUIVALENT
MOUNTING: SURFACE
VOLTAGE: 208/120V, 3ø, 4 WIRE
AIC SYMM: 10,000

| DESCRIPTION | WIRE | GND. | COND. | TRIP | CKT. | A PHASE KVA | B PHASE KVA | C PHASE KVA | CKT. | TRIP | COND. | GND. | WIRE | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTU-1A ③ | #8 | #10 | 3/4" | 45/3 | 1 | 4.2 / 0.4 | — | — | 2 | 20 | 1/2" | #12 | #12 | ROOF SERVICE RECEPT |
| | | | | | 3 | — | 4.2 / 0.4 | — | 4 | 20 | 1/2" | #12 | #12 | TEMP LIGHTING |
| | | | | | 5 | — | — | 4.2 / 1.2 | 6 | 20 | 1/2" | #12 | #12 | TENANT SIGN |
| RTU-2A ③ | #8 | #10 | 3/4" | 45/3 | 7 | 4.2 / 1.2 | — | — | 8 | 20 | 1/2" | #12 | #12 | TENANT SIGN |
| | | | | | 9 | — | 4.2 / – | — | 10 | – | – | – | – | SPACE |
| | | | | | 11 | — | — | 4.2 / – | 12 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 13 | – / – | — | — | 14 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 15 | — | – / – | — | 16 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 17 | — | — | – / – | 18 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 19 | – / – | — | — | 20 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 21 | — | – / – | — | 22 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 23 | — | — | – / – | 24 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 25 | – / – | — | — | 26 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 27 | — | – / – | — | 28 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 29 | — | — | – / – | 30 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 31 | – / – | — | — | 32 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 33 | — | – / – | — | 34 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 35 | — | — | – / – | 36 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 37 | – / – | — | — | 38 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 39 | — | – / – | — | 40 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 41 | — | — | – / – | 42 | – | – | – | – | SPACE |
| | | | | | | 10.0 | 8.8 | 9.6 | KVA PER PHASE | | | | | |
| | | | | | | 83.4 | 73.4 | 80.0 | AMPS PER PHASE | | | | | |
| | | | | | | | 28.4 | | TOTAL KVA | | | | | |

REMARKS & KEY NOTES:
① ELECTRICAL CONTRACTOR SHALL PROVIDE AN ACCURATE PER FIELD CONDITIONS, TYPED UP PANEL SCHEDULE UPON COMPLETION OF THE PROJECT.
② VERIFY ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT PRIOR TO CONSTRUCTION; ALL EQUIPMENT'S ELECTRICAL REQUIREMETNS SHALL BE CONFIRMED WITH MFG SPECS. VERIFY VOLTAGE, AMPERAGE, AND BREAKER SIZES.
③ PROVIDE "HACR" TYPE OF CIRCUIT BREAKER.

## SCHEDULE OF BRANCH CIRCUIT PANEL "HP"

MAIN: 100 AMP MAIN CIRCUIT BREAKER
SPEC: SQUARE D TYPE "NQOD" OR APPROVED EQUIVALENT
MOUNTING: SURFACE
VOLTAGE: 208/120V, 3ø, 4 WIRE
AIC SYMM: 10,000

| DESCRIPTION | WIRE | GND. | COND. | TRIP | CKT. | A PHASE KVA | B PHASE KVA | C PHASE KVA | CKT. | TRIP | COND. | GND. | WIRE | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CANOPY LIGHTING | #10 | #10 | 3/4" | 20 | 1 | 1.0 / 0.2 | — | — | 2 | 20 | 1/2" | #12 | #12 | RECEPT – ELEC ROOM |
| CANOPY LIGHTING | #10 | #10 | 3/4" | 20 | 3 | — | 1.0 / 0.2 | — | 4 | 20 | 1/2" | #12 | #12 | FIRE ALARM CONTROL PANEL |
| SPARE | – | – | – | 20 | 5 | — | — | 1.0 / 0.2 | 6 | 20 | 1/2" | #12 | #12 | LIGHT. – ELEC ROOM |
| SPARE | – | – | – | 20 | 7 | 1.0 / 0.4 | — | — | 8 | 20 | 1/2" | #12 | #12 | TELEPHONE BACKBOARD |
| SPARE | – | – | – | 20 | 9 | — | 1.0 / 0.4 | — | 10 | 20 | 1/2" | #12 | #12 | RECEPT. – ELEC RM |
| SPARE | – | – | – | 20 | 11 | — | — | 1.0 / 1.2 | 12 | 20 | 3/4" | #10 | #10 | MONUMENT SIGN |
| SPACE | – | – | – | – | 13 | – / – | — | — | 14 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 15 | — | – / – | — | 16 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 17 | — | — | – / – | 18 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 19 | – / – | — | — | 20 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 21 | — | – / – | — | 22 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 23 | — | — | – / – | 24 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 25 | – / – | — | — | 26 | – | – | – | – | SPACE |
| SPACE | – | – | – | – | 27 | — | – / 1.0 | — | 28 | 15/2 | 1/2" | #12 | #12 | AHU-1 & CU-1 |
| SPACE | – | – | – | – | 29 | — | — | – / 1.0 | 30 | | | | | |
| | | | | | | 2.6 | 3.2 | 3.2 | KVA PER PHASE | | | | | |
| | | | | | | 21.7 | 26.7 | 26.7 | AMPS PER PHASE | | | | | |
| | | | | | | | 9.0 | | TOTAL KVA | | | | | |

B&K PROJECT#: 2018-0035
PROJECT MANAGER: JUAN J. BEDOYA

06/21/2018
DATE

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ELEC DEPT.
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CERTIFICATION OF AUTHORIZATION
NO. 31989

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEERS ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

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Revisions/Issues

06/21/18 PERMIT SET

Key Plan

N

Seal

James L. Cohen AR0015903

Project Title
SOUTHERN PALM CROSSING
BUILDING SHELL
11001-11161 Southern Blvd.
Royal Palm Beach , FL. 33411

Job Number017512.00

Drawing
ELECTRICAL RISER
AND PANEL SCHEDULES

Scale N.T.S

Drawing Date

Drawing No.

E3.1

Sheet Of