



### ELECTRICAL GENERAL NOTES

- A. ADMINISTRATIVE:**
- A.1. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS PROJECT.
  - A.2. REFER TO CIVIL PLANS, SPECIFICATIONS, AND ADDENDA FOR UPDATED AND COMPLETE ALTERNATES AND DEMOLITION ON THIS PROJECT
  - A.3. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEW OF ALL ARCHITECTURAL, AND CIVIL PLANS, SPECIFICATIONS, AND ADDENDA FOR COORDINATION, INFORMATION, AND FOR ADDITIONAL ELECTRICAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE INCLUDED IN THESE DOCUMENTS THAT THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND OR INSTALLING.
  - A.4. DO NOT SCALE DRAWINGS. DRAWINGS ARE DIAGRAMMATIC. ALL DIMENSIONS SHOWN ARE APPROXIMATE. ALL LOCATIONS SHALL BE FIELD VERIFIED.
  - A.5. NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT.
  - A.6. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE A.D.A.A.G. (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES).
  - A.7. THE CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING SITE CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL, INCLUDING THE EXTENT OF DEMOLITION AND CONFLICTS WITH PLANS.
  - A.8. ALL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE--2011 EDITION OR THE EDITION REQUIRED BY THE AUTHORITY HAVING JURISDICTION, LOCAL/MUNICIPAL CODES, AND THE AUTHORITY HAVING JURISDICTION.
  - A.9. REFER TO CIVIL PLANS/SPECIFICATIONS FOR A DETAILED DESCRIPTION OF ALL ALTERNATES. ELECTRICAL WORK MAY BE INVOLVED THAT DOES NOT SHOW ON THE ELECTRICAL PLANS.
- B. CONDUIT AND WIRE:**
- B.1. MULTIPLE CIRCUITS ON THE SAME PHASE SHALL NOT BE COMBINED IN A SINGLE RACEWAY UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOME RUNS MAY BE COMBINED AT THE CONTRACTOR'S DISCRETION NOT GREATER THAN THREE CIRCUITS CONSISTING OF (3) PHASE CONDUCTORS, (3) NEUTRAL CONDUCTORS, AND GROUNDING CONDUCTOR.
  - B.2. THE MINIMUM WIRE SIZE SHALL BE #12 FOR ALL POWER CIRCUITS. EACH CIRCUIT SHALL HAVE A SEPARATE AND DEDICATED NEUTRAL FROM THE PANEL. SEE BRANCH CIRCUIT VOLTAGE DROP TABLE FOR SIZING OF CONDUCTORS.
  - B.3. THE MINIMUM CONDUIT SIZE IS 1".
  - B.4. THIN WALL CONDUIT SHALL NOT BE INSTALLED FOR EXTERIOR USE.
  - B.5. ALL EXPOSED CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR, AND SHALL BE RIGID GALVANIZED UNLESS OTHERWISE NOTED
  - B.6. ALL CONDUITS STUBBED TO ANY LOCATION SHALL BE CAPPED AND MARKED.
  - B.7. MAINTAIN MAXIMUM SPACE BETWEEN LOW VOLTAGE CABLES WITH METAL CONDUCTORS AND SOURCES OF INTERFERENCE INCLUDING: POWER WIRING, ALL LIGHT FIXTURES, AND ESPECIALLY MOTORS AND TRANSFORMERS. ELECTRICAL INTERFERENCE IS REDUCED BY DISTANCE FROM SOURCES.
- C. ELECTRICAL--OTHER:**
- C.1. ALL PANELS SHALL BE PANELBOARD CONSTRUCTION WITH BOLT ON BREAKERS. TANDEM BREAKERS SHALL NOT BE USED. NOTIFY THE ENGINEER IF ADDITIONAL POLE SPACE IS NEEDED PRIOR TO INSTALLATION.

### SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING OR AS INDICATED
	SINGLE RECEPTACLE (SAME RATING AS CIRCUIT)	WALL - 18" AFF
	DUPLEX RECEPTACLE (20 AMP)	WALL - 18" AFF
	QUAD-PLEX RECEPTACLE	WALL - 18" AFF
	SWITCHED DUPLEX RECEPTACLE	WALL - 18" AFF
	GFI DUPLEX RECEPTACLE (20 AMP)	WALL - 18" AFF
	GFI QUAD RECEPTACLE	WALL - 18" AFF
	SPECIAL OUTLET (SEE SCHEDULE)	WALL, FLOOR
	TELEPHONE OUTLET	WALL - 18" AFF
	DATA OUTLET	WALL - 18" AFF
	COMBINATION DATA AND TELEPHONE OUTLET	WALL - 18" AFF
	JUNCTION BOX	AS NOTED
	PULL BOX	WALL- 48" AFF
	SAFETY SWITCH (NON-FUSED)	6'-0" AFF TO TOP
	SAFETY SWITCH (FUSED)	6'-0" AFF TO TOP
	TOGGLE DISCONNECT SWITCH	WALL
	STARTER	WALL
	ELECTRICAL PANELBOARD (SURFACE MTD.)	48" AFF TO CENTER UON
	ELECTRICAL PANELBOARD (FLUSH MTD.)	48" AFF TO CENTER UON

- SYMBOLS LIST NOTES:**
1. SOME MAY NOT BE USED IN THIS SET OF PLANS.
  2. ABBREVIATIONS MAY BE WITH OR WITHOUT PERIODS.
  3. ALL MOUNTINGS APPLY UNLESS OTHERWISE NOTED.
  4. ITB SHALL BE MINIMUM VOID FREE, A/C 3/4" PLYWOOD WITH A FACE SHOWING, KILN DRIED WITH MAXIMUM 15% MOISTURE CONTENT, SECURELY ATTACHED TO WALL FRAMING MEMBERS, WITH FIRE RETARDANT COATING, OR INTUMESCENT WHITE PAINT. COVER WALL WITH ITB PLYWOOD FROM FLOOR TO 8' AFF.
  5. LIGHT FIXTURE CAPITAL LETTER DESIGNATIONS KEY TO MATCHING ENTRIES IN THE LIGHTING FIXTURE SCHEDULE.
  6. LIGHT FIXTURE SMALL CASE LETTER DESIGNATIONS (IF SHOWN) REPRESENT SWITCHING REQUIREMENTS.
  7. ALL MOUNTING HEIGHTS SHALL BE TO CENTERLINE OF DEVICE U.O.N.

### ABBREVIATIONS

SYMBOL	DESCRIPTION
a,b,c,...	SWITCHING SCHEME
A	AMPERES
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY (K IS *1000)
ATS	AUTOMATIC TRANSFER SWITCH
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL
C	CONDUIT
CB	CIRCUIT BREAKER
CLG	CEILING
CT	MOUNTED 6" ABOVE COUNTER TOP
DF	DRINKING FOUNTAIN
EC	ELECTRICAL CONTRACTOR
E/(E)	EXISTING
EM	INDICATES DEVICE ON EMERGENCY CIRCUIT OR WITH AN EMERGENCY BATTERY
EOL	END-OF-LINE DIODE
FLA	FULL LOAD AMPS
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
FWD	FORWARD
GC	GENERAL CONTRACTOR
GF/GFCI	GROUND FAULT INTERRUPTER
GND	GROUND
HLOA	HIGH LOW OFF AUTOMATIC
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HOAFS	HAND-OFF-AUTO-FAST-SLOW SELECTOR SWITCH
HP	HORSE POWER
HVAC	HEATING, VENTILATING, OR AIR CONDITIONING
IG	ISOLATED GROUND
IP	INTERNET PROTOCOL
J-BOX	JUNCTION BOX
LTG	LIGHTING
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MCP	MOTOR CIRCUIT PROTECTOR (MAGNETIC TRIP)
MFS	MAXIMUM FUSE SIZE
MIN	MINIMUM
N/(N)	NEW
NC	NORMALLY CLOSED
NL	NIGHT LIGHT
NO	NORMALLY OPEN
OCP	OVERCURRENT PROTECTION
P	POLE
(R)	RELOCATE OR RELOCATED
SPD	SURGE PROTECTIVE DEVICE
SR	SAFETY RECEPTACLE
T-STAT	THERMOSTAT
THU	THROUGH WALL UNIT
TM	THERMAL MAGNETIC
TP	TAMPER PROOF / SAFETY OUTLET OR COVERS
TYP	TYPICAL
UCT	MOUNTED UNDER COUNTER WITHIN 12" OF TOP, UNLESS OTHERWISE NOTED
UON/UNO	VOLTS
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
VOIP	VOICE OVER IP
W	WIRE
WP	WEATHER PROOF
WPI	WP IN SERVICE (WITH PLUG INSERTED)
WR	WEATHER RESISTANT TYPE DEVICE

- ABBREVIATION SCHEDULE NOTES:**
1. SOME MAY NOT BE USED IN THIS SET OF PLANS
  2. ABBREVIATIONS MAY BE WITH OR WITHOUT PERIODS

### ELECTRICAL CONTACTS

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### SHADING LEGEND

— LIGHT COLORED LINES INDICATE ITEMS THAT ARE EXISTING OR SHOWN FOR REFERENCE, NO WORK TO BE DONE.

— DARK COLORED LINES INDICATE NEW ITEMS OR EXISTING ITEMS WHERE WORK IS TO BE DONE.

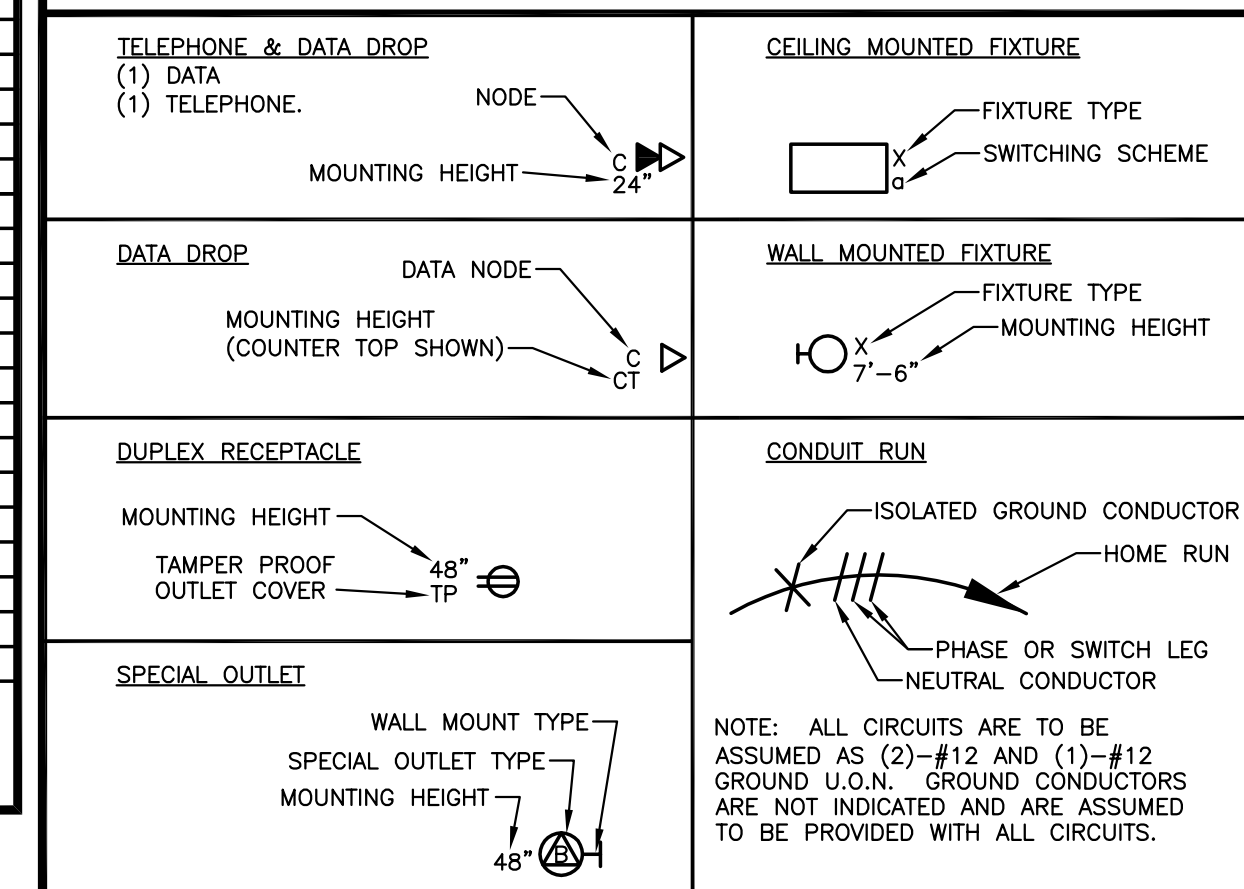
### BRANCH VOLT DROP TABLE

FOR COPPER SINGLE PHASE 3% VOLTAGE DROP, 20 A CIRCUIT BREAKER

MAXIMUM DISTANCE	PHASE & NEUTRAL SIZE		EQUIPMENT GROUND SIZE
	120V	240V	
100'	200'	#12	#12
175'	300'	#10	#10
275'	425'	#8	#8
475'	600'	#6	#6

- VOLTAGE DROP TABLE NOTES:**
1. DISTANCE GIVEN IS THE MAXIMUM FOR THE LONGEST RUN FOR ANY BRANCH, PANEL TO LOAD.
  2. THE DISTANCES ARE FOR THE ENTIRE RUN IN THE GIVEN WIRE SIZE.
  3. WIRE REDUCTIONS (WHERE REQUIRED BY DEVICE CONSTRUCTION) SHALL BE MADE WITHIN 3 FEET OF THE SOURCE OR LOAD, AND SHALL BE ONLY DOWN TO THE LARGEST WIRE SIZE THE DEVICE ALLOWS.
  4. OTHER NEC DERATING FACTORS ARE NOT INCLUDED IN THE WIRE SIZES IN THIS TABLE.

### CIRCUITING LEGEND



## ELECTRICAL SITE LIGHTING PLANS FOR WATERFRONT EIGHTH ADDITION PART B

**ELECTRICAL GENERAL NOTES**  
SHEET TITLE  
472-85097  
PROJECT NUMBER

CNG / JSR / BWB  
DESIGNED DRAWN CHECKED

ISSUED  
August 2013  
REVISED

SHEET NO.  
2 of 12