

ELECTRICAL LEGEND			
(NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS AND ARE USED AS APPLICABLE TO THIS PROJECT)			
SYMBOL	DESCRIPTION	REMARKS	MOUNTING HEIGHT TO CENTERLINE UNO
<b>POWER</b>			
	CONDUIT CONCEALED IN WALL OR CEILING		
	CONDUIT CONCEALED IN FLOOR (OR BELOW GRADE ON SITE PLAN)		
	CONDUIT EXPOSED ON WALL OR CEILING		
	HOMERUN CONDUIT		
	TELEPHONE CONDUIT CONCEALED UON (MIN 3/4")		
	SURFACE METAL RACEWAY		
	FLEXIBLE CONNECTION, TYPE AS NOTED		
	OVERHEAD UTILITIES		
	UNDERGROUND POWER		
	UNDERGROUND TELCO		
	WALL MOUNTED JUNCTION BOX		
	JUNCTION BOX		
	WEATHERPROOF JUNCTION BOX		
	FLOOR MOUNTED JUNCTION BOX		
	UNFUSED DISCONNECT SWITCH, RATING/POLES/NEMA RATING (60/3/1)		
	DISCONNECT BY OTHERS		
	FUSED DISCONNECT SWITCH, RATING/POLES/NEMA RATING/FUSE SIZE (60/3/3R/40)		
	POWER POLE WITH VOICE/DATA & POWER RACEWAYS		
	WATER HEATER		
	ELECTRICAL PANEL		
	EQUIPMENT AS INDICATED		
	HAND HOLE		
	MAN HOLE (REFERENCE SPECIFICATIONS)		
	CONDUIT		
	REMOTE PUSH BUTTON		
	SINGLE RECEPT., AMP., VOLTAGE, NEMA CONFIGURATION AS REQUIRED OR AS NOTED		
	120V. DUPLEX RECEPTACLE		18"
	120V. COUNTER TOP DUPLEX RECEPTACLE		42"
	120V. DEDICATED DUPLEX RECEPTACLE		18"
	120V. QUADRUPLEX RECEPTACLE		18"
	120V. DUPLEX RECEPTACLE FOR TV POWER		SEE PLANS
	120V. GFI RECEPTACLE		
	120V. SQUARE OR ROUND FLOOR BOX WITH (1) DUPLEX RECEPTACLE		
	SQUARE OR ROUND FLOOR BOX WITH (1) DUPLEX RECEPTACLE		
	PHOTO-ELECTRIC SWITCH		
	ON-OFF TIME CLOCK		
	LIGHTING CONTACTOR		
	COMBINATION MOTOR STARTER DISCONNECT		
	POWER POLE		
	LOW VOLTAGE COMMUNICATION CIRCUIT TRANSIENT VOLTAGE SURGE		
	CIRCUIT BREAKER		
	MOTOR		
	TRANSFORMER		
	PULL BOX		
	DENOTES CONDUIT TURNING UP IN PLAN VIEW		
	DENOTES CONDUIT TURNING DOWN IN PLAN VIEW		
	DENOTES CHANGE IN CONDUIT ELEVATION IN PLAN VIEW		
	ELECTRICAL METER		
	MOTOR RATED SWITCH		
<b>LIGHTING</b>			
	SURFACE MOUNTED INCANDESCENT OR FLUORESCENT LIGHT FIXTURE		
	SURFACE MOUNTED OR PENDENT FLUORESCENT LIGHT FIXTURE		
	SURFACE MOUNTED OR PENDENT EMERGENCY FLUORESCENT LIGHT FIXTURE		
	RECESSED INCANDESCENT OR FLUORESCENT DOWN LIGHT FIXTURE		
	RECESSED INCANDESCENT OR FLUORESCENT EMERGENCY DOWN LIGHT FIXTURE		
	RECESSED EMERGENCY FLUORESCENT LIGHT FIXTURE		
	RECESSED FLUORESCENT LIGHT FIXTURE		
	SURFACE MOUNTED WALL INCANDESCENT OR HID LIGHT FIXTURE		
	RECESSED WALL INCANDESCENT OR HID LIGHT FIXTURE		
	TWO HEAD BATTERY POWERED EMERGENCY EGRESS LIGHT		
	EXIT LIGHT, WALL MOUNTED		
	EXIT LIGHT, WALL MOUNTED WITH DIRECTIONAL ARROW		
	EXIT LIGHT, CEILING MOUNTED		
	EXIT LIGHT, CEILING MOUNTED WITH DIRECTIONAL ARROW		
	AREA OR STREET LIGHT FIXTURE		
	AREA OR STREET LIGHT FIXTURE		
	SINGLE POLE SWITCH		46"
	THREE-WAY SWITCH		46"
	FOUR WAY SWITCH		46"
	SINGLE POLE DIMMER SWITCH 600 WATT		46"
	THERMAL MOTOR SWITCH-(FBE)		46"
	SINGLE POLE SWITCH WITH PILOT LIGHT		46"
	SINGLE POLE SWITCH, WEATHERPROOF		46"
<b>SYSTEM</b>			
	TELEPHONE OUTLET & PLATE		
	GANG DATA OUTLET & PLATE		
	COMBINATION TELEPHONE & DATA OUTLET		
	TELEPHONE BACKBOARD		
<b>GROUNDING</b>			
	GROUND ROD C/W INSPECTION SLEEVE		
	GROUNDING ELECTRODE		
	EXOTHERMIC WELD CONNECTION		
	MECHANICAL CONNECTION (eg LUG, C-TAP)		

ABBREVIATIONS	
AFG	ABOVE FINISHED GRADE
ABV	MOUNT ABOVE COUNTER
ABC	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BFG	BELOW FINISHED GRADE
BKR	BREAKER
C	CONDUIT
C/W	COMPLETE WITH
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CT	CURRENT TRANSFORMER
DF	ELECTRIC DRINKING FOUNTAIN
EC	EMPTY CONDUIT
ELEC	ELECTRICAL
EX	EXISTING
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FBE	FURNISHED & INSTALLED BY ELECTRICAL CONTRACTOR
FBO	FURNISHED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR
FS	FIRE SUPPRESSION
FSCP	FIRE SUPPRESSION CONTROL PANEL
G	GROUND
GND	GROUND
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
HP	HORSEPOWER
I	IONIZATION
IMC	INTERMEDIATE METALLIC CONDUIT (GALVANIZED)
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUG ONLY
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	OVER COUNTER
P	PHOTOELECTRIC
PM	POWER MONITOR
RMC	RIGID METALLIC CONDUIT (GALVANIZED)
RNC	RIGID NON-METALLIC CONDUIT
S/C	SEPARATE CIRCUIT
SCH	SCHEDULE
SPST	SINGLE POLE SINGLE THROW
TB	TELEPHONE TERMINAL BOARD
THD	TOTAL HARMONIC DISTORTION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
U/G	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
W	WALL MOUNTED
WH	WATER HEATER
WP	WEATHER PROOF, NEMA 3R

## GENERAL NOTES

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1. ALL ELECTRICAL WORK SHOWN ON THESE DRAWINGS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THE SPECIFICATIONS. FABRICATION AND INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM SHALL BE DONE IN A FIRST CLASS WORKMANSHIP BY QUALIFIED TRADES PERSONS EXPERIENCED IN SUCH WORK.
2. SUBMISSION OF BID FOR THE ELECTRICAL WORK INDICATES THAT THE ELECTRICAL CONTRACTOR IS FAMILIAR WITH THE DESIGN INTENT, THE REQUIREMENTS OF THE PROJECT, REQUIREMENTS OF THE LOCAL ELECTRICAL AND TELEPHONE UTILITIES, AND LOCAL APPLICABLE CODES AND ORDINANCES.
3. ALL ELECTRICAL WORK SHALL CONFORM TO THE EDITION OF THE NEC ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
4. SOME ASPECTS OF ELECTRICAL DESIGN ARE COMMONLY EXPRESSED IN SCHEMATIC FORM. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INTERPRET THEM ACCURATELY AND CARRY OUT THE CONSTRUCTION AND/OR INSTALLATION SATISFACTORY TO THE CONSULTANT AND THE OWNER. IN CASE OF ANY UNCERTAINTIES OR AMBIGUITIES PROMPTLY CONSULT WITH THE PROJECT MANAGER FOR CLARIFICATION.
5. ABBREVIATIONS AND ACRONYMS USED ON THE DRAWINGS ARE DESCRIBED IN THE ABBREVIATIONS SECTION OF THE DRAWINGS. SOME COMMONLY USED AND INDUSTRY STANDARD ABBREVIATIONS AND ACRONYMS MAY NOT BE DESCRIBED. IF A CLARIFICATION IS REQUIRED PROMPTLY CONTACT THE PROJECT MANAGER.
6. SCHEDULE AND COORDINATE ALL WORK WITH OTHER TRADES BEFORE INSTALLATION OF EQUIPMENT TO AVOID CONFLICT DURING AND AFTER THE INSTALLATION.

LIGHTING CONTACTOR SCHEDULE					
I.D.	CONTACT AMPERE RATING	NO. OF POLES	ENCLOSURE	COIL VOLTAGE	REMARKS
LC1	30	20	NEMA 1	120	CONTROLLED PHOTOCELL ON - TIMECLOCK OFF

**LIGHTING FIXTURE SCHEDULE**  
(COORDINATE WITH OWNER AND ARCHITECT FOR ALL LIGHT FIXTURE TYPES PRIOR TO ORDER)  
(REFER TO ARCHITECTURAL DRAWING FOR ALL THE LIGHT FIXTURE MOUNTING TYPE AND HEIGHT)  
CONTRACTOR TO CROSS VERIFY WITH ARCHITECTURAL DRAWINGS AND IF ANY DISCREPANCY, IT SHOULD BE BROUGHT TO ELECTRICAL ENGINEER.

TYPE	MANUFACTURER	CATALOG NUMBER	NUMBER & SIZE LAMPS	MOUNT	REMARKS
A	LITHONIA OR APPROVED EQUAL	ZL1D L48 5000LM FST MVOLT 35K 80 CRI WH	LED	CHAIN HANG	LED SURFACE OR CHAIN 1x4 FIXTURE STRIP LIGHT FIXTURE
BE	LITHONIA OR APPROVED EQUAL	BLWP2-TUWH PROR -40L EL14L	LED INCLUDED	WALL MOUNTED	2 FEET LED STRIP LIGHTS WALL MOUNTED WITH 90 MINUTES BATTERY BACK UP
OA	MCGRAW-EDISON OR APPROVED EQUAL	OW1335-120V	LED INCLUDE	WALL	LED WALL-MOUNTED FULL CUTOFF FIXTURE WITH. CONTRACTOR TO FURNISH NECESSARY ACCESSORIES TO INSTALL ON THE WALL.
SC	LISA LIGHTING OR APPROVED EQUAL	1ST-AF-350-LED-E1-T3-BRZ-7050-120V	LED INCLUDE	WALL	DECORATIVE WALL SCONCE WALL-MOUNTED. PROVIDE CONTRACTOR TO FURNISH NECESSARY ACCESSORIES TO INSTALL ON THE WALL.
P1	VINTAGE OR APPROVED EQUAL	VNTW-3500L-50K-DIM-3M-BZ	LED INCLUDE	25FT POLE + 3 FEET BASE	LED WITH TYPE 3 MEDIUM OPTICS WITH FULL CUTOFF AT THE PROPERTY LINE. PROVIDE DARK BRONZE ROUND STEEL POLE.
EMX	LITHONIA OR APPROVED EQUAL	LHQM-S-W-1-G-120V	INCLUDED	WALL	EXIT AND EMERGENCY BATTERY PACK LIGHT COMBO GREEN LETTER AND WHITE HOUSING. EXIT SIGN SHOULD HAVE 90 MINUTE BATTERY BACK UP AND MORE THAN 5 FOOT CANDLE.
EMXT	LITHONIA OR APPROVED EQUAL	AFN-W-EXT	WALL	LED	LED WALL PACK WITH EMERGENCY BATTERY BACK UP FOR EXTERIOR. MOUNT ABOVE DOOR.



**CLIENT:**  
COVENANT GROUP, LLC

**PROJECT:**  
COVENANT GROUP - BUILD  
SHELL - LEE'S SUMMIT, MO

**ADDRESS:**  
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PROJECT NO: 267

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COVENANT  
REAL  
ESTATE  
GROUP

**ISSUE DATE:** 04/06/22

**ISSUED FOR:** PERMIT

[illegible]**PROFESSIONAL'S SEAL:**

05/05/2022

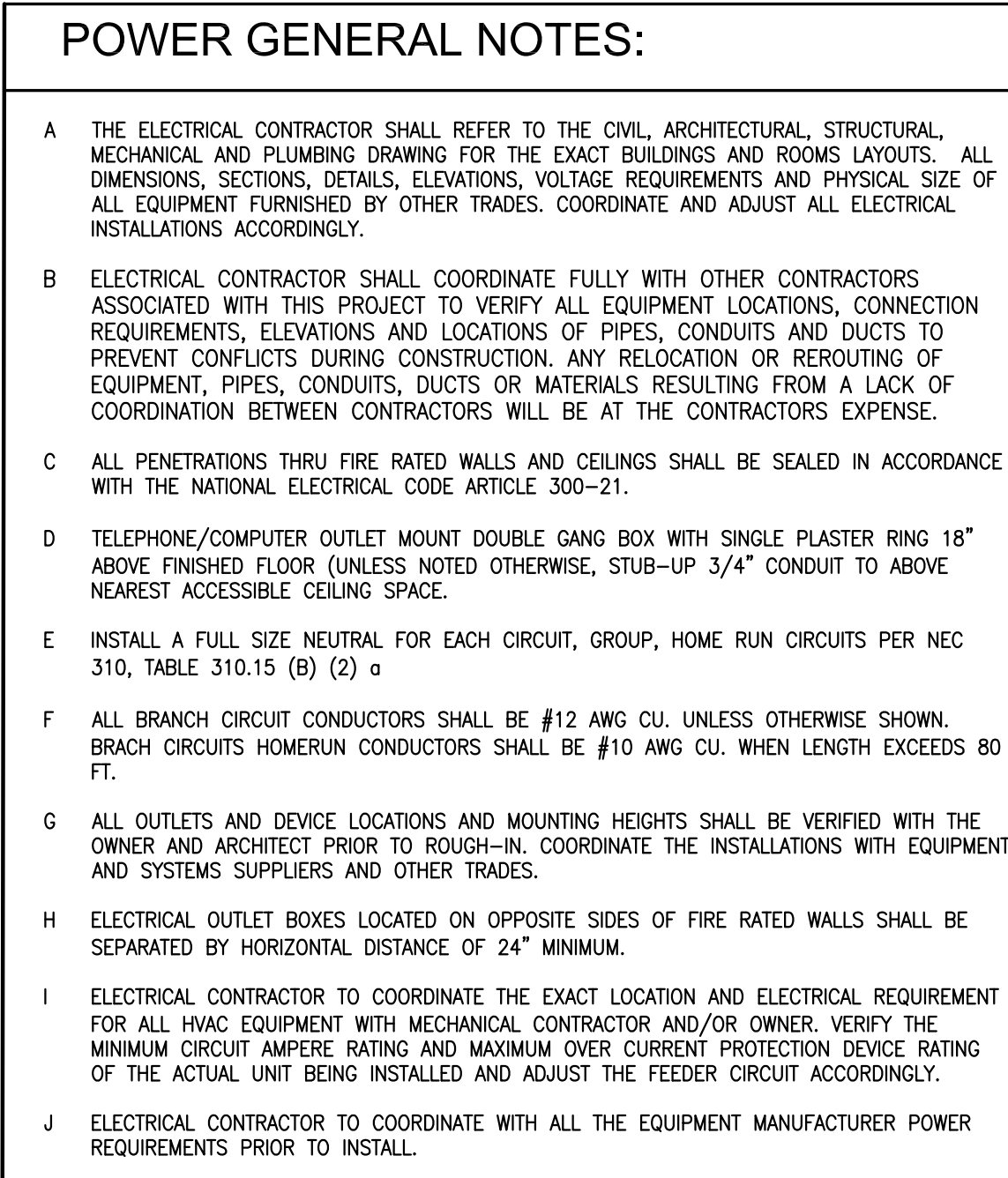
### ELECTRICAL LEGEND, SYMBOL, AND SCHEDULE

E-1









# LIGHTING GENERAL NOTES:

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- A THE ELECTRICAL CONTRACTOR SHALL REFER TO CIVIL, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND PLUMBING DRAWING FOR THE EXACT BUILDING AND ROOM LAYOUTS. ALL DIMENSIONS, SECTIONS, DETAILS, AND ELEVATIONS. LIGHTING AND VOLTAGE REQUIREMENTS AND PHYSICAL SIZE OF ALL EQUIPMENT FURNISHED BY OTHER TRADES. COORDINATE AND ADJUST ELECTRICAL INSTALLATION ACCORDINGLY.
- B REFER TO DRAWING E-1 FOR LIGHTING FIXTURE SCHEDULE.
- C UPPER CASE ALPHA CHARACTER INSIDE/ADJACENT TO LIGHT FIXTURE INDICATES LUMINAIRE TYPE.
- D CONNECT ALL EMERGENCY BALLAST AND EXIT LIGHTS TO UNSWITCHED "HOT-LEG" OF RESPECTIVE LIGHTING CIRCUIT.
- E ALL PENETRATION THRU FIRE RATED WALL AND CEILING SHALL BE SEALED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE ARTICLE 300-21.
- F INSTALL A FULL SIZE NEUTRAL FOR EACH CIRCUIT GROUP.
- G HOMERUN CONDUCTOR SHALL BE #10 AWG CU. WHEN LENGTH EXCEEDS 80 FT.
- H COORDINATE WITH OWNER FOR APPROVAL OF LIGHTING FIXTURE PRIOR TO INSTALL.
- I REFER TO ARCHITECTURAL ELEVATION DRAWINGS FOR EXTERIOR LIGHTS MOUNTING HEIGHT AND LOCATION.

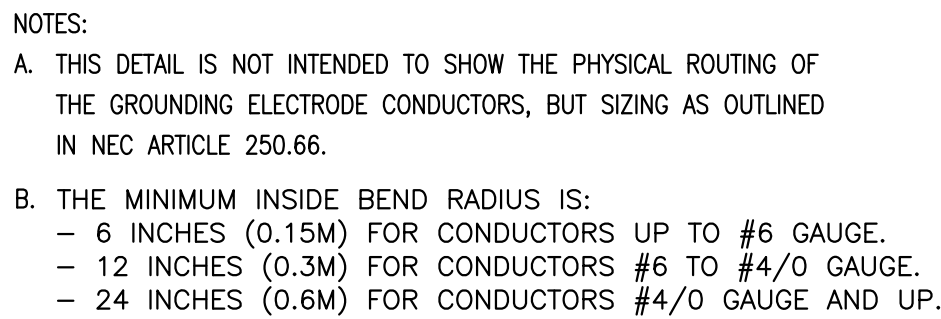
- ① ALL EXTERIOR LIGHT FIXTURES TO BE ROUTED THRU LIGHTING CONTACTOR CONTROL BY PHOTOELECTRIC CELL AND TIME CLOCK.
- ② LIGHTING CONTACTOR AND TIME CLOCK.
- ③ PANEL LOCATION FOR MO OFFICE. COORDINATE WITH TENANTS PRIOR TO INSTALLED.
- ④ SERVICE ENTRANCES ELECTRICAL WIREWAY, DISCONNECT AND UTILITY METER. CONTRACTOR TO FIELD ADJUSTED AS NECESSARY.
- ⑤ PROVIDE J-BOX FOR FUTURE PULL STATION AND PROVIDE 3" CONDUIT WITH PULL STRING TO FIRE RISER ROOM FROM EACH FUTURE TENANT SPACE .
- ⑥ PROVIDE J-BOX FOR FUTURE HORN/STROBE AND PROVIDE 3" CONDUIT WITH PULL STRING TO FIRE RISER ROOM FROM EACH FUTURE TENANT SPACE .
- ⑦ J-BOX FOR FUTURE TENANT SIGNAGE POWER.
- ⑧ J-BOX FOR DRIVE-THRU MENU BOARD POWER. COORDINATE IN FIELD WITH OWNER FOR LOCATION AND MOUNTING HEIGHT.
- ⑨ TEL/DATA BACKBOARD. PROVIDE 4" CONDUIT WITH PULL STRING TO TEL/COMPARAN DEMARCATION POINT. FIELD COORDINATE DEMARCATION LOCATION.
- ⑩ 2" CONDUIT STUB UP WITH PULL STRING FROM PHONE BD/DMARK TO EACH TENANT SUITE.
- ⑪ FUTURE TENANT PANEL LOCATION. PROVIDE 2" CONDUIT WITH PULL STRING FROM WIREWAY/METER SECTION TO HERE.
- ⑫ PROVIDE 3" CONDUIT WITH PULL STRING AND STUB UP THRU THE WALL FOR FUTURE TENANT PANEL CONNECTION.
- ⑬ HOUSE PANEL.
- ⑭ SUPPLY AND INSTALL FUSIBLE DISCONNECT SWITCH. REFER TO MECHANICAL EQUIPMENT MANUFACTURER SHOP DRAWING FOR EXACT DISCONNECT SIZE, VOLTAGE, PHASE AND TYPE. AVOID DISCONNECT SIZE AND TYPE ACCORDINGLY. DISCONNECT SHALL BE FUSED AS PER MANUFACTURER REQUIREMENTS.
- ⑮ J-BOX FOR DRIVE-THRU CANOPY LIGHTS. COORDINATE IN FIELD WITH OWNER FOR LOCATION AND MOUNTING HEIGHT.
- ⑯ PROVIDE 3" CONDUIT WITH PULL STRING AND STUB UP THRU THE WALL FOR FUTURE TENANT PANEL CONNECTION.

# E-3





SPECIAL FEEDER NOTES:
<ul style="list-style-type: none"><li>• ALL THE MAIN FEEDERS ARE ALUMINUM.</li><li>• ALL THE BRANCH CIRCUITS ARE COPPER.</li></ul>



## 2 SERVICE GROUNDING ELECTRODE DETAIL

E-4 SCALE: N.T.S.

1. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT FEEDER SIZES.

- (1) NEW UTILITY TRANSFORMER PAD MOUNTED). COORDINATE WITH UTILITY COMPANY FOR LOCATION, SERVICE TAP, AND ADDITIONAL REQUIREMENTS.
- (2) UTILITY METER. CONTRACTOR TO FIELD COORDINATE FOR MOUNTING LOCATION. COORDINATE WITH UTILITY COMPANY FOR MEETING REQUIREMENTS.
- (3) PROVIDE (2) 5/8" X 10"-0" LONG COOPER CLAD GROUND ROD SPACED 10 FEET CENTER. BOND WITH 3/0 COPPER CONDUCTOR WITH EXOTHERMIC WELD. REFER TO DETAIL "2/E-4" FOR SERVICE ENTRANCE DETAIL AND GROUND ROD DETAIL.
- (4) SUPPLY AND INSTALL NEW UNDERGROUND SERVICE LATERAL. FIELD EXACT COORDINATE CONDUIT ROUTING. SUPPLY AND INSTALL FEEDER 24" BFG DIRECT BURIED AND PROVIDE RMC AFG AND RNC UNDERGROUND. CONTRACTOR TO ARRANGE AND PAY FOR UNDERGROUND UTILITY LOCATION SURVEYS FOR ALL TRENCHING. INSTALL 6" WIDE METALLIC LINED RED PLASTIC MARKER TAPE 8" ABOVE ALL BURIED CONDUIT.
- (5) PROVIDE NEMA 3R WIREWAY AND SIZE WIREWAY AS PER NEC.
- (6) PROVIDE ALUMINUM CONDUCTOR ONLY FOR SERVICE LATERAL.
- (7) SUPPLY AND INSTALLED LIGHTING CONTRACTOR. LIGHTING CONTROL TO BE CONTROLLED BY TIME CLOCK AND PHOTOCCELL. FIELD COORDINATE FOR PHOTOCCELL LOCATION.
- (8) SUPPLY AND INSTALLED CONDUIT ONLY WITH PULL STRING.

E-4







2 TYPICAL POLE BASE DETAIL  
E-6 SCALE:

## E-6



