

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
POWER			
	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. QUADRAPLEX RECEPTACLE		18"
	120V. DUPLEX RECEPTACLE FOR TV POWER		SEE PLANS
	120V. GF 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		
LIGHTING			
	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"
SYSTEM			
	TELEPHONE OUTLET & PLATE		
	GANG DATA OUTLET & PLATE		
	COMBINATION TELEPHONE & DATA OUTLET		
	TELEPHONE BACKBOARD		
GROUNDING			
	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

- 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.
- 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.
- ALL ELECTRICAL WORK SHALL CONFORM TO THE EDITION OF THE NEC ACCEPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- 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.
- 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.
- SCHEDULE AND COORDINATE ALL WORK WITH OTHER TRADES BEFORE INSTALLATION OF EQUIPMENT TO AVOID CONFLICT DURING AND AFTER THE INSTALLATION.

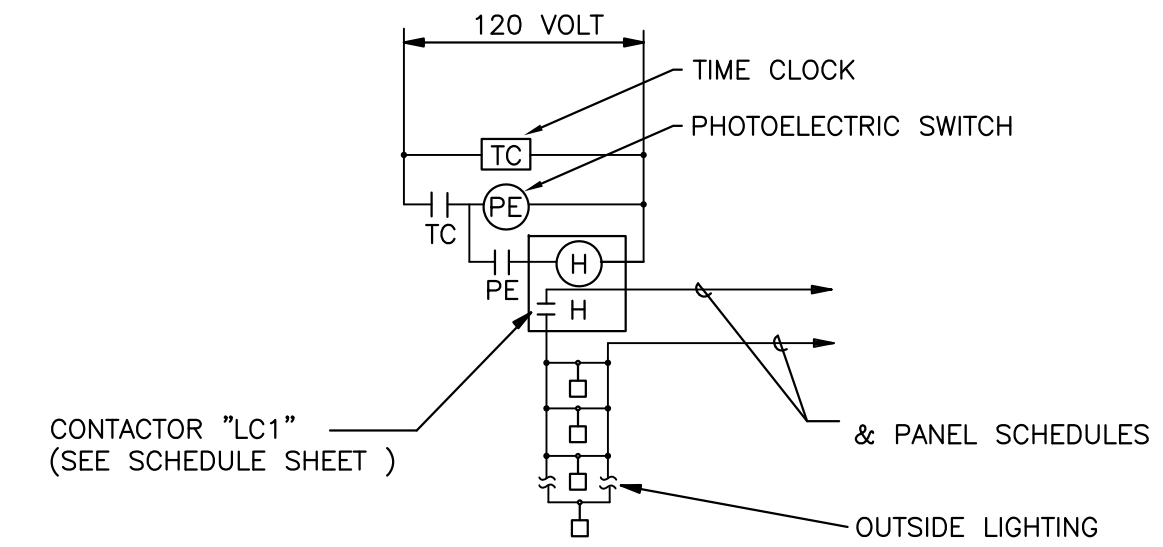
LIGHTING CONTACTOR SCHEDULE

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
SC	LISA LIGHTING OR APPROVED EQUAL	IST-AF-350-LED-E1-T3-BRZ-7050-120V	LED INCLUDE	WALL	DECORATIVE WALL SCNCE WALL-MOUNTED FIXTURE. 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.



1 TYPICAL OUTSIDE LIGHTING CONTROL
 SCALE: NO SCALE

PROJECT INFO

CLIENT:
 COVENANT GROUP, LLC

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

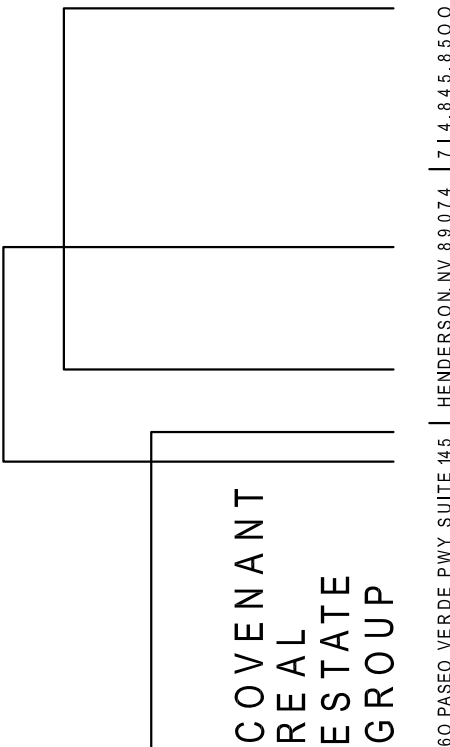
ADDRESS:
 400 NW CHIPMAN RD
 LEE'S SUMMIT, MO 64806

PROJECT NO: 267

MAIN CONTACT

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DEVELOPER



SHEET INFO

ISSUE DATE: 04/08/22

ISSUED FOR: PERMIT

REVISION SCHEDULE		
NO	DESCRIPTION	DATE

PROFESSIONAL'S SEAL:



04/08/2022

ELECTRICAL LEGEND,
 SYMBOL, AND SCHEDULE

A. GENERAL

1. EXAMINE THE SITE CONDITIONS VERY CAREFULLY AND THE SCOPE OF PROPOSED WORK TOGETHER WITH THE WORK OF ALL OTHER TRADES AND INCLUDE IN THE BID PRICE ALL COSTS FOR WORK SUCH AS EQUIPMENT AND WIRING MADE NECESSARY TO ACCOMMODATE THE ELECTRICAL SYSTEMS AND SYSTEMS OF OTHER TRADES.
2. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
3. PERFORM DETAILED VERIFICATION OF WORK PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND COMMENCING CONSTRUCTION. ISSUE A WRITTEN NOTICE TO THE CONSULTANT OF ANY DISCREPANCIES.
4. OBTAIN ALL PERMITS, PAY ASSOCIATED FEES AND SCHEDULE INSPECTION.
5. SUBMIT SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. INDICATE DETAILS OF CONSTRUCTION, DIMENSIONS, CAPACITIES, WEIGHTS AND ELECTRICAL PERFORMANCE CHARACTERISTICS OF EQUIPMENT OR MATERIAL, WHERE APPLICABLE. INCLUDE WIRING AND SINGLE LINE DIAGRAMS, ADVERTISING OR SALES LITERATURE SHALL NOT BE ACCEPTABLE AS SHOP DRAWINGS.
6. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, INSURANCE AND SERVICES TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND PRESENT IT AS FULLY OPERATIONAL TO THE SATISFACTION OF THE OWNER.
7. CARRY OUT WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
8. PRIOR TO BEGINNING WORK COORDINATE ALL POWER AND TELCO WORK WITH THE LOCAL UTILITIES COMPANIES AS IT MAY APPLY TO THIS SITE. ALL WORK TO COMPLY WITH THE RULES AND REGULATIONS OF THE UTILITIES INVOLVED.
9. PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE ELECTRICAL WORK. ANY DAMAGE DONE TO THE WORK ALREADY IN PLACE BY REASON OF THIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE BY A QUALIFIED MECHANIC EXPERIENCED IN SUCH WORK. PATCHING SHALL BE UNIFORM IN APPEARANCE AND SHALL MATCH THE SURROUNDING SURFACE. DO NOT CUT STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE CONSULTANT.
10. CORE DRILLING THROUGH WALLS AND FLOORS FOR CONDUIT AND CABLE INSTALLATION IS TO BE PROVIDED BY THE GENERAL CONTRACTOR AT LOCATIONS DETERMINED BY THE STRUCTURAL ENGINEER. REFER TO STRUCTURAL DRAWINGS AND COORDINATE WITH GENERAL CONTRACTOR FOR INSTALLATION OF CONDUITS AND CABLES THROUGH WALLS AND FLOORS.
11. WHERE CABLE OR CONDUITS PASS THROUGH FLOORS AND FIRE RATED WALLS, SEAL CORE DRILLED OPENINGS AROUND CONDUITS OR CABLES USING UL APPROVED FIRE-STOPPING SYSTEM AND UL LISTED SEALANT.
12. ENSURE THAT ALL LIGHT, POWER, HEAT, TELEPHONE AND OTHER ELECTRICAL AND MECHANICAL SYSTEMS AND SERVICES IN THE BUILDING REMAIN OPERATIONAL DURING THE COURSE OF THIS PROJECT. PROVIDE TEMPORARY SERVICES AS REQUIRED. INCLUDE ALL COSTS FOR TEMPORARY SERVICES IN THE BID PRICE. REMOVE ALL EXISTING EQUIPMENT, WIRING, ETC. NOT BEING RE-USED UNDER NEW SCHEMES, WHETHER SHOWN ON DRAWINGS OR NOT.
13. FABRICATION AND INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM SHALL BE DONE IN A FIRST-CLASS WORKMANSHIP MANNER PER NECA STANDARD 1-2000 BY QUALIFIED PERSONNEL EXPERIENCED IN SUCH WORK. WORK SHALL BE SCHEDULED IN AN ORDERLY MANNER SO AS NOT TO IMPEDE PROGRESS OF THE PROJECT.
14. DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF THE ELECTRICAL SYSTEMS, LOCATING EACH CIRCUIT PRECISELY AND DIMENSIONING EQUIPMENT, CONDUIT AND CABLE LOCATIONS. UPON COMPLETION OF THE INSTALLATION, TRANSFER ALL RECORD DATA TO BLACK LINE PRINTS OF THE ORIGINAL DRAWINGS IN RED AND SUBMIT THESE DRAWINGS AS RECORD DRAWINGS TO THE CONSULTANT.
15. AT THE COMPLETION OF THE PROJECT PROVIDE THREE SETS OF OPERATION AND MAINTENANCE MANUALS, BOUND IN 3-RING BINDERS, DULY LABELED, AND CONTAINING COMPLETE LIST OF REPLACEMENT PARTS, SHOP DRAWINGS AND CATALOG INFORMATION OF ALL MAJOR EQUIPMENT, SUCH AS TRANSFORMERS, LUMINAIRES, PANEL BOARDS, TRANSFER SWITCH, PANEL SCHEDULE, A/C SYSTEMS, TVSS, SECURITY SYSTEM, ETC.
16. THE COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF TIME OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE UPON WRITTEN NOTIFICATION AT THE EXPENSE OF THE CONTRACTOR.

B. SERVICE AND DISTRIBUTION

1. CONTRACTOR TO COORDINATE WITH LANDLORD AND/OR UTILITIES FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOK UP COSTS TO BE PAID BY CONTRACTOR. CONTRACTOR TO OBTAIN NECESSARY PERMITS, PAY ALL ASSOCIATED FEES AND SCHEDULE INSPECTIONS OF SERVICE WITH LOCAL AUTHORITIES HAVING JURISDICTION.
2. MAIN DISTRIBUTION CONFIGURATION SHALL BE BASED ON THE DESIGN INTENT.
3. VERIFY ALL DIMENSIONS AND CLEARANCES BY FIELD MEASUREMENTS PRIOR TO INSTALLATION.
4. BRANCH CIRCUIT PANEL BOARDS SHALL BE OF THE TYPE AND RATINGS AS SHOWN ON DRAWINGS. PANEL BOARDS SHALL BE CUTLER-HAMMER TYPE PRL2A OR APPROVED EQUAL. DISTRIBUTION BOARD SHALL BE CUTLER-HAMMER TYPE POW-R-LINE 4B OR APPROVED EQUAL.
5. PANEL BOARDS AND SPLITTERS SHALL HAVE COPPER MAINS AND SHALL BE OF THE CHARACTERISTICS AS NOTED ON THE DRAWINGS. AFTER COMPLETION OF WIRING, PROVIDE A TYPED DIRECTORY SHOWING A CLEAR DESCRIPTION OF EACH CIRCUIT BEING FED FROM PANEL AND PLACE IN METAL FRAME INSIDE DOOR.

C. BASIC MATERIALS AND METHODS

1. INSTALLATION, MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE NATIONAL ELECTRICAL SAFETY CODE (NEC), APPLICABLE STATE ELECTRICAL CODES, THE NATIONAL ELECTRICAL SAFETY CODE (NEC) AND THE TERMS, CONDITIONS AND REGULATIONS OF THE AUTHORITY HAVING LAWFUL JURISDICTION PERTAINING TO THE WORK REQUIRED. ALL MATERIAL, EQUIPMENT AND DEVICES SHALL CONFORM TO THE APPLICABLE STANDARDS OF THE UNDERWRITERS LABORATORIES INC. (UL), THE LABEL OF AND LISTING BY UL IS MANDATORY.
2. ALL MATERIALS AND EQUIPMENT SHALL BE NEW. MATERIALS AND EQUIPMENT SHALL BE THE STANDARD PRODUCTS OF MANUFACTURER'S CURRENT DESIGN. ANY FIRST-CLASS PRODUCT MADE BY A REPUTABLE MANUFACTURER MAY BE USED PROVIDING IT CONFORMS TO THE CONTRACT REQUIREMENTS AND MEETS THE APPROVAL OF THE CONSULTANT AND THE OWNER. APPROVALS SHALL BE OBTAINED PRIOR TO INSTALLATION.
3. ARRANGE CONDUIT, WIRING, EQUIPMENT, AND OTHER WORK GENERALLY AS SHOWN, PROVIDING PROPER CLEARANCES AND ACCESS. CAREFULLY EXAMINE ALL CONTRACT DRAWINGS AND FIT THE WORK IN EACH LOCATION WITHOUT SUBSTANTIAL ALTERATION. WHERE DEPARTURES ARE PROPOSED BECAUSE OF FIELD CONDITIONS OR OTHER CAUSES, PREPARE AND SUBMIT DETAILED DRAWINGS FOR ACCEPTANCE. THE RIGHT IS RESERVED TO MAKE REASONABLE CHANGES IN LOCATION OF EQUIPMENT, CONDUIT, AND WIRING UP TO THE TIME OF ROUGH-IN OR FABRICATION.
4. THE CONTRACT DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ALL OFFSETS, BENDS, FITTINGS, PULL BOXES AND ACCESSORIES ARE NOT NECESSARILY SHOWN. PROVIDE ALL SUCH ITEMS AS MAY BE REQUIRED TO FIT THE WORK TO THE CONDITIONS.
5. MOUNTING HEIGHTS OF ALL WIRING DEVICES SHALL BE VERIFIED WITH THE CONSULTANT PRIOR TO INSTALLATION.
6. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE NEMA 3R RATED UNLESS NOTED OTHERWISE.
7. MAINTAIN ALL CLEARANCES AS REQUIRED BY NEC.
8. SEAL AROUND CONDUITS AND AROUND CONDUCTORS WITHIN CONDUITS ENTERING THE MODULAR CABINETS WHERE PENETRATION OCCURS WITH A SILICONE SEALANT TO PREVENT MOISTURE PENETRATION INTO BUILDING.
9. SILICONE SEAL AROUND ALL BOLTS AND SCREWS USED TO SECURE EQUIPMENT TO EXTERIOR OF BUILDING.
10. MAKE NECESSARY CONNECTIONS FOR BATTERY IN EMERGENCY LIGHT FIXTURE. CONNECT EXTERIOR LIGHT FIXTURE (PROVIDED BY SHELTER MANUFACTURER) TO EXTERNAL JUNCTION BOX.

D. RACEWAYS AND BOXES

1. ALL WIRING FOR POWER AND SYSTEMS SHALL BE IN CONDUIT UNLESS DIRECTED OTHERWISE. ALL CONDUIT SHALL BE UL LABELED. MINIMUM SIZE CONDUIT SHALL BE 1/2 INCH TRADE SIZE UNLESS NOTED OTHERWISE.
2. UNLESS NOTED OTHERWISE, CONDUIT INSTALLED OUTDOORS SHALL BE GALVANIZED IMC OR GALVANIZED RMC WITH LIQUID TIGHT FITTINGS. ALL EXTERIOR HARDWARE SHALL BE GALVANIZED STEEL.
3. CONDUIT INSIDE BUILDING IN AREAS WHERE CONDUIT IS SAFE FROM MECHANICAL DAMAGE AND WHERE CONCEALED IN DRYWALL, METAL FLASHING ETC. SHALL BE EMT WITH COMPRESSION FITTINGS. CONDUIT IN HIGH TRAFFIC AREA, IN AREAS OF RISK OF PHYSICAL DAMAGE AND IN STAIRWELLS SHALL BE GALVANIZED RMC.
4. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT SHALL BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT.
5. CONDUIT WORK IN HAZARDOUS AREAS, OR AREAS WITH LARGE TEMPERATURE DIFFERENTIAL: USE RIGID STEEL OR IMC CONDUIT WITH CONDUIT SEAL FITTINGS, POURED WITH HARDENING COMPOUND AFTER CONDUCTORS ARE PULLED IN CONDUIT. SEALS SHALL BE INSTALLED PER NEC.
6. ACCEPTABLE MANUFACTURERS OF SEALS:
 - a. CROUSE-HINDS
 - b. APPLETON
 - c. KILLARK
 - d. O-Z/GEDNEY

E. CONDUCTORS AND CONNECTORS

1. UNLESS NOTED OTHERWISE, ALL CONDUCTORS SHALL BE COPPER, MINIMUM SIZE #12 AWG, WITH THERMOPLASTIC INSULATION (TYPES THHN OR THWN) CONFORMING TO NEMA WC3 OR CROSS-LINKED POLYETHYLENE INSULATION (TYPE XHHW) CONFORMING TO NEMA WC7. INSULATION SHALL BE RATED FOR 90°C. CONDUCTORS SHALL BE SOLID FOR #10 AND SMALLER, STRANDED FOR #8 AND LARGER.
2. CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS: 208/120V - BLACK (PHASE A), RED (PHASE B), BLUE (PHASE C), WHITE (NEUTRAL), GREEN (GROUND); 480/277V - BROWN (PHASE A), ORANGE (PHASE B), YELLOW (PHASE C), GRAY (NEUTRAL), GREEN (GROUND).
3. FOR COPPER CONDUCTORS #6 AWG AND SMALLER USE 3M SCOTCH-LOK OR T&B STA-KON COMPRESSION TYPE CONNECTORS WITH INTEGRAL OR SEPARATE INSULATION CAPS. FOR COPPER CONDUCTORS LARGER THAN #6 AWG USE SOLDERLESS, IDENT HEX SCREW OR BOLT TYPE PRESSURE CONNECTORS OR DOUBLE COMPRESSION C-CLAMP CONNECTORS, UNLESS SPECIFIED OTHERWISE ON DRAWINGS.
4. UNLESS NOTED OTHERWISE ALL LUGS SHALL BE TIN PLATED COPPER, TWO-HOLE, LONG BARREL, COMPRESSION TYPE.

E. CONDUCTORS AND CONNECTORS

5. CONDUCTOR LENGTHS SHALL BE CONTINUOUS FROM TERMINATION TO TERMINATION WITHOUT SPLICES. SPLICES ARE NOT ACCEPTABLE. IF SPLICES ARE UNAVOIDABLE PRIOR APPROVAL FROM THE CONSULTANT MUST BE OBTAINED.
6. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 80 UNLESS NOTED OTHERWISE.
7. ALL EMPTY CONDUIT INSTALLED FOR FUTURE INSTALLATION OF WIRES AND CABLES SHALL HAVE A PULL COORD.
8. PROVIDE CONDUIT EXPANSION/DEFLECTION FITTINGS WHERE CONDUITS CROSS EXPANSION JOINTS, FLOATING SLABS, OR ISOLATED SLABS. PROVIDE CONDUIT THRU-WALL SEALS WHERE CONDUITS CROSS BETWEEN INTERIOR AND EXTERIOR OR DAMP LOCATIONS. PROVIDE CONDUIT FIRE SEALS WHERE CONDUITS PASS THRU FIRE-RATED CONSTRUCTION.
9. WIREWAYS SHALL BE SHEET METAL SIZED AND SHAPED AS INDICATED. INCLUDE COUPLING, OFFSETS, ELBOWS, EXPANSION JOINTS, ADAPTERS, HOLDDOWN STRAPS, END CAPS AND OTHER FITTINGS TO MATCH AND MATE WITH WIRE WAYS AS REQUIRED FOR COMPLETE SYSTEM. MANUFACTURERS: HOFFMAN, SQUARE-D OR APPROVED EQUAL.
10. HINGED COVER ENCLOSURES CONFORMING TO NEMA 250, TYPE 1, WITH CONTINUOUS HINGE COVER AND FLUSH LATCH, SIZED AS INDICATED. CABINETS TO CONFORM TO NEMA 250, TYPE 1, GALVANIZED STEEL BOX WITH REMOVABLE INTERIOR PANEL AND REMOVABLE FRONT, FINISHED INSIDE AND OUT WITH MANUFACTURER'S STANDARD ENAMEL. HINGED DOOR IN FRONT COVER WITH FLUSH LATCH AND CONCEALED HINGE. MANUFACTURERS: HOFFMAN, O-Z/GEDNEY, T&B OR APPROVED EQUAL.
11. PROVIDE BOXES FOR ALL OUTLETS, DEVICES, CONNECTIONS, ETC. PROVIDE JUNCTION AND PULL BOXES AS REQUIRED. PROVIDE CAST METAL BOXES FOR SURFACE MOUNTED LOCATIONS AND STAMPED STEEL BOXES FOR INTERIOR DRY FLUSH-MOUNTED LOCATIONS. SHEET METAL BOXES SHALL CONFORM TO NEMA OS1; CAST-METAL BOXES SHALL CONFORM TO NEMA 81 AND SHALL BE SIZED IN ACCORDANCE WITH NEC UNLESS NOTED OTHERWISE.
12. PULL BOXES USED FOR FIBER OPTIC CABLES SHALL BE SIZED IN ACCORDANCE WITH THE CABLE MANUFACTURER'S INSTRUCTIONS SUCH THAT PROPER BENDING RADII OF THE FIBER OPTIC CABLE ARE MAINTAINED.

F. WIRING DEVICES

1. SWITCHES SHALL BE TOGGLE-TYPE, HORSEPOWER RATED, 120/277V, 20 AMP SPECIFICATION GRADE. DUPLEX RECEPTACLES SHALL BE RATED 20 AMPS, 125 VOLTS, NEMA5-20R, SPECIFICATION GRADE. MOUNTING HEIGHTS OF ALL WIRING DEVICES SHALL BE VERIFIED WITH THE OWNER PRIOR TO INSTALLATION.

G. PANELBOARDS

1. PANELBOARDS SHALL CONFORM TO NEMA PB 1, NEMA 250 TYPE 1, UL 50 AND 67, AND THE NEC. PANELBOARDS SHALL BE OF THE TYPE AND RATINGS AS SHOWN ON DRAWINGS. SERIES RATED PANELBOARDS ARE NOT ACCEPTABLE.
2. PANELBOARDS SHALL BE FACTORY ASSEMBLED WITH DOUBLE ROW CONSTRUCTION. PROVIDE FRONT COVER HINGED TO BOX ON ALL PANELBOARDS. PROVIDE TIN PLATED COPPER BUSSING, FULL-CAPACITY PHASE AND 100% AMPACITY NEUTRAL BUSES, 50% GROUND BUS.
3. PROVIDE CIRCUIT NUMBERING AND TYPED WRITTEN PANELBOARD SCHEDULE FOR EACH PANELBOARD.
4. ACCEPTABLE MANUFACTURERS: SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER.

H. SAFETY SWITCHES AND OVERCURRENT PROTECTION DEVICES

1. ENCLOSED, NON-FUSIBLE AND FUSIBLE SAFETY (DISCONNECT) SWITCHES SHALL CONFORM TO NEMA KS1 TYPE HD, SIZED AS INDICATED ON DRAWINGS. ENCLOSURE TO BE RATED NEMA TYPE 3R FOR OUTDOOR USE AND TYPE 1 FOR INDOOR USE UNLESS OTHERWISE NOTED. OPERATING MECHANISMS SHALL BE DESIGNED SO THAT THE SWITCHES MAY BE LOCATED IN THE OFF POSITION.
2. ACCEPTABLE MANUFACTURERS: SQUARE D, GENERAL ELECTRIC, CUTLER HAMMER, SIEMENS.
3. UNLESS NOTED OTHERWISE, PROVIDE CLASS J TIME DELAY FUSES FOR MAIN FEEDERS, CLASS RK1 TIME DELAY FUSES FOR MOTOR CIRCUITS, AND CLASS RK5 NON-TIME-DELAY FOR OTHER BRANCH CIRCUITS. INSTALL FUSES SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL. PROVIDE SIX (6) SETS OF SPARE FUSES AND A FUSE CABINET FOR EACH LOCATION WHERE FUSES ARE INSTALLED.
4. IN GENERAL, PROVIDE MOLDED CASE, BOLT-ON TYPE, AND THERMAL MAGNETIC TRIP CIRCUIT BREAKERS AS SHOWN AND AS REQUIRED FOR THIS PROJECT. MULTIPLE POLE BREAKERS SHALL BE SINGLE HANDLE, COMMON TRIP. PROVIDE HANDLE LOCKING DEVICES WHERE INDICATED. INTERRUPTING RATING AS PROVIDED OR AS REQUIRED FOR AVAILABLE FAULT CURRENT.
5. FOR NEW OVERCURRENT DEVICES IN EXISTING EQUIPMENT, DEVICE VOLTAGE AND INTERRUPTING RATINGS SHALL MATCH EXISTING DEVICE RATINGS UNLESS NOTED OTHERWISE. BUS BARS, DRAWOUT AND PLUG-IN ASSEMBLIES, CONNECTORS, ADAPTERS, LUGS, AND OTHER HARDWARE SHALL BE OF THE SAME TYPE AND MANUFACTURE AS EXISTING EQUIPMENT. WHERE A DEVICE IS OBSOLETE AND THE MANUFACTURER DOES NOT OFFER AN EQUIVALENT REPLACEMENT DEVICE, PROVIDE WRITTEN NOTICE TO THE ENGINEER.
6. PROVIDE LABELS, CIRCUIT NUMBERING, AND UPDATED TYPED WRITTEN PANELBOARD SCHEDULES FOR ALL PANELS AFFECTED BY THIS WORK.

I. GROUNDING

1. ALL SAFETY GROUNDING OF THE ELECTRICAL EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH NEC.
2. GROUND LUGS ARE SPECIFIED UNDER "CONDUCTORS AND CONNECTORS".
3. ALL GROUND LUG AND COMPRESSION CONNECTIONS SHALL BE COATED WITH ANTI-OXIDANT AGENT, SUCH AS NO-OX, NOALOX, PENETROX OR KOPRSHIELD.
4. GROUND ALL EXPOSED METALLIC OBJECTS ON BUILDING EXTERIOR INCLUDING BUILDING TIE DOWN BRACKETS.
5. PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
6. DO NOT INSTALL GROUND RODS AND CONDUCTORS OUTSIDE OF PROPERTY LINE.
7. REMOVE ALL PAINT AND CLEAN ALL DIRT FROM SURFACES REQUIRING GROUND CONNECTIONS.
8. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS TO BE A MINIMUM OF 8" RADIUS.
9. REPAIR ALL GALVANIZED SURFACES THAT HAVE BEEN DAMAGED BY EXOTHERMIC-WELDING. USE ERICO T-319 GALVANIZING BAR.
10. ALL GROUND CONNECTIONS TO BE APPROVED FOR THE METALS BEING CONNECTED.
11. EXOTHERMIC WELDS TO BURIED GROUNDING SYSTEM SHALL BE PARALLEL TYPE, EXCEPT FOR BONDS TO GROUND RODS WHICH ARE TEE CONNECTIONS.
12. FOR MECHANICAL CONNECTIONS TO HATCHPLATE GROUND BARS USE A TWO-HOLE NEMA DRILLED CONNECTOR SUCH AS T&B 32007 OR APPROVED EQUAL.

J. DATA AND TELEPHONE WIRING

1. PROVIDE DATA OUTLETS WHERE SHOWN. EXACT TYPE OF DATA OUTLETS SHALL BE COORDINATED WITH THE OWNER. PROVIDE ALL ROUGH-IN AND EMPTY CONDUIT SYSTEM WHERE REQUIRED.
2. PROVIDE TELEPHONE OUTLETS WHERE SHOWN. TELEPHONE OUTLETS SHALL BE BUILDING STANDARD WITH WHITE FACEPLATE. PROVIDE ALL TELEPHONE WIRING AND CONDUIT. TERMINATE TELEPHONE WIRING AT A DEMARCATION POINT DETERMINED BY THE OWNER.

K. LIGHTING

1. PROVIDE ALL FLUORESCENT FIXTURES WITH T5 LAMPS, AND ELECTRONIC ENERGY SAVING BALLASTS.
2. LIGHTING SWITCHES SHALL BE TOGGLE-TYPE 277V 20 AMP SPECIFICATION GRADE WITH SINGLE AND THREE WAY AS SPECIFIED ON THE DRAWING.

L. IDENTIFICATION

1. ALL EQUIPMENT SHALL BE IDENTIFIED USING NAMEPLATES AND LABELS.
2. NAMEPLATES SHALL BE 1/8" THICK PLASTIC ENGRAVING SHEET, WHITE FACE, BLACK CORE, ENGRAVED WITH EQUIPMENT IDENTIFICATION AND ATTACHED TO EQUIPMENT WITH SELF-TAPPING SCREWS. CHEMICAL ADHESION PLATES ARE NOT ACCEPTABLE. LETTERS SHALL BE MINIMUM 1/4" HIGH.
3. LABELS SHALL BE EMBOSSSED PLASTIC WITH MINIMUM 1/4" HIGH LETTERS. LABELS SHALL BE USED FOR IDENTIFYING CONDUIT, CABLES, JUNCTION BOXES, RECEPTACLES ETC.
4. WORDING ON NAMEPLATES AND LABELS MUST BE APPROVED BY THE ENGINEER PRIOR TO MANUFACTURING.
5. EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR INSIDE THE LEASE SPACE SHALL HAVE AN ENGRAVED TAG ATTACHED AT EACH END IDENTIFYING THE ORIGINATING AND TERMINATING POINT.

N. TESTING AND COMMISSIONING

1. CONDUCT INSULATION RESISTANCE, RESISTANCE MEASUREMENTS THROUGH ALL NEW BOLTED CONNECTIONS, AND CONTINUITY TESTS OF ALL NEW FEEDERS TO INSURE CORRECT CABLE CONNECTION PER NETA ACCEPTANCE TESTING SPECIFICATIONS FOR ELECTRIC POWER DISTRIBUTION EQUIPMENT AND SYSTEMS STANDARDS. SUBMIT TEST REPORTS TO ENGINEER AND INCLUDE IN PROJECT CLOSE-OUT DOCUMENTATION PROVIDED TO OWNER.
2. CARRY OUT TESTING AND COMMISSIONING OF ALL MAJOR ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, DISTRIBUTION BOARDS, GENERATOR, AUTOMATIC TRANSFER SWITCH, MOTOR STARTERS, ETC. ENGAGE THE SERVICES OF SUPPLIERS OF EQUIPMENT IN FACILITATING TESTING AND COMMISSIONING.
3. TESTING AND COMMISSIONING OF GENERATOR SET, AUTOMATIC TRANSFER SWITCH, AND SOLID-STATE CIRCUIT BREAKERS SHALL BE CARRIED OUT IN THE PRESENCE OF THE ENGINEER. NOTIFY THE ENGINEER SEVEN WORKING DAYS IN ADVANCE OF THE TEST DATE.

O. FINAL SITE CLEAN UP

1. UPON COMPLETION OF THE INSTALLATION, THE ELECTRICAL CONTRACTOR SHALL REVIEW AND CHECK THE ENTIRE INTALLATION, CLEAN EQUIPMENT AND DEVICES, AND REMOVE SURPLUS MATERIALS AND TRASH FROM THE OWNER'S PROPERTY, LEAVING THE WORK IN NEAT, CLEAN ORDER AND IN COMPLETE WORKING CONDITION.
2. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY CARTONS, DEBRIS, AND TRASH FOR EQUIPMENT INSTALLED BY THE ELECTRICAL CONTRACTOR, INCLUDING EQUIPMENT FURNISHED BY THE OWNER OR OTHERS AND REMOVED FROM PACKAGING BY THE ELECTRICAL CONTRACTOR.

PROJECT INFO

CLIENT:

COVENANT GROUP, LLC

PROJECT:

COVENANT GROUP - BUILDING SHELL - LEE'S SUMMIT, MO

ADDRESS:

400 NW CHIPMAN RD
LEE'S SUMMIT, MO 64806

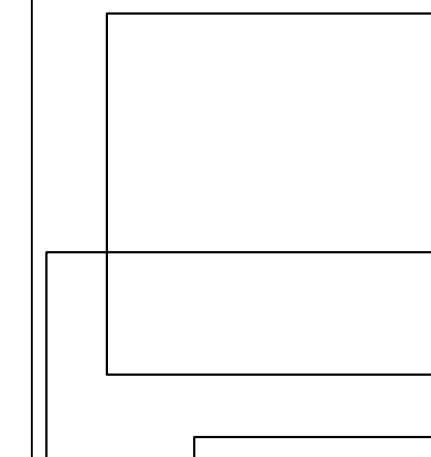
PROJECT NO:

267

MAIN CONTACT

CHRISTOPHER CLARK, AIA, NCARB
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chris@clarkitecture.net

DEVELOPER



COVENANT
REAL
ESTATE
GROUP

2140 PAVED VERDE PWT, SUITE 105 | HENNERSON, MO 64094 | 714.844.8100

SHEET INFO

ISSUE DATE: 04/06/22

ISSUED FOR: PERMIT

REVISION SCHEDULE		
NO	DESCRIPTION	DATE

PROFESSIONAL'S SEAL:



04/08/2022

ELECTRICAL
SPECIFICATION

E-2

PROJECT INFO

CLIENT:
COVENANT GROUP, LLC

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

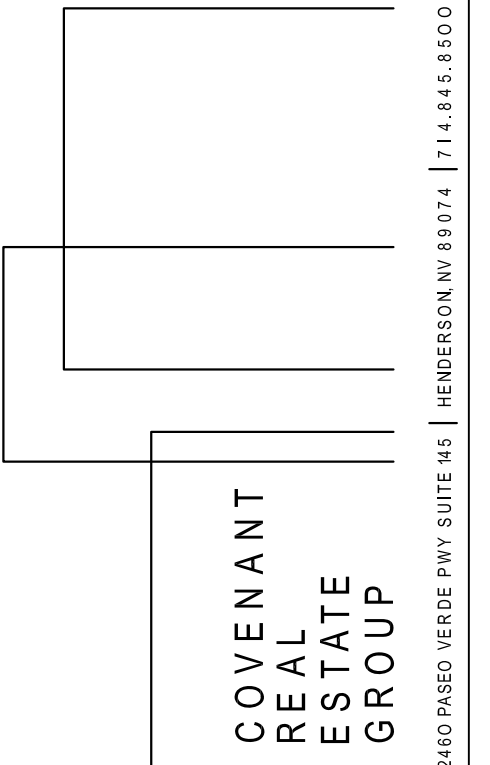
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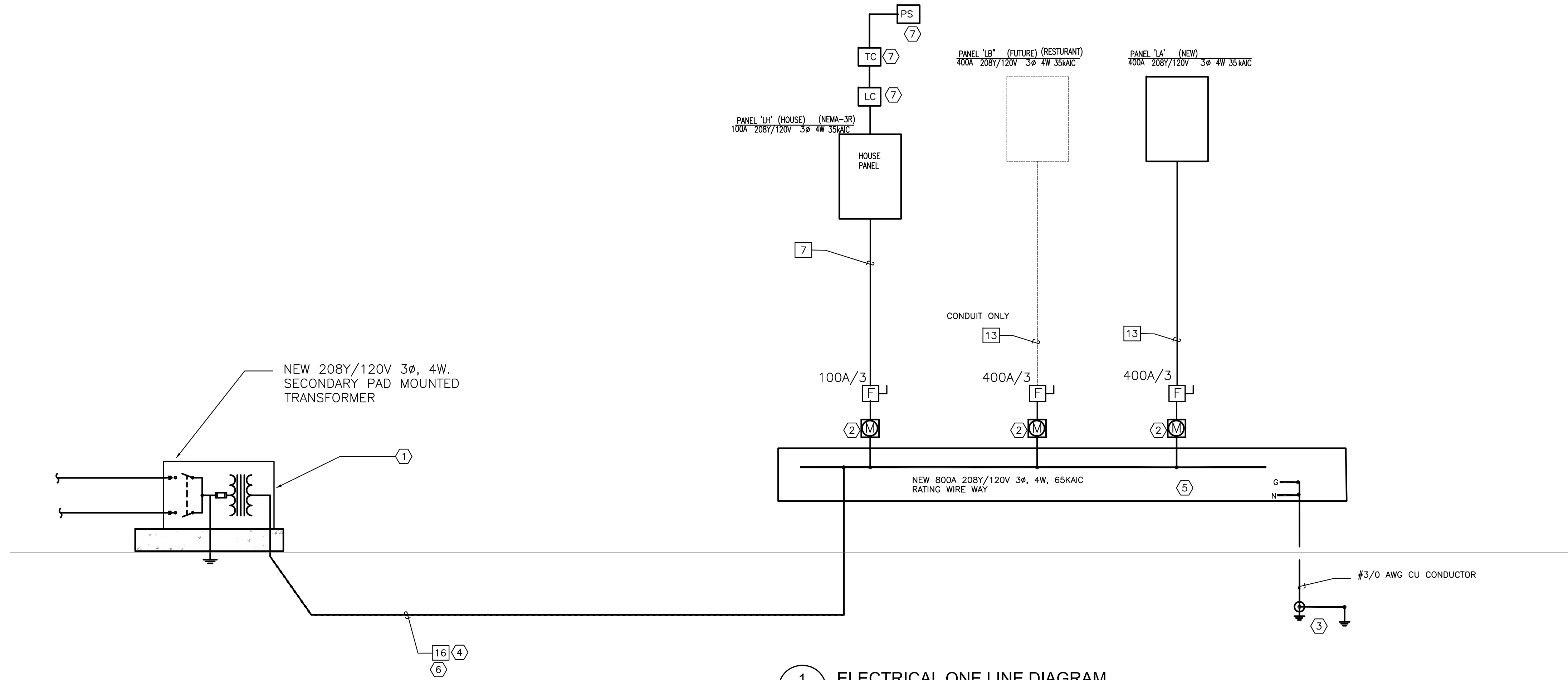
ELECTRICAL ONE LINE DIAGRAM

DRAWING NOTES:

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

KEY NOTES:

- 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 CONTRACTOR TO BE CONTROLLED BY TIME CLOCK AND PHOTOCCELL. FIELD COORDINATE FOR PHOTOCCELL LOCATION.
- ⑧ SUPPLY AND INSTALLED CONDUIT ONLY WITH PULL STRING.



1 ELECTRICAL ONE LINE DIAGRAM
SCALE: N.T.S.

CONDUIT AND WIRE DESIGNATION SCHEDULE				
(NOTE: ALL CONDUIT AND WIRE DESIGNATION SHOWN MAY NOT APPEAR ON DRAWING AND ARE USED AS APPLICABLE TO THIS PROJECT)				
WIRE/BKR MAX AMPS	DESIG.	# OF SETS	DESCRIPTION	REMARKS
30	1	1	3#10, 1#10G, 3/4"C	
40	2	1	3#8, 1#10G, 3/4"C	
55	3	1	3#6, 1#10G, 3/4"C	
60	4	1	4#6, 1#6G, 1-1/4" RNC	
85	5	1	3#3, 1#8G, 1"C	
100	6	1	4#1/0, 2"C	ALUMINUM
100	7	1	4#1/0, 1#6G, 2"C	ALUMINUM
130	8	1	4#1, 1#6G, 1-1/2"C	
150	9	1	3#1/0, 1#6G, 1-1/2"C	
150	10	1	4#1/0, 1#6G, 2"C	
200	11	1	4#250KCMIL, 1#4G, 2-1/2"C	ALUMINUM
250	12	1	4#350KCMIL, 1#2G, 3"C	ALUMINUM
400	13	2	4#250KCMIL, 1#1G, 2-1/2"C	ALUMINUM
600	14	2	4#350KCMIL, 1#1/0G, 3"C	
800	15	2	4#500KCMIL, 1#1/0 3-1/2"C	
700	16	3	4#350KCMIL, 3"C	ALUMINUM

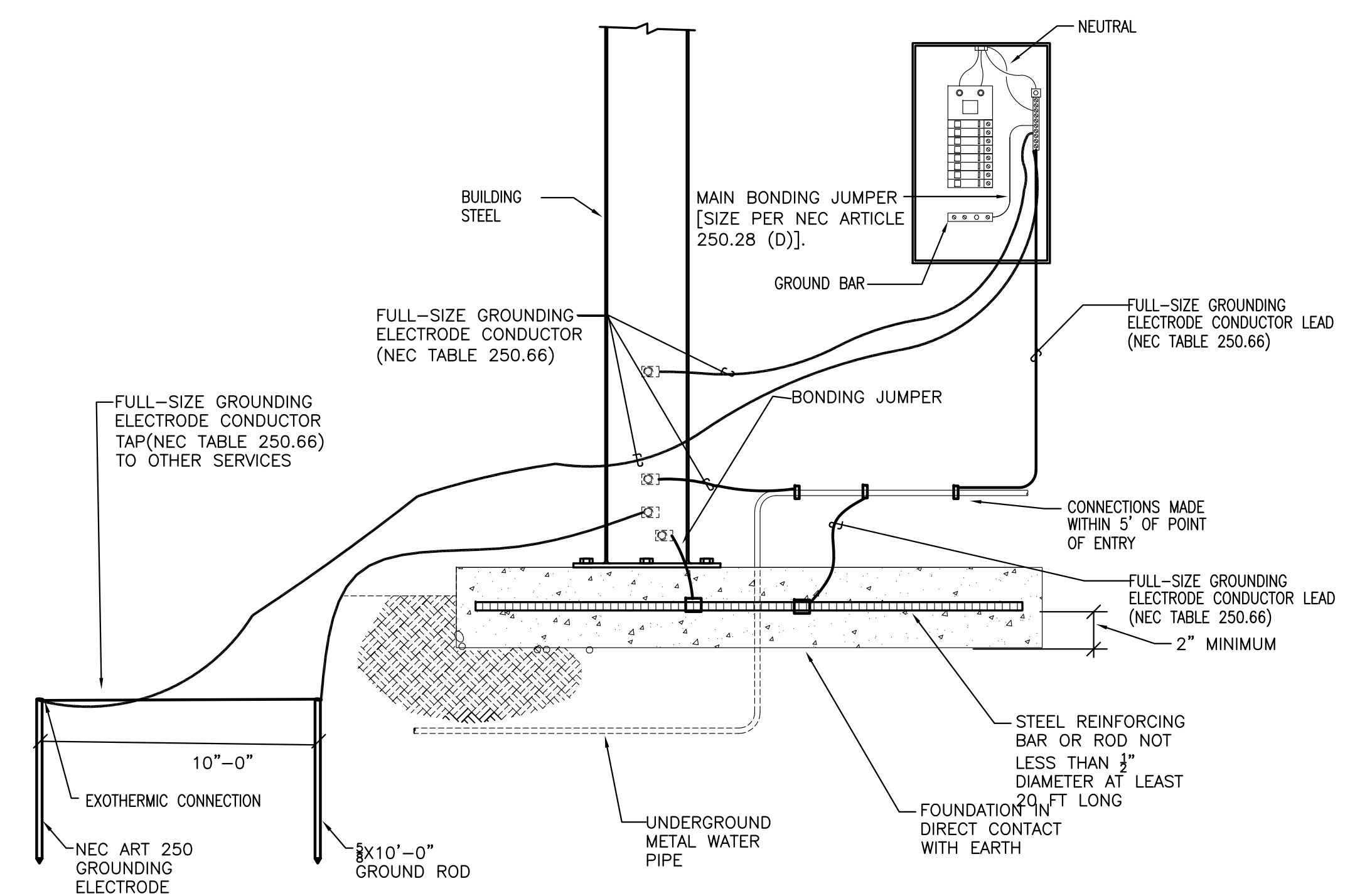
CONDUIT SIZE BASED ON THHN/THWN 40% FILL CALCULATION. WIRE SIZE BASED ON NEC 110-14C WITH 60°C AMPACITY TABLES FOR 20 AMPS THRU 100 AMPS AND 75°C AMPACITY TABLES FOR VALUES > 100 AMPS.

NOTE!
IN GENERAL, THE ACTUAL BREAKER AMPERAGE SHALL BE EQUAL TO OR NEXT STANDARD SIZE SMALLER THAN THE MAXIMUM WIRE AMPS. EXCEPTIONS SHALL BE MOTOR AND SPECIAL EQUIPMENT BREAKERS WHICH SHALL BE SIZED PER N.E.C. AND VENDOR REQUIREMENTS. OMIT GROUND CONDUCTORS ON SERVICE ENTRANCE FEEDERS (TYPICAL). USE #12 WIRE U.O.N. PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE BREAKER AND WIRING WITH ACTUAL REQUIREMENTS OF EQUIPMENT BEING FURNISHED FOR THIS SPECIFIC PROJECT.

UNLESS NOTED OTHERWISE ALL 20A, 1P. BREAKERS TO UTILIZE #12 CONDUCTORS. EXCEPT WHERE BRANCH CIRCUIT IS IN EXCESS OF 90 LINEAR FEET CONDUCTORS TO BE #10 AND OVER 175 FEET LINEAR FEET CONDUCTORS TO BE #8. EQUIPMENT GROUNDING CONDUCTOR SHALL BE INCREASED PROPORTIONATELY TO PHASE CONDUCTORS PER NEC 250.122(B).

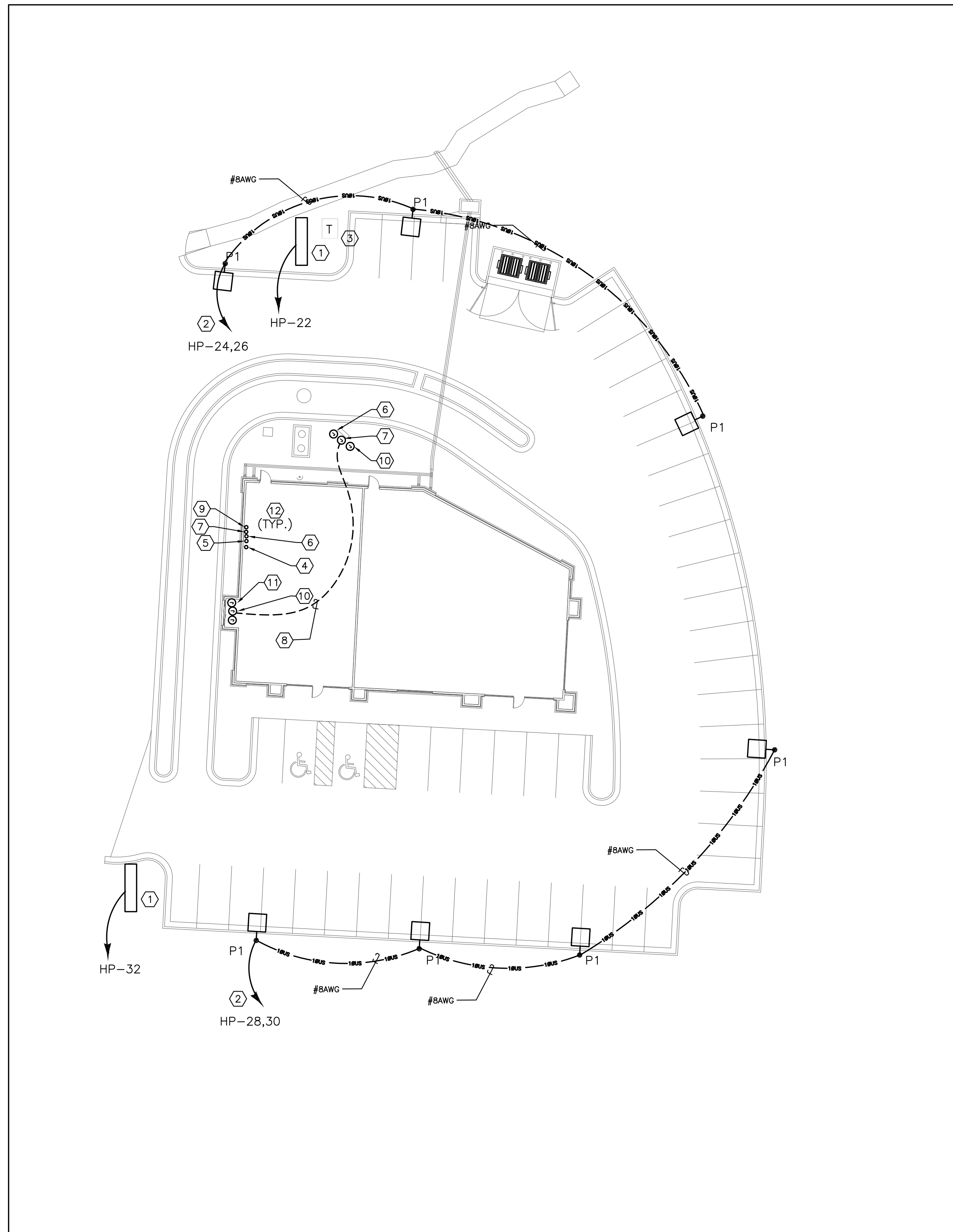
SPECIAL FEEDER NOTES:

- ALL THE MAIN FEEDERS ARE ALUMINUM.
- ALL THE BRANCH CIRCUITS ARE COPPER.

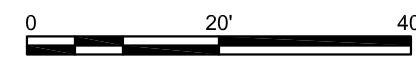


- NOTES:**
- A. THIS DETAIL IS NOT INTENDED TO SHOW THE PHYSICAL ROUTING OF THE GROUNDING ELECTRODE CONDUCTORS, BUT SIZING AS OUTLINED IN NEC ARTICLE 250.66.
 - B. THE MINIMUM INSIDE BEND RADIUS IS:
 - 6 INCHES (0.15M) FOR CONDUCTORS UP TO #6 GAUGE.
 - 12 INCHES (0.3M) FOR CONDUCTORS #6 TO #4/0 GAUGE.
 - 24 INCHES (0.6M) FOR CONDUCTORS #4/0 GAUGE AND UP.

2 SERVICE GROUNDING ELECTRODE DETAIL
SCALE: N.T.S.



1 ELECTRICAL SITE PLAN
 E6.0 SCALE: 1"=20'

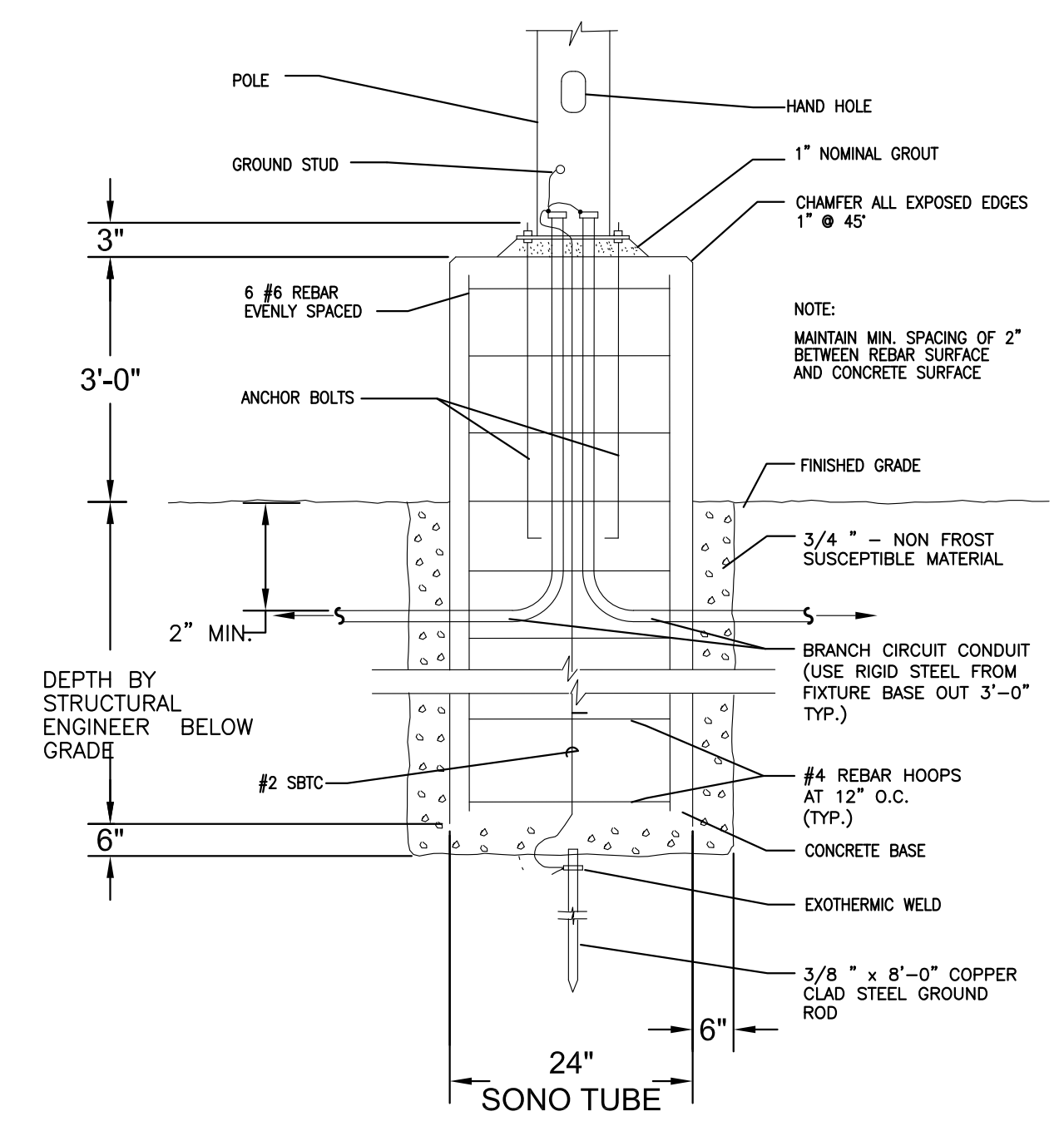


GENERAL NOTES:

- 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. POWER 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. LOWER CASE ALPHA CHARACTER INSIDE/ADJACENT TO LUMINAIRE INDICATES ASSOCIATED SWITCH CONTROLLING LIGHTING BRANCH CIRCUIT.
- E. ALL PENETRATION THRU FIRE RATED WALL AND CEILING SHALL BE SEALED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE ARTICLE 300-21.
- F. COORDINATE WITH OWNER FOR APPROVAL OF LIGHTING FIXTURE PRIOR TO INSTALL.
- G. MINIMUM WIRE SIZE FOR PARKING LIGHTS IS #8AWG.

KEY NOTES:

- ① POWER CONNECTION FOR FUTURE MONUMENT SIGN. FILED COORDINATE EXACT LOCATION. SIGNAGE POWER SHALL Routed THRU LIGHTING CONTACTOR AND CONTROL VIA TIME CLOCK AND PHOTO ELECTRIC CELL.
- ② PARKING LIGHT SHALL Routed THRU LIGHTING CONTACTOR AND CONTROL VIA TIME CLOCK AND PHOTO ELECTRIC CELL.
- ③ UTILITY TRANSFORMER. FIELD COORDINATE EXACT LOCATION.
- ④ PROVIDE 1" CONDUIT FOR PRE-ORDER MENU BOARD TO FUTURE PANEL LOCATION. STUB UP AND CAP. VERIFY EXACT LOCATION WITH TENANT.
- ⑤ PROVIDE 1" CONDUIT FOR FUTURE PRE-MENU/MENU BOARD TO FUTURE PANEL LOCATION. STUB UP AND CAP. VERIFY EXACT LOCATION WITH TENANT.
- ⑥ PROVIDE 1" CONDUIT FOR FUTURE MENU BOARD TO FUTURE PANEL LOCATION. STUB UP AND CAP. VERIFY EXACT LOCATION WITH TENANT.
- ⑦ PROVIDE 1" CONDUIT FOR POWER TO OCS/SPEAKER POST TO FUTURE PANEL LOCATION. STUB UP AND CAP. VERIFY EXACT LOCATION WITH TENANT.
- ⑧ PROVIDE (2) 1" CONDUIT FROM OCS/SPEAKER POST TO DRIVE-THRU WINDOW.
- ⑨ PROVIDE WP, J-BOX AND 1" CONDUIT FOR DIRECTIONAL SIGN TO FUTURE PANEL LOCATION. STUB UP AND CAP. VERIFY EXACT LOCATION WITH TENANT.
- ⑩ PROVIDE 1" CONDUIT FOR DETECTOR LOOP SET. STUB UP AND CAP. VERIFY EXACT LOCATION WITH TENANT.
- ⑪ PROVIDE WP, J-BOX AND 3/4" CONDUIT FOR DRIVE-THRU TRANSOMS, SIDELIGHTS AND EXTERIOR SHELF POWER TO FUTURE PANEL LOCATION. STUB UP AND CAP. VERIFY EXACT LOCATION WITH TENANT.
- ⑫ STUB UP CONDUITS 6" A.F.F FINISH FLOOR. COORDINATE WITH ARCHITECT, OWNER AND OTHER TRADES PRIOR TO INSTALLATIONS.



DETAIL NOTES

1. AE MUST DETERMINE POLE BASE DEPTH.

2 TYPICAL POLE BASE DETAIL
 E-6 SCALE:

PROJECT INFO

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 COVENANT GROUP, LLC

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

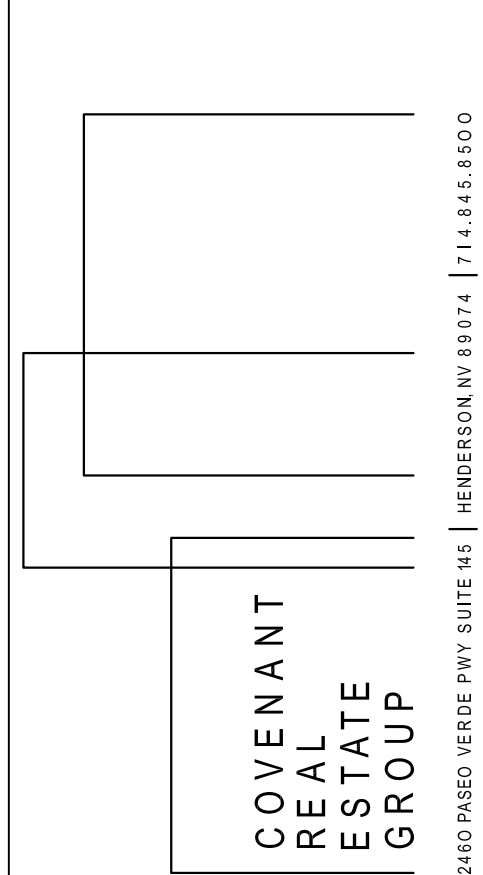
ADDRESS:
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PROJECT NO: 267

MAIN CONTACT

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DEVELOPER



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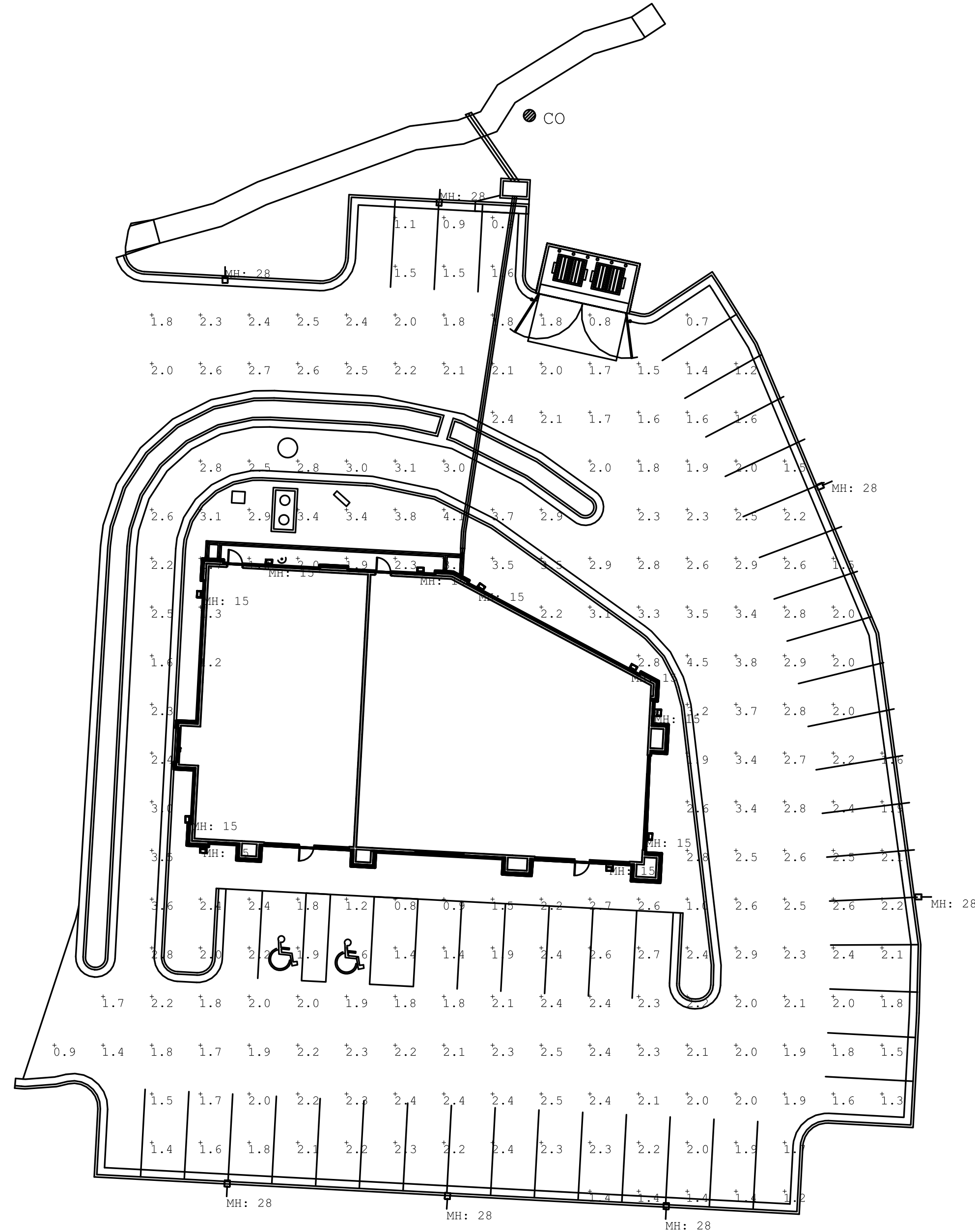
PROFESSIONAL'S SEAL:



04/08/2022

ELECTRICAL SITE PLAN

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall	Illuminance	Fc	2.21	4.5	0.7	3.16	6.43



1 ELECTRICAL SITE PHOTOMETRIC PLAN
E-7 SCALE: NTS



PROJECT INFORMATION

Project Name	Date
Catalog #	Type

VIENTO SMALL

AREA & SITE LED LUMINAIRE



APPLICATIONS

- Auto Dealership Sales Lots
- Parking Lots
- Educational/Business Campuses
- Parks & Recreation Areas
- Security Areas
- Mail & Retail Spaces
- Pedestrian Walkways

APPROVALS

- ETL Listed, Complies with UL 1598 and CSA C22.2 No. 250.0-08
- 565 Vibration Rated for Bridge/Overpass Applications per ANSI C136.31-2010, Test Level 2
- Suitable for wet locations
- IP 66 Optics and Housing
- Select models DLC Qualified. For a completed list of DLC Qualified products, please visit: <https://www.xtralight.com/dlc> or www.designlights.org/qsl

PRODUCT PERFORMANCE

MODEL	LUMENS	WATTS	EFFICACY
VNT-S 025"	4085	27.3	149.8 LPW
VNT-S 052"	7605	52.7	144.3 LPW
VNT-S 072"	10775	77.4	139.2 LPW
VNT-S 100"	14735	109.1	135.0 LPW

*Type V Optics 5000K. For more photometric information see page 3.

FEATURES

- Outstanding photometric performance results in sites with excellent uniformity, optimal pole spacing and lower power density.
- Optics are completely sealed against moisture and environmental contaminants (IP66).
- Low profile architectural design offers a contemporary appearance with excellent light output and is night sky friendly.
- Field-serviceable luminaire utilizing Lumileds LED technology.
- Controls ready luminaire for independent operation or remote management.
- Operating temperature: -40°C to +40°C (-40°F to +104°F)

CONSTRUCTION

- Housing: One-piece die-cast aluminum has integral heat sink fins to optimize thermal management through conductive and convective cooling.
- The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life.
- Housing and door are protected with a thermoset TGIC-polyester powder coat finish using a tightly controlled multi-stage process to a uniform 3 mil thickness (min). This finish provides superior protection from corrosion and maximum environmental durability.
- Powder coat finish in bronze, white or custom colors (consult factory).

MOUNTING

- Integral arm with keyhole slot facilitates quick and easy installation.
- Nut plate eliminates loose hardware in the pole and reduces installation labor.

WARRANTY

- 10-year limited warranty.

OPTICS

- Precision molded optics for superior uniformity, minimal light trespass and maximum pole spacing.
- Optical grade polymer is UV stabilized and impact resistant.
- IP66 rated LED light engines prevent dust and moisture from degrading performance.
- Distributions: Type II, Type III, Type IV and Type V. Types II, III, and IV available rotated right or left 90°, factory installed.
- Best in class Osram LEDs with 3000K, 4000K and 5000K CCT (min 70 CRI).
- Zero uplight (ZU) is night sky friendly, reduces wasted light.
- Lumen Maintenance: >100,000hrs L70 @ 25°C.

ELECTRICAL

- Voltage: 120-277V 50/60Hz driver (standard); 347-480V 50/60Hz driver (optional).
- Class 2 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate.
- Surge Protection: 20kA standard.
- NEMA twist-lock receptacle available as an option.
- NOTE: Photocontrol or shorting cap required for operation (not included).
- Dimming: 0-10v dimmable driver standard.
- Passive Infrared (PIR) Photo/Motion Sensor option available.

DLG **DLG** **IP66** **IP66** **3G** **Intertek**

VNT-SMALL **100000** www.xtralight.com • (800) 578-6960 • customerservice@xtralight.com

All information is believed to be accurate at the time of publication. Please contact customer service or visit www.xtralight.com for the most updated product specifications. XtraLight® reserves the right to change specifications without notice.

PROJECT INFO

CLIENT:
COVENANT GROUP, LLC

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

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**SITE LIGHTING
PHOTOMETRIC PLAN
E-7**