

GENERAL NOTES

- PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO ACHIEVE A COMPLETE AND OPERATIONAL SYSTEM.
- COORDINATE AND OBTAIN APPROVALS FROM ALL RESPECTIVE UTILITY COMPANIES AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
- ALL WORK SHALL COMPLY WITH APPLICABLE SECTION OF THE LATEST CITY OF LOS ANGELES ELECTRICAL CODE, HEREAFTER MENTIONED AS "ELECTRICAL CODE".
- ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE UL LISTED OR LISTED AND APPROVED BY THE CITY OF LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY RECOGNIZED ELECTRICAL TESTING LABORATORY.
- INSTALL RACEWAY SYSTEMS AS FOLLOWS:
 - USE RIGID GALVANIZED STEEL IN ALL AREAS EXPOSED TO WEATHER OR PHYSICAL DAMAGE.
 - USE FLEXIBLE METALLIC CONDUIT ONLY IN AREAS AS PERMITTED BY LOCAL CODE AUTHORITY.
 - USE SEAL-TITE IN AREAS EXPOSED TO WEATHER.
 - USE COMPRESSION TYPE FITTINGS FOR ELECTRICAL METALLIC TUBING WHERE UTILIZED.
 - USE P.V.C. CONDUIT UNDERGROUND WITH CODE SIZED GROUND, CONDUIT RISERS AND STUBS ABOVE GRADE SHALL BE I.M.C. WITH HALF-LAPPED TAPE COVERING OR P.V.C. COATING.
- ALL NEW WIRING SHALL BE COPPER TYPE "THHN/THWN" - U.O.N..
- CONDUIT FOR ROOF MOUNTED EQUIPMENT SHALL BE ROUTED BELOW THE ROOF WITHIN THE BUILDING.
- ALL FUTURE, DEVICE, ETC.. LOCATIONS SHALL BE VERIFIED WITH ARCHITECTURAL DRAWINGS AS WELL AS EQUIPMENT SUPPLIER REQUIREMENTS PRIOR TO ANY ROUGH-IN WORK.
- ALL LIGHTING FIXTURES SHALL BE MOUNTED AND SUPPORTED IN ACCORDANCE WITH OSHA STANDARDS AND ALL LOCAL, STATE, AND NATIONAL ELECTRICAL CODES.
- ELECTRONIC BALLASTS FOR FLUORESCENT LIGHTING FIXTURES SHALL HAVE A MINIMUM BALLAST FACTOR (BF) OF 0.90 OR GREATER UNLESS OTHERWISE SPECIFIED.
- ELECTRICAL CONTRACTOR SHALL PROVIDE LIGHTING FIXTURE MOUNTING KITS AS REQUIRED TO SUIT THE EXACT TYPE OF CEILING TO WHICH THEY ARE MOUNTED.
- THESE DRAWINGS ARE DIAGRAMMATIC AND REPRESENT THE INTENT OF EQUIPMENT, DEVICES, ETC... TO BE CONNECTED AND THE CIRCUITS TO WHICH THEY ARE TO BE CONNECTED TO. CONTRACTOR SHALL INSTALL ALL CONDUIT, J-BOXES, ETC... AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- ALL EXTERIOR EQUIPMENT SHALL BE WEATHERPROOF.
- ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH CITY OF LOS ANGELES, ALL LOCAL, STATE, AND NATIONAL GOVERNING CODES.
- ALL EQUIPMENT SHALL BE UL LISTED AND EXPLICITLY DECLARED "NEW" ON SUBMITTALS UNLESS SPECIFICALLY APPROVED BY UTC POWER, UON.
- ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY BUILDING PERMITS.
- COMPLETE ELECTRICAL INSTALLATION SHALL BE GUARANTEED IN WRITING FOR A PERIOD OF (1) YEAR - U.O.N..
- ELECTRICAL CONTRACTOR SHALL INCLUDE IN BID - COSTS FOR ALL HVAC CONTROL COMPONENTS, CONDUITS, DEVICES, ETC... AS DEEMED NECESSARY FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM. REFER TO MECHANICAL DRAWINGS, DIAGRAMS AND SPECS FOR THOSE ITEMS REQUIRED UNDER THE ELECTRICAL SECTION OF THIS CONTRACT.
- ELECTRICAL CONTRACTOR SHALL VISIT SITE PRIOR TO BID DATE, TO VERIFY ALL EXISTING CONDITIONS TO BE ENCOUNTERED IN THE INSTALLATION OF ALL NEW EQUIPMENT, FIXTURES, DEVICES, FEEDERS, ETC.. EXACT INSTALLATION METHOD AND REQUIREMENTS SHALL BE VERIFIED AND DETERMINED PRIOR TO BID DATE. CONTRACTORS SHALL IMMEDIATELY NOTIFY THIS ENGINEER OF ANY REQUIRED MODIFICATIONS WHICH ARE NOT SHOWN ON THESE DRAWINGS. SUBMITTAL OF BID INDICATES CONTRACTOR IS AWARE OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED.
- ALL ELECTRICAL EQUIPMENT CHARACTERISTICS, LOCATIONS, AND CONNECTION REQUIREMENTS SHALL BE VERIFIED PRIOR TO ANY ROUGH-IN WORK.
- ELECTRICAL CONTRACTOR SHALL FURNISH THE FOLLOWING SHOP DRAWINGS FOR PRIOR APPROVAL:
 - ALL SUBSTITUTED LIGHT FIXTURES.
 - ALL ELECTRICAL SERVICE EQUIPMENT, DISTRIBUTION EQUIPMENT AND PANELBOARDS.
 - OTHER ITEMS AS SPECIFICALLY INDICATED.

THESE ITEMS SHALL BE APPROVED BY THIS OFFICE PRIOR TO ANY COMMENCEMENT OF PLACING ORDERS OR PERFORMING ANY ROUGH-IN WORK.
- COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH THE PRESENTLY ADOPTED EDITION OF THE N.E.C. ART. 250.
- PENETRATIONS OF ALL FIRE RATED WALLS OR CEILINGS SHALL BE FIRE RATED IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES.
- PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL MAJOR ELECTRICAL EQUIPMENT.
- PROVIDE THE OWNER AND THIS ENGINEER WITH ONE SET OF ELECTRICAL "AS-BUILTS" AT THE COMPLETION OF JOB.
- ALL DISCONNECT SWITCHES TO BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS.
- ELECTRICAL CONTRACTOR SHALL PREPARE AND SUBMIT CALIFORNIA ENERGY COMMISSION TITLE 24 FORMS LTG-1-A, PARTS 1, 2, & 3 (CERTIFICATE OF ACCEPTANCE) AND FORMS LTG-2-A (LIGHTING CONTROL) AND/OR LTG-3-A (AUTOMATIC DAYLIGHTING CONTROL) AS THEY APPLY TO THE BUILDING DEPARTMENT PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
- GROUND FAULT PROTECTION SHALL BE IN ACCORDANCE WITH NEC ARTICLE 230.95.
- SIGNAGE REQUIREMENTS SHALL BE NEC, UTILITY AND FACILITY.
- PROVIDE ARC FLASH WARNING SIGNS IN ACCORDANCE WITH NEC ART. 110-16 ON ELECTRICAL EQUIPMENT INSTALLED.

ELECTRICAL SYMBOLS LIST

- § STANDARD 20A, 120/277V-1Ø SPST TOGGLE SWITCH MOUNTED AT +48" A.F.F.-U.O.N.
- a,b - DENOTES TWO SWITCHES AND THEIR RESPECTIVE CONTROL IDENTIFICATION.
- 3 - DENOTES 3-WAY SWITCH
- Ø - DENOTES - 120V. - 1Ø (AS NOTED) SLIDING TYPE DIMMER SWITCH. - LUTRON "NOVA-1" SERIES OR APPROVED EQUAL, PROVIDE SEPARATE NEUTRAL FOR EACH DIMMER AND DIMMER RACK CIRCUIT.
- ⊖ WALL MOUNTED LIGHTING FIXTURE.
- ⊕ STANDARD 20A, 120V-1Ø GROUNDING TYPE DUPLEX RECEPTACLE MOUNTED AT +18" AFF - UON.
- ⊕ STANDARD 20A, 120V-1Ø GROUNDING TYPE FOUR-PLEX RECEPTACLE MOUNTED AT +18" A.F.F. - U.O.N.
- ⊕ GFI STANDARD 20A, 120V-1Ø GROUNDING TYPE "GROUND FAULT INTERRUPTER" (G.F.I.) RECEPTACLE MOUNTED AT +18" AFF - UON.
- ⊕ STANDARD 20A, 120V-1Ø ISOLATED GROUND TYPE DUPLEX RECEPTACLE, ORANGE IN COLOR, MOUNTED AT +18" A.F.F. - U.O.N.
- ⊕ SPECIAL RECEPTACLE MOUNTED AT +18" AFF - UON. AMPS - VOLTS & PHASE AS INDICATED ON PLANS. VERIFY NEMA CONFIGURATION WITH INSTALLED EQUIPMENT SUPPLIER PRIOR TO PLACING ORDER.
- ⊕ FUSED DISCONNECT SWITCH, AMPS, POLES AND CLASS RK1 FUSE (SIZE AS INDICATED). OPEN - INDICATES NON-FUSED WP - INDICATES NEMA 3R ENCLOSURE
- ⊕ MAGNETIC MOTOR STARTER. AMPS AND NEMA SIZE AS INDICATED. PROVIDE COMPLETE WITH THERMAL OVERLOAD PROTECTION PER MOTOR NAMEPLATE DATA, 120V CONTROL COIL - UON, AND H.O.A. (HAND-OFF-AUTO) SWITCH.
- ⊕ COMBINATION DISCONNECT SWITCH/MAGNETIC MOTOR STARTER. AMPS, POLES, CLASS RK1 FUSE (SIZE AS INDICATED), AND NEMA SIZE AS INDICATED. PROVIDE COMPLETE WITH THERMAL OVERLOAD PROTECTION PER MOTOR NAMEPLATE DATA, 120V CONTROL COIL - U.O.N., AND H.O.A. (HAND-OFF-AUTO) SWITCH. WP - INDICATES NEMA 3R ENCLOSURE
- ⊕ MANUAL MOTOR STARTER SWITCH, HORSEPOWER RATED 120V-1Ø - UON. PROVIDE COMPLETE WITH THERMAL OVERLOAD PROTECTION.
- ⊕ JUNCTION BOX, SIZED BY THE CONTRACTOR PER ACTUAL NUMBER OF CONDUITS AND/OR CONDUCTORS PASSING THRU.
- ⊕ MOTOR OUTLET, H.P. OR F.L.A. - VOLTS & PHASE AS INDICATED. VERIFY ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS WITH INSTALLED EQUIPMENT MFG. PRIOR TO ANY ROUGH-IN WORK.
- ▨ SERVICE ENTRANCE OR DISTRIBUTION EQUIPMENT AS SPECIFIED.
- ▬ BRANCH CIRCUIT PANELBOARD (SURFACE MOUNTED).
- ▬ BRANCH CIRCUIT PANELBOARD (FLUSH MOUNTED).
- ⊕ AUTOMATIC TRANSFER SWITCH.
- ⊕ TRANSFORMER AS SPECIFIED.
- CONDUIT ROUTED ABOVE GRADE, UON. TICK MARKS INDICATE QUANTITY OF #12 THHN / THWN CONDUCTORS - UON. CONDUIT SHOWN WITH NO TICK MARKS INDICATE 2 #12 THHN / THWN CONDUCTORS - UON. CONDUIT SHALL BE 3/4" MINIMUM - UON. INCLUDE CODE SIZED COPPER EQUIPMENT GROUND CONDUCTOR (NOT SHOWN ON PLAN) IN ALL CONDUIT RUNS.
- CONDUIT ROUTED BELOW FINISHED GRADE AND / OR CONCRETE SLAB, UON. TICK MARKS INDICATE QUANTITY OF #12 THHN / THWN CONDUCTORS - UON. CONDUITS SHOWN WITH NO TICK MARKS INDICATE 2 #12 THHN / THWN CONDUCTORS - UON. CONDUIT SHALL BE 3/4" MINIMUM - UON. INCLUDE CODE SIZED COPPER EQUIPMENT GROUND CONDUCTOR (NOT SHOWN ON PLAN) IN ALL CONDUIT RUNS.
- HOMERUN TO DESTINATION AS INDICATED. REFER TO CONDUIT SYMBOL ABOVE.
- INDICATES CONDUIT DROP WITHIN BUILDING WALL. REFER TO CONDUIT SYMBOL ABOVE.
- INDICATES CONDUIT RISER WITHIN BUILDING WALL. REFER TO CONDUIT SYMBOL ABOVE.
- FLEXIBLE CONDUIT CONNECTION FROM JUNCTION BOX.
- ⊕ CIRCUIT BREAKER, HIGH VOLTAGE
- ⊕ CIRCUIT BREAKER, LOW VOLTAGE

REFERENCES & ABBREVIATIONS

⊕ LIGHTING FIXTURE DESIGNATION	(ER) EXISTING TO BE REMOVED
⊕ DETAIL REFERENCE	FLA FULL LOAD AMPS
⊕ KEYNOTE REFERENCE	G GROUND
⊕ KITCHEN EQUIPMENT DESIGNATION	⊕ GFI GROUND FAULT INTERRUPTER
A AMPS	ISC AVAILABLE SHORT CIRCUIT [FAULT] CURRENT
AFC ABOVE FINISHED COUNTER	MCB MAIN CIRCUIT BREAKER
AFF ABOVE FINISH FLOOR	MLO MAIN LUGS ONLY
ASCC AVAILABLE SHORT CIRCUIT [FAULT] CURRENT	N.I.C. NOT IN CONTRACT
C CONDUIT	NL NIGHT LIGHT
CO CONDUIT ONLY W/PULL ROPE	OC ON CENTER
CU COPPER	UON UNLESS OTHERWISE NOTED
(E) EXISTING TO REMAIN	V VOLTS
EM EMERGENCY	VL VERIFY LOCATION
	WP WEATHERPROOF

UTILITY CONTACTS

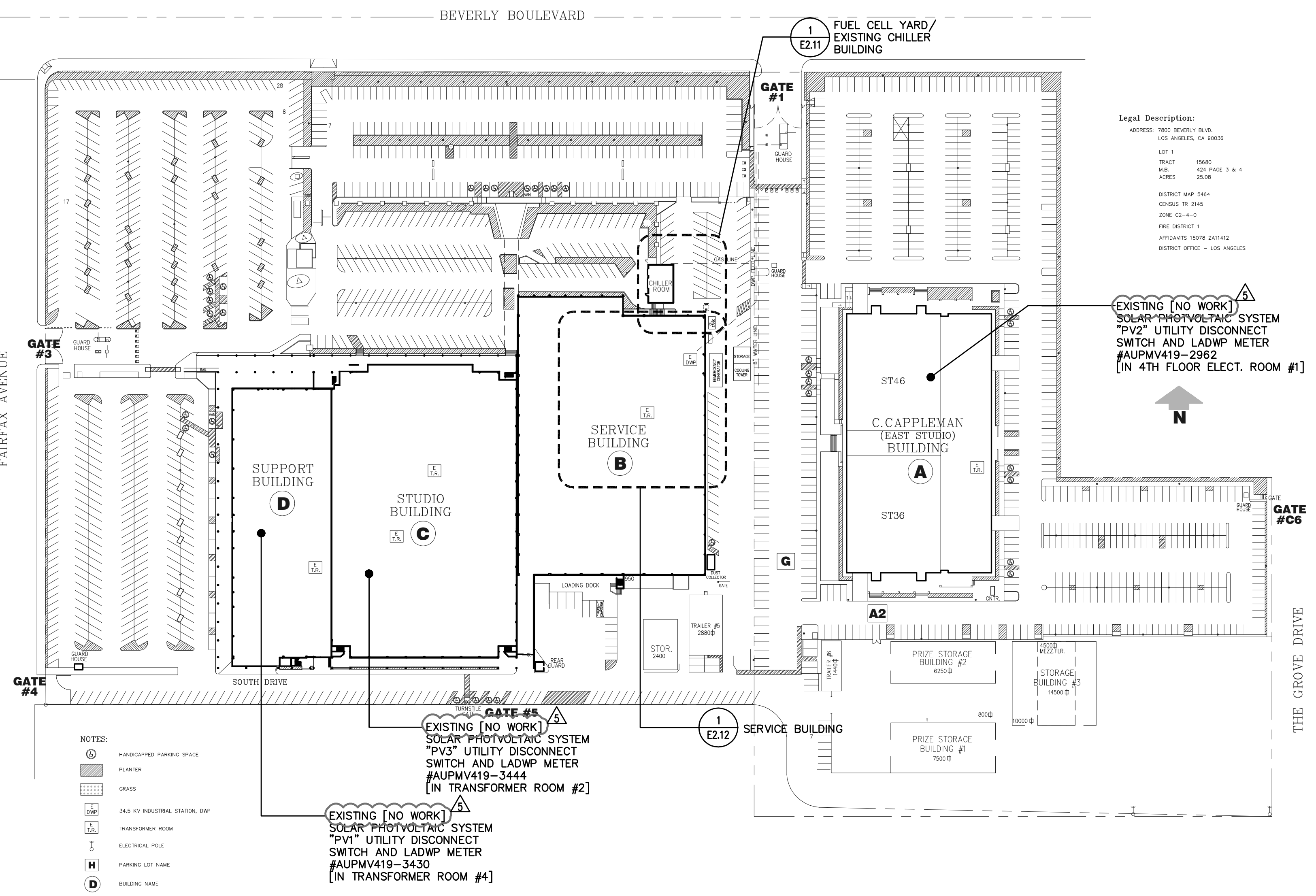
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1 LOCATION PLAN
E0.01 SCALE: NONE

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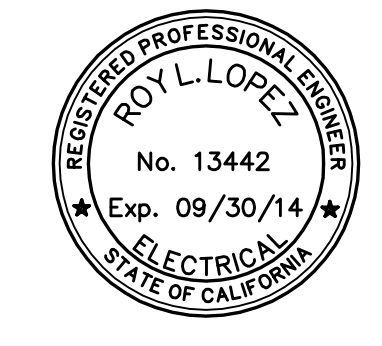
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ELECTRICAL LOCATION PLAN, LEGEND AND GENERAL NOTES

ID	DATE	REMARKS	REVISIONS
1	17/02/19	PRELIMINARY DESIGN REVIEW	
2	26/20/19	PLAN CHECK	
3	19/04/21	BID CLARIFICATIONS	
4	07/19/21	UTC RECOMMENDED CORRECTIONS	
5	10/28/21	UTC - REV. - PLAN CHECK CORRECTIONS	



ENGR: [Blank]
DRWN BY: TEAM 1
CHK'D BY: RLL
DATE: 9/19/12
JOB NO.: 12-010
SCALE: AS NOTED

SHEET
E0.01

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