5 UNIT CONDOMINIUMS

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GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF NATIONAL ELECTRIC CODE AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL CODES. WHERE THE PLANS SHOW MORE RESTRICTIVE REQUIREMENTS, THE PLANS SHALL GOVERN BUT NOTHING ON THESE PLANS SHALL BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.
2. PROVIDE ALL LABOR, MATERIALS, APPLIANCES, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION, AND SERVICES NECEASSARY FOR AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, INSTALLATION, AND MAKING FULLY OPERATIONAL THE WORK OF THIS DIVISION, COMPLETE, AND AS SHOWN AND/OR SPECIFIED HEREIN. EXCEPT SUCH MATERIAL OR EQUIPMENT SPECIFICALLY INDICATED AS PROVIDED BY THE OWNER OR BY OTHERS.
3. IN THE EVENT OF CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS AND/OR SPECIFICATIONS, THE PLAN, NOTE OR SPECIFICATION WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB OR THE HIGHER STANDARD SHALL PREVAIL.
4. THE CONTRACTOR SHALL EXAMINE THE SITE AND THE AREA WHERE THE WORK IS TO BE PERFORMED. BY SUBMITTING A BID ON THE WORK, HE SHALL BE DEEMED TO HAVE ACCEPTED THE SITE CONDITION.
5. FINISH AND INSTALL ALL CONDUITS, WIRES, BOXES, SWITCHES, LIGHT FIXTURES(WITH LAMPS), RECEPTACLES, SERVICE DEVICES, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, AND ALL RELATED ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
6. FURNISH AND INSTALL CONDUIT AND CONDUCTORS FOR CABLE TV, TELEPHONE, DATA SYSTEMS, AND SECURITY SYSTEM AS OUTLINED IN PLANS.
7. ALL MATERIAL SHALL BE NEW AND OF THE HIGHEST QUALITY, AND SHALL MEET THE FULL APPROVAL OF OWNER OR ENGINEER.
8. MATERIALS FURNISHED SHALL BE STANDARD PRODUCTS OF THE MANUFACTURER REGULARLY ENGAGED IN MANUFACTURING OF SUCH PRODUCT. USE LATEST DESIGN THAT COMPLIES WITH THE SPECIFICATION REQUIREMENTS WITH AT LEAST 12 MONTH OF SUCCESSFUL RECORD.
9. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.
10. ALL WORK AND MATERIALS OF THIS CONTRACT SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE. LIGHTING FIXTURES BALLASTS SHALL BE GUARANTEED FOR TWO(2) YEARS. BATTERY PACKS SHALL BE GUARANTEED FOR FIVE YEARS.
11. NO EXTRA WORK SHALL BE UNDERTAKEN WITHOUT WRITTEN APPROVAL OF THE OWNER OR HIS REPRESENTATIVE.
12. CONTRACTOR SHALL OBTAIN AND PAY FOR PERMIT AND INSPECTIONS REQUIRED.
13. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATIONS OR ARRANGEMENT OF CONDUIT RUNS ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. PROPER JUDGMENT MUST BE EXERCISED IN EXECUTING THE WORK AS TO SERVE THE POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURAL CONDITIONS ENCOUNTERED.
14. LOCATIONS SHOWN ON THE INTERIOR AND MECHANICAL DRAWINGS TAKE PRECEDENCE OVER THOSE SHOWN ON THE ELECTRICAL DRAWINGS. REFER TO MECHANICAL, PLUMBING AND HEAT/AC DRAWINGS FOR THE EXACT LOCATIONS, RATINGS, TYPE, CONNECTIONS, WIRING DIAGRAM AND AUXILIARY DEVICES.
15. REFER TO THE REFLECTED CEILING PLAN AND THE INFERIOR FLOOR PLANS FOR THE EXACT LOCATIONS OF LIGHTING FIXTURES AND DEVICES. VERIFY LOCATION OF LIGHTS WITH EXPOSED DUCTWORK AND PIPING.
16. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
17. THE ELECTRICAL CONTRACTOR IN COOPERATION WITH THE MECHANICAL CONTRACTOR SHALL DEMONSTRATE THAT ALL EQUIPMENT IS IN PERFECT WORKING ORDER. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL POWER CONNECTIONS OVER 100V TO A/C EQUIPMENT.
18. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT ONLY WITH PULL ROPE FOR LOW VOLTAGE CONTROL WIRING FOR THE A/C EQUIPMENT. CONTROL WIRING FROM THERMOSTATS AND OVERRIDES TO A/C UNITS IS BY THE MECHANICAL CONTRACTOR.
19. THE CONTRACTOR MAY USE TEMPORARY POWER AND WATER AVAILABLE FOR LIGHTING AND SMALL TOOLS. TOILET FACILITIES ON SITE MAY BE USED BY CONTRACTOR PERSONNEL.
20. SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR APPROVAL TO ENGINEER FOR ALL PANELBOARDS. DRAWINGS SHALL BE PICTORIAL AND INDICATE ALL MATERIAL RATINGS, DIMENSIONS AND FINISHES.
21. CONTRACTOR SHALL MAINTAIN, ON THE JOB, A SET OF PRINTS OF WHICH ALL DAILY CHANGES IN LOCATION OR RUNS SHALL BE CAREFULLY INDICATED. THESE PRINTS SHALL BE DELIVERED TO THE OWNER AT THE CONCLUSION OF THE PROJECT, INDICATING 'AS BUILT' CONDITION.
22. ACCOMPLISH ALL TEST NECESSARY TO DEMONSTRATE TO THE SATISFACTION OF THE OWNER THAT ALL EQUIPMENT IS IN PROPER WORKING ORDER AND IS IN COMPLIANCE WITH THE PLANS.
23. CLEAN UP ALL TRASH AND DEBRIS BY THE WORK DAILY.
24. THE GENERAL CONDITIONS OF THE CONTRACT APPLY TO ALL WORK HEREIN SPECIFIED.
25. CUTTING, DRILLING, AND PATCHING SHALL BE ACCOMPOLISHED IN ACCORDANCEWITH THE APPLICABLE SECTIONS OF THE SPECIFICATIONS.
26. ROUGH- AND FURNISHED-CONCRETE WORK REQUIRED SHALL BE ACCOMPOLISHED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE SPECIFICATIONS.
27. SUBSTITUTIONS: MANUFACTURER AND CATALOG NUMBERS INDICATED ARE FOR THE PUROSES OF ESTABLISHING STANDARDS OF QUALITY, ALLOWABLE SIZE OF COMPONENETS, AND THE TYPE OF MATERIALS TO BE USED, PRODUCTS BY OTHER MANUFACTURERS WILL BE CONSIDERED IF THE SUBMITTAL ASSOCIATED WITH THAT ITEM IS CLEARLY MARKED " THIS ITEM IS A SUBSTITUTION" AND IT COMPLIES WITH THE FOLLOWING: (1) QUALITY AND CAPACITY ARE EQUAL TO OR BETTER THAN SPECIFIED ITEM, AND (2) COMPONENTS FIT IN ALLOWED SPACES AND ARE SIMILAR IN APPEARANCE. NO SUBSTITUTION ITEMS MAY BE FURNISHED OR INSTALLED WITHOUT WRITTEN APPROVAL OF THE OWNER.
28. OPERATIONS AND MAINTANACE MANUALS: THREE COPIES OF OPERATING AND MAINTANACE DATA FOR ALL ELECTRICAL EQUIPMENT, BOUND IN AHARDCOVER THREE-RING PLASTIC BINDER WITH A TABLE OF CONTENT.
29. COORDINATION: PRPVIDE NESESSARY COORDIANTION WITH SERVING UTILITY COMPANIES TO ESTABLISH SERVICE ENTRANCE FACILITIES, AND TO MEET OTHER REQUIREMENTS FOR A COMPLETE AND OPERABLE INSTALLATION. VERIFY SIZE AND ORIENTATION OF EQUIPMENT TO BE ENSURE ADEQUATE WORKING CLEARANCE AND VENTILATION. COODINATE THE WORK OF OTHER TRADES, VERIFYING REQUIRED WORKING. CLEARANCES, SLEEVES, SUPPORTS, DOOR SWINGS, AND OTHER ITEMS AFFECTING THE WORK OF THIS SECTION. VERIFY THE METHODS OF INSTALLING AND CONNECTING EQUIPMENT, OUTLETS, AND OTHER ITEMS.
30. QUALITY ASSURANCE: ALL MATERIALS AND THE MANNER IN WHICH THEY ARE APPLIED AND INSTALLED SHALL BE IN COMPLIANCE WITH THE LATEST RULES AND REQULATIONS OF THE CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 3 "CALIFORNIA ELECTRICAL CODE" THE NATIONAL ELECTRICAL CODE; AND OTHER APPLICABLE STATE- AND LOCAL-LAWS AND REGULATIONS. PROTECTION AND CLEANING: ALL PARTS OF EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED. PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE FROM ANY CAUSE AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. PROVIDE FOR THE SAFETY AND GOOD CONDITION OF ALL THE WORK UNTIL FINAL ACCEPTANCE BY THE OWNER; REPLACE ALL DAMAGED OR DEFECTIVE. WORK, MATERIALS AND EQUIPMENT PRIOR TO REQUESTING FINAL ACCEPTANCE. PROVIDE AND MAINTAIN SUITABLE BARRIERS, WARNING SIGNS, LIGHTS, ETC. WHERE REQUIRED FOR PROTECTION OF THE PUBLIC AND OCCUPANTS ABOUT THE SITE. AT THE CONCLUSION OF EACH WORKDAY, THE PREMISES SHALL BE LEFT FREE FROM DEBRIS INCIDENTAL TO THE WORK, AND IN A CONDITION ACCEPTABLE TO THE OWNER OR TENANT.

MATERIAL

1. CONDUITS OUTSIDE THE BUILDING SHALL BE RIGID STEEL STANDARD WEIGHT HOT DIPPED GALVANIZED THREADED AT BOTH ENDS.
2. UNDERGROUND CONDUITS IF ANY SHALL BE PVC SCHEDULE 40.
3. ALL CONDUITS INSIDE THE BUILDING SHALL BE ELECTRICAL METALLIC TUBING (EMT) UNLESS IF SUBJECT TO DAMAGE. CONDUITS SUBJECT TO PHYSICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL CONDUIT. "SUBJECT TO PHYSICAL DAMAGE" IS DEFINED AS EXPOSED, WITHIN 8 FEET ABOVE FINISHED FLOOR OR GRADE.
4. FLEXIBLE LIQUID TIGHT METAL CONDUITS SHALL BE USED FOR FINAL CONNECTION TO ROTATING EQUIPMENT, CONDENSING UNITS. EXHAUST FAN AND FAN COILS. A GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FLEXIBLE METALLIC CONDUIT RUNS.
5. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAT THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH IT MAY BE SUBJECTED.
6. ALL DEVICES INSTALLED OUTSIDE OR IN DAMP LOCATIONS SHALL BE APPROVED WEATHERPROOF.
7. CONDUCTORS SHALL BE COPPER WITH THHN/THWN INSULATION. INSULATED WIRES AND CABLES MANUFACTURED MORE THAN SIX (6) MONTH PRIOR TO DATE OF DELIVERY TO THE SITE SHALL NOT BE USED. ALL WIRE SHALL BE UL LISTED, RATED FOR 600 VOLTS, NO 12 MINIMUM SIZE EXCEPT FOR CONTROLS OR OTHERWISE AS NOTED.
8. GROUNDING CONDUCTORS SHALL BE SOFT DRAWN INSULATED COPPER WIRE AS INDICATED WITH GREEN COLORED INSULATION OR GREEN PLASTIC IDENTIFICATION BENDS. GROUNDING AND BONDING OF EQUIPMENT SHALL CONFORM TO UL 467.
9. WIRES SHALL BE SPLICED WITH AN INSULATED CONNECTOR. SPLICES OF WIRES NO. 8 AWG AND LARGER SHALL BE MADE WITH APPROVED SOLDERLESS CONNECTORS AND THEN SHALL BE COVERED NEATLY WITH INSULATING TAPES, HOT MOLDED COMPOSITION COVERS, OR OTHER APPROVED EQUIVALENT TO THE CONDUCTOR INSULATION.
10. CONNECTORS AND TERMINALS CONFORMING TO UL 486 SHALL BE DESIGNATED FOR USE WITH THE SPECIFIC ASSOCIATED CONDUCTOR MATERIAL, AND SHALL PROVIDE A UNIFORM COMPRESSION OVER THE ENTIRE CONTACT SURFACE. TERMINATION LUGS SHALL BE USED ON ALL STRANDED CONDUCTORS.
11. ELECTRICAL TAPES USED FOR ELECTRICAL INSULATION AND OTHER PURPOSES IN WIRE AND CABLE SPLICES, TERMINATIONS, REPAIRS, AND MISCELLANEOUS PURPOSES SHALL CONFORM TO THE REQUIREMENT OF UL STANDARD 510.
12. OUTLET BOXES, EXTENSION RINGS AND COVERS SHALL BE PRESSED STEEL, GALVANIZED, KNOCKOUT TYPE. SIZES SHALL BE AS REQUIRED BY CODE FOR THE NUMBER OF WIRES ENTERING BOX. PLASTER RINGS SHALL BE PROVIDED FOR FLUSH MOUNTING.
13. DISCONNECT SWITCHES FUSED OR UNFUSED SHALL BE HEAVY DUTY TYPE, SIZED FOR LOAD NOTED ON THE PLANS, UL LISTED AND HORSEPOWER RATED, WITH PROVISIONS TO PAD LOCK HANDLE IN "ON" OR "OFF" POSITION. ENCLOSURE SHALL BE NEMA 3R FOR OUTSIDE OR NEMA 1 FOR INSIDE.
14. THREE (3) SPARE FUSES OF EACH TYPE SHALL BE PROVIDED TO THE OWNER. FUSES SHALL BE DUAL ELEMENT, TIME DELAY, HIGH INTERRUPTING TYPE, UL APPROVED. FUSE SIZES IN SWITCHES FOR HVAC EQUIPMENT SHALL BE AS SPECIFIED BY EQUIPMENT MANUFACTURER.
15. FURNISH ALL RELAYS, TIME CLOCKS, CONTROL TRANSFORMERS, ETC., REQUIRED FOR INSTALLATION.
16. PANELBOARDS MAY BE PLUG-IN CIRCUIT BREAKER TYPE. DEAD FRONT IN BEAKERS SHALL BE RATED AS INDICATED ON PLANS, NEMA 1 ENCLOSURE FOR INTERIOR PANELS, NEMA 3R ENCLOSURE FOR EXTERIOR PANELS.
17. LIGHTING FIXTURES SHALL BE FURNISHED COMPLETE WITH ALL COMPONENTS, LAMPS AND MOUNTING ACCESSORIES. ALSO SEE FIXTURE SCHEDULE.
18. RECEPTACLES: DUPLEX, THREE-WIRE GROUNDING TYPE, RATED 20A AT 125V, NEMA CONFIGURATION 5-20R. PROVIDE GFI (SELF-CONTAINED) TYPE AT LOCATIONS SHOWN. FOR EXTERIOR LOCATIONS, PROVIDE WITH WEATHERPROOF BOX, AND ALUMINUM GASKETED SPRING-SHUT COVER. HUBBELL 53XX-SERIES, OR EQUAL FROM PASS & SEYMOUR OR LEVITON.
19. SWITCHES: TOGGLE TYPE, NUMBER OF POLES AS SHOWN, QUIET TYPE, RATED 20A AT 120/277V. HUBBELL HBL 12XX-SERIES, OR EQUAL FROM PASS & SEYMOUR OR LEVITON.
20. SWITCHBOARDS (SEE SINGLE LINE DAGRAM): NEMA PB 2; UL 891. RATED AS SHOWN. COPPER BUS. SIEMENS, CUTLER HAMMER, OR EQUAL BY SQUARE-D OR GE.
21. DISCONNECT SWICHES: NEMA KS 1, UL 98, UL 198C AND 198E. RATEDD AS SHOWN, HEAVY DUTY TYPE, EXTERNALLY-OPERATED, QUICK-MAKE QUICK-BREAK TYPE, THREE-POLE EXCEPT AS OTHERWISE SHOWN. FOR FUSIBLE TYPE, PROVIDE DUAL-ELEMENT TIME-DELAY CLASS RK-1 CURRENT -LIMITING FUSES. FOR EXTERIOR LOCATIONS, AND WHERE INDICATED, PROVIDE NEMA 3R ENCLOSURES. SQUARE-D, OR EQUAL BY GE OR WESTINGHOUSE.
22. MOTOR CONTROLLERS:
    - A. NEMA ICS 2/ICS 6/250/AB 1/FU 1/KS 1; UL 98/198C/198E/489/508. PROVIDE MANUAL MOTOR CONTROLLERS FOR SINGLE-PHASE MOTORS RATED BELOW 2 HP, AND COMBINATION MOTOR CONTROLLERS AS SHOWN.
    - B. MANUAL MOTOR CONTROLLERS: MANUAL MOTOR STARTING SWITCH WITH INTEGRAL THERMAL TYPE OVERLOAD PROTECTION, TOGGLE LEVER TYPE, ALLEN-BRADLEY BULLETIN 609, OR EQUAL BY SQUARE-D, GE OR WESTINGHOUSE.
    - C. COMBINATION MOTOR CONTROLLERS: ENCLOSED COMBINATION STARTER, FUSIBLE DISCONNECT SWITCH TYPE, ALLEN-BRADLEY BULLETIN 512, OR EQUAL BY SQUARE-D, GE OR WESTINGHOUSE.
23. PHOTOELECTRIC CONTROLLERS: RATED FOR CONNECTED LOAD, 20A MINIMUM. PARAGON, TORK, SANGANMO, OR EQUAL.
24. TELEPHONE SYSTEM:
    - A. PROVIDE TELEPHONE SYSTEM AS FOLLOWS, EXCEPT AS OTHERWISE SHOWN:
    - B. SERVICE ENTRANCE FACILITY: PROVIDE WALL-MOUNTED 3/4" X 4" x 8" (OR SIZE AS INDICATED) PLYWOOD "MAIN TELEPHONE BACKBOARD" AT THE LOCATION SHOWN WITH (1) A DEDICATED 20A/120V BRANCH CIRCUIT /QUADRAPLEX POWER RECEPTACLE AND (2) A GROUNDING ELECTODE PIGTAIL ($6 AWG BARE STRANDED COPPER CABLE ROUTED IN 1" CONDUIT DIRECTLY TO FACILITY GROUNDING ELECTRODE AND CONNECTED THEREON), AT THE TELEPHONE BACKBOARD LOCATION.
    - C. VOICE DROPS AND CABLING PATHWAYS: PROVIDE FLUSH MOUNTED 4" SQUAREBOX/WALLPLATE WITH TELEPHONE JACK AT EACH OF THE LOCATIONS SHOWN. INCLUDING ?" CONDUIT (WITH PULLROPE) CONTINUOUS TO THE TELEPHONE BACKBOARD LOCATION AT THE SERVICE ENTRANCE FACILITY.

TELEPHONE JACKS SHALL BE PROVIDED AS SPECIFIED BY OWNER. CABLING AND ENTRANCE FACILITY TELEPHONE EQUIPMENT/CROSS-CONNECT FRAMES/NETWORK INTERANCE DEVICES WILL BE PROVIDED BY OWNE

INSTALLATION

1. THE CONTRACTOR SHALL INSTALL ALL CONDUITS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE. AVOID OBSTRUCTIONS, PRESERVE HEAD ROOM, KEEP OPENINGS AND PASSAGE WAYS CLEAR AND MEET ALL STRUCTURAL CODE REQUIREMENTS. CODE-SIZED PULL BOXES SHALL BE INSTALLED IN RUNS OF OVER 100 FEET OR MORE THAN 4 BENDS.
2. SUPPLY AND INSTALL ALL SUPPORTS AND BRACING NECESSARY FOR THE PROPER INSTALLATION OD THE EQUIPMENT.
3. ALL EXPOSED CONDUIT SHALL BE INSTALLED AT RIGHT ANGLE TO ROOM OR STRUCTURE OR ALONG EXPOSED BEAMS. CONDUITS SHALL BE SUPPORTED FROM BUILDING STRUCTURE WITH APPROVED PIPE HANGERS.
4. ALL PULL BOXES AND ALL JUNCTION BOXES MUST BE ACCESSIBLE AFTER THE CONSTRUCTION IS COMPLETE, ESPECIALLY IN CONCEALED CONDUIT INSTALLATIONS. FINISH FOR ALL EXPOSED J-BOXES AND PULL BOXES SHALL BE PER INTERIOR DESIGN.
5. ALL CONDUITS ARE SIZED TO MEET THE REQUIREMENT OF NEC TABLE 3A, "MAXIMUM NUMBER OD CONDUCTORS IN TRADE SIZES OF CONDUIT OR TUBING". CONTRACTOR SHALL CONSIDER THESE SIZES AS A MINIMUM REQUIREMENT AND INCREASE THE CONDUIT SIZE IF NECESSARY TO FACILITATE HIS CABLE PULLING.
6. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS SHOWN AND AS REQUIRED BY ALL APPLICABLE CODES AND THE SERVING UTILITY. NO CONDUIT SHALL BE USED AS A GROUND, EXCEPT FOR LIGHTING CIRCUIT.
7. INCLUDE A GREEN-WIRE SIZED AS REQUIRED BY NATIONAL ELECTRICAL CODE IN ALL CONDUIT RUN D FOR EQUIPMENT GROUND AND GREEN-YELLOW STRIPE WIRE FOR ISOLATED GROUND AS SHOWN ON PARTICULAR CONDUIT RUNS ALONG WITH THE GREEN WIRE. SAME APPLIES TO FLEXIBLE CONDUITS EVEN IF UL LABELED FOR GROUND, UNLESS USED IN LIGHTING CIRCUITS.
8. PROVIDE FIRE PROOFING FOR PENETRATIONS THROUGH RATED WALLS AND FLOORS.
9. ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF THE ELECTRICAL WORK SHALL BE DONE BY THIS CONTRACTOR. DO NOT CUT OR DRILL STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER. ALL CUTTING AND PATCHING SHALL BE NEAT, AND PATCHING SHALL MATCH ADJACENT SURFACE AS TO TEXTURE AND FINISH. ALL SURFACE SHALL BE REPLACED IN KIND.
10. BACK TO BACK INSTALLATION OF OUTLET IS NOT PERMITTED IN ROOMS INSULATED FOR SOUND, BECAUSE OF SOUND TRANSFERENCE THROUGH OUTLETS. SEAL SUCH OUTLETS AIR TIGHT.
11. DIMENSIONS SHOWN ON OUTLET BOXES SHALL BE FROM THE FINISHED FLOOR TO THE CENTER OF THE BOX.
12. FLOURESCENT FIXTURES SHALL BE SUPPORTED FROM STRUCTURE ABOVE.
13. ALL PENETRATION THROUGH ROOF SHALL BE FLASHED AND COUNTER FLASHED TO MAKE WATER-TIGHT.
14. PROVIDE A MANUAL DISCONNECTING MEANS AT MOTOR FOR ALL MOTORS NOT WITHIN SIGHT OF THE SERVING PANEL OR THEIR DISCONNECT.
15. INSTALL BLANK PLATES AS REQUIRED TO CLOSE OPENINGS IN SWITCHBOARDS OR PANELS WHERE EQUIPMENT HAS BEEN REMOVED.
16. ELECTRICAL IDENTIFICATON: PROVIDE NAMEPLATES FOR SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, CONTACTORS/RELAYS, and TERMINALCABINET/BACKBOADS, MOTOR CONTROLLERS, INDIVIDUALLY-MOUNTED ANY OTHER CONTROL DEVICE OR MAJOR ITEMS OF ELECTRICAL EQUIPMENT.
17. NAMEPLATES SHALL BE BLACK-ON-WHITE LAMINATED PLASTIC, ATTACHED WITH MACHINE SCREWS. LETTERING SHALL BE ¼" HIGH MINUMUM, CORRESPONDING TO THE DESIGNATION (OR ADDITIONAL INFORMATION) SHOWN. COLOR CODE ALL WIRE WITH
18. COLOR CODE ALL WIRE WITH INSULATION/JACKET (FACTORY-APPLIEDO COLOR FOR PHASE IDENTIFICATION (CONTINOUS FOR CIRCUIT FROM OUTLET-TO OUTLET, PULL BOX, OR CABINET) AS FOLLOWS:

PHASE	SYSTEM VOLTAGE 208Y/120	480Y/277
A	BLACK	YELLOW
B	RED	BROWN
C	BLUE	ORANGE
NEUTRAL	WHITE	WHITE
GROUND	GREEN	GREEN

START-UP

1. TEST THE ENTIRE WIRING SYSTEM FOR SHORT CIRCUITS, GROUNDS AND INSULATION RESISTANCE BETWEEN CONDUCTORS AND TO GROUND.
2. DEMONSTRATE THAT THE EQUIPMENT OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THESE DRAWINGS. DEMONSTRATE THAT PROTECTIVE FUNCTIONS ARE OPERATING PROPERLY AND INCORPORATED IN THE CONTROL SYSTEM CIRCUIT BREAKER, AND MOTOR CONTROL CENTER CIRCUITRY.
3. CHECK VOLTAGE AMPLITUDE AND BALANCE BETWEEN PHASES FOR LOADED AND UNLOADED CONDITIONS.
4. SET THE OVERLOAD HEATERS OF INDIVIDUAL MOTORS ACCORDING TO SERVICE, CODE AND MANUFACTURER'S REQUIREMENT.
5. CHECK AND CORRECT THE ROTATION OF ALL MOTORS. COORDINATE ROTATION CHECKS WITH THE CONTRACTOR RESPONSIBLE FOR DRIVEN EQUIPMENT.
6. ALL TESTS TO BE PERFORMED IN PRESENCE OF THE OWNER. SUBMIT THE REPORTS TO THE ENGINEER FOR REVIEW.

ELECTRICAL CODE

1. PROVIDE1 A GROUNDING SYSTEM FOR A SEPARATE STRUCTURE PER NEC, ART.250-32(B).
2. PROVIDE WORKING CLEARANCES @ NEW& EXISTING EQUIPMENT. NEC, ART.110-26.
3. GROUNDING ELECTRODE CONDUCTOR INSTALLATION SHALL COMPLY WITH NEC, ART.250-64.
4. GROUNDING ELECTRODE CONDUCTOR ENCLOSURE SHALL COMPLY WITH NEC, ART.250-64(E)
5. GROUNDING ELECTRODE CONDUCTOR CONNECTION TO THE ELECTRODE SHALL COMPLY WITH NEC 250-70.
6. COMPLY WITH NEC ART 670 FOR INSTALLATION OF INDUSTRIAL MACHINERY.
7. METHOD OF GROUNDING OF ALL TRANSFORMERS SHALL COMPLY WITH NEC, ART.250-30.
8. GROUND FAULT PROTECTION @ SERVICES SHALL BE PROVIDED PER NEC, ART.230-95.
9. EQUIPMENT 1000 AMP OR MORE SHALL WITHSTAND A DIELECTRIC (HIPOT). NEC, ART.100-3(B). A PER PERFORMANCE TEST & A WRITTEN REPORT OF THE RESULTS SHALL BE SUBMITTED TO AND APPROVED BY THE AHJ PRIOR TO THE CONNECTION OF THE UTILITY SERVICE CONDUCTORS OR ANY UTILITY EQUIPMENT TO THE SERVICE EQUIPMENT AND PRIOR TO ENERGIZING THE SERVICE EQUIPMENT.
10. BONDING FOR CIRCUITS OF OVER 250 VOLTS TO GROUND SHALL COMPLY WITH NEC, ART.250-97. NOTE THAT STANDARD LOCK NUTS ARE NOT PERMITTED IN THE INSTALLATION OF THE RACEWAY.
11. TORQUEING OF TERMINATIONS SHALL BE IN ACCORDANCE WITH THE EQUIPMENT LABEL AND PRIOR OF TORQUE IS REQUIRED PRIOR TO FINAL. NEC, ART.110-3(B).
12. ALL EQUIPMENT SHALL BE LISTED & LABELED BY AN APPROVED TESTING AGENCY. TESTING BY AN APPROVED TESTING LABORATORY WILL BE REQUIRED BEFORE FINAL APPROVAL IS GRANTED.
13. A NEUTRAL FAULT TEST IS REQUIRED PRIOR TO FINAL. NEC, ART.250-24(A) (5).
14. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR FOR ALL CIRCUITS PER NEC, ART.250-110 AND ART.250-118.
15. GROUNDING ELECTRODE SYSTEM SHALL COMPLY WITH NEC, ART.250-50.
16. BONDING SHALL COMPLY WITH NEC 250, PART E.
17. THE CONTRACTOR SHALL PROVIDE TO THE CITY THE AIC VALUE AND THE NOMINAL CIRCUIT VOLTAGE SUPPLIED TO THE SERVICE BY THE ELECTRICAL UTILITY IN THE FORM OF LETTER THAT SHALL BE WRITTEN UPON THE ELECTRICAL UTILITY'S LETTERHEAD. A COPY OF THIS SHALL BE PLACED ON THE PLAN.
18. EQUIPMENT IS TO BE FULLY RATED OR SERIES RATED FOR THE AVAILABLE FAULT ASYMMETRICAL PER NEC, ART.110-9.
19. ISOLATED GROUNDING CONDUCTORS SHALL TERMINATE AT THE SERVICE. NEC, ART.250-96(B).
20. ALARM SYSTEMS AND ELECTRIC SIGNS SHALL BE ON A SEPARATE PERMIT.
21. DERATION OF CONDUCTORS WILL APPLY PER NEC, ART.310-15(B) (2) (A) AND ART.210-19(A).
22. A 125V RECEPTACLE (GFCI PROTECTED) IS REQUIRED WITHIN 25 FEET OF ROOF MOUNTED EQUIPMENT. NEC, ART.210-63, ART. 210-8(B).
23. COMMUNICATION & DATA CONDUCTORS RUN IN CONDUIT OR OTHER RACEWAYS SHALL HAVE A BUSHING, OR OTHER TERMINAL FITTING, WITH AN INTEGRAL BUSHED OPENING @ THE END OF THE CONDUIT OR RACEWAY. NEC, ART.300-4.
24. BREAKERS USED AS SWITCHES IN LIGHTING SYSTEMS SHALL BE MARKED"SWD" PER NEC, ART.240-83(D).
25. PROVIDE A GROUNDING SYSTEM FOR A SEPARATE STRUCTURE PER NEC, ART.250-32(B).
26. CONDUIT BURIAL DEPTH PER NEC TABLE 300-5

ABBREVIATIONS

WP	WEATHER PROOF
C.O.	CONDUIT ONLY
A/C	AIRCONDITIONING
CKT	CIRCUIT
FLA	FULL LOAD AMPERE
GFCI	GROUND FAULT CIRCUIT INTRRUPTER
H.P.	HORSEPOWER
LTG	LIGHTING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NL	UNSWITCHED NIGHT LIGHT
PB	PULL BOX
UG	UNDERGROUND
U.O.N.	UNLESS OTHERWISE NOTED
V.L.	VERIFY LOCATION
AHJ	AUTHORITY HAVING JURSTICTION

LEGEND OF SYMBOLS

SYMBOL	DESCRIPTION
A, 3a	LIGHT OUTLET A-FIXTURE DESIGNATION a-SWITCH DESIGNATION 3- CIRC. NO. (SEE PANEL)
NEUTRAL, GRD, SWITCHED OR HOT LEG	CONDUIT RUN CONCEALED IN WALL OR CEILING. CROSS LINES INDICATE NO. OF #12 COPPER WIRES EXCLUDING GROUND CONDUCTORS WHERE REQ'D (INSULATION TYPE THHN/THWN U.O.N)
	CONDUIT RUN IN FLOOR OR U.G.
	CONDUIT RUN EXPOSED
—S—	SOUND SYSTEM CONDUIT
—T—	TELEPHONE CONDUIT ONLY
	GROUND CONNECTION
	CONDUIT STUB OUT WITH CAP
	PANEL MOUNTED CIRCUIT BREAKER
	PANEL MOUNTED FUSED SWITCH
S	SINGLE POLE SWITCH (+48" U.O.N.)
S3	THREE WAY SWITCH (+48" U.O.N.)
S4	FOUR WAY SWITCH (+48" U.O.N.)
Sp	SWITCH: P=PILOT
S*	K=KEY OPERATED M=MOTOR OPERATED
S	DISCONNECT SWITCH, FUSED
	DISCONNECT SWITCH, NON FUSED
S	DIMMER SWITCH
	PUSH BUTTON
	MAGNETIC MOTOR STARTER
	PANELBOARD
	SWITCHBOARD
	TELEPHONE BACKBOARD
T	TRANSFORMER
M	MOTION SENSOR
	ALL RECEPTACLES AT +18" U.O.N.
	GROUND DUPLEX RECEPTACLE (15A)
	GROUND DUPLEX RECEPTACLE (20A)
	DOUBLE DUPLEX RECEPTACLE
GFI	RECEPTACLE WITH GFI
AFCI	ARC FAULT CIRCUIT INTRRUPTER RECEPTACLE
	ISOLATED GROUND RECEPTACLE (IG)
208	208/208 RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
	CEILING MOUNTED RECEPTACLE
J	JUNCTION BOX
	FLOOR MOUNTED J-BOX
	TELEPHONE OUTLET (+18 U.O.N.)
	TELEPHONE CLG. MOUNTED OUTLET
	TELEPHONE FLOOR MOUNTED OUTLET
S	SPEAKER WIRE OUTLET(+18" U.O.N.)
INT	INTERCOM OUTLET
T	THERMOSTAT OUTLET (4'-0' U.O.N.)
	ILLUMINATED EXIT SIGN
	SMOKE DETECTOR
	WALL MOUNTED LIGHTING FIXTURE
	CEILING MOUNTED LIGHT FIXTURE (SURFACE MOUNTED)
	CEILING MOUNTED FIXTURE (WALL WASH)
	CEILING MOUNTED LIGHT FIXTURE (RECESSED)
	PENDENT TYPE LIGHT FIXTURE
	ELECTRIC FAN
TV	CABLE TELEVISION OULET
	CEILING MOUNTED FLOURECENT FIXTURE (RECESSED)
	DATA (CAT 5) OUTLET (+18" U.O.N.)
	DATA (CAT 5) CLG. MOUNTED OUTLET
	DATA (CAT 5) FLR. MOUNTED OUTLET
OS	OCCUPANCY SENSOR

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY ABRARI AND ASSOCIATES AND WERE CREATED AN DEVELOPED FOR USE AND IN CONNECTION WITH THE SPECIFIED PROJECT. NONE OF THE IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL BE USED BY OR DISCLOSED TO FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN AUTHORIZATION OF ABRARI AND ASSOCIATES INC.

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STATE OF CALIFORNIA

SHEET TITLE
NOTES & SYMBOLS

PROJECT No.:	6-362
SCALE:	NONE
DATE:	11-01-2006
BY:	BB
CHECKED:	HRA
DRAWING NO.	E-1.0