

ELECTRICAL SYMBOLS

NOTE:

THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS.

ONE LINE AND RISER

	PANEL
	CURRENT TRANSFORMER, RATED AS SPECIFIED OR REQUIRED
	MOTOR
	SURGE PROTECTION DEVICE
	GROUND CONNECTION
	SWITCH, RATING AS SHOWN
	FUSE, FUSE AMPACITY AND TYPE AS SHOWN
	CIRCUIT BREAKER, RATING AS SHOWN
	UTILITY METER (AS REQUIRED BY UTILITY)
	SAFETY SWITCH, NON-FUSED, 240V, U.N.O.
	FUSED DISCONNECT
	COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED)
	ENCLOSED CIRCUIT BREAKER
	TRANSFORMER, TYPE AND RATING AS SHOWN
	CONDUIT CONNECTION
	CIRCUIT BREAKER WITH GROUND FAULT PROTECTION
	FUSE WITH GROUND FAULT PROTECTION
	GROUND CONNECTION WITH TEST WELL
	GROUND ROD
	WEATHER HEAD
	GENERATOR

MISCELLANEOUS

	KEY NOTE DESIGNATION
	SHORT CIRCUIT TAG DESIGNATION
	FEEDER TAG DESIGNATION
	REVISION NUMBER DESIGNATION
	NEW TO EXISTING CONNECTION
	NEW CONSTRUCTION
	EXISTING CONDITIONS
	DEMOLITION WORK

FIRE ALARM

	FIRE ALARM CONTROL PANEL
	FIRE ALARM REMOTE ANNUNCIATOR PANEL
	SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC
	COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR, ADDRESSABLE PHOTO ELECTRIC
	HEAT DETECTOR
	DUCT SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC
	FIRE ADA ALARM STROBE MOUNTED AT 90° AFF OR 6" BELOW CEILING WHICHEVER IS LOWER
	FIRE ADA ALARM HORN MOUNTED AT 90° AFF OR 6" BELOW CEILING WHICHEVER IS LOWER
	FIRE ALARM AUDIBLE AND ADA STROBE LIGHT MOUNTED AT 90° AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER
	FIRE ALARM MANUAL PULL STATION, ADDRESSABLE DOUBLE ACTION
	MAGNETIC DOOR HOLDER
	FIRE ALARM FLOW SWITCH
	FIRE ALARM TAMPER SWITCH

POWER

	PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER SURFACE MOUNTED
	PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER RECESS MOUNTED
	20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE
	20 AMP, 125V, NEMA 5-20R SIMPLEX RECEPTACLE
	20 AMP, 125V, NEMA 5-20R QUAD RECEPTACLE
	20 AMP, 125V, NEMA 5-20R GFCI RECEPTACLE
	20 AMP, 125V, NEMA 5-20R GFCI DUPLEX RECEPTACLE, MOUNTED 6" ABOVE COUNTER AND/OR ABOVE BACKSPASH, UNLESS OTHERWISE NOTED
	20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE, MOUNTED 6" ABOVE COUNTER AND/OR ABOVE BACKSPASH, UNLESS OTHERWISE NOTED
	20 AMP, 125V, NEMA 5-20R SWITCHED DUPLEX RECEPTACLE
	20 AMP, 125V, NEMA 5-20R CEILING MOUNTED DUPLEX RECEPTACLE
	20 AMP, 125V, NEMA 5-20R CEILING MOUNTED SIMPLEX RECEPTACLE
	SPECIAL RECEPTACLE, CEILING MOUNTED, CONFIGURATION AS NOTED ON PLAN
	20 AMP, 125V, NEMA 5-20R DUPLEX FLOOR RECEPTACLE, 3/4" CONDUIT RUN CONCEALED IN FLOOR SLAB
	20 AMP, 125V, NEMA 5-20R QUAD FLOOR RECEPTACLE, 3/4" CONDUIT RUN CONCEALED IN FLOOR SLAB
	JUNCTION BOX, CEILING MOUNTED
	JUNCTION BOX, WALL MOUNTED
	JUNCTION BOX, FLOOR MOUNTED
	SPECIAL RECEPTACLE, WALL MOUNTED, CONFIGURATION AS NOTED ON PLAN
	FURNITURE FEED RECEPTACLE, WALL MOUNTED, CONFIGURATION AS NOTED ON PLAN
	MOTOR: HORSEPOWER AS INDICATED ON PLANS OR DIAGRAMS
	PLUGMOLD, REFER TO DRAWING FOR LENGTHS
	SAFETY SWITCH, NON-FUSED, 240V, U.N.O.
	FUSED DISCONNECT
	COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED)
	ENCLOSED CIRCUIT BREAKER
	PHOTOCELL
	SINGLE POLE SWITCH, 3= THREE WAY SWITCH, 4= FOUR WAY SWITCH, K= KEY SWITCH, D= DIMMER SWITCH, T= MOTOR RATED SWITCH, OS= OCCUPANCY SENSING, 3D= THREE WAY DIMMER SWITCH, T= MOTOR RATED SWITCH.
	GROUND BAR
	RELAY
	EMERGENCY POWER OFF (EPO) PUSH BUTTON
	POWER POLE

COMMUNICATIONS

	JUNCTION BOX FOR INSTALLATION OF COMMUNICATION OR DATA OUTLET, MOUNTED 18" AFF, UNLESS OTHERWISE NOTED. INSTALL 1" CONDUIT FROM BOX TO 3" INTO ACCESSIBLE LOCATION ABOVE FINISHED CEILING.
	FLOOR JUNCTION BOX FOR INSTALLATION OF COMMUNICATION OR DATA OUTLET. INSTALL 1" CONDUIT FROM BOX CONCEALED IN FLOOR SLAB TO WALL AND TO 3" INTO ACCESSIBLE LOCATION ABOVE FINISHED CEILING.
	JUNCTION BOX FOR INSTALLATION OF TV OUTLET. MOUNTED 18" AFF, UNLESS OTHERWISE NOTED. INSTALL 1" CONDUIT FROM BOX TO 3" INTO ACCESSIBLE LOCATION ABOVE FINISHED CEILING. COORDINATE MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
	SPEAKER, CEILING MOUNTED
	SPEAKER, WALL MOUNTED, 84" (CENTERLINE) A.F.F. OR 8" (CENTERLINE) BELOW CEILINGS THAT ARE 8'-0" OR LOWER, UNLESS NOTED OTHERWISE.
	HORN SPEAKER
	CLOCK, 84" (CENTERLINE) A.F.F. OR 8" (CENTERLINE) BELOW CEILINGS THAT ARE 8'-0" OR LOWER, UNLESS NOTED OTHERWISE.

CONDUIT DESIGNATIONS

	BRANCH CIRCUITS HOMERUN USE NUMBER 12 AWG WIRE, UNLESS OTHERWISE NOTED. ALL CIRCUITS SHALL CONTAIN A GROUND AND NEUTRAL CONDUCTOR, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE MULTI-WIRE CIRCUIT HANDLE TIES AS FINAL FIELD INSTALLED WIRING REQUIRES.
	CONDUIT AND WIRE CONCEALED, 3/4" UNLESS OTHERWISE NOTED, CONDUIT USED FOR SWITCH LEGS, AND CONDUIT USED FOR CONTROL WIRING
	CONDUIT AND WIRE EMBEDDED IN CONCRETE OR BELOW GRADE
	CONDUIT TURNING DOWN
	CONDUIT TURNING UP

LIGHTING

NOTE:	UPPER CASE LETTER DENOTES LUMINAIRE TYPE. LOWER CASE LETTER ADJACENT TO LUMINAIRE INDICATES SWITCH THAT CONTROLS LUMINAIRES
	2' X 4' RECESSED LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	2' X 4' SURFACE MOUNTED LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	2' X 2' RECESSED LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	2' X 2' SURFACE MOUNTED LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	1' X 4' RECESSED LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	1' X 4' SURFACE MOUNTED FLUORESCENT LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	1' X 4' WALL MOUNTED LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	LINEAR PENDANT LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	PENDANT LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	STRIP TYPE LUMINAIRE, LENGTHS AS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	SURFACE MOUNTED DOWNLIGHT, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	RECESSED MOUNTED DOWNLIGHT, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	WALL MOUNTED LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	WALL WASH LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	RECESSED STEP LIGHT LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE, HATCHING DENOTES FIXTURE SHALL BE PROVIDED WITH EMERGENCY BATTERY BACKUP.
	TRACK LUMINAIRE, MOUNTING IS NOTED ON LUMINAIRE SCHEDULE
	CEILING MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL ARROWS AS REQUIRED
	EMERGENCY BATTERY LUMINAIRE (2 HEAD) 84" AFF, UNLESS OTHERWISE NOTED. LETTER DENOTES LUMINAIRE TYPE.
	EMERGENCY BATTERY LUMINAIRE (2 HEAD) WITH MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL ARROWS AS REQUIRED MOUNT AT 84" AFF, UNLESS OTHERWISE NOTED. LETTER DENOTES LUMINAIRE TYPE.
	WALL MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL ARROWS AS REQUIRED
	SINGLE POLE MOUNTED, EXTERIOR LUMINAIRE
	DOUBLE POLE MOUNTED, EXTERIOR LUMINAIRE
	QUAD POLE MOUNTED, EXTERIOR LUMINAIRE
	BOLLARD LUMINAIRE
	CEILING FAN
	SINGLE POLE SWITCH, 3= THREE WAY SWITCH, 4= FOUR WAY SWITCH, K= KEY SWITCH, D= DIMMER SWITCH, FAN= CEILING FAN SWITCH, T= MOTOR RATED SWITCH, 3D= THREE WAY DIMMER SWITCH, P= PILOT LIGHT, OS= OCCUPANCY SENSOR; LOWER CASE LETTER INDICATES LUMINAIRES CONTROLLED
	DUAL LEVEL SWITCH
	CEILING MOUNTED OCCUPANCY SENSOR
	DAYLIGHT SENSOR
	WALL MOUNTED TIMECLOCK

STANDARD MOUNTING HEIGHT U.N.O.

ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS INDICATED ON ELECTRICAL DRAWINGS.	
RECEPTACLES (CENTERLINE)	18"
RECEPTACLES IN EQUIP. RMS.	48"
RECEPTACLES (EXTERIOR)	24"
RECEPTACLES (GARAGES)	24"
ALARMS, SWITCHES AND CONTROLS (CENTERLINE)	48"
TELEPHONE (PUBLIC)	1@48" AND 1@36"
TELEPHONE OUTLETS (CENTERLINE)	18"
TELEPHONE TERMINAL BOARD (BTM.)	6"
SAFETY SWITCHES	48"
STARTERS	48"
PANELS (TOP)	72"
CLOCK OUTLETS (CENTERLINE)	90"
FIRE ALARM PULL STATIONS (HANDLE)	44"
STROBES (CENTERLINE)	80**
FIRE ALARM BELLS (EXTERIOR)	12'-0"
CONTROLS (FIRE ALARM CONTROL PANEL)	48"
ANNUNCIATION PANELS	48"
INTERCOM (AREA ONLY)	36"
REMOTE INDICATING LIGHT (EQUIP. RMS.)	48"
REMOTE INDICATING LIGHT (FIN. AREAS)	CEILING
EXIT SIGNS (WALL MOUNTED BTM.)	80"
TELEVISION OUTLETS	18"
INTERCOMS	48"
PHOTOCELLS	12'-0"

ABBREVIATIONS

A	AMPS, AIR (COMPRESSED)
AC	ABOVE COUNTER
AFC	ABOVE FINISHED CEILING
AFEA	AREA FOR EVACUATION ASSISTANCE
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
AV	FOR AUDIO VISUAL MEDIA CABINET
BFF	BELOW FINISHED FLOOR
BKR	BREAKER
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
C	CONDUIT
CATV	CABLE TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CFM	CUBIC FEET PER MINUTE
CKT	CIRCUIT
CLG	CEILING
CM	COFFEE MAKER
CU	COPPER, CONDENSING UNIT
(D)	DEMOLISH
DDC	DIRECT DIGITAL CONTROL
DISC	DISCONNECT
DN	DOWN
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DW	DISHWASHER
DX	DIRECT EXPANSION
(E)	EXISTING TO REMAIN
EPO	EMERGENCY POWER OFF
FBO	FURNISHED BY OTHERS
FF	FINISHED FLOOR
FHC	FIRE HOSE CABINET
FLA	FULL LOAD AMPS
FLR	FLOOR
FVNR	FULL VOLTAGE, NON REVERSING
GD	GARBAGE DISPOSAL
GFI	GROUND FAULT CIRCUIT INTERRUPTER (PERSONAL PROTECTION ON DEVICE)
GFP	GROUND FAULT PROTECTED FROM UPSTREAM GFI RECEPTACLE OR CIRCUIT BREAKER
GFR	GROUND FAULT RELAY
GND	GROUND
HOA	HAND OFF AUTOMATIC
HPS	HIGH PRESSURE SODIUM
HSTAT	HUMIDISTAT
HTG	HEATING
HTR	HEATER
IG	ISOLATED GROUND
KCMIL	1000 CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVAR	KILOVOLT AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LF	LINEAR FEET
LRA	LOCKED ROTOR AMPS
MATV	MASTER ANTENNA TELEVISION SYSTEM
MBH	1000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MG	MOTOR GENERATOR
MH	MANHOLE
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
MW	MICROWAVE
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NIO	NORMALLY OPEN
NOC	NORMALLY CLOSED
NL	NIGHT LIGHT
OC	ON CENTER
OV	OVEN
PDU	POWER DISTRIBUTION UNIT
PH.Ø	PHASE
PV.Ø	POST INDICATOR VALVE
PJ	MOUNTED ON CEILING FOR PROJECTOR
PNL	PANEL
PT	POTENTIAL TRANSFORMER
QTY	QUANTITY
(RL)	RELOCATE
RA	RETURN AIR
RCP	REFLECTED CEILING PLAN
REF	REFRIGERATOR
REV	REVISION
RH	RELATIVE HUMIDITY
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SF	SQUARE FEET
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
SP	STATIC PRESSURE
STO	SHORT TOGGLE OPERATOR
SWBD	SWITCHBOARD
TS/AT	THERMOSTAT
TS/LOCK	TWISTLOCK
TV	TELEVISION
TYP	TYPICAL
UF	UNDERFLOOR
UG	UNDERGROUND
US	UNDER SLAB
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
VAC	VOLTS ALTERNATING CURRENT, VACUUM
VAV	VARIABLE AIR VOLUME
VM	VENDING MACHINE
W	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WT	WATERTIGHT, WEIGHT
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

ELECTRICAL GENERAL NOTES

- DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK. REFER TO MECHANICAL PLANS FOR LOCATION OF ALL MECHANICAL EQUIPMENT. REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS PRIOR TO BID. COORDINATE ELECTRICAL WORK REQUIRED BY OTHER DISCIPLINES.
- PROVIDE ELECTRICAL DEMOLITION REQUIRED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED. PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAINTAIN AND/OR RESTORE CONTINUITY OF SERVICE TO EXISTING CIRCUITS.
- FIELD VERIFY EXISTING EQUIPMENT OR CIRCUITS THAT ARE REMAINING TO BE RECONNECTED TO NEW OR EXISTING SWITCHBOARDS/PANELBOARDS. PROVIDE SWITCHES, RECEPTACLES, CONDUIT, WIRE, ETC. AS REQUIRED TO RESTORE CONTINUITY OF CIRCUITS.
- PROVIDE ALL DEMOLITION REQUIRED TO REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE, J-BOXES, RECEPTACLES, SWITCHES, LIGHTS, FIRE ALARM DEVICES, ETC. COMPLETE WITH ASSOCIATED CIRCUITING TO SOURCE OR NEAREST ACTIVE DEVICE, WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE AND WITH PERMISSION FROM THE OWNER, OUTLET SHALL BE ABANDONED, WIRE REMOVED AND BLANK COVER PLATES PROVIDED. IN ALL CONDUIT ABANDONED IN PLACE INSTALL A PULL STRING LABELED AT BOTH ENDS.
- CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. COORDINATE EQUIPMENT CONNECTION REQUIREMENTS WITH DIVISION 22 AND 23 CONTRACTOR. CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT SUPPLIED.
- COORDINATE EQUIPMENT SIZES WITH ROOM SIZES. CONTRACTOR SHALL VERIFY THAT ELECTRICAL EQUIPMENT ORDERED CAN BE INSTALLED IN THE SPACE PROVIDED WHILE MAINTAINING CODE REQUIRED CLEARANCES.
- EXISTING SYSTEMS AND CONDITIONS SHOWN ON DRAWINGS FOR EXISTING BUILDINGS ARE TO BE NOTED "FOR GUIDANCE ONLY". THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING AND TO INCLUDE IN HIS BID AN ALLOWANCE FOR REMOVAL AND/OR RELOCATION OF EXISTING CONDUITS, WIRES, DEVICES, FIXTURES, OR OTHER EQUIPMENT AS INDICATED ON THE PLANS OR AS REQUIRED TO COORDINATE AND ADAPT NEW AND EXISTING ELECTRICAL SYSTEM TO ALL OTHER WORK.
- SYSTEM OUTAGES SHALL BE PERMITTED ONLY AT TIMES APPROVED BY OWNER IN WRITING. WORK WHICH COULD RESULT IN AN ACCIDENTAL OUTAGE SHALL BE PERFORMED WITH THE OWNER'S MAINTENANCE PERSONNEL ADVISED OF SUCH WORK.
- REVIEW ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO STARTING WORK IN THESE AREAS.
- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.
- WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES. COORDINATE WORK WITH LOCAL FIRE DEPARTMENT.
- PROVIDE PERMITS AND INSPECTIONS REQUIRED.
- SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
- WIRE SHALL BE COPPER, 60 DEGREES C RATED UP TO 30 AMPS AND 75 DEGREES C RATED ABOVE 30 AMPS. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 DEGREES C AMBIENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
- PROVIDE SHOP DRAWINGS AND/OR SUBMITTALS FOR ITEMS NOTED IN THE SPECIFICATIONS. SHOP DRAWINGS NOT REQUIRED BY THE SPECIFICATIONS WILL NOT BE REVIEWED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
- CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
- SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION. LIGHTS, SWITCHES, RECEPTACLES, MOTORS, ETC. SHALL BE CONNECTED AND OPERABLE.
- NEW RECESSED FIXTURES INSTALLED INDOORS SHALL BE THERMALLY PROTECTED.
- PROVIDE NEW TYPED UPDATED PANELBOARD DIRECTORIES FOR EXISTING AND NEW CIRCUITS BEING UTILIZED FOR COMPLETION OF PROJECT.
- CONDUITS PENETRATING THROUGH ROOF SHALL HAVE ROOF FLASHING WITH CAULK TYPE COUNTER FLASHING SLEEVE. INSTALLATION SHALL BE WATERTIGHT.
- FINAL CONNECTIONS TO MOTORS, TRANSFORMERS AND OTHER VIBRATING EQUIPMENT SHALL BE MADE WITH LIQUID TIGHT FLEXIBLE CONDUIT AND APPROVED FITTINGS. DO NOT SECURE CONDUITS, DISCONNECTS, OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT. PROVIDE VIBRATION ISOLATION PADS FOR ALL TRANSFORMERS AND MOTORS.
- WHERE PANELS ARE INSTALLED FLUSH WITH WALLS, EMPTY CONDUITS SHALL BE EXTENDED FROM THE PANEL TO AN ACCESSIBLE SPACE ABOVE OR BELOW. A MINIMUM OF ONE 3/4" CONDUIT SHALL BE INSTALLED FOR EVERY THREE SINGLE POLE SPARE CIRCUIT BREAKERS OR SPACES, OR FRACTION THEREOF, BUT NOT LESS THAN TWO CONDUITS.
- WIRE TERMINATION PROVISIONS FOR PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED AS 75 DEGREES C.
- ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED BY UL.
- FIRE ALARM SYSTEM SHALL BE DESIGNED AND SUBMITTED AS DELEGATED DESIGN SUBMITTAL. PROVIDE SYSTEM DEVICES, CONDUIT, WIRES, AND CABLE AS DIRECTED BY EQUIPMENT MANUFACTURER. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET PREVAILING CODES. THE SYSTEM SHALL BE COMPLETE AND OPERABLE IN EVERY RESPECT. SUBMIT SHOP DRAWINGS ACCORDING TO SPECIFICATIONS. SHOP DRAWINGS SHALL INCLUDE A SINGLE LINE DIAGRAM THAT SHOWS DEVICES, CONDUIT, WIRE, CABLE SIZES AND EQUIPMENT TO BE USED. SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A REGISTERED ENGINEER PROVIDED BY THE FIRE ALARM VENDOR. SYSTEM CALIBRATION AND TESTING SHALL BE BY FACTORY CERTIFIED TECHNICIAN.
- BACK-TO-BACK OUTLETS IN THE SAME WALL, OR "THRU-WALL" TYPE BOXES SHALL NOT BE PERMITTED. PROVIDE 2-INCH SEPARATION TO OFFSET OUTLETS SHOWN ON OPPOSITE SIDES OF A COMMON WALL TO MINIMIZE SOUND TRANSMISSION. COVER BACKBOXES WITH EITHER FIRE OR SOUND PUTTY PAD.
- OUTLET BOXES ON OPPOSITE SIDES OF FIRE-RATED WALLS AND PARTITIONS SHALL BE SEPARATED BY A HORIZONTAL STRIP OF AT LEAST 24 INCHES.
- PROVIDE TAMPER-RESISTANT RECEPTACLES PER NEC 406.12 FOR ALL CHILD CARE AND EDUCATION FACILITIES. GUEST ROOMS, WAITING/OFFICE/CORRIDORS IN CLINIC, AND ASSEMBLY AREAS OCCUPIED BY CHILDREN. CONFIRM REQUIREMENTS WITH AHI.
- BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED TO PREVENT A VOLTAGE DROP EXCEEDING 3%.

CODE SUMMARY

BUILDING	2018 IBC
EXISTING BUILDING	2018 IEBG
FIRE	2018 IFB
MECHANICAL	2018 IMC
FUEL GAS	2018 IFGC
PLUMBING	2018 IPC
ENERGY CONSERVATION	2018 IECC
ELECTRICAL	2020 NEC
FIRE ALARM	2019 NFPA 72

ENGINEER

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Reviewed for
Code Compliance
06/10/2023

GONDOLA SQUARE - BUILDING D SNOWMELT

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, CO 80487

DATE: 2023-05-03

PROJECT: 22.048

RELEASE:

CDs 2023-05-03

ELECTRICAL LEGEND

E000

PART I - GENERAL

1.01 GENERAL PROJECT REQUIREMENTS

A. ALL DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING DIVISION 1 SPECIFICATION SECTIONS AND GENERAL AND SUPPLEMENTARY CONDITIONS, SHALL APPLY TO THIS SECTION.

B. RELATED DOCUMENTS: ARCHITECTURAL SPECIFICATIONS, LIGHTING FIXTURE SPECIFICATIONS INCLUDED IN OTHERS DOCUMENTS, GENERAL, SPECIAL AND SUPPLEMENTARY CONDITIONS, AND SIMILAR DOCUMENTS SHALL FORM A PART OF THESE SPECIFICATIONS.

C. SCOPE OF WORK: PROVIDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT AND CONTRACTOR'S SERVICES NECESSARY FOR COMPLETE AND SAFE INSTALLATION OF ELECTRICAL WORK IN CONFORMITY WITH REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION, AS INDICATED ON DRAWINGS AND/OR DESCRIBED IN THESE SPECIFICATIONS.

D. SITE CLEANLINESS: KEEP SITE FREE FROM SURPLUS MATERIAL, TOOLS, AND RUBBISH AT ALL TIMES DURING CONSTRUCTION PERIOD AND, UPON COMPLETION, LEAVE SITE IN CLEAN CONDITION.

E. DAMAGE: REPAIR ANY DAMAGE CAUSED TO WORK OF OTHER TRADES AND ANY OTHER DAMAGE CAUSED BY THIS SECTION TO INTENDED/ORIGINAL CONDITION.

F. PASSAGE OF EQUIPMENT: CHECK THE DIMENSIONS OF EQUIPMENT OF THIS SECTION TO ENSURE THAT SUCH EQUIPMENT CAN PASS THROUGH THE NECESSARY AREAS TO REACH ITS ULTIMATE INSTALLED LOCATION, INCLUDE IN BID COSTS FOR ALL WORK REQUIRED, INCLUDING ANY WORK REQUIRED TO MOVE THE EQUIPMENT THROUGH THE SITE TO THIS FINAL LOCATION AND ANY DISMANTLING/RE-ASSEMBLY.

G. GUARANTEE: CONTRACTOR SHALL GUARANTEE THAT ALL PORTIONS OF THE WORK ARE IN ACCORDANCE WITH CONTRACT REQUIREMENTS. GUARANTEE AGAINST FAULTY OR IMPROPER MATERIAL AND WORKMANSHIP FOR A MINIMUM PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER. IF GUARANTEES OR WARRANTIES FOR LONGER TERMS ARE SPECIFIED BY CONTRACT, SUCH LONGER TERM SHALL APPLY.

H. PERMITS AND INSPECTIONS: CONTRACTOR SHALL SECURE ALL APPROVALS AND PAY ALL FEES FOR WORK INSTALLED AND DELIVER CERTIFICATE TO OWNER, INCLUDE ALL COSTS IN BASE BID.

I. PRIOR TO SUBMITTING BID, CONTRACTOR SHALL VERIFY ALLOWABLE WORKING HOURS, EMPLOYEE PARKING AREAS, MATERIAL DELIVERY AND STORAGE REQUIREMENTS, AND REQUIREMENTS FOR DEMOLITION AND REMOVAL OF CONSTRUCTION DEBRIS (IF ANY). INCLUDE ALL COSTS IN BID FOR DUST BARRIERS AND DUMPSTERS FOR THE DURATION OF THE PROJECT AS REQUIRED.

J. DURING PREPARATION OF BID, CONTRACTOR MAY DISCOVER ERRORS IN THESE DOCUMENTS OR DISCREPANCIES BETWEEN THESE DOCUMENTS AND THOSE OF OTHER TRADES. IN CASE OF DISCREPANCIES, CONTRACTOR IS RESPONSIBLE FOR BIDDING THE GREATER QUANTITY OR HIGHER QUALITY ITEMS IF NO SUFFICIENT RESOLUTION OF THE DISCREPANCY IS DETERMINED PRIOR TO SUBMITTING BID.

K. RECORD DRAWINGS: UPON PROJECT COMPLETION, DELIVER TO OWNER ONE SET OF REPRODUCIBLE DRAWINGS AND ONE BOUND SET OF BLUEPRINTS AND PANEL SCHEDULES SHOWING ALL WORK AS ACTUALLY INSTALLED.

1.02 DEFINITIONS AND TERMINOLOGY

A. DRAWINGS AND SPECIFICATIONS ARE OF SIMPLIFIED FORM AND INCLUDE INCOMPLETE SENTENCES, WORDS, OR OTHERS. THE CONTRACTOR SHALL: "SHALL BE," "FURNISH," "PROVIDE," "AT," "AN," "THE" AND "ALL" MAY BE OMITTED FOR BREVITY.

B. WORDS AND/OR PHRASES USED IN THESE DOCUMENTS ARE DEFINED AS FOLLOWS:

- "FURNISH" OR "PROVIDE": TO SUPPLY, INSTALL, AND CONNECT COMPLETELY AND READY FOR SAFE AND REGULAR OPERATION OF PARTICULAR WORK REFERRED TO UNLESS SPECIFICALLY NOTED OTHERWISE.
- "INSTALL": TO ERECT, MOUNT, AND CONNECT COMPLETE WITH ANY NECESSARY RELATED ACCESSORIES (WHETHER SPECIFICALLY INDICATED OR NOT).
- "SUPPLY": TO PURCHASE, PROCURE, ACQUIRE, AND DELIVER COMPLETE WITH ANY NECESSARY RELATED ACCESSORIES.
- "WORK": LABOR, MATERIALS, EQUIPMENT, AND ACCESSORIES AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION.
- "CONTRACTOR": ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.
- "PROJECT MANAGER": THE ENTITY/PROFESSIONAL RESPONSIBLE FOR COORDINATION AND COMPLETION OF ALL REQUIRED WORK FOR THIS PROJECT AND TO REMAIN IN THE GENERAL CONTRACTOR OR ARCHITECT OR OTHER AUTHORITY AS DESCRIBED IN THE CONTRACT.
- "OWNER": THE OWNER OR TENANT THAT IS THE ULTIMATE RECIPIENT OF THE CONSTRUCTION WORK PERFORMED.
- "WIRING": RACEWAY, FITTINGS, CONDUCTORS, BOXES, AND RELATED ITEMS.
- "CONCEALED": INSTALLED EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, IN FURRED SPACES, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS, IN TRENCHES, IN CRAWL SPACES, IN ENCLOSURES, OR AS DEFINED IN NEC ARTICLE 100.
- "EXPPOSED": NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE, OR AS DEFINED IN NEC ARTICLE 100.
- "EQUALLY": ACCEPTABLE EQUIVALENT IN MATERIALS, WEIGHT, SIZE, DESIGN, OPERATION, AND EFFICIENCY OF SPECIFIED PRODUCT. FINAL DETERMINATION OF ACCEPTABLE EQUIVALENCY SHALL BE MADE BY ENGINEER WHEN AN ITEM IS INDICATED AS "APPROVED EQUAL".

C. WHERE TERMS ARE NOT DEFINED IN THESE DOCUMENTS, THE DEFINITIONS IN NEC ARTICLE 100 SHALL TAKE PRECEDENCE.

1.03 REFERENCE STANDARDS

- COMPLY WITH ALL PUBLISHED CODES, SPECIFICATIONS, STANDARDS, TESTS, OR RECOMMENDED METHODS OF TRADE, INDUSTRY OR GOVERNMENTAL ORGANIZATIONS, OR LOCAL UTILITIES AS THEY APPLY TO WORK IN THIS DIVISION AS OUTLINED BELOW.
- ADA - AMERICANS WITH DISABILITIES ACT.
- ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE.
- ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS.
- CBM - CERTIFIED BALLAST MANUFACTURERS.
- ETL - ELECTRICAL TESTING LABORATORIES.
- FAA - FEDERAL AVIATION ADMINISTRATION.
- FCC - FEDERAL COMMUNICATIONS COMMISSION.
- FM - FACTORY MUTUAL.
- IEEE - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS.
- IES - ILLUMINATING ENGINEERING SOCIETY.
- NEC - NATIONAL ELECTRICAL CODE.
- NECA - NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION.
- NEMA - NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION.
- NFPA - NATIONAL FIRE PROTECTION ASSOCIATION.
- OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT.
- UL - UNDERWRITERS' LABORATORIES, INC.
- LOCALLY ADOPTED BUILDING CODES AND/OR OTHER BUILDING CODES SPECIFIC TO THIS JURISDICTION.
- LOCALLY ADOPTED ELECTRICAL CODES AND/OR OTHER ELECTRICAL CODES SPECIFIC TO THIS JURISDICTION.
- LOCAL UTILITY AUTHORITIES.
- LOCAL FIRE DEPARTMENT.

B. COMPLIANCE WITH GOVERNING CODES AND REGULATIONS SHALL BE SUBJECT TO THE FOLLOWING GUIDELINES:

- DRAWINGS AND SPECIFICATION REQUIREMENTS SHALL GOVERN WHERE THEY EXCEED GOVERNING CODE AND REGULATION REQUIREMENTS.
- WHERE REQUIREMENTS BETWEEN GOVERNING CODES AND REGULATIONS VARY, THE MORE STRINGENT SHALL APPLY.
- NOTHING CONTAINED IN CONTRACT DOCUMENTS SHALL BE CONSTRUED AS AUTHORITY OR PERMISSION TO DISREGARD OR VIOLATE LEGAL REQUIREMENTS. CONTRACTOR SHALL IMMEDIATELY DRAW THE ATTENTION OF THE PROJECT MANAGER TO ANY SUCH CONFLICTS NOTED IN THE CONTRACT DOCUMENTS.

1.04 SUBMITTALS

A. PROVIDE ELECTRONIC COPIES OF SUBMITTALS WITH DESCRIPTIVE DATA FOR ALL PRODUCTS AND MATERIALS FOR REVIEW BY ENGINEER PRIOR TO ORDERING. SUBMITTALS SHALL CLEARLY IDENTIFY MANUFACTURER, MODEL NUMBER, AND ANY DETAILS NECESSARY TO SHOW COMPLIANCE WITH THE SPECIFICATION DOCUMENTS IN ADDITION TO THOSE PARAMETERS OUTLINED BELOW FOR THE FOLLOWING ITEMS:

- LIGHTING FIXTURES, INCLUDING PHOTOMETRIC PERFORMANCE DATA AND ANALYSIS (WITH PARAMETERS OUTLINED) AS REQUIRED BY ENGINEER, FIXTURE POLES AND MOUNTING ARMS, BALLASTS, AND LAMPS.
- DEVICES AND EQUIPMENT, INCLUDING WALL SWITCHES, WALL-BOX DIMMERS, RECEPTACLES, DEVICE COVER PLATES, SAFETY SWITCHES, ETC.
- OVERCURRENT DEVICES: INCLUDING TIME/CURRENT CURVES IF REQUESTED.
- SWITCHBOARDS, DISTRIBUTION BOARDS, MOTOR CONTROL CENTERS, AND PANELBOARDS: DIMENSIONS, ENCLOSURE DATA, VOLTAGE AND PHASE, AMPS, IN EXCESS OF, OVERCURRENT DEVICES (INCLUDING QUANTITIES, AMPACITY RATINGS, TYPES, POLES, ETC.), CATALOG CUTS, AND ANY RELATED ACCESSORIES.
- TRANSFORMERS: WEIGHT OF TRANSFORMER, MOUNTING DETAILS, AND PERFORMANCE DATA (INCLUDING IMPEDANCE, EFFICIENCY, AND SOUND LEVEL).
- SPECIAL SYSTEMS AND EQUIPMENT: ARCHITECTURAL/THEATRICAL DIMMING EQUIPMENT AND CONTROLS, OCCUPANCY AND DAYLIGHT HARVESTING SENSORS, EMERGENCY POWER SOURCES AND RELATED TRANSFER EQUIPMENT, TRANSIENT VOLTAGE SURGE SUPPRESSORS, SUB-METERING DEVICES, ETC.

B. SHOP DRAWINGS: COORDINATED LAYOUT PLANS FOR ELECTRICAL ROOMS, INFORMATION TECHNOLOGY ROOMS, AND OTHER SPECIALIZED AREAS AS REQUESTED BY THE ENGINEER, SHOWING WORK OF ALL TRADES INCLUDING BUT NOT LIMITED TO DUCTWORK, HVAC, PLUMBING, FIRE PROTECTION PIPING, ELECTRICAL CONDUITS, BUS DUCTS, AND ALL RELATED EQUIPMENT.

1.05 SUBSTITUTIONS

- PROCEDURE: CONTRACTOR'S BID SHALL INCLUDE PRODUCTS AS OUTLINED IN THE SPECIFICATION DOCUMENTS EXCEPT IN THE CASE OF PRODUCT UNAVAILABILITY. SUBSTITUTIONS WILL NOT BE ALLOWED. ENGINEER WILL CONSIDER FORMAL REQUESTS FOR SUBSTITUTION OF PRODUCTS ONLY IF THE REQUEST MEETS THE FOLLOWING CONDITIONS:
 - WRITTEN EVIDENCE OF PRODUCT UNAVAILABILITY NECESSITATING THE PROPOSED SUBSTITUTION FROM THE SPECIFIED PRODUCTS MANUFACTURER REPRESENTATIVE OR SUPPLIER.
 - COMPLETE DATA SUBSTANTIATING COMPLIANCE OF PROPOSED SUBSTITUTION WITH REQUIREMENTS AND SPECIFICATIONS STATED IN CONTRACT DOCUMENTS.
 - DATA RELATING TO CHANGES IN CONSTRUCTION SCHEDULE.
 - COMPLETE DESCRIPTION OF ANY EFFECT OF SUBSTITUTION ON OTHER WORK IN THIS AND OTHER TRADES.

B. FAILURE TO PLACE ORDERS FOR SPECIFIED ITEMS IN A TIMELY MANNER (WITH RESPECT TO THE PROJECT MANAGER'S CONSTRUCTION SCHEDULE) DOES NOT CONSTITUTE PRODUCT UNAVAILABILITY.

C. CONTRACTOR SHALL BE RESPONSIBLE AT NO EXTRA COST TO OWNER FOR ANY CHANGES RESULTING FROM PROPOSED SUBSTITUTIONS WHICH AFFECT WORK OF OTHER TRADES OR RELATED CONTRACTS.

D. CLAIMS FOR ADDITIONAL COSTS CAUSED BY SUBSTITUTION WHICH MAY SUBSEQUENTLY BECOME APPARENT SHALL BE MET BY THE CONTRACTOR.

E. SUBSTITUTIONS WILL NOT BE CONSIDERED FOR ACCEPTANCE WHEN ACCEPTANCE WILL REQUIRE SUBSTANTIAL REVISION OF CONTRACT DOCUMENTS, UNLESS CONTRACTOR BEARS COST OF REDESIGN.

F. SUBSTITUTE PRODUCTS SHALL NOT BE ORDERED OR INSTALLED WITHOUT PRIOR WRITTEN APPROVAL/ACCEPTANCE BY ENGINEER.

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. SHIP EQUIPMENT IN ORIGINAL PACKAGES TO PREVENT DAMAGE OR ENTRANCE OF FOREIGN MATTER. HANDLE AND SHIP IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

B. PROVIDE AND MAINTAIN PROTECTIVE COVERINGS DURING CONSTRUCTION.

C. REPLACE, AT NO EXPENSE TO OWNER, EQUIPMENT OR MATERIAL DAMAGED, LOST, OR STOLEN DURING STORAGE OR HANDLING AS DIRECTED BY THE PROJECT MANAGER.

1.07 EXISTING CONDITIONS (AS APPLICABLE)

A. VERIFICATION: BEFORE SUBMITTING BID, BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AND THE PRESENT INSTALLATIONS TO WHICH CONNECTIONS MUST BE MADE OR WHICH MUST BE ALTERED. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN, AND NO CONSIDERATION WILL BE GRANTED BY REASON OF LACK OF FAMILIARITY ON THE PART OF THE CONTRACTOR WITH ACTUAL PHYSICAL CONDITIONS, REQUIREMENTS, AND PRACTICES AT THE SITE.

B. TEMPORARY SHUTDOWNS: SHALL BE PERFORMED AT NO ADDITIONAL CHARGES TO OWNER. SHUTDOWNS SHALL BE UNDERTAKEN AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF EXISTING FACILITIES. OBTAIN WRITTEN CONSENT OF OWNER PRIOR TO SHUTDOWNS.

C. ALARM AND EMERGENCY SYSTEMS SHALL NOT BE INTERRUPTED.

D. CONNECTIONS TO EXISTING WORK: INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK. CONNECT NEW WORK TO EXISTING WORK IN NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ORIGINAL CONDITION INCLUDING MAINTENANCE OF VIBRATION CONTINUITY AS REQUIRED.

E. REMOVAL AND RELOCATION OF EXISTING WORK:

- DISCONNECT AND REMOVE OR RELOCATE ANY ELECTRICAL EQUIPMENT AND/OR DEVICES REQUIRED BY REMOVAL OR CHANGES IN EXISTING CONSTRUCTION.
- RELOCATE CONDUCTORS FROM EXISTING RACEWAYS TO BE REUSED AND REPLACE WITH NEW CONDUCTORS.
- REMOVE EXISTING CONDUCTORS NO LONGER USED. REMOVE RACEWAYS IN ALL CASES EXCEPT WHERE THE REMOVAL OF THE RACEWAY WOULD CAUSE DAMAGE TO EXISTING CONSTRUCTION OR AP AND MARK AS "ABANDONED" ANY UNUSED RACEWAYS TO REMAIN.
- CUT AND CAP ABANDONED FLOOR RACEWAYS FLUSH WITH CONCRETE FLOOR OR BEHIND WALLS AND CEILINGS.
- DISPOSE OF ALL REMOVED RACEWAYS AND WIRE.
- DISPOSE OF REMOVED ELECTRICAL EQUIPMENT, LIGHTING FIXTURES, AND DEVICES AS DIRECTED.
- CUT AND PATCH EXISTING CONSTRUCTION AS REQUIRED. ALL PATCHING SHALL BE OF THE SAME MATERIALS, FINISH, AND WORKMANSHIP AS THE EXISTING AREA AND SHALL ACCURATELY MATCH ALL SURROUNDING WORK TO THE SATISFACTION OF THE PROJECT MANAGER.
- IF ASBESTOS INSULATION IS FOUND WHEN WORKING IN EXISTING AREAS, IMMEDIATELY STOP WORK AND NOTIFY PROJECT MANAGER. DO NOT RESTART WORK UNTIL ADVISED IN WRITING BY PROJECT MANAGER THAT IT IS SAFE TO DO SO FOLLOWING ABATEMENT, ENCAPSULATIONS, ETC.

1.08 TELECOMMUNICATIONS AND OTHER LOW-VOLTAGE SYSTEMS

A. SCOPE: ALL TELECOMMUNICATIONS AND OTHER LOW-VOLTAGE CABLE DESIGNS ARE OUTSIDE OF THE SCOPE OF THE ELECTRICAL DOCUMENTS. THE DOCUMENTS REPRESENT THE GENERAL ARRANGEMENT OF EMPTY RACEWAYS AND BOXES TO ACCOMMODATE THE TELECOMMUNICATIONS AND LOW-VOLTAGE SYSTEMS. CONTRACTOR SHALL VERIFY EXACT RACEWAY, JUNCTION BOX, AND DEVICE BOX REQUIREMENTS WITH THE OWNER'S SELECTED TELECOMMUNICATIONS CONSULTANT PRIOR TO ORDERING THE COMPONENTS OF THE RACEWAY AND BOX SYSTEM.

B. SUBMITTALS: CONTRACTOR SHALL SUBMIT ALL COMPONENTS OF THE TELECOMMUNICATION AND OTHER LOW-VOLTAGE SYSTEMS TO THE OWNER'S SELECTED TELECOMMUNICATIONS CONSULTANT FOR APPROVAL.

PART II - PRODUCTS

2.01 QUALITY ASSURANCE

A. QUALITY OF MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- MATERIALS SHALL BE NEW AND LISTED BY UL (OR SIMILAR AGENCY ACCEPTED BY THE AUTHORITY HAVING JURISDICTION) AND BEARING THEIR LABEL.
- MATERIALS AND EQUIPMENT OF SIMILAR APPLICATION SHALL BE OF THE SAME MANUFACTURER, UNLESS OTHERWISE NOTED.
- MATERIALS SHALL CONFORM TO NEMA, ANSI, AND IEEE STANDARDS.

2.02 RACEWAYS

A. RIGID GALVANIZED STEEL CONDUIT (RGS): FULL-WEIGHT PIPE, GALVANIZED, THREADED.

B. INTERMEDIATE METAL CONDUIT (IMC): LIGHTWEIGHT STEEL PIPE, GALVANIZED, THREADED.

C. ELECTROMETALLIC TUBING (EMT): THIN WALL PIPE, GALVANIZED, THREADEDLESS.

D. RIGID NONMETALLIC CONDUIT: SCHEDULE 40 PVC.

E. FLEXIBLE STEEL CONDUIT: STANDARD-WALL, GALVANIZED.

F. FLEXIBLE ALUMINUM CONDUIT: STANDARD-WALL.

G. MINIMUM TRADE SIZE IS 1/2" FOR ALL RIGID AND FLEXIBLE CONDUITS.

2.03 RACEWAY FITTINGS AND ACCESSORIES

A. RIGID GALVANIZED AND INTERMEDIATE METAL CONDUIT: ZINC DIE CAST NOT PERMITTED.

B. ELECTROMETALLIC TUBING: COMPRESSION (WET LOCATIONS) OR DOUBLE SET SCREW TYPE (DRY LOCATIONS ONLY). GALVANIZED RIGID STEEL ELBOWS: 2 IN. OR LARGER.

C. FLEXIBLE METALLIC CONDUIT: ANGLE WEDGE TYPE WITH INSULATED THROAT. D. BUSHINGS: METALLIC INSULATED TYPE.

2.04 BOXES

A. OUTLET BOXES: STAMPED OR WELDED STEEL, 4 IN. SQUARE OR OCTAGON WITH APPROPRIATE MUD RING, EXCEPT AS OTHERWISE REQUIRED BY CONSTRUCTION, DEVICES OR WIRING, AS FOLLOWS:

- LIGHTING FIXTURES: 1-1/2" DEEP ABOVE CEILING, 2-1/8" DEEP IN WALL.
- IN WALL FOR RECEPTACLES, SWITCHES, TELE/DATA DEVICES: 1-1/2" DEEP.
- IN WALL FOR WALL-BOX DIMMERS AND GFCI RECEPTACLES: 2-1/8" DEEP.
- WITH RAISED COVERS AND FIXTURE STUDS WHERE REQUIRED.
- THROUGH-THE-WALL TYPE: NOT PERMITTED.
- WITHOUT FIXTURE OR DEVICE: BLANK COVER.
- OFFSET BACK-TO-BACK OUTLETS: MINIMUM 6 IN. SEPARATION. COVER BACK BOXES WITH EITHER FIRE OR SOUND PUTTY PAD.

B. BOXES FOR WET/DAMP LOCATIONS: WEATHERPROOF (NEMA 3R), CAST METAL.

C. IN HAZARDOUS LOCATIONS: CAST, COPPER-FREE ALUMINUM.

D. JUNCTION AND PULL BOXES: GALVANIZED SHEET STEEL, SCREW-ON COVERS, INSULATED

SUPPORTS FOR CABLES, INSTALLED ONLY IN ACCESSIBLE LOCATIONS.

E. FLOOR BOXES: GALVANIZED CAST IRON WITH BRASS COVERS AND FLANGES, SUITABLE FOR CONDUIT AND DEVICES INDICATED.

F. EXTERIOR GRADE-MOUNTED PULL BOXES: CONCRETE OR COMPOSITE FIBER CONSTRUCTION WITH BOLT-DOWN COVERS. METALLIC COVERS ARE NOT PERMITTED.

G. PROVIDE BARRIERS IN ALL BOXES BETWEEN 480Y/277 VOLT WIRING ENERGIZED FROM SEPARATE SERVICES, 208Y/120 VOLT AND 480Y/277 VOLT WIRING, EMERGENCY AND NORMAL WIRING.

2.05 WIRE AND CABLE

A. CONDUCTORS: ASTM STANDARD SOLID; STRANDED FOR #8 AWG AND LARGER.

- TYPE: COPPER, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT SUBSTITUTE ALUMINUM FOR ANY BRANCH CIRCUITS. CONTRACTOR MAY SUBSTITUTE ALUMINUM FOR FEEDERS SIZED #10 AWG OR LARGER ONLY WITH WRITTEN CONSENT OF ENGINEER.
- SIZE: FOR GENERAL USE (BASED UPON 10A LOAD):
 - #12 AWG MINIMUM FOR ALL CIRCUITS 120V OR MORE.
 - FOR 20A/1P 120V BRANCH CIRCUITS OVER 70 FEET IN TOTAL LENGTH: #10 AWG THROUGHOUT ENTIRE CIRCUIT.
 - FOR 20A/1P 120V BRANCH CIRCUITS OVER 110 FEET IN TOTAL LENGTH: #8 AWG FOR HOMERUN, #10 AWG THROUGHOUT REMAINDER OF CIRCUIT.
 - FOR 30A/1P 277V BRANCH CIRCUIT HOMERUNS OVER 160 FEET IN LENGTH: #10 AWG THROUGHOUT ENTIRE CIRCUIT.
 - FOR 20A/1 P 277V BRANCH CIRCUITS OVER 260 FEET IN LENGTH: #8 AWG FOR HOMERUN, #10 AWG THROUGHOUT REMAINDER OF CIRCUIT.

SHORT CIRCUIT SCHEDULE

PROJECT NAME: CHRISTY SPORTS				PROJECT NO: 22048		BY: NDM									
	DESCRIPTION	LENGTH/ PRIMARY VOLTAGE	VOLTAGE/ SECONDARY VOLTAGE	WIRE SIZE/ XFRMR KVA RATING	WIRE MATERIAL/ TRANSFORMER (C OR A) T=XFRMR	CONDUIT (S OR N)	VOLTAGE CLASS (V)	WIRES (S OR T)	C OR Z VALUE	# OF PARALLEL RUNS	Isc AVAILABLE UPSTREAM	f	M	I(sc Fault)	
X0	UTILITY COMPANY XFMR													23,100	X0
X1	DISTRIBUTION BOARD	60	480	300	C	N	600	S	20867	3	23,100	0.0799	0.9260	21,391	X1
X2	PANEL LEC	225	480	4X	C	S	600	S	15082	1	21,391	1.1515	0.4648	9,942	X2
X3	100A3P DISCONNECT	115	480	2	C	S	600	S	5906	1	9,942	0.6886	5.853	X3	
X4	TRANSFORMER T-L2	480	208	7.5	T	S	600	S	1.4	1	5,853	0.9084	0.5240	7,078	X4
X5	400A3P DISCONNECT	5	208	4X	C	S	600	S	15082	1	7,078	0.0195	0.9808	6,942	X5
X6	PANEL L2	20	208	4X	C	S	600	S	15082	1	9,942	0.1098	0.9011	8,959	X6

FEEDER SCHEDULE

COPPER	
MARK	CONDUCTORS AND CONDUIT
	3 WIRE PLUS GROUND
100A3	3 #1, 1 #8 GND-1 1/4" C
	4 WIRE PLUS GROUND
80A4	4 #2, 1 #8 GND-1 1/2" C
100A4	4 #1, 1 #8 GND-1 1/2" C
225A4	4 #4/0, 1 #4 GND-2 1/2" C
225A4X	4 #4/0, 1 #2 GND-2 1/2" C
	4 WIRE SERVICE
800S4	3 SETS OF 4 300 KCMIL - 2 1/2" C

GENERAL NOTES

(THIS SHEET)

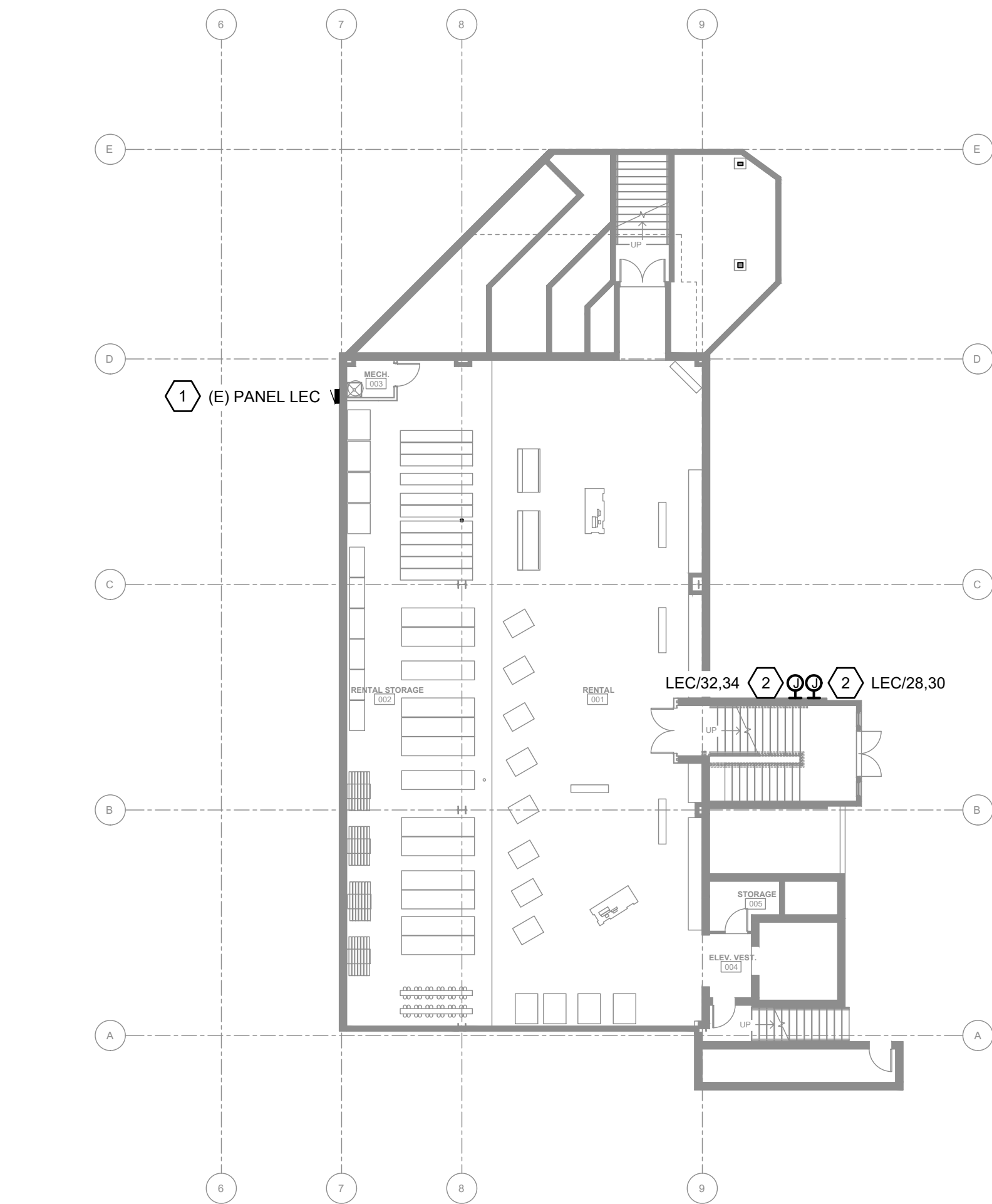
- REFER TO ELECTRICAL FLOOR PLANS FOR PANEL LOCATIONS.
- ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- INFORMATION ON THIS SHEET WAS OBTAINED FROM FIELD SURVEY OBSERVATIONS AND RECORD DRAWINGS. THE DRAWINGS REPRESENT INFORMATION AS ACCURATE AS POSSIBLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID. NOTIFY ENGINEER IMMEDIATELY IF ACTUAL FIELD CONDITIONS DIFFER FROM INFORMATION INDICATED ON THE DRAWINGS.
- ALL NEW DEVICES IN EXISTING GEAR SHALL BE UL LISTED FOR THE EQUIPMENT, BE OF THE SAME MANUFACTURER AND WITHSTAND RATING.
- ITEMS SHOWN IN THIN DASHED LIGHT LINEWEIGHT ARE EXISTING TO REMAIN. ITEMS SHOWN IN THICK BLACK LINEWEIGHT ARE NEW.

EXISTING PANEL L2

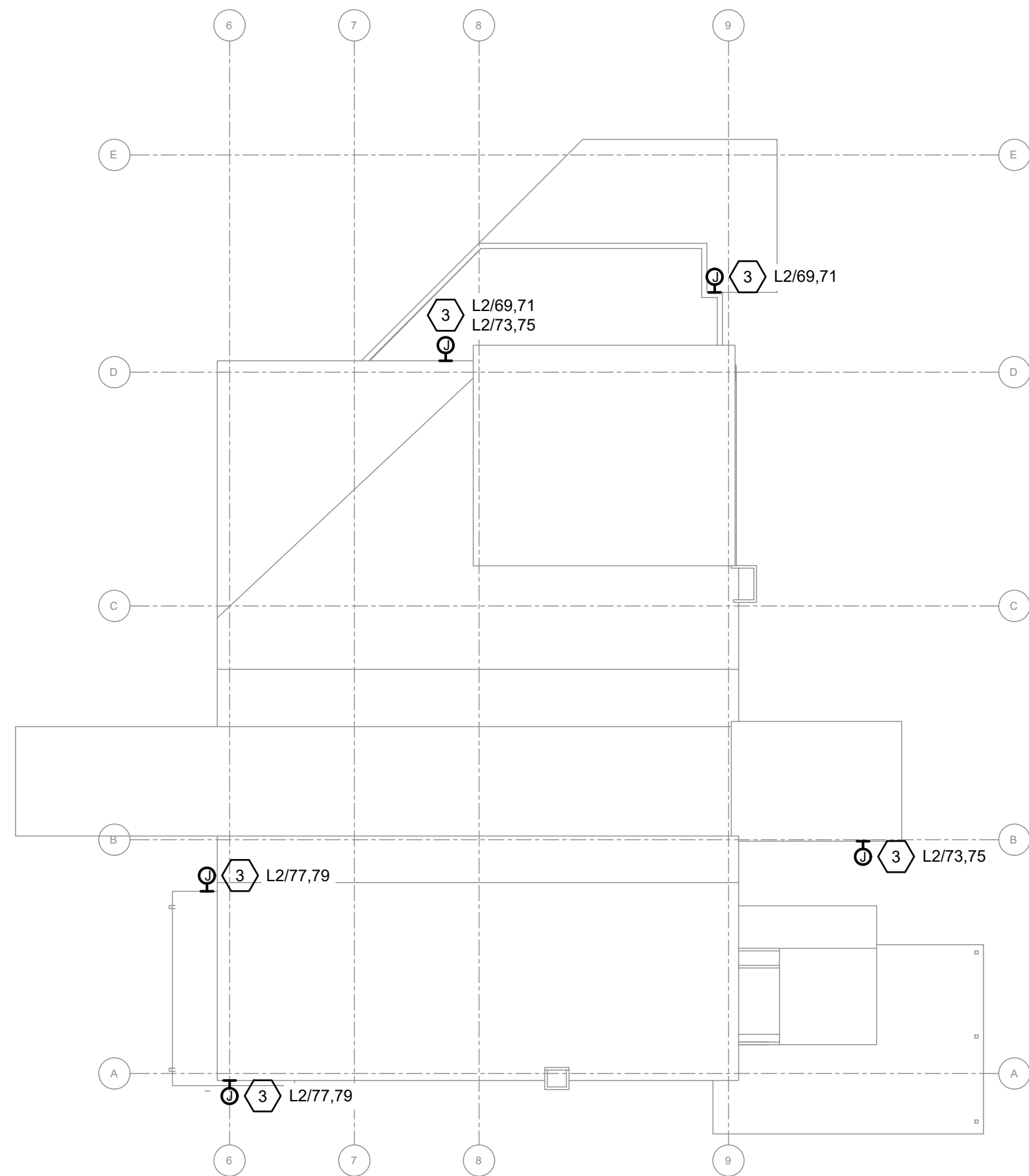
PROJECT: CHRISTY SPORTS STEAMBOAT						VOLTAGE L-L (V): 208									
JOB NO.: 2022-048						VOLTAGE L-N (V): 120									
LOCATION: SEE PLANS						TYPE: 3-PHASE, 4-WIRE									
MINIMUM BUS CAPACITY (A): 225						SHORT CIRCUIT RATING (A): 10,000									
MAIN O.C. DEVICE (A): 225A MCB						MOUNTING: RECESSED									
DESIGN CAPACITY (A): 225						COMMENTS: LEVEL 02									
DEVICE AMPS	POLE	LIGHTING (VA)	RCPT (VA)	MOTOR (VA)	OTHER (VA)	DESCRIPTION	CKT NO.	CKT PHASE NO.	DESCRIPTION	OTHER (VA)	MOTOR (VA)	RCPT (VA)	LIGHTING (VA)	POLE	DEVICE AMPS
20	1					RECEPT - RESTROOM, EF-2-1	1	A	RECEPT - SHOW WINDOW, TV						20
20	1					RECEPT - BACKSTOCK, CONV., TV	3	B	4 RECEPT - TEST BENCH FLRBOXES						20
20	1					RECEPT - POS FLOORBOXES	5	C	6 RECEPT - BOOT PODIUM FLRBOX						20
20GFCI	1					RECEPT - SHOP CONVENIENCE	7	A	8 RECEPT - HEAT STACK						20
20GFCI	1					RECEPT - SHOP CONVENIENCE	9	B	10 RECEPT - SHELL OVEN						20
20GFCI	1					RECEPT - SHOP CONVENIENCE	11	C	12						20
35	3					S5 JUPITER	13	A	14 RECEPT - BOOT LAB						20
-	-						15	B	16 RECEPT - BOOT LAB						20
-	-						17	C	18 RECEPT - BOOT LAB						20
20	3					S1 OMEGA	19	A	20 RECEPT - BOOT SPECIAL RECEPT						20
-	-						21	B	22						20
-	-						23	C	24 RECEPT - IDF LEVEL 2						20
20	3					S2 SIGMA	25	A	26 EC-1 EVAP. COOLER						15
-	-						27	B	28 EC-2 EVAP. COOLER						15
-	-						29	C	30 ROOF HEAT TAPE						15
15	2					S4 SPEEDBRUSH	31	A	32 DOAS-1						20
-	-						33	B	34 LIGHTING - LEVEL 2 TRACK						20
15	2					S3 TRIM B	35	C	36 LIGHTING - LEVEL 2 TRACK						20
-	-						37	A	38 LIGHTING - LEVEL 2 TRACK						20
30	2					S11 COMPRESSOR	39	B	40 LIGHTING - LEVEL 2 TRACK						20
-	-						41	C	42 LIGHTING - CHANDELIER						20
SECOND SECTION															
15	1					EF-2-2 EXHAUST FAN	43	A	44 LEVEL 2 MOTORIZED DAMPERS						20
25	2					HP-1 OUTDOOR UNIT	45	B	46 LEVEL 2 HVAC CNTRL XFMR						20
-	-						47	C	48 P-2-1 PUMP						15
20	1					RECEPT - ROOFTOP GFCI	49	A	50 P-2-1 RELAY / CONTROLS						20
20	1					ROOF TOP MOTORIZED DAMPERS	51	B	52 DF-1 DESTRATIFICATION FAN						15
20	1					RECEPT - SHOW WINDOW LEVEL 2	53	C	54 RECEPT - BOOT PODIUM FLRBOX						20
20	1					SECURITY GATE LEVEL 2	55	A	56 EXISTING RECEPT - MEZZANINE						20
20	1					LIGHTING - LEVEL 2 TRACK	57	B	58 EXISTING RECEPT - MEZZANINE						20
20	1					LIGHTING - LEVEL 2 TRACK	59	C	60 EXISTING RECEPT - MEZZANINE						20
20	1					LIGHTING - LEVEL 2 TRACK	61	A	62 S8 ST 500						15
20	1					SPARE	63	B	64 S7 POLYMAN 1						15
20	1					SPARE	65	C	66 S8 POLYMAN 2						15
20	1					E 600 SNOWMELT CONTROLLER	67	A	68 S9 WAX FUTURE WALL SPEED						20
30GFFE	2					C 1548 ROOFTOP / GUTTER SNOWMELT	69	B	70						15
-	-					C 1548 LOCKABLE OPEN	71	C	72 S10 WAX PRO						15
30GFFE	2					C 1776 ROOFTOP / GUTTER SNOWMELT	73	A	74 S12 WAX JEST 93 1						15
-	-					C 1776 LOCKABLE OPEN	75	B	76						15
30GFFE	2					C 1464 ROOFTOP / GUTTER SNOWMELT	77	C	78 S13 WAX JEST 93 2						15
-	-					C 1464 LOCKABLE OPEN	79	A	80						15
-	-					BUSSSED SPACE	81	B	82 SPARE						20
-	-					BUSSSED SPACE	83	C	84 SPARE						20
CONNECTED VA PHASE A: 3,840							DEMANDED VA PHASE A: 4,650								
CONNECTED VA PHASE B: 3,324							DEMANDED VA PHASE B: 4,155								
CONNECTED VA PHASE C: 3,012							DEMANDED VA PHASE C: 3,765								
LIGHTING LOAD:							DEMAND								
RECEPTACLE (FIRST 10 KVA)							0								
RECEPTACLE (REMAINDER)							0								
LARGEST MOTOR:							0								
REMAINING MOTORS:							0								
APPLIANCES:							0								
EQUIPMENT/SUBFED:							0								
CONTINUOUS:							0								
TOTAL:							10176								
LOAD (AMPS):							28.2								
ABBREVIATION DESIGNATIONS FOR OTHER LOAD CLASSIFICATIONS							S = SUB FEED PANEL								
E = EQUIPMENT							A = APPLIANCE								
C = CONTINUOUS							B TO C 89%								
NOTES: LIGHT LINEWEIGHT INDICATES EXISTING BREAKER/CIRCUITING. BOLD LINEWEIGHT INDICATES NEW BREAKERS/CIRCUITING. PROVIDE NEW CIRCUIT BREAKERS WHERE INDICATED.							A TO B 89%								
AIC RATING AND MANUFACTURER TO MATCH EXISTING.							B TO C 91%								
REFER TO PANEL L2 LOAD SUMMARY FOR LOAD JUSTIFICATION.							C TO A 81%								

EXISTING PANEL LEC

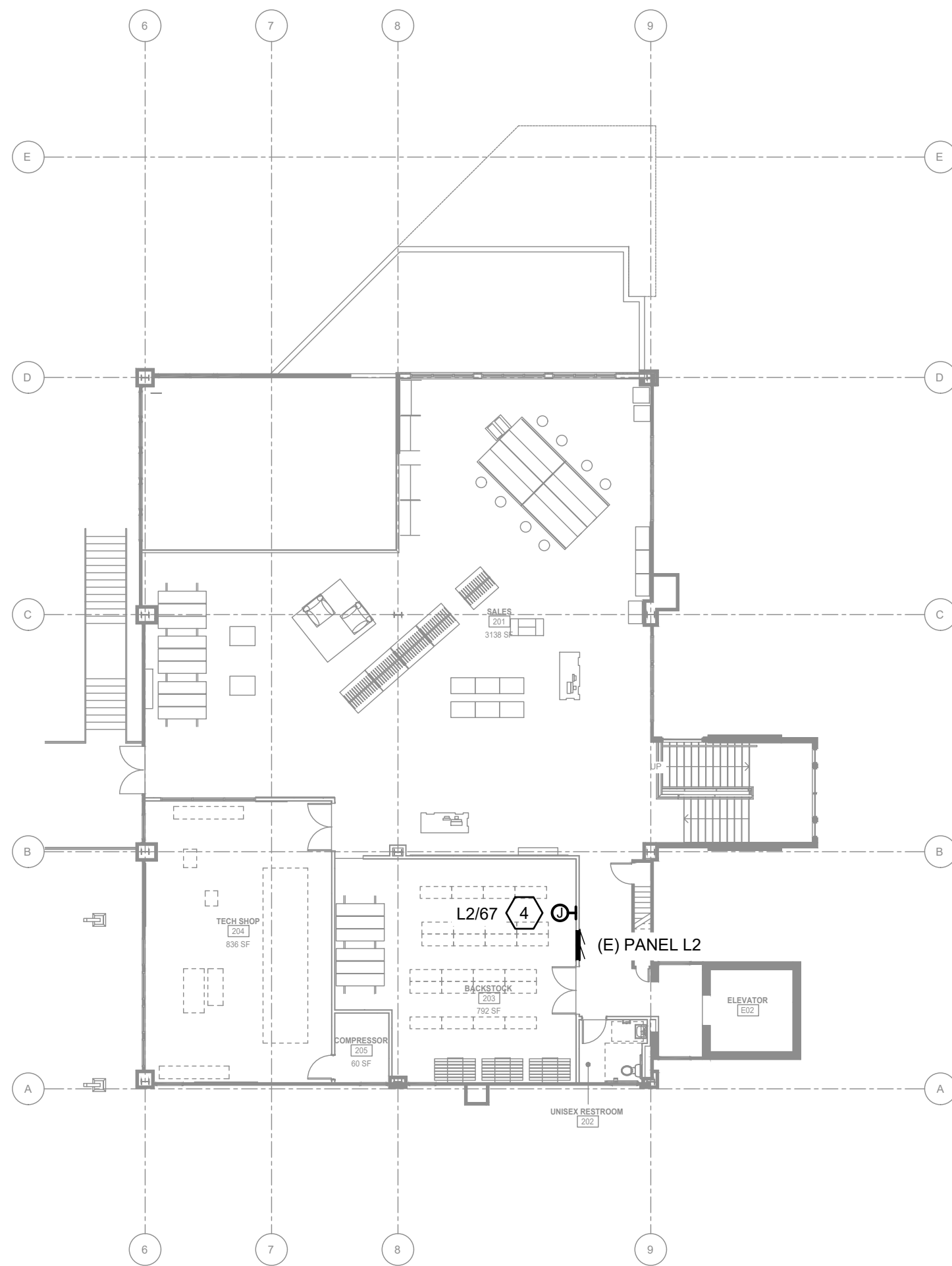
PROJECT: CHRISTY SPORTS STEAMBOAT						VOLTAGE L-L (V): 480								
JOB NO.: 2022-048						VOLTAGE L-N (V): 277								
LOCATION: SEE PLANS						TYPE: 3-PHASE, 4-WIRE								
MINIMUM BUS CAPACITY (A): 225						SHORT CIRCUIT RATING (A): 35,000								
MAIN O.C. DEVICE (A): 225A MCB						MOUNTING: SURFACE								
DESIGN CAPACITY (A): 225						COMMENTS: MECH ROOM 3								
DEVICE	LIGHTING	RCPT	MOTOR	OTHER	DESCRIPTION	CKT	CKT	DESCRIPTION	OTHER	MOTOR	RCPT	LIGHTING	POLE	DEVICE
AMPS	(VA)	(VA)	(VA)			NO.	PHASE		(VA)	(VA)	(VA)	(VA)		AMPS
70	3				SKI CORRAL SUB	1	A	2 AIR COMPRESSOR						15
-	-					3	B	4						-
-	-					5	C	6						-
20	1				STAIR GLOBES	7	A	8						20
20	1				GS COLUMN LIGHTS	9	B	10 GS 2 L DMI CABLE SOY STAIRS SOFT						20
20	1				SPORTS STALKER SALES AREA LIGHTS	11	C	12 STAIR HEAT						20
90	3				SPORTS STALKER LIGHTS	13	A	14 INFERNO EXHAUST FAN						15
-	-					15	B	16						-
-	-					17	C	18						-
100	3				INFERNO TRANSFORMER	19	A	20 DOES NOT WORK						20
-	-					21	B	22 STALKER HEAT PAD						20
-	-					23	C	24 STALKER HEAT PAD						20
3	20				UG SO WALL EXHAUST	25	A	26 STALKER HEAT PAD						20
-	-					27	B	28 PAVER SNOWMELT	C 9826					2 SGGPPE
-	-					29	C	30 LOCKABLE OPEN	C 9826					-
3	70				SPORTS STALKER TRANSFORMER	31	A	32 PAVER SNOWMELT	C 9826					2 SGGPPE
-	-					33	B	34 LOCKABLE OPEN	C 9826					-
-	-					35	C	36 SPACE						-
-	-				SPACE	37	A	38 SPACE						-
-	-				SPACE	39	B	40 SPACE						-
-	-				SPACE	41	C	42 SPACE						-
CONNECTED VA PHASE A: 9,826						DEMANDED VA PHASE A: 12,283								
CONNECTED VA PHASE B: 19,653						DEMANDED VA PHASE B: 24,566								
CONNECTED VA PHASE C: 9,826						DEMANDED VA PHASE C: 12,283								
CONNECTED						D.F.						DEMAND		
LIGHTING LOAD: 0						1.25						0		
RECEPTACLE (FIRST 10 KVA) 0						1.00						0		
RECEPTACLE (REMAINDER) 0						0.50						0		
LARGEST MOTOR 0						1.25						0		
REMAINING MOTORS 0						0						0		
APPLIANCES: 0						1.00						0		
EQUIPMENT/SUBFD: 0						1.00						0		
CONTINUOUS: 39306						1.25						49132		
TOTAL: 39306												49132		
LOAD (AMPS): 97.3												59.1		
ABBREVIATION DESIGNATIONS FOR OTHER LOAD CLASSIFICATIONS														
E = EQUIPMENT S = SUB FEED PANEL														
C = CONTINUOUS A = APPLIANCE														
NOTES: LIGHT LINEWEIGHT INDICATES EXISTING BREAKER/CIRCUITING. BOLD LINEWEIGHT INDICATES NEW BREAKERS/CIRCUITING. PROVIDE NEW CIRCUIT BREAKERS WHERE INDICATED.														
A/C RATING AND MANUFACTURER TO MATCH EXISTING.														
REFER TO PANEL LEC LOAD SUMMARY FOR LOAD JUSTIFICATION.														



1 BASEMENT LEVEL ELECTRICAL POWER PLAN
SCALE: 1/16" = 1'-0"



1 ROOF LEVEL ELECTRICAL POWER PLAN
SCALE: 1/16" = 1'-0"



1 LEVEL 2 ELECTRICAL POWER PLAN
SCALE: 1/16" = 1'-0"

GENERAL NOTES (THIS SHEET)

- SEE SHEET E0.0 FOR LEGEND AND ADDITIONAL GENERAL NOTES.
- MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT REQUIRING ELECTRICAL CONNECTION. THIS SHALL INCLUDE BUT NOT BE LIMITED TO ALL MECHANICAL AND OTHER EQUIPMENT INCLUDED IN THIS PROJECT. DEVICES AND EQUIPMENT SHOWN IN THIN LIGHT LINEWEIGHT AND/OR LABELED WITH ND (E) ARE EXISTING TO REMAIN. DEVICES AND EQUIPMENT SHOWN IN THICK BOLD LINEWEIGHT ARE NEW.
- PROVIDE FUSES SIZED PER EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- DISCONNECT SWITCH LOCATIONS ARE SHOWN DIAGRAMMATICALLY AND SHALL BE INSTALLED IN ACCESSIBLE LOCATION TO SUIT EQUIPMENT AND SPACE. DISCONNECT SWITCHES SHALL BE WITHIN SIGHT OF THE EQUIPMENT THEY SERVE AND MOUNTED AT 6'-3" MAXIMUM, TO TOP OF CABINET. MAINTAIN NEC WORK SPACE AND REQUIREMENTS.
- RECEPTACLES INDICATED TO BE MOUNTED ABOVE COUNTER ARE TO BE MOUNTED HORIZONTALLY 6" ABOVE COUNTER. COORDINATE MOUNTING HEIGHTS WITH ARCHITECT WHERE ABOVE COUNTER RECEPTACLES ARE LOCATED BELOW WINDOWS.
- COORDINATE AND VERIFY EXACT MOUNTING LOCATIONS OF WALL AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS, AND ANY FURNITURE OR SPECIALTY EQUIPMENT SUPPLIER DRAWINGS PRIOR TO ROUGH-IN.
- COORDINATE EXACT REQUIREMENTS AND LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- CONTRACTOR RESPONSIBLE FOR CONNECTION OF OWNER SUPPLIED EQUIPMENT MADE TO BE OPERATIONAL.
- COORDINATE ALL DEVICES SHOWN WITHIN CASEWORK WITH CASEWORK MANUFACTURER. RUN CONDUIT WITHIN CASEWORK AS NECESSARY.
- REFER TO TELECOM DRAWINGS AND SPECIFICATIONS FOR LOW-VOLTAGE SYSTEMS INFRASTRUCTURE REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUITS AND BACKBOXES REQUIRED FOR LOW-VOLTAGE SYSTEMS.
- ALL GENERAL PURPOSE RECEPTACLES IN SHOP AREAS SHALL BE GFCI AND MOUNTED AT +42" AFF.
- LOW VOLTAGE, POWER, AND LIGHTING CONDUIT WHERE STRUCTURE IS EXPOSED SHALL BE RUN ABOVE THE METAL DECK.
- ALL RECEPTACLES WITHIN 6' OF A SINK SHALL BE GFCI.
- GFCI PROTECTION IS INDICATED AS REQUIRED. GFCI TRIP SWITCH SHALL BE IN ACCESSIBLE LOCATION, EITHER AT ACCESSIBLE RECEPTACLE, A REMOTE-MOUNTED GFCI SWITCH, OR AT CIRCUIT BREAKER.

KEY NOTES (X) (THIS SHEET)

- EXISTING PANEL LEC IS LOCATED IN MECHANICAL ROOM ACCESSIBLE FROM PARKING GARAGE.
- PROVIDE 480V, 1 ϕ , 50A CONNECTION TO ELECTRIC SNOW MELT CABLE TO BE INSTALLED UNDER PAVERS IN THIS LOCATION. COORDINATE EXACT CONTROLS, ELECTRICAL REQUIREMENTS, AND LOCATION WITH CABLE PROVIDER PRIOR TO ROUGH-IN. CONNECT WITH 2 #6, 1 #10 GND IN 3/4" CONDUIT. CIRCUIT AS INDICATED. PROVIDE WITH LOCKABLE OPEN CIRCUIT BREAKER AS DISCONNECTING MEANS.
- PROVIDE 208V, 1 ϕ , 30A CONNECTION TO ELECTRIC ICE MELT CABLE TO BE INSTALLED ON ROOF AND IN GUTTERS IN THIS LOCATION. COORDINATE EXACT CONTROLS, ELECTRICAL REQUIREMENTS, AND LOCATION WITH CABLE PROVIDER PRIOR TO ROUGH-IN. CONNECT WITH 2 #10, 1 #10 GND IN 3/4" CONDUIT. CIRCUIT AS INDICATED. PROVIDE WITH LOCKABLE OPEN CIRCUIT BREAKER AS DISCONNECTING MEANS.
- PROVIDE 120V CONNECTION AS NECESSARY FOR CONTROLS POWER. CIRCUIT AS INDICATED. COORDINATE FINAL CONNECTION AND MOUNTING LOCATION WITH ICE MELT SYSTEM PROVIDE PRIOR TO ROUGH-IN.

ENGINEER

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Reviewed for
Code Compliance
06/10/2023

GONDOLA SQUARE - BUILDING D SNOWMELT

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, CO 80487

DATE: 2023-05-03

PROJECT: 22.048

RELEASE:

CDs 2023-05-03

POWER PLANS

E100