ELECTRICAL LEGEND

SERVICE ENTRANCE

- M — UTILITY METER, MH = 5'-0" TO TOP
- MT — TELEPHONE TERMINAL, MH = 4'-6" TO CENTER
- PAD MOUNTED TRANSFORMER
- MDC — MAIN DISTRIBUTION CENTER

EQUIPMENT

- 30 — CONTACTOR, 30 = AMPERE RATING, MH = 4'-6" TO TOP
- MAGNETIC MOTOR STARTER, MH = 4'-6" TO TOP
- F — FUSED DISCONNECT, MH = 4'-6" TO TOP
- U — UNFUSED DISCONNECT, MH = 4'-6" TO TOP
- ENCLOSED CIRCUIT BREAKER
- M — MOTOR
- L1A — PANELBOARD, L1A = DESIGNATION, 5'-9" TO TOP
- PC — PHOTOCELL
- TC — TIME CLOCK, MH = 4'-6" TO TOP
- CM — COMBINATION MOTOR STARTER, MH = 4'-6" TO TOP
- T — THERMOSTAT, MH = 4'-6" TO CENTER
- H — HUMIDISTAT, MH = 4'-6" TO CENTER

ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BC	BELOW CEILING
BKR	BREAKER
C	CEILING
DC	DEDICATED CIRCUIT
DD	DUSK TO DAWN
DTO	DUSK TO TIMED OFF
EM	SWITCHED EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EN	NON-SWITCHED EMERGENCY
EX	EXISTING
G	GROUND FAULT CURRENT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
GRD	GROUND
IG	ISOLATED GROUND
J	JUNCTION BOX
K	KEY OPERATED SWITCH
L	SWITCH WITH PILOT LIGHT
LA	LIGHTING ARRESTOR
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
O	OCCUPANCY SENSING SWITCH
PVC	POLYVINYL CHLORIDE
R	MOTOR RATED SWITCH
W	WEATHERPROOF
WG	WEATHERPROOF/GFIC

GENERAL SYMBOLS

- AC 1 — EQUIPMENT, AC-1 = DESIGNATION - SEE SCHEDULE
- 1 — FLAG NOTE
- 1 — REVISION
- 12 — ROOM NUMBER
- A / E1 — SECTION MARK, A = SECTION DESIGNATION, E1 = REFERENCE DRAWING

OUTLETS MH = 1'-6" TO CENTER

- 8 — DUPLEX RECEPTACLE, 8 = CIRCUIT NUMBER (TYPICAL), SEE DEVICE SCHEDULE FOR SPECIFICATION
- FOURPLEX RECEPTACLE
- SPECIAL - SEE DEVICE SCHEDULE
- a — SPLIT WIRED RECEPTACLE, a = SWITCH DESIGNATION
- J — JUNCTION BOX - CEILING OR FLOOR
- J — JUNCTION BOX - WALL
- TNC — MULTI-PORT SIGNAL, 2T - TWO TELEPHONE PORTS, 3N - THREE NETWORK PORTS, 4C - FOUR COAXIAL CABLE PORTS
- C — CEILING RECEPTACLE
- SINGLE RECEPTACLE

CONDUIT

- P1-7 — CONCEALED ABOVE GRADE, P1-7 = PANEL & CIRCUIT, HACHURES = # OF WIRES
- UNDER FLOOR/UNDERGROUND
- UNDERGROUND DUCTBANK
- FLEX
- P1-7 — HOME RUN, P1-7 = PANEL & CIRCUIT, HACHURES = # OF WIRES
- TURNING UP
- TURNING DOWN
- BUSHED OR CAPPED CONDUIT
- SR — SURFACE RACEWAY

LIGHTING FIXTURES

- b / 1 — FLUORESCENT - LENSED, 1 = CIRCUIT DESIGNATION, b = SWITCH DESIGNATION, HALF SHADED = EMERGENCY
- FLUORESCENT - OPEN
- CEILING MOUNTED WALLWASHER
- CEILING MOUNTED DOWNLIGHT
- WALL BRACKET, MH - SEE PLANS
- POLE MOUNTED - SINGLE
- POLE MOUNTED - DOUBLE

SWITCHES MH = 3'-10" TO CENTER

- $ b — SINGLE POLE SWITCH, b = SWITCH DESIGNATION, SEE DEVICE SCHEDULE FOR SPECIFICATION
- TWO POLE SWITCH
- THREE WAY SWITCH
- FOUR WAY SWITCH
- DIMMER SWITCH
- SINGLE PUSHBUTTON STATION
- SINGLE PUSHBUTTON STATION
- OCCUPANCY SWITCH - CEILING
- OCCUPANCY SWITCH - WALL

FIRE ALARM SYSTEM

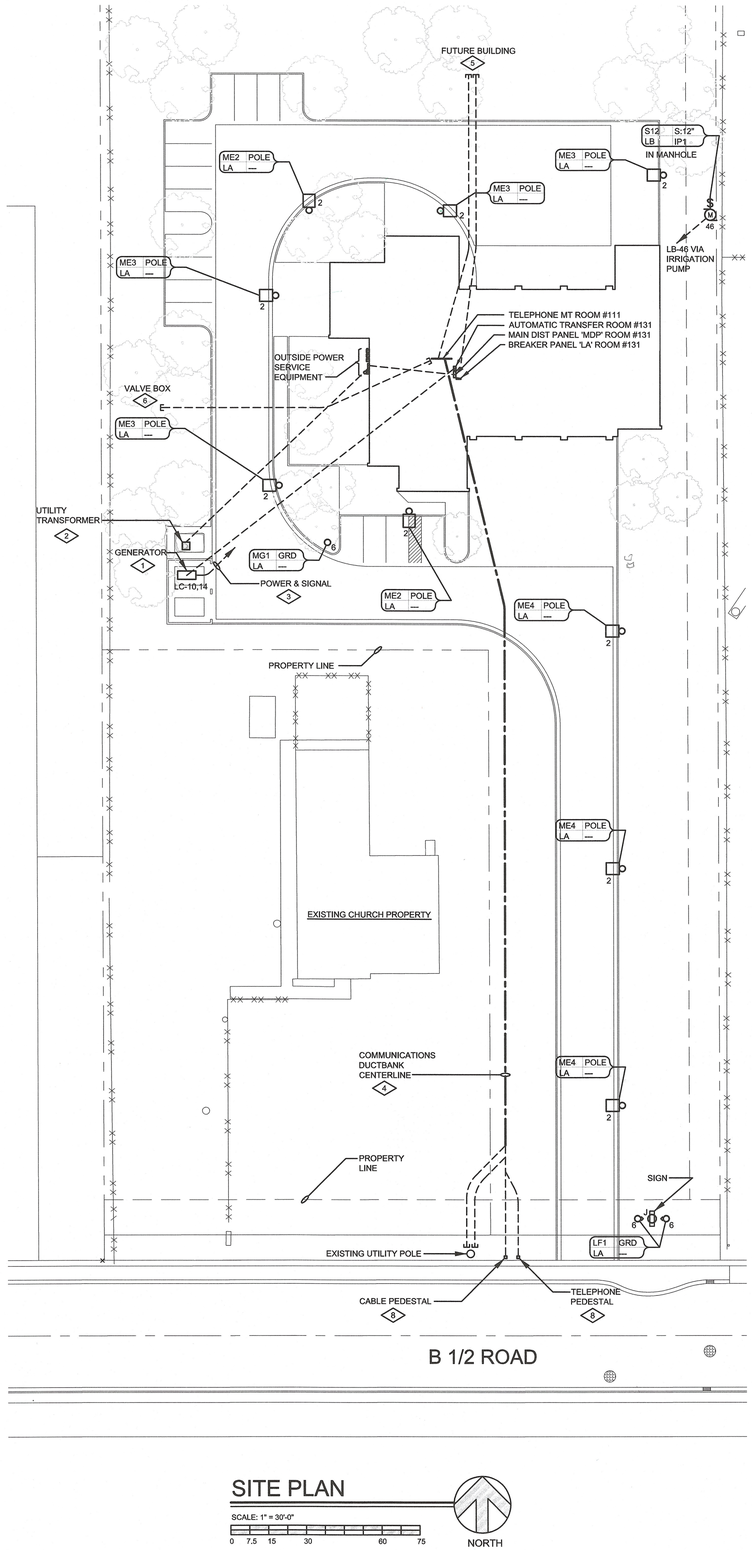
- FM — MASTER PANEL, MH = 5'-6" TO TOP
- FA — ANNUNCIATOR PANEL, MH = 5'-6" TO TOP
- 60 — HORN/STROBE COMBINATION, MH = 7'-6" TO CENTER, 60 = CP (15 CP IS DEFAULT)
- 60 — STROBE, MH = 7'-6" TO CENTER, 60 = CP (15 CP IS DEFAULT)
- F — PULL STATION, MH = 3'-10" TO CENTER
- I — IONIZATION SMOKE DETECTOR
- P — PHOTOELECTRIC SMOKE DETECTOR
- 135 °F — THERMAL DETECTOR - 135 DEGREES
- 200 °F — THERMAL DETECTOR - 200 DEGREES
- R — REMOTE RED INDICATOR LIGHT, MH = WALL 7'-6" TO CENTER OR CEILING
- DUCT SMOKE DETECTOR
- AN — ANSUL EQUIPMENT
- DH — MAGNETIC DOOR HOLDER
- DC — DOOR CLOSER
- SPRINKLER SYSTEM FLOW SWITCH
- SPRINKLER VALVE TAMPER SWITCH
- F/S — FIRE/SMOKE DAMPER

LIGHTNING PROTECTION/GROUNDING SYSTEM

- EXOTHERMIC CONNECTION
- GROUND ROD
- AIR TERMINAL
- MASTER GROUND BAR
- CONCRETE ENCASED RE-RAR GROUND (UFER)
- EXPOSED COPPER GROUND
- UNDERGROUND COPPER GROUND

ONE LINE DIAGRAM

- 2-2"PVC, 3 #4/0 THW - AL, 1 #4 GRD THW - CU — FEEDER, CONDUIT #, SIZE & MATERIAL, NUMBER & SIZE OF Ø & N, INSULATION & CONDUCTOR, GROUND SIZE (IF USED), INSULATION & CONDUCTOR
- M — METER
- LP1 — PANELBOARD - SEE SCHEDULE, LP1 = DESIGNATION
- CURRENT TRANSFORMER
- 60/3, 12, 50 KTNR — FUSED SWITCH, 60 AMP 3 POLE FRAME, DEVICE # 12, 50 AMP KTNR FUSE
- 60/3, 12 — UNFUSED SWITCH, 60 AMPS 3 POLE, DEVICE # 12
- 60/3, 12 — CIRCUIT BREAKER, 60 AMPS 3 POLE, DEVICE # 12
- G — GENERATOR
- 30/2 — AUTOMATIC TRANSFER SWITCH, 30/2 = AMPERE RATING/POLES

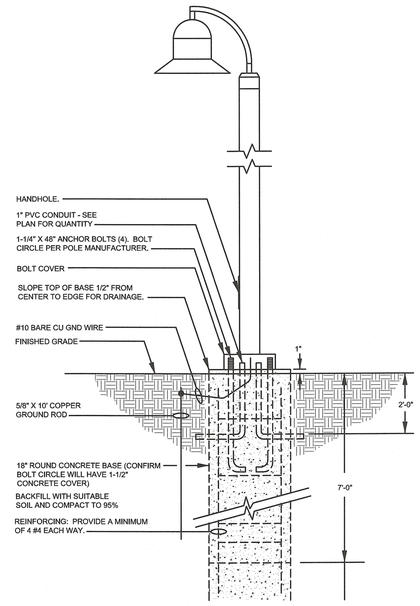


SITE PLAN

SCALE: 1" = 30'-0"

0 7.5 15 30 60 75

NORTH



BASE "ME2", "ME3" & "ME4"

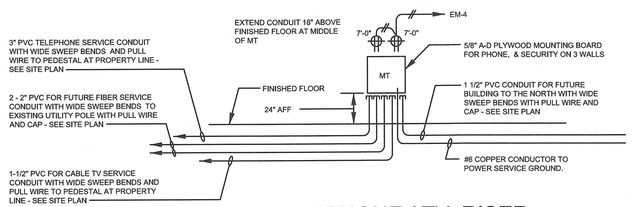
NO SCALE

GENERAL SITE NOTES:

1. PROVIDE A SEPARATE GREEN INSULATED GROUND WIRE SIZED PER NATIONAL ELECTRICAL CODE TABLE 250.122 IN ALL BRANCH CIRCUIT AND FEEDER RACEWAYS CONTAINING POWER CONDUCTORS. GROUND WIRE IS NOT INCLUDED IN HACHURE COUNT ON DRAWINGS.
2. ALL RACEWAYS INSTALLED UNDERGROUND, OR UNDER THE BUILDING SHALL BE NO SMALLER THAN 3/4". ALL CONDUCTORS INSTALLED UNDERGROUND OR UNDER THE BUILDING SHALL BE NO SMALLER THAN #12.
3. WHERE 208 VOLT BRANCH CIRCUITS EXCEED 75', INCREASE WIRE SIZE TO #10, AND INCREASE RACEWAY SIZE TO 1".
4. UNDERGROUND CONDUITS SHALL BE RUN IN A COMMON TRENCH AS MUCH AS POSSIBLE. POWER AND SIGNAL CONDUITS SHALL BE SEPARATED A MINIMUM OR 12". MAJOR CONDUIT RUNS ARE SHOWN ON THIS PLAN. SEE BUILDING PLANS FOR ADDITIONAL SITE BRANCH CIRCUITS.
5. ALL CONDUITS SHALL BE BURIED A MINIMUM OF 36" BELOW FINISHED GRADE. BED CONDUITS 6" BELOW AND 6" ABOVE IN LOCAL MATERIAL WITH NO ROCKS LARGER THAN 1" IN DIAMETER, OR IMPORT SAND IF ACCEPTABLE LOCAL MATERIAL IS UNAVAILABLE. PLACE WARNING TAPE 1'-0" ABOVE ALL BURIED CONDUITS. SEE L-LINE DIAGRAM FOR FEEDER CONDUIT SIZES. SEE SIGNAL RISERS FOR COMMUNICATION CONDUIT SIZES.
6. SEE SPECIFICATIONS FOR ADDITIONAL CONSTRAINTS ON POWER AND COMMUNICATIONS SERVICES, AND OUTSIDE BRANCH CIRCUITS AND FEEDERS.

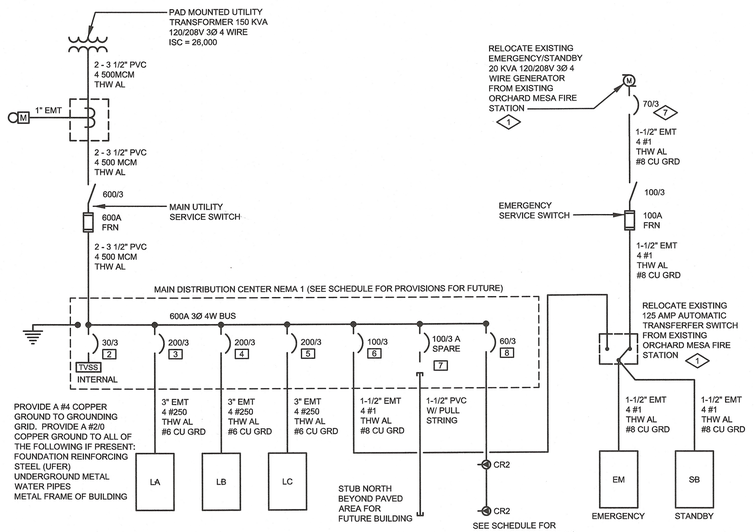
NOTES REFERENCED ON THE PLANS:

1. RELOCATE EXISTING GENERATOR AND AUTOMATIC TRANSFER SWITCH FROM OLD ORCHARD MESA FIRE STATION. RECONNECT GENERATOR FOR 3Ø OUTPUT. ADD THIRD POLE TO AUTOMATIC TRANSFER SWITCH. ORIENT GENERATOR SO THAT AIR DISCHARGE FACES THE OPEN OF THE ENCLOSURE. LOCATE CONDUIT STUB UPS PER EXISTING GENERATOR.
2. ORIENT UTILITY TRANSFORMER SO THAT THE TERMINAL COMPARTMENT HAS A MINIMUM OF 8' CLEARANCE FOR HOT STICK OPERATIONS. LOCATE CONDUIT STUB UPS PER UTILITY COMPANY REQUIREMENTS.
3. PROVIDE 3/4" PVC TO GENERATOR EMERGENCY STOP. PROVIDE 3/4" PVC TO PANEL 'LC' FOR GENERATOR BATTERY CHARGER AND BLOCK HEATER. PROVIDE 3/4" PVC TO THE AUTOMATIC TRANSFER SWITCHES FOR THE GENERATOR START SIGNAL.
4. PROVIDE 3" TELEPHONE CONDUIT, 1-1/2" CABLE SERVICE CONDUIT AND (2)-2" CONDUITS FOR FUTURE FIBER OPTIC CABLES.
5. STUB 1 1/2" PVC POWER AND SIGNAL CONDUITS NORTH OF THE BUILDING FOR FUTURE STORAGE BUILDING.
6. STUB 1-1/2" CONDUIT FROM SPRINKLER CONTROLLER IN IT ROOM TO VALVE BOX OUTSIDE THE BUILDING. COORDINATE LOCATION OF VALVE BOX WITH SPRINKLER SYSTEM INSTALLER.
7. REPLACE 90 AMP 2 POLE GENERATOR OUTPUT BREAKER WITH 70 AMP 3 POLE.
8. CONFIRM PEDESTAL LOCATIONS WITH UTILITY COMPANIES PRIOR TO RUNNING CONDUIT.



TELEPHONE / TV RISER

NO SCALE



ONE LINE DIAGRAM

NO SCALE

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ORCHARD MESA FIRE STATION #4

GRAND JUNCTION, COLORADO

LEGEND, SITE PLAN, ONE LINE & DETAILS

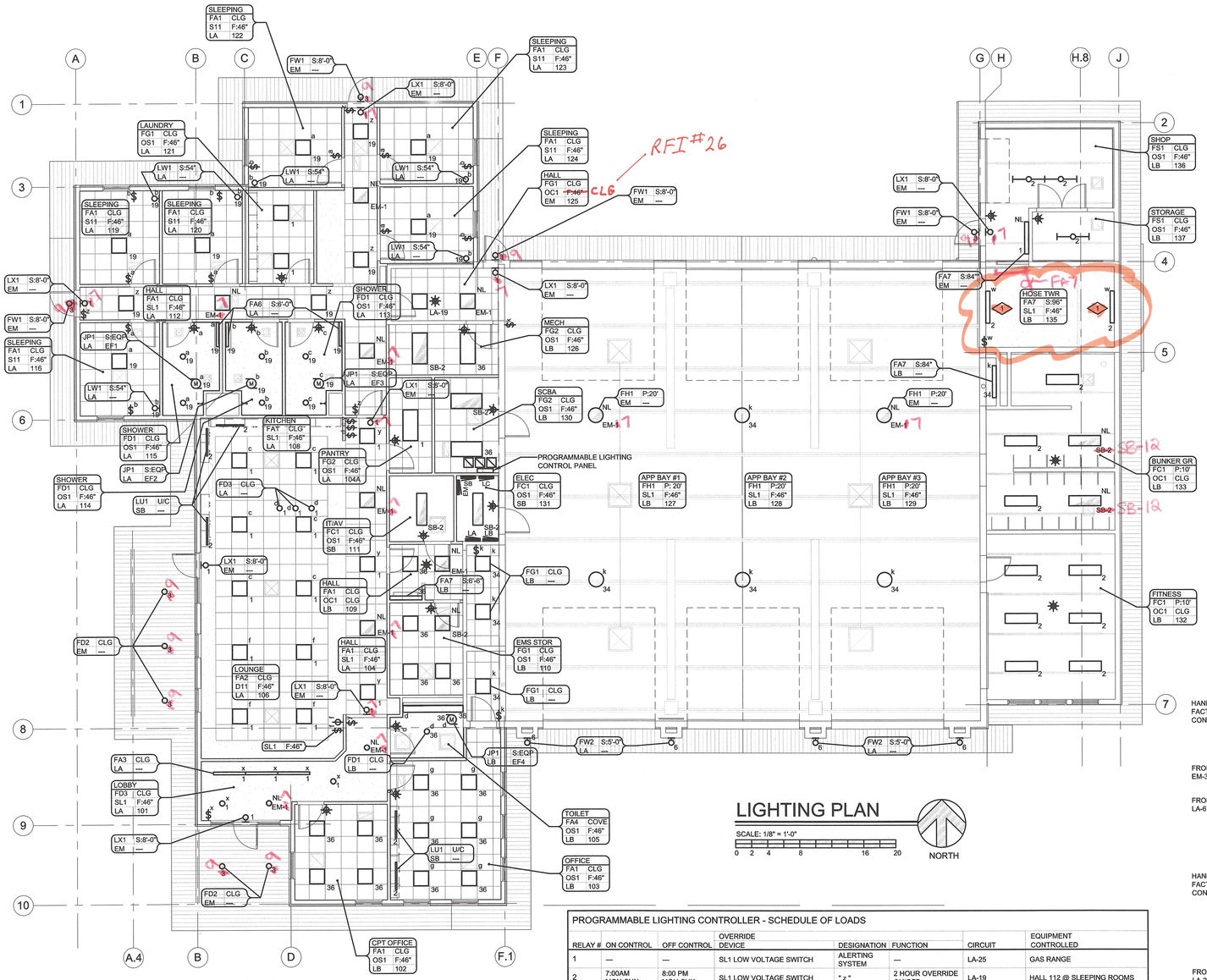
NO:	ISSUED FOR:	DATE:

PROJECT STATUS: 100% CD

DRAWN BY: KLT CHECKED BY: WLM

DATE: 04/10/2015 SHEET NO: E101

PROJECT NO: 1443/140330



LIGHTING PLAN

SCALE: 1/8" = 1'-0"

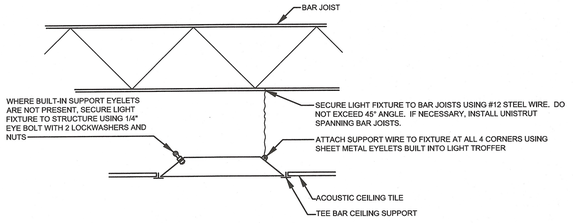
0 2 4 8 16 20

NORTH

PROGRAMMABLE LIGHTING CONTROLLER - SCHEDULE OF LOADS

RELAY #	ON CONTROL	OFF CONTROL	OVERRIDE DEVICE	DESIGNATION	FUNCTION	CIRCUIT	EQUIPMENT CONTROLLED
1	---	---	SL1 LOW VOLTAGE SWITCH	ALERTING SYSTEM	---	LA-25	GAS RANGE
2	7:00AM MON-SUN	8:00 PM MON-SUN	SL1 LOW VOLTAGE SWITCH	" z "	2 HOUR OVERRIDE ON/OFF	LA-19	HALL 112 @ SLEEPING ROOMS
3	7:00AM MON-SUN	10:00 PM MON-SUN	SL1 LOW VOLTAGE SWITCH	" y "	2 HOUR OVERRIDE ON/OFF	LA-1	HALL 104 @ KITCHEN & DINING
4	7:00AM MON-SUN	6:00 PM MON-SUN	SL1 LOW VOLTAGE SWITCH	" x "	2 HOUR OVERRIDE ON/OFF	LA-1	LOBBY
5	7:00AM MON-SUN	8:00 PM MON-SUN	SL1 LOW VOLTAGE SWITCH	" k "	2 HOUR OVERRIDE ON/OFF	EM-1	APPARATUS BAY LIGHTING
6	---	6:00 PM MON-SUN	---	" w "	2 HOUR OVERRIDE ON/OFF	LB-2	HOSE TOWER LIGHTS
7	DUSK	DAWN	---	---	---	LA-6	EXTERIOR LIGHTING DUSK TO DAWN (BUILDING)
8	DUSK 6:00 AM	10:00 PM MON-SUN	---	---	---	LA-2	PARKING LOT LIGHTING DUSK TO TIMED OFF
9	DOOR OPENS ON ALARM	---	ALERTING SYSTEM	---	---	SB-1	APPATATUS BAY DOOR
10	DOOR OPENS ON ALARM	---	ALERTING SYSTEM	---	---	SB-3	APPATATUS BAY DOOR
11	DOOR OPENS ON ALARM	---	ALERTING SYSTEM	---	---	SB-5	APPATATUS BAY DOOR
12	DUSK	10:00 PM	ALERTING SYSTEM	---	---	LA-2	ENTRY DRIVE TYPE 'ME4' LIGHTS
13	---	10:00 PM MON-SUN	SL1 LOW VOLTAGE SWITCH	" c "	ON/OFF	LA-1	KITCHEN LIGHTS
14	---	10:00 PM MON-SUN	SL1 LOW VOLTAGE SWITCH	" d "	ON/OFF	LA-1	KITCHEN LIGHTS
15	---	12:00 PM MON-SUN	SL1 LOW VOLTAGE SWITCH	" f "	ON/OFF	LA-1	LOUNGE
16	SPARE	---	---	---	---	---	---

CONFIRM SCHEDULE WITH OWNER BEFORE PROGRAMMING CONTROLLER



SEISMIC SUPPORT OF LIGHT TROFFERS

NO SCALE

GENERAL LIGHTING NOTES:

1 PROVIDE A SEPARATE GREEN INSULATED GROUND WIRE SIZED PER NATIONAL ELECTRICAL CODE TABLE 250.122 IN ALL BRANCH CIRCUIT AND FEEDER RACEWAYS CONTAINING POWER CONDUCTORS. GROUND WIRE IS NOT INCLUDED IN HACHURE COUNT ON DRAWINGS.

2 REVIEW ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO INSTALLATION OF LIGHT FIXTURES. CALL ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER.

3 FIXTURE MOUNTING HEIGHTS SHOWN ON THE PLANS TAKE PRECEDENCE OVER DEFAULT MOUNTING HEIGHTS SHOWN IN THE LEGEND.

4 ALL LIGHT SWITCHES ARE TO BE INSTALLED FLUSH UNLESS OTHERWISE INDICATED.

5 THE MOUNTING HEIGHT OF WALL MOUNTED LIGHTING FIXTURES IS THE DISTANCE FROM THE FINISHED FLOOR TO THE BOTTOM OF THE LIGHTING FIXTURE DIFFUSER OR REFLECTOR. DETERMINE THE BOX HEIGHT FROM THE LIGHTING FIXTURE MOUNTING HEIGHT AND THE LIGHTING FIXTURE DIMENSIONS.

6 THE MOUNTING HEIGHT OF CORD, CHAIN, PENDANT, OR AIRCRAFT CABLE SUPPORTED LIGHTING FIXTURES IS THE DISTANCE FROM THE FINISHED FLOOR TO THE BOTTOM OF THE LIGHTING FIXTURE DIFFUSER OR REFLECTOR. DETERMINE CORD, CHAIN, PENDANT, OR AIRCRAFT CABLE LENGTH FROM THE LIGHTING FIXTURE MOUNTING HEIGHT, LIGHTING FIXTURE DIMENSIONS, AND THE CEILING HEIGHT.

7 THE FOLLOWING MAIN KEY DEFINES LIGHTING FIXTURES IN THE ROOM LISTED. ALL FIXTURES IN THIS SPACE ARE TO COMPLY WITH THIS MAIN KEY UNLESS OVERRIDDEN BY A TAG.

ROOM NAME
FIXTURE DESIGNATION - SEE LIGHTING FIXTURE SCHEDULE
PANEL DESIGNATION
OFFICE FG1 CLG PP1 1000
LIGHT FIXTURE MOUNTING FLUSH OR SURFACE: HEIGHT
ROOM NUMBER

8 THE FOLLOWING TAG DEFINES LIGHTING FIXTURES WHICH ARE DIFFERENT FROM THOSE DEFINED IN THE MAIN KEY. THIS TAG OVERRIDES THE MAIN KEY FOR THE LIGHTING FIXTURE INDICATED AND SIMILARLY SHAPED LIGHTING FIXTURES IN THIS SPACE.

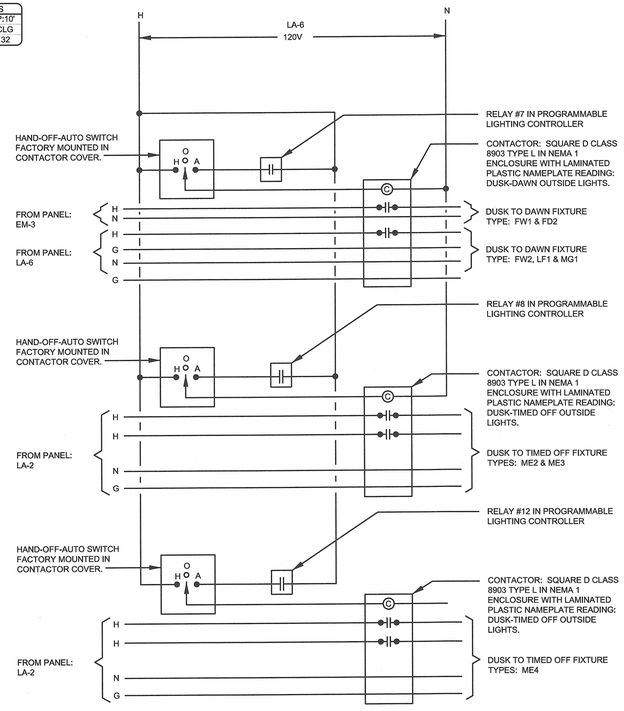
FIXTURE DESIGNATION - SEE SCHEDULE
PANEL DESIGNATION
FG1 F:46" PP1 7
FIXTURE MOUNTING FLUSH OR SURFACE: HEIGHT
TYPICAL NUMBER OF THIS TYPE OF LIGHTING FIXTURE

9 SEE SPECIFICATIONS FOR ADDITIONAL CONSTRAINTS ON THE INSTALLATION OF THE LIGHTING SYSTEM.

NOTES REFERENCED ON THE PLANS:

1 PROVIDE ONE TYPE "FA7" FIXTURE AT EACH STAIR LANDING. MOUNT FIXTURES 8'-0" ABOVE STAIR LANDING.

SEE RFI #24



EXTERIOR LIGHTING CONTROL

NO SCALE

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ORCHARD MESA FIRE STATION #4

GRAND JUNCTION, COLORADO

LIGHTING PLAN

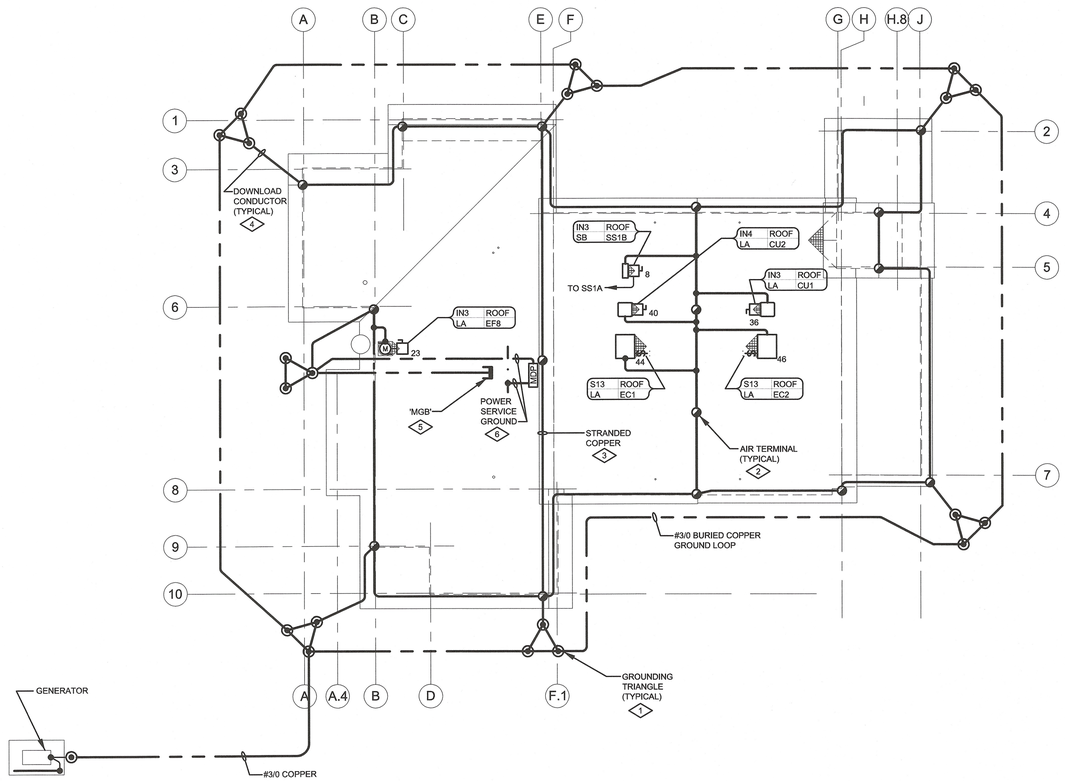
NO:	ISSUED FOR:	DATE:

PROJECT STATUS: 100% CD

DRAWN BY: KLT CHECKED BY: WLM

DATE: 04/10/2015 SHEET NO:

PROJECT NO: 1443/140330 **E201**



LIGHTNING PROTECTION / ROOF PLAN

SCALE: 1/16" = 1'-0"

0 4 8 16 32 40

NORTH

LIGHTNING PROTECTION NOTES:

1 PROVIDE LIGHTNING PROTECTION AND GROUNDING PER NFPA 780, AND IN ACCORDANCE WITH THESE SPECIFICATIONS AND PER MOTOROLA R56- STANDARDS AND GUIDELINES FOR COMMUNICATIONS SITES. WORK SHALL BE SUBCONTRACTED TO A NATIONAL LIGHTNING PROTECTION DESIGN BUILD VENDOR.

2 GROUND RODS TO BE DRIVEN BY HAND SLEDGING, SLIDE HAMMER, OR POWER DRIVER TO THE RING WIRE DEPTH, UTILIZING A GROUND ROD DRIVIND SHIELD TO PREVENT MUSHROOMING OF THE TOPS OF THE RODS.

3 WHERE GROUND RODS CANNOT BE DRIVEN VERTICALLY, DRIVE PARALLEL TO OR AWAY FROM EXTERIOR WALL, ANGLE SHALL NOT EXCEED 45°.

4 GROUND RODS ARE TO BE DRIVEN IN UNDISTURBED OR THROUGHLY COMPACTED FILL AREAS.

5 DO NOT DRIVE OR LAY RODS IN GRAVEL BEDS WHICH ARE USED FOR DRAINAGE, UNLESS THE RODS EXTEND THROUGH SUCH BEDS FAR ENOUGH TO PROVIDE AT LEAST 8'-0" OF CONTACT WITH THE UNDISTURBED EARTH UNDERNEATH.

6 BEFORE BACK FILLING THE GROUNDING ELECTRODE SYSTEM, AN ELECTRICAL CONTINUITY CHECK SHALL BE MADE AT THIS TIME TO ENSURE THAT ALL CONNECTIONS ARE INTACT. A WRITTEN RECORD OF THIS CHECK, WITH PHOTOS, SHALL BE PLACED IN THE OFFICE RECORDS FOR FUTURE REFERENCE.

7 AFTER BACK FILLING AND COMPACTING, AN EARTH RESISTIVITY MEASUREMENT SHALL BE MADE ON THE EXTERIOR GROUND RING SYSTEM PRIOR TO CONNECTION TO THE BUILDING GROUND SYSTEM. THE READING SHALL BE 5 OHMS OR LESS AND BE INCLUDED IN THE OFFICE RECORDS FOR FUTURE REFERENCE.

8 ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 1" PVC CONDUIT. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTOR SLEEVES.

9 ALL REINFORCING STEEL AND ALL OTHER EMBEDDED METALLIC ITEMS SHALL BE GROUNDED PER THE NEC AND ALL LOCAL ELECTRICAL CODES.

10 WHERE MECHANICAL CONNECTORS (TWO HOLE OR CLAMP) ARE USED, APPLY A LIBERAL PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO OXIDE A" BY DEARBORN CHEMICAL COMPANY ON ALL CONNECTORS. PROVIDE LOCK WASHERS ON ALL MECHANICAL CONNECTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT. THOROUGHLY REMOVE ALL PAINT AND CLEAN ALL DIRT FROM SURFACES REQUIRING GROUND CONNECTIONS, REPAINT TO MATCH EXISTING AFTER CONNECTION IS MADE TO MAINTAIN CORROSION RESISTANCE. ALL GROUND CONNECTIONS SHALL BE APPROVED FOR THE TYPES OF METALS BEING ATTACHED TO.

11 FRUNISH AND INSTALL ALL MATERIALS AND LABOR REQUIRED TO PROVIDE A COMPLETE FUNCTIONAL LIGHTNING PROTECTION AND COMMON GROUND SYSTEM FOR THE BUILDING AS SHOWN AND DETAILED ON THE PLANS.

12 ALL MATERIALS FOR THIS SYSTEM SHALL BE NEW AND THE STANDARD PRODUCT OF A MANUFACTURER REGULARLY ENGAGED IN THE PRODUCTION OF LIGHTNING PROTECTION SYSTEMS AND SHALL BE OF THE LATEST APPROVED DESIGNS. EQUIPMENT SHALL BE UL LISTED.

13 SYSTEM MATERIALS IN GERNERAL SHALL BE COPPER AND HIGH COPPER-CONTENT BRONZE CASTINGS, AND SHALL COMPLY IN WEIGHT, SIZE, AND COMPOSITION FOR THE CLASS OF STRUCTURE TO BE PROTECTED. THE SYSTEM SHALL CONSIST OF ALL NECESSARY CABLES, AIR TERMINALS, MOUNTING BASES, FITTINGS, COUPLINGS, CONNECTORS, FASTENERS, ETC., AS REQUIRED TO GIVE A COMPLETE AND COORDINATED SYSTEM. ALL CABLE AND ALL AIR TERMINALS SHALL BEAR PROPER UL LABELS.

14 ALL SYSTEM FITTINGS EXCEPT CABLE HOLDERS, REGARDLESS OF STRUCTURE CLASSIFICATION SHALL BE HEAVE-DUTY TYPE MADE FROM BRONZE CASTINGS AND SECURED WITH BOLTED-PRESSURE CLAMPS. PRESSURE PLATES MADE FROM STAMPED OR PRESSED METAL PARTS, OR FITTINGS UTILIZING CRIMP-TYPE PRESSURE DEVICES WILL NOT BE ALLOWED. ALL BOLTS, SCREWS AND RELATED TYPE HARDWARE SHALL BE 300 SERIES STAINLESS STEEL. ALL CABLE TO CABLE, CABLE TO LUG, CABLE TO GROUND ROD, AND CABLE TO STRUCTURAL STEEL CONNECTIONS SHALL BE EXOTHERMICALLY WELDED OR ACCEPTED EQUIVALENT. CONTRACTOR SHALL NOTIFY ENGINEER WHERE CONNECTIONS CANNOT BE USED.

15 A COMMON GROUND SHALL BE PROVIDED BETWEEN THE LIGHTNING PROTECTION SYSTEM AND THE BUILDING ELECTRIC AND TELEPHONE SERVICE GROUNDS. IN ADDITION, ALL UNDERGROUND METALLIC PIPING SYSTEMS SHALL BE BONDED WITH FULL SIZE CONDUCTOR; INCLUDING WATER, GAS, SEWER, AND ANY OTHER PIPING SYSTEM, AT POINTS WHERE THESE PIPINGS ENTER THE BUILDING. BONDING OF UTILITY PIPING SYSTEMS IS SUBJECT TO THEIR COOPERATION AND APPROVAL.

16 BONDING OF ALL METALLIC OBJECTS AND SYSTEMS AT ROOF LEVELS AND ELSEWHERE ON THE STRUCTURE SHALL BE COMPLETE. PRIMARY BONDS FOR METAL BODIES OF CONDUCTANCE SHALL BE BONDED WITH APPROPRIATE FITTINGS AND FULL-SIZE CONDUCTOR; AND SHALL CONSIST OF, BUT NOT BE LIMITED TO, THE FOLLOWING: ROOF EXHAUST FAN, ETC. EXTERIOR ARCHITECTURAL METAL ASCIA AND/OR CURTAIN WALLS OR MULLIONS, WHICH EXTEND THE FULL HEIGHT OF THE STURCTURE SHALL ALSO BE BONDED, IF NOT INHERENTLY BONDED THROUGH THE BUILDING FRAME.

NOTES REFERENCED ON THE PLANS:

1 PROVIDE 5/8" X 10'-0" COPPER CLAD GROUND RODS AT LOCATIONS SHOWN. INSTALL GROUND RODS IN A TRIANGULAR CONFIGURATION 8'-0" ON A SIDE.

2 PROVIDE AIR TERMINAL ON ROOF AS INDICATED. AIR TERMINALS SHALL BE SOLID, 5/8" DIAMETER ROUND COPPER BAR, FULL NICKEL PLATED, AND OF SUFFICIENT LENGTH TO PROJECT 10" MINIMUM ABOVE THE OBJECT TO BE PROTECTED, AND UL LABELED. SPACING SHALL NOT EXCEED 20'-0" BETWEEN TERMINALS ALONG PEAKS. PROVIDE MASTIC COMPATIBLE WITH ROOF AND ALL NECESSARY HARDWARE TO SECURELY MOUNT AIR TERMINALS IN A PERMANENT AND RIGID MANNER. COORDINATE WITH ROOF INSTALLER FOR PROVIDING AN ADDITIONAL 12" X 12" PIECE OF ROOF MEMBRANE AT EACH TERMINAL LOCATION. DO NOT PENETRATE ROOF MEMBRANE.

3 PROVIDE IPC#32S STRANDED COPPER , OR APPROVED EQUIVALENT, SIZED BY THE LIGHTNING PROTECTION DESIGN VENDOR FOR INTERCONNECTING CONDUCTORS. ROUTE ALONG ROOF BETWEEN TERMINALS AS INDICATED. SECURE CONDUCTORS TO ROOF WITH APPROVED FASTENERS, SPACED 3'-0" MAXIMUM. COORDINATE WITH ROOF INSTALLER FOR PROVIDING AN ADDTIONAL 6" X 6" PIECE FO MEMBRANE AT EACH ROOF ATTACHMENT LOCATION, DO NOT PENETRATE ROOF MEMBRANE. TYPICAL FOR ALL INTERCONNECTING CONDUCTORS.

4 PROVIDE DOWNLEAD CONDUCTOR TO CONNECT LIGHTNING PROTECTION SYSTEM TO GROUND LOOP. CONCEAL CONDUCTOR IN STRUCTURE, ROUTE CONDUCTOR DOWN CORNERS OF BUILDING IN LOCATIONS SHOWN. COORDINATE DETAILS WITH ARCHITECTURAL AND STRUCTURAL ENGINEER. PROVIDE EXOTHERMIC WELD AT CONNECTION TO BURIED GROUNG ROD.

5 PROVIDE COPPER MASTER GROUND BAR (MGB) IN IT ROOM ON WEST WALL. 'MGB' SHALL BE 2" TALL X 1/4" THICK X 2'-0" LONG COPPER MOUNTED TO THE WALL ON STAND OFFS 24" ABOVE THE FLOOR.

6 BOND POWER SERVICE TO GROUND LOOP USING #2/0 COPPER CONDUCTOR. BOND POWER SERVICE TO REINFORCING STEEL IN FOUNDATION USING #2/0 COPPER CONDUCTOR.

SITE LIGHTING SCHEDULE

LIGHTING FIXTURE			LAMP		BALLAST / DRIVER TYPE 1		BALLAST / DRIVER TYPE 2		
DESIGNATION DESCRIPTION DIMENSIONS	MANUFACTURER CATALOG # FIRST HALF CATALOG # SECOND HALF APPROVED ALTERNATES HOUSING MATERIAL	MOUNTING AIMING DIFFUSER REFLECTOR HOUSING FINISH	QUANTITY - TYPE MANUFACTURER CATALOG NUMBER		QUANTITY - TYPE MANUFACTURER CATALOG NUMBER		QUANTITY - TYPE MANUFACTURER CATALOG NUMBER		DESCRIPTION
			LUMENS	COLOR TEMPERATURE	STARTING METHOD	BALLAST FACTOR	STARTING METHOD	BALLAST FACTOR	
			C. R. I.	LAMP LIFE	MIN START TEMP	HARMONICS	START TEMP	HARMONICS	
LF1 L.E.D: FLOOD LIGHT 3.14" H X 8.8" W X 24.8" L	HUBBELL AFL-12LU-5K-BZ --- LITHONIA, METALUX CAST ALUMINUM	GROUND ADJUSTABLE TEMPERED GLASS --- DARK BRONZE	1 - 22 WATT LED ARRAY SELECTED BY FIXTURE MANUFACTURER SELECTED BY FIXTURE MANUFACTURER		1 - STANDARD LED DRIVER SELECTED BY FIXTURE MANUFACTURER SELECTED BY FIXTURE MANUFACTURER		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		LF1: L.E.D: FLOOD LIGHT 120 V 22 W ENVIRONMENT: -20F TO 120 DEG F & WET.
			1000 L	5100 DEG K	INSTANT	>=1.00	---	---	
			>=82	>=50,000 HOURS	0 DEG F	<=20%	---	---	
ME2 METAL HALIDE: CUT-OFF 22" H X 25" W X 25" L X 25" DIA	KIM 1A RA252 250PMH BL HA12 L-TM1 CAL16-641188 BL-P ANTIQUE ST LIGHT, AAL ALUMINUM	16' POLE CUT-OFF --- HYDORFORMED BLACK	1 - 250 W CLEAR PULSE START G.E. MXR/250/U/MED		1 - H.I.D.: CORE & COIL PULSE START SELECTED BY FIXTURE MANUFACTURER ---		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		ME2: METAL HALIDE: CUT-OFF 208 V 290W W ENVIRONMENT: -20F TO 120 DEG F & WET. PROVIDE STEPPED ALUMINUM 16' POLE AND BRACHET ARM. PROVIDE TYPE II DISTRIBUTION.
			13300 L	3900 DEG K	PULSE	>=80	---	---	
			>=60	>=12,000 HOURS	-20 DEG F	<=20%	---	---	
ME3 METAL HALIDE: CUT OFF 22" H X 25" W X 25" L X 25" DIA	KIM 1A RA254 250PMH BL HA12 L-TM1 CAL16-641188 BL-P ANTIQUE ST LIGHT, AAL ALUMINUM	16' POLE CUT-OFF --- HYDORFORMED BLACK	1 - 250 W CLEAR PULSE START G.E. MXR/250/U/MED		1 - H.I.D.: CORE & COIL PULSE START SELECTED BY FIXTURE MANUFACTURER ---		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		ME3: METAL HALIDE: CUT OFF 208 V 290W W ENVIRONMENT: -20F TO 120 DEG F & WET. PROVIDE 16' STEPPED ALUMINUM 16' POLE AND BRACHET ARM. PROVIDE TYPE IV DISTRIBUTION.
			13300 L	3900 DEG K	PULSE	>=80	---	---	
			>=60	>=12,000 HOURS	-20 DEG F	<=20%	---	---	
ME4 METAL HALIDE: CUT OFF 16.5" H X 17" W X 17" L X 17" DIA	KIM 1A RA172 150PMH BL HA12 S-TM1 CAS16-534188 BL-P ANTIQUE ST LIGHT, AAL ALUMINUM	16' POLE CUT-OFF --- HYDORFORMED BLACK	1 - 150 W CLEAR PULSE START G.E. MXR/150/U/MED		1 - H.I.D.: CORE & COIL PULSE START SELECTED BY FIXTURE MANUFACTURER ---		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		ME4: METAL HALIDE: CUT OFF 208 V 185W W ENVIRONMENT: -20F TO 120 DEG F & WET. PROVIDE 6' STEPPED ALUMINUM 16' POLE AND BRACHET ARM. PROVIDE TYPE II DISTRIBUTION.
			13300 L	3400 DEG K	PULSE	>=80	---	---	
			>=65	>=15,000 HOURS	-20 DEG F	<=20%	---	---	
MG1 METAL HALIDE: FLOODLIGHT 20" H X 12" W X 12" L	HYDREL M9720 SS 150M *** SP FLC 12S GARDCO, SPALDING CAST ALUMINUM	GROUND ADJUSTABLE CLEAR HYDORFORMED NATURAL ALUMINUM	1 - 150W CLEAR PULSE START G.E. MXR/150,/U/MED		1 - H.I.D.: ELECTRONIC PULSE START ADVANCE IZTEMH70EPS-F		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		MG1: METAL HALIDE: FLOODLIGHT 120 V 210 W ENVIRONMENT: -20F TO 120 DEG F & WET. IN GRADE ADJUSTABLE FLOOD LIGHT.
			13300 L	3200 DEG K	PULSE	>=1.00	---	---	
			>=70	>=12,000 HOURS	-20 DEG F	<=20%	---	---	

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GRAND JUNCTION, COLORADO

LIGHTNING PROTECTION / ROOF PLAN

NO:	ISSUED FOR:	DATE:

PROJECT STATUS: 100% CD

DRAWN BY: KLT CHECKED BY: WLM

DATE: 04/10/2015 SHEET NO:

PROJECT NO: 1443/140330 E302

LIGHTING SCHEDULE

LIGHTING FIXTURE			LAMP		BALLAST / DRIVER TYPE 1		BALLAST / DRIVER TYPE 2		
DESIGNATION DESCRIPTION DIMENSIONS	MANUFACTURER CATALOG # FIRST HALF CATALOG # SECOND HALF APPROVED ALTERNATES HOUSING MATERIAL	MOUNTING AIMING DIFFUSER REFLECTOR HOUSING FINISH	QUANTITY - TYPE MANUFACTURER CATALOG NUMBER		QUANTITY - TYPE MANUFACTURER CATALOG NUMBER		QUANTITY - TYPE MANUFACTURER CATALOG NUMBER		DESCRIPTION
			LUMENS	COLOR TEMPERATURE	STARTING METHOD	BALLAST FACTOR	STARTING METHOD	BALLAST FACTOR	
			C. R. I.	LAMP LIFE	MIN START TEMP	HARMONICS	START TEMP	HARMONICS	
FA1 FLUORESCENT: ARCHITECTURAL 4.75" H X 24" W X 2' L	COLUMBIA TRE 22-3 17 G RFA E U --- LITHONIA, METALUX SHEET STEEL	CEILING RECESSED DIRECT/INDIRECT RIBBED FROSTED ACRYLIC --- PAINTED WHITE	3 - 17 WATT 24" T8 LINEAR FLUORESCENT G.E. F17T8/XL/SPX35/ECO		1 - FLUOR: 3 OR 4 LAMP 42 KHz ELECTRONIC ADVANCE REL-4P32-SC		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FA1: FLUORESCENT: ARCHITECTURAL 120 V 44 W ENVIRONMENT: ABOVE 50F & DRY. TROFFER WITH ARCHITECTURAL LENS.
			1350 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FA2 FLUORESCENT: ARCHITECTURAL 4.75" H X 24" W X 2' L	COLUMBIA TRE 22-3 17 G RFA ED U --- LITHONIA, METALUX SHEET STEEL	CEILING RECESSED DIRECT/INDIRECT RIBBED FROSTED ACRYLIC --- PAINTED WHITE	3 - 17 WATT 24" T8 LINEAR FLUORESCENT G.E. F17T8/XL/SPX35/ECO		1 - FLUOR: 3 OR 4 LAMP 42 KHz ELECTRONIC ADVANCE REL-4P32-SC		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FA2: FLUORESCENT: ARCHITECTURAL 120 V 44 W ENVIRONMENT: ABOVE 50F & DRY. TROFFER WITH ARCHITECTURAL LENS AND ELECTRONIC DIMMING BALLAST.
			1350 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FA3 FLUORESCENT: ARCHITECTURAL 4" H X 3.2" W X 4' L	FOCAL POINT FAVA NS 1T5 2C 120 S F 2EG SN WH 4' PINNACLE, METALUX SHEET STEEL	CEILING RECESSED DIRECT/ACCENT PERFERATED METAL --- PAINTED WHITE	1 - 21 WATT 33" T5 FLUORESCENT - MR16 G.E. F21WI/T5/835/ECO - Q35MR16/C/CG12		1 - FLUOR: 1-LAMP ELECTRONIC ADVANCE ICN-2S28		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FA3: FLUORESCENT: ARCHITECTURAL 120 V 46 W ENVIRONMENT: ABOVE 50F & DRY. FLANGED MOUNTED WITH 1 LAMPS IN CROSS SECTION. SUPPLY WITH EXTENDED GIMBAL AND SNOOT FOR THE MR16 LAMPS. PROVIDE WITH (2) 35 WATT MR16 LAMPS.
			2100 L	3500 DEG K	PROGM	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FA4 FLUORESCENT: ARCHITECTURAL 7.75" H X 7.04" W X 4' L	FOCAL POINT FW2 BB 1T5 1C 120 E RC WH 4' LITHONIA, METALUX SHEET STEEL	CEILING RECESSED DIRECT/ACCENT PERFERATED METAL --- PAINTED WHITE	1 - 28 WATT 46" T5 LINEAR FLUORESCENT G.E. F28W/T5/835/ECO		1 - FLUOR: 1-LAMP 42 KHz ELECTRONIC ADVANCE ICN-2S28		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FA4: FLUORESCENT: ARCHITECTURAL 120 V 34 W ENVIRONMENT: ABOVE 50F & DRY. PERMITER LINEAR WALLWASH FIXTURE WITH WHITE BAFFLE. ONE LAMP IN CROSS SECTION. SEE PLANS FOR REQUIRED LENGTHS.
			2900 L	3500 DEG K	PROGM	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FA6 FLUORESCENT: ARCHITECTURAL 4" H X 4" W X 3' PRJ	SHAPER 600-36-W-T5/ 2/21-120V-NA LITHONIA, METALUX SHEET STEEL	WALL SURFACE DIRECT/INDIRECT MATTE WHITE ACRYLIC --- NATURAL ALUMINIM	2 - 21 WATT 36" T5 LINEAR FLUORESCENT G.E. F21WI/T5/835/ECO		1 - FLUOR: 2 OR 3 LAMP 42 KHz ELECTRONIC ADVANCE ICN-2M32-MC		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FA6: FLUORESCENT: ARCHITECTURAL 120 V 50 W ENVIRONMENT: ABOVE 50F & DRY. DECORATIVE WALL LINEAR FIXTURE WITH NATURAL ALUMINUM END CAPS.
			2100 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FA7 FLUORESCENT: ARCHITECTURAL 5" H X 3.5" W X 4' PRJ	ALERA LIGHTING MDI 4 1U1DT5 W M WCB E U ZT DC LITHONIA, METALUX SHEET STEEL	WALL SURFACE DIRECT/INDIRECT WHITE CROSS BAFFLE --- METALLIC SILVER	2 - 28 WATT 46" T5 LINEAR FLUORESCENT G.E. F28W/T5/835/ECO		1 - FLUOR: 1-LAMP 42 KHz ELECTRONIC ADVANCE ICN-2S28		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FA7: FLUORESCENT: ARCHITECTURAL 120 V 68 W ENVIRONMENT: ABOVE 50F & DRY. ONE LAMP UP AND ONE LAMP DOWN. PROVIDE WITH ACRYLIC LENS ON TOP OF FIXTURE AND CROSS BAFFLE ON BOTTOM.
			2900 L	3500 DEG K	PROGM	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FC1 FLUORESCENT: SURFACE WRAP 2.5" H X 15.38" W X 4' L	COLUMBIA WC 4-3 32-E U --- LITHONIA, METALUX SHEET STEEL	CEILING SURFACE DIRECT .125" ACRYLIC PRISMATIC --- PAINTED WHITE	3 - 32 WATT 48" T8 LINEAR FLUORESCENT G.E. F32T8/LX/SPX35/HL/ECO		1 - FLUOR: 3 OF 4 LAMP 42 KHz ELECTRONIC ADVANCE REL-4P32-SC		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FC1: FLUORESCENT: SURFACE WRAP 120 V 95 W ENVIRONMENT: ABOVE 50F & DRY.
			3100 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FD1 FLUORESCENT: DOWNLIGHT 7.125" H X 15.75" W X 17.5" L X 0 DIA	PRESCOLITE CFT632HEB-STF602H CL B6 --- LITHONIA, HALO SHEET STEEL	CEILING RECESSED DIRECT CLEAR LENS SEMI-SPEC CLEAR ALZAK CLEAR ALZAK	1 - 32 WATT TRIPLE BIAX FLUORESCENT G.E. F32TBX/835/A/ECO		1 - FLUOR: 1-LAMP 42 KHz ELECTRONIC AMBISTAR RCF-2S26-M1-BS-QS		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FD1: FLUORESCENT: DOWNLIGHT 120 V 36 W ENVIRONMENT: ABOVE 50 DEG F & WET. 6" DIA. LENSED DOWNLIGHT. FIXTURE TO BE PROVIDED WITH MULTI-VOLT BALLAST.
			2400 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=82	>=12,000 HOURS	0 DEG F	<=20%	---	---	
FD2 FLUORESCENT: DOWNLIGHT 4.38" H X 14.56" W X 15.38" L X 0 DIA	GOTHAM LGFLP 1/32TRT 6SB CGL 120 PRESCOLITE, HALO SHEET STEEL	CEILING RECESSED DIRECT CLEAR LENS SEMI-SPEC CLEAR ALZAK CLEAR ALZAK	1 - 32 WATT TRIPLE BIAX FLUORESCENT G.E. F26DBX/835/ECO/4P		1 - FLUOR: 2-LAMP 42 KHz ELECTRONIC AMBISTAR RCF-2S26-M1-BS-QS		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FD2: FLUORESCENT: DOWNLIGHT 120 V 32 W ENVIRONMENT: -20F TO 120 DEG F & DAMP. 6" DIA. HORIZONTAL LENSED DOWNLIGHT.
			1710 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=82	>=12,000 HOURS	0 DEG F	<=20%	---	---	
FD3 FLUORESCENT: DOWNLIGHT 9.56" H X 15.87" W X 13.37" L X 0 DIA	PRESCOLITE PDRGF-32TRT- 6-WG-DWHB-120 LITHONIA, HALO SHEET STEEL	CEILING RECESSED DIRECT WHITE GLASS SEMI-SPEC CLEAR ALZAK CLEAR ALZAK	1 - 32 WATT TRIPLE BIAX FLUORESCENT G.E. F32TBX/835/A/ECO		1 - FLUOR: 1-LAMP 42 KHz ELECTRONIC AMBISTAR RCF-2S26-M1-BS-QS		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FD3: FLUORESCENT: DOWNLIGHT 120 V 36 W ENVIRONMENT: ABOVE 50 DEG F & DRY. 6" DIA. DOWNLIGHT WITH DECORATIVE DROPPED WHITE GLASS SHADE.
			2400 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=82	>=12,000 HOURS	0 DEG F	<=20%	---	---	
FG1 FLUORESCENT: GRID TROFFER 4.25" H X 24" W X 2' L	COLUMBIA JT8 22 3 17 G FS A12125 E U LITHONIA, METALUX SHEET STEEL	CEILING RECESSED DIRECT .125" ACRYLIC PRISMATIC --- PAINTED WHITE	3 - 17 WATT 24" T8 LINEAR FLUORESCENT G.E. F17T8/XL/SPX35/ECO		1 - FLUOR: 3 OR 4 LAMP 42 KHz ELECTRONIC ADVANCE REL-4P32-SC		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FG1: FLUORESCENT: GRID TROFFER 120 V 47 W ENVIRONMENT: ABOVE 50F & DRY.
			1350 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FG2 FLUORESCENT: GRID TROFFER 3.125" H X 24" W X 4' L	COLUMBIA JT8 24-3 32 G- FS A12125 E U LITHONIA, METALUX SHEET STEEL	CEILING RECESSED DIRECT .125" ACRYLIC PRISMATIC --- PAINTED WHITE	3 - 32 WATT 48" T8 LINEAR FLUORESCENT G.E. F32T8/LX/SPX35/HL/ECO		1 - FLUOR: 3 OR 4 LAMP 42 KHz ELECTRONIC ADVANCE REL-4P32-SC		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FG2: FLUORESCENT: GRID TROFFER 120 V 94 W ENVIRONMENT: ABOVE 50F & DRY.
			3100 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FH1 FLUORESCENT: HIGHBAY 27.9" H X 25.8" W X 25.8" L	G.E. LIGHTING OBC W 38 F O F E6 15 --- LITHONIA, COOPER ALUMINUM	PENDANT DIRECT ACRYLIC --- WHITE	8 - 32 WATT TRIPLE BIAX FLUORESCENT G.E. F32TBX/835/A/ECO		1 - FLUOR: 2-LAMP 42 KHz ELECTRONIC AMBISTAR RCF-2S26-M1-BS-QS		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FH1: FLUORESCENT: HIGHBAY 120 V 272W W ENVIRONMENT: ABOVE 50 DEG F & DRY. PROVIDE WITH CORD AND HOOK.
			2400 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=82	>=12,000 HOURS	0 DEG F	<=20%	---	---	
FS1 FLUORESCENT: OPEN STRIP 3" H X 4.43" W X 4' PRJ	COLUMBIA CS 4 2 32 E U --- LITHONIA, METALUX SHEET STEEL	WALL SURFACE DIRECT WHITE ACRYLIC --- PAINTED WHITE	2 - 32 WATT 48" T8 LINEAR FLUORESCENT G.E. F32T8/LX/SPX35/HL/ECO		1 - FLUOR: 3-LAMP 42 KHz ELECTRONIC ADVANCE REL-3P32-SC		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FS1: FLUORESCENT: OPEN STRIP 120 V 65 W ENVIRONMENT: ABOVE 50F & DRY.
			3100 L	3500 DEG K	PROGM	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
FW1 FLUORESCENT: EGRESS 7" H X 8" W X 7" PRJ X 0 DIA	SHAPER 682 8 WP CFL/2(26/3 2W-TRIPLE)-120V-ALP HUBBELL, LITHONIA SHEET STEEL	WALL SURFACE CUT-OFF WHITE ACRYLIC --- ALUMINUM PAINT	2 - 32 WATT TRIPLE BIAX FLUORESCENT G.E. F32TBX/835/A/ECO		1 - FLUOR: 2-LAMP 42 KHz ELECTRONIC AMBISTAR RCF-2S26-M1-BS-QS		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FW1: FLUORESCENT: EGRESS 120 V 68 W ENVIRONMENT: -20F TO 120 DEG F & WET. EXTERIOR EGRESS FIXTURE. EMERGENCY EGRESS.
			2400 L	3500 DEG K	INSTANT	>=1.00	---	---	
			>=82	>=12,000 HOURS	0 DEG F	<=20%	---	---	
FW2 FLUORESCENT: ENCLOSED & GASKETED 43' H X 8.37" W X 4' PRJ	SHAPER 674 43" WP T5 /2/21 277V ALP KIM. LIGHTOLIER SHEET STEEL	WALL SURFACE DIRECT MATTE WHITE ACRYLIC --- ALUMINUM PAINTED	2 - 21 WATT T5 LINEAR FLUORESCENT G.E. F21W/T5/835/ECO		1 - FLUOR: 2-LAMP 42 KHz ELECTRONIC ADVANCE ICN-2S28		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		FW2: FLUORESCENT: ENCLOSED & GASKETED 120 V 48 W ENVIRONMENT: ABOVE 50F & DRY. LUMINOUS WALL SCONCE WITH DECORATIVE TRIM BARS.
			2100 L	3500 DEG K	PROGM	>=1.00	---	---	
			>=85	>=36,000 HOURS	0 DEG F	<=20%	---	---	
LU1 L.E.D: UNDER CABINET 1" H X 4.87" W X 36" L	WILLIAMS 1SF 3 L18/835 AF12 125 WRS/120 DRV 120 ALKCO, LITHONIA EXTRUDED ALUMINUM	UNDER CABINET DIRECT CLEAR POLYCARBONATE --- PEARL	1 - 21 WATT LED ARRAY G.E. LED28DP38S-FL/TP		1 - LED DRIVER DRIVER PROVIDED WITH LAMP DRIVER PROVIDED WITH LAMP		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		LU1: L.E.D: UNDER CABINET 120 V 21 W ENVIRONMENT: ABOVE 50F & DRY. PROVIDE WITH ROCKER SWITCH.
			1000 L	4000 DEG K	INSTANT	>=1.00	---	---	
			>=83	>=50,000 HOURS	0 DEG F	<=20%	---	---	
LW1 L.E.D: WALL 4.75" H X 3" W X 15.25" L	BRUCK LIGHTING SYSTEMS 137 100 BK --- ---, APPROVED ALTERNATE CAST ALUMINUM	CEILING RECESSED ADJUSTABLE CLEAR LENS --- BLACK	1 - 3 WATT LED ARRAY SELECTED BY FIXTURE MANUFACTURER SELECTED BY FIXTURE MANUFACTURER		1 - STANDARD LED DRIVER SELECTED BY FIXTURE MANUFACTURER SELECTED BY FIXTURE MANUFACTURER		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		LW1: L.E.D: WALL 120 V 3 W ENVIRONMENT: ABOVE 50F & DRY. FLEXIBLE GOOSE NECK FIXTURE WITH BUILT-IN ROCKER SWITCH.
			500 L	3000 DEG K	INSTANT	>=1.00	---	---	
			>=82	>=50,000 HOURS	0 DEG F	<=20%	---	---	
LX1 L.E.D: EXIT 9" H X 2" W X 13" L	DUAL-LITE LX U G W --- LITHONIA, FAIL-SAFE PLASTIC	UNIVERSAL DIRECT GREEN PLASTIC --- WHITE	1 - L.E.D. PROPRIATORY SELECTED BY FIXTURE MANUFACTURER SELECTED BY FIXTURE MANUFACTURER		1 - L.E.D. DRIVER SELECTED BY FIXTURE MANUFACTURER SELECTED BY FIXTURE MANUFACTURER		SECOND BALLAST / DRIVER TYPE NOT REQUIRED --- ---		LX1: L.E.D: EXIT 120 V 3.5 W ENVIRONMENT: ABOVE 50F & DRY. PUNCH ARROWS TO SHOW DIRECTION OF EGRESS.
			200 L	3500 DEG K	INSTANT	>=1.00	---	---	
			<50	>=50,000 HOURS	50 DEG F	<=20%	---	---	

GENERAL NOTES:

1. IF THE FIXTURE CATALOG NUMBER CONFLICTS WITH THE FIXTURE DESCRIPTION, THE FIXTURE DESCRIPTION TAKES PRECEDENCE.vvv
2. THE FIXTURE MANUFACTURER SHALL SUPPLY LAMPS AND ALL ACCESSORIES NECESSARY FOR THE INSTALLATION OF HIS FIXTURES.
3. THE COLOR TEMPERATURE OF ALL LAMPS SHALL BE THE SAME. CALL DISCREPANCIES IN THE SCHEDULE TO THE ENGINEER'S ATTENTION PRIOR TO RELEASING FIXTURES FOR MANUFACTURE.
4. BATTERIES IN BATTERY BACKED FLUORESCENT FIXTURES SHALL BE SIZED TO PROVIDE 50% OF A SINGLE LAMP RATED LUMEN OUTPUT FOR 90 MINUTES.
5. BALLASTS PROVIDED SHALL HAVE THE LOWEST SOUND RATING AVAILABLE FOR THEIR TYPE.
6. LAMPS PROVIDED SHALL HAVE THE LOWEST MERCURY CONTENT AVAILABLE FOR THEIR TYPE, AND SHALL BE TCLP COMPLIANT IF AVAILABLE.
7. SUBMIT AND RECEIVE APPROVAL FROM THE ENGINEER FOR ALL LIGHT FIXTURES, BALLASTS, AND BACK-UP BATTERIES PRIOR TO RELEASING FUXTURES FOR MANUFACTURE.

STATEMENT OF COMPLIANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE - 2009

SECTION 505.2 - INTERIOR LIGHTING CONTROLS

THIS SECTION REQUIRES A MANUAL LIGHTING CONTROL FOR EACH ROOM, EXCEPT SECURITY AREAS, EMERGENCY AREAS, AND MEANS OF EGRESS LIGHTING.
FOR THIS PROJECT, SWITCHES HAVE BEEN PROVIDED FOR EACH ROOM WHERE MANDATED.

SECTION 505.2.2.1 -ADDITIONAL INTERIOR LIGHTING CONTROLS

THIS SECTION REQUIRES A LIGHT REDUCING CONTROL FOR EACH ROOM, EXCEPT THOSE WITH ONLY ONE LUMINAIRE, OCCUPANT-SENSING DEVICE, PUBLIC AREAS, SLEEPING UNIT, OR SPACE LESS THAN 0.6 WATTS PER SQUARE FOOT.
FOR THIS PROJECT, THIS SECTION HAS BEEN COMPLIED WITH THROUGH THE USE OF BI-LEVEL SWITCHING OF FIXTURES.

SECTION 505.2.2.2 - AUTOMATIC LIGHTING SHUTOFF

THIS SECTION REQUIRES AN AUTOMATIC LIGHTING SYSTEM SHUTOFF DEVICE IN NON-RESIDENTIAL BUILDINGS OF 5000 SQUARE FEET OR MORE. THIS AUTOMATIC DEVICE SHALL BE A PROGRAMMABLE TIME-OF-DAY CONTROLLER, AN OCCUPANCY SENSOR, OR A SIGNAL FROM ANOTHER CONTROL OR ALARM SYSTEM WHICH INDICATED THAT THE BUILDING IS UNOCCUPIED.
BASED ON EXCEPTION #3 "SPACES WHERE AN AUTOMATIC SHUTOFF WOULD ENDANGER OCCUPANT SAFETY OR SECURITY" THIS DEVICE WILL NOT BE PROVIDED. THIS IS AN INDUSTRIAL BUILDING WHERE HEAVY MACHINERY IS CONSTANTLY IN MOTION, AND WHERE POTENTIALLY LIFE THREATENING OPERATIONS (WELDING) ARE BEING PERFORMED CONSTANTLY.

SECTION 505.2.4 - EXTERIOR LIGHTING CONTROLS

THIS SECTION REQUIRES EXTERIOR LIGHTING NOT INTENDED FOR 24-HOUR OPERATION TO HAVE AUTOMATIC SWITCHING OR PHOTOCELL CONTROLS. FURTHER, IT REQUIRES TIME SWITCHES TO BE ASTRONOMICAL, 7-DAY, AND A MINIMUM 4 HOUR BATTERY OR MECHANICAL BACK-UP.
FOR THIS PROJECT, THE EXTERIOR LIGHT SYSTEM IS CONTROLLED BY A PHOTOCELL TIME CLOCK COMBINATION.

SECTION 505.3 - TANDEM WIRING

THIS SECTION REQUIRES TANDEM WIRING FOR 1 AND 3 LAMP FIXTURES MOUNTED IN CONTINUOUS ROWS OR RECESSED IN ACCESSIBLE CEILINGS WITHIN 10' OF EACH OTHER. IT ALLOWS AN EXCEPTION IF ELECTRONIC HIGH FREQUENCY BALLASTS ARE USED OR IF FIXTURES ARE NOT ON SAME SWITCH CONTROL.
THIS PROJECT WAS DESIGNED UTILIZING ELECTRONIC HIGH FREQUENCY BALLASTS.

SECTION 505.4 - EXIT SIGNS

THIS SECTION REQUIRES INTERNALLY ILLUMINATED EXIT SIGNS NOT EXCEED 5W SIDE.
LED EXIT SIGNS HAVE BEEN SPECIFIED. THEIR POWER CONSUMPTION MEETS THIS REQUIREMENT.

SECTION 505.5 - INTERIOR LIGHTING POWER

THIS SECTION REQUIRES THAT THE CONNECTED LOAD FOR ALL INTERIOR LIGHTING NOT EXCEED POWER DENSITIES LISTED IN TABLE 505.5.2 IT ALLOWS EXCEPTIONS FOR MERCHANDISING.
FOR THIS PROJECT, THE TABLE REQUIRES A POWER DENSITY NOT EXCEEDING 1.0 WATTS PER SQUARE FOOT. THIS BUILDING IS 8,428 SQUARE FEET. THE LIGHTING SYSTEM CONSUMES 7,356 WATTS. THE POWER DENSITY FOR THIS PROJECT IS .87 WATTS PER SQUARE FOOT. THIS IS WITHIN THE MAXIMUM POWER DENSITY LISTED IN TABLE 505.5.2.

SECTION 505.6 - EXTERIOR LIGHTING POWER

THIS SECTION REQUIRES THAT ALL EXTERIOR LIGHT SOURCES OVER 100 WATTS HAVE AN EFFICACY OF AT LEAST 60 LUMENS PER WATT. IT ALLOWS AN EXCEPTION FOR LOW VOLTAGE LANDSCAPE LIGHTING. IT ALSO ALLOWS AN EXCEPTION, WHERE APPROVED, FOR HISTORICAL, SAFETY, SIGNAGE, OR EMERGENCY LIGHTING.
FOR THIS PROJECT, ALL EXTERIOR FIXTURES ARE METAL HALIDE OR FLUORESCENT, AND MEET THIS MINIMUM EFFICACY REQUIREMENT.

TABLE 506.6.2 - LIGHTING POWER DENSITIES FOR BUILDING EXTERIORS

THIS TABLE REQUIRES A MAXIMUM POWER DENSITY OF .15 W/FT SQ FOR PARKING LOTS AND DRIVES.
FOR THIS PROJECT THE PARKING LOT LIGHTING POWER DENSITY IS .09 W/FT.

TABLE 506.6.2 - LIGHTING POWER DENSITIES FOR BUILDING EXTERIORS

THIS TABLE REQUIRES A MAXIMUM POWER DENSITY OF 30 WATTS PER LINEAR FOOT OF DOOR WIDTH AT MAIN ENTERS, AND 20 WATTS PER LINEAR FOOT OF DOOR WIDTH AT OTHER BUILDING ENTRIES.
FOR THIS PROJECT: OUR LIGHTING POWER DENSITY AT MAIN ENTRIES IS 21 WATTS PER LINEAR FOOT, AND AT OTHER BUILDING ENTRIES IS 22 WATTS PER LINEAR FOOT.

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