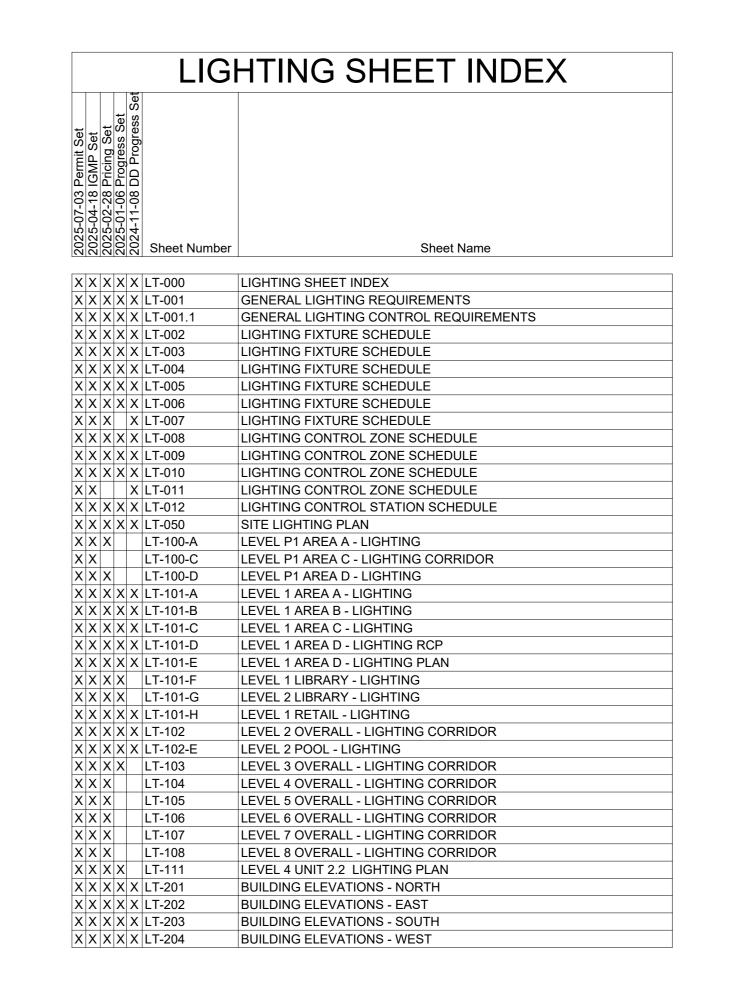
CONTRO	L DEVICE LEGEND	LIGHTING S	SYMBOL LEGEND					
ZONE XX XXXX	CONTROL ZONE TAG		RECESSED DOWNLIGHT					
\$	LOCAL SWITCH		RECESSED ADJUSTABLE DOWNLIGHT					
	CONTROL STATION		RECESSED WALLWASHER					
0	CONTROL RECEPTACLE STATION		RECESSED SHOWER LIGHT					
DEVICE ID	CONTROL DEVICE TAG		TREGEORE GRIOWER EIGHT					
DC DIM TRANS	LED DIMMER CONTROLLER TO TRANSFORMER/POWER SUPPLY. REQUIRES 0-10V CONTROL SIGNAL.	+ +	PENDANT OR CLOSE-CEILING MOUNTED FIXTURE					
CLD ATTAGE LIMIT	TRACK CURRENT LIMITER		SURFACE-MOUNTED ACCENT LIGHT					
	KEYNOTE		TRACK MOUNTED ACCENT LIGHT					
	REVISIONS		WALL MOUNTED FIXTURES					
FIXTURE	NAMING LEGEND							
	D 1 F A		RECESSED 2 X 4, 2 X 2					
A - ADJUSTABLE D - DOWNLIGHT/ F - FLOURESCEN	WALLWASH N - NARROW SPOT (20 DEGREE - 35 DEGREE) IT S - SPOT (10 DEGREE - 19 DEGREE)		SURFACE MOUNTED 2 X 4, 2 X 2					
- LINEAR LED P - PENDANT S - SURFACE Γ - TRACK	W - WIDE FLOOD (60 DEGREE - 120 DEGREE) V - VERY NARROW SPOT (2 DEGREE - 9 DEGREE) A - D - MISC DIFFRENCES	• •	PENDANT MOUNTED LINEARS					
J - INGRADE UPL / - LOW VOLTAG W - SCONCE X - FIBER Z - MISC/SPECIAL DP - DECORATIV	E STRIP _TY	A —	STEPLIGHT					
	VE WALL MOUNT S FIXTURES CCENT LIGHT		INGRADE UPLIGHT					
PP - POLE	N-GRADE UPLIGHT	\uparrow	FLOODLIGHT					
		-	BOLLARD					
			POLE LIGHT					
		000	MULTI-HEAD RECESSED TROUGH FIXTURE					
			LED STRIPLIGHT					
		200000	LOW-VOLTAGE STRIPLIGHT					
		LED LED	LINEAR LED SYSTEM					









1965 SKI TIME SQUARE DRI

PROJECT NUMBER:

NO DATE DESCRIPTION

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07/03/25
ISSUED FOR:
PERMIT SET
SHEET TITLE:

SHEET NUMBER

LIGHTING SHEET INDEX

THE CONTRACTOR.

a. LUMINAIRES SHALL BE PROVIDED AS DESCRIBED IN THE LIGHTING FIXTURE SCHEDULE. THE MANUFACTURER'S CATALOG NUMBERS OR DESCRIPTIONS INDICATE FIXTURE QUALITY, TYPE AND STYLE, BUT MAY NOT CONVEY ALL REQUIREMENTS. PROVIDE FIXTURES WITH ANY DETAILS NOTED IN FIXTURE DESCRIPTIONS OR ELSEWHERE ON PROJECT DRAWINGS. WHERE A SCHEDULED PART NUMBER APPEARS TO CONFLICT WITH THOSE NOTES, SUBMIT AN RFI TO RESOLVE THE CONFLICT.

b. PRIOR TO ORDERING FIXTURES, THE CONTRACTOR SHALL VERIFY VOLTAGES AND ALL MOUNTING CONDITIONS INCLUDING LANDSCAPE AND HARDSCAPE CONDITIONS AND INFORM THE ARCHITECT AND LIGHTING DESIGN CONSULTANT OF ANY

c. THE CONTRACTOR SHALL PROVIDE LIGHTING FIXTURES COMPLETE WITH FITTINGS, HARDWARE, MOUNTING STAKES, CONCRETE PADS, TRANSFORMERS, CONNECTORS, OR OTHER MISCELLANEOUS COMPONENTS NECESSARY FOR A COMPLETE AND WORKMANLIKE INSTALLATION COMPLIANT WITH THE APPLICABLE CODES.

d. ANY LIGHTING FIXTURES IN ROCKWORK SHALL BE PROVIDED IN APPROVED FIRE-RATED ENCLOSURES. ALL FIXTURES IN CONDITIONS REQUIRING IC. AIRTIGHT, OR CHICAGO PLENUM HOUSINGS SHALL BE SUPPLIED WITH SUCH HOUSINGS. LAMPS

a. IF SPECIFIED LAMPS ARE SUBSTITUTED, THE CONTRACTOR SHALL PROVIDE SAMPLES OF THE PROPOSED SUBSTITUTION FOR EVALUATION BY THE LIGHTING DESIGN CONSULTANT. LAMPS SHALL NOT BE ORDERED UNTIL APPROVED.

b. IF APPLICABLE FOR NON-LED LAMPS, FURNISH 5% SPARES FOR ALL SCHEDULED LAMP TYPES. SPARE LAMPS SHALL BE AVAILABLE AND ON-SITE AT THE TIME OF SCHEDULED FOCUS AIMING AND ADJUSTMENT WORK SESSIONS, AND SHALL BE TURNED OVER TO THE OWNER'S OPERATIONS STAFF AS MAINTENANCE STOCK AT SUBSTANTIAL COMPLETION.

a. THE CONTRACTOR SHALL PROVIDE ALL SCHEDULED ACCESSORIES PROPERLY SIZED FOR THE LUMINAIRE AND SECURELY ATTACHED. WHERE THE LUMINAIRE MANUFACTURER OFFERS ACCESSORIES MEETING THE PERFORMANCE OR BASIS-OF-DESIGN CHARACTERISTICS LISTED BELOW. THE CONTRACTOR MAY SUBMIT AND PROVIDE THEM FROM THAT SOURCE. WHEN THE LUMINAIRE MANUFACTURER'S OFFERING IS NOT EQUIVALENT, THE CONTRACTOR SHALL PROVIDE AN ACCESSORY MEETING THOSE REQUIREMENTS FROM AN APPROVED SOURCE, CUT TO THE PROPER SIZE FOR THAT FIXTURE. THE LIGHTING DESIGN CONSULTANT SHALL BE THE FINAL JUDGE OF ACCESSORY EQUIVALENCE.

 UNLESS OTHERWISE NOTED, ACCESSORIES SHALL BE INSTALLED PRIOR TO THE FOCUS AIMING AND ADJUSTMENT SESSIONS. BALLASTS, DRIVERS, TRANSFORMERS

a. WHERE BALLASTS, DRIVERS, OR TRANSFORMERS ARE MOUNTED REMOTE FROM THE FIXTURE HOUSING, PROVIDE A SUITABLE ENCLOSURE WITHIN THE RECOMMENDED DISTANCE.

b. REMOTE LOCATIONS FOR BALLASTS, DRIVERS, AND TRANSFORMERS ARE TO BE DETERMINED BY THE CONTRACTOR IN THE FIELD TO SUIT FIELD CONDITIONS

CONDUITS, CIRCUITS, AND WIRING a. ALL CONDUITS AND WIRING SHALL BE IDENTIFIED WITH NUMBERS AND TAGGED. ALL CIRCUITS SHALL BE IDENTIFIED IN

ELECTRICAL PANELS. b. CONDUIT RUNS, EXACT LOCATIONS, AND ROUTING TO BE DETERMINED IN THE FIELD TO SUIT FIELD CONDITIONS. ALL CONDUIT RUNS MUST BE CONCEALED FROM PUBLIC VIEW AS PHYSICALLY POSSIBLE.

LIGHTING CONTROL SYSTEM a. ALL LIGHTING CONTROL EQUIPMENT MUST BE TITLE 24 COMPLIANT AND MUST PROVIDE THE NECESSARY ASTRONOMICAL

TIME CLOCK CONTROLS, MULTI-LEVEL LIGHTING CONTROLS, DEMAND RESPONSE CONTROLS, MOTION DETECTOR DEVICES, b. VERIFY THAT ALL LED LIGHTING SOURCES HAVE POWER SUPPLY DRIVERS AND CONTROL INTERFACES THAT ARE

APPROPRIATE FOR THE LIGHTING CONTROL SYSTEM. c. COORDINATE WITH THE CONTROL EQUIPMENT MANUFACTURER REGARDING ANY NON-STANDARD LOAD WIRING. ALL DMX OR 0-10V LOAD TYPES SHALL ALSO BE PAIRED WITH A SWITCHED CIRCUIT ON A CONTROL CHANNEL-BY-CHANNEL BASIS TO

PROVIDE LOW-END TURN OFF CAPABILITIES. d. PROVIDE LOW VOLTAGE WIRING PER THE SYSTEMS MANUFACTURER'S FINAL SHOP DRAWINGS.

e. PROVIDE THE SERVICES OF A FACTORY-TRAINED AND AUTHORIZED REPRESENTATIVE OF THE LIGHTING CONTROL SYSTEM MANUFACTURER TO CONFIGURE, TEST, COMMISSION, AND PROGRAM THE LIGHTING CONTROL SYSTEM.

8. SUBMITTALS SUBMITTALS MUST PROVIDE DESCRIPTIVE DATA FOR ALL LUMINAIRES, LAMPS, LENSES, COLOR FILTERS, FIRE-RATED FIXTURE

ENCLOSURES AND OTHER MATERIALS SHOP DRAWINGS

I. FOR LUMINAIRES THAT ARE NOT STANDARD CATALOG ITEMS WITH DATASHEETS PROVIDING SIMILAR DETAILS. SUBMIT MANUFACTURER'S SHOP DRAWINGS INDICATING OVERALL DIMENSIONS, DETAIL AND APERTURE DIMENSIONS, FINISHES, MATERIALS AND THICKNESSES, LENS OR DIFFUSER TYPES AND THICKNESSES, LAMP HOLDERS, LOCKING MECHANISMS FOR ADJUSTABLE LUMINAIRES, SHIELDING, TRIM, REFLECTOR AND GASKET DETAILS, METHOD OF RE-LAMPING ACCESS, MECHANICAL AND ELECTRICAL CONNECTIONS, AND ALL OTHER INFORMATION REQUIRED TO EVALUATE THE LUMINAIRE

4. OPTICAL ACCESSORIES

i. IF REQUESTED, THE CONTRACTOR MUST SUBMIT OPERABLE FIXTURE SAMPLES TO THE LIGHTING DESIGN CONSULTANT AND ARCHITECT FOR APPROVAL. THE SAMPLES SHALL BE TAGGED WITH PROJECT NAME AND FIXTURE TYPE, CONFIGURED FOR 120VAC OPERATION, AND FURNISHED WITH PROPERLY WIRED CORD AND PLUG, SPECIFIED LAMP, AND ANY SCHEDULED ACCESSORIES. THE LIGHTING DESIGN CONSULTANT MAY RETAIN THE SAMPLES UNTIL SUBSTANTIAL COMPLETION OF THE PROJECT. ALLOW TWO WEEKS FROM DATE OF RECEIPT FOR THOROUGH EXAMINATION AND REVIEW BY THE ARCHITECT AND LIGHTING DESIGNER.

SAMPLE FIXTURES MUST BE PROVIDED FOR ALL PROPOSED FIXTURE SUBSTITUTES.

III. FIXTURES INSTALLED, AS PART OF THE WORK SHALL BE IDENTICAL TO THE APPROVED SAMPLE. THE SAMPLES THEMSELVES SHALL NOT BE INSTALLED ON THE PROJECT.

IV. IN THE EVENT THAT THE SUBMITTED SAMPLES ARE DISAPPROVED, THE FIXTURES WILL BE RETURNED TO THE CONTRACTOR TO IMMEDIATELY MAKE A NEW SUBMITTAL OF A FIXTURE OR FIXTURE MEETING THE REQUIREMENTS.

v. ALL SHIPPING CHARGES (ROUND-TRIP) ARE TO BE PRE-PAID BY THE CONTRACTOR.

MOCKUPS a IF REQUESTED, THE CONTRACTOR SHALL PREPARE MOCKUPS ACCORDING TO THE DIRECTION OF THE ARCHITECT.

LANDSCAPE ARCHITECT, AND LIGHTING DESIGN CONSULTANT: A MINIMUM OF (2) MOCKUPS ANTICIPATED. MOCKUPS ARE TO BE PRESERVED AND PROTECTED UNTIL SUBSTANTIAL COMPLETION, UNLESS OTHERWISE DIRECTED IN WRITING BY THE ARCHITECT.

10. LIGHTING FIXTURE PRICING AND SUBSTITUTIONS

 THE CONTRACTOR SHALL BASE LIGHTING FIXTURE BIDS ON THE MANUFACTURERS LISTED IN THE FIXTURE SCHEDULE. BIDS SHALL INCLUDE UNIT PRICING FOR ALL FIXTURES, AND FIXTURES ADDED OR DELETED FROM THE PROJECT SHALL BE ACCOUNTED FOR AT THAT PRICE.

c. ANY SUBMITTALS FOR COST-REDUCTION OR VALUE-ENGINEERING ALTERNATES SHALL INCLUDE A TABLE LISTING FIXTURE TYPE, SCHEDULED MANUFACTURER AND PART NUMBER, UNIT PRICE FOR THE SCHEDULED PRODUCT, PROPOSED ALTERNATE PRODUCT, AND UNIT PRICING FOR THE PROPOSED ALTERNATE.

d. ALL REQUIRED UNIT PRICING SHALL BE CONTRACTOR NET, AND SHALL LIST EQUIPMENT PRICES SEPARATE FROM THOSE FOR INSTALLATION OR MISCELLANEOUS ELECTRICAL COSTS.

e. THE CONTRACTOR SHALL SUBMIT OPERABLE FIXTURE SAMPLES FOR FIXTURE TYPES FOR WHICH A SUBSTITUTE IS PROPOSED, CONCURRENT WITH THE INITIAL SUBMITTAL OF FIXTURE DATA OR SHOP DRAWINGS. THE CONTRACTOR MAY, IN ADVANCE, SUBMIT A LIST OF THOSE PROPOSED ALTERNATES TO THE ARCHITECT AND LIGHTING DESIGN CONSULTANT TO DETERMINE IF THE SAMPLE REQUIREMENT MAY BE WAIVED FOR ANY OF THOSE FIXTURE TYPES:

11. FOCUS AIMING AND ADJUSTMENTS

a. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, LIFTS, LADDERS AND OTHER MATERIALS REQUIRED TO AIM AND ADJUST LIGHTING FIXTURES ACCORDING TO THE LIGHTING DESIGN CONSULTANT'S INTENT AND UNDER THE CONSULTANT'S DIRECTION. CREWS PROVIDED TO WORK WITH THE CONSULTANT SHALL BE ABLE TO COMMUNICATE EFFECTIVELY IN

b. AT MINIMUM, ALLOW A MINIMUM OF 4 MINUTES TO AIM EACH ADJUSTABLE LIGHTING FIXTURE, PLUS ADDITIONAL TIME AS REQUIRED TO RELOCATE LADDERS. ALLOW ADDITIONAL TIME WHERE HIGH-REACH LIFTS ARE REQUIRED, OR WHERE OBSTRUCTIONS INTERFERE WITH ACCESS.

c. PRIOR TO AIMING AND ADJUSTMENT, THE CONTRACTOR SHALL VERIFY THAT:

 ALL FIXTURES ARE INSTALLED AND OPERABLE. ii. THE SPECIFIED LAMP HAS BEEN INSTALLED IN EACH FIXTURE, INCLUDING WATTAGE, BEAM SPREAD AND COLOR

ANY SPECIFIED ACCESSORIES INCLUDING LENSES, LOUVERS, AND COLOR FILTERS HAVE BEEN INSTALLED.

IV. SPARES, IF APPLICABLE, ARE AVAILABLE ON-SITE FOR EACH LAMP TYPE.

v. THE CREW IS EQUIPPED WITH ANY NECESSARY TOOLS NECESSARY TO ACCESS, ADJUST AND SECURELY LOCK ALL

FIXTURE TYPES. VI. ANY PERSONNEL LIFTS TO BE USED ARE OPERABLE AND, IF BATTERY-OPERATED, FULLY CHARGED.

VII. ANY NECESSARY PROTECTIVE MATERIALS ARE IN PLACE AT FLOOR SURFACES WHERE LADDERS OR LIFTS ARE TO BE

d. THE CONTRACTOR SHALL CONTACT THE ARCHITECT AND LIGHTING DESIGN CONSULTANT AT LEAST TWO WEEKS IN ADVANCE. TO COORDINATE AND SCHEDULE FOCUS AIMING AND ADJUSTMENT WORK SESSIONS. ALL FOCUS AIMING WORK SESSIONS SHALL BE SCHEDULED TO OCCUR AFTER DUSK. THE GENERAL WORK OF THE PROJECT SHALL BE COORDINATED TO SO THAT INCOMPATIBLE WORK IS NOT SCHEDULED DURING THE SESSIONS, AND SO THAT ALL NECESSARY AREAS OF THE PROJECT ARE ACCESSIBLE DURING THE SESSIONS.

a. ALL SURFACE-MOUNTED EXPOSED CONDUIT, BOTH RIGID AND FLEXIBLE, MUST BE PAINTED TO MATCH THE SURFACE TO

b. ANY SCREWS, FASTENERS OR OTHER HARDWARE, WHICH MUST BE MANIPULATED FOR FIXTURE ADJUSTMENT OR MAINTENANCE, SHALL BE PROTECTED FROM BEING FIXED IN PLACE BY PAINT. 13. LANDSCAPE MAINTENANCE COORDINATION

 ALL CONDUIT RUNS, JUNCTION BOXES, MOUNTING DEVICES, AND LIGHTING FIXTURES INSTALLED IN LANDSCAPE PLANTERS MUST BE CAREFULLY INTEGRATED INTO THE PLANTING PLAN. ALL EXPOSED HARDWARE MUST BE PROPERLY PROTECTED. FROM THE LANDSCAPE ELEMENTS.

 ALL CLIPPINGS, MULCH, BARK COVERINGS, AND OTHER LANDSCAPE GROUND COVER MATERIALS MUST BE REMOVED FROM ALL AREAS ADJACENT TO THE LIGHTING FIXTURES PRIOR TO THE FOCUS AIMING AND ADJUSTMENT WORK SESSIONS.

CAREFUL COORDINATION WITH THE LANDSCAPE CONTRACTOR IS REQUIRED BEFORE, DURING, AND AFTER LIGHTING WORK

c. ALL LIGHTING FIXTURES MUST BE INSPECTED AFTER INSTALLATION TO DETERMINE IF ADJACENT SPRINKLERS COULD CREATE WATER DAMAGE. IF WATER DAMAGE COULD BE A POSSIBILITY, COORDINATE WITH THE LANDSCAPE CONTRACTOR THE POTENTIAL RELOCATION OF SPRINKLERS OR OTHER IRRIGATION DEVICES.

INSTRUCTIONS TO REMOVE ALL DUST, PAINT, FINGERPRINTS OR OTHER DEBRIS OR RESIDUE FROM ADJACENT WORK. WARRANTY: FURNISH GUARANTEES COVERING ALL WORK IN ACCORDANCE WITH DIVISION 01 AND THE GENERAL REQUIREMENTS OF

14. PRIOR TO SUBSTANTIAL COMPLETION, ALL EXPOSED COMPONENTS SHALL BE CLEANED ACCORDING TO THE MANUFACTURER'S

NOTHING IN THESE SPECIFICATIONS OR IN THE ACCOMPANYING DRAWINGS SHALL BE CONSTRUED AS AUTHORITY OR PERMISSION TO PERFORM WORK CONTRARY TO THE CURRENT PROVISIONS OF THE CODES OR REGULATIONS GOVERNING THE WORK OR TO OTHERWISE VIOLATE LEGAL REQUIREMENTS. THE CONTRACTOR SHALL IMMEDIATELY DRAW ANY SUCH CONFLICTS TO THE ATTENTION OF THE ARCHITECT. REQUIREMENTS SHOWN IN THE DRAWINGS OR SPECIFICATIONS SHALL GOVERN WHERE THEY EXCEED THOSE OF THE CODES OR

RESPONSIBILITY FOR EMERGENCY LIGHTING, ENERGY CODE COMPLIANCE, AND CIRCUITING TO MEET CODE CONFORMANCE REMAINS WITH THE ARCHITECT AND ELECTRICAL ENGINEER AS REQUIRED BY LAW.

A. LUMINAIRES SHALL BE PROVIDED AS DESCRIBED IN THE LIGHTING FIXTURE SCHEDULE. THE MANUFACTURER'S CATALOG NUMBERS OR DESCRIPTIONS INDICATE FIXTURE QUALITY, TYPE AND STYLE BUT MAY NOT CONVEY ALL REQUIREMENTS. PROVIDE FIXTURES WITH ANY DETAILS NOTED IN FIXTURE DESCRIPTIONS OR ELSEWHERE ON PROJECT DRAWINGS. WHERE A SCHEDULED PART NUMBER APPEARS TO CONFLICT WITH THOSE NOTES, SUBMIT AN RFI TO RESOLVE THE CONFLICT.

PRIOR TO ORDERING FIXTURES, THE CONTRACTOR SHALL VERIFY VOLTAGES AND ALL MOUNTING CONDITIONS INCLUDING RECESS DEPTH AND CEILING TYPE AND INFORM THE ARCHITECT AND LIGHTING DESIGN CONSULTANT OF ANY CONFLICTS.

c. THE CONTRACTOR SHALL PROVIDE LIGHTING FIXTURES AND TRACK COMPLETE WITH AND FITTINGS. HARDWARE, HANGERS, BRACKETS, TRANSFORMERS, CONNECTORS, TRIMS, FLANGES, CLAMPS OR OTHER MISCELLANEOUS COMPONENTS NECESSARY FOR A COMPLETE AND WORKMANLIKE INSTALLATION COMPLIANT WITH THE APPLICABLE CODES.

D. ANY LIGHTING FIXTURES IN FIRE-RATED CEILINGS OR WALLS SHALL BE PROVIDED IN APPROVED FIRE-

RATED ENCLOSURES. ALL FIXTURES IN CONDITIONS REQUIRING IC, AIRTIGHT, OR CHICAGO PLENUM

HOUSINGS SHALL BE SUPPLIED WITH SUCH HOUSINGS. PENDANT-MOUNTED LUMINAIRES SHALL BE PROVIDED WITH ANY SWIVELS AND RESTRAINTS NECESSARY TO MEET SEISMIC REQUIREMENTS OR TO ACCOMMODATE SLOPED CEILING CONDITIONS. FIXTURES SHALL

BE WEIGHTED AS NECESSARY TO HANG IN A LEVEL, BALANCED STATE. IN ORDER TO MAINTAIN PROJECT ENERGY CODE, LEED, OR SIMILAR COMPLIANCE, WHERE THE FIXTURE SCHEDULE INDICATES "DERATED HOUSING" OR "WATTAGE RESTRICTION LABEL", THAT FIXTURE TYPE SHALL BE PROVIDED WITH A FACTORY-INSTALLED, PRE-PRINTED LABELS INDICATING THAT MAXIMUM WATTAGE

ALL FIXTURES SHALL HAVE APPROPRIATE UL LABEL AND CONFORM TO TITLE 24, IF REQUIRED, FOR PERFORMANCE, SWITCHING, AND WIRING.

 UNLESS OTHERWISE NOTED, PROVIDE LAMPS MANUFACTURED BY SYLVANIA, PHILIPS OR GENERAL ELECTRIC. PROVIDE LED RETROFIT LAMPS MANUFACTURED BY SORAA, USHIO, PHILIPS, OR LSG. WHERE LAMPS BY ANOTHER MANUFACTURER ARE PROPOSED AS SUBSTITUTES, THE CONTRACTOR SHALL LIST UNIT PRICES FOR THE SCHEDULED LAMP AND FOR THE PROPOSED SUBSTITUTE.

AND WITH ANY OTHER PROVISIONS REQUIRED BY THE APPLICABLE JURISDICTION.

B. FURNISH 5% SPARES FOR ALL SCHEDULED LAMP TYPES. SPARE LAMPS SHALL BE AVAILABLE AND ON-SITE AT THE TIME OF SCHEDULED FOCUS AIMING AND ADJUSTMENT SESSIONS, AND SHALL BE TURNED OVER TO THE OWNER'S OPERATIONS STAFF AS MAINTENANCE STOCK AT SUBSTANTIAL COMPLETION.

PRIOR TO FOCUS AIMING AND ADJUSTMENT, INCANDESCENT OR HALOGEN LAMPS SHALL NOT BE OPERATED AS CONSTRUCTION WORK LIGHT AND SHALL ONLY BE OPERATED AS NECESSARY FOR TESTING OR PUNCH LIST INSPECTIONS

OPTICAL ACCESSORIES: THE CONTRACTOR SHALL PROVIDE ALL SCHEDULED ACCESSORIES PROPERLY SIZED FOR THE LUMINAIRE AND SECURELY ATTACHED. UNLESS OTHERWISE NOTED, ACCESSORIES SHALL BE INSTALLED PRIOR TO

THE FOCUS AIMING AND ADJUSTMENT SESSIONS. BEAM-SHAPING LENSES SHALL MEET THE BASIS-OF-DESIGN SPECIFICATIONS LISTED BELOW OR SHALL BE

AN APPROVED LENS BY THE LUMINAIRE MANUFACTURER. FROSTED: 1/8" OR 3/16", SANDBLASTED ONE SIDE TO 70% TRANSMISSION.

UNIFORMITY: 1/8" WITH STIPPLED PATTERN, EQUIVALENT TO "SOLITE" AS MANUFACTURED BY ABRISA.

3) LINEAR SPREAD: 5/32" WITH PRISMATIC RIDGES ONE SIDE, EQUIVALENT TO "SKYTEX" AS MANUFACTURED BY ABRISA. OVERALL SPREAD: 5/32" OR 3/16" WITH UNIFORM PRISMS ONE SIDE, EQUIVALENT TO "INDUSTREX" AS

MANUFACTURED BY ABRISA. HEX-CELL OR CUBE-CELL LOUVERS: MATTE-BLACK EXPANDED ALUMINUM MESH INSERT DESIGNED TO REDUCE GLARE CAUSED BY DIRECT VIEW OF THE LIGHT SOURCE. 1/8" DEEP WITH 1/8" OPENINGS FOR MR16, PAR20 OR SMALLER LAMPS; 3/8" DEEP WITH 3/8" OPENINGS FOR PAR30, PAR38 OR LUMINAIRES WITH

SIMILAR LENS SIZE; OTHER SIZES ACCORDING TO APPLICATION. FILTERS SHALL MEET THE BASIS-OF-DESIGN SPECIFICATIONS LISTED BELOW OR SHALL BE THE PRODUCT SCHEDULED ON THE PROJECT DRAWINGS.

1) DICHROIC COLOR FILTERS: MINIMUM 3MM BOROFLOAT GLASS WITH VACUUM-DEPOSITED METAL FILMS ON ONE SIDE, SUITABLE FOR OPERATING TEMPERATURES UP TO 400°F. THE RANGE OF AVAILABLE HUES SHALL BE EQUIVALENT THE DICHROIC FILTER OFFERING OF LEE FILTERS, ROSCO LABORATORIES OR APOLLO DESIGN TECHNOLOGY.

DIMMING, BALLASTS, DRIVERS AND TRANSFORMERS:

A. UNLESS NOTED OTHERWISE, DIMMING BALLASTS SHALL BE PROVIDED IN TWO-WIRE, 5% MINIMUM CONFIGURATIONS COMPATIBLE WITH PHASE SENSITIVE DIMMERS, STANDARD SCR DIMMERS, LUTRON TU-WIRE, ADVANCE MARK X OR APPROVED EQUAL

B. THE ELECTRICAL CONTRACTOR AND LIGHTING SYSTEMS INTEGRATOR SHALL REVIEW THE ELECTRICAL COMPONENTS FOR ALL LUMINAIRES SHOWN CONNECTED TO DIMMERS AND PROVIDE ANY NECESSARY DIMMING MODULES, COMPONENTS AND/OR EXTRA CONDUCTORS NECESSARY FOR PROPER DIMMING

 WHERE BALLASTS, DRIVERS OR TRANSFORMERS ARE MOUNTED REMOTE FROM THE FIXTURE HOUSING, PROVIDE A SUITABLE ENCLOSURE WITHIN THE RECOMMENDED DISTANCE, WITH NEOPRENE PADS TO ISOLATE VIBRATION NOISE FOR MAGNETIC TRANSFORMERS OR BALLASTS.

SUBMITTALS A. CONTRACTOR TO PROVIDE A COMPLETE PACKAGE OF FIXTURE SUBMITTALS OF ALL LIGHTING PRODUCTS INTENDED TO BE FURNISHED FOR APPROVAL BY LIGHTING DESIGNER AND OWNER. SUBMITTALS ARE TO BE PROVIDED PRIOR TO ORDERING OR PURCHASE OF FIXTURES. SHOULD THE CONTRACTOR ANTICIPATE THAT THE DELIVERY SCHEDULE OF ANY SPECIFIED PRODUCT MIGHT ADVERSELY IMPACT THE 14. CONSTRUCTION SCHEDULE, IT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AT THIS TIME.

B. SHOP DRAWINGS

CONSIDERED WITHOUT PRIOR WRITTEN CONSENT FROM THE LIGHTING DESIGN CONSULTANT.

1) FOR LUMINAIRES THAT ARE NOT STANDARD CATALOG ITEMS WITH DATASHEETS PROVIDING SIMILAR DETAILS, SUBMIT MANUFACTURER'S SHOP DRAWINGS INDICATING OVERALL DIMENSIONS, DETAIL AND APERTURE DIMENSIONS, FINISHES, MATERIALS AND THICKNESSES, LENS OR DIFFUSER TYPES AND THICKNESSES, LAMP HOLDERS, LOCKING MECHANISMS FOR ADJUSTABLE LUMINAIRES, SHIELDING, TRIM, REFLECTOR AND GASKET DETAILS, METHOD OF RE-LAMPING ACCESS, MECHANICAL AND ELECTRICAL CONNECTIONS, AND ALL OTHER INFORMATION REQUIRED TO EVALUATE THE LUMINAIRE ALTERNATE PRODUCTS OTHER THAN THOSE SPECIFIED BY NAME AND MODEL NUMBER WILL NOT BE

1) WHERE SUBSTITUTION IS PROPOSED FOR A FAMILY OF FIXTURES SHARING A COMMON PLATFORM AND WHERE MULTIPLE FIXTURE TYPES CAN BE ACCURATELY REPRESENTED BY SWAPPING TRIMS, LAMPS OR ACCESSORIES WITHOUT THE USE OF TOOLS, A SINGLE FIXTURE SAMPLE MAY BE SUBMITTED ALONG WITH ALL OF THE RELEVANT TRIMS, LAMPS AND ACCESSORIES, CLEARLY LABELED, WITH ANY NECESSARY ASSEMBLY INSTRUCTIONS AND WITH A TABLE INDICATING WHICH ACCESSORIES ARE TO BE USED FOR EACH FIXTURE TYPE.

2) FIXTURES INSTALLED AS PART OF THE WORK SHALL BE IDENTICAL TO THE APPROVED SAMPLE. THE SAMPLES THEMSELVES SHALL NOT BE INSTALLED ON THE PROJECT.

 IN THE EVENT THAT THE SUBMITTED SAMPLES ARE DISAPPROVED, THE FIXTURES WILL BE RETURNED TO THE CONTRACTOR TO IMMEDIATELY MAKE A NEW SUBMITTAL OF A FIXTURE OR FIXTURE MEETING.

ALL SHIPPING CHARGES (ROUND-TRIP) ARE TO BE PRE-PAID BY THE CONTRACTOR.

INTERNALLY LIT OR BACKLIT FEATURES.

THE CONTRACTOR SHALL PREPARE MOCKUPS ACCORDING TO THE DIRECTION OF THE ARCHITECT, INTERIOR DESIGNER AND LIGHTING DESIGN CONSULTANT FOR THE FOLLOWING APPLICATIONS:

LIGHTING OF ART OR MEMORABILIA

SPECIAL EFFECTS LIGHTING.

4) UNIQUE COVE LIGHTING CONDITIONS, BOTH HORIZONTAL AND VERTICAL CONFIGURATIONS.

EXTERIOR FACADE LIGHTING OF UNIQUE ARCHITECTURAL DETAILS. MOCKUPS ARE TO BE PRESERVED AND PROTECTED UNTIL SUBSTANTIAL COMPLETION, UNLESS OTHERWISE DIRECTED IN WRITING BY THE ARCHITECT.

LIGHTING FIXTURE PRICING AND SUBSTITUTIONS

A. THE CONTRACTOR SHALL BASE LIGHTING FIXTURE BIDS ON THE MANUFACTURERS LISTED IN THE FIXTURE SCHEDULE.

B. ANY SUBMITTALS FOR COST-REDUCTION OR VALUE-ENGINEERING ALTERNATES SHALL INCLUDE A TABLE LISTING FIXTURE TYPE, SCHEDULED MANUFACTURER AND PART NUMBER, UNIT PRICE FOR THE SCHEDULED PRODUCT, PROPOSED ALTERNATE PRODUCT, AND UNIT PRICING FOR THE PROPOSED ALTERNATE.

ALL REQUIRED UNIT PRICING SHALL BE CONTRACTOR NET, AND SHALL LIST EQUIPMENT PRICES SEPARATE FROM THOSE FOR INSTALLATION OR MISCELLANEOUS ELECTRICAL COSTS:

THE CONTRACTOR SHALL SUBMIT OPERABLE FIXTURE SAMPLES FOR FIXTURE TYPES FOR WHICH A SUBSTITUTE IS PROPOSED, CONCURRENT WITH THE INITIAL SUBMITTAL OF FIXTURE DATA OR SHOP DRAWINGS. THE CONTRACTOR MAY, IN ADVANCE, SUBMIT A LIST OF THOSE PROPOSED ALTERNATES TO THE ARCHITECT AND LIGHTING DESIGN CONSULTANT TO DETERMINE IF THE SAMPLE REQUIREMENT MAY BE WAIVED FOR ANY OF THOSE FIXTURE TYPES.

INSTALLATION

FIELD-VERIFY THAT ANY FIXTURES NOTED AS "CONCEALED" ARE SHIELDED FROM VIEW FOLLOWING INSTALLATION OF THE FIRST ARTICLE. CONTACT THE ARCHITECT AND LIGHTING CONSULTANT IF CONCEALMENT IS DISCOVERED TO BE IMPOSSIBLE AS DETAILED.

VERIFY MOUNTING LOCATIONS AND HEIGHTS OF ALL DECORATIVE FIXTURES WITH THE ARCHITECT OR INTERIOR DESIGNER PRIOR TO INSTALLATION.

A. PRIOR TO INITIAL PUNCH LIST VISIT BY THE LIGHTING DESIGN CONSULTANT THE CONTRACTOR SHALL VERIFY THAT THE FOLLOWING ITEMS ARE COMPLETED.

1) ALL FIXTURES AND TRIMS HAVE BEEN CLEANED PER MANUFACTURER'S RECOMMENDATIONS TO REMOVE DUST, DIRT, PAINT, FINGERPRINTS, ETC.

2) THE PROPER LAMPS, LENSES, AND ACCESSORIES HAVE BEEN INSTALLED PER THE FIXTURE SCHEDULE AND APPROVED SUBMITTALS.

ALL TRIMS HAVE BEEN INSTALLED.

ALL FIXTURES ARE FULLY OPERABLE AND THE FIXTURES HAVE BEEN ENERGIZED.

5) ALL PORTIONS OF THE CONTROL, SWITCHING, AND DIMMING SYSTEMS ARE FULLY OPERABLE AND HAVE BEEN CONFIGURED FOR BASIC CHANNEL ASSIGNMENTS. FOCUS AIMING AND ADJUSTMENTS

A. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, LIFTS, LADDERS AND OTHER MATERIALS REQUIRED TO AIM AND ADJUST LIGHTING FIXTURES ACCORDING TO THE LIGHTING DESIGN CONSULTANT'S INTENT AND UNDER THE CONSULTANT'S OBSERVATION. CREWS PROVIDED TO WORK WITH THE CONSULTANT SHOULD BE ABLE TO COMMUNICATE EFFECTIVELY IN ENGLISH.

B. AT MINIMUM, ALLOW 3 TO 5 MINUTES TIME TO AIM EACH ADJUSTABLE LIGHTING FIXTURE, PLUS ADDITIONAL. TIME AS REQUIRED TO RELOCATE LADDERS. ALLOW ADDITIONAL TIME WHERE HIGH-REACH LIFTS ARE REQUIRED, OR WHERE OBSTRUCTIONS INTERFERE WITH ACCESS.

C. PRIOR TO AIMING AND ADJUSTMENT, THE CONTRACTOR SHALL VERIFY THAT:

ALL FIXTURES ARE INSTALLED AND OPERABLE.

THE SCHEDULED LAMP HAS BEEN INSTALLED IN EACH FIXTURE, INCLUDING WATTAGE, BEAM SPREAD

AND COLOR TEMPERATURE. 3) ANY SCHEDULED ACCESSORIES INCLUDING LENSES, LOUVERS AND COLOR FILTERS HAVE BEEN

INSTALLED. SPARES ARE AVAILABLE ON-SITE FOR EACH LAMP TYPE.

5) THE CREW IS EQUIPPED WITH ANY NECESSARY TOOLS NECESSARY TO ACCESS, ADJUST AND SECURE ALL FIXTURE TYPES.

 ANY PERSONNEL LIFTS TO BE USED ARE OPERABLE AND, IF BATTERY-OPERATED, FULLY CHARGED. ANY NECESSARY PROTECTIVE MATERIALS ARE IN PLACE AT FLOORS WHERE LADDERS OR LIFTS ARE

TO BE USED. D. THE CONTRACTOR SHALL CONTACT THE ARCHITECT AND LIGHTING DESIGN CONSULTANT AT LEAST TWO AT EXTERIORS OR AT INTERIOR LOCATIONS RECEIVING SIGNIFICANT AMOUNTS OF DAYLIGHT SHALL BE SCHEDULED TO OCCUR AFTER DUSK. THE GENERAL WORK OF THE PROJECT SHALL BE COORDINATED TO SO THAT INCOMPATIBLE WORK IS NOT SCHEDULED DURING THE SESSIONS, AND SO THAT ALL NECESSARY

AREAS OF THE PROJECT ARE ACCESSIBLE DURING THE SESSIONS. 13. PAINTING

FROM ADJACENT WORK

A. IN ORDER TO PREVENT DAMAGE TO TRIMS AND ADJACENT FINISHES DURING MAINTENANCE OR ADJUSTMENT, DOWNLIGHT TRIMS AND SIMILAR COMPONENTS SHALL NOT BE INSTALLED UNTIL PAINT. PLASTER, STUCCO OR OTHER TREATMENT AT THE FINISH SURFACE HAS BEEN APPLIED AND ALLOWED TO DRY THOROUGHLY, OR TRIMS SHALL BE TEMPORARILY REMOVED AND SET ASIDE WHILE SUCH TREATMENT IS APPLIED AND ALLOWED TO DRY THOROUGHLY.

WHERE THE DRAWINGS OR SCHEDULE NOTES THAT A TRIM IS TO BE PAINTED TO MATCH THE ADJACENT FINISH, THE EXPOSED SURFACE OF THE TRIM RING, PINHOLE APERTURE, OR SLOT APERTURE TRIM PARALLEL TO THE PLANE OF THE INSTALLATION SURFACE AND INCLUDING THE RETURN TO THE SURFACE AT ITS OUTER EDGE SHALL BE CLEANED, PRIMED, PAINTED AND ALLOWED TO DRY PRIOR TO ITS INSTALLATION. WHERE THAT NOTE IS APPLIED TO SELF-FLANGED REFLECTOR TRIMS, THE CONE SHALL BE MASKED AND PROTECTED FROM THE POINT WHERE IT MEETS THE INSIDE CIRCUMFERENCE OF THE FLANGE.

ANY SCREWS. FASTENERS OR OTHER HARDWARE, WHICH MUST BE MANIPULATED FOR FIXTURE ADJUSTMENT OR MAINTENANCE, SHALL BE PROTECTED FROM BEING FIXED IN PLACE BY PAINT. PRIOR TO SUBSTANTIAL COMPLETION, ALL EXPOSED COMPONENTS SHALL BE CLEANED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS TO REMOVE ALL DUST, PAINT, FINGERPRINTS OR OTHER DEBRIS OR RESIDUE









OR **REVISIONS:**

NO DATE DESCRIPTION

PROJECT NUMBER: 123134.00

ISSUED FOR: PERMIT SET SHEET TITLE: GENERAL LIGHTING

REQUIREMENTS

07/03/25

SHEET NUMBER

GENERAL LIGHTING CONTROL REQUIREMENTS

PART 1 - GENERAL REQUIREMENTS

- A. ELECTRICAL CONTRACTOR GENERAL REQUIREMENTS
- WORK INCLUDES FURNISHING, DELIVERY, AND INSTALLATION OF NEW LIGHTING CONTROL EQUIPMENT, LIGHTING DATA DISTRIBUTION, DIMMER RACKS, AND POWER CIRCUIT RELAY SWITCHING EQUIPMENT. PROVIDE A COMPLETELY FUNCTIONING LIGHTING CONTROL SYSTEM. ALL EQUIPMENT, FITTINGS, AND PERIPHERAL DEVICES FOR CORRECT SYSTEM OPERATION SHALL BE QUOTED, SUPPLIED, INSTALLED,
- CONFIGURED, TESTED, AND COMMISSIONED. VERIFY ACCESSIBLE MOUNTING LOCATIONS, MOUNTING HARDWARE, AND WIRING REQUIREMENTS FOR
- ALL REMOTE DRIVERS, TRANSMITTERS, RECEIVERS, AND CONTROL INTERFACE DEVICES. VERIFY THAT ALL LED LIGHTING SOURCES HAVE POWER SUPPLY DRIVERS AND DMX CONTROL DEVICES
- THAT ARE APPROPRIATE FOR THE LIGHTING CONTROL SYSTEM. COORDINATE WITH THE CONTROL EQUIPMENT MANUFACTURER REGARDING ANY NON-STANDARD LOAD WIRING. ALL DMX OR 0-10V LOAD TYPES SHALL ALSO BE PAIRED WITH A SWITCHED CIRCUIT ON A CONTROL
- CHANNEL-BY-CHANNEL BASIS TO PROVIDE LOW-END TURN OFF CAPABILITIES. PROVIDE LOW VOLTAGE WIRING PER THE SYSTEMS MANUFACTURER'S FINAL SHOP DRAWINGS. PROVIDE LIGHTING CONTROL OPERATING SOFTWARE, INCLUDING UPGRADES AT NO ADDITIONAL COST
- FOR 3 YEARS AFTER SYSTEM ACCEPTANCE. PROVIDE THE SERVICES OF A FACTORY-TRAINED AND AUTHORIZED REPRESENTATIVE OF THE LIGHTING CONTROL SYSTEM MANUFACTURER TO CONFIGURE, TEST, AND COMMISSION THE CONTROL SYSTEM. B. LIGHTING CONTROL INTEGRATION REQUIREMENTS
- ENGINEER THE LIGHTING CONTROL SYSTEM AND ITS RELATED COMPONENTS, BASED UPON THE DESIGN INTENT OF THE LIGHTING DESIGN CONSULTANT. ALL SYSTEM DRAWINGS MUST BE COORDINATED WITH THE ELECTRICAL ENGINEER'S AND ARCHITECT'S DRAWINGS AND SPECIFICATIONS. ENGAGE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF JURISDICTION TO PREPARE ANY ENGINEERING
- CALCULATIONS REQUIRED BY CODE. DOCUMENT ALL LOW-VOLTAGE LED WIRING REQUIREMENTS INCLUDING LED DRIVER TYPES, REMOTE
- DRIVER LOCATIONS, 0-10V DIMMING DEVICES, 0-10V WIRING DIAGRAMS, AND DMX WIRING DIAGRAMS. VERIFY THE APPROPRIATE DIMMER MODULES THAT ARE REQUIRED FOR PROPERLY CONTROLLING LED LIGHTING LOADS WITH SMOOTH FADE CURVES AND NO FLICKERING.
- PROVIDE LIGHTING CONTROL INTEGRATION SHOP DRAWINGS, INCLUDING MANUFACTURER EQUIPMENT DRAWINGS, CONTROL RISER DIAGRAMS, CONTROL EQUIPMENT DETAIL DRAWINGS, AND CIRCUIT SCHEDULES. THE SHOP DRAWINGS AND RELATED EQUIPMENT DATA SHALL BE SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF DIVISION 1. SHOP DRAWINGS SHALL BE A UNIFIED PACKAGE COVERING ALL SYSTEM COMPONENTS WITH TITLE BLOCKS. COVER PAGES ON MANUFACTURER DRAWINGS ARE NOT ACCEPTABLE.
- PROVIDE THE SERVICES OF A PROJECT MANAGER WHO SHALL CONDUCT SITE VISITS DURING CONSTRUCTION, TO VERIFY FIELD CONDITIONS, AND TO ATTEND PRE-CONSTRUCTION COORDINATION
- AND CONSTRUCTION PROJECT MEETINGS, AS REQUIRED. REVIEW, VERIFY AND DOCUMENT ALL CIRCUITRY WIRING AND LIGHTING NETWORK DATA WIRING THAT WILL BE CONNECTED TO THE LIGHTING CONTROL SYSTEM.
- SUPERVISE OR PERFORM ALL LOW-VOLTAGE LIGHTING CONTROL DATA WIRING TERMINATIONS. CONFIGURE THE ADDRESSING OF DMX-CONTROLLED LIGHTING FIXTURES. CONFIGURE AND PROGRAM
- THE LIGHTING CONTROL SYSTEM ACCORDING TO THE LIGHTING DESIGN CONSULTANT'S DIRECTION. C. THE CONTRACTOR AND SYSTEMS INTEGRATOR SHALL PROVIDE THE FOLLOWING ON-SITE CONFIGURATION AND
- SUFFICIENT CONFIGURATION TIME TO PROPERLY TERMINATE ALL CONTROL WIRING; BIND ALL CONTROL INTERFACE DEVICES TO THE SYSTEM; CONFIGURE DMX AND LIGHTING CONTROL NETWORKS; TEST ALL CONTROL DEVICES; VERIFY ALL LOAD CIRCUIT ASSIGNMENTS; SET AND PATCH CONTROL ADDRESSES FOR ANY LIGHTING FIXTURES WHICH UTILIZE CONTROL DATA; AND PERFORM ANY OTHER TASKS WHICH ARE NECESSARY FOR THE TESTING AND PROPER CONFIGURATION OF THE SYSTEM PRIOR TO PROGRAMMING
- LIGHTING SCENES AND SEQUENCES. MINIMUM 3 DAYS OF PROGRAMMING ASSISTANCE UNDER THE CREATIVE DIRECTION OF THE LIGHTING DESIGN CONSULTANT TO SET LEVELS FOR LIGHTING PRESETS: AND DYNAMIC SEQUENCES. THE TECHNICIAN ASSISTING THE CONSULTANT SHALL HAVE PRIOR EXPERIENCE WITH EACH TYPE OF SYSTEM AND SOFTWARE TO BE USED, AND SHALL HAVE PERFORMED THIS FUNCTION ON PROJECTS OF SIMILAR
- MINIMUM 2 DAY OF PROGRAMMING ASSISTANCE UNDER THE CREATIVE DIRECTION OF THE OWNER OR THE LIGHTING DESIGN CONSULTANT TO REVISE LIGHTING EFFECTS OR TO CREATE NEW LIGHTING EFFECTS,
- IF REQUESTED BY THE OWNER, 2 MONTHS AFTER SYSTEM ACCEPTANCE. MINIMUM 2 DAYS OF SYSTEM RE-CONFIGURATION, IF REQUESTED BY THE OWNER OR LIGHTING DESIGN
- CONSULTANT, 6 MONTHS AFTER SYSTEM ACCEPTANCE. MINIMUM 1 DAY OF PROGRAMMING ASSISTANCE UNDER THE CREATIVE DIRECTION OF THE OWNER OR THE
- LIGHTING DESIGN CONSULTANT TO REVISE LIGHTING EFFECTS OR TO CREATE NEW LIGHTING EFFECTS, IF REQUESTED BY THE OWNER, 9 MONTHS AFTER SYSTEM ACCEPTANCE. THE SERVICE DURATIONS LISTED ESTABLISH MINIMUMS. THE CONTRACTOR SHALL NEGOTIATE THE TIME NECESSARY TO CONFIGURE THE SYSTEM AT THE TIME AND THE REQUISITE STAGE OF PREPARATION PRIOR TO THE LIGHTING DESIGN CONSULTANT'S OR OWNER'S ON-SITE LIGHTING DIRECTION WORK

SESSIONS. IN NO EVENT SHALL THE TIME ALLOCATED FOR ONSITE LIGHTING DIRECTION BE REDUCED TO ALLOW FOR ADDITIONAL SYSTEM CONFIGURATION TIME, NOR SHALL THE OWNER BE CHARGED FOR

- ADDITIONAL TIME WHERE THE SYSTEM DESIGN HAS NOT BEEN CHANGED. D. COMPLETION AND WARRANTY
 - PROVIDE TO THE OWNER (3) COPIES OF AN "OPERATION AND SERVICE MANUAL", BOUND IN A HARD-COVER BINDER AND CONTAINING FINAL AS-BUILT SHOP DRAWINGS, CATALOG DATA, OPERATIONS AND MAINTENANCE DATA, PARTS LISTS, SOURCES FOR PARTS AND SERVICE, GUARANTEES AND WARRANTEES, LIGHTING CONTROL SCHEDULES, AND INSTRUCTIONS NECESSARY FOR THE PROPER OPERATION AND MAINTENANCE OF THE SYSTEM. THE INSTRUCTIONS MUST BE WRITTEN IN A MANNER THAT EASILY DESCRIBES THE NECESSARY DAY-TO-DAY OPERATING PROCEDURES.
- THE ELECTRICAL CONTRACTOR OR AUTHORIZED MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE A MINIMUM OF THREE (3) HOURS OPERATIONS AND MAINTENANCE INSTRUCTION TO THE OWNER'S OPERATIONS PERSONNEL. ALL TRAINING SESSIONS SHALL BE COORDINATED WITH THE OWNER'S SCHEDULE. COST OF SUCH INSTRUCTIONAL SERVICES SHALL BE PART OF THE CONTRACTOR'S BID. FURNISH GUARANTEES COVERING ALL WORK IN ACCORDANCE WITH THE GENERAL REQUIREMENTS OF
- THE CONSTRUCTION CONTRACT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FIELD SERVICE MAINTENANCE, AT NO COST TO THE OWNER. WITHIN 24 HOURS OF NOTIFICATION OF SYSTEM MALFUNCTION. THIS SERVICE RESPONSE SHALL
- BE IN EFFECT FOR A PERIOD OF 12 MONTHS AFTER THE OWNER ACCEPTANCE OF THE SYSTEM. IF, DUE TO CONTRACTOR INSTALLATION-CAUSED MATTERS, THE LIGHTING DESIGN CONSULTANT IS REQUIRED TO PROVIDE EXTRA ONSITE DESIGN COORDINATION AND IMPLEMENTATION SERVICES AFTER THE OWNER APPROVED AND AGREED UPON SITE VISITS, THE CONTRACTOR MUST COMPENSATE THE LIGHTING DESIGN CONSULTANT AT THEIR STANDARD HOURLY OR DAILY RATES FOR ALL TIME EXPENDED ONSITE FOR ADDITIONAL PUNCH LIST NOTES, ADDITIONAL BACK CHECKS, EXTRA FOCUS AIMING WORK SESSIONS, OR EXTRA PROGRAMMING WORK SESSIONS.
- E. THE ABOVE SCOPE OF WORK IS INTENDED AS A REFERENCE GUIDE ONLY AND IS NOT INTENDED TO DEFINE THE LIMITS OF THE WORK NECESSARY FOR A COMPLETE INSTALLATION. ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE PROPER OPERATION OF THE LIGHTING CONTROL SYSTEM MUST BE PROVIDED.

PART 2 — LIGHTING CONTROL SYSTEM DESIGN INTENT A. OVERALL SYSTEM DESCRIPTION

- 1. THE LIGHTING CONTROL SYSTEM WILL BE BASED AROUND A SYSTEM OF ONE OR MORE MAIN CONTROL STATIONS THAT INTEGRATE USER CONTROLS AND PROCESSORS. THE MAIN CONTROL STATIONS SHALL BE PROGRAMMABLE PROCESSOR THAT IS CAPABLE OF MANAGING ALL LIGHTING LEVELS AND RECALLABLE PRESETS, AS WELL AS MANAGING ALL REMOTE-CONTROL STATIONS, PROGRAMMING PORTS, AND AUXILIARY INPUTS, OUTPUTS AND OTHER INTERFACES TO THE SYSTEM.
- 2. ALL LIGHTING FIXTURES IN THE PUBLIC SPACES THAT ARE EQUIPPED WITH DIMMABLE DRIVERS OR SOURCES SHALL BE CONNECTED TO APPROPRIATE MODULES IN A DIMMING PANEL, CONNECTED TO THE LIGHTING CONTROL SYSTEM. NON-DIMMABLE LIGHTING FIXTURES IN THOSE SPACES SHALL BE CONNECTED TO RELAYS CONTROLLED BY THE SYSTEM.
- 3. THE CONTROL SYSTEM FOR FRONT-OF-HOUSE INTERIOR LIGHTING SHALL BE CAPABLE OF RECORDING ALL CONNECTED LIGHTING INTO RECALLABLE PRESETS, FOR MULTIPLE INDEPENDENTLY CONTROLLED AREAS. WITHIN EACH PRESET, EACH CONNECTED DIMMER IS TO BE PROGRAMMABLE TO A LEVEL SPECIFIC TO THAT INDIVIDUAL PRESET. EACH CONNECTED RELAY IS TO BE SWITCHABLE ON OR OFF WITHIN EACH PRESET.
- 4. THE CONTROL SYSTEM FOR FRONT-OF-HOUSE INTERIOR LIGHTING SHALL BE CAPABLE OF TRIGGERING SCHEDULED EVENTS FROM A REAL-TIME CLOCK AND RELATIVE TO SUNSET & SUNRISE. 5. A MAIN CONTROL STATION WILL BE PROVIDED AT A BACK-OF-HOUSE LOCATION, OR AS A PART OF THE
- DIMMING PANELS, FROM WHICH LIGHTING LEVELS CAN BE SET WITHOUT USE OF PORTABLE EQUIPMENT. CONTROL STATIONS FOR FRONT-OF-HOUSE INTERIOR LIGHTING WILL BE PROVIDED AT MULTIPLE LOCATIONS. THE MASTER LCD CONTROL STATION WILL BE IN THE ELECTRICAL ROOM INTEGRATED INTO THE CONTROL EQUIPMENT RACK (CER). THE PRIMARY CONTROL STATION SHALL BE CAPABLE OF CONTROLLING LIGHTING LEVELS AND SELECTING PRESETS FOR ALL AREAS. THE SECONDARY CONTROL STATION SHALL BE CAPABLE OF CONTROLLING LIGHTING LEVELS AND SELECTING PRESETS IN THE REGISTRATION AND CIRCULATION AREAS AS WELL AS RESTROOMS. ALL F&B VENUES TO HAVE THEIR OWN LOCAL CONTROL STATION FOR CONTROL OF LIGHTING ZONES WITHIN THOSE AREAS. ANY STATION WILL BE CAPABLE OF BEING LOCKED OUT, EITHER LOCALLY VIA A PASSWORD, OR REMOTELY FROM THE MASTER

- 7. A MINIMUM OF ONEA LOCAL CONTROL STATION WILL BE CONNECTED TO THE MASTER LIGHTING PROCESSOR FOR USE DURING PROGRAMMING OR FOR CONTROL OF LIGHTING PARAMETERS AT ANY OF THE DEFINED SPACES.
- 8. IF REQUIRED, IN SOME AREAS, BLUETOOTH INTERFACE STATIONS WILL BE PROVIDED TO ALLOW CONFIGURATION, SCENE SELECTION, AND SCHEDULE EDITING VIA A MOBILE DEVICE. EACH SPACE WILL BE CAPABLE OF RECALLING MULTIPLE PRESETS MANUALLY VIA LOCAL OR REMOTE CONTROL STATIONS, OR VIA REAL-TIME CLOCK EVENT PROGRAMMING PORT WILL BE PROVIDED IN EVERY SPACE TO ALLOW FOR SETUP AND PROGRAMMING OF THE LIGHTING LEVELS AND FOR USE WITH
- MAINTENANCE & TROUBLESHOOTING. 10. WHERE AUTOMATIC DAYLIGHT CONTROLS ARE REQUIRED BY CODE, LIGHTING FIXTURES IN DAYLIT ZONES SHALL BE CIRCUITED TO DIMMERS AND RELAYS SEPARATE FROM THOSE OUTSIDE OF DAYLIT ZONES.
- AUTOMATIC DAYLIGHT CONTROLS SHALL BE CONFIGURED WITH UPPER AND LOWER THRESHOLDS AND RESPONSE TIMES SET BROADLY ENOUGH TO AVOID EXCESSIVE CYCLING FROM CHANGES IN DAYLIGHT
- 12. OCCUPANT-SENSING CONTROLS SHALL BE CONFIGURED WITH A DELAY TIME TO BE CONFIRMED WITH AUTHORIZED MANUFACTURER'S REPRESENTATIVE WILL BE RESPONSIBLE FOR INTEGRATING CONTROL OF ALL ARCHITECTURAL LIGHTING ELEMENTS AND PROGRAMMING CONTROL SYSTEM FOR CORE FUNCTIONALITY. THE CONTRACTOR OR AN AUTHORIZED MANUFACTURER'S REPRESENTATIVE WILL WORK WITH THE LIGHTING DESIGN CONSULTANT IN SETTING INITIAL LIGHTING LEVELS AS PRESETS AND TO ENSURE THAT THE PROGRAMMING OF THE SYSTEM WILL ALLOW THE END-USER TO MODIFY LEVELS, PRESETS, AND EVENT ACTIVATION BASED ON THE OWNER'S REQUIREMENTS.
- B. SYSTEM COMPONENTS
- 1. THE DIMMING AND CONTROL SYSTEM SHALL BE PROVIDED WITH SUFFICIENT CAPACITY TO SUPPORT THE NUMBER OF CONTROL ZONES INDICATED ON THE DRAWINGS. A "ZONE" SHALL BE DEFINED AS A GROUP OF LIGHTS ON ONE OR MORE DIMMERS OR RELAYS, CONFIGURED TO OPERATE AS A SINGLE CONTROL
 - PROVIDE A MAIN CONTROL STATION THAT INTEGRATES A TOUCHSCREEN OR OTHER APPROVED USER INTERFACE WITH A LIGHTING CONTROL PROCESSOR. PORTABLE DEVICES OR THIRD-PARTY SERVICE
 - SHALL NOT BE REQUIRED TO PROGRAM LIGHTING LEVELS VIA THE MAIN CONTROL STATIONS. PROVIDE MODULAR RELAY/DIMMER POWER PANELS AS REQUIRED WITH AN INTEGRAL PROCESSOR FOR NEW LIGHTING LOADS. REFER TO LIGHTING DESIGN DRAWINGS AND ELECTRICAL DRAWINGS FOR LIGHTING
- CONTROL LOAD SCHEDULES AND CIRCUITRY REQUIREMENTS. PROVIDE THE APPROPRIATE DIMMER MODULES AND SWITCH RELAY MODULES PER THE CONTROL PANEL SCHEDULE AND THE FINAL DESIGN PLANS. THE CONTRACTOR MUST VERIFY ALL MODULE TYPES PRIOR TO
- THE COMPLETION OF THE SHOP DRAWING SUBMITTALS. FOR CONTROL OF 0-10V DEVICES PROVIDE AN INTERFACE UNIT SPECIFICALLY DESIGNED TO PROVIDE 0-
- 10V CONTROL FOR LIGHTING SYSTEMS.
- IF REQUIRED, PROVIDE TIMECLOCK MODULES CONFIGURED TO TRIGGER PRESETS ON THE DIMMER/RELAY PANELS.
- PROVIDE PUSHBUTTON KEYPAD CONTROL STATIONS FOR LOCAL CONTROL OF LIGHTING PRESETS. PROVIDE CONTROL RECEPTACLE STATIONS FOR SYSTEM CONFIGURATION.
- WHERE REQUIRED BY APPLICABLE ENERGY CODES, PROVIDE AND CONFIGURE OCCUPANCY SENSORS. 10. WHERE AUTOMATIC DAYLIGHT CONTROLS ARE REQUIRED BY APPLICABLE ENERGY CODES, PROVIDE AND
- 11. IF REQUIRED, CONFIGURE THE SYSTEM TO RESPOND TO A SIGNAL FROM THE LIFE SAFETY SYSTEM BY OVERRIDING LEVELS FROM THE HOTEL LOBBY CONTROLLER, WITH PREDETERMINED STATIC PRESETS.
- 12. IF REQUIRED, CONFIGURE THE SYSTEM AND PROVIDE NECESSARY CONTROL COMPONENTS SUCH THAT ALL LIGHTING FIXTURES CONNECTED TO EMERGENCY POWER WILL TURN ON AT FULL OUTPUT WHEN NORMAL POWER IS LOST.
- BASIS OF DESIGN PRODUCTS
- FRONT OF HOUSE PUBLIC SPACES: LUTRON
 - a. CONTROL SYSTEM: LUTRON ATHENA 1 LINK WITH QX DIN RAIL PANEL/LQSE MODULES.
 - b. DIMMING AND RELAY PANELS: INTEGRAL TO MAIN CONTROL UNITS. c. KEYPAD CONTROL STATIONS: 'SEETOUCH'
- GUESTROOM AND RESIDENCE UNITS: LUTRON
- a. CONTROL SYSTEM: LUTRON MYROOM WITH GUEST ROOM MANAGEMENT SYSTEM AND BASIC CODE
- b. SEE DEPLOYED TECH DRAWINGS FOR FULL BASIS OF DESIGN SYSTEM REQUIREMENTS.









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SHEET TITLE: **GENERAL LIGHTING** REQUIREMENTS

SHEET NUMBER

EXTERIOR				MANUFACTURER PRODUCT CODE	LIGHT SOURCE	POWER SUPPLY	WATTS (EACH OR PER FOOT)	WATTS (EACH OR PER FOOT)	FIXTURE VOLTAGE	CONTROL METHOD	REQUIRED MINIMUM DIMMING RANGE	LOCATION FIXTURE NOTES	SOURCE TYPE
I FV+	ERIOR WET RATED FACTORY	STANDARD	GROUND	TARGETTI - KEPLERO	INTEGRAL LED	INTEGRAL	14	14	120/277V	0-10V	1%	LANDSCAPE	INTEGRAL LED
SEA VOL UPL	ERIOR WET RATED FACTORY LED 6" ROUND LINE TAGE ADJUSTABLE LED LIGHT WITH 18" RAISED TUBE TALLATION ASSEMBLY	STANDARD	GROUND	KPLMFS-HE- F-27-1DU2525K-1DU4344-18 -1DU2530		INTEGRAL	14	14	120/2777	0-100	170	LANDSCAPE	INTEGRAL LED
VOL WAL	ERIOR WET RATED LOW TAGE ADJUSTABLE LED LL WASHER WITH WET TED REMOTE DRIVER	STANDARD	GROUND	SPJ LIGHTING SPJ-LSL-12-FINISH-6W-27K-12V TRANSFORMER: SPJ-60L12	INTEGRAL LED BEAM: WW CCT: 2700K CRI: 80 LUMENS: 650	REMOTE	6	6	120V PRIMARY/ 12V SECONDARY			POOL DECK SPA ACCENT	INTEGRAL LED
LINE	ERIOR WET RATED 3" ROUND E VOLTAGE LED UPLIGHT H 9" RAISED TUBE TALLATION ASSEMBLY	STANDARD	GROUND	TARGETTI - JUPITER JU-R-FL-L2-27-24-BK-LV-POWER SUPPLY-1US3175X	INTEGRAL LED BEAM: 39° CCT: 2700K CRI: 80 LUMENS: 674	REMOTE	7	7	120V PRIMARY/ 24V SECONDARY			LANDSCAPE	INTEGRAL LED
VOL	ERIOR WET RATED 42" LINE TAGE LED BOLLARD WITH E 4 FORWARD THROW TICS	STANDARD	GROUND	STRUCTURA - MAC BOLLARD MAC-42-L27SO-4-WOOD FINISH- METAL FINISH-UNV-STD	INTEGRAL LED BEAM: TYPE 4 CCT: 2700K CRI: 90 LUMENS: CONTACT FACTORY	INTEGRAL	12	12	120/277V	0-10V	1%	SITE	INTEGRAL LED
LED SEL	OUND APERTURE RECESSED FIXED DOWNLIGHT WITH F FLANGED TRIM, IC JSING, AND NARROW FLOOD	STANDARD	RECESSED	VISUAL COMFORT HOUSING: ENCL3R-F-L15-I TRIM: ENCL3R-F-D-927-FINISH- FLANGE FINISH	INTEGRAL LED BEAM: 40° CCT: 2700K CRI: 90 LUMENS: 1300	INTEGRAL	15	15	120V	ELECTRONIC LOW VOLTAGE/ REVERSE PHASE	1%	SITE	INTEGRAL LED
REC DOV FLAI	CESSED LED FIXED WNLIGHT WITH SELF NGED TRIM, NON IC JSING, AND WIDE FLOOD	STANDARD	RECESSED	VISUAL COMFORT - HOUSING: E4PR-F-L27-D-N- VOLTS TRIM: EPR-F-R-D-927-6-FINISH- FLANGE FINISH	INTEGRAL LED BEAM: 60° CCT: 2700K CRI: 90 LUMENS: 2550	INTEGRAL	27	27	120/277V	0-10V	1%	PORTE COCHERE	INTEGRAL LED
4" SI REC DOV FLAI		STANDARD	RECESSED	VISUAL COMFORT - HOUSING: E4PR-F-L24-927-4-A-N- VOLTS TRIM: EPR-F-R-A-927-6-FINISH- FLANGE FINISH	INTEGRAL LED BEAM: 40° CCT: 2700K CRI: 90	INTEGRAL	24	24	120/277V	0-10V	1%	PORTE COCHERE	INTEGRAL LED
WEI	T LISTED SURFACE MOUNTED	STANDARD	SURFACE	ALUZ	LUMENS: 1800 INTEGRAL LED	REMOTE	2.5	2.5	120V PRIMARY/	0-10\/	1%	BENCH	INTEGRAL LED
LOW WAF LIGH	V VOLTAGE SINGLE COLOR RM WHITE LED LINEAR STRIP HT WITH CHANNEL, FROSTED IS, 120 DEGREE OPTIC	STANDARD		A8-ZIGY-STN-F-2.5W-10V-27K-WET-FINISH-LENGTH MOUNTING: A8-ZIGY-STN-MC PROVIDE POWER SUPPLY AND ACCESSORIES FOR CODE COMPLIANT INSTALLATION	BEAM: 120° CCT: 2700K CRI: 90 LUMENS: 257/FT	REWIOTE	2.3	2.3	24V SECONDARY	0-100	1 70	BENCH	INTEGRAL LED
ILLU LIGH	T LISTED SURFACE MOUNTED JMINATED HANDRAIL HTING HTEM	STANDARD	SURFACE	WILA - PUCK XT LUMINAIRE: PUCK-XT-RD-27K- ASB POWER SUPPLY:RMTPS- UNV-20-500-DIM HANDRAIL TO BE INCLUDED AND SPECIFICATINO COORDINATED	INTEGRAL LED BEAM: 80° CCT: 2700K CRI: 80 LUMENS: 160	REMOTE	1.5	1.5	120/277V	0-10V	1%	STAIRS	INTEGRAL LED
LINE WAF LIGH	T LISTED SURFACE MOUNTED E VOLTAGE SINGLE COLOR RM WHITE LED LINEAR STRIP HT WITH CHANNEL, FROSTED IS, 120 DEGREE OPTIC,	STANDARD	SURFACE	WITH LANDSCAPE ARCHITECT ACCLAIM FLEX 120 FAC-101-[LENGTH]-[END TYPE]-A MOUNT: FACLPC500 SHORT LENSE: FACCL500 CLEAR	INTEGRAL LED BEAM: 120° CCT: 2700K CRI: 90 LUMENS: 308/FT	INTEGRAL	3.8	3.8	120V	0-10V	1%	EAVE	INTEGRAL LED
LOW WAF LIGH	T LISTED SURFACE MOUNTED V VOLTAGE SINGLE COLOR RM WHITE LED LINEAR STRIP HT WITH CORNER CHANNEL, OSTED LENS, 120 DEGREE TIC	STANDARD	SURFACE	ALUZ A8-ZIGY-CRN-F-3.6W-10V-27K-WET-FINISH-LENGTH MOUNTING: A8-ZIGY-CRN-MC PROVIDE POWER SUPPLY AND ACCESSORIES FOR CODE COMPLIANT INSTALLATION	INTEGRAL LED BEAM: 120° CCT: 2700K CRI: 90 LUMENS: 370/FT	REMOTE	3.6	3.6	120V PRIMARY/ 24V SECONDARY	0-10V	1%	PORTE COCHERE	INTEGRAL LED
LOW WAF LIGH	T LISTED SURFACE MOUNTED V VOLTAGE SINGLE COLOR RM WHITE LED LINEAR STRIP HT WITH CHANNEL, FROSTED IS, 120 DEGREE OPTIC	STANDARD	SURFACE	ALUZ A8-ZIGY-STN-F-2.5W-10V-27K- WET-FINISH-LENGTH MOUNTING: A8-ZIGY-STN-MC PROVIDE POWER SUPPLY AND ACCESSORIES FOR CODE COMPLIANT INSTALLATION	INTEGRAL LED BEAM: 120° CCT: 2700K CRI: 90 LUMENS: 257/FT	REMOTE	2.5	2.5	120V PRIMARY/ 24V SECONDARY	0-10V	1%	POOL BAR	INTEGRAL LED
VOL WHI WITI	RFACE MOUNTED LINE TAGE SINGLE COLOR WARM ITE LED LINEAR STRIP LIGHT H ADJUSTABLE MOUNT, 60 X DEG OPTIC	STANDARD	SURFACE	ALUZ A1ZIBI-PVT-60D- FINISH-27K-8W-10V-FEED-IP67- UNV-LENGTH	INTEGRAL LED BEAM: 60° X 60° CCT: 2700K CRI: 90 LUMENS: 1000/FT	INTEGRAL	8	8	120/277V	0-10V	1%	PORTE COCHERE	INTEGRAL LED
RES ADJ WITI PED	T LISTED CORROSION SISTANT, SURFACE MOUNTED USTABLE LED ACCENT LIGHT H WIDE FLOOD OPTICS, DESTAL STANCHION AND F VISOR	STANDARD	SURFACE	HYDREL 4750L-4FT-1000LMF-27K-MVOLT- WFL-MOUNT-PSSA-HVSR-INJB- ELV-BL	INTEGRAL LED BEAM: 95 x120° CCT: 2700K CRI: 84 LUMENS: 7296	INTEGRAL	64	64	120/277V	0-10V		ENTRY SIGNAGE	INTEGRAL LED
LUM	MINAIRE PER CITY NDARDS	POLE: GRAY RAL 7040 ARM & BASE: CARNEGIE BRICK	GROUND	MOUNTAIN STATES LIGHTING: POLE: 13RSA-4.5-SO-TUS SSARM/CAN/RINGS 4'L/18"R-16"GAL V-HH- P7040/CARNBR FIXTURE: DAN-D4-NL-60W2700K- U-2-CR-PEN-N-CC	INTEGRAL LED BEAM: TYPE 2 CCT: 2700K CRI: 90 LUMENS: 228	INTEGRAL	60	60	120/277V	0-10V	1%	CITY STREET	INTEGRAL LED
PP2 ROLL	D" TALL STRAIGHT STEEL JND 5" POLE WITH EXTERIOR FED POST TOP HOOD LED MINAIRE WITH BATWING FICS, FLOWER POT HANGER CESSORY	METAL	GROUND	TEKA - LARGE BEACON POLE MOUNT POLE: SR5-12-FLOWER POT HANGER FIXTURE: LBP-SD27-LED-X48-BW- FINISH-S-DT-HH-D57-MT	INTEGRAL LED BEAM: BATWING CCT: 2700K CRI: 90 LUMENS: 5150	INTEGRAL	57	57	120/277V	0-10V	1%	COURTYARD	INTEGRAL LED
POL LED TYP LOU HOF BAN	E WITH EXTERIOR RATED	WOOD & BLACK METAL	GROUND	STRUCTURA - BEAM POLE: BEAM-16-8-6-METAL FINISH-A20-B0-WOOD FINISH- BNR-BC WITH HORIZONTAL MAST ARM-FLOWER POT HANGER ACCESSORY FIXTURE: LSI XDLM-A-3-LED-LW-WW-UE-BLK- CH-S-IL	INTEGRAL LED BEAM: TYPE 3 CCT: 3000K CRI: 90 LUMENS: 6272	INTEGRAL	54	54	120/277V	0-10V	1%	ROADWAY ALONG RIVER HOUSE SIDE SHIELD TO BE ORIENTED SUCH THAT VIEW OF LED IS MASKED FROM ADJACEN' PROPERTY	INTEGRAL LED
3 AC GLA INTE AND AND	TALL 4.5" ROUND POLE WITH DJUSTABLE HEADS WITH IRE SHIELDS AND POTENTIAL EGRATION FOR SPEAKERS O CAMERAS. CUSTOM DESIGN O SPECIFICATION NUMBER RTHCOMING	BLACK	POLE	LIGMAN POLE: SPD-RSS-4512-16'-4.5" HEADS: ODESSA 15 - LARGE SPEC: UOD-21041-3X70- W-27W01-120/277-DIM-A54331- A54531	INTEGRAL LED BEAM: 48° CCT: 2700K CRI: 80 LUMENS: 8038	INTEGRAL	70	70	120/277V	0-10V	1%	POOL	INTEGRAL LED
PP4 POL BOL CON	TALL ROUND ALUMINUM LE CLAD IN WOOD WITH EYE LT AND POWER AT TOP FOR NNECTION TO TYPE SS1 RING LIGHTS			PER COORDINATION WITH LANDSCAPE ARCHITECT								COURTYARD	
CAS POL WITI	EIOR RATED LOW VOLTAGE ST IN PLACE YPROPYLENE HOUSING H LED LIGHT ELEMENT ENDED TO BE POURED IN CE	STANDARD	RECESSED	SIMES FIXTURE: C.8020H PWER SUPPLY: S.2411	INTEGRAL LED BEAM: 32° CCT: 2700K CRI: 80 LUMENS: 631	REMOTE	9.3	9.3	120V PRIMARY/ 24V SECONDARY			LOW WALLS	INTEGRAL LED
CAS	EIOR RATED MARINE GRADE ST STAINLESS STEEL LINE TAGE SHIELDED LED STEP HT	STANDARD	RECESSED	WAC LIGHTING WL-LED200-27-FINISH	INTEGRAL LED BEAM: 120° CCT: 2700K CRI: 85 LUMENS:	INTEGRAL	3.5	3.5	120V	ELECTRONIC LOW VOLTAGE/ REVERSE PHASE		PORTE COCHERE	INTEGRAL LED
FES SYS WITI	ERIOR WET RATED LED STOON AND CABLE LIGHTING STEM MOUNTED TO 12' POLES H LARGE GLOBE, SHADE AND MOTE POWER SUPPLY	BLACK	POLE	REQUIRED MOUNTING: CABLES, LOCK AND	INTEGRAL LED BEAM: 32° CCT: 2700K CRI: 80 LUMENS: 45/FT	REMOTE	1	1	120V PRIMARY/ 12V SECONDARY	0-10V	1%	COURTYARD	INTEGRAL LED
MOU SQU	ERIOR RATED WALL UNTED LINE VOLTAGE LED JARE DOWNLIGHT WITH RROW BEAM OPTICS	STANDARD	WALL	TENSION TOOL LIGMAN - JET 34 SQUARE UJE-30411-35W-N-W27- <finish>-120/277V-DIM</finish>	INTEGRAL LED BEAM: 20° CCT: 2700K CRI: 80 LUMENS: 4094	INTEGRAL	35	35	120/277V	0-10V	1%	FAÇADE	INTEGRAL LED

FIXTURE TYPE	DESCRIPTION	FINISH	MOUNTING	MANUFACTURER PRODUCT CODE	LIGHT SOURCE	POWER SUPPLY	FIXTURE WATTS (EACH OR PER FOOT)	WATTS	FIXTURE VOLTAGE	CONTROL METHOD	DESIGNED REQUIRED MINIMUM DIMMING RANGE	LOCATION	FIXTURE NOTES	SOURCE TYPE
XTERIO	R													
WW2	EXTERIOR RATED WALL MOUNTED LINE VOLTAGE LED SQUARE DOWNLIGHT WITH NARROW BEAM OPTICS	STANDARD	WALL	LIGMAN - JET 32 SQUARE UJE-30371-15W-N-W27- <finish>-120/277V-DIM</finish>	INTEGRAL LED BEAM: 20° CCT: 2700K CRI: 80 LUMENS: 1618	INTEGRAL	15	15	120/277V	0-10V	1%	FAÇADE		INTEGRAL LED
	NOT USED													
WW3														
WW4	EXTERIOR RATED WALL MOUNTED LINE VOLTAGE LED DOWNLIGHT WITH MEDIUM BEAM OPTICS	BLACK	WALL	LIGMAN - GINO 4 UGI-31641-10W-T4-W27- <finish>- DIM</finish>	INTEGRAL LED BEAM: TYPE 4 CCT: 2700K CRI: 80 LUMENS: 820	INTEGRAL	10	10	120/277V	0-10V	1%	UNIT ENTRIES		INTEGRAL LED
WW5	EXTERIOR RATED WALL MOUNTED LINE VOLTAGE LED DOWNLIGHT WITH MEDIUM BEAM OPTICS	BLACK	WALL	LIGMAN - MATRIX 4 SURFACE UMT-31416-14/14W-M-M-W27- <finish>-120/277V-DIM</finish>	INTEGRAL LED BEAM: 25° CCT: 2700K CRI: 80 LUMENS: 2X1128	INTEGRAL	28	28	120/277V	0-10V	1%	ENTRY FAÇADE		INTEGRAL LED
WW6	EXTERIOR RATED WALL MOUNTED LINE VOLTAGE LED DOWNLIGHT WITH WIDE BEAM OPTICS	BLACK	WALL	LITHONIA WST LED-P2-27K-VF-MVOLT- CONTROLS-DBLXD	INTEGRAL LED BEAM: FORWARD CCT: 2700K CRI: 80 LUMENS: 3163	INTEGRAL	25	25	120/277V	0-10V	1%	LOADING DOCK		INTEGRAL LED
WW7	EXTERIOR RATED WALL MOUNTED LINE VOLTAGE LED WALL SCONCE		WALL	ALVA TEX-JR-60-FINISH-27 (MOD)	INTEGRAL LED BEAM: CCT: 2700K CRI: 80 LUMENS: 1221	INTEGRAL	37	37	120/277V	0-10V	1%	NORTH ENTRY		INTEGRAL LED
WW8	EXTERIOR RATED WALL MOUNTED LINE VOLTAGE LED WALL SCONCE		WALL	AFX HARRISON HARW SERIES HARW0518L30D1BK	INTEGRAL LED BEAM: CCT: 2700K CRI: 80 LUMENS: 900	INTEGRAL	24	24	120V	ELECTRONIC LOW VOLTAGE/ REVERSE PHAS	1% E	EXTERIOR BAR		INTEGRAL LED

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FIXTURE TYPE	DESCRIPTION	FINISH	MOUNTING	MANUFACTURER PRODUCT CODE	LIGHT SOURCE	POWER SUPPLY	FIXTURE WATTS (EACH OR PER FOOT)	INPUT WATTS (EACH OR PER FOOT)	FIXTURE VOLTAGE	CONTROL METHOD	DESIGNED REQUIRED MINIMUM DIMMING RANGE	LOCATION	FIXTURE NOTES	SOURCE TYPE
FITNESS														
F-D1W	4" ROUND APERTURE RECESSED FIXED LED DOWNLIGHT WITH SELF FLANGED TRIM AND NON-IC HOUSING WITH WIDE FLOOD BEAM AND TRIM FOR WOOD CEILING	VERIFY WITH	RECESSED	USAI B4RDM-24C3-30KH-90-S-BZ-BZ- NCSM-EXT16-UNV-D6E	INTEGRAL LED BEAM: 90° CCT: 3000K CRI: 90 LUMENS: 1487	INTEGRAL	24	24	120/277V	0-10V	1%	FITNESS		INTEGRAL LED
F-D2W	4" ROUND APERTURE RECESSED FIXED LED DOWNLIGHT WITH SELF FLANGED TRIM AND NON-IC HOUSING WITH WIDE FLOOD BEAM	VERIFY WITH	RECESSED	USAI B4RDF-24C3-30KH-90-S-BZ-BZ- NCSM-UNV-D6E	INTEGRAL LED BEAM: 90° CCT: 3000K CRI: 90 LUMENS: 1487	INTEGRAL	24	24	120/277V	0-10V	1%	FITNESS		INTEGRAL LED
F-D3W	4" ROUND APERTURE RECESSED FIXED LED DOWNLIGHT WITH SELF FLANGED TRIM AND NON-IC HOUSING WITH FLOOD BEAM		RECESSED	USAI PB4R-20L3M-30KH-NCEC-UNV- D31-HSG RAF-T55-S-FINISH-TRM	INTEGRAL LED BEAM: 55° CCT: 2700K CRI: 90 LUMENS: 1559	INTEGRAL	20	20	120/277V	0-10V	1%	RESTROOM		INTEGRAL LED
F-L1	SURFACE MOUNTED LOW VOLTAGE LED LINEAR STRIP LIGHT WITH CHANNEL, FROSTED LENS, 100 DEGREE OPTIC, REMOTE ACCESSIBLE DIMMABLE DRIVER AND CONCEALED MOUNTING CLIPS	STANDARD	SURFACE	QTL VV1SW-4.0-30-4.DRY-STD-DF- WIRE INPUT/OUTPUR- CONNECTOR/WIRE/IN, CONNECTOR WIRE/OUT-WH-CL2- SS-LENGTH-O DRIVER: QTM-ELED	INTEGRAL LED BEAM: 100° CCT: 000K CRI: 98 LUMENS: 240	REMOTE	4	4	120V PRIMARY/ 24V SECONDARY	0-10V	1%	FITNESS		INTEGRAL LED
F-DL1	DECORATIVE LUMINAIRE			REFER TO INTERIOR DESIGN FF&E PACKAGE FOR WEIGHT INFORMATION, LAMP/LIGHT SOURCE AND PARTIAL ELECTRICAL INFORMATION LISTED IN THIS SCHEDULE FOR COORDINATION			30	30	120V	TBD	1%	FITNESS RESTROOM		
F-LT144	FAN			REFER TO INTERIOR DESIGN FF&E PACKAGE FOR WEIGHT INFORMATION, LAMP/LIGHT SOURCE AND PARTIAL ELECTRICAL INFORMATION LISTED IN THIS SCHEDULE FOR COORDINATION					120V		NON-DIM	FITNESS		







1965 SKI TIME SOUARE
REVISIONS:

REVISIONS:

NO DATE DESCRIPTION

PROJECT NUMBER: 123134.00 DATE: 07/03/25

07/03/25

ISSUED FOR:
PERMIT SET

SHEET TITLE:
LIGHTING FIXTURE
SCHEDULE

SHEET NUMBER

IT_002

TYPE WW1 TO BE MOUNTED AT LEVEL 3, TYPE WW7 TO BE MOUNTED AT LEVEL 1. SEE LIGHTING ELEVATIONS.









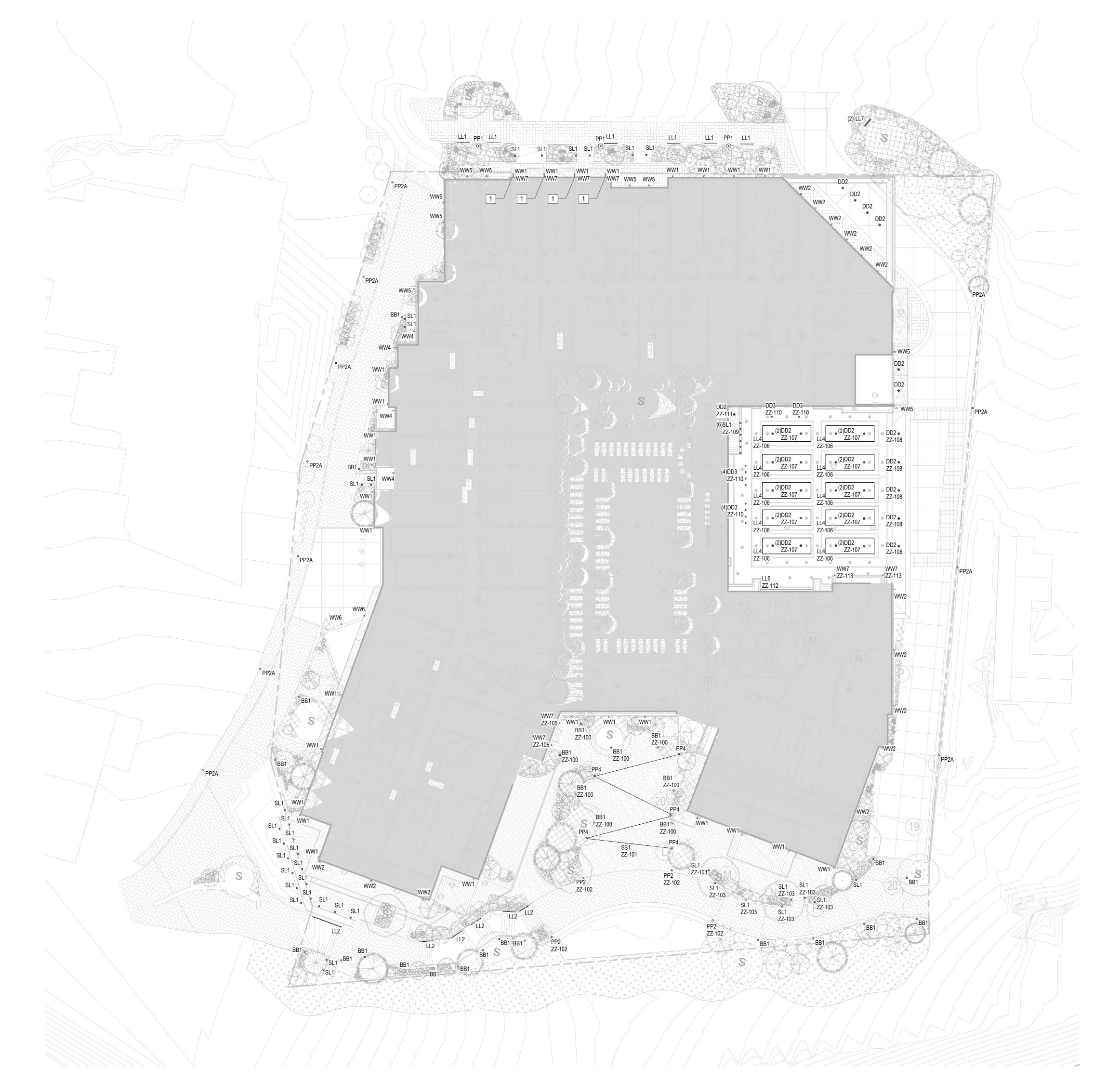


REVISIONS: NO DATE DESCRIPTION

PROJECT NUMBER: 123134.00 DATE:

07/03/25 ISSUED FOR: PERMIT SET SHEET TITLE: SITE LIGHTING PLAN

SHEET NUMBER



1 SITE PLAN LIGHTING
3/64" = 1'-0"

(15)









1965 SKI TIME SQUARE DRINSTEAMBOAT SPRINGS, CO 80487

PROJECT NUMBER:

NO DATE DESCRIPTION

REVISIONS:

123134.00

DATE:
07/03/25

ISSUED FOR:
PERMIT SET

SHEET TITLE:
BUILDING ELEVATIONS -

SHEET NUMBER

WEST