- 2. THE ARCHITECTURAL AND MECHANICAL PLANS ARE CONSIDERED A PART OF THE ELECTRICAL DOCUMENTS SO FAR AS ANY ELECTRICAL ITEMS THEY MAY CONTAIN. THE ELECTRICAL CONTRACTOR SHALL REFER TO AND COORDINATE WITH THEM. NO EXTRA COST SHALL BE ALLOWED FOR FAILURE TO COORDINATE THE CONTRACT DOCUMENTS WITH OTHER TRADES AND/OR IF EQUIPMENT DIMENSIONS ARE GREATER THAN SPECIFIED AND/OR DIMENSIONED ON THE PLANS.
- 3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS, AND LABOR FOR THE CONNECTIONS OF ALL EQUIPMENT SHOWN ON THE PLANS - ARCHITECTURAL, MECHANICAL, ETC.
- 4. THIS PROJECT IS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MOST RECENT LOCAL, STATE, AND NATIONAL CODES. IF AT ANY TIME DURING OR AFTER CONSTRUCTION SOMETHING IS FOUND TO BE INSTALLED IN VIOLATION OF THESE CODES LISTED ABOVE, IT SHALL BE CORRECTED BY THE CONTRACTOR.
- 5. WHERE A RACEWAY ENTERS A BUILDING OR STRUCTURE FROM THE OUTSIDE, IT SHALL BE SEALED AS PER NEC
- 6. ALL ELECTRICAL EQUIPMENT THAT IS LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD OR FACTORY LABELED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS PER NEC 110.16. THE LABEL SHALL ALSO CONTAIN THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED AS PER NEC
- EACH DISCONNECTING MEANS SHALL BE LEGIBLY MARKED TO INDICATE ITS PURPOSE AND TO IDENTIFY THE CIRCUIT SOURCE THAT SUPPLIES THE DISCONNECTING MEANS PER NEC 110.22.
- 3. ALL EQUIPMENT PROVIDED BY THE EC SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, AND BE PROPERLY INSTALLED FOR THE CONDITIONS AND SPACE THAT EQUIPMENT IS BEING INSTALLED WITHIN.
- 9. THE EC SHALL INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT RUN. CONDUIT SHALL NOT BE USED AS AN EQUIPMENT GROUNDING CONDUCTOR. THE EC SHALL GROUND THE ELECTRICAL SYSTEM IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
- 10. CONDUIT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC, NOT INDICATING THE ROUTING REQUIRED. THE EC SHALL ROUTE THE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION AND SHALL COORDINATE WITH DUCTWORK, PIPING, EQUIPMENT, BUILDING STRUCTURE, AND OTHER POTENTIAL OBSTRUCTIONS.
- 11. THE CONTRACTOR SHALL ALLOW THE MOVEMENT, BEFORE ROUGH-IN, OF ANY ELECTRICAL PANEL, DEVICE, LUMINAIRE, ETC. A DISTANCE OF 10 FEET WITHOUT REQUIRING ADDITIONAL COST TO THE PROJECT.
- 12. THE EC SHALL SECURE ALL CONDUIT TO THE STRUCTURE AS IT IS SET IN PLACE USING INDUSTRY STANDARD METHODS AND PRACTICES. TO ASSURE ALL DEVICES ARE RIGIDLY SET, THE ELECTRICAL CONTRACTOR SHALL SECURE ALL DEVICE BOXES WITH BRACKETS, HANGERS, ETC. DESIGNED FOR THE APPLICATION.
- 13. MINIMUM SIZE CONDUIT SHALL BE 3/4" UNO. CONDUIT INSTALLED WITHIN THE BUILDING IN DRY LOCATIONS WITHIN WALL, CEILINGS, OR EXPOSED NOT SUBJECT TO PHYSICAL DAMAGE SHALL BE EMT WITH STEEL SET SCREW FITTINGS. IN EXTERIOR LOCATIONS (EXCEPT FOR THE SERVICE ENTRANCE) THE CONDUIT SHALL BE EMT WITH COMPRESSION GLAND TYPE FITTINGS. UNDERGROUND CONDUIT SHALL BE PVC (SCH. 40) WITH GRC ELBOWS AND RISERS WRAPPED IN CORROSION RESISTANT MATERIALS WHERE IN DIRECT CONTACT WITH THE SOIL.
- 14. FLEXIBLE CONDUIT SHALL BE LIMITED TO CONNECTIONS TO LIGHT FIXTURES AND FINAL CONNECTIONS TO MOTORS OR OTHER EQUIPMENT SUBJECT TO VIBRATION. LENGTHS OF FLEXIBLE OR SEAL-TITE CONDUIT SHALL NOT BE GREATER THAN 72 INCHES.
- 15. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL EMPTY CONDUITS WITH 200LB RATED NYLON PULL CORD.
- 16. BEFORE ANY ELECTRICAL CONDUIT, BOXES, ETC. ARE COVERED (FLOOR, CEILINGS, WALLS, ETC.), THEY SHALL BE APPROVED BY THE INSPECTING OFFICER (INSPECTOR).
- 17. WHERE WIRE SIZE IS NOT SHOWN ON THE DRAWINGS FOR 20A, 120VAC BRANCH CIRCUITS, THE CIRCUIT SHALL CONSIST OF 2#12 (CU,THHN) + 1#12 (CU,THHN) GND IN 3/4" EMT CONDUIT. THIS WIRE SIZE SHALL BE INCREASED TO #10 (CU,THHN) FOR BRANCH CIRCUITS WITH OVERALL LENGTHS EXCEEDING 125' TO ACCOMMODATE FOR VOLTAGE DROP. REFER TO EQUIPMENT SCHEDULES, FEEDER SCHEDULES, AND NOTES ON DRAWINGS FOR ALL OTHER BRANCH CIRCUIT AND FEEDER WIRE/CONDUIT SIZING.
- 18. CONDUCTORS SHALL BE COPPER, 600VAC RATED, TYPE THHN/THWN-2 UNO. CONDUCTORS UP TO #10AWG SHALL BE SOLID AND CONDUCTORS #8AWG OR LARGER SHALL BE STRANDED.
- 19. METAL CLAD CABLING MAY BE USED BETWEEN DEVICES SUCH AS LIGHTING, RECEPTACLES, SWITCHES, ETC. UNLESS OTHERWISE REQUIRED BY THE NEC. HOME RUNS SHALL BE INSTALLED IN CONDUIT. MC CABLE SHALL NOT BE INSTALLED EXPOSED.
- 20. EC SHALL CLEAN THE ENTIRE ELECTRICAL SYSTEM AFTER COMPLETION OF THE INSTALLATION. REMOVE ALL FINGER PRINTS, FOREIGN MATTER, PAINT, DIRT, GREASE, AND UN-NEEDED LABELS OR STICKERS FROM FIXTURES AND EQUIPMENT. REMOVE ALL RUBBISH AND DEBRIS ACCUMULATED DURING INSTALLATION FROM THE PREMISES.
- 21. IT IS THE INTENT OF THE CONSTRUCTION DOCUMENTS FOR ALL DEVICES TO BE FLUSH MOUNTED AND CONDUIT/CABLING INSTALLED CONCEALED WITHIN WALLS/CEILINGS. IN AREAS WHERE CONDUIT MUST BE INSTALLED EXPOSED IT SHALL BE COORDINATED WITH THE ARCHITECT AND/OR ENGINEER. ALL EFFORTS SHALL BE MADE TO CONCEAL WIRING METHODS.
- 22. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED WITH FIRE STOPPING, IE. 3M BRAND CAULK, PUTTY, STRIP AND SHEET FORMS, DOW CORNING 3-6548 SILICONE RTV FOAM.
- 23. COORDINATE LOCATION OF WALL MOUNTED DEVICES WITH CABINETRY AND OTHER WALL OBSTRUCTIONS. COORDINATE CEILING MOUNTED DEVICES WITH CEILING OBSTRUCTIONS. ANY DEVICES THAT NEED TO BE RELOCATED MUST BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER PRIOR TO ROUGH-IN FOR NEW LOCATION.

- 24. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE PLACEMENT OF ALL DEVICES INSTALLED WITHIN THE CEILING SUCH AS LIGHTING, SPEAKERS, FIRE SPRINKLERS, SMOKE/HEAT DETECTORS, ETC. ANY EXISTING DEVICES THAT NEED TO BE RELOCATED IN ORDER TO ACCOMMODATE NEW CONSTRUCTION/REMODEL MUST BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER PRIOR TO ROUGH-IN FOR RESOLUTION AND FURTHER DIRECTION.
- 25. WHERE THE PREMISES WIRING SYSTEM HAS BRANCH CIRCUITS SUPPLIED FROM MORE THAN ONE NOMINAL VOLTAGE, EACH UNGROUNDED CONDUCTOR OF A BRANCH CIRCUIT SHALL BE IDENTIFIED BY PHASE OR LINE AND BY SYSTEM VOLTAGE CLASS AT ALL TERMINATION, CONNECTION, AND SPLICE POINTS. IDENTIFICATION MEANS SHALL BE POSTED AT EACH BRANCH CIRCUIT PANELBOARD.
- ALL CONDUCTORS SHALL BE COLOR-CODED AS FOLLOWS:

PHASE	240/120
PHASE A	BLACK
PHASE B	RED
NEUTRAL	WHITE
GROUND	GREEN

### REMODEL NOTES:

- 26. THE EC SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE EXISTING POWER PANELS FROM WHICH NEW CIRCUITS ARE BEING FED. VERIFY EXISTING BRANCH CIRCUIT BREAKERS AND PROVIDE NEW BRANCH CIRCUIT BREAKERS AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
- 27. THE EC SHALL MAINTAIN ELECTRICAL CONTINUITY TO REMAINING EQUIPMENT WHEN ANY EXISTING ELECTRICAL FOUIPMENT IS REMOVED
- 28. ALL DEVICES NOT SHOWN ON PLANS ARE EXISTING TO REMAIN IN PLACE AND FUNCTIONAL. IN THE EVENT THAT WIRING TO AN EXISTING DEVICE IS DAMAGED, WIRING MUST BE REPLACED AND DEVICE BROUGHT BACK TO FULL OPERATION.

#### SITE NOTES:

29. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL COORDINATE WITH COMMUNICATIONS/DATA, CABLE TV, GAS, AND WATER UTILITY PROVIDERS (BLUE STAKES), AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. IN ADDITION, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A SUBCONTRACTOR SPECIALIZING IN THE LOCATION OF UNDERGROUND STRUCTURES TO IDENTIFY ANY OBSTACLES IN THE PATH OF TRENCHING PRIOR TO COMMENCING WORK. DAMAGE TO ANY UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR.

### <u>LIGHTING NOTES:</u>

- 30. ALL BATTERY POWERED OR CONTINUOUS BURN LUMINAIRES SHOWN ON THE PLANS, SUCH AS EXIT LIGHTS, NIGHT LIGHTS, OR EMERGENCY LIGHTS, SHALL BE CONNECTED TO THE UN-SWITCHED LEG OF THE LIGHTING CIRCUIT FEEDING THAT AREA.
- 31. LUMINAIRES INSTALLED IN THE MECHANICAL ROOM SHALL BE PLACED SO THAT ALL EQUIPMENT IS ADEQUATELY ILLUMINATED AFTER THE MECHANICAL EQUIPMENT IS IN PLACE.
- 32. ALL LUMINAIRES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND NOT THE CEILING GRID OR OTHER NONSTRUCTURAL MEMBERS.
- 33. TO MAINTAIN CONSISTENT LIGHT QUALITY, FOR ANY ONE LAMP TYPE SUPPLIED, LAMPS SHALL BE OF THE SAME MANUFACTURER, SURFACE TEMPERATURE, COLOR RENDERING INDEX, LAMP EFFICACY, LUMEN OUTPUT, AND
- STARTING CHARACTERISTICS FOR ALL INSTALLED. 34. LIGHT FIXTURES INSTALLED IN DAMP OR WET LOCATIONS SHALL BE UL LISTED FOR INSTALLATION IN THE PROPER ENVIRONMENT. CARE SHOULD BE TAKEN TO ENSURE THAT DIFFUSERS AND LENSES ARE APPROPRIATE FOR THEIR
- INSTALLED USE AND PREMATURE DISCOLORATION WILL NOT RESULT DUE TO EXPOSURE TO UV LIGHT, CHEMICALS, OR OTHER CONDITIONS.
- 35. ELECTRICAL CONTRACTOR SHALL PROVIDE LIGHTING CONTROL SHOP DRAWINGS WITH ELECTRICAL SUBMITTAL FOR REVIEW.

## **POWER NOTES:**

- 36. ALL PANELBOARDS AND SWITCHBOARDS SHALL BE PERMANENTLY MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THEIR POWER ORIGINATES AS PER NEC 408.4B.
- 37. ELECTRICAL CONTRACTOR SHALL CONFIRM MINIMUM CODE (NEC) WORKING CLEARANCE BEFORE INSTALLING ANY ELECTRICAL PANELS OR CABINETS AND SHALL MOVE THE PANELS IF REJECTED BY AN INSPECTOR. IF CLEARANCE IS NOT POSSIBLE, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING.
- 38. WIRING DEVICES SHALL HAVE A STAINLESS STEEL COVER PLATE. COLOR SHALL BE COORDINATED WITH ARCHITECT. EXTERIOR OUTLETS SHALL HAVE CAST COVERS WITH FLIP TYPE LIDS UNO.
- 39. EC SHALL COORDINATE WITH EQUIPMENT SUPPLIERS ON THE EXACT LOCATIONS OF ALL EQUIPMENT AND ELECTRICAL CONNECTIONS PRIOR TO ROUGH-IN. THE EC SHALL MAKE THE FINAL CONNECTION TO ALL EQUIPMENT UNLESS OTHERWISE DIRECTED BY THE EQUIPMENT SUPPLIER. OBTAIN FROM SUPPLIERS ALL WIRING DIAGRAMS FOR EQUIPMENT PRIOR TO ANY ROUGH-IN. TO ASSURE THAT PROPER CHARACTERISTICS ARE PROVIDED, ANY INCORRECT WIRING OR DEVICES INSTALLED BY THE EC WITHOUT THE WIRING DIAGRAM SHALL BE CORRECTED AT THE EC'S EXPENSE. PROVIDE COPIES OF WIRING DIAGRAMS WITHIN EACH PIECE OF EQUIPMENT AND ADDITIONAL COPIES WITH THE OPERATION AND MAINTENANCE MANUALS.
- 40. EC SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO PROVIDE CONDUIT AND DEVICE MOUNTING BOXES FOR THERMOSTATS AND OTHER MECHANICAL CONTROLS. REFER TO MECHANICAL DRAWINGS FOR THE LOCATION OF THERMOSTATS.
- 41. EC SHALL PROVIDE A 20AMP, 120VAC RECEPTACLE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT PER NEC 210.63. RECEPTACLE SHALL BE OF THE GROUND FAULT CIRCUIT INTERRUPTING TYPE, INSTALLED WITHIN A CAST METAL BOX, AND WITHIN 25' OF ALL

## ROOF NOTES:

42. ELECTRICAL CONTRACTOR TO INSTALL A ROOF JACK (BOOT) FOR ALL CONDUIT PENETRATIONS THROUGH THE ROOF. ALL ROOF PENETRATION SEALS SHALL BE IN ACCORDANCE WITH THE ROOF WARRANTY AND BE COMPLETELY SEALED WITH ROOF ADHESIVE. UTILIZE PROPER CLAMPING METHODS TO SEAL BOOT AROUND

# FLECTDICAL SYMBOL SCHEDLILE

	ELECTRICAL SYMBOL SCHEDU	JLE	
SYMBOL	DESCRIPTION	MOUNTING	NOTE
	LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1
	EMERGENCY LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1, 2
<b>⊢</b>	LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1
<b>──</b>	EMERGENCY LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1, 2
Ю	LIGHT FIXTURE - WALL MOUNTED	WALL	1
₩.	EMERGENCY LIGHT FIXTURE - WALL MOUNTED	WALL	1, 2
	LIGHT FIXTURE - DOWNLIGHT	CEILING	1
	EMERGENCY LIGHT FIXTURE - DOWNLIGHT	CEILING	1, 2
<b>A</b>	LIGHT FIXTURE - WALL WASH DOWNLIGHT	CEILING	1
00	LIGHT FIXTURE - CEILING MOUNTED	CEILING	1
<b>—</b>	LIGHT FIXTURE - PENDANT / CHANDELIER	CEILING	1
	LIGHT FIXTURE - WALL BRACKET	WALL	1
	EMERGENCY LIGHT FIXTURE - WALL BRACKET	WALL	1, 2
888	TRACK LIGHTING	SURFACE	1
$\otimes$ H	EXIT SIGN - WALL MOUNT	WALL	1, 2, 3
$\otimes$	EXIT SIGN - CEILING MOUNT	CEILING	1, 2, 3
0\$0	EXIT SIGN W/ EMERGENCY HEADS - WALL MOUNT	WALL	1, 2, 3
0000	EXIT SIGN W/ EMERGENCY HEADS - CEILING MOUNT	CEILING	1, 2, 3
0(EM)0	DUAL HEAD EMERGENCY LIGHT FIXTURE	WALL	1, 2
	POLE LIGHT FIXTURE	POLE	1
$\Box$	STEP LIGHT FIXTURE	WALL	1
	LIGHT BOLLARD	SURFACE	1
$\nabla$	GROUND MOUNTED / IN-GRADE LIGHT FIXTURE	GROUND	1
	OCCUPANCY / VACANCY SENSOR - CEILING MOUNT	CEILING	1
TC	TIME CLOCK - 7 DAY	60"	
PC	PHOTO-ELECTRIC CELL WITH RELAY	SURFACE	1
CL	CURRENT LIMITING DEVICE	SURFACE	1
\$os	WALL OCCUPANCY / VACANCY SENSOR SWITCH	48" TO TOP	
\$	SINGLE POLE SWITCH	48" TO TOP	
\$3	THREE WAY SWITCH	48" TO TOP	
\$4	FOUR WAY SWITCH	48" TO TOP	
*D	DIMMER SWITCH	48" TO TOP	
\$LV	LOW VOLTAGE SWITCH	48" TO TOP	
*т	TIMER SWITCH - 30 MINUTE	48" TO TOP	
\$P	PILOT LIGHT SWITCH	48" TO TOP	
\$тн	THERMAL OVERLOAD SWITCH	48" TO TOP	
\$2	2-POLE SWITCH	48" TO TOP	
\$ĸ	SINGLE POLE KEYED SWITCH	48" TO TOP	
$\ominus$	DUPLEX OUTLET, 20A, 120VAC	18" UNO	
•	DUPLEX OUTLET, 20A, 120VAC - GFCI	18" UNO	
<del>•</del>	DUPLEX OUTLET - SPLIT WIRED	18" UNO	
<del>-</del>	DUPLEX OUTLET - ISOLATED GROUND	18" UNO	
♥	DUPLEX OUTLET WITH USB-A & USB-C PORTS	18" UNO	
os⊖	DUPLEX OUTLET - OCCUPANCY SENSOR CONTROLLED	18" UNO	
$\bigcirc$	DUPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
$\overline{\mathbb{Q}}$	DUPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR	
— <u>—</u>	FOURPLEX OUTLET, 20A, 120VAC	18" UNO	
	FOURPLEX OUTLET, 20A, 120VAC - GFCI	18" UNO	
<del>-</del>	FOURPLEX OUTLET - ISOLATED GROUND	18" UNO	
<del>`</del>	FOURPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
₩	FOURPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR	
<u>₩</u>	APPLIANCE OUTLET - 208/240V SINGLE PHASE	18" UNO	
— €	APPLIANCE OUTLET - 208/480V 3-PHASE	18" UNO	
$\overline{}$	SINGLE/SIMPLEX OUTLET, 20A, 120VAC	18" UNO	
	MULTI-OUTLET METAL SURFACE RACEWAY	44" UNO	7
$\nabla$	DATA OUTLET	18" UNO	•
$lack {lack}{lack}$	TELEPHONE OUTLET	18" UNO	
<u></u>	DUAL TELEPHONE/DATA OUTLET	18" UNO	
	DATA OUTLET - FLOOR	FLOOR	
<u> </u>	DUAL TELEPHONE/DATA OUTLET - FLOOR	FLOOR	
	CEILING DATA OUTLET/ WIRELESS ACCESS POINT	CEILING	
\V/	, -=	J_1_11 1 U	

	CT ENCLOSURE - ONE-LINE	*XXXA XP		DISCONNECT - ON	
•	AUTOMATIC TRANSFER SWITCH	***	GROUI	ND SLEEVE - ONE-L	INE
٦	MCB PANEL - ONE-LINE		PAD M	OUNT XFMR - ONE-	LINE
	MLO PANEL - ONE-LINE	<b>****</b>	TRANS	FORMER - ONE-LIN	IE
$^{\circ}$	CIRCUIT BREAKER	M	METER	R - ONE-LINE	
	TELEPHONE TERMINAL BOARD			WALL	
	TRANSFORMER - PLAN VIEW			PAD/FLOOR	
	PANELBOARD - RECESSED			6' - 6" TO TOP	
<u> </u>	PANELBOARD - SURFACE MOUNTE	)		6' - 6" TO TOP	
$\qquad \qquad \square )$	EMERGENCY POWER SHUTOFF SW	TITCH		4' - 0"	
•	PUSH BUTTON SWITCH			4' - 0"	
	METER - PLAN VIEW			WALL	
O	MOTOR			SURFACE	
	CONTACTOR			5' - 0" UNO	
$\overline{\boxtimes}$	MOTOR STARTER			5' - 0" UNO	
<u></u>	COMBINATION MAGNETIC STARTER	R/DISCONNEC	 Т	5' - 0" UNO	
<u> </u>	DISCONNECT SWITCH - SHUNT TRII	<b></b>		5' - 0" UNO	4
 \[F]	DISCONNECT SWITCH - FUSED			5' - 0" UNO	4
<del></del>	DISCONNECT SWITCH - NON-FUSE	)		5' - 0" UNO	4
<b>(</b>	FLOOR JUNCTION BOX			FLOOR	
Ю	WALL JUNCTION BOX			1' - 6" UNO	
(J)	JUNCTION BOX			SURFACE	

SEE LIGHT FIXTURE SCHEDULE FOR TYPE, MOUNTING, AND OTHER SPECIFICS. CONNECT EMERGENCY AND/OR EXIT LIGHTS TO THE UNSWITCHED SIDE OF THE AREA

ARROW DENOTES EXIT DIRECTION. USE HEAVY DUTY FOR 480 VOLT.

MOUNT SWITCH AT DOOR JAM PER MANUFACTURER'S INSTRUCTIONS. 6. PROVIDE UL LISTED DEVICE TO BE USED WITH THE FIRE ALARM PANEL/SYSTEM OR PROVIDE A MONITOR MODULE TO CONNECT INTO FIRE ALARM SYSTEM. 7. PROVIDE RACEWAY WITH OUTLETS 12" ON CENTER UNO.

**ABBREVIATIONS** MCC - MOTOR CONTROL CENTER AFCI - ARC FAULT CKT INTERRUPTER AFF - ABOVE FINISHED FLOOR AFG - ABOVE FINISHED GRADE MLO - MAIN LUGS ONLY AIC - AMPS INTERRUPTING CAPACITY AL - ALUMINUM (N) - NEW ATS - AUTOMATIC TRANSFER SWITCH NIC - NOT IN CONTRACT BC - BARE COPPER BFC - BELOW FINISHED CEILING

BFG - BELOW FINISHED GRADE C. OR CND - CONDUIT CKT - CIRCUIT CLG - INSTALLED IN CEILING C.R. - CORD REEL CT - CURRENT TRANSDUCER CU - COPPER (E) - EXISTING TO REMAIN

LIGHTING BRANCH CIRCUIT.

EC - ELECTRICAL CONTRACTOR EM - EMERGENCY (F) - FUTURE FACP - FIRE ALARM CONTROL PANEL FLA - FULL LOAD AMPS FVNR - FULL VOLTAGE NON REVERSING GC - GENERAL CONTRACTOR GFCI - GROUND FAULT CKT INTERRUPTER GND - GROUND

LV - LOW VOLTAGE

MC - MECHANICAL CONTRACTOR

MCA - MINIMUM CIRCUIT AMPS

MCB - MAIN CIRCUIT BREAKER

HP - HORSEPOWER IG - ISOLATED GROUND CEILING DATA OUTLET/ WIRELESS ACCESS POINT CEILING KW - KILOWATTS 18" UNO LCP - LIGHTING CONTROL PANEL LTG - LIGHTING

MDP - MAIN DISTRIBUTION PANEL MOCP - MAX. OVERCURRENT PROTECTION NEC - NATIONAL ELECTRICAL CODE NFPA - NATIONAL FIRE PROT. ASSN. NL - NIGHT LIGHT NR - NOT REQUIRED NTS - NOT TO SCALE PC - PLUMBING CONTRACTOR PH - PHASE PNL - PANEL POC - POINT OF CONNECTION POS - POINT OF SALE (R) - RELOCATED **REC - RECEPTACLES RMC - RIGID METAL CONDUIT** SCA - SHORT CIRCUIT AMPERES SCBA - SELECT COLOR BY ARCHITECT SES - SERVICE ENTRANCE SWITCHGEAR SPD - SURGE PROTECTIVE DEVICE TL - TWIST LOCK TTB - TELEPHONE TERMINAL BOARD TR - TAMPER RESISTANT TYP - TYPICAL

UNO - UNLESS NOTED OTHERWISE VA - VOLT/AMPS VIF - VERIFY IN FIELD **VR - VANDAL RESISTANT** WP - WEATHERPROOF/NEMA 3R WU - FURNISHED WITH UNIT XFMR - TRANSFORMER

ELECTRICAL SHEET INDEX E000 | ELECTRICAL GENERAL SHEET E001 | ELECTRICAL SITE PLAN E101 | CONCESSIONS ELECTRICAL PLAN

E501 | ELECTRICAL DETAILS

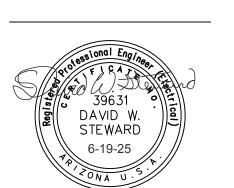
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**REVISIONS:** 

ELECTRICAL GENERAL SHEET

SHEET NUMBER:

CONCESSIONS BUILDING ---

1 ELECTRICAL SITE PLAN

E001 SCALE: 1" = 20'-0"

RESTROOM BUILDING

# **KEYED NOTES**

EXISTING PANEL 'A', 120/240V, SINGLE PHASE, 600A MCB.
REFER TO ONE-LINE DIAGRAM ON SHEET E501 FOR FEEDER FROM EXISTING PANEL 'A' TO CONCESSIONS PANEL 'P2'. PROVIDE 100A-2P BREAKER FOR FEEDER.

# **GENERAL NOTES**

A. FIELD VERIFY EXACT LOCATION AND MANUFACTURER OF EXISTING PANELS 'A' AND 'B'. NEW FEEDER BREAKERS SHALL BE COMPATIBLE WITH EXISTING PANELS. B. REFER TO UNDERGROUND CONDUIT DETAIL ON SHEET E501 FOR MORE INFORMATION.

# Architecture

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2117 McCULLOCH BLVD NORTH LAKE HAVASU CITY, AZ 86403

PROJECT NO. 24134 DATE: 19 JUNE 2025

SHEET TITLE:
ELECTRICAL SITE PLAN

SHEET NUMBER:







CONCESSIONS ROOF POWER PLAN

E101 SCALE: 1/4" = 1'-0"

## **KEYED NOTES**

- 1. COORDINATE LOCATION AND HEIGHT OF HAND DRYERS WITH OWNER. VERIFY POWER REQUIREMENTS WITH MANUFACTURER'S DOCUMENTATION. PROVIDE A 2-CIRCUIT INTERMATIC TIME CLOCK ET2825C OR
- EQUIVALENT. PROVIDE A SENSOR SWITCH PTS-60 OR EQUAL TIMED SWITCH FOR TIME CLOCK OVERRIDE. SEE WIRING DIAGRAM 4/E501 FOR FURTHER DETAILS.

# 4. PROVIDE GFCI CIRCUIT BREAKER FOR EQUIPMENT.

**GENERAL NOTES** 

- A. COORDINATE MOUNTING HEIGHTS OF ALL EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND MILLWORK CONTRACTOR PRIOR TO ROUGH-IN.
- B. VERIFY EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT. . CONNECT ALL EMERGENCY AND EXIT LIGHT FIXTURES TO THE UNSWITCHED SIDE OF THE LIGHTING BRANCH CIRCUIT. LIGHT FIXTURES WITH EMERGENCY DRIVERS SHALL BE NORMALLY SWITCHED WITH THE AREA LIGHTING, BUT HAVE THEIR EMERGENCY DRIVERS CONNECTED AHEAD OF THE LIGHT SWITCH OR LIGHTING CONTROL PANEL RELAY. FIXTURES WILL REMAIN ON FOR
- NOT LESS THAN 90 MINUTES IN CASE OF POWER LOSS. ). IT IS THE INTENT OF THE CONSTRUCTION DOCUMENTS THAT CONDUIT IS TO BE INSTALLED WITHIN WALLS AND ABOVE CEILINGS CONCEALED WHERE POSSIBLE.
- PROVIDE FIXTURE DIMMING CONTROLS AND PROVIDE THE NECESSARY WIRING AND DEVICES REQUIRED FOR DIMMING OPERATION.
- CONCEAL ALL FIXTURE DRIVERS IN ACCESSIBLE CEILING SPACE OUT OF DIRECT VIEW.

# LTG CTRL

## SEQUENCE OF OPERATION LIGHTING AND CONTROLS ARE DESIGNED TO MEET IECC 2021.

- TIME CLOCK WILL BE PROGRAMMED TO TURN LIGHTS ON AND OFF FOR HOURS OF OPERATION.
- SENSOR SWITCH WILL ACT AS OVERRIDE TO TIME SCHEDULING. OCCUPANCY SENSORS WILL CONTROL LIGHTING IN CONCESSION AND STORAGE ROOM.
- BUILDING FACADE AND LANDSCAPE LIGHTING SHALL BE PROGRAMMED TO SHUT OFF NOT LATER THAN 1 HOUR AFTER BUSINESS CLOSING TO NOT EARLIER THAN 1 HOUR BEFORE BUSINESS OPENS. (C405.2.7.2)



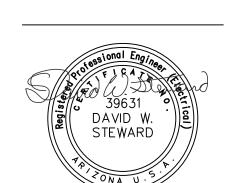
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> 7927 So. Highpoint Parkway, Suite 300 Sandy, Utah 84094 ph. 801.269.0055 fax 801.269.1425 www.thinkaec.com

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MAIN STREET COMMONS - CONCESSIONS

PROJECT NO. 24134 DATE: 19 JUNE 2025

SHEET TITLE:
CONCESSIONS LIGHTING & POWER PLANS
SHEET NUMBER:

ROCKY MOUNTAIN CONSULTING ENGINEERS, INC. 2117 South 3600 West, Salt Lake City, UT 84119 (801) 566-0503 www.rmceut.com Project #25096





P2-19 VIA TIME

TIME

P2-15 — STORAGE 101

MAIN STREET

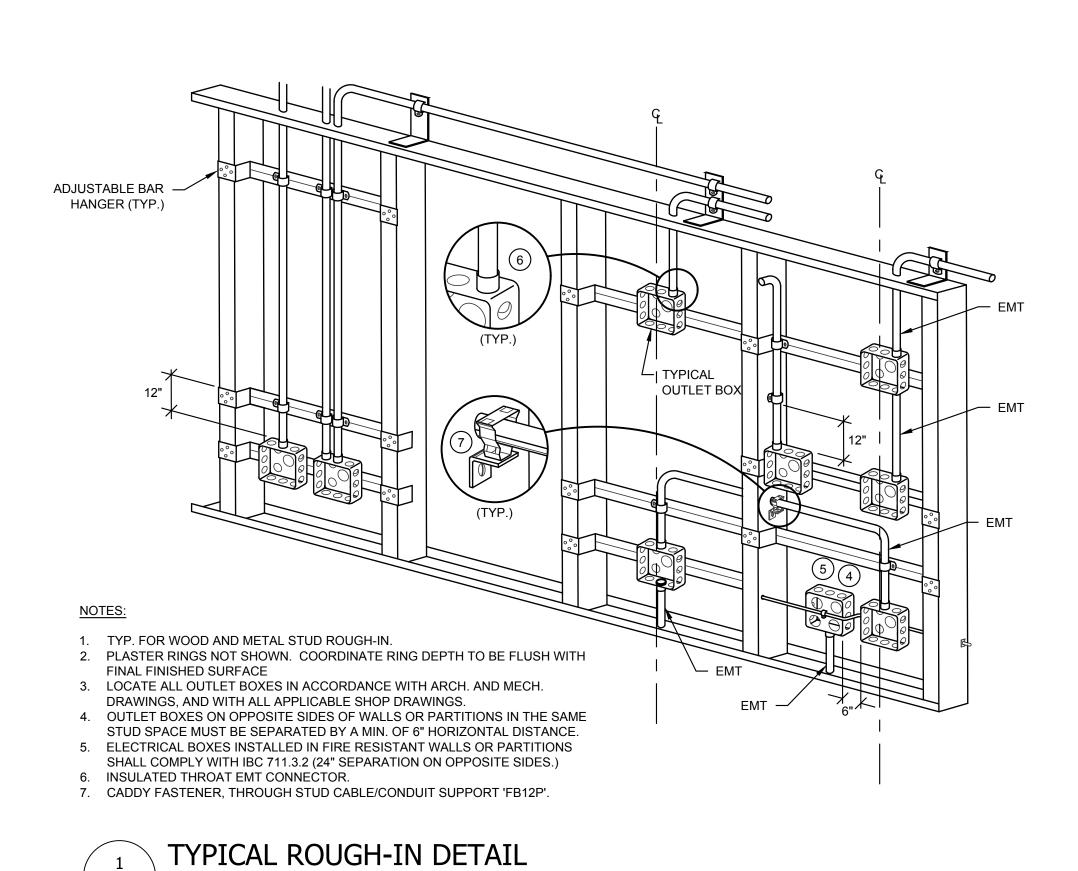
SHEET TITLE:

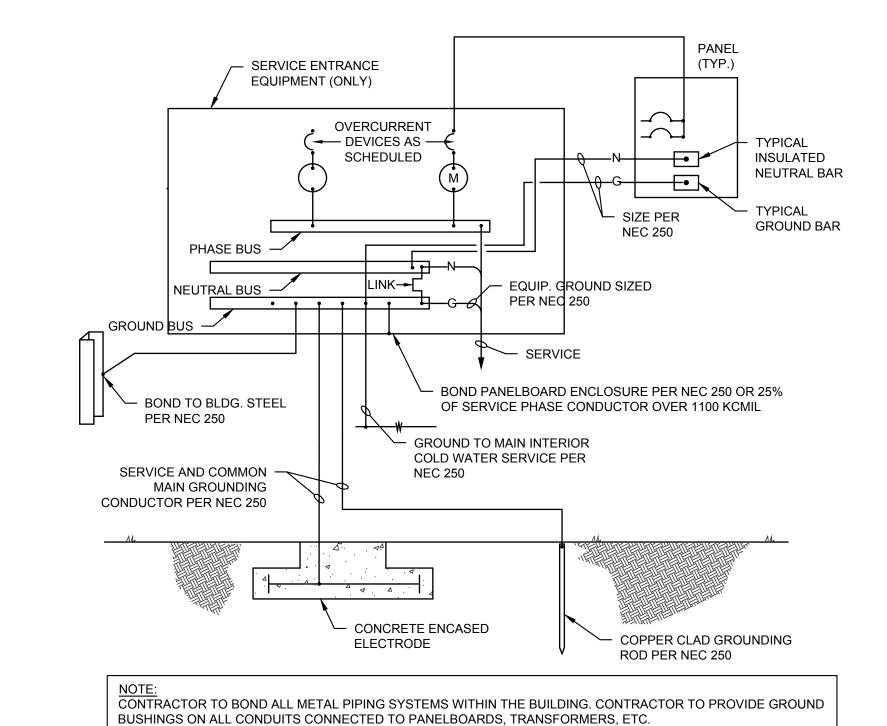
ELECTRICAL DETAILS

SHEET NUMBER:

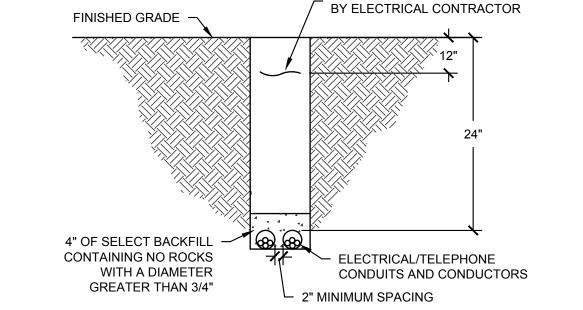
REVISIONS:

2022 THINK ARCHITECTURE INC.







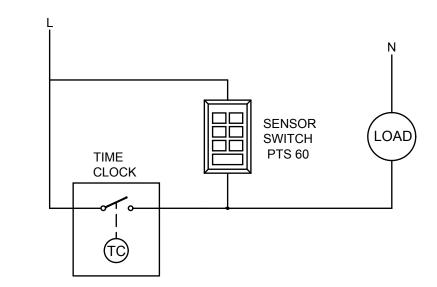


WARNING TAPE SUPPLIED AND INSTALLED

- 1. ELECTRICAL SERVICE CONDUIT AND CONDUCTORS ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. BURIAL DEPTH SHALL BE PER NEC TABLE 300.5 2. TELEPHONE SERVICE CONDUIT SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. TELEPHONE SERVICE CABLING SHALL BE PROVIDED BY THE LOCAL TELEPHONE COMPANY. COORDINATE WITH LOCAL TELEPHONE COMPANY FOR ANY SPECIFIC
- 3. THE QUANTITY/SIZE OF CONDUITS AND/OR CONDUCTORS SHALL BE AS CALLED OUT ON THE ELECTRICAL DRAWINGS. COORDINATE WITH THE ELECTRICAL ENGINEER.
  - UNDERGROUND CONDUIT DETAIL

E501 / NO SCALE

REQUIREMENTS.

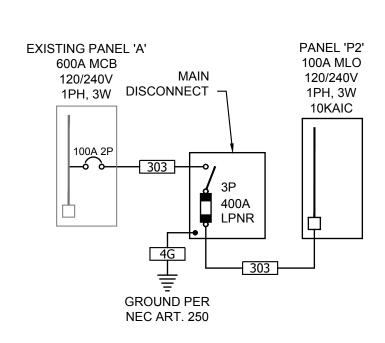


TIME CLOCK OVERRIDE E501 / SCALE: NONE

	COI	NDUIT/	COND	UCTOF	R SCHE	DULE			
			CONDUCTORS (TOTAL)						
MARK	AMPS	CONDUIT	CU/AL	PHASE	NEUTRAL	GROUND	NOTES		
303	303 200 2" CU		CU	(3) 3/0	3/0	6	1		
2. GR GR 3. CC	NDUCTO OUNDING OUNDING NTRACTO	R INSULATION  GELECTROIN  GELECTROIN  OR TO PROVI	DE CONDU DES. /IDE SER\	JCTOR TO E	BE BONDED  AL CONDUIT	TO ALL AVA	Į.		

INSTALLED, AND TERMINATED BY RMP.

<b>(#</b> )	KEYED NOTES	
SERVIO AND TH PERFO NAMEF	DE A NAMEPLATE ON EACH ELECTRICAL PANEL AND CE DISCONNECT WITH AVAILABLE FAULT CURRENT HE DATE WHICH THE CALCULATIONS WERE DRMED (XX/XX/XX) PER NEC 110.24. ON THE PLATE STATE WHERE POWER ORIGINATES FROM IN RDANCE WITH NEC 408.4(B).	





		ELECTRICAL ST									STARTER	OVERCURREN	IT PRO	TECTION		
		V	DIL KW LID MCA FLA MOCD CONDUIT WIRE				RE	GND.	NEMA	DISCONNECT	FUSE	DEMADE				
MARK	DESCRIPTION	\ \ \	PH	KW	HP	MCA	FLA	A MOCP	SIZE	QTY.	SIZE	SIZE	SIZE	SIZE/POLE	SIZE	IZE REMARKS
IE-02	KEGERATOR	120	1				6.2	20	3/4"	2	12	12	-	-	-	12A
IE-10	3 DOOR REFRIGERATOR	120	1				6.1	20	3/4"	2	12	12	-	-	-	12A
DWH-1	WATER HEATER	120	1				20.8	30	3/4"	2	10	10	-	-	-	5A
EU-1	EVAPORATOR UNIT	240	1													1A
CU-1	CONDENSING UNIT	240	1													1A
RTU-1	ROOFTOP UNIT	240	1			28		40	1"	2	8	10	-	30/3	30	1A
NOTE: CC	OTE: COORDINATE FINAL EQUIPMENT CONNECTIONS WITH EQUIPMENT PROVIDER PRIOR TO ROUGH-IN. VERIFY ALL MOUNTING HEIGHTS.										IOUNTI	NG HEI	GHTS.			

2. NON-FUSED DISCONNECT SWITCH 3. BREAKER IN ENCLOSURE 4. THERMAL OVERLOAD SWITCH 5. TOGGLE SWITCH 6. MAGNETIC STARTER 7. MAGNETIC STARTER/NON-FUSED DISCONNECT SWITCH

9. MAGNETIC STARTER/BREAKER COMBINATION

8. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION

10. REDUCED VOLTAGE STARTER 11. VARIABLE FREQUENCY DRIVE 12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC.

13. DIRECT CONNECTION 14. DUCT DETECTOR IN RETURN DUCT 15. SWITCH WITH LIGHTS

A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26 B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTION UNDER DIVISION 26

C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26 D. FURNISHED, INSTALLED, AND CONNECTED UNDER ANOTHER DIVISION E. FURNISHED AND INSTALLED UNDER DIVISION 26 REQUIRING CONNECTION UNDER ANOTHER DIVISION

PANEL SCHEDULE													
VOLT	/PHASE/WIRE:	120/240V/1PH/3W			AIC RATING: AIC MAIN BREAKER:								
MOU	OUNT/ENCLOSURE: RECESSED/NEMA 1				LC	CATION:	CONCESS	ON S	STOR	MAIN LUG	is:	100A	
CKT NO	DESCRIPTION		LOAD	AMPS	POLES	А	С	POLES	AMPS	LOAD		DESCRIPTION	CKT NO
1	REC - STORAGE		360	20	1	2860		1	30	2500	WATER HEA	ATER DWH-1	2
3	HAND DRYER S	TORAGE	1000	20	1		1180	1	20	180	REC - ROO	=	6
5	REC - CONCESS	SION	360	20	1	3720		2	40	3360	ROOFTOP (	ROOFTOP UNIT RTU-1	
7	KEGERATOR EA		744	20	1		4104	-	-	3360	<u> </u>		8
9	REFRIGERATOR	र	732	20	1	732		2		0		NG UNIT CU-1	10
11	HAND DRYER C	ONCESSION	1000	20	1		1000	-	-	0			12
13	KEGERATOR W	_	744	20	1	744		2		0	EVAPORATOR EU-1		14
15	REC - EXTERIO		540 500	20	1		540	-	-	0			16
17		G - TIME CLOCK		20	1	1000		1	20	500	LTG - CONCESSIONS		18 20
19	LTG - EXTERIOR		100	20	1		100			0	SPARE		
21	SPARE					0				0	SPARE		22
	SPARE		0				0			0	SPARE		24
TOTA						9,056	6,924						
OTA	L LOAD:	15,980	1										
	LOADS	CONTINUOUS	NON-CON	TINU	OUS		DEMAND F	ACTO	DR/C	ALCULATIO	DN	DEMAND LO	DAD
XIS		0	0			125% x	0						C
	ΠNG	600	0			125% x	600			00% x	0		750
	PTACLE	0	1,440			100% x	1440			0% x	0		1,440
МОТО		0	0			125% x	0		+ 10	00% x	0		C
	HEAT	0	0			100% x	0						6720
A/C	IEN EOUTS	0	6,720			100% x	6720						2.22
KITCI MISC	HEN EQUIP.	0	2,220 5,000			100 125% X	2220 0		, 1/	00% x	5000		2,220 5,000
IVII2C		Įυ	15,000			172% ¥	0				5555		
									Т	OTAL DEM	IAND LOAD:		16,130 VA
													67 A

	CONCESSION LIGHT FIXTURE SCHEDULE										
TYPE	MANUFACTURER	CATALOG NO.	VOLTAGE	DELIVERED LUMENS / CCT	CONTROL	MOUNTING	LOAD(VA)	DESCRIPTION	NOTES:		
F1	PINNACLE OR APPROVED EQUAL	EX4D-BW-N-835HO-4'-S-U-FSDJ-1-0-BL- QS-DLMFC	UNV	3000 LUMENS / 3500K	0-10V	SURFACE	30	4' LED DIRECT LINEAR FOR SURFACE MOUNT	4		
F1E	SAME AS 'F1' WITH EMERGE	NCY BATTERY BACKUP									
F2	AFX OR APPROVED EQUAL	WTNW0506L30D2BK	120 <b>V</b>	424 LUMENS / 3000K	0-10 <b>V</b>	SURFACE	12	LED OUTDOOR WALL SCONCE	4		
F3	AFX OR APPROVED EQUAL	EVYW0405LAJD2BK	120 <b>V</b>	1000 LUMENS / 3000K	0-10V	SURFACE	12	LED OUTDOOR CEILING SURFACE CYLINDER DOWNLIGHT	4		
F4	PINNACLE OR APPROVED EQUAL	LF24D-AL-835MO-S-U-FSD-1-O-BL- DLMFC	UNV	7000 LUMENS / 3500K	0-10V	SURFACE	63	2X4 LED DIRECT SUSPENDED ARCHITECTURAL SQUARE	4		
F4E	SAME AS 'F4' WITH EMERGE	NCY BATTERY BACKUP									
F5	EVENLITE OR APPROVED EQUAL	WLEM-BZ-CT	UNV	1050 LUMENS / 5000K	-	WALL		ARCHITECTURAL EMERGENCY WITH NICAD BATTERY COLD WEATHER RATED.	4		
F6	EVENLITE OR APPROVED EQUAL	TLX-EM-GU-W-SD	UNV	-	-	WALL / CEILING	1	THERMOPLASTIC EXIT SIGN WITH NICKEL CADMIUM BATTERY GREEN LETTERING.	4		

1. ALL LIGHT FIXTURES SHOWN HALF SHADED SHALL BE PROVIDED WITH A MEANS OF EMERGENCY POWER SUCH AS A BATTERY PACK, INVERTER OR GENERATOR CAPABLE OF PROVIDING 90 MIN OF EGRESS ILLUMINATION. WHERE A GENERATOR PROVIDES EMERGENCY POWER, A GENERATOR TRANSFTER DEVICE OR SIMILAR DEVICE SHALL BE PROVIDED TO ENSURE LIGHT IS TURNED ON DURING AN EMERGENCY

2. ALL LIGHTING VALUE ENGINEERING PROVIDED FOR THIS PROJECT SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL AFTER THE PROJECT HAS BEEN BID AND AWARDED. ANY CREDITS FOR VE SHALL INCLUDE TIME TO COMPENSATE OUR OFFICE FOR ENGINEERING REVIEW AND VERIFICATION OF BRANCH CIRCUIT LOADING AND/OR ENERGY CODE COMPLIANCE. NO VE SUBMITTALS WILL BE APPROVED WITHOUT THIS PROCESS IN PLACE. VE SUBMITTALS SHALL INCLUDE PHOTOMETRIC ANALYSIS TO ENSURE NEW LIGHT FIXTURES PROVIDE COMPARABLE LIGHT LEVELS TO THOSE ORIGINALLY

3. MANUFACTURER SHALL PROVIDE SEISMIC SUPPORT WITH FIXTURES OVER 20 LBS. 4. FIXTURES LISTED IN THE FIXTURE SCHEDULE HAVE BEEN PROVIDED AS THE BASIS OF DESIGN. FIXTURES ARE TO BE PROVIDED THAT MEET OR EXCEED SPECIFICATIONS. FIXTURES THAT DO NOT COMPLY

5. FIXTURE SHALL BE PROVIDED AS SPECIFIED. CONTACT MANUFACTURER'S REP FOR CONTRACTOR ALLOWANCE PRICING 6. FIXTURES TO BE PURCHASED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE ALL CONNECTORS, FASTENERS, AND WIRE TERMINATIONS FOR A COMPLETE SYSTEM PER MANUFACTURER'S INSTALLATION REQUIREMENTS.

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