

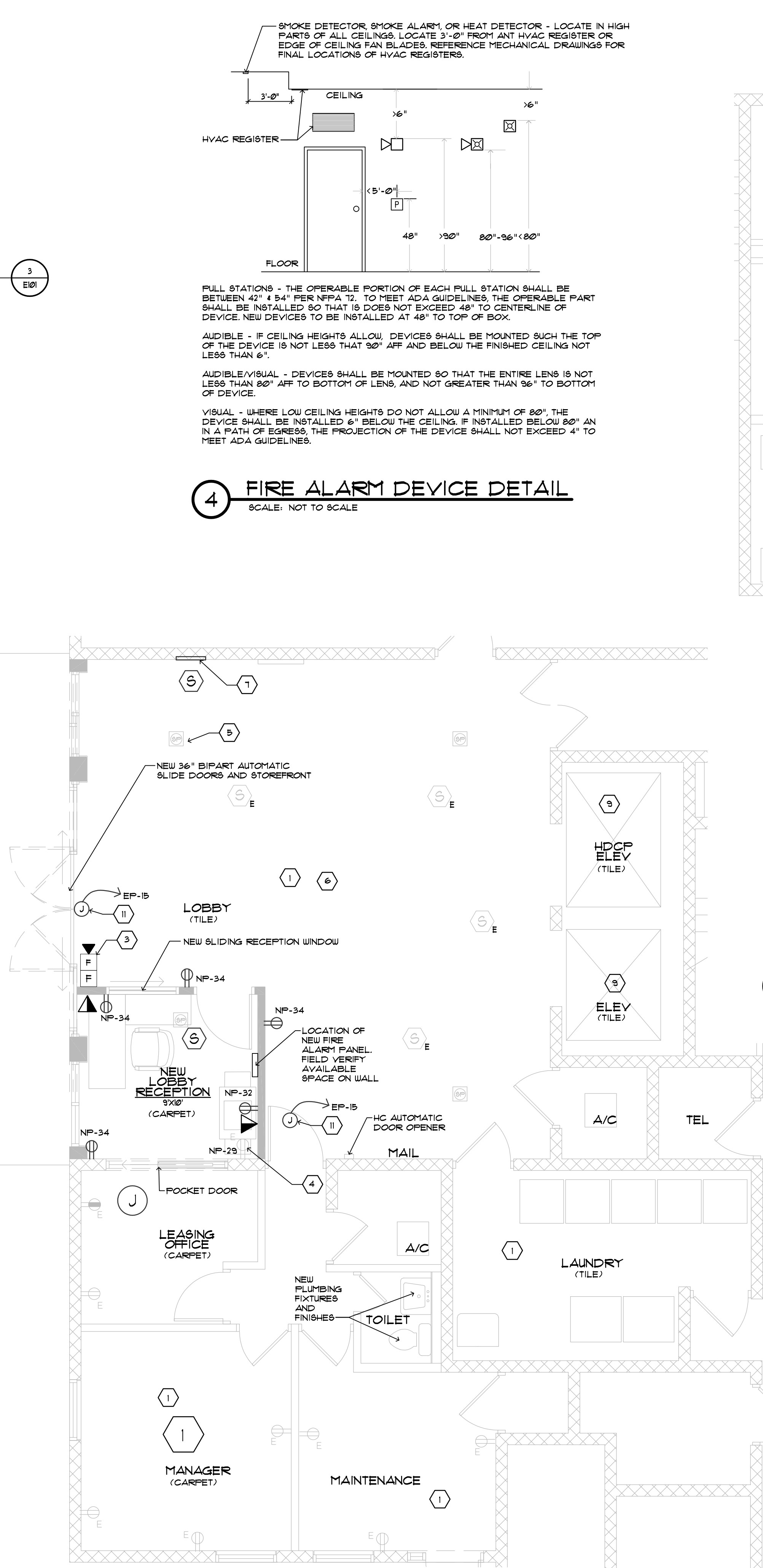
1 OVERALL FIRST FLOOR ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

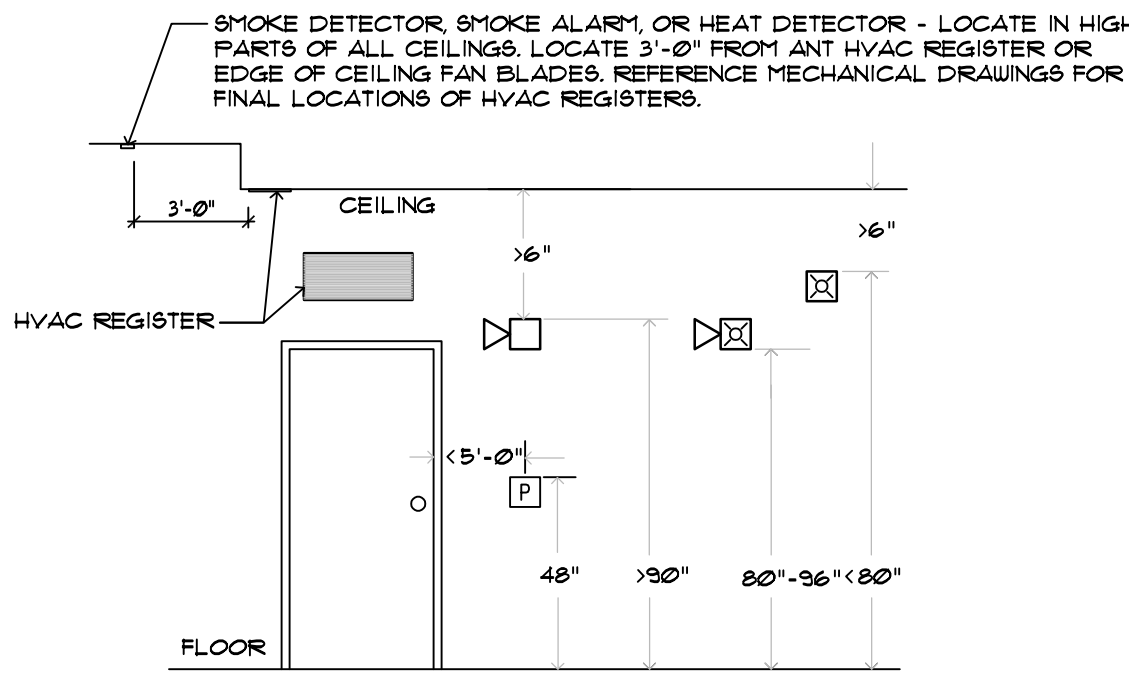
- FOR ABBREVIATIONS, SYMBOLS, LEGEND, AND GENERAL NOTES, SEE DRAWING E101.
- CONTRACTOR SHALL COORDINATE NEW CONDUIT ROUTES WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
- EXISTING ELECTRICAL RACEWAYS, CONDUITS, WIRING, DEVICES, JUNCTION BOXES, OUTLET BOXES, AND OTHER ELECTRICAL COMPONENTS THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE RELOCATED AND OR RE-ROUTED / EXTENDED TO A NEW LOCATION IN ORDER TO AVOID CONFLICTS.
- ANY OUTAGE CONCERNING POWER, COMMUNICATION, DATA, AND FIRE ALARM SHALL BE COORDINATED WITH THE 48 HOURS PRIOR TO OUTAGE.
- BRANCH CIRCUITS SHOWN ON DRAWINGS ARE FROM EXISTING DOCUMENTS. PRIOR TO WORK, PROVIDE THE TIME AND LABOR TO VERIFY BRANCH CIRCUITS INVOLVED IN CONSTRUCTION.
- PROVIDE THE TIME AND LABOR REQUIRED TO FIELD COORDINATE ALL FINAL LOCATIONS OF MECHANICAL EQUIPMENT WITH INSTALLATION TECHNICIANS PRIOR TO ROUGH-IN, AND DURING INSTALLATION FOR ANY MODIFICATIONS THAT MAY BE REQUIRED DUE TO EXISTING STRUCTURES OR EXISTING EQUIPMENT.
- ALL EXISTING EXPOSED CONDUIT AND CABLES SHALL BE CONCEALED INTO WALLS, PROVIDE ALL ELECTRICAL COMPONENTS TO EXTEND INTO WALLS AS REQUIRED. COORDINATE WITH OWNER FOR ALL RELOCATED EQUIPMENT - FIRE ALARM, SECURITY PANELS, LOW VOLTAGE ENCLOSURES, ETC.
- FIRE ALARM DEVICES ADDED TO EXISTING FIRE ALARM SYSTEM SHALL COORDINATED WITH EXISTING FIRE ALARM SYSTEM. PROVIDE ALL REQUIRED ELECTRICAL COMPONENTS FOR COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM. PROVIDE UPDATED CERTIFICATION OF FIRE ALARM SYSTEM UPON FINAL ELECTRICAL INSPECTIONS.

KEY NOTES:

- EXISTING TO REMAIN DEVICES, VERIFY BRANCH CIRCUIT OR WIRING CONTINUITY AS REQUIRED PRIOR TO ANY WORK.
- EXISTING LOCATION OF EXISTING LOBBY FIRE ALARM FULL STATION AND HORN STROBE.
- NEW LOCATION OF EXISTING LOBBY FIRE ALARM FULL STATION AND HORN STROBE. PROVIDE ALL ELECTRICAL COMPONENTS AS REQUIRED FOR EXTENSION OF CONDUIT AND CABLES OF RELOCATED FIRE ALARM DEVICES, TYPICAL OF ANY RELOCATED FIRE ALARM DEVICE.
- EXISTING WALL TO BE MODIFIED - RELOCATE EXISTING DEVICE TO ACCOMMODATE A NEW SUITABLE LOCATION OR AS INDICATED.
- EXISTING SPEAKER SHALL BE LOCATED AND MOUNTED TO NEW CEILING. PROVIDE NEW SPEAKER WITH SAME MANUFACTURER, STYLE AND TYPE IF DAMAGED. COORDINATE SUITABLE LOCATIONS WITH LIGHTING PLANS. FIELD VERIFY LOCATIONS AND NUMBER OF SPEAKERS.
- EXISTING FIRE ALARM PANEL, AND EQUIPMENT MOUNTED TO WALL, SHALL BE RELOCATED. VERIFY NEW LOCATIONS WITH OWNER. PROVIDE ALL ELECTRICAL COMPONENTS AS REQUIRED FOR RELOCATION. FIRE ALARM SYSTEM SHALL BE RE-CERTIFIED UPON FINAL ELECTRICAL, FIRE DEPARTMENT INSPECTION.
- PROVIDE NEW FIRE ALARM ANNUNCIATOR. PROVIDE SMOKE DETECTOR ABOVE.
- EXISTING SMOKE DETECTORS SHALL BE RELOCATED TO NEW CEILING. PROVIDE TIME AND LABOR TO COORDINATE NEW AND SUITABLE LOCATIONS COORDINATED WITH LIGHTING. PROVIDE A NEW SMOKE DETECTOR FOR EACH NEW ROOM. FIELD VERIFY COUNT OF EXISTING SMOKE DETECTORS.
- PROVIDE NEW LIGHTING IN ELEVATOR. PROVIDE TIME AND LABOR TO CONFIRM LIGHT FIXTURE SPECIFICATION IS IN ACCORDANCE WITH MANUFACTURER OF ELEVATOR'S RECOMMENDATIONS.
- ALL EXISTING EXPOSED CONDUIT AND CABLES SHALL BE CONCEALED INTO WALLS. PROVIDE ALL ELECTRICAL COMPONENTS TO EXTEND INTO WALLS AS REQUIRED. COORDINATE WITH OWNER FOR ALL RELOCATED EQUIPMENT - FIRE ALARM, SECURITY PANELS, LOW VOLTAGE ENCLOSURES, ETC.
- PROVIDE POWER CONNECTIONS TO NEW AUTOMATIC DOOR SYSTEM. COORDINATE WITH OWNER ACCESS SYSTEM, DOOR HARDWARE, DOOR INSTALLATION TECHNICIANS AND OTHER TRADES TO ENSURE COMPLETE AND OPERATIONAL AUTOMATIC DOOR.



2 LOBBY / OFFICE AREA PARTIAL ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"



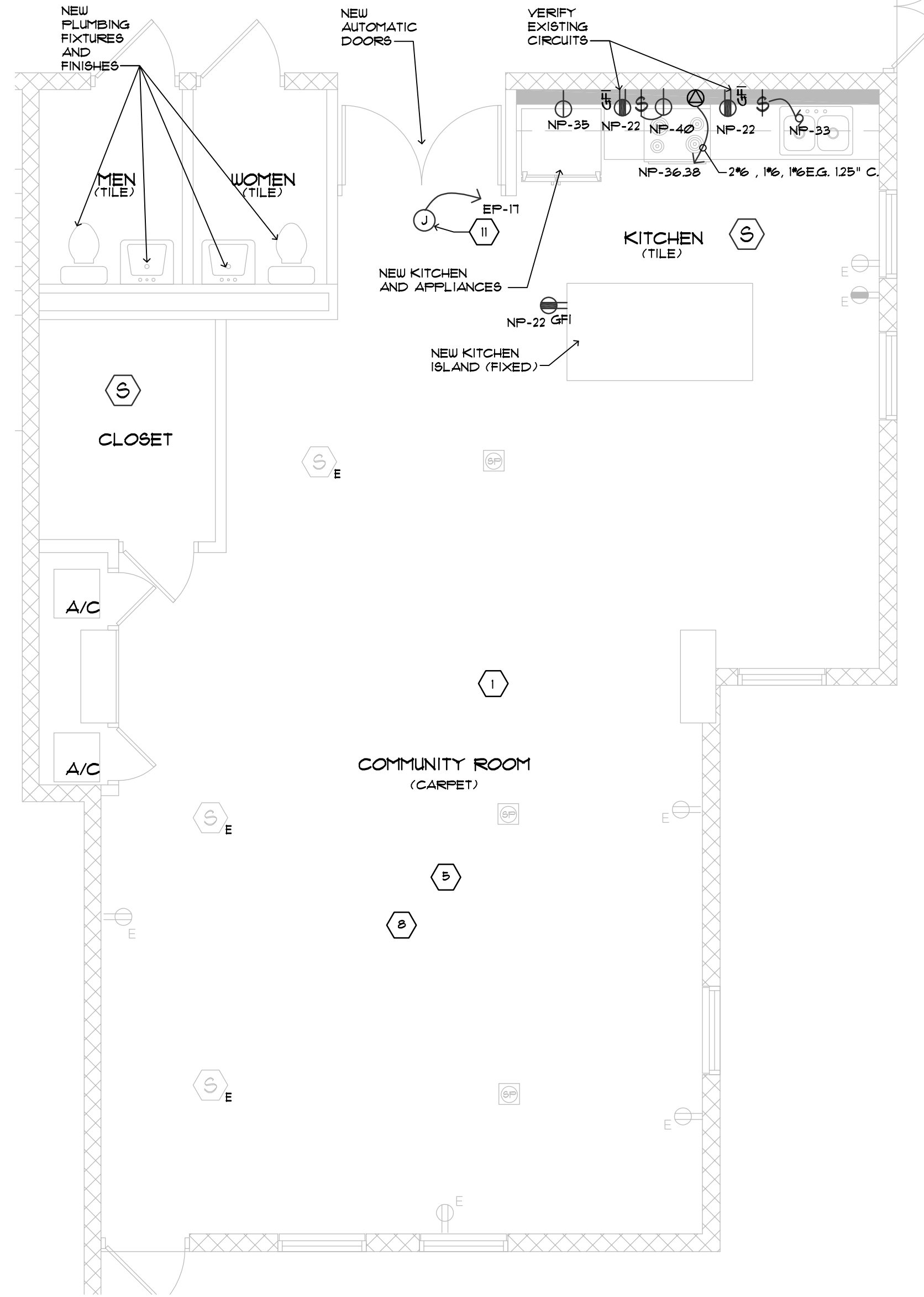
FULL STATIONS - THE OPERABLE PORTION OF EACH FULL STATION SHALL BE BETWEEN 42" & 54" PER NFPA 72. TO MEET ADA GUIDELINES, THE OPERABLE PART SHALL BE INSTALLED SO THAT IT DOES NOT EXCEED 48" TO CENTERLINE OF DEVICE. NEW DEVICES TO BE INSTALLED AT 48" TO TOP OF BOX.

AUDIBLE - IF CEILING HEIGHTS ALLOW, DEVICES SHALL BE MOUNTED SUCH THE TOP OF THE DEVICE IS NOT LESS THAN 30" AFF AND BELOW THE FINISHED CEILING NOT LESS THAN 6".

AUDIBLE/VISUAL - DEVICES SHALL BE MOUNTED SO THAT THE ENTIRE LENS IS NOT LESS THAN 80" AFF TO BOTTOM OF LENS, AND NOT GREATER THAN 36" TO BOTTOM OF DEVICE.

VISUAL - WHERE LOW CEILING HEIGHTS DO NOT ALLOW A MINIMUM OF 80", THE DEVICE SHALL BE INSTALLED 6" BELOW THE CEILING. IF INSTALLED BELOW 80" AN IN A PATH OF EGRESS, THE PROJECTION OF THE DEVICE SHALL NOT EXCEED 4" TO MEET ADA GUIDELINES.

4 FIRE ALARM DEVICE DETAIL
SCALE: NOT TO SCALE

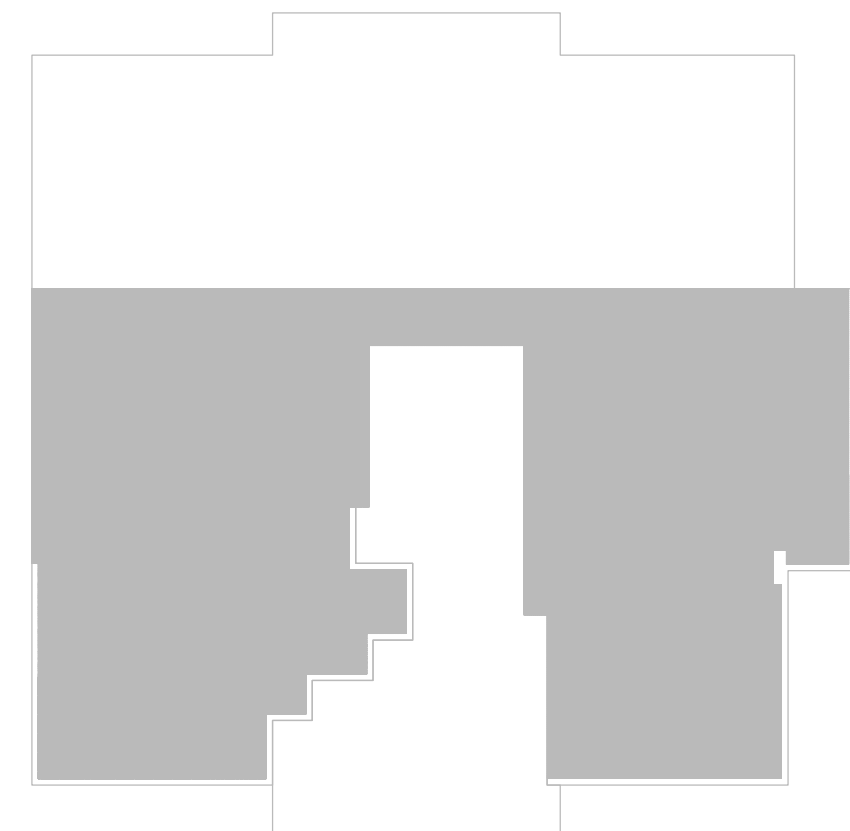


3 COMMUNITY ROOM PARTIAL ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

WALL LEGEND

- DEMOLISHED WALL
- EXISTING WALL
- EXISTING CMU WALL
- EXISTING CONCRETE WALL
- NEW FRAMED WALL
- NEW CMU WALL
- NEW CONCRETE WALL

- EXISTING DOOR TO BE REMOVED
- EXISTING DOOR TO REMAIN
- NEW DOOR



LIMITS OF CONSTRUCTION KEY PLAN

BESSOLO
DESIGN GROUP, INC.
ARCHITECTURE ■ DEVELOPMENT
License #AA-C002117
7901 4TH ST. NORTH, SUITE 200
ST. PETERSBURG, FL 33702
727.894.4453 ■ www.bessolo.com

KEM
ENGINEERS, INC.
License # EB-0007103
7901 4TH ST. NORTH, SUITE 200
ST. PETERSBURG, FL 33702
(727) 894-4668
PROFESSIONAL SEAL

Nestor D. Martinez, P.E.
State of Florida 61756

©COPYRIGHT KEM ENGINEERS, INC. THE DRAWING AND ALL INFORMATION THEREON ARE THE PROPERTY OF KEM ENGINEERS, INC. NO PART OF THIS DRAWING OR INFORMATION HEREON SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN CONSENT OF KEM ENGINEERS, INC. THIS DRAWING IS THE PROPERTY OF KEM ENGINEERS, INC. AND IS NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF KEM ENGINEERS, INC. THE DATE ADJACENT TO THE SEAL, PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED VALID UNLESS SIGNED AND SEALED BY THE ENGINEER. ANY REVISIONS TO THIS DOCUMENT SHALL BE INDICATED BY THE ENGINEER.

RALPH RICHARDS
TOWER RENOVATION
211 SOUTH PROSPECT AVENUE
CLEARWATER, FL 33756

ISSUED
DATE: 08-15-20
ISSUED FOR: CONSTRUCTION DOCUMENTS

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT NO.: 19080200
DRAWN BY: UG
PROJECT MANAGER: RW
CHECKED BY: NDM
DATE: 08-15-20
SCALE: 1/16" = 1'-0"

E101
OVERALL AND
PARTIAL FIRST FLOOR
ELECTRICAL PLANS



1. FOR ABBREVIATIONS, SYMBOLS, LEGEND, AND GENERAL NOTES, SEE DRAWING E201.
2. CONTRACTOR SHALL COORDINATE NEW CONDUIT ROUTES WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
3. EXISTING ELECTRICAL RACEWAYS, CONDUITS, WIRING, DEVICES, JUNCTION BOXES, OUTLET BOXES, AND OTHER ELECTRICAL EQUIPMENT THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE RELOCATED AND OR RE-ROUTED / EXTENDED TO A NEW LOCATION IN ORDER TO AVOID CONFLICTS.
4. ANY OUTAGE CONCERNING POWER, COMMUNICATION, DATA, AND FIRE ALARM SHALL BE COORDINATED WITH THE 48 HOURS PRIOR TO OUTAGE.
5. BRANCH CIRCUITS SHOWN ON DRAWINGS ARE FROM EXISTING DOCUMENTS. PRIOR TO WORK, PROVIDE THE TIME AND LABOR TO VERIFY BRANCH CIRCUITS INVOLVED IN CONSTRUCTION.
6. EXISTING DEVICES MOUNTED TO EXISTING CEILING SHALL BE RELOCATED TO NEW CEILING, PROVIDE ALL ELECTRICAL COMPONENTS AT NEW LOCATION ON NEW CEILING. VERIFY BRANCH CIRCUIT OR WIRING CONTINUITY AS REQUIRED.
7. EXISTING LIGHTING CONTROL AND BRANCH CIRCUITS SHALL BE MAINTAINED.

1. EXISTING LOCATION OF EXISTING LOBBY LIGHTING CONTROL. LOCATE TO NEW LOCATION.
2. NEW LOCATION OF EXISTING LOBBY LIGHTING CONTROL.
3. EXISTING CEILING TO BE MODIFIED - RELOCATE EXISTING CEILING MOUNTED DEVICES, SMOKE DETECTORS, CCTV CAMERAS, SECURITY DEVICES, SPEAKERS, OCCUPANCY SENSORS, ETC. DEVICES SHALL BE RELOCATED TO NEW CEILING. INSPECT DEVICES AND IF DEVICE OR EQUIPMENT IS BROKEN REPLACE WITH NEW IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
4. PROVIDE THE TIME AND LABOR REQUIRED TO FIELD COORDINATE ALL FINAL LOCATIONS OF MECHANICAL EQUIPMENT WITH INSTALLATION TECHNICIANS PRIOR TO ROUGH-IN, AND DURING INSTALLATION FOR ANY MODIFICATIONS THAT MAY BE REQUIRED DUE TO EXISTING STRUCTURES OR EXISTING EQUIPMENT.
5. CONNECT TO EXISTING LIGHTING CONTROL AND BRANCH CIRCUIT. VERIFY BRANCH CIRCUIT PRIOR TO WORK.
6. PROVIDE NEW BRANCH CIRCUIT AND LIGHTING CONTROL, AS REQUIRED.
7. CONNECT NEW LIGHTS TO EXISTING LIGHTING BRANCH CIRCUIT AND LIGHTING CONTROL. VERIFY EXISTING BRANCH CIRCUIT INDICATED PRIOR TO WORK.



E201
OVERALL FIRST FLOOR
AND PARTIAL
LIGHTING PLANS

S	Total Demand KVA	Percent	A	B	C
H Heating: ***	80%	0.00	0.00	0.00	0.00
L Lighting:	125%	9.13	9.06	6.81	
R Receptacle: *	--	4.82	4.03	9.43	
W Water Heater:	125%	0.00	0.00	0.00	
M Motor/HVAC/Fan: **	125%	0.00	0.00	0.00	
G General Lighting	50%	0.00	0.00	0.00	
T Xmr/Panel/Eqpt.	100%	0.00	0.00	0.00	

* = First 10 @ 100%, Remainder at 50%
** = First @ (shown), Remainder @ 100%

S	Total Demand KVA		Percent	A	B	C				* SHUNT-TRIP CIRCUIT BREAKER
H	Heating ****		80%	0.00	0.00	0.00		A	B	C
L	Lighting		125%	4.13	6.00	6.00		5.83	6.00	6.00
R	Receptacle *		---	1.50	0.00	0.00		46.88	50.00	50.00
W	Water Heater		125%	0.00	0.00	0.00			KVA	
M	Motor/HVAC/Fan: **		125%	0.00	0.00	0.00			AMPS	
G	General Lighting		50%	0.00	0.00	0.00				
T	Xfmr./Panel/Capt.		100%	0.00	0.00	0.00				

* = First 10 @ 100%, Remainder at 50%
** = First @ (shown), Remainder @ 100%

PER 2014 NEC

 Connected Amperes 40.91779

 Demand Amperes 48.96

1 NEW LUMINAIRE SCHEDULE
SCALE: NOT TO SCALE

EXISTING PANEL NP				
	DESCRIPTION		KW	AMPS
A	EXISTING PANEL NP LIGHTING EQUIPMENT LOADS	=	<u>36.1</u>	100.28
	NEW EQUIPMENT LOADS	=	11.27	
A	EXISTING PANEL NP LIGHTING EQUIPMENT LOADS		<u>36.1</u>	
	ADD NEW LIGHTING LOAD TO NEW PANEL NP LOAD	=	47.37	131.58
EXISTING PANEL NP ADEQUATE				

The diagram illustrates the power system configuration. It shows the connection between the existing transformer, generators, and various loads. The components and their ratings are as follows:

- MC-A**: 600A, 450A 3F
- MC-B**: 600A, 450A 3F
- EXISTING TRANSFORMER**: A central transformer unit.
- SES-1**: 400A, 400A 3F
- SES-2**: 600A, 600A 3F
- ATS**: 400A, 400A 3F
- EXISTING 150 KW GENERATOR**: A generator unit.
- EDP**: 400A
- EP**: 225A
- NDP**: 400A
- NP**: 225A
- 2EP**: 50A
- 2EP**: 50A

The diagram shows the following connections:

- MC-A and MC-B are connected to the existing transformer.
- The existing transformer is connected to SES-1 and SES-2.
- SES-1 and SES-2 are connected to the ATS.
- The ATS is connected to the existing 150 KW generator.
- The existing 150 KW generator is connected to EDP and EP.
- EDP and EP are connected to the 2EP loads.
- NDP and NP are connected to the 2EP loads.

2 EXISTING PARTIAL RISER DIAGRAM
SCALE: NOT TO SCALE

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING ALL CEILING TYPES BEFORE ORDERING FIXTURES. - PROVIDE REQUIRED FLANGE PER CEILING TYPE, PROVIDE FOR FIRE AND OR INSULATION RATINGS AS REQUIRED.
2. EACH LUMINAIRE SHALL HAVE BEEN TESTED AND CERTIFIED FOR PROPER OPERATION BY THE LUMINAIRE MANUFACTURER FOR THE TYPE OF CEILING AND MOUNTING ON WHICH IT IS INSTALLED.
3. LUMINAIRES SHALL BE SET LEVEL, PLUMB, AND SQUARE WITH CEILINGS AND WALLS. INSTALL LAMPS IN EACH LUMINAIRE - VERIFY LED LAMP TYPE AND LAMP BASE FOR FIT AND FINISH.
4. INSTALL A MINIMUM OF FOUR CEILING SUPPORT SYSTEM RODS OR WIRES FOR EACH LUMINAIRE. LOCATE NOT MORE THAN 6 INCHES (150 mm) FROM FIXTURE CORNERS.
5. LAMP TEMPERATURE SHALL BE 3000K, WITH CFI OF 80 MINIMUM.
6. CONFIRM LUMINAIRE WEIGHT AND PROVIDE REQUIRED BRACING FOR SECURE SUPPORT OF FIXTURE.
7. PRIOR TO ROUGH-IN OF WALL MOUNTED SCONCES, VANITY LIGHTS, PENDANT MOUNTED LUMINAIRES, UNDER / UPPER CABINET LUMINAIRES, AND ART WORK LUMINAIRES, CONTRACTOR SHALL PROVIDE THE TIME AND LABOR TO COORDINATE AND CONFIRM MOUNTING HEIGHTS WITH ELECTRICAL DETAILS, ARCHITECTURAL / INTERIOR ELEVATIONS AND THE APPROPRIATE TRADES IN ORDER TO AVOID CONFLICT WITH MILLWORK, AND DESIGN INTENT.
8. ROOMS WITH LUMINAIRES (STORAGE, JANITORS CLOSETS, PUBLIC RESTROOMS, LAUNDRY, ELECTRICAL ROOMS, MECHANICAL ROOMS, OFFICES, MEDICAL, IT ROOMS, BREAK ROOMS, REHABILITATION, ETC., SHALL HAVE LIGHTING CONTROL PROVIDED.
9. EMERGENCY BATTERY BACK UP LUMINAIRES SHALL BE CONNECTED TO A LIGHTING BRANCH CIRCUIT AHEAD OF SWITCHING GENERATOR LIGHTING CIRCUITS SHALL BE UTILIZED WHEN NON-GENERATOR BRANCH CIRCUITS ARE UTILIZED IN THE SAME SPACE.
10. LOW VOLTAGE LUMINAIRES INSTALLED INTO COVE AND MILLWORK - TRANSFORMERS, DRIVERS, WIRING CONDUIT, JUNCTION BOXES, ETC. SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR WHEN POSSIBLE. PROVIDE REQUIRED LABOR IN ORDER TO COORDINATE WITH ARCHITECTURAL INTERIOR DESIGN ELEVATIONS, MILLWORK DRAWINGS, AND OTHER TRADES IN ORDER TO AVOID CONFLICTS, PROVIDE STRAPS TO SUPPORT COVE LIGHTS. SUPPORT LIGHTING WITH STRAPS PROVIDED BY MANUFACTURER.
11. LUMINAIRES THAT ARE SUBSTITUTED SHALL BE SUBMITTED WITH IES FILES FOR A PHOTOMETRIC CONFIRMATION. AN HOURLY FEE SHALL BE CHARGED TO THE CONTRACTOR.
12. LUMINAIRES SHALL NOT BE SUPPORTED FROM FIRE RATED CEILINGS. SUPPORT FIXTURES FROM BUILDING STRUCTURE, ABOVE FIRE RATED CEILINGS.
13. ATTIC ACCESS HATCHES SHALL BE PROVIDED WITH A SWITCH, NEAR ACCESS, AND A PORCELAIN KEYLESS LAMP HOLDER (SYLVANIA 71321 LED LAMP, REFERENCE NEC 210.6(A)3 AND NEC 210.10(A)3).
14. LIGHT FIXTURE AND CEILING FAN LOCATIONS SHALL NOT INTERFERE WITH THE OPERATION OF DOORS. PROVIDE THE TIME AND LABOR REQUIRED FOR COORDINATION PRIOR TO ROUGH-IN.
15. EACH ROOM SHALL BE PROVIDED WITH A LIGHT FIXTURE AND LIGHTING CONTROL.
16. ALL LED FIXTURES AND FIXTURES WITH LED LAMPS SHALL BE DIMMABLE.
17. VERIFY ALL LED LAMPS TO BE COMPATIBLE WITH FIXTURE PROVIDED.
18. LIGHT FIXTURES LOCATED IN ELECTRICAL AND MECHANICAL ROOMS SHALL BE COORDINATED WITH CONDUITS, DUCT WORK, PIPES, AND BUILDING STRUCTURES. COORDINATE SUITABLE AND ACCESSIBLE LOCATIONS.
19. EXIT LIGHTS SHALL BE CONNECTED AHEAD OF LIGHTING CONTROL BRANCH CIRCUIT FOR THE ASSOCIATE SPACE OR ROOM.
20. FIXTURES WITH NON-DIMMABLE LAMP / BALLAST SHALL NOT BE CONNECTED TO A DIMMING CONTROL DEVICE.
21. LED RETRO FIT LAMPS REPLACING FLUORESCENT OR INCANDESCENT LAMPS - CONTRACTOR SHALL CONFIRM COMPATIBILITY OF LAMPS WITH BALLAST, DRIVERS, VOLTAGES, DIMMER, AND MANUFACTURER.
22. CEILING FANS SHALL NOT BE CONNECTED TO DIMMERS.



ISSUED	
DATE:	ISSUED FOR:
05-15-20	CONSTRUCTION DOCUMENTS

[illegible]

PROJECT NO: 1908020
DRAWN BY: WKG
PROJECT MANAGER: RJW
CHECKED BY: NDM
DATE: 05-15-20
SCALE: NOT TO SCALE

E601

ELECTRICAL RISER AND SCHEDULES