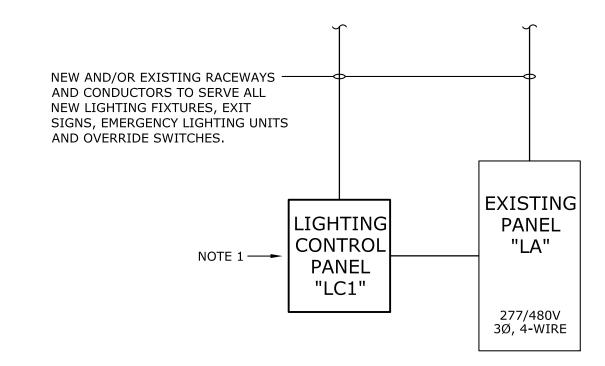
LIGHTING FIXTURE SCHEDULE									
SYMBOL	TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	OPTICAL ELEMENT	MOUNTING	VOLTS	LAMPS (PHILIPS)	
$\boxtimes$	AE	2'x4' DIRECT/INDIRECT L.E.D. TROFFER WITH FLANGE MOUNT FOR HARD CEILING AND A 90 MINUTE BATTERY BACKUP SYSTEM.	CREE	ZR24-40L-40K-10V-EB14-DGA-24WHT	DIRECT/ INDIRECT w/CENTER BASKET	CEILING FLANGE RECESSED	120/277V UNIVERS.	L.E.D 4000 lumens, 4000K	
•	В	2'x4' DIRECT/INDIRECT L.E.D. GRID TROFFER.	CREE	ZR24-40L-40K-10V	DIRECT/ INDIRECT w/CENTER BASKET	CEILING GRID RECESSED	120/277V UNIVERS.	L.E.D 4000 lumens, 4000K	
	BE	2'x4' DIRECT/INDIRECT L.E.D. GRID TROFFER AND A 90 MINUTE BATTERY BACKUP SYSTEM.	CREE	ZR24-40L-40K-10V-EB14	DIRECT/ INDIRECT w/CENTER BASKET	CEILING GRID RECESSED	120/277V UNIVERS.	L.E.D 4000 lumens, 4000K	
	С	4' L.E.D. VANITY WALL BRACKET FIXTURE, SEMI-CIRCULAR, PEARL ENDCAPS WITH CHROME TRIM.	BROWNLEE	5029-49-CH-E37LED-WA-40K	WHITE ACRYLIC	WALL MOUNT ABOVE VANITY	120/277V UNIVERS.	L.E.D 4115 lumens, 4000K	
0	D	8" L.E.D. RECESSED DOWNLIGHT WITH WET LOCATION LISTING.	INDY	L8-23-40K-U-G2-L800P-C-Q-WET	CLEAR SEMI SPECILAR	CEILING RECESSED	120/277 UNIVERS.	L.E.D 2300 lumens, 4000k	
•	DE	8" L.E.D. RECESSED DOWNLIGHT WITH COLD-WEATHER RATED 90-MINUTE BATTERY PACK AND A WET LOCATION LISTING.	INDY	L8-23-40K-U-G2-BR-L180P-C-Q-WET	CLEAR SEMI SPECULAR	CEILING RECESSED	120/277 UNIVERS.	L.E.D./-22000lumen/ns10400K/0740 CRI	
Ю	FE	EXTERIOR L.E.D WALL FIXTURE WITH A COLD-WEATHER 90-MINUTE BATTERY PACK.	ACCULITE	LW1-40L-41K-E2-WT-EX	WIDE THROW OPTICS	WALL SURFACE	277V		
<b>⊳</b> ⊏⊲	UE	EMERGENCY LIGHTING UNIT, CEILING MOUNTED WITH TWO HEADS, SELF DIAGNOSTICS, AND 90 MINUTE BATTERY BACKUP SYSTEM.	EMERGI-LITE	PRO-3N-LA-AD-CM	MR16 HEADLAMPS (FLOOD)	SEMI-FLUSH MOUNT IN CEILING		2 - 6-VOLT, 4-WATT MR16 L.E.D.	
⊗ +⊗	-	EDGE-LIT L.E.D. EXIT SIGN, SINGLE FACE, UNIVERSAL MOUNTING WITH A 90 MINUTE BATTERY BACKUP SYSTEM.	EMERGI-LITE	TA-PEN-1-RC	EDGE-LIT ACRYLIC PANEL	CEILING MOUNT	120/277V UNIVERS.	L.E.D.	
ŀ <b>②</b>	_	EDGE-LIT L.E.D. EXIT SIGN, DOUBLE FACE, UNIVERSAL MOUNTING WITH A 90 MINUTE BATTERY BACKUP SYSTEM.	EMERGI-LITE	TA-PEN-2-RC	EDGE-LIT ACRYLIC PANEL	CEILING MOUNT	120/277V UNIVERS.	L.E.D.	

#### LIGHTING SINGLE-LINE DIAGRAM NOTES

. LIGHTING CONTROL PANEL "LC1": PROVIDE A WATTSTOPPER #LMCP LIGHTING CONTROL PANEL WITH 12 RELAYS RATED FOR 277 VOLT, 30 AMP LIGHTING CIRCUITS TO REPLACE EXISTING LIGHTING CONTACTOR. PROVIDE CABINET LOCK ON HINGED PANEL DOOR AND FURNISH 5 KEYS TO OWNER. SEE LIGHTING CONTROL PANEL SCHEDULE BELOW. PROGRAM ALL RELAYS TO RESPOND TO OVERRIDE INPUTS. PROCURE THE SERVICES OF A FACTORY-CERTIFIED WATTSTOPPER TECHNICIAN TO PROVIDE STARTUP AND CUSTOM TIME SCHEDULE PROGRAMMING AS DIRECTED BY OWNER.

LC1 LOAD SCHEDULE									
ZONE	LOAD DESCRIPTION	VOLTAGE	AMPS	WATTS					
RLY-1	LA-1, L.E.D. LTG	277	4	1108					
RLY-2	LA-3, L.E.D. LTG	277	4	1108					
RLY-3	LA-5, L.E.D. LTG	277	4	1108					
RLY-4	LA-2, L.E.D. LTG	277	4	1108					
RLY-5	LA-4, L.E.D. LTG	277	4	1108					
RLY-6	LA-6, L.E.D. LTG	277	4	1108					
RLY-8	LA-8, L.E.D. LTG	277	4	1108					
RLY-9	LA-10, L.E.D. LTG	277	4	1108					
RLY-10	LA-12, L.E.D. LTG	277	4	1108					
RLY-11	SPARE	277	0.0	0.0					
RLY-12	SPARE	277	0.0	0.0					



# LIGHTING SINGLE-LINE DIAGRAM

### GENERAL CONSTRUCTION NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:

INTERNATIONAL BUILDING CODE 2012 EDITION

NFPA 70 - NATIONAL ELECTRICAL CODE 2011 EDITION ANSI A117.1 - ACCESSIBLE AND USABLE 2009 EDITION BUILDINGS AND FACILITIES

- 2. PROVIDE RACEWAY AND WIRING TO ALL DEVICES, FIXTURES, AND EQUIPMENT INDICATED ON THE CONTRACT DRAWINGS. THE DRAWINGS INDICATE PARTIAL RACEWAY AND WIRING REQUIREMENTS TO HELP CLARIFY DESIGN INTENT. WHERE RACEWAY AND/OR WIRING IS NOT INDICATED FOR DEVICES, FIXTURES, OR EQUIPMENT THE ARRANGEMENT, GROUPING, AND ROUTING SHALL BE PROVIDED IN ACCORDANCE WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE. CONTRACTOR MAY ONLY RE-USE EXISTING RACEWAYS AND WIRING WHERE THEIR CURRENT INSTALLATION METHODS COMPLY WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE (CONTRACTOR MAY CORRECT DEFICIENT INSTALLATION METHODS IF
- 3. ALL CONDUIT PENETRATIONS THROUGH WALLS AND CEILINGS SHALL BE 2-HOUR FIRESTOPPED - HILTI OR EQUAL.
- 4. RACEWAYS SHALL BE 3/4" EMT WITH COMPRESSION TYPE FITTINGS UNLESS NOTED OR DETAILED OTHERWISE. PROVIDE FIXTURE WHIPS THAT COMPLY WITH THE NATIONAL ELECTRICAL CODE.
- 5. JUNCTION BOXES SHALL BE STEEL TYPE WITH SCREW COVER, SIZED AND SUPPORTED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. PROVIDE JUNCTION BOXES AS REQUIRED FOR POWER AND CONTROL WIRING RENOVATIONS.
- INSTALL ELECTRICAL SYSTEMS WITHOUT INTERFERING WITH DUCTS, PIPES, STRUCTURAL MEMBERS, OR OTHER SYSTEMS.
- 7. PROVIDE SEISMIC WIRE SUPPORTS FOR ALL NEW LIGHTING FIXTURES, EMERGENCY LIGHTING UNITS, AND EXIT SIGNS. TROFFER FIXTURES SHALL BE SUPPORTED WITH TWO WIRES. PROVIDE U.L. LISTED FIXTURE GRID CLIPS AT OR NEAR EACH FIXTURE CORNER.
- 8. THOROUGHLY CLEAN ALL EQUIPMENT AND SYSTEMS BEFORE PLACING IN OPERATION. RESTORE FINISHED SURFACES IF DAMAGED AND DELIVER THE ENTIRE INSTALLATION IN AN APPROVED CONDITION. THE CONTRACTOR SHALL INSTRUCT THE OWNER'S PERSONNEL IN THE PROPER OPERATION AND MAINTENANCE OF ALL SYSTEMS. FURNISH 3 SETS OF OPERATION AND MAINTENANCE MANUALS TO THE OWNER FOR EACH SYSTEM.
- 9. THE CONTRACTOR SHALL GUARANTEE THE WORK INSTALLED UNDER THIS CONTRACT FOR A PERIOD OF ONE YEAR AFTER DATE OF FINAL ACCEPTANCE. DEFECTS WHICH APPEAR AS A RESULT OF NORMAL USAGE SHALL BE REMEDIED BY THE CONTRACTOR TO THE COMPLETE SATISFACTION OF THE OWNER WITHOUT COST TO THE OWNER.
- 10. CUTTING, DRILLING, AND PATCHING: PROVIDE CHASES, SLOTS, AND OPENINGS IN EXISTING BUILDING COMPONENTS TO ALLOW FOR ELECTRICAL INSTALLATIONS.
- A) INSTALL EQUIPMENT, MATERIALS, AND RACEWAYS IN EXISTING STRUCTURES.
- B) REMOVE AND REPLACE DEFECTIVE WORK THAT DOES NOT CONFORM TO REQUIREMENTS OF THE CONTRACT DOCUMENTS.

PERFORM CUTTING, DRILLING, FITTING, AND PATCHING REQUIRED TO:

C) UPON WRITTEN INSTRUCTIONS FROM THE ARCHITECT/ENGINEER, UNCOVER AND RESTORE WORK TO PROVIDE FOR ARCHITECT/ENGINEER OBSERVATION OF CONCEALED WORK.

PROTECT EXISTING STRUCTURES, FURNISHINGS, FINISHES, MECHANICAL SYSTEMS, AND ELECTRICAL SYSTEMS WHILE PERFORMING CUTTING, DRILLING, FITTING, AND PATCHING.

PATCH EXISTING SURFACES AND BUILDING COMPONENTS USING NEW MATERIALS THAT MATCH EXISTING MATERIALS. PATCHING SHALL BE PERFORMED BY EXPERIENCED

# GENERAL DEMOLITION NOTES

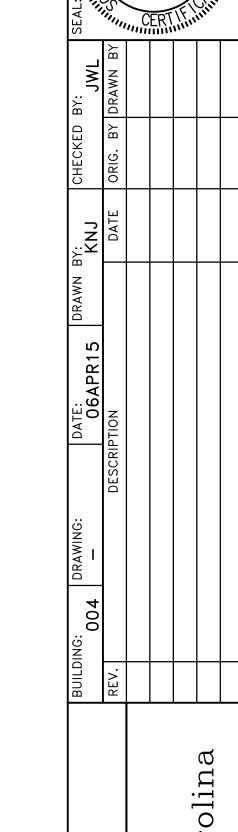
- THERE ARE EXISTING LIGHTING FIXTURES AND EXIT SIGNS CURRENTLY INSTALLED WHERE NEW FIXTURES AND SIGNS ARE SHOWN EXCEPT WHERE NOTED. REMOVE AND LEGALLY DISPOSE OF ALL EXISTING LIGHTING FIXTURES, EXIT SIGNS, AND ASSOCIATED BALLSTS AND LAMPS.
- THE CONTRACTOR SHALL VISIT THE SITE/BUILDING TO FIELD VERIFY EXISTING CONDITIONS (PARTICULARLY ABOVE-CEILING CONDITIONS OF EXISTING RACEWAY AND WIRING INSTALLATION METHODS) PRIOR TO BID AND SHALL INCLUDE ALL WORK REQUIRED FOR COMPLETE DEMOLITION IN HIS BID - SEE GENERAL CONSTRUCTION NOTE 2 ON THIS DRAWING.

## ELECTRICAL LEGEND

LEECTRICAL ELOCIO							
SYMBOL	DESCRIPTION						
A • 14	LIGHTING FIXTURE; TYPE AND CIRCUIT NUMBER AS INDICATED. SEE THE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL SYMBOLS AND TYPES.						
⊗ 🏖	SINGLE OR DOUBLE FACE EXIT SIGN, CEILING MOUNTED. PROVIDE DIRECTIONAL ARROWS/CHEVRONS AS INDICATED ON PLAN.						
<b>⊢⊗ ⊢</b>	SINGLE OR DOUBLE FACE EXIT SIGN, WALL MOUNTED. PROVIDE DIRECTIONAL ARROWS/CHEVRONS AS INDICATED ON PLAN.						
	WATTSTOPPER "LMCP" SERIES LIGHTING CONTROL PANEL. SURFACE MOUNT PANEL ON WALL.						
<b>\$</b> OVR	LIGHTING CONTROL PANEL REMOTE OVERRIDE SWITCH WITH INTEGRAL PILOT LIGHT (WATTSTOPPER). FLUSH MOUNT SWITCH IN WALL AT EXISTING WALL SWITCH LOCATION. PROVIDE WIRING/CABLING PER WATTSTOPPER RECOMMENDATIONS. PROVIDE A CUSTOM LAMINATE SIGN ABOVE SWITCH THAT READS, "LIGHTING SYSTEM 2-HOUR TIME OVERRIDE SWITCH. PRESS SWITCH TO PROVIDE 2 HOURS OF EXTENDED LIGHTING EACH TIME LIGHTS BLINK ON AND OFF. IF BUTTON IS NOT PRESSED WITHIN 5 MINUTES OF LIGHTS BLINKING, ALL LIGHTS IN LIBRARY, OFFICES, RESTROOMS, AND CONFERENCE ROOM WILL TURN OFF.						
<b>\$</b> os	SINGLE-POLE WALL SWITCH OCCUPANCY SENSOR - WATTSTOPPER #PW-301 WITH BRUSHED ALUMINUM WALLPLATE. MOUNT SWITCH IN EXISTING SWITCH BACKBOX.						
<b>⊲</b> os	OCCUPANCY SENSOR, WATTSTOPPER #DT200 WITH #BZ-50 UNIVERSAL VOLTAGE POWER PACK AND CEILING SWIVEL BRACKET. MOUNT SENSOR BRACKET ON CEILING ON RECESSED METAL BACKBOX. ADJUST AIMING TO MINIMIZE FALSE ACTIVATION DUE TO EXISTING STOREFRONT (GLASS) WALL SYSTEM, WHERE APPLICABLE.						
2	IVORY SINGLE-POLE TOGGLE SWITCH RATED 277 VOLTS, 20 AMPS WITH BRUSHED ALUMINUM WALLPLATE. MOUNT SWITCH IN EXISTING SWITCH BACKBOX.						
	EXISTING ONE-SECTION PANELBOARD, SURFACE MOUNTED - TO REMAIN IN PLACE.						
	EXISTING LIGHTING CONTACTOR - REMOVE.						
• R	EXISTING 2'x4' RECESSED FLUORESCENT TROFFER - REMOVE.						
• R	EXISTING 4' VANITY FLUORESCENT WALL FIXTURE - REMOVE.						
OR	EXISTING INCANDESCENT DOWNLIGHT - REMOVE.						
ЮR	EXISTING WALL MOUNTED EXTERIOR LIGHTING FIXTURE - REMOVE.						
⊗R	EXISTING CEILING MOUNTED EXIT SIGN - REMOVE.						
<b>H</b> ⊗ R	EXISTING WALL MOUNTED EXIT SIGN - REMOVE.						
<b>S</b> R	EXISTING SINGLE-POLE LIGHT SWITCH - REMOVE SWITCH; BACKBOX TO REMAIN IN PLACE. PROVIDE A BLANK, BRUSHED ALUMINUM WALLPLATE TO COVER BOX WHERE SWITCH IS REPLACED BY A CEILING MOUNTED OCCUPANCY SENSOR. NOTE THAT A CUSTOM-SIZED (NARROW)						

WALLPLATE SHALL BE PROVIDED WHERE THE EXISTING SWITCH IS

LOCATED IN THE MULLION OF A STOREFRONT WALL SYSTEM.



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2 of 2 SHEET IN SET:

2 of 2

LIGHTING NOTES

1. LIGHTING CIRCUITS INDICATED ON PLAN SHALL BE SERVED FROM PANEL "LA" UNLESS NOTED OTHERWISE. ALL CIRCUITS SHALL BE #12 AWG THHN COPPER CONDUCTORS WITH #12 AWG THHN GREEN INSULATED COPPER GROUND WIRE IN 3/4" EMT RACEWAY UNLESS NOTED OTHERWISE. PROVIDE #12 AWG THHN COPPER TRAVELERS AS REQUIRED FOR SWITCHING CIRCUITS AND FOR OCCUPANCY SENSOR SWITCHES. THE CIRCUIT NUMBER SHOWN FOR EACH FIXTURE WAS COPIED FROM ORIGINAL CONSTRUCTION DRAWINGS - FIELD VERIFY PRIOR TO WORKING ON EXISTING CIRCUITS.

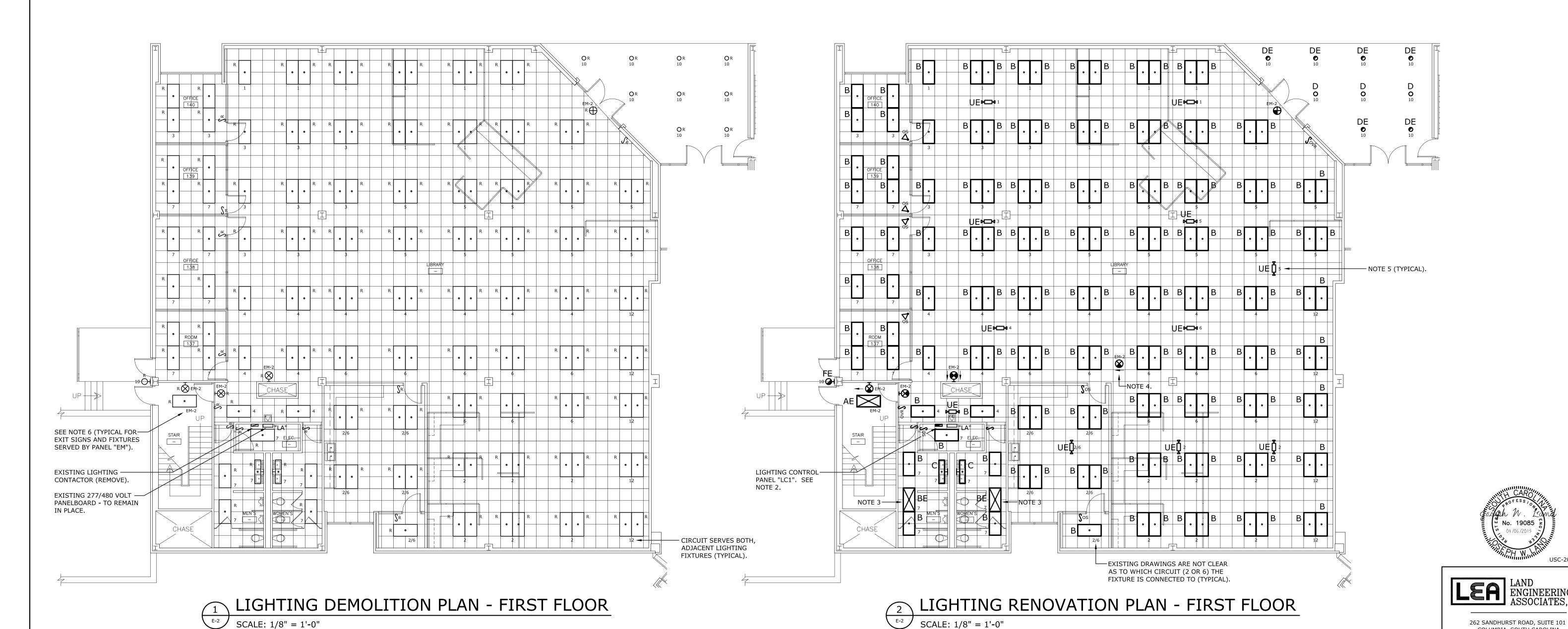
NOTE: CONTRACTOR MAY ONLY RE-USE EXISTING WIRING AND RACEWAYS WHERE THEIR CURRENT INSTALLATION METHODS COMPLY WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE (CONTRACTOR MAY CORRECT DEFICIENT INSTALLATION METHODS IF PRACTICAL).

NOTE: THE ORIGINAL DRAWINGS INDICATE THAT THE LIGHTING CIRCUITS WERE INSTALLED USING MULTI-WIRE CIRCUITS WITH A COMMON NEUTRAL, AND THE EXISTING CIRCUIT BREAKERS IN PANEL "LA" FOR THESE CIRCUITS DO NOT CURRENTLY HAVE TIE HANDLES INSTALLED FOR 3-POLE GROUPINGS. PROVIDE TIE HANDLE ACCESSORIES ON THE EXISTING SINGLE-POLE BREAKERS THAT SERVE THE MULTI-WIRE CIRCUITS IN PANEL "LA". THE CONTRACTOR MAY OPTIONALLY REPLACE SINGLE POLE BREAKERS WITH

- 2. LC1: ALL LIGHTING CIRCUITS SHALL BE ROUTED THROUGH RELAYS OF LIGHTING CONTROL PANEL LC1 EXCEPT AS FOLLOWS:
  - A) CIRCUITS SERVING EXIT SIGNS.
  - B) CIRCUITS SERVING EMERGENCY LIGHTING UNITS.

NOTE: A NON-SWITCHED PHASE CONDUCTOR SHALL BE PROVIDED TO ALL LIGHTING FIXTURES WITH INTEGRAL BATTERY PACKS, EMERGENCY LIGHTING UNITS, EXTERIOR EGRESS FIXTURES, AND EXIT SIGNS (FOR CHARGING AND FOR CIRCUIT LOSS DETECTION).

- 3. FOR LIGHTING FIXTURES REFERENCED TO THIS NOTE, NO FIXTURE IS CURRENTLY INSTALLED AT THIS LOCATION. PROVIDE NEW OR EXTEND EXISTING RACEWAYS AND WIRING AS REQUIRED TO SERVE NEW FIXTURES ON CIRCUIT INDICATED.
- 4. FOR EXIT SIGNS REFERENCED TO THIS NOTE, NO EXIT SIGN IS CURRENTLY INSTALLED AT THIS LOCATION. PROVIDE NEW OR EXTEND EXISTING RACEWAYS AND WIRING AS REQUIRED TO SERVE NEW EXIT SIGN.
- 5. NO EMERGENCY LIGHTING UNITS EXIST IN THE PORTION OF THE BUILDING BEING RENOVATED. PROVIDE NEW RACEWAYS AND WIRING AS REQUIRED TO SERVE EACH NEW EMERGENCY LIGHTING UNIT. NOTE THAT AN UNSWITCHED PHASE CONDUCTOR SHALL BE PROVIDED TO EACH EMERGENCY LIGHTING UNIT.
- 6. NOTE: PANELBOARD "EM" IS LOCATED IN AN EQUIPMENT ROOM ON THE LOWER LEVEL OF THE BUILDING - COORDINATE WITH THE OWNER TO DETERMINE ITS LOCATION PRIOR TO WORKING ON CIRCUITS.
- 7. PROVIDE WATTSTOPPER CONTROL CABLES IN 3/4" EMT FOR OVERRIDE SWITCHES AND FOR OCCUPANCY SENSORS.



AREA OF WORK -

KEY PLAN - FIRST FLOOR

NOT TO SCALE