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Mechanical, Electrical, and Plumbing Engineering

Edmondson Engineers

700 Executive Park, 1920 Highway 54, Suite 700 Durham, NC 27713

(919) 544-1936

Drawing Index

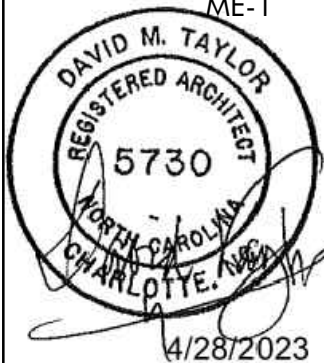
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- D-11 Demolition Plan
- D-12 Demolition Ceiling Plan
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- ME-1 Renovation Mech/Elec Plan



2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: Lincoln Center Security Improvements
 Address: 750 South Merritt Mill Road, Chapel Hill, NC Zip Code 27516
 Owner/Authorized Agent: David Conteras Phone #: (951) 966-2511 E-Mail: dpcontreras@chccs.k12.nc.us
 Owned By: City/County Private State
 Code Enforcement Jurisdiction: City Chapel Hill County _____ State _____

LEAD DESIGN PROFESSIONAL: CRA Associates, Inc

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	CRA Associates, Inc.	David Taylor, AIA	8386	(919) 401-8586	dtaylor@cra-ae.com
Civil	N/A				
Electrical	Edmondson Engineers	Dennis Hayes, PE	28869	(919) 544-1936	dennis@edmpa.com
Fire Alarm	Edmondson Engineers	Dennis Hayes, PE	28869	(919) 544-1936	dennis@edmpa.com
Plumbing	N/A				
Mechanical	Edmondson Engineers	Charles Crowl, PE	28862	(919) 544-1936	charles@edmpa.com
Fire Protection	N/A				
Structural	N/A				
Retaining Walls >5' High					

2018 NC CODE FOR: New Construction Addition Renovation
 1st Time Interior Completion
 Shell/Core
 Phased Construction – Shell/Core
 Renovation

2018 NC EXISTING BUILDING CODE: Prescriptive Repair Chapter 14
Alteration: Level I Level II Level III
 Historic Property Change of Use

CONSTRUCTED: (date) 1996 **ORIGINAL OCCUPANCY(S)** (Ch. 3): Educ.

RENOVATED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): Educ.

RISK CATEGORY (table 1604.5) **Current:** I II III IV
Proposed: I II III IV

BASIC BUILDING DATA

Construction Type: I-A II-A III-A IV V-A
 (check all that apply) I-B II-B III-B V-B
Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D
Standpipes: No Yes Class I II III Wet Dry
Fire District: No Yes (Primary) **Flood Hazard Area:** No Yes
 Special Inspections Required: No Yes

Scale None

Date 4/28/23

Title Code Information Sheet

Dwg. G-1

Project Lincoln Center Security Upgrades
Chapel Hill-Carrboro City Schools

100 Europa Drive, Suite 565
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GROSS BUILDING AREA				
FLOOR	EXISTING (SF)	NEW (SF)	RENO/ALTER (SF)	SUB-TOTAL
2 nd Floor				
Mezzanine				
1 st Floor		32,041	300	
Basement				
TOTAL		32,041	300	

ALLOWABLE AREA

Primary Occupancy Classification:

Assembly A-1 A-2 A-3 A-4 A-5

Business

Educational

Factory F-1 Moderate F-2 Low

Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM

Institutional I-1 Condition 1 2

1-2 Condition 1 2

1-3 Condition 1 2 3 4 5

1-4

Mercantile

Residential R-1 R-2 R-3 R-4

Storage S-1 Moderate S-2 Low High-piled

Parking Garage Open Enclosed Repair Garage

Utility and Miscellaneous

Accessory Occupancy Classification(s): _____

Incidental Uses (Table 509): _____

Special Uses (Chapter 4 – List Code Sections) _____

Special Provisions: (Chapter 5 – List Code Sections): _____

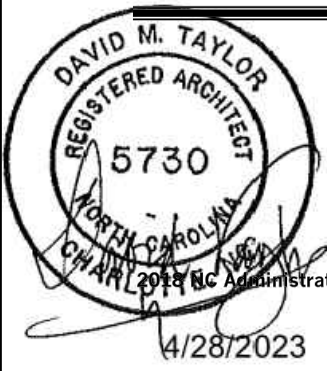
Mixed Occupancy: No Yes Separation: _____ Hr. Exception: _____

Non-Separated Use (508.3)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Separated Use (508.4) -
See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

$$\text{_____} + \text{_____} + \dots = \text{_____} \leq 1.00$$



BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
		REQ'D	PROVIDED (W/ * REDUCTION)				
Structural frame, including columns, girders, trusses		0 hour	0 hour		Existing Conditions		
Bearing walls		N/A					
Exterior							
North		N/A					
East		N/A					
West		N/A					
South		N/A					
Interior		N/A					
Nonbearing walls							
Exterior							
North							
East							
West							
South							
Interior		0	0				
Floor construction including supporting beams and joists		0 hour	0 hour		Existing Conditions		
Roof construction including supporting beams and joists		0 hour	0 hour		Existing Conditions		
Roof construction over 20' AFF		N/A					
Shafts - Exit		0 hour	0 hour		Existing Conditions		
Shafts - Other		0 hour	0 hour		Existing Conditions		
Corridor Separation		0 hour	0 hour		Existing Conditions		
Occupancy Separation		N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Tenant Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes

Exit Signs: No Yes

Fire Alarm: No Yes

Smoke Detection Systems: No Yes

Panic Hardware: No Yes

Scale None

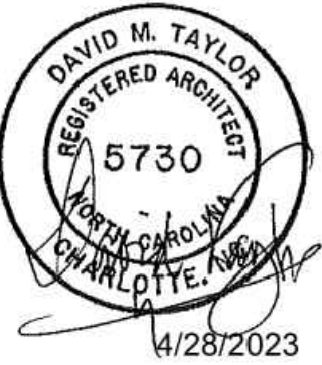
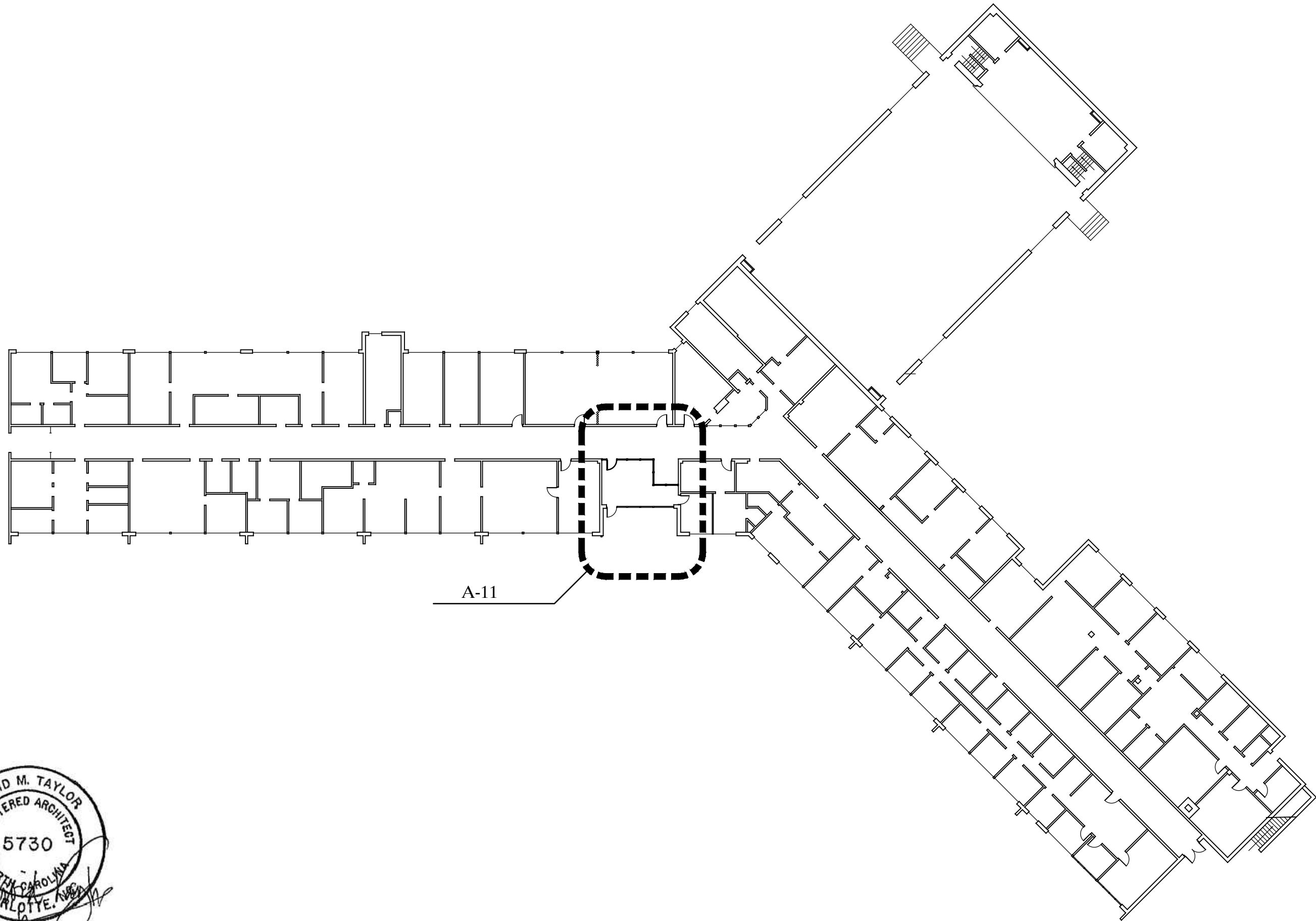
Date 4/28/23


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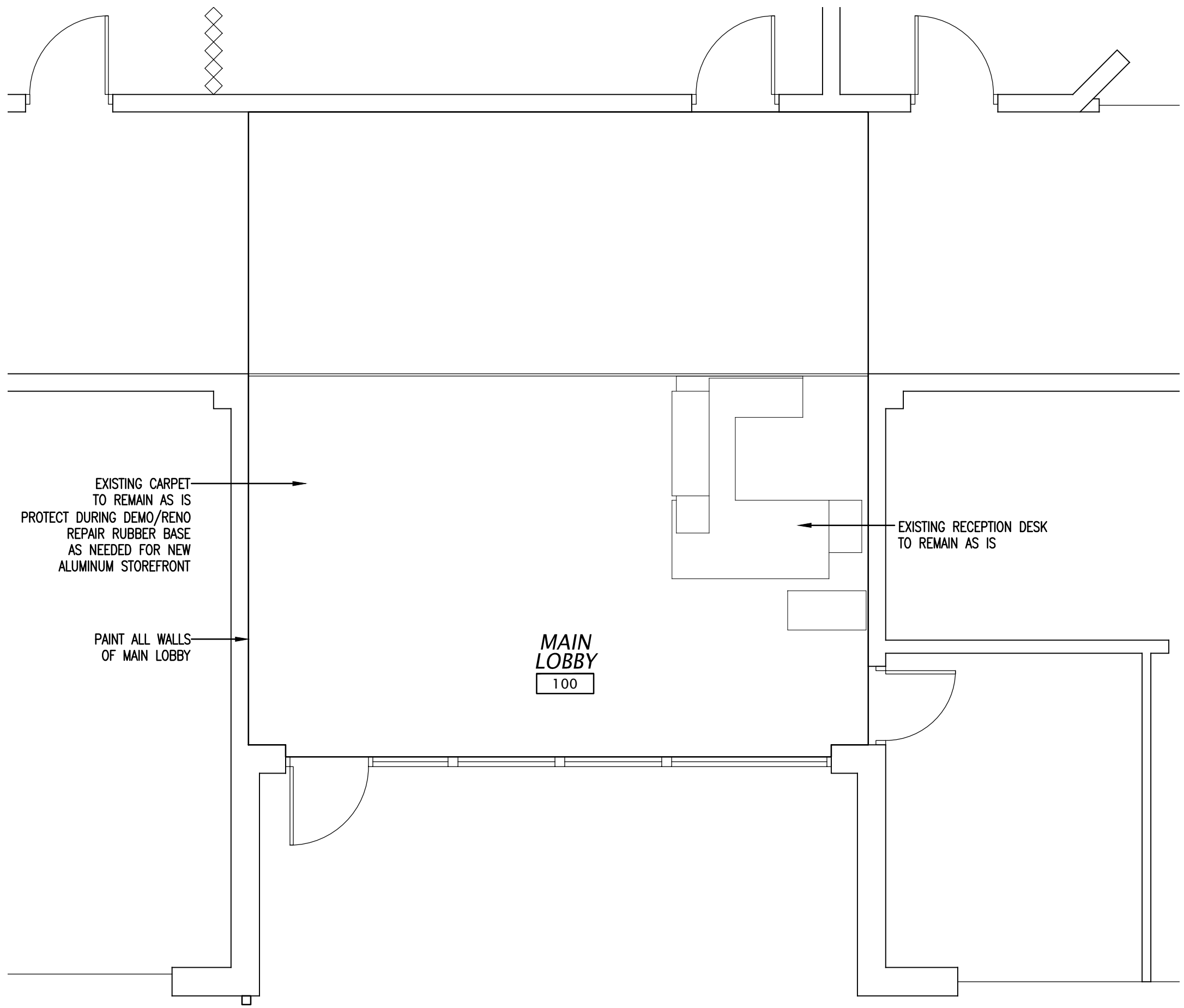
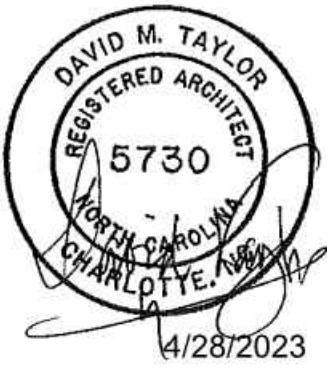
Project Lincoln Center Security Upgrades Chapel Hill-Carrboro City Schools

Dwg. G-2

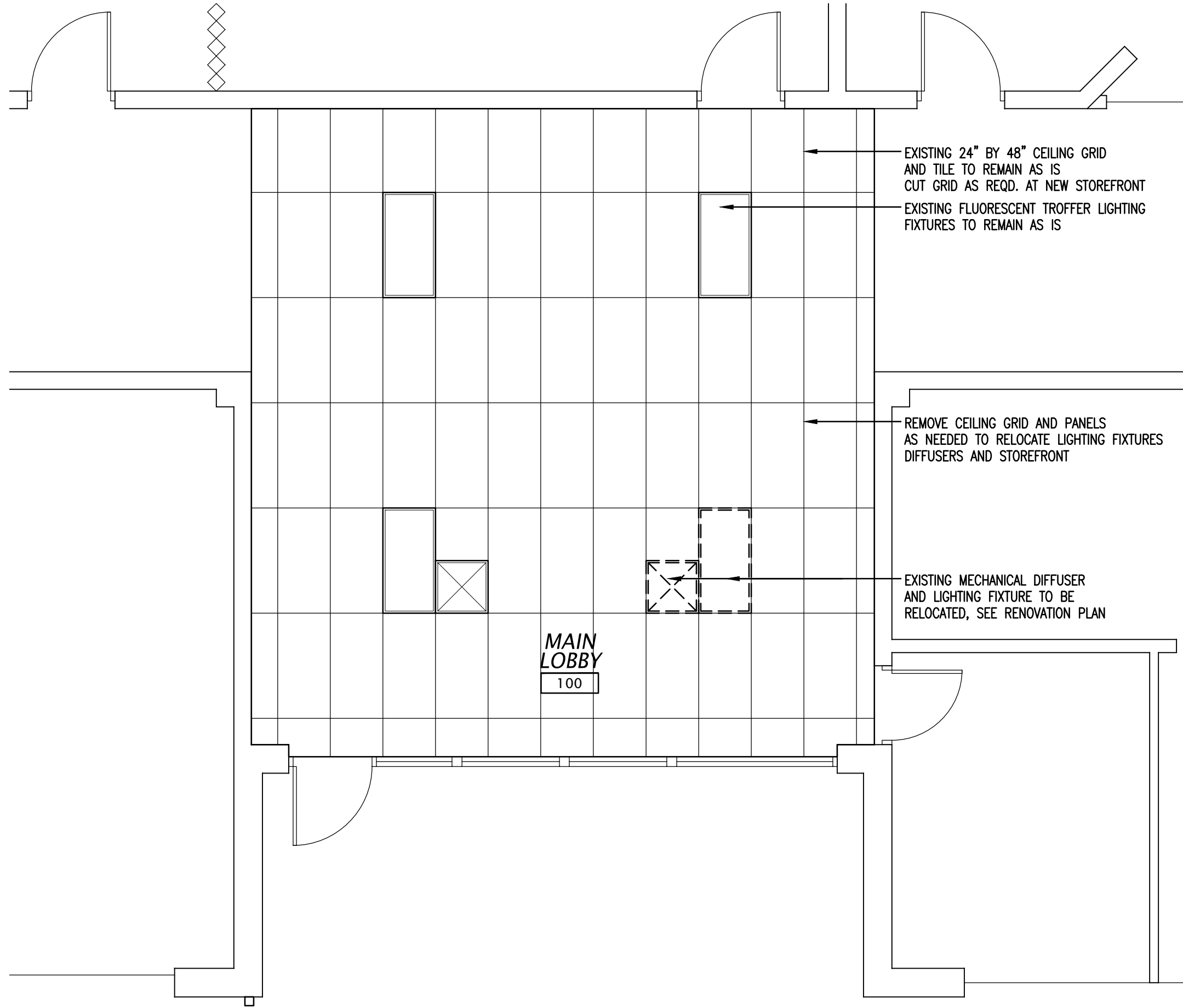
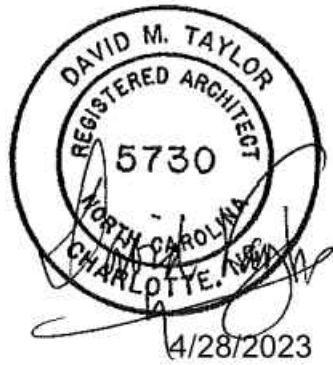
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<p>Title Overall Floor Plan</p>	<p>Date 4/28/23</p>	<p>Scale 1" = 30'</p>
<p>Project Lincoln Center Security Upgrades Chapel Hill-Carrboro City Schools</p>		
<p>100 Europa Drive, Suite 565 Chapel Hill, NC 27514 (919) 201-0077</p> 		



Title Demolition Plan		Date 4/28/23	Scale 1/4" = 12"
Project Lincoln Center Security Upgrades Chapel Hill-Carrboro City Schools		Dwg. D-11	
100 Europa Drive, Suite 565 Chapel Hill, NC 27514 (919) 201-0077			



Scale 1/4" = 12"

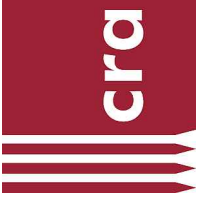
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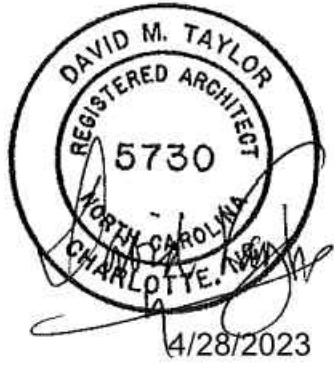
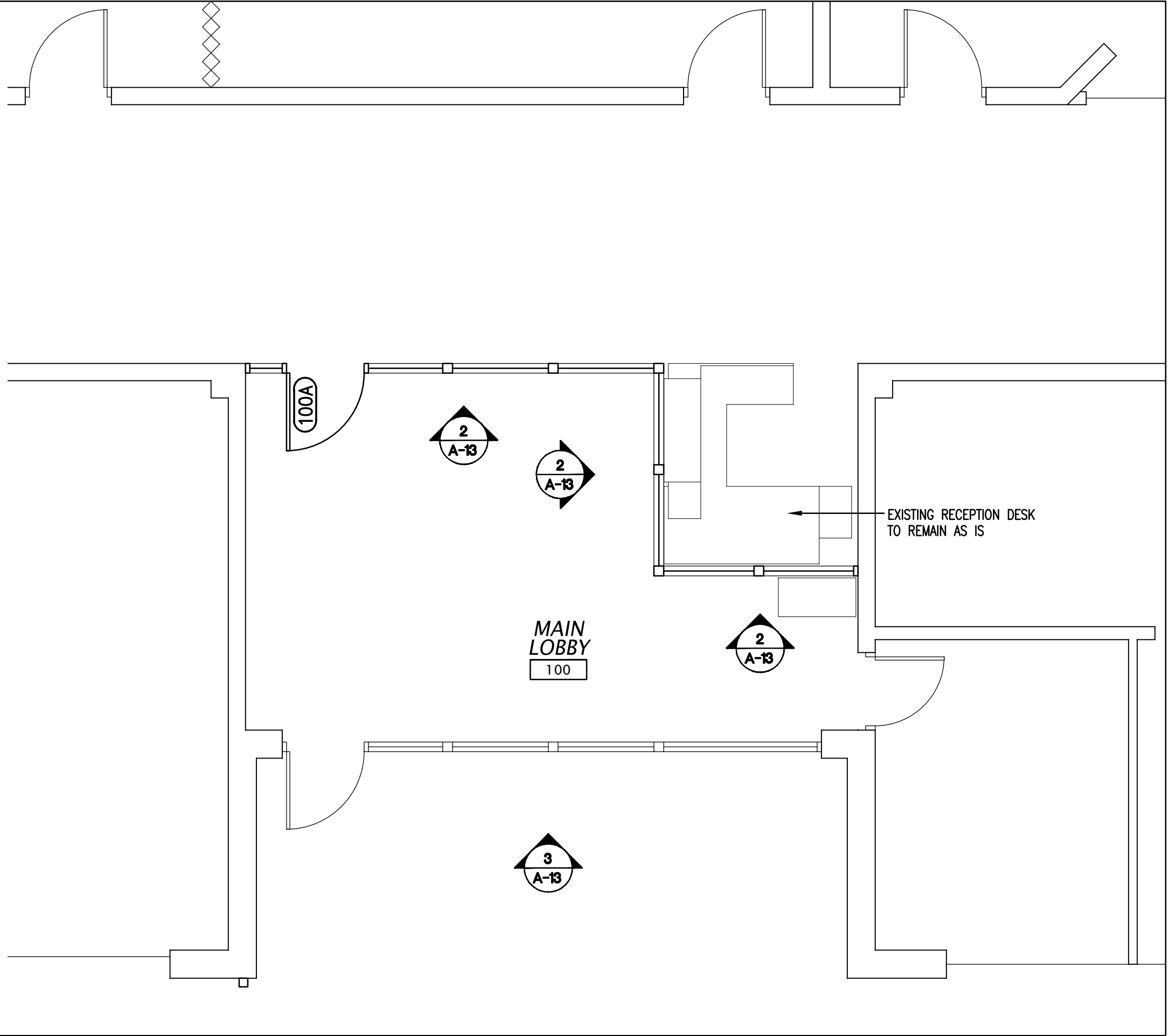
Title Demolition Ceiling Plan

Dwg. **D-12**

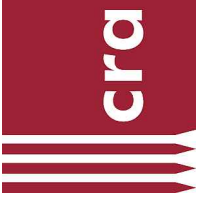
Project **Lincoln Center Security Upgrades
Chapel Hill-Carrboro City Schools**

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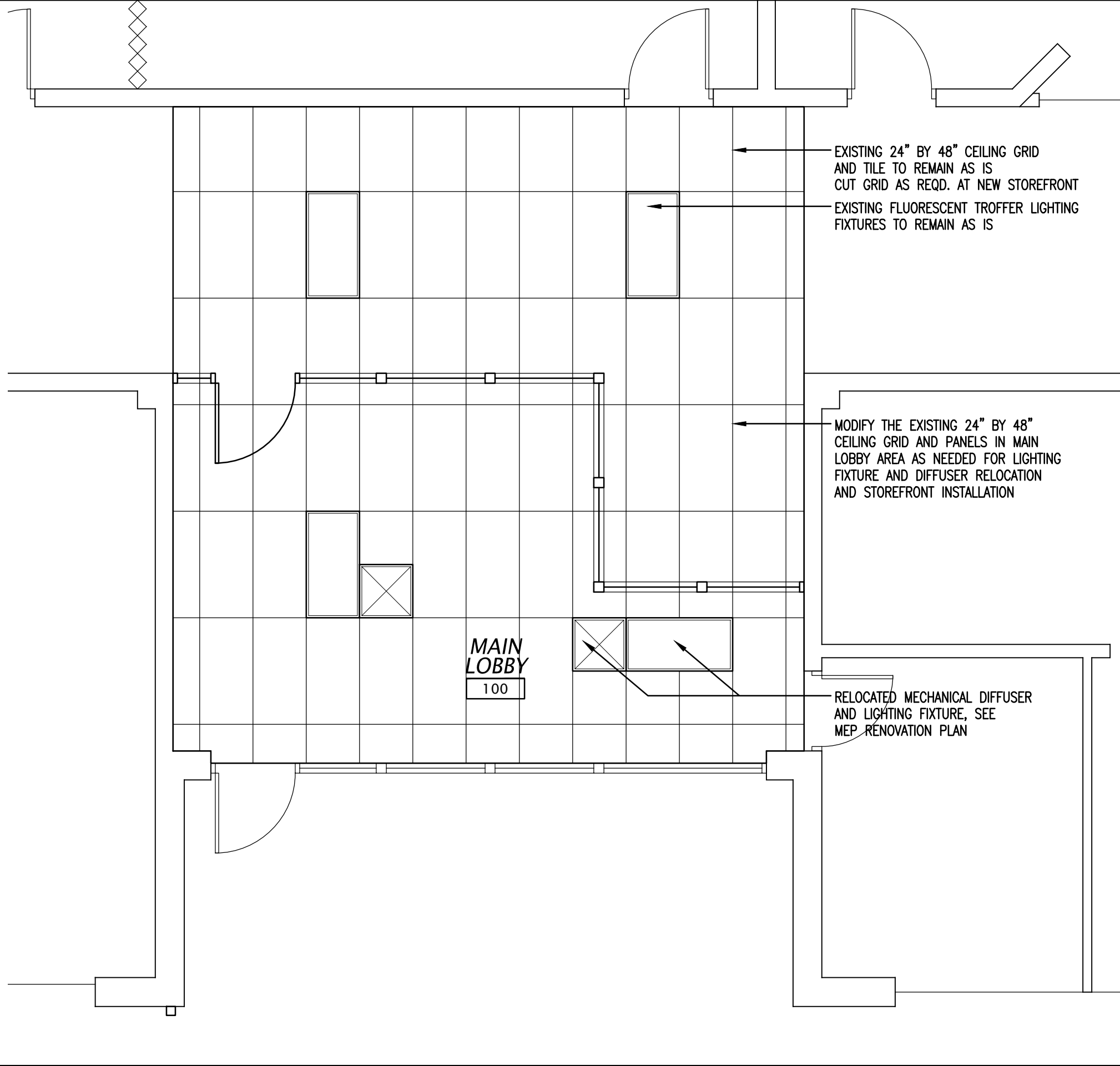
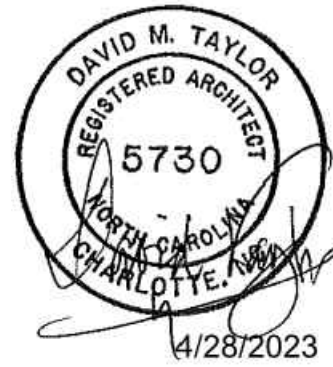




Scale 1/4" = 12"	Date 4/28/23	Title Renovation Plan
Project Lincoln Center Security Upgrades Chapel Hill-Carrboro City Schools Dwg. A-11		



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Scale 1/4" = 12"

Date 4/28/23

Title Renovation Ceiling Plan

Dwg. A-12

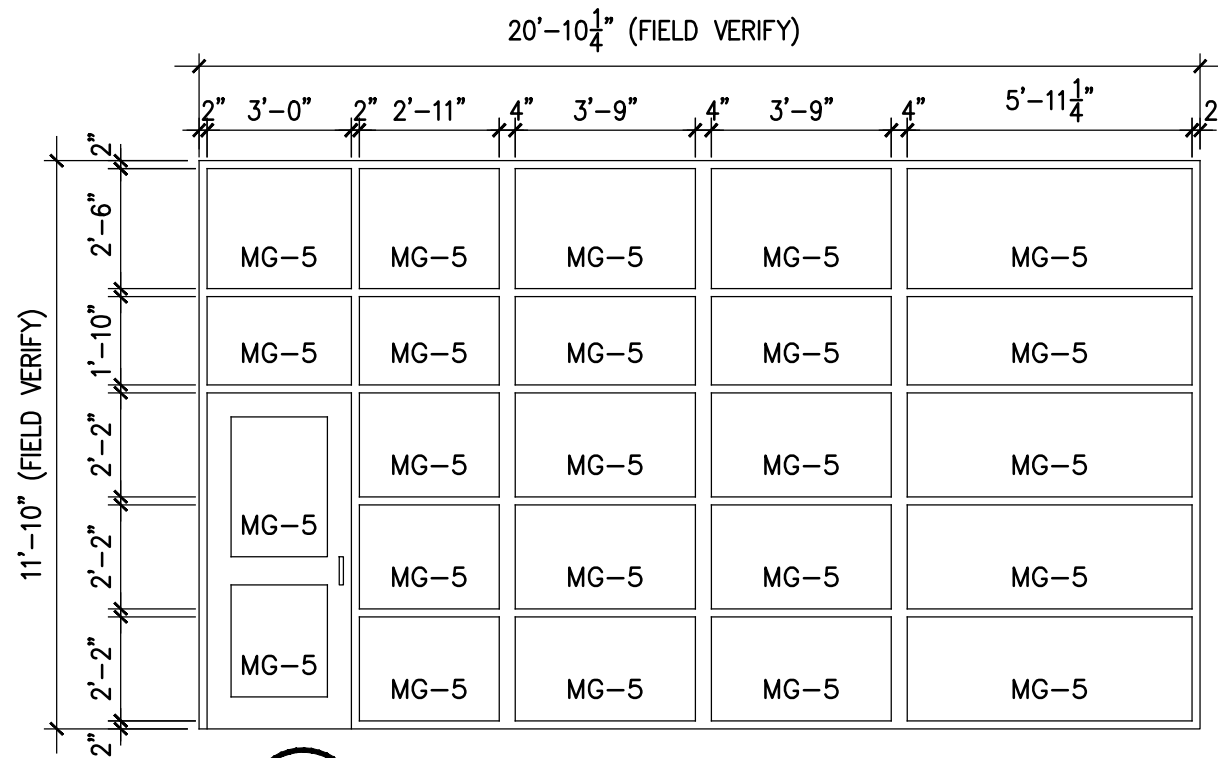
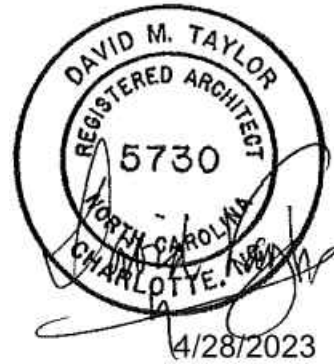
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Chapel Hill-Carrboro City Schools

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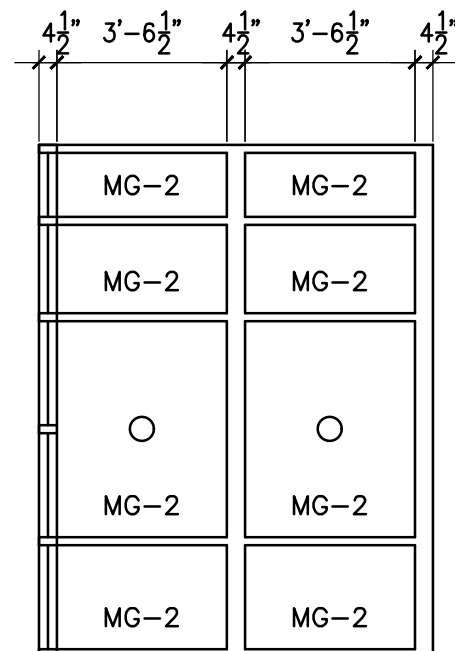
DOOR & FRAME SCHEDULE

MARK	DOOR				DOOR HDWE. SET	SPECIAL REQUIREMENTS
	TYPE	MAT'L	FINISH	GLAZING		
100A	A	ALUMINUM	PREFINISHED	MG-2	3	



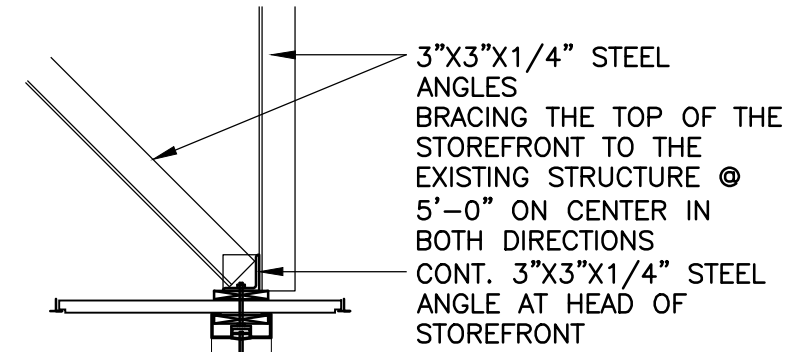
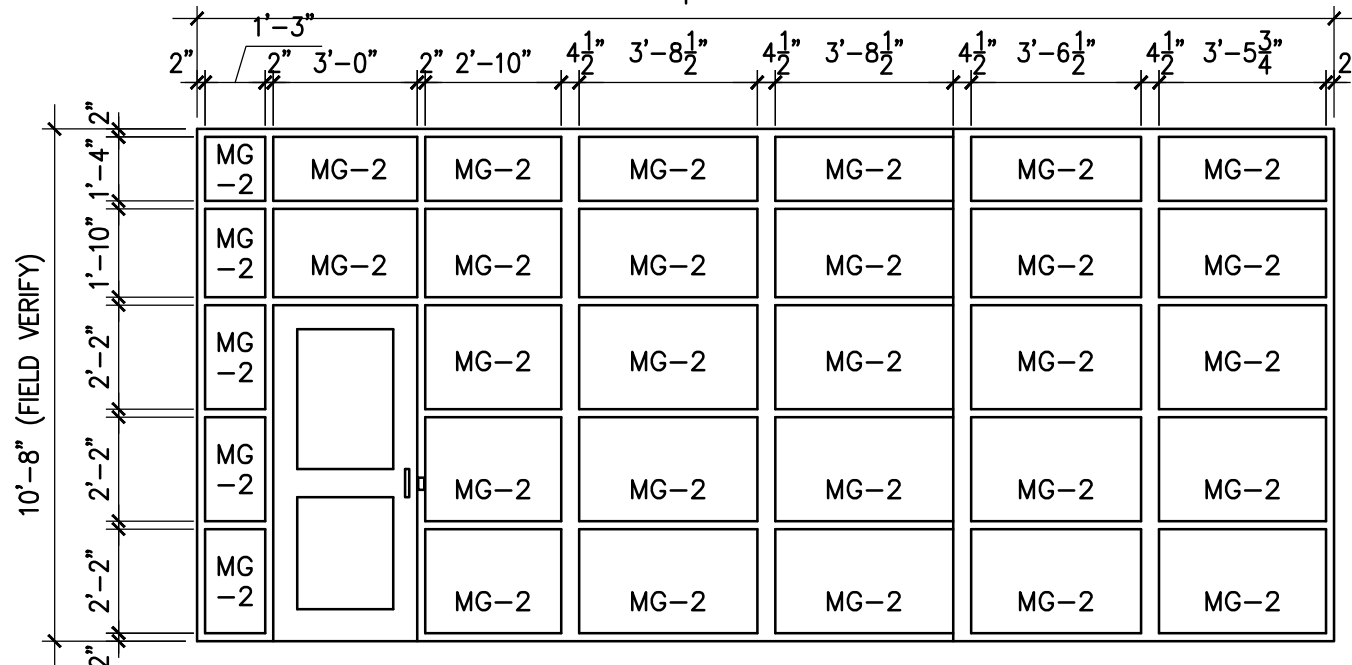
3 Existing Exterior Storefront

A-13 Scale: 1/4" = 1'-0"
23'-8 1/4" (FIELD VERIFY)



2 Storefront Elevation 100A

A-13 Scale: 1/4" = 1'-0"



1 Storefront Section

A-13 Scale: 3/4" = 1'-0"

ALUMINUM STOREFRONT WITH 1/4" TEMPERED GLASS, TYP. SEE INTERIOR ELEVATIONS AND SPECIFICATIONS FOR THE LOCATIONS OF SECURITY FILM

Scale VARIES

Date 4/28/23

Title Door & Window Details

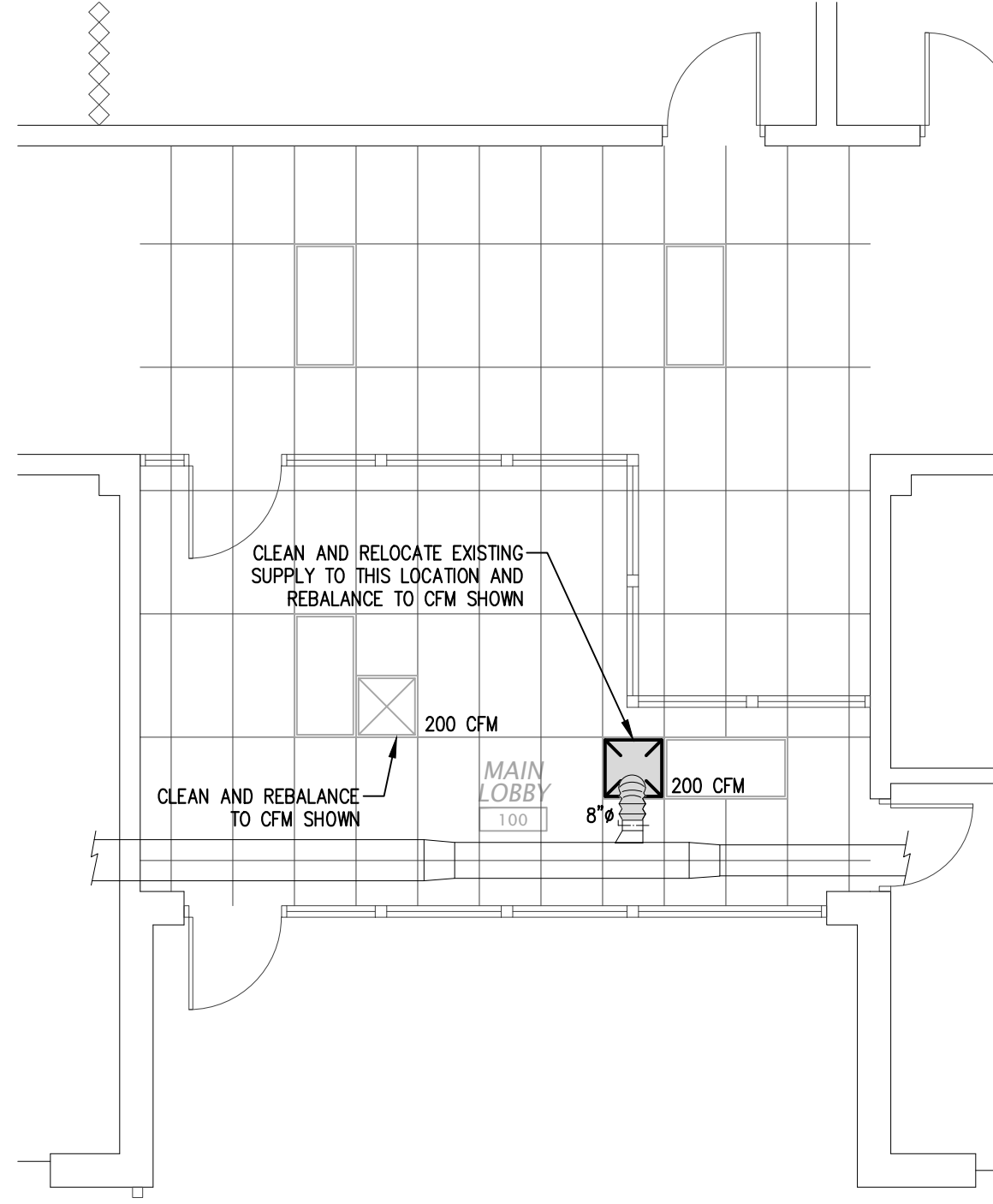
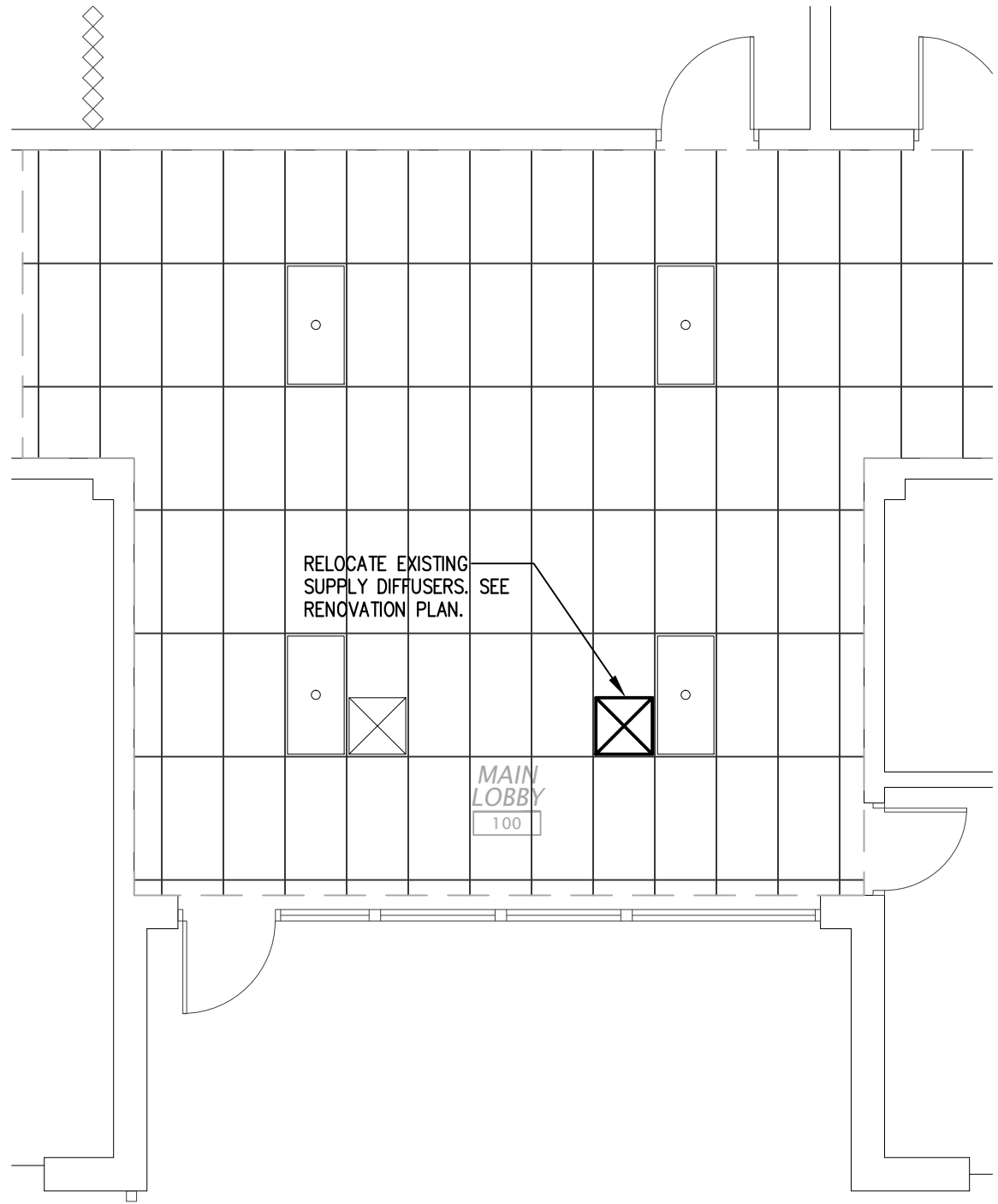
Dwg. A-13

Lincoln Center Security Upgrades
Project Chapel Hill-Carrboro City Schools

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1
M1.1 HVAC Demolition Plan - Offices
SCALE: 3/16" = 1'-0"

2
M1.1 HVAC Renovation Plan - Offices
SCALE: 3/16" = 1'-0"

Title HVAC Plans	Date 4/28/23	Scale 1/4" = 12"
	Project Lincoln Center Security Upgrades Chapel Hill-Carrboro City Schools	
Dwg. M1.1		

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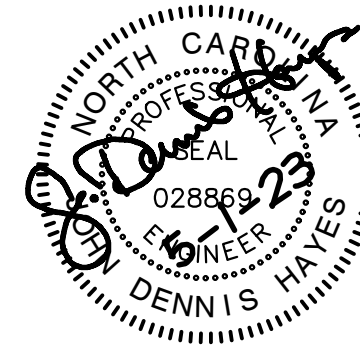
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GENERAL ELECTRICAL NOTES:

1. THE CONTRACTOR SHALL VERIFY EQUIPMENT NAMEPLATE INFORMATION BEFORE INSTALLING CONDUIT, WIRING, CIRCUIT BREAKERS, DISCONNECT SWITCHES OR FUSES.
2. IN THE EVENT THE CONTRACTOR CHOOSES TO USE PRODUCTS OTHER THAN THE BASIS OF DESIGN, THEY ASSUME FULL RESPONSIBILITY FOR COORDINATION AND INTEGRATION OF SUCH ITEMS. THE FUNCTIONAL DESIGN INTEGRITY OF ALL SYSTEMS AND COMPONENTS SHALL BE MAINTAINED. VOLTAGES, LOADS, WIRE SIZES AND QUANTITIES, DISCONNECT SWITCHES AND FUSE SIZES, PHYSICAL SIZE, LOCATIONS, CLEARANCES, ETC. SHALL BE FULLY COORDINATED BY THE ELECTRICAL CONTRACTOR AND SHALL BE HIS RESPONSIBILITY. ANY ADDITIONAL COST RESULTING FROM SAID SUBSTITUTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS REGARDING BUILDING CONSTRUCTION, DIMENSION AND ARRANGEMENT. LINES THAT REQUIRE SLOPE, SUCH AS PLUMBING WASTE LINES SHALL TAKE PRECEDENCE OVER ELECTRICAL LINES. CONTRACTOR SHALL COORDINATE CLOSELY WITH ALL TRADES TO AVOID CONFLICTS AND SHALL PROVIDE ALL OFFSETS AND EQUIPMENT AS REQUIRED TO FIT THE ELECTRICAL WORK INTO THE AVAILABLE SPACE.
4. COORDINATE ANY AND ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION SO AS TO AVOID CONFLICT DURING CONSTRUCTION.
5. ALL PANELS SHALL HAVE TYPED, COMPLETED DIRECTORIES INDICATING EQUIPMENT SERVED AND ROOM NUMBER (AS INDICATED ON FINAL BUILDING ROOM SIGNAGE) OF EQUIPMENT LOCATION, OR SPARE, OR SPACE.
6. THE CONTRACTOR SHOULD READ AND UNDERSTAND THE ENTIRE SET OF CONSTRUCTION DOCUMENTS WHICH INCLUDES BUT IS NOT LIMITED TO THE SPECIFICATIONS, ARCHITECTURAL, CIVIL, STRUCTURAL AND ALL ENGINEERING DRAWINGS, SO THAT HE MAY UNDERSTAND THE FULL SCOPE OF WORK AND CONVEY THE PROPER REQUIRED MATERIALS AND METHODS OF INSTALLATION TO THE ESTIMATORS, SUPPLIERS AND INSTALLERS.
7. THE CONTRACTOR SHALL INSPECT AND OBSERVE THE EXISTING SITE, BUILDING, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL CONDITIONS PRIOR TO BEGINNING WORK AND SHALL PROVIDE AND INSTALL FIXTURES, DEVICES AND EQUIPMENT IN A MANNER TO ACCOMMODATE THESE EXISTING CONDITIONS.
8. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS IN ORDER TO OBTAIN A FULL UNDERSTANDING OF WORK TO BE DONE.
9. NO EXISTING POWER (CIRCUIT BREAKER, DISCONNECT SWITCHES, ETC.) IS TO BE TURNED OFF UNTIL VERIFIED THAT IT IS NOT IN CURRENT USE AND UNTIL APPROVED BY THE OWNER.
10. ALL ELECTRICAL EQUIPMENT AND WIRING SHALL BE 75 DEG. RATED.
11. FINAL LOCATIONS OF ALL POWER DEVICES SHALL BE COORDINATED WITH FINAL EQUIPMENT PLAN PRIOR TO ROUGH-IN OF ANY LOCATIONS.
12. ALL SHUTDOWNS AND SERVICE INTERRUPTIONS MUST BE COORDINATED AND REQUESTED THROUGH FACILITIES AT LEAST 72 HOURS IN ADVANCE OF EXPECTED SHUTDOWN.

ELECTRICAL SPECIFICATIONS

- 1.0 GENERAL:
 - 1.1 PROVIDE ALL WORK, EQUIPMENT, SERVICES, LABOR, AND MATERIALS FOR THE CONSTRUCTION OF NEW ELECTRICAL SYSTEMS AS DESCRIBED OR IMPLIED BY THE CONTRACT DOCUMENTS.
 - 1.2 THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INCLUDE EVERY DETAIL OF CONSTRUCTION, MATERIALS, AND EQUIPMENT. TAKE ACTUAL FIELD MEASUREMENTS AT THE JOB SITE IN LIEU OF SCALING THE DRAWINGS.
 - 1.3 REVIEW THE CONTRACT DOCUMENTS OF ALL TRADES AND COORDINATE ALL WORK WITH THE OTHER TRADES AS NECESSARY TO AVOID CONFLICTS AND INTERFERENCES.
 - 1.4 ALL WORK AND MATERIALS SHALL COMPLY WITH APPLICABLE STATE, LOCAL, AND NATIONAL CODES (INCLUDING OSHA). COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND THESE SPECIFICATIONS SHALL BE THE MINIMUM STANDARD OF ACCEPTANCE.
 - 1.5 OBTAIN AND PAY FOR ANY AND ALL REQUIRED PERMITS.
 - 1.6 LOCATIONS INDICATED FOR OUTLETS, EQUIPMENT, ETC., ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR, BY INSTRUCTION ON THE DRAWINGS.
 - 1.7 PROVIDE ONLY NEW MATERIALS AND EQUIPMENT LISTED AND LABELED (FOR THE USE INTENDED) BY AN APPROVED THIRD PARTY LABORATORY SERVICE SUCH AS UNDERWRITER'S LABORATORIES, INC.
 - 1.8 SUBMIT SHOP DRAWINGS AND CATALOG DATA IN SIX (6) COPIES FOR LIGHT FIXTURES, PANELBOARDS AND ALL SPECIAL SYSTEMS.
 - 1.9 FIRE-STOPPING SEALANT SHALL BE USED TO SEAL ALL FLOOR AND WALL PENETRATIONS.
- 2.0 CONDUITS:
 - 2.1 ALL CONDUIT INSTALLED ABOVE GROUND SHALL BE ZINC-COATED EMT WITH COMPRESSION CONNECTORS OR GALVANIZED RIGID STEEL (GRS).
 - 2.2 ALL CONDUIT INSTALLED UNDERGROUND SHALL BE SCHEDULE 40 PVC OR INSIDE DUCTBANK AS DETAILED.
 - 2.3 PROVIDE ACCESS DOORS IN WALLS AND CEILING FOR ACCESS TO PULL BOXES, ACCESSORIES, ETC., WHERE NECESSARY. DOORS SHALL BE SIZED AS REQUIRED (MINIMUM 16" X 16") WITH A FINISH TO MATCH THE ROOM IN WHICH IT IS INSTALLED.
 - 2.4 SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE-RATED WALLS OR FLOORS WITH UL LABELED, FIRE SEAL.
 - 2.5 MC CABLE MAY BE USED FOR LIGHTING BRANCH CIRCUITS WHERE CONCEALED ABOVE LAY-IN CEILING.
- 3.0 WIRING:
 - 3.1 CONDUCTORS SHALL BE COPPER, THHN/THWN, SOLID FOR #10 AWG OR #12 AWG, AND STRANDED FOR ALL LARGER SIZES. ALL CONDUCTORS SHALL BE COLOR-CODED.
 - 3.2 ALL CONDUCTORS AND CABLES SHALL BE INSTALLED IN CONDUITS AND TESTED FOR CONTINUITY AND GROUND BEFORE BEING ENERGIZED.
 - 3.3 THE CONDUIT AND ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE GROUNDED. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR WITH EVERY CIRCUIT. NO CONDUIT SHALL CONTAIN MORE THAN THREE PHASE CONDUCTORS.
- 4.0 ELECTRICAL IDENTIFICATION:
 - 4.1 CIRCUIT IDENTIFICATION LABELS SHALL BE INSTALLED ON BOXES. INSTALL LABELS EXTERNALLY USING PRESSURE-SENSITIVE, SELF-ADHESIVE LABELS. LABEL SHALL LIST PANEL AND CIRCUIT NUMBER OR EQUIVALENT.



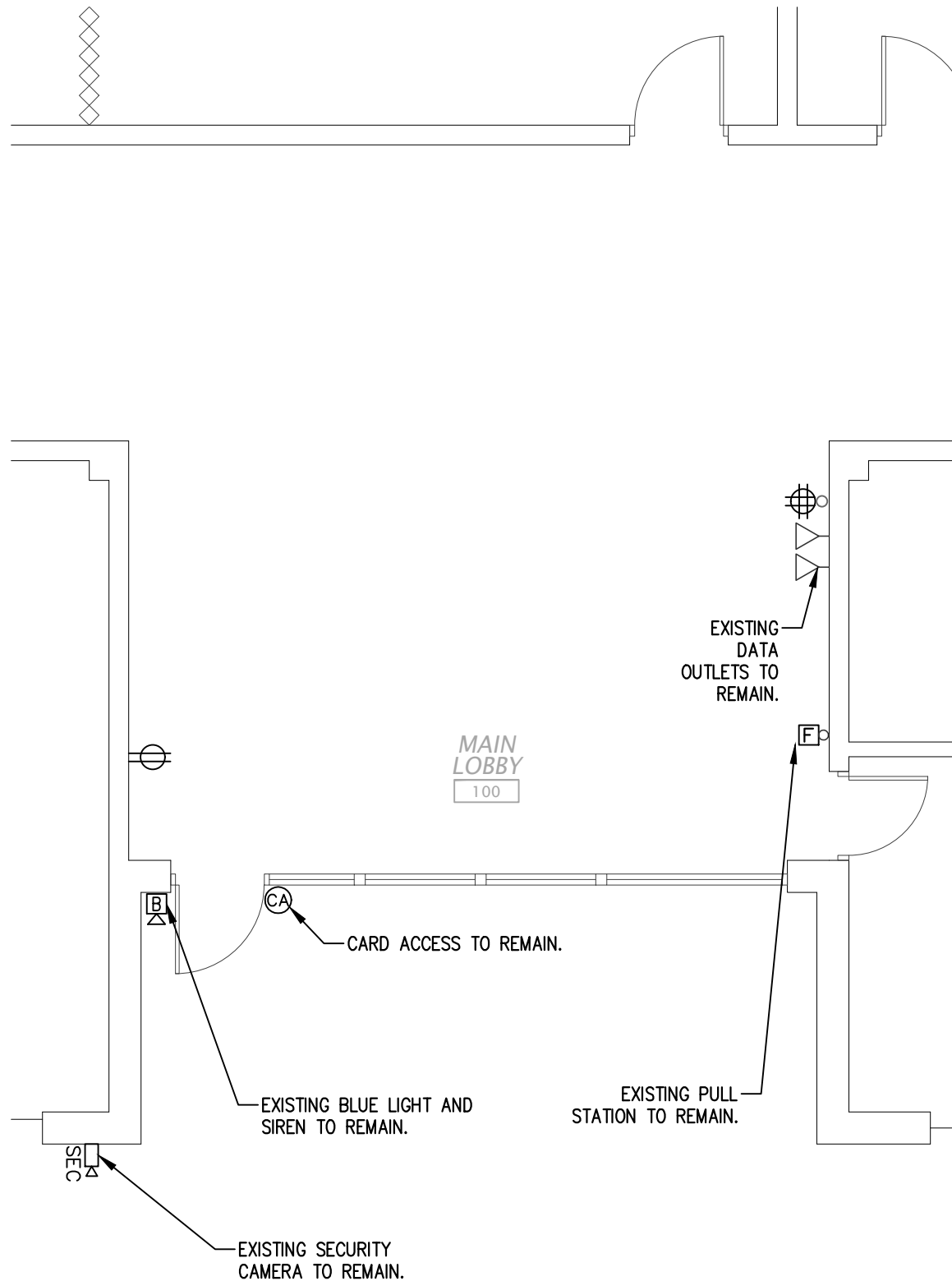
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ELECTRICAL SYMBOLS	
	2 x 4 LAY-IN FLUORESCENT FIXTURE
	EXIT LIGHT
	LIGHT SWITCH (3-WAY - 4-WAY) AS INDICATED
	A-15 NEW HOMERUN TO PANEL 'A', CIRCUIT 15
	NEW UNSWITCHED LIGHTING CIRCUITRY
	NEW POWER OR LIGHTING CIRCUITRY
	DUPLEX RECEPTACLE
	TELEPHONE/DATA OUTLET
	DISTRIBUTION PANEL AS SPECIFIED
	JUNCTION BOX
	HATCHING INDICATES DEVICE TO BE DEMOLISHED (TYP.)
RE	RELOCATE EXISTING DEVICE
ER	EXISTING DEVICE RELOCATED

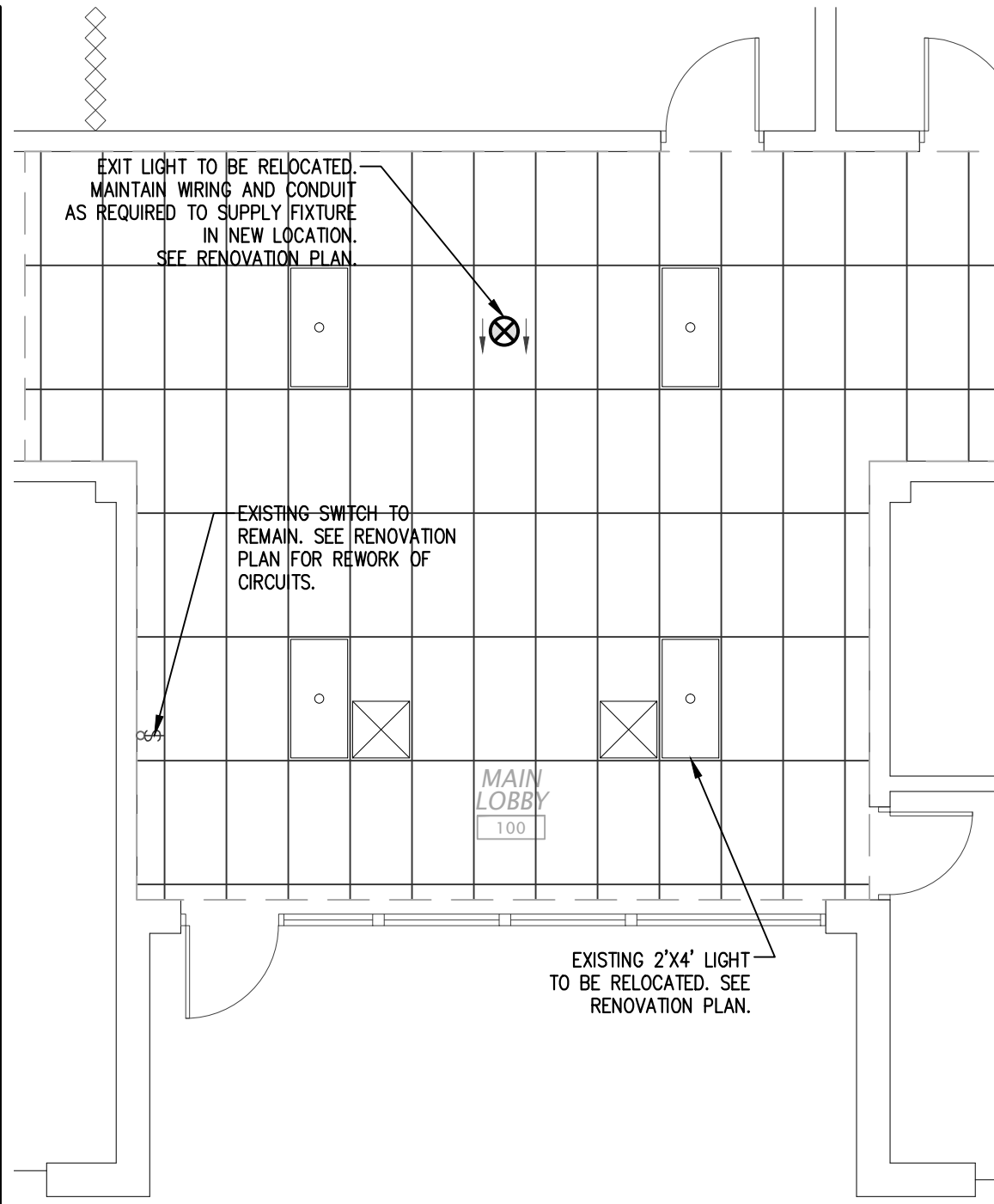
NOTE:
 1. ITEMS IN BOLD INDICATE NEW WORK. THIN LINE WEIGHT ITEMS INDICATE EXISTING CONDITIONS.
 2. NOT ALL DEVICES ARE IDENTIFIED IN THE LIST ABOVE. REFER TO DRAWINGS FOR ADDITIONAL INFORMATION.

Electrical Notes and Symbols	Date 4/28/23	Scale 1/4" = 12"
	Project Lincoln Center Security Upgrades Chapel Hill-Carrboro City Schools	
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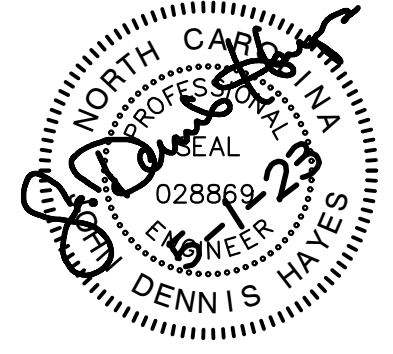


1
E1.1 **Power Demolition Plan - Offices**
SCALE: 3/16" = 1'-0"




2
E1.1 **Lighting Demolition Plan - Offices**
SCALE: 3/16" = 1'-0"

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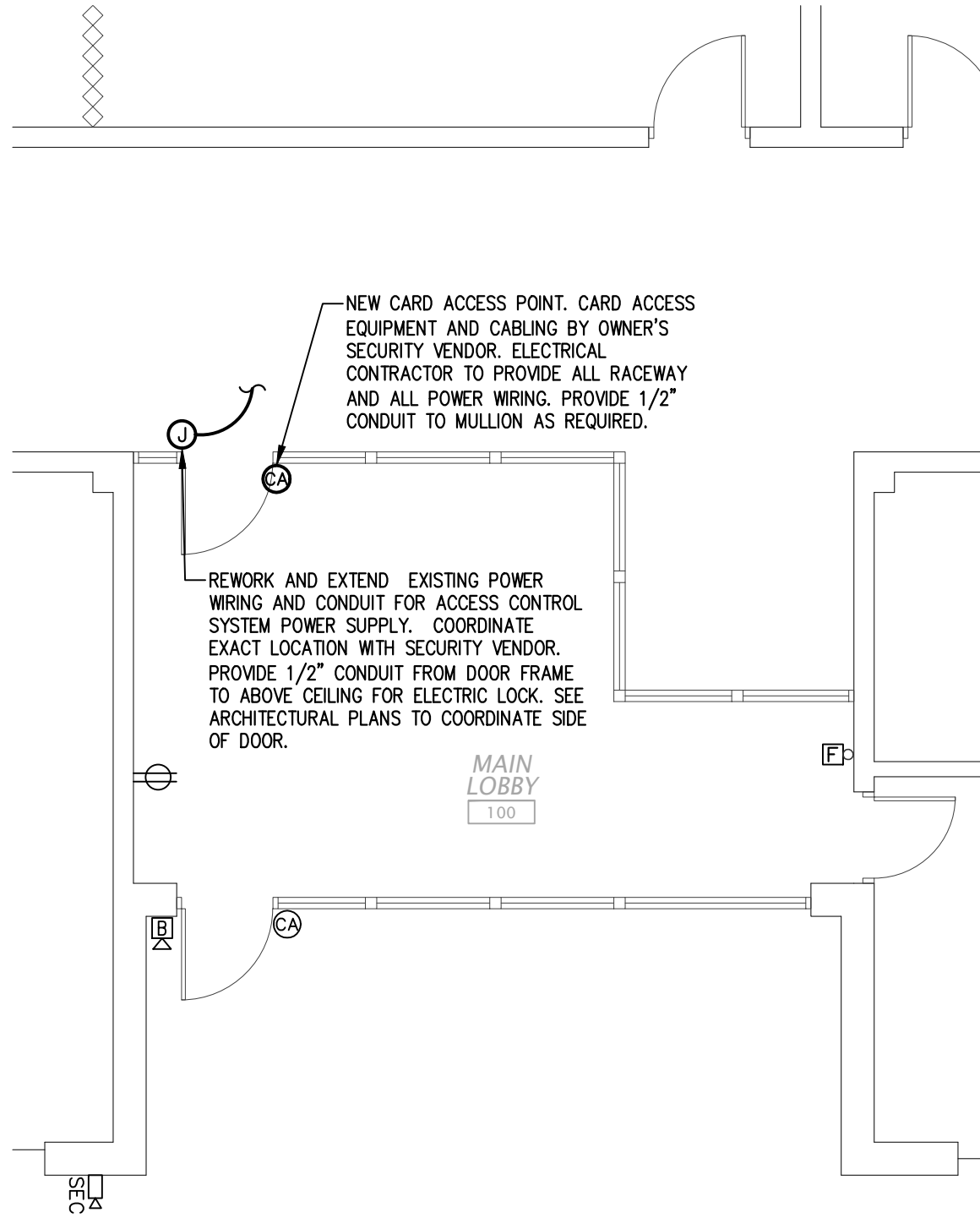


Scale 1/4" = 12"	Date 4/28/23	Title Electrical Demolition Plans	Project Lincoln Center Security Upgrades Chapel Hill-Carrboro City Schools

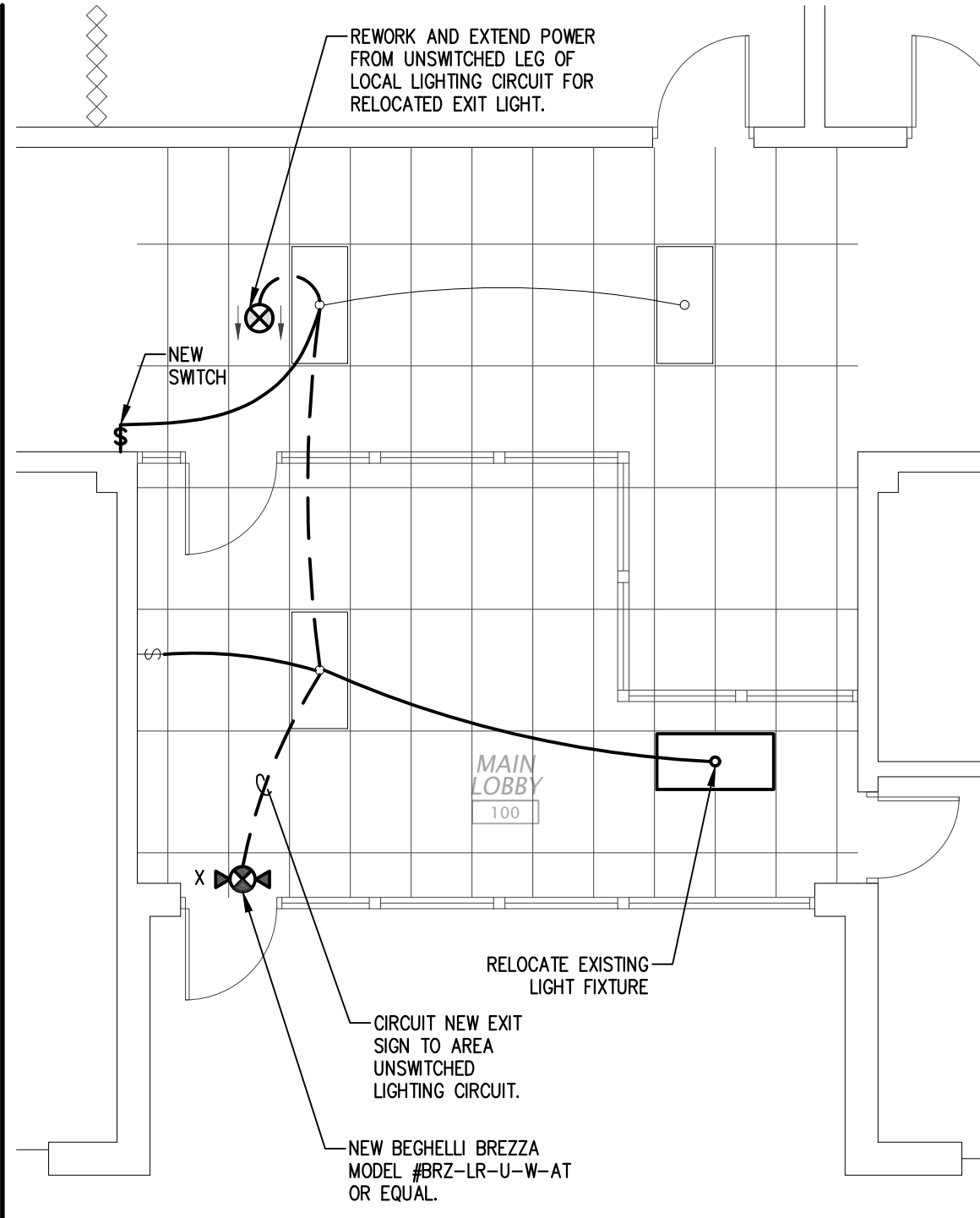
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1
E2.1 **Power Renovation Plan - Offices**
SCALE: 3/16" = 1'-0"



2
E2.1 **Lighting Renovation Plan - Offices**
SCALE: 3/16" = 1'-0"

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cra
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