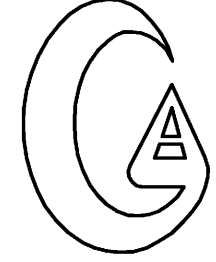


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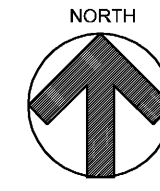
phone 561-249-4001  
fax 772-409-8684  
AA26001615

MECHANICAL ENGINEER / ELECTRICAL / PLUMBING

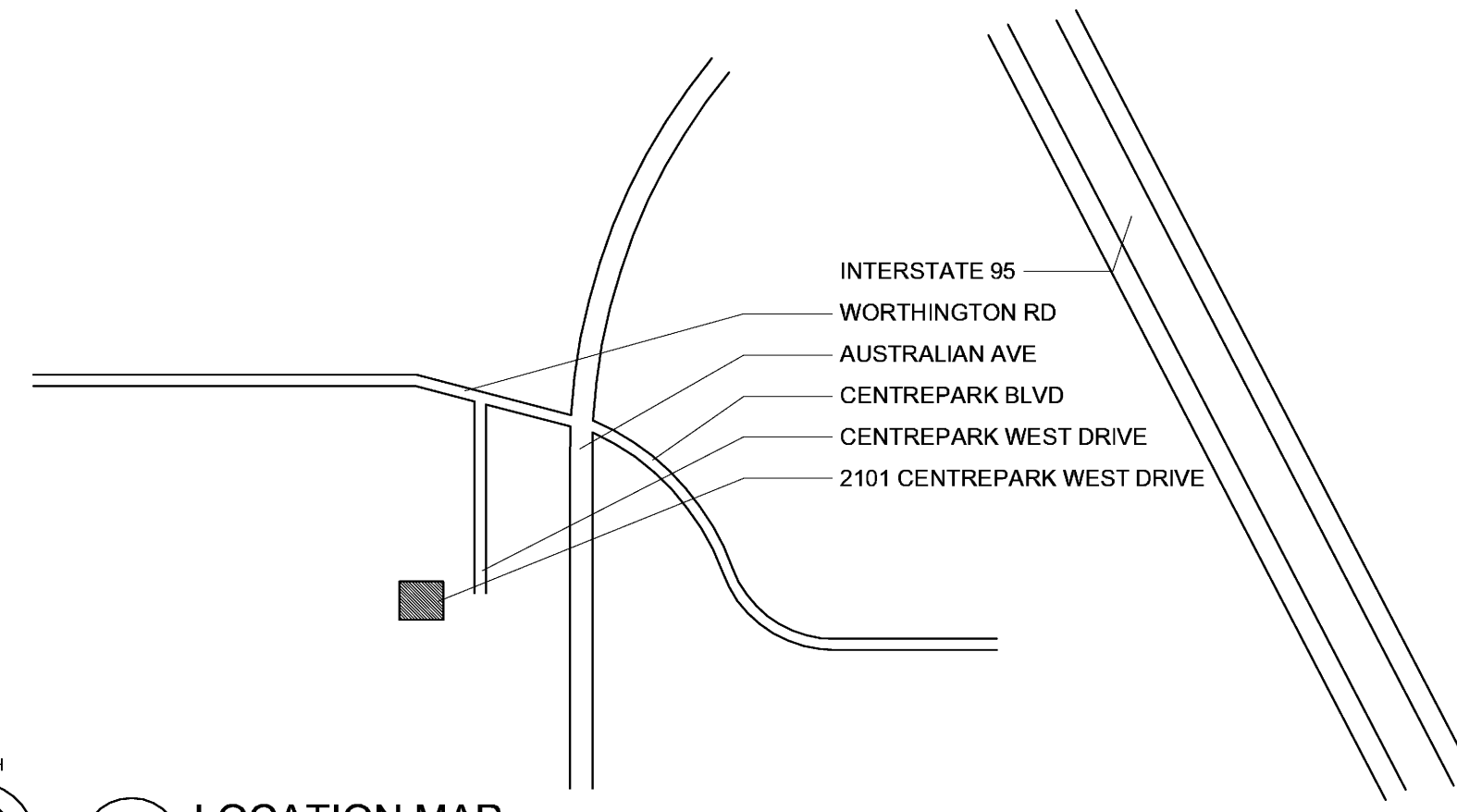


**Gilman & Associates**  
MECHANICAL & ELECTRICAL ENGINEERS

129 N. FEDERAL HWY.  
SUITE 211  
LAKE WORTH, FL 33460  
(561) 582-0210  
P.E. 37933



**1 LOCATION MAP**  
NOT TO SCALE



**INDEX OF SHEETS:**

T	TITLE SHEET
ARCHITECTURAL SHEETS	
A-1	EXISTING FLOOR PLAN
A-2	DEMDO FLOOR PLAN
A-3	PROPOSED FLOOR PLAN
A-4	PROPOSED CEILING PLAN
A-5	DETAILS / ELEVATIONS
A-6	FIRE PROTECTION PLAN
MECHANICAL/ELECTRICAL/PLUMBING SHEETS	
M-1	MECHANICAL PLANS
M-2	ROOF TOP PLANS
M-3	MECHANICAL NOTES
E-1	ELECTRICAL PLANS
E-2	ROOF TOP PLANS
E-3	LIGHTING PLANS
E-4	PANEL SCHEDULES
E-5	ELECTRICAL NOTES

**REFERENCE STANDARDS:**

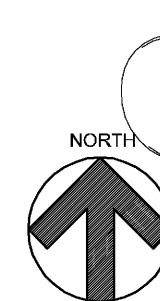
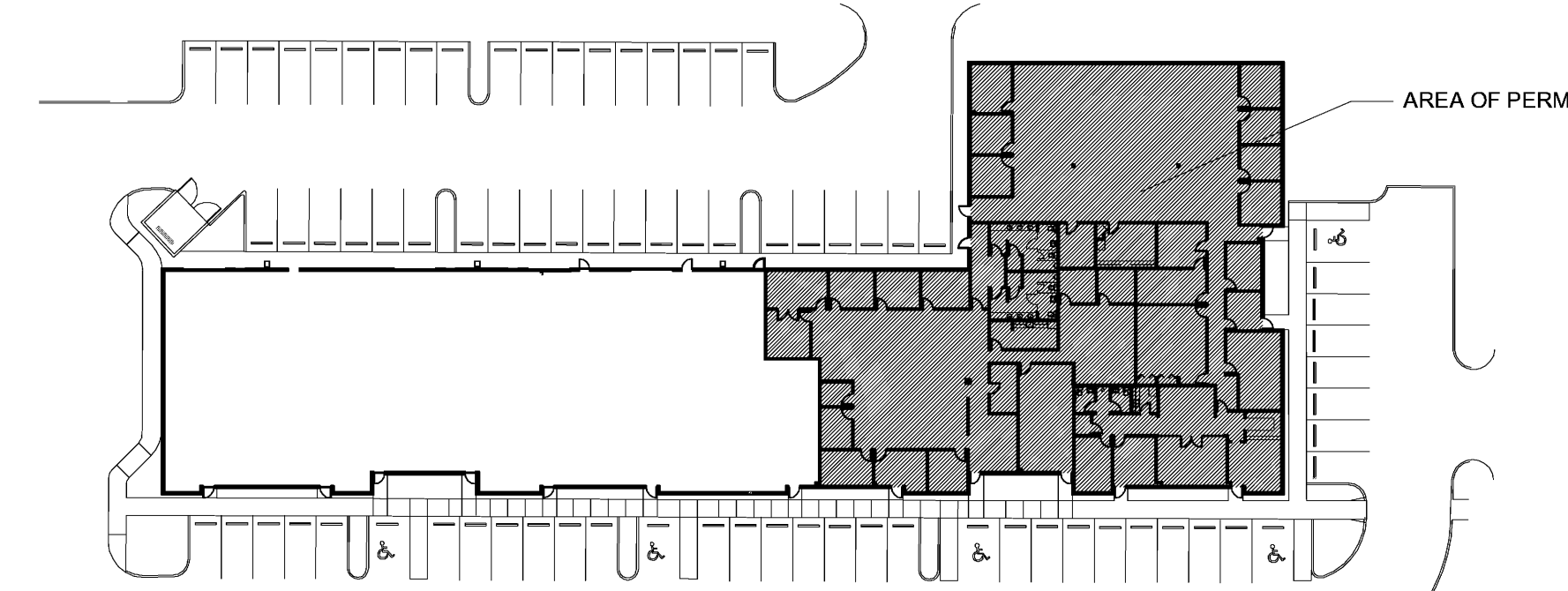
THIS PROJECT IS DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES:

1. THE FLORIDA BUILDING CODE (FBC), 2007 EDITION WITH 2009 SUPPLEMENTS (BUILDING, MECHANICAL, PLUMBING, FUEL GAS, EXISTING BUILDING).
2. NATIONAL ELECTRIC CODE (NEC), 2008 EDITION.
3. FLORIDA FIRE PREVENTION CODE, 2007 EDITION.
4. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 101, LIFE SAFETY CODE, 2006 EDITION.
5. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 1, UNIFORM FIRE CODE, 2006 EDITION.

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL AS A PART OF THIS CONTRACT FURNISH ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRANSPORTATION, AND INSURANCE NECESSARY TO PROPERLY EXECUTE AND COMPLETE THE WORK ACCORDING TO THE PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR IN THE WORK OF ALL TRADES SHALL PROTECT ALL EXISTING BUILDING AND PROPERTY FROM DAMAGE CAUSED BY THE ACTIVITIES OF THE CONTRACTOR AND SUBCONTRACTORS. THE CONTRACTOR SHALL REPAIR AND RESTORE THE JOB SITE AND SURROUNDING AREAS TO ITS ORIGINAL CONDITION. OWNER TO VERIFY SATISFACTION.
3. THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES, INCONSISTENCIES OR OMISSIONS BEFORE PROCEEDING WITH ANY WORK.
4. THE CONTRACTOR SHALL MAKE NO CHANGES TO THE CONSTRUCTION DRAWINGS WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT.
5. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST CODES AND ORDINANCES.
6. THESE CONSTRUCTION DOCUMENTS ARE DIAGRAMATIC AND ARE TO CONVEY DESIGN INTENT. IT IS NOT THE INTENT OF THESE CONSTRUCTION DRAWINGS TO SHOW ALL DETAILS OF THE EXISTING CONDITIONS. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION.
7. EACH CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WITH THE APPROPRIATE TRADES.
8. ALL INDICATED UTILITY AND STUB-IN LOCATIONS ARE FOR REFERENCE ONLY. THE EXACT LOCATIONS SHALL BE VERIFIED ON THE JOB SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ENGINEERING AND THE ARCHITECTURAL DRAWINGS FOR THE ACTUAL PLACEMENT OF THE WORK RELATIVE TO FIELD CONDITIONS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBTAINING INSTALLATION REQUIREMENTS FOR ALL BUILT-IN APPLIANCES, FIXTURES, AND EQUIPMENT. VERIFY EXACT ROUGH-IN DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ROUGH-IN FRAME.
11. THE COST OF ADDITIONAL DESIGN WORK DUE TO ERRORS OR OMISSIONS IN CONSTRUCTION SHALL BE BORNE BY THE RESPECTIVE CONTRACTOR.
12. CONTRACTOR TO BE RESPONSIBLE FOR CHECKING STRUCTURAL CALCULATIONS FOR SPECIFIC REQUIREMENTS OF STRUCTURAL CONNECTIONS, STEEL TRUSS CALCULATIONS AND SHOP DRAWINGS OF ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL FABRICATION BEFORE COMMENCING FABRICATION.
13. BIRSE DESIGN, INC. SHALL IN NO WAY BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNOLOGIES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. (THESE ARE SOLELY THE CONTRACTORS RESPONSIBILITY UNDER THE CONTRACT FOR CONSTRUCTION).
14. EACH CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY BRACING, SHORING, GUYING, OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS ASSOCIATED WITH WORK IN PLACE DURING CONSTRUCTION.
15. PROVIDE PORTABLE FIRE EXTINGUISHERS DURING CONSTRUCTION AS REQUIRED BY LOCAL CODES.
16. SPRINKLER SYSTEM: INSTALL FULL BUILDING SPRINKLER SYSTEM IN COMPLIANCE WITH THE REQUIREMENTS OF NFPA 13. SHOP DRAWINGS MUST BE APPROVED BEFORE INSTALLATIONS. PROVIDE OWNER WITH 2 COPIES OF PERMIT SETS.
17. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF ALL CURRENT APPLICABLE BUILDING CODES AND ENFORCEMENT AGENCIES, FIRE MARSHALL, OR ANY OTHER BUILDING CODE ENFORCEMENT OFFICER AT NO EXTRA COST TO THE OWNER. NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES PRIOR TO SUBMITTING A BID FOR THE PROJECT.
18. BASE BID SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

- A. ALL PERMITS AND FEES FOR ALL  
1. BUILDING AND TRADE PERMITS.  
2. ALL ACCESSORY AND SITE IMPROVEMENT PERMITS.
- B. ALL FILL REQUIRED TO MEET MINIMUM FINISHED FLOOR SLAB ELEVATION AND COMPACTION.
- C. WATER METER HOOK-UP AND METER DEPOSITS. - OWNER RESPONSIBILITY
- D. HOOK-UP AND FEES FOR UNDERGROUND SERVICE FROM FPL  
LOCAL PHONE & CABLE T.V. - OWNER RESPONSIBILITY
- E. SOIL, CONCRETE AND ANY OTHER NECESSARY TESTING.
- F. ENGINEERING STAKE OUTS AND SURVEYS INCLUDING FINAL TIE-IN SURVEY.
- G. CLEARING, GRUB, AND SITE PREPARATION, INCLUDING GRADING.
- H. ALL BIDDERS AND THEIR SUBCONTRACTORS SHALL BE CURRENTLY LICENSED IN THE STATE OF FLORIDA.
- I. THE OWNER RESERVES THE RIGHT TO REJECT ANY BIDS.
- J. THE G.C. SHALL PROVIDE AN ESTIMATE OF TIME FOR COMPLETION.
- K. THE GENERAL CONTRACTOR SHALL PROVIDE PROOF OF INSURANCE FOR WORKMANS' COMPENSATION AND ANY OTHER INSURANCES REQUIRED BY THE OWNER FOR ALL EMPLOYEES EITHER DIRECTLY EMPLOYED BY THE GENERAL CONTRACTOR OR BY HIS SUBCONTRACTORS.
- L. THE CONTRACTOR SHALL CLEARLY LIST ANY WORK NOT INCLUDED IN HIS BID.
- M. PROVIDE FIRE DEPARTMENT KNOX BOX ADJACENT TO FRONT DOOR OF BLDG.
- N. CONTRACTOR TO PROVIDE AS BUILT DRAWINGS. PROVIDE TWO COPIES OF PERMIT SET TO OWNER



**2 KEY MAP**  
NOT TO SCALE

\* AREA FOR THIS PERMIT IS HATCHED  
\* AREA FOR THIS PERMIT = 13,551 SF

**PROJECT DATA:**

\* PROJECT ADDRESS: 2101 CENTREPARK WEST DRIVE  
SUITE #110  
WEST PALM BEACH, FL 33401

- \* EXISTING BUILDING IS TYPE II "B"
- \* EXISTING BUILDING IS A 1 STORY BUILDING
- \* EXISTING BUILDING CLASSIFICATION IS GROUP "B"
- \* LEVEL 2 ALTERATION PER "EXISTING BUILDING CODE 2007"
- \* 1ST FLOOR IS A MULTI TENANT FLOOR
- \* SUITES #100 WILL BE DIVIDED INTO 2 SUITES
- \* SUITES #100 WILL GIVE 5,136 SF TO SUITE #110

\* SUITES #100 = 2,710 SF  
\* TOTAL NEW SUITE = 2,710 SF/100 = 28 OCCUPANTS  
\* DESIGN OCCUPANT LOAD = 28 OCCUPANTS

\* SUITES #110 = 10,841 SF  
\* TOTAL NEW SUITE = 10,841 SF/100 = 109 OCCUPANTS  
\* DESIGN OCCUPANT LOAD = 109 OCCUPANTS

**PROJECT NOTES:**

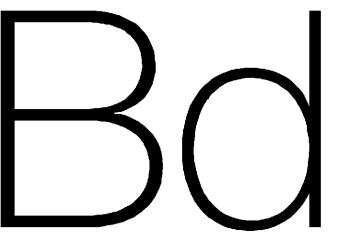
Blank lines for project notes.

**SYMBOL INDEX:**

ADMIN. [108]	ROOM NAME
ADMIN. [108]	ROOM NUMBER
(A)	DOOR MARK/NUMBER
(1)	WINDOW MARK/NUMBER
(1/1A2)	WALL SECTION/SHEET NUMBER
(1/1A2)	BUILDING SECTION/SHEET NUMBER
(1/1A2)	ELEVATION TARGET/SHEET NUMBER
(1/1A2)	DETAIL NUMBER/SHEET NUMBER
(8'-6")	CEILING HEIGHT
[F.E.]	FIRE EXTINGUISHER
[Envelope]	2x4' FLUORESCENT LIGHT FIXTURE
[Light]	WALL MOUNTED LIGHT FIXTURE
[Light]	RECESSED LIGHT DOWN FIXTURE

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ALLEN S BIRSE  
ARB4279

S.F.W.M.D.  
2101 CENTREPARK WEST DRIVE  
SUITE #110  
WEST PALM BEACH, FL 33401  
PROJECT NUMBER 21013

**REVISIONS**

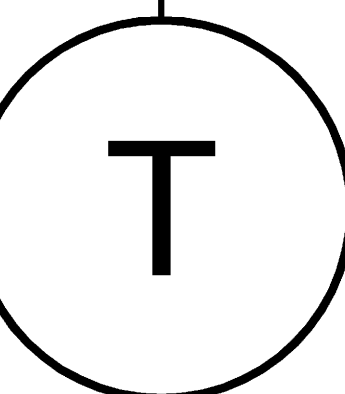
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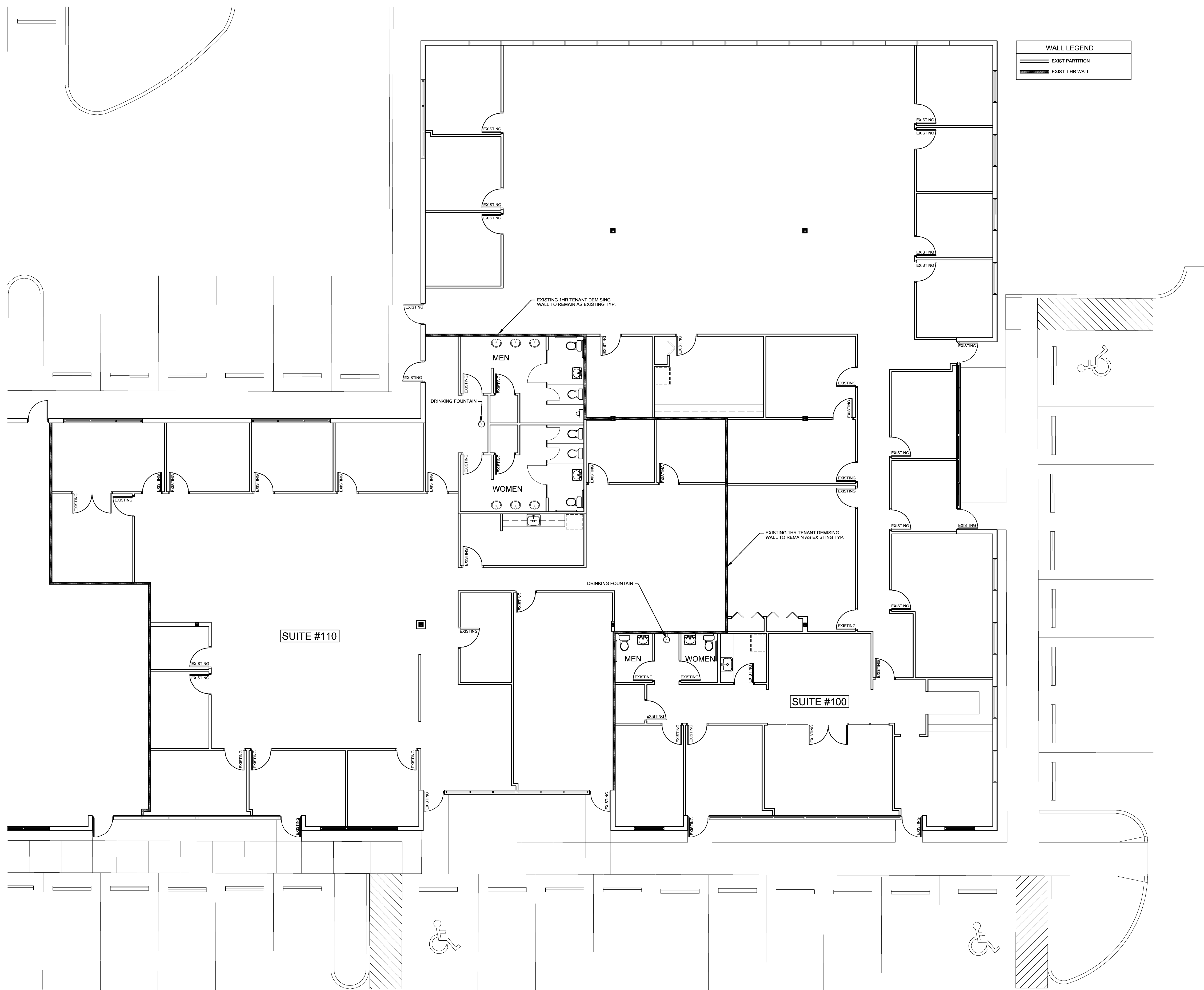
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02/08/11





WALL LEGEND	
	EXIST PARTITION
	EXIST 1 HR WALL

1 (EXISTING) FLOOR PLAN

1/8" = 1'-0"

2 (EXISTING) NOTES

1. ALL WALLS/DOORS/WINDOWS ARE EXISTING AS PER EXISTING FLOOR PLAN 1/A-1
2. ALL CABINETS/SINKS ARE EXISTING AS PER EXISTING FLOOR PLAN 1/A-1
3. TOILET ROOMS ARE EXISTING AS PER EXISTING FLOOR PLAN 1/A-1
4. DRINKING FOUNTAINS ARE EXISTING AS PER EXISTING FLOOR PLAN 1/A-1

Bd

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 SUITE #110  
 WEST PALM BEACH, FL 33401

PROJECT NUMBER 21013

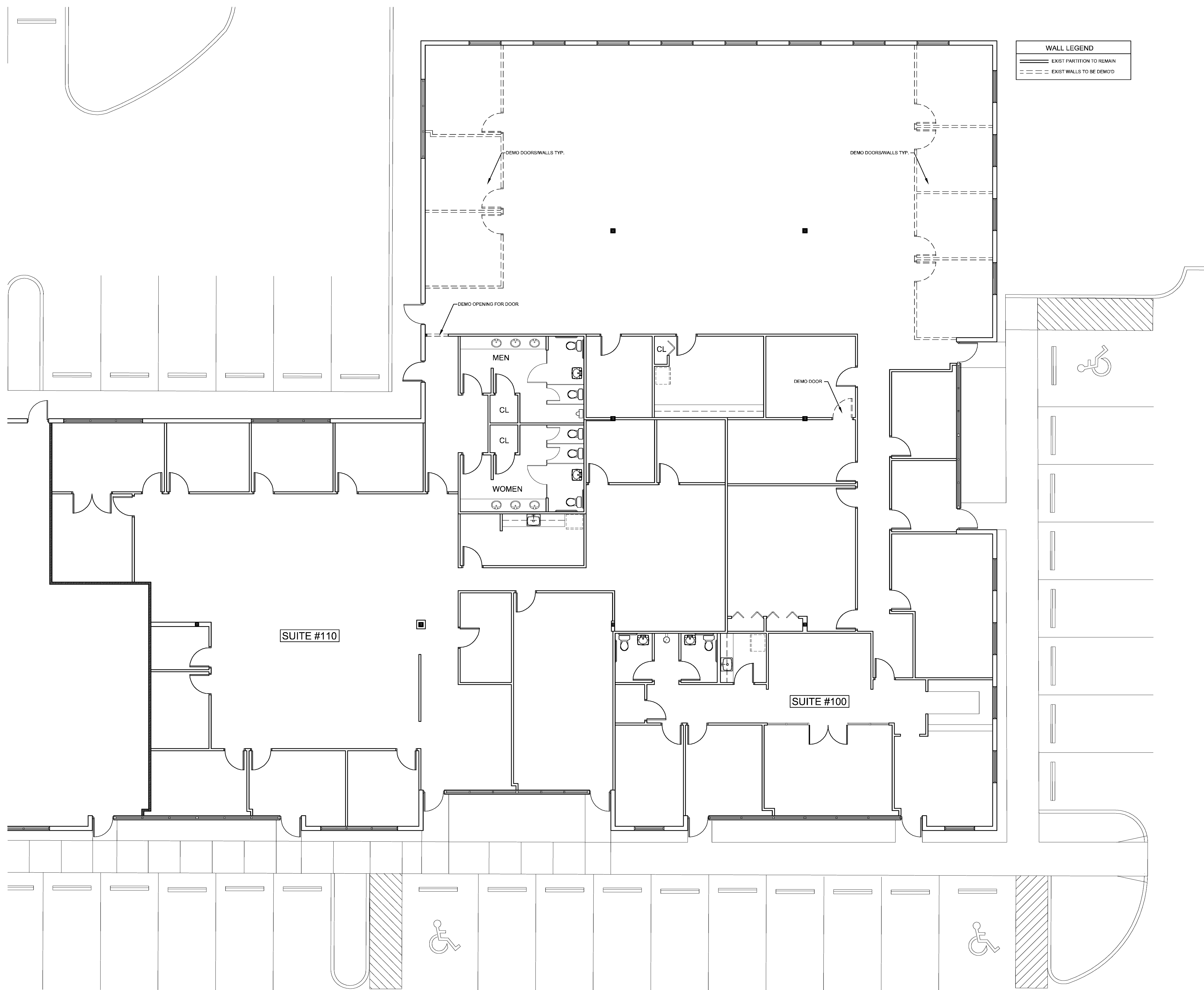
REVISIONS	
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A-1



WALL LEGEND	
	EXIST PARTITION TO REMAIN
	EXIST WALLS TO BE DEMO'D
	EXIST WALLS TO BE DEMO'D

1 (DEMO) FLOOR PLAN  
1/8" = 1'-0"

2 (DEMO) NOTES

1. DEMO WALLS/DOORS AS PER DEMO FLOOR PLAN 1/A-2. STORE ALL DOORS FOR REUSE
  2. DEMO OPENING INTO SUITE #110 AS PER DEMO PLAN 1/A-2
  3. REMOVE ALL ELECTRICAL/DATA WIRING FROM SUITE #100 DEMO'D WALLS, CAP BACK TO FIRST JUNCTION BOX
  4. REMOVE ALL EXISTING DATA WIRING FROM SUITE #100 CEILING
  5. REMOVE ALL EXISTING DATA/ELEC FLOOR BOXES FROM SUITE #100, PATCH FLOOR
- \* STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL COMPLY WITH NFPA 241
  - \* ACCUMULATIONS OF COMBUSTIBLE WASTE AND DUST DEBRIS SHALL BE REMOVED FROM THE STRUCTURE AND ITS IMMEDIATE VICINITY AT THE END OF THE SHIFT OR MORE FREQUENTLY AS NECESSARY FOR SAFE OPERATIONS
  - \* EXIT AND ACCESS CORRIDORS ARE TO BE MAINTAINED AND REMAIN CLEAR AND UNOBSTRUCTED
  - \* THE MAIN BUILDINGS FIRE PROTECTION SYSTEMS SHALL BE MAINTAINED AND OPERATIONAL AT ALL TIMES

Bd

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2101 CENTRER PARK WEST DRIVE  
SUITE #110  
WEST PALM BEACH, FL 33401  
PROJECT NUMBER 21013

REVISIONS	
1	
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A-2



**[F.E.]** INDICATES NEW 10 LB. ABC TYPE FIRE EXTINGUISHER WITH HANGER BRACKET

WALL LEGEND	
	EXIST PARTITION TO REMAIN
	NEW METAL STUD PARTITION
	NEW 1 HR WALL

**1 (PROPOSED) FLOOR PLAN**  
1/8" = 1'-0"

**2 (PROPOSED) NOTES**

1. PROVIDE NEW PARTITIONS/DOORS AS INDICATED IN 1/A-3
  2. NEW WORKSTATION TO BE PROVIDED BY TENANT
  3. PAINT NEW WALLS TO MATCH EXISTING
  4. PATCH/REPAIR/PAINT EXISTING WALLS AS NECESSARY
  5. PROVIDE NEW FINISHES AS PER TENANT
- \* ALL INTERIOR WALL AND CEILING FINISHES TO HAVE A MIN CLASS "C" FLAME SPREAD CLASSIFICATION
- \* ALL INTERIOR FLOOR FINISH SHALL BE NOT LESS THAN CLASS II

**Bd**

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2101 CENTRER PARK WEST DRIVE  
SUITE #110  
WEST PALM BEACH, FL 33401  
PROJECT NUMBER 21013

**REVISIONS**

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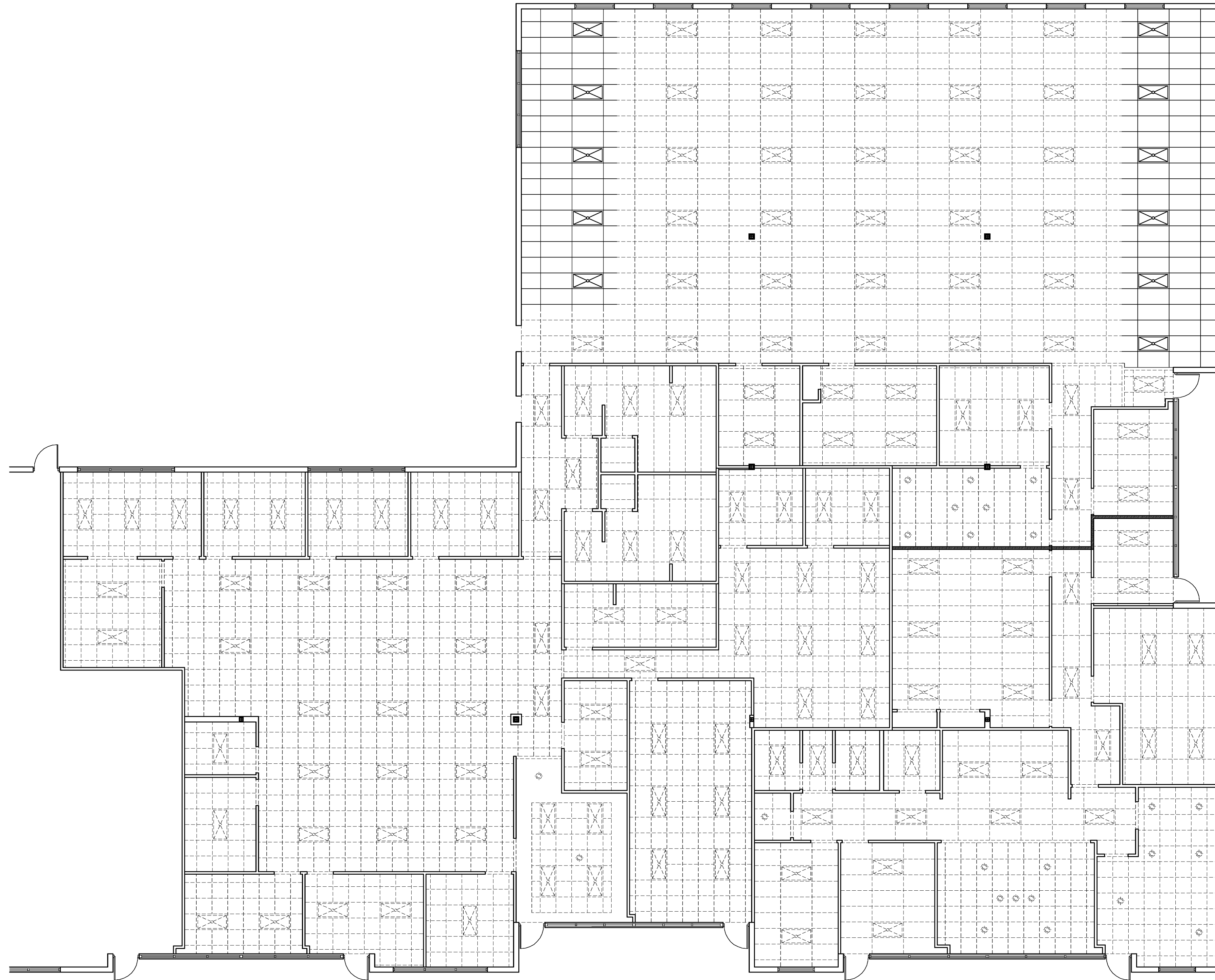
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**A-3**



**WALL LEGEND**

	EXIST PARTITION TO REMAIN
	NEW 1 HR WALL

	NEW LIGHT
	EXISTING LIGHT TO REMAIN

1. EXTEND CEILING GRID AND RELOCATE LIGHTS AS PER 1/A-4
2. ALL NEW CEILING MATERIALS TO MATCH EXISTING CEILING MATERIALS
3. ALL CEILING HEIGHTS TO MATCH EXISTING CEILING HEIGHTS

**1** (PROPOSED) CEILING PLAN  
1/8" = 1'-0"

**2** CEILING NOTES

**Bd**

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2101 CENTRERPARK WEST DRIVE  
SUITE #110  
WEST PALM BEACH, FL 33401

PROJECT NUMBER 21013

**REVISIONS**

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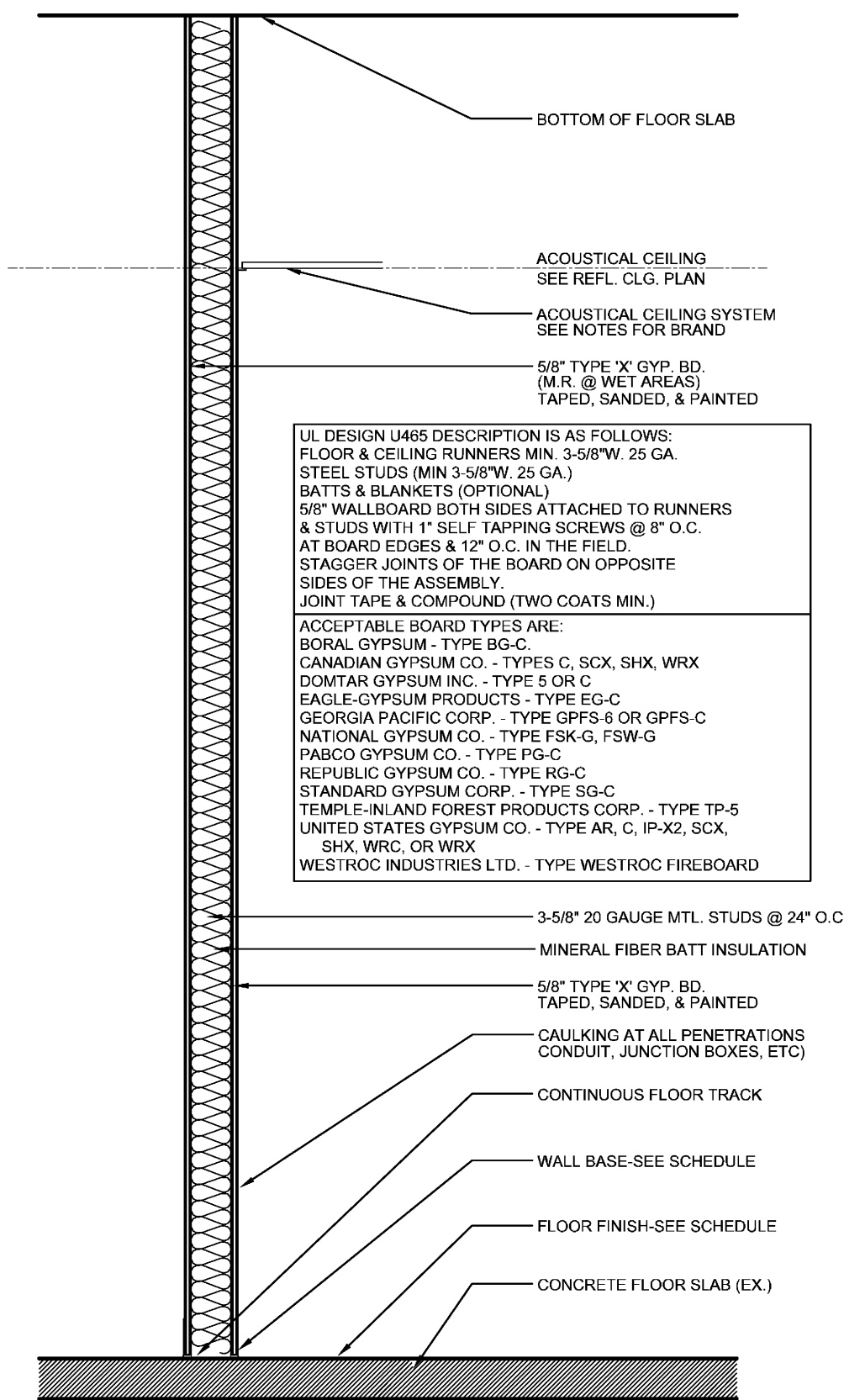
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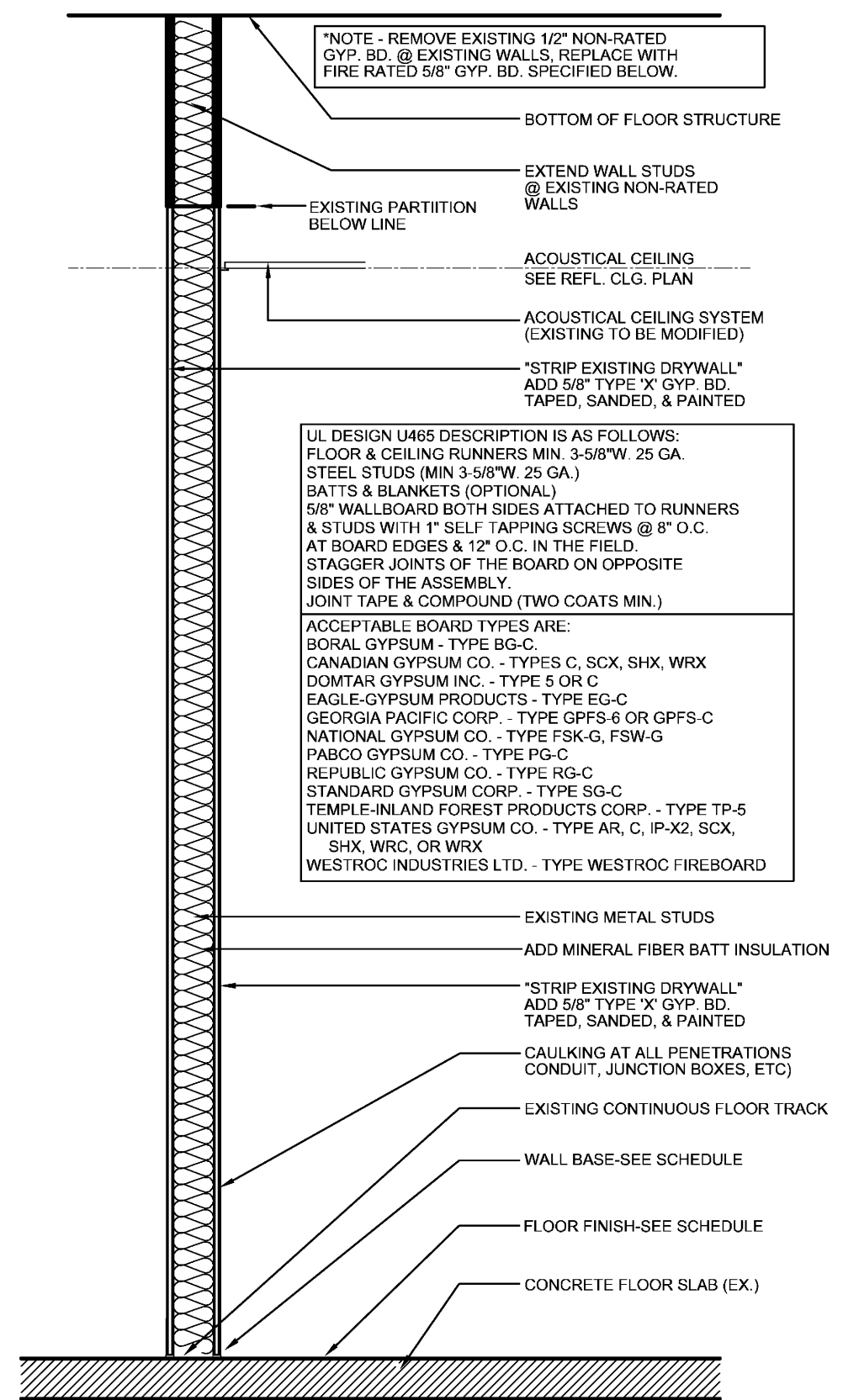
**A-4**



UL DESIGN U465 (1HR)

1 WALL TYPE (DEMISING PARTITION)

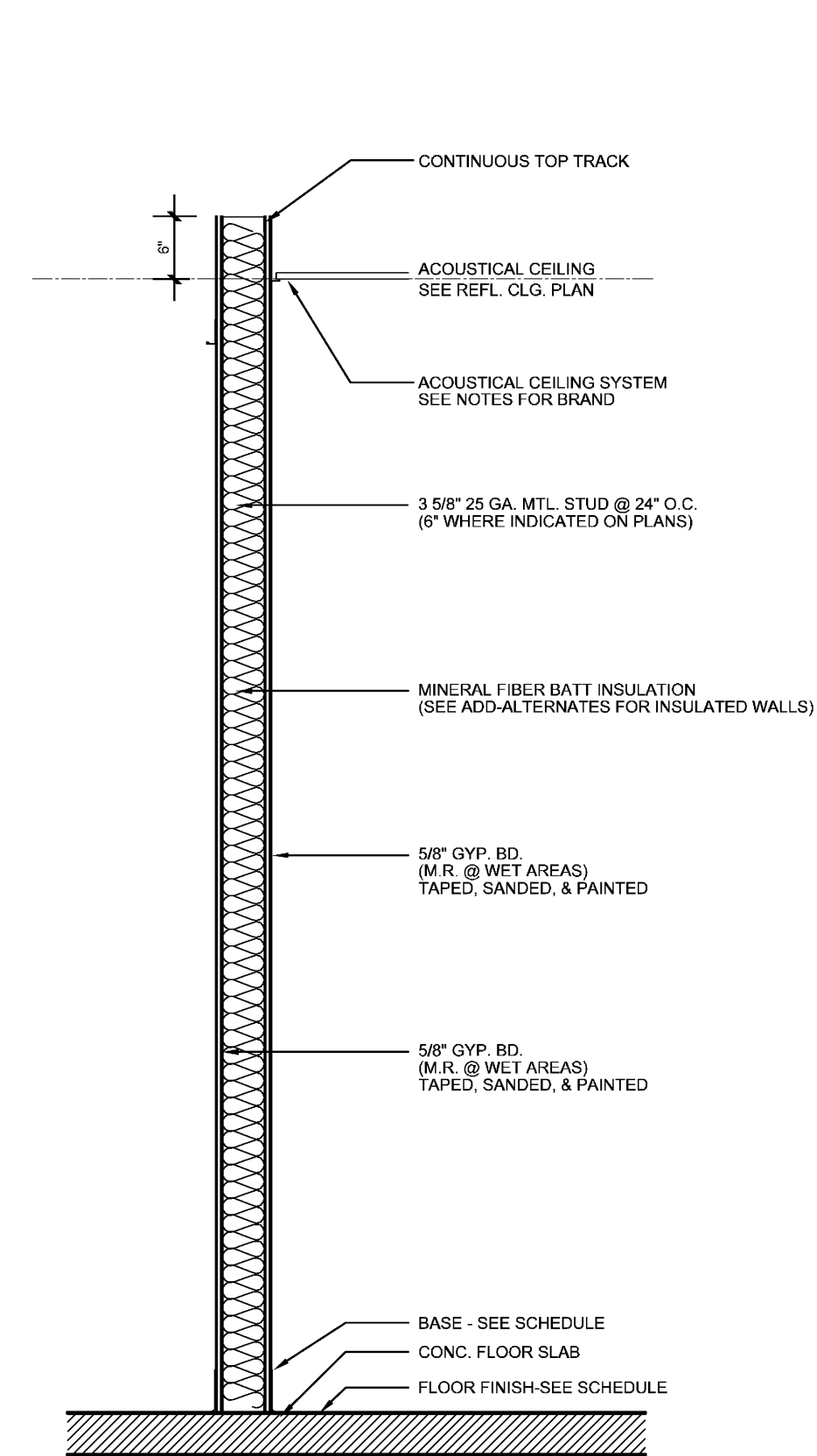
3/4" = 1'-0"



UL DESIGN U465 (1HR)

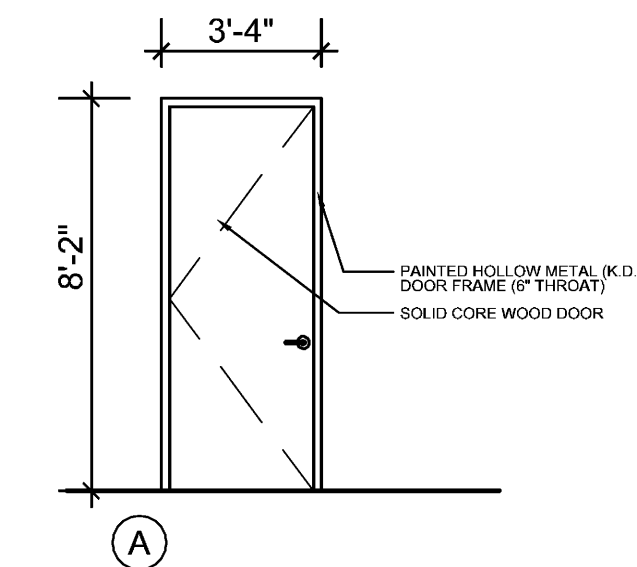
2 WALL TYPE (DEMISING PARTITION)

3/4" = 1'-0"



3 WALL TYPE (INT PARTITION)

3/4" = 1'-0"



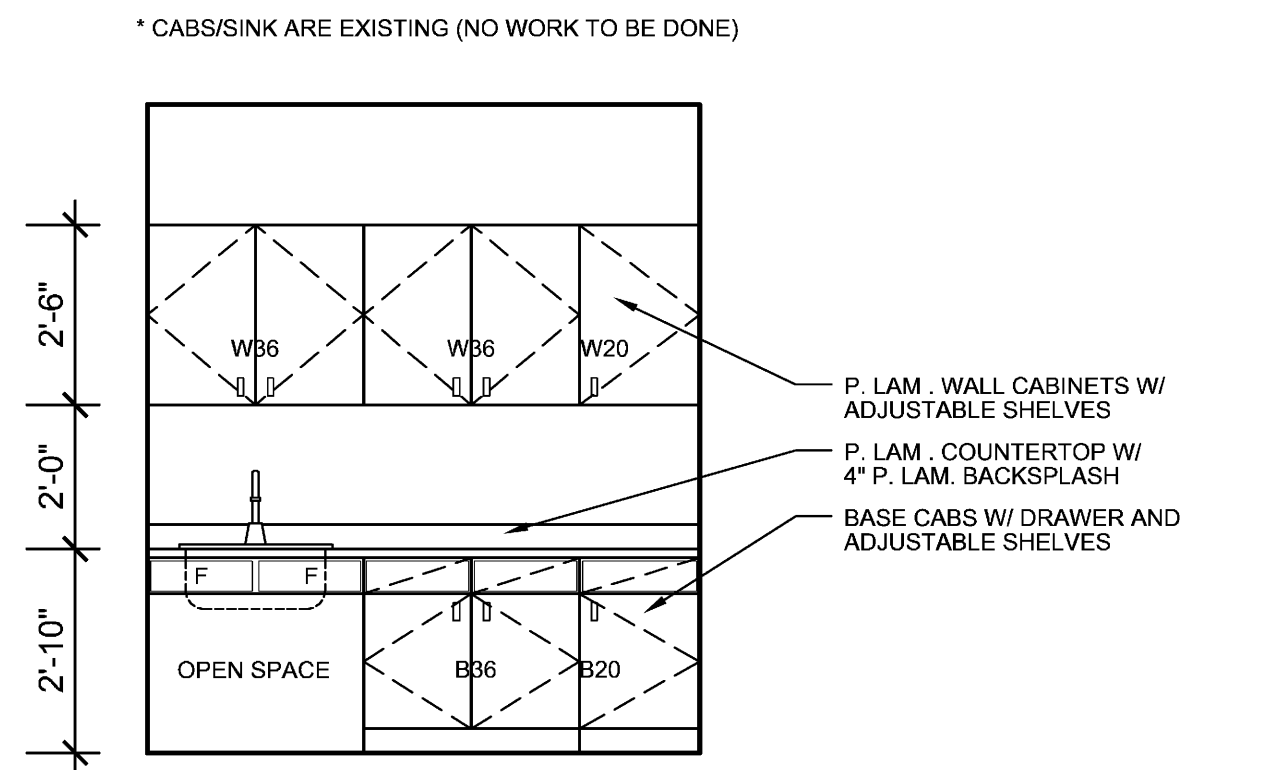
- \* NEW TENANT ENTRY DOOR TO MATCH EXISTING BUILDING STANDARD
- \* ALL CLOSERS TO BE ON THE INSIDE OF TENANT SPACE
- \* NEW TENANT INTERIOR DOOR HARDWARE TO MATCH BUILDING STANDARD
- \* DOOR HARDWARE IS REQUIRED TO COMPLY WITH FBC 11-4.13.9 FOR ACCESSIBILITY

DOOR SCHEDULE

MARK	LABEL	DOOR			FRAME			REMARKS
		MAT	TYPE	SIZE	SIZE/MAT.			
		W	H	T				
A		WD	FLUSH	3'0"	8'0"	1-3/4"	2" HM	GLASS SIDE LIGHT

4 DOORS

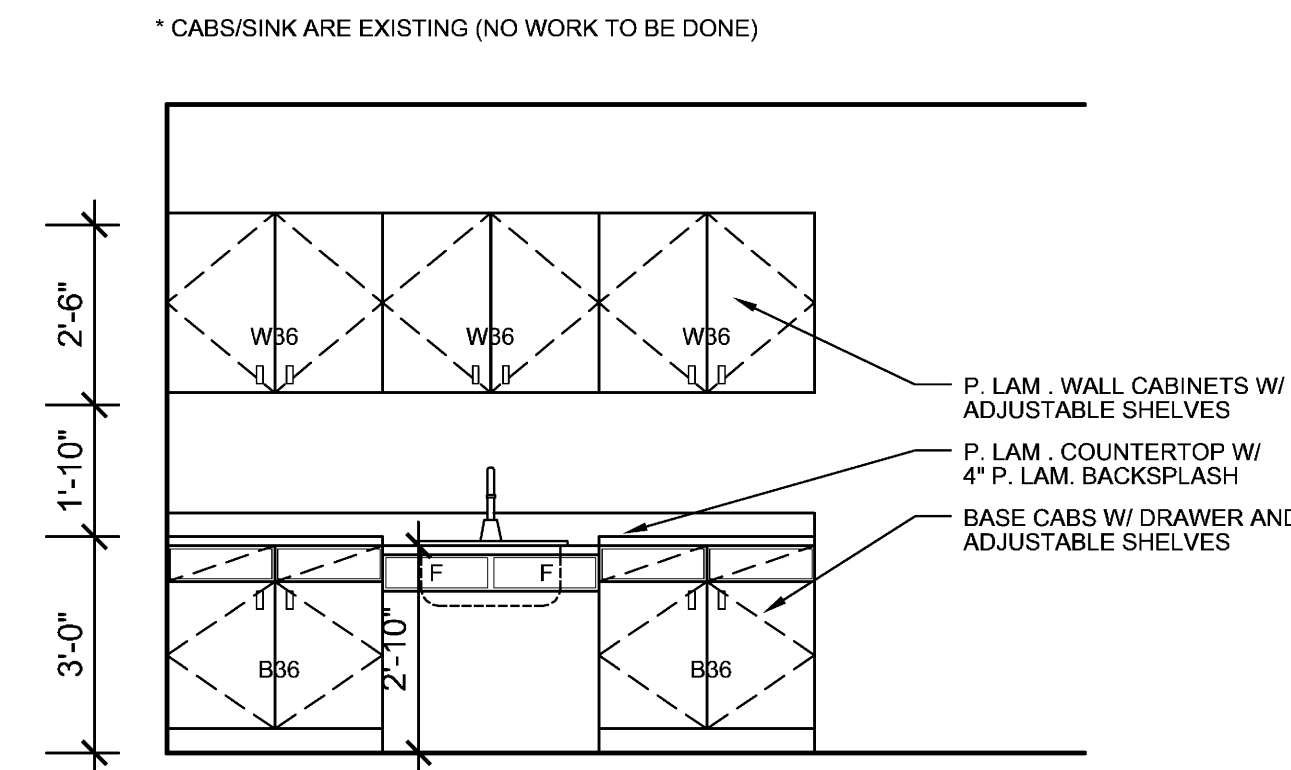
1/4" = 1'-0"



- \* SINKS SHALL BE MOUNTED WITH THE COUNTER TOP OR RIM NO HIGHER THAN 34" ABOVE THE FINISH FLOOR
- \* KNEE CLEARANCE OF AT LEAST 27" HIGH, 30" WIDE, AND 19" DEEP IS PROVIDED UNDERNEATH
- \* EACH SINK SHALL BE A MAXIMUM OF 6-1/2" DEEP
- \* HOT WATER AND DRAIN PIPES UNDER SINK SHALL BE INSULATED OR OTHERWISE CONFIGURED SO AS TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK
- \* A CLEAR FLOOR SPACE OF AT LEAST 30" BY 48" SHALL BE PROVIDED IN FRONT OF A SINK TO ALLOW FORWARD APPROACH. THE CLEAR FLOOR SPACE SHALL BE ON AN ACCESSIBLE ROUT AND SHALL EXTEND A MAXIMUM OF 19 INCHES UNDERNEATH THE SINK
- \* 19" MAX CLEAR AREA SHALL BE PROVIDED UNDERNEATH SINK
- \* ALL FAUCETS SHALL BE LEVER OPERATED

5 SUITE #100 BREAK (#109) ELEVATION

3/8" = 1'-0"



- \* SINKS SHALL BE MOUNTED WITH THE COUNTER TOP OR RIM NO HIGHER THAN 34" ABOVE THE FINISH FLOOR
- \* KNEE CLEARANCE OF AT LEAST 27" HIGH, 30" WIDE, AND 19" DEEP IS PROVIDED UNDERNEATH
- \* EACH SINK SHALL BE A MAXIMUM OF 6-1/2" DEEP
- \* HOT WATER AND DRAIN PIPES UNDER SINK SHALL BE INSULATED OR OTHERWISE CONFIGURED SO AS TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK
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- \* 19" MAX CLEAR AREA SHALL BE PROVIDED UNDERNEATH SINK
- \* ALL FAUCETS SHALL BE LEVER OPERATED

6 SUITE #110 BREAK (#117) ELEVATION

3/8" = 1'-0"

MK	ROOM NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
		MAT	MAT HT	MAT FIN	MAT FIN HT	
SUITE #110						
100	RECEPTION	EXISTING				
101	OFFICE	EXISTING				
102	OFFICE	EXISTING				
103	OFFICE	EXISTING				
104	OFFICE	EXISTING				
105	STORAGE	EXISTING				
106	MEETING	EXISTING				
107	OFFICE	EXISTING				
108	OFFICE	EXISTING				
109	OFFICE	EXISTING				
110	OFFICE	EXISTING				
111	OPEN OFFICE	EXISTING				
112	TELECOM	EXISTING				
113	CONFERENCE	EXISTING				
114	OPEN OFFICE	EXISTING				
115	OFFICE	EXISTING				
116	OFFICE	EXISTING				
117	BREAK	EXISTING				
118	WOMENS	EXISTING				
119	CLOSET	EXISTING				
120	CLOSET	EXISTING				
121	MENS	EXISTING				
122	CORRIDOR	EXISTING				
123	OPEN OFFICE	CPT1	VL 4"	GWB PT1	ACT1	
124	OFFICE	CPT1	VL 4"	GWB PT1	EXISTING	
125	OFFICE	VCT	VL 4"	GWB PT1	EXISTING	
126	COPY/PAK	VCT	VL 4"	GWB PT1	EXISTING	RESURFACE LAMINATE COUNTERTOP/CABINETS
127	TELECOM	VCT	VL 4"	GWB PT1	EXISTING	
128	CONFERENCE	CPT1	VL 4"	GWB PT1	EXISTING	
129	OFFICE	CPT1	VL 4"	GWB PT1	EXISTING	
130	CORRIDOR	CPT1	VL 4"	GWB PT1	EXISTING	

FINISH SELECTIONS

- PAINT (PT1)  
 MANUFACTURER: PITTSBURGH PAINTS  
 COLOR: BLUE HAZE #555-1, FLAT  
 TYPE: "ECO-SPEC" NO VOC PAINT
- CARPET (CPT1)  
 MANUFACTURER: PATCRAFT  
 STYLE: MANNER BOOK #10247  
 COLOR: SHOTGUN #47407
- VINYL COMP TILE (VCT)  
 MANUFACTURER: ARMSTRONG  
 STYLE: STANDARD EXCELRON  
 COLOR: BLUE CLOUD #51933
- VINYL BASE (VL)  
 MANUFACTURER: JOHNSONITE  
 COLOR: OCEAN #189
- ACOUSTIC CEILING TILE (ACT1)  
 MANUFACTURER: MATCH EXISTING  
 COLOR: AMATCH EXISTING
- LAMINATE (COUNTERTOP)  
 MANUFACTURER: FORMICA  
 COLOR: FLAX GAUZE 7708-58  
 FINISH: MATTE
- LAMINATE (CABS)  
 MANUFACTURER: FORMICA  
 COLOR: #5904-43 WILD CHERRY  
 FINISH: MATTE
- \* ALL INTERIOR WALL AND CEILING FINISHES TO HAVE A MIN CLASS "C" FLAME SPREAD CLASSIFICATION
  - \* ALL INTERIOR FLOOR FINISH SHALL BE NOT LESS THAN CLASS II
  - \* SAMPLES ARE REQUIRED TO BE APPROVED PRIOR TO ORDERING

Bd

birse design inc.

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 Palm Beach Gardens, FL 33418  
 phone: 561-246-4001  
 fax: 772-409-9884  
 AA26001615

ALLEN S BIRSE  
 AR94279

S.F.W.M.D.  
 2101 CENTREPARK WEST DRIVE  
 SUITE #110  
 WEST PALM BEACH, FL 33401  
 PROJECT NUMBER 21013

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A-5



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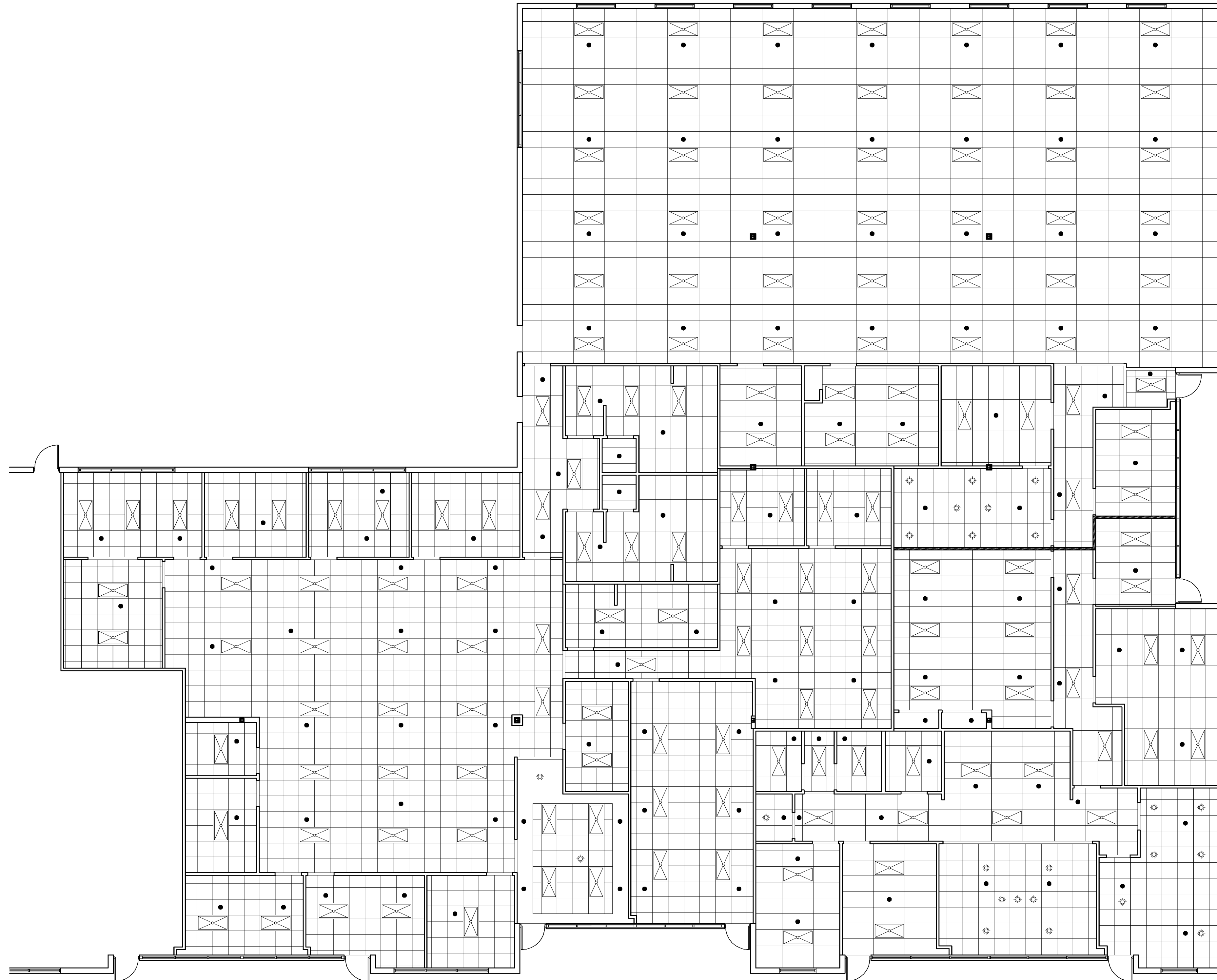
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**A-6**

SPRINKLER HEAD			
SYMBOL	TYPE	TEMP	SIZE
●	QUICK TYPE RECESSED PENDANT	155°	1/2"



\* FIRE SPRINKLER SHOP DRAWINGS ARE TO BE SUBMITTED UNDER A SEPARATE FIRE SPRINKLER PERMIT  
 \* COMPLY WITH NFPA 13 2002 EDITION

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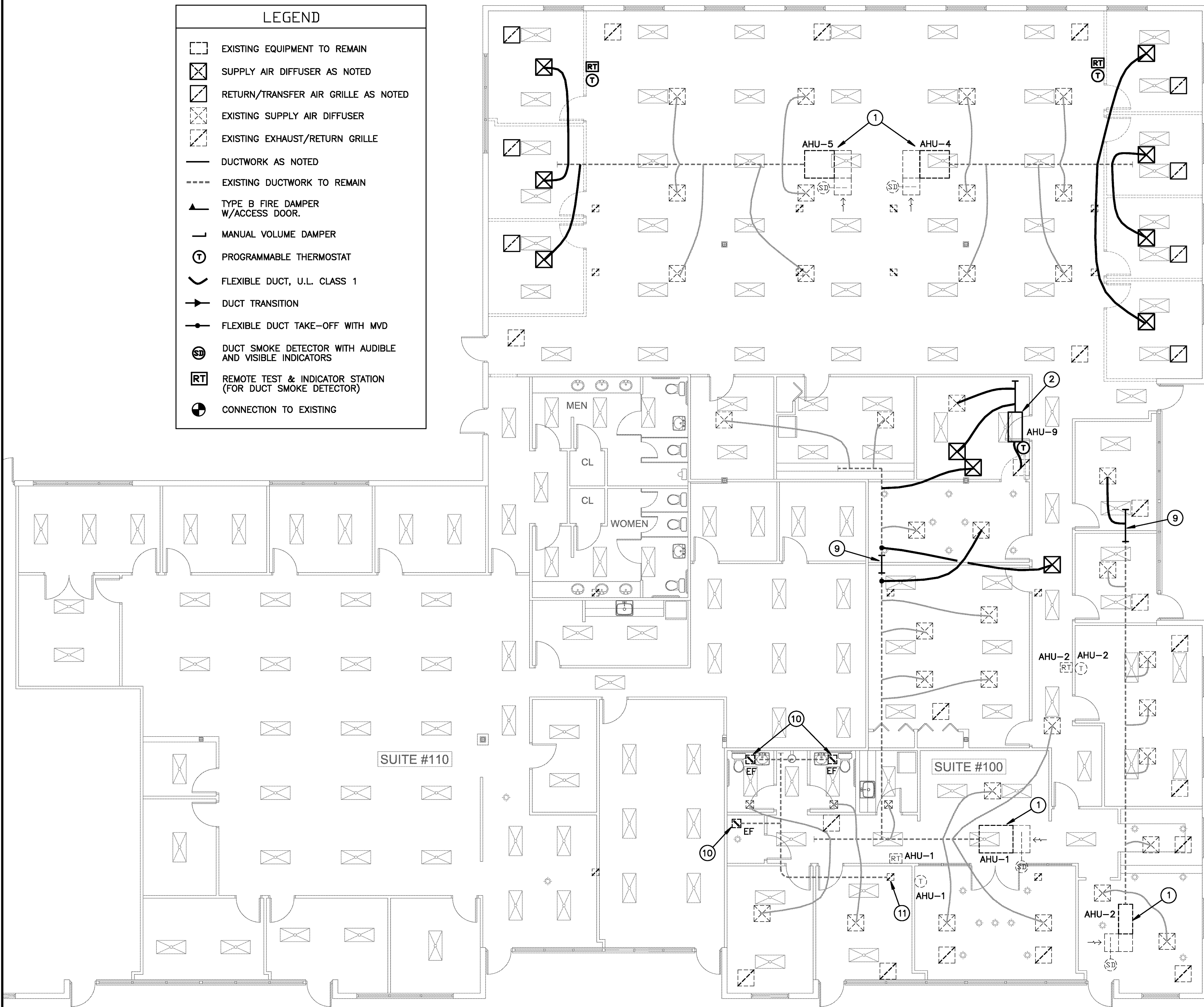
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M-1

**LEGEND**

- EXISTING EQUIPMENT TO REMAIN
- SUPPLY AIR DIFFUSER AS NOTED
- RETURN/TRANSFER AIR GRILLE AS NOTED
- EXISTING SUPPLY AIR DIFFUSER
- EXISTING EXHAUST/RETURN GRILLE
- DUCTWORK AS NOTED
- EXISTING DUCTWORK TO REMAIN
- TYPE B FIRE DAMPER W/ACCESS DOOR
- MANUAL VOLUME DAMPER
- PROGRAMMABLE THERMOSTAT
- FLEXIBLE DUCT, U.L. CLASS 1
- DUCT TRANSITION
- FLEXIBLE DUCT TAKE-OFF WITH MVD
- DUCT SMOKE DETECTOR WITH AUDIBLE AND VISIBLE INDICATORS
- REMOTE TEST & INDICATOR STATION (FOR DUCT SMOKE DETECTOR)
- CONNECTION TO EXISTING



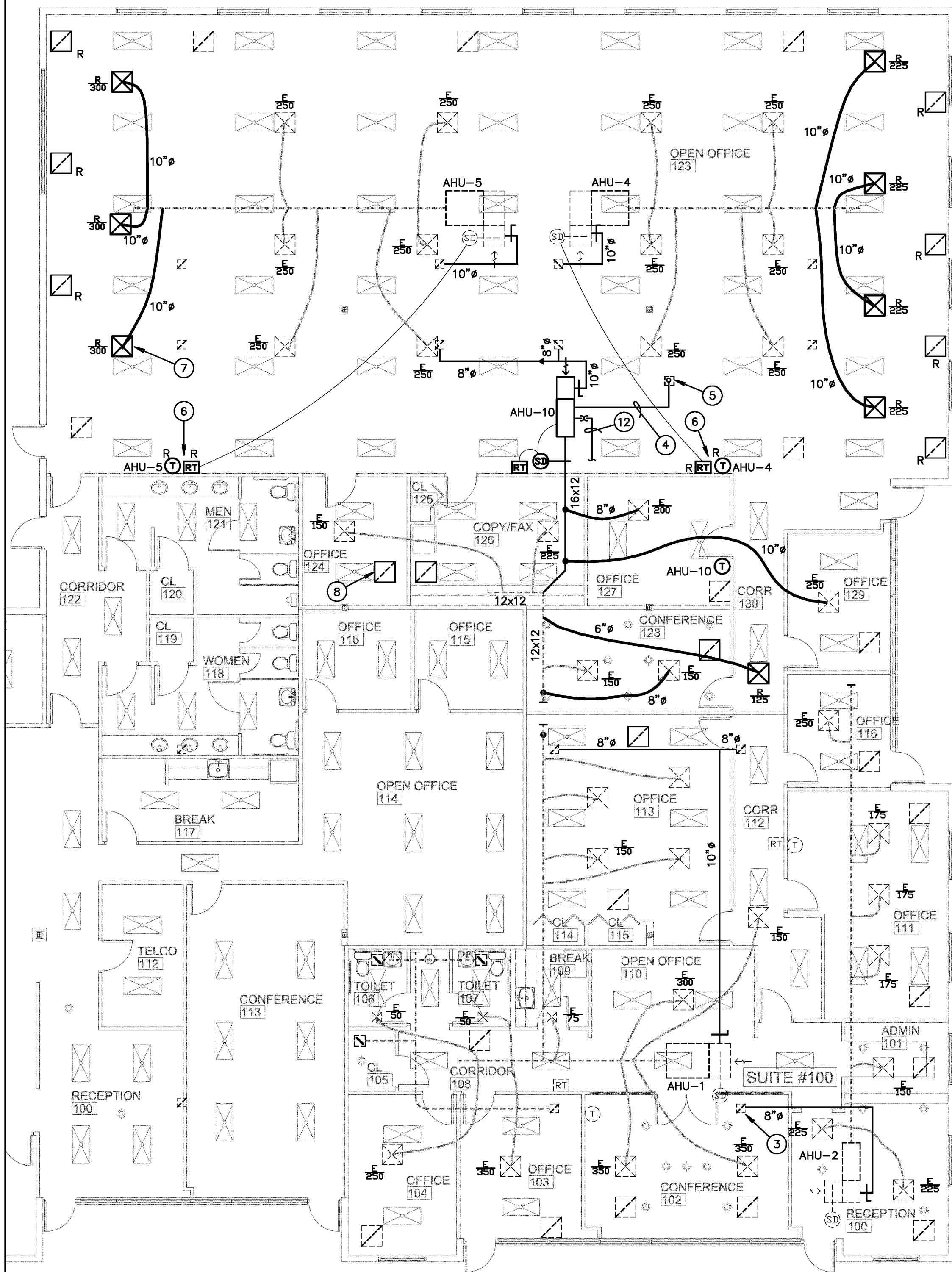
**HVAC PROJECT SPECIFIC NOTES**

CONTRACTOR IS TO INSPECT ALL EXISTING DUCTWORK SHOWN ON THESE PLANS AS REMAINING. REPAIR AS REQUIRED ANY DAMAGED DUCTWORK OR INSULATION. WHERE DUCTWORK IS SHOWN TO BE PARTIALLY REMOVED, CAP, SEAL, AND INSULATE TO MATCH EXISTING METHODS AND MATERIALS.

EXISTING EQUIPMENT WHICH IS REMAINING IS TO BE INSPECTED, ADJUSTED AND REPAIRED WHERE NECESSARY.

**ABBREVIATIONS**

CFM	-	CUBIC FEET PER MINUTE
E/A	-	EXHAUST AIR
S/A	-	SUPPLY AIR
R/A	-	RETURN AIR
AHU	-	AIR HANDLING UNIT
CHU	-	CONDENSING UNIT
E	-	EXISTING
R	-	RELOCATED
RC	-	ROOF CAP



- DRAWING KEYNOTES:**
- ① EXISTING AIR HANDLING UNIT TO REMAIN AS IS. PROVIDE DUCT AND AIR OUTLET MODIFICATIONS AS INDICATED AND RE-BALANCE SYSTEM AND ALL AIR OUTLETS.
  - ② EXISTING AIR HANDLING UNIT TO BE REMOVED.
  - ③ OUTSIDE AIR DUCT UP TO EXISTING ROOF CAP (TYPICAL)
  - ④ REFRIGERANT PIPING RUN ABOVE CEILING FROM AIR HANDLING UNIT TO CONDENSING UNIT ON THE ROOF.
  - ⑤ REFRIGERANT PIPING TURNS UP THROUGH EXISTING ROOF OPENING, SEE ROOF PLAN FOR CONTINUATION.
  - ⑥ RE-LOCATE EXISTING THERMOSTAT AND TEST/INDICATOR STATION FOR DUCT SMOKE DETECTOR AS SHOWN.
  - ⑦ RELOCATE AIR DEVICES IN NEW CEILING GRID AS SHOWN. PROVIDE NEW FLEXIBLE DUCT AS REQUIRED (TYPICAL)
  - ⑧ PROVIDE NEW PERFORATED R/A GRILLE, TITUS MODEL PAR-AA, ALUMINUM LAY-IN WITH 22X22 NECK (TYPICAL)
  - ⑨ REMOVE EXISTING DUCT SECTION AT NEW TENANT SEPARATION WALL, CAP ENDS OF DUCT.
  - ⑩ EXISTING EXHAUST FAN TO REMAIN AS IS (NO WORK)
  - ⑪ EXHAUST AIR DUCT UP TO ROOF CAP, TO REMAIN AS IS
  - ⑫ 3/4" CONDENSATE DRAIN WITH TRAP & VENT, CONNECT TO EXISTING MAIN CONDENSATE DRAIN IN THIS AREA.

PROJ.# 10-038

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RONALD D. GILMAN P.E. 575733



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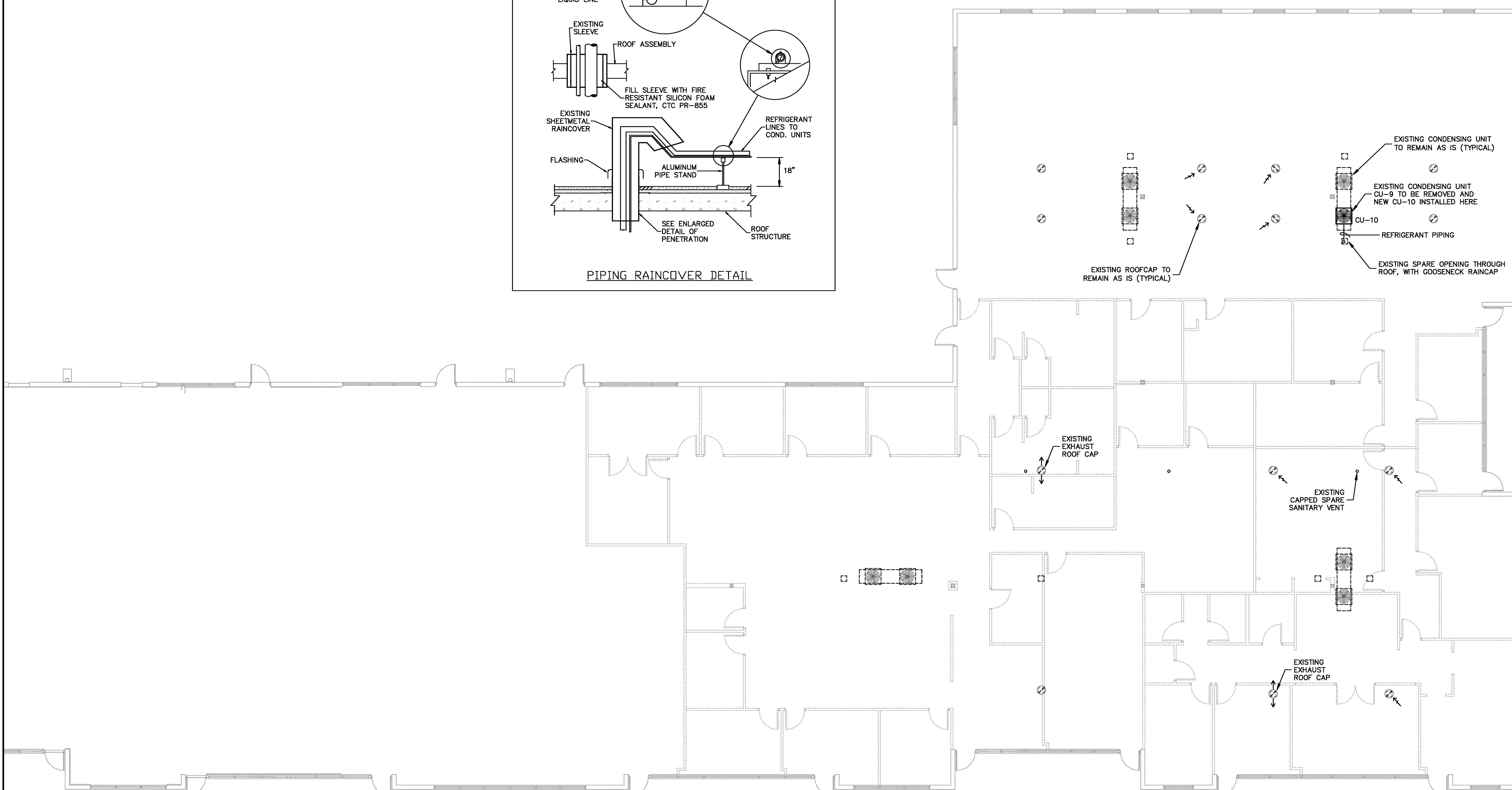
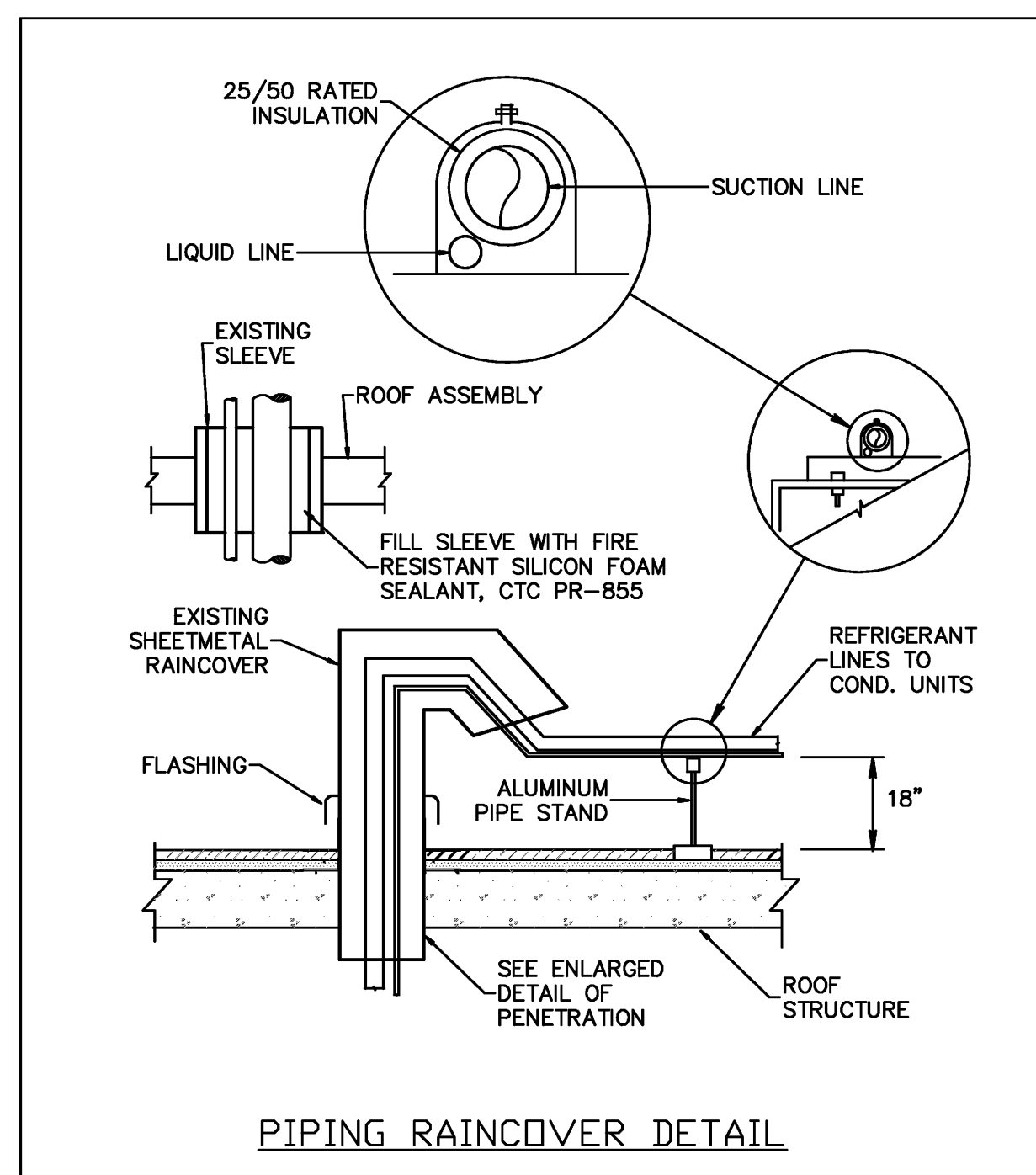
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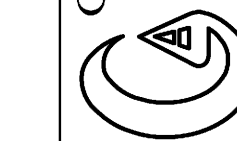


HVAC ROOF PLAN

SCALE: 1/8" = 1'-0"

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**GENERAL DEMOLITION NOTES**

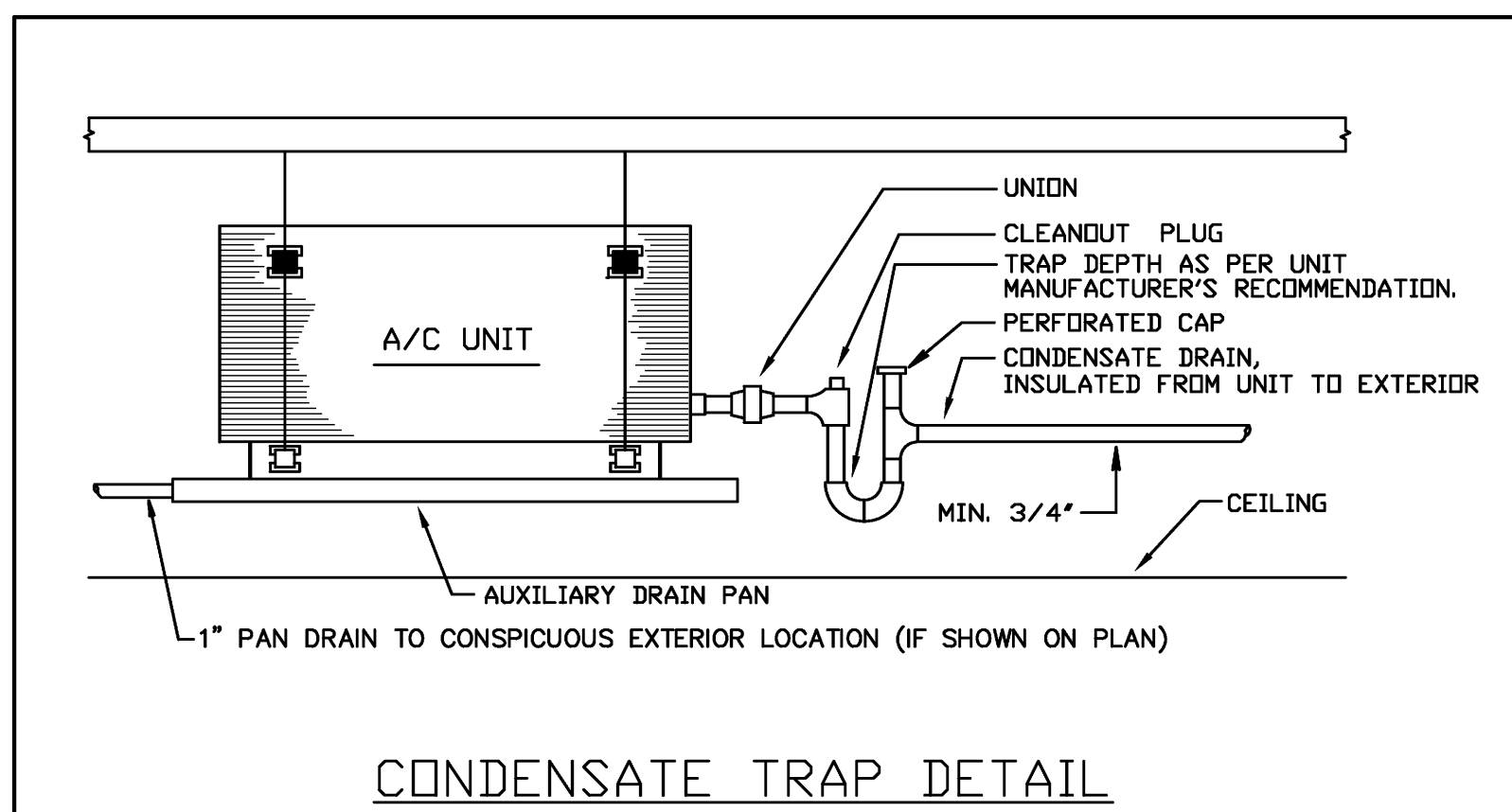
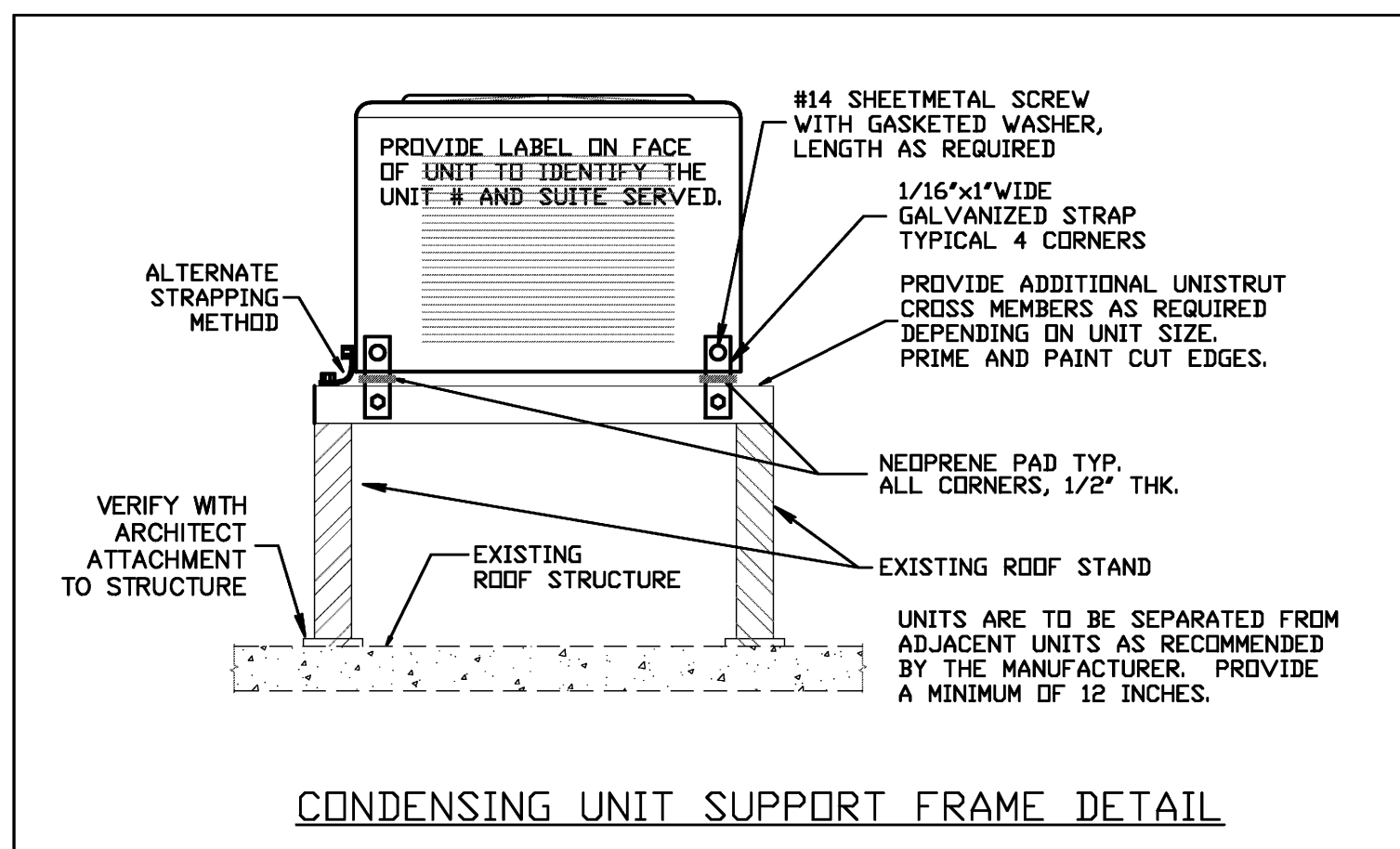
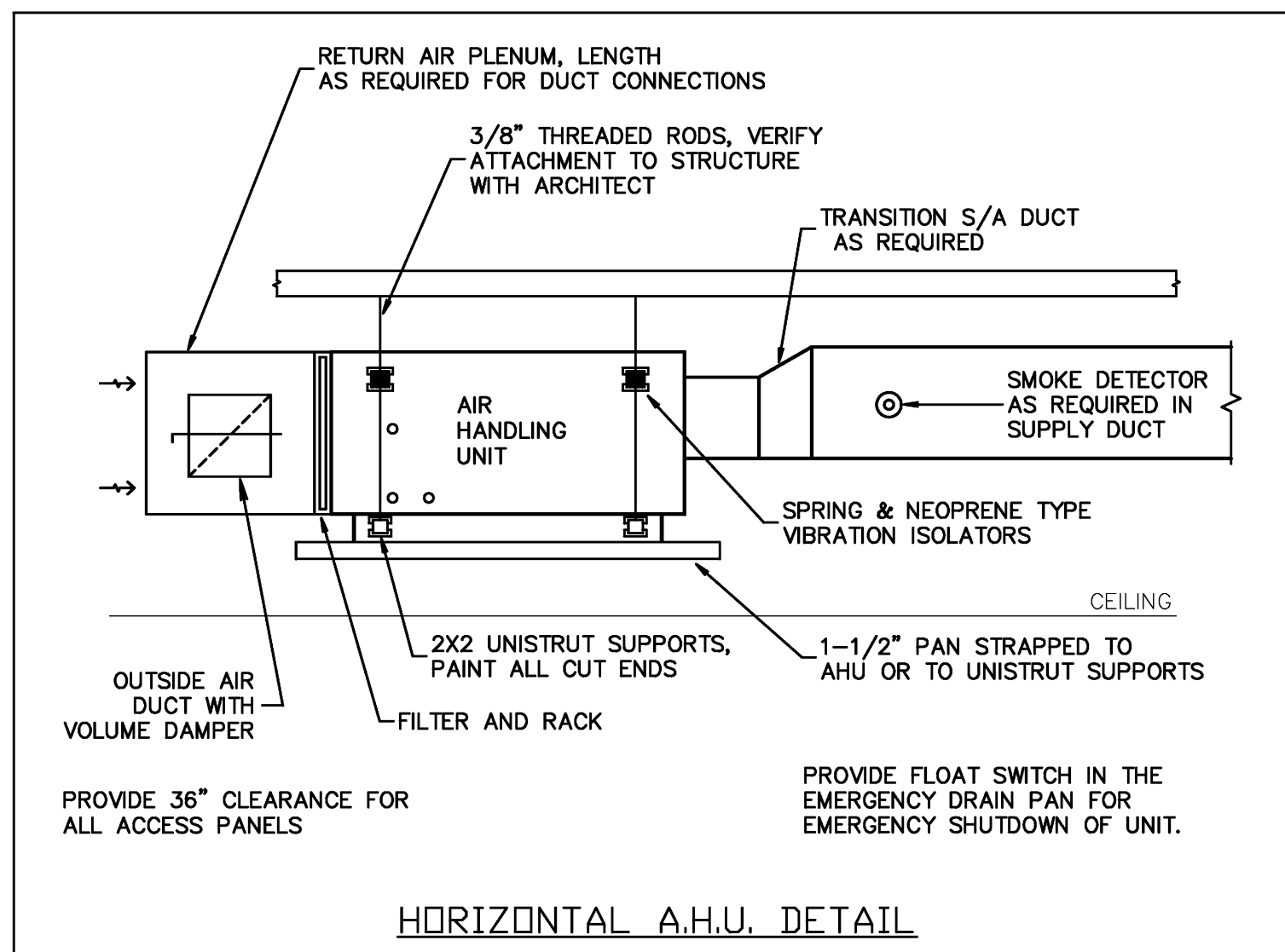
- UNLESS OTHERWISE NOTED, ALL EQUIPMENT AND DUCTWORK IN THE PROJECT AREA WHICH IS NOT INDICATED TO REMAIN, IS TO BE REMOVED. THE CONTRACTOR SHALL INVESTIGATE THE PROJECT AREA PRIOR TO BID TO DETERMINE ALL REQUIRED DEMOLITION.
- EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE TAKEN FROM ORIGINAL DRAWINGS AND FIELD INVESTIGATION. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. FIELD CONDITIONS SHALL GOVERN.
- DEMOLITION WORK IS NOT SPECIFICALLY IDENTIFIED ON THESE PLANS, AND MAY BE DESCRIBED ON THE ARCHITECTS PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.
- ALL MECHANICAL SYSTEMS SERVING OTHER SPACES OR FLOORS, THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES.
- ALL ITEMS REMOVED UNDER THIS PROJECT SHALL BE DISPOSED OF OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.
- PROPERLY REMOVE AND DISPOSE OF ALL HVAC DUCTWORK AND AIR DISTRIBUTION DEVICES WHICH ARE TO BE REMOVED. CONSULT WITH OWNER AND OBTAIN THE OWNER'S APPROVAL PRIOR TO DISPOSAL OF REMOVED MATERIAL.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL PIPING AND DUCTS, NEW OR EXISTING, WITHIN THE PROJECT AREA, ARE PROPERLY SUPPORTED.
- ANY UN-USED DUCT OPENINGS ARE TO BE CLOSED, SEALED AND INSULATED WITH MATERIALS AND METHODS TO MATCH EXISTING INSTALLATIONS.

**MECHANICAL GENERAL NOTES:**

- THESE DRAWINGS ARE DIAGRAMMATIC. ALL OFFSETS, FITTINGS, TRANSITIONS AND ACCESSORIES ARE NOT SHOWN. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL ITEMS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. DO NOT SCALE DRAWINGS FOR INSTALLATION.
- ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANLIKE MANNER BY LICENSED CONTRACTORS.
- THE CONTRACTOR SHALL OBTAIN AT HIS EXPENSE ALL NECESSARY FEES PERMITS, AND TESTS.
- ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. NO CONTRACTOR SHALL BID UNLESS FAMILIAR WITH THESE CODES.
- CORRECTION OF DEFECTS TO THIS WORK SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER. REPAIR AND REPLACEMENT FOR DAMAGE CAUSED BY THIS CONTRACTOR SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER.
- ALL WORK OF THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY INTERFERENCES THAT MAY DELAY PROGRESS OF CONSTRUCTION.
- THE CONTRACTOR SHALL INCLUDE THE WORK OF ALL REQUIRED SUB-CONTRACTORS, SUCH AS ELECTRICAL, INSULATING, TEST & BALANCE, ETC., AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- EQUIPMENT SHALL BEAR A U.L. OR OTHER RECOGNIZED LABEL, NAMEPLATES, WIRING DIAGRAMS, AND ENERGY RATINGS AS APPLICABLE.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND ACCESSORIES TO BE READILY ACCESSIBLE FOR SERVICING, TESTING, BALANCING, AND REPLACEMENT.
- THE CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE AGAINST DEFECTS IN ALL MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM ACCEPTANCE, WITH FOUR ADDITIONAL YEARS OF WARRANTY ON COMPRESSORS.
- THE CONTRACTOR SHALL PROVIDE THREE COPIES OF SUBMITTAL DATA, SHOP DRAWINGS, AND AT COMPLETION OF THE PROJECT TWO SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL PROJECT ITEMS.
- PROVIDE ALL CONTROLS, STARTERS, CONTROL WIRING, DISCONNECTS, AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- THE HVAC CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, ON SITE, A DETAILED AS-BUILT PLAN SHOWING ACTUAL INSTALLATIONS. THE CONTRACTOR IS TO PROVIDE A NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS UPON COMPLETION, WHICH ARE SUITABLE FOR SUBMISSION TO THE BUILDING DEPARTMENT AND TO THE OWNER.
- PRIOR TO ACCEPTANCE BY THE OWNER THE SYSTEMS SHALL BE TESTED AND BALANCED BY AN INDEPENDENT NEBB CERTIFIED T&B CONTRACTOR EXPERIENCED WITH THIS SYSTEM, AND CERTIFIED T&B REPORTS SUBMITTED.
- SUPPLY AND INSTALL DUCT MOUNTED SMOKE DETECTORS AS REQUIRED.
- COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS AND ARCHITECTURAL ELEMENTS.
- ALL GRILLES TO BE TITUS OR METALLAIRE UNLESS OTHERWISE NOTED, SIZES AS SHOWN ON PLANS, ALUMINUM CONSTRUCTION.
- ALL DUCT WORK SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND LOCAL BUILDING CODES.
- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- ALL OUTSIDE AIR DUCTWORK SHALL BE SHEETMETAL WITH EXTERIOR R-6 INSULATION. PROVIDE BLANKET TYPE INSULATION IN CONCEALED SPACES, AND BOARD TYPE IN EXPOSED AREAS.
- ALL EXHAUST AIR DUCT SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
- FLEXIBLE DUCT, WHERE SHOWN, SHALL BE U.L. CLASS 1, R-6 INSULATION.
- LOW PRESSURE SUPPLY AND RETURN DUCTWORK IS RIGID DUCTBOARD WITH VAPOR BARRIER, 1 IN. THICK, R-4.2 INSULATION, EXCEPT AS NOTED.
- PROVIDE ELBOW TURNING VANES IN ALL RECTANGULAR DUCTS WHERE TURNS ARE GREATER THAN 45 DEGREES.
- PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST FANS.
- VERIFY ALL THERMOSTAT LOCATIONS WITH THE ARCHITECT.
- CONDENSATE DRAIN PIPING IS COPPER WITH SOLDERED FITTINGS AND ARMAFLEX INSULATION.

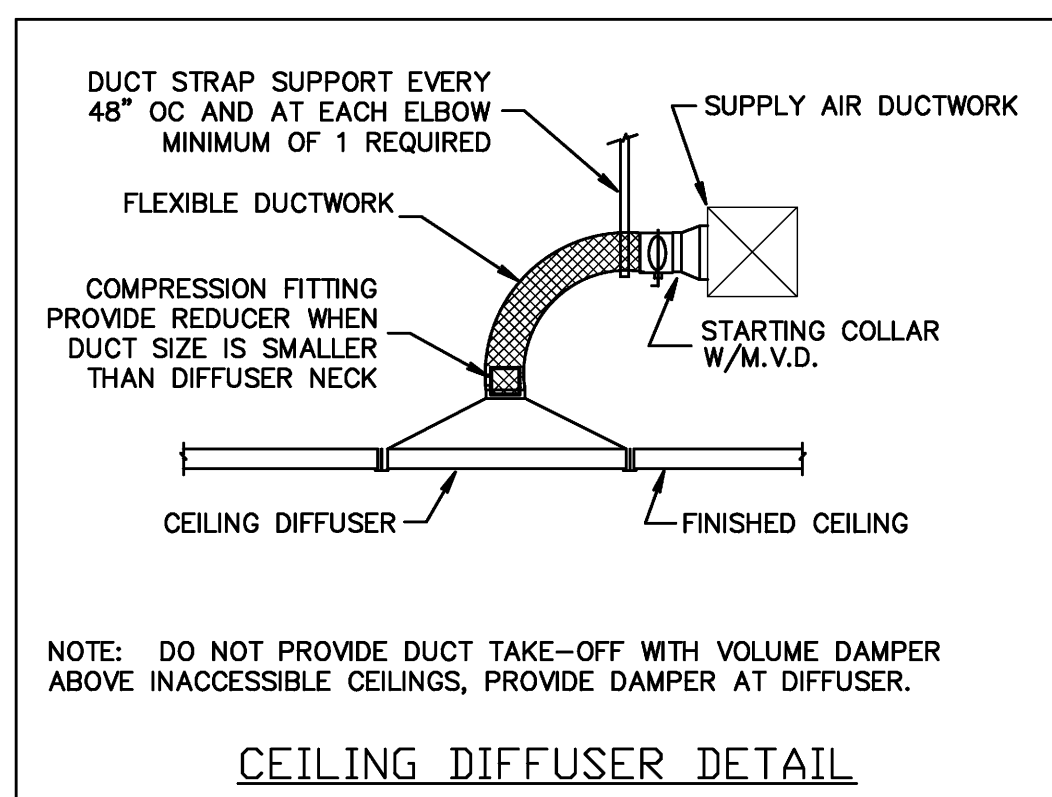
VENTILATION CALCULATIONS											
SYSTEM	AHU-1				AHU-2		AHU-4	AHU-5	AHU-10		
	OFFICE	BREAK	CORRIDOR	CONFERENCE	OFFICE	RECEPTION	OFFICE	OFFICE	OFFICE	CORRIDOR	CONFERENCE
SQUARE FEET OF AREA	950	56	490	282	540	218	2030	2000	700	176	202
CFM/SQ.FT. REQUIRED	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
TOTAL OCCUPANTS	5	1	-	14	4	7	14	13	4	-	10
CFM/PERSON REQUIRED	5	5	-	5	5	5	5	5	5	-	5
ZONE CFM REQUIRED	82	8	29	87	52	48			62	11	62
TOTAL SYSTEM CFM	206				100		192	185	135		

**NOTES**  
1. ABOVE CALCULATIONS AND OCCUPANCY RATES PER ASHRAE 62.1, 2004.



SPLIT A/C SYSTEM SCHEDULE		
AIR HANDLING UNIT	AHU TAG	AHU-10
	MODEL #	FY4ANF036
	FAN MOTOR H.P.	1/3
	FAN MOTOR F.L.A.	2.4
	HEATER KW/STEPS	3.8 / 1
	SUPPLY AIR CFM @ EXT. S.P.	1150 @ 0.4
	OUTSIDE AIR CFM	135
	POWER - VOLTS/PHASE	208/1/60
	MCA / MDCP	26 / 30
	OPERATING WEIGHT (lbs)	144
DIMENSIONS (LxWxH)	54x22x21	
CONDENSING UNIT	C.U. TAG	CU-10
	MODEL #	24ABB336
	NOMINAL TONS (TOTAL)	3.0
	COMPRESSOR R.L.A.	15.3
	FAN MOTOR F.L.A.	1.4
	POWER - VOLTS/PHASE	208/1/60
MCA / MDCP	21.5 / 30	
OPERATING WEIGHT (lbs)	141	
DIMENSIONS (LxWxH)	26x26x32	
SYSTEM	MANUFACTURER	CARRIER
	TOTAL SENSIBLE MBH	23.4
	TOTAL COOLING MBH	31.6
	RATING D.B. / W.B. °F	75/63
	SEER (EER)	13.0

**NOTES:**  
1. PROVIDE 5 MINUTE ANTI-SHORT CYCLE RELAY.  
2. PROVIDE A/C UNIT MANUFACTURER'S PROGRAMMABLE THERMOSTAT.  
3. SIZE AND RUN REFRIGERANT PIPING PER MANUFACTURER'S PUBLISHED RECOMMENDATIONS.  
4. PROVIDE VIBRATION ISOLATORS PER MANUFACTURER'S RECOMMENDATIONS.  
5. INSULATE REFRIGERANT SUCTION LINE WITH 1" FIRE RETARDANT ARMAFLEX.  
6. INSTALL CHEMICAL DRYER AND STRAINER IN REFRIGERANT LIQUID LINES.  
7. PROVIDE LIQUID SIGHT GLASS AND EXPANSION VALVES.  
8. PROVIDE MANUFACTURER'S STANDARD FILTER RACK UPSTREAM OF AHU RETURN AIR OPENING.  
9. HEATER CAPACITIES SHOWN AT OPERATING VOLTAGE AS INDICATED.



**HVAC DETAILS**  
SCALE: NONE

**Bd**

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AA26001615

**S.F.W.M.D.**

2101 CENTRER PARK WEST DRIVE  
SUITE #110  
WEST PALM BEACH, FL 33401

PROJECT NUMBER 21013

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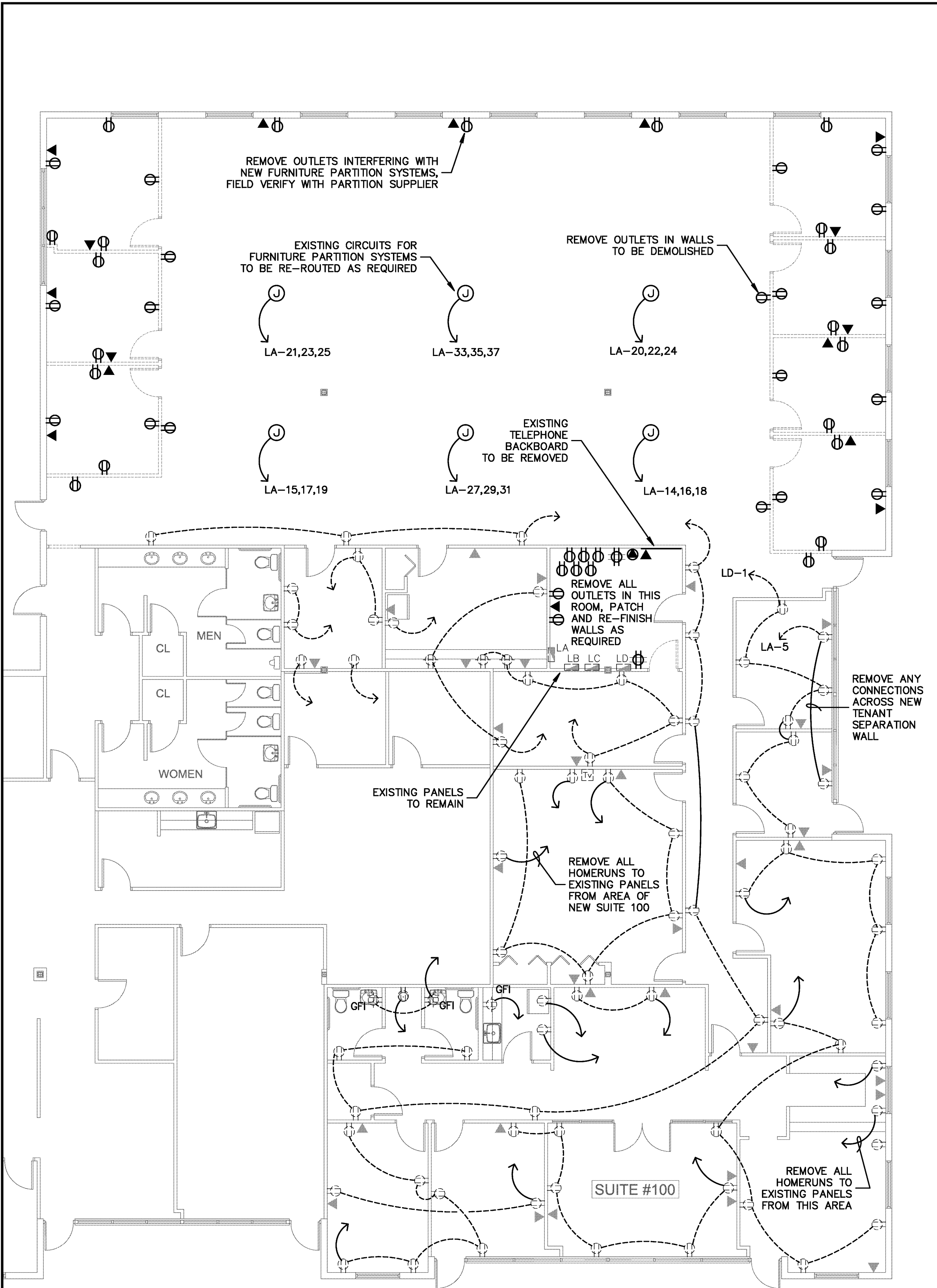
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**M-3**

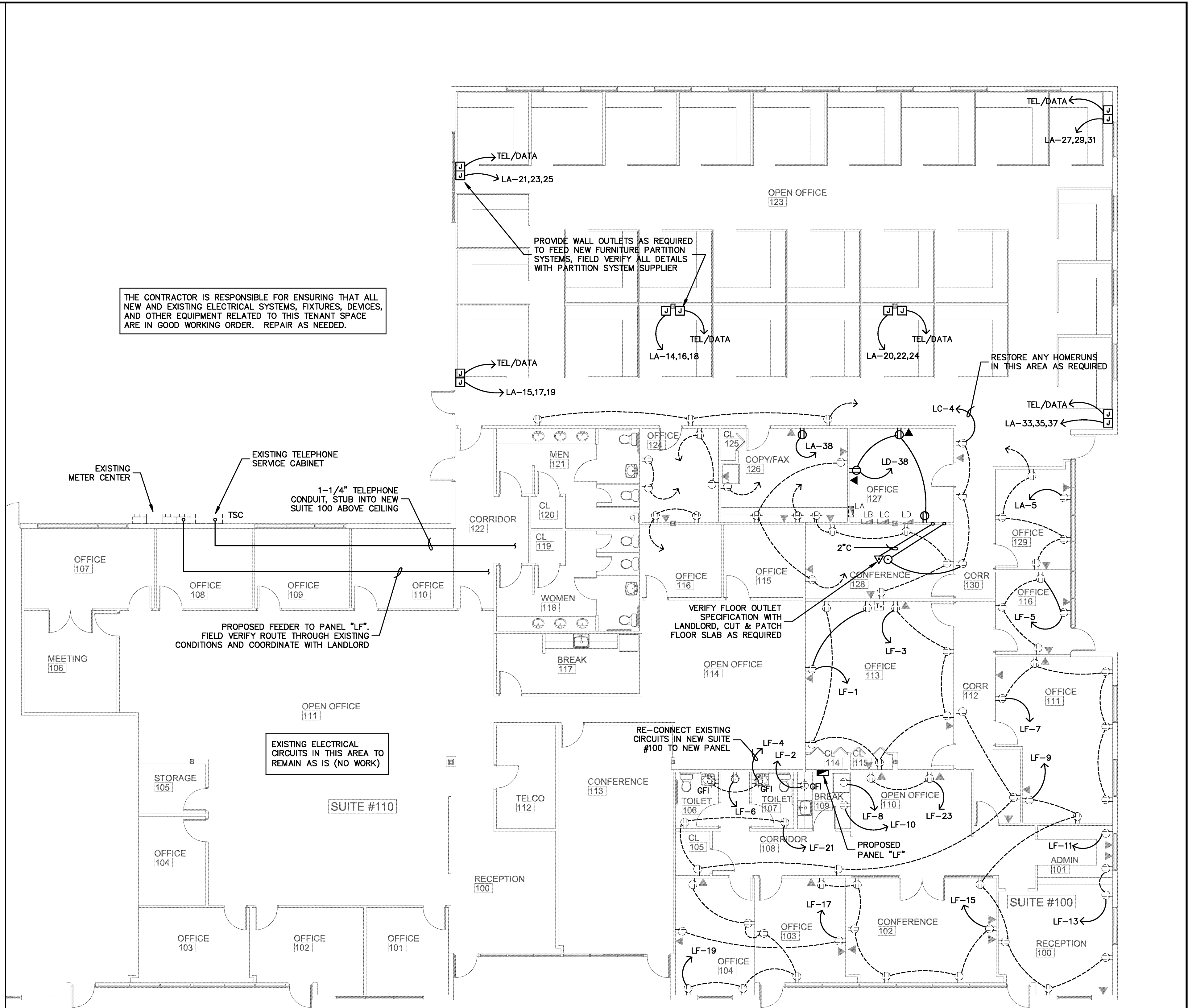
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RONALD D. GILMAN P.E. - 57533

**M-3**



EXISTING ELECTRICAL FLOOR PLAN

SCALE: 1/8" = 1'-0"



PROPOSED ELECTRICAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

Bd

birse design inc.

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palm beach gardens, fl 33418  
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fax 561-219-8884  
AA26001615

S.F.W.M.D.

2101 CENTRE PARK WEST DRIVE  
SUITE #110  
WEST PALM BEACH, FL 33401

PROJECT NUMBER 21013

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LAKELAND, FL 33809 C.A.#009078  
RONALD D. GILMAN P.E.#37933







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2101 CENTRER PARK WEST DRIVE  
SUITE #110  
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PROJECT NUMBER 21013

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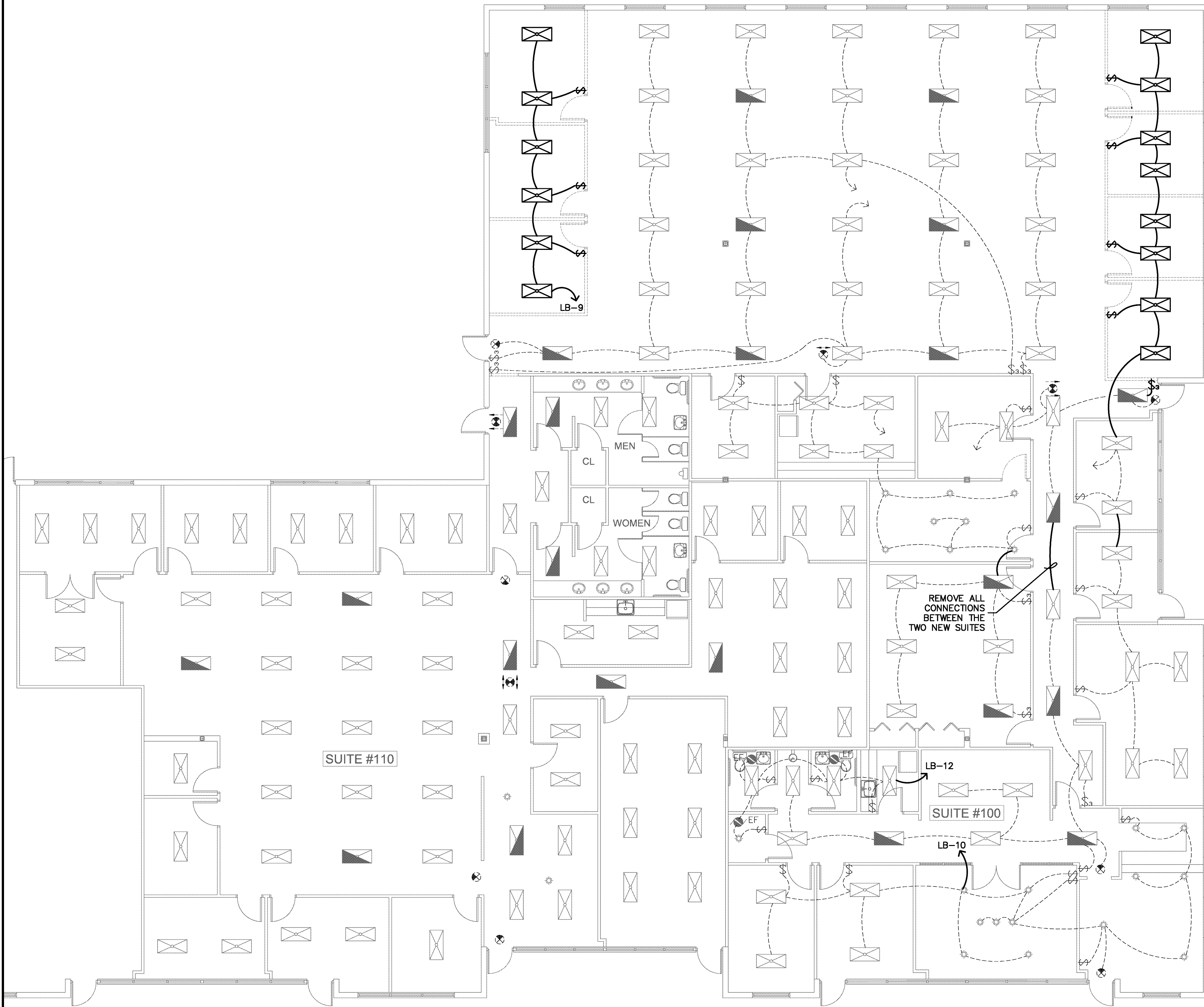
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Lakeland, FL 33860 C.A. #009078  
RONALD D. GILMAN P.E. #37553

ELECTRICAL PLAN - MECHANICAL EQUIPMENT  
SCALE: 1/8" = 1'-0"



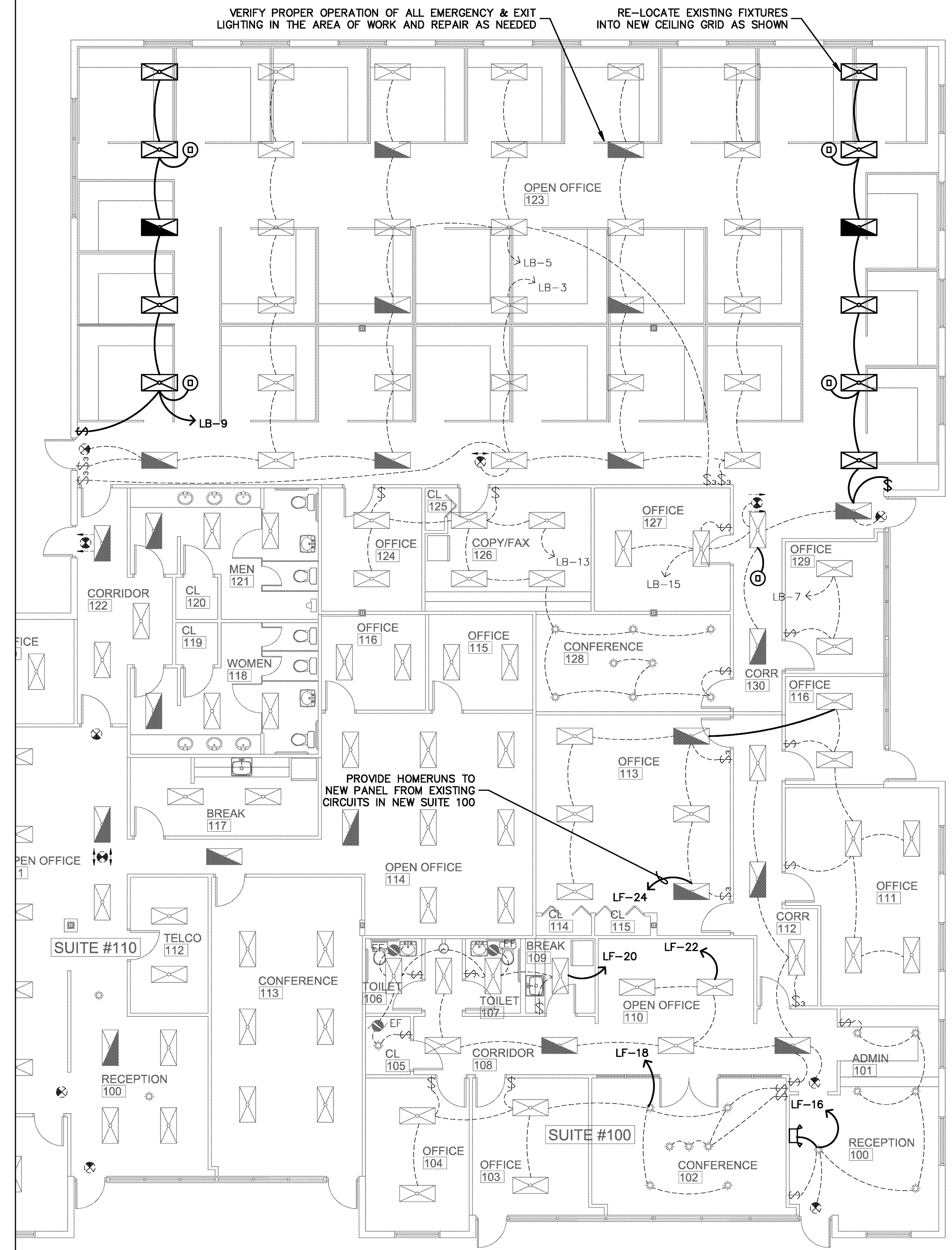
**EXISTING LIGHTING FLOOR PLAN**

SCALE: 1/8" = 1'-0"

OCCUPANCY SENSORS SHALL TURN OFF THE SPACE LIGHTING WITHIN 30 MINUTES OF AN OCCUPANT LEAVING THE SPACE, IN ACCORDANCE WITH FBC 13-415.AB.1.1

THE CONTRACTOR IS RESPONSIBLE TO SET ALL OCCUPANCY SENSORS TO THE MAXIMUM ALLOWABLE DURATION

ALL OCCUPANCY SENSORS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE POWER PACKS, RELAYS, AND ANY OTHER ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERATION SYSTEM AS SHOWN, INCLUDING CONTROL OF MULTIPLE CIRCUITS AND 120 OR 277 VOLT SYSTEMS WHERE INDICATED.



**PROPOSED LIGHTING FLOOR PLAN**

SCALE: 1/8" = 1'-0"

**LIGHTING POWER COMPLIANCE**  
(PER TABLE 13-415.2.B, FBC CHAPTER 13)

SPACE TYPE	TOTAL AREA (SQ.FT.)	ALLOWANCE PER SQ.FT.	SUB-TOTAL ALLOWANCE	DESIGN
OFFICE	1,030	1.1	1,133	1,012
<b>TOTAL</b>			<b>1,133</b>	<b>1,012</b>

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## EXISTING PANEL

TYPE: CUTLER HAMMER CH										MAIN BUS: 225 AMP				
SERVICE: 120/208, 3Ø, 4W										NEUTRAL: FULL				
MOUNTING: FLUSH										MAINS: LUGS ONLY				
POLES: 42										A.I.C. 10K				
DEM. KVA	OTHER KVA	TRIP POLE	CON-DUIT	WIRE	REMARKS	CKT. NO.	CKT. NO.	REMARKS	WIRE	CON-DUIT	TRIP POLE	OTHER KVA	DEM. KVA	
					SPARE	1	2							
					SPARE	3	4	PANEL LD			100-3	19.5		
0.4			1/2	12	RECEPTACLES	5	6							
					SPARE	7	8							
0.7					RECEPTACLES	9	10	PANEL LC			100-3	23.3	4.3	
					SPACE	11	12							
					SPACE	13	14	PARTITION RECEPTACLES	12	1/2	20-1	1.1		
0.5		20-1	1/2	12	PARTITION RECEPTACLES	15	16	PARTITION RECEPTACLES			20-1	1.1		
0.5		20-1			PARTITION RECEPTACLES	17	18	PARTITION I.G. RECEPTS.			20-1	1.1		
0.5		20-1			PARTITION I.G. RECEPTS.	19	20	PARTITION RECEPTACLES			20-1	1.1		
0.9		20-1			PARTITION RECEPTACLES	21	22	PARTITION RECEPTACLES			20-1	1.1		
0.9		20-1			PARTITION RECEPTACLES	23	24	PARTITION I.G. RECEPTS.			20-1	1.1		
0.9		20-1			PARTITION I.G. RECEPTS.	25	26	SPACE						
0.7		20-1			PARTITION RECEPTACLES	27	28	SPACE			20-1			
0.7		20-1			PARTITION RECEPTACLES	29	30	SPACE			20-1			
0.7		20-1			PARTITION I.G. RECEPTS.	31	32	SPACE			20-1			
0.5		20-1			PARTITION RECEPTACLES	33	34	SPACE						
0.5		20-1			PARTITION RECEPTACLES	35	36	SPACE						
0.5		20-1			PARTITION I.G. RECEPTS.	37	38	COPY MACHINE	12	1/2	20-1	1.0		
					SPACE	39	40	SPACE						
					SPACE	41	42	SPACE						
8.9	-				FIRST 10 KVA GEN. RECEPTACLE LOAD:			10.0 KVA				43.8	10.9	
					REMAINDER @ 50%:			9.8 X 0.5 = 4.9 KVA						
					NO-DEMAND LOAD:			43.8 KVA						
ISOLATED AND NON-ISOLATED GROUND BUS										TOTAL DEMAND LOAD: 58.7 KVA = 163 AMPS				

## EXISTING PANEL

TYPE: CUTLER HAMMER CH										MAIN BUS: 225A				
SERVICE: 120/208, 3Ø, 4W										NEUTRAL: FULL				
MOUNTING: FLUSH										MAINS: LUGS ONLY				
POLES: 42										A.I.C. 10K				
DEM. KVA	OTHER KVA	TRIP POLE	CON-DUIT	WIRE	REMARKS	CKT. NO.	CKT. NO.	REMARKS	WIRE	CON-DUIT	TRIP POLE	OTHER KVA	DEM. KVA	
					RECEPTACLES	1	2							
0.7		20-1				3	4	AHU-4			60-3	14.0		
						5	6							
						7	8							
						9	10	CU-4			40-3	(8.5)		
					SPACE	11	12							
					SPACE	13	14	SPACE						
					SPACE	15	16	SPACE						
					SPACE	17	18	SPACE						
					SPACE	19	20	SPACE						
					SPACE	21	22	SPACE			20-2			
					SPACE	23	24	SPACE			20-2			
					SPACE	25	26	SPACE			20-2			
					SPACE	27	28	SPACE						
					SPACE	29	30	AHU-10	10	1/2	30-2	4.3		
					SPACE	31	32	SPACE						
					SPACE	33	34	CU-10	10	1/2	30-2	(3.5)		
					SPACE	35	36	SPACE						
		20-1			SPACE	37	38	OFFICE 127 RECEPTACLES	12	1/2	20-1	0.5		
					SPACE	39	40	SPACE						
					SPACE	41	42	SPACE						
-	0.7											18.8	-	
TOTAL DEMAND LOAD: 19.5 KVA = 54 AMPS														

## EXISTING PANEL

TYPE: CUTLER HAMMER CH										MAIN BUS: 225 AMP				
SERVICE: 120/208, 3Ø, 4W										NEUTRAL: FULL				
MOUNTING: FLUSH										MAINS: LUGS ONLY				
POLES: 42										A.I.C. 10K				
DEM. KVA	OTHER KVA	TRIP POLE	CON-DUIT	WIRE	REMARKS	CKT. NO.	CKT. NO.	REMARKS	WIRE	CON-DUIT	TRIP POLE	OTHER KVA	DEM. KVA	
					SPACE	1	2	SPACE						
1.4		20-1			LIGHTING	3	4							
1.4					LIGHTING	5	6							
0.2			1/2	12	LIGHTING	7	8							
0.5			1/2	12	LIGHTING	9	10							
1.0			1/2	12	LIGHTING	11	12							
1.4					LIGHTING	13	14							
1.1			1/2	12	LIGHTING	15	16							
					SPACE	17	18							
						19	20							
						21	22	SPACE			20-1			
						23	24	SPACE						
						25	26							
						27	28							
						29	30							
						31	32							
						33	34							
						35	36							
						37	38							
						39	40							
						41	42							
7.0	14.0				LIGHTING: 7.0 X 1.25 = 8.8 KVA			14.0 KVA						
NO-DEMAND LOAD:										22.8 KVA = 63 AMPS				
TOTAL DEMAND LOAD:														

## EXISTING PANEL

TYPE: CUTLER HAMMER CH										MAIN BUS: 225 AMP				
SERVICE: 120/208, 3Ø, 4W										NEUTRAL: FULL				
MOUNTING: FLUSH										MAINS: LUGS ONLY				
POLES: 42										A.I.C. 10K				
DEM. KVA	OTHER KVA	TRIP POLE	CON-DUIT	WIRE	REMARKS	CKT. NO.	CKT. NO.	REMARKS	WIRE	CON-DUIT	TRIP POLE	OTHER KVA	DEM. KVA	
					SPARE	1	2	RECEPTACLES			20-1		1.1	
0.5					RECEPTACLES	3	4	RECEPTACLES	12	1/2	20-1		0.7	
0.4					RECEPTACLES	5	6	DRINKING FOUNTAIN			20-1	0.5		
1.0					COPY MACHINE	7	8	SPACE			30-2			
					SPACE	9	10							
						11	12	SPACE			20-1			
						13	14	SPACE			20-1			
						15	16	SPACE			20-1			
						17	18	SPACE						
						19	20							
0.4					RECEPTACLES	21	22	PANEL LB			100-3	22.8		
0.2					RECEPTACLES	23	24							
					SPACE	25	26	SPACE						
						27	28							
						29	30							
						31	32							
						33	34							
						35	36							
						37	38							
						39	40							
						41	42							
2.5	-				GENERAL RECEPTACLE LOAD:			4.3 KVA				23.3	1.8	
NO-DEMAND LOAD:										27.6 KVA = 77 AMPS				
TOTAL DEMAND LOAD:														

### PANEL SCHEDULES KEYNOTES

- EXISTING CIRCUIT TO REMAIN AS IS.
- EXISTING CIRCUIT TO BE REMOVED FROM THIS PANEL.
- EXISTING CIRCUIT TO BE MODIFIED AS SHOWN ON FLOOR PLAN.
- CONDENSING UNIT IS NON-COINCIDENT WITH AHU HEAT STRIP.
- PROVIDE NEW CIRCUIT BREAKER, MATCH EXISTING BREAKERS.
- RE-LOCATE CIRCUIT BREAKER FROM EXISTING PANEL "LC" TO NEW PANEL "LF".
- PROVIDE #10 SHARED NEUTRAL FOR MULTI-WIRE BRANCH CIRCUIT, WITH #12 PHASE CONDUCTORS, GROUND WIRE AND ISOLATED GROUND WIRE.

### REVISIONS

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CD

02/08/11

PROJ.# 10-038

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REVISIONS

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02/08/11

## ELECTRICAL LEGEND

- LIGHTING FIXTURE IDENTIFICATION
- RECTANGULAR LIGHTING FIXTURE - AS NOTED
- RECTANGULAR LIGHTING FIXTURE - EXISTING AS NOTED
- ROUND LIGHTING FIXTURE
- DIRECTIONAL LIGHTING FIXTURE
- WALL MOUNTED LIGHTING FIXTURE
- LINEAR STRIP LIGHTING FIXTURE
- EXIT LIGHT WITH EMERGENCY BATTERY BACKUP
- DUAL-LITE L22 EMERGENCY LIGHTING FIXTURE WITH BATTERY BACKUP
- RECTANGULAR LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP
- ROUND LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP
- DUPLEX RECEPT - 20 AMP (18" A.F.F.)
- SINGLE RECEPT - 20 AMP (18" A.F.F.)
- DUPLEX RECEPT MOUNTED ABOVE COUNTER - 20 AMP (42" A.F.F.)
- DUPLEX RECEPT FLUSH FLOOR MOUNTED - 20 AMP
- SPECIAL PURPOSE RECEPT (18" A.F.F. - MATCH EQUIPMENT PROVIDED)
- QUAD-PLEX RECEPT - 20 AMP (18" A.F.F.)
- SINGLE POLE TOGGLE SWITCH, 48" AFF
- 3-WAY TOGGLE SWITCH, 48" AFF
- SLIDE TYPE DIMMER SWITCH, WATTAGE AS REQUIRED, 48" AFF
- JUNCTION BOXES
- FUSIBLE DISCONNECT (SWITCH POLES, AMPS/FUSES AS SHOWN)
- MOTOR RATED SWITCH (WITH OVERLOADS)
- ELECTRICAL PANELBOARD
- MOTOR LOAD
- CIRCUIT HOME RUN TO PANELBOARD OR OTHER DEVICE AS INDICATED
- CONDUIT CONCEALED
- EXISTING CIRCUIT AS NOTED
- CAPPED CONDUIT
- TELEVISION OUTLET (18" A.F.F.)
- TELEPHONE/DATA OUTLET (18" A.F.F.)
- TEL/DATA OUTLET FLUSH FLOOR MOUNTED
- EXISTING DUPLEX RECEPTACLE OUTLET BOX TO REMAIN.
- EXISTING TELEPHONE/DATA OUTLET BOX TO REMAIN
- E EXISTING DEVICE TO REMAIN, UNLESS NOTED OTHERWISE
- R EXISTING DEVICE, RELOCATED AS SHOWN
- D EXISTING DEVICE TO BE DEMOLISHED OR RELOCATED
- OCCUPANCY SENSOR WITH MANUAL SWITCH, HUBBELL LHMTS1, 48" AFF
- OCCUPANCY SENSOR, CEILING MOUNT, HUBBELL OMNI DT-2000

## ELECTRICAL NOTES

- DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT. CONFIRM WITH OWNERS REPRESENTATIVE.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE NFPA-70 (2008), THE LIFE SAFETY CODE NFPA-101 (2006), THE NATIONAL FIRE ALARM CODE NFPA-72 (2002), AND THE FLORIDA BUILDING CODE (FBC 2007 WITH 2009 SUPPLEMENTS).
- MINIMUM WIRE SIZE SHALL BE #12 A.W.G. EXCLUDING CONTROL WIRING. UNLESS OTHERWISE NOTED ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.
- OUTLET BOXES SHALL BE SHEET STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS AND SPECIAL ENCLOSURES AS REQUIRED FOR OTHER CLASSIFIED AREAS.
- DISCONNECT SWITCHES SHALL BE H.P. RATED, HEAVY DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
- MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC, WITH OVERLOAD RELAYS IN EACH HOT LEG.
- IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C.
- ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE, AND ACCEPTED BY ENGINEER/ARCHITECT.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
- CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, AND TESTING.
- THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES.
- FURNISH AND INSTALL DISCONNECT SWITCHES AND WIRING FOR AIR CONDITIONING SYSTEM AS PER MANUFACTURERS RECOMMENDATIONS. CONTROLS ARE TO BE SUPPLIED BY AIR CONDITIONING CONTRACTOR AND CONNECTED BY ELECTRICAL CONTRACTOR.
- ALL RACEWAYS UNDERGROUND SHALL BE A MINIMUM OF 3/4" CONDUIT.
- ALL CIRCUIT BREAKERS, TWO AND THREE POLE, TO BE COMMON TRIP. NO TIE HANDLES, OR TANDEMS WILL BE ACCEPTED.
- ALL FUSES, UNLESS NOTED ON DRAWING, SHALL BE CURRENT LIMITING (C.L.) RATED FOR 200,000 A.I.C.
- ALL ELECTRICAL EQUIPMENT, DEVICES, WIRE, ETC., SHALL BE LISTED, FOR THE INTENDED USE, WITH UNDERWRITER'S LABORATORIES, INC. (UL), WHERE STANDARDS HAVE BEEN ESTABLISHED BY UL.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN, ON SITE, A DETAILED AS-BUILT PLAN SHOWING ACTUAL INSTALLATIONS. THE CONTRACTOR IS TO PROVIDE A NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS UPON COMPLETION, WHICH ARE SUITABLE FOR SUBMISSION TO THE BUILDING DEPARTMENT AND THE OWNER.
- ALL WIRING IS TO BE IN CONDUIT, EXCEPT THAT METAL CLAD (MC) CABLES MAY BE USED FOR FINAL CONNECTIONS TO RECESSED LIGHTING FIXTURES AND 30 AMP MAXIMUM BRANCH CIRCUITS.

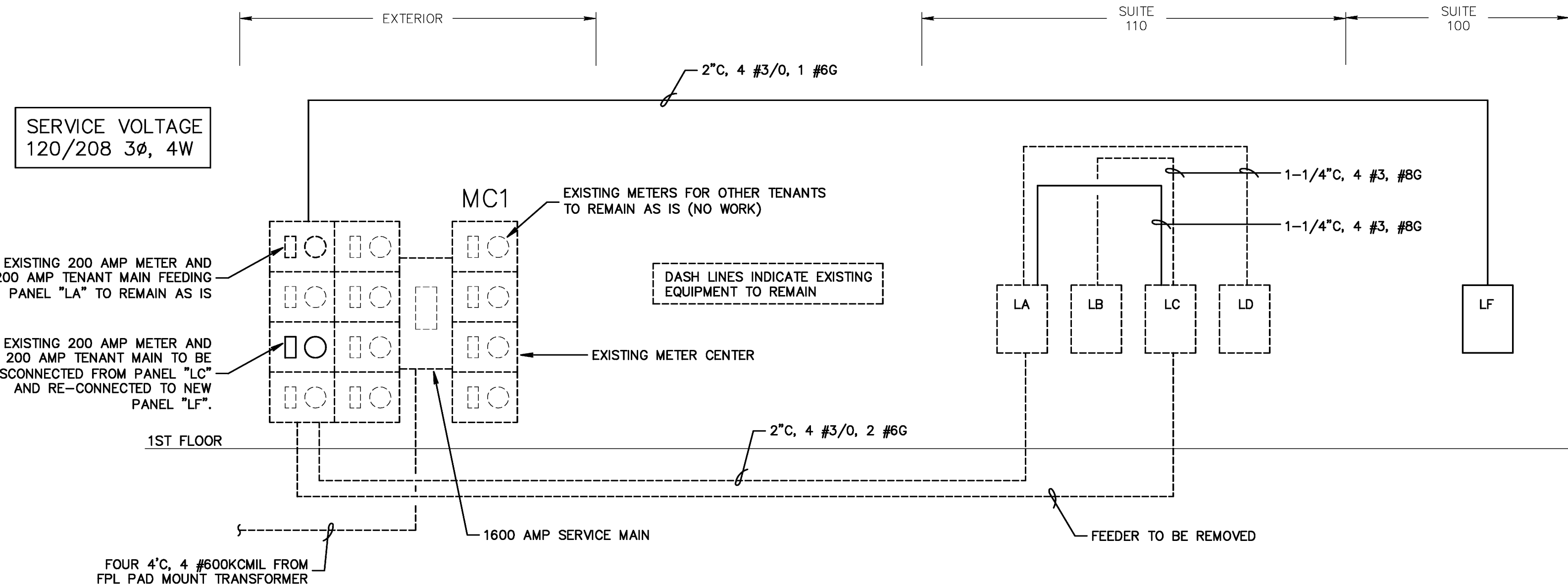
TYPE: CUTLER HAMMER CH		MAIN BUS: 225 AMP											
SERVICE: 120/208, 3Ø, 4W		NEUTRAL: FULL											
MOUNTING: FLUSH		MAINS: LUGS ONLY											
POLES: 42		A.I.C.: 10K											
DEM. KVA	OTHER KVA	TRIP POLE	CON-DUIT	WIRE	REMARKS	CKT. NO.	CKT. NO.	REMARKS	WIRE	CON-DUIT	TRIP POLE	OTHER KVA	DEM. KVA
	0.4	20-1	1/2	12	RECEPTACLES	1	2	APPLIANCE CKT. BREAK RM.	12	1/2	20-1	1.5	
	1.1				RECEPTACLES	3	4	BATH RECEPTACLES				0.4	
	0.7				RECEPTACLES	5	6	DRINKING FOUNTAIN				0.5	
	0.9				RECEPTACLES	7	8	REFRIGERATOR				0.8	
	1.1				RECEPTACLES	9	10	VENDING				0.8	
	0.2				RECEPTACLES	11	12	SPARE					
	0.4				RECEPTACLES	13	14	SPARE					
	1.1				RECEPTACLES	15	16	LIGHTING				0.6	
	0.4				RECEPTACLES	17	18	LIGHTING				1.1	
	1.1				RECEPTACLES	19	20	LIGHTING				0.6	
	1.1				RECEPTACLES	21	22	LIGHTING				0.9	
	0.4				RECEPTACLES	23	24	LIGHTING				1.1	
					SPACE	25	26	SPARE					
					SPACE	27	28	SPARE					
					SPACE	29	30	SPARE					
					SPACE	31	32	SPARE					
⑥	10.5	60-2	1	6	AHU-2	33	34	CU-2	8	3/4	50-2	(5.3)	④⑥
						35	36						
						37	38						
⑥	14.0	60-3	1	6	AHU-1	39	40	CU-1	8	3/4	50-3	(11.2)	④⑥
						41	42						
	33.4											4.0	4.3

LIGHTING: 4.3 X 1.25 = 5.4 KVA  
NO-DEMAND LOAD: 37.4 KVA  
TOTAL DEMAND LOAD: 42.8 KVA = 119 AMPS

(SEE SHEET E-4 FOR PANEL SCHEDULE KEYNOTES)

## GENERAL DEMOLITION NOTES

- UNLESS OTHERWISE NOTED, ALL EQUIPMENT, WIRING DEVICES, LIGHT FIXTURES, CONDUIT AND WIRE IN THE PROJECT AREA WHICH IS NOT INDICATED TO REMAIN, IS TO BE REMOVED. THE CONTRACTOR SHALL INVESTIGATE THE PROJECT AREA PRIOR TO BID TO DETERMINE ALL REQUIRED DEMOLITION.
- EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE TAKEN FROM ORIGINAL DRAWINGS AND FIELD INVESTIGATION. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. FIELD CONDITIONS SHALL GOVERN.
- DEMOLITION WORK IS NOT SPECIFICALLY IDENTIFIED ON THESE PLANS, AND MAY BE DESCRIBED ON THE ARCHITECTS PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.
- ALL CONDUITS SERVING OTHER SPACES OR FLOORS, THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES.
- ALL ITEMS REMOVED UNDER THIS PROJECT SHALL BE DISPOSED OF OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.
- PROPERLY REMOVE AND DISPOSE OF ALL ELECTRICAL EQUIPMENT, CONDUIT AND WIRING WHICH IS TO BE REMOVED. CONSULT WITH OWNER AND OBTAIN THE OWNERS APPROVAL PRIOR TO DISPOSAL OF REMOVED MATERIAL.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL CONDUITS, NEW OR EXISTING, WITHIN THE PROJECT AREA, ARE PROPERLY SUPPORTED AND PROVIDED WITH BONDING BUSHINGS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.



ELECTRICAL RISER DIAGRAM  
SCALE: NONE

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