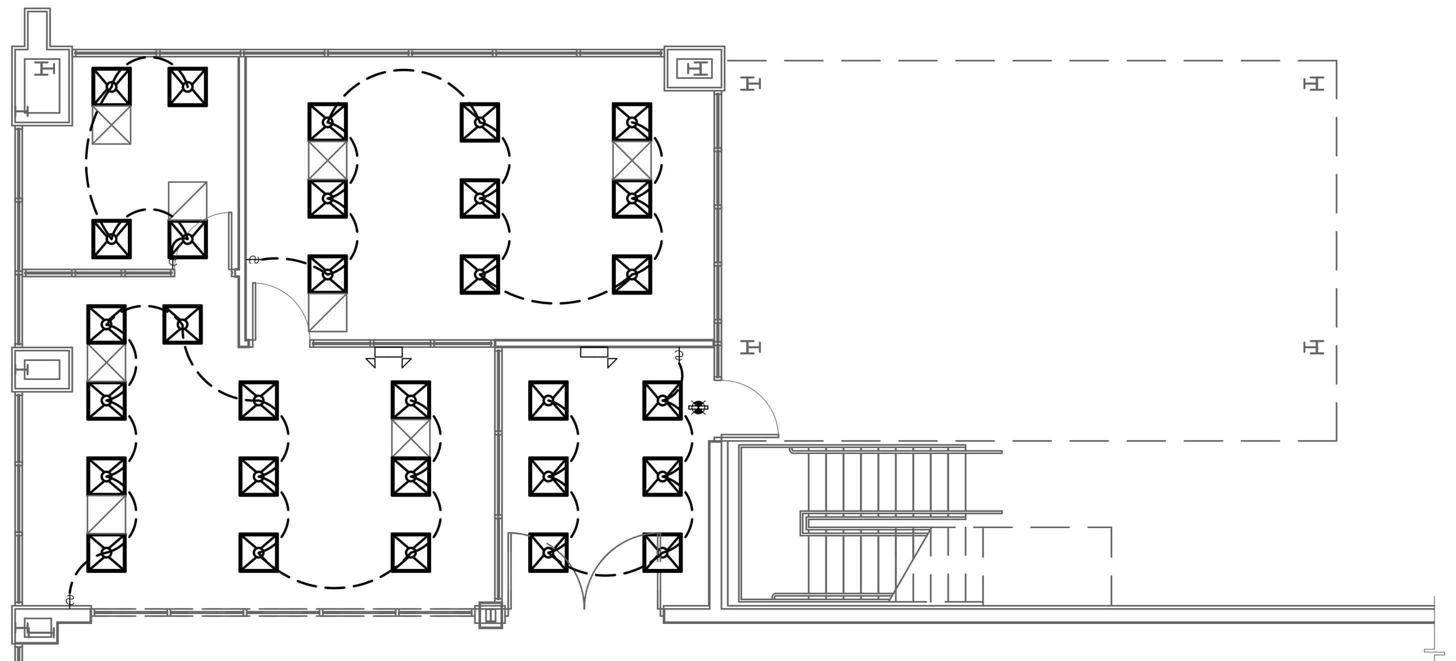


7 ELECTRICAL PLAN - LIGHTING
SCALE: 1/8" = 1'-0"

EXISTING PANEL: D
LOCATION: ELECTRICAL CLOSET
FEEDER SOURCE: MDP

VOLTAGE: 120/208V, 400A 3Φ, 4W
ENCLOSURE: PANELBOARD, SURFACE MOUNTED

CKT. NO.	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (VA)	LOAD (VA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT. NO.
1		EXISTING CB	80	3			3	60	EXISTING CB		2
3											4
5											6
7		EXISTING CB	40	3			2	20	EXISTING CB		8
9											10
11							1	20	EXISTING CB		12
13		EXISTING CB	20	1			1	20	EXISTING CB		14
15		EXISTING CB	20	1			1	20	EXISTING CB		16
17		EXISTING CB	100	3			1	20	EXISTING CB		18
19							1	20	EXISTING CB		20
21									BLANK		22
23		BLANK							BLANK		24
25	#8	* NEW 4 TON AHU W/5.6KW HEAT	40	2	4,000	2,964	1	50	* NEW 4 TON A/C CONDENSER	#6	26
27					4,000	2,964					28
29	#12	NEW OFFICE RECEPTACLES	20	1	720	1,440	1	20	# NEW CUBICLE CIRCUIT	#12	30
31	#12	NEW OFFICE RECEPTACLES	20	1	720	1,440	1	20	# NEW CUBICLE CIRCUIT	#12	32
33	#12	NEW OFFICE RECEPTACLES	20	1	1,260	1,440	1	20	# NEW CUBICLE CIRCUIT	#12	34
35	#12	NEW OFFICE LIGHTS	20	1	1,400	1,152	1	20	NEW OFFICE LIGHTS	#12	36
37	#12	NEW OFFICE LIGHTS	20	1	1,280						38
39		SPARE	20	1							40
41		SPARE	20	1							42

SOLID NEUTRAL
NEUTRAL WIRE (W)

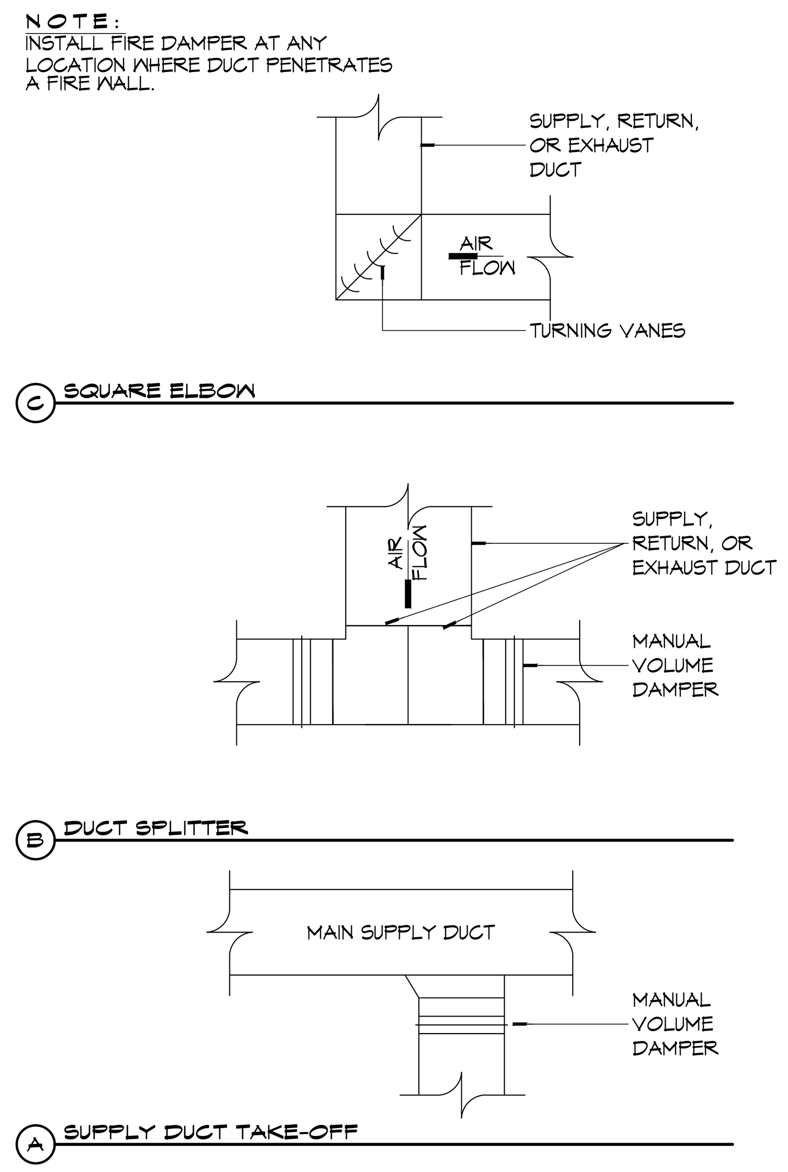
TOTAL CONNECTED LOAD (VA) =

GROUND BUS
GROUND WIRE (G)

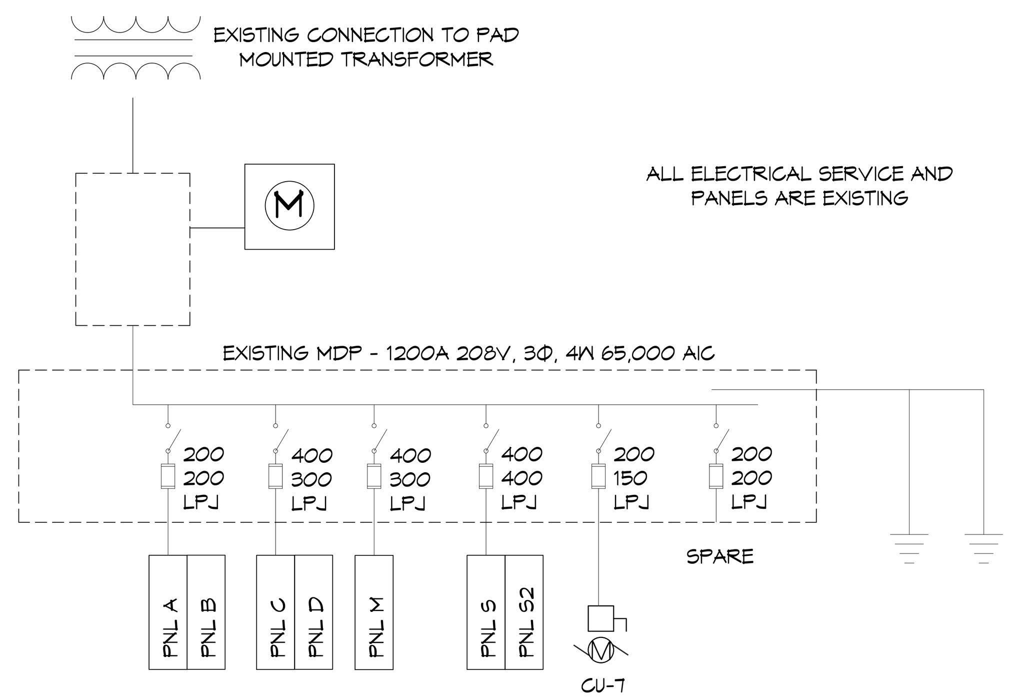
* - INSTALL BREAKER TO MATCH EQUIPMENT INSTALLED.

- INSTALL ISOLATED GROUNDS.

5 EXISTING PANEL D
SCALE: NTS



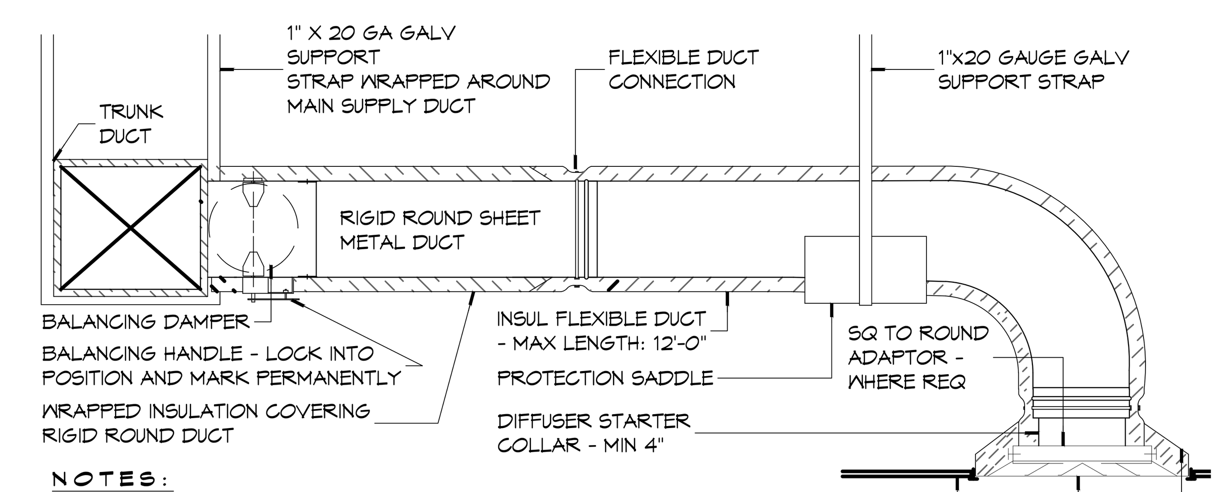
6 DETAILS
SCALE: NTS



4 ONE-LINE DIAGRAM
SCALE: NTS
EXISTING ELECTRICAL SERVICE

GENERAL ELECTRICAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE GOVERNING ELECTRICAL CODE AND ALL OTHER INSPECTION DEPARTMENTS HAVING JURISDICTION. OBTAIN CERTIFICATES OR APPROVAL WHERE REQUIRED. ELECTRICAL CONTRACTOR SHALL VERIFY ALL WIRE AND CONDUIT SIZES FOR MECHANICAL EQUIPMENT TO BE INSTALLED.
2. ALL MATERIALS FURNISHED SHALL BE NEW AND SHALL BE U.L. LISTED.
3. THE DRAWINGS INDICATE SIZE AND GENERAL LOCATION OF WORK. SCALE DIMENSIONS SHALL NOT BE USED. THE EXACT LOCATION OF ALL LIGHTING FIXTURES, RECEPTACLES AND TELEPHONE OUTLETS, ETC. SHALL BE DETERMINED BY ACTUAL CONDITIONS IN THE FIELD.
4. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AND WITH OTHER CONTRACTORS WHOSE WORK MAY AFFECT THIS INSTALLATION.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE THE TELEPHONE INSTALLATION WITH THE TELEPHONE COMPANY AND THE GENERAL CONTRACTOR.
6. WHERE MORE THAN ONE SWITCH OCCURS IN THE SAME LOCATION, THEY SHALL BE INSTALLED IN A GANG TYPE BOX UNDER ONE COVER PLATE.
7. ELECTRICAL CONTRACTOR, BEFORE INSTALLING ANY OF THE WORK, SHALL SEE THAT IT DOES NOT INTERFERE WITH CLEARANCES REQUIRED FOR FINISHED COLUMNS, HUNG CEILINGS, PLASTER, PARTITIONS, WALLS, ETC. AS SHOWN IN THE ARCHITECTURAL DRAWINGS AND DETAILS. IF ANY WORK IS INSTALLED AND IT LATER DEVELOPS THAT SUCH DETAILS OR DESIGN CANNOT BE FOLLOWED, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL MAKE SUCH CHANGES IN THE WORK AS DIRECTED BY THE ARCHITECT, AS WELL AS TO PERMIT THE INSTALLATION OF THE ARCHITECTURAL WORK AS SHOWN ON THE PLANS AND DETAILS.
8. PERFORM TEST REQUIRED BY THE OWNER OR THE ENGINEER IN CONNECTION WITH THE OPERATION OF THE ELECTRICAL SYSTEM IN THE BUILDING. ALL TESTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST STANDARD OF THE IEEE AND THE NATIONAL ELECTRICAL CODE.
9. MINIMUM CONDUCTOR SIZE SHALL BE #12, 600V INSULATION. MINIMUM SIZE CONDUIT SHALL BE 3/4" ELECTRICAL METALLIC TUBING (EMT) FOR INTERIOR USE, AND 3/4" RIGID ALUMINUM FOR EXTERIOR USE. IN STEEL FRAMING AREAS THE USE OF EMT (MINIMUM) IS REQUIRED; EXTERIOR FITTINGS SHALL BE CAST BOXES AND COVERS. INTERIOR FITTINGS SHALL BE STAMPED BOXES.
10. CONTRACTOR SHALL INSTALL WIRING AND OTHER CIRCUIT COMPONENTS TO MATCH EQUIPMENT ACTUALLY INSTALLED.
11. INSTALL GROUND FAULT RECEPTACLES AT RECEPTACLE LOCATIONS WITHIN 5' OF SINKS OR LAVATORIES, AND AT EXTERIOR LOCATIONS. EXTERIOR RECEPTACLES SHALL ALSO BE WATERPROOF.
12. BONDING AND GROUNDING SHALL BE IN ACCORDANCE WITH NFPA 70:230-63, NFPR 250-23, 250-71 & 250-72.
13. GROUND NEUTRAL IN ACCORDANCE WITH NFPA 70:250-23b.
14. FUSES SHALL BE ITT CLASS K5, 250 VOLT, 200,000 AMP INTERRUPTING CAP.
15. EXTERIOR LIGHTING SHALL BE SHADED OR INWARDLY DIRECTED IN SUCH A MANNER SO THAT NO DIRECT LIGHTING OR GLARE IS CAST BEYOND THE PROPERTY LINE. THE INTENSITY OF SUCH LIGHTING SHALL NOT EXCEED ONE FOOT CANDLE AS MEASURED AT THE ABUTTING PROPERTY LINE.
16. ALL ELECTRICAL, MECHANICAL AND PLUMBING PENETRATING FIRE PARTITIONS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E814.)



NOTES:
1. PROVIDE AT FLEXIBLE DUCT CONNECTION "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX.
2. PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
3. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

3 DETAIL
SCALE: NTS
TYPICAL NON-RATED CEILING DIFFUSER

GENERAL HVAC NOTES

1. CONCEALED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, MIN R-6. INSTALLED PER SMACNA STANDARDS.
2. EXPOSED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, MIN R-6. INSTALLED PER SMACNA STANDARDS.
3. ROUND FLEXIBLE DUCT TO BE UL-181, CLASS 1, AIR DUCT MATERIALS.
4. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
5. IN ALL SYSTEMS OVER 2000 CFM AND LESS THAN 15,000 CFM, SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72E IN THE RETURN DUCT DOWNSTREAM OF THE AIR HANDLING UNIT AND ALL FILTERS TO AUTOMATICALLY STOP THE FAN.
6. PROVIDE UL LISTED 125 'F' FIRESTAT IN RETURN AIR OF EACH SYSTEM UNDER 2000 CFM TO SHUT DOWN THE FAN IN THE EVENT OF FIRE.
7. PROVIDE UL RATED FIRE DAMPERS WHERE REQUIRED AT ALL DUCT PENETRATIONS OF FIRE-RATED ASSEMBLIES AND WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES AND EXHAUST FANS.
8. CONDENSATE DRAINS TO BE PVC PIPE RUN TO PLUMBERS P-TRAP WITHIN FIVE FEET OF AIR HANDLING UNITS.
9. ALL AIR HANDLING SYSTEMS TO BE BALANCED TO ASSURE PROPER AIR FLOWS PER PLANS.
10. ALL THERMOSTATS TO BE AUTOMATIC CHANGEOVER WITH HEAT SWITCH.
11. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS AT THE REGISTER.
12. FRESH AIR SHALL BE SUPPLIED TO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER.
13. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E8-14).
14. ALL MECHANICAL SYMBOLS ARE DRAWN DIAGRAMMATICALLY. CONTRACTOR TO VERIFY WITH OWNER LOCATIONS OF VENTS, DAMPERS, REGISTERS, ETC.
15. FLEXIBLE DUCTWORK LENGTH NOT TO EXCEED 12'-0".
16. REFER TO REFLECTED CEILING PLAN FOR FINAL GRILLE AND DIFFUSER LOCATIONS AND COORDINATE AS REQUIRED.
17. FINAL LOCATION OF TEMPERATURE CONTROLS TO BE COORDINATED WITH OWNER AT JOB SITE.
18. PROVIDE AND INSTALL SMOKE DETECTORS AS APPROVED BY LOCAL AHJ'S. PLACE NEAR R/A AND S/A OPENINGS OF AHU AND PROVIDE, WITH ACCESS PANEL, WIRING BY ELECTRICAL CONTRACTOR.
19. FRESH AIR INTAKES ARE REQUIRED TO HAVE MOTORIZED DAMPERS TO SHUT OFF WHEN SYSTEM IS NOT RUNNING.
20. PROVIDE BIRD SCREENS AT ALL EXTERIOR MECHANICAL PENETRATIONS.

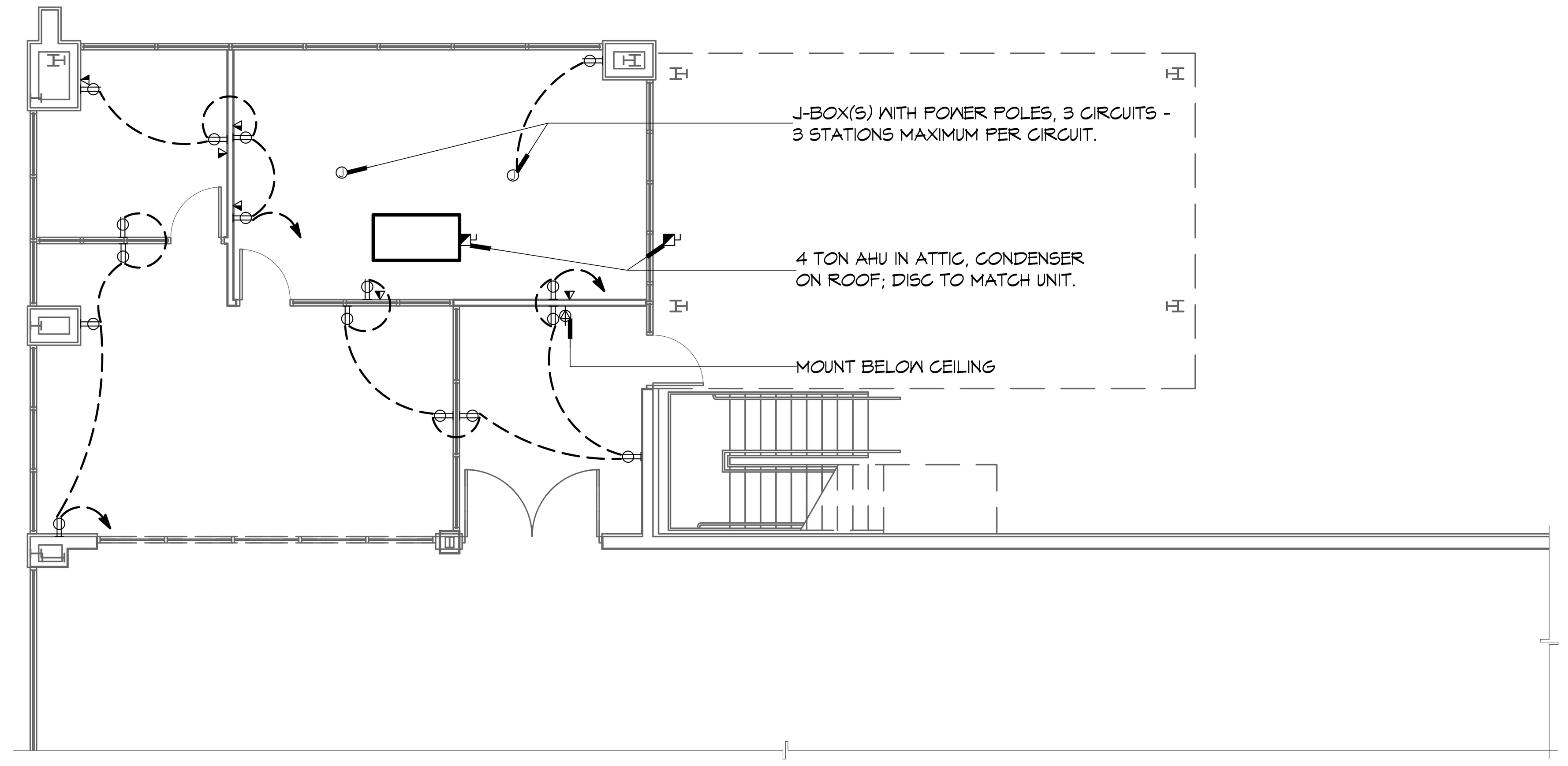
HVAC LEGEND

SUPPLY AIR GRILLE
RETURN AIR GRILLE
Ⓣ THERMOSTAT

ROUND FLEX DUCT, MAX. LENGTH 12'-0", MIN R-6. PROVIDE MANUAL DAMPER AT DIFFUSER CONNECTIONS;
DUCT SIZE AS FOLLOWS:
250CFM TO 350CFM = 9"
200CFM TO 250CFM = 8"
150CFM TO 200CFM = 7"
100CFM TO 150CFM = 6"

ELECTRIC LEGEND

SYMB DESCRIPTION
- STANDARD 120V DUPLEX RECEPTACLE, NEMA 5-2 OR 18" AFF (UNLESS OTHERWISE NOTED)
- SINGLE-POLE DEDICATED RECEPTACLE - REFER TO PANEL SCHEDULE FOR CIRCUIT SIZE
- GFCI DUPLEX RECEPTACLE
- GFCI QUAD RECEPTACLE
- 220V ELECTRIC DRYER RECEPTACLE - MOUNTED AT 30" AFF
- 220V DEDICATED GFCI RECEPTACLE
- WEATHER-PROOF GFCI DUPLEX RECEPTACLE MOUNTED AT 30" AFF (UNLESS OTHERWISE NOTED)
- STANDARD QUAD RECEPTACLE - WALL-MOUNTED
- STANDARD QUAD RECEPTACLE - FLOOR MOUNTED
- CABLE TV
- DATA
- JUNCTION BOX
- FUSED DISCONNECT RATED PER MANUFACTURER RECOMMENDATIONS
- AIR CONDITIONING AIR HANDLING UNIT ON DECK OR MEZZANINE ABOVE, SEE MECHANICAL DRAWINGS
- EXIT LIGHT WITH 90 MIN BACKUP
- EMERGENCY LIGHT WITH 90 MIN BACKUP

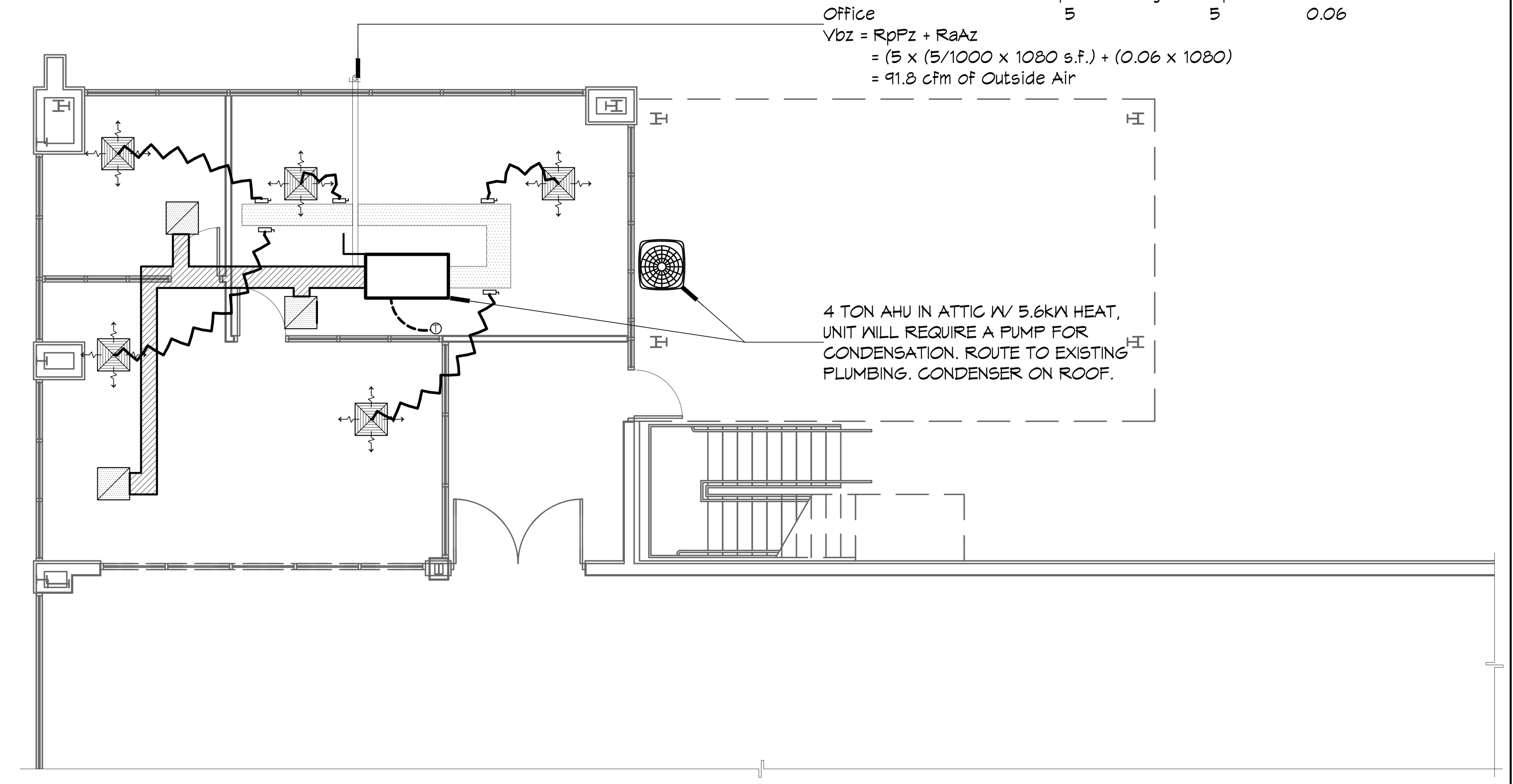


2 ELECTRICAL PLAN - POWER
SCALE: 1/8" = 1'-0"

IMC Table 403.3

Classification	Occupant Density	Rp	Ra
Office	5	5	0.06

Vbz = RpPz + RaAz
= (5 x (5/1000 x 1080 s.f.) + (0.06 x 1080)
= 91.8 cfm of Outside Air



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

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#	DESCRIPTION	DATE
REVISIONS		

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RENOVATIONS TO:
HONDA OF SLIDELL
510 EAST HOWZE BEACH ROAD
SLIDELL, LA 70461

JOB No: 2239 DATE: MAY04, 2015
DRAWN BY: KJK CHECKED BY: CKD

SHEET TITLE:
MECHANICAL AND ELECTRICAL FLOOR PLANS AND DETAILS

DRAWING NUMBER:
ME101

SHEET No: 7 of 7