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IOWA DEPARTMENT OF TRANSPORTATION GRIMES LAB EXHAUST SYSTEM REVISIONS

GRIMES, IOWA
 PROJECT #: BG-5G22(001)-80-77

IOWA DEPARTMENT OF TRANSPORTATION
 GRIMES LAB EXHAUST SYSTEM REVISIONS
 IA DOT PROJECT NUMBER: B-5G22(001)-08-77
 2300 SE 17TH STREET
 GRIMES, IOWA

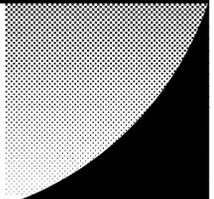
INDEX OF DRAWINGS

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REVISION _____ DATE _____

File: J:\15043 - IDOT W0_13 - Grimes Lab\6-Contract Dwg's\G-101.dwg
 Plotted: 3/25/16 at 3:30pm By: CRobe
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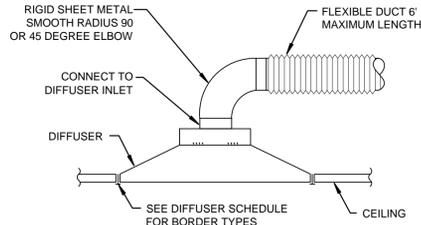
	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. Signature _____ Date _____ SUSAN R. OLTROGGE, P.E. My license renewal date is December 31, 2017 Pages or sheets covered by this seal. ALL MECHANICAL SHEETS Date Issued: 03-25-2016	SHEET TITLE COVER SHEET
	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. Signature _____ Date _____ ROBERT A. HEDGEPEETH, P.E. My license renewal date is December 31, 2017 Pages or sheets covered by this seal. ALL ELECTRICAL SHEETS Date Issued: 03-25-2016	PROJECT LOCATION GRIMES, IOWA PROJECT NUMBER 15043 ISSUE DATE 03/25/2016 SHEET NUMBER G-101



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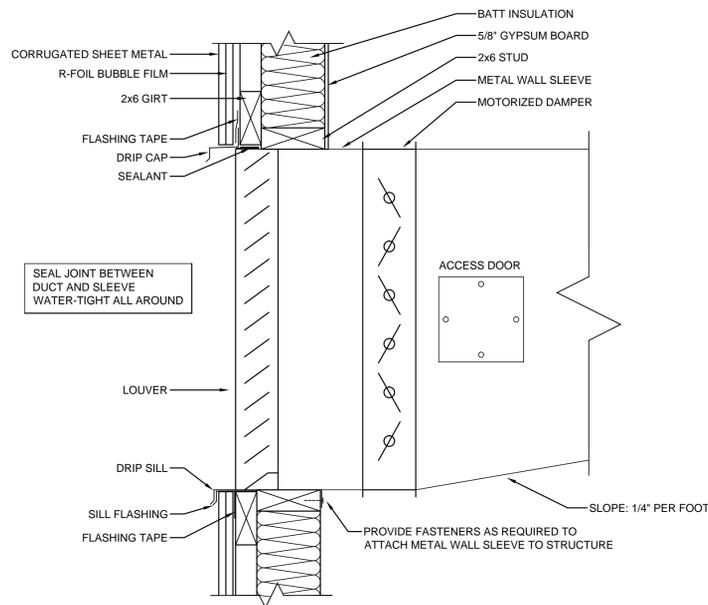
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DIFFUSER, REGISTER, & GRILLE SCHEDULE							
NECK SIZE (INCHES)		FUNCTION (S=SUPPLY; R=RETURN; E=EXHAUST; T=TRANSFER)		MOUNTING (C=CEILING; W=WALL; F=FLOOR; D=DUCT.)		DESIGNATION	
12x12		AB-1		350		SHADED PORTION INDICATES BLANKED OFF SECTION	
DESIGNATION	MANUFACTURER	MODEL NUMBER	DESCRIPTION	MATERIAL	FRAME BORDER	FINISH	REMARKS
SC-1	TITUS	TMSA	HIGH PERFORMANCE 3-CONE DIFFUSER	STEEL	LAY-IN	WHITE	
EC-1	TITUS	PAR	PERFORATED CEILING GRILLE	STEEL	GYPSON	WHITE	



FLEX CONNECTION FROM MAIN DUCT OFF TO SIDE

3 DIFFUSER/ GRILLE CONNECTION



4 WALL LOUVER DETAIL

MECHANICAL DEMOLITION GENERAL NOTES:

- MECHANICAL ENTITIES DRAWN WITH THIS LINETYPE (---) INDICATES ENTITIES TO BE DEMOLISHED, UNLESS OTHERWISE NOTED.
- MECHANICAL ENTITIES SHOWN WITH THIS LINETYPE (---) INDICATES ENTITIES TO REMAIN, UNLESS OTHERWISE NOTED.
- REGARDING EXISTING DUCTWORK AND CONDUIT INDICATED ON DRAWINGS TO BE REMOVED, INCLUDING REMOVAL OF HANGERS, SUPPORTS, AND FASTENERS IN DEMOLITION.

KEYED NOTES - DEMOLITION

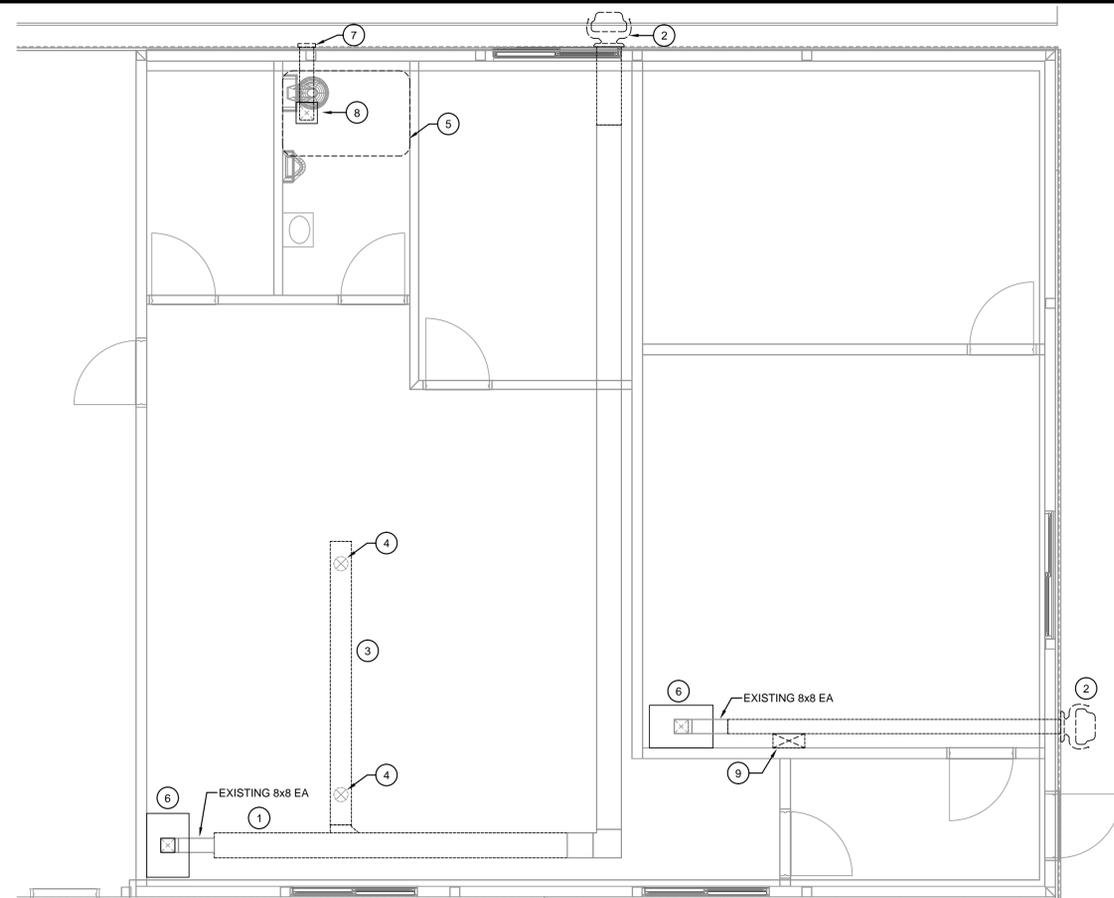
- DEMOLISH EXISTING 14"x14" EXHAUST DUCTWORK.
- REMOVE AND SALVAGE EXISTING WALL MOUNTED EXHAUST FAN FOR OWNER.
- DEMOLISH EXISTING 12"x12" EXHAUST DUCTWORK.
- REMOVE AND SALVAGE EXISTING ADJUSTABLE EXHAUST DUCT CONNECTIONS AT CEILING FOR OWNER. DEMOLISH EXISTING FLEXIBLE DUCT.
- REMOVE 4"x6" SECTION OF EXISTING GYPSUM BOARD CEILING FOR EXHAUST FAN DEMOLITION.
- EXISTING 36"x24" EXHAUST HOOD. SHOWN FOR REFERENCE.
- DEMOLISH EXISTING WALL CAP.
- DEMOLISH EXISTING CEILING MOUNTED EXHAUST FAN.
- DEMOLISH EXISTING 48"x6" EXPOSED VERTICAL DUCT.

MECHANICAL GENERAL NOTES

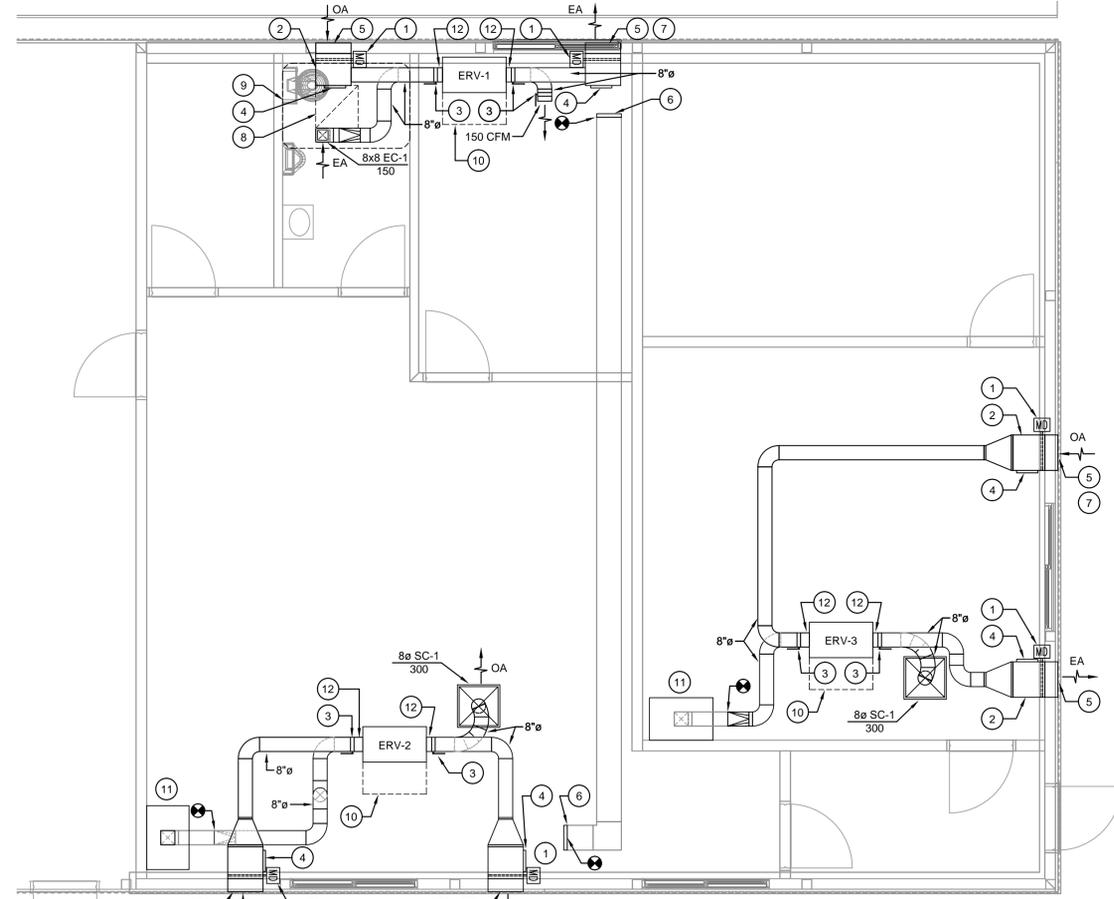
- DRAWINGS SHOWING LOCATIONS OF FIXTURES, EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT ACTUAL INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL PIPING, DUCTWORK, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS, AS REQUIRED. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
- VERIFY SIZE AND LOCATION OF EXISTING PIPING, DUCTWORK AND EQUIPMENT AS IT RELATES TO NEW WORK.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL PIPING AND DUCTWORK WITH ALL DUCTWORK AND OTHER TRADES PRIOR TO COMMENCEMENT OF WORK.
- FURNISH AND INSTALL MECHANICAL PRODUCTS IN COMPLIANCE WITH LOCAL BUILDING CODES AND THE AUTHORITY HAVING JURISDICTION, AND IN ACCORDANCE WITH GENERALLY ACCEPTED INDUSTRY STANDARDS AND PRACTICES AND MANUFACTURER'S RECOMMENDATIONS.
- VERIFY ACTUAL LOCATIONS OF CEILING AND WALL MOUNTED DEVICES WITH ARCHITECTURAL.

KEYED NOTES - NEW WORK

- PROVIDE 20"x18" MOTORIZED DAMPER (ENERGIZED OPEN, SPRING RETURN).
- PROVIDE 20"x18"x18" PLENUM. REFER TO DETAIL ON THIS SHEET.
- PROVIDE 8-INCH ROUND VOLUME DAMPER IN BOTH OUTLET DUCTS.
- PROVIDE 12"x12" ACCESS DOOR IN PLENUM.
- PROVIDE 21"x19" LOUVER INCLUDING METAL SLEEVE, FRAMING, AND FASTENERS TO SECURE TO STRUCTURE. PROVIDE SEALANT AT ALL FOUR EDGES. REFER TO DETAIL ON THIS SHEET FOR MORE INFORMATION.
- PROVIDE 14"x14" DUCT CAP.
- LOUVER TRIM TO MATCH, OR BE SIMILAR TO, ORIGINAL CORRUGATED METAL PANEL MANUFACTURER.
TOP TRIM: DRIP CAP TYPE
SIDE TRIM: J-TRIM TYPE
BOTTOM TRIM: EXTENDED SILL
TRIM COLOR: WHITE STONE
- PROVIDE 24"x24" HINGED CEILING ACCESS PANEL: RECESSED ALUMINUM EXTRUSION FRAME, 2-POINT PIN HINGE, SLOTTED CAM LATCH, COLORED WHITE.
- PATCH 4"x6" SECTION OF GYPSUM BOARD CEILING: 5/8" THICK, MUD, TAPE, TEXTURE AND PAINT TO MATCH EXISTING CONDITIONS.
- SERVICE ACCESS ABOVE CEILING SHOWN FOR REFERENCE. SUSPEND UNIT FROM OVERHEAD WITH STRUT, THREADED ROD AND VIBRATION ISOLATION. REFER TO SPECIFICATIONS FOR SCHEDULE INFORMATION.
- EXISTING 36"x24" EXHAUST HOOD. SHOWN FOR REFERENCE.
- PROVIDE 6-INCH LONG 8" FLEX DUCT CONNECTION AT ERV OUTLETS (TYPICAL 4).



1 MECHANICAL DEMOLITION
SCALE: 1/4" = 1'-0"



2 MECHANICAL NEW WORK
SCALE: 1/4" = 1'-0"

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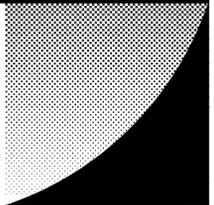
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SHEET TITLE
MECHANICAL PLAN

PROJECT LOCATION: GRIMES, IOWA
PROJECT NUMBER: 15043
ISSUE DATE: 03/25/2016
SHEET NUMBER

M-100

File: J:\15043 - IDOT WO 13 - Grimes Lab\6-Contract Dwg's\M-100.dwg
Plot: 3/25/16 at 3:29pm By: CRobe
XREFs: 15043 - 24x36 Project: Titleblock.dwg BASE - Grimes DOT Lab.dwg
IMAGES:



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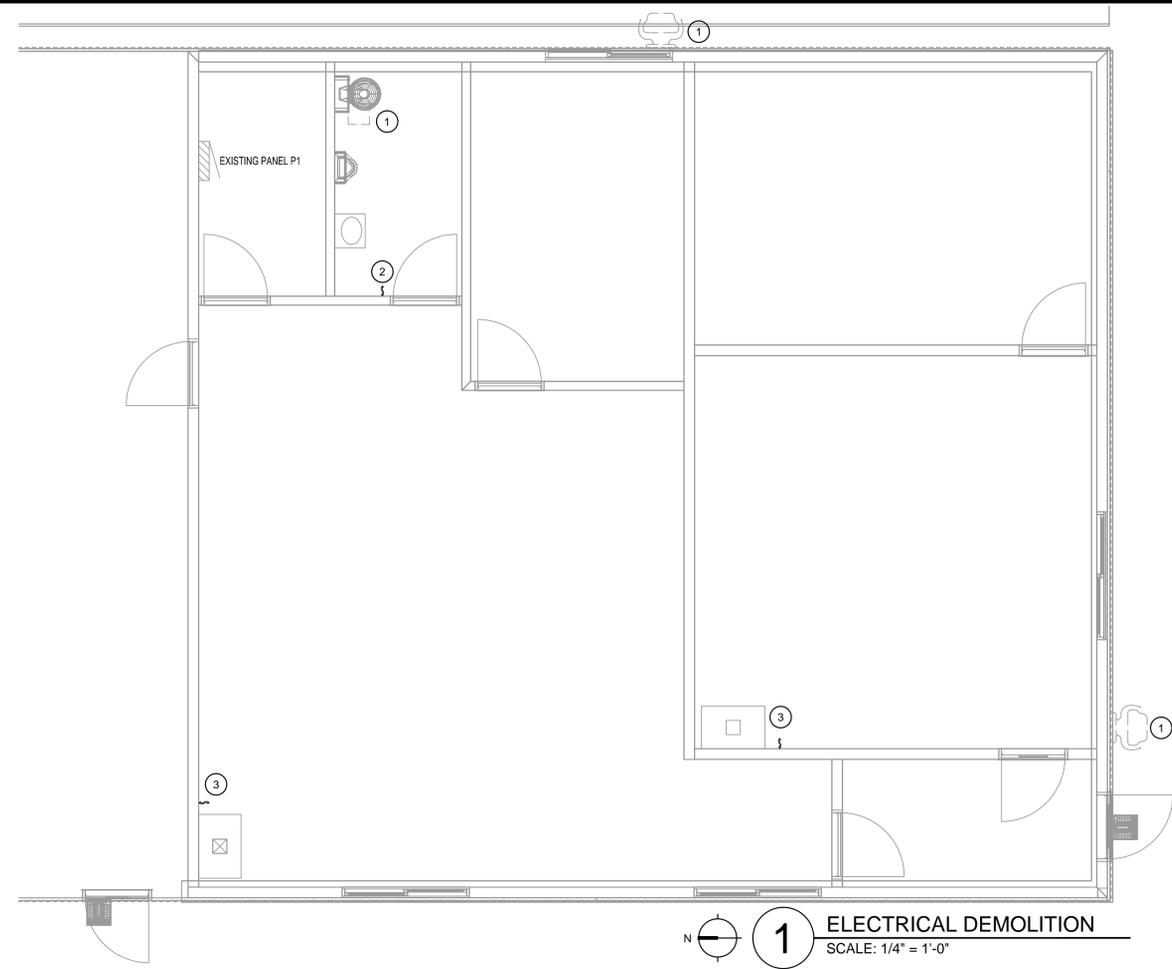
SHEET TITLE
ELECTRICAL PLAN

PROJECT LOCATION GRIMES, IOWA
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ISSUE DATE 03/25/2016
SHEET NUMBER

E-100

KEYED NOTES - DEMOLITION

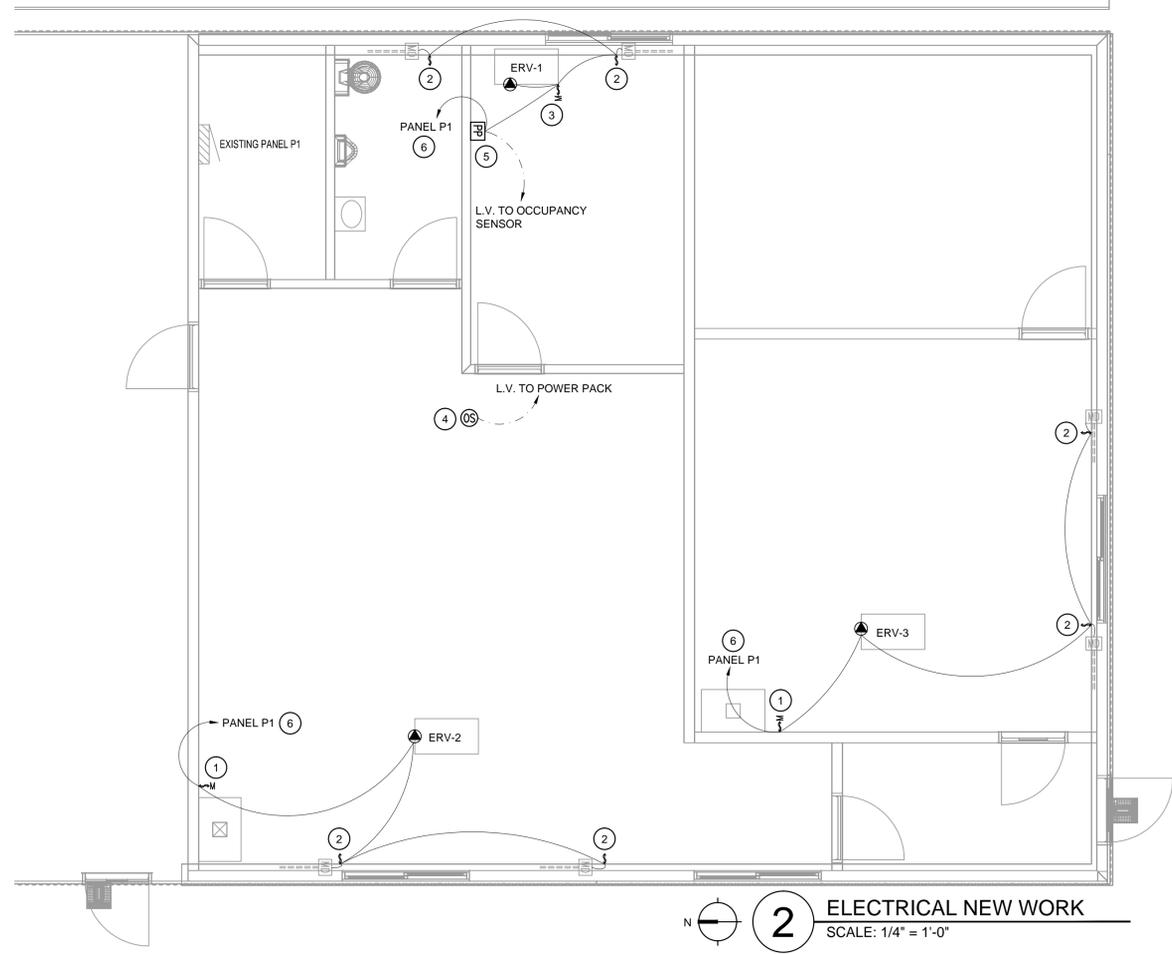
- ① DISCONNECT EXISTING CIRCUIT FOR EXISTING EXHAUST FAN. EXISTING CIRCUIT TO BE REUSED FOR NEW EQUIPMENT.
- ② REMOVE EXISTING WALL SWITCH, TAPE OVER CONDUCTORS, AND PROVIDE BLANK COVER PLATE. EXISTING WALL BOX AND CONDUIT TO REMAIN.
- ③ REMOVE EXISTING WALL SWITCH AND BOX. CONDUIT AND CONDUITS TO REMAIN IN PLACE.



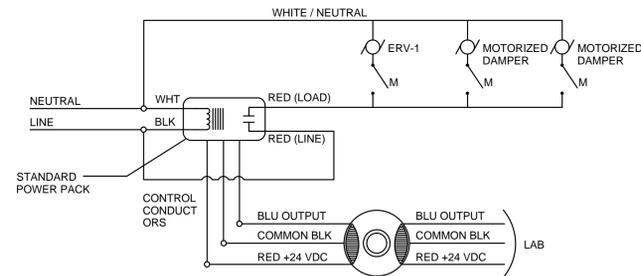
1 ELECTRICAL DEMOLITION
SCALE: 1/4" = 1'-0"

KEYED NOTES - NEW WORK

- ① PROVIDE MANUAL MOTOR STARTER IN EXISTING SWITCH LOCATION. PROVIDE NEW CONDUCTORS AND BOX. REUSE EXISTING CONDUIT. PATCH AND PAINT AS REQUIRED.
- ② PROVIDE SWITCH ABOVE CEILING ADJACENT TO MOTORIZED DAMPER.
- ③ PROVIDE MANUAL MOTOR STARTER ABOVE CEILING ADJACENT TO HVAC UNIT. CIRCUIT AS SHOWN.
- ④ OCCUPANCY SENSOR - SEE DETAIL ON THIS SHEET FOR MORE INFORMATION.
- ⑤ POWER PACK MOUNTED ABOVE CEILING - REFER TO DETAIL ON THIS SHEET FOR MORE INFORMATION.
- ⑥ REUSE EXISTING EXHAUST FAN CIRCUIT.



2 ELECTRICAL NEW WORK
SCALE: 1/4" = 1'-0"



3 SENSOR ERV CONTROL DETAIL
SCALE: NONE

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