GENERAL DEMOLITION NOTES

1. ALL DUCTWORK, EQUIPMENT, AND PIPING SHOWN WITH HATCHED LINES INDICATE ITEMS TO BE DEMOLISHED. SEE ARCHITECTURAL DRAWINGS AND CODED DEMOLITION NOTES FOR SPECIFIC INFORMATION. EXISTING DUCT TAKE-OFFS MAY BE REUSED IN NEW WORK IF CORRECT SIZE AND LOCATION. ALL EXISTING DUCTWORK TO BE REUSED SHALL BE COMPLIANT WITH THE VA'S HVAC DESIGN MANUAL. EXISTING DUCTWORK SHALL BE CLEANED, SEALED AND TESTED TO MEET CURRENT DESIGN CRITERIA.
2. SHADED AREAS OF THIS PLAN ARE NOT WITHIN THE PROJECT SCOPE OF WORK AND ARE SHOWN FOR REFERENCE ONLY.
3. LOCATION OF EXISTING EQUIPMENT, DUCTWORK, AIR OUTLETS, CONTROLS AND ALL CONCEALED WORKS, ETC. ARE APPROXIMATE. THE CONTRACTOR SHALL EXAMINE THE SITE PRIOR TO BUILDING AND AFTER DEMOLITION HAS EXPOSED "AS-BUILT" CONDITIONS TO VERIFY EACH AIR OUTLET, AND EQUIPMENT LOCATION. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AND/OR ALTERATIONS AS NECESSARY TO INSTALL COMPLETE AND OPERABLE SYSTEMS IN ACCORDANCE WITH THE CODES HAVING JURISDICTION AT NO ADDITIONAL COST TO THE GOVERNMENT
4. ALL OPENINGS AND SURFACES MADE BARE BY DEMOLITION AND/OR REMOVAL OF AIR OUTLETS, EQUIPMENT, CONTROLS, ETC. SHALL BE REPAIRED AND/OR PATCHED TO MATCH ADJACENT FINISH. PREPARE SURFACES TO RECEIVE NEW FINISH, SEE ARCHITECTURAL DRAWINGS FOR NEW FINISH SCHEDULE. ALL REPAIRS AND NEW FINISH SHALL BE BY TRADES SKILLED IN FINISH WORKS UNDER EMPLOY OF THE GENERAL CONTRACTOR.
5. DURING THE LIFE OF THE CONTRACT (CONSTRUCTION AND DEMOLITION TO POINT OF BENEFICIAL OCCUPANCY BY OWNER). THE CONTRACTOR SHALL PROTECT ALL SYSTEMS OR PORTIONS OF SYSTEMS TO REMAIN FOR REUSE FROM DAMAGE. ALL SYSTEMS SHALL BE TESTED IN SERVICE AFTER COMPLETION OF THE CONTRACT AND MADE COMPLETE AND OPERABLE AT NO ADDITIONAL COST TO THE GOVERNMENT.
6. DEMOLISH CONTROLS AND DEVICES PERTAINING TO THE HVAC EQUIPMENT BEING DEMOLISHED, REPLACED OR RE-USED. PROVIDE NEW CONTROLS AND DEVICES FOR ALL RE-USED EQUIPMENT AND CONNECT INTO THE EXISTING DDC SYSTEM.
7. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR ADDITIONAL INFORMATION. COORDINATE ALL DEMOLITION WITH ALL TRADES INVOLVED.
8. DEMOLISH ALL PIPING BACK TO THE MAIN AND CAP. LEAVE NO DEAD END BRANCHES. NO PIPING SHALL BE ABANDONED ABOVE THE CEILING OR BELOW THE FLOOR UNLESS NOTED OTHERWISE. PATCH FLOOR AND WALL PENETRATIONS LEFT BEHIND FROM DEMOLISHED PIPING TO MATCH EXISTING CONDITIONS .
9. ALL WORK MUST BE ACCOMPLISHED IN PHASES AS SPECIFIED AND/OR INDICATED. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE BUILDING WILL BE OCCUPIED AND IN OPERATION DURING THE LIFE OF THE CONTRACT. WORK SHALL BE ACCOMPLISHED IN AREAS AND/OR PHASES SO AS TO PERMIT CONTINUOUS OPERATION OF THE FACILITIES. THESE FACILITIES ARE IN USE 24 HOURS PER DAY, 7 DAYS A WEEK. THE CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS REQUIRED TO MAINTAIN SYSTEMS (INCLUDING FIRE DETECTION/ALARM,LIFE SAFETY, FIRE PROTECTION SYSTEMS, HVAC SYSTEMS, CONTROL SYSTEMS, ETC.)
10. THE CONTRACTOR SHALL COORDINATE WITH THE COR FOR ACCESS TO AREAS OF THE BUILDING NOT IN CONTRACT WHICH WILL REMAIN OPERATIONAL DURING CONSTRUCTION. ANY BREAKS IN UTILITY OR HVAC SERVICE SHALL BE COORDINATED WITH THE COR PRIOR TO WORK COMMENCING.

GENERAL NOTES

1. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL INSTALLATION W/ THE STRUCTURE AND OTHER TRADES AND SHALL PROVIDE ADDITIONAL OFFSETS AND FITTINGS AS NECESSARY.
2. COORDINATE WORK WITH AUTHORITY HAVING JURISDICTION AND OBTAIN ALL PERMITS AND INSPECTIONS.
3. THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS SHALL COMPLY WITH THE 2012 EDITION OF THE INTERNATIONAL MECHANICAL CODE, NFPA 90A, AND LOCAL CODE OFFICIAL REQUIREMENTS. IN THE EVENT OF A CONFLICT BETWEEN CODES, THE MOST STRINGENT SHALL ALWAYS GOVERN.
4. DUCT DIMENSIONS ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
5. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CLEARANCES PRIOR TO FABRICATION OR INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING SYSTEMS. WHERE CONDITIONS REQUIRE A CHANGE IN DUCT OR PIPE ROUTING, NOTIFY THE COR FOR AN ACCEPTABLE ALTERNATIVE METHOD. AVOID ROUTING DUCTWORK DIRECTLY OVER LIGHT FIXTURES, DIFFUSERS, AND OTHER CEILING MTD. DEVICES. LOCATE ALL MECHANICAL EQUIPMENT SO THAT FILTERS AND COMPONENTS REQUIRING ACCESS (SERVICE AND MAINTENANCE) ARE FULLY ACCESSIBLE.
6. PROVIDE CURVED RADIUS ELBOW AT FIRST SUPPLY & RETURN FITTING FOR ALL HVAC UNITS. PROVIDE TURNING VANES IN ALL 90 DEGREE ELBOWS IN ALL RECTANGULAR SUPPLY/RETURN/EXHAUST DUCT SYSTEMS. ANY OFFSETS REQUIRED IN DUCT SYSTEMS SHALL BE INSTALLED PER SMACNA STANDARDS. SHARP ANGLED TRANSITIONS OR OFFSETS 'WILL NOT BE ALLOWED'. PROVIDE DUCT ACCESS DOORS AT LOCATIONS SPECIFIED.
7. INSTALL ALL DUCT MOUNTED DEVICES (DAMPERS, ACCESS DOORS, ETC.) AND PIPING SPECIALTIES IN EASILY ACCESSIBLE LOCATIONS. ADVISE THE COR IN ADVANCE OF INSTALLATION IF ACCESS WILL BE HINDERED SO AN ALTERNATE LOCATION CAN BE SELECTED.
8. ALL DUCT TAKE-OFFS SHALL BE INSTALLED AS SHOWN BY DETAILS ON THE PLANS WITH A MANUAL BALANCE DAMPER AT EVERY TAKE-OFF. WHERE DUCT RUN-OUT SIZE IS NOT SHOWN PROVIDE DUCT SAME SIZE AS GRILLE NECK SIZE. PRE-INSULATED FLEXIBLE DUCT MAY BE USED FOR FINAL CONNECTION TO SUPPLY/RETURN GRILLES (MAX. LENGTH 5')
9. ALL ROTATING MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATION. PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTORS BETWEEN DUCTWORK AND ISOLATED MECHANICAL EQUIPMENT.
10. THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF FIRE RATED WALLS/FLOORS/CEILINGS BY DUCTWORK, PIPING, ETC., WITH U.L. LISTED FIRE STOPPING MATERIAL TO MAINTAIN FIRE RATING OF THE BARRIER.
11. SEISMIC PROTECTION OF EQUIPMENT, DUCTWORK, PIPING AND UTILITIES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16 OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE. ALL SEISMIC RESTRAINT AND BRACING SHALL BE SUBSTANTIATED BY MANUFACTURER'S SUBMITTALS PER THE SPECIFICATIONS.
12. BALANCE ALL AIR DISTRIBUTION DEVICES, EXHAUST FANS, AND OUTSIDE AIR QUANTITIES AS SCHEDULED OR SHOWN ON THE DRAWINGS. PROVIDE MARKERS AT ALL DAMPER LOCATIONS SHOWING FULL OPEN/CLOSED POSITIONS AND DAMPER SETTING FOR REQUIRED AIRFLOW. PROVIDE FINAL TEST AND BALANCE REPORT ALONG W/ SCHEMATIC DRAWINGS SHOWING DIFFUSER LOCATION W/ DESIGN AND ACTUAL CFM. THE DIFFUSER TAGS ON THE DRAWINGS SHALL CORRESPOND TO THE DIFFUSER TAGS ON THE REPORT. THIS REPORT SHALL BE SUBMITTED BEFORE THE FINAL INSPECTION IS PERFORMED. SEE THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL VARIABLE AIR VOLUME EQUIPMENT WITH STRUCTURE AND OTHER TRADES TO MAINTAIN THE RECOMMENDED MANUFACTURES SERVICE CLEARANCE REQUIREMENTS.

ABBREVIATIONS

AHU	AIR HANDLING UNIT
DN	DOWN
EXH	EXHAUST
EA	EXHAUST AIR
(E)	EXISTING
EXF	EX-FILTRATE
FCU	FAN COIL UNIT
INF	INFILTRATE
NIC	NOT IN CONTRACT
SA	SUPPLY AIR
RA	RETURN AIR
RH	RE-HEAT

LEGEND

	POINT OF DISCONNECTION (P.O.D.)
	POINT OF CONNECTION (P.O.C.)
1	NOTE NUMBER (SEE SCHEDULE)
	WORK TO BE DEMOLISHED
	EXISTING TO REMAIN
T1	THERMOSTAT, "1" INDICATES DEVICE CONTROLLED
	EXISTING RETURN/EXHAUST DROP
	DIFFUSER, SUPPLY
	RETURN AIR OUTLET
	EXHAUST AIR OUTLET
	DIFFUSER, LINEAR SLOT
X	EXISTING VARIABLE AIR VOLUME, "X" INDICATES NECK SIZE
VAV-X	VARIABLE AIR VOLUME (EXISTING), "X" INDICATES DEVICE NUMBER
VAV-X	VARIABLE AIR VOLUME (NEW), "X" INDICATES DEVICE NUMBER
1/2"	DUCTWORK PRESSURE CLASS ('N' DENOTES (NEGATIVE))
D4 400 TAG CFM	AIR TERMINAL TAG
	HOT WATER SUPPLY
	HOT WATER RETURN
	SHUT-OFF VALVE
	CAPPED PIPING
	RISE
	DROP

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

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Drawing Title: MECHANICAL NOTES, SYMBOLS, AND ABBREVIATIONS

Approved: Project Director

Project Title: RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE

Location: EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS

Date: 08-13-2014 | Drawn: JDG | Checked: BT

Project Number: 598-13-110

Building Number: 170

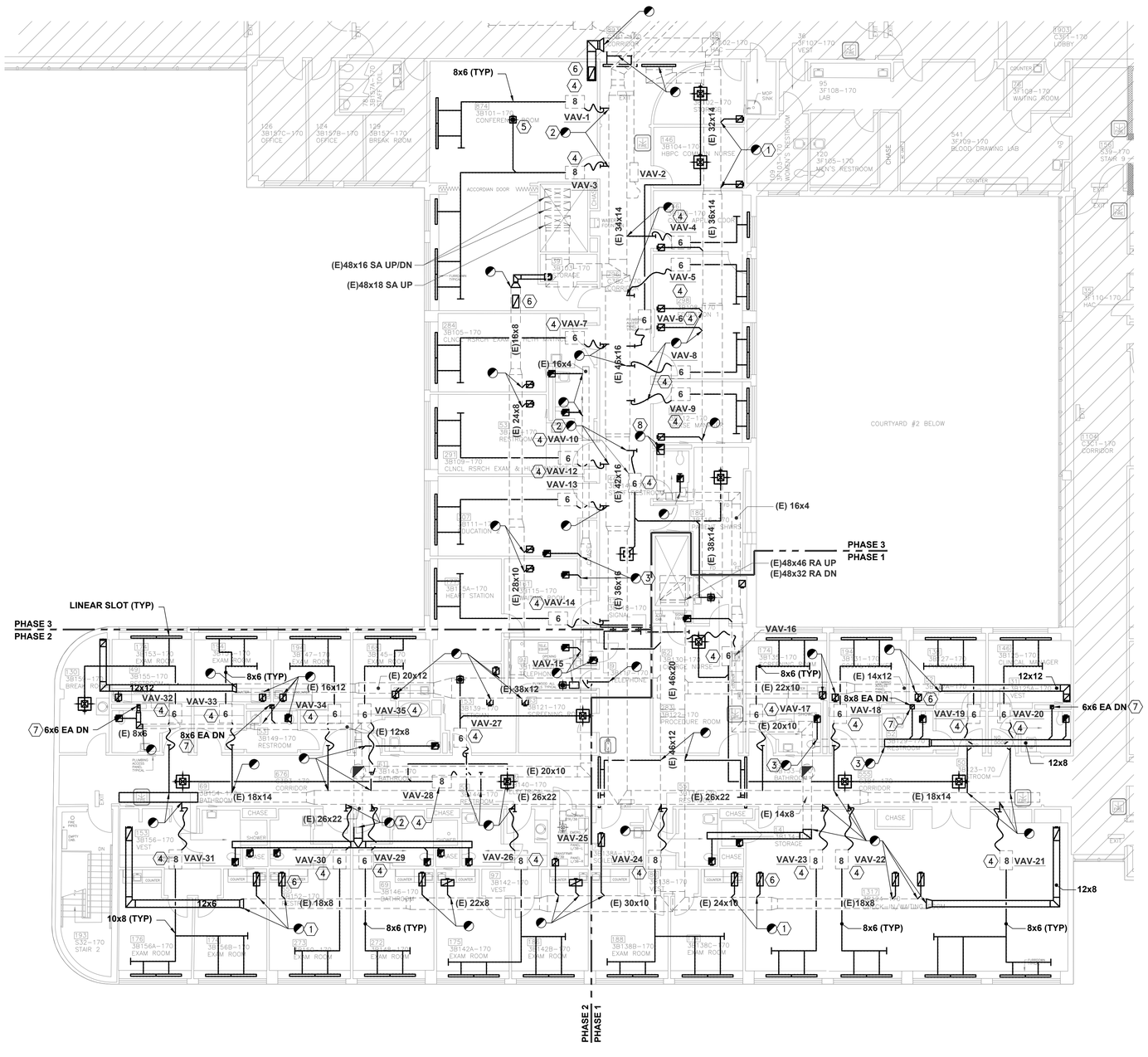
Drawing Number: MH001

Dwg. 1 of 14

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

VA FORM 08-6231



1 **MECHANICAL DUCTWORK DEMOLITION PLAN - THIRD FLOOR - QUAD B**

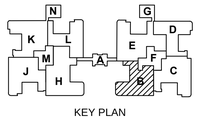
1/8"=1'-0"

DEMOLITION KEY NOTES

1. REMOVE RETURN DUCTWORK BACK TO MAIN. PROVIDE CAP AND INSULATE TO MATCH EXISTING (TYP).
2. REMOVE SUPPLY DUCTWORK BACK TO MAIN. PROVIDE CAP AND INSULATE TO MATCH EXISTING (TYP).
3. REMOVE EXHAUST DUCTWORK BACK TO MAIN. PROVIDE CAP AND INSULATE TO MATCH EXISTING (TYP).
4. EXISTING VAV TERMINAL UNIT TO BE REMOVED AND SHALL BE STORED IN A SAFE AND SECURE LOCATION UNTIL IT IS TO BE RE-INSTALLED. REFER TO MH101 FOR NEW LOCATIONS.
5. REMOVE 12x12 SUPPLY REGISTER, (TYP).
6. REMOVE 24x24 LAY-IN RETURN GRILLE (TYP).
7. REMOVE EXISTING EXHAUST DUCT DOWN THROUGH CHASE TO CEILING BELOW. PROVIDE CAP AND SEAL FOR RECONNECTION. PATCH AND SEAL FLOOR TO MATCH EXISTING. REFER TO MH502 FOR SECOND FLOOR WORK. CONTRACTOR SHALL COORDINATE ALL SECOND FLOOR WORK WITH THE VA.
8. REMOVE 14x10 EA DUCT DOWN THROUGH FLOOR, SEE MH502 FOR CONTINUATION. PROVIDE CAP AND SEAL FOR FUTURE RE-CONNECTION. PATCH AND SEAL FLOOR TO MATCH EXISTING. REFER TO MH502/11 FOR SECOND FLOOR WORK. CONTRACTOR SHALL COORDINATE ALL SECOND FLOOR WORK WITH THE VA.

PHASING NOTES

1. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK, VAV TERMINAL UNITS AND CONTROLS NOT AFFECTED BY THE PHASING PLANS, SHALL BE LEFT IN OPERATION DURING CONSTRUCTION.
2. ALL DUCTWORK SUPPLY, RETURN AND EXHAUST MAINS SHALL BE CAPPED OR SEALED AND INSULATED TO MATCH EXISTING, WHERE THE BRANCH DUCTWORK IS TO BE REMOVED DURING CONSTRUCTION.
3. COORDINATE PHASING WITH THE GENERAL CONTRACTOR BEFORE ANY CONSTRUCTION SHALL BEGIN.



KEY PLAN

0 4' 8' 16'

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

N

CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: **MECHANICAL DUCTWORK DEMOLITION PLAN - THIRD FLR - B**

Approved: Project Director

Project Title: **RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE**

Location: **EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS**

Date: **08-13-2014** | Drawn: **JDG** | Checked: **BT**

Project Number: **598-13-110**

Building Number: **170**

Drawing Number: **MD101**

Dwg. **2** of **14**

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

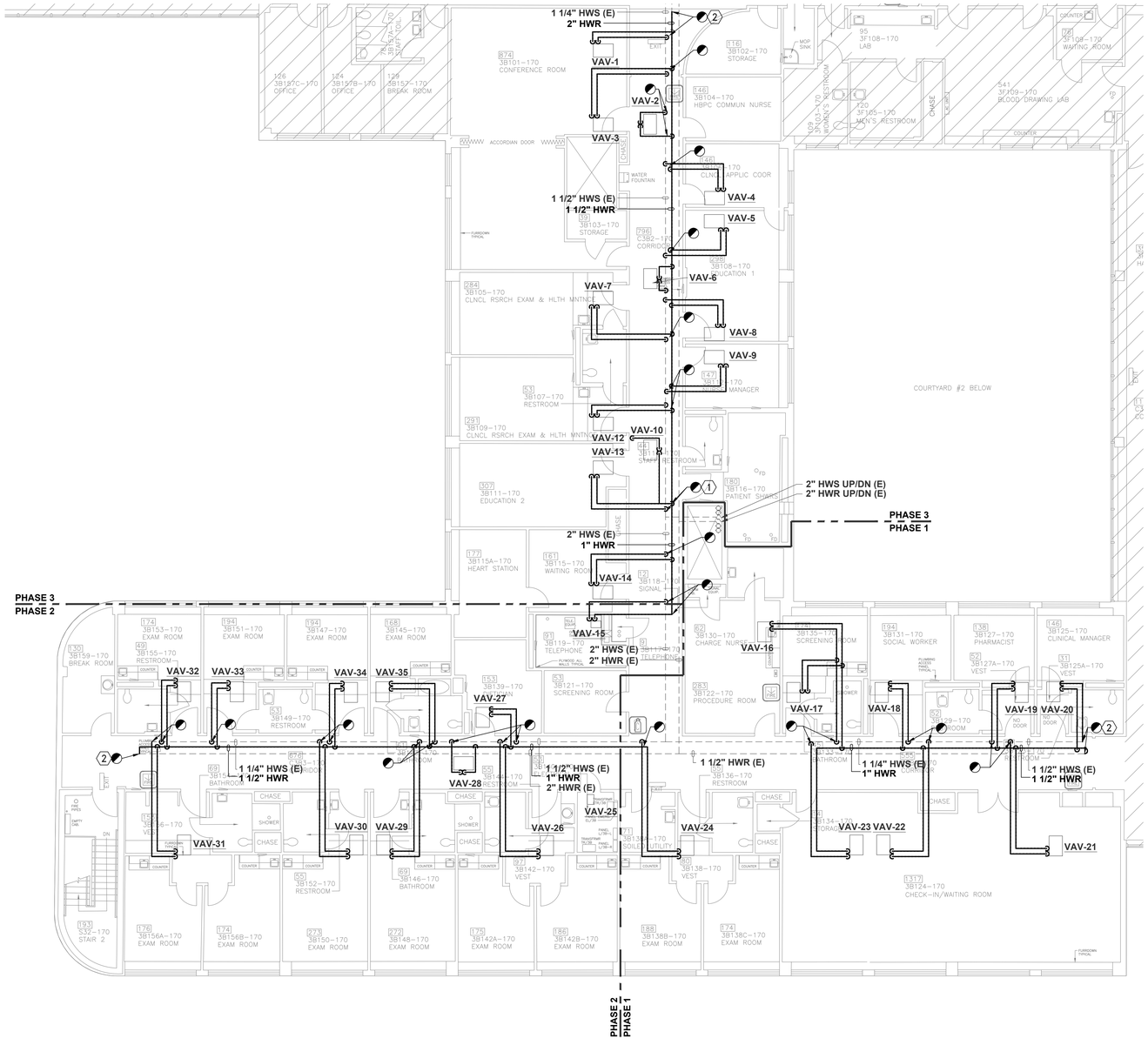
VA FORM 08-6231

DEMOLITION KEY NOTES

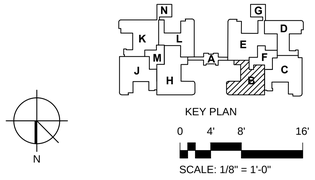
1. REMOVE HEATING HOT WATER SUPPLY AND RETURN PIPING BACK TO MAIN, CAP, AND INSULATE TO MATCH EXISTING (TYP).
2. REMOVE HEATING HOT WATER RETURN BACK TO THIS POINT, PROVIDE CAP AND INSULATE TO MATCH EXISTING FOR FUTURE RECONNECTION.

PHASING NOTES

1. ALL SUPPLY, RETURN, PIPING, VAV TERMINAL UNITS AND CONTROLS NOT AFFECTED BY THE PHASING PLANS, SHALL BE LEFT IN OPERATION DURING CONSTRUCTION.
2. ALL PIPING MAINS SHALL BE CAPPED OR SEALED AND INSULATED TO MATCH EXISTING, WHERE THE BRANCH PIPING IS TO BE REMOVED DURING CONSTRUCTION.
3. COORDINATE PHASING WITH THE GENERAL CONTRACTOR BEFORE ANY CONSTRUCTION SHALL BEGIN.



1 **MECHANICAL PIPING DEMOLITION PLAN - THIRD FLOOR - QUAD B**
1/8"=1'-0"



KEY PLAN

0 4' 8' 16'

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

N

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: **MECHANICAL PIPING DEMOLITION PLAN - THIRD FLOOR - B**

Approved: Project Director

Project Title: **RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE**

Location: **EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS**

Date: **08-13-2014** | Drawn: **JDG** | Checked: **BT**

Project Number: **598-13-110**

Building Number: **170**

Drawing Number: **MD102**

Dwg. 3 of 14

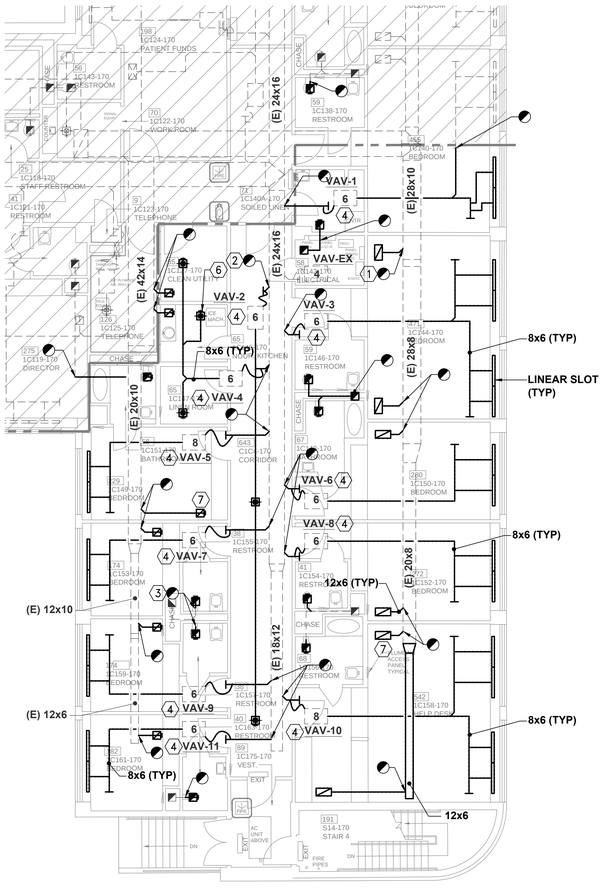
CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

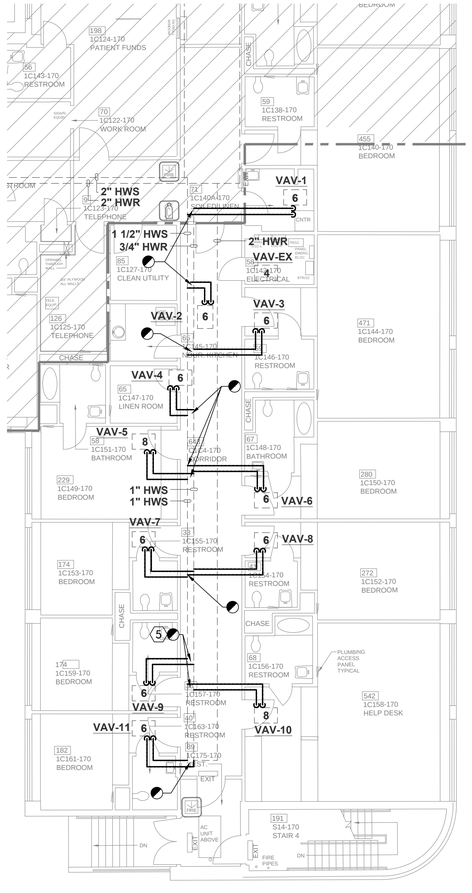
VA FORM 08-6231

DEMOLITION KEY NOTES

1. REMOVE RETURN DUCTWORK BACK TO MAIN. PROVIDE CAP AND INSULATE TO MATCH EXISTING (TYP).
2. REMOVE SUPPLY DUCTWORK BACK TO MAIN. PROVIDE CAP AND INSULATE TO MATCH EXISTING (TYP).
3. REMOVE EXHAUST DUCTWORK BACK TO MAIN. PROVIDE CAP AND INSULATE TO MATCH EXISTING (TYP).
4. EXISTING VAV TERMINAL UNIT TO BE REMOVED AND REINSTALLED. REFER TO MH101 FOR DETAILS (TYP).
5. REMOVE 3/4" HEATING HOT WATER SUPPLY AND RETURN PIPING BACK TO MAIN, CAP, AND INSULATE TO MATCH EXISTING (TYP).
6. REMOVE 12x12 SUPPLY REGISTER, (TYP).
7. REMOVE 24x24 LAY-IN RETURN GRILLE (TYP).



1 MECHANICAL DUCTWORK DEMOLITION PLAN - FIRST FLOOR - QUAD C
1/8"=1'-0"



2 MECHANICAL PIPING DEMOLITION PLAN - FIRST FLOOR - QUAD C
1/8"=1'-0"

KEY PLAN

0 4' 8' 16'

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

N

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: **MECHANICAL PIPING DEMOLITION PLAN - FIRST FLOOR - C**

Approved: Project Director

Project Title: **RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE**

Location: **EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS**

Date: **08-13-2014** | Drawn: **JDG** | Checked: **BT**

Project Number: **598-13-110**

Building Number: **170**

Drawing Number: **MD103**

Dwg. **4** of **14**

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

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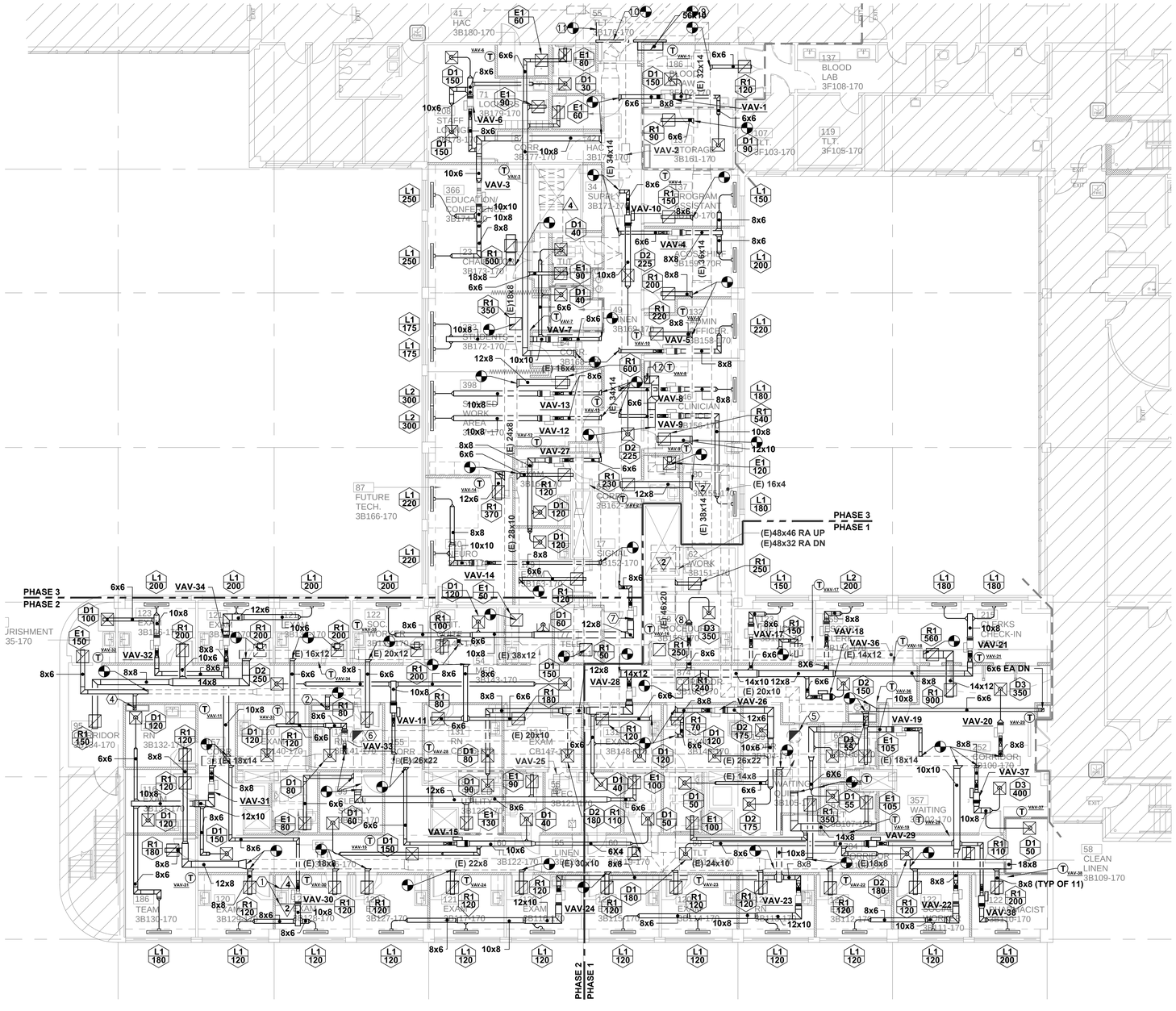


1 **MECHANICAL DUCTWORK PLAN - THIRD FLOOR - QUAD B**

1/8"=1'-0"

SHEET KEYNOTES

1. PRESSURE CLASS RATING TYPICAL FOR ALL VAV TERMINAL UNITS.
2. 8x6 EXHAUST DUCT DOWN THROUGH CHASE TO CEILING BELOW.
3. 8x8 EXHAUST DUCT DOWN THROUGH CHASE TO CEILING BELOW.
4. 8x8 EXHAUST DUCT DOWN THROUGH CHASE TO CEILING BELOW.
5. 20x20 UP TO EXISTING EXHAUST FAN EF-11.
6. 38Ø" UP TO EXISTING EXHAUST FAN EF-12.
7. VAV-35
8. VAV-16
9. RELOCATE LINEAR SLOT RETURN GRILLE, RE-BALANCE TO 1,115 CFM
10. RELOCATE LINEAR SLOT RETURN GRILLE, RE-BALANCE TO 1,110 CFM
11. PROVIDE CAP AND SEAL, INSULATE TO MATCH EXISTING.
12. 14x10 EXHAUST DUCT DOWN THROUGH CHASE TO CEILING BELOW.

GENERAL MECHANICAL NOTES

FOR GENERAL MECHANICAL NOTES, SEE DWG. MH001.

PHASING NOTES

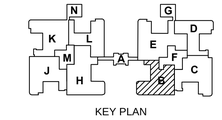
1. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK, VAV TERMINAL UNITS AND CONTROLS NOT AFFECTED BY THE PHASING PLANS, SHALL BE LEFT IN OPERATION DURING CONSTRUCTION.
2. ALL DUCTWORK SUPPLY, RETURN AND EXHAUST MAINS SHALL BE CAPPED OR SEALED AND INSULATED TO MATCH EXISTING, WHERE THE BRANCH DUCTWORK IS TO BE REMOVED DURING CONSTRUCTION.
3. COORDINATE PHASING WITH THE GENERAL CONTRACTOR BEFORE ANY CONSTRUCTION SHALL BEGIN.

DUCT PRESSURE CLASS SCHEDULE

SEAL CLASS RATING	STATIC PRESSURE CONSTRUCTION CLASS	SEALING REQUIREMENTS	REMARKS
A	4" AND UP	NOTE 1	ALL SUPPLY DUCTWORK UPSTREAM OF VAV BOXES
B	3"	NOTE 2	
C	2"	NOTE 3	ALL RETURN AND EXHAUST DUCTWORK. ALL SUPPLY DUCTWORK DOWNSTREAM OF THE VAV TERMINAL UNITS.

NOTES:

1. ALL TRANSVERSE JOINTS, LONGITUDAL SEAMS, AND DUCT WALLPENETRATIONS.
2. ALL TRANSVERSE JOINTS AND LONGITUDAL SEAMS ONLY.
3. TRANSVERSE JOINTS ONLY.



KEY PLAN

N

0 4' 8' 16'

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

CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: MECHANICAL DUCTWORK PLAN - THIRD FLOOR - B

Approved: Project Director

Project Title: RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE

Location: EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS

Date: 08-13-2014 | Drawn: JDG | Checked: BT

Project Number: 598-13-110

Building Number: 170

Drawing Number: MH101

Dwg. of

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

VA FORM 08-6231

DRAWING KEY NOTES

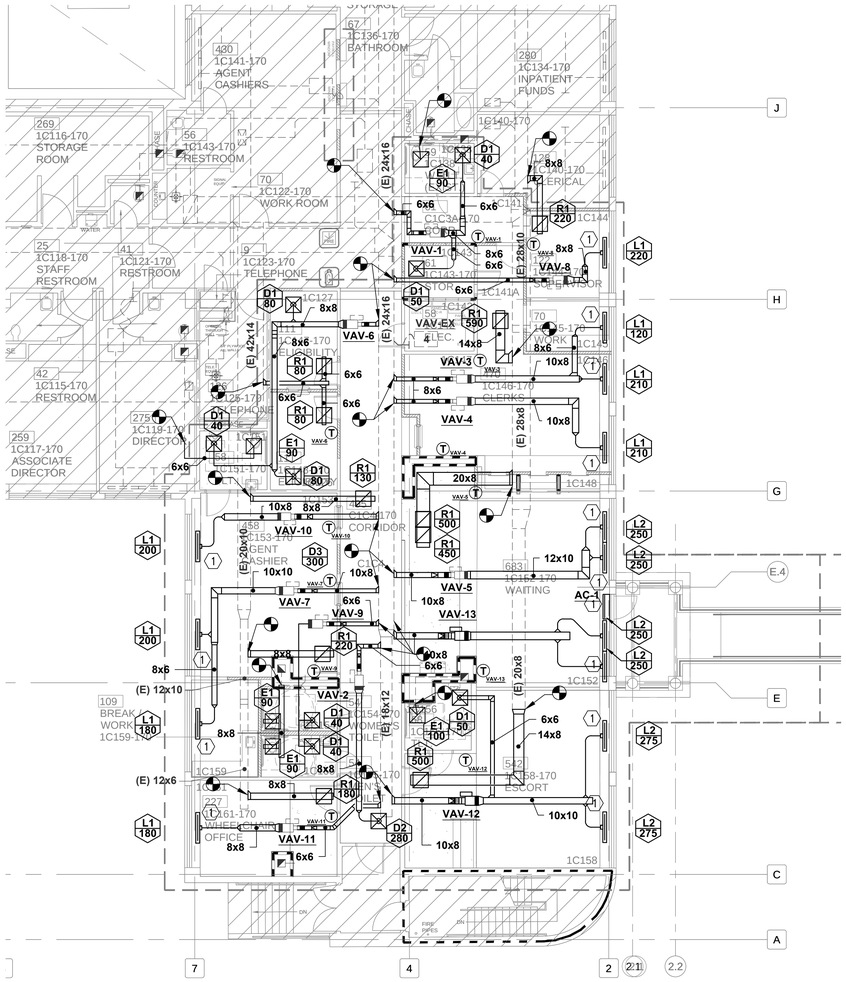
1. COORDINATE THE INSTALLATION OF THE LINEAR SLOT DIFFUSERS WITH THE CELING CONTRACTOR(TYP).

GENERAL MECHANICAL NOTES

1. FOR GENERAL MECHANICAL NOTES, SEE DWG. MH001.
2. AREA 1C - IS PART OF PHASE 4. REFER TO THE ARCHITECTURAL PHASING DRAWINGS.

PHASING NOTES

1. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK, VAV TERMINAL UNITS AND CONTROLS NOT AFFECTED BY THE PHASING PLANS, SHALL BE LEFT IN OPERATION DURING CONSTRUCTION.
2. ALL DUCTWORK SUPPLY, RETURN AND EXHAUST MAINS SHALL BE CAPPED OR SEALED AND INSULATED TO MATCH EXISTING, WHERE THE BRANCH DUCTWORK IS TO BE REMOVED DURING CONSTRUCTION.
3. COORDINATE PHASING WITH THE GENERAL CONTRACTOR BEFORE ANY CONSTRUCTION SHALL BEGIN.



1 **MECHANICAL DUCTWORK PLAN - FIRST FLOOR - QUAD C**
1/8"=1'-0"

KEY PLAN

0 4' 8' 16'

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

N

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: **MECHANICAL DUCTWORK PLAN - FIRST FLOOR - C**

Approved: Project Director

Project Title: **RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE**

Location: **EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS**

Date: **08-13-2014** | Drawn: **JDG** | Checked: **BT**

Project Number: **598-13-110**

Building Number: **170**

Drawing Number: **MH102**

Dwg. 6 of 14

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

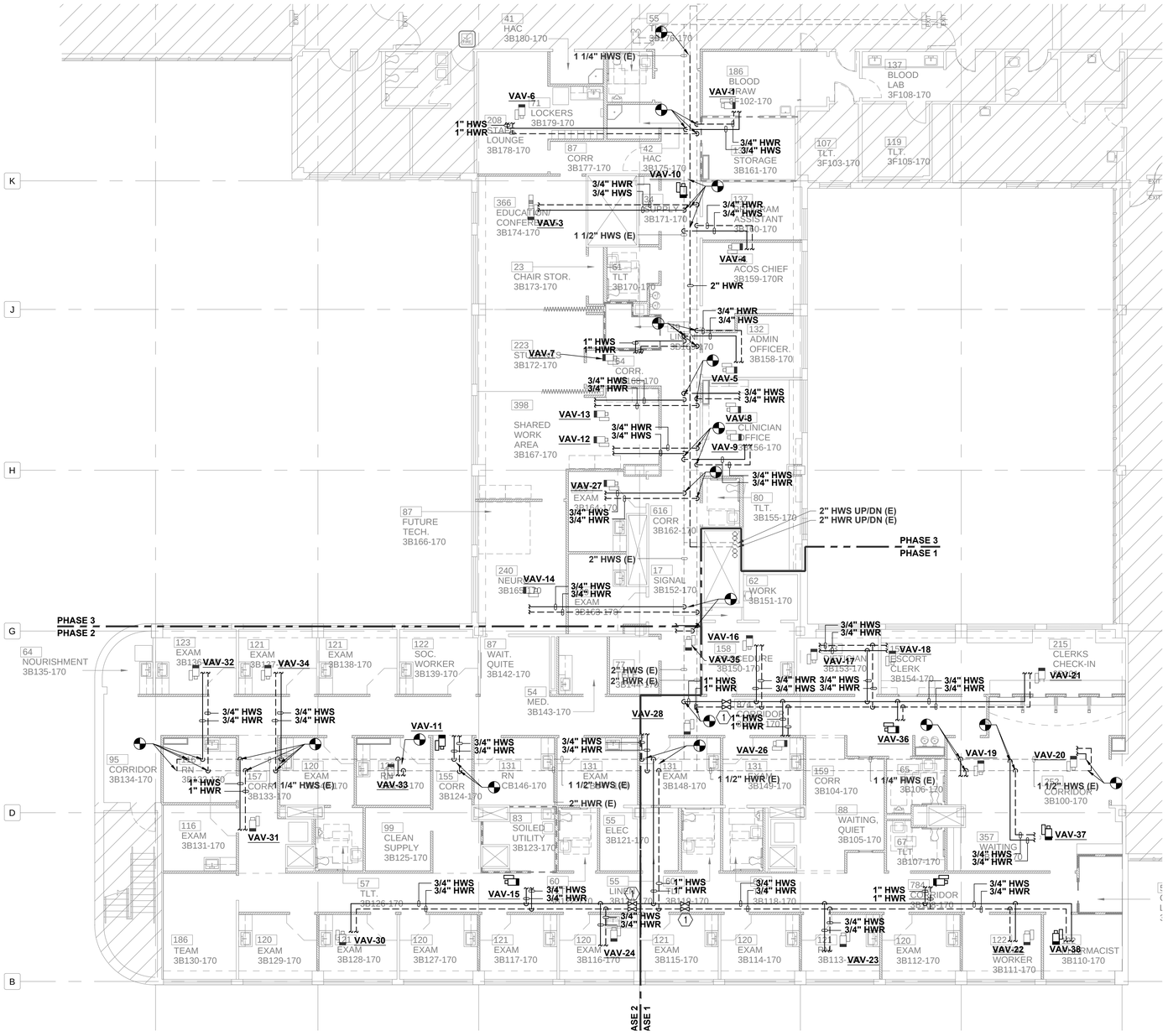
VA FORM 08-6231

DRAWING KEY NOTES

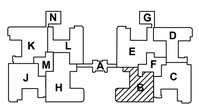
1. SHUT-OFF VALVE (TYP)

PHASING NOTES

1. ALL SUPPLY, RETURN, PIPING, VAV TERMINAL UNITS AND CONTROLS NOT AFFECTED BY THE PHASING PLANS, SHALL BE LEFT IN OPERATION DURING CONSTRUCTION.
2. ALL PIPING MAINS SHALL BE CAPPED OR SEALED AND INSULATED TO MATCH EXISTING, WHERE THE BRANCH PIPING IS TO BE REMOVED DURING CONSTRUCTION.
3. COORDINATE PHASING WITH THE GENERAL CONTRACTOR BEFORE ANY CONSTRUCTION SHALL BEGIN.



1 **MECHANICAL PIPING PLAN - THIRD FLOOR - QUAD B**
1/8"=1'-0"



KEY PLAN

0 4' 8' 16'

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

N

CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER REG. NO. 15855 BRYAN TURNBULL

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: MECHANICAL PIPING PLAN - THIRD FLOOR - B

Approved: Project Director

Project Title: RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE

Location: EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS

Date: 08-13-2014 | Drawn: JDG | Checked: BT

Project Number: 598-13-110

Building Number: 170

Drawing Number: MP101

Dwg. 7 of 14

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

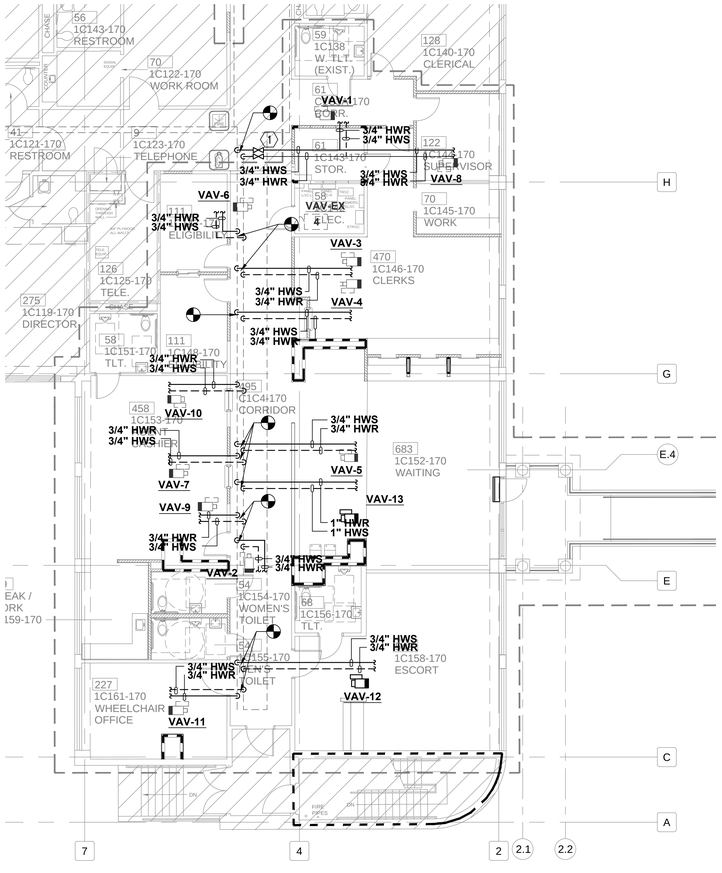
VA FORM 08-6231

DRAWING KEY NOTES

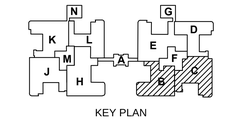
1. SHUT-OFF VALVE (TYP)

PHASING NOTES

1. ALL SUPPLY, RETURN, PIPING, VAV TERMINAL UNITS AND CONTROLS NOT AFFECTED BY THE PHASING PLANS, SHALL BE LEFT IN OPERATION DURING CONSTRUCTION.
2. ALL PIPING MAINS SHALL BE CAPPED OR SEALED AND INSULATED TO MATCH EXISTING, WHERE THE BRANCH PIPING IS TO BE REMOVED DURING CONSTRUCTION.
3. COORDINATE PHASING WITH THE GENERAL CONTRACTOR BEFORE ANY CONSTRUCTION SHALL BEGIN.
4. ALL WORK IN AREA 1-C IS PART OF PHASE 4.



1 **MECHANICAL PIPING PLAN - FIRST FLOOR - QUAD C**
1/8"=1'-0"



KEY PLAN

0 4' 8' 16'

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

N

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15855 BRYAN ALLAN TURNBULL

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **MECHANICAL PIPING PLAN - FIRST FLOOR - C**

Approved: Project Director

Project Title: **RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE**

Location: **EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS**

Date: **08-13-2014** | Drawn: **JDG** | Checked: **BT**

Project Number: **598-13-110**

Building Number: **170**

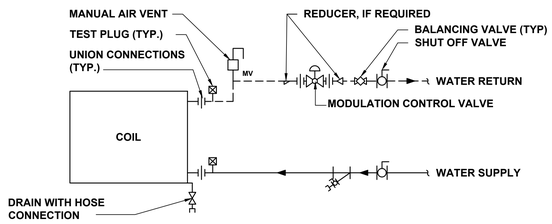
Drawing Number: **MP102**

Dwg. 8 of 14

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

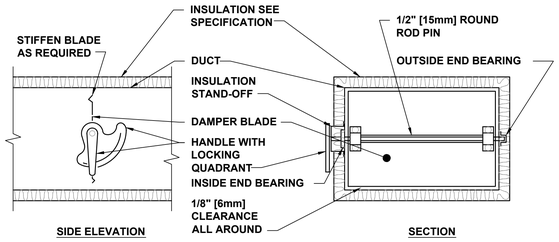
Department of Veterans Affairs

VA FORM 08-6231



1 TERMINAL UNIT WATER COILS - PIPING CONNECTIONS

NTS

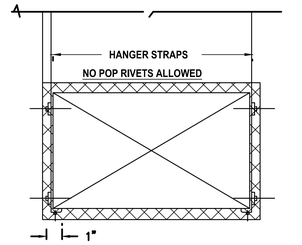


NOTE:

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

2 VOLUME DAMPER DETAIL

NTS



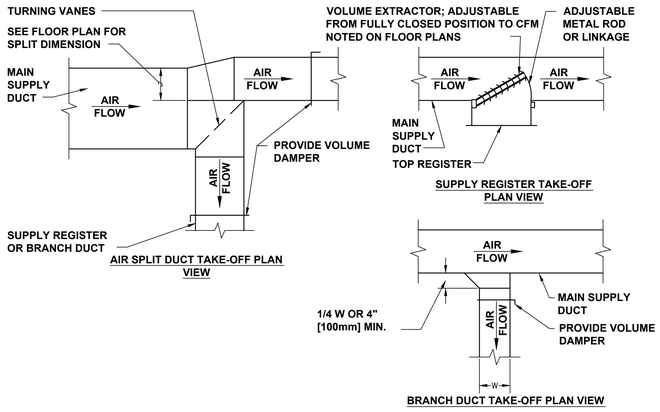
NO. 10x3/4" SELF TAPPING CADMIUM PLATED SHEET METAL SCREWS TO ANCHOR STRAPS TO DUCT AND JOISTS. ALL STRAPS SHALL BE TIGHT AGAINST DUCT AND MEMBERS.

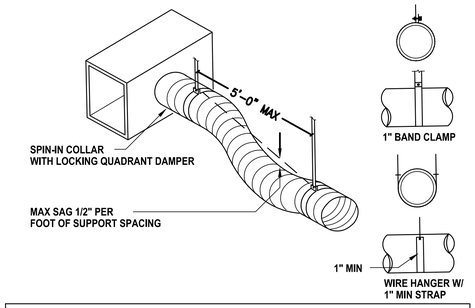
HANGER SIZES FOR RECTANGULAR DUCT

MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
UP TO 34"	1" X 18 GAGE STRAP	NONE REQUIRED	8'-0"
MAX. 34" TO 40"	HANGER 1" X 18 GAUGE STRAP	NONE REQUIRED	6'-0"

3 DUCT STRAP HANGER

NTS



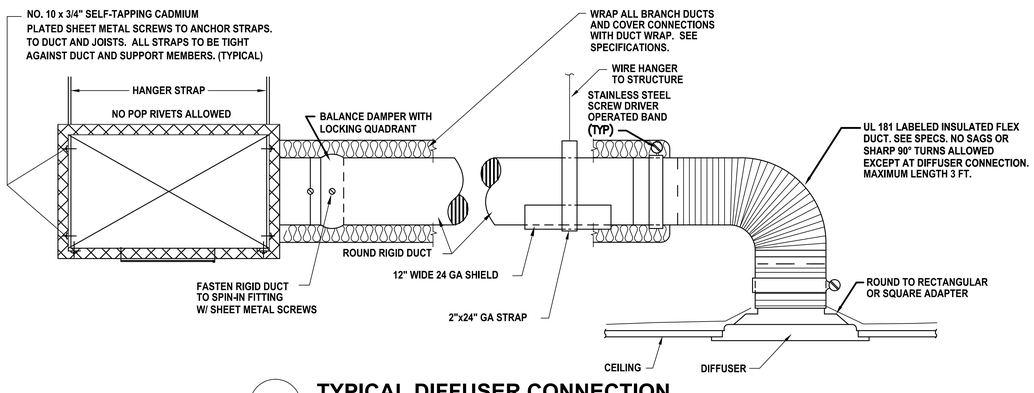


NOTES

1. SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.
2. DUCTS ARE FLEXIBLE WITH EXTERNAL INSULATION AND VAPOR BARRIER JACKETING.
3. MINIMUM CENTERLINE BEND RADIUS IS ONE DIAMETER, (OR INSIDE RADIUS OF D/2).
4. MAXIMUM LENGTH OF FLEXIBLE DUCT RUNOUT IS THREE (3) FEET.

4 EXHAUST OR RETURN BRANCH DUCTWORK

NTS

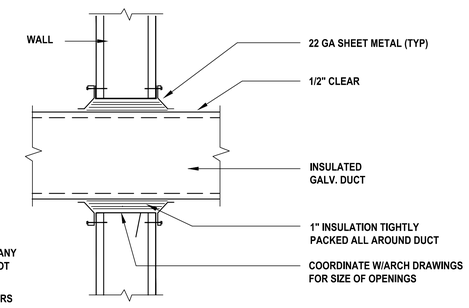


5 SUPPLY DUCTWORK TAKE-OFFS

NTS

6 STRAIGHT SECTION OF FLEXIBLE DUCTWORK

NTS



NOTES:

1 DRYWALL, METAL STUDS OR ANY OTHER RIGID MATERIAL MUST NOT TOUCH DUCT

2 SUPPORT DUCT FROM HANGERS FOR ACOUSTICAL CONTROL

7 TYPICAL DIFFUSER CONNECTION

NTS

8 DUCTWORK PENETRATION - NON FIRE RATED WALL

NTS

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15855 BRYAN ALLAN TURNBALL

ARCHITECT/ENGINEERS:

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766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: MECHANICAL DETAILS

Approved: Project Director

Project Title: RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE

Location: EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS

Date: 08-13-2014 | Drawn: JDG | Checked: BT

Project Number: 598-13-110

Building Number: 170

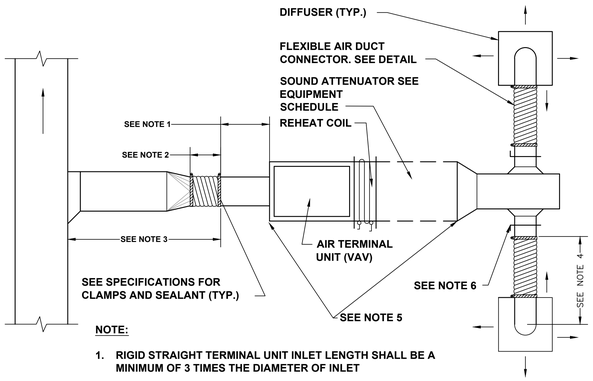
Drawing Number: MH501

Dwg. 9 of 14

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

VA FORM 08-6231



NOTE:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0" [900mm].
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET (3 METERS). FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100' [1.64Pa/m].
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 3'-0" [1500mm]. USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.
6. VAV UNITS WITH A SINGLE AIR DIFFUSER SHALL NOT REQUIRE A MANUAL VOLUME DAMPER IN THE DISTRIBUTION DUCTOWORK.

9 DUCT CONNECTIONS - AIR TERMINAL UNITS

NTS

DESIGNER'S NOTE: 1. INDICATE SOUND ATTENUATOR AS REQUIRED BY ACOUSTICAL ANALYSIS.

VAV SYSTEM POINT LIST

SYSTEM POINT DESCRIPTION	POINT TYPE						ALARMS							
VARIABLE AIR VOLUME TERMINAL UNIT, WITH HYDRONIC HEATING	GRAPHIC	HARDWARE INPUT	HARDWARE OUTPUT	SOFTWARE POINT	DEFAULT VALUE	HARDWARE CONFIGURATION	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSIS	SENSOR FAIL	COMMUNICATION FAIL	DIAGNOSTICS	NOTES:
HOT WATER COIL VALVE	X		AO			UI/AO								
DISCHARGE AIR TEMPERATURE	X	AI				UI	X	X			X		SENSOR FAILURE	
OCCUPIED COOLING SETPOINT				X	75°F									
OCCUPIED HEATING SETPOINT				X	72°F									
UNOCCUPIED COOLING SETPOINT				X	80°F									
UNOCCUPIED HEATING SETPOINT				X	60°F									
BAS COMMUNICATION STATE	X			X								X		NOTE 3
CONTROLLER SPARE HARDWARE POINTS														
UNIVERSAL INPUT(S)		1												NOTE 4 & 5
UNIVERSAL INPUT(S) / ANALOG OUTPUT(S)			5											NOTE 4 & 5
BINARY OUTPUT(S)			3											NOTE 4, 7 & 9

GENERAL NOTES (IF APPLICABLE):

1. OPTIONAL FEATURE
2. CAN BE A COMMUNICATED VALUE
3. DISPLAYED AT THE BAS USER INTERFACE IF PRESENT
4. SPARE OR UNUSED POINTS
5. CONTROLLER UNIVERSAL INPUTS (0-20MA, 0-20VDC, THERMISTOR, RESISTIVE, RTD, BINARY OF PULSE
6. CONTROLLER UNIVERSAL INPUTS / ANALOG OUTPUT (0-20MA, 0-20VDC, THERMISTOR, RESISTIVE, RTD, BINARY OR PULSE / CURRENT, VOLTAGE, BINAR, PULSE)
7. CONTROLLER OUTPUTS BO1 - 3 (RELAY, FORM A)
8. EXPANSION INPUTS CONFIGURABLE UI1 / AO1 THRU UI4 / AO4 (BINARY, 0-20MA, 0-10VDC, THERMSTOR-RESISTIVE-RTD, / 0-20MA, 0-10VDC)
9. EXPANSION OUPUTS BO1 TO BO4 FORM C RELAY (GENERAL PURPOSE: MOTOR, PILOT DUTY; RESISTIVE) - SEE DATA SHEETS FOR A RANGES
10. DEVICE IS HARDWIRE INTERLOCKED TO EQUIPMENT, MANUAL RESET REQUIRED

10 VARIABLE AIR VOLUME TERMINAL BOX DIAGRAM AND CONTROL

NTS

SHEET KEYNOTES

1. DEMOLISH EXHAUST DUCTWORK FROM FLOOR ABOVE DOWN IN CHASE. PROVIDE CAP AND SEAL FOR FUTURE CONNECTION.
2. CONNECT TO EXISTING EXHAUST DUCT IN CHASE. RECONNECT EXISTING 6x6 EXHAUST DUCTWORK.
3. CONNECT TO EXISTING EXHAUST DUCT IN CHASE.
4. DEMOLISH EXHAUST DUCTWORK FROM FLOOR ABOVE DOWN INTO CHASE. PROVIDE CAP AND SEAL FOR FUTURE CONNECTION.

VAV BOX CONTROL SEQUENCE

GENERAL:
EACH VAV BOX IS CONTROLLED BY A LOCAL DEDICATED SPACE TEMPERATURE THERMOSTAT.

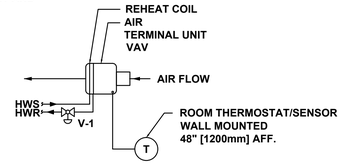
OCCUPIED:

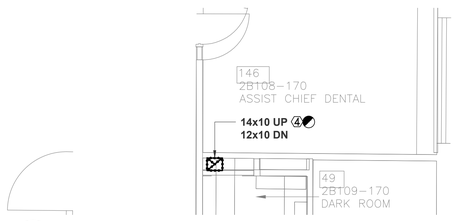
COOLING:
SHOULD THE SPACE TEMPERATURE RISE TO 75.0 DEG F (ADJ), THE VAV DAMPER SHALL OPEN TO THE MAXIMUM FLOW POSITION. WHEN THE SPACE TEMPERATURE FALLS TO 72.0 DEG F (ADJ) THE VAV DAMPER WILL MOVE TO THE MINIMUM FLOW POSITION.

HEATING:
SHOULD THE SPACE TEMPERATURE FALL BELOW 72.0 DEG. F (ADJ), THE VAV DAMPER WILL MOVE TO THE MINIMUM FLOW POSITION. SHOULD THE SPACE TEMPERATURE FALL TO 70.0 DEG. F (ADJ) THE HEATING WATER VALVE (V-1) SHALL OPEN UNTIL THE SPACE TEMPERATURE REACHES 74.0 DEG. F (ADJ). THE HEATING WATER VALVE SHALL CLOSE. SHOULD THE SPACE TEMPERATURE CONTINUE TO FALL THE AIRFLOW SHALL INCREASE UNTIL THE SPACE TEMPERATURE REACHES 75.0 DEG. F. THEN THE AIRFLOW SHALL RETURN TO THE MINIMUM POSITION.

UNOCCUPIED:

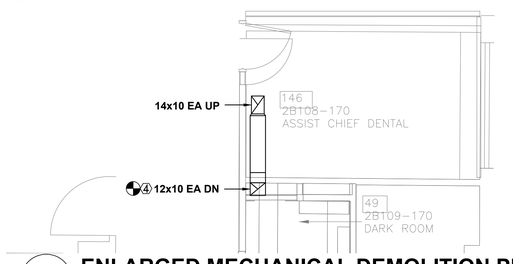
VAV TERMINAL UNITS SERVING INTERNAL ZONES WITH NO EXTERIOR EXPOSURE SHALL SHUT-OFF COMPLETELY DURING THE UNOCCUPIED HEATING AND COOLING MODE. VAV TERMINAL UNITS SERVING EXTERIOR SPACES SHALL MODULATE TO THE MINIMUM FLOW SETPOINT AND MAINTAIN THE UNOCCUPIED TEMPERATURE SETPOINT.





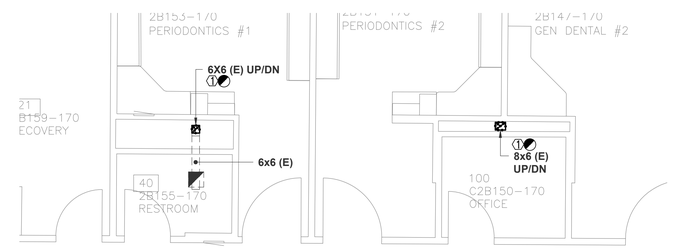
11 ENLARGED MECHANICAL DEMOLITION PLAN - 2B

1/4" = 1' - 0"



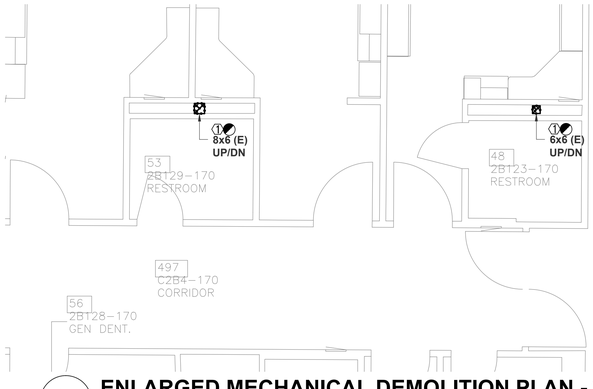
12 ENLARGED MECHANICAL DEMOLITION PLAN - 2B

1/4" = 1' - 0"



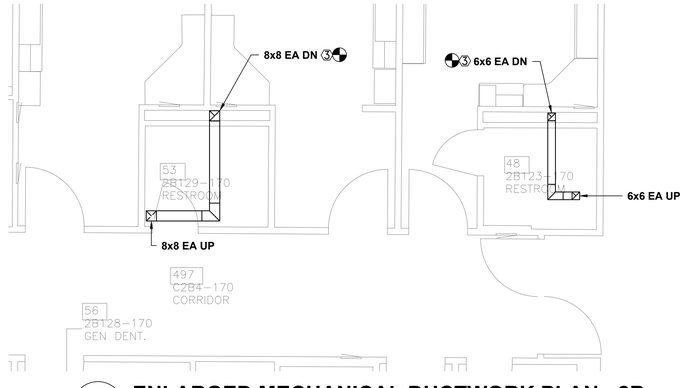
13 ENLARGED MECHANICAL DEMOLITION PLAN - 2B

1/4" = 1' - 0"



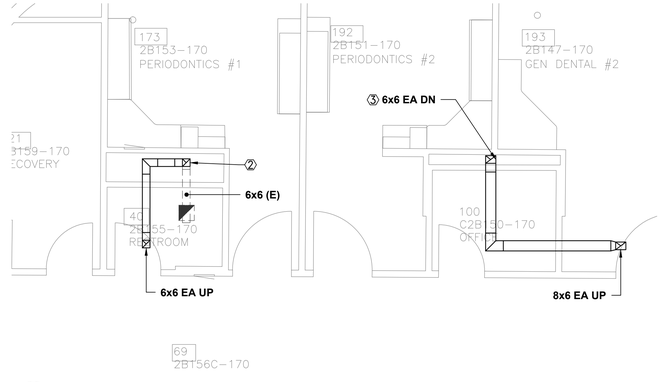
14 ENLARGED MECHANICAL DEMOLITION PLAN - 2B

1/4" = 1' - 0"



15 ENLARGED MECHANICAL DUCTWORK PLAN - 2B

1/4" = 1' - 0"



16 ENLARGED MECHANICAL DUCTWORK PLAN - 2B

1/4" = 1' - 0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15856 ALAN TURNBULL

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: MECHANICAL DETAILS

Approved: Project Director

Project Title: RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE

Location: EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS

Date: 08-13-2014 | Drawn: JDG | Checked: BT

Project Number: 598-13-110
Building Number: 170
Drawing Number: MH502
Dwg. 10 of 14

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

VA FORM 08-6231

SHEET KEYNOTES

1. 50 CFM TO (3B102)
2. 10 CFM TO ROOM (3B143), 20 CFM TO ROOM (3B142),.
3. 180 CFM TO CORRIDOR (3B103)
4. 150 CFM FROM VAV-11, AND 50 CFM FROM (3B103)
5. 50 CFM TO ROOM (3B102)
6. 50 CFM FROM ROOM (3B103)
7. 350 CFM SUPPLY AIR TO CORRIDOR 3B104. RETURN IS PROVIDED IN WAITING 3B105.

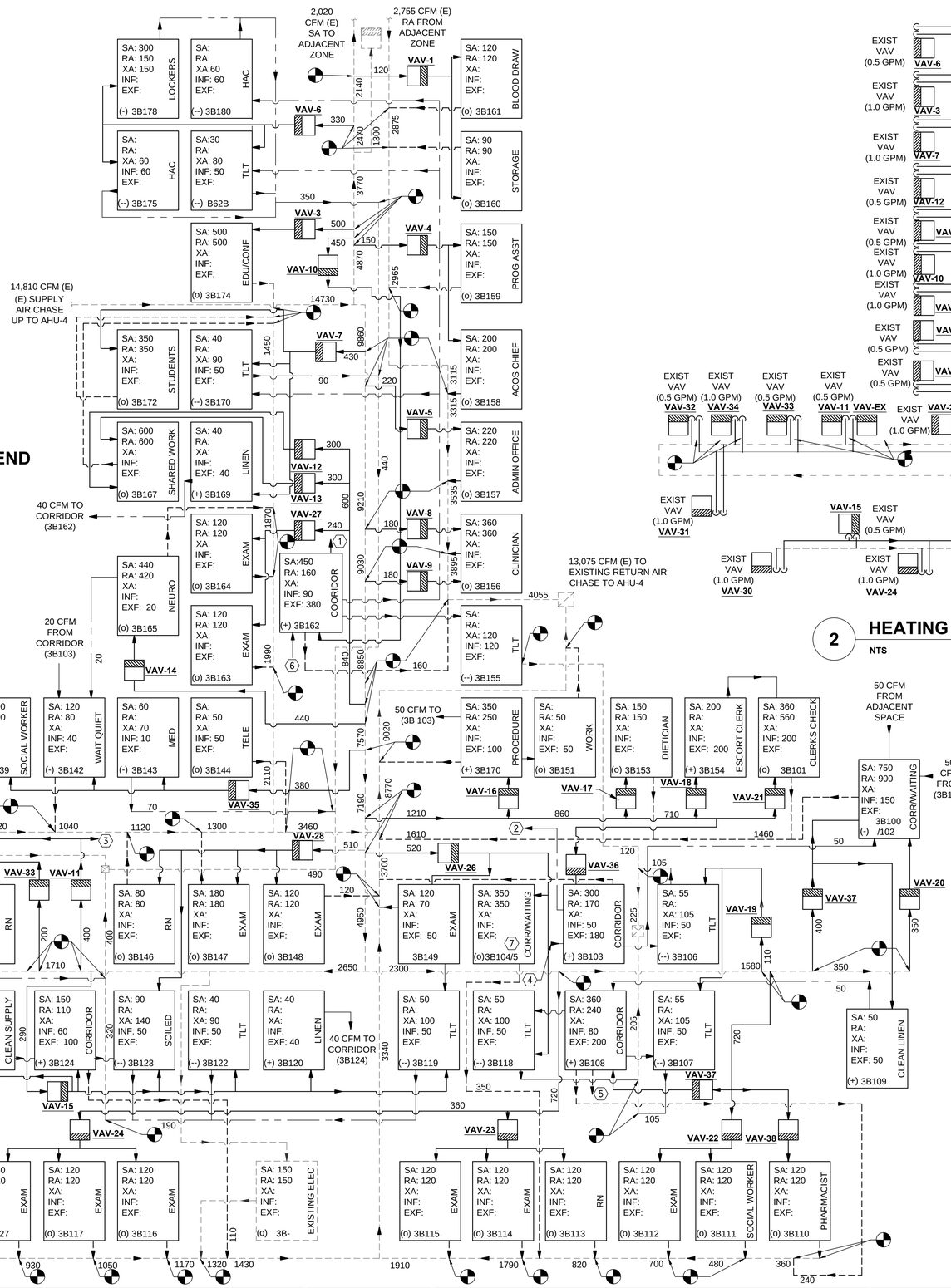
WATER FLOW LEGEND

- SUPPLY
- RETURN
- EXISTING

AIR FLOW DIAGRAM LEGEND

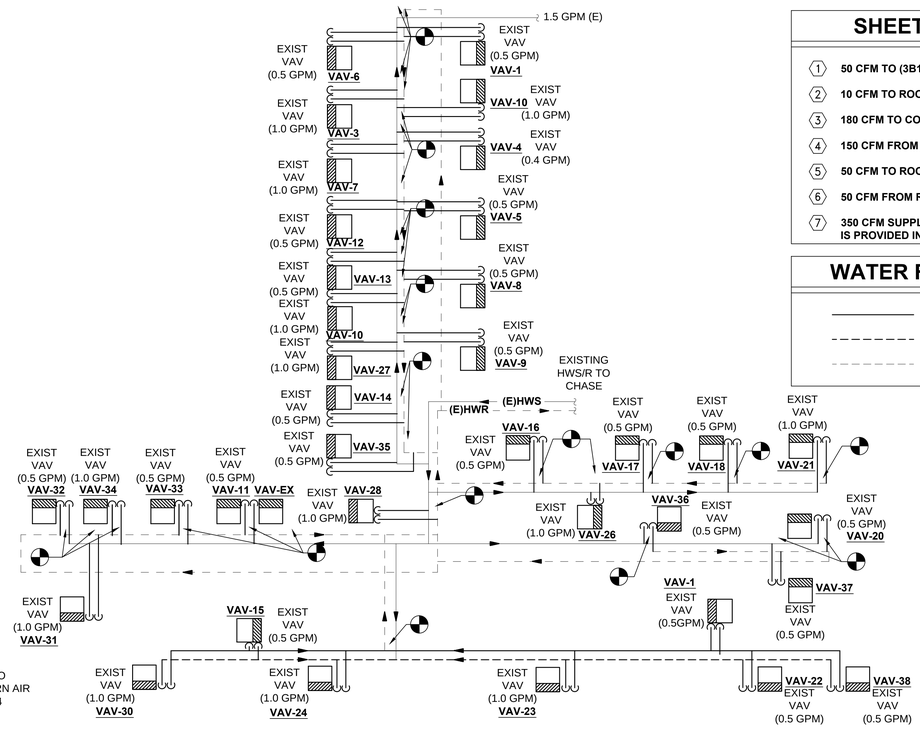
LEGEND

- SUPPLY AIR
- RETURN AIR
- EXHAUST/TRANSFER AIR
- EXISTING



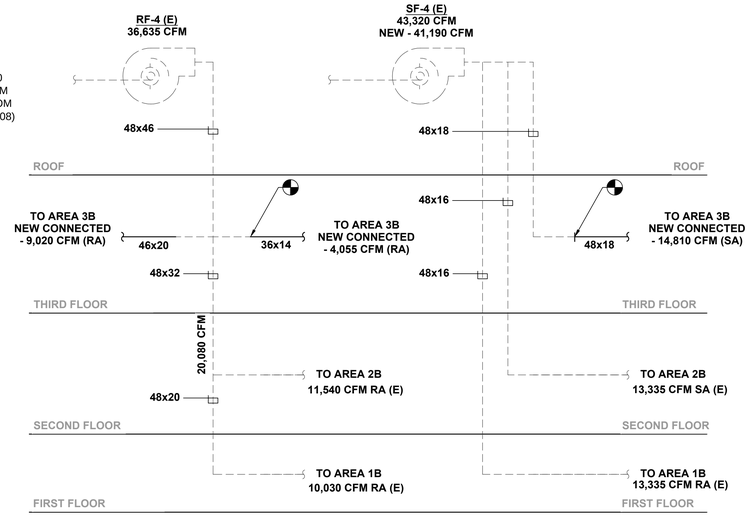
1 AIR FLOW CONTROL DIAGRAM

NTS



2 HEATING WATER FLOW DIAGRAM

NTS



3 AIR FLOW SCHEMATIC DIAGRAM (AHU-04)

NTS

CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15855 JACK ALLAN TURNBULL

ARCHITECT/ENGINEERS:

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766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **MECHANICAL FLOW CONTROL DIAGRAMS - THIRD FLOOR - B**

Approved: Project Director

Project Title: **RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE**

Location: **EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS**

Date: **08-13-2014** | Drawn: **JDG** | Checked: **BT**

Project Number: **598-13-110**

Building Number: **170**

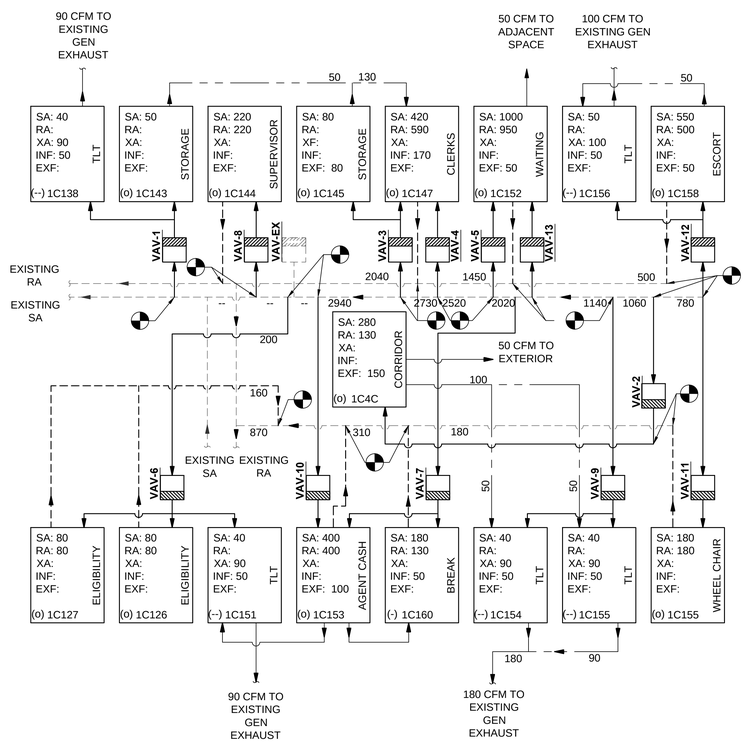
Drawing Number: **MH601**

Dwg. **11** of **14**

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

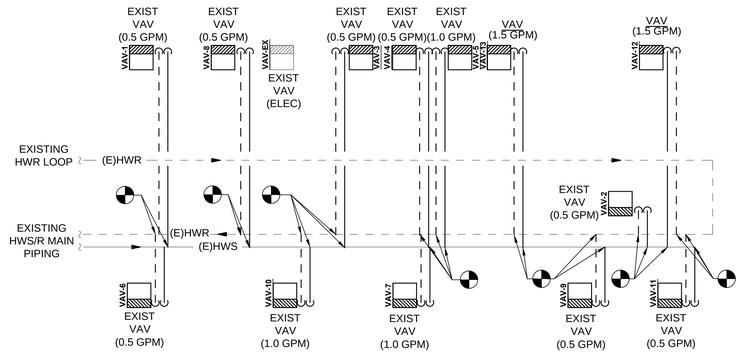
Department of Veterans Affairs

VA FORM 08-6231



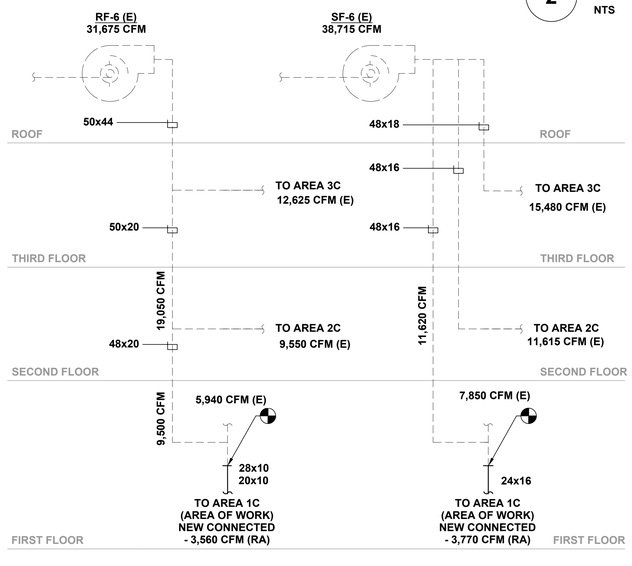
1 AIR FLOW CONTROL DIAGRAM

NTS



2 HEATING WATER FLOW DIAGRAM

NTS



3 AIR FLOW SCHEMATIC DIAGRAM (AHU-06)

NTS

AIR FLOW DIAGRAM LEGEND

- SUPPLY AIR
- RETURN AIR
- EXHAUST/TRANSFER AIR
- EXISTING

WATER FLOW DIAGRAM LEGEND

- SUPPLY
- RETURN
- EXISTING

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15855 BRYAN ALLAN TURNBULL

ARCHITECT/ENGINEERS:

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Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **MECHANICAL FLOW CONTROL DIAGRAMS - FIRST FLOOR - C**

Approved: Project Director

Project Title: **RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE**

Location: **EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS**

Date: **08-13-2014** | Drawn: **JDG** | Checked: **BT**

Project Number: **598-13-110**

Building Number: **170**

Drawing Number: **MH602**

Dwg. **12** of **14**

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

VA FORM 08-6231

VARIABLE AIR VOLUME BOXES

BOX NO.	CFM			INLET SIZE (DIA.)	MAX. ΔP ACROSS BOX IN H_2O	HEATING COIL		REMARKS
	NOMINAL	MIN	HEATING			BTU/HR (MBH)	GPM	
VAV-1	210	0	105	6	1.0	2.8	0.5	EXISTING VAV BOX
VAV-2	-	-	-	-	-	-	-	NOT USED
VAV-3	500	150	250	8	1.0	9.2	1.0	EXISTING VAV BOX
VAV-4	350	100	175	6	1.0	4.7	0.5	EXISTING VAV BOX
VAV-5	220	70	110	6	1.0	3.3	0.5	EXISTING VAV BOX
VAV-6	330	0	165	6	1.0	5.2	0.5	EXISTING VAV BOX
VAV-7	430	130	215	8	1.0	5.8	1.0	EXISTING VAV BOX
VAV-8	180	60	90	6	1.0	2.9	0.5	EXISTING VAV BOX
VAV-9	180	60	90	6	1.0	3.5	0.5	EXISTING VAV BOX
VAV-10	450	0	225	8	1.0	6.1	1.0	EXISTING VAV BOX
VAV-11	400	0	200	6	1.0	5.8	1.0	PROVIDE NEW VAV BOX W/RH
VAV-12	300	90	150	6	1.0	4.1	0.5	EXISTING VAV BOX
VAV-13	300	90	150	6	1.0	4.4	0.5	EXISTING VAV BOX
VAV-14	440	130	220	8	1.0	6.2	1.0	EXISTING VAV BOX
VAV-15	290	0	145	6	1.0	3.9	0.5	EXISTING VAV BOX
VAV-16	350	100	175	6	1.0	4.7	0.5	EXISTING VAV BOX
VAV-17	150	50	75	6	1.0	2.8	0.5	EXISTING VAV BOX
VAV-18	200	0	100	6	1.0	3.1	0.5	EXISTING VAV BOX
VAV-19	110	0	55	6	1.0	1.9	0.5	EXISTING VAV BOX
VAV-20	350	0	175	6	1.0	4.7	0.5	EXISTING VAV BOX
VAV-21	360	100	180	6	1.0	8.0	1.0	EXISTING VAV BOX
VAV-22	240	80	120	6	1.0	5.4	0.5	EXISTING VAV BOX
VAV-23	360	100	180	6	1.0	8.0	1.0	EXISTING VAV BOX
VAV-24	360	100	180	6	1.0	8.0	1.0	EXISTING VAV BOX
VAV-25	-	-	-	-	-	-	-	-
VAV-26	520	0	260	8	1.0	7.0	1.0	EXISTING VAV BOX
VAV-27	240	0	120	6	1.0	3.2	0.5	EXISTING VAV BOX
VAV-28	510	0	255	8	1.0	6.9	1.0	EXISTING VAV BOX
VAV-29	360	0	180	6	1.0	4.9	1.0	EXISTING VAV BOX
VAV-30	240	70	120	6	1.0	4.9	1.0	EXISTING VAV BOX
VAV-31	570	170	285	8	1.0	7.7	1.0	EXISTING VAV BOX
VAV-32	300	90	150	6	1.0	4.1	0.5	EXISTING VAV BOX

VARIABLE AIR VOLUME BOXES

BOX NO.	CFM			INLET SIZE (DIA.)	MAX. ΔP ACROSS BOX IN H_2O	HEATING COIL		REMARKS
	NOMINAL	MIN	HEATING			BTU/HR (MBH)	GPM	
VAV-33	200	0	100	6	1.0	3.1	0.5	EXISTING VAV BOX
VAV-34	400	120	200	8	1.0	5.6	1.0	EXISTING VAV BOX
VAV-35	380	120	165	6	1.0	5.1	0.5	EXISTING VAV BOX
VAV-36	150	0	75	6	1.0	2.2	0.5	PROVIDE NEW VAV BOX W/RH
VAV-37	400	0	200	8	1.0	5.4	0.5	PROVIDE NEW VAV BOX W/RH
VAV-38	200	60	100	6	1.0	3.5	0.5	PROVIDE NEW VAV BOX W/RH

AIR DISTRIBUTION SCHEDULE

MARK	TYPE	SERVICE	PATTERN	MIN CFM	MAX CFM	NECK	BLOW	MANUFACTURER'S NUMBERS
D1	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	0	150	6"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
D2	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	151	250	8"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
D3	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	251	350	10"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
D4	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	351	500	12"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
L1	LINEAR SLOT DIFFUSER	SUPPLY	48" LONG 3 SLOT	0	250	6"	-	METALAIRE SERIES 6600 WITH PLENUM
L2	T-BAR LAY-IN DIFFUSER	SUPPLY	48" LONG 3 SLOT	251	380	8"	-	METALAIRE SERIES 6600 WITH PLENUM
R1	T-BAR LAY-IN GRILLE	RETURN	HORIZONTAL LOUVERS	0	1000	18"x18"	N/A	METALAIRE MODEL "CC5S" WITH OBD
E1	SURFACE MOUNTED GRILLE	EXHAUST	HORIZONTAL LOUVERS	0	125	6"x6"	N/A	METALAIRE MODEL "RHD"
E2	SURFACE MOUNTED GRILLE	EXHAUST	HORIZONTAL LOUVERS	126	225	8"x8"	N/A	METALAIRE MODEL "RHD"

DESIGN CONDITIONS

UNIT	SUMMER SPACE TEMP./HUMIDITY	WINTER SPACE TEMP./HUMIDITY
(E)AHU-4	75°F DB/50% RH	70°F DB/50% RH

NOTES:
1. INSIDE SUMMER RELATIVE HUMIDITY IS +/- 10%.
2. INSIDE WINTER DESIGN TEMPERATURE IS +/- 2 DEG F.
3. INSIDE SUMMER DESIGN TEMPERATURE IS +/- 2 DEG F.

AMBIENT DESIGN CONDITIONS

SEASON	OUTSIDE TEMPERATURE
SUMMER	95.1°F DB/76.0°F WB
WINTER	16.4°F DB

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions: Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15855 BRYAN TIDWELL

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: MECHANICAL SCHEDULES THIRD FLOOR - B

Approved: Project Director

Project Title: RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE

Location: EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS

Date: 08-13-2014 | Drawn: JDG | Checked: BT

Project Number: 598-13-110

Building Number: 170

Drawing Number: MH603

Dwg. 13 of 14

CENTRAL ARKANSAS VETERANS AFFAIRS HEALTHCARE SYSTEM

Department of Veterans Affairs

VA FORM 08-6231

VARIABLE AIR VOLUME BOXES

BOX NO.	CFM			INLET SIZE (DIA.)	MAX ΔP_s ACROSS BOX IN H_2O	HEATING COIL		REMARKS
	NOMINAL	MIN	HEATING			BTU/HR (MBH)	GPM	
VAV-1	90	0	45	6	1.0	1.2	0.5	EXISTING VAV BOX
VAV-2	280	90	140	6	1.0	3.8	0.5	EXISTING VAV BOX
VAV-3	330	100	165	6	1.0	5.2	0.5	EXISTING VAV BOX
VAV-4	210	60	105	6	1.0	4.2	0.5	EXISTING VAV BOX
VAV-5	500	150	250	8	1.0	7.6	1.0	EXISTING VAV BOX
VAV-6	200	0	100	6	1.0	2.7	0.5	EXISTING VAV BOX
VAV-7	380	115	190	6	1.0	7.0	1.0	EXISTING VAV BOX
VAV-8	220	70	110	6	1.0	3.8	0.5	EXISTING VAV BOX
VAV-9	80	0	40	6	1.0	1.5	1.0	EXISTING VAV BOX
VAV-10	200	60	100	6	1.0	6.2	1.0	EXISTING VAV BOX
VAV-11	180	60	90	6	1.0	4.0	0.5	EXISTING VAV BOX
VAV-12	600	180	300	10	1.0	12.0	1.5	PROVIDE NEW VAV BOX W/RH
VAV-13	500	150	250	8	1.0	12.2	1.5	PROVIDE NEW VAV BOX W/RH

AIR DISTRIBUTION SCHEDULE

MARK	TYPE	SERVICE	PATTERN	MIN CFM	MAX CFM	NECK	BLOW	MANUFACTURER'S NUMBERS
D1	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	0	150	6"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
D2	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	151	250	8"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
D3	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	251	350	10"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
D4	T-BAR LAY-IN DIFFUSER	SUPPLY	LOUVER FACE	351	500	12"	4 WAY	METALAIRE SERIES 5000-2 WITH OBD
L1	LINEAR SLOT DIFFUSER	SUPPLY	48" LONG 3 SLOT	0	250	6"	-	METALAIRE SERIES 6600 WITH PLENUM
L2	T-BAR LAY-IN DIFFUSER	SUPPLY	48" LONG 3 SLOT	251	380	8"	-	METALAIRE SERIES 6600 WITH PLENUM
R1	T-BAR LAY-IN GRILLE	RETURN	HORIZONTAL LOUVERS	0	1000	18"x18"	N/A	METALAIRE MODEL "CC5S" WITH OBD
E1	SURFACE MOUNTED GRILLE	EXHAUST	HORIZONTAL LOUVERS	0	125	6"x6"	N/A	METALAIRE MODEL "CC5S"
E2	SURFACE MOUNTED GRILLE	EXHAUST	HORIZONTAL LOUVERS	126	225	8"x8"	N/A	METALAIRE MODEL "RDH"

DESIGN CONDITIONS

UNIT	SUMMER SPACE TEMP./HUMIDITY	WINTER SPACE TEMP./HUMIDITY
(E)AHU-6	75°F DB/50% RH	70°F DB/50% RH

NOTES:
1. INSIDE SUMMER RELATIVE HUMIDITY IS +/- 10%.
2. INSIDE WINTER DESIGN TEMPERATURE IS +/- 2 DEG F.
3. INSIDE SUMMER DESIGN TEMPERATURE IS +/- 2 DEG F.

AMBIENT DESIGN CONDITIONS

SEASON	OUTSIDE TEMPERATURE
SUMMER	95.1°F DB/76°F WB
WINTER	16.4°F DB

AIR CURTAIN SCHEDULE

MARK	TYPE	SERVICE	MAX VELOCITY	MIN CFM	MAX CFM	NOZZLE WIDTH	VOLTAGE	MOTOR HP	WEIGHT (LB)	BASIS OF DESIGN
AC-1	UN-HEATED	RM 102-1C	3600 FPM	1000	1465	34.62	120/1	1/5	35	BERNER INTERNATIONAL

CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER REG. NO. 15855 BRIAN ALLAN TURNBULL

ARCHITECT/ENGINEERS:

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Drawing Title: MECHANICAL SCHEDULES FIRST FLOOR - C

Approved: Project Director

Project Title: RENOVATE PRIMARY CARE - PATIENT ALIGNED CARE TEAM SPACE

Location: EUGENE J. TOWBIN HEALTH CARE CENTER NORTH LITTLE ROCK, ARKANSAS

Date: 08-13-2014 | Drawn: JDG | Checked: BT

Project Number: 598-13-110

Building Number: 170

Drawing Number: MH604

Dwg. 14 of 14

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