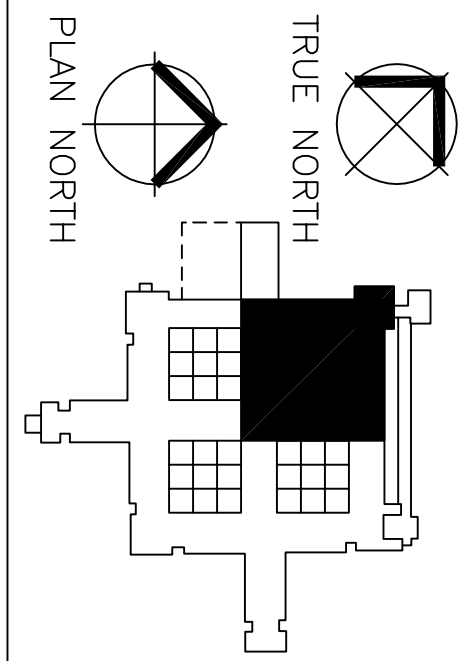
[illegible][illegible]

**DUNHAM** 

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PROJECT NUMBER: 0414950-004-00



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Massachusetts.

*Jason Gottwalt*

**JASON GOTTWALT, PE**

**Date 08/08/2014 Reg. No. 413560**

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Drawing Scale

AS NOTED

Plot Scale

12" = 1'-0"

Drawing Title  
**70-AH2NW-19 AIR HANDLING  
MECHANICAL PLANS**

Approved: Catharine Joyce, Chief, Projects Section

Approved: Steven Challeen, Director, Engineering

Project Title	UPGRADE AHUS PHASE 2
Location	V.A. MEDICAL CENTER ONE VETERANS DRIVE MINNEAPOLIS, MN 55417
Date	08/08/2014
Checked	JMG
Drawn	JMG

Project No.	618-13-130
Building Number	70
Drawing No.	1272-70-M-20
Dwg. of	30

Office of  
Facilities  
Management

 Department of  
Veterans Affairs

CD ISSUE  
FULLY SPRINKLERED

GENERAL NOTES:

1. REFER TO GENERAL NOTES SHOWN ON DRAWING 1233-70-MH3-0 FOR ALL APPLICABLE GENERAL, CONDITION, AND INJECTION CONTROL, NOTES THAT WILL APPLY TO ALL PROJECT PHASES. SUBMIT INJECTION CONTROL PLANS FOR MATERIAL DELIVERY, PRESSURE MONITORING, OPERATING SUTURE DISPOSITIONS, ETC. TO THE VA COR FOR APPROVAL PRIOR TO EACH PROJECT PHASE.
2. REFER TO BALANCING PLAN, ALONG WITH PHASED VENTILATION SCHEDULED, ON DRAWING 1233-70-MH2-3 FOR BALANCING CONTRACTOR REQUIREMENTS BETWEEN EACH CONSTRUCTION PHASE. SUBMIT ALL REPORTS DIRECTLY TO ENGINEER FOR APPROVAL PRIOR TO PROCEEDING TO NEXT PHASE.

## PHASING NOTES FOR AH2NW-19

[illegible]

KEY NOTES:

- 1 DEMOLISH EXISTING AHU. COORDINATE DEMOLITION WITH PROJE-  
PHASING. COORDINATE MATERIAL REMOVAL WITH VA COR. REFERENCE  
TO DRAWING MH2.2 FOR COMPLETE DEMOLITION PHASING PLAN  
AND NOTES FOR SEQUENTIAL REMOVAL OF EQUIPMENT  
COORDINATE BALANCING AND OUTAGE SCHEDULES WITH OVERALL  
PHASING PLAN INDICATED ON THIS DRAWING.

## AHU SITE ASSEMBLY NOTES:

1. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT DELIVERY OF ALL EQUIPMENT COMPONENTS AND INSPECT FOR DAMAGE. ANY REPAIR OR REPLACEMENT OF SPECIFIC EQUIPMENT SHALL BE PERFORMED BY THE CONTRACTOR AT THEIR EXPENSE.
2. CUSTOMER HANDLING UNIT WILL ARRIVE ON PALLETS WITH ALL COMPONENTS PROPERLY DISASSEMBLED AND READY TO BE REASSEMBLED. MECHANICAL CONTRACTOR IS RESPONSIBLE TO COORDINATE DELIVERY DATE AND HIRE A THIRD PARTY TO UNLOAD AND REASSEMBLE THE MECHANICAL UNIT. PLUMBING FROM EXTERIOR ACCESS POINTS SHALL ASSURE A MINIMUM OF TWO(2) SEPARATE CARRIER LIFTS WILL BE REQUIRED FOR PROTECT COMPLETION (REFER TO PHASING OUTLINE ON THIS DRAWING).

3. INCLUDING ANY PANEL MODIFICATIONS REQUIRED FOR ELECTRICAL AND CONTROLS INSTALLATION.
4. MECHANICAL CONTRACTOR SHALL FORM AGREEMENT WITH MANUFACTURER TO MAINTAIN ALL WARRANTY WORK REPAIRABLE, AIR HANDLING UNIT IN ACCORDANCE TO MANUFACTURER GUIDELINES TO MAINTAIN ORIGINAL SERVICE WARRANTY OF ALL COMPONENTS.
5. THE MANUFACTURER WILL SEND A FACTORY REPRESENTATIVE TO WEEK (per each assembled AHU). CONTRACTOR SHALL OBTAIN COORDINATE AND SCHEDULE THESE VISITS IN ACCORDANCE WITH FACTORY REPRESENTATIVE FOR ASSEMBLY PER MANUFACTURER STANDARDS. NOTE THAT THIS REPRESENTATIVE WILL NOT ASSIST WITH THE PROPER PROCEDURES FOR FACTORY COMPLIANCE AND TESTING.
6. A GENERIC ASSEMBLY PROCEDURE GUIDELINE FROM THE MANUFACTURER WILL BE AVAILABLE FOR CONTRACTOR WITHIN BIDS. PLEASE REQUEST THIS LITERATURE FROM THE ENGINEER OR RECORD PRIOR TO SUBMITTING FINAL BID.
7. ENGINEERING STAGN WILL NOT BE ALLOWED ON HOSPITAL GROUNDS WITHOUT APPROVAL FROM THE VA CORP. CLOSELY COORDINATE WITH THE VA CORP. TO PREPARE A FACTORY REPRESENTATIVE PRIOR TO DELIVERY. IT MAY BE NECESSARY TO STORE MATERIALS OFF SITE UNTIL NEEDED IN STAGES.

Install new temporary ductwork to now back feed all gross server room AHU's-19. The new point #20 (these duct connections are shown on detail 2/WH-3) and shall remain as permanent connections with motorized dampers to back feed un-der future emergencies or repairs).

Once everything is safely back-tied through #20, demolition of AH2NM-19 may begin. Re-open same section of relief tower removal all components directly through exterior wall. Include trash chute, or other approved method, to transport material to dumpster on grade.

Remove all AH2NW-19 connections to outdoor air intake, chilled water, steam heating/humidifier, reheat water, and any remaining heat recovery coils and piping.

**PHASE 3B – INSTALLATION OF NEW AH2NW-19**

Replace existing AH2NW-19 with new custom AHU that is factory

will be fully knocked down to individual panels and equipment components for transportation into existing mechanical room where it will be fully reassembled on site. AHU manufacturer shall provide a factory representative for a minimum of 40 hours to supervise assembly in order to maintain factory standards for workmanship, and assist mechanical contractor in start-up and owner training.

After AH2NW-19 is completely assembled, Controls Contractor will complete installation of all sensors and control wiring and build out automation sequence programming for testing and commissioning for proper operation.

Rebalance AH2NW-20 after temporary back feed duct connection has been isolated off.

Perform a complete commissioning of both completed air handling units. Mechanical Contractor shall coordinate with Controls Contractor and Dunham's Commissioning agent.