# ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT EQUIPMENT AND PROCUREMENT DIVISION BID INVITATION

Bid Numbe	er: M-14-042P	BID OPENING LOCATION: AHTD Equipment and Procurement Division		Equipr	nent and	<b>DELIVER TO:</b> AHTD Equipment and Procurement Division
Bid Op	pening Date: <u>April 14, 2014</u> Time: <u>11:00 a.m.</u>	11302 West Baseline Rd. Little Rock, AR 72209		Box 226 Rock, A		11302 West Baseline Rd. Little Rock, AR 72209
deliver	I bids for furnishing the commodities and/or services described below, sub y locations until the above-noted bid opening date and time, and then pub ments when appropriate, or bids will be rejected. Late bids and unsign	licly opened at the above-noted bid o				
	pliance with this Bid Invitation and subject to all the Conditions thereof, the $\ensuremath{\omega}$ te each item.	undersigned offers and agrees to furnis	h any and all	l items up	oon which pric	es are quoted, at the price set
Comp	pany Name:	Name (Type or Print):_				
Addre	ess:	Title:				
		Phone:		Fa	ax:	
City:_	State: Zip:	E-mail Address:				
Federa	al Tax ID or Social Security No.:	Signature:				
		Signature must be legible, Unsigned bids will be reject	original (not <u>cted.</u>	t photoco	ppied) and in ir	nk.
Item No.	Description		Quantity	Unit	Unit Price	e Amount
1.	Furnish, Deliver and Install new Variable Refr HVAC System – Job #42-79	igerant Flow (VRF)				
		LUMP SUM	[			
	To meet the requirements of Arkansas State Highway ar Specifications and Drawings M-1, M-2 & M-3 attached FOB: AHTD Planning Building, 10324 Interstate 30, L Contact Person(s): Phillip Watkins (501-569-2625) or If any literature and/or specifications of items conflict w	to and made a part of this bid little Rock, AR 72209 Ray Gruver (501-569-2090).	l.	s) shall	be specific	cally noted, corrected
	and submitted with the bid.  Subsection 105.04, 108.07, 109.01 and 109.02 of the Al will be in effect. (Specifications are accessible on our w				onstruction	, Edition of 2014,
	Bid price shall include all labor, materials, and equipme licenses, fees, permits, royalties, and <u>all taxes</u> . Bid pric provision supersedes Condition 4 on Page 2 of Bid Invit Transportation Department Standard Specifications and	te shall represent full compen- tation. Payment will be made	sation for in accord	compl	etion of the	e work. This
	<b>Bid Bond</b> in the amount of 5% of total bid price require company checks are not acceptable as Bid Bonds. checks of any kind allowed) in the amount of 100% goods/services. See Condition 3 on page 2 of Bid Invita	See Condition 3 on page 2 of total bid price will be re	of Bid Inv	vitation	. Perforn	nance Bond only (no
	The successful bidder will be required to begin within to days after notice to begin.	en (10) days after notice to be	gin and co	omplet	e within fo	rty-five (45) working
	Arkansas Contractor's License No Current Arkansas Contractor's License Number must be (A.C.A. ¶17-25-101 <i>et.seq.</i> ).	e listed or bid will be rejected				
	Bids and Specifications are available on-line by going to "Commodities and Services Bids/Contracts Information opening. If you have any questions, call this office at 50	". Tabulations will also be av				
	(42-0094) 63-00	1	Ī	Т	OTAL BID	

#### STANDARD BID CONDITIONS

#### M-14-042P

- 1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.
- 2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.
- BID BONDS AND PERFORMANCE BONDS: If required, a Bid Bond in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. Personal and company checks are not acceptable as Bid Bonds. Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a Performance Bond in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. Personal and company checks are not acceptable as Performance Bonds. In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U.S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.
- 4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.
- 5. "ALL OR NONE" BIDS: Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.
- 6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.
- 7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.
- 8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.
- 9. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.
- 10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.
- 11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.
- 12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
- 13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.
- 14. **ETHICS:** "It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business." (Arkansas Code, Annotated, Section 19-11-708).

## ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

### NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation (Department) complies with the Americans Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964 and other federal equal opportunity laws and therefore does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in admission or access to and treatment in Department programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. McFadden, Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: Joanna.Mcfadden@arkansashighways.com.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

#### ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

#### **SPECIFICATIONS**

# VARIABLE REFRIGERANT FLOW HVAC SYSTEM FOR PLANNING BUILDING JOB 42-79

#### SCOPE

Work under this project shall consist of new Variable Refrigerant Flow (VRF) HVAC System for the Planning Building located at 10324 Interstate 30, Little Rock, Arkansas. All work for the complete VRF HVAC System Installations shall be as indicated on the Plans or as called for in these Specifications, or as directed by the Engineer. These Specifications and the Plans cover the furnishing of <u>all</u> materials, labor, tools, equipment, machinery, caulking, drayage, rigging, fees, permits, and any and all incidental items required to complete the work.

#### LOCAL CONDITIONS

Bidders are required to visit the site prior to submission of proposal to familiarize themselves with local conditions, including general characteristics of the existing structures and contents and accessibility of the work.

#### **PERMITS**

The Contractor, if awarded the Contract for the new VRF HVAC System, shall obtain and also pay for all permits required, shall give all legal notices, and shall pay for all fees and taxes required for the work.

#### **EXAMINATION OF PLANS AND SPECIFICATIONS**

The Contractor shall examine the Plans and Specifications and shall become fully informed as to the extent and character of the work to be performed. No consideration will be given to alleged misunderstanding of materials to be furnished or work to be required under this Contract. Submission of a proposal is an implied consent to the conditions of these Specifications and of the Plans.

#### PROTECTION OF EXISTING FACILITY

The Contractor is advised that the work is to be performed in and on an existing building, which is occupied. The Contractor shall exercise care and caution to prevent interference with those working in these facilities. The Contractor is also advised that he is responsible for protecting the existing facilities and occupants against damage or injury from his workmen, work in progress, or the elements.

#### SCHEDULING AND COMPLETION OF WORK

The Contractor shall schedule his work so as to create a minimum amount of inconvenience to the normal work routine of the Division Personnel.

#### ACCESS TO THE WORK

The Engineer or his representatives shall have access to the work at all times and shall be permitted to approach, enter or examine all stages or phases of the work as it progresses, and shall have authority to reject work which is defective in workmanship or material.

#### REQUIRED SUPERVISION

The Contractor shall keep on the job at all times, when work is in progress, a competent superintendent satisfactory to the Engineer. The superintendent shall represent the Contractor in his absence and all instructions given to him shall be binding on the Contractor. Workmanship shall be by craftsmen skilled in their trade and shall be in accordance with the best standard practice.

#### **ACCIDENT PREVENTION**

Precaution shall be exercised at all times for the protection of persons and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment and other hazards shall be guarded in accordance with safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws. The Contractor shall be responsible for any damage which may be caused by workmen during the performance of the work.

#### **CONTRACT TIME LIMIT**

The Contractor shall begin within ten (10) days after notice to begin and shall complete the work within forty five (45) working days after notice to begin.

#### QUALITY OF MATERIAL

All material, appliances or appurtenances furnished under these Specifications shall be new, unused, and shall be free from defects and imperfections. Any material, appliance or appurtenance found to be defective shall be replaced by the Contractor at no additional cost to the Arkansas State Highway and Transportation Department, for material or labor. All material shall comply with the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2014 and these Specifications. Any material not covered in the above Specifications or on the Plans shall be approved by the Engineer.

#### SUBSTITUTION OF MATERIAL

Where a definite material is specified, it is not the intent to discriminate against any equal product of another manufacturer. It is the intent to set a definite standard. Open competition is expected, but in all cases, complete data must be submitted on all proposed substitutions and samples shall be submitted for comparison and testing when requested.

No substitution shall be made unless authorized in writing by the Department. If the Contractor intends to substitute an equal product, he shall make this fact known, in writing, to the Department within ten (10) days after the award of the Contract. Otherwise, the Contractor will be required to furnish materials and specialties of the brands named in the Specifications. Should a substitution be accepted and should the substituted material prove defective or otherwise unsatisfactory for the service intended and within the guaranty period, the Contractor shall replace this material or equipment with the material or equipment specified by name at no cost to the Department.

#### **CLEAN-UP**

The Contractor shall not allow any waste material or rubbish caused by his employees to accumulate in or about the premises but shall promptly remove same. At completion of the work, all rubbish, tools, scaffolding and surplus materials shall be removed and the Contractor shall leave the site clean and ready to use.

#### **GENERAL**

This work shall consist of furnishing and installing a new LG Multi V Indoor Cassettes and Multi V IV Outdoor (VRF) Variable Refrigerant Flow Systems or Equivalent HVAC System and connections/interface to the Department's existing Automated Logic Control System. The new VRF HVAC system will be installed in two (2) phases with north end of the Planning Building being phase1, see plans sheets: M-1 and M-2. This work shall include all clean-up, labor, materials, tools, machinery, hardware, and all items required for each phase of the new VFR HVAC System installation.

#### **VRF Indoor Equipment**

Indoor VRF equipment shall be LG Multi V or equivalent. Example: Model - ARNU093TRC2 See drawing M-1 for specific Model Numbers and BTU ratings.

#### PRODUCT DESCRIPTION

The VRF indoor units can only be used with compatible air source or water source outdoor units.

#### **VRF Ceiling Cassette – Indoor Units**

Wall Mounted – Standard Ceiling Cassette – 1 Way Ceiling Cassette – 4 Way

#### **Ceiling Cassette Electrical**

The unit electrical power shall be 208-230/1/60 (V/Ph/Hz)

The unit shall be capable of operating within voltage limits of +/- 10% of the rated voltage.

#### **VRF Outdoor Equipment**

Outdoor VRF equipment shall be LG Multi V IV Heat Recovery or equivalent. Unit selection based on using 2 – 14 ton Multi V IV Heat Recovery Outdoor Units. See drawing M-3 for specific Model Numbers and BTU ratings.

#### **VRF Outdoor Electrical**

The VRF system shall be capable of operating with 460Vc 60Hz, 3 phase power.

#### Refrigerant Piping

Refrigerant piping must be ACR with no more than 5 feet of soft/ roll refrigeration copper for unit connections.

#### NOTE:

- (1) All roof penetrations must meet manufacturer's specifications.
- (2) VFRs outdoor units stand/framework must be approved by roof manufacturer's representative.
- (3) Example: (See attached Bigfoot Frame detail)
- (4) Rooftop location detail is not exact. Structure must be inspected prior to unit installation.
- (5) Rooftop work to be completed in first phase. See plan sheet M-1 and M-2.

#### **Existing Condition**

The Department's Planning Building has six (6) existing Fan Coil units and antiquated winter/summer change over piping which is presently connected to the Automated Logic control system.

#### Make-up Air Unit

Make-up Air Unit must be provided by contractor in conjunction with new VRF system. Make-up Air Unit must be Modine, Atherion Packaged DX Rooftop or Equivalent Make-up Air Unit. Unit must be equipped with bottom supply and exhaust through curb. Model Number - MPR07BB1B1A1Q16D1ANDA1QN (7-tons nominal). See drawing M-3.

#### Make-up Air Unit Electrical

The MAU shall be capable of operating with 460Vc 60Hz, 3 phase power.

# Building Automation Control Integration Instrumentation and Control for HVAC

The VRF equipment shall be furnished with a BACnet card that allows it to integrate to the existing BAS system.

#### **Approved Control System Manufacturers**

**Automated Logic Corporation** 

#### **Quality Assurance**

Installer and Manufacturer Qualifications

Installer shall have an established working relationship with Control System Manufacturer.

Installer shall have successfully completed Control System Manufacturer's control system training.

Upon request, Installer shall present record of completed training including course outlines.

#### **Codes and Standards**

Work, materials, and equipment shall comply with the most restrictive of local, state, and federal authorities' codes and ordinances or these plans and specifications. As a minimum, the installation shall comply with the current editions in effect 30 days prior to the receipt of bids of the following codes:

- 1. National Electric Code (NEC)
- 2. International Building Code (IBC)
  - a. Section 719 Ducts and Air Transfer Openings
  - b. Section 907 Fire Alarm and Detection Systems
  - c. Section 909 Smoke Control Systems
  - d. Chapter 28 Mechanical
- 3. International Mechanical Code (IMC)
- 4. ANSI/ASHRAE Standard 135, BACnet A Data Communication Protocol for Building Automation and Control Systems

#### **General Workmanship**

- A. Install equipment, piping, and wiring/raceway parallel to building lines (i.e. horizontal, vertical, and parallel to walls) wherever possible.
- B. Provide sufficient slack and flexible connections to allow for vibration of piping and equipment.
- C. Install equipment in readily accessible locations as defined by Chapter 1 Article 100 Part A of the National Electrical Code (NEC).

#### **WARRANTY**

The VRF HVAC System shall be installed by a Manufacturer's authorized Contractor for sales, installation, training and support team. The Manufacturer's Representative shall make any inspections he deems necessary to warranty the VRF HVAC System against defective materials and/or workmanship for a period of not less than one (1) years with a "No Dollar Limit" on the guarantee from the date-of-installation/acceptance. The manufacturer shall offer a two (2) extension on the standard warranty for an additional cost. All HVAC Compressors shall come with five (5) years warranty. The warranty shall be on the Manufacturer's Guarantee Form/Document properly executed by the Manufacturer, and is a requirement for final payment.

#### **INSTALLER'S GUARANTEE**

An Installer's Guarantee for a period of one (1) year shall be furnished to the Arkansas State Highway and Transportation Department (Owner) upon completion of all work and as a condition to its acceptance and final payment.

#### METHOD OF MEASUREMENT

Variable Refrigerant Flow (VRF) HVAC System to be installed and connected to the Automated Logic Control System complete, in place and operating, as called for in these Specifications, as indicated on the Plans, or as directed by the Engineer and accepted, will be measured for payment by the "Lump Sum".

#### **BASIS OF PAYMENT**

Work completed and accepted under this item and measured as provided above, will be paid for at the lump sum price bid for "Variable Refrigerant Flow (VRF) HVAC System", which price shall be full compensation for all materials, labor, tools, equipment, machinery, caulking, drayage, rigging, fees, permits, clean-up, guarantees and any and all incidental items required to complete the work.

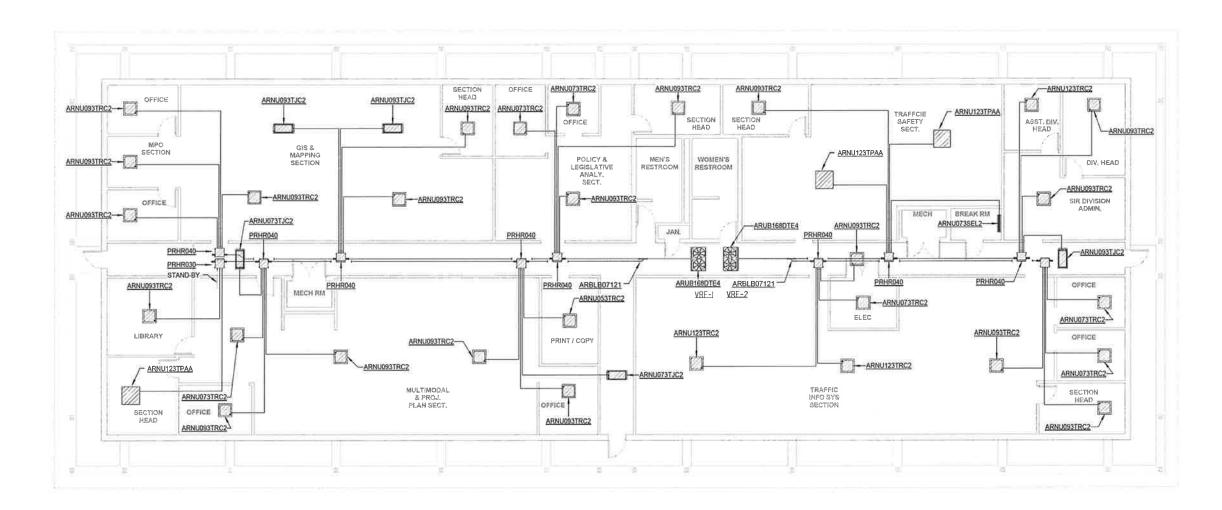
PAY ITEM PAY UNIT

Variable Refrigerant Flow (VRF) HVAC System Complete

Lump Sum

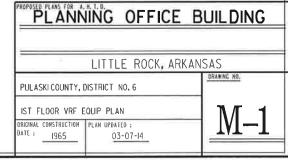
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IST FLOOR VRF EQUIP PLAN



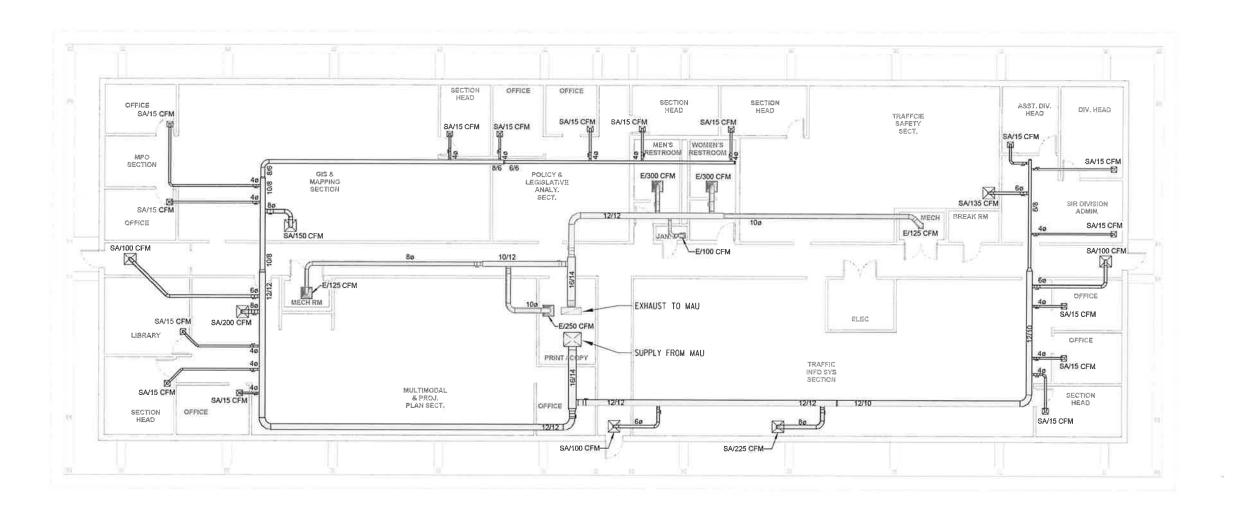
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4 IST FLOOR HVAC PLAN

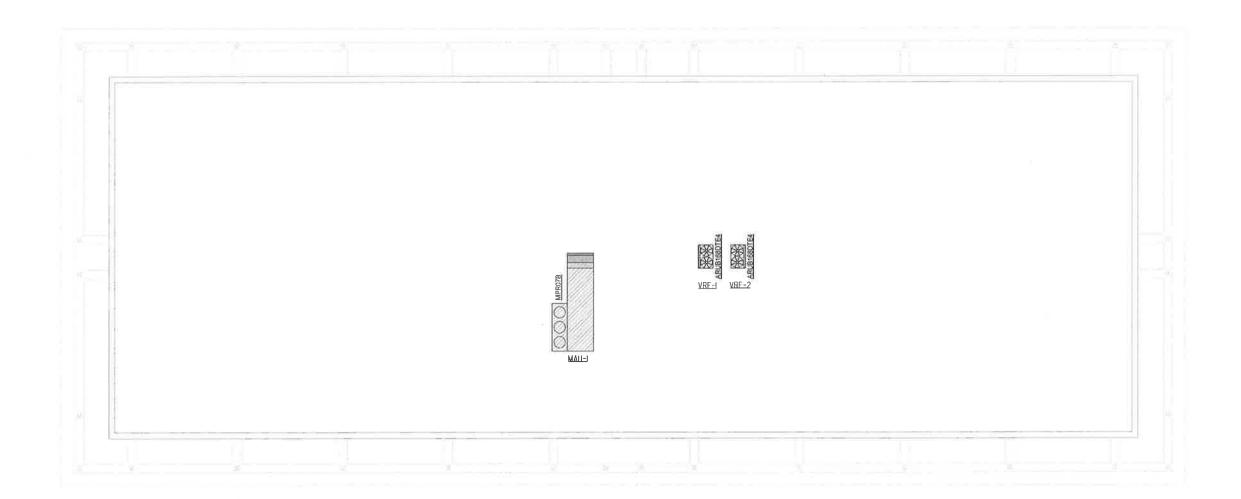




PLANNING	OFFICE	BUILDING
LITT	LE ROCK, ARK	ANSAS
PULASKI COUNTY, DISTRICT	NO. 6	DRAWING NO.
IST FLOOR HVAC PLAN		1 7/1 6
ORIGINAL CONSTRUCTION PLAN UPD DATE: 1965	TED : 3-07-14	

DATE DATE REVISED FILMED REVISED FILMED FILM

4 ROOF EQUIPMENT PLAN





PLANN	ING OFFICE	BUILDING		
LITTLE ROCK, ARKANSAS				
PULASKI COUNTY, D	DRAWING NO.			
ROOF EQUIPMENT	] <b>1</b> // 9			
ORIGINAL CONSTRUCTION DATE: 1965	PLAN UPDATEO : 03-07-14	<u>IVI-3</u>		