SA&I 1-4040 (2000)

Canadian	_ County, Oklahoma
COUNTY PURCHAS	ING OFFICE
El Reno	County Court House
Phone:( 405 ) 295-6125	· .

			, INV	/ITATION TO BID				EISSUED
PLEASE F	REVIEW TERMS	AND CON	DITIONS ON REVERSE					il 4, 2016
	ATING TO SUBN Affidavit completi		r 1115 BID. nature required on reverse side.				Page	1 of _2
	MBER HVAC			BID CLOSING DATE AND HOUR May 2, 2016 at 9:30am	REQU SEE	RED DELIV	/ERY CATI	DATE IONS
#2016-	+10 nealth	Departm	lent	Way 2, 2010 at 9.30am	I			vard of Purchase Order
TERMS Net, FC	B Bids will b	oe receive	ed beg. 9:30am Tuesday Ap	ril 26, until May 2, 2016 @ 9:30	0am	DATE OF SEE SP	ECIF	ICATIONS
ITEM	QUANTITY	UNIT OF ISSUE	DESCR	IPTION		UNIT PR	ICE	TOTAL
			Canadian County Health De HVAC Replacement.	epartment is seeking bids for				\$
			Specifications attached.					Total
			right to reject any and all bi the items bid. All data will t the bid including the deliver	unty Commissioners reserves ds or to award all or any portion considered in the awarding ty time.	n of of			
			the bid will be rejected.  Contact person: John John 201 N Ch	nson, Chief of Staff octaw OK 73036				
			April 4,	PROVED  Wolfs  2016  Department Head	_	FIL SH	ANA ED AP ELL COL	OF OKLAHOMA DIAN COUNTY OR RECORDED R 0 4 2016 EY DICKERSON UNTY CLERK 6 0 1 7 6

### **TERMS AND CONDITIONS**

1.	Sealed hids will be opened in the Commissione	er's Confere	nce Room Cana	adian	
	Sealed bids will be opened in the Commissione County Courthouse, 201 N. Choctaw Avenue, invitation to bid form.	El Reno	, Oklaho	oma, at the time and date shown on the	- 16
2.	Late bids will not be considered. Bids must be rand closing date written on the outside of the	eceived in s envelope.	sealed envelopes	(one to an envelope) with bid number	
3.	Unit prices will be guaranteed correct by the b	idder.			
4.	Firm prices will be F.O.B. destination.				
5.	Purchases by Canadian	—— Cou	nty, Oklahoma, a	re not subject to state or federal taxe	s.
6.	This bid is submitted as a legal offer and any b	oid when ac	cepted by the Co	ounty constitutes a firm contract.	
7.	Oklahoma laws require each bidder submittin sworn statement of non-collusion. A form is su			ds or services to furnish a notarized	ţ
8.	Bids will be firm until 06/02/2016 [DATE]				
of s mo: paid oth	with any state official or employee as to quantificated prospective contract; or in any discussions they or other thing of value for special considered, given or donated or agreed to pay, give or derentity) any money or other thing of value, eight pursuant to this bid.	between betion in the donate to a	pidders and any letting of a contr any officer or em	state official concerning exchange o act; that the bidder/contractor has no ployee of the State of Oklahoma (o	f ot r
Subs	scribed and sworn before this day				
of -	, 20	(SEAL)			
					_
Му с	ommission expires	Signed by:	(Manual Signature of L	Title: Indersigned)	
	NOTARY PUBLIC (CLERK OR JUDGE)	Address:		Phone:	_
		City:		State:	_
,				Zip:	_
Ple	ase mail sealed bids to:				

Please mail sealed bids to: Canadian County Clerk's Office Attn: Purchasing PO Box 458 El Reno, OK 73036

Street Address: 201 N Choctaw Avenue El Reno, OK 73036



# **Bid Specifications**

Date Issued:

April 4, 2016

Bid Number:

2016-#16

Closing Date:

May 2, 2016 at 9:30am

PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036

Opening Date:

May 2, 2016 at 9:30am

Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

~ SPECIFICATIONS~

#### **HVAC Replacement / Health Department**

Canadian County Health Department is seeking bids for HVAC Replacement for the Health Department located at 100 S. Rock Island, El Reno, Oklahoma.

# Bids will be received beginning at 9:30am on Tuesday, April 26 until 9:30am on Monday, May 2, 2016.

- Project will be completed four (4) weeks or less from time of notification of award and will be installed to state and local codes.
- Contractor will be responsible for all electrical and gas connections, all lifting devices, miscellaneous supplies, manpower and cleanup.
- Contractor will provide equipment brand names and model numbers when quoting for this bid.
- Any electrical work necessary to provide power to the HVAC System shall be considered incidental to the project and any cost shall be included in the bid.

### Bids shall be accompanied by:

• A certified check, cashier's check or bid bond equal to five percent (5%) of the bid, which shall be deposited with the awarding public agency as a guaranty; or

An irrevocable letter of credit terms the Construction and Properties Division of the Office of Management and Enterprise Services prescribes, issued by a financial institution insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation for the benefit of the state, on behalf of the awarding public agency, in an amount equal to five percent (5%) of the bid. The awarding public agency shall deposit the irrevocable letter of credit with Division.

Business Relationships Affidavit

### Awarded vendor shall provide:

- Contract
- Payment/Performance Bond
- Insurance Contractor must provide evidence of public liability and workers' compensation insurance during construction in reasonable amounts.

# (Please review Title 61 O.S. § 101-138 for full disclosure)

#### SEE SPECIFICATIONS ATTACHED.

### **Special Notation:**

Brand names or specific detailed items are for informational purposes only and you may offer any brand that meets or exceeds the specifications.

For Information Contact:

John Johnson, Chief of Staff

Phone: (405) 295-6201

Hours: Monday - Friday 8:30am to 4:00pm

Address: 201 N. Choctaw, El Reno, OK 73036

If you have any questions or need additional information, please contact: Sherry Murray, Purchasing Agent, 405.295.6125 or 405.422.2441 smurray@okcana.cogov.net

# **GUIDE SPECIFICATIONS**

# HEAT PUMP VARIABLE REFREGERANT FLOW OUTDOOR UNITS

Toshiba Carrier Model Number: MMY--AP---4HT-UL

Size Range: 6 to 20 Ton Nominal Capacity

#### PART 1 - GENERAL

#### 1.01 System Description

- A. The Toshiba Carrier Heat Pump Variable Refrigerant Flow system is a two pipe system consisting of a single or multiple outdoor units, multiple indoor units of various types and capacities, individual or central indoor unit controls with on/off temperature settings, all connected by fully insulated refrigerant lines utilizing factory supplied, fully insulated, branching kits. Indoor units are connected to condensate piping that shall be terminated to the nearest drain point.
- B. The system shall be fully capable of providing heating or cooling as requested by the individual indoor zones that can consist of single or multiple indoor units. The heating priority shall be the default factory setting and can be changed into cooling, majority or a single zone priority.
- C. The maximum number of connected indoor units shall not exceed 38.
- D. The total connected indoor unit capacity shall range between 80 and 125% of the outdoor unit capacity.

#### 1.02 Agency Listings.

- A. Units shall be listed by ETL and be evaluated in accordance with UL standard 1995, 4th. edition.
- B. Units shall be listed in the AHRI directory.
- C. All units shall meet the minimum Federal minimum efficiency standards and be tested per AHRI 1230 Standard.

#### 1.03 Delivery, Storage, and Handling

- A. Units shall be shipped in one piece and shall be stored and handled per unit manufacturer's recommendations.
- B. Units shall be supplied with a base rail that provides openings for moving the unit by fork truck or rigging the unit by crane.

## 1.04 Warranty (For Inclusion by Specifying Engineer)

### PART 2 - PRODUCTS

### 2.01 Equipment

#### A. General:

Factory assembled, single piece, air-cooled outdoor unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and the multiple inverter driven twin rotary compressors.

- 1. The maximum sound pressure rating for s single module shall not exceed 62 dB(A) sound pressure in cooling and 63dB(A) in heating. For twinned systems the sound pressure numbers should not exceed 65 dB(A) and 66 dB(A).
- 2. The outdoor unit shall include an oversized accumulator and a liquid tank for proper heating performance while allowing the indoor unit PMV valve (metering device) to shut off completely when a zone is satisfied.
- 3. The outdoor unit shall be protected by a High-pressure switch, Hight-pressure sensor, Low-pressure sensor, Fusible plug, PC board fuse, and an inverter overload protector.
- 4. The outdoor unit shall be capable of operating in cooling mode down to 23°F ambient air temperature and down to 5°F WB ambient air temperature in heating.
- 5. The outdoor unit shall include a total oil management system that balances oil between compressors within a module, replenishes compressor oil to the compressors in a module from the oil separator if required, and allows to move oil and refrigerant between twinned units if required even if one of the units is not running.

### B. Unit Cabinet:

- 1. Unit cabinet shall be constructed of pre-coated steel, finished on both inside and outside.
- 2. Unit access panels shall be removable with minimal screws and shall provide full access to the compressors, fan, and control components.
- 3. Compressors shall be isolated in a compartment and have an acoustic wrap to assure quiet operation.
- 4. The outdoor unit control panel shall include a sliding window to access adjustable controls and an LED display for setup and diagnostics.
- 5. Unit cabinet shall be capable of withstanding 500-hour salt spray test per Federal Test Standard No. 141 (method 6061).

#### C. Fans:

- 1. Outdoor fan shall discharge air vertically and be driven by a DC inverter variable speed motor with 64 steps that is capable of running down to 60 RPM.
- 2. Outdoor fan motor shall be totally-enclosed with permanently-lubricated bearings.
- 3. Motor shall be protected by internal thermal overload protection.
- 4. Fan blade shall be non metallic and shall be statically and dynamically balanced.
- 5. Outdoor fan shall be protected by a raised non metallic protective grille.

#### D. Compressors:

- 1. Each outdoor unit module shall be equipped with two or three inverter driven twin rotary compressors with full range control to a level of 0.1 Hz.
- Compressor shall be totally enclosed in the machine compartment.
- 3. Compressors shall be equipped with factory mounted crankcase heaters.
- 4. Internal overloads shall protect the compressor from over-temperature operation.
- 5. Motor shall be suitable for operation in an R-410A refrigerant atmosphere.
- 6. Compressor assembly shall be installed on rubber vibration isolators.
- 7. To maximize compressor reliability, multiple compressors, within a module, shall be started and operated in variable patterns to ensure equal run time on all compressors.
- 8. To ensure maximum efficiency throughout the system operation range, no compressor is required to run at maximum speed under any condition.

#### E. Outdoor Coil:

- 1. Coil shall be constructed of aluminum fins mechanically bonded to seamless copper tubes, which are cleaned, dehydrated, and sealed.
- 2. The coil configuration shall be 4 sided and fully separated from the machine compartment for more effective heat transfer and sound isolation.
- 3. The coil fins shall have a factory applied corrosion resistant blue-fin finish.

### F. Controls and Safeties:

Operating controls and safeties shall be factory selected, assembled, and tested. The minimum control functions shall include the following:

#### 1. Controls:

- a. Compressor speed to match the refrigerant flow and capacity with the system requirements.
- b. Outdoor fan motor speed for higher efficiency and lower sound.
- c. Oil control for improved system reliability and comfort
- d. Pulse modulating valve control for precise control of the refrigerant distribution and accurate capacity management to avoid starving any units.
- e. Control of compressor staging to maximize reliability and minimum run time on all compressors.
- f. Module control of compressor operation, compressor speed, and outdoor heat exchange surface to maximize efficiency and sound level and reliability across the entire operating range of the system.
- g. Control of the outdoor heat exchanger surface (main vs. sub heat exchangers) for maximum efficiency and comfort.

#### 2. Safeties:

The following safety devices shall be part of the condensing unit:

- a. High pressure switch
- b. Fuses
- c. Crankcase heater
- d. Fusible plug
- e. Over current relay for the compressor
- f. Thermal protectors for compressor and fan motor
- g. Compressor time delay
- h. Oil Recovery system
- i. Oil level sensor
- j. Over-current sensor
- k. Compressor suction and discharge temperature sensor
- Compressor suction and discharge pressure sensor

#### H. Electrical Requirements:

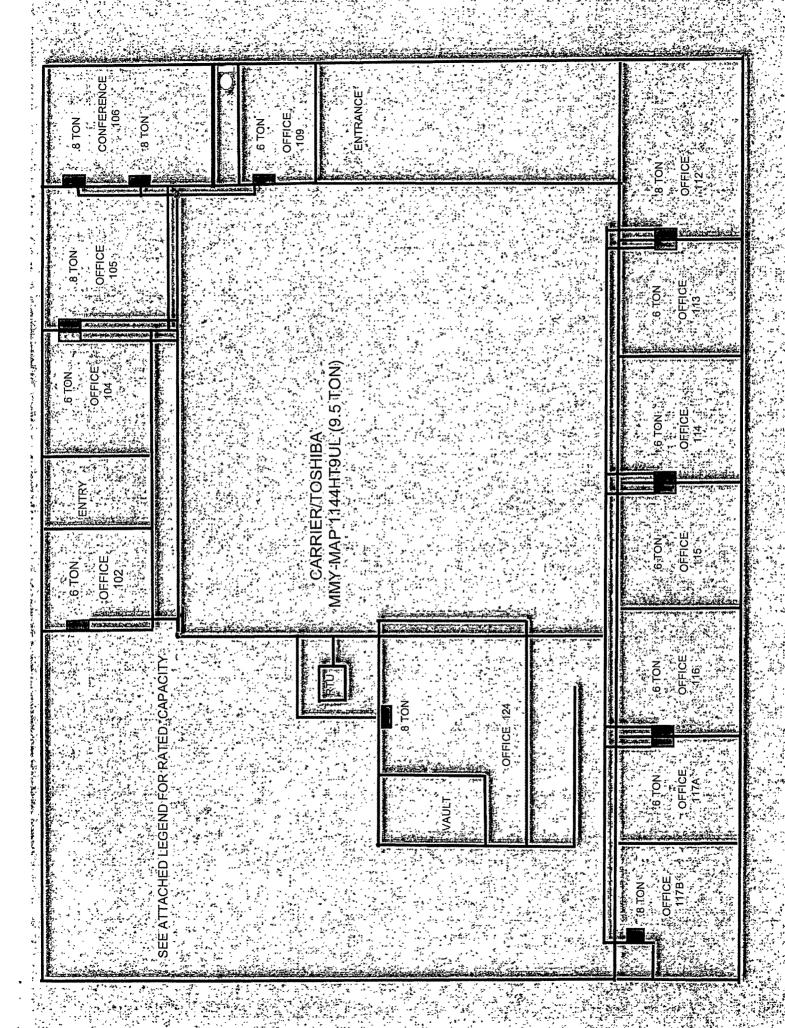
- 1. All sizes shall utilize 208/230-3-60 or 460-3-60 field power supply.
- 2. Twinned systems shall have separate field power supply to each module.
- 3. Two core shielded low voltage cable is shall be required for communication between outdoor and indoor unit.
- 4. All power and control wiring must be installed per NEC and all local electrical codes.

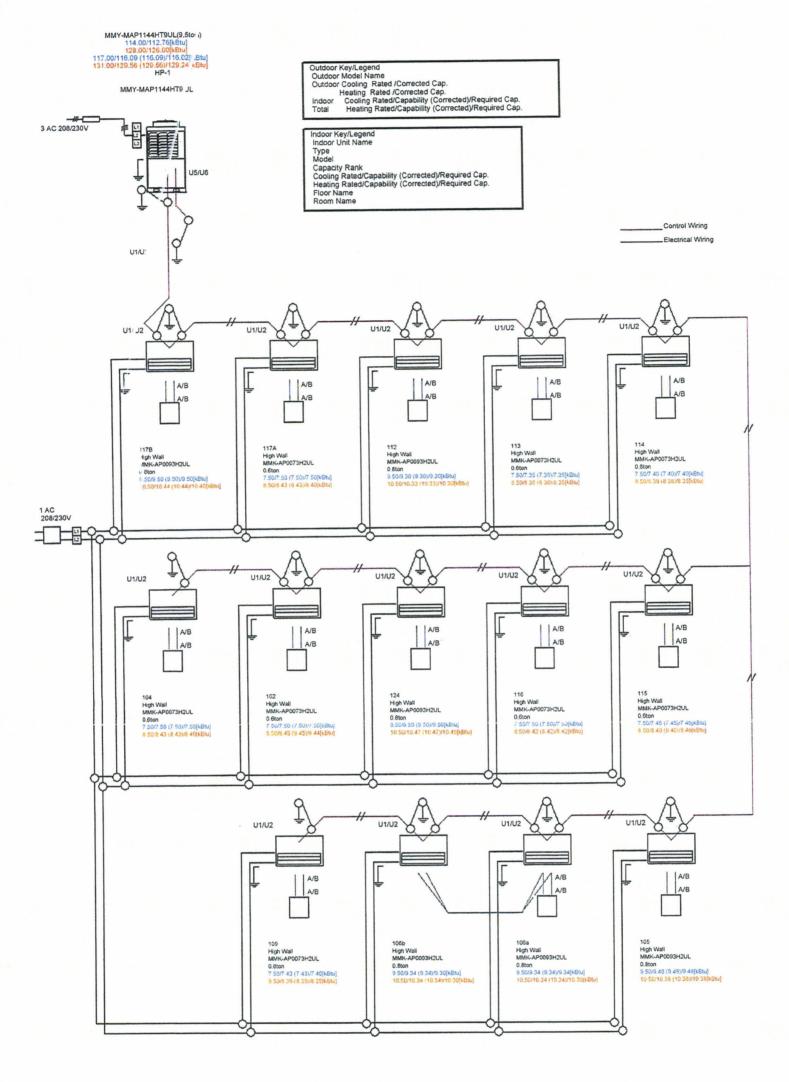
# I. Refrigerant Piping and Line Lengths:

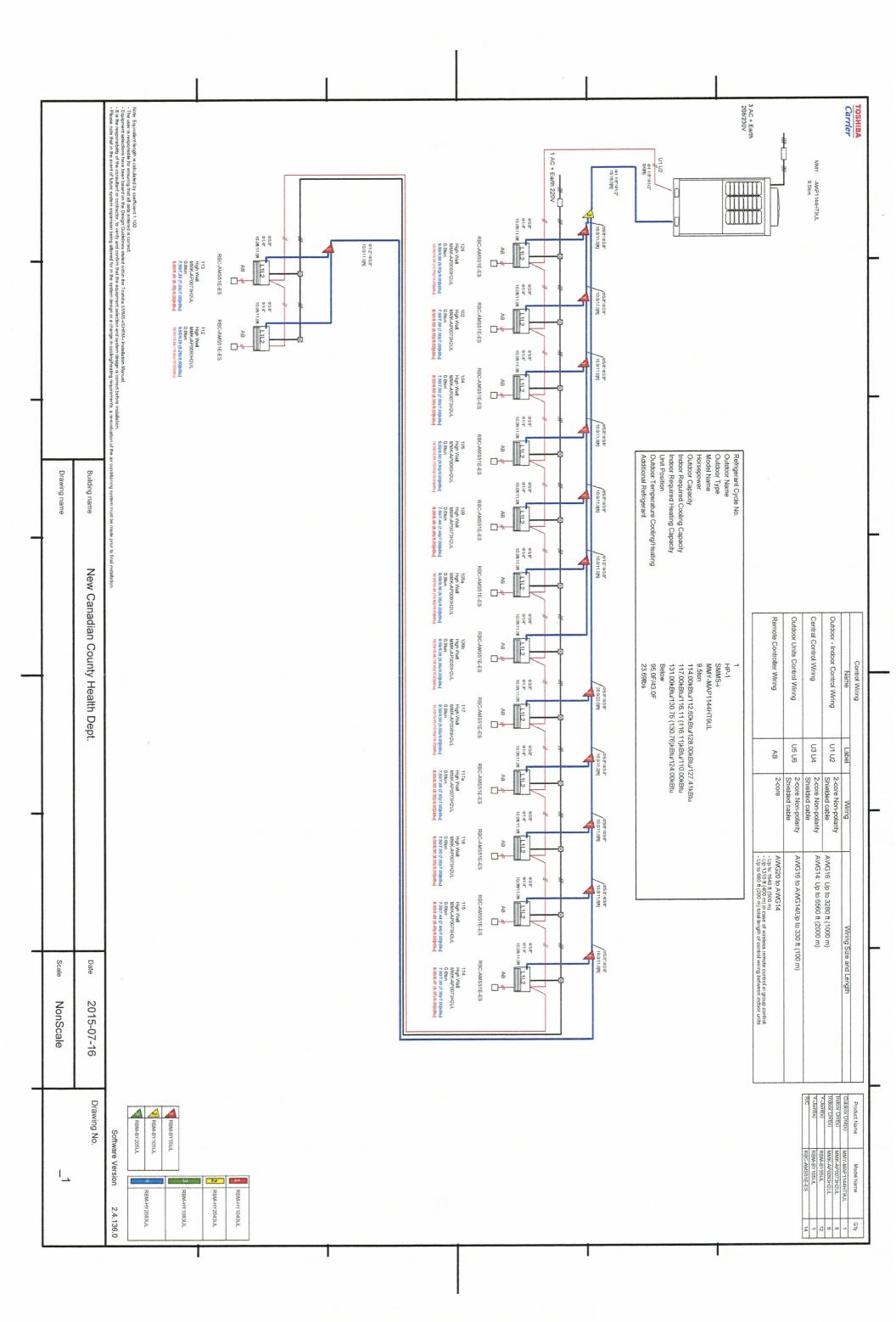
- 1. Piping connections shall be from the front or the bottom of the unit. The unit shall be capable of operating with maximum connected refrigerant line lengths of 985 ft.
- 2. The outdoor unit should have the ability to operate with a maximum height of 230 ft. between the outdoor and the lowest indoor unit.
- 3. The maximum distance between the outdoor unit and the furthest fan coil shall not exceed 590 ft. No line size changes or oil traps shall be required.
- 4. The system should be capable of operating when the height difference between the upper and the lower fan coil is 130 ft.

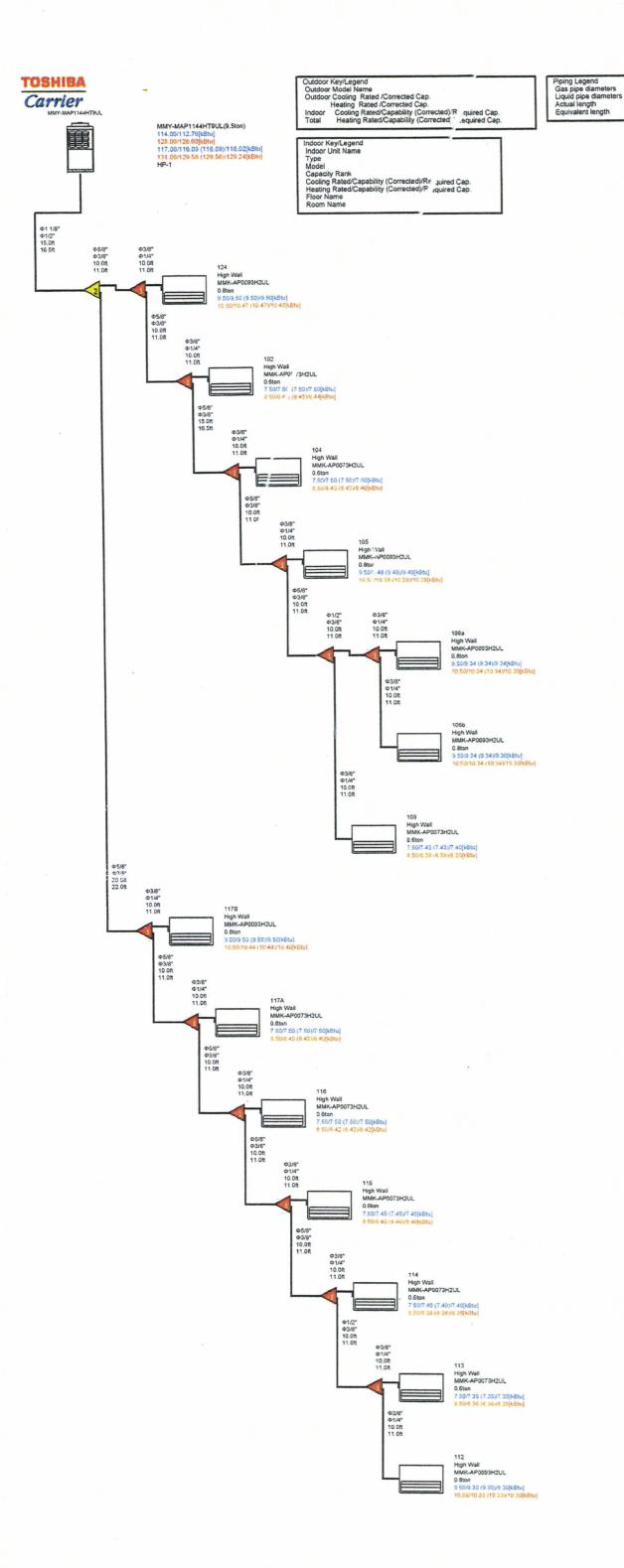
# J. Auxiliary Refrigerant Components:

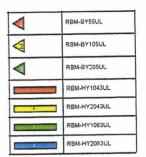
- 1. All field supplied copper tubing connecting the outdoor unit to the indoor unit shall use factory supplied branching kits consisting of either Y joints or headers to ensure even refrigerant flow.
- 2. To ensure piping flexibility the system shall allow having Y joints or headers downstream of another header.
- 3. When twinning two modules, and in order to maximize efficiency and comfort, a 3/8" oil balance line shall be used to allow the flow oil and refrigerant between the two units even when one of the units is not running.













# Affidavit / Proof of Mailing

Date Issued: Bid Number:

^ April 4, 2016 **2016-#16** 

Closing Date:

May 2, 2016 at 9:30am

PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036

Opening Date:

May 2, 2016 at 9:30am

Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

~ AFFIDAVIT~

### **HVAC Replacement / Health Department**

State of Oklahoma )
County of Canadian ) §

I, Sherry Murray, Purchasing Agent, in and for said County and State, do hereby certify that "Invitations to Bid" were sent to the following:

Adams Heat and Air

1101 NW 99<sup>th</sup>

Oklahoma City, OK 73114

Air Flow Technologies

PO Box 851844

Yukon, OK 73085

All Hours Plumbing Services

PO Box 12726

Oklahoma City, OK 73157

Bailey Brothers PMG, HTG & A/C Inc

800 Industrial Drive Yukon, OK 73099-2833 Barry Sell Mechanical Tech.

3221 SW 18<sup>th</sup> Street

Oklahoma City, OK 73108

Bid Clerk

govbids@bidclerk.com

**Bid News** 

project@bidnews.com

Brewers Heat and Air

5956 NW 34<sup>th</sup>

Oklahoma City, OK 73122

Capital Service

12900 Tracy Drive

Oklahoma City, OK 73165

Cheka Group LLC

1042 SE 25<sup>th</sup> Street

Oklahoma City, OK 73129

Central Mechanical Services Inc

1887 State Highway 92

Chickasha, OK 73018-7001

Central Mechanical Services Inc

2605 S Purdue

Oklahoma City, OK 73128

Central Oklahoma Winnelson

PO Box 2052

Oklahoma City, OK 73101

Central State Thermo King Inc

1401 Enterprise Avenue

PO Box 270543

Oklahoma City, OK 73127

Comfort Air 4917 SW 7th

Oklahoma City, OK 73128

Crick Air & Heat

PO Box 107 Hinton, OK 73047 **Diversified Labor & Construction** 

3523 N Star Road Stillwater, OK 74075 EDP Contract Services Attn: Mike Modarelli

12128 Briarlake Ct

Oklahoma City, OK 73170

ePlan

4115 South Providence, Suite 105

Columbia, MO 65203

Ezell's Refrigeration 418 W Wade Street El Reno, OK 73036

Francis Tuttle Vo-Tech Center Attn: Bid Assistant – Judy Robbins

12777 N Rockwell

Okłahoma City, OK 73142

Gatz Mechanical Inc PO Box 936 El Reno, OK 73036

Harrison-Orr Air Conditioning Inc 4100 North Walnut Oklahoma City, OK 73105-3798

Integrity Restoration Specialists LLC 11532 NW 5<sup>th</sup> Street Yukon, OK 73099

Natkin 4730 SW 20<sup>th</sup> Street Oklahoma City, OK 73128

Precision Plumbing Service PO Box 734 Piedmont, OK 73078

Ross Services LLC 11609 Footman's Court Yukon, OK 73099

TA Miller Plumbing 2111 North Linn Oklahoma City, OK 73107

Trane PO Box 845053 Dallas, TX 75284-5053

Waggoners Mechanical Services LLC 1351 E Indian Hills Norman, OK 73071 Gentry Service & Repair Inc 12004 Southfork Road Mustang, OK 73064

Higgins Plumbing 404 Cherryvale Road Edmond, OK 73103

Johnson Controls Inc 4730 SW 20<sup>th</sup> Street Oklahoma City, OK 73128

Online Data Services 3295 River Exchange Drive, Suite 213 Norcross, GA 30092

Rainbow Heat & Air Inc 501 Cedar Yukon, OK 73099

Smith Plumbing 12333 SW 6<sup>th</sup> Street Yukon, OK 73099

Team Air 4001 North Walnut Oklahoma City, OK 73105

Trane 305 Hudiburg Circle Oklahoma City, OK 73108 Gibbens Heating & Air 1107 Sunset Drive El Reno, OK 73036

Innovative Mechanical LLC PO Box 721178 Oklahoma City, OK 73172

Lieber Mechanical LLC 1105 First Place Blvd Yukon, OK 73099

Patrick's George Plumbing 401 SE 59<sup>th</sup> Oklahoma City, OK 73129

Reed Construction Data 30 Technology Pkwy South, Suite 100 Norcross, GA 30092

Streets Inc 100 E Commerce Oklahoma City, OK 73129

Tipton's Plumbing & Sewer 708 NW 5<sup>th</sup> Moore, OK 73160

Tuffcoat Inc 2896 Broce Drive Norman, OK 73072

Witness my hand and seal this 4<sup>th</sup> day of April, 2016.

Tina Spence, Assistant Purchasing Agent

(SEAL)





# **BID CHECKLIST**

Date Issued:	April 4, 2016
Bid Number:	2016-#16
Closing Date:	May 2, 2016 at 9:30am
	PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036
Opening Date:	May 2, 2016 at 9:30am
	Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036
TO HELP PREVE	NT BIDS FROM BEING REJECTED FOR LACK OF COMPLETION
PLEASE CHECK	FOR THE FOLLOWING:
Is the <u>Invitation</u>	n to Bid Signed and Notarized?
	to the contract of the contrac
Are <u>all</u> applican	ole spaces filled in?
Are all necessar	ry papers enclosed?
Ale <u>an</u> liecessa	y papers enclosed:
Is the Bid # and	Opening Date on outside of return envelope?
Bids will be rec	eived beginning 9:30am Tuesday April 26 until 9:30am Monday May 2, 2016?
(Do not turn bi	d in before Tuesday April 26 @ 9:30am – bid will not be opened or considered)
Thank You,	
Sherry Murray.	. Purchasing Agent