

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 08-1405	Issue Date:	CBL: 028 N001001
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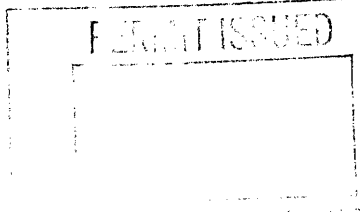
Location of Construction: 109 MIDDLE ST	Owner Name: CITY OF PORTLAND	Owner Address: 389 CONGRESS ST	Phone:
Business Name:	Contractor Name: Bellino - Grosso	Contractor Address: 980 Riverside St Portland	Phone 2078782087
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	Zone: B-3

Past Use: Commercial - City of Portland Police Crime Lab connected w/ permit#081031	Proposed Use: Commercial - City of Portland Police Crime Lab connected w/ permit#081031 - install a York RTU - 1,2 & 3 on roof	Permit Fee: \$220.00	Cost of Work: \$20,000.00	CEO District: 1
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: B Type: HVAC JMC-2003	

Proposed Project Description: install a York RTU - 1,2 & 3 on roof	Signature: <i>Greg Cass</i>	Signature: <i>JMB 12/10/08</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature:		Date:

Permit Taken By: ldobson	Date Applied For: 11/03/2008	Zoning Approval
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<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>12/10/08</i>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:
	Date: <i>12/10/08</i>		



CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 08-1405	Date Applied For: 11/03/2008	CBL: 028 N001001
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Business Name:	Contractor Name: Bellino - Grosso	Contractor Address: 980 Riverside St Portland	Phone (207) 878-2087
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Proposed Use: Commercial - City of Portland Police Crime Lab connected w/ permit#081031 - install a York RTU - 1,2 & 3 on roof	Proposed Project Description: install a York RTU - 1,2 & 3 on roof
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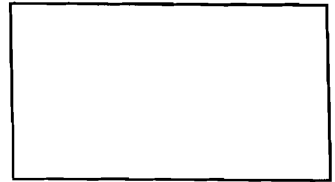
Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 12/04/2008	Note:	Ok to Issue: <input checked="" type="checkbox"/>
Dept: Building	Status: Approved with Conditions	Reviewer: Jeanine Bourke	Approval Date: 12/10/2008	Note: 1) Installation shall comply with 2003 International Mechanical Code with smoke/fire dampers as required and penetrations protected per IBC Section 712.	Ok to Issue: <input checked="" type="checkbox"/>
Dept: Fire	Status: Approved with Conditions	Reviewer: Capt Greg Cass	Approval Date: 12/09/2008	Note: 1) Install shall comply with all manufacture's specifications.	Ok to Issue: <input checked="" type="checkbox"/>

Comments: 12/4/2008-mes: I found this in the hold bin and zoned it - I will call the applicant for the information that we were waiting for. 12/8/2008-mes: received a fax from Bill Miles concerning the structural roof loading - I passed on the permit to file 11/3/2008-ldobson: Called Bellino informed inadequate information received. LM w/ Bob Pinard - Need letter from engineer stating that units can go on roof. LJD in hold bin
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FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 109 Middle St Use of Building Came Lab Date 10/30/08
Name and address of owner of appliance City of Portland

Installer's name and address Bellini-Boussion Inc 980 Riverside St
Portland, ME 04103 Telephone 207-878-2087

Location of appliance:

- Basement
- Floor
- Attic
- Roof

Type of Fuel:

- Gas
- Oil
- Solid none

Appliance Name: YORK RTU-1, 2 & 3

U.L. Approved Yes No

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

The Type of License of Installer:

- Master Plumber # _____
- Solid Fuel # _____
- Oil # _____
- Gas # _____
- Other ref 050500376

Type of Chimney:

- Masonry Lined

Factory built _____

- Metal

Factory Built U.L. Listing # NOV 3 2003

- Direct Vent

Type _____ UL# _____

Type of Fuel Tank

- Oil
- Gas

Size of Tank _____

Number of Tanks _____

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$ 20,000-

Permit Fee: \$ waived

Approved

Fire: _____

Ele.: _____

Bldg.: _____

Approved with Conditions

- See attached letter or requirement

Signature of Installer [Signature]

Inspector's Signature _____ Date Approved _____

Bellino-Grosso Inc.
980 Riverside Street
Portland, ME. 04103

Mechanical Contractors
Phone (207) 878-2087
Fax (207) 878-2103

FAX

DATE: 12/08/08

Fax To: CITY OF PORTLAND PERMIT DEPT

Fax No: 874-8716

Attn: MARGE
Project: PUBLIC SAFETY BLD CRIME LAB
PORTLAND, ME

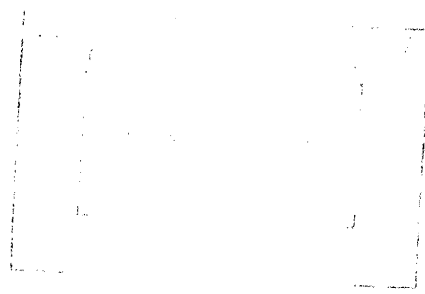
Pages to follow: 1

From: BILL MILES
PROJECTS MANAGER

Comments:

Attached is letter from Structural Engineer Reference Loads for new mechanical equipment for roof per your request . Any questions please give me a call.

Thanks
Bill Miles
Projects Manager
(207) 878-2087 Ext #8



12/8/08

BECKER

structural engineers, inc.

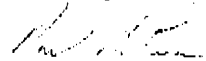
Memorandum

TO: Steve Weatherhead @ Winton Scott Architects.
FROM: Dan Burne, P.E.
DATE/TIME: 11/4/08
SUBJECT: Existing Roof Framing – Public Safety Building

Steve,

This memorandum is to confirm that the existing roof of the Portland Public Safety Building, at the area over the new Crime Lab, has been reviewed and/or reinforced to meet the loads imposed by the new mechanical equipment shown on the project Construction Documents, dated June 16, 2008. Please let me know any questions.

Sincerely,



Daniel S. Burne, P.E.
Associate
Becker Structural Engineers, Inc.

75 York Street, Portland, ME 04101-4701 • Tel 207-879-1838 • Fax 207-879-1822



YORK INTERNATIONAL
CORPORATION
SUBMITTAL FOR:

Portland Regional Forensics Laboratory

Air Handling Unit
Tags: AHU-1, AHU-2, AHU-3

September 24, 2008

Mechanical Contractor:

Bellino-Grosso Inc.
980 Riverside Street
Portland, ME 04103

Engineer:

Mechanical Systems Engineers
10 Royal River Center
Yarmouth, ME 04096

Manufacturer:

York International Corp.
320 Norwood Park South
Norwood, MA 02062
Tel: (781) 769-7955
Fax: (781) 769-7956

Table of Contents

- General Notes
- Product Scope
- Rooftop Unit Data
 - Performance Data
 - Unit Drawings

General Notes

- This submittal is for approval. Equipment cannot be released prior engineer's approval and written release from the mechanical contractor.
- York to provide three (3) rooftop units.
- Engineer to confirm all performance data prior to release.

Product Scope

The equipment specified within this submittal shall include the following features:

- York to provide three (3) rooftop units per specified size and performance
- Unit AHU-1 configured for 230-1-60 power
- Unit AHU-2 and AHU-3 configured for 230-3-60 power
- Units AHU-2 and AHU-3 provided with power exhaust
- Units AHU-2 and AHU-3 provided with powered convenience outlets
- Economizer
- Units provided with 2" pleated filters
- 14" roof curbs (not spring isolated)

Among the items not included:

- External power wiring or piping
- Rigging, carting or storing
- Any custom exterior paint

AHU-1

Project Name: **Regional Crime Lab**
Engineer: **Mechanical Systems Engineers**

Quantity: **1** Schedule No: **AHU-1**

Model No: **J04ZJC00B1AZZ1**

Cooling Performance

Total capacity	47.80 MBH
Sensible capacity	33.20 MBH
Refrigerant type	R410A
Ambient DB temp.	95 °F
Entering DB temp.	80 °F
Entering WB temp.	67 °F
Leaving DB temp.	58.13 °F
Leaving WB temp.	56.14 °F
Power input (w/o blower)	3.60 kW
Sound power	80 dB(A)
Elevation	0 ft.

Supply Air Blower Performance

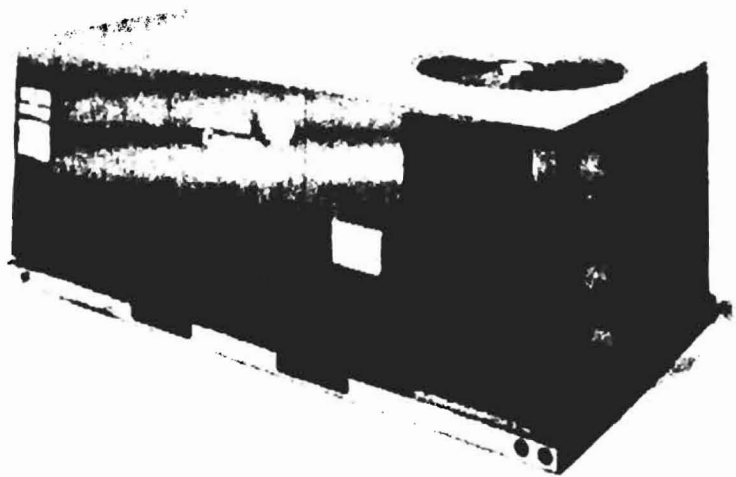
Supply air	1400 CFM
Ext. static pressure	0.65 IWG
Blower speed description	MED/LOW
Duct location	Bottom
Motor rating	1.00 HP
Actual required BHP	0.45 HP
Power input	0.43 kW
Speed tap	2

Electrical Data

Power supply	230-1-60
Minimum circuit ampacity	36.30 Amps
Max Fuse or HACR Breaker Size	45 Amps

Clearances

Right	24 in.	Front	24 in.	Back	36 in.
Top	72 in.	Bottom	0 in.	Left	36 in.



4 TON

- 13.0 SEER / 10.8 to 11.0 EER / 80% AFUE

STANDARD FEATURES

- Unit control board for added reliability and safety monitoring.
- Installation time and costs are reduced by easy single-point power and control wiring.
- All units are factory-wired, piped, charged, and tested prior to shipment.
- Factory-installed options such as electric heating elements, single enthalpy economizer, high static drive blower motor, coil guard, dirty filter switch, hinged filter door, and toolless access panels further reduce installation costs.
- Factory mounted Building Automation Control
- Factory mounted supply and return air smoke detectors.
- Electric utility knockouts are provided on unit side and bottom for easy connections.
- Convertible airflow design means no panel cutting is required, and no accessory panel is necessary.
- Wide range of indoor airflows using belt-drive blowers.
- Durable finish, made of powder-painted, galvanized steel to meet 750-hour salt-spray test demands.
- Full-Perimeter Base Rails are permanently attached to provide a solid unit foundation and fork lift access.
- Compressor is internally protected against high pressure and temperature.
- Grooved copper tubes and enhanced aluminum fin construction improve heat transfer.
- Permanently Lubricated Condenser and Evaporator Fan Motor bearings need no annual maintenance.
- Complete line of field-installed accessories, motorized dampers, single enthalpy economizers, and dual enthalpy sensors are available.

FACTORY WARRANTY

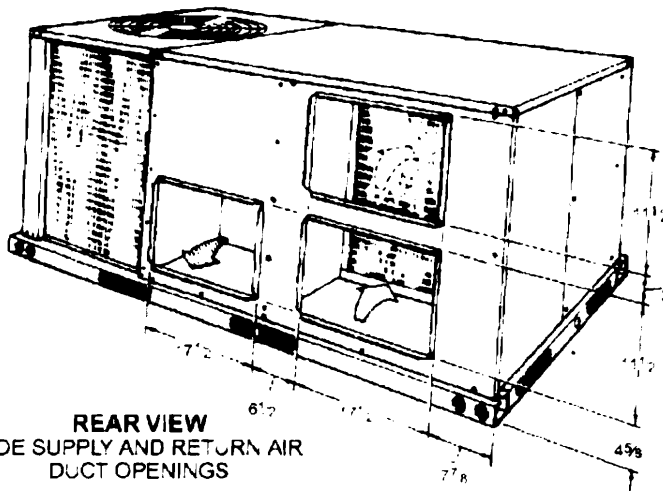
- 5-Year warranty on the Compressor.
- 10-Year warranty on the Heat Exchanger.
- 1-Year warranty on the other parts.

Project Name: **Regional Crime Lab**
Engineer: Mechanical Systems Engineers

Quantity: **1** Schedule No: **AHU-1**

Model No: **J04ZJC00B1AZZ1**

JZJ/JXP-03-05 UNIT DIMENSIONS-REAR VIEW



REAR VIEW
SIDE SUPPLY AND RETURN AIR
DUCT OPENINGS

DUCT COVERS - Units are shipped with all air duct openings covered.

For side duct applications:

1. Remove and discard the supply and return air duct covers.
2. Connect ductwork to duct flanges on the rear of the unit.

For bottom duct applications:

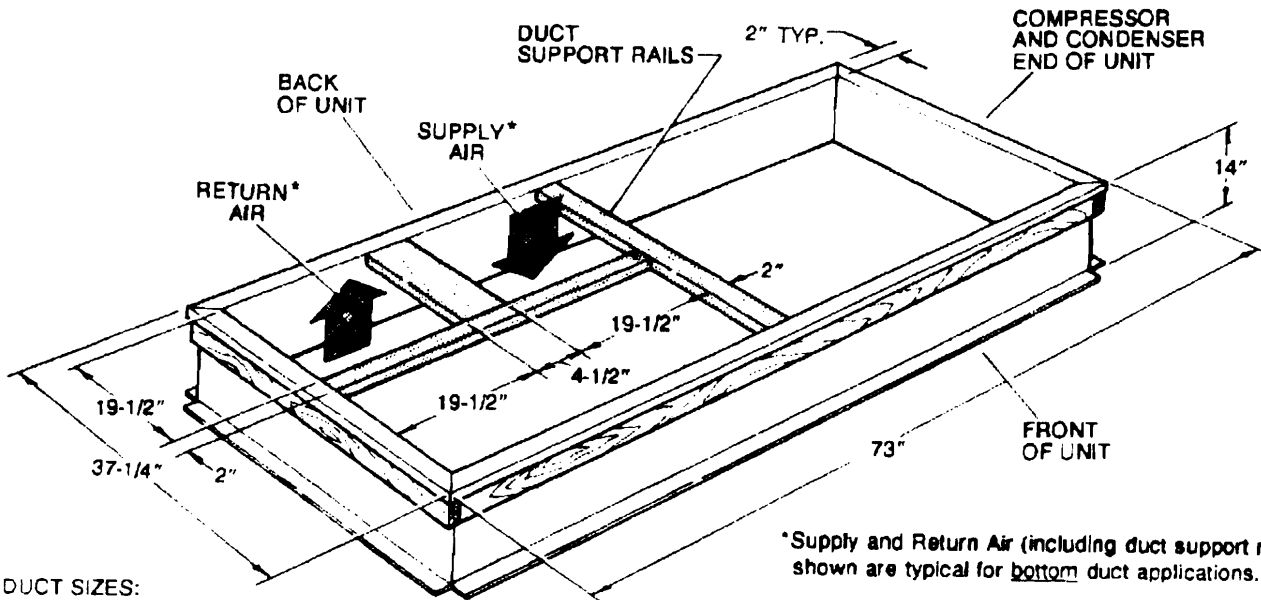
1. Remove the side supply air duct cover to gain access to the bottom supply air knockout panel.
2. Remove and discard the bottom knockout panel.
3. Replace the side duct cover.
4. With filter section access panel removed from the unit, remove and discard the bottom return air knockout panel.
5. Replace the filter access panel.

Project Name: **Regional Crime Lab**
Engineer: Mechanical Systems Engineers

Quantity: **1** Schedule No: **AHU-1**

Model No: **J04ZJC00B1AZZ1**

JZJ/JXP-03-05 ROOF CURB DIMENSIONS



DUCT SIZES:
Supply Air = 19-1/4" X 19-1/4"
Return Air = 19-1/4" X 19-1/4"

*Supply and Return Air (including duct support rails) shown are typical for bottom duct applications.

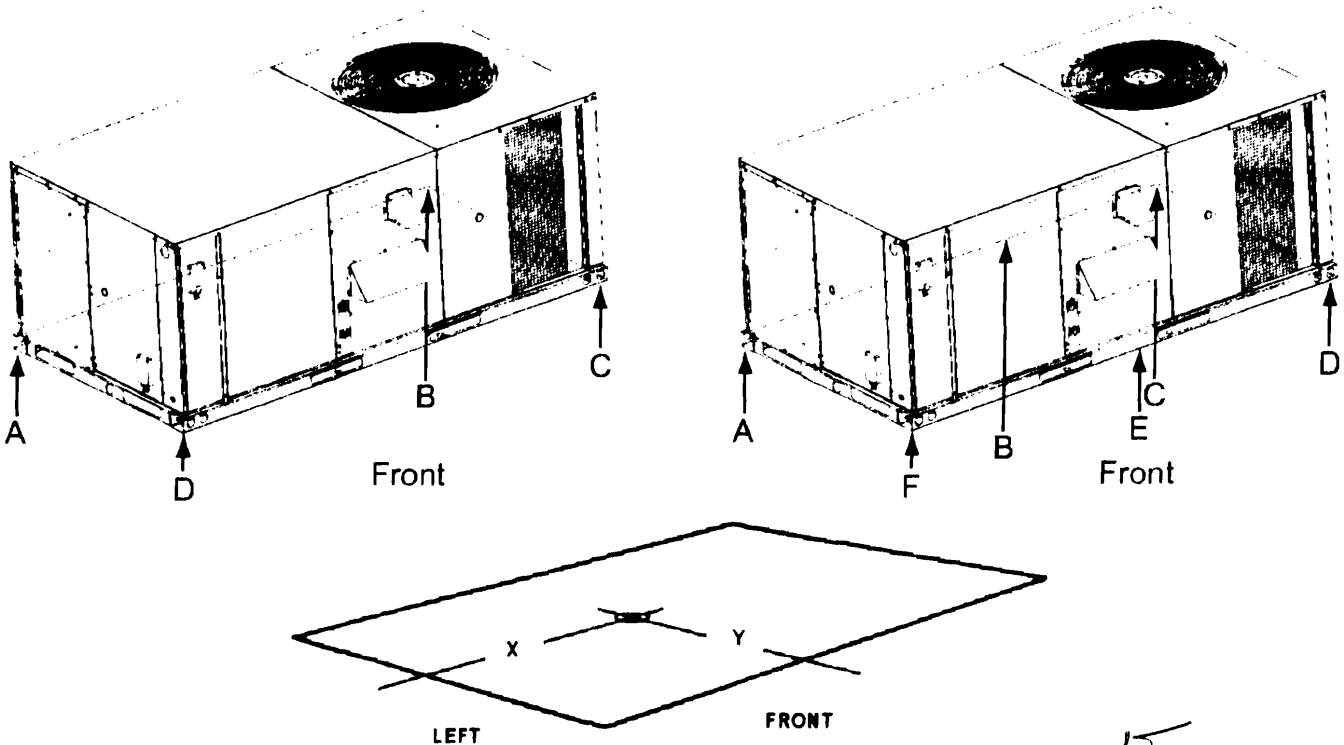
For location of horizontal duct applications (on back of unit), refer to Unit Dimension details.

Project Name: **Regional Crime Lab**
Engineer: **Mechanical Systems Engineers**

Quantity: **1** Schedule No: **AHU-1**

Model No: **J04ZJC00B1AZZ1**

JZJ/JXP-03-05 4 & 6 POINT LOADS WITH CENTER OF GRAVITY



Total weight with CURB 740 LB

Unit	Total	Center of Gravity		4 Point Load (lb)				6 Point Load (lb)					
		Dimension	Measurement	A	B	C	D	A	B	C	D	E	F
J03XP	580	39	20	135	121	151	168	91	85	80	99	106	114
J03ZJ	580	40	20	132	125	155	164	89	85	82	102	106	110
J04XP	590	39	20	137	124	154	171	93	87	81	101	108	116
J04ZJ	590	40	20	134	127	158	167	90	87	84	104	108	112
J05XP	595	39	20	138	125	155	172	94	87	82	102	109	117
J05ZJ	595	40	20	135	128	159	168	91	88	84	105	109	113

AHU-2 and AHU-3

Project Name: **Regional Crime Lab**
Engineer: Mechanical Systems Engineers

Quantity: **1** Schedule No: **AHU-2**

Model No: **J07ZHC00Q2TAA4**

Cooling Performance

Total capacity	93.5 MBH
Sensible capacity	68.7 MBH
Refrigerant type	R410A
Ambient DB temp.	95 °F
Entering DB temp.	80 °F
Entering WB temp.	67 °F
Leaving DB temp.	58.88 °F
Leaving WB temp.	57.15 °F
Power input (w/o blower)	6.81 kW
Part load efficiency	12.4 IPLV
Sound power	83 dB(A)
Elevation	0 ft.

Supply Air Blower Performance

Supply air	3000 CFM
Ext. static pressure	1.2 IWG
Blower speed	1394 RPM
Duct location	Bottom
Motor rating	3.00 HP
Actual required BHP	2.33 HP
Power input	2.18 kW

Electrical Data

Power supply	230-3-60
Minimum circuit ampacity	62.50 Amps
Max Fuse or HACR Breaker Size	70 Amps

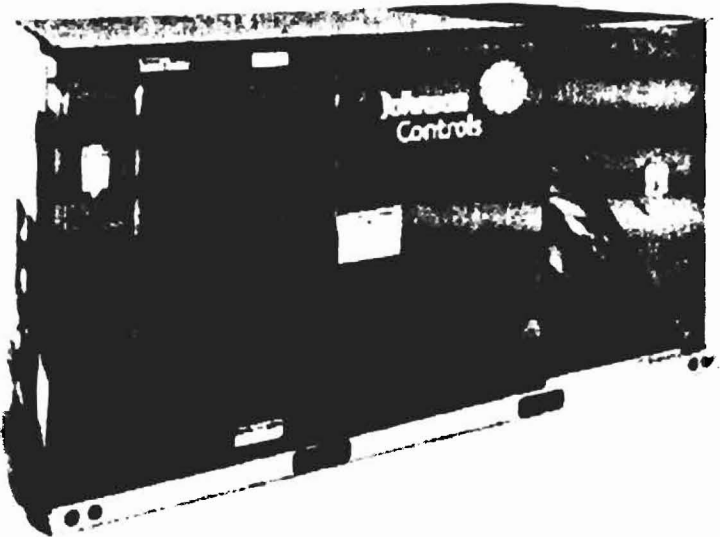
Dimensions & Weight

Height	42 in.	Length	89 in.	Width	59 in.
Weight			1005 lbs.		

Clearances

Right	12 in.	Front	36 in.	Back	36 in.
Top	72 in.	Bottom	0 in.	Left	36 in.

*Total weight
with CURB
1155 LBS*



7.5 TON

- 11.5 to 11.2 EER / 80% SSE

STANDARD FEATURES

- A rugged compact cabinet size with a common 50" wide x 89" long footprint means simple installation.
- Convertibility for side or down airflow discharge, with single-enthalpy economizers used on either application.
- Choose from a wide range of factory-installed options like dirty filter switch, disconnect switch, barometric relief and power exhaust, phase monitors, smoke detectors, and much more.
- Dual-circuit reliability of two compressors with independent refrigeration circuits on models 7.5-ton to 12.5-tons.
- Install these compact units almost anywhere there's a curb, slab, roof rack, or frame.
- Each unit is completely charged with refrigerant - wired, piped, and tested.
- All units are fully assembled and delivered on rigid, full-perimeter base rails, allowing for 3-way forklift access and overhead rigging.
- Tool-free maintenance with features such as hinged doors for all-access panels and slide-out blower and blower motor tray quick easy maintenance.
- Indoor air quality features like foil-faced insulation, pitched roof, and removable drain pan.

FACTORY WARRANTY

- 5-Year warranty on the Compressor.
- 10-Year warranty on the Heat Exchanger.
- 1-Year warranty on the other parts.

Project Name: **Regional Crime Lab**
 Engineer: **Mechanical Systems Engineers**

Quantity: **1** Schedule No: **AHU-3**

Model No: **J07ZHC00S2TAA4**

Cooling Performance

Total capacity	90.19 MBH
Sensible capacity	62.93 MBH
Refrigerant type	R410A
Ambient DB temp.	95 °F
Entering DB temp.	80 °F
Entering WB temp.	67 °F
Leaving DB temp.	57.68 °F
Leaving WB temp.	55.93 °F
Power input (w/o blower)	6.80 kW
Part load efficiency	12.4 IPLV
Sound power	83 dB(A)
Elevation	0 ft.

Supply Air Blower Performance

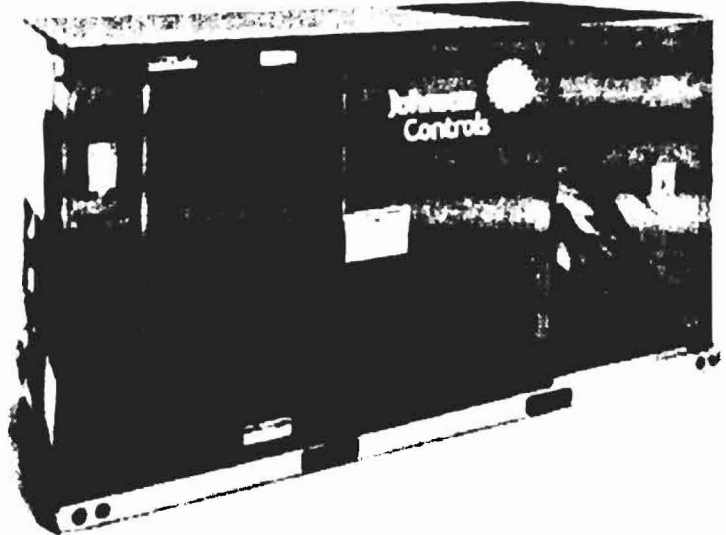
Supply air	2600 CFM
Ext. static pressure	1 IWG
Blower speed	1219 RPM
Duct location	Bottom
Motor rating	3.00 HP
Actual required BHP	1.72 HP
Power input	1.60 kW

Electrical Data

Power supply	230-3-60
Minimum circuit ampacity	57.00 Amps
Max Fuse or HACR Breaker Size	70 Amps

Clearances

Right	12 in.	Front	36 in.	Back	36 in.
Top	72 in.	Bottom	0 in.	Left	36 in.



7.5 TON

- 11.5 to 11.2 EER / 80% SSE

STANDARD FEATURES

- A rugged compact cabinet size with a common 50" wide x 89" long footprint means simple installation.
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- Tool-free maintenance with features such as hinged doors for all-access panels and slide-out blower and blower motor tray quick easy maintenance.
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FACTORY WARRANTY

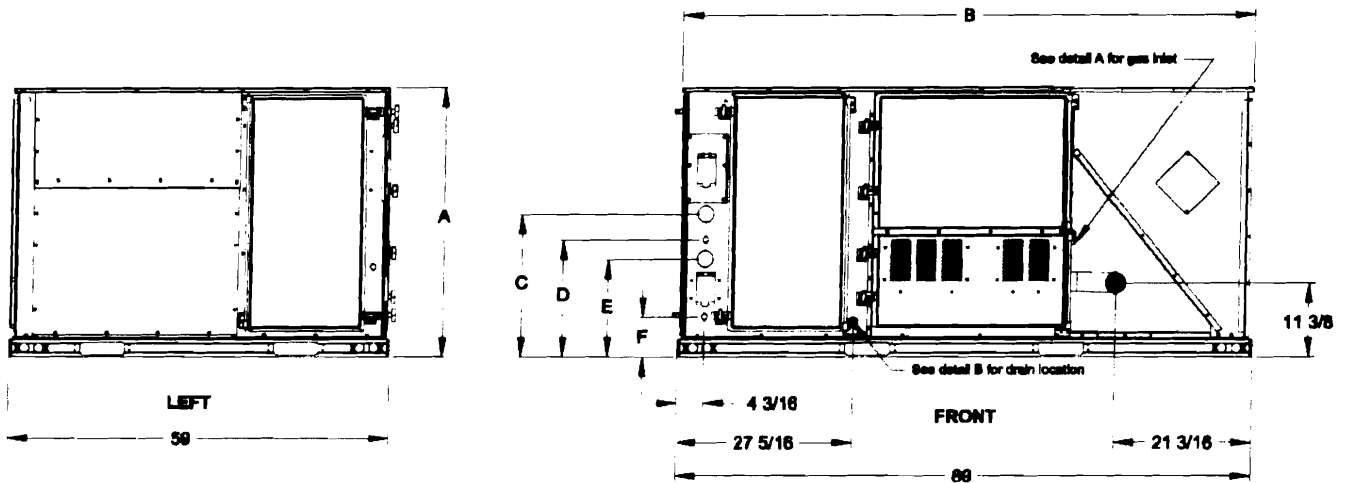
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- 10-Year warranty on the Heat Exchanger.
- 1-Year warranty on the other parts.

Project Name: **Regional Crime Lab**
 Engineer: Mechanical Systems Engineers

Quantity: **1** Schedule No: **AHU-2**

Model No: **J07ZHC00Q2TAA4**

JZH/JZR/JXP-06-10 UNIT DIMENSIONS

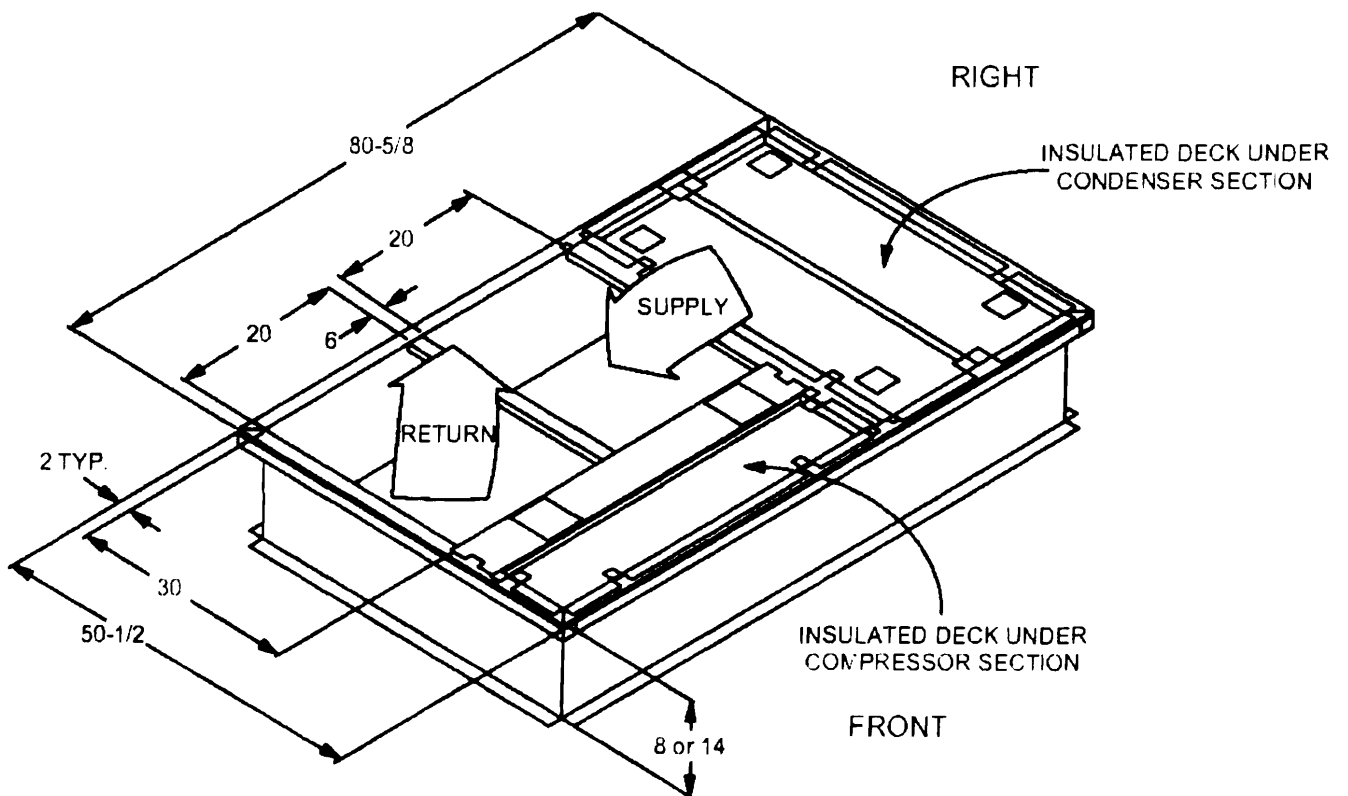


Project Name: **Regional Crime Lab**
Engineer: **Mechanical Systems Engineers**

Quantity: **1** Schedule No: **AHU-2**

Model No: **J07ZHC00Q2TAA4**

JZH/JZR/JXP-06-12 ROOF CURB DIMENSIONS

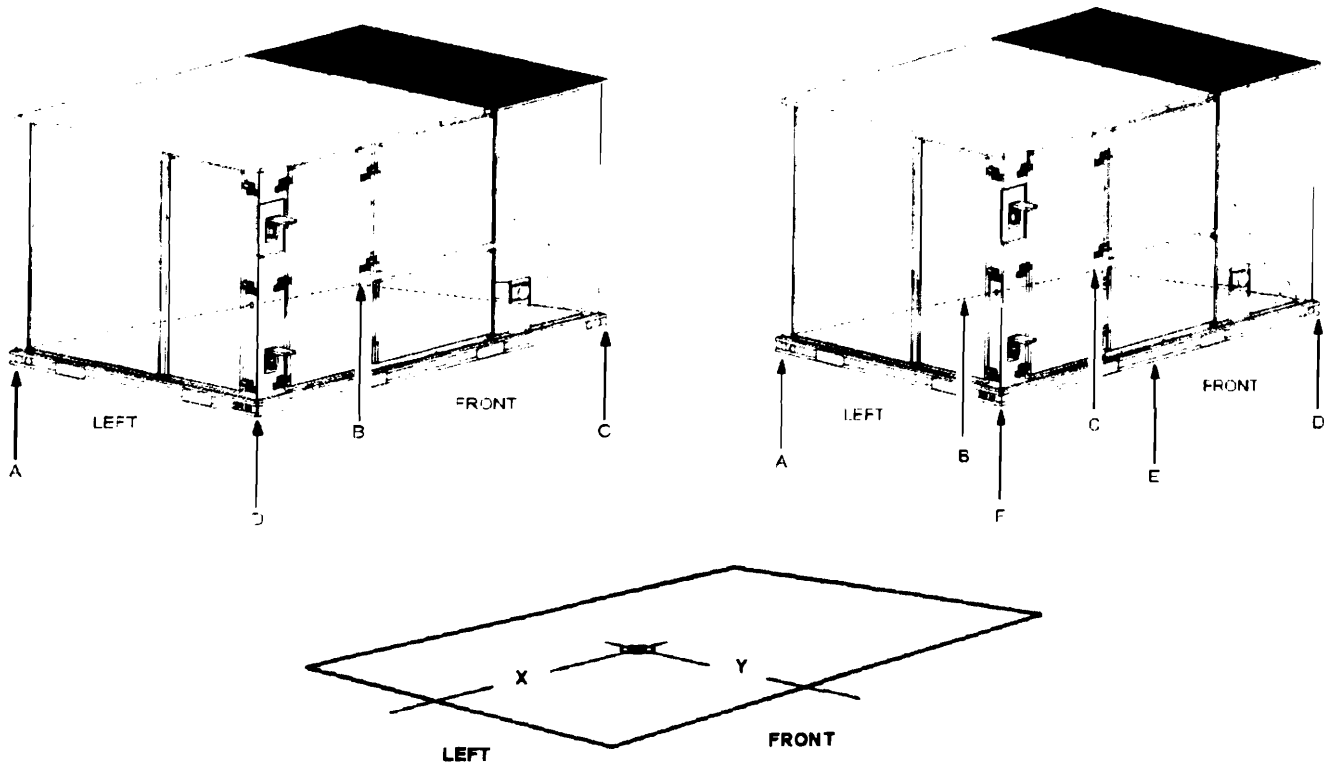


Project Name: **Regional Crime Lab**
 Engineer: **Mechanical Systems Engineers**

Quantity: **1** Schedule No: **AHU-2**

Model No: **J07ZHC00Q2TAA4**

JZH/JZR/JXP-06-12 4 & 6 POINT LOADS WITH CENTER OF GRAVITY



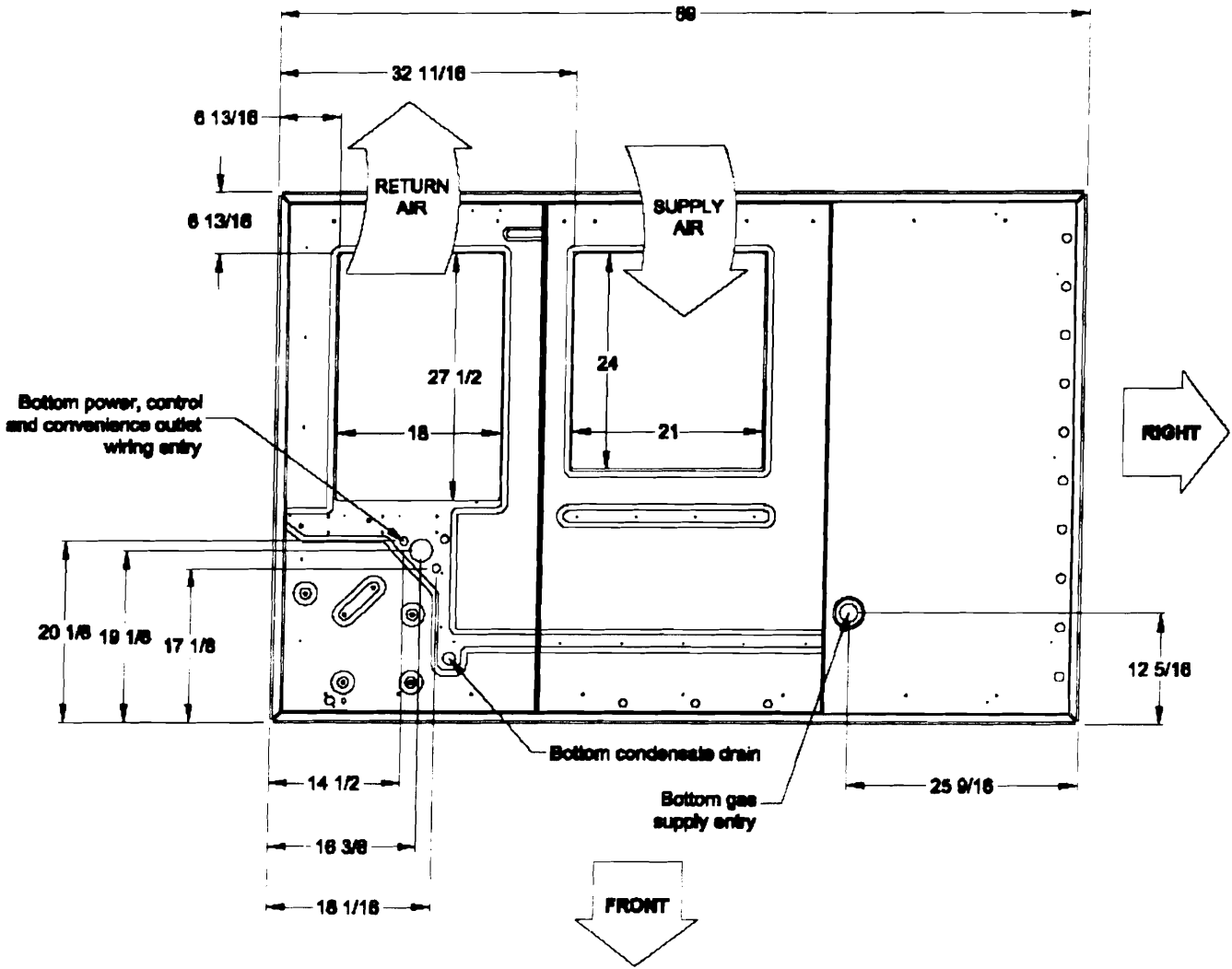
Unit	Total	Center of Gravity		4 Point Load (lb)				6 Point Load (lb)					
		Dimension	Measurement	A	B	C	D	A	B	C	D	E	F
J06XP	925	38	23	206	153	240	322	144	117	97	152	184	225
J06ZH	905	38	23	201	150	234	315	141	115	95	149	180	221
J06ZR	970	38	23	216	161	251	337	151	123	102	160	193	236
J07XP	925	38	23	206	153	240	322	144	117	97	152	184	225
J07ZH	925	38	23	206	153	240	322	144	117	97	152	184	225
J07ZR	970	38	23	216	161	251	337	151	123	102	160	193	236
J08XP	1140	38	25.5	281	209	275	369	197	160	133	175	211	259
J08ZH	1140	38	25.5	281	209	275	369	197	160	133	175	211	259
J08ZR	1205	38	25.5	297	221	291	390	205	170	141	185	223	274
J10XP	1140	38	25.5	281	209	275	369	197	160	133	175	211	259
J10ZH	1140	38	25.5	281	209	275	369	197	160	133	175	211	259
J10ZR	1205	38	25.5	297	221	291	390	208	170	141	185	223	274
J12XP	1405	51	25.5	258	347	456	339	164	198	243	319	260	216
J12ZH	1405	51	25.5	258	347	456	339	164	198	243	319	260	216
J12ZR	1470	51	25.5	270	363	477	355	172	207	254	334	272	226

Project Name: **Regional Crime Lab**
 Engineer: **Mechanical Systems Engineers**

Quantity: **1** Schedule No: **AHU-2**

Model No: **J07ZHC00Q2TAA4**

JZH/JZR/JXP-06-12 UNIT BOTTOM DUCT OPENINGS



Project Name: **Regional Crime Lab**
Engineer: **Mechanical Systems Engineers**

Quantity: **1** Schedule No: **AHU-2**

Model No: **J07ZHC00Q2TAA4**

JZH/JZR/JXP-06-12 FIELD INSTALLED HORIZONTAL ECONOMIZER W/POWER EXHAUST

