Reviewed for Code Compliance
Inspections Division
Approved with Conditions

SUBMITTAL DATA

Date: 11/14/13

For: Approval

Order #: **Date:** 09/17/2013

Project: **443 CONGRESS ST**

Project #:

Location:

Purchaser: **GRANITE CORP**

Date
09/17/2013
Project Name
Congress St - Revised
Project Number
Client / Purchaser

443 CONGRESS STREET

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Submittal Summary Page

Qty	Tag #	Model #	Description
4		ZF036N08	3 Ton, York Sunline Single Packaged R-410A Air Conditioner, 13.0 SEER / 11.0 EER, Single Stage Cooling, 80 MBH Output Aluminized Steel, Single Stage Gas Heat, 1/2 HP Direct Drive Blower, 1" Throwaway Filters, Single Enthalpy Economizer and Hood (No Barometric Relief Damper), 208/230-3-60, Microchannel Condenser Coil, Galvanized Steel Drain Pan • Return Air Smoke Detector
4		1RD0410	Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted)
5		ZF060N10	5 Ton, York Sunline Single Packaged R-410A Air Conditioner, 13.0 SEER / 10.8 EER, Single Stage Cooling, 100 MBH Output Aluminized Steel, Single Stage Gas Heat, 1 HP Direct Drive Blower, 1" Throwaway Filters, Single Enthalpy Economizer and Hood (No Barometric Relief Damper), 208/230-3-60, Microchannel Condenser Coil, Galvanized Steel Drain Pan • Return Air Smoke Detector
		1RD0410	Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted)

Equipment start-up and commissioning by a factory trained technician is recommended.
Contact your supplying distributor or sales representative for additional information & guidance.

Small Sunline

Single Package R-410A Air Conditioner

Project Name: **Congress St** Uni

Quantity: **3** Sy

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Cooling Performance		
Total capacity	39.2	MBH
Sensible capacity	27.9	MBH
Refrigerant type	R-410A	
Seasonal Efficiency (at ARI)	13.00	SEER
Efficiency (at ARI)	11.00	EER
Ambient DB temp.	86.8	°F
Entering DB temp.	80.0	°F
Entering WB temp.	67.0	°F
Leaving DB temp.	59.4	°F
Leaving WB temp.	57.1	°F
Power input (w/o blower)	2.50	kW
Sound power	81	dB(A)

Gas Heating Performance		
Entering DB temp.	60	°F
Heating output capacity (Max)	79	MBH
Supply air	1255.6	
Heating input capacity (Max)	100	MBH
Leaving DB temp.	118.3	°F
Air temp. rise	58.3	°F
SSE	80.8	%
AFUE	80.5	%
Stages	1	

Supply Air Blower Performance		
Supply air	1255.6	CFM
Ext. static pressure	0.8	IWG
Unit static resistance	0.08	IWG
Blower speed	977	RPM
Duct location	Bottom	
Motor rating	0.50	HP
Actual required BHP	0.45	HP
Power input	0.41	kW
Elevation	62	ft.
Drive type	DIRECT	
Speed tap	5	

Electrical Data		
Power supply	230-3-60	
Unit min circuit ampacity	19.7	Amps
Unit max over-current protection	25	Amps

Dimensions & Weight					
Hgt	33 in.	Len	83 in.	Wth	45 in.
Weight with factory installed options					583 lbs.

Clearances					
Right	24 in.	Front	32 in.	Back	36 in.
Top	72 in.	Bottom	0 in.	Left	36 in.

Note: Please refer to the tech guide for listed maximum static pressures

3 Ton

- York Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards)
- Through-the-Curb and Through-The-Base Utility Connections
- Either Supply and/or Return can be Field Converted from Vertical to Horizontal Configuration without Cutting Panels.
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Galvanized Steel Drain Pan
- Reciprocating Compressor
- Single Stage Cooling
- Solid Core Liquid Line Filter Driers
- Microchannel Condenser Coil
- 80 MBH Output Aluminized Steel, Single Stage Gas Nominal Heat
- 1/2 HP Direct Drive Blower
- Unit Ships with 1" Throwaway Filters with a Standard Filter Rack That Will Accept up to 2" Filters
- Single Point Power Connection
- Return Air Smoke Detector
- Single Enthalpy Economizer and Hood (No Barometric Relief Damper)
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Ten (10) Year Warranty - Aluminized Steel Tubular Heat Exchangers

Small Sunline

Single Package R-410A Air Conditioner

Project Name: **Congress St** Uni

Quantity: **3** Sy

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Factory Installed Options

ZF036N08

Product Category:	**Z**	York Sunline Single Packaged R-410A Air Conditioner
Product Identifier:	**F**	13.0 SEER / 11.0 EER
Nominal Cooling Capacity:	**036**	3 Ton Single Stage Cooling
Heat Type and Nominal Heat Capacity:	**N08**	80 MBH Output Aluminized Steel, Single Stage Gas Heat
Airflow:	**B**	1/2 HP Direct Drive Blower 1" Throwaway Filters Single Enthalpy Economizer and Hood (No Barometric Relief Damper)
Voltage:	**2**	208/230-3-60
Installation Options:	**F**	Return Air Smoke Detector
Additional Options:	**AA**	Microchannel Condenser Coil Galvanized Steel Drain Pan
Product Generation:	**2**	

Field Installed Accessories

- 1RD0410 - Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted) (6.0 lbs)

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Small Sunline

Single Package R-410A Air Conditioner

Project Name: **Congress St -** Unit Model #: **ZF036N08**

Quantity: **3** System: **ZF036N08**

Consolidated Drawing

NOTES:
1. FOR OUTDOOR USE ONLY.
2. WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
3. MIN. CLEARANCES TO BE:
   RIGHT SIDE: 24 [609,6]
   LEFT SIDE: 24 [609,6] (LESS ECONOMIZER)
   36 [914,4] (WITH ECONOMIZER)
   FRONT: 24 [609,6] (COOLING/ELECTRIC HEAT)
   32 [812,8] (GAS HEAT)
   REAR: 12 [304,8] (LESS ECONOMIZER)
   36 [914,4] (WITH ECONOMIZER OR FIXED AIR/MOTORIZED DAMPER)
   TOP: 72 [1828,8]
   BOTTOM: 0 [0]
4. FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
5. DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
6. SIDE DUCT FLANGES ARE 0.875" [22,2] HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
7. MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
8. DIMENSIONS IN [ ] ARE IN MILLIMETERS OR KILOGRAMS.
9. OPTIONAL COIL GUARD, GAS HEAT, ECONOMIZER HOOD, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND OUTLET/INLET HOOD SHOWN.

⚠10 EXCEPT XP (HEAT PUMP) UNITS.

→ DIRECTION OF AIRFLOW

◐ CENTER OF GRAVITY

TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
3	ZF	468 [212]	33 [838,2]	18.25 [463,6]	114 [52]	76 [35]	111 [50]	167 [76]
4	ZF	541 [245]	31.50 [800,1]	18.50 [469,9]	138 [63]	85 [39]	122 [55]	196 [89]
5	ZF	569 [258]	37 [939,8]	15 [381]	105 [48]	86 [39]	170 [77]	208 [94]
6	ZF	640 [290]	37 [939,8]	15 [381]	118 [54]	96 [44]	192 [87]	234 [106]
3	ZR	575 [261]	40 [1016]	20 [508]	132 [60]	125 [57]	155 [70]	164 [74]
4	ZR	585 [265]	40 [1016]	20 [508]	134 [61]	127 [58]	158 [72]	167 [76]
5	ZR	590 [268]	40 [1016]	20 [508]	135 [61]	128 [58]	159 [72]	168 [76]
3	XP	575 [261]	39 [990,6]	20 [508]	135 [61]	121 [55]	151 [69]	168 [76]
4	XP	585 [265]	39 [990,6]	20 [508]	137 [62]	124 [56]	154 [70]	171 [78]
5	XP	590 [268]	39 [990,6]	20 [508]	138 [63]	125 [57]	155 [70]	172 [78]

Small Sunline

Single Package R-410A Air Conditioner

Project Name: **Congress** Uni

Quantity: **1**

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Cooling Performance		
Total capacity	63.5	MBH
Sensible capacity	46.8	MBH
Refrigerant type	R-410A	
Seasonal Efficiency (at ARI)	13.00	SEER
Efficiency (at ARI)	10.80	EER
Ambient DB temp.	86.8	°F
Entering DB temp.	80.0	°F
Entering WB temp.	67.0	°F
Leaving DB temp.	58.3	°F
Leaving WB temp.	57.0	°F
Power input (w/o blower)	4.27	kW
Sound power	82	dB(A)

Gas Heating Performance		
Entering DB temp.	40	°F
Heating output capacity (Max)	100	MBH
Supply air	2000	
Heating input capacity (Max)	125	MBH
Leaving DB temp.	86.3	°F
Air temp. rise	46.3	°F
SSE	80.6	%
AFUE	80.3	%
Stages	1	

Supply Air Blower Performance		
Supply air	2000	CFM
Ext. static pressure	0.6	IWG
Unit static resistance	0.15	IWG
Blower speed	1103	RPM
Duct location	Bottom	
Motor rating	1.00	HP
Actual required BHP	1.02	HP
Power input	0.95	kW
Elevation	62	ft.
Drive type	DIRECT	
Speed tap	5	

Electrical Data		
Power supply	230-3-60	
Unit min circuit ampacity	27.5	Amps
Unit max over-current protection	35	Amps

Dimensions & Weight							
Hgt	33	in.	Len	83	in.	Wth	45 in.
Weight with factory installed options							694 lbs.

Clearances							
Right	24	in.	Front	32	in.	Back	36 in.
Top	72	in.	Bottom	0	in.	Left	36 in.

Note: Please refer to the tech guide for listed maximum static pressures

5 Ton

- York Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards)
- Through-the-Curb and Through-The-Base Utility Connections
- Either Supply and/or Return can be Field Converted from Vertical to Horizontal Configuration without Cutting Panels.
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Galvanized Steel Drain Pan
- Reciprocating Compressor
- Single Stage Cooling
- Solid Core Liquid Line Filter Driers
- Microchannel Condenser Coil
- 100 MBH Output Aluminized Steel, Single Stage Gas Nominal Heat
- 1 HP Direct Drive Blower
- Unit Ships with 1" Throwaway Filters with a Standard Filter Rack That Will Accept up to 2" Filters
- Single Point Power Connection
- Return Air Smoke Detector
- Single Enthalpy Economizer and Hood (No Barometric Relief Damper)
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

Warranty

- One (1) Year Limited Warranty on the Complete Unit
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Single Package R-410A Air Conditioner

Project Name: **Congress St** Uni

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Factory Installed Options

ZF060N10

Product Category:	**Z**	York Sunline Single Packaged R-410A Air Conditioner
Product Identifier:	**F**	13.0 SEER / 10.8 EER
Nominal Cooling Capacity:	**060**	5 Ton Single Stage Cooling
Heat Type and Nominal Heat Capacity:	**N10**	100 MBH Output Aluminized Steel, Single Stage Gas Heat
Airflow:	**B**	1 HP Direct Drive Blower 1" Throwaway Filters Single Enthalpy Economizer and Hood (No Barometric Relief Damper)
Voltage:	**2**	208/230-3-60
Installation Options:	**F**	Return Air Smoke Detector
Additional Options:	**AA**	Microchannel Condenser Coil Galvanized Steel Drain Pan
Product Generation:	**2**	

Field Installed Accessories

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Single Package R-410A Air Conditioner

Project Name: **Congress St** | Unit Model #: **ZF060N10**

Quantity: **1** | System: **ZF060N10**

Consolidated Drawing

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REAR (PARTIAL VIEW)
(RAIN HOOD NOT SHOWN IN THIS VIEW)

LEFT VIEW

FRONT VIEW

RIGHT VIEW