BUILDVISION

Custom Procurement Report

Control How You Source Building Systems

Directly access suppliers and automate sourcing, procurement, and financing—all from one platform

Key Benefits

T **Save Time**

Automate RFQs and reduce manual work by up to 50%

$ **Cut Costs**

Negotiate directly with suppliers for better deals

→ **Streamlined Sourcing**

Take BuildVision's structured data and send it to suppliers at BuildVision.io

Customer Information

Customer Name	Structure Tone (NY)
Contact Person	John Mathew
Contact Email	john.mathew@structuretone.com
Contact Phone	N/A

Project Information

Project Name	Prudential Plaza - Heat Pump Project Copy
Location	739-759 Broad Street, Newark, NJ 07102
Start Date	N/A
Completion Date	6/26/2025
Budget	N/A
Scope	Heat pump installation project for HVAC decarbonization including air source heat pumps, water source heat pumps, hydronic systems, controls, and related infrastructure at 751 Broad Street, Newark, NJ 07102
Project ID	N/A
Project URL	BuildVision Project Link
Created	6/3/2025
Expected Start Date Due	_
Job Walk	6/26/2025
Contract Type	6/16/2025
Rf Is Due	_
Date Invited	6/20/2025
Request Type	6/3/2025
Project Size	Proposal
Building Connected Lead	–
Project Number	John Mathew
	231756

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Project Equipment

Modular Water Chillers

Equipment Tag	Manufacturer	Model
HP-3B-1	Oilon US	P450
HP-3B-2	Oilon US	P450
HP-3B-3	Oilon US	P450
HP-3B-4	Oilon US	P450
HP-3B-5	Oilon US	P450
HP-9R-1	York	YMAE0035PJP46VBXSA
HP-9R-2	York	YMAE0035PJP46VBXSA
HP-9R-3	York	YMAE0035PJP46VBXSA
HP-9R-4	York	YMAE0035PJP46VBXSA
HP-9R-5	York	YMAE0035PJP46VBXSA
HP-9R-6	York	YMAE0035PJP46VBXSA
HP-9R-7	York	YMAE0035PJP46VBXSA

Notes

Air-cooled modular units with four-way valves for cooling/heating operation. Units serve building heating and cooling loads through heat exchangers.

In-Line Centrifugal Hydronic Pumps

Equipment Tag	Manufacturer	Model
CHMP-1	Bell & Gossett	BG-E1510-2G-5.25-HT1.5-2B
CHMP-2	Bell & Gossett	BG-E1510-2G-5.25-HT1.5-2B
CHMP-3	Bell & Gossett	BG-E1510-2G-5.25-HT1.5-2B
EP-1	Bell & Gossett	BG-E80-3X3X15-S526VM-1A
EP-2	Bell & Gossett	BG-E80-3X3X15-S526VM-1A
EP-12	Bell & Gossett	BG-HSPC 35X15X15 2.5T LHS SPACER
EP-13	Bell & Gossett	BG-E1510-2GB-55-5AT-0
EP-14	Bell & Gossett	BG-E1510-2GB-55-5AT-0
EP-15	Bell & Gossett	BG-E1510-2GB-55-1HP-0
EP-16	Bell & Gossett	BG-HSPC 35X15X15 2.5T LHS SPACER
EP-47	Bell & Gossett	BG-HSPC 75X15X15 2.5T LHS SPACER
EP-48	Bell & Gossett	E1510-PSF60-55-1HP-0
EP-49	Bell & Gossett	BG-E1510-2GB-55-1HP-0

EP-50	Bell & Gossett	BG-E1510-2GB-55-1HP-0
EP-51	Bell & Gossett	BG-HSPC 75X15X15 2.5T LHS SPACER
HMP-BL1	Bell & Gossett	BG-E1510-1.5B-30-5AT-0
HMP-BL2	Bell & Gossett	BG-E1510-1.5B-30-5AT-0
HMP-BL3	Bell & Gossett	BG-E1510-1.5B-30-5AT-0
HMP-BL4	Bell & Gossett	BG-E1510-5GB-55-4571-5A
HMP-BL5	Bell & Gossett	BG-E1510-5GB-55-4571-5A
HMP-BL6	Bell & Gossett	BG-E1510-5GB-55-4571-5A
HTP-1	Bell & Gossett	E1510-5GB-5536AT-1
HTP-2	Bell & Gossett	E1510-5GB-5536AT-1
HTP-3	Bell & Gossett	E1510-5GB-5536AT-1

Notes

Variable frequency drive controlled pumps for hydronic systems including chilled water, hot water, and dual temperature water circulation.

Variable Frequency Drives

Equipment Tag	Manufacturer	Model
(N)CHWP-2B-1	ABB	ACH580-BCBR-124A-4+F267
(N)CHWP-2B-2	ABB	ACH580-BCBR-124A-4+F267
(N)CHWP-2B-3	ABB	ACH580-BCBR-124A-4+F267
(N)DTGP-2B-1	ABB	ACH580-VCR-077A-4+F267+J429
(N)DTGP-2B-2	ABB	ACH580-VCR-077A-4+F267+J429
(N)DTGP-2B-3	ABB	ACH580-VCR-077A-4+F267+J429
(N) VFD-25-P-47	ABB	ACH580-VCR-014A-4+F267+J429
(N) VFD-25-P-48	ABB	ACH580-VCR-07.6-4+F267+J429
(N) VFD-25-P-49	ABB	ACH580-VCR-012A-4+F267+J429
(N) VFD-25-P-50	ABB	ACH580-VCR-012A-4+F267+J429
(N) VFD-25-P-51	ABB	ACH580-VCR-014A-4+F267+J429
(N) VFD-8-P-1	ABB	ACH580-VCR-027A-4+F267+J429
(N) VFD-8-P-2	ABB	ACH580-VCR-027A-4+F267+J429
(N) VFD-8-P-12	ABB	ACH580-VCR-023A-4+F267+J429
(N) VFD-8-P-13	ABB	ACH580-VCR-023A-4+F267+J429
(N) VFD-8-P-14	ABB	ACH580-VCR-014A-4+F267+J429
(N) VFD-8-P-15	ABB	ACH580-VCR-07.6-4+F267+J429
(N) VFD-8-P-16	ABB	ACH580-VCR-023A-4+F267+J429
(N) VFD-HWP-B3-1	ABB	ACH580-VCR-023A-4+F267+J429

(N) VFD-HWP-B3-2	ABB	ACH580-VCR-023A-4+F267+J429
(N) VFD-HWP-B3-3	ABB	ACH580-VCR-023A-4+F267+J429
(N) VFD-HWP-B3-4	ABB	ACH580-BCBR-156A-4+F267
(N) VFD-HWP-B3-5	ABB	ACH580-BCBR-156A-4+F267
(N) VFD-HWP-B3-6	ABB	ACH580-BCBR-156A-4+F267

Notes

VFDs for motor control with harmonic filtering and bypass capabilities. Includes 6-pulse and 12-pulse configurations based on application requirements.

Suppliers

Modular Water Chillers

Manufacturer	Model	Representative	Compatibility Notes	BoD
Oilon US	P450	N/A	Appears as BoD manufacturer on mechanical schedules for Modular Water Chillers HP-3B-1 through HP-3B-5	**Yes**
Trane		N/A	Listed as alternate manufacturer in Section 236213 for packaged air-cooled refrigerant compressor and condenser units	Listed
Aermec		N/A	Listed as alternate manufacturer in Section 236213 for packaged air-cooled refrigerant compressor and condenser units	Listed
Budzar		N/A	Suitable alternative for high-temp heat recovery chiller applications	No

In-Line Centrifugal Hydronic Pumps

Manufacturer	Model	Representative	Compatibility Notes	BoD
Bell & Gossett	Multiple models (BG-E1510 series, E1510 series, BG-E80 series, etc.)	N/A	Appears as BoD manufacturer on mechanical schedules for all In-Line Centrifugal Hydronic Pumps equipment tags	**Yes**
Armstrong Pumps Inc.	Various models	N/A	Listed as acceptable manufacturer in specifications	Listed
Flowserve Corporation (Div. of Ingersoll-Dresser Pumps)	Various models	N/A	Listed as acceptable manufacturer in specifications	Listed
Grundfos	Various in-line centrifugal models	N/A	High efficiency alternative with comparable performance specifications	No
Taco Inc.	Various in-line centrifugal models	N/A	Suitable alternative with similar mounting and connection requirements	No

Variable Frequency Drives

Manufacturer	Model	Representative	Compatibility Notes	BoD
ABB	ACH580 Series	N/A	Multiple model variants specified throughout project including ACH580-VCR series and ACH580-BCBR series for different applications	**Yes**
Schneider Electric	Altivar Series	N/A	Suitable alternative for HVAC applications with similar specifications	Listed
Siemens	Sinamics G120 Series	N/A	High performance VFD suitable for pump and fan applications with similar harmonic performance requirements	No
Danfoss	VLT HVAC Drive FC 102	N/A	HVAC-specific drive with built-in features for pump and fan control applications	No

BuildVision Recommendations

1. Standardize Equipment Brands Within Component Categories

Rationale: The project currently specifies multiple manufacturers for similar equipment types (York vs Oilon for heat pumps, ABB vs Bell & Gossett for pumps). Standardizing on fewer manufacturers within each category reduces complexity for maintenance, training, and spare parts inventory while potentially enabling volume pricing benefits.
Estimated Impact: Reduced long-term maintenance costs, simplified training requirements, and potential cost savings through consolidated purchasing
Implementation: Work with the design team to select preferred manufacturers for each equipment type and negotiate volume pricing agreements. Ensure selected manufacturers can meet all performance specifications across equipment types.
Priority: High

2. Implement Factory Witness Testing for Critical Equipment

Rationale: The specifications already require factory witness testing for heat pumps, but this should be expanded to other critical equipment. This ensures quality control and provides opportunity to identify and resolve issues before field installation, reducing costly rework and delays.
Estimated Impact: Reduced field commissioning time, improved equipment reliability, and minimized potential for costly field modifications
Implementation: Require factory witness testing for water source heat pumps, air source heat pumps, and major pump assemblies. Include travel costs for design team representatives in procurement planning. Schedule testing to align with project delivery timelines.
Priority: High

3. Procure Long-Lead Equipment Early with Staged Payments

Rationale: Heat pumps and specialized equipment typically have extended lead times that could impact project schedule. Early procurement with staged payment schedules can secure delivery dates while managing cash flow requirements.
Estimated Impact: Improved schedule certainty, potential cost savings through early ordering, and reduced risk of equipment availability issues
Implementation: Identify equipment with lead times exceeding 16 weeks and establish early procurement schedule. Negotiate staged payment terms tied to manufacturing milestones. Coordinate with storage requirements for early deliveries.
Priority: High

4. Establish Performance Bonds for Equipment Suppliers

Rationale: Given the complexity and critical nature of the heat pump systems, performance bonds ensure suppliers deliver equipment meeting specifications and provide recourse if performance guarantees are not met.
Estimated Impact: Enhanced protection against equipment performance shortfalls and financial security for warranty obligations
Implementation: Require performance bonds equal to equipment contract value for heat pumps and other critical systems. Include specific performance criteria in bond language

tied to commissioning test results.
Priority: Medium

5. Coordinate BMS Integration Requirements During Procurement

Rationale: The specifications detail extensive BMS integration requirements including BACnet communication interfaces. Early coordination with BMS and equipment suppliers ensures compatibility and reduces integration issues during commissioning.
Estimated Impact: Smoother system integration, reduced commissioning time, and improved system functionality
Implementation: Require BMS integration confirmation from equipment suppliers during submittal review. Conduct pre-installation compatibility testing between BMS contractor and equipment suppliers. Document all interface requirements in purchase agreements.
Priority: Medium

6. Negotiate Comprehensive Service Agreements with Equipment Procurement

Rationale: The specifications require various service agreements and warranty periods. Negotiating these as part of equipment procurement can provide better terms and ensure consistent service quality across all systems.
Estimated Impact: Reduced long-term operational costs, ensured service availability, and simplified vendor management
Implementation: Include multi-year service agreements in equipment RFPs. Evaluate total cost of ownership including service costs in vendor selection. Ensure service technicians are factory-trained and locally available.
Priority: Medium

Conclusion

Key Findings

- Multiple heat pump technologies specified requiring coordination between Oilon water-source units and York air-source units with different performance characteristics and control requirements
- Extensive pump inventory (24+ units) creates opportunity for standardization and volume pricing while requiring careful coordination of VFD integration
- Factory witness testing requirements for heat pumps indicate critical performance validation needs that must be planned into procurement schedules
- Complex BMS integration requirements with BACnet communication interfaces across all equipment types requiring early supplier coordination
- Project timeline shows compressed schedule (6-month duration) requiring early procurement of long-lead equipment to avoid delays

Highest Priority Actions

- Immediately initiate procurement for heat pump equipment due to extended lead times and factory testing requirements - coordinate delivery schedules with installation timeline
- Establish factory witness testing schedule for critical equipment and coordinate design team attendance to validate performance before shipment
- Negotiate standardization opportunities within equipment categories to reduce complexity and achieve volume pricing benefits while maintaining performance requirements
- Coordinate BMS integration requirements with all equipment suppliers during submittal review to ensure compatibility and smooth commissioning

Summary

This HVAC decarbonization project at Prudential Plaza represents a comprehensive mechanical system upgrade featuring air-source and water-source heat pumps, hydronic systems, and advanced controls. The procurement strategy should focus on coordinating complex heat pump systems with multiple manufacturers (Oilon, York), extensive pump infrastructure (Bell & Gossett), and integrated VFD controls (ABB). Critical procurement considerations include factory testing requirements, long lead times for specialized heat pump equipment, and comprehensive BMS integration across all systems.

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Date: 2025-06-13