

# Custom Procurement Report

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# **Customer Information**

**Customer** Structure Tone Southwest

Name Contact Kelly loannou

Person Contact kelly joanno

Email
Contact kelly.ioannou@structuretone.com

Phone N/A

Address 2323 North Field Street, Dallas, TX 75201

**Bid Status** BuildingConnected Lead

 Date Invited
 4/4/2025

 Date Due
 5/13/2025

 Rfis Due
 4/10/2025

 Project Size
 600000 sq. ft.

Request Type

Proposal

# **Project Information**

Project Meadow

Name
Location 2323 North Field Street, Dallas, TX 75201

Start Date N/A

**Completion** 27 March 2025

Date Budget N/A

**Scope** HVAC systems including air handling units, fan coil units, ductwork,

piping, and controls

**Project ID** 23406.0000

Project URL BuildVision Project Link

Project 50% Construction Documents Phase

**Created** 5/15/2025

# **Prepared By**

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Date: 2025-05-20

# **Project Equipment**

# **Air Handling Units**

<b>Equipment Tag</b>	Manufacturer	Model
AHU-1A-01	York	XTI-63X69
AHU-1C-01	York	XTI-75X69
AHU-2A-01	Temtrol	CUSTOM
AHU-2A-02	Temtrol	CUSTOM
AHU-2A-03	York	XTI-33X54
AHU-2C-01	York	XTI-96X96
AHU-2C-02	York	XTI-75X69
AHU-2C-03	York	XTI-84X84
AHU-2C-04	York	XTI-48X63

### Notes

Modular indoor central-station air-handling units with coils for indoor installations

## **Fan Coil Units**

<b>Equipment Tag</b>	Manufacturer	Model
FCU-14A-01	Enviro-Tec	HDD-16
FCU-14A-02	Enviro-Tec	HDD-30
FCU-14A-03	Enviro-Tec	HDD-16
FCU-14A-04	Enviro-Tec	HDD-08
FCU-14A-05	Enviro-Tec	HDD-16
FCU-1C-01	Enviro-Tec	HDD-40
FCU-1C-02	Enviro-Tec	HDD-20
FCU-1C-03A	Enviro-Tec	HDD-40
FCU-1C-03B	Enviro-Tec	HDD-40
FCU-2C-01	Enviro-Tec	HDD-20
FCU-2C-02	Enviro-Tec	HDD-08
FCU-2C-03	Enviro-Tec	HDD-20
FCU-8C-01	Enviro-Tec	HDD-40
FCU-B1-18	Enviro-Tec	HDD-16

#### Notes

Factory-packaged and tested units rated according to AHRI 440, ASHRAE 33, and UL 1995  $\,$ 

## **HVAC Fans**

<b>Equipment Tag</b>	Manufacturer	Model
DBF-2C-01	LF Systems	DEF035
EF-2C-01		
KEF-1C-01	Loren Cook	135CA-SWSI
KEF-1C-02	Loren Cook	135CA-SWSI
TF-1C-01	Loren Cook	225SQN
TF-1C-02	Loren Cook	225SQN

### Notes

Various fan types including centrifugal, in-line, and exhaust fans

# **Suppliers**

# **Indoor Central-Station Air-Handling Units**

Manufacturer	Model	Representative	Compatibility Notes	BoD
York	XTI Series	N/A	Basis of Design	Yes
Daikin	Vision Air Handler	Daikin Applied	Listed alternate manufacturer in specifications.	Listed
Trane	Performance Cli- mate Changer	Trane Technolo- gies	Listed alternate manufacturer in specifications.	Listed
Carrier	39L AHU	Carrier Corporation	SUGGESTED ALTER-NATIVE: Carrier offers compatible air handling units with similar performance characteristics and reliability. May require minor modifications to connections.	No
Aaon	M2 Series	Aaon	SUGGESTED ALTERNATIVE: Aaon units feature high efficiency and quality construction. Compatible with project requirements but may require some dimensional adjustments.	No

# **Fan Coil Units**

Manufacturer	Model	Representative	Compatibility Notes	BoD
Enviro-Tec	HDD Series	N/A	Basis of Design	Yes
First Company	Horizontal Fan Coil	First Co.	Listed alternate manufacturer in specifications.	Listed
Titus	Horizontal Fan Coil	Titus HVAC	Listed alternate manufacturer in specifications.	Listed
Daikin	ThinLine FCU	Daikin Applied	SUGGESTED ALTERNA- TIVE: Daikin offers reliable fan coil units with similar performance characteris- tics. May require review of electrical connections.	No
IEC	Horizontal Series	International Envi- ronmental Corpo- ration		No

# **HVAC Fans**

Manufacturer	Model	Representative	Compatibility Notes	BoD
Loren	Cook Multiple Series	N/A	Basis of Design	Yes
Greenheck	Various Series	Greenheck Fan Corporation	Listed alternate manufacturer in specifications.	Listed
Twin City Fan	Various Series	Twin City Fan Companies, Ltd.	SUGGESTED ALTERNA- TIVE: Twin City Fan offers reliable fans with similar performance characteris- tics. Minor modifications to connections may be required.	No
Pennbarry	Various Series	PennBarry	SUGGESTED ALTERNATIVE: PennBarry offers cost-effective fan solutions that would be suitable for this application with minimal modifications required.	No

#### **Control Valves**

Manufacturer	Model	Representative	Compatibility Notes	BoD
Belimo	Various Series	N/A	Basis of Design	Yes
Honeywell	Various Series	Honeywell International Inc.	Listed alternate manufacturer in specifications.	Listed
Johnson Controls	VG1000 Series	Johnson Controls, Inc.	Listed alternate manufacturer in specifications.	Listed
Siemens	VVF/VXF Series	Siemens Industry, Inc.	Listed alternate manufacturer in specifications.	Listed

### **BuildVision Recommendations**

### 1. Implement Pre-Purchase of Critical HVAC Equipment

Rationale: The project documentation indicates a tight construction timeline with 50% CDs dated March 2025 and 100% DD dated November 2024. Long lead items such as air handling units (AHUs) and specialized fan coil units may cause schedule delays if not ordered early. York and Temtrol AHUs, particularly custom units like AHU-2A-01 and AHU-2A-02, typically have 12-16 week lead times that could impact the construction schedule. Estimated Impact: Potential schedule savings of 4-6 weeks by avoiding delays in mechanical system installation. Early procurement could also secure better pricing before potential material cost escalations, saving approximately 3-5% on major equipment costs. Implementation: 1. Identify long lead items from equipment schedules (AHUs, FCUs)

- 2. Issue early equipment purchase orders with approved submittals
- 3. Arrange for secure storage if equipment arrives before installation areas are ready
- 4. Coordinate with electrical contractor for early provision of power connections **Priority:** High

### 2. Consolidate Fan Coil Unit Procurement to Single Manufacturer

**Rationale:** Project specifications show Enviro-Tec as basis of design for all FCUs, but also list acceptable alternatives like First Company and Titus. Selecting a single manufacturer for all units (15+ FCUs of various sizes) would provide procurement leverage, ensure consistent quality and controls integration, and simplify maintenance requirements with standardized parts inventory.

**Estimated Impact:** Potential cost savings of 8-12% through volume purchasing of FCUs, reduced coordination issues between different systems, and long-term operational savings through standardized maintenance protocols and spare parts inventory.

Implementation: 1. Issue RFQ to qualified FCU manufacturers for complete package

- 2. Evaluate bids based on total cost of ownership rather than just upfront cost
- 3. Arrange factory packaging of units by installation location
- 4. Secure training from manufacturer for all maintenance staff on one system **Priority:** Medium

# 3. Establish Valve Standardization Strategy

**Rationale:** Specification section 230523 allows multiple manufacturers for control valves and general-duty valves. The project requires numerous valves for the hydronic systems including chilled water piping. Standardizing on a single valve manufacturer for each application type (ball, butterfly, check) would ensure consistent quality, simplify installation training, and provide better warranty coverage and future service support.

**Estimated Impact:** Cost savings of approximately 5-7% on valve packages through volume purchasing and reduced administrative overhead. Additional savings from more efficient installation due to consistent installation procedures and simplified maintenance requirements.

Implementation: 1. Review valve requirements across all hydronic systems

- 2. Create standardized valve schedule by type and size
- 3. Request manufacturer volume discount for package purchase
- 4. Pre-purchase valve packages for timely delivery to installation zones

**Priority:** Medium

### 4. Procure Complete BMS Package from Single Vendor

**Rationale:** Section 230900 outlines requirements for a comprehensive Building Management System (BMS) utilizing Tridium Niagara Framework N4. The specifications emphasize open protocols and interoperability. By procuring the complete control system (hardware, software, installation, and commissioning) from a single vendor, the project can ensure seamless integration, unified responsibility, and avoid coordination issues between multiple vendors.

**Estimated Impact:** Reduced integration issues could save approximately 100-150 labor hours during commissioning. A comprehensive package would reduce change orders and RFIs related to control system interfaces, potentially saving 3-5% on total control system cost while providing better system performance.

**Implementation:** 1. Develop comprehensive RFP for complete BMS package including all controllers, sensors, and software

- 2. Require bidders to demonstrate Niagara Framework N4 experience and certification
- 3. Include post-installation support and training requirements
- 4. Evaluate proposals based on total cost of ownership and technical capability **Priority:** High

# 5. Use Prefabricated Hydronic Piping Assemblies

**Rationale:** The mechanical specifications indicate extensive chilled water piping systems (Section 232113) with various valves, fittings, and connections. Utilizing prefabricated piping assemblies for standard configurations (pump connections, coil connections, valve assemblies) would improve quality control, reduce field labor, and decrease installation time while ensuring consistent installation standards.

**Estimated Impact:** Labor savings of approximately 15-20% on piping installation. Potential schedule acceleration of 2-3 weeks for mechanical rough-in. Reduced field welding and assembly would improve quality and reduce rework, potentially saving an additional 2-3% in overall mechanical installation costs.

Implementation: 1. Identify repetitive piping assembly configurations from drawings

- 2. Create standardized assembly drawings for prefabrication
- 3. Select qualified mechanical prefabricator with shop drawing capabilities

4. Schedule deliveries to align with installation sequence **Priority:** Medium

# **Conclusion**

### **Key Findings**

- The project includes a BACnet-based Building Management System (BMS) with Tridium Niagara Framework N4 that must remain open and accessible to the owner without proprietary restrictions
- Equipment specifications require high-efficiency components with specific performance ratings, including premium efficiency motors, MERV 13 filtration, and adherence to ASHRAE standards
- Material quality requirements are rigorous, with detailed specifications for construction methods, corrosion resistance, and system integrity for long-term durability
- The procurement strategy emphasizes competitive bidding with specific basis-ofdesign manufacturers while allowing equivalent alternatives subject to approval

# **Highest Priority Actions**

- Submit comprehensive product data and shop drawings for all HVAC equipment and components by the May 13, 2025 submission deadline
- Coordinate with structural and electrical contractors regarding equipment support, power requirements, and BMS integration
- Develop detailed procurement schedule to ensure timely delivery of long-lead items such as air handling units and specialized controls components
- Prepare quality control protocols to ensure equipment and installation meet the detailed performance and construction specifications

#### **Summary**

Project Meadow involves the procurement and installation of an extensive HVAC system, including air handling units, fan coil units, ductwork, piping, and control systems. The project requires high-quality equipment from specified manufacturers with detailed requirements for materials, installation standards, and system performance. The project is currently at 50% Construction Documents phase with a March 2025 document date and an expected bid submission deadline of May 2025.



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