

To: Mayor and City Council

From: John Gates
Purchasing Manager

Re: Dunwoody Cultural Arts Center HVAC Integrated Controls Addition

Date: August 25, 2025

Action

Approval of contract award to Addison Smith Mechanical Contractors for additional HVAC integrated controls at the Dunwoody Cultural Arts Center.

Summary

Additional temperature control opportunities have been identified for this project, resulting in an increase in the total project cost.

Details

RTUs 1-7 were approved for replacement at the July 14, 2025, Council Meeting, in the amount of \$233,101 which included a 10% contingency. In addition to their age, Staff have identified the opportunity to improve how we manage different temperature zones in the facility by using multi-zone Variable Air Volume (VAV) units with integrated BACnet controls. This means staff will be able to remotely access and control the HVAC systems. Additionally, there are features such as trend analysis, scheduling and reporting that will potentially optimize energy usage.

Previously, it was assumed by the City's engineering consultants that the City would stay with a zoned configuration. As compared to current technology, a zoned configuration overtime will invariably create challenges for airflow control and could likely increase the long-term potential of the HVAC units.

The decision to go with the multi-zone VAV units integrated BACnet increases the total project cost by \$49,056. This is within the City Manager's signatory authority to approve; however, I felt it important to advise you of my taking this action. This action provides improved energy efficiency, control and longer-term system reliability. In addition, this will result in an extended manufacturer warranty with three years' coverage on parts, coils and unit controls and five years on compressors.

Funding for this addition will be allocated from Parks General Capital.

Recommendation

Staff respectfully requests that Council: (1) Award a contract to Addison Smith Mechanical Contractors for additional HVAC integrated controls at the Dunwoody Cultural Arts Center, in the amount of \$49,056; (2) Authorize Staff to provide funding for the contract; (3) Authorize the City Manager to execute the necessary documents.

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PROPOSAL

Attention: Chris Murphy
Company: City of Dunwoody
Project: Spruill Center for the Arts
Quotation: EST25-204 Rev. 1
Date: 7/24/2024

Addison Smith Mechanical Contractors is pleased to submit this proposal for HVAC equipment replacement at the Spruill Center for the Arts, located at 5339 Chamblee Dunwoody Rd, Dunwoody, GA 30338. The scope and pricing herein are based on a site visits conducted on June 12, 2025, and July 22, 2025; along with subsequent project discussions.

Rev. 1 Changes:

See Addison Smith Mechanical Recommendation – Option 2

Following a comprehensive review of the site and HVAC system layout on July 22, 2025, Addison Smith Mechanical recommends **Option 2** as the optimal long-term solution for efficiency, zoning control, and reliability.

During the initial site visit on June 12, 2025, it was understood that the existing rooftop units (RTUs) are controlled by space-mounted thermostats for temperature regulation. At the time, it was assumed that the RTUs operated with standard duct layouts consistent with constant torque systems.

Option 1 (Rev. 1) includes the installation of iVu UC Open controllers for all seven RTUs, integration with the existing iVu building automation system, and updates to programming and graphics. However, this option is not ideal given the current system configuration. The use of constant torque, non-airflow-sensing RTUs in a zoned system application can lead to system performance issues and uneven airflow distribution, ultimately compromising comfort and control. The existing RTUs are constant torque units without airflow sensors, which limits their ability to properly serve a zoned system configuration. Changes to Option 1 are in **bold** text below.

Option 2, our recommended approach, upgrades all RTUs to Trane Precedent multiple-zone variable air volume (VAV) units with integrated BACnet controls. This configuration is better suited for the building's layout, allowing for proper zoning control, improved energy efficiency, and long-term system reliability.

Option 1: All Units Replacement

- All units below include the following:
 - R-454B Refrigerant
 - 208-230V/60/3
 - 0-100% outside air economizer

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- Condenser coil hail guards
- (4) Trane Foundation GDK180A3 15 Ton standard efficiency rooftop package units
 - Tags: RTU-4, RTU-5, RTU-6, RTU-7
 - No curb adaptor necessary (direct fit for existing Carrier footprint)
 - Medium gas heat
 - Two speed fan motor
- (2) Trane Foundation GDK150A3 12.5 Ton standard efficiency rooftop package units
 - Tags: RTU-1, RTU-2
 - Medium gas heat
 - Two speed fan motor
 - Curb adaptor from existing roof curb to Trane
- (1) Trane Foundation GDK060A3 5 Ton standard efficiency rooftop package unit
 - Tags: RTU-3
 - Low gas heat
 - New ductwork from unit side discharge to roof penetrations
- (7) 240VAC 3-pole fused outdoor disconnect switches with properly sized fuses for unit MOCP
- **Provide and install (7) iVu UC Open controllers to integrate each RTU into the existing iVu system**
- **Establish BAS connectivity for all (7) RTUs via the existing iVu BACnet controller**
- **Add new BAS connections and wire for (2) existing RTUs not currently integrated into the iVu system**
- **Update iVu system graphics to reflect new RTU integrations**
- Low voltage, electrical, gas and condensate connections
- (7) Smoke detectors wired to shut down unit upon detection of smoke
- Crane rental, counterweights, freight in/out, rigging for **Saturday and Sunday replacement**
- Start-up and check out per Trane start-up procedures and checklists
- Haul-off and EPA compliant disposal of old systems, refrigerant, and oils
- Supervision, labor, and clean-up

Total Option 1 Price: \$244,315.⁰⁰

Option 2: All Units Multi-Zone Variable Air Volume

- All units below include the following:
 - R-454B Refrigerant
 - 208-230V/60/3
 - 0-100% outside air economizers with barometric relief
 - Condenser coil hail guards
 - **3-year parts, coils & unit controls warranty**
 - **5-year compressor parts only warranty**
- (4) Trane Precedent YSK180A3 15 Ton standard efficiency rooftop package units
 - Tags: RTU-4, RTU-5, RTU-6, RTU-7
 - Medium gas heat

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- **Multiple Zone Variable Air Volume**
 - **Advanced Controller with BACnet communications interface**
- (2) Trane Precedent YSK150A3 12.5 Ton standard efficiency rooftop package units
 - Tags: RTU-1, RTU-2
 - Medium gas heat
 - **Multiple Zone Variable Air Volume**
 - Curb adaptor from existing roof curb to Trane
 - **Advanced Controller with BACnet communications interface**
- (1) Trane Foundation GDK060A3 5 Ton standard efficiency rooftop package unit
 - Tags: RTU-3
 - **iVu UC Open controller**
 - Low gas heat
 - New ductwork from unit side discharge to roof penetrations
- (7) 240VAC 3-pole fused outdoor disconnect switches with properly sized fuses for unit MOCP
- **Establish BAS connectivity for all (7) RTUs via the existing iVu BACnet controller**
- **Add new BAS connections and wire for (2) existing RTUs not currently integrated into the iVu system**
- **Update iVu system graphics to reflect new RTU integrations**
- Low voltage, electrical, gas and condensate connections
- (7) Smoke detectors wired to shut down unit upon detection of smoke
- Crane rental, counterweights, freight in/out, rigging for **Saturday and Sunday replacement**
- Start-up and check out per Trane start-up procedures and checklists
- Haul-off and EPA compliant disposal of old systems, refrigerant, and oils
- Supervision, labor, and clean-up

Total Option 2 Price: \$282,157.⁰⁰

Exclusions and Clarifications

- Any scope of work not explicitly listed in the proposal above
- Permits, permit fees, or inspection coordination
- Structural modifications or reinforcement of existing building elements
- Electrical service upgrades beyond the replacement of disconnects and fuses
- Roof penetrations or patching beyond duct curb connections
- Ductwork modifications, repairs, or redesign – existing duct layout is assumed to be functional and compatible with proposed units; no duct verification or redesign is included
- Temperature controls or zone control beyond factory-integrated unit controls and iVu UC Open controllers (as listed in Option 1 scope)
- Testing, adjusting, and balancing (TAB) of air systems
- Extended equipment warranties beyond the manufacturer's standard offering
- Building automation system integration beyond connection of listed units into the existing iVu platform
- Fire alarm system modifications, interfaces, or coordination

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- Overtime labor unless explicitly stated in the proposal
- Ceiling or wall repairs, access creation, or restoration related to system installation
- Seismic, vibration isolation, or wind load calculations unless specifically included
- HVAC performance guarantees related to existing duct conditions or zoning functionality under constant torque equipment

Warranty: Standard one-year parts and labor warranty from date of equipment start-up, unless otherwise noted. Manufacturer's extended compressor warranties (if applicable) are included.

Proposal Validity

This proposal is valid for a period of 30 calendar days from the date listed above.

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Conditions of this proposal are as follows:

- This Mechanical Contractor's Proposal is based on the *Recommended Bid Conditions for Construction Projects in the State of Georgia* agreed to by the Georgia Branch, Associated General Contractors, Association of Mechanical Contractors of Atlanta and American Subcontractors Association of Georgia.
- Proposal based on continuity of project schedule. Postponement may lead to additional cost.
- ESCALATION CLAUSE: In the event of significant delay (defined as 30 days from the date of this Proposal) or price increase of material, equipment or energy occurring during the performance of the Contract through no fault of the Subcontractor, the contract sum, time of completion, or Contract requirements shall be equitably adjusted by Change Order in accordance with the procedures of the Contract Documents. A change in price of material, equipment, or energy will be considered significant when the price increases by ten percent (10%) between the date of the Contract and the date of installation.
- Change Orders must be approved in writing and Contract Modifications issued prior to commencement of work.
- Notice is hereby given of the requirements of O.C.G.A./13-11-7 of the "Georgia Prompt Pay Act" that interest shall be due at statutory rate of one percent (1%) per month on the principal amount due on payments requested under the Contract from the time such payment becomes due pursuant to the ACT.

Proposed by: Daniel Byrd - Addison Smith Mechanical

Accepted By: _____ Date: _____

Printed Name: _____

ADDISON SMITH
Mechanical Contractor, Inc.

Addison Smith Mechanical Contractor, Inc.
101 Parkwood Circle
Carrollton, GA 30117

August 7, 2025

John Gates
Purchasing Manager
City of Dunwoody
4800 Ashford Dunwoody Road
Dunwoody, GA 30338

RE: Clarification of Scope – Spruill Center RTU Replacement Project

Dear Mr. Gates,

Addison Smith Mechanical respectfully submits this letter for public record to clarify the scope assumptions and subsequent findings related to the Spruill Center RTU replacement project.

During our initial site visit, we were informed that the existing rooftop units (RTUs) were controlled by standalone thermostats. Based on that information and the fact that the equipment observed were constant torque RTUs, which are typically used in single-zone applications, we made the reasonable and industry-standard assumption that all seven RTUs were independently controlled and serving single-zone areas.

The initial walkthrough was conducted in a general planning context, and the information gathered aligned with what would be expected for this type of system. While a more in-depth technical assessment at that stage may have revealed the system's zoning and BAS integration sooner, those conditions were not apparent or communicated at the time. Importantly, there was no indication during the initial visit that the system was configured with zoning, which would have raised immediate concerns about control strategy and long-term system performance.

It was during a follow-up site visit on July 22, 2025, that our team was able to conduct a more detailed assessment. We then discovered that 3 of the 7 RTUs were indeed controlled via standalone thermostats, while the remaining 4 RTUs were tied into the i-Vu building automation system (BAS). We also confirmed the system was operating in a zoned configuration, despite using constant torque units—an uncommon and problematic setup due to the inability of such equipment to respond effectively to varying zone demands.

In response to these findings, our revised proposal includes updated scope for:

- Controls integration and BAS graphics updates for all RTUs
- Proper coordination with the existing zoning configuration
- Addressing long-term performance, comfort, and reliability concerns

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We continue to recommend Option 2, which includes Trane Precedent VAV-capable units with full BACnet integration and extended warranty coverage. This solution aligns with best practices for zoned systems and positions the city for improved energy efficiency, occupant comfort, and system longevity.

We understand this revised scope affects the approved budget and may require additional Council action. We are committed to supporting the city with full transparency, technical documentation, and value engineering options to help guide a responsible and informed decision.

This letter is submitted for inclusion in the official project file and may be shared with City Council as part of the supporting documentation for project funding and scope clarification.

Sincerely,

Daniel Byrd
Senior Account Manager
Addison Smith Mechanical Contractor, Inc.
dbyrd@addisonsmith.net | Cell: 678-476-4407