Exhibit A-5
SOLE SOURCE FACILITY JUSTIFICATION TRANSMITTAL

Public Contract Code section 3400 provides, in pertinent part, that:

"(a) The Legislature finds and declares that it is the intent of this section to encourage contractors and manufacturers to develop and implement new and ingenious materials, products, and services that function as well, in all essential respects, as materials, products, and services that are required by a contract, but at a lower cost to taxpayers.

(b) No agency of the state, nor any political subdivision, municipal corporation, or district, nor any public officer or person charged with the letting of contracts for the construction, alteration, or repair of public works, shall draft or cause to be drafted specifications for bids, in connection with the construction, alteration, or repair of public works, (1) in a manner that limits the bidding, directly or indirectly, to any one specific concern, or (2) calling for a designated material, product, thing, or service by specific brand or trade name unless the specification is followed by the words "or equal" so that bidders may furnish any equal material, product, thing, or service. In applying this section, the specifying agency shall, if aware of an equal product manufactured in this state, name that product in the specification. Specifications shall provide a period of time prior to or after, or prior to and after, the award of the contract for submission of data substantiating a request for a substitution of "an equal" item. If no time period is specified, data may be submitted any time within 35 days after the award of the contract.

(c) Subdivision (b) is not applicable if the awarding authority, or its designee, makes a finding that is described in the invitation for bids or request for proposals that a particular material, product, thing, or service is designated by specific brand or trade name for any of the following purposes:

(2) In order to match other products in use on a particular public improvement either completed or in the course of completion."

Distech Controls Eclypse Connected VAV Controller

This is a sole source procurement because:

- ☐ This is a sole provider of a licensed, copyrighted or patented good or service.
- ☑ This is a sole provider of items compatible with existing equipment or systems.
- ☐ This is a sole provider of factory-authorized warranty service.
- ☑ This is a sole provider of goods or services that perform a unique function in order to meet the specialized needs of the District. Please provide specific detail below.

  Distech Controls Eclypse Connected VAV Controller and related family of unitary controllers provide flexible, free programmable demand led control to benefit the District energy management system. This terminal unit controller provide seamless plug and play integration with the Honeywell JACE 8000 building controller while using the work bench field level software for its diagnostics and programming, the same software which is used with the Tridium IAS and the Honeywell JACE 8000 building controller.

☑ There are overriding circumstances upon which the Board can find that the exception found in Public Contract Code section 3400 (c) (2) applies to the identified product(s). Please provide specific detail below as to what those circumstances are, and why this sole source procurement would be in the best interest of the District.

The District's has maintained a very sophisticated HVAC energy management system over the last 26 years which uses field level controllers to maintain interior building temperatures. The risk factors and challenges stated below present overriding circumstances which would negate the benefit that any competitive bid could offer:

- Risk of comfort control within the campus building
- Lack of quality control as it relates to competitive products
- Potential for system incompatibility and/or failure to integrate with new Tridium Niagara 4 server level software, which has already been sole sourced
- Cost of removal, disassembly and replacement of existing serve and client level software
- Cost of additional training of staff and field level diagnosis equipment

What steps were taken to verify that these goods or services are not available elsewhere?

There are no other comparable connected VAV controller, which integrate with the existing building systems design developed by the District's building systems control consultants SC Engineering.

See Supplier and Contractor Information Page Below For Contact Details.

This is a restricted brand or trade name, and no substitutions are allowed because:

☑ The requested product is an integral repair part or accessory compatible with existing equipment or systems.

Existing Equipment/System: Connected VAV Controller
Manufacturer/Model Number: Distech Controls Eclypse

☑ The District has standardized on the requested product, and use of another brand/model would require considerable time and funding to evaluate or implement. Please provide additional detail below.

From the advice of the District's building management controls consultant, SC Engineering, the District has standardized on Distech Controlls Eclypse Connected VAV Controller.

Supplier or Contractor Information:

Distech Controls Energy Services, Inc.
400 East Royal Lane
Building Three, suite 290
Irving, Texas 75039

Telephone: 450-444-9898
North America (Toll Free): 1-800-404-0043

RECOMMENDATION

Sufficient evidence has been provided upon which the Board can find that the exception found in Public Contract Code section 3400 (c) (2) applies to the identified product(s). Approve a finding to authorize use of the above stated exception for Distech Controls Eclypse Connected VAV Controller in the MiraCosta Design Standards Manual for all the projects in the MM program. Require that said finding be included in all pertinent bid/proposal documents for those projects where such product(s) will be used.

SIGNATURE:

Tom Macias, Facilities Director — **Date** 12/23/19

Geoff Bachanas, PMO Director — **Date** 12/18/19

steinberg hart

Exhibit B-5
SOLE SOURCE ARCHITECT/ENGINEERING JUSTIFICATION SUMMARY REPORT TRANSMITTAL

December 20, 2019

Re: Eclypse Connected VAV Controller

Within the Design & Construction Standards MiraCosta CCD has identified or designed various proprietary systems or products that meet specific District performance requirements, allow for seamless integration into existing systems, provide ease of maintenance, and afford a lower total cost of ownership. In these instances, the District is requesting that these systems and products shall be provided without substitution. The following Specification Section 28 00 00 is one that meets these special requirements.

Our experience working with other Colleges and Universities shows that single sources for some materials, products, equipment, and systems is a common approach to achieving best value.

We have reviewed the facility justification transmittal for the above-referenced item and believe that the District's sole-sourcing of this specification section meets the requirements for District's benefit as described above.

Sincerely,

Rob Barthelman
Principal

ECLYPSE™ Connected VAV Controller

Overview

The ECLYPSE Connected VAV Controller (ECY-VAV) is designed to control any variable air volume (VAV) box. It supports BACnet/IP communication and is a listed BACnet Building Controller (B-BC).

The ECY-VAV comes with an embedded web server that enables web-based VAV application configuration and a visualization interface. It also features embedded scheduling, alarming, and logging. Control logic and graphic user interface can be customized as required for the application.

Features & Benefits

- Utilizes BACnet/IP and IT standards, delivering empowered IP connectivity and open integration with building management systems
- Uses cryptographic modules making it FIPS 140-2 "Inside"
- Via its RESTful API, data can be accessed from different applications, such as energy dashboards, analytics tools, and mobile applications
- Comes with ENVYSION™ Viewer and the associated preloaded rooftop unit applications and graphics pre-installed
- xpressENVYSION offers a simplified and streamlined experience in a workflow oriented, drag & drop GUI environment
- Supports EC-*gfx*Program, which makes Building Automation System (BAS) programming effortless
- Supports Smart Room Control for an end-to-end system for the control of HVAC equipment, lighting, and shades/sunblinds
- Embedded alarms, trend log and schedule support allows for fully distributed data and logic providing a more robust system
- Automatic email notifications for system status and alarms to ensure faster system servicing and response time
- Robust hardware design featuring metallic pitot terminal barbs as well as metallic anchor point and mounting bracket

Model Selection

Example: ECY-VAV-*PoE (SI)*

Series	Power	Units
ECY-VAV	[blank] : Standard 24VAC/DC power supply *PoE* : Power Over Ethernet	*(SI)* : Preloaded Apps in SI (Metric) units *(IMP)* : Preloaded Apps in Imperial (US) units
11-points, 4 UI, 2 UO, 4 DO, 18 Vdc power supply output, built-in flow sensor, integrated damper actuator, ENVYSION viewer		

Accessories

ECLYPSE Wi-Fi Adapter	Wi-Fi Adapter for ECLYPSE Connected Controllers.
ECLYPSE Open-To-Wireless™ Adapter	EnOcean communication protocol adapter for ECLYPSE Connected Controllers.
Terminal covers	Terminal cover designed to conceal the wire terminals of the ECY-VAV Series controllers. Required to meet local safety regulations in certain jurisdictions.

Product Specifications

Power Supply Input (ECY-VAV Models)

Voltage Range[1]	24VAC/DC; ±15%; Class 2
Nominal Power Consumption	7VA; all external loads excluded, no USB peripherals
Full Load Power Consumption	20VA; external 24VAC loads excluded
Frequency Range	50 to 60Hz
Overcurrent Protection	Field replaceable fuse
Fuse Type	3A, fast-acting, 5 × 20mm (GMA-2A)
Power Factor	>90%

1. 24VDC does not support DO (triac outputs).

Power Supply Input (ECY-VAV-PoE Models)

Power over Ethernet Link Powered	IEEE 802.3at
PoE Switch	Must be listed as Limited Power Source (LPS) per UL60905
Overcurrent Protection	Field replaceable fuse
Fuse Type	3A, fast-acting, 5 × 20mm (GMA-2A)
Powering External Devices	Up to 15 Watts maximum (power is available from the controller's power supply input terminals)

Communications

Ethernet Connection Speed	10/100 Mbps
Addressing	IPv4 or Hostname
BACnet Profile	BACnet Building Controller (B-BC), AMEV AS-A and AS-B
BACnet Listing	BTL, WSP B-BC
BACnet Interconnectivity	BBMD forwarding capabilities
BACnet Transport Layer	IP
Web Server Protocol	HTML5
Web Server Application Interface	REST API
Wireless Adapter	Optional, USB Port Connection
Wi-Fi Communication Protocol	IEEE 802.11b/g/n and 802.11s
Wi-Fi Network Types	Client, Access Point, Hotspot

Subnetwork

Communication	RS-485
Cable	Cat 5e, 8 conductor twisted pair
Connector	RJ-45
Connection Topology	Daisy-chain
Maximum number of standard room devices supported per controller combined [1]	4
Allure EC-Smart-Vue Series[2]	4
Allure EC-Smart-Comfort Series	4
Allure EC-Smart-Air Series[2]	4
EC-Multi Sensor	4
ECx-Light-4 / ECx-Light-4D / ECx-Light-DALI [1]	4
ECx-Blind-4 / ECx-Blind-4LV [1]	4
Maximum number of Bluetooth low energy room devices per controller combined [3]	4
Allure UNITOUCH™	2
EC-Multi-Sensor-BLE	4

1. For more details about supported quantities, see the ECLYPSE Selection Tool.xlsm spreadsheet file available for download from SmartSource.
2. A controller can support a maximum of 2 Allure sensor models equipped with a CO_2 sensor. Any remaining connected sensors must be without a CO_2 sensor.
3. A mixed architecture with standard room devices and Bluetooth low energy enabled devices is not recommended.

Hardware

Processor	Sitara ARM processor
CPU Speed	600MHz
Memory	4GB Non-volatile Flash (applications & storage) 512MB RAM
Real Time Clock (RTC)	Real Time Clock with rechargeable battery Supports SNTP network time synchronization
RTC Battery	20 hours charge time, 20 days discharge time Up to 500 charge / discharge cycles
Cryptographic Module	FIPS 140-2 Level 1 Compliant
Ethernet (ECY-VAV)	2 × switched RJ-45 Ethernet ports with integrated fail-safe for daisy-chaining

Ethernet (ECY-VAV-PoE)	1 × RJ-45 PoE+ Ethernet port 1 × switched RJ-45 Ethernet port
USB Connections	2 × USB 2.0 Ports 1 × Micro-USB 2.0 Ports
Subnet	RJ-45
Green LED	Power status, Subnet TX, and Ethernet Traffic
Orange LED	Controller status, Subnet RX, and Ethernet Speed

Open-to-Wireless Adapter

Communication Protocol	EnOcean wireless standard [1]
Connector Type	USB
Number of Wireless Inputs[2]	18

1. Available when an optional external ECLYPSE Open-to-Wireless Adapter is connected to the controller. Refer to the Open-to-Wireless Application Guide for a list of supported EnOcean wireless modules.
2. Some wireless modules may use more than one wireless input from the controller.

Integrated Damper Actuator

Motor	Belimo brushless DC motor
Torque	45 in-lb, (5 Nm)
Degrees of Rotation	95° adjustable
Shaft Diameter	5/16 to 3/4" (8.5 to 18.2mm)
Acoustic Noise Level	< 35 dB (A) @ 95° rotation in 95 seconds

Mechanical

ECY-VAV Dimensions (H × W × D)	7.90 × 5.51 × 3.70" (200.61 × 139.93 × 94.04 mm)
ECY-VAV-PoE Dimensions (H × W × D)	7.90 × 8.17 × 3.70" (200.61 × 207.59 × 94.04 mm)
Dimensions with Terminal Covers (H × W × D)	7.90 × 10.84 × 3.70" (200.61 × 275.26 × 94.04 mm)
ECY-VAV Shipping Weight	2.00lbs (0.90 kg)
ECY-VAV-PoE Shipping Weight	2.50lbs (1.14 kg)
Terminal Cover Shipping Weight (one side, bulk packaged)	0.30lbs (0.14 kg)
Enclosure Material[1]	FR/ABS
Enclosure Rating	Plastic housing, UL94-5VB flammability rating

1. All materials and manufacturing processes comply with the RoHS directive and are marked according to the Waste Electrical and Electronic Equipment (WEEE) directive

Environmental

Operating Temperature	32 to 122°F (0 to 50°C)
Storage Temperature	-4 to 122°F (-20 to 50°C)
Relative Humidity	0 to 90% non-condensing
Ingress Protection Rating	IP20 (IEC 60552)
Nema Rating	1

Standards and Regulations

CE Emission	EN61000-6-3: 2007+A1:2011
CE Immunity	EN61000-6-1: 2007
FCC	Compliance with FCC rules part 15, subpart B, class B
UL Listed (CDN & US)	UL916 Energy management equipment

On-Board Air-Flow Sensor

Differential Pressure Range	±2.0 in. W.C. (±500 Pa) Polarity-free high-low sensor connection
Input Resolution	0.00007 in. W.C. (0.0167 Pa)
Air Flow Accuracy	±4.0% @ > 0.05 in. W.C. (12.5 Pa) ±1.5% once calibrated through air flow balancing @ > 0.05 in. W.C. (12.5 Pa)
Pressure Sensor Accuracy	±(0.2 Pa +3% of reading)

Universal Inputs (UI)

General

Input Type	Universal; software configurable
Input Resolution	16-bit analog to digital converter
Power Supply Output	18VDC; 80mA maximum
Protection	Auto-reset fuse for 24VAC protection

Contact

Type	Dry contact

Counter

Type	Dry contact
Maximum Frequency	1Hz maximum
Minimum Duty Cycle	500ms On / 500ms Off

0 to 10VDC

Range	0 to 10VDC (40kΩ input impedance)

0 to 5VDC

Range	0 to 5VDC (high input impedance)

0 to 20mA

Range	0 to 20mA 249Ω external resistor wired in parallel

Resistance/Thermistor

Range	0 to 350 KΩ
Supported Thermistor Types	Any that operate in this range

Pre-configured Temperature Sensor Types:

Thermistor	10KΩ Type 2, 3 (10KΩ @ 77°F; 25°C)
Platinum	Pt1000 (1KΩ @ 32°F; 0°C)
Nickel	RTD Ni1000 (1KΩ @ 32°F; 0°C) RTD Ni1000 (1KΩ @ 69.8°F; 21°C)

Universal Outputs (UO)

General

Output Type	Universal; software configurable
Output Resolution Converter	10-bit digital to analog Converter
Output Protection,	Built-in snubbing diode to protect against back-EMF, for example when used with a 12VDC relay Output is internally protected against short circuits
Auto-reset Fuse	Provides protection from accidental 24VAC connection

0 or 12VDC (On/Off)

Range	0 or 12VDC
Source Current	Maximum 20 mA at 12VDC (minimum resistance 600Ω)

PWM

Range	Adjustable period from 2 to 65 seconds
Thermal Actuator Management	Adjustable warm up and cool down time

Floating

Minimum Pulse On/Off Time	500 milliseconds
Drive Time Period	Adjustable

0 to 10VDC

Source:

Voltage Range	0 to 10VDC linear
Source Current	Maximum 20 mA at 10VDC (minimum resistance 600Ω)

Sink:

Voltage Range	0 to 10VDC linear[1]
Sink Current	Maximum 2.5 mA at 1VDC (minimum resistance 4kΩ)

1. When the VAV is not powered, there is no default sink voltage.

Digital Output (DO)

General (ECY-VAV Models)

Output Type	24VAC Triac; software configurable
Maximum Total Current for all Outputs	2A
Power Source,	External or internal (jumper selectable)
Maximum Current per Output	0.5A continuous
	1A @ 15% duty cycle for a 10 minute period

General (ECY-VAV-PoE Models)

Output Type	24VAC Triac; software configurable
Power Source	External or internal (jumper selectable)

Internal Power Source

Network Switch	802.3at
Maximum Total Power for all Digital Outputs	15W
Maximum Current per Output	0.5A continuous, power supply limited
Waveform	24 VAC square wave

External Power Source

Voltage	24VAC from external source
Maximum Current per Output	0.5A continuous
	1A @ 15% duty cycle for a 10 minute period

0 or 24VAC (On/Off)

Range	0 or 24VAC

PWM

Range	Adjustable period from 2 to 65 seconds

Floating

Minimum Pulse On/Off Time	500 milliseconds
Drive Time Period	Adjustable

Dimensions

Figure 1: ECY-VAV Controller Dimensions

Figure 2: ECY-VAV-PoE Controller Dimensions

Figure 3: ECY-VAV Controller with Terminal Covers Dimensions

Specifications subject to change without notice.
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