MEPNN Supplier Scouting Opportunity Synopsis

Section 1: General Information

Scouting Number	2025-254
Item to be Scouted	Low-Voltage Transformers
Days to be scouted	10
Response Due By	08/16/2025
Description	DEW Construction (GC), our electrical trade partner (Norway & Sons) need assistance sourcing BABAA compliant low-voltage transformers. Please see the attached approved submittal for technical data. The transformers that are project is for the Burlington Central School District (CSD) in South Burlington, VT.

Section 2: Technical Information

Type of supplier being sought	Manufacturer
Reason	BABA
Describe the manufacturing processes (elaborate to provide as much detail as possible)	May involve but is not limited to cutting and stacking, electronic assembly, winding, insulating and/or encapsulating.
Provide dimensions / size / tolerances / performance specifications for the item	Please see the attached approved submittal for technical data. The transformers that are not BABAA compliant according to Eaton Corporation were highlighted by DEW Construction in RED (page 6 of 22 in submittal #262200-001-0).
List required materials needed to make the product, including materials of product components	Unknown, this is not standard information listed in a product data submittal and has no bearing on the engineer of record's acceptance of this product.
Are there applicable certification requirements?	Yes
Certification(s) required	UL
Are there applicable regulations?	Yes
Details	See attached CSI specification #262200.
Are there any other stndards, requirements, etc.?	Yes
Details	See attached CSI specification #262200.
Additional Technical Comments	See attached CSI specification #262200 and submittal #262200-001-0.

Section 4: Business Information

Estimated potential business volume	This will be a single purchase for the Burlington Technical Center Aviation project.
Estimated target price / unit cost information (if unavailable explain)	Total cost for all non-compliant BABAA low-volt transformers is $75,000. As of this submission, the electrician's supplier has not provided a detailed breakout of unit quantities and unit prices for each non-compliant item.
When is it needed by?	Immediately. This project is in active construction and xxx weeks away from substantial completion.
Describe packaging requirements	Packaging is to be determined by the manufacturer such that equipment arrives undamaged to the project site.
Where will this item be shipped?	South Burlington, VT 05495.

Regarding the duration of "Days to be scouted": the response is unfortunately no. I cannot extend to the full recommended 30 days. There is not enough time before this project's Substantial Completion for DEW accounting for the sourcing wait period, contact with MEP partners (if positive results are located), engage companies, price, evaluate (order / manufacturer / deliver / install) were highlighted by DEW Construction in RED (page 6 of 22 in submittal #262200-001-0).

Additional Comments

Is there other information you would like to include?	Funding Agency: Department of Commerce, National Institute of Standards and Technology. Attached for reference is the grant award letter provided to Burlington High School for this project. DEW Construction, BABAA Contact: Michael Snyder, Cell: (802) 798-4976, Email: msnyder@dewconstruction.com.

SECTION 26 2200
LOW-VOLTAGE TRANSFORMERS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. General purpose transformers.

1.02 RELATED REQUIREMENTS

A. Section 26 0526 - Grounding and Bonding for Electrical Systems.

B. Section 26 0529 - Hangers and Supports for Electrical Systems.

C. Section 26 0533.13 - Conduit for Electrical Systems: Flexible conduit connections.

D. Section 26 0553 - Identification for Electrical Systems: Identification products and requirements.

1.03 REFERENCE STANDARDS

A. 10 CFR 431, Subpart K - Energy Efficiency Program for Certain Commercial and Industrial Equipment - Distribution Transformers.

B. IEEE C57.94 - IEEE Recommended Practice for Installation, Application, Operation, and Maintenance of Dry-Type Distribution and Power Transformers.

C. IEEE C57.96 - IEEE Standard Guide for Loading Dry-Type Distribution and Power Transformers.

D. NECA 1 - Standard for Good Workmanship in Electrical Construction.

E. NECA 409 - Standard for Installing and Maintaining Dry-Type Transformers.

F. NEMA ST 20 - Dry Type Transformers for General Applications.

G. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

H. NETA ATS - Standard For Acceptance Testing Specifications For Electrical Power Equipment And Systems.

I. NFPA 70 - National Electrical Code.

J. UL 506 - Standard for Specialty Transformers.

K. UL 1561 - Standard for Dry-Type General Purpose and Power Transformers.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances required by NFPA 70.
2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
3. Coordinate the work with placement of supports, anchors, etc. required for mounting.
4. Verify with manufacturer that conductor terminations are suitable for use with the conductors to be installed.
5. Notify Engineer of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 SUBMITTALS

A. Product Data: Include voltage, kVA, impedance, tap configurations, insulation system class and rated temperature rise, efficiency, sound level, enclosure ratings, outline and support point dimensions, weight, required clearances, service condition requirements, and installed features.

B. Shop Drawings: Provide dimensioned plan and elevation views of transformers and adjacent equipment with all required clearances indicated.

C. Field Quality Control Test Reports.

D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

E. Maintenance Data: Include recommended maintenance procedures and intervals.

F. Project Record Documents: Record actual locations of transformers.

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Maintain at the project site a copy of each referenced document that prescribes execution requirements.

C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

D. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Store in a clean, dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic.

B. Handle in accordance with manufacturer's written instructions. Lift only with lugs provided for the purpose. Handle carefully to avoid damage to transformer internal components, enclosure, and finish.

1.08 FIELD CONDITIONS

A. Ambient Temperature: Do not exceed the following maximum temperatures during and after installation of transformers.
   1. Greater than 10 kVA: 104 degrees F maximum.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. ABB: www.electrification.us.abb.com/#sle.

B. Eaton Corporation: www.eaton.com/#sle.

C. Schneider Electric: www.se.com/#sle.

D. Siemens Industry, Inc: www.new.siemens.com/#sle.

E. Source Limitations: Provide transformers produced by single manufacturer and obtained from single supplier.

2.02 TRANSFORMERS - GENERAL REQUIREMENTS

A. Description: Factory-assembled, dry type transformers for 60 Hz operation designed and manufactured in accordance with NEMA ST 20 and listed, classified, and labeled as suitable for the purpose intended.

B. Unless noted otherwise, transformer ratings indicated are for continuous loading according to IEEE C57.96 under the following service conditions:
   1. Altitude: Less than 3,300 feet.
   2. Ambient Temperature:
      a. Greater than 10 kVA: Not exceeding 104 degrees F.

C. Core: High grade, non-aging silicon steel with high magnetic permeability and low hysteresis and eddy current losses. Keep magnetic flux densities substantially below saturation point, even at 10 percent primary overvoltage. Tightly clamp core laminations to prevent plate movement and maintain consistent pressure throughout core length.

D. Impregnate core and coil assembly with non-hydroscopic thermo-setting varnish to effectively seal out moisture and other contaminants.

E. Basic Impulse Level: 10 kV.

F. Ground core and coil assembly to enclosure by means of a visible flexible copper grounding strap.

G. Isolate core and coil from enclosure using vibration-absorbing mounts.

H. Nameplate: Include transformer connection data, ratings, wiring diagrams, and overload capacity based on rated winding temperature rise.

2.03 GENERAL PURPOSE TRANSFORMERS

A. Description: Self-cooled, two winding transformers listed and labeled as complying with UL 506 or UL 1561; ratings as indicated on the drawings.

B. Insulation System and Allowable Average Winding Temperature Rise:
   1. 15 kVA and Larger: Class 220 degrees C insulation system with 150 degrees C average winding temperature rise.

C. Coil Conductors: Continuous aluminum windings with terminations brazed or welded.

D. Winding Taps:
   1. 15 kVA through 300 kVA: Two 2.5 percent full capacity primary taps above and four 2.5 percent full capacity primary taps below rated voltage.

E. Energy Efficiency: Comply with 10 CFR 431, Subpart K.

F. Sound Levels: Standard sound levels complying with NEMA ST 20.

G. Mounting Provisions:
   1. Larger than 75 kVA: Suitable for floor mounting.

H. Transformer Enclosure: Comply with NEMA ST 20.
   1. Environment Type per NEMA 250: Unless otherwise indicated, as specified for the following installation locations:
      a. Indoor clean, dry locations: Type 2.
   2. Construction: Steel.
      a. 15 kVA and Larger: Ventilated.
   3. Finish: Manufacturer's standard grey, suitable for outdoor installations.
   4. Provide lifting eyes or brackets.

I. Accessories:
   1. Mounting Brackets: Provide manufacturer's standard brackets.
   2. Lug Kits: Sized as required for termination of conductors as indicated on the drawings.

2.04 SOURCE QUALITY CONTROL

A. Factory test transformers according to NEMA ST 20.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that suitable support frames and anchors are installed where required and that mounting surfaces are ready to receive transformers.

C. Perform pre-installation tests and inspections on transformers per manufacturer's instructions and as specified in NECA 409. Correct deficiencies prior to installation.

D. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Perform work in accordance with NECA 1 (general workmanship).

B. Install products in accordance with manufacturer's instructions.

C. Install transformers in accordance with NECA 409 and IEEE C57.94.

D. Use flexible conduit, under the provisions of Section 26 0533.13, 2 feet minimum length, for connections to transformer case. Make conduit connections to side panel of enclosure.

E. Arrange equipment to provide minimum clearances as specified on transformer nameplate and in accordance with manufacturer's instructions and NFPA 70.

F. Install transformers plumb and level.

G. Transformer Support:
   1. Provide required support and attachment in accordance with Section 26 0529, where not furnished by transformer manufacturer.
   2. Unless otherwise indicated, mount floor-mounted transformers on properly sized 3 inch high concrete pad constructed in accordance with Section 03 3000.

H. Provide grounding and bonding in accordance with Section 26 0526.

I. Remove shipping braces and adjust bolts that attach the core and coil mounting bracket to the enclosure according to manufacturer's recommendations in order to reduce audible noise transmission.

J. Where not factory-installed, install lugs sized as required for termination of conductors as indicated.

K. Identify transformers in accordance with Section 26 0553.

3.03 FIELD QUALITY CONTROL

A. Inspect and test in accordance with NETA ATS, except Section 4.

B. Perform inspections and tests listed in NETA ATS Sections 7.2.1.1 and 7.2.1.2. Tests and inspections listed as optional are not required, except for the following:
   1. 167 kVA single phase, 500 kVA three phase and smaller:
      a. Perform turns ratio tests at all tap positions.

3.04 ADJUSTING

A. Measure primary and secondary voltages and make appropriate tap adjustments.

B. Adjust tightness of mechanical and electrical connections to manufacturer's recommended torque settings.

3.05 CLEANING

A. Clean dirt and debris from transformer components according to manufacturer's instructions.

B. Repair scratched or marred exterior surfaces to match original factory finish.

END OF SECTION 26 2200

McFarland Johnson

Received By MJ on:

(Receipt Stamp)

SUBMITTAL COVER SHEET

PROJECT NAME: BSD Aviation Technology Center

SUBMITTAL NO.: 262200-1.0

CONTRACTOR: DEW Construction Corp.

DATE: 12.11.24

FUNDING AGENCY NO.: Burlington School District

M-J PROJ. NO.: 18715.02

TECH SPECIFICATION NO.: 260536

NOTE: ONLY ONE TECH SPEC. PER SUBMITTAL PLEASE.

COMPONENT NO.	DESCRIPTION	M-J ACTION
262200	Submittal Content	NET

M-J ACTION:

NET – NO EXCEPTION TAKEN
R&R – REVISE AND RESUBMIT
MCN – MAKE CORRECTIONS NOTED
REJ – REJECTED
SSI – SUBMIT SPECIFIED ITEM

REVIEW COMMENTS:

CONTRACTOR'S CERTIFICATION:

THE CONTRACTOR CERTIFIES THAT THEY HAVE REVIEWED THE ENCLOSED DOCUMENTS AND THEY ARE IN GENERAL CONFORMANCE WITH THE PROJECT DOCUMENTS.

Date _____

By _____

Title _____

THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION GIVEN IN THE CONSTRUCTION DOCUMENTS. CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. APPROVAL OF A SPECIFIC ITEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR IS RESPONSIBLE FOR; DIMESIONS TO BE CONFIRMED AND CORRELATED AT THE JOBSITE: INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESS OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION; COORDINATION OF THE WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER

McFarland Johnson

Date 01.03.25 By MAL

DEW Construction
277 Blair Park Road, Suite 130
Williston, Vermont 05495
P: (802) 872-0505

Project: 10424 Burlington Tech Center Aviation
200 DaVinci Drive
South Burlington, Vermont 05403

Submittal #262200-1.0 - Low Volt Transformers - PD & SD
262200 - Low-Voltage Transformers

Revision	0	**Submittal Manager**	Becky St. George (DEW Construction)
Status	Open	**Date Created**	Dec 11, 2024
Issue Date		**Spec Section**	262200 - Low-Voltage Transformers
Responsible Contractor	Norway & Sons, Inc.	**Received From**	Kyle Day (Norway & Sons, Inc.)
Received Date	Dec 19, 2024	**Submit By**	
Final Due Date	Jan 2, 2025	**Lead Time**	
		Cost Code	
Location		**Type**	Shop Drawing

Approvers Michael Snyder (DEW Construction), Anthony Tsui (McFarland Johnson)

Ball in Court Michael Snyder (DEW Construction)

Distribution Adam Frosino (McFarland Johnson), Anthony Tsui (McFarland Johnson), Becky St. George (DEW Construction), Kyle Day (Norway & Sons, Inc.), Marty Spaulding (PCI - Capital Project Consulting), Michael Snyder (DEW Construction), Ron Snyder (PCI - Capital Project Consulting), Sara Bosworth (DEW Construction)

Description **2024-12-19: R0**

Included in this submittal are the following:

1. Eaton Low Volt Transformers - BABAA Compliance Letter
***Partial BABAA Compliance.
2. Eaton Low Volt Transformers - PD
3. Eaton Low Volt Transformers - SD

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					
Michael Snyder		Dec 19, 2024			
Anthony Tsui		Jan 2, 2025			

DEW CONSTRUCTION **SHOP DRAWING / SUBMITTAL REVIEW**

Checking is only for conformity to the design concept of the project and compliance with the information given in the contract documents and specifications. The Trade Partner is responsible for dimensions, to be confirmed and correlated at the project site, for information that pertains solely to the fabrication, the techniques of construction and for the coordination of their work with all trades.

Project #: 10424 – Burlington Tech Center Aviation @ BTV

Reviewed By: Michael Snyder, LEED AP BD+C **Date:** 2024-12-19

NORWAY & SONS, INC
ELECTRICAL CONTRACTORS
Barre, Vermont • Norway-Sons.com

Submittal For Approval

Project: Burlington Aviation

Submittal: 26 22 00 Low Voltage Transformers

Revision: Initial Submission

Status:

Issue Date: 12/19/24

Submittal Manager: Kyle Day (kyle@norway-sons.com)

Comments:

PROJECT SUBMITTAL

Date: December 19, 2024

Green Mountain Electric Supply
446 Industrial Lane, Barre VT 05641
Stephen Beard, LC | steveb@gmes.com
Phone 802-262-1396 | **www.gmes.com**
Innovative electrical and energy solutions to help you succeed and grow

Customer:
Norway & Sons Electric
Kyle Day

PROJECT DETAILS	
PROJECT NAME	Burlington Aviation Technology Center Renovation – base bid gear
PROJECT LOCATION	
PROJECT DESCRIPTION	26 22 00 Low Voltage Transformers

GENERAL NOTES

19 December 2024

To
Stephen Beard
Green Mountain Electric Supply
64 Vast Lane
Barre, VT 05641
USA

Dear Stephen

Eaton is proud to specify the following product(s) as compliant with the Infrastructure Investment and Jobs Act, Title IX - Build America, Buy America Act Part I – Buy America Sourcing Requirements, per the following requirements:

> Sec. 102(6) PRODUCED IN THE UNITED STATES.—The term "produced in the United States" means—
>
> (A) in the case of iron or steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;
>
> (B) in the case of manufactured products, that—
>
> > (i) the manufactured product was manufactured in the United States; and
> >
> > (ii) the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and
>
> (C) in the case of construction materials, that all manufacturing processes for the construction material occurred in the United States.

Product	CTO	Designation	Country of Origin	% Domestic Content
Pow-R-Line1X	MIA:PCNAEALTB42A	PL2	United States	62%
Side Mounted SPDs	SPM320480Y3U	MDP	United States	~80%
Dry Type Transformer	V48M28T7516-US	T1	United States	88%
Dry Type Transformer	V48M28T2216-US	T2	United States	90%
Dry Type Transformer	V48M28T4516-US	T4	United States	90%

However, Eaton declares the below listed product(s) are not compliant with the Infrastructure Investment and Jobs Act, Title IX - Build America, Buy America Act Part I – Buy America Sourcing Requirements

Product	CTO	Designation	Country of Origin	% Domestic Content
Milbank		CT cabinet - MDP	United States	Unknown
Milbank		CT cabinet - Fire Pump	United States	Unknown
Milbank		CT meter sockets	United States	Unknown
6-submeters in factory enclosure		Submeter assembly	Unknown	Unknown
Pow-R-Line4X	MIA:PENFNIBTB42A	MDP	United States	43%
Pow-R-Line3X	MIA:PCNCNGLTB48A	MH1	United States	13%
Pow-R-Line3X	MIA:PCNCNFBTB42A	AH1	United States	6%
Pow-R-Line3E	MIA:PCNLNBLTB30A	IH1	United States	20%
Pow-R-Line3E	MIA:PCNLNBLTB24A	OH1	United States	44%
Pow-R-Line3X	MIA:PCNCNFBTB42A	MH2	United States	7%
Pow-R-Line1X	MIA:PCNAEDBTB54A	ML1	United States	25%
Pow-R-Line1X	MIA:PCNAEDBTB54A	AL1	United States	23%
Pow-R-Line1X	MIA:PCNAEDBTB42A	EVL1	United States	28%
Pow-R-Line4X	MIA:PCNFEGBTB36A	LDP	United States	10%
Pow-R-Line1X	MIA:PCNAEDBTB42A	PL3	United States	30%
Pow-R-Line1X	MIA:PCNAEDLTB42A	PL1	United States	46%
Pow-R-Line1X	MIA:PCNAEDBTB42A	PL4	United States	25%
Pow-R-Line1X	MIA:PCNAEDBTB54A	PL6	United States	24%
Pow-R-Line1X	MIA:PCNAEDBTB54A	PL5	United States	25%
Pow-R-Line1X	MIA:PCNAEDBTB42A	PL7	United States	26%

Regarding the non-compliant products listed above, a waiver is required.

1. Eaton bids per the plans and specification of this project. There are specific standards that need to be met for the products specified for this project. They include:
    a. Underwriters Laboratories (UL),
    b. National Electrical Manufacturers Association (NEMA) standards,
    c. National Fire Protection Agency (NFPA) 70,
    d. National Electric Code (NEC),
    e. American National Standards Institute (ANSI),
    f. Restriction of Hazardous Substances (RoHS).

2. Eaton’s electrical products undergo extensive testing to meet the standards provided in the plans and specification. Eaton is providing products per the plans and specifications.
3. To source complaint products/components/materials would result in product cost increases and significant delays to the project due to redesign, testing of new materials, material sourcing, manufacturing process changes as well as other hidden costs.

Eaton is proud to be able to offer a partially domestically compliant product solution and is available to answer any questions regarding Build America, Buy America product compliance.

Sincerely,

Mike Desautels
Senior Specialist

Dry Type Transformers

Section Table of Contents
Dry Type Transformers

Bill of Material

Detail Bill of Material

Project Name: Burlington Aviation Center Renovation **Negotiation No:** B0E10909X4K4
General Order No: **Alternate No:** 0003

Item No.	Qty	Product	Description
	1	Dry Type Transformers	Transformer Type: General Purpose Vented 3 Phase, 75 KVA, 1 K-Factor 480 Primary Volts 208Y/120 Secondary Volts Temperature Rise 150C with 220C Insulation System Aluminum Winding Material Sound Reduction : 0 NEMA ST-20 Audible Sound Level: 50 Efficiency : DOE 10 CFR Part 431 (2016) Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab) Operating Frequency: 60 HZ **Catalog No** V48M28T7516-US **Designation** T1

Qty	List of Materials
1	3 Phase, 75 KVA, 480 Primary Volts, 208Y/120 Secondary Volts, 150C with 220C Insulation System Temperature Rise, Aluminum Winding Material, 60 HZ
1	TX Lug Kit/1PH 50-75KVA/3PH 75-112.5KVA

Item No.	Qty	Product	Description
	1	Dry Type Transformers	Transformer Type: General Purpose Vented 3 Phase, 225 KVA, 1 K-Factor 480 Primary Volts 208Y/120 Secondary Volts Temperature Rise 150C with 220C Insulation System Aluminum Winding Material Sound Reduction : 0 NEMA ST-20 Audible Sound Level: 55 Efficiency : DOE 10 CFR Part 431 (2016) Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab) Operating Frequency: 60 HZ **Catalog No** V48M28T2216-US **Designation** T2

Qty	List of Materials
1	3 Phase, 225 KVA, 480 Primary Volts, 208Y/120 Secondary Volts, 150C with 220C Insulation System Temperature Rise, Aluminum Winding Material, 60 HZ
1	TX Lug Kit/1PH 100-167KVA/3PH 150-300KVA

Project Name: Burlington Aviation Center Renovation **Negotiation No:** B0E10909X4K4
General Order No: **Alternate No:** 0003

Item No.	Qty	Product	Description
	2	Dry Type Transformers	Transformer Type: General Purpose Vented 3 Phase, 45 KVA, 1 K-Factor 480 Primary Volts 208Y/120 Secondary Volts Temperature Rise 150C with 220C Insulation System Aluminum Winding Material Sound Reduction : 0 NEMA ST-20 Audible Sound Level: 45 Efficiency : DOE 10 CFR Part 431 (2016) Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab) Operating Frequency: 60 HZ **Catalog No** V48M28T4516-US **Designation** T4,T3

Qty	List of Materials
1	3 Phase, 45 KVA, 480 Primary Volts, 208Y/120 Secondary Volts, 150C with 220C Insulation System Temperature Rise, Aluminum Winding Material, 60 HZ
1	TX Lug Kit/1PH 15-37.5KVA / 3PH 15-45KVA

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Seller shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof.

Drawings

Dry-Type Transformers General Information

Custom Transformers must be approved by TRC - Avery Creek

This is a custom-manufactured product. Once it is released for manufacturing, it cannot be cancelled. This product cannot be returned for credit.

- Custom Transformer Style Number: V48M28T7516-US
- Transformer Type: General Purpose Vented
- Phase: 3
- kVA: 75
- Primary Volts: 480
- Secondary Volts: 208Y/120
- Temperature Rise: 150C with 220C Insulation System
- Winding Material: Aluminum
- Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab)
- Frequency (Hz): 60
- Made In America: Y

Standard Values

- K-Factor: 1
- TAPS: 2@+2.5%, 4@-2.5%
- Sound Reduction (dB): 0
- NEMA ST20 Sound Level (dB): 50
- DOE 10 CFR Part 431 (2016) Efficient: Y
- Infrared Viewing Window: None

Field-Installed Accessories Included

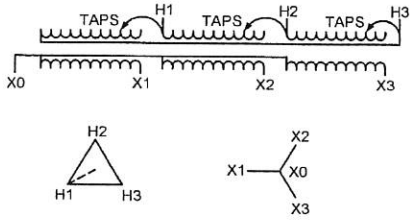
- Lug Kit: LKS2 (1PH 50-75KVA or 3PH 75-112.5KV)

Customized Values

PREPARED BY: STEVE BEARD	DATE: 12/9/2024	**Eaton**			
APPROVED BY:	DATE:	JOB NAME: Burlington Aviation Center Renovation			
		DESIGNATION: T1			
VERSION: 1.0.0.4		TYPE: Dry-Type Transformer		DRAWING TYPE: Customer Appr.	
NEG-ALT Number: B0E10909X4K4-0003	REVISION: 0	DWG SIZE: A	G.O.:	ITEM:	SHEET: 1 of 1

EATON

15 ~ 112.5 KVA	3 PHASE	60 HERTZ	TYPE HT
VOLTAGE 480 - 208Y / 120		W/(1) E.SHIELD (OPTIONAL)	
INSUL. SYS. 220°C	150°C RISE	COOLING CLASS AA	
CAT. NO.		IMPEDANCE * %	AT 170 °C
S / N		TOT WT. LBS / KGS	APPROX.



D-Y

CONNECT TAPS	VOLTAGE
H - 7	504
H - 6	492
H - 5	480
H - 4	468
H - 3	456
H - 2	444
H - 1	432

010-010 220-1 MGMDOEDTXXXXX010-010

UL 297T -

USE MYLAR NP D-Y

3100 -038

* TESTED % IMPEDANCE WILL BE STAMPED. ** FINAL WEIGHTS WILL BE STAMPED AS BUILT

QTY.	S.O. No.	DATE	REMARKS / CUSTOMER	QTY	S.O. No.	DATE	REMARKS / CUSTOMER
			EATON				

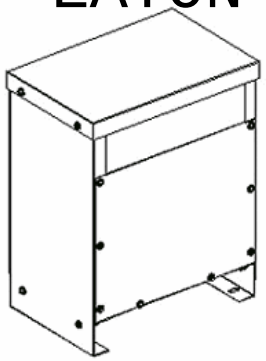
V102918 D3RM

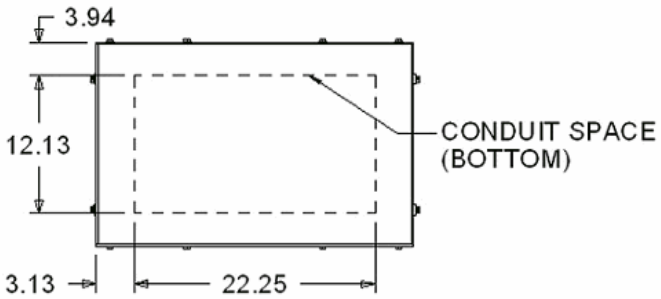
		3:27 PM	12/12/18	NAMEPLATE	S.O. NO.
		ENGR:	AH	EATON	
		CHKD:	AH		DRW. NO. Rev.
LTR^	REVISION	APPD:			

COPIES TO: Q.C., S.O. F.

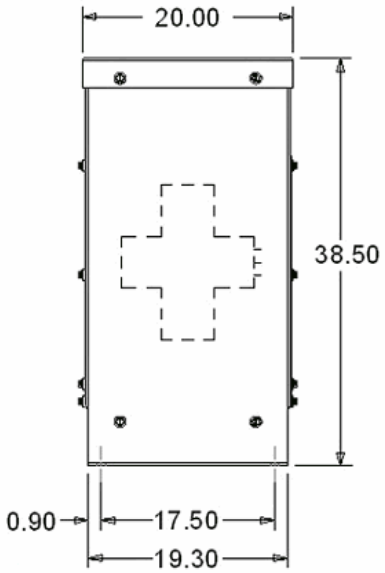
EATON

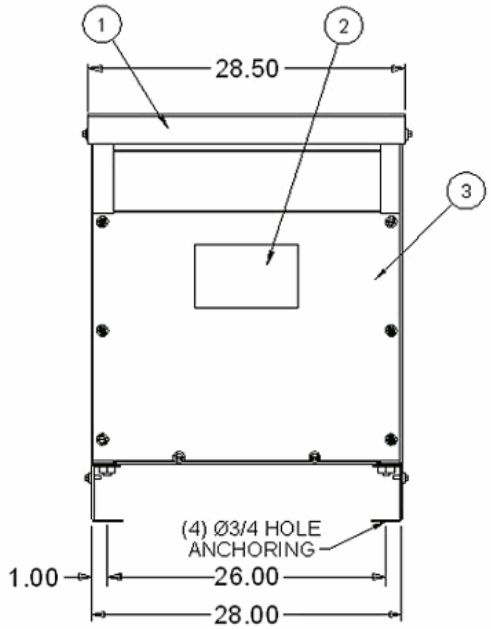
QUOTE	ITEM #:	Quote #:	Catalog No: V48M28T7516-US Case Size: B+

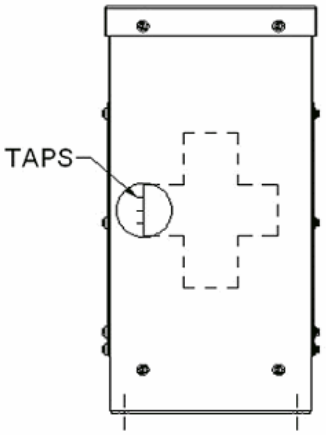




Parts List		
ITEM	QTY	DESCRIPTION
1	1	TOP COVER - REMOVABLE
2	1	DIAGRAMATIC NAMEPLATE
3	2	FRONT & REAR PANEL - REMOVABLE







Outline DRAWING is for REFERENCE ONLY

Cust Tag #:	-
KVA:	75
Primary Volts:	480 D
Primary Conn:	Delta
Secondy Volts:	208Y/120
Secondy Conn:	Wye
Taps:	Standard
Phase:	3
HZ:	60
Temp Rise:	150
Winding:	Aluminum
K-Factor:	K-1
Efficiency:	DOE2016
Sound Level:	50
Enclosure:	Indoor/Outdoor
Enclosure Matl:	HRPO (STD)
Totl Enclosed:	No
Color:	ANSI 61 (STD)
Approx. Weight:	545
Elect. Shield:	0

General Notes

1) THIS DRAWING IS NOT FOR CONSTRUCTION PURPOSES. VERIFY WITH FACTORY BEFORE CONSTRUCTION.
2) TRANSFORMERS ARE MANUFACTURED AND TESTED PER APPLICABLE ANSI, NEMA AND IEEE STANDARDS.
3) UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH +/- 1/4" TOLERANCE.
4) TRANSFORMER IS U.L. & C.S.A. LISTED AND LABELED.
5) UNIT IS DESIGNED FOR INDOOR (NEMA1) AND OUTDOOR (NEMA3R) APPLICATION.

Custom Notes

Dry-Type Transformers General Information

Custom Transformers must be approved by TRC - Avery Creek

This is a custom-manufactured product. Once it is released for manufacturing, it cannot be cancelled. This product cannot be returned for credit.

- Custom Transformer Style Number: V48M28T2216-US
- Transformer Type: General Purpose Vented
- Phase: 3
- kVA: 225
- Primary Volts: 480
- Secondary Volts: 208Y/120
- Temperature Rise: 150C with 220C Insulation System
- Winding Material: Aluminum
- Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab)
- Frequency (Hz): 60
- Made In America: Y

Standard Values

- K-Factor: 1
- TAPS: 2@+2.5%, 4@-2.5%
- Sound Reduction (dB): 0
- NEMA ST20 Sound Level (dB): 55
- DOE 10 CFR Part 431 (2016) Efficient: Y
- Infrared Viewing Window: None

Field-Installed Accessories Included

- Lug Kit: LKS3 (1PH 100-167KVA or 3PH 150-300K)

Customized Values

PREPARED BY: STEVE BEARD	DATE: 12/9/2024	**Eaton**			
APPROVED BY	DATE	JOB NAME: Burlington Aviation Center Renovation			
		DESIGNATION: T2			
VERSION: 1.0.0.4		TYPE: Dry-Type Transformer		DRAWING TYPE: Customer Appr.	
NEG-ALT Number: B0E10909X4K4-0003	REVISION: 0	DWG SIZE: A	G.O.	ITEM	SHEET: 1 of 1

150 ~ 500 KVA | 3 PHASE | 60 HERTZ | TYPE HT

VOLTAGE 480 - 208Y / 120 | W/(1) E.SHIELD (OPTIONAL)

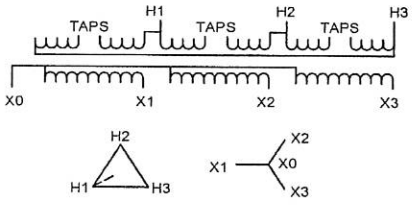
INSUL. SYS. 220°C | 150°C RISE | COOLING CLASS AA

CAT. NO.

S / N

IMPEDANCE * % AT 170 °C

TOT WT. LBS / KGS APPROX.



D-Y

CONNECT TAPS	VOLTAGE
4 - 5	504
4 - 6	492
3 - 5	480
3 - 6	468
2 - 6	456
3 - 7	444
2 - 7	432

010-010

220-1 MGMDOEDTXXXXX010-010

UL 297T -

USE MYLAR NP D-Y - -

3100 -038

* TESTED % IMPEDANCE WILL BE STAMPED. ** FINAL WEIGHTS WILL BE STAMPED AS BUILT

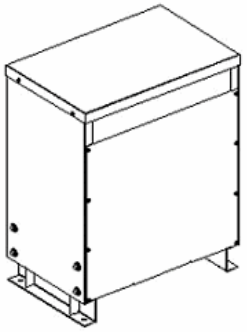
QTY.	S.O. No.	DATE	REMARKS / CUSTOMER	QTY	S.O. No.	DATE	REMARKS / CUSTOMER
			EATON				

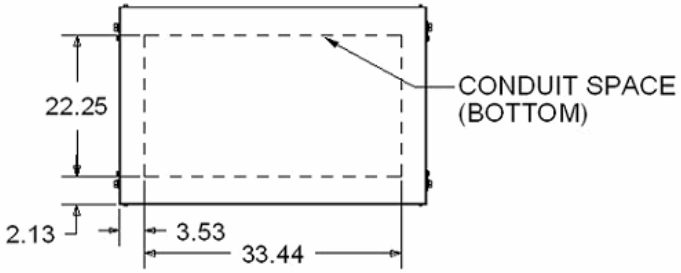
V102918 D3RM

		3:29 PM	12/12/18	NAMEPLATE	S.O. NO.
		ENGR:	AH	EATON	
		CHKD:	AH		DRW. NO. / Rev.
LTR^	REVISION	APPD:			

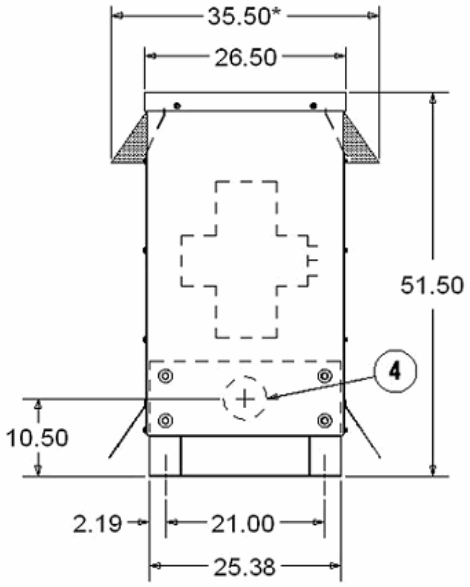
COPIES TO: Q.C., S.O. F.

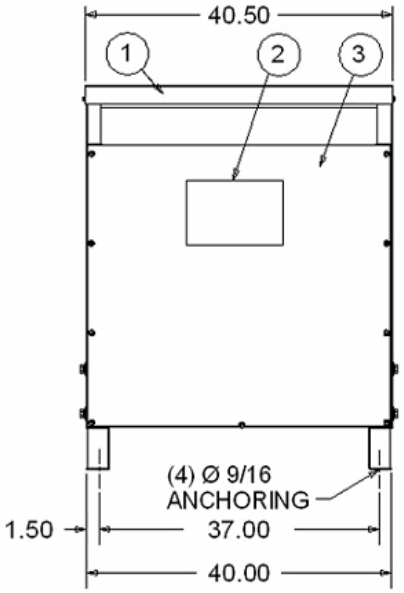
EATON	QUOTE	ITEM #:	Quote #:	Catalog No: V48M28T2216-US Case Size: D

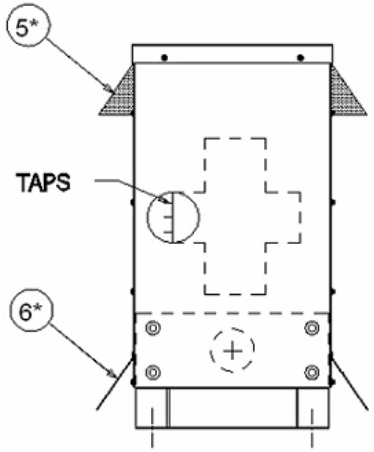




Parts List		
ITEM	QTY	DESCRIPTION
1	1	TOP COVER - REMOVABLE
2	1	DIAGRAMATIC NAMEPLATE
3	2	FRONT & REAR PANEL - REMOVABLE
4	2	PROVISION FOR 5" KNOCKOUT
*5	2	WEATHERSHIELD, OUTDOOR UNITS ONLY
*6	2	RAIN DEFLECTOR, OUTDOOR UNITS ONLY







Outline DRAWING is for REFERENCE ONLY

Cust Tag #:	-
KVA:	225
Primary Volts:	480 D
Primary Conn:	Delta
Secondy Volts:	208Y/120
Secondy Conn:	Wye
Taps:	Standard
Phase:	3
HZ:	60
Temp Rise:	150
Winding:	Aluminum
K-Factor:	K-1
Efficiency:	DOE2016
Sound Level:	55
Enclosure:	Indoor
Enclosure Matl:	HRPO (STD)
Totl Enclosed:	No
Color:	ANSI 61 (STD)
Approx. Weight:	1585
Elect. Shield:	0

General Notes

1) THIS DRAWING IS NOT FOR CONSTRUCTION PURPOSES. VERIFY WITH FACTORY BEFORE CONSTRUCTION.
2) TRANSFORMERS ARE MANUFACTURED AND TESTED PER APPLICABLE ANSI, NEMA AND IEEE STANDARDS.
3) UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH +/- 1/4" TOLERANCE.
4) TRANSFORMER IS U.L. & C.S.A. LISTED AND LABELED.

* APPLIES TO OUTDOOR UNITS ONLY.

Custom Notes

Dry-Type Transformers General Information

Custom Transformers must be approved by TRC - Avery Creek

This is a custom-manufactured product. Once it is released for manufacturing, it cannot be cancelled. This product cannot be returned for credit.

- Custom Transformer Style Number: V48M28T4516-US
- Transformer Type: General Purpose Vented
- Phase: 3
- kVA: 45
- Primary Volts: 480
- Secondary Volts: 208Y/120
- Temperature Rise: 150C with 220C Insulation System
- Winding Material: Aluminum
- Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab)
- Frequency (Hz): 60
- Made In America: Y

Standard Values

- K-Factor: 1
- TAPS: 2@+2.5%, 4@-2.5%
- Sound Reduction (dB): 0
- NEMA ST20 Sound Level (dB): 45
- DOE 10 CFR Part 431 (2016) Efficient: Y
- Infrared Viewing Window: None

Field-Installed Accessories Included

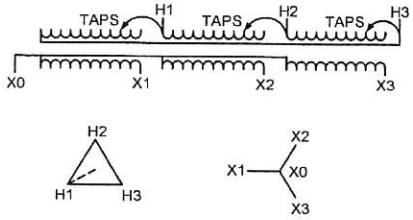
- Lug Kit: LKS1 (1PH 15-37.5KVA or 3PH 15-45KVA)

Customized Values

PREPARED BY: STEVE BEARD	DATE: 12/9/2024	**Eaton**			
APPROVED BY	DATE	JOB NAME: Burlington Aviation Center Renovation			
		DESIGNATION: T4, T3			
VERSION: 1.0.0.4		TYPE: Dry-Type Transformer		DRAWING TYPE: Customer Appr.	
NEG-ALT Number: B0E10909X4K4-0003	REVISION: 0	DWG SIZE: A	G.O.	ITEM	SHEET: 1 of 1

EATON

15 ~ 112.5 KVA	3 PHASE	60 HERTZ	TYPE HT
VOLTAGE 480 - 208Y / 120		W/(1) E.SHIELD (OPTIONAL)	
INSUL. SYS. 220°C	150°C RISE	COOLING CLASS AA	
CAT. NO.		IMPEDANCE * %	AT 170 °C
S / N		TOT WT. LBS / KGS	APPROX.



D-Y

CONNECT TAPS	VOLTAGE
H - 7	504
H - 6	492
H - 5	480
H - 4	468
H - 3	456
H - 2	444
H - 1	432

010-010 220-1 MGMDOEDTXXXXX010-010

UL 297T -

USE MYLAR NP D-Y

3100 -038

* TESTED % IMPEDANCE WILL BE STAMPED. ** FINAL WEIGHTS WILL BE STAMPED AS BUILT

QTY.	S.O. No.	DATE	REMARKS / CUSTOMER	QTY	S.O. No.	DATE	REMARKS / CUSTOMER
			EATON				

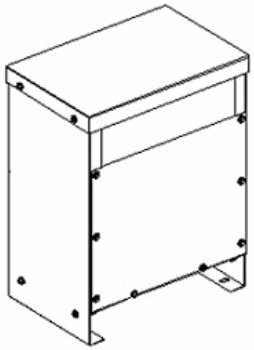
V102918 D3RM

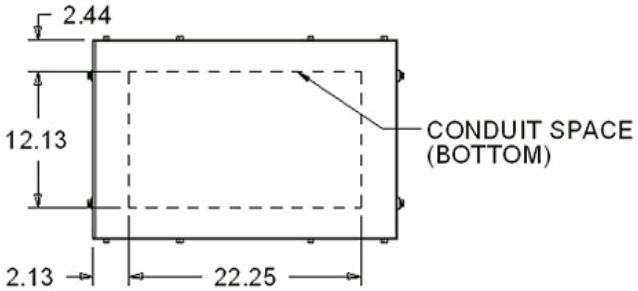
		3:27 PM	12/12/18	NAMEPLATE	S.O. NO.
		ENGR:	AH	EATON	
		CHKD:	AH		DRW. NO. Rev.
LTR^	REVISION	APPD:			

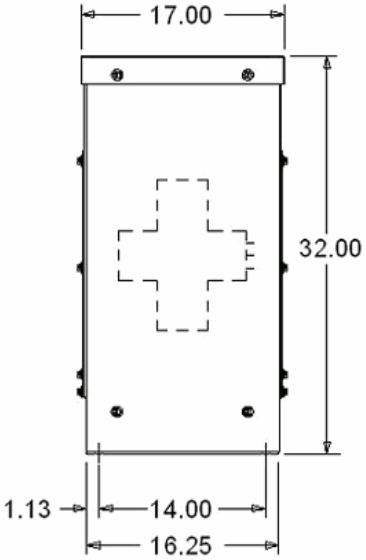
COPIES TO: Q.C., S.O. F.

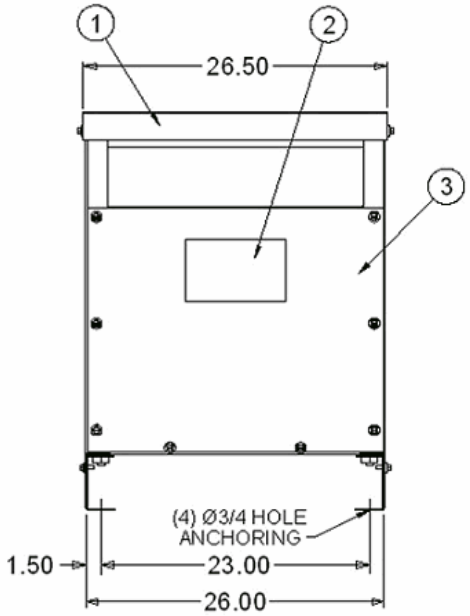
EATON

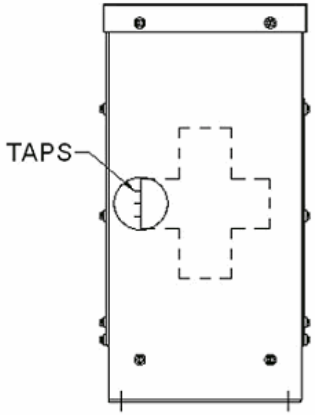
QUOTE	ITEM #:	Quote #:	Catalog No: V48M28T4516-US Case Size: B











Parts List		
ITEM	QTY	DESCRIPTION
1	1	TOP COVER - REMOVABLE
2	1	DIAGRAMATIC NAMEPLATE
3	2	FRONT & REAR PANEL - REMOVABLE

Outline DRAWING is for REFERENCE ONLY

Cust Tag #:	-
KVA:	45
Primary Volts:	480 D
Primary Conn:	Delta
Secondy Volts:	208Y/120
Secondy Conn:	Wye
Taps:	Standard
Phase:	3
HZ:	60
Temp Rise:	150
Winding:	Aluminum
K-Factor:	K-1
Efficiency:	DOE2016
Sound Level:	45
Enclosure:	Indoor/Outdoor
Enclosure Matl:	HRPO (STD)
Totl Enclosed:	No
Color:	ANSI 61 (STD)
Approx. Weight:	400
Elect. Shield:	0

General Notes

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3) UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH +/- 1/4" TOLERANCE.
4) TRANSFORMER IS U.L. & C.S.A. LISTED AND LABELED.
5) UNIT IS DESIGNED FOR INDOOR (NEMA1) AND OUTDOOR (NEMA3R) APPLICATION.

Custom Notes

FORM CD-450 (REV. 10/18)	U.S. DEPARTMENT OF COMMERCE	X GRANT	COOPERATIVE AGREEMENT
FINANCIAL ASSISTANCE AWARD		**FEDERAL AWARD ID NUMBER** 60NANB23D159	
RECIPIENT NAME Burlington School District		**PERIOD OF PERFORMANCE** 09/01/2023 - 08/31/2026	
STREET ADDRESS 150 Colchester Ave		**FEDERAL SHARE OF COST** $9,900,000.00	
CITY, STATE ZIP Burlington, VT 05401-1422		**RECIPIENT SHARE OF COST** $0.00	
AUTHORITY Consolidated Appropriations Act, 2022		**TOTAL ESTIMATED COST** $9,900,000.00	
CFDA NO. AND NAME 11.617 Congressionally-Identified Projects			
PROJECT TITLE: Burlington Aviation Technology Center Facility			

This Award Document (Form CD-450) signed by the Grants Officer constitutes an obligation of Federal funding. By signing this Form CD-450, the Recipient agrees to comply with the Award provisions checked below and attached. Upon acceptance by the Recipient, the Form CD-450 must be signed by an authorized representative of the Recipient and returned to the Grants Officer. If not signed and returned without modifications by the Recipient within 30 days of receipt, the Grants Officer may unilaterally withdraw this Award offer and de-obligate the funds.

X DEPARTMENT OF COMMERCE FINANCIAL ASSISTANCE STANDARD TERMS AND CONDITIONS

R & D AWARD

FEDERAL-WIDE RESEARCH TERMS AND CONDITIONS, AS ADOPTED BY THE DEPT. OF COMMERCE

X SPECIFIC AWARD CONDITIONS

X LINE ITEM BUDGET

X 2 CFR PART 200, UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS, AS ADOPTED PURSUANT TO 2 CFR § 1327.101

48 CFR PART 31, CONTRACT COST PRINCIPLES AND PROCEDURES

MULTI-YEAR AWARD. PLEASE SEE THE MULTI-YEAR SPECIFIC AWARD CONDITION.

X OTHER(S): U.S. DEPARTMENT OF COMMERCE, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY STANDARD TERMS AND CONDITIONS FOR EXTRAMURAL CONSTRUCTION PROJECTS, MAY 11, 2023

SIGNATURE OF DEPARTMENT OF COMMERCE GRANTS OFFICER	DATE
Shiou Liu SHIOU YUN LIU Digitally signed by SHIOU YUN LIU Date: 2023.09.15 08:23:32 -04'00'	
PRINTED NAME, PRINTED TITLE, AND SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL Tom Flanagan, Superintendent	DATE 9/18/23

Award Number: 60NANB23D159, Amendment Number 0
Federal Program Officer: Robert Slocum
Requisition Number: 195161
Employer Identification Number: 471351664
UEI Number: VCCSKXGSMEJ5
Recipient ID: 1155128
Requestor ID: 1155128

Award ACCS Information

Bureau	FCFY	Project-Task	Organization	Object Class	Obligation Amount
57	2023	1959000-000	10-19-0195-00-00-00-00	41-98-00-00	$9,900,000.00

Award Contact Information

Contact Type	Contact Name	Email	Phone
Administrative	Mr. Barry Gruessner	bgruessn@bsdvt.org	8028648462

NIST Grants Officer:
Shiou Liu
100 Bureau Drive, MS 1650
Gaithersburg, MD 20899-1650
(301) 975-8245

NIST Grants Specialist:
LaShae Green
100 Bureau Drive, MS 1650
Gaithersburg, MD 20899-1650
(301) 975-3070

NIST Financial Assistance Award Number: 60NANB23D159
Amendment: NEW
Recipient: Burlington School District

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
2022 CONGRESSIONALLY IDENTIFIED CONSTRUCTION GRANT PROGRAM
FINANCIAL ASSISTANCE
SPECIFIC AWARD CONDITIONS

---

1. Description of Work:

The National Institute of Standards and Technology (NIST) hereby enters into this grant number 60NANB23D159 with Burlington School District to support the work described in the proposal entitled "Burlington Aviation Technology Center Facility" dated November 17, 2022, and any revisions received during the application review, which are hereby incorporated into this award by reference.

The scope of work for this project is anticipated to provide a total building space in the range of 30,000 to 45,000 gross SF to include classrooms, offices, shops/tech areas, storage, hangar space and general building facilities with the intent to educate up to 150 high school students and adults each year with the technical center housing aviation for 11th and 12th graders as well as adult programs that finishes the airframe and powerplant training.

Work will be completed in accordance with the schedule submitted by Burlington School District in the Project Management and Schedule dated November 17, 2022.

The Burlington School District shall diligently pursue the development of the project to ensure completion within this time schedule and shall promptly notify NIST in writing of any event that could substantially delay meeting any of the prescribed time limits for the project as set forth above. The Burlington School District further acknowledges that failure to meet the development time schedule may result in NIST taking action to suspend or terminate the Award in accordance with the regulations set forth at 2 CFR § 200.339.

Where the terms of this award and the proposal differ, the terms of this award shall prevail.

2. Recipient Contact Information:

Administrative:
Barry Gruessner
Grants Director
Burlington School District
150 Colchester Avenue
Burlington, VT 05401-1422
Telephone: 802-864-8462
Email: bgruessn@bsdvt.org

Authorized Representative:
Tom Flanagan
Superintendent
Burlington School District
150 Colchester Avenue
Burlington, VT 05401-1422
Telephone: 802-865-5332
Email: tflanagan@bsdvt.org

3. NIST Award Contact Information:

Grants Officer:
Michelle Shiouyun Liu
National Institute of Standards and Technology
100 Bureau Drive, Mail Stop 1650
Gaithersburg, MD 20899-1650
Telephone: 301-975-8245
Email: shiouyun.liu@nist.gov

Grants Specialist:
LaShae Green
National Institute of Standards and Technology
100 Bureau Drive, Mail Stop 1650
Gaithersburg, MD 20899-1650
Telephone: 301-975-3070
Email: lashae.green@nist.gov

Federal Program Officer:
Robert Slocum
National Institute of Standards and Technology
100 Bureau Drive
Gaithersburg, MD 20899
Email: robert.slocum@nist.gov

4. Award Payments:

This award is hereby funded through advanced payments using the Department of Treasury's Automated Standard Application for Payments (ASAP) system. Payments will be issued in accordance with 2 CFR § 200.305 and the Department of Commerce Financial Assistance Standard Terms and Conditions, B.02, dated November 12, 2020.

Payments for allowable costs may be drawn down as needed by the Recipient enrolled in ASAP. Funds may be requested through ASAP by the authorized *Payment Requestor* who is the individual designated by the Recipient to access Federal funds.

This award has the following control or withdrawal limits set in ASAP:

_____ None
_____ Agency Review required for all withdrawals (see explanation below)
_____ Agency Review required for all withdrawal requests over $_____ (see explanation below)
__X__ Maximum Draw Amount controls (see explanation below)
$_____ each month
$_____ each quarter
$0.00_____ Max drawdown amount

Explanation:

Environmental & Historic Compliance Requirements
A total of $9,900,000.00 in Federal funding is hereby withheld until the requirements identified in Specific Award Condition (SAC) #17 Environmental and Historic Review is satisfied. A Six-Month Expenditure Plan may be submitted to request funding for expenditures limited to Environmental and Historic Requirement compliance as identified in SAC #17.

In addition, the final site selection for the Burlington Aviation Technology Center Facility must be provided to NIST and approved by NIST prior to advertisement of construction. All federal funding is hereby withheld until this requirement is satisfied, as identified in SAC #19 Final Site Selection, below.

5. Return Payments for Funds Withdrawn through ASAP:

Funds that have been withdrawn through ASAP may be returned to ASAP via the Automated Clearing House (ACH) or via FEDWIRE. The ACH or FEDWIRE transaction may only be completed by the Recipient's financial institution. Full or partial amounts of payments received by a Payment Requestor/Recipient Organization may be returned to ASAP. All funds returned to the ASAP system will be credited to the ASAP Suspense Account. The Suspense Account allows the Regional Financial Center to monitor returned items and ensure that funds are properly credited to the correct ASAP account. Returned funds that cannot be identified and classified to an ASAP account will be dishonored and returned to the originating depositary financial institution (ODFI). The Payment Requestor/Recipient Organization should notify the NIST Grants Office and provide a reason whenever return payments are made.

It is essential that the Payment Requestor/Recipient Organization provide its financial institution with ASAP account information (ALC, Recipient ID and Account ID) to which the return is to be credited. Additional detailed information is accessible at: https://www.fiscal.treasury.gov/asap/.

6. Period of Performance and Funding Limitations:

The period of performance and budget incorporated into this award cover a 3-year period of performance and provide for a maximum total amount of $9,900,000.00 in Federal funding. This award is being fully funded via this award action.

The maximum amount of NIST funding in support of this award will not exceed the amount specified in the award documents, unless otherwise amended in writing by the NIST Grants Officer. The Department of Commerce is not liable for any obligations, expenditures, or commitments which involve any amount in excess of the Federal funds being made available pursuant to this award.

7. Request for Application - 2022 Congressionally Identified Construction Grant Program:

The Department of Commerce, National Institute of Standards and Technology Request for Application (RFA) No. 2022-NIST-RFA-CICGP-01, dated October 18, 2022, is incorporated by reference into this award. It is accessible at: https://www.grants.gov/web/grants/view-opportunity.html?oppId=344108

8. Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements:

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements as published in the *Federal Register* on December 30, 2014 (79 FR 78390) is incorporated by reference into this award. It is accessible at: http://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf.

9. Uniform Administrative Requirements, Cost Principles and Audit Requirements

Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to http://go.usa.gov/SBYh and http://go.usa.gov/SBg4. Awards issued pursuant to this program may be subject to specific award conditions as authorized by 2 C.F.R. § 200.208.

10. Deviation to the Department of Commerce Financial Assistance Standard Terms and Conditions, Section A.01 "Reporting Requirements":

The Recipient must submit a Federal Financial Report (SF-425) and Performance Progress Report on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31, or any portion thereof.

Reports are due no later than 30 calendar days following the end of each reporting period. A final SF-425 and Performance Progress Report must be submitted within 120 days after the expiration of the period of performance.

All SF-425 and Performance Progress Reports must be submitted to: GReports@nist.gov, within the prescribed timeframes identified in the terms and conditions of the award.

The Recipient organization name, NIST award number, and reporting period must be included in the email subject line. The Recipient contact information should be included in the body of the message. To the greatest extent possible, SF-425 and Performance Progress Reports should be submitted together in the same email.

SF-425 and Performance Progress Reports must not be sent directly to NIST personnel (e.g. Grants Specialist, Grants Officer, Administrative Assistant, GMD Division Chief, Federal Program Officer, etc.).

Any SF-425 or Performance Progress Reports sent directly to NIST personnel will be returned to the sender with instructions on how to submit through the GReports@nist.gov mailbox.

No other correspondence may be sent through this mailbox; timely responses to any other inquiries received in this mailbox are not guaranteed. The mailbox will not be used for any other purpose ***except*** for purposes identified above.

11. Department of Commerce Financial Assistance Standard Terms and Conditions:

As indicated on the Form CD-450 for this award, the Department of Commerce Financial Assistance Standard Terms and Conditions (ST&C) issued November 12, 2020, are incorporated by reference into this award. The Department's ST&C, as well as a link to 2 CFR Part 200, are accessible at: https://www.commerce.gov/oam/policy/financial-assistance-policy.

12. NIST Standard Terms and Conditions for Extramural Construction Projects:

As indicated on the Form CD-450 for this award, the National Institute of Standards and Technology Standard Terms and Conditions for Extramural Construction Projects (Construction ST&Cs) dated May 11, 2023 are incorporated by reference into this award. The Construction ST&Cs are accessible at NIST Standard Terms and Conditions for Extramural Construction Projects | NIST.

13. Unfunded Grant Actions Mailbox (UGAM):

Requests for unfunded award actions, which include, but are not limited to, requests for no-cost extension, change in key personnel, change in scope of work, and budget revisions must be submitted to: UGAM@nist.gov, within the prescribed timeframes identified in the terms and conditions of the award.

Unfunded award action requests and related correspondence, including justification to support the request, sent to the mailbox ***must*** contain the following information in the email subject line: (1) Recipient name; (2) NIST award number; (3) Principal Investigator/Project Director; and (4) Action being requested (e.g. no cost extension, change in key personnel, etc.).
Unfunded award action requests must not be sent directly to NIST personnel (e.g. Grants Specialist, Grants Officer, Administrative Assistant, GMD Director, Federal Program Officer, etc.).

Any requests sent directly to NIST personnel will be returned to the sender with instructions on how to submit through the UGAM@nist.gov mailbox.

No other correspondence may be sent through this mailbox; timely responses to any other inquiries received in this mailbox are not guaranteed. The mailbox will not be used for any other purpose ***except*** for purposes identified above.

Requests that are processed will be authorized via a Form CD-451 Amendment to the Financial Assistance Award or a Non-Funded Administrative Change Letter.

14. Supervision of the Recipient's Staff and Associates and Compliance with NIST Policies on Use of Federal Facilities and Equipment:

Consistent with Department of Commerce Financial Assistance Standard Terms and Conditions, Section A.05, nothing in this award will be construed as authorizing the Recipient or its employees, agents, or assigns to act as an agent or assign of NIST, and the Recipient must exercise all diligence to ensure that no third party construes the Recipient as an actual, ostensible, or apparent agent of NIST. For purposes of this award, the use of the term "personnel" herein includes all third parties, such as contractors, subrecipients, students, fellows, or others participating under the direction of the Recipient's programs. The Recipient acknowledges that it is independent of NIST in the performance of the approved projects, and that the Recipient assumes full and sole responsibility for all benefits and protections of the Recipient's personnel and agents whose services are utilized by the Recipient in the execution of this award.

Accordingly, the Recipient must control the means and manner of its personnel's activities on the project, including those conducted on a NIST campus, on Recipient property, and at other locations for the project. The Recipient must directly provide a salary, stipend, or other funding to the personnel, and must establish the work schedule and tenure for the personnel. The Recipient is the supervisor of record for the personnel and will coordinate with NIST as needed to ensure that the research remains consistent with NIST program objectives.

15. Estimated Useful Life:

The estimated useful life of the building renovation portion of this project is 15 years from when the date on which the Certificate of Occupancy for the renovations is issued.

16. Property Trust Relationship and Public Notice Filings for Grant-Acquired Property:

In accordance with 2 CFR § 200.316 (Property trust relationship), real property, equipment, and intangible property, that are acquired or improved with a Federal award must be held in trust by the non-Federal entity (*i.e.*, Recipient or Subrecipient) as trustee for the beneficiaries of the project or program under which the property was acquired or improved. This trust relationship exists throughout the duration of the property's estimated useful life, as determined by the Grants Officer in consultation with the Program Office, during which time the Federal Government retains an undivided, equitable reversionary interest in the property (Federal Interest). The non-Federal entity must comply with all use and disposition requirements and restrictions as set forth in 2 C.F.R. §§ 200.310 (Insurance coverage) through 200.316 (Property trust relationship), as applicable, and in the terms and conditions of the Federal award.

The Grants Officer may require a non-Federal entity (*i.e.*, a Recipient or Subrecipient) to execute and to record (as applicable) a statement of interest, financing statement (Form UCC-1), lien, mortgage or other public notice of record to indicate that real or personal property acquired or improved in whole or in part pursuant to this award is subject to the Federal Interest, and that certain use and disposition requirements apply to the property. The statement of interest, financing statement (Form UCC-1), lien, mortgage or other public notice must be acceptable in form and substance to the NIST Grants Officer and must be placed on record in accordance with applicable State and local law, with continuances re-filed as appropriate. In such cases, the NIST Grants Officer may further require the non-Federal entity to provide a written statement from a licensed attorney in the jurisdiction where the property is located, certifying that the Federal Interest has been protected, as required under the award and in accordance with applicable State and local law. The attorney's statement, along with a copy of the instrument reflecting the recordation of the Federal Interest, must be promptly returned to the Grants Officer.

Without releasing or excusing the non-Federal entity from these obligations, the non-Federal entity, by execution of the financial assistance award or by expending Federal financial assistance funds (in the case of a subrecipient), authorizes the NIST Grants Officer to file such notices and continuations as it determines to be necessary or convenient to disclose and protect the Federal Interest in the property. The NIST Grants Officer may elect not to release any or a portion of the Federal award funds until the non-Federal entity has complied with this provision and any other applicable award terms or conditions, unless other arrangements satisfactory to the NIST Grants Officer are made.

17. Environmental and Historic Review:

The Recipient must comply with all applicable requirements, environmental and historic preservation laws, Executive Orders, regulations, standards, and guidance, and identify to NIST any impact a project may have on the environment or historic resources.

Project implementation may not begin prior to the completion of a review of potential environmental impacts, per the National Environmental Policy Act of 1969 (42 U.S.C. 4321, et. seq.) (NEPA) and Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. § 470, et. seq.).

The completion of NEPA compliance activities will result in one of the following: a Categorical Exclusion, an Environmental Assessment/Finding of No Significant Impact (EA/FONSI), or an Environmental Impact Statement. A decision document will not be issued until all required consultations, including, Section 7 of the Endangered Species Act (16 U.S.C. §1531, et. seq.), and any other required consultations are complete. The Recipient must also address compliance with all other applicable federal, state, and local environmental laws and regulations.

Under Section 106 of the NHPA, federal agencies, and by extension recipients of federal grant funds, must evaluate the potential effects of any proposed projects ("undertakings") on properties listed on, or eligible for listing on, the National Register of Historic Places. Grant recipients are encouraged to initiate Section 106 consultation with relevant State Historic Preservation Offices (SHPOs) or, in the case of institutions located on tribal lands, the proper Tribal Historic Preservation Office (THPO) as directed by NIST. NIST will remain involved in resolution in the event of an adverse effect determination.

A Environmental and Historic Review, to include any required consultations under NEPA and Section 106 of the NHPA, must be completed no later than six months after the award start date; unless a formal request for extension is submitted and approved by the Grants Officer. The Recipient must comply with all conditions placed on the project as the result of the consultation processes. The Recipient may not expend any federal grant funds, except as authorized by the Grants Officer pursuant to approval of the 6-month expenditure plan (discussed below).

The Recipient is required to provide the following information that will enable NIST to make a preliminary determination regarding the potential impact of the proposed project on environmental and historic resources:

1. A thorough description of all proposed project activities, particularly buildings and other capital improvement activities that will be conducted. Include: (i) the area and extent of earthwork (drilling, excavation, fill, blasting, dredging, etc.), (ii) environmental communication, documentation, or permitting (planned, pending, or in place), (iii) any determination upon the project by any department of environment or other agency or office, (iv) floodplain mapping on the site itself or any adjacent or contiguous property, (v) any special interest in the project or the site, (vi) any public meetings planned or held regarding the on the site itself or adjacent or contiguous property, (vii) any threatened or

endangered species or any migratory birds or bald or golden eagles on the site itself or adjacent or contiguous property, or (viii) any essential fish habitat or any portion of the National Wild and Scenic River System or Coastal Barrier System or navigable waters on the site itself or adjacent or contiguous property, (ix) any waters of any stream or other body of water "proposed or authorized, permitted or licensed to be impounded, diverted, or otherwise controlled or modified", (x) any identified or potential wetland on the site itself or any adjacent or contiguous property, (xi) any hazardous or regulated substances or Superfund activity on the site itself or adjacent or contiguous property, and/or (xii) any invasive species on the site itself or adjacent or contiguous property.

2. Maps of the project area and ground-level and aerial photographs with installation/renovation locations clearly marked on the buildings impacted. Free online resources, such as Google maps or similar images, are acceptable.

3. For the list of buildings, referenced in Item #1, state the year those buildings were first constructed as well as the dates of any subsequent major renovations. For buildings that are 45 years old or older, provide photos of installation sites, as well as exterior and interior photos of the building. Provide any property relevant to this application which is (i) within the viewshed of a registered historic property or (ii) within a historic district or (iii) registered as historic itself or (iv) noted to be historically or architecturally significant in any study or article of public interest. Provide any communication, documentation, or permitting under the project, e.g., determination upon the project by a SHPO and/or THPO.

NOTE: The Recipient must submit a draft Environmental and Historic Review with all initial required project information listed above in Items #1 – #3 to NIST via UGAM@nist.gov no later than 60 calendar days after award start date, unless an extension has been requested in writing by the Recipient and approved by the Grants Officer.

Follow-on information may be required for NIST to determine the level of impacts of the project on environmental and historic resources. If consultation is required, grantees are encouraged to initiate consultation as referenced above and must provide NIST with relevant documentation of the consultation process. Once appropriate and applicable consultations have been completed, and environmental review documentation has been completed, NIST will review all documentation and determine whether the review sufficiently addresses all resource areas and whether the project may qualify for an approval decision.

Once the above information is provided, NIST will review and provide guidance on the next steps that the recipient should take regarding required consultations and/or environmental and historic preservation documentation required to make environmental determinations. Next steps may include, but are not limited to, the submittal and completion of the following:

1. The completion of any required consultations as described above where applicable and directed by NIST, to include consultations with the SHPO and/or THPO and the appropriate federally-recognized Native American tribes (if applicable), under Section 106 of the NHPA, and/or consultations with the USFWS under Section 7 of the ESA;

2. The completion of environmental review and issuance by NIST of a decision document, as described above, that meets the requirements of NEPA; and

3. Compliance with all other applicable federal, state, and local environmental laws and regulations.

The Recipient is required to provide any information requested by NIST in a timely and effective manner to ensure both initial and ongoing compliance with environmental and historic preservation laws, regulations, and best practices. All such information must be sent to the FPO.

The Recipient shall notify NIST within 24 hours upon receipt of any notices of foreclosure; notices for continuing consultation received from the SHPO, THPO or other consulting party; or notices of noncompliance received from consulting authorities or regulatory agencies. These notices shall be sent to the FPO. Projects which, after consultation with appropriate agencies, are determined to be ineligible for a CE will require the development of an EA/FONSI. The Recipient may wish to coordinate with NIST to rescope or descope the proposed project to avoid or minimize impacts to environmental and historic resources.

Any change to the approved project scope, resulting from consultations or for other reasons, that have the potential for altering the nature or extent of environmental or cultural resources impacts must immediately be brought to the attention of NIST and will be re-evaluated for compliance with applicable regulatory requirements.

For all ground disturbing activities in the vicinity of known archaeological sites or suspected or known burials, the Recipient must ensure that an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards monitors ground disturbance, and if any potential archeological resources or buried human remains are discovered, then the Recipient must immediately cease construction in that area and notify NIST and the interested SHPO, THPO, and tribes. Such construction activities may then only continue with the written approval of NIST.

6-Month Expenditure Plan

While this SAC is in effect, the Recipient shall submit, in advance of any program fund drawdowns from ASAP.gov, a 6-month expenditure plan that presents the proposed expenditure of award funds prior to the completion of the environmental review process, including any preliminary procurement activities. The NEPA Coordinator and the Federal

Preservation Officer will review the plan and provide recommendations to the Federal Program Officer and the Grants Officer for final approval to ensure that the proposed activities and expenditures are reasonable and necessary in the context of environmental and historical compliance. Approval of the Grants Officer is required prior to fund drawdowns of the 6-Month Expenditure Plan through ASAP.gov.

The allowable use of funds for preliminary expenditures prior to beginning project implementation includes, but is not limited to, the initiation of activities necessary to meet the project completion requirements as specified in the award including environmental and historic preservation requirements:

1. Required environmental and historic preservation consultation activities;
2. Purchase or lease of equipment, or entering into binding contracts to do so; and
3. Purchase of applicable or conditional insurance.

The allowable use of preliminary expenditure funds is limited; must not result in an irrevocable commitment of resources; and is only allowed after inclusion in and approval of a 6-month expenditure plan.

18. Signage and Public Acknowledgement Requirements:

a. Signs - The Recipient is encouraged to include project signage, satisfactory in form and content to NIST, that identifies the nature of the project and indicates that "the project is funded by the Consolidated Appropriations Act, 2022." In addition, guidelines for project signage, including an emblem and corresponding logomark, is available in the Official Investing in America Emblem Style Guide: https://www.whitehouse.gov/wp-content/uploads/2023/02/Investing-in-America-Brand-Guide.pdf. Costs associated with signage must be reasonable and limited. The Recipient is encouraged to use recycled or recovered materials when procuring signs. Signs should not be produced or displayed if doing so results in unreasonable cost, expense, or recipient burden. Any construction site sign should be displayed throughout the construction phase of the project in an easily visible location directly linked to the work taking place. The Recipient is responsible to maintain the sign in good condition throughout the construction period.

b. Plaque - Any plaque installed at the discretion of the Recipient, citing the origins or history of the project, should identify the project as a "project funded by Consolidated Appropriations Act, 2022."

c. Communications - Any banner or other message intended for public display on the project site should remain within the spirit of transparency and public information provided herein.

19. Final Site Selection:

Within 60 calendar days of the award start date, the Recipient must provide to the Federal Program Officer and Grants Specialist identified in this award, a final site selection for the Burlington Aviation Technology Center Facility. The site selection must be approved by NIST prior to advertisement of construction. All grant funding will be withheld until this Specific Award Condition is deemed satisfied in writing by the NIST Grants Officer.

End of Specific Award Conditions

OMB Number: 4040-0008
Expiration Date: 02/28/2025

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	$	$	$
2. Land, structures, rights-of-way, appraisals, etc.	$	$	$
3. Relocation expenses and payments	$	$	$
4. Architectural and engineering fees	$ 947,427.00	$ 547,427.00	$ 400,000.00
5. Other architectural and engineering fees	$ 50,000.00	$	$ 50,000.00
6. Project inspection fees	$ 600,000.00	$	$ 600,000.00
7. Site work	$ 7,050,000.00	$	$ 7,050,000.00
8. Demolition and removal	$	$	$
9. Construction	$	$	$
10. Equipment	$	$	$
11. Miscellaneous	$	$	$
12. SUBTOTAL *(sum of lines 1-11)*	$ 8,647,427.00	$ 547,427.00	$ 8,100,000.00
13. Contingencies	$ 1,800,000.00	$	$ 1,800,000.00
14. SUBTOTAL	$ 10,447,427.00	$ 547,427.00	$ 9,900,000.00
15. Project (program) income	$	$	$
16. TOTAL PROJECT COSTS *(subtract #15 from #14)*	$ 10,447,427.00	$ 547,427.00	$ 9,900,000.00

FEDERAL FUNDING

17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X 100 %	$ 9,900,000.00