Procurement Department

Your Water • Your Environment • Our Mission

4 County Complex Court, Woodbridge, Virginia 22195-2266 · Fax (703) 335-7954

July 2, 2025

Addendum # 1

RFP SA 2503 – Ongoing Renewal and Replacement – Grubbs HVAC

THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:

- Extension of Question Deadline: The deadline for submitting questions has been extended to **July 10, 2025, at noon (EST)**.
- The Bid Submission Due Date for this project has been extended to **July 30, 2025, at 10:00 AM (EST).**
- The attached responses to questions have been added for clarification.
- The drawings and specifications have been updated to reflect code-related changes.

Acknowledgement: Offerors submitting a proposal response for the above named solicitation shall take note of the following changes, additions, deletions, clarification, etc., in the Contract Documents, which shall become a part of and have precedence over anything shown or described in the Contract Documents, and as such shall be taken into consideration and be included in the Offeror's response. All other terms and conditions of the Invitation of the Request for Proposals shall remain unchanged.
Offerors must acknowledge receipt of this amendment by signing and returning this addendum with the proposal response prior to the proposal deadline.

Authorized Signature **Date**

Name Printed **Title**

Company Name

Direct all inquiries to procurement@pwwater.org

Questions and Responses:

1. **Question**: Variable Refrigerant Flow System – May "Samsung" be added to the list of acceptable manufacturers per spec section 238129, para 2.2.A

   Response: Please provide a manufacturer currently listed under Specification Section 23 81 29, Paragraph 2.2.A. Currently, Samsung is not an approved manufacturer per the specification.

2. **Question**: Booster Coil - May "Aerofin" be added to the list of acceptable manufacturers

   Response: Please provide a manufacturer listed in Specification Section 23 31 13, Paragraph 2.3.J. Currently, Aerofin is not included among the approved manufacturers.

End of Addendum Number One

GENERAL NOTES:

1. THESE NOTES ARE GENERAL AND SUPPLEMENTAL TO THE SPECIFICATIONS AND APPLY TO THE ENTIRE PROJECT UNLESS MODIFIED OR NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.

2. SECTIONS/DETAILS APPLY TO SIMILAR LOCATIONS AND CONDITIONS UNLESS OTHERWISE INDICATED.

3. ALL DIMENSIONS ARE TO BE VERIFIED EITHER BY FIELD MEASUREMENTS FOR EXISTING STRUCTURES OR BY SHOP DRAWINGS FOR EQUIPMENT FURNISHED. STRUCTURAL DIMENSIONS NOT SHOWN BUT CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER PRIOR TO CONSTRUCTION.

4. DESIGN IS IN ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE 2021 VIRGINIA EXISTING BUILDING CODE, EXCEPT WHERE OTHER APPLICABLE CODES AND THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE

5. EQUIPMENT ANCHOR BOLT SIZES, TYPES, AND PATTERNS SHALL BE AS REQUIRED BY THE APPROVED EQUIPMENT MANUFACTURER. ALL BOLT PATTERNS SHALL BE TEMPLATED TO ENSURE ACCURACY OF PLACEMENT.

6. STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH DRAWINGS OF ALL OTHER DISCIPLINES AND MANUFACTURER'S SHOP DRAWINGS.

7. IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY. CONTINUED CONSTRUCTION OF THE AREA IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED BY THE OWNER.

8. STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.

9. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

10. FOR SIZES AND LOCATIONS OF EQUIPMENT SUPPORTS AND PIPE OPENINGS, SEE OTHER DISCIPLINE DRAWINGS. OPENINGS SIZES LESS THAN 12" ARE NOT SHOWN ON STRUCTURAL DRAWINGS, REFERENCE OTHER DISCIPLINE DRAWINGS FOR LOCATIONS.

11. OPENINGS AND PENETRATIONS: THE CONTRACTOR SHALL SUBMIT COMPOSITE DRAWINGS INDICATING ALL FLOOR OPENINGS AND PENETRATIONS THROUGH STRUCTURAL MEMBERS REQUIRED TO ACCOMMODATE THE HVAC, PLUMBING AND ELECTRICAL WORK.

STRUCTURAL STEEL NOTES:

1. DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST EDITION.

2. STEEL MATERIAL:
   A. STRUCTURAL TUBING, ASTM A 500, GRADE C
   B. STRUCTURAL PIPE, ASTM A 53, GRADE B
   C. W SHAPES, ASTM A992.
   D. STRUCTURAL CHANNELS, ASTM A 572.
   E. ALL OTHER SHAPES AND PLATES, ASTM A 36 (UON)

3. FILLET WELD SIZES SHALL BE THE MINIMUM SIZE REQUIRED BY AISC CODE FOR PLATE SIZES TO BE CONNECTED BUT NOT LESS THAN 3/16 INCH AND SHALL BE APPLIED TO THE ENTIRE JOINT CONTACT LENGTH UON.

4. ALL BOLTS, ANCHOR BOLTS, AND CONCRETE ANCHORS CONNECTING STAINLESS STEEL SHALL BE TYPE 316 STAINLESS STEEL.

5. WHENEVER ONE MEMBER IS FASTENED TO ANOTHER WITH FASTENINGS (BOLTS, WELDS, ETC.) SET AT A UNIFORM SPACING, THERE SHALL BE A MINIMUM OF TWO FASTENINGS PER PIECE CONNECTED AND THE FIRST AND LAST FASTENINGS SHALL BE LOCATED NOT TO EXCEED 1/4 SPACE FROM EACH END.

WOOD BLOCKING NOTES:

1. FACTORY-MARK EACH PIECE OF LUMBER WITH TYPE, GRADE, MILL AND GRADING AGENCY.

2. NOMINAL SIZES ARE TO BE DETERMINED ONCE THE CEILING IS REMOVED AND ACCESS TO UNDERSIDE OF METAL DECKING IS MADE. PROVIDE ACTUAL SIZES AS REQUIRED BY ALSC PS 20.

3. PROVIDE DRESSED LUMBER, SURFACED FOUR SIDES (S4S), AS REQUIRED FOR BLOCKING THE METAL DECKING UNDER EQUIPMENT SUPPORTS.

4. PROVIDE SEASONED LUMBER WITH 19 PERCENT MAXIMUM MOISTURE CONTENT AT TIME OF DRESSING.

5. PROVIDE CONSTRUCTION GRADE DOUGLAS FIR, WCLB.

6. ALL LUMBER USED FOR WOOD BLOCKING SHALL BE FIRE-TREATED.

DESIGN LOADS:

THE FOLLOWING DESIGN LOADS WERE USED FOR INSTALLING HVAC EQUIPMENT ON EXISTING ROOF:

STRUCTURE RISK CATEGORY:	III
FLOOR DEAD LOAD:	NA
FLOOR LIVE LOADS:	NA
ROOF DEAD LOADS:	
EXISTING ROOF DEAD LOAD:	15 PSF
ROOF LIVE LOAD:	20 PSF
COLLATERAL LIVE LOAD:	10 PSF
~~MINIMUM ROOF LIVE LOAD AFTER REDUCTION~~ (GREATER OR EQUAL TO)	NA
ROOF SNOW LOAD:	
GROUND SNOW LOAD:	P_g = 25 PSF
FLAT-ROOF SNOW LOAD:	P_f = 25 PSF
SNOW EXPOSURE FACTOR:	C_e = 1.0
SNOW LOAD IMPORTANCE FACTOR:	I_s = 1.1
THERMAL FACTOR:	C_t = 1.0
DRIFT SURCHARGE LOAD(S):	NA
WIDTH OF SNOW DRIFT(S)	NA
WIND DESIGN DATA:	
BASIC DESIGN WIND SPEED:	V = 119 MPH
ALLOWABLE STRESS DESIGN WIND SPEED:	V_{ASD} = 92.2 MPH
RISK CATEGORY:	III
INTERNAL PRESSURE COEFFICIENTS:	NA
ADDITIONS ON ROOF ARE CHECKED IN ACCORDANCE WITH ASCE 7/16	
EARTHQUAKE DESIGN DATA:	
RISK CATEGORY:	III
SEISMIC IMPORTANCE FACTOR:	I_e = 1.25
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	S_s = 1.44 S_1 = 0.045
SITE CLASS:	D
DESIGN SPECTRAL RESPONSE ACCELERATIONS:	S_{DS} = 0.153 S_{D1} = 0.072
SEISMIC DESIGN CATEGORY:	B
BASIC SEISMIC-FORCE-RESISTING SYSTEM(S):	NA
DESIGN BASE SHEAR(S):	NA
SEISMIC RESPONSE COEFFICIENT(S):	C_s = NA
RESPONSE MODIFICATION FACTOR:	R = NA
ANALYSIS PROCEDURE USED:	NA
FLOOD HAZARD INFORMATION:	
FLOOD DESIGN CLASS:	NA
BASEMENT (LOWEST FLOOR) ELEVATION	NA
DRY FLOOD PROOFED ELEVATION	NA
COASTAL HIGH HAZARD AREAS AND COASTAL A ZONES	
LOWEST STRUCTURAL MEMBER ELEVATION	NA
100 YEAR FLOOD ELEVATION:	NA
SPECIAL LOAD(S):	
HVAC EQUIPMENT:	0.750 KIPS
ROOF RAIN LOAD DATA:	
RAIN INTENSITY:	NA

ABBREVIATIONS

@	AT
AB	ANCHOR BOLT
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AHR	ANCHOR
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
AR	ANCHOR ROD
ARCH	ARCHITECT
B/B	BACK TO BACK
BEV	BEVEL
BLDG	BUILDING
BLKG	BLOCKING
BO	BOTTOM OF
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BP	BASE PLATE
BRDG	BRIDGING
BRG	BEARING
BSMT	BASEMENT
CANTL	CANTILEVER
CFMF	COLD FORMED METAL FRAMING
CHFR	CHAMFER
CJ	CONTRACTION/CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTER LINE
CLKJ	CAULKED JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
COORD	COORDINATE
CSK	COUNTER SUNK
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DBL	DOUBLE
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DWG	DRAWING
DWLS	DOWELS
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXP	EXPANSION
EXIST	EXISTING
EXT	EXTERIOR
FAB	FABRICATE
FBO	FURNISHED BY OTHERS
FD	FLOOR DRAIN
FDTN	FOUNDATION
FLR	FLOOR
FOM	FACE OF MASONRY
FRMG	FRAMING
FS	FOOTING STEP
FT	FOOT
FTG	FOOTING
FW	FIRE WALL
GA	GAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GDR	GUARD RAIL
GR BM	GRADE BEAM
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HP	HIGH POINT
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INFO	INFORMATION
INSUL	INSULATION
INV	INVERT
ISO JT	ISOLATION JOINT
JBE	JOIST BEARING ELEVATION
K	KIPS
KB	KNEE BRACE
KO	KNOCKOUT
KPL	KICK PLATE
KSF	KIPS PER SQUARE FOOT
KWY	KEY WAY

ABBREVIATIONS

LD BRG	LOAD BEARING
LG	LONG
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LONG	LONGITUDINAL
LP	LOW POINT
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MTL	METAL
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
PAF	POWDER ACTUATED FASTENER
PCC	PRECAST CONCRETE
PEMB	PRE ENGINEERED METAL BUILDING
PL	PLATE
PLAT	PLATFORM
PLF	POUNDS PER LINEAR FOOT
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
PUR	PURLINS
PVMT	PAVEMENT
QC	QUALITY CONTROL
R	RADIUS
RD	ROOF DRAIN
RDG INSUL	RIGID INSULATION
REF	REFERENCE
REINF	REINFORCING
REM	REMAINDER
REQD	REQUIRED
RET	RETAINING
RH	ROOF HATCH
RO	ROUGH OPENING
SCHED	SCHEDULE
SF	SQUARE FEET
SIM	SIMILAR
SOG	SLAB ON GROUND
SPA	SPACE(S)
SPEC	SPECIFICATION
SQ	SQUARE
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
T&B	TOP AND BOTTOM
TD	TRENCH DRAIN
TEMP	TEMPORARY
THK	THICKNESS
THRU	THROUGH
TO	TOP OF
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOSL	TOP OF SLAB
TYP	TYPICAL
UNEX	UNEXCAVATED
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VR	VAPOR RETARDER
W/	WITH
W/O	WITHOUT
WBL	WOOD BLOCKING
WF	WALL FOOTING
WP	WORKING POINT
WS	WATERSTOP
WWF	WELDED WIRE FABRIC
X BRACE	CROSS BRACE
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

ARCADIS

LEGAL ENTITY:
ARCADIS U.S., INC.

CONSULTANTS

SEALS

COMMONWEALTH OF VIRGINIA
CHRISTOPHER J.B. JEDRICH
Lic. No. 042360
PROFESSIONAL ENGINEER
06-27-2025

COUNTY REVIEW

WOODBRIDGE, VA

PRINCE WILLIAM WATER

H.L. MOONEY ADVANCED WATER RECLAMATION FACILITY
1851 RIPPON BLVD.
WOODBRIDGE, VA

GRUBBS WATER QUALITY LABORATORY

ONGOING RENEWAL AND REPLACEMENT – GRUBBS HVAC

30154842

NO.	DATE	ISSUED FOR	BY
1	JUN 2025	ADD 1- CODE REV	CJJ

DATE: JUNE 2025
PROJECT NO.: 30154842
FILE NAME: S-01
DESIGNED BY: K. PATEL
DRAWN BY: Z. SANGALANG
CHECKED BY: C. JEDRICH

SHEET TITLE

STRUCTURAL

GENERAL NOTES AND ABBREVIATIONS

SCALE: NO SCALE

S-01

SHEET 10 OF 21

BUILDING CODE CHART: 2021 VIRGINIA CONSTRUCTION CODE		
1	GRUBBS BUILDING	
NFPA 820 CLASSIFICATION	NA	
BUILDING (MAIN) OCCUPANCY (CHAPTER 3)	B	
MIXED USE FACILITY	YES	YES
ROOM SEPARATION RATING	NA	NONE
CONSTRUCTION CLASSIFICATION (CHAPTER 6)	II-B	
NUMBER OF STORIES	ALLOWABLE	ACTUAL
	3	2
BUILDING HEIGHT	ALLOWABLE	ACTUAL
	55'	52'-2"
ALLOWABLE AREA FACTOR PER FLOOR	ALLOWABLE	ACTUAL
	23,000 SF FLOOR AREA FACTOR	UNCHANGED BASEMENT-4,010 1ST-16,082 2ND-11,631
FIRE SEPARATION DISTANCE RATINGS (TABLE 602):		
	REQUIRED	PROVIDED
DISTANCE LESS THAN 5'	0	0
DISTANCE BETWEEN 5' & 10'	0	0
DISTANCE BETWEEN 10' & 30'	0	0
DISTANCE MORE THAN 30'	0	0
FIRE RESISTANCE RATING REQ'TS FOR BLDG ELEMENTS (TABLE 601):		
	REQUIRED	PROVIDED
PRIMARY STRUCTURAL FRAMING	0	0
BEARING WALLS - EXTERIOR	0	0
BEARING WALLS - INTERIOR	0	0
NON BEARING WALLS - EXTERIOR		
NON BEARING WALLS - INTERIOR	0	0
FLOOR CONSTRUCTION	0	0
ROOF CONSTRUCTION	0	0
INTERIOR FINISHES (TABLE 803.5) :		
VERTICAL EXITS AND EXIT PASSAGEWAYS	B	B
EXIT ACCESS CORRIDORS & OTHER EXITWAYS	C	C
ROOMS AND ENCLOSED SPACES	C	C
FIRE PROTECTION SYSTEMS (CHAPTER 9):		
	REQUIRED	PROVIDED/ EXISTING
AUTOMATIC SPRINKLER SYSTEMS (SECTION 903)	YES	YES
PORTABLE FIRE EXTINGUISHERS (SECTION 906)	YES	YES
FIRE ALARM AND DETECTION SYSTEMS(SECTION 907)	YES	YES
EMERGENCY ALARM SYSTEMS (SECTION 908)	YES	YES
MEANS OF EGRESS (CHAPTER 10):		
	REQUIRED/ ALLOWABLE	PROVIDED/ EXISTING
OCCUPANT LOAD CHART (TABLE 1004.1.2)	OCCUPANT LOAD IS UNCHANGED	
EGRESS WIDTH PER OCCUPANT LOAD - STAIRWAYS (SECTION 1005.3)	MIN 36"	36"
EGRESS WIDTH PER OCCUPANT LOAD - OTHER COMPONENTS (SECTION 1005.3)	MIN 36"	36"
STORIES WITH ONE MEANS OF EGRESS (TABLE 1021.2)	UNCHANGED	
SPACES WITH ONE MEANS OF EGRESS (TABLE 1015.1)	ALLOWED BY OCCUPANT LOAD	
EXIT ACCESS TRAVEL DISTANCE	UNCHANGED	
CORRIDOR FIRE-RESISTANCE RATING W/ SPRINKLER	0	0
ACCESSIBILITY (ANSI/ ADAAG):		
	REQUIRED	PROVIDED
CONSTRUCTION SITES	NO	NO
ACCESSIBLE ROUTE	YES	YES
ACCESSIBLE ENTRANCE	YES	YES
EQUIPMENT SPACES	NO	NO
PARKING	YES	YES
SIGNAGE	YES	YES

GENERAL CODE CRITERIA	
PROJECT	GENERAL
CODES	
BUILDING CODE	2021 VIRGINIA CONSTRUCTION CODE
FIRE CODE	2021 VIRGINIA STATEWIDE FIRE PREVENTION CODE
PLUMBING CODE	2021 VIRGINIA PLUMBING CODE
MECHANICAL CODE	2021 VIRGINIA MECHANICAL CODE
ELECTRICAL CODE	2020 NATIONAL ELECTRICAL CODE (NEC)
ENERGY CODE	2021 VIRGINIA ENERGY CONSERVATION CODE
EXISTING BUILDING CODE	2021 VIRGINIA EXISTING BUILDING CODE
SITE	
SOIL CLASSIFICATION (SITE CLASS)	D 1
WIND SPEED	119 MPH
WIND EXPOSURE	B
SPECTRAL RESPONSE COEFFICIENT, SDS	0.15%
NON STRUCTURAL COMPONENT SEISMIC DESIGN REQUIRED	NO
BUILDING/STRUCTURE #	
OCCUPANCY OF BUILDING - MIXED	OCCUPANCY OF NEW WORK - B, UNCHANGED
CONSTRUCTION TYPE	II-B
NUMBER OF STORIES	2-STORIES
BUILDING HEIGHT	52'-2"
FLOOR AREA	TOTAL=31,723 - UNCHANGED
OCCUPANCY CATEGORY	III
SEISMIC DESIGN CATEGORY	B

EXISTING BUILDING CODE NOTES:

1. THE ARCHITECTURAL WORK IS CLASSIFIED AS ALTERATION LEVEL 1 FOR THE REMOVAL AND REPLACEMENT OF CEILINGS AND LABORATORY CABINETRY, COUNTERTOPS, SINKS, AND THE ADDITION OF A FUME HOOD.
2. THE HVAC WORK IS CLASSIFIED AS ALTERATION LEVEL 2 WITH NEW DUCTWORK AND AIR-FLOW VALVE UNITS BEING ADDED TO EXISTING SYSTEMS OR AS EXTENSIONS OF EXISTING SYSTEMS.

ENERGY CONSERVATION NOTES

1. SCOPE OF WORK DOES NOT INCLUDE CHANGES TO BUILDING THERMAL ENVELOPE EXCEPT AS FOLLOWS:
   1.a. ROOF CURBS CUT INTO EXISTING ROOFING TO REMAIN.
   1.b. BUILDING SERVICES AND CONDUIT PENETRATION THRU ROOF TO REMAIN.
2. PENETRATIONS THROUGH EXISTING EXTERIOR MATERIALS WILL BE PATCHED WITH MATERIALS TO MATCH.
3. VAPOR BARRIERS ARE TO BE SEALED TO NEW MATERIALS THAT PENETRATE A VAPOR BARRIER.

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LEGAL ENTITY:
ARCADIS U.S., INC.

CONSULTANTS

SEALS

COMMONWEALTH OF VIRGINIA
ERROL ANTONIO DAWKINS
Lic. No. 0401017807
June 16, 2025
ARCHITECT

COUNTY REVIEW

WOODBRIDGE, VA

PRINCE WILLIAM WATER

H.L. MOONEY ADVANCED WATER RECLAMATION FACILITY 1851 RIPPON BLVD. WOODBRIDGE, VA

GRUBBS WATER QUALITY LABORATORY

ONGOING RENEWAL AND REPLACEMENT – GRUBBS HVAC

30154842

NO.	DATE	ISSUED FOR	BY
1	JUN 2025	ADD 1– CODE REV	RB

DATE: JUNE 2025
PROJECT NO.: 30154842
FILE NAME: A–02
DESIGNED BY: R. BELLO
DRAWN BY: D. MARTINS
CHECKED BY: E. DAWKINS

SHEET TITLE

ARCHITECTURAL

CODE CHART AND NOTES

SCALE: AS SHOWN

A–02

SHEET 13 OF 21

SECTION 26 05 05

GENERAL PROVISIONS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 DESCRIPTION

A. Scope:
   1. Provide all labor, materials, equipment, and incidentals shown, specified, and required to complete the electrical Work.
   2. The scope of work for this project primarily includes, but is not limited to, the following:
      a. Installation of conduit and wiring to provide power to the new variable refrigerant flow (VRF) heat pump unit on the roof and six individual ceiling cassettes on the first floor.
      b. Installation of disconnects for each of the six ceiling cassettes and the roof mounted VRF heat pump.
      c. Provide 120 VAC power to laboratory airflow control system. Power will be distributed to the laboratory exhaust airflow control valves under the HVAC work.
   3. The contractor shall reference the functional descriptions and other requirements found in Division 23, Heating, Ventilating and Air Conditioning, for additional requirements pertaining to work under this Contract. The Functional Descriptions referenced herein shall be considered as part of the work required under this Contract.
   4. Utility Companies:
      a. Electric Utility Company: No utility work will be performed as part of the Work.

B. Coordination:
   1. Review installation procedures and schedules under other Specification Sections and coordinate with other trades the installation of electrical items that will be installed with or within formwork, walls, partitions, ceilings, and panels.
   2. Coordination and Intent of Electrical Drawings:
      a. Dimensions on Drawings related to equipment are based on equipment of certain manufacturers. Verify the dimensions of equipment furnished to space available at the Site and allocated to the equipment.
      b. Drawings show the principal elements of the electrical Work and are not intended as detailed working drawings for the electrical Work. Drawings supplement and complement the Specifications and other Contract Documents relative to principal features of electrical systems.
      c. Equipment and devices provided under this Contract shall be properly connected and interconnected with other equipment and devices for successful operation of complete systems, whether all connections and interconnections are specifically mentioned or shown in the Contract Documents.

d. Drawings are provided for CONTRACTOR's guidance in fulfilling the intent of the Contract Documents CONTRACTOR shall comply with Laws and Regulations, including safety and electrical codes, and provide materials, equipment, appurtenances, and specialty items necessary for complete and operable systems.

3. Obtain from OWNER record drawings required to execute the Work.
4. Field Coordination:
   a. Provide materials, equipment, and services to interface with existing circuits. Field-verify system and equipment requirements prior to modifying existing systems.
   b. Coordinate the interface of equipment with OWNER's personnel and field conditions.

C. Area Classifications:
1. Materials, equipment, and incidentals shall be suitable for the area classification(s) shown, specified, and required.
2. Wet Locations: Comply with NEC and NEMA requirements for wet locations. Enclosures in wet locations shall comply with NEMA 4X unless specified otherwise.
3. Corrosive Locations: Comply with NEC and NEMA requirements for corrosive locations. Enclosures in corrosive locations shall conform to NEMA 4X requirements unless specified otherwise.
4. Hazardous Locations: Comply with NEC requirements for the Class and Division designated.
5. Dusty Locations: Indoor areas not designated as hazardous, corrosive, or wet are dusty locations. Comply with NEC and NEMA 12 requirements unless specified otherwise.
6. Outdoor locations shall be considered a corrosive location.

D. Conduit and Cable Location Permissions:

1. Outdoor areas:	PVC coated RMC.
2. Stud bays and above suspended ceiling:	Type MC cable or EMT conduit.
3. Exposed indoor areas:	EMT.

1.2 QUALITY ASSURANCE

A. Qualifications:
1. Electrical Contractor:
   a. Electrical Subcontractor shall have not less than five years' experience installing electrical systems of the types required for the Project.
   b. Electrical Subcontractor shall possess a valid electricians' and contractors' license in the jurisdiction where the Site is located.
   c. Submit the following information for not less than three successful, completed projects: project name and location; year completed; name and contact information for: prime contractor for whom electrical Subcontractor worked, project owner, and project engineer or architect, including addresses and telephone numbers.

B. Component Supply and Compatibility:
   1. Materials and equipment similar to each other shall be from the same manufacturer for uniformity.

C. Regulatory Requirements:
   1. Permits: Refer to the General Conditions, Supplementary Conditions, and other parts of the Contract Documents for responsibilities relative to obtaining and paying for permits, licenses, and inspection fees.
   2. Codes:
      a. 2020~~2017~~ edition of the National Electrical Code (NEC-2020~~2017~~).
      b. 2021~~2018~~ Virginia Uniform Statewide Building Code (VUSBC).
      c. Prince Willam County Building Code Interpretations.
      d. All applicable local codes.

1.3 SUBMITTALS

A. General:
   1. To the extent practical, submit Shop Drawings and other CONTRACTOR submittals for each Specification Section. Do not furnish partial submittals.
   2. Review of equipment submittals does not relieve CONTRACTOR of responsibility for providing complete and successfully operating systems.
   3. Shop Drawings and other CONTRACTOR submittals shall be submitted in Adobe PDF format and shall be searchable. Drawings included as part of the submittal shall also be searchable.

B. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. List of components including manufacturer’s name and catalog number (or part number) for each.
   2. Product Data:
      a. Manufacturer's name and product designation or catalog number.
      b. Electrical ratings.
      c. Manufacturer’s technical data and specifications.
      d. Manufacturer’s indication of compliance with applicable reference standards.
   3. Test Procedures: Proposed testing procedures and testing limitations for source quality control testing and field quality control testing.

C. Informational Submittals: Submit the following:
   1. Manufacturer’s Instructions:
      a. Installation data and instructions.
      b. Instructions for handling, starting up, and troubleshooting.
   2. Source Quality Control Submittals: Results for required shop testing.
   3. Field Quality Control Submittals: Results for required field testing.
   4. Qualifications:
      a. Electrical Contractor.

D. Closeout Submittals: Submit the following:
    1. Record Documentation:
        a. System Record Drawings: Include the following:
            1) Actual, in-place conduit and cable layouts with schedule of conduit sizes and number, and size of conductors.
            2) Layouts of the power distribution system.
            3) As-Built Electrical Drawings.
        b. Record documents shall indicate final equipment and field installation information.

PART 2 PRODUCTS

2.1 SYSTEM PERFORMANCE

A. Performance Criteria:
    1. Electrical equipment shall be capable of operating successfully at full-rated load, without failure, with ambient outside air temperature of -30 degrees F to 104 degrees F and an elevation of 850 feet above mean sea level.
    2. Unless specified otherwise, electrical equipment shall have ratings based on 75 degrees C terminations for Low Voltage equipment and 90 degrees C terminations for Medium Voltage equipment.

B. Testing Laboratory Labels: Electrical material and equipment shall bear the label of Underwriters' Laboratories, Inc., or other nationally recognized, independent testing laboratory, where standards have been established and label service applies and approved by the Authority Having Jurisdiction.

PART 3 EXECUTION

3.1 INSPECTION

A. Examine conditions under which Work will be performed and notify ENGINEER in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with Work until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. General:
    1. Install materials and equipment in accordance with the Contract Documents, Laws, and Regulations, approved (and accepted, as applicable) Shop Drawings and other CONTRACTOR submittals, and manufacturer’s recommendations.
    2. Provide tools and equipment required to trace circuits necessary for proper execution of the Work.
    3. Define and identify all wiring, circuit terminations, and equipment to be modified to ensure proper interface of components. The Contract Price includes all costs associated with field services specified for a complete and functional system.

B. Staging, Sequencing, and Coordination with Existing Facilities:
   1. Schedule, sequence, and install materials and equipment in to maintain Owner's operations.
   2. Perform the Work in a manner that will not interfere with the existing equipment and facilities or cause interruption of the functions of the Site, unless specified otherwise or otherwise allowed by OWNER.
   3. OWNER's approval is required when operation of existing facilities and Site is to be disrupted due to CONTRACTOR's activity.
   4. Where the Work ties in with existing installations, take precautions and provide safeguards in connecting the Work to existing operating circuits to prevent interruption to existing circuits. Connection of Work to existing circuits shall be performed in the presence of OWNER and ENGINEER.
   5. Interruptions of existing circuits not addressed in other sections of the contract documents, shall be coordinated with the OWNER who will determine the length of time a circuit may be de-energized to maintain the OWNER's processes in dependable and safe operation.

3.3 FIELD QUALITY CONTROL

A. Field Quality Control – General:
   1. Perform field quality control for electrical Work in accordance with the Contract Documents.

B. Site Tests:
   1. Prior to requesting certificate of Substantial Completion, demonstrate to ENGINEER that electrical systems and electrically-operated equipment installed or modified under the Contract operates in accordance with the Contract Documents and operates as required
   2. Perform the following operational tests on electrical systems:
      a. Operate power circuits to verify proper operation and connection to electrical systems materials and equipment.
      b. Operate receptacle devices to verify proper operation and connections.
   3. Prepare and submit report on the equipment demonstration and operating field quality control tests. Report shall include complete information on the tests performed and results.

+ + END OF SECTION + +

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