

Addendum No. 3

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Delaware Army National Guard Stern Armory/Readiness Center – Interior Renovations FY 18 Wilmington, Delaware OMB/DFM Contract No.: MC7601000098

DEARNG Contract No.:2018-08

Tt Project No. 200-76984-18002

Addendum No. 03 to Drawings and Project Manual July 27, 2018

To: ALL BIDDERS

This ADDENDUM forms a part of the BIDDING AND CONTRACT DOCUMENTS and modifies the following documents:

Original DRAWINGS dated July 11, 2018 PROJECT MANUAL dated July 11, 2018

Acknowledge receipt of the ADDENDUM in the space provided on the FORM OF PROPOSAL

This ADDENDUM consists of four (4) pages and the following:

3.1 GENERAL ADMNISTRATIVE DISCUSSION

- A. Critical Dates NO CHANGE from Addendum 2:
 - 1. Bid Due Date: as advertised: Tuesday, July 31, 2018 by 2:00pm.
- B. BAS Controls: Following up on the BAS Controls contract as discussed in the Pre-construction meeting and Addendum 1) Attached is the proposal from the mandated BAS Controls contractor, Siemens. See attachments and item 2.4A 1 below for updated Bid Form.

3.2 CHANGES to ADDENDUM No. 2

- A. DRAWING MODIFICATIONS
 - 1. Work Area Key Plan
 - a. Paragraph 2.3 B (sheet A-101), subparagraphs 3(b)):
 - b. CHANGE the entire text of this item to the following wording: CHANGE the floor finish symbol in the Drill Hall rm. 101 from "E" to "E1".
 Note this reference change establishes, that the finish symbol (in the Room Finished Legend) for Epoxy

Floor Paint (Drill Hall) shall be "E1".

2. Paragraph 2.3 I (P-101 Plumbing Plans-Demo and New Work): **CHANGE** sketch number to SKFP-101. See additional Drawing Modifications to sheet P-101 below.

3.3 PROJECT MANUAL MODIFICATIONS

- A. Section 00 41 13 Bid Form
 - 1. **REPLACE** Section 00 41 13 Bid Form in its entirety (see attachment).
- B. Section 09 51 23
 - Paragraph 2.2 Acoustical Ceiling Panels and Metal Suspension Systems
 SWITCH the tile product descriptions between Subparagraph A 1 & A2 and CHANGE the Ceiling Type symbol in Subparagraph A2 from 'C" to "B1."
 - a. Subparagraph A1 to read as follows: Ceiling Type "A" (Ceiling Plan Legend Drawing A-102) Armstrong 2x2 suspended system "Ultima" panel no 1910, Prelude 15/16 suspension system. Color white for panel and suspension system.
 - b. Subparagraph A2 to read as follows: Ceiling Type "B1" (Ceiling Plan Legend Drawing A-102): Armstrong, 2x2 suspended system "Ceramaguard Fine Fissured" panel no 605, Prelude Plus XL Fire Guard 15/16 suspension system, Color white for panel and suspension system.
- C. Section 07 84 13 Penetration Firestopping
 - 1. **ADD** Spec Section in its entirety.
- D. Section 08700 Door Hardware
 - 1. Paragraph 3.3 Door Hardware Sets Schedule
 - a. All sets: **CHANGE** cores to BEST Locks
 - b. **ADD** the following doors to Hardware Set 3: 101A and 101B
 - c. **ADD** the following Hardware Set no. 4

HARDWARE SET 4 Doors: 101B, 107 Each to have:

| 3ea. | Hinges | FBB179 4.5x 4.5 652 | ST | |
|------|-------------|---------------------|------|------|
| 1ea. | Deadlock | 48HR PATD | 626 | BEST |
| 1ea. | Door Pull | 1013-3 | 630 | TR |
| 1ea. | Push Plate | 1001-3 | 630 | TR |
| 1ea. | Door Closer | CLD 4550 | 689 | ST |
| 1ea. | Kick Plate | K0050 10" x 2" LDW | 630 | TR |
| 1ea. | Mop Plate | KM050 4" x 2" LDW | 630 | TR |
| 1ea. | Wall stop | 1270CX | 630 | TR |
| 3ea. | Silencers | 1229A | Gray | TR |

3.4 **DRAWING MODIFICATIONS**

- A. G-002 General Abbreviations & Legend
 - 1. Sheet Title CHANGE sheet title to the following "Abbreviations, Symbol Legend & Code Data".
 - 2. Code Notes, Paragraph 4: **CHANGE** wording to the following: "Automatic Sprinkler System Throughout Building"
- B. A-102
 - 1. **CHANGE** the high ceiling height in Kitchenette room 107 from 15'-6" to 9'-9".
 - 2. Ceiling Finish **CLARIFICATION** Drill Hall 101: **ADD** the following scope clarification statement to the "B2" finish symbol tag on the Ceiling Plan Legend for this space: ".....the contractor shall protect the red sprinkler pipes from the new paint planned for the walls and the underside of the roof system.

- C. A-401 Enlarged Floor Plans & Detail
 - 1. Detail 8/A-401; Shower Pan/Wall/Section
 - a. See attached Sketch SKA401 for modifications to Handicap Shower Base.
- D. A-601 Schedules and Details
 - 1. Door Schedule
 - a. **DELETE** door number 100B
 - 2. CHANGES and CLARIFICATIONS to DOOR FRAME DIMENSIONS:
 - a. **CLARIFICATION** All New Hollow Metal Door frames in Masonry walls shall be 9" deep.
 - CHANGES to the door Frames dimensions in Drill Hall 101 interior doors: 101A, 101B, 101C, 101D, 103A, 103B, 101E, 101F, 101G
 - 1. The masonry rough opening (MO) for the interior single swing doors is 42" W x 88" H, and for the one double door 101B is 78" W x 88" H. In order to accommodate these MO's, the Jamb face dimensions for these frames shall **CHANGE** from 2" to 3".
- E. M-101 Overall Mech. Piping Floor Plan New Work
 - 1. Detail 2- Enlarged Boiler Room Floor Plan Mech. Piping New Work: Heating Water Return Header shall be 4" diameter pipe:
 - 2. Detail 3- New Boiler Section 1: After the reducer to pump and the increaser from the pumps, the heating piping risers shall be 4".
- F. M-501 Mech. Details
 - 1. Multiple Boiler Piping detail
 - a. Main HWS and HWR lines shall be 4" diameter.
 - b. Branch Pipes to and from the boilers shall be 3" diameter.
- G. P-101 Plumbing Plans Demo and New Work
 - 1. See modifications to details 2 and 4 on attached sketch SKP-101.
- H. E-601
 - 1. **DELETE** Original Sheet E-601 and **REPLACE** with Revised Sheet E-601 attached to this addendum with the following changes.
 - a. New Work Single Line Diagram
 - 1. **DELETE** Panel "P1A" entirely including feeder from Panel "P1".
 - 2. **ADD** New Panel "MDP1" with new feeder from Panel "MDP"
 - 3. **PROVIDE** a new 350A Circuit Breaker in Panel "MDP" to feed New Panel "MDP1."
 - 4. Existing Panels "LP-A", "LP-C" & "#9A" shall be fed from New Panel "MDP1" via new junction boxes in the boiler room to connect to respective removed existing feeders from Panel "DP".
- I. E-602
 - 1. Electrical Schedules
 - a. **DELETE** Original Sheet E-602 and **REPLACE** with Revised Sheet E-602 attached to this addendum with the following changes.
 - 1. **ADD** Revised Schedule Panels for "MDP" and "DP."
 - 2. **REPLACE** Revised Schedule for "KP."

- 3. **ADD** New Schedule for New Panel "MDP1." Panel KP to be furnished by Owner for installation by Electrical Contractor.
- 4. **DELETE** Schedule for "P1A."

3.5 **QUESTIONS/CLARIFICATIONS:**

Question 1: Please clarify the extent of the vehicle ramp replacement in Addendum 2 Paragraph 2.3 Drawing

Modifications, #3, ADD Key Note 14

Response: The design intent is to replace the concrete apron that butts up to the overhead door, not the

asphalt paving that leads from this apron to the parking area. The approximate size of this apron is 3' Deep (out from building) x 12' long (parallel to the wall). The low point of the apron (where it meets the asphalt) is approximately 8" below the finished floor of the Drill Hall. Base your

removal on a 12" of thickness, and include new 6" deep of crushed stone base

Question 2: In order to maintain water flow through the heating HW loop, shouldn't the heating coil

connections have 3-way valves in lieu of the 2 way valves shown?

Response: Since this is Variable Flow System, waterflow only needs to be maintained when the VFD's are

at their minimum position before shutting down. This can be accomplished in 2 ways; Either two (2) 2-way valves will be come 3-way valves or the 2-way valves at the Unit Heaters will remain

open while the fans stay de-energized. Siemens will finalize this decision.

Question 3: Is the GC supposed to provide the sprinkler contractor, or is the sprinkler contractor provided and

GC to coordinate?

Response: GC to include sprinkler work and contractor in their scope of work.

Question 4: What is the extent of the balancing?

Response: The balancing scope of work is fully outlined on drawings M-102 and M-601.

Question 5: Is the GC responsible for suppling the acoustical tile for the new Suspended Acoustical Tile

ceilings (SAT).

Response: Yes, the GC shall be responsible for suppling the entire SAT ceiling system for Rooms 114 &

107

Question 6: Please clarify the BI ceiling tile product.

Response: P1.6 shall be the same as P1.4 on the partition Schedule (A-601), except in lieu of 3 5/8" metal

studs, provide 18 GA 6" metal studs.

Question 7: Please clarify fire proofing

Response: Yes, HV-1 is the only location for the steel support system shown in S-101.

ATTACHMENTS:

Spec Section 00 41 13 – Bid Form -Revised Spec Section 07 84 13 – Penetration Firestopping BAS Proposal (Siemens) SKA-401 SKP-101 E-601 E-602

END OF ADDENDUM No. 3

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DELAWARE ARMY NATIONAL GUARD INTERIOR RENOVATIONS – FY18' AT THE STERN ARMORY/READINESS CENTER 1420 NEWPORT GAP PIKE WILMINGTON, DE 19804 OMB/DFM PROJECT NO.: MC7601000098 DEARNG CONTRACT NO.: 2018-08

BID FORM

Addendum 3

| For Bids Due: | (DATE) | To: | | (OWNER) | |
|---|---|--|---|--|------------------------|
| | | <u>-</u> | | | |
| Name of Bidder: | | | | | |
| Delaware Business L (<u>A copy of Bidder's I</u> | icense No.: Delaware Business License r | nust be attached to | Taxpayer I this form.) | D No.: | |
| (Other License Nos.) | : | | | | |
| Phone No.: () | | Fax | No.: (| | _ |
| therewith, that he has and that his bid is bas proposes and agrees t work described by the | visited the site and has familiated upon the materials, system o provide all labor, materials aforesaid documents for the | iarized himself with to ms and equipment de s, plant, equipment, so lump sum itemized b | he local con- scribed in th upplies, tran | uments and that this bid is made in a ditions under which the Work is to be ne Bidding Documents without exceptionsport and other facilities required to expect the second | performed, ion, hereby |
| \$ |) | | | | |
| (\$ |) | | | | |
| ALTERNATES | | | | | |
| | form to applicable project span "ADD" or "DEDUCT" and | | | specifications for a complete descript out part that does not apply. | ion of the |
| | | | | Door, accessories and all associated elegraph A, Subparagraph 1. | ectrical |
| Add/Deduct: | | | | (\$ |) |

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WILMINGTON, DE 19804
OMB/DFM PROJECT NO.: MC7601000098
DEARNG CONTRACT NO.: 2018-08

ALLOWANCE CERTIFICATION

Allowance Certification No. 1:

| We/I confirm that a Contingency allowance in the amount of according to Owner's direction. | f \$15,000.00 has been included in the Contractor's Base Bid price for use |
|--|--|
| \$ | (Date and Initial) |
| | |
| Allowance Certification No. 2 | |
| We/I confirm that an allowance in the amount of \$ | has been included for the BAS Controls. The cost from the BAS price their cost for their time and Mark-ups for Supervision and ontractor's Base Bid price. |

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OMB/DFM PROJECT NO.: MC760100009 DEARNG CONTRACT NO.: 2018-08 Addendum 3

BID FORM

| I/We acknowledge Addendums numbered and the | e price(s) submitted include any cost/schedule impact they may have. |
|---|---|
| | ty (30) days from the date of opening of bids (60 days for School Districts bide by the Bid Security forfeiture provisions. Bid Security is attached to |
| The Owner shall have the right to reject any or all bids, and to | o waive any informality or irregularity in any bid received. |
| This bid is based upon work being accomplished by the Sub- | Contractors named on the list attached to this bid. |
| Should I/We be awarded this contract, I/We pledge to achieve the Notice to Proceed. | e substantial completion of all the work withincalendar days of |
| laws; that no legal requirement has been or shall be violated | lied and shall comply with all requirements of local, state, and national in making or accepting this bid, in awarding the contract to him or in the firm; that he has not, directly or indirectly, entered into any agreement, traint of free competitive bidding. |
| Upon receipt of written notice of the acceptance of this Bid, t in the required form and deliver the Contract Bonds, and Insu | the Bidder shall, within twenty (20) calendar days, execute the agreement urance Certificates, required by the Contract Documents. |
| I am / We are an Individual / a Partnership / a Corporation | |
| By(Individual's / General Partner's / Corporate Name) | Trading as |
| (Individual's / General Partner's / Corporate Name) | |
| (State of Corporation) | _ |
| Business Address: | |
| | |
| | |
| Witness: | By: (Authorized Signature) |
| (SEAL) | |
| | (Title) Date: |
| <u>ATTACHMENTS</u> | |

Sub-Contractor List Non-Collusion Statement Affidavit of Employee Drug Testing Program Bid Security (Others as Required by Project Manuals)

Tetra Tech BID FORM 200-76984-18002 00 41 13 -3

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BID FORM

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 6962 (d)(10)b <u>Delaware Code</u>, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor **must** be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the *Owner*, it is **required** that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work. This form must be filled out completely with no additions or deletions.

| Subco | ntractor Category | <u>Subcontractor</u> | Address (City & State) | Subcontractors tax payer ID # or Delaware Business license # |
|-------|-------------------|----------------------|------------------------|---|
| 1. | Mechanical | - | | |
| 2. | Electrical | | | |
| 5. | Masonry | | | |
| 6. | Carpentry | | | |
| 7. | Plumbing | | | |
| 8. | BAS Controls | | | |

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Addendum 3

BID FORM

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date (to the Office of Management and Budget, Division of Facilities Management).

All the terms and conditions of MC7601000098 have been thoroughly examined and are understood.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

DELAWARE ARMY NATIONAL GUARD INTERIOR RENOVATIONS – FY18' AT THE STERN ARMORY/READINESS CENTER 1420 NEWPORT GAP PIKE WILMINGTON, DE 19804 OMB/DFM PROJECT NO.: MC7601000098 DEARNG CONTRACT NO.: 2018-08

AFFIDAVIT OF EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors that complies with this regulation:

| Contractor/Subcontractor Name: | | |
|---|-----------------|----|
| Contractor/Subcontractor Address: | | |
| | . <u>.</u> | |
| | | |
| Authorized Representative (typed or printed): | | |
| Authorized Representative (signature): | | |
| Title: | | |
| | | |
| Sworn to and Subscribed before me this | day of | 20 |
| My Commission expires | . NOTARY PUBLIC | |

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

SECTION 07 84 13

PENETRATION FIRESTOPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Penetrations in fire-resistance-rated walls.
- 2. Penetrations in horizontal assemblies.
- 3. Penetrations in smoke barriers.

1.3 SUBMITTALS, GENERAL

A. General: Submit all action submittals (except Samples for Verification) and informational submittals required by this Section concurrently.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Product Schedule: For each penetration firestopping system. Include location and design designation of qualified testing and inspecting agency.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Installer Certificates: From Installer indicating penetration firestopping has been installed in compliance with requirements and manufacturer's written recommendations.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for penetration firestopping.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A firm experienced in installing penetration firestopping similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful performance. Qualifications include having the necessary experience, staff, and training to install manufacturer's products per specified requirements. Manufacturer's willingness to sell its penetration firestopping products to Contractor or to Installer engaged by Contractor does not in itself confer qualification on buyer.
- B. Fire-Test-Response Characteristics: Penetration firestopping shall comply with the following requirements:
 - 1. Penetration firestopping tests are performed by a qualified testing agency acceptable to authorities having jurisdiction.
 - 2. Penetration firestopping is identical to those tested per testing standard referenced in "Penetration Firestopping" Article. Provide rated systems complying with the following requirements:
 - a. Penetration firestopping products bear classification marking of qualified testing and inspecting agency.
 - b. Classification markings on penetration firestopping correspond to designations listed by the following:
 - 1) UL in its "Fire Resistance Directory."
- C. Preinstallation Conference: Conduct conference at Project site.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install penetration firestopping when ambient or substrate temperatures are outside limits permitted by penetration firestopping manufacturers or when substrates are wet because of rain, frost, condensation, or other causes.
- B. Install and cure penetration firestopping per manufacturer's written instructions using natural means of ventilations or, where this is inadequate, forced-air circulation.

1.8 COORDINATION

- A. Coordinate construction of openings and penetrating items to ensure that penetration firestopping is installed according to specified requirements.
- B. Coordinate sizing of sleeves, openings, core-drilled holes, or cut openings to accommodate penetration firestopping.
- C. Notify Owner's testing agency at least seven days in advance of penetration firestopping installations; confirm dates and times on day preceding each series of installations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. A/D Fire Protection Systems Inc.
 - 2. Grace Construction Products.
 - 3. Hilti, Inc.
 - 4. Johns Manville.
 - 5. NUCO Inc.
 - 6. RectorSeal Corporation.
 - 7. Specified Technologies Inc.
 - 8. 3M Fire Protection Products.
 - 9. Tremco, Inc.; Tremco Fire Protection Systems Group.

2.2 PENETRATION FIRESTOPPING

- A. Provide penetration firestopping that is produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated. Penetration firestopping systems shall be compatible with one another, with the substrates forming openings, and with penetrating items if any.
- B. Penetrations in Fire-Resistance-Rated Walls: Provide penetration firestopping with ratings determined per ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg.
 - 1. Fire-resistance-rated walls include fire walls, fire-barrier walls, smoke-barrier walls, and fire partitions, as indicated.
 - 2. F-Rating: Not less than the fire-resistance rating of constructions penetrated.
- C. Penetrations in Horizontal Assemblies: Provide penetration firestopping with ratings determined per ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg.
 - 1. Horizontal assemblies include floors, floor/ceiling assemblies, and ceiling membranes of roof/ceiling assemblies, as indicated.
 - 2. F-Rating: At least 1 hour, but not less than the fire-resistance rating of constructions penetrated.
 - 3. T-Rating: At least 1 hour, but not less than the fire-resistance rating of constructions penetrated except for floor penetrations within the cavity of a wall.
- D. Penetrations in Smoke Barriers: Provide penetration firestopping with ratings determined per UL 1479.
 - 1. L-Rating: Not exceeding 5.0 cfm/sq. ft. of penetration opening at 0.30-inch wg at both ambient and elevated temperatures.

- E. Exposed Penetration Firestopping: Provide products with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, as determined per ASTM E 84.
- F. Low-Emitting Materials: Penetration firestopping sealants and sealant primers shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- G. Accessories: Provide components for each penetration firestopping system that are needed to install fill materials and to maintain ratings required. Use only those components specified by penetration firestopping manufacturer and approved by qualified testing and inspecting agency for firestopping indicated.
 - 1. Permanent forming/damming/backing materials, including the following:
 - a. Slag-wool-fiber or rock-wool-fiber insulation.
 - b. Sealants used in combination with other forming/damming/backing materials to prevent leakage of fill materials in liquid state.
 - c. Fire-rated form board.
 - d. Fillers for sealants.
 - 2. Temporary forming materials.
 - 3. Substrate primers.
 - 4. Collars.
 - 5. Steel sleeves.

2.3 FILL MATERIALS

- A. Cast-in-Place Firestop Devices: Factory-assembled devices for use in cast-in-place concrete floors and consisting of an outer metallic sleeve lined with an intumescent strip, a radial extended flange attached to one end of the sleeve for fastening to concrete formwork, and a neoprene gasket.
- B. Latex Sealants: Single-component latex formulations that do not re-emulsify after cure during exposure to moisture.
- C. Firestop Devices: Factory-assembled collars formed from galvanized steel and lined with intumescent material sized to fit specific diameter of penetrant.
- D. Intumescent Composite Sheets: Rigid panels consisting of aluminum-foil-faced elastomeric sheet bonded to galvanized-steel sheet.
- E. Intumescent Putties: Nonhardening dielectric, water-resistant putties containing no solvents, inorganic fibers, or silicone compounds.
- F. Intumescent Wrap Strips: Single-component intumescent elastomeric sheets with aluminum foil on one side.

DEARNG STERN ARMORY/READINESS CENTER WILMINGTON, DELAWARE

- G. Mortars: Prepackaged dry mixes consisting of a blend of inorganic binders, hydraulic cement, fillers, and lightweight aggregate formulated for mixing with water at Project site to form a nonshrinking, homogeneous mortar.
- H. Pillows/Bags: Reusable heat-expanding pillows/bags consisting of glass-fiber cloth cases filled with a combination of mineral-fiber, water-insoluble expansion agents, and fire-retardant additives. Where exposed, cover openings with steel-reinforcing wire mesh to protect pillows/bags from being easily removed.
- I. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.
- J. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below:
 - 1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces, and nonsag formulation for openings in vertical and sloped surfaces, unless indicated firestopping limits use of nonsag grade for both opening conditions.

2.4 MIXING

A. For those products requiring mixing before application, comply with penetration firestopping manufacturer's written instructions for accurate proportioning of materials, water (if required), type of mixing equipment, selection of mixer speeds, mixing containers, mixing time, and other items or procedures needed to produce products of uniform quality with optimum performance characteristics for application indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Beginning installation constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Surface Cleaning: Clean out openings immediately before installing penetration firestopping to comply with manufacturer's written instructions and with the following requirements:
 - 1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of penetration firestopping.

- 2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with penetration firestopping. Remove loose particles remaining from cleaning operation.
- 3. Remove laitance and form-release agents from concrete.
- B. Priming: Prime substrates where recommended in writing by manufacturer using that manufacturer's recommended products and methods. Confine primers to areas of bond; do not allow spillage and migration onto exposed surfaces.
- C. Masking Tape: Use masking tape to prevent penetration firestopping from contacting adjoining surfaces that will remain exposed on completion of the Work and that would otherwise be permanently stained or damaged by such contact or by cleaning methods used to remove stains. Remove tape as soon as possible without disturbing firestopping's seal with substrates.

3.3 INSTALLATION

- A. General: Install penetration firestopping to comply with manufacturer's written installation instructions and published drawings for products and applications indicated.
- B. Install forming materials and other accessories of types required to support fill materials during their application and in the position needed to produce cross-sectional shapes and depths required to achieve fire ratings indicated.
 - 1. After installing fill materials and allowing them to fully cure, remove combustible forming materials and other accessories not indicated as permanent components of firestopping.
- C. Install fill materials for firestopping by proven techniques to produce the following results:
 - 1. Fill voids and cavities formed by openings, forming materials, accessories, and penetrating items as required to achieve fire-resistance ratings indicated.
 - 2. Apply materials so they contact and adhere to substrates formed by openings and penetrating items.
 - 3. For fill materials that will remain exposed after completing the Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.

3.4 IDENTIFICATION

- A. Identify penetration firestopping with preprinted metal or plastic labels. Attach labels permanently to surfaces adjacent to and within 6 inches of firestopping edge so labels will be visible to anyone seeking to remove penetrating items or firestopping. Use mechanical fasteners or self-adhering-type labels with adhesives capable of permanently bonding labels to surfaces on which labels are placed. Include the following information on labels:
 - 1. The words "Warning Penetration Firestopping Do Not Disturb. Notify Building Management of Any Damage."
 - 2. Contractor's name, address, and phone number.
 - 3. Designation of applicable testing and inspecting agency.
 - 4. Date of installation.

- 5. Manufacturer's name.
- 6. Installer's name.

3.5 FIELD QUALITY CONTROL

- A. Owner will engage a qualified testing agency to perform tests and inspections.
- B. Where deficiencies are found or penetration firestopping is damaged or removed because of testing, repair or replace penetration firestopping to comply with requirements.
- C. Proceed with enclosing penetration firestopping with other construction only after inspection reports are issued and installations comply with requirements.

3.6 CLEANING AND PROTECTION

- A. Clean off excess fill materials adjacent to openings as the Work progresses by methods and with cleaning materials that are approved in writing by penetration firestopping manufacturers and that do not damage materials in which openings occur.
- B. Provide final protection and maintain conditions during and after installation that ensure that penetration firestopping is without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, immediately cut out and remove damaged or deteriorated penetration firestopping and install new materials to produce systems complying with specified requirements.

3.7 PENETRATION FIRESTOPPING SCHEDULE

- A. Where UL-classified systems are indicated, they refer to system numbers in UL's "Fire Resistance Directory" under product Category XHEZ.
- B. For each location where a fire-resistance-rated floor or wall assembly is penetrated, provide a UL-listed penetration firestopping system selected from the applicable UL number range listed in the following Schedule that complies with this Section and that is suitable for the penetration conditions indicated for the Project.

PENETRATION FIRESTOPPING SCHEDULE FIRESTOPPING SYSTEMS ARE LISTED USING THE ALPHA-ALPHA-NUMERIC IDENTIFICATION SYSTEM PUBLISHED IN UL'S FIRE RESISTANCE DIRECTORY, VOLS. 2A - 2B

| UL'S FIRE RESISTANCE DIRECTORY, VOLS. 2A - 2B | | | | | | | | |
|---|---|---|-------------------|---|---|--|--------------------|-----------------------------|
| | | | | CONSTR | UCTION | | | |
| | | DOR PENETR T ALPHA COM | | | | ALPHA COM | | |
| TYPE OF PENETRANT | CONCRETE FLOORS WITH A MINIMUM THICKNESS LESS THAN OR EQUAL TO 5 INCHES | CONCRETE FLOORS WITH A MINIMUM THICKNESS OF MORE THAN 5 INCHES | FRAMED FLOORS | FLOOR- CEILING ASSEMBLIES CONSISTING OF CONCRETE WITH MEMBRANE PROTECTION | CONCRETE OR MASONRY WALLS WITH A MINIMUM THICKNESS LESS THAN OR EQUAL TO 8 INCHES | CONCRETE OR MASONRY WALLS WITH A MINIMUM THICKNESS OF MORE THAN 8 INCHES | FRAMED WALLS | COMPOSITE PANEL WALLS |
| NO PENETRATING ITEMS | C-AJ-0001- 0999 or F-A-0001- 0999 | C-BJ-0001- 0999 or F-B-0001- 0999 | F-C-1001- 1999 | | C-AJ-0001- 0999, C-BJ-0001- 0999, or W-J-0001- 0999 | | W-L-000-1- 0999 | |
| METALLIC PIPE, CONDUIT, OR TUBING | C-AJ-1001- 1999 or F-A-1001- 1999 | C-BJ-1001- 1999, C-BK-1001- 1999, or F-B-1001- 1999 | F-C-1001- 1999 | F-E-1001- 1999 | C-AJ-1001- 1999, C-BJ-1001- 1999, or W-J-1001- 1999 | C-BK-1001- 1999 or W-K-1001- 1999 | W-L-1001- 1999 | W-N-1001- 1999 |
| NONMETALLIC PIPE, CONDUIT, OR TUBING | C-AJ-2001- 2999 or F-A-2001- 2999 | C-BJ-2001- 2999, C-BK-2001- 2999, or F-B-2001- 2999 | F-C-2001- 2999 | F-E-2001- 2999 | C-AJ-2001- 2999, C-BJ-2001- 2999, or W-J-2001- 2999 | C-BK-2001- 2999 or W-K-2001- 2999 | W-L-2001- 2999 | W-N-2001- 2999 |
| ELECTRICAL CABLES | C-AJ-3001- 3999 or F-A-3001- 3999 | C-BJ-3001- 3999, C-BK-3001- 3999, or F-B-3001- 3999 | F-C-3001- 3999 | F-E-3001- 3999 | C-AJ-3001- 3999, C-BJ-3001- 3999, or W-J-3001- 3999 | C-BK-3001- 3999 or WK-3001- 3999 | W-L-3001- 3999 | |
| CABLE TRAYS WITH ELECTRICAL CABLES | C-AJ-4001- 4999 or F-A-4001- 4999 | C-BJ-4001- 4999 or F-B-4001- 4999 | | | C-AJ-4001- 4999, C-BJ-4001- 4999, or W-J-4001- 4999 | W-K-4001- 4999 | W-L-4001- 4999 | |
| INSULATED PIPES | C-AJ-5001- 5999 or F-A-5001- 5999 | C-BJ-5001- 5999, C-BK-5001- 5999, or F-B-5001- 5999 | F-C-5001- 5999 | F-E-5001- 5999 | C-AJ-5001- 5999, C-BJ-5001- 5999, or W-J-5001- 5999 | C-BK-5001- 5999 | W-L-5001- 5999 | W-N-5001- 5999 |

INTERIOR RENOVATIONS - FY18' MC7601000098

| MISCELLANEOUS ELECTRICAL PENETRANTS | C-AJ-6001- 6999 or F-A-6001- 6999 | C-BJ-6001- 6999 | | | C-AJ-6001- 6999, C-BJ-6001- 6999, or W-BJ-6001- 6999 | W-L-6001- 6999 | |
|---|---|---|-------------------|-------------------|--|-------------------|-------------------|
| MISCELLANEOUS MECHANICAL PENETRANTS | C-AJ-7001- 7999 or F-A-7001- 7999 | C-BJ-7001- 7999 or F-B-7001- 7999 | F-C-7001- 7999 | F-E-7001- 7999 | C-AJ-7001- 7999, C-BJ-7001- 7999, or W-J-7001- 7999 | W-L-7001- 7999 | W-N-7001- 7999 |
| GROUPINGS OF PENETRATIONS | C-AJ-8001- 8999 or F-A-8001- 8999 | C-BJ-8001- 8999 or F-B-8001- 8999 | F-C-8001- 8999 | F-E-8001- 8999 | C-AJ-8001- 8999, C-BJ-8001- 8999, or W-J-8001- 8999 | W-L-8001- 8999 | |
| | | | | | | | |

END OF SECTION

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Siemens Industry, Inc. Building Technologies Division

PROPOSAL

| Att: Mr. | Scott Parlow | | Estimate # a47740c4e38e |
|------------|---|-------------------------------|---|
| ■ Tetra Te | ech | | July 25, 2018 |
| • | | • | Rev.1 |
| Project: | Delaware Army National Guard – S | tern Readine | ess Center HVAC Renovations |
| Architect: | | | |
| Engineer: | Tetra Tech | | |
| Proposal: | | plans (med | an extension to the Desigo CC building automation chanical only) and specifications 7/11/2018 IFB & |
| Price: | Refer to page 3 for pricing | | |
| Remarks: | Proposal does not include any p Our price does not include inclu Our price includes 2 year warran Siemens will send submittals 2-3 | des sales tax nty on Sieme | k. ens Material and workmanship. |
| | | | al Submitted: s Industry Inc. |
| | | Ву: | Chad Barron |
| | | Title: | Account Executive |
| | | | |

Date:

July 25, 2018

Siemens Industry, Inc. Building Technologies Division

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|---------|------------------------------|-------------|-----------------|
| | Stern HVAC Renovations | Date | August 31 ,2017 |

SCOPE OF WORK:

Siemens will furnish and install an extension of the Desigo CC building automation system.

- 1. Siemens will provide controls for exhaust fans (Typical of 4):
 - a. Furnish, install and wire low voltage wiring to VFD. Power wiring by job EC. Start up by Siemens. VFD furnished by Siemens. VFD installed by Siemens.
 - b. Furnish, install and wire a damper actuator. Damper furnished by Siemens and installed by others.
- 2. Siemens will provide the following controls for the packaged RTU's with RHC's: Typical of 5
 - a. Furnish, install and wire a PXC Controller. Network drop by Siemens.
 - b. Furnish, install and wire an outside air damper actuator. Damper furnished by others.
 - c. Furnish, install and wire a return air damper actuator. Damper furnished by others.
 - d. Furnish, install and wire a low temperature detector near the reheat coil.
 - e. Furnish, install and wire a DX Coil discharge air temperature sensor.
 - f. Siemens will wire to the factory DX Terminals.
 - g. Furnish, install and wire a supply air temperature sensor.
 - h. Furnish, install and wire a return air temperature/CO2 sensor.
 - i. Furnish, install and wire a mixed air temperature sensor.
 - j. Furnish, install and wire a current switch on the supply fan.
 - k. Furnish, install and wire a relay on the supply fan.
 - I. Siemens will wire the supply smoke detector alarm contacts. Installation and power wiring by others.
 - m. Furnish, install and wire a room humidity/temperature sensor. Typical of 2.
 - n. Furnish and wire a reheat coil valve. Installed by others.
 - o. Furnish, install and wire a room temperature/humidity sensor.
- 3. Siemens will provide the following controls for the H&V Unit. (Typical of 1)
 - a. Furnish, install and wire a PXC Controller. Network drop by Siemens.
 - b. Furnish, install and wire an outside air damper actuator. Damper furnished by others.
 - c. Furnish, install and wire a return air damper actuator. Damper furnished by others.
 - d. Furnish, and wire a Hot water heating coil valve. Installed by others.
 - e. Furnish, install and wire a supply air temperature sensor.
 - f. Furnish, install and wire a return air temperature sensor.
 - g. Furnish, install and wire a mixed air temperature sensor.
 - h. Furnish, install and wire a room humidity/temperature sensor. Typical of 2.
- 4. Siemens will provide the following controls for the CUH (Typical of 4)
 - a. Furnish, install and wire a DXR Controller. Network drop by Siemens.
 - b. Furnish, install and wire a 2 way heating valve. Installed by others.
 - c. Furnish, install and wire a room sensor.
 - d. Furnish, install and wire a relay to enable fan.

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- 5. Siemens shall furnish controls for the boilers (Typical of 2)
 - a. Furnish, install and wire a PXC Controller. Network drop by Siemens. 120 VAC by Siemens.
 - b. Furnish, install and wire a communication cable (Modbus) to the boiler controller. All startup and programming on the boiler system by the boiler manufacturer. Siemens shall monitor only.
 - c. Wire low voltage wire from the recirculation pumps to the boiler controller.
 - d. Install and wire OAT sensors to the boiler manufacturer controller.
 - e. Furnish, install and wire 4 pairs of wires to the boiler controller to the PXC.
 - f. Furnish, install and wire 2 relays per boiler.
 - g. Furnish, install and wire a Siemens OAT sensor.
 - h. Furnish, install and wire a supply water temperature sensor.
 - i. Furnish, install and wire a return water temperature sensor.
 - j. Furnish, install and wire a wet differential pressure sensor.
 - k. Boiler Isolation Valves furnished by others.
 - I. Siemens has allowed for 8 hours of coordination with the boiler manufacturer to monitor their points.
- 6. Siemens shall furnish controls for the hot water pumps (Typical of 2)
 - a. Furnish, install and wire low voltage wiring to VFD. Power wiring by job EC. Start up by Siemens. VFD furnished by Siemens. VFD installed by Siemens.
- 7. Split System (Typical of 1)
 - a. Siemens shall furnish and install a room sensor for monitoring room temperature adjacent to the existing unit manufacturer sensor.
- Domestic Hot Water Heater (Typical of 2)
 - a. Siemens shall monitor status from terminal contacts on the domestic hot water heater.
- 9. Radiant Panel (Typical of 6)
 - a. Furnish, install and wire a DXR Controller near the Rad Valve
 - b. Furnish, install and wire a room sensor.
 - c. Furnish and wire a control valve. Valve installed by others.

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CLARIFICATIONS & EXCLUSIONS

- 1. Ensure the boiler manufacturer names their points with a unique point name matching the Guards Pont naming convention. All start –up of the boilers and programming of the boilers is by the manufacturer. Siemens shall send a setpoint adjustment to the boiler manufacturer for reset and an enable.
- 2. Siemens shall demo the existing RTU room sensors.
- 3. All valves installed by the mechanical contractor.
- 4. We will provide engineering for building automation system design. We will provide BAS design submittals for approval 2-3 weeks after receiving a purchase order. We will provide as-built documentation upon completion of the work.
- 5. We will provide all electrical and fitter labor and material for BAS systems and equipment installation as described in the scope of work.
- 6. We will provide all technical specialist labor and material for BAS checkout, start-up and Siemens standard commissioning. We will provide Desigo CC color graphics for systems and equipment, as specified.
- 7. All work will be completed during normal working hours.
- 8. We have not included any work associated with the smoke detectors unless otherwise stated in the scope of work.
- 9. We do not include the cost of temporary facilities or utilities.
- 10. All access panels will be provided and installed by others.
- 11. All field installation labor provide during normal working hours.

Proposed price for scope of work as described in this proposal:

Base Price \$139,680.00 One Hundred Thirty Nine Thousand Six Hundred Eighty Dollars

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INSTALLATION TERMS AND CONDITIONS (REV. 10/09)

These Terms and Conditions are incorporated by reference and form an integral part of each proposal or agreement between Siemens Industry, Inc., Building Technologies Division. ("SIEMENS") and the party for whom the Work is to be performed ("Customer"). The portions of each proposal or agreement relating to "Scope of Work" or "Proposed Solution" (in either case "Scope"), together with these Terms and Conditions, are collectively referred to as the "Agreement"

- (a) The Agreement, when accepted in writing by Customer and approved by an authorized representative of SIEMENS, constitutes the entire, complete and exclusive agreement between the parties relating to the (a) The Agreement, when accepted in writing by Customer and approved by an authorized representative of SIEMEINS, constitutes the entire, complete and exclusive agreement actively referred to as "Work" and shall supersede and cancel call prior agreements and understandings, written or oral, relating to the subject matter of the Agreement. The Agreement and any rights or obligations thereunder may not be assigned by either party without the prior written consent of the other, except that either party may assign this Agreement to its affiliates and SIEMENS may use subcontractors in the performance of the Work.

 (b) The terms and conditions of this Agreement shall not be modified or rescinded except in writing, signed by an authorized representative of SIEMENS. SIEMENS' performance under this Agreement is expressly conditioned on Customer's assenting to all of the terms of this Agreement, notwithstanding any different or additional terms contained in any writing at any time submitted or to be submitted to SIEMENS by Customer

- relating to the Work.
 c) The terms and conditions set forth herein shall supersede, govern and control any conflicting terms of the Proposed Solution or the Proposal.
 d) Nothing contained in this Agreement shall be construed to give any rights or benefits to anyone other than the Customer and SIEMENS without the express written consent of both parties. All obligations arising prior to this Agreement and all provisions of this Agreement allocating responsibility or liability between the parties shall survive the completion of the Work and the termination of this Agreement.

 1.2 This Agreement shall be governed by and enforced in accordance with the laws of the State of Illinois. All claims or disputes arising under this Agreement shall be litigated in the State, Commonwealth, or Province in
- which the Work is being provided to Customer hereunder.

 Article 2: Work by SIEMENS

- SIEMENS will perform the Work expressly described in this Agreement and in any work release documents or change orders that are issued under this Agreement and signed by the parties. The Work performed by SIEMENS shall be conducted in a manner consistent with the degree of care and skill ordinarily exercised by reputable firms performing the same or similar work in the same locale acting under similar circumstances and
- SIEMENS shall perform the Work during its normal working hours, Monday through Friday, excluding holidays, unless otherwise agreed herein
- SIEMENS is not required to conduct safety or other tests, install new devices or equipment or make modifications to any Equipment beyond the Scope set forth in this Agreement. Any Customer request to change the
- 2.4 All reports and drawings specifically prepared for and deliverable to Customer pursuant to this Agreement ("Deliverables") shall become Customer's property upon full payment to SIEMENS may retain file copies of such deliverables. All other reports, notes, calculations, data, drawings, settimates, specifications, manuals, other documents and all computer programs, codes and computerized materials prepared by or for SIEMENS are instruments of SIEMENS work ("Instruments") and shall remain SIEMENS' property. To the extent specified in the Scope, Customer, its employees and agents ("Permitted Users") shall have a right to make and retain copies of Instruments except uncompiled code, and to use all Instruments, provided however, the Instruments shall not be used or relied upon by any parties other than Permitted Users, and such use shall be limited to the particular Work and location for which the Instruments were provided. All Deliverables and Instruments provided to Customer are for Permitted Users' use only for the purposes disclosed to SIEMENS, and Customer shall not transfer them to others or use them or permit them to be used for any extension of the Work or any other project or purpose, without SIEMENS' express written consent. Any reuse of Deliverables or Instruments for other work or locations without the written consent of SIEMENS, or use by any party other than Permitted Users will be at Permitted Users' risk and without liability to SIEMENS; and Customer shall indemnify, defend and
- hold SIEMENS harmless from any claims, losses or damages arising therefrom.

 2.5 Customer acknowledges that SIEMENS, in the normal conduct of its business, may use concepts and improved skills and know-how developed while performing other contracts. Customer acknowledges the benefit which may accrue to it though this practice, and accordingly agrees that anything in this Agreement notwithstanding, Siemens may continue, without payment of a royalty, this practice of using concepts and improved skills and
- know-how developed while performing this Agreement.

 2.6 SIEMENS shall be responsible for any portion of the Work performed by any subcontractor of SIEMENS. SIEMENS shall not have any responsibility, duty or authority to direct, supervise or oversee any contractors of Customer or their work or to provide the means, methods or sequence of their work or to stop their work. SIEMENS work and/or presence at a site shall not relieve others of their responsibility to Customer or to others. SIEMENS shall not be liable for the failure of Customer's contractors or others to fulfill their responsibilities, and Customer agrees to indemnify, hold harmless and defend SIEMENS against any claims arising out of such

Article 3: Responsibilities of Customer

- (a) Designate a contact person with authority to make decisions for Customer regarding the Work and provide SIEMENS with information sufficient to contact such person in an emergency. If such representative cannot be reached, any request for work received from a person located at Customer's premises will be deemed authorized by Customer, and SIEMENS will, in its discretion, act accordingly.;

 (b) Provide or arrange for reasonable access and make all provisions for SIEMENS to enter any site where Work is to be performed;
- Permit SIEMENS to control and/or operate all facility controls, systems, apparatus, equipment and machinery necessary to perform the Work; Furnish SIEMENS with all available information pertinent to the Work; (c) (d)
- (e) obtain; (f) Furnish SIEMENS with all approvals, permits and consents from government authorities and others as may be required for performance of the Work except for those SIEMENS has expressly agreed in writing to
- Notify SIEMENS promptly of any site conditions requiring special care, and provide SIEMENS with any available documents describing the quantity, nature, location and extent of such conditions;
- Comply with all laws and provide any notices required to be given to any government authorities in connection with the Work, except such notices SIEMENS has expressly agreed in writing to give; Provide SIEMENS with Material Safety Data Sheets that conform to OSHA requirements related to all Hazardous Materials located at the site;

- (i) Furnish to SIEMENS any contingency plans related to the site; and
 (j) Furnish the specified operating environment, including without limitation, suitable, clean, stable, properly conditioned electrical power to all Equipment; telephone lines, capacity and connectivity as required by such Equipment; and heat, light, air conditioning and other utilities in accordance with the specifications for the Equipment.
- Customer acknowledges that the technical and pricing information contained in this Agreement is confidential and proprietary to SIEMENS and agrees not to disclose it or otherwise make it available to others without Customer acknowledges that it is now and shall at all times remain in control of the project site. Except as expressly provided herein, SIEMENS shall not be responsible for the adequacy of the health or safety
- Testomer's activities gest that it's now and shall at all others testain in Salite's programs or precautions related to Customer's activities or operations, Customer's other contractors, the work of any other person or entity, or Customer's site conditions. SIEMENS is not responsible for inspecting, observing, reporting or correcting health or safety conditions or deficiencies of Customer or others at Customer's site. So as not to discourage SIEMENS from voluntarily addressing health or safety issues at Customer's site, in the event SIEMENS does address such issues by making observations, reports, suggestions or otherwise, SIEMENS shall not be liable or responsible on account thereof.

 3.4 Customer is solely responsible for any removal, replacement or refinishing of the building structure or finishes that may be required to gain access to the Work.
- 3.5 Customer shall properly dispose of all ballasts, mercury bulb thermostats, used oil, contaminated filters, contaminated absorbents, refrigerant and any other Hazardous Materials that at any time are present at Customer's premises, in accordance with all applicable federal, state, and local laws, regulations, and ordinances.

 Article 4. Changes; Delays; Excused Performance

- 4.1 As the Work is performed, conditions may change or circumstances outside SIEMENS' reasonable control (including changes of law) may develop which would require SIEMENS to expend additional costs, effort or time to complete the Work, in which case SIEMENS will notify Customer and an equitable adjustment will be made to SIEMENS' compensation and time for performance. In the event conditions or circumstances require the Work to be suspended or terminated, SIEMENS shall be compensated for Work performed and for costs reasonable incurred in connection with the suspension or termination.
- 4.2. SIEMENS shall not be responsible for loss, delay, injury, damage or failure of performance that may be caused by circumstances beyond its control, including but not restricted to acts or omissions by Customer or its employees, agents or contractors, Acts of God, war, civil commotion, acts or omissions of government authorities, fire, theft, corrosion, flood, water damage, lightning, freeze-ups, strikes, lockouts, differences with workmen, riots, explosions, quarantine restrictions, delays in transportation, or shortage of vehicles, fuel, labor or materials. In the event of such delay or failure, the time for performance shall be extended by a period equal to the time lost plus a reasonable recovery period and the compensation shall be equitably adjusted for additional costs SIEMENS incurs due to such delay Article 5: Compensation

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- SIEMENS shall be compensated for the Work at its prevailing rates and reimbursed for costs and expenses (plus reasonable profit and overhead)incurred in its performance of the Work. All other services, including but not limited to the following, shall be separately billed or surcharged on a time and materials basis: (a) emergency work performed at Customer's request, if inspection does not reveal any deficiency covered by the Agreement; (b) work performed other than during SIEMENS' normal working hours; and, (c) work performed on equipment not covered by the Agreement.
- SEMENS may invoice Customer on a monthly or other progress billing basis. Invoices are due and payable upon receipt or as otherwise set forth in the Agreement. If any payment is not received when due, SIEMENS may deem Customer to be in breach hereof and may enforce any remedies available to it hereunder or at law, including without limitation, acceleration of payments and suspension or termination of the Work at any time and without notice and shall be entitled to compensation for the Work previously performed and for costs reasonably incurred in connection with the suspension or termination. In the event any payment due hereunder is not made when due, the Customer agrees to pay, on demand, as a late charge, one and one-half percent (1.5%) of the amount of the payment per month, limited by the maximum rate permitted by law, of each overdue amount (including accelerated balances) under the Agreement, Customer spreament, Customer spre under this Agreement. In the event of a dispute by Customer regarding any portion or all of an invoiced amount, it shall notify SIEMENS in writing of the amount in dispute and the reason for its disagreement within 21 days of receipt of the invoice, the undisputed portion shall be paid when due, and interest on the disputed, unpaid portion shall accrue as aforesaid, from the date due until the date of payment, to the extent that such amounts are finally determined to be payable to SIEMENS.
- 5.3 Except to the extent expressly agreed in writing, SIEMENS' fees do not include any taxes, excises, fees, duties or other government charges related to the Work, and Customer shall pay such amounts or reimburse SIEMENS for any amounts it pays. If Customer claims a tax exemption or direct payment permit, it shall provide SIEMENS with a valid exemption certificate or permit and indemnify, defend and hold SIEMENS harmless from any taxes, costs and penalties arising out of same.

Article 6: Warranty, Insurance and Allocation of Risk

- (a) Until one year from either the date the Equipment is installed or the date of first beneficial use, whichever first occurs, all Equipment manufactured by SIEMENS or bearing its nameplate will be free from defects
- (a) Outmote year from either the date the Equipment's instance of the date of this beneficial use, whichever his occurs, an Equipment manufactured by SEMENS of bearing its namephate will be free from defects for ninety (90) days after the earlier of the date the Work is substantially completed or the date of first beneficial use.

 (b) Labor for all Work under this Agreement is warranted to be free from defects for ninety (90) days after the earlier of the date the Work is substantially completed or the date of first beneficial use.

 (a) The limited warranties set forth in Section 6.1 will be void as to, and shall not apply to, any Work (i) repaired, altered or improperly installed by any person other than SIEMENS or its authorized representative; (ii) subjected to unreasonable or improper use or storage, used beyond rated conditions, operated other than per SIEMENS or the manufacturer's instructions, or otherwise subjected to improper maintenance, negligence or accident; (iii) damaged because of any use of the Work after Customer has, or should have, knowledge of any defect in the Work; or (iv) Equipment not manufactured, fabricated and assembled by SIEMENS or not bearing SIEMENS' nameplate. However, SIEMENS assigns to Customer, without recourse, any and all assignable warranties available from any manufacturer, supplier, or subcontractor of such Equipment and will assist Customer in enforcement of such assigned warranties.
- Any claim under the limited warranty granted above must be made in writing to SIEMENS within thirty (30) days after discovery of the claimed defect unless discovered directly by SIEMENS. Such limited warranty only extends to Customer and not to any subsequent owner of the Equipment. Customer's sole and exclusive remedy for any Work not conforming with this limited warranty is limited to, at SIEMENS' option, (i) repair or replacement of defective components of covered Equipment, or (ii) reperformance of the defective portion of the Work
- EMENS shall not be required to repair or replace more than the component(s) of the Equipment actually found to be defective. SIEMENS warranty liability shall not exceed the purchase price of such component(s) Repaired or replaced Equipment will be warranted hereunder only for the remaining portion of the original warranty period.

 6.3 THE EXPRESS LIMITED WARRANTIES PROVIDED ABOVE ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES, STATUTORY, EXPRESS, OR IMPLIED, INCLUDING WITHOUT
- LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED. SIEMENS MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT ANY EQUIPMENT PROVIDED HEREUNDER WILL PREVENT ANY LOSS, OR WILL IN ALL CASES PROVIDE THE PROTECTION FOR WHICH IT IS INSTALLED OR INTENDED. THE LIMITED EXPRESS WARRANTIES AND REPRESENTATIONS SET FORTH IN THIS AGREEMENT MAY ONLY BE MODIFIED OR SUPPLEMENTED IN A WRITING SIGNED BY A DULY AUTHORIZED CORPORATE OFFICER OF SIEMENS.
- SIEMENS shall maintain the following insurance while performing the Work: Workers' Compensation sloyers' Liability \$1,000,000 each accident strength and strength shall be sha Statutory

Employers' Liability
Commercial General Liability

\$5,000,000 in the aggregate

omobile Liability \$1,000,000 per occurrence/aggregate

Risk of loss of materials and Equipment furnished by SIEMENS shall pass to Customer upon delivery to Customer's premises, and Customer shall be responsible for protecting and insuring them against theft and

6.6 ANYTHING HEREIN NOTWITHSTANDING, IN NO EVENT SHALL SIEMENS BE RESPONSIBLE UNDER THIS AGREEMENT FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR 6.6 ANYTHING HEREIN NOTWITHSTANDING, IN NO EVENT SHALL SIEMENS BE RESPONSIBLE UNDER THIS AGREEMENT FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS, LOSS OF USE AND/OR LOST BUSINESS OPPORTUNITIES, WHETHER ARISING IN WARRANTY, LATE OR NON-DELIVERY OF ANY WORK, TORT, CONTRACT OR STRICT LIABILITY, AND REGARDLESS OF WHETHER CUSTOMERHAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND, IN ANY EVENT, SIEMENS' AGGREGATE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES OR EXPENSES (INCLUDING ATTORNEYS FEES) ARISING OUT OF THIS AGREEMENT, OR OUT OF ANY WORK FURNISHED UNDER THIS AGREEMENT, WHETHER BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, AGENCY, WARRANTY, TRESPASS, INDEMNITY OR ANY OTHER THEORY OF LIABILITY, SHALL BE LIMITED TO THE LESSER OF \$1,000,000 OR THE TOTAL COMPENSATION RECEIVED BY SIEMENS FROM CUSTOMERUNDER THIS AGREEMENT. SIEMENS reserves the right to control the defense and settlement of any claim for which SIEMENS has an obligation to indemnify hereunder. The parties acknowledge that the price which SIEMENS has agreed to perform its Work and obligations under this Agreement is calculated based upon the foregoing limitations of liability, and that SIEMENS has expressly relied on, and would not have entered into this Agreement but for such limitations of liability.

6.7 It is understood and agreed by and between the parties that SIEMENS is not an insurer and this Agreement is not intended to be an insurance policy or a substitute for an insurance policy. Insurance, if any, shall be obtained by Customer. Even a substitute for an insurance policy. Insurance, if any, shall be obtained by Customer. Even a substitute for an insurance policy. Insurance, if any, shall be obtained by Customer. Even a substitute for an insurance policy. Insurance, if any, shall be obtained by Customer. Fees are based solely upon the value of the Work, and are unrelated to the value of Customer's property or the property of others on Customer's premises.

Article 7: Hazardous Materials Provisions

- 7.1 The Work does not include directly or indirectly performing or arranging for the detection, monitoring, handling, storage, removal, transportation, disposal or treatment of Oil or Hazardous Materials. Except as disclosed pursuant to Section 7.3, Customer represents that there is no asbestos or any other hazardous or toxic materials, as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, the regulations promulgated thereunder, and other applicable federal, state or local law ("Hazardous Materials"), present at Customer's locations where Work is performed. SIEMENS will notify Customer immediately if it discovers or suspects the presence of any Hazardous Material. All Work has been priced and agreed to by SIEMENS in reliance on Customer's representations as set forth in this Section 7.1 The presence of
- Hazardous Materials constitutes a change in the Proposed Solution equivalent to a change order whose terms must be agreed to by SIEMENS before its obligations hereunder will continue.

 7.2 Customer shall be solely responsible for testing, abating, encapsulating, removing remedying or neutralizing such Hazardous Materials, and for the costs thereof. Even if an appropriate change order has been entered into pursuant to Section 7.1 above, SIEMENS will continue to have the right to stop the Work until the job site is free from Hazardous Materials. In such event, SIEMENS will receive an equitable extension of time to complete its Work, and compensation for delays caused by Hazardous Materials remediation. In no event shall SIEMENS be required or construed to take title, ownership or responsibility for such Oil or Hazardous Materials.
- Customer shall sign any required waste manifests in conformance with all government regulations, listing Customer as the generator of the waste.

 7.3 Customer warrants that, prior to the execution of the Agreement, it has notified SIEMENS in writing of any and all Hazardous Materials present, potentially present or likely to become present at Customer's locations and has provided a copy of any jobsite safety policies, including but not limited to lock-out and tag procedures, laboratory procedures, chemical hygiene plan, material safety data sheets or other items covered or required to
- be disclosed or maintained by federal, state, or local laws, regulations or ordinances.

 7.4 For separate consideration of \$10 and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledge, Customer shall indemnify, defend and hold SIEMENS harmless from and against any damages, losses, costs, liabilities or expenses (including attorneys' fees) arising out of any Oil or Hazardous Materials or from Customer's breach of, or failure to perform its obligations under, Sections 7.1, 7.2 or

8.1 Customer acknowledges that SIEMENS is required to comply with applicable export laws and regulations relating to the sale, exportation, transfer, assignment, disposal and usage of the Work or Equipment or Services provided under the Contract, including any export license requirements. Customer agrees that such Work or Equipment or Services shall not at any time directly or indirectly be used, exported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with such applicable export laws and regulations. It shall be a condition of the continuing performance by SIEMENS of its obligations hereunder that compliance with such export laws and regulations be maintained at all times. CUSTOMERAGREES TO INDEMNIFY AND HOLD SIEMENS HARMLESS FROM ANY AND ALL COSTS, LIABILITIES, PENALTIES, SANCTIONS AND FINES RELATED TO NON-COMPLIANCE WITH APPLICABLE EXPORT LAWS AND REGULATIONS.

Siemens Industry, Inc., Building Technologies Division

Installation Only 2009