City of Richmond Heights
1330 S. Big Bend Blvd.
Richmond Heights, MO 63117

New Public Works Facility
WDG No. 9908-13-1

ADDENDUM #3

Page 1 of 58 (including attachments)

Date: February 25, 2015

To: All Contract Bidders of Record

Acknowledge receipt of this Addendum by inserting its number in the Bid Proposal Form. Failure to do so may subject bidder to disqualification. This Addendum forms a part of the Contract Documents and is attached. It modifies them as follows:

CLARIFICATIONS

GENERAL INFORMATION FOR SITE / BUILDING / etc:

1. Are we to include any soil remediation as part of our base bid or will this work all be covered under the allowance?

   Response: All costs of soil remediation are covered under the allowance, including contractor's overhead, profit, and related costs; per Section 012001.

2. I am getting calls that the drawings are printing out on different size sheets. Are the files at FW Dodge corrupt?

   Response: WDG is unaware of any problems with printing of drawings; sets of prints are available from our office.
3. After review of the Geotechnical report and Allowance No.1 regarding Soil Remediation, please advise if the general contractor should include any soil remediation within the base bid amount?

Response: All costs of soil remediation are covered under the allowance, including contractor's overhead, profit, and related costs; per Section 012001.

4. Are there specifications for the overhead doors?

Response: Yes; refer to attached "Overhead Coiling Service Doors" specification and "Sectional Overhead Doors (Bid Alternate) specification.

5. Please advise on specifications for toilet accessories, partitions and fire extinguishers.

Response: Refer to attached "Fire Extinguishers & Accessories" specification. Toilet accessories are Bobrick Washroom Equipment, Inc products (www.bobrick.com), excluding those by the Owner. Toilet partitions and urinal screens are Bobrick Washroom Equipment, Inc products, Sierra Series 1090; submit color sheet for initial selection; submit samples and shop drawings for verification.

6. Drawing sheet A2.4 has an elevation callout in Lockers room 115. Will there be elevation views provided for this room?

Response: No.

7. There appear to be lockers indicated on drawing sheet A2.4 within Lockers room 115. After review of the drawings and specifications, we have been unable to identify whether these lockers are to be supplied & installed by the general contractor. Please advise if lockers are to be provided and installed by the general contractor and if so please provide a list of acceptable manufacturers.

Response: Lockers are by the Owner and not in this contract.

8. Is a vapor barrier required below the building concrete slab-on-grade?

Response: Yes. Provide vapor retarder cover over prepared base material below slabs on grade. Use only materials which are resistant to decay when tested in accordance with ASTM E 154, as follows:

Polyethylene Sheet not less than 8 mils. thick.

9. I looked through all the information available for the Richmond Heights Public Works building and there are no specifications for the rolling steel doors. I do see
an alternate bid for the (6) 14’ x 14’ doors to be sectional doors with openers but even that using Overhead model 426 (only available to Overhead Door) does not tell us what the openers should have such as safety eyes, safety edge, 3 button station and so on.

So there are different types of rolling steel doors also and I am guessing these would be insulated with an exterior slat and interior slat with could be 24 gauge/24 gauge or 22 gauge/24 gauge. Then again information for the openers would be needed?

Response: Refer to attached "Overhead Coiling Service Doors" specification and "Sectional Overhead Doors (Bid Alternate) specification.

10. I am looking at the overhead doors for the RHPW project and did not find a specification for coiling doors on the plans or in the specs that I got from Contegra Const.

Is there a specification available? If not can I bid our Wayne Dalton insulated coiling service doors with motor operators? Attached is the product information.

I noticed that on sheet A3.1 that detail 4 shows a between jamb guide application, and detail 3 shows a face of wall guide application. Face of wall is the typical application for these doors unless there is limited wall space between the door openings. It looks like door 120C might be a little tight for space but I think that 8” will be enough room.

On the Alternate sectional door detail on page A3.1A detail 2 shows what is referred to roof pitch angle track. Can I bid these doors with high lift track that goes straight up the wall and then returns horizontal parallel to the ceiling just below the light fixtures? It is a less costly application than the roof pitch track.

Response: Refer to attached "Overhead Coiling Service Doors" specification and "Sectional Overhead Doors (Bid Alternate) specification.

11. There is no specification or detail for window blinds. Are we to assume that there are no window coverings on this project?

Response: Yes.

12. The following specification sections are missing; casework, toilet accessories, toilet partitions, FRP.

Response: Refer to attached "Casework" specification. Toilet accessories are Bobrick Washroom Equipment, Inc products (www.bobrick.com), excluding those by the Owner. Toilet partitions and urinal screens are Bobrick Washroom
Equipment, Inc products, Sierra Series 1090; submit color sheet for initial selection; submit samples and shop drawings for verification. References to FRP panels are deleted.

13. Keyed note 11 on the architectural plans calls of a wheelchair lift. There is no specification for this item. What are we supposed to provide, including acceptable manufacturers?

**Response:** Provide AMERIGLIDE: HERCULES II
750 VERTICAL PLATFORM LIFT
1508 SW 41ST
TOPEKA KS 66615
785-260-1801
ameriglide-topeka-ks.com
(Install per manufacturer’s recommendations)

14. Sheet A2.5 has a note stating, "2 vehicle lifts by owner in garage bay 2." Will the owner also be installing the foundations for these lifts? These will need to be installed before the floor slab can be poured. How will this work be coordinated?

**Response:** Lifts are by owner, including install. The owner has not identified a need for special foundations associated with this equipment.

15. I do not see a Panel board schedule for Panel board ‘NW’. Do you want this just filled with breaker provisions?

**Response:** Provide 20A 1P CB for all poles; final room configuration is unknown.

16. Panel boards P, H & NW show MCB on the one line diagram, do you want these to be MCB as shown or MLO since they are being fed by breakers in panel M?

**Response:** Keep as MCB.

17. Site drawing shows the existing conduit feeding the existing building to be 2 ½” PVC, the addendum new feeder will not fit in the existing conduit. Please clarify

**Response:** Addendum-2 calls for 3” conduit.

18. The bay fixtures are controlled by a set of 3-way switch, please specify the 3-way switch to accept 3 different circuits.
Response: Put on separate CCTS to comply with owners request and Addendum-2.

19. The fixture schedule on drawing SL-1 shows 5 type A fixtures, only 2 show on the drawings. Please clarify.
   
   Response: 4 type A fixtures are shown; the fifth fixture is at the southwest corner of the site.

20. The fixture schedule on drawing SL-1 shows 2 type B fixtures, but 3 are shown on the drawings. Please clarify.
   
   Response: Only 2 type-B fixtures are shown; they are north of the building.

21. Drawing C-4.1 shows 2-2 ½” conduits for the incoming service, drawing E-6 shows 2-4” conduits. Please clarify.
   
   Response: Provide per E-6.

22. Drawing E-2 shows Panel M circuit 42, panel schedule shows circuit 42 as spare. Please clarify.
   
   Response: M42 is circuit for EM/Exit on LOCB.

23. Drawing C-4.1 shows Panel M being installed on the exterior of the building and being NEMA 3R, drawing E-1 shows the Panel M being mounted indoor. Please clarify.
   
   Response: Provide per Sheer E-1.

24. Drawing C-4.1 shows the Charter conduit to be a 2” PVC conduit, Drawing E-1 shows the conduit being a 4” PVC conduit. Please clarify.
   
   Response: Provide conduits per sheet E-1.

25. Who is responsible for the final termination to the lifts in the garage bay?
   
   Response: Lifts are by owner, including install.
26. The RTU is shown about 14 feet from the building. On the site plan it is placed closer to the building and more towards the corner so that the supply and return ductwork doesn't go up in front of a window.

**Response:** Locate RTU per Sheet C4.1.

27. He has about twice the amount of outdoor air as is required by code. The size of the RTU could be reduced.

**Response:** No change now; bid as shown.

28. He shows a residential kitchen hood in the Lunch Room. Our experience is that the hood needs to be a Type 1 commercial hood with fire suppression.

**Response:** A commercial hood is not required by the authority having jurisdiction.

29. He shows VVT-2 upstream of BB-1 and VVT-1. It needs to be located downstream of the other boxes. Also, I don't think anyone makes a VVT box that will handle 4,300 CFM. The largest VVT box size that I know of will handle about 2,000 CFM so at least two VVT's will need to be used. He stated below the schedule that multiple VVT boxes can be used, but the supply ductwork and zoning should have been designed that way in the first place. Bypass dampers are larger and can handle the 4,400 CFM he shows for BB-1.

**Response:** See note on M2 for multiple parallel boxes to be used for sizes over nominal.

30. I don't think that it is a good idea to mix VVT boxes and Thermafusers on the same system. It's ok for the Base Bid with only one Thermauser in the IT Room but, he wants to add seven more in an Alternate Bid.

**Response:** Bid as shown.

31. With an economizer with barometric relief on the RTU, the return duct should be run full size from the unit to the building plenum. If you don't, the building could over pressurize and bypass air could dump out the ceiling return grilles.

**Response:** RA is full size; bid as shown.
32. If they are going to service vehicles in the Garage, I don't think the design is code compliant.

   **Response:** Change EF to 4500 CFM this is a typo.

33. The gas pipe sizing on the drawing looks to be done using low pressure gas. He shows pressure regulating valves on his equipment connection schematics for 2 psi gas. The gas pipe sizes can be reduced if we use 2 psi gas pressure.

   **Response:** Gas is 10-14” WC, leave alone...PRV's are still required per schematic. If we able to get 2 psi, we will change after award.

34. The following specification section is missing; range hood.

   **Response:** Hood identified on Sheet E-1.

35. After review of the various interior partition details 1,2,3,4 & 9/A6.1, should a drywall cap be installed above the scheduled finish ceiling to cap off each individual stud chase due to the open return air plenum above and various fire suppression requirements?

   **Response:** No, a cap is not required and there is no fire suppression system.

36. Plans indicate power only for fire alarm and 4” conduits. Will tech electronics provide all cabling for all systems? And is this to be included in our proposal?

   **Tech Electronics Response:** See plans for power requirements. Cabling is by the electrical contractor. Final terminations are by Tech Electronics.

37. Can MC cable be used for the wiring of recessed devices and fixtures?

   **Tech Electronics Response:** This does not appear to be a fire alarm questions. MC is not allowed by the NEC for FA.

38. Plans call for conduit raceways for card readers and CCTV is this correct? Please advise on conduit size for each item.

   **Tech Electronics Response:** Provide conduit sized and installed per NEC. At a minimum the all wall devices shall be conduit from device to above ceiling or to truss if ceiling is open.
39. Door hardware specification will be developed from coordination meetings between the Owner, Contractor and vendor. An allowance has been added to cover the cost of this hardware. Refer to the revised Bid Proposal and Section 012100, attached.

SPECIFICATIONS

SECTION 010001a SUPPLEMENTAL CONDITIONS

1. Add the following at the end of ARTICLE XVII: Other Conditions or Provisions

(Delete second paragraph from PREVAILING WAGE DETERMINATION RATE SCHEDULE)

Refer to attached Section 010001a-2

SECTION 016000 PRODUCT REQUIREMENTS

1. Add this section to the BIDDING AND PROJECT ADMINISTRATION MANUAL

(The City has established extended manufacturer’s warranty time periods for some items.)

Refer to attached Section 016000

DRAWINGS

SHEET A0.3

1. Replace Sheathing specification with attached Sheathing specification.

SHEET A0.4

1. Remove Resin Grating specification.

SHEET A0.4


SHEET A 2.10

1. Room Schedule: Change floor finish noted for rooms #114, #115, and #117 to "SC".

The following attachments are included with this addendum:

- 010001a-2_SUPPLEMENTAL CONDITIONS, issued 2/25/2015
- OVERHEAD COILING SERVICE DOORS Specification, issued 2/25/2015
- SECTIONAL OVERHEAD DOORS (Bid Alternate) Specification, issued 2/25/2015
- FIRE EXTINGUISHERS AND ACCESSORIES Specification, issued 2/25/2015
- CASEWORK Specification, issued 2/25/2015
- Bid Proposal, issued 2/25/2015
- 012100.Allowances, issued 2/25/2015
- 016000 PRODUCT REQUIREMENTS, issued 2/25/2015
- SHEATHING Specification, issued 2/25/2015
- EXTERIOR PAINTING Specification, issued 2/25/2015
- INTERIOR PAINTING Specification, issued 2/25/2015
- FIBERGLASS REINFORCED EPOXY WALL SYSTEM Specification, issued 2/25/2015
- FIBERGLASS MAT REINFORCED EPOXY WALL SYSTEM (Alternate) Specification, issued 2/25/2015
- JOINT SEALERS Specification, issued 2/25/2015

END OF ADDENDUM #3
together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER/ARCHITECT and the others whose work will be affected. Further, Contractor shall pay for any damages that may be caused to such work by Contractor or its Contractors, suppliers, invitees and others acting for the benefit of the work to be performed hereunder and their respective agents, servants and employees.

If any part of CONTRACTOR’S Work depends for proper execution or results upon the work of any such other contractor or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER/ARCHITECT in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. CONTRACTOR’S failure so to report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR’S Work except for latent or non-apparent defects and deficiencies in the other work.

If OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Job Special Provisions, and the specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided, in the Job Special Provisions. Unless otherwise provided in the Job Special Provisions, neither OWNER nor ENGINEER/ARCHITECT shall have any authority or responsibility in respect of such coordination.

SUBSTANTIAL COMPLETION:

Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

(Delete second paragraph from PREVAILING WAGE DETERMINATION RATE SCHEDULE)

END OF SECTION 010001a
OVERHEAD COILING SERVICE DOORS

SECTION INCLUDES
A. Overhead coiling insulated doors.

DESIGN / PERFORMANCE REQUIREMENTS
A. Overhead coiling insulated doors:
   1. Wind Loads: Design door assembly to withstand wind/suction load of 20 psf without damage to door or assembly components in conformance with ASTM E 330.
   2. Operation: Design door assembly, including operator, to operate for not less than 20,000 cycles.
B. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.
C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

SUBMITTALS
A. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Details of construction and fabrication.
   4. Installation instructions.
B. Shop Drawings: Include detailed plans, elevations, details of framing members, anchoring methods, required clearances, hardware, and accessories. Include relationship with adjacent construction.
C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches long, representing actual product, color, and patterns.
E. Operation and Maintenance Data: Submit lubrication requirements and frequency, and periodic adjustments required.

DELIVERY, STORAGE, AND HANDLING
A. Store products in manufacturer's unopened packaging until ready for installation.
B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
C. Store materials in a dry, warm, ventilated weathertight location.

PROJECT CONDITIONS
A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not
install products under environmental conditions outside manufacturer's absolute limits.

COORDINATION
A. Coordinate Work with other operations and installation of adjacent materials to avoid damage to installed materials.

WARRANTY
A. Warranty: Manufacturer’s limited door and operator system, except the counterbalance spring and finish, to be free from defects in materials and workmanship for 3 years or 20,000 cycles, whichever occurs first.

MANUFACTURERS
A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: info@overheaddoor.com.
B. Overhead Coiling Stormtite Insulated Service Doors: Overhead Door Corporation Model 625.
  1. Curtain: Interlocking roll-formed slats as specified following. Endlocks shall be attached to each end of alternate slats to prevent lateral movement.
     a. Flat profile type F-2651 for doors up to 40 feet (12.19 m) wide.
     b. Front slat fabricated of:
        1) 24 gauge galvanized steel.
     c. Back slat fabricated of:
        1) 24 gauge galvanized steel.
     d. Slat cavity filled with CFC-free foamed-in-place, polyurethane insulation.
        1) R-Value: 7.7, U-Value: 0.13.
  2. Performance:
     b. Installed System Sound Rating: STC-21 as per ASTM E 90.
     c. U-factor: 0.91 NFRC test report, maximum U-factor of no higher than 1.00.
  3. Finish:
     a. Galvanized Steel: Slats and hood galvanized in accordance with ASTM A 653 and receive rust-inhibitive, roll coating process, including 0.2 mils thick baked-on prime paint, and 0.6 mils thick baked-on polyester top coat.
        1) Powder coat: PowderGuard
           (a) PowderGuard Premium: Weather resistant polyester powder coat color as selected from manufacturer's standard colors.
2) Non-galvanized exposed ferrous surfaces shall receive one coat of rust-inhibitive primer.

4. Weatherseals:
   a. Vinyl bottom seal, exterior guide and internal hood seals.
   b. Interior guide weatherseal.
   c. Lintel weatherseal.

5. Bottom Bar:
   a. Two galvanized steel angles minimum thickness 1/8 inch (3 mm) bolted back to back to reinforce curtain in the guides.

6. Guides: Three Structural steel angles
   a. Finish: PowderGuard Weathered finish with iron/black powder.

7. Brackets:
   a. Galvanized steel to support counterbalance, curtain and hood.

8. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.

9. Hood: Provide with internal hood baffle weatherseal.
   a. 24 gauge galvanized steel with intermediate supports as required.

10. Manual Operation:
   a. Chain hoist.

11. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
   a. Sensing Edge Protection:
      1) Electric sensing edge.
   b. Operator Controls:
      1) Push-button operated control stations with open, close, and stop buttons.
      2) Locations, as shown on drawings.
      3) Controls surface mounted:
   c. Motor Voltage: Coordinate with service provided.

12. Locking:
   a. Interior slide bolt lock for electric operation with interlock switch.

13. Wall Mounting Condition:
   a. Face-of-wall mounting.

EXAMINATION
   A. Verify opening sizes, tolerances and conditions are acceptable.
   B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.

PREPARATION
   A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

INSTALLATION
A. Install in accordance with manufacturer’s instructions.
B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
E. Coordinate installation of electrical service with complete wiring from disconnect to unit components.
F. Install perimeter trim and closures.
G. Instruct Owner’s personnel in proper operating procedures and maintenance schedule.

ADJUSTING
A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
B. Adjust hardware and operating assemblies for smooth and noiseless operation.

CLEANING
A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
B. Remove labels and visible markings.
C. Touch-up, repair or replace damaged products before Substantial Completion.

PROTECTION
A. Protect installed products until completion of project.

END OF SECTION
SECTIONAL OVERHEAD DOORS (Bid Alternate)

SECTION INCLUDES
A. Insulated Sectional Overhead Doors.
B. Electric Operators and Controls.
C. Operating Hardware, tracks, and support.

DESIGN / PERFORMANCE REQUIREMENTS
A. Wiring Connections: Requirements for electrical characteristics.
   1. Coordinate with service provided.
B. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

SUBMITTALS
A. Product Data: Manufacturer’s data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
B. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer’s full range of available colors and patterns.
D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches long, representing actual product, color, and patterns.
E. Operation and Maintenance Data.

DELIVERY, STORAGE, AND HANDLING
A. Store products in manufacturer’s unopened labeled packaging until ready for installation.
B. Protect materials from exposure to moisture until ready for installation.
C. Store materials in a dry, ventilated weathertight location.

MANUFACTURERS
A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: sales@overheaddoor.com.
B. Insulated Steel Sectional Overhead Doors: 426 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Insulated steel door assembly with rabbeted meeting rails to form weathertight joints and provide full-width interlocking structural rigidity.
   a. Panel Thickness: 2 inches (51 mm).
   b. Exterior Surface: Ribbed.
   c. Exterior Steel: 24 gauge, hot-dip galvanized.
   d. Back Cover:
      1) 26 gauge steel.
   e. Center and End Stiles: 16 gauge steel.
   f. Springs:
      1) 10,000 cycles.
   g. Insulation: Polystyrene.
   h. Thermal Values:
      1) Polystyrene - R-value of 7.35; U-value of 0.136.
2. Finish and Color: Two coat baked-on polyester with exterior and interior color selected from manufacturer's standard colors.
4. Lock:
   a. Interior mounted slide lock with interlock switch for automatic operator.
5. Weatherstripping:
   a. Flexible bulb-type strip at bottom section.
6. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
8. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
   a. Entrapment Protection: Required for momentary contact, includes radio control operation.
      1) Electric sensing edge monitored to meet UL 325/2010.
   b. Operator Controls:
      1) Push-button operated control stations with open, close, and stop buttons.
      2) Surface mounting.
      3) Locations, as shown on drawings.

EXAMINATION
A. Do not begin installation until openings have been properly prepared.
B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
C. Verify electric power is available and of correct characteristics.
PREPARATION
A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

INSTALLATION
A. Install overhead doors and track in accordance with approved shop drawings and the manufacturer’s printed instructions.
B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
C. Anchor assembly to wall construction and building framing without distortion or stress.
D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
E. Fit and align door assembly including hardware.
F. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

CLEANING AND ADJUSTING
A. Adjust door assembly to smooth operation and in full contact with weatherstripping.
B. Clean doors and frames.
C. Remove temporary labels and visible markings.

PROTECTION
A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
B. Protect installed products until completion of project.
C. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION
FIRE EXTINGUISHERS AND ACCESSORIES

RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, apply to this specification.

SUMMARY

This Section includes the following:

- Fire extinguishers.
- Fire extinguisher mounting brackets.

SUBMITTALS

General: Submit the following according to the Conditions of the Contract and Division 1 Specification Sections.

- Product Data: For each type of product. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher and mounting brackets.

QUALITY ASSURANCE

Single-Source Responsibility: Obtain extinguishers and brackets from one source from a single manufacturer.

NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."

Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.

- Provide fire extinguishers approved, listed, and labeled by FM Global.

MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:

Manufacturers: Subject to compliance with requirements, provide products by one of the following:
FIRE EXTINGUISHERS

General: Provide fire extinguishers for each cabinet and other locations indicated, in colors and finishes selected by Architect from manufacturer's standard, that comply with authorities having jurisdiction.

Multipurpose Dry Chemical Type: UL-rated 4-A: 60-B:C, 10-lb nominal capacity, in enameled steel container.

MOUNTING BRACKETS

Brackets: Designed to prevent accidentally dislodging extinguisher, of sizes required for type and capacity of extinguisher indicated, in plated finish.

INSTALLATION

Follow manufacturer's printed instructions for installation.

Install in locations and at mounting heights indicated or, if not indicated, at heights to comply with applicable regulations of governing authorities.

Prepare recesses in walls for cabinets as required by type and size of cabinet and style of trim and to comply with manufacturer's instructions.

Fasten mounting brackets and cabinets to structure, square and plumb.

END OF SECTION
**CASEWORK**

**RELATED DOCUMENTS**

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, apply to this specification.

**SUMMARY**

This Section includes plastic-laminate-faced cabinets.

**DEFINITIONS**

Definitions in the AWI's, AWMAC's, and WI's "Architectural Woodwork Standards" apply to the work of this Section.

Exposed Surfaces: Surfaces visible when drawers and opaque doors are closed; behind clear glass doors; bottoms of casework 43 inches or more above finished floor.

Semi-Exposed Surfaces: Surfaces which become visible when opaque doors are open or drawers are extended; bottoms of casework are more than 30 inches and less than 42 inches above finished floor.

Concealed Surfaces: Surfaces considered concealed when surfaces not visible after installation; bottoms of casework less than 30 inches above finished floor; tops of casework over 78 inches above finished floor and not visible from an upper level; stretchers, blocking, and components concealed by drawers.

Reveal Overlay: Door and drawer faces partially cover cabinet frame.

Flush Overlay: Door and drawer faces cover cabinet frame with space between faces sufficient for operating clearance.

Flush: Door and drawer faces flush with cabinet face.

**SUBMITTALS**

General: Submit the following according to the Conditions of the Contract and Division1 Specification Sections.

Product data for each casework type specified.

Shop drawings: Include plans, elevations, sections, details, and attachments to other work. Show fabrication details, including types and locations of hardware. Show installation details, including field joints and filler panels. Indicate manufacturer's catalog numbers for casework.

Samples for initial selection purposes: For cabinet finishes.
Samples for verification purposes in full-size units of each type of material indicated; in sets for each color, texture, and pattern specified, showing the full range of variations expected in these characteristics.

12-inch-square samples of wood with a transparent finish for each species.

12-inch-square samples of plastic laminate for casework finish.

One unit of each type of exposed hardware.

Product certificates signed by the manufacturer certifying that materials furnished comply with specified requirements.

Maintenance data for casework to include in the "Operating and Maintenance Manual" specified in Division 1.

QUALITY ASSURANCE

Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

Single-Source Responsibility: Obtain casework from one source of a single manufacturer.

DELIVERY, STORAGE, AND HANDLING

Deliver casework only after painting, utility roughing-in, and similar operations that could damage, soil, or deteriorate casework have been completed in installation areas. If casework must be stored in other than installation areas, store only in areas where environmental conditions meet requirements specified in "Project Conditions".

Keep finished surfaces covered with polyethylene film or other protective covering during handling and installation.

PROJECT CONDITIONS

Environmental Conditions: Comply with casework manufacturer’s written requirements for temperature and humidity conditions during storage and installation. Do not install casework until these conditions have been attained and stabilized.

Field Measurements: Verify casework dimensions by field measurements. Verify casework can be installed in compliance with the original design and referenced standards.

MANUFACTURERS

Manufacturers: Subject to compliance with requirements, provide products by the following:
CABINET MATERIALS, GENERAL

Quality Standard: Unless otherwise indicated, comply with the AWI's, "Architectural Woodwork Standards" for grades of casework indicated for construction, finishes, installation, and other requirements.

Grade: Premium.

Provide labels and certificates from AWI certification program indicating that casework complies with requirements of grades specified.

PLASTIC LAMINATE FACE CASEWORK

Face Style: Flush overlay.

Face Frame: 1-by-1-5/8-inch solid wood frame rails and stiles with glued mortise and tenon joints.

Concealed Surfaces: Sound and dry solid wood, plywood, or particleboard without defects affecting strength, utility, or stability.


Back Panels: 1/8-inch-thick hardboard with thermoset decorative panels on interior surfaces fastened to rear edge of end panels and to top and bottom rails.

Exposed Edge Treatment: Edge doors and drawer fronts with plastic laminate of same material as exposed faces.

Semi-Exposed Edge Treatment: Edge top of drawer body with high-impact plastic tee edging. Edge remaining casework surfaces with plastic laminate GP28 matching adjoining plastic laminate in color, pattern, and finish.


Drawers: Fabricate with front, bottom, and back rabbeted in sides and secured with glue and mechanical fasteners as follows:
Subfronts, Sides, and Backs: 3/8-inch-thick particleboard.

Bottoms: Not less than 1/4-inch-thick particleboard.

Drawer Suspension: Provide for a minimum capacity of 50 lb, with twin-track, side-mounted, drawer-glide suspension with nylon rollers. Provide self-closing feature and positive stop.

Joinery: Rabbet backs flush into end panels and secure with concealed mechanical fasteners. Connect tops and bottoms of wall cabinets and bottoms and stretchers of base cabinets to ends and dividers with mechanical fasteners. Rabbet tops, bottoms, and backs into end panels.

Subbase: 3/4-inch-thick particleboard.

Toe Board: 5/8-inch-thick particleboard attached to subbase with concealed fasteners.

CASEWORK HARDWARE

General: Manufacturer's standard units complying with ANSI A156.9, of type, material, size, and finish as selected from manufacturer's standard choices.

INSTALLATION

Install casework with no variations in flushness of adjoining surfaces using concealed shims. Where casework abuts other finished work, scribe and cut for accurate fit. Provide filler strips, scribe strips, and moldings in finish to match casework face.

Install casework without distortion so that doors and drawers fit openings properly and are aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete the installation of hardware and accessories as indicated.

Install casework level and plumb to a tolerance of 1/8 inch in 8 feet.

Fasten unit of casework to adjacent unit and into structural support members of wall construction with #10 sheet metal or wood screws with washer head or washer.

ADJUSTING AND CLEANING

Adjust hardware to center doors and drawers in openings and lubricate to provide unencumbered operation.

Clean casework on exposed and semi-exposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.

END OF SECTION
BID PROPOSAL

CHECK LIST

This checklist **MUST** be included as part of the submitted bid package and will be acknowledged at the time of the bid opening. If this checklist is not present in the submitted bid package, then the bid will be acknowledged as an incomplete submittal and will be subject to rejection from the bid opening.

- Three (3) signed copies of the Bid Proposal and Attachment “A” (pricing spreadsheet under item no. 6 of the Bid Proposal).
- Acknowledgment of Addendum/Addenda under item no. 4 of the Bid Proposal.
- Bid Bond.
- Anti-Collusion Statement
- E-Verify (MOU and Affidavit of Compliance)
- Missouri Domestic Products Procurement Act
- List of Proposed Subcontractors and Suppliers
- Signed checklist.

By signing this document, the bidder acknowledges that all required items have been completed and included within the bid package.

**ATTEST:**

Title

(SEAL)

By: ____________________________

**Contractor**

By: ____________________________

**Authorized Officer**

Dated: _________________, 2015
To: The City of Richmond Heights  
1330 S. Big Bend Blvd.  
Richmond Heights, Mo. 63117  

Project: Public Works Facility-Office & Garage  

Submitted by:  
(full name & Address)  

Email: ________________________________  

1. OFFER  
Having examined the Place of the Work, all matters referred to in the Information to Bidders and the Contract Documents prepared by Weis Design Group, we, the undersigned, hereby offer to enter into a contract to furnish all tools, labor, equipment, materials and perform the Work necessary for the completion of the Project: Public Works Facility, for the Sum of:  

a. BASE BID SUM: ..........................................................($________________)  

b. ALTERNATE:  
The following amount(s) shall be “added to” or “deducted from” the Base Bid Sum. Identify each alternate below as an Add or Deduct and refer to Section 012300 - Alternates.  

1. Alternate No. 1: (Not used)  

2. Alternate No. 2: Sectional Overhead Door (#120B, #120C, #121A, #121B, #122A, #122B, #123B, #124B and #125B)  
Add / Deduct..........................................................($________________)  

3. Alternate No. 3: LED Light Fixtures  
Add / Deduct..........................................................($________________)  

Issued: February - 2015
4. **Alternate No. 4:** HVAC Thermafuser Diffusers  
   Add / Deduct: ...............................................($____________________)
   
5. **Alternate No. 5:** Fiberglass Mat Reinforced Epoxy Wall System  
   Add / Deduct: ...............................................($____________________)
   
6. **Alternate No. 6:** Asphaltic Concrete Pavement  
   Add / Deduct: ...............................................($____________________)
   
**c. ALLOWANCES:**

The following amounts shall be included in the Base Bid Sum, refer to Section 012100 - Allowances.

1. **Allowance No. 1:** Soil remediation  
   ...............................................................($20,000.00)
   .........................................................Twenty Thousand Dollars and 00/100

2. **Allowance No. 2:** Testing and inspecting associated with soil remediation  
   ...............................................................($2,500.00)
   .........................................................Two Thousand Five Hundred Dollars and 00/100

3. **Allowance No. 3:** Electrical Power Distribution in IT Room  
   ...............................................................($5,000.00)
   .........................................................Five Thousand Dollars and 00/100

4. **Allowance No. 4:** Door Hardware, for man doors  
   ...............................................................($25,000.00)
   .........................................................Twenty-Five Thousand Dollars and 00/100

We have included the Bid Security as required by the Information to Bidders.

All applicable taxes are excluded from the Bid Sum.
2. **ACCEPTANCE**
   This offer shall be open to acceptance and is irrevocable for thirty (30) days from the bid period closing date.

   If this offer is accepted by the Owner within the time period stated above, we will:
   - Execute the contract and furnish satisfactory surety, within ten (10) days after receipt of Notice to Commence Work.
   - Shall begin operations within five (5) days after receipt of Notice to Commence Work.

   If this offer is accepted by the Owner within the time period stated and we fail to execute the contract, furnish satisfactory surety upon the bond, or fail to commence the Work, we shall forfeit to the Owner, as liquidated damages, the security deposited with our bid.

   In the event our offer is not accepted by the Owner within the time period stated. The required Bid Security will be returned, in accordance with the Information to Bidders.

3. **CONTRACT TIME**
   If this offer is accepted, we agree to complete the WORK within **Two Hundred and Ten (210) calendar days** or allow the Owner liquidated damages as established in the Owner Contractor Agreement.

4. **ADDENDA**
   The following addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum Price.

   Addendum # …., Dated .................
   Addendum # …., Dated .................
   Addendum # …., Dated .................
   Addendum # …., Dated .................
   Addendum # …., Dated .................

5. **SAFETY TRAINING / E-Verify**
   Missouri law, 292.675 RSMo, requires the Contractor and its subcontractor(s) to provide a ten-hour occupational safety and health administration (OSHA) construction safety program (or a similar program approved by the Missouri Department of Labor and
Industrial Relations as a qualified substitute) for their on-site employees (laborers, workmen, drivers, equipment operators and craftsmen) who have not previously completed such a program and are directly engaged in actual construction of the improvement (or working at a nearby or adjacent facility used for construction of the improvement). The Contractor and its subcontractor(s) shall require all such employees to complete this ten-hour program, pursuant to 292.675 RSMo, unless they hold documentation on their prior completion of said program. Penalties for non-compliance include Contractor forfeiture to the City of Richmond Heights in the amount of $2,500, plus $100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for required program completion under 292.675 RSMo.

In the event that the Missouri Department of Labor and Industrial Relations has determined that a violation of Section 292.675 R.S.Mo., has occurred and that a penalty shall be assessed, the City shall withhold and retain all sums and amounts due and owing when making payments to Contractor.

**Authorized Workers (E-Verify) including RSMo 285.530**

Pursuant to Section 285.530 R.S.Mo., as a condition of the award of any contract in excess of $5,000.00, the successful bidder shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection to the contracted services. Successful bidders shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection to the contracted services.

By submitting a bid for this Project, Contractor acknowledges that Section 285.530 R.S.Mo. prohibits any business entity or employer from knowingly employing, hiring for employment or continuing to employ an unauthorized alien to perform work within the State of Missouri. Contractor therefore covenants that it is not knowingly in violation of subsection 1 of Section 285.530 R.S.Mo. and that it will not knowingly employ, hire, for employment, or continue to employ any unauthorized aliens to perform work on the Project, and that its employees are lawfully eligible to work in the United States.

The Contractor acknowledges that Section 285.530, RSMo, prohibits any business entity or employer from knowingly employing, hiring for employment, or continuing to employ an unauthorized alien to perform work within the state of Missouri. Contractor therefore covenants that it is not knowingly in violation of subsection 1 of Section 285.530, RSMo, and that it will not knowingly employ, hire for employment, or continue to employ any unauthorized aliens to perform work on the Project, and that its employees are lawfully eligible to work in the United States. Refer to the following “SPECIAL NOTICE TO CONTRACTORS” issued by MoDOT January 20, 2009, for additional instructions.

**6. ATTACHMENT**

Issued: February - 2015  

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For accounting purposes and the establishment of unit prices of several work items, provide the following information:

For BASE BID Site work as shown on the Plans and Specifications, we include ATTACHMENT – A with this Bid Proposal and the information provided shall be considered an integral part of the Bid Proposal. (This attachment is available electronically by calling (636) 207-0832).

7. **MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT**
   The bidder’s attention is directed to the Missouri Domestic Products Procurement Act, Sections 34.350 to 34.359, RsMO, requires that for all bids with a value of $25,000 or more, the goods or commodities purchased by any public agency (which definition includes all political subdivisions of the State, including counties) or used or supplied in the construction, alteration, repair, or maintenance of any public works must be manufactured or produced in the United States.

Section 34.355, RsMO, requires the vendor or contractor to certify his compliance with Section 34.353 and, if applicable, Section 34.359, RsMO, at the time of bidding and prior to payment. Failure to comply with Section 34.353, RsMO, during the performance of the contract and to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

If your total bid / contract is Twenty-five Thousand Dollars ($25,000.00) or more, you must complete this form as directed below.

Failure to complete and return this document with this bid / application for payment will cause the City / Village to presume the manufactured goods or products listed in the bid / application for payment are not manufactured or produced in the United States, and the bid / application for payment will be evaluated on that basis. Please read the certification appearing below on this form.

[ ] If all the goods or products specified in the attached bid / application for payment shall be / are manufactured or produced in the “United States” as defined in Section 34.350, RsMO, check the box at left.

[ ] If only one item of any particular goods or products specified in the attached bid / application for payment is manufactured or produced in the “United States” as defined in Section 34.350, RsMO, check the box at left and list the items (or item number) here:

[ ] If any or all of the goods or products specified in the attached bid / application for payment are not manufactured or produced in the “United States” as defined in Section 34.350, RsMO, then: (a) check the box at left; (b) list below, by item (or item number),
the country other than the United States where each good or product is manufactured or produced; and (c) check the boxes to the left of the paragraphs below if applicable and list the corresponding items (or item numbers) in the spaces provided.

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<th>Item (or item number)</th>
<th>Location Where Item Manufactured or Produced</th>
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(attach an additional sheet if necessary)

[ ] The following specified goods or products cannot be manufactured or produced in the United States in sufficient quantities or in time to meet the contract specifications. Items (or item numbers):

[ ] The following specified goods or products must be treated as manufactured or produced in the United States, in accordance with an existing treaty, law, agreement, or regulation of the United States, including a treaty between the United States and any foreign country regarding export-import restrictions or international trade. Items (or item numbers):

CERTIFICATION

By submitting this document, completed as directed above, with a bid / application for payment, the bidder / Contractor certifies under penalty of making false declaration (Section 575.060, RsMO) that the information contained in this document if true, correct and complete, and may be relied upon in determining the bidder’s / Contractor’s compliance with the Missouri Domestic Products Procurement Act.

The bidder’s / Contractor’s failure to complete and return this document with the bid / Application for Payment as directed above will cause the City / Village to presume the manufactured goods or products listed in the bid / Application for Payment are not manufactured or produced in the United States, and the bid / Application for Payment will be evaluated on that basis pursuant to Section 34.353.3(2), RsMO.
BID PROPOSAL SIGNATURES

IN WITNESS WHEREOF, the parties hereto have caused this bid to be executed as of the day and year first above written, in _______ counterparts, each of which for all purposes shall be deemed an original.

ATTEST:

_________________________  ______________________________
Title  Bidder

(SEAL)

By_____________________________
Authorized Officer

By_____________________________
Authorized Officer
LIST OF PROPOSED SUBCONTRACTORS AND SUPPLIERS

The proprietary names and the suppliers of principal items or systems of materials and equipment proposed for the Work (include name, item, description, price and % of sub contracted):

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(All remaining work will be done by the BIDDER with his own forces.)
ANTI-COLLUSION STATEMENT

STATE OF MISSOURI

CITY/COUNTY OF ______________

________________________________________________

being first duly sworn, deposes and says that he is

________________________________________________

Title of Person Signing

of ______________________________________________________________________

________________________________________________________________________

Name of Bidder

that all statements made and facts set out in the proposal for the above project are true and
correct; and the bidder (The person, firm, association, or corporation making said bid) has
not, either directly or indirectly, entered into any agreement, participated in any collusion, or
otherwise taken any action in restraint of free competitive bidding in connection with said bid
or any contract which may result from its acceptance.

Affiant further certifies that bidder is not financially interested in, or financially affiliated with,
any other bidder for the above project.

BY_________________________________________________

BY_________________________________________________

BY_________________________________________________

SWORN to before me this _____________ day of ___________ 20___.

_________________________________________________ Notary Public

My Commission Expires ____________________________________________

Issued: February - 2015

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SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

1. Contingency allowances.

2. Testing and inspecting allowances.

1.3 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.4 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

C. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
D. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION
A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 CONTINGENCY ALLOWANCES
A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, insurance, equipment rental, and similar costs.
C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.7 TESTING AND INSPECTING ALLOWANCES
A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.
B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
C. Costs of services not required by the Contract Documents are not included in the allowance.
D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.8 ADJUSTMENT OF ALLOWANCES
A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.

3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.

4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.

2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Allowance No. 1: Contingency Allowance: Include a contingency allowance of $20,000.00 for Soil Remediation.

1. Where bearing soils consist of fat clay soils, remediation should consist of an over excavation of at least 2 feet beneath the bearing level of the footings and 3 feet beneath the bottom of the floor slab. The over excavation should extend at least 2 feet beyond the outside edge of the footings and building footprint to facilitate uniform compaction of the replacement materials, and may require additional widening at the building corners to allow equipment access for proper compaction. The over excavation should be backfilled in accordance with the contract documents.
CITY OF RICHMOND HEIGHTS

ALLOWANCES
PUBLIC WORKS FACILITY
SECTION 012001
WDG 9908-13-1
Addendum-3

2. This allowance includes material cost and handling, disposal, excavation, backfilling and Contractor overhead and profit.

B. Allowance No. 2: Testing and Inspection Allowance: Include the sum of $2,500.00 for soil testing and inspecting associated with soil remediation."

1. This allowance includes all testing activates, inspections, consumables and Contractor overhead and profit.

C. Allowance No. 3: Contingency Allowance: Include a contingency allowance of $5,000.00 for electrical power distribution in IT Room #127.

1. An electrical subpanel in IT Room #127 has been identified in the contract documents. This allowance includes all further power distribution within this room.

2. This allowance includes material cost and handling, installation, disposal of related debris and Contractor overhead and profit.

D. Allowance No. 4: Contingency Allowance: Include a contingency allowance of $25,000.00 for Door Hardware, for man doors.

1. Man doors are identified throughout this project. This allowance includes all hardware associated with the operation of these doors. Any work, material and incidental costs associated with overhead doors are excluded from this allowance.

2. This allowance includes material cost and handling, installation, disposal of related debris and Contractor overhead and profit.

END OF SECTION 012100
SECTION 01600 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, apply to this specification section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.3 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Basis of Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on
product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Extend manufacturer's standard warranty period for the specific items and time periods listed here:
   a. Standing Seam Metal Roof shall: 40 years.
   b. Water Heater Warranty: 5 years on tank / 1 year on parts.
   c. HVAC Roof Top Unit Equipment:
      i. 15 years on stainless steel heat exchangers.
      ii. 10 years parts on aluminum and/or copper heat exchangers.
      iii. 5 years on compressors
      iv. 5 years on all fans.
      v. 3 years on condenser coils.
      vi. 3 years on all other parts.

C. Submittal Time: Comply with requirements in Section 01770 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. Product Selection Procedures:

1. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable
Products" Article for consideration of an unnamed product by one of the other named manufacturers.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01600
SHEATHING

RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, apply to this specification.

SUMMARY
A. Section Includes:
   1. Wall sheathing.
   2. Roof sheathing.

ACTION SUBMITTALS
A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
   1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Indicate type of preservative used and net amount of preservative retained.
   2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Include physical properties of treated materials.
   3. For fire-retardant treatments, include physical properties of treated plywood both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5516.

INFORMATIONAL SUBMITTALS
A. Evaluation Reports: For following products, from ICC-ES:
   1. Preservative-treated plywood.
   2. Fire-retardant-treated plywood.

DELIVERY, STORAGE, AND HANDLING
A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PERFORMANCE REQUIREMENTS
A. Fire-Test-Response Characteristics: For assemblies with fire-resistance ratings, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E 119 by a testing and inspecting agency acceptable to authorities having jurisdiction.
   1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory.".

ROOF SHEATHING
A. Oriented Strand Board with a proprietary, fire-resistant coating, produced and applied by Barrier Technology Corporation, Watkins, MN..
1. Manufacturers: Basis-of-Design Product: Subject to compliance with requirements, provide product indicated below or comparable product:
   a. LP - Building Products
      1) LP FlameBlock

WALL SHEATHING
A. Paper-Surfaced Gypsum Wall Sheathing: ASTM C 1396/C 1396M, gypsum sheathing; with water-resistant-treated core and with water-repellent paper bonded to core's face, back, and long edges.
B. Type and Thickness: Type X, 5/8 inch thick.

SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS
A. Sealant for Paper-Surfaced Gypsum Sheathing: Elastomeric, medium-modulus, neutral-curing silicone joint sealant compatible with joint substrates formed by gypsum sheathing and other materials, recommended by sheathing manufacturer for application indicated.

INSTALLATION, GENERAL
A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
C. Refer to structural general notes for additional information.
D. Coordinate wall and roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
E. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
F. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

OSB PANEL INSTALLATION
A. General: Refer to structural general notes for additional information.

GYPSUM SHEATHING INSTALLATION
A. Comply with GA-253 and with manufacturer's written instructions.
   1. Fasten gypsum sheathing to cold-formed metal framing with screws.
   2. Install boards with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
   3. Install boards with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.

C. Vertical Installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Attach boards at perimeter and within field of board to each stud.

1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.

END OF SECTION
EXTERIOR PAINTING

A. This Section Includes surface preparation and the application of paint systems on the following exterior substrates:
   1. Steel
   2. Exterior gypsum board.

B. Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

C. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

D. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg above the dew point; or to damp or wet surfaces.

E. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Benjamin Moore & Co.
   2. ICI Paints.
   4. PPG Architectural Finishes, Inc.
   5. Sherwin-Williams Company (The).

F. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

G. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

H. Colors: As selected from manufacturer's full range.

I. PRIMERS/SEALERS
   1. Alkali-Resistant Primer; MPI #3.
   2. Bonding Primer (Water Based); MPI #17.

J. METAL PRIMERS
   1. Alkyd Anticorrosive Metal Primer; MPI #79.

K. EXTERIOR LATEX PAINTS
   1. Exterior Latex (Semitgloss); MPI #11 (Gloss level5).

L. EXTERIOR ALKYD PAINTS
   1. Exterior Alkyd Enamel (Semitgloss); MPI #94 (Gloss level5).

M. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

N. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.

O. Steel Substrates; Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.

P. Exterior Gypsum Board Substrates; Do not begin paint application until finishing compound is dry and sanded smooth.
Q. Apply paints according to manufacturer’s written Instructions.
R. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
S. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface Imperfections. Cut in sharp lines and color breaks.
T. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
U. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

EXTERIOR PAINTING SCHEDULE
Steel Substrates;
Alkyd System; MPI EXT 5. I D.
Prime Coat; Alkyd anticorrosive metal primer.
Intermediate Coat; Exteror alkyd enamel matching topcoat.
Topcoat; Exterior alkyd enamel (semigloss).

Exterior Gypsum Board Substrates;
Latex System; MPI EXT fJ.2A.
Prime Coat; Exterior latex matching topcoat.
Intermediate Coat; Exterior latex matching topcoat.
Topcoat; Exterior latex (semigloss).
INTERIOR PAINTING

A. This Section includes surface preparation and the application of paint systems on the following interior substrates:
   1. Steel
   2. Wood.

B. Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

C. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

D. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg above the dew point; or to damp or wet surfaces.

E. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Benjamin Moore & Co.
   2. ICI Paints.
   4. PPG Architectural Finishes, Inc.
   5. Sherwin-Williams Company (The).

F. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

G. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

H. Colors: As selected by Architect from manufacturer's full range.

I. PRIMERS/SEALERS
   1. Interior Latex Primer/Sealer: MPI #50.
   2. Interior Alkyd Primer/Sealer: MPI #45.

J. ALKYD PAINTS
   1. Interior Alkyd (Semigloss): MPI #47 (Gloss Level 5).

K. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

L. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.

M. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.

N. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.

O. Wood Substrates: Scrape and clean knots, and apply coat of knot sealer before applying primer. Sand surfaces that will be exposed to view, and dust off. Prime
edges, ends, faces, undersides, and backsides of wood. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
P. Gypsum Board Substrates: Do not begin paint application until finishing compound is dry and sanded smooth.
Q. Apply paints according to manufacturer's written instructions.
R. Use applicators and techniques suited for paint and substrate indicated.
S. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
T. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
U. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
V. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
W. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

INTERIOR PAINTING SCHEDULE
Steel Substrates;  
Match exterior painting schedule.

Dressed Lumber Substrates: (Interior standing and running trim and Utility shelving).  
Alkyd System: MPI INT 6.3B.  
Prime Coat: Interior alkyd primer/sealer.  
Intermediate Coat: Interior alkyd matching topcoat.  
Topcoat: Interior alkyd (semigloss).

Gypsum Board Substrates:  
Alkyd Over Latex Primer System: MPI INT 9.2C.  
Prime Coat: Interior latex primer/sealer.  
Intermediate Coat: Interior alkyd matching topcoat.  
Topcoat: Interior alkyd (semigloss).
FIBERGLASS REINFORCED EPOXY WALL SYSTEM

Part 1. GENERAL

1.01 Delivery and Storage

A. Material shall be delivered to project site in manufacturer’s original unopened containers.

B. Materials shall be stored indoors, protected from damage, moisture, direct sunlight and temperatures below 70 degrees F. or above 90 degrees F.

1.02 Environmental Conditions

A. Surface and surrounding air temperatures must exceed 55 degrees F. but must be less than 90 degrees F., with materials at not less than 70 degrees F. during application.

1.03 Qualifications of applicator

A. Installation shall be performed by an applicator having satisfactory experience in the application of these or similar materials or with on-site consultation by a qualified field service representative of the manufacturer.

1.04 Submittals

A. Prior to commencing work, submit to owner, manufacturer’s technical information and installation details describing materials to be used.

B. Owner, contractor, and manufacturer shall review and mutually agree upon color, grade, and final texture of coating system before starting installation. The acceptance of a sample will constitute the job standard by which installation will proceed.

Part 2. PRODUCTS

2.01 Materials

A. Filler/Surfacer: Series 215 Surfacing Epoxy, two component modified polyamine cured epoxy used in conjunction with Series 273 ML tape.
B. Primer: Series 201 Epoxoprime, two-component, penetrating polyamine cured epoxy primer.

C. Intermediate Coat: Series 270 Stranlok, two-component, fiber reinforced, polyamine cured epoxy.

D. Topcoat: Series 280 Tneme-Glaze, two-component, polyamine cured epoxy.

2.02 Manufacturer

A. Tnemec Company, Incorporated Coating manufacturer’s representative:
Michael T. Cerutti
NACE - Certified Coating Inspector
Level 3 NO. 14457

Coating Solutions, LLC/Tnemec
530 Orchard Lane
Eureka, MO  63025
phone: 636-938-9292
fax: 636-938-9292
cell: 314-703-8042

Part 3. EXECUTION

3.01 Preparation

A. Allow concrete and mortar to cure 28 days. Surfaces must be clean, dry, and free of oil, grease and other contaminants. Level protrusions and mortar spatter. Voids and other defects should be filled with recommended filler or surfacer.

B. Applicator must report, in writing, surfaces left in improper condition by other trades. Application will constitute acceptance of surfaces by applicator.

C. Prepare surfaces as required, per manufacturer’s printed instructions.
3.02 Installation

A. Filler/Surfacer: The base coat shall be mechanically mixed in accordance with instructions and used in conjunction with the Series 273 ML Tape to treat joints and fill depressions from the mechanical fasteners flush to the face of the board. Sanding or grinding to level fins, trowel marks or other irregularities will enhance the final finish.

B. Priming: All surfaces shall be primed by brush, roller, or spray applied uniformly at a dry film thickness of 6 to 8 mils. The primer shall be mechanically mixed and applied in accordance with manufacturer’s instructions, then allowed to cure to “initial set” or until tacky before proceeding with application of the intermediate coat.

C. Intermediate Coat: The fiber reinforced intermediate coat shall be mechanically mixed in accordance with instructions and uniformly applied to all primed surfaces by airless spray. Materials shall be applied at a dry film thickness of 25 to 40 mils on vertical surfaces. The intermediate coat shall be allowed to cure for a minimum of 8 hours, but not longer than 24 hours before application of topcoat. Before topcoating, the surface should be pole sanded to smooth the surface and remove all protruding fibers. If more than 24 hours have elapsed between coats, the Stranlok coated surface must be mechanically abraded before topcoating.

D. Topcoat: The 100% solids epoxy glaze coat shall be mechanically mixed in accordance with manufacturer’s instructions and applied by brush, roller or airless spray at a dry film thickness of 6 to 8 mils.

E. Wall coating will not span active expansion joints. Joints will be sawn after material installation and filled with joint sealant.

3.03 Job Standard

A. Prior to commencing the installation, the contractor shall install, with the owner’s approval, a mutually agreed upon test sample to show final color and texture of the system. This test area shall serve as a job standard for the final installation.

3.04 Cleanup
A. Remove waste materials, rubbish, and debris and dispose of them at the owner’s direction. Leave work areas in a clean condition.

3.05 Protection

A. Protect the completed work from water, airborne particles or other surface contaminants for a minimum of 24 hours after application.

B. Protect from traffic, physical abuse, immersion and chemical exposure for 24 hours at 75 degrees F. For different temperatures, consult the manufacturer’s representative for curing times.
Part 1. GENERAL

1.01 Delivery and Storage
   A. Material shall be delivered to project site in manufacturer’s original unopened containers.
   B. Materials shall be stored indoors, protected from damage, moisture, direct sunlight and temperatures below 70 degrees F. or above 90 degrees F.

1.02 Environmental Conditions
   A. Surface and surrounding air temperatures must exceed 55 degrees F. but must be less than 90 degrees F., with materials at not less than 70 degrees F. during application.

1.03 Qualifications of applicator
   A. Installation shall be performed by an applicator having satisfactory experience in the application of these or similar materials or with on-site consultation by a qualified field service representative of the manufacturer.

1.04 Submittals
   A. Prior to commencing work, submit to owner, manufacturer’s technical information and installation details describing materials to be used.
   B. Owner, contractor, and manufacturer shall review and mutually agree upon color, grade, and final texture of coating system before starting installation. The acceptance of a sample will constitute the job standard by which installation will proceed.

Part 2. PRODUCTS

2.01 Materials
A. Joint/Patching Material: Series 215 Surfacing Epoxy, two component modified polyamine cured epoxy used in conjunction with Series 273 ML tape.

B. Primer: Series 201 Epoxoprime, two-component, penetrating polyamine cured epoxy primer.

C. Intermediate Coat: Series 273 Stranlok ML, three-component, fiberglass mat reinforced, polyamine cured epoxy.

D. Topcoat: Series 280 Tneme-Glaze, two-component, polyamine cured epoxy.

2.02 Manufacturer

A. Tnemec Company, Incorporated
   Michael T. Cerutti
   NACE - Certified Coating Inspector
   Level 3 NO. 14457

   Coating Solutions, LLC/Tnemec
   530 Orchard Lane
   Eureka, MO 63025
   phone: 636-938-9292
   fax: 636-938-9292
   cell: 314-703-8042

Part 3. EXECUTION

3.01 Preparation

A. Allow concrete and mortar to cure 28 days. Surfaces must be clean, dry, and free of oil, grease and other contaminants. Level protrusions and mortar spatter. Voids and other defects should be filled with recommended filler or surfacer.

B. Applicator must report, in writing, surfaces left in improper condition by other trades. Application will constitute acceptance of surfaces by applicator.

C. Prepare surfaces as required, per manufacturer’s printed instructions.
3.02 Installation

A. Filler/Surfacer: The base coat shall be mechanically mixed in accordance with instructions and used in conjunction with the Series 273 ML Tape to treat joints and fill depressions from the mechanical fasteners flush to the face of the board. Sanding or grinding to level fins, trowel marks or other irregularities will enhance the final finish.

B. Priming: All surfaces shall be primed by brush, roller, or spray applied uniformly at a dry film thickness of 6 to 8 mils. The primer shall be mechanically mixed and applied in accordance with manufacturer’s instructions, then allowed to cure to “initial set” or until tacky before proceeding with application of the intermediate coat.

C. Intermediate Coat: The fiber reinforced intermediate coat shall be mechanically mixed in accordance with instructions and uniformly applied to all surfaces by brush, roller or airless spray. Materials shall be applied at a total dry film thickness of 25 to 35 mils including liquids and fiberglass reinforcing mat. The intermediate coat shall be allowed to cure for a minimum of 8 hours, but not longer than 24 hours before application of topcoat.

   Before topcoating, the surface should be pole sanded to smooth surface and remove all protruding fibers. If more than 24 hours have elapsed between coats, the Stranlok ML coated surface must be mechanically abraded before topcoating.

D. Topcoat: The 100% solids epoxy glaze coat shall be mechanically mixed in accordance with manufacturer’s instructions and applied by brush, roller or airless spray at a dry film thickness of 6 to 8 mils.

3.03 Job Standard

A. Prior to commencing the installation, the contractor shall install, with the owner’s approval, a mutually agreed upon test sample to show final color and texture of the system. This test area shall serve as a job standard for the final installation.

3.04 Cleanup

A. Remove waste materials, rubbish, and debris and dispose of them at the owner’s direction. Leave work areas in a clean condition.
3.05 Protection

A. Protect the completed work from water, airborne particles or other surface contaminants for a minimum of 24 hours after application.

B. Protect from traffic, physical abuse, immersion and chemical exposure for 24 hours at 75 degrees F. For different temperatures, consult the manufacturer’s representative for curing times.
**JOINT SEALERS**

**RELATED DOCUMENTS**
Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, apply to this specification.

**DESCRIPTION OF WORK**
The extent of each form and type of joint sealer is indicated on drawings and by provisions of this section.

The applications for Elastomeric Joint Sealers as work of this section include the following:
Concrete construction joints.
Floor joints.
Wall joints.
Window and door jambs.
Flashing and coping interior joints (walls, counters, fixtures).

Minimum Quality: Superior grade for each application.

General Performance: Except as otherwise indicated, joint sealers are required to establish and maintain airtight and waterproof continuous seals on a permanent basis, within recognized limitations of wear and aging as indicated for each application. Failures of installed sealers to comply with this requirement will be recognized as failures of materials and workmanship.

**SUBMITTALS**
Product Data: For each joint-sealant application indicated.

Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch wide joints formed between two 6-inch long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

**PROJECT CONDITIONS**

Environmental Conditions: Comply with manufacturer's written requirements for temperature and humidity conditions during storage and installation. Do not install until these conditions have been attained and stabilized.

Do not proceed with installation of joint sealants under the following conditions:
When joint substrates are wet.
Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

MANUFACTURERS
Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

Manufacturers: Subject to compliance with requirements, provide products by the following:

General Purpose Sealant: Multicomponent, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type M, Grade NS, Class 50, for Use NT

Tremco Incorporated; Spectrem 4TS

Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90

USG Corporation; SHEETROCK Acoustical Sealant

Joint Sealant Backing: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin)

Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

INSTALLATION:

General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated.

Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

END OF SECTION