

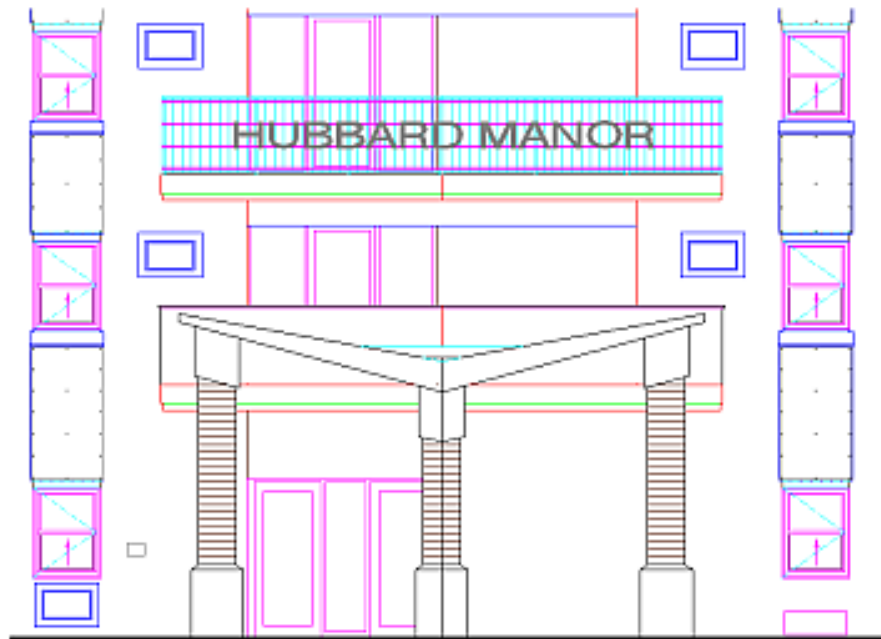


ADDENDUM #2 FOR:

RENOVATIONS, ALTERATIONS & ADDITIONS
FOR THE MODERNIZATION OF:

THE HUBBARD MANOR BUILDING #OH-807:

105 WEST LIBERTY STREET, CITY OF HUBBARD,
TRUMBULL COUNTY, STATE OF OHIO, 44425



TMHA CONTRACT #9-3A

FOR THE

TRUMBULL METROPOLITAN HOUSING AUTHORITY

4076 Youngstown Road, Suite 101
Warren, Trumbull County, Ohio

Archi-Tekton, Inc, "Atekton"

294 Center Street West, Warren, Ohio 44481
PO Box 201478, Shaker Heights, Ohio 44120

www.atekton.com

detail@atekton.com

330.505.9075, 216.561.1510

216.283.1500 Fax

0901
May 26, 2010

May 26, 2010

ADDENDUM NO. 2

To Drawings and Specifications for the

**Renovations, Alterations & Additions for the Modernization of:
THE HUBBARD MANOR BUILDING #OH-807**

LOCATED AT:

105 West Liberty Street, City of Hubbard, Trumbull County, State of Ohio, 44425

TMHA CONTRACT #9-3A

FOR THE

TRUMBULL METROPOLITAN HOUSING AUTHORITY

4076 Youngstown Road, Suite 101
Warren, Trumbull County, Ohio

To all Bidders,

This Addendum supplements and amends the original Drawings and Specifications and shall be taken into account in preparing proposals and shall become a part of the Contract Documents. Sub-contractors and General Contractors shall review all parts of this addendum since respective information may be stated throughout this addendum; for example, the responsibilities of specific trades cutting and patching is found under only one section of this addendum.

GENERAL INFORMATION

- 1. Instructions to Bidders:**
The bid date has been extended by two (2) days. **The new bid date is Thursday, June 3, 2010 at 2:00 pm local time.** Faxed Proposals will not be accepted. The awarded bidder will have until end of day Thursday, June 10, 2010 to acquire a Performance Bond as stated in the contract documents. The Contract will be signed (Money Obligated) by no later than end of day Friday, June 11, 2010.
- 2. Clarification to Bidders:**
This project is taxed exempt.
- 3. Instructions to Bidders:**
All moving of tenants and associated costs will be the responsibility of TMHA.

RENOVATIONS, ALTERATIONS & ADDITIONS FOR
THE MODERNIZATION OF HUBBARD MANOR #OH-807
(TMHA CONTRACT #9-3A)

4. **Instructions to Bidders:**
The cabinet sample that was dropped off at TMHA by Jac's Cabinetry out of Farrell, PA is **not approved** as an equal substitute.
5. **Instructions to Bidders:**
The extreme use cabinetry that was delivered to TMHA by Dudley Cabinets out of Dudley Georgia is **approved** as an equal substitute.
6. **Instructions to Bidders:**
Note 102 on Sheet IN104 shall be revised to a 2' x 3' Marker Board with chalk tray not a 2' x 2' as specified.
7. **Instructions to Bidders:**
Note 82 on Sheet IN104 has not been referenced on the drawings. This note applies to each of the laundry rooms and the Meeting & Craft Room, which means that there is a total of four (4) of these items for this project.
8. **Clarifications to Bidders:**
It is the responsible of the asbestos abatement contractor to shut off or cap as necessary the water supply lines for removal of all plumbing fixtures so that to allow for the removal of the specified asbestos containing material, since no one will be permitted into the respective space until final clearance is given by the monitoring company.
9. **Clarification to Bidders:**
It is the responsible of the asbestos abatement contractor to shut off or cap as necessary the water supply lines for removal of all finned tube heating so that to allow for the removal of the specified asbestos containing material, since no one will be permitted into the respective space until final clearance is given by the monitoring company.
10. **Clarification to Bidders:**
TMHA will remove all movable items from tenant apartments before respective project phase commencement.
11. **Clarification to Bidders:**
TMHA will remove all appliances from tenant apartments before respective project phase commencement.
12. **Instructions to Bidders:**
Fabricork color on all tack boards may not be Mulberry as specified. Final selection will be made by the Architect during the submittal process. We have confirmed with the manufacturer that color choice will not affect the cost.

RENOVATIONS, ALTERATIONS & ADDITIONS FOR
THE MODERNIZATION OF HUBBARD MANOR #OH-807
(TMHA CONTRACT #9-3A)

13. **Instructions to Bidders:**
“Magiglide” bi-fold closet door system by Landquist & Sons, Inc. of Lincolnwood, IL is approved as an equal substitute for the specified bi-fold doors. All hardware associated to this bi-fold door system except for the door handles shall be included in the Base Bid and not part of the scheduled allowance. Installation of all bi-fold doors and associated hardware except for the door handles shall be part of the Base Bid. The doors shall be flush style and wood veneered in the specified “Plain Sliced Red Oak” finish. Door panels shall be notched if applicable to allow for specified baseboard clearance. Track shall receive taped track edge in red oak hardwood species.
14. **Clarification to Bidders:**
Concrete removal and replacement will be required at all first floor apartment locations to allow for new plumbing as shown and specified on the construction documents (notes #55, #12 & #21 on sheet IN103 state that because of the kitchens (“Accessible” Units) & bathrooms (“Accessible” & regular units) plumbing).
15. **Clarification to Bidders:**
Concrete removal and replacement will be required at all first floor new rain conductor locations and sanitary line locations to allow for new line construction as shown and specified on the construction documents.
16. **Clarification to Bidders:**
All concrete removal and replacement (shown or not shown) required on first floor to accommodate the new or revised construction as shown and specified on the construction documents shall be included in the Base Bid.
17. **Instructions to Bidders:**
Refer to new attached Specification Section 15260-HVAC Piping Insulation (**Enclosure #1**). This section is to become part of the Specifications governing this project.
18. **Instructions to Bidders:**
Refer to attached Specification Section 15510-Hyrdonic Piping (**Enclosure #2**). This section is to become part of the specifications governing this project.
19. **Instructions to Bidders:**
(Dwgs. P-100, P-101, P102, P103 & P104): Rainwater conductor piping is to be CISPI hubless service weight cast iron or schedule 40 PVC (conforming to requirements of ASTM D1785 and ASTM D2665) as allowed by local codes. Rainwater conductors are to be insulated (horizontal and vertical, exposed and concealed) with 1” flexible fibrous glass insulation with factory applied reinforced aluminum foil vapor barrier, white all service jacket and self sealing lap.

RENOVATIONS, ALTERATIONS & ADDITIONS FOR
THE MODERNIZATION OF HUBBARD MANOR #OH-807
(TMHA CONTRACT #9-3A)

20. **Instructions to Bidders:**
Condensate piping from mechanical equipment is to be installed and insulated as described in specifications by mechanical contractor.
21. **Instructions to Bidders:**
(Dwg. M-600): Fintube radiant heaters enclosures are to be of 18 gauge construction.
22. **Instructions to Bidders:**
(Alternate M-1): Alternate M-1 is to consist of the removal of the four (4) existing Weil-McLain heating boilers and associated boiler circulating pumps. New boilers and circulating pumps are to be installed and piping modified per manufacturers recommendations for primary/secondary piping system. Four (4) new boilers are to be Lochinvar Knight XL commercial condensing heating boiler Model KBN400 (399 MBH input/ 372 MBH output) or approved equal with four (4) Taco Model #1400-50 circulating pumps or approved equal.
23. **Instructions to Bidders:**
(Alternate P-1): Alternate P-1 is to consist of the removal of the two (2) existing RayPak domestic boilers and associated boiler circulating pumps. New boilers and circulating pumps are to be installed and connected to existing distribution piping per manufacturer's recommendations. Two (2) new boilers are to be Lochinvar Armor condensing water heater Model AWN399PM (399,999 BTUH input with integral circulating pump) or approved equal.

END OF ADDENDUM #2

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55

SECTION 15260 HVAC-PIPING INSULATION

PART I GENERAL

1.1 RELATED REQUIREMENTS

- 1. The provisions of the Instructions to bidders General Conditions Supplementary Conditions, Alternates, Addendas and Division 1 are a part of this Specification. Contractors and Sub Contractors shall examine same, as well as other Divisions of the Specifications which affect work under this Division.
- 2. Mechanical, Architectural, Structural, Electrical and all other Drawings, as well as the Specifications for all the Divisions, are a part of the Contract Documents.
- 3. Drawings and Specifications are to be considered as supplementing each other. Work specified but not shown, or shown but not specified, shall be performed or furnished as though mentioned in both Specifications and Drawings.

1.2 DESCRIPTION OF WORK

- 1. Extent of mechanical insulation required by this section is indicated on drawings and schedules and by requirements of this section.

1.3 REFERENCE STANDARDS

- 1. American Society for Testing and Materials (ASTM):
 - A. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate
 - B. ASTM E84 - Surface Burning Characteristics of Building Materials
- 2. National Fire Protection Association (NFPA):
 - A. NFPA 255 - Surface Burning Characteristics of Building Materials
- 3. Underwriters' Laboratories Inc. (UL):
 - A. UL 723 - Surface Burning Characteristics of Building Materials

1.4 QUALITY ASSURANCE

- 1. Applicator Qualifications: Company specializing in piping insulation application, with three years minimum experience.
- 2. Materials: Flame spread/fuel contributed/smoke developed rating of 25/50/50 in accordance with ASTM E84, NFPA 255, and UL 723.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55

1.5 SUBMITTALS

- 1. Shop Drawings: Prior to delivery of materials to site, submit shop drawings including product description, list of materials and thickness for each service and locations prior to delivery.
- 2. Product Data: Submit manufacturer's installation instructions and recommended procedures.

1.6 JOB CONDITIONS

- 1. Deliver material to job site in original nonbroken factory packaging, labeled with manufacturer's density and thickness.
- 2. Perform work at ambient and equipment temperatures as recommended by the adhesive manufacturer.

PART II PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- 1. Acceptable Manufacturers:
 - A. Certaineed Corp., Valley Forge, PA.
 - B. Knauf Fiber Glass GmbH, Shelbyville, IN.
 - C. Owens-Corning Fiberglass Corp., Toledo, OH.
 - D. Manville, Denver, CO.
- 2. Substitutions: Items of equal function and performance will be considered.

2.2 GENERAL

- 1. Fiberglass type insulation shall be used at all locations except as otherwise specified.

2.3 MATERIALS AND COMPONENTS

- 1. Piping: Fine fibrous glass insulation, with factory applied reinforced aluminum foil vapor barrier,

1 white all service jacket and self sealing lap (ASJ-SSL) molded to conform to piping, "K" value at
2 75 degrees F maximum 0.24 btu/in./sq.ft./degrees F/hr.
3

- 4 2. Refrigerant Piping: Foamed plastic of closed cell structure, "K" value at 75 degrees F maximum
5 0.28 btu/in./sq.ft./degrees F/hr maximum water vapor transmission rating of 0.1 perms.
6
7
8

9 **PART III EXECUTION**

10
11 **3.1 PREPARATION**

- 12
13
14
15 1. DO NOT install covering before piping has been tested and approved.
16
17 2. Insure surface is clean and dry prior to installation. Insure insulation is dry before and during
18 application. Finish with systems at operating conditions.
19
20

21 **3.2 INSTALLATION**

- 22
23
24 1. Install materials in accordance with manufacturer's instructions.
25
26 2. Insure insulation is continuous through inside walls. Pack around pipes with fire proof self-
27 supporting insulation material, fully sealed.
28
29 3. Insulate fittings and valves. INSULATE ONLY EXTERIOR INSTALLED unions, flanges,
30 strainers, flexible connections and expansion joints. Terminate insulation neatly with plastic
31 material trowelled on bevel.
32
33 4. Finish insulation neatly at hangers, supports and other protrusions.
34
35 5. Locate insulation or cover seams in least visible locations.
36
37 6. Cover insulation exposed to outdoors with 30 lb. coated glass base sheet with aluminum bands
38 on 8 inch centers. Lap joints 3 inches minimum and seal with compatible waterproof lap cement.
39
40 7. Piping: Cover fittings and valves with equivalent thickness of insulation material. Use PVC
41 fittings, prefabricated fittings or cover with open mesh glass cloth sealed with vapor barrier
42 sealant. Seal lap joints with vapor barrier self-sealing Lap. Seal butt joints with 4 inches wide
43 strips of vapor barrier sealed with vapor barrier adhesive. For exposed fittings and valves, apply,
44 hydraulic setting cement paste over insulation material before applying recovering.
45
46 8. Refrigerant Piping: Cover fittings and valves with equivalent thickness of insulation material.
47 Apply with edges tightly butted. Seal joints with vapor barrier tape or sealer.
48
49 9. Repair separation of joints or cracking of insulation due to the thermal movement or poor
50 workmanship.
51
52 10. Do not insulate within radiation enclosures.
53
54
55

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31

3.3 INSULATION THICKNESS SCHEDULE

1. Insulation Thickness Schedule:

| <u>PIPING</u> | <u>PIPE SIZE</u> | <u>INSULATION THICKNESS</u> |
|---------------------|------------------|-----------------------------|
| Heating Water | 2" and Under | 1" |
| | 2-1/2" and Over | 1-1/2" |
| A/C Condensate | All Sizes | 1" |
| Refrigerant Suction | All Sizes | 1" |
| Refrigerant Hot Gas | All Sizes | 1" |

END OF SECTION

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56

SECTION 15510 HYDRONIC PIPING

PART I GENERAL

1.1 RELATED REQUIREMENTS

- 1. The provisions of the Instructions to bidders General Conditions Supplementary Conditions, Alternates, Addenda and Division 1 are a part of this Specification. Contractors and Sub Contractors shall examine same, as well as other Divisions of the Specifications which affect work under this Division.
- 2. Mechanical, Architectural, Structural, Electrical and all other Drawings, as well as the Specifications for all the Divisions, are a part of the Contract Documents.
- 3. Drawings and Specifications are to be considered as supplementing each other. Work specified but not shown, or shown but not specified, shall be performed or furnished as though mentioned in both Specifications and Drawings.

1.2 DESCRIPTION OF WORK

- 1. Heating Water Piping.

1.3 REFERENCE STANDARDS

- 1. References to standards, codes, specifications, recommendations shall mean the latest edition of such publications adopted and published at date of invitation to submit Proposals.
- 2. Comply with applicable provisions of latest editions of following National Standards:
 - A. State and Local Mechanical Codes
 - B. American National Standards Institute (ANSI)
 - C. American Society of Mechanical Engineers (ASME)
 - D. American Welding Society (AWS)
 - E. American Society for Testing and Materials (ASTM)
 - F. American Water Works Association (AWWA)
 - G. Cast Iron Soil Pipe Institute (CISPI)

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

1. Delivery:
 - A. Deliver materials to site in manufacturer's original packages and containers unopened, undamaged, with labels intact and legible.
2. Storage and Handling:
 - A. Store materials off ground on platforms with protective covering.
 - B. Handle materials so as not to soil, mark, or damage finishes.

PART II PRODUCTS

2.1 HOT WATER PIPING

1. Hot water supply and return piping shall be Type "L" hard copper for 1-1/2" sizes and smaller. Type "L" hard copper or steel schedule 40 black steel for 2" to 3" size, black steel schedule 40 for all pipe above 4".

| <u>Pipe</u> | <u>Size</u> | <u>Fitting</u> | <u>Type of Joint</u> |
|----------------------------|--------------------|---|--------------------------|
| Schedule 40 Black Steel | 2" & smaller | 125 pound Cast Iron | Screwed or Mechanical |
| Schedule 40 Black Steel | 2-1/2" & Larger | Schedule 40 Factory Formed Fittings | Welded |
| Copper Type "L" | All Sizes | Copper | 95-S Soldered |

PART III EXECUTION

3.1 PREPARATION

1. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.
2. Remove scale and dirt, on inside and outside, before assembly.
3. Prepare piping connections to equipment with flanges or unions.
4. After completion, fill, clean, and treat systems.

3.2 INSTALLATION

1. Route piping in orderly manner, plumb and parallel to building structure, and maintain gradient.

- 1
- 2 2. Install piping to conserve building space, and not interfere with use of space and other work.
- 3
- 4 3. Group piping whenever practical at common elevations.
- 5
- 6 4. Install piping to allow for expansion and contraction without stressing pipe, points, or connected
- 7 equipment.
- 8
- 9 5. Provide clearance for installation of insulation, and access to valves and fittings.
- 10
- 11 6. Provide access where valves and fittings are not exposed. Coordinate size and location of
- 12 access doors.
- 13
- 14 7. Slope piping and arrange systems to drain at low points. Use eccentric reducers to maintain top
- 15 of pipe level.
- 16
- 17 8. Where pipe support members are welded to structural building framing, scrape, brush clean, and
- 18 apply one coat of zinc rich primer to welding.
- 19
- 20 9. Prepare pipe, fittings, supports, and accessories for finish painting. Refer to Division 9 Painting.
- 21
- 22 10. Install valves with stems upright or horizontal, nor inverted.
- 23
- 24 11. Joints between different types of material shall be made with approved adapter fittings; joints
- 25 between different metallic materials shall be made with an approved dielectric fitting or brass
- 26 converter fitting.
- 27
- 28

3.3 APPLICATION

- 29
- 30
- 31
- 32 1. Use grooved mechanical couplings and fasteners only in accessible locations.
- 33
- 34 2. Install unions downstream of valves and at equipment or apparatus connections.
- 35
- 36 3. Install brass male adapters each side of valves in copper piped system. Sweat solder adapters to
- 37 pipe
- 38
- 39 4. Install gate, ball or butterfly valves for shut-off and to isolate equipment, part of systems, or
- 40 vertical risers.
- 41
- 42 5. Install ball or butterfly valves for throttling, bypass, or manual flow control services.
- 43
- 44 6. Provide a spring loaded check valves on discharge of water pumps.
- 45
- 46 7. Use plug cocks for throttling service. Use non-lubricated plug cocks only when shut-off or
- 47 isolating valves are also provided.
- 48
- 49 8. Use butterfly valves interchangeably with gate and globe valves.
- 50
- 51 9. Use only butterfly valves in chilled and condenser water systems for throttling and isolation
- 52 service.
- 53
- 54 10. Provide 3/4" ball valve for draining at main shut-off valves, low points or piping, bases of
- 55 vertical risers, and at equipment. Pipe to nearest floor drain.
- 56

- 1 11. Joints between different types of material shall be made with approved adapter fittings; joints
- 2 between different metallic materials shall be made with an approved dielectric fitting or brass
- 3 converter fitting.
- 4
- 5
- 6

END OF SECTION