

**BID DOCUMENTS AND CONTRACTS**  
**FOR**  
**ST. CLAIR COUNTY HOUSING AUTHORITY**

Capital Fund Improvements

**HVAC Replacement**

AMPs 1, 2, 5 and 6  
Brooklyn, Cahokia Heights, Lebanon, O'Fallon and Smithton, Illinois

**COMMISSIONERS**  
Eugene Verdu, Chairman  
Dan Barger  
Billie Jean Miller  
Sister Julia Huiskamp  
Jacqueline Johnson

**EXECUTIVE DIRECTOR**

Larry McLean

**PROJECT MANAGER**

David Wright

January 3, 2022

PACKAGE NUMBER \_\_\_\_\_

Contract Number IFB-22-B001

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**SECTION 1**

**INVITATION FOR BIDS**

# INVITATION FOR BIDS

The St. Clair County Housing Authority is accepting sealed bids for work officially known as; **HVAC Replacement, Brooklyn, Cahokia Heights, Lebanon, O'Fallon and Smithton, IL**; at the Central Office Building, 1790 South 74<sup>th</sup> Street, Belleville, IL 62223 until **10:00 AM prevailing time February 1<sup>st</sup>, 2022** Bids will be opened at 10:00 AM at the same location.

OWNER'S CONTACT FOR THIS PROJECT: **David Wright, Project Manager at (618) 277-6890.**

DESCRIPTION OF WORK: HVAC replacement including condensing units, A-coils and line sets, furnaces with all associated trims and accessories.

JOB SITE VISITATION: A pre-bid meeting describing the job will be conducted on **Tuesday January 18<sup>th</sup>, 2022 at 10:00 AM** by the owner's representative. All bidders desiring to review the work should meet at, **1790 S. 74<sup>th</sup> St., Belleville, Illinois.**

## THIS WILL BE THE ONLY JOB SITE VISITATION CONDUCTED.

BID BONDS: Each bid must be accompanied by a certified check, bank draft, U. S. Government Bonds at par value or a 5% bid bond secured by an approved surety company. The surety company must be authorized to do business in the State of Illinois and must be acceptable to the Government. If the bid guarantee is not submitted with the bid, the PHA shall reject the bid. No bid may be withdrawn within sixty days after the scheduled bid opening.

BID SUBMISSIONS: All bids must be submitted and signed on the Bid Forms finished in the Bid Packet. Failure to do so may result in the rejection of your bid.

AFFIRMATIVE ACTION AND EQUAL OPPURTUNITY: All bidders are advised that they must satisfy the requirement to utilize qualified minority businesses to perform subcontracted work or supply materials and/or equipment for this project.

OWNER'S RIGHTS: The SCCHA reserves the right to reject any and all bids. The SCCHA may waiver minor defects or irregularities in the bidding, other than the bid submission deadline, the bid bond requirement and the bid form, and further reserves the right to negotiate with the low bidder such changes in the price and scope of work as may be necessary to achieve financial feasibility.

HUD APPROVAL: The work is to be funded by the U. S. Department of Housing and Urban Development (HUD), and the contract administered by the SCCHA. HUD reserves the right to approve the contractor selected by the Authority.

BID DOCUMENTS: Drawings and Specifications may be obtained from Hurst-Rosche, Inc. 5 Bank Square, E. St. Louis, IL 62203 after January 3, 2022 by paying a non-refundable amount of \$50.00 (\$65.00 if mailed) for each set. Drawings and specifications will be available for viewing on the internet at: [www.hurst-rosche.com](http://www.hurst-rosche.com) or [projects@siba-agc.org](mailto:projects@siba-agc.org). The Documents are being provided for reference purposes only. At a minimum, bidders must obtain clean copies of bid forms by paying a non-refundable amount of \$10.00 to submit a bid for this project. Should a bidder find discrepancies or omissions in the drawings and/or specifications or he/she should be in doubt as to the meaning, he/she shall at once notify the owner. **Any changes of interpretations of the bid documents will be issued by way of a formal addendum to all plan holders. All bidders must acknowledge receipt of addenda in the space provided on the Bid Form.** Bidder's must also submit with their bid all required Housing Authority documents as stated in the Table of Contents.

PERFORMANCE GUARANTY: The contractor shall be required to furnish a performance and payment bond for 100% of the contract price.

WAGE RATE DETERMINATION: All workers participating in the execution of this contract must be paid not less than Davis Bacon wage rates as listed in the attached Wage Decision.

PROJECT LABOR AGREEMENT: All contractors performing work shall sign and be party to the project labor agreement included in the specifications.

INSURANCE: The contractor must provide proof of Comprehensive General Public Liability and Automobile Liability Insurance each with a minimum of \$1,000,000.00 with SCCHA listed as an additional insured (**requiring a separate additional insured endorsement form attached to Certificate of Insurance**) and Illinois Worker's Compensation Insurance in accordance with Illinois State Law to the Owner prior to issuance of the "Notice to Proceed."

## ST. CLAIR COUNTY HOUSING AUTHORITY

  
Larry McLean  
EXECUTIVE DIRECTOR

12/20/21  
DATE

**SECTION 2**  
**INSTRUCTIONS TO BIDDERS HUD 5369**

**U.S. Department of Housing and  
Urban Development**  
Office of Public and Indian Housing

**Instructions to Bidders for Contracts  
Public and Indian Housing Programs**

# Instructions to Bidders for Contracts

## Public and Indian Housing Programs

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### 1. Bid Preparation and Submission

(a) Bidders are expected to examine the specifications, drawings, all instructions, and, if applicable, the construction site (see also the contract clause entitled **Site Investigation and Conditions Affecting the Work** of the *General Conditions of the Contract for Construction*). Failure to do so will be at the bidders' risk.

(b) All bids must be submitted on the forms provided by the Public Housing Agency/Indian Housing Authority (PHA/IHA). Bidders shall furnish all the information required by the solicitation. Bids must be signed and the bidder's name typed or printed on the bid sheet and each continuation sheet which requires the entry of information by the bidder. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority. (Bidders should retain a copy of their bid for their records.)

(c) Bidders must submit as part of their bid a completed form HUD-5369-A, "Representations, Certifications, and Other Statements of Bidders."

(d) All bid documents shall be sealed in an envelope which shall be clearly marked with the words "Bid Documents," the Invitation for Bids (IFB) number, any project or other identifying number, the bidder's name, and the date and time for receipt of bids.

(e) If this solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "No Bid" in the space provided for any item on which no price is submitted.

(f) Unless expressly authorized elsewhere in this solicitation, alternate bids will not be considered.

(g) Unless expressly authorized elsewhere in this solicitation, bids submitted by telegraph or facsimile (fax) machines will not be considered.

(h) If the proposed contract is for a Mutual Help project (as described in 24 CFR Part 905, Subpart E) that involves Mutual Help contributions of work, material, or equipment, supplemental information regarding the bid advertisement is provided as an attachment to this solicitation.

### 2. Explanations and Interpretations to Prospective Bidders

(a) Any prospective bidder desiring an explanation or interpretation of the solicitation, specifications, drawings, etc., must request it at least 7 days before the scheduled time for bid opening. Requests may be oral or written. Oral requests must be confirmed in writing. The only oral clarifications that will be provided will be those clearly related to solicitation procedures, i.e., not substantive technical information. No other oral explanation or interpretation will be provided. Any information given a prospective bidder concerning this solicitation will be furnished promptly to all other prospective bidders as a written amendment to the solicitation, if that information is necessary in submitting bids, or if the lack of it would be prejudicial to other prospective bidders.

(b) Any information obtained by, or provided to, a bidder other than by formal amendment to the solicitation shall not constitute a change to the solicitation.

### 3. Amendments to Invitations for Bids

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date on the bid form, or (3) by letter, telegram, or facsimile, if those methods are authorized in the solicitation. The PHA/IHA must receive acknowledgement by the time and at the place specified for receipt of bids. Bids which fail to acknowledge the bidder's receipt of any amendment will result in the rejection of the bid if the amendment(s) contained information which substantively changed the PHA's/IHA's requirements.

(c) Amendments will be on file in the offices of the PHA/IHA and the Architect at least 7 days before bid opening.

### 4. Responsibility of Prospective Contractor

(a) The PHA/IHA will award contracts only to responsible prospective contractors who have the ability to perform successfully under the terms and conditions of the proposed contract. In determining the responsibility of a bidder, the PHA/IHA will consider such matters as the bidder's:

- (1) Integrity;
- (2) Compliance with public policy;
- (3) Record of past performance; and
- (4) Financial and technical resources (including construction and technical equipment).

(b) Before a bid is considered for award, the bidder may be requested by the PHA/IHA to submit a statement or other documentation regarding any of the items in paragraph (a) above. Failure by the bidder to provide such additional information shall render the bidder nonresponsible and ineligible for award.

## 5. Late Submissions, Modifications, and Withdrawal of Bids

(a) Any bid received at the place designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it:

(1) Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);

(2) Was sent by mail, or if authorized by the solicitation, was sent by telegram or via facsimile, and it is determined by the PHA/IHA that the late receipt was due solely to mishandling by the PHA/IHA after receipt at the PHA/IHA; or

(3) Was sent by U.S. Postal Service Express Mail Next Day Service - Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and observed holidays.

(b) Any modification or withdrawal of a bid is subject to the same conditions as in paragraph (a) of this provision.

(c) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date and the bid, modification, or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, bidders should request the postal clerk to place a hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.

(d) The only acceptable evidence to establish the time of receipt at the PHA/IHA is the time/date stamp of PHA/IHA on the proposal wrapper or other documentary evidence of receipt maintained by the PHA/IHA.

(e) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, bidders should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and Failure by a bidder to acknowledge receipt of the envelope or wrapper.

(f) Notwithstanding paragraph (a) of this provision, a late modification of an otherwise successful bid that makes its terms more favorable to the PHA/IHA will be considered at any time it is received and may be accepted.

(g) Bids may be withdrawn by written notice, or if authorized by this solicitation, by telegram (including mailgram) or facsimile machine transmission received at any time before the exact time set for opening of bids; provided that written confirmation of telegraphic or facsimile withdrawals over the signature of the bidder is mailed and postmarked prior to the specified bid opening time. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

## 6. Bid Opening

All bids received by the date and time of receipt specified in the solicitation will be publicly opened and read. The time and place of opening will be as specified in the solicitation. Bidders and other interested persons may be present.

## 7. Service of Protest

(a) Definitions. As used in this provision:

"Interested party" means an actual or prospective bidder whose direct economic interest would be affected by the award of the contract.

"Protest" means a written objection by an interested party to this solicitation or to a proposed or actual award of a contract pursuant to this solicitation.

(b) Protests shall be served on the Contracting Officer by obtaining written and dated acknowledgement from —

[Contracting Officer designate the official or location where a protest may be served on the Contracting Officer]

(c) All protests shall be resolved in accordance with the PHA's/IHA's protest policy and procedures, copies of which are maintained at the PHA/IHA.

## 8. Contract Award

(a) The PHA/IHA will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the PHA/IHA considering only price and any price-related factors specified in the solicitation.

(b) If the apparent low bid received in response to this solicitation exceeds the PHA's/IHA's available funding for the proposed contract work, the PHA/IHA may either accept separately priced items (see 8(e) below) or use the following procedure to determine contract award. The PHA/IHA shall apply in turn to each bid (proceeding in order from the apparent low bid to the high bid) each of the separately priced bid deductible items, if any, in their priority order set forth in this solicitation. If upon the application of the first deductible item to all initial bids, a new low bid is within the PHA's/IHA's available funding, then award shall be made to that bidder. If no bid is within the available funding amount, then the PHA/IHA shall apply the second deductible item. The PHA/IHA shall continue this process until an evaluated low bid, if any, is within the PHA's/IHA's available funding. If upon the application of all deductibles, no bid is within the PHA's/IHA's available funding, or if the solicitation does not request separately priced deductibles, the PHA/IHA shall follow its written policy and procedures in making any award under this solicitation.

(c) In the case of tie low bids, award shall be made in accordance with the PHA's/IHA's written policy and procedures.

(d) The PHA/IHA may reject any and all bids, accept other than the lowest bid (e.g., the apparent low bid is unreasonably low), and waive informalities or minor irregularities in bids received, in accordance with the PHA's/IHA's written policy and procedures.

(e) Unless precluded elsewhere in the solicitation, the PHA/IHA may accept any item or combination of items bid.

(f) The PHA/IHA may reject any bid as nonresponsive if it is materially unbalanced as to the prices for the various items of work to be performed. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

(g) A written award shall be furnished to the successful bidder within the period for acceptance specified in the bid and shall result in a binding contract without further action by either party.

#### **9. Bid Guarantee (applicable to construction and equipment contracts exceeding \$25,000)**

All bids must be accompanied by a negotiable bid guarantee which shall not be less than five percent (5%) of the amount of the bid. The bid guarantee may be a certified check, bank draft, U.S. Government Bonds at par value, or a bid bond secured by a surety company acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. In the case where the work under the contract will be performed on an Indian reservation area, the bid guarantee may also be an irrevocable Letter of Credit (see provision 10, Assurance of Completion, below). Certified checks and bank drafts must be made payable to the order of the PHA/IHA. The bid guarantee shall insure the execution of the contract and the furnishing of a method of assurance of completion by the successful bidder as required by the solicitation. Failure to submit a bid guarantee with the bid shall result in the rejection of the bid. Bid guarantees submitted by unsuccessful bidders will be returned as soon as practicable after bid opening.

#### **10. Assurance of Completion**

(a) Unless otherwise provided in State law, the successful bidder shall furnish an assurance of completion prior to the execution of any contract under this solicitation. This assurance may be [Contracting Officer check applicable items] —

[ ] (1) a performance and payment bond in a penal sum of 100 percent of the contract price; or, as may be required or permitted by State law;

[ ] (2) separate performance and payment bonds, each for 50 percent or more of the contract price;

[ ] (3) a 20 percent cash escrow;

[ ] (4) a 25 percent irrevocable letter of credit; or,

[ ] (5) an irrevocable letter of credit for 10 percent of the total contract price with a monitoring and disbursements agreement with the IHA (applicable only to contracts awarded by an IHA under the Indian Housing Program).

(b) Bonds must be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. Individual sureties will not be considered. U.S. Treasury Circular Number 570, published annually in the Federal Register, lists companies approved to act as sureties on bonds securing Government contracts, the maximum underwriting limits on each contract bonded, and the States in which the company is licensed to do business. Use of companies listed in this circular is mandatory. Copies of the circular may be downloaded on the U.S. Department of Treasury website <http://www.fms.treas.gov/c570/index.html>, or ordered for a minimum fee by contacting the Government Printing Office at (202) 512-2168.

(c) Each bond shall clearly state the rate of premium and the total amount of premium charged. The current power of attorney for the person who signs for the surety company must be attached to the bond. The effective date of the power of attorney shall not precede the date of the bond. The effective date of the bond shall be on or after the execution date of the contract.

(d) Failure by the successful bidder to obtain the required assurance of completion within the time specified, or within such extended period as the PHA/IHA may grant based upon reasons determined adequate by the PHA/IHA, shall render the bidder ineligible for award. The PHA/IHA may then either award the contract to the next lowest responsible bidder or solicit new bids. The PHA/IHA may retain the ineligible bidder's bid guarantee.

#### **11. Preconstruction Conference (applicable to construction contracts)**

After award of a contract under this solicitation and prior to the start of work, the successful bidder will be required to attend a preconstruction conference with representatives of the PHA/IHA and its architect/engineer, and other interested parties convened by the PHA/IHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract (e.g., Equal Employment Opportunity, Labor Standards). The PHA/IHA will provide the successful bidder with the date, time, and place of the conference.

#### **12. Indian Preference Requirements (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)**

(a) HUD has determined that the contract awarded under this solicitation is subject to the requirements of section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)). Section 7(b) requires that any contract or subcontract entered into for the benefit of Indians shall require that, to the greatest extent feasible

(1) Preferences and opportunities for training and employment (other than core crew positions; see paragraph (h) below) in connection with the administration of such contracts or subcontracts be given to qualified "Indians." The Act defines "Indians" to mean persons who are members of an Indian tribe and defines "Indian tribe" to mean any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians; and,

(2) Preference in the award of contracts or subcontracts in connection with the administration of contracts be given to Indian organizations and to Indian-owned economic enterprises, as defined in section 3 of the Indian Financing Act of 1974 (25 U.S.C. 1452). That Act defines "economic enterprise" to mean any Indian-owned commercial, industrial, or business activity established or organized for the purpose of profit, except that the Indian ownership must constitute not less than 51 percent of the enterprise; "Indian organization" to mean the governing body of any Indian tribe or entity established or recognized by such governing body; "Indian" to mean any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act; and Indian "tribe" to mean any Indian tribe, band, group, pueblo, or community including Native villages and Native groups (including

corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.

(b) (1) The successful Contractor under this solicitation shall comply with the requirements of this provision in awarding all subcontracts under the contract and in providing training and employment opportunities.

(2) A finding by the IHA that the contractor, either (i) awarded a subcontract without using the procedure required by the IHA, (ii) falsely represented that subcontracts would be awarded to Indian enterprises or organizations; or, (iii) failed to comply with the contractor's employment and training preference bid statement shall be grounds for termination of the contract or for the assessment of penalties or other remedies.

(c) If specified elsewhere in this solicitation, the IHA may restrict the solicitation to qualified Indian-owned enterprises and Indian organizations. If two or more (or a greater number as specified elsewhere in the solicitation) qualified Indian-owned enterprises or organizations submit responsive bids, award shall be made to the qualified enterprise or organization with the lowest responsive bid. If fewer than the minimum required number of qualified Indian-owned enterprises or organizations submit responsive bids, the IHA shall reject all bids and readvertise the solicitation in accordance with paragraph (d) below.

(d) If the IHA prefers not to restrict the solicitation as described in paragraph (c) above, or if after having restricted a solicitation an insufficient number of qualified Indian enterprises or organizations submit bids, the IHA may advertise for bids from non-Indian as well as Indian-owned enterprises and Indian organizations. Award shall be made to the qualified Indian enterprise or organization with the lowest responsive bid if that bid is -

(1) Within the maximum HUD-approved budget amount established for the specific project or activity for which bids are being solicited; and

(2) No more than the percentage specified in 24 CFR 905.175(c) higher than the total bid price of the lowest responsive bid from any qualified bidder. If no responsive bid by a qualified Indian-owned economic enterprise or organization is within the stated range of the total bid price of the lowest responsive bid from any qualified enterprise, award shall be made to the bidder with the lowest bid.

(e) Bidders seeking to qualify for preference in contracting or subcontracting shall submit proof of Indian ownership with their bids. Proof of Indian ownership shall include but not be limited to:

(1) Certification by a tribe or other evidence that the bidder is an Indian. The IHA shall accept the certification of a tribe that an individual is a member.

(2) Evidence such as stock ownership, structure, management, control, financing and salary or profit sharing arrangements of the enterprise.

(f) (1) All bidders must submit with their bids a statement describing how they will provide Indian preference in the award of subcontracts. The specific requirements of that statement and the factors to be used by the IHA in determining the statement's adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement shall be rejected as nonresponsive. The IHA may require that comparable statements be provided by subcontractors to the successful Contractor, and may require the Contractor to reject any bid or proposal by a subcontractor that fails to include the statement.

(2) Bidders and prospective subcontractors shall submit a certification (supported by credible evidence) to the IHA in any instance where the bidder or subcontractor believes it is infeasible to provide Indian preference in subcontracting. The acceptance or rejection by the IHA of the certification shall be final. Rejection shall disqualify the bid from further consideration.

(g) All bidders must submit with their bids a statement detailing their employment and training opportunities and their plans to provide preference to Indians in implementing the contract; and the number or percentage of Indians anticipated to be employed and trained. Comparable statements from all proposed subcontractors must be submitted. The criteria to be used by the IHA in determining the statement(s)'s adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement(s), or that includes a statement that does not meet minimum standards required by the IHA shall be rejected as nonresponsive.

(h) Core crew employees. A core crew employee is an individual who is a bona fide employee of the contractor at the time the bid is submitted; or an individual who was not employed by the bidder at the time the bid was submitted, but who is regularly employed by the bidder in a supervisory or other key skilled position when work is available. Bidders shall submit with their bids a list of all core crew employees.

(i) Preference in contracting, subcontracting, employment, and training shall apply not only on-site, on the reservation, or within the IHA's jurisdiction, but also to contracts with firms that operate outside these areas (e.g., employment in modular or manufactured housing construction facilities).

(j) Bidders should contact the IHA to determine if any additional local preference requirements are applicable to this solicitation.

(k) The IHA [ ] does [ ] does not [Contracting Officer check applicable box] maintain lists of Indian-owned economic enterprises and Indian organizations by specialty (e.g., plumbing, electrical, foundations), which are available to bidders to assist them in meeting their responsibility to provide preference in connection with the administration of contracts and subcontracts.

**SECTION 3**

**GENERAL CONDITIONS HUD 5370**

# General Conditions for Construction Contracts - Public Housing Programs

U.S. Department of Housing and Urban Development  
 Office of Public and Indian Housing  
 OMB Approval No. 2577-0157 (exp. 11/30/2023)

**Applicability. This form is applicable to any construction/development contract greater than \$150,000.**

Public reporting burden for this collection of information is estimated to average 1 hour. This includes the time for collecting, reviewing, and reporting the data. The information requested is required to obtain a benefit. This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 2 CFR 200, and those requirements set forth in Section 3 of the Housing and Urban Development Act of 1968 and its amendment by the Housing and Community Development Act of 1992, implemented by HUD at 24 CFR Part 135. The form is required for construction contracts awarded by Public Housing Agencies (PHAs). The form is used by Housing Authorities in solicitations to provide necessary contract clauses. If the form were not used, PHAs would be unable to enforce their contracts. There are no assurances of confidentiality. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number.

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## 1. Definitions

- (a) "Architect" means the person or other entity engaged by the PHA to perform architectural, engineering, design, and other services related to the work as provided for in the contract. When a PHA uses an engineer to act in this capacity, the terms "architect" and "engineer" shall be synonymous. The Architect shall serve as a technical representative of the Contracting Officer. The Architect's authority is as set forth elsewhere in this contract.
- (b) "Contract" means the contract entered into between the PHA and the Contractor. It includes the forms of Bid, the Bid Bond, the Performance and Payment Bond or Bonds or other assurance of completion, the Certifications, Representations, and Other Statements of Bidders (form HUD-5370), these General Conditions of the Contract for Construction (form HUD-5370), the applicable wage rate determinations from the U.S. Department of Labor, any special conditions included elsewhere in the contract, the specifications, and drawings. It includes all formal changes to any of those documents by addendum, change order, or other modification.
- (c) "Contracting Officer" means the person delegated the authority by the PHA to enter into, administer, and/or terminate this contract and designated as such in writing to the Contractor. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer also designated in writing. The Contracting Officer shall be deemed the authorized agent of the PHA in all dealings with the Contractor.
- (d) "Contractor" means the person or other entity entering into the contract with the PHA to perform all of the work required under the contract.
- (e) "Drawings" means the drawings enumerated in the schedule of drawings contained in the Specifications and as described in the contract clause entitled Specifications and Drawings for Construction herein.
- (f) "HUD" means the United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf. HUD has agreed, subject to the provisions of an Annual Contributions Terms and Conditions (ACC), to provide financial assistance to the PHA, which includes assistance in financing the work to be performed under this contract. As defined elsewhere in these General Conditions or the contract documents, the determination of HUD may be required to authorize changes in the work or for release of funds to the PHA for payment to the Contractor. Notwithstanding HUD's role, nothing in this contract shall be construed to create any contractual relationship between the Contractor and HUD.
- (g) "Project" means the entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under this contract.
- (h) "PHA" means the Public Housing Agency organized under applicable state laws which is a party to this contract.
- (j) "Specifications" means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.
- (l) "Work" means materials, workmanship, and manufacture and fabrication of components.
- (a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled Availability and Use of Utility Services herein.
- (b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [ ] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.
- (c) At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
- (d) The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.
- (e) The Contractor shall lay out the work from base lines and bench marks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.
- (f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.
- (g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.
- (h) The Contractor's responsibility will terminate when all work has been completed, the final inspection made, and the work accepted by the Contracting Officer. The Contractor will then be released from further obligation except as required by the warranties specified elsewhere in the contract.

## 3. Architect's Duties, Responsibilities, and Authority

- (a) The Architect for this contract, and any successor, shall be designated in writing by the Contracting Officer.

- (b) The Architect shall serve as the Contracting Officer's technical representative with respect to architectural, engineering, and design matters related to the work performed under the contract. The Architect may provide direction on contract performance. Such direction shall be within the scope of the contract and may not be of a nature which: (1) institutes additional work outside the scope of the contract; (2) constitutes a change as defined in the Changes clause herein; (3) causes an increase or decrease in the cost of the contract; (4) alters the Construction Progress Schedule; or (5) changes any of the other express terms or conditions of the contract.
- (c) The Architect's duties and responsibilities may include but shall not be limited to:
- (1) Making periodic visits to the work site, and on the basis of his/her on-site inspections, issuing written reports to the PHA which shall include all observed deficiencies. The Architect shall file a copy of the report with the Contractor's designated representative at the site;
  - (2) Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of change orders and other contract modifications for issuance by the Contracting Officer;
  - (3) Reviewing and making recommendations with respect to - (i) the Contractor's construction progress schedules; (ii) the Contractor's shop and detailed drawings; (iii) the machinery, mechanical and other equipment and materials or other articles proposed for use by the Contractor; and, (iv) the Contractor's price breakdown and progress payment estimates; and,
  - (4) Assisting in inspections, signing Certificates of Completion, and making recommendations with respect to acceptance of work completed under the contract.

#### 4. Other Contracts

The PHA may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with PHA employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by PHA employees

### **Construction Requirements**

#### 5. Pre-construction Conference and Notice to Proceed

- (a) Within ten calendar days of contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with representatives of the PHA, its Architect, and other interested parties convened by the PHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract. The PHA will provide the Contractor with the date, time, and place of the conference.
- (b) The contractor shall begin work upon receipt of a written Notice to Proceed from the Contracting Officer or designee. The Contractor shall not begin work prior to receiving such notice.

#### 6. Construction Progress Schedule

- (a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring labor, materials, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments or take other remedies under the contract until the Contractor submits the required schedule.
- (b) The Contractor shall enter the actual progress on the chart as required by the Contracting Officer, and immediately deliver three copies of the annotated schedule to the Contracting Officer. If the Contracting Officer determines, upon the basis of inspection conducted pursuant to the clause entitled Inspection and Acceptance of Construction, herein that the Contractor is not meeting the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the PHA. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.
- (c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the Default clause of this contract.

#### 7. Site Investigation and Conditions Affecting the Work

- (a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to, (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is

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reasonably ascertainable from an inspection of the site, including all exploratory work done by the PHA, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the PHA.

- (b) The PHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the PHA. Nor does the PHA assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

#### 8. Differing Site Conditions

- (a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.
- (b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. Work shall not proceed at the affected site, except at the Contractor's risk, until the Contracting Officer has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, the Contractor shall file a claim in writing to the PHA within ten days after receipt of such instructions and, in any event, before proceeding with the work. An equitable adjustment in the contract price, the delivery schedule, or both shall be made under this clause and the contract modified in writing accordingly.
- (c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.
- (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

#### 9. Specifications and Drawings for Construction

- (a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be

promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

- (b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by", or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.
- (c) Where "as shown" "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place" that is "furnished and installed".
- (d) "Shop drawings" means drawings, submitted to the PHA by the Contractor, subcontractor, or any lower tier subcontractor, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials of equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract. The PHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- (e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the PHA's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.
- (f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Architect approves any such variation and the Contracting Officer concurs, the Contracting Officer shall issue an appropriate modification to the contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.
- (g) It shall be the responsibility of the Contractor to make timely requests of the PHA for such large scale and full size drawings, color schemes, and other additional information, not already in his possession, which shall be

required in the planning and production of the work. Such requests may be submitted as the need arises, but each request shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.

- (h) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the PHA and one set will be returned to the Contractor. As required by the Contracting Officer, the Contractor, upon completing the work under this contract, shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the work is completed and accepted.
- (i) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by subcontractors are submitted to the Contracting Officer.

#### 10. As-Built Drawings

- (a) "As-built drawings," as used in this clause, means drawings submitted by the Contractor or subcontractor at any tier to show the construction of a particular structure or work as actually completed under the contract. "As-built drawings" shall be synonymous with "Record drawings."
- (b) As required by the Contracting Officer, the Contractor shall provide the Contracting Officer accurate information to be used in the preparation of permanent as-built drawings. For this purpose, the Contractor shall record on one set of contract drawings all changes from the installations originally indicated, and record final locations of underground lines by depth from finish grade and by accurate horizontal offset distances to permanent surface improvements such as buildings, curbs, or edges of walks.
- (c) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by subcontractors are submitted to the Contracting Officer.

#### 11. Material and Workmanship

- (a) All equipment, material, and articles furnished under this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the contract to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.
- (b) Approval of equipment and materials.
  - (1) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the

machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

- (2) When required by the specifications or the Contracting Officer, the Contractor shall submit appropriately marked samples (and certificates related to them) for approval at the Contractor's expense, with all shipping charges prepaid. The Contractor shall label, or otherwise properly mark on the container, the material or product represented, its place of origin, the name of the producer, the Contractor's name, and the identification of the construction project for which the material or product is intended to be used.
- (3) Certificates shall be submitted in triplicate, describing each sample submitted for approval and certifying that the material, equipment or accessory complies with contract requirements. The certificates shall include the name and brand of the product, name of manufacturer, and the location where produced.
- (4) Approval of a sample shall not constitute a waiver of the PHA right to demand full compliance with contract requirements. Materials, equipment and accessories may be rejected for cause even though samples have been approved.
- (5) Wherever materials are required to comply with recognized standards or specifications, such specifications shall be accepted as establishing the technical qualities and testing methods, but shall not govern the number of tests required to be made nor modify other contract requirements. The Contracting Officer may require laboratory test reports on items submitted for approval or may approve materials on the basis of data submitted in certificates with samples. Check tests will be made on materials delivered for use only as frequently as the Contracting Officer determines necessary to insure compliance of materials with the specifications. The Contractor will assume all costs of retesting materials which fail to meet contract requirements and/or testing materials offered in substitution for those found deficient.
- (6) After approval, samples will be kept in the Project office until completion of work. They may be built into the work after a substantial quantity of the materials they represent has been built in and accepted.
- (c) Requirements concerning lead-based paint. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35.

#### 12. Permits and Codes

- (a) The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules and regulations. Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the contract, all work installed shall comply with all applicable codes and regulations as amended by any

waivers. Before installing the work, the Contractor shall examine the drawings and the specifications for compliance with applicable codes and regulations bearing on the work and shall immediately report any discrepancy it may discover to the Contracting Officer. Where the requirements of the drawings and specifications fail to comply with the applicable code or regulation, the Contracting Officer shall modify the contract by change order pursuant to the clause entitled Changes herein to conform to the code or regulation.

- (b) The Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of the work. Where the PHA can arrange for the issuance of all or part of these permits, fees and licenses, without cost to the Contractor, the contract amount shall be reduced accordingly.

### 13. Health, Safety, and Accident Prevention

(a) In performing this contract, the Contractor shall:

- (1) Ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health and/or safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation;
- (2) Protect the lives, health, and safety of other persons;
- (3) Prevent damage to property, materials, supplies, and equipment; and,
- (4) Avoid work interruptions.

(b) For these purposes, the Contractor shall:

- (1) Comply with regulations and standards issued by the Secretary of Labor at 29 CFR Part 1926. Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96), 40 U.S.C. 3701 et seq.; and
- (2) Include the terms of this clause in every subcontract so that such terms will be binding on each subcontractor.

(c) The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by 29 CFR Part 1904.

(d) The Contracting Officer shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the noncompliance and corrective action required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to take corrective action promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop order issued under these circumstances.

(e) The Contractor shall be responsible for its subcontractors' compliance with the provisions of this clause. The Contractor shall take such action with respect to any subcontract as the PHA, the Secretary of Housing and Urban Development, or the Secretary of Labor shall direct as a means of enforcing such provisions.

### 14. Temporary Heating

The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to properly protect all work and materials against damage by dampness and cold, to dry out the work, and to facilitate the completion of the work. Any permanent heating equipment used shall be turned over to the PHA in the condition and at the time required by the specifications.

### 15. Availability and Use of Utility Services

(a) The PHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the PHA or, where the utility is produced by the PHA, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

(b) The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the PHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

### 16. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed under this contract, and which do not unreasonably interfere with the work required under this contract.

(b) The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during performance of this contract, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(c) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.

(d) The Contractor shall shore up, brace, underpin, secure, and protect as necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be affected by the excavations or other operations connected with the construction of the project.

(e) Any equipment temporarily removed as a result of work under this contract shall be protected, cleaned, and replaced in the same condition as at the time of award of this contract.

- (f) New work which connects to existing work shall correspond in all respects with that to which it connects and/or be similar to existing work unless otherwise required by the specifications.
- (g) No structural members shall be altered or in any way weakened without the written authorization of the Contracting Officer, unless such work is clearly specified in the plans or specifications.
- (h) If the removal of the existing work exposes discolored or unfinished surfaces, or work out of alignment, such surfaces shall be refinished, or the material replaced as necessary to make the continuous work uniform and harmonious. This, however, shall not be construed to require the refinishing or reconstruction of dissimilar finishes previously exposed, or finished surfaces in good condition, but in different planes or on different levels when brought together by the removal of intervening work, unless such refinishing or reconstruction is specified in the plans or specifications.
- (i) The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before the commencement of any work.
- (j) The Contractor shall indemnify and save harmless the PHA from any damages on account of settlement or the loss of lateral support of adjoining property, any damages from changes in topography affecting drainage, and from all loss or expense and all damages for which the PHA may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- (k) The Contractor shall repair any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

#### 17. Temporary Buildings and Transportation of Materials

- (a) Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the PHA. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.
- (b) The Contractor shall, as directed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

#### 18. Clean Air and Water

The contractor shall comply with the Clean Air Act, as amended, 42 USC 7401 et seq., the Federal Water Pollution Control Water Act, as amended, 33 U.S.C. 1251 et seq., and standards issued pursuant thereto in the facilities in which this contract is to be performed.

#### 19. Energy Efficiency

The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub.L. 94-163) for the State in which the work under the contract is performed.

#### 20. Inspection and Acceptance of Construction

- (a) Definitions. As used in this clause -
  - (1) "Acceptance" means the act of an authorized representative of the PHA by which the PHA approves and assumes ownership of the work performed under this contract. Acceptance may be partial or complete.
  - (2) "Inspection" means examining and testing the work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies) to determine whether it conforms to contract requirements.
  - (3) "Testing" means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.
- (b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. All work is subject to PHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
- (c) PHA inspections and tests are for the sole benefit of the PHA and do not: (1) relieve the Contractor of responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for loss or damage of the material before acceptance; (3) constitute or imply acceptance; or, (4) affect the continuing rights of the PHA after acceptance of the completed work under paragraph (j) below.
- (d) The presence or absence of the PHA inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization. All instructions and approvals with respect to the work shall be given to the Contractor by the Contracting Officer.
- (e) The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The PHA may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The PHA shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

- (f) The PHA may conduct routine inspections of the construction site on a daily basis.
- (g) The Contractor shall, without charge, replace or correct work found by the PHA not to conform to contract requirements, unless the PHA decides that it is in its interest to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
- (h) If the Contractor does not promptly replace or correct rejected work, the PHA may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor, or (2) terminate for default the Contractor's right to proceed.
- (i) If any work requiring inspection is covered up without approval of the PHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor. If at any time before final acceptance of the entire work, the PHA considers it necessary or advisable, to examine work already completed by removing or tearing it out, the Contractor, shall on request, promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray all the expenses of the examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the Contracting Officer shall make an equitable adjustment to cover the cost of the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.
- (j) The Contractor shall notify the Contracting Officer, in writing, as to the date when in its opinion all or a designated portion of the work will be substantially completed and ready for inspection. If the Architect determines that the state of preparedness is as represented, the PHA will promptly arrange for the inspection. Unless otherwise specified in the contract, the PHA shall accept, as soon as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines and designates can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the PHA's right under any warranty or guarantee.

## 21. Use and Possession Prior to Completion

- (a) The PHA shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the PHA intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The PHA's possession or use shall not be deemed an acceptance of any work under the contract.
- (b) While the PHA has such possession or use, the Contractor shall be relieved of the responsibility for (1) the loss of or damage to the work resulting from the PHA's possession or use, notwithstanding the terms of the clause entitled Permits and Codes herein; (2) all maintenance costs on the areas occupied; and, (3) furnishing heat, light, power, and water used in the areas occupied without proper remuneration therefore. If prior possession or use by the PHA delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

## 22. Warranty of Title

The Contractor warrants good title to all materials, supplies, and equipment incorporated in the work and agrees to deliver the premises together with all improvements thereon free from any claims, liens or charges, and agrees further that neither it nor any other person, firm or corporation shall have any right to a lien upon the premises or anything appurtenant thereto.

## 23. Warranty of Construction

- (a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of \_\_\_\_\_ (one year unless otherwise indicated) from the date of final acceptance of the work. If the PHA takes possession of any part of the work before final acceptance, this warranty shall continue for a period of (one year unless otherwise indicated) from the date that the PHA takes possession.
- (b) The Contractor shall remedy, at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damage to PHA-owned or controlled real or personal property when the damage is the result of—
- (1) The Contractor's failure to conform to contract requirements; or
  - (2) Any defects of equipment, material, workmanship or design furnished by the Contractor.
- (c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for (one year unless otherwise indicated) from the date of repair or replacement.
- (d) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.
- (e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the PHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- (f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:
- (1) Obtain all warranties that would be given in normal commercial practice;
  - (2) Require all warranties to be executed in writing, for the benefit of the PHA; and,
  - (3) Enforce all warranties for the benefit of the PHA.
- (g) In the event the Contractor's warranty under paragraph (a) of this clause has expired, the PHA may bring suit at its own expense to enforce a subcontractor's, manufacturer's or supplier's warranty.

- (h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defect of material or design furnished by the PHA nor for the repair of any damage that results from any defect in PHA furnished material or design.
- (i) Notwithstanding any provisions herein to the contrary, the establishment of the time periods in paragraphs (a) and (c) above relate only to the specific obligation of the Contractor to correct the work, and have no relationship to the time within which its obligation to comply with the contract may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to its obligation other than specifically to correct the work.
- (j) This warranty shall not limit the PHA's rights under the Inspection and Acceptance of Construction clause of this contract with respect to latent defects, gross mistakes or fraud.

**24. Prohibition Against Liens**

The Contractor is prohibited from placing a lien on the PHA's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

**Administrative Requirements**

**25. Contract Period**

this contract within \_\_\_\_\_ calendar days of the effective date of the contract, or within the time schedule established in the notice to proceed issued by the Contracting Officer.

**26. Order of Provisions**

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. In the event of a conflict between the contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

**27. Payments**

- (a) The PHA shall pay the Contractor the price as provided in this contract.
- (b) The PHA shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer. The PHA may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.
- (c) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a

basis for determining progress payments. The breakdown shall be approved by the Contracting Officer and must be acceptable to HUD. If the contract covers more than one project, the Contractor shall furnish a separate breakdown for each. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the contract price. The Contractor shall prorate its overhead and profit over the construction period of the contract.

- (d) The Contractor shall submit, on forms provided by the PHA, periodic estimates showing the value of the work performed during each period based upon the approved

submitted not later than \_\_\_\_\_ days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.

- (e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made: I hereby certify, to the best of my knowledge and belief, that:

- (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements; and,
- (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

\_\_\_\_\_  
Name:

\_\_\_\_\_  
Title:

\_\_\_\_\_  
Date:

- (f) Except as otherwise provided in State law, the PHA shall retain ten (10) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, the PHA may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, the PHA shall reinstate the ten (10) percent (or other percentage as provided in State law) retainage until such time as the Contracting Officer determines that performance and progress are satisfactory.
- (g) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments.

Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of the PHA's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the PHA.

- (h) All material and work covered by progress payments made shall, at the time of payment become the sole property of the PHA, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of the PHA to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of the PHA in the course of their employment, the Contractor shall restore such damaged work without cost to the PHA and to seek redress for its damage only from those who directly caused it.
- (i) The PHA shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against the PHA arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.
- (j) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.
- (k) The PHA shall not; (1) determine or adjust any claims for payment or disputes arising there under between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of the PHA to withhold moneys from the Contractor shall in no wise impair the obligations of any surety or sureties under any bonds furnished under this contract.

## 28. Contract Modifications

- (a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.
- (b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which do not change the rights or responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and the Contracting Officer.
- (c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

## 29. Changes

- (a) The Contracting Officer may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract including changes:
  - (1) In the specifications (including drawings and designs);
  - (2) In the method or manner of performance of the work;
  - (3) PHA-furnished facilities, equipment, materials, services, or site; or,
  - (4) Directing the acceleration in the performance of the work.
- (b) Any other written order or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating (1) the date, circumstances and source of the order and (2) that the Contractor regards the order as a change order.
- (c) Except as provided in this clause, no order, statement or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.
- (d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for a adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.
- (e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.
- (f) The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract in at least the following details:

- (1) Direct Costs. Materials (list individual items, the quantity and unit cost of each, and the aggregate cost); Transportation and delivery costs associated with materials; Labor breakdowns by hours or unit costs (identified with specific work to be performed); Construction equipment exclusively necessary for the change; Costs of preparation and/ or revision to shop drawings resulting from the change; Worker's Compensation and Public Liability Insurance; Employment taxes under FICA and FUTA; and, Bond Costs when size of change warrants revision.
- (2) Indirect Costs. Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.
- (3) Profit. The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change. The allowability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms in Part 31 of the Federal Acquisition Regulation (48 CFR 1-31), as implemented by HUD Handbook 2210.18, in effect on the date of this contract. The Contractor shall not be allowed a profit on the profit received by any subcontractor. Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs. On proposals covering both increases and decreases in the amount of the contract, the application of indirect costs and profit shall be on the net-change in direct costs for the Contractor or subcontractor performing the work.
- (g) The Contractor shall include in the proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the contract in its entirety.
- (h) The Contracting Officer shall act on proposals within 30 days after their receipt, or notify the Contractor of the date when such action will be taken.
- (i) Failure to reach an agreement on any proposal shall be a dispute under the clause entitled Disputes herein. Nothing in this clause, however, shall excuse the Contractor from proceeding with the contract as changed.
- (j) Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior order from the Contracting Officer.

### 30. Suspension of Work

- (a) The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the PHA.
- (b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified (or within a reasonable time if not specified) in this contract an adjustment shall be made for any increase in the cost of performance of the contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have

been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or for which any equitable adjustment is provided for or excluded under any other provision of this contract.

- (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and, (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

### 31. Disputes

- (a) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- (b) Except for disputes arising under the clauses entitled Labor Standards - Davis Bacon and Related Acts, herein, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this clause.
- (c) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the PHA against the Contractor shall be subject to a written decision by the Contracting Officer.
- (d) The Contracting Officer shall, within 60 (unless otherwise indicated) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
- (e) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the PHA in accordance with the PHA's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) days after receipt of the Contracting Officer's decision.
- (f) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

### 32. Default

- (a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within this time, the Contracting Officer may, by written notice to the Contractor, terminate the right to

proceed with the work (or separable part of the work) that has been delayed. In this event, the PHA may take over the work and complete it, by contract or otherwise, and may take possession of and use any materials, equipment, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the PHA resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the PHA in completing the work.

- (b) The Contractor's right to proceed shall not be terminated or the Contractor charged with damages under this clause if—
- (1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (i) acts of God, or of the public enemy, (ii) acts of the PHA or other governmental entity in either its sovereign or contractual capacity, (iii) acts of another contractor in the performance of a contract with the PHA, (iv) fires, (v) floods, (vi) epidemics, (vii) quarantine restrictions, (viii) strikes, (ix) freight embargoes, (x) unusually severe weather, or (xi) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and
  - (2) The Contractor, within days (10 days unless otherwise indicated) from the beginning of such delay (unless extended by the Contracting Officer) notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, time for completing the work shall be extended by written modification to the contract. The findings of the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the Disputes clause of this contract.
- (c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been for convenience of the PHA.

### 33. Liquidated Damages

- (a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, as specified in the clause entitled Default of this contract, the Contractor shall pay to the PHA as liquidated damages, the sum of \$ \_\_\_\_\_ [Contracting Officer insert amount] for each day of delay. If different completion dates are specified in the contract for separate parts or stages of the work, the amount of liquidated damages shall be assessed on those parts or stages which are delayed. To the extent that the Contractor's delay or nonperformance is excused under another clause in this contract, liquidated damages shall not be due the PHA. The Contractor remains liable for damages caused other than by delay.
- (b) If the PHA terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final

completion of the work together with any increased costs occasioned the PHA in completing the work.

- (c) If the PHA does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

### 34. Termination for Convenience

- (a) The Contracting Officer may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of the PHA. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which such termination becomes effective.
- (b) If the performance of the work is terminated, either in whole or in part, the PHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by the PHA of a properly presented claim setting out in detail: (1) the total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor; (2) the cost (including reasonable profit) of settling and paying claims under subcontracts and material orders for work performed and materials and supplies delivered to the site, payment for which has not been made by the PHA to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and protecting the work already performed until the PHA or assignee takes possession thereof or assumes responsibility therefore; (4) the actual or estimated cost of legal and accounting services reasonably necessary to prepare and present the termination claim to the PHA; and (5) an amount constituting a reasonable profit on the value of the work performed by the Contractor.
- (c) The Contracting Officer will act on the Contractor's claim within days (60 days unless otherwise indicated) of receipt of the Contractor's claim.
- (d) Any disputes with regard to this clause are expressly made subject to the provisions of the Disputes clause of this contract.

### 35. Assignment of Contract

The Contractor shall not assign or transfer any interest in this contract; except that claims for monies due or to become due from the PHA under the contract may be assigned to a bank, trust company, or other financial institution. Such assignments of claims shall only be made with the written concurrence of the Contracting Officer. If the Contractor is a partnership, this contract shall inure to the benefit of the surviving or remaining member(s) of such partnership as approved by the Contracting Officer.

### 36. Insurance

- (a) Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:
- (1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.
  - (2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than \$ \_\_\_\_\_ [Contracting Officer insert amount]

per occurrence to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under (3) below. If the Contractor has a "claims made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

- (3) Automobile Liability on owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$ \_\_\_\_\_ [Contracting Officer insert amount] per occurrence.
- (b) Before commencing work, the Contractor shall furnish the PHA with a certificate of insurance evidencing that Builder's Risk (fire and extended coverage) Insurance on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started. It need not be carried on landscape work. Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.
- (c) All insurance shall be carried with companies which are financially responsible and admitted to do business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to the Contracting Officer.

### 37. Subcontracts

- (a) Definitions. As used in this contract -
- (1) "Subcontract" means any contract, purchase order, or other purchase agreement, including modifications and change orders to the foregoing, entered into by a subcontractor to furnish supplies, materials, equipment, and services for the performance of the prime contract or a subcontract.

(2) "Subcontractor" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another subcontractor.

- (b) The Contractor shall not enter into any subcontract with any subcontractor who has been temporarily denied participation in a HUD program or who has been suspended or debarred from participating in contracting programs by any agency of the United States Government or of the state in which the work under this contract is to be performed.
- (c) The Contractor shall be as fully responsible for the acts or omissions of its subcontractors, and of persons either directly or indirectly employed by them as for the acts or omissions of persons directly employed by the Contractor.
- (d) The Contractor shall insert appropriate clauses in all subcontracts to bind subcontractors to the terms and conditions of this contract insofar as they are applicable to the work of subcontractors.
- (e) Nothing contained in this contract shall create any contractual relationship between any subcontractor and the PHA or between the subcontractor and HUD.

### 38. Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms

The Contractor shall take the following steps to ensure that, whenever possible, subcontracts are awarded to small business firms, minority firms, women's business enterprises, and labor surplus area firms:

- (a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (b) Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources;
- (c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;
- (d) Establishing delivery schedules, where the requirements of the contract permit, which encourage participation by small and minority businesses and women's business enterprises; and
- (e) Using the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, and State and local governmental small business agencies.

### 39. Equal Employment Opportunity

During the performance of this contract, the Contractor/Seller agrees as follows:

- (a) The Contractor/Seller shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, disability, or national origin.
- (b) The Contractor/Seller shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, disability, or national origin. Such action shall include, but not be limited to, (1) employment, (2) upgrading, (3) demotion, (4) transfer, (5) recruitment or recruitment advertising, (6) layoff or termination, (7) rates of pay or other forms of compensation, and (8) selection for training including apprenticeship.

(c) The Contractor/Seller agrees to post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

(d) The Contractor/Seller shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor/Seller, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(e) The Contractor/Seller shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(f) The Contractor/Seller shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(g) The Contractor/Seller shall furnish all information and reports required by Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto. The Contractor/Seller shall permit access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(h) In the event of a that the Contractor/Seller is in non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor/seller may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(i) The contractor/seller will include the provisions of paragraphs (a) through (h) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each sub[contractor/seller] or vendor. The [contractor/seller] will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the [contractor/seller] becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the [contractor/seller] may request the United States to enter into such litigation to protect the interests of the United States.

(j) Compliance with the requirements of this clause shall be to the maximum extent consistent with, but not in derogation of, compliance with section 7(b) of the Indian Self-Determination and Education Assistance Act and the Indian Preference clause of this contract.

**40. Employment, Training, and Contracting Opportunities for Low-Income Persons, Section 3 of the Housing and Urban Development Act of 1968.**

(a) The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

(b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.

(c) The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

(d) The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.

(e) The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR Part 135.

(f) Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

(g) With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

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#### 41. Interest of Members of Congress

No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of this contract or to any benefit that may arise therefrom.

#### 42. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees

No member, officer, or employee of the PHA, no member of the governing body of the locality in which the project is situated, no member of the governing body of the locality in which the PHA was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this contract or the proceeds thereof.

#### 43. Limitations on Payments made to Influence Certain Federal Financial Transactions

- (a) The Contractor agrees to comply with Section 1352 of Title 31, United States Code which prohibits the use of Federal appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) The Contractor further agrees to comply with the requirement of the Act to furnish a disclosure (OMB Standard Form LLL, Disclosure of Lobbying Activities) if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

#### 44. Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall save the PHA harmless from loss on account thereof; except that the PHA shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified and the Contractor has no reason to believe that the specified design, process, or product is an infringement. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent, the Contractor shall promptly notify the Contracting Officer. Failure to give such notice shall make the Contractor responsible for resultant loss.

#### 45. Examination and Retention of Contractor's Records

- (a) The PHA, HUD, or Comptroller General of the United States, or any of their duly authorized representatives shall, until 3 years after final payment under this contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this contract for the purpose of making audit, examination, excerpts, and transcriptions.
- (b) The Contractor agrees to include in first-tier subcontracts under this contract a clause substantially the same as paragraph (a) above. "Subcontract," as used in this clause, excludes purchase orders not exceeding \$10,000.
- (c) The periods of access and examination in paragraphs (a) and (b) above for records relating to (1) appeals under the Disputes clause of this contract, (2) litigation or settlement of claims arising from the performance of this contract, or (3) costs and expenses of this contract to which the PHA, HUD, or Comptroller General or any of their duly authorized representatives has taken exception shall continue until disposition of such appeals, litigation, claims, or exceptions.

#### 46. Labor Standards - Davis-Bacon and Related Acts

If the total amount of this contract exceeds \$2,000, the Federal labor standards set forth in the clause below shall apply to the development or construction work to be performed under the contract.

- (a) Minimum Wages.
- (1) All laborers and mechanics employed under this contract in the development or construction of the project(s) involved will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the regular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall

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be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- (2) (i) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met: (A) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (B) The classification is utilized in the area by the construction industry; and (C) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (ii) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employee Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- (iii) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- (iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (a)(2)(ii) or (iii) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in classification.
- (3) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (4) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the

amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

- (b) Withholding of funds. HUD or its designee shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working in the construction or development of the project, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due.
- (c) Payrolls and basic records.
- (1) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working in the construction or development of the project. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(2) (i) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under subparagraph (c)(1) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The Contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1214-0149.)

(ii) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c) (1) of this clause and that such information is correct and complete;

(B) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and

(C) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(iii) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance" required by subparagraph (c)(2)(ii) of this clause.

(iv) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(3) The Contractor or subcontractor shall make the records required under subparagraph (c)(1) available for inspection, copying, or transcription by authorized representatives of HUD or its designee, the Contracting Officer, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to

make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(d) (1) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under

- the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (3) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.
- (e) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.
- (f) Contract termination; debarment. A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.
- (g) Compliance with Davis-Bacon and related Act requirements. All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (h) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this clause shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.
- (i) Certification of eligibility.
- (1) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

- (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a United States Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (3) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.
- (j) Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.
- (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, including watchmen and guards, shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.
- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions set forth in subparagraph (j)(1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic (including watchmen and guards) employed in violation of the provisions set forth in subparagraph (j)(1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth in subparagraph (j)(1) of this clause.
- (3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in subparagraph (j)(2) of this clause.
- (k) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

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#### 47. Non-Federal Prevailing Wage Rates

- (a) Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State or tribal law to be prevailing, with respect to any employee in any trade or position employed under the contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate exceeds:
  - (1) The applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 3141 et seq.) to be prevailing in the locality with respect to such trade;
- (b) An applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL-recognized State Apprenticeship Agency; or
- (c) An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

#### 48. Procurement of Recovered Materials.

- (a) In accordance with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items: (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.
- (b) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of \$10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (ii) purchased a total of in excess of \$10,000 of the item both under and outside that contract.

## **SECTION 4**

### **SUPPLEMENTAL GENERAL CONDITIONS**

## SCCHA SUPPLEMENT TO THE GENERAL CONDITIONS

- A. The Contractor shall furnish all labor, material, equipment and services necessary to complete work as specified under this contract.
- B. The Contractor has no right to assign or subcontract the work under this contract of any part thereof to another party without the expressed written approval of the owner.
- C. The contractor will be required to begin work within 10 working days of receipt of written Notice to Proceed by the Owner.
- D. Payment under this contract will be partial payments at approximately 30-day intervals. Payment less 10% retainage will be made after submission of proper documents and receipt of funds from HUD. The Owner reserves the right to withhold payment for any work not completed in a proper workmanlike manner by notifying the Contractor of the action required to remedy the condition.
- E. Contractor is responsible for application, payment and obtaining all necessary permits and licenses required for the work specified in this contract.
- F. The Contractor is responsible for obtaining additional copies of plans and specifications at the contractor's expense from the Architect.
- G. Under no circumstances shall trash or debris be allowed to accumulate on premises. All debris resulting from the work shall be removed by the contractor at the end of each work day.
- H. Contractor is requested to have a work force comprised of at least 20% minority subcontractors and/or material suppliers.
- I. Before submitting their proposals, bidder shall carefully examine the drawings and specifications, visit the project site, and fully inform themselves as to the existing conditions. All bidders shall make their proposals to carry out and complete the work under such conditions and in strict accordance with the drawing, specifications, and local codes and ordinances.
- J. Contractor may be required to work between established hours of 7:30 a.m. to 5:30 p.m.
- K. The Contractor agrees to warrant the workmanship and materials of the Contract work against and defect for a period of one (1) year from date of Final Payment in the form of a Good Faith Agreement. Contracts exceeding \$100,000.00 will require both a Good Faith Agreement and a Warranty Bond for 100% of the contracted amount.
- L. Contractor is responsible for security of the buildings, materials, equipment and supplies related to this contract.
- M. Contractor will not be authorized to start work or gather materials related to this contract until receipt of written Notice of Award and Notice to Proceed from Owner. Contracts over \$70,000.00 must be approved by the SCCHA Board of Commissioners prior to issuance of Notice of Award and Notice to Proceed.
- N. The Contractor or Subcontractor is prohibited from placing lien on the PHA's property.
- O. No vehicles will be allowed on non-street areas of the property. Any damages created by construction vehicles, employee vehicles or delivery vehicles will be charged to the Contractor.
- P. At no time will any work be charged on an hourly rate or per hour basis.
- Q. The "Contractor shall provide cost proposals for all contract modifications on the enclosed forms; Construction Cost Estimate Breakdown (CCEB) and Construction Cost Estimate Breakdown Summary (CCEBS3 12/97).

**SECTION 5**

**ADDITIONAL INSURED ENDORSEMENT SAMPLE**

Eff: 01/01/98

**SAMPLE COPY**

**ADDITIONAL INSURED ENDORSEMENT**

Reference is made to the attached Certificate as To Evidence of Insurance.

It is agreed that: St. Clair County Housing Authority  
1790 South 74<sup>th</sup> Street, Belleville, IL 62223

The person or organization to which the attached Certificate is issued is an additional insured. This applies only with respect to liability arising out of the acts or omissions of the named insured. It applies only to the coverage's indicated on the Certificate.

This extension of coverage does not apply:

1. To liability arising out of the negligence of the additional insured, its agents or employees, unless the agent or employee is the named insured.
2. To any defect of material, design or workmanship in any equipment of which the additional insured is the owner, lessor, manufacturer, mortgagee, or beneficiary.
3. To any vehicle liability when the named insured is not the owner or does not have care, custody, or control of the vehicle.

The intent of this endorsement is to provide the coverage as stated above and in the Certificate. If any court shall interpret this endorsement to provide coverage other than what is stated above then our limits of liability shall be the limits of bodily injury liability and property damage liability specified by any motor vehicle financial responsibility law of the state, province, or territory where the named insured resides. If there is no such law, our limit of liability shall be \$5,000 on account of bodily injury sustained by one person in any one occurrence and subject to this provision respecting each person, \$10,000 on account of bodily injury sustained by two or more persons in any one occurrence. Our total liability for all damages because of all property damage sustained by one or more persons or organizations as the result of any one occurrence shall not exceed \$5,000. This endorsement does not increase the coverage limit.

This endorsement becomes a part of the policy to which it is attached and supersedes and controls anything in the policy contrary hereto but is otherwise subject to the Declarations, Insuring Agreements, Exclusions and Conditions thereof.

**SECTION 6**

**STANDARD FORM AGREEMENT**

# STANDARD FORM AGREEMENT

BETWEEN

ST. CLAIR COUNTY HOUSING AUTHORITY

AND

CONTRACTOR

Be it understood that as of this day, \_\_\_\_\_, the St. Clair County Housing Authority (hereafter called the "Owner") has entered into an Agreement with \_\_\_\_\_ (hereafter called the "Contractor") for the work "HVAC Replacement" as proposed on; February 1st, 2022 for the sum of \$ \_\_\_\_\_ subject to the conditions herein contained.

## ARTICLE 1 CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, and all modifications issued subsequent thereto. These form the Contract and all are fully a part of the Contract as if attached to this Agreement of repeated herein. An enumeration of the Contractor Documents appears in Article 20.

## ARTICLE 2 WORK TO BE PERFORMED

The contractor shall perform all the work required by the Contract Documents for:

Description of work: HVAC replacement including condensing units, line sets, A-coils, furnaces and all trims and accessories.

Property: AMP's 1, 2, 5 and 6

Location: Brooklyn, Cahokia Heights, Lebanon, O'Fallon and Smithton, Illinois

## ARTICLE 3 PERFORMANCE BOND

Prior to the "Notice to Proceed" the Contractor agrees to provide a performance and payment bond for 100% of the contract price.

## ARTICLE 4 INSURANCE

Contractor shall provide proof of Comprehensive General Public Liability and Automobile Insurance with a minimum of \$1,000,000 limit per occurrence with a minimum of 2,000,000 aggregate limit. Certificate shall have original signatures on an original Certificate of Insurance. Copies, including those electronically transmitted, are not acceptable. St. Clair County Housing Authority, 1790 S. 74<sup>th</sup> Street, Belleville, IL 62223, shall be listed on the Certificate as an Additional Insured **with an Additional Insured Endorsement Form** as an attachment to the Certificate of Insurance. Additional insured coverage must be primary over any other valid and

collectible insurance available to SCCHA whether primary, excess, contingent or on any other basis. The insurer shall change the language in the "Cancellation Block" to read "the issuing company **shall** mail written notice to the certificate holder named" and statements such as "endeavor to notify" or "attempt to notify" shall not be acceptable. The cancellation notice notification period shall also be noted as **30 days**.

## **ARTICLE 5 HOLD HARMLESS AGREEMENT**

The contractor shall indemnify and hold harmless the housing authority and its employees from and against all claims for personal injury or property damage, including claims against the housing authority, its agents or servants, and all losses and expenses, including attorney's fees that may be incurred by the housing authority defending such claims, arising out of or resulting from the performance of the work and caused in whole or in part by any negligent act or omission of the contractor, any subcontractor, any directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. In any and all claims against the housing authority or any of its agents or servants by an employee of a contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the contract or subcontractor under Workers Compensation Acts, Disability Acts, or their Employee Benefit Acts.

## **ARTICLE 6 PREVAILING WAGE RATE**

The contractor shall be responsible for compliance with the Davis-Bacon Act including the prevailing wage rate requirements as applicable to the location where the work is performed; with copies of applicable Department of Labor Wage Rate Determination to be furnished by the Owner. Davis-Bacon Wage Decision is an attachment to this contract.

## **ARTICLE 7 PAYROLL SUBMISSION**

The Contractor will submit a Weekly Payroll Report of forms provided by the owner. Reports will be submitted on Monday reflecting the work completed the previous week. All employees participating in the execution of this contract must be listed on the Weekly Payroll Report.

## **ARTICLE 8 TIME TO PERFORM**

The work on this Contract is to commence by March 1<sup>st</sup>, 2022 and is to be completed within - 155 days, but no later than 4:00 p.m. Prevailing Time August 2<sup>nd</sup>, 2022; or a construction delay penalty of 100.00 per day shall be deducted from the contract price unless the Owner agrees in writing to an extension of this deadline.

## **ARTICLE 9 MATERIALS**

Contractor will furnish all materials and equipment required to perform this contract.

**ARTICLE 10  
CONTRACT SUM**

Owner shall pay the Contractor for the performance of the work, subject to the additions and deductions by approved Change Order as provided in the Contract, in current funds, the Contract Sum of \$ \_\_\_\_\_.

**ARTICLE 11  
MULTIPLE PROGRESS PAYMENT**

Based upon the Application for Payment submitted to the Architect or the Owner's representative by the Contractor and Certificates for Payments issued by the Architect or Owner's Representative, the Owner shall make progress on account of the Contract Sum to the Contractor as provided in the Conditions of the Contract in accordance with General Conditions, HUD Form 5370, Section 6 and 27.

**ARTICLE 12  
FINAL PAYMENT**

The final payment, consisting of the entire unpaid balance of the Contract Sum, shall be paid by the Owner to the Contractor after the contractor has completed and submitted the proper documentation to the Owner unless otherwise stipulated, provided the work has been completed, the contract fully performed, and a Final Certificate of Payment approved and issued by the Owner.

**ARTICLE 13  
AFFIDAVIT AND LIEN WAIVER SUBMISSION**

The contractor will provide the Owner with an Affidavit attesting to the Fact that all labor and materials except those provided by owner will be supplied by the Contractor, and that there shall be no other subcontractor and/or material suppliers required to complete the work of the contract.

- A. The Contractor will provide a lien waiver in the amount of the payment requested.
- B. The Contractor will provide the Owner with Affidavits and Final Lien Waivers for all subcontractors and material suppliers involved in the completion of the work of the contract upon request for final payment.
- C. The Contractor shall deliver to the Owner a signed and notarized Contractor's Certificate of Release of all liens arising out of this contract prior to final payment.

**ARTICLE 14  
SAFETY/EEO**

The Contractor agrees that all work will be performed in compliance with all applicable State and Federal laws related to Occupational Safety and Equal Employment Opportunity.

**ARTICLE 15  
NO INTEREST CLAUSE**

No member, officer or employee of the housing authority during his/her tenure or for one (1) year thereafter shall have any interest direct or indirect in this contract or the proceeds thereof.

**ARTICLE 16  
WARRANTY**

The Contractor agrees to Warranty the workmanship, materials and equipment of the Contract Work against any defect for a period of one (1) year from date of Final Payment in the form of a Good Faith Agreement and a Warranty Bond for One Hundred (100%) of the Contract Sum.

**ARTICLE 17  
PERMITS AND LICENSES**

The Contractor agrees to be responsible for application, payment and obtaining all necessary permits and licenses required for the work specified in this contract and as amended by change order.

**ARTICLE 18  
PLANS AND SPECIFICATIONS**

The Contractor is responsible for obtaining additional copies of plans and specifications at the contractor's expense.

**ARTICLE 19  
SECTION 3 REQUIREMENTS**

**Disclaimer: An updated Section 3 Final Rule was issued that substantially changes Section 3 requirements, including but not limited to the compliance and certification process. The PIH Notice to implement the Section 3 Final Rule has yet to be released. Respondents need to understand that they must comply with the New Section 3 regulations once the PIH Notice is issued.**

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Recipient (SCCHA)

---

Contractor

**ARTICLE 20  
MISCELLANEOUS PROVISIONS**

Terms used in this Agreement that are defined in the conditions of the Contract shall have the meanings designated in those Conditions.

Minority Participation Goal: Pursuant to established St. Clair County Housing Authority Affirmative Action and Equal Opportunity Goals, the Contractor shall be advised that they must satisfy the requirement to utilize qualified minority businesses to perform subcontract work or supply materials and/or equipment for this project. The established goal for said participation shall be no less than 20% of the total contract price.

The Contract Documents, which constitute the entire agreement between the Owner and the Contractor, are listed in Article 1 and enumerated as follows:

1. Bid package
2. Instructions to Bidders HUD 5369
3. General Conditions HUD 5370
4. SCCHA Supplemental General Conditions
5. Wage Decision
6. Bid Form

**HVAC replacement AMP's 1, 2, 5, and 6 2022.**

- 7. Statement of Bidders HUD 5369A
- 8. Contract Documents
- 9. Affirmative Action & EEO Requirements
- 10. Certification of Payments HUD 50071
- 11. Disclosure of Lobbying Activities HUD SF-LLL
- 12. Section 3 Documents
- 13. Plans and Specifications
- 14. Working Drawings

THIS AGREEMENT EXECUTED ON THIS DATE:

**OWNER:**

**CONTRACTOR:**

St. Clair County Housing Authority  
1790 South 74<sup>th</sup> Street  
Belleville, IL 62223

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BY: \_\_\_\_\_  
Larry McLean  
Executive Director

BY: \_\_\_\_\_  
Contractor Signature

\_\_\_\_\_  
Title

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

## **SECTION 7**

### **CONTRACT MODIFICATION FORMS**

**ST. CLAIR COUNTY HOUSING AUTHORITY**

**CONSTRUCTION COST ESTIMATE  
BREAKDOWN SUMMARY**

form: ccebs3 12/97

CONTRACT MODIFICATION NO.: DATE: PROJECT:	CONTRACTOR:
---	-------------

**I. CONTRACTOR WORK PERFORMANCE BREAKDOWN**

NOTE: Construction Cost Estimate Breakdown Must Be Attached

	Additions	Deletions	Net Total
A. Material/Equipment Costs	\$ _____	- \$ _____	\$ _____
B. Labor Cost	\$ _____	-\$ _____	\$ _____
C. Other Direct Cost	\$ _____	-\$ _____	\$ _____
D. Total Direct Cost	\$ _____	-\$ _____	\$ _____
E. Overhead* 10% of D (add) 10% of D (Del)	\$ _____	-\$ _____	\$ _____
F. Subtotal (lines D + E)			=\$ _____
G. Profit 10% of F (Net Total)			=\$ _____
H. Total Unit Prices (Includes overhead and profit)			=\$ _____
I.	Total (Net Total of Lines F + g + H)		\$ _____

\*Overhead to be calculated individually for net totals of additions & deletions. Credit for Overhead of Deletions may or may not be included as negotiated with the Contracting Officer.

**II. SUBCONTRACTOR'S SUMMARY OF DETAILED BREAKDOWN AND CONTRACTORS MARK-UP**

\*Note: Subcontractors direct cost below shall include 10% overhead.

	Additions	Deletions	Net Total
_____	\$ _____	-\$ _____	=\$ _____
_____	\$ _____	-\$ _____	=\$ _____
_____	\$ _____	-\$ _____	=\$ _____
_____	\$ _____	-\$ _____	=\$ _____
J.		Total Direct Cost	\$ _____
K. Contractors O & P 6% of line J =	\$ _____	(minimum \$50.00)	
L. Profit of Subcontractor's 10% of line J =	\$ _____		
M.		Total O & P (Lines K + L)	\$ _____
N. Total Subcontractor's Unit Prices (Includes Overhead and Profit)			\$ _____
O.		Total (lines J + M+ N)	\$ _____

**III. PROPOSAL**

The proposal (increases) (decreases) the contract amount by: TOTAL PRICE (Lines I + O) \$ \_\_\_\_\_

Firm Name \_\_\_\_\_

by

Date \_\_\_\_\_

Title

Note: Attached detailed beakdowns from Contractor and each subcontractor identifying direct cost, overhead and profit, separately



**SECTION 8**  
**WAGE DECISION**

"General Decision Number: IL20210007 10/29/2021

Superseded General Decision Number: IL20200007

State: Illinois

Construction Types: Building and Residential

Counties: Madison and St Clair Counties in Illinois.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) & RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/01/2021
1	01/08/2021
2	01/22/2021
3	02/05/2021
4	02/12/2021
5	03/05/2021
6	04/16/2021
7	04/23/2021
8	06/04/2021
9	07/16/2021
10	08/13/2021
11	08/27/2021
12	09/10/2021
13	09/24/2021
14	10/15/2021
15	10/29/2021

ASBE0001-003 10/02/2020

Rates

Fringes

ASBESTOS WORKER/HEAT & FROST  
INSULATOR.....\$ 40.44 25.14

-----  
BOIL0363-001 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 39.75	33.05

-----  
BRIL0008-006 08/01/2017

	Rates	Fringes
Bricklayer, Caulker, Cleaner, Pointer & Stonemason (including Marble Mason, Tile Layer).....	\$ 33.13	22.05

-----  
\* CARP0500-002 05/01/2021

ST. CLAIR COUNTY

	Rates	Fringes
CARPENTER (Lather, Piledriver, and Millwright)		
Building.....	\$ 41.36	18.90
Residential.....	\$ 31.30	18.90
Carpet Installer (Carpet, Linoleum, Hardwood, and Tile Layer).....	\$ 36.08	18.90

-----  
\* CARP0664-002 05/01/2021

MADISON COUNTY

	Rates	Fringes
CARPENTER (Lather, Piledriver, and Millwright)		
Building.....	\$ 41.36	18.90
Residential.....	\$ 31.30	18.90
Carpet Installer (Carpet, Linoleum, Hardwood, and Tile Layer).....	\$ 36.08	18.90

-----  
ELEC0309-005 08/30/2021

MADISON (Remainder) and ST. CLAIR COUNTIES

	Rates	Fringes
ELECTRICIAN		
Building.....	\$ 43.04	38.81%+7.99
Residential.....	\$ 34.50	51.90%

-----  
ELEC0309-014 09/01/2020

MADISON (Remainder) and  
ST. CLAIR COUNTIES

	Rates	Fringes
ELECTRICAL LOW VOLTAGE WIRING INSTALLER.....	\$ 35.27	15.65

Installation, service and maintenance of low-voltage systems which utilizes the transmission and/or transference of voice, sound, vision, or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background/foreground music, intercom and telephone interconnect, field programming, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school, intercom and sound burglar alarms and low voltage master clock systems.

-----  
 ELECO649-003 01/02/2021

MADISON COUNTY (Area West of a North-South line 1 mile East of the West boundaries of Edwardsville, Fort Russell & Moro Twps and North of Hwy 66 West to Mississippi River)

Rates Fringes

ELECTRICAL LOW VOLTAGE WIRING  
 INSTALLER

Installation, service, and maintenance of low-voltage systems which utilizes the transmission and/or transference of voice, sound, vision, or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background/foreground music, intercom and telephone interconnect, field programming, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school, intercom and sound burglar alarms and low voltage master clock systems.....\$ 32.96 18.49

ELECTRICIAN  
 Building Construction.....\$ 42.01 22.38  
 Residential Construction (Up to and including a six family apartment building, but excluding multi-building apartment complexes or apartment buildings that have commercial stores or professional quarters in conjunction with commercial ventures such as nursing homes, motels, inc.).....\$ 23.28 10.84

-----  
 ELEVO003-003 01/01/2021

Rates Fringes

ELEVATOR MECHANIC.....\$ 53.46            35.825+a+b

FOOTNOTES:

a) Employer contributes 8% of regular basic hourly rate as as vacation pay credit for employees with more than 5 years of service, and 6% for less than 5 years of service

b) Eight paid holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day Friday after Thanksgiving Day, Veterans' Day and Christmas Day.

-----  
ENGI0520-003 08/01/2018

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 01.....	\$ 38.30	32.15
Group 02.....	\$ 37.17	32.15
Group 03.....	\$ 32.69	32.15
Group 04.....	\$ 32.75	32.15
Group 05.....	\$ 32.42	32.15
Group 06.....	\$ 40.85	32.15
Group 07.....	\$ 41.15	32.15
Group 08.....	\$ 41.43	32.15
Group 09.....	\$ 39.30	32.15
Group 10.....	\$ 40.30	32.15
Group 11.....	\$ 40.30	32.15
Group 12.....	\$ 41.30	32.15

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Cranes, Draglines, Shovels, Skimmer Scoops, Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading Machines, Screws on Asphalt Spreading Machines, All Locomotives, Cable Ways or Tower Machines, Hoists, Hydraulic Backhoes, Ditching Machines, or Backfiller, Cherrypickers, overhead Cranes, Roller, Steam or Gas, Concrete Pavers, Excavator Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, DerrickType Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Toumapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than derrick type), Mud Jacks, or Well Drilling Machines, Boring Machines or Track Jacks, Mixers, Conveyors (two), Air Compressors (two) Water Pumps, regardless of size (two), Welding Machines (two), Siphons or Jets (two), Winch Head or Apparatuses (two), Light Plants (two), Waterblasters (two), all Tractors, regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (one), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, concrete saws of all types and sizes with their attachments, gobhoppers, excavators all sizes, the repair, greasing, and fueling of all diesel hammers, the operation, set-up and cleaning of bidwells, concrete placement booms, the alterations, repair of all barges, water blasters of

all sizes and their clutches, mobile lifts, hydraulic jacks where used for hoisting, diesel or gas powered flashing sings used for traffic control, micro pavers, log skiders, iceolators used on and off of pipeline, condor cranes, drill rigs of all sizes, bow boats, survey boats, ross carriers, bob-cats and all their attachments, skid steer loaders and all their attachments, creter crane, direct drive electric motors the bolting and unbolting the adjusting and shiming, (dewateringjobs, whirley crane, conveyor belts) etc., batch plants (all sizes), roto mills, conveyors systems of any size and any configuration, hydroseeders and strawblowers all sizes, operation, repair, service of all vibratory hammers, all power pacs and their controls regardless of location, curtains or brush burning machines, stump cutter machines, grout machines regardless of size, Nail launchers when mounted on a machine or self-propelled, con-cover machines, Goldhofer and similar S.P.M.T. (self-propelled modular transpmiers) heavy transport units and all Operators (except those listed below).

Group 2: Assistant Operators

GROUP 3: Air Compressor One; Water Pump regardless of size One; Welding Machine One; 1-Bag Mixer One; Conveyor One; Siphon or Jet; Light Plant One; Heater One; Immobile Track Air One

GROUP 4: Firemen on Whirlies and Asphalt Spreader Oiler; Heavy Equipment Oilers; Truck Cranes; Monigans; Large over 65 tons capacity; Concrete Plant Oiler and Black Top Plant Oiler

GROUP 5: Oilers

GROUP 6: Operators on equipment with Booms, including Jibs, 100 ft and over, but less than 150 ft

GROUP 7: Operators on equipment with Booms, including Jibs, 150 ft and over, but less than 200 ft

GROUP 8: Operators on equipment with Boomns, including Jibs, 200 ft and over; Tower Cranes, and Whirley Cranes

GROUP 9: Certified crane Operators, Below 17.5 tons, when requested by the Contractor or required by the Owner.

GROUP 10: Certified crane Operators 17.5 tons and above, when requested by the Contractor or required by the Owner.

GROUP 11: Master Mechanic

GROUP 12: Licensed Boat Pilot

-----  
IRON0392-004 08/01/2021

	Rates	Fringes
IRONWORKER.....	\$ 36.50	29.38

-----  
LAB00044-001 08/01/2017

MADISON COUNTY (Southwest)

	Rates	Fringes
LABORER		
Group 1.....	\$ 25.76	27.48
Group 2.....	\$ 26.26	27.48
Group 3.....	\$ 27.26	27.48

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

-----  
LAB00100-001 08/01/2017

ST CLAIR COUNTY (East St. Louis, Alcoa, Brooklyn, Cahokia, Caseyville, Centreville, Dupo, Fairmont City, French Village, Midway, Maplewood, National City)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.79	22.45
Group 2.....	\$ 31.29	22.45
Group 3.....	\$ 32.29	22.45

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker, Hod Carrier

GROUP 3 - Dynamite Man

-----  
LAB00218-002 08/01/2017

MADISON COUNTY (Northwest)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.59	22.65
Group 2.....	\$ 31.09	22.65
Group 3.....	\$ 32.09	22.65

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

-----  
LAB00338-001 08/01/2017

MADISON COUNTY (Westside)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.13	23.11
Group 2.....	\$ 30.63	23.11
Group 3.....	\$ 31.63	23.11

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

-----  
LAB00397-001 08/01/2017

MADISON COUNTY (Southeast)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.79	22.45
Group 2.....	\$ 31.29	22.45
Group 3.....	\$ 32.29	22.45

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

-----  
LAB00459-001 08/01/2017

ST. CLAIR COUNTY (South)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 28.63	24.61
Group 2.....	\$ 29.13	24.61
Group 3.....	\$ 30.13	24.61

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

-----  
LAB00670-002 08/01/2017

ST CLAIR COUNTY (Northeast)

Rates	Fringes
-------	---------

LABORERS

Group 1.....	\$ 28.05	25.19
Group 2.....	\$ 28.55	25.19
Group 3.....	\$ 29.55	25.19

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

-----  
LAB00742-003 08/01/2017

ST. CLAIR COUNTY (Eastside)

Rates Fringes

LABORERS

Group 1.....	\$ 26.37	26.87
Group 2.....	\$ 26.87	26.87
Group 3.....	\$ 27.87	26.87

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

Group 3 - Dynamite Man

-----  
PAIN0058-005 05/01/2017

Rates Fringes

PAINTER

Building.....	\$ 31.25	17.12
Residential.....	\$ 29.95	17.12

Epoxy or Toxic-Lead-Based Paint Work-\$1.00 Premium

-----  
PAIN0513-003 11/01/2020

BOND, CALHOUN, CLINTON, GREENE, JACKSON, JERSEY, MACOUPIN (Southside), MADISON, MARION, MONROE, PERRY, RANDOLPH, ST. CLAIR, AND WASHINGTON COUNTIES

Rates Fringes

GLAZIER.....	\$ 40.00	24.25
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PLAS0090-003 08/01/2017

Rates Fringes

CEMENT MASON.....	\$ 33.90	24.25
PLASTERER.....	\$ 31.00	18.95
TERRAZZO WORKER/SETTER.....	\$ 17.55	0.00

TILE SETTER.....\$ 11.70 1.605

-----  
PLUM0101-002 07/01/2021

ST. CLAIR COUNTY (BELLEVILLE, FAYETTEVILLE, FREESBURG, LEBANON,  
LENZBERG, MASCOUTAH, MARISSA, MILLSTADT, NEW ATHENS, SCOTT AFB,  
SHILOH, SMITHON, ST. LIBORY, SUMMERFIELD, and SWANSEE)

Rates Fringes  
PLUMBER/PIPEFITTER.....\$ 41.65 18.03

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PLUM0360-002 07/01/2021

MADISON (GRANITE CITY & SOUTHERN HALF OF COUNTY) and ST. CLAIR  
(EAST ST. LOUIS & VIC.) COUNTIES

Rates Fringes  
PLUMBER.....\$ 40.50 19.05

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PLUM0439-001 01/01/2021

MADISON (Grant City and Southern Half of County) and ST. CLAIR  
(East St. Louis and Vic) Counties

Rates Fringes  
Steamfitter.....\$ 41.00 20.39

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PLUM0553-002 01/01/2021

MADISON COUNTY (North of East - West which is one mile North of  
South line of Chouteau, Edwardsville, Oak, Marine, and Saline  
Townships)

Rates Fringes  
PLUMBER/PIPEFITTER.....\$ 45.21 16.00

FOOTNOTES:

A. 4 HOURS PAID FOR CHRISTMAS EVE IF HOLIDAY FALLS ON MONDAY  
THRU FRIDAY.

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ROOF0002-004 03/01/2021

Rates Fringes  
ROOFER.....\$ 34.65 19.32

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SFIL0268-001 01/01/2020

WITHIN A 30 MILE RADIUS OF ST. LOUIS, MO

Rates Fringes  
Sprinkler Fitters.....\$ 45.21 24.52

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SFIL0669-001 04/01/2021

REMAINDER OF COUNTIES

	Rates	Fringes
SPRINKLER FITTER.....	\$ 43.45	25.29

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SHEE0268-002 07/01/2021

	Rates	Fringes
Sheet Metal Worker		
Building.....	\$ 39.79	22.71
Residential.....	\$ 27.33	15.98

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TEAM0050-003 05/01/2020

ST CLAIR COUNTY

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 39.04	20.63
Group 2.....	\$ 39.60	20.63
Group 3.....	\$ 39.91	20.63
Group 4.....	\$ 40.25	20.63
Group 5.....	\$ 41.33	20.63

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

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TEAM0525-002 05/01/2019

MADISON COUNTY

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 38.17	19.85
Group 2.....	\$ 38.71	19.85
Group 3.....	\$ 39.01	19.85
Group 4.....	\$ 39.34	19.85
Group 5.....	\$ 40.39	19.85

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vector Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local),

a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**SECTION 9**  
**PLA REQUIREMENTS**

## INSTRUCTION TO BIDDERS

### Award of Contract

The general contract will be awarded to the lowest responsible and eligible general bidder complying with the conditions and requirements provided in these instructions, the bid forms and the other bid documents. A “responsible” bidder is a bidder demonstrably possessing the skill, ability and integrity necessary to faithfully perform the work called for by the contract, based upon a determination of competent workmanship and financial soundness. An “eligible” bidder is a bidder who is not debarred from bidding under any applicable law, and who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the project. In the interest of such harmony, the long-term supply of skilled manpower, and to provide a legally enforceable means of assuring labor stability and labor peace over the life of the project, each successful bidder and any and all levels of subcontractors, as a condition of being awarded a contract or subcontract, shall be required to enter into a Project Labor Agreement for the project known as: **HVAC replacement AMP’s 1, 2,5 and 6; Brooklyn, Cahokia Heights, Lebanon, O’Fallon and Smithton, IL** located in (St. Clair County) with the Southwestern Illinois Building and Construction Trades Council, AFL-CIO, and its Signatory Affiliated Local Unions for the development and construction of the project, and will be bound by the provisions of that agreement in the same manner as any other provision of the contract.

**ST. CLAIR COUNTY HOUSING AUTHORITY  
PROJECT LABOR AGREEMENT**

As adopted on November 10, 2004 by the  
Southwestern Illinois Building & Construction Trades Council Board of Business Agents

This agreement is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2019, by and between \_\_\_\_\_ (Contractor) and the Southwestern Illinois Building Trades Council (SIBTC) for and on behalf of its affiliates which sign a "Union Letter of Assent" (Signatory Union Affiliates) for this Project Labor Agreement, hereinafter referred to as the "Union." This Agreement shall apply to work performed by the Employer and its Contractors and Subcontractors on new construction and/or capitalized rehabilitation work undertaken and paid for by the SCCHA, hereinafter referred to as the Owner.

**ARTICLE I – INTENT AND PURPOSES**

- 1.1 This Project Agreement shall apply and is limited to the recognized and accepted historical definition of new construction and/or capitalized rehabilitation work under the direction of and performed by the Contractor(s), of whatever tier, which may include the Project Contractor, who have contracts awarded for such work on the Project. Such work shall include site preparation work and dedicated off-site work.

The Project is defined as:

**HVAC replacement including Condensing units, A-coils, line sets, furnaces and all trims and accessories.**

- 1.2 It is agreed that the Project Contractor shall require all Contractors of whatever tier who have been awarded contracts for work covered by this Agreement, to accept and be bound by the terms and conditions of this Project Agreement by executing the Letter of Assent (Attachment A) prior to commencing work. The Project Contractor shall assure compliance with this Agreement by the Contractors. It is further agreed that the terms and conditions of this Project Agreement shall supersede and override terms and conditions of any and all other national, area, or local collective bargaining agreements, (including all vertical agreements), except for all work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, and the National Agreement of the International Union of Elevator Constructors.
- 1.3 The Contractor agrees to be bound by the terms of the Collective Bargaining Agreements and amendments thereto of the Signatory Union Affiliates and the applicable employers association, if any, with the Signatory Union Affiliates with which it has a present bargaining relationship. If there has previously been bound to all such bargaining relationship, the contractor or subcontractor shall sign and be bound to all such agreements with Signatory Union Affiliates as outlined in the scope of work in the required pre-job conference. Such agreements are incorporated herein by reference. In order to comply with the requirements of the various fringe benefit funds to which the Contractor is to contribute, the Contractor shall sign such participation agreements as are necessary and will honor the fringe benefit collection procedures as required by the Collective Bargaining Agreement with Signatory Union Affiliate.

- 1.4 The Contractor and the Union agree that should the Collective Bargaining Agreement (CBA) of any Signatory Union Affiliate expire prior to the completion of this project, the expired contracts' terms will be maintained until a new CBA is ratified. The wages, and fringe benefits included in any new CBA will be effective on the effective date of the newly negotiated CBA unless wage and fringe benefit retroactivity is agreed upon by the bargaining parties.
- 1.5 Nothing contained herein shall be construed to prohibit, restrict or interfere with the performance of any other operation work, or function which may occur at the Project site or be associated with the development of the Project.
- 1.6 This Agreement shall only be binding on the signatory parties hereto and shall not apply to their parents, affiliates, subsidiaries, or Non-Signatory Union Affiliates.
- 1.7 The Owner and/or the Project Contractor have the absolute right to select any qualified bidder for the award of contracts on this Project without reference to the existence or nonexistence of any agreements between such bidder and any party to this Agreement; provided, however, only that such bidder is willing, ready and able to become a party to and comply with this Project Agreement, should it be designated the successful bidder.
- 1.8 Items specifically excluded from the scope of this Agreement include but are not limited to following:  
[list all items to be excluded].
- 1.9 The provisions of this Project Agreement shall not apply to the Owner and nothing contained herein shall be construed to prohibit or restrict Owner or its employees from performing work not covered by this Project Agreement on the Project site. As areas and systems of the Project are inspected and construction tested by the Project Contractor or Contractors and accepted by the Owner, the Project Agreement will not have further force or effect on such items or areas, except when the Project Contractor or Contractors are directed by the Owner to engage in capitalized improvements and warranty functions required by its contract with the Owner during the term of this Agreement.
- 1.10 It is understood that the Owner, at its sole option, may terminate, delay and/or suspend any or all portions of the Project at any time.
- 1.11 It is understood that the liability of any employer and the liability of a Signatory Union Affiliate and the SIBTC under this agreement shall be several and not joint. Provided that the SIBTC or a Signatory Union Affiliate comply with their own obligations under this Agreement, the SIBTC and non-breaching Signatory Union Affiliates will not be liable for a breach of this Agreement by a breaching Signatory Union Affiliate or any action taken by a Non-Signatory Union Affiliate. The Union agrees that this Agreement does not have the effect of creating any joint employer status between or among the Owner, Contractor(s) or any employer.
- 1.12 Each affiliate union of the SIBTC representing employees engaged in construction work covered by this Agreement shall be requested to sign the "Union Letter of Assent", in the form attached hereto; provided, that the failure of any affiliate union to sign such Union Letter of Assent prior to commencement of construction work shall not diminish the applicability of this Agreement to the SIBTC and the union affiliates which have signed a Union Letter of Assent. Affiliates unions that have signed the Union Letter of Assent will be referred to as "Signatory Union Affiliates" and affiliate unions that have not signed the Union Letter of Assent will be referred to as "Non-Signatory Union Affiliates".

## ARTICLE II-RECOGNITION

- 2.1 The Contractor recognizes the SIBTC and the Signatory Union Affiliates as the sole and exclusive bargaining representatives for its craft employees employed on the job site. Signatory Union Affiliates will have recognition on the project for their craft.

## ARTICLE III-ADMINISTRATION OF AGREEMENT

3.1 In order to assure that all parties have a clear understanding of the Agreement, to promote harmony and address potential problems, a pre-job conference will be held with the Contractor, SIBTC Representatives and all signatory parties prior to the start of any work on the project.

3.2 Representatives of the Contractor and the Union shall meet as required but not less than once a month to review the operation of this Agreement. The representatives at this meeting shall be empowered to resolve any dispute over the application of the Agreement.

3.3 The Contractor shall make available in writing to the Union no less than one week prior to these meetings a job status report, planned activities for the next 30 day period, actual numbers of craft employees on the project and estimated numbers of employees by craft required for the next 30 day period. The purpose of this report is to allow time to address any potential jurisdictional problems and to ensure that no party signatory to the Agreement is hindering the continuous progress of the project through a lack of planning or shortage of manpower.

## ARTICLE IV-HOURS OF WORK OVERTIME SHIFTS & HOLIDAYS

4.1 The standard work day shall be an established consecutive eight (8) hour period between the hours of 7:00 a.m. and 5:00 p.m. with one-half hour designated as unpaid period for lunch. The standard work week shall be five (5) consecutive days of work commencing on Monday. Starting time which is to be established at the pre-job conference will be applicable to all craft employees on the project. Should job conditions dictate a change in the established starting time and/or a staggered lunch period on certain work of the project or with individual crafts, the Contractor, Business Managers of the Signatory Union Affiliates involved and the SIBTC shall mutually agree to such changes. If work schedule change cannot be mutually agreed to between these parties, the hours fixed in the Agreement shall prevail.

4.2 All time before and after the established work day of eight (8) hours, Monday through Friday and all time Saturday shall be paid in accordance with each crafts current collective bargaining agreement. All time on Sunday and Holidays shall be paid for at a rate of double time.

- a. Fringe benefit payments for all overtime work shall be paid in accordance with each Signatory Union Affiliate's current Collective Bargaining Agreement.

4.3 Shift work, if used, shall be as provided in the collective bargaining agreement of each affected Signatory Union Affiliate.

4.4 Recognized Holidays shall be as follows: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day (**to be celebrated on November 11**), Thanksgiving Day and Christmas Day. No work will be performed on Labor Day under any consideration, except in an extreme emergency and then only after consent is given by the Business Manager of the Signatory Union Affiliates.

## ARTICLES V- ABSENTEEISM

5.1 The Contractor and the Union agree that chronic and/or unexcused absenteeism is undesirable and must be controlled. Employees that develop a record of such absenteeism shall be identified by the Contractor to the appropriate referral facility and the Contractor shall support such action with the work record of the involved employee. Any employee terminated for such absenteeism shall not be eligible for rehire on the project for a period of no less than ninety (90) days.

## ARTICLE VI- MANAGEMENT RIGHTS

6.1 The Contractor retains and shall exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this Agreement and the collective bargaining agreements of the Signatory Union Affiliates.

## ARTICLE VII-GENERAL WORKING CONDITIONS

7.1 Employment begins and ends at the project site, to be determined at the Pre-Job Conference.

7.2 Employees shall be at their place of work at the starting time and shall remain at their place of work until quitting time. The parties reaffirm their policy of a fair day's work for a fair day's pay.

7.3 The Contractor may utilize brassing, or other systems to check employees in and out. Should such procedures be required, the techniques and rules regarding such procedures shall be established by mutual consent of the parties at the pre-job conference.

7.4 There shall be no limit on production by workmen or restrictions on the full use of tools or equipment. Craftsmen using tools shall perform any work of their trade and shall work under the direction of the craft foreman. There shall be no restrictions on efficient use of manpower other than as may be required by safety regulations.

7.5 Crew Foreman shall be utilized as per the existing collective bargaining agreements. The Contractor agrees to allow crew foremen ample time to direct and supervise their crew. The Union agrees there will be no restrictions placed on crew foreman's ability to handle tools and materials.

7.6 The Contractor may utilize the most efficient methods or techniques of construction, tools or other labor saving devices to accomplish the work. Practices not a part of the terms and conditions of this Agreement will not be recognized.

7.7 Should overtime work be required, the Contractor will have the right to assign specific employees and/or crews to perform such overtime work as is necessary to accomplish the work.

7.8 The Contractor may establish such reasonable project rules as the Contractor deems appropriate. These rules will be reviewed and established at the pre-job conference and posted at the project site by the Contractor.

7.9 It is recognized that specialized or unusual equipment may be installed on the project and in such cases, the Union recognizes the right of the Contractor to involve the equipment supplier or vendor's personnel in supervising the setting of the equipment, making modifications and final alignment which may be necessary prior to and during the start-up procedure, in order to protect factory warranties.

7.10 In order to promote a harmonious relationship between the equipment or vendor's personnel and the Building Trades craftsmen, a meeting shall be held between the Contractor and the Unions prior to any involvement on the project by these personnel. The Contractor will inform the Union of the nature of involvement by these personnel and the numbers of personnel to be involved, allowing ample time for the Union representatives to inform their stewards prior to the start of any work.

#### ARTICLE VIII-SAFETY

8.1 The employees covered the terms of this Agreement shall at all times while in the employ of the Contractor be bound by the safety rules and regulation as established by the Contractor in accordance with the Construction Safety Act and OSHA.

- a. These rules and regulations will be published and posted at conspicuous places throughout the project.

8.2 In accordance with the requirements of OSHA, it shall be the exclusive responsibility of each Contractor on a jobsite to which this Agreement applies, to assure safe working conditions for its employees and compliance by them with any safety rules contained herein or established by the Contractor. Nothing in this Agreement will make the SIBTC or any of its affiliates liable to any employee or to other persons in the event that injury or accident occurs.

#### ARTICLE IX- SUBCONTRACTING

9.1 The Project Contractor agrees that neither it nor any of its contractors or subcontractors will subcontract any work to be done on the Project except to a person, firm or corporation who is or agrees to become party to this Agreement. Any contractor or subcontractor working on the Project shall, as a condition to working on said Project, become signatory to and perform all work under the terms of this Agreement.

#### ARTICLE X- UNION REPRESENTATION

10.1 Authorized representatives of the SIBTC and its Signatory Union Affiliates shall have access to the project provided they do not interfere with the work of the employees and further provided that such representatives fully comply with the visitor and security rules established for the project.

10.2 Each Signatory Union Affiliate shall have the right to designate a working journeyman as a steward. Such designated steward shall be a qualified worker performing the work of that craft and shall not exercise any supervisory functions. Each steward shall be concerned with the employees of the steward's employer and not with the employees of any other employer.

10.3 The working steward will be paid at the applicable wage rate for the classification in which he is employed.

10.4 The working steward shall not be discriminated against because of his activities in performing his duties as steward, and except as otherwise provided in local agreements, shall be the last employee in his craft to be laid off in any reduction in force. Stewards will be subject to discharge to the same extent that other employees are only after notification to the Union Representative. The Contractor will permit stewards sufficient time to perform the duties inherent to a steward's responsibilities. Stewards will be offered available overtime work if qualified.

## ARTICLE XI- DISPUTES AND GRIEVANCES

11.1 This Agreement is intended to provide close cooperation between management and labor. Each of the Signatory Union Affiliates will assign a representative to this Project for the purpose of completing the construction of the Project economically, efficiently, continuously, and without interruptions, delays, or work stoppages.

11.2 The Contractors, Union, and the employees, collectively and individually, realize the importance to all parties to maintain continuous and uninterrupted performance of the work of the Project, and agree to resolve disputes in accordance with the grievance arbitration provisions set forth in this Article.

11.3 Any question or dispute arising out of and during the term of this Project Agreement (other than trade jurisdictional disputes) shall be considered a grievance and subject to resolution under the following procedures:

Step 1. (a) When any employee subject to the provisions of this Agreement feels he or she is aggrieved by a violation of this Agreement, he or she, through his or her local union business representative or job steward, shall, within five (5) working days after the occurrence of the violation, give notice to the work-site representative of the involved Contractor stating the provision(s) alleged to have been violated. The business representative of the local union or the job steward and the work-site representative of the involved Contractor and the Project Contractor shall meet and endeavor to adjust the matter within three (3) working days after timely notice has been given. The representative of the Contractor shall keep the meeting minutes and shall respond to the Union representative in writing (copying the Project Contractor) at the conclusion of the meeting but not later than twenty-four (24) hours thereafter. If they fail to resolve the matter within the prescribed period, the grieving party may, within forty-eight (48) hours thereafter, pursue Step 2 of the Grievance Procedure, provided the grievance is reduced to writing, setting forth the relevant information concerning the alleged grievance, including a short description thereof, the date on which the grievance occurred, and the provision(s) of the Agreement alleged to have been violated.

(b) Should the Local Union(s) or the Project Contractor or any Contractor have a dispute with the party and, if after conferring, a settlement is not reached within three (3) working days, the dispute may be reduced to writing and proceed to Step 2 in the same manner as outlined herein for the adjustment of an employee complaint.

Step 2. The International Union Representative and the involved Contractor shall meet within seven (7) working days of the referral of a dispute to this second step to arrive at a satisfactory settlement thereof. Meeting minutes shall be kept by the Contractor. If the parties fail to reach an agreement, the dispute may be appealed in writing in accordance with the provisions of Step 3 within seven (7) calendar days thereafter.

Step 3 (a) If the grievance has been submitted but not adjusted under Step 2, either party may request in writing, within seven (7) calendar days thereafter, that the grievance be submitted to an Arbitrator mutually agreed upon by them. The Contractor and the involved Union shall attempt mutually to select an arbitrator, but if they are unable to do so, they shall request the American Arbitration Association to provide them with a list of arbitrators from which the Arbitrator shall be selected. The rules of the American Arbitration Association shall govern the conduct of the arbitration hearing. The decision of the Arbitrator shall be formal and binding on all parties. The fee and expenses of such Arbitration shall be borne equally by the Contractor and the involved Local Union(s).

(b) Failure of the grieving party to adhere to the time limits established herein shall render the grievance null and void. The time limits established herein may be extended only by written consent of the parties involved at the particular step where the extension is agreed upon. The Arbitrator shall

have the authority to make decisions only on issues presented to him or her, and he or she shall not have authority to change, amend, add to or retract from any of the provisions of this Agreement.

11.4 The Project Contractor and Owner shall be notified of all action at Steps 2 and 3 and shall, upon their request, be permitted to participate in all proceedings at these steps.

## ARTICLE XII- JURISDICTIONAL DUTIES

12.1 The assignment of work will be solely the responsibility of the Contractor performing the work involved, in accordance with applicable Collective Bargaining Agreements and past practices. To the extent that past practice is a factor in assigning work under the Project Labor Agreement, including assignments under any collective bargaining agreements to which any of the signatory contractors hereto may be a party, the practice to be applied shall be that followed within the geographical area encompassed by the Southwestern Illinois Building and Construction Trades Council. The practice followed in any other geographical area, even though a Union signatory to this Project Labor Agreement may also represent employees in that area, shall not be a factor in the assignment. All jurisdictional disputes between or among Building and Construction Trades Unions and employee and the Contractor, parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractor and Union parties to this Agreement.

12.2 All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature and the Contractor's assignment shall be adhered to until the dispute is resolved. Individuals violating this section shall be subject to immediate discharge.

12.3 Each Contractor will conduct a pre-job conference with the appropriate Building and Construction Trades Council prior to commencing work. The Project Contractor and the Owner will be advised in advance of all such conferences and may participate if they wish.

## ARTICLE XIII- WORK STOPPAGES AND LOCKOUTS

13.1 During the term of this Agreement there shall be no strikes, picketing, work stoppages, slowdowns or other disruptive activity for any reason by the SIBTC, its Signatory Union Affiliates or by any employee and there shall be no lockout by the Contractor. Failure of any Signatory Union Affiliate or employee to cross any picket line established at the project site is a violation of this Article.

13.2 The SIBTC and its Signatory Union Affiliates shall not sanction, aid or abet, encourage or continue any work stoppage, picketing or other disruptive activity and will not make any attempt of any kind to dissuade others from making deliveries to or performing services for or otherwise doing business with the Contractor at the project site. Should any of these prohibited activities occur the SIBTC and the Signatory Union Affiliates will take the necessary action to end such prohibited activities.

13.3 No employee shall engage in any activities which violate this Article. Any employee who participates in or encourages any activities which interfere with the normal operation of the project shall be subject to disciplinary action, including discharge, and if justifiably discharged for the above reasons, shall not be eligible for rehire on the same project for a period of not less than ninety (90) days.

13.4 Neither the SIBTC nor its Signatory Union Affiliates will be liable for acts of employees for whom it has no responsibility. The principal officer or officers of the SIBTC will immediately instruct and use the best efforts of his office to cause Signatory Union Affiliates to cease any violations of this Article. The SIBTC in its compliance with this obligation shall not be liable for unauthorized acts of Signatory Union Affiliate or Non-Signatory Union Affiliates. The principal officer or officers of any involved Signatory Union

Affiliate will immediately instruct, order or use the best effort of his office to cause the employees the union represents to cease any violations of this Article. A union complying with this obligation shall not be liable for unauthorized acts of employees it represents. The failure of the Contractor to exercise its right in any instance shall not be deemed a waiver of its right in any instance.

13.5 In lieu of any action at law or equity, any party shall institute the following procedure when a breach of this Article is alleged; after all involved parties have been notified of the fact.

- a. The party invoking this procedure shall notify \_\_\_\_\_ whom the parties agree shall be the permanent arbitrator under this procedure. In the event the permanent arbitrator is unavailable at any time, he shall appoint his alternate. Notice to the arbitrator shall be by the most expeditious means available, with notice by telegram or any effective written means to the party alleged to be in violation and all involved parties.
- b. Upon receipt of said notice the arbitrator named above shall set and hold a hearing within twenty-four (24) hours if it is contended the violation still exists but not before twenty-four (24) hours after the telegraph notice to all parties involved as required above.
- c. The Arbitrator shall notify the parties by telegram or any other effective written means, of the place and time he has chosen for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Arbitrator.
- d. The sole issue at the hearing shall be whether or not a violation of this Article has in fact occurred. The Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without an Opinion. If any party desires an Opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.
- e. Such Award may be enforced by any court of competent jurisdiction upon the filing of the Agreement and all other relevant documents referred to herein above in the following manner. Telegraphic notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the Arbitrator's Award as issued under Section 13.5 of this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.
- f. Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.
- g. The fees and expenses of the Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.
- h. If the Arbitrator determines in accordance with Section 13.5 that the SIBTC or a Signatory Union Affiliate has violated Article XIII, the SIBTC or the Signatory Union Affiliate shall,

within eight (8) hours of receipt of this Award, direct all employees they represent at the project to immediately return to work. If the employees do not return to work at the beginning of the next regularly scheduled shift following receipt of the Arbitrator's Award, and the SIBTC or Signatory Union Affiliate have not complied with Section 13.4 above, then the SIBTC or the Signatory Union Affiliate which has not complied with Section 13.4 shall pay the sum of ten thousand dollars (\$10,000) as liquidated damages to the affected owner, and shall pay an additional ten thousand dollars (\$10,000) per shift for each shift thereafter on which the employees have not returned to work. The Arbitrator shall retain jurisdiction to determine compliance with this Section and Section and Section 13.4, and to assess liquidated damages.

ARTICLE XIV- GENERAL SAVINGS CLAUSE

14.1 If any Article or provision of this Agreement shall be declared invalid, inoperative or unenforceable by operation of law or by any of the above mentioned tribunals of competent jurisdiction, the remainder of this Agreement or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.

ARTICLE XV- TERM OF AGREEMENT

15.1 This Agreement shall be in full force as of and from the date of the Notice of Award to the Final Acceptance of all applicable contractors.

**IN WITNESS WHEREOF**, the respective duly authorized representatives of the parties hereto have executed this Agreement on the date set forth opposite their respective signatures.

Date: \_\_\_\_\_

\_\_\_\_\_  
(Contractor Representative)

\_\_\_\_\_  
(Firm's Name)

\_\_\_\_\_  
(Firm's Address)

\_\_\_\_\_  
(Phone Number)

Date: \_\_\_\_\_

\_\_\_\_\_  
Charles "Totsie" Bailey, Exec. Sec.-Treas.  
Southwestern Illinois Building &  
Construction Trades Council  
24 Meadow Heights Professional Park  
Collinsville, IL 62234

**ATTACHMENT A (CONTRACTOR LETTER OF ASSENT)**

Note: All contractors of whatever tier (except those construction contractors who have directly signed the Agreement) shall execute the following Letter of Assent prior to commencing work:

CONTRACTOR LETTERHEAD

DATE

To: (Name of Owner)  
(Address of Owner)

RE: \_\_\_\_\_ Construction Project Agreement

Dear Sir:

Pursuant to Article I, Section 1.2, of the above reference Agreement, the undersigned contractor hereby agrees that it will be bound by and comply with all terms and conditions said Project Labor Agreement, and any amendments thereto.

This Letter of Assent will remain in effect for the duration of the Agreement, and any extensions, after which this understanding will automatically terminate, except as provided for in Article I, Section 1.9, of the Agreement.

Sincerely,

\_\_\_\_\_  
(Name of Contractor of Subcontractor)

By: \_\_\_\_\_

Title: \_\_\_\_\_

**THE FOLLOWING DOCUMENTS  
ARE TO BE RETURNED WITH CONTRACTORS BID**

**SECTION 10**

**NON-COLLUSIVE AFFIDAVIT**

# NON-COLLUSION AFFIDAVIT

STATE OF ILLINOIS )

ss

COUNTY OF ST. CLAIR )

\_\_\_\_\_ BEING FIRST DULY SWORN, DEPOSES AND SAYS:

THAT HE/SHE IS (a partner or officer of \_\_\_\_\_) said firm, the party making the foregoing proposal or bid that such proposal is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived, or agrees, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and he/she is not nor in any manner, directly or indirectly, sought by agreement or collusion, or commitment or conference with any person, to fix the bid or affidavit or of any other bidder, or to fix any overhead, profit or cost element of said bidder, or of any other bidder, or to secure any other advantage against the St. Clair County Housing Authority or any person interested in the proposed contract, and that all statements in said proposal or bid are true.

\_\_\_\_\_  
Signature of Bidder-if bidder is an individual

\_\_\_\_\_  
Signature of Partner-if bidder is a partnership

\_\_\_\_\_  
Signature of Officer-if bidder is a corporation

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires \_\_\_\_\_  
Month Day Year

SEAL

**THIS FORM MUST BE SUBMITTED WITH ALL BIDS**

**SECTION 11**

**CERTIFICATION OF PAYMENTS TO INFLUENCE FEDERAL  
TRANSACTIONS HUD 50071**

# Certification of Payments to Influence Federal Transactions

U.S. Department of Housing and Urban Development  
Office of Public and Indian Housing

Public reporting burden for this information collection is estimated to average 30 minutes. This includes the time for collecting, reviewing, and reporting data. The information requested is required to obtain a benefit. This form is used to ensure federal funds are not used to influence members of Congress. There are no assurances of confidentiality. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number.

Applicant Name

Program/Activity Receiving Federal Grant Funding

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying, in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

I hereby certify that all the information stated herein, as well as any information provided in the accompaniment herewith, is true and accurate. **Warning:** HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802)

Name of Authorized Official	Title
Signature	Date (mm/dd/yyyy)

**SECTION 12**

**DISCLOSURE OF LOBBYING ACTIVITIES HUD SF-LLL**



**SECTION 13**

**BID FORM**

**BID FOR**

HVAC Replacement  
Capital Fund Improvements  
AMPs 1, 2, 5 and 6  
Brooklyn, Cahokia Heights, Lebanon, O'Fallon and Smithton, Illinois  
IFB-22-B001

**BID FORM**

To: St. Clair County Housing Authority  
1790 South 74<sup>th</sup> Street  
Belleville, IL 62223

The undersigned, having familiarized  (himself) (themselves)  with the local conditions affecting the cost of the work, and with the Drawings and Specifications (including but not limited to Invitation for Bids, Instructions to Bidders, Representations, Certifications, and other Statements of Bidders, Supplement to the Instructions to Bidders, this Bid, the form of Bid Bond, the form of Non-Collusive Affidavit, the form of Contract, the form of Performance and Payment Bond or Bonds, the General Conditions of the Contract for Construction, the Special Conditions, the General Requirements, and the Technical Specifications) and Addenda, if any thereto, as prepared by Hurst-Rosche, Inc. and on file in the offices of the Housing Authority and the Architect/Engineer hereby proposes to furnish all labor, materials, equipment and services required to complete HVAC Replacement, St. Clair County Housing Authority, St. Clair County, Illinois, all in accordance therewith. The work is generally described as:

**BASE BID:**

- 1. All work as indicated on the Drawings and Specifications:

**LUMP SUM BASE BID:** \_\_\_\_\_ **DOLLARS (\$** \_\_\_\_\_ **).**

**Section 3 Business Concern:**

- 1. The bidder represents and certifies that it [ ] is, [ ] is not a Section 3 Business Concern seeking preference in contracting.
  - a. Businesses seeking Section 3 status and preference in contracting will be required to complete and submit a Section 3 Business Certification Form and supporting documentation prior to award.
- 1. The undersigned has read and understands the specifications, drawings, and General Conditions, agrees to perform all work in strict accordance with the contract documents for the price submitted, and has visited the job site, and understands the existing conditions.
- 2. The undersigned agrees that this proposal shall remain valid and may not be withdrawn for a period of sixty (60) consecutive calendar days after the scheduled closing time for receiving proposals.
- 3. The undersigned further understands that the Owner reserves the right to reject any and all bids and to waive any informality in the bidding. It is the intent of the Owner to award all bid items to one Contractor. However, all bid items may be considered, and the amount of work adjusted according to Owner's budget.
- 4. The undersigned will comply with the Davis Bacon Wage Rate and minority participation requirements.
- 5. The Contractor to whom this work is awarded shall coordinate his/her work with other contractors at the site, if required.
- 6. The undersigned acknowledges receipt of the following addenda:  
No. \_\_\_\_\_, dated \_\_\_\_\_ No. \_\_\_\_\_, dated \_\_\_\_\_

\_\_\_\_\_ Bidder's Initials

7. The undersigned agrees that, upon receipt of the Notice of Award of the contract to him/her, he/she shall execute a contract for this work and present same to the Owner within ten (10) days thereafter together with a performance bond/labor and material bond and Certificate of Insurance satisfactory to, and in the form prescribed by, the Owner, guaranteeing the faithful performance of the work in accordance with the terms of the contract.
8. Security in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in the form of \_\_\_\_\_ is submitted herewith in accordance with the Specifications.
9. Attached hereto is an affidavit in proof that the undersigned has not entered into any collusion with any person in respect to this bid or any other bid or submitting of bids for the contract for which this bid is submitted.
10. If awarded the contract for work on the project, Bidder agrees to perform all of the work, including punch list items in accordance with the date stipulated on the Notice to Proceed.

Date \_\_\_\_\_, 20\_\_\_\_.

Name of Bidder: \_\_\_\_\_  
(Insert, "Corporation", "a Partnership", or "an Individual", as applicable)

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Official Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_ Mobile Phone: \_\_\_\_\_

(SEALED – If Bid by Corporation) (State of Incorporation \_\_\_\_\_)

## **SECTION 14**

### **AFFIRMATIVE ACTION AND EEO REQUIREMENTS**

**AFFIRMATIVE ACTION & EQUAL EMPLOYMENT OPPORTUNITY  
REQUIREMENTS  
CONTRACTOR'S AGREEMENT**

"During the performance of this Contract, the Contractor agrees as Follows:"

"(1) The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color or national origin. Such action shall include, but not be limited to the following: employment upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Office setting forth the Provisions of this nondiscrimination clause."

"(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color or national origin."

"(3) The Contractor will send to each other labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment."

"(4) The Contractor shall comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor."

"(5) The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders."

"(6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized to Executive Order No. 11246 of September 24, 1965 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by."

"(7) The Contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempt by rules, regulations, or orders of the Secretary of Labor, issued pursuant to Section 204 of the Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontractor or purchase order as the contracting agency may direct as a means of enforcing such provisions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States."

NAME OF CONTRACTOR: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

**THIS FORM MUST BE SUBMITTED WITH ALL BIDS**

**SECTION 15**

**STATEMENT OF BIDDERS HUD 5369A**

**U.S. Department of Housing  
and Urban Development**  
Office of Public and Indian Housing

**Representations, Certifications,  
and Other Statements of Bidders**  
**Public and Indian Housing Programs**

# Representations, Certifications, and Other Statements of Bidders

## Public and Indian Housing Programs

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### 1. Certificate of Independent Price Determination

#### (a) The bidder certifies that--

(1) The prices in this bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to (i) those prices, (ii) the intention to submit a bid, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this bid have not been and will not be knowingly disclosed by the bidder, directly or indirectly, to any other bidder or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a competitive proposal solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the bidder to induce any other concern to submit or not to submit a bid for the purpose of restricting competition.

#### (b) Each signature on the bid is considered to be a certification by the signatory that the signatory--

(1) Is the person in the bidder's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

\_\_\_\_\_ [insert full name of person(s) in the bidder's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the bidder's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

(c) If the bidder deletes or modifies subparagraph (a)2 above, the bidder must furnish with its bid a signed statement setting forth in detail the circumstances of the disclosure.

[ ] [Contracting Officer check if following paragraph is applicable]

(d) Non-collusive affidavit. (applicable to contracts for construction and equipment exceeding \$50,000)

(1) Each bidder shall execute, in the form provided by the PHA/IHA, an affidavit to the effect that he/she has not colluded with any other person, firm or corporation in regard to any bid submitted in response to this solicitation. If the successful bidder did not submit the affidavit with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the affidavit by that date may render the bid nonresponsive. No contract award will be made without a properly executed affidavit.

(2) A fully executed "Non-collusive Affidavit" [ ] is, [ ] is not included with the bid.

### 2. Contingent Fee Representation and Agreement

#### (a) Definitions. As used in this provision:

"Bona fide employee" means a person, employed by a bidder and subject to the bidder's supervision and control as to time, place, and manner of performance, who neither exerts, nor proposes to exert improper influence to solicit or obtain contracts nor holds out as being able to obtain any contract(s) through improper influence.

"Improper influence" means any influence that induces or tends to induce a PHA/IHA employee or officer to give consideration or to act regarding a PHA/IHA contract on any basis other than the merits of the matter.

(b) The bidder represents and certifies as part of its bid that, except for full-time bona fide employees working solely for the bidder, the bidder:

(1) [ ] has, [ ] has not employed or retained any person or company to solicit or obtain this contract; and

(2) [ ] has, [ ] has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(c) If the answer to either (a)(1) or (a)(2) above is affirmative, the bidder shall make an immediate and full written disclosure to the PHA/IHA Contracting Officer.

(d) Any misrepresentation by the bidder shall give the PHA/IHA the right to (1) terminate the contract; (2) at its discretion, deduct from contract payments the amount of any commission, percentage, brokerage, or other contingent fee; or (3) take other remedy pursuant to the contract.

### 3. Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (applicable to contracts exceeding \$100,000)

(a) The definitions and prohibitions contained in Section 1352 of title 31, United States Code, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The bidder, by signing its bid, hereby certifies to the best of his or her knowledge and belief as of December 23, 1989 that:

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of a contract resulting from this solicitation;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the bidder shall complete and submit, with its bid, OMB standard form LLL, "Disclosure of Lobbying Activities;" and

(3) He or she will include the language of this certification in all subcontracts at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(d) Indian tribes (except those chartered by States) and Indian organizations as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) are exempt from the requirements of this provision.

#### 4. Organizational Conflicts of Interest Certification

The bidder certifies that to the best of its knowledge and belief and except as otherwise disclosed, he or she does not have any organizational conflict of interest which is defined as a situation in which the nature of work to be performed under this proposed contract and the bidder's organizational, financial, contractual, or other interests may, without some restriction on future activities:

- (a) Result in an unfair competitive advantage to the bidder; or,
  - (b) Impair the bidder's objectivity in performing the contract work.
- [ ] In the absence of any actual or apparent conflict, I hereby certify that to the best of my knowledge and belief, no actual or apparent conflict of interest exists with regard to my possible performance of this procurement.

#### 5. Bidder's Certification of Eligibility

(a) By the submission of this bid, the bidder certifies that to the best of its knowledge and belief, neither it, nor any person or firm which has an interest in the bidder's firm, nor any of the bidder's subcontractors, is ineligible to:

(1) Be awarded contracts by any agency of the United States Government, HUD, or the State in which this contract is to be performed; or,

(2) Participate in HUD programs pursuant to 24 CFR Part 24.

(b) The certification in paragraph (a) above is a material representation of fact upon which reliance was placed when making award. If it is later determined that the bidder knowingly rendered an erroneous certification, the contract may be terminated for default, and the bidder may be debarred or suspended from participation in HUD programs and other Federal contract programs.

#### 6. Minimum Bid Acceptance Period

(a) "Acceptance period," as used in this provision, means the number of calendar days available to the PHA/IHA for awarding a contract from the date specified in this solicitation for receipt of bids.

(b) This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.

(c) The PHA/IHA requires a minimum acceptance period of [Contracting Officer insert time period] calendar days.

(d) In the space provided immediately below, bidders may specify a longer acceptance period than the PHA's/IHA's minimum requirement. The bidder allows the following acceptance period: calendar days.

(e) A bid allowing less than the PHA's/IHA's minimum acceptance period will be rejected.

(f) The bidder agrees to execute all that it has undertaken to do, in compliance with its bid, if that bid is accepted in writing within (1) the acceptance period stated in paragraph (c) above or (2) any longer acceptance period stated in paragraph (d) above.

#### 7. Small, Minority, Women-Owned Business Concern Representation

The bidder represents and certifies as part of its bid/ offer that it --

(a) [ ] is, [ ] is not a small business concern. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR 121.

(b) [ ] is, [ ] is not a women-owned business enterprise. "Women-owned business enterprise," as used in this provision, means a business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

(c) [ ] is, [ ] is not a minority business enterprise. "Minority business enterprise," as used in this provision, means a business which is at least 51 percent owned or controlled by one or more minority group members or, in the case of a publicly owned business, at least 51 percent of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more such individuals. For the purpose of this definition, minority group members are:

(Check the block applicable to you)

- |                        |                              |
|------------------------|------------------------------|
| [ ] Black Americans    | [ ] Asian Pacific Americans  |
| [ ] Hispanic Americans | [ ] Asian Indian Americans   |
| [ ] Native Americans   | [ ] Hasidic Jewish Americans |

#### 8. Indian-Owned Economic Enterprise and Indian Organization Representation (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)

The bidder represents and certifies that it:

(a) [ ] is, [ ] is not an Indian-owned economic enterprise. "Economic enterprise," as used in this provision, means any commercial, industrial, or business activity established or organized for the purpose of profit, which is at least 51 percent Indian owned. "Indian," as used in this provision, means any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act.

(b) [ ] is, [ ] is not an Indian organization. "Indian organization," as used in this provision, means the governing body of any Indian tribe or entity established or recognized by such governing body. Indian "tribe" means any Indian tribe, band, group, pueblo, or

community including Native villages and Native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.

**9. Certification of Eligibility Under the Davis-Bacon Act** (applicable to construction contracts exceeding \$2,000)

(a) By the submission of this bid, the bidder certifies that neither it nor any person or firm who has an interest in the bidder's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of the contract resulting from this solicitation shall be subcontracted to any person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

**10. Certification of Nonsegregated Facilities** (applicable to contracts exceeding \$10,000)

(a) The bidder's attention is called to the clause entitled **Equal Employment Opportunity** of the General Conditions of the Contract for Construction.

(b) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(c) By the submission of this bid, the bidder certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in the contract.

(d) The bidder further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) prior to entering into subcontracts which exceed \$10,000 and are not exempt from the requirements of the Equal Employment Opportunity clause, it will:

(1) Obtain identical certifications from the proposed subcontractors;

(2) Retain the certifications in its files; and

(3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

**Notice to Prospective Subcontractors of Requirement for Certifications of Nonsegregated Facilities**

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Employment Opportunity clause of the prime contract. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

**Note:** The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

**11. Clean Air and Water Certification** (applicable to contracts exceeding \$100,000)

The bidder certifies that:

(a) Any facility to be used in the performance of this contract [ ] is, [ ] is not listed on the Environmental Protection Agency List of Violating Facilities:

(b) The bidder will immediately notify the PHA/IHA Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the bidder proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and,

(c) The bidder will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

**12. Previous Participation Certificate** (applicable to construction and equipment contracts exceeding \$50,000)

(a) The bidder shall complete and submit with his/her bid the Form HUD-2530, "Previous Participation Certificate." If the successful bidder does not submit the certificate with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the certificate by that date may render the bid nonresponsive. No contract award will be made without a properly executed certificate.

(b) A fully executed "Previous Participation Certificate" [ ] is, [ ] is not included with the bid.

**13. Bidder's Signature**

The bidder hereby certifies that the information contained in these certifications and representations is accurate, complete, and current.

\_\_\_\_\_  
(Signature and Date)

\_\_\_\_\_  
(Typed or Printed Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Company Address)

**SECTION 16**

**SECTION 3 FEDERAL REGISTER**

**DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**

24 CFR Parts 5, 14, 75, 91, 92, 93, 135, 266, 570, 574, 576, 578, 905, 964, 983, and 1000

[Docket No. FR-6085-F-03]

RIN 2501-AD87

**Enhancing and Streamlining the Implementation of Section 3 Requirements for Creating Economic Opportunities for Low- and Very Low-Income Persons and Eligible Businesses**

**AGENCY:** Office of the Secretary, HUD.

**ACTION:** Final rule.

**SUMMARY:** Section 3 of the Housing and Urban Development Act of 1968, as amended by the Housing and Community Development Act of 1992 (Section 3), contributes to the establishment of stronger, more sustainable communities by ensuring that employment and other economic opportunities generated by Federal financial assistance for housing and community development programs are, to the greatest extent feasible, directed toward low- and very low-income persons, particularly those who receive government assistance for housing. In accordance with statutory authority, HUD is charged with the responsibility to implement and enforce Section 3. HUD's regulations implementing the requirements of Section 3 have not been updated since 1994 and are not as effective as HUD believes they could be. This final rule updates HUD's Section 3 regulations to create more effective incentives for employers to retain and invest in their low- and very low-income workers, streamline reporting requirements by aligning them with typical business practices, provide for program-specific oversight, and clarify the obligations of entities that are covered by Section 3. These changes will increase Section 3's impact for low- and very low-income persons, increase compliance with Section 3 requirements, and reduce regulatory burden.

**DATES:** *Effective Date:* November 30, 2020.

*Compliance Dates:* Public housing financial assistance recipients must implement their Section 3 activities pursuant to these regulations and comply with the reporting requirements starting with the recipient's first full fiscal year after July 1, 2021. These regulations are applicable to Section 3 projects for which assistance or funds are committed on or after July 1, 2021.

**FOR FURTHER INFORMATION CONTACT:** For questions, please contact the following people (the phone numbers are not toll-free):

*For Public Housing Financial Assistance:* Merrie Nichols-Dixon, Director, Office of Policy Program and Legislation, Office of Public and Indian Housing, Department of Housing and Urban Development, 451 7th Street SW, Room 3178, Washington, DC 20410; telephone 202-402-4673 (not a toll-free number).

*For Community Development Block Grant (CDBG)/CDBG Disaster Recovery/Section 108 Loan Guarantee Program:* Jessie Handforth Kome, Director, Office of Block Grant Assistance, Office of Community Planning and Development, Department of Housing and Urban Development, 451 7th Street SW, Room 7282, Washington, DC 20410; telephone 202-708-3587 (voice/TDD) (not a toll-free number).

*For HOME or Housing Trust Fund Section 3 projects:* Virginia Sardone, Director, Office of Affordable Housing Programs, Office of Community Planning and Development, Department of Housing and Urban Development, 451 7th Street SW, Room 10168, Washington, DC 20410; telephone 202-402-4606 (not a toll-free number).

*For Office of Housing programs:* Thomas R. Davis, Director, Office of Recaptalization, Office of Housing, Department of Housing and Urban Development, 451 7th Street SW, Room 6230, Washington, DC 20410; telephone 202-402-7549 (voice/TDD) (these are not toll-free numbers).

Persons with hearing or speech impairments may access this number through TTY by calling the Federal Relay Service, at toll-free, 800-877-8339. General email inquiries regarding Section 3 may be sent to: [section3@hud.gov](mailto:section3@hud.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Background**

Section 3 of the Housing and Urban Development Act of 1968 (Pub. L. 90-448, approved August 1, 1968) (Section 3) was enacted to bring economic opportunities generated by certain HUD financial assistance expenditures, to the greatest extent feasible, to low- and very low-income persons residing in communities where the financial assistance is expended. Section 3 recognizes that HUD funds are often one of the largest sources of Federal funds expended in low- and very low-income communities and, where such funds are spent on activities such as construction and rehabilitation of housing and other public facilities, the expenditure results

in economic opportunities. By directing HUD-funded economic opportunities to residents and businesses in the community where the funds are expended, the expenditure can have the dual benefit of creating new or rehabilitated housing and other facilities while providing opportunities for employment and training for the residents of these communities.

The Section 3 statute establishes priorities for employment and contracting for public housing programs and for other programs that provide housing and community development assistance. For example, the prioritization as it relates to public housing assistance places an emphasis on public housing residents, in contrast to the prioritization as it relates to housing and community development assistance, which places more emphasis on residents of the neighborhood or service area in which the investment is being made.

In the 25 years since HUD promulgated the current Section 3 regulations, significant legislation has been enacted that affects Section 3.<sup>1</sup> In addition, HUD has also heard from the public that there is a need for regulatory changes to clarify and simplify the existing requirements. HUD's experience in administering Section 3 over time has also provided insight as to how HUD could improve its Section 3 regulations. HUD, thus, concluded that regulatory changes were necessary to streamline Section 3 and more effectively benefit low- and very low-income persons through HUD financial assistance to achieve the Section 3 statute's purposes.

**II. The Proposed Rule**

HUD issued a proposed rule on April 4, 2019 (84 FR 13177) to update the existing regulations and streamline the Section 3 program.

*Promote Sustained Employment and Career Development*

The proposed rule included multiple elements designed to increase Section 3's impact in directing employment opportunities and sustaining employment for the people served by

<sup>1</sup> This legislation includes, but is not limited to, the following: Reforms made to HUD's Indian housing programs by the Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA) (Pub. L. 104-330, approved October 26, 1996); public housing reforms made by the Quality Housing and Work Responsibility Act of 1998 (QHWRA) (Pub. L. 105-276, approved October 21, 1998); reforms made to HUD's supportive housing programs by the Section 202 Supportive Housing for the Elderly Act of 2010 (Pub. L. 111-372, approved January 4, 2011); and the Frank Melville Supportive Housing Investment Act of 2010 (Pub. L. 111-347, approved January 4, 2011).

HUD financial assistance programs. The rule proposed tracking and reporting labor hours instead of new hires. While the previous new hire framework was valuable for measuring entry into employment, the new hire framework did not capture the extent to which new hiring opportunities are created relative to the total work performed, nor whether those opportunities are sustained over time. The proposed rule's focus on labor hours sought to measure total actual employment and the proportion of the total employment performed by low- and very low-income workers. In addition, the change to labor hours emphasized continued employment. For example, the prior exclusive focus on counting new hires regarded five new hires for one-month opportunities as a more valued outcome than one 12-month opportunity, and it did not distinguish between full- and part-time employment. A full-time job sustained over a long period allows a low- or very low-income worker to gain skills and is a strong indicator of progress towards self-sufficiency. The new focus on labor hours would ensure that longer-term, full-time opportunities are appropriately recognized.

HUD's proposed rule also sought comment on maintaining the new hire framework for only Public Housing Agencies (PHAs). HUD held a number of listening sessions and heard from some PHAs that they would prefer to keep reporting new hires rather than switch to reporting labor hours. Therefore, while HUD believes tracking labor hours is the best option and would simplify reporting, HUD did seek comment on the alternative option of maintaining the new hires framework for PHAs.

#### *Align Section 3 Reporting With Standard Business Practices*

HUD also proposed tracking labor hours rather than new hires because it would be more consistent with business practices. Most construction contractors working on HUD assisted projects already track labor hours in their payroll systems because they pay their employees based on an hourly wage. In some cases, they are also subject to prevailing wage requirements.<sup>2</sup> HUD believes a consistent labor-hour tracking mechanism makes compliance with Section 3 easier not only for recipients of HUD assistance, but also for contractors and subcontractors. The proposed rule provided that for employers who do not track labor hours in detail through a time-and-attendance

system, such employers could provide a good faith assessment of the labor hours for a full- or part-time employee. However, if a time-and-attendance system is later implemented, the accurate labor hour accounting would be required.

#### *Applicability and Thresholds*

The Section 3 statute applies to both: (1) HUD's Public Housing Program, and (2) Other HUD programs that provide housing and community development assistance. For ease in administration for recipients using one or both of these HUD funding streams, the proposed rule provided definitions for these types of funding and specified Section 3 requirements for each type. The proposed rule included the following definitions for the scope of such financial assistance:

(1) Public housing financial assistance covers:

(a) Development assistance provided pursuant to Section 5 of the United States Housing Act of 1937 (the 1937 Act),

(b) operations and management assistance provided pursuant to Section 9(e) of the 1937 Act (Operating Fund), and

(c) development, modernization, and management assistance provided pursuant to Section 9(d) of the 1937 Act (Capital Fund); and

(2) Section 3 projects cover HUD program assistance used for housing rehabilitation, housing construction and other public construction projects that generally exceed a \$200,000 project threshold or any Section 3 project funding from HUD's Lead Hazard Control and Healthy Homes programs.

The proposed definitions defined the scope of programs subject to Section 3 requirements but did not expand such coverage beyond the compliance requirements of HUD's prior regulations. HUD proposed the \$200,000 threshold for housing rehabilitation, housing construction and other public construction projects because work below that amount would likely not trigger long-term employment opportunities for which the recipient could show measurable labor hours. The proposed rule also clarified that contracts, subcontracts, grants, or subgrants subject to Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5307(b)) or subject to tribal preference requirements as authorized under Section 101(k) of the Native American Housing Assistance and Self-Determination Act (25 U.S.C. 4111(k)) must provide preferences in employment, training, and business

opportunities to Indians and Indian organizations.

#### *Reporting and Targeted Section 3 Workers*

The proposed rule aimed to align Section 3 reporting requirements more closely to the statutory priorities; HUD's previous regulation tracked only public housing residents or low- or very low-income persons who lived in the metropolitan area or nonmetropolitan county of the project, rather than whether the statutory priorities were met. The rule proposed a new definition of "Section 3 worker" as any worker or who meets at least one of the following criteria: Low- or very low-income, as established by HUD's income limits; living in a Qualified Census Tract (QCT); or employed by a Section 3 business concern.<sup>3</sup>

The proposed rule also included a new "Targeted Section 3 worker" definition so that HUD could track, and recipients could target, the hiring of Section 3 workers in selected categories. The Section 3 statute requires certain financial assistance recipients to prioritize their efforts to direct employment and economic opportunities to specific groups of low- and very low-income individuals. The "Targeted Section 3 worker" reflects both statutory and policy priorities that HUD wishes to specifically track. For public housing financial assistance, the proposed definition of a Targeted Section 3 worker was a Section 3 worker who is also:

- (1) A worker employed by a Section 3 business concern; or
- (2) A worker who is currently or who was when hired by the worker's current employer, a resident in a public housing project or Section 8-assisted housing; or
- (3) A resident of other projects managed by the PHA that is expending assistance; or
- (4) A current YouthBuild participant.

For other HUD assistance programs, the proposed priorities were:

- (1) Residents within the service area or the neighborhood of the project, and
- (2) YouthBuild participants.

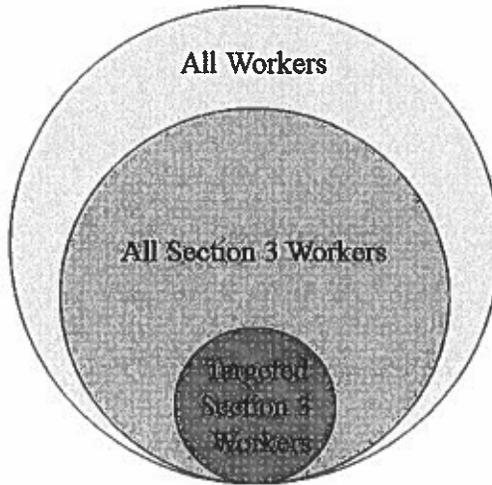
<sup>3</sup> Section 3 business concern means: (1) A business concern that meets one of the following criteria: (i) It is at least 51 percent owned by low- or very low-income persons; (ii) Over 75 percent of the labor hours performed for the business are performed by low- or very low-income persons; or (iii) It is a business at least 25 percent owned by current public housing residents or residents who currently live in Section 8-assisted housing. (2) The status of a Section 3 business concern shall not be negatively affected by a prior arrest or conviction of its owner(s) or employees. (3) Nothing in this part shall be construed to require the contracting or subcontracting of a Section 3 business concern. Section 3 business concerns are not exempt from meeting the specifications of the contract.

<sup>2</sup> See 42 U.S.C. 1437j(a), 24 CFR 905.308(b)(3)(ii), 24 CFR 965.101, 25 U.S.C. 4225(b)(1)(A), and 24 CFR 1006.345(b).

There is also a statutory contracting priority for businesses that provide economic opportunities for low- and very low-income workers. Therefore, HUD proposed including labor hours worked by the Section 3 business concern employees for both Section 3

workers and Targeted Section 3 workers. HUD also proposed a new Section 3 business concern definition that reflected the change to labor hours and increased the threshold of work performed by a business by low- and very low-income workers given the

proposed rule's inclusion of all Section 3 business concerns' labor hours in the definition of both Section 3 workers and Targeted Section 3 workers. The proposed rule created the following construct for measuring workers:



**Benchmarks**

The proposed rule provided that a new Section 3 benchmark measurement would serve as a safe harbor for those recipients that meet the new benchmark. The primary objective of the proposed rule was to reflect and monitor grantees' abilities to direct job opportunities that are generated by HUD financial assistance to Section 3 workers and Targeted Section 3 workers. The proposal included using benchmarks based on ratios of Section 3 workers and Targeted Section 3 workers in comparison to all workers. HUD proposed that the benchmarks would be set by Federal Register Notice and amended periodically to provide for updating of the benchmarks to align with the reporting data HUD received. As HUD gathers more data under the new rule, HUD could increase or decrease benchmark figures over time, or tailor different benchmarks for different geographies and different funding types. If a recipient certifies compliance with the statutory priorities and meets the outcome benchmarks, HUD will presume the recipient is complying with Section 3 requirements, absent evidence to the contrary. Recipients are still required to report their outcomes, and HUD will monitor them accordingly through the data reporting methods used to oversee all other program requirements in each applicable program area. Otherwise, recipients would be required to submit

qualitative reports on their efforts, as they are required to do under HUD's previous rule when they do not meet the safe harbor, and HUD may conduct monitoring to review the recipient's compliance, again consistent with practices used to monitor program participants' compliance with other program requirements.

The proposed rule also provided a burden relieving measure for PHAs with fewer than 250 units. For these PHAs, they would only be required to report on Section 3 qualitative efforts and would not need to track labor hours for Section 3 workers and Targeted Section 3 workers.

**Multiple Funding Sources**

The proposed rule created a new section for housing rehabilitation, housing construction, or other public construction projects assisted with funds from more than one HUD program. Specifically, the proposed rule provided that when a Section 3 project is funded by public housing financial assistance, the public housing financial assistance must be tracked and reported consistent with the public housing financial assistance requirements in subpart B, while the community development financial assistance may follow the requirements in subpart B or subpart C. The proposed rule directed that when a Section 3 project receives housing and community development assistance from two different HUD programs, HUD would designate

guidance through a single reporting office.

**Integrate Section 3 Into Program Enforcement**

Since HUD program office staff are regularly in touch with HUD's funding recipients on other compliance requirements, HUD proposed that program offices incorporate Section 3 compliance and oversight into regular program oversight and make Section 3 an integral part of the program's oversight work. The proposed rule also streamlined the complaint and compliance process to make Section 3 compliance consistent with existing practices for other requirements. The proposed rule shifted the delegation of authority for Section 3 enforcement and compliance responsibilities from the Assistant Secretary for Fair Housing and Equal Opportunity to reside with each of the applicable HUD program offices.

**III. Changes Made at the Final Rule Stage**

After review and consideration of the public comments and upon HUD's further consideration of Section 3 and the issues raised in the proposed rule, HUD has adopted the proposed rule as final with a few changes in this final rule. HUD also made minor edits to clarify the rule's language. The following highlights the substantive changes made by HUD in this final rule from the proposed rule.

Removing Alternative 2 for New Hires

After considering the data, Section 3's statutory goals, and the public comments, HUD is not retaining the tracking of new hires for PHAs, but instead requiring tracking of labor hours for all Section 3 outcomes. HUD agrees with commenters that it is in the best interest of the communities served by HUD to implement a more impactful Section 3 standard across all HUD-funded programs. Using different metrics for different programs would unnecessarily further complicate Section 3 reporting. Tracking labor hours is meant to ensure that Section 3 workers have sustained employment and career opportunities. HUD believes that the use of new hires provides an incomplete measure of the employment and local contracting opportunities available to low- and very low-income persons envisioned by the Section 3 statute. HUD expects the labor hour data to present a more accurate assessment of Section 3's impact. The focus on labor hours will measure total actual employment and the proportion of the total employment performed by low- and very low-income workers, which will mitigate contractors' ability to manipulate their Section 3 outcomes.

#### *Section 3 Project Threshold*

HUD received many public comments on proposed changes to the Section 3 Project threshold. HUD still considers the \$200,000 threshold for Section 3 projects appropriate given the percentage of projects that will continue to be covered and are likely to result in opportunities for employment of low- and very low-income workers when expended on construction-related activities. However, in response to public comments, HUD is providing that in this final rule, the Secretary may adjust the threshold, through a **Federal Register** Notice subject to public comment, in order to ensure Section 3 compliance. HUD's proposed rule already provided for the Secretary to update the threshold not less than once every five years based on a national construction cost inflation factor; the final rule now provides that the Secretary updates the benchmarks not less frequently than once every three years. HUD believes adding this flexibility is responsive to the comments received by the public. HUD will continue to work with program participants to adjust the thresholds accordingly, if necessary, based on the updated data provided under this final rule.

#### *Setting a Project Threshold for Lead Hazard Control Grants*

HUD also received comments regarding the exclusion of projects under HUD's Lead Hazard Control and Healthy Homes program from the \$200,000 project threshold. Lead hazard control projects are generally smaller, so many commenters suggested a lower threshold for such projects. On the other hand, other commenters noted that not including a threshold for lead hazard control grants altogether may incidentally include small grants that should not be subject to Section 3. For example, some Lead and Healthy Homes Technical Studies grants study the health effects of installed housing components in projects typically smaller than \$100,000. As expected, they did not result in opportunities for employment of Section 3 workers under the previous regulations. At the final rule stage, HUD is therefore adopting a \$100,000 project threshold for all projects that receive funding from HUD's Lead Hazard Control and Healthy Homes programs. HUD adopted this number to match the contract threshold in the previous regulations (see previous 24 CFR 135.3(a)(3)).

#### *Removing the Qualified Census Tract Definition*

After considering Section 3's statutory goals and the public comments, HUD is removing the QCT definition from this final rule. The addition of this criteria was to encourage hiring in the QCT and to make targeted hiring easier, but HUD recognizes that the inclusion of workers in these areas could inadvertently include individuals who are not low- or very low-income. Rather than the broad QCT definition, HUD is limiting the Section 3 worker definition to be more consistent with the statute, which requires prioritization of low- and very low-income workers and YouthBuild participants. This should also alleviate any potential burden on participants associated with the QCT designation.

#### *Changing the Section 3 Business Concern Definition*

In adopting the proposed definition of Section 3 business concern in this final rule, HUD is maintaining the over 75 percent of the labor hours performed for the business on construction are performed by low- or very low-income persons standard, but adding in that such performance must be over the last three-month period to help businesses determine whether or not they meet the criteria. HUD is also maintaining a separate criterion for businesses owned and controlled by current public

housing residents or residents who currently live in Section 8-assisted housing, but increasing the required percentage of owned and controlled to 51%. This change is in response to public comments and to maintain consistency with HUD's public housing regulations on contracting with resident-owned businesses at 24 CFR part 963. HUD also added a change to the documentation timing in paragraph (1) of the Section 3 business concern definition to allow a six-month grace period. HUD understands that businesses need time when bidding on contracts and prior to the contract's execution to assemble materials and to assess labor hours. This change is responsive to commenters who expressed concerns about Section 3 status retention, since labor hours can be dependent on the number of contracts on which a business bids and receives.

#### *Changing the Professional Services Definition*

In this final rule, HUD is amending the professional services definition to clarify that only non-construction services that require an advanced degree or professional licensing, rather than all non-construction services, are excluded from Section 3. HUD wants to ensure this final rule's emphasis encapsulates the statutory requirement to prioritize low- and very low-income workers, and provides this category of exempted workers from reporting given the challenge to hire low- and very low-income workers in jobs that require such degrees and licensing.

#### *Counting Labor Hours for 5 Years*

HUD's proposed rule provided that labor hours for Section 3 workers and Targeted Section 3 workers could be counted as long as the worker met the definition of a Section 3 worker or Targeted Section 3 worker at the time of hire. Based on public comments and further consideration, HUD agrees that a worker whose income has risen should only be counted for Section 3 purposes for a limited time period. HUD wants to ensure employers are invested in keeping Section 3 workers employed, and that there is enough opportunity to build skills and experience so that Section 3 workers may develop self-sufficiency and compete for other jobs in the future. Therefore, HUD provides that for purposes of reporting the labor hours for Section 3 workers and Targeted Section 3 workers, an employer may choose whether the workers are defined as Section 3 workers for a five-year period at the time of the workers' hire, or when the

workers are first certified as meeting the Section 3 worker definition.

#### *Delayed Effective Date*

The rule provides for a delayed transition to labor hours and the associated recordkeeping requirements. HUD recognizes that employers and grantees will need time to transition their systems and reporting practices as a result of this final rule. HUD is mindful of the need to update policies and procedures for planning purposes, and the importance of implementing the rule such that employers will be able to comply. Therefore, HUD has provided for a transition period through at least July 1, 2021. During this transition period, HUD expects that employers and grantees will begin following this final rule's requirements for new grants, commitments, and contracts. The exact date on which any particular recipient of HUD funding will be able to implement the conversion to the new requirements will vary during this transition period, but the transition must be complete by July 1, 2021. The reporting requirements and labor hours tracking will not begin until the dates for each entity specified in the "Compliance Date" section above.

#### **IV. Discussion of Public Comments and HUD's Responses**

The public comment period on the proposed rule closed on June 3, 2019, and HUD received 163 public comments. The comments came from state and city government agencies and housing administrations, housing authorities, non-profits, independent consultants, private citizens, housing authority directors, small businesses, the construction industry, and housing authority associations. The following presents the significant issues and questions related to the proposed rule raised by the commenters, and HUD's responses to these issues and questions. HUD would like to thank all the commenters for their thoughtful responses.

#### *"Best Efforts" and "Greatest Extent Feasible"*

In the proposed rule, HUD included a specific question for public comment regarding these statutory terms. Some commenters suggested the terms are interchangeable. One commenter suggested that HUD use the term "reasonable best efforts" for CDBG and HOME recipients and remove the term "greatest extent feasible" from the Section 3 regulations or use only "best efforts." Other commenters argued that these words are key to the intent of the statute, which is to provide recipients

leeway when constraints outside their control impede implementation, and recommended that HUD provide guidance materials on how to show best efforts when organizations do not meet their Section 3 goals, such as data collection forms which would indicate best efforts or non-exclusive lists of examples of "best efforts" and "greatest extent feasible."

In contrast, some commenters suggested that these terms are not interchangeable. One commenter said that "best efforts" should be measured by tracking outreach and outcomes of outreach and "greatest extent feasible" is the result of "best efforts." Another commenter argued that "best efforts" can be more clearly defined than "greatest extent feasible," as specific actions can demonstrate efforts, while feasibility is a more passive analysis of what is possible. One commenter argued that the "greatest extent feasible" is a much more rigid and prescriptive standard than the "best efforts" standard and noted that courts have found that the "best efforts" requirement "specifically avoids creating a mandatory obligation on the part of the agencies the statute affects." This "best efforts" standard likewise "does not call for perfect compliance." This commenter encouraged HUD to allow PHAs to retain greater discretion over the development of their own Section 3 programs.

A commenter suggested that Subpart B participants should continue to use "best efforts" while Subpart C participants should use "greatest extent feasible," and agencies receiving funding that triggers compliance under Subparts B and C should use the "best efforts" standard. One commenter suggested using the term "best efforts" to comply with employment, contracting and training opportunities.

Commenters also urged HUD to enforce the terms "best efforts" and "greatest extent possible," suggesting that whatever the standard, if an activity by a recipient, contractor or subcontractor does not adequately serve to hire, train, and retain a Section 3 worker, then it should not meet the standard. These commenters provided an example of a PHA's best effort. Commenters noted that while the recipient or contractor appears to meet the Section 3 goal, or at least made "best efforts" to reach the goal, in practicality such effort is not workable.

One commenter wrote that the terms without any definition are too broad and should be defined to assist in compliance with Section 3. Another commenter proposed that HUD should define the terms by how they will be

measured; for instance, that "best efforts" could be determined by a specific set of metrics around recruitment efforts and the percentage of Section 3 workers in the area. One commenter suggested a way to draft the rule using dollars spent to track compliance such that these terms would not be necessary.

Other commenters requested that HUD not define these terms or should not restrictively define these terms because HUD should trust the judgment and common sense of its professional field staff to determine compliance, because documenting compliance according to specific definitions could create additional administrative burden, because there are constraints outside the grantee's control, and because guidelines may stifle innovation.

*HUD Response:* HUD appreciates commenters' responses to the specific question regarding "best efforts" and "greatest extent feasible" in the proposed rule. "Best efforts" and "greatest extent feasible" are statutory terms, used in the statute in different contexts. As such, HUD will continue to use both terms to track compliance. HUD agrees with commenters that there are many ways to interpret the language. Traditionally, HUD has used the terms interchangeably, as referenced in the statute, and will continue to be consistent with the statutory language. See 12 U.S.C. 1701u(b)-(d). HUD also agrees with commenters who noted these terms are integral to the statutory intent and provide flexibility, rather than administrative burden, to grantees or recipients.

HUD notes that some perceive "best efforts" to be the more rigorous standard, while others perceive "greatest extent feasible" to be the more rigorous standard. HUD has determined not to define the difference between these two terms, but rather to increase the emphasis on outcomes as a result of these efforts. A recipient's reported results will be compared to the outcome metrics defined in the benchmark Notice. HUD program staff will evaluate the level of effort expended by those recipients that fail to meet the benchmark safe harbor, and thus will ensure that the statutory terms are being properly enforced. HUD included a list of examples in the regulation at §§ 75.15 and 75.25, including engagement in outreach efforts to generate job applicants who are Targeted Section 3 workers, providing training or apprenticeship opportunities, and providing technical assistance to help Section 3 workers compete for jobs (e.g., resume assistance, coaching).

## Move to Labor Hours

### Support for Using "Labor Hours"

Many commenters supported the shift to labor hours and, notwithstanding the alternatives presented in the proposed rule for PHAs, encouraged HUD to do the same for public housing construction, modernization, and similar work. These commenters stated that the "new hire" loophole should be eliminated for both housing and community development and public housing projects. Commenters stated that, in practice, contractors have only brought on new hires for short periods of time; the shift to labor hours will promote longer term employment. Commenters also stated that the shift to labor hours would solve the problem of contractors using dishonest practices to meet benchmarks, such as hiring Section 3 residents to fill the 30% benchmark only to lay them off shortly thereafter, or employing Section 3 hires for less than 20 hours a week. Commenters stated that allowing PHAs and their contractors to use "new hires" could provide a loophole to PHAs, allowing them to hire Section 3 workers for a limited or short time frame in order to comply with the regulation. Short-term employment does not allow residents to obtain technical skills, knowledge, or adequate savings. PHAs should be required to use labor hours worked because they can evade Section 3 compliance through manipulative hiring practices.

Commenters stated that the "labor hours" standard is far more effective, less susceptible to manipulation and administratively easier to verify. Commenters stated that the new hire standard is vulnerable to manipulation, because any contractor or subcontractor that performs work on more than one project at a time can easily avoid Section 3 hiring responsibilities by placing their new hires on non-Section 3 covered projects. Commenters asserted the new hire standard may be the single greatest barrier to achieving the employment potential of Section 3.

*HUD Response:* HUD agrees that counting new hires can be problematic and that collecting labor hours can be a more effective measure. As stated in the proposed rule, HUD believes that counting labor hours is consistent with the statute and mitigates contractors' ability to manipulate their Section 3 outcomes. HUD has adopted the suggestion by the commenters and in the final rule applies the labor hour requirements to both housing and community development and public housing projects.

### Support for Using New Hires

Many commenters supported retaining the new hires metrics. Commenters stated that tracking by labor hours is burdensome, will increase administrative costs, and will not streamline the Section 3 reporting requirements. One commenter refuted HUD's hypothesis articulated in the proposed rule and stated that a labor hours metric is unlikely to capture the data on sustained employment opportunities that HUD is seeking. Another commenter stated that the proposed labor hours metric would decrease the number of firms willing to bid on contracts, increase the cost of public contracting for both the PHA and contractors, and provide no appreciable increase in Section 3 workers. Commenters stated that HUD should continue to track compliance by new hires for both Subparts B and C.

One commenter stated that labor hours should only apply to projects that already require the collection of certified payrolls as part of Davis Bacon compliance. Another commenter recommended HUD look to existing programs such as the Department of Transportation's Disadvantaged Business Enterprises for guidance to make substantive changes to Section 3.

Commenters stated that the changes will generate additional administrative burdens. Commenters especially emphasized the potential impact on the Housing Trust Fund (HTF) program and state CDBG and HOME program implementation because states, particularly small and rural community sub-grantees, have limited capacity. Commenters recommended HUD give State CDBG programs a similar alternative to the one offered to PHAs in § 75.15(d). Another commenter proposed HUD allow State CDBG programs to use a good faith assessment of hours, stating that § 75.25(a)(4) will help but will not eliminate the difficulty for State CDBG programs. Another commenter specifically referenced HOME funding and the HTF regulations, noting that stated HTF regulations do not trigger Davis-Bacon and it is rare for a HOME-funded project to trigger Davis-Bacon and prevailing wage requirements.

Commenters stated that HUD's assumption that labor hours are already tracked by most contractors and subcontractors to comply with the prevailing wage requirement is false. Commenters specifically noted that not all CDBG programs are subject to such requirements. One commenter wrote that even a small maintenance contract could result in 6 extra work hours for

staff charged with ensuring correct payroll entries and compliance, stating that a current contract that does not track labor hours would have an increase of approximately \$606,000 of federal funding required to administer the contracts, an additional 5% of costs. Another commenter stated that the proposed shift to labor hours will create an estimated 110 hours of additional administrative effort for the commenter per construction project, and will not impact the duration of Section 3 worker employment or allow HUD to better determine if long-term employment opportunities are generated. One commenter stated that tracking labor hours would require city contractors and subcontractors to track project labor hours using LCPTracker as the city does, necessitating increased administrative staff and resulting in higher contract amounts. One commenter stated that payrolls required for Davis-Bacon compliance are often submitted in hard copy, so compliance with the shift to labor hours would require manual data entry, a significant added labor-intensive task. Commenters also stated that many contractors are small business owners who do not have payroll software and many housing authorities do not have sufficient staff to track hours worked on all projects. Commenters also noted that many medium and smaller sized PHAs do not use LCPTracker and instead rely on contractor payrolls to monitor Davis-Bacon and Section 3. Other commenters stated that tracking hours could be more burdensome than tracking new hires, because new hires are only reported once. Tracking the workers' hours necessitates verifying each Section 3 employee each week for the duration of their employment.

*HUD Response:* HUD carefully considered the diverse public comments on the use of labor hours versus retaining new hires as the measurement for assessing compliance with Section 3 requirements. HUD believes that the use of new hires provides an incomplete measure of the economic opportunities available to low and very low-income persons envisioned by the Section 3 statute. HUD believes that moving to the labor hours metric provides a more robust measure of how Section 3 is intended to work and mitigates contractors' ability to manipulate Section 3 outcomes. HUD concluded the benefits of the labor hours approach outweighs the marginal cost that would result from this shift. HUD has determined that, while public commenters have concerns about possible burdens that result from the

proposed transition to recording labor hours instead of new hires, it is in the best interest of the communities served by HUD to implement a more impactful Section 3 standard across all HUD-funded programs. The use of labor hours is intended to ensure that recipients of these program funds are fully in compliance with the intent of Section 3—maximizing the economic opportunities arising from Federally funded activities that are available to low- and very low-income persons, including those who reside in public housing.

HUD also notes that the comments revealed a diversity of understanding with respect to HUD's record-keeping expectations in measuring the labor hours metric. HUD does not anticipate the level of detail in record-keeping that is required under the Davis-Bacon prevailing wage framework for purposes of Section 3. The proposed rule does not require prevailing-wage-style payroll reports. HUD does anticipate that either employers have some form of time and attendance system, particularly where employment uses an hourly wage structure, or that employers have salaried staff. The final rule does not require any change in these systems, nor necessitate any software approach to tracking payroll. Those employers that use a time and attendance system to track hourly wages may rely on that data, while the final rule provides a good faith reporting exception which applies to all entities that do not have an existing time and attendance system. The final rule has been modified in an effort to clarify that the good faith exemption applies to all Section 3 reporting entities (not only contractors and subcontractors) and that data from any existing salary-based or time-and-attendance-based payroll records can be used in good faith reporting under Section 3. HUD is mindful of the need to update policies and procedures for planning purposes, and the importance of implementing the rule such that employers will be able to comply. Therefore, HUD has provided for a transition period and a bifurcated compliance date. Public housing financial assistance recipients must comply with the reporting requirements starting with the recipient's first full fiscal year after this final rule's effective date. Section 3 project recipients must comply with the reporting requirements starting with the recipient's first full program year for projects committed or awarded after this final rule's effective date.

#### *Many Section 3 Positions Are Short-Term in Nature*

One commenter stated that many of the jobs made available under Section 3 requirements are short term positions specific to the needs of the individual project and/or worksite. These positions provide opportunities for the target population of low-skilled workers to build work experience (leading to possible economic advancement) while helping ensure project costs remain reasonable. Another commenter stated that the Section 3 goal leading to long-term employment and career advancement is unrealistic, as most opportunities generated by Section 3 projects are construction-related and therefore seasonal or project-based; it would be burdensome and complicated to track via labor hours long-term employment that results from a Section 3 worker being hired on a subsequent Section 3 project by a different contractor. Contractors do not keep pools of long-term general laborers on hand for consecutive projects as a means of employing Section 3 workers. Other commenters stated that nothing in the statute states that long-term employment through public housing or other housing and community development funding is the goal of Section 3; the statutory intent is to provide employment and training opportunities to residents of low-income communities where Federal housing and community development dollars are being spent, and tracking new hires better meets this intent.

Similarly, commenters stated Section 3 workers are more likely to assist in temporary work for PHAs. Using new hires better fits with this economic reality. One commenter stated that contractors do not reduce the number of part-time employees so they can provide full-time, long-term employment to fewer Section 3 workers. Other commenters stated that the nature of the construction industry is episodic; workers are not employed by one company for long periods of time, but from project to project, and workers often move from one company to another. The number of hours that a specific person works is generally based on what is required for the project and the type of work they are doing. Commenters asserted it is unreasonable to think that hours for lower-skilled employees will dramatically be increased for a specific construction project by moving to a "labor hours" standard.

Commenters also stated that the move to labor hours will confuse contractors and create more complexity. Another

commenter anticipated pushback from contractors declining to bid, which can lead to an increase in the cost of developing affordable housing. Commenters stated that tracking labor hours could provide contractors with an incentive to hire fewer low-income residents by employing those hired for a greater number of hours. This would have a negative effect on the number of low-income residents hired overall.

*HUD Response:* HUD recognizes that many Section 3 opportunities are short-term employment opportunities. The shift from measuring new hires to measuring labor hours continues to value these short-term opportunities as creating significant economic opportunities for low- and very-low-income workers, and these short-term opportunities will likely remain a primary source of Section 3 opportunities. At the same time, the shift in metrics more accurately reflects the nature and extent of these employment opportunities and places greater relative weight on those opportunities which do provide long-term career ladders and sustained employment opportunities.

There is no obligation on a reporting employer to track an employee's work beyond the immediate short-term seasonal or project-based employment. The opportunity to track an employee over time is solely an opportunity which can be seized by those reporting employers who have invested the extra time and effort to nurture an employee over time. That extra effort to develop a career track is not recognized by the previous new hire metrics but is recognized in the labor hour metrics. It should be noted, however, that the use of the labor hour metric to reward retention applies only to the relationship with the current employer. (See § 75.11(a)(2) "A worker who currently fits or when hired fit at least one of the following categories, as documented within the past five years . . .") This provides an option for employers to look back to the worker's status at the time of original employment but does not require that an employer do so if the employer only wants to reference the employee's current status. Contrary to the concept referenced in the comments, there is no ability to claim long-term employment when hired on a subsequent Section 3 project by a different contractor.

This rule updates HUD's Section 3 regulations to create more effective incentives for employers to retain and invest in low- and very low-income workers. It is HUD's opinion that the change from new hires to labor hours, in combination with the opportunity to

provide good faith assessments, is consistent with businesses' existing payroll systems. Finally, HUD is of the opinion that this change will better advance the goal of sustained employment and career opportunities for low- and very low-income workers.

#### Alternatives

Several commenters suggested alternative frameworks for measuring Section 3 results, in some cases using the labor hours metric and/or the new hire metric already articulated in the current and proposed rules and in some cases proposing new alternative metrics entirely.

Some commenters recommended including definitions for both Alternative 1 and Alternative 2 so that agencies may exercise whichever option best suits their local circumstances. One commenter recommended using the \$200,000 project threshold or \$400,000 recipient threshold to determine whether labor hours or new hires should be the appropriate reporting metric, as larger projects have greater potential to create long term employment opportunities. One commenter focused on the safe harbor benchmark, stating PHAs should have the choice of labor hours at 10% or new hires at 30%. A commenter stated that if labor hours is adopted, all recipients and subrecipients should have the same flexibility allowed to PHAs.

Another commenter stated that "labor hours worked" should be used in conjunction with "30% new hires." The commenter wrote that many PHAs do not track the generated new hires metric making the current 30% of new hires mandate irrelevant—some PHAs allow contractors and subcontractors to select how many hires they will take onto a project despite it coming short of the 30% benchmark. The commenter wrote that tracking both "labor hours worked" along with the "30% new hires" provides further assurance that a recipient's contractors and subcontractors do not avoid their responsibilities to pay the prevailing wage in accordance with the Davis Bacon Act.

Other commenters argued neither labor hours worked, nor number of new hires are accurate metrics for Section 3 compliance and impact, where the goal of Section 3 is sustained economic independence and economic enhancement for Section 3 workers in and around HUD's investment areas. Commenters suggested compliance should instead be measured by: (1) Payroll dollars paid to Section 3 employees; (2) training dollars spent training Section 3 workers; and (3)

contract dollars paid to Section 3 contractors. Commenters further asserted tracking employment status would be unnecessary if all Section 3 employment payroll dollars were captured as a percentage of gross payroll dollars instead. Another commenter stated that an alternate suggestion would be to delineate Section 3 workers as full-time or part-time, and that tracking hours by using these two categories would be effective while still giving HUD information about the hours being completed by each worker. One commenter recommended Alternative 2, which continues to track new hires with the addition of Targeted Section 3 workers.

One commenter stated that transparency is needed, and the new revisions of Section 3 should include that contractors and subcontractors must make public the total amount of workers expected to complete a construction project.

Commenters proposed a third alternative to the two proposed, which is to stay with the current existing Section 3 goals, for both new hires (30% of new hires) and for contracting with Section 3 business concerns (10% of construction dollars and 3% of other dollars). Changes to what is already understood by contractors will be administratively burdensome and will require additional education and training for contractors and subcontractors.

*HUD Response:* HUD appreciates the alternatives suggested and has considered the various comments regarding the alternatives presented in the proposed rule and the modifications to those alternatives presented in the comments. HUD has concluded that both the use of Alternative 2 (New Hires) and the use of a hybrid drawing from both Alternative 1 and Alternative 2 provide an incomplete measure of employment opportunities generated through Section 3. Therefore, HUD decided not to retain the new hire standard. Rather than apply new hires recordkeeping to some programs and labor hours to others, HUD believes it is more efficient and effective for purposes of HUD's objectives with respect to Section 3 to apply the same standard across the board. HUD has determined to align Section 3 reporting requirements with typical payroll business practices by tracking labor hours (whether based on prevailing wage data, non-prevailing wage time-and-attendance system data, good faith assessments of hourly workers not tracked through a data system, or good faith assessments of salaried employees). While commenters varied

on whether tracking Section 3 outcomes through labor hours will be easier for recipients of HUD funding, HUD has concluded that the consistent labor hours metric more accurately reflects the impact of Section 3 and the economic development opportunities created. With respect to the alternatives regarding aggregate payroll tracking or tracking full-time and part-time positions, HUD believes that tracking of labor hours will adequately show hours worked. HUD has determined that tracking of training will be done qualitatively when appropriate.

#### Process for Tracking Labor Hours

Commenters stated that while they appreciated the idea of streamlining the metric, tracking new hires vs. hours may be a disincentive to developers if the tracking is more onerous or complicated than the current method. If tracking labor hours is a goal similar to Davis Bacon, then the process should be fully integrated with the Davis Bacon procedure including the duration of tracking (only until project completion), reporting requirements, and procedures. Commenters stated that ascertaining whether an employer has any new hires is not a simple task; it involves (1) reviewing pre-award payroll records to determine who was on the employee's payroll at the time of contract award and (2) reviewing ongoing payroll records for the duration of the contract to determine whether any new employees have been hired. Commenters also stated that it makes no sense to apply the "labor hours" standard to only one type of construction and rehabilitation project but not to another, based solely on the type of HUD funds involved. If a contractor employs no Section 3 workers, there should be no requirement to provide the data.

Commenters stated inexpensive software is available that enables contractors to submit electronic payroll reports and allows PHAs and other Section 3 funding recipients to easily determine the hours worked on the project, in each trade, by all workers and by Section 3 residents. Commenters noted such software is available to recipients of housing and community development assistance and also to PHAs and other public housing financial assistance recipients. Commenters stated that commonly used Contract Management and Payroll systems such as LCPTracker and B2GNow have features that align with compliance practices and make monitoring more effective. One commenter stated that HUD could provide appropriate software to all

agencies to assist them in tracking and reporting labor hours. A commenter noted that its city has a Federal labor standard software tracker which only 21% of contracts use, and this rule would require 100% of contractors to use the software, resulting in increased administrative work, contract costs, and system management.

One commenter noted that it would be easier to track labor hours with LCPtracker software if the reporting were more aligned with Davis-Bacon reporting. Commenters also saw potential in the hourly tracking if there were a way to eliminate double paperwork by adding Section 3 reporting to the existing Davis-Bacon worksheets. On the other hand, when Davis-Bacon does not apply to a Section 3 project, some commenters felt the administrative burden of tracking hours could be higher. More information would be needed about how the reporting requirements would be implemented before it could be definitively agreed that tracking hours is less burdensome than tracking new hires.

**HUD Response:** HUD recognizes the diversity of views on whether tracking labor hours would be less burdensome for organizations obligated to report Section 3 results. Based on the comments, HUD has concluded that it is likely to be less burdensome to track labor hours in many circumstances, and HUD has clarified the applicability of the good faith exemption to mitigate any potential burden for those who do not have payroll systems which would align to a labor-hours reporting metric. For those efforts subject to Davis Bacon requirements, which includes many HUD-funded construction endeavors, tracking labor hours consistent with existing tracking for prevailing wage requirements would almost certainly reduce burden on recipients. HUD is aware that there are existing software options that have the potential for capturing total labor hours and labor hours contributed by Section 3 workers. HUD also is exploring whether and how to operationalize and integrate HUD's Section 3 Performance Evaluation and Registry System (SPEARS) with outside software vendors. The SPEARS system already has optional data fields to capture the Aggregate Number of Staff Hours Worked and Total Staff Hours Worked by Section 3 Employees, and the system will be modified to align with the final rule. Underlying these considerations, however, is HUD's belief, as described above, that tracking labor hours will better allow HUD to determine if long-term employment opportunities are being generated, and

that the metric should be consistent without regard to the identity of the recipient of HUD funds. Unlike a labor hours measure, the new hire measure does not consider the share of actual work done by low- and very low-income workers, and new Section 3 hires may not be given the opportunity to work a substantial number of hours.

#### **Labor Hours Based on Good Faith Assessment**

One commenter stated that the proposed new rule allows for recipients to rely on a contractor's "good faith assessment" of labor hours (rather than payroll reports) if the contractor is not subject to other requirements specifying time and attendance reporting. Since a large proportion of housing rehabilitation and construction projects do not meet the unit thresholds that trigger Federal labor standards (*i.e.* eight units for CDBG, 12 units for HOME), grant administrators will regularly have to report labor hours based on a contractor's "good faith assessment." Use of this approach will introduce an unknown error margin into the calculation of labor hour benchmarks. This lack of data integrity calls into question the meaning of the proposed benchmarks and the soundness of using "labor hours" as a unit of measurement. Commenters stated that Section 3 businesses who report labor hours in "good faith" need to have specific recording requirements (*i.e.*, software) to avoid manipulation; it is more efficient to rely on tracking systems instead of contractors' good faith submissions. Commenters stated that not all HUD construction projects are subject to Davis-Bacon compliance and even a good faith assessment of labor hours will require significant PHA resources to monitor, review, and compile. One commenter stated that while the proposed rule states that HUD will permit "a good faith assessment of the labor hours" for certain employers, recipients could still be required to establish new compliance procedures, including determining how to protect the privacy of Section 3 workers and businesses when supplied with labor hours supporting documentation.

**HUD Response:** The final rule is explicit that employers are not required to acquire a time-and-attendance system in order to comply with the Section 3 rule. The "good faith assessment" is a limited exception to be used by employers who do not have systems in place to track labor hours. This rule was put in place to avoid increased administrative burdens. HUD is aware of the margin of error represented in the good faith assessments, but has

concluded that even with this margin of error, the labor hours metric provides a more accurate reflection of the economic opportunities created in connection with HUD-funded activities than the new hires metric. The exception does not apply if the employer is subject to other time-specific requirements.

#### **Section 3 Applicability Threshold, HUD's Lead Hazard Control and Healthy Homes Programs and All Section 8 Programs**

##### *Total Funds Threshold or per Project Threshold Versus an Increased Threshold*

The proposed rule set the Section 3 applicability threshold for Section 3 projects to projects where the amount of assistance exceeds \$200,000. HUD received comments both in favor of maintaining the current \$200,000 threshold and in favor of the new proposed threshold. Commenters also addressed the use of a project versus a total funding threshold. In addition, other commenters provided a range of alternative frameworks for setting the threshold amount—different numbers and the inclusion or exclusion of different kinds of funding in the threshold calculations.

Some commenters recommended that the \$200,000 threshold be based on the total amount of funding received within the fiscal year because it is a more simplified and streamlined process. Commenters stated the change to a per project threshold would result in many housing production projects that are mainly small and resource constrained having to comply with Section 3 requirements for the first time, noting that a per project threshold can become complicated and burdensome when a recipient handles a large volume of contracts that are funded by multiple sources. Commenters went on to state that a per project threshold would reduce the number of economic opportunities directed to low-income persons and recommended continuing to subject Project Based Voucher programs to Section 3 requirements to ensure those opportunities are directed toward low-income persons and businesses that employ them. Commenters in this line of thought noted that the \$200,000 per project threshold would potentially exempt projects where the HUD funding is less than \$200,000, even though the combined total project funding is much higher. Commenters stated this could lead to a decrease in the number of projects subject to Section 3 and an

overall reduction in Section 3 program impact.

Other commenters supported the per project threshold generally without commenting on the amount or supported the \$200,000 per project threshold and saw it as an improvement. Some of these commenters noted that while \$200,000 is an improvement over the current threshold, it does not relieve underlying concerns that contractors may break up activities into small contracts of less than \$200,000 each to avoid accountability. Several commenters agreed that a \$200,000 per project threshold would still allow contractors awarded significant funding to avoid Section 3 requirements by carrying out small discreet activities even though they cumulatively spend more than the threshold amount. A commenter suggested that the final rule include a prohibition on such activity, so that HUD has authority to pursue enforcement measures if HUD determines a recipient is “gaming the system” to avoid Section 3 obligations.

Other commenters provided alternative threshold amounts at a range of figures up to \$1 million. Some commenters stated the \$200,000 per project threshold will not necessarily result in employment opportunities for low-income people, arguing a higher project amount does not inevitably translate to the need for new employees or a benefit to Section 3 business concerns. Commenters suggested an alternative \$250,000 threshold which would coincide with the Office of Management and Budget simplified acquisition threshold and could automatically change when that amount is updated. Other commenters supported using the \$250,000 threshold for all projects to include PHAs. Some large PHAs with Section 3 experience recommended raising the threshold to \$350,000 on a per project basis and making this threshold consistent across all programs and funding sources. Commenters in agreement with this notion also noted that HUD has determined that employment opportunities in CDBG funded projects under \$350,000 are very minimal, and these commenters argued that the same is also true of public housing projects. Commenters also recommended \$400,000 or higher to increase the number of program recipients exempted from Section 3 requirements from less than 4 percent to 20 percent, greatly reducing the compliance burden for smaller grantees. Still other commenters recommended a higher threshold of \$750,000, tied to the single audit threshold, noting that smaller grants

generally will not involve sufficient hiring opportunities to warrant the increased administrative burden. Other commenters recommended that a \$1 million threshold would be a better measure of a project of a scale that would have the potential to drive the hiring of Section 3 workers and justify the additional administrative burden on recipients, subrecipients, and contractors to implement the program, particularly state CDBG programs that primarily fund public infrastructure. Another commenter recommended exempting grantees that receive \$1 million or less annually in CDBG or HOME funds because such grantees focus on a finite set of activities that involve small projects.

Commenters stated that a low threshold will create an undue compliance burden for small projects. Commenters suggested that adopting a higher per project threshold would still ensure the majority of CPD grants are covered but would likely offer significant regulatory relief for smaller grantees, builders, developers, contractors, and subcontractors who are disproportionately burdened by regulatory obligations. Some commenters who advocated for a higher threshold linked their reasoning to the effect of the threshold amount on contractors and subcontractors, noting that Section 3 obligations apply to recipients, their sub-recipients and so on. Commenters described cases in which builders forgo using covered funds to avoid the liability and compliance burdens of Section 3, and situations where developers experience costly delays on projects while searching for qualified subcontractors who are not deterred by the Section 3 paperwork and certifications.

Commenters also suggested that both a recipient threshold at \$400,000 and a project threshold of \$200,000, applicable across all programs, would be most appropriate to reduce reporting burdens with a limited impact on the dollar amounts of funding covered. Another recommendation was to apply Section 3 obligations to any entity that receives at least \$200,000 during a program year for a specific program activity. Other commenters suggested either the threshold for contracts should remain \$100,000 in HUD assistance; or a “total contract value” threshold should be defined that will trigger Section 3 on HUD-funded contracts, regardless of the dollar amount of the HUD funding. Other commenters offered an alternative threshold of 10 percent of construction costs per project. Commenters also reiterated that some CDBG grant awards are very small,

ranging from \$50,000 to \$200,000, so units of general local government have difficulty finding contractors to bid on the projects, let alone finding a contractor that is a Section 3 business concern and is willing to work on a small project. Finally, commenters suggested limiting activities that trigger the threshold to only construction and rehabilitation, as defined within the Section 3 statute for CDBG, HOME and other CPD programs.

*HUD Response:* HUD acknowledges the considerations raised by all the commenters in their responses. HUD found that the portion of Section 3 expenditures excluded by the \$200,000 per project threshold generate relatively few Section 3 jobs. After weighing the various considerations, this final rule maintains the \$200,000 per project threshold in general but makes changes to the Lead Hazard Control & Healthy Homes Programs threshold. HUD believes that project funding levels help accurately define thresholds because the amount of funding spent on a project is directly related to the economic opportunities generated by the project. HUD acknowledges the potential disadvantages mentioned by commenters to using a per project threshold but reiterates the per project threshold will help provide opportunities for those who are recipients of Federal financial assistance for housing or residents of the community in which the Federal financial assistance is spent. In addition, HUD remains open to adjusting thresholds in the future based on updated data analysis. The final rule clarifies that HUD may change the thresholds and benchmarks at a later date via *Federal Register* notice, subject to public comment, based on updated data input and accounting for inflation. HUD also notes that not every contractor, subcontractor or sub-recipient must use Section 3 workers. A funds recipient could meet its Section 3 benchmarks with one contract to a Section 3 business concern where the number of labor hours worked is 25% or more of all the labor hours worked by all workers on a Section 3 project while not using Section 3 workers for other work. The recipient has flexibility in determining how to meet its benchmarks.

#### *Lead Hazard Control & Healthy Homes Programs Inclusion*

Commenters who advocated for a single consistent per project threshold across all programs stated that the Lead Hazard Control and Healthy Homes programs should also be subject to the same threshold. Other commenters

agreed that Lead Hazard Control and Healthy Homes projects should be exempted from administrative and compliance burdens based on a threshold of \$200,000 or greater, stating these projects are unlikely to generate many employment opportunities because they are small and Lead Hazard Control abatement and interim controls is to be done by trained and certified workers.

Some commenters agreed that including Lead Hazard Control projects with no threshold would increase the administrative burden without a benefit, and while the exclusion is understandable, HUD should pursue a standardized threshold to avoid complicating Section 3 by creating a different scope for Lead Hazard Control and Healthy Homes programs. Commenters generally supported higher thresholds for Lead Hazard Control and Healthy Homes programs. A commenter suggested it may be appropriate to use the community development assistance threshold for simplicity. Alternatively, commenters suggested a more modest reporting threshold of not less than \$50,000 for Lead Hazard Control and Healthy Homes projects, stating that for grantees working on multifamily projects in high cost cities, projects where the contract is less than \$50,000 tend to be awarded to smaller contractors. A \$50,000 threshold would meet HUD's admirable intention of ensuring greater Section 3 participation from Lead Hazard Control and Healthy Homes grantees without imposing hardship on such small contractors.

*HUD Response:* HUD agrees that the \$200,000 threshold should not apply to Lead Hazard Control and Healthy Homes programs since those projects are generally smaller dollar amounts. However, in keeping with Section 3's statutory priorities and applicability, HUD is choosing to adopt a \$100,000 project threshold regarding application of Section 3 to Lead Hazard Control and Healthy Homes programs.

#### *Section 8 Programs Exclusion*

Many commenters supported the exclusion of Section 8 programs in the proposed rule, as Section 8 programs are not included in the statute. Commenters went on to note that because Section 3 programs are development subsidy sources and Section 8 programs provide operating subsidies, Section 8 assistance recipients should not be subject to Section 3 regulatory responsibilities. Commenters noted that the primary purpose of Section 8 programs is to provide a rental subsidy that covers the difference between the contract rent and 30 percent of the tenant's income,

stating these programs are "affordability tools, not construction tools," and agreed HUD should not increase regulatory burdens on housing providers by expanding the scope of Section 3 to programs not covered in the statute.

Some commenters urged that for Subpart B, HUD should retain an option for PHAs to report on Section 3 requirements for Section 8 funded programs, noting that these programs generate significant employment and training opportunities for Section 3 workers. Commenters suggested HUD format Section 3 reporting so that Section 8 funded placements can be captured as part of a PHA's overall efforts. Commenters also suggested the current reporting system be updated to allow for the reporting of other placements that might be excluded with the new proposed rule, such as placements under professional service contracts.

*HUD Response:* Section 8 programs are not covered under the Section 3 statute. Therefore, HUD in this final rule maintains the clarification in the proposed rule that Section 8 programs are excluded from Section 3 requirements.

#### *Section 3 Project Definition*

Commenters recommended that HUD more clearly define "project" for the purpose of Section 3, and asked how HUD would view a job order contract of more than \$200,000 that may work on various locality-owned sites (e.g., all of a locality's schools or homeless shelters). These commenters also asked, if several unrelated HUD-funded activities are taking place at the same location and have a combined value of more than \$200,000 constitutes a project. Lastly, the commenters asked whether the per-project threshold is based solely on construction-related activities, and whether the level of Federal assistance to a project must exceed the \$200,000 threshold to trigger Section 3.

Another commenter recommended that HUD define "project" as follows: Project means a site or sites together with any building or multiple buildings located on the site(s) that are under common ownership, management, and financing and are to be assisted with Section 3 covered funds as a single undertaking. A program that funds multiple buildings under separate ownership, management and financing is not a project.

*HUD Response:* HUD supports the Section 3 Project definition within the proposed rule and believes it is consistent with the statutory

requirements of HUD programs. HUD also intends to provide sub-regulatory guidance and technical assistance on a program-by-program basis to assist recipients with Section 3 implementation.

#### *Section 3 Worker*

##### *Rule Rewards Creating Opportunities for Persons Who Are Not Low-Income*

Commenters stated that the rule, particularly the definitions of Section 3 worker, rewards creating opportunities for persons who are not low-income, which would be counterproductive to the intent of the Section 3 program. A commenter stated that the proposed definition could inadvertently include individuals who are not low-income because categories (ii) and (iii) are not income-based.

Specifically, some commenters objected to category (ii) which allowed workers who live in a Qualified Census Tract (QCT) to be included in the definition of "Section 3 worker" because these individuals will not necessarily be low-income. One commenter noted this is especially true in large metropolitan cities with mixed income communities and gentrifying areas. Another commenter stated that researching employee residence as of the date of hire to determine census tract qualification will be difficult or impossible for long-term employees who may have moved multiple times. Commenters warned that the QCT designation would create a risk of potential abuse by recipients. Some commenters suggested removing the QCT criteria altogether since the definition already includes a low- or very low-income person.

Other commenters objected to category (iii) which included all Section 3 business concern employees as Section 3 workers. These commenters stated that someone working at a Section 3 business concern is not necessarily a resident of HUD-assisted housing, nor is it likely that a business owned by 51% low-income people would hire only public housing or HUD-assisted residents. For this reason, commenters recommended that HUD should exclude "a worker employed by a Section 3 business" from its definition and benchmarks and the definition of Section 3 worker and Targeted Section 3 worker. One commenter noted the phrase "worker is employed by a Section 3 business" is included in both the Section 3 worker and Targeted Section 3 worker definitions and recommended including this term in the Targeted Section 3 worker definition

only and not the Section 3 worker definition.

*HUD Response:* HUD agrees that paragraph (1)(ii) could inadvertently include individuals who are not low-income. This final rule removes paragraph (1)(ii) regarding the QCT from the definition of “Section 3 worker” from this final rule. However, HUD disagrees that the category of Section 3 business concerns should be removed from the Section 3 worker and Targeted Section 3 worker definitions. The Section 3 statute states that HUD must prioritize Section 3 business concerns. If HUD did not include Section 3 business concerns in the definitions that are used for the benchmarks, PHAs and other HUD funded entities would have no incentive to hire Section 3 businesses. Including all Section 3 business concern employees in the definition of Section 3 worker and Targeted Section 3 worker creates an incentive to contract with a Section 3 business while maintaining a single reporting metric. The final rule maintains that all hours worked on the project by the Section 3 business counts towards the benchmarks. HUD believes these changes are consistent with the statute.

#### *Prior Conviction*

One commenter wrote that convictions for certain categories of crimes may have a direct bearing on the worker’s suitability for particular jobs. Previous theft convictions, for example, may be relevant for a worker who will be involved in procurement and distribution of materials. Other commenters supported this language, stating that “there is no evidence that hiring an individual with a criminal history will have a negative impact on employee success.” The commenters also noted that the language is consistent with other HUD guidance on the use of background reports in housing decisions. However, one commenter suggested a minor revision to clarify the regulation: “A recipient, contractor, or subcontractor shall not refuse to hire a Section 3 worker on the basis of a prior arrest or conviction, unless otherwise required by Federal, state, or local law.”

*HUD Response:* HUD agrees with the commenters that convictions for certain crimes, such as fraud or theft, might affect a worker’s qualifications for a particular position, and that “there is no evidence that hiring an individual with a criminal history will have a negative impact on employee success.” HUD notes that the Section 3 worker definition provides that an individual’s prior arrest or conviction shall not negatively impact their Section 3 worker

status, but the definition maintains the requirement that the individual is qualified for the job. Job qualifications may include the worker’s arrest or conviction history. The rule does not require a Section 3 worker with a criminal history to be hired. HUD has considered the suggestions and has chosen to keep the regulatory language in § 75.5. *See Section 3 business concern*, § 75.5 (“The status of a Section 3 business concern shall not be negatively affected by a prior arrest or conviction of its owner(s) or employees.”); *Section 3 worker*, § 75.5 (“The status of a Section 3 worker shall not be negatively affected by a prior arrest or conviction.”); *Targeted Section 3 worker*, § 75.5 (“does not exclude an individual that has a prior arrest or conviction.”)

#### *Additional Categories*

One commenter stated that the proposed rule no longer explicitly lists a public housing resident as a “Section 3 resident” and does not provide for the employer to continue counting that worker in the future. Another commenter suggested that staff hired by a PHA should be counted toward Section 3 requirements. Commenters suggested additional categories and expansion of existing categories, and requested HUD explicitly list the following: people immediately prior to hiring are public housing, Section 8, Section 811, Section 202 residents or other low-income people, and women. Commenters recommended that a “Section 3 worker” should be a worker whose income is below the limit set by HUD, or a resident of public or HUD-assisted housing.

One commenter supported the change to using an individual’s status as low-income versus household income, which will increase the pool of persons that can be counted as a Section 3 worker and make meeting the benchmarks more attainable. Commenters requested clarification on whether the HUD-defined low-income level will be based on individual or family income and one commenter recommended the use of only an individual’s income.

*HUD Response:* HUD wants to clarify that, while the definition of Section 3 worker does not include public housing residents, it does include all workers whose income is below the income limit established by HUD, which is the same limit that would qualify someone for public housing. Therefore, public housing residents would be considered Section 3 workers. HUD does not believe that all staff hired by a PHA should be counted as Section 3 workers.

Those staff that meet the qualification of a low or very low-income person, as defined by HUD’s income limit, would already qualify, and HUD does not think it is appropriate to include all PHA staff. As for expanding the categories further, the Section 3 statute is specific as to the priorities that HUD should be providing with employment and other economic opportunities generated by Federal financial assistance. Therefore, HUD is not expanding the scope of Section 3 workers beyond those listed in the statute. HUD changed the Section 3 worker definition to include a worker whose income is below the income limit established by HUD in place of the family income and appreciates the comments in support of the change.

#### *Setting Time Limits*

Commenters recommended that HUD should keep the existing standard of a three-year period for counting workers in order to account for staff turnover and to generate more accurate metrics. Other commenters recommended HUD limit someone counting as a Section 3 person to 5 years. Another commenter stated that because many contractors and subcontractors report no new hires for specific projects, a Section 3 worker should be defined as one who “at the time of hire” was low- or very low-income. One commenter asked HUD to be more specific in defining a Section 3 worker rather than stating low-income is a “limit established by HUD.”

*HUD Response:* HUD agrees with the commenters that a worker whose income has risen should only be counted for Section 3 purposes for five years. HUD wants to ensure employers are invested in keeping Section 3 workers employed, and that there is enough opportunity to build skills and experience so that Section 3 workers may develop self-sufficiency and compete for other jobs in the future. An employer may choose whether the workers are defined as Section 3 workers for that five-year period at the time of the workers’ hire, or the date from which the workers are certified as meeting the Section 3 worker definition.

#### *Guidance*

Commenters requested that HUD provide more specific guidance regarding how to calculate labor hours for the purpose of determining Section 3 status. For example, is there a set timeline for consideration, such as during the past year or several years? Or is it based on the business’ last 1–2 payrolls to capture the most recent picture of employment? Commenters stated that it is unclear over what time period labor hours are to be measured.

One commenter stated that it is unclear whether the “labor hours” standard relies on the labor hours on the Section 3 project, or in general.

**HUD Response:** HUD will provide additional guidance to assist PHAs and grantees in how to calculate labor hours. Generally, labor hours will be calculated based on the labor performed on a Section 3 project for housing and community development financial assistance or on all labor hours performed within the fiscal year for public housing assistance.

#### Subrecipient

One commenter stated that using the applicable definition of subrecipient in the HOME program would mean that multifamily owners contracting directly with the State may not have to comply with Section 3 requirements because they are not included in that definition for the HOME program in 24 CFR 92.2. This commenter also noted that multifamily owners are also not often contractors (under the proposed definition), because they do not enter into a contract with a recipient to perform the work. This commenter suggested inclusion of owners in the HOME program and changing the definition of subrecipient to say “has the meaning provided in the applicable program regulations, and in 2 CFR 200.93” or suggested HUD amend the definition of contractor to further define the phrase by adding “work in conjunction with a Section 3 project,” to more clearly identify that it includes an owner in the HOME program that contracts with general contractors.

**HUD Response:** HUD appreciates the comment. However, subrecipient has different meanings in different programs, which is why HUD defined it as either the meaning as is applied in the specific program or 2 CFR 200.93.

#### Targeted Section 3 Worker Definition

Some commenters supported the new “Targeted Section 3 worker” definition and eliminating tracking Section 3 business concern types separately. Some commenters stated that the Targeted Section 3 worker concept is consistent with the goal of expanding employment opportunities for individuals that receive Federal assistance for housing. Another commenter agreed with HUD’s efforts to track and target certain high priority Section 3 workers separately and efforts to fold Section 3 business concern engagement into other benchmarks.

Other commenters opposed the “Targeted Section 3 worker” definition, stating that it is duplicative with worker categories already given preference

under § 75.9. Commenters stated a separate reporting category for “Targeted Section 3 worker” merely complicates reporting requirements for recipients, contractors, and subcontractors, and recommended HUD keep the existing definition and the existing priority preference order. Other commenters noted that tracking additional information to determine Section 3 compliance would be burdensome.

A commenter recommended that hours worked by Section 3 business employees be categorized as regular Section 3 worker hours and Targeted Section 3 worker hours depending on the employee’s status to avoid inflated reporting of hours worked by targeted Section 3 workers. Other commenters suggested that a worker employed by a Section 3 business only be included in the “Targeted Section 3 worker” definition because it was created to better align the regulation with the law.

Commenters stated that counting all Section 3 business concern employees as Targeted Section 3 workers is problematic and risks questionable data. HUD should exclude “a worker employed by a Section 3 business” from the definition of Targeted Section 3 worker and Section 3 worker. Including “a worker employed by a Section 3 business” in the definition of “Targeted Section 3 worker” dilutes the purpose of creating a Targeted worker designation. It also frustrates the purpose of the statute, which is to give priority to public housing and other HUD-assisted residents in employment and training opportunities, along with low-income families near the Section 3 project location.

Commenters also suggested that HUD include public and HUD-assisted housing residents in the Targeted Section 3 worker definition for Section 3 projects, not just PHA projects. The proposed definition of Targeted Section 3 worker for PHA projects more accurately interprets the statutory priority of Section 3 to employ public housing and other Federally assisted residents than the definition for CPD recipients. One commenter recommended that HUD include the word priority in the definition of “Targeted Section 3 worker” to clarify the requirements and add objective criteria or guidance by which to monitor or measure success or satisfactory performance.

**HUD Response:** HUD appreciates the commenters’ recommendation to target public and HUD-assisted housing residents in both funding types. However, the statute specifies priority categories differently for recipients of

public housing financial assistance and housing and community development financial assistance. The Targeted Section 3 worker is a concept designed to serve as a proxy for the highest priority categories, allowing HUD to collect data through standardized reporting regarding the funding recipients’ efforts with respect to the priority categories. HUD believes that the definitions of Targeted Section 3 worker for both public housing financial assistance and other housing and community development financial assistance funds provide good reporting proxies for the statutory priorities and should remain as proposed. As Targeted Section 3 workers are a proxy for the priority categories solely for reporting purposes, and do not replace the prioritization that funding recipients must apply in their efforts under Section 3, the use of the word “priority” in the definition would be inappropriate.

#### § 75.11 Targeted Section 3 Worker for Public Housing Financial Assistance

Commenters stated that HUD should combine 75.11(a)(2)(i) and (ii) into a single category, “residents of public and HUD-assisted housing” to more clearly include residents of all HUD-assisted housing programs and conversion projects. Commenters supported the addition of Section 8 assisted households. This change mirrors the Section 3 statute, which broadly emphasizes employment and training opportunities for “recipients of government assistance for housing.” Some commenters recommended deleting paragraph § 75.11(a)(1), because it is redundant with § 75.5. Commenters also asked HUD to clarify what “residents of other projects managed by the PHA” covers. One commenter suggested HUD add “administered by the PHA” when describing Section 8 assisted housing.

**HUD Response:** HUD appreciates the support for the categories in § 75.11 and recommendations to make changes to include additional HUD programs. HUD believes that consistent with the statute, the Targeted Section 3 worker definition for public housing financial assistance should focus on the categories as listed. To be inclusive of residents in other housing assisted by the PHA and residents of housing in the property management portfolio of the PHA, both categories have been included in the regulation in place of the vaguer term “managed by the PHA.” Those residents would also count as Section 3 workers for purposes of Targeted Section 3 workers for public housing financial assistance. The rule’s current “resident

of other projects managed by the PHA" has been replaced, which should address the commenter's concerns.

**§ 75.21 Targeted Section 3 Worker for Housing and Community Development Financial Assistance**

One commenter wrote that limiting the definition to a geographic area eliminates large sectors of nearby Section 3 workers and business. Another commenter noted some State CDBG programs do not operate in areas where public housing residents or YouthBuild participants typically live. Commenters also stated that the proposed definition gives broader opportunity to identify low-income construction employees for Section 3 projects but requires wage calculations and census tract verification from contractors already burdened by paperwork and will remove the focus from employing eligible persons living within a neighborhood.

**HUD Response:** HUD retained the proposed Targeted Section 3 worker definition in the final rule. The rule creates the "Targeted Section 3 worker" concept so that HUD can track, and recipients can target, the hiring of Section 3 workers in selected categories based on the statute's hiring priorities. The Targeted Section 3 worker category also incorporates the statutory requirements of contracting with business concerns employing low- and very low-income persons. For other HUD housing and community development financial assistance programs, such as the State CDBG program or HOME Investment Partnerships programs, Targeted Section 3 workers would be low- or very low-income workers residing within a one-mile radius of the Section 3 project. If fewer than 5,000 people live within that one-mile radius, the circle may be expanded outward until that population is reached.

The requirement that contractors verify whether workers are low or very low-income for tracking purposes is not new. Contractors were already required to verify new hires as qualifying for Section 3 status, and the statute requires that employment and other economic opportunities generated by work in connection with housing rehabilitation, housing construction or other public construction projects receiving housing and community development assistance be directed to low- and very low-income persons in the local community. HUD's proposal to use Targeted Section 3 workers for housing and community development programs that fall within a defined service area should reduce burden because HUD's mapping tool

will identify the jurisdiction the contractor should target.

**§ 75.5: Section 3 Business Concern Definition**

*Previous Rule's "Dollar Value" Method*

Commenters stated that the previous "dollar value" method of reporting contracts awarded to Section 3 business concerns should be kept, as it gives recipients and general contractors a clear benchmark to achieve when selecting subcontractors and aligns with methods many are already using to report on minority-, women-, and veteran-owned businesses. Commenters noted Section 3 is designed to promote wealth-building in addition to employment opportunities and the "dollar value" method is a better measure of economic opportunities provided to low-income owners of Section 3 business concerns than the labor hours worked by their employees. Without having a metric tied to the number of contracts awarded to Section 3 business concerns, commenters anticipated a reduction in the number of contract awards, and a reduction in employment opportunities. One commenter stated that both definitions will likely continue to be a challenging means of qualifying for eligibility and may prove difficult to document.

**HUD Response:** HUD found the Section 3 business concern definition to be consistent with both the previous regulation and with the statute, although HUD notes that the final rule's definition does impose more rigorous criteria for qualifying as a Section 3 business concern with respect to the percentage of workers who must be Section 3 workers. This additional rigor in the criteria ensures that, if qualifying on the basis that the firm employs Section 3 workers, a high percentage of workers are in fact Section 3 workers, and ensures that, if qualifying on the basis that the owner is a low-income individual, the owner is in operational control and will benefit from the wealth creation opportunities. The changes to the Section 3 business concern definition do not depend on the change in reporting to a labor hours metric.

HUD recognizes that some in the industry have found the "dollar value" method to be workable, and that the dollar value metric does provide a measure of the extent of contracting to Section 3 business concerns. However, HUD believes there is value in having a unitary reporting metric—labor hours—and has designed the metric to measure both direct employment and to reflect prioritization of contracting with Section 3 business concerns. HUD

believes that this new method will be effective, will encourage wealth creation opportunities for the owners of Section 3 business concerns, and will provide the opportunity for recipients of HUD financial assistance to determine which projects use Section 3 businesses in a way that is not administratively burdensome.

*Rule Rewards Creating Opportunities for Persons Who Are Not Low-Income*

One commenter stated that the focus on hours worked is appropriate in light of the statute's focus on providing economic opportunities to low-income residents, but aggregating hours poses a risk that non-low-income people at Section 3 business concerns may report hours, though this risk is mitigated by the Section 3 business concern definition. Another commenter stated that the 51% owned and 75% labor hours requirements allow Section 3 business concerns to employ persons who are not low-income or very low-income.

Another commenter supported replacing the aggregate dollars spent metric, but stated that including all Section 3 business concerns' employee hours will lead to the misleading inclusion of non-low-income worker hours in the data: only the hours worked by the low- and very low-income employees of a Section 3 business concern should be reported as Section 3 hours worked.

**HUD Response:** According to the Section 3 statute, HUD must prioritize businesses that provide economic opportunities for low- and very-low-income persons. The statute does not require that HUD prioritize business that only provide economic opportunities for such persons. If HUD were to include only the Section 3 workers in the reporting metrics, the regulation would not effectuate the statutory requirement to also place an emphasis on Section 3 business concerns. The Section 3 statute states that HUD must prioritize Section 3 business concerns in the awarding of contracts. By collecting labor hour data on all employees of Section 3 business concerns, HUD is creating an incentive to contract with a Section 3 business concern while maintaining a unitary reporting metric for Section 3 performance. The final rule maintains the provision of the proposed rule that all hours worked on the project by the Section 3 business concern counts towards the benchmarks, with the awareness that this reporting framework will collect labor hour data for workers who are not low-income. This serves as the incentive to contract with Section 3

business concerns. HUD believes these changes are consistent with the statute.

#### Verification

A commenter stated that nothing addresses processes for verification of Section 3 business concern eligibility, and that HUD should enhance the Section 3 business concern registry to include confirmation of eligibility or work with Equal Employment Opportunity Commission to assist jurisdictions with certification programs. One commenter noted that using the Section 3 business concern registry to project availability of Section 3 workers is unreliable because the registry is a self-reporting structure with no mechanism to verify the business on the list, it assumes such businesses are able to work in any geographic area, and many PHAs in rural and suburban areas have reported that there are no Section 3 business concerns in their areas.

Another commenter raised the issue that verifying Census tract designations would create an additional burden, especially Census tract data that changes over time, which will result in fewer contractors participating in Section 3 projects.

One commenter stated apprehension about this part of the definition because accurately tracking and reporting labor hours will be much more challenging than tracking and reporting full-time employees. The proposed definition also makes it difficult for Section 3 business concerns and the entities that contract with them to predict with confidence that they will retain their Section 3 status, as labor hours can be dependent on the number of contracts a business bids for and receives.

Another commenter requested clarification regarding how long a business retains the Section 3 business concern status once it is certified as a Section 3 business concern. Commenters suggested HUD or the local government should bear the responsibility for verifying the eligibility of a Section 3 business concern, rather than shunting that responsibility to the builder, general contractor, or subcontractors. HUD's online Section 3 Business Registry<sup>4</sup> was a positive first step, but HUD does not verify the self-certifications submitted by the business concerns, and it cautions database users to perform due diligence before awarding contracts.

**HUD Response:** HUD plans to continue the use of the Section 3 Business Registry as an available public

tool. While HUD appreciates the suggestion that HUD or the local government make determinations of eligibility for Section 3 business concerns, HUD believes that, consistent with other paperwork requirements, it is appropriate that the entity receiving HUD financial assistance ensure compliance with Section 3 requirements, which includes confirming that both Section 3 workers and Section 3 Business concerns qualify as such under this regulation. HUD addressed commenters' concerns about Census tract designations by removing that language from the rule, and concerns about labor hours are addressed in previous comment responses. Once a business is certified as a Section 3 business concern, it will retain that status as long as it continues to meet the definition. Status is determined at the time of hiring for each contract and is no different from any other definition. Currently, business concerns self-certify, and verification is done by HUD. The timing is on a project by project basis.

(1)(i) *"At least 51 percent owned by low- or very low-income persons"*

One commenter stated that this part of the definition follows the statute's intent. Another commenter stated that 51 percent ownership by low- or very low-income persons is unrealistic without training programs on business management.

**HUD Response:** HUD appreciates the feedback from commenters and is keeping this part of the Section 3 business concern definition as it is. HUD has found this definition to be consistent with both the previous regulation and with the statute. HUD notes that the definition also includes other methods by which a business concern may be defined as a Section 3 business concern. See 24 CFR 135.5; 12 U.S.C. 1701u (e)(2).

(1)(ii) *"Over 75 percent of the labor hours . . . performed by low- or very low-income persons"*

Commenters supported changes to definitions of Section 3 business concerns, Section 3 workers, and Targeted Section 3 workers under the new hire approach. One commenter stated that the decision to focus on percentage of hours worked by Section 3 individuals will result in a decrease of self-identified Section 3 business concerns. The commenter asserted that although it is a better metric for proving actual commitment to long-term employment of Section 3 individuals, gathering the data will be overly burdensome. One commenter stated that this option will present undue hardship

to small businesses and should be omitted. Another commenter stated that this requirement will negatively affect HOME and CDBG funded projects.

Some commenters supported tracking Section 3 hiring separately from Section 3 business concern tracking. Section 3 business concerns are already encouraged to retain existing employees to meet the previous Section 3 business concern definition. Counting existing employees to meet both the contract and hiring goals may result in decreased new hiring in connection with Section 3 covered assistance. Commenters recommended only tracking new Section 3 hires employed by Section 3 business concerns relative to a contractor's hiring goals.

One commenter also stated that even though the proposed rule provides a mechanism for PHAs to continue documenting compliance through a "new hire" metric, this proposed definition would still require PHAs to analyze a business's labor hours in order to determine whether a business could qualify as a Section 3 business concern.

One commenter noted the new burden would affect businesses who may not meet the new markers and might reevaluate the benefits of working with PHAs given the increased work to track labor hours. The commenter noted in an environment where getting bids is already difficult this would further dissuade them from doing business with PHAs. Other commenters suggested focusing on long-term employment goals for employees, developing benchmarks for growth of Section 3 business concerns, providing micro-business support, and targeting capital construction projects for mentorship and sub-contracting with Section 3 business concerns.

Some commenters stated that the definition of a Section 3 business concern should remain defined in part as a business where at least 30% of the permanent, full-time workforce are currently Section 3 residents, or were Section 3 residents within three years of the date of first employment at the business concern.

Commenters stated that this proposed amendment would render most Section 3 business concern owners in the commenter's city ineligible, as over 50% qualified by meeting the existing standard for the makeup of their workforce (30% full time permanent employees who are Section 3 residents). The result will be fewer Section 3 business concerns maintaining and/or seeking certification and will further compound the challenges of helping low-income workers access jobs. Most Section 3 business concerns do not

<sup>4</sup> HUD, *What is the Section 3 Business Registry?*, Hud.gov, <https://portalapps.hud.gov/Sec3BusReg/BRegistry/What>.

possess the infrastructure to support tracking this information. A commenter stated that 75 percent of labor hours is too high as a standard for determining Section 3 business concern eligibility. A smaller percentage would be more appropriate, or perhaps HUD could allow businesses to qualify either by labor hours or percentage of staff. Commenters stated that the 75 percent criterion would defeat important purposes of the Section 3 program which include encouraging business creation and increasing contract opportunities for businesses that employ a substantial number of low-income residents.

One commenter stated that it would significantly increase compliance costs, and that HUD appears to assume that every project will be tracking employee hours worked due to the applicability of federal prevailing wage requirements, but this is not the case. This commenter's program includes projects that are not subject to prevailing wage requirements, but that are subject to Section 3. Another commenter stated that the new definitions could pose significant challenges to businesses as they will have to first determine which employees are considered low- and very low-income persons, and then have to calculate if their labor hours are over 75 percent.

One commenter agreed that reporting on business concerns should not be an aggregate of dollars spent. The commenter recommended that HUD keep the self-certification tool and website resource and incentivize Section 3 contractors to register to make this resource as useful as possible. The commenter observed a review of the website shows that some states do not have any Section 3 contractors listed.

Commenters stated that the change from 30 percent of full-time employees to 75 percent of labor hours performed will limit Section 3 business concerns only to those lower-skilled businesses (cleaning companies, moving companies, perhaps landscaping or painting companies) that hire an overwhelming majority of their workers as low-income.

One commenter stated that the proposal will not have the intended impact of increasing access to opportunity. This change would look backwards rather than measuring opportunities provided as a direct result of the contract award. In practice, this change would significantly impact administrative efforts, would adversely affect other qualified Section 3 business concerns, and potentially limit employment opportunities available to the targeted population.

One commenter stated that the rule should keep the threshold at 30% but change it to hours worked rather than new hires and retain other elements of the current definition. The commenter recommended that HUD only count the hours worked by Section 3 residents toward the percentage goals of hours worked by Section 3 residents (not all employees of the Section 3 business concern). The commenter believes the 30% benchmark creates an incentive for established businesses to create a professional development component to their project approach, while 75% is much too high for most businesses to pursue.

One commenter recommended the definition be modified to include more than 75 percent of the labor hours worked at the business are performed by public housing, Section 8, Section 811, or Section 202 residents or persons who, immediately prior to the date of hire, were low- or very low-income, particularly women. Commenters suggested removing the 75 percent labor hour portion all together. If HUD proceeds with this definition, it should consider a transition period so existing Section 3 business concerns can adjust to the new definition.

*HUD Response:* HUD believes that the refined definition continues to reflect the language and intent of the Section 3 statute, defining Section 3 business concerns in a way that furthers economic opportunities for low- and very low-income persons. HUD recognizes that 75% is a higher number than the prior new hire standard but believes that Section 3 business concerns should be either majority owned by low- or very low-income persons or should primarily employ such individuals. HUD believes that the prior 30% standard does not ensure that a sufficiently substantial number of low- or very-low-income persons benefit from the priority contracting status that the Section 3 statute and regulation provide. Section 3 business concern employees are counted as Targeted Section 3 workers, giving HUD funding recipients and Section 3 projects an incentive to hire them to meet their Targeted Section 3 Benchmark numbers. HUD acknowledges that the revised definition of Section 3 business concerns may result in a decrease in firms qualifying for the designation, but the benefits of qualification will be more directly targeted to low- and very-low-income persons. HUD notes that the safe harbor benchmarks can be adjusted by notice periodically, which is intended to allow HUD to modify the benchmarks to accommodate geographies where the initially proposed benchmarks cannot

be met due to the unavailability of Section 3 workers and Section 3 business concerns. HUD amended this provision to clarify that the 75% of labor hours should be determined based on looking back over the last 3 months of work performed for the business. The determination as a Section 3 business concern is made at the time the contract or subcontract is executed, so that the program participants have certainty in their Section 3 strategies. However, the final rule also provides flexibility to establish Section 3 business concern status during the Section 3 covered activity, to provide further incentive to employ Section 3 workers. If the business performed multiple projects, all of the hours on the projects over the prior three-month period should be considered for making the determination.

HUD notes the comment that observed a Section 3 business concern might need to track labor hours to be qualified, even if the federal funding recipient is reporting new hires. By eliminating the new hire alternative reporting metric, HUD anticipates that this dimension of documenting qualification as a Section 3 business concern will be mitigated. HUD further notes that businesses do not need to track labor hours precisely. HUD is not presuming the applicability of prevailing wage requirements, but rather is presuming that all employers paying an hourly wage will have some method to tabulate the number of hours worked, and for those that do not have a tracking mechanism in place, the final rule permits them to rely on a good faith assessment. An objective of Section 3 is to provide employment opportunities for public housing and low-income residents, which can lead to a focus on long-term employment goals. Other activities identified by the commenters are better suited for business development and therefore are outside the scope of this rule.

As for the concern that the definition will limit wage growth or promotion or result in Section 3 business concerns where all employees have low-income wages, HUD provides that the qualification of a Section 3 worker takes place at either the date of the Section 3 covered activity or the date of initial hire by the employer, not more than five years previously. Labor hours of an employee who is low- or very low-income at hire will continue to count for 5 years even if that person grows into a new, more advanced position. HUD anticipates that the employee with 5 years of experience with that same employer would be moving up in the business and would eventually need to

be replaced by a new, presumably low- or very-low-income entry-level employee. The definition has been modified to clarify this framework and to reduce the potential incentive to maintain workers at lower salaries simply to qualify as a Section 3 business concern. HUD also acknowledges that many entry-level opportunities for low-wage workers are in businesses and industries with a high percentage of low-wage employment possibilities. HUD determined not to implement a transition period, although contracts with Section 3 business concerns entered into under the regulations in place prior to the final rule's compliance date will continue to be considered Section 3 business concerns.

*(1)(iii) at least 25 percent owned by current public housing residents or Section 8 residents*

One commenter stated that the revised definition of at least 25 percent owned by current public housing residents, or residents who currently live in Section 8 assisted housing, will be easier to justify than evidence of a commitment to subcontract 25 percent or more of the dollar amount to all subcontracts. Other commenters stated that the third option for defining "Section 3 business concern" should be modified to require that the business have 51% ownership by public housing or Section 8 residents. These commenters warned that unless residents have majority control there is a danger of the business being a front for owners who might not represent residents' interests.

Further, the statute defines a Section 3 business concern as one with Section 3 residents having a controlling interest, or the business employs a substantial number of Section 3 residents. The commenter does not believe that this new proposed criterion is appropriate. Commenters also thought it would be inconsistent with the Congressional statutory intent that economic opportunities be provided to business concerns that are *majority owned and controlled* by low- and very low-income people and/or residents of government assisted housing. (12 U.S.C. 1701u(b)). Commenters further argued reducing the required ownership percentage would also be inconsistent with HUD's public housing regulations at 24 CFR part 963, which defines resident-owned business as one "(1) which is at least 51% owned by one or more public housing residents and, (2) whose management and daily business operations are controlled by one or more such individuals." Commenters felt reducing the required ownership percentage would invite

manipulation and abuse, the prevention of which would require a significant administrative burden. Commenters recommended the Section 3 regulations should be designed to encourage entrepreneurial development, not a passive ownership interest.

*HUD Response:* HUD agrees with commenters that the 25% ownership language may create the risk of unscrupulous business practices. Therefore, HUD revised the final rule to require a Section 3 business concern seeking to meet this third test be 51% owned and controlled by PHA residents and Section 8 residents, in place of the 25% test contained in the proposed rule. This number is also more consistent with HUD's current contracting provision for PHA resident owned businesses in 24 CFR part 963.

*Wages*

Commenters stated that businesses should not be rewarded for paying low wages; businesses should not receive a contracting preference by virtue of the fact that they pay their employees low wages. The commenters asserted Section 3 regulations should be designed to reward businesses that provide economic opportunities to low-income persons so that they have a chance to work their way out of poverty, and the income determination must be made immediately prior to the date of hire. According to the commenters, HUD's regulations should also reward employers who provide decent-paying jobs so that their employees no longer need to depend on HUD assistance to make ends meet. Commenters observed that by determining the low-income status of employees at the time of contract award (the labor hours "are performed by low- or very low-income persons") the definition inadvertently restricts eligibility to businesses whose employees are currently low-income. For these reasons, the commenters proposed that the definition of "Section 3 business concern" be changed to "Over 75 percent of the labor hours performed by the business are performed by persons who were low- or very low-income immediately prior to the date of hire and whose current wage is equal to or greater than 80 percent of the area median income."

*HUD Response:* The Section 3 regulations are designed to provide jobs for low-income persons. As these individuals gain experience, HUD anticipates wages will increase, and the individuals should be able to work their way out of poverty. The definition has been modified to clarify this framework by including a three-month documentation period and to reduce the

potential incentive to maintain workers at lower salaries simply to qualify as a Section 3 business concern.

*Contract Requirement*

One commenter expressed concern over the elimination of Section 3 business concern contracting requirements because the commenter's agency spends a lot of resources on outreach, but recognized many housing authorities lack the resources or diverse vendor marketplaces to do the same.

*HUD Response:* HUD recognizes that not all PHAs will have the same resources to outreach to Section 3 business concerns. HUD believes, however, that counting the Section 3 business concern employees as Targeted Section 3 workers will incentivize PHAs to target Section 3 business concerns to help meet their Targeted Section 3 worker benchmark. HUD will continue to have a Section 3 business concern directory as well to make it easy for PHAs and other entities to identify Section 3 business concerns in their jurisdiction. HUD also believes that making the definition consistent with the PHA resident-owned businesses definition in 24 CFR part 963 will also provide another avenue for finding Section 3 business concerns.

*Alternative Suggestions for the Definition of Section 3 Business Concern*

One commenter recommended that HUD extend Section 3 business concern status to businesses funded through the Opportunity Zone program.<sup>5</sup> Commenters suggested defining a Section 3 business concern as meeting one of the following categories, in the following priority order: (1) Businesses owned 100% by Section 3 persons; (2) businesses owned and operated at a minimum 51% by Section 3 Persons; (3) Businesses whose total employees consist of a minimum of 75% Section 3 persons who reside within the project area; (4) Businesses whose total contract specific staffing (not back office administration unless the opportunity created is a back office position) has more than 50% Section 3 persons residing in the project area; (5) businesses owned by persons providing a negotiated employment level greater than 30% of total project staffing to Section 3 persons; (6) businesses who commit to directly conduct or to subcontract professional employment readiness and employment trade skills training related to the project work or other in-demand employment

<sup>5</sup> See HUD, *Opportunity Now*, [Hud.gov, https://opportunityzones.hud.gov/](https://opportunityzones.hud.gov/).

disciplines, at a minimum of 10% of their total contract award, plus or minus change orders, to Section 3 persons. Under (1), (2), (5), and (6), there is a priority order for the Section 3 persons as well: (A) Public housing assisted persons at the property where the work is being executed. When a contract is issued for service work covering multiple properties of the PHA, any public housing person from that PHA's portfolio shall compete equally for any opportunities created as a direct result of the expenditure. (B) When the service contract only covers one public housing property, the persons from that property will receive first priority for opportunities and then persons from other properties of the PHA's public housing portfolio will be secondly considered. (C) Housing Choice Voucher holders of that specific housing authority that administers that voucher will be third priority. (D) Persons residing in any project-based Section 8 property owned in whole or in part by that PHA. (E) Current YouthBuild participants. (F) All other low- and very low-income persons within the legal boundaries of the service area of the project.

*HUD Response:* HUD appreciates all the different options provided by commenters. However, HUD believes the final Section 3 business concern definition provided in this final rule provides a balance that is consistent with the statute and ensures that most Section 3 business concerns are in fact aimed at employing low- and very low-income persons. See responses above for additional discussion of the Section 3 business concern definition.

### Small PHA Reporting

#### Support

Some commenters supported reporting flexibility for small PHAs, and especially the removal of the non-construction contract goal of 3 percent of all covered contracts to Section 3 business concerns, which they said is challenging to meet due to the amount of professional service contracts. One commenter suggested that for consistency and clarity, the final rule should exclude all PHAs with 250 or fewer units from reporting on benchmarks, regardless of procurement cost. The commenter also suggested that since the proposed rule exempts Section 8 funding from having to meet Section 3 requirements, the final rule should clarify the definition of a small agency for the purposes of Section 3 reporting to mean an agency with 250 or fewer public housing units. Another commenter recommended defining

“small PHA” in a way that alleviates regulatory burdens for as many agencies as possible and suggested defining small PHA as those having 550 or fewer combined public housing and Section 8 units; or, as Section 8 funding is not covered by Section 3, utilize a 250 unit threshold.

Another commenter supported the small PHA reporting exemption suggesting that HUD should define a small PHA in a way that would maximize the number of agencies exempted from detailed reporting, recommending 550 combined units (consistent with the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 and the Housing and Economic Recovery Act of 2008) or 250 public housing units (as Section 8 assistance is not covered by Section 3).

*HUD Response:* HUD continues to support the Small PHA reporting provision in the proposed rule. Small PHAs with less than 250 public housing units will not be required to report the number of labor hours and instead will be required to report their qualitative efforts. The final rule does not require a commitment to award at least 3 percent of the total dollar amount of all other Section 3 covered contracts to Section 3 business concerns. HUD currently is also not changing the number of public housing units for determining the Small PHA exception.

#### All PHAs Should Report for Data Collection and Compliance

Some commenters recommended that all PHAs, regardless of size, should be required to report for data collection and compliance. Other commenters specifically objected to the labor hours reporting exemption for PHAs with fewer than 250 housing units, because inexpensive software is available for PHAs to track and report labor hours. Other commenters suggested removing all exceptions for PHAs. Additional commenters elaborated that reporting requirements should be the same for all entities with no exceptions, noting that every recipient and every dollar should be included in order to guarantee that opportunities reach the poorest and smallest communities.

Commenters noted that small PHAs should not be exempt because they could have significant contractor and subcontractor activity in any given year. Specifically, one commenter noted that the \$200,000 threshold should apply to small PHAs because they have the same opportunity to create jobs as other entities. Another commenter noted that not requiring small PHAs to report creates a loophole that hinders opportunity.

*HUD Response:* HUD has heard from small PHAs that they do not receive enough funding or have sufficient pools of Section 3 workers to support annual new hire or labor hour reporting. Close to one-half of small PHAs with less than 250 public housing units receive less than the \$200,000 project threshold applicable to Section 3 projects that receive other HUD assistance such as CDBG and HOME funding. Due to Operating Fund shortfalls, small PHAs can take advantage of the authority under section 9(g)(2) of the United States Housing Act of 1937 to use its Operating and Capital Funds flexibly to fund any eligible activities under either funding stream. Some small PHAs compensate by promoting economic opportunities through referrals of residents to employers and job fairs, providing training facilities and offerings, and other local efforts. To recognize these other activities and the generally low amount of funds available or used for capital projects, small PHAs will report qualitatively on their efforts.

#### No Good Faith Assessment for Small PHAs

Some commenters objected to allowing small PHAs to supply a “good faith” assessment of hours worked because doing so would invite those entities to bypass important tracking requirements, suggesting that HUD should require quarterly, instead of annual reporting.

*HUD Response:* The small carve out for good faith assessment is not limited to small PHAs. As stated in the proposed rule, it is a limited exception where PHAs and other recipients of public housing financial assistance could use the reporting of a good faith assessment of the labor hours of a full-time or part-time employee from contractors and subcontractors that have not been subject to requirements specifying time and attendance reporting, and do not have systems already in place to track labor hours. This is to address employers that do not already track labor hours without making changes in time and attendance or payroll. It is not a permanent exception and if in the future the contractor or subcontractor is required to track labor hours under some other authority, or begins to voluntarily track labor hours, the exception would no longer apply.

#### Qualitative Reporting

Another commenter noted that the rule lacks information on what qualitative reporting will be required of small PHAs to substantiate the claim that such reporting will be less

burdensome and recommended that small PHAs have the option to track labor hours or do qualitative reporting.

*HUD Response:* The rule seeks not to be too prescriptive on qualitative reporting to provide small PHAs with the flexibility to report on a range of activities. HUD is considering some of the following to signify qualitative efforts: Outreach efforts to generate job applicants who are Targeted Section 3 workers; direct on-the-job training (including apprenticeships); indirect training such as arranging for, contracting for, or paying tuition for, off-site training technical assistance to help Section 3 workers; and outreach efforts to identify and secure bids from Section 3 business concerns. HUD plans to create a form for tracking and reporting qualitative efforts, to ease burden on recipients. HUD agrees that small PHAs should have the option of conforming to the more quantitative reporting standards and has modified the text to permit such option.

#### *Dollar Threshold for Small PHAs*

A few commenters also recommended use of a dollar threshold for public housing assistance similar to that used for other HUD assistance as a means to reduce reporting burdens on small agencies. One commenter suggested that using a dollar threshold, rather than a threshold based on number of public housing units, is a more practical and effective means of identifying those smaller projects that are less likely to generate significant Section 3 employment opportunities. Another commenter further suggested that thresholds established in the proposed rule for Community Planning and Development (CPD) should be applied across the board to all programs and noted that using a per-project or per-recipient threshold would more accurately exclude or include small PHAs based on funding. This commenter also suggested establishing a threshold for work-able non-working residents below which small PHAs would not have to report.

*HUD Response:* HUD continues to maintain that a dollar threshold for public housing financial assistance is not consistent with the statute. Section 3 applies to public housing operating, development, modernization, and management assistance, which covers virtually all housing authority projects and activities. HUD believes that the statute's expansive coverage of public housing projects and activities indicates that any attempt to diminish the coverage would be inconsistent with the statute.

#### **Subcontractors**

Several commenters noted that Section 3 requirements should not apply to subcontractors. Commenters stated that extending reporting requirements to subcontractors would discourage participation in PHA contracting opportunities, adversely impacting competition in the market, driving up construction costs and limiting economic opportunities. Other commenters added that HUD should consider ways to reduce administrative requirements on subcontractors wherever possible, echoing concerns that regulatory burdens which do not acknowledge subcontractor's practical limitations will discourage private sector partners from working with PHAs.

The commenters also suggested that regulatory relief for subcontractors could be achieved in a number of different ways, which range from exempting small subcontractors, excluding subcontractors from Section 3 obligations if their contracts are below a certain dollar threshold or below a percentage of the total covered funding on the Section 3 project. Commenters also suggested HUD consider limiting Section 3 obligations to the recipient, general contractor and immediate subcontractor(s), noting that relieving some or all Section 3 obligations on subcontractors may attract more high-quality tradespeople to affordable housing construction projects and possibly also lower the construction costs on Low Income Housing Tax Credit (LIHTC) and other affordable housing projects with covered HOME or CDBG funds.

Other commenters who expressed concerns about the reporting requirements for grantees and subcontractors also suggested thresholds for subcontractor reporting. Some commenters suggested retaining the existing \$100,000 threshold, though one commenter recommended a reduced compliance level, allowing subcontractors to track Section 3 employees instead of labor hours, to reduce the administrative burden on small entities who lack the capacity to track hours. Some commenters suggested a reporting requirement threshold of \$250,000 to align with the OMB procurement threshold, one of whom recommended this threshold also apply to contractors and offered the \$10,000 micro purchase threshold as an alternative. Other commenters suggested a compliance threshold of \$200,000.

A number of commenters supported reporting requirements for both contractors and subcontractors. One

commenter recommended excluding second tier and below subcontractors from requirements, noting that large PHAs are more likely to award or fund multimillion-dollar projects that have more than 25 first-tier subcontractors. Two commenters mentioned the role of contractors simplifying the reporting mechanism for subcontractors and encouraging subcontractors to comply with requirements. One commenter also suggested that the funding recipient should be allowed to decide the extent of the Section 3 reporting requirements for subcontractors.

One commenter requested clarification as to how Section 3 requirements "flow down" to contractors and subcontractors for housing and community development financial assistance, noting the current regulation includes references to recipients as well as contractors and subcontractors when describing numerical goals and hiring/contracting preferences. The commenter went on to state that Subpart C of the Proposed Rule references only the recipient when describing the employment, training and contracting requirements and safe harbors, and removes the \$100,000 contractor and subcontractor threshold in the current regulation for triggering Section 3 requirements. The commenter noted that while the Proposed Rule does mandate that each recipient "require subrecipients, contractors, and subcontractors" to meet the hiring/contracting requirements, they would propose a clarification on the extent to which contractors, subcontractors and subrecipients on Section 3 projects are bound by the requirements.

*HUD Response:* HUD is sensitive to the potential burden that Section 3 compliance may impose and has focused on outcomes, allowing the recipient to direct where the recipient's efforts, and its contractors' and subcontractors' efforts, will have maximum effect.

In the statute, the sections addressing public housing programs specifically include "contractors and subcontractors" in Section 3 requirements. In contrast, the statute does not reference "subcontractors" in the sections addressing other covered housing and community development assistance. Section 3's applicability to subcontractors as set forth in this final rule closely tracks the statute's requirements. The reporting requirements, however, focus on outcomes, deferring to the recipient to focus their efforts for maximum impact with respect to Section 3, and aligning the contractual obligations the recipient imposes on contractors and

subcontractors accordingly. Unlike the current rule, which applies Section 3 compliance to all subcontractors in excess of a \$100,000 contract threshold, the final rule does not apply specific Section 3 reporting obligations to any subcontractor and instead such requirements would stem from the recipient. See § 135.3(a)(3)(ii)(B). The proposal to reinstate the \$100,000 contract size threshold or any alternative threshold would limit the recipient's flexibility to determine how to achieve the "greatest extent feasible" standard most effectively. Similarly, subcontractors are excluded from the contract language provisions in Section 75.27(a), but subcontractors are still required to meet Section 3 requirements in Section 75.19, which provides the recipient flexibility to achieve the goal. The rule implements the suggestion provided in the comments that the recipient be allowed to decide on the extent of the Section 3 reporting requirements for subcontractors where the statute does not constrain HUD from providing this flexibility.

#### Definition for "neighborhood" or "service area"

Some commenters supported the proposed definition, stating that the definitions are reasonable and will simplify compliance. Other commenters accepted only the one-mile radius definition of "service area" or "neighborhood," but suggested that HUD eliminate the population requirement given the impact on rural areas.

Some commenters disagreed with the proposed definition, stating that metrics will be skewed based on close proximity to more affluent areas. Another commenter thought the definition is inconsistent with the statutory intent to encourage employment opportunities among low- and very low-income persons, noting a single definition cannot capture the expansive geographic areas. Another commenter noted the definition will actually limit mobility and the long-term success of resident programs because contracts will not provide opportunities to residents in successive projects in different neighborhoods. Some commenters wrote that the definition limits businesses in diverse economies and in high-cost cities that need more flexibility to recruit. One commenter wrote that this new definition would significantly reduce the labor pool of eligible Section 3 new hires, making it difficult to achieve benchmarks. Other commenters wrote that it may exclude local public housing or Section 8 residents. Another commenter thought

that it would add challenges for contractors in identifying and prioritizing eligible workers.

Other commenters noted that the restriction does not account for Section 3 covered projects in areas that are not low-income, such as some CDBG expenditures. In addition, commenters noted that such a limitation could have the unintended consequence of excluding large groups of people from the pool of potential employees, especially in cities that are combatting racial segregation. Another commenter stated that the requirements are too geographically limited as to whom and where recipients/contractors must provide opportunities. Additionally, it does not account for opportunities that are accessible beyond the prescribed radii by using mass transit and other commuting opportunities.

Some commenters noted that a new definition would add unnecessary administrative burdens which increases the cost of program management and compliance. One commenter wrote that determining how to meet a 5,000-person radius would be burdensome. Other commenters wrote that completing data analysis of employee home locations and certification would be administratively burdensome and could be covered under state and local data privacy laws. In addition, a commenter stated that the definition may limit PHAs' abilities to hire individuals in their communities who would otherwise qualify as a Section 3 worker and stated that entities receiving community development funds are better at determining which individuals would benefit most from Section 3 employment.

Several commenters suggested that HUD retain the definition of "service area" as it exists in the current rule at 24 CFR 135.5. Another commenter supported Section 3 and encouraged the retention of flexible approaches to compliance, such as those outlined in 24 CFR 135.30. Any proposed rule changes should consider geographical and service population differences. The commenter supported maintaining the rule as is, noting it provides flexibility for compliance through training, hiring, or contracting. Similarly, another commenter noted that there should be flexibility and factors other than hours worked and earned to provide Section 3 credit.

**HUD Response:** HUD notes that the neighborhood or service area requirement applies to the prioritization of effort with respect to housing and community development financial assistance, not public housing funds. The hiring prioritization is different for

this category of funding, and pursuant to the statute is focused on residents of the geographic area in which the work is being done, not on the rent-assisted status of the workers. Consequently, in this context, HUD is not adjusting the regulatory text to acknowledge the availability of transit or to prioritize employment of low- and very-low-income people from a broader geography.

The rule seeks not to limit the labor pool available within specific geographic areas, but to allow flexibility for smaller and more rural areas through the definition. HUD believes counting individuals who live within one mile of the worksite and within an expandable circle centered around the worksite that encompasses 5,000 people provides a definitive means of determining who counts as a Targeted Section 3 worker within the service area or the project neighborhood. Where the one-mile radius circle centered around the worksite has less than 5,000 people, the radius would be expanded outwardly to achieve the desired population of 5,000 people. This expansion would address many of the commenters' concerns regarding smaller communities or rural areas. For the benefit of densely settled urban areas, HUD recognizes there may be more than 5,000 people, but will hold at the one-mile geographic diameter.

HUD believes this final rule does take into consideration geographical and service population differences and retains flexibility for compliance through training, hiring, or contracting. Additionally, the rule is meant to streamline the Section 3 process to make it consistent with the statute and easier to implement. Compliance can be evaluated qualitatively if the labor hours benchmark cannot be met. Under this rule, both measurements are permissible, and the requirements for qualitative evaluation are laid out in the rule. In addition, HUD intends to create a web-based tool to support recipients, subrecipients, contractors, and subcontractors in determining the geographic area encompassing Targeted Section 3 workers.

#### Allow Grantees To Define "Neighborhood" or "Service Area"

Commenters recommended that grantees be given the ability to define "service area" for themselves. Another commenter urged HUD to adopt something other than a "one-size-fits-all" approach so that small rural counties would not have difficulty utilizing federal funding. One commenter noted for example that in New Orleans, there are clearly defined

neighborhoods that most residents and officials understand and recognize, some having a larger area than a one-mile radius. The commenter stated that allowing for a more localized definition of 'project area,' rather than using HUD's definition of a one-mile radius or 5,000 person population guideline, increases local participation in projects that impact those individuals and their immediate surroundings and makes the most sense for their community. This commenter stated that recipients should be able to define their geographic size for purposes of how they focus their priorities regarding low-income persons residing within the service area or neighborhood in which the project is located, and communicate their determination to sub-recipients, contractors and subcontractors. Another suggestion was to have localities work with their local HUD office to define service area based on the locality's characteristics.

Commenters suggested that HUD allow residents and businesses from anywhere in the state to receive priority consideration or to give state recipients deference in establishing areas for purposes of meeting Section 3 requirements. Additionally, one commenter stated that service area may change based on project type, some serving entire communities while others serve smaller sections of a community, rendering the one-mile radius inapplicable depending on the project's scope of impact.

The commenters noted that limiting preference to a certain "service area" may have the unintended consequence of excluding large groups of people from the pool of potential employees. The commenters proposed allowing localities to either target job opportunities to low-income hires from anywhere within the locality, or work with their local HUD offices to define appropriate service areas based on the characteristics of the locality. One commenter wrote that the one-mile radius is too limiting and that residents within the community should be considered.

Some commenters suggested that HUD define service area to be "the area within or contiguous to a PHA's jurisdictional boundaries." Other commenters suggested that HUD define "service area" or "neighborhood" in the following tiered manner: (1) PHA residents in project area; (2) Section 3 residents in project area; (3) extremely low-income or homeless individuals in project area; (3) YouthBuild in project area; and (5) next closest PHA in project area.

One commenter suggested that HUD should give preference to eligible residents of the neighborhood surrounding the PHA before other residents of the metropolitan area and should utilize the language in Subpart C § 75.19 reading "Section 3 workers residing within the service area or the neighborhood of the project." One commenter stated that Section 3 Employment Priorities, as written, is very clear as to the order of Section 3 applicant priorities, starting with residents in closest proximity to the construction project, but disagreed that the one mile and 5,000 population radius is an appropriate geographic, using two PHA examples of Cayce Place and Edgehill to show that these metrics would be skewed based upon the close proximity to those earning twice the AMI and with property values in the hundreds of thousands of dollars.

*HUD Response:* As noted above, the neighborhood or service area requirement applies to the prioritization of effort with respect to housing and community development financial assistance, not public housing funds, and the focus in this context is on residents of the geographic area in which the work is being done. HUD believes that its proposed framework of counting individuals who live within one mile of the worksite and within an expandable circle centered around the worksite that encompasses 5,000 people provides a definitive means of determining who counts as a Targeted Section 3 worker within the service area or the neighborhood of the project. HUD believes the proposed Section 3 regulation takes the varied geographical areas into account and provides a streamlined framework that more specifically determines who might benefit from employment and training opportunities available within the area surrounding a Section 3 project. Where the radius or circle centered around the worksite has less than 5,000 people, the radius would be expanded outwardly to achieve the desired population of 5,000 people. All Targeted Section 3 workers identified by the geographic radius must also qualify as Section 3 workers, so this would not include higher-income workers within the neighborhood or service area.

#### *Rural Areas and Contractors*

Several commenters noted concerns about the effect of the proposed "service area" definition on Section 3 implementation in rural areas. One commenter stated it would be unrealistic and burdensome for employers in rural areas to administer and monitor the one-mile radius, and

that it does not reflect the realities of construction employment in small rural states where the service area is the entire state. One commenter also stated that in areas of low population density, there often will not be sufficient residents or businesses that are capable of performing the work required for housing and community development projects. Other commenters wrote that, given chronic and widespread labor shortages, it is inadvisable to have such a small geographic restriction on the labor pool of Section 3 workers.

Other commenters accepted the one-mile radius definition of "service area" or "neighborhood," but stated the 5,000-person population radius is too large for rural areas. Another commenter noted that the population threshold could increase the service area size exponentially in cities and counties where the population is less than 5,000.

One commenter in Utah opposed the proposed definition, arguing that changing the definition of "neighborhood" to 5,000 people would not work because of the state's very large rural geographic area. The commenter stated HUD's determination that most (77%) current CPD projects had a population of 5,000 people within one mile of the project site is not applicable in Utah, which has only 29 counties. The commenter detailed that 70% of Utah's population resides in its 4 urban counties, and Utah's CDBG projects are part of the 23% that do not have 5,000 people within a one-mile radius of a project site.

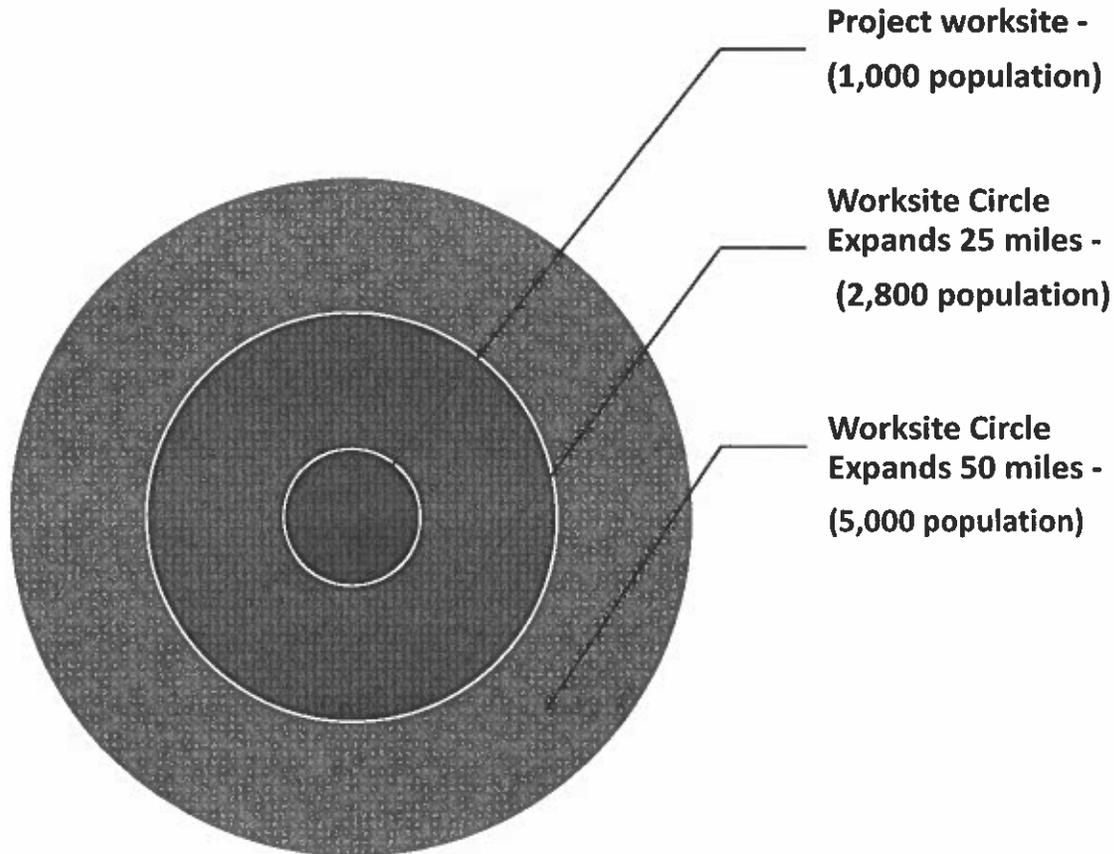
One commenter mentioned the impact of the proposed definition on small contractors or those outside the immediate service area, noting that CDBG and HOME funds are often financing projects completed by small contractors who need to travel outside of a service area to complete work on a project. Another commenter rejected the proposed definition, suggesting that for small town jurisdictions, the "service area" or "neighborhood" should apply within the recipient's jurisdiction, which may be an entire county. One commenter mentioned that finding Section 3 contractors or businesses is already challenging and should not be limited by a "service area" or "neighborhood" definition.

*HUD Response:* HUD acknowledges and has carefully considered the concerns of commenters representing small and rural areas regarding the proposed definition of neighborhood/service area. As previously stated, HUD supports the proposed framework of counting individuals who live within one mile of the worksite and within an expandable circle centered around the

worksite that encompasses 5,000 people. This concept was designed specifically to address the unique needs and challenges facing rural and small

communities. The graphic provides an example on how a circle centered around a worksite with fewer than 5,000 people may be expanded until the

desired population goal of 5,000 people is met or eligible Targeted Section 3 workers are counted.



*Above: Graphic depiction showing how the one-mile radius can be expanded where there are fewer than 5,000 people until the 5,000-person population is found.*

The text as written will provide a definitive means of determining who counts as a Targeted Section 3 worker within the service area or the neighborhood of the project. HUD believes the proposed Section 3 regulation takes the varied geographical areas into account and provides a streamlined framework that more specifically determines who might benefit from employment and training opportunities available within the area surrounding a Section 3 project. HUD also notes that over time, as outcome results are reported to HUD, the benchmarks may be tailored to certain types of projects and geographies by notice, with the explicit intention that it may be appropriate to set different benchmarks for rural areas given the

availability of labor and the patterns of contracting work in rural areas.

**Web Tool**

Some commenters noted that HUD's proposal to provide a web tool to aid in the process of determining a geographic service area would be helpful. One commenter urged HUD to provide the proposed web tool that will help determine the geographic area that encompasses Targeted Section 3 workers before it proceeds with the current definition and finalizes the rule. Commenters requested that HUD provide it to state and local recipients, sub-recipients, contractors, and subcontractors for testing before implementation. Though encouraged by the prospect of a web tool to help determine the geographic area that

encompasses Targeted Section 3 workers, some commenters still argued for a broader definition and geographic areas that define Targeted Section 3 workers. Some commenters thought the web tool would not alleviate burden from the contractor that would still need to determine if a worker meets the requirements to be in the geographically defined area.

*HUD Response:* HUD agrees with the suggestion to provide a web tool to aid in the process of determining a geographic neighborhood/service area. As stated in the proposed rule, HUD will create and provide this tool at the issuance of the final rule to aid recipients, subrecipients, contractors, and subcontractors to determine the geographic area that encompasses Targeted Section 3 workers under this

definition. HUD will also explore the option of creating a mobile tool to help recipients with monitoring and compliance determinations.

#### Exceptions

Commenters suggested the proposed definition should not apply to Puerto Rico considering its geographic composition.

**HUD Response:** HUD has decided to retain the proposed definition for all recipients, including Puerto Rico. HUD believes the proposed regulation takes the varied geographical areas into account and provides a streamlined framework that will enable eligible workers to benefit from employment and training opportunities available within the area surrounding a Section 3 project.

#### YouthBuild Participants

Some commenters were in favor of or not opposed to expanding the definition to include previous YouthBuild workers that are under 24 years of age and those who are still eligible to participate in YouthBuild but may have graduated out of the program. One commenter was opposed to expanding the definition on the grounds that it would require onerous and complex background checks and research to determine whether a participant meets the alternate definition. One commenter recommended that the definition be changed to include previous YouthBuild workers who successfully graduated from the program and are either under age 24 or are otherwise still eligible for YouthBuild programs. Other commenters proposed that the definition of YouthBuild participant should be as broad as possible, regardless of age, while other commenters proposed the definition to include other programs which teach relevant skills, such as Service and Conservation Corps participants and graduates, participants/graduates of "pre-apprenticeship" training programs, participants/graduates of "youth corps," VFW Local Program participants, and AmeriCorps participants.

**HUD Response:** HUD appreciates the commenters' support of the YouthBuild program, and after careful deliberation, has decided to keep the definition consistent with the current regulations and current YouthBuild participants. See 29 U.S.C. 3226; 24 CFR 135.5. HUD determined that given the work required to certify current YouthBuild workers, that adding a longer-term duration would create an additional paperwork requirement on both the person claiming the status and the entity reporting the status. It may also cause

confusion using a certain period of time. Additionally, a YouthBuild worker can still qualify for 5 years if they are employed at the end of their YouthBuild experience.

#### Applicability and Scope

One commenter supported the rule's change to applicability. Another commenter supported Section 3 as an important mechanism to strengthen communities, reduce poverty, and increase residents' economic self-sufficiency. One commenter proposed that these rules should apply to all developers, contractors, and sub-contractors; all professional, skilled, unskilled, technical, and consulting service contracts compensated partially or fully by HUD funds—no exceptions. Another commenter suggested these rules shall be applicable to all professional, skilled, unskilled, technical, and consulting service contracts line items.

Other commenters suggested that HUD should clarify that owners and managers of HOPE VI, Choice Neighborhoods and Mixed-Financed Developments are subject to Section 3 Hiring and Contracting requirements in their own operations and should extend this requirement to Rental Assistance Demonstration (RAD) converted projects. One commenter supported HUD's separation of PHA requirements from non-PHA requirements because it did not make sense for non-PHAs to follow regulations intended for PHAs.

A commenter supported HUD's clarification regarding Section 3 applicability to projects receiving HUD assistance of \$200,000 or greater. Another commenter warned that this rule states that Section 3 will apply when the amount of HUD assistance is greater than \$200,000 on a per-project basis, which would potentially exempt projects where the HUD funding is less than \$200,000, even though the combined total funding is much higher, leading to a decrease in number of projects subject to Section 3.

One commenter suggested that PBV and PBRA contracts should be exempt from Section 3 compliance. Another commenter suggested that, rather than a per-project basis, it would be simpler to apply Section 3 to individual contracts for housing and public construction funded with HUD assistance.

**HUD Response:** HUD shares the view that Section 3 is an important mechanism to strengthen communities, reduce poverty, and increase economic self-sufficiency. HUD seeks to focus Section 3's applicability where it can have a real impact, and to exempt from Section 3 those cases where

applicability imposes burdens not commensurate with outcomes. HUD has concluded that in certain circumstances, particularly professional services, there are very few opportunities for Section 3 outcomes. The proposed definitions defined the scope of programs subject to Section 3 requirements but did not expand such coverage beyond what HUD's existing regulations already required for compliance. HUD proposed the \$200,000 threshold for housing rehabilitation, housing construction and other public construction projects because work below that amount would likely not trigger long-term employment opportunities for which the recipient could show measurable labor hours. HUD disagrees that Section 3 should be applied to all types of work, without exception, and reaffirms in the final rule the exception for professional services. The proposed rule does, however, give credit in the reporting for opportunities that are created in the professional services context by including professional services labor hours in the numerator, and not in the denominator, of the reported outcome ratios. The final rule applies Section 3 in a manner consistent with the statute. HUD has determined that monthly rental assistance payments, such as those provided under Section 8 project-based voucher or project-based rental assistance housing assistance payment contracts, are not covered by the statute. Properties converted to Section 8 rental assistance through the RAD are covered by the rules applicable to Section 8. However, the RAD governing notice does apply Section 3 requirements to those activities occurring after the date of the RAD conversion which are contractually obligated as part of the RAD conversion.

#### Employment Priorities § 75.9 / § 75.19

Some commenters supported separating the agencies which fund Section 3 projects from PHAs and mirroring the statute. Other commenters felt that the priorities should be the same for both Section 3 projects and PHA financial assistance. Other commenters suggested that HUD give preferences to certain groups, while other commenters thought HUD should consider adding geographic considerations into the definition. One commenter suggested that the last priority level should be expanded to any person if the PHA can reasonably demonstrate there are not sufficient Section 3 residents with the requisite job skills within a project's geographic area. Commenters also asked HUD to clarify that otherwise eligible workers of PHAs, even if under private

management, are included in this category, as well as recipients of Section 8 assistance or voucher assistance residing in properties managed by other entities. One commenter suggested HUD change the regulatory language to insert the word "priority" in § 75.19 to clarify the requirement and make the sections consistent with § 75.9.

**HUD Response:** HUD appreciates the comments that supported the employment prioritizations. These prioritizations follow the statutory prioritizations, and HUD is including that language for clarity for recipients implementing the regulations. HUD has rephrased § 75.19 to include the word "priority," consistent with the language of the statute. While HUD appreciates the alternative suggestions, these regulations are meant to streamline the Section 3 process to make it consistent with the statute and easier to implement. HUD believes that the existing regulatory text does that and is making no changes to this section. HUD, however, encourages the HUD financial assistance recipients to consider all the diverse suggestions provided when working on outreach to persons who are low- and very low-income persons to meet the Section 3 benchmarks including residents of PHAs under private management such as those residing in a mixed-finance development project.

#### Reporting § 75.15 / § 75.25

##### *Consolidated Plan Regulations*

A commenter recommended that the Consolidated Plan regulations at 24 CFR 91.520(a) be amended to specifically include Section 3 reporting; PIH will need to develop a Section 3 reporting format.

**HUD Response:** HUD will review Department-level strategies on how to effectively incorporate Section 3 reporting into current systems and data collection tools, including the Consolidated Plan. As a result, HUD will issue sub-regulatory guidance on reporting per program area and provide technical assistance to recipients for Section 3 compliance.

##### *Systems*

A commenter warned that HUD will need to modify IDIS to allow CDBG and HOME recipients to report on their Section 3 actions annually because CDBG and HOME recipients will report on their Section 3 actions in IDIS using a similar form as HUD Form 60002 that has been modified to capture labor hours worked. This commenter stated that this move will eliminate

redundancy and ease the administrative burden for grantees.

**HUD Response:** HUD agrees that the Integrated Disbursement and Information System (IDIS) and DRGR should be modified to ensure accurate Section 3 compliance reporting for CDBG and HOME recipients. HUD will also adjust our data collection systems as necessary to ease administrative burden for grantees and to eliminate redundancy.

##### *Report Through Action Plan and/or CAPER and Effective Date*

A commenter supported HUD's effort and recommended reporting through the Action Plan and/or the Consolidated Annual Performance Evaluation Report (CAPER), only on completed projects. One commenter recommended that the final rule be effective for funds granted in the next Federal fiscal year after publication of the final rule so there is time for contracts/written agreements with sub-awardees to be amended, and in order to avoid having CAPER reporting requirements from annual federal years with two separate program requirements.

**HUD Response:** HUD supports efficient and effective Section 3 compliance reporting through current mechanisms, such as the Annual Action Plan and/or CAPER, for applicable HUD programs. As stated in the proposed rule, HUD believes that requiring reporting annually, but consistent with timeframes that PHAs and other recipients of other housing financial assistance are already using to submit documents to HUD, will relieve existing burden. HUD may also look into reporting into other existing systems rather than requiring PHAs and other recipients to log into and report under a separate system, such as the existing SPEARS.

##### *Double Counting*

A commenter stated that reporting responsibilities when multiple government agencies provide HUD CPD funds are unclear and requested HUD determine whether agencies will be responsible for reporting outcomes for each federal investment or whether HUD will prevent double counting by limiting reporting to one funding agency per Section 3 project.

**HUD Response:** Section 75.29(b) specifies that when there is funding from multiple programs that exceed the threshold in § 75.3(a)(2), the recipient will report to the applicable HUD program office. Some HUD systems allow for indicating when there are multiple HUD funds so that reporting can be limited to one system. However,

not all HUD systems provide for that type of designation. HUD will provide additional guidance to recipients that have multiple funding sources on the proper process for reporting Section 3 project completion.

##### *Separate Reporting by Funding Source*

One commenter requested HUD clarify whether PHAs will still be required to report separately by funding source (e.g., Operating Funds and Capital Funds) or whether the hires report will be aggregated to report only on PHA total funds. This decision will impact how PHAs currently collect and track Section 3 hires. A commenter supported elimination of separate reporting on contracting with Section 3 business concerns. Other commenters stated that the reporting and monitoring required to remove professional services labor hours from overall labor hours would add additional administrative burden to PHAs and could prove challenging in the overall reporting process.

**HUD Response:** Under the final rule, for non-MTW agencies, reporting initially will remain at the grant or individual program level, but HUD may explore agency-level reporting where possible to streamline and simplify. PHAs will still be required to report by separate funding source or in the aggregate for MTW agencies. For ease in administration, the rule will provide separate definitions for these types of funding and separate subparts relating to: (1) Public housing financial assistance, which covers (a) development assistance provided pursuant to Section 5 of the United States Housing Act of 1937 (the 1937 Act), (b) operations and management assistance provided pursuant to Section 9(e) of the 1937 Act (Operating Fund), and (c) development, modernization, and management assistance provided pursuant to Section 9(d) of the 1937 Act (Capital Fund); and (2) Section 3 projects, which means housing rehabilitation, housing construction and other public construction projects assisted with HUD housing and community development assistance when the amount of the assistance to the project exceeds \$200,000, or \$100,000 where the assistance is from HUD's Lead Hazard Control and Healthy Homes programs. There are no current plans to aggregate the information or eliminate reporting on contracting with Section 3 business concerns. Small PHAs with less than 250 public housing units will be permitted to report qualitatively. HUD is exploring how best to implement qualitative reporting for small PHAs, and as indicated above

may study whether other reporting methods should be contemplated in the future. As stated in the final rule, HUD believes that tracking labor hours consistent with existing tracking for prevailing wage requirements would reduce burden on recipients. HUD also believes that tracking labor hours will better allow HUD to determine if long-term employment opportunities are being generated.

*Exempt Commodity Purchases, Non-Construction, and Professional Services*

Commenters strongly agreed with the change to exempt both commodities purchases (material supply contracts) as well as professional services (contracts for legal, accounting, financial consulting, environmental assessment, A&E services and other professional services) from the calculation of contract dollars and new hires for reporting. One commenter supported exclusion of Section 3 requirements on non-construction professional services (e.g., legal, accounting, and engineering) but has concerns that not all Section 3 workers want careers in the construction field and some employment is generated in non-construction contracts.

*HUD Response:* The final rule maintains the exemption of material supply contracts and maintains the structure presented in the proposed rule which does not require separate reporting of contracting with Section 3 business concerns. HUD is providing clarification on the exemption for professional services in the definition of "professional services" in this final rule, by defining professional as services that require an advanced degree or professional licensing.

HUD acknowledges that many low-income workers seek employment in jobs other than construction. However, data indicate that there are relatively few opportunities for Section 3 hiring in professional services fields such as legal services and civil engineering. Many of the positions within these professional services fields require specialized degrees and in many cases the hiring is not directly tracked to a specific federally funded project or activity. The reporting structure in the rule allows a recipient to count as Section 3 labor hours and as Targeted Section 3 labor hours any work performed by a Section 3 worker or a Targeted Section 3 worker (i.e., in the numerator of the calculation), even when the professional services as a whole are not counted in the baseline reporting (i.e., in the denominator of the calculation). The effect of this reporting structure is to give a recipient a bonus if they are able

to report Section 3 hires in the professional services context.

*Frequency of Reporting*

Commenters stated that annual reporting does not facilitate capture and correcting of non-compliance. Some commenters recommended all PHAs should provide Section 3 reports quarterly instead of at the end of the fiscal year. Another commenter recommended that reporting should be done on a monthly basis.

One commenter strongly supported a return to annual reporting and integration of reporting with other funding program reporting requirements. Another commenter supported annual reporting for reducing administrative burden of more frequent reporting. Another commenter supported the proposed change to annual reporting on projects completed within the reporting year.

*HUD Response:* The reporting requirements represents a balance between frequent reporting, effective reporting, and administrative burden. Frequent reporting allows HUD to keep a closer eye on compliance, and early oversight can result in identification of non-compliant actors when there is still opportunity to influence change. Frequent reporting also risks identifying as non-compliant those endeavors where the Section 3 opportunities are sequenced later in the effort's timeline, resulting in ineffective reporting. This is often the case in construction efforts that begin with heavy machinery work and end with trades where Section 3 opportunities are more commonly created. Additionally, there is an administrative burden for the reporting entity, and an oversight responsibility for HUD, each time Section 3 reports must be submitted. HUD notes the variety of opinion represented in the comments, with suggestions of monthly, quarterly, and annual reporting, as well as the project-based reporting permitted in the proposed rule. HUD has determined not to revise the rule. As a result, reporting is on an annual basis for ongoing endeavors such as PHA operations or multi-year infrastructure or disaster recovery efforts. For discrete projects such as development of a singular multifamily apartment building, the reporting is on a project basis, and reported to HUD in the recipient's annual report corresponding to the year of the project's completion. Acknowledging the value of early intervention, the final rule also shifts oversight of Section 3 from a centralized HUD office, which typically does not have visibility into whether the funding recipient is embracing and effectively

implementing its Section 3 obligations, to the program office which is in regular communication with the funding recipient. Part of HUD's intention with respect to this shift in oversight is to integrate discussions of Section 3 compliance into regular oversight discussions so that there are opportunities to influence improvement in Section 3 performance on an ongoing basis.

*Submission Timing*

Commenters recommended that HUD should provide further guidance on how and when annual reports will be submitted and stated that meeting the current January 10th deadline is a challenge for PHAs because end-of-year hires may be undercounted because paperwork may still be in process in January. Commenters stated that if the new regulations require reporting consistent with the timeframes that PHAs are already using, it will assist PHAs in providing the most accurate and up-to-date information. The commenters recommended that HUD refine the proposed reporting frequency regulations to read: "recipients must report annually after the end of their reporting year to HUD . . ." and HUD should provide PHAs 90 days from the end of their reporting year to have sufficient time to collect and aggregate data.

Another commenter noted that MTW PHAs provide annual reports based on the past fiscal year and updating the system to include such Section 3 reporting would be easier to use. This commenter also noted that it needs to be clarified how the reporting would deal with differing timelines for annual reporting versus the duration of projects with funds triggering Section 3 reporting.

*HUD Response:* As noted above, HUD will issue sub-regulatory guidance on reporting by program area. HUD anticipates that it may be able to integrate Section 3 reporting into the funding recipients' other, programmatic, reporting structures, which already have existing time frames for submission of reports. The rule does specify that reporting is based on the recipient's fiscal year, which language has not been changed. Section 3 requirements may not be waived by MTW agencies. MTW only provides flexibility for requirements promulgated under the 1937 Act, while Section 3 is a provision of the Housing and Urban Development (HUD) Act of 1968. Since HUD has a specific online system to collect Section 3 data—SPEARS—all PHAs, including MTW agencies, should report into that system. HUD will consider providing

training specific to MTW agencies, in addition to training for a more general audience, on how to use the SPEARS system.

#### *Major Construction Project Administrative Burdens*

Commenters warned that large workforces and the use of multiple subcontractors on major construction projects would lead to heavy administrative burdens which may discourage subrecipients or contractors from bidding. These commenters recommended contractors be allowed to self-certify to relieve administrative burdens.

**HUD Response:** HUD appreciates the commenters' concerns but determined that self-certification would not provide HUD with an adequate compliance oversight mechanism. There is no provision in the rule for self-certification of meeting the benchmark requirements.

#### *Increasing Costs*

One commenter stated that the requirements are already burdensome to their local governments, administrators, contractors and sub-contractors and the proposed rule would increase the burden, leading to fewer contractors willing to participate in CDBG projects, driving up costs, and leading to smaller projects and fewer beneficiaries. One commenter supported keeping reporting requirements to a minimum because both PHAs and HUD staff have limited capacity for reporting and providing constructive feedback.

One commenter stated the ability to identify workers individually rather than relying on the business concern to meet Section 3 definitions provides additional opportunity to demonstrate Section 3 compliance where there was none before, but this creates an additional burden to document safe harbor, particularly for Lead Hazard and Healthy Homes projects where a lower project dollar threshold is imposed. The commenter went on to suggest HUD consider providing additional funding for contractors to meet the financial impact of the paperwork burden of documenting compliance. Similarly, other commenters noted that under the previous rule the dollar threshold is zero, whereas under the proposed rule, despite the type of HUD funds received, every penny contracted, invested, or applied to any contract project, regardless of ownership, would have triggered full Section 3 compliance.

Commenters also expressed concern for the burden on contractors to meet hourly benchmarks while working through a pool of unskilled new hires

and potential costs to the owner if a new hire fails to meet job requirements. One commenter stated that a significant increase in Federal funding would be required to fund the increased administrative burden of the proposed rule. Other commenters stated that due to the lack of resources many PHAs have, HUD should ask for increased funding for public housing so that PHAs can sufficiently meet Section 3's intended goals. Commenters suggested HUD consider creating Section 3 technical assistance funding that can be used to build PHAs' technical knowledge and capacity.

**HUD Response:** HUD will continue to look for ways to reduce the impact of Section 3 reporting requirements using existing reporting and compliance systems that decrease administrative burden on recipients. HUD believes the use of labor hours, rather than new hires, will reduce costs as many construction contractors already track labor hours to meet prevailing wage requirements. This practice is proposed to provide a consistent labor hour tracking mechanism that will make compliance with Section 3 easier not only for recipients of HUD assistance, but also for contractors and subcontractors. HUD anticipates a reduction in reporting and recordkeeping burdens equal to approximately 64,270 hours, or \$2.4 million annually. This rule will not have any impact on the level of funding for covered HUD programs. Funding is determined independently by Congressional appropriations, authorizing statutes and regulatory formulas that set the amounts of Federal financial assistance provided by HUD grants. HUD is exploring ways to build upon ongoing Section 3 technical assistance and capacity building activities for recipients.

#### *Disaster Recovery*

A commenter warned that additional reporting requirements will be problematic for those managing disaster recovery and requested additional guidance for flexibility with the CDBG-DR program. Another commenter recommended HUD provide outreach and guidance on using CDBG-DR funds for job training and hiring initiatives during rebuilding efforts.

**HUD Response:** Reporting requirements already exist for reporting Section 3 compliance for CDBG-DR program activities. The proposed Section 3 rule will change the reporting scope, such as reporting hours instead of new hires. The rule, however, does not create additional reporting requirements. Like current practice, the

size of a grant award and project scope will dictate the length of time it takes to complete reporting. Technical assistance on using CDBG-DR funds for job training and hiring initiatives during rebuilding efforts, as well as other Section 3 topics, will be provided to grantees upon request and as part of the ongoing grant management process.

#### *Reporting Should Be on Projects Underway*

One commenter recommended CPD project reporting should be based on projects underway, not only those projects completed during the program year. The rule is unclear on how Safe Harbor is met for Section 3 projects, though Reporting § 75.25 states HUD requires a compilation of data through the recipient's fiscal year. Commenter recommends Section 3 compliance be measured by combining all workers for all Section 3 projects. If percentages of Section 3 workers and Targeted Section 3 workers are met, this will show intent to comply.

**HUD Response:** HUD believes that CPD project reporting should be based on those projects completed during a program year. HUD anticipates that CPD programs will continue to report on Section 3 through CPD's current data collection mechanism. At minimum, CPD programs are required to report annually, but many programs update status more frequently during a recipient's fiscal year. HUD intends to issue guidance on the Section 3 requirements and provide technical assistance on a program-by-program basis.

#### *Special Oversight Role of States in State Programs*

One commenter recommended that the proposed Section 3 rule be amended to acknowledge the special oversight role of states in State programs. The current Section 3 regulation provides guidance on this point, while the proposed rule fails to include such guidance. Any final rule should include such guidance. See 24 CFR 135.32(f) and 24 CFR 570.

**HUD Response:** HUD supports retaining the current proposed rule's language. HUD believes the proposed language does fully address the roles and responsibilities of Section 3 recipients and provides adequate guidance to implement, monitor, and enforce Section 3 requirements.

#### *Qualitative Form*

One commenter recommended that HUD should provide the form for qualitative reporting required of small

PHAs to allow commenters to provide informed feedback.

*HUD Response:* HUD will provide a form for Small PHAs and others to use for qualitative reporting when an entity does not meet the benchmark. The form will be issued consistent with Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. Chapter 35, and HUD will provide the opportunity for the public to provide comments on the form.

#### *Recordkeeping (§ 75.31)*

One commenter recommended moving § 75.31 to Subpart A where it would have general applicability to all recipients.

*HUD Response:* Subpart A and Subpart D provisions apply across the board. The rule is structured so that Section 3's general requirements are in Subpart A. Subpart B and C only apply depending on funding source. Other detailed requirements that apply across the board, such as recordkeeping and compliance, are in Subpart D. HUD believes this structure makes sense and is consistent with other rule structures.

#### *Administrative and Compliance Costs*

According to one commenter, this section implies the responsibility for ensuring workers meet the defined requirements in § 75.5, such as Census tract designation and annualized wage calculations, for CDBG Section 3 projects will lie with contractors, which will therefore be costly for contractors who lack the capacity or are already burdened by paperwork. The commenter suggested it may be easier to have recipients bear this burden.

In contrast, one commenter noted contractors would have to provide a personnel profile that includes, at a minimum, income, current address, address at time of hire, and YouthBuild status to establish whether an employee of a non-Section 3 business concern meets any of these criteria. Contractors and employees may balk at a request for this type of personal information, which may become public record. The additional administrative burden placed on otherwise qualified contractors may reduce contractor participation, thereby increasing costs and lessening the impact of Section 3 covered programs on their intended beneficiaries.

*HUD Response:* HUD believes the rule will not impose additional administrative and/or compliance costs for contractors. Administrative and compliance costs associated with Section 3 requirements should be properly resourced within a contractor's bid for a project and are already required for confirming compliance

with existing Section 3 requirements. Contrary to the comments, contractors do not have to provide a personnel profile or any sort of personally identifiable information. HUD has never requested this detailed information and this rule does not change that; the data is only reported in aggregate, and records are maintained for verification only. Recipients may, but are not required to, assist contractors who lack capacity to adequately implement the Section 3 requirements.

#### **Contracting Provision § 75.17 and § 75.27**

Commenters urged HUD to retain standard Section 3 language to be included in contracts because the use of consistent language makes it easier for contractors to be certain of their obligations, limits the possibility of confusion for contractors working on multiple projects, and decreases administrative burden for agencies. Other commenters expressed concern about whether the Voluntary Compliance Agreement clause will continue to exist in contracts and who will enforce it.

*HUD Response:* HUD considered commenters' requests for standard contract language; however, the contract language must be customized depending upon the contract and the program. HUD anticipates providing sample language and/or discussion of contracting best practices but determined that the recipient is in the best position to determine what contract language is appropriate in each context.

#### **Multiple Funding Sources/ Recordkeeping for Multiple Funding § 75.29 / § 75.31**

##### *Clear Standards and Secure Online Tool*

Other commenters recommended that there should be clear standards for reporting on Section 3 regardless of the funding source to reduce the possibility of errors and to eliminate the need to report in different formats. These commenters suggested that if HUD defers to localities, the agency that is the primary recipient of HUD funding should determine which option of reporting should be used by subrecipients to allow for consistency in reporting approach. These commenters also recommended that public housing financial assistance guidelines should dictate reporting requirements for PHAs administering projects with multiple funding sources. For projects that are mix-funded with PHA and other HUD funding, § 75.29(a) says that the other HUD funding stream (e.g. CDBG) may report using the PHA criteria.

Commenters recommended that compliance documentation be accessible in a secure online tool or standard form which would measure new hires, hours percentages and training persons and hours. These commenters went on to suggest developing a form for contractors or subcontractors to complete to confirm workers' Section 3 eligibility, which would ease administration and will foster consistency. With respect to the self-certifications discussed in proposed § 75.31, it would be helpful if HUD were to provide a form for this purpose.

*HUD Response:* HUD thanks the commenters for their recommendation and notes that there will be a standard set of data reporting regardless of which system is used for reporting. The same data will be collected across programs for consistency; the only difference will be how it looks when reported.

#### **Benchmarks for Section 3 Workers and Targeted Section 3 Workers**

Many commenters supported including benchmarks for Section 3 workers and Targeted Section 3 workers. Some commenters supported HUD's initial benchmarks, as a starting point, and focus on labor hours. Additional commenters supported using both benchmarks stating that limiting the benchmark to only Targeted Section 3 workers would fail to encourage hiring of other Section 3 workers. Another commenter supported elimination of the 3% goal for non-construction contracts to be Section 3 business concerns. Other commenters supported the benchmarks with the caveat that HUD retain the new hire framework for PHAs or the tracking of the labor hours if they do not have an hour tracking system already in place. These commenters suggested evaluating the efficacy of this approach and revising as necessary if data indicates the change is not supporting sustained employment.

Other commenters stated that HUD's benchmark that Targeted Section 3 workers make up 5 percent of the total number of labor hours is too low. The commenters proposed that at least 15 percent of labor hours worked be the benchmark for Targeted Section 3 workers. The commenters stated that the Section 3 statute clearly prioritizes employment for residents of public housing and other HUD-assisted housing programs.

Some commenters noted that the benchmark for labor hours is too ambitious and unreasonable. Commenters cited to the fact that low-income workers are not necessarily qualified for construction jobs, even those jobs at the lower end of the

construction pay scale, and finding low-income workers who are both qualified for the positions and willing to work in construction is much harder than identifying the number of potentially eligible low-wage workers. Commenters also noted that many low-income persons have childcare and transportation challenges and many contractors do not have open positions to fill by low-income persons.

Another comment opposed the 5% Targeted Section 3 goal, stating it was unrealistic given most PHA residents are seniors, have some form of disability, or already work. Commenters also noted that the benchmarks will be especially difficult to achieve in rural locations.

One commenter opposed the two categories of Section 3 workers, noting the pool of workers is already small, and makes achievement of benchmarks challenging. While the additional categorization provides data collection value, it creates additional burden and goes beyond the statute's requirement. The commenter noted that the benchmark fails to recognize many other initiatives to assist residents to work towards long-term employment and self-sufficiency (such as Family Self-Sufficiency (FSS) programs).

Commenters also noted the current benchmarks have been difficult to meet, and that the new bar would likely require that all positions engaged, rather than only new hires, go to Section 3 workers. The commenter recommends that in an environment of under-funding and over-regulating that HUD establish a modest benchmark that recognizes training and adjust upward later, if necessary. The commenter noted the current recommendation is extremely aggressive and unreasonable; and would result in few agencies meeting the mark. Additionally, it would fail to reduce reporting burdens, align regulations with standard business practices, or increase Section 3 successes.

Other commenters focused on the Targeted Section 3 worker benchmark, noting that the category complicates tracking and decreases the likelihood of meeting benchmarks. The commenter suggested taking an alternate approach to tracking Targeted Section 3 workers without establishing a separate benchmark. One commenter stated that the benefits and goals of the Section 3 statute would be difficult to measure by tracking only Targeted Section 3 workers in that it would fail to represent the value of providing economic opportunities to individuals who are low-income but may live outside the immediate project area, who otherwise still qualify for Section 3 preference.

Other commenters stated that for Subpart C, HUD should only measure compliance of Section 3 with overall Section 3 worker tracking and should not apply Targeted Section 3 workers metrics or benchmarks. The commenters stated support for retaining the existing 30 percent benchmark for all Section 3 new hires but that it should not be required to be disaggregated between Section 3 and Targeted Section 3 workers. The commenters stated that this approach would keep the benchmarks in line with the goals of Section 3 while providing contractors and administering agencies with the ability to tailor implementation depending on the composition of the local workforce and specific project needs.

A commenter noted that they ran numbers with the new metric, along with other PHAs, and they all reported much lower percentages, in most cases half of the proposed numbers. The commenter raised a concern with employee displacement if contractors are required to meet this new ratio, which is inconsistent with the goal of Section 3 to create new jobs rather than displace existing employees or inflate project costs. The commenter noted that recipients hiring contractors instead of replacing or hiring more employees could game the system or add significant costs by hiring additional but unnecessary Section 3 workers for the project life.

*HUD Response:* The statute requires Section 3 prioritization and this rule's goal is to ensure statutory adherence and streamlined reporting. HUD created the Targeted Section 3 worker category to include both the statutory priorities and policy priorities, for example, tracking the hiring of public housing residents where public housing assistance is involved and tracking the residents of the neighborhood or service area when other housing and community development assistance is used. Prioritization is meaningless without the categorical distinction and HUD believes that technology enables better tracking compared to at the statute's inception. As for the benchmarks, HUD will establish the benchmarks via Federal Register Notices which will allow them to change over time, as data is reported and gathered. HUD believes 5% is a reasonable estimate from the Office of Policy Development and Research (PD&R) data. Additionally, compliance can be evaluated qualitatively if the hours benchmark cannot be met. Under this rule, both measurements are permissible, and the requirements for qualitative evaluation are laid out in the

rule. HUD believes this flexibility will deter any incentive to hire unnecessary Section 3 workers.

#### *Qualitative Measurement*

One commenter supported changes to reporting requirements and appreciated the ability to report qualitative efforts if benchmarks are not met. One commenter stated that compliance should be evaluated qualitatively rather than using hours as a benchmark. Commenters stated that the proposed certification related to prioritization of Section 3 hiring efforts would be burdensome to agencies and contractors. The commenter wrote that HUD should require agencies to certify what efforts they have implemented to achieve the goals of the Section 3 program to be considered in compliance. This approach would maintain the benefits and incentives of the program and provide HUD with a tool for accountability.

*HUD Response:* The statute requires agencies and contractors to prioritize their hiring efforts according to the statute's terms. The rule requires funding recipients to certify that they have acted in compliance with the statute, and to report on the quantitative outcomes of their efforts relative to the benchmarks. HUD does not consider it burdensome for a recipient of HUD funding to certify that they have acted in compliance with the statute. Furthermore, compliance can be evaluated qualitatively if the hours benchmark cannot be met. Under this rule, both measurements are permissible, and the requirements for qualitative evaluation are laid out in the rule. If reporting is above the benchmark, then HUD will presume compliance with the regulatory requirements; HUD wants to see actual positive outcomes rather than just a recipient's inputs. HUD appreciates the request for additional compliance tools but believes that requiring such reporting for all agencies would be overly burdensome.

#### *Safe Harbor*

Commenters stated that the proposed rule is not clear on how Safe Harbor would be met for Section 3 projects. The commenters questioned what type of data collection would be used to assure accurate reporting and how to meet the percentages of Section 3 and Targeted Section 3 workers. The commenters asked whether there would be a tool to assist with this data collection.

*HUD Response:* HUD will issue sub-regulatory guidance and provide technical assistance on a program-by-program basis to assist recipients with

clearly understanding the Section 3 safe harbor parameters. Recipients will provide data regarding Section 3 and Targeted Section 3 workers through existing HUD information systems, as defined by each covered program. HUD will not impose additional data collection burdens on recipients because of the rule.

#### *Small PHAs Should Have a Separate Benchmark*

One commenter recommended that Safe Harbor benchmarks should be established for small PHAs and suggested HUD establish a minimum threshold of work-able and non-working residents. Another commenter stated that some smaller businesses do not usually track labor hours performed on specific projects, and it can be a struggle for them to learn how to do so. On Davis-Bacon projects, contractors are required to submit certified payroll; however, some projects may be subject to Section 3 that are not subject to Davis-Bacon and related acts. The commenter stated that requiring the tracking and reporting of labor hours could pose a significant additional burden to small contractors.

*HUD Response:* One of HUD's goals through this rule is to ensure that employment and other economic opportunities generated by Federal financial assistance for housing and community development programs are, to the greatest extent feasible, directed toward low- and very low-income persons, particularly (though not exclusively) those who receive government assistance for housing. HUD believes that it is essential to achieving this goal that small PHAs report on their efforts to comply with Section 3 but acknowledges that small PHAs may have more difficulty achieving the quantitative benchmarks and consequently has permitted a qualitative reporting alternative for small PHAs. HUD is considering further ways to streamline and ease qualitative reporting by creating a tracking form and timing submission deadlines consistently with timeframes that PHAs and other recipients of public housing financial assistance are already using to submit documents to HUD. HUD has established that small PHAs with less than 250 public housing units will not be required to report labor hours or meet benchmarks, but instead will be permitted to submit qualitative reports on their efforts to involve residents in job-seeking and training endeavors. HUD recognizes the challenge when small PHAs have very few work-able, non-working residents that would make meeting benchmarks very difficult.

#### *Alternatives*

One commenter suggested limiting the benchmark to only Targeted Section 3 workers in order to provide a more streamlined approach to reporting. The commenter stated that if the benchmark is narrowed to Targeted Section 3 workers, then tracking data for Section 3 workers should not be required. Other commenters recommended removing the Targeted Section 3 worker benchmark. One commenter stated that if labor hours are tracked, the requirement should be limited to Section 3 workers in general and that the benefits of adding the Targeted Section 3 worker subcategory are not apparent enough to outweigh the complications. One commenter supported giving PHAs and entities using housing and community development assistance a choice to use either targeted Section 3 workers or Section 3 workers as their benchmark.

Other commenters recommended other benchmarking alternatives. Some commenters recommended that the benchmark include a focus on Section 3 business concerns, such that 3% of all contracts are for Section 3 business concerns. One commenter stated benchmarks should ensure that local jobs are provided to local persons to reduce commute times and recommended using geographically determined numbers. The commenter noted that many factors can affect regions and a national number can skew the worker availability distribution. One commenter suggested that such regional benchmarks allow HUD to forecast how many PHAs and Section 3 projects could meet the benchmarks assuming agencies are using their "best efforts" to hire Section 3 workers and Section 3 projects are hiring and contracting with Section 3 workers and business concerns to the "greatest extent feasible." According to comments, regional benchmarks can help account for uneven distribution of potential Section 3 workers throughout the country. Geographic standards may also help address differences between union and non-union states. If HUD were to set regional standards, there should be a national level appeals process. Commenters also suggested allowing use of local adjustment factors and economic data when establishing compliance benchmarks, especially unemployment rates which affect the ability to meet benchmarks.

One commenter stated the benchmark does not ensure Section 3 workers are engaged in a mix of job categories or trades, or opportunities for upward mobility; 30% of hours worked should

be measured for each job category/trade and protected classes. Other commenters suggested HUD consider the type of public housing financial assistance or other variables. The commenter recommended that in addition to different types of benchmarks HUD should maintain a ceiling for these benchmarks. The commenter noted a goal of 80% of entities meeting the benchmarks would be appropriate.

Other commenters stated that in order to fulfill the statutory objectives of Section 3 to direct the financial opportunities to low- and very low-income persons and recipients of housing assistance, the final rule must: (1) Set benchmarks in a way that actually prioritizes HUD tenants; and (2) employ a definition of Section 3 worker and Targeted Section 3 worker that includes exclusively low-income individuals. Commenters also proposed separate benchmarks for public housing projects and non-public housing projects and provided a specific hierarchy of workers. Other commenters noted proposed benchmarks for PHAs should reflect the law's emphasis on providing opportunities for public and assisted housing recipients.

Commenters suggested an alternative approach for workforce utilization setting goals for all construction and other blue-collar employment, such as landscaping and janitorial. The commenters suggested that labor hours also consider demographics, length of project, geography, and size of contractors.

One commenter recommended that the determination of Section 3 compliance be measured by combining all workers for all Section 3 projects to get an overall picture of the number of low-income workers being paid with these federal dollars. If the percentages of Section 3 and Targeted Section 3 workers are met, this better shows intent to comply with the spirit of Section 3.

*HUD Response:* HUD appreciates the suggestions and has considered multiple benchmarking options. Creating separate benchmarks would make projects with co-funding difficult; the commenter's suggestions increase both complexity and the burden of reporting. HUD believes the current benchmark is a good starting place and notes that the regulation permits adjusting the benchmarks via *Federal Register* publication. HUD program staff will evaluate the level of effort expended by those recipients that fail to meet the benchmark safe harbor, and thus will ensure that the statutory terms are being properly enforced. HUD is most interested in strong outcomes for

Section 3 employees. In addition, HUD has no programs that align with specific regions and intends to see reporting data before making any additional distinctions, if appropriate.

#### Compliance (§ 75.33)

##### General

A comment stated HUD needs to strike a balance between the limits of state and local agency resources and Section 3's goals to provide more effective resources to foster compliance. Similarly, another comment suggested HUD utilize Community Compass technical assistance funds to create best practice resources and employ contractors to provide Section 3 compliance support to those jurisdictions and PHAs without designated staff for this purpose. Another comment recommended HUD simplify the compliance requirements by establishing a "presumed eligibility" criteria for businesses or residents located in HUD-approved Neighborhood Revitalization Strategy Areas, Choice Neighborhood target areas, Promise Zones, Empowerment Zones and Enterprise Communities, Opportunity Zones and other areas defined at 24 CFR part 570.208(a)(1)(vii).

A commenter suggested states and entitlement communities be required to develop Section 3 Plans that become part of the 5-year Consolidated Plan to allow time for compliance with the labor hours percentages while requiring demonstrated improvement over time. The plan should track Section 3 performance and demonstrate labor partnerships, construction, and training programs to target and find workers and an environment that promotes Section 3 goals. HUD should describe the plan's components, including how to notify the public of opportunities for involvement in designing the plan, how and when to notify the public when Section 3 employment and bidding opportunities arise, how to inform workers of their rights, and complaint processes. Commenters recommended HUD establish ethics standards for organizations who have a fiduciary responsibility over Section 3 funds. Other commenters suggested compliance failures to adhere to Section 3 business concern criteria should be cured within two payroll periods or be terminated; terminated contractors should be banned from receiving HUD funds for 3 years from the termination date; and that persons found to have falsified their residence to qualify as a Section 3 worker should be suspended from participation for 3 years.

Commenters stated HUD should: provide greater clarity on the obligations created by § 75.33(a), especially since the preceding section, § 75.31, imposes highly specific recordkeeping requirements; explain whether the recordkeeping obligation in § 75.33 is a restatement of the recordkeeping obligations set forth in § 75.31, or whether additional records are required to demonstrate compliance; and HUD should provide guidance on documentation and recordkeeping related to "best efforts" or "greatest extent feasible" efforts.

*HUD Response:* This rule is intended to strike a balance and foster compliance with Section 3's goals and will result in a reporting and recordkeeping burden reduction. HUD wants to ensure employers are invested in keeping Section 3 workers employed, and that there is enough opportunity to build skills and experience so that Section 3 workers may develop self-sufficiency and compete for other jobs in the future. HUD will review Department-level strategies on how to effectively incorporate Section 3 reporting into current systems and data collection tools, including the Consolidated Plan. HUD will issue sub-regulatory guidance on reporting by program area and provide technical assistance to recipients for Section 3 compliance. HUD appreciates the suggestions and notes that there will be standardized compliance procedures across programs, and this will include ethics standards. Section 75.33 is a reaffirmation of the recordkeeping requirement set forth in § 75.31, as recipients of HUD funding will need to have the records described in § 75.31 available if HUD needs to do a compliance review of a recipient's Section 3 performance. HUD determined not to define the difference between "best efforts" or "greatest extent feasible," but rather to increase the emphasis on outcomes as a result of these efforts. Please see the "Best efforts" and "greatest extent feasible" section above. A recipient's reported results will be compared to the outcome metrics defined in the benchmark Notice. HUD program staff will evaluate the level of effort expended by those recipients that fail to meet the benchmark safe harbor, and thus will ensure that the statutory terms are being properly enforced.

##### Complaints and Monitoring

Commenters stated each HUD program should have a detailed complaint process. A commenter supported the integration of Section 3 into each program area but noted the

lack of detailed complaint provisions, and suggested the final rule require each HUD program to have a detailed complaint process, with enforcement assigned to Davis-Bacon and Labor Relations (DBLR), Office of Field Policy and Management (FPM), or the Office of Fair Housing and Equal Opportunity (FHEO).

Commenters supported removing Section 3 enforcement from FHEO but strongly suggested HUD identify an office independent of the program offices to monitor and enforce Section 3 requirements, such as FPM, or a new Section 3 office fully funded and trained to work on Section 3. Giving responsibility for Section 3 compliance to the program that is responsible for funding that triggers Section 3 obligations is problematic because (1) HUD program staff have in the past referred to PHAs and jurisdictions, not the residents who are supposed to benefit from HUD programs, as their "constituents," (2) there is currently no process for accepting and reviewing complaints in the proposed rule, (3) significant training and resources will be required to prepare program staff to oversee Section 3 compliance since they are not currently engaged in it. HUD should require that Section 3 policies, plans, procedures, and complaints are made publicly available by both the recipient and on HUD's website.

Other commenters agreed with the proposed shift of oversight from FHEO to program offices and believed this will improve oversight because program offices already monitor recipients on a day-to-day basis, thus Section 3 monitoring will become part of normal overall monitoring. Another commenter stated transferring oversight and compliance from FHEO to program offices is an appropriate change on the condition that oversight practices are standardized across program offices. Another commenter was concerned about the Section 3 complaint process for residents; HUD program areas do not have detailed provisions for residents to file complaints on the part of PHAs or jurisdictions that do not meet program requirements. At a minimum, if HUD defers to grantees to field complaints from individuals, the process should require a grantee to inform HUD of the resolution of each complaint much like CPD does with CDBG-DR complaints.

A further commenter stated it is not clear how the public will make complaints if the current complaint process is removed and asked how they will know which program office to contact. Other commenters suggested the final rule require a detailed complaint process identical or similar to

what is in the current rule. Further commenters expressed that HUD should keep the existing complaint process until it adopts a new one after public review and comment. Other commenters were concerned about the 958 Complaint Form's elimination and the impact on residents who will be left without protections or a process for monitoring and overseeing contractors who are violating Section 3 requirements. One commenter felt that to move the review process from FHEO to local HUD CPD would be disastrous.

A commenter noted that HOME and CDBG recipients do not seem to understand the importance of Section 3 and the compliance enforcement—appropriate remedies are not in place. According to one commenter, the promise of Section 3 has not yet been realized, largely due to the fact that none of the entities responsible for its administration—HUD, state and local governments, PHAs—have been sufficiently resourced to implement, monitor, and enforce Section 3 requirements. The HUD program offices responsible for funding all are currently under-resourced and could better fulfill their obligations in monitoring and enforcing Section 3 with dedicated staff.

One commenter had concerns about moving Section 3 regulations from 24 CFR part 135 under FHEO to the new part 75 under the Office of the Secretary; the commenter assumed Office of Field Policy and Management would have oversight of Section 3 under the proposed rule amendment and expressed concern over FPM's lack of capacity and technical knowledge to oversee monitoring and enforcement of Section 3. The commenter argued HUD has never seriously monitored and enforced the statute and that HUD program staff treat PHAs and jurisdictions as their constituents, not the residents who are the intended beneficiaries. Additionally, alternative procurement provisions should be created to help Section 3 business concerns compete with larger more established businesses.

One commenter was concerned about different program offices providing conflicting information and hoped HUD would provide standardization and clear guidance; others suggested HUD request adequate funding to hire the necessary headquarters and field office staff to provide Section 3 technical assistance and to robustly monitor and enforce Section 3, as well as seeking adequate funding so that all jurisdictions and PHAs can hire and retain staff to serve as Section 3 coordinators and to monitor and enforce Section 3 obligations. A commenter has

received conflicting guidance from different program offices, resulting in findings and fines on several occasions.

HUD should provide further detail as to what standards each program office would be using to provide oversight and what procedures are in place to ensure that PHAs receive consistent oversight across offices. Further clarification is also needed as to how the responsible program office would be designated for oversight when a project uses multiple funding sources and triggers oversight from multiple program offices.

A commenter recommended HUD strengthen its compliance practices to incentivize performance while recognizing legitimate constraints. The commenter also recommends stating in the rule that HUD will deduct points in relevant HUD program Notices to applicants for competitive HUD funding who have not achieved Section 3 benchmarks and allowing applicants the ability to provide justifications for failure to meet benchmarks despite good faith efforts. The commenter also recommended allowing program offices to incentivize Section 3 compliance in funding Notices but have a Department-wide entity focus on all aspect of compliance (reporting, analysis, and information technology systems).

*HUD Response:* HUD took the concerns about the complaint process under advisement, and § 75.33(b) has been amended to include “or local HUD field office.” HUD believes Section 3's objectives will be better achieved by moving Section 3 oversight into the program offices so that HUD staff who are actively engaged with recipients in their program planning and activities will bring Section 3 concerns and considerations into their routine interactions with the recipients. HUD will provide external and internal technical guidance on complaint handling and routing. The Office of Field Policy and Management (FPM) will be taking a greater role at the field level by filtering complaints to the corresponding office, rather than every HUD program office having its own complaint process. The local HUD field office is part of the FPM organizational structure, and also provides individuals with a complaint venue when the complainant does not know which program office would be responsible. There will be variation in what guidance and/or compliance looks like for each program office, but HUD will provide support to the extent it is standardized across program offices.

#### *Enforcement*

Commenters stated any contractor or Section 3 resident found to falsify data

in order to receive benefits from HUD funded training, contracting, and employment should be immediately removed and/or barred from participation in Section 3 programs for ten years. Violations should be posted and made available to the public for review. Every PHA should have a written Section 3 Plan-Policy in place and attached to any Request for Proposals for bids.

*HUD Response:* HUD believes that recipients should have the flexibility to determine how to implement Section 3. HUD also believes this new regulation will make such implementation easier. While the final rule does not require recipients to have Section 3 plans or policies, HUD views having them as a best practice that will aid recipients in achieving the Section 3 benchmarks. As for the concern about potential fraud, program offices will continue to monitor compliance with Section 3 requirements through evaluation of qualitative or quantitative reporting, complaint review, and program audits, if appropriate.

#### *General Comments*

One commenter said all policies should be expressed in “simple” terms for all stakeholders, especially residents, to understand. Commenters stated there is little point in creating policies and programs that produce only six-week or six-month jobs, or jobs that do not lead workers out of poverty. HUD recipients have difficulty in assisting residents in obtaining and maintaining any jobs, let alone high-wage jobs that will lead to careers and help residents leave poverty behind.

A commenter expressed the Section 3 rule is “of great benefit to have in effect and keep up to date.” Section 3 funding recipients should be mandated to actively seek employment at all times to the best of their ability and report an employment log to track job applications.

One commenter indicated many of the proposed changes do not reflect the construction trade's current realities and would impose costly new obligations on PHAs without a funding source to pay for those requirements. Another commenter argued Section 3 is “just another burdensome regulation” that “doesn't produce a positive outcome.” One commenter stated the proposed rule would have an adverse impact on the Section 3 participation that HUD desires, whereas others supported the proposed rule amendments.

One commenter stated public housing living conditions are poor; Section 3 programs are practically non-existent in the commenter's area; and the way that

public housing residents' income is calculated is problematic.

A commenter stated Section 3 is one of HUD's most important responsibilities since it creates the standards for employment, training, and contracting opportunities generated from HUD financial assistance. This commenter felt a stronger Section 3 rule can lead to increased hiring and contracting opportunities; overall the proposed rule has many merits and is an improvement. Similarly, another commenter stated the potential benefits of Section 3 have never been realized; the improvements to the rule have potential to improve outcomes.

According to one comment, the proposed rule amendments try to address Section 3 program implementation difficulties but still present incongruities; HUD should consider methods to enact preferences or incentives. A commenter stated it is difficult to find Section 3 employers in some jurisdictions, and some jurisdictions have no active YouthBuild program. Commenters noted most HUD households are headed by or include females, minorities, or female minorities. Section 3 regulations should be designed to give low- and very low-income people (particularly recipients of Federal housing assistance) a pathway out of poverty, and PHAs should be required to work with organizations that have a proven track record of successfully recruiting, training, and retaining women and minorities in the construction industry. A commenter recommended HUD work directly with the National Task Force on Tradeswomen's Issues.

*HUD Response:* HUD thanks the commenters for their responses. This rule is intended to strike a balance and foster compliance with Section 3's goals and will result in a reduction of reporting and recordkeeping burdens. HUD wants to ensure employers are invested in keeping Section 3 workers employed, and that there is enough opportunity to build skills and experience so that Section 3 workers may develop self-sufficiency and compete for other jobs in the future. HUD agrees that this regulation is designed to give low- and very low-income people (particularly recipients of Federal housing assistance) a pathway out of poverty. There is no mandate in the rule for Section 3 funding recipients to constantly apply for new jobs, nor are there requirements for PHAs to work with certain organizations.

#### *Other Programs*

Commenters noted opportunity discrimination is unconstitutional; all citizens have a right to wealth and prosperity. States can support and invest in their cities' workforce through equity and management but should first complete a local needs assessment. One commenter referred to Perkins V (the Strengthening Career and Technical Education for the 21st Century Act) requirements for eligible recipients to conduct a comprehensive local needs assessment every two years. One commenter suggested creating a Section 3 Score Card for public information to capture grantee compliance and ensure that contractor compliance with Section 3 requirements are considered for future employment and contracting opportunities, and improving the effectiveness of the program will enhance compliance to realistically measure targeted outcomes.

A commenter recommended HUD consider developing an annual recognition program for PHAs, subrecipients, contractors, and subcontractors for excellence in Section 3 performance, rather than redesigning the tracking and reporting requirements.

*HUD Response:* HUD thanks the commenters for their responses. HUD affirms that discrimination based on protected classes is unconstitutional. The Perkins programs noted in the comment are administered by the U.S. Department of Education and there are no requirements for eligible recipients to conduct a comprehensive local needs assessment every two years in the rule. There are no provisions to create a public Section 3 Score Card or an annual PHA recognition program at this time.

#### *Technical Fix*

One commenter noted in the amendment to 24 CFR 93.407(d), the proposed rule still references 24 CFR part 35 instead of 24 CFR part 75. The commenter recommended that HUD change the citation to reflect 24 CFR part 75.

*HUD Response:* Thank you for your comment, but HUD declines to change the citation. The amendment referred to is a technical amendment to the regulations unrelated to the Section 3 regulations. The cross-reference to 24 CFR part 35 is in reference to records demonstrating compliance with lead-based paint requirements, which continue to be covered by 24 CFR part 35.

#### *HUD Program Collaboration*

Commenters stated that funding for Section 3 coordinators, and technical

assistance or written guidance on coordination with other self-sufficiency programs such as FSS would allow for Section 3 to more effectively meet its goals. One commenter opposed changes to the rule stating that HUD should not scale back its existing operations and rule. The commenter also recommended that HUD and other agencies ensure coordination with benefit planners so that people with disabilities are involved in planning neighborhoods and community opportunities for work.

*HUD Response:* HUD appreciates the suggestion for more funding for Section 3 coordinators. HUD believes that this rule will streamline the Section 3 regulations to create additional incentives and streamline reporting requirements, thereby offsetting the need for more funding. HUD notes that by conducting in-service trainings and proactively engaging with appropriate partners in the Social Security Administration (Work Incentives Planning Assistance), Department of Labor (ETA & ODEP) and Health and Human Services (CMS, ACF & ACL) to identify best practices and model approaches, FPM will make the appropriate decisions regarding potential coordination with FSS, other self-sufficiency programs, and/or programs for people with disabilities. HUD continues to encourage PHAs and recipients of HUD funds to coordinate with other agencies and local communities to assist in hiring Section 3 workers. This rule does not change that. Moving the oversight of the rule to FPM and the program offices will not scale back HUD's role in ensuring compliance with Section 3 requirements. HUD believes that the move will actually ensure better compliance given the new location of oversight and the new tracking mechanisms.

#### *Title VI*

One commenter suggested the Section 3 rule should include information that Title VI of the Civil Rights Act also applies to Section 3, prohibits against discrimination, and requires language assistance.

*HUD Response:* Title VI applies to any program or activity receiving Federal financial assistance from HUD. Section 3 is a requirement, not a program that receives HUD funding.

#### *Extend Comment Period*

One commenter recommended HUD extend the comment period for affordable housing developers to suggest more effective changes.

*HUD Response:* HUD believes that the 60-day comment period provided ample

opportunity for affordable housing developers and other members of the public to suggest changes to this rule.

#### *Outside the Rulemaking Scope*

One commenter, a stakeholder in a major metropolitan area PHA that is being monitored by a "Federal Monitor" as a result of a 958 Complaint, stated that the appointed Federal Monitor has no housing experience and that all parties involved have missed the most important purpose of Section 3, which is economic empowerment for low and very low-income persons residing in local communities for HUD invested projects.

One commenter proposed defining an execution fee as a "percentage of bidder's final submitted price added by the recipient or general contractor because the contractor/subcontractor provided no Section 3 benefit."

One commenter stated concern about the lack of focus on higher level training as a vehicle for individuals to develop skills and build a better future. The commenter stated that the proposed benchmarks and guidelines provide no framework for differentiating training or skilled work classifications from general labor, so there would be no incentive for creating higher level opportunities. The commenter requested that HUD provide guidance on how to encourage this sort of activity under the new benchmarks.

*HUD Response:* HUD thanks the commenters for their suggestions, however, these comments are outside the scope of this rulemaking.

#### **Miscellaneous**

##### *Impact on Rural Areas and States*

Commenters stated it is difficult to comply with Section 3 requirements in rural areas. The goals of Section 3 are more feasible in densely populated urban areas. The proposed rule does not improve this circumstance. Section 3 eligible individuals cannot take advantage of Section 3 opportunities in rural areas because they are nonexistent. There are not ample conditions to facilitate Section 3 in small communities and rural areas. Rural areas have less availability of contractors and employees and there needs to be flexibility to engage people outside their service area to complete projects. One commenter noted benchmarking methodology seems strongly skewed toward large urban centers and overlooks geographically large states with relatively small rural populations, and asked HUD to make exceptions for jurisdictions with smaller and more rural populations. Some commenters noted that contractors in

rural states rarely need to hire new employees because the projects are small, the contractors have limited growth potential, or the employers have tenured staff. The commenter further stated that the new hire's length of employment coincides with the project and terminates at project completion.

Commenters noted Section 3 is particularly difficult for states to administer. Another commenter explained that as a state, it does not hire the contractors for the CDBG projects. The local jurisdictions do that. It has no opportunity to promote the hiring of Section 3 business concerns. The very small communities with which it works have implemented procurement policies that award contracts to the lowest responsible bidder. They will not award a contract to a higher bidder just because the bidder is a Section 3 business concern. The commenter stated that the Section 3 regulation should apply to the CDBG Entitlement program and not the Small Cities program. One commenter suggested that state CDBG recipients should have the same flexibility in reporting as small PHAs.

*HUD Response:* HUD acknowledges that implementing Section 3 in various geographic areas presents different challenges for rural areas versus densely populated urban areas. HUD believes this has been addressed within the proposed Section 3 regulation by using a circle centered around the worksite that expands until it reaches a population of at least 5,000. HUD further acknowledges that, in particularly remote areas, the expandable circle may reach a size that may be impracticable to match those benefiting from the project with the Section 3 benchmark. If the recipient is unable to meet the Section 3 benchmark described in § 75.11, it will be required to report in a form prescribed by HUD on the qualitative nature of its activities or those of its contractors and subcontractors. This will allow the recipient to explain in qualitative means why it was unable to meet the Section 3 benchmark. HUD is sympathetic to the issues raised for rural areas and will watch implementation carefully as it progresses, allowing for updates as deemed necessary. HUD will also provide sub-regulatory guidance on the submission of qualitative reports to enable smoother implementation of the requirement.

##### *Coordination With Nonprofit Organizations and Other Agencies*

Commenters suggested HUD require PHAs and other recipients to work with organizations with a proven record of accomplishment of success in the

recruitment, training, and retention of women and minorities in the construction industry and other blue-collar occupations. The Department of Labor is already working with many of these organizations and has a list of apprenticeship training and technical assistance providers to help with the recruitment of Section 3 residents, pre-apprenticeship training and ongoing support. Commenters also suggested that HUD work directly with the many tradeswomen organizations, and other nonprofits already providing construction readiness training programs (also called pre-apprenticeship training) and the National Task Force on Tradeswomen's Issues. In 2018, women made up only 3.4% of construction workers. While this figure represents progress, it demonstrates the need for HUD and its recipients to partner with tradeswomen and other organizations who have expertise in successfully getting women and minorities into the construction trades, and, more importantly, creating a real opportunity for careers in the construction industry. One commenter recommended forging closer ties with the Tribal Employment Rights Offices and directing the HOME and CDBG programs to consider this approach to ensure tribal communities' benefit from HUD program projects nearby. Other commenters suggested planning grants to form or strengthen partnerships with Workforce Investment Boards or inter-agency collaborations with workforce programs within the Department of Labor.

*HUD Response:* HUD concurs that building strong collaborations between and among several Federal, state, and local partners will aid Section 3's goals. HUD will consult with the Departments of Labor, Health and Human Services, Commerce, Small Business Administration, and other agencies as determined by the HUD Secretary to meet the Section 3 statute's mandate at 12 U.S.C. 1701u(f). HUD will also take the comments provided under consideration as it looks for ways to conduct successful outreach and technical assistance strategies for Section 3 implementation.

##### *Outreach and Training*

Commenters recommended that HUD facilitate the competition for Section 3 excellence among developers and contractors by developing an online database of completed Section 3 covered projects that includes the names of the developer and general contractor, the nature and size of the project, and the Section 3 employment, contracting, training and retention outcomes

achieved. Commenters urged HUD to create a national database of Section 3 outcomes and to facilitate the inclusion of training and retention programs in bid materials by collecting and sharing best procurement practices.

One commenter suggested HUD should explicitly require PHAs and CDBG recipients to make reasonable efforts to connect Section 3 workers and Targeted Section 3 workers with local workforce development and career and technical education training. Another commenter recommended that the rule should give emphasis to training opportunities as is emphasized in the Section 3 statute because training is a potential response for recipients who are submitting qualitative reports for failure to meet Section 3 benchmarks.

One commenter stated there are no provisions in the rule regarding training. Similarly, another commenter noted the benchmark fails to recognize the statutory reference to training and employment opportunities. Likewise, commenters requested HUD clarify whether it is proposing new ways to track or report on Section 3 training. In the discussion of proposed §§ 75.15 and 75.25, HUD states that one of the qualitative measures a locality could use is paying for apprenticeship programs and/or offsite job training. One commenter welcomes any opportunity to expand these programs and recommends that HUD make job training an economic development activity instead of public service under the CDBG regulations. Alternatively, HUD could consider raising the public service cap for CDBG funds in order to accommodate additional job training programs.

A commenter recommended HUD provide outreach on training, employment and asset building programs to HUD assisted residents, including Family Self Sufficiency, Jobs Plus, and the Resident Opportunity and Self-Sufficiency programs. HUD should create resource guides on how CDBG has been used to support effective job training programs. A commenter suggested HUD should design a Section 3 worker's rights poster with input from HOME and CDBG grantees. Commenters noted changes to Section 3 reporting and tracking requirements may require additional resources for administering agencies, particularly PHAs in receipt of public housing assistance funds. HUD funding for the implementation of an IT system to enhance the current system and integrate with contractors would be particularly welcome to ease Section 3 monitoring and reporting for all parties. Having dedicated funding for the overall program, including support for resident

training, IT system enhancements, and other related measures, would help to further Section 3 goals while limiting potential administrative burdens.

One commenter stated PHAs noted they are most successful in helping residents find employment when they can offer employment services and trainings to help them gain the skills necessary to access jobs. However, additional funding is needed for programs like Family Self Sufficiency, Resident Opportunities and Self-Sufficiency, Jobs-Plus Initiative, and the Public Housing Operating Fund. One commenter recommended that HUD provide recipients the addresses of all public housing, PBRA projects, and Housing Choice Voucher projects by counties to assist in matching workers' addresses and automatically designating them as Section 3 workers; that HUD assist Section 3 workers in housing assistance; that Section 3 workers receive a living wage; that HUD help provide life skills such as budget counseling; and that HUD be proactive in supporting and developing (in conjunction with the Department of Labor) apprenticeship and other training programs for assisted housing residents and other low-income people.

One commenter recommended that HUD incentivize widespread replication of successful mentorship programs; create regional programs patterned after successful mentorship programs that smaller PHAs can access cooperatively; ensure the program allows for a tiered approach that allows Section 3 contractors to gain vital experience on smaller projects then graduate up to increased responsibility; and ensure that the Section 3 program continues to allow PHAs to use Section 3 contractors to complete work at all levels, including very small projects. One commenter suggested HUD request that the President's Budget include adequate funding to enable HUD to hire the necessary headquarters and field office staff to provide Section 3 technical assistance and to robustly monitor and enforce Section 3. Also, the President's Budget should seek adequate funding so that all jurisdictions and PHAs can hire and retain staff to serve as Section 3 coordinators and to monitor and enforce Section 3 obligations.

*HUD Response:* HUD thanks the commenters for their suggestions; as HUD updates its systems, HUD will take the suggestions under advisement. HUD encourages CDBG recipients to collaborate with local workforce development boards and training providers to create effective connections between them and Section 3 and Targeted Section 3 workers. HUD will

also provide sub-regulatory guidance and technical assistance promoting career and technical education training. HUD believes tracking labor hours provides a picture as to the success of providing job opportunities with HUD financial assistance, but as noted in the proposed rule the qualitative reporting will consider training. Reporting entities may consider training to help meet its employment goals and provide such information if goals are not met and entities are required to respond qualitatively. HUD will not provide a separate funding source; however, HUD will build on this final rule by providing technical assistance guidance for all HUD Section 3 programs. HUD will consider such guidance in creating materials for use by grantees. PHAs should already be tracking labor hours for Davis-Bacon or wage requirements and should not be doing anything more than what they did before to verify Section 3 workers as new hires. This rule just lays out the process for such verification. Once a PHA determines a Section 3 worker or Targeted Section 3 worker is hired or currently employed, the PHA would just report those hours as the numerator over the total labor hours funded with Operating and Capital Funds as the denominator.

HUD appreciates the input on ways HUD can help residents and is continuing to look at ways to make programs like Family Self Sufficiency, Resident Opportunities and Self-Sufficiency, Jobs-Plus Initiative more effective. HUD will be sure to consider those recommendations in future rulemaking. Section 3, however, is focused on how to provide job opportunities created by HUD federal financial assistance and does not have funding directly associated with it that can be used for those programs. Reporting entities may consider training to help meet their employment goals and provide such information if goals are not met and entities are required to respond qualitatively. HUD does not think it is appropriate to provide access to a list of all public housing, PBRA projects and Housing Choice Voucher residents to the public; such data sharing would implicate privacy concerns. Additionally, the PHA would have that information for seeking to hire such persons as Targeted Section 3 workers for public housing assistance.

HUD appreciates the suggestions and will consider them in providing guidance and technical assistance by both FPM and the program offices. HUD believes that there will be adequate funding for Section 3 technical assistance and monitoring in FPM. The FY2020 President's Budget Request

Congressional Justification specifically requested: “\$51.5 million to support 334 FTEs, consistent with the estimated 2019 Annualized CR level. Resources will support ongoing community engagement, monitoring and technical assistance pertaining to Section 3, compliance with the Davis-Bacon and Related Acts, enhancement of the overall customer experience and disaster recovery responsiveness at the state and local levels for clients and customers.”<sup>6</sup> Federal financial assistance recipients should make their own determinations about staffing levels necessary to implement the assistance received.

#### *Rental Assistance Demonstration (RAD)*

Commenters recommended the RAD Notice should be amended to indicate that Section 3 obligations be extended post-conversion to PBV because currently Section 3 no longer applies unless additional Federal financial assistance is later used for rehabilitation. Commenters also asked for further clarification regarding RAD conversion applicability during and after construction. Eliminating RAD projects from Section 3 applicability will reduce contract awards that can provide opportunities to Section 3 residents. HUD should revise the rule to expand the definition of Targeted Section 3 worker to cover RAD and other HUD assisted tenants, and should require owners and managers of RAD-converted projects to hire, train, and contract with Section 3 residents to the greatest extent feasible in their own operations.

**HUD Response:** The Section 3 statute does not apply to properties that are recipients of Section 8 rental assistance unless they are recipients of other Federal funding covered by the Section 3 statute. A RAD transaction is a conversion at a moment in time and, subsequent to the conversion, the property is governed by the Section 8 requirements. HUD has administratively applied Section 3 during the RAD-related construction period even though not required by the RAD statute or the Section 3 statute. See RAD Notice Revision 4 and RAD program documents.<sup>7</sup> HUD has declined to extend Section 3 to the Section 8 portfolio, as that would be a significant expansion of the Section 3 statute’s parameters. HUD has defined “Targeted

Section 3 workers” to include residents of public housing and Section 8 housing, which means that HUD funding recipients must report on hiring of these types of HUD-assisted tenants, which includes tenants of RAD-converted Section 8 properties.

#### *Notice of Funding Availability (NOFA)*

One commenter wrote in support of the NOFA certification’s removal. Several commenters supported the current requirement that NOFA applicants submit a certification of intent to comply with Section 3 requirements along with a statement of their proposed Section 3 activities. Commenters noted that performance among PHAs, developers, and contractors varies greatly when it comes to meeting Section 3 requirements. One commenter gave an example where a contractor might merely hold a job fair and interview any qualified Section 3 residents who apply, while another might make Section 3 hiring a condition of all major subcontract awards, contract with a community organization to conduct outreach and referral services, establish a pre-construction and/or on-the-job training program, provide job coaching and other supports, and retain Section 3 workers after completion of the Section 3 project. Commenters went on to state that using a bidder’s past Section 3 performance and the quality of their proposed Section 3 plan can have a profound effect on the quality of economic opportunities provided to Section 3 residents.

**HUD Response:** HUD decided to continue with the change in the proposed rule and to omit specific requirements for Notices of Funding Availability (NOFA) in the final rule; however, the final rule will require that all NOFAs issued by HUD that announce the availability of funding covered by section 75.3 will include notice that part 75 is applicable to the funding and may include, as appropriate for specific NOFAs, points or bonus points for Section 3 plans. Where Section 3 is applicable, the inclusion of specific requirements in the regulation regarding the NOFA does not change the recipient’s obligation to have a compliant Section 3 implementation strategy. Similarly, where Section 3 is not applicable, the regulatory language would not apply. The presence or absence of the NOFA clause in the regulation has no effect on applicability of Section 3. HUD anticipates that program offices will include scoring for Section 3 plans where relevant and exclude Section 3 scoring where the nature of the grant being awarded is incompatible with Section 3 endeavors

(such as funding for sweat-equity homeownership initiatives). HUD is in the process of developing improved databases to inform program offices, funding recipients, and the public-at-large regarding Section 3-covered projects and the outcomes achieved. HUD hopes that these databases, plus anticipated technical assistance to disseminate information regarding Section 3 best practices, will provide a foundation for more impactful implementation of Section 3 over time.

#### *Professional Services Exclusion*

Commenters stated HUD should retain the 3% benchmark for professional services contracts, as it is not uncommon for professional services companies to meet the qualifications of a Section 3 business concern. It helps businesses who employ workers who were low-income when they were hires or businesses who were started by low-income or public housing residents that have grown professionally to provide employment opportunities to other low-income people.

Other commenters noted excluding professional services positions—typically higher paying, higher career growth—would effectively limit Section 3 workers to construction services, diminishing the potential positive impact of the statute. Ultimately, it will not provide HUD with adequate data on positive or negative impacts of Section 3’s intended goals. The intended goal of the Section 3 statute is to positively impact the lives of HUD assisted residents through meaningful job placement and training that will ultimately lead to greater self-sufficiency. The current rule includes a goal of 30% of new hires in management and administrative jobs, technical, professional, building trades, and non-construction jobs and all levels. Professional service jobs include accounting, legal services, financial consulting, architectural and engineering services. The proposed rule indicates that professional services will be excluded from benchmarking requirements, but HUD will allow voluntary reporting of these workers. A commenter suggested maintaining the current rule’s requirement of reporting on professional services but moving to total labor hours worked in both construction and non-construction services, and better tracking this data through streamlined reporting systems.

Other commenters supported excluding professional services from benchmarking requirements while allowing voluntary reporting of such workers; excluding certain types of contracts such as material and supply,

<sup>6</sup> HUD’s FY2020 Congressional Justification for President’s Budget, <https://www.hud.gov/sites/dfiles/CFO/documents/2020HUDCongressionalJustifications4-2-19.pdf>.

<sup>7</sup> Rental Assistance Demonstration—Final Implementation, Revision 4 Notice H-2019-09 PIH-2019-23 (HA), issued September 5, 2019.

and professional service; and excluding professional services from covered activities and suggested adding a benchmark for training activities. One commenter noted it experienced the same challenges as other HUD partners in meeting Section 3 goals when working with professional service vendors. However, the commenter noticed that in some cases vendors can carve out small segments of highly skilled work or training for low-income residents (e.g., providing an internship or hiring a recent graduate to perform a small scope of work.) While the rule allows voluntary participation of professional service vendors, commenter suggests that HUD give discretion to recipients to mandate Section 3 participation by these partners, without necessarily holding them to specific benchmarks like contractors.

**HUD Response:** HUD acknowledges that there are occasions when employers can create opportunities for Section 3 employment in the professional services context, and HUD lauds these efforts. At the same time, data indicate that there are relatively few such opportunities for Section 3 hiring in professional services fields such as legal services and civil engineering. Many of the positions within these professional services fields require specialized degrees and in many cases the hiring is not directly tracked to a specific Federally funded project or activity. To ensure that the carve-out for professional services is relatively narrow, however, HUD has revised the definition of professional services. While keeping the modified exclusion for professional services in the final rule, HUD notes that the reporting structure in the proposed rule allows a recipient to count as Section 3 labor hours and as Targeted Section 3 labor hours any work performed by a Section 3 worker or a Targeted Section 3 worker (i.e., in the numerator of the calculation), even when the professional services as a whole are not counted in the baseline reporting (i.e., in the denominator of the calculation). The effect of this reporting structure is to give a recipient a bonus if they are able to report Section 3 hours in the professional services context. As referenced in the comments, vendors can sometimes create opportunities in the professional services context, and HUD seeks to reward this behavior. In addition, recipients are provided significant discretion in how they seek to implement their Section 3 obligations. A recipient could elect to require, at the local level, additional Section 3 obligations with respect to

professional services through the terms of the funding contract.

#### V. Findings and Certifications

##### *Regulatory Review—Executive Orders 12866 and 13563*

Under Executive Order 12866 (Regulatory Planning and Review), a determination must be made whether a regulatory action is significant and, therefore, subject to review by the Office of Management and Budget (OMB) in accordance with the requirements of the order. Executive Order 13563 (Improving Regulations and Regulatory Review) directs executive agencies to analyze regulations that are “outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned.” Executive Order 13563 also directs that, where relevant, feasible, and consistent with regulatory objectives, and to the extent permitted by law, agencies are to identify and consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public.

This rule was determined to be a “significant regulatory action” as defined in Section 3(f) of the order (although not an economically significant regulatory action under the order). Consistent with Executive Order 13563, this rule creates new part 75 regulations that would replace the part 135 regulations, with the intention to make compliance with Section 3 more effective and less burdensome, and therefore, help to contribute to job creation for low- and very low-income persons. HUD has prepared a Regulatory Impact Analysis (RIA) that addresses the rule’s costs and benefits. HUD’s RIA is part of the docket file for this rule.

The docket file is available for public inspection in the Regulations Division, Office of the General Counsel, Room 10276, 451 7th Street SW, Washington, DC 20410–0500. Due to security measures at the HUD Headquarters building, please schedule an appointment to review the docket file by calling the Regulations Division at 202–402–3055 (this is not a toll-free number). Individuals with speech or hearing impairments may access this number via TTY by calling the Federal Relay Service at toll-free 800–877–8339.

##### *Environmental Impact*

The final rule does not direct, provide for assistance or loan and mortgage insurance for, or otherwise govern or regulate, real property acquisition, disposition, leasing, rehabilitation, alteration, demolition, or new

construction, or establish, revise, or provide for standards for construction or construction materials, manufactured housing, or occupancy. Accordingly, under 24 CFR 50.19(c)(1), this rule is categorically excluded from environmental review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321).

##### *Unfunded Mandates Reform Act*

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) (UMRA) establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and on the private sector. This proposed rule does not impose a Federal mandate on any state, local, or tribal government, or on the private sector, within the meaning of UMRA.

##### *Regulatory Flexibility Act*

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. As has been discussed in this preamble, this rule updates HUD’s Section 3 regulations and replace them with a new 24 CFR part 75, for which the objective is to increase employment opportunities for low- and very low-income persons and businesses that are owned by or employ such persons. These entities generally are small and therefore strengthening the requirements of Section 3 should benefit small businesses that are Section 3 business concerns. This rule also considers the burden on small public housing agencies (PHAs), defined in this rule as a PHA that manages or operates fewer than 250 public housing units, and reduces the burden on them through a new streamlined reporting process that would not require them to report labor hours or new hires. There are approximately 2,950 PHAs, of which approximately 2,250 are small.

As more fully discussed in the accompanying RIA, the number of economic opportunities generated for Section 3 residents and businesses will not increase to the degree that this rule would have a significant economic impact on a substantial number of small entities. In addition, for those small entities that must comply with this rule, the changes made by this proposed rule are designed to reduce burden on them, as well as all recipients. The current recordkeeping and reporting requirements for Section 3 is 90,180

hours with a cost of \$1,817,000. HUD estimated that this new rule will reduce the number of hours by 68 percent to 25,910 hours. The biggest reduction will be for small PHAs that will no longer need to do quantitative analysis with a total estimated time saving of 12,375 hours with a cost of \$281,036, or approximately \$125 for small PHAs. HUD also anticipates an across the board savings in recordkeeping given the time savings resulting from less time reporting new hires as a separate metric. For these reasons, HUD has determined that this rule would not have a significant economic impact on a substantial number of small entities.

*Executive Order 13132, Federalism*

Executive Order 13132 (entitled "Federalism") prohibits an agency from publishing any rule that has federalism implications if the rule either: (1) Imposes substantial direct compliance costs on State and local governments and is not required by statute, or (2) preempts State law, unless the agency meets the consultation and funding requirements of Section 6 of the Executive Order. This final rule does not have federalism implications and does not impose substantial direct compliance costs on State and local governments nor preempt state law within the meaning of the Executive Order.

*Paperwork Reduction Act*

Currently, 24 CFR part 135 requires that all recipients track and report Section 3 information to HUD, includes prescriptive contractual language, requires compliance by contractors of the Section 3 requirements, contains reporting and recordkeeping requirements, and provides for the filing of Section 3 complaints. SPEARS is the main site in which HUD captures the number of Section 3 residents hired and the number of contracts awarded to Section 3 business concerns. The existing information collection requirement for these requirements has

been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) and assigned OMB control number 2529–0043.

The rule would change the existing reporting requirement to decrease qualitatively those who need to report, excluding small PHAs and recipients of Section 3 projects under the \$200,000 threshold, and require reporting only once a year by recipients of completed projects. HUD provides in §§ 75.15 and 75.25 that recipients would be required to submit reports to HUD annually either in a qualitative form or quantitative form. HUD includes all the large PHAs in the § 75.15(a) reporting number for reporting on the Section 3 benchmarks and estimates 2 hours to track and report annually given the amount of funds handled by these PHAs. HUD also estimates that a PHA will employ approximately seven contractors or subcontractors each fiscal year that would need to track and report up to the PHA, each at one-half an hour for reporting time. Lastly, HUD estimates that 5 percent of the 700 large PHAs may fail the Section 3 benchmarks and would need to report on their qualitative efforts along with the 2,250 small PHAs and estimates that such reporting would take one-half an hour.

As for § 75.25(a), HUD estimates that 66 percent of most program recipients would complete projects in a fiscal year that need to be reported except that for the HOME program, HUD estimates that 90 percent of HOME recipients would complete projects in a fiscal year, at an estimate of 3,600 recipients. Given these projects are more diverse in size, HUD estimates that the average time to report on the Section 3 benchmarks for recipients would be 1 hour. HUD also estimates that a Section 3 project will engage approximately five contractors or subcontractors each fiscal year that would also need to track and report up to the Section 3 project recipient, each

at one-half an hour for reporting time. Lastly, HUD estimates that 5 percent of the 3,600 recipients may fail the Section 3 benchmarks and would need to report on their qualitative efforts and estimates that such reporting would take one-half an hour.

HUD also notes that the rule no longer requires the inclusion of prescriptive contractual language. See §§ 75.17 and 75.27. HUD believes that this change will result in a de minimis upfront burden related to updating contracts, if recipients, subrecipients, and contractors chose to do so, but that removing the requirement will actually reduce burden on recipients, subrecipients, and contractors on a sustained basis by giving them flexibility to use alternative or existing contractual language. HUD also provides for recordkeeping requirements at § 75.31 and believes that the maintaining of records by recipients will take a recipient approximately 2 hours. However, HUD notes that some programs, such as HOME, already have recordkeeping requirements that are part of existing approved Information Collection Requests and, thus, excludes those programs from the burden matrix. Lastly, HUD maintains the option for individuals to file complaints and retains the frequency number that was in the existing Section 3 reporting burden.

In accordance with the Paperwork Reduction Act, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless the collection displays a currently valid OMB control number. The current recordkeeping requirements for Section 3 is 90,180 hours with a cost of \$1,817,000. HUD estimates that this new rule will reduce the number of hours by 68 percent to 25,910 hours for a total cost savings of approximately \$1.2 million. The overall reporting and recordkeeping burden is estimated as follows:

Information collection	Number of respondents	Frequency of response per annum	Burden hour per response	Annual burden hours	Hourly cost per response	Annual cost
§ 75.15(a) Labor Hour or New Hire Reporting for PHA .....	700	1	2	1,400	\$22.71	\$31,794.00
§ 75.15(a) Labor Hour or New Hire Reporting for Contractors or Subcontractors of PHAs .....	4,900	1	0.5	2,450	22.71	55,639.50
§ 75.15(b)–(d) Qualitative Reporting for PHAs .....	2,300	1	0.5	1,150	22.71	26,116.50
§ 75.25(a) Labor Hour Reporting for Section 3 Projects .....	3,600	1	1	3,600	22.71	81,756.00
§ 75.25(a) Labor Hour Reporting for Contractors and Subcontractors on Section 3 Projects .....	10,800	1	0.5	5,400	22.71	122,634.00

Information collection	Number of respondents	Frequency of response per annum	Burden hour per response	Annual burden hours	Hourly cost per response	Annual cost
§ 75.25(b) Qualitative Reporting for Section 3 Projects .....	180	1	0.5	90	22.71	2,043.90
§ 75.31 Recordkeeping .....	5,900	1	2	11,800	22.71	267,978.00
§ 75.33 Complaints .....	20	1	1	20	10.00	200.00
<b>Total</b> .....				<b>25,910</b>		<b>588,161.90</b>

HUD will update the appropriate OMB control number 2529-0043 to reflect this reduction in burden.

*Congressional Review of Final Rules*

The Office of Information and Regulatory Affairs has determined that this final rule is not a major rule, as defined by 5 U.S.C. 804, for purposes of congressional review of agency rulemaking pursuant to the Congressional Review Act, Public Law 104-121, sec. 251, 110 Stat. 868, 873 (codified at 5 U.S.C. 804). This rule will not result in an annual effect on the economy of \$100 million or more; a major increase in costs or prices; or significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based companies to compete with foreign-based companies in domestic and export markets.

**List of Subjects**

*24 CFR Part 5*

Administrative practice and procedure, Aged, Claims, Crime, Government contracts, Grant programs-housing and community development, Individuals with disabilities, Intergovernmental relations, Loan programs-housing and community development, Low- and moderate-income housing, Mortgage insurance, Penalties, Pets, Public housing, Rent subsidies, Reporting and recordkeeping requirements, Social security, Unemployment compensation, Wages.

*24 CFR Part 14*

Claims, Equal access to justice, Lawyers, Reporting and recordkeeping requirements.

*24 CFR Part 75*

Administrative practice and procedure, Community development, Government contracts, Grant programs—housing and community development, Housing, Loan programs—housing and community development, Reporting and recordkeeping requirements, Small businesses.

*24 CFR Part 91*

Aged, Grant programs-housing and community development, Homeless, Individuals with disabilities, Low- and moderate-income housing, Reporting and recordkeeping requirements.

*24 CFR Part 92*

Administrative practice and procedure, Low- and moderate-income housing, Manufactured homes, Rent subsidies, Reporting and recordkeeping requirements.

*24 CFR Part 93*

Administrative practice and procedure, Grant programs-housing and community development, Low- and moderate-income housing, Manufactured homes, Rent subsidies, Reporting and recordkeeping requirements.

*24 CFR Part 135*

Administrative practice and procedure, Community development, Equal employment opportunity, Government contracts, Grant programs—housing and community development, Housing, Loan programs—housing and community development, Reporting and recordkeeping requirements, Small businesses.

*24 CFR Part 266*

Intergovernmental relations, Low- and moderate-income housing, Mortgage insurance, Reporting and recordkeeping requirements.

*24 CFR Part 570*

Administrative practice and procedure, American Samoa, Community development block grants, Grant programs-education, Grant programs-housing and community development, Guam, Indians, Loan programs-housing and community development, Low- and moderate-income housing, Northern Mariana Islands, Pacific Islands Trust Territory, Puerto Rico, Reporting and recordkeeping requirements, Student aid, Virgin Islands.

*24 CFR Part 576*

Community facilities, Grant programs-housing and community development, Grant programs-social programs, Homeless, Reporting and recordkeeping requirements.

*24 CFR Part 578*

Community development, Community facilities, Grant programs-housing and community development, Grant programs-social programs, Homeless, Reporting and recordkeeping requirements.

*24 CFR Part 905*

Grant programs-housing and community development, Public housing, Reporting and recordkeeping requirements.

*24 CFR Part 964*

Grant programs-housing and community development, Public housing, Reporting and recordkeeping requirements.

*24 CFR Part 983*

Grant programs-housing and community development, Low- and moderate-income housing, Rent subsidies, Reporting and recordkeeping requirements.

*24 CFR Part 1000*

Aged, Community development block grants, Grant programs-housing and community development, Grant programs-Indians, Indians, Individuals with disabilities, Public housing, Reporting and recordkeeping requirements.

Accordingly, for the reasons described in the preamble, under the authority 12 U.S.C. 1701u; 42 U.S.C. 3535(d), HUD amends 24 CFR parts 5, 14, 75, 91, 92, 93, 135, 266, 570, 576, 578, 905, 964, 983, and 1000 as follows:

**PART 5—GENERAL HUD PROGRAM REQUIREMENTS; WAIVERS**

■ 1. The authority for part 5 is revised to read as follows:

**Authority:** 12 U.S.C. 1701u and 1701x; 42 U.S.C. 1437a, 1437c, 1437d, 1437f, 1437n, 3535(d); Sec. 327, Pub. L. 109-115, 119 Stat. 2936; Sec. 607, Pub. L. 109-115, 119 Stat.

3051 (42 U.S.C. 14043e *et seq.*); E.O. 13279, 67 FR 77141, 3 CFR, 2002 Comp., p. 258; and E.O. 13559, 75 FR 71319, 3 CFR 2010 Comp., p. 273.

#### § 5.105 [Amended]

■ 2. Amend § 5.105(a) by removing “; section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) and implementing regulations at 24 CFR part 135.”

### PART 14—IMPLEMENTATION OF THE EQUAL ACCESS TO JUSTICE ACT IN ADMINISTRATIVE PROCEEDINGS

■ 3. The authority for part 14 continues to read as follows:

Authority: 5 U.S.C. 504(c)(1); 42 U.S.C. 3535(d).

#### § 14.115 [Amended]

■ 4. Amend § 14.115 by removing and reserving paragraph (a)(5).  
 ■ 5. Add part 75 to read as follows:

### PART 75—ECONOMIC OPPORTUNITIES FOR LOW- AND VERY LOW-INCOME PERSONS

#### Subpart A—General Provisions

Sec.

- 75.1 Purpose.
- 75.3 Applicability.
- 75.5 Definitions.
- 75.7 Requirements applicable to HUD NOFAs for Section 3 covered programs.

#### Subpart B—Additional Provisions for Public Housing Financial Assistance

- 75.9 Requirements.
- 75.11 Targeted Section 3 worker for public housing financial assistance.
- 75.13 Section 3 safe harbor.
- 75.15 Reporting.
- 75.17 Contract provisions.

#### Subpart C—Additional Provisions for Housing and Community Development Financial Assistance

- 75.19 Requirements.
- 75.21 Targeted Section 3 worker for housing and community development financial assistance.
- 75.23 Section 3 safe harbor.
- 75.25 Reporting.
- 75.27 Contract provisions.

#### Subpart D—Provisions for Multiple Funding Sources, Recordkeeping and Compliance

- 75.29 Multiple funding sources.
- 75.31 Recordkeeping.
- 75.33 Compliance.

Authority: 12 U.S.C. 1701u; 42 U.S.C. 3535(d).

#### Subpart A—General Provisions

##### § 75.1 Purpose.

This part establishes the requirements to be followed to ensure the objectives of Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C.

1701u) (Section 3) are met. The purpose of Section 3 is to ensure that economic opportunities, most importantly employment, generated by certain HUD financial assistance shall be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing or residents of the community in which the Federal assistance is spent.

##### § 75.3 Applicability.

(a) *General applicability.* Section 3 applies to public housing financial assistance and Section 3 projects, as follows:

- (1) *Public housing financial assistance.* Public housing financial assistance means:
  - (i) Development assistance provided pursuant to section 5 of the United States Housing Act of 1937 (the 1937 Act);
  - (ii) Operations and management assistance provided pursuant to section 9(e) of the 1937 Act;
  - (iii) Development, modernization, and management assistance provided pursuant to section 9(d) of the 1937 Act; and
  - (iv) The entirety of a mixed-finance development project as described in 24 CFR 905.604, regardless of whether the project is fully or partially assisted with public housing financial assistance as defined in paragraphs (a)(1)(i) through (iii) of this section.

(2) *Section 3 projects.* (i) Section 3 projects means housing rehabilitation, housing construction, and other public construction projects assisted under HUD programs that provide housing and community development financial assistance when the total amount of assistance to the project exceeds a threshold of \$200,000. The threshold is \$100,000 where the assistance is from the Lead Hazard Control and Healthy Homes programs, as authorized by Sections 501 or 502 of the Housing and Urban Development Act of 1970 (12 U.S.C. 1701z–1 or 1701z–2), the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4801 *et seq.*); and the Residential Lead-Based Paint Hazard Reduction Act of 1992 (42 U.S.C. 4851 *et seq.*). The project is the site or sites together with any building(s) and improvements located on the site(s) that are under common ownership, management, and financing.

(ii) The Secretary must update the thresholds provided in paragraph (a)(2)(i) of this section not less than once every 5 years based on a national construction cost inflation factor through **Federal Register** notice not subject to public comment. When the Secretary finds it is warranted to ensure

compliance with Section 3, the Secretary may adjust, regardless of the national construction cost factor, such thresholds through **Federal Register** notice, subject to public comment.

(iii) The requirements in this part apply to an entire Section 3 project, regardless of whether the project is fully or partially assisted under HUD programs that provide housing and community development financial assistance.

(b) *Contracts for materials.* Section 3 requirements do not apply to material supply contracts.

(c) *Indian and Tribal preferences.* Contracts, subcontracts, grants, or subgrants subject to Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5307(b)) or subject to tribal preference requirements as authorized under 101(k) of the Native American Housing Assistance and Self-Determination Act (25 U.S.C. 4111(k)) must provide preferences in employment, training, and business opportunities to Indians and Indian organizations, and are therefore not subject to the requirements of this part.

(d) *Other HUD assistance and other Federal assistance.* Recipients that are not subject to Section 3 are encouraged to consider ways to support the purpose of Section 3.

##### § 75.5 Definitions.

The terms *HUD*, *Public housing*, and *Public Housing Agency (PHA)* are defined in 24 CFR part 5. The following definitions also apply to this part:

*1937 Act* means the United States Housing Act of 1937, 42 U.S.C. 1437 *et seq.*

*Contractor* means any entity entering into a contract with:

- (1) A recipient to perform work in connection with the expenditure of public housing financial assistance or for work in connection with a Section 3 project; or
- (2) A subrecipient for work in connection with a Section 3 project.

*Labor hours* means the number of paid hours worked by persons on a Section 3 project or by persons employed with funds that include public housing financial assistance.

*Low-income person* means a person as defined in Section 3(b)(2) of the 1937 Act.

*Material supply contracts* means contracts for the purchase of products and materials, including, but not limited to, lumber, drywall, wiring, concrete, pipes, toilets, sinks, carpets, and office supplies.

*Professional services* means non-construction services that require an

advanced degree or professional licensing, including, but not limited to, contracts for legal services, financial consulting, accounting services, environmental assessment, architectural services, and civil engineering services.

*Public housing financial assistance* means assistance as defined in § 75.3(a)(1).

*Public housing project* is defined in 24 CFR 905.108.

*Recipient* means any entity that receives directly from HUD public housing financial assistance or housing and community development assistance that funds Section 3 projects, including, but not limited to, any State, local government, instrumentality, PHA, or other public agency, public or private nonprofit organization.

*Section 3* means Section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u).

*Section 3 business concern* means:

(1) A business concern meeting at least one of the following criteria, documented within the last six-month period:

(i) It is at least 51 percent owned and controlled by low- or very low-income persons;

(ii) Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers; or

(iii) It is a business at least 51 percent owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing.

(2) The status of a Section 3 business concern shall not be negatively affected by a prior arrest or conviction of its owner(s) or employees.

(3) Nothing in this part shall be construed to require the contracting or subcontracting of a Section 3 business concern. Section 3 business concerns are not exempt from meeting the specifications of the contract.

*Section 3 project* means a project defined in § 75.3(a)(2).

*Section 3 worker* means:

(1) Any worker who currently fits or when hired within the past five years fit at least one of the following categories, as documented:

(i) The worker's income for the previous or annualized calendar year is below the income limit established by HUD.

(ii) The worker is employed by a Section 3 business concern.

(iii) The worker is a YouthBuild participant.

(2) The status of a Section 3 worker shall not be negatively affected by a prior arrest or conviction.

(3) Nothing in this part shall be construed to require the employment of

someone who meets this definition of a Section 3 worker. Section 3 workers are not exempt from meeting the qualifications of the position to be filled.

*Section 8-assisted housing* refers to housing receiving project-based rental assistance or tenant-based assistance under Section 8 of the 1937 Act.

*Service area or the neighborhood of the project* means an area within one mile of the Section 3 project or, if fewer than 5,000 people live within one mile of a Section 3 project, within a circle centered on the Section 3 project that is sufficient to encompass a population of 5,000 people according to the most recent U.S. Census.

*Small PHA* means a public housing authority that manages or operates fewer than 250 public housing units.

*Subcontractor* means any entity that has a contract with a contractor to undertake a portion of the contractor's obligation to perform work in connection with the expenditure of public housing financial assistance or for a Section 3 project.

*Subrecipient* has the meaning provided in the applicable program regulations or in 2 CFR 200.93.

*Targeted Section 3 worker* has the meanings provided in §§ 75.11, 75.21, or 75.29, and does not exclude an individual that has a prior arrest or conviction.

*Very low-income person* means the definition for this term set forth in section 3(b)(2) of the 1937 Act.

*YouthBuild programs* refers to YouthBuild programs receiving assistance under the Workforce Innovation and Opportunity Act (29 U.S.C. 3226).

#### § 75.7 Requirements applicable to HUD NOFAs for Section 3 covered programs.

All notices of funding availability (NOFAs) issued by HUD that announce the availability of funding covered by § 75.3 will include notice that this part is applicable to the funding and may include, as appropriate for the specific NOFA, points or bonus points for the quality of Section 3 plans.

#### Subpart B—Additional Provisions for Public Housing Financial Assistance

##### § 75.9 Requirements.

(a) *Employment and training.* (1) Consistent with existing Federal, state, and local laws and regulations, PHAs or other recipients receiving public housing financial assistance, and their contractors and subcontractors, must make their best efforts to provide employment and training opportunities generated by the public housing

financial assistance to Section 3 workers.

(2) PHAs or other recipients, and their contractors and subcontractors, must make their best efforts described in paragraph (a)(1) of this section in the following order of priority:

(i) To residents of the public housing projects for which the public housing financial assistance is expended;

(ii) To residents of other public housing projects managed by the PHA that is providing the assistance or for residents of Section 8-assisted housing managed by the PHA;

(iii) To participants in YouthBuild programs; and

(iv) To low- and very low-income persons residing within the metropolitan area (or nonmetropolitan county) in which the assistance is expended.

(b) *Contracting.* (1) Consistent with existing Federal, state, and local laws and regulations, PHAs and other recipients of public housing financial assistance, and their contractors and subcontractors, must make their best efforts to award contracts and subcontracts to business concerns that provide economic opportunities to Section 3 workers.

(2) PHAs and other recipients, and their contractors and subcontractors, must make their best efforts described in paragraph (b)(1) of this section in the following order of priority:

(i) To Section 3 business concerns that provide economic opportunities for residents of the public housing projects for which the assistance is provided;

(ii) To Section 3 business concerns that provide economic opportunities for residents of other public housing projects or Section-8 assisted housing managed by the PHA that is providing the assistance;

(iii) To YouthBuild programs; and

(iv) To Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the metropolitan area (or nonmetropolitan county) in which the assistance is provided.

##### § 75.11 Targeted Section 3 worker for public housing financial assistance.

(a) *Targeted Section 3 worker.* A Targeted Section 3 worker for public housing financial assistance means a Section 3 worker who is:

(1) A worker employed by a Section 3 business concern; or

(2) A worker who currently fits or when hired fit at least one of the following categories, as documented within the past five years:

(i) A resident of public housing or Section 8-assisted housing;

(ii) A resident of other public housing projects or Section 8-assisted housing managed by the PHA that is providing the assistance; or

- (iii) A YouthBuild participant.  
(b) [Reserved]

**§ 75.13 Section 3 safe harbor.**

(a) *General.* PHAs and other recipients will be considered to have complied with requirements in this part, in the absence of evidence to the contrary, if they:

(1) Certify that they have followed the prioritization of effort in § 75.9; and

(2) Meet or exceed the applicable Section 3 benchmarks as described in paragraph (b) of this section.

(b) *Establishing benchmarks.* (1) HUD will establish Section 3 benchmarks for Section 3 workers or Targeted Section 3 workers or both through a document published in the *Federal Register*. HUD may establish a single nationwide benchmark for Section 3 workers and a single nationwide benchmark for Targeted Section 3 workers, or may establish multiple benchmarks based on geography, the type of public housing financial assistance, or other variables. HUD will update the benchmarks through a document published in the *Federal Register*, subject to public comment, not less frequently than once every 3 years. Such notice shall include aggregate data on labor hours and the proportion of PHAs and other recipients meeting benchmarks, as well as other metrics reported pursuant to § 75.15 as deemed appropriate by HUD, for the 3 most recent reporting years.

(2) In establishing the Section 3 benchmarks, HUD may consider the industry averages for labor hours worked by specific categories of workers or in different localities or regions; averages for labor hours worked by Section 3 workers and Targeted Section 3 workers as reported by recipients pursuant to this section; and any other factors HUD deems important. In establishing the Section 3 benchmarks, HUD will exclude professional services from the total number of labor hours as such hours are excluded from the total number of labor hours to be reported per § 75.15(a)(4).

(3) Section 3 benchmarks will consist of the following two ratios:

(i) The number of labor hours worked by Section 3 workers divided by the total number of labor hours worked by all workers funded by public housing financial assistance in the PHA's or other recipient's fiscal year.

(ii) The number of labor hours worked by Targeted Section 3 workers, as defined in § 75.11(a), divided by the total number of labor hours worked by

all workers funded by public housing financial assistance in the PHA's or other recipient's fiscal year.

**§ 75.15 Reporting.**

(a) *Reporting of labor hours.* (1) For public housing financial assistance, PHAs and other recipients must report in a manner prescribed by HUD:

(i) The total number of labor hours worked;

(ii) The total number of labor hours worked by Section 3 workers; and

(iii) The total number of labor hours worked by Targeted Section 3 workers.

(2) Section 3 workers' and Targeted Section 3 workers' labor hours may be counted for five years from when their status as a Section 3 worker or Targeted Section 3 worker is established pursuant to § 75.31.

(3) The labor hours reported under paragraph (a)(1) of this section must include the total number of labor hours worked with public housing financial assistance in the fiscal year of the PHA or other recipient, including labor hours worked by any contractors and subcontractors that the PHA or other recipient is required, or elects pursuant to paragraph (a)(4) of this section, to report.

(4) PHAs and other recipients reporting under this section, as well as contractors and subcontractors who report to PHAs and recipients, may report labor hours by Section 3 workers, under paragraph (a)(1)(ii) of this section, and labor hours by Targeted Section 3 workers, under paragraph (a)(1)(iii) of this section, from professional services without including labor hours from professional services in the total number of labor hours worked under paragraph (a)(1)(i) of this section. If a contract covers both professional services and other work and the PHA, other recipient, contractor, or subcontractor chooses not to report labor hours from professional services, the labor hours under the contract that are not from professional services must still be reported.

(5) PHAs and other recipients may report on the labor hours of the PHA, the recipient, a contractor, or a subcontractor based on the employer's good faith assessment of the labor hours of a full-time or part-time employee informed by the employer's existing salary or time and attendance based payroll systems, unless the project or activity is otherwise subject to requirements specifying time and attendance reporting.

(b) *Additional reporting if Section 3 benchmarks are not met.* If the PHA's or other recipient's reporting under paragraph (a) of this section indicates

that the PHA or other recipient has not met the Section 3 benchmarks described in § 75.13, the PHA or other recipient must report in a form prescribed by HUD on the qualitative nature of its Section 3 compliance activities and those of its contractors and subcontractors. Such qualitative efforts may, for example, include but are not limited to the following:

(1) Engaged in outreach efforts to generate job applicants who are Targeted Section 3 workers.

(2) Provided training or apprenticeship opportunities.

(3) Provided technical assistance to help Section 3 workers compete for jobs (e.g., resume assistance, coaching).

(4) Provided or connected Section 3 workers with assistance in seeking employment including: drafting resumes, preparing for interviews, and finding job opportunities connecting residents to job placement services.

(5) Held one or more job fairs.

(6) Provided or referred Section 3 workers to services supporting work readiness and retention (e.g., work readiness activities, interview clothing, test fees, transportation, child care).

(7) Provided assistance to apply for/or attend community college, a four-year educational institution, or vocational/technical training.

(8) Assisted Section 3 workers to obtain financial literacy training and/or coaching.

(9) Engaged in outreach efforts to identify and secure bids from Section 3 business concerns.

(10) Provided technical assistance to help Section 3 business concerns understand and bid on contracts.

(11) Divided contracts into smaller jobs to facilitate participation by Section 3 business concerns.

(12) Provided bonding assistance, guaranties, or other efforts to support viable bids from Section 3 business concerns.

(13) Promoted use of business registries designed to create opportunities for disadvantaged and small businesses.

(14) Outreach, engagement, or referrals with the state one-stop system as defined in Section 121(e)(2) of the Workforce Innovation and Opportunity Act.

(c) *Reporting frequency.* Unless otherwise provided, PHAs or other recipients must report annually to HUD under paragraph (a) of this section, and, where required, under paragraph (b) of this section, in a manner consistent with reporting requirements for the applicable HUD program.

(d) *Reporting by Small PHAs.* Small PHAs may elect not to report under

paragraph (a) of this section. Small PHAs that make such election are required to report on their qualitative efforts, as described in paragraph (b) of this section, in a manner consistent with reporting requirements for the applicable HUD program.

#### § 75.17 Contract provisions.

(a) PHAs or other recipients must include language in any agreement or contract to apply Section 3 to contractors.

(b) PHAs or other recipients must require contractors to include language in any contract or agreement to apply Section 3 to subcontractors.

(c) PHAs or other recipients must require all contractors and subcontractors to meet the requirements of § 75.9, regardless of whether Section 3 language is included in contracts.

### Subpart C—Additional Provisions for Housing and Community Development Financial Assistance

#### § 75.19 Requirements.

(a) *Employment and training.* (1) To the greatest extent feasible, and consistent with existing Federal, state, and local laws and regulations, recipients covered by this subpart shall ensure that employment and training opportunities arising in connection with Section 3 projects are provided to Section 3 workers within the metropolitan area (or nonmetropolitan county) in which the project is located.

(2) Where feasible, priority for opportunities and training described in paragraph (a)(1) of this section should be given to:

(i) Section 3 workers residing within the service area or the neighborhood of the project, and

(ii) Participants in YouthBuild programs.

(b) *Contracting.* (1) To the greatest extent feasible, and consistent with existing Federal, state, and local laws and regulations, recipients covered by this subpart shall ensure contracts for work awarded in connection with Section 3 projects are provided to business concerns that provide economic opportunities to Section 3 workers residing within the metropolitan area (or nonmetropolitan county) in which the project is located.

(2) Where feasible, priority for contracting opportunities described in paragraph (b)(1) of this section should be given to:

(i) Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the service area or the neighborhood of the project, and

(ii) YouthBuild programs.

#### § 75.21 Targeted Section 3 worker for housing and community development financial assistance.

(a) *Targeted Section 3 worker.* A Targeted Section 3 worker for housing and community development financial assistance means a Section 3 worker who is:

(1) A worker employed by a Section 3 business concern; or

(2) A worker who currently fits or when hired fit at least one of the following categories, as documented within the past five years:

(i) Living within the service area or the neighborhood of the project, as defined in § 75.5; or

(ii) A YouthBuild participant.

(b) [Reserved]

#### § 75.23 Section 3 safe harbor.

(a) *General.* Recipients will be considered to have complied with requirements in this part, in the absence of evidence to the contrary if they:

(1) Certify that they have followed the prioritization of effort in § 75.19; and

(2) Meet or exceed the applicable Section 3 benchmark as described in paragraph (b) of this section.

(b) *Establishing benchmarks.* (1) HUD will establish Section 3 benchmarks for Section 3 workers or Targeted Section 3 workers or both through a document published in the *Federal Register*. HUD may establish a single nationwide benchmark for Section 3 workers and a single nationwide benchmark for Targeted Section 3 workers, or may establish multiple benchmarks based on geography, the nature of the Section 3 project, or other variables. HUD will update the benchmarks through a document published in the *Federal Register*, subject to public comment, not less frequently than once every 3 years. Such notice shall include aggregate data on labor hours and the proportion of recipients meeting benchmarks, as well as other metrics reported pursuant to § 75.25 as deemed appropriate by HUD, for the 3 most recent reporting years.

(2) In establishing the Section 3 benchmarks, HUD may consider the industry averages for labor hours worked by specific categories of workers or in different localities or regions; averages for labor hours worked by Section 3 workers and Targeted Section 3 workers as reported by recipients pursuant to this section; and any other factors HUD deems important. In establishing the Section 3 benchmarks, HUD will exclude professional services from the total number of labor hours as such hours are excluded from the total number of labor hours to be reported per § 75.25(a)(4).

(3) Section 3 benchmarks will consist of the following two ratios:

(i) The number of labor hours worked by Section 3 workers divided by the total number of labor hours worked by all workers on a Section 3 project in the recipient's program year.

(ii) The number of labor hours worked by Targeted Section 3 workers as defined in § 75.21(a), divided by the total number of labor hours worked by all workers on a Section 3 project in the recipient's program year.

#### § 75.25 Reporting.

(a) *Reporting of labor hours.* (1) For Section 3 projects, recipients must report in a manner prescribed by HUD:

(i) The total number of labor hours worked;

(ii) The total number of labor hours worked by Section 3 workers; and

(iii) The total number of labor hours worked by Targeted Section 3 workers.

(2) Section 3 workers' and Targeted Section 3 workers' labor hours may be counted for five years from when their status as a Section 3 worker or Targeted Section 3 worker is established pursuant to § 75.31.

(3) The labor hours reported under paragraph (a)(1) of this section must include the total number of labor hours worked on a Section 3 project, including labor hours worked by any subrecipients, contractors and subcontractors that the recipient is required, or elects pursuant to paragraph (a)(4) of this section, to report.

(4) Recipients reporting under this section, as well as subrecipients, contractors and subcontractors who report to recipients, may report labor hours by Section 3 workers, under paragraph (a)(1)(ii) of this section, and labor hours by Targeted Section 3 workers, under paragraph (a)(1)(iii) of this section, from professional services without including labor hours from professional services in the total number of labor hours worked under paragraph (a)(1)(i) of this section. If a contract covers both professional services and other work and the recipient or contractor or subcontractor chooses not to report labor hours from professional services, the labor hours under the contract that are not from professional services must still be reported.

(5) Recipients may report their own labor hours or that of a subrecipient, contractor, or subcontractor based on the employer's good faith assessment of the labor hours of a full-time or part-time employee informed by the employer's existing salary or time and attendance based payroll systems, unless the project or activity is

otherwise subject to requirements specifying time and attendance reporting.

(b) *Additional reporting if Section 3 benchmarks are not met.* If the recipient's reporting under paragraph (a) of this section indicates that the recipient has not met the Section 3 benchmarks described in § 75.23, the recipient must report in a form prescribed by HUD on the qualitative nature of its activities and those its contractors and subcontractors pursued. Such qualitative efforts may, for example, include but are not limited to the following:

- (1) Engaged in outreach efforts to generate job applicants who are Targeted Section 3 workers.
- (2) Provided training or apprenticeship opportunities.
- (3) Provided technical assistance to help Section 3 workers compete for jobs (e.g., resume assistance, coaching).
- (4) Provided or connected Section 3 workers with assistance in seeking employment including: drafting resumes, preparing for interviews, and finding job opportunities connecting residents to job placement services.
- (5) Held one or more job fairs.
- (6) Provided or referred Section 3 workers to services supporting work readiness and retention (e.g., work readiness activities, interview clothing, test fees, transportation, child care).
- (7) Provided assistance to apply for/or attend community college, a four-year educational institution, or vocational/technical training.
- (8) Assisted Section 3 workers to obtain financial literacy training and/or coaching.
- (9) Engaged in outreach efforts to identify and secure bids from Section 3 business concerns.
- (10) Provided technical assistance to help Section 3 business concerns understand and bid on contracts.
- (11) Divided contracts into smaller jobs to facilitate participation by Section 3 business concerns.
- (12) Provided bonding assistance, guaranties, or other efforts to support viable bids from Section 3 business concerns.
- (13) Promoted use of business registries designed to create opportunities for disadvantaged and small businesses.
- (14) Outreach, engagement, or referrals with the state one-stop system as defined in Section 121(e)(2) of the Workforce Innovation and Opportunity Act.

(c) *Reporting frequency.* Unless otherwise provided, recipients must report annually to HUD under paragraph (a) of this section, and, where

required, under paragraph (b) of this section, on all projects completed within the reporting year in a manner consistent with reporting requirements for the applicable HUD program.

#### § 75.27 Contract provisions.

(a) Recipients must include language applying Section 3 requirements in any subrecipient agreement or contract for a Section 3 project.

(b) Recipients of Section 3 funding must require subrecipients, contractors, and subcontractors to meet the requirements of § 75.19, regardless of whether Section 3 language is included in recipient or subrecipient agreements, program regulatory agreements, or contracts.

#### Subpart D—Provisions for Multiple Funding Sources, Recordkeeping, and Compliance

##### § 75.29 Multiple funding sources.

(a) If a housing rehabilitation, housing construction or other public construction project is subject to Section 3 pursuant to § 75.3(a)(1) and (2), the recipient must follow subpart B of this part for the public housing financial assistance and may follow either subpart B or C of this part for the housing and community development financial assistance. For such a project, the following applies:

(1) For housing and community development financial assistance, a Targeted Section 3 worker is any worker who meets the definition of a Targeted Section 3 worker in either subpart B or C of this part; and

(2) The recipients of both sources of funding shall report on the housing rehabilitation, housing construction, or other public construction project as a whole and shall identify the multiple associated recipients. PHAs and other recipients must report the following information:

- (i) The total number of labor hours worked on the project;
- (ii) The total number of labor hours worked by Section 3 workers on the project; and
- (iii) The total number of labor hours worked by Targeted Section 3 workers on the project.

(b) If a housing rehabilitation, housing construction, or other public construction project is subject to Section 3 because the project is assisted with funding from multiple sources of housing and community development assistance that exceed the thresholds in § 75.3(a)(2), the recipient or recipients must follow subpart C of this part, and must report to the applicable HUD program office, as prescribed by HUD.

##### § 75.31 Recordkeeping.

(a) HUD shall have access to all records, reports, and other documents or items of the recipient that are maintained to demonstrate compliance with the requirements of this part, or that are maintained in accordance with the regulations governing the specific HUD program by which the Section 3 project is governed, or the public housing financial assistance is provided or otherwise made available to the recipient, subrecipient, contractor, or subcontractor.

(b) Recipients must maintain documentation, or ensure that a subrecipient, contractor, or subcontractor that employs the worker maintains documentation, to ensure that workers meet the definition of a Section 3 worker or Targeted Section 3 worker, at the time of hire or the first reporting period, as follows:

(1) For a worker to qualify as a Section 3 worker, one of the following must be maintained:

- (i) A worker's self-certification that their income is below the income limit from the prior calendar year;
- (ii) A worker's self-certification of participation in a means-tested program such as public housing or Section 8-assisted housing;
- (iii) Certification from a PHA, or the owner or property manager of project-based Section 8-assisted housing, or the administrator of tenant-based Section 8-assisted housing that the worker is a participant in one of their programs;
- (iv) An employer's certification that the worker's income from that employer is below the income limit when based on an employer's calculation of what the worker's wage rate would translate to if annualized on a full-time basis; or
- (v) An employer's certification that the worker is employed by a Section 3 business concern.

(2) For a worker to qualify as a Targeted Section 3 worker, one of the following must be maintained:

- (i) For a worker to qualify as a Targeted Section 3 worker under subpart B of this part:
  - (A) A worker's self-certification of participation in public housing or Section 8-assisted housing programs;
  - (B) Certification from a PHA, or the owner or property manager of project-based Section 8-assisted housing, or the administrator of tenant-based Section 8-assisted housing that the worker is a participant in one of their programs;
  - (C) An employer's certification that the worker is employed by a Section 3 business concern; or
  - (D) A worker's certification that the worker is a YouthBuild participant.

(ii) For a worker to qualify as a Targeted Section 3 worker under subpart C of this part:

(A) An employer's confirmation that a worker's residence is within one mile of the work site or, if fewer than 5,000 people live within one mile of a work site, within a circle centered on the work site that is sufficient to encompass a population of 5,000 people according to the most recent U.S. Census;

(B) An employer's certification that the worker is employed by a Section 3 business concern; or

(C) A worker's self-certification that the worker is a YouthBuild participant.

(c) The documentation described in paragraph (b) of this section must be maintained for the time period required for record retentions in accordance with applicable program regulations or, in the absence of applicable program regulations, in accordance with 2 CFR part 200.

(d) A PHA or recipient may report on Section 3 workers and Targeted Section 3 workers for five years from when their certification as a Section 3 worker or Targeted Section 3 worker is established.

**§ 75.33 Compliance.**

(a) *Records of compliance.* Each recipient shall maintain adequate records demonstrating compliance with this part, consistent with other recordkeeping requirements in 2 CFR part 200.

(b) *Complaints.* Complaints alleging failure of compliance with this part may be reported to the HUD program office responsible for the public housing financial assistance or the Section 3 project, or to the local HUD field office.

(c) *Monitoring.* HUD will monitor compliance with the requirements of this part. The applicable HUD program office will determine appropriate methods by which to oversee Section 3 compliance. HUD may impose appropriate remedies and sanctions in accordance with the laws and regulations for the program under which the violation was found.

**PART 91—CONSOLIDATED SUBMISSIONS FOR COMMUNITY PLANNING AND DEVELOPMENT PROGRAMS**

■ 6. The authority citation for part 91 continues to read as follows:

**Authority:** 42 U.S.C. 3535(d), 3601–3619, 5301–5315, 11331–11388, 12701–12711, 12741–12756, and 12901–12912.

**§ 91.215 [Amended]**

■ 7. Amend § 91.215(j) by removing “24 CFR part 135” and adding, in its place “24 CFR part 75”.

**§ 91.225 [Amended]**

■ 8. Amend § 91.225(a)(7) by removing “24 CFR part 135” and adding, in its place “24 CFR part 75”.

**§ 91.325 [Amended]**

■ 9. Amend § 91.325(a)(7) by removing “24 CFR part 135” and adding, in its place “24 CFR part 75”.

**§ 91.425 [Amended]**

■ 10. Amend § 91.425(a)(1)(vii) by removing “24 CFR part 135” and adding, in its place “24 CFR part 75”.

**PART 92—HOME INVESTMENT PARTNERSHIPS PROGRAM**

■ 11. The authority citation for part 92 continues to read as follows:

**Authority:** 42 U.S.C. 3535(d), 12 U.S.C. 1701x and 4568.

■ 12. Amend § 92.508 as follows:

- a. Remove paragraph (a)(7)(i)(B);
- b. Redesignate paragraph (a)(7)(i)(C) as (a)(7)(i)(B); and
- c. Add paragraph (a)(7)(xi).  
The addition reads as follows:

**§ 92.508 Recordkeeping.**

- (a) \* \* \*
- (7) \* \* \*

(xi) Documentation of actions undertaken to meet the requirements of 24 CFR part 75 which implements section 3 of the Housing Development Act of 1968, as amended (12 U.S.C. 1701u).

\* \* \* \* \*

**PART 93—HOUSING TRUST FUND**

■ 13. The authority citation for part 93 continues to read as follows:

**Authority:** 42 U.S.C. 3535(d), 12 U.S.C. 4568.

■ 14. Amend § 93.407 as follows:

- a. Redesignate paragraphs (a)(5)(ii) through (ix) as paragraphs (a)(5)(iii) through (x);
- b. Remove paragraph (a)(5)(i)(B);
- c. Redesignate paragraph (a)(5)(i)(A) as paragraph (a)(5)(ii);
- d. In newly redesignated paragraph (a)(5)(iv), remove “24 part 35” and add in its place “24 CFR part 35”; and
- e. Add paragraph (a)(5)(xi).  
The addition reads as follows:

**§ 93.407 Recordkeeping.**

- (a) \* \* \*
- (5) \* \* \*

(xi) Documentation of actions undertaken to meet the requirements of 24 CFR part 75, which implements section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u).

\* \* \* \* \*

**CHAPTER I—OFFICE OF ASSISTANT SECRETARY FOR EQUAL OPPORTUNITY, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT [AMENDED]**

■ 15. Under the authority of 42 U.S.C. 3535(d), in chapter I, remove designated subchapter headings A and B.

**PART 135 —[REMOVED]**

■ 16. Remove part 135.

**PART 266—HOUSING FINANCE AGENCY RISK-SHARING PROGRAM FOR INSURED AFFORDABLE MULTIFAMILY PROJECT LOANS**

■ 17. The authority citation for part 266 continues to read as follows:

**Authority:** 12 U.S.C. 1707; 42 U.S.C. 3535(d).

**§ 266.220 [Amended]**

■ 18. Amend § 266.220(c) by removing “; section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), as implemented by 24 CFR part 135”.

**PART 570—COMMUNITY DEVELOPMENT BLOCK GRANTS**

■ 19. The authority citation for part 570 continues to read as follows:

**Authority:** 12 U.S.C. 1701x, 1701 x–1; 42 U.S.C. 3535(d) and 5301–5320.

**§ 570.487 [Amended]**

■ 20. Amend § 570.487(d) by removing “24 CFR part 135” and adding in its place “24 CFR part 75”.

**§ 570.607 [Amended]**

■ 21. Amend § 570.607(b) by removing “24 CFR part 135” and adding in its place “24 CFR part 75”.

**PART 574—HOUSING OPPORTUNITIES FOR PERSONS WITH AIDS**

■ 22. The authority citation for part 574 continues to read as follows:

**Authority:** 12 U.S.C. 1701x, 1701 x–1; 42 U.S.C. 3535(d) and 5301–5320.

**§ 574.600 [Amended]**

■ 23. Amend § 574.600 by adding “and part 75” after the phrase “24 CFR part 5”.

**PART 576—EMERGENCY SOLUTIONS GRANTS PROGRAM**

■ 24. The authority citation for part 576 continues to read as follows:

**Authority:** 12 U.S.C. 1701x, 1701 x–1; 42 U.S.C. 11371 *et seq.*, 42 U.S.C. 3535(d).

**§ 576.407 [Amended]**

- 25. Amend § 576.407(a) by removing “24 CFR part 135” and adding in its place “24 CFR part 75”.

**PART 578—CONTINUUM OF CARE PROGRAM**

- 26. The authority citation for part 578 continues to read as follows:

**Authority:** 12 U.S.C. 1701x, 1701 x-1; 42 U.S.C. 11381 *et seq.*, 42 U.S.C. 3535(d).

**§ 578.99 [Amended]**

- 27. Amend § 578.99 by removing “federal” in the section heading and adding in its place “Federal” and removing “24 CFR part 135” in paragraph (i) and adding in its place “24 CFR part 75”.

**PART 905—THE PUBLIC HOUSING CAPITAL FUND PROGRAM**

- 28. The authority citation for part 905 continues to read as follows:

**Authority:** 42 U.S.C. 1437g, 42 U.S.C. 1437z-2, 42 U.S.C. 1437z-7, and 3535(d).

**§ 905.308 [Amended]**

- 29. Amend § 905.308(b)(10) by removing “24 CFR part 135” and adding in its place “24 CFR part 75”.

**PART 964—TENANT PARTICIPATION AND TENANT OPPORTUNITIES IN PUBLIC HOUSING**

- 30. The authority citation for part 964 continues to read as follows:

**Authority:** 42 U.S.C. 1437d, 1437g, 1437r, 3535(d).

- 31. Revise § 964.320 to read as follows:

**§ 964.320 HUD Policy on training, employment, contracting and subcontracting of public housing residents.**

In accordance with Section 3 of the Housing and Urban Development Act of 1968 and the implementing regulations at 24 CFR part 75, PHAs, their contractors and subcontractors shall make best efforts, consistent with existing Federal, State, and local laws and regulations, to give low and very low-income persons the training and employment opportunities generated by Section 3 covered assistance (as this term is defined in 24 CFR 75.3) and to give Section 3 business concerns the contracting opportunities generated by Section 3 covered assistance.

**PART 983—PROJECT-BASED VOUCHER (PBV) PROGRAM**

- 32. The authority citation for part 983 continues to read as follows:

**Authority:** 42 U.S.C. 1437f and 3535(d).

**§ 983.4 [Amended]**

- 33. Amend § 983.4 by removing the definition of “Section 3—Training, employment and contracting opportunities in development”.

**§ 983.154 [Amended]**

- 34. Amend § 983.154 by removing (c) introductory text and paragraph (c)(1) and redesignating paragraph (c)(2) as paragraph (c).

**PART 1000—NATIVE AMERICAN HOUSING ACTIVITIES**

- 35. The authority citation for part 1000 continues to read as follows:

**Authority:** 25 U.S.C. 4101 *et seq.*; 42 U.S.C. 3535(d).

- 36. Revise § 1000.42 to read as follows:

**§ 1000.42 Are the requirements of Section 3 of the Housing and Urban Development Act of 1968 applicable?**

No. Recipients shall comply with Indian preference requirements of Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5307(b)), or employment and contract preference laws adopted by the recipient’s tribe in accordance with Section 101(k) of NAHASDA.

**Benjamin S. Carson, Sr.,**

*Secretary.*

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**BILLING CODE 4210-67-P**

**SECTION 17**  
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DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)		
230523.12	Ball Valves for HVAC Piping	230523.12-1-6
230529	Hangers and Supports for HVAC Piping and Equipment	230529-1-10
230553	Identification for HVAC Piping and Equipment	230553-1-6
231123	Facility Natural Gas Piping	231123-1-14
232300	Refrigerant Piping	232300-1-11
235406.13	Gas-Fired Furnaces	235406.13-1-8
280-2491		TOC-1

SPECIFIER: Marcus Richards, P.E. 615.454.6615

END OF SECTION

## SECTION 011000

### SUMMARY

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Contract description.
- B. PHA supplied products.
- C. Contractor's use of site and premises.
- D. Other facilities and services.
- E. Contract Documents.

##### 1.2 CONTRACT DESCRIPTION

- A. Base Bid: Work includes:
  - 1. All work as indicated on the Drawings and related Specifications.
- B. PHA SUPPLIED PRODUCTS
  - A. Except as specifically noted, Contractor shall provide and pay for:
    - 1. All labor, materials, and equipment used for construction of and/or incorporated into the project.
    - 2. All tools, construction equipment, and machinery.
    - 3. Required building permits, and all inspection fees by governmental authorities.
    - 4. Other facilities and services necessary for proper execution and completion of work.
  - B. PHA is exempt from sales tax on products permanently incorporated in work.
    - 1. Obtain sales tax exemption certificate number from PHA.
    - 2. Place exemption certificate number on invoices for materials incorporated into work.
    - 3. Upon completion of work, file with PHA a notarized statement that all purchases made under exemption certificate were entitled to be exempt and furnish copies of invoices to PHA.
    - 4. Pay legally assessed penalties for improper use of exemption certificate number.
  - C. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities that bear on performance of work.
  - D. Promptly submit written notice to Architect/Engineer of observed variance of contract documents from legal requirements.
    - 1. It is not Contractor's responsibility to make certain that drawings and specifications comply with codes and regulations.

- a. Appropriate modifications to contract documents will account for/reflect necessary changes.
- b. Assume responsibility for work known to be contrary to such requirements if written notice is not provided by the Contractor to the Architect/Engineer.

### 1.3 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Confine operations at site to areas permitted by:
  - 1. Law.
  - 2. Ordinances.
  - 3. Permits.
  - 4. Contract Documents.
- B. Do not unreasonably encumber site with materials or equipment.
- C. Assume full responsibility for protection and safe-keeping of products stored on premises.
- D. Move any stored products that interfere with operations of PHA or other contractors.
- E. Obtain and pay for use of additional storage or work areas needed for operations.
- F. Contractor shall have limited use of site for execution of work.
  - 1. Allow for public use of all adjoining streets and sidewalks.

### 1.5 OTHER FACILITIES AND SERVICES

- A. Contractor shall furnish, erect and maintain temporary barriers, or warnings as may be required for performance of his work.
  - 1. All such equipment shall be substantially designed, constructed and maintained in accordance with applicable federal, state, and local laws, ordinances, and regulations, and shall be promptly removed when no longer needed.

### 1.6 CONTRACT DOCUMENTS

- A. Contractor will be furnished free of charge four (4) copies of drawings and specifications.
- B. On request, additional copies will be furnished to Contractor at cost of reproduction, postage and handling.

END OF SECTION

## SECTION 012000

### PRICE AND PAYMENT PROCEDURES

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Applications for payment.
- C. Unit prices.

##### 1.2 SCHEDULE OF VALUES

###### A. REQUIREMENTS INCLUDE

- 1. Contractor.
  - a. Prepare and submit Schedule of Values (4 copies) to architect on HUD Form 51000 to Architect/Engineer 10 business days after the date of the Pre-construction Meeting.
- 2. Subcontractors:
  - a. Submit Schedule of Values to Contractor at least 15 business days prior to submitting first application for payment.
  - b. Support values given with data to substantiate their correctness.
  - c. Submit quantities of designated materials.
  - d. List quantities of materials specified under unit prices.
  - e. Use Schedule of Values as only basis for application for payment.
- 3. Payment for materials stored on or off site will be limited to those materials listed in Schedule of Values.

###### B. FORM OF SUBMITTAL

- 1. The schedule of values shall be prepared in such manner that each major item of Work and each subcontracted item of Work is shown as a separate item (Materials and Labor) on "Schedule of Amounts for Contract Payments", form HUD-51000.
- 2. Contractor shall use the specification index as a basis of example and format for listing and itemizing costs of work.

###### C. PREPARATION

- 1. Itemize separate line item cost for each of following cost items:
  - a. Itemize separate line items for total installed costs; material and labor shall be separate line items. For each line item indicate quantity, unit of measure, cost per unit, and total less general profit, overhead and bond.
  - b. Overhead and profit.
  - c. Bonds.
  - d. Insurance.

- e. General requirements:
  - 1) Break down general requirements to temporary facilities. Show initial installation and maintenance and fuel consumption.
- 2. Itemize separate line item cost for work specified in each section of the specifications. Identify work of:
  - a. Contractor's own labor forces.
  - b. All subcontractors.
  - c. All major suppliers of products or equipment.
- 3. Break down installed costs into:
  - a. Delivered cost of product, with taxes paid.
  - b. Labor cost, excluding overhead and profit.
- 4. For each line item that has installed value of more than \$5,000.00, break down costs to list major products or operations under each item.
  - a. Contractor, subcontractor or supplier.
  - b. Specification section number.
  - c. Description of work or material.
  - d. Quantity.
  - e. Unit price.
  - f. Scheduled value.
  - g. % of contract.
- 5. Round off figures to nearest one hundred dollars.
- 6. Make sum of total costs of all items listed in Schedule equal to total contract sum.

D. REVIEW AND RESUBMITTAL

- 1. After review by Architect/Engineer, revise and resubmit Schedule as directed.
- 2. Follow original submittal procedure.

E. UPDATE

- 1. Update Schedule of Values when:
  - a. Directed by Architect/Engineer.
  - b. Change of subcontractor or supplier occurs.
  - c. Change of product or equipment occurs.

1.3 APPLICATIONS FOR PAYMENT

A. DESCRIPTION

- 1. Submit applications for payment to Architect/Engineer for processing no later than 10 days prior to date established for progress payment meeting.
  - a. If a date is not mutually agreed upon, the first day of each month is established as date of progress payment.
- 2. Related requirements specified elsewhere:
  - a. Agreement between PHA and Contractor: Lump sum and unit prices.
  - b. General Conditions of the Contract for Construction: Progress payments, retainages and final payment.
    - 1) Allowances.
    - 2) Schedule of Values.
    - 3) Project Closeout.

B. FORMAT AND DATA REQUIRED

1. Forms to be used/submitted by Contractor:
  - a. HUD-51000 – Schedule of Amounts for Contract Payment.
  - b. HUD-51001 – Periodic Estimate for Partial Payments.
  - c. HUD-51002 – Schedule of Change of Orders.
  - d. HUD-51003 – Schedule of Materials Stored.
  - e. HUD-51004 – Summary of Materials Stored.
  - f. HUD-5372 – Construction Progress Schedule.
  - g. HUD-5371 – Request of Approval of Subcontractor.
  - h. HUD – Labor Relations Agreement.
  - i. HUD – Payroll Instructions.
  - j. HUD - Notarized Final and Partial Waivers of Lien.
  - k. HUD - Non-Collusive Affidavit.
2. Applications shall be itemized.
  - a. Format, schedules, line items and values: Those of Schedule of Values accepted by Architect/Engineer.
  - b. Quantities and costs submitted for progress percent and payments only, additions to and from contract will be estimated and verified for quantity and costs.

C. PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

1. Application form:
  - a. Fill in required information, including that for orders executed prior to date of submittal of application.
  - b. Execute certification with signature of a responsible officer of contracting firm.
  - c. Fill in total list of all scheduled component items of work, with item number and scheduled dollar value for each item.
  - d. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
    - 1) Round off values to nearest dollar, or as specified, for Schedule of Values.
  - e. List each change order executed prior to date of submission at end of continuation sheets.
    - 1) List by change order number and description as for an original component item or work.
2. Each application for progress payment shall be accompanied by the following supporting documents.
  - a. Certification.
  - b. HUD-51001 – Periodic Estimate for Partial Payments.
  - c. HUD-51002 – Schedule of Change of Orders.
  - d. HUD-51003 – Schedule of Materials Stored.
  - e. HUD-51004 – Summary of Materials Stored.
  - f. HUD-5372 – Construction Progress Schedule.
  - g. HUD – Payroll Instructions.
  - h. Notarized Final and Partial Waivers of Lien.

D. MATERIAL OR EQUIPMENT NOT INCORPORATED IN THE WORK

1. Progress payments will be made for materials and equipment not incorporated in the Work provided that:
  - a. Such materials and equipment have been delivered to and suitably stored at site or some other location approved in writing by PHA and Architect/Engineer. All such materials stored off-site shall be marked or tagged with identification of project to which they are assigned.
  - b. Contractor submits evidence of title to such materials and equipment.
  - c. Care and custody of such materials and equipment and all costs incurred for movement and storage shall be responsibility of Contractor.
  - d. Such materials and equipment are suitably insured by Contractor. Contractor shall submit a certificate of insurance showing the PHA as an additional insured and showing amount of insurance coverage.

E. SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

1. When the PHA or Architect/Engineer requires substantiating data, Contractor shall submit suitable information with a cover letter identifying:
  - a. Project.
  - b. Application number and date.
  - c. Detailed list of enclosures.
  - d. For stored products:
    - 1) Item number and identification as shown on application.
    - 2) Description of specific material.
    - 3) Bills of Lading.
2. Submit one copy of data and cover letter for each copy of application.

F. PREPARATION OF APPLICATION FOR FINAL PAYMENT

1. Provide application for final payment in accord with Section 01 70 00.
2. Fill in application form as specified for progress payments.
3. Provide for final statement of accounting as specified in Section 01 70 00 - Contract Closeout.
4. Submit final waivers of lien for Contractor's work, sub-contractor's work, and suppliers on Schedule of Values as required by Architect/Engineer.

G. SUBMITTAL PROCEDURE

1. Submit applications for payment to Architect/Engineer a minimum of 10 calendar days prior to scheduled meeting, or, in absence of other agreement, on first day of month. Late submittals may cause payment to be delayed to following monthly pay period.
2. Number: Three (3) originals of each application and back-up data and all required forms. If all forms and data are not included, the pay request will be returned to Contractor with no further review.
3. When Architect/Engineer finds application properly completed and correct, he will transmit certificate for payment to PHA, with copy to Contractor.

#### 1.4 UNIT PRICES

##### A. REQUIREMENTS INCLUDE

1. Unit price means a fixed price, including all overhead, profit and all other costs of whatever nature and character for a specified unit of work. **(Unit prices may be used to add or deduct work from the base bid.)** The PHA may reject or negotiate any unit prices, which it considers excessive or unreasonable.

##### B. RELATED REQUIREMENTS

1. Specified Elsewhere:
  - a. Bid Form: description of unit prices

#### PART 2 PRODUCTS

Not Used.

#### PART 3 EXECUTION

Not Used.

END OF SECTION

## SECTION 013000

### ADMINISTRATIVE REQUIREMENTS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Field engineering.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Pre-installation meetings.
- F. Cutting and patching.
- G. Special procedures.

##### 1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for PHA's partial occupancy.
- F. After PHA occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of PHA's activities.

### 1.3 FIELD ENGINEERING

- A. Verify set-backs and easements; confirm drawing dimensions and elevations.
- B. Provide field engineering services. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.

### 1.4 PRECONSTRUCTION MEETING

- A. PHA Architect/Engineer will schedule meeting after Notice of Award.
- B. Attendance Required: PHA, Architect/Engineer, and Contractor.
- C. Agenda:
  - 1. Execution of PHA-Contractor Agreement.
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.
  - 4. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
  - 5. Designation of personnel representing parties in Contract, and Architect/Engineer.
  - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  - 7. Scheduling.
  - 8. Scheduling activities of Geotechnical Engineer.
- D. Architect/Engineer will record minutes and distribute copies with reasonable promptness after meeting to participants, with two copies to Architect/Engineer, PHA, and those affected by decisions made.

### 1.5 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Architect/Engineer will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required: Job superintendent, major subcontractors and suppliers, PHA, Architect/Engineer, as appropriate to agenda topics for each meeting.
- D. Agenda:
  - 1. Review minutes of previous meetings.
  - 2. Review of Work progress.
  - 3. Field observations, problems, and decisions.
  - 4. Identification of problems impeding planned progress.
  - 5. Review of submittals schedule and status of submittals.
  - 6. Review of off-site fabrication and delivery schedules.

7. Maintenance of progress schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on progress schedule and coordination.
13. Other business relating to Work.

#### 1.6 PRE-INSTALLATION MEETINGS

- A. When required in individual specification sections, convene pre-installation meetings at Project site prior to commencing work of specific section.
- B. Require attendance of parties directly affecting, or affected by, Work of specific section.
- C. Notify Architect/Engineer four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
  1. Review conditions of installation, preparation and installation procedures.
  2. Review coordination with related work.

#### PART 2 PRODUCTS

Not Used.

#### PART 3 EXECUTION

##### 3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
  1. Structural integrity of element.
  2. Integrity of weather-exposed or moisture-resistant elements.
  3. Efficiency, maintenance, or safety of element.
  4. Visual qualities of sight exposed elements.
  5. Work of PHA or separate contractor.
- C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
  1. Fit the several parts together, to integrate with other Work.
  2. Uncover Work to install or correct ill-timed Work.
  3. Remove and replace defective and non-conforming Work.
  4. Remove samples of installed Work for testing.
  5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

- D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products in accordance with requirements of Contract Documents.
- G. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of penetrated element.
- J. Refinish or restore surfaces and finished to match existing finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- K. Identify hazardous substances or conditions exposed during the Work to Architect/Engineer for decision or remedy.

### 3.2 SPECIAL PROCEDURES

- A. Materials: As specified in product sections; match existing with new products and salvaged products for patching and extending work.
- B. Employ skilled and experienced installer to perform alteration work.
- C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- E. Remove debris and abandoned items from area and from concealed spaces.
- F. Prepare surface and remove surface finishes to permit installation of new work and finishes.
- G. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- H. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original or specified condition.
- I. Refinish existing visible surfaces to remain in renovated rooms and spaces, to specified condition for each material, with neat transition to adjacent finishes.

- J. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- K. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect/Engineer for review.
- L. Where change of plane of 1/4 inch or more occurs, submit recommendation for providing smooth transition; to Architect/Engineer for review.
- M. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- N. Finish surfaces as specified in individual product sections.

END OF SECTION

SECTION 013300  
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed products list.
- D. Product data.
- E. Shop drawings.
- F. Samples.
- G. Design data.
- H. Test reports.
- I. Certificates.
- J. Manufacturer's instructions.
- K. Manufacturer's field reports.

1.2 SUBMITTAL PROCEDURES

- A. **Transmit each submittal with shop drawing submittal form found at the end of this section.**
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- C. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite Project, and deliver to Architect/Engineer. Coordinate submission of related items.

- F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- G. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and Architect/Engineer review stamps.
- I. When revised for resubmission, identify changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- K. Submittals not requested will not be recognized or processed.

### 1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules within 15 days after date established in Notice to Proceed. After review, resubmit required revised data within ten days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit computer generated chart with separate line for each major portion of Work or operation, identifying first work day of each week.
- F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Submit separate schedule of submittal dates for shop drawings, product data, and samples, including dates reviewed submittals will be required from Architect/Engineer. Indicate decision dates for selection of finishes.
- I. Revisions To Schedules:
  - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
  - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
  - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

#### 1.4 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

#### 1.5 PRODUCT DATA

- A. Product Data: Submit to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit number of copies Contractor requires, plus 3 copies Architect/Engineer will retain.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 017000.

#### 1.6 SHOP DRAWINGS

- A. Shop Drawings: Submit to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual specification sections, provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
  - 1. Include signed and sealed calculations to support design.
  - 2. Submit drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
  - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. Submit number of opaque reproductions Contractor requires, plus 3 copies Architect/Engineer will retain.
- E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 017000.

## 1.7 SAMPLES

- A. Samples: Submit to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Samples For Selection as Specified in Product Sections:
  - 1. Submit to Architect/Engineer for aesthetic, color, or finish selection.
  - 2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Architect/Engineer selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit number of samples specified in individual specification sections; Architect/Engineer will retain one sample.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.
- G. Samples will not be used for testing purposes unless specifically stated in specification section.
- H. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes described in Section 017000.

## 1.8 DESIGN DATA

- A. Submit for Architect/Engineer's knowledge as contract administrator or for PHA.
- B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

## 1.9 TEST REPORTS

- A. Submit for Architect/Engineer's knowledge as contract administrator or for PHA.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

## 1.10 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Architect/Engineer, in quantities specified for Product Data.

- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect/Engineer.

#### 1.11 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Architect/Engineer for delivery to PHA in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

#### 1.12 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for Architect/Engineer's benefit as contract administrator or for PHA.
- B. Submit report in duplicate within 30 days of observation to Architect/Engineer for information.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

### PART 2 PRODUCTS

Not Used.

### PART 3 EXECUTION

Not Used.

END OF SECTION



## SHOP DRAWING SUBMITTAL

PROJECT: HVAC Replacement DATE: \_\_\_\_\_  
Capital Fund Improvements  
AMPs 1, 2, 5 and 6  
Brooklyn, Cahokia Heights, Lebanon, O'Fallon and Smithton, Illinois  
St. Clair Co. Housing Authority  
St. Clair County, Illinois  
IFB-22-B001

A/E PROJECT NO: 280-2491

CONTRACTOR: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PRESENTED BY: \_\_\_\_\_  
(Subcontractor/Supplier) Company Name  
\_\_\_\_\_  
Address  
\_\_\_\_\_  
Phone/Fax  
\_\_\_\_\_  
Contact Person

ITEM: \_\_\_\_\_

SPEC SECTION: \_\_\_\_\_  
\_\_\_\_\_

By approving and submitting these shop drawings, product data and samples, we represent that we have determined and verified all materials, field measurements and field construction criteria related thereto, or will do so, and that we have checked and coordinated information contained within submittal with requirements of the work and contract documents.

\_\_\_\_\_  
Contractor's Signature

\_\_\_\_\_  
Date

SECTION 014000  
QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances
- C. References.
- D. Testing and inspection services.
- E. Manufacturers' field services.
- F. Examination.
- G. Preparation.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

#### 1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date for receiving bids, except where specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- E. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect/Engineer shall be altered from Contract Documents by mention or inference otherwise in reference documents.

#### 1.5 TESTING AND INSPECTION SERVICES

- A. PHA will employ and pay for specified services of an independent firm to perform testing and inspection.
- B. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
- C. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- D. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by same independent firm on instructions by Architect/Engineer. Payment for re-testing or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.

#### 1.6 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment and as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Architect/Engineer 30 days in advance of required observations. Observer subject to approval of Architect/Engineer and PHA.

- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Refer to Section 013300 - SUBMITTAL PROCEDURES, MANUFACTURERS' FIELD REPORTS article.

## PART 2 PRODUCTS

Not Used.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

### 3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

## SECTION 015000

### TEMPORARY FACILITIES AND CONTROLS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Temporary Utilities:
  - 1. Temporary electricity.
  - 2. Temporary lighting for construction purposes.
  - 3. Temporary ventilation.
  - 4. Temporary water service.
  - 5. Temporary sanitary facilities.
- B. Construction Facilities:
  - 1. Vehicular access.
  - 2. Parking.
  - 3. Progress cleaning and waste removal.
- C. Temporary Controls:
  - 1. Barriers.
  - 2. Enclosures and fencing.
  - 3. Dust control.
  - 4. Pollution control.
- D. Removal of utilities, facilities, and controls.

##### 1.2 TEMPORARY ELECTRICITY

- A. PHA will pay cost of energy used. Exercise measures to conserve energy. Utilize PHA's existing power service where available.
- B. Provide temporary electric feeder from existing building electrical service as required for construction operations. Do not disrupt PHA's use of service.
- C. Complement existing power service capacity and characteristics as required for construction operations.

##### 1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain lighting as necessary for construction operations.
- B. Maintain lighting and provide routine repairs.
- C. Permanent building lighting may be utilized during construction.

#### 1.4 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Utilize existing ventilation equipment. Extend and supplement equipment with temporary fan units as required to maintain clean air for construction operations.

#### 1.5 TEMPORARY WATER SERVICE

- A. Provide and pay for suitable quality water service as needed to maintain specified conditions for construction operations. Connect to existing water source where available as directed by the PHA.

#### 1.6 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facility use is not permitted. Provide facilities at time of project mobilization.

#### 1.7 VEHICULAR ACCESS

- A. Location as approved by PHA.
- B. Provide unimpeded access for emergency vehicles.
- C. Provide and maintain access to fire hydrants and control valves free of obstructions.
- D. Use existing on-site roads for construction traffic as directed by the PHA.

#### 1.8 PARKING

- A. Use of designated existing on-site streets and driveways used for construction traffic is permitted, as directed by the PHA.
- B. Use of designated areas of existing parking facilities used by construction personnel is permitted, as directed by the PHA.
- C. Do not allow heavy vehicles or construction equipment in parking areas.
- D. Maintenance:
  - 1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
  - 2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.
- E. Removal, Repair:
  - 1. Repair existing facilities damaged by use, to original condition.

## 1.9 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing spaces.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from site and dispose off-site.

## 1.10 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas to allow for PHA's use of site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by authorities having jurisdiction for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

## 1.11 ENCLOSURES AND FENCING

- A. Exterior Enclosures:
  - 1. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.
- B. Interior Enclosures:
  - 1. Provide temporary partitions as necessary, to prevent penetration of dust and moisture into PHA occupied areas, and to prevent damage to existing materials and equipment.

## 1.12 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

### 1.13 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

### 1.14 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

### PART 2 PRODUCTS

Not Used.

### PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 016000  
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Product substitution procedures.
- F. Equipment electrical characteristics and components.

1.2 PRODUCTS

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- C. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

#### 1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for any manufacturer not named in accordance with the following article.

#### 1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. A request constitutes a representation that Bidder:
  - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
  - 2. Will provide same warranty for Substitution as for specified product.
  - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to PHA.
  - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
  - 5. Will reimburse PHA and Architect/Engineer for review or redesign services associated with re-approval by authorities having jurisdiction.
- D. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.

E. Substitution Submittal Procedure:

1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
3. Architect/Engineer will notify Contractor in writing of decision to accept or reject request.

PART 2 PRODUCTS

2.1 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

- A. Wiring Terminations: Furnish terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Include lugs for terminal box.
- B. Cord and Plug: Furnish minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

PART 3 EXECUTION

Not Used.

END OF SECTION

## SECTION 017000

### EXECUTION AND CLOSEOUT REQUIREMENTS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Protecting installed construction.
- D. Project record documents.
- E. Operation and maintenance data.
- F. Manual for materials and finishes.
- G. Spare parts and maintenance products.
- H. Product warranties and product bonds.
- I. Maintenance service.

##### 1.2 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect/Engineer's review.
- B. Provide submittals to Architect/Engineer required by authorities having jurisdiction.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due. Including:
  - 1. Contractor's Notarized Final Waivers of Lien for full amount of contract.
  - 2. List of all subcontractors and major material suppliers and their final contract amount and notarized Final Waivers of Lien for the full amount.
  - 3. Consent of Surety Company to Final Payment (AIA Document G707).
  - 4. All written guarantees related to materials incorporated into project.
  - 5. Contractor's Certificate and Release, form in exact text as furnished by PHA, signed by Contractor.
- D. The PHA will process final statement in accord with conditions of the Contract.

### 1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
- D. Replace filters of operating equipment.
- E. Clean construction debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean construction debris from site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from site.

### 1.4 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

### 1.5 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Reviewed Shop Drawings, Product Data, and Samples.
  - 6. Manufacturer's instruction for assembly, installation, and adjusting.

- B. Ensure entries are complete and accurate, enabling future reference by PHA.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and modifications.
- F. Record Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 2. Field changes of dimension and detail.
  - 3. Details not on original Contract drawings.
- G. Submit documents to Architect/Engineer with claim for final Application for Payment.

#### 1.6 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three D side ring binders with durable plastic covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project.
- C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- E. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
  - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
  - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
    - a. Significant design criteria.
    - b. List of equipment.
    - c. Parts list for each component.
    - d. Operating instructions.
    - e. Maintenance instructions for equipment and systems.

- f. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
- 3. Part 3: Project documents and certificates, including the following:
  - a. Shop drawings and product data.
  - b. Air and water balance reports.
  - c. Certificates.
  - d. Originals of warranties.

#### 1.7 MANUAL FOR MATERIALS AND FINISHES

- A. For equipment, or component parts of equipment put into service during construction and operated by PHA, submit documents within ten days after acceptance.
- B. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.
- C. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- D. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- E. Additional Requirements: As specified in individual product specification sections.
- F. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

#### 1.8 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by PHA; obtain receipt prior to final payment.

#### 1.9 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.

- D. Co-execute submittals when required.
- E. Submit prior to final Application for Payment.
- F. Time of Submittals:
  - 1. For equipment or component parts of equipment put into service during construction with PHA's permission, submit documents within ten days after acceptance.
  - 2. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

#### 1.10 MAINTENANCE SERVICE

- A. Furnish service and maintenance of components indicated in specification sections.
- B. Examine system components at frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by manufacturer of original component.
- D. Do not assign or transfer maintenance service to agent or Subcontractor without prior written consent of PHA.

#### PART 2 PRODUCTS

Not Used.

#### PART 3 EXECUTION

Not Used.

END OF SECTION

## SECTION 22 05 23.12

### BALL VALVES FOR PLUMBING PIPING

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Brass ball valves.
  - 2. Stainless steel ball valves.

##### 1.2 DEFINITIONS

- A. CWP: Cold working pressure.
- B. RPTFE: Reinforced polytetrafluoroethylene.
- C. WOG: Water, oil, gas.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of valve.

##### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Prepare valves for shipping as follows:
  - 1. Protect internal parts against rust and corrosion.
  - 2. Protect threads, flange faces, and soldered ends.
  - 3. Set ball valves open to minimize exposure of functional surfaces.
- B. Use the following precautions during storage:
  - 1. Maintain valve end protection.
  - 2. Store valves indoors and maintain at higher-than-ambient-dew-point temperature. If outdoor storage is necessary, store valves off the ground in watertight enclosures.
- C. Use sling to handle large valves; rig sling to avoid damage to exposed parts. Do not use operating handles or stems as lifting or rigging points.

## PART 2 - PRODUCTS

### 2.1 SOURCE LIMITATIONS

- A. Obtain each type of valve from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

#### A. Standards:

- 1. Domestic water valves intended to convey or dispense water for human consumption must comply with the SDWA, requirements of authorities having jurisdiction, and NSF 61 and NSF 372, or must be certified to be in compliance with NSF 61 and NSF 372 (by an ANSI-accredited third-party certification body) that the weighted average lead content at wetted surfaces is less than or equal to 0.25 percent.

#### B. ASME Compliance:

- 1. ASME B1.20.1 for threads for threaded end valves.
- 2. ASME B16.5 for flanges on steel valves.
- 3. ASME B16.10 and ASME B16.34 for ferrous valve dimensions and design criteria.
- 4. ASME B16.18 for cast copper solder-joint connections.
- 5. ASME B16.22 for wrought copper and copper alloy solder-joint connections.
- 6. ASME B16.34 for flanged and threaded end connections
- 7. ASME B31.9 for building services piping valves.

- C. Provide bronze valves made with dezincification-resistant materials. Bronze valves made with copper alloy (brass) containing more than 15 percent zinc are not permitted.

- D. Valve Pressure-Temperature Ratings: Not less than indicated and as required for system pressures and temperatures.

- E. Valve Sizes: Same as upstream piping unless otherwise indicated.

#### F. Valve Actuator Type:

- 1. Hand Lever: For quarter-turn valves smaller than NPS 4 (DN 100).

#### G. Valves in Insulated Piping:

- 1. Provide 2-inch (50-mm) extended neck stems.
- 2. Extended operating handles with nonthermal-conductive covering material and protective sleeves that allow operation of valves without breaking vapor seals or disturbing insulation.
- 3. Memory stops that are fully adjustable after insulation is applied.

### 2.3 BRASS BALL VALVES

- 1. Standard: MSS SP-110, MSS SP-145.
- 2. CWP Rating: 400 psig (2760 kPa).
- 3. Body Design: One piece.
- 4. Body Material: Forged brass or bronze.

5. Ends: Threaded.
6. Seats: PTFE.
7. Stem: Brass or stainless steel.
8. Ball: Chrome-plated brass or stainless steel.
9. Port: Reduced.

B. Brass Ball Valves, Two Piece with Full Port and Brass Trim, Threaded or Soldered Ends:

1. Standard: MSS SP-110; MSS SP-145.
2. CWP Rating: 600 psig (4140 kPa).
3. Body Design: Two piece.
4. Body Material: Forged brass.
5. Ends: Threaded or soldered.
6. Seats: PTFE.
7. Stem: Brass.
8. Ball: Chrome-plated brass.
9. Port: Full.

C. Brass Ball Valves, Two Piece with Full Port and Stainless Steel Trim, Threaded or Soldered Ends:

1. Standard: MSS SP-110; MSS SP-145.
2. CWP Rating: 600 psig (4140 kPa).
3. Body Design: Two piece.
4. Body Material: Forged brass.
5. Ends: Threaded or soldered.
6. Seats: PTFE.
7. Stem: Stainless steel.
8. Ball: Stainless steel, vented.
9. Port: Full.

D. Brass Ball Valves, Two Piece with Regular Port and Brass Trim, Threaded or Soldered Ends:

1. <Double click here to find, evaluate, and insert list of manufacturers and products.>
2. Standard: MSS SP-110; MSS SP-145.
3. CWP Rating: 600 psig (4140 kPa).
4. Body Design: Two piece.
5. Body Material: Forged brass.
6. Ends: Threaded or soldered.
7. Seats: PTFE.
8. Stem: Brass.
9. Ball: Chrome-plated brass.
10. Port: Regular.

E. Brass Ball Valves, Two Piece with Regular Port and Stainless Steel Trim, Threaded or Soldered Ends:

1. Standard: MSS SP-110; MSS SP-145.
2. CWP Rating: 600 psig (4140 kPa).
3. Body Design: Two piece.
4. Body Material: Brass or bronze.
5. Ends: Threaded or soldered.
6. Seats: PTFE.
7. Stem: Stainless steel.
8. Ball: Stainless steel, vented.

9. Port: Regular.
- F. Brass Ball Valves, Three Piece with Full Port and Brass Trim, Threaded or Soldered Ends:
1. Standard: MSS SP-110; MSS SP-145.
  2. CWP Rating: 600 psig (4140 kPa).
  3. Body Design: Three piece.
  4. Body Material: Forged brass.
  5. Ends: Threaded or soldered.
  6. Seats: PTFE.
  7. Stem: Brass.
  8. Ball: Chrome-plated brass.
  9. Port: Full.
- G. Brass Ball Valves, Three Piece with Full Port and Stainless Steel Trim, Threaded or Soldered Ends:
1. Standard: MSS SP-110; MSS SP-145.
  2. CWP Rating: 600 psig (4140 kPa).
  3. Body Design: Three piece.
  4. Body Material: Forged brass.
  5. Ends: Threaded or soldered.
  6. Seats: PTFE.
  7. Stem: Stainless steel.
  8. Ball: Stainless steel, vented.
  9. Port: Full.

## 2.4 STAINLESS STEEL BALL VALVES

- A. Stainless Steel Ball Valves, Two Piece with Full Port, Threaded or Flanged Ends:
1. Standard: MSS SP-110; MSS SP-145.
  2. CWP Rating: 200 psig (1380 kPa).
  3. Body Design: Split body.
  4. Body Material: Type 316 stainless steel.
  5. Ends: Threaded or flanged.
  6. Seats: PTFE.
  7. Stem: Type 316 stainless steel.
  8. Ball: Type 316 stainless steel.
  9. Port: Full.
- B. Stainless Steel Ball Valves, Two Piece with Full Port, Press Ends:
1. Standard: MSS SP-110; MSS SP-145; IAPMO PS-117; ICC-ES LC1002.
  2. CWP Rating: Minimum 200 psig (1380 kPa).
  3. Body Design: Split body.
  4. Body Material: Type 316 stainless steel.
  5. Ends: Press.
  6. Press-End Connections Rating: Minimum 200 psig (1380 kPa).
  7. Seats: PTFE.
  8. Stem: Type 316 stainless steel.
  9. Ball: Type 316 stainless steel.
  10. Port: Full.
  11. O-Ring Seal: Buna-N or EPDM.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.
- B. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.
- C. Examine threads on valve and mating pipe for form and cleanliness.
- D. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, that its material composition is suitable for service, and that it is free from defects and damage.
- E. Do not attempt to repair defective valves; replace with new valves. Remove defective valves from site.

### 3.2 INSTALLATION OF VALVES

- A. Install valves with unions or flanges at each piece of equipment arranged to allow space for service, maintenance, and equipment removal without system shutdown.
- B. Provide support to piping adjacent to valves such that no force is imposed upon valves.
- C. Locate valves for easy access.
- D. For valves in horizontal piping, install valves with stem at or above center of pipe.
- E. Install valves in position to allow full valve actuation movement.
- F. Valve Tags: Comply with requirements in Section 220553 "Identification for Plumbing Piping and Equipment" for valve tags and schedules.
- G. Adhere to manufacturer's written installation instructions. When soldering or brazing valves, do not heat valves above maximum permitted temperature. Do not use solder with melting point temperature above valve manufacturer's recommended maximum.

### 3.3 ADJUSTING

- A. Adjust or replace valve packing after piping systems have been tested and put into service, but before final adjusting and balancing. Replace valves exhibiting leakage.

### 3.4 GENERAL REQUIREMENTS FOR VALVE APPLICATIONS

- A. If valves with specified CWP ratings are unavailable, provide the same types of valves with higher CWP ratings.
- B. Select valves with the following end connections:
  - 1. For Copper Tubing, NPS 2 (DN 50) and Smaller: Threaded ends except where solder-joint valve-end option or press-end option is indicated in valve schedules below.
  - 2. For Copper Tubing, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends except where threaded valve-end option is indicated in valve schedules below.
  - 3. For Copper Tubing, NPS 5 (DN 125) and Larger: Flanged ends.
  - 4. For Steel Piping, NPS 2 (DN 50) and Smaller: Threaded ends.
  - 5. For Steel Piping, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends except where threaded valve-end option is indicated in valve schedules below.
  - 6. For Steel Piping, NPS 5 (DN 125) and Larger: Flanged ends.
  - 7. For Stainless Steel Piping, NPS 2 (DN 50) and Smaller: Threaded ends.
  - 8. For Stainless Steel Piping, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends.
  - 9. For Stainless Steel Piping, NPS 2 (DN 50) and Smaller: Press ends.

### 3.5 DOMESTIC HOT- AND COLD-WATER VALVE SCHEDULE

- A. Pipe NPS 2 (DN 50) and Smaller:
  - 1. Brass ball valve, one piece. Provide with threaded or solder-joint ends.
  - 2. Brass ball valves, two piece with full or regular port, and brass or stainless steel trim. Provide with threaded or solder-joint ends.
  - 3. Stainless steel ball valves with threaded-joint ends.

END OF SECTION

## SECTION 22 05 29

### HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Metal pipe hangers and supports.
  - 2. Trapeze pipe hangers.
  - 3. Thermal hanger-shield inserts.
  - 4. Fastener systems.
  - 5. Equipment supports.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Welding certificates.

#### PART 2 - PRODUCTS

##### 2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7
  - 1. Design supports for multiple pipes, including pipe stands, capable of supporting combined weight of supported systems, system contents, and test water.
  - 2. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

##### 2.2 METAL PIPE HANGERS AND SUPPORTS

- A. Carbon-Steel Pipe Hangers and Supports:

1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
2. Galvanized Metallic Coatings: Pregalvanized, hot-dip galvanized, or electro-galvanized.
3. Nonmetallic Coatings: Plastic coated or epoxy powder coated.
4. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
5. Hanger Rods: Continuous-thread rod, nuts, and washer made of carbon steel

B. Stainless-Steel Pipe Hangers and Supports:

1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
2. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
3. Hanger Rods: Continuous-thread rod, nuts, and washer made of stainless steel.

C. Copper Pipe and Tube Hangers:

1. Description: MSS SP-58, Types 1 through 58, copper-coated-steel, factory-fabricated components.
2. Hanger Rods: Continuous-thread rod, nuts, and washer made of copper-coated steel or stainless steel.

## 2.3 TRAPEZE PIPE HANGERS

- A. Description: MSS SP-58, Type 59, shop- or field-fabricated pipe-support assembly, made from structural-carbon-steel shapes, with MSS SP-58 carbon-steel hanger rods, nuts, saddles, and U-bolts.

## 2.4 THERMAL HANGER-SHIELD INSERTS

- A. Insulation-Insert Material for Cold Piping: ASTM C552, Type II cellular glass with 100-psig (688-kPa) or ASTM C591, Type VI, Grade 1 polyisocyanurate with 125-psig (862-kPa) minimum compressive strength and vapor barrier.
- B. Insulation-Insert Material for Hot Piping: Water-repellent-treated, ASTM C533, Type I calcium silicate with 100-psig (688-kPa) or ASTM C552, Type II cellular glass with 100-psig (688-kPa) or ASTM C591, Type VI, Grade 1 polyisocyanurate with 125-psig (862-kPa) minimum compressive strength.
- C. For Trapeze or Clamped Systems: Insert and shield shall cover entire circumference of pipe.
- D. For Clevis or Band Hangers: Insert and shield shall cover lower 180 degrees of pipe.
- E. Insert Length: Extend 2 inches (50 mm) beyond sheet metal shield for piping operating below ambient air temperature.

## 2.5 FASTENER SYSTEMS

- A. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
- B. Mechanical-Expansion Anchors: Insert-wedge-type anchors, for use in hardened portland cement concrete, with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
  - 1. Indoor Applications: Zinc-coated or stainless steel.
  - 2. Outdoor Applications: Stainless steel.

## 2.6 MATERIALS

- A. Aluminum: ASTM B221 (ASTM B221M).
- B. Carbon Steel: ASTM A1011/A1011M.
- C. Structural Steel: ASTM A36/A36M carbon-steel plates, shapes, and bars; black and galvanized.
- D. Stainless Steel: ASTM A240/A240M.
- E. Grout: ASTM C1107/C1107M, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.
  - 1. Properties: Nonstaining, noncorrosive, and nongaseous.
  - 2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

## PART 3 - EXECUTION

### 3.1 APPLICATION

- A. Comply with requirements in Section 078413 "Penetration Firestopping" for firestopping materials and installation, for penetrations through fire-rated walls, ceilings, and assemblies.
- B. Strength of Support Assemblies: Where not indicated, select sizes of components, so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg)

### 3.2 HANGER AND SUPPORT INSTALLATION

- A. Metal Pipe-Hanger Installation: Comply with MSS SP-58. Install hangers, supports, clamps, and attachments as required to properly support piping from building structure.
- B. Metal Trapeze Pipe-Hanger Installation: Comply with MSS SP-58. Arrange for grouping of parallel runs of horizontal piping, and support together on field-fabricated trapeze pipe hangers.

1. Pipes of Various Sizes: Support together and space trapezes for smallest pipe size, or install intermediate supports for smaller-diameter pipes as specified for individual pipe hangers.
  2. Field fabricate from ASTM A36/A36M carbon-steel shapes selected for loads being supported. Weld steel according to AWS D1.1/D1.1M.
- C. Thermal Hanger-Shield Installation: Install in pipe hanger or shield for insulated piping.
- D. Fastener System Installation:
1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches (100 mm) thick in concrete, after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.
  2. Install mechanical-expansion anchors in concrete, after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions.
- E. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.
- F. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- G. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms, and install reinforcing bars through openings at top of inserts.
- H. Load Distribution: Install hangers and supports, so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- I. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.
- J. Insulated Piping:
1. Attach clamps and spacers to piping.
    - a. Piping Operating Above Ambient Air Temperature: Clamp may project through insulation.
    - b. Piping Operating Below Ambient Air Temperature: Use thermal hanger-shield insert with clamp sized to match OD of insert.
    - c. Do not exceed pipe stress limits allowed by ASME B31.9 for building services piping.
  2. Install MSS SP-58, Type 39 protection saddles if insulation without vapor barrier is indicated. Fill interior voids with insulation that matches adjoining insulation.
    - a. Option: Thermal hanger-shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.

3. Install MSS SP-58, Type 40 protective shields on cold piping with vapor barrier. Shields shall span an arc of 180 degrees.
  - a. Option: Thermal hanger-shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.
4. Shield Dimensions for Pipe: Not less than the following:
  - a. NPS 1/4 to NPS 3-1/2 (DN 8 to DN 90): 12 inches (305 mm) long and 0.048 inch (1.22 mm) thick.
  - b. NPS 4 (DN 100): 12 inches (305 mm) long and 0.06 inch (1.52 mm) thick.
  - c. NPS 5 and NPS 6 (DN 125 and DN 150): 18 inches (457 mm) long and 0.06 inch (1.52 mm) thick.
  - d. NPS 8 to NPS 14 (DN 200 to DN 350): 24 inches (610 mm) long and 0.075 inch (1.91 mm) thick.
  - e. NPS 16 to NPS 24 (DN 400 to DN 600): 24 inches (610 mm) long and 0.105 inch (2.67 mm) thick.
5. Pipes NPS 8 (DN 200) and Larger: Include wood or reinforced calcium-silicate-insulation inserts of length at least as long as protective shield.
6. Thermal Hanger Shields: Install with insulation of same thickness as piping insulation.

### 3.3 ADJUSTING

- A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.
- B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches (40 mm).

### 3.4 HANGER AND SUPPORT SCHEDULE

- A. Specific hanger and support requirements are in Sections specifying piping systems and equipment.
- B. Comply with MSS SP-58 for pipe-hanger selections and applications that are not specified in piping system Sections.
- C. Use hangers and supports with galvanized metallic coatings for piping and equipment that will not have field-applied finishes.
- D. Use nonmetallic coatings on attachments for electrolytic protection where attachments are in direct contact with copper tubing.
- E. Use carbon-steel pipe hangers and supports and metal trapeze pipe hangers and attachments for general service applications.
- F. Use copper-plated pipe hangers and copper or stainless-steel attachments for copper piping and tubing.

- G. Use padded hangers for piping that is subject to scratching.
- H. Use thermal hanger-shield inserts for insulated piping and tubing.
- I. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
  1. Adjustable, Steel Clevis Hangers (MSS Type 1): For suspension of noninsulated or insulated, stationary pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).
  2. Yoke-Type Pipe Clamps (MSS Type 2): For suspension of up to 1050 deg F (566 deg C) pipes NPS 4 to NPS 24 (DN 100 to DN 600), requiring up to 4 inches (100 mm) of insulation.
  3. Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3): For suspension of pipes NPS 3/4 to NPS 36 (DN 20 to DN 900), requiring clamp flexibility and up to 4 inches (100 mm) of insulation.
  4. Steel Pipe Clamps (MSS Type 4): For suspension of cold and hot pipes NPS 1/2 to NPS 24 (DN 15 to DN 600) if little or no insulation is required.
  5. Pipe Hangers (MSS Type 5): For suspension of pipes NPS 1/2 to NPS 4 (DN 15 to DN 100), to allow off-center closure for hanger installation before pipe erection.
  6. Adjustable, Swivel Split- or Solid-Ring Hangers (MSS Type 6): For suspension of noninsulated, stationary pipes NPS 3/4 to NPS 8 (DN 20 to DN 200).
  7. Adjustable, Steel Band Hangers (MSS Type 7): For suspension of noninsulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
  8. Adjustable Band Hangers (MSS Type 9): For suspension of noninsulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
  9. Adjustable, Swivel-Ring Band Hangers (MSS Type 10): For suspension of noninsulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
  10. Split Pipe Ring with or without Turnbuckle Hangers (MSS Type 11): For suspension of noninsulated, stationary pipes NPS 3/8 to NPS 8 (DN 10 to DN 200).
  11. Extension Hinged or Two-Bolt Split Pipe Clamps (MSS Type 12): For suspension of noninsulated, stationary pipes NPS 3/8 to NPS 3 (DN 10 to DN 80).
  12. U-Bolts (MSS Type 24): For support of heavy pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).
  13. Clips (MSS Type 26): For support of insulated pipes not subject to expansion or contraction.
  14. Pipe Saddle Supports (MSS Type 36): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate.
  15. Pipe Stanchion Saddles (MSS Type 37): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate, and with U-bolt to retain pipe.
  16. Adjustable Pipe Saddle Supports (MSS Type 38): For stanchion-type support for pipes NPS 2-1/2 to NPS 36 (DN 65 to DN 900) if vertical adjustment is required, with steel-pipe base stanchion support and cast-iron floor flange.
  17. Single-Pipe Rolls (MSS Type 41): For suspension of pipes NPS 1 to NPS 30 (DN 25 to DN 750), from two rods if longitudinal movement caused by expansion and contraction occurs.
  18. Adjustable Roller Hangers (MSS Type 43): For suspension of pipes NPS 2-1/2 to NPS 24 (DN 65 to DN 600), from single rod if horizontal movement caused by expansion and contraction occurs.

19. Complete Pipe Rolls (MSS Type 44): For support of pipes NPS 2 to NPS 42 (DN 50 to DN 1050) if longitudinal movement caused by expansion and contraction occurs but vertical adjustment is unnecessary.
  20. Pipe Roll and Plate Units (MSS Type 45): For support of pipes NPS 2 to NPS 24 (DN 50 to DN 600) if small horizontal movement caused by expansion and contraction occurs and vertical adjustment is unnecessary.
  21. Adjustable Pipe Roll and Base Units (MSS Type 46): For support of pipes NPS 2 to NPS 30 (DN 50 to DN 750) if vertical and lateral adjustment during installation, in addition to expansion and contraction, is required.
- J. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers NPS 3/4 to NPS 24 (DN 24 to DN 600).
  2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers NPS 3/4 to NPS 24 (DN 20 to DN 600) if longer ends are required for riser clamps.
- K. Hanger-Rod Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel Turnbuckles (MSS Type 13): For adjustment of up to 6 inches (150 mm) for heavy loads.
  2. Steel Clevises (MSS Type 14): For 120 to 450 deg F (49 to 232 deg C) piping installations.
  3. Swivel Turnbuckles (MSS Type 15): For use with MSS Type 11 split pipe rings.
  4. Malleable-Iron Sockets (MSS Type 16): For attaching hanger rods to various types of building attachments.
  5. Steel Weldless Eye Nuts (MSS Type 17): For 120 to 450 deg F (49 to 232 deg C) piping installations.
- L. Building Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel or Malleable-Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.
  2. Top-Beam C-Clamps (MSS Type 19): For use under roof installations with bar-joist construction, to attach to top flange of structural shape.
  3. Side-Beam or Channel Clamps (MSS Type 20): For attaching to bottom flange of beams, channels, or angles.
  4. Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.
  5. Welded Beam Attachments (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.
  6. C-Clamps (MSS Type 23): For structural shapes.
  7. Top-Beam Clamps (MSS Type 25): For top of beams if hanger rod is required tangent to flange edge.
  8. Side-Beam Clamps (MSS Type 27): For bottom of steel I-beams.
  9. Steel-Beam Clamps with Eye Nuts (MSS Type 28): For attaching to bottom of steel I-beams for heavy loads.
  10. Linked-Steel Clamps with Eye Nuts (MSS Type 29): For attaching to bottom of steel I-beams for heavy loads, with link extensions.

11. Malleable-Beam Clamps with Extension Pieces (MSS Type 30): For attaching to structural steel.
  12. Welded-Steel Brackets: For support of pipes from below or for suspending from above by using clip and rod. Use one of the following for indicated loads:
    - a. Light (MSS Type 31): 750 lb (340 kg).
    - b. Medium (MSS Type 32): 1500 lb (680 kg).
    - c. Heavy (MSS Type 33): 3000 lb (1360 kg).
  13. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
  14. Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.
  15. Horizontal Travelers (MSS Type 58): For supporting piping systems subject to linear horizontal movement where headroom is limited.
- M. Saddles and Shields: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel-Pipe-Covering Protection Saddles (MSS Type 39): To fill interior voids with insulation that matches adjoining insulation.
  2. Protection Shields (MSS Type 40): Of length recommended in writing by manufacturer to prevent crushing insulation.
  3. Thermal Hanger-Shield Inserts: For supporting insulated pipe.
- N. Spring Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Restraint-Control Devices (MSS Type 47): Where indicated to control piping movement.
  2. Spring Cushions (MSS Type 48): For light loads if vertical movement does not exceed 1-1/4 inches (32 mm).
  3. Spring-Cushion Roll Hangers (MSS Type 49): For equipping Type 41 roll hanger with springs.
  4. Spring Sway Braces (MSS Type 50): To retard sway, shock, vibration, or thermal expansion in piping systems.
  5. Variable-Spring Hangers (MSS Type 51): Preset to indicated load, and limit variability factor to 25 percent to allow expansion and contraction of piping system from hanger.
  6. Variable-Spring Base Supports (MSS Type 52): Preset to indicated load, and limit variability factor to 25 percent to allow expansion and contraction of piping system from base support.
  7. Variable-Spring Trapeze Hangers (MSS Type 53): Preset to indicated load, and limit variability factor to 25 percent to allow expansion and contraction of piping system from trapeze support.
  8. Constant Supports: For critical piping stress and if necessary to avoid transfer of stress from one support to another support, critical terminal, or connected equipment. Include auxiliary stops for erection, hydrostatic test, and load-adjustment capability. These supports include the following types:
    - a. Horizontal (MSS Type 54): Mounted horizontally.
    - b. Vertical (MSS Type 55): Mounted vertically.
    - c. Trapeze (MSS Type 56): Two vertical-type supports and one trapeze member.

- O. Comply with MSS SP-58 for trapeze pipe-hanger selections and applications that are not specified in piping system Sections.
- P. Comply with MFMA-103 for metal framing system selections and applications that are not specified in piping system Sections.
- Q. Use powder-actuated fasteners or mechanical-expansion anchors instead of building attachments where required in concrete construction.
- R. Use pipe-positioning systems in pipe spaces behind plumbing fixtures to support supply and waste piping for plumbing fixtures.

END OF SECTION

## SECTION 22 05 53

### IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.1 SUMMARY

###### A. Section Includes:

1. Equipment labels.
2. Warning signs and labels.
3. Warning tape.
4. Pipe labels.
5. Stencils.
6. Valve tags.
7. Warning tags.

###### B. Related Requirements:

##### 1.2 ACTION SUBMITTALS

###### A. Product Data: For each type of product indicated.

#### PART 2 - PRODUCTS

##### 2.1 EQUIPMENT LABELS

###### A. Metal Labels for Equipment:

1. Material and Thickness: Brass, 0.032-inch (0.8-mm) or stainless steel, 0.025-inch (0.64-mm) or aluminum, 0.032-inch (0.8-mm) minimum thickness, with predrilled or stamped holes for attachment hardware.
2. Letter and Background Color: As indicated for specific application under Part 3.
3. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
4. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances of up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
5. Fasteners: Stainless steel rivets or self-tapping screws.
6. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

###### B. Plastic Labels for Equipment:

1. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch (3.2 mm) thick, with predrilled holes for attachment hardware.
2. Letter and Background Color: As indicated for specific application under Part 3.

3. Maximum Temperature: Able to withstand temperatures of up to 160 deg F (71 deg C).
  4. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
  5. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances of up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
  6. Fasteners: Stainless steel rivets or self-tapping screws.
  7. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.
- C. Label Content: Include equipment's Drawing designation or unique equipment number, Drawing numbers where equipment is indicated (plans, details, and schedules), and the Specification Section number and title where equipment is specified.

## 2.2 WARNING SIGNS AND LABELS

- A. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch (3.2 mm) thick, with predrilled holes for attachment hardware.
- B. Letter and Background Color: As indicated for specific application under Part 3.
- C. Maximum Temperature: Able to withstand temperatures of up to 160 deg F (71 deg C).
- D. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
- E. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances of up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
- F. Fasteners: Stainless steel rivets or self-tapping screws.
- G. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.
- H. Arc-Flash Warning Signs: Provide arc-flash warning signs in locations and with content in accordance with requirements of OSHA and NFPA 70E, and other applicable codes and standards.
- I. Label Content: Include caution and warning information plus emergency notification instructions.

## 2.3 PIPE LABELS

- A. General Requirements for Manufactured Pipe Labels: Preprinted, color coded, with lettering indicating service and showing flow direction in accordance with ASME A13.1.
- B. Letter and Background Color: As indicated for specific application under Part 3.
- C. Pretensioned Pipe Labels: Precoiled, semirigid plastic formed to partially cover circumference of pipe and to attach to pipe without fasteners or adhesive.

- D. Self-Adhesive Pipe Labels: Printed plastic with contact-type, permanent-adhesive backing.
- E. Pipe Label Contents: Include identification of piping service using same designations or abbreviations as used on Drawings. Also include:
  - 1. Pipe size.
  - 2. Flow-Direction Arrows: Include flow-direction arrows on[ main] distribution piping. Arrows may be either integral with label or applied separately.
  - 3. Lettering Size: Size letters in accordance with ASME A13.1 for piping.

## 2.4 VALVE TAGS

- A. Description: Stamped or engraved with 1/4-inch (6.4-mm) letters for piping system abbreviation and 1/2-inch (13-mm) numbers.
  - 1. Tag Material: Brass, 0.04-inch (1.0-mm) or stainless steel, 0.024-inch (0.61-mm) or aluminum, 0.031-inch (0.79-mm) or anodized aluminum, 0.031-inch (0.79-mm) minimum thickness, with predrilled or stamped holes for attachment hardware.
  - 2. Fasteners: Brass wire or link chain or S-hook.
- B. Letter and Background Color: As indicated for specific application under Part 3.
- C. Valve Schedules: For each piping system, on 8-1/2-by-11-inch (A4) bond paper. Tabulate valve number, piping system, system abbreviation (as shown on valve tag), location of valve (room or space), normal operating position (open, closed, or modulating), and variations for identification. Mark valves for emergency shutoff and similar special uses.
  - 1. Include valve-tag schedule in operation and maintenance data.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Clean piping and equipment surfaces of incompatible primers, paints, and encapsulants, as well as dirt, oil, grease, release agents, and other substances that could impair bond of identification devices.

### 3.2 INSTALLATION, GENERAL REQUIREMENTS

- A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- B. Coordinate installation of identifying devices with locations of access panels and doors.
- C. Install identifying devices before installing acoustical ceilings and similar concealment.
- D. Locate identifying devices so that they are readily visible from the point of normal approach.

### 3.3 INSTALLATION OF EQUIPMENT LABELS, WARNING SIGNS, AND LABELS

- A. Permanently fasten labels on each item of plumbing equipment.
- B. Sign and Label Colors.
  - 1. White letters on an ANSI Z535.1 safety-green background.
- C. Locate equipment labels where accessible and visible.
- D. Arc-Flash Warning Signs: Provide arc-flash warning signs on electrical disconnects and other equipment where are-flash hazard exists, as indicated on Drawings, and in accordance with requirements of OSHA and NFPA 70E, and other applicable codes and standards.

### 3.4 INSTALLATION OF WARNING TAPE

- A. Warning Tape Color and Pattern: Yellow background with black diagonal stripes
- B. Install warning tape on pipes and ducts, with cross-designated walkways providing less than 6 ft. (2 m) of clearance.
- C. Locate tape so as to be readily visible from the point of normal approach.

### 3.5 INSTALLATION OF PIPE LABELS

- A. Install pipe labels showing service and flow direction with permanent adhesive on pipes.
- B. Pipe-Label Locations: Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:
  - 1. Within 3 ft. (1 m) of each valve and control device.
  - 2. At access doors, manholes, and similar access points that permit view of concealed piping.
  - 3. Within 3 ft. (1 m) of equipment items and other points of origination and termination.
  - 4. Spaced at maximum intervals of 25 ft. (8 m) along each run. Reduce intervals to 10 ft. (3 m) in areas of congested piping and equipment.
- C. Do not apply plastic pipe labels or plastic tapes directly to bare pipes conveying fluids at temperatures of 125 deg F (52 deg C) or higher. Where these pipes are to remain uninsulated, use a short section of insulation or use stenciled labels.
- D. Flow-Direction Flow Arrows: Use arrows, in compliance with ASME A13.1, to indicate direction of flow in pipes, including pipes where flow is allowed in both directions.
- E. Pipe-Label Color Schedule:
  - 1. Domestic Cold-Water Piping: White letters on an ANSI Z535.1 safety-green background.
  - 2. Domestic Hot-Water Piping: White letters on an ANSI Z535.1 safety-green background

### 3.6 INSTALLATION OF VALVE TAGS

- A. Install tags on valves and control devices in piping systems, except check valves, valves within factory-fabricated equipment units, shutoff valves, faucets, convenience and lawn-watering hose connections, and similar roughing-in connections of end-use fixtures and units. List tagged valves in a valve schedule in the operating and maintenance manual.
- B. Valve-Tag Application Schedule: Tag valves according to size, shape, and color scheme and with captions similar to those indicated in "Valve-Tag Size and Shape" Subparagraph below:
  - 1. Valve-Tag Size and Shape:
    - a. Domestic Cold Water: 1-1/2 inches (38 mm), round
    - b. Domestic Hot Water: 1-1/2 inches (38 mm), round.
  - 2. Valve-Tag Colors:
    - a. For each piping system, use the same lettering and background coloring system on valve tags as used in the piping system labels and background.

END OF SECTION

## SECTION 22 11 16

### DOMESTIC WATER PIPING

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Copper tube and fittings.
  - 2. Stainless steel piping and fittings.
  - 3. CPVC piping.
  - 4. PEX tube and fittings.
  - 5. PEX-AL-PEX tube and fittings.
  - 6. PEX-AL-HDPE tube and fittings.
  - 7. PVC pipe and fittings.
  - 8. Piping joining materials.
  - 9. Encasement for piping.
  - 10. Transition fittings.
  - 11. Dielectric fittings.

##### 1.3 ACTION SUBMITTALS

- A. Product Data:
  - 1. Pipe and tube.
  - 2. Fittings.
  - 3. Joining materials.
  - 4. Transition fittings.

##### 1.4 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Piping layout, or BIM model, drawn to scale, showing the items described in this Section, and coordinated with all building trades.
- B. System purging and disinfecting activities report.
- C. Field quality-control reports.

## PART 2 - PRODUCTS

### 2.1 PIPING MATERIALS

- A. Potable-water piping and components shall comply with NSF 14, NSF 61, and NSF 372.

### 2.2 COPPER TUBE AND FITTINGS

- A. Drawn-Temper Copper Tube: ASTM B88, Type K (ASTM B88M, Type A), ASTM B88, Type L (ASTM B88M, Type B) and ASTM B88, Type M (ASTM B88M, Type C).
- B. Annealed-Temper Copper Tube: ASTM B88, Type K (ASTM B88M, Type A), ASTM B88, Type L (ASTM B88M, Type B) and ASTM B88, Type M (ASTM B88M, Type C).
- C. Cast-Copper, Solder-Joint Fittings: ASME B16.18, pressure fittings.
- D. Wrought-Copper, Solder-Joint Fittings: ASME B16.22, pressure fittings.
- E. Bronze Flanges: ASME B16.24, Class 150, with solder-joint ends.
- F. Cast Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body, with ball-and-socket, metal-to-metal seating surfaces and solder-joint or threaded ends.
- G. Wrought Copper Unions: ASME B16.22.
- H. Copper-Tube, Mechanically Formed Tee Fitting: For forming T-branch on copper water tube.
  - 1. Description: Tee formed in copper tube in accordance with ASTM F2014.
- I. Grooved, Mechanical-Joint, Copper Tube Appurtenances:
  - 1. Grooved-End, Copper Fittings: ASTM B75 (ASTM B75M) copper tube or ASTM B584 bronze castings.
  - 2. Grooved-End-Tube Couplings: To fit copper-tube dimensions; rigid pattern unless otherwise indicated; gasketed fitting, EPDM-rubber gasket, UL classified per NSF 61 and NSF 372, and rated for minimum 180 deg F (80 deg C), for use with ferrous housing and steel bolts and nuts; 300 psig (2060 kPa) minimum CWP pressure rating.

### 2.3 STAINLESS STEEL PIPING

- A. Potable-water piping and components shall comply with NSF 61 and NSF 372.
- B. Stainless Steel Pipe: ASTM A312/A312M, with wall thickness as indicated in "Piping Applications" Article.
- C. Stainless Steel Pipe Fittings: ASTM A815/A815M.
- D. Appurtenances for Grooved-End, Stainless Steel Pipe:
  - 1. Fittings for Grooved-End, Stainless Steel Pipe: Stainless steel casting with dimensions matching stainless steel pipe.
  - 2. Mechanical Couplings for Grooved-End, Stainless Steel Pipe:

- a. AWWA C606 for stainless steel-pipe dimensions.
- b. Stainless steel housing sections.
- c. Stainless steel bolts and nuts.
- d. EPDM-rubber gaskets suitable for hot and cold water.
- e. Minimum Pressure Rating:
  - 1) NPS 8 (DN 200) and Smaller: 600 psig (4137 kPa).
  - 2) NPS 10 and NPS 12 (DN 250 to DN 300): 400 psig (2758 kPa)
  - 3) NPS 14 to NPS 24 (DN 350 to DN 600): 250 psig (1725 kPa)

E. Stainless Steel Piping , Pressure-Seal-Joint Fittings:

- 1. Material: Type 316 stainless steel, ASTM A312/A312M, Schedule 10.
- 2. Fittings: Type 316 stainless steel with EPDM O-ring seal in each end, and approved for potable water applications.
- 3. Listing: ICC-ES LC1002 or UL Classified in accordance with ANSI/NSF 61 and 372.
- 4. Minimum 200-psig (1379-kPa) working-pressure rating at 250 deg F (121 deg C).

## 2.4 CPVC PIPING

- A. CPVC Pipe: ASTM F441/F441M, with wall thickness as indicated in "Piping Applications" Article.
  - 1. CPVC Socket Fittings: ASTM F438 for Schedule 40 and ASTM F439 for Schedule 80.
  - 2. CPVC Threaded Fittings: ASTM F437, Schedule 80.
- B. CPVC Piping System: ASTM D2846/D2846M, SDR 11, pipe and socket fittings.
- C. CPVC Tubing System: ASTM D2846/D2846M, SDR 11, tube and socket fittings.

## 2.5 PEX TUBE AND FITTINGS

- A. Tube Material: PEX plastic according to ASTM F876 and ASTM F877.
- B. Fittings: ASTM F1807, metal insert and copper crimp rings
- C. Push-Fit Fittings: ASSE 1061, push-fit fittings.
- D. Manifold: Multiple-outlet, plastic or corrosion-resistant-metal assembly complying with ASTM F876; with plastic or corrosion-resistant-metal valve for each outlet.

## 2.6 PEX-AL-PEX TUBE AND FITTINGS

- A. Tube Material: PEX plastic bonded to the inside and outside of a welded aluminum tube according to ASTM F1281.
- B. Fittings: ASTM F1974, metal insert fittings with split ring and compression nut (compression joint) or metal insert fittings with copper crimp rings (crimp joint).

## 2.7 PEX-AL-HDPE TUBE AND FITTINGS

- A. Tube Material: ASTM F1986 tubing.
- B. Fittings for PEX-AL-HDPE Tube: ASTM F1986, metal-insert type with copper or stainless steel crimp ring and matching PEX-AL-HDPE tube dimensions.

## 2.8 PVC PIPE AND FITTINGS

- A. PVC Pipe: ASTM D1785, with wall thickness as indicated in "Piping Applications" Article.
- B. PVC Socket Fittings: ASTM D2466 for Schedule 40 and ASTM D2467 for Schedule 80.
- C. PVC Schedule 80 Threaded Fittings: ASTM D2464.

## 2.9 PIPING JOINING MATERIALS

- A. Pipe-Flange Gasket Materials:
  - 1. AWWA C110/A21.10, rubber, flat face, 1/8 inch (3.2 mm) thick or ASME B16.21, nonmetallic and asbestos free unless otherwise indicated.
  - 2. Full-face or ring type unless otherwise indicated.
- B. Metal, Pipe-Flange Bolts and Nuts: ASME B18.2.1, carbon steel unless otherwise indicated.
- C. Solder Filler Metals: ASTM B32, lead-free alloys.
- D. Flux: ASTM B813, water flushable.
- E. Brazing Filler Metals: AWS A5.8M/A5.8, BCuP Series, copper-phosphorus alloys for general-duty brazing unless otherwise indicated.
- F. Solvent Cements for Joining CPVC Piping and Tubing: ASTM F493.
- G. Solvent Cements for Joining PVC Piping: ASTM D2564. Include primer according to ASTM F656.
- H. Plastic, Pipe-Flange Gaskets, Bolts, and Nuts: Type and material recommended by piping system manufacturer unless otherwise indicated.

## 2.10 ENCASEMENT FOR PIPING

- A. Standard: ASTM A674 or AWWA C105/A21.5.
- B. Form: Sheet or tube.
- C. Color: Black or natural

## 2.11 TRANSITION FITTINGS

### A. General Requirements:

1. Same size as pipes to be joined.
2. Pressure rating at least equal to pipes to be joined.
3. End connections compatible with pipes to be joined.

### B. Fitting-Type Transition Couplings: Manufactured piping coupling or specified piping system fitting.

### C. Sleeve-Type Transition Coupling: AWWA C219.

### D. Plastic-to-Metal Transition Fittings:

1. Description:
  - a. CPVC or PVC one-piece fitting with manufacturer's Schedule 80 equivalent dimensions.
  - b. One end with threaded brass insert and one solvent-cement-socket[ or threaded] end.

### E. Plastic-to-Metal Transition Unions:

1. Description:
  - a. CPVC or PVC four-part union.
  - b. Brass or stainless steel threaded end.
  - c. Solvent-cement-joint or threaded plastic end.
  - d. Rubber O-ring.
  - e. Union nut.

## 2.12 DIELECTRIC FITTINGS

### A. General Requirements: Assembly of copper alloy and ferrous materials with separating nonconductive insulating material. Include end connections compatible with pipes to be joined.

### B. Dielectric Unions:

1. Standard: ASSE 1079.
2. Pressure Rating: 150 psig (1035 kPa)
3. End Connections: Solder-joint copper alloy and threaded ferrous.

### C. Dielectric Flanges:

1. Standard: ASSE 1079.
2. Factory-fabricated, bolted, companion-flange assembly.
3. Pressure Rating: 150 psig (1035 kPa)
4. End Connections: Solder-joint copper alloy and threaded ferrous; threaded solder-joint copper alloy and threaded ferrous.

### D. Dielectric-Flange Insulating Kits:

1. Nonconducting materials for field assembly of companion flanges.
2. Pressure Rating: 150 psig (1035 kPa)
3. Gasket: Neoprene or phenolic.

4. Bolt Sleeves: Phenolic or polyethylene.
  5. Washers: Phenolic with steel backing washers.
- E. Dielectric Nipples:
1. Standard: IAPMO PS 66.
  2. Electroplated steel nipple complying with ASTM F1545.
  3. Pressure Rating and Temperature: 300 psig (2070 kPa) at 225 deg F (107 deg C)
  4. End Connections: Male threaded or grooved.
  5. Lining: Inert and noncorrosive, propylene.

## PART 3 - EXECUTION

### 3.1 PIPING APPLICATIONS

- A. Transition and special fittings with pressure ratings at least equal to piping rating may be used in applications below unless otherwise indicated.
- B. Flanges and unions may be used for aboveground piping joints unless otherwise indicated.
- C. Aboveground domestic water piping, NPS 2 (DN 50) and smaller, shall be the following:
  1. Drawn-temper copper tube, ASTM B88, Type L (ASTM B88M, Type B) or ASTM B88, Type M (ASTM B88M, Type C); wrought-copper, solder-joint fittings; and brazed or soldered joints.
  2. Stainless steel, Schedule 10 pipe; pressure-seal-joint fittings; and pressure-sealed joints.
  3. PEX tube, NPS 1 (DN 25) and smaller.
    - a. Fittings for PEX tube:
      - 1) ASTM F1807, metal insert and copper crimp rings.
      - 2) ASTM F1960, cold expansion fittings and reinforcing rings.
      - 3) ASSE 1061, push-fit fittings.
  4. PE-AL-PE tube, NPS 1 (DN 25) and smaller; fittings for PE-AL-PE tube; and crimped joints
  5. PEX-AL-PEX tube, NPS 1 (DN 25) and smaller; fittings for PEX-AL-PEX tube; and crimped joints.

### 3.2 INSTALLATION OF PIPING

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of domestic water piping. Indicated locations and arrangements are used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on coordination drawings.
- B. Install copper tubing under building slab according to CDA's "Copper Tube Handbook."
- C. Install ductile-iron piping under building slab with restrained joints according to AWWA C600 and AWWA M41.

- D. Install underground copper tube in PE encasement according to ASTM A674 or AWWA C105/A21.5.
- E. Install valves according to the following:
  - 1. Section 220523.12 "Ball Valves for Plumbing Piping."
- F. Install water-pressure-reducing valves downstream from shutoff valves.
- G. Install domestic water piping level with 0.25 percent slope downward toward drain and plumb.
- H. Install piping concealed from view and protected from physical contact by building occupants unless otherwise indicated and except in equipment rooms and service areas.
- I. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- J. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal, and coordinate with other services occupying that space.
- K. Install piping to permit valve servicing.
- L. Install nipples, unions, special fittings, and valves with pressure ratings the same as or higher than the system pressure rating used in applications below unless otherwise indicated.
- M. Install piping free of sags and bends.
- N. Install fittings for changes in direction and branch connections.
- O. Install PEX tubing with loop at each change of direction of more than 90 degrees.
- P. Install unions in copper tubing at final connection to each piece of equipment, machine, and specialty.
- Q. Install sleeves for piping penetrations of walls, ceilings, and floors.
- R. Install sleeve seals for piping penetrations of concrete walls and slabs.
- S. Install escutcheons for piping penetrations of walls, ceilings, and floors.

### 3.3 JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly.
- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:

1. Apply appropriate tape or thread compound to external pipe threads.
  2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged.
- D. Brazed Joints for Copper Tubing: Comply with CDA's "Copper Tube Handbook," "Braze Joints" chapter.
- E. Soldered Joints for Copper Tubing: Apply ASTM B813, water-flushable flux to end of tube. Join copper tube and fittings according to ASTM B828 or CDA's "Copper Tube Handbook."
- F. Push-on Joints for Copper Tubing: Clean end of tube. Measure insertion depth with manufacturer's depth gage. Join copper tube and push-on-joint fittings by inserting tube to measured depth.
- G. Extruded-Tee Connections: Form tee in copper tube according to ASTM F2014. Use tool designed for copper tube; drill pilot hole, form collar for outlet, dimple tube to form seating stop, and braze branch tube into collar.
- H. Flanged Joints: Select appropriate asbestos-free, nonmetallic gasket material in size, type, and thickness suitable for domestic water service. Join flanges with gasket and bolts according to ASME B31.9.
- I. Joint Construction for Solvent-Cemented Plastic Piping: Clean and dry joining surfaces. Join pipe and fittings according to the following:
1. Comply with ASTM F402 for safe-handling practice of cleaners, primers, and solvent cements. Apply primer.
  2. CPVC Piping: Join according to ASTM D2846/D2846M Appendix.
  3. PVC Piping: Join according to ASTM D2855.
- J. Joints for PEX Tubing, ASTM: Join according to ASTM F1807 for metal insert and copper crimp ring fittings and ASTM F1960 for cold expansion fittings and reinforcing rings.
- K. Joints for PEX Tubing, ASSE: Join according to ASSE 1061 for push-fit fittings.
- L. Joints for Dissimilar-Material Piping: Make joints using adapters compatible with materials of both piping systems.

### 3.4 INSTALLATION OF TRANSITION FITTINGS

- A. Install transition couplings at joints of dissimilar piping.
- B. Transition Fittings in Underground Domestic Water Piping:
1. Fittings for NPS 1-1/2 (DN 40) and Smaller: Fitting-type coupling.
  2. Fittings for NPS 2 (DN 50) and Larger: Sleeve-type coupling.
- C. Transition Fittings in Aboveground Domestic Water Piping NPS 2 (DN 50) and Smaller: Plastic-to-metal transition fittings or unions.

### 3.5 INSTALLATION OF DIELECTRIC FITTINGS

- A. Install dielectric fittings in piping at connections of dissimilar metal piping and tubing.
- B. Dielectric Fittings for NPS 2 (DN 50) and Smaller: Use dielectric couplings or nipples or unions.

### 3.6 INSTALLATION OF HANGERS AND SUPPORTS

- A. Comply with requirements for hangers, supports, and anchor devices in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."
- B. Install hangers for copper and stainless steel tubing and piping, with maximum horizontal spacing and minimum rod diameters, to comply with MSS-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.
- C. Install vinyl-coated hangers for PEX tubing, with maximum horizontal spacing and minimum rod diameters, to comply with manufacturer's written instructions, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.
- D. Support horizontal piping within 12 inches (300 mm) of each fitting.
- E. Support vertical runs of copper and stainless steel tubing and piping to comply with MSS-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.
- F. Support vertical runs of PEX tubing to comply with manufacturer's written instructions, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.

### 3.7 CONNECTIONS

- A. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. When installing piping adjacent to equipment and machines, allow space for service and maintenance.
- C. Connect domestic water piping to exterior water-service piping. Use transition fitting to join dissimilar piping materials.
- D. Connect domestic water piping to water-service piping with shutoff valve; extend and connect to the following:
  - 1. Water Heaters: Cold-water inlet and hot-water outlet piping in sizes indicated, but not smaller than sizes of water heater connections.
  - 2. Plumbing Fixtures: Cold- and hot-water-supply piping in sizes indicated, but not smaller than that required by plumbing code.
  - 3. Equipment: Cold- and hot-water-supply piping as indicated, but not smaller than equipment connections. Provide shutoff valve and union for each connection. Use flanges instead of unions for NPS 2-1/2 (DN 65) and larger.

### 3.8 IDENTIFICATION

- A. Identify system components. Comply with requirements for identification materials and installation in Section 220553 "Identification for Plumbing Piping and Equipment."

### 3.9 ADJUSTING

- A. Perform the following adjustments before operation:
  - 1. Close drain valves, hydrants, and hose bibbs.
  - 2. Open shutoff valves to fully open position.
  - 3. Open throttling valves to proper setting.
  - 4. Adjust balancing valves in hot-water-circulation return piping to provide adequate flow.
    - a. Manually adjust ball-type balancing valves in hot-water-circulation return piping to provide hot-water flow in each branch.
    - b. Adjust calibrated balancing valves to flows indicated.
  - 5. Remove plugs used during testing of piping and for temporary sealing of piping during installation.
  - 6. Remove and clean strainer screens. Close drain valves and replace drain plugs.
  - 7. Remove filter cartridges from housings and verify that cartridges are as specified for application where used and are clean and ready for use.
  - 8. Check plumbing specialties and verify proper settings, adjustments, and operation.

### 3.10 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. Piping Inspections:
    - a. Do not enclose, cover, or put piping into operation until it has been inspected and approved by authorities having jurisdiction.
    - b. During installation, notify authorities having jurisdiction at least one day before inspection must be made. Perform tests specified below in presence of authorities having jurisdiction:
      - 1) Roughing-in Inspection: Arrange for inspection of piping before concealing or closing in after roughing in and before setting fixtures.
      - 2) Final Inspection: Arrange for authorities having jurisdiction to observe tests specified in "Piping Tests" Subparagraph below and to ensure compliance with requirements.
    - c. Reinspection: If authorities having jurisdiction find that piping will not pass tests or inspections, make required corrections and arrange for reinspection.
    - d. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.
  - 2. Piping Tests:

- a. Fill domestic water piping. Check components to determine that they are not air bound and that piping is full of water.
  - b. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit a separate report for each test, complete with diagram of portion of piping tested.
  - c. Leave new, altered, extended, or replaced domestic water piping uncovered and unconcealed until it has been tested and approved. Expose work that was covered or concealed before it was tested.
  - d. Cap and subject piping to static water pressure of 50 psig (345 kPa) above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow it to stand for four hours. Leaks and loss in test pressure constitute defects that must be repaired.
  - e. Hydrostatic testing and documentation of test results for polypropylene piping to be in accordance with the manufacturer's instructions and submitted to the manufacturer upon successful completion per warranty requirements.
  - f. Repair leaks and defects with new materials, and retest piping or portion thereof until satisfactory results are obtained.
  - g. Prepare reports for tests and for corrective action required.
- B. Domestic water piping will be considered defective if it does not pass tests and inspections.
  - C. Prepare test and inspection reports.

### 3.11 CLEANING

- A. Clean and disinfect potable domestic water piping as follows:
  - 1. Purge new piping and parts of existing piping that have been altered, extended, or repaired before using.
  - 2. Use purging and disinfecting procedures prescribed by authorities having jurisdiction; if methods are not prescribed, use procedures described in either AWWA C651 or AWWA C652 or follow procedures described below:
    - a. Flush piping system with clean, potable water until dirty water does not appear at outlets.
    - b. Fill and isolate system according to either of the following:
      - 1) Fill system or part thereof with water/chlorine solution with at least 50 ppm (50 mg/L) of chlorine. Isolate with valves and allow to stand for 24 hours.
      - 2) Fill system or part thereof with water/chlorine solution with at least 200 ppm (200 mg/L) of chlorine. Isolate and allow to stand for three hours.
    - c. Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.
    - d. Repeat procedures if biological examination shows contamination.
    - e. Submit water samples in sterile bottles to authorities having jurisdiction.
- B. Prepare and submit reports of purging and disinfecting activities. Include copies of water-sample approvals from authorities having jurisdiction.

- C. Clean interior of domestic water piping system. Remove dirt and debris as work progresses.

END OF SECTION

## SECTION 22 33 00

### ELECTRIC, DOMESTIC-WATER HEATERS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Residential, small-capacity, electric, domestic-water heaters.
  - 2. Residential, electric, storage, domestic-water heaters.
  - 3. Domestic-water heater accessories.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

##### 1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of residential, electric, domestic-water heater.
- B. Domestic-Water Heater Labeling: Certified and labeled by testing agency acceptable to authorities having jurisdiction.
- C. Source quality-control reports.
- D. Field quality-control reports.
- E. Sample Warranty: For special warranty.

##### 1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For electric, domestic-water heaters to include emergency, operation, and maintenance manuals.

## 1.6 COORDINATION

- A. Coordinate sizes and locations of concrete bases with actual equipment provided.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by an NRTL, and marked for intended location and use.
- B. ASHRAE/IES Compliance: Applicable requirements in ASHRAE/IES 90.1.
- C. ASME Compliance: Where ASME-code construction is indicated, fabricate and label commercial, domestic-water heater storage tanks to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
- D. NSF Compliance: Fabricate and label equipment components that will be in contact with potable water to comply with NSF 61 and NSF 372.

### 2.2 RESIDENTIAL, ELECTRIC, DOMESTIC-WATER HEATERS

- A. Residential, Small-Capacity, Electric, Domestic-Water Heaters:
  - 1. Source Limitations: Obtain domestic-water heaters from single source from single manufacturer.
  - 2. Standard: UL 174.
  - 3. Storage-Tank Construction: Corrosion-resistant metal
    - a. Tappings: ASME B1.20.1 pipe thread.
    - b. Pressure Rating: 150 psig (1035 kPa).
    - c. Interior Finish: Comply with NSF 61 and NSF 372 barrier materials for potable-water tank linings, including extending lining material into tappings.
  - 4. Factory-Installed, Storage-Tank Appurtenances:
    - a. Drain Valve: Corrosion-resistant metal with hose-end connection if tank has drain outlet. Provide hose-end drain valve in piping for domestic-water heaters without drain outlet. Comply with requirements for hose-end drain valves specified in Section 221119 "Domestic Water Piping Specialties."
    - b. Insulation: Comply with ASHRAE/IES 90.1
    - c. Jacket: Steel with enameled finish or high-impact composite material.
    - d. Heating Element: One; electric, screw-in immersion type.
    - e. Temperature Control: Adjustable thermostat.
    - f. Safety Control: High-temperature-limit cutoff device or system.
    - g. Power Supply Cord: 24 to 72 inches (610 to 1830 mm) with plug.
    - h. Relief Valve: ASME rated and stamped for combination temperature-and-pressure relief valves. Include relieving capacity at least as great as heat input, and include

pressure setting less than working-pressure rating of domestic-water heater. Select relief valve with sensing element that extends into storage tank.

- B. Residential, Electric, Storage, Domestic-Water Heaters:
1. Source Limitations: Obtain domestic-water heaters from single source from single manufacturer.
  2. Standard: UL 174.
  3. Storage-Tank Construction: Steel.
    - a. Tappings: ASME B1.20.1 pipe thread.
    - b. Pressure Rating: 150 psig (1035 kPa).
    - c. Interior Finish: Comply with NSF 61 and NSF 372 barrier materials for potable-water tank linings, including extending lining material into tappings.
  4. Factory-Installed, Storage-Tank Appurtenances:
    - a. Anode Rod: Replaceable magnesium.
    - b. Dip Tube: Required unless cold-water inlet is near bottom of tank.
    - c. Drain Valve: Corrosion-resistant metal with hose-end connection.
    - d. Insulation: Comply with ASHRAE/IES 90.1
    - e. Jacket: Steel, cylindrical, with enameled finish or high-impact composite material.
    - f. Heat-Trap Fittings: Inlet type in cold-water inlet and outlet type in hot-water outlet.
    - g. Heating Elements: Electric, screw-in immersion type.
    - h. Temperature Control: Adjustable thermostat.
    - i. Safety Control: High-temperature-limit cutoff device or system.
    - j. Relief Valve: ASME rated and stamped for combination temperature-and-pressure relief valves. Include relieving capacity at least as great as heat input, and include pressure setting less than working-pressure rating of domestic-water heater. Select relief valve with sensing element that extends into storage tank.

## 2.3 DOMESTIC-WATER HEATER ACCESSORIES

- A. Domestic-Water Expansion Tanks:
1. Source Limitations: Obtain domestic-water expansion tanks from single source from single manufacturer.
  2. Description: Steel pressure-rated tank constructed with welded joints and factory-installed, butyl-rubber diaphragm. Include air precharge to minimum system-operating pressure at tank.
  3. Construction:
    - a. Tappings: Factory-fabricated steel, welded to tank before testing and labeling. Include ASME B1.20.1 pipe thread.
    - b. Interior Finish: Comply with NSF 61 and NSF 372 barrier materials for potable-water tank linings, including extending finish into and through tank fittings and outlets.
    - c. Air-Charging Valve: Factory installed.
  4. Capacity and Characteristics:
    - a. Working-Pressure Rating: 100 psig (690 kPa)

- b. Capacity Acceptable: 2 gal. (7.6 L) or 4 gal. (15.1 L) minimum.
  - c. Air Precharge Pressure: Match Existing
- B. Drain Pans: Corrosion-resistant metal with raised edge. Include dimensions not less than base of domestic-water heater, and include drain outlet not less than NPS 3/4 (DN 20) with ASME B1.20.1 pipe threads.
- C. Combination Temperature-and-Pressure Relief Valves: ASME rated and stamped. Include relieving capacity at least as great as heat input, and include pressure setting less than working-pressure rating of domestic-water heater. Select relief valves with sensing element that extends into storage tank.
- D. Pressure Relief Valves: ASME rated and stamped. Include pressure setting less than working-pressure rating of domestic-water heater.
- E. Vacuum Relief Valves: ANSI Z21.22/CSA 4.4.
- F. Shock Absorbers: ASSE 1010 or PDI-WH 201, Size A water hammer arrester.
- G. Domestic-Water Heater Mounting Brackets: Manufacturer's factory-fabricated steel bracket for wall mounting, capable of supporting domestic-water heater and water.

## 2.4 SOURCE QUALITY CONTROL

- A. Factory Tests: Test and inspect domestic-water heaters specified to be ASME-code construction, in accordance with ASME Boiler and Pressure Vessel Code.
- B. Electric, domestic-water heaters will be considered defective if they do not pass tests and inspections.
- C. Prepare test and inspection reports.

## PART 3 - EXECUTION

### 3.1 DOMESTIC-WATER HEATER INSTALLATION

- A. Residential, Electric, Domestic-Water Heater Mounting: Install residential, electric, domestic-water heaters on floor.
  - 1. Maintain manufacturer's recommended clearances.
  - 2. Arrange units so controls and devices that require servicing are accessible.
  - 3. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
  - 4. Install anchor bolts to elevations required for proper attachment to supported equipment.
  - 5. Anchor domestic-water heaters to substrate.

- B. Install electric, domestic-water heaters level and plumb, in accordance with layout drawings, original design, and referenced standards. Maintain manufacturer's recommended clearances. Arrange units so controls and devices needing service are accessible.
  - 1. Install shutoff valves on domestic-water-supply piping to domestic-water heaters and on domestic-hot-water outlet piping. Comply with requirements for shutoff valves specified in Section 220523.12 "Ball Valves for Plumbing Piping,"
- C. Install combination temperature-and-pressure relief valves in top portion of storage tanks. Use relief valves with sensing elements that extend into tanks. Extend domestic-water heater relief-valve outlet, with drain piping same as domestic-water piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.
- D. Install combination temperature-and-pressure relief valves in water piping for electric, domestic-water heaters without storage. Extend domestic-water heater relief-valve outlet, with drain piping same as domestic-water piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.
- E. Install water-heater drain piping as indirect waste to spill by positive air gap into open drains or over floor drains. Install hose-end drain valves at low points in water piping for electric, domestic-water heaters that do not have tank drains.
- F. Install thermometers on outlet piping of electric, domestic-water heaters.
- G. Fill electric, domestic-water heaters with water.
- H. Charge domestic-water expansion tanks with air to required system pressure.
- I. Install dielectric fittings in all locations where piping of dissimilar metals is to be joined. The wetted surface of the dielectric fitting contacted by potable water shall contain less than 0.25 percent of lead by weight.

### 3.2 PIPING CONNECTIONS

- A. Comply with requirements for piping specified in Section 221116 "Domestic Water Piping." Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Where installing piping adjacent to electric, domestic-water heaters, allow space for service and maintenance of water heaters. Arrange piping for easy removal of domestic-water heaters.

### 3.3 IDENTIFICATION

- A. Identify system components. Comply with requirements for identification specified in Section 220553 "Identification for Plumbing Piping and Equipment."

### 3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

- B. Perform tests and inspections with the assistance of a factory-authorized service representative.
- C. Tests and Inspections:
  - 1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
  - 2. Operational Test: After electrical circuitry has been energized, start units to confirm proper operation.
  - 3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Electric, domestic-water heaters will be considered defective if they do not pass tests and inspections.
- E. Prepare test and inspection reports.

END OF SECTION

## SECTION 22 34 00

### FUEL-FIRED, DOMESTIC-WATER HEATERS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Residential, direct-vent, gas-fired, storage, domestic-water heaters.
  - 2. Residential, power-vent, gas-fired, storage, domestic-water heaters.
  - 3. Domestic-water heater accessories.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.
- B. Shop Drawings:
  - 1. Include diagrams for power, signal, and control wiring.

##### 1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For fuel-fired, domestic-water heaters to include in emergency, operation, and maintenance manuals.

##### 1.5 COORDINATION

- A. Coordinate sizes and locations of concrete bases with actual equipment provided.

#### PART 2 - PRODUCTS

##### 2.1 PERFORMANCE REQUIREMENTS

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by an NRTL, and marked for intended location and use.

- B. ASHRAE/IES Compliance: Fabricate and label fuel-fired, domestic-water heaters to comply with ASHRAE/IES 90.1.
- C. ASME Compliance:
  - 1. Where ASME-code construction is indicated, fabricate and label commercial, domestic-water heater storage tanks to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
  - 2. Where ASME-code construction is indicated, fabricate and label commercial, finned-tube, domestic-water heaters to comply with ASME Boiler and Pressure Vessel Code: Section IV.
- D. NSF Compliance: Fabricate and label equipment components that will be in contact with potable water to comply with NSF 61 and NSF 372.

## 2.2 RESIDENTIAL, GAS-FIRED, STORAGE, DOMESTIC-WATER HEATERS

- A. Residential, Direct-Vent, Gas-Fired, Storage, Domestic-Water Heaters:
  - 1. Source Limitations: Obtain domestic-water heaters from single source from single manufacturer.
  - 2. Standard: ANSI Z21.10.1/CSA 4.1.
  - 3. Storage-Tank Construction: Steel.
    - a. Tappings: ASME B1.20.1 pipe thread.
    - b. Pressure Rating: 150 psig (1035 kPa).
    - c. Interior Finish: Comply with NSF 61 and NSF 372 barrier materials for potable-water tank linings, including extending lining material into tappings.
  - 4. Factory-Installed, Storage-Tank Appurtenances:
    - a. Anode Rod: Replaceable magnesium.
    - b. Dip Tube: Required unless cold-water inlet is near bottom of tank.
    - c. Drain Valve: Corrosion-resistant metal with hose-end connection.
    - d. Insulation: Comply with ASHRAE/IES 90.1
    - e. Jacket: Steel with enameled finish.
    - f. Heat-Trap Fittings: Inlet type in cold-water inlet and outlet type in hot-water outlet.
    - g. Burner: For use with direct-vent, gas-fired, domestic-water heaters and natural-gas fuel.
    - h. Ignition: Standing pilot or ANSI Z21.20/CSA C22.2 No. 60730-2-5, electric, automatic, gas-ignition system.
    - i. Temperature Control: Adjustable thermostat.
    - j. Combination Temperature-and-Pressure Relief Valve: ANSI Z21.22/CSA 4.4. Include relieving capacity at least as great as heat input, and include pressure setting less than working-pressure rating of domestic-water heater. Select relief valve with sensing element that extends into storage tank.
  - 5. Direct-Vent System: Through-roof, coaxial- or double-channel vent assembly with domestic-water heater manufacturers' outside intake/exhaust screen.
- B. Residential, Power-Vent, Gas-Fired, Storage, Domestic-Water Heaters:

1. Source Limitations: Obtain domestic-water heaters from single source from single manufacturer.
2. Standard: ANSI Z21.10.1/CSA 4.1.
3. Storage-Tank Construction: Steel.
  - a. Tappings: ASME B1.20.1 pipe thread.
  - b. Pressure Rating: 150 psig (1035 kPa).
  - c. Interior Finish: Comply with NSF 61 and NSF 372 barrier materials for potable-water tank linings, including extending lining material into tappings.
4. Factory-Installed, Storage-Tank Appurtenances:
  - a. Anode Rod: Replaceable magnesium.
  - b. Dip Tube: Required unless cold-water inlet is near bottom of tank.
  - c. Drain Valve: Corrosion-resistant metal with hose-end connection.
  - d. Insulation: Comply with ASHRAE/IES 90.1
  - e. Jacket: Steel with enameled finish.
  - f. Heat-Trap Fittings: Inlet type in cold-water inlet and outlet type in hot-water outlet.
  - g. Burner: For use with power-vent, gas-fired, domestic-water heaters and natural-gas fuel.
  - h. Ignition: Standing pilot or ANSI Z21.20/CSA C22.2 No. 60730-2-5, electric, automatic, gas-ignition system.
  - i. Temperature Control: Adjustable thermostat.
  - j. Combination Temperature-and-Pressure Relief Valve: ANSI Z21.22/CSA 4.4. Include relieving capacity at least as great as heat input, and include pressure setting less than working-pressure rating of domestic-water heater. Select relief valve with sensing element that extends into storage tank.
5. Power-Vent System: Exhaust fan, interlocked with burner.

## 2.3 DOMESTIC-WATER HEATER ACCESSORIES

### A. Domestic-Water Expansion Tanks:

1. Source Limitations: Obtain domestic-water heaters from single source from single manufacturer.
2. Description: Steel, pressure-rated tank constructed with welded joints and factory-installed, butyl-rubber diaphragm. Include air precharge to minimum system-operating pressure at tank.
3. Construction:
  - a. Tappings: Factory-fabricated steel, welded to tank before testing and labeling. Include ASME B1.20.1 pipe thread.
  - b. Interior Finish: Comply with NSF 61 and NSF 372 barrier materials for potable-water tank linings, including extending finish into and through tank fittings and outlets.
  - c. Air-Charging Valve: Factory installed.
4. Capacity and Characteristics:
  - a. Working-Pressure Rating: 100 psig (690 kPa)

- b. Capacity Acceptable: 2 gal. (7.6 L) or 4 gal. (15.1 L) minimum.
- B. Drain Pans: Corrosion-resistant metal with raised edge. Include dimensions not less than base of domestic-water heater, and include drain outlet not less than NPS 3/4 (DN 20) with ASME B1.20.1 pipe threads.
- C. Piping-Type Heat Traps: Field-fabricated piping arrangement in accordance with ASHRAE/IES 90.1.
- D. Heat-Trap Fittings: ASHRAE 90.2.
- E. Comply with requirements for ball-, butterfly-, or gate-type shutoff valves specified in Section 220523.12 "Ball Valves for Plumbing Piping,"
- F. Gas Shutoff Valves: ANSI Z21.15/CSA 9.1, manually operated. Furnish for installation in piping.
- G. Gas Pressure Regulators: ANSI Z21.18/CSA 6.3, appliance type. Include 1/2-psig (3.5-kPa) pressure rating as required to match gas supply.
- H. Automatic Gas Valves: ANSI Z21.21/CSA 6.5, appliance, electrically operated, on-off automatic valve.
- I. Combination Temperature-and-Pressure Relief Valves: Include relieving capacity at least as great as heat input, and include pressure setting less than working-pressure rating of domestic-water heater. Select relief valves with sensing element that extends into storage tank.
  - 1. Gas-Fired, Domestic-Water Heaters: ANSI Z21.22/CSA 4.4.
- J. Pressure Relief Valves: Include pressure setting less than working-pressure rating of domestic-water heater.
  - 1. Gas-Fired, Domestic-Water Heaters: ANSI Z21.22/CSA 4.4.
- K. Vacuum Relief Valves: ANSI Z21.22/CSA 4.4.

#### 2.4 SOURCE QUALITY CONTROL

- A. Factory Tests: Test and inspect assembled domestic-water heaters[ and storage tanks] specified to be ASME-code construction, in accordance with ASME Boiler and Pressure Vessel Code.
- B. Domestic-water heaters will be considered defective if they do not pass tests and inspections.
- C. Prepare test and inspection reports.

## PART 3 - EXECUTION

### 3.1 DOMESTIC-WATER HEATER INSTALLATION

- A. Residential, Domestic-Water Heater Mounting: Install residential domestic-water heaters on floor or water-heater stand on floor.
  - 1. Maintain manufacturer's recommended clearances.
  - 2. Arrange units so controls and devices that require servicing are accessible.
  - 3. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
  - 4. Install anchor bolts to elevations required for proper attachment to supported equipment.
  - 5. Anchor domestic-water heaters to substrate.
- B. Install domestic-water heaters level and plumb, in accordance with layout drawings, original design, and referenced standards. Maintain manufacturer's recommended clearances. Arrange units so controls and devices needing service are accessible.
  - 1. Install shutoff valves on domestic-water-supply piping to domestic-water heaters and on domestic-hot-water outlet piping. Comply with requirements for shutoff valves specified in Section 220523.12 "Ball Valves for Plumbing Piping,"
- C. Install gas-fired, domestic-water heaters in accordance with NFPA 54.
  - 1. Install gas shutoff valves on gas supply piping to gas-fired, domestic-water heaters without shutoff valves.
  - 2. Install gas pressure regulators on gas supplies to gas-fired, domestic-water heaters without gas pressure regulators if gas pressure regulators are required to reduce gas pressure at burner.
  - 3. Comply with requirements for gas shutoff valves, gas pressure regulators, and automatic gas valves specified in Section 231123 "Facility Natural-Gas Piping."
- D. Install combination temperature-and-pressure relief valves in top portion of storage tanks. Use relief valves with sensing elements that extend into tanks. Extend domestic-water-heater relief-valve outlet, with drain piping same as domestic-water piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.
- E. Install water-heater drain piping as indirect waste to spill by positive air gap into open drains or over floor drains. Install hose-end drain valves at low points in water piping for domestic-water heaters that do not have tank drains.
- F. Install piping-type heat traps on inlet and outlet piping of domestic-water heater storage tanks without integral or fitting-type heat traps.
- G. Fill domestic-water heaters with water.
- H. Charge domestic-water expansion tanks with air to required system pressure.

- I. Install dielectric fittings in all locations where piping of dissimilar metals is to be joined. The wetted surface of the dielectric fitting contacted by potable water shall contain less than 0.25 percent of lead by weight.

### 3.2 PIPING CONNECTIONS

- A. Comply with requirements for domestic-water piping specified in Section 221116 "Domestic Water Piping."
- B. Comply with requirements for gas piping specified in Section 231123 "Facility Natural-Gas Piping."
- C. Drawings indicate general arrangement of piping, fittings, and specialties.
- D. Where installing piping adjacent to fuel-fired, domestic-water heaters, allow space for service and maintenance of water heaters. Arrange piping for easy removal of domestic-water heaters.

### 3.3 IDENTIFICATION

- A. Identify system components. Comply with requirements for identification specified in Section 220553 "Identification for Plumbing Piping and Equipment."

### 3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Perform tests and inspections.
- C. Tests and Inspections:
  - 1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
  - 2. Operational Test: After electrical circuitry has been energized, start units to confirm proper operation.
  - 3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Domestic-water heaters will be considered defective if they do not pass tests and inspections.
- E. Prepare test and inspection reports.

END OF SECTION

## SECTION 23 05 23.12

### BALL VALVES FOR HVAC PIPING

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Brass ball valves.
  - 2. Stainless steel ball valves.

##### 1.2 DEFINITIONS

- A. CWP: Cold working pressure.
- B. RPTFE: Reinforced polytetrafluoroethylene.
- C. SWP: Steam working pressure.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of valve.

##### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Prepare valves for shipping as follows:
  - 1. Protect internal parts against rust and corrosion.
  - 2. Protect threads, flange faces, and weld ends.
  - 3. Set ball valves open to minimize exposure of functional surfaces.
- B. Use the following precautions during storage:
  - 1. Maintain valve end protection.
  - 2. Store valves indoors and maintain at higher-than-ambient-dew-point temperature. If outdoor storage is necessary, store valves off the ground in watertight enclosures.
- C. Use sling to handle large valves; rig sling to avoid damage to exposed parts. Do not use operating handles or stems as lifting or rigging points.

## PART 2 - PRODUCTS

### 2.1 SOURCE LIMITATIONS

- A. Obtain each type of valve from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. ASME Compliance:

1. ASME B1.20.1 for threads for threaded-end valves.
2. ASME B16.1 for flanges on iron valves.
3. ASME B16.5 for flanges on steel valves.
4. ASME B16.10 and ASME B16.34 for ferrous valve dimensions and design criteria.
5. ASME B16.18 for cast copper solder-joint connections.
6. ASME B16.22 for wrought copper and copper alloy solder-joint connections.
7. ASME B16.34 for flanged and threaded end connections.
8. ASME B31.1 for power piping valves.
9. ASME B31.9 for building services piping valves.

- B. Valve Pressure-Temperature Ratings: Not less than indicated and as required for system pressures and temperatures.

- C. Valve Sizes: Same as upstream piping unless otherwise indicated.

- D. Valve Actuator Types:

1. Gear Actuator: For quarter-turn valves NPS 4 (DN 100) and larger.
2. Hand Lever: For quarter-turn valves smaller than NPS 4 (DN 100).

- E. Valves in Insulated Piping:

1. Provide 2-inch (50-mm) extended neck stems.
2. Extended operating handles with nonthermal-conductive covering material, and protective sleeves that allow operation of valves without breaking vapor seals or disturbing insulation.
3. Memory stops that are fully adjustable after insulation is applied.

- F. Valve Bypass and Drain Connections: MSS SP-45.

### 2.3 BRASS BALL VALVES

- A. Brass Ball Valves, One Piece:

1. Standard: MSS SP-110.
2. CWP Rating: 400 psig (2760 kPa).
3. Body Design: One piece.
4. Body Material: Forged brass.
5. Ends: Threaded.
6. Seats: PTFE.

7. Stem: Brass.
  8. Ball: Chrome-plated brass.
  9. Port: Reduced.
- B. Brass Ball Valves, Two Piece with Full Port and Brass Trim, Threaded or Soldered Ends:
1. Standard: MSS SP-110.
  2. SWP Rating: 150 psig (1035 kPa).
  3. CWP Rating: 600 psig (4140 kPa).
  4. Body Design: Two piece.
  5. Body Material: Forged brass.
  6. Ends: Threaded or soldered.
  7. Seats: PTFE.
  8. Stem: Brass.
  9. Ball: Chrome-plated brass.
  10. Port: Full.
- C. Brass Ball Valves, Two Piece with Full Port and Stainless Steel Trim, Threaded Ends or Soldered Ends:
1. Standard: MSS SP-110.
  2. SWP Rating: 150 psig (1035 kPa).
  3. CWP Rating: 600 psig (4140 kPa).
  4. Body Design: Two piece.
  5. Body Material: Forged brass.
  6. Ends: Threaded or soldered.
  7. Seats: PTFE.
  8. Stem: Stainless steel.
  9. Ball: Stainless steel, vented.
  10. Port: Full.
- D. Brass Ball Valves, Two Piece with Regular Port and Brass Trim, Threaded or Soldered Ends:
1. Standard: MSS SP-110.
  2. SWP Rating: 150 psig (1035 kPa).
  3. CWP Rating: 600 psig (4140 kPa).
  4. Body Design: Two piece.
  5. Body Material: Forged brass.
  6. Ends: Threaded or soldered.
  7. Seats: PTFE.
  8. Stem: Brass.
  9. Ball: Chrome-plated brass.
  10. Port: Regular.
- E. Brass Ball Valves, Two Piece with Regular Port and Stainless Steel Trim, Threaded or Soldered Ends:
1. Standard: MSS SP-110.
  2. SWP Rating: 150 psig (1035 kPa).
  3. CWP Rating: 600 psig (4140 kPa).
  4. Body Design: Two piece.
  5. Body Material: Brass or bronze.
  6. Ends: Threaded or soldered.
  7. Seats: PTFE.
  8. Stem: Stainless steel.

9. Ball: Stainless steel, vented.
10. Port: Regular.

F. Brass Ball Valves, Three Piece with Full Port and Brass Trim, Threaded or Soldered Ends:

1. Standard: MSS SP-110.
2. SWP Rating: 150 psig (1035 kPa).
3. CWP Rating: 600 psig (4140 kPa).
4. Body Design: Three piece.
5. Body Material: Forged brass.
6. Ends: Threaded or soldered ends.
7. Seats: PTFE.
8. Stem: Brass.
9. Ball: Chrome-plated brass.
10. Port: Full.

G. Brass Ball Valves, Three Piece with Full Port and Stainless Steel Trim, Threaded or Soldered Ends:

1. Standard: MSS SP-110.
2. SWP Rating: 150 psig (1035 kPa).
3. CWP Rating: 600 psig (4140 kPa).
4. Body Design: Three piece.
5. Body Material: Forged brass.
6. Ends: Threaded or soldered.
7. Seats: PTFE.
8. Stem: Stainless steel.
9. Ball: Stainless steel, vented.
10. Port: Full.

## 2.4 STAINLESS STEEL BALL VALVES

A. Stainless Steel Ball Valves, Two Piece with Full Port, Threaded or Flanged Ends:

1. Standard: MSS SP-110.
2. CWP Rating: 200 psig (1380 kPa).
3. Body Design: Split body.
4. Body Material: Type 316 stainless steel.
5. Ends: Threaded or flanged.
6. Seats: PTFE.
7. Stem: Type 316 stainless steel.
8. Ball: Type 316 stainless steel.
9. Port: Full.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.

- B. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.
- C. Examine threads on valve and mating pipe for form and cleanliness.
- D. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, that its material composition is suitable for service, and that it is free from defects and damage.
- E. Do not attempt to repair defective valves; replace with new valves. Remove defective valves from site.

### 3.2 INSTALLATION OF VALVES

- A. Install valves with unions or flanges at each piece of equipment arranged to allow space for service, maintenance, and equipment removal without system shutdown.
- B. Provide support of piping adjacent to valves such that no force is imposed upon valves.
- C. Locate valves for easy access.
- D. Install valves in horizontal piping with stem at or above center of pipe.
- E. Install valves in position to allow full valve actuation movement.
- F. Valve Tags: Comply with requirements in Section 230553 "Identification for HVAC Piping and Equipment" for valve tags and schedules.
- G. Adhere to manufacturer's written installation instructions. When soldering or brazing valves, do not heat valves above maximum permitted temperature. Do not use solder with melting point temperature above valve manufacturer's recommended maximum.

### 3.3 ADJUSTING

- A. Adjust or replace valve packing after piping systems have been tested and put into service, but before final adjusting and balancing. Replace valves exhibiting leakage.

### 3.4 GENERAL REQUIREMENTS FOR VALVE APPLICATIONS

- A. If valves with specified SWP classes or CWP ratings are unavailable, provide the same types of valves with higher SWP classes or CWP ratings.
- B. Select valves with the following end connections:
  - 1. For Copper Tubing, NPS 2 (DN 50) and Smaller: Threaded ends except where solder-joint valve-end option or press-end option is indicated in valve schedules below.
  - 2. For Copper Tubing, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends except where threaded valve-end option is indicated in valve schedules below.
  - 3. For Copper Tubing, NPS 5 (DN 125) and Larger: Flanged ends.

4. For Steel Piping, NPS 2 (DN 50) and Smaller: Threaded ends.
5. For Steel Piping, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends except where threaded valve-end option is indicated in valve schedules below.
6. For Steel Piping, NPS 5 (DN 125) and Larger: Flanged ends.
7. For Stainless Steel Piping, NPS 2 (DN 50) and Smaller: Threaded ends.
8. For Stainless Steel Piping, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends.

END OF SECTION

## SECTION 23 05 29

### HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Metal pipe hangers and supports.
  - 2. Trapeze pipe hangers.
  - 3. Thermal-hanger shield inserts.
  - 4. Fastener systems.
  - 5. Equipment stands.
  - 6. Equipment supports.
- B. Related Requirements:

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

##### 1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

##### 1.5 QUALITY ASSURANCE

- A. Structural-Steel Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Pipe Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code, Section IX.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Hangers and supports for HVAC piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.
  - 1. Design supports for multiple pipes, including pipe stands, capable of supporting combined weight of supported systems, system contents, and test water.
  - 2. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

### 2.2 METAL PIPE HANGERS AND SUPPORTS

#### A. Carbon-Steel Pipe Hangers and Supports:

- 1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
- 2. Galvanized Metallic Coatings: Pregalvanized, hot-dip galvanized, or electro-galvanized.
- 3. Nonmetallic Coatings: Plastic coated, or epoxy powder-coated.
- 4. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
- 5. Hanger Rods: Continuous-thread rod, nuts, and washer made of carbon steel or stainless steel.

#### B. Stainless Steel Pipe Hangers and Supports:

- 1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
- 2. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
- 3. Hanger Rods: Continuous-thread rod, nuts, and washer made of stainless steel.

#### C. Copper Pipe and Tube Hangers:

- 1. Description: MSS SP-58, Types 1 through 58, copper-plated steel, factory-fabricated components.
- 2. Hanger Rods: Continuous-thread rod, nuts, and washer made of copper-plated steel or stainless steel.

### 2.3 TRAPEZE PIPE HANGERS

- A. Description: MSS SP-58, Type 59, shop- or field-fabricated pipe-support assembly made from structural carbon-steel shapes with MSS SP-58 carbon-steel hanger rods, nuts, saddles, and U-bolts.

## 2.4 PLASTIC PIPE HANGERS

- A. Description: Similar to MSS SP-58, Types 1 through 58, factory-fabricated steel pipe hanger except hanger is made of plastic.
- B. Hanger Rods: Continuous-thread rod, nuts, and washer made of galvanized steel or stainless steel.
- C. Flammability: ASTM D635, ASTM E84, and UL 94.

## 2.5 THERMAL-HANGER SHIELD INSERTS

- A. Insulation-Insert Material for Cold Piping: ASTM C552, Type II cellular glass with 100-psi (688-kPa) or ASTM C591, Type VI, Grade 1 polyisocyanurate with 125-psi (862-kPa) minimum compressive strength and vapor barrier.
- B. Insulation-Insert Material for Hot Piping: Water-repellent-treated, ASTM C533, Type I calcium silicate with 100-psi (688-kPa) or ASTM C552, Type II cellular glass with 100-psi (688-kPa) or ASTM C591, Type VI, Grade 1 polyisocyanurate with 125-psi (862-kPa) minimum compressive strength.
- C. For Trapeze or Clamped Systems: Insert and shield shall cover entire circumference of pipe.
- D. For Clevis or Band Hangers: Insert and shield shall cover lower 180 degrees of pipe.
- E. Insert Length: Extend 2 inches (50 mm) beyond sheet metal shield for piping operating below ambient air temperature.

## 2.6 FASTENER SYSTEMS

- A. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
- B. Mechanical-Expansion Anchors: Insert-wedge-type anchors for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
  - 1. Indoor Applications: Zinc-coated or stainless steel.
  - 2. Outdoor Applications: Stainless steel.

## 2.7 EQUIPMENT SUPPORTS

- A. Description: Welded, shop- or field-fabricated equipment support made from structural carbon-steel shapes.

## 2.8 OUTDOOR EQUIPMENT STANDS

- 1. Description: Individual foot supports with elevated adjustable channel cross bars and clamps/fasteners/bolts for ground or roof supported outdoor equipment components,

without roof membrane penetration, in a pre-fabricated system that can be modularly-assembled on site.

2. Foot Material: Rubber or polypropylene.
3. Rails Material: Hot dip galvanized carbon steel.
4. Wind/Sliding Load Resistance: Up to 100 mph (44 mps) minimum.

## 2.9 MATERIALS

- A. Aluminum: ASTM B221 (ASTM B221M).
- B. Carbon Steel: ASTM A1011/A1011M.
- C. Structural Steel: ASTM A36/A36M, carbon-steel plates, shapes, and bars; galvanized.
- D. Stainless Steel: ASTM A240/A240M.
- E. Threaded Rods: Continuously threaded. Zinc-plated or galvanized steel for indoor applications and stainless steel for outdoor applications. Mating nuts and washers of similar materials as rods.
- F. Grout: ASTM C1107/C1107M, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.
  1. Properties: Nonstaining, noncorrosive, and nongaseous.
  2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

## PART 3 - EXECUTION

### 3.1 APPLICATION

- A. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).

### 3.2 HANGER AND SUPPORT INSTALLATION

- A. Metal Pipe-Hanger Installation: Comply with MSS SP-58. Install hangers, supports, clamps, and attachments as required to properly support piping from the building structure.
- B. Metal Trapeze Pipe-Hanger Installation: Comply with MSS SP-58. Arrange for grouping of parallel runs of horizontal piping, and support together on field-fabricated trapeze pipe hangers.
  1. Pipes of Various Sizes: Support together and space trapezes for smallest pipe size or install intermediate supports for smaller diameter pipes as specified for individual pipe hangers.
  2. Field fabricate from ASTM A36/A36M, carbon-steel shapes selected for loads being supported. Weld steel according to AWS D1.1/D1.1M.
- C. Thermal-Hanger Shield Installation: Install in pipe hanger or shield for insulated piping.

- D. Fastener System Installation:
1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches (100 mm) thick in concrete after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.
  2. Install mechanical-expansion anchors in concrete after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions.
- E. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.
- F. Equipment Support Installation: Fabricate from welded-structural-steel shapes.
- G. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- H. Install lateral bracing with pipe hangers and supports to prevent swaying.
- I. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- J. Load Distribution: Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- K. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.
- L. Insulated Piping:
1. Attach clamps and spacers to piping.
    - a. Piping Operating above Ambient Air Temperature: Clamp may project through insulation.
    - b. Piping Operating below Ambient Air Temperature: Use thermal-hanger shield insert with clamp sized to match OD of insert.
    - c. Do not exceed pipe stress limits allowed by ASME B31.9 for building services piping.
  2. Install MSS SP-58, Type 39, protection saddles if insulation without vapor barrier is indicated. Fill interior voids with insulation that matches adjoining insulation.
    - a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.
  3. Install MSS SP-58, Type 40, protective shields on cold piping with vapor barrier. Shields shall span an arc of 180 degrees.

- a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.
4. Shield Dimensions for Pipe: Not less than the following:
    - a. NPS 1/4 to NPS 3-1/2 (DN 8 to DN 90): 12 inches (305 mm) long and 0.048 inch (1.22 mm) thick.
    - b. NPS 4 (DN 100): 12 inches (305 mm) long and 0.06 inch (1.52 mm) thick.
    - c. NPS 5 and NPS 6 (DN 125 and DN 150): 18 inches (457 mm) long and 0.06 inch (1.52 mm) thick.
    - d. NPS 8 to NPS 14 (DN 200 to DN 350): 24 inches (610 mm) long and 0.075 inch (1.91 mm) thick.
    - e. NPS 16 to NPS 24 (DN 400 to DN 600): 24 inches (610 mm) long and 0.105 inch (2.67 mm) thick.
  5. Pipes NPS 8 (DN 200) and Larger: Include wood or reinforced calcium-silicate-insulation inserts of length at least as long as protective shield.
  6. Thermal-Hanger Shields: Install with insulation same thickness as piping insulation.

### 3.3 EQUIPMENT SUPPORTS

- A. Fabricate structural-steel stands to suspend equipment from structure overhead or to support equipment above floor.
- B. Grouting: Place grout under supports for equipment and make bearing surface smooth.
- C. Provide lateral bracing, to prevent swaying, for equipment supports.

### 3.4 METAL FABRICATIONS

- A. Cut, drill, and fit miscellaneous metal fabrications for trapeze pipe hangers and equipment supports.
- B. Fit exposed connections together to form hairline joints. Field weld connections that cannot be shop welded because of shipping size limitations.
- C. Field Welding: Comply with AWS D1.1/D1.1M procedures for shielded, metal arc welding; appearance and quality of welds; and methods used in correcting welding work; and with the following:
  1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
  2. Obtain fusion without undercut or overlap.
  3. Remove welding flux immediately.
  4. Finish welds at exposed connections so no roughness shows after finishing and so contours of welded surfaces match adjacent contours.

### 3.5 ADJUSTING

- A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.
- B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches (40 mm).

### 3.6 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
  - 1. Apply paint by brush or spray to provide a minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A780/A780M.

### 3.7 HANGER AND SUPPORT SCHEDULE

- A. Specific hanger and support requirements are in Sections specifying piping systems and equipment.
- B. Comply with MSS SP-58 for pipe-hanger selections and applications that are not specified in piping system Sections.
- C. Use hangers and supports with galvanized metallic coatings for piping and equipment that will not have field-applied finish.
- D. Use nonmetallic coatings on attachments for electrolytic protection where attachments are in direct contact with copper tubing.
- E. Use carbon-steel pipe hangers and supports and metal trapeze pipe hangers and attachments for general service applications.
- F. Use copper-plated pipe hangers and copper or stainless steel attachments for copper piping and tubing.
- G. Use padded hangers for piping that is subject to scratching.
- H. Use thermal-hanger shield inserts for insulated piping and tubing.
- I. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
  - 1. Adjustable, Steel Clevis Hangers (MSS Type 1): For suspension of noninsulated or insulated, stationary pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).

2. Yoke-Type Pipe Clamps (MSS Type 2): For suspension of up to 1050 deg F (566 deg C), pipes NPS 4 to NPS 24 (DN 100 to DN 600), requiring up to 4 inches (100 mm) of insulation.
3. Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3): For suspension of pipes NPS 3/4 to NPS 36 (DN 20 to DN 900), requiring clamp flexibility and up to 4 inches (100 mm) of insulation.
4. Steel Pipe Clamps (MSS Type 4): For suspension of cold and hot pipes NPS 1/2 to NPS 24 (DN 15 to DN 600) if little or no insulation is required.
5. Pipe Hangers (MSS Type 5): For suspension of pipes NPS 1/2 to NPS 4 (DN 15 to DN 100), to allow off-center closure for hanger installation before pipe erection.
6. Adjustable, Swivel Split- or Solid-Ring Hangers (MSS Type 6): For suspension of noninsulated, stationary pipes NPS 3/4 to NPS 8 (DN 20 to DN 200).
7. Adjustable, Steel Band Hangers (MSS Type 7): For suspension of noninsulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
8. Adjustable Band Hangers (MSS Type 9): For suspension of noninsulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
9. Adjustable, Swivel-Ring Band Hangers (MSS Type 10): For suspension of noninsulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
10. Split Pipe Ring with or without Turnbuckle Hangers (MSS Type 11): For suspension of noninsulated, stationary pipes NPS 3/8 to NPS 8 (DN 10 to DN 200).
11. Extension Hinged or Two-Bolt Split Pipe Clamps (MSS Type 12): For suspension of noninsulated, stationary pipes NPS 3/8 to NPS 3 (DN 10 to DN 80).
12. U-Bolts (MSS Type 24): For support of heavy pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).
13. Clips (MSS Type 26): For support of insulated pipes not subject to expansion or contraction.
14. Pipe Saddle Supports (MSS Type 36): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate.
15. Pipe Stanchion Saddles (MSS Type 37): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate, and with U-bolt to retain pipe.
16. Adjustable Pipe Saddle Supports (MSS Type 38): For stanchion-type support for pipes NPS 2-1/2 to NPS 36 (DN 65 to DN 900) if vertical adjustment is required, with steel-pipe base stanchion support and cast-iron floor flange.
17. Single-Pipe Rolls (MSS Type 41): For suspension of pipes NPS 1 to NPS 30 (DN 25 to DN 750), from two rods if longitudinal movement caused by expansion and contraction might occur.
18. Adjustable Roller Hangers (MSS Type 43): For suspension of pipes NPS 2-1/2 to NPS 24 (DN 65 to DN 600), from single rod if horizontal movement caused by expansion and contraction might occur.
19. Complete Pipe Rolls (MSS Type 44): For support of pipes NPS 2 to NPS 42 (DN 50 to DN 1050) if longitudinal movement caused by expansion and contraction might occur but vertical adjustment is unnecessary.
20. Pipe Roll and Plate Units (MSS Type 45): For support of pipes NPS 2 to NPS 24 (DN 50 to DN 600) if small horizontal movement caused by expansion and contraction might occur and vertical adjustment is unnecessary.
21. Adjustable Pipe Roll and Base Units (MSS Type 46): For support of pipes NPS 2 to NPS 30 (DN 50 to DN 750) if vertical and lateral adjustment during installation might be required in addition to expansion and contraction.

- J. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers NPS 3/4 to NPS 24 (DN 24 to DN 600).
  2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers NPS 3/4 to NPS 24 (DN 20 to DN 600) if longer ends are required for riser clamps.
- K. Hanger-Rod Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel Turnbuckles (MSS Type 13): For adjustment up to 6 inches (150 mm) for heavy loads.
  2. Steel Clevises (MSS Type 14): For 120 to 450 deg F (49 to 232 deg C) piping installations.
  3. Swivel Turnbuckles (MSS Type 15): For use with MSS Type 11, split pipe rings.
  4. Malleable-Iron Sockets (MSS Type 16): For attaching hanger rods to various types of building attachments.
  5. Steel Weldless Eye Nuts (MSS Type 17): For 120 to 450 deg F (49 to 232 deg C) piping installations.
- L. Building Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel or Malleable Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.
  2. Top-Beam C-Clamps (MSS Type 19): For use under roof installations with bar-joint construction, to attach to top flange of structural shape.
  3. Side-Beam or Channel Clamps (MSS Type 20): For attaching to bottom flange of beams, channels, or angles.
  4. Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.
  5. Welded Beam Attachments (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.
  6. C-Clamps (MSS Type 23): For structural shapes.
  7. Top-Beam Clamps (MSS Type 25): For top of beams if hanger rod is required tangent to flange edge.
  8. Side-Beam Clamps (MSS Type 27): For bottom of steel I-beams.
  9. Steel-Beam Clamps with Eye Nuts (MSS Type 28): For attaching to bottom of steel I-beams for heavy loads.
  10. Linked-Steel Clamps with Eye Nuts (MSS Type 29): For attaching to bottom of steel I-beams for heavy loads, with link extensions.
  11. Malleable-Beam Clamps with Extension Pieces (MSS Type 30): For attaching to structural steel.
  12. Welded-Steel Brackets: For support of pipes from below or for suspending from above by using clip and rod. Use one of the following for indicated loads:
    - a. Light (MSS Type 31): 750 lb (340 kg).
    - b. Medium (MSS Type 32): 1500 lb (680 kg).
    - c. Heavy (MSS Type 33): 3000 lb (1360 kg).
  13. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
  14. Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.

15. Horizontal Travelers (MSS Type 58): For supporting piping systems subject to linear horizontal movement where headroom is limited.
- M. Saddles and Shields: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel-Pipe-Covering Protection Saddles (MSS Type 39): To fill interior voids with insulation that matches adjoining insulation.
  2. Protection Shields (MSS Type 40): Of length recommended in writing by manufacturer to prevent crushing insulation.
  3. Thermal-Hanger Shield Inserts: For supporting insulated pipe.
- N. Spring Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Restraint-Control Devices (MSS Type 47): Where indicated to control piping movement.
  2. Spring Cushions (MSS Type 48): For light loads if vertical movement does not exceed 1-1/4 inches (32 mm).
  3. Spring-Cushion Roll Hangers (MSS Type 49): For equipping Type 41, roll hanger with springs.
  4. Spring Sway Braces (MSS Type 50): To retard sway, shock, vibration, or thermal expansion in piping systems.
  5. Variable-Spring Hangers (MSS Type 51): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from hanger.
  6. Variable-Spring Base Supports (MSS Type 52): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from base support.
  7. Variable-Spring Trapeze Hangers (MSS Type 53): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from trapeze support.
  8. Constant Supports: For critical piping stress and if necessary to avoid transfer of stress from one support to another support, critical terminal, or connected equipment. Include auxiliary stops for erection, hydrostatic test, and load-adjustment capability. These supports include the following types:
    - a. Horizontal (MSS Type 54): Mounted horizontally.
    - b. Vertical (MSS Type 55): Mounted vertically.
    - c. Trapeze (MSS Type 56): Two vertical-type supports and one trapeze member.
- O. Comply with MSS SP-58 for trapeze pipe-hanger selections and applications that are not specified in piping system Sections.
- P. Comply with MFMA-103 for metal framing system selections and applications that are not specified in piping system Sections.
- Q. Use powder-actuated fasteners or mechanical-expansion anchors instead of building attachments where required in concrete construction.

END OF SECTION

## SECTION 23 05 53

### IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.1 SUMMARY

###### A. Section Includes:

1. Equipment labels.
2. Warning signs and labels.
3. Warning tape.
4. Pipe labels.
5. Duct labels.
6. Stencils.
7. Valve tags.
8. Warning tags.

##### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For color, letter style, and graphic representation required for each identification material and device.
- C. Equipment-Label Schedule: Include a listing of all equipment to be labeled with the proposed content for each label.
- D. Valve-numbering scheme.
- E. Valve Schedules: Provide for each piping system. Include in operation and maintenance manuals.

#### PART 2 - PRODUCTS

##### 2.1 EQUIPMENT LABELS

###### A. Metal Labels for Equipment:

1. Material and Thickness: Brass, 0.032-inch (0.8-mm) or stainless steel, 0.025-inch (0.64-mm) or aluminum, 0.032-inch (0.8-mm) minimum thickness, with predrilled or stamped holes for attachment hardware.
2. Letter and Background Color: As indicated for specific application under Part 3.
3. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
4. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances of up to 72 inches (1830 mm),

and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.

5. Fasteners: Stainless steel rivets or self-tapping screws.
6. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

B. Plastic Labels for Equipment:

1. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch (3.2 mm) thick, with predrilled holes for attachment hardware.
2. Letter and Background Color: As indicated for specific application under Part 3.
3. Maximum Temperature: Able to withstand temperatures of up to 160 deg F (71 deg C).
4. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
5. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances of up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
6. Fasteners: Stainless steel rivets or self-tapping screws.
7. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

C. Label Content: Include equipment's Drawing designation or unique equipment number, Drawing numbers where equipment is indicated (plans, details, and schedules), and the Specification Section number and title where equipment is specified.

## 2.2 WARNING SIGNS AND LABELS

- A. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch (3.2 mm) thick, with predrilled holes for attachment hardware.
- B. Letter and Background Color: As indicated for specific application under Part 3.
- C. Maximum Temperature: Able to withstand temperatures of up to 160 deg F (71 deg C).
- D. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch (64 by 19 mm).
- E. Minimum Letter Size: 1/4 inch (6.4 mm) for name of units if viewing distance is less than 24 inches (600 mm), 1/2 inch (13 mm) for viewing distances of up to 72 inches (1830 mm), and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
- F. Fasteners: Stainless steel rivets or self-taping screws.
- G. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.
- H. Arc-Flash Warning Signs: Provide arc-flash warning signs in locations and with content in accordance with requirements of OSHA and NFPA 70E and other applicable codes and standards.
- I. Label Content: Include caution and warning information plus emergency notification instructions.

## 2.3 WARNING TAPE

- A. Material: Vinyl.
- B. Minimum Thickness: 0.005 inch (0.12 mm).
- C. Letter, Pattern, and Background Color: As indicated for specific application under Part 3.
- D. Waterproof Adhesive Backing: Suitable for indoor or outdoor use.
- E. Maximum Temperature: 160 deg F (70 deg C).
- F. Minimum Width: 2 inches (50 mm).

## 2.4 PIPE LABELS

- A. General Requirements for Manufactured Pipe Labels: Preprinted, color coded, with lettering indicating service and showing flow direction in accordance with ASME A13.1.
- B. Letter and Background Color: As indicated for specific application under Part 3.
- C. Pretensioned Pipe Labels: Precoiled, semirigid plastic formed to partially cover circumference of pipe and to attach to pipe without fasteners or adhesive.
- D. Self-Adhesive Pipe Labels: Printed plastic with contact-type, permanent-adhesive backing.
- E. Pipe Label Contents: Include identification of piping service using same designations or abbreviations as used on Drawings. Also include:
  - 1. Pipe size.
  - 2. Flow-Direction Arrows: Include flow-direction arrows on distribution piping. Arrows may be either integral with label or applied separately.
  - 3. Lettering Size: Size letters in accordance with ASME A13.1 for piping

## 2.5 VALVE TAGS

- A. Description: Stamped or engraved with 1/4-inch (6.4-mm) letters for piping system abbreviation and 1/2-inch (13-mm) numbers.
  - 1. Tag Material: Brass, 0.04-inch (1.0-mm) or stainless steel, 0.024-inch (0.61-mm) or aluminum, 0.031-inch (0.79-mm) or anodized aluminum, 0.031-inch (0.79-mm) minimum thickness, with predrilled or stamped holes for attachment hardware.
  - 2. Fasteners: Brass wire or link chain or S-hook.
- B. Letter and Background Color: As indicated for specific application under Part 3.
- C. Valve Schedules: For each piping system, on 8-1/2-by-11-inch (A4) bond paper. Tabulate valve number, piping system, system abbreviation (as shown on valve tag), location of valve (room or space), normal-operating position (open, closed, or modulating), and variations for identification. Mark valves for emergency shutoff and similar special uses.

1. Include valve-tag schedule in operation and maintenance data.

## 2.6 WARNING TAGS

- A. Description: Preprinted accident-prevention tags of plasticized card stock

1. Size: 3 by 5-1/4 inches (75 by 133 mm) minimum
2. Fasteners: Brass grommet and wire.
3. Nomenclature: Large-size primary caption, such as "DANGER," "CAUTION," or "DO NOT OPERATE."
4. Letter and Background Color: As indicated for specific application under Part 3.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Clean piping and equipment surfaces of incompatible primers, paints, and encapsulants, as well as dirt, oil, grease, release agents, and other substances that could impair bond of identification devices.

### 3.2 INSTALLATION, GENERAL REQUIREMENTS

- A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- B. Coordinate installation of identifying devices with locations of access panels and doors.
- C. Install identifying devices before installing acoustical ceilings and similar concealment.
- D. Locate identifying devices so that they are readily visible from the point of normal approach.

### 3.3 INSTALLATION OF EQUIPMENT LABELS, WARNING SIGNS, AND LABELS

- A. Permanently fasten labels on each item of mechanical equipment.
- B. Sign and Label Colors:
  1. White letters on an ANSI Z535.1 safety-blue background.
- C. Locate equipment labels where accessible and visible.
- D. Arc-Flash Warning Signs: Provide arc-flash warning signs on electrical disconnects and other equipment where arc-flash hazard exists, as indicated on Drawings, and in accordance with requirements of OSHA and NFPA 70E.

### 3.4 INSTALLATION OF WARNING TAPE

- A. Warning Tape Color and Pattern: Yellow background with black diagonal stripes.
- B. Install warning tape on pipes and ducts, with cross-designated walkways providing less than 6 ft. (2 m) of clearance.
- C. Locate tape so as to be readily visible from the point of normal approach.

### 3.5 INSTALLATION OF PIPE LABELS

- A. Install pipe labels showing service and flow direction with permanent adhesive on pipes.
- B. Pipe-Label Locations: Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:
  - 1. Within 3 ft. (1 m) of each valve and control device.
  - 2. At access doors, manholes, and similar access points that permit view of concealed piping.
  - 3. Within 3 ft. (1 m) of equipment items and other points of origination and termination.
  - 4. Spaced at maximum intervals of [25 ft. (8 m)] <Insert dimension> along each run. Reduce intervals to [10 ft. (3.0 m)] <Insert dimension> in areas of congested piping, ductwork, and equipment.
- C. Do not apply plastic pipe labels or plastic tapes directly to bare pipes conveying fluids at temperatures of 125 deg F (52 deg C) or higher. Where these pipes are to remain uninsulated, use a short section of insulation or use stenciled labels.
- D. Flow-Direction Arrows: Use arrows to indicate direction of flow in pipes, including pipes where flow is allowed in both directions.
- E. Pipe-Label Color Schedule:
  - 1. Refrigerant Piping: White letters on an ANSI Z535.1 safety-blue background.
  - 2. Potable and Other Water: White letters on an ANSI Z535.1 safety-green background.

### 3.6 INSTALLATION OF VALVE TAGS

- A. Install tags on valves and control devices in piping systems, except check valves, valves within factory-fabricated equipment units, shutoff valves, and HVAC terminal devices and similar roughing-in connections of end-use fixtures and units. List tagged valves in a valve schedule in the operating and maintenance manual.
- B. Valve-Tag Application Schedule: Tag valves according to size, shape, and color scheme and with captions similar to those indicated in "Valve-Tag Size and Shape" Subparagraph below.
  - 1. Valve-Tag Size and Shape:
    - a. Refrigerant: 1-1/2 inches (38 mm), round.
    - b. Gas: 1-1/2 inches (38 mm), round.

2. Valve-Tag Colors:

- a. For each piping system, use the same lettering and background coloring system on valve tags as used for the Pipe Label Schedule text and background.

3.7 INSTALLATION OF WARNING TAGS

- A. Warning Tag Color: Black letters on an ANSI Z535.1 safety-yellow background

END OF SECTION

## SECTION 23 11 23

### FACILITY NATURAL-GAS PIPING

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Pipes, tubes, and fittings.
  - 2. Piping specialties.
  - 3. Joining materials.
  - 4. Manual gas shutoff valves.
  - 5. Pressure regulators.
  - 6. Dielectric fittings.

##### 1.2 DEFINITIONS

- A. CWP: Cold working pressure.
- B. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. An example includes rooftop locations.
- C. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- D. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawlspaces, and tunnels.

##### 1.3 ACTION SUBMITTALS

- A. Product Data:
  - 1. Piping specialties.
  - 2. Valves. Include pressure rating, capacity, settings, and electrical connection data of selected models.
  - 3. Pressure regulators. Indicate pressure ratings and capacities.
  - 4. Dielectric fittings.

##### 1.4 QUALITY ASSURANCE

- A. Qualifications:

1. Steel Support Welding: Qualify procedures and personnel in accordance with AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. Pipe Welding: Qualify procedures and operators in accordance with the ASME Boiler and Pressure Vessel Code.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Handling Flammable Liquids: Remove and dispose of liquids from existing natural-gas piping in accordance with requirements of authorities having jurisdiction.
- B. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.
- C. Store and handle pipes and tubes having factory-applied protective coatings to avoid damaging coating, and protect from direct sunlight.
- D. Protect stored PE pipes and valves from direct sunlight.

#### 1.6 PROJECT CONDITIONS

- A. Perform site survey, research public utility records, and verify existing utility locations. Contact utility-locating service for area where Project is located.
- B. Interruption of Existing Natural-Gas Service: Do not interrupt natural-gas service to facilities occupied by Owner or others unless permitted under the following conditions, and then only after arranging to provide purging and startup of natural-gas supply in accordance with requirements indicated:
  1. Notify Architect and Construction Manager and Owner no fewer than two days in advance of proposed interruption of natural-gas service.
  2. Do not proceed with interruption of natural-gas service without Owner's written permission.

#### 1.7 COORDINATION

- A. Coordinate sizes and locations of concrete bases with actual equipment provided.
- B. Coordinate requirements for access panels and doors for valves installed and concealed behind finished surfaces.
- C. Coordinate requirements for piping identification for natural-gas piping. Comply with requirements in Section 220553 "Identification of Plumbing Piping and Equipment."

## PART 2 - PRODUCTS

### 2.1 SOURCE LIMITATIONS

- A. Obtain each product type from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. Comply with the International Fuel Gas Code.
- B. Minimum Operating-Pressure Ratings:
  - 1. Piping and Valves: 100 psig (690 kPa) minimum unless otherwise indicated.
- C. Natural-Gas System Pressure within Buildings:
  - 1. Single Pressure: 0.5 psig (3.45 kPa) or less.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

### 2.3 PIPES, TUBES, AND FITTINGS

- A. Steel Pipe: ASTM A53/A53M, black steel, Schedule 40, Type E or S, Grade B.
  - 1. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
  - 2. Wrought-Steel Welding Fittings: ASTM A234/A234M for butt welding and socket welding.
  - 3. Unions: ASME B16.39, Class 150, malleable iron with brass-to-iron seat, ground joint, and threaded ends.
  - 4. Forged-Steel Flanges and Flanged Fittings: ASME B16.5, minimum Class 150, including bolts, nuts, and gaskets of the following material group, end connections, and facings:
    - a. Material Group: 1.1.
    - b. End Connections: Threaded or butt welding to match pipe.
    - c. Lapped Face: Not permitted underground.
    - d. Gasket Materials: ASME B16.20, metallic, flat, asbestos free, aluminum O-rings, and spiral-wound metal gaskets.
    - e. Bolts and Nuts: ASME B18.2.1, carbon steel aboveground and stainless steel underground.
  - 5. Protective Coating for Underground Piping: Factory-applied, three-layer coating of epoxy, adhesive, and PE.
    - a. Joint Cover Kits: Epoxy paint, adhesive, and heat-shrink PE sleeves.
  - 6. Mechanical Couplings:
    - a. Stainless steel flanges and tube with epoxy finish.
    - b. NBR seals.

- c. Stainless steel bolts, washers, and nuts.
  - d. Coupling is to be capable of joining PE pipe to PE pipe, steel pipe to PE pipe, or steel pipe to steel pipe.
  - e. Steel body couplings installed underground on plastic pipe are to be factory equipped with anode.
- B. Aluminum Tubing: Comply with ASTM B210 and ASTM B241/B241M.
- 1. Aluminum Alloy: Alloy 5456 is prohibited.
  - 2. Protective Coating: Factory-applied coating capable of resisting corrosion on tubing in contact with masonry, plaster, insulation, water, detergents, and sewerage.
  - 3. Flare Fittings: Comply with ASME B16.26 and SAE J513.
    - a. Copper-alloy fittings.
    - b. Metal-to-metal compression seal without gasket.
    - c. Dryseal threads complying with ASME B1.20.3.
- C. Drawn-Temper Copper Tube: Comply with ASTM B88, Type K (ASTM B88M, Type A) or ASTM B88, Type L (ASTM B88M, Type B)
- 1. Copper Fittings: ASME B16.22, wrought copper, and streamlined pattern.
  - 2. Bronze Flanges and Flanged Fittings: ASME B16.24, Class 150.
    - a. Gasket Material: ASME B16.20, metallic, flat, asbestos free, aluminum O-rings, and spiral-wound metal gaskets.
    - b. Bolts and Nuts: ASME B18.2.1, carbon steel or stainless steel.
  - 3. Protective Coating for Underground Tubing: Factory-applied, extruded PE a minimum of 0.022 inch (0.56 mm) thick.
- D. Annealed-Temper Copper Tube: Comply with [ASTM B88, Type K (ASTM B88M, Type A) or ASTM B88, Type L (ASTM B88M, Type B)]
- 1. Copper Fittings: ASME B16.22, wrought copper, and streamlined pattern.
  - 2. Flare Fittings: Comply with ASME B16.26 and SAE J513.
    - a. Copper fittings with long nuts.
    - b. Metal-to-metal compression seal without gasket.
    - c. Dryseal threads complying with ASME B1.20.3.
  - 3. Protective Coating for Underground Tubing: Factory-applied, extruded PE a minimum of 0.022 inch (0.56 mm) thick.
- E. PE Pipe: ASTM D2513, SDR 11.
- 1. PE Fittings: ASTM D2683, socket-fusion type or ASTM D3261, butt-fusion type with dimensions matching PE pipe.
  - 2. PE Transition Fittings: Factory-fabricated fittings with PE pipe complying with ASTM D2513, SDR 11; and steel pipe complying with ASTM A53/A53M, black steel, Schedule 40, Type E or S, Grade B.
  - 3. Anodeless Service-Line Risers: Factory fabricated and leak tested.

- a. Underground Portion: PE pipe complying with ASTM D2513, SDR 11 inlet.
  - b. Casing: Steel pipe complying with ASTM A53/A53M, Schedule 40, black steel, Type E or S, Grade B, with corrosion-protective coating covering.
  - c. Aboveground Portion: PE transition fitting.
  - d. Outlet is threaded or flanged or suitable for welded connection.
  - e. Tracer wire connection.
  - f. UV shield.
  - g. Stake supports with factory finish to match steel pipe casing or carrier pipe.
4. Transition Service-Line Risers: Factory fabricated and leak tested.
- a. Underground Portion: PE pipe complying with ASTM D2513, SDR 11 inlet connected to steel pipe complying with ASTM A53/A53M, Schedule 40, Type E or S, Grade B, with corrosion-protective coating for aboveground outlet.
  - b. Outlet is threaded or flanged or suitable for welded connection.
  - c. Bridging sleeve over mechanical coupling.
  - d. Factory-connected anode.
  - e. Tracer wire connection.
  - f. UV shield.
  - g. Stake supports with factory finish to match steel pipe casing or carrier pipe.
5. Plastic Mechanical Couplings, NPS 1-1/2 (DN 40) and Smaller: Suitable for joining PE pipe to PE pipe.
- a. PE body with molded-in, stainless steel support ring.
  - b. Seals: NBR.
  - c. Acetal collets.
  - d. Electro-zinc-plated steel stiffener.
6. Steel Mechanical Couplings: Suitable for joining plain-end PE pipe to PE pipe, steel pipe to PE pipe, or steel pipe to steel pipe.
- a. Stainless steel flanges and tube with epoxy finish.
  - b. Seals: NBR.
  - c. Stainless steel bolts, washers, and nuts.
  - d. Factory-installed anode for steel-body couplings installed underground.

## 2.4 PIPING SPECIALTIES

### A. Appliance Flexible Connectors:

- 1. Indoor, Fixed-Appliance Flexible Connectors: Comply with ANSI Z21.24.
- 2. Indoor, Movable-Appliance Flexible Connectors: Comply with ANSI Z21.69.
- 3. Outdoor, Appliance Flexible Connectors: Comply with ANSI Z21.75.
- 4. Corrugated, stainless steel tubing with polymer coating.
- 5. Operating-Pressure Rating: 0.5 psig (3.45 kPa).
- 6. End Fittings: Zinc-coated steel.
- 7. Threaded Ends: Comply with ASME B1.20.1.
- 8. Maximum Length: 72 inches (1830 mm).

### B. Quick-Disconnect Devices: Comply with ANSI Z21.41.

1. Copper-alloy convenience outlet and matching plug connector.
2. Seals: Nitrile.
3. Hand operated with automatic shutoff when disconnected.
4. For indoor or outdoor applications.
5. Adjustable, retractable restraining cable.

C. Y-Pattern Strainers:

1. Body: ASTM A126, Class B, cast iron with bolted cover and bottom drain connection.
2. End Connections: Threaded ends for NPS 2 (DN 50) and smaller; flanged ends for NPS 2-1/2 (DN 65) and larger.
3. Strainer Screen: 40-mesh startup strainer, and perforated stainless steel basket with 50 percent free area.
4. CWP Rating: 125 psig (862 kPa).

D. Basket Strainers:

1. Body: ASTM A126, Class B, high-tensile cast iron with bolted cover and bottom drain connection.
2. End Connections: Threaded ends for NPS 2 (DN 50) and smaller; flanged ends for NPS 2-1/2 (DN 65) and larger.
3. Strainer Screen: 40-mesh startup strainer, and perforated stainless steel basket with 50 percent free area.
4. CWP Rating: 125 psig (862 kPa).

E. T-Pattern Strainers:

1. Body: Ductile or malleable iron with removable access coupling and end cap for strainer maintenance.
2. End Connections: Grooved ends.
3. Strainer Screen: 40-mesh startup strainer, and perforated stainless steel basket with 57 percent free area.
4. CWP Rating: 750 psig (5170 kPa).

F. Weatherproof Vent Cap:

1. Cast- or malleable-iron increaser fitting with corrosion-resistant wire screen, with free area at least equal to cross-sectional area of connecting pipe and threaded-end connection.

## 2.5 JOINING MATERIALS

- A. Joint Compound and Tape: Suitable for natural gas.
- B. Welding Filler Metals: Comply with AWS D10.12/D10.12M for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- C. Brazing Filler Metals: Alloy with melting point greater than 1000 deg F (540 deg C) complying with AWS A5.8/A5.8M. Brazing alloys containing more than 0.05 percent phosphorus are prohibited.

## 2.6 MANUAL GAS SHUTOFF VALVES

- A. See "Underground, Manual Gas Shutoff Valve Schedule" and "Aboveground, Manual Gas Shutoff Valve Schedule" articles for where each valve type is applied in various services.
- B. General Requirements for Metallic Valves, NPS 2 (DN 50) and Smaller: Comply with ASME B16.33.
  - 1. CWP Rating: 125 psig (862 kPa).
  - 2. Threaded Ends: Comply with ASME B1.20.1.
  - 3. Dryseal Threads on Flare Ends: Comply with ASME B1.20.3.
  - 4. Tamperproof Feature: Locking feature for valves indicated in "Underground, Manual Gas Shutoff Valve Schedule" and "Aboveground, Manual Gas Shutoff Valve Schedule" articles.
  - 5. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for valves 1 inch (25 mm) and smaller.
  - 6. Service Mark: Valves NPS 1-1/4 to NPS 2 (DN 32 to DN 50) having initials "WOG" permanently marked on valve body.
- C. PE Ball Valves: Comply with ASME B16.40.
  - 1. Body: PE.
  - 2. Ball: PE.
  - 3. Stem: Acetal.
  - 4. Seats and Seals: Nitrile.
  - 5. Ends: Plain or fusible to match piping.
  - 6. CWP Rating: 80 psig (552 kPa)
  - 7. Operating Temperature: Minus 20 to plus 140 deg F (Minus 29 to plus 60 deg C).
  - 8. Operator: Nut or flat head for key operation.
  - 9. Include plastic valve extension.
  - 10. Include tamperproof locking feature for valves where indicated on Drawings.
- D. Valve Boxes:
  - 1. Cast-iron, two-section box.
  - 2. Top section with cover with "GAS" lettering.
  - 3. Bottom section with base to fit over valve and barrel a minimum of 5 inches (125 mm) in diameter.
  - 4. Adjustable cast-iron extensions of length required for depth of bury.
  - 5. Include tee-handle, steel operating wrench with socket end fitting valve nut or flat head, and with stem of length required to operate valve.

## 2.7 PRESSURE REGULATORS

- A. General Requirements:
  - 1. Single stage and suitable for natural gas.
  - 2. Steel jacket and corrosion-resistant components.
  - 3. Elevation compensator.
  - 4. End Connections: Threaded for regulators NPS 2 (DN 50) and smaller; flanged for regulators NPS 2-1/2 (DN 65) and larger.

- B. Appliance Pressure Regulators: Comply with ANSI Z21.18.
  - 1. Body and Diaphragm Case: Die-cast aluminum.
  - 2. Springs: Zinc-plated steel; interchangeable.
  - 3. Diaphragm Plate: Zinc-plated steel.
  - 4. Seat Disc: NBR.
  - 5. Seal Plug: UV-stabilized, mineral-filled nylon.
  - 6. Factory-Applied Finish: Minimum three-layer polyester and polyurethane paint finish.
  - 7. Regulator may include vent limiting device, instead of vent connection, if approved by authorities having jurisdiction.
  - 8. Maximum Inlet Pressure: 1 psig (6.9 kPa)

## 2.8 DIELECTRIC FITTINGS

- A. General Requirements: Assembly of copper alloy and ferrous materials with separating nonconductive insulating material. Include end connections compatible with pipes to be joined.
- B. Dielectric Unions:
  - 1. Description:
    - a. Standard: ASSE 1079.
    - b. Pressure Rating: 150 psig (1035 kPa)
    - c. End Connections: Solder-joint copper alloy and threaded ferrous.
- C. Dielectric Flanges:
  - 1. Description:
    - a. Standard: ASSE 1079.
    - b. Factory-fabricated, bolted, companion-flange assembly.
    - c. Pressure Rating: 150 psig (1035 kPa)
    - d. End Connections: Solder-joint copper alloy and threaded ferrous; threaded solder-joint copper alloy and threaded ferrous.
- D. Dielectric-Flange Insulating Kits:
  - 1. Description:
    - a. Nonconducting materials for field assembly of companion flanges.
    - b. Pressure Rating: 150 psig (1035 kPa).
    - c. Gasket: Neoprene or phenolic.
    - d. Bolt Sleeves: Phenolic or polyethylene.
    - e. Washers: Phenolic with steel backing washers.

## 2.9 LABELING AND IDENTIFYING

- A. Detectable Warning Tape: Acid- and alkali-resistant, PE film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description and rated pressure of utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep; colored yellow.

- B. Label and identify gas piping and pressure outside a multitenant building by tenant.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine roughing-in for natural-gas piping system to verify actual locations of piping connections before equipment installation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Close equipment shutoff valves before turning off natural gas to premises or piping section.
- B. Inspect natural-gas piping in accordance with the International Fuel Gas Code to determine that natural-gas utilization devices are turned off in piping section affected.
- C. Comply with the International Fuel Gas Code requirements for preventing accidental ignition.

### 3.3 INSTALLATION OF INDOOR PIPING

- A. Comply with the International Fuel Gas Code for installation and purging of natural-gas piping.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements are used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- C. Arrange for pipe spaces, chases, slots, sleeves, and openings in building structure during progress of construction, to allow for mechanical installations.
- D. Do not install piping in concealed locations unless sleeved with the sleeve open at both ends.
- E. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- F. Where installing piping above accessible ceilings, allow sufficient space for ceiling panel removal.
- G. Locate valves for easy access. Do not locate valves within return air plenums.
- H. Install natural-gas piping at uniform grade of 2 percent down toward drip and sediment traps.
- I. Install piping free of sags and bends.
- J. Install fittings for changes in direction and branch connections.

- K. Verify final equipment locations for roughing-in.
- L. Comply with requirements in Sections specifying gas-fired appliances and equipment for roughing-in requirements.
- M. Drips and Sediment Traps: Install drips at points where condensate may collect, including service-meter outlets. Locate where accessible to permit cleaning and emptying. Do not install where condensate is subject to freezing.
  - 1. Construct drips and sediment traps using tee fitting with bottom outlet plugged or capped. Use nipple a minimum length of 3 pipe diameters, but not less than 3 inches (75 mm) long and same size as connected pipe. Install with space below bottom of drip to remove plug or cap.
- N. Extend relief vent connections for service regulators, line regulators, and overpressure protection devices to outdoors and terminate with weatherproof vent cap.
- O. Conceal pipe installations in walls, pipe spaces, utility spaces, above ceilings, below grade or floors, and in floor channels unless indicated to be exposed to view.
- P. Concealed Location Installations: Except as specified below, install concealed natural-gas piping and piping installed under the building in containment conduit constructed of steel pipe with welded joints as described in Part 2. Install a vent pipe from containment conduit to outdoors and terminate with weatherproof vent cap.
  - 1. Above Accessible Ceilings: Natural-gas piping, fittings, valves, and regulators may be installed in accessible spaces without containment conduit.
  - 2. In Walls or Partitions: Protect tubing installed inside partitions or hollow walls from physical damage using steel striker barriers at rigid supports.
    - a. Exception: Tubing passing through partitions or walls does not require striker barriers.
  - 3. Prohibited Locations:
    - a. Do not install natural-gas piping in or through circulating air ducts, clothes or trash chutes, chimneys or gas vents (flues), ventilating ducts, or dumbwaiter or elevator shafts.
    - b. Do not install natural-gas piping in solid walls or partitions.
- Q. Use eccentric reducer fittings to make reductions in pipe sizes. Install fittings with level side down.
- R. Connect branch piping from top or side of horizontal piping.
- S. Install unions in pipes NPS 2 (DN 50) and smaller, adjacent to each valve, at final connection to each piece of equipment. Unions are not required at flanged connections.
- T. Do not use natural-gas piping as grounding electrode.

- U. Install strainer on inlet of each line-pressure regulator and automatic or electrically operated valve.
- V. Install pressure gauge downstream from each line regulator.
- W. Install sleeves for piping penetrations of walls, ceilings, and floors.
- X. Install sleeve seals for piping penetrations of concrete walls and slabs.
- Y. Install escutcheons for piping penetrations of walls, ceilings, and floors.

### 3.4 INSTALLATION OF VALVES

- A. Install manual gas shutoff valve for each gas appliance ahead of corrugated stainless steel tubing, aluminum, or copper connector.
- B. Install underground valves with valve boxes.
- C. Install regulators and overpressure protection devices with maintenance access space adequate for servicing and testing.
- D. Install earthquake valves aboveground outside buildings according to listing.
- E. Install anode for metallic valves in underground PE piping.
- F. Do not install valves in return-air plenums.

### 3.5 PIPING JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints:
  1. Thread pipe with tapered pipe threads complying with ASME B1.20.1.
  2. Cut threads full and clean using sharp dies.
  3. Ream threaded pipe ends to remove burrs and restore full inside diameter of pipe.
  4. Apply appropriate tape or thread compound to external pipe threads unless dryseal threading is specified.
  5. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- D. Welded Joints:
  1. Construct joints in accordance with AWS D10.12/D10.12M, using qualified processes and welding operators.
  2. Bevel plain ends of steel pipe.
  3. Patch factory-applied protective coating as recommended by manufacturer at field welds and where damage to coating occurs during construction.

- E. Brazed Joints: Construct joints in accordance with AWS's "Brazing Handbook," "Pipe and Tube" Chapter.
- F. Flanged Joints: Install gasket material, size, type, and thickness appropriate for natural-gas service. Install gasket concentrically positioned.
- G. Flared Joints: Cut tubing with roll cutting tool. Flare tube end with tool to result in flare dimensions complying with SAE J513. Tighten finger tight, and then use wrench. Do not overtighten.
- H. PE Piping Heat-Fusion Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join in accordance with ASTM D2657.
  - 1. Plain-End Pipe and Fittings: Use butt fusion.
  - 2. Plain-End Pipe and Socket Fittings: Use socket fusion.

### 3.6 INSTALLATION OF HANGERS AND SUPPORTS

- A. Comply with requirements in Section 230529 "Hangers and Supports for HVAC Piping and Equipment" for hangers, supports, and anchor devices.
- B. Install hangers for steel piping and copper tubing, with maximum horizontal spacing and minimum rod diameters, to comply with MSS SP-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.
- C. Install hangers for corrugated stainless steel tubing, with maximum horizontal spacing and minimum rod diameters, to comply with manufacturer's written instructions, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.
- D. Support horizontal piping within 12 inches (300 mm) of each fitting.
- E. Support vertical runs of steel piping and copper tubing to comply with MSS SP-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.
- F. Support vertical runs of corrugated stainless steel tubing to comply with manufacturer's written instructions, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.

### 3.7 PIPING CONNECTIONS

- A. Connect to utility's gas main according to utility's procedures and requirements.
- B. Install natural-gas piping electrically continuous, and bonded to gas-appliance equipment grounding conductor of the circuit powering the appliance in accordance with NFPA 70.
- C. Where installing piping adjacent to appliances, allow space for service and maintenance of appliances.

- D. Connect piping to appliances using manual gas shutoff valves and unions. Install valve within 72 inches (1800 mm) of each gas-fired appliance and equipment. Install union between valve and appliances or equipment.

### 3.8 LABELING AND IDENTIFICATION

- A. Comply with requirements in Section 230553 "Identification for HVAC Piping and Equipment" for piping and valve identification.
- B. Install detectable warning tape directly above gas piping, 12 inches (300 mm) below finished grade, except 6 inches (150 mm) below subgrade under pavements and slabs.

### 3.9 CONCRETE BASES

- A. Concrete Bases: Anchor equipment to concrete base
  - 1. Construct concrete bases of dimensions indicated, but not less than 4 inches (100 mm) larger in both directions than supported unit.
  - 2. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (450-mm) centers around the full perimeter of the base.
  - 3. Install epoxy-coated anchor bolts for supported equipment that extend through concrete base, and anchor into structural concrete floor.
  - 4. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
  - 5. Install anchor bolts to elevations required for proper attachment to supported equipment.
  - 6. Use 3000 psig (20.7 MPa), 28-day, compressive-strength concrete and reinforcement as specified in Section 033000 "Cast-in-Place Concrete."

### 3.10 FIELD QUALITY CONTROL

- A. Tests and Inspections:
  - 1. Test, inspect, and purge natural gas in accordance with the International Fuel Gas Code and authorities having jurisdiction.
  - 2. Natural-gas piping will be considered defective if it does not pass tests and inspections.
- B. Prepare test and inspection reports.

### 3.11 INDOOR PIPING SCHEDULE FOR SYSTEM PRESSURES LESS THAN 0.5 PSIG (3.45 kPa)

- A. Aboveground, branch piping NPS 1 (DN 25) and smaller is to be the following:
  - 1. Annealed-temper, tin-lined copper tube with flared joints and fittings.
  - 2. Annealed-temper, copper tube with wrought-copper fittings and brazed joints.
  - 3. Aluminum tube with flared fittings and joints.
  - 4. Steel pipe with malleable-iron fittings and threaded joints.

3.12 ABOVEGROUND, MANUAL GAS SHUTOFF VALVE SCHEDULE

- A. Valves for pipe sizes NPS 2 (DN 50) and smaller at service meter are to be one of the following:
  - 1. One-piece, bronze ball valve with bronze trim.
  - 2. Two-piece, regular-port, bronze ball valves with bronze trim.
  - 3. Bronze plug valve.
  
- B. Distribution piping valves for pipe sizes NPS 2 (DN 50) and smaller are to be[ one of] the following:
  - 1. One-piece, bronze ball valve with bronze trim.
  - 2. Two-piece, regular-port, bronze ball valves with bronze trim.
  - 3. Bronze plug valve.
  
- C. Valves in branch piping for single appliance are to be the following:
  - 1. One-piece, bronze ball valve with bronze trim.
  - 2. Two-piece, regular-port, bronze ball valves with bronze trim.
  - 3. Bronze plug valve.

END OF SECTION

## SECTION 23 23 00

### REFRIGERANT PIPING

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Copper tube and fittings.
  - 2. Steel pipe and fittings.
  - 3. Valves and specialties.
  - 4. Refrigerants.

##### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of valve, refrigerant piping, and piping specialty.
  - 1. Include pressure drop, based on manufacturer's test data, for the following:
    - a. Thermostatic expansion valves.
    - b. Solenoid valves.
    - c. Hot-gas bypass valves.
    - d. Filter dryers.
    - e. Strainers.
    - f. Pressure-regulating valves.

##### 1.4 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to 2010 ASME Boiler and Pressure Vessel Code: Section IX, "Welding and Brazing Qualifications."
- B. Comply with ASHRAE 15, "Safety Code for Refrigeration Systems."
- C. Comply with ASME B31.5, "Refrigeration Piping and Heat Transfer Components."

## 1.5 PRODUCT STORAGE AND HANDLING

- A. Store piping with end caps in place to ensure that piping interior and exterior are clean when installed.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Line Test Pressure for Refrigerant R-410A:
  - 1. Suction Lines for Air-Conditioning Applications: 300 psig (2068 kPa).
  - 2. Suction Lines for Heat-Pump Applications: 535 psig (3689 kPa).
  - 3. Hot-Gas and Liquid Lines: 535 psig (3689 kPa).

### 2.2 COPPER TUBE AND FITTINGS

- A. Copper Tube: ASTM B 88, Type K or L (ASTM B 88M, Type A or B)
- B. Wrought-Copper Fittings, Solder-Joint: ASME B16.22.
- C. Wrought-Copper Fittings, Brazed-Joint: ASME B16.50.
- D. Wrought-Copper Unions: ASME B16.22.
- E. Solder Filler Metals: ASTM B 32. Use 95-5 tin antimony or alloy HB solder to join copper socket fittings on copper pipe.
- F. Brazing Filler Metals: AWS A5.8/A5.8M.
- G. Flexible Connectors:
  - 1. Body: Tin-bronze bellows with woven, flexible, tinned-bronze-wire-reinforced protective jacket.
  - 2. End Connections: Socket ends.
  - 3. Offset Performance: Capable of minimum 3/4-inch (20-mm) misalignment in minimum 7-inch- (180-mm-) long assembly.
  - 4. Working Pressure Rating: Factory test at minimum 500 psig (3450 kPa).
  - 5. Maximum Operating Temperature: 250 deg F (121 deg C).
- H. Copper-Tube, Pressure-Seal-Joint Fittings for Refrigerant Piping:
  - 1. Standard: UL 207; certified by UL for field installation. Certification as a UL-recognized component alone is unacceptable.
  - 2. Housing: Copper.
  - 3. O-Rings: HNBR or compatible with specific refrigerant.
  - 4. Tools: Manufacturer's approved special tools.
  - 5. Minimum Rated Pressure: 700 psig (48 bar).

## 2.3 STEEL PIPE AND FITTINGS

- A. Steel Pipe: ASTM A 53/A 53M, black steel with plain ends; type, grade, and wall thickness as selected in piping application articles.
- B. Wrought-Steel Fittings: ASTM A 234/A 234M, for welded joints.
- C. Steel Flanges and Flanged Fittings: ASME B16.5, steel, including bolts, nuts, and gaskets, bevel-welded end connection, and raised face.
- D. Welding Filler Metals: Comply with AWS D10.12M/D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- E. Flanged Unions:
  - 1. Body: Forged-steel flanges for NPS 1 to NPS 1-1/2 (DN 25 to DN 40) and ductile iron for NPS 2 to NPS 3 (DN 50 to DN 80). Apply rust-resistant finish at factory.
  - 2. Gasket: Fiber asbestos free.
  - 3. Fasteners: Four plated-steel bolts, with silicon bronze nuts. Apply rust-resistant finish at factory.
  - 4. End Connections: Brass tailpiece adapters for solder-end connections to copper tubing.
  - 5. Offset Performance: Capable of minimum 3/4-inch (20-mm) misalignment in minimum 7-inch- (180-mm-) long assembly.
  - 6. Pressure Rating: Factory test at minimum 400 psig (2760 kPa).
  - 7. Maximum Operating Temperature: 330 deg F (165 deg C).
- F. Flexible Connectors:
  - 1. Body: Stainless-steel bellows with woven, flexible, stainless-steel-wire-reinforced protective jacket.
  - 2. End Connections:
    - a. NPS 2 (DN 50) and Smaller: With threaded-end connections.
    - b. NPS 2-1/2 (DN 65) and Larger: With flanged-end connections.
  - 3. Offset Performance: Capable of minimum 3/4-inch (20-mm) misalignment in minimum 7-inch- (180-mm-) long assembly.
  - 4. Pressure Rating: Factory test at minimum 500 psig (3450 kPa).
  - 5. Maximum Operating Temperature: 250 deg F (121 deg C).

## 2.4 VALVES AND SPECIALTIES

- A. Diaphragm Packless Valves:
  - 1. Body and Bonnet: Forged brass or cast bronze; globe design with straight-through or angle pattern.
  - 2. Diaphragm: Phosphor bronze and stainless steel with stainless-steel spring.
  - 3. Operator: Rising stem and hand wheel.
  - 4. Seat: Nylon.
  - 5. End Connections: Socket, union, or flanged.
  - 6. Working Pressure Rating: 500 psig (3450 kPa).

7. Maximum Operating Temperature: 275 deg F (135 deg C).
- B. Packed-Angle Valves:
1. Body and Bonnet: Forged brass or cast bronze.
  2. Packing: Molded stem, back seating, and replaceable under pressure.
  3. Operator: Rising stem.
  4. Seat: Nonrotating, self-aligning polytetrafluoroethylene.
  5. Seal Cap: Forged-brass or valox hex cap.
  6. End Connections: Socket, union, threaded, or flanged.
  7. Working Pressure Rating: 500 psig (3450 kPa).
  8. Maximum Operating Temperature: 275 deg F (135 deg C).
- C. Check Valves:
1. Body: Ductile iron, forged brass, or cast bronze; globe pattern.
  2. Bonnet: Bolted ductile iron, forged brass, or cast bronze; or brass hex plug.
  3. Piston: Removable polytetrafluoroethylene seat.
  4. Closing Spring: Stainless steel.
  5. Manual Opening Stem: Seal cap, plated-steel stem, and graphite seal.
  6. End Connections: Socket, union, threaded, or flanged.
  7. Maximum Opening Pressure: 0.50 psig (3.4 kPa).
  8. Working Pressure Rating: 500 psig (3450 kPa).
  9. Maximum Operating Temperature: 275 deg F (135 deg C).
- D. Service Valves:
1. Body: Forged brass with brass cap including key end to remove core.
  2. Core: Removable ball-type check valve with stainless-steel spring.
  3. Seat: Polytetrafluoroethylene.
  4. End Connections: Copper spring.
  5. Working Pressure Rating: 500 psig (3450 kPa).
- E. Refrigerant Locking Caps:
1. Description: Locking-type, tamper-resistant, threaded caps to protect refrigerant charging ports from unauthorized refrigerant access and leakage.
  2. Material: Brass, with protective shroud or sleeve.
  3. Refrigerant Identification: Color-coded, refrigerant specific design.
  4. Special Tool: For installing and unlocking.
- F. Solenoid Valves: Comply with AHRI 760 and UL 429; listed and labeled by a National Recognized Testing Laboratory (NRTL).
1. Body and Bonnet: Plated steel.
  2. Solenoid Tube, Plunger, Closing Spring, and Seat Orifice: Stainless steel.
  3. Seat: Polytetrafluoroethylene.
  4. End Connections: Threaded.
  5. Electrical: Molded, watertight coil in NEMA 250 enclosure of type required by location with 1/2-inch (16-GRC) conduit adapter, and 24-V ac coil.
  6. Working Pressure Rating: 400 psig (2760 kPa).
  7. Maximum Operating Temperature: 240 deg F (116 deg C).
- G. Safety Relief Valves: Comply with 2010 ASME Boiler and Pressure Vessel Code; listed and labeled by an NRTL.
1. Body and Bonnet: Ductile iron and steel, with neoprene O-ring seal.

2. Piston, Closing Spring, and Seat Insert: Stainless steel.
  3. Seat: Polytetrafluoroethylene.
  4. End Connections: Threaded.
  5. Working Pressure Rating: 400 psig (2760 kPa).
  6. Maximum Operating Temperature: 240 deg F (116 deg C).
- H. Straight-Type Strainers:
1. Body: Welded steel with corrosion-resistant coating.
  2. Screen: 100-mesh stainless steel.
  3. End Connections: Socket or flare.
  4. Working Pressure Rating: 500 psig (3450 kPa).
  5. Maximum Operating Temperature: 275 deg F (135 deg C).
- I. Angle-Type Strainers:
1. Body: Forged brass or cast bronze.
  2. Drain Plug: Brass hex plug.
  3. Screen: 100-mesh monel.
  4. End Connections: Socket or flare.
  5. Working Pressure Rating: 500 psig (3450 kPa).
  6. Maximum Operating Temperature: 275 deg F (135 deg C).
- J. Replaceable-Core Filter Dryers: Comply with AHRI 730.
1. Body and Cover: Painted-steel shell with ductile-iron cover, stainless-steel screws, and neoprene gaskets.
  2. Filter Media: 10 micron, pleated with integral end rings; stainless-steel support.
  3. Desiccant Media: Activated alumina or charcoal.
  4. ).
  5. End Connections: Socket.
  6. Access Ports: NPS 1/4 (DN 8) connections at entering and leaving sides for pressure differential measurement.
  7. Maximum Pressure Loss: 2 psig (14 kPa).
  8. Working Pressure Rating: 500 psig (3450 kPa).
  9. Maximum Operating Temperature: 240 deg F (116 deg C).
- K. Receivers: Comply with AHRI 495.
1. Comply with 2010 ASME Boiler and Pressure Vessel Code; listed and labeled by an NRTL.
  2. Comply with UL 207; listed and labeled by an NRTL.
  3. Body: Welded steel with corrosion-resistant coating.
  4. Tappings: Inlet, outlet, liquid level indicator, and safety relief valve.
  5. End Connections: Socket or threaded.
  6. Working Pressure Rating: 500 psig (3450 kPa).
  7. Maximum Operating Temperature: 275 deg F (135 deg C).
- L. Liquid Accumulators: Comply with AHRI 495.
1. Body: Welded steel with corrosion-resistant coating.
  2. End Connections: Socket or threaded.
  3. Working Pressure Rating: 500 psig (3450 kPa).
  4. Maximum Operating Temperature: 275 deg F (135 deg C).

## 2.5 REFRIGERANTS

- A. ASHRAE 34, R-410A: Pentafluoroethane/Difluoromethane.

## PART 3 - EXECUTION

### 3.1 PIPING APPLICATIONS FOR REFRIGERANT R-410A

- A. Suction Lines NPS 4 (DN 100) and Smaller for Conventional Air-Conditioning Applications: Copper, Type K (A) or Type L (B), drawn-temper tubing and wrought-copper fittings with soldered joints.
- B. Hot-Gas and Liquid Lines:
  - 1. Copper, Type K (A) or Type L (B), drawn-temper tubing and wrought-copper fittings with 95-5 tin-antimony soldered joints.
- C. Safety-Relief-Valve Discharge Piping:
  - 1. Copper, Type K (A) or Type L (B), drawn-temper tubing and wrought-copper fittings with 95-5 tin-antimony soldered joints.

### 3.2 VALVE AND SPECIALTY APPLICATIONS

- A. Install diaphragm packless or packed-angle valves in suction and discharge lines of compressor.
- B. Install service valves for gauge taps at inlet and outlet of hot-gas bypass valves and strainers if they are not an integral part of valves and strainers.
- C. Install a check valve at the compressor discharge and a liquid accumulator at the compressor suction connection.
- D. Except as otherwise indicated, install diaphragm packless or packed-angle valves on inlet and outlet side of filter dryers.
- E. Install a full-size, three-valve bypass around filter dryers.
- F. Install solenoid valves upstream from each expansion valve and hot-gas bypass valve. Install solenoid valves in horizontal lines with coil at top.
- G. Install thermostatic expansion valves as close as possible to distributors on evaporators.
  - 1. Install valve so diaphragm case is warmer than bulb.
  - 2. Secure bulb to clean, straight, horizontal section of suction line using two bulb straps. Do not mount bulb in a trap or at bottom of the line.
  - 3. If external equalizer lines are required, make connection where it will reflect suction-line pressure at bulb location.

- H. Install safety relief valves where required by 2010 ASME Boiler and Pressure Vessel Code. Pipe safety-relief-valve discharge line to outside according to ASHRAE 15.
- I. Install moisture/liquid indicators in liquid line at the inlet of the thermostatic expansion valve or at the inlet of the evaporator coil capillary tube.
- J. Install strainers upstream from and adjacent to the following unless they are furnished as an integral assembly for the device being protected:
  - 1. Solenoid valves.
  - 2. Thermostatic expansion valves.
  - 3. Hot-gas bypass valves.
  - 4. Compressor.
- K. Install filter dryers in liquid line between compressor and thermostatic expansion valve
- L. Install receivers sized to accommodate pump-down charge.
- M. Provide refrigerant locking caps on refrigerant charging ports that are located outdoors unless otherwise protected from unauthorized access by a means acceptable to the authority having jurisdiction.

### 3.3 INSTALLATION OF PIPING, GENERAL

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems; indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Shop Drawings.
- B. Install refrigerant piping according to ASHRAE 15.
- C. Install piping in concealed locations unless otherwise indicated and except in equipment rooms and service areas.
- D. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- E. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- F. Install piping adjacent to machines to allow service and maintenance.
- G. Install piping free of sags and bends.
- H. Install fittings for changes in direction and branch connections.
- I. Select system components with pressure rating equal to or greater than system operating pressure.
- J. Install piping as short and direct as possible, with a minimum number of joints, elbows, and fittings.

- K. Arrange piping to allow inspection and service of refrigeration equipment. Install valves and specialties in accessible locations to allow for service and inspection. Install access doors or panels as specified in Section 083113 "Access Doors and Frames" if valves or equipment requiring maintenance is concealed behind finished surfaces.
- L. Install refrigerant piping in protective conduit where installed belowground.
- M. Install refrigerant piping in rigid or flexible conduit in locations where exposed to mechanical injury.
- N. Slope refrigerant piping as follows:
  - 1. Install horizontal hot-gas discharge piping with a uniform slope downward away from compressor.
  - 2. Install horizontal suction lines with a uniform slope downward to compressor.
  - 3. Install traps and double risers to entrain oil in vertical runs.
  - 4. Liquid lines may be installed level.
- O. When brazing or soldering, remove solenoid-valve coils and sight glasses; also remove valve stems, seats, and packing, and accessible internal parts of refrigerant specialties. Do not apply heat near expansion-valve bulb.
- P. Before installation of steel refrigerant piping, clean pipe and fittings using the following procedures:
  - 1. Shot blast the interior of piping.
  - 2. Remove coarse particles of dirt and dust by drawing a clean, lintless cloth through tubing by means of a wire or electrician's tape.
  - 3. Draw a clean, lintless cloth saturated with trichloroethylene through the tube or pipe. Continue this procedure until cloth is not discolored by dirt.
  - 4. Draw a clean, lintless cloth, saturated with compressor oil, squeezed dry, through the tube or pipe to remove remaining lint. Inspect tube or pipe visually for remaining dirt and lint.
  - 5. Finally, draw a clean, dry, lintless cloth through the tube or pipe.
  - 6. Safety-relief-valve discharge piping is not required to be cleaned but is required to be open to allow unrestricted flow.
- Q. Install piping with adequate clearance between pipe and adjacent walls and hangers or between pipes for insulation installation.
- R. Identify refrigerant piping and valves according to Section 230553 "Identification for HVAC Piping and Equipment."
- S. Install sleeves for piping penetrations of walls, ceilings, and floors.
- T. Install sleeve seals for piping penetrations of concrete walls and slabs.
- U. Install escutcheons for piping penetrations of walls, ceilings, and floors.

### 3.4 PIPE JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Fill pipe and fittings with an inert gas (nitrogen or carbon dioxide), during brazing or welding, to prevent scale formation.
- D. Soldered Joints: Construct joints according to ASTM B 828 or CDA's "Copper Tube Handbook."
- E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," Chapter "Pipe and Tube."
  - 1. Use Type BCuP (copper-phosphorus) alloy for joining copper socket fittings with copper pipe.
  - 2. Use Type BAg (cadmium-free silver) alloy for joining copper with bronze or steel.
- F. Threaded Joints: Thread steel pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and to restore full ID. Join pipe fittings and valves as follows:
  - 1. Apply appropriate tape or thread compound to external pipe threads unless dry-seal threading is specified.
  - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- G. Steel pipe can be threaded, but threaded joints must be seal brazed or seal welded.
- H. Welded Joints: Construct joints according to AWS D10.12M/D10.12.
- I. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.

### 3.5 INSTALLATION OF HANGERS AND SUPPORTS

- A. Comply with Section 230529 "Hangers and Supports for HVAC Piping and Equipment" for hangers, supports, and anchor devices.
- B. Install the following pipe attachments:
  - 1. Adjustable steel clevis hangers for individual horizontal runs less than 20 feet (6 m) long.
  - 2. Roller hangers and spring hangers for individual horizontal runs 20 feet (6 m) or longer.
  - 3. Pipe Roller: MSS SP-58, Type 44 for multiple horizontal piping 20 feet (6 m) or longer, supported on a trapeze.
  - 4. Spring hangers to support vertical runs.
  - 5. Copper-clad hangers and supports for hangers and supports in direct contact with copper pipe.

- C. Install hangers for copper tubing, with maximum horizontal spacing and minimum rod diameters, to comply with MSS-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.
- D. Support horizontal piping within 12 inches (300 mm) of each fitting.
- E. Support vertical runs of copper tubing to comply with MSS-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.

### 3.6 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. Comply with ASME B31.5, Chapter VI.
  - 2. Test refrigerant piping, specialties, and receivers. Isolate compressor, condenser, evaporator, and safety devices from test pressure if they are not rated above the test pressure.
  - 3. Test high- and low-pressure side piping of each system separately at not less than the pressures indicated in "Performance Requirements" Article.
    - a. Fill system with nitrogen to the required test pressure.
    - b. System shall maintain test pressure at the manifold gage throughout duration of test.
    - c. Test joints and fittings with electronic leak detector or by brushing a small amount of soap and glycerin solution over joints.
    - d. Remake leaking joints using new materials, and retest until satisfactory results are achieved.
- B. Prepare test and inspection reports.

### 3.7 SYSTEM CHARGING

- A. Charge system using the following procedures:
  - 1. Install core in filter dryers after leak test but before evacuation.
  - 2. Evacuate entire refrigerant system with a vacuum pump to 500 micrometers (67 Pa). If vacuum holds for 12 hours, system is ready for charging.
  - 3. Break vacuum with refrigerant gas, allowing pressure to build up to 2 psig (14 kPa).
  - 4. Charge system with a new filter-dryer core in charging line.

### 3.8 ADJUSTING

- A. Adjust thermostatic expansion valve to obtain proper evaporator superheat.
- B. Adjust high- and low-pressure switch settings to avoid short cycling in response to fluctuating suction pressure.
- C. Adjust set-point temperature of air-conditioning or chilled-water controllers to the system design temperature.

- D. Perform the following adjustments before operating the refrigeration system, according to manufacturer's written instructions:
1. Open shutoff valves in condenser water circuit.
  2. Verify that compressor oil level is correct.
  3. Open compressor suction and discharge valves.
  4. Open refrigerant valves except bypass valves that are used for other purposes.
  5. Check open compressor-motor alignment and verify lubrication for motors and bearings.
- E. Replace core of replaceable filter dryer after system has been adjusted and after design flow rates and pressures are established.

END OF SECTION

SECTION 23 54 16.13

GAS-FIRED FURNACES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
  - 1. Gas-fired, condensing furnaces and accessories complete with controls.
  - 2. Refrigeration components.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include rated capacities, operating characteristics, furnished specialties, and accessories.

1.4 INFORMATIONAL SUBMITTALS

- A. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For each furnace to include in emergency, operation, and maintenance manuals.
  - 1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
    - a. Furnace and accessories complete with controls.
    - b. Refrigeration components.

1.6 QUALITY ASSURANCE

- A. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 5 - "Systems and Equipment" and Section 7 - "Construction and Startup."

- B. ASHRAE/IES 90.1 Compliance: Applicable requirements in ASHRAE/IES 90.1, Section 6 - "Heating, Ventilating, and Air-Conditioning."
- C. Comply with NFPA 70.

## PART 2 - PRODUCTS

### 2.1 ASSEMBLY DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a qualified testing agency, and marked for intended location and application.
- B. General Requirements for Noncondensing Gas-Fired Furnaces: Factory assembled, piped, wired, and tested; complying with ANSI Z21.47/CSA 2.3 and NFPA 54.

### 2.2 GAS-FIRED FURNACES, CONDENSING

- A. Cabinet: Steel or Galvanized steel.
  - 1. Cabinet interior around heat exchanger shall be factory-installed insulation.
  - 2. Lift-out panels shall expose burners and all other items requiring access for maintenance.
  - 3. Factory paint external cabinets in manufacturer's standard color.
  - 4. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1.
- B. Fan: Centrifugal, factory balanced, resilient mounted, direct drive.
  - 1. Special Motor Features, Multispeed: Multitapped, multispeed with internal thermal protection and permanent lubrication.
  - 2. Special Motor Features, ECM: Electronically controlled motor (ECM) controlled by integrated furnace/blower control.
- C. Type of Gas: Natural.
- D. Heat Exchanger:
  - 1. Primary: Aluminized or Stainless steel.
  - 2. Secondary: Stainless steel.
- E. Burner:
  - 1. Gas Valve: 100 percent safety modulating main gas valve, main shutoff valve, pressure regulator, safety pilot with electronic flame sensor, limit control, transformer, and combination ignition/fan timer control board.
  - 2. Ignition: Electric pilot ignition, with hot-surface igniter or electric spark ignition.
- F. Gas-Burner Safety Controls:
  - 1. Electronic Flame Sensor: Prevents gas valve from opening until pilot flame is proven; stops gas flow on ignition failure.

2. Flame Rollout Switch: Installed on burner box; prevents burner operation.
  3. Limit Control: Fixed stop at maximum permissible setting; de-energizes burner on excessive bonnet temperature; automatic reset.
- G. Combustion-Air Inducer: Centrifugal fan with thermally protected motor and sleeve bearings prepurges heat exchanger and vents combustion products; pressure switch prevents furnace operation if combustion-air inlet or flue outlet is blocked.
- H. Furnace Controls: Solid-state board integrates ignition, heat, cooling, and fan speeds; adjustable fan-on and fan-off timing; terminals for connection to accessories
- I. Accessories:
1. Combination Combustion-Air Intake and Vent: PVC plastic fitting to combine combustion-air inlet and vent through outside wall or roof.
  2. CPVC Plastic Vent Materials:
    - a. CPVC Plastic Pipe: Schedule 40, complying with ASTM F441/F441M.
    - b. CPVC Plastic Fittings: Schedule 40, complying with ASTM F438, socket type.
    - c. CPVC Solvent Cement: ASTM F493.

## 2.3 THERMOSTATS

- A. Controls shall comply with requirements in ASHRAE/IES 90.1, Section 6 - "Heating, Ventilating, and Air Conditioning."
- B. Solid-State Thermostat: Wall-mounted, programmable, microprocessor-based unit with automatic switching from heating to cooling, preferential rate control, seven-day programmability with minimum of four temperature presets per day, vacation mode, and battery backup protection against power failure for program settings.
- C. Control Wiring: Balanced twisted-pair cabling complying with requirements for Category 5e in Section 260523 "Control-Voltage Electrical Power Cables."
1. Description: Shielded twisted pairs (FTP), No. 24 AWG, 100 ohms, four pair.
  2. Cable Jacket Color: Blue.

## 2.4 REFRIGERATION COMPONENTS

- A. General Refrigeration Component Requirements:
1. Refrigeration compressor, coils, and specialties shall be designed to operate with CFC-free refrigerants.
  2. Energy Efficiency: Equal to or greater than prescribed by ASHRAE/IES 90.1.
- B. Refrigerant Coil: Copper tubes mechanically expanded into aluminum fins. Comply with AHRI 210/240. Match size with furnace. Include condensate drain pan with accessible drain outlet complying with ASHRAE 62.1.

1. Refrigerant Coil Enclosure: Steel, matching furnace and evaporator coil, with access panel and flanges for integral mounting at or on furnace cabinet and galvanized sheet metal drain pan coated with black asphaltic base paint.
- C. Refrigerant Line Kits: Annealed-copper suction and liquid lines factory cleaned, dried, pressurized with nitrogen, sealed, and with suction line insulated. Provide in standard lengths for installation without joints, except at equipment connections.
1. Flexible Elastomeric: Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C534/C534M, Type I, 1 inch (25 mm) thick.
- D. Refrigerant Piping: Comply with requirements in Section 232300 "Refrigerant Piping."
- E. Air-Cooled Compressor-Condenser Unit:
1. Casing: Steel, finished with baked enamel, with removable panels for access to controls, weep holes for water drainage, and mounting holes in base. Provide brass service valves, fittings, and gage ports on exterior of casing.
  2. Compressor: Hermetically sealed reciprocating or scroll type.
    - a. Crankcase heater.
    - b. Restrained vibration isolation mounts for compressor.
    - c. Compressor motor shall have thermal- and current-sensitive overload devices, start capacitor, relay, and contactor.
    - d. Two-speed compressor motors shall have manual-reset high-pressure switch and automatic-reset low-pressure switch.
    - e. Refrigerant Charge: R-410A.
    - f. Refrigerant: R-410A.
  3. Refrigerant Coil: Copper tube, with mechanically bonded aluminum fins, complying with AHRI 210/240, and with liquid subcooler.
  4. Heat-Pump Components: Reversing valve and low-temperature air cut-off thermostat.
  5. Fan: Aluminum-propeller type, directly connected to motor.
  6. Motor: Permanently lubricated, with integral thermal-overload protection.
  7. Low Ambient Kit: Permits operation down to 45 deg F (7 deg C).
  8. Mounting Base: Polyethylene.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine factory-installed insulation before furnace installation. Reject units that are wet, moisture damaged, or mold damaged.
- C. Examine roughing-in for gas and refrigerant piping systems to verify actual locations of piping connections before equipment installation.

- D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Install gas-fired furnaces and associated fuel and vent features and systems according to NFPA 54.
- B. Base-Mounted Units: Secure units to substrate. Provide optional bottom closure base if required by installation conditions.
- C. Controls: Install thermostats and humidistats at mounting height of 60 inches (1500 mm) above floor.
- D. Wiring Method: Install control wiring in accessible ceiling spaces and in gypsum board partitions where unenclosed wiring method may be used. Conceal control wiring except in unfinished spaces.
- E. Install ground-mounted, compressor-condenser components on 4-inch- (100-mm-) thick, reinforced concrete base; 4 inches (100 mm) larger on each side than unit. Concrete, reinforcement, and formwork are specified in Section 033000 "Cast-in-Place Concrete." Coordinate anchor installation with concrete base.
- F. Install ground-mounted compressor-condenser components on polyethylene mounting base.
- G. Install roof-mounted compressor-condenser components on equipment supports specified in Section 077200 "Roof Accessories." Anchor units to supports with removable, cadmium-plated fasteners.

### 3.3 PIPING CONNECTIONS

- A. Gas piping installation requirements are specified in Section 231123 "Facility Natural-Gas Piping." Drawings indicate general arrangement of piping, fittings, and specialties. Connect gas piping with union or flange and appliance connector valve.
- B. Install piping adjacent to equipment to allow service and maintenance.
- C. Water piping installation requirements are specified in Section 221116 "Domestic Water Piping." Drawings indicate general arrangement of piping, fittings, and specialties. Connect water piping with union and ball valve.
- D. Vent and Outside-Air Connection, Condensing, Gas-Fired Furnaces: Connect plastic piping vent material to furnace connections and extend outdoors. Terminate vent outdoors with a cap and in an arrangement that will protect against entry of birds, insects, and dirt.
  - 1. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
  - 2. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
  - 3. Plastic Piping Solvent-Cement Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:

- a. Comply with ASTM F402 for safe-handling practice of cleaners, primers, and solvent cements.
  - b. CPVC Piping: Join according to ASTM D2846/D2846M, Appendix.
  - c. PVC Pressure Piping: Join schedule number ASTM D1785 PVC pipe and PVC socket fittings according to ASTM D2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D2855.
4. Slope pipe vent back to furnace or to outside terminal.
- E. Connect refrigerant tubing kits to refrigerant coil in furnace and to air-cooled compressor-condenser unit.
- 1. Flared Joints: Use ASME B16.26 fitting and flared ends, following procedures in CDA's "Copper Tube Handbook."
  - 2. Soldered Joints: Apply ASTM B813, water-flushable flux, unless otherwise indicated, to tube end. Construct joints according to ASTM B828 or CDA's "Copper Tube Handbook," using lead-free solder alloy complying with ASTM B32.
  - 3. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter, using copper-phosphorus brazing filler metal complying with AWS A5.8/A5.8M.
- F. Comply with requirements in Section 232300 "Refrigerant Piping" for installation and joint construction of refrigerant piping.

### 3.4 DUCTWORK CONNECTIONS

- A. Connect ducts to furnace with flexible connector. Comply with requirements in Section 233300 "Air Duct Accessories."

### 3.5 ELECTRICAL CONNECTIONS

- A. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- B. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
- C. Install electrical devices furnished by manufacturer, but not factory mounted, according to NFPA 70 and NECA 1.
- D. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.
  - 1. Nameplate shall be laminated acrylic or melamine plastic signs, as specified in Section 260553 "Identification for Electrical Systems."
  - 2. Nameplate shall be laminated acrylic or melamine plastic signs with a black background and engraved white letters at least 1/2 inch (13 mm) high.

### 3.6 CONTROL CONNECTIONS

- A. Install control and electrical power wiring to field-mounted control devices.
- B. Connect control wiring according to Section 260523 "Control-Voltage Electrical Power Cables."

### 3.7 STARTUP SERVICE

- A. Complete installation and startup checks according to manufacturer's written instructions and perform the following:
  - 1. Inspect for physical damage to unit casings.
  - 2. Verify that access doors move freely and are weathertight.
  - 3. Clean units and inspect for construction debris.
  - 4. Verify that all bolts and screws are tight.
  - 5. Adjust vibration isolation and flexible connections.
  - 6. Verify that controls are connected and operational.
- B. Adjust fan belts to proper alignment and tension.
- C. Start unit according to manufacturer's written instructions and complete manufacturer's operational checklist.
- D. Measure and record airflows.
- E. Verify proper operation of capacity control device.
- F. After startup and performance test, lubricate bearings.

### 3.8 ADJUSTING

- A. Adjust initial temperature and humidity set points.
- B. Set controls, burner, and other adjustments for optimum heating performance and efficiency. Adjust heat-distribution features, including shutters, dampers, and relays, to provide optimum heating performance and system efficiency.

### 3.9 CLEANING

- A. After completing installation, clean furnaces internally according to manufacturer's written instructions.
- B. Install new filters in each furnace within 14 days after Substantial Completion.

### 3.10 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:

1. Perform electrical test and visual and mechanical inspection.
  2. Leak Test: After installation, charge systems with refrigerant and test for leaks. Repair leaks, replace lost refrigerant, and retest until no leaks exist.
  3. Operational Test: After electrical circuitry has been energized, start units to confirm proper operation, product capability, and compliance with requirements.
  4. Verify that fan wheel is rotating in the correct direction and is not vibrating or binding.
  5. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- B. Verify that vibration isolation and flexible connections properly dampen vibration transmission to structure.

### 3.11 DEMONSTRATION

- A. Train Owner's maintenance personnel to adjust, operate, and maintain condensing units.

END OF SECTION